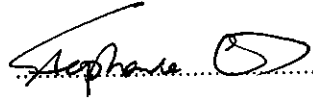




| <b>TEST REPORT</b><br><b>IEC 60950-1 and/or EN 60950-1</b><br><b>Information technology equipment – Safety –</b><br><b>Part 1: General requirements</b>   |   |
|---|---|
| <b>Report reference No</b> .....  | SHESO051200048IT  |
| <b>Tested by</b><br>(printed name and signature) .....  | Stephanie Cai  |
| <b>Approved by</b><br>(printed name and signature) .....  | Alex Zhu       |
| <b>Date of issue</b> .....  | Jan 23, 2006  |
| <b>Testing Laboratory Name</b> .....  | SGS-CSTC Standards Technical Services Co., Ltd.   |
| <b>Address</b> .....  | 6/F, Building 3, No.889, Yishan Road, Xuhui District, Shanghai, China                             |
| <b>Testing location</b> .....   | Same as above   |
| <b>Applicant's Name</b> .....   | SAGEM Communication   |
| <b>Address</b> .....  | 2, rue du Petit Albi BP 28250 95801 CERGY PONTOISE Cedex  |
| <b>Test specification</b>   |   |
| <b>Standard</b> .....   | EN 60950-1:2001   |
| <b>Test procedure</b> .....   | SGS-CSTC  |
| <b>Non-standard test method</b> .....   | N.A.  |
| <b>Test Report Form No.</b> .....   | IECEN60950_1B   |
| <b>TRF originator</b> .....   | SGS Fimko Ltd   |
| <b>Master TRF</b> .....   | dated 2003-03   |
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| <b>Test item description</b> .....  | GSM Mobile Phone  |
| <b>Trademark</b> .....  |                |
| <b>Manufacturer</b> .....   | SAGEM Communication<br>2, rue du Petit Albi BP 28250 95801 CERGY PONTOISE Cedex                   |
| <b>Model and/or type reference</b> .....  | my100B, my100L  |
| <b>Serial number</b> .....  | --  |
| <b>Rating(s)</b> .....  | --  |

# Copy of marking plate

The trade mark SAGEM and model name my100B or my100L are marked on the front panel.



Label of adaptor S/N 18 865 855-8



Label of adaptor S/N 18 865 853-7



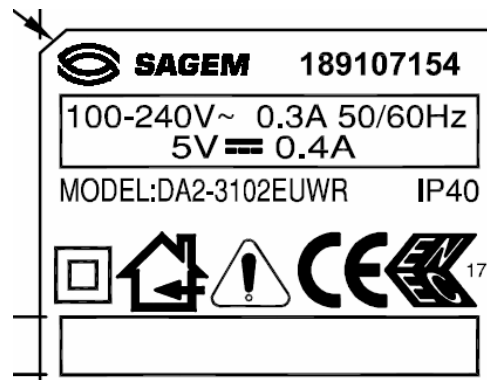
Label of adaptor S/N 18 867 925-5



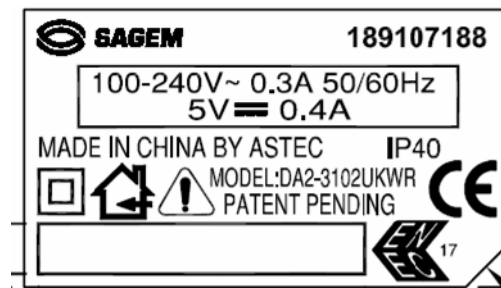
Label of adaptor S/N 18 864 404-6



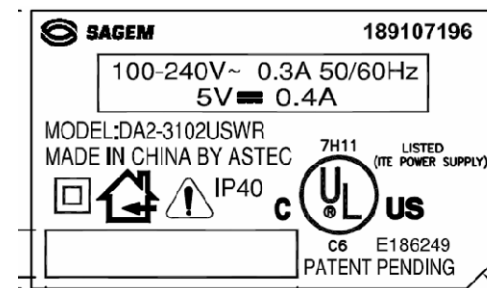
Label of adaptor S/N 18 869 200-0



Label of adaptor S/N 18 910 715-4



Label of adaptor S/N 18 910 718-8



Label of adaptor S/N 18 910 719-6



Label of cigar lighter adaptor S/N 18 871 842-4

#### Summary of testing:

If no special explanation, total 8 adaptors, 1 cigar lighter adaptor and other accessories are all tested with the appliance and found in compliance with the standard EN 60950-1: 2001.

**Particulars: test item vs. test requirements**

Equipment mobility ..... : hand-held  
 Operating condition ..... : continuous  
 Tested for IT power systems ..... : No  
 IT testing, phase-phase voltage (V) ..... : --  
 Class of equipment ..... : Class III  
 Mass of equipment (kg)..... : 0,08 kg  
 Protection against ingress of water ..... : IPX0

**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 ..... : Dec 13, 2005  
 Date(s) of performance of test ..... : Dec 14, 2005 – Jan 20, 2005

**General remarks**

**"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 IEC 60950-1".**

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 is used as the decimal separator.

**General product information:**

Model my100B is same as my100L except for model name.

The phone's accessories include 9 chargers (8 adaptors and 1 cigar light adaptor) 1 USB data cable, 1 earphone and 1 battery. Detailed information of chargers and battery please refer appended table 1.5.1.


The adaptors S/N 18 867 925-5, 18 869 200-0, 18 910 715-4, 18 910 719-6 and 18 910 718-8 are exactly same except for the shape of AC plug.

The adaptor 18 865 855-8 is exactly same as 18 910 718-8 except for the shape of DC output connector.  
 The adaptor 18 865 853-7 is exactly same as 18 910 715-4 except for the shape of DC output connector.  
 The adaptor 18 864 404-6 is exactly same as 18 910 719-6 except for the shape of DC output connector.

The battery can be charged by chargers via phone. The phone is supplied by the battery, so all circuits belong to SELV circuit.

Use only the appropriate chargers and batteries as provided by manufacturer.

| IEC 60950-1 / EN 60950-1 |  |  |         |
|--------------------------|--|--|---------|
| Clause                   | Requirement – Test   | Result – Remark  | Verdict |
| 1                        | GENERAL  |  | P       |
| 1.5                      | Components   |  | P       |
| 1.5.1                    | General  | Components, which were found to affect safety aspects, comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards.                                   | 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, which are certified to IEC and/or national standards, are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. | P       |
| 1.5.3                    | Thermal controls   |  | N       |
| 1.5.4                    | Transformers   | The chargers are separately approved   | N       |
| 1.5.5                    | Interconnecting cables   |  | P       |
| 1.5.6                    | Capacitors in primary circuits .....                             |  | N       |
| 1.5.7                    | Double insulation or reinforced insulation bridged by components |  | N       |
| 1.5.7.1                  | General  |  | N       |
| 1.5.7.2                  | Bridging capacitors  |  | N       |
| 1.5.7.3                  | Bridging resistors   |  | N       |
| 1.5.7.4                  | Accessible parts   |  | N       |
| 1.5.8                    | Components in equipment for IT power systems                     |  | N       |
| 1.6                      | Power interface  |  | P       |
| 1.6.1                    | AC power distribution systems                                    | Use in TN and TT   | P       |
| 1.6.2                    | Input current  | (see appended table 1.6.2)   | P       |
| 1.6.3                    | Voltage limit of hand-held equipment                             |  | P       |
| 1.6.4                    | Neutral conductor  |  | N       |
| 1.7                      | Marking and instructions   |  | P       |

| IEC 60950-1 / EN 60950-1 |  |   |         |
|--------------------------|--|---|---------|
| Clause                   | Requirement – Test   | Result – Remark   | Verdict |
| 1.7.1                    | Power rating   |   | P       |
|                          | Rated voltage(s) or voltage range(s) (V) .....                                       | The mobile isn't provided with a means for direct connection to an AC MAINS SUPPLY or a DC MAINS SUPPLY   | N       |
|                          | Symbol for nature of supply, for d.c. only .....                                     |   | N       |
|                          | Rated frequency or rated frequency range (Hz) ..                                     |   | N       |
|                          | Rated current (mA or A) .....  |   | N       |
|                          | Manufacturer's name or trademark or identification mark .....                        |   | P       |
|                          | Type/model or type reference .....   | my100B, my100L  | P       |
|                          | Symbol for Class II equipment only .....   | Class III equipment   | N       |
|                          | Other symbols .....  | No other symbols  | N       |
|                          | Certification marks .....  |   | N       |
| 1.7.2                    | Safety instructions  | The user manual contains information for operation, installation, servicing, storage and technical data. The operation guide is provided to the user. | P       |
| 1.7.3                    | Short duty cycles  | Equipment is designed for continuous operation.   | N       |
| 1.7.4                    | Supply voltage adjustment .....  | No voltage adjustment.  | N       |
|                          | Methods and means of adjustment; reference to installation instructions .....        |   | N       |
| 1.7.5                    | Power outlets on the equipment .....   | No power outlet   | N       |
| 1.7.6                    | Fuse identification (marking, special fusing characteristics, cross-reference) ..... | No fuse   | N       |
| 1.7.7                    | Wiring terminals   |   | N       |
| 1.7.7.1                  | Protective earthing and bonding terminals .....                                      | Class III equipment   | N       |
| 1.7.7.2                  | Terminal for a.c. mains supply conductors  | The mobile isn't provided with a means for direct connection to an AC MAINS SUPPLY or a DC MAINS SUPPLY   | N       |
| 1.7.7.3                  | Terminals for d.c. mains supply conductors   |   | N       |
| 1.7.8                    | Controls and indicators  | The controls and indicators don't affect safety   | N       |
| 1.7.8.1                  | Identification, location and marking .....   |   | N       |
| 1.7.8.2                  | Colours .....  |   | N       |
| 1.7.8.3                  | Symbols according to IEC 60417 .....   |   | N       |
| 1.7.8.4                  | Markings using figures .....   |   | N       |

| IEC 60950-1 / EN 60950-1 |  |  |         |
|--------------------------|--|--|---------|
| Clause                   | Requirement – Test                             | Result – Remark  | Verdict |
| 1.7.9                    | Isolation of multiple power sources .....      |  | N       |
| 1.7.10                   | IT power distribution systems                  |  | N       |
| 1.7.11                   | Thermostats and other regulating devices       | No thermostats and other regulating devices.   | N       |
| 1.7.12                   | Language(s) .....                              | English  | —       |
| 1.7.13                   | Durability                                     | The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. and then again for 15 sec. with the cloth soaked with petroleum spirit.<br>After this test there was no damage to the label. The marking on the label did not fade. There was no curling nor lifting of the label edge. | P       |
| 1.7.14                   | Removable parts                                | No required markings placed on removable parts.  | P       |
| 1.7.15                   | Replaceable batteries                          | The necessary statements as below are on the user manual.<br>“There is danger of explosion if the battery is placed in an incorrectly way or if it is exposed to fire.<br>Use only the appropriate chargers and batteries as shown in the phone manufacturer's catalogue.”   | P       |
|                          | Language(s) .....                              | English  | —       |
| 1.7.16                   | Operator access with a tool .....              | No tool is necessary to gain access to the operator access area.   | N       |
| 1.7.17                   | Equipment for restricted access locations..... |  | N       |

|         |   |  |   |
|---------|---|--|---|
| 2       | PROTECTION FROM HAZARDS                           |  | P |
| 2.1     | Protection from electric shock and energy hazards |  | P |
| 2.1.1   | Protection in operator access areas               | All mobile is SELV circuit. And the output of chargers are SELV circuit. | P |
| 2.1.1.1 | Access to energized parts                         |  | N |
|         | Test by inspection .....                          |  | N |
|         | Test with test finger .....                       |  | N |
|         | Test with test pin .....                          |  | N |
|         | Test with test probe .....                        |  | N |



| IEC 60950-1 / EN 60950-1 |   |   |         |
|--------------------------|---|---|---------|
| Clause                   | Requirement – Test  | Result – Remark   | Verdict |
| 2.1.1.2                  | Battery compartments .....  |   | N       |
| 2.1.1.3                  | Access to ELV wiring  |   | N       |
|                          | Working voltage ( $V_{peak}$ or $V_{rms}$ ); minimum distance (mm) through insulation | (see appended table 2.10.5)   | —       |
| 2.1.1.4                  | Access to hazardous voltage circuit wiring  |   | N       |
| 2.1.1.5                  | Energy hazards .....  | No energy hazard in operator access area. The maximum output of five chargers is 2,5 VA | P       |
| 2.1.1.6                  | Manual controls   | No conductive shafts of operating knobs and handles.                                    | N       |
| 2.1.1.7                  | Discharge of capacitors in equipment  |   | N       |
|                          | Time-constant (s); measured voltage (V) .....   |   | —       |
| 2.1.2                    | Protection in service access areas  | No maintenance work in operation mode necessary.  | N       |
| 2.1.3                    | Protection in restricted access locations   | The unit is not intended to be used in restricted locations                             | N       |

|         |   |                                  |   |
|---------|---|----------------------------------|---|
| 2.2     | SELV circuits   |                                  | P |
| 2.2.1   | General requirements  |                                  | P |
| 2.2.2   | Voltages under normal conditions (V) .....                          | 4,08 V                           | P |
| 2.2.3   | Voltages under fault conditions (V) .....                           | 8,97 V                           | P |
| 2.2.3.1 | Separation by double insulation or reinforced insulation (method 1) |                                  | P |
| 2.2.3.2 | Separation by earthed screen (method 2)                             |                                  | N |
| 2.2.3.3 | Protection by earthing of the SELV circuit (method 3)               |                                  | N |
| 2.2.4   | Connection of SELV circuits to other circuits .....                 | SELV circuit complies with 2.2.2 | P |

|       |  |                 |   |
|-------|--|-----------------|---|
| 2.3   | TNV circuits   |                 | N |
| 2.3.1 | Limits   | No TNV circuits | N |
|       | Type of TNV circuits .....                               |                 | — |
| 2.3.2 | Separation from other circuits and from accessible parts |                 | N |
|       | Insulation employed .....                                |                 | — |
| 2.3.3 | Separation from hazardous voltages                       |                 | N |
|       | Insulation employed .....                                |                 | — |
| 2.3.4 | Connection of TNV circuits to other circuits             |                 | N |

| IEC 60950-1 / EN 60950-1 |  |                 |         |
|--------------------------|--|-----------------|---------|
| Clause                   | Requirement – Test                               | Result – Remark | Verdict |
|                          | Insulation employed.....:                        |                 | —       |
| 2.3.5                    | Test for operating voltages generated externally |                 | N       |

|       |  |                            |   |
|-------|--|----------------------------|---|
| 2.4   | Limited current circuits                                 |                            | N |
| 2.4.1 | General requirements                                     | No limited current circuit | N |
| 2.4.2 | Limit values   |                            | N |
|       | Frequency (Hz).....:                                     |                            | — |
|       | Measured current (mA) .....                              |                            | — |
|       | Measured voltage (V) .....                               |                            | — |
|       | Measured capacitance (μF).....:                          |                            | — |
| 2.4.3 | Connection of limited current circuits to other circuits |                            | N |

|     |   |   |   |
|-----|---|---|---|
| 2.5 | Limited power sources   |   | P |
|     | Inherently limited output   |   | P |
|     | Impedance limited output  |   | N |
|     | Overcurrent protective device limited output  |   | N |
|     | Regulating network limited output under normal operating and single fault condition   |   | P |
|     | Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition |   | N |
|     | Output voltage (V), output current (A), apparent power (VA)..... :  | Adaptors:<br>Uoc = 8,97 V, Isc = 0,411 A<br>S = 3,67 VA<br>Battery:<br>Uoc = 4,1 V, Isc = 2,28 A<br>S = 9,35 VA | — |
|     | Current rating of overcurrent protective device (A)   |   | — |

|         |   |                     |   |
|---------|---|---------------------|---|
| 2.6     | Provisions for earthing and bonding                   |                     | N |
| 2.6.1   | Protective earthing                                   | Class III equipment | N |
| 2.6.2   | Functional earthing                                   |                     | N |
| 2.6.3   | Protective earthing and protective bonding conductors |                     | N |
| 2.6.3.1 | General   |                     | N |
| 2.6.3.2 | Size of protective earthing conductors                |                     | N |

| IEC 60950-1 / EN 60950-1 |   |                 |         |
|--------------------------|---|-----------------|---------|
| Clause                   | Requirement – Test  | Result – Remark | Verdict |
|                          | Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG .....                         |                 | —       |
| 2.6.3.3                  | Size of protective bonding conductors   |                 | N       |
|                          | Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG .....                         |                 | —       |
| 2.6.3.4                  | Resistance ( $\Omega$ ) of earthing conductors and their terminations, test current (A) ..... |                 | N       |
| 2.6.3.5                  | Colour of insulation.....   |                 | N       |
| 2.6.4                    | Terminals   |                 | N       |
| 2.6.4.1                  | General   |                 | N       |
| 2.6.4.2                  | Protective earthing and bonding terminals   |                 | N       |
|                          | Rated current (A), type and nominal thread diameter (mm) .....                                |                 | —       |
| 2.6.4.3                  | Separation of the protective earthing conductor from protective bonding conductors            |                 | N       |
| 2.6.5                    | Integrity of protective earthing  |                 | N       |
| 2.6.5.1                  | Interconnection of equipment  |                 | N       |
| 2.6.5.2                  | Components in protective earthing conductors and protective bonding conductors                |                 | N       |
| 2.6.5.3                  | Disconnection of protective earth   |                 | N       |
| 2.6.5.4                  | Parts that can be removed by an operator  |                 | N       |
| 2.6.5.5                  | Parts removed during servicing  |                 | N       |
| 2.6.5.6                  | Corrosion resistance  |                 | N       |
| 2.6.5.7                  | Screws for protective bonding   |                 | N       |
| 2.6.5.8                  | Reliance on telecommunication network or cable distribution system                            |                 | N       |

|       |  |  |   |
|-------|--|--|---|
| 2.7   | Overcurrent and earth fault protection in primary circuits   |  | N |
| 2.7.1 | Basic requirements   |  | N |
|       | Instructions when protection relies on building installation |  | N |
| 2.7.2 | Faults not covered in 5.3                                    |  | N |
| 2.7.3 | Short-circuit backup protection                              |  | N |
| 2.7.4 | Number and location of protective devices .....              |  | N |
| 2.7.5 | Protection by several devices                                |  | N |
| 2.7.6 | Warning to service personnel.....                            |  | N |

|     |                   |  |   |
|-----|-------------------|--|---|
| 2.8 | Safety interlocks |  | N |
|-----|-------------------|--|---|

| IEC 60950-1 / EN 60950-1 |                          |                          |         |
|--------------------------|--------------------------|--------------------------|---------|
| Clause                   | Requirement – Test       | Result – Remark          | Verdict |
| 2.8.1                    | General principles       | No safety interlock      | N       |
| 2.8.2                    | Protection requirements  |                          | N       |
| 2.8.3                    | Inadvertent reactivation |                          | N       |
| 2.8.4                    | Fail-safe operation      |                          | N       |
| 2.8.5                    | Moving parts             |                          | N       |
| 2.8.6                    | Overriding               |                          | N       |
| 2.8.7                    | Switches and relays      |                          | N       |
| 2.8.7.1                  | Contact gaps (mm) .....  |                          | N       |
| 2.8.7.2                  | Overload test            |                          | N       |
| 2.8.7.3                  | Endurance test           |                          | N       |
| 2.8.7.4                  | Electric strength test   | (see appended table 5.2) | N       |
| 2.8.8                    | Mechanical actuators     |                          | N       |

|       |                                    |                       |   |
|-------|------------------------------------|-----------------------|---|
| 2.9   | Electrical insulation              |                       | P |
| 2.9.1 | Properties of insulating materials |                       | P |
| 2.9.2 | Humidity conditioning              |                       | P |
|       | Humidity (%) .....                 | 93%                   | — |
|       | Temperature (°C) .....             | 25 °C                 | — |
| 2.9.3 | Grade of insulation                | Functional insulation | P |

|          |   |   |   |
|----------|---|---|---|
| 2.10     | Clearances, creepage distances and distances through insulation |   | N |
| 2.10.1   | General   | The chargers are separately approved.<br>The functional insulation of mobile isn't considered. Please refer to clause 5.3.4 | N |
| 2.10.2   | Determination of working voltage                                |   | N |
| 2.10.3   | Clearances  |   | N |
| 2.10.3.1 | General   |   | N |
| 2.10.3.2 | Clearances in primary circuits                                  | (see appended table 2.10.3 and 2.10.4)  | N |
| 2.10.3.3 | Clearances in secondary circuits                                | (see appended table 2.10.3 and 2.10.4)  | N |
| 2.10.3.4 | Measurement of transient voltage levels                         |   | N |
| 2.10.4   | Creepage distances  | (see appended table 2.10.3 and 2.10.4)  | N |
|          | CTI tests.....  |   | — |
| 2.10.5   | Solid insulation  |   | N |

| IEC 60950-1 / EN 60950-1 |  |                             |         |
|--------------------------|--|-----------------------------|---------|
| Clause                   | Requirement – Test   | Result – Remark             | Verdict |
| 2.10.5.1                 | Minimum distance through insulation  | (see appended table 2.10.5) | N       |
| 2.10.5.2                 | Thin sheet material  |                             | N       |
|                          | Number of layers (pcs) .....   |                             | —       |
|                          | Electric strength test   | (see appended table 5.2)    | —       |
| 2.10.5.3                 | Printed boards   |                             | N       |
|                          | Distance through insulation  |                             | N       |
|                          | Electric strength test for thin sheet insulating material                    | (see appended table 5.2)    | —       |
|                          | Number of layers (pcs) .....   |                             | N       |
| 2.10.5.4                 | Wound components   |                             | N       |
|                          | Number of layers (pcs) .....   |                             | N       |
|                          | Two wires in contact inside wound component; angle between 45° and 90° ..... |                             | N       |
| 2.10.6                   | Coated printed boards  |                             | N       |
| 2.10.6.1                 | General  |                             | N       |
| 2.10.6.2                 | Sample preparation and preliminary inspection                                |                             | N       |
| 2.10.6.3                 | Thermal cycling  |                             | N       |
| 2.10.6.4                 | Thermal ageing (°C) .....  |                             | N       |
| 2.10.6.5                 | Electric strength test   | (see appended table 5.2)    | —       |
| 2.10.6.6                 | Abrasion resistance test   |                             | N       |
|                          | Electric strength test   | (see appended table 5.2)    | —       |
| 2.10.7                   | Enclosed and sealed parts .....  |                             | N       |
|                          | Temperature $T_1 = T_2 + T_{ma} - T_{amb} + 10K$ (°C).....                   |                             | N       |
| 2.10.8                   | Spacings filled by insulating compound.....                                  |                             | N       |
|                          | Electric strength test   | (see appended table 5.2)    | —       |
| 2.10.9                   | Component external terminations  |                             | N       |
| 2.10.10                  | Insulation with varying dimensions   |                             | N       |

|       |   |                                |   |
|-------|---|--------------------------------|---|
| 3     | WIRING, CONNECTIONS AND SUPPLY            |                                | P |
| 3.1   | General                                   |                                | P |
| 3.1.1 | Current rating and overcurrent protection |                                | P |
| 3.1.2 | Protection against mechanical damage      | Wires do not touch sharp edges | P |
| 3.1.3 | Securing of internal wiring               |                                | P |
| 3.1.4 | Insulation of conductors                  | (see appended table 5.2)       | N |
| 3.1.5 | Beads and ceramic insulators              |                                | N |
| 3.1.6 | Screws for electrical contact pressure    |                                | N |

| IEC 60950-1 / EN 60950-1 |  |                                       |         |
|--------------------------|--|---------------------------------------|---------|
| Clause                   | Requirement – Test                             | Result – Remark                       | Verdict |
| 3.1.7                    | Insulating materials in electrical connections |                                       | N       |
| 3.1.8                    | Self-tapping and spaced thread screws          |                                       | N       |
| 3.1.9                    | Termination of conductors                      | The chargers are separately approved. | N       |
|                          | 10 N pull test                                 |                                       | N       |
| 3.1.10                   | Sleeving on wiring                             |                                       | N       |

|         |   |   |   |
|---------|---|---|---|
| 3.2     | Connection to an a.c. mains supply or a d.c. mains supply             |   | N |
| 3.2.1   | Means of connection .....   | The mobile is not connected to an a.c. mains supply or a d.c. mains supply. The adaptors are connected to a.c. mains and it is separately approved. | N |
| 3.2.1.1 | Connection to an a.c. mains supply                                    |   | N |
| 3.2.1.2 | Connection to a d.c. mains supply                                     |   | N |
| 3.2.2   | Multiple supply connections   |   | N |
| 3.2.3   | Permanently connected equipment                                       |   | N |
|         | Number of conductors, diameter (mm) of cable and conduits .....       |   | — |
| 3.2.4   | Appliance inlets  |   | N |
| 3.2.5   | Power supply cords  |   | N |
| 3.2.5.1 | AC power supply cords   |   | N |
|         | Type.....   |   | — |
|         | Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG ..... |   | — |
| 3.2.5.2 | DC power supply cords   |   | N |
| 3.2.6   | Cord anchorages and strain relief                                     |   | N |
|         | Mass of equipment (kg), pull (N) .....                                |   | — |
|         | Longitudinal displacement (mm) .....                                  |   | — |
| 3.2.7   | Protection against mechanical damage                                  |   | N |
| 3.2.8   | Cord guards   |   | N |
|         | D (mm); test mass (g) .....   |   | — |
|         | Radius of curvature of cord (mm).....                                 |   | — |
| 3.2.9   | Supply wiring space   |   | N |

|       |  |  |   |
|-------|--|--|---|
| 3.3   | Wiring terminals for connection of external conductors |  | N |
| 3.3.1 | Wiring terminals                                       |  | N |

| IEC 60950-1 / EN 60950-1 |   |                 |         |
|--------------------------|---|-----------------|---------|
| Clause                   | Requirement – Test  | Result – Remark | Verdict |
| 3.3.2                    | Connection of non-detachable power supply cords                                   |                 | N       |
| 3.3.3                    | Screw terminals   |                 | N       |
| 3.3.4                    | Conductor sizes to be connected   |                 | N       |
|                          | Rated current (A), cord/cable type, cross-sectional area (mm <sup>2</sup> ) ..... |                 | —       |
| 3.3.5                    | Wiring terminal sizes   |                 | N       |
|                          | Rated current (A), type and nominal thread diameter (mm) .....                    |                 | —       |
| 3.3.6                    | Wiring terminals design   |                 | N       |
| 3.3.7                    | Grouping of wiring terminals  |                 | N       |
| 3.3.8                    | Stranded wire   |                 | N       |

|        |   |  |   |
|--------|---|--|---|
| 3.4    | Disconnection from the mains supply       |  | N |
| 3.4.1  | General requirement                       |  | N |
| 3.4.2  | Disconnect devices                        |  | N |
| 3.4.3  | Permanently connected equipment           |  | N |
| 3.4.4  | Parts which remain energized              |  | N |
| 3.4.5  | Switches in flexible cords                |  | N |
| 3.4.6  | Single-phase equipment and d.c. equipment |  | N |
| 3.4.7  | Three-phase equipment                     |  | N |
| 3.4.8  | Switches as disconnect devices            |  | N |
| 3.4.9  | Plugs as disconnect devices               |  | N |
| 3.4.10 | Interconnected equipment                  |  | N |
| 3.4.11 | Multiple power sources                    |  | N |

|       |  |               |   |
|-------|--|---------------|---|
| 3.5   | Interconnection of equipment             |               | P |
| 3.5.1 | General requirements                     |               | P |
| 3.5.2 | Types of interconnection circuits .....  | SELV and SELV | P |
| 3.5.3 | ELV circuits as interconnection circuits |               | N |

|     |                       |                     |   |
|-----|-----------------------|---------------------|---|
| 4   | PHYSICAL REQUIREMENTS |                     | P |
| 4.1 | Stability             |                     | N |
|     | Angle of 10°          | Class III equipment | N |
|     | Test: force (N).....  |                     | N |

|     |                     |  |   |
|-----|---------------------|--|---|
| 4.2 | Mechanical strength |  | N |
|-----|---------------------|--|---|

| IEC 60950-1 / EN 60950-1 |  |  |         |
|--------------------------|--|--|---------|
| Clause                   | Requirement – Test                                 | Result – Remark                                    | Verdict |
| 4.2.1                    | General  | Class III equipment                                | N       |
| 4.2.2                    | Steady force test, 10 N                            |  | N       |
| 4.2.3                    | Steady force test, 30 N                            |  | N       |
| 4.2.4                    | Steady force test, 250 N                           |  | N       |
| 4.2.5                    | Impact test  |  | N       |
|                          | Fall test  |  | N       |
|                          | Swing test   |  | N       |
| 4.2.6                    | Drop test  |  | N       |
| 4.2.7                    | Stress relief test                                 |  | N       |
| 4.2.8                    | Cathode ray tubes                                  | No cathode ray tube                                | N       |
|                          | Picture tube separately certified ..... :          | (see separate test report or attached certificate) | N       |
| 4.2.9                    | High pressure lamps                                |  | N       |
| 4.2.10                   | Wall or ceiling mounted equipment; force (N) ... : |  | N       |

|          |  |                     |   |
|----------|--|---------------------|---|
| 4.3      | Design and construction  |                     | P |
| 4.3.1    | Edges and corners  |                     | P |
| 4.3.2    | Handles and manual controls; force (N)..... :  |                     | N |
| 4.3.3    | Adjustable controls  |                     | N |
| 4.3.4    | Securing of parts  |                     | N |
| 4.3.5    | Connection of plugs and sockets  |                     | N |
| 4.3.6    | Direct plug-in equipment   |                     | N |
|          | Dimensions (mm) of mains plug for direct plug-in ..... :                             |                     | N |
|          | Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N) ..... : |                     | N |
| 4.3.7    | Heating elements in earthed equipment  |                     | N |
| 4.3.8    | Batteries  | See annex table 5.3 | P |
| 4.3.9    | Oil and grease   |                     | N |
| 4.3.10   | Dust, powders, liquids and gases   |                     | N |
| 4.3.11   | Containers for liquids or gases  |                     | N |
| 4.3.12   | Flammable liquids..... :   |                     | N |
|          | Quantity of liquid (l)..... :  |                     | N |
|          | Flash point (°C)..... :  |                     | N |
| 4.3.13   | Radiation; type of radiation ..... :   |                     | N |
| 4.3.13.1 | General  |                     | N |
| 4.3.13.2 | Ionizing radiation   |                     | N |



| IEC 60950-1 / EN 60950-1 |   |   |         |
|--------------------------|---|---|---------|
| Clause                   | Requirement – Test  | Result – Remark   | Verdict |
|                          | Measured radiation (pA/kg) .....  |   | —       |
|                          | Measured high-voltage (kV) .....  |   | —       |
|                          | Measured focus voltage (kV) .....                                       |   | —       |
|                          | CRT markings .....  |   | —       |
| 4.3.13.3                 | Effect of ultraviolet (UV) radiation on materials                       |   | N       |
|                          | Part, property, retention after test, flammability classification ..... |   | N       |
| 4.3.13.4                 | Human exposure to ultraviolet (UV) radiation .....                      |   | N       |
| 4.3.13.5                 | Laser (including LEDs)  | (see separate test report of IEC/EN 60825-1 / IEC/EN 60825-2) | N       |
|                          | Laser class .....   |   | —       |
| 4.3.13.6                 | Other types .....   |   | N       |

|       |   |                |   |
|-------|---|----------------|---|
| 4.4   | Protection against hazardous moving parts |                | N |
| 4.4.1 | General                                   | No moving part | N |
| 4.4.2 | Protection in operator access areas       |                | N |
| 4.4.3 | Protection in restricted access locations |                | N |
| 4.4.4 | Protection in service access areas        |                | N |

|       |   |   |   |
|-------|---|---|---|
| 4.5   | Thermal requirements                    |   | P |
| 4.5.1 | Maximum temperatures                    | (see appended table 4.5)                                  | P |
|       | Normal load condition per Annex L ..... |   | N |
| 4.5.2 | Resistance to abnormal heat             | No thermoplastic parts of mobile are at hazardous voltage | N |

|       |  |                     |   |
|-------|--|---------------------|---|
| 4.6   | Openings in enclosures                           |                     | N |
| 4.6.1 | Top and side openings                            | Class III equipment | N |
|       | Dimensions (mm) .....                            |                     | — |
| 4.6.2 | Bottoms of fire enclosures                       |                     | N |
|       | Construction of the bottom .....                 |                     | — |
| 4.6.3 | Doors or covers in fire enclosures               |                     | N |
| 4.6.4 | Openings in transportable equipment              |                     | N |
| 4.6.5 | Adhesives for constructional purposes            |                     | N |
|       | Conditioning temperature (°C)/time (weeks) ..... |                     | — |

| IEC 60950-1 / EN 60950-1 |  |   |         |
|--------------------------|--|---|---------|
| Clause                   | Requirement – Test   | Result – Remark   | Verdict |
| 4.7                      | Resistance to fire   |   | P       |
| 4.7.1                    | Reducing the risk of ignition and spread of flame                      |   | P       |
|                          | Method 1, selection and application of components wiring and materials | (see appended table 4.7)  | P       |
|                          | Method 2, application of all of simulated fault condition tests        | (see appended table 5.3)  | N       |
| 4.7.2                    | Conditions for a fire enclosure  |   | P       |
| 4.7.2.1                  | Parts requiring a fire enclosure                                       |   | N       |
| 4.7.2.2                  | Parts not requiring a fire enclosure                                   | All components in secondary circuit supplied by LPS and mounted on material of V-0 and all plastic enclosure is V-0 material. | P       |
| 4.7.3                    | Materials  |   | P       |
| 4.7.3.1                  | General  |   | N       |
| 4.7.3.2                  | Materials for fire enclosures  |   | N       |
| 4.7.3.3                  | Materials for components and other parts outside fire enclosures       |   | N       |
| 4.7.3.4                  | Materials for components and other parts inside fire enclosures        |   | N       |
| 4.7.3.5                  | Materials for air filter assemblies                                    |   | N       |
| 4.7.3.6                  | Materials used in high-voltage components                              |   | N       |

|       |   |                                      |   |
|-------|---|--------------------------------------|---|
| 5     | ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS |                                      | P |
| 5.1   | Touch current and protective conductor current            |                                      | N |
| 5.1.1 | General   | The chargers are separately approved | N |
| 5.1.2 | Equipment under test (EUT)                                |                                      | N |
| 5.1.3 | Test circuit  |                                      | N |
| 5.1.4 | Application of measuring instrument                       |                                      | N |
| 5.1.5 | Test procedure  |                                      | N |
| 5.1.6 | Test measurements   |                                      | N |
|       | Test voltage (V) .....                                    |                                      | — |
|       | 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 |

| IEC 60950-1 / EN 60950-1 |  |                 |         |
|--------------------------|--|-----------------|---------|
| Clause                   | Requirement – Test   | Result – Remark | Verdict |
| 5.1.8                    | Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks |                 | N       |
| 5.1.8.1                  | Limitation of the touch current to a telecommunication network and a cable distribution system                           |                 | N       |
|                          | Test voltage (V) .....   |                 | —       |
|                          | Measured touch current (mA) .....  |                 | —       |
|                          | Max. allowed touch current (mA) .....  |                 | —       |
| 5.1.8.2                  | Summation of touch currents from telecommunication networks .....  |                 | N       |

|       |                   |                          |   |
|-------|-------------------|--------------------------|---|
| 5.2   | Electric strength |                          | P |
| 5.2.1 | General           | (see appended table 5.2) | P |
| 5.2.2 | Test procedure    | (see appended table 5.2) | P |

|       |   |  |   |
|-------|---|--|---|
| 5.3   | Abnormal operating and fault conditions                         |  | P |
| 5.3.1 | Protection against overload and abnormal operation              | (see appended table 5.3)                                       | P |
| 5.3.2 | Motors  | (see appended Annex B)   | N |
| 5.3.3 | Transformers  | (see appended Annex C)<br>The chargers are separately approved | N |
| 5.3.4 | Functional insulation.....                                      | b) and c)  | P |
| 5.3.5 | Electromechanical components                                    |  | N |
| 5.3.6 | Simulation of faults  |  | P |
| 5.3.7 | Unattended equipment  |  | N |
| 5.3.8 | Compliance criteria for abnormal operating and fault conditions |  | P |

|         |   |                          |   |
|---------|---|--------------------------|---|
| 6       | CONNECTION TO TELECOMMUNICATION NETWORKS  |                          | N |
| 6.1     | Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment |                          | N |
| 6.1.1   | Protection from hazardous voltages  |                          | N |
| 6.1.2   | Separation of the telecommunication network from earth  |                          | N |
| 6.1.2.1 | Requirements  | (see appended table 5.2) | N |
|         | Test voltage (V) .....  |                          | — |
|         | Current in the test circuit (mA) .....  |                          | — |
| 6.1.2.2 | Exclusions .....  |                          | N |

| IEC 60950-1 / EN 60950-1 |   |                          |         |
|--------------------------|---|--------------------------|---------|
| Clause                   | Requirement – Test  | Result – Remark          | Verdict |
| 6.2                      | Protection of equipment users from overvoltages on telecommunication networks   |                          | N       |
| 6.2.1                    | Separation requirements   |                          | N       |
| 6.2.2                    | Electric strength test procedure  |                          | N       |
| 6.2.2.1                  | Impulse test  | (see appended table 5.2) | N       |
| 6.2.2.2                  | Steady-state test   | (see appended table 5.2) | N       |
| 6.2.2.3                  | Compliance criteria   |                          | N       |
| 6.3                      | Protection of the telecommunication wiring system from overheating  |                          | N       |
|                          | Max. output current (A)..... :  |                          | —       |
|                          | Current limiting method ..... :   |                          | —       |
| 7                        | CONNECTION TO CABLE DISTRIBUTION SYSTEMS  |                          | N       |
| 7.1                      | Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment |                          | N       |
| 7.2                      | Protection of equipment users from overvoltages on the cable distribution system  |                          | N       |
| 7.3                      | Insulation between primary circuits and cable distribution systems  |                          | N       |
| 7.3.1                    | General   |                          | N       |
| 7.3.2                    | Voltage surge test  | (see appended table 5.2) | N       |
| 7.3.3                    | Impulse test  | (see appended table 5.2) | N       |
| A                        | ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE  |                          | N       |
| 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.1.1                    | Samples..... :  |                          | —       |
|                          | Wall thickness (mm) ..... :   |                          | —       |
| A.1.2                    | Conditioning of samples; temperature (°C) ..... :   |                          | N       |
| A.1.3                    | Mounting of samples ..... :   |                          | N       |
| A.1.4                    | Test flame (see IEC 60695-11-3)   |                          | N       |
|                          | Flame A, B, C or D ..... :  |                          | —       |
| A.1.5                    | Test procedure  |                          | N       |
| A.1.6                    | Compliance criteria   |                          | N       |
|                          | Sample 1 burning time (s) ..... :   |                          | —       |
|                          | Sample 2 burning time (s) ..... :   |                          | —       |

| IEC 60950-1 / EN 60950-1 |  |                 |         |
|--------------------------|--|-----------------|---------|
| Clause                   | Requirement – Test   | Result – Remark | Verdict |
|                          | 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.2.1                    | Samples, material .....  |                 | —       |
|                          | Wall thickness (mm) .....  |                 | —       |
| A.2.2                    | Conditioning of samples  |                 | N       |
| A.2.3                    | Mounting of samples .....  |                 | N       |
| A.2.4                    | Test flame (see IEC 60695-11-4)  |                 | N       |
|                          | Flame A, B or C .....  |                 | —       |
| A.2.5                    | Test procedure   |                 | N       |
| A.2.6                    | Compliance criteria  |                 | N       |
|                          | 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 and 8  |                 | N       |
|                          | Sample 1 burning time (s) .....  |                 | —       |
|                          | Sample 2 burning time (s) .....  |                 | —       |
|                          | Sample 3 burning time (s) .....  |                 | —       |
| A.3                      | Hot flaming oil test (see 4.6.2)   |                 | N       |
| A.3.1                    | Mounting of samples  |                 | N       |
| A.3.2                    | Test procedure   |                 | N       |
| A.3.3                    | Compliance criterion   |                 | N       |

|     |  |                          |   |
|-----|--|--------------------------|---|
| B   | ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2) |                          | N |
| B.1 | General requirements   |                          | N |
|     | Position .....   |                          | — |
|     | Manufacturer .....   |                          | — |
|     | Type .....   |                          | — |
|     | Rated values .....   |                          | — |
| B.2 | Test conditions  |                          | N |
| B.3 | Maximum temperatures   | (see appended table 5.3) | N |
| B.4 | Running overload test  | (see appended table 5.3) | N |
| B.5 | Locked-rotor overload test   |                          | N |
|     | Test duration (days) .....   |                          | — |

| IEC 60950-1 / EN 60950-1 |  |                          |         |
|--------------------------|--|--------------------------|---------|
| Clause                   | Requirement – Test   | Result – Remark          | Verdict |
|                          | Electric strength test: test voltage (V) .....                   |                          | —       |
| B.6                      | Running overload test for d.c. motors in secondary circuits      |                          | N       |
| B.7                      | Locked-rotor overload test for d.c. motors in secondary circuits |                          | N       |
| B.7.1                    | Test procedure   | (see appended table 5.3) | N       |
| B.7.2                    | Alternative test procedure; test time (h) .....                  |                          | N       |
| B.7.3                    | Electric strength test   | (see appended table 5.2) | N       |
| B.8                      | Test for motors with capacitors                                  | (see appended table 5.3) | N       |
| B.9                      | Test for three-phase motors                                      | (see appended table 5.3) | N       |
| B.10                     | Test for series motors   |                          | N       |
|                          | Operating voltage (V) .....                                      |                          | —       |

|     |   |                          |   |
|-----|---|--------------------------|---|
| C   | ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)   |                          | N |
|     | Position .....                                |                          | — |
|     | Manufacturer .....                            |                          | — |
|     | Type .....                                    |                          | — |
|     | Rated values .....                            |                          | — |
|     | Method of protection.....                     |                          | — |
| C.1 | Overload test                                 | (see appended table 5.3) | N |
| C.2 | Insulation                                    | (see appended table 5.2) | N |
|     | Protection from displacement of windings..... |                          | N |

|     |  |  |   |
|-----|--|--|---|
| D   | ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4) |  | N |
| D.1 | Measuring instrument   |  | N |
| D.2 | Alternative measuring instrument                                   |  | N |

|   |   |  |   |
|---|---|--|---|
| E | ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13) |  | N |
|---|---|--|---|

|   |  |  |   |
|---|--|--|---|
| F | ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10) |  | N |
|---|--|--|---|

|     |  |  |   |
|-----|--|--|---|
| G   | ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES |  | N |
| G.1 | Summary of the procedure for determining minimum clearances    |  | N |
| G.2 | Determination of mains transient voltage (V) .....             |  | N |

| IEC 60950-1 / EN 60950-1 |  |                 |         |
|--------------------------|--|-----------------|---------|
| Clause                   | Requirement – Test   | Result – Remark | Verdict |
| G.2.1                    | AC mains supply  |                 | N       |
| G.2.2                    | DC mains supply  |                 | N       |
| G.3                      | Determination of telecommunication network transient voltage (V) ..... : |                 | N       |
| G.4                      | Determination of required withstand voltage (V) :                        |                 | N       |
| G.5                      | Measurement of transient levels (V)..... :                               |                 | N       |
| G.6                      | Determination of minimum clearances ..... :                              |                 | N       |

|   |  |  |   |
|---|--|--|---|
| H | ANNEX H, IONIZING RADIATION (see 4.3.13) |  | N |
|---|--|--|---|

|   |  |  |   |
|---|--|--|---|
| J | ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6) |  | N |
|   | Metal used .....:  |  | — |

|     |  |                          |   |
|-----|--|--------------------------|---|
| K   | ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)              |                          | N |
| K.1 | Making and breaking capacity                                 |                          | N |
| K.2 | Thermostat reliability; operating voltage (V)..... :         |                          | N |
| K.3 | Thermostat endurance test; operating voltage (V) ..... :     |                          | N |
| K.4 | Temperature limiter endurance; operating voltage (V) ..... : |                          | N |
| K.5 | Thermal cut-out reliability                                  |                          | N |
| K.6 | Stability of operation                                       | (see appended table 5.3) | N |



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

|     |   |  |   |
|-----|---|--|---|
| M   | ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1) |  | N |
| M.1 | Introduction  |  | N |
| M.2 | Method A  |  | N |
| M.3 | Method B  |  | N |

| IEC 60950-1 / EN 60950-1 |  |                          |         |
|--------------------------|--|--------------------------|---------|
| Clause                   | Requirement – Test   | Result – Remark          | Verdict |
| M.3.1                    | Ringling signal  |                          | N       |
| M.3.1.1                  | Frequency (Hz) .....   |                          | —       |
| M.3.1.2                  | Voltage (V) .....  |                          | —       |
| M.3.1.3                  | Cadence; time (s), voltage (V) .....   |                          | —       |
| M.3.1.4                  | Single fault current (mA).....   |                          | —       |
| M.3.2                    | Tripping device and monitoring voltage .....   |                          | N       |
| M.3.2.1                  | Conditions for use of a tripping device or a monitoring voltage                        |                          | N       |
| M.3.2.2                  | Tripping device  |                          | N       |
| M.3.2.3                  | Monitoring voltage (V) .....   |                          | N       |
| N                        | ANNEX N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)         |                          | N       |
| N.1                      | ITU-T impulse test generators  |                          | N       |
| N.2                      | IEC 60065 impulse test generator   |                          | N       |
| P                        | ANNEX P, NORMATIVE REFERENCES  |                          | P       |
| Q                        | ANNEX Q, BIBLIOGRAPHY  |                          | P       |
| R                        | ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES                       |                          | N       |
| R.1                      | Minimum separation distances for unpopulated coated printed boards (see 2.10.6)        |                          | N       |
| R.2                      | Reduced clearances (see 2.10.3)  |                          | N       |
| S                        | ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)                                   |                          | N       |
| S.1                      | Test equipment   |                          | N       |
| S.2                      | Test procedure   |                          | N       |
| S.3                      | Examples of waveforms during impulse testing   |                          | N       |
| T                        | ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)                   |                          | N       |
|                          |  | See separate test report | —       |
| U                        | ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4) |                          | N       |
|                          |  | See separate test report | —       |



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|---|--|-----------------|---------|
| Clause  | Requirement – Test   | Result – Remark | Verdict |
| V   | ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)   |                 | N       |
| V.1   | Introduction   |                 | N       |
| V.2   | TN power distribution systems  |                 | N       |
| W   | ANNEX W, SUMMATION OF TOUCH CURRENTS   |                 | N       |
| W.1   | Touch current from electronic circuits   |                 | N       |
| W.1.2   | Earthed circuits   |                 | N       |
| W.2   | Interconnection of several equipments  |                 | N       |
| W.2.1   | Isolation  |                 | N       |
| W.2.2   | Common return, isolated from earth   |                 | N       |
| W.2.3   | Common return, connected to protective earth   |                 | N       |
| X   | ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)  |                 | N       |
| X.1   | Determination of maximum input current   |                 | N       |
| X.2   | Overload test procedure  |                 | N       |
| Y   | ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)  |                 | N       |
| Y.1   | Test apparatus .....   |                 | N       |
| Y.2   | Mounting of test samples .....   |                 | N       |
| Y.3   | Carbon-arc light-exposure apparatus .....  |                 | N       |
| Y.4   | Xenon-arc light exposure apparatus .....   |                 | N       |
| CENELEC COMMON MODIFICATIONS [C],<br>SPECIAL NATIONAL CONDITIONS [S] AND A-DEVIATIONS (NATIONAL DEVIATIONS) [A]<br>(EN 60950-1:2001, Annex ZB and Annex ZC) |  |                 | P       |
| General   | C: Delete all the "country" notes in the reference document according to the following list:<br><br>1.1.5 Note 2    1.5.8 Note 2    1.6.1 Note<br>1.7.2 Note 4    1.7.12 Note 2    2.6 Note<br>2.2.3 Note    2.2.4 Note    2.3.2 Note 2, 7, 8<br>2.3.3 Note 1, 2    2.3.4 Note 2,3    2.7.1 Note<br>2.10.3.1 Note 4    3.2.1.1 Note    3.2.3 Note 1, 2<br>3.2.5.1 Note 2    4.3.6 Note 1,2    4.7.2.2 Note<br>4.7.3.1 Note 2    6.1.2.1 Note    6.1.2.2 Note<br>6.2.2 Note    6.2.2.1 Note 2    6.2.2.2 Note<br>7 Note 4    7.1 Note<br>G2.1 Note 1, 2    Annex H Note 2 |                 | P       |
| 1.2.4.1   | S (DK): 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.   |                 | N       |

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|--------------------------|---|-----------------|---------|
| Clause                   | Requirement – Test  | Result – Remark | Verdict |
| 1.5.1                    | A (SE, Ordinance 1990:944 and CH, Ordinance on environmentally hazardous substances SR 814.013, Annex 3.2, Mercury):<br>Add NOTE – Switches containing mercury such as thermostats, relays and level controllers are not allowed.   |                 | N       |
| 1.5.8                    | S (NO): Due to the IT power system used (see annex V, Fig. V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).   |                 | N       |
| 1.7.2                    | S (FI, NO, SE): 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.<br><br>The marking text in the applicable countries shall be as follows:  |                 | N       |
|                          | FI: "Laite on liitettävä suojamaadoitus-koskettimilla varustettuun pistorasiaan"  |                 | N       |
|                          | NO: "Apparatet må tilkoples jordet stikkontakt"   |                 | N       |
|                          | SE: "Apparaten skall anslutas till jordat uttag"  |                 | N       |
|                          | A (DK, 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:<br><br>Vigtigt!<br>Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket<br> eller <br><br>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." |                 | N       |
| 1.7.5                    | S (DK): 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.  |                 | N       |
| 1.7.5                    | A (DK, Heavy Current Regulations):<br>CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.  |                 | N       |

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|--------------------------|--|-----------------|---------|
| Clause                   | Requirement – Test   | Result – Remark | Verdict |
| 1.7.12                   | <p>A (DE, Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23<sup>rd</sup> October 1992, Article 3, 3<sup>rd</sup> paragraph, 2<sup>nd</sup> 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<sup>th</sup> January 1996, article 2, 4<sup>th</sup> paragraph item 2):</p> <p>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.</p> <p>NOTE: Of this requirement, rules for use even only by service personnel are not exempted.</p>  |                 | N       |
| 1.7.15                   | <p>A (CH, Ordinance on environmentally hazardous substances SR 814.013):</p> <p>Annex 4.10 of SR 814.013 applies for batteries.</p>  |                 | N       |
|                          | <p>A (DE, Regulation on protection against hazards by X-ray, of 8<sup>th</sup> January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4):</p> <p>a) A licence is required by those who operate an X-ray emission source.</p> <p>b) A licence in accordance with Cl. 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</p> <p>1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 µSv/h and</p> <p>2) it is adequately indicated on the X-ray emission source that</p> <p>i) X-rays are generated and</p> <p>ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.</p> <p>c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if</p> <p>1) the X-ray emission source has been granted a type approval and</p> <p>2) it is adequately indicated on the X-ray emission source that</p> <p>i) X-rays are generated</p> <p>ii) the device stipulated by the manufacturer or importer guarantees that the maximum</p> |                 | N       |

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|--------------------------|--|-----------------|---------|
| Clause                   | Requirement – Test   | Result – Remark | Verdict |
|                          | <p>permissible local dose rate in accordance with the type approval is not exceeded and</p> <p>iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.</p> <p>d) Furthermore, a licence in accordance with Cl. 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</p> <p>1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6,</p> <p>2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and</p> <p>3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.</p>  |                 |         |
| 2.2.4                    | S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.   |                 | N       |
| 2.3.2                    | S (NO): Requirements according to this annex, 6.1.2.1 apply.   |                 | N       |
| 2.3.3 and 2.3.4          | S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.   |                 | N       |
| 2.6.3.3                  | S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A.  |                 | N       |
| 2.7.1                    | <p>C: Replace the subclause as follows:</p> <p><i>Basic requirements</i></p> <p>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):</p> <p>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;</p> <p>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;</p> <p>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</p> |                 | n       |

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|--------------------------|---|-----------------|---------|
| Clause                   | Requirement – Test  | Result – Remark | Verdict |
|                          | breakers, is fully specified in the installation instructions.<br><br>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.   |                 |         |
|                          | S (GB): To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT OF DIRECT PLUG-IN EQUIPMENT, protective device shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT.   |                 | N       |
| 2.7.2                    | C: Void.  |                 | N       |
| 2.10.2                   | C: Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)".  |                 | N       |
| 2.10.3.1                 | S (NO): Due to the IT power distribution system used (see annex V, Fig. 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       |
| 3.2.1.1                  | S (CH): Supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:<br><br>SEV 6532-2.1991, Plug type 15, 3P+N+PE 250/400 V, 10 A<br>SEV 6533-2.1991, Plug type 11, L+N 250 V, 10 A<br>SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A<br><br>In general, EN 60309 applies for plugs for currents exceeding 10A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:<br><br>SEV 5932-2.1998, Plug type 25, 3L+N+PE 230/400 V, 16 A<br>SEV 5933-2.1998, Plug type 21, L+N 250 V, 16 A<br>SEV 5934-2.1998, Plug type 23, L+N+PE 250 V, 16 A |                 | N       |

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|--------------------------|---|-----------------|---------|
| Clause                   | Requirement – Test  | Result – Remark | Verdict |
|                          | <p>S (DK): 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.</p> <p>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.</p> <p>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.</p> |                 | N       |
|                          | <p>S (ES): Supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.</p> <p>Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993.</p> <p>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 UNE 20315:1994.</p> <p>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</p>   |                 | N       |
|                          | <p>S (GB): 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 Socket etc. (Safety) Regulations 1994, unless exempted by those regulations.</p> <p>NOTE – 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>  |                 | N       |

| IEC 60950-1 / EN 60950-1 |   |                 |         |
|--------------------------|---|-----------------|---------|
| Clause                   | Requirement – Test  | Result – Remark | Verdict |
|                          | S (IE): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 – National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997. |                 | N       |
| 3.2.3                    | C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses.  |                 | N       |
| 3.2.5.1                  | C: Replace<br>"60245 IEC 53" by "H05 RR-F";<br>"60227 IEC 52" by "H03 VV-F or H03 VVH2-F";<br>"60227 IEC 53" by "H05 VV-F or H05 VVH2-F2".<br><br>In Table 3B, replace the first four lines by the following:<br><br>Up to and including 6  |                 |         |

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|--------------------------|---|-----------------|---------|
| Clause                   | Requirement – Test  | Result – Remark | Verdict |
|                          | S (IE): DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 – National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.   |                 | N       |
| 4.3.13.6                 | C: Add the following note:<br><br>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.  |                 | N       |
| 6.1.2.1                  | S (FI, NO, SE): Add the following text between the first and second paragraph:<br><br>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either<br><br>- two layers of thin sheet material, each of which shall pass the electric strength test below, or<br><br>- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.<br><br>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<br><br>- 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<br><br>- is subject to ROUTING TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.<br><br>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.<br><br>A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions:<br><br>- 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; |                 | n       |



| IEC 60950-1 / EN 60950-1 |  |                 |         |
|--------------------------|--|-----------------|---------|
| Clause                   | Requirement – Test   | Result – Remark | Verdict |
|                          | <ul style="list-style-type: none"> <li>- the additional testing shall be performed on all the test specimens as described in EN 132400;</li> <li>- 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.</li> </ul>  |                 |         |
| 6.1.2.2                  | S (FI, NO, SE): 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.   |                 | N       |
| 7.1                      | S (FI, NO, SE): 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.   |                 | N       |
| G.2.1                    | S (NO): Due to the IT power distribution system used (see annex V, Fig. 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       |
| Annex H                  | <p>C: Replace the last paragraph of this annex by:</p> <p>At any point 10 cm from the surface of the operator access area, the dose rate shall not exceed 1 <math>\mu</math>Sv/h (0,1 mR/h) (see note). Account is taken of the background level.</p> <p>Replace the notes as follows:</p> <p>NOTE These values appear in Directive 96/29/Euratom.</p> <p>Delete Note 2.</p>   |                 | N       |
| Annex P                  | <p>C: Replace the text of this annex by:</p> <p>See annex ZA.</p>  |                 | P       |
| Annex Q                  | <p>C: Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification".</p> <p>Add the following notes for the standards indicated:</p> <p>IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified)</p> <p>IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified)</p> <p>IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified)</p> <p>IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified)</p> <p>IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified)</p> <p>ITU-T Recommendation K.31</p> <p>NOTE in Europe, the suggested document is EN 50083-1.</p> |                 | P       |

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|---|---|-----------------|---------|---------------|---|---------------|---------------------------------|----------------------|---------------|----------------|----------------|----------------|----------------|----------------|--------------------|--------------------|----------------------------|------------------------|----------------------------|------------------------|-----------------|------------------|------------------|-------------------|-----------------|------------------------|------------------|------------------------|---------------------|---|------------------------------|-------------------|-------------------------------|--|------------|-------------|------------------------------------|------------------------|-------------------|--------------------|--------------------|---------------------|---|---------------------|---|---------------------|---|---------------------|---|---------------------|---------------------|----------------------|---------------------|----------------------|-----------------|------------------------|---|------------------|-----------------|------------------|---|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|---|------------------|---------------|----------------|---|------------------|---------------|----------------|-----------------|--------------|-------------------|----------------|-----------------|--------------|---|--------------|---|
| Clause  | Requirement – Test  | Result – Remark | Verdict |               |   |               |                                 |                      |               |                |                |                |                |                |                    |                    |                            |                        |                            |                        |                 |                  |                  |                   |                 |                        |                  |                        |                     |   |                              |                   |                               |  |            |             |                                    |                        |                   |                    |                    |                     |   |                     |   |                     |   |                     |   |                     |                     |                      |                     |                      |                 |                        |   |                  |                 |                  |   |                  |                 |                  |                 |                  |                 |                  |   |                  |               |                |   |                  |               |                |                 |              |                   |                |                 |              |   |              |   |
| Annex ZA  | <p><b>C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS</b></p> <p>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).</p> <p>NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.</p> <table><tr><td>—</td><td>IEC 60050-151</td></tr><tr><td>—</td><td>IEC 60050-195</td></tr><tr><td>EN 60065:1998 + corr. June 1999</td><td>IEC 60065 (mod):1998</td></tr><tr><td>EN 60073:1996</td><td>IEC 60073:1996</td></tr><tr><td>HD 566 S1:1990</td><td>IEC 60085:1984</td></tr><tr><td>HD 214 S2:1980</td><td>IEC 60112:1979</td></tr><tr><td>HD 611.4.1.S1:1992</td><td>IEC 60216-4-1:1990</td></tr><tr><td>HD 21<sup>1)</sup> Series</td><td>IEC 60227 (mod) Series</td></tr><tr><td>HD 22<sup>2)</sup> Series</td><td>IEC 60245 (mod) Series</td></tr><tr><td>EN 60309 Series</td><td>IEC 60309 Series</td></tr><tr><td>EN 60317-43:1997</td><td>IEC 60317-43:1997</td></tr><tr><td>EN 60320 Series</td><td>IEC 60320 (mod) Series</td></tr><tr><td>HD 384.3 S2:1995</td><td>IEC 60364-3 (mod):1993</td></tr><tr><td>HD 384.4.41 S2:1996</td><td>IEC 60364-4-41 (mod):1992<sup>3)</sup></td></tr><tr><td>EN 132400:1994<sup>4)</sup></td><td>IEC 60384-14:1993</td></tr><tr><td>+ A2:1998 + A3:1998 + A4:2001</td><td></td></tr><tr><td>EN 60417-1</td><td>IEC 60417-1</td></tr><tr><td>HD 625.1 S1:1996 + corr. Nov. 1996</td><td>IEC 60664-1 (mod):1992</td></tr><tr><td>EN 60695-2-2:1994</td><td>IEC 60695-2-2:1991</td></tr><tr><td>EN 60695-2-11:2001</td><td>IEC 60695-2-11:2000</td></tr><tr><td>—</td><td>IEC 60695-2-20:1995</td></tr><tr><td>—</td><td>IEC 60695-10-2:1995</td></tr><tr><td>—</td><td>IEC 60695-11-3:2000</td></tr><tr><td>—</td><td>IEC 60695-11-4:2000</td></tr><tr><td>EN 60695-11-10:1999</td><td>IEC 60695-11-10:1999</td></tr><tr><td>EN 60695-11-20:1999</td><td>IEC 60695-11-20:1999</td></tr><tr><td>EN 60730-1:2000</td><td>IEC 60730-1:1999 (mod)</td></tr><tr><td>EN 60825-1:1994 + corr. Febr. 1995 + A11:1996 + corr. July 1997</td><td>IEC 60825-1:1993</td></tr><tr><td>EN 60825-2:2000</td><td>IEC 60825-2:2000</td></tr><tr><td>—</td><td>IEC 60825-9:1999</td></tr><tr><td>EN 60851-3:1996</td><td>IEC 60851-3:1996</td></tr><tr><td>EN 60851-5:1996</td><td>IEC 60825-5:1996</td></tr><tr><td>EN 60851-6:1996</td><td>IEC 60851-6:1996</td></tr><tr><td>—</td><td>IEC 60885-1:1987</td></tr><tr><td>EN 60990:1999</td><td>IEC 60990:1999</td></tr><tr><td>—</td><td>IEC 61058-1:2000</td></tr><tr><td>EN 61965:2001</td><td>IEC 61965:2000</td></tr><tr><td>EN ISO 178:1996</td><td>ISO 178:1993</td></tr><tr><td>EN ISO 179 Series</td><td>ISO 179 Series</td></tr><tr><td>EN ISO 180:2000</td><td>ISO 180:1993</td></tr><tr><td>—</td><td>ISO 261:1998</td></tr></table> |                 | —       | 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 <sup>1)</sup> Series | IEC 60227 (mod) Series | HD 22 <sup>2)</sup> 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 <sup>3)</sup> | EN 132400:1994 <sup>4)</sup> | IEC 60384-14:1993 | + A2:1998 + A3:1998 + A4:2001 |  | 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 | 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 <sup>1)</sup> Series                                      | IEC 60227 (mod) Series  |                 |         |               |   |               |                                 |                      |               |                |                |                |                |                |                    |                    |                            |                        |                            |                        |                 |                  |                  |                   |                 |                        |                  |                        |                     |   |                              |                   |                               |  |            |             |                                    |                        |                   |                    |                    |                     |   |                     |   |                     |   |                     |   |                     |                     |                      |                     |                      |                 |                        |   |                  |                 |                  |   |                  |                 |                  |                 |                  |                 |                  |   |                  |               |                |   |                  |               |                |                 |              |                   |                |                 |              |   |              |   |
| HD 22 <sup>2)</sup> 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 <sup>3)</sup>   |                 |         |               |   |               |                                 |                      |               |                |                |                |                |                |                    |                    |                            |                        |                            |                        |                 |                  |                  |                   |                 |                        |                  |                        |                     |   |                              |                   |                               |  |            |             |                                    |                        |                   |                    |                    |                     |   |                     |   |                     |   |                     |   |                     |                     |                      |                     |                      |                 |                        |   |                  |                 |                  |   |                  |                 |                  |                 |                  |                 |                  |   |                  |               |                |   |                  |               |                |                 |              |                   |                |                 |              |   |              |   |
| EN 132400:1994 <sup>4)</sup>                                    | IEC 60384-14:1993   |                 |         |               |   |               |                                 |                      |               |                |                |                |                |                |                    |                    |                            |                        |                            |                        |                 |                  |                  |                   |                 |                        |                  |                        |                     |   |                              |                   |                               |  |            |             |                                    |                        |                   |                    |                    |                     |   |                     |   |                     |   |                     |   |                     |                     |                      |                     |                      |                 |                        |   |                  |                 |                  |   |                  |                 |                  |                 |                  |                 |                  |   |                  |               |                |   |                  |               |                |                 |              |                   |                |                 |              |   |              |   |
| + A2:1998 + A3:1998 + A4:2001                                   |   |                 |         |               |   |               |                                 |                      |               |                |                |                |                |                |                    |                    |                            |                        |                            |                        |                 |                  |                  |                   |                 |                        |                  |                        |                     |   |                              |                   |                               |  |            |             |                                    |                        |                   |                    |                    |                     |   |                     |   |                     |   |                     |   |                     |                     |                      |                     |                      |                 |                        |   |                  |                 |                  |   |                  |                 |                  |                 |                  |                 |                  |   |                  |               |                |   |                  |               |                |                 |              |                   |                |                 |              |   |              |   |
| 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  |                 |         |               |   |               |                                 |                      |               |                |                |                |                |                |                    |                    |                            |                        |                            |                        |                 |                  |                  |                   |                 |                        |                  |                        |                     |   |                              |                   |                               |  |            |             |                                    |                        |                   |                    |                    |                     |   |                     |   |                     |   |                     |   |                     |                     |                      |                     |                      |                 |                        |   |                  |                 |                  |   |                  |                 |                  |                 |                  |                 |                  |   |                  |               |                |   |                  |               |                |                 |              |                   |                |                 |              |   |              |   |

| IEC 60950-1 / EN 60950-1 |   |                                |         |
|--------------------------|---|--------------------------------|---------|
| Clause                   | Requirement – Test  | Result – Remark                | Verdict |
|                          | —   | ISO 262:1998                   |         |
|                          | EN ISO 527 Series   | ISO 527 Series                 |         |
|                          | —   | ISO 386:1984                   |         |
|                          | 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<br>2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series<br>3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001<br>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 |                                |         |

| 1.5.1           | TABLE: list of critical components                                     |              |   |                          |  | P |
|-----------------|--|--------------|---|--------------------------|--|---|
| object/part No. | manufacturer/<br>trademark   | S/N          | technical data  | standard                 | mark(s) of<br>conformity <sup>1)</sup> |   |
| Adaptor         | SAGEM /<br>Astec<br>International<br>Limited –<br>Philippine<br>Branch | 18 867 925-5 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | IEC 60950-1:<br>2001     | IRAM (DC-E-<br>A76-002.12)             |   |
| Alternative     | SAGEM /<br>Astec<br>International<br>Ltd Philippines<br>Branch         | 18 864 404-6 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | UL 60950-1               | UL (E186249)                           |   |
| Alternative     | SAGEM /<br>Astec<br>International<br>Ltd Philippines<br>Branch         | 18 910 719-6 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | UL 60950-1               | UL (E186249)                           |   |
| Alternative     | SAGEM /<br>Astec<br>International<br>Limited –<br>Philippine<br>Branch | 18 869 200-0 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | AS/NZS 60950-<br>1: 2003 | Australia<br>certificate<br>(20603)    |   |
| Alternative     | SAGEM /<br>Astec<br>International<br>Limited –<br>Philippine<br>Branch | 18 910 715-4 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | EN 60950-1:<br>2001      | ENEC (1330)                            |   |
| Alternative     | SAGEM /<br>Astec<br>International<br>Limited –<br>Philippine<br>Branch | 18 865 853-7 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | EN 60950-1:<br>2001      | ENEC (1330)                            |   |
| Alternative     | SAGEM /<br>Astec<br>International<br>Limited –<br>Philippine<br>Branch | 18 865 855-8 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | EN 60950-1:<br>2001      | ENEC (1330)                            |   |
| Alternative     | SAGEM /<br>Astec<br>International<br>Limited –<br>Philippine<br>Branch | 18 910 718-8 | Input: 100-240<br>V, 0,3 A, 50/60<br>Hz, Class II;<br><br>Output: 5 VDC,<br>0,4 A | EN 60950-1:<br>2001      | ENEC (1330)                            |   |

| object/part No.   | manufacturer/<br>trademark                                     | S/N          | technical data   | standard | mark(s) of<br>conformity <sup>1)</sup> |
|---|--|--------------|--|----------|--|
| Cigar lighter<br>adaptor  | SAGEM /<br>Astec<br>Customer<br>Power<br>(Philippines)<br>Inc. | 18 871 842-4 | Input: 12-24 V,<br>0,4 A;<br><br>Output: 6,5<br>VDC, 0,5 A | --       | UL (E208711)                           |
| Battery cell  | SONY<br>ENERGY<br>DEVICES<br>CORP                              | US282450     | 760 mA, 3,7 V  | --       | UL (MH12566)                           |
| PCB   | ELITE<br>MATERIAL CO<br>LTD                                    | EM-280       | V-0, 105 °C  | --       | UL (E150504)                           |
| Plastic cover   | GE PLASTICS<br>AMERICAS  | C2950        | V-0, 85 °C   | --       | UL (E121562)                           |
| <sup>1)</sup> an asterisk indicates a mark which assures the agreed level of surveillance |  |              |  |          |  |

| 1.6.2  | TABLE: electrical data (in normal conditions) |            |       |        |             | P  |
|--------|---|------------|-------|--------|-------------|--|
| fuse # | I rated (A)                                   | U (V)      | P (W) | I (mA) | I fuse (mA) | condition/status   |
| --     | 0,3   | 100 V a.c. | 3,19  | 51     | --          | The batteries are empty<br>The adaptor is S/N 18 865 853-7 or 18 910 715-4 |
| --     | 0,3   | 240 V a.c. | 4,59  | 33     | --          | The batteries are empty<br>The adaptor is S/N 18 865 853-7 or 18 910 715-4 |
| --     | 0,3   | 100 V a.c. | 3,09  | 49     | --          | The batteries are empty<br>The adaptor is S/N 18 869 200-0                 |
| --     | 0,3   | 240 V a.c. | 4,42  | 31     | --          | The batteries are empty<br>The adaptor is S/N 18 869 200-0                 |
| --     | 0,3   | 100 V a.c. | 3,25  | 52     | --          | The batteries are empty<br>The adaptor is S/N 18 867 925-5                 |
| --     | 0,3   | 240 V a.c. | 4,49  | 32     | --          | The batteries are empty<br>The adaptor is S/N 18 867 925-5                 |
| --     | 0,3   | 100 V a.c. | 3,26  | 52     | --          | The batteries are empty<br>The adaptor is S/N 18 865 855-8 or 18 910 718-8 |
| --     | 0,3   | 240 V a.c. | 4,69  | 33     | --          | The batteries are empty<br>The adaptor is S/N 18 865 855-8 or 18 910 718-8 |
| --     | 0,3   | 100 V a.c. | 3,38  | 54     | --          | The batteries are empty<br>The adaptor is S/N 18 864 404-6 or 18 910 719-6 |
| --     | 0,3   | 240 V a.c. | 4,58  | 32     | --          | The batteries are empty<br>The adaptor is S/N 18 864 404-6 or 18 910 719-6 |
| --     | 0,4   | 12 V d.c.  | --    | 320    | --          | The batteries are empty<br>The cigar lighter adaptor is S/N 18 871 842-4   |
| --     | 0,4   | 24 V d.c.  | --    | 290    | --          | The batteries are empty<br>The cigar lighter adaptor is S/N 18 871 842-4   |

| 2.10.3 and 2.10.4                             | TABLE: clearance and creepage distance measurements |              |                  |         |                   | N        |
|---|---|--------------|------------------|---------|-------------------|----------|
| 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) |
| --  | --  | --           | --               | --      | --                | --       |

|                                       |   |           |                     |                     |            |
|---------------------------------------|---|-----------|---------------------|---------------------|------------|
| 2.10.5                                | TABLE: distance through insulation measurements |           |                     |                     | N          |
| distance through insulation di at/of: |   | Up<br>(V) | test voltage<br>(V) | required di<br>(mm) | di<br>(mm) |
| --                                    |   | --        | --                  | --                  | --         |

|     |  |  |  |  |   |
|-----|--|--|--|--|---|
| 4.5 | TABLE: maximum temperatures while charging the empty batteries |  |  |  | P |
|     | test voltage (V) .....   | 254,4 V a.c. for adaptors<br>12 V d.c. for cigar lighter adaptor |  |  | — |
|     | t <sub>amb1</sub> (°C) .....                                   | 22,2   |  |  | — |
|     | t <sub>amb2</sub> (°C) .....                                   | 22.7   |  |  | — |

| maximum<br>temperature T of<br>part/at:: | $\Delta T$ (°C) |     |     |     |     |     | allowed $\Delta$<br>T (°C) |
|--|-----------------|-----|-----|-----|-----|-----|----------------------------|
|  | a)              | b)  | c)  | d)  | e)  | f)  |                            |
| Enclosure of mobile                      | 3,7             | 3,9 | 3,7 | 3,8 | 3,6 | 3,1 | 20 (75-55)                 |
| Lens of mobile                           | 3,4             | 3,7 | 3,4 | 3,4 | 3,5 | 2,8 | 20 (75-55)                 |
| Keyboard of mobile                       | 3,4             | 3,5 | 3,5 | 3,5 | 3,4 | 2,9 | 20 (75-55)                 |
| Enclosure of battery                     | 4,4             | 4,5 | 4,3 | 4,4 | 4,4 | 4,0 | 20 (75-55)                 |

|                           |                    |                    |        |                                  |                     |
|---------------------------|--------------------|--------------------|--------|----------------------------------|---------------------|
| temperature T of winding: | R <sub>1</sub> (Ω) | R <sub>2</sub> (Ω) | T (°C) | allowed<br>T <sub>max</sub> (°C) | insulation<br>class |
| --                        | --                 | --                 | --     | --                               | --                  |

Note: T<sub>ma</sub> is 55 °C according to user manual.

- a) with the adaptor 18 867 925-5
- b) with the adaptor 18 864 404-6 or 18 910 719-6
- c) with the adaptor 18 865 853-7 or 18 910 715-4
- d) with the adaptor 18 865 855-8 or 18 910 718-8
- e) with the adaptor 18 869 200-0
- f) with Cigar lighter adaptor 18 871 842-4

|       |  |                       |                          |
|-------|--|-----------------------|--------------------------|
| 4.5.2 | TABLE: ball pressure test of thermoplastic parts |                       | N                        |
|       | allowed impression diameter (mm) .....           | ≤ 2 mm                | —                        |
| part  |  | test temperature (°C) | impression diameter (mm) |
| --    |  | --                    | --                       |

|      |                           |                  |                |                    |    |
|------|---------------------------|------------------|----------------|--------------------|----|
| 4.7  | TABLE: resistance to fire |                  |                |                    | N  |
| part | manufacturer of material  | type of material | thickness (mm) | flammability class |    |
| --   | --                        | --               | --             | --                 | -- |

|  |   |                                 |                       |
|--|---|---------------------------------|-----------------------|
| 5.2                                    | TABLE: electric strength tests, impulse tests and voltage surge tests |                                 | P                     |
| test voltage applied between:          |   | test voltage (V)<br>a.c. / d.c. | breakdown<br>Yes / No |
| Internal circuit and plastic enclosure |   | 500 Vac                         | No                    |
| supplementary information              |   |                                 |                       |
|  |   |                                 |                       |



| 5.3   | TABLE: fault condition tests                             |  |           |          |                  | P          |
|---|--|--|-----------|----------|------------------|------------|
|   | ambient temperature (°C) .....                           | 22,5 °C  |           |          |                  | —          |
|   | model/type of power supply .....                         | 18 867 925-5<br>18 864 404-6<br>18 910 719-6<br>18 865 853-7<br>18 910 715-4<br>18 865 855-8<br>18 910 718-8<br>18 869 200-0<br>18 871 842-4 |           |          |                  | —          |
|   | trademark of power supply .....                          | SAGEM  |           |          |                  | —          |
|   | rated markings of power supply .....                     | See table 1.5.1  |           |          |                  | —          |
| component No.                                 | fault  | test voltage (V)   | test time | fuse No. | fuse current (A) | result     |
| Batteries                                     | s-c while they are full and disconnected from the mobile | --   | 2 h       | --       | --               | No hazards |
| Cell  | s-c while they are full and disconnected from the mobile | --   | 3 h       | --       | --               | No hazards |
| B- and P-inside battery*)                     | s-c while charging                                       | --   | 7 h       | --       | --               | No hazards |
| Output charge terminal of mobile phone*)      | s-c while charging                                       | --   | 7 h       | --       | --               | No hazards |
| supplementary information                     |  |  |           |          |                  |            |
| s-c = short circuited                         |  |  |           |          |                  |            |
| *): This test is repeated with every charger. |  |  |           |          |                  |            |

**Photograph**

General view of mobile



General view of mobile

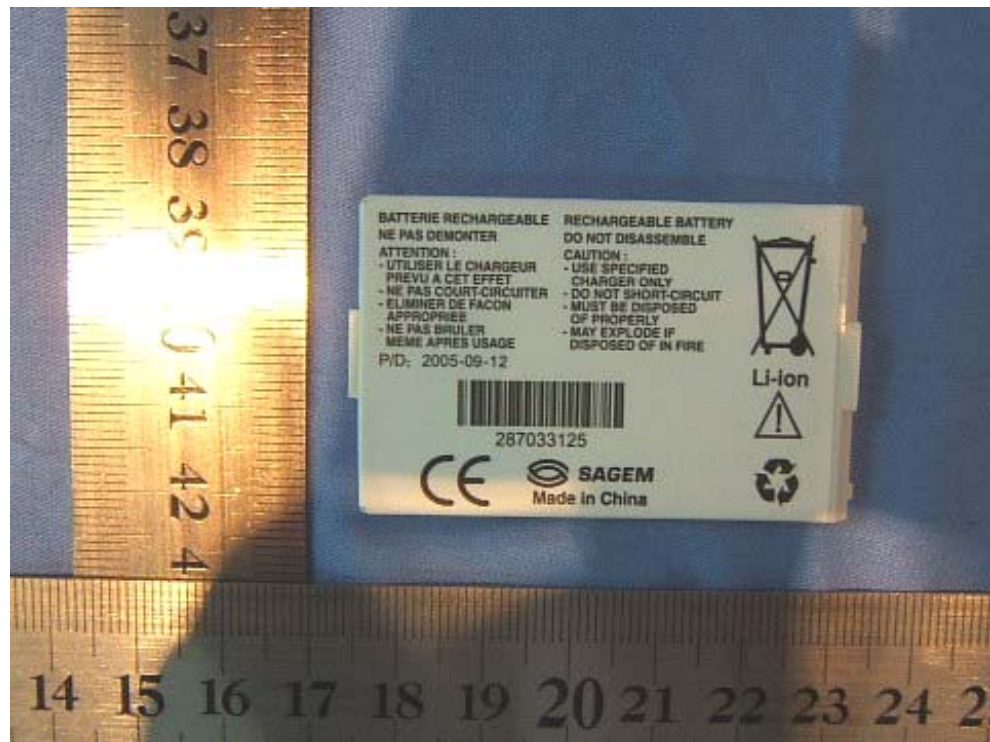


General view of mobile



General view of mobile





General view of battery



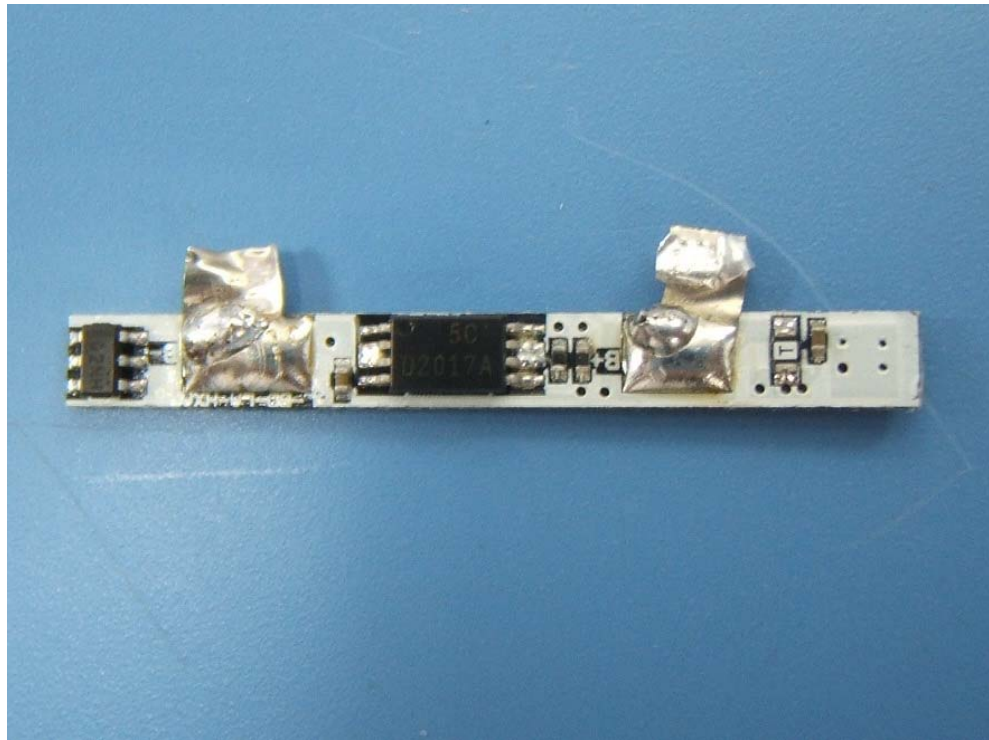
Internal view of battery



Internal view of battery



Deatailed view of label of cell

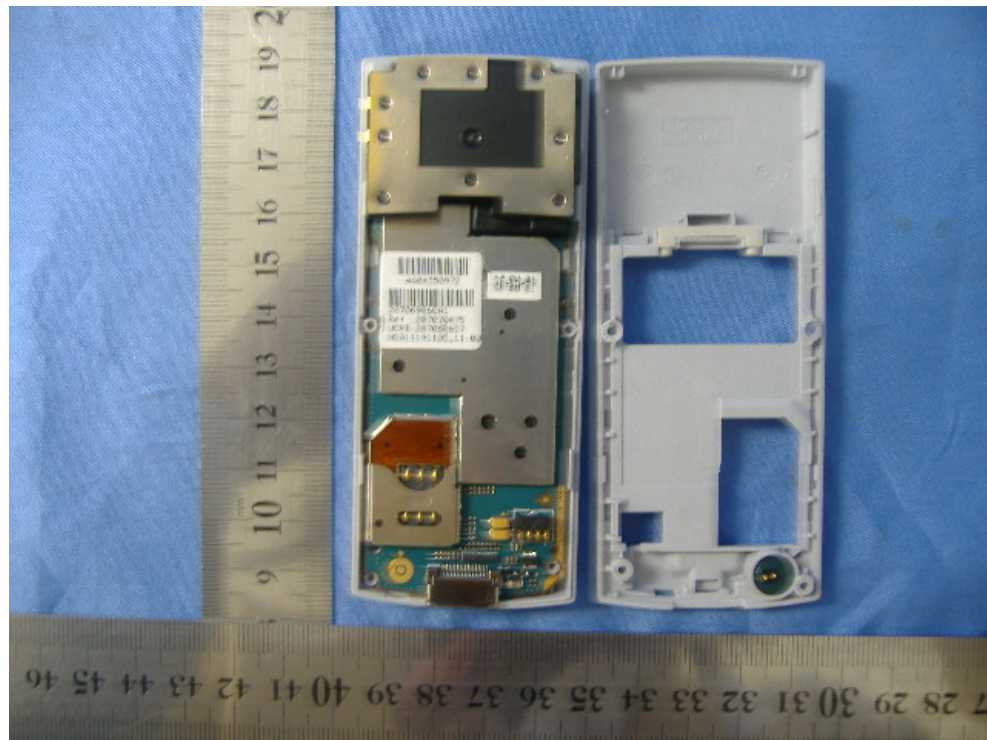


Detailed view of PCB inside battery

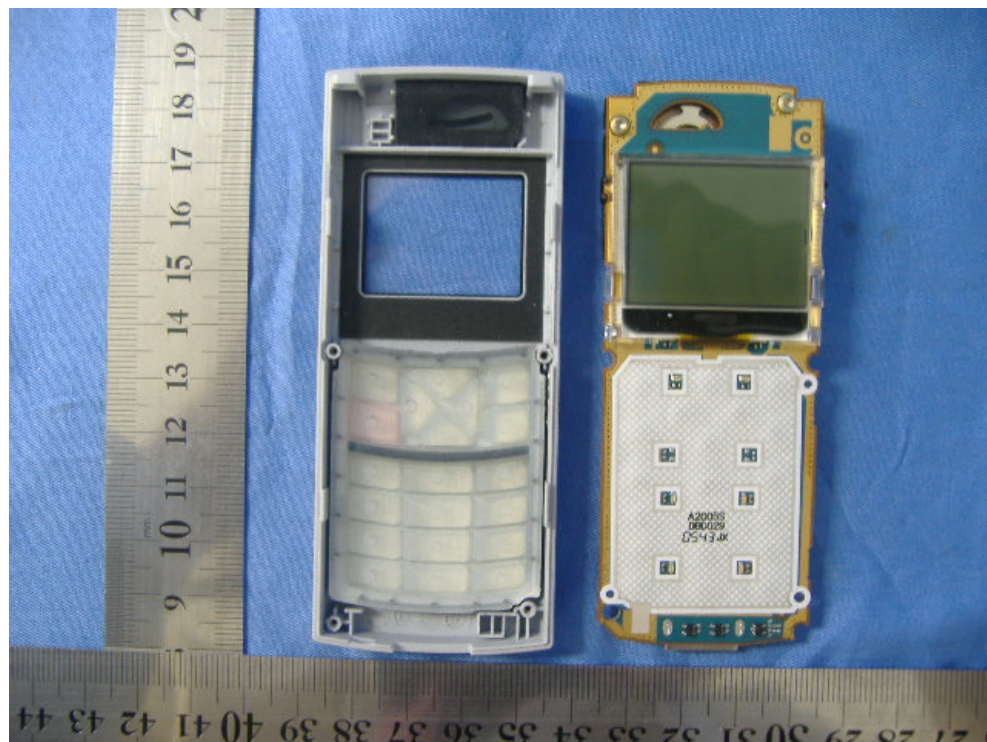


Detailed view of PCB inside battery





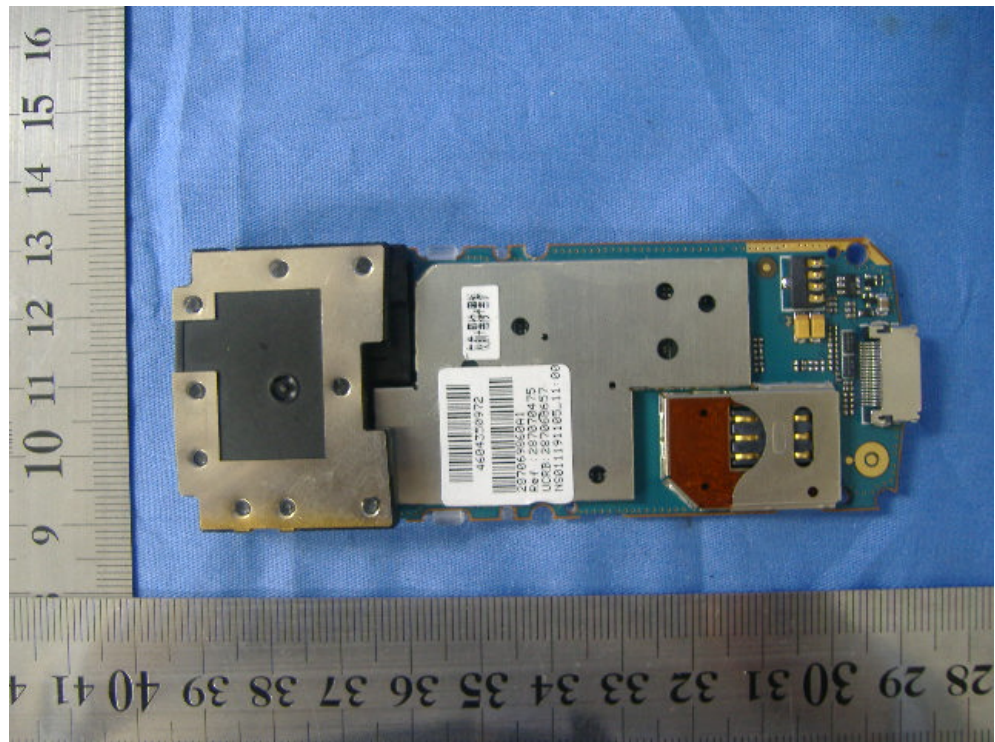
Internal view of mobile



Internal view of mobile

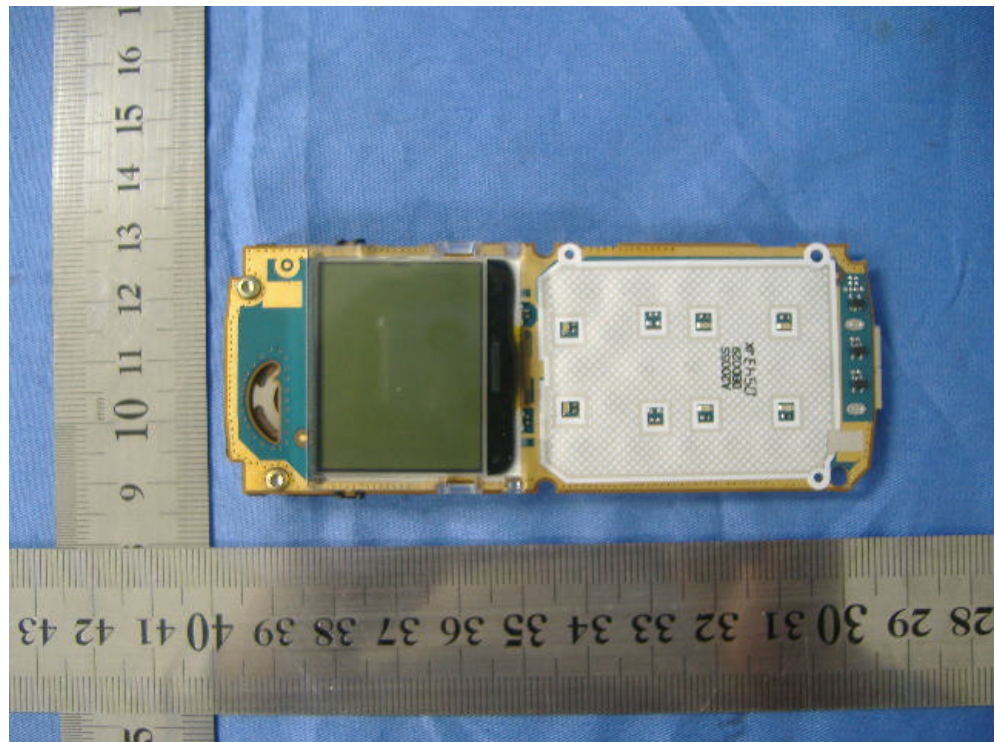


Internal view of mobile

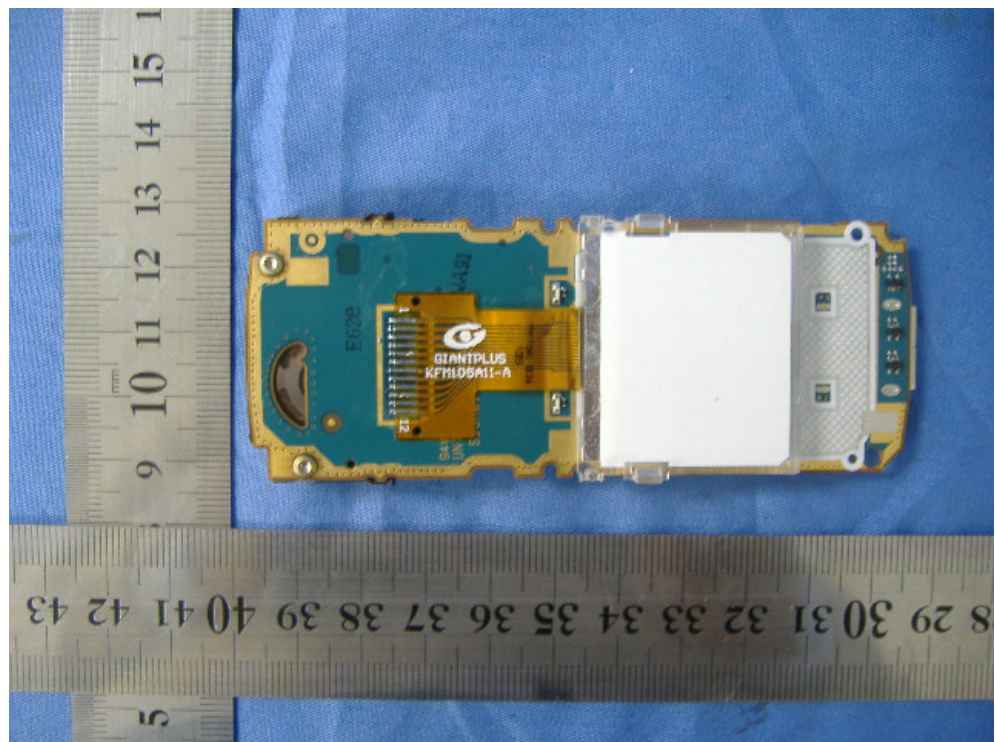


Detailed view of PCB inside mobile





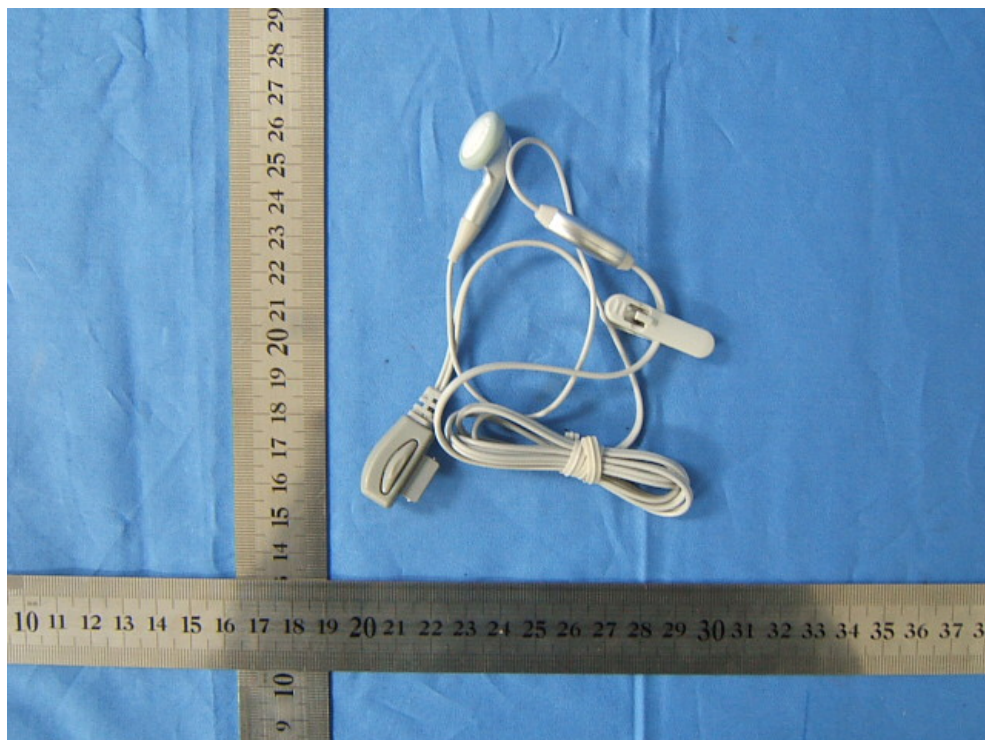
Detailed view of PCB inside mobile



Detailed view of PCB inside mobile



General view of USB data cable



General view of earphone





General view of adaptor S/N 18 910 718-8



General view of adaptor S/N 18 910 715-4



General view of adaptor S/N 18 867 925-5



General view of adaptor S/N 18 910 719-6





General view of adaptor S/N 18 869 200-0



General view of cigar lighter adaptor S/N 18 871 842-4



General view of adaptor S/N 18 864 404-6



General view of adaptor S/N 18 865 853-7



General view of adaptor S/N 18 865 855-8

\*\*\*\*\*END OF REPORT\*\*\*\*\*