



TEST REPORT	
IEC 60950-1: 2005 (2nd Edition) and/or EN 60950-1:2006+A11:2009, Information technology equipment – Safety – Part 1: General requirements	
Report Reference No.	SH11010071-001
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Testing Laboratory	Intertek Testing Services Shanghai Limited
Address	Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China
Applicant's name	Shanghai Simcom Wireless Solution Ltd.
Address	Build A, No. 633 JinZhong Rd., ChangNing District Shanghai, PRC China
Manufacturer's name	Shanghai Simcom Wireless Solution Ltd.
Address	Build A, No. 633 JinZhong Rd., ChangNing District Shanghai, PRC China
Factory's name	Shanghai Simcom Wireless Solution Ltd.
Address	Build A, No. 633 JinZhong Rd., ChangNing District Shanghai, PRC China
Test specification:	
Standard	<input type="checkbox"/> IEC 60950-1:2005 (2nd Edition) and/or <input checked="" type="checkbox"/> EN 60950-1:2006+A11:2009
Test procedure	Test Report
Non-standard test method	N/A
Test Report Form No.	IECEN60950_1C
Test Report Form(s) Originator	SGS Fimko Ltd
Master TRF	Dated 2007-06
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Test item description	SIM20
Trade Mark	SIMCom

Model/Type reference	: SIM20-433
Ratings	: (3.0-3.6)Vd.c.

Testing procedure and testing location:	
<input checked="" type="checkbox"/> Testing Laboratory:	Intertek Testing Services Shanghai Limited
Testing location/ address	Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China
Tested by (name + signature).....	Valiant Sun 
Approved by (+ signature)	Justin Yu 
<input type="checkbox"/> Associated CB Laboratory:	
Testing location/ address	
<input type="checkbox"/> Testing procedure: TMP	
Tested by (name + signature)	
Approved by (+ signature)	
Testing location/ address	
<input type="checkbox"/> Testing procedure: WMT	
Tested by (name + signature).....	
Witnessed by (+ signature)	
Approved by (+ signature)	
Testing location/ address	
<input type="checkbox"/> Testing procedure: SMT	
Tested by (name + signature).....	
Approved by (+ signature)	
Supervised by (+ signature).....	
Testing location/ address	
<input type="checkbox"/> Testing procedure: RMT	
Tested by (name + signature).....	
Approved by (+ signature)	
Supervised by (+ signature).....	
Testing location/ address	

Summary of testing:

The equipment under test (EUT) fulfilled the test requirement according to the standard.

Tests performed (name of test and test clause):

The sample tested complies with the requirements of IEC 60950-1:2005 and EN 60950-1:2006+A11:2009

Testing location:

Intertek Testing Services Shanghai Limited
Building No.86, 1198 Qinzhou Road (North),
Shanghai 200233, China

Copy of marking plate (representative)

SIM20-433 marking plate:

SIM20-433 S2-1044H SIMCom
B01SIM20-433



SN:MP0610510000001

CE 0678

Made in China

Test item particulars	
Equipment mobility	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input checked="" type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains	<input type="checkbox"/> pluggable equipment <input type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input checked="" type="checkbox"/> not directly connected to the mains
Operating condition	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> services accessible <input type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<input checked="" type="checkbox"/> OVC I <input type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
Mains supply tolerance (%) or absolute mains supply values	N/A
Tested for IT power systems	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	<input type="checkbox"/> Class I <input type="checkbox"/> Class II <input checked="" type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating (A)	1.8Vd.c.
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	IPX0
Altitude during operation (m)	Max. 2000m
Altitude of test laboratory (m)	Max. 50m
Mass of equipment (kg)	Approx. 0.58g
Possible test case verdicts:	
- test case does not apply to the test object	N/A (not applicable)
- test object does meet the requirement	Pass
- test object does not meet the requirement	Fail
Testing	
Date of receipt of test item	2010-12-20
Date(s) of performance of tests	2010-12-20 ~ 2010-12-29

General remarks:

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

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"(See Enclosure #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Note: This TRF includes EN Group Differences together with National Differences and Special National Conditions, if any. All Differences are located in the Appendix to the main body of this TRF.

Throughout this report a point is used as the decimal separator.

Determination of the test result include consideration of measurement uncertainty from the test equipment and methods.

General product information:

The equipment submitted for tests is a SRD module (Type) which is mounted on a circuit board.

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General	Components which were found to affect safety aspects comply with the requirements of this standard or within the safety aspects of the relevant IEC/EN component standards.	Pass
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	Pass
1.5.3	Thermal controls	No thermal controls.	N/A
1.5.4	Transformers	See Annex C-Transformers.	N/A
1.5.5	Interconnecting cables	No such device within the EUT	N/A
1.5.6	Capacitors bridging insulation	No such component used.	N/A
1.5.7	Resistors bridging insulation	No such component used.	N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems	Not used for IT power systems.	N/A
1.5.9	Surge suppressors	No surge suppressors used	N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs		N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1.6	Power interface		N/A
1.6.1	AC power distribution systems	No primary circuit existed.	N/A
1.6.2	Input current	No connection to mains	N/A
1.6.3	Voltage limit of hand-held equipment	Class III equipment.	N/A
1.6.4	Neutral conductor	No primary circuit existed.	N/A

1.7	Marking and instructions		Pass
1.7.1	Power rating	See below.	N/A
	Rated voltage(s) or voltage range(s) (V)		N/A
	Symbol for nature of supply, for d.c. only		N/A
	Rated frequency or rated frequency range (Hz) ...	DC input.	N/A
	Rated current (mA or A)		N/A
	Manufacturer's name or trade-mark or identification mark	Shanghai Simcom Wireless Solution Ltd.	Pass
	Model identification or type reference	SIM20-433	Pass
	Symbol for Class II equipment only	Class III	N/A
	Other markings and symbols	No other markings and symbols	N/A
1.7.2	Safety instructions and marking	The specification provided that contains all necessary safety information such as the maximum ambient temperature etc.	Pass
1.7.2.1	General		N/A
1.7.2.2	Disconnect devices	No disconnect devices	N/A
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT power distribution systems		N/A
1.7.2.5	Operator access with a tool	No need.	N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles	Continuous operation.	N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.4	Supply voltage adjustment	No voltage/frequency setting.	N/A
	Methods and means of adjustment; reference to installation instructions		N/A
1.7.5	Power outlets on the equipment :	No standard power outlets.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	No fuse used.	N/A
1.7.7	Wiring terminals	No wiring terminals used.	N/A
1.7.7.1	Protective earthing and bonding terminals	Class III equipment.	N/A
1.7.7.2	Terminals for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators	No safety relevant control or indicator used.	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		N/A
1.7.9	Isolation of multiple power sources		N/A
1.7.10	Thermostats and other regulating devices	No such devices.	N/A
1.7.11	Durability	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15s and then again for 15s with the cloth soaked with petroleum spirit. After this test, there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting of the label edge.	N/A
1.7.12	Removable parts	No removable parts	N/A
1.7.13	Replaceable batteries		N/A
	Language(s)	English	—
1.7.14	Equipment for restricted access locations	Not intended for use in restricted access locations.	N/A
2	PROTECTION FROM HAZARDS		Pass

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1	Protection from electric shock and energy hazards		N/A
2.1.1	Protection in operator access areas	Class III equipment.	N/A
2.1.1.1	Access to energized parts		N/A
	Test by inspection		N/A
	Test with test finger (Figure 2A)		N/A
	Test with test pin (Figure 2B)		N/A
	Test with test probe (Figure 2C)		N/A
2.1.1.2	Battery compartments	No TNV circuits provided	N/A
2.1.1.3	Access to ELV wiring	Class III equipment.	N/A
	Working voltage (V_{peak} or V_{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	Class III equipment.	N/A
2.1.1.5	Energy hazards	Class III equipment.	N/A
2.1.1.6	Manual controls	No conductive handles, knobs.	N/A
2.1.1.7	Discharge of capacitors in equipment	Class III equipment.	N/A
	Measured voltage (V); time-constant (s):	(see appended table 2.1.1.7)	—
2.1.1.8	Energy hazards – d.c. mains supply	No energy hazards existed	N/A
	a) Capacitor connected to the d.c. mains supply ..:		N/A
	b) Internal battery connected to the d.c. mains supply		N/A
2.1.1.9	Audio amplifiers	No Audio amplifiers used.	N/A
2.1.2	Protection in service access areas	No energy hazards existed	N/A
2.1.3	Protection in restricted access locations	The unit is not intended to be used in restricted locations.	N/A
2.2	SELV circuits		Pass
2.2.1	General requirements	SELV circuit does not exceed 42.4 V peak or 60 V dc under normal operation or single fault condition.	Pass
2.2.2	Voltages under normal conditions (V)	Between any SELV circuits 42.4V peak or 60VDC are not exceeded. (see appended table)	Pass

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2.3	Voltages under fault conditions (V)	Limits of 71V peak and 120V DC were not exceed and SELV limits not for longer than 0.2 seconds. (see appended table)	Pass
2.2.4	Connection of SELV circuits to other circuits	No direct connection between SELV and any primary circuits.	Pass

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV circuits.	N/A
	Type of TNV circuits.....		—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions		N/A
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	No such limited current circuits.	N/A
2.4.2	Limit values	(See appended table 2.4.2)	N/A
	Frequency (Hz)	(See appended table 2.4.2)	—
	Measured current (mA).....	(See appended table 2.4.2)	—
	Measured voltage (V).....	(See appended table 2.4.2)	—
	Measured circuit capacitance (nF or μ F).....		—
2.4.3	Connection of limited current circuits to other circuits		N/A

2.5	Limited power sources		N/A
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	c) Regulating network limited output under normal operating and single fault condition	(See appended table 2.5)	N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	(See appended table 2.5)	—
	Current rating of overcurrent protective device (A) .:		—
2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	Class III equipment.	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 (mm ²), AWG..... :		—
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG..... :		—
	Protective current rating (A), cross-sectional area (mm ²), AWG..... :		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)..... :	(see appended table 2.6.3.4)	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, 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

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