

# Notification of the National Telecommunications Commission

On Technical Standards for Telecommunication Equipment

Re: User Equipment in Cellular Land Mobile Service Using IMT-2000 CDMA Multi-Carrier (cdma2000) Technology

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The National Telecommunications Commission has a policy of setting technical standards for the telecommunication equipment which is used widely and internationally to keep pace with current technological circumstances, so that the telecommunication equipment would objectively meet technical requirements, be able to operate without causing interference, and without undesired effects on the telecommunication networks or services, as well as to ensure consumer protection, for the benefits of the overall telecommunication industry and in order that the national technical standards are harmonized with international standards.

Pursuant to Section 51 (6) and Section 78 paragraph one of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E. 2543 (2000), and Section 32 paragraph one of the Telecommunications Business Act B.E. 2544 (2001), together with Section 29 (4) of the Radiocommunications Act B.E. 2498 (1955), and its amendments, the National Telecommunications Commission at its Meeting No. 41/2549 on 29 November B.E. 2549 (2006), approved for the issuance of the Notification on Technical Standards for Telecommunication Equipment regarding User Equipment in Cellular Land Mobile Service Using IMT-2000 CDMA Multi-Carrier (cdma2000) Technology, as detailed in the Standard No. NTC TS 1017-2549 appended hereto.

This Notification shall come into force from the date of its publication in the Government Gazette.

Issued on the 28<sup>th</sup> day of December B.E. 2549 (2006)

General Choochart Promphrasid

Chairman of the National Telecommunications Commission



# **Technical Standards for Telecommunication Equipment**

**NTC TS 1017 – 2549**

**User Equipment in Cellular Land Mobile Service  
Using IMT-2000 CDMA Multi-Carrier (cdma2000) Technology**

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**Technical Standards for Telecommunication Equipment:**  
**User Equipment in Cellular Land Mobile Service**  
**Using IMT-2000 CDMA Multi-Carrier (cdma2000) Technology**

**1. Scope**

This technical standard specifies the minimum technical characteristics for user equipment in cellular land mobile service using IMT-2000 CDMA Multi-Carrier (cdma2000) technology and having channel spacing of 1.25 MHz per carrier in the following frequency ranges:

<b>Technology</b>	<b>Transmitting frequency</b>	<b>Receiving frequency</b>
cdma2000 (band class 6)	1920 - 1980 MHz	2110 - 2170 MHz
cdma2000 (band class 0)	824 - 849 MHz	869 - 894 MHz
cdma2000 (band class 5F)	479 - 483.5 MHz	489 - 493.5 MHz

**2. Technical Requirements**

**2.1 Radio frequency requirements**

The radio frequency requirements for transmitters, receivers and transceivers of the user equipment in cellular land mobile service using IMT-2000 CDMA Multi-Carrier (cdma2000) technology shall comply with one or more of the following standards:

2.1.1 ANSI/TIA 98 : Recommended Minimum Performance Standards for cdma2000 Spread Spectrum Mobile Stations

ANSI/TIA-2000.2-D : Physical Layer Standard for cdma2000 Spread Spectrum Systems - Release D

2.1.2 EN 301 908-1 : Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS), Repeaters 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

EN 301 908-4 : Electromagnetic compatibility and Radio spectrum Matters (ERM);  
Base Stations (BS), Repeaters and User Equipment (UE) for IMT-  
2000 Third-Generation cellular networks; Part 4: Harmonized EN for  
IMT-2000, CDMA Multi-Carrier (cdma2000) (UE) covering essential  
requirements of Article 3.2 of the R&TTE Directive

## **2.2 Radiation exposure requirements**

The user equipment in cellular land mobile service using IMT-2000 CDMA Multi-Carrier (cdma2000) technology shall comply with the radiation exposure requirements on Specific Absorption Rate (SAR) set forth by the National Telecommunications Commission, or one or more of the following standards:

- 2.2.1 ICNIRP Guidelines : Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz), issued by International Commission on Non-Ionizing Radiation Protection
  - 2.2.2 ANSI/IEEE C95.1 : IEEE Standard for Safety Levels with respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz, issued by American National Standards Institute (ANSI)/Institute of Electrical and Electronics Engineers (IEEE)
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