4.4. 6dB Bandwidth Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 27, 2004 Temperature: 25℃ Humidity: 62%

a) Channel 01: 6dB Emission Bandwidth is 12.5 MHz

b) Channel 06: 6dB Emission Bandwidth is 12.3 MHz

c) Channel 11: 6dB Emission Bandwidth is 12.0 MHz

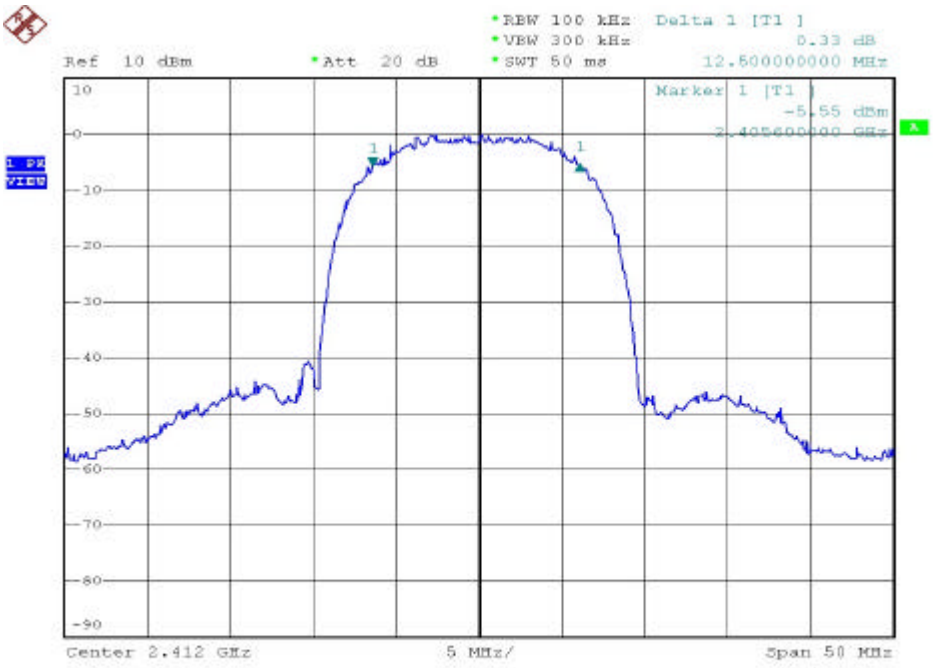
(2) Modulation Standard: IEEE 802.11g

Test Date: Aug. 27, 2004 Temperature: 25℃ Humidity: 62%

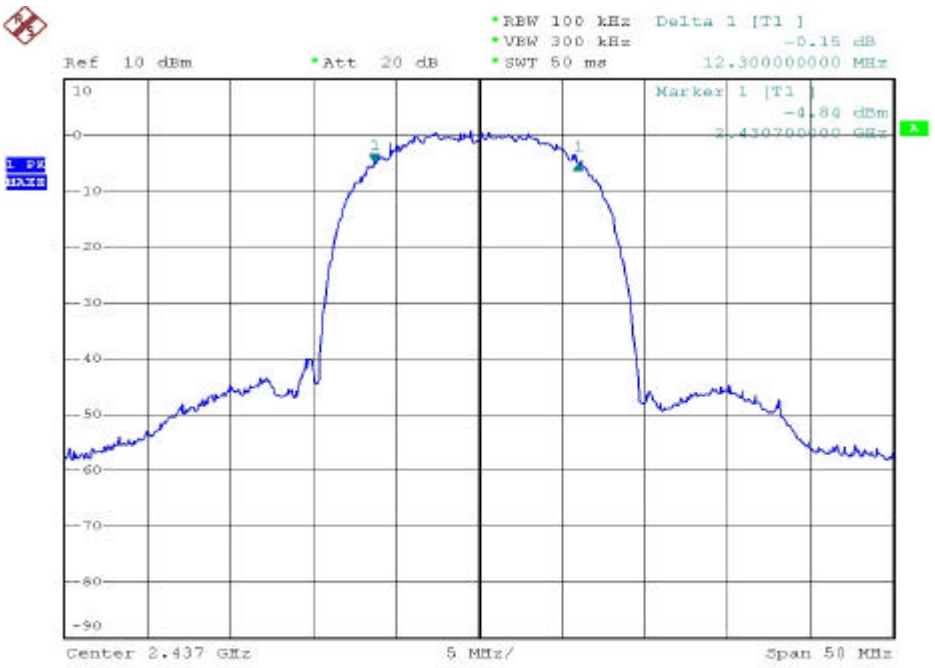
a) Channel 01: 6dB Emission Bandwidth is 16.5 MHz

b) Channel 06: 6dB Emission Bandwidth is 16.5 MHz

c) Channel 11: 6dB Emission Bandwidth is 16.5 MHz



Date: 27.AUG.2004 11:49:40



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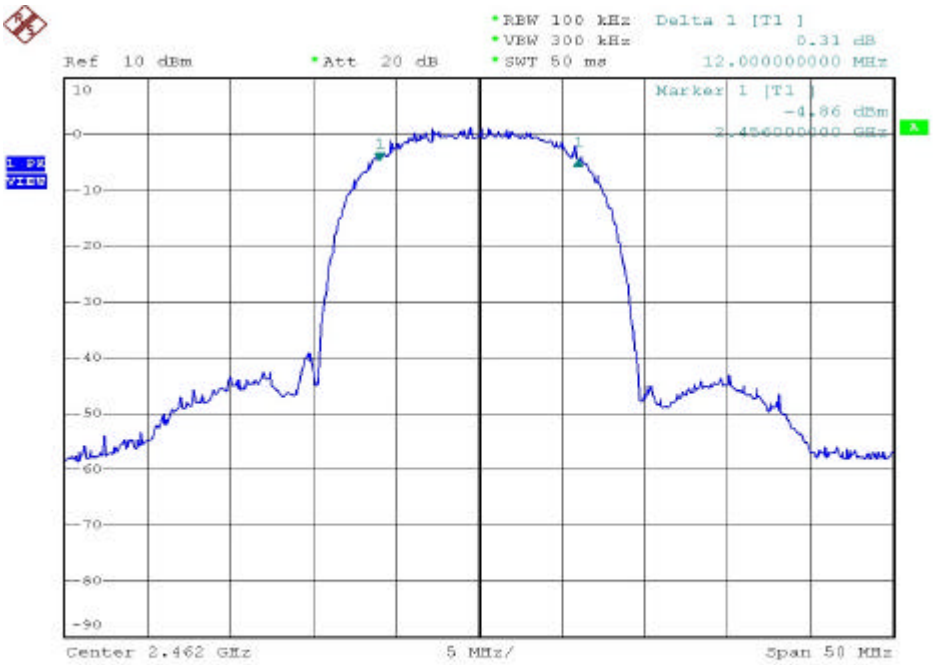
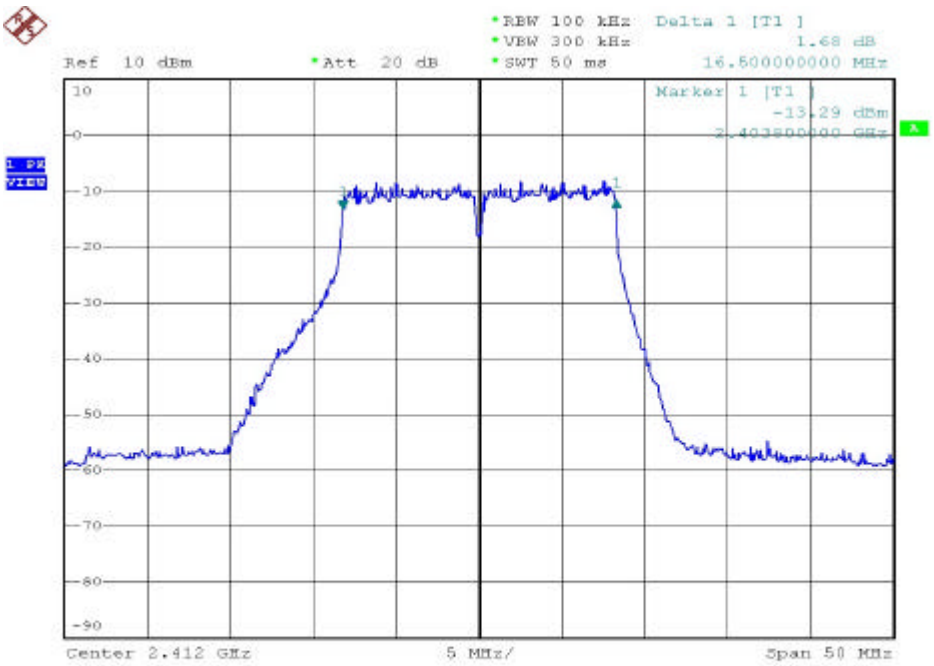


Date: 27.AUG.2004 11:45:41



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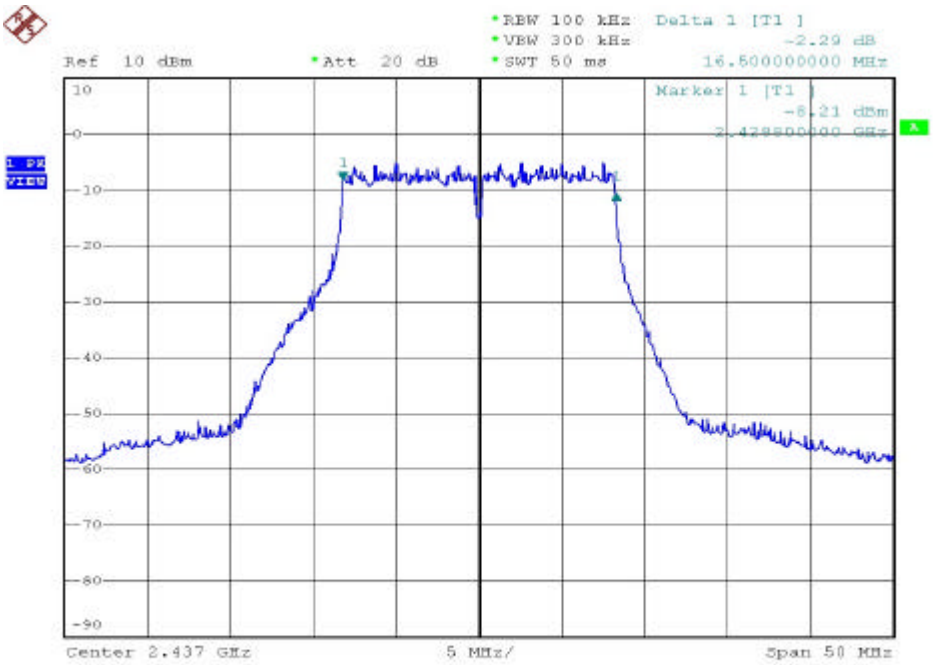

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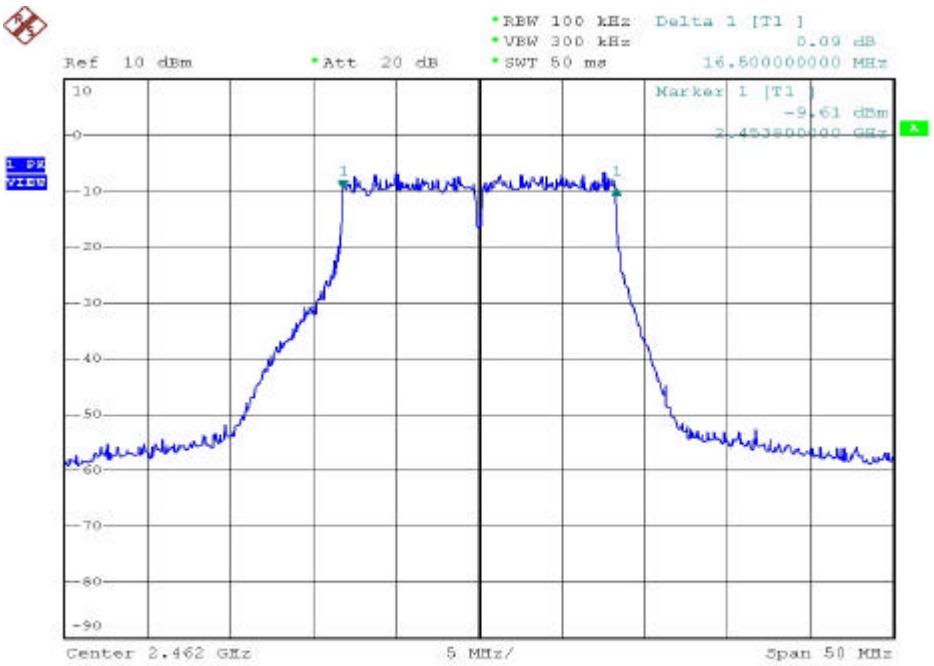


Date: 27.AUG.2004 11:44:10

4.5. Peak Output Power Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 27, 2004 Temperature: 25℃ Humidity: 62%

a) Channel 01: Output Peak Power is 17.36 dBm or 54.397 mW

b) Channel 06: Output Peak Power is 17.15 dBm or 51.921 mW

c) Channel 11: Output Peak Power is 17.23 dBm or 52.811 mW

(2) Modulation Standard: IEEE 802.11g

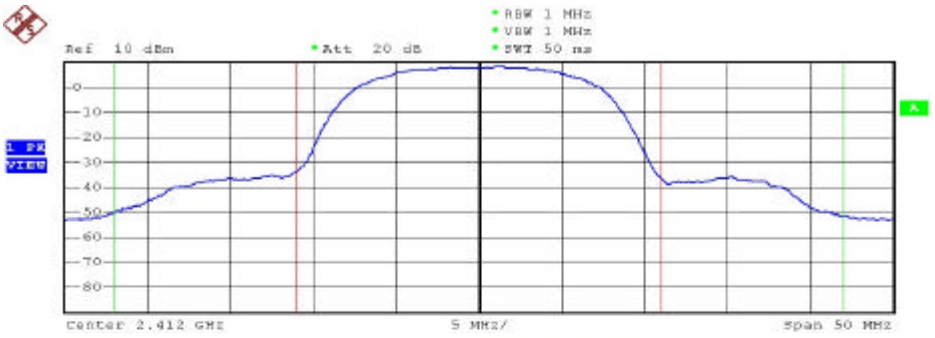
Test Date: Aug. 27, 2004 Temperature: 25℃ Humidity: 62%

a) Channel 01: Output Peak Power is 12.34 dBm or 17.122 mW

b) Channel 06: Output Peak Power is 12.89 dBm or 19.465 mW

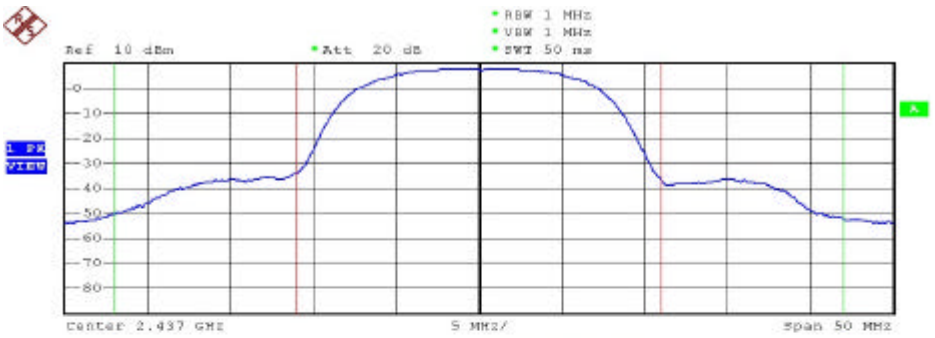
c) Channel 11: Output Peak Power is 13.27 dBm or 21.230 mW

Note: Conducted Power = Reading Value + Cable Loss



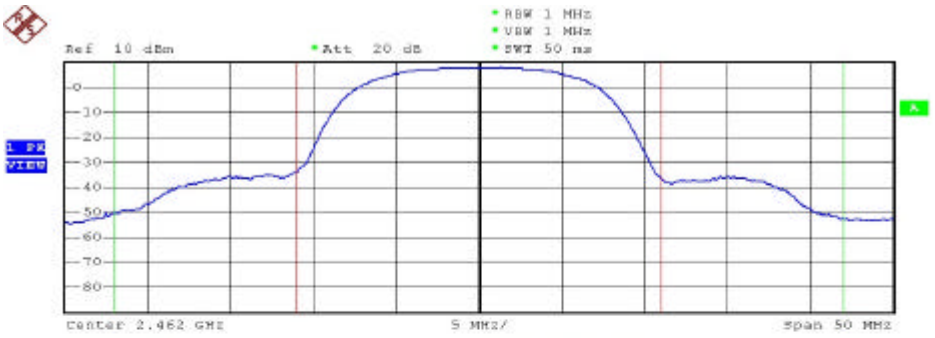
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	17.36 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-45.68 dB
Spacing	16.5 MHz	Upper	-46.49 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 27.AUG.2004 11:20:28



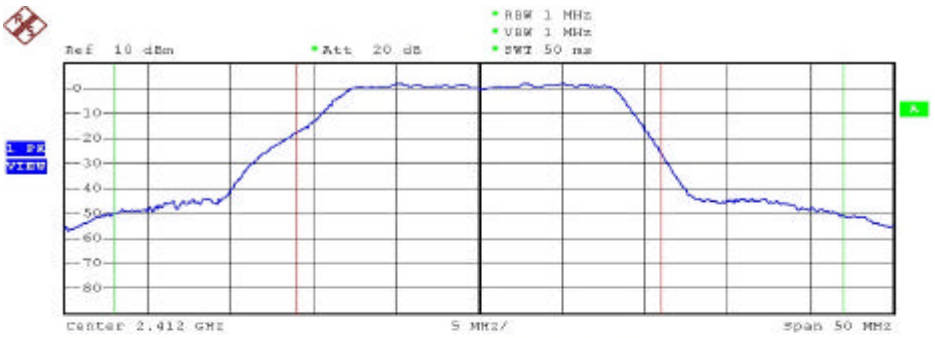
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	17.15 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-45.57 dB
Spacing	16.5 MHz	Upper	-46.55 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 27.AUG.2004 11:22:07



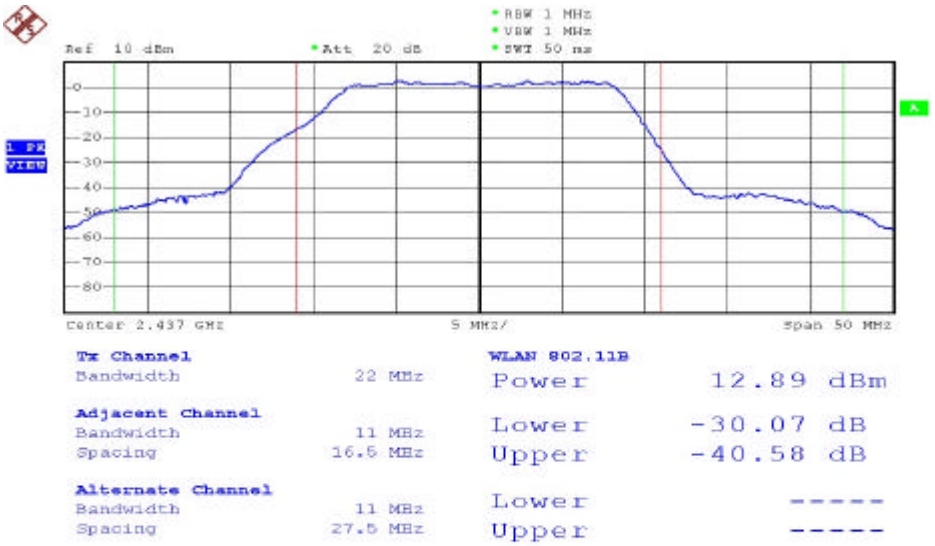
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	17.23 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-45.36 dB
Spacing	16.5 MHz	Upper	-46.20 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 27.AUG.2004 11:23:30



Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	12.34 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-30.45 dB
Spacing	16.5 MHz	Upper	-41.23 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 27.AUG.2004 11:31:13



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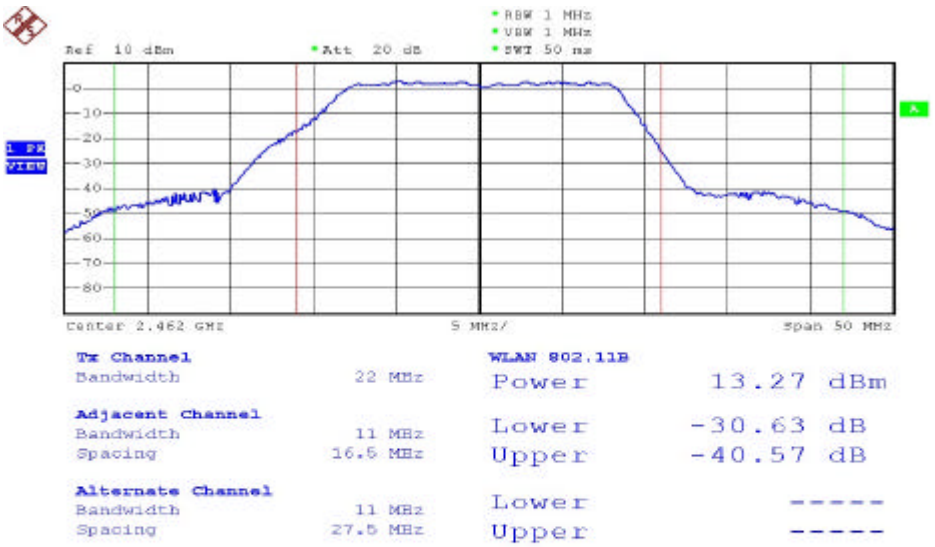


Date: 27.AUG.2004 11:25:28

4.6. Band Edges Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 27, 2004 Temperature: 25℃ Humidity: 62%

a) Lower Band Edge: maximum value is -40.31 dBm that is attenuated more than 20dB

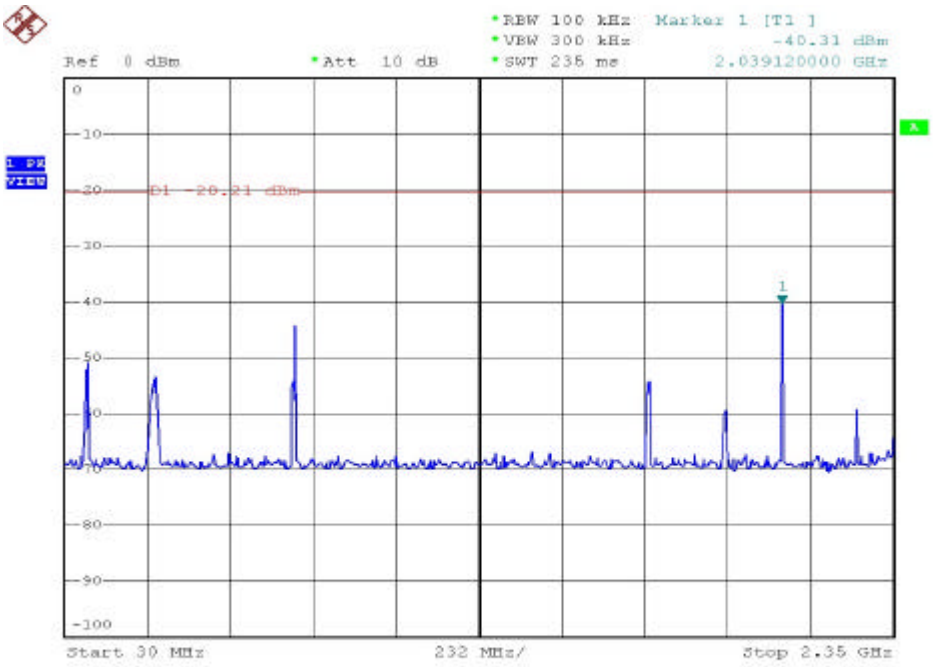
b) Upper Band Edge: maximum value is -38.97 dBm that is attenuated more than 20dB

(2) Modulation Standard: IEEE 802.11g

Test Date: Aug. 27, 2004 Temperature: 25℃ Humidity: 62%

a) Lower Band Edge: maximum value is -39.24 dBm that is attenuated more than 20dB

b) Upper Band Edge: maximum value is -38.59 dBm that is attenuated more than 20dB



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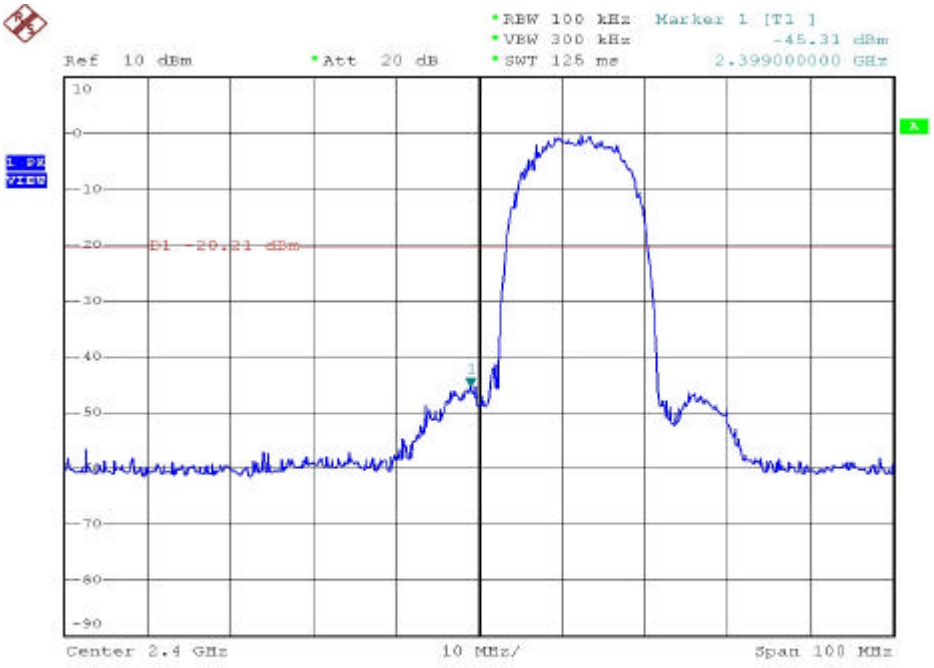

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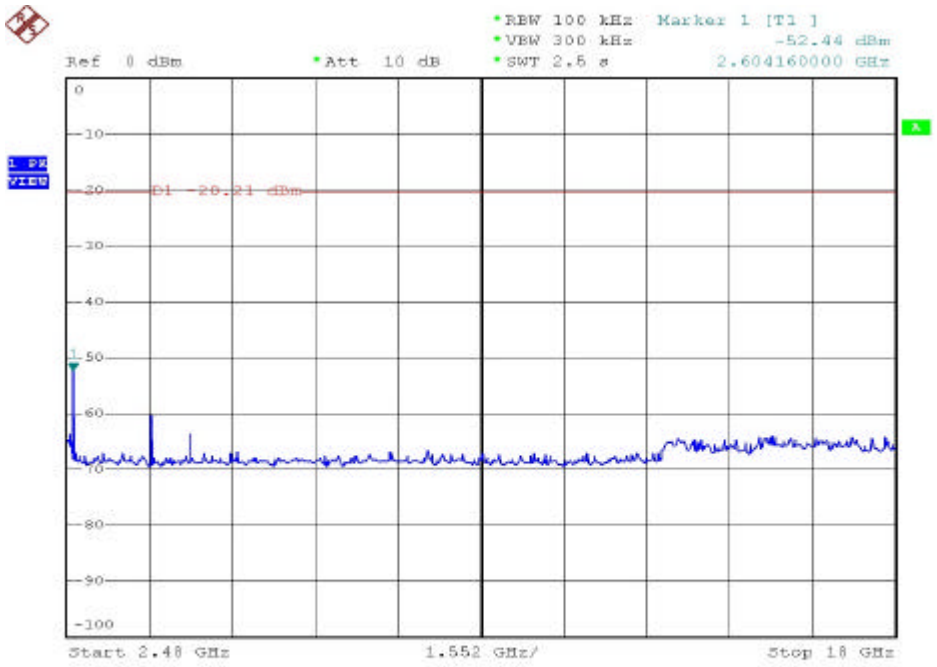

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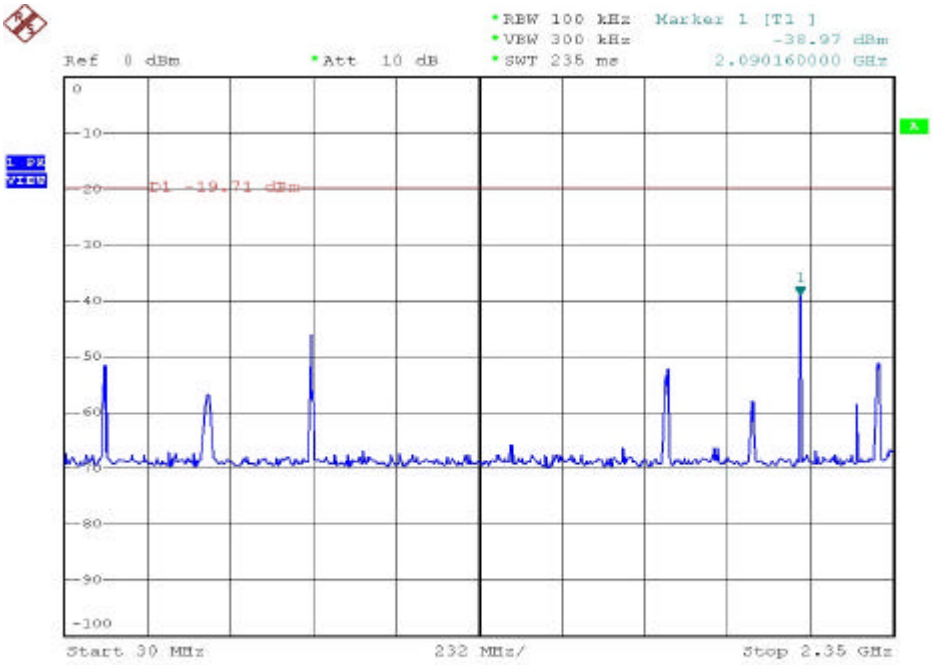

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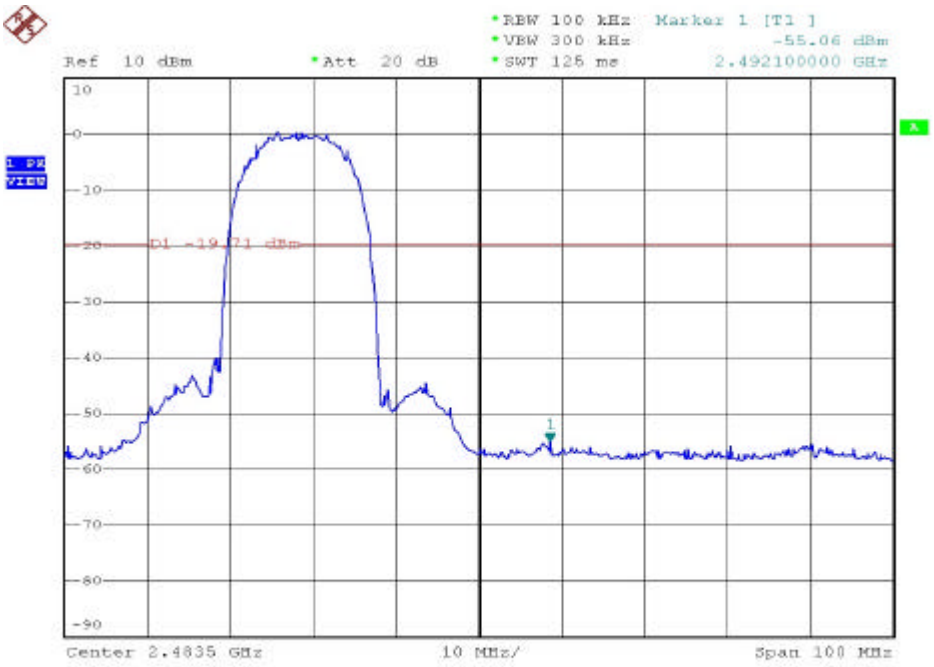

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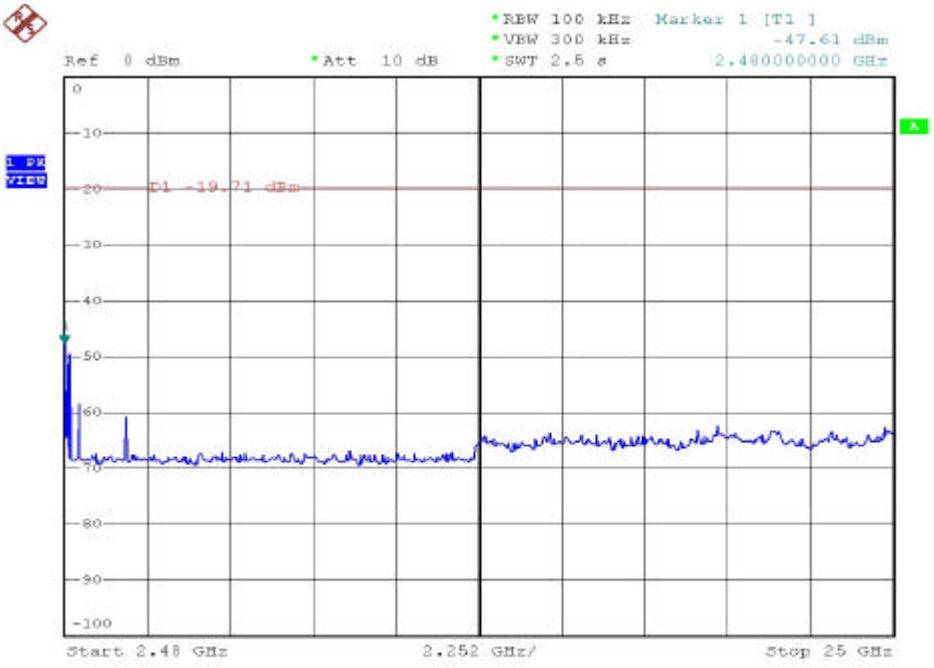

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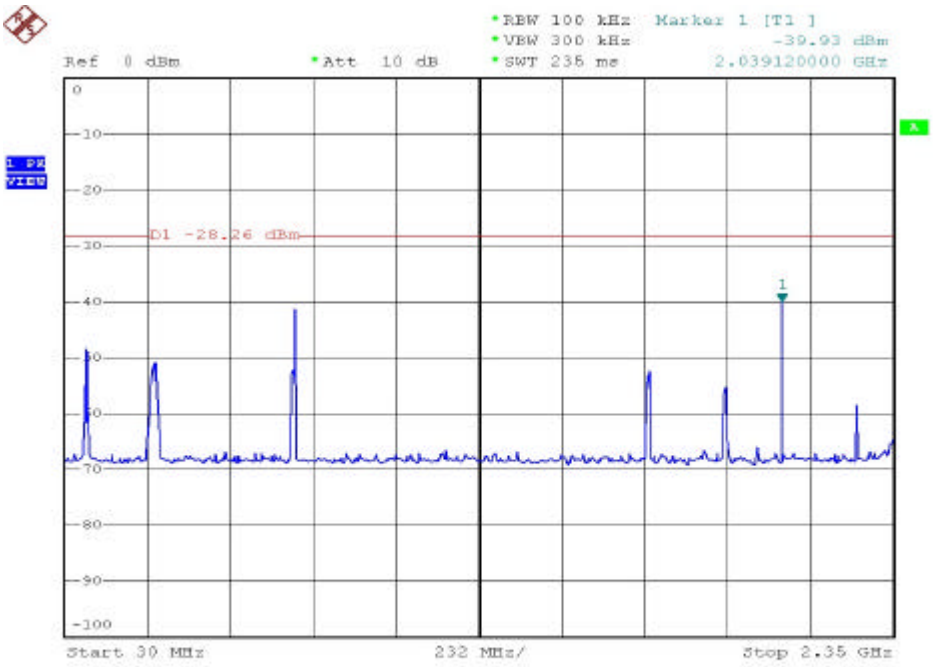

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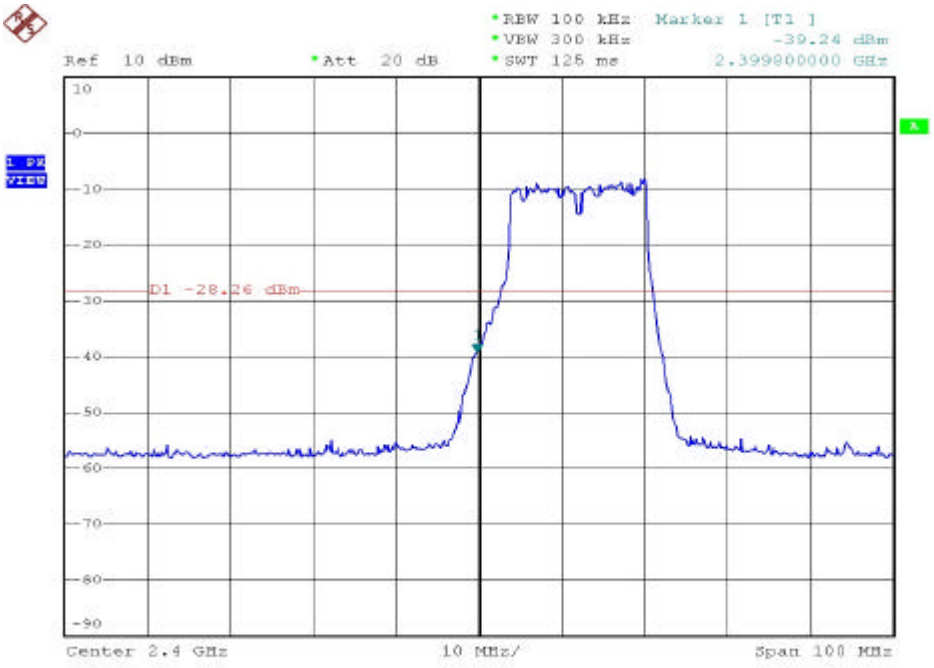

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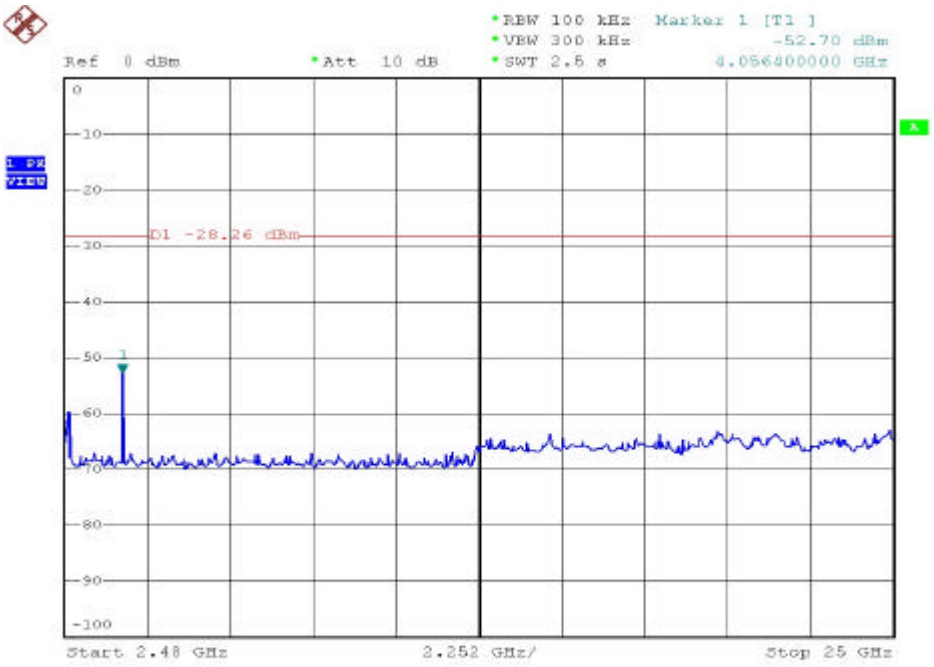

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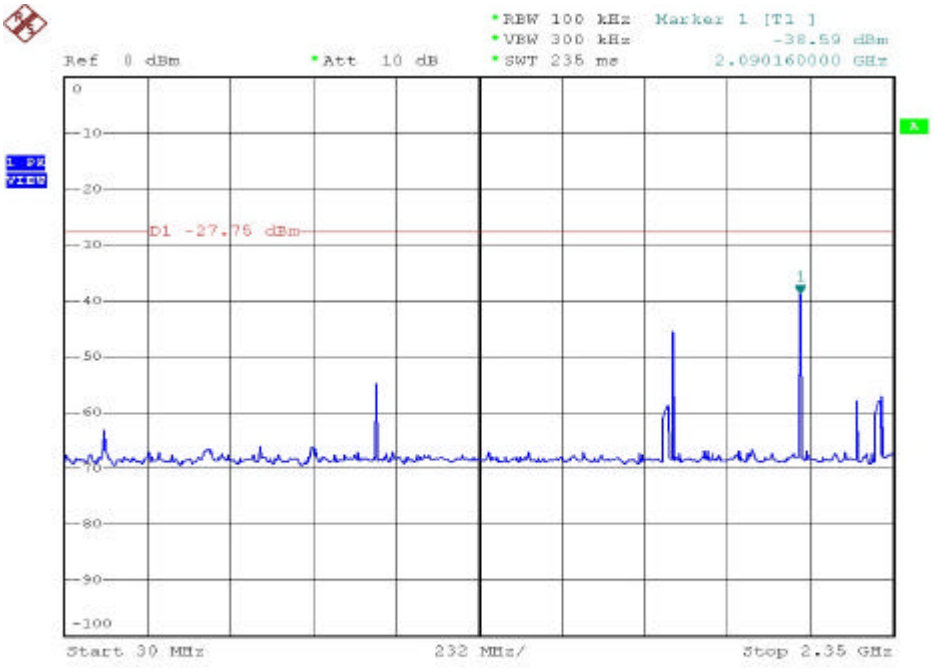

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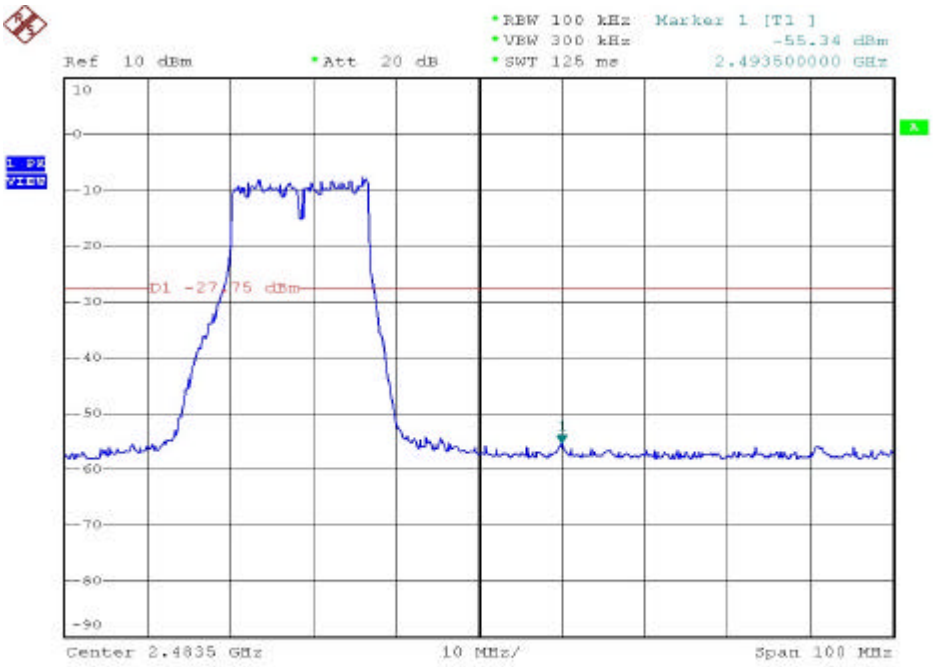

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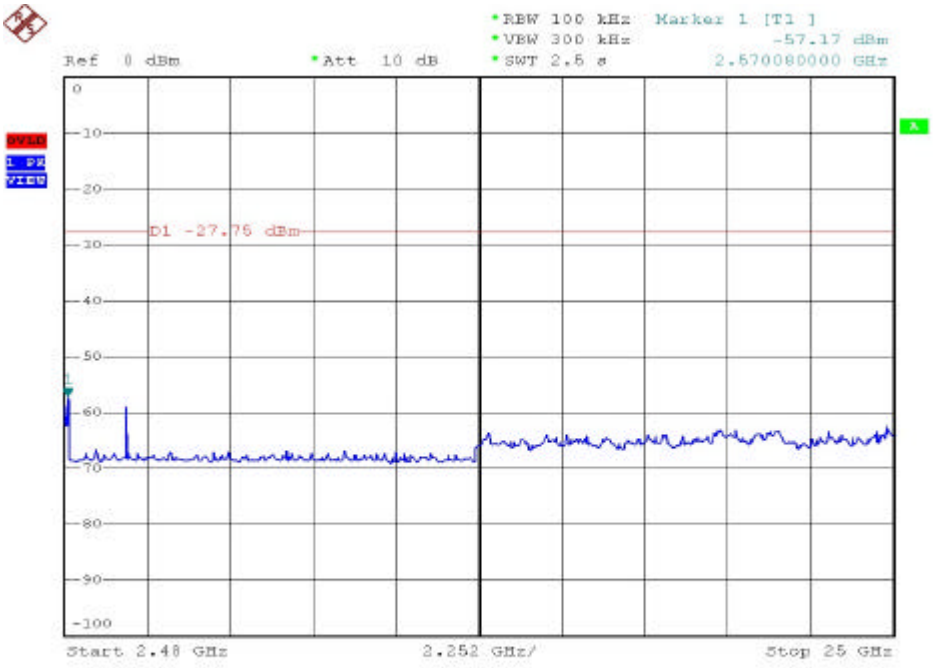


Date: 27.AUG.2004 12:19:41

4.6.1. Note on Band edge Emission

Modulation Standard: IEEE 802.11b

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Level (dBV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2362.836	49.66	H	Peak	74	54	-24.34	174	1
2362.836	---	H	Ave.	74	54	---	---	---
2379.972	51.88	V	Peak	74	54	-22.12	186	1
2379.972	---	V	Ave.	74	54	---	---	---

b) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Level (dBuV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2493.236	49.05	H	Peak	74	54	-24.95	186	1
2493.236	---	H	Ave.	74	54	---	---	---
2488.980	51.75	V	Peak	74	54	-22.25	192	1
2488.980	---	V	Ave.	74	54	---	---	---

Modulation Standard: IEEE 802.11g

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

a) Channel 1

Fundamental Frequency: 2412 MHz

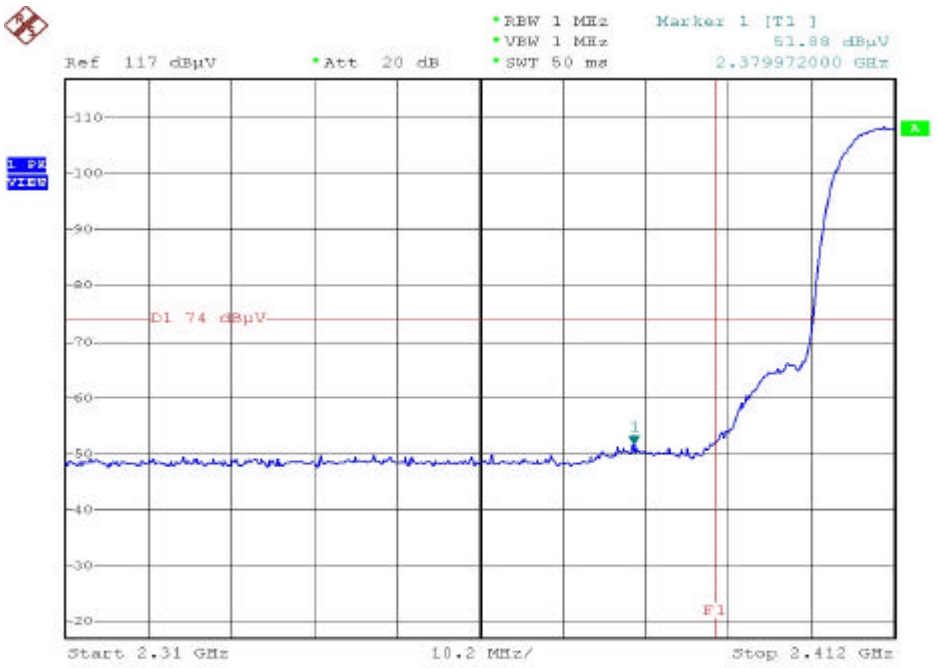
Frequency (MHz)	Level (dBuV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2349.576	49.57	H	Peak	74	54	-24.43	188	1
2349.576	---	H	Ave.	74	54	---	---	---
2389.764	50.89	V	Peak	74	54	-23.11	192	1
2389.764	---	V	Ave.	74	54	---	---	---

b) Channel 11

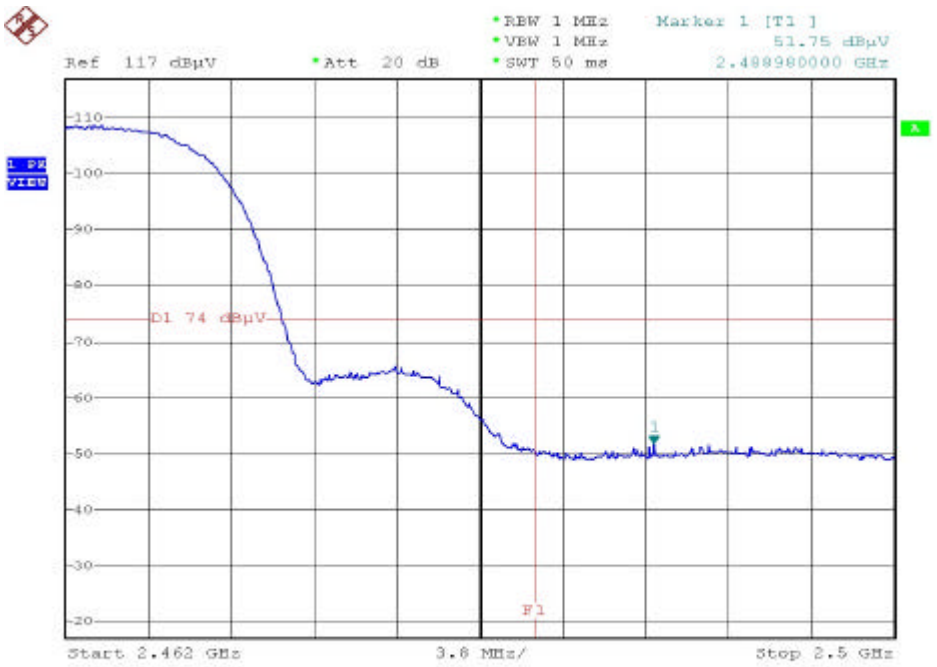
Fundamental Frequency: 2462 MHz

Frequency (MHz)	Level (dBuV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2498.024	49.61	H	Peak	74	54	-24.39	179	1
2498.024	---	H	Ave.	74	54	---	---	---
2483.888	50.31	V	Peak	74	54	-23.69	176	1
2483.888	---	V	Ave.	74	54	---	---	---

Modulation Standard: IEEE 802.11b
Pol/Phase: Vertical

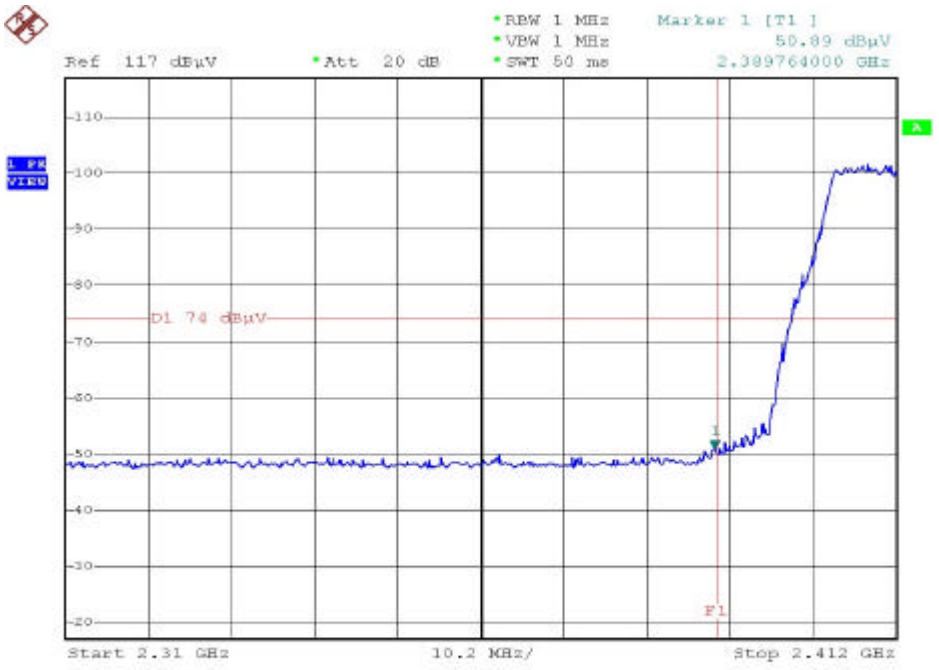


Date: 1.SEP.2004 22:18:37

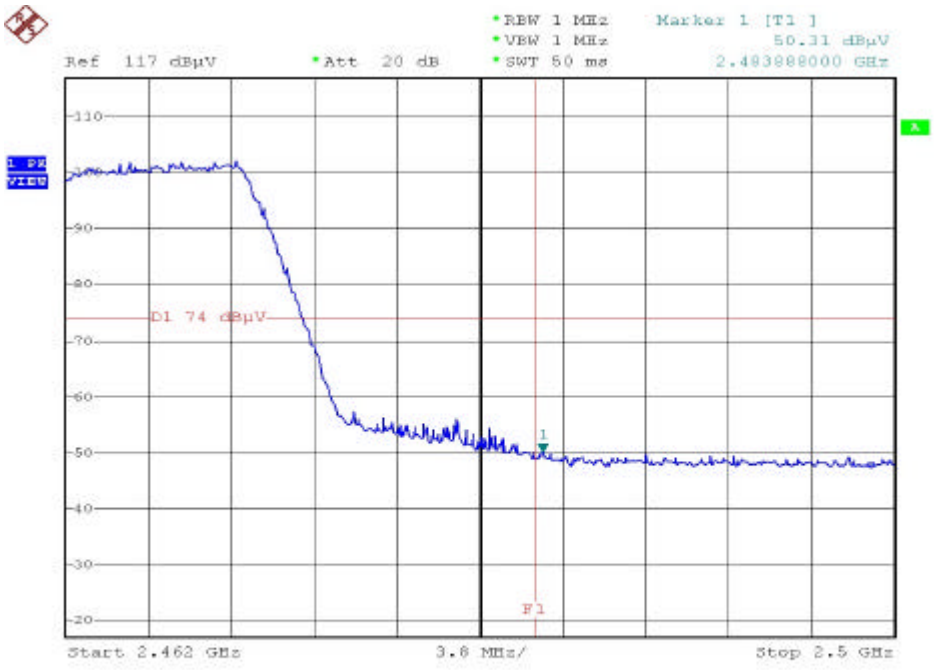


Date: 1.SEP.2004 22:48:22

Modulation Standard: IEEE 802.11g
Pol/Phase: Vertical



Date: 1.SEP.2004 22:22:10



Date: 1.SEP.2004 22:45:44

4.7. Power Spectral Density Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 27,2004 Temperature: 25℃ Humidity: 62%

a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -14.43 dBm

b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -13.73 dBm

c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -13.57 dBm

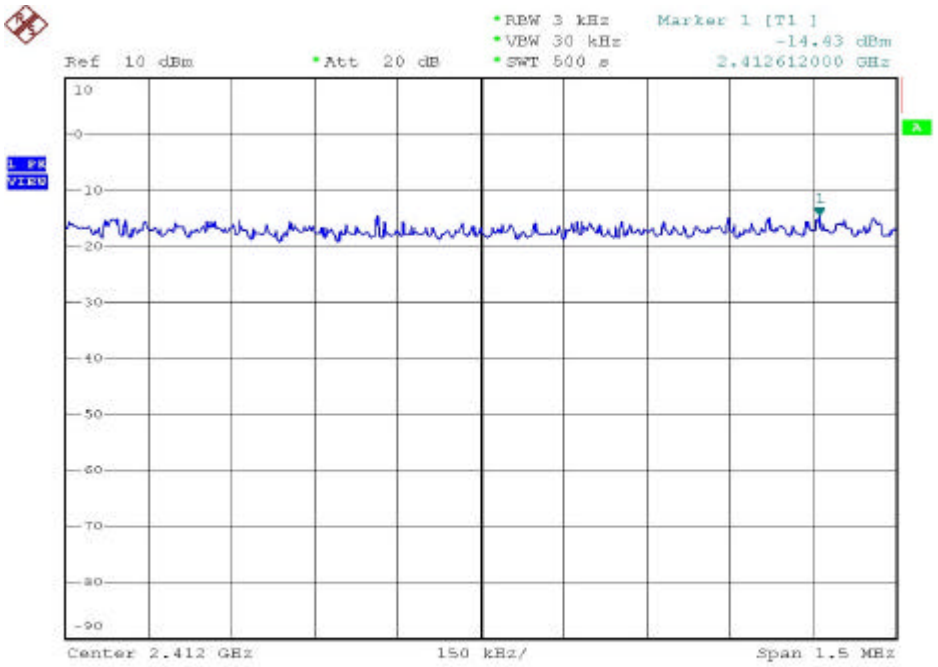
(2) Modulation Standard: IEEE 802.11g

Test Date: Aug. 27,2004 Temperature: 25℃ Humidity: 62%

a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -22.41 dBm

b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -21.96 dBm

c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -20.63 dBm



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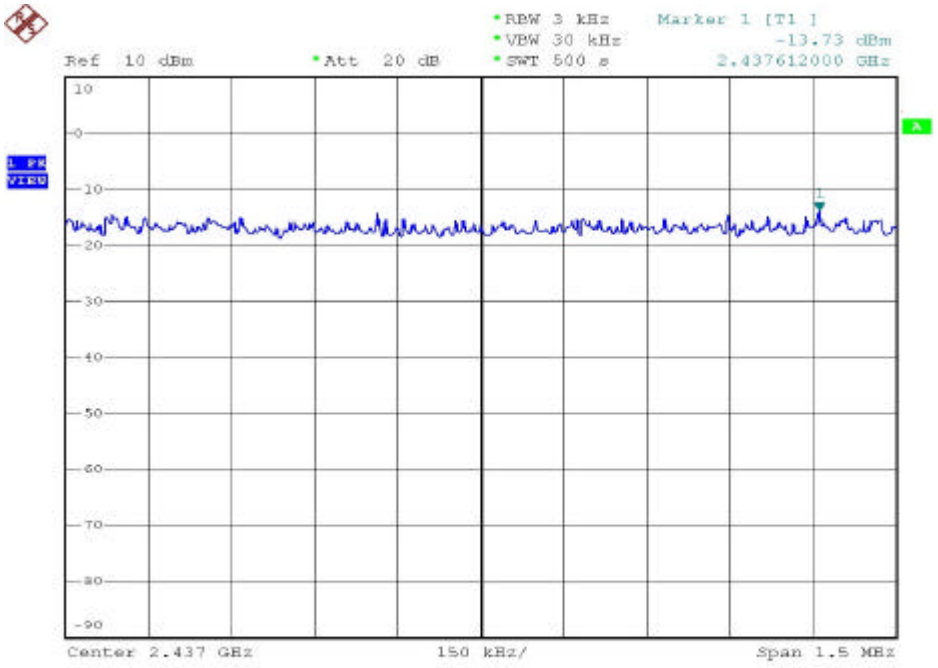
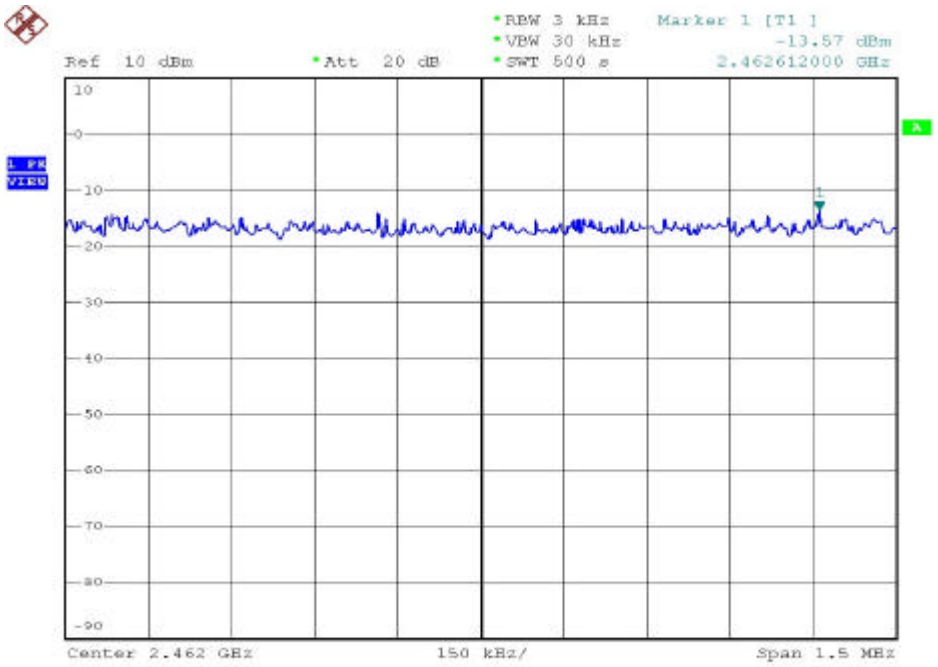
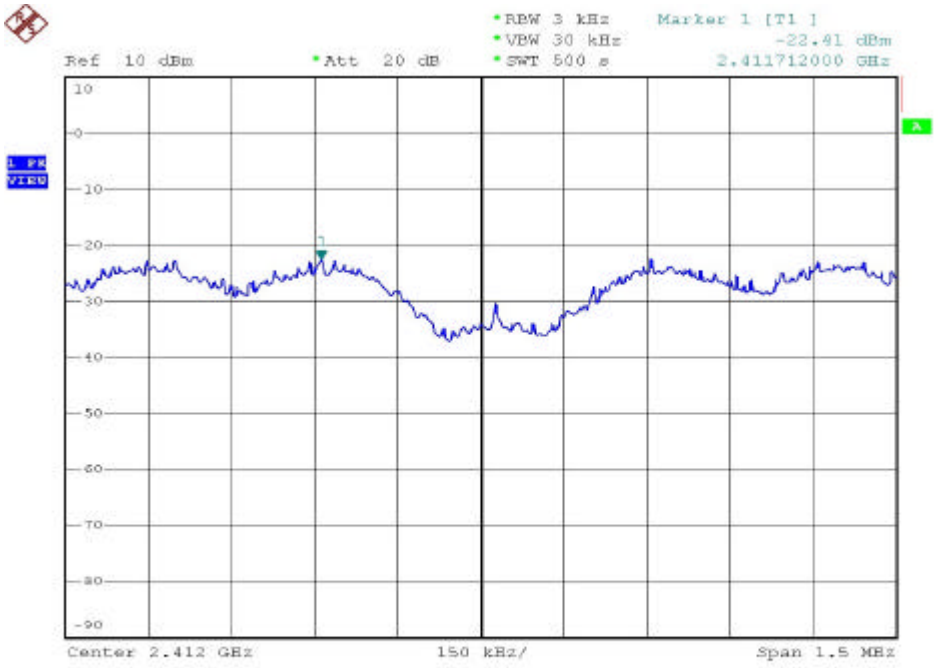


Date: 27.AUG.2004 15:01:51



Date: 27.AUG.2004 15:12:10



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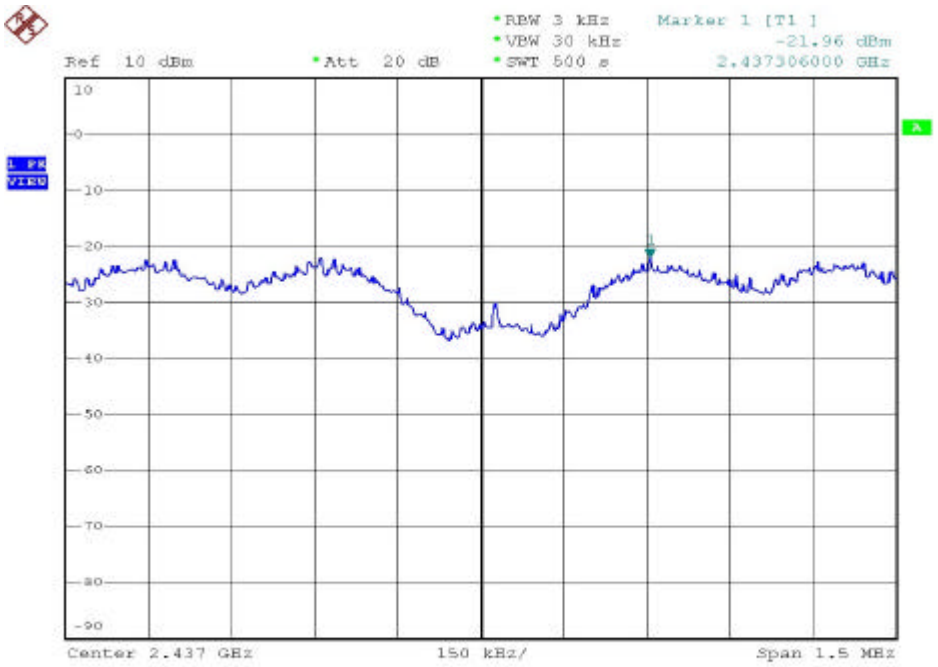
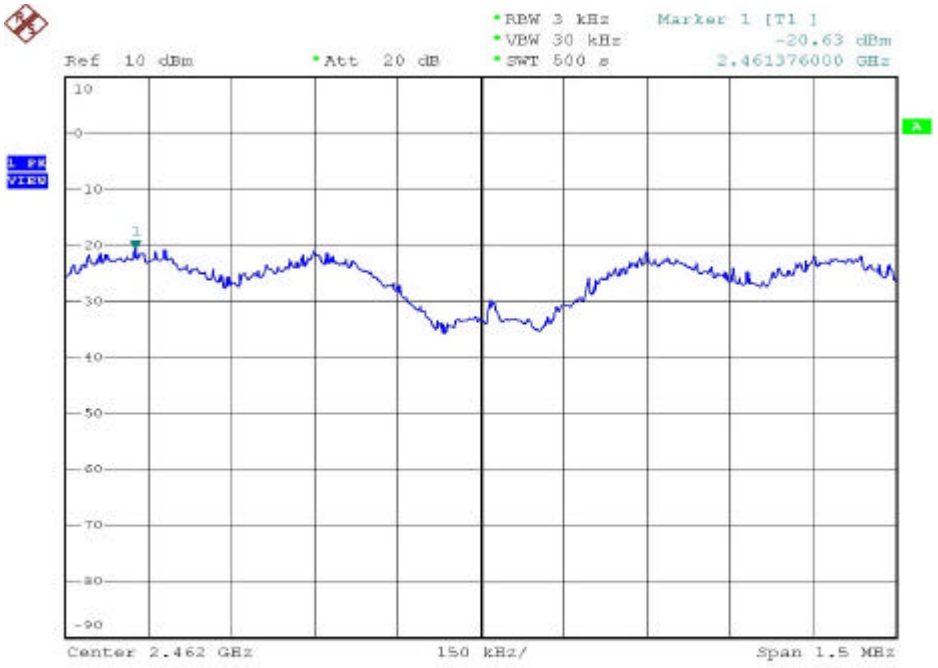


Date: 27.AUG.2004 15:44:58



Date: 27.AUG.2004 15:30:23

4.8. Test Result of RF Exposure Evaluation

Product : Wireless Network Camera
Test Item : RF Exposure Evaluation Data
Test site : OATSI-SD
Test Mode : Normal Operation

4.8.1. Antenna Gain

The maximum Gain is 1.8dBi.

4.8.2. EUT Operation condition

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.8.3. Output Power into Antenna & RF Exposure Evaluation Distance

Modulation Standard: IEEE 802.11b

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum allowable Distance ®From Skin (cm)
01	2412	17.36	2.791
06	2437	17.15	2.727
11	2462	17.23	2.750

Modulation Standard: IEEE 802.11g

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum allowable Distance ®From Skin (cm)
01	2412	12.34	1.566
06	2437	12.89	1.670
11	2462	13.27	1.744

The distance r (4th column) calculated from the Friis transmission formula is far shorter than 20 cm separation requirement. So, RF exposure limit warning or SAR test are not required.

5. List of Measuring Equipment Used

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
1	Bilog Antenna	CBL6111C	Schaffner	2762	2004/11/03
2	Preamplifier	RFP4002	Schaffner	010	2004/11/03
3	Receiver	SCR3501	Schaffner	437	2004/11/03
4	Signal Generator	8648B	HP	3629U00612	2006/02/09
5	Spectrum Analyzer	8594E	HP	3520A01913	2005/01/15
6	Amplifier	8447D	Agilent	2944A10593	2004/10/09
7	Amplifier	8447D	Agilent	2944A10531	2005/06/30
8	Series Power Meter	E4416A	Agilent	GB41292146	2004/11/05
9	Power Sensor	E9327A	Agilent	US40441392	2004/10/06
10	Dipole Antenna	AD-100	COM-Power	721011	2004/12/02
11	Dipole Antenna	AD-100	COM-Power	721010	2004/12/02
12	Spectrum Analyzer	R3131A	Advantest	131000021	2004/11/24
13	Spectrum Analyzer	FSP40	R&S	100047	2004/12/16
14	Preamplifier	8449B	Agilent	3008A01954	2005/01/04
15	Horn Antenna	3115	EMCO	31601	2005/01/13
16	Horn Antenna	3115	EMCO	31589	2005/01/13
17	Horn Antenna	3116	EMCO	31970	2005/01/29
18	Horn Antenna	3116	EMCO	31974	2005/01/29
19	EMI Receiver	8546A	HP	3807A00454	2005/02/12
20	RF Filter Section	85460A	HP	3704A00386	2005/02/12
21	Signal Generator	83640A	HP	2927A00107	2006/04/02
22	Attenuator	8491B	Agilent	50703	2004/12/16
23	Attenuator	8491B	Agilent	50705	2004/12/16
24	Temperature Chamber	TMJ-9712	T Machine	T-12-040111	2005/02/05
25	High Pass Filter	84300-80038	HP	002	N/A
26	High Pass Filter	84300-80038	HP	006	N/A
27	DC Power Supply	GPD-3030	GM	7020936	N/A
28	AC Power Converter	AFC-11005	APC	F103120008	N/A