TÜV Rheinland Hong Kong Ltd. Member of TÜV Rheinland Group



GlobTek (Suzhou) Co., Ltd.	Date:	29/03/2023
Ruilding 4 No. 76 Jinling Fast Road, Suzhou Industrial Park, Jiangsu 215021, P.R.	Client No.: 2110620	
China	Our Ref	.: 158207803

Attn: Lynn Zhang Tel: +86-512-62790301-178

Ref.: Test report for Japan diamond PSE approval

Dear Sir/Madame,

Enclosed, please find the test report.

Test Report No.:	50291706 001 and 60378220 001
Test Item:	DC Power Supply Unit
Type designation:	GTM96180-1830-6.0-T3, GTM96180-1848-T2, GTM96180-1848-T3
	GTM96180-1807-2.0-T2, GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T2
PSE CoC No.:	JD 50471561
Factory:	GlobTek (Suzhou) Co., Ltd.

If you contact our office, please indicate our reference above.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

Yours sincerely

TÜV Rheinland Hong Kong Limited **Market Access Services**

Yuki Yau

Senior Certification Coordinator

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Prüfbericht - Nr.: Test Report No.:	50291706 001	Seite 1 von 2 Page 1 of 25	25 5
Auftraggeber: Client:	GlobTek (Suzhou) Co., Ltd. Building 4, No. 76, Jinling East Road, S P.R. China	uzhou Industrial Park, Jiangs	su 215021,
Gegenstand der Prüfung: Test item:	DC Power Supply Unit		
Bezeichnung: Identification:	GTM96180-1807-2.0-T3, GTM96180- 1830-6.0-T3, GTM96180-1848-T3, GTM96180-1807-2.0-T2, GTM96180- 1830-6.0-T2, GTM96180-1848-T2	Serien-Nr.: Enginee Serial No.:	ering Samples
Wareneingangs-Nr.: Receipt No.:	158207803	Eingangsdatum: 2020.04. <i>Date of receipt:</i>	.21
Zustand des Prüfgegensta Condition of test item at deli	andes bei Anlieferung: Good for chec ivery:	king and testing	
Prüfort: TÜV R Testing location: No.177	heinland (Shanghai) Co., Ltd. 7, Lane 777, West Guangzhong Road, S	nanghai, China	
Prüfgrundlage: Technic Test specification: J62368	cal Requirements Appendix 12: 3-1(H30), J3000 (H25), J55032 (H29)		
Prüfergebnis: The tes Test Result:	st item passed the test specification(s).		
Prüflaboratorium: TÜV R <i>Testing Laboratory:</i> No.177	heinland (Shanghai) Co., Ltd. ′, Lane 777, West Guangzhong Road, S	nanghai China	
geprüft/ tested by:	kontrolliert/ rev	iewed by:	
geprüft/ tested by: 202 <u>0.06.09 Sunny Sun / Ir</u> Datum Name/Stellu Date Name/Positic	kontrolliert/ rev nspector 2020.06.09 ing Unterschrift Datum on Signature Date	iewed by: <u>Mark Chen / Manager</u> Name/Stellung Name/Position Signa	erschrift ature
geprüft/ tested by: 2020.06.09 Sunny Sun / Ir Datum Name/Stellu Date Name/Positie Sonstiges/ Other Aspects: Sonstiges/ Other Aspects: Per application letter dated 20 Test procedure: Japan Diamo The product is classified as "S Electrical Appliances under This test report was prepared upon the Intertek CB test report upon the Intertek CB test report 152368-1(H30) and J30 tioned test specification. List of related/connected test - 151100940SHA-001.(As CE 60378220 001(As EMI test report - 50369694 002(As FI Survey) terial Safety Act: Appendix 4 of List of attachment(s): - - Attachment 1 - Photo Docur Abkürzungen: P(ass) = ents, Fain = ants	kontrolliert/ rev nspector 2020.06.09 Ing Unterschrift Datum 000 Signature Date 0020.04.21, project order: 158207803. Dond PSE-mark approval. Specified Electrical Appliance and Material Sate according to test procedure of Japan D ort no.151100940SHA-001 with Ref. Cereport no.151100940SHA-001 with Ref. Cereport (H25) are evaluated in this PSE reportest report tested acc. to IEC 62368-1:2014 000(H25) are evaluated in this PSE reportest report tested acc. to J55032(H29) areport tested acc. to J55032(H29) areport of facilities acc. to Enforcement I (Inspection Equipment).) mentation (5 pages) pricht Prüfgrundlage Abbreviations	Mark Chen / Manager Name/Stellung Unternation Name/Stellung Unternation Name/Position Signation rials (Category A)" – Alternation Alternation fety Act. amond PSE-mark approval attif. No.SE-87181. Japanese in the compliance with the attif. No.SE-87181. Japanese in the compliance with the attif. Second Edition)) Regulations of Electrical Apple : P(ass) = passed failed	ating Current and based national devia- above men-
geprüft/ tested by: 2020.06.09 Sunny Sun / Ir Datum Name/Stellu Date Name/Positie Sonstiges/ Other Aspects: Per application letter dated 20 Test procedure: Japan Diamo The product is classified as "S Electrical Appliances under This test report was prepared upon the Intertek CB test report ions J62368-1(H30) and J30 tioned test specification. List of related/connected te - 151100940SHA-001.(As CE - 60378220 001(As EMI test reports the structure) - 50369694 002(As FI Survey) terial Safety Act: Appendix 4 of the structure - Attachment 1 - Photo Docur Abkürzungen: P(ass) = ents, F(ail) = ents, N/A = nich N/A = nich N/A = nich N/T = nich	kontrolliert/ rev anspector 2020.06.09 ang Unterschrift Datum on Signature Date 020.04.21, project order: 158207803. Date 020.04.25, project order: 158207803. Date 000(H25) are evaluated in this PSE repo Date 000(H25) are evaluated in this PSE repo PSE report tested acc. to J55032(H29) 0 report of facilities acc. to Enforcement I (Inspection Equipment).) mentation (5 pages) Pricht Prüfgrundlage pricht Prüfgrundlage Abbreviations t getestet Noteviations	Mark Chen / Manager Name/Stellung Unternation Name/Position Signal rials (Category A)" – Alterna fety Act. Ame/Position amond PSE-mark approval a tif. No.SE-87181. Japanese for the compliance with the a (Second Edition)) Regulations of Electrical Apple Second Edition) Regulations of Electrical Apple N/A = not applicable N/A = not applicable N/A = not tested	ating Current and based national devia- above men-
geprüft/ tested by: 2020.06.09 Sunny Sun / Ir Datum Name/Stellu Date Name/Positie Sonstiges/ Other Aspects: Per application letter dated 20 Test procedure: Japan Diamo The product is classified as "S Electrical Appliances under This test report was prepared upon the Intertek CB test report upon the Intertek CB test report tioned test specification. List of related/connected teget - 151100940SHA-001.(As CE - 60378220 001(As EMI test report - 50369694 002(As FI Survey) terial Safety Act: Appendix 4 of List of attachment(s): - - Attachment 1 - Photo Docur Abkürzungen: P(ass) = ents, N/A = nich N/A = nich	kontrolliert/ rev ang Unterschrift Datum Datum on Signature 020.04.21, project order: 158207803. ond PSE-mark approval. Specified Electrical Appliances and Material Sate d according to test procedure of Japan D ort no.151100940SHA-001 with Ref. Cere 000(H25) are evaluated in this PSE report est report(s): B report tested acc. to IEC 62368-1:2014 report tested acc. to J55032(H29) / report of facilities acc. to Enforcement I (Inspection Equipment).) mentation (5 pages) pricht Prüfgrundlage pricht Prüfgrundlage t anwendbar t getestet h nur auf das o.g. Prüfmuster und darf ohne G werden. Dieser Bericht berechtigt nicht zur Ve	Mark Chen / Manager Name/Stellung Unternation Name/Position Signation rials (Category A)" – Alterna fety Act. Ame/Position amond PSE-mark approval attif. No.SE-87181. Japanese for the compliance with the attif. No.SE-87181. Japanese for the complicance with the attif. No.SE-87181. Japanese foru	ating Current ating Current and based national devia- above men- liance and Ma- auszugsweise duplicated in ex-

Tes	t item description:	DC Power Supply Unit		
Tra	de Mark:	GlobTek [°] , inc.		
Maı	nufacturer:	GlobTek (Suzhou) Co., Ltd. Building 4, No. 76, Jinling East Road, Suzhou Industrial Park, Jiangsu 215021, P.R. China		
Мо	del/Type reference:	GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3, GTM96180-1848-T3, GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2, GTM96180-1848-T2		
Rat	ings:	See below table.		
	Model	Input	Output	

Model	Input	Output
GTM96180-1807-2.0-T3	100-240V~, 50-60 Hz, 0.6 A	5V/do 2.6A 19M
GTM96180-1807-2.0-T2		5VUC, 5.0A, 10VV
GTM96180-1830-6.0-T3		24)/dc 0 754 19\//
GTM96180-1830-6.0-T2		24Vuc, 0.75A, 18W
GTM96180-1848-T3		19\/da 0.275A 19\M/
GTM96180-1848-T2		48Vuc, 0.375A, 18VV



Remark: " GlobTek, Inc. "where located under the TÜV Japan <PS>E Mark is the location reserved for the name of the reporting supplier.

" GlobTek, Inc. "is just one example, it depends on the actual importer of the product.

- 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)

General remarks:

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

"(See ATTACHMENT #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Throughout this report a \Box comma / \boxtimes point is used as the decimal separator.

Name and address of factory (ies):	GlobTek (Suzhou) Co., Ltd.
	Building 4, No. 76, Jinling East Road, Suzhou
	Industrial Park, Jiangsu 215021, P.R. China

General product information:

The equipment is a DC power supply unit for general use with information technology equipment.

The top and bottom enclosures are secured together by ultrasonic welding.

The DC Power Supply Unit was evaluated additionally as below:

- 1. Review of acceptance of attached CB report Ref. No.151100940SHA-001.
- 2. Add Japanese national deviations J62368-1(H30).
- 3. Add Japanese national deviations J3000(H25).
- 4. Add input test measurement record.
- 5. Check input VA for this Japan Diamond PSE-mark application.
- 6. Rating label incorporates with Japan Diamond PSE-mark for Japanese market.
- 7. Check provision of Japanese user's manual.

For the above described evaluations the following testing was considered to be necessary:

Change	Testing	Comments
1.	Construction check.	The attached CB test report Ref. No.151100940SHA- 001 has been reviewed and accepted upon a construction check.
2.	Japan National Differences	Add Japanese national deviations J62368-1(H30).
3.	Japan National Differences	Add Japanese national deviations J3000(H25).
4. and 5.	Input test	See appended table (page 23-24) for details
		Measured exceeding 30VA, and less than or equal to 40VA at 100V input (for all models) Measured exceeding 40VA, and less than or equal to 50VA at 240V input (for model GTM96180-1848-T2, GTM96180-1848-T3); exceeding 50VA, and less than or equal to 60VA at 240V input (for model GTM96180-1807-2.0-T2, GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T2, GTM96180-1830-6.0-T3)
6. and 7.	No additional test considered to be necessary	See Copy of marking plate.

NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014					
Clause	Requirement + Test	Result - Remark	Verdict		
National D	National Differences - Japan				
3.3	Addition: Before Item CLASS I listed in sub-clause 3.3, add "CLASS 0I		Р		
3.3.3.5	Replacement: NOTE in sub-clause 3.3.3.5, replace "IEC/TR 60083 and IEC 60320-1." with "JIS C 8282 sereis, JIS C 8283-1 and JIS C 8303".	Replaced.	Р		
3.3.3.6	Replacement: NOTE in sub-clause 3.3.3.6, replace "IEC 60309- 1" with "JIS C 8285 and IEC 60309-1".	Replaced.	Р		
3.3.4.2	Replacement: NOTE in sub-clause 3.3.4.2, replace "IEC 60695- 11-10, IEC 60695-11-20, ISO 9772 or ISO 9773" with "JIS C 60695-11-10, JIS C 60695-11-20, JIS K 7341 or ISO 9772".	Replaced.	Р		
3.3.15.1	Addition: After sub-clause 3.3.15.4, add the following Note 3. Note 3: Even if class I equipment, 2-pin conversion plug with protective earthing lead-wire or cord set provided 2 pin plug with protective earthing lead-wire shall be probided as an optional parts or recommend for user to use the them, refer to the 3.3.15.4A		Р		
3.3.15.4A	 Addition: After sub-clause 3.3.15.4, add the following new sub-clause. 3.3.15.4A CLASS 0I equipment equipment in which protection against electric shock does not rely on basic insulation only, as a supplementary safeguard, which, for the connection of accessible conductive parts to the protective (earthing) conductor in the fixed wiring of the installation in such a way, pluggable equipment with protective earthing conductor or protective earthing lead-wire instead of plug without earthing blade. 2-pin conversion plug with protective earthing lead-wire or cord set provided 2 pin plug with protective earthing lead-wire shall be probided as an optional parts or recommend for user to use the them. Note to entry: CLASS01 equipment may be 		N/A		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
4.1.2	Replacement:In the sub-clause 4.1.2, replace the first paragraphwith the following.Where the component, or a characteristic of acomponent, is a safeguard or a part of asafeguard, components shall comply with therequirements of this standard or, where specifiedin a requirements clause, with the safety aspectsof the relevant JIS or IEC component standards,otherwise, shall have same or betterperformances than those components.	Replaced.	Ρ
	Addition: After the first paragraph of sub-clause 4.1.2, addition to the existing NOTE with the following.		Ρ
	"Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (20130605, shokyoku No. 3)" (hereinafter, described as "Interpretation of Technical Requirements") are regarded to be of having equivalent or better performances.		
	Replacement: After the first paragraph of sub-clause 4.1.2, replace the existing NOTE with the following. NOTE 2 A JIS or IEC component standard etc. (hereinafter, described as "component standard") is considered relevant only if the component in question clearly falls within its scope.	Replaced.	Ρ
4.1.3	Addition: After the last paragraph of sub-clause 4.1., addition to the existing NOTE with the following. NOTE: transportable equipment or similar equipment, for equipment used by moving often and used, for equipments installed under the circumstances where the earthing connection is obviously difficult when installing, by considering the power distribution circumstances in Japan, it is recommended to avoid the insulation construction of CLASS I or CLASS 0I, except apparatus intended for installation by the instructed person or skilled person.		N/A
5.3.2.3	Replacement:In the sub-clause 5.3.2.3, replace the thirdparagraph with the following.Comply with clause 4.1.2, components andsubassemblies that comply with their respectiveIEC standards do not have to be tested when suchcomponents and subassemblies are used in thefinal product.		Р

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.4.3 Table10	Addition: In the bottom cell of Table 10 in sub-clause 5.4.1.4.3 add the following NOTE between Footnote b and Footnote c.	Considered.	Р
	NOTE For the case where no data for the material is available, 1. (1) \square (\frown) of Appendix 4 of "Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials" is regarded that it is for determining the maximum temperature limit of the material concerned.		
5.4.2.3.2.4	Addition: After the Note 2 of sub-clause 5.4.2.3.2.4, addition to the existing NOTE with the following. Refer to the Annex JA additional applicable requirement.		Р
5.4.3.4 Table 18	Addition: At the end of table 18 sub-clause 5.4.3.4, add the following.		N/A
5.4.9.2	Addition: After the Note of sub-clause 5.4.9.2, addition to the existing NOTE with the following. Additonally routine testing for manufacturing may be used sub-clause 5.2 of IEC 62911.	Added.	Р
5.6.1	Addition: After the last paragraph of sub-clause 5.6.1, addition to the existing NOTE with the following. Mains appliance outlet and interconnection couplers shall comply with the requirements specified in the sub-clause G 4.2A.	Added.	Р
5.6.2.1	Addition: After the third paragraph of sub-clause 5.6.2.1, addition to the existing NOTE with the following. Mains connection for Class 01 complying with F3.6.1A are regarded to comply with this requirement.		N/A

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
	Addition: Add the following new sub-clause after sub-clause 5.6.2.1		N/A
	Mains plug with a protective earthing lead-wire of class 01 is followings		
	Plugs with a protective earthing lead-wire shall not be used for equipment of which the rated voltage of the plug is to be of 150V or more.		
	For plug with a protective earthing lead-wire, the protective earthing lead-wire shall not be earthed by a clip.		
	The earthing lead-wire which is provided in the MAINS plug shall be a length of at least 10 cm.		
	For CLASS 0I EQUIPMENT provided with an independent terminal as the main protective earthing terminal, if ordinary person intended for install the equipment, a protective earthing connection wire is not packed together with the equipment.		
5.6.2.2	Addition: At the end of the first paragraph of sub-clause 5.6.2.2, add the following.	Added.	Р
	However, this requirement does not apply to the internal conductor of the supply cord (cord set) which was covered by sheath and integrally molded together with plug and coupler.		
5.6.3	Addition: At the end of the first paragraph of sub-clause 5.6.3, add the following.		N/A
	Additionally, if single-core conductor is used for the protective earthing lead wire or protective earthing connection wire for CLASS 0I EQUIPMENT, it shall be any of: - annealed copper wire of a diameter of 1,6 mm,		
	or metal wire having equivalent to or more strength and thickness than that and not easily corroding easily; and - single-core cord or single-core cabtire cable with a cross-sectional area of 1.25 mm ² or more.		
	Replacement: NOTE 3 in sub-clause 5.6.3, replace to following. NOTE 3 Heavy duty is defined in IEC 62440.	Replaced.	Р
5.6.4.2.1	Addition: After Note3 of sub-clause 5.6.4.2.1, addition to the existing NOTE4 with the following.	Added.	Р
	NOTE 4 In Japan, the protective current rating of the circuit supplied from the mains is widly taken as 20 A in case of connection to outlet rated at 20A or less		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.3	Addition: At the end of sub-clause F.3.5.1, add the following.		N/A
	According to the requirement of G.4.2A, JIS C 8282 series, JIS C 8303 or Class 01 equipment have mains appliance outlet can connect class 1 equipment specified related standard Intended for interconnection, or provided with mains appliance outlet specified JIS C 8232- 2-2, shall be measured as a interconnected equipment system have only connection to the mains.		
	NOTE 2 Limit of class 01 equipment is specified 5.7.4. NOTE 3 Complying with Appendix 4 of "Interpretation of Technical Requirements" are regarded to be compied with relevant standard.		
5.7.4	Addition: At the end of the first paragraph of sub-clause 5.7.4, add the following. For Class 01 equipment, measuring the touch current using the circuit specified Figure 4 of IEC 60990, the touch current shall not exceed 1.41mA (peak value) or 1.0mA (r.m.s value) in case if sine wave.		N/A
6.4.3.2	Replacement: In the paragraph of second, third and fourth dash in sub-clause 6.4.3.2 replace "the relevant IEC component standard" with "the relevant JIS or IEC component standard".	Replaced.	Р
6.4.3.3	Replacement:First dash in sub-clause 6.4.3.3, replace the following.a fuse complying with the IEC 60127 series or having equivalent or better properties shall open within 1 s.NOTEFuses complying with Appendix 3 of "Interpretation of Technical Requirements" are regarded to be of having equivalent or better properties.Replacement: Second dash in sub-clause 6.4.3.3, replace the following.		P N/A
	a fuse not complying with the IEC 60127 series and not having equivalent or better properties shall open within 1 s for three consecutive times		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
	Addition: After the last dash in sub-clause 6.4.3.3, add the following new paragraph including NOTE 3.		N/A
	For Type A fuse specified in JIS C 6575 series of standards, replace "2,1 times" with "1,35 times", and for Type B fuse, "2,1 times" with "1,6 times". For fuses having other than operating characteristics specified in JIS C 6575 series of standards, the tests shall be carried out by taking into account the characteristics.		
	NOTE According to pre-arcing time-current characteristics specified in Appendix 3 of "Interpretation of Technical Requirements", for Type A fuse, "2,1 times" is replaceable with "1,35 times", and for Type B fuse, "2,1 times" is replaceable with "1,6 times".		
8.5.4.1	Replacement: First dash in sub-clause 8.5.4.1, replace the following.		N/A
	Replace the requirement of Safety interlock (Protection of persons in the work cell) of sub- clause 4 by Annex sub-clause K		
	Replacement: Second dash in sub-clause 8.5.4.1, replace the following.		N/A
	Replace the requirement of interlock override (General of Interlock override) of sub-clause 5.1 by Annex sub-clause K		
8.5.4.2.1	Replacement: After Note1 of in sub-clause 8.5.4.2.1, replace the following. For equipment that it is limited to a stationary type that is directly connected to a power supply of 3 phase 200 V or more, for use in locations where children are not likely to be present, see sub-clause F.4.		N/A
8.5.4.2.2	Replacement: Replace first paragraph of sub-clause 8.5.4.2.2 with the following.		N/A
	For equipment installed where children may be present, an instructional safeguard shall be provided in accordance with Clause F.5, except that element 3 is optional.		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
	Addition: After the element 1a of sub-clause 8.5.4.2.2, addition to the following.		N/A
	Instructed safeguard shall be provided and marked with the symbol of JIS S 0101:2000, 6.2.1 (general precaution) using easily understandable word and the following precautions for use, on the readily visible part adjacent to the feed opening for documents, by a method being clearly legible and permanent, and with easily understandable terms: - that use by an infant/children may cause a hazard of injury etc.; - that touching by a hand to the feed opening for documents may cause drawing of the hand into the shred mechanism; - that contacting of clothes with the feed opening for documents may cause drawing of the clothes		
	 into the shred mechanism; that contacting of hairs with the feed opening for documents may cause drawing of hairs into the shred mechanism; and that spraying of flammable gas may course ignition or explosion (limited to equipment incorporated with a commutator motor). 		
8.5.4.2.4	Replacement: After the first paragraph of sub-clause 8.5.4.2.4, replace the following.		N/A
	wedge probe of Figure V.4 applied to the opening using test probe with provided applicable jointed tset probe by applied sub-clause V1.2, further is tested with the wedge probe of Figure V.4 applied in any direction relative to the opening.		
8.5.4.2.5	Replacement: After the first paragraph of sub-clause 8.5.4.2.5, replace the following.		N/A
	Compliance is checked in accordance with sub- clause V.1.2 and sub-clause V.1.5. Applicable jointed test prove of Annex V and the wedge probe of Figure V.4 shall not contact any moving part.		
	Addition: At the end of sub-clause 8.5.4.2.5, add the following.		N/A
	Alternative construction that prevent access to the hazard moving parts shall not use the warnings.		
8.9.1	Replacement: In the paragraph of sub-clause 8.9.1, replace "MS3 and some MS2 equipment" with "MS3 equipment".		N/A

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
9.2.5	Replacement: In the paragraph of sub-clause 9.2.5, replace "room ambient temperature shall be $25 \frac{4}{5}$ " with "room ambient temperature shall be $25 \frac{4}{5}$ ".		N/A
9.2.6 Table38	Addition: In the top cell of TS2 of Table 38 in sub-clause 9.2.6 add the following		N/A
	Handles, knobs, grips, etc., and external surfaces held, touched or worn against the body in normal use(> 1 min) $^{\circ}$		
F.3.5.1	Addition: At the end of sub-clause F.3.5.1, add the following.		Р
	According to the requirement of sub-clause G.4.2A, JIS C 8282 series, JIS C 8303 or Class 01 equipment have mains appliance outlet can connect class 1 equipment specified related standard Intended for interconnection, shall be provided with instructed safeguard specified F.5. However mains socket-outlet exclude only accessible to a skilled person.		
	NOTE Appendix 4 of "Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials" is relevant national standard.		
	 The elements of the instructed safeguard shall be as follows: element 1a: not applied element 2: "(equipment name) Exclusive socket-outlet" or equivalent text element 4: "This socket-outlet intended for connect only with (manufacturer's name), (model number or series), (equipment name)" or better wording element 3: "Connect with other equipment may result in electric hazard" or equivalent text This elements shall be in the order 2,4, and 3. element 2 shall be marked near the mains socket- 		
	not mark rated valtage and assigned current or power.		
F.3.5.3	Addition: As examples in the first dash of sub-clause F.3.5.3, add the following at the end of the first dash. (A) denoting Type A:		N/A
	B, denoting Type B;		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.6.1A	Addition: After sub-clause F.3.6.1, add the following new sub-clause.		N/A
	F.3.6.1A Marking for CLASS 0I EQUIPMENT		
	Requirement of sub-clause F.3.6.1.1 and sub- clause F.3.6.1.1 also apply for CLASS 0I EQUIPMENT. For CLASS 0I EQUIPMENT, mains plug or on the easily visible location shall be provided with the marking of the following content or the equivalent. Make an earthing connection		
	Additionally for CLASS 0I EQUIPMENT, it shall be marked on the easily visible location of equipment body or indicated in the operating instructions: Make an earthing connection before plugging the mains plug to the mains, and when disconnecting the earthing connection, disconnect after unplugging the mains plug from the mains.		
F.3.6.2.1	Addition:		N/A
	After second paragraph of sub-clause F.s.e.2.1, add the following. The above symbols shall not be used for class I equipment and class 0I equipment.		
F.4	Replacement: Replace fourth dash of sub-clause F.4 with the following.		N/A
	- For audio equipment with terminals classified as ES3 in accordance with Table E.1, and for other equipment with terminals marked in accordance with F.3.6.1, the instructions shall require that the external wiring connected to these terminals shall be installed by a skilled person, or shall be connected by means of ready-made leads or cords that are constructed in a way that would prevent contact with any ES3 circuit.		
G.3.2.1	Replacement: Replace second paragraphs of sub-clause G.3.2.1 with the following.		N/A
	The thermal link when tested as a separate component, shall comply with the requirements of JIS C 60691 or be of having equivalent or better performances.		
	NOTE Fuses complying with Appendix 3 of "Interpretation of Technical Requirements" are regarded to be of having equivalent or better properties.		

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	NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict	
G.3.4	Replacement: Replace second paragraphs of sub-clause G.3.4 with the following.		N/A	
	Except for devices covered by sub-clause G.3.5, overcurrent protective devices used as a safeguard shall comply with their applicable JIS standards confirming to the IEC standard or be of having equivalent or better properties. If they do not applied, shall be comply with their applicable IEC standard.			
	NOTE Fuses complying with Appendix 3 of "Interpretation of Technical Requirements" circuit breaker or leakage detection devices complying with Appendix 4 of "Interpretation of Technical Requirements" are regarded to be of having equivalent or better properties.			
G.4.1	Addition: After the last paragraph of sub-clause G.4.1., addition to the following.		N/A	
	sub-clause G.4.2 and sub-clause G.4.2A are not applied to above requirements.			

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	Replacement: In sub-clause G.4.2, replace including NOTE with the following.		N/A
	Mains connectors shall be compied with one of the following standards JIS C 8282 series, JIS C 8283 series, JIS C 8285, JIS C 8303 or IEC 60309 series. Mains plug and appliance couplers shall be compied with one of the following standards JIS C 8282 series, JIS C 8285, JIS C 8303 or IEC 60309 series or be of having equivalent or better performances		
	NOTE Complying with Appendix 4 of "Interpretation of Technical Requirements" are regarded to be compied with relevant standard.		
	Power cord set have a shape not fittingable into the connection part specified in other relevant JIS standards than JIS C 8285 shall comply with JIS C 8286		
	Where using an appliance coupler, the apparatus shall have a construction that the soldered parts of terminals of the appliance inlet is not subjected to mechanical stress, during insertion and removal of the connector, except the case where the appliance inlet itself is secured so that the fixing does not rely on only soldering.		
	By limiting to the case where the rated voltage of the apparatus is 125 V or less, appliance inlets of type C14 and C18, complying with JIS C 8283 series may be used up to 15 A, if following all requirement shall be complied. - the temperature of the appliance inlet does not exceed the limit specified in JIS C 8283-1 even under the normal operation conditions specified in B.2.1. - "It shall be only used specified power cord set packed together with the equipment. ", or having same or better wording was described in the operation manual. If power cord set was not packed together with the equipment, applicable information of power cord set shall be described in the operation manual.		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2A	 Addition: In sub-clause G.4.2, add including NOTE with the following. G.4.2A Mains socket-outlet and main interconnection coupler provide with equipment If mains socket-outlet specified with JIS C 8282 series, JIS C 8303 or related standard or main interconnection coupler in accordance with JIS C 8283-2-2 is provided on the equipment, it shall be complied with followings. Mains socket-outlet and main interconnection coupler provided with Class II equipment shall be only connected to other Class II equipment. Mains socket-outlet and main interconnection coupler provided with Class I equipment shall be only connected to other Class II equipment. Mains socket-outlet and main interconnection coupler provided with Class I equipment or be provided with protective earth pole ensurelly connected to protective earth pole of the equipment. Main interconnection coupler provided with Class I equipment shall be only connected to other Class II equipment. However Class I equipment may be connected if following condition complied. Main interconnection coupler shall be only connected to protective earth pole of the equipment. According to the sub-clause 5.7.3, touch current value measured as interconnected system provided with one connected system provided with class 01 equipment specified in sub-clause 5.7.4. Mains socket-outlet provided with Class 01 equipment shall be only connected to other Class I equipment specified in sub-clause 5.7.4. Mains socket-outlet provided with Class 01 equipment specified with protective earth pole ensurelly connected to other Class I equipment specified in sub-clause 5.7.4. Mains socket-outlet shall be provided with protective earth pole ensurelly connected to protective earth terminal or protective earth pole ensurelly connected to protective earth terminal or protective earth pole ensurelly connected to protective earth pole ensurelly connected to protective earth terminal or protective earth pole ensur		N/A

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
	 Mains socket-outlet exclude only accessible to a skilled person, shall be provided instructed safeguard specified sub-clause F3.5.1 only to connect to equipment which manufacture intended for. According to the sub-clause 5.7.3, touch current value measured as interconnected system provided with one connection to mains supply, is less than the limit of class 01 equipment specified in sub-clause 5.7.4. NOTE 1: transportable equipment or similar equipment, for equipment used by moving often and used, by considering the power distribution circumstances in Japan, it is recommended to avoid the insulation construction of CLASS 01 provided with mains socket outlet complied with JIS C 8282 series, JIS C 8303 or related standard, except apparatus intended for installation by the skilled person. NOTE 2: Appendix 4 of "Interpretation of Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials" is relevant national standard 		
G.4.3	Addition: After the EXAMPLE in sub-clause G.4.3, add NOTE as follows. NOTE: It was deleted the sentence of "An example of a connector not meeting the requirements of this subclause is the socalled "banana" plug." from national standard example.		N/A
G.7.1	Replacement: Third dash in sub-clause G.7.1, replace to following. - other types of cords may be used if they have similar electro-mechanical and fire safety properties as above having equivalent or better. Addition: After the NOTE3 in sub-clause G.7.1, add NOTE 3A as follows.		N/A N/A
	NOTE 3A Sheathed MAINS supply cords complying with Appendix 1 of "Interpretation of Technical Requirements" are regarded to be of having equivalent or better electro-mechanical and fire safety properties.		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
	Addition: After the NOTE3A in sub-clause G.7.1, add NOTE 3A as follows.		
	For pluggable equipment type A or pluggable equipment type B that has protective earthing, a protective earthing conductor shall be included in the mains supply cord. However if Class 0I equipment have another protective earth terminal, mains power cord do not need to provided with protective earth cable. For all other equipment, if a mains supply cord is supplied without a protective earthing conductor, a protective earthing conductor cable shall be supplied as well		
G.7.2	Addition: In sub-clause G.7.12 add NOTE 0A as follows.		N/A
	NOTE 0A Cross sectional area of power supply cord complying with Appendix 1 of "Interpretation of Technical Requirements" deemed to have equivalent or higher safety performance in sub- clause G 7.1 may be applied with related wiring standard.		
G.7.6.1	Replacement: In the paragraph of sub-clause G.7.6.1, replace "Table G.4" with "Table G.5".		N/A
	Addition: After the NOTE0A in sub-clause G.7.12 add as follows.		N/A
	NOTE 0A Cross sectional area of power supply cord complying with Appendix 1 of "Interpretation of Technical Requirements" deemed to have equivalent or higher safety performance in sub- clause G 7.1 may be applied with related wiring standard.		
G.8.1	Replacement: In the second paragraph of sub-clause G.8.1, replace "a varistor" with "a varistor voltage of the varistor".		Р
G.8.3.3	Replacement: In the first dash of sub-clause G.8.3.3, replace "1.71" with "1.71 x 1.1".		N/A
	Replacement: In sub-clause G.8.3.3, replace including NOTE with the following.		N/A
	NOTE 2 For different power distribution systems, the temporary overvoltages are defined in Table B.3 of JIS C 5381-11 (TOV tested parameter for Japan distribution system).		

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NDs of J62368-1(H30) (JIS C 62368-1:2018) for IEC 62368-1:2014			
Clause	Requirement + Test	Result - Remark	Verdict
G9.3	Replacement: Last dash in sub-clause 6.4.3.3, replace the following.		N/A
	7 days with the output short-circuited and the device wrapped in a double layer of cheesecloth. A quick acting 5 A fuse (complied with JIS C 6575-2) kept in series with the output shall not open and a current meter shall not show a current of more than 5 A.		
G16.3	Addition: Beforer the NOTE in sub-clause G.16.3 add as follows. Refer to the sub-clause 5.2.2.2.		N/A
Annex H.1	Replacement: In the sub-clause Annex H.1, replace with the following.		N/A
	described in this annex. Method A is typical of analogue telephone networks in Europe, and Method B of those in North America.		
M.2.1	Replacement:In the sub-clause M.2.1, replace with the following.Batteries and their cells shall comply with therelevant standards for batteries as listed below.JIS C 8513 or IEC 60086-4JIS C 8514 or IEC 60086-4JIS C 8704-1 or IEC 60896-11JIS C 8704-2-1 or IEC 60896-21JIS C 8704-2-2 or IEC 60896-22JIS C 8704-2-2 or IEC 60896-22JIS C 8704-2-2 or IEC 61056-1JIS C 8702-2 or IEC 61056-1JIS C 8702-2 or IEC 61056-2IEC 61427IEC 61434JIS C 8712 or IEC 62133IEC 62281JIS C 8712 or IEC 62133IEC 62281IEC 62485-2NOTE Other battery safety standards are under development, and are intended to be included in future.		N/A
M.8.2.1	Replacement: In the sub-clause M.8.2.1, replace the first paragraph with the following. The test shall be carried out according to JIS C 8704-2-1 or IEC 60896-21:2004 6.4		N/A
M.8.2.2	Addition: After the description of LEL in sub-clause M.8.2.2, add the follows. However it is necessary to convert to mass fraction (kg/m ³). The fraction refer to the Sub clause B.4.2.2 Note 1 of JIS C 60079-10.		N/A

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J3000 (H25)									
Clause	Requirement + Test	Result - Remark	Verdict						
Safety regi	Safety requirements on prevention of accidents								
1	General requirements								
	For AC electrical appliances, which have been listed in Items 6 to 9 of Appendix Table 1 and Items 7 to 11 of Appended Table 2 of the Cabinet Ordinance (Cabinet Order No. 324: 1962) of Electrical Appliance and Material Safety Act, and portable generators, shall comply with the following.	Inlet is fixed by adequate mechanical construction, not rely on soldering.	Ρ						
	For appliances using appliance coupler specified in JIS C 8283-1:2008 (Appliance couplers for household and similar general purposes-Part 1: General requirements), shall be of structure where no mechanical stress is loaded to the soldered part of terminal of appliance inlet when the connector is inserted or removed. However, this does not apply to those of which the appliance inlet itself is fixed so that fixing of the appliance inlet does not rely on only soldering.								
2	Compliance is checked by inspection.								
2	(1) For electric heating appliances, if equipped		 N/A						
	with diodes for power adjustment which are connected in parallel, an abnormality shall not be caused even under the condition where one diode has been open-circuited.								
	Compliance is checked by the following.								
	(1) the rated capacity of a diode is not less than the current of the main circuit, and the diodes connected in parallel are of same specification;		N/A						
	(2) it shall comply with the requirement when conducting the temperature rise test specified in Clause 11 of JIS C 9335-1:2003 and also the temperature rise test specified in the applicable particular requirements, in the condition where one among the diodes connected in parallel has been opened.		N/A						
	(2) Electric room heaters having a heating element which is heating up shall comply with the following.	Not electric stove.	N/A						
	1 the frame or net for protection shall not be made surface treatment by coating or by using adhesive agent:		N/A						

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J3000 (H25)				
Clause	Requirement + Test	Result - Remark	Verdict	
	 in the sections specified in the following (a) and (b), and by using the terms clearly readable and easily understandable, mark the following purport. (a) easily visible section of the main body of appliance (b) instruction manual and other document attached to the product "CAUTION – Ventilate enough during use, because, in the initial stage of use, emission of volatile organic compound and carbonyl compound from this appliance may be of the highest." 		N/A	
3	Requirements for components used for appliances	No relevant equipment or component.	N/A	
	 (1) If a capacitor for motor is used for ventilation fans, electric room fans, electric air conditioners, electric washing machines, electric refrigerators or electric freezers and if the capacitor is in scope of JIS C 4908:2007, the capacitor shall comply with the following. The capacitor for motor shall be of either of capacitor with a built-in safety device or capacitor with safety mechanism, which are specified in JIS C 4908:2007, or shall be capacitor of class P2 specified in IEC 60252-1:2001. However, this does not apply if it complies with any of the following. 		N/A	
	1 Capacitor installed inside a metal or ceramic enclosure for preventing scattering of flame or melt by failure of the capacitor. However, the enclosure may have an opening for wiring for connection between the capacitor and a motor. In this case, "installed inside a metal or ceramic enclosure" means that the capacitor is installed inside a case of metal or ceramic, which prevents scattering of flame or melt by a means of other than enclosure to which a test finger contacts, and it is considered that scattering of flame or melt is prevented even if a non-metal section, which has been mounted together with the capacitor not specified in JIS C 4908:2007 inside the metal or ceramic case, locates within a distance of 50 mm or less from the capacitor.		N/A	
	 Appliances of which a distance between the neighbouring non-metal section and the outer surface of capacitor exceeds 50 mm; 		N/A	
	3 The neighbouring non-metal section having a distance of 50 mm or less from the outer surface of capacitor complies with the needle flame test.;		N/A	

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13000 (H25)

	J3000 (H25)					
Clause	Requirement + Test	Result - Remark	Verdict			
	(4) The neighbouring non-metal section having a distance of 50 mm or less complies with flammability class of V-1 specified in JIS C 60695- 11-10:2006. (Test specimens used for classification shall not be of thickness of more than the section in question.)		N/A			
	(2) Attachment plugs connecting directly to the mains and used for electric refrigerators or electric freezers shall comply with the following.		N/A			
	 For the outer surface of plug, which directly contacts with a wall socket, the insulation material contacting directly with the plug blades (except for earthing contact) shall be of PTI of 400 or more, which is specified in JIS C 2134:2007. However, this does not apply to those molded with insulation material having CTI of 400 or more. 		N/A			
	(2) For insulation material supporting/holding between plug blades (except for earthing contact), it shall comply with the glow-wire test specified in JIS C 60695-2-11:2004 or JIS C 60695-2-12:2004, which is carried out at the test temperature of 750°C. However, this does not apply to the materials having a glow-wire igniting temperature of 775°C or more in accordance with JIS C 60695-2-13:2004.		N/A			

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	Input test		
Clause	Requirement + Test	Result - Remark	Verdict

TABLE: Electrical data (in normal conditions)					Р			
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
Model: GTM9	96180-18	07-2.()-T2		•			
90 Vac, 50 Hz	<u>z</u> 0.	41		23.0			5Vdc, 3.6A	
90 Vac, 60 Hz	<u>z</u> 0.	41		23.0			5Vdc, 3.6A	
100 Vac, 50 H	lz 0.	37	0.6	22.9			5Vdc, 3.6A	
100 Vac, 60 H	lz 0.	38	0.6	22.7			5Vdc, 3.6A	
240 Vac, 50 H	lz 0.	21	0.6	22.3			5Vdc, 3.6A	
240 Vac, 60 H	lz 0.	22	0.6	22.1			5Vdc, 3.6A	
264 Vac, 50 H	lz 0.	20		22.4			5Vdc, 3.6A	
264 Vac, 60 H	lz 0.	21		22.2			5Vdc, 3.6A	
Model: GTM9	96180-18	07-2.0)-ТЗ					
90 Vac, 50 Hz	<u>z</u> 0.	41		23.0			5Vdc, 3.6A	
90 Vac, 60 Hz	z 0.	41		23.0			5Vdc, 3.6A	
100 Vac, 50 H	lz 0.	37	0.6	22.9			5Vdc, 3.6A	
100 Vac, 60 H	lz 0.	38	0.6	22.7			5Vdc, 3.6A	
240 Vac, 50 H	lz 0.	21	0.6	22.3			5Vdc, 3.6A	
240 Vac, 60 H	lz 0.	22	0.6	22.1			5Vdc, 3.6A	
264 Vac, 50 H	lz 0.	20		22.4			5Vdc, 3.6A	
264 Vac, 60 H	lz 0.	21		22.2			5Vdc, 3.6A	
Model: GTM9	96180-18	30-6.()-Т2					
90 Vac, 50 Hz	<u>z</u> 0.	38		21.3			24Vdc, 0.75A	
90 Vac, 60 Hz	<u>z</u> 0.	39		21.3			24Vdc, 0.75A	
100 Vac, 50 H	lz 0.	35	0.6	21.1			24Vdc, 0.75A	
100 Vac, 60 H	lz 0.	36	0.6	21.0			24Vdc, 0.75A	
240 Vac, 50 H	lz 0.	21	0.6	20.5			24Vdc, 0.75A	
240 Vac, 60 H	lz 0.	21	0.6	20.5			24Vdc, 0.75A	
264 Vac, 50 H	lz 0.	19		20.6			24Vdc, 0.75A	
264 Vac, 60 H	lz 0.	19		20.6			24Vdc, 0.75A	
Model: GTM9	96180-18	30-6.()-Т3					
90 Vac, 50 Hz	<u>z</u> 0.	38		21.3			24Vdc, 0.75A	
90 Vac, 60 Hz	<u> </u>	39		21.3			24Vdc, 0.75A	
100 Vac, 50 H	lz 0.	35	0.6	21.1			24Vdc, 0.75A	
100 Vac, 60 H	lz 0.	36	0.6	21.0			24Vdc, 0.75A	

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				Input	test			
Clause	Requ	uirement + T	est			Result - Rei	mark	Verdict
240 Vac, 50	0 Hz	0.21	0.6	20.5			24Vdc, 0.75A	
240 Vac, 60	0 Hz	0.21	0.6	20.5			24Vdc, 0.75A	
264 Vac, 50	0 Hz	0.19		20.6			24Vdc, 0.75A	
264 Vac, 60	0 Hz	0.19		20.6			24Vdc, 0.75A	
Model: GT	M961	80-1848-T2					·	
90 Vac, 50	Hz	0.38		21.0			48Vdc, 0.375A	
90 Vac, 60	Hz	0.38		21.0			48Vdc, 0.375A	
100 Vac, 50	0 Hz	0.34	0.6	20.8			48Vdc, 0.375A	
100 Vac, 60	0 Hz	0.35	0.6	20.8			48Vdc, 0.375A	
240 Vac, 50	0 Hz	0.20	0.6	20.1			48Vdc, 0.375A	
240 Vac, 60	0 Hz	0.20	0.6	20.1			48Vdc, 0.375A	
264 Vac, 50	0 Hz	0.19		20.2			48Vdc, 0.375A	
264 Vac, 60	0 Hz	0.19		20.2			48Vdc, 0.375A	
Model: GT	M961	80-1848-T3						
90 Vac, 50	Hz	0.38		21.0			48Vdc, 0.375A	
90 Vac, 60	Hz	0.38		21.0			48Vdc, 0.375A	
100 Vac, 50	0 Hz	0.34	0.6	20.8			48Vdc, 0.375A	
100 Vac, 60	0 Hz	0.35	0.6	20.8			48Vdc, 0.375A	
240 Vac, 50	0 Hz	0.20	0.6	20.1			48Vdc, 0.375A	
240 Vac, 60	0 Hz	0.20	0.6	20.1			48Vdc, 0.375A	
264 Vac, 50	0 Hz	0.19		20.2			48Vdc, 0.375A	
264 Vac, 60	0 Hz	0.19		20.2			48Vdc, 0.375A	
Supplemen	ntary in more t	nformation:	The steady st cent under ma	ate input cur aximum norn	rent did no nal load.	ot exceed the	rated current at the	e rated

	Page 25 of 25	Report No. 5029	1706 001
	Input test		
Clause	Requirement + Test	Result - Remark	Verdict

List of test equipment used:

Description	MTE Type/model Internal ID	Next Calibration Date
AC Digital Power Meter	WT210 G1812221	2020.09.06

Statement of Uncertainty:

Unless otherwise specified, combined measurement uncertainty for values tested in test report is as stated below:

Voltage Measurement:	0.032% (AC voltage)
	0.01% (DC voltage)
Current Measurement:	0.14% (AC current)
	0.061% (DC current)
Power Measurement:	0.1%
Power factor:	0.01
Resistance - between 10 m Ω to 3 Ω	0.1%
- more than 3 Ω	0.1%
Frequency:	0.03%
Electrical energy:	0.2%
Temperature:	0.14 °C
Leakage Current Measurement:	0.004 mA
Measurement of Ball Pressure Test:	0.02 mm
Line dimension:	0.02 mm
Angle measurement	0.45°
Mass:	2%
Force:	0.2 N
Torque:	0.09 Nm
Relative temperature in climactic chamber:	0.28 °C
Relative humidity in climactic chamber:	1.2% RH

Remark:

1.Valued stated in this document represent the worst case for equipment which is in possession of the lab and setups commonly used for testing;

2.For units or cases not specified in this document the evaluation of uncertainty shall be made upon request on individual basis;

3. The reported conbined uncertainty is stated as standard uncertainty of reported value multiplied by coverage factor k=2, which for normal distribution corresponds to a coverage probability of approximately 95%.

--End of Test Report--

Photo Documentation



Report No .:

No.: 50291706 001

Type Designation: GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3, GTM96180-1848-T3, GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2, GTM96180-1848-T2



Picture 1 – Overview



Picture 2 - Overview

Photo Documentation



Report No .:

50291706 001

Type Designation:

GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3, GTM96180-1848-T3, GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2, GTM96180-1848-T2



Picture 3 - Internal view



Picture 4 – Internal view

Photo Documentation

50291706 001



Report No .:

Type Designation: GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3, GTM96180-1848-T3, GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2, GTM96180-1848-T2



Picture 5 – Internal view



Picture 6 - Internal view

Photo Documentation

50291706 001

Report No.:

Type Designation:

ion: GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3, GTM96180-1848-T3, GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2, GTM96180-1848-T2





Picture 7 – Transformer



Picture 8 – Transformer

Photo Documentation

50291706 001

Report No.:

Type Designation:

ion: GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3, GTM96180-1848-T3, GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2, GTM96180-1848-T2



Picture 9 – Transformer



Picture 10 – Transformer





Prüfbericht - Nr.: Test Report No.:	60378220 001	Se F	e ite 1 von 29 Page 1 of 29
Auftraggeber: Client:	GlobTek (Suzhou) Co., Ltd. Building 4, No. 76, Jinling Ea P.R. China	st Road, Suzhou Industrial F	Park, Jiangsu 215021,
Gegenstand der Prüfung: Test item:	DC Power Supply Unit		
Bezeichnung: Identification:	GTM96180-1807-2.0-T3 GTM96180-1830-6.0-T3 GTM96180-1848-T3 GTM96180-1807-2.0-T2 GTM96180-1830-6.0-T2 GTM96180-1848-T2	Serien-Nr.: Serial No.:	Engineering Samples
Wareneingangs-Nr.: Receipt No.:	158207803	Eingangsdatum: Date of receipt:	21.04.2020
Zustand des Prüfgegensta Condition of test item at del	andes bei Anlieferung: Goo	d for checking and testing	
Prüfort: TÜV Testing location: No. 7	Rheinland (Shanghai) Co., L 177, Lane 777, West Guangzh	td. ong Road, Shanghai, China	
Prüfgrundlage: Tech Test specification: J550	nnical Requirements Append 32(H29)	ix 12	
Prüfergebnis: The Test Result:	test item passed the test sp	ecification(s).	
Prüflaboratorium: TÜV Testing Laboratory: No. ²	Rheinland (Shanghai) Co., L 178, Lane 777, West Guangzh	td. ong Road, Shanghai, China	
geprüft/ tested by:	kon	trolliert/ reviewed by:	
χι	le Lan Zhang	ā	fia Yi Zhou
02.06.2020 Xue Lan Zhang Datum Name/Stellung Date Name/Position	/Inspector 02.0 Unterschrift Date Signature Date	6.2020 Jia Yi Zhou /Senior I Im Name/Stellung Name/Position	nspector Unterschrift Signature
Sonstiges/ Other Aspects:			
J55032(H29) is equivalent 32:2012. The differences be Refer to section 2.2 for mor	to CISPR 32:2015. All the El etween the two standards were e information.	MC tests were performed w also taken into consideratio	ith reference to CISPR in during the testing.
Abkürzungen: P(ass) = ents F(ail) = ents N/A = nich N/T = nich	pricht Prüfgrundlage pricht nicht Prüfgrundlage t anwendbar t getestet	Abbreviations: P(ass) = µ F(ail) = f N/A = r N/T = r	aassed ailed not applicable not tested
Dieser Prüfbericht bezieht sic vervielfältigt This test report relates to the a. extracts. Th	h nur auf das o.g. Prüfmuster und o werden. Dieser Bericht berechtigt r m. test item. Without permission of th is test report does not entitle to carry	larf ohne Genehmigung der Prüfs icht zur Verwendung eines Prüfz e test center this test report is not p any safety mark on this or similar pr	stelle nicht auszugsweise eichens. ermitted to be duplicated in oducts.

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TEST SUMMARY

4.1.1 MAINS TERMINAL CONTINUOUS DISTURBANCE VOLTAGE Result: Passed
4.2.1 RADIATED EMISSION Result:

Passed



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1. Test Sites

1.1 Test Facilities

Laboratory: TÜV Rheinland (Shanghai) Co., Ltd. Address: No.177, 178, Lane 777 West Guangzhong Road, Jing'an District, Shanghai, China

The used test equipment is in accordance with CISPR 16-1 series standards for measurement of radio interference.

Refer to Clause 6 for test and measurement instruments.



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2 General Product Information

2.1 Product Function and Intended Use

The EUT (equipment under test) are ordinary DC power supply units. For the further information, refer to the user's manual.

2.2 Ratings and System Details

Model	Input	Output	Identities and differences
GTM96180-1807-2.0-T3			Same electrical diagram,
GTM96180-1807-2.0-T2	100-240V~, 50-60 Hz, 0.6 A	5Vdc, 3.6A, 18W	except that models with T3 has the earth port
GTM96180-1830-6.0-T3			Same electrical diagram,
GTM96180-1830-6.0-T2		24Vac, 0.75A, 18VV	has the earth port
GTM96180-1848-T3			Same electrical diagram,
GTM96180-1848-T2		48Vac, 0.375A, 18W	has the earth port

Protection Class: II (for GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2, GTM96180-1848-T2) I (for GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3, GTM96180-1848-T3)

Identities and differences:

The three models GTM96180-1807-2.0-T2, GTM96180-1830-6.0-T2 and GTM96180-1848-T2 have the same electrical construction, only different output voltage and current.

This is the same case for GTM96180-1807-2.0-T3, GTM96180-1830-6.0-T3 and GTM96180-1848-T3.

With the consideration of the identities and differences listed above, both Class I and Class II models respectively with the min. and max. output voltage were chosen to perform the EMC tests as following details:

Model	Output	Emission tests
GTM96180-1807-2.0-T3	5\/do 2.6A 10\//	\checkmark
GTM96180-1807-2.0-T2	5VUC, 3.0A, 16VV	\checkmark
GTM96180-1848-T3	40)/da 0.2754 40)//	\checkmark
GTM96180-1848-T2	40VUC, U.STOA, 18VV	\checkmark

Note: " \checkmark " means tests were performed.



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2.3 Independent Operation Modes

The basic operation modes are: "on" or "off".

2.4 Noise Generating and Noise Suppressing Parts

Refer to the circuit diagram for further information.

2.5 Submitted Documents

Circuit diagram and rating labels.



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3 Test Set-up and Operation Modes

3.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible emission level. The test conditions were adapted accordingly in reference to the instructions for use.

Refer to the related paragraph of this report.

3.2 Physical Configuration for Testing

Refer to the related paragraph of this report.

3.3 Test Operation and Test Software

Refer to the related paragraph of this report. No software was used.

3.4 Special Accessories and Auxiliary Equipment

During the tests, adjustable resistance used as load to achieve the rated power with max. and min. output voltage.

3.5 Countermeasures to achieve EMC Compliance

None.



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4 Test Results EMISSION

4.1 Emission in the Frequency Range up to 30 MHz

4.1.1 Mains Terminal Continuous Disturbance Voltage

Pocult

Passed

Date of testing	:	19.05.2020
Test procedure	:	J55032(H29), CISPR 32:2015 and CISPR 16-1 series standards
Test port	:	AC mains port
Frequency range	:	150 kHz – 30 MHz
Category of product	:	Class B
Limit	:	Table A.9 of CISPR 32:2015
Operational mode	:	Power on with output load
Input voltage	:	AC 100 V, 60 Hz
Kind of test site	:	Shielded room
Ambient condition	:	Temperature: 23.6 °C; Relative humidity: 41.2 %
Expanded measurement uncertainty $(k=2)$:	3.39 dB

The measurement setup was made according to Annex D of CISPR 32:2015 in a shielded room.

The measurement equipment like test receivers, quasi-peak detector and Artificial Mains Network (AMN) are in compliance with CISPR 16-1 series standards. The tested object was operated under its rated voltage and its rated frequency. Prior to the measurements the test object operated about 5 minutes (warm-up) in order to stabilize its operating conditions and to ensure reliable measurement values.

Furthermore an internal calibration with the test receiver was conducted prior to each measurement.

The tested object was settled on a 0.4 m wooden support. The EUT was set 0.8 m away from the AMN. The Interference Voltage was determined according to annex C of CISPR 32:2015 while measuring the line and neutral conductor by turns.

The following figures and tables were those measured by an automatic measuring system. Both Quasi-Peak and Average Value were measured. Quasi-Peak and Average Value were measured and listed respectively where they had a maximum in previous scanning survey. In the Figures, red "blue *****" means Quasi-Peak Value and purple "green *****" means Average Value which was measured in final measurement.



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Figure 1: Spectral diagrams, conducted emission, 150 kHz – 30 MHz, GTM96180-1807-2.0-T3, L line



Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.181500	42.92	64.42	21.49	1000.0	9.000	10.4
0.240000	39.77	62.10	22.33	1000.0	9.000	10.4
8.371500	36.60	60.00	23.40	1000.0	9.000	10.8
20.454000	38.19	60.00	21.81	1000.0	9.000	11.3
20.535000	37.95	60.00	22.05	1000.0	9.000	11.3
22.546500	47.22	60.00	12.78	1000.0	9.000	11.4

Final average measurement Results

Frequency	CAverage	Limit	Margin	Meas.	Bandwidth	Corr.
(MHz)	(dBµV)	(dBµV)	(dB)	Time	(kHz)	(dB)
				(ms)		
20.332500	32.75	50.00	17.25	1000.0	9.000	11.3
20.395500	33.44	50.00	16.56	1000.0	9.000	11.3
20.454000	33.53	50.00	16.47	1000.0	9.000	11.3
20.526000	33.33	50.00	16.67	1000.0	9.000	11.3
20.580000	33.54	50.00	16.46	1000.0	9.000	11.3
23.919000	40.38	50.00	9.62	1000.0	9.000	11.4



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Figure 2: Spectral diagrams, conducted emission, 150 kHz – 30 MHz, GTM96180-1807-2.0-T3, N line



Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.150000	40.19	66.00	25.81	1000.0	9.000	10.4
0.181500	43.88	64.42	20.54	1000.0	9.000	10.4
8.173500	40.00	60.00	20.00	1000.0	9.000	10.9
20.220000	37.77	60.00	22.23	1000.0	9.000	11.5
20.476500	39.35	60.00	20.65	1000.0	9.000	11.5
22.663500	47.65	60.00	12.35	1000.0	9.000	11.5

Final average measurement Results

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
8.524500	34.88	50.00	15.12	1000.0	9.000	10.9
20.350500	33.16	50.00	16.84	1000.0	9.000	11.5
20.422500	31.71	50.00	18.29	1000.0	9.000	11.5
20.476500	34.29	50.00	15.71	1000.0	9.000	11.5
20.535000	34.34	50.00	15.66	1000.0	9.000	11.5
24.184500	42.03	50.00	7.97	1000.0	9.000	11.6



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Figure 3: Spectral diagrams, conducted emission, 150 kHz – 30 MHz, GTM96180-1848-T3, L line



Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.186000	44.88	64.21	19.33	1000.0	9.000	10.4
0.208500	42.34	63.27	20.93	1000.0	9.000	10.4
0.537000	37.22	56.00	18.78	1000.0	9.000	10.4
1.536000	36.46	56.00	19.54	1000.0	9.000	10.5
4.825500	36.70	56.00	19.30	1000.0	9.000	10.6
8.475000	40.30	60.00	19.70	1000.0	9.000	10.8

Final average measurement Results

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.186000	30.49	54.21	23.72	1000.0	9.000	10.4
0.483000	24.00	46.29	22.29	1000.0	9.000	10.4
1.873500	26.65	46.00	19.35	1000.0	9.000	10.5
4.816500	30.82	46.00	15.18	1000.0	9.000	10.6
8.061000	35.72	50.00	14.28	1000.0	9.000	10.8
13.384500	26.85	50.00	23.15	1000.0	9.000	11.1



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Figure 4: Spectral diagrams, conducted emission, 150 kHz – 30 MHz, GTM96180-1848-T3, N line $Level~[dB\mu V]$



Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.204000	41.50	63.45	21.95	1000.0	9.000	10.4
0.555000	37.95	56.00	18.05	1000.0	9.000	10.4
0.766500	36.57	56.00	19.43	1000.0	9.000	10.5
1.252500	36.54	56.00	19.46	1000.0	9.000	10.5
4.393500	35.23	56.00	20.77	1000.0	9.000	10.6
7.809000	40.72	60.00	19.28	1000.0	9.000	10.8

Final average measurement Results

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.366000	25.19	48.59	23.40	1000.0	9.000	10.4
0.496500	22.09	46.06	23.97	1000.0	9.000	10.4
0.667500	23.87	46.00	22.13	1000.0	9.000	10.5
1.806000	26.09	46.00	19.91	1000.0	9.000	10.5
4.942500	29.09	46.00	16.91	1000.0	9.000	10.6
7.989000	33.04	50.00	16.96	1000.0	9.000	10.8



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Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.154500	36.62	65.75	29.14	1000.0	9.000	10.4
0.190500	43.40	64.02	20.61	1000.0	9.000	10.4
0.244500	39.79	61.94	22.15	1000.0	9.000	10.4
0.406500	29.95	57.72	27.77	1000.0	9.000	10.4
1.932000	30.89	56.00	25.11	1000.0	9.000	10.5
2.134500	28.94	56.00	27.06	1000.0	9.000	10.5

Final average measurement Results

Frequency	CAverage	Limit	Margin	Meas.	Bandwidth	Corr.
(MHz)	(dBµV)	(dBµV)	(dB)	Time	(kHz)	(dB)
				(ms)		
0.190500	29.92	54.02	24.09	1000.0	9.000	10.4
0.258000	25.56	51.50	25.94	1000.0	9.000	10.4
1.995000	19.12	46.00	26.88	1000.0	9.000	10.5
2.125500	17.35	46.00	28.65	1000.0	9.000	10.5
8.506500	27.45	50.00	22.55	1000.0	9.000	10.8
27.127500	20.83	50.00	29.17	1000.0	9.000	11.5



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Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.150000	33.73	66.00	32.27	1000.0	9.000	10.4
0.208500	34.50	63.27	28.77	1000.0	9.000	10.4
0.802500	33.85	56.00	22.15	1000.0	9.000	10.5
1.932000	34.06	56.00	21.94	1000.0	9.000	10.5
2.899500	30.37	56.00	25.63	1000.0	9.000	10.6
8.394000	37.58	60.00	22.42	1000.0	9.000	10.9

Final average measurement Results

Frequency	CAverage	Limit	Margin	Meas.	Bandwidth	Corr.
(MHz)	(dBµV)	(dBµV)	(dB)	Time	(kHz)	(dB)
				(ms)		
0.550500	21.56	46.00	24.44	1000.0	9.000	10.4
1.932000	23.78	46.00	22.22	1000.0	9.000	10.5
4.497000	24.78	46.00	21.22	1000.0	9.000	10.6
8.398500	33.98	50.00	16.02	1000.0	9.000	10.9
13.524000	24.01	50.00	25.99	1000.0	9.000	11.2
27.091500	22.57	50.00	27.43	1000.0	9.000	11.7



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Figure 7: Spectral diagrams, conducted emission, 150 kHz – 30 MHz, GTM96180-1848-T2, L line



Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.186000	43.93	64.21	20.28	1000.0	9.000	10.4
0.258000	39.13	61.50	22.36	1000.0	9.000	10.4
0.406500	35.76	57.72	21.96	1000.0	9.000	10.4
0.555000	33.06	56.00	22.94	1000.0	9.000	10.4
4.974000	30.87	56.00	25.13	1000.0	9.000	10.6
11.089500	35.75	60.00	24.25	1000.0	9.000	11.0

Final average measurement Results

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.195000	29.80	53.82	24.02	1000.0	9.000	10.4
0.541500	21.48	46.00	24.52	1000.0	9.000	10.4
0.663000	19.96	46.00	26.04	1000.0	9.000	10.4
4.843500	25.26	46.00	20.74	1000.0	9.000	10.6
10.837500	30.94	50.00	19.06	1000.0	9.000	11.0
12.475500	29.45	50.00	20.55	1000.0	9.000	11.0



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Figure 8: Spectral diagrams, conducted emission, 150 kHz – 30 MHz, GTM96180-1848-T2, N line



Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.181500	44.99	64.42	19.42	1000.0	9.000	10.4
0.244500	36.98	61.94	24.96	1000.0	9.000	10.4
0.339000	33.77	59.23	25.46	1000.0	9.000	10.4
0.528000	31.60	56.00	24.40	1000.0	9.000	10.4
4.834500	31.41	56.00	24.59	1000.0	9.000	10.6
7.620000	38.05	60.00	21.95	1000.0	9.000	10.8

Final average measurement Results

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Corr. (dB)
0.404500	00.40	54.40	00.05	1000.0	0.000	40.4
0.181500	28.10	54.4Z	26.25	1000.0	9.000	10.4
0.361500	18.08	48.69	30.62	1000.0	9.000	10.4
0.478500	20.49	46.37	25.88	1000.0	9.000	10.4
4.942500	26.72	46.00	19.28	1000.0	9.000	10.6
7.773000	32.28	50.00	17.72	1000.0	9.000	10.8
13.344000	27.18	50.00	22.82	1000.0	9.000	11.2



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4.2 Emission in the Frequency Range above 30 MHz

4.2.1 Radiated emission

Result:			Passed
Date of testing	:	19.05.2020	
Port	:	Enclosure	
Test procedure	:	J55032(H29), CISPR 32:2015 and CISPR 16-1 se	ries standards
Category of product	:	Class B	
Frequency range	:	30-1000 MHz (see Note 1)	
Limit	:	Table A.4 of CISPR 32:2015, Quasi-peak limits (3m distance):
		30-230MHz, 40 dBµV/m;	
		230-1000MHz, 47 dBµV/m	
Test distance	:	3m	
Kind of test site	:	Semi-anechoic chamber	
Test voltage	:	AC 100 V, 60 Hz	
Operational mode	:	Power on with output load	
Ambient condition	:	Temperature: 23.6 °C; Relative humidity: 41.2 %	
Expanded measurement uncertainty $(k=2)$:	5.49 dB	

Measuring configuration and description

The radiated disturbance test was carried out in a semi-anechoic chamber. The test distance from the receiving antenna to the EUT is 3 m. The normalized site attenuation of the semi-anechoic chamber is regularly calibrated to ensure the radiated disturbance test results are valid. During the test, the EUT was placed on a wooden table, which is 0.8 m high. The wooden table was rotated 360° around and the antenna was varied from 1m to 4 m to find the maximum disturbance. The test was performed with the antenna both in its horizontal and vertical polarizations.

The following figures and tables were those measured by an automatic measurement system. The final test was performed with quasi-peak detector at those critical frequencies during the preview test. In the following figure, "×" means measurement results with quasi-peak detector.

Note: The highest frequency of the internal sources of the EUT is less than 108 MHz, so according to Table 1 in CISPR 32:2015 this measurement was only performed up to 1 GHz.



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Figure 9: Spectral Diagrams and measurement results, 30 – 1000 MHz, GTM96180-1807-2.0-T3, horizontal polarization Level [dBµV/m] 80-70 60. 50· 40. 30. X × 20 10. 0. 30 M 50 60 80 100M 200 300 400 500 800 1G Frequency in Hz

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	22.6	1000.0	120.000	100.0	155.0	25.4	17.4	40.0
35.831663	20.5	1000.0	120.000	120.0	12.0	22.3	19.5	40.0
117.474950	30.6	1000.0	120.000	150.0	0.0	18.5	9.4	40.0
136.913828	27.4	1000.0	120.000	123.0	180.0	18.3	12.6	40.0
444.048096	22.2	1000.0	120.000	122.0	0.0	24.0	24.8	47.0
893.086172	28.5	1000.0	120.000	100.0	0.0	28.3	18.5	47.0



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Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	25.0	1000.0	120.000	100.0	0.0	25.4	15.0	40.0
103.867735	26.7	1000.0	120.000	100.0	12.0	18.1	13.3	40.0
115.531062	33.0	1000.0	120.000	100.0	90.0	18.6	7.0	40.0
134.969940	33.4	1000.0	120.000	105.0	90.0	18.4	6.6	40.0
138.857715	32.0	1000.0	120.000	110.0	58.0	18.1	8.0	40.0
589.839679	25.7	1000.0	120.000	105.0	0.0	26.3	21.3	47.0



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Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	22.6	1000.0	120.000	122.0	25.0	25.4	17.4	40.0
35.831663	20.1	1000.0	120.000	110.0	0.0	22.3	19.9	40.0
105.811623	18.2	1000.0	120.000	150.0	0.0	18.3	21.8	40.0
131.082164	18.6	1000.0	120.000	150.0	14.0	18.7	21.4	40.0
259.378758	21.3	1000.0	120.000	144.0	90.0	20.6	25.7	47.0
589.839679	26.4	1000.0	120.000	125.0	44.0	26.3	20.6	47.0



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Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	27.3	1000.0	120.000	100.0	12.0	25.4	12.7	40.0
43.607214	24.3	1000.0	120.000	100.0	44.0	17.8	15.7	40.0
103.867735	23.4	1000.0	120.000	100.0	0.0	18.1	16.6	40.0
177.735471	20.8	1000.0	120.000	110.0	0.0	16.0	19.2	40.0
259.378758	19.3	1000.0	120.000	100.0	14.0	20.6	27.7	47.0
601.503006	26.4	1000.0	120.000	100.0	35.0	26.2	20.6	47.0



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Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	22.7	1000.0	120.000	120.0	89.0	25.4	17.3	40.0
105.811623	19.5	1000.0	120.000	139.0	12.0	18.3	20.5	40.0
117.474950	26.2	1000.0	120.000	150.0	55.0	18.5	13.8	40.0
133.026052	23.2	1000.0	120.000	150.0	100.0	18.6	16.8	40.0
414.889780	22.5	1000.0	120.000	144.0	180.0	23.2	24.5	47.0
854.208417	29.0	1000.0	120.000	100.0	90.0	27.9	18.0	47.0



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Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	30.6	1000.0	120.000	100.0	2.0	25.4	9.4	40.0
105.811623	23.9	1000.0	120.000	100.0	22.0	18.3	16.1	40.0
117.474950	28.6	1000.0	120.000	100.0	0.0	18.5	11.4	40.0
133.026052	30.3	1000.0	120.000	102.0	0.0	18.6	9.7	40.0
265.210421	19.8	1000.0	120.000	110.0	15.0	20.7	27.2	47.0
591.783567	25.7	1000.0	120.000	104.0	100.0	26.3	21.3	47.0



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Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	21.7	1000.0	120.000	122.0	25.0	25.4	18.3	40.0
61.102204	17.1	1000.0	120.000	150.0	100.0	12.8	22.9	40.0
121.362725	20.2	1000.0	120.000	120.0	90.0	18.6	19.8	40.0
290.480962	20.0	1000.0	120.000	150.0	0.0	19.8	27.0	47.0
549.018036	25.3	1000.0	120.000	150.0	0.0	26.2	21.7	47.0
887.254509	28.2	1000.0	120.000	100.0	1.0	28.0	18.8	47.0



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Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Azimuth (deg)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBµV/m)
30.000000	29.7	1000.0	120.000	100.0	12.0	25.4	10.3	40.0
31.943888	28.5	1000.0	120.000	100.0	14.0	24.5	11.5	40.0
59.158317	22.1	1000.0	120.000	100.0	0.0	12.7	17.9	40.0
119.418838	26.3	1000.0	120.000	110.0	90.0	18.4	13.7	40.0
259.378758	20.1	1000.0	120.000	105.0	90.0	20.6	26.9	47.0
574.288577	25.4	1000.0	120.000	133.0	141.0	26.1	21.6	47.0



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5 Photographs of the Test Set-Up

Photograph 1: Photo of the EUT



Photograph 2: Set-up for measurement of disturbance voltage





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Photograph 3: Set-up for measurement of radiated emission





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6 List of Test and Measurement Instruments

Equip.	Description	Model	Manufacturer	Last Date Due Date DD.MM.YYYY DD.MM.YYYY
G1824845	EMC measurement software	EMC32 (Ver 10.20.01)	Rohde& Schwarz	NA* NA*
G1811391	EMI test receiver	ESCI	Rohde& Schwarz	01.11.2019 01.11.2020
G1830003	Artificial mains network	ENV432	Rohde& Schwarz	01.11.2019 01.11.2020
G1811378	3m modified semi-anechoic chamber	SAC3	Frankonia	27.06.2019 27.06.2022
G1811380	EMI test receiver	ESIB26	Rohde& Schwarz	06.03.2020 06.03.2021
G1811425	Bilog antenna	CBL 6112D	Teseq	10.03.2020 10.03.2023



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Figure 3: Spectral diagrams, conducted emission, 150 kHz – 30 MHz, GTM96180-1848-T3, L line 11
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