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**TYPE ACCEPTANCE CRITERIA FOR  
BASE STATION EQUIPMENT FOR USE IN  
THE THIRD GENERATION (3G) MOBILE  
COMMUNICATIONS SERVICES EMPLOYING  
CDMA DIRECT SPREAD (UTRA FDD) AND  
OPERATING IN THE 850 MHz BAND**



**TELECOMMUNICATIONS AUTHORITY  
HONG KONG**

## 1. SCOPE

This document sets out the technical criteria for type acceptance of Base Station Equipment (hereafter referred to as “the equipment”) for use in the 3G Mobile Communications Services employing CDMA Direct Spread (UTRA FDD) and operating in the 850 MHz band.

It should be noted that, in addition to fulfilling the equipment certification requirement, the putting into use of the certified equipment by an operator is also subject to an appropriate licence and other necessary authorization, including but not limited to the grant of right to use any frequencies within the frequency bands specified in clause 2 below, as well as other requirements in the relevant licence and the Telecommunications Ordinance (Cap 106) and its subsidiary legislations as may be amended from time to time.

## 2. OPERATING FREQUENCIES

The frequency bands for the equipment are as follows -

<b>Downlink (Base Station Transmit)</b>	<b>Uplink (Base Station Receive)</b>
877.5 - 882.5 MHz	832.5 - 837.5 MHz

## 3. TECHNICAL REQUIREMENTS

The equipment shall meet the following technical requirements -

- (a) the requirements as specified in the standard EN 301 908-1 V4.2.1 or later titled “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 requirement, covering the essential requirements of article 3.2 of the R&TTE Directive” published by the European Telecommunications Standards Institute (ETSI); and
- (b) the requirements as specified in the specification TS 25.141 V8.8.0 or later titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Base Station (BS) conformance testing (FDD)” published by the Third Generation Partnership Project (3GPP) in respect of the following characteristics -

Note: The clause numbers indicated below refer to those of the 3GPP TS 25.141 specification.

### Transmitter

1. Spectrum emission mask (clause 6.5.2.1)
2. Adjacent channel leakage power ratio (clause 6.5.2.2)
3. Spurious emissions (clause 6.5.3), as follows -
  - 3.1 Spurious emissions (Category B) (clause 6.5.3.7.2)
  - 3.2 Protection of the BS receiver of own or different BS (clause 6.5.3.7.3)
  - 3.3 Co-existence with other systems in the same geographical area (clause 6.5.3.7.4)
  - 3.4 Co-existence with UTRA-TDD operation in the same geographic area (clause 6.5.3.7.8.1, not applicable to TS 25.141 V10.1.0 for which these requirements are merged into clause 6.5.3.7.4)
  - 3.5 Co-existence with Home BS operating in other bands (clause 6.5.3.7.10)
4. Base station maximum output power (clause 6.2.1)
5. Transmit intermodulation (clause 6.6, the transmit intermodulation level shall not exceed the requirements of items 1 to 3 above)
6. Home base station output power for adjacent channel protection (clause 6.4.6)

### Receiver

1. Spurious emissions (clause 7.7, technical requirements as specified in Tables 7.7A(a), 7.7A(b) and 7.7A(c))
2. Blocking characteristics (clause 7.5, excluding blocking performance requirements for BS when co-located with BS in other bands)
3. Intermodulation characteristics (clause 7.6)
4. Adjacent channel selectivity (clause 7.4)

## **4. EVALUATION REQUIREMENTS**

The equipment shall comply with the operating frequencies and the technical requirements as specified in clauses 2 and 3. Compliance of the equipment with the technical requirements shall be evaluated in accordance with the procedures specified in the respective ETSI standard and 3GPP specification as given in clause 3.

## **5. REFERENCE**

- (a) EN 301 908-1 V4.2.1 or later “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 requirement, covering the essential requirements of article 3.2 of the R&TTE Directive” published by the ETSI

- (b) TS 25.141 V8.8.0 or later titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Base Station (BS) conformance testing (FDD)” published by the 3GPP

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