

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

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. 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. 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 manufacturers or suppliers about the apparatus, the decision of CA shall be final.
6. The HKCA specifications and information notes issued by CA can be downloaded from OFCA’s website at <https://www.ofca.gov.hk>. Enquiries about this specification may be directed to -

Senior Telecommunications Engineer
Standards Section
Office of the 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.	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 August 2026	Foreword, 1	Included NB-IoT base station in the scope for clarity, and moved the updated list of operating frequency bands to Clause 1.
		2, 3, 4	Added the relevant 3GPP standards.

CONTENT

1. SCOPE
2. TECHNICAL REQUIREMENTS
3. EVALUATION REQUIREMENTS
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1. SCOPE

This specification sets 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 (hereafter referred to as “the equipment”).

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

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

2. TECHNICAL REQUIREMENTS

The equipment shall comply with the technical requirements specified in 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”

OR

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

- (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”

- (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”

3. EVALUATION REQUIREMENTS

Compliance of the equipment with the technical requirements shall be evaluated in accordance with the procedures specified in the respective standards given in clause 2.

4. REFERENCE

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