

Annex to SSAC Paper 4/2025

HKCA 1085
ISSUE 1
JULY 2025

PERFORMANCE SPECIFICATION FOR NEW RADIO (NR) USER EQUIPMENT

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 New Radio (NR) User Equipment (UE). 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 may 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 -

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AMENDMENT TABLE

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1.	Issue 1 July 2025	All	First Release

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1. SCOPE

1.1 This specification sets out the technical and evaluation requirements for New Radio (NR) User Equipment (UE) (hereafter referred to as “the equipment”).

1.2 Operating Frequencies

The equipment is capable of operating in all, or part thereof, the frequency bands below:

Band Arrangement	Downlink (UE Receive)	Uplink (UE Transmit)
Paired Band	758 – 803 MHz	703 – 748 MHz
	870 – 882.5 MHz	825 – 837.5 MHz
	925 – 960 MHz	880 – 915 MHz
	1805 – 1880 MHz	1710 – 1785 MHz
	2110 – 2170 MHz	1920 – 1980 MHz
	2620 – 2690 MHz	2500 – 2570 MHz
Unpaired Band	2300 – 2390 MHz	
	3300 – 3400 MHz	
	3400 – 3600 MHz	
	4800 – 4960 MHz	
	6425 – 7125 MHz	
	24.25 – 28.35 GHz	

2. TECHNICAL REQUIREMENTS

The equipment shall comply with the technical requirements specified in all relevant standards given in subclause (a) or (b) below –

- (a) Standards published by the European Telecommunications Standards Institute (ETSI):
 - (i) ETSI EN 301 908-1 “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 1: Introduction and common requirements”
 - (ii) ETSI EN 301 908-25 “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 25: New Radio (NR) User Equipment (UE)”
- (b) Standards published by the 3rd Generation Partnership Project (3GPP) (excluding test items that are not covered in the ETSI standards in subclause (a) above):

- (i) 3GPP TS 38.521-1 “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone”
- (ii) 3GPP TS 38.521-2 “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Range 2 Standalone”
- (iii) 3GPP TS 38.521-3 “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios”

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 above.

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 301 908-25 “IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 25: New Radio (NR) User Equipment (UE)”
- (c) 3GPP TS 38.101-1 “NR; User Equipment (UE) radio transmission and reception; Part 1: Range 1 Standalone”
- (d) 3GPP TS 38.101-2 “NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone”
- (e) 3GPP TS 38.101-3 “NR; User Equipment (UE) radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios”
- (f) 3GPP TS 38.521-1 “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone”
- (g) 3GPP TS 38.521-2 “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 2: Range 2 Standalone”
- (h) 3GPP TS 38.521-3 “NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 3: Range 1 and Range 2 Interworking operation with other radios”

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