Technical Specification

for

IMT-2000 Third-Generation (3G) Cellular Mobile Terminals

IDA TS 3G-MT
Issue 1 Rev 1, July 2009

Infocomm Development Authority of Singapore
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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 Third Generation (3G) Mobile Communication Systems and services, which employ the WCDMA FDD Cellular Technology. WCDMA FDD 3G Cellular 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 WCDMA FDD 3G Cellular 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 2.3 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 W-CDMA FDD 3G Cellular Mobile Terminals shall operate within the following frequency bands and channel spacing:

WCDMA FDD	Mobile Transmit:	1920 – 1980 MHz
	Mobile Receive:	2110 – 2170 MHz
	Channel Spacing:	5 MHz

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 Radio Frequency (RF) Requirements

2.2.1 Suppliers shall demonstrate that the WCDMA FDD 3G Cellular Mobile Terminals have been tested and certified for operating in the frequency bands stated in clause 2.1.1 and conformity to the following standards:

ETSI EN 301 908-01	Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks; Part 1: Harmonized EN for IMT-2000 Introduction and common requirements, covering essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 301 908-02	Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks; Part 2: Harmonized EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (UE) covering essential requirements of article 3.2 of the R&TTE Directive

2.2.2 If the WCDMA FDD 3G Cellular Mobile Terminal also supports the GSM and WLAN modes of operation, suppliers shall demonstrate that the Mobile terminal has been tested and certified for conformity to the following standards:

ETSI EN 301 511	Global System for Mobile communications (GSM); Harmonized standard for mobile stations in the GSM 900 and DCS 1800 bands covering essential requirements under article 3.2 of the R&TTE directive (1999/5/EC) (GSM 13.11 version 7.0.1 Release 1998)
ETSI EN 301 419-2	Digital cellular telecommunications system (Phase 2+); Attachment requirements for Global System for Mobile communications (GSM); High Speed Circuit Switched Data (HSCSD) Multislot Mobile Stations; Access (GSM 13.34 version 5.1.1 Release 1996)
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

2.3 Radiation Safety (SAR) Requirements

In addition to the requirements as stated in clauses 2.1 and 2.2, suppliers shall demonstrate that the WCDMA FDD 3G Cellular 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 3G-MT Issue 1, July 05			
Page	**TS Ref.**	**Items Changed**	**Effective Date**
-	-	Specification has been reissued as TS 3G-MT Issue 1 Rev 1.	Jul 09
3	§ 1.2.2	Provision to highlight security feature for IMEI.	Jul 09

Changes to IDA TS 3G MT (WCDMA FDD) Issue 1, Nov 03			
Page	**TS Ref.**	**Items Changed**	**Effective Date**
—	—	Title of Specification has been renamed as “Technical Specification for IMT-2000 Third-Generation (3G) Cellular Mobile Terminal” [IDA TS 3G-MT Issue 1]. Changes are mainly editorial in nature. The essential technical requirements for conformity assessment remain unchanged.	21 Jul 05