

Report No: LVD 0409123
File reference No: 2004-10-12

Applicant: Guangzhou Hua Du Koda Electronics Co., Ltd

Product: MULTI-CHANNEL AMPLIFIER

Model No: AV-1068B

Trademark: KODA

Test Standards: EN 60065:2002

Test result: The safety testing has been performed on the submitted samples and found in compliance with the council LVD directive 73/23/EEC.

Approved By

Jack Chung

Manager

Dated: October 12, 2004

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

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EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

TEST REPORT

EN 60065: 2002

Audio, video and similar electronic apparatus-Safety requirements

Report reference No.....:	LVD0409123
Complied by (+signature):	Thomas Song
Approved by (+signature):	Terry Tang
Date of issue.....:	2004-10-25
Testing Laboratory.....:	HONG KONG TIMEWAY TECHNOLOGY DEVELOPMENT LIMITED
Address.....:	Rm.1805, 18/F., Wu Sang house, Nathan Road, Mongkok, Kln. HONG KONG
Testing Location.....:	Timeway Lab
Applicant.....:	Guangzhou Hua Du Koda Electronics Co., Ltd
Address.....:	33, Hongmian Road, Xinhua Industrial park, Xinhua Town, Hua Du District, Guangzhou City, China
Standard.....:	EN 60065: 2002
Test procedure.....:	CCA_Scheme
Non_ standard test method:	N/A
Name of test object..... :	MULTI-CHANNEL AMPLIFIER
Rating.....:	230V ~ 50/60Hz 100W
Trade Mark.....:	KODA
Basic Model.....:	AV-1068B
Additional Trade Mark.....:	N/A
Additional Model.....:	N/A
Manufacturer.....:	Same as applicant
Address.....:	Same as applicant

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Possible test case verdicts:

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

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

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

General remark:

The test results presented in this report relate only to the object tested.

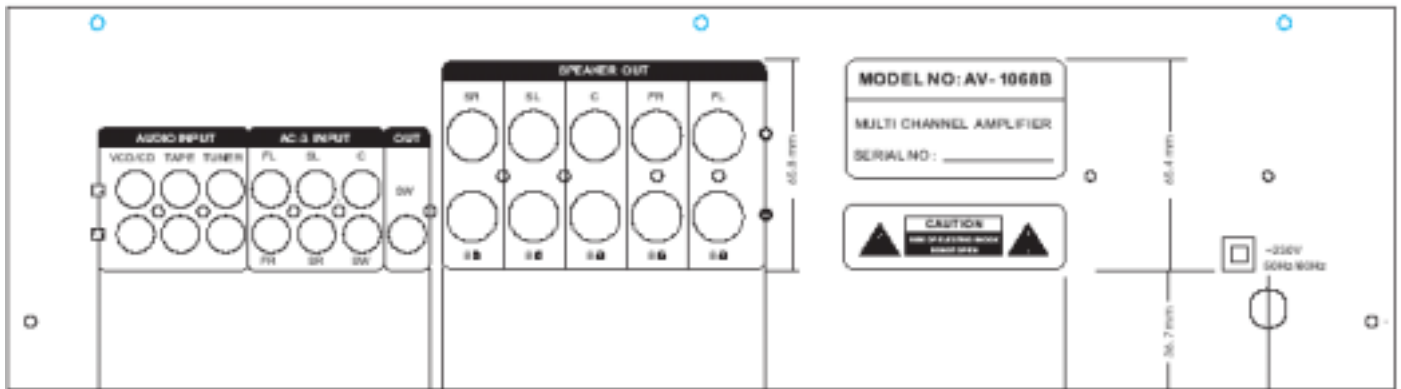
“See remark #” refers to one remark appended to the report.


“See appended table” reference to a table appended to the report

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The Difference between models: N/A

EUT LABEL:



EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
1.	Scope		--
2.	Definitions		--
3.	General requirement		P
	Apparatus designed/constructed present no danger when used in intended purpose		P
	Constructed to Class or Class apparatus	Class	P
4.	General conditions for the test	Type test	--
5.	MARKING AND INSTRUCTIONS		P
	Markings are permanent , Comprehensible & easily discernible when ready for use		P
	Location easily accessible/on the exterior	Location: Rear enclosure	P
	Durability test (water and petroleum spirit)	Rubbing 15s	P
	Letter and graphical symbols in accordance to specified standards		P
5.1	Identification and supply ratings		P
a.	Maker's name/responsible vendor's name/trade mark/ identification mark	Please see page 2	P
b.	Model number or name	See page 2	P
c.	Class symbol (symbol 417-IEC-5172)	“  ”	P
d.	No requirements		--
e.	Nature of supply	~	P
f.	Rated supply voltage or voltage range	230V	P
g.	Rated mains frequency	50/60Hz	P
h.	Rated power or current consumption (supplied by supply apparatus)	100W	P
i.	Power consumption (apparatus connected to non-single phase a.c. mains)		N
5.2	Terminals, marked as:		N
	a) Protective earth terminal (symbol 417-IEC-5019)		
	b) Terminals in hazardous live under normal operating conditions (symbol 417-IEC-5036)	No hazardous live terminal	N
	c) Voltage and current rating of output terminals connected to other apparatus	No such terminal	N
	Power & current rating of output terminals connected to other apparatus	No such outlet	N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
5.3	Specific components for replacement provided with symbol (triangle with exclamation mark)	Near the components The symbol is on the schematics	P
5.4	Instructions Instruction for installations/use regarding safety provided.		P
	Language acceptable to intended country	Language: English	P
5.4.1	a) Warning against water dripping or splashing	See the user manual	P
	b) Warning against hazardous live terminals	See the user manual	P
	c) Warning for use or replaceable lithium battery	The unit have no battery	N
	d) A warning that an apparatus with class I construction shall be connected to a mains socket outlet with a protective earthing connection.	Class II	N
	e) Instructions to ensure correct and safe installation and interconnection of apparatus in multimedia systems.		N
	f) If the apparatus is not be tested to the stability requirements of 19.1, 19.2 or 19.3 due to fastening in place		N
5.4.2	With regard to devices for disconnection from the mains, instructions shall state	See the user manual	P
6.	HAZARDOUS RADIATION		N
6.1	Ionizing radiation, Apparatus provide personal protection against ionizing radiation		N
	Ionizing radiation 36pA/kg(0.5mR/h)		N
6.2	Laser radiation, Apparatus with laser system provided personal protection against laser radiation.	The unit have no laser system	N
	Adequate classification & label for emission level	--	N
6.2.1	a) Emission under normal conditions (test according to IEC 825)		N
	b) laser system under normal conditions meeting Class limits.		N
	c) no opening of covers by hand give access to radiation in excess of Class limits	N.A. if comply b)	N
	d) Interlock device comply fail-safe or withstand life test	N.A. if comply b)	N
6.2.2	a) Emission under fault conditions (test according to IEC825)		N
	b) Laser system under fault conditions, meeting limits of 6.2.2 a.		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	c) no opening of covers by hand give access to radiation in excess of limits of 6.2.2 a	N.A. if comply b)	N
	d) interlock device comply fail-safe or withstand life test	N.A. if comply b)	N

7.	HEATING UNDER NORMAL OPERATING CONDITIONS		P
7.1	General, Temperature rises not exceeding specified values	(See appended table)	P
	No operation of protective device		P
7.1.1	Accessible parts: - Temperature rise of accessible parts not exceed in table 2 item a	(See appended table)	P
7.1.2	Parts (except windings) providing elect. Insulation: -Temperature rise not exceed table 2 item b	(See appended table)	P
7.1.3	Parts as support/mechanical barrier: -Temperature rise not exceed table 2 item c	(See appended table)	P
7.1.4	Windings: -Temperature rise not exceed table 2 item b & d	(See appended table)	P
7.1.5	Parts not subject to a limit under 7.1.1 to 7.1.4: - Temperature rise not exceed table 2 item e	(See appended table)	P
7.2	Heat resistance of insulating material, Softening temperature of insulation material supporting parts conductively connected to the supply mains carrying a mains current > 0.2 A at least 150		N

8	CONSTRUCTIONAL REQUIREMENTS WITH REGARD TO THE PROTECTION AGAINST ELECTRIC SHOCK		P
8.1	Conductive parts covered by lacquer, solvent-based enamel, paper, textile, oxide film are considered as bare live parts		P
8.2	Apparatus designed/constructed that normal operation/ user maintenance not involve risk of shock. (See also 9.1.1)	No risk	P
8.3	Insulation of hazardous live parts not by hygroscopic materials	No hygroscopic material	P
	Material comply Clause 10.3 after conditioning at 40 °C, 90-95% R.H.		P
8.4	No risk of electric shock from accessible parts or removal cover parts by hand	No accessible parts removable by hand	P
8.5	For Class II, accessible conductive parts separated from hazardous parts	class II	N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	parts by basic insulation		
	Resistor bridging basic insulation comply 14.1a		N
	Capacitor/RC unit bridging hazardous live & earthed accessible conductive parts comply 14.2.1a		N
	Resistor/Capacitor/RC unit situated inside apparatus enclosure		N
	Accessible conductive parts reliably connected to protective earth terminal/contact		N
8.6	For class ,accessible parts separated from hazardous live parts by double/reinforced insulation	(See also Clause 10 & Clause 13 for compliance)	P
	Components comply 14.1a or 14.3 may bridge double/reinforced insulation.	Transformer complied with cl.14.3	P
	Components complying 14.3.4.3 only may bridge basic insulation		N
	Capacitor/RC units in same rating & comply 14.2.1a may bridge basic/supply insulation	C3	P
	Two capacitors/RC units in series of same rating & comply 14.2.1a may bridge double /reinforced insulation		N
	Resistor/Capacitor/RC unit situated inside apparatus enclosure	C3	P
8.7	For voltage between 35V to 71Vpk a. c. or 60V to 120V d.c. under normal/fault conditions, basic insulation meeting Cl.10&13 acceptable		N
	For circuits in higher voltages, for class , required double/reinforced insulation or class construction transformer		P
	For circuits in higher voltages, for class ,required earthed conductive part or class construction transformer		N
8.8	Basic, supplementary, reinforced insulation withstand electric strength test of 10.3	(See also Clause 10.3)	P
	For double insulation, either basic or supplementary have thickness of at least 0.4mm		P
	Reinforced insulation of at least 0.4mm not subjected to mechanical stress.		P
	Requirements for thin layers of insulation	(See also clause 10.3)	P
	Type of insulation.....	Reinforced Insulation	P
	Number of layers.....	3 layers insulation Tape	P

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
8.9	Insulation of internal wiring in hazardous live to accessible conductive parts at least of 0.4mm thickness	0.65mm	P
8.10	Conditions for requiring double insulation in Class apparatus	See also Clause 8.9 & 10.3	P
8.11	No reduction of CR/CL of detachable wire	All wires fixed in reliable manner	P
8.12	Conductors of internal wiring connecting mains socket-outlets to the mains terminal comply with cross-sectional area of 16.2	No socket outlet	P
8.13	Windows, lenses, signal lamp cover fastened by positive means if hazardous parts accessible. 20N 10s	Adequately fastened No damage	P
8.14	Covers subjected to forces fastened by positive means if hazardous parts accessible	Covers adequately fastened with screw	P
	Test by 50N force for 10s	No hazardous live parts become accessible	P
8.15	Internal wiring of which will cause hazard in case of damages be secured not contact parts of impermissible temperature and	No risk of damage to insulation due to high temperature, sharp edges, moving parts or pinches	P
	Secured that no risk of mechanical damage of sharp edges, moving parts etc.		P
8.16	Apparatus supplied with specified supply apparatus constructed that not able replaced by general supply apparatus.		N

9	ELECTRICAL SHOCK HAZARD UNDER NORMAL OPERATING CONDITIONS		P
9.1.1	General, Hazardous live parts not accessible		P
	Inaccessible contact of a terminal not hazardous live if: (with exemptions)		P
	a) Open circuit voltage not exceed 35Vpk a. c. or 60V d.c.	Complied with (b)	N
	If a) is not met, b) Touch current (IEC60990), not exceed for a.c. U1=35V pk and U2=0.35V pk for d.c. U1=1.0V and moreover	U2=0.08V	P
	c) Discharge not exceed 45uC for stored voltages between 60V and 15kV or		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	d) energy discharge not exceed 350mJ for stored voltages exceeding 15kV		N
	Locations of terminals in hazardous live.....		--
	Tested by means of a test finger. 20N	No access for the test finger	P
	Tested by means of a test probe. 3N	No access for the test probe	P
9.1.2	Shafts of operating knobs, handles, levers and the like not be hazardous live.		P
9.1.3	Apparatus not designed that suspended foreign bodies become hazardous live	No such component	N
	Test with 4mm diameter and 100mm long pin		N
9.1.4	Terminal devices test by means of 1mm × 20mm test probe (10N)	No hazard	P
	Terminal devices test by means of 1mm × 100mm test probe (1N)	No hazard	P
9.1.5	Pre-set controls test by means of 2mm × 100mm test probe (10N)	No pre-test control	N
9.1.6	No risk of electric shock from withdrawal of mains plug (if with C 0.1uF)	C3 0.01uF<0.1uF	P
9.1.7	Resistance to external force, tested by:		P
	a) 50N with a rigid test finger	Hazardous live part no accessible	P
	b) 20N with test hook	Hazardous live part no accessible	P
	c) Steady force: -250N for floor-standing -100N for other types	100N	P
9.2	Removable protective covers not give access to hazardous live	A tool is necessary to remove covers	N

10.	INSULATION REQUIREMENTS		P
10.1	Surge test: Insulation between accessible parts to hazardous live withstand surge through antenna terminals		N
	Insulation test (Cl.10.3) after 50 times 10kV discharge test		N
10.2	Humidity treatment test	Duration: 48hours T=30 , R.H=95%	P
10.3	Insulation resistance and dielectric strength	(See appended table)	P

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
11.	FAULT CONDITIONS		P
11.1	Protection against electric shock exist when apparatus under fault conditions (Comply Cl.9)		P
11.2	Heating	(See appended table)	P
11.2.1	Measurement of temperature rises	Thermocouple	-
11.2.2	Temp. rise of accessible parts not exceed table 2a)	(See appended table)	P
11.2.3	Temp. rise of parts (exclude windings) providing electrical insulation comply table 2b)	(See appended table)	P
	For PCB, temp. rise may exceed table 2b)by not more than100K for 5 min.		N
	For PCB withstanding the flame test of 20.1., temp. rise may exceed 2b).....		P
	Acceptance criteria for Interruption/peeled/loosened of conductors on PCB, if -PCB comply 20.1.3 &		N
	-no reduction of CR/CL &		N
	-Not as a potential ignition source &		N
	-comply subclause with the interrupted conductor bridged &		N
	-Class ,earthing continuity is maintained		N
11.2.4	Temp. rise of parts as support/mechanical barrier not exceed table 2c)		N
11.2.5	Temperature rise of windings not exceed table 2b) & d) EXCEPT That values may exceed:	(See appended table)	P
	-until 2 min if limited by operation of replaceable/reset-able protective devices & -comply Clause 10.3 after (if windings give shock protection or fault result fire hazard)		N
	-if limited due to operation of integral non-reset-table or non-replaceable protective device due to the open-circuit of winding & -comply Clause 10.3 after (if windings give shock protection or fault result fire hazard)		N
	- failure of insulation not cause electric shock/fire hazard & not connected to sources supplying 5W in excess.		N
	- no hazard If insulation concerned bridged & comply repeated test of 11.1 & 11.2.2		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
11.2.6	Parts not subject to a limit under 11.2.1 to 11.2.5 not exceed table2e)	(See appended table)	N
12.	MECHANICAL STRENGTH		P
12.1	Complete apparatus, Apparatus have adequate mechanical strength and constructed withstand such handling		P
12.1.1	Bump test-50 times 5cm drop (for apparatus > 7kg)	Mass=4.74kg	P
12.1.2	Vibration test	No damage	P
12.1.3	Impact test (2J), and then Hi-pot test	No damage, No breakdown	P
12.1.4	Drop test	No need	N
12.1.5	Stress relief test	Metal enclosure	N
12.2	Actuating elements, knobs, push-buttons, keys & levers constructed that use not impair protection against electric shock		N
	Pulling, push & torque test		N
12.3	Remote control device held in hand		N
	Tumbling barrel test		N
12.4	Drawers, 50N pulling force test		N
12.5	Antenna coaxial sockets mounted on apparatus Tested by: -100 times insert/withdraw endurance test		N
	-0.5J impact test for 3 times		N
	-10 times 50N right angle torque test		N
13.	CLEARANCES AND CREEPAGE DISTANCES		P
	Creepage distances and clearances not exceeded specified limit	Between primary winding and secondary winding, measured: 6.0mm (limit is 6.0mm)	P
		Between different polarity directly connected to the mains (CL/Cr), measured:3.0mm (limit is 3.0mm)	P
		Between bottom enclosure to live parts (CL), measured: 6.0mm. (Limit is 6.0mm)	P

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
		Between solder track of capacitor 35C3 (CL/Cr), measured: 6.0mm. (Limit is 6.0mm)	P
		Between transformer and top enclosure (CL/Cr), measured: 6.0mm. (Limit is 6.0mm)	P
14.	COMPONENTS		P
14.1	Resistor, Have stable resistance value & positioned inside the enclosure		N
	a) R bet. Live & accessible cond. Parts or R bridging sw. gap. 10 samples subjected 50 times 10kV discharge test,		N
	b) 10 samples with 1.5 times test current (for other resistors)		N
	Creepage distances and clearances between terminations comply Cl.13 reinforced insulation		N
14.2	Capacitors or RC units	C3	P
14.2.1	a) Withstand tests for subclass Y2 or Y4 (table of IEC60384-14)		N
	Correct application of Y2 or Y4 components		N
	b) Withstand tests for subclass Y1 or Y2 (table of IEC60384-14)	Y1	P
	Correct application of Y1 or Y2 components		P
	Components are positioned inside the enclosure of the apparatus		P
14.2.2	Capacitors and RC units directly connected to mains withstand the tests for subclass x1 or x2 (table of IEC60384-14)		N
	Correct application of x1 or x2 components		N
14.2.3	Capacitors or RC units in a.c. circuits with mains frequency not to mains withstand tests for subclass x2 (table of IEC60384-14)		N
14.2.4	No requirement		N
14.2.5	Capacitors or RC units need to comply passive flammability of IEC60384-1		N
	-exceeding volume 1750mm ³ with s/c current exceed 0.2A		N
	-exceeding volume 1750mm ³ & distance between potential ignition source not exceed table specified		N
	No requirements for capacitor or RC units if: -shielded by barrier meeting flammability cat. FV0 of IEC60707 of specified dimensions -barrier of metal of specified dimensions		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
14.3	Inductors and windings		P
14.3.1	Inductors marked with: -Manufacturer name/ trade mark /code ref.	Manufacturer: (See appended table)	P
	-type or catalogue references / code ref.	1: 198 AV-1068B 2: HP-100-01	P
14.3.2	For windings in form of -transformer type.....	Isolating transformer	P
	-others.....		N
	Comply with –14.3.3 and		P
	-14.3.4.1 or 14.3.4.2 and	Comply with CL14.3.4.1	P
	-14.3.5.1 or 14.3.5.2	Comply with CL14.3.5.1	P
	Insulating material of inductor comply 20.1.4	Insulation tape	P
14.3.3	Constructional requirements		P
14.3.3.1	CR/CL of all windings comply Clause 13	See also Clause13	P
14.3.3.2	Design with more than one windings		P
	Position and layer of adhesive bond on winding partition wall side		P
	Precautions taken prevent undue displacement of windings and bridging of insulation		P
	Last turn of windings retained in position		P
	End turns of each layer of winding retained in reliable manner for cheekless bobbins		P
14.3.4	Separation between windings		P
14.3.4.1	Windings of Class construction		P
	Separation between windings at hazardous live and accessible parts in: -double /reinforced insulation according to 8.8 or		P
	-0.4mm thickness of insulation		N
	If the presence of conductive part, insulation between via this intermediates metal part consists of double or reinforced insulation.		P
14.3.4.2	Windings of Class construction		N
	Separation between hazardous live windings to accessible parts consists of basic insulation plus protective screening with ALL CONDITIONS met		N
14.3.4.3	Windings of separating construction		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	Separation between hazardous live windings and windings intended to be connected to parts separated from accessible parts by supplementary insulation consists of at least basic insulation of 8.8		N
14.3.5	Insulation between hazardous live parts and accessible parts		P
14.3.5.1	Windings of Class construction		P
	Hazardous live windings to accessible parts & Hazardous live parts to accessible conductive Consists of :- double/reinforced insulation or		P
	- 0.4mm partition wall thickness		N
14.3.5.2	Windings of Class construction		N
	Hazardous live windings / parts to accessible conductive parts consists of basic insulation		N
	Windings current-carrying capacity ensure fusing or interrupt device operate before winding destroyed		N
14.4	High voltage components and assemblies		N
	Components details (type, rating & locations).....		
14.4	High-voltage components and assemblies; U > 4Kv (peak to peak), normal use and fault conditions give no danger, fire risk		N
14.4.1	High-voltage multipliers and transformers, Subjected to flame test (Annex G) after conditions treatment		N
14.5	Protective device, Their ext. CR/CL & connections meet Cl.13 basic insulation	(See appended table)	P
	Components details (type, rating & locations).....	See appended table	---
	External CR/CL of protective device & their connections comply basic insulation of Cl.13		P
14.5.1	Thermal release	Thermal link	P
	Components details (type, rating & locations).....		
	External CR/CL of protective device & their connections comply basic insulation of Cl. 13		P
14.5.2.2	Appropriate marking for fuse link provided: - symbol for pre-arcing time/current characteristics	F	P
	- rated current in milliamperere or ampere	See appended table	P
	- breaking capacity	L	--

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
14.5.2.3	Fuse holder designed that fuse-links connected in parallel in the same circuit not used		P
14.5.2.4	If hazardous live parts accessible during replacement, access not possible by hand		N
	Fuse holders comply with IEC60127-6 or		N
	No hazardous live parts accessible during inserting/moving or after removal of fuse		N
14.5.3	PTC-s thermistors comply with IEC60783	No such component	N
	Components details (type, rating & locations).....		
	Encapsulating or tubing comply FV1 of IEC		N
14.5.4	Protective device not mentioned in above have adequate breaking capacity and marking	No other protective device.	N
14.6	Switches	(See appended table)	P
	Components details (type, rating & locations).....	P12 5/80A 250V	P
14.6.1	Permanently connected apparatus provided with all-pole mains switch with 3.0mm separation in each pole except 5.4.2 met.	Not a permanently connected apparatus	N
14.6.2	Manually-operated mechanical (MOM) switch if:		P
	- power consumption > 15W & / or		
	- employs a peak voltage 4Kv		N
	The switch in off position, connected that:	0W (Single pole mains switch)	P
	-power consumption=15W & / or		
	-pk voltage=4Kv under normal/fault conditions		N
	IF NOT REQUIRED	REASONS:	N
14.6.3	'ON' indication for on-position of power switch of 14.6.2		P
	'OFF' indication for off-position of all-pole main switch		P
	Information states situation of switch / control marking	Near the switch	P
14.6.4	Stand-by indication clear and discernible		N
	Indications by.....		--
14.6.5	Resistor, capacitors, RC units bridging contact gaps comply with:		N
14.6.6	Testing of MOM switches conductively connected to the mains comply with	Comply with IEC61058	N
	a) tested as separate components comply IEC61058 with specified conditions:		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	Appropriate rating and classifications of switch		--
	b) tested as part of the apparatus meet 14.6.7, 14.6.10&20.1.4 and specified conditions		N
14.6.7	Withstand 10,000 cycles tests		N
14.6.8	Temperature test of switch with terminations not exceed 55K	(See appended table)	N
14.6.9	Switch withstand 10.3 dielectric strength test (75% of specified values)		N
14.6.10	Endurance test for switch with additional load to socket-outlets		N
14.7	Safety interlocks	No such component	N
	Components details (type, rating & locations).....		--
	Reference to IEC60950 subclause 2.8		N
14.8	Voltage setting devices and the like	No such component	N
	Changing the voltage setting devices and the like not likely to occur accidentally		N
14.9	Motors	The unit has no motors.	N
	Components details (type, rating & locations).....		--
14.9.1	Motors constructed that electrical or mechanical failure, insulations not affected and connections/ contact not work loose		N
	a) each 48 hours endurance test at 0.9 and 1.06 times rated voltage		N
	b) each 50 times starting test at 0.9&1.06 times rated voltage		N
	After test,:		N
	- withstand dielectric strength test 10.3		N
	- no connection loosened & deteriorate		N
14.9.2	Motors constructed/mounted that windings, wiring, commutators, insulations not affected by oil, grease or the like.		N
14.9.3	Adequate protections provided for moving parts cause personal injury		N
	Protective enclosures/guards have adequate mechanical strength and not removed by hand		N
14.9.4	Motors having phase-shifting capacitors, three-phase motors and series motors, IEC60950 annex B Clause B8, B9&B10 apply		N
14.10	Batteries		N
	Components details (type, rating & locations).....		--
14.10.1	Batteries mounted that no risk of accumulation of flammable		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	gases& leakage of liquid not impair insulation		
14.10.2	For user replace rechargeable batteries, means provided to prevent charging of non-rechargeable batteries.		N
14.10.3	No possibility of having non-permissible value under normal/fault conditions for: - for rechargeable batteries for charging current or charging time		N
	- for lithium batteries, discharging current or the reverse current		N
14.11	Optocouples	No such components.	N
	Components details (type, rating & locations).....		--
	Optocouples comply with constructional requirements of clause 8		P

15.	TERMINALS		P
15.1	Plugs & sockets	(See appended table)	P
15.1.1	Mains plug, appliance inlet, connector, mains socket-outlet comply with relevant IEC requirements		P
	Mains socket outlet/couplers of Class only permit connection to other Class apparatus	No socket outlet	N
	Mains socket outlet/couplers of Class allow connection of Class only or provided with protective earth contacts		N
	No overload of plugs/appliance inlet for apparatus with socket-outlets provides power to other units.		N
	Internal wiring of s/o have nominal X-sectional as specified as 16.2 for external flexible cables		N
15.1.2	Plug not for mains connection designed that unlikely to insert into mains socket-outlet		P
	No insertion possible of plugs for antenna, earth, sound, video without "flash" symbol able to connect to connectors marked with "flash" symbol		N
15.1.3	Terminals with non-standard mains voltage (IEC60338) used in the output circuits of supply apparatus not compatible with those of described in IEC 60083,60320,60884,60906		N
15.2	Provision for protective earthing		N
	Adequate earthing provision for Class apparatus and protective earth contacts of socket-outlets		N
	No switch/fuse within earthing circuit		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	Appropriate colour for earthing conductor		N
	Perm. Connected/non-detachable cord connected with earthing terminal adjacent to mains and not fixes other component.		N
	For parts removable by hand, comply the make and break sequence for earthing & current carrying connections		N
	Earthing terminal resistant to corrosion		N
	Earth resistance test Limit: < 0.1 Ohms		N
15.3	Terminals for external flexible cords& for permanent connection to the mains supply	Not a permanently connected apparatus	N
15.3.1	Appropriate connections means provided for terminals		N
	For inlet openings, comply with IEC60335-1		N
15.3.2	Reliable means provided for supply cord connect to internal wiring.		N
	No direct soldering of supply/earth wire to pcb		N
	Conductors fixed reliably of no possibly reducing CR/CL in case of lossening/slip/solder breaks (Check by 5N pulling test)		N
15.3.3	Screws/nuts for mains connection comply with ISO 261 or 262		N
	Not fix other components except internal wiring if not displaced when fitting mains conductors		N
15.3.4	Adequate fixing of terminal conductors		N
15.3.5	Terminals allow connection for required conductor size		N
15.3.6	Terminals with size not less than specified		N
15.3.7	Terminals designed that: - Conductor clamped between metal surface with sufficient contact pressure & without damage		N
15.3.8	For > 0.2A, terminal with contact pressure not transmitted through insulating material.		N
15.3.9	Proximity location of terminals and no accident contacts to adjacent terminals		N
15.4	Devices forming a part of the mains plug		N
15.4.1	No undue strain impose on socket outlets Torque test, limit: < 0.25Nm		N
15.4.2	Plug-in device comply with relevant standard dimension requirements		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
15.4.3	Device have adequate mechanical strength		N
	a) 1m drop test		N
	b) 0.4Nm 1 min pin turning test		N
	c) 1 min pin test after 70 conditioning		N

16.	EXTERNAL FLEXIBLE CORDS		P
16.1	Mains supply cords comply relevant IEC standard	(See appended table)	P
	Non-detachable flexible cords for Class provided with green/yellow core connected to PE terminal		N
16.2	Cross-sectional area not less than specified	Size: $2 \times 0.75 \text{mm}^2$	P
16.3	Other non-IEC flexible cords with live conductors connected between apparatus (used in combinations) comply with: -El. Strength test 10.3w/ref.to IEC60885-1		N
	-Stress/mech. Tests ref. To IEC60227-2		N
16.4	Adequate cross-sectional areas that have no excessive temp. rise of the insulation.	(See CL 7 & 11.)	P
16.5	Acceptable type/construction of the cord anchorage	Type: Bushing	P
	Pull test (40N, 100 times)	No displacement	P
	Torques test (0.25 Nm, 60s)	No displacement	P
16.6	Apertures constructed that no risk of damage to cord during introduction	Means: Bushing	P
16.7	For transportable apparatus provided: - appliance inlet to IEC60320-1. or	Not a transportable apparatus	N
	- means of stowage to protect mains cord		N

17	ELECTRICAL CONNECTIONS AND MECHANICAL FIXINGS		P
17.1	Adequate strength provided for electrical screw terminals/screws fixings, (Torque test)	(See appended table)	P
	Screw exerting contact pressure of less than 3.0mm screw into metal		P
17.2	Correct introduction of screws into female threads in non-metallic materials		P
17.3	Screws/other fixing devices captive to prevent replacement that reduce required CR/CL		P

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
17.4	Conductive parts permanently fixed together in > 0.2A secured to prevent loosening.		N
17.5	For > 0.2A, terminal with contact pressure not transmitted through insulating material.		N
17.6	Stranded conductor (> 0.2A), not consolidated by lead-tin soldering if subject to contact pressure		N
17.7	Adequate mechanical strength for cover-fixing devices		P
	Locked & unlocked position not ambiguous & not able to unlock inadvertently.		N
	10 times test (rotary/linear movements)		P
	10 times remove/fixing test (snap fasteners)		N
17.8	Detachable legs/stands supplied by the manufacturer delivered with relevant fixing means		N
17.9	Unlikely of loosening of internal pluggable connections (Pull with 2N force)		P
18.	MECHANICAL STRENGTH OF PICTURE TUBES AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N
18.1	Picture tube (> 16cm) intrinsically protected to effects of implosion & mechanical impact	By apparatus enclosure/ Protective shields	N
	Size of picture tube.....		N
	Manufacturer.....		N
	Type.....		N
	Tested according to.....		N
	By.....		N
18.2	Intrinsically protected picture tubes, including those having integral protective screens		N
18.2.1	Details for ageing process		--
18.2.2	Implosion test		N
18.2.3	Mechanical strength test		N
18.3	Implosion test (non-intrinsically protected picture tubes)		N
19.	STABILITY AND MECHANICAL HAZARDS		P
19.1	Apparatus exceeding 7kg have adequate stability	Mass=4.74kg	P

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
19.1	Test on a plane 10° inclined to the horizontal		P
19.2	100N test to parts drawn out of the apparatus		P
19.3	Edges/corners smoothed not be hazardous to user	No sharp edges	P
19.4	Glass (> 0.1m ² or > 450mm major dim.) not be shattered to result skin lacerating injury.	No glass	N
19.4.1	Fragmentation test		N

20.	RESISTANCE TO FIRE		P
	Apparatus designed start and spread of fire prevented		P
20.1	Electrical components and mechanical parts 20.1.1-4 not apply for those under.....		P
	20.1.1-4 not apply for those under.....	Exemption a) /b)	
20.1.1	Electrical components comply.....	Clause 14 / Clause 20.1.4	P
20.1.2	Insulation of wiring not contribute spread of fire		P
	Compliance test (Annex G.2)		P
20.1.3	Printed boards (> 15W at 50-400Vpk at normal),		P
	- flammability grade FV1 or	Grade: 94V-0	P
	- pcb protected by enclosure in.....	Metal	P
	PCB (> 15W at 400V-pk at normal & support spark gaps):		N
	- flammability grade FV1 or		N
	- pcb protected by enclosure in.....		N
	Compliance test.....	IEC 60707 / annex G.1	N
20.1.4	Components/parts not covered by 20.1.1, 20.1.2 & 20.1.3 except fire enclosure	Enclosure	P
	- of flammability grade (table 13) or	Metal enclosure	P
	- shield by a barrier of adequate dimensions in		N
	Compliance test.....		N
20.2	Fire enclosures	Metal enclosure	N
20.2.1	Potential ignition sources (O/C > 4kVpk) contained in fire enclosure of grade at least FV1		N
	Compliance test.....	IEC 60707 / Annex G.1	N
20.2.2	Internal fire enclosure have openings for ventilation > 1mm in width regardless of length		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
20.2.3	If internal enclosure or internal wiring (comply 20.1.2) met 20.2.1&2.2.2, no requirements for outer enclosure		N
APPENDIX			--
A	ADDITIONAL REQUIREMENTS FOR APPARATUS WITH PROTECTION AGAINST SPLASHING WATER		N
5.1	Apparatus with protection against splash water marked with IPX4		N
5.4.1	5.4.1a not apply		--
10.2.1	Splash test, IEC60529 14.2.4		N
10.2.2	Humidity treatment 7 days		N
B	APPARATUS TO BE CONNECTED TO THE TELECOMMUNICATION NETWORKS		N
5.4.1	e) Instruction state the integrity of PE shall be ensured		N
	-double/reinforced insulation(8.6) or		
	- basic insulation + protective earthing		N
8.2	Other than above, TNV separated from cct. & from accessible conductive parts by basic insulation (req. CR/CL)		N
9.1.1	Contacts of terminals for TNV not touched by figure B.1 exempt from the requirements for inaccessible terminal contacts		N
9.1.4	Straight test probe D, IEC61032 applied to TNV circuit terminals.		N
10.1	Insulation bet. TNV circuit terminal & antenna terminals or to inter-connected antenna terminals subjected to 50 discharges		N
10.3	Test voltage between TNV cct. & other parts determined according to operating voltages as B8.1		N
14.12	Surge suppressors, If connected bet. TNV cct. & other parts of the apparatus, surge suppressors have nominal d.c. spark voltage at least 1.8 times of the rated mains voltage.		N
C	BAND-PASS FILTER FOR WIDE-BAND NOISE MEASUREMENT		--
D	MEASURING NETWORK FOR TOUCH CURRENT		--
E	MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES		--
F	TABLE OF ELECTROCHEMICAL POTENTIALS		--
G	FLAMMABILITY TEST METHODS		--
N	ROUTINE TEST		--
P	BIBLIOGRAPHY		--

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
ZA	OTHERINTERNATIONALPUBLICATIONS QUOTEDIN THIS STANDARD WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS		--
ZB	ANNEX ZB TO EN 60 065, SPECIAL NATIONAL CONDITIONS		N
2.6.1	DK: certain types of Class apparatus, see 15.1.1, may be provided with a plug not establishing earthing continuity when inserted in Danish socket outlets		N
15.1.1	DK: supply cords of single phase appliances having a rated current not exceeding 10A shall be provided with a plug according to Heavy Current Regulations Section 107-2D1		N
	DK: Class appliance provided socket outlets with earthing contact provided with plug in accordance with standard sheet dk 2-1a		N
	DK: socket outlets for providing power to Class apparatus with rated current 2.5A shall have dimensions according to specified drawing. Other dimension shall be according to IEC83 Sheet C1a.		N
	DK: socket-outlets with earthing contact shall be in compliance with section 107-2-D1 standard sheet DK 1-3a or DK 1-7a.		N
	IR: apparatus fitted with flexible cable cord provided with 13A plug (Statutory 525:1997)		N
	NO: mains socket outlets on Class apparatus meet requirements of Cee7 with amendments in Cl.8 dimensions & Cl.24 Mechanical strength.		N
	GB: BS1363 mains plug shall comply to Statutory Instrument regulations 1768:1994		N
B.5.4.1	NO, SI (Notes added)		N
B.8.1	DK, NO (Notes added)		N
B.14.12	DK, NO, SI (Notes added)		N
ZC	ANNEX ZC TO EN 60 065, A-DEVIATIONS		N
5	DE: additional markings required for		N
	-cathode-ray tubes with an accelerating voltage between 20kV to 30kV		N
	-TV receivers with an accelerating voltage exceeding 30kV		N
	-TV receivers with an accelerating voltage not exceeding 20kV		N
5.1	IT: additional marking on outside of TV receiver		N
6.1	De: TV receivers: ionizing radiation within limits		N

EN 60065:2002						
CL.	Requirement of the test			Result--Remark	Verdict	
7.1	Table: temperature rise measurements				P	
	Power consumption in the OFF/stand-by position of the functional switch (W).....			0		
	Un (V)	In (A)	Pin (W)	Pout (W)		
	253	0.472	94	--		
Operating conditions						
1/8 max Non-clip output power & all ventilations blocked						
Temperature rise dT of part/at:				dT (K)	Required dT (K)	
Transformer winding				61.9	70	
Switch body (inside)				29.6	40	
PWB near heat sink				92.3	105	
C122 body				47.7	80	
PWB near D161				66.1	105	
Transformer output wire (Secondary)				40.6	80	
Operate panel (front enclosure)				19.8	40	
Top enclosure near heat sink				38.3	40	
	Ambient temperature t1 ()			25		
	Ambient temperature t2 ()			25		
Temperature rise dT of winding:		R1 ()	R2 ()	dT (K)	Required dT(K)	Insulation class
						A
Remarks: Fuse current is equivalent to input current since current fuse was installed in primary circuit						

EN 60065:2002						
CL.	Requirement of the test			Result--Remark	Verdict	
7.1	Table: temperature rise measurements				P	
	Power consumption in the OFF/stand-by position of the functional switch (W).....			0		
	Un (V)	In (A)	Pin (W)	Pout (W)		
	207	0.451	74.5	--		
Operating conditions						
1/8 max Non-clip output power& all ventilations blocked						
Temperature rise dT of part/at:				dT (K)	Required dT (K)	
Transformer winding				56.3	70	
Switch body (inside)				25.2	40	
PWB near heatsink				75.4	105	
C122 body				40.6	80	
PWB near D161				60.0	105	
Transformer output wire (Secondary)				36.4	80	
Operate panel (front enclosure)				17.4	40	
Top enclosure near heatsink				35.0	40	
Ambient temperature t1 ()				25		
Ambient temperature t2 ()				25		
Temperature rise dT of winding:		R1 ()	R2 ()	dT (K)	Required dT(K)	Insulation class
Remarks: Fuse current is equivalent to input current since current fuse was installed in primary circuit						

EN 60065:2002						
CL.	Requirement of the test			Result--Remark	Verdict	
7.1	Table: temperature rise measurements				P	
	Power consumption in the OFF/stand-by position of the functional switch (W).....			0		
	Un (V)	In (A)	Pin (W)	Pout (W)		
	253	1.05 0	232 0	--		
Operating conditions						
Max Non-clip output power& all ventilations blocked						
Temperature rise dT of part/at:				dT (K)	Required dT (K)	
Transformer winding				110	135	
Switch body (inside)				31	65	
PWB near heat sink				88	105	
C122 body				47	80	
PWB near D161				96	105	
Transformer output wire (Secondary)				49	80	
Operate panel (front enclosure)				21	65	
Top enclosure near heat sink				45	65	
	Ambient temperature t1 ()			25		
	Ambient temperature t2 ()			25		
Temperature rise dT of winding:		R1 ()	R2 ()	dT (K)	Required dT(K)	Insulation class
						A
Remarks: Fuse current is equivalent to input current since current fuse was installed in primary circuit						
The thermal link of transformer damaged after 10mins.						

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

7.2	Table: softening temperature of thermoplastics			N
Temperature T of part		T – Normal conditions ()	T – Fault conditions ()	T softening ()

10.3	TABLE: insulation resistance measurements			P
Insulation resistance R between		R (MΩ)		Limit
		After 10.1	After 10.2	(MΩ)
Live parts to Audio output terminal		--	> 50MΩ	4 MΩ

10.3	TABLE: insulation resistance measurements (for Clause 14. components)			N
Insulation resistance R for Components:		R (MΩ)	Limit (MΩ)	

10.3	TABLE: electric strength measurements			P
Test Voltage applied between		Test Voltage (V)		Breakdown
		After 10.1	After 10.2	
Live to Audio output terminals		-	3000	No

10.3	TABLE: electric strength measurements (for Clause 14. Components)			P
Test voltage applied for COMPONENTS: transformer		Test voltage (V)	Breakdown:(V)	
Primary to secondary		3000	No	

11.	Table: Fault condition tests						P
Rated voltage (v)				230V		--	
Rated input (w)				100		--	
Room temperature ().....				25		--	
No	Component	Fault	Test voltage	Test time	Fuse No	Fuse current	Result
1	D160	SC	AC253V	5mins	F1	0.5A	F3 damaged at once. No other components damaged. No breakdown.
2	C121	SC	AC253V	1sec	F1	0.044A	F2/F3 damaged at once. No other components damaged. No breakdown.

EN 60065:2002							
CL.	Requirement of the test					Result--Remark	Verdict
3	Transformer blue-black	SC	AC253V	1min	F1	0	The unit shut down. The thermal-link of transformer damaged. The MAX temperature of the winding is 127 . No break down.

12.2	TABLE: PULL / TEST ON HANDLES, KNOBS, LEVERS ANDSIMILAR PARTS			N
Part under test	Pull force (N)	Torque test (Nm)	Results	
Note :				

14	Table: list of critical components				P
Part Name	Manufacturer	Type/model	Rating	Mark(s) of conformity	
Power cord	Chau's Electrical Co. Ltd.	H03VVH2-F	2×0.75mm2.	VDE121254	
Plug	Chau's Electrical Co. Ltd.	CE-503	AC250V 2.5A	VDE080424	
Power switch	Pronic Electronics Co.,Ltd.	P12	5A/80A 250V	VDE085006	
Transformer	Sunrise Electric & Electronic Co. , Ltd	HP100-01	230V 50Hz / 60Hz	LVD001257	
	Nanhai NRE Electronics Manufacturing Co., Ltd	198 AV-1068B	230V 50Hz / 60Hz	LVD021876	
F1	Suzhou Littelfuse OVS Ltd.	618 Series	T2AL 250V	VDE40007748	
F2, F3	Suzhou Littelfuse OVS Ltd.	617 series	F5AL 250V	VDE40007750	
PCB	ZHAOYUAN JINBAO TRONICS CO., LTD	ZD-90F	94V-0	UL E141940	
Capacitor C3	Shantou High-New Technology Develop Zone Songtian Enterprise	CD-Series	0.01uF/400V	VDE40003586	
Shrinkable tape	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR-X	600V, 125	UL E203950	
Winding	FOSHAN CITY WELLKEY ELECTRIC MATERIAL CO LTD	UEW	130	UL E211138	
	JIANGMEN CITY JIANG CI ELECTRICAL APPLIANCES ENTERPRISE CO LTD	XUEW	130	UL E192838	
Insulation Tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ-281	130	UL E165111	

EN 60065:2002				
CL.	Requirement of the test		Result--Remark	Verdict
	DUPONT HONGJI FILMS FOSHAN CO. LTD	M461, VTM-2	105	UL E93687
Internal wire	ZHONGSHAN CITY SENBAO ELECTRIC CO LTD	1015,1672, 1007	--	UL E199818
	CHINA LONSID ELECTRIC CO LTD		--	UL E205056
Thermal-link	Anzen Dengu Co.Ltd	H125	127 , 2A 250V	VDE 124916
	Aupo Electronics Ltd.	A5	135 , 2A 250V	VDE127818

14.3.2	Table: separating transformers motor-transformers: measurements of insulation resistance electric strength after humidity treatment						P
	Table columns: 1-transformer/motor part No., markings; 2:insulation between; 3-insulation resistance (M); 4- test voltage (kV); 5- Breakdown voltage (kV); 6- measured creepage distances and clearances-measured; 7- required creepage distances and clearances						
1	2	3	4	5	6	7	
HP100-01	Pri-Sec	--	3	>3	>6	6.0mm	
198 AV-1068B	Pri-Sec	--	3	>3	>6	6.0mm	
	Table columns:1-transformer/motor part No; 2- insulation between 3- thickness (mm) x number; 4- material; 5-electric strength test for each combination of two layers(V)						
1	2	3	4	5			
HP100-01	Pr-Sec	0.05mm x 3	3000	>3000			
198 AV-1068B	Pr-Sec	0.05mm x 3	3000	>3000			

14.4	TABLE: list of high-voltage (4kV) components and assemblies			N
Component	Type	Previous approval, manufacturer, registration number	Remark	
HV transformer				
HV multiplier				
HV connector				
HV cable				
Focus wire				
Focus potentiometer				
Focus resistor (focus potentiometer to picture tube)				

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Socket for picture tube			
PCB of picture tube with components			
Associated pars			

14.5.1	TABLE: Thermal –release, link, cut-out						P
	Table columns: 1 – circuit diagram information, part no.; 2 – manufacturer; 3 – approved by &standard; 4 – type; 5- rating; 6 – electric strength test voltage (V); 7 – Breakdown / flashover						
1	2	3	4	5	6	7	
Thermal-link	Anzen Dengu Co.Ltd	VDE124916	H125	127 , 2A 250V	--	--	
Thermal-link	Aupo Electronics Ltd.	VDE127818	A5	135 , 2A 250V			

14.5.2	TABLE: list of fuse-links						P
	Table columns: 1-circuit diagram information, part No.; 2-manufacturer; 3-dimensions; 4-approved by; 5- marking of rated current, pre-arcing time and current characteristic; 6-marking close to the component; 7-current through the fuse in normal operation (A)						
1	2	3	4	5	6	7	
F1	Suzhou Littelfuse OVS Ltd.	5 x 20	VDE40007748	T2AL 250V	--	0.2	
F2, F3	Suzhou Littelfuse OVS Ltd.	5 x 20	VDE40007750	F5AL 250V	--	--	

14.6	APPENDIX: switches		P
	Type	P12	--
	Manufacturer	Pronic Electronics Co.,Ltd.	--
	Rated Voltage (V)	250V	--
	Rated Current (A)	5/80	--
	Rated peak surge current (A)	--	--
	Ratio between rated peak surge current and rated current	1:16	--
	Other markings	--	--
	The number of poles in the mains switch or functional switch	Single	--
14.6.6	Endurance test (10 000 cycles of operation- 20 000 movements at 7 cycles/min- 14 movements/min)		N
	Test in the apparatus		N
	Test as separate component:		N

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict
	- rated voltage (V)		N
	- rated Current (A)		N
	- rated peak surge current (A)		N
	- result +/- No.1, No. 2, No.3		N
14.6.6.1	Temperature rise of terminals with current of the apparatus (K)		N
	Temperature rise of terminals with rated current (K).....		N
14.6.6.2	Electric strength between live parts and accessible parts		N
	Basic insulation (1000V, 1 min)		N
	Reinforced insulation (2500V, 1min)		N
	Between each gap of all-pole mains switch (1000V, 1min)		N
	Across each contact gap (1000V, 1 min)		N

14.6.6	TABLE: list of mains switches and functional switches conductively connected to the mains						P
	Table columns: 1-part No.: 2 –function: all-pole / one-pole; 3-connected in: mains circuit/ secondary circuit; 4-functional switch; 5-manufacturer; 6-type; 7- rated marking						
1	2	3	4	5	6	7	
Switch	single	Main circuit	On-off	Pronic Electronics Co.,Ltd.	P12	5/80A 250V	

15.1.1	TABLE: list of mains plugs, appliance inlets, connectors, mains socket-outlets					P
Object/part No.	Manufacturer /trademark	Type/model	Technical data	Standard	Mark(s) of conformity	
Plug	Chau's Electrical Co. Ltd.	CE-503	AC250V 2.5A	EN60065	VDE080424	

15.2	TABLE: Earthing resistance measurements				N	
Location between earthing terminal and			Test current (A)	Measured voltage (V)	Calculated resistance (ohm)	Required limit

EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

16.1	TABLE: list of external flexible cords				P
	Table columns: 1 – mains cord (type); 2 – manufacturer; 3 – marking; 4 – cross sectional area (mm ²); 5 – approved by				
1	2	3	4	5	
H03VVH2-F	Chau's Electrical Co. Ltd.	H03VVH2-F	2×0.75mm ²	VDE121254	

17.1	TABLE: tests for electrical connections and mechanical fixings							P
	Table columns: 1 – screw location/function; 2 – diameter (mm); 3 – length of the thread (mm); 4 – screw material; 5 – nut material; 6 – required material; 7 – test torque (Nm); 8-fulfils/remarks							
1	2	3	4	5	6	7	8	
Enclosure	3mm	8mm	Metal	--	--	0.5Nm	Pass	
Enclosure	4mm	8mm	Metal	--	--	1.2Nm	Pass	

20.1	Annex G.1: Vertical burning test and needle-flame test for printed boards				N
	Printed board type.....				--
	Manufacturer.....				--
	Vertical burning test for rigid base material				
	Set : the total burning time must be 50s, individual burning times must be 10s and the average burning flaming time must be 5s. Table columns: 1 – specimen No.; 2 - test flaming time (s); 3 - test flaming time (s); 4 – total laming time (s)				
1	2	3	4		
	Total burning time (s).....				
	Average flaming time (s).....				
	Set : the total burning time must be 50s, but individual burning times are > 10s or the Total burning time is > 50s but 55s . Table columns: 1 – specimen No.; 2 - test flaming time (s); 3 - test flaming time (s); 4 – total laming time (s)				
1	2	3	4		
	Total burning time (s).....				--
	Average flaming time (s).....				--
	Did the specimen burn up to the holding clamp? Set				

EN 60065:2002								
CL.	Requirement of the test						Result--Remark	Verdict
	Did the specimen burn up to the holding clamp? Set							
20.2	TABLE: resistance to fire of television receivers, enclosures							N
	Table columns: 1- sample, material, markings, colour, manufacturer; 2 – thickness (mm); 3 – test 1, time (s); 4 – test 1 burning rate (mm/min); 5 – test 2, time (s); 6 – test 2, burning rate (mm/mm); 7 – test 3, time (s); 8 – test 3, burning rate (mm/mm); 9 – remark (e.g. burning drops)							
1	2	3	4	5	6	7	8	9

Safety instruction

SAFETY WARNING




Note: To reduce risks of electric shock, never dismount the enclosure (or back) by yourself. If the machine needs repair, please take it to the professional maintainer.



An arrowed-lightning signal within a triangle is used to awake the user that there are un-insulated bare parts in the device and output terminals, which bear a voltage that can cause personal injuries. Users are not allowed to open the enclosure of the machine and touch the powered terminals.

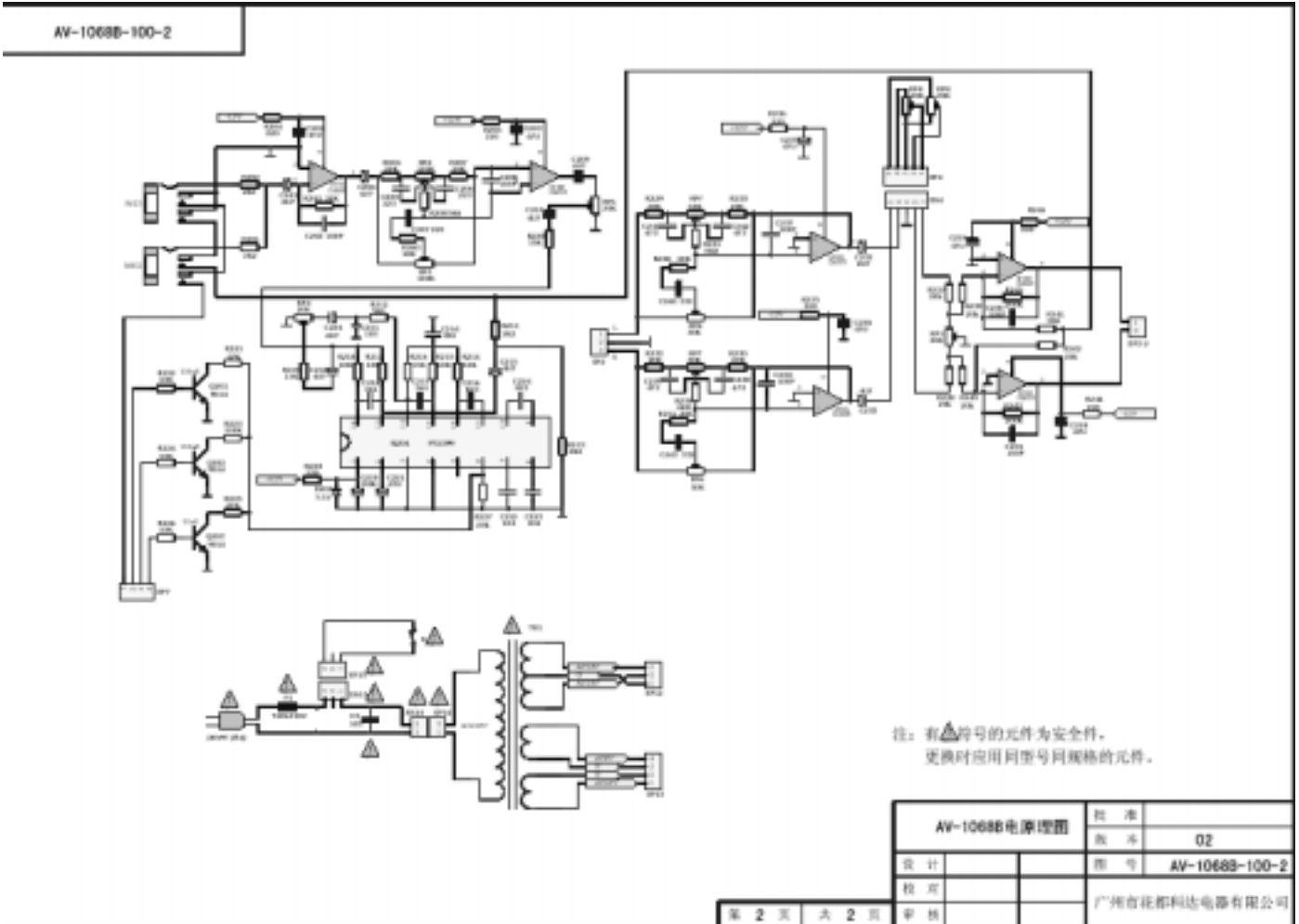


A triangle with an exclamatory mark is used to remind the user that if the device fails and needs repairs, please commit this to a qualified maintainer or contact the device supplier. If components with a “” mark in the device need replaced, they should be of the same size and specifications as the original ones.

- To avoid any electric shock, never match this plug (with polarity) into expansion cables at will, sockets or other outlets unless each pin of the plug can be fully inserted into them without exposing any metal section.
- If the device fails and needs repairs, commit this to a qualified maintainer.
- The device should not be exposed in rains, watered or damp places. Nor any containers containing water or liquids (such as vases or cups) can be placed on the device.
- Never place any bare fire sources (such as a lighted candle) on the device.

CL.	Requirement of the test	Result--Remark	Verdict
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EUT schematics:



EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Appendix

Photo of the product



EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Appendix

Photo of the product



EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Appendix

Photo of the product



EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Appendix

Photo of the product



EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Appendix

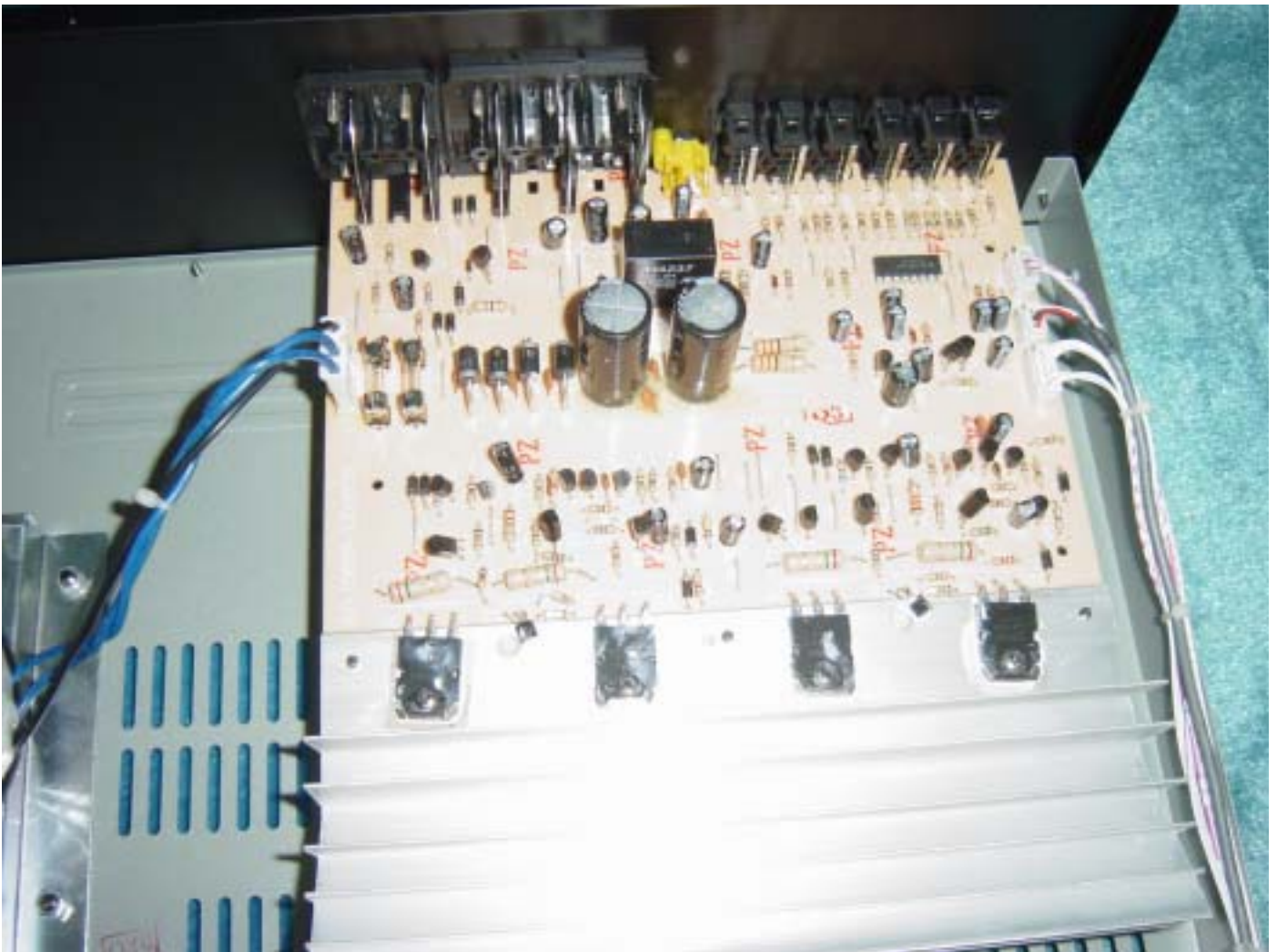
Photo of the product



EN 60065:2002			
CL.	Requirement of the test	Result--Remark	Verdict

Appendix

Photo of the product



-End of the report-