

**TYPE ACCEPTANCE CRITERIA FOR
5G NEW RADIO BASE STATION EQUIPMENT
OPERATING BELOW 6 GHz BAND**



1. SCOPE

This document sets out the criteria for type acceptance of 5G New Radio (“NR”) base station equipment operating in frequency bands below 6 GHz band (hereafter referred to as “the equipment”).

2. OPERATING FREQUENCIES

The equipment shall operate in the following frequency bands:

Band Arrangement	Downlink (Base Station Transmit)	Uplink (Base Station Receive)
Paired Band	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	
	4840 – 4920 MHz	

3. TECHNICAL REQUIREMENTS

- 3.1 The equipment shall meet the technical requirements as stipulated in the latest version of specification TS 38.141-1 titled “3rd Generation Partnership Project; Technical Specification Group RAN; NR; Base Station (BS) Conformance Testing, Part 1: Conducted Conformance Testing (Release 15)” published by the Third Generation Partnership Project (3GPP) in respect of the following:

Transmitter

Item	Transmitter Characteristics	Relevant Clause in 3GPP TS 38.141-1
(i)	Base station output power	Clause 6.2
(ii)	Unwanted emissions	Clause 6.6 excluding Clause 6.6.2 on occupied bandwidth and Clause 6.6.5.5.1.4 on co-location with other base stations
(iii)	Transmitter intermodulation	Clause 6.7

Receiver

Item	Receiver Characteristics	Relevant Clause in 3GPP TS 38.141-1
(i)	In-band selectivity and blocking	Clause 7.4
(ii)	Out-of-band blocking	Clause 7.5 excluding Clause 7.5.5.2 on co-location requirements

(iii)	Receiver spurious emissions	Clause 7.6
(iv)	Receiver intermodulation	Clause 7.7

3.2 Additional Spurious Emissions Requirements

The spurious emissions falling onto the 3.7 – 4.2 GHz band shall not exceed – 52 dBm/MHz.

4. **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 3.1 above.

5. **REFERENCE**

3GPP TS 38.104 - Third Generation Partnership Project; Technical Specification Group Radio Access Network; NR; Base Station (BS) radio transmission and reception (Release 15)

3GPP TS 38.141-1 – Third Generation Partnership Project; Technical Specification Group RAN; NR; Base Station (BS) conformance testing, Part 1: Conducted conformance testing (Release 15)

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