



## CITC Technical Specification

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## Specification for Radio Frequency Identification (RFID) Equipment

Issued by The Communications and Information Technology Commission of Saudi Arabia in accordance with article 89 of the Telecommunications Bylaw.

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## Scope

This document applies to Radio Frequency Identification (RFID) 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 <http://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.

## Entry into force

This specification shall enter into force on 10/01/2010 G

## Frequency of operation

Following table is showing information on frequency bands, maximum output power and applicable specifications:

Frequency band	Maximum Output Power or Magnetic Field	ETSI Standard
13.553-13.567 MHz	60 dB $\mu$ A/m at 10m*	EN 300 330 EN 302 291
2446-2454 MHz	500 mW e.i.r.p. 4 W e.i.r.p.*	EN 300 440
865.0-865.6 MHz	100 mW e.r.p.	EN 302 208
865.6-867.6 MHz	2 W e.r.p.	EN 302 208
867.6-868.0 MHz	500 mW e.r.p.	EN 302 208

\* Power levels above 500 mW are restricted to use inside the boundaries of a building. In this case the duty cycle of all transmissions shall be  $\leq 15\%$  in any 200 ms period (30 ms on /170 ms off).

Certain frequencies allocated for use by non specific radio equipment and inductive may be used by RFID applications subject to compliance with the applicable requirements.

## Proof of compliance

It is recommended 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.

## Technical requirements

Testing should be carried out to ensure compliance with the following specifications:

### EN 300 330-2

Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 2: Harmonized EN under article 3.2 of the R&TTE directive.

**EN 300 440-2**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 2: Harmonized EN under article 3.2 of the R&TTE directive.

**EN 302 208-2**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W; Part 2: Harmonized EN under article 3.2 of the R&TTE directive.

**EN 302 291-2**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Close Range Inductive Data Communication equipment operating at 13.56 MHz; Part 2: Harmonized EN under article 3.2 of the R&TTE directive.

**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 301 489-3**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for Short Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz.

If no issue or revision number is quoted along with the title of a technical specification, the latest published version should be used.

**General**

In addition to meeting the above requirements, all equipment must comply with the requirement of CITEC specifications GEN001, be safe and must not adversely affect other electrical equipment.

**Additional requirements**

No additional requirements exist for the use of RFID equipment.

**Obtaining technical standards**

ETSI technical standards may be obtained free of charge for individual use from the ETSI website [www.etsi.org](http://www.etsi.org).

## Network information (only for network interfaces)

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

## Document history

Description	Status	Date
	Issue 1	11/03/2006 G
	Issue 2	10/01/2010 G