

4.4. 6dB Bandwidth Measurement Data

(1) Modulation Standard: IEEE 802.11b

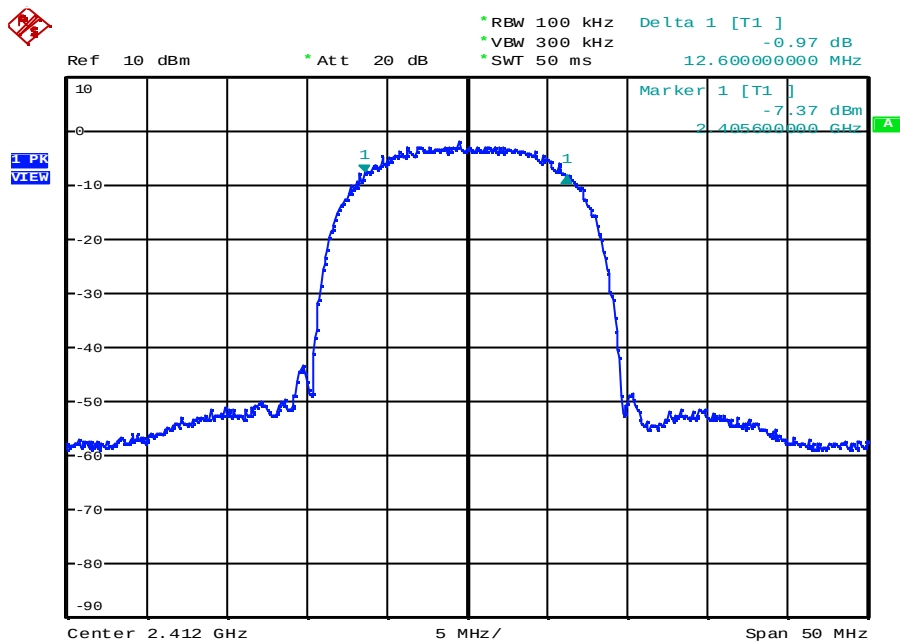
Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

- a) Channel 01: 6dB Emission Bandwidth is 12.6 MHz
- b) Channel 06: 6dB Emission Bandwidth is 12.5 MHz
- c) Channel 11: 6dB Emission Bandwidth is 12.5 MHz

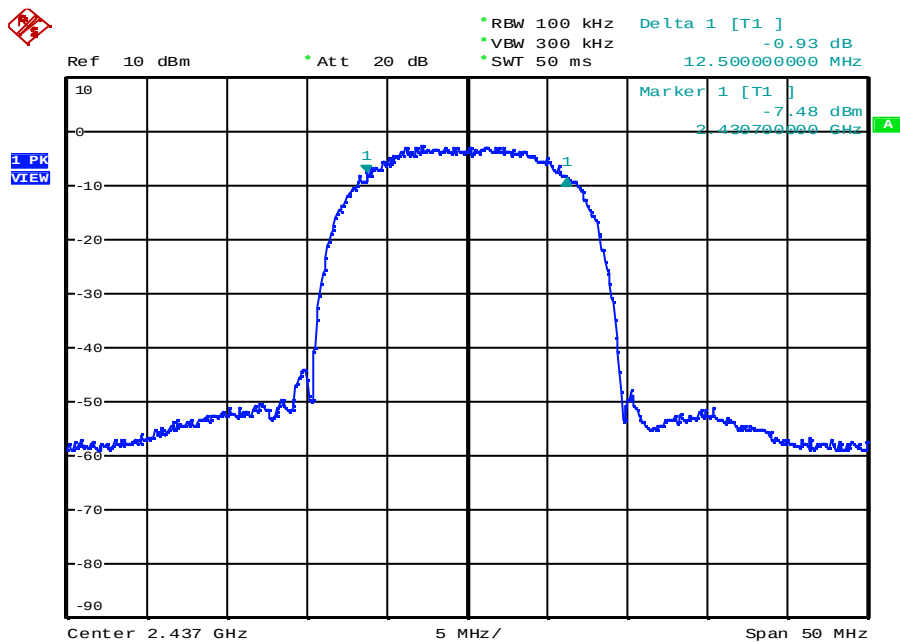
(2) Modulation Standard: IEEE 802.11g

Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

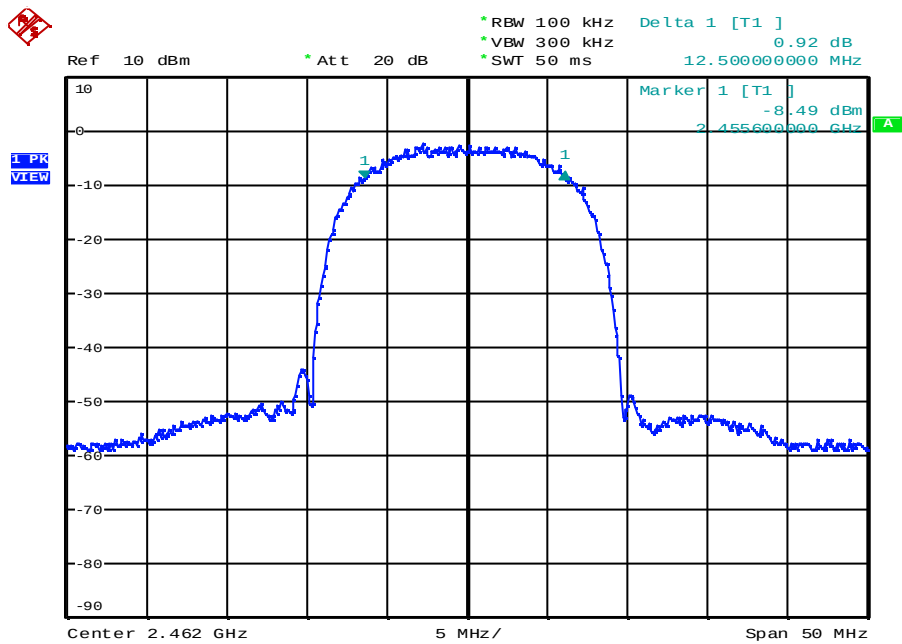
- a) Channel 01: 6dB Emission Bandwidth is 16.4 MHz
- b) Channel 06: 6dB Emission Bandwidth is 16.4 MHz
- c) Channel 11: 6dB Emission Bandwidth is 16.5 MHz



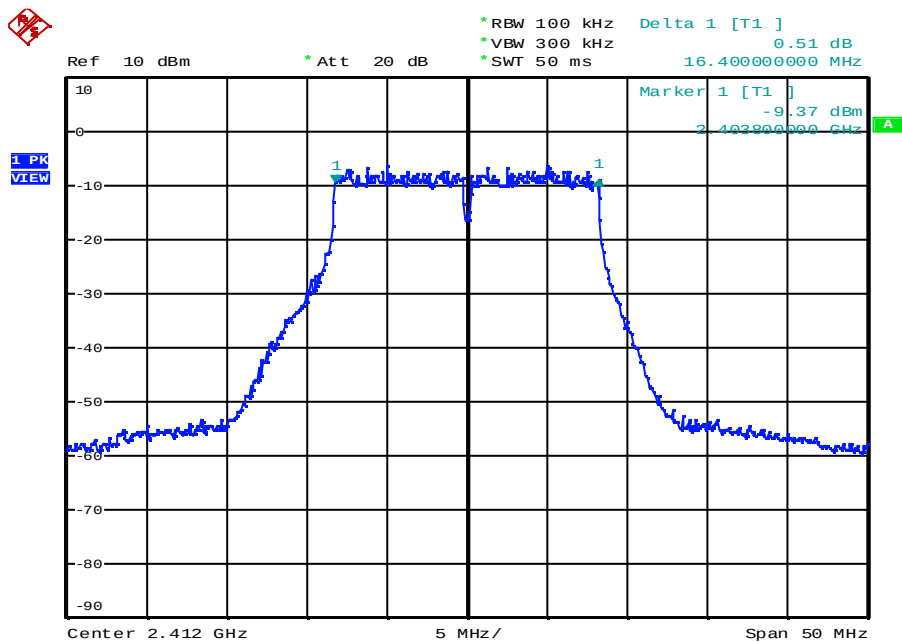
Date: 5.NOV.2004 08:14:05



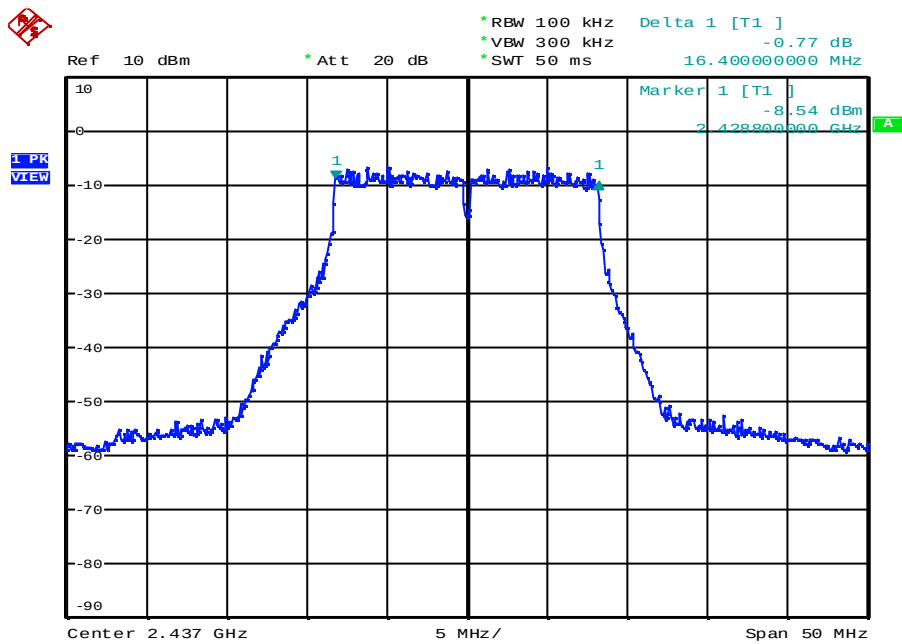
Date: 5.NOV.2004 08:16:21



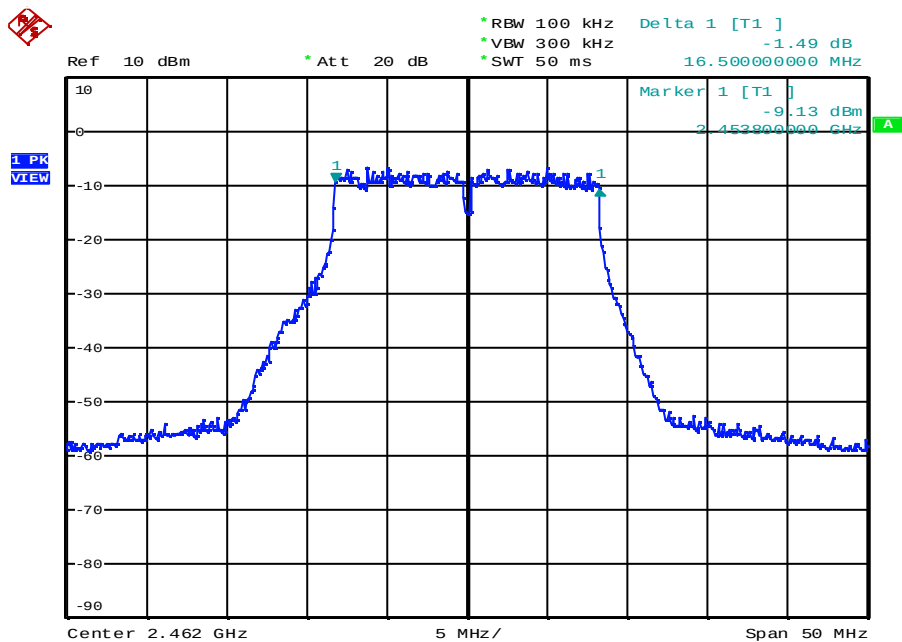
Date: 5.NOV.2004 08:18:06



Date: 5.NOV.2004 08:19:39



Date: 5.NOV.2004 08:21:21



Date: 5.NOV.2004 08:26:12

4.5. Peak Output Power Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

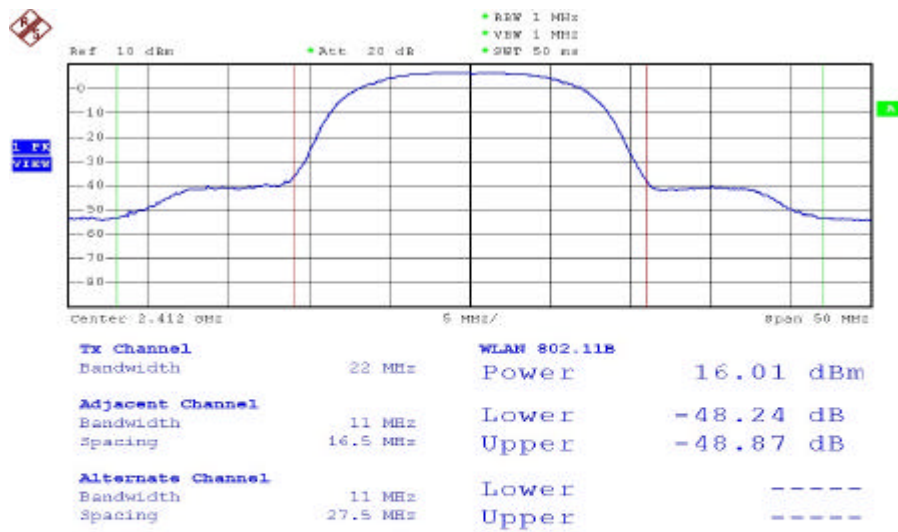
a) Channel 01: Output Peak Power is	<u>16.01</u>	dBm or	<u>39.90</u>	mW
b) Channel 06: Output Peak Power is	<u>15.98</u>	dBm or	<u>39.63</u>	mW
c) Channel 11: Output Peak Power is	<u>15.91</u>	dBm or	<u>38.99</u>	mW

(2) Modulation Standard: IEEE 802.11g

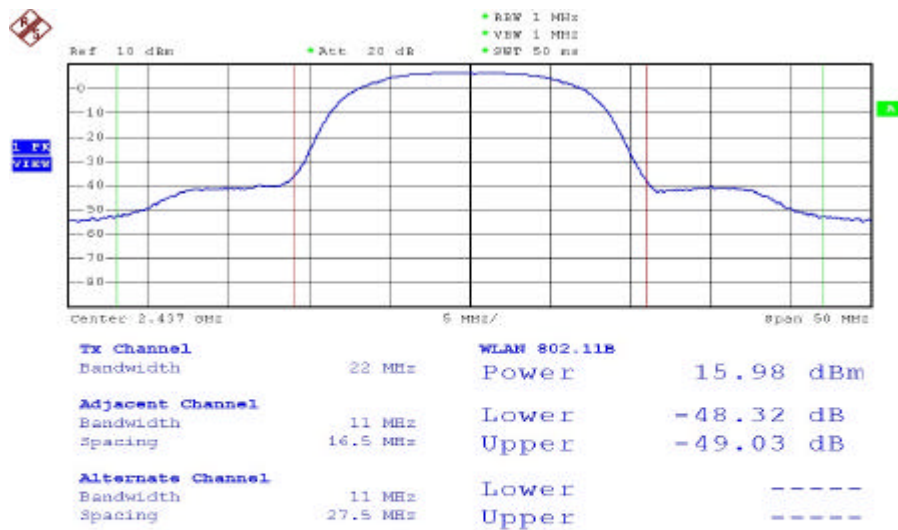
Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

a) Channel 01: Output Peak Power is	<u>15.85</u>	dBm or	<u>38.46</u>	mW
b) Channel 06: Output Peak Power is	<u>15.75</u>	dBm or	<u>37.58</u>	mW
c) Channel 11: Output Peak Power is	<u>15.71</u>	dBm or	<u>37.24</u>	mW

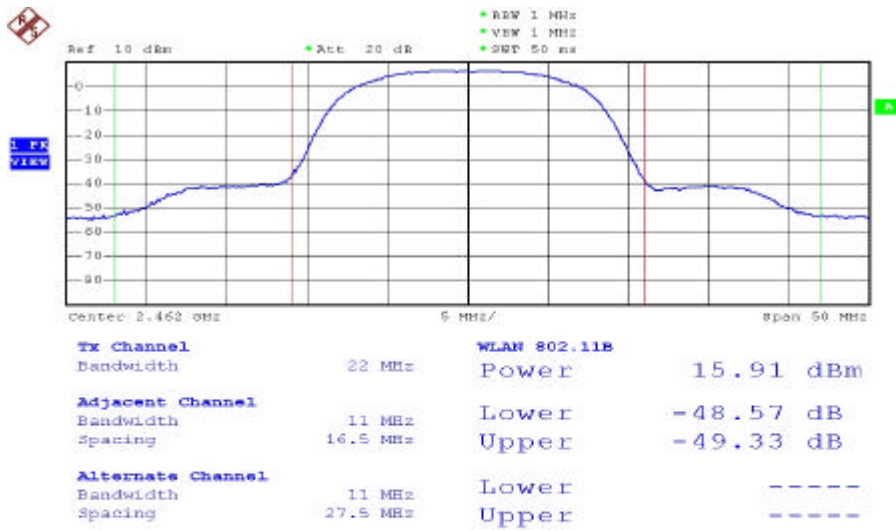
Note: Conducted Power = Reading Value + Cable Loss



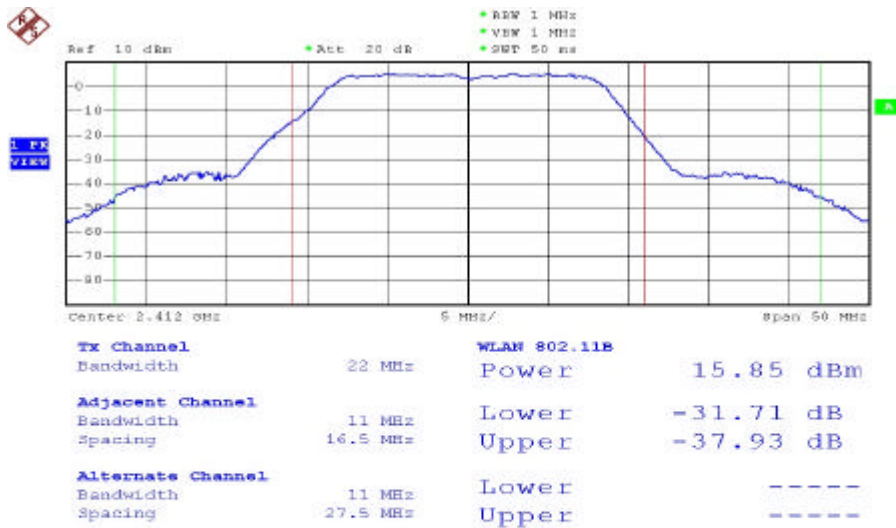
Date: 23.NOV.2004 18:22:15



Date: 23.NOV.2004 18:24:01



Date: 23.NOV.2004 18:25:00



Date: 23.NOV.2004 18:26:29



4.6. Band Edges Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

a) Lower Band Edge: maximum value is -48.34 dBm that is attenuated more than 20dB

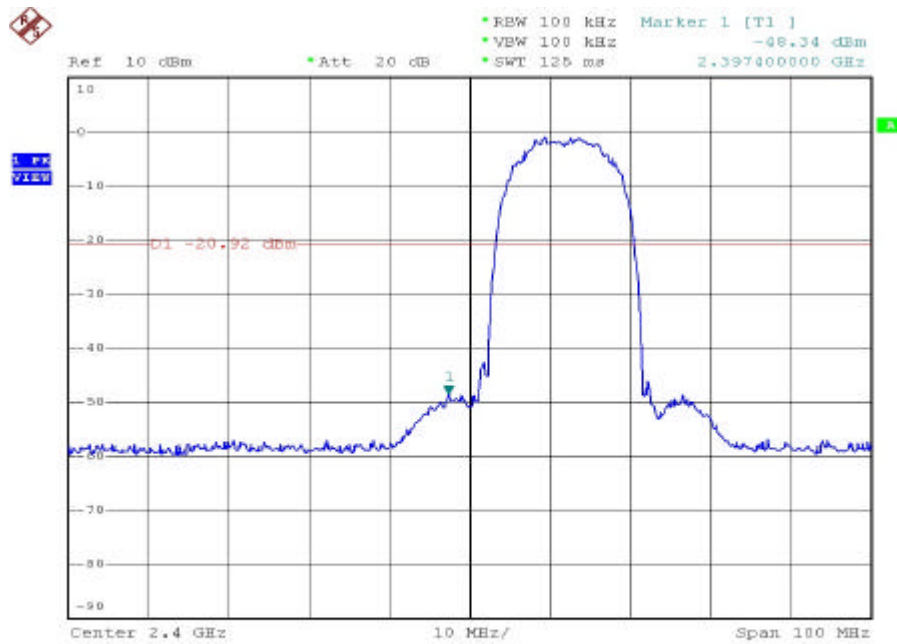
b) Upper Band Edge: maximum value is -51.69 dBm that is attenuated more than 20dB

(2) Modulation Standard: IEEE 802.11g

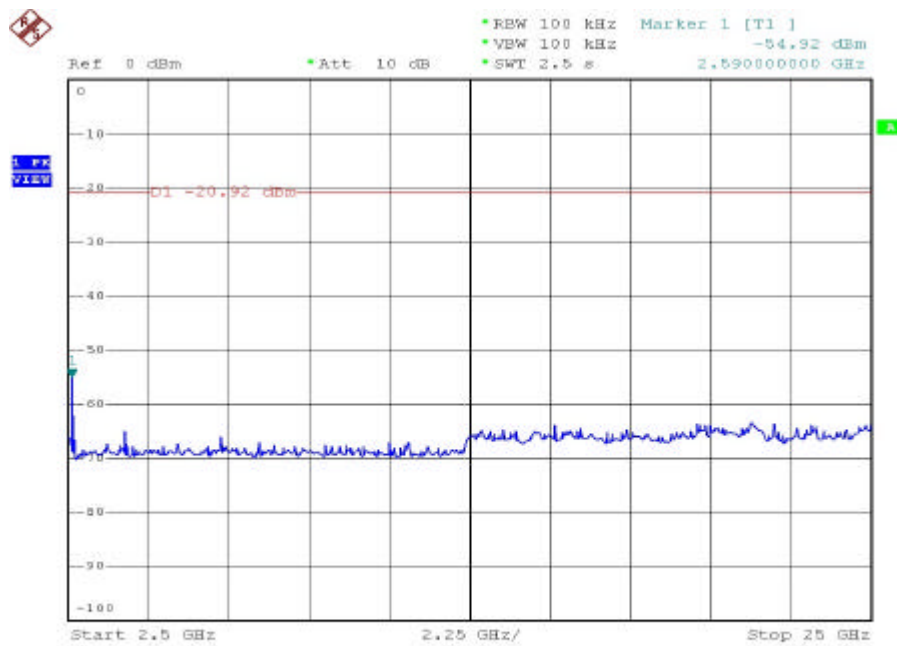
Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

a) Lower Band Edge: maximum value is -39.27 dBm that is attenuated more than 20dB

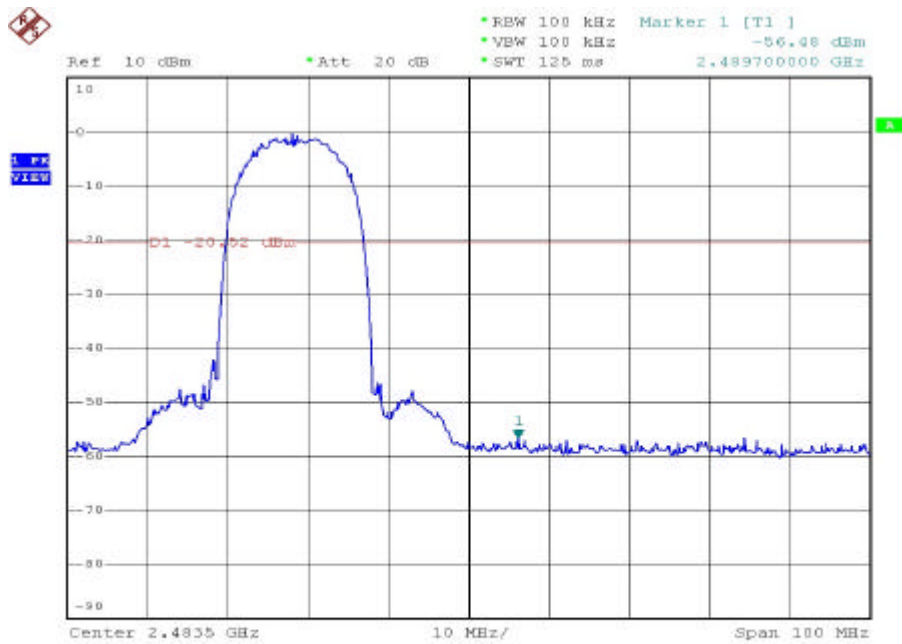
b) Upper Band Edge: maximum value is -55.74 dBm that is attenuated more than 20dB



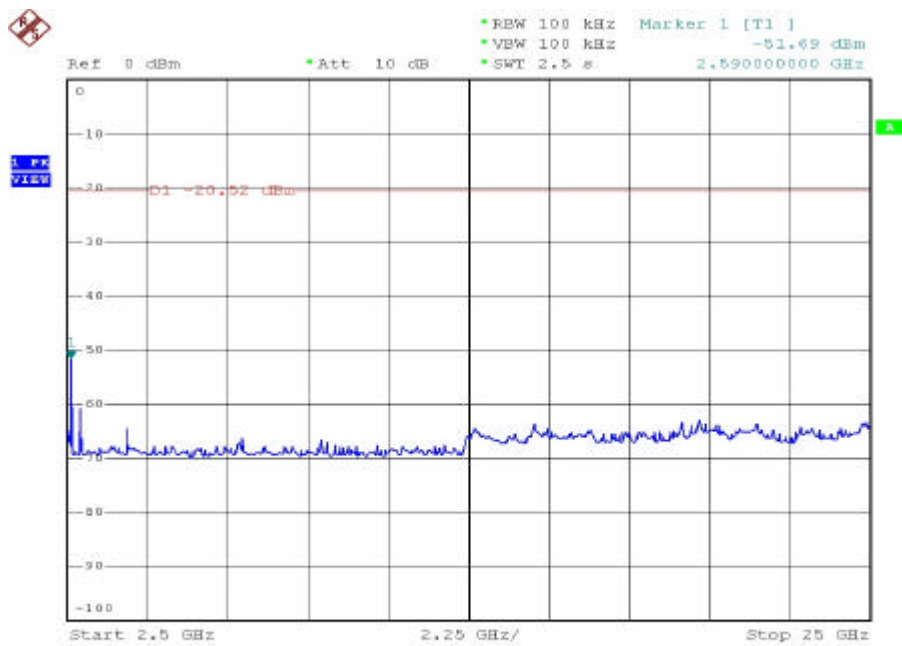
Date: 23.NOV.2004 18:31:59



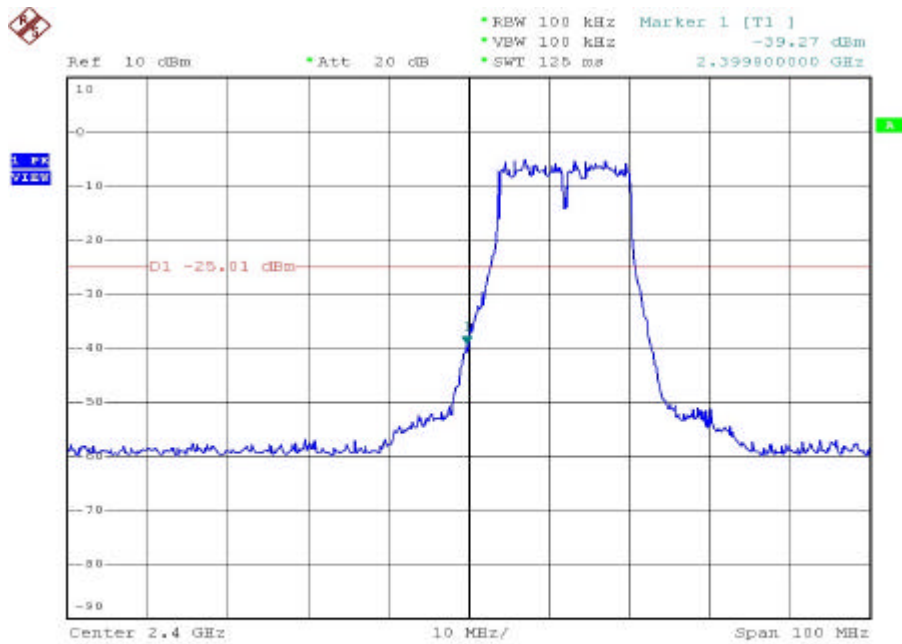
Date: 23.NOV.2004 18:32:56



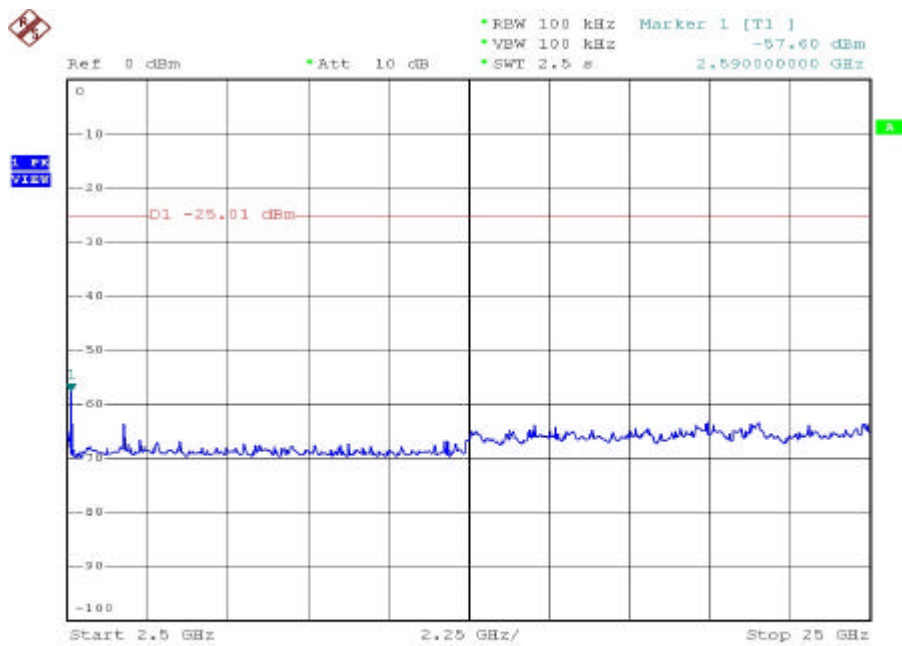
Date: 23.NOV.2004 18:34:55



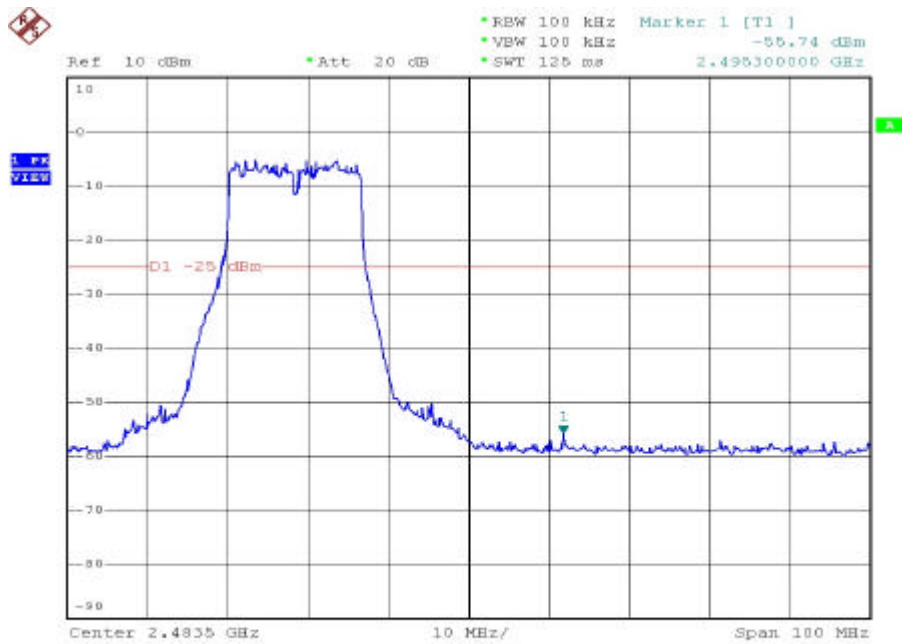
Date: 23.NOV.2004 18:36:53



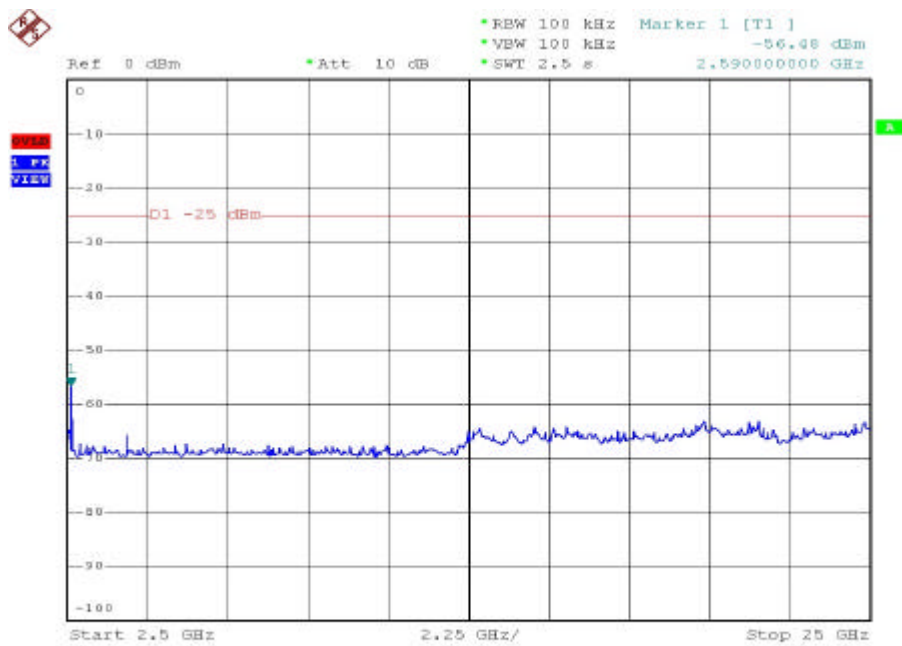
Date: 23.NOV.2004 18:38:46



Date: 23.NOV.2004 18:40:15



Date: 23.NOV.2004 18:42:02



Date: 23.NOV.2004 18:42:56

4.7. Restrict band emission Measurement Data

Test mode 1: Adaptor Model: DV-151A-1

Modulation Standard: IEEE 802.11b

Test Date: Nov. 09, 2004 Temperature: 25°C Humidity: 58%

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.			
2365.488	48.61	0.46	49.06	H	Peak	74	54	-24.93	185	1.5
2365.488	---	---	---	H	Ave.	74	54	---	---	---
2385.888	50.68	0.54	51.22	V	Peak	74	54	-22.78	195	1.5
2385.888	---	---	---	V	Ave.	74	54	---	---	---

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.			
2491.488	49.89	1.60	51.49	H	Peak	74	54	-22.51	205	1.5
2491.488	---	---	---	H	Ave.	74	54	---	---	---
2499.088	49.85	1.63	51.48	V	Peak	74	54	-22.52	190	1.5
2499.088	---	---	---	V	Ave.	74	54	---	---	---

Modulation Standard: IEEE 802.11g

Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

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.			
2325.912	49.43	0.33	49.76	H	Peak	74	54	-24.24	200	1.5
2325.912	---	---	---	H	Ave.	74	54	---	---	---
2389.968	54.13	0.55	54.68	V	Peak	74	54	-19.32	205	1.5
2389.968	38.62	0.55	39.17	V	Ave.	74	54	-14.83	205	1.5

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.			
2494.148	48.91	1.61	50.52	H	Peak	74	54	-23.48	190	1.5
2494.148	---	---	---	H	Ave.	74	54	---	---	---
2483.964	53.76	1.57	55.33	V	Peak	74	54	-18.67	195	1.5
2483.964	37.80	0.87	38.67	V	Ave.	74	54	-15.33	195	1.5

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 3MHz for Peak detection and 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: Adaptor Model: MU18-2120150-A1

Modulation Standard: IEEE 802.11b

Test Date: Nov. 24, 2004 Temperature: 24°C Humidity: 63%

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.			
2359.164	48.44	1.14	49.58	H	Peak	74	54	-24.42	195	1.5
2359.164	---	---	---	H	Ave.	74	54	---	---	---
2384.256	49.60	0.53	50.13	V	Peak	74	54	-23.87	190	1.5
2384.256	---	---	---	V	Ave.	74	54	---	---	---

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.			
2490.576	48.80	1.60	50.40	H	Peak	74	54	-23.60	215	1.5
2490.576	---	---	---	H	Ave.	74	54	---	---	---
2487.232	50.19	0.89	51.08	V	Peak	74	54	-22.82	225	1.5
2487.232	---	---	---	V	Ave.	74	54	---	---	---

Modulation Standard: IEEE 802.11g

Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

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.			
2312.652	48.77	0.98	49.75	H	Peak	74	54	-24.25	190	1.5
2312.652	---	---	---	H	Ave.	74	54	---	---	---
2398.968	53.09	0.55	53.64	V	Peak	74	54	-20.36	200	1.5
2389.968	38.05	0.55	38.60	V	Ave.	74	54	-15.40	200	1.5

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.			
2492.476	48.52	1.60	50.12	H	Peak	74	54	-23.88	185	1.5
2492.476	---	---	---	H	Ave.	74	54	---	---	---
2483.508	55.87	0.87	56.74	V	Peak	74	54	-17.26	210	1.5
2483.508	37.82	0.87	38.69	V	Ave.	74	54	-15.31	210	1.5

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 3MHz for Peak detection and 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 3: Adaptor Model: ADS6818-1812-W 1215

Modulation Standard: IEEE 802.11b

Test Date: Nov. 24, 2004 Temperature: 24°C Humidity: 63%

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.			
2382.216	48.84	1.22	50.06	H	Peak	74	54	-23.94	205	1.5
2382.216	---	---	---	H	Ave.	74	54	---	---	---
2386.296	49.92	0.54	50.46	V	Peak	74	54	-23.54	215	1.5
2386.296	---	---	---	V	Ave.	74	54	---	---	---

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.			
2483.660	47.30	1.57	48.87	H	Peak	74	54	-25.13	200	1.5
2483.660	---	---	---	H	Ave.	74	54	---	---	---
2491.184	50.03	0.90	50.93	V	Peak	74	54	-23.07	195	1.5
2491.184	---	---	---	V	Ave.	74	54	---	---	---

Modulation Standard: IEEE 802.11g

Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

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.			
2375.076	48.73	1.20	49.93	H	Peak	74	54	-24.07	195	1.5
2375.076	---	---	---	H	Ave.	74	54	---	---	---
2389.968	52.08	0.55	52.63	V	Peak	74	54	-21.37	205	1.5
2389.968	38.08	0.55	38.63	V	Ave.	74	54	-15.37	205	1.5

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.			
2489.132	48.54	1.59	50.13	H	Peak	74	54	-23.87	195	1.5
2489.132	---	---	---	H	Ave.	74	54	---	---	---
2484.040	55.11	0.87	55.98	V	Peak	74	54	-18.02	190	1.5
2483.508	37.55	0.87	38.42	V	Ave.	74	54	-15.58	190	1.5

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 3MHz for Peak detection and 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 4: Adaptor Model: DSA-0151F-12 A

Modulation Standard: IEEE 802.11b

Test Date: Dec. 13, 2004 Temperature: 24°C Humidity: 63%

c) 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.			
2383.310	48.06	1.22	49.28	H	Peak	74	54	-24.72	195	1.5
2383.310	---	---	---	H	Ave.	74	54	---	---	---
2386.296	49.86	0.54	50.40	V	Peak	74	54	-24.14	210	1.5
2386.296	---	---	---	V	Ave.	74	54	---	---	---

d) 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.			
2483.660	46.55	1.57	48.12	H	Peak	74	54	-25.88	200	1.5
2483.660	---	---	---	H	Ave.	74	54	---	---	---
2491.184	50.18	0.90	51.08	V	Peak	74	54	-23.82	205	1.5
2491.184	---	---	---	V	Ave.	74	54	---	---	---

Modulation Standard: IEEE 802.11g

Test Date: Dec. 13, 2004 Temperature: 24°C Humidity: 63%

c) 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.			
2389.968	48.83	1.20	50.03	H	Peak	74	54	-23.97	195	1.5
2389.968	---	---	---	H	Ave.	74	54	---	---	---
2389.968	52.68	0.55	53.23	V	Peak	74	54	-11.32	190	1.5
2389.968	38.89	0.55	39.44	V	Ave.	74	54	-15.11	200	1.5

d) 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.			
2483.508	48.75	1.57	50.32	H	Peak	74	54	-23.68	195	1.5
2483.508	---	---	---	H	Ave.	74	54	---	---	---
2484.040	55.48	0.87	56.35	V	Peak	74	54	-18.52	200	1.5
2483.508	37.83	0.87	38.70	V	Ave.	74	54	-16.17	195	1.5

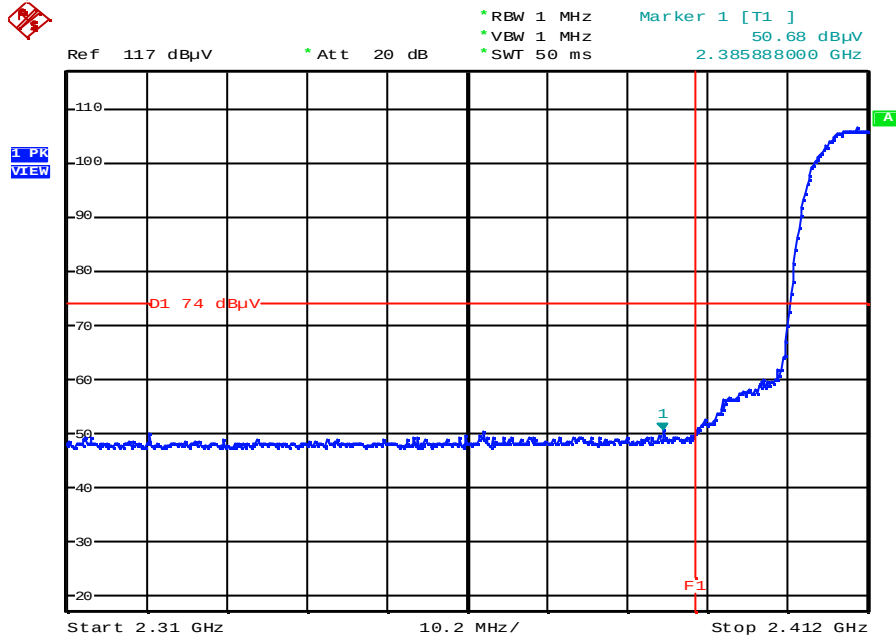
Notes:

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 3MHz for Peak detection and 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.

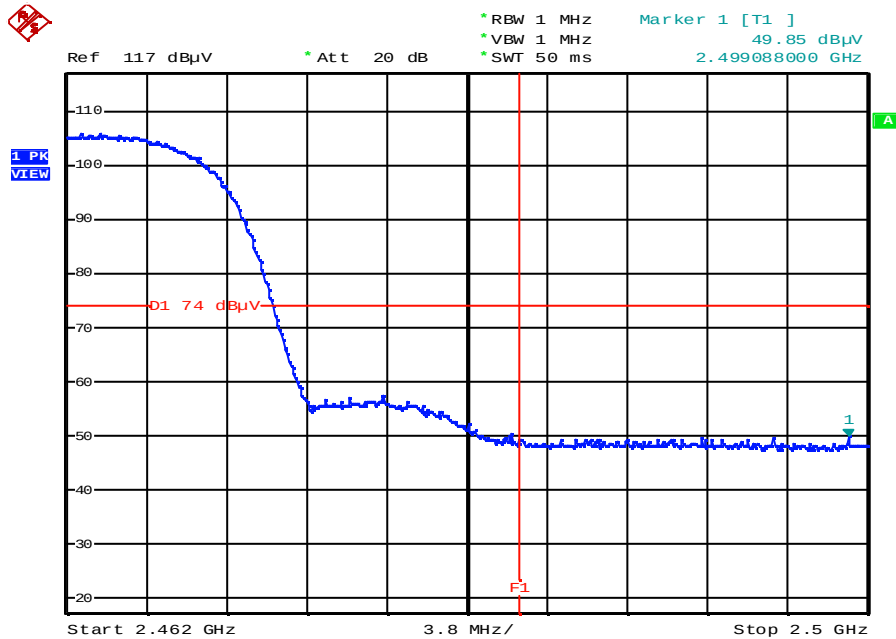
Test mode 1: Adaptor Model: DV-151A-1

Modulation Standard: IEEE 802.11b

Pol/Phase: Vertical



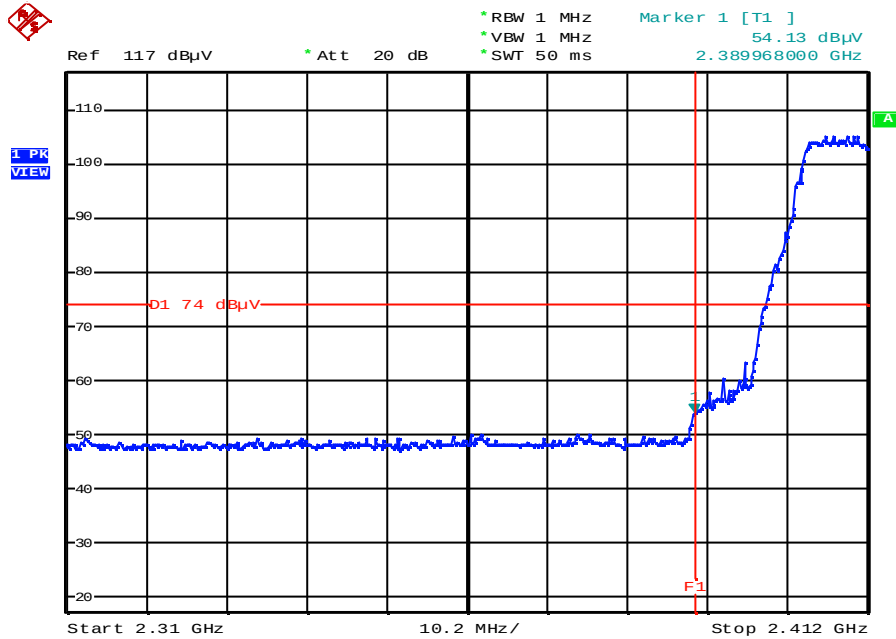
Date: 9.NOV.2004 07:33:54



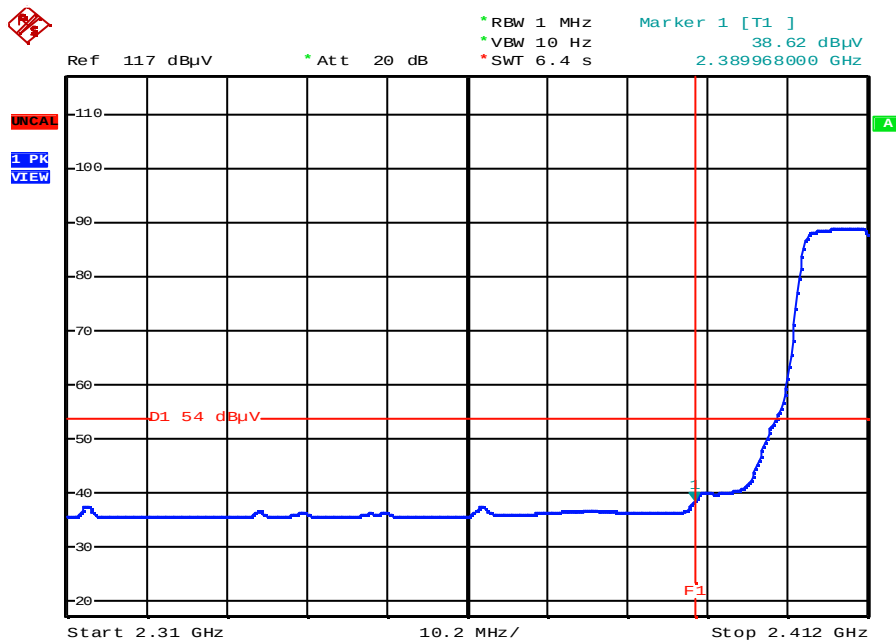
Date: 9.NOV.2004 07:25:52

Modulation Standard: IEEE 802.11g

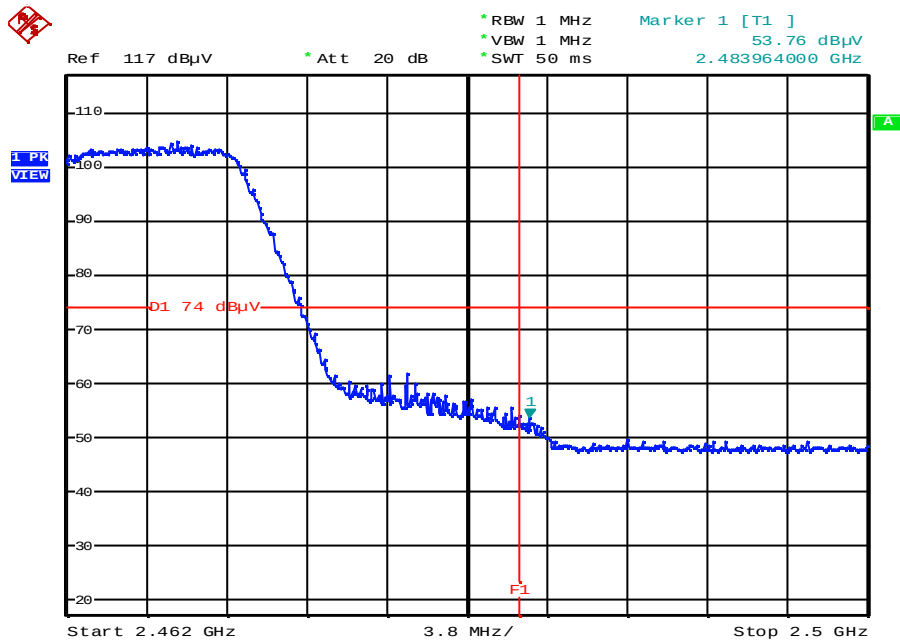
Pol/Phase: Vertical



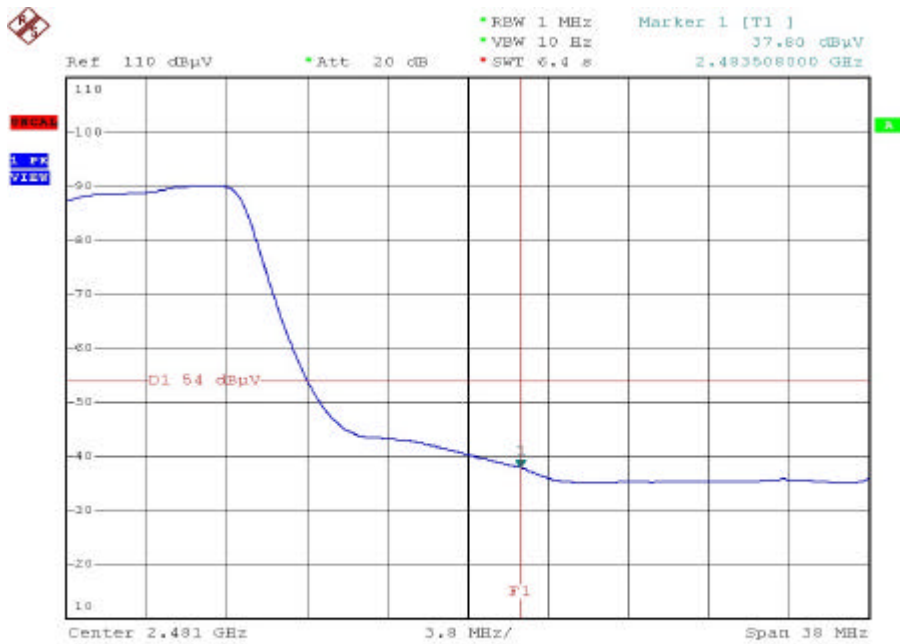
Date: 9.NOV.2004 07:36:24



Date: 9.NOV.2004 07:39:34



Date: 9.NOV.2004 07:21:32

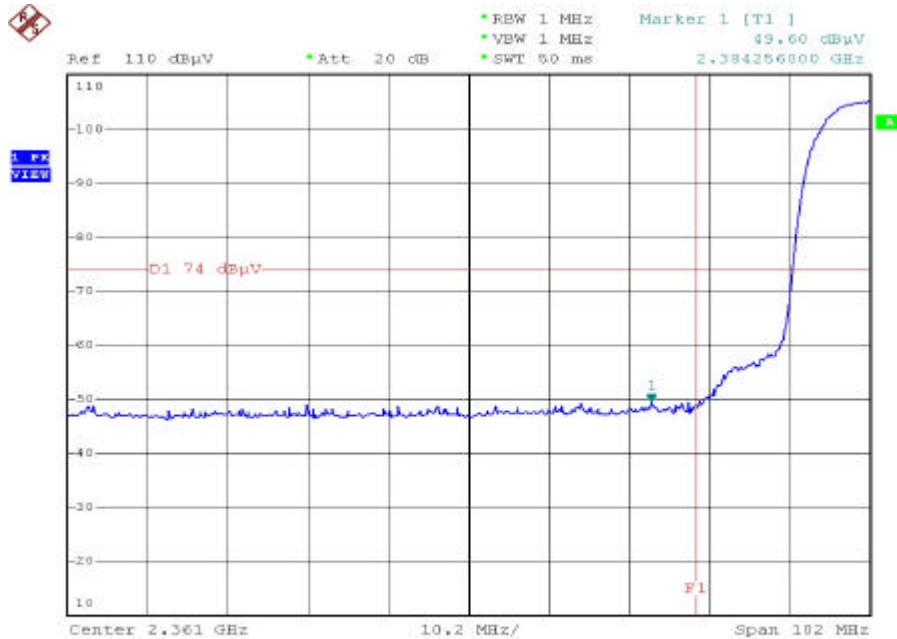


Date: 9.NOV.2004 15:12:22

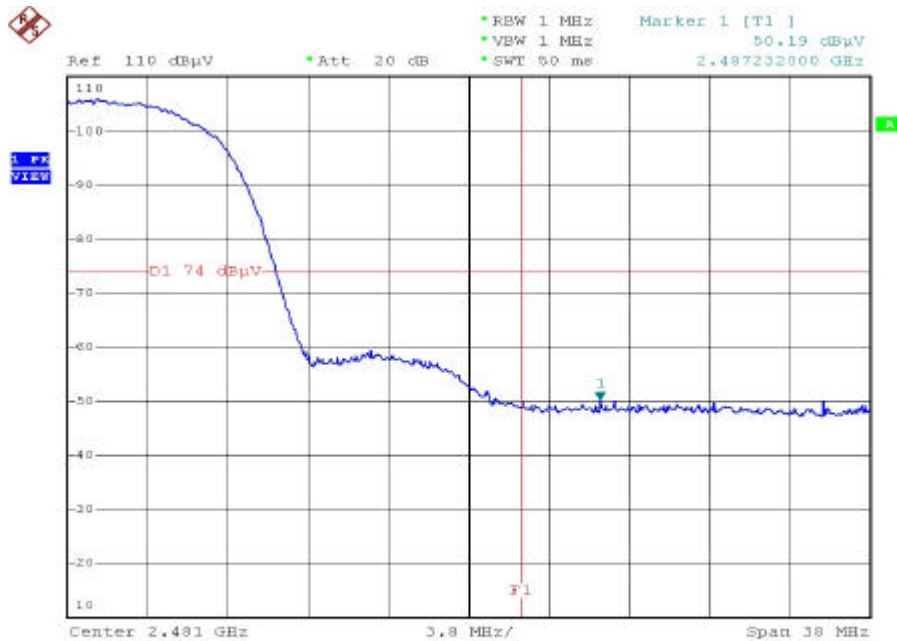
Test mode 2: Adaptor Model: MU18-2120150-A1

Modulation Standard: IEEE 802.11b

Pol/Phase: Vertical



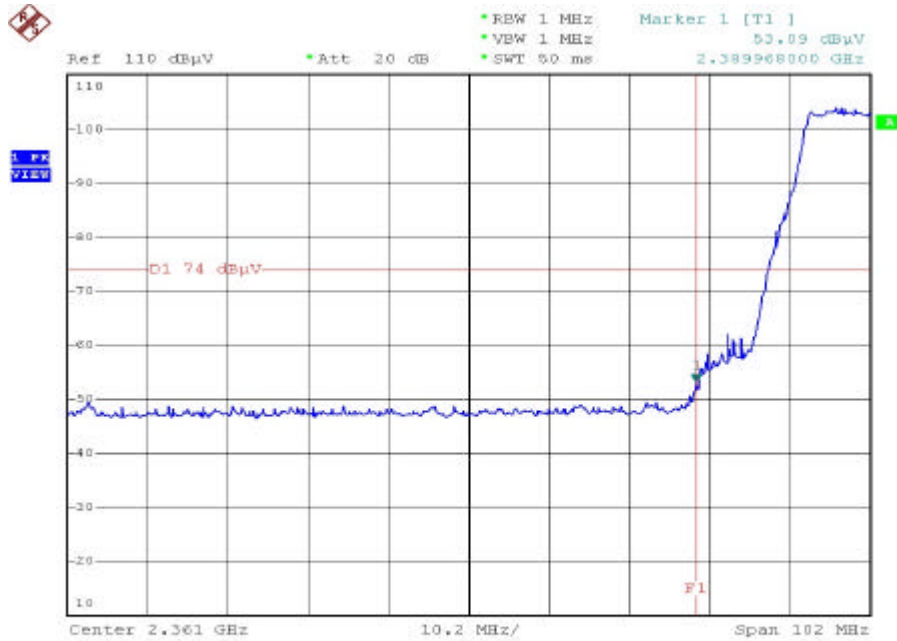
Date: 24.NOV.2004 15:20:34



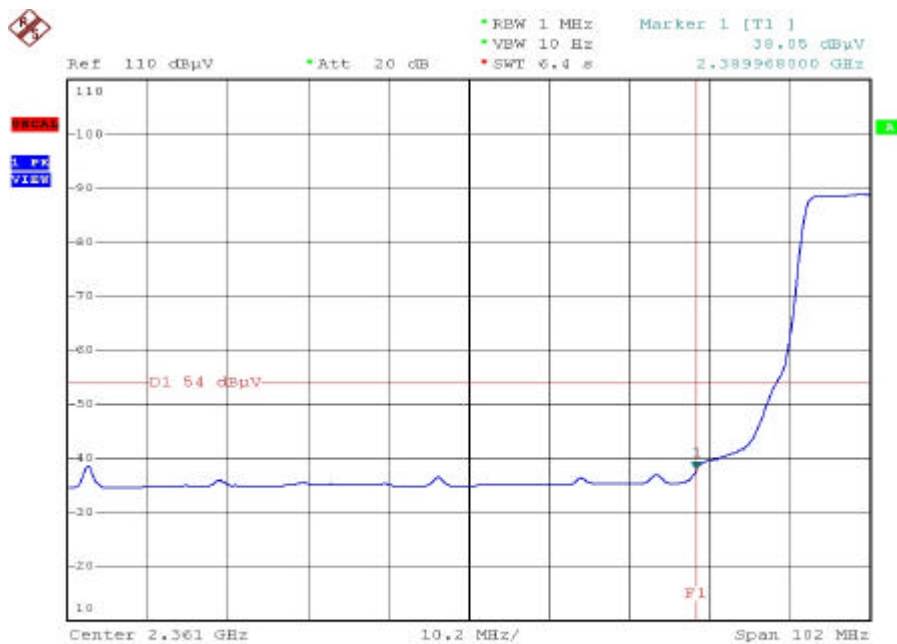
Date: 24.NOV.2004 15:16:44

Modulation Standard: IEEE 802.11g

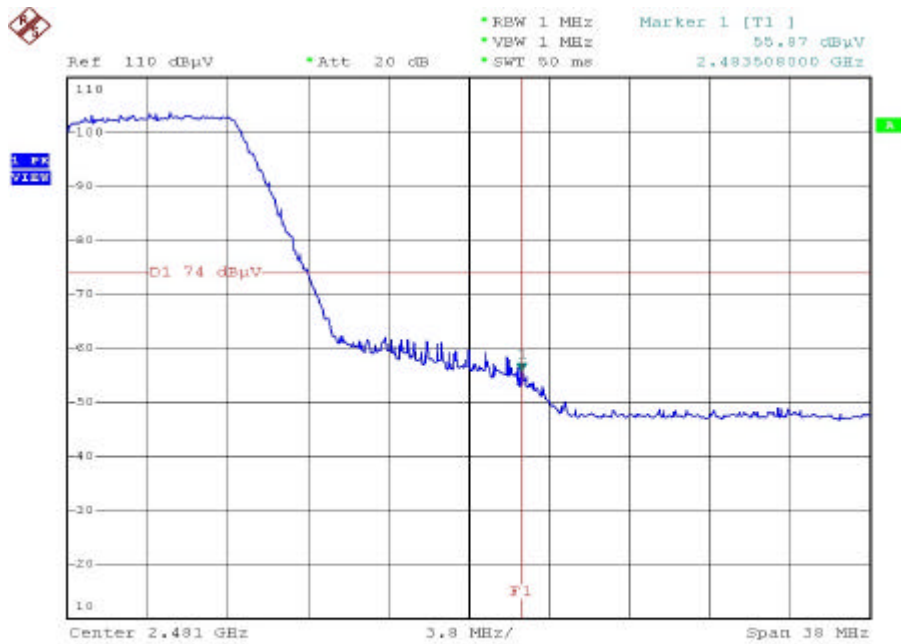
Pol/Phase: Vertical



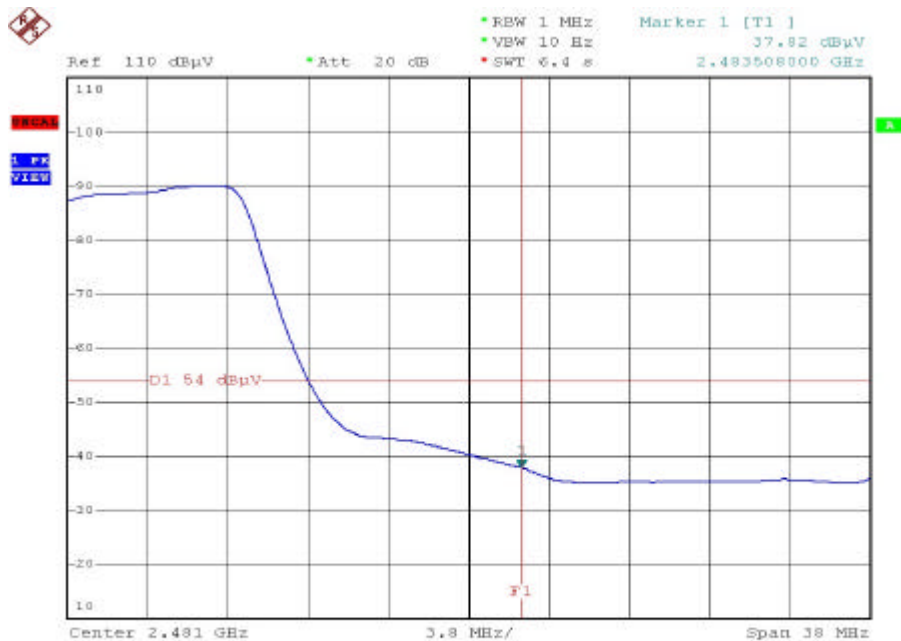
Date: 24.NOV.2004 15:23:40



Date: 24.NOV.2004 15:25:44



Date: 24.NOV.2004 15:10:34

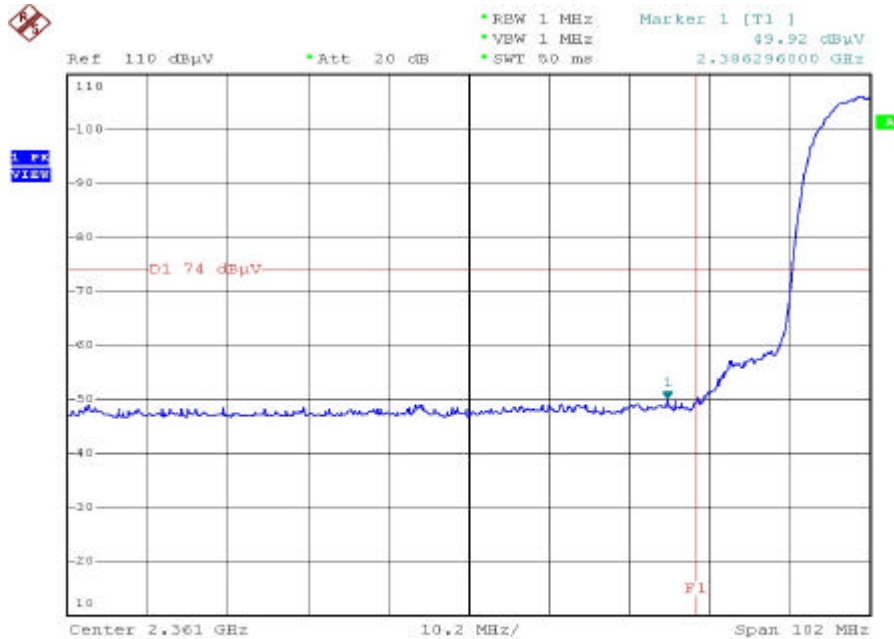


Date: 24.NOV.2004 15:12:22

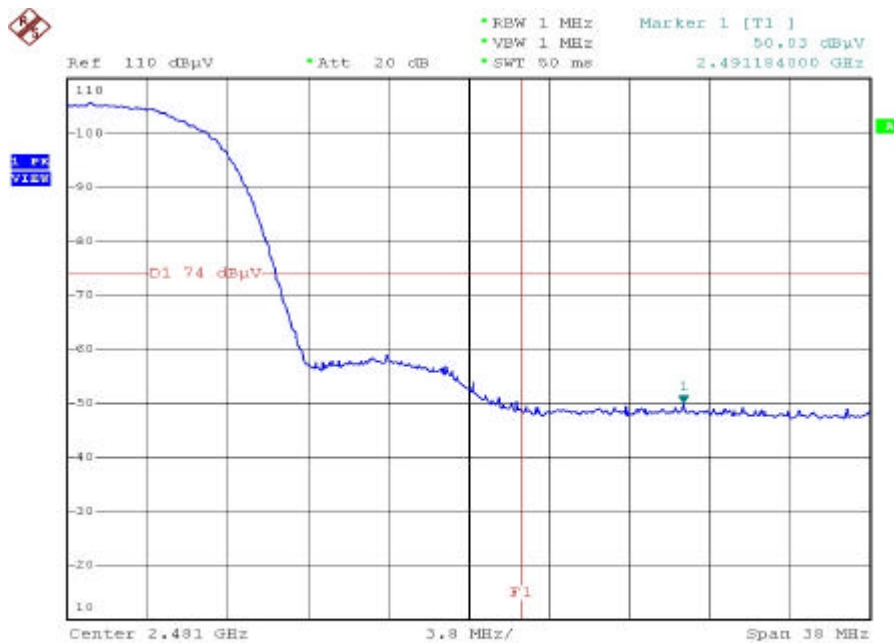
Test mode 3: Adaptor Model: ADS6818-1812-W 1215

Modulation Standard: IEEE 802.11b

Pol/Phase: Vertical



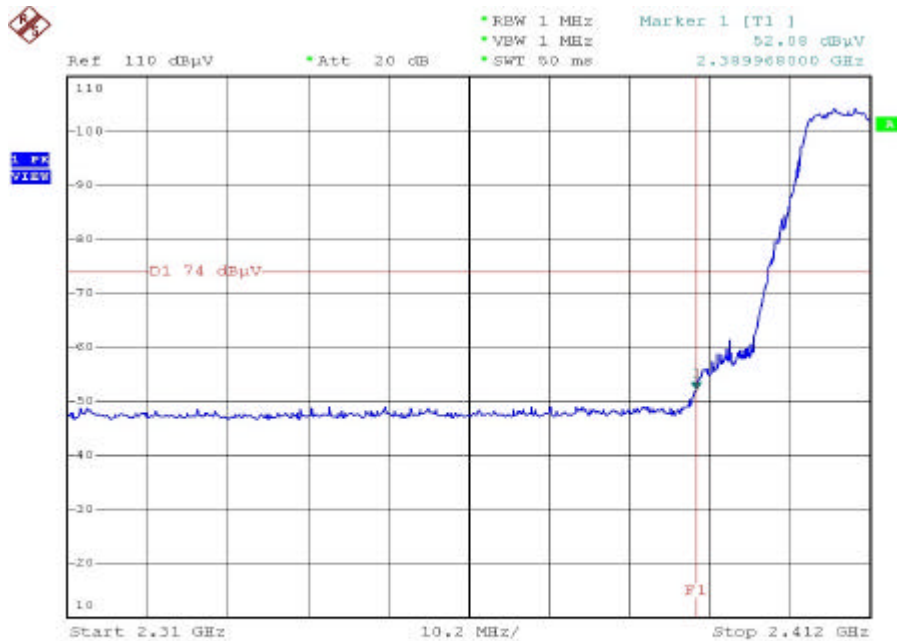
Date: 24.NOV.2004 14:00:28



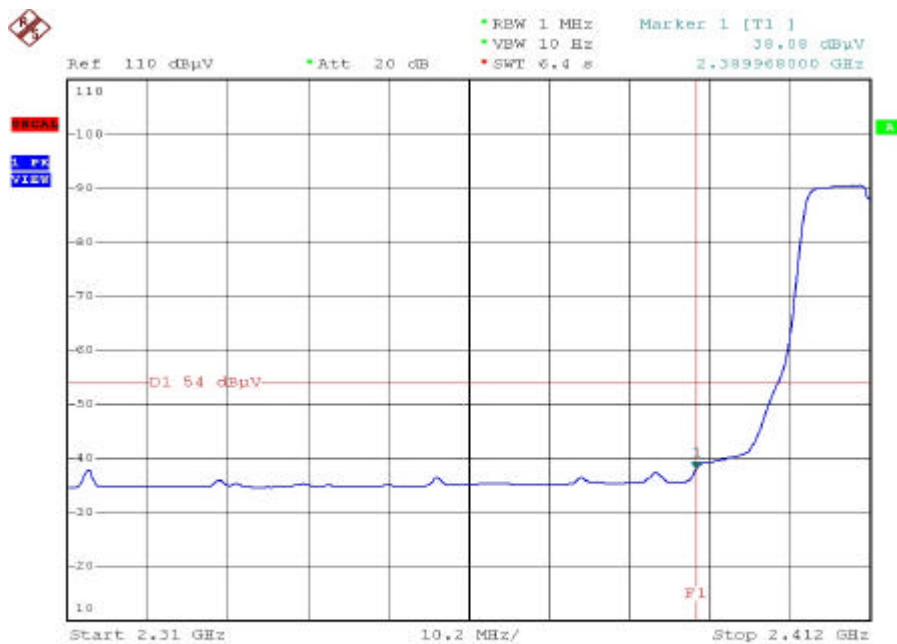
Date: 24.NOV.2004 14:14:27

Modulation Standard: IEEE 802.11g

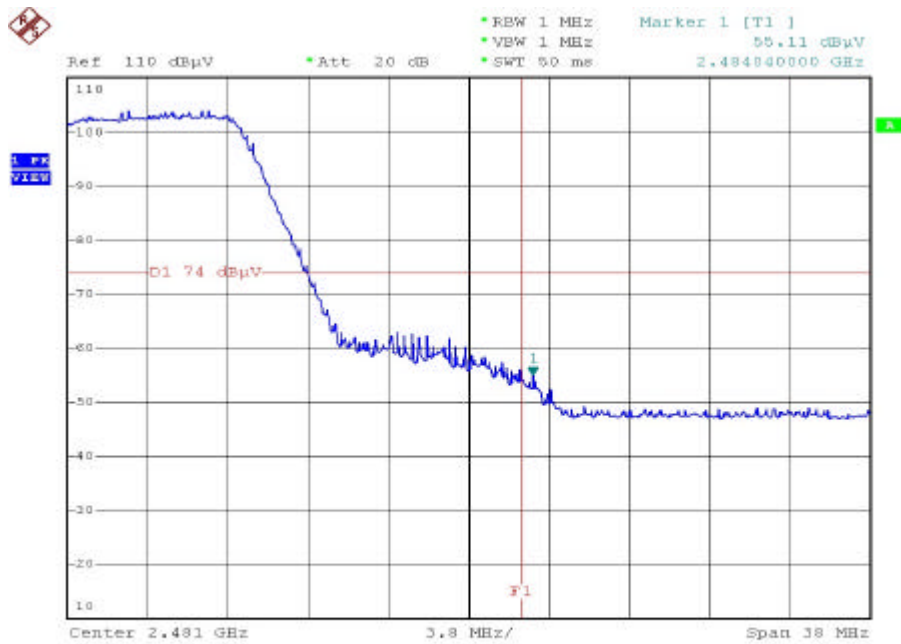
Pol/Phase: Vertical



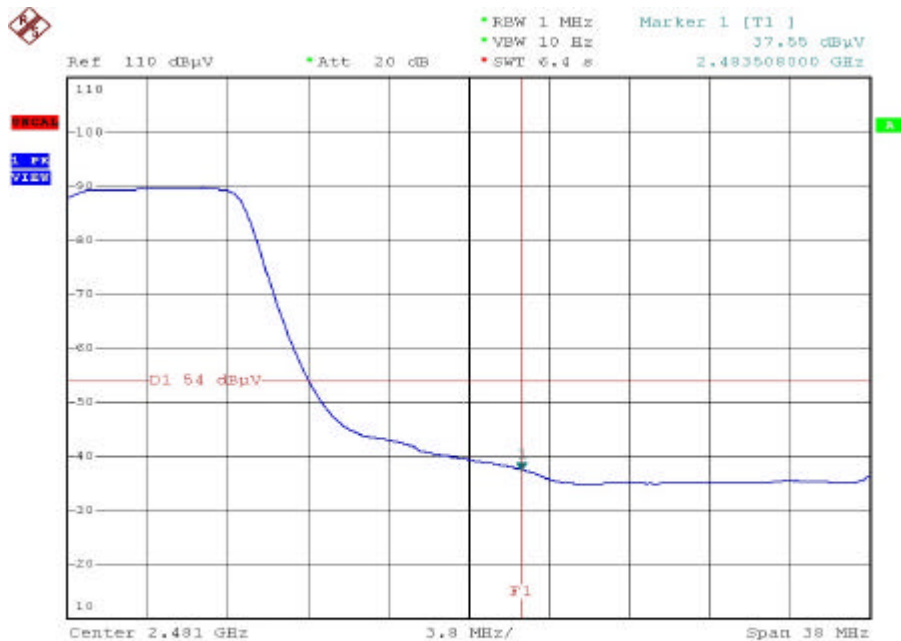
Date: 24.NOV.2004 14:06:40



Date: 24.NOV.2004 14:10:06



Date: 24.NOV.2004 14:17:36

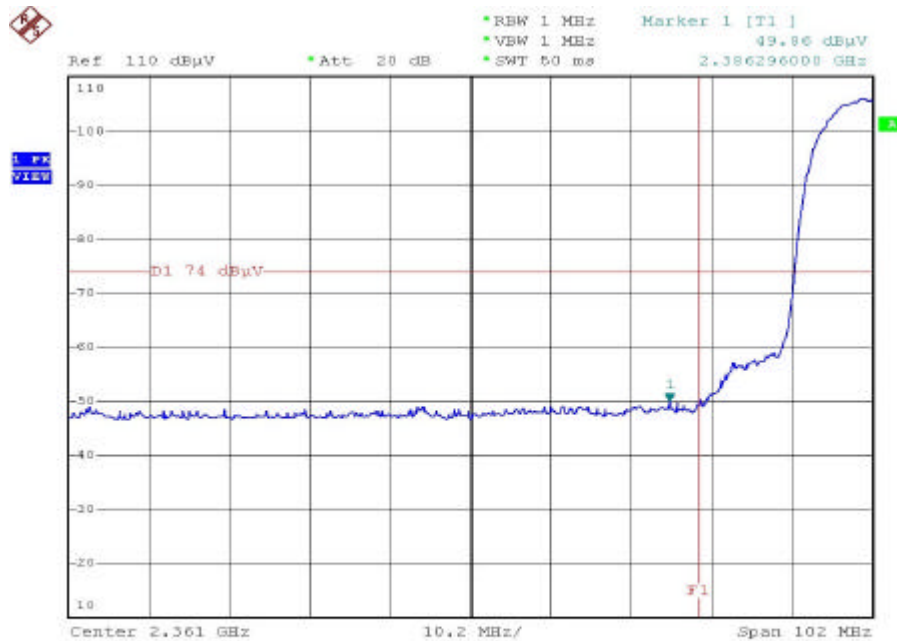


Date: 24.NOV.2004 14:21:31

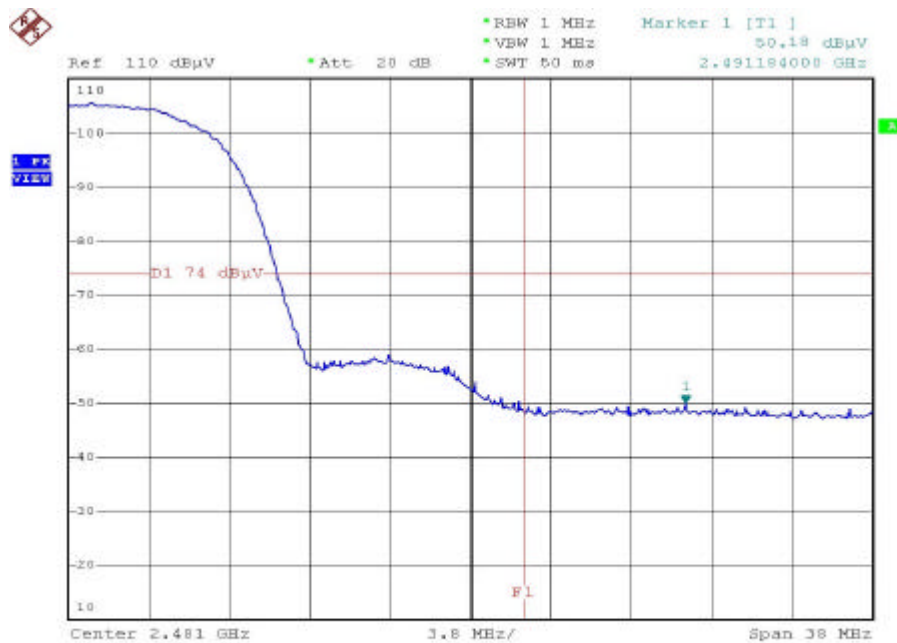
Test mode 4: Adaptor Model: DSA-0151F-12 A

Modulation Standard: IEEE 802.11b

Pol/Phase: Vertical



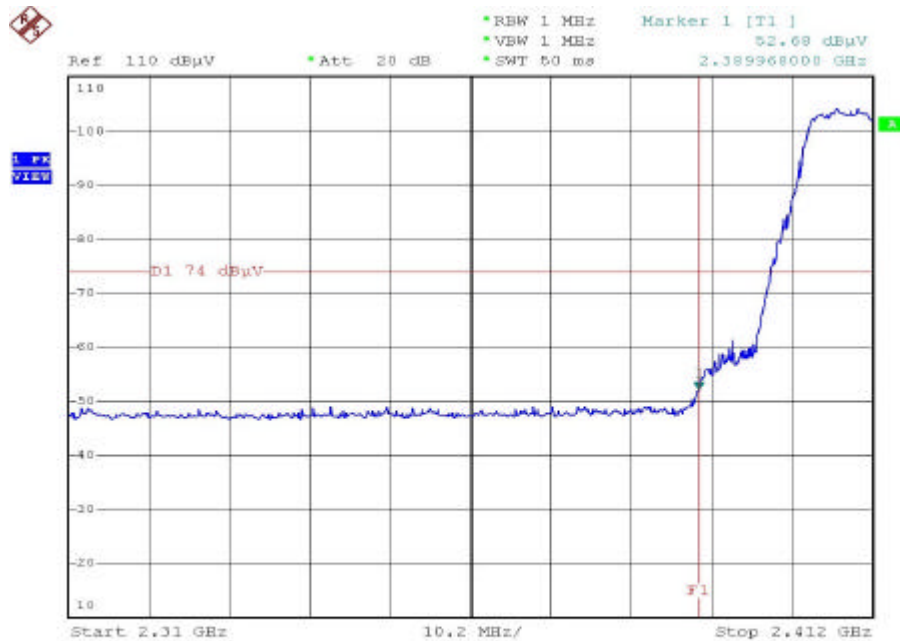
Date: 13.DEC.2004 14:28:00



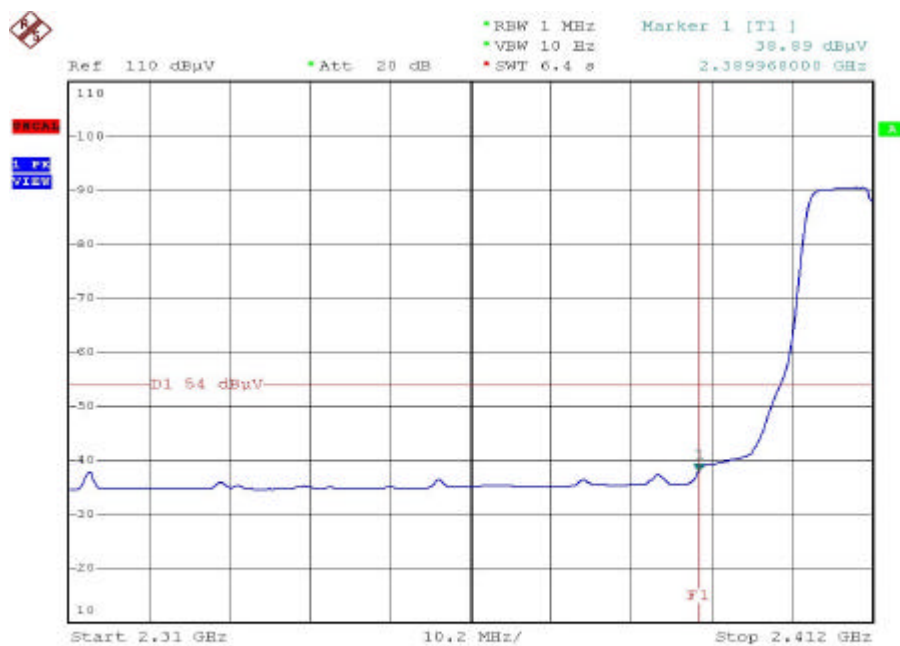
Date: 13.DEC.2004 14:27:24

Modulation Standard: IEEE 802.11g

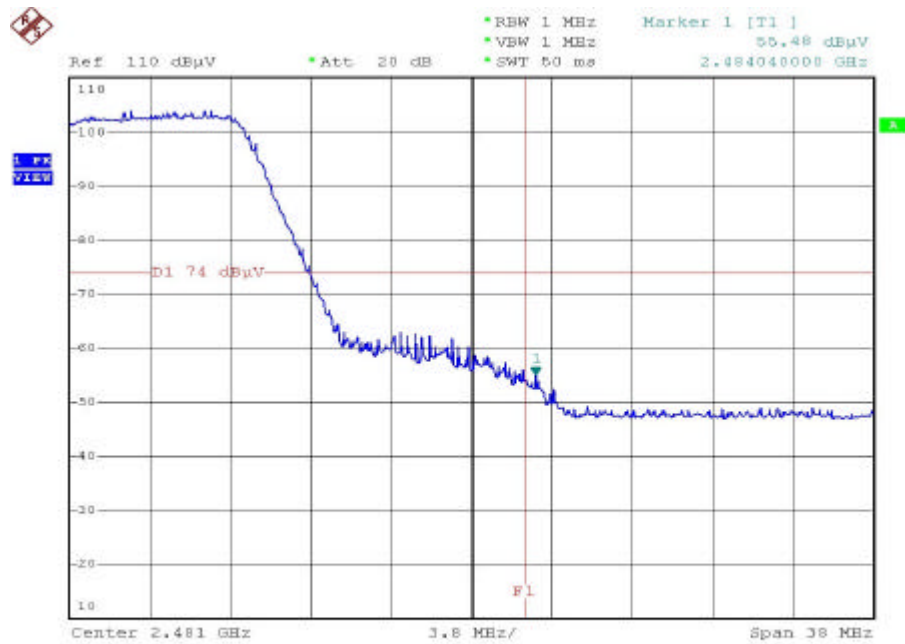
Pol/Phase: Vertical



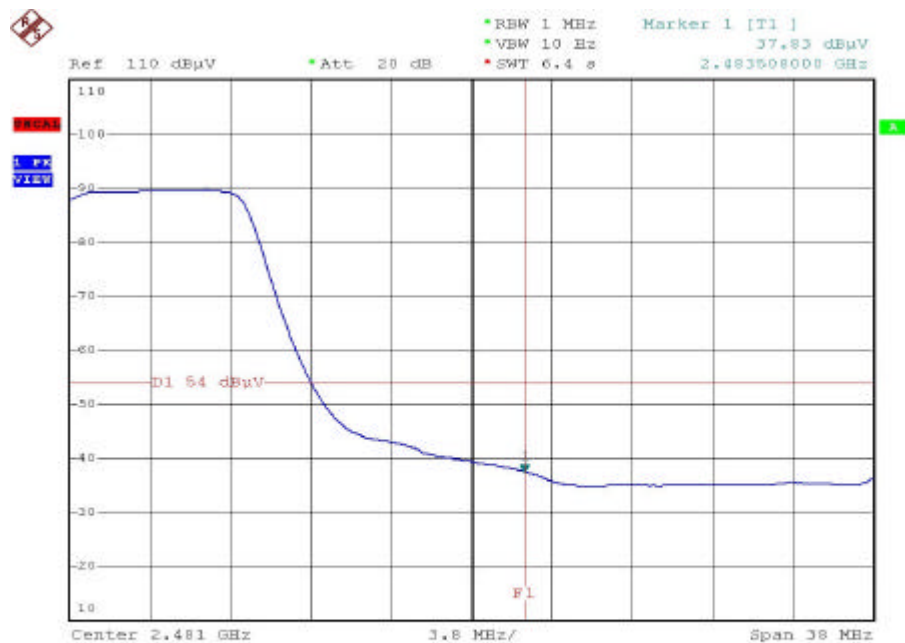
Date: 13.DEC.2004 14:40:06



Date: 13.DEC.2004 14:10:06



Date: 13.DEC.2004 14:17:36



Date: 13.DEC.2004 14:31:21

4.8. Power Spectral Density Measurement Data

(1) Modulation Standard: IEEE 802.11b

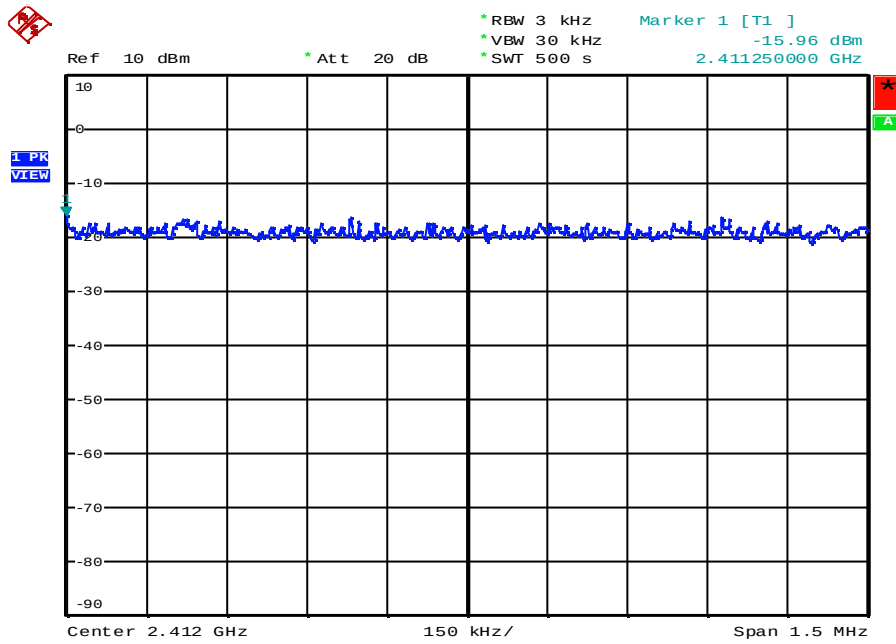
Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

- a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -15.96 dBm
- b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -16.04 dBm
- c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -16.23 dBm

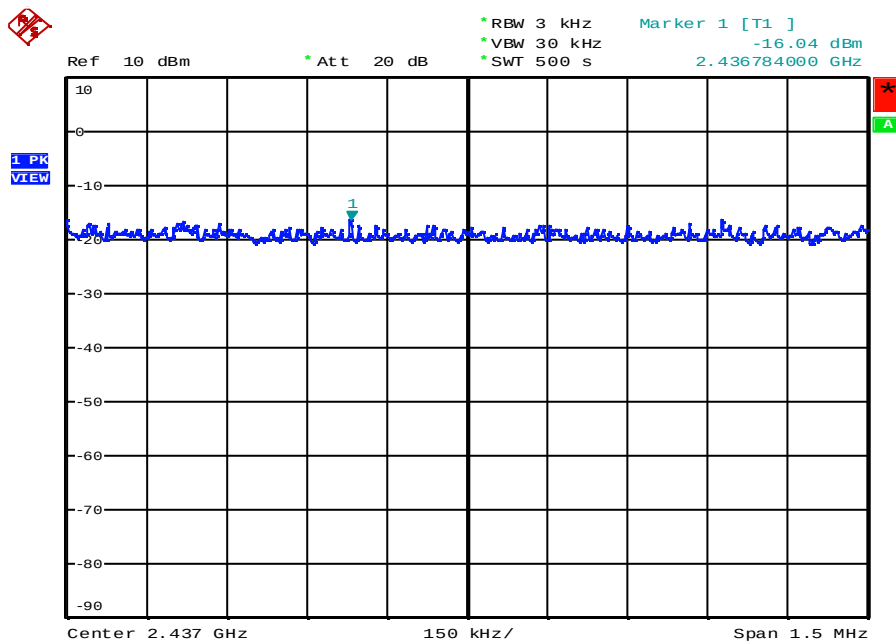
(2) Modulation Standard: IEEE 802.11g

Test Date: Nov. 05, 2004 Temperature: 26°C Humidity: 52%

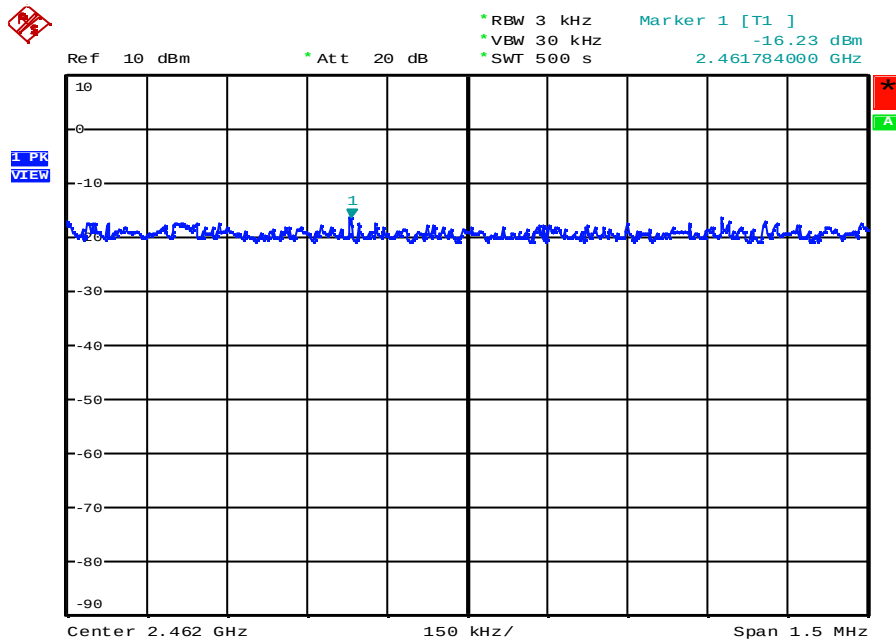
- a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -19.38 dBm
- b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -19.25 dBm
- c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -19.33 dBm



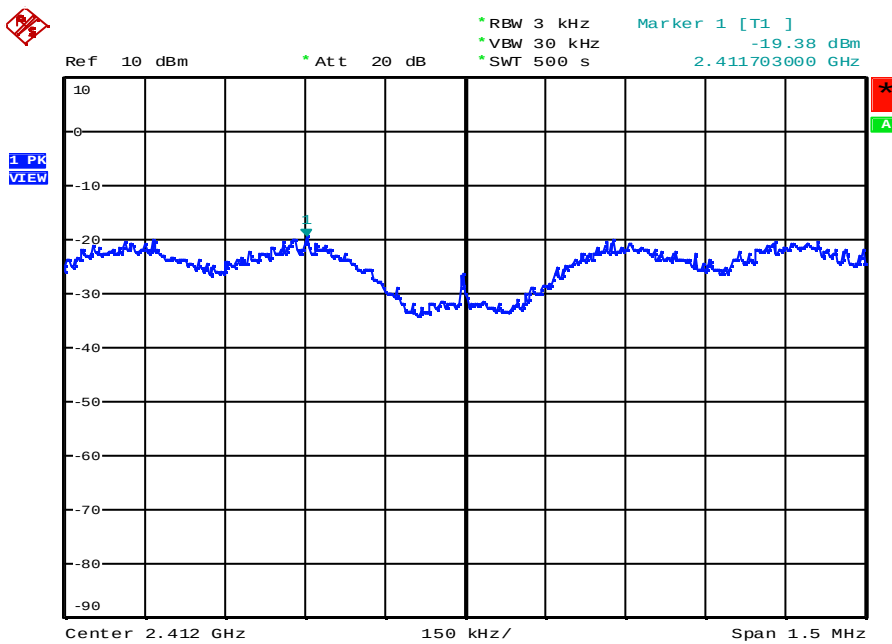
Date: 5.NOV.2004 09:27:07



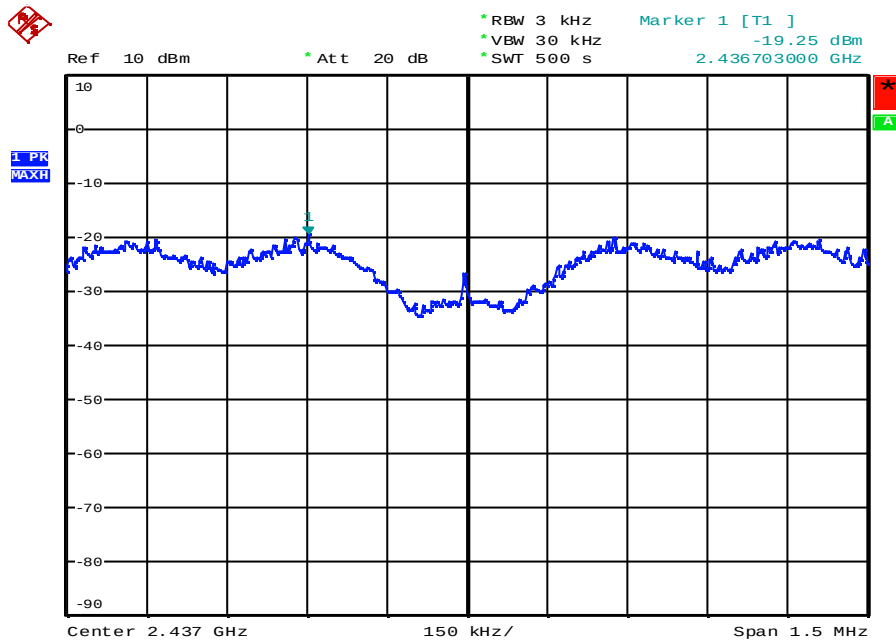
Date: 5.NOV.2004 09:36:52



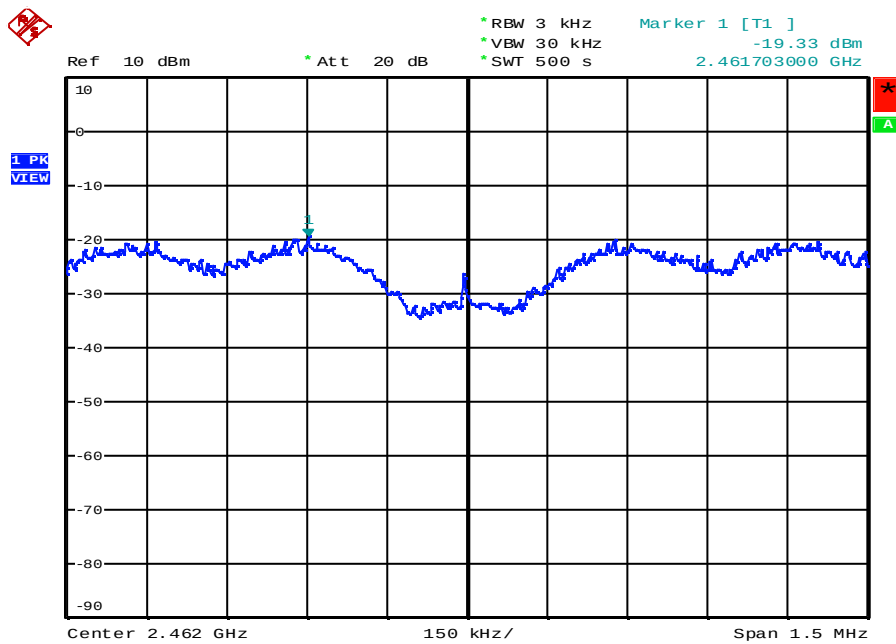
Date: 5.NOV.2004 10:22:21



Date: 5.NOV.2004 10:12:59



Date: 5.NOV.2004 10:38:48



Date: 5.NOV.2004 10:54:04

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	2004/12/16
13	Preamplifier	8449B	Agilent	3008A01954	2005/01/04
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	2004/12/16
22	Attenuator	8491B	Agilent	50705	2004/12/16
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