

05/06/02 **FCC Measurement**

Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Frank Ibrahim
Project #: 02U1259-1
Company: RadioLAN Marketing Group
EUT Descrip.: 5.775 GHz Point to Point DTS Transceiver, Antenna : 4' Parabolic, Model: RadioWaves 100 170-4
FCC ID: MCI-377
Test Target: 15.205, 15.209,

Equipment for 1-22 GHz:

HP8566B Analyzer
 Miteq NSP2600-44 Preamp
 EMCO 3115 Antenna
 ARA MWH 1826/B
 Cable: 17.0 feet

Equipment for 18 - 40 GHz:

HP8566B Analyzer
 HP 11975A Amplifier (LO)
 HP 11970K External Mixer/ARA
 HP 11970 External mixer/ 26.5-40 GHz horn antenna
 Cable: IF Only (321 MHz)

Peak Measurements:

1 MHz Resolution Bandwidth
 1MHz Video Bandwidth

Average Measurements:

1MHz Resolution Bandwidth
 10Hz Video Bandwidth

f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
5.775					7.3	0.0		0.0	119.6						
11.555	10.0	44.5	29.5	39.2	10.5	-39.7	0.1	1.0	55.7	40.7	74.0	54.0	-18.3	-13.3	2nd Harmonic, Vertical 15.205
17.330	10.0	61.1	39.7	45.0	14.2	-44.1	0.1	1.0	77.3	55.9	99.6		-22.3	55.9	-20 dB (not restricted)
23.105	1.0	45.9	35.3	32.7	17.8	-43.5	-19.9	1.0	34.0	23.4	74.0	54.0	-40.0	-30.6	4th Harmonic, Vertical (NF)
11.555	10.0	41.2	29.7	39.2	10.5	-39.7	0.1	1.0	52.4	40.9	74.0	54.0	-21.6	-13.1	2nd Harmonic, Horizontal 15.205
17.330	10.0	58.9	35.1	45.0	14.2	-44.1	0.1	1.0	75.1	51.3	99.6		-24.5	51.3	-20 dB (not restricted)
23.105	1.0	45.9	35.3	32.7	17.8	-43.5	-19.9	1.0	34.0	23.4	74.0	54.0	-40.0	-30.6	4th Harmonic, Horizontal (NF)
					CONV										
					LOSS										CONV LOSS = conversion loss of external mixers
28.880	1.0	43.4	35.3	37.5	-5.8	0.0	-19.9	0.0	55.2	47.1	74.0	54.0	-18.8	-6.9	all emissions noise floor H and V
34.655	1.0	43.4	35.3	39.1	-6.9	0.0	-19.9	0.0	55.7	47.6	74.0	54.0	-18.3	-6.4	AF calculated from 22 dBi horn gain
40.000	1.0	43.4	35.3	40.3	-6.9	0.0	-19.9	0.0	56.9	48.8	74.0	54.0	-17.1	-5.2	
															AF=9.734/lamda*(G)^0.5
															lamda = wavelength, m

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		