Technical Specification

for

GSM Mobile Terminals

IDA TS GSM-MT
Issue 1 Rev 1, July 2009

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Contents

NOTICE

This Specification is subject to review and revision.

1 General Requirements

1.1 Scope of Specification

This Specification defines the minimum technical requirements for Mobile Terminals to be used in the Public Mobile Radio Communication System and services, which employ the Global System for Mobile Communications (GSM) technology. Mobile Terminals may include handheld, portable and vehicle-mounted equipment, and RF interface cards and modems.

1.2 Identification of Equipment

1.2.1 The Mobile Terminal shall be marked with the manufacturer's brand or identification mark, and the manufacturer's model or type reference. The markings required shall be legible, indelible and readily visible.

1.2.2 Each individual Mobile Terminal shall be allocated a unique 'International Mobile Station Equipment Identity (IMEI)'. Manufacturer shall ensure that adequate security measures have been taken to protect the IMEI against duplication, unauthorised removal or change.

1.3 Keypad

Any keypad used in the Mobile Terminal shall be alphanumeric and the relationships between the letters and digits shall comply with the ITU-T Recommendation E.161 (02/2001), sections 2.2, 3.1.1 and 3.6.

1.4 Safety and Health

1.4.1 Compliance with the radiation safety standards specified in clause 2.4 does not by itself confer immunity from legal obligations and requirements imposed by national health or safety authorities. IDA may invalidate the equipment registration if so requested by the relevant authority for reasons of safety or hazards that would likely be caused to users.

1.4.2 The equipment supplier shall provide the SAR information in printed form or in other appropriate form such as in the user guide or as a leaflet or brochure in the equipment package. Furthermore, the supplier shall provide each unit of approved Mobile Terminal with advisory information pertaining to electrical safety and non-ionising radiation hazards and on the safe operation of the Mobile Terminal at potentially hazardous areas such as in moving vehicles, in aircrafts and at fuel depots, chemical plants and blasting sites.

2 Technical Requirements

2.1 Operating Frequencies

2.1.1 Mobile Terminals shall operate within the following frequency bands and channel spacing:

Type	Transmitter	Receiver	Channel Spacing
GSM900	880 – 915 MHz	925 – 960 MHz	200 kHz
GSM1800	1710 – 1785 MHz	1805 – 1880 MHz	200 kHz

2.1.2 The precise operating frequency range of a Mobile Terminal shall follow that of the Network Operator from whom the service is obtained.

2.2 Conformity Assessment Requirements

2.2.1 GSM Mobile Terminals shall comply with one of the following standards:

ETSI I-ETS 300 020-1	European Digital Cellular Telecommunications System (Phase 1); Mobile Station Conformance Test System; Part 1: Mobile Station Conformance Specification
ETSI I-ETS 300 020-3	European Digital Cellular Telecommunications System (Phase 1); Mobile Station Conformance Test System; Part 3: DCS 1800 Mobile Station Conformance Specification (GSM 11.10-DCS)
ETSI ETS 300 607-1	European Digital Cellular Telecommunications System (Phase 2) (GSM); Mobile Station (MS) Conformance Specification; Part 1: Conformance Specification (GSM 11.10-1)
ETSI TS 100 607-1	European Digital Cellular Telecommunications System (Phase 2+) (GSM); Mobile Station Conformance Specification; Part 1: Conformance Specification (GSM 11.10-1/3GPP TS 11.10-1)
ETSI EN 300 607-1	European Digital Cellular Telecommunications System (Phase 2+) (GSM); Mobile Station (MS) Conformance Specification; Part 1: Conformance Specification (GSM 11.10-1)
ETSI TS 151 010-1	European Digital Cellular Telecommunications System (Phase 2+); Mobile Station (MS) Conformance Specification; Part 1: Conformance Specification (3GPP TS 51.010-1)

2.2.2 Conformity assessment requirements for supplementary services established in the above standards under reference are applicable only when the equipment supports the relevant supplementary services.

2.3 Radio Frequency (RF) Requirements

2.3.1 Suppliers shall demonstrate that the GSM Mobile Terminals have been tested and certified for operating in the frequency bands stated in clause 2.1 and conformity to the following standard:

ETSI TS 301 511	Global System for Mobile Communications (GSM); Harmonised Standard for Mobile Stations in the GSM900 and DCS1800 Bands covering Essential Requirements under Article 3.2 of the R&TTE Directive (1999/5/EC) (GSM 13.11)

2.3.2 If the GSM Mobile Terminal also supports WLAN operation, suppliers shall demonstrate that the Mobile terminal has been tested and certified for conformity to the following standard:

ETSI EN 300 328-02	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques; Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

2.4 Radiation Safety (SAR) Requirements

In addition to the requirements as stated in clauses 2.1, 2.2 and 2.3, suppliers shall demonstrate that the GSM Mobile Terminal has been tested and certified for conformity with the following International Commission on Non-Ionizing Radiation Protection (ICNIRP) recommendations:

EN 50360:2001	Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz – 3 GHz)
EN 50361:2001	Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz – 3 GHz)

Annex A: Corrigendum / Addendum

Changes to IDA TS GSM-MT Issue 1, July 2005			
Page	**TS Ref.**	**Items Changed**	**Effective Date**
-	-	Specification has been reissued as TS GSM-MT Issue 1 Rev 1.	Jul 09
3	§ 1.2.2	Provision to highlight security feature for IMEI.	Jul 09
3	§ 2.1.1	Operating Frequencies for GSM900 has been extended from 890 – 915 MHz / 935 – 960 MHz to 880 – 915 MHz / 925 – 960 MHz.	Jul 09

Changes to IDA TS GSM 900 & 1800 (Phase 1, 2 & 2+) Issue 1, Rev 1, Aug 02			
Page	**TS Ref.**	**Items Changed**	**Effective Date**
—	—	Title of Specification has been renamed as “Technical Specification for GSM Mobile Terminal” [IDA TS GSM-MT Issue 1]. Changes are mainly editorial in nature. The essential technical requirements for conformity assessment remain unchanged.	21 Jul 05