

1. Radiated Emission

1.1 Measurement procedure

A pretest was performed at 3m distance in an semi-anechoic chamber for searching correct frequency.

The final test was done at a 10m chamber with a quasi-peak detector.

EUT was placed on a non-metallic table height of 0.8m above the reference ground plane.

Cables connected to EUT were fixed to cause maximum emission. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization.

The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

1.2 Used equipment

Equipment	Model	Makers	Serial No.	Next Cal.Date	Used
Test Receiver	ESMI	R&S	826210/007	2003.03.08	x
	ESCS30	R&S	830986/015	2003.03.18.	
Biconical Antenna	VHA9103	Schwarzbeck	1950	2003.04.17	
Log-Periodic Antenna	UHALP9108-A1	Schwarzbeck	0393	2003.04.17	
Horn Antenna	3115	EMCO	9811-5606	2002.11.13	x
Antenna Mast	MA240	HD	N/A	-	
Turn Table	DT430S	HD	N/A	-	

1.3 Measurement uncertainty

Radiated Emission measurement :

30-300MHz +3.96dB / -4.04dB

300-1000MHz +3.04dB / -3.00dB

1.4 Test data

1.4.1 Fundamental frequency(902MHz)

Tested Frequency (MHz)	Reading [A] (dBuV/m)	ANT Pol.	Total Loss [B] (dB)	Result [A+B] (dBuV/m)	Limit [D] (dBuV/m)	Margin [D]-[A+B] (dBuV/m)
902.6	50.8	H	28.26	79.06	94	14.94
1805.2	10.5	H	35.8	46.3	54	7.7
2707.8	<5	-	-	-	54	-
3610.4	<5	-	-	-	54	-
4513.0	<5	-	-	-	54	-
5415.6	<5	-	-	-	54	-
6318.2	<5	-	-	-	54	-
7220.8	<5	-	-	-	54	-
8123.4	<5	-	-	-	54	-
9026.0	<5	-	-	-	54	-

1.4.2 Fundamental frequency(928MHz)

Tested Frequency (MHz)	Reading [A] (dBuV/m)	ANT Pol.	Total Loss [B] (dB)	Result [A+B] (dBuV/m)	Limit [D] (dBuV/m)	Margin [D]-[A+B] (dBuV/m)
927.4	53.2	H	28.26	81.46	94	12.54
1854.8	9.8	H	35.8	45.6	54	8.4
2782.2	<5	-	-	-	54	-
3709.6	<5	-	-	-	54	-
4637.0	<5	-	-	-	54	-
5564.4	<5	-	-	-	54	-
6491.8	<5	-	-	-	54	-
7419.2	<5	-	-	-	54	-
8346.6	<5	-	-	-	54	-
9274.0	<5	-	-	-	54	-

* Receiving Antenna Mode : *Horizontal, Vertical*

* 3m chamber

* <5 : mean less than 5dB