

CITC Technical Specification

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

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Communications and Information Technology Commission (CITC)
P.O Box 75606 – Riyadh 11588 - Kingdom of Saudi Arabia

Telephone: + 966 1 14618000
Fax: + 966 1 14618120
E-mail: info@citc.gov.sa
Website: www.citc.gov.sa

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Scope

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

Data communication devices utilizing license-exempt frequency bands in this technical specification technologies including, but are not limited to, Wi-Fi, ZigBee and Bluetooth.

Enforcement

This specification shall enter into force on 20/07/2021.

Any previous version of this technical specification is withdrawn.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. Please visit 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 obtained by coordinating with the mobile network operators.
- 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 – 921 MHz	100mW ERP	Low power data communication	EN 300 220 EN 301 489-17	
2400 – 2483.5 MHz	100mW EIRP	Low power data communication / Wideband data	EN 300 328 EN 300 440 EN 301 489-17	PSD: 10mW/MHz in any 1MHz band

		transmission/ Drones		Except for FHSS
5150 – 5250 MHz	200mW EIRP	Low power data communication / Wideband data transmission	EN 301 893 EN 301 489-17	PSD: 10mW/MHz in any 1MHz band
5250 – 5350 MHz	100mW EIRP	Low power data communication / Wideband data transmission	EN 301 893 EN 301 489-17	PSD: 10mW/MHz in any 1MHz band Support for DFS required
5470 – 5725 MHz	500m W EIRP	Wideband data transmission	EN 301 893 EN 301 489-17	PSD: 50mW/MHz in any 1MHz band Support for DFS required
5250 – 5350 MHz	200mW EIRP	Low power data communication / Wideband data transmission	EN 301 893 EN 301 489-17	PSD: 10mW/MHz in any 1MHz band Support for DFS and TPC required
5470 – 5725 MHz	100mW EIRP	Wideband data transmission	EN 301 893 EN 301 489-17	PSD: 50mW/MHz in any 1MHz band Support for DFS and TPC required
5470 – 5725 MHz	100mW EIRP	Wideband data transmission	EN 301 893 EN 300 440 EN 302 502 EN 301 489-17	PSD: 50mW/MHz in any 1MHz band

5725 – 5825 MHz	100mW EIRP (max mean power)	Low power data communication	EN 300 440 EN 301 489-17	PSD: 50mW/MHz in any 1MHz band
5425 – 5825 MHz	25 mW EIRP (max mean power)	Low power data communication	EN 300 440 EN 301 489-17	
5725 – 5875 MHz	25 mW EIRP	Wideband data transmission/ Drones	EN 300 440 EN 301 489-17	
57 – 66 GHz	40 dBm mean EIRP	Wideband data transmission	EN 302 567 EN 301 489-17	PSD: 23 dBm/MHz in any 1MHz band Indoor only
57 – 66 GHz	Max mean e.i.r.p. 40 dBm and Max mean e.i.r.p. Density 23 dBm/MHz	Wideband data communication	EN 302 567 EN 301 489-17	Fixed outdoor installations are excluded.

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.
- Drones utilizing frequencies specified in this specification must comply with this technical specification with regard to the radio interface, issues related to drones registration and customs clearance must be coordinate with the related entities.
- For drones operating in bands not specified in this specification, a frequency license must be obtained from CITC before the use.

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 303 722

Wideband Data Transmission Systems (WDTS) for Fixed Network Radio Equipment operating in the 57 GHz to 71 GHz band; Harmonised Standard for access to radio spectrum

EN 303 753

Wideband Data Transmission Systems (WDTS) for Mobile and Fixed Radio Equipment operating in the 57 - 71 GHz band; Harmonised Standard for access to radio spectrum

EN 303 687

6 GHz RLAN 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 301 489-1

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	10/07/2021