

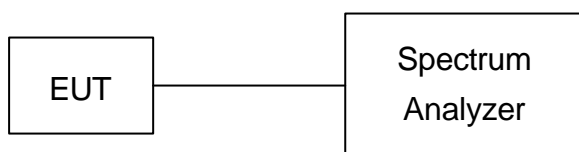
Date: 6.MAY.2005 18:22:13

8. Peak Power Spectral Density

8.1 Test Procedure

1. The transmitter output was connected to spectrum analyzer.
2. Set RBW of spectrum analyzer to 1 MHz and VBW to 3 MHz.
3. The Peak Power Spectral Density is the highest level found across the emission in any 1MHz Band.

8.2 Test Setup Layout

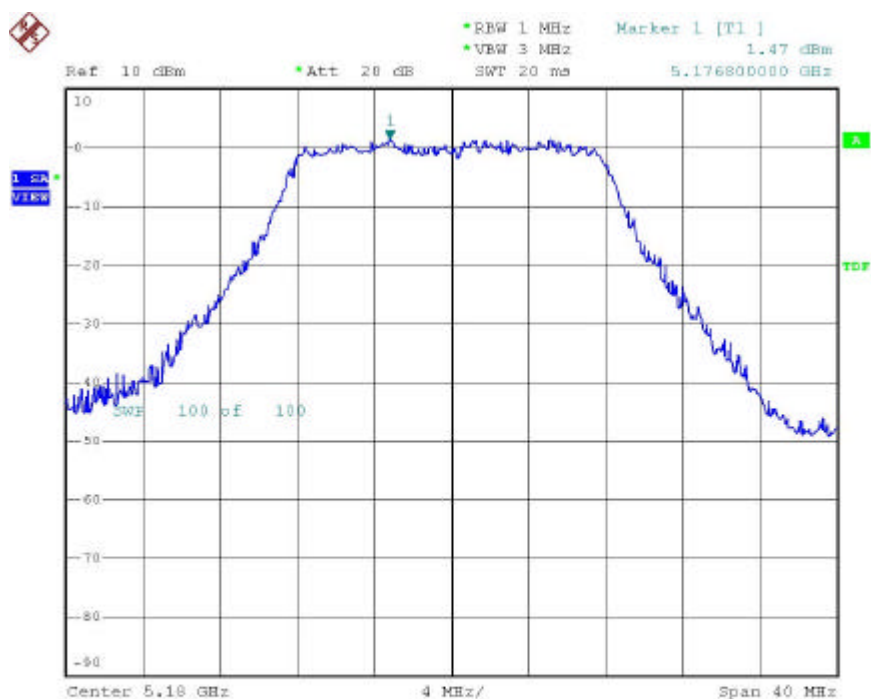


8.3 Test Result and Data

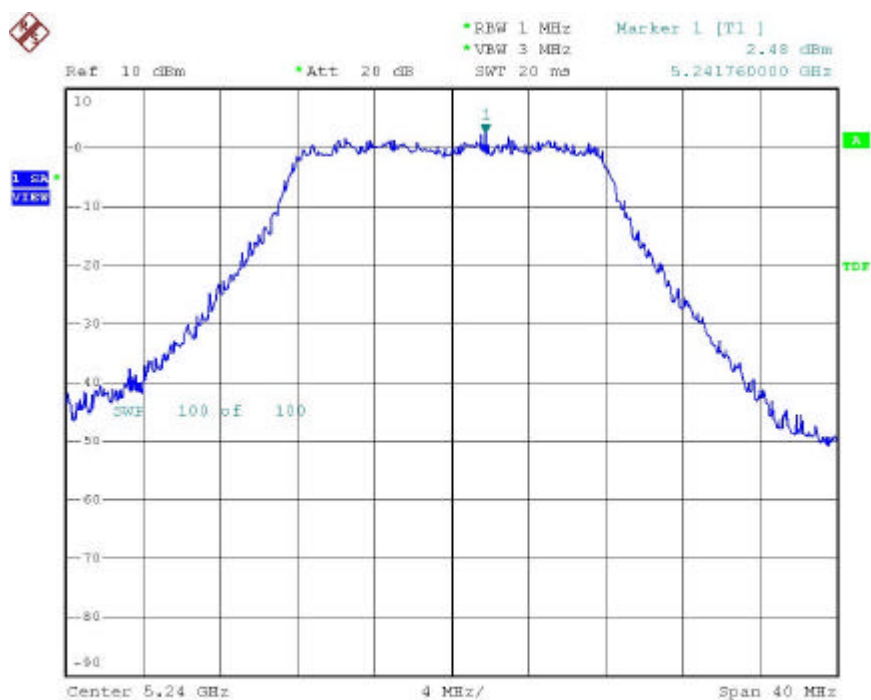
Test Mode: Normal, Transmit Rate: 54Mbps

Test Date: May. 11, 2005 Temperature: 25 Humidity: 69% Atmospheric pressure: 1028mmHg

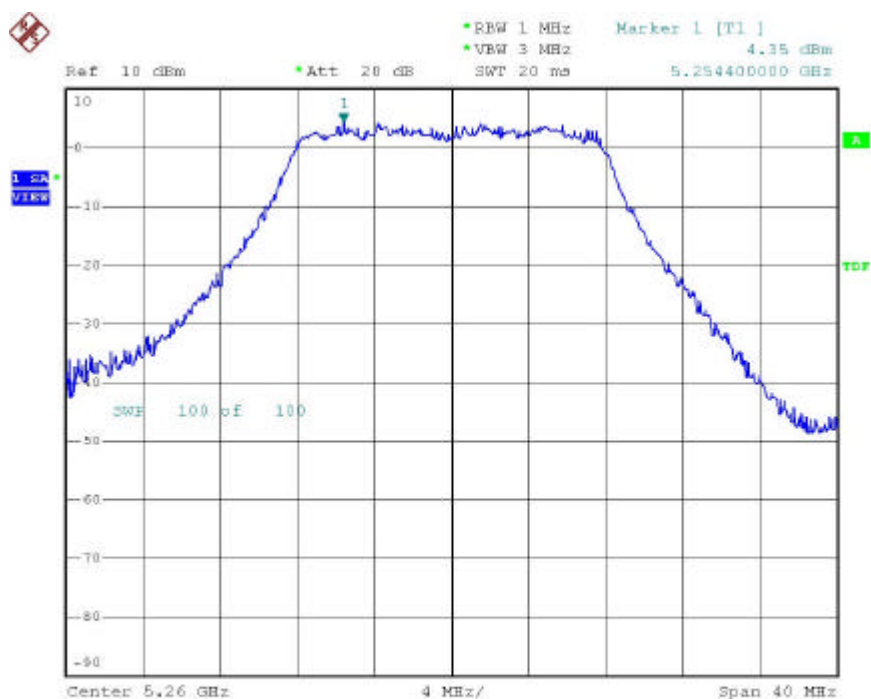
Channel	Frequency (MHz)	PF Power Level In 1MHz BW (dBm)
1	5180	1.47
4	5240	2.48
5	5260	4.35
8	5320	3.79
9	5745	9.03
11	5785	3.03
13	5825	8.96



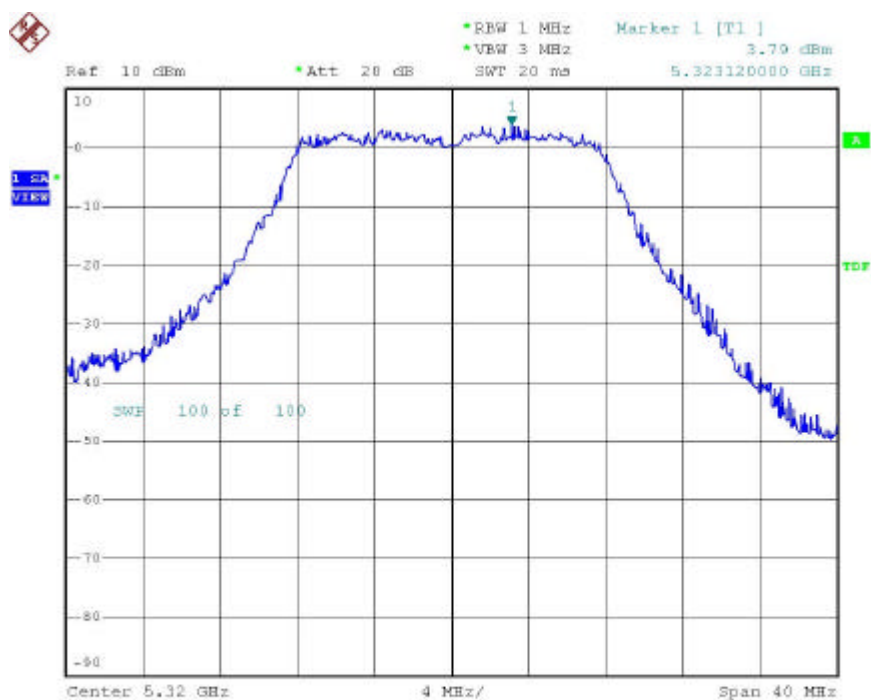
Date: 11.MAY.2005 13:28:23



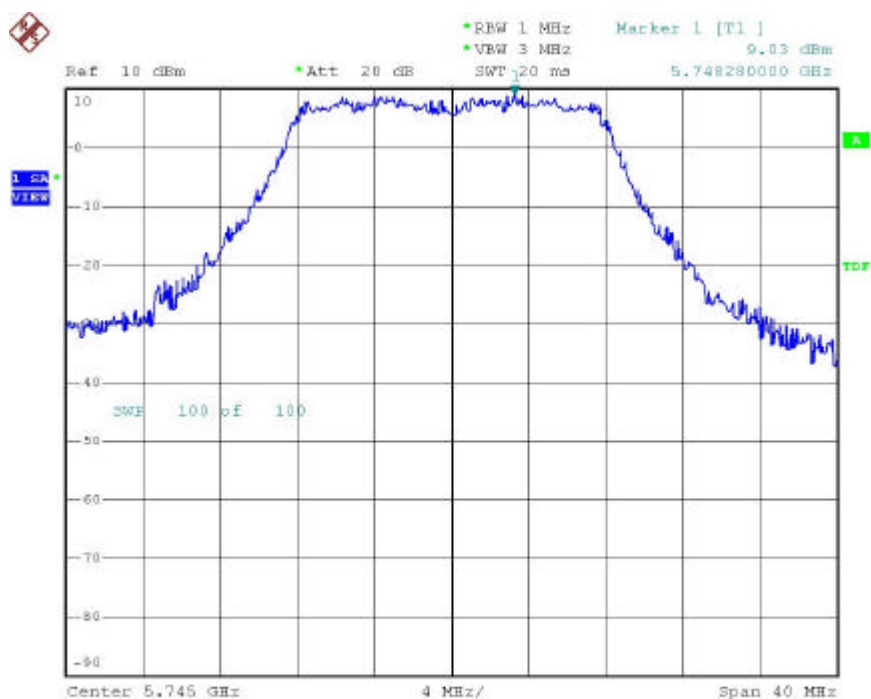
Date: 11.MAY.2005 13:29:23



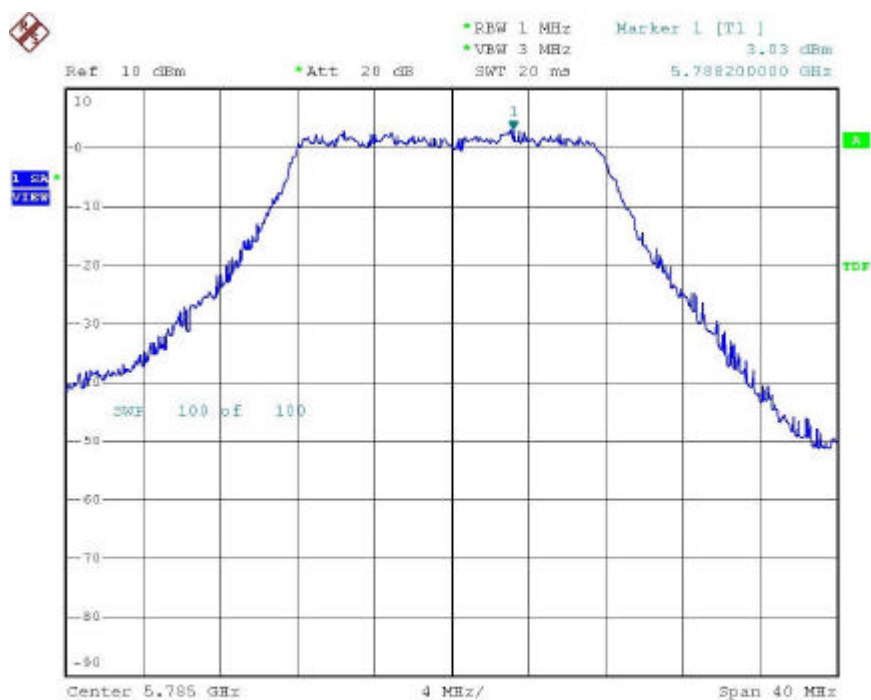
Date: 11.MAY.2005 13:12:19



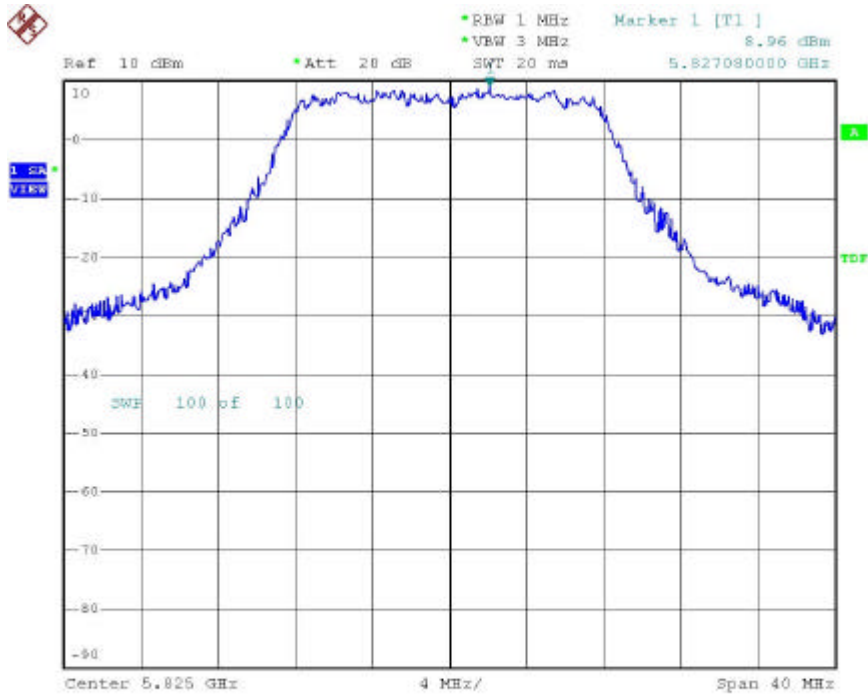
Date: 11.MAY.2005 13:13:24



Date: 11.MAY.2005 13:15:04



Date: 12.MAY.2005 10:46:13



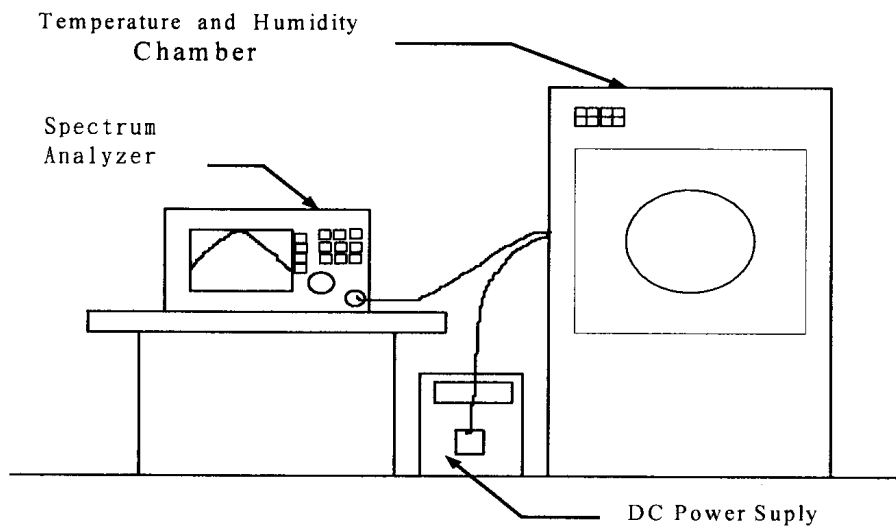
Date: 11.MAY.2005 13:25:44

9. Frequency Stability

9.1 Test Procedure

- 1.The EUT was placed inside the Temperature and Humidity chamber.
- 2.The transmitter output was connected to spectrum analyzer.
- 3.Turn the EUT on and couple its output to a spectrum analyzer.
- 4.Turn the EUT off and set the chamber to the highest temperature specified.
- 5.Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- 6.Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- 7.The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

9.2 Test Setup Layout



9.3 Test Result and Data

Operating frequency: 5320 MHz							
Temp (°C)	Power supply (V)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	93.5	5320.0264	0.000496	5320.0300	0.00564	5320.0306	0.000575
	110.0	5320.0314	0.000590	5320.0318	0.000598	5320.0320	0.000602
	126.5	5320.0324	0.000609	5320.0326	0.000613	5320.0330	0.000620
40	93.5	5320.0218	0.000410	5320.0220	0.000414	5320.0224	0.000421
	110.0	5320.0198	0.000372	5320.0202	0.000380	5320.0206	0.000387
	126.5	5320.0196	0.000368	5320.0188	0.000353	5320.0190	0.000357
30	93.5	5320.0190	0.000357	5320.0192	0.000361	5320.0188	0.000353
	110.0	5320.0192	0.000361	5320.0190	0.000357	5320.0190	0.000357
	126.5	5320.0192	0.000361	5320.0188	0.000353	5320.0189	0.000355
20	93.5	5320.0030	0.00056	5320.0316	0.000594	5320.0312	0.000586
	110.0	5320.0302	0.000568	5320.0298	0.000560	5320.0294	0.000553
	126.5	5320.0290	0.000545	8320.0288	0.000541	5320.0286	0.000538
10	93.5	5320.0384	0.000722	8320.0384	0.000722	5320.0384	0.000722
	110.0	5320.0382	0.000718	5320.0384	0.000722	5320.0384	0.000722
	126.5	5320.0380	0.000714	5320.0382	0.000714	5320.0382	0.000714
0	93.5	5320.0504	0.000947	5320.0500	0.000940	5320.0500	0.000940
	110.0	5320.0496	0.000932	5320.0500	0.000940	5320.0496	0.000932
	126.5	5320.0500	0.000940	5320.0496	0.000932	5320.0504	0.000947
-10	93.5	5320.0620	0.001165	5320.0620	0.001165	5320.0618	0.001162
	110.0	5320.0626	0.001177	5320.0624	0.001173	5320.0622	0.001169
	126.5	5320.0656	0.001233	5320.0646	0.001214	5320.0642	0.001207
-20	93.5	5320.0658	0.001237	5320.0660	0.001214	5320.0662	0.001244
	110.0	5320.0674	0.001267	5320.0672	0.001263	5320.0676	0.001271
	126.5	5320.0676	0.001271	5320.0676	0.001271	5320.0678	0.001274
-30	93.5	5320.0678	0.001274	5320.0676	0.001271	5320.0678	0.001274
	110.0	5320.0674	0.001267	5320.0674	0.001267	5320.0678	0.001274
	126.5	5320.0672	0.001263	5320.0674	0.001267	5320.0676	0.001271

Limit :

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

10. Band Edges Measurement

10.1 Test Procedure

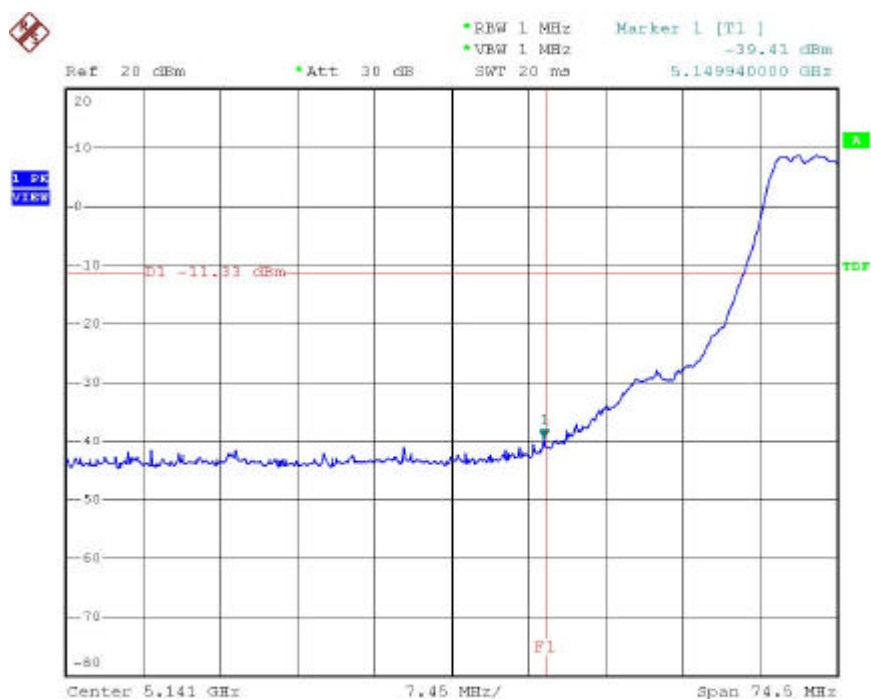
- 1.The transmitter output was connected to the spectrum analyzer via a low lose cable.
- 2.Set both RBW and VBW of spectrum analyzer to 100 KHz with convenient frequency span including 100 MHz bandwidth from band edge.
- 3.The band edges was measured and recorded.

10.2 Test Result and Data

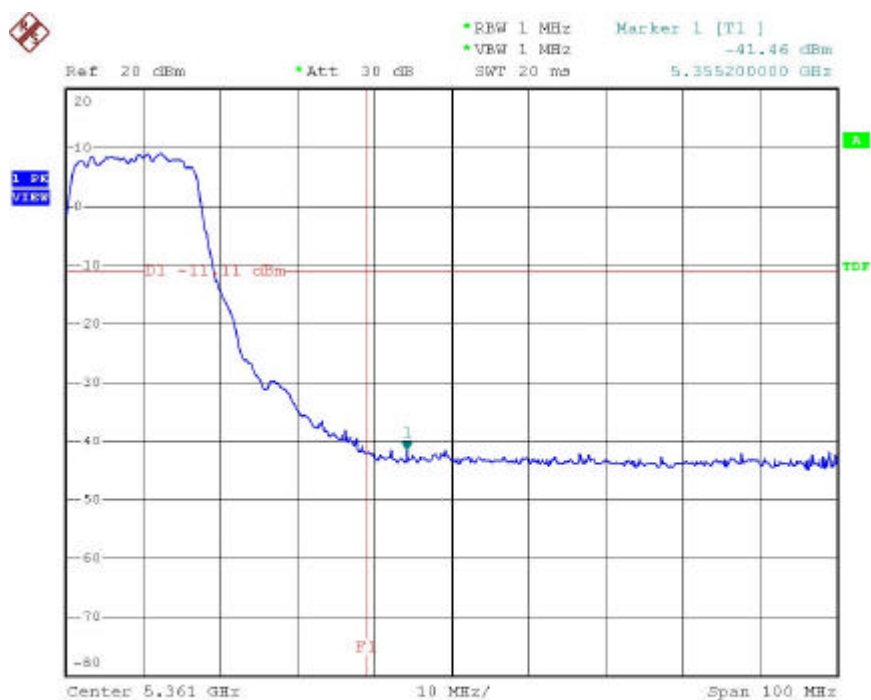
Test Mode: Normal, Transmit Rate: 6Mbps

Test Date: May. 06, 2005 Temperature: 25 Humidity: 55% Atmospheric pressure: 1021mmHg

Channel	Frequency (MHz)	Maximum Value In Frequency (MHz)	Maximum Value (dBm)
1	5180	5149.94	-39.41
8	5320	5355.20	-41.46



Date: 6.MAY.2005 17:43:06



Date: 6.MAY.2005 17:39:50

10.3 Restrict Band Emission Measurement Data

Test Mode: Normal, Transmit Rate: 54Mbps

Test Date: Apr. 29, 2005 Temperature: 25 Humidity: 68% Atmospheric pressure: 1030mmHg

Channel 01, Fundamental Frequency: 5180 MHz

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)		Corrected Factor (dB)	Result (dBuV/m)		Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
		Peak	Ave		Peak	Ave	Peak	Ave			
5147.20	H	44.98	31.83	9.05	54.03	40.88	74	54	-13.12	118	1.0
5120.00	V	49.72	37.22	9.00	58.72	46.22	74	54	-7.78	187	1.0

Channel 08, Fundamental Frequency: 5320 MHz

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)		Corrected Factor (dB)	Result (dBuV/m)		Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
		Peak	Ave		Peak	Ave	Peak	Ave			
5364.40	H	43.80	30.16	9.41	53.21	39.57	74	54	-14.43	118	1.0
5400.20	V	45.88	33.09	9.47	55.35	42.56	74	54	-11.44	187	1.0

Notes:

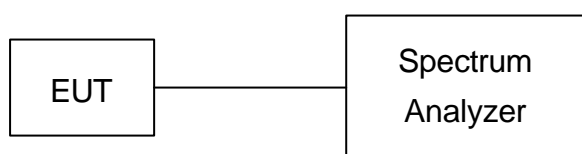
1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 MHz for Average detection at frequency above 1GHz.

11. 6dB Bandwidth

11.1 Test Procedure

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 100 KHz and VBW to 100 KHz.
3. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

11.2 Test Setup Layout

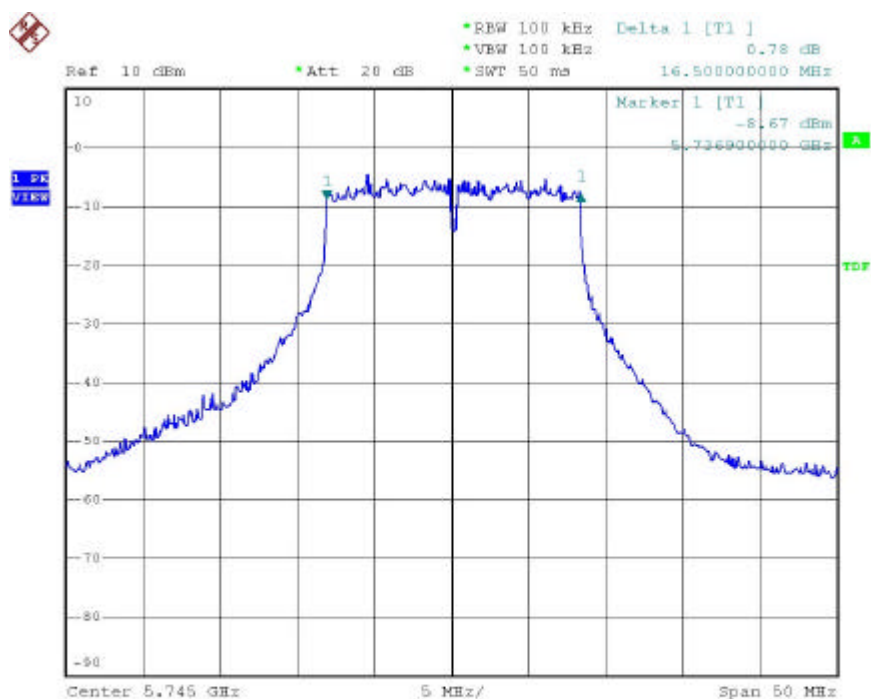


11.3 Test Result and Data

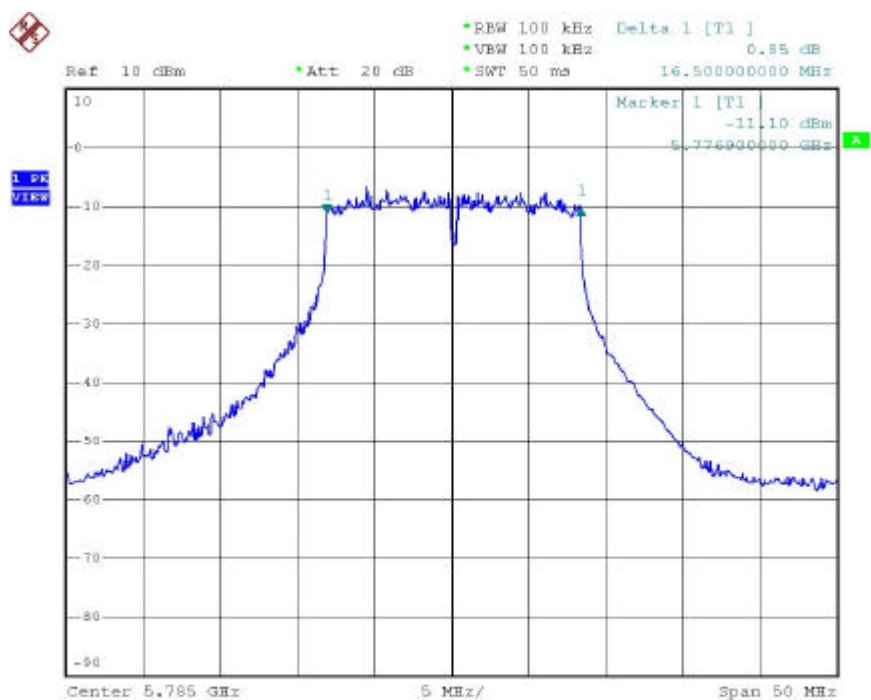
Test Mode: Normal, Transmit Rate:54Mbps

Test Date: Apr. 14, 2005 Temperature: 25 Humidity: 69% Atmospheric pressure: 1024mmHg

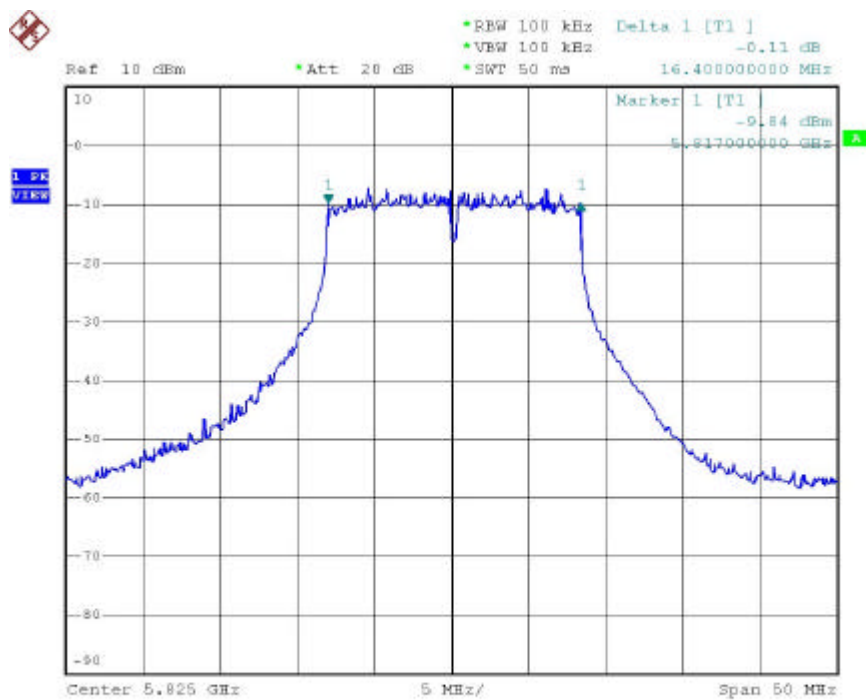
Channel	Frequency (MHz)	6dB Bandwidth
9	5745	16.5
11	5785	16.5
13	5825	16.4



Date: 14.APR.2005 15:26:10



Date: 14.APR.2005 18:43:20



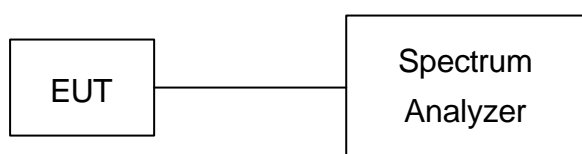
Date: 14.APR.2005 18:56:21

12. Maximum Peak Output Power

12.1 Test Procedure

The antenna port (RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer. Power was read directly from the spectrum analyzer and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

12.2 Test Setup Layout

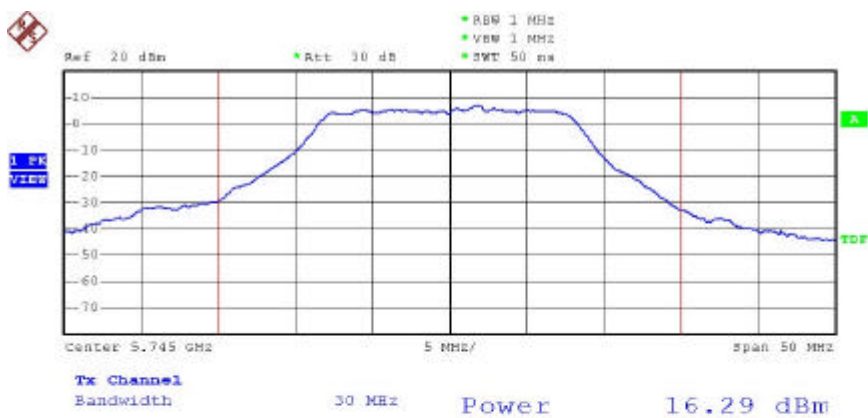


12.3 Test Result and Data

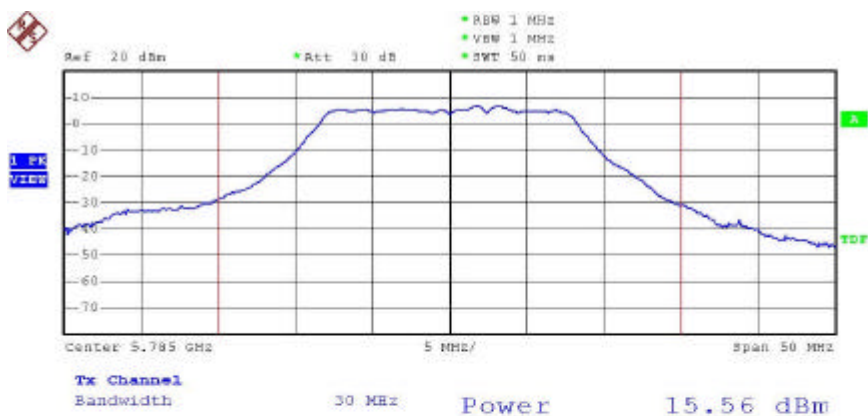
Test Mode: Normal, Transmit Rate:54Mbps

Test Date: Apr. 14, 2005 Temperature: 25 Humidity: 69% Atmospheric pressure: 1024mmHg

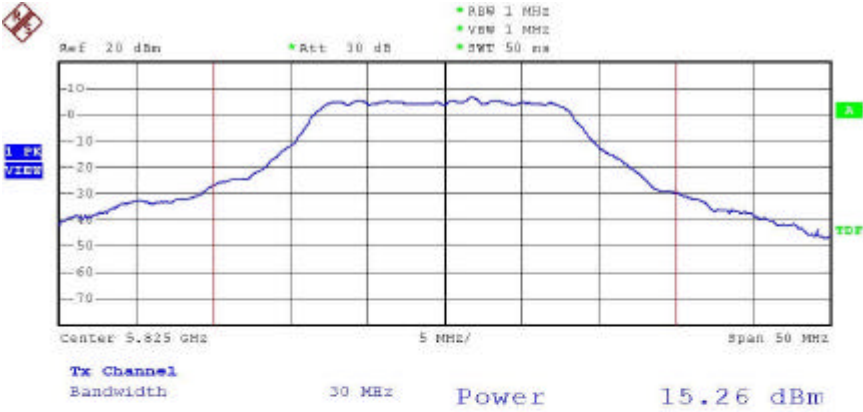
Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)
9	5745	16.29	42.560
11	5785	15.56	35.975
13	5825	15.26	33.574



Date: 12.AUG.2005 11:42:26



Date: 12.AUG.2005 11:46:10



Date: 12.AUG.2005 11:48:07

13. Band Edges Measurement

13.1 Test Procedure

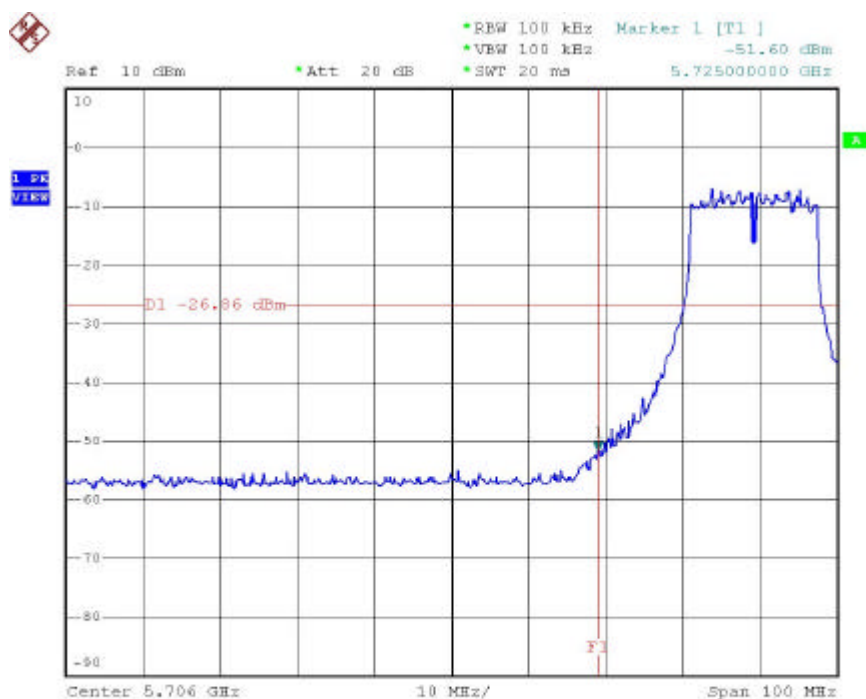
- 1.The transmitter output was connected to the spectrum analyzer via a low lose cable.
- 2.Set both RBW and VBW of spectrum analyzer to 100 KHz with convenient frequency span including 100 MHz bandwidth from band edge.
- 3.The band edges was measured and recorded.

13.2 Test Result and Data

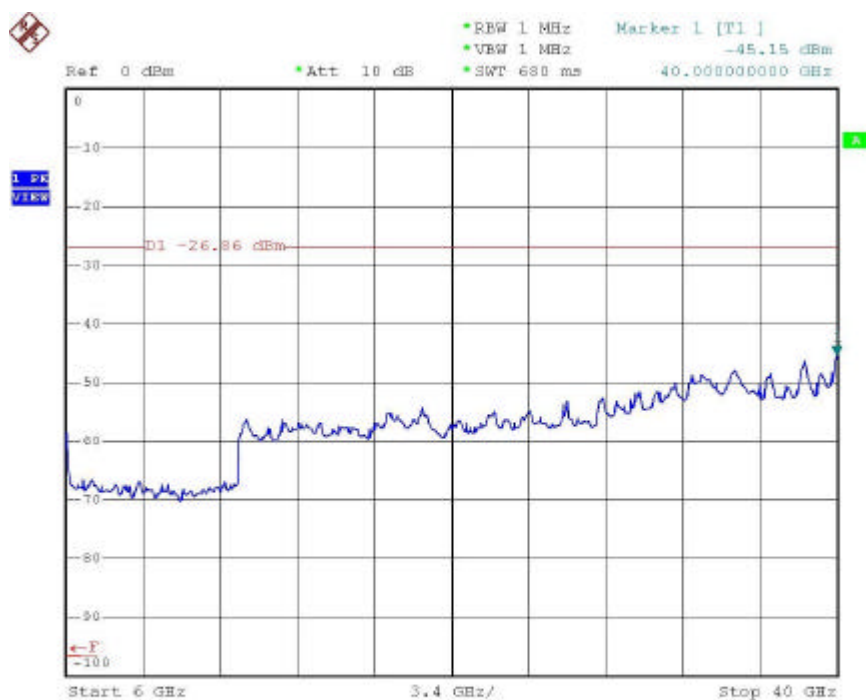
Test Mode: Normal, Transmit Rate: 54Mbps

Test Date: Apr. 146, 2005 Temperature: 25 Humidity: 69% Atmospheric pressure: 1024mmHg

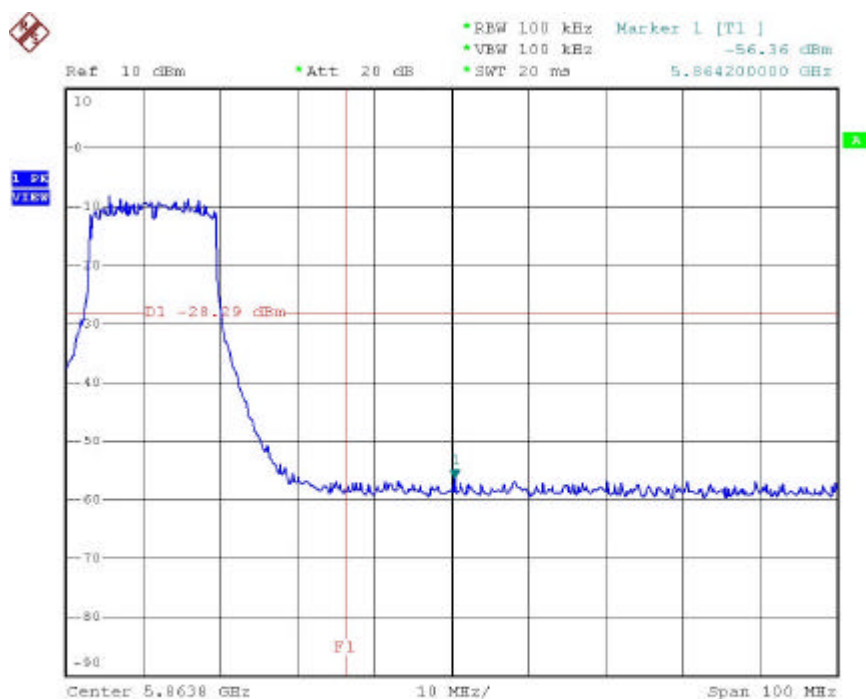
Channel	Frequency (MHz)	Maximum Value In Frequency (MHz)	Maximum Value (dBm)
9	5745	40000	-45.15
13	5825	40000	-45.80



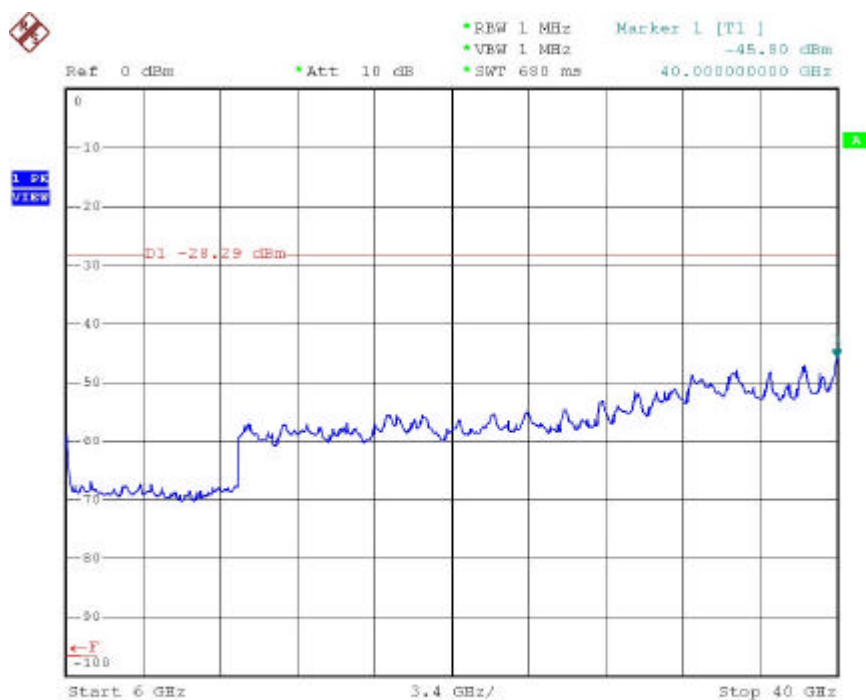
Date: 14.APR.2005 16:30:54



Date: 14.APR.2005 16:32:33



Date: 14.APR.2005 19:06:17



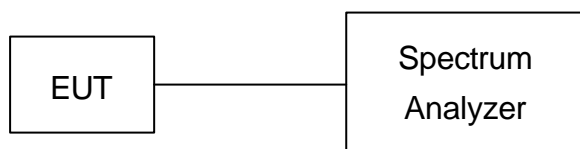
Date: 14.APR.2005 19:07:42

14. Power Spectral Density

14.1 Test Procedure

- 1.The transmitter output was connected to spectrum analyzer.
- 2.The spectrum analyzer' s resolution bandwidth were set at 3KHz RBW and 30KHz VBW as that of the fundamental frequency. Set the sweep time=span/3KHz.
- 3.The power spectral density was measured and recorded.
- 4.The Sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

14.2 Test Setup Layout

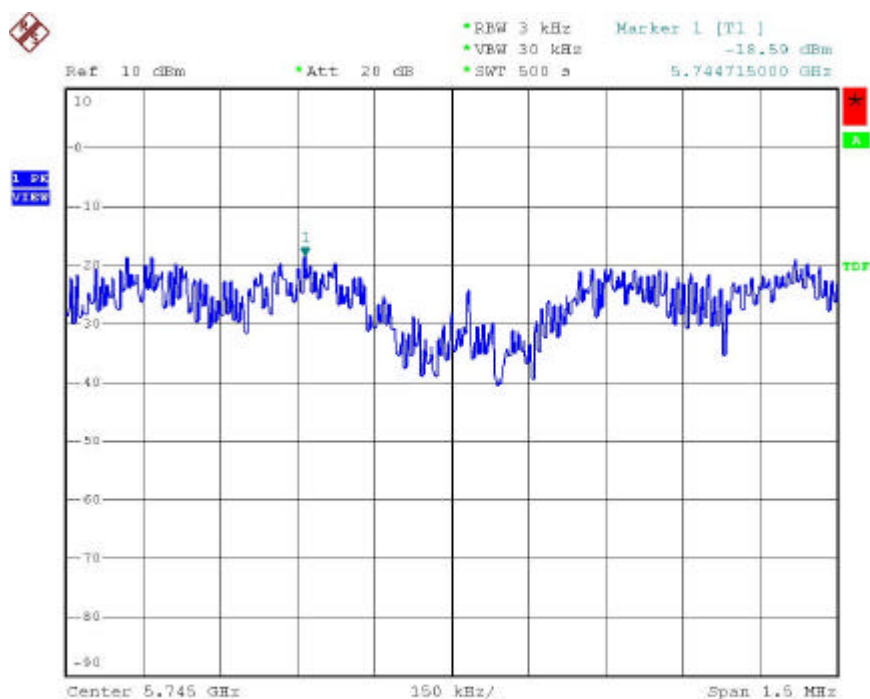


14.3 Test Result and Data

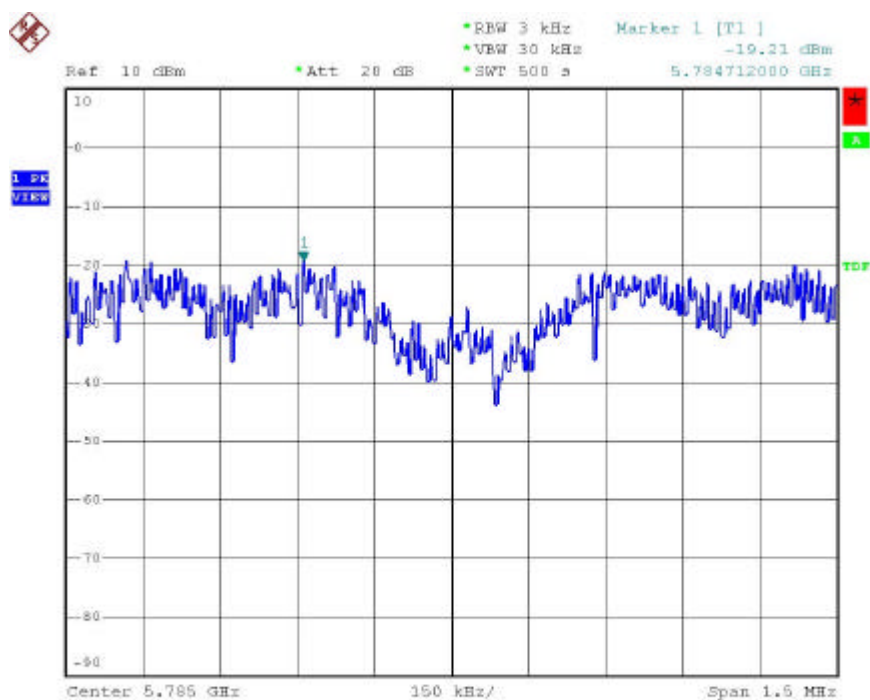
Test Mode: Normal, Transmit Rate:54Mbps

Test Date: May. 06, 2005 Temperature: 26 Humidity: 55% Atmospheric pressure: 1021mmHg

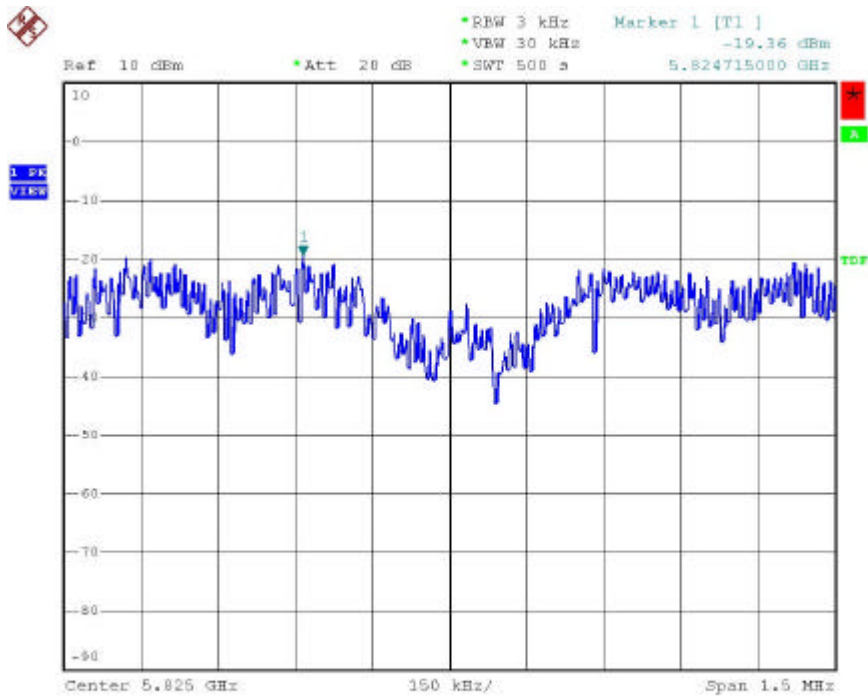
Channel	Frequency (MHz)	Maximum Power Density of 3kHz BW (dBm)
9	5745	-18.59
11	5785	-19.21
13	5825	-19.36



Date: 6.MAY.2005 12:00:41



Date: 6.MAY.2005 12:02:00



Date: 6.MAY.2005 12:02:57

15. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

** : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

15.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

16. List of Measuring Equipment Used

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
1	Bilog Antenna	CBL6112B	Schaffner	2762	2006/04/12
2	Preamplifier	RFP4002	Schaffner	010	2005/11/03
3	Receiver	SCR3501	Schaffner	437	2005/11/03
4	Signal Generator	8648B	HP	3629U00612	2006/02/08
5	Amplifier	8447D	Agilent	2443A04650	2006/02/14
6	Amplifier	8447D	Agilent	2944A10531	2005/06/30
7	Series Power Meter	E4416A	Agilent	GB41292146	2005/10/11
8	Power Sensor	E9327A	Agilent	US40441392	2005/10/11
9	Dipole Antenna	AD-100	COM-Power	721011	2005/12/02
10	Dipole Antenna	AD-100	COM-Power	721010	2005/12/02
11	Spectrum Analyzer	FSP40	R&S	100047	2005/12/28
12	Preamplifier	8449B	Agilent	3008A01954	2005/12/27
13	Horn Antenna	3115	EMCO	31601	2006/02/21
14	Horn Antenna	3115	EMCO	31589	2006/01/13
15	Horn Antenna	3116	EMCO	31970	2006/01/30
16	Horn Antenna	3116	EMCO	31974	2006/02/21
17	EMI Receiver	8546A	HP	3807A00454	2006/02/25
18	RF Filter Section	85460A	HP	3704A00386	2006/02/25
19	Signal Generator	83640A	HP	2927A00107	2006/03/16
20	Attenuator	8491B	Agilent	50703	2005/12/27
21	Attenuator	8491B	Agilent	50705	2005/12/27
22	Temperature Chamber	TMJ-9712	T Machine	T-12-040111	2006/02/21
23	High Pass Filter	84300-80038	HP	002	N/A
24	High Pass Filter	84300-80038	HP	006	N/A
25	DC Power Supply	GPD-3030	GM	7020936	N/A
26	AC Power Converter	AFC-11005	APC	F103120008	N/A
27	Amplifier	PA-840	COM-POWER	711885	2005/08/11