

ETSI TS 137 105 V15.8.0 (2020-01)



**Universal Mobile Telecommunications System (UMTS);
LTE;
Active Antenna System (AAS) Base Station (BS)
transmission and reception
(3GPP TS 37.105 version 15.8.0 Release 15)**



Reference

RTS/TSGR-0437105vf80

Keywords

LTE,UMTS

ETSI

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Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP) Technical Specification Group (TSG) Radio Access Networks (RAN).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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1 Scope

The present document establishes 2 sets of minimum requirements and minimum performance requirements; *hybrid requirements set* which specify requirements for a *hybrid AAS BS* with both a conducted and a radiated interface and *OTA requirements set* which specify requirements for an *OTA AAS BS* which has a radiated interface only.

The *hybrid AAS BS* requirements are specified for E-UTRA AAS Base Station (BS), the FDD mode of UTRA AAS Base Station (BS), the 1,28 Mcps TDD mode of UTRA AAS Base Station (BS) in single RAT and any MSR AAS Base Station (BS) implementation of these RATs (including NR BS type 1-H MSR configurations).

The *OTA AAS BS* requirements are specified for E-UTRA AAS Base Station (BS), the FDD mode of UTRA AAS Base Station (BS), in single RAT and any MSR AAS Base Station (BS) implementation of these RATs (including NR BS type 1-O MSR configurations).

The present document does not establish minimum RF characteristics or minimum performance requirements for Narrow-Band Internet of Things (NB-IoT) in band, NB-IoT guard band, or standalone NB-IoT operation, for AAS BS in *single RAT E-UTRA operation* or in *MSR operation* using E-UTRA.

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 25.104: "Base Station (BS) radio transmission and reception (FDD)".
- [3] 3GPP TS 25.105: "Base Station (BS) radio transmission and reception (TDD)".
- [4] 3GPP TS 36.104: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception".
- [5] 3GPP TS 37.104: "NR, E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS) radio transmission and reception".
- [6] 3GPP TS 25.104 (V14.2.0): "Base Station (BS) radio transmission and reception (FDD) (Release 14)".
- [7] 3GPP TS 25.105 (V14.0.0): "Base Station (BS) radio transmission and reception (TDD) (Release 14)".
- [8] 3GPP TS 36.104 (V14.4.0): "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) radio transmission and reception (Release 14)".
- [9] 3GPP TS 37.104 (V14.4.0): "E-UTRA, UTRA and GSM/EDGE Multi-Standard Radio (MSR) Base Station (BS) radio transmission and reception (Release 14)".
- [10] 3GPP TS 25.142 (V14.0.0): "Base Station (BS) conformance testing (TDD) (Release 14)".
- [11] Recommendation ITU-R M.1545: "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".
- [12] 3GPP TS 25.942: "Radio Frequency (RF) system scenarios".