

4.7. Restrict band emission Measurement Data

Test mode 1:

Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 15, 2004 Temperature: 26 Humidity: 55%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2326.932	---	---	---	H	Peak	74	54	---	---	---
2326.932	48.70	1.03	49.73	H	Ave.	74	54	-4.27	205	1.2
2366.304	507.70	0.47	51.17	V	Peak	74	54	-22.83	195	1.2
2368.548	39.60	0.48	40.08	V	Ave.	74	54	-13.92	190	1.2

b) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2497.340	---	---	---	H	Peak	74	54	---	---	---
2497.340	48.70	1.62	50.32	H	Ave.	74	54	-3.68	210	1.2
2491.336	50.14	0.90	51.04	V	Peak	74	54	-22.96	205	1.2
2491.032	37.76	0.90	38.66	V	Ave.	74	54	-15.34	205	1.2

Modulation Standard: IEEE 802.11g (54Mbps)

Test Date: Dec. 15, 2004 Temperature: 26 Humidity: 55%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2380.176	---	---	---	H	Peak	74	54	---	---	---
2380.176	49.35	1.22	50.57	H	Ave	74	54	-3.43	210	1.2
2389.968	52.45	0.55	53.00	V	Peak	74	54	-21.00	200	1.2
2380.176	39.27	0.52	39.79	V	Ave.	74	54	-14.21	200	1.2

b) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2499.544	---	---	---	H	Peak	74	54	---	---	---
2499.544	48.56	1.63	50.19	H	Ave.	74	54	-3.81	200	1.2
2483.812	50.56	0.87	51.43	V	Peak	74	54	-22.57	190	1.2
2483.508	37.92	0.87	38.79	V	Ave.	74	54	-15.21	190	1.2

Notes:

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

Test mode 2:

Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 15, 2004 Temperature: 26 Humidity: 55%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBUV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2377.932	---	---	---	H	Peak	74	54	---	---	---
2377.932	48.62	1.21	49.83	H	Ave.	74	54	-4.17	215	1.2
2373.444	51.34	0.49	51.83	V	Peak	74	54	-22.17	205	1.2
2376.708	39.10	0.50	39.60	V	Ave.	74	54	-14.40	205	1.2

b) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBUV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2484.116	---	---	---	H	Peak	74	54	---	---	---
2484.116	48.84	1.58	50.42	H	Ave.	74	54	-3.58	230	1.2
2491.868	51.03	0.90	51.93	V	Peak	74	54	-22.07	220	1.2
2491.716	39.52	0.90	40.42	V	Ave.	74	54	-13.58	220	1.2

Modulation Standard: IEEE 802.11g (54Mbps)

Test Date: Dec. 15, 2004 Temperature: 26 Humidity: 55%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBUV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2360.592	---	---	---	H	Peak	74	54	---	---	---
2360.592	48.67	1.15	49.82	H	Ave.	74	54	-4.18	205	1.2
2385.072	50.46	0.53	50.99	V	Peak	74	54	-23.01	185	1.2
2388.336	38.65	0.54	39.19	V	Ave.	74	54	-14.81	185	1.2

b) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Meter Reading	Factor	Level (dBV)	Polarization	Remark	Limit@3m (dBUV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
						Peak	Ave.			
2489.360	---	---	---	H	Peak	74	54	---	---	---
2489.360	48.81	1.59	50.40	H	Ave.	74	54	-3.60	210	1.2
2483.432	53.38	0.87	54.25	V	Peak	74	54	-19.75	195	1.2
2487.840	38.21	0.89	39.10	V	Ave.	74	54	-14.90	195	1.2

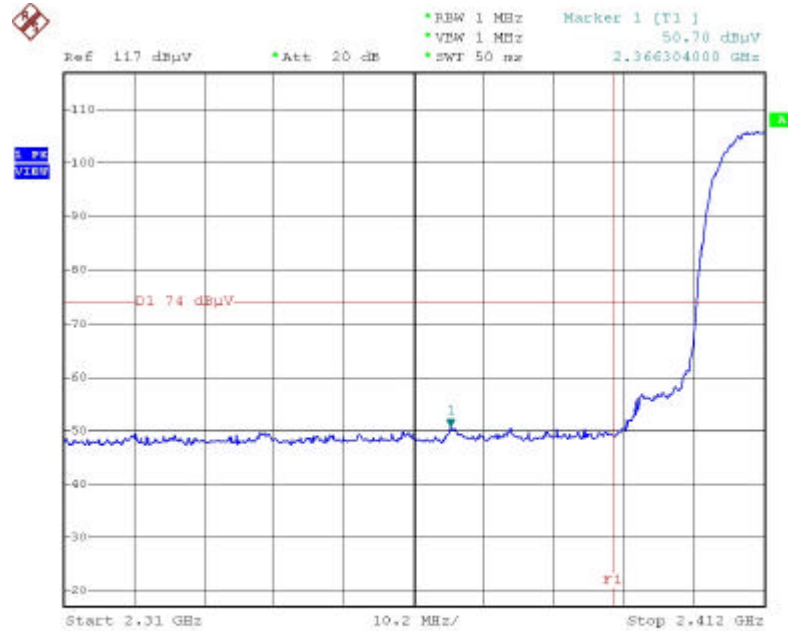
Notes:

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

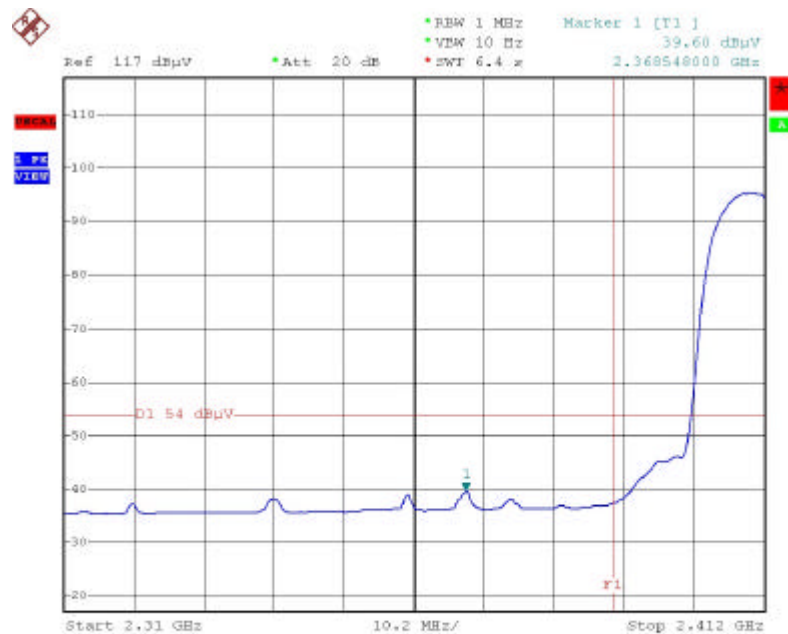
Test mode 1:

Modulation Standard: IEEE 802.11b

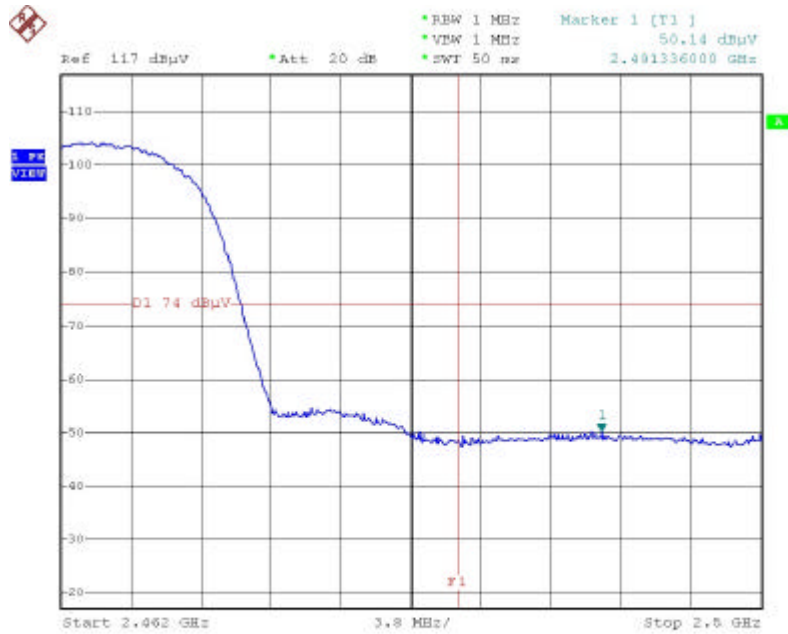
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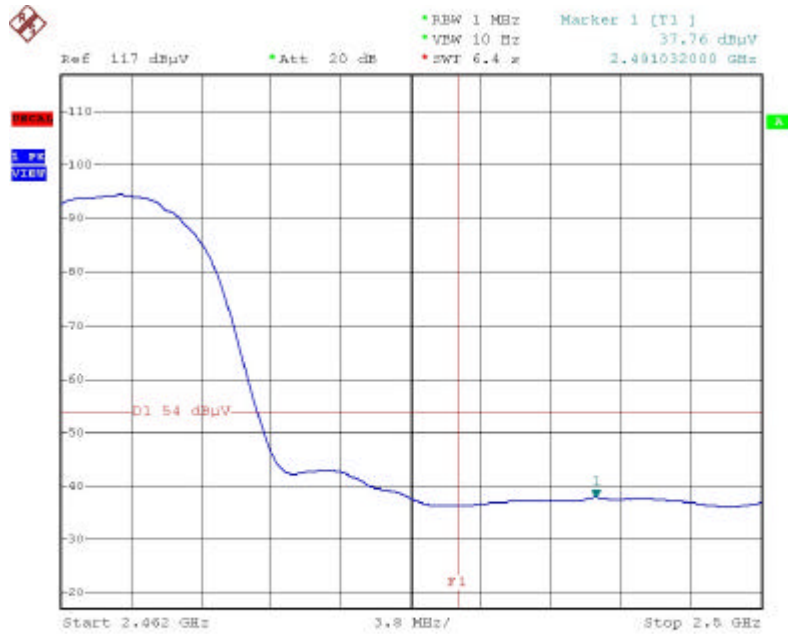
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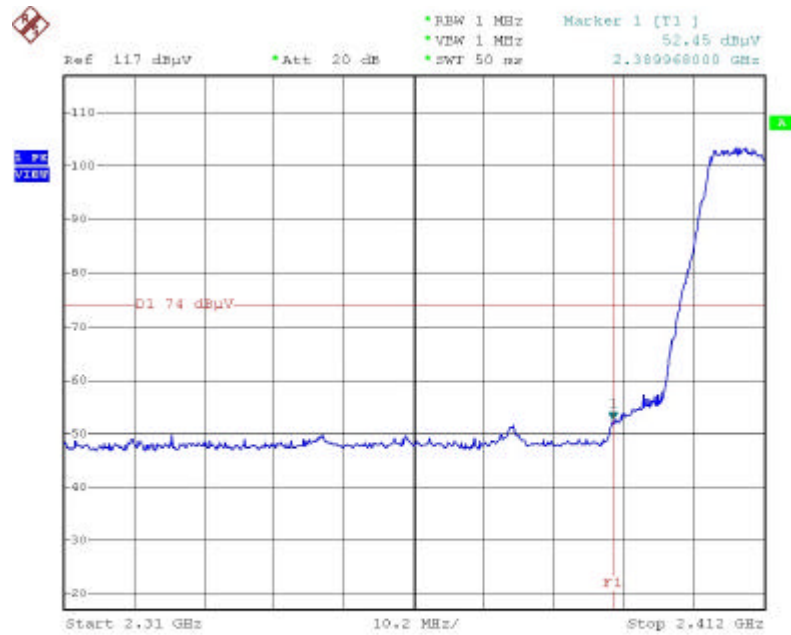
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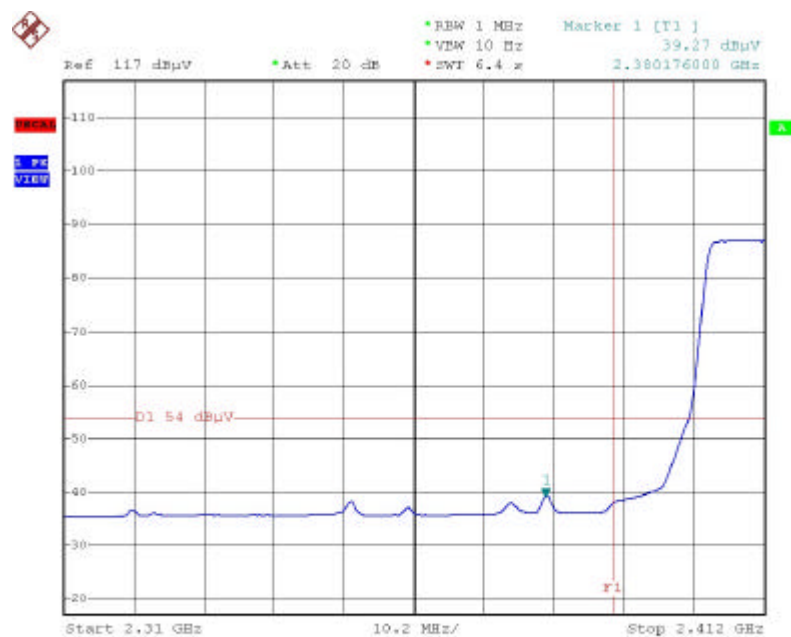
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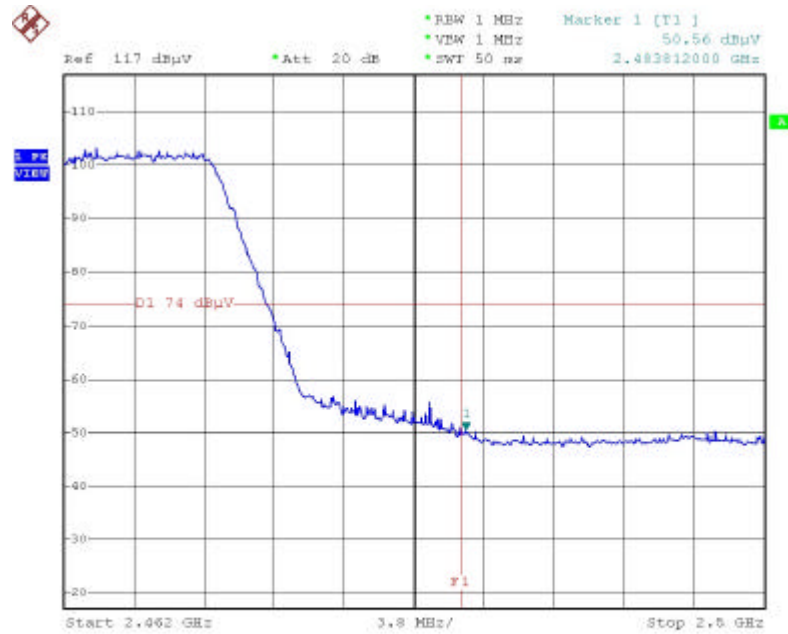
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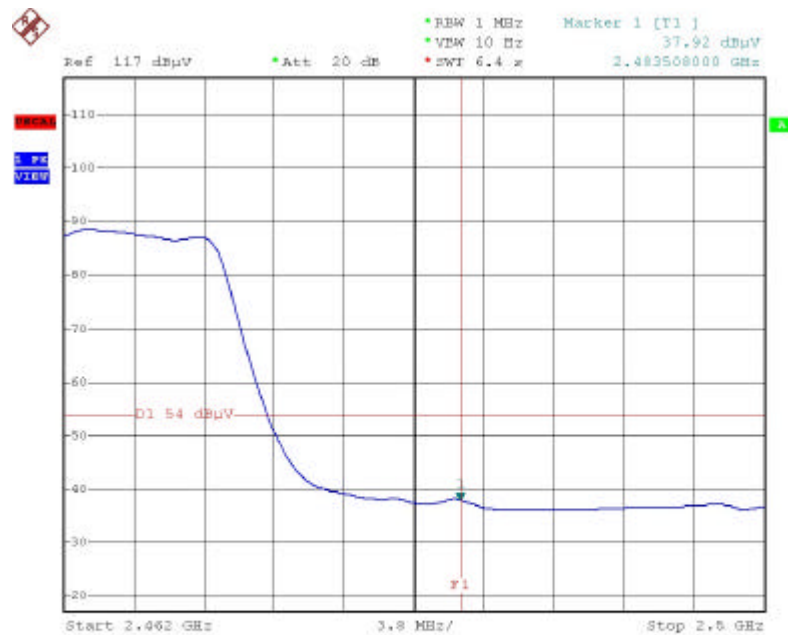
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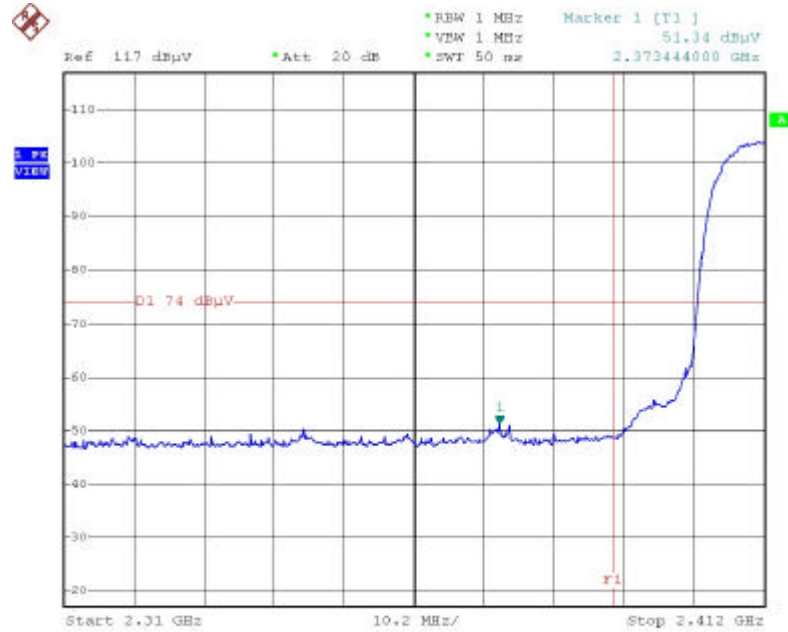


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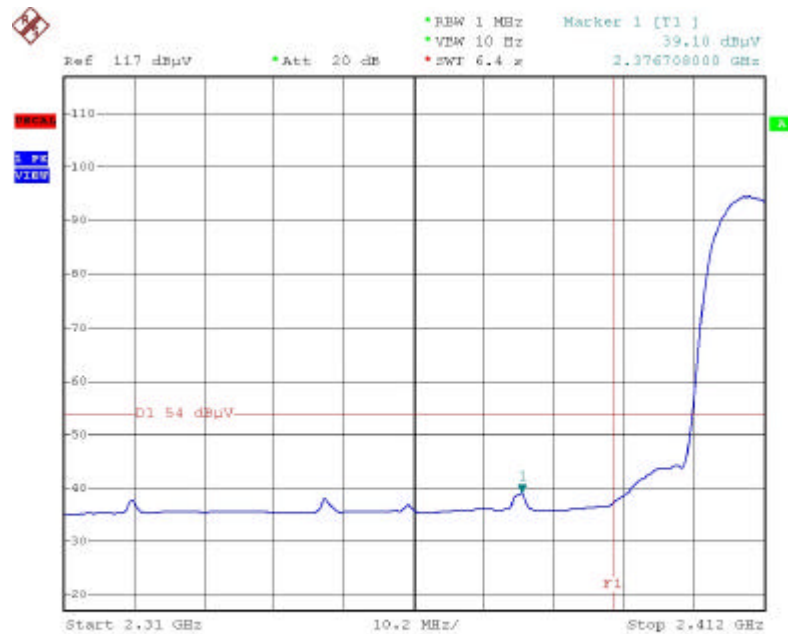
Test mode 2:

Modulation Standard: IEEE 802.11b

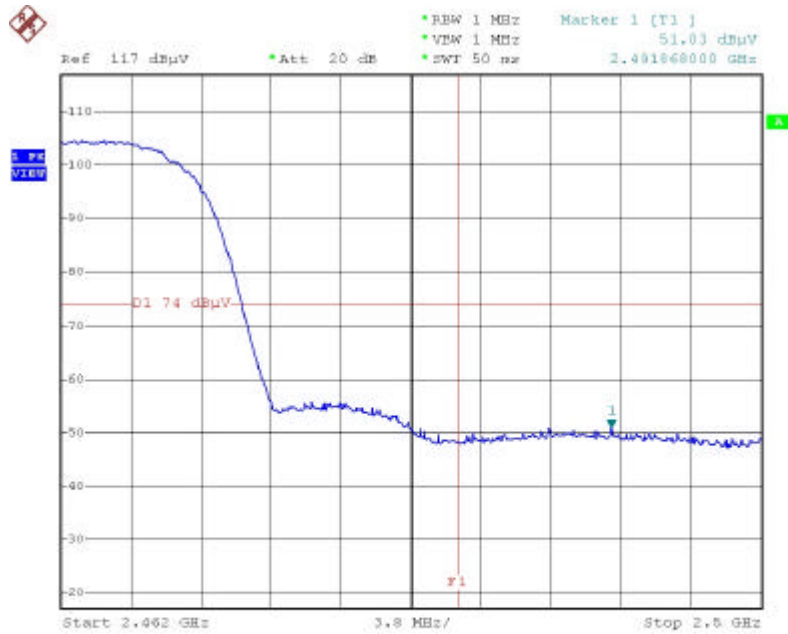
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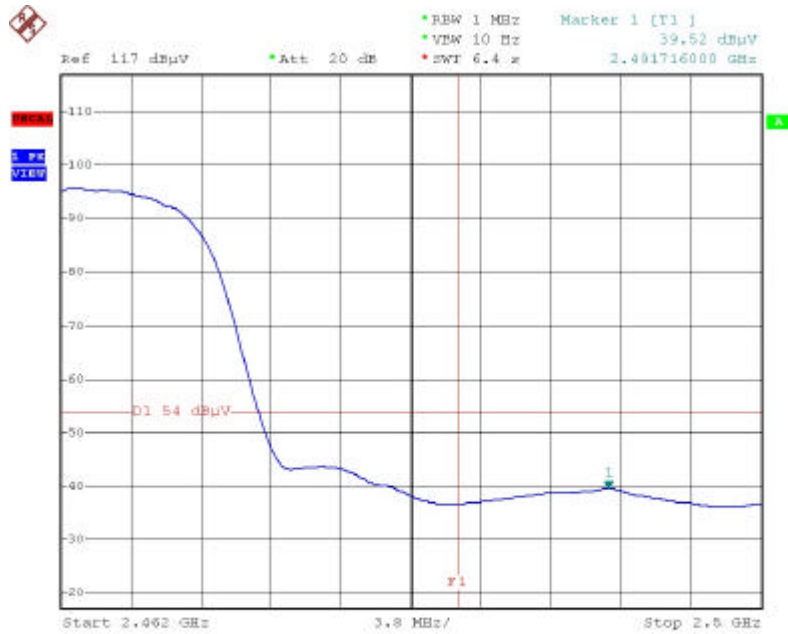
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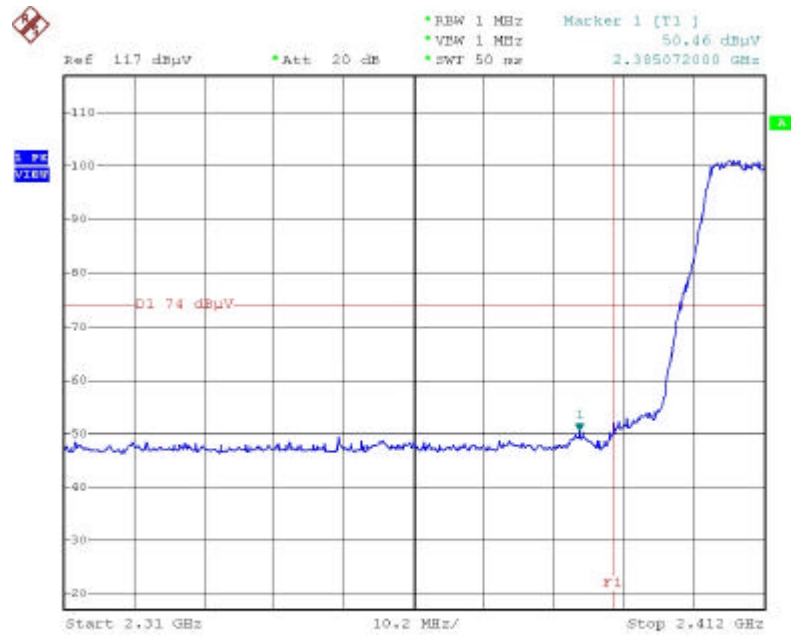
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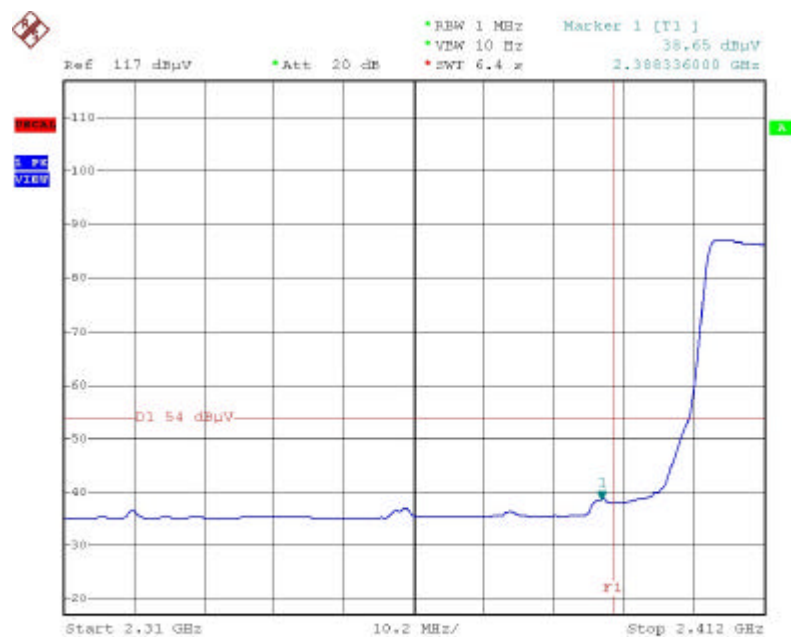
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Modulation Standard: IEEE 802.11g

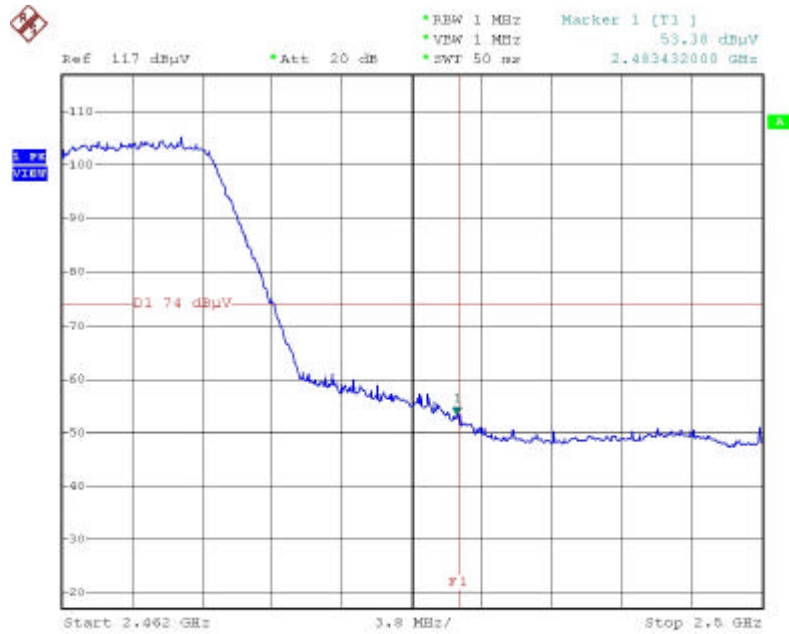
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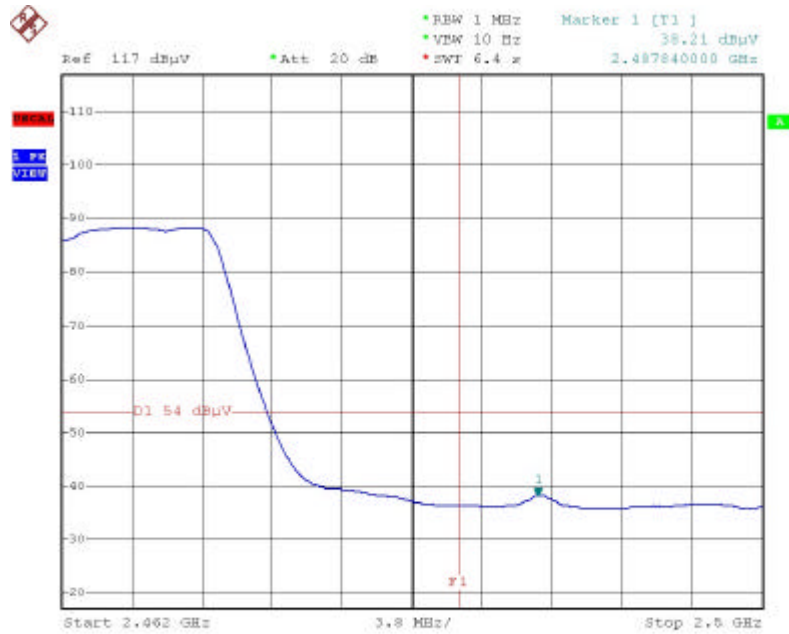
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Date: 16.DEC.2004 14:16:39



Date: 16.DEC.2004 14:22:38

4.8. Power Spectral Density Measurement Data

Test mode 1

(1) Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 01, 2004 Temperature: 24 Humidity: 59%

a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is	<u>-13.66</u>	dBm
b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is	<u>-14.08</u>	dBm
c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is	<u>-14.14</u>	dBm

(2) Modulation Standard: IEEE 802.11g (54Mbps)

Test Date: Dec. 01, 2004 Temperature: 24 Humidity: 59%

a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is	<u>-19.32</u>	dBm
b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is	<u>-18.73</u>	dBm
c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is	<u>-19.38</u>	dBm

Test mode 2:

(1) Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 15, 2004 Temperature: 26 Humidity: 55%

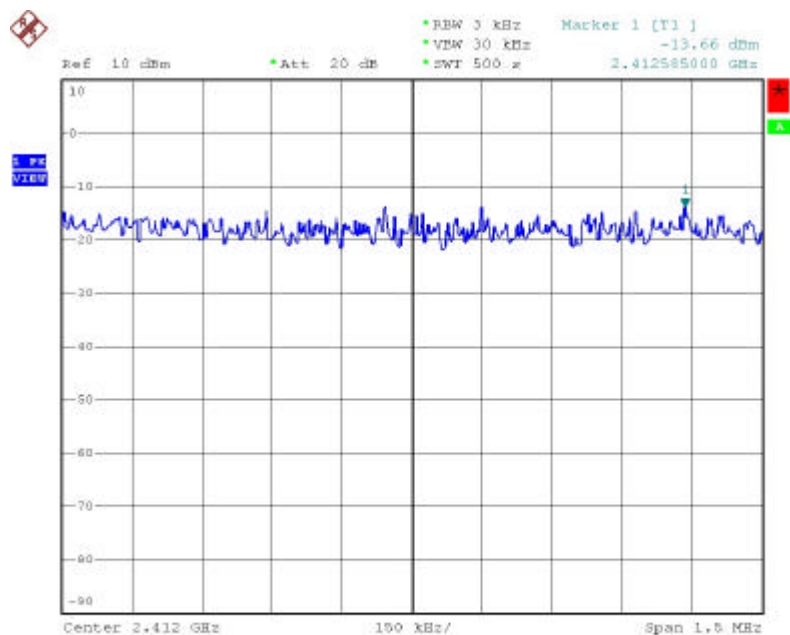
d) Channel 01: Maximum Power Density of 3 kHz Bandwidth is	<u>-17.94</u>	dBm
e) Channel 06: Maximum Power Density of 3 kHz Bandwidth is	<u>-18.40</u>	dBm
f) Channel 11: Maximum Power Density of 3 kHz Bandwidth is	<u>-18.93</u>	dBm

(2) Modulation Standard: IEEE 802.11g (54Mbps)

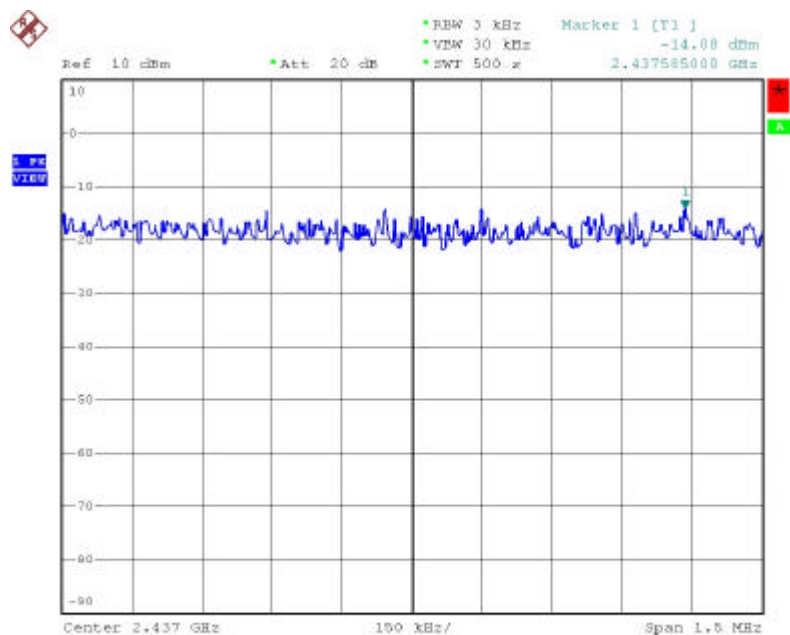
Test Date: Dec. 15, 2004 Temperature: 26 Humidity: 55%

d) Channel 01: Maximum Power Density of 3 kHz Bandwidth is	<u>-20.46</u>	dBm
e) Channel 06: Maximum Power Density of 3 kHz Bandwidth is	<u>-21.01</u>	dBm
f) Channel 11: Maximum Power Density of 3 kHz Bandwidth is	<u>-21.62</u>	dBm

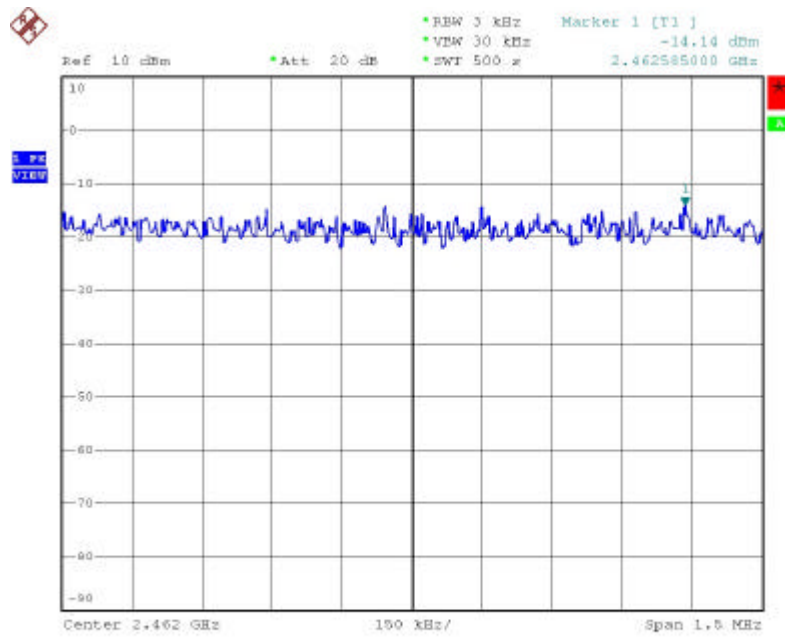
Test mode 1



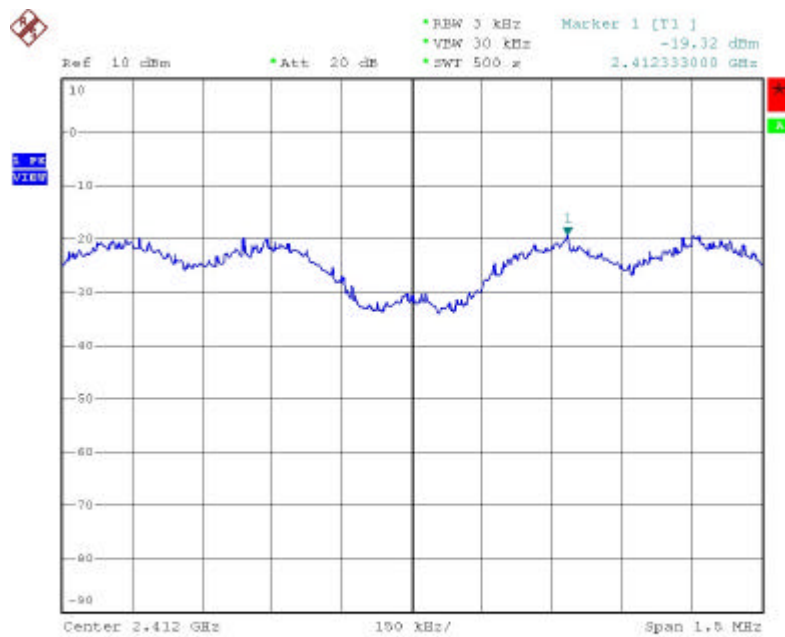
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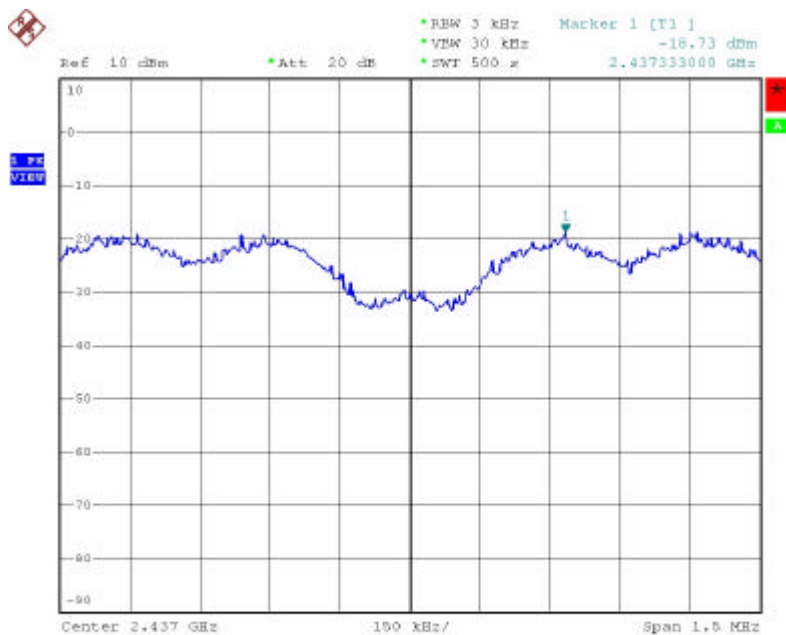
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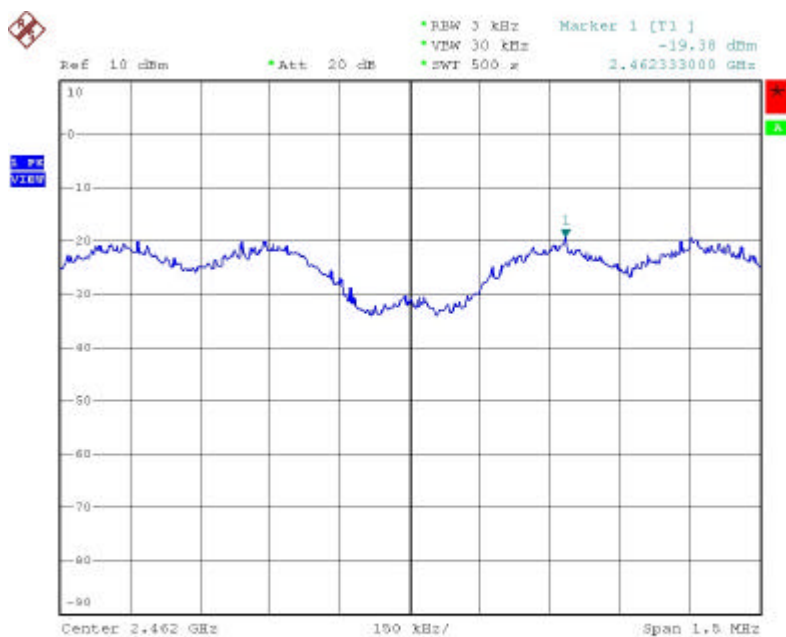
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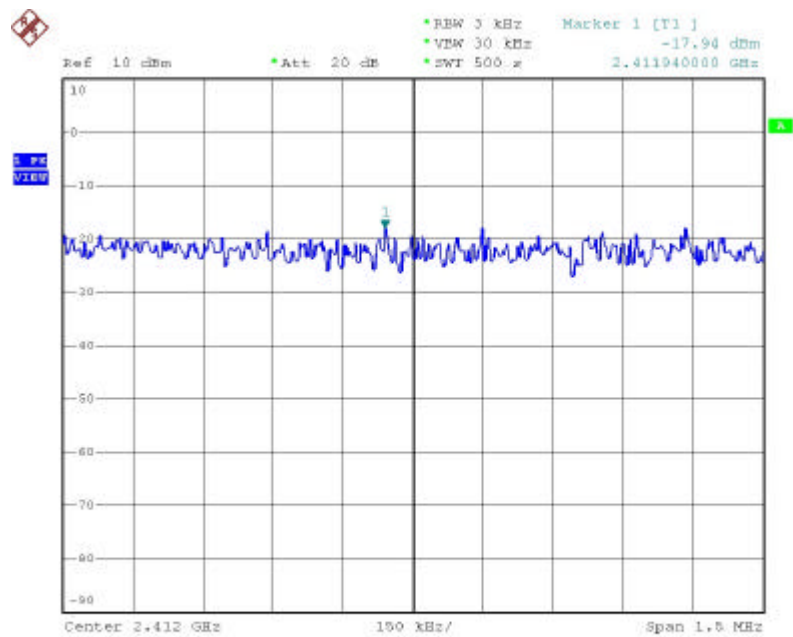


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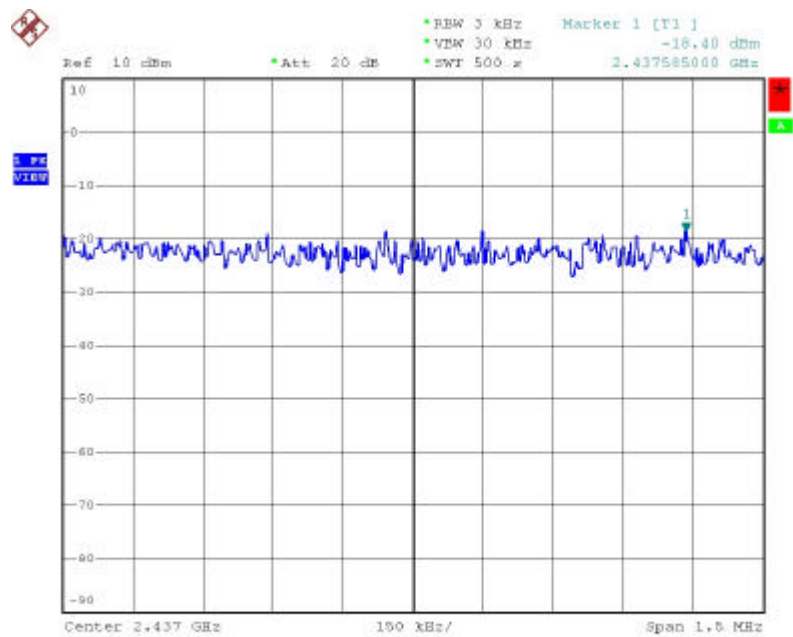


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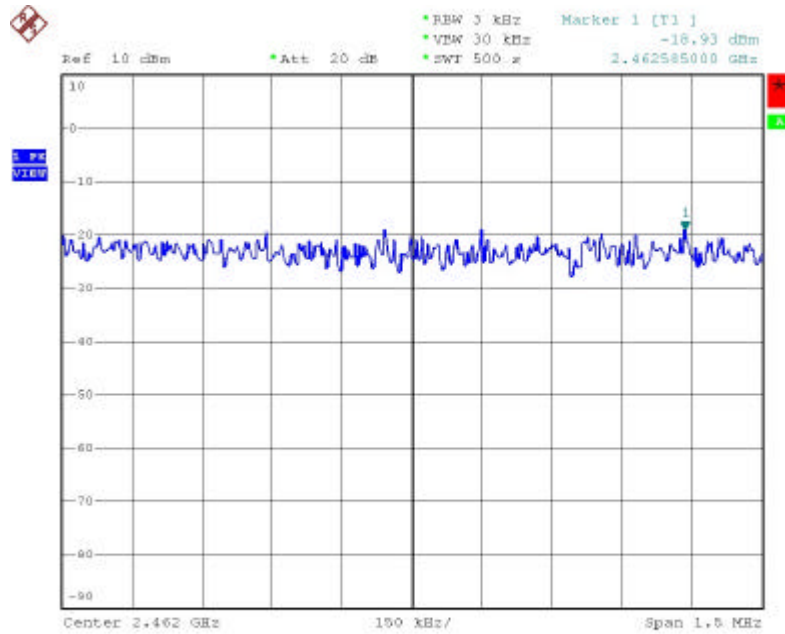
Test mode 2:



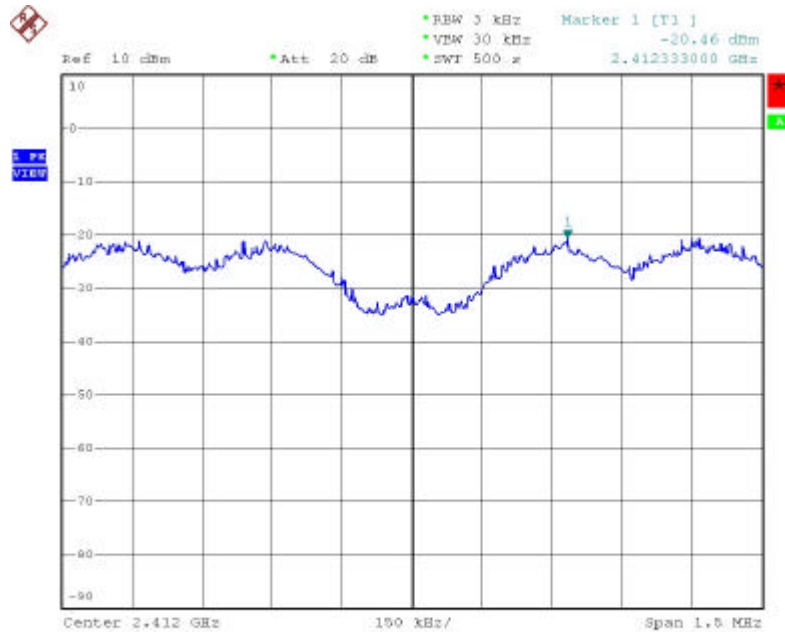
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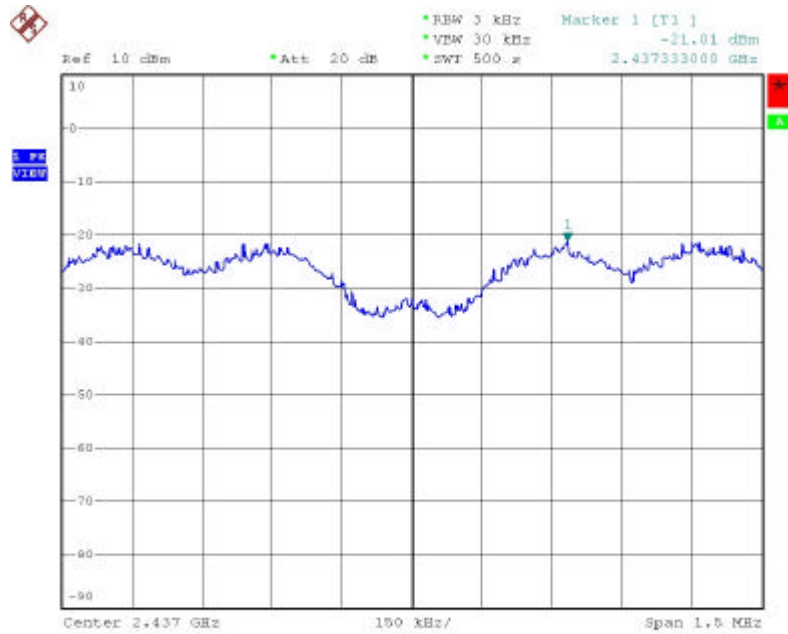
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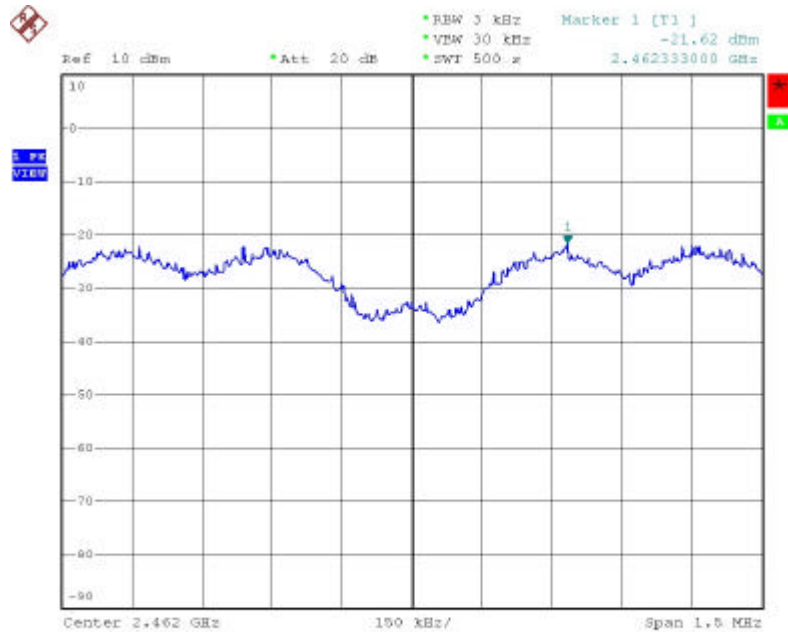
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Date: 15.DEC.2004 16:07:51



Date: 15.DEC.2004 16:17:43

5. List of Measuring Equipment Used

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
1	Bilog Antenna	CBL6112B	Schaffner	2762	2005/04/08
2	Preamplifier	RFP4002	Schaffner	010	2005/11/03
3	Receiver	SCR3501	Schaffner	437	2005/11/03
4	Signal Generator	8648B	HP	3629U00612	2006/02/09
5	Spectrum Analyzer	8594E	HP	3520A01913	2005/01/15
6	Amplifier	8447D	Agilent	2443A04650	2005/02/02
7	Amplifier	8447D	Agilent	2944A10531	2005/06/30
8	Series Power Meter	E4416A	Agilent	GB41292146	2005/10/11
9	Power Sensor	E9327A	Agilent	US40441392	2005/10/11
10	Dipole Antenna	AD-100	COM-Power	721011	2005/12/02
11	Dipole Antenna	AD-100	COM-Power	721010	2005/12/02
12	Spectrum Analyzer	FSP40	R&S	100047	2005/12/28
13	Preamplifier	8449B	Agilent	3008A01954	2005/12/27
14	Horn Antenna	3115	EMCO	31601	2005/01/13
15	Horn Antenna	3115	EMCO	31589	2005/01/13
16	Horn Antenna	3116	EMCO	31970	2005/01/29
17	Horn Antenna	3116	EMCO	31974	2005/01/29
18	EMI Receiver	8546A	HP	3807A00454	2005/02/12
19	RF Filter Section	85460A	HP	3704A00386	2005/02/12
20	Signal Generator	83640A	HP	2927A00107	2006/04/02
21	Attenuator	8491B	Agilent	50703	2005/12/27
22	Attenuator	8491B	Agilent	50705	2005/12/27
23	Temperature Chamber	TMJ-9712	T Machine	T-12-040111	2005/02/05
24	High Pass Filter	84300-80038	HP	002	N/A
25	High Pass Filter	84300-80038	HP	006	N/A
26	DC Power Supply	GPD-3030	GM	7020936	N/A
27	AC Power Converter	AFC-11005	APC	F103120008	N/A