CE

LVD TEST REPORT

FOR

IP PHONE

Model Name	:	X5,X5G
Trade Name	:	N/A
Report Number	:	PZD1501572-S
Issued Date	:	January 27, 2015

Prepared for

FANVIL TECHNOLOGY CO., LTD.
LEVEL 3, BLOCK A, GAOXINQI BUILDING,
ANHUA INDUSTRIAL PARK, QIANJIN 1 ROAD, 35TH DISTRICT,
BAO'AN, SHENZHEN, 518101 P.R. CHINA.

Prepared by

SHENZHEN PZD TECHNOLOGY CO.,LTD.
10F,EAST TOWER, XINGHUA BUILDING,NO.2018,SHENNAN ROAD,
FUTIAN DISTRICT,SHENZHEN,GUANGDONG,CHINA

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TEST REPORT EN60950-1:2006+A2:2013 Information Technology Equipment including electrical business equipment	
Report reference No. ……..…	PZD1507572-S
Testing laboratory ……	SHENZHEN PZD TECHNOLOGY CO.,LTD.
Location……	10F,EAST TOWER, XINGHUA BUILDING,NO.2018,SHENNAN ROAD,FUTIAN DISTRICT,SHENZHEN,GUANGDONG,CHINA
Applicant……..	FANVIL TECHNOLOGY CO., LTD.
Address:……...	LEVEL 3, BLOCK A, GAOXINQI BUILDING, ANHUA INDUSTRIAL PARK, QIANJIN 1 ROAD, 35TH DISTRICT, BAO'AN, SHENZHEN, 518101 P.R. CHINA.
Manufacturer……..	FANVIL TECHNOLOGY CO., LTD.
Address:……...	LEVEL 3, BLOCK A, GAOXINQI BUILDING, ANHUA INDUSTRIAL PARK, QIANJIN 1 ROAD, 35TH DISTRICT, BAO'AN, SHENZHEN, 518101 P.R. CHINA.
Standards…….	EN60950-1: 2006+A2:2013
Procedure deviation……..	N/A
Non-standard test method…….	N/A
Type of test equipment …….	IP PHONE
Trade mark……..	N/A
Model/Type designation……	X5,X5G
Rating:……..	ADAPTER:5VDC,1A
TRF originator. .....:	Shenzhen PZD Technology Co.,Ltd.
Copyright blank test report:	Shenzhen PZD Technology Co.,Ltd.
Test item particulars:	
Equipment mobility	Movable equipment
Operating Condition	Continuous
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N.A.
Class of equipment	Class III equipment
Mass of equipment (Kg)	1.6Kg
Protection against ingress of water	IP20

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)

Name and address of the testing laboratory : Shenzhen PZD Technology Co.,Ltd.
10F,EAST TOWER, XINGHUA BUILDING,NO.2018,SHENNANROAD,
FUTIAN DISTRICT,SHENZHEN,GUANGDONG,CHINA

Tested by : Steven Guo — January 21-23, 2015
Signature — Date

Steven Guo / Engineer
Name/title

APPROVED
PZD Technology

Reviewed by : — January 27, 2015
Signature — Date

Mark Yan / Manager
Name/title

General remarks:	

"(see remark #)" refers to a remark appended to the report. "(see appended table)" refers to a table appended to the report. The test results presented in this report relate only to the object tested. This report shall not be reproduced except in full without the written approval of the testing laboratory. Until otherwise specified, all tests are done under normal ambient condition 25℃±10℃, Max RH: 75% and air pressure of 860 mbar to 1060 mbar.	Attached with: Attachment - A. Photo documentation
Difference between these models: N/A	

MARKINGLABEL：

Note：The above is sample for reference only.

EN 60950-1			
Clause	Requirement	Result - Remark	Verdict

1	**GENERAL**		**P**
1.5	**Components**		**P**
1.5.1	Comply with IEC 60950-1 or relevant component standard	Components which were found to affect safety aspects comply with the requirements of this standard or with the safety aspects of the relevant IEC/EN component standards.	**P**
1.5.2	Evaluation and testing components	Components which are certified to IEC/EN and/or national standards are used correctly within their ratings. Components not covered by IEC/EN standards are tested under the conditions present in the equipment.	**P**
1.5.3	Thermal controls	No thermal controls used	**N**
1.5.4	Transformers	No Transformer used	**N**
1.5.5	Interconnecting cables	Suitable cables used	**P**
1.5.6	Capacitor in primary circuits	No such capacitor used	**N**
1.5.7	Double or reinforced insulation bridged by components	No such component.	**N**
1.5.7.1	Bridging capacitors	No such capacitor	**N**
1.5.7.2	Bridging resistors	No such resistors	**N**
1.5.7.3	Accessible parts	Not live hazard exist	**P**
1.5.8	Components in equipment for IT power systems	Not for IT power systems	**N**

1.6	**Power interface**		**P**
1.6.2	Input current		**P**
	Rated current (A).....:	See table 1.6.1	**P**
	Measured current (A) .....:	See table 1.6.1	—
	Deviation .....:		—
1.6.3	Rated voltage of hand-held equipment	Non Direct plug-in equipment	**N**
1.6.4	Neutral conductor insulated from earth	Class III equipment	**N**

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Clause	Requirement	Result - Remark	Verdict

1.7	**Marking and instructions**		**P**
1.7.1	Rated voltage (V) .....:	See below	**P**
	Rated current (A).....:	See page 2	**P**
	Rated frequency (Hz) .....:	See page 2	**P**
	Applicant ….....:	See page 2	**---**
	Manufacturer .....:	See page 2	**---**
	Trademark .....:	N/A	**P**
	Type/model.....:	See first page of this report	**P**
	Symbol of ClassII .....:	CLASS III equipment	**N**
	Certification marks.....:	CE marking	**P**
1.7.2	Safety instructions	Refer to manual	**P**
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	**N**
1.7.4	Supply voltage adjustment .....:	No such devices used	**N**
1.7.5	Power outlets on the equipment .....:	No such devices used	**N**
1.7.6	Fuse identification .....:	No fused used	**N**
1.7.7	Wiring terminals		**N**
1.7.7.1	Protective earthing terminals	Class III equipment	**N**
1.7.7.2	Terminal for external primary power supply conductors		**N**
1.7.8	Controls and indicators	LCD Panel light	**P**
1.7.8.1	Identification and location of switches and controls	No such components use	**N**
1.7.8.2	Colors of controls and indicators .....:	Functional indicator used	**P**
1.7.8.3	Symbols according to IEC 417 .....:	No such symbols	**N**
1.7.8.4	Figures used for marking.....:	No figures are used.	**N**
1.7.9	Isolation of mutiple power supply:	No multiple power used	**N**
1.7.10	Instructions for installation to IT power system	This equipment is not designed for IT power system.	**N**
1.7.11	Indications at thermostats and regulating devices	No thermostats and regulating device used	**N**
1.7.12	Language of safety makings/instructions	English and (or other suitable Language)	**P**
1.7.13	Durability and legibility	After test, the label is legible and the marking was printed.	**P**

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Clause	Requirement	Result - Remark	Verdict
1.7.14	Marking label should not attached on removable parts	The markings was attached on back side of the system	**P**
1.7.15	Replaceable batteries	No batteries used	**N**
	Language		**N**
1.7.16	Operator access with a tool	Such area is SELV circuit	**P**
1.7.17	Equipment for restricted access locations:	No such access location	**N**
2	**PROTECTION FROM HAZARDS**		**P**
2.1	**Protection against electric shock and energy hazards**		**P**
2.1.1	Protection in operator access areas	No hazardous parts in operator access areas	**P**
2.1.1.1	Access to energized parts	Energized parts are not accessible.	**P**
	Tested by inspection	Find no such parts	**N**
	Tested with test finger	Test finger can not touch hazardous parts	**N**
	Tested with test pin	Test pin can not touch hazardous parts	**N**
2.1.1.2	Battery compartments	No battery used	**N**
2.1.1.3	Access to ELV wiring	No such wiring can be touched	**N**
2.1.1.4	Access to hazardous voltage wiring	No hazardous voltage part in operator access areas	**P**
2.1.1.5	Energy hazards	No energy hazards in operator access areas	**P**
2.1.1.6	Manual controls		**N**
2.1.1.7	Discharge of capacitor in the equipment		**N**
2.1.2	Protection in service access areas	No hazard in service access area.	**P**
2.1.3	Protection in restricted access locations……:	The equipment is not restricted access located.	**N**

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Clause	Requirement	Result - Remark	Verdict

2.2	**SELV circuit**		**P**
2.2.1	Voltage of SELV circuit under normal operating conditions and after a single fault condition	The voltage does not exceed the limit for SELV circuit	**P**
2.2.2	Voltage (V) between any two conductor of SELV part and for class Ⅰ equipment between any part of SELV circuit and protective earthing terminal	Max voltage under normal condition does not exceed 42.4V peak or 60Vdc under normal conditions and single fault condition	**P**
2.2.3	Voltage (V) of SELV circuit in the event of a single failure of basic or supplementary insulation or of a component	Not exceed 42.2V peak or 60V d.c	**P**
	Method used for separation		**N**
2.2.4	Connection of SELV circuits to other circuits	SELV circuit used	**P**

2.3	**TNV circuits**		**N**
2.3.1	Limits of the TNV circuits		**N**
a)	TNV-1 circuits:		**N**
b)	TNV-2circuits and TNV-3 circuits		**N**
2.3.2	Separation from other circuits and from accessible parts		**N**
2.3.3	Separation from hazardous voltages		**N**
	Insulation between TNV-1circuit and circuit at hazardous voltage		**N**
	Method used		**N**
2.3.4	Connection of TNV circuits to other circuits		**N**
	Insulation between TNV circuit supplied conductively from secondary circuit and hazardous voltage circuit		**N**
2.3.5	Operating voltages generated externally		**N**
	Voltage in SELV circuit , TNV-1 circuit or accessible conductive part		**N**

2.4	**Limited current circuits**		**N**
2.4.1	General requirements		**N**
	Test voltage (V) .....:		—
2.4.2	Measured current (mA) .....:		**N**

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Clause	Requirement	Result - Remark	Verdict
	Measured capacitance (μF).....:		**N**
	Measured charge (μC) .....:		**N**
	Measured energy (mJ) .....:		**N**
2.4.3	Limited current circuit supplied from or connected to other circuits		**N**
2.5	**Limited power sources**		**P**
	Use of limited power sources		**P**
2.6	**Provisions for protective earthing**		**N**
2.6.1	Protection earthing	Class III equipment	**N**
2.6.2	Functional erathing		**N**
2.6.3	Protective earthing and protective bonding conductors		**N**
2.6.3.1	Size of the protective earthing conductors Assured earth connection in systems	0.75mm^2	**N**
2.6.3.2	Size of the protective bonding conductors		**N**
2.6.3.3	Resistance of protective earthing conductors		**N**
	Test current (A)		**N**
2.6.3.4	Color of insulation		**N**
2.6.4	Terminals of the protective conductors	Complied with Table 3E	**N**
2.6.4.1	Protective earthing and bonding terminals		**N**
2.6.4.2	Separation of protective earth from protective bonding conductors		**N**
2.6.5	Integrity of protective erathing	Suitable method used	**N**
2.6.5.1	Interconnection of equipment		**N**
2.6.5.2	Components in protective earth and bonding conductors	No component used	**N**
2.6.5.3	Disconnection of protective earth		**N**
2.6.5.4	Operator removable parts	No movable parts	**N**
2.6.5.5	Parts removed during servicing	No such parts used	**N**
2.6.5.6	Corrosion resistance		**N**
2.6.5.7	Screws for protective bonding	No screw used	**N**
2.6.5.8	Reliance on telecommunication network	Not used for telecommunication network	**N**

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Clause	Requirement	Result - Remark	Verdict

2.7	**Overcurrent and earth fault protection in primary circuits**		**N**
2.7.1	Basic requirements		**N**
2.7.2	Protection against faults not covered in 5.3		**N**
2.7.3	Short-circuit backup protection		**N**
2.7.4	Number and location of protective devices	No fuse used	**N**
2.7.5	Protection by several devices		**N**
2.7.6	Warning to service personnel		**N**

2.8	**Safety interlocks**		**N**
2.8.2	Design	No Safety interlocks.	**N**
2.8.3	Protection against inadvertent reactivation		**N**
2.8.4	Fail-safe operation		**N**
2.8.5	Interlocks with moving parts		**N**
2.8.6	Override system		**N**
2.8.7.1	Contact Gap		**N**
2.8.7.2	Switch performing 50 cycles		**N**
2.8.7.3	Endurance test		**N**
2.8.7.4	Electric strength test: test voltage (V).....:		**N**
2.8.8	Protection against overstress		**N**
2.9	**Insulations**		**P**
2.9.1	Properties of insulation materials	Neither natural rubber, Asbestos or hygroscopic materials are used.	**P**
2.9.2	Humidity conditioning		**N**
	Humidity (%)		
	Temperature (℃)		
2.9.3	Requirements for insulation		**N**
2.9.4	Insulation parameters	Application and working voltage are considered	**N**
2.9.5	Categories of insulation		**N**

2.10	**Clearances, creepage distances and distances through insulation**		**P**
	Nominal voltage (V).....:		—
2.10.1	General	Functional insulation used	**P**
2.10.2	Determination of working voltage		**N**

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Clause	Requirement	Result - Remark	Verdict
2.10.3	Clearances		**P**
2.10.3.2	Clearance in primary circuit		**N**
2.10.3.3	Clearance in secondary circuit	SELV Circuit	**N**
2.10.3.4	Measurement of transient levels		**N**
2.10.4	Creepage distances		**P**
	CTI tests.....:		—
2.10.5	Solid insulation		**N**
2.10.5.1	Distances through insulation	Functional insulation used	**N**
2.10.5.2	Thin sheet material		**N**
2.10.5.3	Multi-layer boards		**N**
2.10.5.4	Wound components		**N**
2.10.6	Distances on coated printed boards	No coated printed boards.	**N**
2.10.7	Enclosed and sealed parts	No hermetically sealed components.	**N**
2.10.8	Spacing filled by insulating compound	No spacing filled by insulating compound	**N**
2.10.9	Spacings between external terminations of components	No such terminations	**N**
2.10.10	Insulation with varying dimensions	No such transformer used	**N**
3	**WIRING, CONNECTIONS AND SUPPLY**		**P**
3.1	**General**		**P**
3.1.1	Current rating and overcurrent protection	SELV circuits	**N**
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges, heatsinks, moving parts, which could damage the insulation and cause a hazard.	**P**
3.1.3	Securing of internal wring	All internal wire are properly secured and routed away from excessive strain or damage of conductor insulation.	**P**

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Clause	Requirement	Result - Remark	Verdict
3.1.4	Insulation of conductors	Insulation on internal conductor are considered to be of adequate quality and suitable for the application	**P**
3.1.5	Beads and ceramic insulators	No beads or similar ceramic insulators provided	**N**
3.1.6	Screws for electrical contact pressure	No such screw	**N**
3.1.7	Non-metallic materials in electrical connections	No such material	**N**
3.1.8	Self-tapping and spaced thread screws	No such components used	**N**
3.1.9	Termination of conductors	Suitable method used and pass 10N force test	**P**
3.1.10	Sleeving on wiring	No sleeving used	**N**
3.2	**Connection to a.c. mains supply or d.c. mains supply**		**P**
3.2.1	Means of connection:	Class III equipment	**N**
3.2.2	Multiple supply connections	No multiple supply connections	**N**
3.2.3	Provision for permanent connection:	No permanent connection.	**N**
3.2.4	Appliance inlets	No inlet used	**N**
3.2.5	Type and cross-sectional area of power supply cord .....:		**N**
3.2.6	Cord anchorage and strain relief		**N**
	Test: 25 times; 1s; pull (N).....:		**N**
	Longitudinal displacement ≤ 2mm .....:	After this test ,the displacement is less than 2mm	**N**
3.2.7	Protection against mechanical damage	The power cord free from sharp point etc. and bushing used for protect cord.	**N**
3.2.8	Cord guards		**N**
	D (mm) .....:		**N**
	Test: mass (g).....:		**N**
	Radius of curvature of the cord ≤ 1.5D		**N**
3.2.9	Supply wiring space		**N**

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Clause	Requirement	Result - Remark	Verdict

3.3	**Wiring terminals for external power supply conductors**		**N**
3.3.1	Wiring terminals	Not permanently connected equipment	**N**
3.3.2	Connection of non-detachable power supply cords		**N**
3.3.3	Screws terminals		**N**
3.3.4	Connector sizes to be connected		**N**
3.3.5	Wiring terminal sizes		**N**
	Nominal thread diameter (mm).....:		**N**
3.3.6	Wiring terminal design		**N**
3.3.7	Grouping of wiring terminals		**N**
3.3.8	Test with 8 mm stranded wire	No possibility of hazard	**N**

3.4	**Disconnection from the a.c. mains supply**		**P**
3.4.1	General requirement	Class III equipment	**N**
3.4.2	Disconnect devices		**N**
3.4.3	Permanently connected equipment	No such equipment	**N**
3.4.4	Parts remain energized	No such parts	**N**
3.4.5	Switches in flexible cords	No switch in flexible cords	**N**
3.4.6	Single phase equipment		**N**
3.4.7	Three phase equipment	No such equipment	**N**
3.4.8	Switches as disconnect devices	No switch used	**N**
3.4.9	Installations instructions if plug acts as disconnect device		**N**
3.4.10	Interconnected equipment		**N**
3.4.11	Multiple power sources	No such source used	**N**

3.5	**Interconnection of equipment**		**P**
3.5.1	General requirements	Class III equipment,all SELV circuit used	**N**
3.5.2	Type of interconnection circuits		**N**
3.5.3	ELV circuits as interconnection circuits		**N**

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Clause	Requirement	Result - Remark	Verdict

4	**PHYSICAL REQUIREMENTS**		**P**
4.1	**Stability**		**P**
	Stability tests, Angle of 10°	Placed on 10° incline and turn 360° no turnover occurs	**P**
	Test: force (N) …….:	Equipment is not a floor-standing unit.	**N**

4.2	**Mechanical strength and stress relief**		**P**
4.2.1	General		**P**
4.2.2	Steady force test 10N±1N ;5s	For the components	**N**
4.2.3	Internal enclosures 30N ± 3 N; 5s	For the enclosure behind the cover of the adjustment	**N**
4.2.4	External enclosures 250 N ±10 N; 5s	No energy or other hazards after the test.	**N**
4.2.5	Impact test	No hazards exist and work normally after test	**N**
	Steel sphere approximately 50mm in diameter and a mass of 500g±25g, a vertical distance of 1.3m	The height is 1.3m and the steel sphere fall free to the test points	**N**
4.2.6	Drop test		**N**
	A mass of 5kg or less, 750 mm±10mm for desk top equipment as described above.	Pass this test and no hazard exist,pass the hi-pop test	**N**
	A mass of 5kg or less, 1000mm±10mm for HAND-HELD, DIRECT PLUG-IN AND TRANSPORTABLE EQUIPMENT		**N**
4.2.7	Stress relief	70℃,7Hours After test, no hazards parts accessible	**N**
4.2.8	Cathode ray tubes	No cathode tube used	**N**
4.2.9	High pressure lamps	No such lamps	**N**
4.2.10	Wall or ceiling mounted equipment	50N force used,no hazards exist	**P**

4.3	**Design and construction**		**P**
4.3.1	Edges and corners	All be rounded and smoothed	**P**
4.3.2.	Fixing knobs, grips, handles, levers	No such parts used	**N**
4.3.3.	Adjustable controls	No such adjustable controls	**N**

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Clause	Requirement	Result - Remark	Verdict
4.3.4	Securing of parts	Screws, nuts, or similar parts are secured and withstand mechanical stress occurring in normal use	**P**
4.3.5	Connection of plug and sockets		**N**
4.3.6	Direct plug-in equipment	No direct plug-in equipment	**N**
	The additional torque which was applied to the socket outlet to maintain the engagement face in the vertical plane did not exceed 0.25 Nm		
4.3.7	Heating elements in earthed equipment	No such heating elements used	**N**
4.3.8	Batteries	No batteries used	**N**
4.3.9	Oil and grease	Insulation is not exposed to oil and grease	**N**
4.3.10	Dust, powders, liquids and gases	The equipment does not produce dust or employ liquids or gases	**N**
4.3.11	Containers for liquids or gases	No such containers used	**N**
4.3.12	Flammable liquids	No flammable liquids used	**N**
4.3.13	Radiation	No radiation occurs	**P**
		LED indicator only	**P**
4.4	**Protection against hazardous moving parts**		**N**
4..4.1	General	No moving parts used	**N**
4.4.2	Protection in operator access area		**N**
4.4.3	Protection in restricted area		**N**
4.4.4	Protection in service access area		**N**
4.5	**Thermal requirements**		**P**
4.5.1	Heating		**P**
	Heating test	See append table 4.5.1	**P**
4.5.2	Resistance to abnormal heat	See append table 4.5.2	**P**
4.6	**Openings in enclosures**		**P**
4.6.1	Top and side openings		**N**
4.6.2	Bottoms of fire enclosures		**N**

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Clause	Requirement	Result - Remark	Verdict
4.6.3	Doors and covers in fire enclosures	No such doors and covers	**N**
4.6.4	Openings in transportable equipment	No transportable equipment	**N**
4.6.5	Adhesives for constructional purposes	No adhesive used	**N**
4.7	**Resistance to fire**		**P**
4.7.1	Reducing the risk of ignition and spread of frame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	**P**
	Method 1, selection and application of components wiring and materials	see critical component list.	**P**
	Method 2, application of all of simulated fault condition tests		**N**
4.7.2	Conditions for fire enclosures	Compliance with the fault conditions of 5.3	**P**
4.7.2.1	Parts requiring a fire enclosure		**P**
4.7.2.2	Parts not requiring fire enclosure:		**N**
4.7.3	Materials		**P**
4.7.3.1	General rules		**P**
4.7.3.2	Materials for fire enclosures	Flammability class 94HB	**P**
4.7.3.3.	Materials for components and other parts outside fire enclosures		**N**
4.7.3.4	Materials for components and other parts inside fire enclosures	The material used be adequately	**P**
4.7.3.5	Materials for air filter assemblies	No air filter assemblies	**N**
4.7.3.6	Materials used in high-voltage components	No such components used	**N**
5	**Electrical requirements and simulated abnormal conditions**		**P**
5.1	**Touch current and protective conductor current**		**P**
	Test voltage (V)	CLASS III equipment	**-**
	Measured current (mA)		**-**
	Limited current (mA)		**-**
5.1.7	Equipment with touch current exceeding 3.5mA	Class III equipment The touch current does not exceed the limit	**N**

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Clause	Requirement	Result - Remark	Verdict
5.1.8	Touch current to and from telecommunication network	No such network used	**N**
5.2	**Electric strength**		**N**
5.2.1	General	Class III equipment	**N**
5.2.2	Test procedure	According to the procedure stated in this standard	**N**
5.3	**Abnormal operating and fault conditions**		**P**
5.3.1	Protection against overload and abnormal operation		**P**
5.3.2	Motors	No motors used	**N**
5.3.3	Transformers	Transformer used comply with annex C.1,refer table 5.3.6	**N**
5.3.4	Function insulation	Meet the appropriate creepage distance and clearance distance	**P**
5.3.5	Electromechanical components in secondary circuits	No hazard will be occurred in secondary circuit	**P**
5.3.6	Simulation of faults	See append table 5.3.6	**P**
5.3.7	Unattended equipment	No such equipment	**N**
5.3.8	Compliance criteria for abnormal operating and fault conditions	No flame emitted, no molten material emitted, no deformation of enclosure	**P**
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		**N**
6.1	**Protection of telecommunication network service personnel, and uses of other equipment connected to the telecommunication network, from hazards in the equipment**		**N**
6.1.1	Protection from hazards voltages		**N**
6.1.2.1	Insulation between TNV circuit and parts or circuits that may be earthed		**N**
6.1.2.2	Exclusions		**N**
6.2	**Protection of equipment users from voltage on the telecommunication networks**		**N**

EN 60950-1			
Clause	Requirement	Result - Remark	Verdict
6.2.1	Separation requirements		**N**
6.2.2	Test procedure		**N**
6.2.2.1	Impulse test: separation betweenTNV-1 circuits/TNV-3 circuits and		**N**
a)	Unearthed conductive parts of the equipment expected to be held or touched during normal use 2.5kV		**N**
b)	Parts and circuits that can be touched by test finger except contact of connectors that can not be touched by test probe:1.5kV		**N**
c)	Circuits which is provided for connection of other equipment 1.5kV		**N**
6.2.2.2	Electric strength test: separation between TNV-1 circuits/TNV-3circuits and		**N**
a)	Unearthed conductive parts of the equipment expected to be held or touched during normal use :2.5kV		**N**
b)	Parts and circuits that can be touched by test finger except contact of connectors that can not be touched by test probe: 1.0kV		**N**
c)	Circuits which is provided for connection of other equipment 1.0kV		**N**
6.2.2.3	Compliance criteria		**N**
6.3	**Protection of telecommunication wiring system from overheating**		**N**
	The equipment shall limit the output current to a suitable value		**N**
	The size of telecommunication wiring system and the limit current at any load condition		**N**
	The method of limit output current from the equipment		**N**
	The measured max continuous current from the equipment after 60’s		**N**

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Clause	Requirement	Result - Remark	Verdict

7	**Connection to cable distribution systems**		**N**
7.1	Protection of cable distribution system service person and user of other equipment connected to the system,from hazardous voltage in the equipment		**N**
	Circuitry directly connected to the system shall comply with the requirements for TNV-1,TNV-2 or a hazardous voltage secondary circuit		**N**
7.2	Protection of equipment users from overvoltage on the cable distribution system		**N**
7.3	Insulation between primary and cable systems		**N**
7.3.1	The insulation shall comply with the test of 7.3.2 and 7.3.3. A Electric strength test needed after above test.		**N**
7.3.2	Voltage surge test The test is applied between the supply circuit terminals and the main protective earthing terminal , the spec.10KV 50 discharges at rage of 12/min.		**N**
7.3.3	Impulse test The test is applied between the supply circuit terminals and the main protective earthing terminal , the spec.5KV for power-fed repeaters 4KV for all other terminal and network equipment.		**N**

A	**Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE**		N
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N
A.1.1	Samples .....:		-
	Wall thickness (mm) .....:		-
A.1.2	Conditioning of samples; temperature (°C).....:		N
A.1.3	Mounting of samples .....:		N
A.1.4	Test flame		N

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Clause	Requirement	Result - Remark	Verdict

A.1.5	Test procedure		N
A.1.6	Compliance criteria		N
	Sample 1 burning time (s) .....:		-
	Sample 2 burning time (s) .....:		-
	Sample 3 burning time (s) .....:		-
A.2	**Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)**		N
A.2.1	Samples, material.....:		-
	Wall thickness (mm) .....:		-
A.2.2	Conditioning of samples		N
A.2.3	Mounting of samples		N
A.2.4	Test flame		N
A.2.5	Test procedure		N
A.2.6	Compliance criteria		N
	Sample 1 burning time (s) .....:		-
	Sample 2 burning time (s) .....:		-
	Sample 3 burning time (s) .....:		-
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4, 8		N
	Sample 1 burning time (s) .....:		-
	Sample 2 burning time (s) .....:		-
	Sample 3 burning time (s) .....:		-
A.3	**Hot flaming oil test (see 4.6.2)**		N
A.3.1	Mounting of samples		N
A.3.2	Test procedure		N
A.3.3	Compliance criterion		N
B	**Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS(see 4.7.2.2 and 5.3.2)**		N
B.1	General requirements		N
	Position.....:		-

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Clause	Requirement	Result - Remark	Verdict

	Manufacturer .....:		-
	Type.....:		-
	Rated values .....:		-
B.2	Test conditions		N
B.3	Maximum temperatures		N
B.4	Running overload test		N
B.5	Locked-rotor overload test		N
	Test duration (days).....:		-
	Electric strength test: test voltage (V).....:		-
B.6	Running overload test for d.c. motors in secondary circuits		N
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N
B.7.1	Test procedure		N
B.7.2	Alternative test procedure; test time (h).....:		N
B.7.3	Electric strength test		N
B.8	Test for motors with capacitors		N
B.9	Test for three-phase motors		N
B.10	Test for series motors		N
	Operating voltage (V) .....:		-
C	**Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		N
	Position.....:	Transformer is secured on PCB inside the enclosure.	-
	Manufacturer .....:		-
	Type.....:		-
	Rated values .....:	---	-
	Method of protection.....:	---	-
C.1	Overload test	see appended table 5.3	N
C.2	Insulation	see appended table 5.2	N
	Protection from displacement of windings .....:	Reinforce insulation used	N
D	**Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS**		N

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Clause	Requirement	Result - Remark	Verdict

D.1	Measuring instrument	Simpson	N
D.2	Alternative measuring instrument		N
E	**Annex E, TEMPERATURE RISE OF A WINDING**		N
F	**Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)**		P
G	**Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		N
G.1	Summary of the procedure for determining minimum clearances		N
G.2	Determination of mains transient voltage (V)		N
G.2.1	AC mains supply		N
G.2.2	DC mains supply		N
G.3	Determination of telecommunication network transient voltage (V) : .....:		N
G.4	Determination of required withstand voltage (V) :		N
G.5	Measurement of transient levels (V) .....:		N
G.6	Determination of minimum clearances .....:		N
H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**		N
J	**Annex J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		N
	Metal used.....:		-
K	**ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)**		N
K.1	Making and breaking capacity		N
K.2	Thermostat reliability; operating voltage (V) .....:		N
K.3	Thermostat endurance test; operating voltage (V) .....:		N
K.4	Temperature limiter endurance; operating voltage (V).....:		N
K.5	Thermal cut-out reliability		N
K.6	Stability of operation		N
L	**Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)**		P

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Clause	Requirement	Result - Remark	Verdict

L.1	Typewriters		N
L.2	Adding machines and cash registers		N
L.3	Erasers		N
L.4	Pencil sharpeners		N
L.5	Duplicators and copy machines		N
L.6	Motor-operated files		N
L.7	Other business equipment		P
M	**Annex M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)**		N
M.1	Introduction		N
M.2	Method A		N
M.3	Method B		N
M.3.1	Ringing signal		N
M.3.1.1	Frequency (Hz).....:		-
M.3.1.2	Voltage (V).....:		-
M.3.1.3	Cadence; time (s), voltage (V).....:		-
M.3.1.4	Single fault current (mA).....:		-
M.3.2	Tripping device and monitoring voltage .....:		N
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N
M.3.2.2	Tripping device		N
M.3.2.3	Monitoring voltage (V) .....:		N
N	**Annex N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)**		N
N.1	ITU-T impulse test generators		N
N.2	IEC 60065 impulse test generator		N
P	**Annex P, NORMATIVE REFERENCES**		N
Q	**Annex Q, BIBLIOGRAPHY**		N
R	**Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES**		N
R.1	Minimum separation distances for unpopulated		N

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Clause	Requirement	Result - Remark	Verdict

	coated printed boards (see 2.10.6)		
R.2	Reduced clearances (see 2.10.3)		N
S	**Annex S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)**		N
S.1	Test equipment		N
S.2	Test procedure		N
S.3	Examples of waveforms during impulse testing		N
T	**Annex T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)**		N
	.....:		-

U	**Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		N
	.....:		-

V	**ANNEX VAC POWER DISTRIBUTION SYSTEMAS (see 1.6.1)**		N
V.1	Introduction		N
V.2	TN power distribution systems		N

W	**ANNEX W SUMMATION OF TOUCH CURRENTS**		N
W.1	Touch current from electronic circuits		N
W.1.1	Floating circuits		N
W.1.2	Earthed circuits		N
W.2	Interconnection of several equipments		N
W.2.1	Isolation		N
W.2.2	Common return, isolated from earth		N
W.2.3	Common return, connected to protective earth		N

X	**ANNEX X MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)**		N
X.1	Determination of maximum input current		N
X.2	Overload test procedure		N

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Clause	Requirement	Result - Remark	Verdict

Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N
Y.1	Test apparatus		N
Y.2	Mounting of test samples		N
Y.3	Carbon-arc light-exposure apparatus		N
Y.4	Xenon-arc light-exposure apparatus		N

Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**	N

AA	**ANNEX AA, MANDREL TEST (see 2.10.5.8)**	N

BB	**ANNEX BB, CHANGES IN THE SECOND EDITION**	N

TABLE 1.5	List of critical components and materials			
Component	manufacturers / trademark	Type / model	Value / rating	Approval/ Reference
Ac adaptor	Varies	LPS POWER SUPPLY	I/P:100~240Vac, 50/60Hz.190mA ; O/P:5Vdc,1A;	UL /GS/CE
Speaker	Varies	---	4 ohm, 2W	---
PCB	Varies	---	Min.V-1,min 105℃	UL
Plastic enclosure	Varies	---	HB min	UL

Table 1.6.1	TABLE: Input current test data			P
X5,X5G				
No.	Voltage	Ampere	Measured Watts	Note
1	5VDC	0.3	1.4	Normal load

Table2.5	TABLE: limited power source measurement		Pass
	Limits	Measured	Verdict
For Data port (PC port pin 1-8)			
According to Table 2B (normal condition), Uoc ＝0 V			
current (in A)	8	0	Pass
Apparent power (in VA)	≤ 100	0	Pass
For Data port (LAN port pin 1-8)			
According to Table 2B (normal condition), Uoc ＝0 V			
current (in A)	8	0	Pass
Apparent power (in VA)	≤ 100	0	Pass
Note(s):			

Table 2.10.2 and 2.10.3	TABLE: clearance and creepage distance measurements				N
clearance cl,creepage distance dcr at/of: Measurement points	Required cl (mm)	Measured cl (mm)	Required dcr (mm)	Measured dcr (mm)	U (V)
Transformer primary to secondary	4.0		4.0		

Table 4.2.7	TABLE: Stress relief test		N
Part	Test temperature (℃)	Test duration	Observation
Whole unit		7h	No visible defect and no hazard part expose to the user and service person

Table 4.5.1	TABLE: temperature rise measurements (normal condition)		P
X5,X5G	Test voltage		
---	5Vdc		---
Part	Temperature rise Δt(K)		Limit Δt(K)
PCB near U1	30.3		80
L1 body	26.9		80
PCB near L1	24.9		80
CE1	25.8		60
Keyboard PCB	5.8		80
Enclosure inside near heatsink	10.0		---
Enclosure outside near heatsink	6.9		60
LCD	6.8		---
Ambient	25.0		---

Table 4.5.2	TABLE: ball pressure test of thermoplastics		N
Part	Test temperature (℃)	Impression diameter (mm)	Required impression diameter (mm)
PCB	125	---	≤2 mm
Bobbin	125	---	≤2 mm

Table 5.2.2	TABLE: electric strength measurements	N

Test voltage applied between:	Test voltage (Vac)	Breakdown (Y/N)
Line of power supply and output	---	---
Line of power supply and enclosure	---	---
Two layers of spacer tape in transformer	---	---
Primary and secondary of transformer	---	---
Primary and core of transformer	---	---

Table 5.3.6	Fault conditions test				P
No.	Component No. Fault	Fault conditions	Test voltage V	Test period	Result of test
1	Openings	Block	Normal	0.5h	Work normally,no damage,no hazards exist T_{PCB} =44℃

Attachment – A

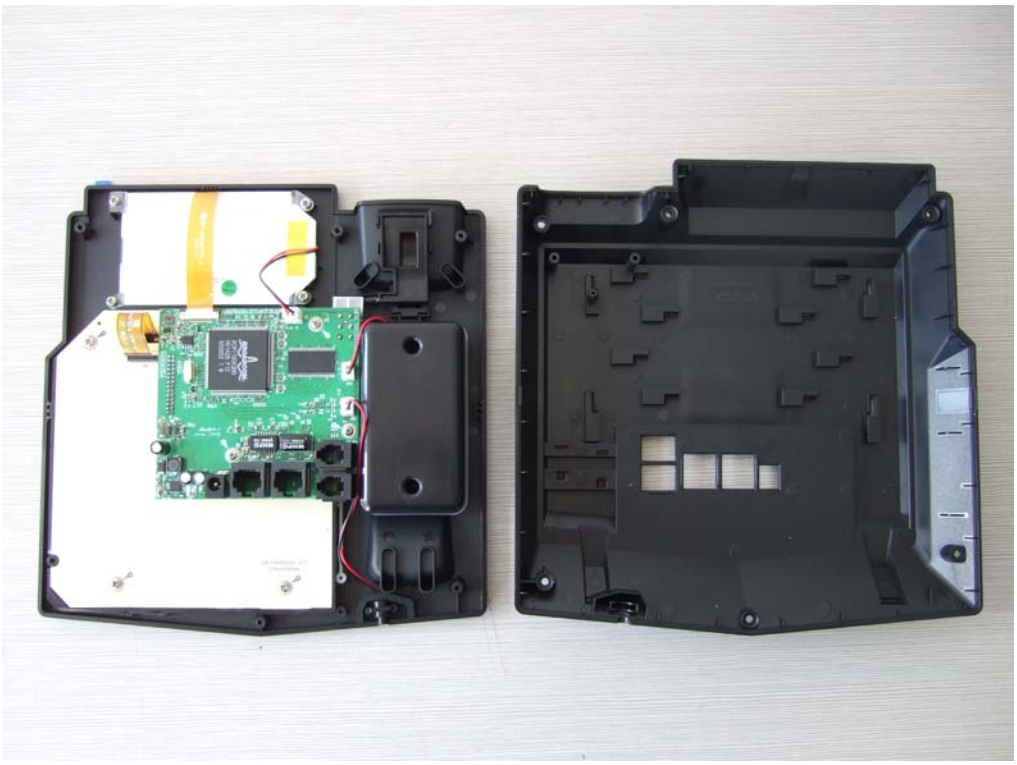
Photo documentation

attached with total 4 pages including this page

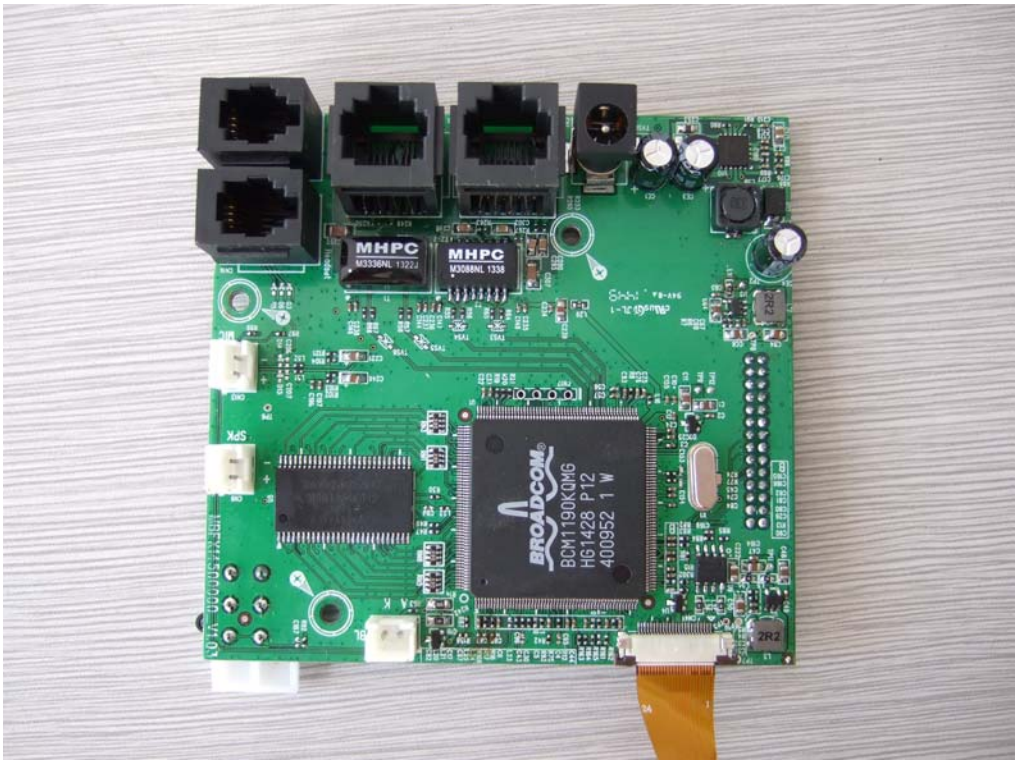
TOPVIEW OF EUT

BOTTOMVIEW OF EUT

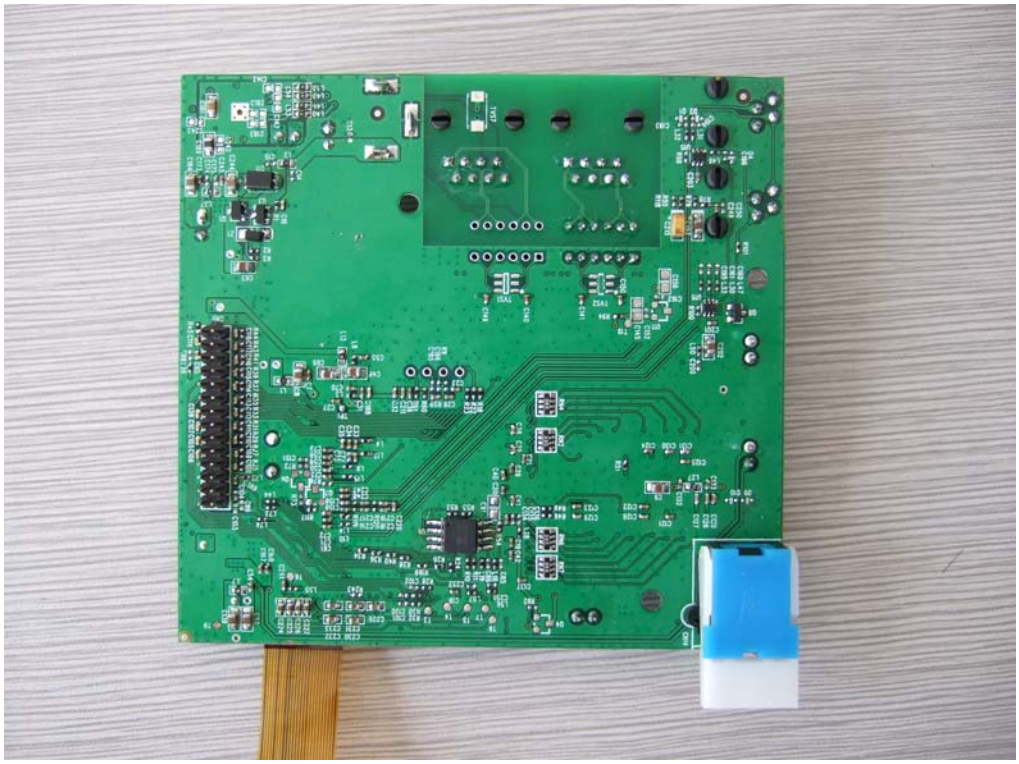
OPEN OVERVIEW OF EUT



MAIN PCB1



MAIN PCB2



LCD MODULE AND KEYBOARD