

TAC 002
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**TYPE ACCEPTANCE CRITERIA FOR
USER EQUIPMENT FOR USE IN PUBLIC
MOBILE COMMUNICATIONS SERVICES
EMPLOYING CDMA DIRECT SPREAD (UTRA FDD)
AND/OR EVOLVED UNIVERSAL TERRESTRIAL
RADIO ACCESS (E-UTRA) FREQUENCY DIVISION
DUPLEX (FDD) AND OPERATING IN THE 850 MHz BAND**



AMENDMENT TABLE

Item	Issue No.	Paragraph	Descriptions
1	Issue 1 August 2011	All	First release
2	Issue 2 January 2022	Title, 1	Expansion of the scope of this type acceptance criteria to include user equipment employing E-UTRA FDD and operating in the 850 MHz band
		2	Replacement of TA and HKTA with CA and HKCA respectively
		3	Extension of the paired 850 MHz band to 825 – 837.5 MHz / 870 – 882.5 MHz
		4(a)	Clarifying the applicability of EN 301 908-1 to equipment employing UTRA FDD and/or E-UTRA FDD as well as updating the title and version number of the standard
		4(b)	Clarifying the applicability of 3GPP specification TS 34.121-1 to equipment employing UTRA FDD and updating the version number of the specification Inclusion of additional clauses of TS 34.121-1 to Transmitter test items 1 to 5 Addition of a new Receiver test item 6
		4(c)	Addition of 3GPP specification TS 37.544 to the technical requirements for equipment employing UTRA FDD that is handheld phone narrower than 72 mm and addition of the respective Transmitter and Receiver test items
		4(d)	Addition of 3GPP specification TS 36.521-1 to the technical requirements for equipment employing E-UTRA FDD and addition of the respective Transmitter and Receiver test items
		5	Editorial changes
		6	Consequential changes and inclusion of ETSI standards EN 301 908-2 and EN 301 908-13

1. SCOPE

This document sets out the criteria for type acceptance of User Equipment (hereafter referred to as “the equipment”) for use in the Public Mobile Communications Services employing CDMA Direct Spread (UTRA FDD) and/or Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD) and operating in the 850 MHz band.

2. SAFETY REQUIREMENTS

The equipment shall comply with HKCA 2001 “Compliance Test Specification – Safety and Electrical Protection Requirements for Subscriber Telecommunications Equipment” issued by the Communications Authority (CA).

3. OPERATING FREQUENCIES

The frequency bands for the equipment are as follows -

Downlink (User Equipment Receive)	Uplink (User Equipment Transmit)
870 – 882.5 MHz	825 – 837.5 MHz

4. TECHNICAL REQUIREMENTS

The equipment shall meet the following technical requirements -

For equipment employing UTRA FDD and/or E-UTRA FDD,

- (a) the requirements as specified in the standard EN 301 908-1 V13.1.1 titled “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements”, or later versions, published by the European Telecommunications Standards Institute (ETSI);

For equipment employing UTRA FDD,

- (b) the requirements as specified in the specification TS 34.121-1 V12.1.0 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 1: Conformance specification”, or later versions, published by the Third Generation Partnership Project (3GPP) in respect of the following:

Note: The clause numbers indicated below refer to those of the 3GPP TS 34.121-1 specification.

Transmitter

1. Maximum output power (clauses 5.2, 5.2BA, 5.2AB)
2. Spectrum emission mask (clauses 5.9, 5.9A, 5.9B, 5.9C, 5.9AA, 5.9AB)
3. Spurious emissions (clauses 5.11, 5.11A)
4. Minimum output power (clauses 5.4.3, 5.4.3A, 5.4.3C)
5. Adjacent channel leakage power ratio (clauses 5.10, 5.10A, 5.10B, 5.10C, 5.10AA, 5.10AB)
6. Out-of-synchronisation handling of output power (clause 5.4.4)

Receiver

1. Adjacent channel selectivity (Release 5 and later releases) (clause 6.4A)
2. Blocking characteristics (clause 6.5)
3. Spurious response (clause 6.6)
4. Intermodulation characteristics (clause 6.7)
5. Spurious emissions (clause 6.8)
6. Reference sensitivity level (clause 6.2)

For equipment employing UTRA FDD that is handheld phone narrower than 72 mm,

- (c) the requirements as specified in the specification TS 37.544 V14.3.0 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA); User Equipment (UE) Over The Air (OTA) performance; Conformance testing”, or later versions, published by 3GPP in respect of the following:

Note: The clause numbers indicated below refer to those of the 3GPP TS 37.544 specification.

Transmitter

1. Total radiated power (clause 6.1.3)

Receiver

1. Total radiated sensitivity (clause 7.1.3)

For equipment employing E-UTRA FDD,

- (d) the requirements as specified in the specification TS 36.521-1 V15.2.0 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing”, or later versions, published by 3GPP in respect of the following:

Note: The clause numbers indicated below refer to those of the 3GPP TS 36.521-1 specification.

Transmitter

1. Maximum output power (clauses 6.2.2, 6.2.2A.1, 6.2.2A.2, 6.2.2B, 6.2.2F, 6.2.2E, 6.2.2EA)
2. Spectrum emission mask (clauses 6.6.2.1, 6.6.2.1A.1, 6.6.2.1A.2, 6.6.2.1B, 6.6.2.1_1, 6.6.2.1F, 6.6.2.1E, 6.6.2.1EA)
3. Spurious emissions (clauses 6.6.3.1, 6.6.3.2, 6.6.3.3, 6.6.3.1A.1, 6.6.3.1A.2, 6.6.3.2A.1, 6.6.3.2A.2, 6.6.3B.1, 6.6.3B.2, 6.6.3.1_1, 6.6.3F, 6.6.3E, 6.6.3EA)
4. Minimum output power (clauses 6.3.2, 6.3.2A.1, 6.3.2A.2, 6.3.2B, 6.3.2F, 6.3.2E, 6.3.2EA)
5. Adjacent channel leakage power ratio (clauses 6.6.2.3, 6.6.2.3A.1, 6.6.2.3A.2, 6.6.2.3B, 6.6.2.3_2, 6.6.2.3F, 6.6.2.3E, 6.6.2.3EA)

Receiver

1. Adjacent channel selectivity (clauses 7.5, 7.5A.3, 7.5F, 7.5E, 7.5EA)
2. Blocking characteristics (clauses 7.6.1, 7.6.2, 7.6.3, 7.6.1A.3, 7.6.2A.3, 7.6.3A.3, 7.6.1F, 7.6.2F, 7.6.1E, 7.6.2E, 7.6.3E, 7.6.1EA, 7.6.2EA, 7.6.3EA)
3. Spurious response (clauses 7.7, 7.7A.3, 7.7F, 7.7E, 7.7EA)
4. Intermodulation characteristics (clauses 7.8.1, 7.8.1A.3, 7.8.1F, 7.8.1E, 7.8.1EA)
5. Spurious emissions (clauses 7.9, 7.9A, 7.9E, 7.9EA, 7.9F)
6. Reference sensitivity level (clauses 7.3, 7.3A.3, 7.3F.1, 7.3E, 7.3EA)

5. EVALUATION METHOD

Compliance of the equipment with the technical requirements shall be evaluated in accordance with the procedures specified in the corresponding ETSI standard and 3GPP specifications as given in clause 4 above.

6. REFERENCE

HKCA 2001 titled “Compliance Test Specification - Safety And Electrical Protection Requirements For Subscriber Telecommunications Equipment”, issued by the CA

ETSI EN 301 908-1 V13.1.1 titled ”IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements”

ETSI EN 301 908-2 V13.1.1 titled “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 2: CDMA Direct Spread (UTRA FDD) User Equipment (UE)”

ETSI EN 301 908-13 V13.1.1 titled “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE)”

3GPP TS 34.121-1 V12.1.0 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; User Equipment (UE) conformance specification; Radio transmission and reception (FDD); Part 1: Conformance specification”

3GPP TS 37.544 V14.3.0 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA); User Equipment (UE) Over The Air (OTA) performance; Conformance testing”

3GPP TS 36.521-1 V15.2.0 titled “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing”

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