



**Digital cellular telecommunications system (Phase 2+) (GSM);  
Universal Mobile Telecommunications System (UMTS);**

**LTE;  
5G;**

**NR, E-UTRA, UTRA and GSM/EDGE;  
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conformance testing  
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# Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> Generation Partnership Project (3GPP).

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# 1 Scope

The present document specifies the Radio Frequency (RF) test methods and conformance requirements for NR, E-UTRA, UTRA, GSM/EDGE and NB-IoT Multi-Standard Radio (MSR) Base Station (BS). These have been derived from, and are consistent with the NR, E-UTRA, UTRA, GSM/EDGE and NB-IoT MSR BS specification defined in [2].

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# 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.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 37.104: "E-UTRA, UTRA and GSM/EDGE; Multi-Standard Radio (MSR) Base Station (BS) radio transmission and reception".
- [3] 3GPP TS 25.104: "Base Station (BS) radio transmission and reception (FDD) ".
- [4] 3GPP TS 25.105: "Base Station (BS) radio transmission and reception (TDD) ".
- [5] 3GPP TS 36.104: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception".
- [6] 3GPP TS 45.005: "Radio transmission and reception".
- [7] ITU-R Recommendation M.1545, "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".
- [8] "Title 47 of the Code of Federal Regulations (CFR)", Federal Communications Commission.
- [9] 3GPP TS 36.141: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing".
- [10] 3GPP TS 25.141: "Base Station (BS) conformance testing (FDD) ".
- [11] 3GPP TS 51.021: "Base Station System (BSS) equipment specification; Radio aspects".
- [12] 3GPP TS 25.142: "Base Station (BS) conformance testing (TDD) ".
- [13] Recommendation ITU-R SM.329-10, "Unwanted emissions in the spurious domain".
- [14] 3GPP TR 25.942: "Radio Frequency (RF) system scenarios".
- [15] ITU-R recommendation SM.328: "Spectra and bandwidth of emissions".
- [16] IEC 60721: "Classification of environmental conditions".
- [17] IEC 60721-3-3: "Classification of environmental conditions - Part 3-3: Classification of groups of environmental parameters and their severities - Stationary use at weather protected locations".
- [18] IEC 60721-3-4: "Classification of environmental conditions - Part 3: Classification of groups of environmental parameters and their severities - Section 4: Stationary use at non-weather protected locations".