TYPE ACCEPTANCE CRITERIA FOR 5G NEW RADIO USER EQUIPMENT OPERATING BELOW 6 GHz BAND



1. SCOPE

This document sets out the criteria for type acceptance of 5G New Radio ("NR") user equipment operating below 6 GHz band (hereafter referred to as "the equipment").

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.

3. OPERATING FREQUENCIES

| Band Arrangement | Downlink | Uplink |
|------------------|------------------|-------------------|
| | (Mobile Receive) | (Mobile Transmit) |
| | 925 – 960 MHz | 880 – 915 MHz |
| | 1805 – 1880 MHz | 1710 – 1785 MHz |
| Paired Band | 2110 – 2170 MHz | 1920 – 1980 MHz |
| | 2620 - 2690 MHz | 2500 - 2570 MHz |
| | 2300 – 2390 MHz | |
| | 3300 – 3400 MHz | |
| Unpaired Band | 3400 – 3600 MHz | |
| | 4840-49 | 920 MHz |

The equipment shall operate in the following frequency bands:

4. TECHNICAL REQUIREMENTS

The equipment shall meet the technical requirements as stipulated in the latest version of specification TS 38.521-1 titled "Third Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1 Standalone (Release 15)" published by the Third Generation Partnership Project (3GPP) in respect of the following:

Transmitter

| Item | Transmitter Characteristics | Relevant Clause in 3GPP TS 38.521-1 |
|------|------------------------------|-------------------------------------|
| (i) | Transmitter power | Clause 6.2 |
| (ii) | Output RF spectrum emissions | Clause 6.5 |

Receiver

| Item | Receiver Characteristics | Relevant Clause in 3GPP TS 38.521-1 |
|------|------------------------------|-------------------------------------|
| (i) | Adjacent channel selectivity | Clause 7.5 |
| (ii) | Blocking characteristics | Clause 7.6 |

| (iii) | Spurious response | Clause 7.7 |
|-------|---------------------------------|------------|
| (iv) | Intermodulation characteristics | Clause 7.8 |
| (v) | Spurious emissions | Clause 7.9 |

5. EVALUATION METHOD

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

6. **REFERENCE**

HKCA 2001 "Compliance Test Specification – Safety and Electrical Protection Requirements for Subscriber Telecommunications Equipment" issued by the Communications Authority

3GPP TS 38.101-1 – Third Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) radio transmission and reception; Part 1: Range 1, Standalone (Release 15)

3GPP TS 38.521-1 – Third Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Range 1, Standalone (Release 15)

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