



## **CITC Technical Specification**

Document Number: RI085  
Revision: Issue 1  
Date: 10/01/2010 G

## **Specification for Ultra Wideband 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 Ultra Wideband Application

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 Mean Spectral Density		Maximum Peak Power (measured in 50 MHz)*		ETSI Standard
a	0.03 - 1.6 GHz	1.0 pW/MHz e.i.r.p.	-90.0 dBm/MHz e.i.r.p.	10 nW/50 MHz e.i.r.p.	-50.0 dBm/50 MHz e.i.r.p.	EN 302 066
b	1.6 - 2.7 GHz	3.16 pW/MHz e.i.r.p.	-85.0 dBm/MHz e.i.r.p.	31.6 nW/50 MHz e.i.r.p.	-45.0 dBm/50 MHz e.i.r.p.	EN 302 066
c	2.7 - 3.4 GHz	100 pW/MHz e.i.r.p.	-70.0 dBm/MHz e.i.r.p.	251 nW/50 MHz e.i.r.p.	-36.0 dBm/50 MHz e.i.r.p.	EN 302 066
d	3.4 - 3.8 GHz	10 pW/MHz e.i.r.p.	-80.0 dBm/MHz e.i.r.p.	100 nW/50 MHz e.i.r.p.	-40.0 dBm/50 MHz e.i.r.p.	EN 302 065 EN 302 066
e	3.8 - 4.2 GHz	100 pW/MHz e.i.r.p.	-70.0 dBm/MHz e.i.r.p.	1 μW/50 MHz e.i.r.p.	-30.0 dBm/50 MHz e.i.r.p.	EN 302 065 EN 302 066
f	4.2 - 4.8 GHz	100 pW/MHz e.i.r.p.	-70.0 dBm/MHz e.i.r.p.	1 μW/50 MHz e.i.r.p.	-30.0 dBm/50 MHz e.i.r.p.	EN 302 065 EN 302 066
g	4.8 - 6.0 GHz	100 pW/MHz e.i.r.p.	-70.0 dBm/MHz e.i.r.p.	1 μW/50 MHz e.i.r.p.	-30.0 dBm/50 MHz e.i.r.p.	EN 302 066
h	6.0 - 8.5 GHz	74.1 nW/MHz e.i.r.p.	-41.3 dBm/MHz e.i.r.p.	1 mW/50 MHz e.i.r.p.	0.0 dBm/50 MHz e.i.r.p.	EN 302 065 EN 302 066 EN 302 500
i	8.5 - 10.6 GHz	316 pW/MHz e.i.r.p.	-65.0 dBm/MHz e.i.r.p.	3.16 μW/50 MHz e.i.r.p.	-25.0 dBm/50 MHz e.i.r.p.	EN 302 066
j	>10.6 GHz	3.16 pW/MHz e.i.r.p.	-85.0 dBm/MHz e.i.r.p.	31.6 nW/50 MHz e.i.r.p.	-45.0 dBm/50 MHz e.i.r.p.	EN 302 066

## 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

### EN 302 065

Electromagnetic compatibility and Radio spectrum Matters (ERM); Ultra Wideband (UWB) technologies for communication purposes; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE directive.

### EN 302 066-2

Electromagnetic compatibility and Radio spectrum Matters (ERM); Ground- and Wall- Probing Radar applications (GPR/WPR) imaging systems; Part 2: Harmonized EN covering essential requirements of article 3.2 of the R&TTE directive.

**EN 302 500-2**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wideband (UWB) technology; Location Tracking equipment operating in the frequency range from 6 GHz to 8,5 GHz; Part 2: Harmonized EN covering essential requirements of 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 301 489-32**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 32: Specific conditions for Ground and Wall Probing Radar applications.

**EN 301 489-33**

Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 33: Specific conditions for Ultra Wide Band (UWB) communications devices.

**General**

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

**Document history**

Description	Status	Date
	Issue 1	10/01/2010 G