

CE REPORT

Under:
EN60950-1:2001
Information Technology Equipment - Safety

Prepared For:
Cyber Blue (HK) Limited
Room 703, 7/F, Fook Lee Commercial Centre, Town Place, 33 Lockhart Road, Wanchai,
Hong Kong

EUT: Bluetooth USB Dongle

Model: USB06M

December 28, 2007

Report Type: Original Report

Test Engineer: Jacky Huang

Test Date: December 25, 2007


Review By: 
Apollo Liu / Manager

TABLE OF CONTENTS

1. General Information	3
1.1 Notes.....	3
1.2 Testing Laboratory.....	3
1.3 Details of Applicant.....	3
1.4 Application Details.....	3
1.5 Test Item.....	3
2. Technical Test	4
2.1 Summary of Test Results.....	4
3. Test Statement	4
3.1 Test Statement.....	4
4. Testing	5
Clause 1 - General.....	5
Clause 1.5 Components.....	5
Clause 1.6 Power Interface.....	5
Clause 1.7 Marking and Instructions.....	5
Clause 2 – Fundamental Design Requirements.....	7
Clause 2.1 Protection against electric shock and energy hazards.....	7
Clause 2.2 SELV circuits.....	7
Clause 2.3 TNV circuit.....	7
Clause 2.4 Limited current circuits.....	8
Clause 2.5 Limited Power Sources.....	8
Clause 2.6 Provisions for earthing and bonding.....	9
Clause 2.7 Basic requirements.....	9
Clause 2.8 Safety interlock.....	9
Clause 2.9.....	10
Clause 2.10.....	10
Clause 3 WIRING, CONNECTION AND SUPPLY.....	10
Clause 3.1.....	10
Clause 3.2 Connections to primary power.....	11
Clause 3.3 Wiring terminals.....	11
Clause 3.4 Disconnection from the mains supply.....	12
Clause 3.5 Interconnection of equipment.....	12
Clause 4 PHYSICAL REQUIREMENTS.....	12
Clause 4.1 Stability and mechanical hazards.....	12
Clause 4.2 Mechanical strength and stress relief.....	12
Clause 4.3.....	13
Clause 4.4.....	13
Clause 4.5.....	14
Clause 4.6.....	14
Clause 4.7.....	14
Clause 5 ELECTRICAL REQUIREMENT AND SIMULATED ABNORMAL CONDITIONS.....	15
Clause 5.1.....	15
Clause 5.2.....	15
Clause 5.3.....	15
Clause 6 CONNECTION TO TELECOMMUNICATION NETWORKS.....	16
Clause 6.1.....	16
Clause 6.2.....	16
Clause 6.3 Protection of telecommunication wiring system from overheating.....	16
Clause 7 CONNECTION TO CABLE DISTRIBUTION SYSTEMS.....	16
Clause 7.1.....	17
A. ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE	17
B. ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS	17
C ANNEX C, TRANSFORMERS	18
D ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS	18
E ANNEX E, TEMPERATURE RISE OF A WINDING	18
F ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES	18
G ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES	18
H ANNEX H, IONIZING RADIATION	19
J ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS	19
K ANNEX K, THERMAL CONTROLS	19
L ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMET	19
M ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS	19
N ANNEX N, IMPULES TEST GENERATORS	20
P ANNEX P, NORMATIVE REFERENCES	20
R ANNEX R, EXASMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES	20
S ANNEX S, PROCEDURE FOR IMPULSE TESTING	20
T ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER	20
U ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION	20
Clause 1.5.1 Table: List of Critical Components.....	21
Clause 1.6.2 Table: Electrical Data (in normal conditions) N.....	21
Clause 2.10.3 and 2.10.4 Table: Clearance and Creepage Distance Measurements.....	21
Clause 2.10.5 Table: Distance Through Insulation Measurements.....	21
Clause 4.5 Table: Maximum temperatures N.....	22
Clause 4.5.2 Table: ball pressure test of thermoplastic parts.....	22
Clause 4.7 Table: resistance to fire.....	22
Clause 5.2 Table: Electric Strength Measurements.....	22
Clause 5.3 Table: Fault Condition Tests: N.....	22
5. Photograph - EUT	23
6. CE Label	24

1. General Information

1.1 Notes

The test results of this report relate exclusively to the test item specified in 1.5. The KMO Lab does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the KMO Lab.

1.2 Testing Laboratory

Ke Mei Ou Laboratory Co., Ltd.

7A, Jiaxiangge, Jiahuixincheng, No.3027, Shennan Rd., Futian, Shenzhen, Guangdong, P.R.China.

Tel: +86 755 83642690 Fax: +86 755 83297077

Email: kmo@kmolab.com

Internet: www.kmolab.com

Site on File with the Federal Communications Commission – United States

Registration Number: 125782

For 3 & 10 meter OATS

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC4986

For 3 & 10 meter OATS

1.3 Details of Applicant

Name : Cyber Blue (HK) Limited

Address : Room 703, 7/F, Fook Lee Commercial Centre, Town Place, 33 Lockhart Road, Wanchai, Hong Kong

Contact : Mr. Yang

Tel : 86 755 82807020

Fax : 86 755 82807069

1.4 Application Details

Date of Receipt of Application : December 24, 2007

Date of Receipt of Test Item : December 25, 2007

Date of Test : December 25~December 27, 2007

1.5 Test Item

Manufacturer : Yingzhen Cyber Blue Industry Co., Ltd

Address : 34th Floor, Block A, Galaxy Century Building, Shennan Road, Futian District, Shenzhen, China

Trade Name : N/A

Model No. : USB06M, USB06MA, USB06MB

Description : Bluetooth USB Dongle

Additional Information

Frequency : 2400~2483.5MHz

Number of Channels : 79

Power Supply : From host

Operation Distance : N/A

Resolution : N/A

2. Technical Test

2.1 Summary of Test Results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
EN60950-1: 2001	LVD Testing	PASS	Meets the Standard

3. Test Statement

3.1 Test Statement

3.1.1 Particulars: Test Item vs. Test Requirements

A. Equipment Mobility:	Portable
B. Operating Condition:	Continuous.
C. Tested for IT Power Systems:	N/A.
D. IT Testing, Phase-Phase Voltage (V):	N/A
E. Class of Equipment:	Class III
F. Protection Against Ingress of Water:	No protection against ingress of water.

3.1.2 Brief Description of The EUT:

- A. The equipment is a Bluetooth USB Dongle
- B. Maximum Operating Temperature: 40°C

3.1.3 Test Condition:

A. Temperature:	25°C
B. Relative Humidity	60%

The test sample was a pre-production sample without serial number.

3.1.3 Test Case Verdicts

Test case does not apply to the test object:	N/A
Test item does meet the requirement:	PASS
Test item does not meet the requirement:	FAIL

3.1.4 General Remarks:

“(see remark #)” refers to a remark appended to the report
“(see appended table)” refers to a table appended to the report.
Throughout this report a point is used as the decimal separator.
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.

Comments:


Brief description of the test sample:

** According to EN60950-1:2001

Enclosure - Overall

EUT: 25 by 18 by 7 mm, mass 15g, secured to together by screws.

3.1.5 Copy of Marking Plate

Model no: USB06M	
Bluetooth USB Dongle	
Power: From Host	
Manufacturer: Yingzhen Cyber Blue Industry Co., Ltd	

4. Testing

Clause 1 - General

The equipment meets standard.

Clause 1.5 Components

The equipment meets standard

Clause 1.5.1

Comply with IEC 950 or relevant component standard

: Components, which were found to affect safety aspects, are complied with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (see appended table)

P

Clause 1.5.2

Evaluation and test of components

: Components, which were certified to IEC and/or nation standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.

P

Clause 1.5.3

Thermal controls

: No controls

N

Clause 1.5.4

Transformers

: No isolating transformer in the equipment.

N

Clause 1.5.5

Interconnecting cables

: see appended table 1.5.1

P

Clause 1.5.6

Capacitors in primary circuits

: No AC connections

N

Clause 1.6 Power Interface

Power Interface

:

N

Clause 1.6.1

AC power distribution systems

: Class III unit

N

Clause 1.6.2

Input current

:

N

Clause 1.6.3

Voltage limit of hand-held equipment

:

N

Clause 1.6.4

Neutral conductor

:

N

Clause 1.6.5

Mains supply tolerance (V)

:

N

Clause 1.7 Marking and Instructions

Marking and Instructions

:

P

Clause 1.7.1

Rated voltage (V)

: Description in user manual.

P

Rated voltage(s) or voltage range(s) (V)

: 5V DC (Transmitter)

P

Symbol of nature of supply for d.c.

: "DC"

P

Rated frequency (Hz)

: DC input

N

Rated current (A)

:

P

Manufacturer

: Yingzhen Cyber Blue Industry Co., Ltd

P

Trademark

: N/A

P

Type/model

: USB06M

P

Symbol of Class II

: Class III equipment

N

Certification marks

: CE

P

Clause 1.7.2

Safety instructions

: The users manual contains information for operation, insulation servicing, transport, storage and technical data. The operation guide is provided to the user.

P

No other special installation instruction required as the equipment is class III.

Clause 1.7.3

Short duty cycles	: Equipment is designed for continuous	N
Clause 1.7.4		
Marking for voltage setting/frequency setting	: No setting	N
Clause 1.7.5		
Marking at power outlets	: No standard power outlet	N
Clause 1.7.6		
Marking at fuseholders	:	N
Clause 1.7.7.1		
Protective earthing terminals	: The equipment is class III.	N
Clause 1.7.7.2		
Terminal for external primary power supply conductors	: No terminal.	N
Clause 1.7.7.3		
Terminal for d.c. mains supply conductors	: Does not connect directly to the DC mains	N
Clause 1.7.8.1		
Identification and location of switches and controls	: None	N
Clause 1.7.8.2		
Colors of controls and indicators	: No safety relevant indicators	N
Clause 1.7.8.3		
Symbols according to IEC60417	: No used	N
Clause 1.7.8.4		
Figures used for marking	: No indicators for different positions.	N
Clause 1.7.8.5		
Location of marking and indications for switches and controls	: No used.	N
Clause 1.7.9		
Isolation of multiple power sources	: SELV supplied	N
Clause 1.7.10		
Instructions for installation to IT power system	: Has to be considered in end product	N
Clause 1.7.11		
Thermostats and other regulating devices	: No thermostats or other regulating devices.	N
Clause 1.7.12		
Language	: Safety warning test in English. Rating marking in English. Instructions and equipment marking related to safety shall be in a language which is acceptable in the country in which the equipment is to be installed.	N
Clause 1.7.13		
Durability	: The label was subjected to the test for permanence of marking. The label was rubbed with cloth for 15 sec. And then rubbed by the cloth soaked with Naphtha for 15 sec. After this test there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting on the label edge.	P
Clause 1.7.14		
Removable parts	: No required marking placed on removable parts.	P
Language	: English.	--
Clause 1.7.15		
Replaceable batteries	: Transmitter: one 3.7V Li-Ion battery is placed in Operator access area. The required warning is in the operating manual. Battery protection circuit, diode and resistor in series. Sufficient warning hints used in operation manual.	P
Clause 1.7.16		
Operator access with a tool	:	N
Clause 1.7.17		
Equipment for restricted access locations	: Not intended for restricted access.	N
Language	: English.	--

Clause 2 – Fundamental Design Requirements

The equipment meets standard

Clause 2.1 Protection against electric shock and energy hazards		
Protection against electric shock and energy hazards	:	N
Clause 2.1.1		
Access to energized parts	: See below	N
Clause 2.1.2		
Protection in operator access area	: The unit is class III.	N
Test by inspection	:	N
Test with test finger	:	N
Test with test pin	:	N
Clause 2.1.3.1		
Operator accessible insulation of internal Wiring a hazardous voltage	: NO ELV wiring in operator accessible area	N
Working voltage(V); distance (mm) through insulation	:	N
Clause 2.1.3.2		
Operator accessible insulation of internal Wiring at hazardous voltage.	: No hazardous voltage wiring in operator accessible area.	N
Clause 2.1.4.1		
Protection in service access areas	:	N
Clause 2.1.4.2		
Protection in restricted access locations	: It is not intended to be used in restricted locations.	N
Clause 2.1.5		
Energy hazard in operator access area	:	N
Clause 2.1.6		
Clearances behind conductive enclosures	: Refer to 4.2.3	P
Clause 2.1.7		
Shafts of manual controls	: None at ELV or hazardous voltages.	N
Clause 2.1.8		
Isolation of manual controls	: None at ELV or hazardous voltages.	N
Clause 2.1.9		
Conductive casings of capacitors	:	N
Clause 2.1.10		
Risk of electric shock from stored charge on capacitors connected to mains circuit	:	N
Time-constant(s); measured voltage(V)	:	--
Clause 2.2 SELV circuits		
Insulation	:	P
Clause 2.2.1		
General requirements	: SELV limits are not exceeded under normal condition and after a single fault.	P
Clause 2.2.2		
Voltages under normal conditions (V)	: The voltage between any two conductors and between any one such conductor and earth(see 1.4.9) does not exceed 42.4V peak or 60 Vd.c.	P
Clause 2.2.3		
Voltages under fault conditions (V)	: In the event of a single fault, the voltage between any two conductors and between any one such conductor and earth (see 1.4.9) does not exceed 42.4V peak or 60 Vd.c. for longer than 0.2 sec. and stays below the limits of 71 V peak or 20Vd.c.	P
Humidity (%)	: 70%R.H.	--
Temperature (°C)	: 25°C	--
Clause 2.2.4		
Connection of SELV circuits to other circuit	: SELV circuits are only connected to other SELV circuits and protective earth.	P
Clause 2.3 TNV circuit		
TNV circuit	: No TNV circuits in the equipment.	N

Clause 2.3.1		
Limits	: No TNV circuits	N
Clause 2.3.2		
Separation from other circuits and from accessible parts	:	N
Clause 2.3.3		
Separation from hazardous voltages	:	N
Insulation employed	:	--
Clause 2.3.4		
Connection of TNV circuits to other circuits	:	N
Clause 2.3.5		
Test for operating voltages generated externally	:	N
Clause 2.4 Limited current circuits		
Limited current circuit	: No limited current circuits.	N
Clause 2.4.2		
Frequency (Hz)	:	--
Measured current (mA)	:	N
Clause 2.4.3		
Connection of limited current circuits to other circuits	:	N
Measured capacitance (uF)	:	N
Clause 2.4.4		
Measured voltage (V)	:	--
Measured charge (uV)	:	N
Clause 2.4.5		
Measured voltage (V)	:	--
Measured energy (mJ)	:	N
Clause 2.4.6		
Limited current circuit supplied from or connected to other circuits	:	N
Clause 2.5 Limited Power Sources		
Inherently limited output	: No limited power source.	N
Clause 2.5.1		
Class I equipment	: The equipment is class III	N
Warning label for service personnel	:	N
Clause 2.5.2		
Protective earthing in class II equipment	:	N
Clause 2.5.3		
Switches /fuses in earthing conductors	:	N
Clause 2.5.4		
Assured earthing connection for class I equipment in systems comprising Class I and Class II equipment	:	N
Clause 2.5.5		
Green/yellow/ insulation	:	N
Clause 2.5.6		
Continuity of earth connections	:	N
Clause 2.5.7		
Making and breaking of protective earthing connections	:	N
Clause 2.5.8		
Disconnection protective earthing connections	:	N
Clause 2.5.9		
Protective earthing terminals for fixed supply conduction of for non-detachable power supply cords	:	N
Clause 2.5.10		
Corrosion resistance	:	N

Clause 2.5.11		
Resistance (Ω) of protective earthing conductors $\cong 0.1\Omega$:	N
Test current (A)	:	--
Clause 2.6 Provisions for earthing and bonding		
Clause 2.6.1		
Protective earthing	: Has to be considered in end product.	N
Clause 2.6.2		
Functional earthing	:	N
Clause 2.6.3		
Protective earthing and protective bonding conductors	:	N
Clause 2.6.4		
Terminals	:	N
Clause 2.6.5		
Integrity of protective earthing	:	N
Clause 2.6.6		
Disconnection of both poles simultaneously for single-phase equipment	:	N
Clause 2.6.7		
Disconnection of all phase conductions of supply in three-phase equipment	:	N
Clause 2.6.8		
Making of switch acting as disconnect device	:	N
Clause 2.6.9		
Installation instructions If plug on power supply cord acts as disconnect device	:	N
Language	:	--
Clause 2.6.11		
Interconnected equipment	:	N
Clause 2.6.12		
Multiple power sources	:	N
Clause 2.7 Basic requirements		
Instructions when protection relies on building installation	:	N
Clause 2.7.1		
Basic requirements	: Only SELV circuits.	N
Clause 2.7.2		
Faults not covered in 5.3	:	N
Clause 2.7.3		
Short –circuit backup protection	:	N
Clause 2.7.4		
Number and location of protective device	:	N
Clause 2.7.5		
Protection by several devices	: Single fuse	N
Clause 2.7.6		
Warning to service personnel	: No neutral connection	N
Clause 2.8 Safety interlock		
Safety interlock No operator accessible areas which presents hazards in the meaning of This standard.	:	N
Clause 2.8.2		
Protection requirements	:	N
Clause 2.8.3		
Inadvertent reactivation	:	N
Clause 2.8.4		
Fail-safe operation	:	N

Clause 2.8.5			
Moving parts	:		N
Clause 2.8.6			
Overriding	:		N
Clause 2.8.7			
Switches and relays	:		N
Clause 2.9			
Electrical insulation	:		P
Clause 2.9.1			
Properties of insulating materials	:	Neither natural rubber, materials containing asbestos nor hygroscopic materials are used as insulation. No driving belts or couplings used.	P
Clause 2.9.2			
Humidity conditioning	:	No hygroscopic material used.	N
Humidity (%)	:		--
Temperature (°C)	:		--
Clause 2.9.3			
Grade of insulation	:	Insulation is considered to be functional, basic, supplementary, reinforced or double insulation.	P
Clause 2.10			
Clearances, creepage distances and distances through insulation	:		P
Clause 2.10.1			
General requirements	:	On the board there is only operational instruction. Distances need not to be measured in cases of compliance with condition of 5.3.	P
Clause 2.10.2			
Determination of working voltage	:	Considered.	N
Clause 2.10.3			
Clearances	:		P
Clause 2.10.3.3			
Clearances in secondary circuits	:	Only functional insulation in secondary circuits. Ref. 5.3.4.	P
Clause 2.10.3.4			
Measurement of transient voltage levels	:	Measurement not relevant.	P
Clause 3 WIRING, CONNECTION AND SUPPLY			
WIRING, CONNECTION AND SUPPLY	:		P
Clause 3.1			
General	:		P
Clause 3.1.1			
Current rating and overcurrent protection	:		P
Clause 3.1.2			
Protection against mechanical damage	:		N
Clause 3.1.3			
Securing of internal wiring	:		N
Clause 3.1.4			
Insulation of conductors	:	(see appendix)	N
Clause 3.1.5			
Beads and ceramic insulators	:	No beads or similar ceramic insulators on conductors.	N
Clause 3.1.6			
Screws for electrical contact pressure	:		N
Clause 3.1.7			
Insulating materials in electrical connections	:		N

Clause 3.1.8		
Self-tapping and spaced thread screws	:	N
Clause 3.1.9		
Termination of conductors	:	N
10 N pull test	:	N
Clause 3.1.10		
Sleeving on wiring 0	:	N
Clause 3.2 Connections to primary power		
Connections to primary power	:	N
Clause 3.2.1		
Means of connection	: Not directly connected to a mains supply.	N
Clause 3.2.1.1		
Connection to an a.c. mains supply	:	N
Clause 3.2.1.2		
Connection to a d.c. mains supply	:	N
Clause 3.2.2		
Multiple supply connections	: No mains connection	N
Clause 3.2.3		
Permanently connected equipment	:	N
Number of conductors, diameter (mm) of cable and conduits	:	--
Clause 3.2.4		
Appliance inlets	:	N
Clause 3.2.5		
Power supply cords	:	N
Clause 3.2.5.1		
AC power supply cords	:	N
Clause 3.2.5.2		
DC power supply cords	:	N
Clause 3.2.6		
Cord anchorages and strain relief	:	N
Mass of equipment (kg), pull (N)	:	--
Longitudinal displacement (mm)	:	--
Clause 3.2.7		
Protection against mechanical damage	:	N
Clause 3.2.8		
Cord guard	: see clause 3.2.1	N
D (mm):	:	--
Test: mass (g)	:	--
Radius of curvature of the cord $\cong 1.5D$:	N
Clause 3.3 Wiring terminals		
Wiring terminals for external power supply conductors Unit with detachable power supply cord, connected on appliance inlet.	:	N
Clause 3.3.1		
Terminals	: Not directly connected to a.c. mains supply.	N
Clause 3.3.2		
Special non-detachable cord	:	N
Type of connection	:	--
Pull test at 5 N	:	N
Clause 3.3.3		
Screws and nuts	:	N
Clause 3.3.4		
Conductor sizes to be connected	:	N

Clause 3.3.5			
Wiring terminal sizes	:		N
Clause 3.3.6			
Wiring terminals design	:		N
Clause 3.3.7			
Grouping of wiring terminals	:		N
Clause 3.3.8			
Stranded wire	:		N
Clause 3.4 Disconnection from the mains supply			
General requirement	:	Not directly connected to a.c. mains supply.	N
Clause 3.5 Interconnection of equipment			
General requirement	:	Considered.	P
Clause 3.5.2			
Type of interconnection circuits	:	SELV circuit or limited current circuit.	P
Clause 4 PHYSICAL REQUIREMENTS			
PHYSICAL REQUIREMENTS	:		N
Clause 4.1 Stability and mechanical hazards			
Stability and mechanical hazards	:		N
Clause 4.1.1			
Stability tests	:		N
Angle of 10°	:	Has to be considered in end product.	N
Test: force (N)	:	Not floor-standing equipment	N
Clause 4.1.2			
Protection against personal injury	:		N
Clause 4.1.3			
Warning and means provided for stopping the moving part	:	No hazardous moving parts.	N
Clause 4.1.4			
Edges and corners	:		N
Clause 4.1.5			
Enclosure of a high pressure lamp	:	No lamp with cold pressure of 0.2Mpa or not pressure 0.4Mpa.	N
Clause 4.2 Mechanical strength and stress relief			
Mechanical strength and stress relief	:		N
Clause 4.2.1			
General	:	Has to be considered in end product.	N
Clause 4.2.2			
Steady force test, 10N	:	No internal enclosure	N
Clause 4.2.3			
Steady force test, 30N	:	No internal enclosure	N
Clause 4.2.4			
Steady force test, 250N	:	No external enclosure	N
Clause 4.2.5			
Impact test	:		N
Fall test	:		N
Swing test	:		N
Clause 4.2.6			
Drop test	:	Drop test not applicable.	N
Clause 4.2.7			
Stress relief test	:		N

Clause 4.2.8			
Cathode ray tubes	:	CRT(s) not used in the equipment.	N
Clause 4.3			
Design and construction	:		P
Clause 4.3.1			
Edges and corners	:	No knobs, grips, handles, lever etc.	N
Clause 4.3.2			
Handles and manual controls: fore (N)	:	Parts are for building in	N
Clause 4.3.4			
Securing of parts	:		P
Clause 4.3.5			
Connection of plugs and sockets	:	No mains connections	N
Clause 4.3.6			
Direct plug-in equipment	:	No mains connections	N
Dimensions (mm) of mains plug for direct plug-in			N
Torque and pull test of mains plug for direct plug-in; torque (Nm); Pull (N)			N
Clause 4.3.7			
Heating elements in earthed equipment	:	No heating elements	N
Clause 4.3.8			
Batteries	:	No operator replaceable lithium battery on main board. Please refer also to a.1.7.15.	P
Clause 4.3.9			
Oil and grease	:		N
Clause 4.3.10			
Dust, powders, liquids and gases	:	No liquids in the equipment	N
Clause 4.3.11			
Containers for liquids or gases	:	No liquids in the equipment	N
Clause 4.3.12			
Flammable liquids	:	No liquids in the equipment	N
Clause 4.3.13			
Radiation; type of radiation	:		N
Clause 4.3.13.1			
General	:	Equipment does not produce any radiation.	N
Clause 4.3.13.2			
Ionizing radiation	:	No CRTS	N
Clause 4.3.13.3			
Effect of ultraviolet (UV) radiation on materials	:		N
Clause 4.3.13.4			
Human exposure to ultraviolet (UV) radiation	:		N
Dimensions (mm)	:	See appended table.	--
Clause 4.3.13.5			
Laser (including LEDs)	:	No Laser used.	N
Clause 4.3.13.6			
Other types	:		N
Clause 4.4			
Protection against hazardous moving parts	:		N
Clause 4.4.1			
General	:	No moving parts in the equipments	N
Clause 4.4.2			
Protection in operator access areas	:		N
Clause 4.4.3			

Protection in restricted access locations	:	N
Clause 4.4.4		
Protection in service access areas	:	N
Clause 4.5		
Thermal requirements	:	P
Clause 4.5.1		
Maximum temperatures	:(see appendix)	P
Normal load condition per Annex L	: Maximum load	N
Clause 4.5.2		
Resistance to abnormal heat	: No thermoplastic parts carrying hazardous voltages.	N
Clause 4.6		
Opening in enclosures	:	N
Clause 4.6.1		
Top and side opening	: Has to be considered in end product.	N
Dimensions (mm)	:	--
Clause 4.6.2		
Bottoms of fire enclosure	: As above	N
Construction of the bottom		--
Clause 4.6.3		
Doors or covers in fire enclosures	: As above	N
Clause 4.6.4		
Opening in transportable equipment	: As above	N
Clause 4.6.5		
Adhesives for constructional purposes	:	N
Conditioning temperature (°C)/time (weeks)		--
Clause 4.6.4		
Opening in transportable equipment	:	N
Clause 4.7		
Resistance to fire	:	P
Clause 4.7.1		
Reducing the risk of ignition and spread of flame	: Method 1 is used.	P
Method 1, selection and application of components wiring and materials	:(see appendix)	P
Method 2, application of all of simulated fault condition tests	:(see appendix)	N
Clause 4.7.2		
Conditions for a fire enclosure	: Has to be considered for the end product.	N
Clause 4.7.2.1		
Parts requiring a fire enclosure	: Fire enclosure must be provided by the end system	N
Clause 4.7.2.2		
Parts not requiring a fire enclosure	:	N
Clause 4.7.3		
Materials	:	P
Clause 4.7.3.1		
General	: Components and materials have adequate flammability classification. PCB is 94V-0	P
Clause 4.7.3.2		
Materials for fire enclosures	: Fire enclosure must be provided by the end system	N
Clause 4.7.3.3		
Materials for components and other parts outside fire enclosures	:	N
Clause 4.7.3.4		
Materials for components and other parts inside fire	: Fire enclosure must be provided by the end	N

enclosures	system	
Clause 4.7.3.5		
Materials for air filter assemblies	: No air filters	N
Clause 4.7.3.6		
Materials used in high-voltage components	: No high voltage components	N

Clause 5 ELECTRICAL REQUIREMENT AND SIMULATED ABNORMAL CONDITIONS

Clause 5.1	:	P
Touch current and protective conductor current	:	N
Clause 5.1.1		
General	: DC device no measurement required	N
Clause 5.1.2		
Equipment under test (EUT)	:	P
Clause 5.1.3		
Test circuit	:	N
Clause 5.1.4		
Application of measuring instrument	:	N
Clause 5.1.5		
Test procedure	:	N
Clause 5.1.6		
Test measurements	:	N
Test voltage (V)		--
Measured touch current (mA)		--
Max. allowed touch current (mA)		--
Measured protective conductor current (mA)		--
Max. allowed protective conductor current (mA)		--
Clause 5.1.7		
Equipment with touch current exceeding 3.5 mA	:	N
Clause 5.1.8		
Touch currents to and from telecommunication network and cable distribution systems and from telecommunication networks	:	P
Clause 5.1.8.1		
Limitation of the touch current to a telecommunication network and a cable distribution system	:	N
Test voltage (V)		--
Measured touch current (mA)		--
Max, allowed touch current (mA)		--
Clause 5.1.8.2		
Summation of touch currents from telecommunication networks	:	N
Clause 5.2		
Electric strength	:	N
Clause 5.2.1		
General	: SELV is usually connected to ground, therefore no test was made between SELV and ground.	N
Clause 5.2.2		
Test procedure	: (see attached tables)	N
Clause 5.3		
Abnormal operating and fault conditions	:	P
Clause 5.3.1		
Protection against overload and abnormal operation	:	N
Clause 5.3.2		

Motors	: No motors in the equipment.	N
Clause 5.3.3		
Transformers	: (see attached tables)	N
Clause 5.3.4		
Functional insulation	: (see attached tables)	P
Clause 5.3.5		
Electromechanical components	: No such components in secondary circuits.	N
Clause 5.3.6		
Simulation of faults	: No short circuit performed because components are mounted on V-O material.	P
Clause 5.3.7		
Unattended equipment	: No thermostats, temperature limiters or thermal cut-outs.	N
Clause 5.3.8		
Compliance criteria for abnormal operating and fault conditions	: No short circuit performed because components are mounted on V-0 material.	P

Clause 6 CONNECTION TO TELECOMMUNICATION NETWORKS

CONNECTION TO TELECOMMUNICATION NETWORKS	:	N
Clause 6.1		
Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazard in the equipment	:	N
Clause 6.1.1		
Protection from hazardous voltages	:	N
Clause 6.1.2		
Separation of the telecommunication network from earth	:	N
Clause 6.1.2.1		
Requirements	: No TNV circuits in the equipment.	N
Test voltage (V)		--
Current in the test circuit (mA)		--
Clause 6.1.2.2		
Exclusions	:	N
Clause 6.2		
Protection of equipment users from overvoltages on telecommunication networks	:	N
Clause 6.2.1		
Separation requirements	: No TNV circuits in the equipment.	N
Clause 6.2.2		
Electric strength test procedure	:	N
Clause 6.2.2.1		
Impulse test	: (see attached table)	N
Clause 6.2.2.2		
Steady-state test	: (see attached table)	N
Clause 6.2.2.3		
Compliance criteria	:	N
Clause 6.3 Protection of telecommunication wiring system from overheating		
Max. output current (A)	:	--

Clause 7 CONNECTION TO CABLE DISTRIBUTION SYSTEMS

CONNECTION TO CABLE DISTRIBUTION SYSTEMS	: Has to be considered at the end product.	N
--	--	---

Clause 7.1		
Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	:	N
Clause 7.2		
Protection of equipment users from overvoltages on the cable distribution system	:	N
Clause 7.3		
Insulation between primary circuits and cable distribution systems	:	N
Clause 7.3.1		
General	:	N
Clause 7.3.2		
Voltage surge test	:(see attached table)	N
Clause 7.3.3		
Impulse test	:(see attached table)	N

A. ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE

ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE	:	N
A.1		
Flammability test for fire enclosures of moveable equipment having a total mass less than 18kg, and of stationary equipment.	:	N
A.2		
Flammability test for fire enclosures of moveable equipment having a total mass not exceeding 18kg, and for materials located within fire enclosures.	:	N
A.3		
Hot flaming oil test	: Used materials have adequate flame class according to UL94, no tests performed.	N

B. ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS

ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS	:	N
B.1		
General requirements	:	--
Position	:	--
Manufacturer	:	--
Type	:	--
Rated voltage (V) or current (A)	:	N
B.2		
Test conditions	:(see appended table 5.4)	N
B.3		
Maximum temperatures	:	N
B.4		
Running overload test	:	N
B.5		
Locked-rotor overload test	:	N
Test duration (day)	:	--
Electric strength test: test voltage(V)	:	--
B.6		
Running overload test for DC motor in secondary circuits	:	N
B.7		
Locked-rotor overload test for DC motor in secondary circuits	:	N
B.7.2		
Test time(h)	:	N
B.7.3		

Test time(h)	:	N
B.8		
Test for motors with capacitors	:	N
B.9		
Test for series motors	:	N
B.10		
Test for series motors	:	N
Test voltage(V)	:	--

C ANNEX C, TRANSFORMERS

ANNEX C, TRANSFORMERS	:	N
Position	:	--
Manufacturer	:	--
Type	:	--
Rated values	:	--
Thermal cut-out	:(see appended table 5.1)	N
Temperatures	:(see appended table 5.4)	N
C.1		
Overload test	:(see 5.4.3)	N
Conventional transformer	:	N
C.2		
Insulation	:	N
Precautions	:(see transformer construction check next page)	N
Retaining of end turns of all windings	: dto	N
Earthing test at 2.5A	: dto	N
C.3		
Electric strength test	:(see 5.3)	N

D ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS

ANNEX D,	:	N
C.1		
Measuring instrument	:	N
C.2		
Alternative measuring instrument	:	N

E ANNEX E, TEMPERATURE RISE OF A WINDING

ANNEX E,	:	N
----------	---	---

F ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES

ANNEX F	:	N
---------	---	---

G ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES

ANNEX G,	:	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		
ANNEX H, IONIZING RADIATION	:	N
J ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS		
Metal used	:	N
K ANNEX K, THERMAL CONTROLS		
ANNEX H, IONIZING RADIATION	:	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 EQUIPME		
ANNEX L,	:	P
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		
ANNEX M,	:	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, IMPULES TEST GENERATORS		
ANNEX N,	:	N
N.1		
ITU-T impulse test generators	:	N
N.2		
IEC 60065 impulse test generator	:	N
P ANNEX P, NORMATIVE REFERENCES		
ANNEX P,	:	P
R ANNEX R, EXASMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		
ANNEX R,	:	N
R.1		
Minimum separation distances for unpopulated coated printed boards	:	N
R.2		
Reduced clearances	:	N
S ANNEX S, PROCEDURE FOR IMPULSE TESTING		
ANNEX S,	:	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		
ANNEX T,	:	N
See separate test report	:	--
U ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		
ANNEX U,	:	N
See separate test report	:	--

Clause 1.5.1 Table: List of Critical Components

The equipment meets standard

Object/Part No.	Manufacturer/ Trademark	Type/Model	Technical Data	Standard	Mark(s) of Conformity

Clause 1.6.2 Table: Electrical Data (in normal conditions) N

Fuse #	Irated (A)	U(V)	P(W)	I(A)	If use (mA)	Conditions/Status

Clause 2.10.3 and 2.10.4 Table: Clearance and Creepage Distance Measurements

Clearance and Creepage Distance dcr at/of:	Up (V)	Ur.m.s. (V)	Required cl (mm)	Cl (mm)	Required dcr (mm)	Dcr (mm)
Test Result:	N					

Note: Creepage distance and clearances between primary and secondary are all in approved switching power supply.

Clause 2.10.5 Table: Distance Through Insulation Measurements

Distance Through Insulation di at/of:	U.r.m.s. (V)	Test Voltage (V)	Required di (mm)	Di (mm)
Test Result:	N			

Note: In approved switching power supply.

Clause 4.5 Table: Maximum temperatures N

Test voltage (V)						
Tamb1 (°C)						
Tamb2 (°C)						

Maximum temperature T of part/at:		T(°C)				Allowed Tmax (°C)
Temperature T of winding	R1	R2	T(°C)	Allowed Tmax (°C)	Insulation class	
	N					

Clause 4.5.2 Table: ball pressure test of thermoplastic parts

Allowed impression diameter (mm)	≤2mm	Comments
Part	Test temperature °C)	Impression diameter (mm)
Test Result:	N	

Clause 4.7 Table: resistance to fire

Location	Manufacturer of material	Type of material	Thickness	Flammability class
Test Result:	N			

Clause 5.2 Table: Electric Strength Measurements

Test Voltage Applied Between:	Test Voltage (V)	Breakdown
Test Result:	N	

Clause 5.3 Table: Fault Condition Tests: N

Ambient Temperature (°C)		
Model/type of Power Supply		
Manufacturer of Power Supply		
Rated marking of Power Supply		

Component No.	Fault	Test Voltage (V)	Test Time	Fuse No.	Fuse Current (A)	Result
				--		
				--		

5. Photograph - EUT

Please refer to report# KSZ2007122402L01

6. CE Label

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.



The Label must not be a stick-on paper label. The Label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Proposed Label Location on EUT

EUT Bottom View/Proposed CE Label Location

