



**CONFORMANCE TEST REPORT
FOR
Information technology equipment – Safety
Part 1: General requirements
EN 60950-1: 2001 + A11 : 2004**

Report No. : 60.860.6.106.01

Client : Aztech Systems Ltd.
Product : DECT Phone
Model /Type : H315-S1
Manufacturer /Supplier : Aztech Systems Ltd.

Date test samples received : 2006 / 05 / 08
Date test completed : 2006 / 05 / 16
Date of issue : 2006 / 07 / 22

The test results relate only to the item tested. The report shall not be reproduced, except in full, without the written approval of the test laboratory.

Tested by


A handwritten signature in blue ink, appearing to read 'Kevin Lee'.

Kevin Lee

Approved by

A handwritten signature in blue ink, appearing to read 'Jeff Pong'.

Jeff Pong

Testing laboratory	TUV SUD Hong Kong Ltd.		
Address	Unit 601, InnoCentre, 72 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong		
Equipment mobility	Movable (base), Hand-held (handset) equipment and associated power supply unit		
Operating condition	Continuous operation		
Class of equipment.....	Class III equipment (handset + base) (Remark: This unit is considered to be Class III equipment with TNV-3 circuit)		
Mass of equipment (kg)	0.19kg (excluding power supply and battery)		
Protection against ingress of water.....	Ordinary		
Test does not apply to the test object.....	N(A.)		
Test item does meet the requirement.....	P(ass)		
Test item does not meet the requirement	F(ail)		
Copy of Marking Plate:			
 <p>AC/AC ADAPTER Input: 230V/50Hz/45mA Output: 7.5V ~/350mA Model No. :AZ-075A351-EU</p> <p>CAUTION: FOR USE WITH INFORMATION TECHNOLOGY EQUIPMENT Vorsicht: Zur Verwendung mit Geräten der Informationstechnologie</p> <p>AZTECH COMMUNICATION DEVICE (DG) LTD</p>	<p>Manufacturer: Aztech Mod: H315 7.5V AC 350mA</p> <p><u>Base label</u></p>	<p>Manufacturer: Aztech Mod: H315 2.4V DC (2 x AAA 1.2V 750mA)</p> <p><u>Handset label</u></p>	
	<p>Manufacturer: Aztech Mod: HS315 7.5V AC 350mA</p> <p><u>Base label</u></p>	<p>Manufacturer: Aztech Mod: HS315 2.4V DC (2 x AAA 1.2V 750mA)</p> <p><u>Handset label</u></p>	
	<u>Power supply label</u>	<u>Base label</u>	<u>Handset label</u>
General descriptions:			
DECT Phone(Handset + Base) Model/Type: H315-S1			
The DECT phone consists of a portable base and a cordless handset. The base is supplied by a power supply of model AZ-075A351-EU while the handset is operated by two AAA size, 1.2V, Ni-MH type, cylindrical rechargeable batteries.			
The below test items apply to the base and handset only and not to the power supply unit as which is already certified by TÜV Rheinland according to EN60950-1.			
Appendix: 6 pages for product photographs			

Clause	Requirement-test	Result-Remark	Verdict
1	GENERAL		
1.5	Components		
1.5.1	General	(see appended table 1.5.1)	P
	Comply with IEC 60950 or relevant component standard	Certified power supply	P
1.5.2	Evaluation and testing of components		P
1.5.3	Thermal controls		N
1.5.4	Transformers		N
1.5.5	Interconnecting cables		N
1.5.6	Capacitors in primary circuits	No such components	N
1.5.7	Double insulation or reinforced insulation bridged by components		N
1.5.7.1	General		N
1.5.7.2	Bridging capacitors		N
1.5.7.3	Bridging resistors		N
1.5.7.4	Accessible parts	Class III	P
1.5.8	Components in equipment for IT power systems	Not for IT power systems	N
1.6	Power interface		P
1.6.1	AC power distribution systems	Certified power supply	P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	<250V	P
1.6.4	Neutral conductor		N
1.7	Marking and instructions		
1.7.1	Power rating		P
	Rated voltage(s) or voltage range(s) (V)	7.5Va.c. (Base)	P
	Symbol for nature of supply, for d.c. only		N
	Rated frequency or rated frequency range (Hz) :		N
	Rated current (mA or A)	350mA	P

Clause	Requirement-test	Result-Remark	Verdict
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	Manufacturer's name or trademark or identification mark	Aztech Systems Ltd.	P
	Type/model or type reference	H315-S1	P
	Symbol for Class II equipment only	Class III: Base and Handset	P
	Other symbols		N
	Certification marks		N
1.7.2	Safety instructions		N
1.7.3	Short duty cycles	Continuous operation	N
1.7.4	Supply voltage adjustment	No supply voltage adjustment	N
1.7.5	Power outlets on the equipment		N
1.7.6	Fuse identification		N
1.7.7	Wiring terminals		N
1.7.7.1	Protective earthing and bonding terminals	No earthing	N
1.7.7.2	Terminal for a.c. mains supply conductors	Plug-in power supply	N
1.7.7.3	Terminals for d.c. mains supply conductors		N
1.7.8	Controls and indicators	No controls and indicators	N
1.7.8.1	Identification, location and marking		N
1.7.8.2	Colours		N
1.7.8.3	Symbols according to IEC 60417.....		N
1.7.8.4	Markings using figures		N
1.7.9	Isolation of multiple power sources		N
1.7.10	IT power distribution systems	Not applied for IT power system	N
1.7.11	Thermostats and other regulating devices		N
1.7.12	Language	English	P
1.7.13	Durability		P
1.7.14	Removable parts	Marking not placed on removable part	P
1.7.15	Replaceable batteries		P
	Language.....	English	N
1.7.16	Operator access with a tool		N
1.7.17	Equipment for restricted access locations	No restricted access locations	N

Clause	Requirement-test	Result-Remark	Verdict
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2	PROTECTION FROM HAZARDS		
2.1	Protection from electric shock and energy hazards		
2.1.1	Protection in operator access areas		P
2.1.1.1	Access to energized parts	Hazardous energized parts protected	P
	Test by inspection	Hazardous energized parts protected	P
	Test with test finger	Hazardous energized parts protected	P
	Test with test pin	Hazardous energized parts protected	P
	Test with test probe	Hazardous energized parts protected	P
2.1.1.2	Battery compartments	TNV circuit not within battery compartment	N
2.1.1.3	Access to ELV wiring	No ELV circuit	N
	Working voltage (V); minimum distance (mm) through insulation		N
2.1.1.4	Access to hazardous voltage circuit wiring		N
2.1.1.5	Energy hazards	No hazardous energy level	P
2.1.1.6	Manual controls		N
2.1.1.7	Discharge of capacitors in equipment	No such components	N
	Time-constant (s); measured voltage (V)		N
2.1.2	Protection in service access areas		N
2.1.3	Protection in restricted access locations		N
2.2	SELV circuits		
2.2.1	General requirements		P
2.2.2	Voltages under normal conditions (V)	2x1.2Vd.c. (Handset)	P
		7.5Va.c. (Base)	
2.2.3	Voltages under fault conditions (V)	<71V peak (120Vd.c.)	P

Clause	Requirement-test	Result-Remark	Verdict
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Product supplied by SELV from certified power supply	P
2.2.3.2	Separation by earthed screen (method 2)		N
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		N
2.2.4	Connection of SELV circuits to other circuits		N
2.3	TNV circuits		
2.3.1	Limits		P
	Type of TNV circuits	TNV-3 circuit	P
2.3.2	Separation from other circuits and from accessible parts	See below	P
	Insulation employed	Basic insulation is provided between SELV and TNV-3 circuit	P
2.3.3	Separation from hazardous voltages		P
	Insulation employed	Certified power supply is provided and separated by reinforced or double insulation	P
2.3.4	Connection of TNV circuits to other circuits		N
	Insulation employed		N
2.3.5	Test for operating voltages generated externally		P
2.4	Limited current circuits		
2.4.1	General requirements	No LCC	N
2.4.2	Limit values		N
	Frequency (Hz)		N
	Measured current (mA).....		N
	Measured voltage (V)		N
	Measured capacitance (μ F)		N
2.4.3	Connection of limited current circuits to other circuits		N

Clause	Requirement-test	Result-Remark	Verdict
2.5	Limited power sources - Power supply is submitted to Limited power sources with EN60950-1: 2001. - Batteries is submitted to Limited power sources with EN60950-1: 2001.		
	Inherently limited output	(See appended table 2.5)	P
	Impedance limited output		N
	Overcurrent protective device limited output	No such device	N
	Regulating network limited output under normal operating and single fault condition		N
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		N
	Output voltage (V), output current (A), apparent power (VA)	(See appended table 2.5)	P
	Current rating of overcurrent protective device (A)		N
2.6	Provisions for earthing and bonding		
2.6.1	Protective earthing	Class III product with TNV-3 circuit	N
2.6.2	Functional earthing		N
2.6.3	Protective earthing and protective bonding conductors		N
2.6.3.1	General		N
2.6.3.2	Size of protective earthing conductors		N
	Rated current (A), cross-sectional area (mm ²), AWG		N
2.6.3.3	Size of protective bonding conductors		N
	Rated current (A), cross-sectional area (mm ²), AWG		N
2.6.3.4	Resistance (Ω) of earthing conductors and their terminations, test current (A)		N
	Colour of insulation.....		N
2.6.3.5	Terminals		N
2.6.4	General		N

Clause	Requirement-test	Result-Remark	Verdict
2.6.4.1	Protective earthing and bonding terminals		N
	Rated current (A), type and nominal thread diameter (mm).....:		N
2.6.4.2	Separation of the protective earthing conductor from protective bonding conductors		N
2.6.5	Integrity of protective earthing		N
2.6.5.1	Interconnection of equipment		N
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N
2.6.5.3	Disconnection of protective earth		N
2.6.5.4	Parts that can be removed by an operator		N
2.6.5.5	Parts removed during servicing		N
2.6.5.6	Corrosion resistance		N
2.6.5.7	Screws for protective bonding		N
2.6.5.8	Reliance on telecommunication network or cable distribution system		N
2.7	Overcurrent and earth fault protection in primary circuits		
2.7.1	Basic requirements	Class III product with TNV-3 circuit	N
	Instructions when protection relies on building installation		N
2.7.2	Faults not covered in 5.3		N
2.7.3	Short-circuit backup protection		N
2.7.4	Number and location of protective devices		N
2.7.5	Protection by several devices		N
2.7.6	Warning to service personnel		N
2.8	Safety interlocks	No safety interlocks	N
2.8.1	General principles		N
2.8.2	Protection requirements		N
2.8.3	Inadvertent reactivation		N

Clause	Requirement-test	Result-Remark	Verdict
2.8.4	Fail-safe operation		N
2.8.5	Moving parts		N
2.8.6	Overriding		N
2.8.7	Switches and relays		N
2.8.7.1	Contact gaps (mm)		N
2.8.7.2	Overload test		N
2.8.7.3	Endurance test		N
2.8.7.4	Electric strength test		N
2.8.8	Mechanical actuators		N
2.9	Electrical insulation		
2.9.1	Properties of insulating materials		P
2.9.2	Humidity conditioning	(See appended table 2.9.2)	P
	Humidity (%)		P
	Temperature (°C)		P
2.9.3	Grade of insulation	Base insulation between TNV-3 to unearthed SELV circuit. Others in functional insulation	P
2.10	Clearances, creepage distances and distances through insulation		
2.10.1	General		P
2.10.2	Determination of working voltage	2x1.2Vd.c. (Handset) 7.5Va.c. (Base)	P
2.10.3	Clearances		P
2.10.3.1	General		P
2.10.3.2	Clearances in primary circuit	Certified power supply	N
2.10.3.3	Clearances in secondary circuits	(See appended table 2.10.3)	P
2.10.3.4	Measurement of transient voltage levels		N
2.10.4	Creepage distances	(See appended table 2.10.4)	P
	CTI tests	Group IIIb	P
2.10.5	Solid insulation		N

Clause	Requirement-test	Result-Remark	Verdict
2.10.5.1	Minimum distance through insulation		N
2.10.5.2	Thin sheet material		N
	Number of layers (pcs)		N
	Electric strength test		N
2.10.5.3	Printed boards		N
	Distance through insulation		N
	Electric strength test for thin sheet insulating material		N
	Number of layers (pcs)		N
2.10.5.4	Wound components		N
	Number of layers (pcs)		N
	Two wires in contact inside wound component; angle between 45° and 90°		N
2.10.6	Coated printed boards		N
2.10.6.1	General		N
2.10.6.2	Sample preparation and preliminary inspection		N
2.10.6.3	Thermal cycling		N
2.10.6.4	Thermal ageing (°C)		N
2.10.6.5	Electric strength test		N
2.10.6.6	Abrasion resistance test		N
	Electric strength test		N
2.10.7	Enclosed and sealed parts	No such components	N
	Temperature $T_1=T_2 = T_{ma} - T_{amb} + 10K$ (°C)		N
2.10.8	Spacings filled by insulating compound		N
	Electric strength test		N
2.10.9	Component external terminations		N
2.10.10	Insulation with varying dimensions		N
3	WIRING, CONNECTIONS AND SUPPLY		
3.1	General		
3.1.1	Current rating and overcurrent protection		P

Clause	Requirement-test	Result-Remark	Verdict
3.1.2	Protection against mechanical damage	Wireway is free from sharp edges	P
3.1.3	Securing of internal wiring	Internal wiring was fixed by glue	P
3.1.4	Insulation of conductors		P
3.1.5	Beads and ceramic insulators		N
3.1.6	Screws for electrical contact pressure	No such components	N
3.1.7	Insulating materials in electrical connections	No electrical connections that rely on insulating material for adequate contact pressure	N
3.1.8	Self-tapping and spaced thread screws	No such components	N
3.1.9	Termination of conductors	All conductors connected by soldering	P
	10 N pull test		P
3.1.10	Sleeving on wiring	No sleeving is used	N
3.2	Connection to an a.c. mains supply or a d.c. mains supply		
3.2.1	Means of connection	Class III product	N
3.2.1.1	Connection to an a.c. mains supply		N
3.2.1.2	Connection to a d.c. mains supply		N
3.2.2	Multiple supply connections	Single supply connection	N
3.2.3	Permanently connected equipment	Not a permanently connected equipment	N
	Number of conductors, diameter (mm) of cable and conduits		N
3.2.4	Appliance inlets		N
3.2.5	Power supply cords		N
3.2.5.1	AC power supply cords		N
	Type.....		N
	Rated current (A), cross-sectional area (mm ²), AWG		N
3.2.5.2	DC power supply cords		N
3.2.6	Cord anchorages and strain relief		N

Clause	Requirement-test	Result-Remark	Verdict
	Mass of equipment (kg), pull (N)		N
	Longitudinal displacement (mm)		N
3.2.7	Protection against mechanical damage		N
3.2.8	Cord guards		N
	D (mm); test mass (g)		N
	Radius of curvature of cord (mm).....		N
3.2.9	Supply wiring space		N
3.3	Wiring terminals for connection of external conductors		
3.3.1	Wiring terminals	No such components	N
3.3.2	Connection of non-detachable power supply cords		N
3.3.3	Screw terminals		N
3.3.4	Conductor sizes to be connected		N
	Rated current (A), cord/cable type, cross-sectional area (mm ²)		N
3.3.5	Wiring terminal sizes		N
	Rated current (A), type and nominal thread diameter (mm)		N
3.3.6	Wiring terminals design		N
3.3.7	Grouping of wiring terminals		N
3.3.8	Stranded wire		N
3.4	Disconnection from the mains supply.		
3.4.1	General requirement	Class III product	N
3.4.2	Disconnect devices		N
3.4.3	Permanently connected equipment		N
3.4.4	Parts which remain energized		N
3.4.5	Switches in flexible cords		N
3.4.6	Single-phase equipment and d.c. equipment		N
3.4.7	Three-phase equipment		N
3.4.8	Switches as disconnect devices		N
3.4.9	Plugs as disconnect devices		N

Clause	Requirement-test	Result-Remark	Verdict
3.4.10	Interconnected equipment		N
3.4.11	Multiple power sources		N
3.5	Interconnection of equipment		
3.5.1	General requirements	No interconnection	N
3.5.2	Types of interconnection circuits..... :		N
3.5.3	ELV circuits as interconnection circuits	No ELV circuits	N
4	PHYSICAL REQUIREMENTS		
4.1	Stability		
	Angle of 10°		P
	Test: force (N) :	Not a floor-standing unit	N
4.2	Mechanical strength		
4.2.1	General		P
4.2.2	Steady force test, 10 N		N
4.2.3	Steady force test, 30 N	See appended table 4.2.3	P
4.2.4	Steady force test, 250 N	See appended table 4.2.4	P
4.2.5	Impact test		N
	Fall test		N
	Swing test		N
4.2.6	Drop test	See appended table 4.2.6	P
4.2.7	Stress relief test	See appended table 4.2.7	P
4.2.8	Cathode ray tubes	No cathode ray tubes	N
	Picture tube separately certified..... :		N
4.2.9	High pressure lamps	No such components	N
4.2.10	Wall or ceiling mounted equipment; force (N) ... :		N
4.3	Design and construction		
4.3.1	Edges and corners	Rounded and smoothed	P
4.3.2	Handles and manual controls; force (N)..... :	No such controls	N

Clause	Requirement-test	Result-Remark	Verdict
4.3.3	Adjustable controls	No such controls	N
4.3.4	Securing of parts		P
4.3.5	Connection of plugs and sockets	No such components	N
4.3.6	Direct plug-in equipment	Certified direct plug-in power supply	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
4.3.7	Heating elements in earthed equipment	No such design	N
4.3.8	Batteries		P
4.3.9	Oil and grease		N
4.3.10	Dust, powders, liquids and gases	No such design	N
4.3.11	Containers for liquids or gases	No containers	N
4.3.12	Flammable liquids :	No flammable liquids	N
	Quantity of liquid (l) :		N
	Flash point (°C)..... :		N
4.3.13	Radiation; type of radiation :	No radiation	N
4.3.13.1	General		N
4.3.13.2	Ionizing radiation		N
	Measured radiation (pA/kg) :		N
	Measured high-voltage (kV) :		N
	Measured focus voltage (kV) :		N
	CRT markings :		N
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N
4.3.13.4	Human exposure to ultraviolet (UV) radiation .. :		N
	Part, property, retention after test, flammability classification :		N
4.3.13.5	Laser (including LEDs)	For induction purpose only	P
	Laser class :		N
4.3.13.6	Other types :		N
4.4	Protection against hazardous moving parts	No hazardous moving parts	N

Clause	Requirement-test	Result-Remark	Verdict
4.4.1	General		N
4.4.2	Protection in operator access areas		N
4.4.3	Protection in restricted access locations		N
4.4.4	Protection in service access areas		N
4.5	Thermal requirements		
4.5.1	Maximum temperature	(See appended table 4.5)	P
	Normal load condition per Annex L		N
4.5.2	Resistance to abnormal heat	No hazardous voltages directly mounted to plastic enclosure parts	N
4.6	Openings in enclosures – The equipment is supply by a certified power supply that was tested Limited power source, no fire enclosure required. – Batteries are tested Power limited source. (See appended table 2.5)		
4.6.1	Top and side openings		N
	Dimensions (mm)		N
4.6.2	Bottoms of fire enclosures		N
	Construction of the bottom.....		N
4.6.3	Doors or covers in fire enclosures		N
4.6.4	Openings in transportable equipment		N
4.6.5	Adhesives for constructional purposes		N
	Conditioning temperature (°C)/time (weeks)		N
4.7	Resistance to fire		
4.7.1	Reducing the risk of ignition and spread of flame	See below	P
	Method 1, selection and application of components wiring and materials	Method 1 used	P
	Method 2, application of all of simulated fault condition tests		N
4.7.2	Conditions for a fire enclosure	No fire enclosure required	N

Clause	Requirement-test	Result-Remark	Verdict
4.7.2.1	Parts requiring a fire enclosure	No fire enclosure required	N
4.7.2.2	Parts not requiring a fire enclosure		P
4.7.3	Materials		
4.7.3.1	General		P
4.7.3.2	Materials for fire enclosures		N
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		N
4.7.3.5	Materials for air filter assemblies	No air filter	N
4.7.3.6	Materials used in high-voltage components		N
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		
5.1	Touch current and protective conductor current		
5.1.1	General	Base and handset supplied by SELV	N
5.1.2	Equipment under test (EUT)		N
5.1.3	Test circuit		N
5.1.4	Application of measuring instrument		N
5.1.5	Test procedure		N
5.1.6	Test measurements		N
	Test voltage (V)		N
	Measured touch current (mA)		N
	Max. allowed touch current (mA)		N
	Measured protective conductor current (mA) ...		N
	Max. allowed protective conductor current (mA) :		N
5.1.7	Equipment with touch current exceeding 3.5 mA:		N
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks	Base and handset supplied by SELV	N

Clause	Requirement-test	Result-Remark	Verdict
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system		N
	Test voltage (V)		N
	Measured touch current (mA)		N
	Max. allowed touch current (mA)		N
5.1.8.2	Summation of touch currents from telecommunication networks		N
5.2	Electric strength		P
5.2.1	General	(See appended table 5.2)	P
5.2.2	Test procedure	(See appended table 5.2)	P
5.3	Abnormal operating and fault conditions		
5.3.1	Protection against overload and abnormal operation	(See appended table 5.3)	P
5.3.2	Motors	No such components	N
5.3.3	Transformers	Certified power supply	N
5.3.4	Functional insulation.....	Method (c) used (refer to table 5.3)	P
5.3.5	Electromechanical components	No such components	N
5.3.6	Simulation of faults	(See appended table 5.3)	P
5.3.7	Unattended equipment	Not unattended equipment	N
5.3.8	Compliance criteria for abnormal operating and fault conditions		P
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		P
6.1.2	Separation of the telecommunication network from earth		
6.1.2.1	Requirements		N
	Test voltage (V)		N

Clause	Requirement-test	Result-Remark	Verdict
	Current in the test circuit (mA)		N
6.1.2.2	Exclusions.....		N
6.2	Protection of equipment users from overvoltages on telecommunication networks		
6.2.1	Separation requirements		P
6.2.2	Electric strength test procedure	(See appended table 5.2)	P
6.2.2.1	Impulse test		N
6.2.2.2	Steady-state test	(See appended table 5.2)	P
6.2.2.3	Compliance criteria	No insulation breakdown	P
6.3	Protection of telecommunication wiring system from overheating		
	Max. output current (A).....		N
	Current limiting method		N
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
7.3	Insulation between primary circuits and cable distribution systems		N
7.3.1	General		N
7.3.2	Voltage surge test		N
7.3.3	Impulse test		N

Clause	Requirement-test	Result-Remark	Verdict
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A	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		
A.1.1	Samples.....:		N
	Wall thickness (mm)		N
A.1.2	Conditioning of samples; temperature (°C)		N
A.1.3	Mounting of samples		N
A.1.4	Test flame		N
A.1.5	Test procedure		N
A.1.6	Compliance criteria		N
	Sample 1 burning time (s)		N
	Sample 2 burning time (s)		N
	Sample 3 burning time (s)		N
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		
A.2.1	Samples, material		N
	Wall thickness (mm)		N
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)		N
	Sample 2 burning time (s)		N
	Sample 3 burning time (s)		N
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4, 8		N
	Sample 1 burning time (s)		N
	Sample 2 burning time (s)		N
	Sample 3 burning time (s)		N
A.3	Hot flaming oil test		
A.3.1	Mounting of samples		N
A.3.2	Test procedure		N

Clause	Requirement-test	Result-Remark	Verdict
A.3.3	Compliance criterion		N
B	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS		
B.1	General requirements		N
	Position		N
	Manufacturer		N
	Type		N
	Rated values		N
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)		N
	Electric strength test: test voltage (V)		N
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		
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)		N
C	ANNEX C, TRANSFORMERS		
	Position		N
	Manufacturer		N
	Type		N
	Rated values		N
	Method of protection.....		N
C.1	Overload test		N

Clause	Requirement-test	Result-Remark	Verdict
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C.2	Insulation		N
	Protection from displacement of windings.....:		N
D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS		
D.1	Measuring instrument		N
D.2	Alternative measuring instrument		N
E	Annex E, TEMPERATURE RISE OF A WINDING		
F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES		
G	Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		
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		
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS		
	Metal used		N
K	ANNEX K, THERMAL CONTROLS		
K.1	Making and breaking capacity		N
K.2	Thermostat reliability; operating voltage (V).....:		N

Clause	Requirement-test	Result-Remark	Verdict
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		
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		N
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS		
M.1	Introduction		N
M.2	Method A		N
M.3	Method B		N
M.3.1	Ringling signal		N
M.3.1.1	Frequency (Hz)		N
M.3.1.2	Voltage (V)		N
M.3.1.3	Cadence; time (s), voltage (V)		N
M.3.1.4	Single fault current (mA).....		N
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

Clause	Requirement-test	Result-Remark	Verdict
N	Annex N, IMPULSE TEST GENERATORS		
N.1	ITU-T impulse test generators		N
N.2	IEC 60065 impulse test generator		N
P	Annex P, NORMATIVE REFERENCES		
Q	Annex Q, BIBLIOGRAPHY		
R	Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		
R.1	Minimum separation distances for unpopulated coated printed boards		N
R.2	Reduced clearances		N
S	Annex S, PROCEDURE FOR IMPULSE TESTING		
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 separate test report		N
U	Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		
	Separate test report		N

Clause	Requirement-test	Result-Remark	Verdict
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1.5.1	TABLE: list of critical components				P
object/part No.	manufacturer/trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾
Power supply	AZTECH Communication Device (DG) Ltd.	AZ-075A351-EU	Input: 230Va.c., 50Hz, 45mA Output: 7.5Va.c., 350mA	EN 60950-1	TÜV Rheinland 17002735 004
Transparent lens or Front bezel	Bayer Materialscience LLC	Makrolon 6555(f1)	PC, 94V-2, 125°C	UL 94	UL E33640
Plastic Enclosure	Chi Mei Corporation	PA766	ABS, 94V-0, 60°C	UL 94	UL E56070
Plastic Enclosure ²⁾	Grand Pacific Petrochemical Corp.	D1000	ABS, 94V-0, 60°C	UL 94	UL E88637
PCB	Multi Circuit Board Co., Ltd.	MC1368C	94V-0, 130°C	UL 94	UL E85416
Phone Jack	Chung Yi Enterprise (Hong Kong) Co., Ltd.	PCB Jack 9606-6P4C 6U" Black	150Va.c., 1A max.	EN 60950-1	Tested within appliance
DC Jack	Aztech Systems Ltd.	SCD-014	--	EN 60950-1	Tested within appliance
Varistor	Guangdong Fenghua Advanced Technology (Holding) Co., Ltd.	FNR – 07K271	200Va.c.	EN 60950-1	Tested within appliance
Battery	GP	GN75AAAHC	1.2V, AAA, 750mAh, Ni-MH	EN 60950-1	Tested within appliance
Battery ²⁾	Hong Kong Batteries Manufactory Ltd.	HKG750AAA	1.2V, AAA, 750mAh, Ni-MH	EN 60950-1	Tested within appliance
¹⁾ An asterisk indicates a mark which assures the agreed level of surveillance ²⁾ Alternative component					

Clause	Requirement-test	Result-Remark	Verdict
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1.6.2		TABLE: electrical data (in normal conditions)					P
fuse #	Output of power supply		Input of power supply		Ifuse (mA)	condition/status	
	Irated (mA)	U (V)	P (W)	I (mA)			
--	350	7.5Va.c.	4.07	24	--	on-hook (charging)	
--	350	7.5Va.c.	4.25	24	--	off-hook (charging)	
--	350	7.5Va.c.	1.95	21	--	on-hook (without charging)	
--	350	7.5Va.c.	2.32	21	--	off-hook (without charging)	

2.5		TABLE: limited power source					P
Operated Mode	Uoc (V)		Isc (A)		S (VA)		
	Limit	Measured	Limit	Measured	Limit	Measured	
Normal operation	≤20Vd.c.	2.83	≤8A	--	≤5xUoc	--	
Short circuit	≤20Vd.c.	0.74	≤8A	4.72	14.15	3.49	

Limited Power Source operated from batteries.

Two AAA size, 1.2V, Ni-MH type, cylindrical rechargeable batteries.

2.9.2		TABLE: humidity test		P
<p>Humidity conditioning is carried out for 48 hours in a cabinet containing air with a relative humidity of 91% to 95%. The temperature of the air, at all places where samples can be located, is maintained within 1°C of any convenient value t between 20°C and 30°C such that condensation does not occur. During this conditioning the component or subassembly is not energized.</p> <p>After the humidity treatment, the insulation is then subjected to the relevant electric strength test of 5.2 while still in the humidity cabinet, or in the room in which the samples were brought to the prescribed temperature.</p>				
test voltage applied between:		test voltage (V)	breakdown Yes / No	
TNV to body enclosed by metal foil		1414Vd.c.	No	
TNV to handset enclosed by metal foil		2121Vd.c.	No	
Battery contact to control panel at handset		707Vd.c.	No	
Test voltage d.c. applied 1 minute.				

Clause	Requirement-test	Result-Remark	Verdict
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2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements					P
clearance cl. and creepage distance dcr. at/of:	Up (V)	U r.m.s. (V)	required cl. (mm)	cl. (mm)	Required dcr. (mm)	dcr. (mm)
Enclosure to TNV traces	<210	<150	1.0	6.81	1.6	10.12
Remark: see clause 5.3						

4.2.3	TABLE: steady force test				P
test equipment	part under test	test force	duration	result	
Base	Cover or door	30N ± 3N	5s	No hazard	
Handset	Cover or door	30N ± 3N	5s	No hazard	

4.2.4	TABLE: steady force test				P
test equipment	part under test	test force	duration	result	
Base	Top of enclosure	250N ± 10N	5s	No hazard	
	Side of enclosure			No hazard	
	Bottom of enclosure			No hazard	
Handset	Top of enclosure	250N ± 10N	5s	No hazard	
	Side of enclosure			No hazard	
	Bottom of enclosure			No hazard	
Note: the test is not applied to the bottom of an ENCLOSURE of equipment having a mass of more than 18kg.					

Clause	Requirement-test	Result-Remark	Verdict
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4.2.6	TABLE: drop test			P
test equipment	Test location	fall distance (mm)	result	
Base	Front	750mm ± 10mm	No hazard	
	Side			
	Bottom			
Handset	Front	1000mm ± 10mm	No hazard	
	Side			
	Bottom			

Note: the fall distance of 750mm ± 10mm for desk-top equipment as described above; 1000mm ± 10mm for hand-held equipment, Direct plug-in equipment and Transportable equipment.

4.2.7	TABLE: stress relief test			P
location	max. temperature according to clause 4.5.1 (°C)	test temperature 70 or T(K) + 10(°C) + Tmra(°C)	time (h)	result
Base enclosure	41.0	70	7	No hazard
Handset enclosure	42.7	70	7	No hazard

Note: Tmra is maximum room ambient temperature permitted by the manufacture's specification or 25°C, whichever is greater.

Clause	Requirement-test	Result-Remark	Verdict
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4.5	TABLE: temperature measurements (Handset + Base)			P	
	Test voltage (V).....	7.5Va.c.	--		
	T1 (C).....	21.6°C	--		
	T2 (C).....	23.8°C	--		
T of part/at:		Measured T(°C)	Limited T (°C)		
Base					
Phone jack		40.8	Ref.		
DC jack		45.3	Ref.		
Capacitor EC7 (T-85)		60.4	85		
PCB under Diode D12		48.9	130		
Internal wire connected to charging point (T-80)		43.6	80		
Enclosure near charging point		36.9	85		
Enclosure (LED)		41.0	85		
Enclosure (Button)		36.8	85		
Enclosure (Bottom)		30.7	85		
Handset					
Capacitor C48 (T-85)		34.1	85		
Capacitor C20 (T-105)		37.3	105		
Enclosure (Display)		27.3	75		
Enclosure (Keypad)		32.2	75		
Enclosure (Gripping area)		42.7	75		
Power supply					
Enclosure of power supply		51.5	95		
rise dT of winding:	R ₁ (Ω)	R ₂ (Ω)	dt (K)	required dT (K)	insulation class
--	--	--	--	--	--
Comments:					
The temperature were measured by thermocouple (type J) method under worst case normal mode (define in 1.4.3) and as described in 1.6.1 at voltage described in 1.4.5. The worst case normal mode is defined with max. load of the equipment.					

Clause	Requirement-test	Result-Remark	Verdict
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5.2	TABLE: electric strength tests and impacts tests		P
test voltage applied between:		test voltage (V)	breakdown Yes / No
TNV to body enclosed by metal foil		1414Vd.c.	No
TNV to handset enclosed by metal foil		2121Vd.c.	No
Battery contact to control panel at handset		707Vd.c.	No
Test voltage d.c. applied 1 minute.			

5.3	TABLE: fault condition tests					P
ambient temperature		21.1°C-22.6°C		--		
model/ type of power supply.....		AZ-075A351-EU		--		
manufacturer of power supply.....		--		--		
rated markings of power supply.....		--		--		
component no.	fault	test voltage (V)	test time	fuse no.	fuse current (A)	result
Capacitor C48 (Handset)	S/C	7.5Va.c.	1 hr	--	--	No hazard until steady state. Enclosure (Gripping area): 42.8°C Power supply enclosure: 49.9°C
Capacitor C20 (Handset)	S/C	7.5Va.c.	1 hr	--	--	No hazard until steady state. Enclosure (LED): 37.3°C Power supply enclosure: 43.4°C
Diode D12 (Base)	S/C	7.5Va.c.	1 hr	--	--	No hazard until steady state. Enclosure (LED): 39.1°C Power supply enclosure: 39.9°C
Battery (Handset)	S/C	7.5Va.c.	1 hr	--	--	No hazard until steady state. Enclosure (Gripping area): 64.0°C Power supply enclosure: 43.4°C
Capacitor EC7 (Base)	S/C	7.5Va.c.	1 hr	--	--	Thermal fuse inside power supply opened circuit. No hazard occurred. Enclosure (LED): 37.0°C Power supply enclosure: 54.4°C
supplementary information:						
Fault: s/c – short circuit; o/c = open circuit.						

Clause	Requirement-test	Result-Remark	Verdict
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EQ_NO	Kind of Instrument Precision Class	Manufacturer	Model serial no.
EM069	Telephone product tester	BK PRECISION	1045
E261	Multimeter	HEWLEWTT PACKARD	E2378A
E156	Test probe	GLOBTEK	--
E358	Chamber	TERCHY	MHU-408LR
E378	Thermocouple	OMEGA	TT-J-30
E410	Oven	MBMMERT	UE 200
E450	Hi-pot Tester	KIKUSUI	TOS5101
E456	Force gauge	DAVIS	FGV-100
E645	Temperature Recorder	YOKOGAWA	DA100-23-1S
E618	Digital Caliper	MITUTOYO	CD-6"CS

***** End of test report *****

Appendix

Product Photographs

H315-S1



H315-S1 (Handset)



Unit : cm

Product Photographs

H315-S1 (Handset)



Unit : cm

H315-S1 (Base)



Unit : cm

Product Photographs

H315-S1 (Base)



H315-S1 (Base)



Product Photographs

H315-S1 (Base)

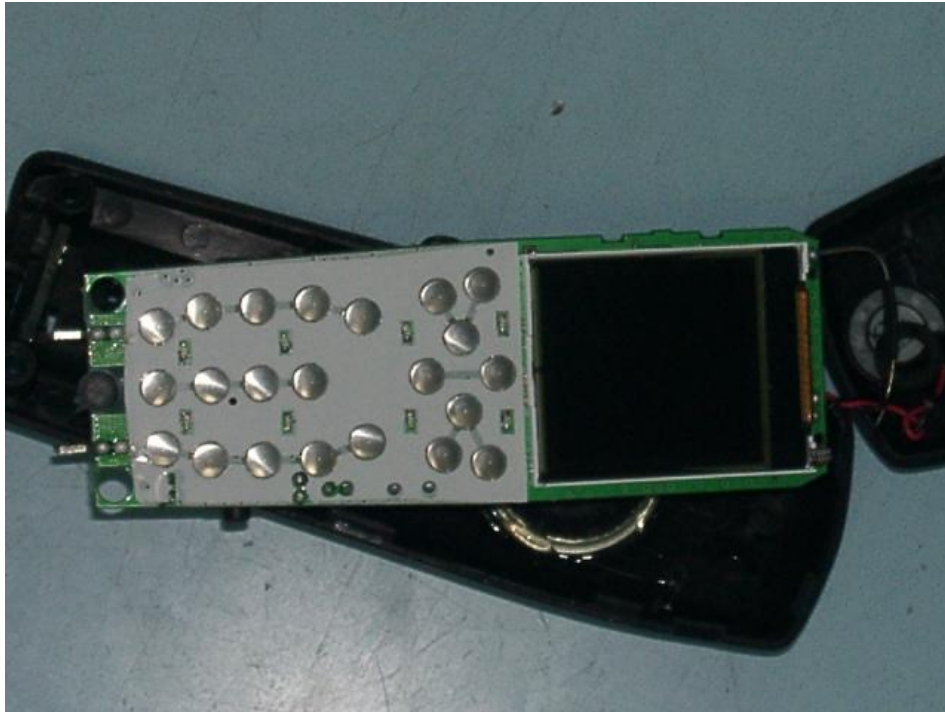


H315-S1 (Handset - PCB)



Product Photographs

H315-S1 (Handset- PCB)



H315-S1 (Base- PCB)



Product Photographs

H315-S1 (Base- PCB)

