

CITC Technical Specification

Specification for Data Communication Equipment operating in License-Exempt Frequency Bands

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Scope

This specification applies to communication equipment operating in license-exempt frequency bands.

Communication devices utilizing license-exempt frequency bands in this technical specification include, but are not limited to, technologies such as Wi-Fi, ZigBee and Bluetooth.

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Any previous version of this technical specification is withdrawn.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
868.3 MHz	25mW ERP	Low power data communication	EN 300 220 EN 301 489-17	
902 – 928 MHz	100mW ERP	Low power data communication	EN 300 220 EN 301 489-17	
2.4 – 2.485 GHz	100mW EIRP	Low power data communication / Wideband	EN 300 328 EN 301 489-17	PSD: 10mW/MHz in any 1MHz band

		data transmission		
5.1 – 5.25 GHz	200mW EIRP	Low power data communication / Wideband data transmission	EN 301 893 EN 301 489-17 ITU-R M1652	PSD: 10mW/MHz in any 1MHz band
5.25 – 5.35 GHz	200mW	Low power data communication / Wideband data transmission	EN 301 893 EN 301 489-17 ITU-R M1652	PSD: 10mW/MHz in any 1MHz band Support for DFS and TPC required
5.47 – 5.725 GHz	1W	Wideband data transmission	EN 301 893 EN 301 489-17 ITU-R M1652 IEEE 802.11a	PSD: 50mW/MHz in any 1MHz band Support for DFS and TPC required
5.47 – 5.825 GHz	1W EIRP	Wideband data transmission	EN 301 893 EN 300 440 EN 302 502 EN 301 489-17	PSD: 50mW/MHz in any 1MHz band
5.470 – 5825 MHz	1W EIRP (max mean power)	Low power data communication	EN 301 489-17	
5425 – 5825 MHz	25 mW EIRP (max mean power)	Low power data communication	EN 300 440 EN 301 489-17	
5.725 – 5.975 GHz	25 mW EIRP	Wideband data transmission	EN 300 440 EN 301 489-17	
5.925 – 7.125 GHz	1W EIRP (max mean power)	Wideband data communication	EN 300 440 EN 301 489-17	

57 – 71 GHz	40 dBm mean EIRP	Wideband data transmission	EN 302 567 EN 301 489-17	PSD: 13 dBm/MHz in any 1MHz band Indoor only
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Licensing Requirements

No licensing requirements apply.

Additional Requirements

All equipment must comply with the Wireless Local Area Networks Regulation if applicable. See www.citc.gov.sa for details.

All drones utilizing license-exempt bands must comply with this technical specification with regard to the radio interface, issues related to drones registration and customs clearance must be coordinate with GACA.

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 300 220-2

Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2: Harmonised Standard for access to radio spectrum for non specific radio equipment

EN 300 220-1

Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 1: Technical characteristics and methods of measurement

EN 300 328

Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum

EN 300 440

Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonised Standard for access to radio spectrum

EN 301 893

5 GHz RLAN; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU

EN 302 567

Broadband Radio Access Networks (BRAN); 60 GHz Multiple-Gigabit WAS/RLAN Systems; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE directive.

EN 300 440

Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Harmonised Standard for access to radio spectrum

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 301 489-17

ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for Broadband Data Transmission Systems; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU

History

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

Description	Status	Date
Replacement for RI045, RI103, RI104 and RI115 with updated limits.	Issue 1	02/03/2021