Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 60065
Audio, video and similar electronic apparatus – Safety requirements

Report Number. ..... :	**50211276 001**
Date of issue ..... :	2018-12-07
Total number of pages ..... :	30 pages
Applicant's name ..... :	IMP Corporation
Address ..... :	(Deokjeong-dong),67, Hwahap-ro 1402beon-gil, Yangju-si, Gyeonggi-do 11451 Rep. of Korea.
Test specification:	
Standard ..... :	IEC 60065:2014
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60065M
Test Report Form(s) Originator .... :	Intertek Semko AB
Master TRF ..... :	Dated 2016-10

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.
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Test item description ..... :	Pre Amplifier
Trade Mark ..... :	
Manufacturer ..... :	Same as applicant
Model/Type reference ..... :	IM-PP-6214, IM-PP-6214-EP (see 5 page)
Ratings ..... :	220-240 V~, 50/60 Hz, 11 W, Class I 24 V ⎓ (for emergency)

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

☒	**CB Testing Laboratory:**	LTA Co.,Ltd	
Testing location/ address.....:		4, Songju-ro 236beon-gil, Yangji-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea	
Tested by (name, function, signature).....:		JunSeok Yoon	
Approved by (name, function, signature)...:		SeokGoo Kang	
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address.....:			
Tested by (name, function, signature).....:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: CTF Stage 2:**		
Testing location/ address.....:			
Tested by (name + signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature)...:			
☐	**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 included in this Test Report:
Attachment 1: 1 page (Korea differences)
Attachment separated from this Test Report:
Photograph 5 pages

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
Marking durability and legibility (clause 5) Input test (clause 5.1) Temperature rise measurements (clause 7.1) Touch current measurement (clause 9.1) Accessibility (clause 9.1) Withdrawal of mains plug; Cap. discharge test (clause 9.1.6) Humidity treatment / Insulation resistance and dielectric strength (clause 10.3) Fault condition tests (clause 11) Vibration test (clause 12.1.3) Impact test (clause 12.1.4) Fixing of actuating elements (clause 12.2) Determination of operating voltage (clause 13.2) Clearances and creepage distances measurements (clause 13.3, 13.4) Inductors and windings (clause 14.4) Provisions for protective earthing (clause 15.2) Electrical connections and mechanical fixings (clause 17)	LTA Co.,Ltd 4, Songju-ro 236beon-gil, Yangji-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, 17159 Korea, Republic of

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

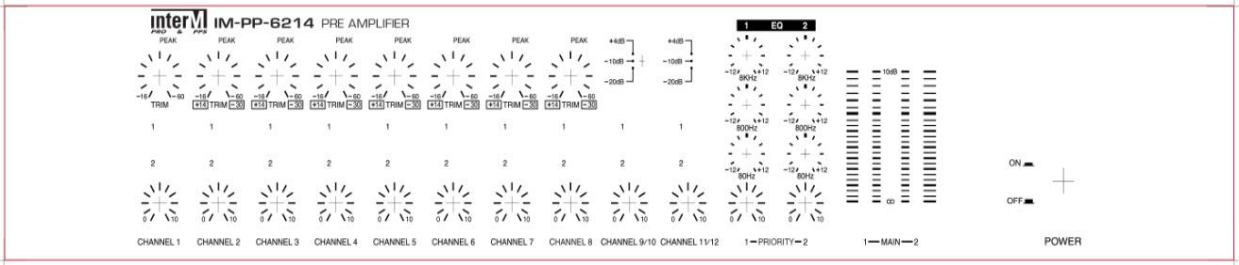
KR = Korea.

☒ **The product fulfils the requirements of IEC 60065:2014**

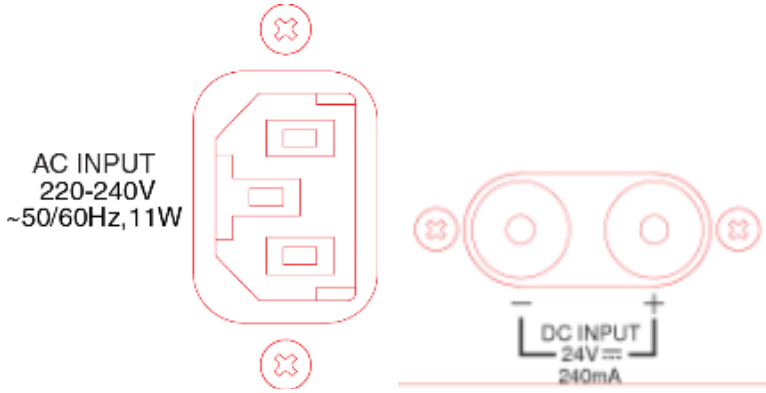
Copy of marking plate:

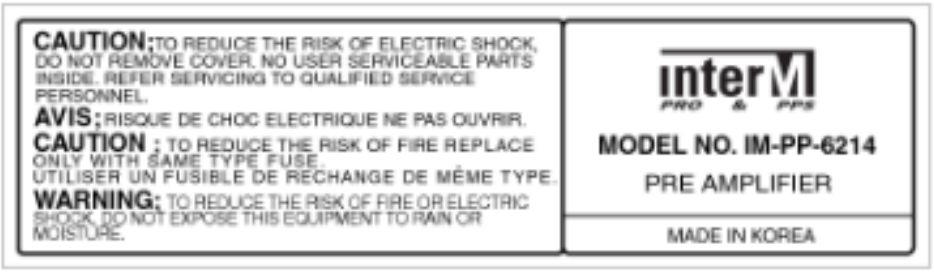
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

Front silk drawing



Rear silk drawing





Trade mark

Test item particulars.....:	Pre Amplifier
Classification of installation and use.....:	Rack mounted apparatus
Supply Connection.....:	AC mains operated (Detachable power cord)
.....:	Class I apparatus
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 .....:	2018-03-14
Date (s) of performance of tests.....:	2018-12-07 to 2018-12-07

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) ..... :	IMP Corporation 4, Songju-ro 236beon-gil, Yangji-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, 17159 Korea, Republic of

General product information:

-. Overall size of equipment: 482 mm (W) x 88 mm (H) x 280 mm (D)
-. Mass of equipment: 5 kg
-. Rear 24 V d.c input is emergency power.
-. Model "IM-PP-6214" is basic model, which was tested.
-. The IM-PP-6214-EP model has the same electrically and mechanical structure as the IM-PP-6214 model and the addition of the brand name and model name according to buyer.

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
3	**GENERAL REQUIREMENTS**		P
	Safety class of the apparatus ..... :	Class I	P
4	**GENERAL TEST CONDITIONS**		P
4.1.4	Ventilation instructions require the use of the test box	Yes	P
5	**MARKING AND INSTRUCTIONS**		P
5.1	**General requirements**		**P**
	Comprehensible and easily discernible	Compliance checked	P
	Permanent durability against water and petroleum spirit	Tested with water and n-hexane	P
5.2	**Identification and supply rating**		**P**
	a) Identification, maker ..... :	interM PRO & PPS	P
	b) Model number or type reference ..... :	IM-PP-6214, IM-PP-6214-EP	P
	c) Class II symbol or Class II with functional earth symbol if applicable ..... :	Class I apparatus	N/A
	d) Nature of supply ..... :	~ (IEC 60417-5032) used	P
	e) Rated supply voltage ..... :	220-240 V~	P
	f) Mains frequency if safety dependant ..... :	50/60 Hz	P
	g) Rated current or power consumption for apparatus supplied by supply apparatus for general use, on apparatus or in instruction manual ..... :	No supplied by supply apparatus	N/A
	Measured current or power consumption ..... :		N/A
	Deviation % (max 10%) ..... :		N/A
	h) Rated current or power consumption for apparat-us intended for connection to an a.c. mains supply :	11 W	P
	Measured current or power consumption ..... :	11.43 W	P
	Measured current or power consumption for Television set ..... :	No Television set	N/A
	Deviation % (max 10%) ..... :	3.9 %	P
	Symbols explained in the user manual		N/A
5.3	**Terminals**		**P**
	a) Earth terminal	Marked with standard earth symbol (60417-1-IEC-5019) near the protective earthing terminal.	P
	b) Hazardous live terminals	No hazardous live terminals	N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
	c) Markings on supply output terminals	No supply output terminals	N/A
5.4	**Caution marking**		**P**
	a) Use of triangle with exclamation mark	(see marking plate)	P
	b) Marking on loudspeaker grille, IEC 60417-5036	No loudspeaker grille	N/A
	c) User-replaceable coin / button cell battery marking	No coin / button cell battery	N/A
5.5	**Instructions**		**P**
5.5.1	Safety relevant information		P
5.5.2	a) Mains powered equipment not exposed to dripping or splashing. Warning concerning objects filled with liquid, etc.	In user instruction	P
	b) Hazardous live terminals, instructions for wiring	No hazardous live terminals	N/A
	c) Instructions for replacing lithium battery	No lithium battery	N/A
	d) Class I earth connection warning	In user instruction	P
	e) Instructions for multimedia system connection	In user instruction	P
	f) Special stability warning for attachment of the apparatus to the floor/wall	Rack mounted apparatus	N/A
	g) Warning: battery exposure to heat	No battery	N/A
	h) Warning: protective film on CRT face	No CRT face	N/A
	i) Warning: Non-floor standing TV >7kg	Not TV	N/A
	j) Warning: User replaceable coin / button cell battery	No coin / button cell battery	N/A
5.5.3	a-b) Disconnect device: plug/coupler or all-pole mains switch location, accessibility and markings	Appliance coupler	P
	c) Instructions for permanently connected equipment	Not permanently connected equipment	N/A
	Marking, signal lamps or similar for completely disconnection from the mains	No signal lamps or similar	N/A
6	**HAZARDOUS RADIATION**		N/A
6.1	Ionizing radiation < 36 pA/kg (0,5 mR/h)	No radiation hazard.	N/A
	Ionizing radiation under fault condition		N/A
6.2	Laser radiation, emission limits to IEC 60825-1:2007 ..... :		N/A
	Emission limits under fault conditions ..... :		N/A
6.3	Light emitting diodes (LEDs) according to IEC 62471	Only indicate function.	N/A
7	**HEATING UNDER NORMAL OPERATING CONDITIONS**		P
7.1	**General**		**P**

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
7.1.1	Temperature rises not exceeding specified values; fuse links and other protective devices defeated	(see appended table 7.1)	P
7.1.2	Temperature rise of accessible parts	(see appended table 7.1)	P
7.1.3	Temperature rise of parts providing electrical insulation	(see appended table 7.1)	P
7.1.4	Temperature rise of parts acting as a support or as a mechanical barrier	(see appended table 7.1)	P
7.1.5	Temperature rise of windings	(see appended table 7.1)	P
7.1.6	Parts not subject to a limit under 7.1.1 to 7.1.4	(see appended table 7.1)	P
7.2	Softening temperature of insulating material supporting parts conductively connected to the mains carrying a current > 0,2 A at least 150 °C	Not exceed 0.2 A	N/A
8	**CONSTRUCTIONAL REQUIREMENTS WITH REGARD TO THE PROTECTION AGAINST ELECTRIC SHOCK**		P
8.1	Conductive parts covered by lacquer, paper, untreated textile oxide films and beads etc. considered to be bare	Covered only by lacquer are considered conductive parts.	P
8.2	No shock hazard when changing voltage setting device, fuse-links or handling drawers etc.	No such parts	N/A
8.3	Insulation of hazardous live parts not provided by hygroscopic material	No hygroscopic material	P
8.4	No risk of electric shock from accessible parts or from parts rendered accessible following the removal of a cover which can be removed by hand	No risk of electric shock	P
8.5	**Class I apparatus**		**P**
	Basic insulation between hazardous live parts and earthed accessible parts	Basic insulation complies with requirements specified in clause 10 and 13.	P
	Resistors bridging basic insulation complying with 14.2 a)	Approval resistance used	N/A
	Capacitors bridging basic insulation complying with 14.3.2 a)	Approval Capacitor used	N/A
	Protective earthing terminal	Provided with a protective earthing terminal.	P
8.6	**Class II apparatus**		**N/A**
	a) Basic and supplementary insulation between hazardous live parts and accessible parts	Class I apparatus	N/A
	b) Reinforced insulation between hazardous live parts and accessible parts		N/A
8.7	**Components bridging insulation**		**P**
	Basic insulation bridged by components complying with 14.4.5.3	Basic insulation complies with requirements specified in clause 10 and 13.	P

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
	Components bridging basic, supplementary, double or reinforced insulation complying with 14.2 a) or 14.4	The apparatus has isolated transformer complied with clause 14.4	P
	Basic and supplementary insulation each being bridged by a capacitor or RC-unit complying with 14.3.2 a)	(see appended table 14)	P
	Double or reinforced insulation being bridged with 2 capacitors or RC-units in series complying with 14.3.2 a)	No such parts	N/A
	Double or reinforced insulation being bridged with a single capacitor or RC-unit complying with 14.3.2 b)	No such parts	N/A
8.8	**Insulation thickness and thin sheet materials**		**P**
	Basic or supplementary insulation > 0,4 mm (mm) :	AC connector : > 0.4 mm	P
	Reinforced insulation > 0,4 mm (mm) ..... :	Transformer bobbin : Min. 0.88 mm	P
	Thin sheet material used inside the equipment	Insulation tape for transformer	P
	Basic or supplementary insulation, at least two layers, each meeting 10.4	No such parts	N/A
	Basic or supplementary insulation, three layers any two of which meet 10.4	No such parts	N/A
	Reinforced insulation, two layers each of which meet 10.4	No such parts	N/A
	Reinforced insulation, three layers any two which meet 10.4	2 layer : 3 000 V peak Insulation tape for transformer	P
8.9	Adequate insulation between internal hazardous live conductors and accessible parts, or between internal hazardous live parts and conductors connected to accessible parts	PVC wire (see appended table 14)	P
8.10	Double insulation between accessible parts and conductors connected to the mains	Class I apparatus	N/A
	Double insulation between conductors connected to accessible parts and parts connected to the mains		N/A
8.11	**Detaching of wires**		**P**
	No undue reduction of creepage or clearance distances if wires become detached	No wires become detached	P
	Vibration test carried out ..... :	Yes	P
8.12	Adequate fastening of windows, lenses, lamp covers etc. (pull test 20 N for 10 s)	No such parts	N/A
8.13	Adequate fastening of covers (push/pull test 50 N for 10 s)	No cover	N/A
8.14	No risk of damage to the insulation of internal wiring due to hot parts or sharp edges	No damage to the insulation.	N/A
8.15	Only special supply equipment can be used	Not used special supply.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.16	Insulated winding wire without additional interleaved insulation		N/A
8.17	Endurance test as required by 8.16		N/A
8.18	**Disconnection from the mains**		**P**
	Disconnect device	Appliance coupler	P
	All-pole switch or circuit breaker with >3mm contact separation	No all-pole switch or circuit breaker	N/A
	Mains switch ON indication	No switch for disconnect device	N/A
8.19	Switch not fitted in the mains cord		N/A
8.20	Bridging components comply with clause 14	(see appended table 14)	P
8.21	Non-separable thin sheet material	No such parts	N/A
9	**ELECTRIC SHOCK HAZARD UNDER NORMAL OPERATING CONDITION**		P
9.1	**Testing on the outside**		**P**
9.1.1	**General**		**P**
9.1.1.1	**Requirements**		**P**
	Accessible parts shall not be hazardous live	No hazardous live terminals	P
	Inaccessible terminals are not accessible or comply with relevant requirements	No hazardous live terminals	N/A
	For voltages >1000 V ac or >1500 V dc complies with clause 13.3.1 for basic insulation ..... :	Not exceed	N/A
9.1.1.2	**Determination of hazardous live parts**		**P**
	a) Open circuit voltages		P
	b) Touch current measured from terminal devices using the network in annex D ..... :	Voltage U1: 178 mV Voltage U2: 8.93 mV Alternatively – Measured Current : 0.02 mA	P
	c) Discharge not exceeding 45 µC		
	d) Energy of discharge not exceeding 350 mJ		N/A
9.1.1.3	Test with test finger and test probe	No hazardous live	P
9.1.2	No hazardous live shafts of knobs, handles or levers	No hazardous live	P
9.1.3	Ventilation holes and other holes tested by means of 4 mm x 100 mm test pin	No opening	N/A
9.1.4	Terminal devices tested with 1 mm x 20 mm test pin (10 N); test probe D of IEC 61032	No hazardous live terminals	P
	Terminal devices tested with 1 mm x 100 mm straight wire (1 N); test probe D of IEC 61032	No hazardous live terminals	P
9.1.5	Pre-set controls tested with 2.5 mm x 100 mm test pin (10 N); test probe C of IEC 61032	No pre-set controls	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
9.1.6	**Withdrawal of the mains plug**		**P**
	No shock hazard due to stored charge after 2 s ... :	0 V	P
	Bleeder resistor(s) comply with 14.2 or no shock hazard when open circuited	Complied	P
	If C is not greater than 0,1 µF no test needed	> 0.1 µF	N/A
9.1.7	**Resistance to external force**		**P**
	a) Test probe 11 of IEC 61032 for 10 s (50 N)	No hazard	P
	b) Test hook of fig. 4 for 10 s (20 N)	No hazard	P
	c) 30 mm diameter test tool for 5 s (100 or 250 N)	100 N, No hazard	P
9.2	No hazard after removing a cover by hand	No cover	N/A
10	**INSULATION REQUIREMENTS**		P
10.2	Insulation resistance (MΩ) at least 2 MΩ min. after surge test for basic and 4 MΩ min. for reinforced insulation ..... :	Class I apparatus	N/A
10.3	Humidity treatment 48 h or 120 h ..... :	48 h, 95 % R.H., 30 ℃	P
10.4	**Insulation resistance and dielectric strength**		**P**
	Between parts of different polarity directly connected to the mains	(see appended table 10.4)	P
	Between parts separated by BASIC or SUPPLEMENTARY insulation	(see appended table 10.4)	P
	Between parts separated by REINFORCED insulation	(see appended table 10.4)	P
11	**FAULT CONDITIONS**		P
11.1	No shock hazard under fault condition	No electric shock hazard under fault condition	P
11.2	**Heating**		**P**
11.2.1	**Requirements**		**P**
	No danger of fire to the surroundings	No fire	P
	Safety not impaired by abnormal heat		N/A
	Flames extinguish within 10 seconds	No flame	P
	No hazard from softening solder	No hazard	P
	Soldered terminations not used as protective mechanism	Not used	P
11.2.2	Measurement of temperature rises	(see appended table 11.2)	P
11.2.3	Temperature rise of accessible parts	(see appended table 11.2)	P
11.2.4	Temperature rise of parts, other than windings and printed boards, providing electrical insulation	(see appended table 11.2)	P

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
11.2.5	Temperature rise of parts acting as a support or mechanical barrier	(see appended table 11.2)	P
11.2.6	Temperature rise of windings	(see appended table 11.2)	P
11.2.7	**Printed boards**		**P**
	Temperature rise does not exceed the limits of table 3 or exceed the limits of table 3 by max. 100 K for max. 5 min	(see appended table 11.2)	P
	a) Temperature rise of V-0 or VTM-0 printed circuit boards exceeding the limits of table 3 by not more than 100 K for an area not greater than 2 cm²		N/A
	b) Temperature rise of V-0 or VTM-0 printed circuit boards exceeding the limits of table 3 up to 300 K for an area not greater than 2 cm² for a maximum of 5 min		N/A
	Meets all the special conditions if conductors on printed circuit boards are interrupted		N/A
	Class I protective earthing maintained	Earthing maintained	P
11.2.8	Temperature rise of parts not subject to the limits of 11.2.2 to 11.2.7 shall not exceed the limits in table 3, item e), "Fault conditions".	(see appended table 11.2)	P

12	**MECHNICAL STRENGTH**		P
12.1	**Complete apparatus**		**P**
12.1.1	The apparatus have adequate mechanical strength		P
12.1.2	Bump test where mass >7 kg	5 kg	N/A
12.1.3	Vibration test	No damaged	P
12.1.4	Impact hammer test	0.5 J	P
	Steel ball test	50 mm, 500 g steel ball 41 cm(2 J), No breakdown.	P
12.1.5	Drop test for portable apparatus where mass ≤ 7 kg	Not transportable apparatus	N/A
12.1.6	Thermoplastic enclosures stress relief test	No enclosures of moulded or formed thermoplastic materials	N/A
12.2	Fixing of knobs, push buttons, keys and levers	No hazard	N/A
12.3	Remote controls with hazardous live parts	No remote control	N/A
12.4	Drawers (pull test 50 N, 10 s)	No drawer	N/A
12.5	Antenna coaxial sockets providing isolation	No antenna coaxial sockets	N/A
12.6	**Telescoping or rod antennas**		**N/A**
12.6.1	6,0mm diameter end	No telescoping or rod antennas	N/A
	Prevented from falling into the apparatus		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
12.6.2	Physical securement, removal prevented		N/A
12.7	**Apparatus containing coin / button cell batteries**		**N/A**
12.7.2	Reduced possibility for children to remove battery	No coin / button cell battery	N/A
12.7.3	**Tests**		N/A
12.7.3.2	Stress relief test		N/A
12.7.3.3	Battery replacement test		N/A
12.7.3.4	Drop test		N/A
12.7.3.5	Impact test		N/A
12.7.3.6	Crush test		N/A
12.7.4	Battery not accessible; or not removable		N/A
13	**CLEARANCES AND CREEPAGE DISTANCES**		P
13.1	Clearances in accordance with 13.3	Considered.	P
	Creepage distances in accordance with 13.4	Considered.	P
13.2	Determination of working voltage	(see appended table 13)	P
13.3	**Clearances**		**P**
13.3.1	Comply with 13.3 or Annex J	(see appended table 13)	P
13.3.2	Circuits conductively connected to the mains comply with table 8 and, where applicable, table 9..... :	(see appended table 13)	P
13.3.3	Circuits not conductively connected to the mains comply with table 10	No such parts	N/A
13.3.4	Measurement of transient voltages		N/A
13.4	Creepage distances not less than appropriate table 11 minimum values	(see appended table 13)	P
13.5	**Printed boards**		**N/A**
13.5.1	Conductors complying with pull-of and peel strength requirements, one of which may be conductively connected to the mains, as in fig. 10		N/A
13.5.2	Type B coated printed circuit boards complying with IEC 60664-3 (basic insulation only)		N/A
13.6	Conductive parts along uncemented joints clearances and creepage distances comply with 13.3 and 13.4		N/A
	Conductive parts along reliably cemented joints comply with 8.8		N/A
	Temperature cycle test and dielectric strength test		N/A
	500V test for transformers, magnetic coupler and similar devices, if insulation is relied upon for safety		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
13.7	Enclosed, enveloped or hermetically sealed parts not conductively connected to the mains, clearances and creepage distances as in table 12		N/A
13.8	Parts filled with insulating compound, meeting the requirements of 8.8	No parts filled with insulating compound	N/A
14	**COMPONENTS**		P
14.1	Flammability according to IEC 60695-11-10 or annex G, or 20.2.5	According to IEC 60695-11-10	P
14.2	**Resistors**		**P**
	Resistors separately approved ..... :	Yes (see appended table 14)	P
	a) Resistors between hazardous live parts and accessible metal parts		N/A
	b) Resistors, other than between hazardous live parts and accessible parts		N/A
14.3	**Capacitors and RC units**		**P**
	Capacitors separately approved :	Yes (see appended table 14)	P
14.3.1	Damp heat test duration 21 days		N/A
14.3.2	Y capacitors tested to IEC 60384-14:2005 ..... :	(see appended table 14)	P
14.3.3	X capacitors tested to IEC 60384-14:2005 ..... :	No such parts	N/A
14.3.4	Capacitors operating at mains frequency but not connected to the mains: tests for X2 ..... :	No such parts	N/A
14.3.6	Capacitors with volume exceeding 1750 mm³, where short-circuit current exceeds 0,2 A: compliance with IEC 60384-1, 4.38 category B or better ..... :	Metal-cased capacitors	N/A
	Capacitors with volume exceeding 1750 mm³, mounted closer to a potential ignition source than table 13 permits: compliance with IEC 60384-1, 4.38 category B or better ..... :	Metal-cased capacitors	N/A
14.4	**Inductors and windings**		**P**
14.4.1	Comply with IEC 61558-1, IEC 61558-2 (as relevant) and clause 20.2.5		N/A
	Transformers and inductors separately approved :	No	P
14.4.2	Transformers and inductors marked with manufacturer's name and type ..... :	(see appended table 14)	P
14.4.3	General		P
	Insulation material complies with clause 20.2.5	Considered	P
14.4.4	**Constructional requirements**		**P**
14.4.4.1	Clearances and creepage distances comply with clause 13	Complied with clause 13	P
14.4.4.2	Transformers meet the constructional requirements	Requirements	P

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
14.4.5	**Separation between windings**		**P**
14.4.5.1	Class II transformers have adequate separation between hazardous live parts and accessible parts (double or reinforced insulation) ..... :	Reinforced insulation	P
	Coil formers and partition walls > 0,4 mm	Bobbin : 0.88 mm	P
14.4.5.2	Class I transformers, with basic insulation and protective screening only if all 7 conditions are met	No class I transformer	N/A
14.4.5.3	Separating transformers with at least basic insulation	Reinforced insulation	N/A
14.4.6	**Insulation between hazardous live parts and accessible parts**		**P**
14.4.6.1	Class II transformers have adequate insulation between hazardous live parts and accessible parts (double or reinforced insulation)	Reinforced insulation	P
	Coil formers and partition walls > 0,4 mm	Bobbin : 0.88 mm	P
14.4.6.2	Class I transformers have adequate insulation between hazardous live parts and accessible conductive parts or those conductive parts or protective screens connected to a protective earth terminal	No class I transformer	N/A
	Winding wires connected to protective earth have adequate current-carrying capacity		N/A
14.5	**High voltage components and assemblies (U > 4kV peak)**		**N/A**
14.5.1	Component meets category V-1 of IEC 60695-11-10	No high voltage components	N/A
14.5.2	High voltage transformers and multipliers		N/A
14.5.3	High voltage assemblies and other parts		N/A
14.6	**Protective devices**		**P**
14.6.1	Protective devices used within their ratings	DC fuse : 250V, 400mA, Main fuse : 250V, T400mAL	P
	External clearances and creepage distances meet requirement of clause 13 for the voltage across the device when opened		P
14.6.2	**Thermal releases**		**P**
14.6.2.1	Comply with 14.6.2.2, 14.6.2.3 or 14.6.2.4		P
14.6.2.2	a) Thermal cut-outs separately approved	(see appended table 14)	P
	b) Thermal cut-outs tested as part of the submission		N/A
14.6.2.3	a) Thermal links separately approved		N/A
	b) Thermal links tested as part of the submission		N/A
14.6.2.4	Thermal devices re-settable by soldering		N/A
14.6.3	**Fuses and fuse holders**		**P**

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
14.6.3.1	Fuse-links in the mains circuit according to IEC 60127	(see appended table 14)	P
14.6.3.2	Correct marking of fuse-links adjacent to holder ... :	Applied close to the fuses on PCB: T400mA/250V Inlet fuse : 250V T400mAL	P
14.6.3.3	Not possible to connect fuses in parallel		N/A
14.6.3.4	Not possible to touch hazardous live parts when replacing fuse-links without the use of a tool ..... :	Not possible replacing fuse-link without the use of a tool	P
14.6.4	PTC thermistors comply with IEC 60730-1:2010	No PTC thermistors	N/A
	PTC devices (>15 W) category V-1 or better		N/A
14.6.5	Circuit protectors have adequate breaking capacity and their position is correctly marked		N/A
14.7	**Switches**		**P**
14.7.1 a)	Separate testing to IEC 61058-1 including: - 10 000 operations - Normal pollution suitability - For CRT TV's, make and break speed independent of speed of actuation - V-0 or compliance with G.1.1	Comply with the requirements and test of IEC 61058-1 and according to G.1.1 of Annex G	P
14.7.1 b)	**Tested in the apparatus**		**N/A**
	Switch controlling > 0.2A with open contact voltage > 35 V (peak) / 24 V dc complying with 14.6.3, 14.6.4 and V-0 or G.1.1		N/A
	Switch controlling > 0.2A with open contact voltage < 35 V (peak) / 24 V dc complying with 14.6.3 and V-0 or G.1.1		N/A
	Switch controlling ≤ 0.2A with open contact voltage > 35 V (peak)/24 V dc complying with 14.6.4 and V-0 or G.1.1		N/A
14.7.2	Switch tested to 14.7.1 b) checked according to IEC 61058-1 clause 13.1 and 10 000 operation test		N/A
14.7.3	Switch tested to 14.6.1 b) compliant with IEC 61058-1 subclause 16.2.2 d) and m) not attaining excessive temperatures in use		N/A
14.7.4	Switch tested to 14.6.1 b) has adequate dielectric strength		N/A
14.7.5	Mains switch controlling mains socket outlets additional tests to IEC 61058-1		N/A
14.8	Safety interlocks according to 2.8 of IEC 60950-1	No safety interlocks	N/A
14.9	Voltage setting device and the like are not likely to be changed accidentally	No voltage setting devices	N/A
14.10	**Motors**		**N/A**
14.10.1	a) Endurance test on motors	No motors	N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
	b) Motor start test		N/A
	Dielectric strength test		N/A
14.10.2	Not adversely affected by oil or grease etc.		N/A
14.10.3	Protection against moving parts		N/A
14.10.4	Motors with phase-shifting capacitors, three-phase motors and series motors meet clause. B.8, B.9 and B.10 of IEC 60950-1, Annex B		N/A
14.11	**Batteries**		**N/A**
14.11.1	Comply with IEC 62133 if applicable	No battery	N/A
	Batteries mounted with no risk of accumulation of flammable gases		N/A
14.11.2	No possibility of recharging user replaceable non-rechargeable batteries		N/A
14.11.3	Recharging currents and times within manufacturers limits		N/A
	Lithium batteries discharge and reverse currents within the manufacturers limits		N/A
14.11.4	Battery mould stress relief		N/A
14.11.5	Battery drop test		N/A
14.12	**Optocouplers**		**N/A**
	Comply with constructional requirements of clause 8	No optocoupler	N/A
	External clearances and creepage comply with 13.1		N/A
	Compound completely filling the casing or internal clearances and creepage comply with 13.1 ..... :		N/A
	a) Complies with 13.6 (jointed insulation) and N.3.2		N/A
	b) Complies with IEC 60747-5-5:2007		N/A
	c) Complies with 13.8		N/A
14.13	**Surge suppression varistors**		**N/A**
	Comply with IEC 61051-2	No varistor	N/A
	Not connected between mains and accessible parts except for earthed parts of permanently connected apparatus		N/A
	GDT bridging basic insulation complies with electric strength and distance requirements		N/A
	Complies with the climatic, voltage, current pulse, fire hazard and thermal stress requirements of 14.13		N/A

15	**TERMINALS**	P
15.1	**Plugs and sockets**	P

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
15.1.1	Mains plug, appliance inlet, interconnection couplers and mains socket-outlet meet the appropriate standard	Comply with the relevant IEC standards (see appended table 14)	P
	Overloading of plugs or appliance inlets prevented if the apparatus has mains socket outlets	No socket outlets	N/A
	Overloading of internal wiring prevented if the apparatus has mains socket outlets	No socket outlets	N/A
15.1.2	Design of connectors other than for mains power	Design is different from mains power	P
	Design of sockets with symbol of 5.3 b) design	No such parts	N/A
15.1.3	Design of terminals and connectors used in output circuits of supply apparatus	No supply apparatus	N/A
15.2	**Provision for protective earthing**		P
	Accessible conductive parts of Class I equipment reliably connected to earth terminal, within equipment	Considered	P
	Protective earth conductors correctly fixed and coloured	Green / Yellow	P
	Separate protective earth terminal near mains terminal and comply with 15.3	Appliance coupler applied	P
	Protective earth terminal resistant to corrosion	No risk of corrosion. Metal combination acceptable according to Annex F.	P
	Earth resistance test: < 0,1 Ω at 25 A ..... :	0.03 Ω	P
15.3	**Terminals for external flexible cords and for permanent connection to the mains supply**		N/A
15.3.1	Adequate terminals for connection of permanent wiring	Appliance coupler applied	N/A
15.3.2	Reliable connection of non-detachable cords		N/A
	Not soldered to conductors of a printed circuit board		N/A
	Adequate clearances and creepage distances between connections should a wire break away		N/A
	Wire secured by additional means to the conductor		N/A
15.3.3	Screws and nuts clamping conductors have adequate threads: ISO 261, ISO 262 or similar		N/A
15.3.4	Conductors adequately fixed (two independent fixings)		N/A
15.3.5	Terminals allow connection of conductors having appropriate cross-sectional area		N/A
15.3.6	Terminals to 15.3.3 have sizes required by table 16		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
15.3.7	Terminals clamp conductors between metal and have adequate pressure		N/A
	Terminals designed to avoid conductor slipping out when tightened		N/A
	Terminals adequately fixed when tightened or loosened (no loosening, wiring not stressed, distances not reduced)		N/A
15.3.8	Terminals carrying a current more than 0,2 A: contact pressure not transmitted by insulating material except ceramic		N/A
15.3.9	Termination of non-detachable cords: wires terminated near to each other		N/A
	Terminals located and shielded: test with 8 mm strand		N/A
15.4	**Devices forming a part of the mains plug**		**N/A**
15.4.1	No undue strain on mains socket-outlets	Appliance coupler applied	N/A
15.4.2	Device complies with standard for dimensions of mains plugs		N/A
15.4.3	Device has adequate mechanical strength (tests a,b,c)		N/A
16	**EXTERNAL FLEXIBLE CORDS**		P
16.1	Mains cords sheathed type, complying with IEC 60227 for PVC or IEC 60245 for synthetic rubber cords ..... :	Approved mains cord. (see appended table 14)	P
	Non-detachable cords for Class I have green/yellow core for protective earth	Detachable cords	N/A
16.2	Mains cords conductors have adequate cross-sectional area for rated current consumption of the equipment	Considered Up to and including 3 A, 0.75 mm^2	P
16.3	Flexible cords not complying with 16.1, used for interconnections between separate units of equipment used in combination and carrying hazardous live voltages comply with a) and b)	Complying with 16.1	N/A
16.4	Flexible cords used for connection between equipment have adequate cross-sectional areas to avoid temperature rise under normal and fault conditions		N/A
16.5	Adequate strain relief on external flexible cords	Detachable cords	N/A
	Not possible to push cord back into equipment		N/A
	Strain relief device unlikely to damage flexible cord		N/A
	For mains cords of Class I equipment, hazardous live conductors become taut before earth conductor		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
16.6	Apertures for external flexible cord: no risk of damage to the cord during assembly or movement in use		N/A
16.7	Transportable apparatus have appliance inlet according to IEC 60320-1 or means of stowage to protect the cord	Not Transportable apparatus	N/A
17	**ELECTRICAL CONNECTIONS AND MECHANICAL FIXINGS**		P
17.1	Table 20 torque test metal thread, 5 times ..... :	Top enclosure fixing screws 2.85 mm, 0.5 Nm	P
	Table 20 torque test non-metallic thread, 10 times .. :	Non-metallic not used	N/A
17.2	Correct introduction into female threads in non-metallic material	Non-metallic not used	N/A
17.3	Cover fixing screws captive or no hazard when replaced by a screw whose length is 10 times its diameter	No captive screw	N/A
17.4	No loosening of conductive parts carrying a current > 0,2 A	Not permanently fixed	N/A
17.5	Contact pressure not transmitted through insulating material other than ceramic for connections carrying a current > 0,2 A	No such parts	N/A
17.6	Stranded conductors of flexible supply cords carrying a current > 0,2 A with screw terminals not consolidated by solder	No connected to screw terminals	N/A
17.7	Cover fixing devices have adequate strength and their positioning is unambiguous	No cover fixing devices	N/A
17.8	Fixing means for detachable legs or stands provided	No detachable legs or stands	N/A
17.9	Internal pluggable connections, affecting safety, unlikely to become disconnected	No internal pluggable connections	N/A
18	**MECHANICAL STRENGTH OF PICTURE TUBES AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION**		N/A
18.1	Comply with IEC 61965 or 18.2	No picture tubes	N/A
18.2	Non-intrinsically protected tubes	No picture tubes	N/A
19	**STABILITY AND MECHANICAL HAZARDS**		P
19.1	Apparatus > 7kg have adequate stability or is required to be fastened in place and provided with the warning of 5.5.2 f) ..... :	Rack mounted apparatus	N/A
19.2	Test at 10° to the horizontal		N/A
19.3	Vertical force test 100 N applied downwards		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
19.4	Horizontal force test, 100 N or 13% of weight, applied horizontally to point of least stability		N/A
19.5	Edges or corners not hazardous	No hazardous edges or corners	P
19.6	**Mechanical strength of glass**		**N/A**
19.6.1	Glass surfaces (exc.laminated) with an area exceeding 0,1 m² or major dimension > 450 mm, pass the test of 12.1.4	No glass surfaces	N/A
19.6.2	Fragmentation test		N/A
19.7	**Wall or ceiling mounting means**		**N/A**
19.7.1 - 19.7.3	Not dislodged and remain mechanically intact after test according to 19.7.2 Test 1, Test 2 or Test 3..... :	Not wall or ceiling mounting	N/A
20	**RESISTANCE TO FIRE**		P
20.1	Start and spread of fire is prevented		P
20.2	**Electrical components and mechanical parts**		**P**
20.2.1	a) Exemption for components contained in an enclosure of material V-0 to IEC 60695-11-10 with openings not exceeding 1 mm in width	>1 mm	N/A
	b) Exemption for small components	PCB (see appended table 14)	P
20.2.2	Electrical components meet the requirements of Clause 14 or 20.2.5	Complied with clause 20.2.5	P
20.2.3	Insulation of internal wiring working at voltages > 4 kV or leaving an internal fire enclosure, or located within the areas mentioned in Table 21, comply with G.2	No high voltage	N/A
20.2.4	Material of printed circuit boards on which the available power exceeds 15 W at a voltage between 50 V and 400 V (peak) a.c. or d.c. meets V-1 or better to IEC 60695-11-10, unless used in a fire enclosure	(see appended table 14)	P
	Material of printed circuit boards on which the available power exceeds 15 W at a voltage >400 V (peak) a.c. or d.c. meets V-0 to IEC 60695-11-10.	Not exceeding 400 V	N/A
20.2.5	Components and parts not covered by 20.1.1, 20.1.2 and 20.1.3 (other than fire enclosures) mounted nearer to a potential ignition source than the distances in Table 21 comply with the relevant flammability category in Table 21	Metal enclosure	P
	Components and parts as above but shielded from a potential ignition source, with the barrier area in accordance with Table 21 and fig. 13		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
	Apparatus with voltages >4kV under normal operating conditions and distances to the enclosure exceed those specified Table 21, flammability classification HB40 or better is required for the enclosure		N/A
20.3	**Fire enclosure**		**N/A**
20.3.1	Potential ignition sources with open circuit voltage > 4 kV (peak) a.c. or d.c. contained in a fire enclosure to V-1	Not exceeding 4 kV (peak) a.c. or d.c.	N/A
20.3.2	Internal fire enclosures with openings not exceeding 1 mm in width and with openings for wires completely filled		N/A
20.3.3	Requirements of 20.2.1 and 20.2.2 met by an internal fire enclosure		N/A
ANNEX A	**ADDITIONAL REQUIREMENTS FOR APPARATUS WITH PROTECTION AGAINST SPLASHING WATER**		P
A.5	**Marking and instructions**		**P**
A.5.1	A.5.2 i) Marked with at least IPX4 (IEC 60529) 5.5.2 a) does not apply		P
A.10	**Insulation requirements**		**N/A**
A.10.3	**Splash and humidity treatment**		**N/A**
A.10.3.1	The enclosure provide adequate protection against splashing water		N/A
A.10.3.2	Complies with 10.3,duration of the test is 168h		N/A
ANNEX B	**APPARATUS TO BE CONNECTED TO TELECOMUNICATION THE TELECOMMUNICATION NETWORKS**		N/A
	Complies with IEC 62151 clause 1		N/A
	Complies with IEC 62151 clause 2		N/A
	Complies with IEC 62151 clause 3 modified		N/A
	Complies with IEC 62151 clause 4 modified		N/A
	Complies with IEC 62151 cause 5 modified		N/A
	Complies with IEC 62151 clause 6		N/A
	Complies with IEC 62151 clause 7		N/A
	Complies with IEC 62151 annex A, B and C		N/A
ANNEX L	**ADDITIONAL REQUIREMENTS FOR ELECTRONIC FLASH APPARATUS FOR PHOTOGRAPHIC PURPOSES**		N/A
L.5	**Marking and instructions**		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict
L.5.5.1	Instructions for battery chargers and Supply apparatus indicating type or model number of flash apparatus with which it is to be used		N/A
	Instructions for flash apparatus indicating type or model number of battery chargers or Supply apparatus with which it is to be used		N/A
L.7	**Heating under normal operating conditions**		N/A
L.7.1.6	Lithium batteries meet permissible temp rise in Table 3		N/A
L.9	**Electric shock hazard under normal operating conditions**		N/A
L. 9.1.1.1	Terminals for connection to synchroniser not hazardous live		N/A
L.14	**Components**		N/A
L.14.6.7	Mains switch characteristics appropriate to its function under normal conditions		N/A

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict

7.1	**TABLE: Heating Test**		**P**
	Ambient (ºC) ..... :	24.8 – 25.0 ºC	—
	Loudspeaker impedance (Ω)..... :	-	—

Cond.	U_n (V)	Hz	I_n (A)	P_n (W)	U_{out} (V)	P_{out} (W)	Operating Condition / Status
1	198	50	0.051	8.01	-	-	Operated with 1 kHz sine-wave signal input and connected to audio mixer apparatus and program distributor apparatus by manufacturer's.
2	220	50	0.058	9.73	-	-	
3	240	50	0.065	11.43	-	-	
4	264	50	0.078	13.84	-	-	
5	198	60	0.048	7.81	-	-	
6	220	60	0.053	9.44	-	-	
7	240	60	0.058	10.96	-	-	
8	264	60	0.063	12.87	-	-	
9	21.6 V d.c.	-	0.242	5.23	-	-	
10	24 V d.c.	-	0.269	6.44	-	-	
11	26.4 V d.c.	-	0.287	7.57	-	-	

Test condition No.	**No.1**	**No.8**	**No.**	**—**
Thermocouple Locations	**dT (K)**	**dT (K)**	**dT (K)**	**dT (K) limit**
1. Inlet body	2.8	4.4	-	50
2. Fuse holder (F100)	5.4	8.9	-	50
3. AC connector (CN900)	4.2	7.0	-	70
4. Primary wire	5.0	8.4	-	45
5. Input PCB near F100	5.1	8.4	-	70
6. Transformer body	10.3	16.6	-	70
7. Switch body	6.6	11.1	-	50
8. Elec-cap (C951)	7.3	10.6	-	70
9. Fuse (F200)	11.7	16.6	-	70
10. HS1	13.7	16.0	-	-
11. PCB near D952	16.5	21.0	-	70
12. IC (IC600)	8.6	9.9	-	70
13. IC (IC01)	11.1	13.5	-	70
14. PCB near C18	6.6	9.5	-	70
15. Inlet Line board PCB near CN821	5.1	6.6	-	70
16. PRIORITY board PCB near CN1201	6.1	9.2	-	70

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict

17. PRIORITY JACK board PCB near C1231	2.8	3.5	-	70
18. Internal near trans	4.6	7.3	-	-
19. External	3.6	5.5	-	40
20 Switch button	3.0	4.5	-	50
21. Knob	1.8	2.5	-	50
22. Ambient	0.0	0.0	-	-
Supplementary information:				

	TABLE: Heating test, resistance method		**P**
	Test condition No. .....:	1, 8	—
	Ambient, t_1 (°C).....:	24.8	—
	Ambient, t_2 (°C).....:	25.0	—

Temperature rise of winding	**R_1 (Ω)**	**R_2 (Ω)**	**ΔT (K)**	**Max. dT (K)**	**Insulation class**
Transformer winding (198 V~)	201.6	205.6	4.9	70	A
Transformer winding (264 V~)	201.6	220.9	24.6	70	A
Supplementary information:					

7.2	**TABLE: Heat Resistance of Insulating Materials**		**N/A**
Temperature T of part	**T - normal conditions (°C)**	**T - fault conditions (°C)**	**Min T softening (°C)**
-	-	-	-

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict

10.4	TABLE: Dielectric Strength	P

Test voltage applied between:	Test potential applied (V)	Breakdown / flashover (Yes/No)
Primary to Ground	1 500	No
Mains poles (fuse was removed)	1 500	No
Primary to Secondary	3 000	No
Main transformer Primary to core	1 500	No
Main transformer Secondary to core	1 500	No
insulation tape (1 layer) in main transformer	3 000	No
Primary to Ground after humidity test	1 500	No
Mains poles (fuse was removed) after humidity test	1 500	No
Primary to Secondary after humidity test	3 000	No
Main transformer Primary to core after humidity test	1 500	No
Main transformer Secondary to core after humidity test	1 500	No
insulation tape (1 layer) in main transformer after humidity test	3 000	No
Supplementary information:		

10.4	TABLE: Insulation Resistance Measurements	P

Insulation resistance R between:	R (MΩ)	Required R (MΩ)
Primary to Ground	> 100	2 MΩ
Mains poles (fuse was removed)	> 100	2 MΩ
Primary to Secondary	> 100	4 MΩ
Primary to Ground after humidity test	> 100	2 MΩ
Mains poles (fuse was removed) after humidity test	> 100	2 MΩ
Primary to Secondary after humidity test	> 100	4 MΩ
Supplementary information:		

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict

11	TABLE: Fault Conditions	P

No.	Component	Fault	dT (K) / Component	Test conditions, test duration, test result
1	Output	S/C	-	Final Input: 0.05 A, Duration: 1 h 43 min. No parts exceeding temperature limits. NH. NCD. NB.
2	Main transformer output	S/C	-	Final Input: 0 A, Duration: 9 min. Transformer coil : 107.2 ℃ Transformer core : 81.0 ℃ Ambient :21.5 No parts exceeding temperature limits. NH. NCD. NB.
3	Output	Pmax		Final Input: 0.1 A, Duration: 3 h 29 min. No parts exceeding temperature limits. NH. NCD. NB.
4	24 Vdc input	Reverse	-	Final Input: 0 A, Duration: 1 s. Fuse open, NB, NH
5	D952 (1,2)	S/C	-	Final Input: 0 A, Duration: 1 s. Fuse open, NB, NH
6	D952 (3,4)	S/C	-	Final Input: 0 A, Duration: 1 s. Fuse open, NB, NH
7	IC950 (1-3)	S/C	-	Final Input: 0.05 A, Duration: 10 min. NH. NCD. NB. IP.
8	IC200 (5-6)	S/C	-	Final Input: 0.05 A, Duration: 10 min. NH. NCD. NB. IP.
9	IC100 (5-6)	S/C	-	Final Input: 0.05 A, Duration: 10 min. NH. NCD. NB. IP.
10	FB200	S/C	-	Final Input: 0.05 A, Duration: 10 min. NH. NCD. NB. IP.
11	FB100	S/C	-	Final Input: 0.05 A, Duration: 10 min. NH. NCD. NB. IP.
12	C951	S/C	-	Final Input: 0 A, Duration: 1 s. Fuse open, NB, NH

Supplementary information:

The following electric strength test was conducted after above tests

- Primary-Secondary : 3 000 V
- Primary-earth : 1 500 V

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict

13	TABLE: Clearance And Creepage Distance Measurements					P
Rated supply voltage:	220-240	Pollution degree .. :	2	Material Group ....:	IIIb	
2 N force on internal parts applied:			Yes			P
30 N force on outside of conductive enclosure applied:			Yes			P

clearance and creepage distance at/of:	Working voltage (V)		Clearance (mm)		Creepage (mm)	
	U peak	U r.m.s.	Required	Measured	required	Measured
Primary to Chassis	240	357	2.0	8.4	2.0	8.4
Primary to Secondary	240	357	4.0	9.4	4.0	9.4
Primary to Secondary (AC Switch – Primary pole to Secondary Pole)	240	357	4.0	6.7	4.0	6.7
Supplementary information:						

14	TABLE: Critical components information				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
Plug	KOREA KDK	KKP-4819R	250 V~, 16 A	IEC 60884-1:2002/AMD2:2003	CB (SE-78886)
Flexible cable	KOREA KDK	HO5VV-F	3 x 0.75 mm2	EN 50525-2-11:2011	VDE (101928)
Coupler	KOREA KDK	KKS-16A	250 V~, 10 A	IEC 60320-1:2001/AMD1:2007	CB (SE-59708)
AC connector	Geoyoung	LH 03-03	250 V~, 7 A	UL 1977	UL (E151081)
Bleeder Resistor	COWELL Fashion Co., Ltd.	MSR37	LIMITING VOLTAGE : 3600 LIMITING POWER : 0.5	EN 60065:2014	VDE (138372)
Enclosure	Interchangeable	Interchangeable	Min. 1.0 mm Min. V-0	IEC 60065	UL or equivalent
AC inlet	Rongfeng	SS-7B-1	10 A, 250 V~	IEC 60320-1:2001	CB (DE1 38070)
Y-CAP	Murata Mfg. Co., Ltd.	KY	250 V~, 1000 pF	IEC 60384-14:2013	VDE (40006273)
AC Switch	Dongnan	KDC-A11	250 V~, 10 A	IEC 61058-1:2000/AMD2:2007	CB (DK-40111-A1-UL)

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict

fuse	Littelfuse Inc.	218	400 mA, 250 V~	IEC 60127-1:2006/AMD2:2015 IEC60127-2:2014	VDE (40013496)
Fuse holder	Schurter AG	FAU	250 V~, 10 A	IEC 60127-1:2006/AMD2:2015 IEC 60127-6:2014	VDE (40045994)
PCB	Hyundae Pcb Co Ltd	HD1	V-0, 105 °C	UL 796	UL (E204695)
Alt)	Interchangeable	Interchangeable	Min. V-0, Min, 105 °C	-	UL or equivalent
Transformer (T1)	IMC	1103924	Class A	IEC 60065	Tested in equipment
-Bobbin	E I DUPONT DE NEMOURS & CO INC	FR530	V-0, 155 °C	UL 746A	UL (E41938)
-Primary wire -Secondary wire	Feng ching metal corp	2-UEW	130 °C	UL 1446	UL (E172395)
-Insulation tape	Jingjiang Yahua Pressure Sensitive Glue Co Ltd	CT	130 °C	UL 510A	UL (E165111)
-Thermal fuse of transformer	UCHIHASHI ESTEC CO LTD	T5F	250 V~, 2 A, 136 °C	UL 60691	UL (E73591)

Supplementary information:

[1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039.

IEC 60065			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT

IEC 60065:2001 (SEVENTH EDITION) + A1:2005 + A2:2010
(REPUBLIC OF KOREA) NATIONAL DIFFERENCES
(AUDIO, VIDEO AND SIMILAR ELECTRONIC APPARATUS - SAFETY REQUIREMENTS)

Differences according to.....: KC60065(2015-09)

Attachment Form No.....: KR_ND_IEC60065K

Attachment Originator .....: KTR

Master Attachment.....: 2018-06

	National Differences		P
5	**Marking and instructions**		P
5.1, h) (replacement)	h) For apparatus intended for connection to an a.c. mains supply, - rated power consumption (all apparatus except AC/DC adapter) or - rated current or power consumption (only for AC/DC adapter)	220-240 V~, 50/60 Hz, 10 W, 24 V d.c.	P
15	**Terminals**		P
15.1.1 (addition)	Plugs for the connection of the apparatus to the supply main shall comply with the Korean requirement(KS C 8305).	Complied	P
	Special national conditions (if any)		P
Voltage	The marking of rated voltage or rated voltage range, for appliances intended to be connected to the supply mains, shall include 110 V, 220 V or 380 V.	220-240 V~	P
Frequency	Only appliances having supply frequency of 60Hz or a frequency range including 60Hz are accepted.	50/60 Hz	P
Instruction	Instruction manuals and appliance marking related safety, including nameplate shall be in Korean	Korean	P

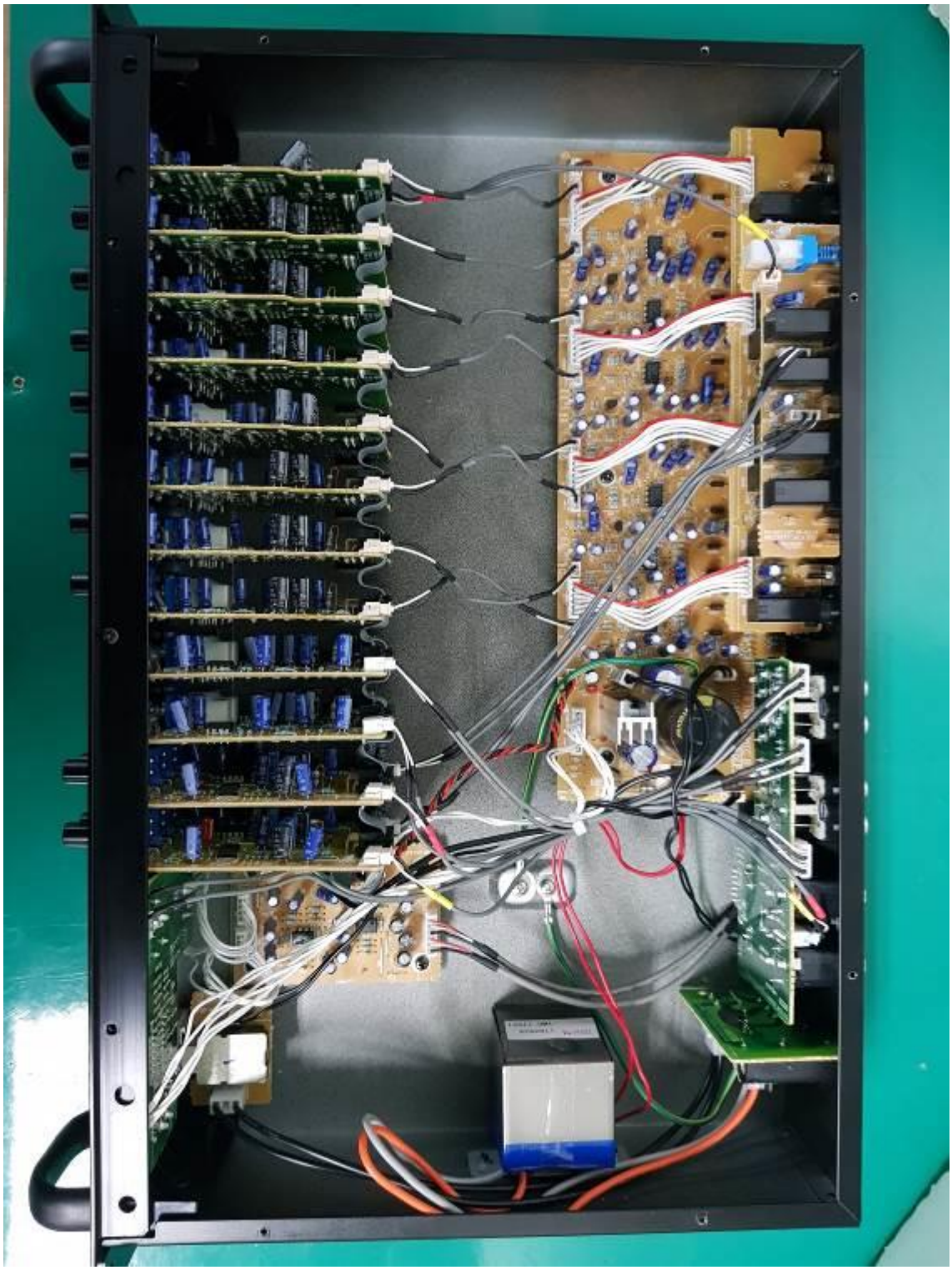
External view1

External view2

Front view

Rear view

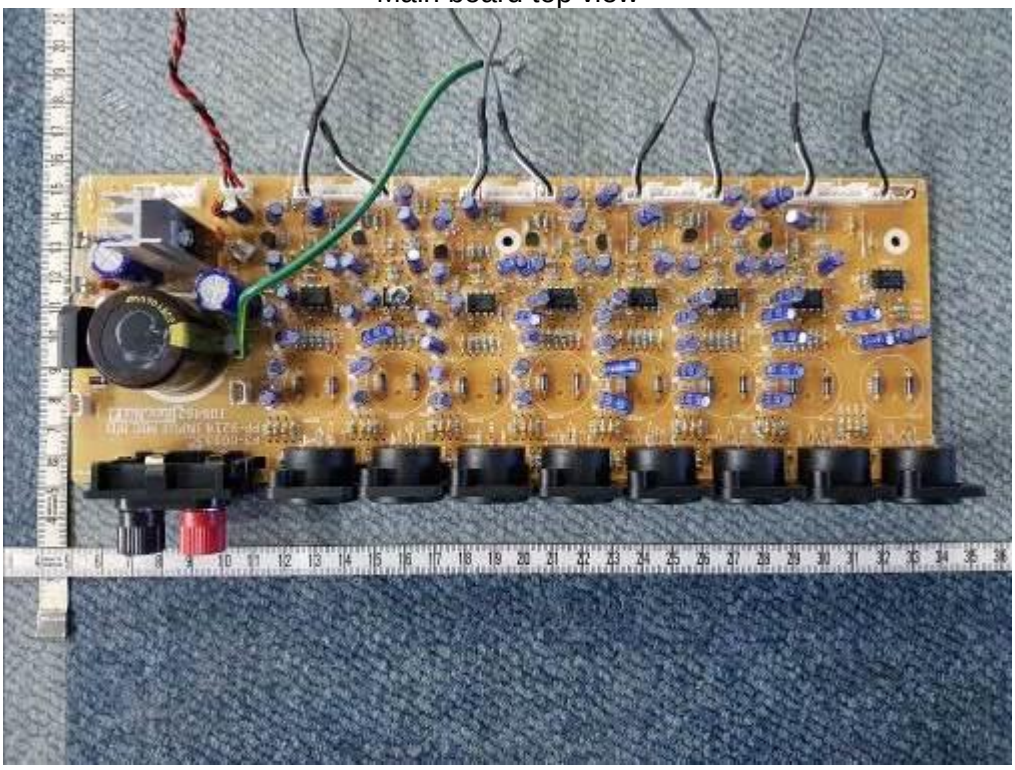
Internal view



Main board top view

Main board bottom view

Main board top view



Main board bottom view