

CITC Technical Specification

Specification for IMT User Equipment

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Scope

This specification applies to IMT handsets and related Equipment utilizing GSM, UMTS, LTE, NB-IoT, LTE-M and 5G NR Technologies.

Enforcement

This specification shall enter into force on 01/06/2021.

Any previous version of this technical specification is withdrawn.

General Requirements

All equipment must comply with the requirement of CITC specification GEN001, be safe and must not adversely affect other electrical equipment.

All telecommunications and radio terminal equipment must comply with the relevant technical specifications established by CITC. In addition, such equipment may be subject to regulations for Declaration of Conformity or registration. See www.citc.gov.sa for details.

If more than one interface type is offered by a piece of equipment, each interface must meet the applicable technical specifications.

Further information on the characteristics and presentation of network interfaces can be found by visiting operator's website.

It is mandatory that test reports are obtained from a laboratory that has been accredited by a body that is a member of the ILAC Mutual Recognition Arrangement.

Limits and conditions

Testing should be carried out to ensure compliance with the listed specifications.

Frequency band	Max Output Power or Magnetic Field	Usage	Standard	Comments
TX :617 -652 MHz RX: 663 - 698 MHz	24 dBm EIRP	LTE, NB-IoT, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	B71/n71 (FDD)
TX: 703 - 733 MHz RX: 758 - 788 NHz	24 dBm EIRP	LTE, NB-IoT, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	B28/n28 (FDD)

TX: 832 – 862 MHz RX: 791 – 821 MHz	24 dBm EIRP	UMTS/, LTE, NB-IoT, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	B20/n20 (FDD)
TX: 880 – 915 MHz RX: 925 – 960 MHz	8 W ERP	GSM	EN 301 511 TR 101 375 EN 301 489-7	B8/n8 (FDD)
	24 dBm EIRP	UMTS, LTE, NB-IoT, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	
TX: 1710 – 1785 MHz RX: 1805 – 1880 MHz	8 W ERP	GSM	EN 301 511 TR 101 375 EN 301 489-7	B3/n3 (FDD)
	24 dBm EIRP	UMTS, LTE, NB-IoT, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	
TX: 1920 – 1980 MHz RX: 2110 – 2170 MHz	24 dBm EIRP	UMTS, LTE, NB-IoT, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	B1/n1 (FDD)
TX: 2300 – 2400 MHz RX: 2300 – 2400 MHz	26 dBm EIRP	LTE, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	B40/n40 (TDD)
TX: 2500 – 2690 MHz RX: 2500 – 2690 MHz	26 dBm EIRP	LTE, NB-IoT, LTE-M, 5G NR	EN 301 908-13 EN 301 489-52	B41/n41 (TDD)
TX: 3.4 – 3.6 GHz RX: 3.4 – 3.6 GHz	26 dBm EIRP	LTE, NB-IoT, LTE-M	EN 301 908-13 EN 301 489-52	B42 (TDD)
TX: 3.6 – 3.8 GHz RX: 3.6 – 3.8 GHz	26 dBm EIRP	LTE, NB-IoT, LTE-M	EN 301 908-13 EN 301 489-52	B43 (TDD)

TX: 3.3 – 3.8 GHz RX: 3.3 – 3.8 GHz	26 dBm EIRP	5G NR	EN 301 908-13 EN 301 489-52	n78 (TDD)
TX: 3.3 – 4.2 GHz RX: 3.3 – 4.2 GHz	26 dBm EIRP	5G NR	EN 301 908-13 EN 301 489-52	n77 (TDD)
TX: 24.25 – 27.50 GHz RX: 24.25 – 27.50 GHz	24 dBm TRP	5G NR	TBD	n258 (TDD)
TX: 26.5 – 29.5 GHz RX: 26.5 – 29.5 GHz	24 dBm TRP	5G NR	TBD	n257 (TDD)

Licensing Requirements

No licensing requirements apply.

Additional Requirements

There is no additional requirements for this technical specification.

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References

The following referenced documents are indispensable for the application of this document. If no issue or revision number is quoted along with the title of a technical specification or standard, the latest published version should be used.

EN 301 511

Global system for mobile communications (GSM); Harmonised standard for mobile stations in the GSM 900 and GSM 1800 bands covering essential requirements under Article 3(2) of the R&TTE directive.

TR 101 375

Security Algorithms Group of Experts (SAGE); Reports on the specification, evaluation and usage of the GSM GPRS Encryption Algorithm (GEA).

EN 301 908-1

Electromagnetic compatibility and Radio spectrum Matters (ERM); Base Stations (BS) and User Equipment (UE) for IMT-2000 Third-Generation cellular networks; Part 1: Harmonized EN for IMT-2000, introduction and common requirements, covering essential requirements of article 3.2 of the R&TTE directive.

EN 301 908-13

IMT cellular networks; Harmonised EN covering the essential requirements of article 3.2 of the R&TTE Directive; Part 13: Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE).

EN 301 489-1

Electromagnetic compatibility and Radio spectrum Matters (ERM);
Electromagnetic Compatibility (EMC) standard for radio equipment and
services; Part 1: Common technical requirements.

EN 301 489-7

Electromagnetic compatibility and Radio spectrum Matters (ERM);
Electromagnetic Compatibility (EMC) standard for radio equipment and
services; Part 7: Specific conditions for mobile and portable radio and
ancillary equipment of digital cellular radio telecommunications systems.

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

History

For reference, the latest versions of the technical specifications are published on
the CITC website www.citc.gov.sa.

Description	Status	Date
Enhanced version for IMT user equipment. Merge of RI001, RI056.	Issue 1	02/03/2021