



Technical Specification

for

IMT-2000 Third-Generation (3G) Cellular Base Station and Repeater System

**IDA TS 3G-BS
Issue 1, July 2005**

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<p style="text-align: center;">NOTICE</p>
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<p style="text-align: center;">This Specification is subject to review and revision.</p>

1 General Requirements

1.1 Scope of Specification

This specification defines the minimum technical requirements for base stations and repeater equipment to be used in the Third Generation (3G) Mobile Communication Systems and services, which employ the WCDMA Cellular Technology.

1.2 Identification of Equipment

Base stations and repeater equipment 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.

1.3 Safety and Health

1.3.1 Use of base station or repeater equipment shall comply with International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz).

1.3.2 Compliance with the above radiation safety standards 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.

2 Technical Requirements

2.1 Operating Frequencies

The base station and repeater equipment used in the W-CDMA FDD Third Generation Cellular System shall operate within the following frequency bands and channel spacing:

Base Transmit:	2110 – 2170 MHz
Base Receive:	1920 – 1980 MHz
Channel Spacing:	5 MHz

2.2 Radio Frequency (RF) Requirements

Suppliers shall demonstrate that the WCDMA FDD 3G base stations and repeater equipment have been tested and certified for operating in the frequency bands stated in clause 2.1 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
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ETSI EN 301 908-03 Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks; Part 3: Harmonized EN for IMT-2000, CDMA Direct Spread (UTRA FDD) (BS) covering essential requirements of article 3.2 of the R&TTE Directive

2.3 Electromagnetic Compatibility Requirements

Suppliers shall demonstrate that the base stations and repeater equipment have been tested and certified to meet the EMC limits and methods of measurement as specified in the following IMT-2000 Third-Generation Cellular System specifications published by the ETSI:

ETSI EN 301 489-1 Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

ETSI EN 301 489-23 Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 23: Specific Conditions for IMT-2000 CDMA Direct Spread (UTRA) Base Station (BS) radio, repeater and ancillary equipment

2.4 Electrical Safety Requirements

Suppliers shall demonstrate that the base stations and repeater equipment have been tested and certified to meet the following safety standards:

IEC 60950/EN 60950 Safety of Information Technology equipment including electrical business equipment

IEC 60215/ EN 60215 Safety requirements for radio transmitting equipment

Annex A: Corrigendum / Addendum

Changes to IDA TS 3G BS (WCDMA) Issue 1, Aug 02			
Page	TS Ref.	Items Changed	Effective Date
—	—	<p>Title of Specification has been renamed as “Technical Specification for IMT-2000 Third-Generation (3G) Cellular Base Station and Repeater System” [IDA TS 3G-BS Issue 1].</p> <p>Changes are mainly editorial in nature. The essential technical requirements for conformity assessment remain unchanged.</p>	21 Jul 05