

MICRO-STAR INTERNATIONAL.CO.,LTD

EC DECLARATION OF CONFORMITY

Product: Bluetooth 2.0+EDR USB module

Type Designation: MS-6837D

Manufacturer : MICRO-STAR INT'L CO., LTD
Address : NO.69,LI-DE ST,JUNG-HE CITY,

TAIPEI HSIEN, TAIWAN

TEL : 886-2-3234-5599 *FAX* : 886-2-3234-5416

The Designed product is in conformity with European Directive

73/23/EEC including amandements



"Council Directive of 19 February 1973 on the harmonization of the laws of the members relating to electrical equipment designed for use within certain voltage limits"

Full compliance with the standards listed below proves the conformity of the designated product with the provisions of the above-mentioned EC Directive

EN 60950-1:2001

File reference : 20060323-1

Year of CE marking:2006

Responsible for making this declaration is the:

Manufacturer Authorized representative established within the EU

Authorized representative established within the EU(if applicable):

Company name : Company address :

Person responsible for making this declaration

Name, Surname : Dessy Li

Position :Safety Engineer

Taiwan March23,2006 (company stamp and Legal signature)

MICRO-STAR INT'CO,.LTD TEL: 886-2-3234-5599 FAX: 886-2-3234-5416



Test Report No.: 20060323-1 Model / type designation: MS-6837D / Bluetooth 2.0+EDR USB module Rating(s): 5 Vdc.60mA Standards: EN 60950-1 Applicant Name and MICRO-STAR INTERNATIONAL CO LTD Address: 69 LI-DE ST **CHUNG HO** 235 TAIWAN Factory Location(s): MSI ELECTRONICS (KUNSHAN) CO LTD 88 E QUANJIN RD KUNSHAN CITY ,JIANGSU 215300 **CHINA** MSI COMPUTER (SHENZHEN) CO LTD LONGMA INFORMATION TECHNOLOGY IND PARK TANGTOU VILLAGE. SHIYAN TOWN **BAO'AN DISTRICT** SHENZHEN GUANGDONG, CHINA MICRO-STAR INTERNATIONAL CO., LTD 488 BAN NAN ST **CHUNG HO CITY** TAIPEI HSIEN 235, TAIWAN STAR ELECTRONICS (KUNSHAN) CO LTD 66 E QIANJIN RD **KUNSHAN CITY** JIANGSU 215300, CHINA Test by: Reviewed by: Dopline Chang signature Signature

Other Aspect:

The completed test report includes the following documents:

EN 60950-1 report

Abbreviations:
Pass =passed
Fail =failed

N/A =not applicable

This test report relates to the following test report conducted by MSI engineer. Without

Permission of the MSI is not permitted to be duplicated in extracts. This test report doesn't entitle to carry any safety mark on this or similar products

MICRO-STAR INT'L CO.,LTD ISSUED DATE :2006/03/23



TEST REPORT EN 60950-1

Information Technology Equipment - Safety

Vapline Chang

Report Reference No: 20060323-1

Compiled by (+ signature).....: Daphne Cheng

Reviewed by (+ signature): Dessy Li

Date of issue See cover sheet

Test Place/Location Micro-Star Int'l Co.,LTD

Applicant's Name MICRO-STAR INTERNATIONAL CO LTD

69 LI-DE ST

Address JUNG- HO CITY

235 TAIWAN

Test specification:

Standard: EN 60950-1:2001

Test procedure : Service of CE Marking in LVD

Model /Type reference...... MS-6837D

Manufacturer.....: Same as applicant

Micro-Star Int'l Co.,Ltd

Rating 5 Vdc

Test item particular :

Equipment mobility...... Built-in equipment

Operation condition.....: Continuous

Test for IT power system.....: No
IT testing ,phase-phase voltage (V)..: N/A
Class of equipment.....: Class III
Mass of Equipment.....: < 1Kg

MICRO-STAR INT'L CO.,LTD ISSUED DATE :2006/03/23



Protection against ingress of water...: IP20

Possible test case verdicts....:

- test object doesn't meet the requirement.....:PASS
- test object does not meet the requirement...:FAIL

"(see remark #)"refer to a remark appended to the report

"(see remark #)"refers to an annex appended to the report

A point is used as the decimal separator in this report

The test result presented in this report only related to the object tested

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General Product information:

Product description:

- Those equipment models MS-6837D is Bluetooth module that built-in the Notebook for information technology equipment
- Maximum operation ambient 70 degree C

Additional Information:

Comments:

N/A

Copy of Marking Plate:

MSI

Bluetooth 2.0+EDR USB module

Model: MS-6837D

Rating: 5Vdc

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1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950 or relevant component standard	(See appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this Standard. Components not certified are used in accordance with their ratings and they comply with applicable parts of IEC 60950 and the relevant component Standard. Components, for which no relevant IEC Standard exist, have been tested under the conditions occurring in the equipment, using applicable parts of IEC 60950.	Pass
1.5.3	Thermal controls		N/A
1.5.4	Transformers	Evaluated as part of power supply.	N/A
1.5.5	Interconnecting cables	USB cable for signal connected to PC or Notebook is carrying only SELV on an energy level below 240VA	Pass
1.5.6	Capacitors in primary circuits	Evaluated as part of power supply.	N/A
1.5.7	Double insulation or reinforced insulation bridged by components	Evaluated as part of power supply.	N/A
1.5.7.1	General		N/A
1.5.7.2	Bridging capacitors		N/A
1.5.7.3	Bridging resistors		N/A
1.5.7.4	Accessible parts		N/A
1.5.8	Components in equipment for IT power systems	Equipment is not connected directly connected to the AC mains supply	N/A



1.6	Power interface		Pass
1.6.1	AC power distribution systems	Equipment is not connected directly connected to the AC mains supply	N/A
1.6.2	Input current	The equipment was built-in equipment ,so estimate in finishing product	N/A
1.6.3	Voltage limit of hand-held equipment		N/A
1.6.4	Neutral conductor		N/A

1.7	Marking and instructions		Pass
1.7.1	Power rating	See Below	Pass
	Rated voltage(s) or voltage range(s) (V):	5Vdc	N/A
	Symbol for nature of supply, for d.c. only:	No direct connection to AC mains supply	N/A
	Rated frequency or rated frequency range (Hz):	DC only	Pass
	Rated current (mA or A):	60mA	Pass
	Manufacturer's name or trademark or identification mark:	Micro-Star International Co., Ltd. / MSI	Pass
	Type/model or type reference:	Bluetooth 2.0+EDR USB module / MS-6837D	Pass
	Symbol for Class II equipment only:	Unit is Class III	N/A
	Other symbols:	Additional symbols may be provided when submitted for National Approval.	Pass
	Certification marks:	See copy of marking plate	Pass
1.7.2	Safety instructions	Operating/safety instructions made available to the user.	Pass
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment:	No voltage/frequency setting	N/A
1.7.5	Power outlets on the equipment:		N/A
1.7.6	Fuse identification:	No fuse	N/A
1.7.7	Wiring terminals		N/A
1.7.7.1	Protective earthing and bonding terminals:	No direct connection to AC mains supply	N/A
1.7.7.2	Terminal for a.c. mains supply conductors	No direct connection to AC mains supply	N/A
1.7.7.3	Terminals for d.c. mains supply conductors	No DC mains supply	N/A



1.7.8	Controls and indicators	No safety relavant switch or control	N/A
1.7.8.1	Identification, location and marking:		N/A
1.7.8.2	Colours:		N/A
1.7.8.3	Symbols according to IEC 60417:		N/A
1.7.8.4	Markings using figures	No indicatiors for different positions	N/A
1.7.9	Isolation of multiple power sources:	Class III equipment. No supply to main	N/A
1.7.10	IT power distribution systems	Class III equipment. No supply to main	N/A
1.7.11	Thermostats and other regulating devices	No adjustable thermostats	N/A
1.7.12	Language:	May be provided in other languages upon request from the manufacturer. User manual and marking label are in english	Р
1.7.13	Durability	The marking(s) withstood the required test.	Pass
1.7.14	Removable parts	No required marking placed on moveable part	N/A
1.7.15	Replaceable batteries	No replaceable batteries provided	N/A
	Language:		-
1.7.16	Operator access with a tool:	No operator access area with tool	N/A
1.7.17	Equipment for restricted access locations:	No restricted access location	N/A

2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas See below		Pass
2.1.1.1	Access to energized parts	No energized parts	N/A
	Test by inspection	Dto	N/A
	Test with test finger	Dto	N/A
	Test with test pin	Dto	N/A
	Test with test probe	no TNV circuit	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring	No ELV wiring in operator	N/A

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		accessible area	
	Working voltage (V); minimum distance (mm) through insulation		-
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area	N/A
2.1.1.5	Energy hazards	No energy hazard operator area	Pass
2.1.1.6	Manual controls	No manual control	N/A
2.1.1.7	Discharge of capacitors in equipment		N/A
	Time-constant (s); measured voltage (V)		-
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations	It's not intended to be used in restricted locations	N/A

2.2	SELV circuits		Pass
2.2.1	General requirements	The secondary circuits were tested as SELV.	Pass
2.2.2	Voltages under normal conditions (V):	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V):	Under fault conditions voltage never exceed 71 Vp and 120 Vdc and do not exceed 42.4 Vp or 60 Vdc for more than 0.2 sec.	Pass
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Evaluated as part of power supply.	N/A
2.2.3.2	Separation by earthed screen (method 2)		N/A
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		N/A
2.2.4	Connection of SELV circuits to other circuits:	The SELV circuits are not connected to circuits other than protective earth and other SELV circuits.	Pass

2.3	TNV circuits		N/A
2.3.1	Limits		N/A
	Type of TNV circuits:		-



2.3.2	Separation from other circuits and from accessible parts	N/A
	Insulation employed:	-
2.3.3	Separation from hazardous voltages	N/A
	Insulation employed:	-
2.3.4	Connection of TNV circuits to other circuits	N/A
	Insulation employed:	-
2.3.5	Test for operating voltages generated externally	N/A

2.4	Limited current circuits	N/A
2.4.1	General requirements	N/A
2.4.2	Limit values	N/A
	Frequency (Hz)	-
	Measured current (mA)	-
	Measured voltage (V)	-
	Measured capacitance (mF)	-
2.4.3	Connection of limited current circuits to other circuits	N/A

2.5	Limited power sources	N/A
	Inherently limited output	N/A
	Impedance limited output	N/A
	Overcurrent protective device limited output	N/A
	Regulating network limited output under normal operating and single fault condition	N/A
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition	N/A
	Output voltage (V), output current (A), apparent power (VA):	-
	Current rating of overcurrent protective device (A)	-

- 1			
	2.6	Provisions for earthing and bonding	N/A
		Class III equipment	

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2.6.1	Protective earthing	N/A
2.6.2	Functional earthing	N/A
2.6.3	Protective earthing and protective bonding conductors	N/A
2.6.3.1	General	N/A
2.6.3.2	Size of protective earthing conductors	N/A
	Rated current (A), cross-sectional area (mm2), AWG:	-
2.6.3.3	Size of protective bonding conductors	N/A
	Rated current (A), cross-sectional area (mm2), AWG:	-
2.6.3.4	Resistance (Ohm) of earthing conductors and their terminations, test current (A)	N/A
2.6.3.5	Colour of insulation:	N/A
2.6.4	Terminals	N/A
2.6.4.1	General	N/A
2.6.4.2	Protective earthing and bonding terminals	N/A
	Rated current (A), type and nominal thread diameter (mm):	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	N/A
2.6.5	Integrity of protective earthing	N/A
2.6.5.1	Interconnection of equipment	N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	N/A
2.6.5.3	Disconnection of protective earth	N/A
2.6.5.4	Parts that can be removed by an operator	N/A
2.6.5.5	Parts removed during servicing	N/A
2.6.5.6	Corrosion resistance	N/A
2.6.5.7	Screws for protective bonding	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system	N/A

2.7	Overcurrent and earth fault protection in primary circuits		N/A
2.7.1	Basic requirements		N/A



	Instructions when protection relies on building installation	N/A
2.7.2	Faults not covered in 5.3	N/A
2.7.3	Short-circuit backup protection	N/A
2.7.4	Number and location of protective devices:	N/A
2.7.5	Protection by several devices	N/A
2.7.6	Warning to service personnel	N/A
2.8	Safety interlocks	N/A
2.8.1	General principles	N/A
2.8.2	Protection requirements	N/A
2.8.3	Inadvertent reactivation	N/A
2.8.4	Fail-safe operation	N/A
2.8.5	Moving parts	N/A
2.8.6	Overriding	N/A
2.8.7	Switches and relays	N/A
2.8.7.1	Contact gaps (mm)	N/A
2.8.7.2	Overload test	N/A
2.8.7.3	Endurance test	N/A
2.8.7.4	Electric strength test	N/A
2.8.8	Mechanical actuators	N/A
2.9	Electrical insulation	N/A
2.9.1	Properties of insulating materials	N/A
2.9.2	Humidity conditioning	N/A
	Humidity (%)	-
	Temperature (°C)	-
2.9.3	Grade of insulation	N/A
2.10	Clearances, creepage distances and distances through insulation Class III equipment	N/A
2.10.1	General	N/A
2.10.2	Determination of working voltage	N/A



2.10.3	Clearances	N/A
2.10.3.1	General	N/A
2.10.3.2	Clearances in primary circuit	N/A
2.10.3.3	Clearances in secondary circuits	N/A
2.10.3.4	Measurement of transient voltage levels	N/A
2.10.4	Creepage distances	N/A
	CTI tests	-
2.10.5	Solid insulation	N/A
2.10.5.1	Minimum distance through insulation	N/A
2.10.5.2	Thin sheet material	N/A
	Number of layers (pcs)	-
	Electric strength test	-
2.10.5.3	Printed boards	N/A
	Distance through insulation	N/A
	Electric strength test for thin sheet insulating material	-
	Number of layers (pcs)	N/A
2.10.5.4	Wound components	N/A
	Number of layers (pcs)	N/A
	Two wires in contact inside wound component; angle between 45° and 90°	N/A
2.10.6	Coated printed boards	N/A
2.10.6.1	General	N/A
2.10.6.2	Sample preparation and preliminary inspection	N/A
2.10.6.3	Thermal cycling	N/A
2.10.6.4	Thermal ageing (°C)	N/A
2.10.6.5	Electric strength test	-
2.10.6.6	Abrasion resistance test	N/A
	Electric strength test	-
2.10.7	Enclosed and sealed parts	N/A
	Temperature T1=T2 = Tma - Tamb +10K (°C):	N/A
2.10.8	Spacings filled by insulating compound:	N/A
	Electric strength test:	-

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2.10.9	Component external terminations	N/A
2.10.10	Insulation with varying dimensions	N/A

3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection		N/A
3.1.2	Protection against mechanical damage		N/A
3.1.3	Securing of internal wiring		N/A
3.1.4	Insulation of conductors		N/A
3.1.5	Beads and ceramic insulators	Not used	N/A
3.1.6	Screws for electrical contact pressure	No such screw	N/A
3.1.7	Insulating materials in electrical connections		N/A
3.1.8	Self-tapping and spaced thread screws	No self-tapping or spaced thread screws used	N/A
3.1.9	Termination of conductors		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring	Not used	N/A

3.2	Connection to an a.c. mains supply or a d.c. mains supply Class III equipment	
3.2.1	Means of connection	N/A
3.2.1.1	Connection to an a.c. mains supply	N/A
3.2.1.2	Connection to a d.c. mains supply	N/A
3.2.2	Multiple supply connections	N/A
3.2.3	Permanently connected equipment	N/A
	Number of conductors, diameter (mm) of cable and conduits	-
3.2.4	Appliance inlets	N/A
3.2.5	Power supply cords	N/A
3.2.5.1	AC power supply cords	N/A
	Туре	-
	Rated current (A), cross-sectional area (mm²), AWG:	-



3.2.5.2	DC power supply cords	N/A
3.2.6	Cord anchorages and strain relief	N/A
	Mass of equipment (kg), pull (N)	-
	Longitudinal displacement (mm):	-
3.2.7	Protection against mechanical damage	N/A
3.2.8	Cord guards	N/A
	D (mm); test mass (g)	-
	Radius of curvature of cord (mm)	-
3.2.9	Supply wiring space	N/A

3.3	Wiring terminals for connection of external conductors	N/A
3.3.1	Wiring terminals	N/A
3.3.2	Connection of non-detachable power supply cords	N/A
3.3.3	Screw terminals	N/A
3.3.4	Conductor sizes to be connected	N/A
	Rated current (A), cord/cable type, cross-sectional area (mm²)	-
3.3.5	Wiring terminal sizes	N/A
	Rated current (A), type and nominal thread diameter (mm)	-
3.3.6	Wiring terminals design	N/A
3.3.7	Grouping of wiring terminals	N/A
3.3.8	Stranded wire	N/A

3.4	Disconnection from the mains supply	N/A
3.4.1	General requirement	N/A
3.4.2	Disconnect devices	N/A
3.4.3	Permanently connected equipment	N/A
3.4.4	Parts which remain energized	N/A
3.4.5	Switches in flexible cords	N/A
3.4.6	Single-phase equipment and d.c. equipment	N/A
3.4.7	Three-phase equipment	N/A



3.4.8	Switches as disconnect devices	N/A
3.4.9	Plugs as disconnect devices	N/A
3.4.10	Interconnected equipment	N/A
3.4.11	Multiple power sources	N/A

3.5	Interconnection of equipment		N/A
3.5.1	General requirements See below		N/A
3.5.2	Types of interconnection circuits		N/A
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection	N/A

4	PHYSICAL REQUIREMENTS	N/A
4.1	Stability	N/A
	Angle of 10°	N/A
	Test: force (N)	N/A

4.2	Mechanical strength	N/A
4.2.1	General	N/A
4.2.2	Steady force test, 10 N	N/A
4.2.3	Steady force test, 30 N	N/A
4.2.4	Steady force test, 250 N	N/A
4.2.5	Impact test	N/A
	Fall test	N/A
	Swing test	N/A
4.2.6	Drop test	N/A
4.2.7	Stress relief test	N/A
4.2.8	Cathode ray tubes	N/A
	Picture tube separately certified	N/A
4.2.9	High pressure lamps	N/A
4.2.10	Wall or ceiling mounted equipment; force (N):	N/A



4.3	Design and construction		Pass
4.3.1	Edges and corners		N/A
4.3.2	Handles and manual controls; force (N):		N/A
4.3.3	Adjustable controls		N/a
4.3.4	Securing of parts		N/A
4.3.5	Connection of plugs and sockets		N/A
4.3.6	Direct plug-in equipment		N/A
	Dimensions (mm) of mains plug for direct plug-in:		N/A
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N):		N/A
4.3.7	Heating elements in earthed equipment	No heating element	N/A
4.3.8	Batteries		N/A
4.3.9	Oil and grease	No oil or grease	N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids	No flammable fluid	N/A
	Quantity of liquid (I)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation; type of radiation		N/A
4.3.13.1	General		N/A
4.3.13.2	lonizing radiation		N/A
	Measured radiation (pA/kg)		-
	Measured high-voltage (kV)		-
	Measured focus voltage (kV)		-
	CRT markings		-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation:		N/A
4.3.13.5	Laser (including LEDs)		N/A
	Laser class		-
4.3.13.6	Other types		N/A



4.4	Protection against hazardous moving parts	N/A
4.4.1	General	N/A
4.4.2	Protection in operator access areas	N/A
4.4.3	Protection in restricted access locations	N/A
4.4.4	Protection in service access areas	N/A

4.5	Thermal requirements	N/A
4.5.1	Maximum temperatures	N/A
	Normal load condition per Annex L:	N/A
4.5.2	Resistance to abnormal heat	N/A

4.6	Openings in enclosures The equipment was built-in equipment		N/A
4.6.1	Top and side openings	No openings	N/A
	Dimensions (mm)		-
4.6.2	Bottoms of fire enclosures	No openings.	N/A
	Construction of the bottom		-
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment	No openings	N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks)		-

4.7	Resistance to fire		Pass
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes	Pass
4.7.2	Conditions for a fire enclosure	Built-in equipment	N/A
4.7.2.1	Parts requiring a fire enclosure	Built-in equipment	N/A
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Pass
4.7.3.1	General	PCB rated V-1 or better	Pass
4.7.3.2	Materials for fire enclosures	See 4.7.2.1	N/A



4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal part components except small parts are V-2 ,HF-2 or better	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED	O ABNORMAL CONDITIONS	N/A
5.1	Touch current and protective conductor current		N/A
5.1.1	General		N/A
5.1.2	Equipment under test (EUT)		N/A
5.1.3	Test circuit		N/A
5.1.4	Application of measuring instrument		N/A
5.1.5	Test procedure		N/A
5.1.6	Test measurements		N/A
	Test voltage (V)		-
	Measured touch current (mA)		-
	Max. allowed touch current (mA)	3	-
	Measured protective conductor current (mA)		-
	Max. allowed protective conductor current (mA):		-
5.1.7	Equipment with touch current exceeding 3.5 mA:		N/A
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks	No TNV circuit	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system	No TNV circuit	N/A
	Test voltage (V)		-
	Measured touch current (mA)		-
	Max. allowed touch current (mA)		-
5.1.8.2	Summation of touch currents from telecommunication networks:		N/A

5.2	Electric strength	N/A	
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	Class III equipment	
5.2.1	General	N/A
5.2.2	Test procedure	N/A

5.3	Abnormal operating and fault conditions	N/A
5.3.1	Protection against overload and abnormal operation	N/A
5.3.2	Motors .	N/A
5.3.3	Transformers	N/A
5.3.4	Functional insulation:	N/A
5.3.5	Electromechanical components	N/A
5.3.6	Simulation of faults	N/A
5.3.7	Unattended equipment	N/A
5.3.8	Compliance criteria for abnormal operating and fault conditions	N/A

6	CONNECTION TO TELECOMMUNICATION NETWORKS	
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment	
6.1.1	Protection from hazardous voltages	
6.1.2	Separation of the telecommunication network from earth	
6.1.2.1	Requirements	
	Test voltage (V)	-
	Current in the test circuit (mA)	
6.1.2.2	Exclusions	N/A

6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A

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6.3	Protection of the telecommunication wiring system from overheating	
	Max. output current (A)	-
	Current limiting method:	-

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS	
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	
7.2	Protection of equipment users from overvoltages on the cable distribution system	N/A
7.3	Insulation between primary circuits and cable distribution systems	N/A
7.3.1	General	N/A
7.3.2	Voltage surge test	N/A
7.3.3	Impulse test	N/A

Α	Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE	
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)	
A.1.1	Samples	-
	Wall thickness (mm)	-
A.1.2	Conditioning of samples; temperature (°C)	N/A
A.1.3	Mounting of samples	N/A
A.1.4	Test flame	N/A
A.1.5	Test procedure	N/A
A.1.6	Compliance criteria	N/A
	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	N/A
	mass not exceeding 18 kg, and for material and components located inside	

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	fire enclosures (see 4.7.3.2 and 4.7.3.4)	
A.2.1	Samples, material:	-
	Wall thickness (mm)	-
A.2.2	Conditioning of samples	N/A
A.2.3	Mounting of samples	N/A
A.2.4	Test flame	N/A
A.2.5	Test procedure	N/A
A.2.6	Compliance criteria	N/A
	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/A
	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)	
A.3.1	Mounting of samples	N/A
A.3.2	Test procedure	N/A
A.3.3	Compliance criterion	N/A

В	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS(see 4.7.2.2 and 5.3.2)	
B.1	General requirements	N/A
	Position	_
	Manufacturer	-
	Туре:	-
	Rated values	1
B.2	Test conditions	N/A
B.3	Maximum temperatures	N/A
B.4	Running overload test	N/A



B.5	Locked-rotor overload test	N/A
	Test duration (days)	-
	Electric strength test: test voltage (V):	-
B.6	Running overload test for d.c. motors in secondary circuits	N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits	N/A
B.7.1	Test procedure	N/A
B.7.2	Alternative test procedure; test time (h):	N/A
B.7.3	Electric strength test	N/A
B.8	Test for motors with capacitors	N/A
B.9	Test for three-phase motors	N/A
B.10	Test for series motors	N/A
	Operating voltage (V):	-

С	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)	N/A
	Position	-
	Manufacturer	-
	Type:	-
	Rated values	-
	Method of protection	-
C.1	Overload test	N/A
C.2	Insulation	N/A
	Protection from displacement of windings:	N/A

D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS		N/A
D.1	Measuring instrument		N/A
D.2	Alternative measuring instrument		N/A

E Annex E, TEMPERATURE RISE OF A WINDING N/A	Ε	Е	Annex E, TEMPERATURE RISE OF A WINDING	N/A
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F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES	N/A
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	(see 2.10)					
G	Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES	N/A				
G.1	Summary of the procedure for determining minimum clearances	N/A				
G.2	Determination of mains transient voltage (V)	N/A				
G.2.1	AC mains supply	N/A				
G.2.2	DC mains supply	N/A				
G.3	Determination of telecommunication network transient voltage (V) ::					
G.4	Determination of required withstand voltage (V):	N/A				
G.5	Measurement of transient levels (V):	N/A				
G.6	Determination of minimum clearances:					
Н	ANNEX H, IONIZING RADIATION (see 4.3.13)	N/A				
J	Annex J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)	N/A				
	Metal used:	-				
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)	N/A				
K.1	Making and breaking capacity	N/A				
K.2	Thermostat reliability; operating voltage (V)	N/A				
K.3	Thermostat endurance test; operating voltage (V)	N/A				
K.4	Temperature limiter endurance; operating voltage (V)	N/A				
K.5	Thermal cut-out reliability	N/A				

N/A

Stability of operation

K.6



L	Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)			
L.1	Typewriters	N/A		
L.2	Adding machines and cash registers	N/A		
L.3	Erasers	N/A		
L.4	Pencil sharpeners	N/A		
L.5	Duplicators and copy machines	N/A		
L.6	Motor-operated files	N/A		
L.7	Other business equipment	N/A		

M	Annex M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)	N/A
M.1	Introduction	N/A
M.2	Method A	N/A
M.3	Method B	N/A
M.3.1	Ringing signal	N/A
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/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	N/A
M.3.2.2	Tripping device	N/A
M.3.2.3	Monitoring voltage (V)	N/A

	Annex N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)			
N.1	ITU-T impulse test generators			
N.2	IEC 60065 impulse test generator		N/A	

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Q	Annex Q, BIBLIOGRAPHY	N/A
R	Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES	N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6)	N/A
R.2	Reduced clearances (see 2.10.3)	N/A
S	Annex S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)	N/A
S.1	Test equipment	N/A
S.2	Test procedure	N/A
S.3	Examples of waveforms during impulse testing	N/A
Т	Annex T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)	N/A
		-
U	Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)	N/A
		_



1.5.1	1.5.1 TABLE: list of critical components							
object/part No.		manufacturer/ trademark	type/model	technical data			k(s) of formity ¹)	
PCB		Various	Various	V-1 min.,105 degree C	UL94	UL		
1) an asterish) an asterisk indicates a mark which assures the agreed level of surveillance							



Link to the Future									
1.6.2	TABLE	oloctrical	data (in n	ormal cond	litions\		N/A		
1.0.2	.6.2 TABLE: electrical data (in normal conditions)								
fuse #	I rated (A)	U (V)	P (W)	I (mA)	I fuse (mA)	condition/status			
supplen	supplementary information:								
- N/A									

2.5	2.5 TABLE: limited power source measurement							
		Limit	Measured	Verdict				
Uoc =V (mea	asured under no	o load condition)						
According to	According to table 8. for							
Current (A) < 8								
Power (VA) < 5*Uoc								

2.10.3 and 2.10.4 TABLE: clearance and creepage distance measurements							
cl and distance dcr	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)	
supplementary information:							
	cl and distance dcr	cl and Up distance dcr (V)	cl and Up U r.m.s. distance dcr (V) (V)	cl and Up U r.m.s. required distance dcr (V) (V) cl (mm)	cl and Up U r.m.s. required cl (mm) distance dcr (V) (V) cl (mm)	cl and distance dcr	

2.10.5	TABLE: distance through insulation measurements				
distance through insulation di at/of:		Up (V)	test voltage required di (V) (mm)		di (mm)
suppleme	ntary information:				



4.5 TABLE: temperature rise measurements						Pass	
	test voltage (V)	See below					_
	t1 (°C)						_
	t2 (°C)						_
maximum temperature T of part/at:		T (°C)					allowed Tmax (°C)
N1 1				1 20 0			
Note:	Above values will be calculated based on	tne sysi	em compi	<u>lea with thi</u>	s module	ı	
temperature T of winding:			$R_1(\Omega)$	$R_2(\Omega)$	T (°C)	allowed Tmax (°C)	insulation class
supplementary information:							
- the maximum ambient temperatures specified by manufacturer is 70 degree C							
-	-						

4.5.2	TABLE: ball pressure test of thermoplastics				
	allowed impression diameter (mm):	:		_	
part		test temperature (°C)		ression eter (mm)	
supplementary information:					

4.7	TABLE:	N/A				
part		manufacturer of material	type of material	thickness(mm)	flammability class	
					-	
supp	supplementary information:					
N/A	N/A					



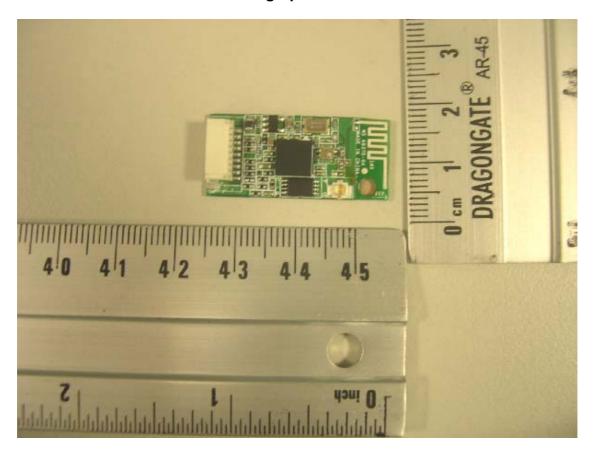
5.2	TABLE: electric strength tests, impulse tests and voltage surge tests						N/A	
test voltage applied between:					O ()			akdown s / No
suppleme	ntary informatio	n:						
N/A								
Г	1							<u></u>
5.3	5.3 TABLE: fault condition tests						N/A	
	ambient tempe	erature (°C)		:	25 degree C ,if not motherwise stated			_
	model/type of power supply:							_
	manufacturer of power supply:							_
	rated markings of power supply::						_	
compone nt No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result		
suppleme	ntary informatio	n:						



Enclosure Photographs

Supplement Id	Description
3-01	Front side
3-02	Rear side
3-03	Antenna photo
3-04	Module Drawing

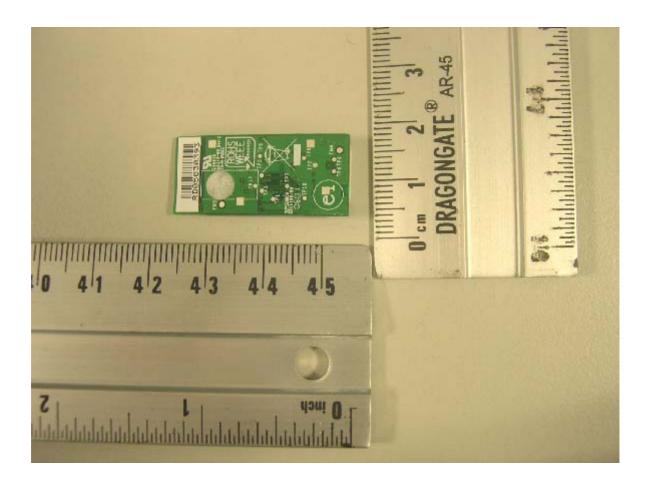
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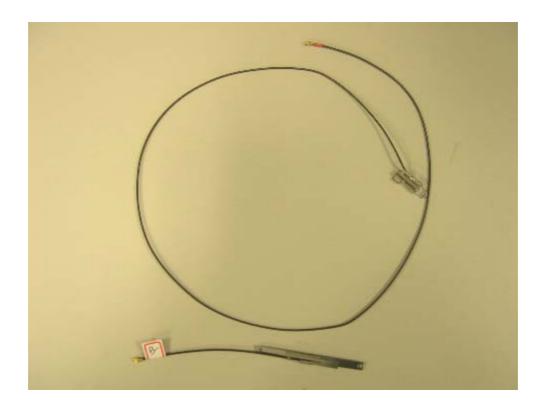


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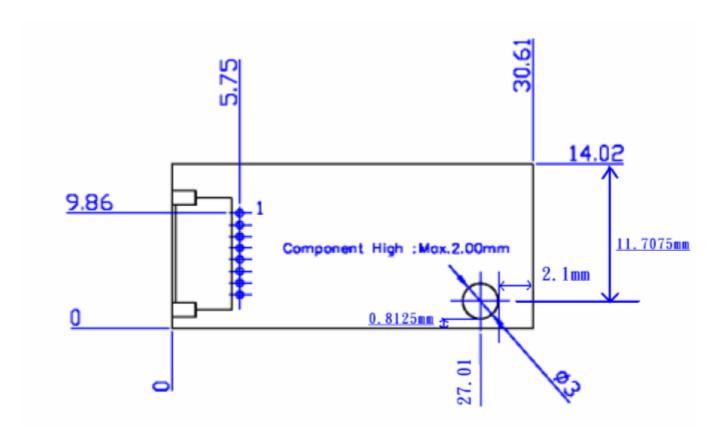


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