
TECHNICAL SPECIFICATION

Requirements for 5G NR Mobile Terminals

TS RE 045 Version 1.0

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1 General requirements

Technical specification has been prepared and approved by Telecommunications and Digital Government Regulatory Authority (TDRA) based on Telecommunication apparatus Type Approval Regime.

Several technical specifications may apply to the equipment. If equipment within the scope of this technical specification also incorporates functions that are covered by another technical specification, the relevant technical specification is applied to each function separately. The influence of one function on the other is taken into account.

2 Scope

This technical specification applies to Mobile Terminals to be used in the Public Mobile Radio Communication System and services in the IMT-2020 5G New Radio (NR) cellular networks. Mobile Terminals may include but not limited to handheld, portable and vehicle- mounted equipment, RF interface cards and modems.

This technical specification defines minimum technical requirements for health and safety, electromagnetic compatibility, efficient use of radio spectrum and additional essential requirements based on Telecommunication Apparatus Type Approval Regime.

Unless the context requires otherwise, the expressions and wordings appearing in the Telecommunication Apparatus Type Approval Regime shall have the same meaning described thereto.

3 Definitions

Unless the context requires otherwise, the expressions and wordings appearing in Federal Law by Decree No. (3) of 2003 Regarding the Organisation of the Telecommunications Sector shall have the same meaning ascribed thereto in the above-mentioned Federal Law by Decree, and the following expression and wording shall have the following meanings assigned thereto:

ETSI European Telecommunications
Standards Institute

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3GPP

3rd Generation Partnership Project

5G NR

Fifth-Generation New Radio

4 Technical Requirements

4.1. Efficient use of radio spectrum

The equipment shall comply with allocated frequency bands given in the National Frequency Allocation Table (NFAT), UAE 15.

The equipment shall meet the requirements of following standard(s):

EN 301 908-1 IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Introduction and common requirements

EN 301 908-13 IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 25: New Radio (NR) User Equipment (UE) Release 15;

EN 301 908-25 IMT cellular networks; Harmonised Standard for access to radio spectrum; Part 25: New Radio (NR) User Equipment (UE) Release 15;

4.2. Electromagnetic compatibility

The equipment shall meet the requirements of following standard(s):

ETSI EN 301 489-1 ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements; Harmonised Standard for ElectroMagnetic Compatibility

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ETSI EN 301 489-52 ElectroMagnetic Compatibility (EMC)
standard for radio equipment and services;
Part 52: Specific conditions for Cellular
Communication User Equipment (UE) radio and
ancillary equipment; Harmonised Standard for
ElectroMagnetic Compatibility

5 Validity of standards

If no issue or revision number is quoted along with the title of a standard, the valid edition should be used. The valid of the standard can be checked on:

- For EN standards:

https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/red_en

6 Effective date

All handsets entering UAE shall be compliant with these specifications, effective from March 2024