

**PERFORMANCE SPECIFICATION
FOR EVOLVED UNIVERSAL TERRESTRIAL
RADIO ACCESS (E-UTRA)
FREQUENCY DIVISION DUPLEX (FDD)
BASE STATION AND REPEATER**

~~**EQUIPMENT FOR USE IN PUBLIC MOBILE
COMMUNICATIONS SERVICES**~~

HONG KONG



通訊事務管理局
COMMUNICATIONS
AUTHORITY

FOREWORD

1. This specification is prescribed under section 32D of the Telecommunications Ordinance (Cap. 106) (“the Ordinance”) to set out the technical and evaluation requirements for Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD), E-UTRA FDD with Narrowband – Internet of Things (NB-IoT) and NB-IoT Base Station (BS), and E-UTRA FDD Repeater ~~equipment for use in the Public Mobile Communications Services based on Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD)~~. ~~It is a condition of the licence for the public mobile communications services that radio apparatus~~Radiocommunications apparatus falling into the scope of this specification shall meet the stipulated requirements.
2. Under the Ordinance, the possession or use of any radiocommunications apparatus or any apparatus emitting radio frequency energy must be covered by an appropriate licence issued by the Communications Authority (CA) with the exception of those specifically exempted from licensing under the Ordinance, such as those covered by the Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order (Cap. 106Z).
3. At present, the Office of the Communications Authority (OFCA) operates a Hong Kong Telecommunications Equipment Evaluation and Certification (HKTEC) Scheme. Details of the HKTEC Scheme can be found in the information note OFCA-I-421. Under the HKTEC Scheme, suppliers or manufacturers shall apply for certification of their apparatus against this specification. The application procedures for certification of radiocommunications apparatus can be found in the information note OFCA-I-401.
4. ~~The~~ CA may amend any part of this specification as and when it deems necessary.
5. In case of doubt about the interpretation of this specification, the methods of carrying out the test and the validity of statements made by the ~~equipment~~ manufacturers or suppliers about the equipmentapparatus, the decision of ~~the~~ CA shall be final.
6. The HKCA specifications and information notes issued by ~~the~~ CA can be ~~obtained~~downloaded from OFCA’s website at <https://www.ofca.gov.hk>. Enquiries about this specification ~~can~~may be directed to -

Senior Telecommunications Engineer
Standards Section
Office of the ~~Telecommunications~~Communications Authority
29/F Wu Chung House
213 Queen’s Road East
Wanchai
Hong Kong

Fax: +852 2838 5004
Email: standards@ofca.gov.hk

AMENDMENT TABLE

Item	Issue No.	Paragraph Clause	Description
1.	Issue 1 May 2011	All	First Release
2.	Issue 2 July 2023	Foreword	Editorial changes
3.	Issue 2 July 2023	2	Addition of the paired band 703 – 738 MHz / 758 – 793 MHz
4.	Issue 2 July 2023	3, 5	Updating the titles of standards under reference
5.	Issue 3 July 2026	Foreword, 1 2, 3, 4	Included NB-IoT base station in the scope for clarity, and moved the updated list of operating frequency bands to Clause 1. Added the relevant 3GPP standards.

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1. SCOPE

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1. SCOPE

This specification sets out the ~~performance~~technical and evaluation requirements for Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD), E-UTRA FDD with Narrowband – Internet of Things (NB-IoT) and NB-IoT Base Station (BS), and E-UTRA FDD Repeater Equipment (hereafter referred to as “the equipment”) ~~for use in the Public Mobile Communications Services employing Evolved Universal Terrestrial Radio Access (E-UTRA) Frequency Division Duplex (FDD).~~

The equipment is capable of operating in all or any part of the frequency bands below –

<u>Band Arrangement</u>	<u>Uplink (BS Receive)</u>	<u>Downlink (BS Transmit)</u>
<u>Paired Band</u>	<u>703 – 748 MHz</u>	<u>758 – 803 MHz</u>
	<u>825 – 837.5 MHz</u>	<u>870 – 882.5 MHz</u>
	<u>880 – 915 MHz</u>	<u>925 – 960 MHz</u>
	<u>1710 – 1785 MHz</u>	<u>1805 – 1880 MHz</u>
	<u>1920 – 1980 MHz</u>	<u>2110 – 2170 MHz</u>
	<u>2500 – 2570 MHz</u>	<u>2620 – 2690 MHz</u>

2. ~~OPERATING FREQUENCIES~~

The frequency bands for the equipment are as follows –

	<u>Downlink (Base Station Transmit)</u>	<u>Uplink (Base Station Receive)</u>
<u>Paired Band</u>	<u>758 – 793 MHz</u>	<u>703 – 738 MHz</u>
	<u>925 – 960 MHz</u>	<u>880 – 915 MHz</u>
	<u>1805 – 1880 MHz</u>	<u>1710 – 1785 MHz</u>
	<u>2110 – 2170 MHz</u>	<u>1920 – 1980 MHz</u>
	<u>2620 – 2690 MHz</u>	<u>2500 – 2570 MHz</u>

3.2. TECHNICAL REQUIREMENTS

The equipment shall ~~meet~~comply with the technical requirements ~~as specified in the following all relevant~~ standards published by the European Telecommunications Standards Institute (ETSI) ~~and the 3rd Generation Partnership Project (3GPP) (excluding test items that are not covered in the corresponding ETSI standards) given in subclauses (a) to (c) below –~~

- (a) (i) [ETSI EN 301 908-1](#) “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements”

~~_____~~ ~~AND OR~~

- ~~_____~~ (ii) [3GPP TS 36.113](#) “Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) and repeater ElectroMagnetic Compatibility (EMC)”

~~For Base Station Equipment~~

- (b) (i) [ETSI EN 301 908-14](#) “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS)”

~~_____~~ ~~OR~~

- ~~_____~~ (ii) [3GPP TS 36.141](#) “Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing”

~~For Repeater Equipment~~

- (c) (i) [ETSI EN 301 908-15](#) “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 15: Evolved Universal Terrestrial Radio Access (E-UTRA FDD) Repeaters”

~~_____~~ ~~OR~~

- ~~_____~~ (ii) [3GPP TS 36.143](#) “Evolved Universal Terrestrial Radio Access (E-UTRA); FDD repeater conformance testing”

43. EVALUATION REQUIREMENTS

~~The equipment shall comply with the operating frequencies and technical requirements as specified in clauses 2 and 3 respectively.~~ Compliance of the equipment with the technical requirements shall be evaluated in accordance with the procedures specified in the respective ~~ETSI~~ standards ~~as~~ given in clause ~~3.2~~.

54. REFERENCE

- (a) [ETSI EN 301 908-1](#) “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements”~~, published by the ETSI~~

- (b) [ETSI EN 301 908-14](#) “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS)”~~, published by the ETSI~~

- (c) [ETSI](#) EN 301 908-15 “[IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 15: Evolved Universal Terrestrial Radio Access \(E-UTRA FDD\) Repeaters](#)”,~~published by the ETSI~~
- (d) [3GPP TS 36.113 “Evolved Universal Terrestrial Radio Access \(E-UTRA\); Base Station \(BS\) and repeater ElectroMagnetic Compatibility \(EMC\)”](#)
- (e) [3GPP TS 36.141 “Evolved Universal Terrestrial Radio Access \(E-UTRA\); Base Station \(BS\) conformance testing”](#)
- (f) [3GPP TS 36.143 “Evolved Universal Terrestrial Radio Access \(E-UTRA\); FDD repeater conformance testing”](#)

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