IEC IECEE CB SCHEME

COPY

Ref. Certif. No.

AT 1909

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

Product Produit	**GSM/GPRS module**
Name and address of the applicant Nom et adresse du demandeur	**Wavecom S.A.** **3, esplanade du Foncet,** **92442 Issy-les-Moulineaux Cedex, France**
Name and address of the manufacturer Nom et adresse du fabricant	**Solectron Technology Co., Ltd.** **No. 9, Suqian Road** **China-Singapore Suzhou Industrial Park,** **215021 Suzhou, Jiangsu, China**
Name and address of the factory Nom et adresse de l'usine Note: *When more than one factory, please report on page 2* Note: *Lorsque il y plus d'une usine, veuillez utiliser la 2ème page*	**Solectron Technology Co., Ltd.** **No. 9, Suqian Road** **China-Singapore Suzhou Industrial Park,** **215021 Suzhou, Jiangsu, China** ☐ Additional Information on page 2
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	**3,2 - 4,5 V DC; 2,0 A(max); Cl. III**
Trademark (if any) Marque de fabrique (si elle existe)	**Wireless CPU**
Model / Type Ref. Ref. De type	**Q24AU001, Q24AU002, Q24AU003, Q24CL001, Q24CL002, Q24CL003, Q24CL004, Q24EX001, Q24EX002, Q24PL001, Q24PL002, Q24PL003, Q24PL004, Q24PL005, Q24PL006**
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2ème page	**--** ☐ Additional Information on page 2
	PUBLICATION **EDITION**
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	**IEC 60950-1(ed.1)**
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat	**3-4991-1-2/07-CB_b**

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme **National de Certification**

OVE

AUSTRIAN ELECTROTECHNICAL ASSOCIATION
Kahlenberger Str. 2A
1190 Wien, Austria

Date: **2007-03-14**

Signature: **Dipl.-Ing. W. Martin**

TEST REPORT

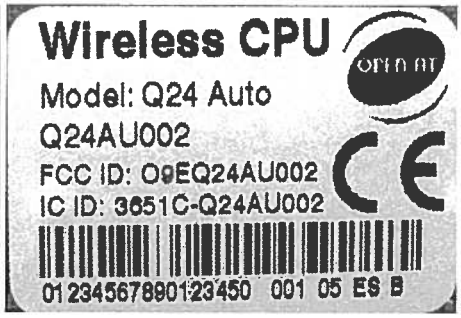
IEC 60950-1 and/or EN 60950-1

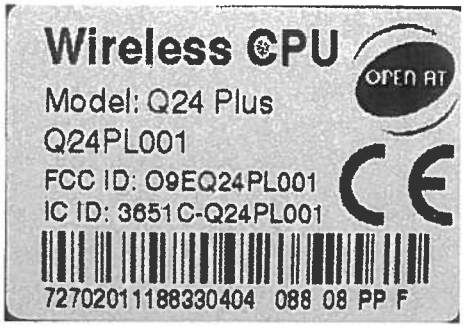
Information technology equipment – Safety – Part 1: General requirements

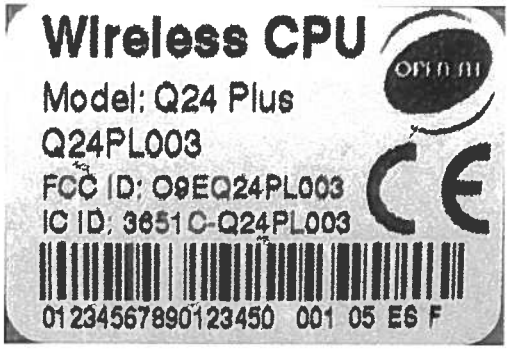
Report reference No	3-4991-1-2/07-CB_b
Test Item	Wireless CPU Q24
Tested by (printed name and signature)	Sébastien Scheidler
Approved by (printed name and signature)	Jürgen Sanetra
Date of issue	12.03.2007
Testing Laboratory Name	CETECOM ICT Services GmbH
Address	Untertürkheimerstr. 6-10 D-66117 Saarbrücken
Testing location	CBTL ☒ CCATL ☐ SMT ☐ TMP ☐
Address	as above
Applicant's Name	Wavecom SA
Address	3, esplanade du Foncet 94442 Issy-les-Moulineaux Cedex France
Test specification	
Standard	IEC 60950-1:2001 and/or EN 60950-1:2001 (1st Edition)
Test procedure	CB – Scheme
Non-standard test method	None
Test Report Form No.	IECEN60950_1B
TRF originator	SGS Fimko Ltd
Master TRF	dated 2003-03
Modified by.....	Cetecom ICT Services GmbH

Test item description	GSM/GPRS modul
Trademark	Wireless CPU
Manufacturer	Solectron Technology Co., Ltd.
Model and/or type reference	Q24
Serial number	--
Rating(s)	3.2 – 4.5Vdc, 2000mA (Max)

Copy of marking plates:







Summary of testing:

The sample(s) tested complies with the requirements of IEC 60950-1:2001 (1st Edition) and/or EN 60950-1:2001 +A11: 2004 (1st Edition). Compliance with National Differences, Special National Conditions, Annex ZB, and A – Deviations, Annex ZC and National Deviation according Bulletin No. 112A: 2006, are recorded at the end of this report.

Summary of compliance with National Differences:

The following group and/or national deviations were considered according to Bulletin No. 112A: AU, AT, BE, CA, CH, CZ, DE, DK, FI, FR, GB, GR, HU, IE, IL, IT, NL, NZ, NO, SE, SK, US, ZA

The following abbreviations were used in this test report:

AC	: Alternating Current	LPS	: Limited Power Source
DC	: Direct Current	EUT	: Equipment under Test
PE	: Protective earth	OC	: Open Circuit
PRI	: Primary circuit	SC	: Short Circuit
SEC	: Secondary circuit	PS	: Power Supply
GND	: Ground		
PCB	: Printed circuit board		

The following country abbreviations were use according to ISO 3166-1:

AR	: Argentina	FR	: France	PL	: Poland
AT	: Austria	GB	: United Kingdom	PT	: Portugal
AU	: Australia	GR:	: Greece	RU	: Russian
BE	: Belgium	HU	: Hungary	SE	: Sweden
BR	: Brazil	IE	: Ireland	SG	: Singapore
CA	: Canada	IL	: Israel	SK	: Slovakia
CH	: Switzerland	IT	: Italy	SI	: Slovenia
CN	: China	IN	: India	TR	: Turkey
CS	: Serbia	JP	: Japan	UA	: Ukraine
CZ	: The Czech Republic	KR	: Rep. of Korea	UAE	: United Arab Emirates
DE	: Germany	MY:	: Malaysia	US	: United States of America
DK	: Denmark	NL	: Netherlands	YU	: Serbia and Montenegro
ES	: Spain	NO	: Norway	ZA	: South Africa
FI	: Finland	NZ	: New Zealand		

Particulars: test item vs. test requirements	
Rated input voltage and current ..... :	3.2 – 4.5Vdc, 2000mA (Max)
Rated output voltage and current ..... :	--
Mains supply tolerance (%) ..... :	--
Tested for IT power systems ..... :	No
IT testing, phase-phase voltage (V) :	--
Rated atmospheric humidity ..... :	Max. 85% r.H.
Rated temperature range..... :	-30℃ – +75℃
Overvoltage category..... :	II
Equipment mobility ..... :	For building-in
Accessibility ..... :	Operator access area
Operating condition..... :	continuous
Class of equipment ..... :	Class III
Mass of equipment ..... :	Q24AU001: 9.5g
	Q24AU002: 9.5g
	Q24AU003: 9.5g
	Q24PL001: 9.6g
	Q24PL003: 10.5g
Protection against ingress of water ..... :	IPX0
Operation height over sea ..... :	Max 2000m
Insulation ..... :	Functional insulation
Test case verdicts	
Test case 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)
Testing	
Date of receipt of test item ..... :	09.02.2007
Date(s) of performance of test ..... :	02.03 – 07.03.2007

"This report is not valid as a CB Test Report unless appended by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02".

The test result presented in this report relate only to the object(s) tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

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

The present Test Report is not valid as a Test Report according to a Mutual Recognition Agreement (i.e.IECEE-CB, CCA, ENEC, KEYMARK...) unless appended to a corresponding Certificate issued by a National Certification Body, signatory to the relevant Schema.

Particulars: test item vs. test requirements

General product information:

The EUT is a GSM/GPRS module.

The EUT is declined in 5 configurations with following models:

- Configuration 1: Q24AU001
- Configuration 2: Q24AU002
- Configuration 3: Q24AU003
- Configuration 4: Q24CL001, Q24CL002, Q24EX001, Q24EX002, Q24PL001, Q24PL002, Q24PL005
- Configuration 5: Q24CL003, Q24CL004, Q24PL003, Q24PL004, Q24PL006

These models are identical except the type and placement of the antenna connector. Within the different configurations only the software versions differ.

For the test the GSM module was mounted on development board. This board is not part of this test report.

The following Attachments are integral part of this test report:

- Annex 1: Photo documentation

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**

1	GENERAL		
1.5	Components		
1.5.1	General		P
	Comply with IEC 60950 or relevant component standard	(see appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	Components used in accordance with their ratings	P
1.5.3	Thermal controls	No thermal controls	N/A
1.5.4	Transformers	No transformers	N/A
1.5.5	Interconnecting cables	No interconnecting cables	N/A
1.5.6	Capacitors in primary circuits .....:	No primary circuits	N/A
1.5.7	Double insulation or reinforced insulation bridged by components	No double or reinforced insulation	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		N/A

1.6	**Power interface**		
1.6.1	AC power distribution systems	No connections to AC power distribution systems	N/A
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	No hand-held equipment	N/A
1.6.4	Neutral conductor	No neutral conductor	N/A

1.7	**Marking and instructions**		
1.7.1	Power rating		P
	Rated voltage(s) or voltage range(s) (V) .....:		N/A
	Symbol for nature of supply, for DC. only.....:		N/A
	Rated frequency or rated frequency range (Hz) .:		N/A
	Rated current (mA or A) .....:		N/A
	Manufacturer's name or trademark or identification mark .....:	Wireless CPU	P
	Type/model or type reference.....:		P
	Symbol for Class II equipment only.....:	Class III equipment	N/A
	Other symbols .....:	--	N/A
1.7.2	Safety instructions	Adequate safety instructions provided	P
1.7.3	Short duty cycles	For continuous operation	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
1.7.4	Supply voltage adjustment .....:	No adjustment	N/A
1.7.5	Power outlets on the equipment .....:	No power outlets	N/A
1.7.6	Fuse identification .....:		N/A
1.7.7	Wiring terminals	No wiring terminals	N/A
1.7.7.1	Protective earthing and bonding terminals .....:	Class III equipment	N/A
1.7.7.2	Terminal for AC mains supply conductors	No such terminals	N/A
1.7.7.3	Terminals for DC mains supply conductors	No DC mains	N/A
1.7.8	Controls and indicators	No safety relevant controls and indicators	N/A
1.7.8.1	Identification, location and marking .....:		N/A
1.7.8.2	Colours .....:	No safety relevant colours	N/A
	LINE:LED (green)	--	N/A
	230V~ :LED (yellow)	--	N/A
1.7.8.3	Symbols according to IEC 60417 .....:	--	N/A
	| for "ON" (60417-1-IEC-5007)	--	N/A
	O for "OFF" (60417-1-IEC-5008)	--	N/A
	⏻ push-push (60417-1-IEC-5010)	--	N/A
	⏻ stand-by (60417-1-IEC-5009)	--	N/A
	⚠ (ISO 3864, No. 5036)	--	N/A
	⎓ (direct current, IEC 60417, 417-IEC-5031-a)	--	N/A
	~ (single phase, IEC 60417, 417-IEC-5032-a) (230V~): Power indication	--	N/A
	3 ~ (three phase IEC 60417, 417-IEC-5032-a)	--	N/A
	3N ~ (three phase with neutral, IEC 60417, 417-IEC-5032-a)	--	N/A
	⧈ (Class II equipment, IEC 60417, 417-IEC-5172-a): On the bottom	--	N/A
	⏛ (protection, IEC 60417, 417-IEC-5016-a)	--	N/A
	(connector, holder or core, IEC 60417, 417-IEC-5020-a)	--	N/A
	⏚ (protective earth, IEC 60417, 417-IEC-5019-a)	--	N/A
	(insulation transformers, IEC 60417, 417-IEC-5221)	--	N/A
	Short circuit protected transformer IEC 60417, 417-IEC-5220-a	--	N/A
1.7.8.4	Markings using figures .....:	See above	N/A
1.7.9	Isolation of multiple power sources .....:	One power source only	N/A
1.7.10	IT power distribution systems		N/A
1.7.11	Thermostats and other regulating devices	No thermostats and regulating devices	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
1.7.12	Language (safety relevant instructions and markings).....:	Safety relevant instructions and markings must be translated into the language of destination.	P
1.7.13	Durability - Water (Test time: 15 s): - Marking - Housing/enclosure Hexane ($CH_3(CH_2)_4CH_3$ M = 86,18g/mol, dry point 65-69°C) (Test time:15 s): - Marking - Housing/enclosure		P P
1.7.14	Removable parts	Marking not on removable parts	P
1.7.15	Replaceable batteries	No batteries	N/A
	Language.....:		—
1.7.16	Operator access with a tool.....:	No operator access with tools	N/A
1.7.17	Equipment for restricted access locations.....:	Not for restricted access locations	N/A

2	**PROTECTION FROM HAZARDS**		
2.1	**Protection from electric shock and energy hazards**		
2.1.1	Protection in operator access areas	Only SELV	P
2.1.1.1	Access to energized parts	Access to SELV circuits only	P
	Test by inspection .....:		P
	Test with test finger .....:		P
	Test with test pin .....:		P
	Test with test probe .....:	No TNV circuits	N/A
2.1.1.2	Battery compartments .....:	No battery and battery compartment.	N/A
	- the compartment has a door that requires a deliberate technique to open, such as the use of a TOOL or latching device; and		N/A
	- the TNV CIRCUIT is not accessible when the door is closed; and		N/A
	- there is a marking next to the door, or on the door if the door is secured to the equipment, with instructions for protection of the USER once the door is opened.		N/A
	- Language		N/A
2.1.1.3	Access to ELV wiring	No ELV circuits	N/A
	Working voltage (V); minimum distance (mm) through insulation		—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage	N/A
2.1.1.5	Energy hazards .....:	No energy hazards	P
2.1.1.6	Manual controls	No manual controls	N/A
2.1.1.7	Discharge of capacitors in equipment	No primary circuits	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
	Time-constant (s); measured voltage (V).....:		—
2.1.2	Protection in service access areas	SELV circuit	P
2.1.3	Protection in restricted access locations	User access area	N/A

2.2	**SELV circuits**		
2.2.1	General requirements		P
2.2.2	Voltages under normal conditions (V) .....:	5Vdc (within SELV limits)	P
2.2.3	Voltages under fault conditions (V).....:	5Vdc (within SELV limits)	P
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)		N/A
2.2.3.2	Separation by earthed screen (method 2)	Not used	N/A
2.2.3.3	Protection by earthing of the SELV circuit (method 3)	No earthing	N/A
2.2.4	Connection of SELV circuits to other circuits .....:	SELV to SELV circuits	P

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
	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**		
2.4.1	General requirements	No limited current circuits	N/A
2.4.2	Limit values		N/A
	Frequency (Hz).....:		—
	Measured current (mA) .....:		—
	Measured voltage (V) .....:		—
	Measured capacitance (µF).....:		—
2.4.3	Connection of limited current circuits to other circuits		N/A

2.5	**Limited power sources**		
	Inherently limited output		N/A
	Impedance limited output	--	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
	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)	--	—

2.6	**Provisions for earthing and bonding**		
2.6.1	Protective earthing	No 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 (mm^2), AWG.....:		—
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm^2), AWG.....:		—
2.6.3.4	Resistance (Ω) 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	No interconnected 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	No 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	No protective earthing	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**

2.7	**Overcurrent and earth fault protection in primary circuits**		
2.7.1	Basic requirements	No primary circuits	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**		
2.8.1	General principles	No safety interlocks	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**		
2.9.1	Properties of insulating materials	Neither natural rubber, materials containing asbestos no hygroscopic material are used as insulation	P
2.9.2	Humidity conditioning	Not required	N/A
	Humidity (%) .....:		—
	Temperature (°C) .....:		—
2.9.3	Grade of insulation	Functional insulation.	P

2.10	**Clearances, creepage distances and distances through insulation**		
2.10.1	General	For functional insulation creepage distances and clearances smaller than those specified in clause 2.10 are permitted subject to the requirements of clause 5.3.4 b) or c)	P
2.10.2	Determination of working voltage	Max 5Vdc	P

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
2.10.3	Clearances	SELV circuits only	N/A
2.10.3.1	General		N/A
2.10.3.2	Clearances in primary circuit	No primary circuits	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	Function insulation in SELV circuits only	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	No 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 $T_1=T_2 = T_{ma} - T_{amb} +10K$ (°C) ..... :		N/A
2.10.8	Spacings filled by insulating compound..... :	No spacings filled by insulating compound	N/A
	Electric strength test		—
2.10.9	Component external terminations		N/A
2.10.10	Insulation with varying dimensions		N/A

3	**WIRING, CONNECTIONS AND SUPPLY**	N/A
3.1	**General**	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
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		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections		N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring		N/A

3.2	**Connection to an AC mains supply or a DC mains supply**		
3.2.1	Means of connection .....:		N/A
3.2.1.1	Connection to an AC mains supply	No AC mains	N/A
3.2.1.2	Connection to a DC mains supply	No DC mains	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
	Type.....:		—
	Rated current (A), cross-sectional area (mm^2), 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**		
3.3.1	Wiring terminals	No wring terminals	N/A
3.3.2	Connection of non-detachable power supply cords		N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
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 (mm^2) .....:		—
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**		
3.4.1	General requirement	No connections to mains supply	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 DC. 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**		
3.5.1	General requirements		P
3.5.2	Types of interconnection circuits .....:	SELV to SELV	P
3.5.3	ELV circuits as interconnection circuits	No ELV circuits	N/A

4	**PHYSICAL REQUIREMENTS**		
4.1	**Stability**		
	Angle of 10°	For build-in equipment	N/A
	Test: force (N) .....:		N/A

4.2	**Mechanical strength**		
4.2.1	General	For build-in equipment	N/A
4.2.2	Steady force test, 10 N	No external components	N/A
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	No enclosure	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
4.2.5	Impact test	No hazardous voltages inside EUT	N/A
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test		N/A
4.2.7	Stress relief test	No hazardous voltage inside	N/A
4.2.8	Cathode ray tubes	No cathode ray tubes	N/A
	Picture tube separately certified .....:		N/A
4.2.9	High pressure lamps	No high pressure lamps	N/A
4.2.10	Wall or ceiling mounted equipment; force (N) ....:	No wall or ceiling mounted equipment	N/A

4.3	**Design and construction**		
4.3.1	Edges and corners	No sharp edges and corners	P
4.3.2	Handles and manual controls; force (N)..... :	No safety relevant handles and manual controls	N/A
4.3.3	Adjustable controls	No safety relevant adjustable controls	N/A
4.3.4	Securing of parts	All parts secured	P
4.3.5	Connection of plugs and sockets	IEC 60083 and IEC 60320 connectors not in SELV-Circuits	P
4.3.6	Direct plug-in equipment	No 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 elements	N/A
4.3.8	Batteries	No batteries	N/A
4.3.9	Oil and grease	No exposure to oil or grease	N/A
4.3.10	Dust, powders, liquids and gases	Not produced	N/A
4.3.11	Containers for liquids or gases	No liquids or gases in the EUT	N/A
4.3.12	Flammable liquids ..... :	No flammable liquids	N/A
	Quantity of liquid (l)..... :		N/A
	Flash point (°C)..... :		N/A
4.3.13	Radiation; type of radiation ..... :	No radiations	N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation	No ionizing 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	No ultraviolet (UV) radiation	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
	Part, property, retention after test, flammability classification .....:		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....:	No ultraviolet (UV) radiation	N/A
4.3.13.5	Laser (including LED's)	No laser, LED for function indication only, no IRDa interface	N/A
	Laser class .....:		—
4.3.13.6	Other types .....:	No other radiation	N/A

4.4	**Protection against hazardous moving parts**		
4.4.1	General	No moving parts	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**		
4.5.1	Maximum temperatures	(see appended table 4.5)	P
	Normal load condition per Annex L .....:	L.7	P
4.5.2	Resistance to abnormal heat	No hazardous parts	N/A

4.6	**Openings in enclosures**		
4.6.1	Top and side openings	No enclosures	N/A
	Dimensions (mm) .....:		—
4.6.2	Bottoms of fire enclosures	No fire enclosure	N/A
	Construction of the bottom .....:		—
4.6.3	Doors or covers in fire enclosures	No doors	N/A
4.6.4	Openings in transportable equipment	No openings	N/A
4.6.5	Adhesives for constructional purposes	No adhesives used in construction	N/A
	Conditioning temperature (°C)/time (weeks) .....:		—

4.7	**Resistance to fire**		
4.7.1	Reducing the risk of ignition and spread of flame	(see appended table 1.5.1)	P
	Method 1, selection and application of components wiring and materials	(see appended table 1.5.1)	P
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	**Conditions for a fire enclosure**		
4.7.2.1	Parts requiring a fire enclosure	A fire enclosure is not required	N
4.7.2.2	Parts not requiring a fire enclosure	all components mounted on material of the flammability class V-0. A fire enclosure is not required.	P

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
4.7.3	**Materials**		
4.7.3.1	General	(see appended table 1.5.1)	P
4.7.3.2	Materials for fire enclosures	No fire enclosure required	N/A
4.7.3.3	Materials for components and other parts outside fire enclosures	No part outside the enclosure	N/A
4.7.3.4	Materials for components and other parts inside fire enclosures		N/A
4.7.3.5	Materials for air filter assemblies	No air filter	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components	N/A

5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		
5.1	**Touch current and protective conductor current**		
5.1.1	General	SELV circuits only	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) ..... :		—
	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		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system		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**		
5.2.1	General		N/A
5.2.2	Test procedure		N/A

5.3	**Abnormal operating and fault conditions**	

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	No motors;	N/A
5.3.3	Transformers	No transformers	N/A
5.3.4	Functional insulation.....:	Can be short-circuited	P
5.3.5	Electromechanical components	No electromechanical components	N/A
5.3.6	Simulation of faults	(see appended table 5.3)	P
5.3.7	Unattended equipment	No temperature control devices	N/A
5.3.8	Compliance criteria for abnormal operating and fault conditions	No fire, no abnormal temperatures, no explosion of the battery, no hazardous voltages	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	No connections to telecommunication network	N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	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**		
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

6.3	**Protection of the telecommunication wiring system from overheating**		N/A
	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	No connection to cable distribution systems	N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
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

A	**ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
A.1	**Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)**		N/A
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 mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)**		N/A
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) .....:		—

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
A.3	**Hot flaming oil test (see 4.6.2)**		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

B	**ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)**		N/A
B.1	General requirements	No motors	N/A
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
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 DC. motors in secondary circuits		N/A
B.7	Locked-rotor overload test for DC. 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) .....:		—

C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		N/A
	Position .....:	No transformer	—
	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

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS**		
D.1	Measuring instrument		N/A
D.2	Alternative measuring instrument		N/A

E	**ANNEX E, TEMPERATURE RISE OF A WINDING**	N/A

F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)**	N/A

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) .....:		N/A
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.....:		N/A

H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**	No radiations	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)**	No thermal control	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
K.6	Stability of operation		N/A
L	**ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)**		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**
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		P

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) .....:		N/A
M.3.1.2	Voltage (V) .....:		N/A
M.3.1.3	Cadence; time (s), voltage (V) .....:		N/A
M.3.1.4	Single fault current (mA).....:		N/A
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

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

P	**ANNEX P, NORMATIVE REFERENCES**	N/A

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

IEC 60950-1 / EN 60950-1			
Cl.:	**Requirement – Test:**	**Result:**	**Verdict:**

T	**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	TABLE: list of critical components			P
part	manufacturer of material	type of material	thickness (mm)	flammability class
PCB	WUS Printed Circuit Co., Ltd	MV8 (E69282)	1.0	V-0
supplementary information				

1.6.2	TABLE: electrical data (in normal conditions):				P
Irated (A)	U (V)	F (Hz)	I (mA)	P (W)	condition/status
--	3.56	DC	173	0.616	Call established
	3.56	DC	111	0.395	
	3.59	DC	28	0.101	Standby
supplementary information					

2.1.1.7	TABLE: discharge of capacitors in the primary circuit			N/A
condition/status	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Remark
supplementary information				

2.3 M.2	TABLE: TNV circuits		N/A
	Operation Voltage .....:		—
	Test point .....:		—
Measurement result:		Limit:	
ITS1=mA		19mA	
ITS2=mA		16mA	
supplementary information			
No TNV signal			

2.3.5	TABLE: Test for operating voltages generated externally		N/A
	Test voltage:	120VAC 50Hz	—
	Test time for each test:	< 30 min	—
	Lime to be tested:		—
Output of:	Measured voltage U[V]:	Limit:	
		< 60VDC, < 42,4Vp	
supplementary information			
No TNV circuits			

2.4	TABLE: limited current circuit measurement					N/A
Location	Capacity (µF)	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Command
normal condition						
supplementary information						
No limited current circuit						

2.5	TABLE: limited power source			N/A
	Output of: Operation voltage: Limits:			—
Op. Mode:	U[V]	I[A]	S[VA]	Limit
Open circuit				≤ 20V, ≤8A, ≤20.8VA
Load				
Short circuit				
supplementary information				

2.6	TABLE: resistance of earthing conductors and their terminations			N/A
Protective bonding conductor at	Test current [A]	Voltage drop [V]	Measured resistance [Ω]	Limit [Ω]
				0.1
supplementary information				
No earthing				

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements					N/A
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)
supplementary information						

2.10.5	TABLE: distance through insulation measurements				N/A
	EUT:				—
distance through insulation di at/of:	Up (V)	test voltage (VAC)	required di (mm)	di (mm)	
		3000	0.4		
supplementary information					
PS is approved					

2.10.5.2	TABLE: distance through insulation measurements				N/A
	EUT:				—
distance through insulation di at/of:	Up (V)	test voltage (VAC)	required layers	layers	
supplementary information					

4.2.7	TABLE: Stress relief test		N/A
	Test Time ..... :	7h	—
Part		test temperature (°C)	Compliance criteria of 4.2.1 fulfilled:
supplementary information			

4.3.6	TABLE: Direct plug-in equipment:	N
test point	measured torque	Limit
supplementary information		

4.5	TABLE: maximum temperatures		P
	EUT ..... :	Q24AU001	—
	Test voltage ..... :	4Vdc	—
	T_{amb} ..... :	22.6 ℃	—
	Rated ambient temperature ..... :	-30℃ to +75℃	—
	Test time for each test:	3h	—
	Operation mode ..... :	Call established	—
maximum temperature T of part/at::		T (°C)	allowed T_{max} (°C)
Shielding cover		28.4	70
PCB		33.1	130
supplementary information			

4.5	TABLE: maximum temperatures		P
	EUT ..... :	Q24AU002	—
	Test voltage ..... :	4Vdc	—
	T_{amb} ..... :	22.6 ℃	—
	Rated ambient temperature ..... :	-30℃ to +75℃	—
	Test time for each test:	3h	—
	Operation mode ..... :	Call established	—
maximum temperature T of part/at::		T (°C)	allowed T_{max} (°C)
Shielding cover		28.5	70
PCB		33.0	130
supplementary information			

4.5	TABLE: maximum temperatures		P
	EUT ..... :	Q24AU003	—
	Test voltage ..... :	4Vdc	—
	T_{amb} ..... :	22.6 °C	—
	Rated ambient temperature ..... :	-30°C to +75°C	—
	Test time for each test:	3h	—
	Operation mode ..... :	Call established	—
maximum temperature T of part/at::		T (°C)	allowed T_{max} (°C)
Shielding cover		29.2	70
PCB		34.1	130
supplementary information			

4.5	TABLE: maximum temperatures		P
	EUT ..... :	Q24PL001	—
	Test voltage ..... :	4Vdc	—
	T_{amb} ..... :	22.6 °C	—
	Rated ambient temperature ..... :	-30°C to +75°C	—
	Test time for each test:	3h	—
	Operation mode ..... :	Call established	—
maximum temperature T of part/at::		T (°C)	allowed T_{max} (°C)
Shielding cover		29.7	70
PCB		33.8	130
supplementary information			

4.5	TABLE: maximum temperatures		P
	EUT ..... :	Q24PL003	—
	Test voltage ..... :	4Vdc	—
	T_{amb} ..... :	22.6 ℃	—
	Rated ambient temperature ..... :	-30℃ to +75℃	—
	Test time for each test:	3h	—
	Operation mode ..... :	Call established	—

maximum temperature T of part/at::	T (°C)	allowed T_{max} (°C)
Shielding cover	30.2	70
PCB	28.9	130
supplementary information		

4.5.2	TABLE: ball pressure test of thermoplastic parts		N/A
	allowed impression diameter (mm) ..... :	≤ 2 mm	—
	Test Time ..... :	1h	—

part	test temperature (°C)	impression diameter (mm)
	125	
supplementary information		

5.1	TABLE: TABLE: Touch current and protective conductor current		N/A
	Adapter.....		—
	Measurement point		—
	Limit (mA).....	0.25	—

U[V]:	f[Hz]:	L[mA]:	N[mA]:
supplementary information			

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests		N/A
	Test time:	1 min	—

test voltage applied between:	test voltage [V AC]	breakdown Yes / No
supplementary information		

5.3	TABLE: fault condition tests						N/A
	ambient temperature (°C) ..... :						—
	model/type of power supply ..... :						—
	manufacturer of power supply ..... :						—
	rated markings of power supply ..... :						—
component No.	fault	test voltage (V)	test time	fuse No.	current (A)	result	
supplementary information							

6.1	TABLE: electric strength tests, impulse tests and voltage surge tests		N/A
test voltage applied between:		test voltage (VAC)	breakdown Yes / No
	test voltage (VAC)	Measured (mA)	Limit (mA)
supplementary information			

6.2	TABLE: electric strength tests, impulse tests		N/A
	Test time:	1 min (each test) for steady-state test	—
test voltage applied between:		test voltage [V AC]	breakdown Yes / No
supplementary information			

6.3	TABLE: Protection of the telecommunication wiring system from overheating			N/A
Line			Measured (A)	Limit (A)
				1.3
Line	Supply voltage (VAC)	Uoc (V)	Measured (A) after 60s	Limit (A)
				1000/Uoc
supplementary information				

7.3.2	TABLE: Voltage surge test			N/A
test voltage applied between:		Number of pulses	Uc (kV)	breakdown Yes / No
		50	10	
supplementary information				

7.3.3	TABLE: Impulse test		N/A
test voltage applied between:	Number of pulses [1)]	Uc (kV)	breakdown Yes / No
	10	5	
supplementary information			
1) 10 impulses with alternating polarity and 60s pause between the pulses No cable distribution systems			

List of test equipment

Number	Equipment	Manufacturer	Type	Calibration [Y/N/A]	Calibration next
SAF-0002	Multimeter	HP	3466A	Y	03.11.07
SAF-0020	Dual display multimeter	Fluke	45	Y	17.11.07
SAF-0030	Electronic load	Uniwatt	EL100 P10/A/F	N	---
SAF-0032	Withstand voltage & IR tester	Ass.Research	Hypot II 3570D	Y	24.10.07
SAF-0033	Line leakage tester	Ass.Research	Linechek 510L	Y	07.04.07
SAF-0036	Push & pull dynamometer lin.	PTL	P 10.36	Y	01.12.07
SAF-0037	Push & pull dynamometer lin.	PTL	P 10.37	Y	01.12.07
SAF-0038	Test finger with dyn.met. lin.	PTL	P 10.48	Y	10.08.07
SAF-0040	AC power source	California Instr.	1251WP	N	---
SAF-0058	AC power source, program.	Chroma	6120	N	---
SAF-0066	Multimeter	HP	3457A	Y	24.11.07
SAF-0076	Load resistor	Phywe	SE6 / 10R-5.7A	N	---
SAF-0077	Load resistor	Phywe	SE6 / 330R-1.0A	N	---
SAF-0085	Temp / Humidity meter	Testo	Testo 645	Y	11.04.07
SAF-0100	Multimeter	HP	3478A	Y	15.03.07
SAF-0102	Digital radiocommunication tester	Rohde&Schwarz	CMD55	N	---
SAF-0105	Electronic load	Zentro-Elektrik	ELA40/40A	N	---
SAF-0106	Thermo Camera	FLIR Systems	A20	Y	31.10.07
SAF-0130	Torque test apparatus	PTL	F37.13	Y	22.10.09
SAF-0132-EU	EU Adapter for SAF-0130	Cetecom	EU	Y	22.10.09
SAF-0132-GB	EU Adapter for SAF-0130	Cetecom	EU	Y	22.10.09
SAF-0151	Load resistor	Phywe	SE6 / 100R-1.8A	N	---
SAF-0187	AC power source, program.	Chroma	61605	N	--

<table>
<tr><td>Annex ZZ</td><td colspan="3">Variations to IEC 60950-1, 1st ed. for application in Australia (AU) and New Zealand (NZ)
CB Bulletin No. 112A December 2006</td></tr>
<tr><td>Clause</td><td>Requirement – Test</td><td>Result - Remark</td><td>Verdict</td></tr>
<tr><td>1.2</td><td>Between the definitions for 'Person, service' and 'Range, rated frequency' insert the following: Ignition source 1.1.12.201</td><td></td><td>P</td></tr>
<tr><td>1.2.12.15</td><td>After the definition of 1.2.12.15, add 1.2.12.201
1.2.12.201 Addition: Potential ignition source: Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s current under normal operating conditions exceeds 15 VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in conductive patterns on printed boards.

NOTE 201 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE.
NOTE 202 This definition is from AS/NZS 60065:2003.</td><td></td><td>P</td></tr>
<tr><td>1.5.1</td><td>Add the following to the end of first paragraph: 'or the relevant Australian/New Zealand Standard'.</td><td>Considered</td><td>P</td></tr>
<tr><td>1.5.2</td><td>Add the following to the end of first and third dash items: 'or the relevant Australian/New Zealand Standard'.</td><td>Considered</td><td>N/A</td></tr>
<tr><td>2.1</td><td>Delete the Note.</td><td>Considered</td><td>P</td></tr>
<tr><td>3.2.3</td><td>Delete Note 2.</td><td>Considered</td><td>N/A</td></tr>
<tr><td>3.2.5.1</td><td>Modify Table 3B as follows:
Delete the first four rows and replace with
<table>
<tr><td rowspan="2">RATED CURRENT OF EQUIPMENT A</td><td colspan="2">Minimum conductor sizes</td></tr>
<tr><td>Nominal cross sectional area mm^2</td><td>AWG or kcmil [cross-sectional area in mm^2] see note 2</td></tr>
<tr><td>Over 0.2 up to and including 3</td><td>0,5[1)]</td><td>18 [0,8]</td></tr>
<tr><td>Over 3 up to and including 7.5</td><td>0,75</td><td>16 [1,3]</td></tr>
<tr><td>Over 7.5 up to and including 10</td><td>(0,75)[2)] 1,00</td><td>16 [1,3]</td></tr>
<tr><td>Over 10 up to and including 16</td><td>(1,0)[3)] 1,5</td><td>14 [2]</td></tr>
<tr><td colspan="3">Replace footnote 1) with the following:
1) This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0.5 mm^2 three-core supply flexible cords are not permitted; see AS/NZS 3191).
Delete Note 1.</td></tr>
</table></td><td>Considered</td><td>N/A</td></tr>
<tr><td>4.3.6</td><td>Replace paragraph three with: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112, shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.</td><td>Considered</td><td>N/A</td></tr>
<tr><td>4.3.13.5</td><td>Add the following to the end of the first paragraph: ', or AS/NZS 2211.1'."</td><td>Considered</td><td>N/A</td></tr>
</table>

Annex ZZ	Variations to IEC 60950-1, 1st ed. for application in Australia (AU) and New Zealand (NZ) CB Bulletin No. 112A December 2006		
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
4.7	Add the following paragraph: For alternative tests refer to Clause 4.7.201.	Considered	N/A
4.7.201	S (AU) Add the following after Clause 4.7.3.6. 4.7.201 Resistance to fire – Alternative tests 4.7.201.1 General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames originating from inside the apparatus, or the following: Components that are contained in an enclosure having a flammability category of FV-0 according to AS/NZS 4695.707 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length. The following parts which would contribute negligible fuel to a fire: small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; small electrical components, such as capacitors with a volume not exceeding 1 750 mm3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category FV-1, or better, according to AS/NZS 4695.707. NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating fire from one part to another. Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5. For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5. The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. When the glow wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A

Annex ZZ	Variations to IEC 60950-1, 1st ed. for application in Australia (AU) and New Zealand (NZ) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**		**Result - Remark**	**Verdict**
	4.7.201.2 Testing of non-metallic materials Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part. 4.7.201.3 Testing of insulating materials Parts of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. The test shall be also carried out on other parts of insulating material which are within a distance of 3mm of the connection. NOTE Contacts in components such as switch contacts are considered to be connections. For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested. The needle-flame test shall be made in accordance with AS/NZS 4695.2.2 with the following modifications:			N/A
	Clause of AS/NZS 4695.2.2	Change		
	5 Severities	Replace with: The duration of application of the test flame shall be 30 s ±1 s.		N/A
	8 Test procedure			N/A
	8.2	Replace the first sentence with: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1.		N/A
	8.4	The first paragraph does not apply. Addition: If possible, the flame shall be applied at least 10 mm from a corner.		N/A
	8.5	Replace with: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall then withstand the test.		N/A
	10 Evaluation of test results	Replace with: The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.		N/A

Annex ZZ	Variations to IEC 60950-1, 1st ed. for application in Australia (AU) and New Zealand (NZ) CB Bulletin No. 112A December 2006		
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to IEC 60695-11-10, provided that the sample tested was not thicker than the relevant part.			N/A
4.7.201.4 Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in			N/A
4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to beimpinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested.			N/A
NOTE 1 - If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.			N/A
NOTE 2 - If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.			
NOTE 3 - Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.			
4.7.201.5 Testing of printed boards			N/A
The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE.			
The test is not carried out if the — Printed board does not carry any POTENTIAL IGNITION SOURCE; Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category FV-1 or better according to AS/NZS 4695.707, or the printed boards are protected by an enclosure meeting the flammability category FV-0 according to AS/NZS 4695.707, or made of metal, having openings only for connecting wires which fill the openings completely; or Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category FV-0 according to AS/NZS 4695.707 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. Compliance shall be determined using the smallest thickness of the material.			N/A
NOTE – Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected.			N/A
6.2.2	Add the symbol NZ in the right hand margin beside the first paragraph. Add the following after the first paragraph: In Australia (this variation does not apply in New Zealand), compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2. Delete the note.		N/A

Annex ZZ	Variations to IEC 60950-1, 1st ed. for application in Australia (AU) and New Zealand (NZ) CB Bulletin No. 112A December 2006		
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
6.2.2.1	Add the symbol NZ in the right hand margin beside the first paragraph including Note 1. Delete Note 2. Add the following after the first paragraph: In Australia (this variation does not apply in New Zealand), the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator of annex N for 10/700µs impulses. The interval between successive impulses is 60 s and the initial voltage, Uc, is: for 6.2.1 a):7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and for 6.2.1 b) and 6.2.1 c):1.5 kV. NOTE 201 – The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 – The value of 2.5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.		N/A
6.2.2.2	Add the symbol NZ in the right hand margin beside the second paragraph. Delete the Note. Add the following after the second paragraph: In Australia (this variation does not apply in New Zealand), the a.c. test voltage is: for 6.2.1 a):3 kV; and for 6.2.1 b) and 6.2.1 c):1.5 kV. NOTE 201 – Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 – The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.		N/A
Annex P	Add the following Normative References to Annex P: IEC 60065, Audio, Video and similar electronic apparatus—Safety requirements AS/NZS 3191, Approval and test specification - Electric flexible cords AS/NZS 3112, Approval and test specification - Plugs and socket-outlets AS/NZS 4695.707, Fire hazard testing of electrotechnical products—Methods of test for the determination of the flammability of solid electrical insulating materials when exposed to an igniting source		N/A
Index	Between the entries for 'polyimide insulating material' and 'powder' insert the following: potential ignition source 1.12.201, 4.7.201.3, 4.7.201.5		N/A

Variations to IEC 60950-1, 1st ed. for application in Canada (CA) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	Considered.	N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Considered.	N/A
1.5.1	Components of equipment must be suitable for the application, and must comply with the requirements of the equipment standard and the applicable national (Canadian and/or U.S.) component or material standards, as far as they may apply. The acceptance will be based on the following: I) A component Certified by a Canadian or U.S. National Certification Body (NCB) to a Canadian or U.S. component standard will be checked for correct application and use in accordance with its specified rating. Where necessary, it will also be subject to the applicable tests of the equipment standard. J) A component, which has a CB Test Certificate for compliance with a relevant IEC component standard, will be checked for correct application and use in accordance with ist specified ratings. Where necessary, it will also be subject to the applicable tests of the equipment standard, and to the applicable tests of the Canadian and/or U.S. component or material standard, under the conditions occurring in the equipment. K) A component, which has no approval as in A) or B) above or which is used not in accordance with its specified ratings, will be subject to the applicable tests of the equipment standard, and to the applicable tests of the Canadian and/or U.S. component or material standard, under the conditions occurring in the equipment. L) Some components may require annual re-testing, which may be carried out by the manufacturer, CSA International or another laboratory		P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g. DP, CL2) specified in the NEC. For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and if it is part of a range that extends into the Table 2 "Normal Operating Conditions." Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A

Variations to IEC 60950-1, 1st ed. for application in Canada (CA) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.	No TNV circuits	N/A
2.3.2	In the event of a single fault, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.	No TNV circuits	N/A
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.	Considered	N/A
2.6.3.3	When subject to impedance testing, protective earthing and bonding are required to be subjected to the additional test conditions specified.	Class III equipment	N/A
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets, receptacles and medium-base or smaller lampholders if the supply branch circuit protection is not suitable. Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.		N/A
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instructions requirements.	No DC mains	N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.	Not permanently connected equipment	N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	No permanently connected equipment	N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.	No wiring terminals	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm^2).	No screws	N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for US /Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).	No permanently connected equipment	N/A

Variations to IEC 60950-1, 1st ed. for application in Canada (CA) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A, or if the motor has a nominal voltage rating greater than 120 V, or is rated more than 1/3 hp (locked rotor current over 43 A).	No motor control devices	N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.	No disconnect switches and circuit breakers	N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.	No battery system	N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.	No CRTs	N/A
4.3.2	Equipment with handles is required to comply with special loading tests.	No handles	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.	No flammable liquid	N/A
4.3.13	Equipment with lasers is required to meet the Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No laser	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 27 cubic feet are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	No automated information storage systems	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m2 or a single dimension greater than 1.8 m are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.	< 0.9 m^2 and <1.8mm	N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.		N/A
6.2.1	Enamel coating on winding wire not considered electrical separation unless subjected to special investigation.		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.	No TNV circuits	N/A
6.5	Equipment connected to a telecommunications network and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure tests.	No TNV circuits	N/A
M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No TNV circuits	N/A

Variations to IEC 60950-1, 1st ed. for application in Canada (CA) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
Annex H	Equipment that produces ionizing radiation is required to comply with the Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No ionizing radiation	N/A

Variations to IEC 60950-1: 2001 for application in Germany (DE) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.7.12	(Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23 rd October 1992, Article 3, 3 rd paragraph, 2 nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10 th January 1996, article 2, th paragraph, item 2). Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language. NOTE Of this requirement, rules for use even only by service personnel are not exempted.	Considered	N/A
Annex H	Regulation on protection against hazards by X-ray, of 8 th January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4) a) A licence is required by those who operate an X-ray emission source. b) A licence in accordance with clause 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if 1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 _ Sv/h, and 2) it is adequately indicated on the X-ray emission source that i) X-rays are generated, and ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. c) A licence in accordance with clause 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if	No radiation	N/A
	1) the X-ray emission source has been granted a type approval, and 2) it is adequately indicated on the X-ray emission source that i) X-rays are generated, ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded, and iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. d) Furthermore, a licence in accordance with clause 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if	No radiation	N/A

Variations to IEC 60950-1: 2001 for application in Germany (DE) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
	1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6, 2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device, and 3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.		

Variations to IEC 60950-1: 2001 for application in Denmark (DK) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.2.4.1	In Denmark, certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	Class III equipment	N/A
1.7.2	Denmark (Heavy Current Regulations) Supply cords of CLASS I EQUIPMENT, which is delivered without a plug, must be provided with a visible tag with the following text: If essential for the safety of the equipment, the tag must in addition be provided with a diagram, which shows the connection of the other conductors, or be provided with the following text: "For tilslutning af de øvrige ledere, se medfølgende installationsvejledning."	Class III equipment	N/A
1.7.5	In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.	No socket-outlet for providing power to other equipment	N/A
	Denmark (Heavy Current Regulations) CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.	No socket-outlet for providing power to other equipment	N/A
3.2.1.1	In Denmark Supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If ply-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.	Class III equipment	N/A

Variations to IEC 60950-1: 2001 for application in Finland (FI) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.7.2	In Finland, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan "	Class III equipment	N/A
6.1.2.1	In Finland, add the following text between the first and second paragraph: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.7 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400.	No TNV circuits	N/A

Variations to IEC 60950-1: 2001 for application in Finland (FI) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
6.1.2.2	In Finland, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a service person.	No TNV circuits	N/A
7.1	In Finland, requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	No connection to cable distribution systems	N/A

Variations to IEC 60950-1: 2001 for application in Great Britain (GB) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
2.6.3.3	In the United Kingdom, the current rating of the circuit shall be taken as 13 A, not 16 A.	Considered	N/A
2.7.1	In the United Kingdom, to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUGIN EQUIPMENT, protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT. In the United Kingdom, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	Class III equipment	N/A
3.2.5.1	In the United Kingdom, a power supply cord with conductor of 1,25 mm 2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.	Class III equipment	N/A
3.3.4	In the United Kingdom, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: - 1,25 mm 2 to 1,5 mm2 nominal cross-sectional area.	Considered	N/A
4.3.6	In the United Kingdom, the torque test is performed using a socket outlet complying with BS 1363 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125°C.	Class III equipment	N/A

Variations to IEC 60950-1: 2001 for application in Norway (NO) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.5.8	In Norway, due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Considered	N/A
1.7.2	In Norway, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: "Apparatet må tilkoples jordet stikkontakt"	Class III equipment	N/A
2.2.4	In Norway, requirements according to this annex, 1.7.2 and 6.1.2.1 apply.	Considered	N/A
2.3.2	In Norway, requirements according to this annex, 6.1.2.1 apply.		N/A
2.3.3	In Norway, requirements according to this annex, 1.7.2 and 6.1.2.1 apply.	Considered	N/A
2.3.4	In Norway, requirements according to this annex, 1.7.2 and 6.1.2.1 apply.	Considered	N/A
2.10.3.1	In Norway, due to the IT power distribution system used (see annex V, Figure V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage and will remain at 230 V in case of a single earth fault.		N/A
6.1.2.1	In Norway, add the following text between the first and second paragraph: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition	No TNV circuits	N/A
	- passes the tests and inspection criteria of 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.7 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.		

Variations to IEC 60950-1: 2001 for application in Norway (NO) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
	It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400.		
6.1.2.2	In Norway, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a service person.	No TNV circuits	N/A
7.1	In Norway, requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	No cable distribution system	N/A
G.2.1	In Norway, due to the IT power distribution system used (see annex V, Figure V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.	Class III equipment	N/A

Variations to IEC 60950-1: 2001 for application in Sweden (SE) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.5.1	The following is added: (Ordinance (1990:944) NOTE - In Sweden, switches containing mercury such as thermostates, relays and level controllers are not allowed.	No switches containing mercury such as thermostats, relays and level controllers	P
1.7.2	The following text is added: - In Sweden, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be in Swedish and as follows: "Apparaten skall anslutas till jordat uttag."	Class III equipment	N/A
6.1.2.1	The following text is added: - In Sweden the following text is added between the first and second paragraph: In Sweden, if this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in the accordance with the compliance clause below and in addition: - passes the test and inspection criteria of IEC 60950-1, 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of IEC 60950-1, 2.10.7 shall be performed using 1,5 kV); and - is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with a capacitor complying with IEC 60384-14:1993, subclass Y2. A capacitor classified Y3 according to IEC 60384-14:1993, may bridge this insulation under the following conditions: The insulation requirements are satisfied by having a capacitor classified Y3 as defined by IEC 60384-14, which in addition to the Y3 testing, is tested with an Impulse test of 2.5kV defined in IEC 60950-1, subclause 6.2.2.1. The additional testing shall be performed on all the test specimens as described in IEC 60384 -14. The Impulse test of 2.5kV is to be performed before the Endurance Test in IEC 60384 -14 in the sequence of tests as described in IEC 60384-14.	No TNV circuits	N/A

Variations to IEC 60950-1: 2001 for application in Sweden (SE) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
6.1.2.2	The following text is added: In Sweden the exclusions are applicable only for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by SERVICE PERSON.	No TNV circuits	N/A
7.1	In Sweden requirements according to the Swedish deviations to 6.1.2.1 and 6.1.2.2 apply. The term "TELECOMMUNICATION NETWORK" in 6.1.2 is replaced by "CABLE DISTRIBUTION SYSTEM".	No connection to cable distribution systems	N/A

Variations to IEC 60950-1, 1st ed. for application in the United States of America (US) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	Considered	N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Considered.	N/A
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment), cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, surge suppressors, switches (including interlock switches), thermal cutoffs, thermostats, multi-layer transformer winding wire, tubing, wire connectors, and wire and cables.	Considered	N/A
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g. DP, CL2) specified in the NEC. For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC are required to have special construction features and identification markings.		N/A
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and if it is part of a range that extends into the Table 2 "Normal Operating Conditions." Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A

Variations to IEC 60950-1, 1st ed. for application in the United States of America (US) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.	No TNV circuits	N/A
2.3.2	In the event of a single fault, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.	No TNV circuits	N/A
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.	Considered	N/A
2.6.3.4	When subject to impedance testing, protective earthing and bonding are required to be subjected to the additional test conditions specified.	Class III equipment	N/A
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets, receptacles and medium-base or smaller lampholders if the supply branch circuit protection is not suitable. Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.		N/A
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.	No DC mains	N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not 2 permitted, except for certain equipment, such as ATMs.	Not permanently connected equipment	N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	Not permanently connected equipment	N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.	No wiring terminals	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm 2).	No screws	N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).	Not permanently connected equipment	N/A

Variations to IEC 60950-1, 1st ed. for application in the United States of America (US) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A, or if the motor has a nominal voltage rating greater than 120 V, or is rated more than 1/3 hp (locked rotor current over 43 A).	No motor control devices	N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.	No disconnect switches and circuit breakers	N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.	No battery system	N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.	No CRTs	N/A
4.3.2	Equipment with handles is required to comply with special loading tests.	No handles	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.	No flammable liquid	N/A
4.3.13	Equipment with lasers is required to meet the Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No laser	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 27 cubic feet are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	No automated information storage systems	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m 2 or a single dimension greater than ²1.8 m are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.	< 0.9m² and <1.8m	N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.	No TNV circuits	N/A
6.2.1	Enamel coating on winding wire not considered electrical separation unless subjected to special investigation.	No TNV circuits	N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.	No TNV circuits	N/A
6.5	Equipment connected to a telecommunications network and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure tests. M.2 Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No TNV circuits	N/A

Variations to IEC 60950-1, 1st ed. for application in the United States of America (US) CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
Annex H	Equipment that produces ionizing radiation is required to comply with the Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370). 3	No ionizing radiation	N/A

Group Differences to IEC 60950-1: 2001 CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
General	Delete all the "country" notes in the reference document according to the following list: 1.5.1 Note 2 1.5.8 Note 2 1.6.1 Note 1.7.2 Note 4 1.7.12 Note 2 2.1 Note 2.2.3 Note 2.2.4 Note 2.3.2 Note 2, 7, 8 2.3.3 Note 1, 2 2.3.4 Note 2, 3 2.7.1 Note 2.10.3.1 Note 4 3.2.1.1 Note 3.2.3 Note 1, 2 3.2.5.1 Note 2 4.3.6 Note 1, 2 4.7.2.2 Note 4.7.3.1 Note 2 6.1.2.1 Note 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7 Note 4 7.1 Note G2.2 Note 1, 2 Annex H Note 2		P
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.	Class III equipment	N/A
	If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		
2.7.2	This subclause has been declared 'void'.	Considered	P
2.10.2	Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)".	Considered	P
3.2.3	Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses.	Considered	P

Group Differences to IEC 60950-1: 2001 CB Bulletin No. 112A December 2006			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by"H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 0,75[1)] Over 6 up to and including 10 (0,75)[2)] 1,0 Over 10 up to and including 16 (1,0)[3)] 1,5 In the Conditions applicable to Table 3B delete the words "in some countries" in condition [1)]. In Note 1, applicable to Table 3B, delete the second sentence.	Considered	N/A
3.3.4	In table 3D, delete the fourth line: conductor sizes for 10 to 13A, and replace with the following: "Over 10 up to and including 16 1,5 to 2,51,5 to 4 Delete the fifth line: conductor sizes for 13 to 16 A.	Considered	N/A
4.3.13.6	C, G: Add the following note: NOTE: Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz. Standards taking into account this recommendation are currently under development.	Considered	N/A
Annex H	C, G: Replace the last paragraph of this annex by: At any point 10 cm from the surface of the operator access area, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see note). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete Note 2.	No radiation	N/A
Annex P	Replace the text of this annex by: See annex ZA.	Considered	P
Annex Q	Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification". Add the following notes for the standards indicated: IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified) IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified) IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified) IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified) IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified) ITU-T Recommendation K.31 NOTE In Europe, the suggested document is EN 50083-1.		P

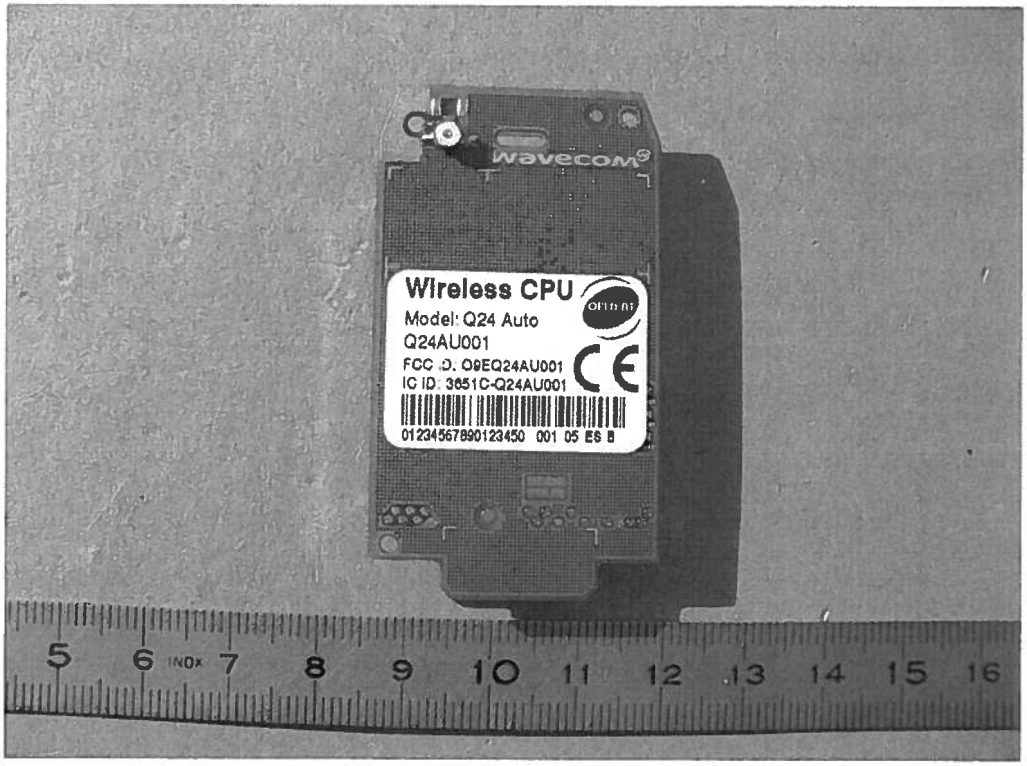
Annex ZA
Normative references to international publications with their relevant European publications
CB Bulletin No. 112A December 2006

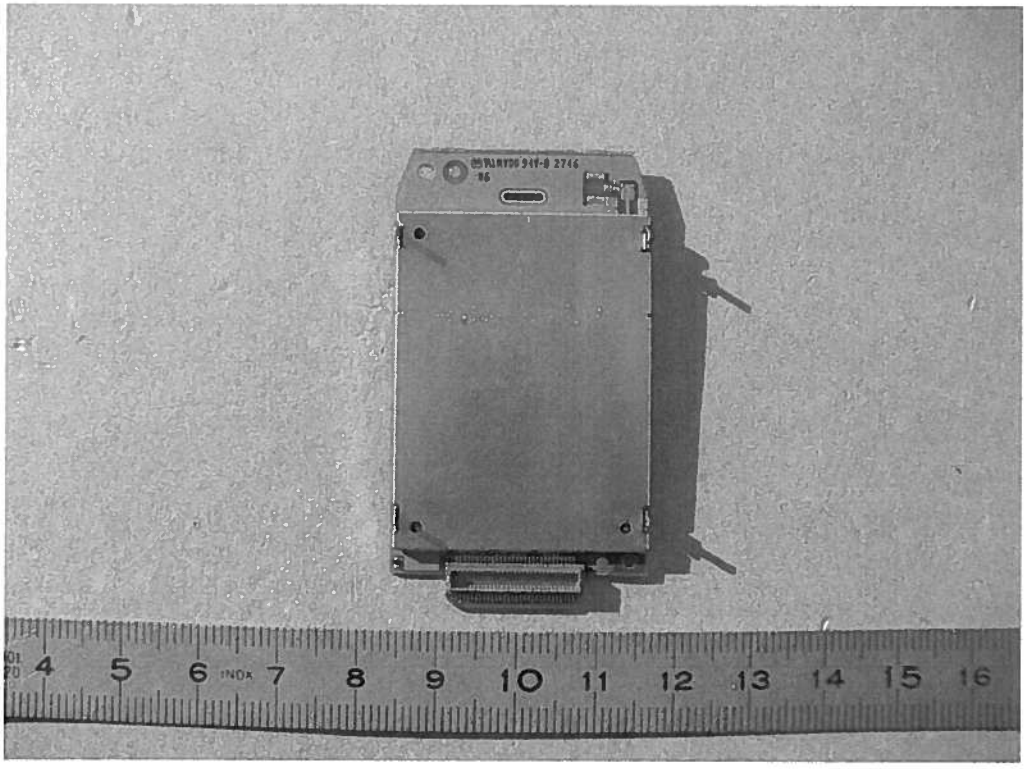
Publication		Verdict
NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments). NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.		P
—	IEC 60050-151	
—	IEC 60050-195	
EN 60065:1998 + corr. June 1999	IEC 60065 (mod):1998	
EN 60073:1996	IEC 60073:1996	
HD 566 S1:1990	IEC 60085:1984	
HD 214 S2:1980	IEC 60112:1979	
HD 611.4.1.S1:1992	IEC 60216-4-1:1990	
HD 21 [1)] Series	IEC 60227 (mod) Series	
HD 22 [2)] Series	IEC 60245 (mod) Series	
EN 60309 Series	IEC 60309 Series	
EN 60317-43:1997	IEC 60317-43:1997	
EN 60320 Series	IEC 60320 (mod) Series	
HD 384.3 S2:1995	IEC 60364-3 (mod):1993	
HD 384.4.41 S2:1996	IEC 60364-4-41 (mod):1992 [3)]	
EN 132400:1994 [4)] + A2:1998 + A3:1998 + A4:2001	IEC 60384-14:1993	
EN 60417-1	IEC 60417-1	
HD 625.1 S1:1996 + corr. Nov. 1996	IEC 60664-1 (mod):1992	
EN 60695-2-2:1994	IEC 60695-2-2:1991	
EN 60695-2-11:2001	IEC 60695-2-11:2000	
—	IEC 60695-2-20:1995	
—	IEC 60695-10-2:1995	
—	IEC 60695-11-3:2000	
—	IEC 60695-11-4:2000	
EN 60695-11-10:1999	IEC 60695-11-10:1999	
EN 60695-11-20:1999	IEC 60695-11-20:1999	
EN 60730-1:2000	IEC 60730-1:1999 (mod)	
EN 60825-1:1994 + corr. Febr. 1995 + A11:1996 + corr. July 1997	IEC 60825-1:1993	
EN 60825-2:2000	IEC 60825-2:2000	
—	IEC 60825-9:1999	
EN 60851-3:1996	IEC 60851-3:1996	
EN 60851-5:1996	IEC 60825-5:1996	
EN 60851-6:1996	IEC 60851-6:1996	
—	IEC 60885-1:1987	
EN 60990:1999	IEC 60990:1999	
—	IEC 61058-1:2000	
EN 61965:2001	IEC 61965:2000	
EN ISO 178:1996	ISO 178:1993	
EN ISO 179 Series	ISO 179 Series	
EN ISO 180:2000	ISO 180:1993	
—	ISO 261:1998	
—	ISO 262:1998	
EN ISO 527 Series	ISO 527 Series	
—	ISO 386:1984	

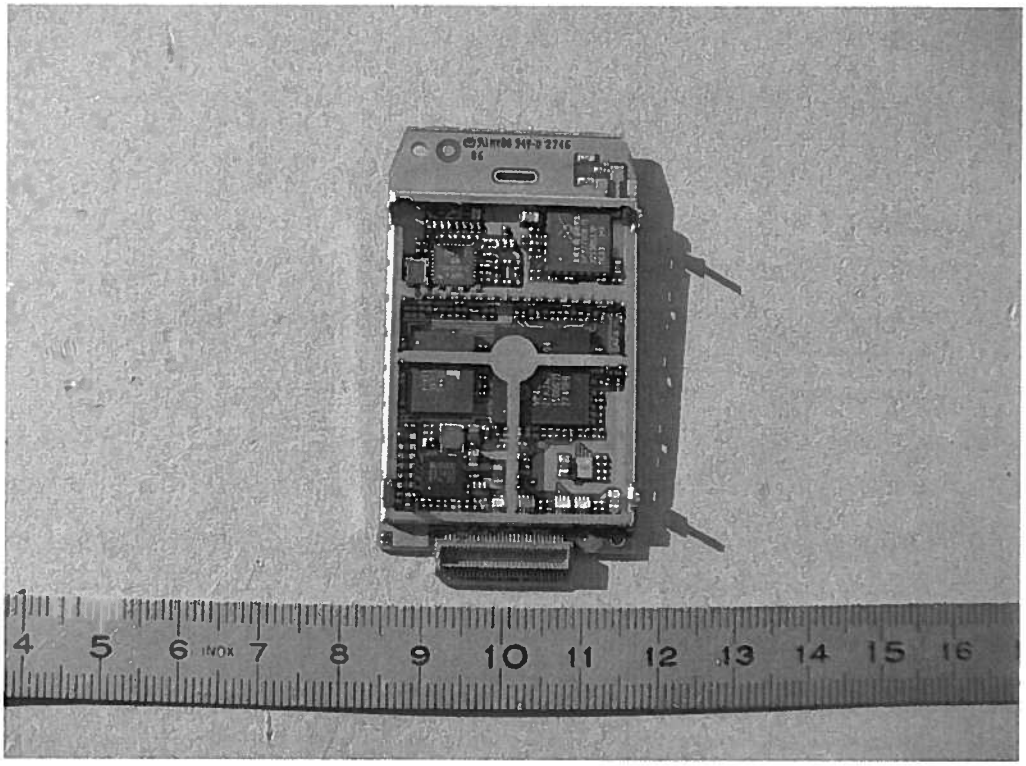
Annex ZA Normative references to international publications with their relevant European publications CB Bulletin No. 112A December 2006		
Publication		**Verdict**
EN ISO 4892 Series	ISO 4892 Series	
—	ISO 7000:1989	
EN ISO 8256:1996	ISO 8256:1990	
—	ISO 9772:1994	
EN ISO 9773:1998	ISO 9773:1998	
—	ITU-T:1988 Recommendation K.17	
—	ITU-T:2000 Recommendation K.21	
1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series 2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series 3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001 4) EN 132400, Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D), and its amendments are related to, but not directly equivalent to IEC 60384-14		

Annex 1: Photo documentation

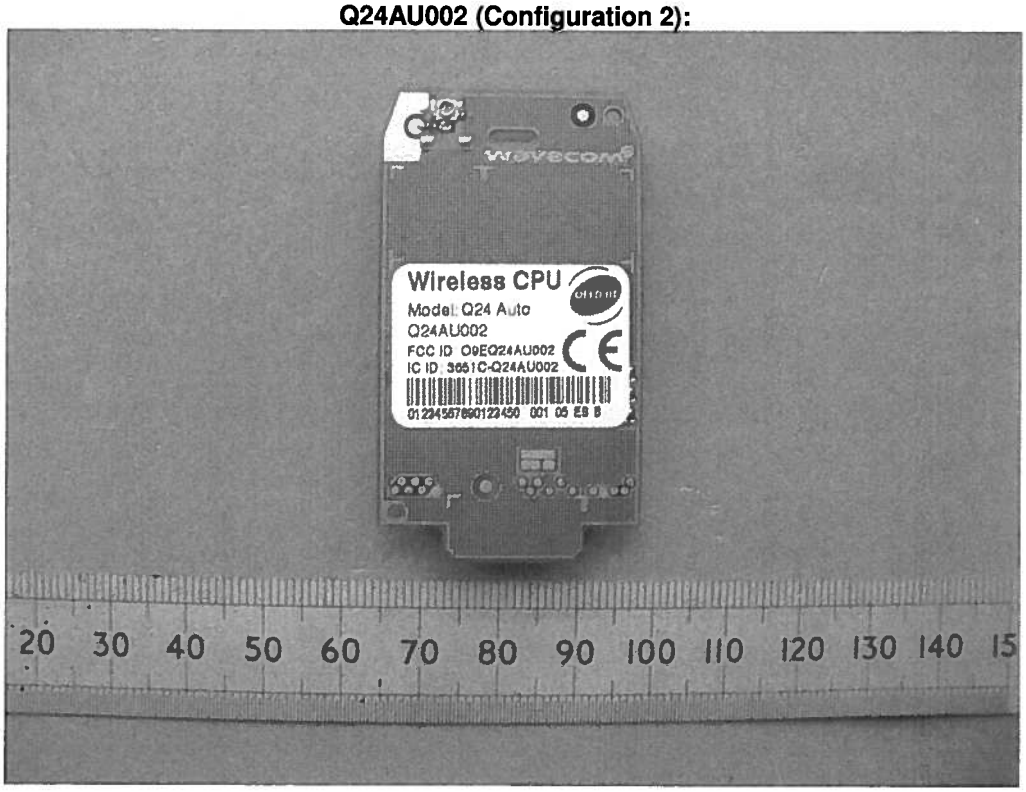
Q24AU001 (Configuration 1):

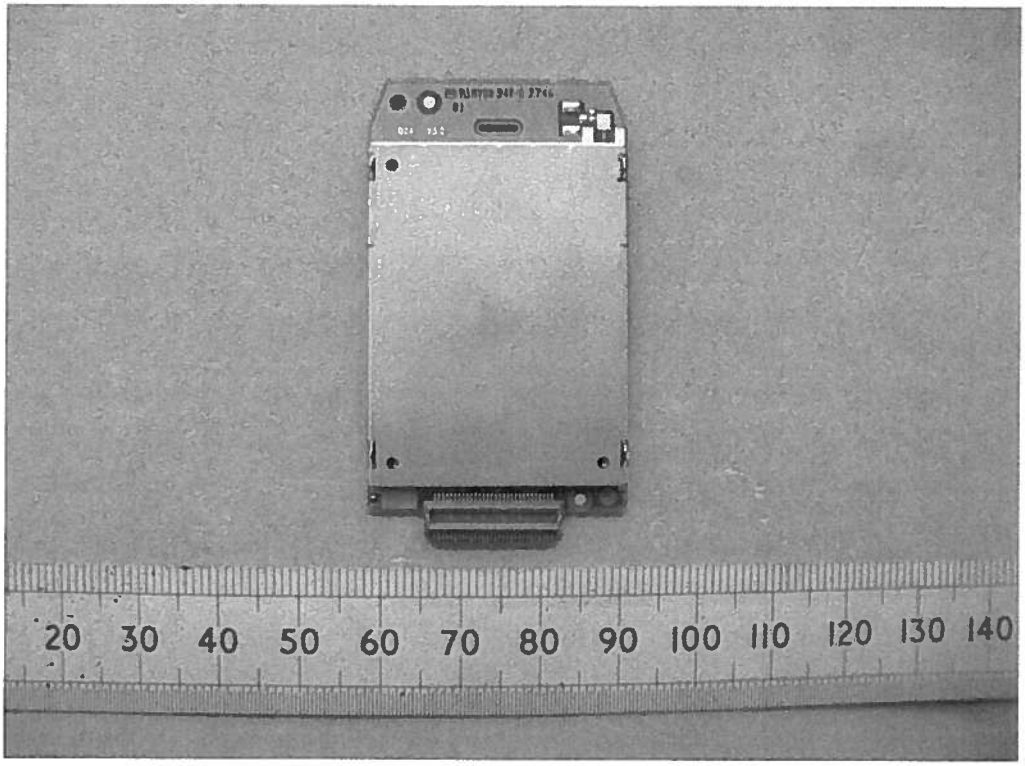


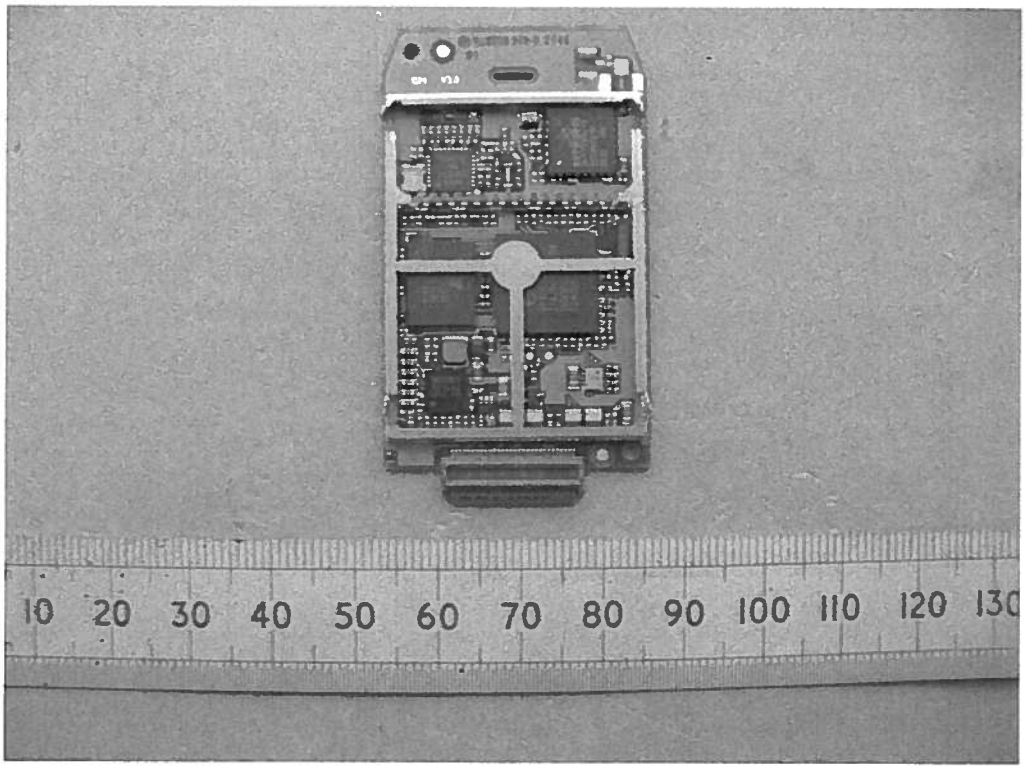




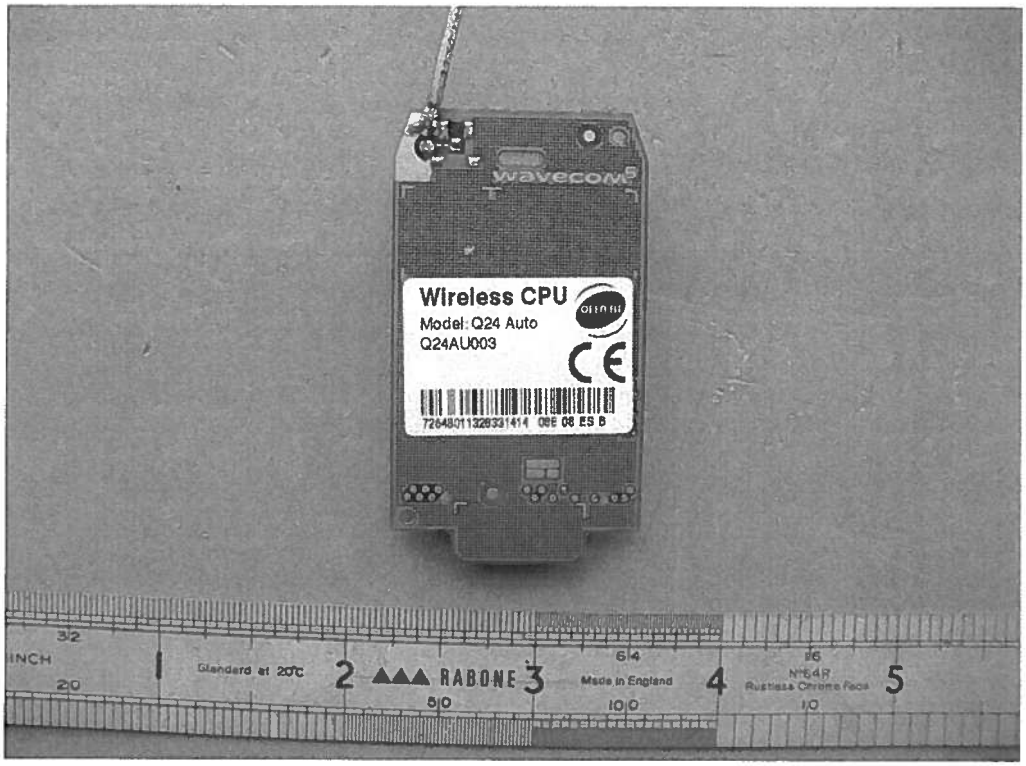
Q24AU002 (Configuration 2):

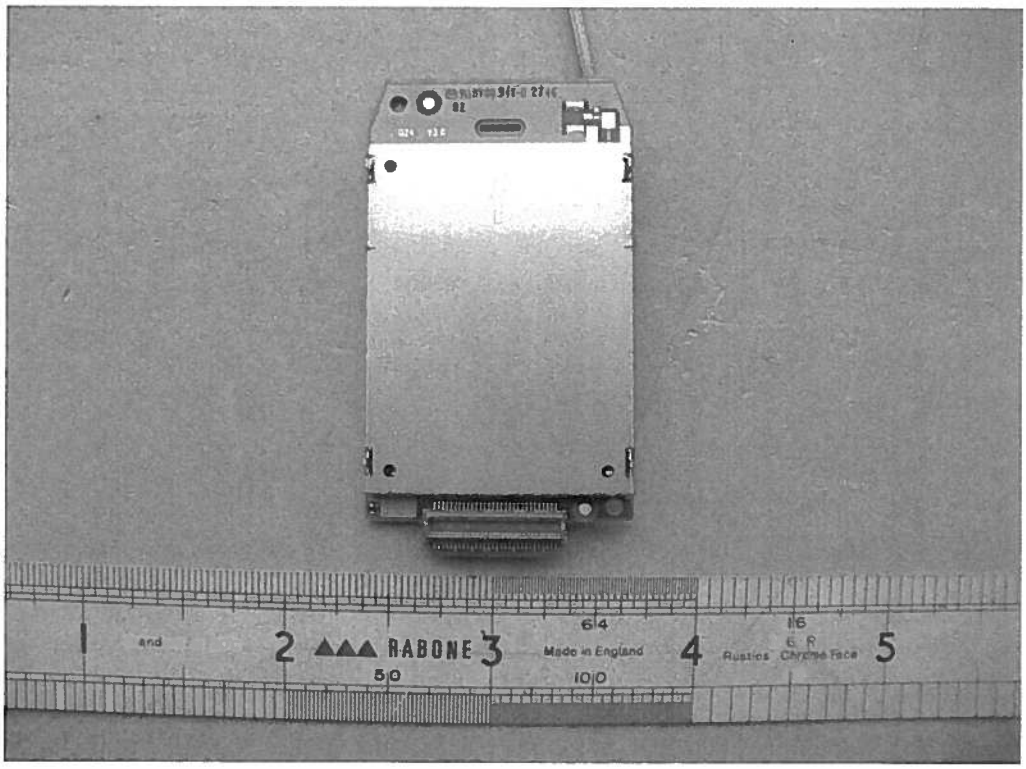


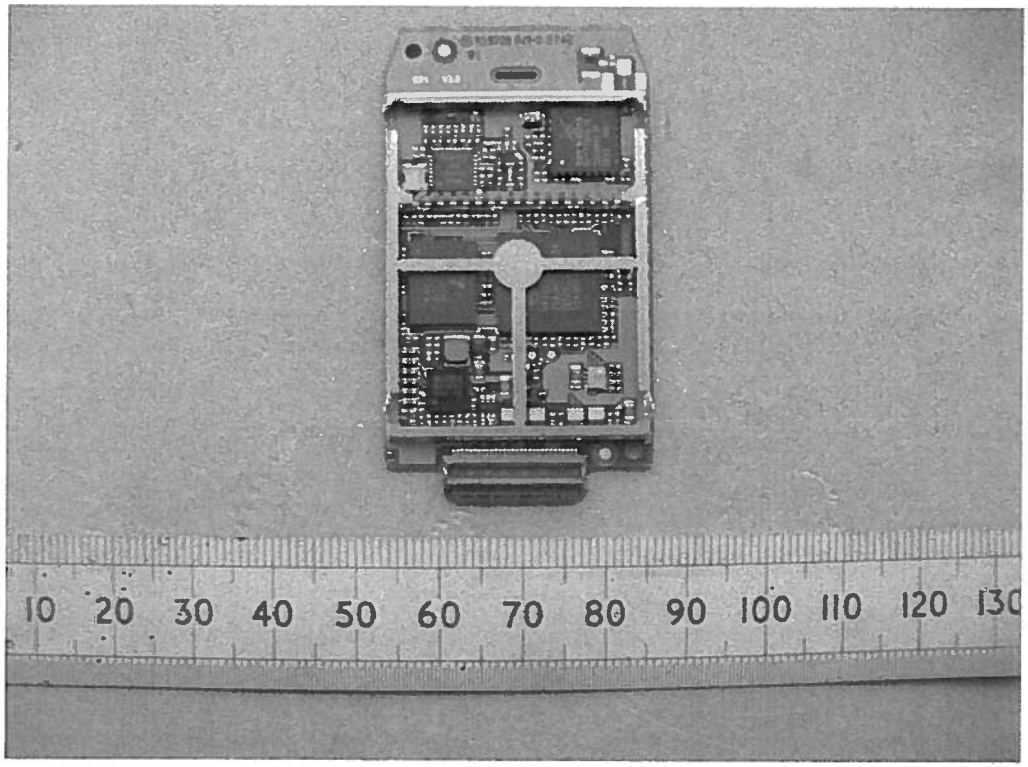

20 30 40 50 60 70 80 90 100 110 120 130 140


10 20 30 40 50 60 70 80 90 100 110 120 130

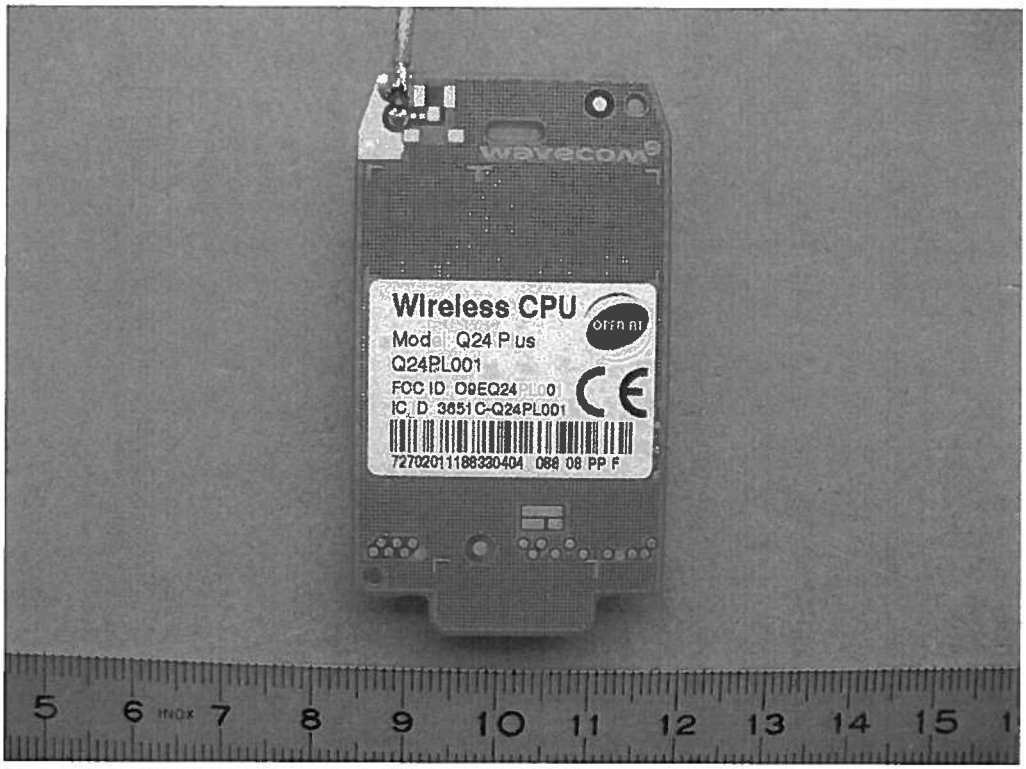
Q24AU003 (Configuration 3):

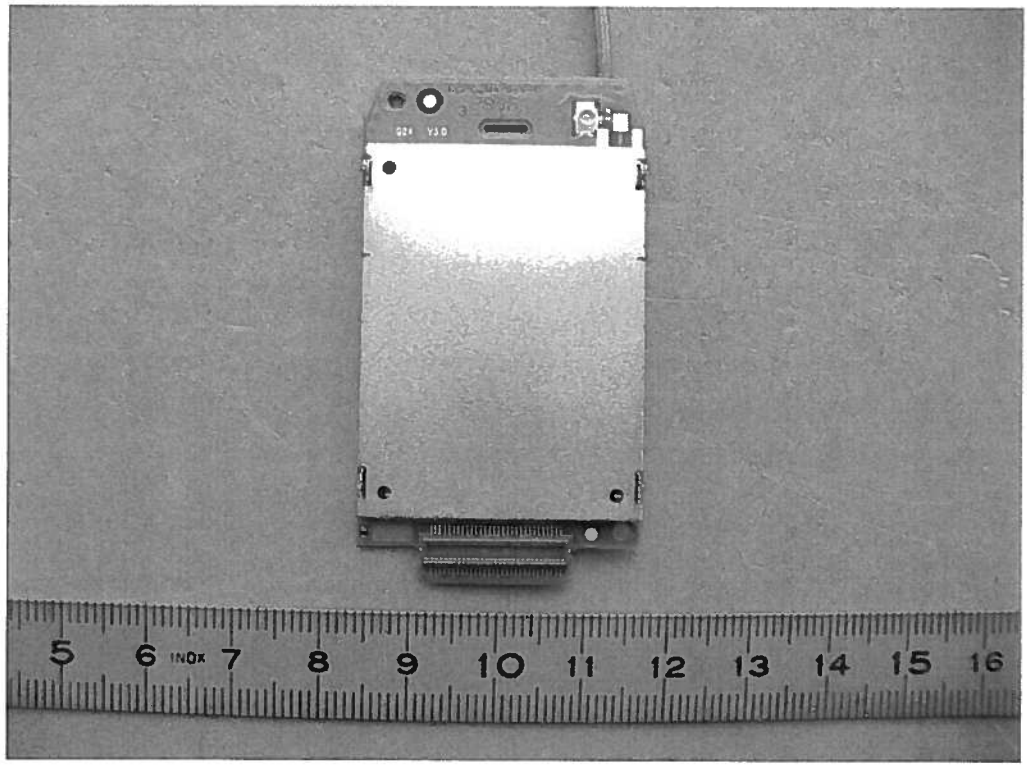


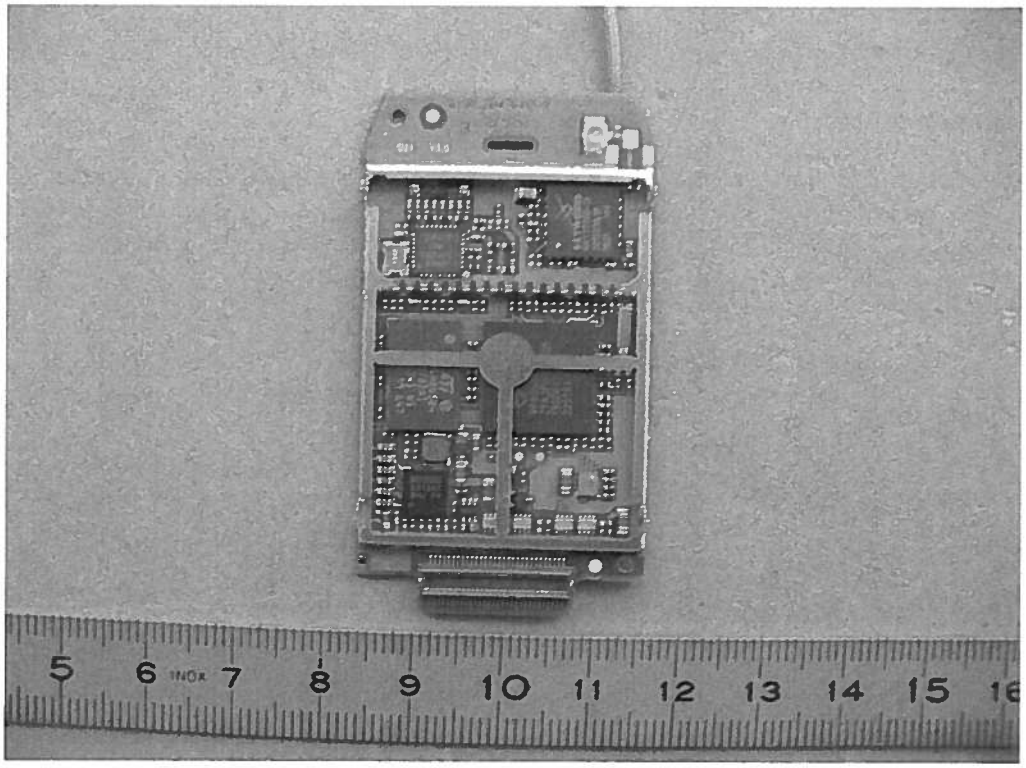




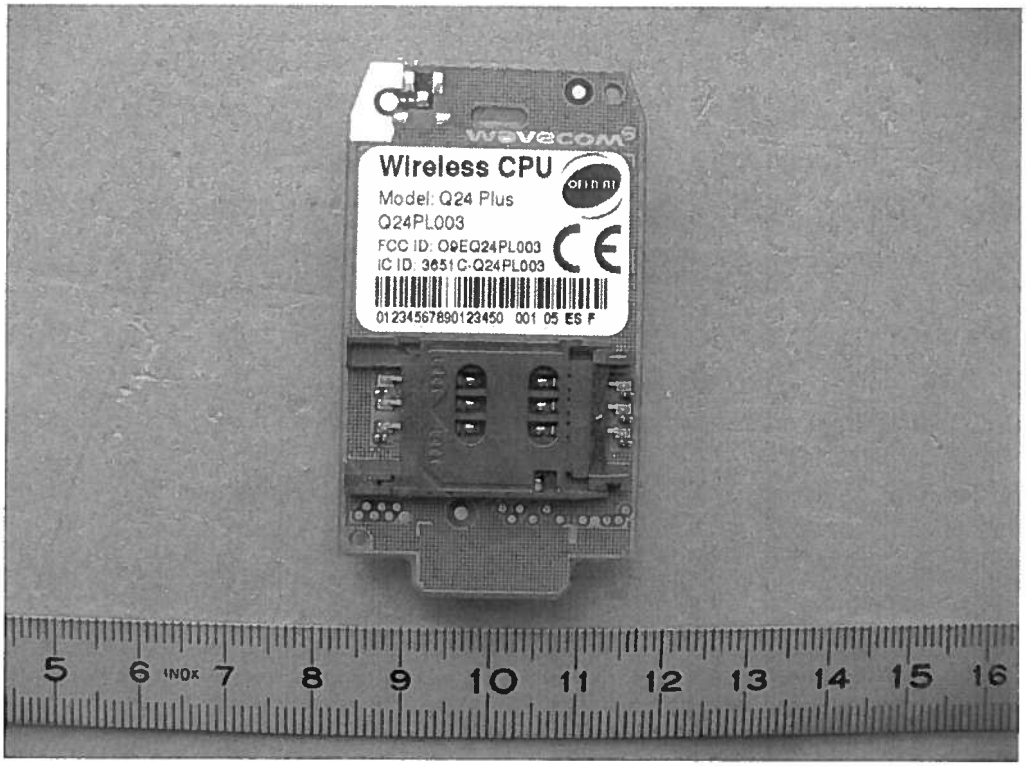
Q24PL001 (Configuration 4):

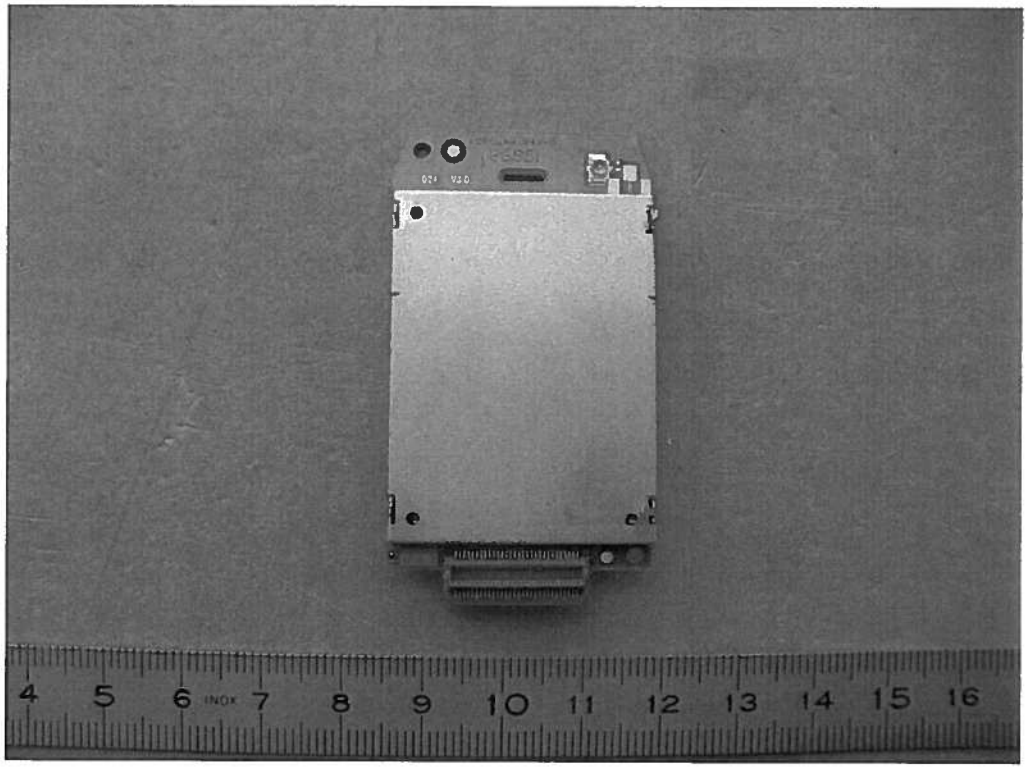


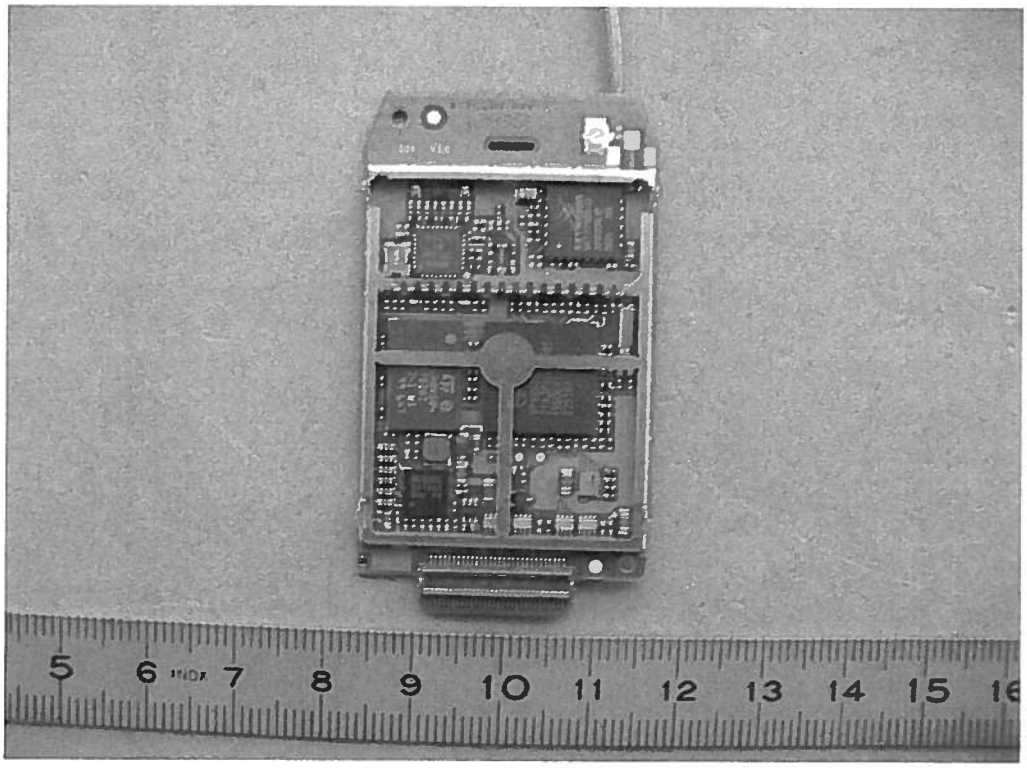

5 6 INOX 7 8 9 10 11 12 13 14 15 16


5 6 INOX 7 8 9 10 11 12 13 14 15

Q24PL003 (Configuration 5):



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