Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number.....:	CN259VZD 001
Date of issue .....:	2025-04-09
Total number of pages.....:	118
Name of Testing Laboratory preparing the Report.....:	**TÜV Rheinland (Shenzhen) Co., Ltd.**
Applicant's name .....:	**xFusion Digital Technologies Co., Ltd.**
Address .....:	9th Floor, Building 1, Zensun Boya Square, Longzihu Wisdom Island, Zhengdong New District, Zhengzhou, 450000 Henan, P.R. China
Test specification:	
Standard.....:	IEC 62368-1:2018
Test procedure.....:	CB Scheme
Non-standard test method.....:	N/A
TRF template used.....:	IECEE OD-2020-F1:2021, Ed.1.4
Test Report Form No. .....:	IEC62368_1E
Test Report Form(s) Originator....:	UL(US)
Master TRF.....:	Dated 2022-04-14

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description..... :	Server
Trade Mark(s) .....:	xFUSION
Manufacturer..... :	Same as Applicant
Model/Type reference..... :	2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)
Ratings..... :	**Rating 1: (PSU:PAC1500S12-B1):** ~100-127 V, 50/60 Hz, 10 A or ~200-240 V, 50/60 Hz, 10 A or 240 Vdc, 8 A **Rating 2: (PSU: PAC900S12-B2):** ~100-240 V, 50/60 Hz, 10 A or 240 Vdc, 5 A **Rating 3: (PSU: PAC2000S12-T1):** ~100-127 V, 50/60 Hz, 10 A or ~200-220 V, 50/60 Hz, 10 A or ~220-230 V, 50/60 Hz, 10 A or ~230-240 V, 50/60 Hz, 10 A or 240 Vdc, 10 A **Rating 4: (PSU: PAC2000S12-B1):** ~100-127 V, 50/60 Hz, 10 A or ~200-220 V, 50/60 Hz, 10 A or ~220-240 V, 50/60 Hz, 10 A or 240 Vdc, 10 A **Rating 5: (PSU: PHD1500S12-B2):** ~200-240 V, 50/60 Hz, 10 A or 260-400 Vdc, 8 A **Rating 6: (PSU: PAC3000S12-T1):** ~100-127 V, 50/60 Hz, 16 A or ~200-220 V, 50/60 Hz, 16 A or ~220-240 V, 50/60 Hz, 16 A or 240 Vdc, 16 A

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address..... :		1601-1604, 1801-1804, Tower A Building 2, Shenzhen International Innovation Valley, Dashi 1st Road, Xili Street, Xili Community, Nanshan District, Shenzhen 518000, China	
Tested by (name, function, signature)..... :			
Approved by (name, function, signature).. :			
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address..... :			
Tested by (name, function, signature)..... :			
Approved by (name, function, signature).. :			
☒	**Testing procedure: CTF Stage 2:**	Reliability Laboratory of Shenzhen xFusion Technologies Co., Ltd.	

Testing location/ address..... :	Room 101 & 301, Building 1, CIMC Digital Technology Industrial Park, No.1, Yile Road, Songshanhu Science & Technology Industrial Park, Dongguan, Guangdong, China	
Tested by (name, function, signature).....	Qingpu Zeng Test Engineer	Zeng qing pu
Witnessed by (name, function, signature). :	Allen Wu Project Handler	Allen Wu
Approved by (name, function, signature).. :	Jonas Xu Authorizer	Jonas Xu
☐ **Testing procedure: CTF Stage 3:**		
☐ **Testing procedure: CTF Stage 4:**		
Testing location/ address..... :		
Tested by (name, function, signature)..... :		
Witnessed by (name, function, signature). :		
Approved by (name, function, signature).. :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment):

Attachment 1: National Differences (30 pages)

Attachment 2: Photo Documentation (66 pages)

Summary of testing:

Tests performed (name of test and test clause):

All applicable tests as described in Test Case and Measurement Sections were performed.

- Test samples without serial numbers.
- Load conditions used during testing see appended table B.2.5 for details.

5.2	Classification of electrical energy sources
5.3.2	Accessibility to electrical energy sources and safeguards (Accessibility test)
5.4.1.4, 9.3, B.1.5, B.2.6	Temperature measurements
5.4.9	Electric Strength test
5.6.6.2	Ground continuity test
5.7.5	Earthed accessible conductive part
6.2.2	Electrical power sources (PS) measurements for classification
9.2	Thermal energy source Classifications
Annex B.2.5	Input Test
Annex B.3	Simulated Abnormal operating condition tests
Annex B.4	Simulated single fault conditions
Annex F.3.9	Durability, legibility and permanence of markings
Annex M	Batteries
Annex Q.1	Limited Power Source
Annex T.2	Steady force test, 10N
Annex T.5	Steady force test, 250N
Annex T.6	Enclosure impact test

Testing location:

Reliability Laboratory of Shenzhen xFusion Technologies Co., Ltd.

Room 101 & 301, Building 1, CIMC Digital Technology Industrial Park, No.1, Yile Road, Songshanhu Science & Technology Industrial Park, Dongguan, Guangdong China

Summary of compliance with National Differences (List of countries addressed):

EU Group Differences, EU Special National Conditions CA, US.

CA=Canada, US= United states of America.
See the attachment 1 for details

☒ **The product fulfils the requirements of EN 62368-1:2020+A11:2020**

Use of uncertainty of measurement for decisions on conformity (decision rule) :

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

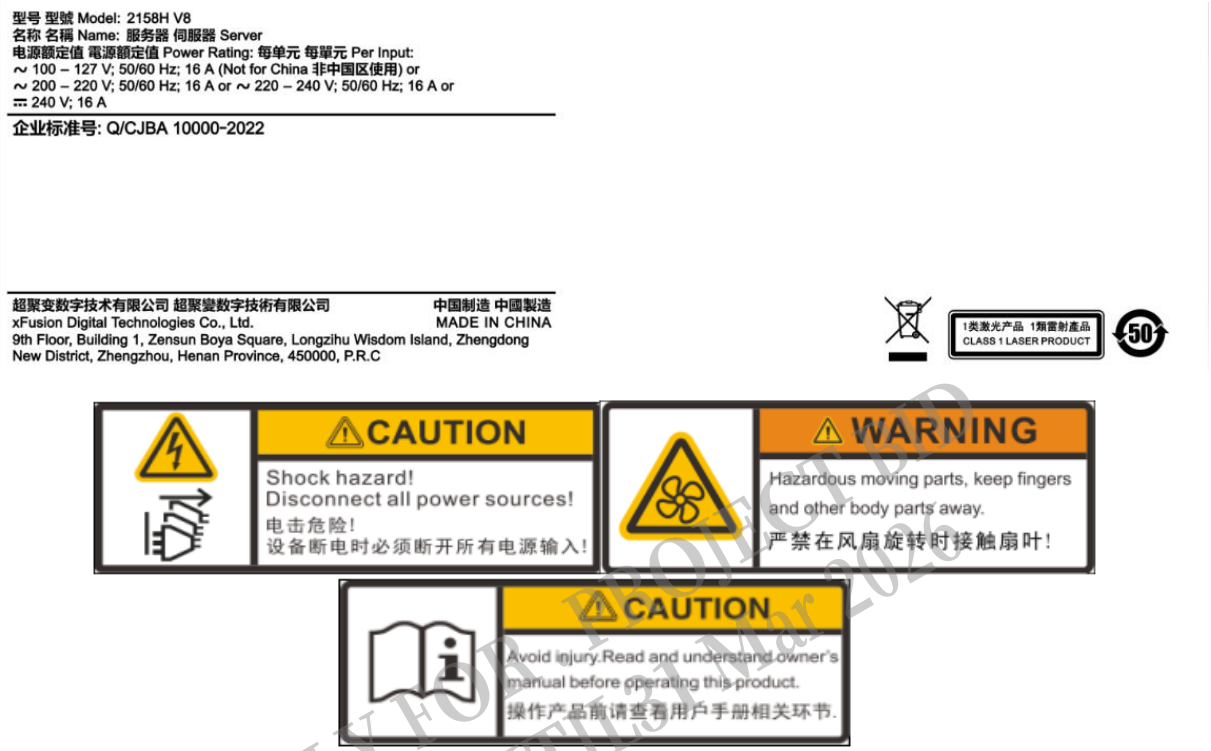
☐ Other:… (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:
The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.
IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Remark:The model name on the above label can be replaced by the others listed in this report.

Test item particulars:	
Product group ..... :	☒ end product ☐ built-in component
Classification of use by ..... :	☐ Ordinary person ☐ Children likely present ☒ Instructed person ☒ Skilled person
Supply connection ..... :	☒ AC mains ☐ DC mains ☒ External Circuit - not mains connected: ☐ ES1 ☐ ES2 ☒ ES3 (for HVDC)
Supply tolerance ..... :	☒ +10%/-10% for AC input ☐ +20%/-15% ☒ +20%/ -20% for HVDC input 260 - 400 Vdc for PHD1500S12-B2 ☐ None
Supply connection – type ..... :	☒ pluggable equipment type A - ☐ non-detachable supply cord ☒ appliance coupler ☐ direct plug-in ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☐ other:
Considered current rating of protective device ..... :	☒ 16A (20 for USA and CANADA) Location: ☒ building ☐ equipment ☐ N/A
Equipment mobility ..... :	☐ movable ☐ hand-held ☐ transportable ☐ direct plug-in ☒ stationary ☒ for building-in ☐ wall/ceiling-mounted ☒ SRME/rack-mounted ☐ other:
Overvoltage category (OVC) ..... :	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other:
Class of equipment ..... :	☒ Class I ☐ Class II ☐ Class III ☐ Not classified ☐
Special installation location ..... :	☐ N/A ☒ restricted access area ☐ outdoor location ☐
Pollution degree (PD) ..... :	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified T_{ma} ..... :	45 °C ☐ Outdoor: minimum °C
IP protection class ..... :	☒ IPX0 ☐ IP___
Power systems ..... :	☒ TN (for AC input) ☒ TT (for AC input) ☐ IT - V_{L-L} ☒ N/A (For HVDC) ☐ not AC mains
Altitude during operation (m) ..... :	☐ 2000 m or less ☒ 3050 m
Altitude of test laboratory (m) ..... :	☒ 2000 m or less ☐ m
Mass of equipment (kg) ..... :	35.5 kg Max

Possible test case verdicts:

- test case does not apply to the test object ... : N/A

- test object does meet the requirement ..... : P (Pass)

- test object does not meet the requirement ... : F (Fail)

Testing:

Date of receipt of test item ..... : 2025-02-13

Date (s) of performance of tests..... : 2025-02-13 to 2025-03-25

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :	☒ **Yes** ☐ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... : **SHENZHEN HUAHAO MECHANICAL & ELECTRICAL CO., LTD. Dongguan Branch company**

Second Floor No.738 Meijing Middle Road, Changtang Community, Da Lang Town, Dongguan City, 523779 Guangdong, P.R. China

NATIONGATE SOLUTION (M) SDN. BHD.

2005 Tingkat Perusahaan Satu, Kawasan Perusahaan Perai, 13600 Perai, Penang, Malaysia

DONGGUAN HUARONG COMMUNICATION TECHNOLOGIES CO., LTD

No.80 Zhengwei 2nd Road, Dongkeng Town, Dongguan, Guangdong, P.R. China

General product information and other remarks:

The Product is a computing server, which can be installed fewer number of hard disk drive, memory, processor, and different functional board for marketing purpose.

Unless otherwise noted in the report, the functional boards installed in the units shall be selected from the below list, but not means all the functional boards listed below shall be installed in one unit.

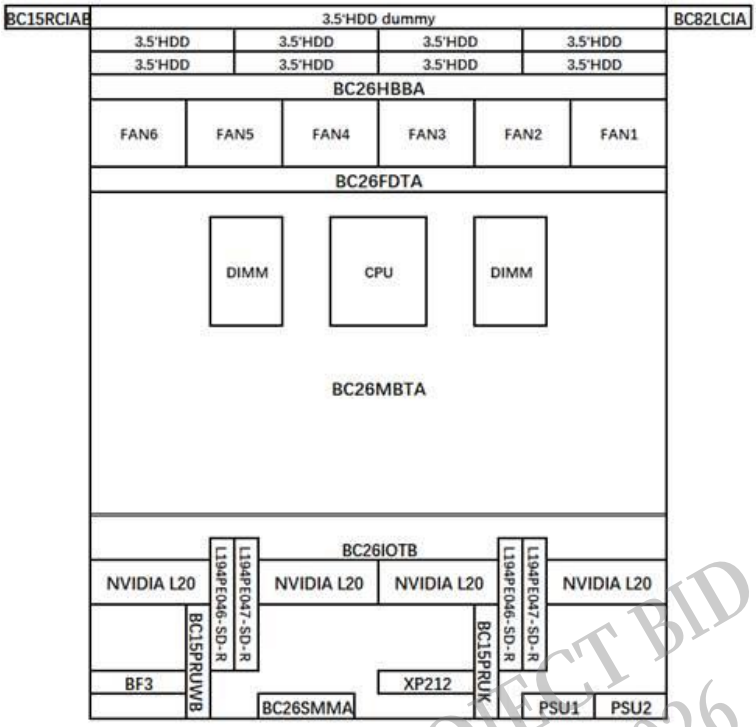
Functional Boards		
Board full Name	**Description**	**Interfaces**
BC26MBTA	Manufactured Board, 2158H V8, BC26MBTA, AMD Server 2U1P Main Board, 1*1	-

BC26HBBA	Manufactured Board, 2158H V8, BC26HBBA,8*3.5" SAS/SATA/NVME HDD Backplane Board, 1*2	-
BC26SMMA	Manufactured Board, 2158H V8, BC26SMMA, AMD Server 1711 DC-SCM BMC Card, 2*1	USB, VGA,LPS Mgmt,IOIOI,ES1, PS1
BC26IOTB	Manufactured Board, 2158H V8, BC26IOTB, AMD Server 2U1P IO Board (GPU Server), 1*2	-
BC15PRUWB	Manufactured Board, 2158H V8, BC15PRUWB, Back PCIe Riser Card (1*X16 PCIe 5.0 UBCDD-CEM+4PIN POWER), 1*4	-
BC15PRUK	Manufactured Board, 1288H V7, BC15PRUK, Riser2 1*PCIe5.0 X16, 1*4	-
BC26FDTA	Manufactured Board, 2158H V8, BC26FDTA, AMD Server 2U1P Fan Board 6*6056, 1*2	-
BC15RCIAB	Manufactured Board, 2158H V8, BC15RCIAB, AMD Server 2U1P Right Customer Interface Board, 5*2	USB, Type C,LPS VGA,ES1,PS1
BC82LCIA	Manufactured Board, TaiShan 2280 V2, BC82LCIA, Left Customer Interface, 4*2	-
L194PE046-SD-R	BTB Connector module, 74PIN*2+4PIN, MCIO 8X Vertical*2+4PIN POWER, 350mm, 0.16mm, 10mm, 32000MB/s, 1.57mm, GPU customization, Wire mounting, Y	-
BC26IOTA	Manufactured Board, 2158H V8, BC26IOTA, AMD Server 2U1P IO Board, 1*1	-
BC26HBMA	Manufactured Board, 2158H V8, BC26HBMA, PCIe to SATA M.2 Backplane Board, 1*1	-
BC15FDCA	Manufactured Board, 2288H V7, BC15FDCA, Fan Board 4*8080+/8038+, 1*3	-
L194PE047-SD-R	BTB Connector module, 74PIN*2+4PIN, MCIO 8X Vertical*2+4PIN POWER, 400mm, 0.16mm, 10mm, 32000MB/s, 1.57mm, GPU customization, Wire mounting, Y	-
BC15NHBB	Manufactured Board, 2288H V7, BC15NHBB, 24*NVMe (include 8*SAS/SATA) HDD backplane, 1*2	-
BC15NHBK	Manufactured Board, 2288H V7, BC15NHBK, 8*2.5" SAS/SATA/NVMe HDD backplane, 1*2	-
BC15HBBK	Manufactured Board, 2288DX V7, BC15HBBK, 8*2.5" SAS/SATA HDD backplane, 1*2	-
BC15NHBR	Manufactured Board, 2258 V7, BC15NHBR, 12*3.5" SAS/SATA/NVMe HDD backplane, 1*2	-
BC15HBBE	Manufactured Board, 2288H V7, BC15HBBE, IO1/IO2 2*2.5" SAS/SATA HDD backplane, 2*2	-
BC15HBBS	Manufactured Board, 2258 V7, BC15HBBS, IO3 4*NVMe HDD backplane, 1*4	-
BC15MSMA	Manufactured Board, 2288H V7, BC15MSMA, inner M.2 adapter, support PCH SATA/PCIe, 2*1	-
BC15PRUB	Manufactured Board,2288H V7, BC15PRUB, IO1/IO2 Riser2 1*PCIe5.0 X16+2*PCIe4.0 X8, 1*2	-
BC15PRUE	Manufactured Board,2288H V7, BC15PRUE, IO1/IO2 Riser5 1*PCIe4.0 X16, 1*2	-
BC15PRUF	Manufactured Board,2288H V7, BC15PRUF, IO3 Riser1 2*PCIe4.0 X16, 1*2	-
BC15PRUC	Manufactured Board,2288H V7, BC15PRUC, IO1/IO2 Riser3 2*PCIe5.0 X16, 1*1	-
BC15PRUCB	Manufactured Board,2158H V8, BC15PRUCB, AMD Server 2U1P Riser Card special for DPU IO1/IO2-1*PCIe5.0 X16, 1*2	-
BC15PRUCC	Manufactured Board,2158H V8, BC15PRUCC, AMD Server 2U1P IO1/IO2 Riser6 1*PCIe5.0 X16,1*2	-

BC15PRUD	Manufactured Board,2288H V7, BC15PRUD, IO1/IO2 Riser4 1*PCIe4.0 X16, 1*6	-
BC15PRUI	Manufactured Board,2288H V7, BC15PRUI, IO3 Riser2 2*PCIe4.0 X8, 1*3	-
BC15PRUR	Manufactured Board, 2288H V7, BC15PRUR, IO1/IO2 Riser1 2*PCIe5.0 X16, 1*2	-
BC15PRUW	Manufactured Board, 2158H V8, BC15PRUWB, Back PCIe Riser Card (1*X16 PCIe 5.0 UBCDD-CEM+4PIN POWER), 1*4	-
BC15PRUW	Manufactured Board, 2158H V8, BC15PRUWC, Back PCIe Riser Card (1*X16 PCIe 5.0 UBCDD-CEM), 1*4	-
BC15PRUK	Manufactured Board, 1288H V7, BC15PRUK, Riser2 1*PCIe5.0 X16, 1*4	-
BC15HBBB	Manufactured Board, 2288H V7, BC15HBBB, 12*3.5" SAS/SATA (4*NVMe) HDD backplane, 1*2	-
BC15NHBI	Manufactured Board, 2288H V7, BC15NHBI, 8*SAS/SATA+16NVME HDD BP, 1*2	-
BC15HBBI	Manufactured Board, 2288H V7, BC15HBBI, IO3 4*SAS/SATA/NVMe HDD backplane, 1*4	-

PCIE Cards		
Board full Name	**Description**	**Interfaces**
NVIDIA L20	GPUCard, NVIDIAL20GPUAccelerator, PN:900-2G133-00A0-000 / 48GB GDDR6 Memory / 864GB/s Memory Bandwidth /PCIE 4.0 x16-10DE-26BA-1 /350W, No NVLink, English doc, Dual slot, Passive	N/A
BF3(900-9D3B6-00SC-EA0)	Network Card,100Gb/s, 64bit, QSFP112, 2 Ports, PCIE 5.0 X16-Vendor ID 15b3-Device ID a2dc|c2d5-3-Subvendor ID 15B3-Subdevice ID 0035, No Driver CD, NVIDIA BlueField B3210E No Crypto-Single-Slot-32GB DDR5-FHHL, Baidu, AVAP	2*100GE Class 1 laser
XP212(CN21ITGC1)	Manufactured Board, Public Module, CN21ITGC1, XP212 I350 4*GE PCIE Card, PCIE 2.0 X4-Vendor ID 8086-Device ID 1521-4-Subvendor ID 1f24-Subdevice ID 2001, 1*2	4*GE Class 1 Cooper
9540-8i	Other Cards, PCIE 4.0 X8-Vendor ID 1000-Device ID 10E6-1-Subvendor ID 1000-Subdevice ID 40D5-12G SAS RAID, x8 PCIe 4.0-9540-8i SAS RAID Card, SAS3808, No CacheVault,12Gb/s SAS,6Gb/s SATA, PCIe(NVMe), 9540-8i, Chinese doc, 1pcs bracket	N/A
9560-8i	Other Cards, PCIE 4.0 X8-Vendor ID 1000-Device ID 10E2-1-Subvendor ID 1000-Subdevice ID 4010-12G SAS RAID card, x8 PCIe 4.0-9560-8i SAS RAID Card, SAS3908, 4G CacheVault, CVPM05-12Gb/s SAS, 6Gb/s SATA, PCIe(NVMe), 9560-8i, Chinese and English doc	N/A
9560-16i	Other Cards, PCIE 4.0 X8-Vendor ID 1000-Device ID 10E2-1-Subvendor ID 1000-Subdevice ID 4000-12G SAS RAID card, x8 PCIe 4.0-9560-16i SAS RAID Card, SAS3916,8G CacheVault, CVPM05-12Gb/s SAS,6Gb/s SATA, PCIe(NVMe), 9560-16i,English doc	N/A
CN21ITGG1	Manufactured Board, Public Module, CN21ITGG1, XP330 Ethernet Adapter, 10Gb Optical Interface (Intel X710),2-Port, SFP+(without Optical Transceiver), PCIE 3.0 X8-Vendor ID 8086-Device ID 1572-2-Subvendor ID 1f24-Subdevice ID 2003, 1*2	2*10GE, class 1 laser
BC51ETHK1	Manufactured Board, Public Module, BC51ETHK1, XP382 Ethernet Adapter, 25GE (Mellanox CX-5 Lx),	2*25GE, class 1 laser

	Dual-Port, SFP28(without Optical Transceiver), PCIE 3.0 x8-Vendor ID 15b3-Device ID 1017-2-Subvendor ID 1f24-Subdevice ID 2006, 1*2	
MCX631102AN-ADAT	Network Card, 25 GE, 64bit, SFP28, 2, PCIE 4.0 x8-15b3-101f-2, No Driver CD	2*25GE, class 1 laser
MCX623106AN-CDAT	Network Card, 100GE, 64bit, QSFP56 (without Optical Transceiver), 2 Ports, PCIE 4.0 x16-15b3-101d-2, No Driver CD	2*100GE, class 1 laser
BC53ETHG	Manufactured Board-JDM, Public Module, BC53ETHG, XC383 OCP3.0 Ethernet Card-10GE (CX-4 Lx)-Dual Port-SFP+(without optical module)-PCIE 3.0 X8-Vendor ID 15b3-Device ID 1015-2-Subvendor ID 1f24-Subdevice ID 200d, 1*4	2*10GE, class 1 laser
BC53ETHH	Manufactured Board-JDM, Public Module, BC53ETHH, XC331 OCP3.0 Ethernet Adapter-10GE(BCM57416)-Dual Port, RJ45-PCIE 3.0 X8-Vendor ID 14e4-Device ID 16d8-2-Subvendor ID 1f24-Subdevice ID 2010, 1*3	2*10GE, class 1 laser
BC53ETHI	Manufactured Board-JDM, Public Module, BC53ETHI, XC386 OCP3.0 Ethernet Adapter-25GE(BCM57414)-Dual Port-SFP28(without Optical Module)-PCIE 3.0 X8-Vendor ID 14e4-Device ID 16d7-2-Subvendor ID 1f24-Subdevice ID 2013, 1*4	2*25GE, class 1 laser
BC55ETHA	Manufactured Board-JDM, Public Module, BC55ETHA, XC385 OCP3.0 Ethernet Adapter-25GE(CX6-Lx)-Dual Port-SFP28(without Optical Module)-PCIE 4.0 X8-Vendor ID 15b3-Device ID 101f-2-Subvendor ID 1f24-Subdevice ID 2011, 1*4	2*25GE, class 1 laser
MCX631432AN-ADAB	Network Card, 25Gb/s, 64bit, SFP28, 2 ports, PCIE 4.0 x8-15b3-101f-2, No Driver CD, OCP	2*25GE, class 1 laser
BCM957508-N2100G	Network Card, 100 Gigabit,64bit, QSFP28,2 ports, PCIE 4.0 x16-14e4-1750-2, No Driver CD, OCP	2*100GE, class 1 laser
MCX653105A-HDAT	IB Card, Infiniband MCX653105A-HDAT, 200Gb/s-64bit-QSFP56-1port, PCIE 4.0 x16-Vendor ID 15b3-Device ID 101b-1-Subvendor ID 15b3-Subdevice ID 0007, Chinese and English doc	1*200GE, class 1 laser
MCX75310AAS-HEAT	IB Card, Infiniband MCX75310AAS-HEAT,200Gb/s NDR200 IB, single port OSFP, PCIE 5.0 x16-Vendor ID 15B3-Device ID 1021-1-Subvendor ID 15B3-Subdevice ID 0029, English doc, (IB&Ethernet)	1*200GE, class 1 laser
BC11TPMA	Manufactured Board, 2288H V5, BC11TPMA, TPM2.0 Card (SPI), Overseas Dedicated, 5*4	N/A
BC11TPMD	Manufactured Board, TaiShan 200 (Model 2280), BC11TPMD, TPM2.0 Card (SPI), China Dedicated,5*4	N/A
BC11TPMB	Manufactured Board, 2288H V5, BC11TPMB, TCM Card (SPI), 5*4	N/A
BC15MSMA	Manufactured Board, 2288H V7, BC15MSMA, inner M.2 adapter, support PCH SATA/PCIe, 2*1	N/A
BC55RLAH1	Manufactured Board, Public Module, BC55RLAH1, XP270-M2-(SAS3808)-M.2 RAID PCIE card-RAID0, 1, JBOD-No CacheSupport Sideband Management,PCIE 4.0 X8-Vendor ID 1000-Device ID 10E6-1-Subvendor ID 1F24-Subdevice ID 3002, 1*2	N/A



Test Configuration

Model Difference:

All models are same entirely except the model's name.

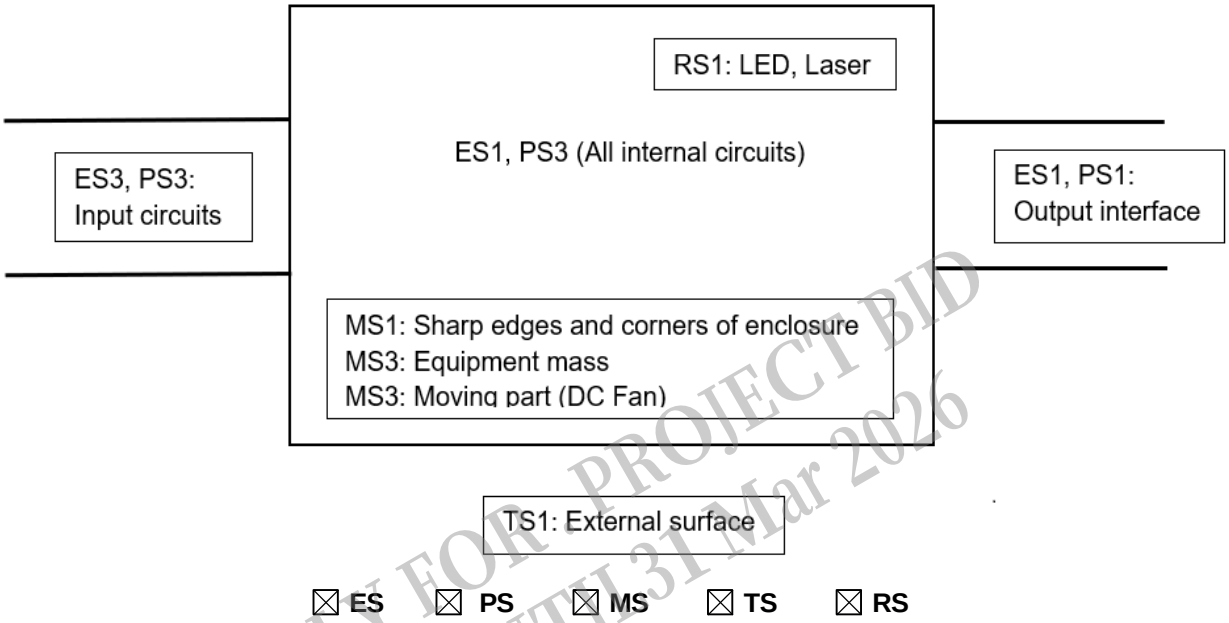
OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS				
Clause	**Possible Hazard**			
5	Electrically-caused injury			
Class and Energy Source (e.g. ES3: Primary circuit)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
ES3: Input circuits and internal circuits in the PSU	Instructed/skilled	N/A	N/A	Approved PSU use
ES1: Interfaces	Instructed/skilled	N/A	N/A	N/A
6	Electrically-caused fire			
Class and Energy Source (e.g. PS2: 100 Watt circuit)	Material part (e.g. Printed board)	Safeguards		
		B	1st S	2nd S
PS3: input circuit and internal circuits	Enclosure and Internal combustible material	Equipment safeguards (no ignition)	See clause 6.4.6	N/A
PS1: Interfaces	Enclosure and Internal combustible material	N/A	N/A	N/A
7	Injury caused by hazardous substances			
Class and Energy Source (e.g. Ozone)	Body Part (e.g., Skilled)	Safeguards		
		B	S	R
N/A	N/A	N/A	N/A	N/A
8	Mechanically-caused injury			
Class and Energy Source (e.g. MS3: Plastic fan blades)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
MS1: Sharp edges and corners of enclosure	Instructed/skilled	N/A	N/A	N/A
MS3: DC fan	Instructed/skilled	Warning label	Metal enclosure	N/A
MS3: Mass of unit	Instructed/skilled	Stationary equipment	N/A	N/A
9	Thermal burn			
Class and Energy Source (e.g. TS1: Keyboard caps)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
TS1: All accessible parts	Instructed/skilled	N/A	N/A	N/A
10	Radiation			
Class and Energy Source (e.g. RS1: PMP sound output)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
Laser class 1: Laser module	Instructed/skilled	N/A	N/A	N/A
Exempt Group: LEDs for Indicating	Instructed/skilled	N/A	N/A	N/A
Supplementary Information:				

"B" – Basic Safeguard; "S" – Supplementary Safeguard; "R" – Reinforced Safeguard

ENERGY SOURCE DIAGRAM

Optional. Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems.

Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings



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Clause	Requirement + Test	Result - Remark	Verdict

4	**GENERAL REQUIREMENTS**		P
4.1.1	Acceptance of materials, components and subassemblies	Refer to summary of testing and appended table 4.1.2.	P
4.1.2	Use of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this standard. Components, for which no relevant IEC-standard exists, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 62368-1.	P
4.1.3	Equipment design and construction		P
4.1.4	Specified ambient temperature for outdoor use (ºC)	Not outdoor use product	N/A
4.1.5	Constructions and components not specifically covered	No such constructions and components	N/A
4.1.8	Liquids and liquid filled components (LFC)		N/A
4.1.15	Markings and instructions	(See Annex F)	P
4.4.3	Safeguard robustness		P
4.4.3.1	General		P
4.4.3.2	Steady force tests	(See Annex T.5)	P
4.4.3.3	Drop tests		N/A
4.4.3.4	Impact tests	(See Annex T.6)	P
4.4.3.5	Internal accessible safeguard tests		N/A
4.4.3.6	Glass impact tests	No glass.	N/A
4.4.3.7	Glass fixation tests	No glass.	N/A
	Glass impact test (1J)		N/A
	Push/pull test (10 N)		N/A
4.4.3.8	Thermoplastic material tests		N/A
4.4.3.9	Air comprising a safeguard	Considered.	P
4.4.3.10	Accessibility, glass, safeguard effectiveness	After tests of 4.4.3.2, 4.4.3.4, no safeguard damaged.	P
4.4.4	Displacement of a safeguard by an insulating liquid		N/A
4.4.5	Safety interlocks		N/A
4.5	**Explosion**		
4.5.1	General	No explosion occurs during normal/abnormal operation	P

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		and single fault conditions.	
4.5.2	No explosion during normal/abnormal operating condition	(See Clause B.2, B.3)	P
	No harm by explosion during single fault conditions	(See Clause B.4)	P
4.6	**Fixing of conductors**		P
	Fix conductors not to defeat a safeguard	Internal wires are routed and secured so that adequate insulations are maintained. For the internal wires connected by pluggable connectors or soldered and glued. Wires fixed such that a loosening of the terminal connection is unlikely.	P
	Compliance is checked by test..... :	See Annex T.	P
4.7	**Equipment for direct insertion into mains socket–outlets**		N/A
4.7.2	Mains plug part complies with relevant standard .. :		N/A
4.7.3	Torque (Nm) ..... :		N/A
4.8	**Equipment containing coin/button cell batteries**		P
4.8.1	General	Professional equipment Equipment for use in locations where it is unlikely that children will be present.	P
4.8.2	Instructional safeguard..... :		N/A
4.8.3	Battery compartment door/cover construction		N/A
	Open torque test		N/A
4.8.4.2	Stress relief test		N/A
4.8.4.3	Battery replacement test		N/A
4.8.4.4	Drop test		N/A
4.8.4.5	Impact test		N/A
4.8.4.6	Crush test		N/A
4.8.5	Compliance		N/A
	30N force test with test probe		N/A
	20N force test with test hook		N/A
4.9	**Likelihood of fire or shock due to entry of conductive object**		P
4.10	**Component requirements**		P
4.10.1	Disconnect Device	(See Annex L)	P
4.10.2	Switches and relays		P

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Clause	Requirement + Test	Result - Remark	Verdict

5	**ELECTRICALLY-CAUSED INJURY**		P
5.2	**Classification and limits of electrical energy sources**		P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current limits ..... :		N/A
5.2.2.3	Capacitance limits ..... :		N/A
5.2.2.4	Single pulse limits..... :		N/A
5.2.2.5	Limits for repetitive pulses..... :		N/A
5.2.2.6	Ringing signals		N/A
5.2.2.7	Audio signals		N/A
5.3	**Protection against electrical energy sources**		P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See only 4.3 and 5.3 to 5.5 which applies to protection between the accessible parts and hazardous parts of other circuits.	P
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits	Only ES1 circuit and metal enclosure is accessible for ordinary person for this product.	P
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors	No access with test probe to any ES3 circuit or parts separated by Basic safeguard only from ES3 via openings on enclosure.	P
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit and metal enclosure is accessible for ordinary person for this product.	P
	Accessibility to outdoor equipment bare parts		N/A
5.3.2.2	Contact requirements	No access with test probe to any ES3 circuit or parts separated by Basic safeguard only from ES3 via openings on enclosure.	P
	Test with test probe from Annex V		—
5.3.2.2 a)	Air gap – electric strength test potential (V)..... :		N/A
5.3.2.2 b)	Air gap – distance (mm) ..... :		N/A
5.3.2.3	Compliance		N/A
5.3.2.4	Terminals for connecting stripped wire		N/A
5.4	**Insulation materials and requirements**		P
5.4.1.2	Properties of insulating material		P

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.3	Material is non-hygroscopic		P
5.4.1.4	Maximum operating temperature for insulating materials ..... :	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degrees ..... :	2	P
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 is applied. No insulating compound applied.	N/A
5.4.1.5.3	Thermal cycling test		N/A
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A
5.4.1.8	Determination of working voltage ..... :	Approved PSU used.	N/A
5.4.1.9	Insulating surfaces	No such accessible surfaces within the equipment.	N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A
5.4.1.10.2	Vicat test..... :		N/A
5.4.1.10.3	Ball pressure test..... :		N/A
5.4.2	Clearances	Approved PSU used.	N/A
5.4.2.1	General requirements		N/A
	Clearances in circuits connected to AC Mains, Alternative method		N/A
5.4.2.2	Procedure 1 for determining clearance		N/A
	Temporary overvoltage ..... :	Pollution degree 2 is applied. No insulating compound applied.	N/A
5.4.2.3	Procedure 2 for determining clearance		N/A
5.4.2.3.2.2	a.c. mains transient voltage ..... :		N/A
5.4.2.3.2.3	d.c. mains transient voltage ..... :		N/A
5.4.2.3.2.4	External circuit transient voltage..... :	Approved PSU used.	N/A
5.4.2.3.2.5	Transient voltage determined by measurement ..... :	No such accessible surfaces within the equipment.	N/A
5.4.2.4	Determining the adequacy of a clearance using an electric strength test ..... :		N/A
5.4.2.5	Multiplication factors for clearances and test voltages ..... :		N/A
5.4.2.6	Clearance measurement ..... :		N/A
5.4.3	Creepage distances		N/A
5.4.3.1	General		N/A
5.4.3.3	Material group..... :	IIIb	—

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.3.4	Creepage distances measurement..... :	Approved PSU used.	N/A
5.4.4	Solid insulation		N/A
5.4.4.1	General requirements		N/A
5.4.4.2	Minimum distance through insulation ..... :		N/A
5.4.4.3	Insulating compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Insulating compound forming cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
	Number of layers (pcs) ..... :		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
	Number of layers (pcs) ..... :		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material..... :		N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz, E_P, K_R, d, V_{PW} (V) ..... :		N/A
	Alternative by electric strength test, tested voltage (V), K_R ..... :		N/A
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
5.4.5.3	Insulation resistance (MΩ) ..... :		N/A
	Electric strength test..... :		N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning	Approved PSU used	N/A
	Relative humidity (%), temperature (°C), duration (h) ..... :		—
5.4.9	Electric strength test		P
5.4.9.1	Test procedure for type test of solid insulation..... :		N/A
5.4.9.2	Test procedure for routine test		N/A
5.4.10	Safeguards against transient voltages from external circuits		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test ..... :		N/A
5.4.10.2.3	Steady-state test ..... :		N/A
5.4.10.3	Verification for insulation breakdown for impulse test ..... :		N/A
5.4.11	Separation between external circuits and earth		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	SPDs bridge separation between external circuit and earth		N/A
	Rated operating voltage U_{op} (V) ..... :		—
	Nominal voltage U_{peak} (V) ..... :		—
	Max increase due to variation ΔU_{sp} ..... :		—
	Max increase due to ageing ΔU_{sa} ..... :		—
5.4.11.3	Test method and compliance ..... :		N/A
5.4.12	Insulating liquid		N/A
5.4.12.1	General requirements		N/A
5.4.12.2	Electric strength of an insulating liquid ..... :		N/A
5.4.12.3	Compatibility of an insulating liquid ..... :		N/A
5.4.12.4	Container for insulating liquid ..... :		N/A
5.5	**Components as safeguards**		N/A
5.5.1	General	Approved PSU used.	N/A
5.5.2	Capacitors and RC units		N/A
5.5.2.1	General requirement		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector ..... :		N/A
5.5.3	Transformers		N/A
5.5.4	Optocouplers		N/A
5.5.5	Relays		N/A
5.5.6	Resistors		N/A
5.5.7	SPDs		N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable ..... :		N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	RCD rated residual operating current (mA) ..... :		—
5.6	**Protective conductor**		P
5.6.2	Requirement for protective conductors		P
5.6.2.1	General requirements		P
5.6.2.2	Colour of insulation	All insulated protective earth conductors are coloured green and yellow.	P
5.6.3	Requirement for protective earthing conductors		P
	Protective earthing conductor size (mm^2) ..... :		—
	Protective earthing conductor serving as a reinforced safeguard		N/A
	Protective earthing conductor serving as a double safeguard		N/A
5.6.4	Requirements for protective bonding conductors	See below	P
5.6.4.1	Protective bonding conductors	Metal enclosure as a protective connection conductor	P
	Protective bonding conductor size (mm^2)..... :	Comply with 5.6.6.2	—
5.6.4.2	Protective current rating (A) ..... :	Comply with 5.6.6.2	P
5.6.5	Terminals for protective conductors	Symbol ⏚ used. In addition, the green-and-yellow wire connected to metal chassis was considered as protective bonding conductor. See also sub clause 5.6.6.	P
5.6.5.1	Terminal size for connecting protective earthing conductors (mm)..... :		P
	Terminal size for connecting protective bonding conductors (mm) ..... :		N/A
5.6.5.2	Corrosion	The metal screw, star washer and metal parts are all made of mild steel. The combined electrochemical potential is lower than 0.45V.	P
5.6.6	Resistance of the protective bonding system		P
5.6.6.1	Requirements		P
5.6.6.2	Test Method ..... :		P
5.6.6.3	Resistance (Ω) or voltage drop ..... :	See appended table 5.6.6.2	P
5.6.7	Reliable connection of a protective earthing conductor		P
5.6.8	Functional earthing		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Conductor size (mm^2) ..... :		N/A
	Class II with functional earthing marking ..... :		N/A
	Appliance inlet cl & cr (mm) ..... :		N/A
5.7	**Prospective touch voltage, touch current and protective conductor current**		P
5.7.2	Measuring devices and networks		P
5.7.2.1	Measurement of touch current	Figure 4 and figure 5 of IEC 60990 was used in determining of the limit of ES1 and ES2.	P
5.7.2.2	Measurement of voltage		P
5.7.3	Equipment set-up, supply connections and earth connections	Clause 4, 5.3 and 5.4 of IEC 60990:1999 applied.	P
5.7.4	Unearthed accessible parts ..... :	Approved PSU used.	N/A
5.7.5	Earthed accessible conductive parts ..... :	(See appended table 5.7.5)	P
5.7.6	Requirements when touch current exceeds ES2 limits		N/A
	Protective conductor current (mA) ..... :		N/A
	Instructional Safeguard ..... :		N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits		N/A
5.7.7.1	Touch current from coaxial cables		N/A
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables		N/A
5.7.8	Summation of touch currents from external circuits		N/A
	a) Equipment connected to earthed external circuits, current (mA) ..... :		N/A
	b) Equipment connected to unearthed external circuits, current (mA) ..... :		N/A
5.8	**Backfeed safeguard in battery backed up supplies**		N/A
	Mains terminal ES ..... :		N/A
	Air gap (mm) ..... :		N/A

6	**ELECTRICALLY- CAUSED FIRE**		P
6.2	**Classification of PS and PIS**		P
6.2.2	Power source circuit classifications ..... :	(See appended table 6.2.2)	P
6.2.3	Classification of potential ignition sources		P
6.2.3.1	Arcing PIS ..... :	(See appended table 6.2.3.1)	P
6.2.3.2	Resistive PIS ..... :	(See appended table 6.2.3.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
6.3	**Safeguards against fire under normal operating and abnormal operating conditions**		P
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials..... :	No ignition and no such temperature attained within the equipment. (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
	Combustible materials outside fire enclosure..... :		P
6.4	**Safeguards against fire under single fault conditions**		P
6.4.1	Safeguard method	Method by control of fire spread applied, metal fire enclosure provided.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	Supplementary safeguards		N/A
6.4.3.2	Single Fault Conditions..... :		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		P
6.4.5	Control of fire spread in PS2 circuits		P
6.4.5.2	Supplementary safeguards	Components other than PCB and wires are: - Printed board: rated min. V-1 - All other components: at least V- 2 except for mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying to relevant IEC standard. - Other plastic material: V-2 or better, except directly contact PS3 conductor made of V-1 (See appended tables 4.1.2 and Annex G)	P
6.4.6	Control of fire spread in PS3 circuits	Metal fire enclosure used.	P
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	See below	P
6.4.8.2	Fire enclosure and fire barrier material properties	Metal fire enclosure used.	P

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.2.1	Requirements for a fire barrier	No such fire barrier as control of fire spread.	N/A
6.4.8.2.2	Requirements for a fire enclosure		P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top openings and properties	All openings less than 5mm in any dimension	P
	Openings dimensions (mm) ..... :	See above	N/A
6.4.8.3.4	Bottom openings and properties	No bottom openings	N/A
	Openings dimensions (mm) ..... :		N/A
	Flammability tests for the bottom of a fire enclosure		N/A
	Instructional Safeguard..... :		N/A
6.4.8.3.5	Side openings and properties		P
	Openings dimensions (mm) ..... :		P
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c)..... :		N/A
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating..... :	Metal Enclosure used.	P
6.4.9	Flammability of insulating liquid..... :		N/A
6.5	**Internal and external wiring**		P
6.5.1	General requirements	Lead wire comply with VW-1. See details on table 4.1.2	P
6.5.2	Requirements for interconnection to building wiring ..... :		P
6.5.3	Internal wiring size (mm^2) for socket-outlets ..... :		N/A
6.6	**Safeguards against fire due to the connection to additional equipment**		P
7	**INJURY CAUSED BY HAZARDOUS SUBSTANCES**		N/A
7.2	**Reduction of exposure to hazardous substances**		N/A
7.3	**Ozone exposure**		N/A
7.4	**Use of personal safeguards or personal protective equipment (PPE)**		N/A
	Personal safeguards and instructions..... :		—
7.5	**Use of instructional safeguards and instructions**		N/A
	Instructional safeguard (ISO 7010)..... :		—
7.6	**Batteries and their protection circuits**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8	**MECHANICALLY-CAUSED INJURY**		P
8.2	**Mechanical energy source classifications**		P
8.3	**Safeguards against mechanical energy sources**		P
8.4	**Safeguards against parts with sharp edges and corners**		P
8.4.1	Safeguards		P
	Instructional Safeguard..... :		N/A
8.4.2	Sharp edges or corners		N/A
8.5	**Safeguards against moving parts**		N/A
8.5.1	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts		N/A
	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
	Moving MS3 parts only accessible to skilled person		N/A
8.5.2	Instructional safeguard ..... :		N/A
8.5.4	Special categories of equipment containing moving parts		N/A
8.5.4.1	General		N/A
8.5.4.2	Equipment containing work cells with MS3 parts		N/A
8.5.4.2.1	Protection of persons in the work cell		N/A
8.5.4.2.2	Access protection override		N/A
8.5.4.2.2.1	Override system		N/A
8.5.4.2.2.2	Visual indicator		N/A
8.5.4.2.3	Emergency stop system		N/A
	Maximum stopping distance from the point of activation (m) ..... :		N/A
	Space between end point and nearest fixed mechanical part (mm)..... :		N/A
8.5.4.2.4	Endurance requirements		N/A
	Mechanical system subjected to 100 000 cycles of operation		N/A
	- Mechanical function check and visual inspection		N/A
	- Cable assembly ..... :		N/A
8.5.4.3	Equipment having electromechanical device for destruction of media		N/A
8.5.4.3.1	Equipment safeguards		N/A
8.5.4.3.2	Instructional safeguards against moving parts ..... :		N/A
8.5.4.3.3	Disconnection from the supply		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.5.4.3.4	Cut type and test force (N) ..... :		N/A
8.5.4.3.5	Compliance		N/A
8.5.5	High pressure lamps		N/A
	Explosion test..... :		N/A
8.5.5.3	Glass particles dimensions (mm) ..... :		N/A
8.6	**Stability of equipment**		N/A
8.6.1	General	stationary equipment.	N/A
	Instructional safeguard ..... :		N/A
8.6.2	Static stability		N/A
8.6.2.2	Static stability test..... :		N/A
8.6.2.3	Downward force test		N/A
8.6.3	Relocation stability		N/A
	Wheels diameter (mm) ..... :		—
	Tilt test		N/A
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test..... :		N/A
8.7	**Equipment mounted to wall, ceiling or other structure**		N/A
8.7.1	Mount means type..... :		N/A
8.7.2	Test methods		N/A
	Test 1, additional downwards force (N)..... :		N/A
	Test 2, number of attachment points and test force (N)..... :		N/A
	Test 3 Nominal diameter (mm) and applied torque (Nm) ..... :		N/A
8.8	**Handles strength**		N/A
8.8.1	General		N/A
8.8.2	Handle strength test		N/A
	Number of handles..... :		—
	Force applied (N) ..... :		—
8.9	**Wheels or casters attachment requirements**		N/A
8.9.2	Pull test		N/A
8.10	**Carts, stands and similar carriers**		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions..... :		N/A
8.10.3	Cart, stand or carrier loading test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Loading force applied (N)..... :		N/A
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Force applied (N) ..... :		—
8.10.6	Thermoplastic temperature stability		N/A
8.11	**Mounting means for slide-rail mounted equipment (SRME)**		N/A
8.11.1	General		N/A
8.11.2	Requirements for slide rails		N/A
	Instructional Safeguard..... :		N/A
8.11.3	Mechanical strength test		N/A
8.11.3.1	Downward force test, force (N) applied..... :		N/A
8.11.3.2	Lateral push force test		N/A
8.11.3.3	Integrity of slide rail end stops		N/A
8.11.4	Compliance		N/A
8.12	**Telescoping or rod antennas**		N/A
	Button/ball diameter (mm)..... :		—
9	**THERMAL BURN INJURY**		P
9.2	**Thermal energy source classifications**		P
9.3	**Touch temperature limits**		P
9.3.1	Touch temperatures of accessible parts ..... :	The accessible surfaces are classified as TS1.	P
9.3.2	Test method and compliance	See appended table 5.4.1.4, 9.3, B.1.5, B.2.6.	P
9.4	**Safeguards against thermal energy sources**		P
9.5	**Requirements for safeguards**		P
9.5.1	Equipment safeguard	Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions.	P
9.5.2	Instructional safeguard ..... :	Instructional safeguard is not required.	N/A
9.6	**Requirements for wireless power transmitters**		N/A
9.6.1	General		N/A
9.6.2	Specification of the foreign objects		N/A
9.6.3	Test method and compliance..... :	(See appended table 9.6)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
10	**RADIATION**		P
10.2	**Radiation energy source classification**		P
10.2.1	General classification	Indicating LED considered as Exempt Group, and Optical fiber transceiver is low power application classified as Laser class 1.	P
	Lasers ..... :		—
	Lamps and lamp systems ..... :		—
	Image projectors..... :		—
	X-Ray ..... :		—
	Personal music player..... :		—
10.3	**Safeguards against laser radiation**		P
	The standard(s) equipment containing laser(s) comply..... :		P
10.4	**Safeguards against optical radiation from lamps and lamp systems (including LED types)**		P
10.4.1	General requirements		P
	Instructional safeguard provided for accessible radiation level needs to exceed		N/A
	Risk group marking and location ..... :		N/A
	Information for safe operation and installation		N/A
10.4.2	Requirements for enclosures		N/A
	UV radiation exposure ..... :		N/A
10.4.3	Instructional safeguard..... :		N/A
10.5	**Safeguards against X-radiation**		N/A
10.5.1	Requirements		N/A
	Instructional safeguard for skilled persons..... :		—
10.5.3	Maximum radiation (pA/kg) ..... :	(See appended tables B.3 & B.4)	—
10.6	**Safeguards against acoustic energy sources**		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output $L_{Aeq,T}$, dB(A) ..... :		N/A
	Unweighted RMS output voltage (mV)..... :		N/A
	Digital output signal (dBFS) ..... :		N/A
10.6.3	Requirements for dose-based systems		N/A
10.6.3.1	General requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
10.6.3.2	Dose-based warning and automatic decrease		N/A
10.6.3.3	Exposure-based warning and requirements		N/A
	30 s integrated exposure level (MEL30) ..... :		N/A
	Warning for MEL ≥ 100 dB(A) ..... :		N/A
10.6.4	Measurement methods		N/A
10.6.5	Protection of persons		N/A
	Instructional safeguards..... :		N/A
10.6.6	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.6.1	Corded listening devices with analogue input		N/A
	Listening device input voltage (mV)..... :		N/A
10.6.6.2	Corded listening devices with digital input		N/A
	Max. acoustic output $L_{Aeq,T}$, dB(A) ..... :		N/A
10.6.6.3	Cordless listening devices		N/A
	Max. acoustic output $L_{Aeq,T}$, dB(A) ..... :		N/A
B	**NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS**		P
B.1	**General**		P
B.1.5	Temperature measurement conditions	(See appended table B.1.5)	P
B.2	**Normal operating conditions**		P
B.2.1	General requirements ..... :		P
	Audio Amplifiers and equipment with audio amplifiers ..... :		N/A
B.2.3	Supply voltage and tolerances		P
B.2.5	Input test..... :	(See appended table B.2.5)	P
B.3	**Simulated abnormal operating conditions**		P
B.3.1	General	(See appended table B.3)	P
B.3.2	Covering of ventilation openings	(See appended table B.3)	P
	Instructional safeguard..... :		N/A
B.3.3	DC mains polarity test		N/A
B.3.4	Setting of voltage selector	No voltage selector	N/A
B.3.5	Maximum load at output terminals	No output terminal	N/A
B.3.6	Reverse battery polarity	No replaceable battery used	N/A
B.3.7	Audio amplifier abnormal operating conditions	Not such equipment	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.3.8	Safeguards functional during and after abnormal operating conditions.....:	All safeguards remained effective	P
B.4	**Simulated single fault conditions**		P
B.4.1	General	(See appended table B.3, B.4)	P
B.4.2	Temperature controlling device	No such device used.	N/A
B.4.3	Blocked motor test	(See appended table B.3, B.4)	P
B.4.4	Functional insulation	See below.	P
B.4.4.1	Short circuit of clearances for functional insulation		N/A
B.4.4.2	Short circuit of creepage distances for functional insulation		N/A
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards used.	N/A
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors		N/A
B.4.6	Short circuit or disconnection of passive components		N/A
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N/A
B.4.8	Compliance during and after single fault conditions .....:		N/A
B.4.9	Battery charging and discharging under single fault conditions		N/A
C	**UV RADIATION**		N/A
C.1	**Protection of materials in equipment from UV radiation**		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	**UV light conditioning test**		N/A
C.2.1	Test apparatus.....:		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure test		N/A
C.2.4	Xenon-arc light-exposure test		N/A
D	**TEST GENERATORS**		N/A
D.1	**Impulse test generators**		N/A
D.2	**Antenna interface test generator**		N/A
D.3	**Electronic pulse generator**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
E	**TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS**		N/A
E.1	**Electrical energy source classification for audio signals**		N/A
	Maximum non-clipped output power (W) ..... :		—
	Rated load impedance (Ω) ..... :		—
	Open-circuit output voltage (V)..... :		—
	Instructional safeguard..... :		—
E.2	**Audio amplifier normal operating conditions**		N/A
	Audio signal source type ..... :		—
	Audio output power (W) ..... :		—
	Audio output voltage (V)..... :		—
	Rated load impedance (Ω) ..... :		—
	Requirements for temperature measurement		N/A
E.3	Audio amplifier abnormal operating conditions		N/A
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	**General**		P
	Language ..... :	English	—
F.2	**Letter symbols and graphical symbols**		P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	P
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	P
F.3	**Equipment markings**		P
F.3.1	Equipment marking locations	The required marking is located on the enclosure of the equipment and is easily visible.	P
F.3.2	Equipment identification markings	See copy of marking plate.	P
F.3.2.1	Manufacturer identification ..... :	See copy of marking plate	P
F.3.2.2	Model identification ..... :	See copy of marking plate	P
F.3.3	Equipment rating markings	See the following details.	P
F.3.3.1	Equipment with direct connection to mains	The equipment is direct connected to AC mains, see F.3.3.3 to F.3.3.6.	P
F.3.3.2	Equipment without direct connection to mains	For HVDC	P
F.3.3.3	Nature of the supply voltage..... :	See copy of marking plate	P
F.3.3.4	Rated voltage ..... :	See copy of marking plate	P

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.3.5	Rated frequency ..... :	See copy of marking plate	P
F.3.3.6	Rated current or rated power ..... :	See copy of marking plate	P
F.3.3.7	Equipment with multiple supply connections	See copy of marking plate.	P
F.3.4	Voltage setting device	No voltage setting device.	N/A
F.3.5	Terminals and operating devices	See below.	P
F.3.5.1	Mains appliance outlet and socket-outlet markings ..... :	No outlet used.	N/A
F.3.5.2	Switch position identification marking ..... :		N/A
F.3.5.3	Replacement fuse identification and rating markings..... :		N/A
	Instructional safeguards for neutral fuse..... :		N/A
F.3.5.4	Replacement battery identification marking ..... :	No such battery on the equipment.	N/A
F.3.5.5	Neutral conductor terminal		N/A
F.3.5.6	Terminal marking location		N/A
F.3.6	Equipment markings related to equipment classification	See below.	P
F.3.6.1	Class I equipment	See below.	P
F.3.6.1.1	Protective earthing conductor terminal ..... :		P
F.3.6.1.2	Protective bonding conductor terminals ..... :		N/A
F.3.6.2	Equipment class marking ..... :	Class I equipment	N/A
F.3.6.3	Functional earthing terminal marking..... :		N/A
F.3.7	Equipment IP rating marking ..... :	IPX0	N/A
F.3.8	External power supply output marking..... :		N/A
F.3.9	Durability, legibility and permanence of marking	Marking is considered as legible and easily discernible. See also the following details.	P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test, 15 sec. for water and 15 sec. for petroleum spirit. After each test, the marking remained legible.	P
F.4	**Instructions**		P
	a) Information prior to installation and initial use		P
	b) Equipment for use in locations where children not likely to be present		N/A
	c) Instructions for installation and interconnection		P

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Clause	Requirement + Test	Result - Remark	Verdict
	d) Equipment intended for use only in restricted access area		N/A
	e) Equipment intended to be fastened in place		N/A
	f) Instructions for audio equipment terminals		N/A
	g) Protective earthing used as a safeguard	The product power connection should be connected to an output socket with a ground connection.	P
	h) Protective conductor current exceeding ES2 limits		N/A
	i) Graphic symbols used on equipment		N/A
	j) Permanently connected equipment not provided with all-pole mains switch		N/A
	k) Replaceable components or modules providing safeguard function		N/A
	l) Equipment containing insulating liquid		N/A
	m) Installation instructions for outdoor equipment		N/A
F.5	Instructional safeguards		N/A
G	**COMPONENTS**		P
G.1	**Switches**		N/A
G.1.1	General		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.1.3	Test method and compliance		N/A
G.2	**Relays**		N/A
G.2.1	Requirements		N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supplying power to other equipment		N/A
G.2.4	Test method and compliance		N/A
G.3	**Protective devices**		P
G.3.1	Thermal cut-offs		N/A
	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Test method and compliance		N/A
G.3.2	Thermal links		N/A
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Thermal links tested as part of the equipment		N/A
G.3.2.2	Test method and compliance		N/A
G.3.3	PTC thermistors		P
G.3.4	Overcurrent protection devices		P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions .....:	(See appended table B.4)	N/A
G.4	**Connectors**		N/A
G.4.1	Spacings		N/A
G.4.2	Mains connector configuration.....:		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
G.5	**Wound components**		N/A
G.5.1	Wire insulation in wound components		N/A
G.5.1.2	Protection against mechanical stress		N/A
G.5.2	Endurance test		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Test time (days per cycle) .....:		—
	Test temperature (°C) .....:		—
G.5.2.3	Wound components supplied from the mains		N/A
G.5.2.4	No insulation breakdown		N/A
G.5.3	Transformers		N/A
G.5.3.1	Compliance method .....:		N/A
	Position.....:		N/A
	Method of protection .....:		N/A
G.5.3.2	Insulation		N/A
	Protection from displacement of windings.....:		—
G.5.3.3	Transformer overload tests		N/A
G.5.3.3.1	Test conditions		N/A
G.5.3.3.2	Winding temperatures		N/A
G.5.3.3.3	Winding temperatures - alternative test method		N/A
G.5.3.4	Transformers using FIW		N/A
G.5.3.4.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	FIW wire nominal diameter.....:		—
G.5.3.4.2	Transformers with basic insulation only		N/A
G.5.3.4.3	Transformers with double insulation or reinforced insulation .....:		N/A
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core		N/A
G.5.3.4.5	Thermal cycling test and compliance		N/A
G.5.3.4.6	Partial discharge test		N/A
G.5.3.4.7	Routine test		N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements	Approved DC fan used	N/A
G.5.4.2	Motor overload test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4.2	Locked-rotor overload test		N/A
	Test duration (days) .....:		—
G.5.4.5	Running overload test for DC motors		N/A
G.5.4.5.2	Tested in the unit		N/A
G.5.4.5.3	Alternative method		N/A
G.5.4.6	Locked-rotor overload test for DC motors		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....:		N/A
G.5.4.6.3	Alternative method		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage .....:		—
G.6	**Wire Insulation**		N/A
G.6.1	General		N/A
G.6.2	Enamelled winding wire insulation		N/A
G.7	**Mains supply cords**		N/A
G.7.1	General requirements		N/A
	Type .....:		—
G.7.2	Cross sectional area (mm^2 or AWG).....:		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N) .....:		N/A
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) .....:		N/A
G.7.3.2.4	Strain relief and cord anchorage material		N/A
G.7.4	Cord Entry		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Test method and compliance		N/A
	Overall diameter or minor overall dimension, *D* (mm).....:		—
	Radius of curvature after test (mm) .....:		—
G.7.6	Supply wiring space		N/A
G.7.6.1	General requirements		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Requirements		N/A
G.7.6.2.2	Test with 8 mm strand		N/A
G.8	**Varistors**		N/A
G.8.1	General requirements		N/A
G.8.2	Safeguards against fire		N/A
G.8.2.1	General		N/A
G.8.2.2	Varistor overload test		N/A
G.8.2.3	Temporary overvoltage test		N/A
G.9	**Integrated circuit (IC) current limiters**		N/A
G.9.1	Requirements	Approved IC used.	N/A
	IC limiter output current (max. 5A).....:		—
	Manufacturers' defined drift .....:		—
G.9.2	Test Program		N/A
G.9.3	Compliance		N/A
G.10	**Resistors**		N/A
G.10.1	General		N/A
G.10.2	Conditioning		N/A
G.10.3	Resistor test		N/A
G.10.4	Voltage surge test		N/A
G.10.5	Impulse test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.10.6	Overload test		N/A
G.11	**Capacitors and RC units**		N/A
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	**Optocouplers**		N/A
	Optocouplers comply with IEC 60747-5-5 with specifics		N/A
	Type test voltage $V_{ini,a}$ ..... :		—
	Routine test voltage, $V_{ini,b}$ ..... :		—
G.13	**Printed boards**		P
G.13.1	General requirements		N/A
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board complied with the minimum clearance and creepage requirements of 5.4.2 and 5.4.3.	P
G.13.3	Coated printed boards	No coated printed board or multilayer board applied for within the equipment.	N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation ..... :		N/A
	Number of insulation layers (pcs) ..... :		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2	Test method and compliance		N/A
G.14	**Coating on components terminals**		N/A
G.14.1	Requirements ..... :		N/A
G.15	**Pressurized liquid filled components**		P
G.15.1	Requirements		N/A
G.15.2	Test methods and compliance		N/A
G.15.2.1	Hydrostatic pressure test		N/A
G.15.2.2	Creep resistance test		N/A
G.15.2.3	Tubing and fittings compatibility test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.15.2.4	Vibration test		N/A
G.15.2.5	Thermal cycling test		N/A
G.15.2.6	Force test		N/A
G.15.3	Compliance		N/A
G.16	**IC including capacitor discharge function (ICX)**		N/A
G.16.1	Condition for fault tested is not required		N/A
	ICX with associated circuitry tested in equipment		N/A
	ICX tested separately		N/A
G.16.2	Tests		N/A
	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test.....:		—
	Mains voltage that impulses to be superimposed on .....:		—
	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test .....:		—
G.16.3	Capacitor discharge test .....:		N/A
H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		N/A
H.1	**General**		N/A
H.2	**Method A**		N/A
H.3	**Method B**		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) .....:		—
H.3.1.2	Voltage (V) .....:		—
H.3.1.3	Cadence; time (s) and voltage (V) .....:		—
H.3.1.4	Single fault current (mA): .....:		—
H.3.2	Tripping device and monitoring voltage		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V).....:		N/A
J	**INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION**		N/A
J.1	**General**		N/A
	Winding wire insulation .....:		—
	Solid round winding wire, diameter (mm).....:		N/A
	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm^2) .....:		N/A
J.2/J.3	Tests and Manufacturing	(See separate test report)	—

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Clause	Requirement + Test	Result - Remark	Verdict
K	**SAFETY INTERLOCKS**		N/A
K.1	**General requirements**		N/A
	Instructional safeguard.....:		N/A
K.2	**Components of safety interlock safeguard mechanism**		N/A
K.3	**Inadvertent change of operating mode**		N/A
K.4	**Interlock safeguard override**		N/A
K.5	**Fail-safe**		N/A
K.5.1	Under single fault condition		N/A
K.6	**Mechanically operated safety interlocks**		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Test method and compliance .....:		N/A
K.7	**Interlock circuit isolation**		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements		N/A
	In circuit connected to mains, separation distance for contact gaps (mm).....:		N/A
	In circuit isolated from mains, separation distance for contact gaps (mm).....:		N/A
	Electric strength test before and after the test of K.7.2.....:	(See appended table 5.4.9)	N/A
K.7.2	Overload test, Current (A).....:		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		N/A
L	**DISCONNECT DEVICES**		P
L.1	**General requirements**	Appliance inlet is considered as disconnect device.	P
L.2	**Permanently connected equipment**		N/A
L.3	**Parts that remain energized**	When appliance inlet is disconnected no hazardous voltage in the equipment.	P
L.4	**Single-phase equipment**	The appliance inlet disconnects both poles simultaneously.	P
L.5	**Three-phase equipment**		N/A
L.6	**Switches as disconnect devices**		N/A
L.7	**Plugs as disconnect devices**		N/A
L.8	**Multiple power sources**		P
	Instructional safeguard.....:	Instructional safeguard used	P

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Clause	Requirement + Test	Result - Remark	Verdict

M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		P
M.1	**General requirements**		P
M.2	**Safety of batteries and their cells**		P
M.2.1	Batteries and their cells comply with relevant IEC standards.....:	Approved button cell battery used, see also appended table 4.1.2.	P
M.3	**Protection circuits for batteries provided within the equipment**		P
M.3.1	Requirements		P
M.3.2	Test method		P
	Overcharging of a rechargeable battery		N/A
	Excessive discharging		N/A
	Unintentional charging of a non-rechargeable battery		P
	Reverse charging of a rechargeable battery		N/A
M.3.3	Compliance		N/A
M.4	**Additional safeguards for equipment containing a portable secondary lithium battery**		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Requirements		N/A
M.4.2.2	Compliance.....:		N/A
M.4.3	Fire enclosure.....:		N/A
M.4.4	Drop test of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation and procedure for the drop test		N/A
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%): .....:		N/A
M.4.4.4	Check of the charge/discharge function		N/A
M.4.4.5	Charge / discharge cycle test		N/A
M.4.4.6	Compliance		N/A
M.5	**Risk of burn due to short-circuit during carrying**		N/A
M.5.1	Requirement		N/A
M.5.2	Test method and compliance		N/A
M.6	**Safeguards against short-circuits**		N/A
M.6.1	External and internal faults		N/A
M.6.2	Compliance		N/A
M.7	**Risk of explosion from lead acid and NiCd batteries**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.7.1	Ventilation preventing explosive gas concentration		N/A
	Calculated hydrogen generation rate.....:		N/A
M.7.2	Test method and compliance		N/A
	Minimum air flow rate, Q (m^3/h).....:		N/A
M.7.3	Ventilation tests		N/A
M.7.3.1	General		N/A
M.7.3.2	Ventilation test – alternative 1		N/A
	Hydrogen gas concentration (%).....:		N/A
M.7.3.3	Ventilation test – alternative 2		N/A
	Obtained hydrogen generation rate.....:		N/A
M.7.3.4	Ventilation test – alternative 3		N/A
	Hydrogen gas concentration (%).....:		N/A
M.7.4	Marking.....:		N/A
M.8	**Protection against internal ignition from external spark sources of batteries with aqueous electrolyte**		N/A
M.8.1	General		N/A
M.8.2	Test method		N/A
M.8.2.1	General		N/A
M.8.2.2	Estimation of hypothetical volume V_Z (m^3/s) .....:		—
M.8.2.3	Correction factors .....:		—
M.8.2.4	Calculation of distance d (mm) .....:		—
M.9	**Preventing electrolyte spillage**		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse		N/A
	Instructional safeguard.....:		N/A
N	**ELECTROCHEMICAL POTENTIALS**		P
	Material(s) used.....:		—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		P
	Value of X (mm).....:		—
P	**SAFEGUARDS AGAINST CONDUCTIVE OBJECTS**		P
P.1	**General**		P
P.2	**Safeguards against entry or consequences of entry of a foreign object**		P
P.2.1	General		P
P.2.2	Safeguards against entry of a foreign object		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Location and Dimensions (mm) .....:	Openings that do not exceed 5 mm in any dimension.	—
P.2.3	Safeguards against the consequences of entry of a foreign object		N/A
P.2.3.1	Safeguard requirements		N/A
	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment		N/A
	Transportable equipment with metalized plastic parts .....:		N/A
P.2.3.2	Consequence of entry test .....:		N/A
P.3	**Safeguards against spillage of internal liquids**		N/A
P.3.1	General		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Compliance		N/A
P.4	**Metallized coatings and adhesives securing parts**		N/A
P.4.1	General		N/A
P.4.2	Tests		N/A
	Conditioning, T_C (°C).....:		—
	Duration (weeks).....:		—
Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		P
Q.1	**Limited power sources**		P
Q.1.1	Requirements		P
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output		N/A
	d) Overcurrent protective device limited output		N/A
	e) IC current limiter complying with G.9		P
Q.1.2	Test method and compliance .....:	(See appended table Q.1)	P
	Current rating of overcurrent protective device (A) .....:		N/A
Q.2	**Test for external circuits – paired conductor cable**		N/A
	Maximum output current (A) .....:		N/A
	Current limiting method.....:		—
R	**LIMITED SHORT CIRCUIT TEST**		N/A
R.1	**General**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
R.2	**Test setup**		N/A
	Overcurrent protective device for test.....:		—
R.3	**Test method**		N/A
	Cord/cable used for test.....:		—
R.4	**Compliance**		N/A
S	**TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
S.1	**Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W**		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C) .....:		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	**Flammability test for fire enclosure and fire barrier integrity**		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C) .....:		—
S.3	**Flammability test for the bottom of a fire enclosure**		N/A
S.3.1	Mounting of samples		N/A
S.3.2	Test method and compliance		N/A
	Mounting of samples .....:		—
	Wall thickness (mm).....:		—
S.4	**Flammability classification of materials**		N/A
S.5	**Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W**		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C) .....:		—
T	**MECHANICAL STRENGTH TESTS**		P
T.1	**General**		P
T.2	**Steady force test, 10 N .....:**	(See appended table T.2)	P
T.3	**Steady force test, 30 N .....:**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
T.4	**Steady force test, 100 N .....:**		N/A
T.5	**Steady force test, 250 N .....:**	(See appended table T.5)	P
T.6	**Enclosure impact test**	(See appended table T.6)	P
	Fall test		P
	Swing test		N/A
T.7	**Drop test .....:**		N/A
T.8	**Stress relief test.....:**		N/A
T.9	**Glass Impact Test.....:**		N/A
T.10	**Glass fragmentation test**		N/A
	Number of particles counted .....:		N/A
T.11	**Test for telescoping or rod antennas**		N/A
	Torque value (Nm) .....:		N/A
U	**MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION**		N/A
U.1	**General**		N/A
	Instructional safeguard **:**		N/A
U.2	**Test method and compliance for non-intrinsically protected CRTs**		N/A
U.3	**Protective screen**		N/A
V	**DETERMINATION OF ACCESSIBLE PARTS**		P
V.1	**Accessible parts of equipment**		P
V.1.1	General	No access with test probes to any hazardous parts	P
V.1.2	Surfaces and openings tested with jointed test probes		P
V.1.3	Openings tested with straight unjointed test probes		N/A
V.1.4	Plugs, jacks, connectors tested with blunt probe		N/A
V.1.5	Slot openings tested with wedge probe		N/A
V.1.6	Terminals tested with rigid test wire		N/A
V.2	**Accessible part criterion**		P
X	**ALTERNATIVE METHOD FOR DETERMINING CLEARANCES FOR INSULATION IN CIRCUITS CONNECTED TO AN AC MAINS NOT EXCEEDING 420 V PEAK (300 V RMS)**		N/A
	Clearance .....:		N/A
Y	**CONSTRUCTION REQUIREMENTS FOR OUTDOOR ENCLOSURES**		N/A
Y.1	**General**		**N/A**
Y.2	**Resistance to UV radiation**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
Y.3	**Resistance to corrosion**		N/A
Y.3	**Resistance to corrosion**		N/A
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by.....:		N/A
Y.3.2	Test apparatus		N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere		N/A
Y.3.4	Test procedure.....:		N/A
Y.3.5	Compliance		N/A
Y.4	**Gaskets**		N/A
Y.4.1	General		N/A
Y.4.2	Gasket tests		N/A
Y.4.3	Tensile strength and elongation tests		N/A
	Alternative test methods.....:		N/A
Y.4.4	Compression test		N/A
Y.4.5	Oil resistance		N/A
Y.4.6	Securing means	(See Annex P.4)	N/A
Y.5	**Protection of equipment within an outdoor enclosure**		N/A
Y.5.1	General		N/A
Y.5.2	Protection from moisture		N/A
	Relevant tests of IEC 60529 or Y.5.3.....:		N/A
Y.5.3	Water spray test		N/A
Y.5.4	Protection from plants and vermin		N/A
Y.5.5	Protection from excessive dust		N/A
Y.5.5.1	General		N/A
Y.5.5.2	IP5X equipment		N/A
Y.5.5.3	IP6X equipment		N/A
Y.6	**Mechanical strength of enclosures**		N/A
Y.6.1	General		N/A
Y.6.2	Impact test.....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: Classification of electrical energy sources						P
Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters				ES Class
			U (V)	I (mA)	Type[1)]	Additional Info [2)]	
264 Vac/ 400 Vdc	Input circuit and internal circuit	Normal	264 Vac/ 400 Vdc	--	--	SS	ES3
264 Vac/ 400 Vdc	Interfaces	Normal	5.04 Vdc Max	--	--	SS	ES1
Supplementary information:							
1) Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc.							
2) Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc.							

5.4.1.8	TABLE: Working voltage measurement				N/A
Location	RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comments	
Supplementary information:					

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics			N/A
Method..... :	ISO 306 / B50			—
Object/ Part No./Material	Manufacturer/trademark	Thickness (mm)	T softening (°C)	
Supplementary information:				

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics				N/A
Allowed impression diameter (mm)..... :	≤ 2 mm				—
Object/Part No./Material	Manufacturer/trademark	Thickness (mm)	Test temperature (°C)	Impression diameter (mm)	
Supplementary information:					

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.2, 5.4.3	TABLE: Minimum Clearances/Creepage distance							N/A
Clearance (cl) and creepage distance (cr) at/of/between:	U_p (V)	U_{rms} (V)	Freq [1] (Hz)	Required cl (mm)	cl (mm)	E.S. [2] (V)	Required cr (mm)	cr (mm)
Supplementary information:								
1) Only for frequency above 30 kHz 2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied)								

5.4.4.2	TABLE: Minimum distance through insulation			
Distance through insulation (DTI) at/of	Peak voltage (V)	Insulation	Required DTI (mm)	Measured DTI (mm)
Supplementary information:				

5.4.4.9	TABLE: Solid insulation at frequencies >30 kHz					N/A
Insulation material	E_P	Frequency (kHz)	K_R	Thickness d (mm)	Insulation	V_{PW} (Vpk)
Supplementary information:						

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:		Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No
AC/HVDC input to PE		DC	2500	No
AC/HVDC input to output		DC	4000	No
Supplementary information:				
Test with PAC1500S12-B1, PAC900S12-B2, PAC2000S12-T1, PAC2000S12-B1, PHD1500S12-B2, PAC3000S12-T1 respectively.				

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Clause	Requirement + Test	Result - Remark	Verdict

5.5.2.2	TABLE: Stored discharge on capacitors				N/A
Location	Supply voltage (V)	Operating and fault condition [1)]	Switch position	Measured voltage (Vpk)	ES Class
Supplementary information:					
X-capacitors installed for testing: [ ] bleeding resistor rating: [ ] ICX: 1) Normal operating condition (e.g., normal operation, or open fuse), SC= short circuit, OC= open circuit					

5.6.6	TABLE: Resistance of protective conductors and terminations			P
Location	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)
Farthest part between earthing terminal to main PE	40	2	-	0.008
Supplementary information:				
Test with PAC1500S12-B1, PAC900S12-B2, PAC2000S12-T1, PAC2000S12-B1, PHD1500S12-B2, PAC3000S12-T1 respectively.				

5.7.4	TABLE: Unearthed accessible parts					N/A
Location	Operating and fault conditions	Supply Voltage (V)	Parameters			ES class
			Voltage (V_{rms} or V_{pk})	Current (A_{rms} or A_{pk})	Freq. (Hz)	
--	--	--	--	--	--	--
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit						

5.7.5	TABLE: Earthed accessible conductive part			P
Supply voltage (V).....:	264Vac/ 60Hz			—
Phase(s) .....:	[x] Single Phase; [ ] Three Phase: [ ] Delta [ ] Wye			
Power Distribution System .....:	[x] TN [x]TT [ ] IT			
Location	Fault Condition No in IEC 60990 clause 6.2.2	Touch current (mA)	Comment	
Earthed metal Enclosure (264 Vac)	1	1.63 mA peak	--	
Test with two PSUs: PAC2000S12-B1.	2	0.1 mA peak	--	
Earthed metal Enclosure (264 Vac)	1	1.55 mA peak	--	

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Clause	Requirement + Test	Result - Remark	Verdict

Test with two PSUs: PAC1500S12-B1.	2	0.1 mA peak	--
Earthed metal Enclosure (264 Vac)	1	1.63 mA peak	--
Test with two PSUs: PAC900S12-B2.	2	0.1 mA peak	--
Earthed metal Enclosure (264 Vac)	1	2.06 mA peak	--
Test with two PSUs: PAC2000S12-T1	2	0.1 mA peak	--
Earthed metal Enclosure (264 Vac)	1	2.68 mA peak	
Test with two PSUs: PAC3000S12-T1	2	0.1 mA peak	
Earthed metal Enclosure (264 Vac)	1	1.72 mA peak	
Test with two PSUs: PHD1500S12-B2.	2	0.1 mA peak	
Supplementary Information:			
Test with two PSU.			

5.8	**TABLE: Backfeed safeguard in battery backed up supplies**					N/A
Location	Supply voltage (V)	Operating and fault condition	Time (s)	Open-circuit voltage (V)	Touch current (A)	ES Class
Supplementary information:						
Abbreviation: SC= short circuit, OC= open circuit						

6.2.2	**TABLE: Power source circuit classifications**					P
Location	Operating and fault condition	Voltage (V)	Current (A)	Max. Power[1)] (W)	Time (S)	PS class
Input and internal circuit	Normal	--	--	--	--	PS3 (Declared)
Interfaces	Normal	--	--	--	--	*PS1
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit 1) Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3. (*) Approved current limiter used.						

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Clause	Requirement + Test	Result - Remark	Verdict

6.2.3.1	TABLE: Determination of Arcing PIS				P
Location		Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No
All circuit		--	--	--	Yes
Supplementary information:					

6.2.3.2	TABLE: Determination of resistive PIS			P
Location		Operating and fault condition	Dissipate power (W)	Arcing PIS? Yes / No
All circuit		--	--	Yes
Supplementary information:				
Abbreviation: SC= short circuit; OC= open circuit				

8.5.5	TABLE: High pressure lamp				N/A
Lamp manufacturer		Lamp type	Explosion method	Longest axis of glass particle (mm)	Particle found beyond 1 m Yes / No
Supplementary information:					

9.6	TABLE: Temperature measurements for wireless power transmitters								N/A
Supply voltage (V)..... :									—
Max. transmit power of transmitter (W) ..... :									—
	w/o receiver and direct contact		with receiver and direct contact		with receiver and at distance of 2 mm		with receiver and at distance of 5 mm		
Foreign objects	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	
Supplementary information:									

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-B1	P

Supply voltage (V) ..... :	90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	24.9	24.8	45.0	45.0	--
2.Battery surface on BC26MBTA board	33.3	33.0	53.4	53.2	100
3.Heat sink of CPU on BC26MBTA board	39.9	39.6	60.0	59.8	130
4.Heat sink of U53 on BF3 board	40.3	40.0	60.4	60.2	130
5.Heat sink of HS1 on XP212 board	44.8	44.6	64.9	64.8	130
6.Heat sink of U104 on BC26SMMA board	44.0	43.8	64.1	64.0	130
7.Heat sink of J501 on BC26IOTB board	42.7	42.5	62.8	62.7	130
8.Heat sink on GPU board	33.6	33.4	53.7	53.6	130
9.Heat sink of J19 on BC26HBBA board	27.8	27.6	47.9	47.8	130
10.FAN enclosure	28.3	28.0	48.4	48.2	Ref.
11.AC input connector of PSU	42.3	37.2	62.4	57.4	70
12.Core Transformer T7000 of PSU	40.6	40.4	60.7	60.6	130
13.Winding Transformer T7000 of PSU	41.2	41.1	61.3	61.3	130
14.Core Transformer T8000 of PSU	42.6	42.5	62.7	62.7	130
15.Winding Transformer T8000 of PSU	41.7	41.5	61.8	61.7	130
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	30.4	29.9	50.5	50.1	Ref.
17.Metal enclosure of EUT near openings ventilation	30.3	30.0	50.4	50.2	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	30.5	30.1	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.4	30.2	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information:							

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Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-B1	P

Supply voltage (V) ..... :	180 V a.c. /50 Hz	264 V a.c. /50 Hz	180 V a.c. /50 Hz	264 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.2	23.0	45.0	45.0	--
2.Battery surface on BC26MBTA board	30.6	31.1	53.4	53.1	100
3.Heat sink of CPU on BC26MBTA board	37.5	38.1	60.3	60.1	130
4.Heat sink of U53 on BF3 board	37.6	38.2	60.4	60.2	130
5.Heat sink of HS1 on XP212 board	42.4	43.1	65.2	65.1	130
6.Heat sink of U104 on BC26SMMA board	41.6	42.3	64.4	64.3	130
7.Heat sink of J501 on BC26IOTB board	40.4	41.2	63.2	63.2	130
8.Heat sink on GPU board	34.8	35.6	57.6	57.6	130
9.Heat sink of J19 on BC26HBBA board	25.1	25.9	47.9	47.9	130
10.FAN enclosure	25.5	26.1	48.3	48.1	Ref.
11.AC input connector of PSU	38.2	33.2	61.0	55.2	70
12.Core Transformer T7000 of PSU	41.6	42.5	64.4	64.5	130
13.Winding Transformer T7000 of PSU	45.8	46.6	68.6	68.6	130
14.Core Transformer T8000 of PSU	45.8	46.6	68.6	68.6	130
15.Winding Transformer T8000 of PSU	45.3	46.2	68.1	68.2	130
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	30.4	30.5	53.2	52.5	Ref.
17.Metal enclosure of EUT near openings ventilation	27.5	28.2	50.3	50.2	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	--	--	--
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	33.2	32.5	--	--	77
17.Metal enclosure of EUT near openings ventilation	30.3	30.2	--	--	70

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-B1	P

Supply voltage (V) ..... :	198 V a.c. /50 Hz	264 V a.c. /50 Hz	198 V a.c. /50 Hz	264 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.0	22.7	45.0	45.0	--
2.Battery surface on BC26MBTA board	31.0	30.6	54.0	52.9	100
3.Heat sink of CPU on BC26MBTA board	37.9	37.5	60.9	59.8	130
4.Heat sink of U53 on BF3 board	38.1	37.5	61.1	59.8	130
5.Heat sink of HS1 on XP212 board	43.0	42.3	66.0	64.6	130
6.Heat sink of U104 on BC26SMMA board	42.2	41.6	65.2	63.9	130
7.Heat sink of J501 on BC26IOTB board	41.2	40.3	64.2	62.6	130
8.Heat sink on GPU board	35.4	34.9	58.4	57.2	130
9.Heat sink of J19 on BC26HBBA board	25.6	25.4	48.6	47.7	130
10.FAN enclosure	26.0	25.5	49.0	47.8	Ref.
11.AC input connector of PSU	36.6	33.2	59.6	55.5	70
12.Core Transformer T7000 of PSU	42.3	41.8	65.3	64.1	130
13.Winding Transformer T7000 of PSU	46.5	45.9	69.5	68.2	130
14.Core Transformer T8000 of PSU	46.5	45.9	69.5	68.2	130
15.Winding Transformer T8000 of PSU	46.1	45.6	69.1	67.9	130
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	30.8	30.1	53.8	52.4	Ref.
17.Metal enclosure of EUT near openings ventilation	28.0	27.6	51.0	49.9	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	--	--	--
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	33.8	32.4	--	--	77
17.Metal enclosure of EUT near openings ventilation	31.0	29.9	--	--	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-B1	P

Supply voltage (V) ..... :	192 V d.c.	288 V d.c.	192 V d.c.	288 V d.c.	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	24.1	23.4	45.0	45.0	--
2.Battery surface on BC26MBTA board	33.1	32.9	54.0	54.5	100
3.Heat sink of CPU on BC26MBTA board	39.7	39.5	60.6	61.1	130
4.Heat sink of U53 on BF3 board	40.5	40.2	61.4	61.8	130
5.Heat sink of HS1 on XP212 board	44.9	44.6	65.8	66.2	130
6.Heat sink of U104 on BC26SMMA board	44.2	43.9	65.1	65.5	130
7.Heat sink of J501 on BC26IOTB board	43.1	42.7	64.0	64.3	130
8.Heat sink on GPU board	37.8	37.6	58.7	59.2	130
9.Heat sink of J19 on BC26HBBA board	27.8	27.5	48.7	49.1	130
10.FAN enclosure	27.9	27.7	48.8	49.3	Ref.
11.AC input connector of PSU	40.9	35.2	61.8	56.8	70
12.Core Transformer T7000 of PSU	44.9	44.7	65.8	66.3	130
13.Winding Transformer T7000 of PSU	49.2	49.0	70.1	70.6	130
14.Core Transformer T8000 of PSU	48.9	48.6	69.8	70.2	130
15.Winding Transformer T8000 of PSU	48.5	48.3	69.4	69.9	130
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	32.9	32.3	53.8	53.9	Ref.
17.Metal enclosure of EUT near openings ventilation	23.7	25.7	44.6	47.3	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	--	--	--
16.Plastic handle of PAC2000S12-B1 (>1s~ <10s)	33.8	33.9	--	--	77
17.Metal enclosure of EUT near openings ventilation	24.6	27.3	--	--	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 35°C.

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC1500S12-B1					P
Supply voltage (V)..... :		90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :		See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:		*T* (°C)				Allowed T_{max} (°C)
1.Ambient		22.4	21.7	45.0	45.0	--
2.Battery surface on BC26MBTA board		30.7	30.2	53.3	53.5	100
3.Heat sink of CPU on BC26MBTA board		37.8	37.2	60.4	60.5	130
4.Heat sink of U53 on BF3 board		37.3	36.7	59.9	60.0	130
5.Heat sink of HS1 on XP212 board		43.2	42.2	65.8	65.5	130
6.Heat sink of U104 on BC26SMMA board		41.8	41.2	64.4	64.5	130
7.Heat sink of J501 on BC26IOTB board		40.0	39.5	62.6	62.8	130
8.Heat sink on GPU board		31.4	30.8	54.0	54.1	130
9.Heat sink of J19 on BC26HBBA board		25.7	25.0	48.3	48.3	130
10.FAN enclosure		25.7	25.0	48.3	48.3	Ref.
11.AC input connector of PSU		42.0	34.9	64.6	58.2	70
12.Core Transformer T1 of PSU		35.1	35.7	57.7	59.0	130
13.Winding Transformer T1 of PSU		39.2	40.0	61.8	63.3	130
14.Plastic handle of PAC1500S12-B1(>1s~ <10s)		27.0	26.6	49.6	49.9	Ref.
15.Metal enclosure of EUT near openings ventilation		27.4	26.7	50.0	50.0	Ref.
Accessible part temperature:						
1.Ambient		25.0	25.0	--	--	-
14.Plastic handle of PAC1500S12-B1(>1s~ <10s)		29.6	29.9	--	--	77
15.Metal enclosure of EUT near openings ventilation		30.0	30.0	--	--	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

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Supplementary information:							
Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45°C.							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC1500S12-B1				P
Supply voltage (V) ..... :	180 V a.c. /50 Hz	264 V a.c. /50 Hz	180 V a.c. /50 Hz	264 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	24.5	24.5	45.0	45.0	--
2.Battery surface on BC26MBTA board	34.6	32.5	55.1	53.0	100
3.Heat sink of CPU on BC26MBTA board	39.7	38.0	60.2	58.5	130
4.Heat sink of U53 on BF3 board	41.7	39.4	62.2	59.9	130
5.Heat sink of HS1 on XP212 board	45.4	43.3	65.9	63.8	130
6.Heat sink of U104 on BC26SMMA board	44.5	41.9	65.0	62.4	130
7.Heat sink of J501 on BC26IOTB board	43.3	40.5	63.8	61.0	130
8.Heat sink on GPU board	39.2	37.0	59.7	57.5	130
9.Heat sink of J19 on BC26HBBA board	29.1	27.1	49.6	47.6	130
10.FAN enclosure	29.1	27.5	49.6	48.0	Ref.
11.AC input connector of PSU	45.2	36.1	65.7	56.6	70
12.Core Transformer T1 of PSU	51.4	48.1	71.9	68.6	130
13.Winding Transformer T1 of PSU	64.2	60.0	84.7	80.5	130
14.Plastic handle of PAC1500S12-B1(>1s~ <10s)	34.3	31.9	54.8	52.4	Ref.
15.Metal enclosure of EUT near openings ventilation	30.8	29.1	51.3	49.6	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
14.Plastic handle of PAC1500S12-B1(>1s~ <10s)	34.8	32.4	-	-	77
15.Metal enclosure of EUT near openings ventilation	31.3	29.6	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45°C.

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC1500S12-B1	P

Supply voltage (V)..... :	192 V d.c.	288 V d.c.	192 V d.c.	288 V d.c.	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	24.8	24.9	45.0	45.0	--
2.Battery surface on BC26MBTA board	33.2	33.4	53.4	53.5	100
3.Heat sink of CPU on BC26MBTA board	38.7	38.8	58.9	58.9	130
4.Heat sink of U53 on BF3 board	40.1	40.5	60.3	60.6	130
5.Heat sink of HS1 on XP212 board	44.4	44.6	64.6	64.7	130
6.Heat sink of U104 on BC26SMMA board	43.2	43.6	63.4	63.7	130
7.Heat sink of J501 on BC26IOTB board	41.9	42.2	62.1	62.3	130
8.Heat sink on GPU board	37.7	37.9	57.9	58.0	130
9.Heat sink of J19 on BC26HBBA board	27.8	27.7	48.0	47.8	130
10.FAN enclosure	28.0	27.9	48.2	48.0	Ref.
11.AC input connector of PSU	41.8	36.7	62.0	56.8	70
12.Core Transformer T1 of PSU	50.0	50.4	70.2	70.5	130
13.Winding Transformer T1 of PSU	62.0	62.4	82.2	82.5	130
14.Plastic handle of PAC1500S12-B1(>1s~ <10s)	32.3	32.1	52.5	52.2	Ref.
15.Metal enclosure of EUT near openings ventilation	29.5	29.5	49.7	49.6	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
14.Plastic handle of PAC1500S12-B1(>1s~ <10s)	32.5	32.2	-	-	77
15.Metal enclosure of EUT near openings ventilation	29.7	29.6	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

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Supplementary information:							
Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45°C.							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC900S12-B2	P

Supply voltage (V) ..... :	90 V a.c. /50 Hz	264 V a.c. /50 Hz	90 V a.c. /50 Hz	264 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.8	23.5	45.0	45.0	--
2.Battery surface on BC26MBTA board	31.0	32.0	53.2	53.5	100
3.Heat sink of CPU on BC26MBTA board	37.7	38.6	59.9	60.1	130
4.Heat sink of U53 on BF3 board	37.5	38.6	59.7	60.1	130
5.Heat sink of HS1 on XP212 board	43.3	44.1	65.5	65.6	130
6.Heat sink of U104 on BC26SMMA board	41.9	42.7	64.1	64.2	130
7.Heat sink of J501 on BC26IOTB board	40.0	40.9	62.2	62.4	130
8.Heat sink on GPU board	31.5	32.6	53.7	54.1	130
9.Heat sink of J19 on BC26HBBA board	25.7	26.7	47.9	48.2	130
10.FAN enclosure	25.8	26.8	48.0	48.3	Ref.
11.AC input connector of PSU	38.9	30.7	61.1	52.2	70
12.Core Transformer T4 of PSU	41.5	45.3	63.7	66.8	130
13.Winding Transformer T4 of PSU	49.8	51.0	72.0	72.5	130
14.Core Transformer T4001 of PSU	30.7	31.7	52.9	53.2	130
15.Winding Transformer T4001 of PSU	30.2	31.2	52.4	52.7	130
16.Plastic handle of PAC900S12-B2(>1s~ <10s)	26.9	27.4	49.1	48.9	Ref.
17.Metal enclosure of EUT near openings ventilation	27.4	28.5	49.6	50.0	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	--	--	-
16.Plastic handle of PAC900S12-B2(>1s~ <10s)	29.1	28.9	--	--	77
17.Metal enclosure of EUT near openings ventilation	29.6	30.0	--	--	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC900S12-B2	P

Supply voltage (V) ..... :	192 V d.c.	288 V d.c.	192 V d.c.	288 V d.c.	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.5	22.7	45.0	45.0	--
2.Battery surface on BC26MBTA board	30.8	30.6	53.3	52.9	100
3.Heat sink of CPU on BC26MBTA board	37.5	37.2	60.0	59.5	130
4.Heat sink of U53 on BF3 board	37.4	39.7	59.9	62.0	130
5.Heat sink of HS1 on XP212 board	43.0	42.7	65.5	65.0	130
6.Heat sink of U104 on BC26SMMA board	41.6	41.3	64.1	63.6	130
7.Heat sink of J501 on BC26IOTB board	39.7	39.4	62.2	61.7	130
8.Heat sink on GPU board	31.3	31.0	53.8	53.3	130
9.Heat sink of J19 on BC26HBBA board	25.3	25.4	47.8	47.7	130
10.FAN enclosure	25.6	25.3	48.1	47.6	Ref.
11.AC input connector of PSU	29.6	28.8	52.1	51.1	70
12.Core Transformer T4 of PSU	41.0	40.8	63.5	63.1	130
13.Winding Transformer T4 of PSU	49.3	49.0	71.8	71.3	130
14.Core Transformer T4001 of PSU	30.3	30.0	52.8	52.3	130
15.Winding Transformer T4001 of PSU	29.8	29.5	52.3	51.8	130
16.Plastic handle of PAC900S12-B2(>1s~ <10s)	26.0	25.9	48.5	48.2	Ref.
17.Metal enclosure of EUT near openings ventilation	27.1	26.9	49.6	49.2	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC900S12-B2(>1s~ <10s)	28.5	28.2	-	-	77
17.Metal enclosure of EUT near openings ventilation	29.6	29.2	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-T1.	P

Supply voltage (V)..... :	90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.6	22.9	45.0	45.0	--
2.Battery surface on BC26MBTA board	31.0	31.2	53.4	53.3	100
3.Heat sink of CPU on BC26MBTA board	37.7	37.6	60.1	59.7	130
4.Heat sink of U53 on BF3 board	37.6	37.8	60.0	59.9	130
5.Heat sink of HS1 on XP212 board	43.3	43.0	65.7	65.1	130
6.Heat sink of U104 on BC26SMMA board	41.9	41.9	64.3	64.0	130
7.Heat sink of J501 on BC26IOTB board	40.3	40.6	62.7	62.7	130
8.Heat sink on GPU board	31.6	31.8	54.0	53.9	130
9.Heat sink of J19 on BC26HBBA board	26.2	26.2	48.6	48.3	130
10.FAN enclosure	26.0	26.1	48.4	48.2	Ref.
11.AC input connector of PSU	33.5	32.3	55.9	54.4	70
12.T1.1Core Transformer EN31PWRFB of PSU	35.8	37.5	58.2	59.6	130
13.T1.1Winding Transformer EN31PWRFB of PSU	40.5	43.1	62.9	65.2	130
14.T1.2Core Transformer EN31PWRFB of PSU	39.1	41.4	61.5	63.5	130
15.T1.2Winding Transformer EN31PWRFB of PSU	40.2	42.5	62.6	64.6	130
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	34.3	34.1	56.7	56.2	Ref.
17.Metal enclosure of EUT near openings ventilation	27.9	28.0	50.3	50.1	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	36.7	36.2	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.3	30.1	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-T1.	P

Supply voltage (V)..... :	180 V a.c. /50 Hz	242 V a.c. /50 Hz	180 V a.c. /50 Hz	242 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	23.4	21.7	45.0	45.0	--
2.Battery surface on BC26MBTA board	32.6	30.2	54.2	53.5	100
3.Heat sink of CPU on BC26MBTA board	38.7	36.8	60.3	60.1	130
4.Heat sink of U53 on BF3 board	39.5	37.1	61.1	60.4	130
5.Heat sink of HS1 on XP212 board	44.3	42.1	65.9	65.4	130
6.Heat sink of U104 on BC26SMMA board	43.1	40.9	64.7	64.2	130
7.Heat sink of J501 on BC26IOTB board	41.8	39.6	63.4	62.9	130
8.Heat sink on GPU board	37.1	34.8	58.7	58.1	130
9.Heat sink of J19 on BC26HBBA board	27.3	25.1	48.9	48.4	130
10.FAN enclosure	27.0	25.1	48.6	48.4	Ref.
11.AC input connector of PSU	36.8	33.3	58.4	56.6	70
12.T1.1Core Transformer EN31PWRFB of PSU	41.4	40.5	63.0	63.8	130
13.T1.1Winding Transformer EN31PWRFB of PSU	54.0	52.1	75.6	75.4	130
14.T1.2Core Transformer EN31PWRFB of PSU	47.5	45.6	69.1	68.9	130
15.T1.2Winding Transformer EN31PWRFB of PSU	53.8	51.9	75.4	75.2	130
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	41.7	38.1	63.3	61.4	Ref.
17.Metal enclosure of EUT near openings ventilation	29.3	27.0	50.9	50.3	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	43.3	41.4	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.9	30.3	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-T1	P

Supply voltage (V) ..... :	198 V a.c. /50 Hz	253 V a.c. /50 Hz	198 V a.c. /50 Hz	253 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	21.5	21.7	45.0	45.0	--
2.Battery surface on BC26MBTA board	29.7	30.6	53.2	53.9	100
3.Heat sink of CPU on BC26MBTA board	36.3	36.7	59.8	60.0	130
4.Heat sink of U53 on BF3 board	36.6	37.6	60.1	60.9	130
5.Heat sink of HS1 on XP212 board	41.7	42.0	65.2	65.3	130
6.Heat sink of U104 on BC26SMMA board	40.5	40.8	64.0	64.1	130
7.Heat sink of J501 on BC26IOTB board	39.2	39.4	62.7	62.7	130
8.Heat sink on GPU board	34.3	35.2	57.8	58.5	130
9.Heat sink of J19 on BC26HBBA board	24.6	25.5	48.1	48.8	130
10.FAN enclosure	24.5	25.4	48.0	48.7	Ref.
11.AC input connector of PSU	33.5	33.5	57.0	56.8	70
12.T1.1Core Transformer EN31PWRFB of PSU	39.9	40.7	63.4	64.0	130
13.T1.1Winding Transformer EN31PWRFB of PSU	51.3	52.4	74.8	75.7	130
14.T1.2Core Transformer EN31PWRFB of PSU	44.9	45.8	68.4	69.1	130
15.T1.2Winding Transformer EN31PWRFB of PSU	51.1	52.2	74.6	75.5	130
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	38.1	38.4	61.6	61.7	Ref.
17.Metal enclosure of EUT near openings ventilation	26.5	27.5	50.0	50.8	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	41.6	41.7	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.0	30.8	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45^{o}C.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-T1	P

Supply voltage (V)..... :	207 V a.c. /50 Hz	264 V a.c. /50 Hz	207 V a.c. /50 Hz	264 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	21.8	22.0	45.0	45.0	--
2.Battery surface on BC26MBTA board	30.2	30.8	53.4	53.8	100
3.Heat sink of CPU on BC26MBTA board	36.8	36.6	60.0	59.6	130
4.Heat sink of U53 on BF3 board	37.1	37.5	60.3	60.5	130
5.Heat sink of HS1 on XP212 board	42.2	42.2	65.4	65.2	130
6.Heat sink of U104 on BC26SMMA board	41.0	41.0	64.2	64.0	130
7.Heat sink of J501 on BC26IOTB board	39.7	39.7	62.9	62.7	130
8.Heat sink on GPU board	34.9	35.0	58.1	58.0	130
9.Heat sink of J19 on BC26HBBA board	25.0	26.0	48.2	49.0	130
10.FAN enclosure	25.1	26.0	48.3	49.0	Ref.
11.AC input connector of PSU	33.8	33.3	57.0	56.3	70
12.T1.1Core Transformer EN31PWRFB of PSU	40.5	40.2	63.7	63.2	130
13.T1.1Winding Transformer EN31PWRFB of PSU	52.0	52.1	75.2	75.1	130
14.T1.2Core Transformer EN31PWRFB of PSU	45.5	45.4	68.7	68.4	130
15.T1.2Winding Transformer EN31PWRFB of PSU	51.9	51.7	75.1	74.7	130
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	38.5	38.0	61.7	61.0	Ref.
17.Metal enclosure of EUT near openings ventilation	27.1	27.8	50.3	50.8	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	41.7	41.0	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.3	30.8	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45ºC.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC2000S12-T1	P

Supply voltage (V)..... :	192 V d.c.	288 V d.c.	192 V d.c.	288 V d.c.	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	23.8	22.8	45.0	45.0	--
2.Battery surface on BC26MBTA board	31.6	30.9	52.8	53.1	100
3.Heat sink of CPU on BC26MBTA board	38.2	37.4	59.4	59.6	130
4.Heat sink of U53 on BF3 board	38.5	37.9	59.7	60.1	130
5.Heat sink of HS1 on XP212 board	43.7	43.0	64.9	65.2	130
6.Heat sink of U104 on BC26SMMA board	42.6	41.8	63.8	64.0	130
7.Heat sink of J501 on BC26IOTB board	41.2	40.5	62.4	62.7	130
8.Heat sink on GPU board	36.0	35.7	57.2	57.9	130
9.Heat sink of J19 on BC26HBBA board	26.1	26.2	47.3	48.4	130
10.FAN enclosure	26.3	26.0	47.5	48.2	Ref.
11.AC input connector of PSU	35.1	33.2	56.3	55.4	70
12.T1.1Core Transformer EN31PWRFB of PSU	39.8	39.2	61.0	61.4	130
13.T1.1Winding Transformer EN31PWRFB of PSU	53.0	52.4	74.2	74.6	130
14.T1.2Core Transformer EN31PWRFB of PSU	46.6	45.9	67.8	68.1	130
15.T1.2Winding Transformer EN31PWRFB of PSU	52.8	52.3	74.0	74.5	130
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	39.8	38.4	61.0	60.6	Ref.
17.Metal enclosure of EUT near openings ventilation	27.7	27.7	48.9	49.9	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC2000S12-T1(>1s~ <10s)	41.0	40.6	-	-	77
17.Metal enclosure of EUT near openings ventilation	28.9	29.9	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45ºC.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC3000S12-T1	P

Supply voltage (V)..... :	90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	90 V a.c. /50 Hz	139.7 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.6	22.4	45.0	45.0	--
2.Battery surface on BC26MBTA board	28.7	28.8	51.1	51.4	100
3.Heat sink of CPU on BC26MBTA board	30.1	30.6	52.5	53.2	130
4.Heat sink of U53 on BF3 board	35.5	35.6	57.9	58.2	130
5.Heat sink of HS1 on XP212 board	35.2	35.7	57.6	58.3	130
6.Heat sink of U104 on BC26SMMA board	33.3	33.9	55.7	56.5	130
7.Heat sink of J501 on BC26IOTB board	31.1	31.9	53.5	54.5	130
8.Heat sink on GPU board	32.5	32.8	54.9	55.4	130
9.Heat sink of J19 on BC26HBBA board	25.1	25.2	47.5	47.8	130
10.FAN enclosure	25.3	25.3	47.7	47.9	Ref.
11.AC input connector of PSU	32.5	32.3	54.9	54.9	70
12.T1.1Core Transformer EN31PWRFB of PSU	34.2	35.5	56.6	58.1	130
13.T1.1Winding Transformer EN31PWRFB of PSU	41.6	44.1	64.0	66.7	130
14.T1.2Core Transformer EN31PWRFB of PSU	37.1	39.3	59.5	61.9	130
15.T1.2Winding Transformer EN31PWRFB of PSU	39.6	42.1	62.0	64.7	130
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	39.5	39.1	61.9	61.7	Ref.
17.Metal enclosure of EUT near openings ventilation	26.1	26.2	48.5	48.8	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	41.9	41.7	-	-	77
17.Metal enclosure of EUT near openings ventilation	28.5	28.8	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45ºC.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC3000S12-T1	P

Supply voltage (V)..... :	180 V a.c. /50 Hz	242 V a.c. /50 Hz	180 V a.c. /50 Hz	242 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.1	23.4	45.0	45.0	--
2.Battery surface on BC26MBTA board	30.8	32.6	53.7	54.2	100
3.Heat sink of CPU on BC26MBTA board	37.3	39.4	60.2	61.0	130
4.Heat sink of U53 on BF3 board	37.5	39.5	60.4	61.1	130
5.Heat sink of HS1 on XP212 board	42.2	44.5	65.1	66.1	130
6.Heat sink of U104 on BC26SMMA board	41.3	43.3	64.2	64.9	130
7.Heat sink of J501 on BC26IOTB board	39.8	41.9	62.7	63.5	130
8.Heat sink on GPU board	35.1	37.2	58.0	58.8	130
9.Heat sink of J19 on BC26HBBA board	25.3	27.0	48.2	48.6	130
10.FAN enclosure	25.2	27.7	48.1	49.3	Ref.
11.AC input connector of PSU	32.8	35.9	55.7	57.5	70
12.T1.1Core Transformer EN31PWRFB of PSU	37.7	45.6	60.6	67.2	130
13.T1.1Winding Transformer EN31PWRFB of PSU	49.2	74.7	72.1	96.3	130
14.T1.2Core Transformer EN31PWRFB of PSU	43.6	57.3	66.5	78.9	130
15.T1.2Winding Transformer EN31PWRFB of PSU	47.3	71.1	70.2	92.7	130
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	41.1	51.5	64.0	73.1	Ref.
17.Metal enclosure of EUT near openings ventilation	27.2	29.1	50.1	50.7	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	44.0	53.1	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.1	30.7	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45ºC.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC3000S12-T1	P

Supply voltage (V)..... :	198 V a.c. /50 Hz	264 V a.c. /50 Hz	198 V a.c. /50 Hz	264 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.4	21.3	45.0	45.0	--
2.Battery surface on BC26MBTA board	30.9	29.3	53.5	53.0	100
3.Heat sink of CPU on BC26MBTA board	37.7	36.7	60.3	60.4	130
4.Heat sink of U53 on BF3 board	37.7	36.2	60.3	59.9	130
5.Heat sink of HS1 on XP212 board	42.8	41.8	65.4	65.5	130
6.Heat sink of U104 on BC26SMMA board	41.7	40.7	64.3	64.4	130
7.Heat sink of J501 on BC26IOTB board	40.2	39.3	62.8	63.0	130
8.Heat sink on GPU board	35.5	34.1	58.1	57.8	130
9.Heat sink of J19 on BC26HBBA board	25.5	24.2	48.1	47.9	130
10.FAN enclosure	25.6	24.2	48.2	47.9	Ref.
11.AC input connector of PSU	34.8	32.8	57.4	56.5	70
12.T1.1Core Transformer EN31PWRFB of PSU	43.5	43.2	66.1	66.9	130
13.T1.1Winding Transformer EN31PWRFB of PSU	71.5	71.5	94.1	95.2	130
14.T1.2Core Transformer EN31PWRFB of PSU	54.5	55.0	77.1	78.7	130
15.T1.2Winding Transformer EN31PWRFB of PSU	65.8	72.2	88.4	95.9	130
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	50.8	48.0	73.4	71.7	Ref.
17.Metal enclosure of EUT near openings ventilation	27.6	26.1	50.2	49.8	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	53.4	51.7	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.2	29.8	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45ºC.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PAC3000S12-T1	P

Supply voltage (V)..... :	192 V d.c.	288 V d.c.	192 V d.c.	288 V d.c.	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	22.4	22.0	45.0	45.0	--
2.Battery surface on BC26MBTA board	31.4	30.2	54.0	53.2	100
3.Heat sink of CPU on BC26MBTA board	38.0	37.2	60.6	60.2	130
4.Heat sink of U53 on BF3 board	38.3	37.0	60.9	60.0	130
5.Heat sink of HS1 on XP212 board	43.0	42.2	65.6	65.2	130
6.Heat sink of U104 on BC26SMMA board	42.1	41.2	64.7	64.2	130
7.Heat sink of J501 on BC26IOTB board	40.8	39.7	63.4	62.7	130
8.Heat sink on GPU board	35.9	34.7	58.5	57.7	130
9.Heat sink of J19 on BC26HBBA board	26.2	24.8	48.8	47.8	130
10.FAN enclosure	26.2	25.0	48.8	48.0	Ref.
11.AC input connector of PSU	33.3	33.0	55.9	56.0	70
12.T1.1Core Transformer EN31PWRFB of PSU	37.5	43.1	60.1	66.1	130
13.T1.1Winding Transformer EN31PWRFB of PSU	49.4	71.6	72.0	94.6	130
14.T1.2Core Transformer EN31PWRFB of PSU	43.6	54.3	66.2	77.3	130
15.T1.2Winding Transformer EN31PWRFB of PSU	47.5	65.8	70.1	88.8	130
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	42.0	48.9	64.6	71.9	Ref.
17.Metal enclosure of EUT near openings ventilation	28.3	26.8	50.9	49.8	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PAC3000S12-T1(>1s~ <10s)	44.6	51.9	-	-	77
17.Metal enclosure of EUT near openings ventilation	30.9	29.8	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45ºC.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PHD1500S12-B2	P

Supply voltage (V)..... :	180 V a.c. /50 Hz	264 V a.c. /50 Hz	180 V a.c. /50 Hz	264 V a.c. /50 Hz	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	23.1	22.8	45.0	45.0	--
2.Battery surface on BC26MBTA board	30.6	30.0	52.5	52.2	100
3.Heat sink of CPU on BC26MBTA board	36.8	36.2	58.7	58.4	130
4.Heat sink of U53 on BF3 board	37.4	36.7	59.3	58.9	130
5.Heat sink of HS1 on XP212 board	43.0	42.3	64.9	64.5	130
6.Heat sink of U104 on BC26SMMA board	40.6	39.8	62.5	62.0	130
7.Heat sink of J501 on BC26IOTB board	39.8	39.0	61.7	61.2	130
8.Heat sink on GPU board	36.2	35.5	58.1	57.7	130
9.Heat sink of J19 on BC26HBBA board	25.3	24.7	47.2	46.9	130
10.FAN enclosure	25.9	25.2	47.8	47.4	Ref.
11.AC input connector of PSU	32.8	31.0	54.7	53.2	70
12.Core Transformer T700 of PSU	58.1	57.3	80.0	79.5	130
13.Winding Transformer T700 of PSU	46.7	46.0	68.6	68.2	130
14.Core Transformer T800 of PSU	62.6	61.7	84.5	83.9	130
15.Winding Transformer T800 of PSU	49.0	48.1	70.9	70.3	130
16.Plastic handle of PHD1500S12-B2(>1s~ <10s)	31.2	30.5	53.1	52.7	Ref.
17.Metal enclosure of EUT near openings ventilation	27.4	27.0	49.3	49.2	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PHD1500S12-B2(>1s~ <10s)	33.1	32.7	-	-	77
17.Metal enclosure of EUT near openings ventilation	29.3	29.2	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
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Supplementary information:							

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9) The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45ºC.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements** Test with PHD1500S12-B2	P

Supply voltage (V)..... :	260 V d.c.	400 V d.c.	260 V d.c.	400 V d.c.	—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
1.Ambient	23.2	22.8	45.0	45.0	--
2.Battery surface on BC26MBTA board	30.8	30.0	52.6	52.2	100
3.Heat sink of CPU on BC26MBTA board	38.2	39.7	60.0	61.9	130
4.Heat sink of U53 on BF3 board	37.6	37.4	59.4	59.6	130
5.Heat sink of HS1 on XP212 board	44.2	43.4	66.0	65.6	130
6.Heat sink of U104 on BC26SMMA board	41.8	40.9	63.6	63.1	130
7.Heat sink of J501 on BC26IOTB board	41.2	39.3	63.0	61.5	130
8.Heat sink on GPU board	36.4	40.1	58.2	62.3	130
9.Heat sink of J19 on BC26HBBA board	25.2	31.8	47.0	54.0	130
10.FAN enclosure	25.9	25.3	47.7	47.5	Ref.
11.AC input connector of PSU	31.6	40.8	53.4	63.0	70
12.Core Transformer T700 of PSU	58.1	71.6	79.9	93.8	130
13.Winding Transformer T700 of PSU	46.6	59.7	68.4	81.9	130
14.Core Transformer T800 of PSU	62.6	72.8	84.4	95.0	130
15.Winding Transformer T800 of PSU	48.8	58.9	70.6	81.1	130
16.Plastic handle of PHD1500S12-B2(>1s~ <10s)	30.8	39.1	52.6	61.3	Ref.
17.Metal enclosure of EUT near openings ventilation	27.7	28.5	49.5	50.7	Ref.
Accessible part temperature:					
1.Ambient	25.0	25.0	-	-	-
16.Plastic handle of PHD1500S12-B2(>1s~ <10s)	32.6	41.3	-	-	77
17.Metal enclosure of EUT near openings ventilation	29.5	30.7	-	-	60

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information:							

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Clause	Requirement + Test	Result - Remark	Verdict

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 45°C.

B.2.5	**TABLE: Input test** Test with PAC2000S12-B1.							P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90 V a.c	50	9.79	-	879	--	--	--	Max. normal load with input 1
90 V a.c	50	10.10	-	905	--	--	--	Max. normal load with input 2
100 V a.c.	50	8.63	Per input: 10	864	--	--	--	Max. normal load with input 1
100 V a.c.	50	8.91	Per input: 10	892	--	--	--	Max. normal load with input 2
127 V a.c.	50	6.63	Per input: 10	839	--	--	--	Max. normal load with input 1
127 V a.c.	50	6.89	Per input: 10	870	--	--	--	Max. normal load with input 2
139.7 V a.c.	50	6.01	-	835	--	--	--	Max. normal load with input 1
139.7 V a.c.	50	6.19	-	864	--	--	--	Max. normal load with input 2
180 V a.c.	50	8.73	-	1559	--	--	--	Max. normal load with input 1
180 V a.c.	50	8.75	-	1571				Max. normal load with input 2
198 V a.c.	50	7.82	-	1550	--	--	--	Max. normal load with input 1
198 V a.c.	50	7.85	-	1559				Max. normal load with input 2
200 V a.c.	50	7.81	Per input: 10	1546	--	--	--	Max. normal load with input 1
200 V a.c.	50	7.83	Per input: 10	1554				Max. normal load with input 2
220 V a.c.	50	7.04	Per input: 10	1542	--	--	--	Max. normal load with input 1
220 V a.c.	50	7.09	Per input: 10	1545				Max. normal load with input 2

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Clause	Requirement + Test	Result - Remark	Verdict

240 V a.c.	50	6.39	Per input: 10	1534	--	--	--	Max. normal load with input 1
240 V a.c.	50	6.41	Per input: 10	1544				Max. normal load with input 2
242 V a.c.	50	6.35	-	1538	--	--	--	Max. normal load with input 1
242 V a.c.	50	6.39	-	1549				Max. normal load with input 2
264 V a.c.	50	5.82	-	1524	--	--	--	Max. normal load with input 1
264 V a.c.	50	5.83	-	1530				Max. normal load with input 2
90 V a.c	60	9.79	-	869	--	--	--	Max. normal load with input 1
90 V a.c	60	10.10	-	900	--	--	--	Max. normal load with input 2
100 V a.c.	60	8.63	Per input: 10	854	--	--	--	Max. normal load with input 1
100 V a.c.	60	8.91	Per input: 10	882	--	--	--	Max. normal load with input 2
127 V a.c.	60	6.63	Per input: 10	829	--	--	--	Max. normal load with input 1
127 V a.c.	60	6.89	Per input: 10	860	--	--	--	Max. normal load with input 2
139.7 V a.c.	60	6.01	-	825	--	--	--	Max. normal load with input 1
139.7 V a.c.	60	6.19	-	854	--	--	--	Max. normal load with input 2
180 V a.c.	60	8.73	-	1549	--	--	--	Max. normal load with input 1
180 V a.c.	60	8.75	-	1561	--	--	--	Max. normal load with input 2
198 V a.c.	60	7.82	-	1540	--	--	--	Max. normal load with input 1
198 V a.c.	60	7.85	-	1549	--	--	--	Max. normal load with input 2
200 V a.c.	60	7.81	Per input: 10	1536	--	--	--	Max. normal load with input 1
200 V a.c.	60	7.83	Per input: 10	1544	--	--	--	Max. normal load with input 2
220 V a.c.	60	7.04	Per input: 10	1532	--	--	--	Max. normal load with input 1

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Clause	Requirement + Test	Result - Remark	Verdict

220 V a.c.	60	7.09	Per input: 10	1535	--	--	--	Max. normal load with input 2
240 V a.c.	60	6.39	Per input: 10	1524	--	--	--	Max. normal load with input 1
240 V a.c.	60	6.41	Per input: 10	1534	--	--	--	Max. normal load with input 2
242 V a.c.	60	6.35	-	1528	--	--	--	Max. normal load with input 1
242 V a.c.	60	6.39	-	1539	--	--	--	Max. normal load with input 2
264 V a.c.	60	5.82	-	1514	--	--	--	Max. normal load with input 1
264 V a.c.	60	5.83	-	1520	--	--	--	Max. normal load with input 2
192V d.c.	DC	8.18	-	1569	--	--	--	Max. normal load with input 1
192V d.c.	DC	8.11	-	1554	--	--	--	Max. normal load with input 2
240V d.c.	DC	6.45	Per input: 10	1542	--	--	--	Max. normal load with input 1
240V d.c.	DC	6.41	Per input: 10	1537	--	--	--	Max. normal load with input 2
288V d.c.	DC	5.33	-	1535	--	--	--	Max. normal load with input 1
288V d.c.	DC	5.30	-	1517	--	--	--	Max. normal load with input 2
Supplementary information:								
Equipment may be have rated current or rated power or both. Both should be measured								

B.2.5	**TABLE: Input test** Test with PAC1500S12-B1							P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90 V a.c	50	10.21	-	919	--	--	--	Max. normal load with input 1
90 V a.c	50	9.93	-	894	--	--	--	Max. normal load with input 2
100 V a.c.	50	8.89	Per input: 10	891	--	--	--	Max. normal load with input 1
100 V a.c.	50	8.67	Per input: 10	853	--	--	--	Max. normal load with input 2

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Clause	Requirement + Test	Result - Remark	Verdict

127 V a.c.	50	6.84	Per input: 10	868	--	--	--	Max. normal load with input 1
127 V a.c.	50	6.68	Per input: 10	845	--	--	--	Max. normal load with input 2
139.7 V a.c.	50	6.19	-	861	--	--	--	Max. normal load with input 1
139.7 V a.c.	50	6.07	-	842	--	--	--	Max. normal load with input 2
180 V a.c.	50	8.67	-	1559	--	--	--	Max. normal load with input 1
180 V a.c.	50	8.89	-	1601				Max. normal load with input 2
200 V a.c.	50	7.86	Per input: 10	1562	--	--	--	Max. normal load with input 1
200 V a.c.	50	8.01	Per input: 10	1596				Max. normal load with input 2
240 V a.c.	50	6.48	Per input: 10	1542	--	--	--	Max. normal load with input 1
240 V a.c.	50	6.57	Per input: 10	1564				Max. normal load with input 2
264 V a.c.	50	5.86	-	1537	--	--	--	Max. normal load with input 1
264 V a.c.	50	5.96	-	1563				Max. normal load with input 2
90 V a.c	60	10.21	-	909	--	--	--	Max. normal load with input 1
90 V a.c	60	9.93	-	884	--	--	--	Max. normal load with input 2
100 V a.c.	60	8.89	Per input: 10	881	--	--	--	Max. normal load with input 1
100 V a.c.	60	8.67	Per input: 10	843	--	--	--	Max. normal load with input 2
127 V a.c.	60	6.84	Per input: 10	858	--	--	--	Max. normal load with input 1
127 V a.c.	60	6.68	Per input: 10	835	--	--	--	Max. normal load with input 2
139.7 V a.c.	60	6.19	-	851	--	--	--	Max. normal load with input 1
139.7 V a.c.	60	6.07	-	832	--	--	--	Max. normal load with input 2
180 V a.c.	60	8.67	-	1549	--	--	--	Max. normal load with input 1

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Clause	Requirement + Test	Result - Remark	Verdict

180 V a.c.	60	8.89	-	1596	--	--	--	Max. normal load with input 2
200 V a.c.	60	7.86	Per input: 10	1552	--	--	--	Max. normal load with input 1
200 V a.c.	60	8.01	Per input: 10	1586	--	--	--	Max. normal load with input 2
240 V a.c.	60	6.48	Per input: 10	1532	--	--	--	Max. normal load with input 1
240 V a.c.	60	6.57	Per input: 10	1554	--	--	--	Max. normal load with input 2
264 V a.c.	60	5.86	-	1527	--	--	--	Max. normal load with input 1
264 V a.c.	60	5.96	-	1553	--	--	--	Max. normal load with input 2
192V d.c.	DC	8.25	-	1561	--	--	--	Max. normal load with input 1
192V d.c.	DC	8.24	-	1579	--	--	--	Max. normal load with input 2
240V d.c.	DC	6.53	Per input: 8	1541	--	--	--	Max. normal load with input 1
240V d.c.	DC	6.55	Per input: 8	1553	--	--	--	Max. normal load with input 2
288V d.c.	DC	5.33	-	1536	--	--	--	Max. normal load with input 1
288V d.c.	DC	5.35	-	1542	--	--	--	Max. normal load with input 2
Supplementary information:								
Equipment may be have rated current or rated power or both. Both should be measured								

B.2.5	**TABLE: Input test** Test with PAC900S12-B2.						P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90 V a.c	50	9.74	-	882	--	--	--	Max. normal load with input 1
90 V a.c	50	9.87	-	894	--	--	--	Max. normal load with input 2
100 V a.c.	50	8.66	Per input: 10	866	--	--	--	Max. normal load with input 1
100 V a.c.	50	8.86	Per input: 10	879	--	--	--	Max. normal load with input 2

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Clause	Requirement + Test	Result - Remark	Verdict

240 V a.c.	50	3.43	Per input: 10	821	--	--	--	Max. normal load with input 1
240 V a.c.	50	3.49	Per input: 10	834				Max. normal load with input 2
264 V a.c.	50	3.12	-	815	--	--	--	Max. normal load with input 1
264 V a.c.	50	3.15	-	832				Max. normal load with input 2
90 V a.c	60	9.74	-	872	--	--	--	Max. normal load with input 1
90 V a.c	60	9.87	-	884	--	--	--	Max. normal load with input 2
100 V a.c.	60	8.66	Per input: 10	856	--	--	--	Max. normal load with input 1
100 V a.c.	60	8.86	Per input: 10	869	--	--	--	Max. normal load with input 2
240 V a.c.	60	3.43	Per input: 10	811	--	--	--	Max. normal load with input 1
240 V a.c.	60	3.49	Per input: 10	824	--	--	--	Max. normal load with input 2
264 V a.c.	60	3.12	-	805	--	--	--	Max. normal load with input 1
264 V a.c.	60	3.15	-	822	--	--	--	Max. normal load with input 2
192V d.c.	DC	4.37	-	833	--	--	--	Max. normal load with input 1
192V d.c.	DC	4.38	-	841	--	--	--	Max. normal load with input 2
240V d.c.	DC	3.54	Per input: 5	837	--	--	--	Max. normal load with input 1
240V d.c.	DC	3.54	Per input: 5	842	--	--	--	Max. normal load with input 2
288V d.c.	DC	2.99	-	836	--	--	--	Max. normal load with input 1
288V d.c.	DC	2.93	-	841	--	--	--	Max. normal load with input 2
Supplementary information:								
Equipment may be have rated current or rated power or both. Both should be measured								

B.2.5	**TABLE: Input test** Test with PAC2000S12-B1.	P

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Clause	Requirement + Test	Result - Remark	Verdict

U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90 V a.c	50	9.48	-	844	--	--	--	Max. normal load with input 1
90 V a.c	50	9.82	-	881	--	--	--	Max. normal load with input 2
100 V a.c.	50	8.39	Per input: 10	834	--	--	--	Max. normal load with input 1
100 V a.c.	50	8.66	Per input: 10	868	--	--	--	Max. normal load with input 2
127 V a.c.	50	6.51	Per input: 10	823	--	--	--	Max. normal load with input 1
127 V a.c.	50	6.73	Per input: 10	851	--	--	--	Max. normal load with input 2
139.7 V a.c.	50	5.89	-	817	--	--	--	Max. normal load with input 1
139.7 V a.c.	50	6.07	-	846	--	--	--	Max. normal load with input 2
180 V a.c.	50	8.91	-	1513	--	--	--	Max. normal load with input 1
180 V a.c.	50	8.54	-	1558	--	--	--	Max. normal load with input 2
198 V a.c.	50	7.49	-	1485	--	--	--	Max. normal load with input 1
198 V a.c.	50	7.8	-	1547	--	--	--	Max. normal load with input 2
200 V a.c.	50	7.44	Per input: 10	1477	--	--	--	Max. normal load with input 1
200 V a.c.	50	7.75	Per input: 10	1544	--	--	--	Max. normal load with input 2
207 V a.c.	50	7.24	-	1496	--	--	--	Max. normal load with input 1
207 V a.c.	50	7.45	-	1558	--	--	--	Max. normal load with input 2
220 V a.c.	50	6.81	Per input: 10	1473	--	--	--	Max. normal load with input 1
220 V a.c.	50	7.03	Per input: 10	1545	--	--	--	Max. normal load with input 2
230 V a.c.	50	6.47	Per input: 10	1491	--	--	--	Max. normal load with input 1
230 V a.c.	50	6.68	Per input: 10	1547	--	--	--	Max. normal load with input 2

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Clause	Requirement + Test	Result - Remark	Verdict

240 V a.c.	50	6.23	Per input: 10	1484	--	--	--	Max. normal load with input 1
240 V a.c.	50	6.43	Per input: 10	1538	--	--	--	Max. normal load with input 2
242 V a.c.	50	6.11	-	1469	--	--	--	Max. normal load with input 1
242 V a.c.	50	6.39	-	1532	--	--	--	Max. normal load with input 2
253 V a.c.	50	5.86	-	1478	--	--	--	Max. normal load with input 1
253 V a.c.	50	6.12	-	1534	--	--	--	Max. normal load with input 2
264 V a.c.	50	5.82	-	1473	--	--	--	Max. normal load with input 1
264 V a.c.	50	6.06	-	1533	--	--	--	Max. normal load with input 2
90 V a.c	60	9.48	-	834	--	--	--	Max. normal load with input 1
90 V a.c	60	9.82	-	871	--	--	--	Max. normal load with input 2
100 V a.c.	60	8.39	Per input: 10	824	--	--	--	Max. normal load with input 1
100 V a.c.	60	8.66	Per input: 10	858	--	--	--	Max. normal load with input 2
127 V a.c.	60	6.51	Per input: 10	813	--	--	--	Max. normal load with input 1
127 V a.c.	60	6.73	Per input: 10	841	--	--	--	Max. normal load with input 2
139.7 V a.c.	60	5.89	-	807	--	--	--	Max. normal load with input 1
139.7 V a.c.	60	6.07	-	836	--	--	--	Max. normal load with input 2
180 V a.c.	60	8.91	-	1503	--	--	--	Max. normal load with input 1
180 V a.c.	60	8.54	-	1548	--	--	--	Max. normal load with input 2
198 V a.c.	60	7.49	-	1475	--	--	--	Max. normal load with input 1
198 V a.c.	60	7.8	-	1537	--	--	--	Max. normal load with input 2
200 V a.c.	60	7.44	Per input: 10	1467	--	--	--	Max. normal load with input 1

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Clause	Requirement + Test	Result - Remark	Verdict

200 V a.c.	60	7.75	Per input: 10	1534	--	--	--	Max. normal load with input 2
207 V a.c.	60	7.24	-	1486	--	--	--	Max. normal load with input 1
207 V a.c.	60	7.45	-	1548	--	--	--	Max. normal load with input 2
220 V a.c.	60	6.81	Per input: 10	1463	--	--	--	Max. normal load with input 1
220 V a.c.	60	7.03	Per input: 10	1535	--	--	--	Max. normal load with input 2
230 V a.c.	60	6.47	Per input: 10	1481	--	--	--	Max. normal load with input 1
230 V a.c.	60	6.68	Per input: 10	1537	--	--	--	Max. normal load with input 2
240 V a.c.	60	6.23	Per input: 10	1474	--	--	--	Max. normal load with input 1
240 V a.c.	60	6.43	Per input: 10	1528	--	--	--	Max. normal load with input 2
242 V a.c.	60	6.11	-	1459	--	--	--	Max. normal load with input 1
242 V a.c.	60	6.39	-	1522	--	--	--	Max. normal load with input 2
253 V a.c.	60	5.86	-	1468	--	--	--	Max. normal load with input 1
253 V a.c.	60	6.12	-	1524	--	--	--	Max. normal load with input 2
264 V a.c.	60	5.82	-	1463	--	--	--	Max. normal load with input 1
264 V a.c.	60	6.06	-	1523	--	--	--	Max. normal load with input 2
192 V d.c.	60	7.7	-	1510	--	--	--	Max. normal load with input 1
192 V d.c.	60	8.28	-	1541	--	--	--	Max. normal load with input 2
240 V d.c.	60	6.26	Per input: 10	1491	--	--	--	Max. normal load with input 1
240 V d.c.	60	6.44	Per input: 10	1532	--	--	--	Max. normal load with input 2
288 V d.c.	60	5.2	-	1496	--	--	--	Max. normal load with input 1
288 V d.c.	60	5.34	-	1529	--	--	--	Max. normal load with input 2

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:
Equipment may be have rated current or rated power or both. Both should be measured

B.2.5	**TABLE: Input test** Test with PAC3000S12-T1.							P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90 V a.c	50	15.59	-	1396	--	--	--	Max. normal load with input 1
90 V a.c	50	13.57	-	1220	--	--	--	Max. normal load with input 2
100 V a.c.	50	13.23	Per input: 16	1371	--	--	--	Max. normal load with input 1
100 V a.c.	50	12.06	Per input: 16	1197	--	--	--	Max. normal load with input 2
127 V a.c.	50	10.86	Per input: 16	1359	--	--	--	Max. normal load with input 1
127 V a.c.	50	9.55	Per input: 16	1208	--	--	--	Max. normal load with input 2
139.7 V a.c.	50	9.67	-	1341	--	--	--	Max. normal load with input 1
139.7 V a.c.	50	8.87	-	1237	--	--	--	Max. normal load with input 2
180 V a.c.	50	8.71	-	1573	--	--	--	Max. normal load with input 1
180 V a.c.	50	7.98	-	1432	--	--	--	Max. normal load with input 2
198 V a.c.	50	15.68	-	3098	--	--	--	Max. normal load
200 V a.c.	50	15.56	Per input: 16	3087	--	--	--	Max. normal load
207 V a.c.	50	14.85	-	3070	--	--	--	Max. normal load
220 V a.c.	50	14.06	Per input: 16	3068	--	--	--	Max. normal load
230 V a.c.	50	13.35	Per input: 16	3060	--	--	--	Max. normal load
240 V a.c.	50	12.75	Per input: 16	3040	--	--	--	Max. normal load
242 V a.c.	50	12.63	-	3045	--	--	--	Max. normal load
253 V a.c.	50	12.71	-	3043	--	--	--	Max. normal load
264 V a.c.	50	12.07	-	3030	--	--	--	Max. normal load
90 V a.c	60	15.59	-	1386	--	--	--	Max. normal load with input 1

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Clause	Requirement + Test	Result - Remark	Verdict

90 V a.c	60	13.57	-	1210	--	--	--	Max. normal load with input 2
100 V a.c.	60	13.23	Per input: 16	1361	--	--	--	Max. normal load with input 1
100 V a.c.	60	12.06	Per input: 16	1187	--	--	--	Max. normal load with input 2
127 V a.c.	60	10.86	Per input: 16	1349	--	--	--	Max. normal load with input 1
127 V a.c.	60	9.55	Per input: 16	1200	--	--	--	Max. normal load with input 2
139.7 V a.c.	60	9.67	-	1331	--	--	--	Max. normal load with input 1
139.7 V a.c.	60	8.87	-	1227	--	--	--	Max. normal load with input 2
180 V a.c.	60	8.71	-	1563	--	--	--	Max. normal load with input 1
180 V a.c.	60	7.98	-	1422	--	--	--	Max. normal load with input 2
198 V a.c.	60	15.68	-	3088	--	--	--	Max. normal load
200 V a.c.	60	15.56	Per input: 16	3077	--	--	--	Max. normal load
207 V a.c.	60	14.85	-	3060	--	--	--	Max. normal load
220 V a.c.	60	14.06	Per input: 16	3058	--	--	--	Max. normal load
230 V a.c.	60	13.35	Per input: 16	3050	--	--	--	Max. normal load
240 V a.c.	60	12.75	Per input: 16	3030	--	--	--	Max. normal load
242 V a.c.	60	12.63	-	3035	--	--	--	Max. normal load
253 V a.c.	60	12.71	-	3033	--	--	--	Max. normal load
264 V a.c.	60	12.07	-	3020	--	--	--	Max. normal load
192 V d.c.	60	8.05	-	1537	--	--	--	Max. normal load with input 1
192 V d.c.	60	7.63	-	1461	--	--	--	Max. normal load with input 2
240 V d.c.	60	12.72	Per input: 16	3024	--	--	--	Max. normal load
288 V d.c.	60	10.58	-	3050	--	--	--	Max. normal
Supplementary information:								
Equipment may be have rated current or rated power or both. Both should be measured								

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Clause	Requirement + Test	Result - Remark	Verdict

B.2.5	**TABLE: Input test** Test with PHD1500S12-B2							P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
180 V a.c.	50	8.55	-	1543	--	--	--	Max. normal load with input 1
180 V a.c.	50	8.61	-	1557				Max. normal load with input 2
200 V a.c.	50	7.73	Per input: 10	1532	--	--	--	Max. normal load with input 1
200 V a.c.	50	7.77	Per input: 10	1542				Max. normal load with input 2
240 V a.c.	50	6.41	Per input: 10	1521	--	--	--	Max. normal load with input 1
240 V a.c.	50	6.43	Per input: 10	1527				Max. normal load with input 2
264 V a.c.	50	5.81	-	1515	--	--	--	Max. normal load with input 1
264 V a.c.	50	5.83	-	1520				Max. normal load with input 2
180 V a.c.	60	8.55	-	1533	--	--	--	Max. normal load with input 1
180 V a.c.	60	8.61	-	1547	--	--	--	Max. normal load with input 2
200 V a.c.	60	7.73	Per input: 10	1522	--	--	--	Max. normal load with input 1
200 V a.c.	60	7.77	Per input: 10	1532	--	--	--	Max. normal load with input 2
240 V a.c.	60	6.41	Per input: 10	1511	--	--	--	Max. normal load with input 1
240 V a.c.	60	6.43	Per input: 10	1517	--	--	--	Max. normal load with input 2
264 V a.c.	60	5.81	-	1505	--	--	--	Max. normal load with input 1
264 V a.c.	60	5.83	-	1510	--	--	--	Max. normal load with input 2
260V d.c.	DC	5.96	Per input: 8	1539	--	--	--	Max. normal load with input 1
260V d.c.	DC	5.99	Per input: 8	1537	--	--	--	Max. normal load with input 2

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Clause	Requirement + Test	Result - Remark	Verdict

400V d.c.	DC	3.79	Per input: 8	1516	--	--	--	Max. normal load with input 1
400V d.c.	DC	3.81	Per input: 8	1518	--	--	--	Max. normal load with input 2
Supplementary information:								
Equipment may be have rated current or rated power or both. Both should be measured								

B.3, B.4	**TABLE: Abnormal operating and fault condition tests**					**P**
Ambient temperature T_{amb} (°C)..... :					25	—
Power source for EUT: Manufacturer, model/type, outputrating .. :					--	—
Component No.	Condition	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	Observation
The tested with PAC2000S12-B1						
All openings	Blocked	264V a.c/50Hz	122mins	--	--	When monitoring temperature of EUT reached highest, EUT was protected. The temperature reduce until thermal equilibrium. No hazards. NC,NB, NT Core Transformer T7000 of PSU of PSU: 98.3°C Winding Transformer T7000 of PSU: 101.3°C Core Transformer T8000 of PSU of PSU: 103.6°C Winding Transformer T8000 of PSU: 103.9°C Plastic handle: 75.0°C Metal enclosure of EUT near openings ventilation: 52.7°C Ambient: 25.0°C
All openings	Blocked	288Vd.c	118mins	--	--	When monitoring temperature of EUT reached highest, EUT was protected. The temperature reduce until thermal equilibrium. No hazards. NC,NB, NT Core Transformer T7000 of PSU of PSU: 98.9°C Winding Transformer T7000 of PSU: 102.0°C

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Clause	Requirement + Test	Result - Remark	Verdict

						Core Transformer T8000 of PSU of PSU: 105.0°C Winding Transformer T8000 of PSU: 104.5°C Plastic handle: 78.1°C Metal enclosure of EUT near openings ventilation: 53.3°C Ambient: 25.0°C
Fans	Disconnected	264V a.c/50Hz	105mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T7000 of PSU of PSU: 73.1°C Winding Transformer T7000 of PSU: 77.4°C Core Transformer T8000 of PSU of PSU: 76.1°C Winding Transformer T8000 of PSU: 75.8°C Plastic handle: 36.5°C Metal enclosure of EUT near openings ventilation: 30.7°C Ambient: 25.0°C
Fans	Disconnected	288Vd.c	65mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T7000 of PSU of PSU: 72.6°C Winding Transformer T7000 of PSU: 77.0°C Core Transformer T8000 of PSU of PSU: 75.4°C Winding Transformer T8000 of PSU: 75.1°C Plastic handle: 36.5°C Metal enclosure of EUT near openings ventilation: 30.3°C Ambient: 25.0°C
The tested with PAC1500S12-B1						
All openings	Blocked	264V	131min	--	--	The temperature was stable,No

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Clause	Requirement + Test	Result - Remark	Verdict

		a.c/50Hz	s			hazards,NC,NT,NB Core Transformer T1 of PSU of PSU: 94.1°C Winding Transformer T1 of PSU: 102.1°C Plastic handle: 77.0°C Metal enclosure of EUT near openings ventilation: 47.7°C Ambient: 25.0°C
All openings	Blocked	288Vd.c	135min s	--	--	When monitoring temperature of EUT reached highest, EUT was protected. The temperature reduce until thermal equilibrium. No hazards. NC,NB, NT Core Transformer T1 of PSU of PSU: 89.5°C Winding Transformer T1 of PSU: 100.0°C Plastic handle: 75.1°C Metal enclosure of EUT near openings ventilation: 47.4°C Ambient: 25.0°C
Fans	Disconnected	264V a.c/50Hz	63mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T1 of PSU of PSU: 64.7°C Winding Transformer T1 of PSU: 68.9°C Plastic handle: 33.0°C Metal enclosure of EUT near openings ventilation: 30.3°C Ambient: 25.0°C
Fans	Disconnected	288Vd.c	73mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T1 of PSU of PSU: 66.1°C Winding Transformer T1 of PSU: 70.0°C Plastic handle: 34.1°C Metal enclosure of EUT near openings ventilation: 31.9°C Ambient: 25.0°C
The tested with PAC900S12-B2.						

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Clause	Requirement + Test	Result - Remark	Verdict

All openings	Blocked	264V a.c/50Hz	122mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T4 of PSU of PSU: 98.4°C Winding Transformer T4 of PSU: 110.6°C Core Transformer T4001 of PSU of PSU: 79.2°C Winding Transformer T4001 of PSU: 78.8°C Plastic handle: 62.2°C Metal enclosure of EUT near openings ventilation: 48.4°C Ambient: 25.0°C
All openings	Blocked	288Vd.c	131mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T4 of PSU of PSU: 97.6°C Winding Transformer T4 of PSU: 110.0°C Core Transformer T4001 of PSU of PSU: 78.4°C Winding Transformer T4001 of PSU: 78.0°C Plastic handle: 61.6°C Metal enclosure of EUT near openings ventilation: 47.8°C Ambient: 25.0°C
Fans	Disconnected	264V a.c/50Hz	77mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T4 of PSU of PSU:68.6°C Winding Transformer T4 of PSU:76.6°C Core Transformer T4001 of PSU of PSU:58.7°C Winding Transformer T4001 of PSU:58.3°C Plastic handle:30.2°C Metal enclosure of EUT near openings ventilation:29.4°C Ambient: 25.0°C

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Clause	Requirement + Test	Result - Remark	Verdict

Fans	Disconnected	288Vd.c	111mins	--	--	The temperature was stable,No hazards,NC,NT,NB Core Transformer T4 of PSU of PSU:68.8°C Winding Transformer T4 of PSU:76.7°C Core Transformer T4001 of PSU of PSU:58.9°C Winding Transformer T4001 of PSU:58.5°C Plastic handle:30.6°C Metal enclosure of EUT near openings ventilation:29.6°C Ambient: 25.0°C
The tested with PAC2000S12-T1						
All openings	Blocked	264V a.c/50Hz	132mins	--	--	The temperature was stable,No hazards,NC,NT,NB T1.1 Core Transformer EN31PWRFB of PSU: 84.7°C T1.1 Winding Transformer EN31PWRFB of PSU:92.3°C T1.2 Core Transformer EN31PWRFB of PSU:89.7°C T1.2 Winding Transformer EN31PWRFB of PSU:90.9°C Plastic handle:56.4°C Metal enclosure of EUT near openings ventilation: 42.6°C Ambient: 25.0°C
All openings	Blocked	288Vd.c	137mins	--	--	When monitoring temperature of EUT reached highest, EUT was protected. The temperature reduce until thermal equilibrium. No hazards. NC,NB, NT T1.1Core Transformer EN31PWRFB of PSU:82.1°C T1.1Winding Transformer EN31PWRFB of PSU:94.4°C T1.2Core Transformer EN31PWRFB of PSU:90.3°C T1.2Winding Transformer EN31PWRFB of PSU:93.1°C Plastic handle:61.2°C Metal enclosure of EUT near openings ventilation:34.5°C

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Clause	Requirement + Test	Result - Remark	Verdict

						Ambient: 25.0°C
Fans	Disconnected	264V a.c/50Hz	79mins	--	--	The temperature was stable,No hazards,NC,NT,NB T1.1 Core Transformer EN31PWRFB of PSU:70.3°C T1.1 Winding Transformer EN31PWRFB of PSU:82.1°C T1.2 Core Transformer EN31PWRFB of PSU:75.0°C T1.2 Winding Transformer EN31PWRFB of PSU:81.2°C Plastic handle:48.2°C Metal enclosure of EUT near openings ventilation:30.3°C Ambient: 25.0°C
Fans	Disconnected	288Vd.c	61mins	--	--	The temperature was stable,No hazards,NC,NT,NB T1.1Core Transformer EN31PWRFB of PSU:70.3°C T1.1Winding Transformer EN31PWRFB of PSU:81.7°C T1.2 Core Transformer EN31PWRFB of PSU:74.8°C T1.2Winding Transformer EN31PWRFB of PSU:80.8°C Plastic handle:48.3°C Metal enclosure of EUT near openings ventilation:30.2°C Ambient: 25.0°C
The tested with PAC3000S12-T1						
All openings	Blocked	264V a.c/50Hz	143mins			The temperature was stable,No hazards, NC, NT, NB T1.1Core Transformer EN31PWRFB of PSU:85.2°C T1.1Winding Transformer EN31PWRFB of PSU:115.9°C T1.2Core Transformer EN31PWRFB of PSU:103.6°C T1.2Winding Transformer EN31PWRFB of PSU:119.6°C Plastic handle:81.0°C Metal enclosure of EUT near openings ventilation:51.2°C Ambient: 25.0°C
All openings	Blocked	288Vd.c	138mins			The temperature was stable,No hazards, NC, NT, NB T1.1 Core Transformer EN31PWRFB of PSU: 87.8°C

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Clause	Requirement + Test	Result - Remark	Verdict

						T1.1 Winding Transformer EN31PWRFB of PSU: 114.7°C T1.2 Core Transformer EN31PWRFB of PSU:103.6°C T1.2Winding Transformer EN31PWRFB of PSU: 117.9°C Plastic handle: 82.9°C Metal enclosure of EUT near openings ventilation: 52.3°C Ambient: 25.0°C
Fans	Disconnected	264V a.c/50Hz	48mins			The temperature was stable,No hazards,NC,NT,NB T1.1Core Transformer EN31PWRFB of PSU: 68.6°C T1.1Winding Transformer EN31PWRFB of PSU: 102.6°C T1.2Core Transformer EN31PWRFB of PSU: 86.4°C T1.2Winding Transformer EN31PWRFB of PSU: 105.8°C Plastic handle: 57.9°C Metal enclosure of EUT near openings ventilation: 31.4°C Ambient: 25.0°C
Fans	Disconnected	288Vd.c	58mins			The temperature was stable,No hazards, NC, NT, NB T1.1 Core Transformer EN31PWRFB of PSU: 68.6°C T1.1Winding Transformer EN31PWRFB of PSU: 103.1°C T1.2 Core Transformer EN31PWRFB of PSU: 87.3°C T1.2Winding Transformer EN31PWRFB of PSU: 106.2°C Plastic handle: 58.1°C Metal enclosure of EUT near openings ventilation: 31.5°C Ambient: 25.0°C
The tested with PHD1500S12-B2						
All openings	Blocked	264V a.c/50Hz	117mins			The temperature was stable,No hazards,NC,NT,NB Core Transformer T700 of PSU of PSU:105.9°C Winding Transformer T700 of PSU: 99.3°C Transformer T800 of PSU of PSU: 112.1°C Winding Transformer T800 of PSU: 101.7°C Plastic handle: 80.2°C Metal enclosure of EUT near openings ventilation: 53.2°C

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Clause	Requirement + Test	Result - Remark	Verdict

						Ambient: 25.0°C
All openings	Blocked	400Vd.c	139mins			When monitoring temperature of EUT reached highest, EUT was protected. The temperature reduce until thermal equilibrium. No hazards. NC, NB, NT. Core Transformer T700 of PSU of PSU: 107.2°C Winding Transformer T700 of PSU: 98.0°C Core Transformer T800 of PSU of PSU: 110.9°C Winding Transformer T800 of PSU: 99.1°C Plastic handle: 77.4°C Metal enclosure of EUT near openings ventilation: 52.8°C Ambient: 25.0°C
Fans	Disconnected	264V a.c/50Hz	74mins			The temperature was stable,No hazards, NC, NT,NB Core Transformer T700 of PSU of PSU: 93.4°C Winding Transformer T700 of PSU: 81.4°C Core Transformer T800 of PSU of PSU: 94.8°C Winding Transformer T800 of PSU: 80.9°C Plastic handle: 40.5°C Metal enclosure of EUT near openings ventilation: 30.2°C Ambient: 25.0°C
Fans	Disconnected	400Vd.c	65mins			The temperature was stable,No hazards, NC, NT, NB Core Transformer T700 of PSU of PSU: 80.0°C Winding Transformer T700 of PSU: 68.5°C Core Transformer T800 of PSU of PSU:84.4°C Winding Transformer T800 of PSU: 70.6°C Plastic handle: 32.7°C Metal enclosure of EUT near openings ventilation: 27.5°C Ambient: 25.0°C
The tested with PAC1500S12-B1, PAC900S12-B2, PAC2000S12-T1, PAC2000S12-B1,PHD1500S12-B2,PAC3000S12-T1.						
DC input polarity	Reversed	288Vd.c	15mins	--	--	EUT normal working, No hazards, NC, NT, NB.
Supplementary information:						

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Clause	Requirement + Test	Result - Remark	Verdict

NC Cheesecloth remained intact.
NT Tissue paper remained intact.
NB No indication of dielectric breakdown after 60 seconds
Temperature Limited: 80°C

M.3	**TABLE: Protection circuits for batteries provided within the equipment**						P
Is it possible to install the battery in a reverse polarity position?.....:					No		—
Equipment Specification	Charging						
	Voltage (V)				Current (A)		
	--				--		
Manufacturer/type	Battery specification						
	Non-rechargeable batteries		Rechargeable batteries				
	Discharging current (A)	Unintentional charging current (A)	Charging		Discharging current (A)	Reverse charging current (A)	
			Voltage (V)	Current (A)			
See table 4.1.2	--	0	--	--	--	--	
Note: The tests of M.3.2 are applicable only when above appropriate data is not available.							
Specified battery temperature (°C) .....:					See table 4.1.2		

Component No.	Fault condition	Charge/ discharge mode	Test time	Temp. (°C)	Current (A)	Voltage (V)	Observation
CR34 Pin 1-Pin 3	SC	Unintentional Charging	--	--	0 to 3 mA	--	NL, NS, NE, NF.
Supplementary information:							
Abbreviation: SC= short circuit; OC= open circuit NL= no chemical leakage; NS= no spillage of liquid; NE= no explosion; NF= no emission of flame or expulsion of molten metal.							

M.4.2	**TABLE: Charging safeguards for equipment containing a secondary lithium battery**					N/A
Maximum specified charging voltage (V) ..... :						—
Maximum specified charging current (A) ..... :						—
Highest specified charging temperature (°C) ..... :						
Lowest specified charging temperature (°C) ..... :						

Battery manufacturer/type	Operating and fault condition	Measurement			Observation
		Charging voltage (V)	Charging current (A)	Temp. (°C)	
Supplementary information:					

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Clause	Requirement + Test	Result - Remark	Verdict

Abbreviation: SC= short circuit; OC= open circuit; MSCV= maximum specified charging voltage; MSCC= maximum specified charging current; HSCT= highest specified charging temperature; LSCT= lowest specified charging temperature

Q.1	**TABLE: Circuits intended for interconnection with building wiring (LPS)**						P
Output Circuit	Condition	U_{oc} (V)	Time (s)	I_{sc} (A)		S (VA)	
				Meas.	Limit	Meas.	Limit
VGA of BC26SMMA	Normal	4.64	5	1.28	8	3.45	100
USB of BC26SMMA	Normal	5.02	5	1.27	8	5.76	100
USB of BC15RCIAB	Normal	5.04	5	1.28	8	5.65	100
Type C of BC15RCIAB	Normal	5.05	5	1.02	8	4.74	100
Supplementary Information:							
Approved current limiter used							

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Clause	Requirement + Test	Result - Remark	Verdict

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Location/Part	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation
Top enclosure of EUT near AC input part	Metal	Min.1.0	--	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3 were not accessible after test. No insulation breakdown.
Bottom enclosure of EUT near AC input part	Metal	Min.1.0	--	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3 were not accessible after test. No insulation breakdown.
Right side enclosure of EUT near AC input part	Metal	Min.1.0	--	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3 were not accessible after test. No insulation breakdown.
Supplementary information:						

T.6, T.9	TABLE: Impact test			P
Location/Part	Material	Thickness (mm)	Height (mm)	Observation
Top enclosure of EUT near AC input part	Metal	Min.1.0	1300	All safeguards remain effective
Bottom enclosure of EUT near AC input part	Metal	Min.1.0	1300	All safeguards remain effective
Right side enclosure of EUT near AC input part	Metal	Min.1.0	1300	All safeguards remain effective
Supplementary information:				

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Clause	Requirement + Test	Result - Remark	Verdict

T.7	**TABLE: Drop test**				N/A
Location/Part	Material	Thickness (mm)	Height (mm)	Observation	
Supplementary information:					

T.8	**TABLE: Stress relief test**					N/A
Location/Part	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Supplementary information:						

X	**TABLE: Alternative method for determining minimum clearances distances**			N/A
Clearance distanced between:	Peak of working voltage (V)	Required cl (mm)	Measured cl (mm)	
Supplementary information:				

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Clause	Requirement + Test	Result - Remark	Verdict

4.1.2	TABLE: List of critical components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity[1]
Enclosure	Interchangeable	Interchangeable	86.1mm(H) by 447mm(W) by 898mm(D); min 1 mm thickness; Max dimensions of openings: 5 mm	IEC 62368-1	Tested with appliance
PCB	Interchangeable	Interchangeable	V-0, 130 ºC.	UL796 UL 94	UL
Hard disk	Interchangeable	Interchangeable	Rating: 12 V, 2.45A Max or 5V, 2A Max	UL 62368-1	cTUVus, cULus
Laser module (optional)	Interchangeable	Interchangeable	Class 1 laser	IEC/EN 60825-1 IEC/EN 60825-2 IEC/EN 62368-1	TUV or UL
Internal wire	Interchangeable	Interchangeable	VW-1	UL 758 UL 2556	UL
IC 39070055-001	TI	TPS2553	Rated: 2.5-6.5 V d.c., Current Limit Rating: 1.7 A	ANSI/UL 2367 IEC/EN 62368-1	UL, E169910 Certif. No. US-2406-MET
(Alternative)	RichTek	RTQ9728W	Rated: 4.5-5.5 V d.c., Current Limit Rating: 2.5 A	IEC/EN 62368-1	Nemko, 399989 Nemko Certif. No. NO112836
(Alternative)	Joulwatt	JW87102DFNB #TRPBF	Vin: 2.7 V d.c.-5.5 V d.c., Vout: 2.7 V d.c.-5.5 V d.c., Iout:1.547-1.853 A with RLIM=15 kohm Iout:1.164-1.426 A with RLIM=20 kohm Iout:0.449-0.591 A with RLIM=50 kohm	IEC/EN/UL 62368-1	UL, E497605 UL Certif. No. DK-141903-UL

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Clause	Requirement + Test	Result - Remark	Verdict

Battery 24010067	PANASONIC	BR-2032	Rated: 3 V, 0.20 Ah. Max abnormal charge current: 5 mA	UL 1642 IEC 60086-4	UL, MH12210 DEKRA, NL-59041
(Alternative)	EVE ENERGY CO LTD	CR2032HT	Rated: 3 V, 0.2 Ah. Max abnormal charge current: 10 mA (UL), 1 mA (IEC)	UL 1642 IEC 60086-4	UL MH28717 TUV, JPTUV-112280
PTC 07050055	LITTELFUSE	miniSMDC075F	Rating: 13.2 V, 0.75 A	IEC/EN 60730-1 UL 1434	TUVRH R72091813 UL 74889
(Alternative)	THINKING	KMC5S075	Rating: 16V, 0.75A	IEC/EN 60730-1 UL 1434	TUV RH R50143386 UL 138827
Fan 32030275-001	AVC	DBPD0838B2UP044	Rating:12Vdc/3.6A min.107.6CFM	UL 507 EN 62368-1	UL, E158191 TUV, B0257300882
(Alternative)	NIDEC	V80E12BS1F5-07Z045	Rating:12Vdc/3.4A, min.100 CFM	UL 507 EN 62368-1	UL, E339289 TUV, B0570060086
(Alternative)	DELTA	THB0812BEHLU	Rating:12Vdc/6 A, min.114.78CFM	UL 507 IEC 62368-1	UL, E132003 TUV, R50415728
(Alternative)	Huntkey	PAB8038S12-PF09	Rating:12Vdc/5.3 A,min.102.1CFM	UL 507 EN 62368-1	UL, E333267 TUV, B0721120055
Fan 3203Y002	AVC	DFPG0856B2UYD031	12.0VDC, 10.7A, Min 122.87CFM	UL 507 EN IEC 62368-1	UL, E158191 TUV, B0257300972
(Alternative)	Huntkey	FAB8056U12-PF02	12.0VDC, 8.3A, Min 111.1CFM	UL 507 EN 62368-1	UL, E333267 TUV, B0721120083
(Alternative)	NIDEC	R80W12BS5N9-07ZB7	12.0VDC, 6.1A, Min108.7CFM	UL 507 EN 62368-1	UL, E132003 TUV, B0357350371

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Clause	Requirement + Test	Result - Remark	Verdict

AC Power	xFusion Digital Technologies Co., Ltd.	PAC2000S12-B1	AC Input: ~220-240V; 50/60Hz; 10A or DC Input: DC 240V; 10A DC output: DC 12V; 167 A Max. Total Output Power: 2000W Max. Or AC Input: ~200-220V; 50/60Hz; 10A DC output: DC 12V; 150 A Max Total Output Power: 1800W Max. AC Input: ~100-127V; 50/60Hz; 10A DC output: DC 12V; 75 A Max. Total Output Power: 900W Max.	IEC 62368-1 EN 62368-1	TÜV Rheinland CB Report No.: CN22WFO R 002 Cert. No.: JPTUV-143898-M1
AC/DC power supply unit	xFusion Digital Technologies Co., Limited	PAC1500S12-B1	Input: ~200-240V, 50/60Hz, 10A or DC Input: DC 240V, 8A Output: DC 12V, 125A Max Total Output Power: 1500W Max. Or Input: ~100-127V, 50/60Hz, 10A Output: DC 12.1V, 70A Max Total Output Power: 850W Max.	IEC 62368-1 EN 62368-1	TÜV Rheinland CB Report No.: CN22G5FT 003 Cert. No.: JPTUV-143800-M2
AC/DC power supply unit	xFusion Digital Technologies Co., Limited	PAC900S12-B2	AC Input: 100-240VAC, 50/60Hz, 10-5.5A or DC Input: 240VDC, 5A DC output: 12VDC, 75A Max Total Output Power: 900W Max.	IEC 62368-1 EN 62368-1	TÜV Rheinland CB Report No.: CN22EEBV 003 Cert. No.: JP TUV-14380-M2

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

AC/DC power supply unit	xFusion Digital Technologies Co., Limited	PAC2000S12-T1	Input: ~230-240V, 50/60Hz, 10A or DC Input: DC 240V, 10A Output: DC 12.3V, 175A Max Total Output Power: 2148W Max. Or Input: ~220-230V, 50/60Hz, 10A Output: DC 12.3V, 163A Max Total Output Power: 2000W Max. Or Input: ~200-220V, 50/60Hz, 10A Output: DC 12.3V, 146A Max Total Output Power: 1800W Max. Or Input: ~100-127V, 50/60Hz, 10A Output: DC 12.3V, 73A Max Total Output Power: 900W Max.	IEC 62368-1 EN 62368-1	TÜV Rheinland CB Report No.: CN225TZT 001 Cert. No.: JPTUV-143810
AC/DC power supply unit	xFusion Digital Technologies Co., Limited	PAC3000S12-T1	AC Input: ~220-240V, 50/60Hz, 16A or DC Input: DC 240V, 16A DC output: DC 12.3V, 243.9A Max Total Output Power: 3000W Max. Or AC Input: ~200-220V, 50/60Hz, 16A DC output: DC 12.3V, 203.3A Max Total Output Power: 2500W Max. Or AC Input: ~100-127V, 50/60Hz, 16A DC output: DC 12.3V, 105.7A Max Total Output Power: 1300W Max.	IEC 62368-1 EN 62368-1	TÜV Rheinland CB Report No.: CN229NKI 002 Cert. No.: JPTUV-143808-M1

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

AC/DC power supply unit	xFusion Digital Technologies Co., Limited	PHD1500S12-B2	AC Input: ~200-240V, 50/60Hz, 10A; or DC Input: DC 260-400V, 8A DC output: DC 12V, 125A Max; Total Output Power: 1500W Max	IEC 62368-1 EN 62368-1	TÜV Rheinland CB Report No.:CN2247CV002 Cert. No.: JPTUV-143805-M1
Supplementary information: [1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039. Licenses are available upon requested					

List of test equipment used:

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date
5.2	Classification of electrical energy sources	Thermometer and Hygrometer	35ºC,75% RH	2024/11/15	2025/11/14
		AC & DC Power Supply	300 V a.c.,17 A; 400 V d.c., 30 A	2025/1/20	2026/1/19
		Low difference Voltage probe	0-40V	2024/5/8	2025/5/7
		Digital Scope	500Mhz	2024/5/10	2025/5/09
5.4.1.4, 6.3.2, 9.0, 9.2, B.2.6	Temperature measurements	Thermometer and Hygrometer	35ºC,75% RH	2024/11/15	2025/11/14
		AC & DC Power Supply	300 V a.c.,17 A; 400 V d.c., 30 A	2025/1/20	2026/1/19
		Temperature Rise Recorder	200ºC	2024/11/14	2025/11/13
5.4.9	Electric Strength test	Thermometer and Hygrometer	35ºC,75% RH	2024/11/15	2025/11/14
		Electrical Strength Tester	AC10 kV, 50mA, 70 s DC 10 kV, 5 mA, 70 s	2025/1/20	2026/1/19
5.6.6.2	Ground continuity test	Thermometer and Hygrometer	35ºC,75% RH	2024/11/15	2025/11/14
		Earthing continuity tester	12 V, 60 A	2025/1/20	2026/1/19
		AC & DC Power Supply	300 V a.c.,17 A; 400 V d.c.,30 A	2025/1/20	2026/1/19
5.7.5	Earthed accessible conductive part	Thermometer and Hygrometer	35ºC,75% RH	2024/11/15	2025/11/14
		AC & DC Power Supply	300 V a.c.,17 A; 400 V d.c.,30 A	2025/1/20	2026/1/19
		Digital Scope	500Mhz	2024/5/10	2025/5/09
		Touch current network	IEC 60990 Fig5	2024/11/13	2025/11/12
		Digital Multimeter	750 V a.c.,10 A; 1000 V d.c.,10 A	2024/11/13	2025/11/12
6.2.2	Electrical power sources (PS) measurements for classification	Thermometer and Hygrometer	35ºC, 75% RH	2024/11/15	2025/11/14
		Stopwatch	7h	2024/11/13	2025/11/12
		AC & DC Power Supply	300 V a.c., 17 A; 400 V d.c., 30 A	2025/1/20	2026/1/19
		DC Load	100 V, 60 A, 300W	2024/11/12	2025/11/11
Annex B.2.5	Input Test	Thermometer and Hygrometer	35ºC, 75% RH	2024/11/15	2025/11/14
		AC & DC Power Supply	300 V a.c.,17 A; 400 V d.c.,30 A	2025/1/20	2026/1/19
		Power Meter	600 V, 20 A	2024/11/12	2025/11/11
Annex B.3 & B.4	Simulated Abnormal operating condition tests & simulated single fault conditions	Thermometer and Hygrometer	35ºC, 75% RH	2024/11/15	2025/11/14
		AC & DC Power Supply	300 V a.c., 17 A; 400 V d.c., 30 A	2025/1/20	2026/1/19
		Temperature Rise Recorder	200ºC	2024/11/14	2025/11/13
Annex M	Batteries	Thermometer and Hygrometer	35ºC, 75% RH	2024/11/15	2025/11/14
		AC & DC Power Supply	300 V a.c.,17 A; 400 V d.c., 30 A	2025/1/20	2026/1/19
		Digital Multimeter	750 V a.c.,10 A; 1000 V d.c., 10 A	2024/11/13	2025/11/12
Annex Q.1	Limited Power Source	Thermometer and Hygrometer	35ºC, 75% RH	2024/11/15	2025/11/14
		AC & DC Power Supply	300 V a.c., 17 A; 400 V d.c., 30 A	2025/1/20	2026/1/19
		DC Load	100 V, 60 A, 300W	2024/11/12	2025/11/11
		Stop watch	7h	2024/11/13	2025/11/12
Annex	Steady force	Thermometer and Hygrometer	35ºC,75% RH	2024/11/15	2025/11/14

T.5	test, 250N	Push-Pull Scale	500N	2024/11/13	2025/11/12
		Stopwatch	7h	2024/11/13	2025/11/12
Annex T.6	Enclosure impact test	Thermometer and Hygrometer	35ºC,75% RH	2024/11/15	2025/11/14
		Steel Tape	5M	2024/11/23	2025/11/22
		Steel Ball	0.5 kg, Φ50 mm	2024/5/10	2025/5/9

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT

IEC 62368-1

EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

(Audio/video, information and communication technology equipment - Part 1: Safety requirements)

Differences according to .....: EN IEC 62368-1:2020+A11:2020

Attachment Form No. .....: EU_GD_IEC62368_1E

Attachment Originator.....: UL(Demko)

Master Attachment .....: 2021-02-04

	CENELEC COMMON MODIFICATIONS (EN)	
	Clause numbers in the cells that are shaded light grey are clause references in EN IEC 62368-1:2020+A11:2020. All other clause numbers in that column, except for those in the paragraph below, refers to IEC 62368-1:2018. Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2018 are prefixed "Z".	P
	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords	P
1	**Modification to Clause 3 .**	
3.3.19	**Sound exposure** *Replace 3.3.19 of IEC 62368-1 with the following definitions:*	N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

3.3.19.1	**momentary exposure level, MEL** metric for estimating 1 s sound exposure level from the HD 483-1 S2 test signal applied to both channels, based on EN 50332-1:2013, 4.2. Note 1 to entry: MEL is measured as A-weighted levels in dB. Note 2 to entry: See B.3 of EN 50332-3:2017 for additional information.		N/A
3.3.19.3	**sound exposure, *E*** A-weighted sound pressure (p) squared and integrated over a stated period of time, T Note 1 to entry: The SI unit is Pa^2 s. $E = \int_0^T p(t)^2 \, dt$		N/A
3.3.19.4	**sound exposure level, *SEL*** logarithmic measure of sound exposure relative to a reference value, E_0, typically the 1 kHz threshold of hearing in humans. Note 1 to entry: *SEL* is measured as A-weighted levels in dB. $SEL = 10 \lg \left(\frac{E}{E_0}\right)$ dB Note 2 to entry: See B.4 of EN 50332-3:2017 for additional information.		N/A
3.3.19.5	**digital signal level relative to full scale, dBFS** levels reported in dBFS are always r.m.s. Full scale level, 0 dBFS, is the level of a dc-free 997-Hz sine wave whose undithered positive peak value is positive digital full scale, leaving the code corresponding to negative digital full scale unused Note 1 to entry: It is invalid to use dBFS for non-r.m.s. levels. Because the definition of full scale is based on a sine wave, the level of signals with a crest factor lower than that of a sine wave may exceed 0 dBFS. In particular, square wave signals may reach +3,01 dBFS.		N/A
2	**Modification to Clause 10**		N/A
10.6	**Safeguards against acoustic energy sources** Replace 10.6 of IEC 62368-1 with the following:		N/A
10.6.1.1	**Introduction** **Safeguard** requirements for protection against long-term exposure to excessive sound pressure levels from personal music players closely coupled to the ear are specified below. Requirements for earphones and headphones intended for use with personal music players are also covered.		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	A personal music player is a portable equipment intended for use by an **ordinary person**, that: – is designed to allow the user to listen to audio or audiovisual content / material; and – uses a listening device, such as headphones or earphones that can be worn in or on or around the ears; and – has a player that can be body worn (of a size suitable to be carried in a clothing pocket) and is intended for the user to walk around with while in continuous use (for example, on a street, in a subway, at an airport, etc.). EXAMPLES Portable CD players, MP3 audio players, mobile phones with MP3 type features, PDAs or similar equipment. Personal music players shall comply with the requirements of either 10.6.2 or 10.6.3. NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360. NOTE 2 It is the intention of the Committee to allow the alternative methods for now, but to only use the dose measurement method as given in 10.6.5 in future. Therefore, manufacturers are encouraged to implement 10.6.5 as soon as possible. Listening devices sold separately shall comply with the requirements of 10.6.6. These requirements are valid for music or video mode only. The requirements do not apply to: – professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment. – hearing aid equipment and other devices for assistive listening; – the following type of analogue personal music players: • long distance radio receiver (for example, a multiband radio receiver or world band radio receiver, an AM radio receiver), and • cassette player/recorder; NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies. – a player while connected to an external amplifier that does not allow the user to walk around while in use. For equipment that is clearly designed or intended primarily for use by children, the limits of the relevant toy standards may apply.		

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The relevant requirements are given in EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.		
10.6.1.2	**Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz** The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body mounted devices, attention is drawn to EN 50360 and EN 50566.	Added. To be evaluated for national requirement.	N/A
10.6.2	**Classification of devices without the capacity to estimate sound dose**		N/A
10.6.2.1	**General** This standard is transitioning from short-term based (30 s) requirements to long-term based (40 hour) requirements. These clauses remain in effect only for devices that do not comply with sound dose estimation as stipulated in EN 50332-3. For classifying the acoustic output $L_{Aeq,T}$, measurements are based on the A-weighted equivalent sound pressure level over a 30 s period. For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, measurements may be done over the duration of the complete song. In this case, T becomes the duration of the song. NOTE Classical music, acoustic music and broadcast typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the content and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song does not exceed the required limit. For example, if the player is set with the programme simulation noise to 85 dB, but the average music level of the song is only 65 dB, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dB.		N/A
10.6.2.2	**RS1 limits (to be superseded, see 10.6.3.2)** RS1 is a class 1 acoustic energy source that does not exceed the following: – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	listening device is known by other means such as setting or automatic detection, the $L_{Aeq,T}$ acoustic output shall be ≤ 85 dB when playing the fixed "programme simulation noise" described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 27 mV (analogue interface) or -25 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1. – The RS1 limits will be updated for all devices as per 10.6.3.2.		
10.6.2.3	**RS2 limits (to be superseded, see 10.6.3.3)** RS2 is a class 2 acoustic energy source that does not exceed the following: – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or when the combination of player and listening device is known by other means such as setting or automatic 130 detection, the $L_{Aeq,T}$ acoustic output shall be ≤ 100 dB(A) when playing the fixed "programme simulation noise" as described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 150 mV (analogue interface) or -10 dBFS (digital interface) when playing the fixed "programme simulation noise" as described in EN 50332-1.		N/A
10.6.2.4	**RS3 limits** RS3 is a class 3 acoustic energy source that exceeds RS2 limits.		N/A
10.6.3	**Classification of devices (new)**		N/A
10.6.3.1	**General** Previous limits (10.6.2) created abundant false negative and false positive PMP sound level warnings. New limits, compliant with The Commission Decision of 23 June 2009, are given below.		N/A
10.6.3.2	**RS1 limits (new)** RS1 is a class 1 acoustic energy source that does not exceed the following: – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the $L_{Aeq,T}$ acoustic		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	output shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.		
10.6.3.3	**RS2 limits (new)** RS2 is a class 2 acoustic energy source that does not exceed the following: – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the weekly sound exposure level, as described in EN 50332-3, shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output level, integrated over one week, as described in EN50332-3, shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1.		N/A
10.6.4	**Requirements for maximum sound exposure**		N/A
10.6.4.1	**Measurement methods** All volume controls shall be turned to maximum during tests. Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable.		N/A
10.6.4.2	**Protection of persons** Except as given below, protection requirements for parts **accessible** to **ordinary persons**, **instructed persons** and **skilled persons** are given in 4.3. NOTE 1 Volume control is not considered a **safeguard.** Between RS2 and an **ordinary person**, the **basic safeguard** may be replaced by an **instructional safeguard** in accordance with Clause F.5, except that the **instructional safeguard** shall be placed on the equipment, or on the packaging, or in the instruction manual. Alternatively, the **instructional safeguard** may be given through the equipment display during use.		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The elements of the **instructional safeguard** shall be as follows: – element 1a: the symbol  , IEC 60417-6044 (2011-01) – element 2: “High sound pressure” or equivalent wording – element 3: “Hearing damage risk” or equivalent wording – element 4: “Do not listen at high volume levels for long periods.” or equivalent wording An **equipment safeguard** shall prevent exposure of an **ordinary person** to an RS2 source without intentional physical action from the **ordinary person** and shall automatically return to an output level not exceeding what is specified for an RS1 source when the power is switched off. The equipment shall provide a means to actively inform the user of the increased sound level when the equipment is operated with an output exceeding RS1. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an output exceeding RS1. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time. NOTE 2 Examples of means include visual or audible signals. Action from the user is always needed. NOTE 3 The 20 h listening time is the accumulative listening time, independent of how often and how long the personal music player has been switched off. A **skilled person** shall not be unintentionally exposed to RS3.		
10.6.5	**Requirements for dose-based systems**		N/A
10.6.5.1	**General requirements** Personal music players shall give the warnings as provided below when tested according to EN 50332-3, using the limits from this clause. The manufacturer may offer optional settings to allow the users to modify when and how they wish to receive the notifications and warnings to promote a better user experience without defeating the safeguards. This allows the users to be informed in a method that best meets their physical capabilities and device usage needs. If such optional settings are offered, an administrator (for example, parental restrictions, business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The personal music player shall be supplied with easy to understand explanation to the user of the dose management system, the risks involved, and how to use the system safely. The user shall be made aware that other sources may significantly contribute to their sound exposure, for example work, transportation, concerts, clubs, cinema, car races, etc.		
10.6.5.2	**Dose-based warning and requirements** When a dose of 100 % *CSD* is reached, and at least at every 100 % further increase of *CSD*, the device shall warn the user and require an acknowledgement. In case the user does not acknowledge, the output level shall automatically decrease to compliance with class RS1. The warning shall at least clearly indicate that listening above 100 % *CSD* leads to the risk of hearing damage or loss.		N/A
10.6.5.3	**Exposure-based requirements** With only dose-based requirements, cause and effect could be far separated in time, defying the purpose of educating users about safe listening practice. In addition to dose-based requirements, a PMP shall therefore also put a limit to the short-term sound level a user can listen at. The exposure-based limiter (EL) shall automatically reduce the sound level not to exceed 100 dB(A) or 150 mV integrated over the past 180 s, based on methodology defined in EN 50332-3. The EL settling time (time from starting level reduction to reaching target output) shall be 10 s or faster. Test of EL functionality is conducted according to EN 50332-3, using the limits from this clause. For equipment provided as a package (player with its listening device), the level integrated over 180 s shall be 100 dB or lower. For equipment provided with a standardized connector, the unweighted level integrated over 180 s shall be no more than 150 mV for an analogue interface and no more than -10 dBFS for a digital interface. NOTE In case the source is known not to be music (or test signal), the EL may be disabled.		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

10.6.6	**Requirements for listening devices (headphones, earphones, etc.)**		N/A
10.6.6.1	**Corded listening devices with analogue input** With 94 dB L_{Aeq} acoustic pressure output of the listening device, and with the volume and sound settings in the listening device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the input voltage of the listening device when playing the fixed "programme simulation noise" as described in EN 50332-1 shall be ≥ 75 mV. NOTE The values of 94 dB and 75 mV correspond with 85 dB and 27 mV or 100 dB and 150 mV.		N/A
10.6.6.2	**Corded listening devices with digital input** With any playing device playing the fixed "programme simulation noise" described in EN 50332-1, and with the volume and sound settings in the listening device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the $L_{Aeq,T}$ acoustic output of the listening device shall be ≤ 100 dB with an input signal of -10 dBFS.		N/A
10.6.6.3	**Cordless listening devices** In cordless mode, – with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and – respecting the cordless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and – with volume and sound settings in the receiving device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the above mentioned programme simulation noise, the $L_{Aeq,T}$ acoustic output of the listening device shall be ≤ 100 dB with an input signal of -10 dBFS.		N/A
10.6.6.4	**Measurement method** *Measurements shall be made in accordance with EN 50332-2 as applicable.*		N/A
3	**Modification to the whole document**		

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

	Delete all the "country" notes in the reference document according to the following list:		P

0.2.1	Note 1 and 2	1	Note 4 and 5	3.3.8.1	Note 2
3.3.8.3	Note 1	4.1.15	Note	4.7.3	Note 1 and 2
5.2.2.2	Note	5.4.2.3.2.2 Table 12	Note c	5.4.2.3.2.4	Note 1 and 3
5.4.2.3.2.4 Table 13	Note 2	5.4.2.5	Note 2	5.4.5.1	Note
5.4.10.2.1	Note	5.4.10.2.2	Note	5.4.10.2.3	Note
5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3 and 4
5.6.8	Note 2	5.7.6	Note	5.7.7.1	Note 1 and Note 2
8.5.4.2.3	Note	10.2.1 Table 39	Note 3 and 4 and 5	10.5.3	Note 2
~~10.6.1~~	Note 3	F.3.3.6	Note 3	Y.4.1	Note
Y.4.5	Note				

4	**Modification to Clause 1**		
1	***Add** the following note:* *NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.*		P

IEC62368_1E - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
5	**Modification to 4.Z1**		P
4.Z1	***Add*** *the following new subclause after 4.9:* To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. **mains**, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for **pluggable equipment type B** or **permanently connected equipment**, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for **pluggable equipment type A** the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		P
6	**Modification to 5.4.2.3.2.4**		N/A
5.4.2.3.2.4	***Add*** *the following to the end of this subclause:* The requirement for interconnection with **external circuit** is in addition given in EN 50491-3:2009.		N/A
7	**Modification to 10.2.1**		N/A
10.2.1	Add the following to [c)] and [d)] in table 39: For additional requirements, see 10.5.1.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8	**Modification to 10.5.1**		
10.5.1	***Add*** *the following after the first paragraph:* For RS 1 compliance is checked by measurement under the following conditions: In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made. NOTE Z1 Soldered joints and paint lockings are examples of adequate locking. The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm^2, at any point 10 cm from the outer surface of the apparatus. Moreover, the measurement shall be made under fault conditions causing an increase of the high voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made. For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level. NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.	Added	N/A
9	**Modification to G.7.1**		N/A
G.7.1	***Add*** *the following note:* NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.	Added	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

10	**Modification to Bibliography**		P
	Add the following notes for the standards indicated: IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.		P
11	**ADDITION OF ANNEXES**		P
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		P
4.1.15	**Denmark, Finland, Norway** and **Sweden** To the end of the subclause the following is added: **Class I pluggable equipment type A** intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and **accessible** parts, have a marking stating that the equipment shall be connected to an earthed **mains** socket-outlet. The marking text in the applicable countries shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.” In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	**United Kingdom** To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex		N/A
5.2.2.2	**Denmark** After the 2nd paragraph add the following: A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.		N/A
5.4.11.1 and Annex G	**Finland and Sweden** To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		
5.5.2.1	**Norway** After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N/A
5.5.6	**Finland, Norway** and **Sweden** To the end of the subclause the following is added: Resistors used as **basic safeguard** or bridging **basic insulation** in **class I pluggable equipment type A** shall comply with G.10.1 and the test of G.10.2.		P
5.6.1	**Denmark** **Add** to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. *Justification:* In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		N/A
5.6.4.2.1	**Ireland and United Kingdom** After the indent for **pluggable equipment type A**, the following is added: – the **protective current rating** is taken to be 13 A, this being the largest rating of fuse used in the **mains** plug.		P
5.6.4.2.1	**France** After the indent for **pluggable equipment type A**, the following is added: – in certain cases, the **protective current rating** of the circuit supplied from the mains is taken as 20 A instead of 16 A.		P

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Clause	Requirement + Test	Result - Remark	Verdict
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm^2 to 1,5 mm^2 in cross-sectional area.		P
5.6.8	**Norway** To the end of the subclause the following is added: Equipment connected with an earthed mains plug is classified as **class I equipment**. See the Norway marking requirement in 4.1.15. The symbol IEC 60417-6092, as specified in F.3.6.2, is accepted.		P
5.7.6	**Denmark** To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the **protective conductor current** exceeds the limits of 3,5 mA a.c. or 10 mA d.c.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.2	**Denmark** To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .		N/A
5.7.7.1	**Norway and Sweden** To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.” Translation to Swedish:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.		
8.5.4.2.3	**United Kingdom** Add the following after the 2nd dash bullet in 3rd paragraph: An emergency stop system complying with the requirements of IEC 60204-1 and ISO 13850 is required where there is a risk of personal injury.		N/A
B.3.1 and B.4	**Ireland and United Kingdom** The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of **direct plug-in equipment**, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the **direct plug-in equipment**, until the requirements of Annexes B.3.1 and B.4 are met		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	**Denmark** To the end of the subclause the following is added: Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a polyphase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a *Justification:* Heavy Current Regulations, Section 6c		N/A
G.4.2	**United Kingdom** To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.7.1	**United Kingdom** To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc. (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
G.7.1	**Ireland** To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard		N/A
G.7.2	**Ireland and United Kingdom** To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm^2 is allowed for equipment which is rated over 10 A and up to and including 13 A.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		N/A
10.5.2	**Germany** The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. *Justification*: German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. **NOTE** Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

ZD	**IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS (EN)**	N/A
		N/A

Type of flexible cord	Code designations	
	IEC	CENELEC
PVC insulated cords		
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60227 IEC 53	H05VV-F H05VVH2-F
Rubber insulated cords		
Braided cord	60245 IEC 51	H03RT-F
Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F
Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F
Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F
Cords having high flexibility		
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03RV4-H
Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H
Cords insulated and sheathed with halogen-free thermoplastic compounds		
Light halogen-free thermoplastic insulated and sheathed flexible cords		H03Z1Z1-F H03Z1Z1H2-F
Ordinary halogen-free thermoplastic insulated and sheathed flexible cords		H05Z1Z1-F H05Z1Z1H2-F

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Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT

IEC 62368-1

U.S.A. AND CANADA NATIONAL DIFFERENCES

(Audio/video, information and communication technology equipment – Part 1: Safety requirements)

Differences according to ..... : CSA/UL 62368-1:2019

TRF template used: ..... : IECEE OD-2020-F3, Ed. 1.1

Attachment Form No. ..... : US_CA_ND_IEC62368_1E

Attachment Originator..... : UL(US)

Master Attachment ..... : Dated 2022-03-04

IEC 62368-1 - US and Canadian National Differences

Special National Conditions based on Regulations and Other National Differences

1 (1DV.1) (1.3)	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part 1, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, for such equipment marked or otherwise identified, installation is allowed per the Standard for the Protection of Information Technology Equipment, ANSI/NFPA 75.		P
1 (1DV.2.1)	This standard includes additional requirements for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities. See Annex DVB.		N/A
1 (1DV.2.2)	This standard includes additional requirements for equipment intended for mounting under cabinets. See Annex DVC.		N/A
1 (1DV.2.3)	IEC 62368-3 clause 5 for DC power transfer at ES1 or ES2 voltage levels is considered informative. IEC 62368-3 clause 6 for remote power feeding telecommunication (RFT) circuits is considered normative (see ITU K.50). Alternatively, equipment with RFT circuits are given in either UL 2391 or CSA/UL 60950-21. RFT-C circuits are not permitted unless the RFT-C circuit complies with RFT-V limits (≤ 200V per conductor to earth).		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1 (1DV.3)	For protection against direct lightning strikes, reference is made to NFPA 780 and CAN/CSA-B72 for additional requirements.		N/A
1 (DV.5)	Additional requirements apply to some forms of power distribution equipment, including sub-assemblies.		N/A
4.1 (4.1.17)	For lengths exceeding 3.05 m, external interconnecting cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC.		N/A
	For lengths 3.05 m or less, external interconnecting cable assemblies that are not types specified in the NEC generally are required to have special construction features and identification markings.		N/A
4.6 (4.6.2)	Wire-wrap terminals have special construction and performance requirements.		N/A
4.8 (4.8.3, 4.8.4.5, 4.8.5)	Coin / button cell batteries have modified special construction and performance requirements.		N/A
5.4.2.3.2 (5.4.2.3.2.1)	Surge Arrestors and Transient Voltage Surge Suppressors installed external to the equipment are required to comply with the appropriate NEC and CEC requirements.		N/A
5.5.9	Receptacles, rated 125-V, single phase, 15- or 20-A accessible to either ordinary, instructed, or skilled persons are required to be provided with GFCI Protection for Personnel if the equipment containing the receptacles is installed outdoors. The protection devices are required to comply with UL 943, and CAN/CSA C22.2 No.144.		N/A
5.6.3	Protective earthing conductors comply with the minimum conductor sizes in Table G.7, except as required by Table G.7ADV.1 for cord connected equipment, or Annex DVH for permanently connected equipment.		N/A
5.7.8 (5.7.8.1)	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.		N/A
6.5.1	PS3 wiring outside a fire enclosure is required to comply with single fault testing in B.4, or be current limited per one of the permitted methods.		N/A
Annex F (F.3.3.9)	Output terminals provided for supply of other equipment, except mains supply, are required to be marked with a maximum rating or reference to equipment permitted to be connected.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Annex F (F.3.7)	Outdoor Enclosures are required to be classified and marked in accordance with UL 50 or 50E, or CAN/CSA C22.2 No. 94.1 or 94.2.		N/A
Annex G (G.7)	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
	Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms.		N/A
	Power supply cords for outdoor equipment are required to be suitable outdoor use type as required by Section 400.4 of the NEC and Rule 4-012 of the CEC, i.e., marked “W.”		N/A
Annex H.2	Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex H.4	For circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
Annex Q (Q.3)	Equipment with paired conductor and/or coax communications cables/wiring connected to building wiring are required to have special voltage, current, power and marking requirements.		N/A
Annex DVA (1)	Equipment that is designed such that it may be powered from a separate electrical service, is required to meet applicable requirements for service equipment for control and protection of services and their installation and complies with Article 230 of the National Electrical Code (NEC), NFPA 70 and Section 6 of the Canadian Electrical Code, Part I, CSA C22.1.		N/A
	Equipment intended for use in spaces used for environmental air (plenums) are subjected to special flammability requirements for heat and visible smoke release.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m^3 (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
	Consumer products designed or intended primarily for children 12 years of age or younger are subject to additional requirements in accordance with U.S. and Canadian Regulations.		N/A
	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
	Storage batteries and battery management equipment, other than associated with lead-acid batteries, and including battery backup systems that are not an integral part of stationary AV and ICT equipment, such as provided in separate cabinets, are required to be certified (listed) to the appropriate standard(s) for such storage batteries and equipment.		N/A
Annex DVA (5.6)	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.		P
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.		N/A
Annex DVA (6.4.8)	For ITE room applications, enclosures with combustible material measuring greater than 0.9 m^2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For equipment with the same dimensions for other applications, an external surface that is not a fire enclosure requires a minimum flammability classification of V-1.		N/A
Annex DVA (10.3)	Equipment with lasers is required to meet the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	To be evaluated during national approval	N/A
Annex DVA (10.5)	Equipment that produces ionizing radiation is required to comply with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Annex DVA (F.3.3.4)	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. Additional considerations apply for voltage ratings that exceed the attachment cap rating or that are lower than the “Normal Operating Condition” in Table 2 of CAN/CSA C22.2 No. 235.”		N/A
Annex DVA (F.3.3.6)	Equipment identified for ITE (computer) room installation is required to be marked with the rated current.		P
Annex DVA (G.1)	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position, where mounted in an enclosure, vertically mounted **disconnect switches** and **circuit breakers** with vertical operating means extending outside the enclosure are required to indicate in a location visible when accessing the external operating means whether the switch or circuit breaker is in the open (off) or closed (on) position.		N/A
Annex DVA (G.3.4)	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.		N/A
	Where a fuse is used to provide Class 2 or Class 3 current limiting, it is not operator-accessible unless it is non- interchangeable.		N/A
Annex DVA (G.4.2)	Equipment with isolated ground (earthing) receptacles is required to comply with NEC 250.146(D) and CEC 10-400 and 10-612.		N/A
Annex DVA (G.4.3)	Interconnection of units by conductors supplied by a limited power source, or a Class 2 circuit defined in the NEC/CEC may have field wiring connections other than specified in DVH.3, such as wire-wrap and crimp-on types, if the limited power source and Class 2 circuits are separated from all other circuits by barriers, routing or fixing.		N/A
Annex DVA (G.5.3)	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Annex DVA (G.5.4)	Motor control devices are required for cord-connected equipment with a mains-connected motor if the equipment is rated more than 12 A, or if the equipment has a nominal voltage rating greater than 120 V, or if the motor is rated more than 1/3 hp (locked rotor current over 43 A).		N/A
Annex DVA (G.7)	Flexible cords used outdoors are required to have the suffix “W” marked on the flexible cord.		N/A
Annex DVA (M)	For ITE room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the ITE room remote power-off circuit.		N/A
Annex DVA (Q)	If applicable per NEC 725.121(C), some limited power sources supplied from AV/ICT equipment are required to have a label indicating the maximum voltage and rated current output for per conductor for each connection point. Where multiple connection points have the same rating, a single label is permitted to be used.		N/A
	Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CEC Part 1are required to be marked with the voltage rating and “Class 2” or equivalent. The marking is located adjacent to the terminals and visible during wiring.		N/A
	Applicable parts of Chapter 8 of the NEC, and Rules 54 and 60 of the CEC, may be applicable to ITE installed outdoors with connections to communication systems.		N/A
Annex DVB (1)	Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities.		N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVE (4.1.1)	Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. These equipment and components include: appliance couplers, attachment plugs, battery backup systems, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), ground-fault current interrupters, interconnecting cables, modular data centres, power supply cords, some power distribution equipment, printed wiring, protectors for communications circuits, receptacles, surge protective devices, vehicle battery adapters, wire connectors, and wire and cables.		P
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.		N/A
Annex DVH (DVH.1)	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains are required to be in accordance with the NEC/CEC.		N/A
Annex DVH (DVH.2.1)	For safe and reliable connection to a mains, permanently connected equipment is to be provided.		N/A
Annex DVH (DVH.2.2)	Additional considerations for D.C. mains.		N/A
Annex DVH (DVH.3.2.1)	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified.		N/A
Annex DVH (DVH.3.2.3)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm^2).		N/A
Annex DVH (DVH.3.2.4)	All associated mains supply terminals are located in proximity to each other and to the main protective earthing terminal, if any.		N/A

IEC62368_1E - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVH (DVH.3.2.5)	Terminals are located, guarded or insulated so that, should a strand of a conductor escape when the conductor is fitted, there is no likelihood of accidental contact between such a strand and accessible conductive parts or unearthed conductive parts separated from accessible conductive parts by supplementary insulation only.		N/A
Annex DVH (DVH.3.3)	When field connection to an external circuit is via wires (example, free conductors), the wires are not smaller than 18 AWG (0.82 mm^2) and the free length of the wire inside an outlet box or wiring compartment is 150 mm or more.		N/A
Annex DVH (DVH.3.4)	Size of protective earthing conductors and terminals		N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
Annex DVH (DVH.4.1)	Wire bending space		N/A
Annex DVH (DVH.4.2)	Volume of wiring compartment		N/A
Annex DVH (DVH.4.3)	Separation of circuits		N/A
Annex DVH (DVH.5)	Equipment markings and instructional safeguards		N/A
Annex DVH (DVH.5.1)	Identification of protective earthing terminal		N/A
Annex DVH (DVH.5.2)	Identification of terminal for earthed conductor (neutral)		N/A
Annex DVH (DVH.5.3)	Identification of terminals for aluminium conductors		N/A
Annex DVH (DVH.5.4)	Wire temperature ratings		N/A
Annex DVH (DVH 5.5)	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.		N/A
Annex DVI (6.7)	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses.		N/A
Annex DVJ (10.6.1)	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A

Attachment 2

Photo Documentation

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 01 External view -01

Photo 02 External view -02

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo-03 Internal view-01

Photo 04 NVIDIA L20 top view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 05 NVIDIA L20 bottom view

Photo 06 BC26MBTA top view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 07 BC26MBTA bottom view

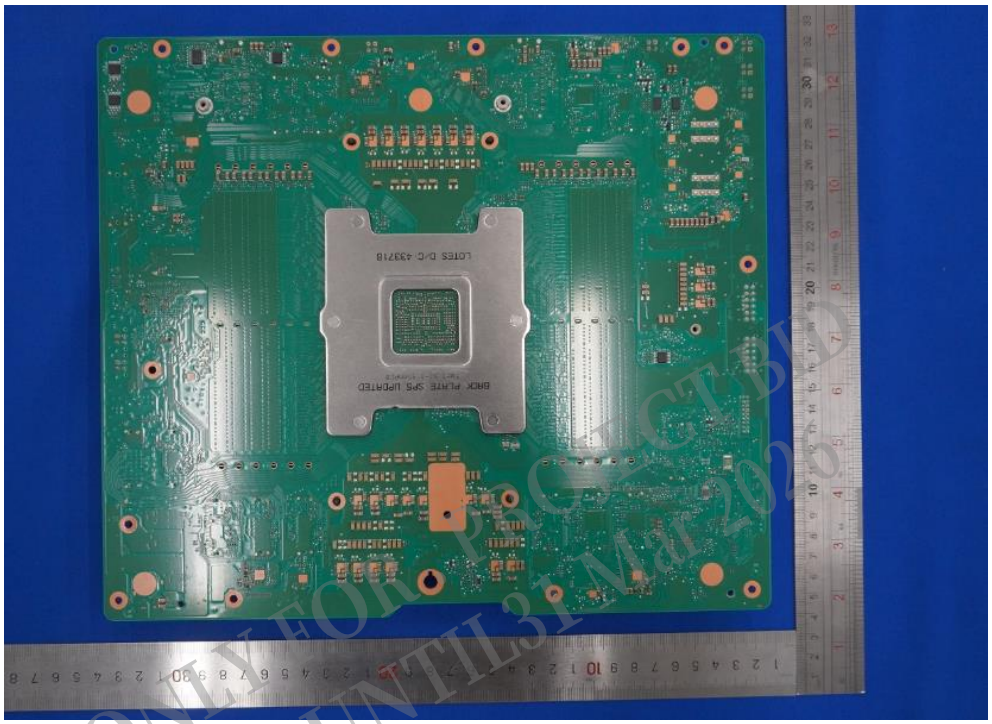
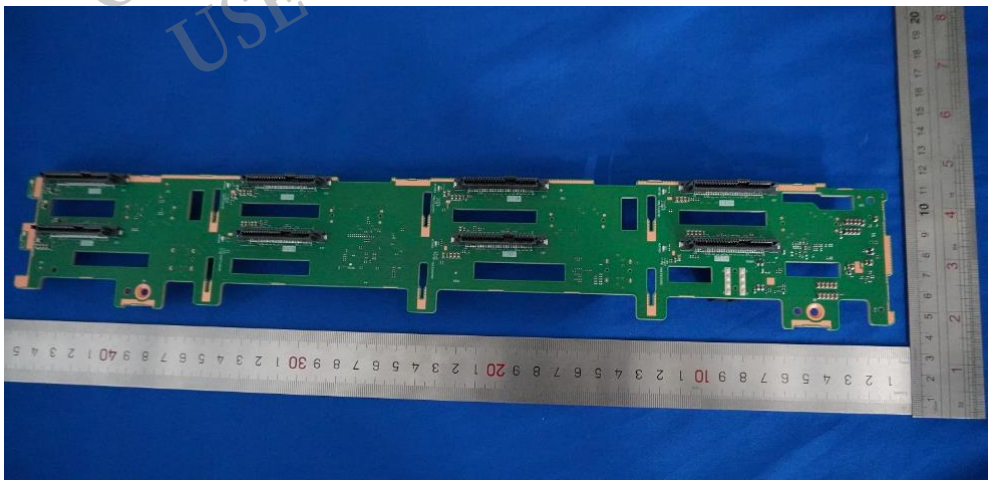


Photo 08 BC26HBBA top view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 09 BC26HBBA bottom view

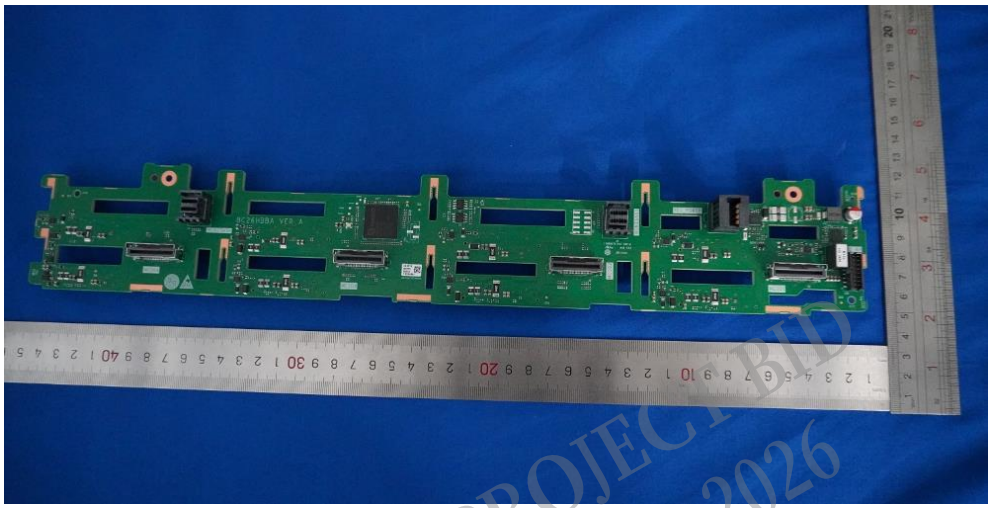


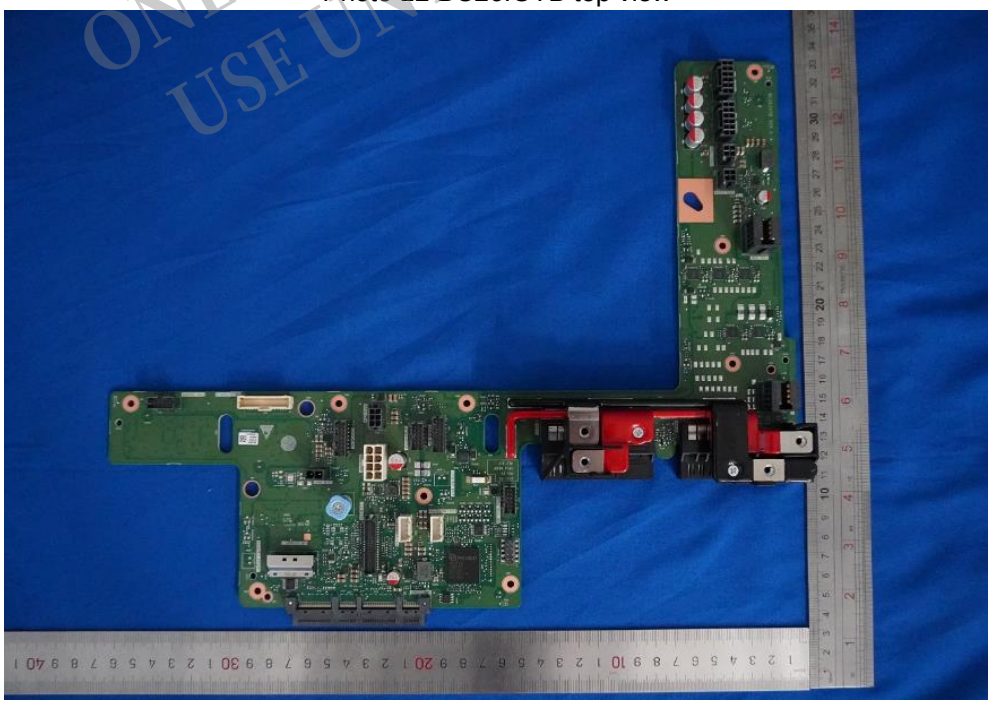
Photo 10 BC26SMMA top view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 11 BC26SMMA bottom view

Photo 12 BC26IOTB top view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 13 BC26IOTB bottom view

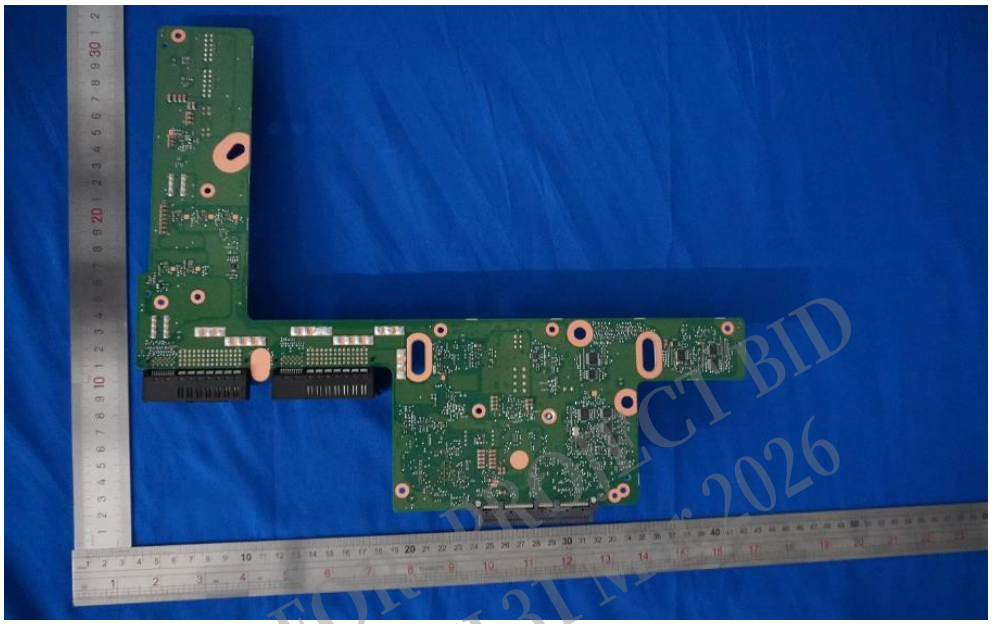
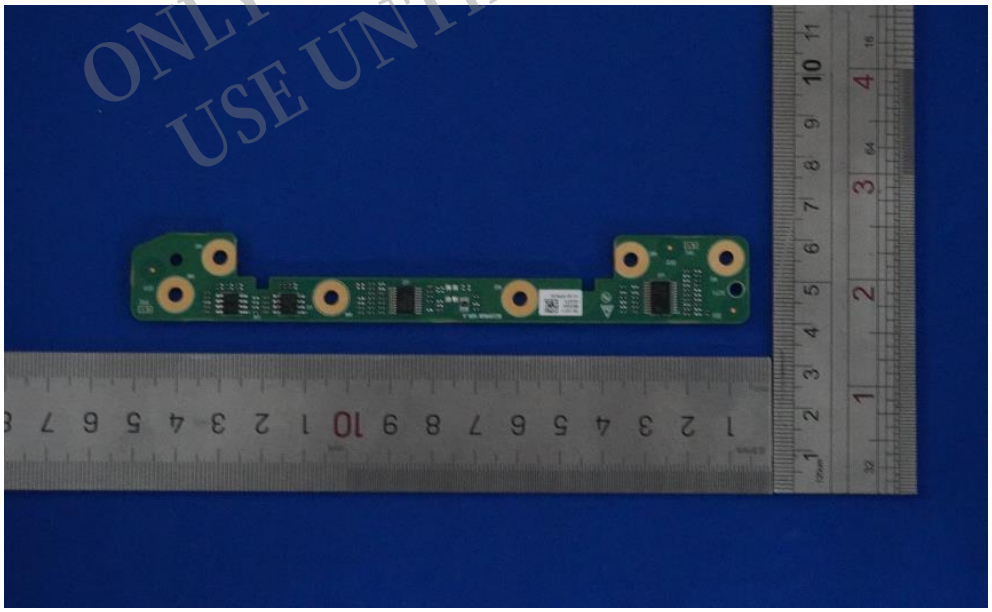


Photo 14 BC15PRUWB top view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 15 BC15PRUWB bottom view

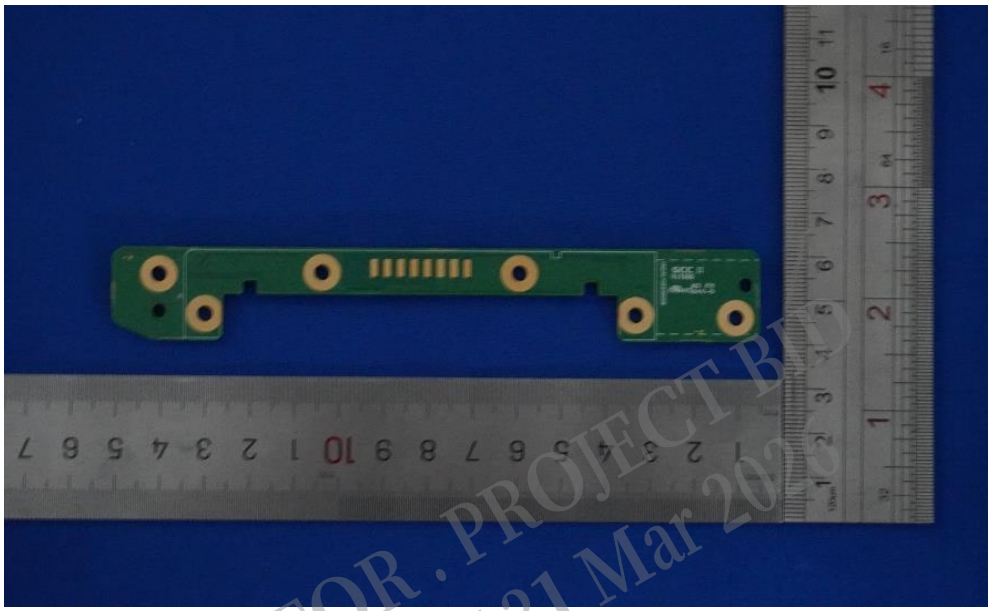


Photo 16 BC15PRUK top view

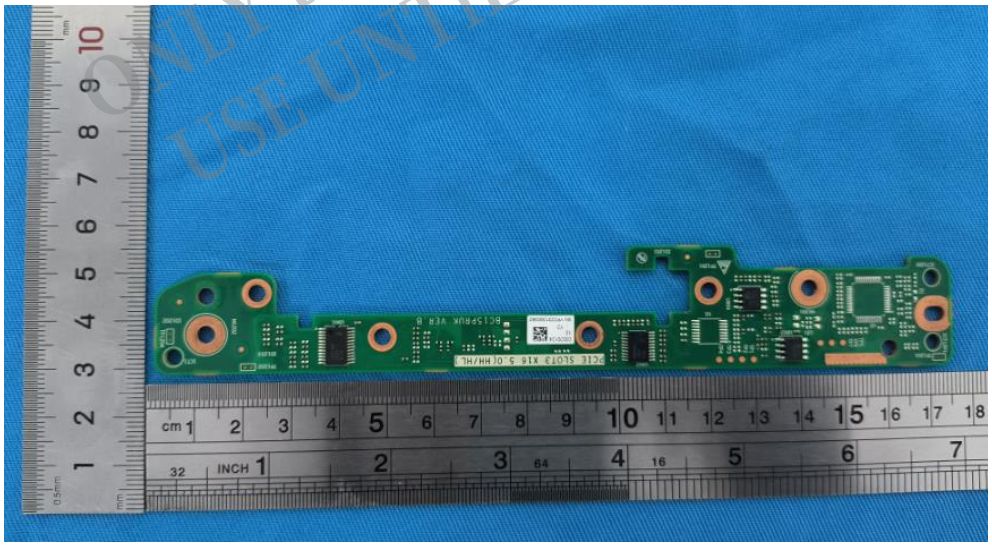


Photo Documentation

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 17 BC15PRUK bottom view

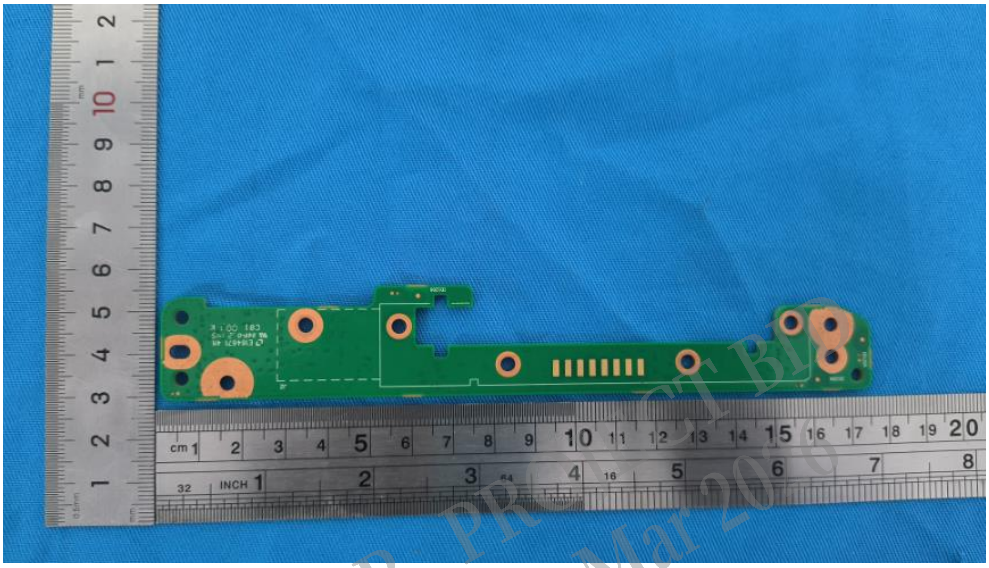
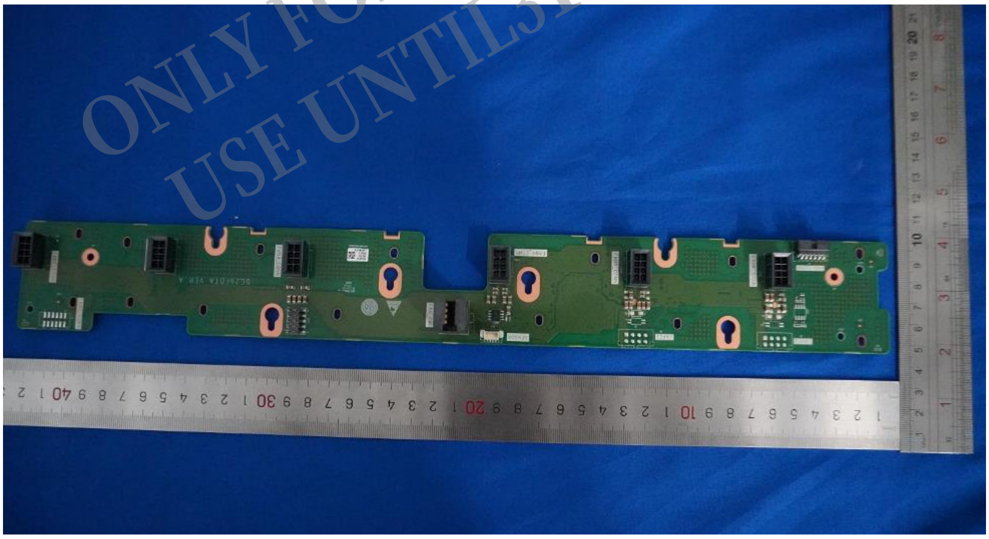


Photo 18 BC26FDTA top view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 19 BC26FDTA bottom view

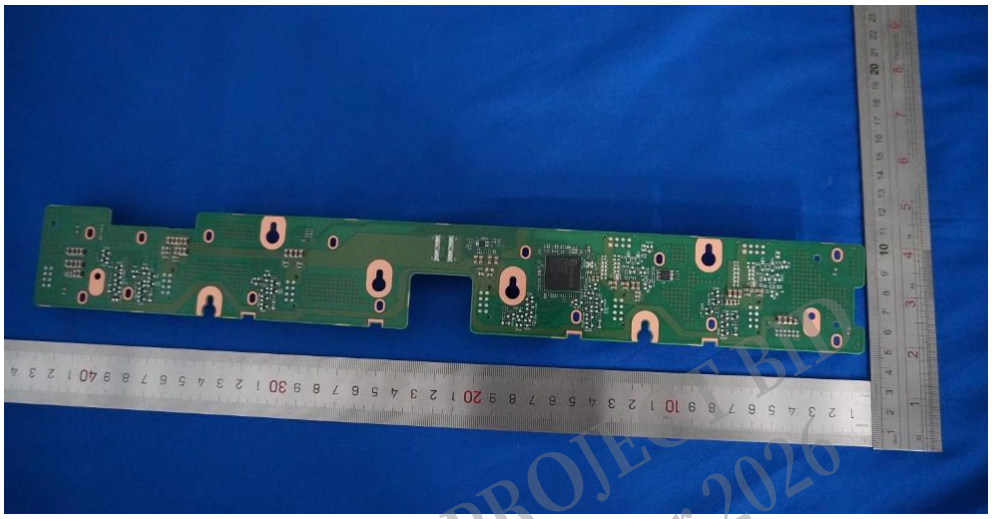
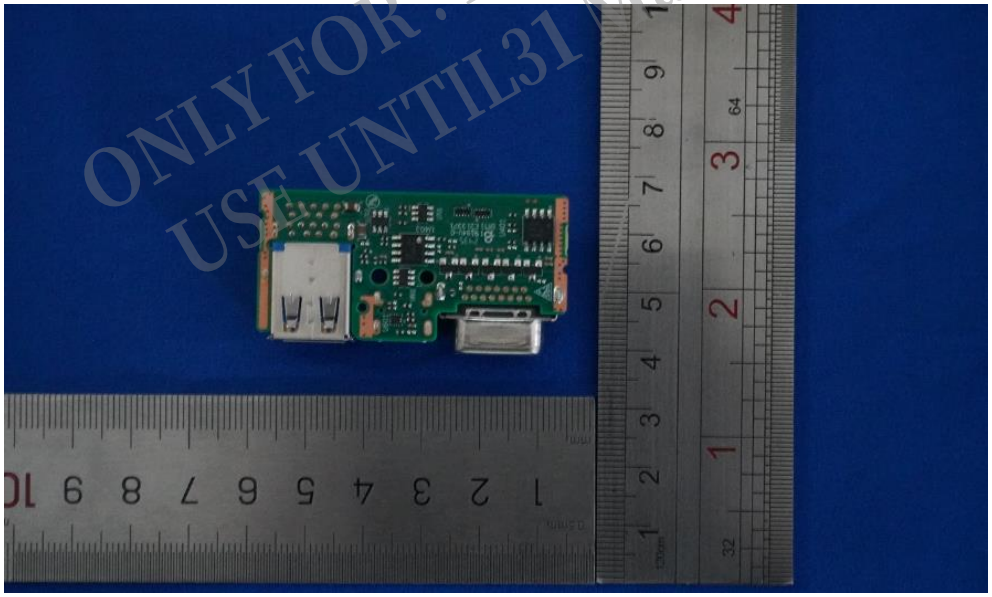


Photo 20 BC15RCIAB top view

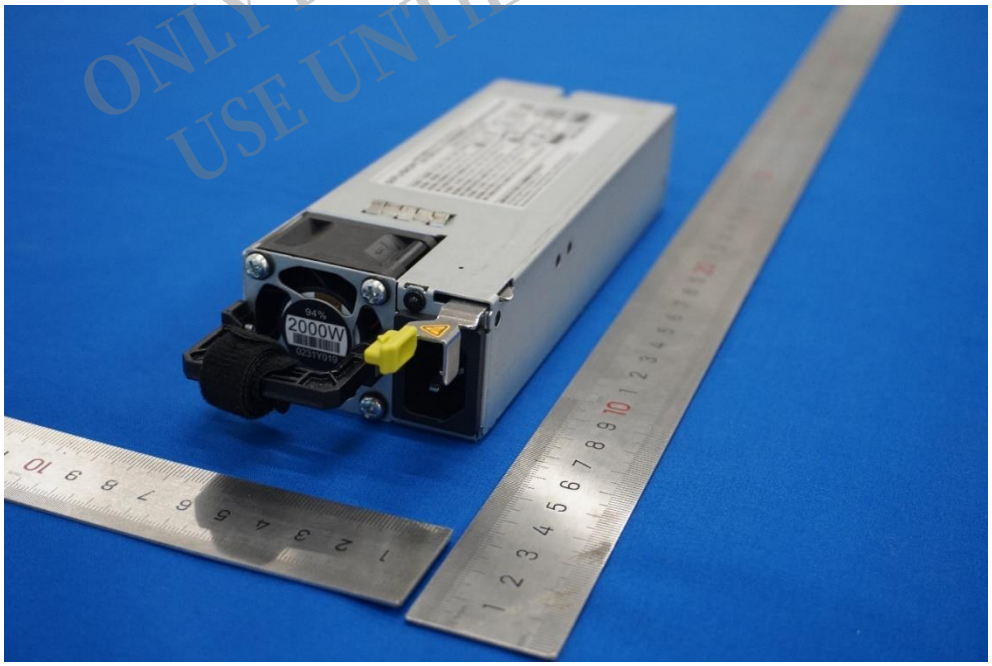


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 21 BC15RCIAB bottom view

Photo 22 PAC2000S12-B1 top view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 23 PAC2000S12-B1 bottom view

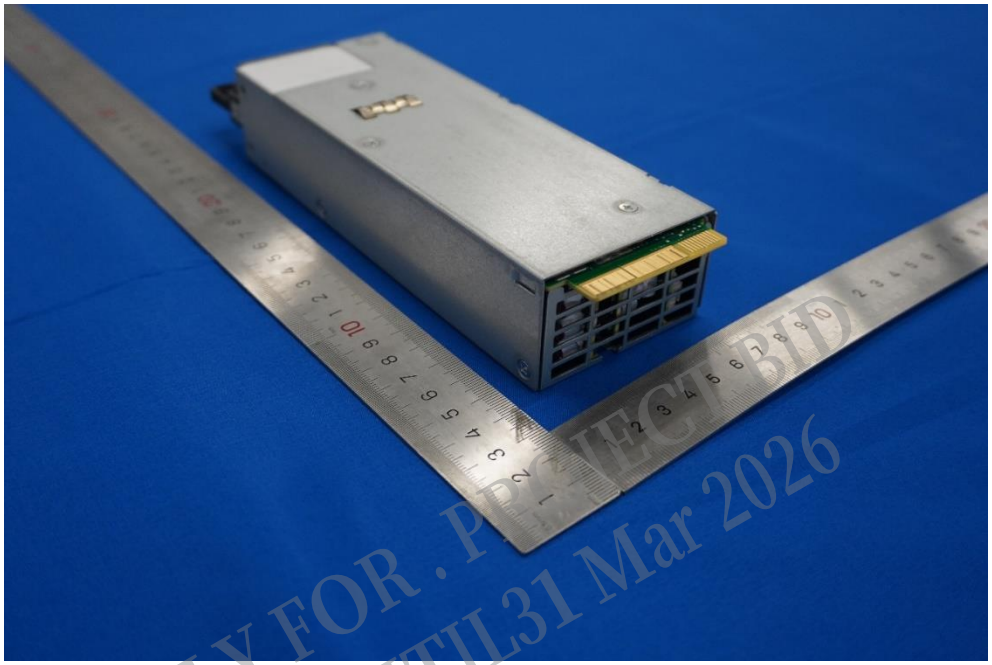
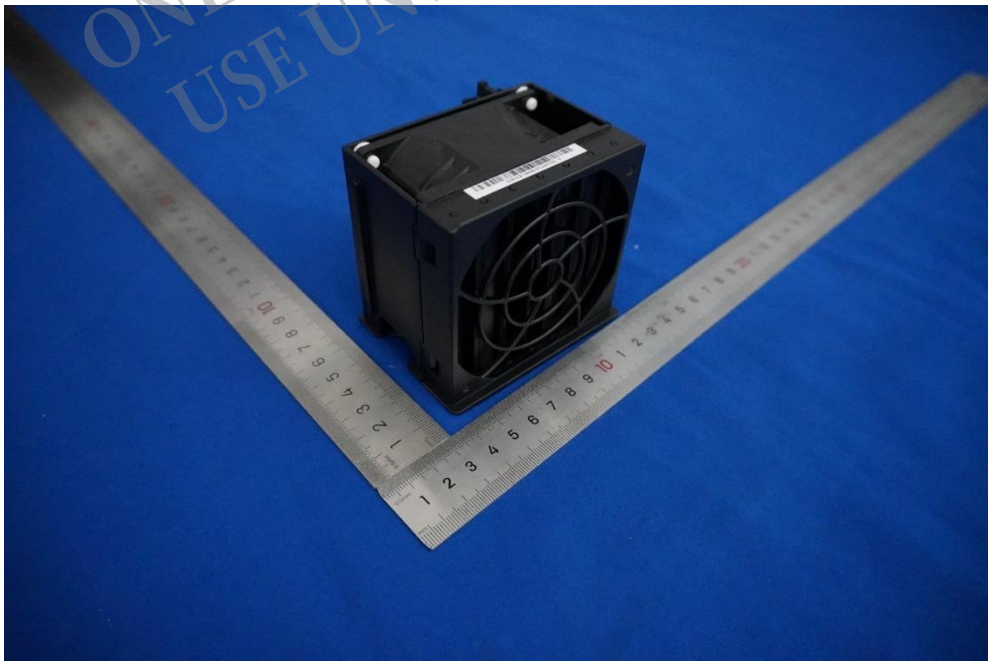


Photo 24 fan view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 25 BC82LCIA top view

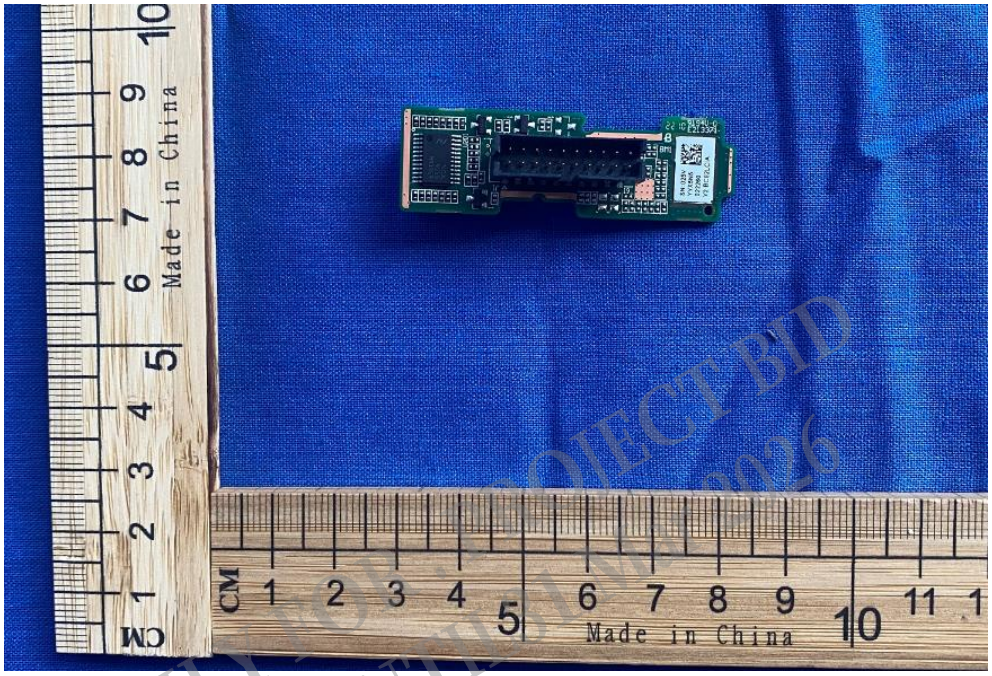
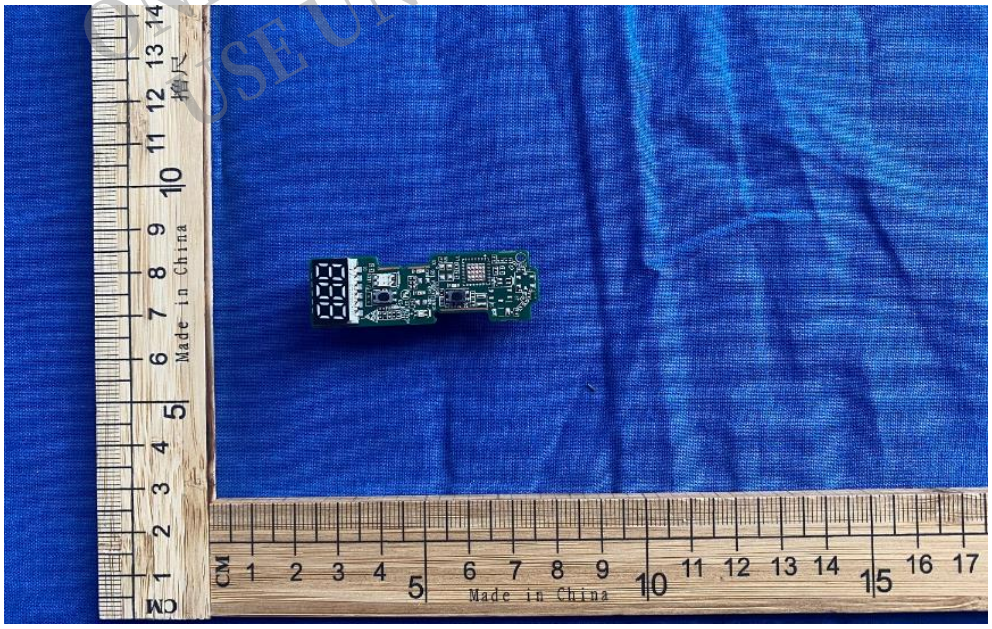


Photo 26 BC82LCIA bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 27 L194PE046-SD-R top view

Photo 28 L194PE046-SD-R bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 29 BF3 top view

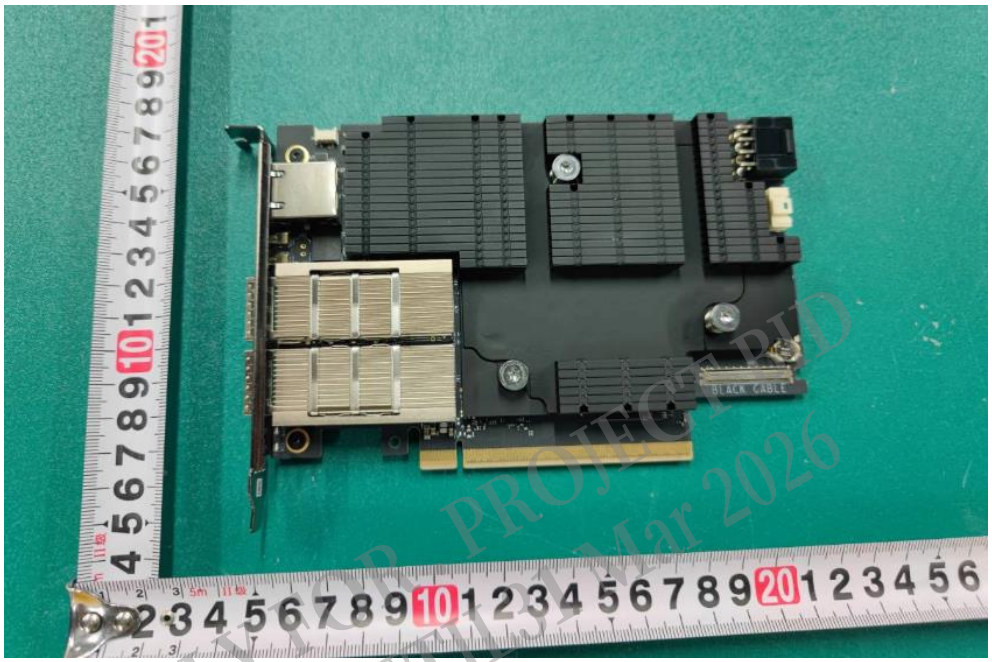


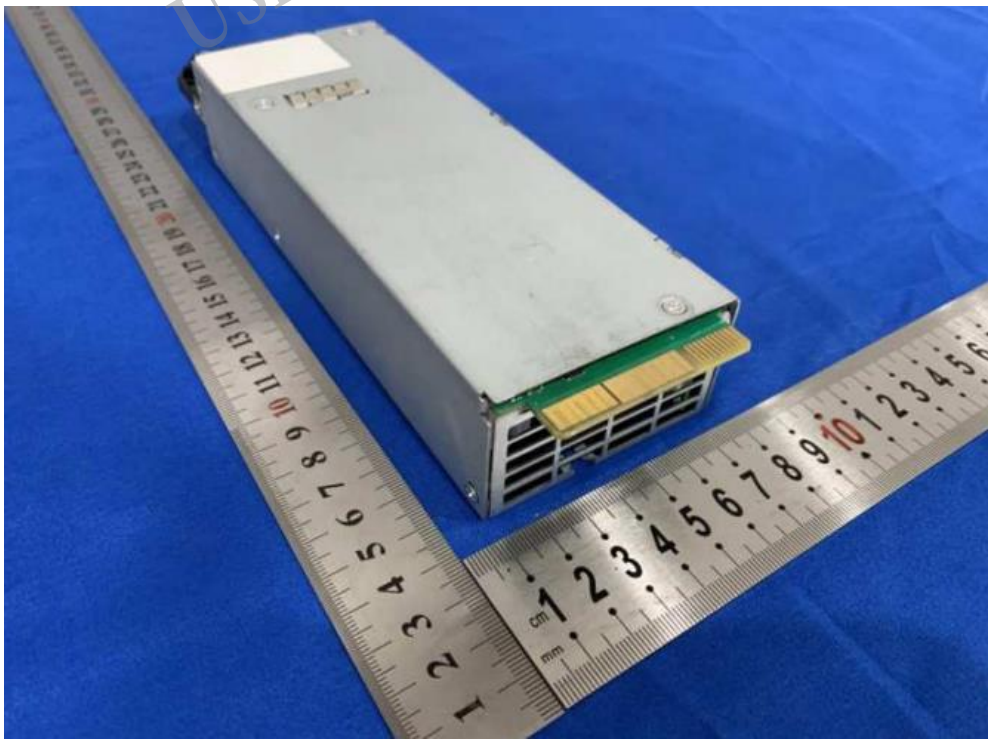
Photo 30 BF3 bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 31 PAC900S12-B2 top view

Photo 32 PAC900S12-B2 bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 33 PAC1500S12-B1 top view

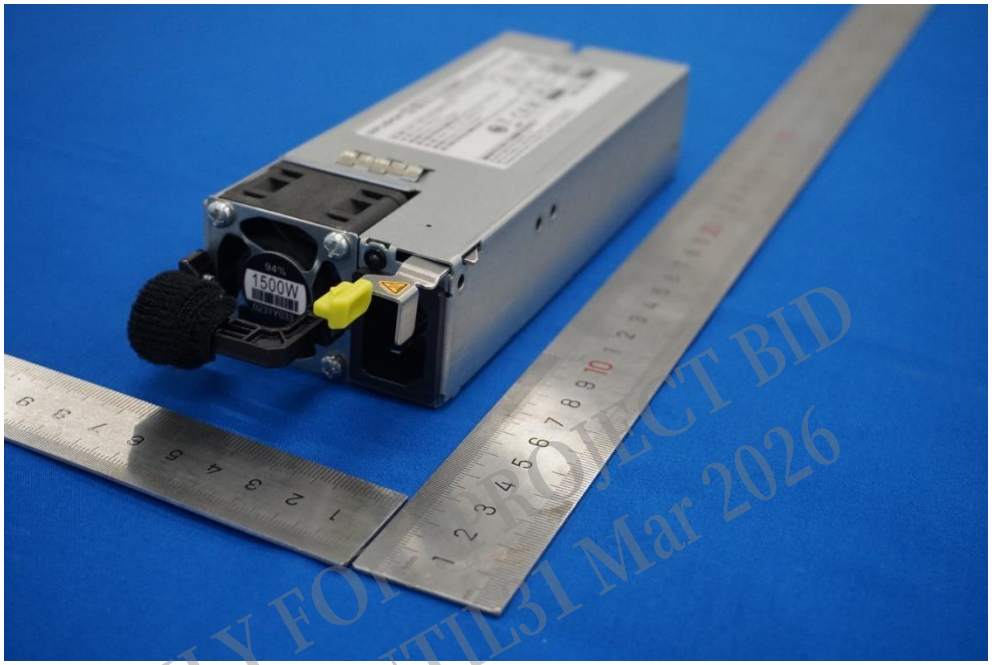
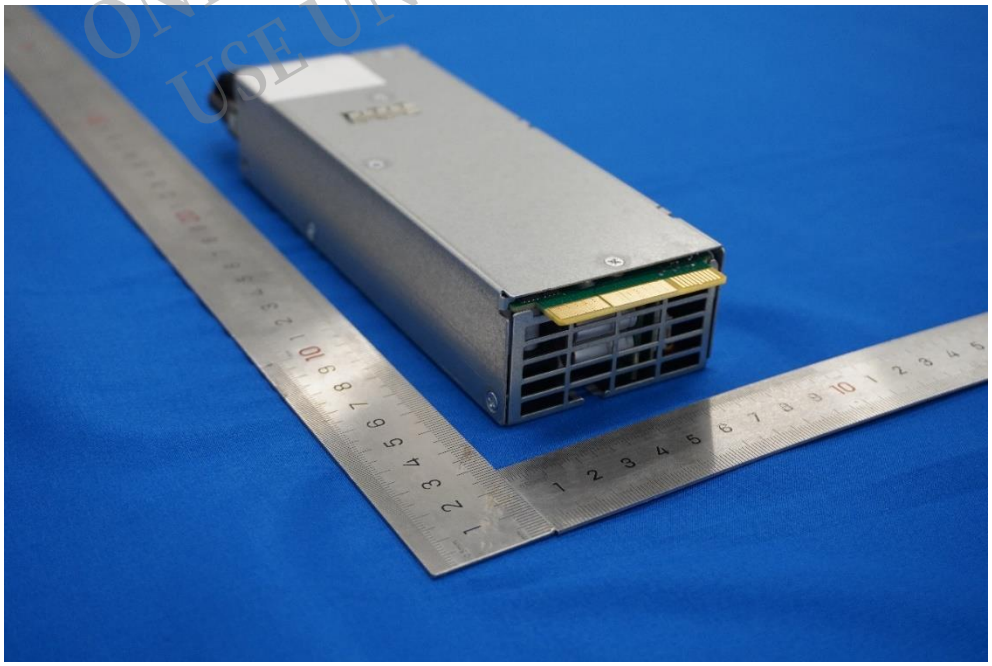


Photo 34 PAC1500S12-B1 bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 35 PAC2000S12-T1 top view

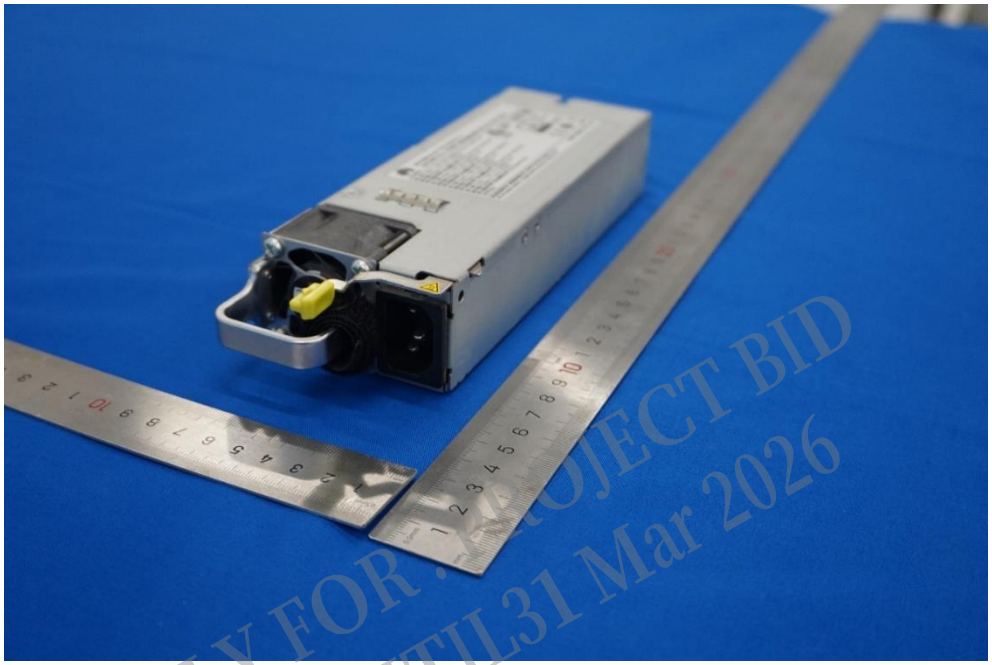
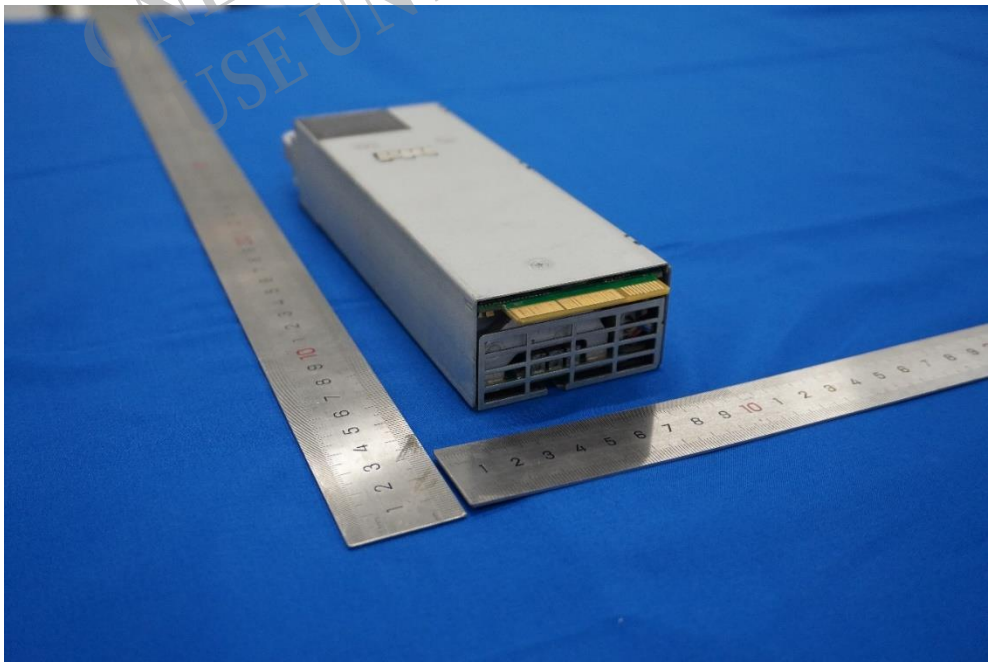


Photo 36 PAC2000S12-T1 bottom view

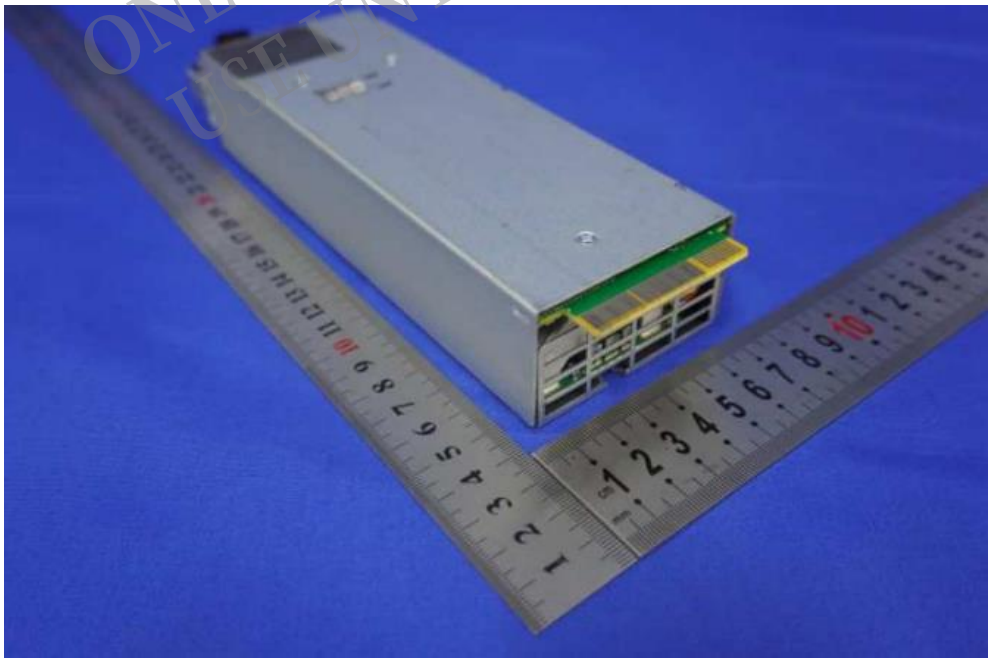


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 37 PAC3000S12-T1 top view

Photo 38 PAC3000S12-T1 bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 39 PHD1500S12-B2 top view

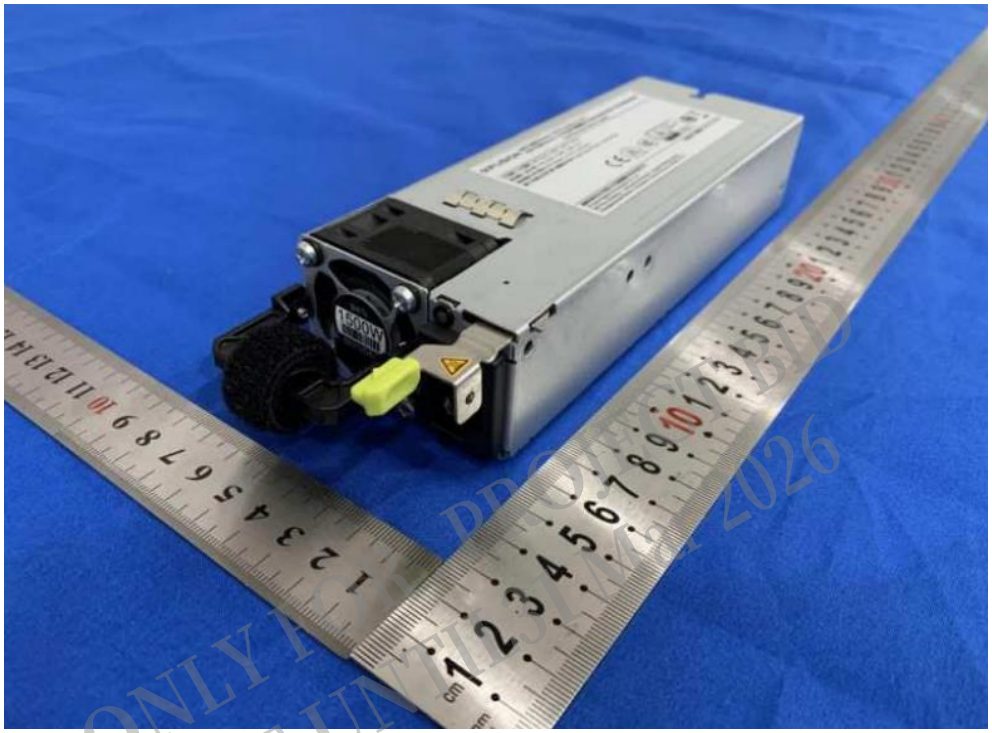


Photo 40 PHD1500S12-B2 bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 41 BC26IOTA top view

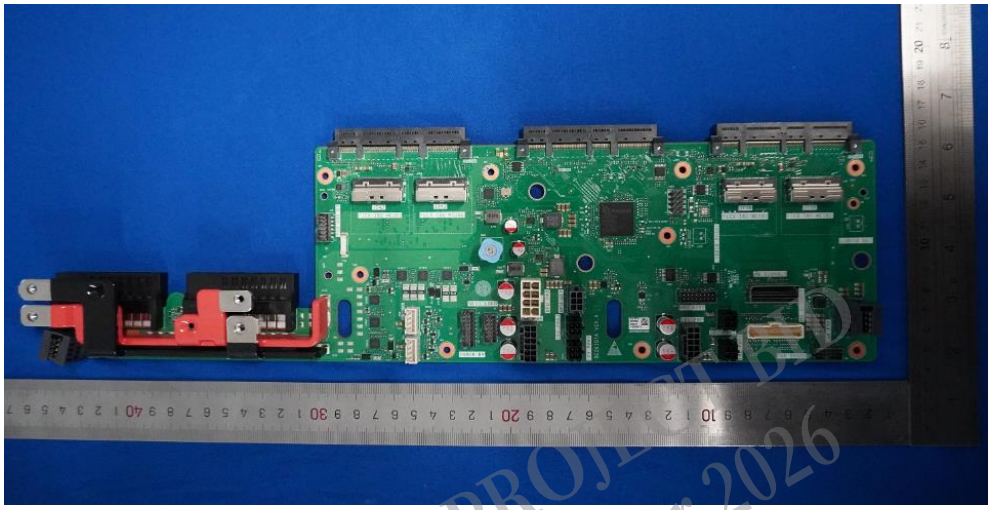
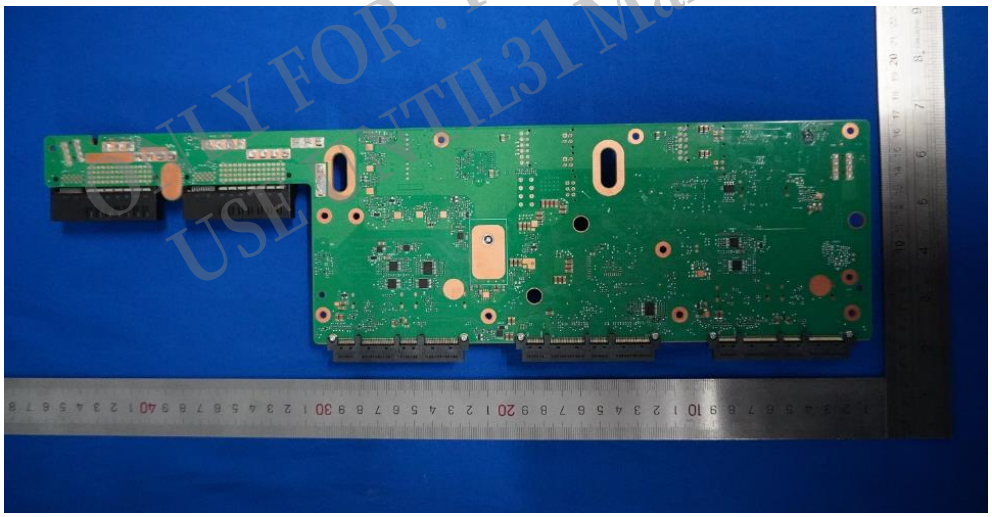


Photo 42 BC26IOTA bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 43 BC26HBMA top view

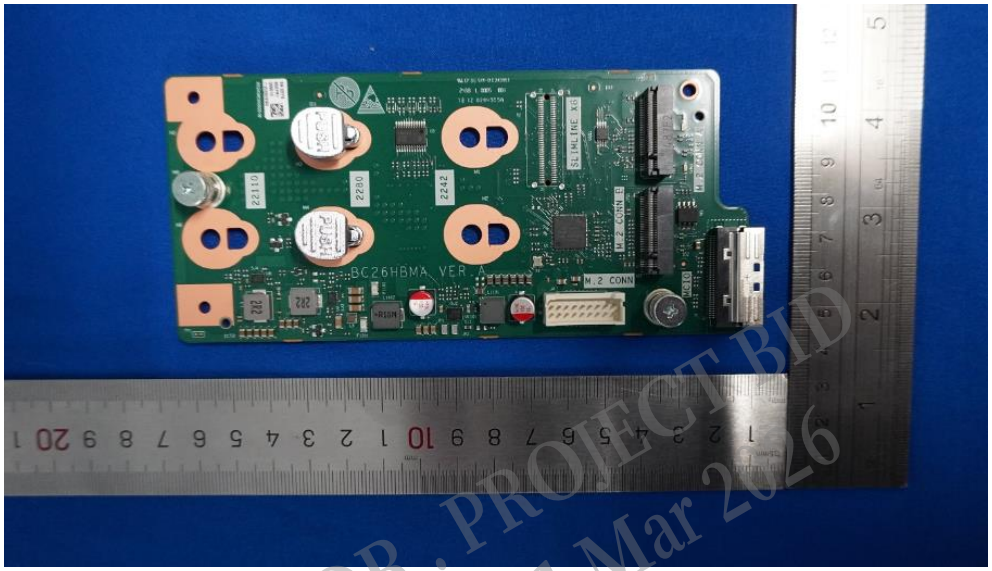
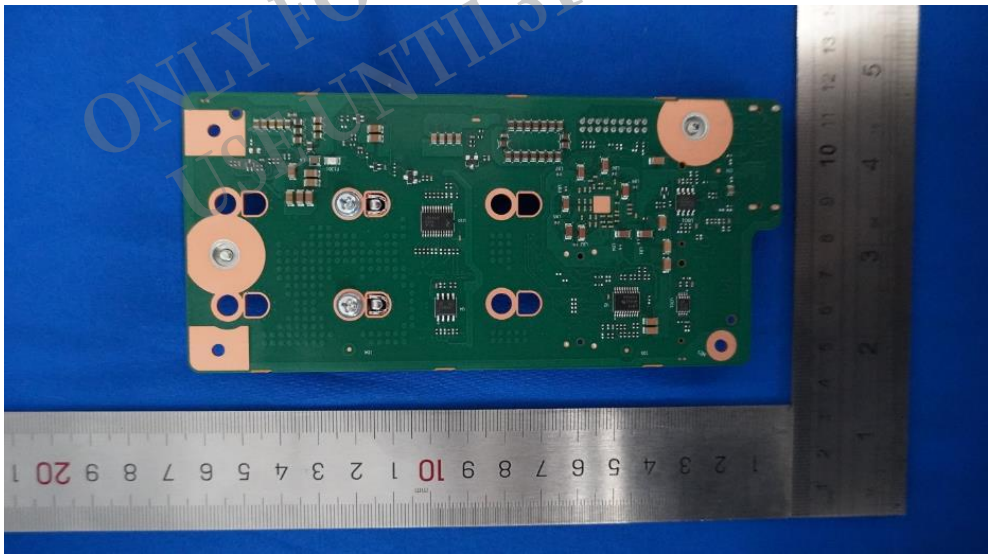


Photo 44 BC26HBMA bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 45 BC15FDCA top view

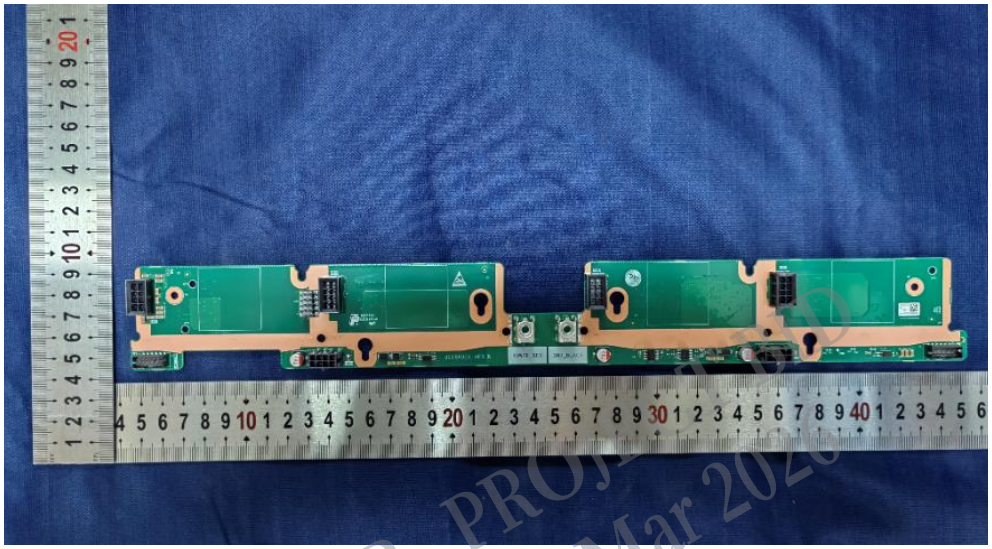
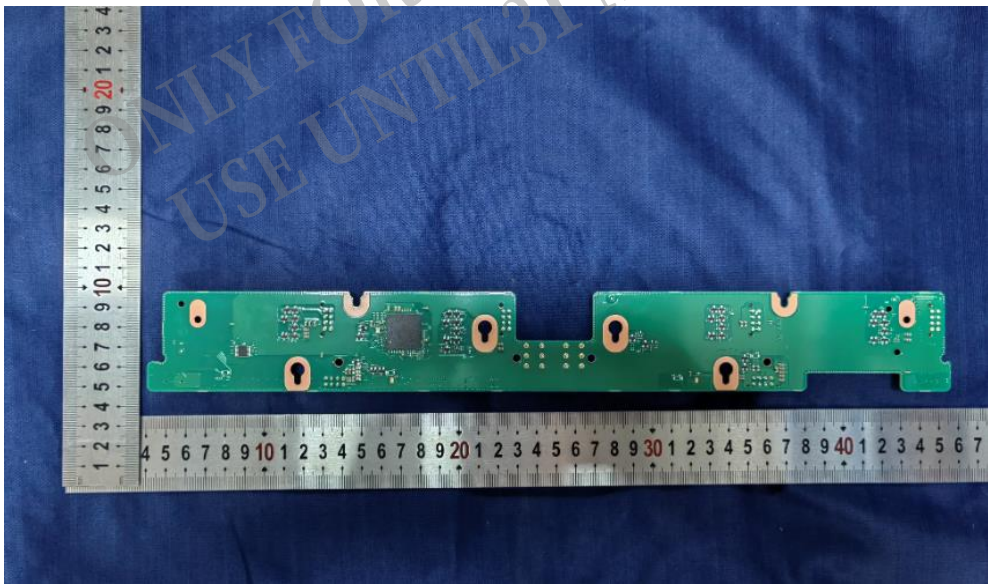


Photo 46 BC15FDCA bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 47 L194PE047-SD-R top view

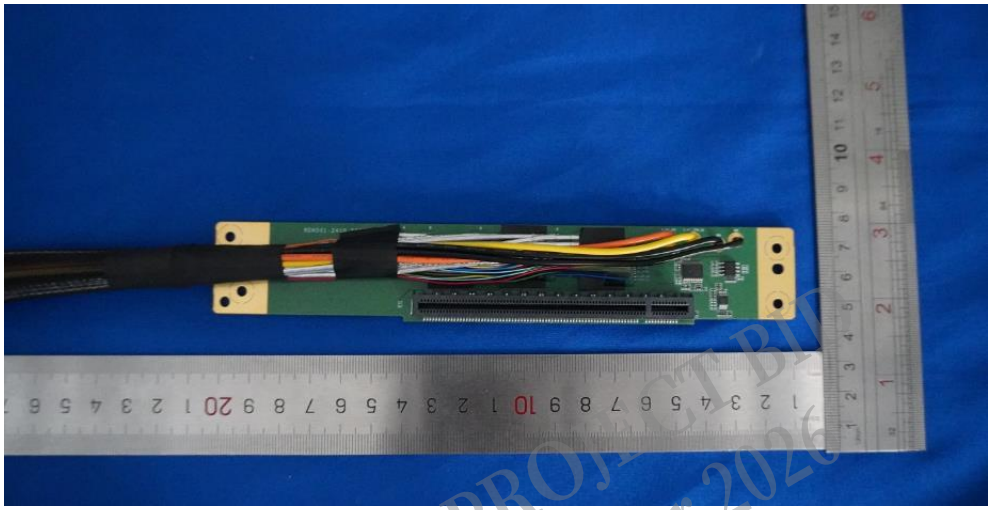


Photo 48 L194PE047-SD-R bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 49 BC15NHBB top view

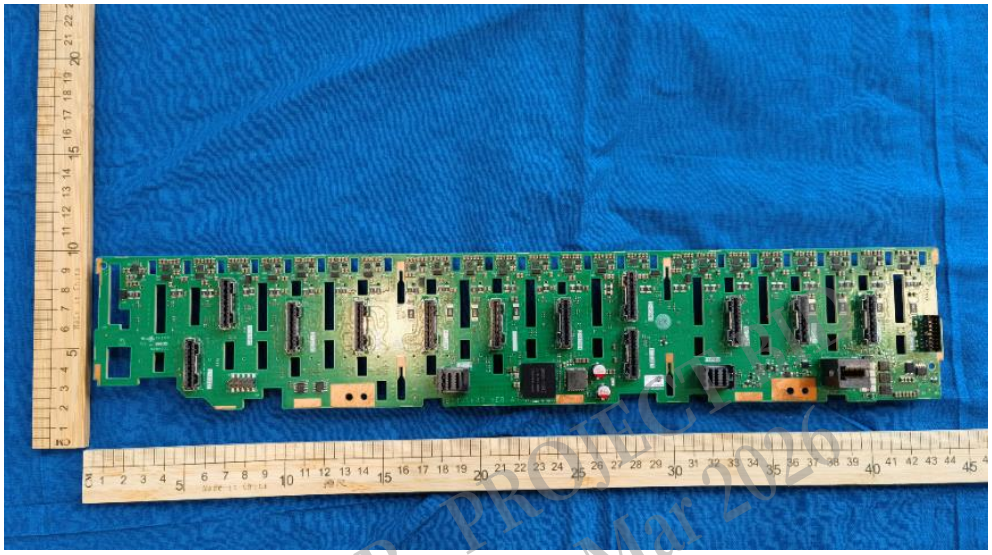
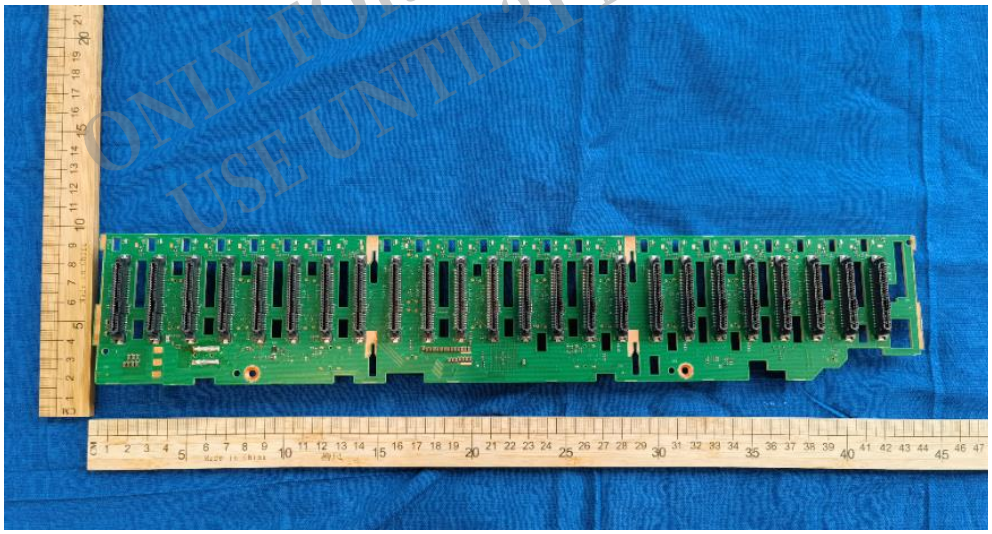


Photo 50 BC15NHBB bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 51 BC15NHBK top view

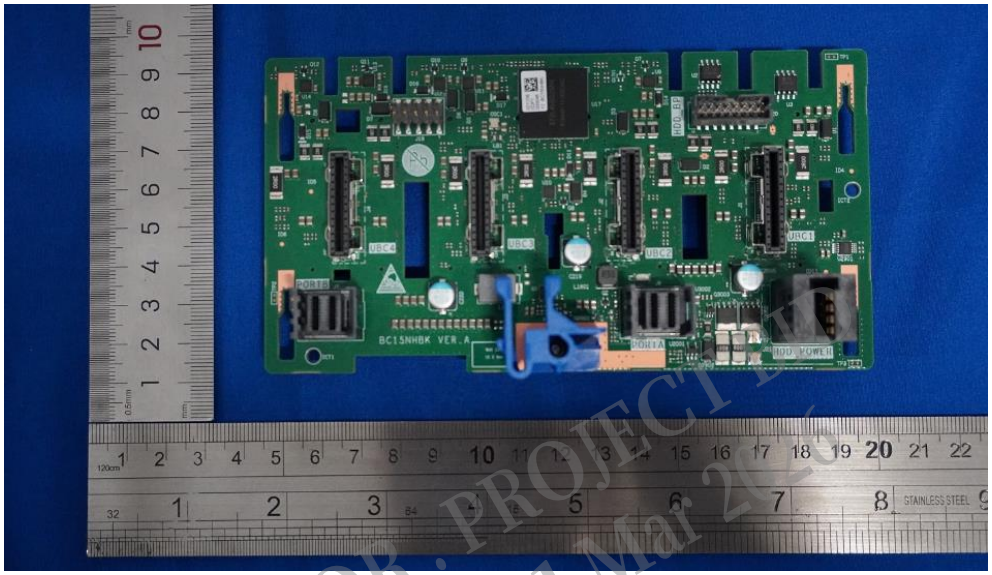
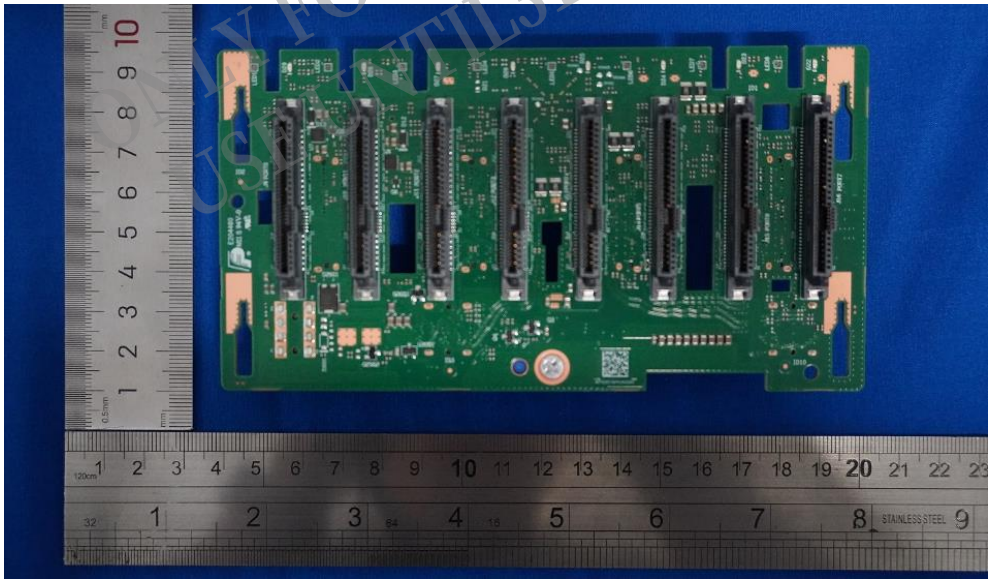


Photo 52 BC15NHBK bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 53 BC15HBBK top view

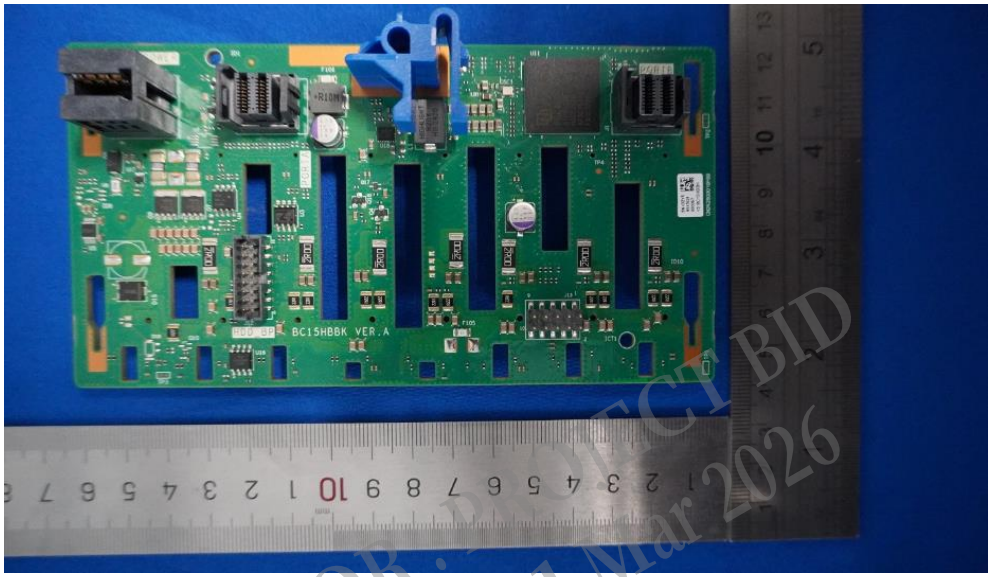


Photo 54 BC15HBBK bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 55 BC15NHBR top view

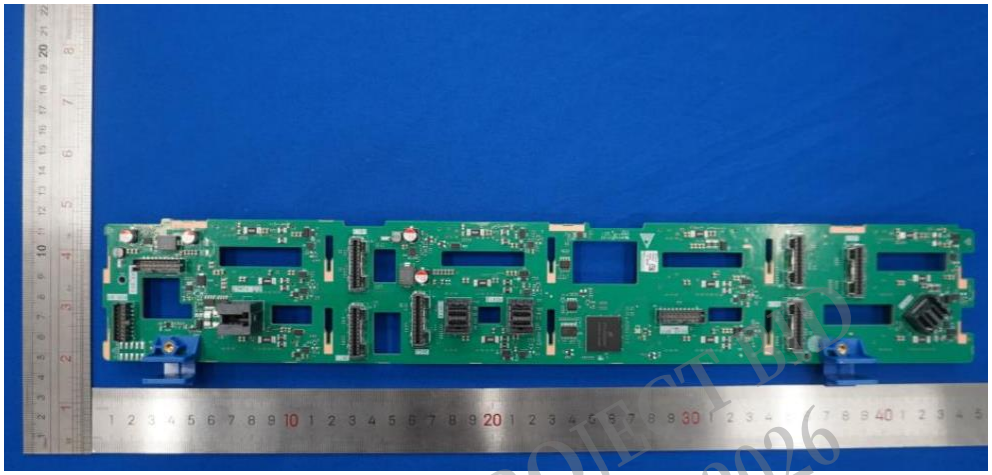


Photo 56 BC15NHBR bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 57 BC15HBBE top view

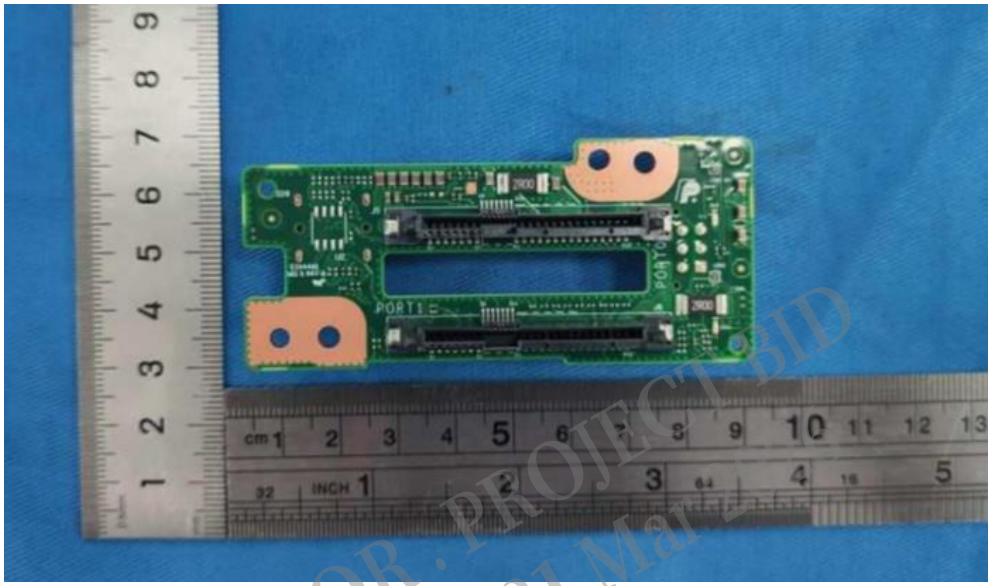
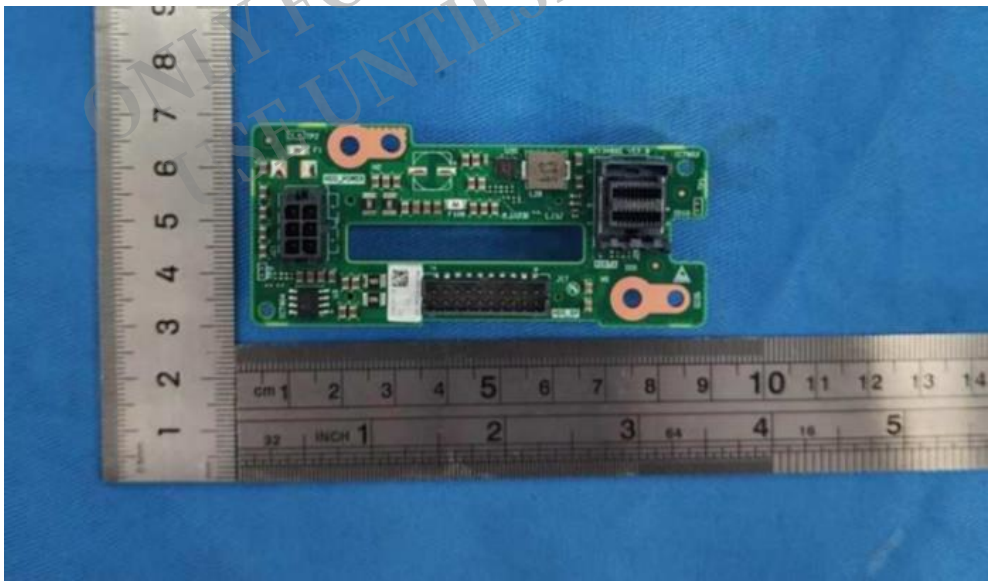


Photo 58 BC15HBBE bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 59 BC15HBBS top view

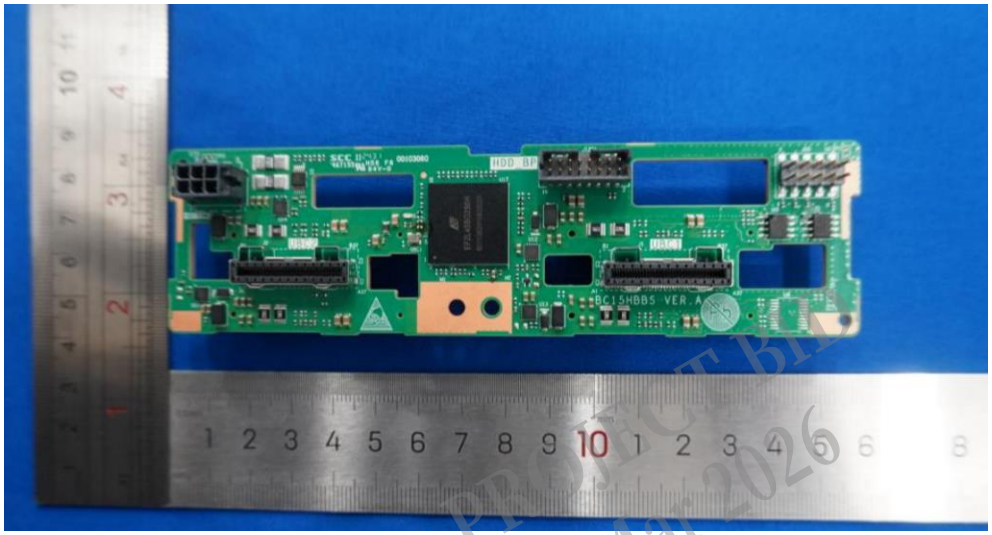
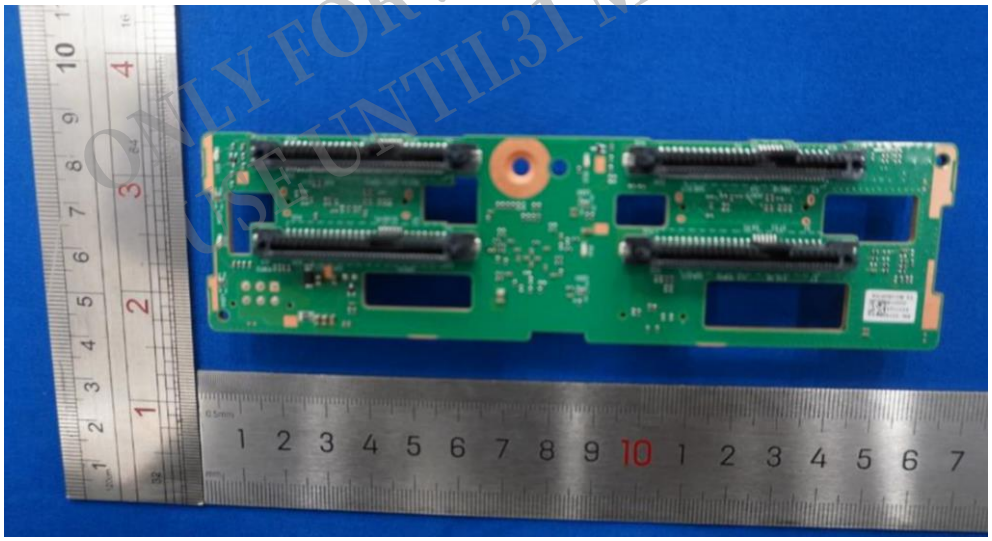


Photo 60 BC15HBBS bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 61 BC15MSMA top view

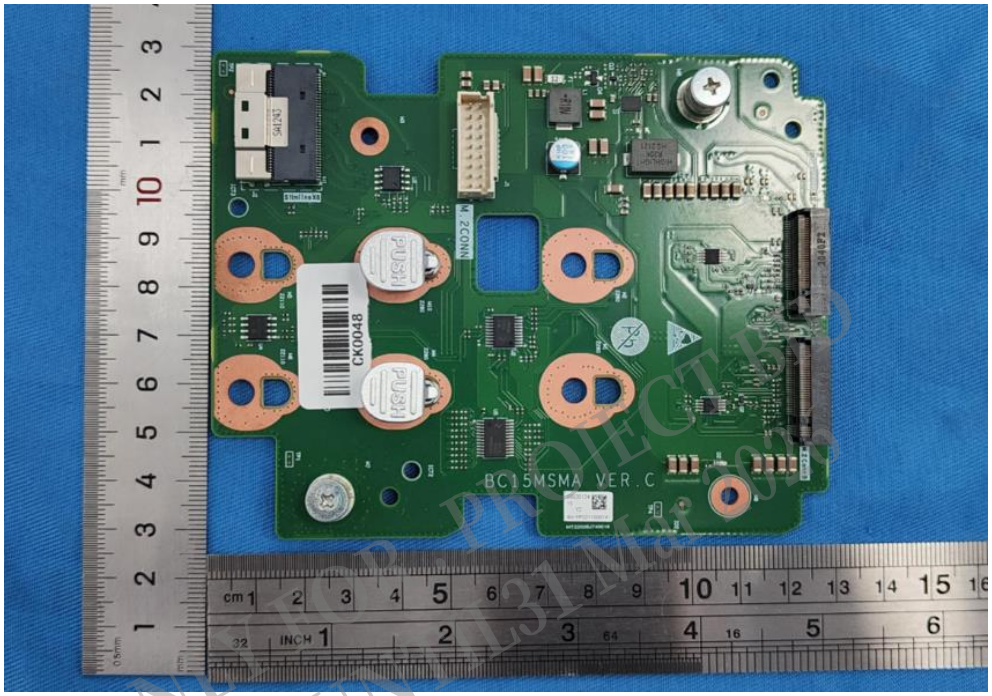
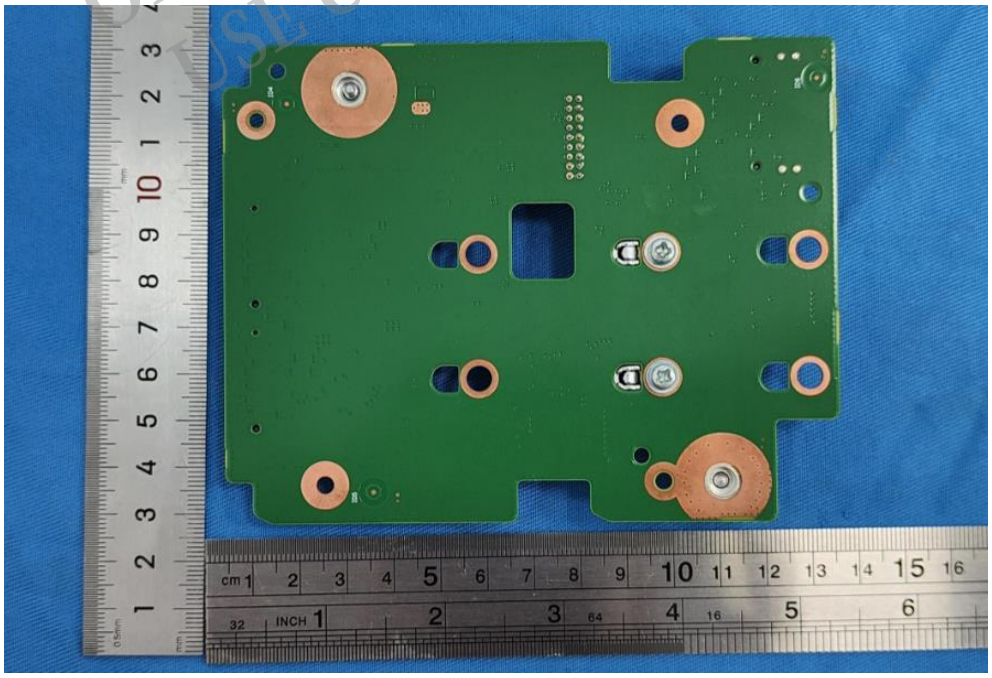


Photo 62 BC15MSMA bottom view

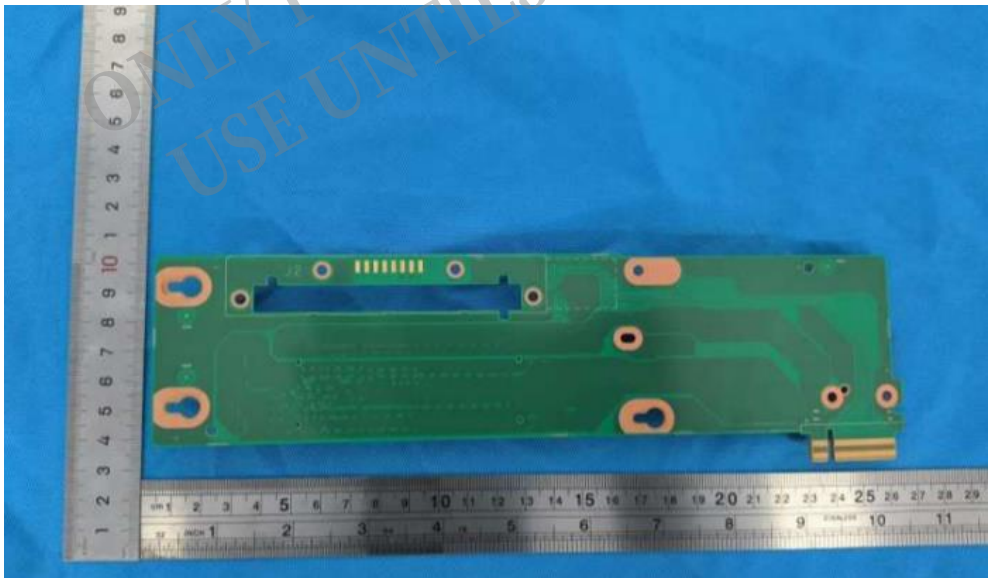


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 63 BC15PRUB top view

Photo 64 BC15PRUB bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 65 BC15PRUE top view

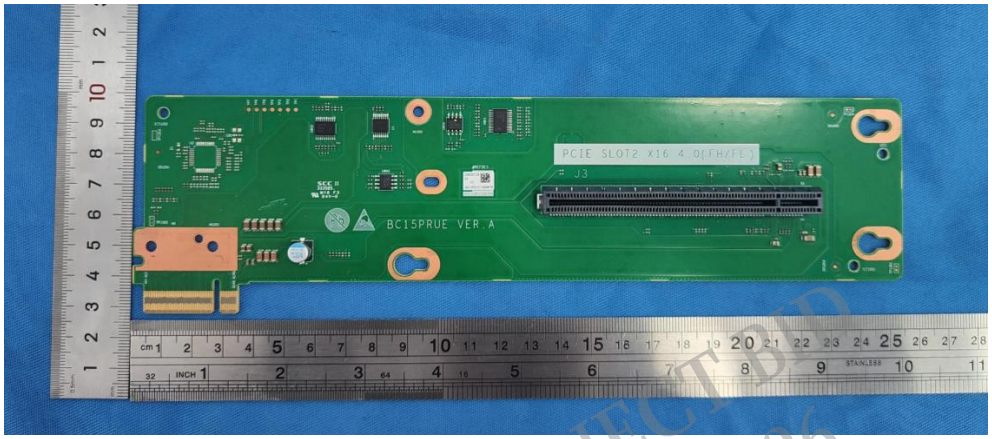
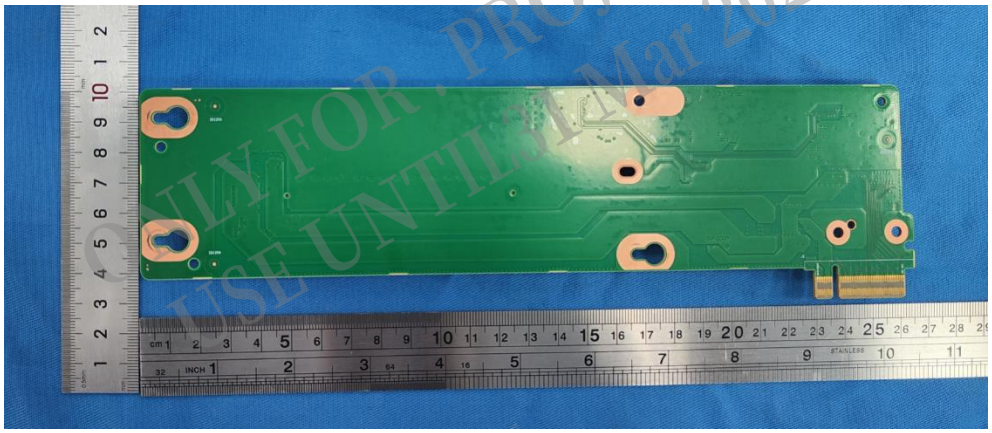


Photo 66 BC15PRUE bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 67 BC15PRUF top view

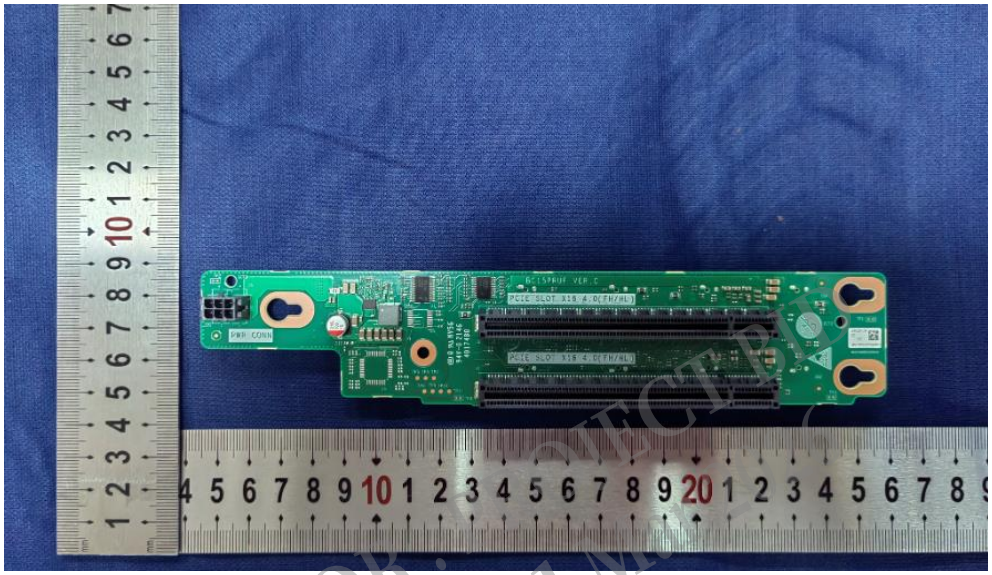
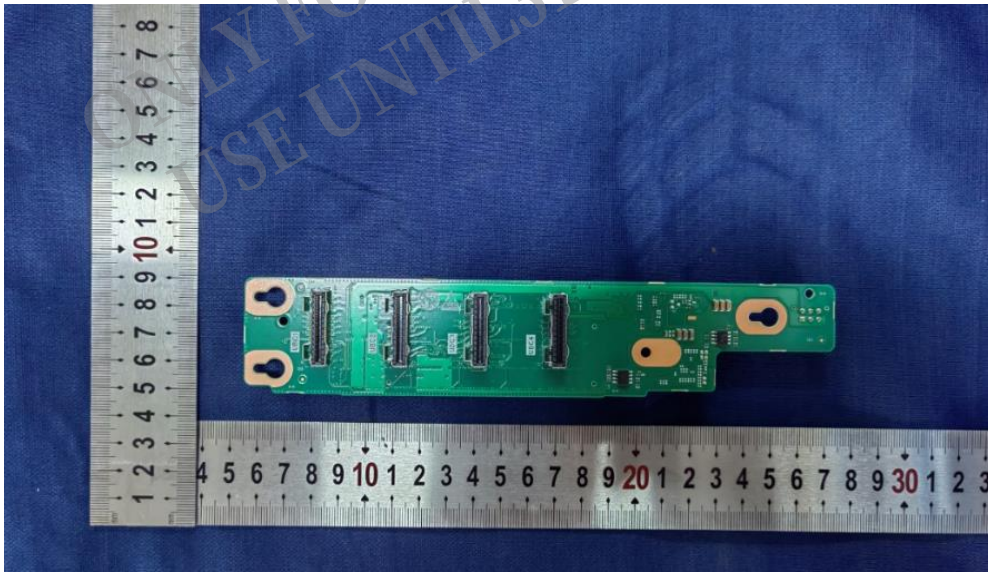


Photo 68 BC15PRUF bottom view

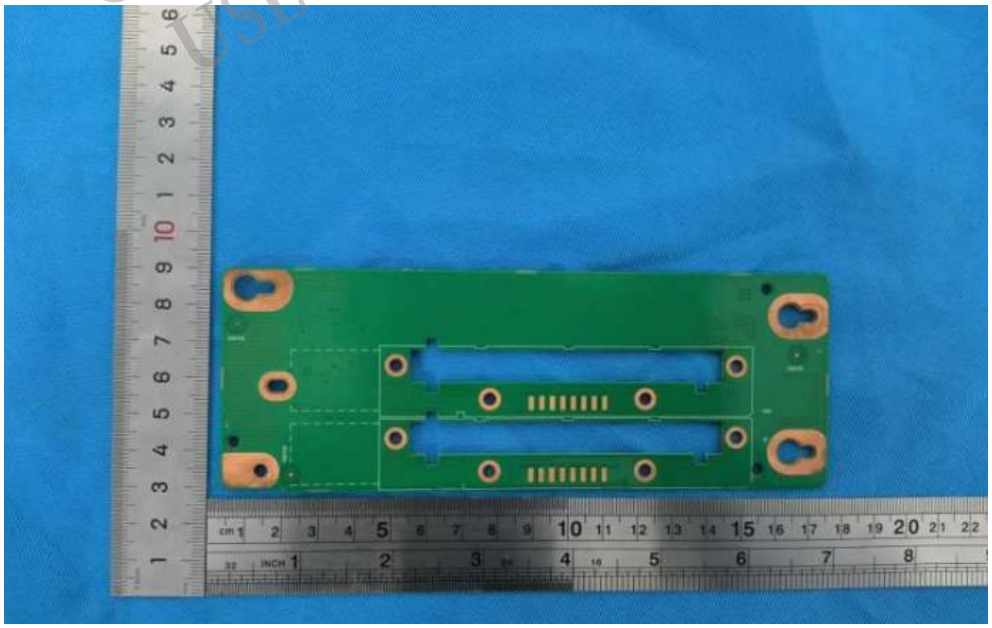


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 69 BC15PRUC top view

Photo 70 BC15PRUC bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 71 BC15PRUCB/BC15PRUCC top view

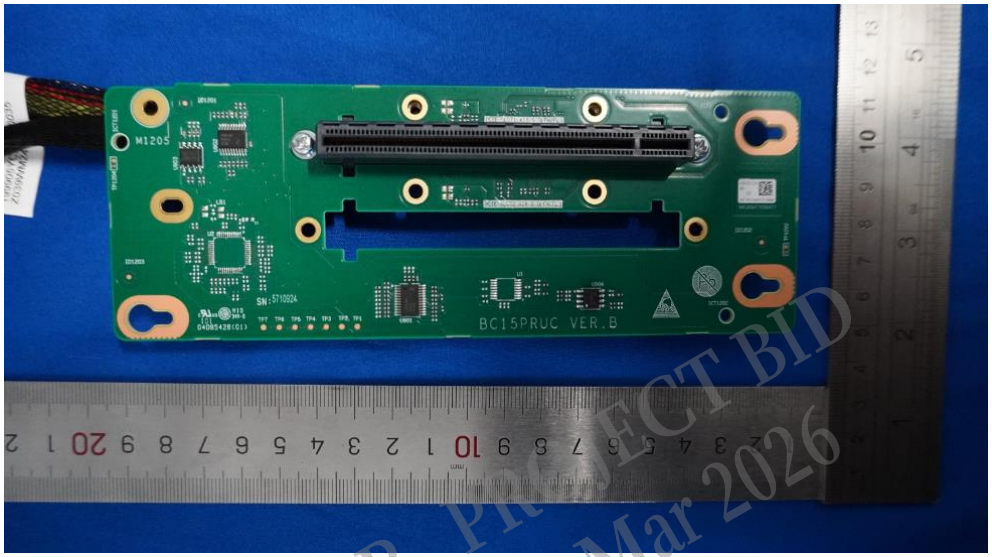
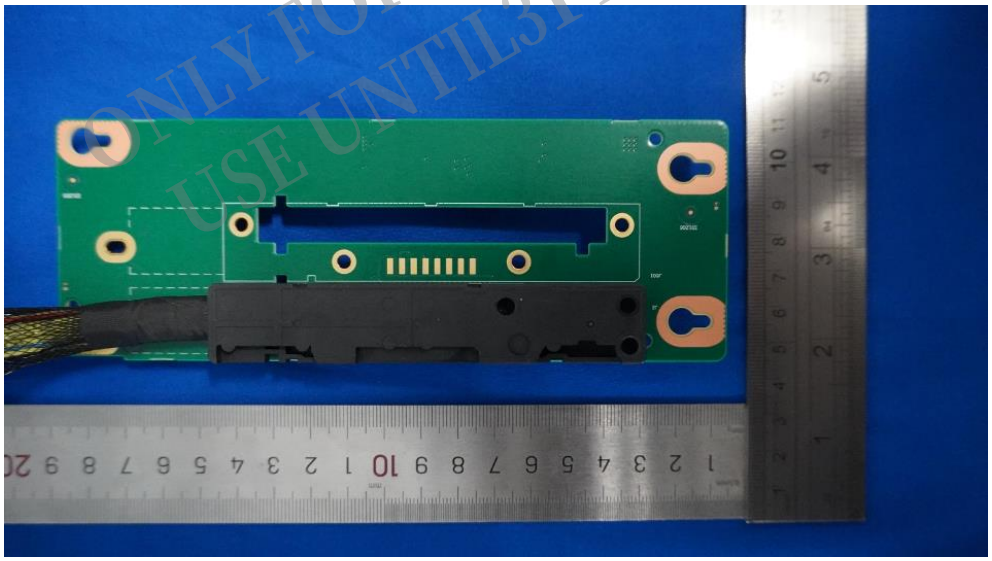


Photo 72 BC15PRUCB/BC15PRUCC bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 73 BC15PRUCC top view

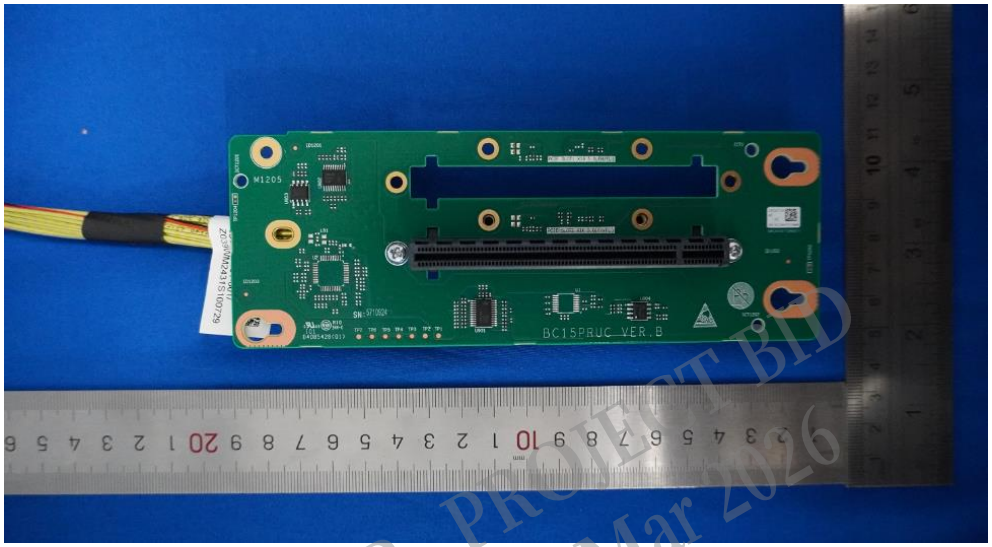
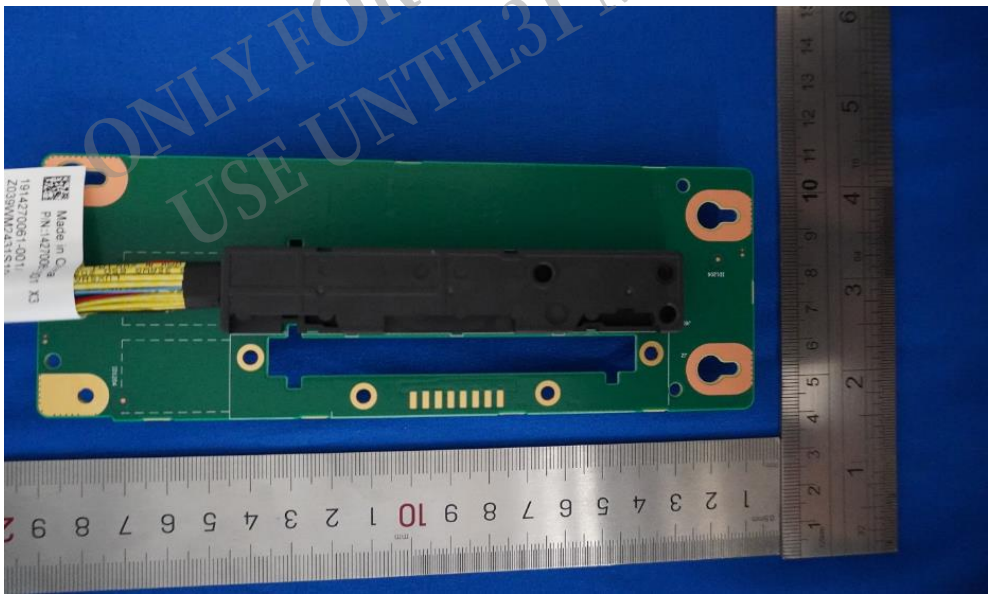


Photo 74 BC15PRUCC bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 75 BC15PRUD top view

Photo 76 BC15PRUD bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 77 BC15PRUI top view

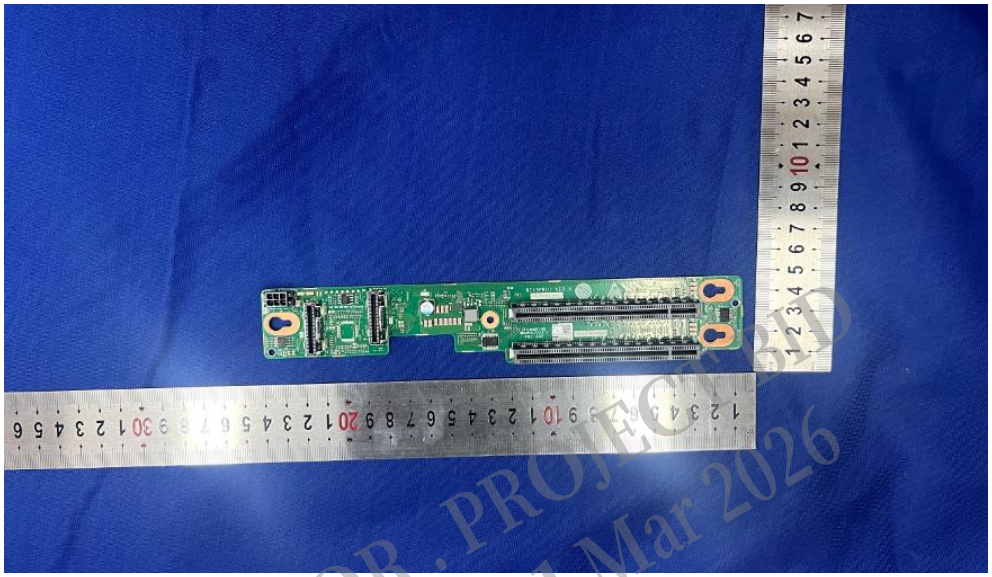
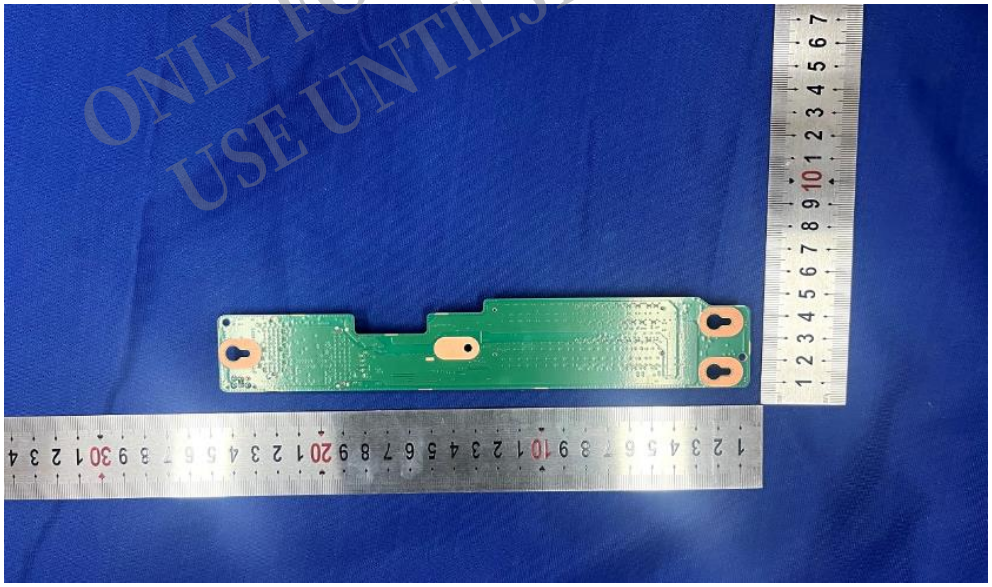


Photo 78 BC15PRUI bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 79 BC15PRUR top view

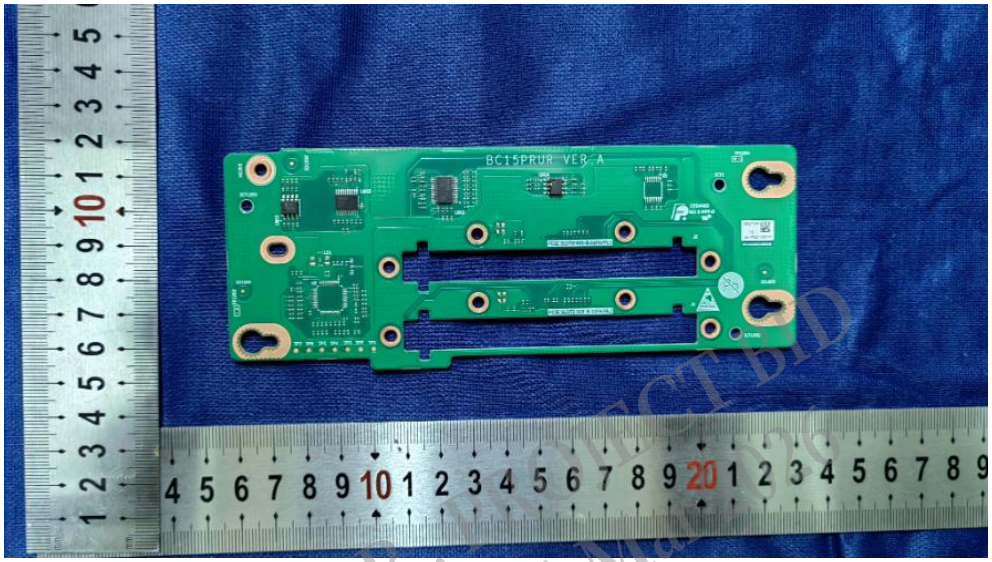
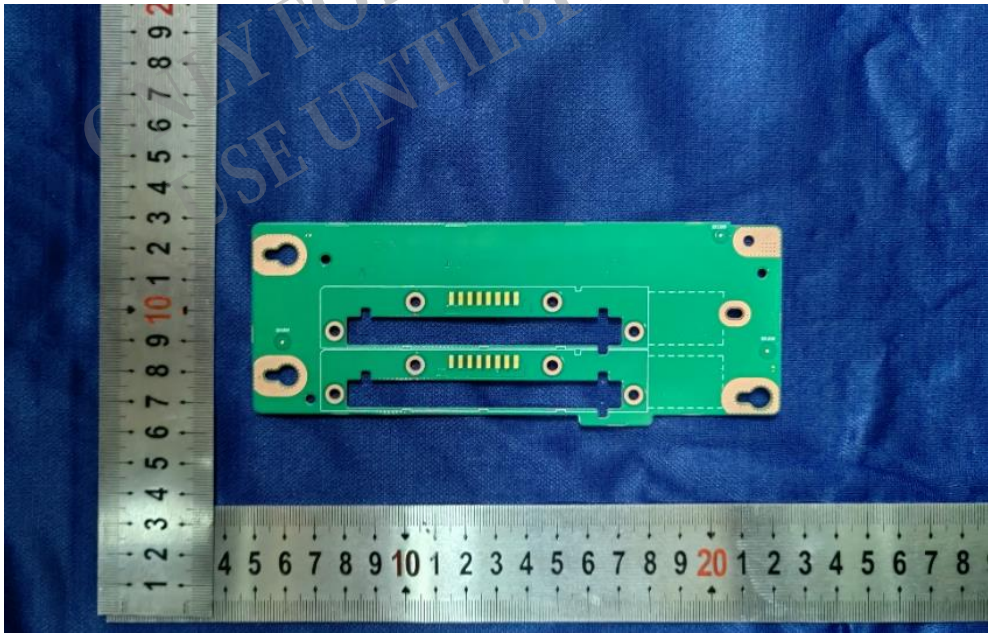


Photo 80 BC15PRUR bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 81 BC15PRUWB top view

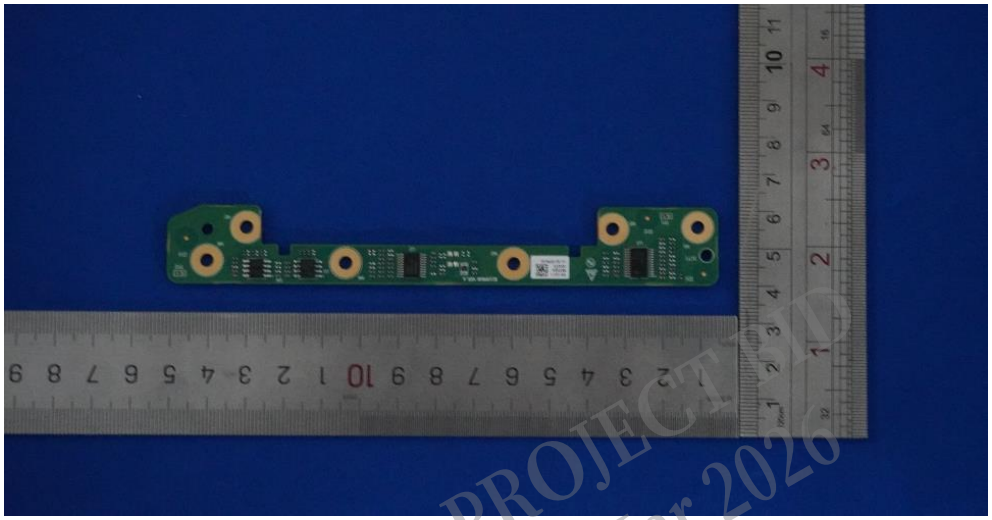
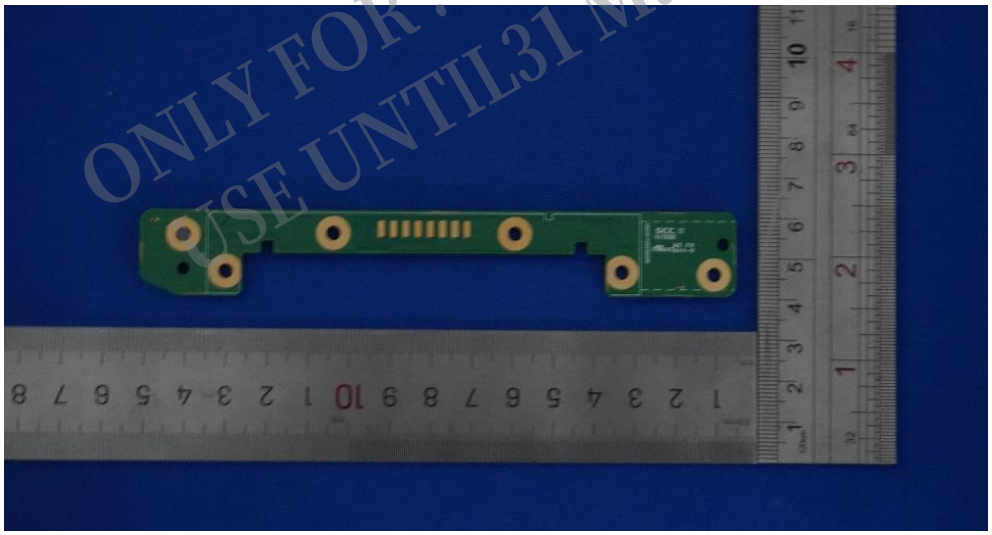


Photo 82 BC15PRUWB bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 83 BC15PRUK top view

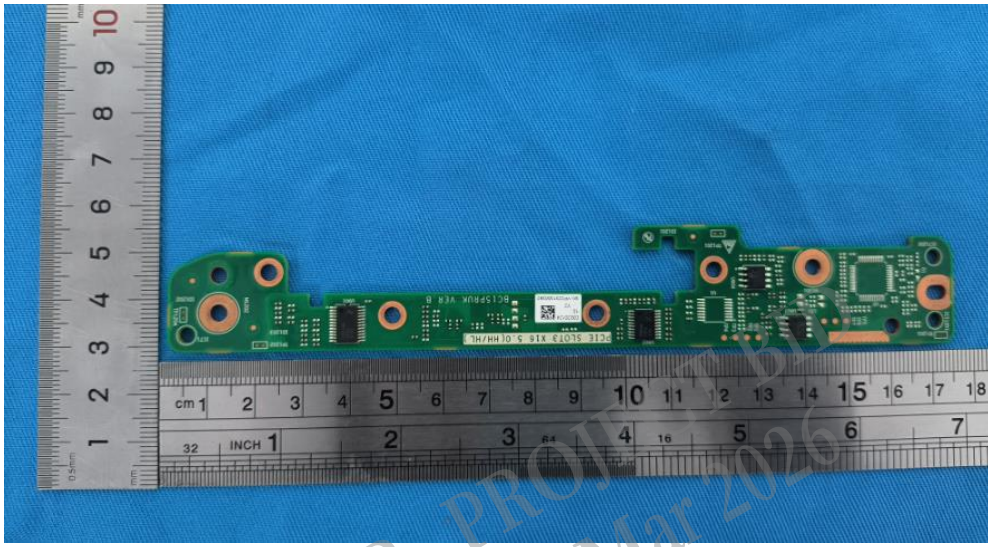
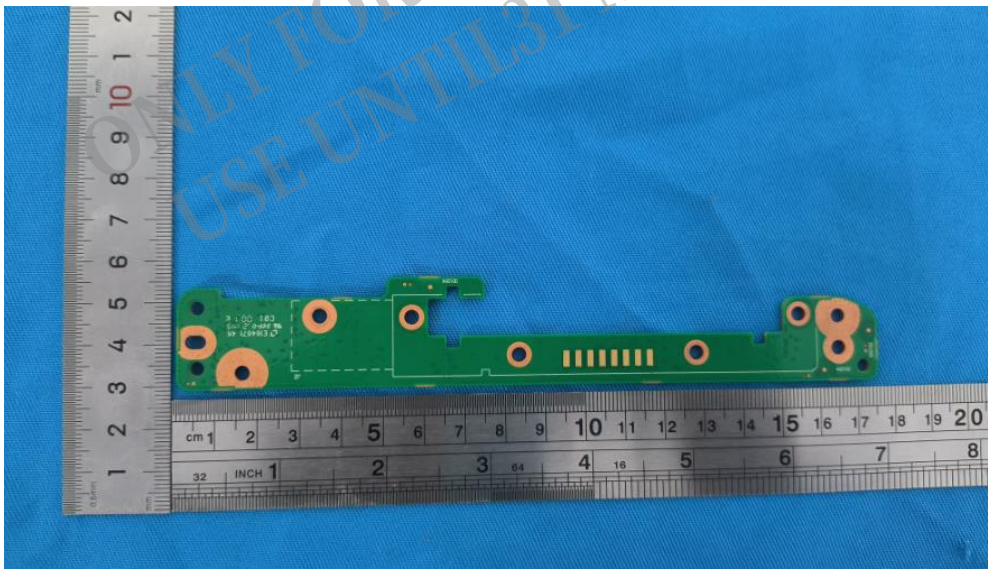


Photo 84 BC15PRUK bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 85 BC15HBBB top view

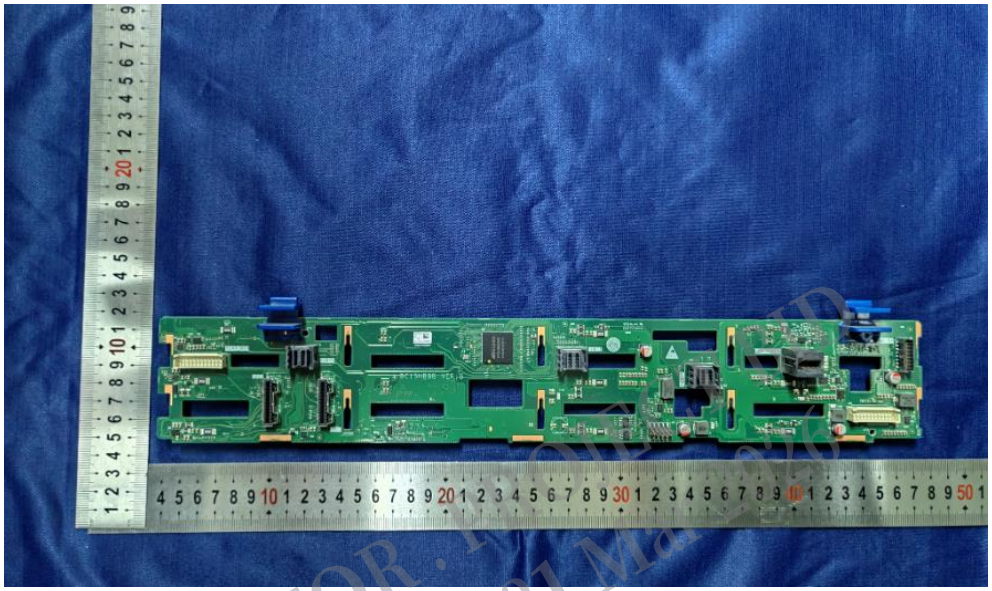


Photo 86 BC15HBBB bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 87 BC15NHBI top view

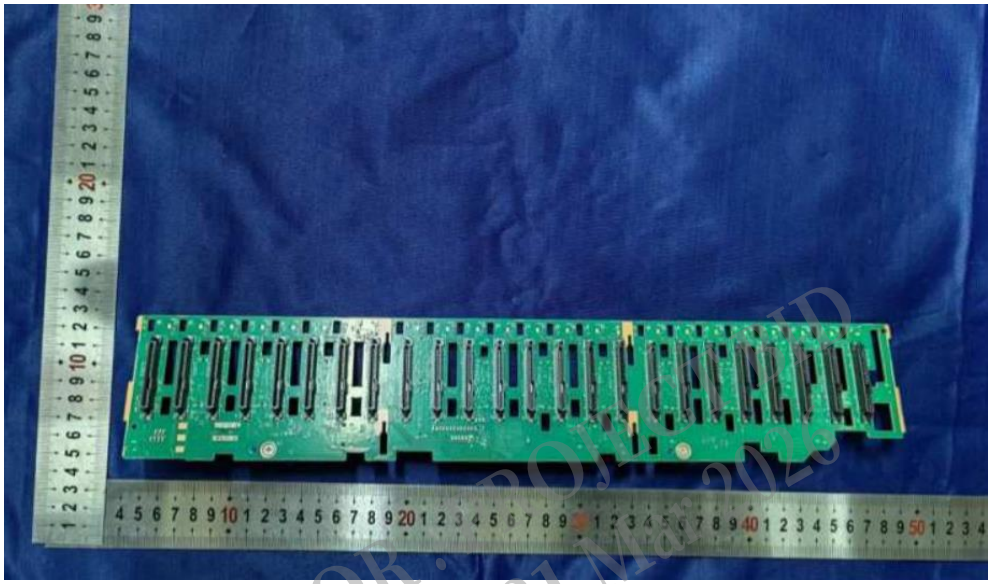


Photo 88 BC15NHBI bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 89 BC15HBBI top view

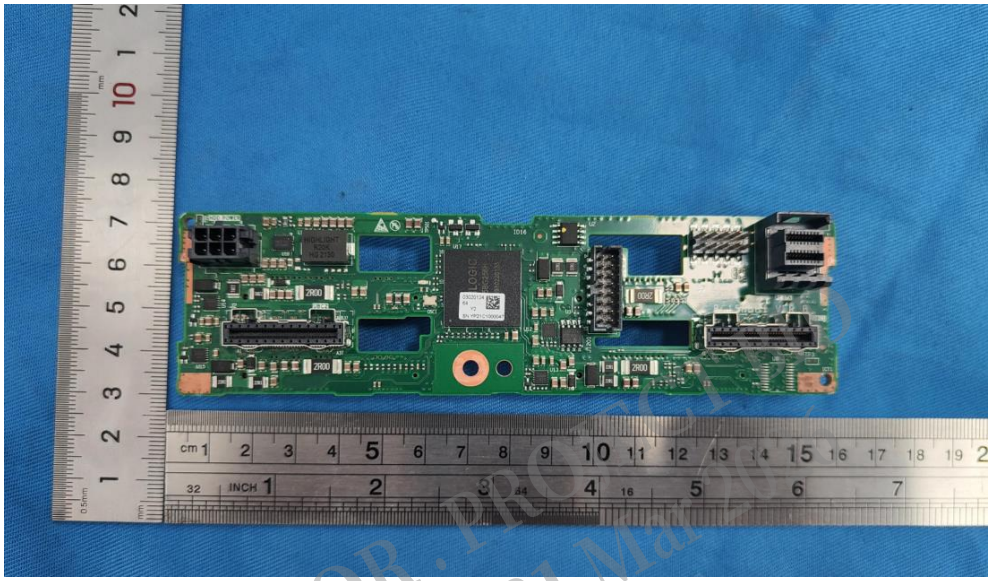
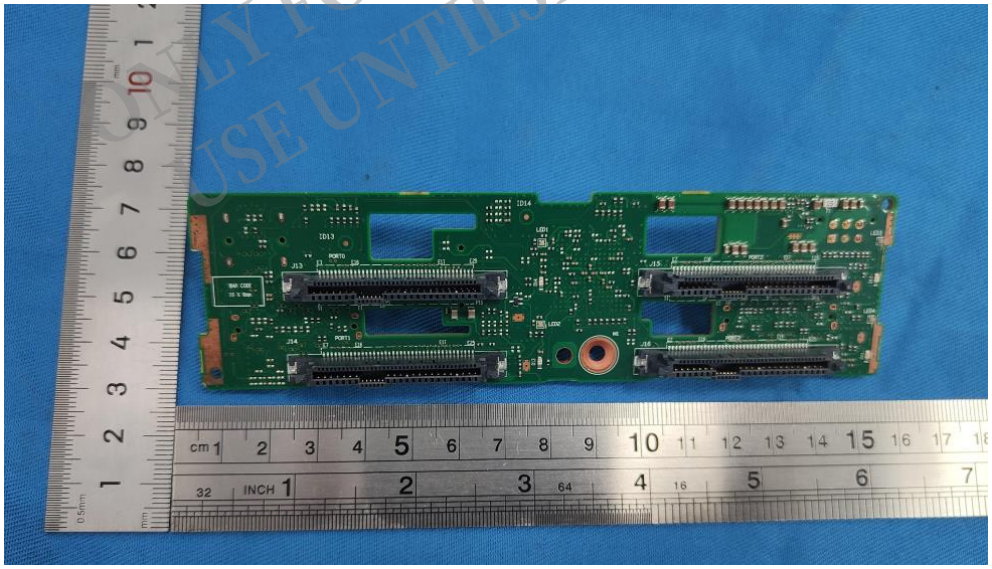


Photo 90 BC15HBBI bottom view

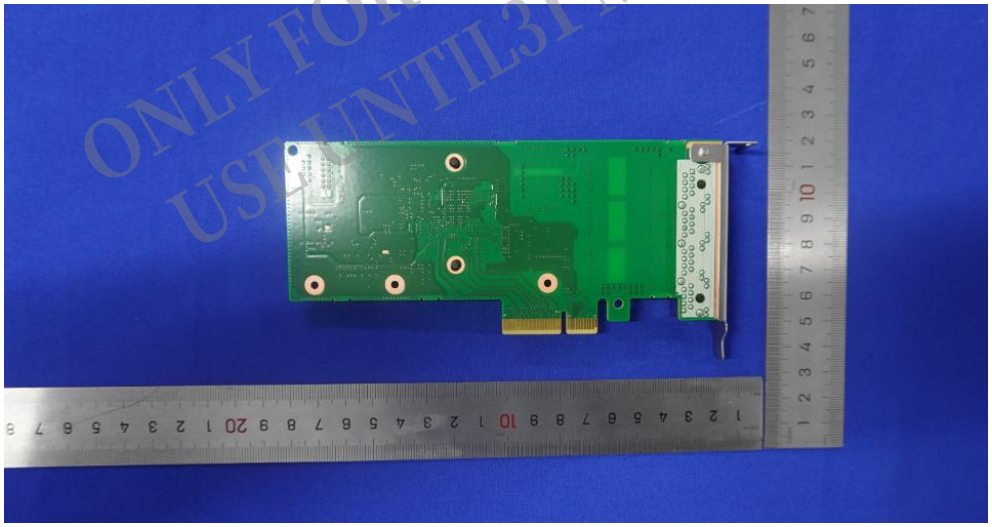


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 91 XP212(CN21ITGC1) top view

Photo 92 XP212(CN21ITGC1) bottom view

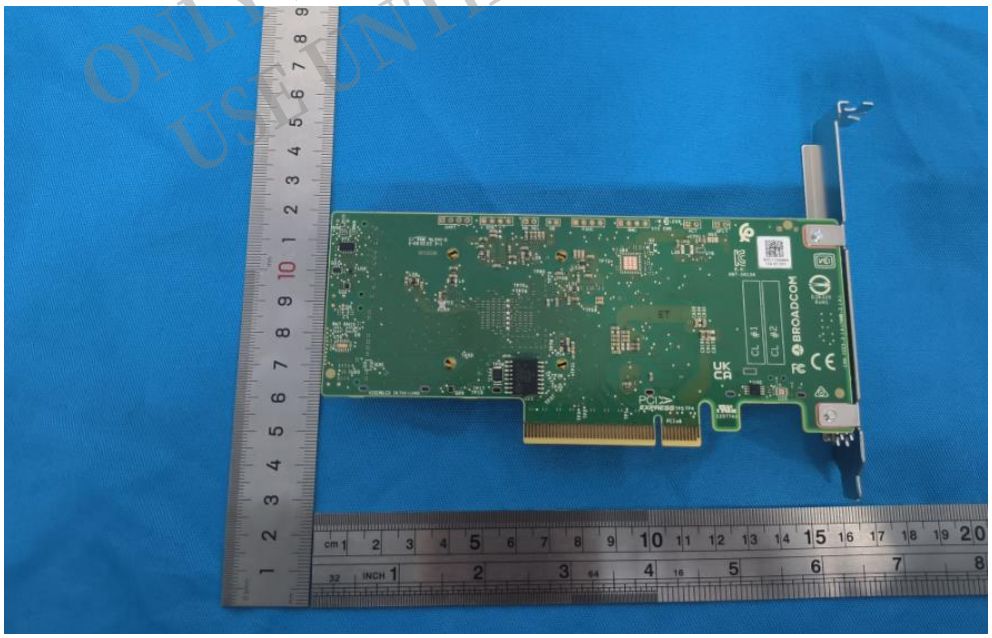


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 93 9540-8i top view

Photo 94 9540-8i bottom view

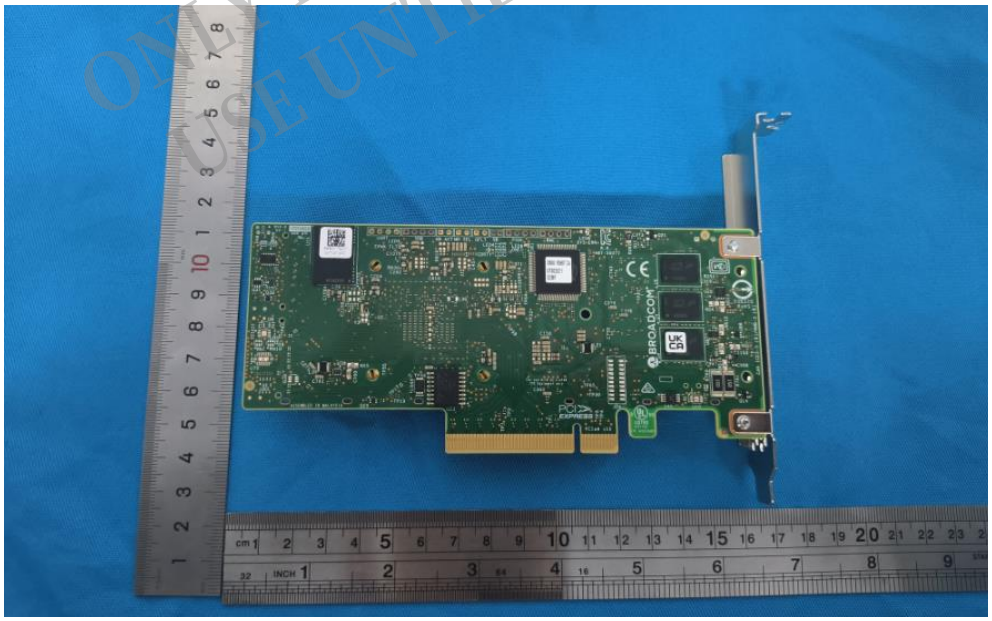


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 95 9560-8i top view

Photo 96 9560-8i bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 97 9560-16i top view

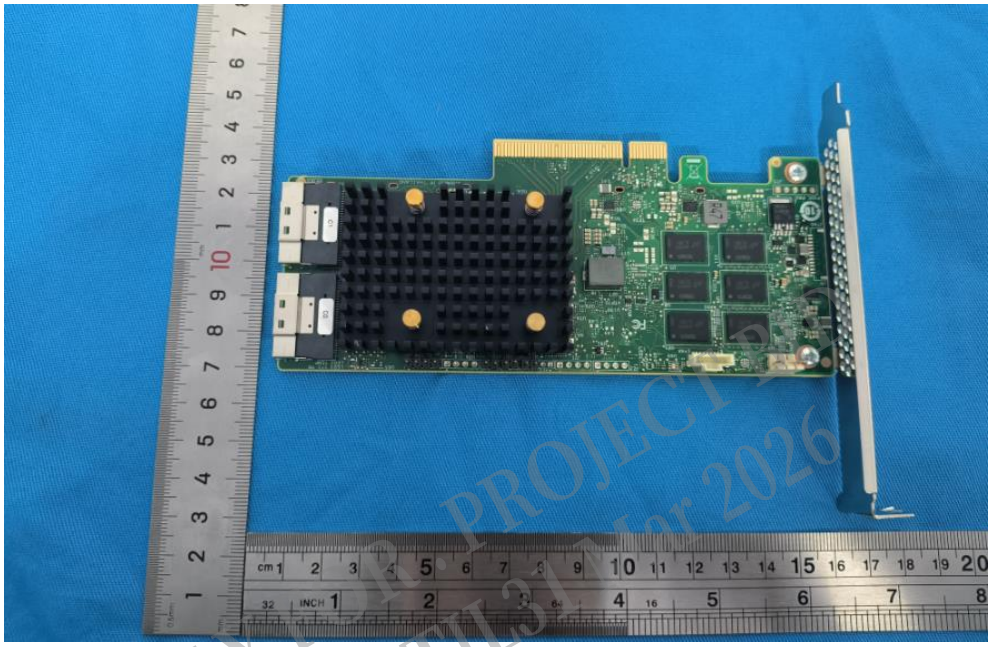


Photo 98 9560-16i bottom view

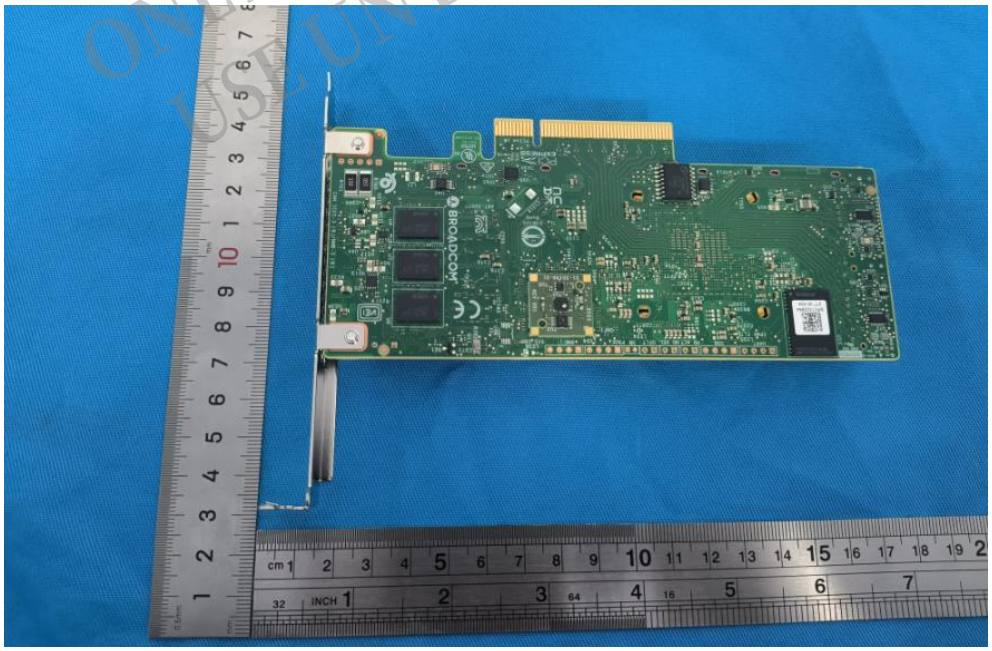
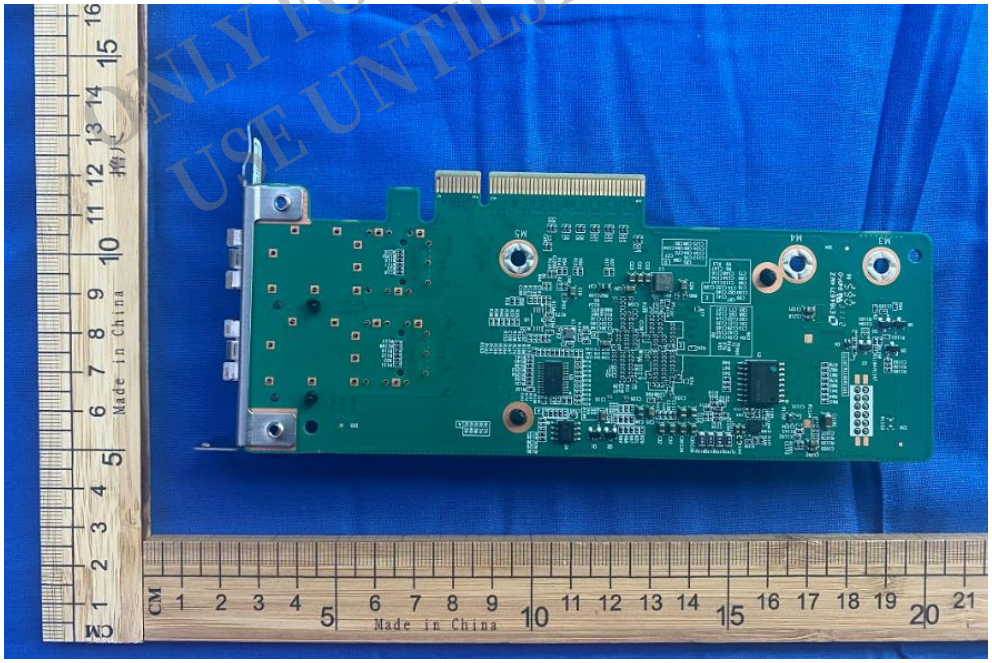


Photo 99 CN21ITGG1 top view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 100 CN21ITGG1 bottom view

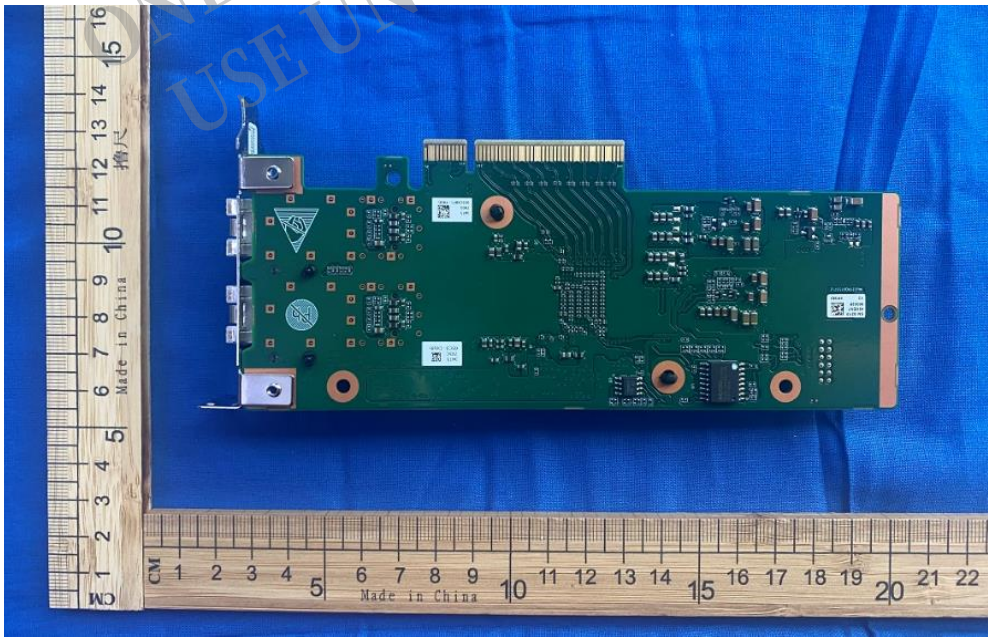


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 101 BC51ETHK1 top view

Photo 102 BC51ETHK1 bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 103 MCX631102AN-ADAT top view

Photo 104 MCX631102AN-ADAT bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 105 MCX623106AN-CDAT top view

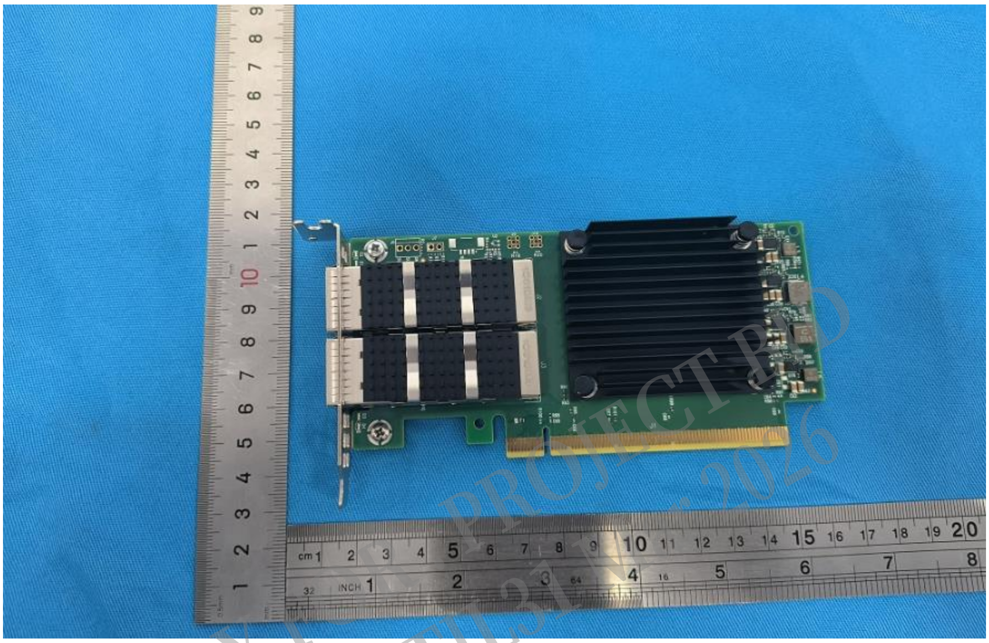


Photo 106 MCX623106AN-CDAT bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 107 MCX653105A-HDAT top view

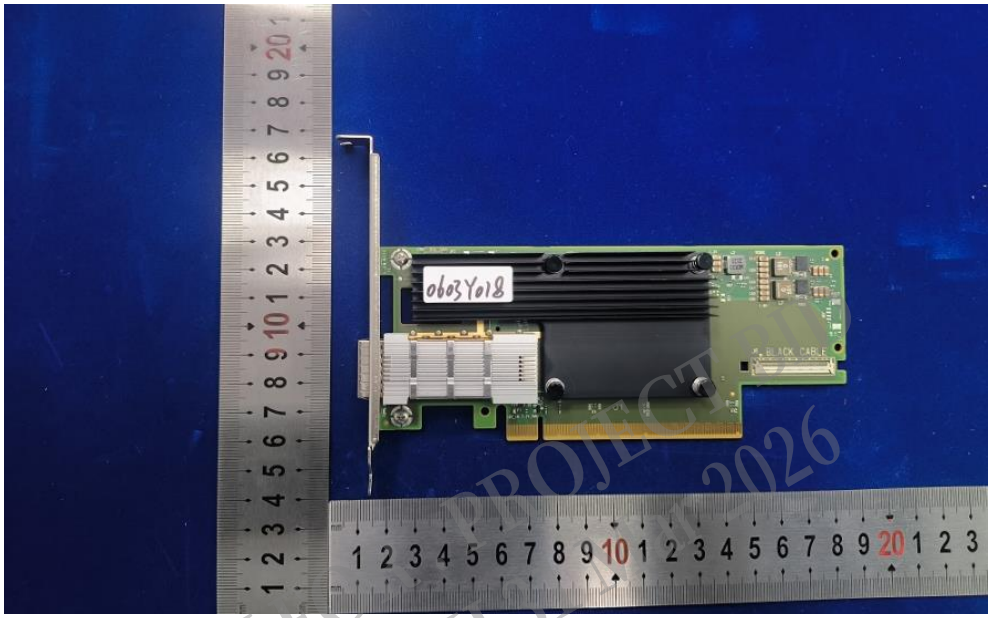
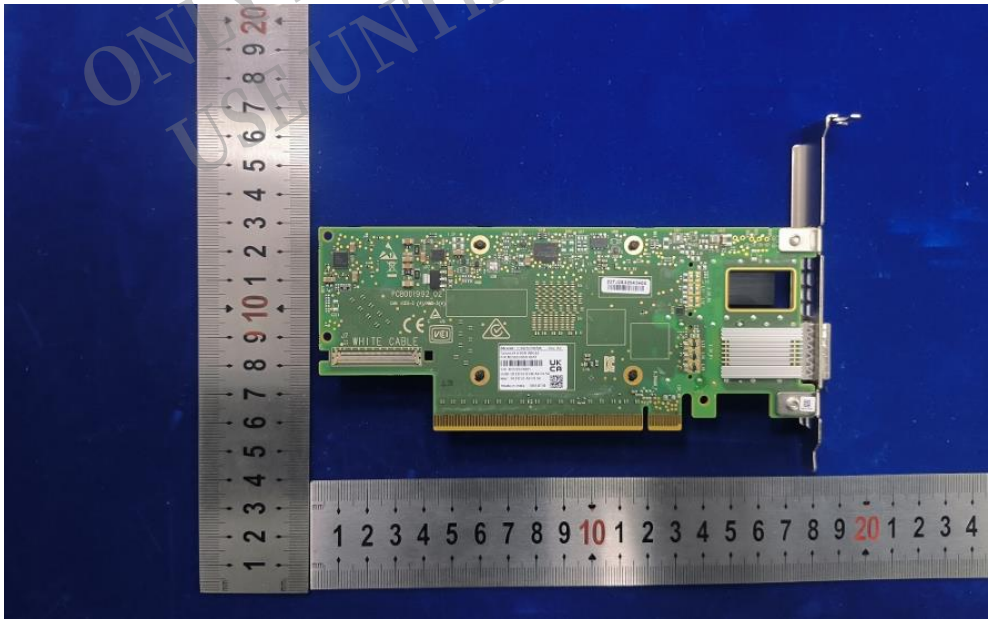


Photo 108 MCX653105A-HDAT bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 109 BC53ETHG top view

Photo 110 BC53ETHG bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 111 BC53ETHH top view

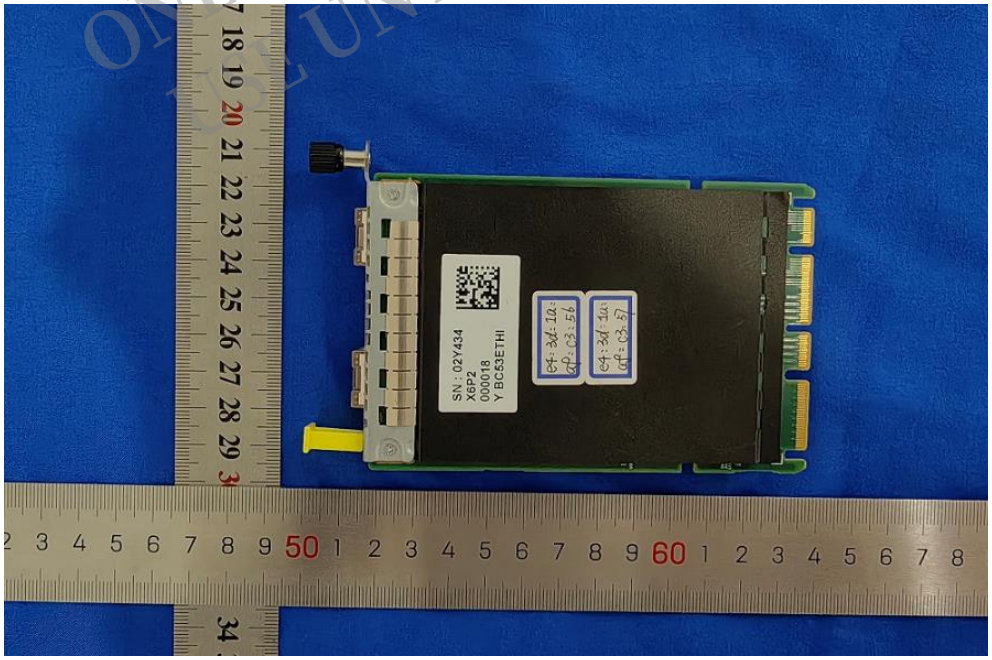
Photo 112 BC53ETHH bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 113 BC53ETHI top view

Photo 114 BC53ETHI bottom view

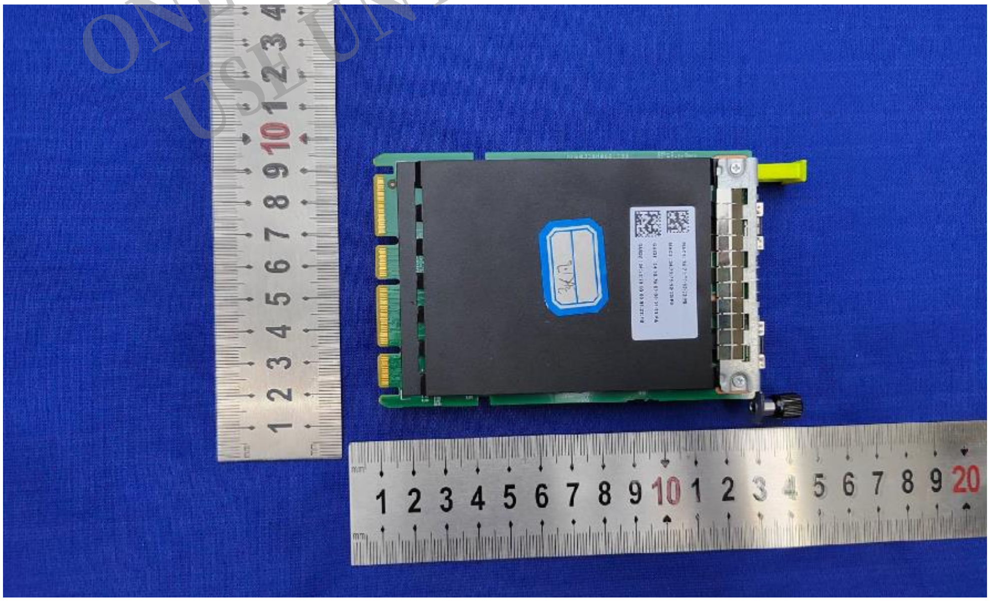


Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 115 BC55ETHA top view

Photo 116 BC55ETHA bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 117 MCX631432AN-ADAB top view

Photo 118 MCX631432AN-ADAB bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 119 BCM957508-N2100G top view

Photo 120 BCM957508-N2100G bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 121 MCX75310AAS-HEAT top view

Photo 122 MCX75310AAS-HEAT bottom view

Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 123 BC11TPMA top view

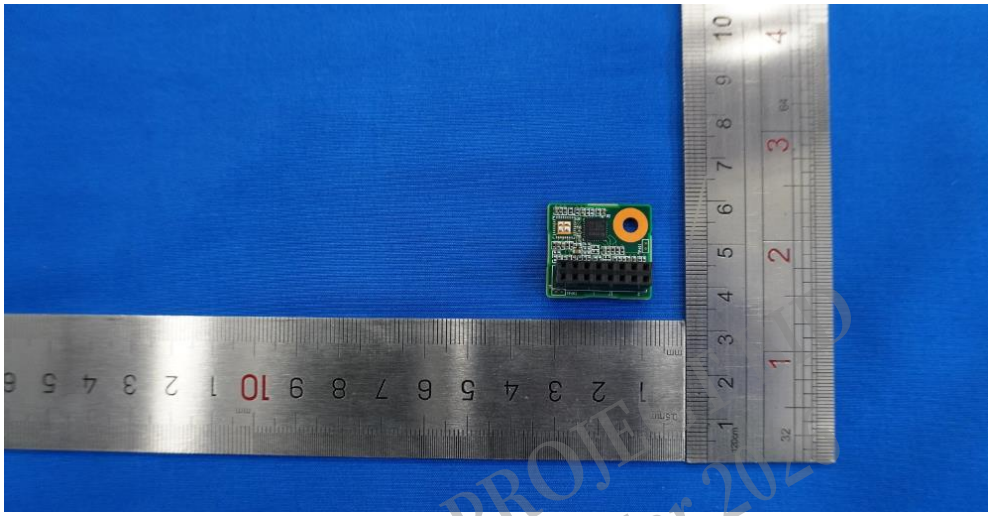
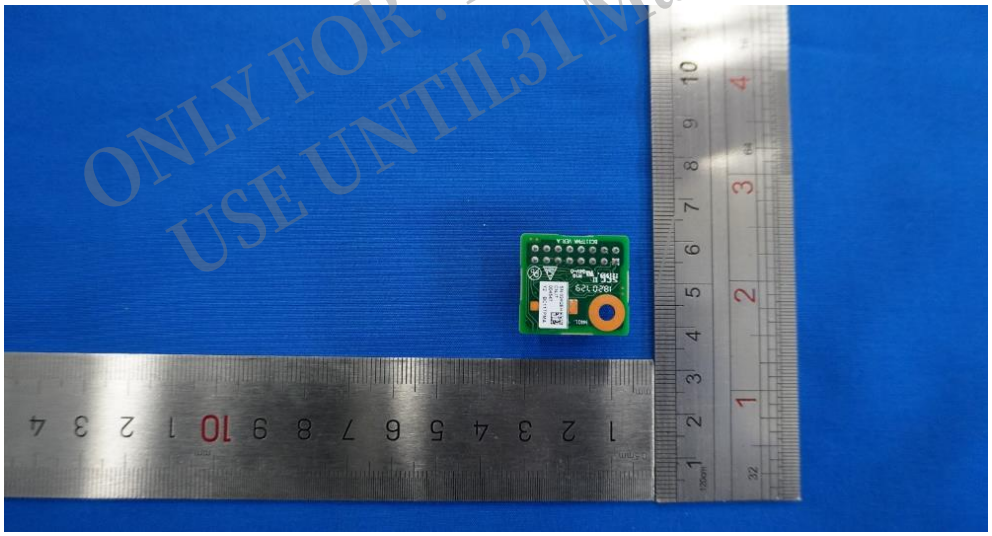


Photo 124 BC11TPMA bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 125 BC11TPMD top view

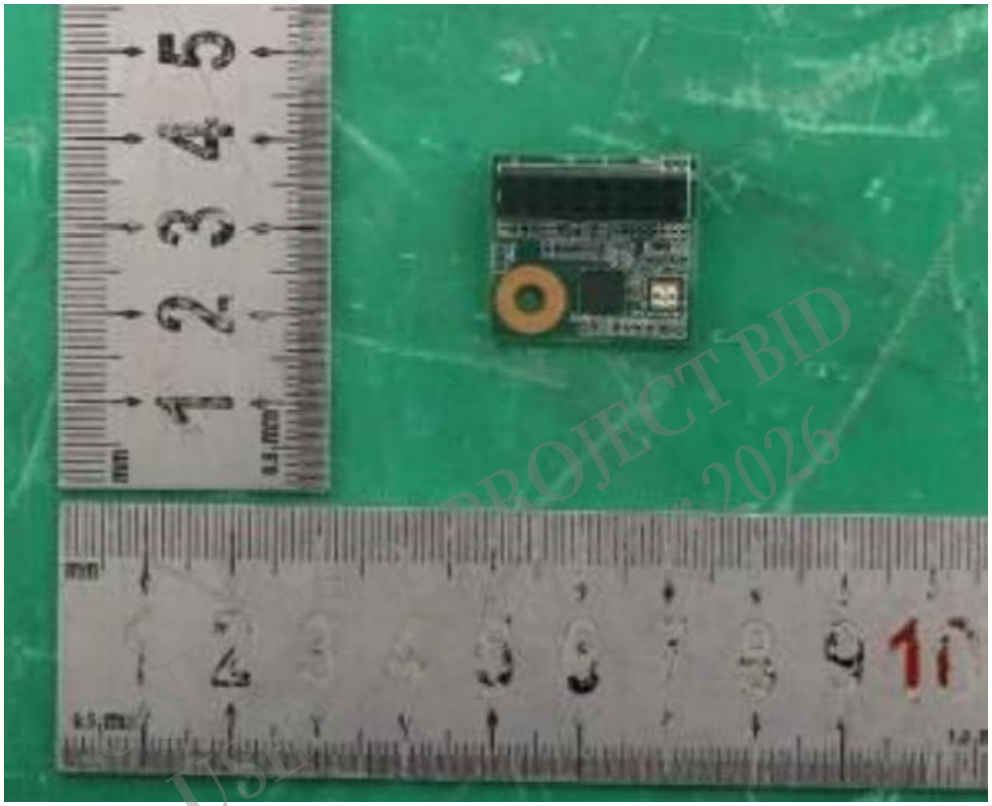
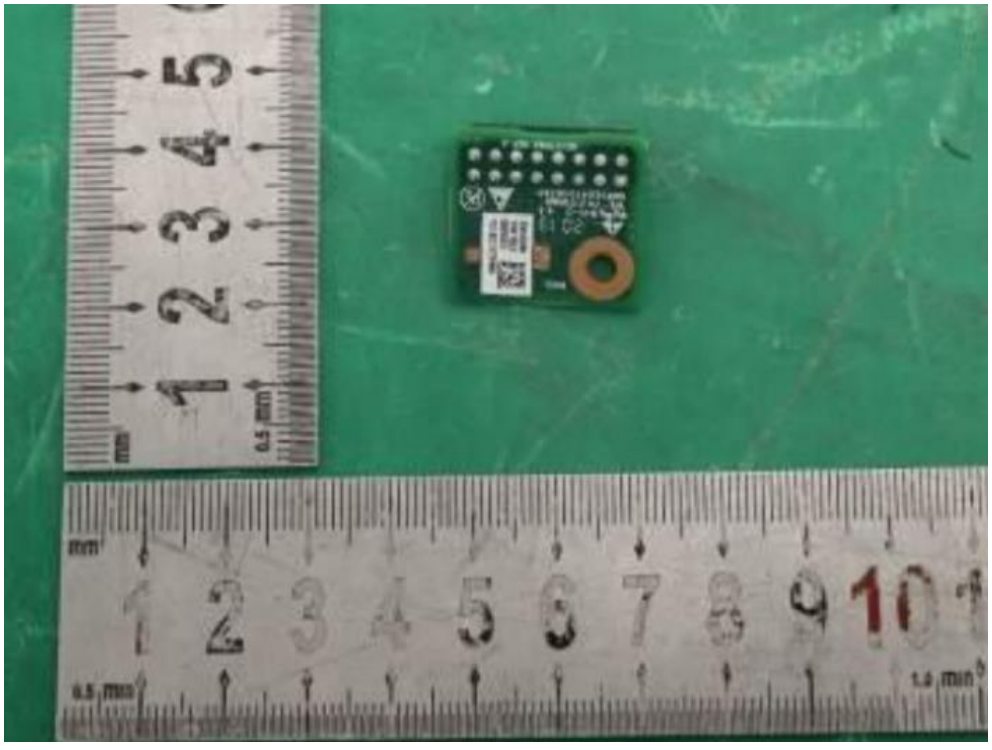


Photo 126 BC11TPMD bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 127 BC11TPMB top view

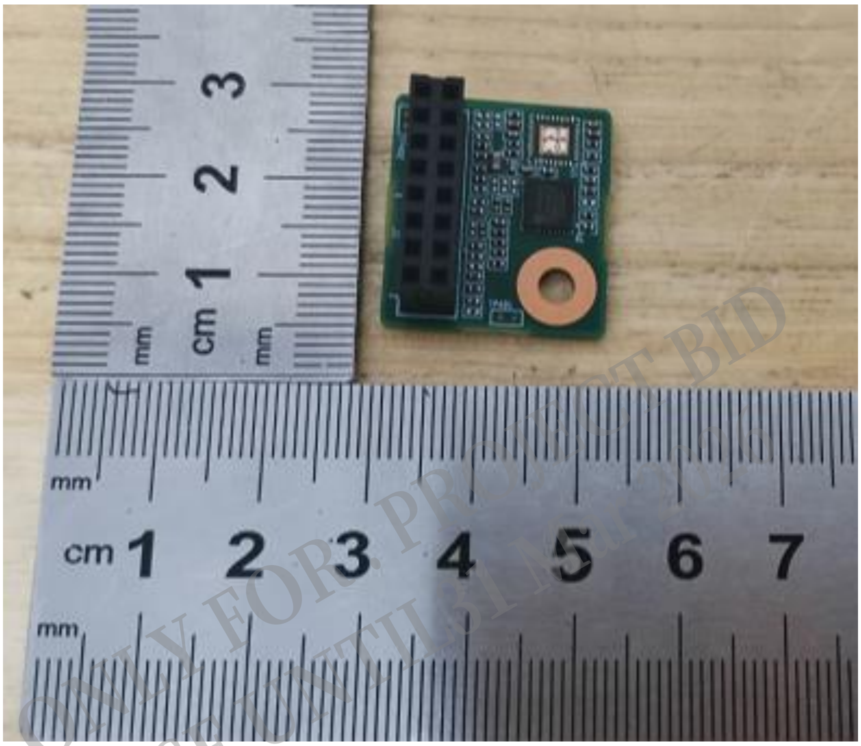
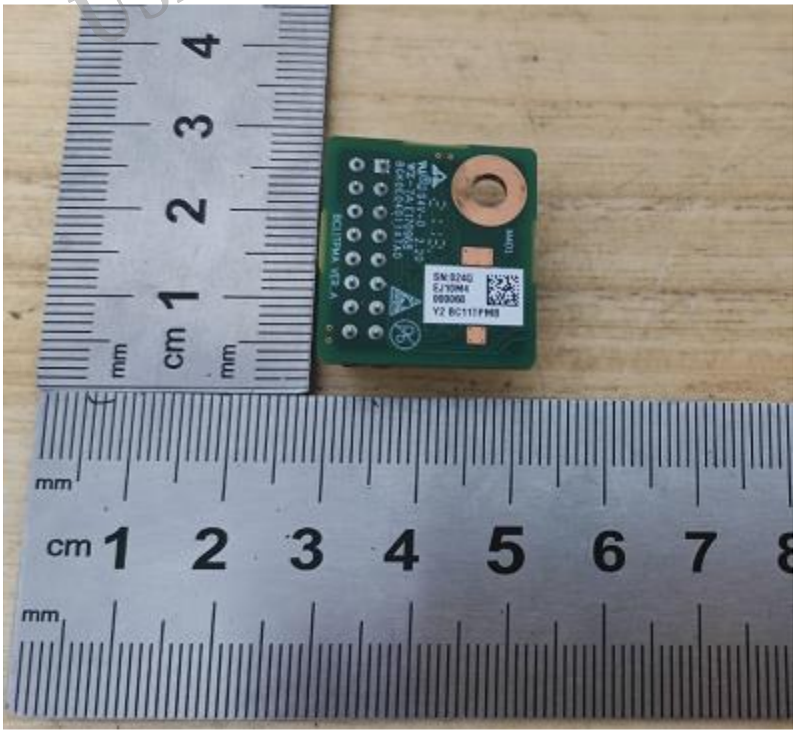


Photo 128 BC11TPMB bottom view



<u>Product:</u> Server

<u>Type Designation:</u> 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 129 BC15MSMA top view

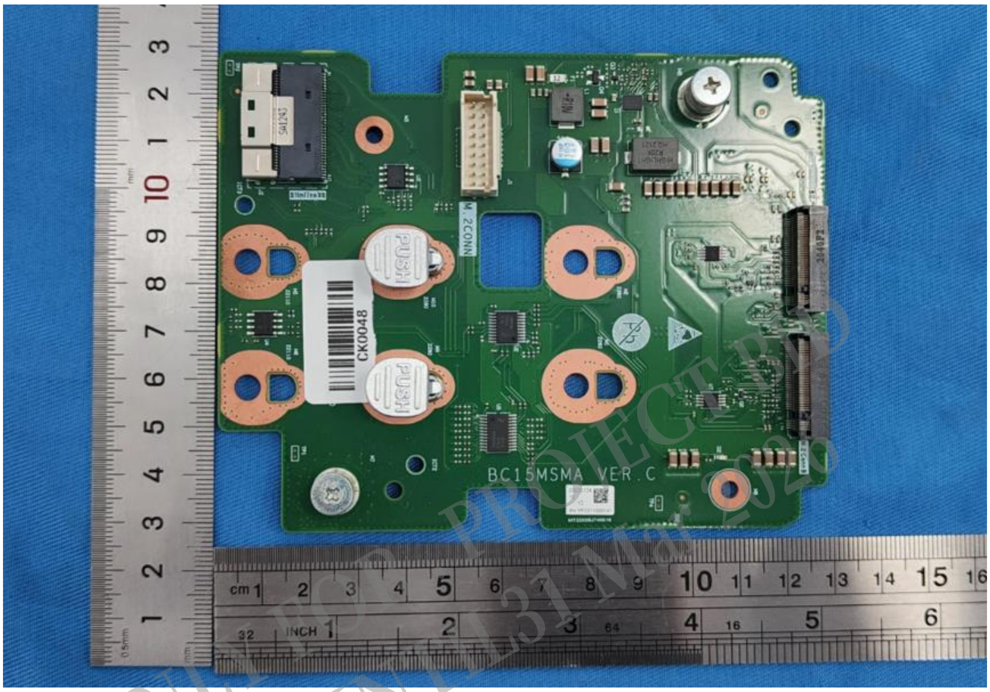
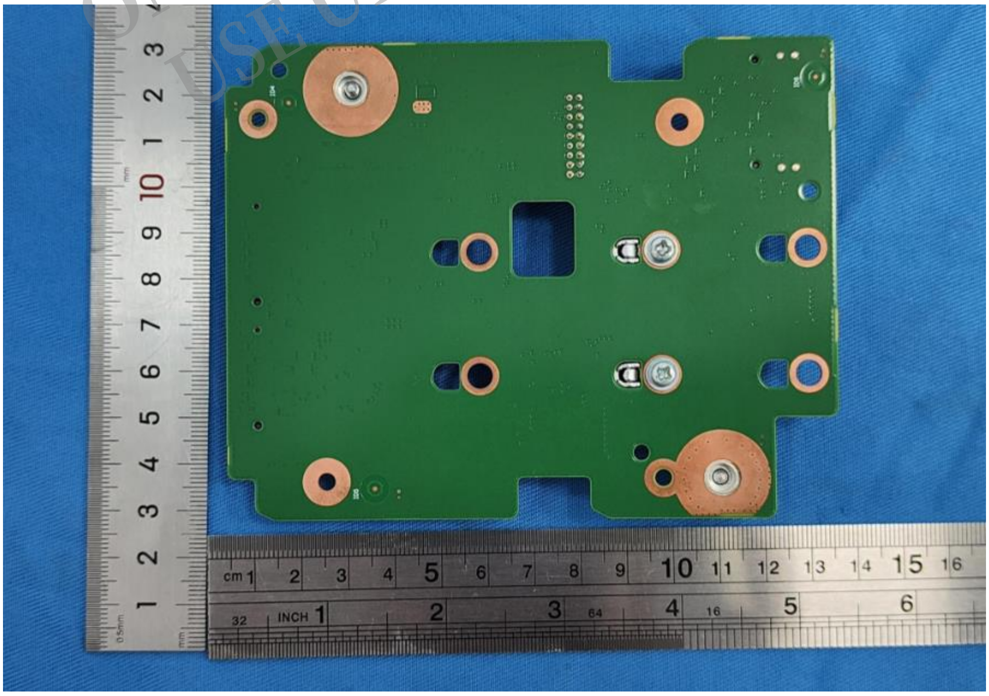


Photo 130 BC15MSMA bottom view



Product: Server

Type Designation: 2158H V8**********, FusionServer 2158H V8********** (where * can be 0-9, a-z, A-Z, - or Blank for marketing purpose)

Photo 131 BC55RLAH1 top view

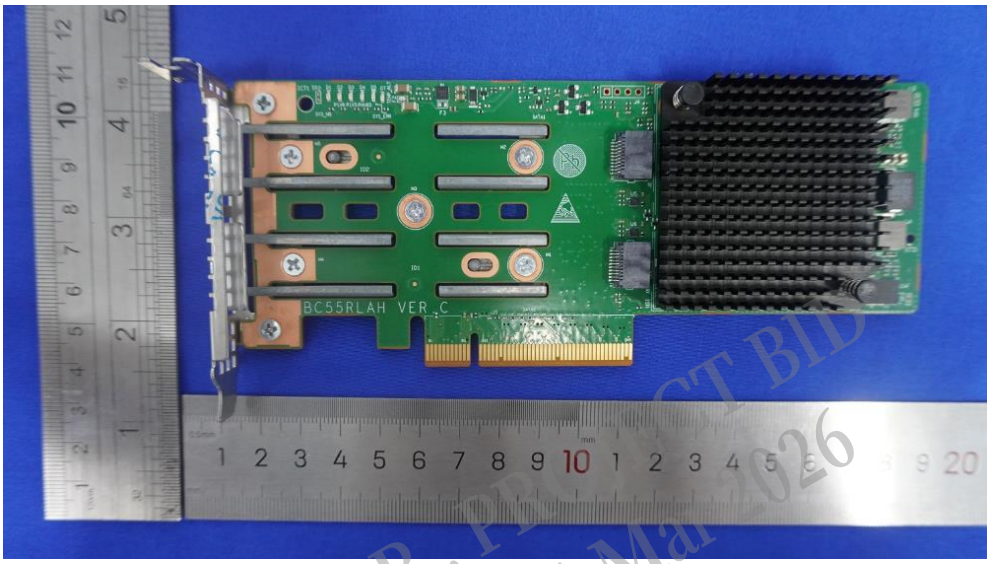


Photo 132 BC55RLAH1 bottom view