ETSI TS 138 141-1 V15.13.0 (2022-10)

5G;
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Base Station (BS) conformance testing
Part 1: Conducted conformance testing
(3GPP TS 38.141-1 version 15.13.0 Release 15)

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1 Scope

The present document specifies the Radio Frequency (RF) test methods and conformance requirements for NR Base Station (BS) *Type 1-C* and *Type 1-H*. These have been derived from, and are consistent with the conducted requirements for *BS Type 1-C* and *BS Type 1-H* in NR BS specification defined in TS 38.104 [2].

A *BS type 1-C* only has conducted requirements so it requires compliance to this specification only.

A *BS type 1-H* has both conducted and radiated requirements so it requires compliance to the applicable requirements of this specification and TS 38.141-2 [3].

BS type 1-O and *BS type 2-O* have only radiated requirements so they require compliance to TS 38.141-2 [3] only.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
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[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 38.104: "NR Base Station (BS) radio transmission and reception".

[3] 3GPP TS 38.141-2: "NR, Base Station (BS) conformance testing, Part 2: Radiated conformance testing".

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[4] ITU-R Recommendation M.1545, "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".

[5] ITU-R Recommendation SM.329: "Unwanted emissions in the spurious domain".

[6] IEC 60 721-3-3: "Classification of environmental conditions - Part 3-3: Classification of groups of environmental parameters and their severities - Stationary use at weather protected locations".

[7] IEC 60 721-3-4: "Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 4: Stationary use at non-weather protected locations".

[8] IEC 60 721: "Classification of environmental conditions".

[9] IEC 60 068-2-1 (2007): "Environmental testing - Part 2: Tests. Tests A: Cold".

[10] IEC 60 068-2-2: (2007): "Environmental testing - Part 2: Tests. Tests B: Dry heat".

[11] IEC 60 068-2-6: (2007): "Environmental testing - Part 2: Tests - Test Fc: Vibration (sinusoidal)".

[12] ITU-R Recommendation SM.328: "Spectra and bandwidth of emissions".

[13] Federal Communications Commission: "Title 47 of the Code of Federal Regulations (CFR)".

[14] ECC/DEC/(17)06: "The harmonised use of the frequency bands 1427-1452 MHz and 1492-1518 MHz for Mobile/Fixed Communications Networks Supplemental Downlink (MFCN SDL)".

[15] 3GPP TR 25.942: "RF system scenarios".

[16] 3GPP TS 38.212: "NR; Multiplexing and channel coding".

[17] 3GPP TS 38.211: "NR; Physical channels and modulation".

[18] 3GPP TS 38.214: "NR; Physical layer procedures for data".

[19] 3GPP TS 38.331: "NR; Radio Resource Control (RRC) protocol specification".

[20] 3GPP TR 38.901: "Study on channel model for frequencies from 0.5 to 100 GHz".

[21] 3GPP TS 38.101-1: "NR; User Equipment (UE) radio transmission and reception; Part 1: Range 1 Standalone".

[22] 3GPP TS 36.104: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception".

[23] ITU-T Recommendation O.150, "Equipment for the measurement of digital and analogue/digital parameters".

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