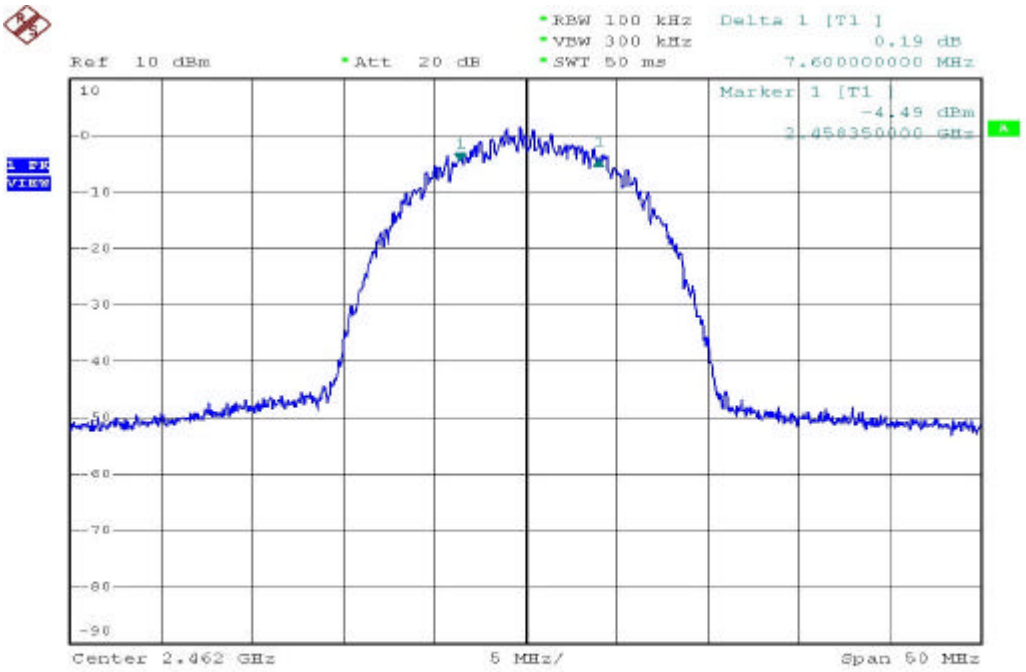
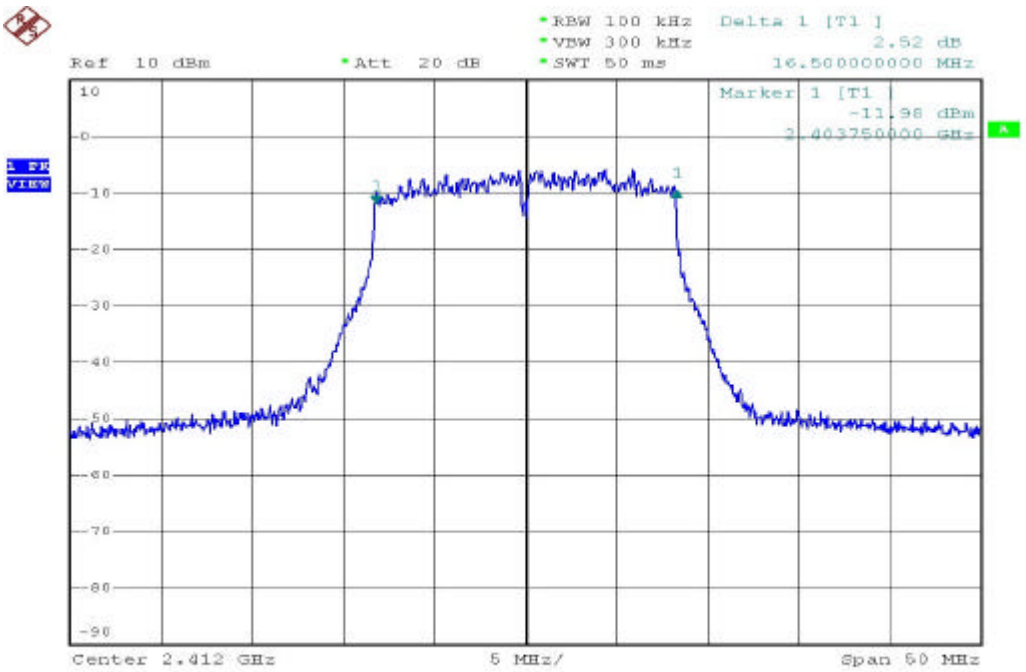
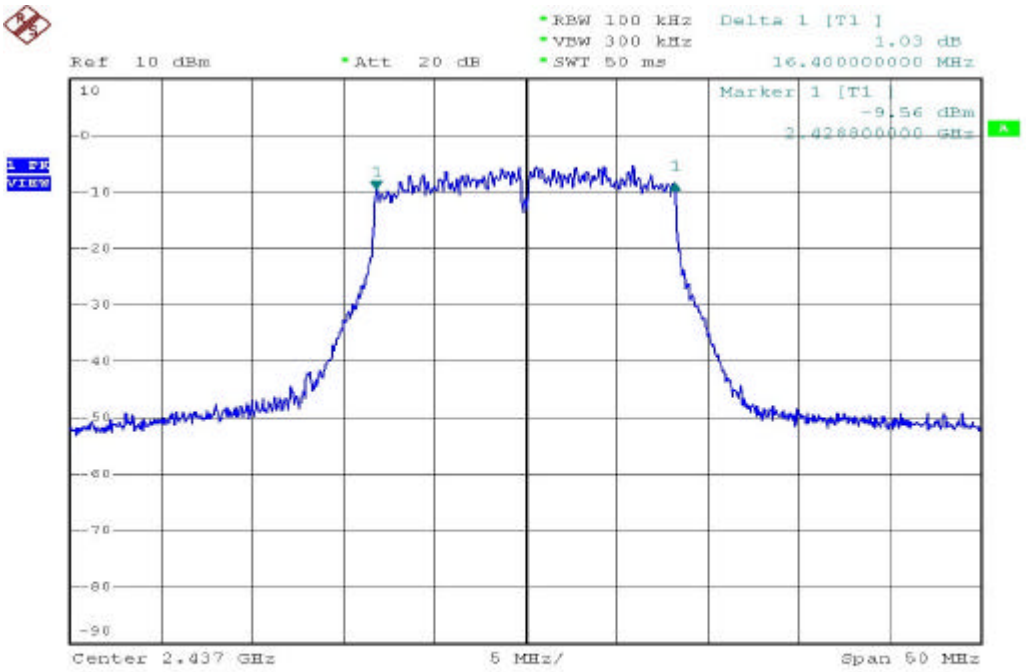
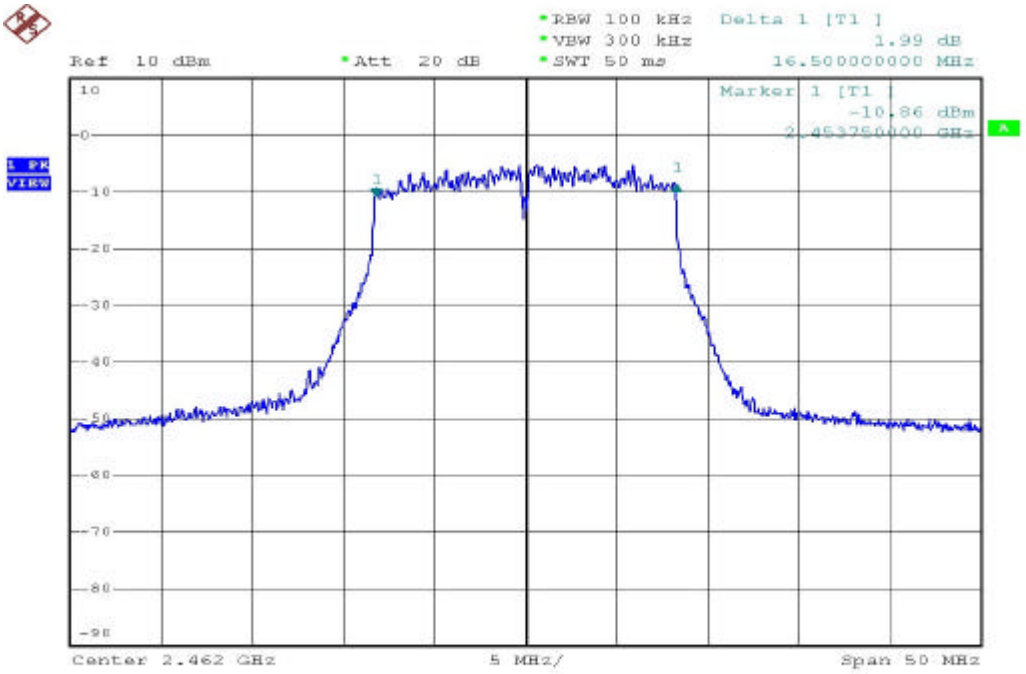

RBW 100 kHz
VBW 300 kHz
SWT 50 ms
Delta 1 [T1]
0.19 dB
7.600000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-4.49 dBm
2.458350000 GHz
1 PK VIEW
Center 2.462 GHz
5 MHz/
Span 50 MHz


RBW 100 kHz
VBW 300 kHz
SWT 50 ms
Delta 1 [T1]
2.52 dB
16.500000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-11.98 dBm
2.403750000 GHz
1 PK VIEW
Center 2.412 GHz
5 MHz/
Span 50 MHz


RBW 100 kHz
VBW 300 kHz
SWT 50 ms
Delta 1 [T1]
1.03 dB
16.400000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-9.56 dBm
2.428800000 GHz
1 PK VIEW
Center 2.437 GHz
5 MHz/
Span 50 MHz


RBW 100 kHz
VBW 300 kHz
SWT 50 ms
Delta 1 [T1]
1.99 dB
16.500000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-10.86 dBm
2.453750000 GHz
1 PK VIEW
Center 2.462 GHz
5 MHz/
Span 50 MHz

4.5. Peak Output Power Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Jul. 02. 2004 Temperature: 24℃ Humidity: 58%

a) Channel 01: Output Peak Power is 16.87 dBm or 48.640 mW

b) Channel 06: Output Peak Power is 16.35 dBm or 43.152 mW

c) Channel 11: Output Peak Power is 16.26 dBm or 42.267 mW

(2) Modulation Standard: IEEE 802.11g

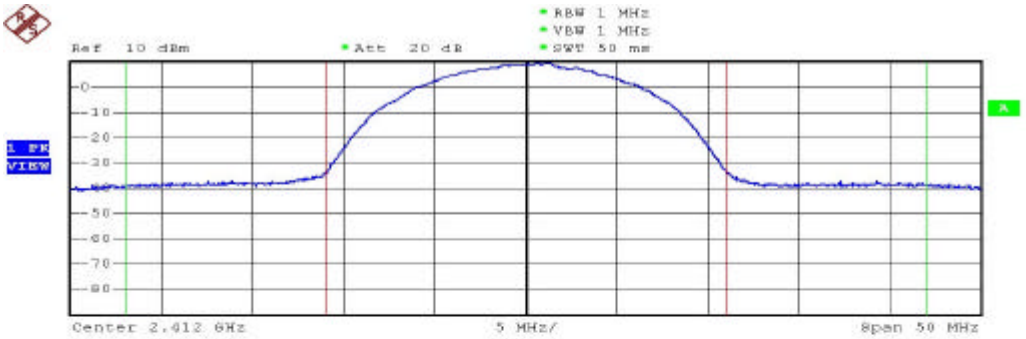
Test Date: Jul. 02. 2004 Temperature: 24℃ Humidity: 58%

a) Channel 01: Output Peak Power is 14.70 dBm or 29.512 mW

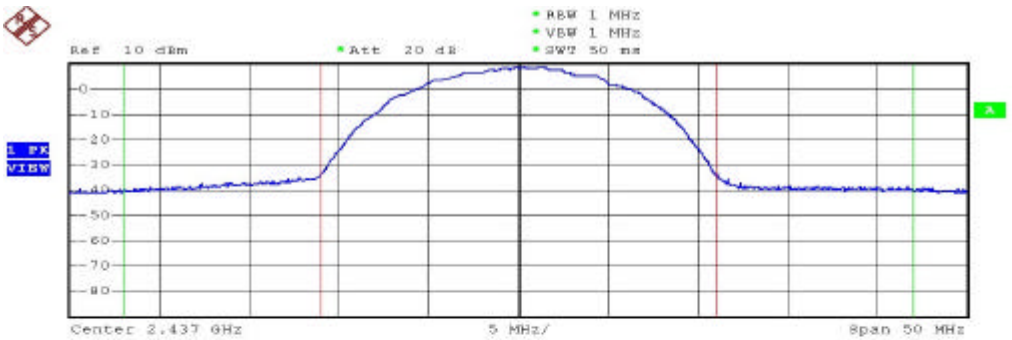
b) Channel 06: Output Peak Power is 15.19 dBm or 33.037 mW

c) Channel 11: Output Peak Power is 15.35 dBm or 34.277 mW

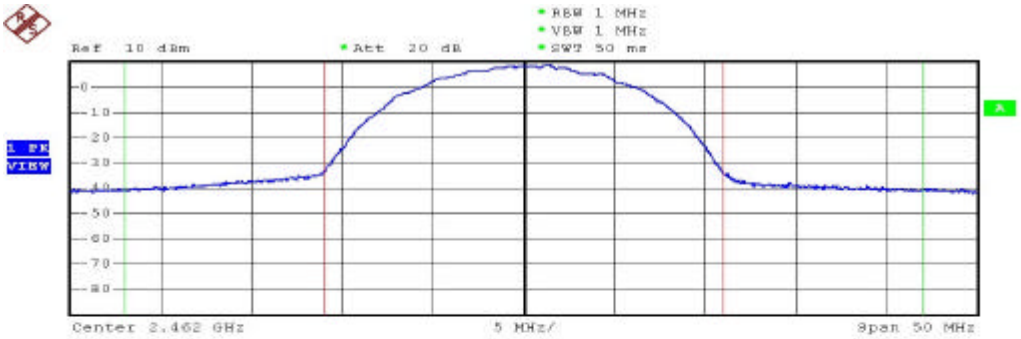
Note: Conducted Power = Reading Value + Cable Loss



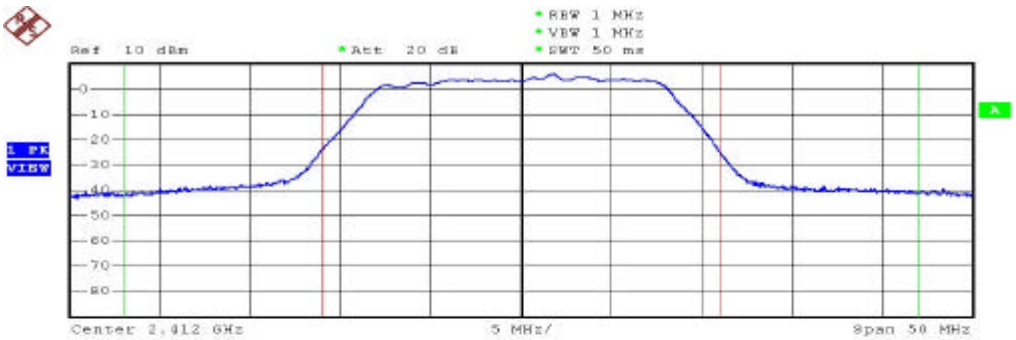
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	16.87 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-44.97 dB
Spacing	16.5 MHz	Upper	-45.18 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----



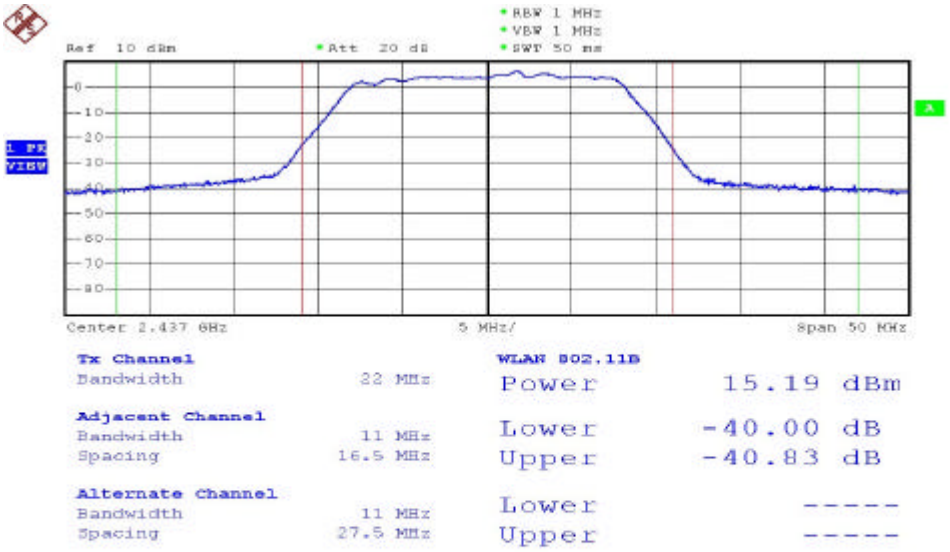
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	16.35 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-44.35 dB
Spacing	16.5 MHz	Upper	-45.38 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

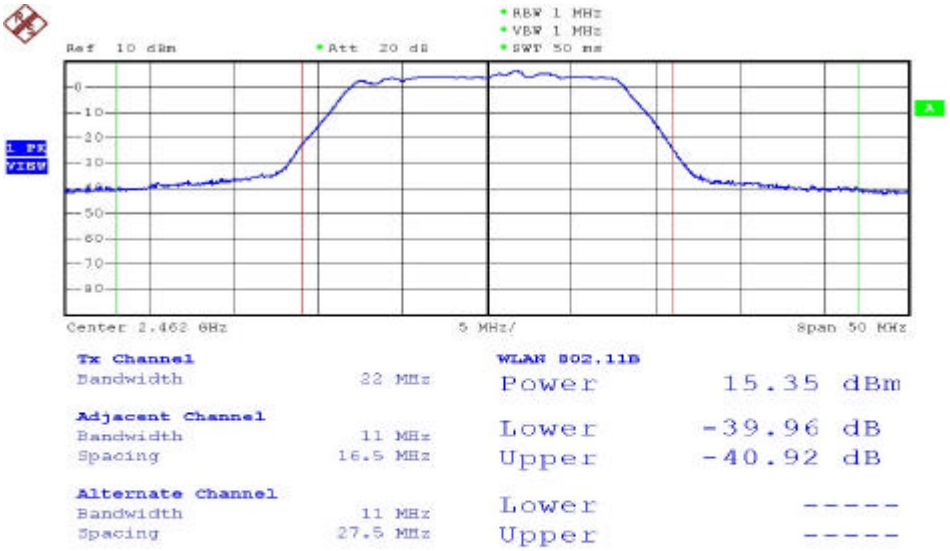


Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	16.26 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-44.24 dB
Spacing	16.5 MHz	Upper	-45.47 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----



Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.70 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-40.34 dB
Spacing	16.5 MHz	Upper	-40.77 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----


RBW 1 MHz
VBW 1 MHz
SWT 50 ms
Ref 10 dBm
Att 20 dB
1 PK
VIEW
A
Center 2.437 GHz
5 MHz/
Span 50 MHz
Tx Channel
Bandwidth 22 MHz
WLAN 802.11B
Power 15.19 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -40.00 dB
Upper -40.83 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----


RBW 1 MHz
VBW 1 MHz
SWT 50 ms
Ref 10 dBm
Att 20 dB
1 PK
VIEW
A
Center 2.462 GHz
5 MHz/
Span 50 MHz
Tx Channel
Bandwidth 22 MHz
WLAN 802.11B
Power 15.35 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -39.96 dB
Upper -40.92 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----

4.6. Band Edges Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Jul. 02. 2004 Temperature: 24℃ Humidity: 58%

a) Lower Band Edge: maximum value is -28.12 dBm that is attenuated more than 20dB

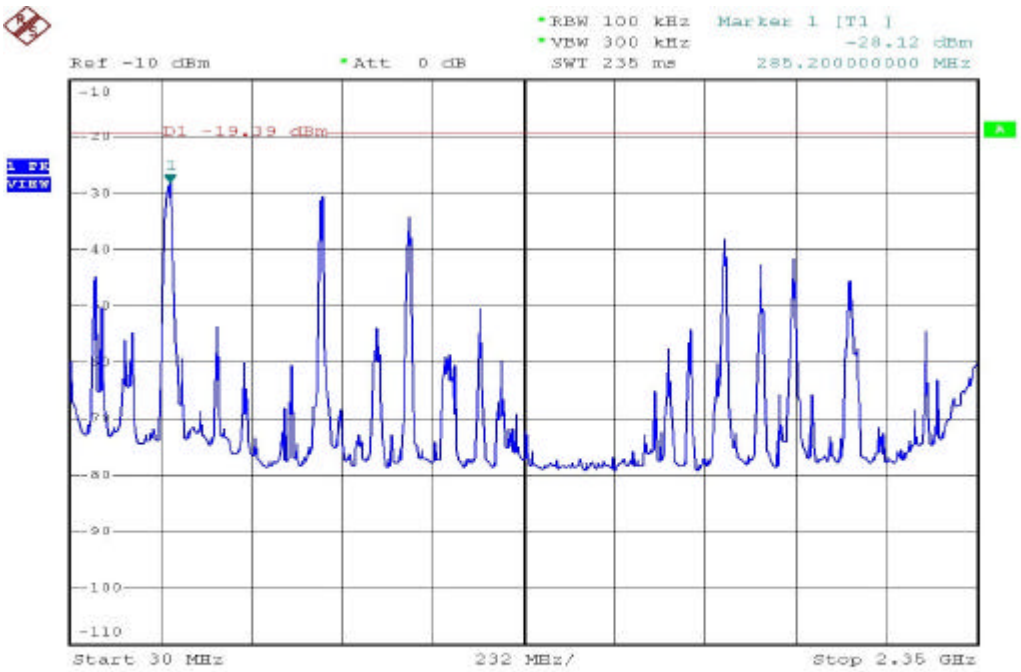
b) Upper Band Edge: maximum value is -24.56 dBm that is attenuated more than 20dB

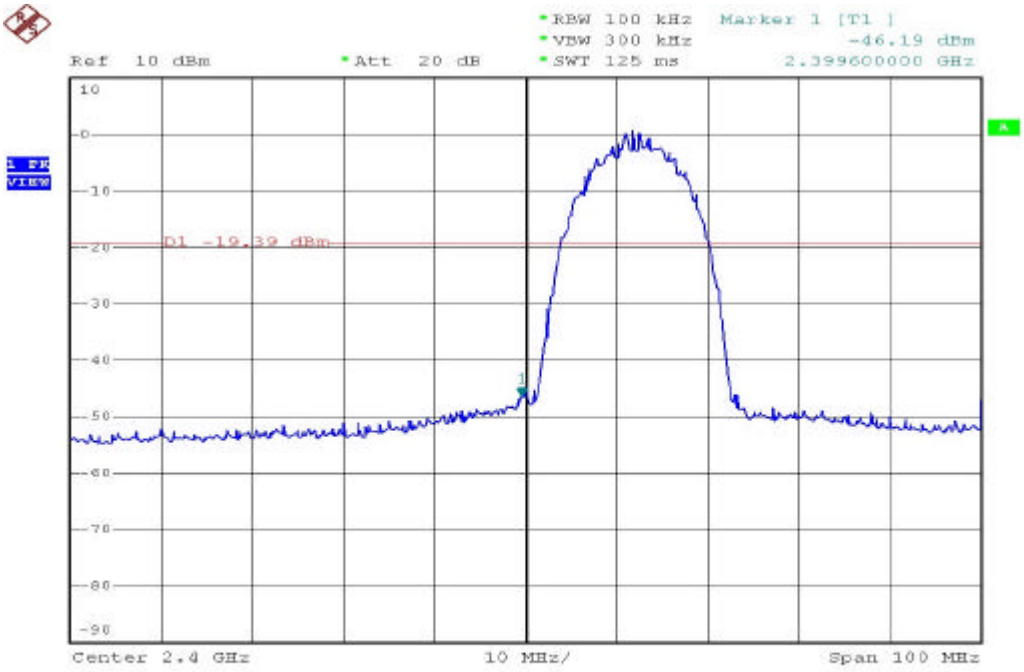
(2) Modulation Standard: IEEE 802.11g

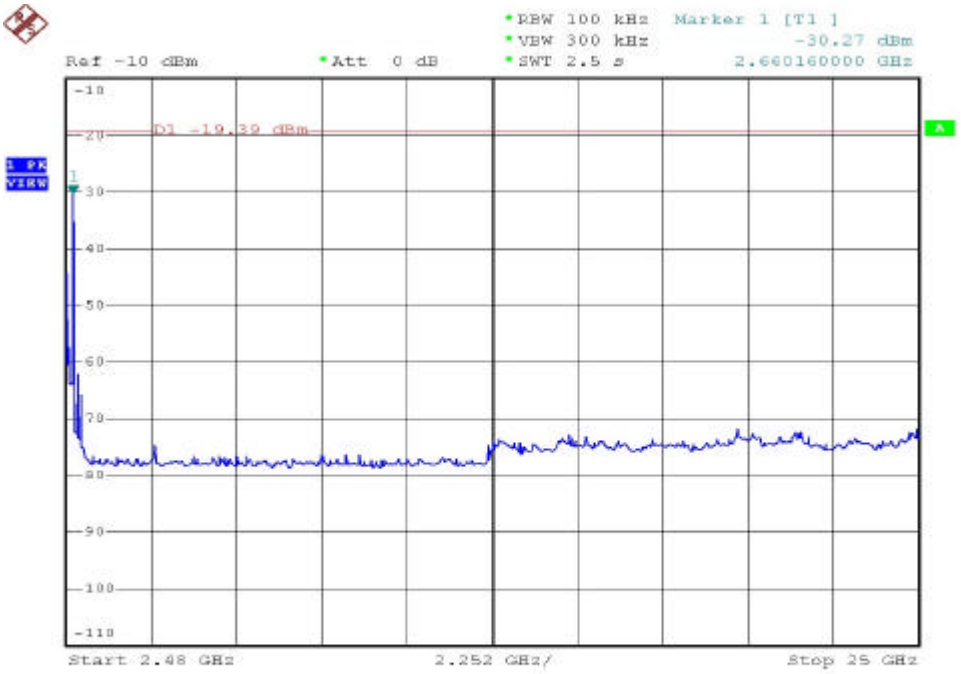
Test Date: Jul. 02. 2004 Temperature: 24℃ Humidity: 58%

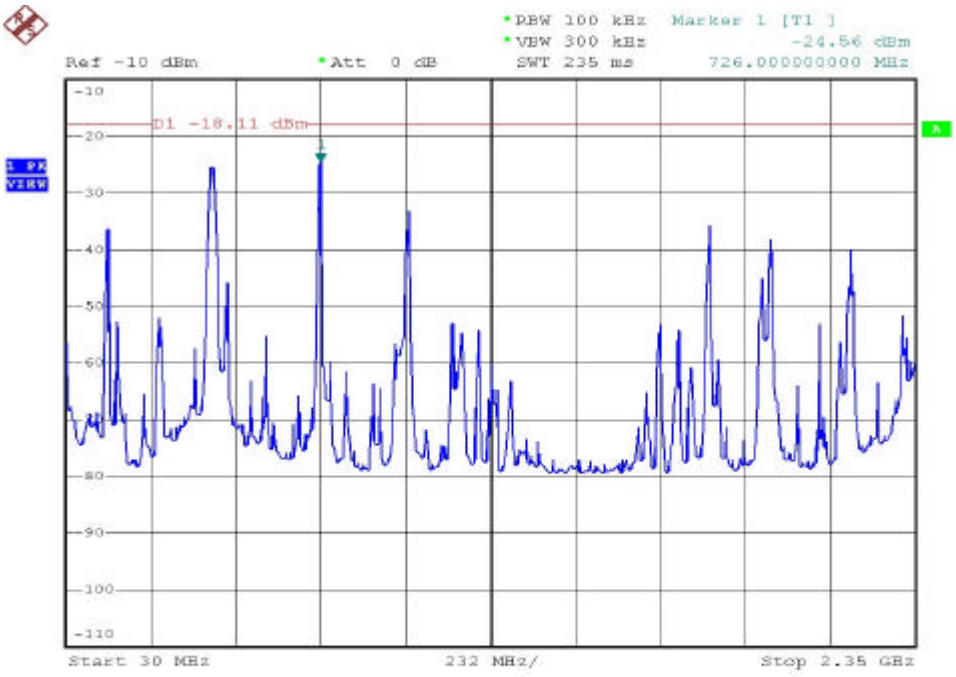
a) Lower Band Edge: maximum value is -32.88 dBm that is attenuated more than 20dB

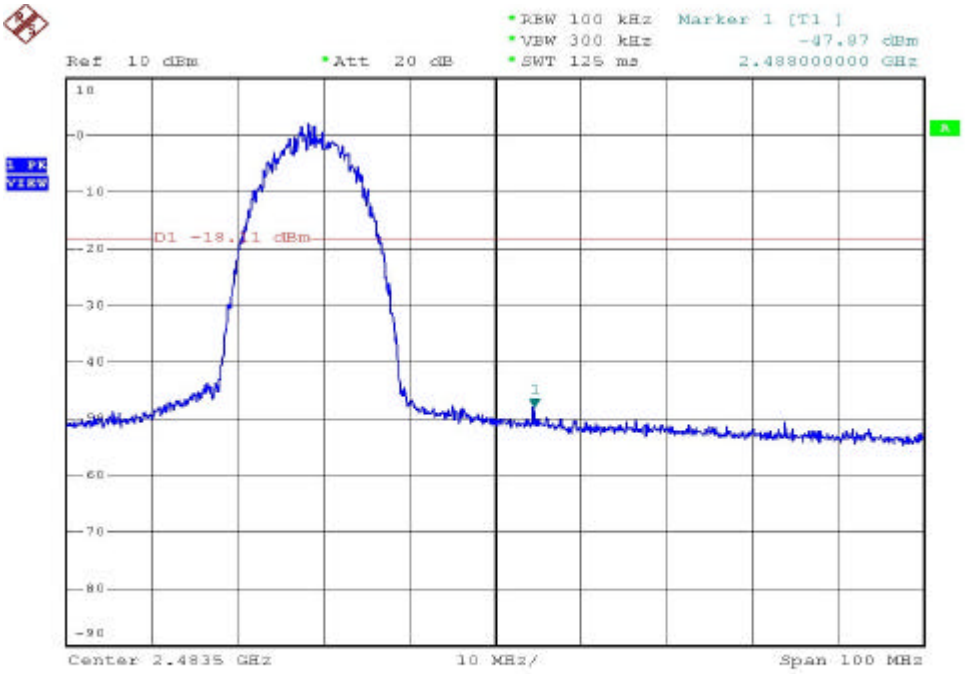
b) Upper Band Edge: maximum value is -31.46 dBm that is attenuated more than 20dB

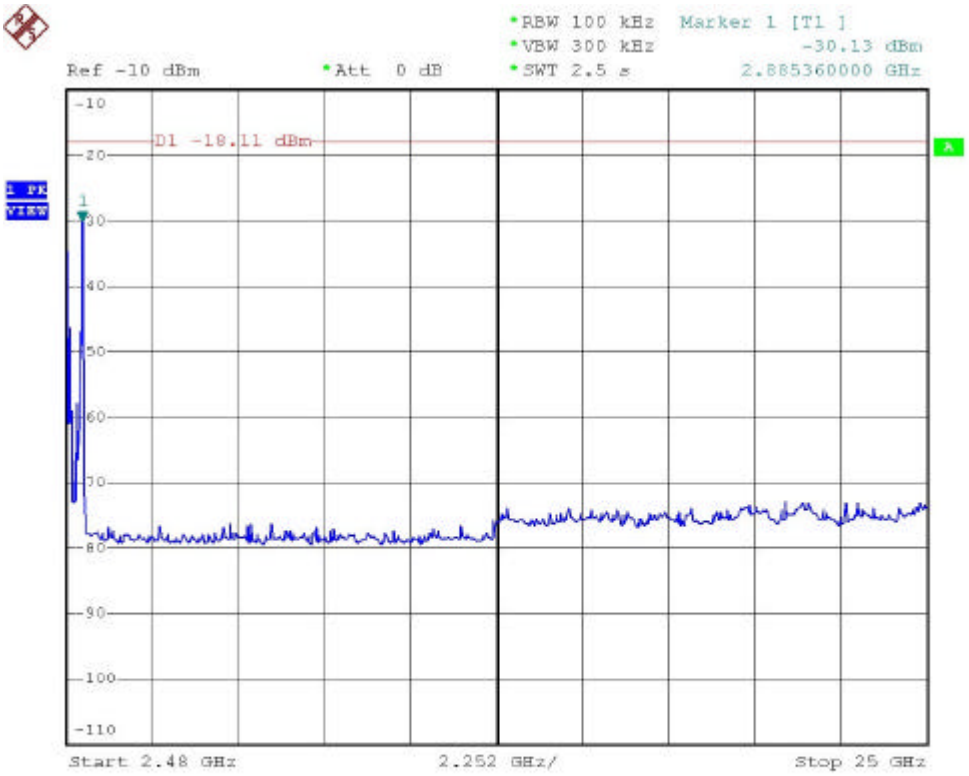

RBW 100 kHz
VBW 300 kHz
SWT 235 ms
Marker 1 [T1]
-28.12 dBm
285.200000000 MHz
Ref -10 dBm
Att 0 dB
D1 -19.39 dBm
Start 30 MHz
232 MHz/
Stop 2.35 GHz

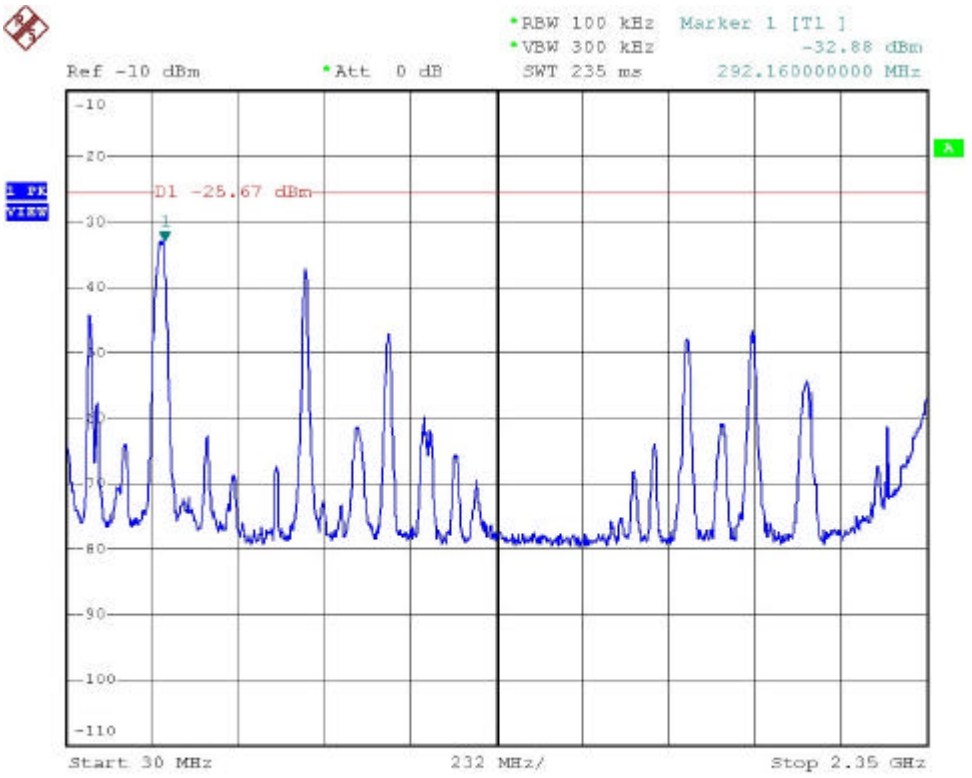

RBW 100 kHz
VBW 300 kHz
SWT 125 ms
Marker 1 [T1]
-46.19 dBm
2.399600000 GHz
Ref 10 dBm
Att 20 dB
D1 -19.39 dBm
Center 2.4 GHz
10 MHz/
Span 100 MHz

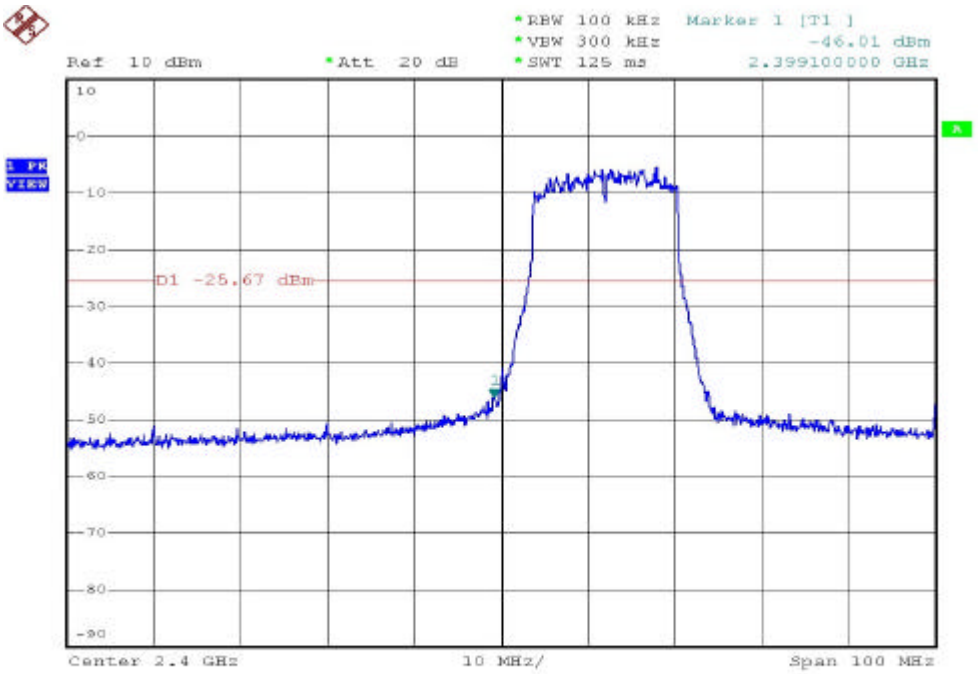

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
Marker 1 [T1]
-30.27 dBm
2.660160000 GHz
Ref -10 dBm
Att 0 dB
D1 -19.39 dBm
Start 2.48 GHz
2.252 GHz/
Stop 25 GHz

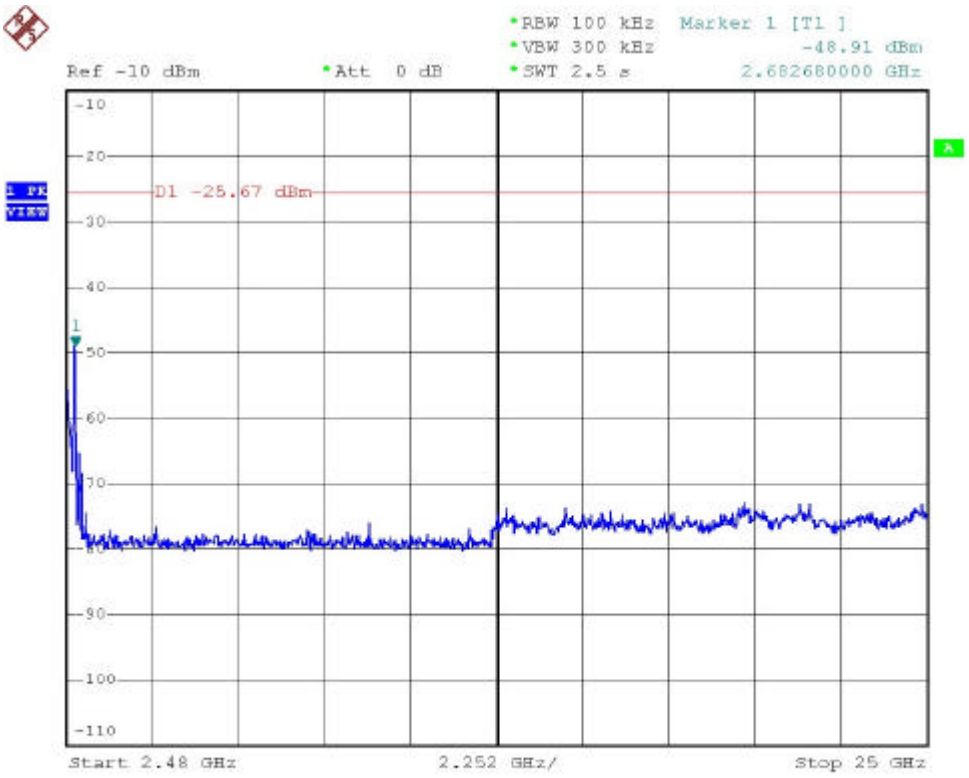

RBW 100 kHz
VBW 300 kHz
SWT 235 ms
Marker 1 [T1]
-24.56 dBm
726.000000000 MHz
Ref -10 dBm
Att 0 dB
D1 -18.11 dBm
Start 30 MHz
232 MHz/
Stop 2.35 GHz

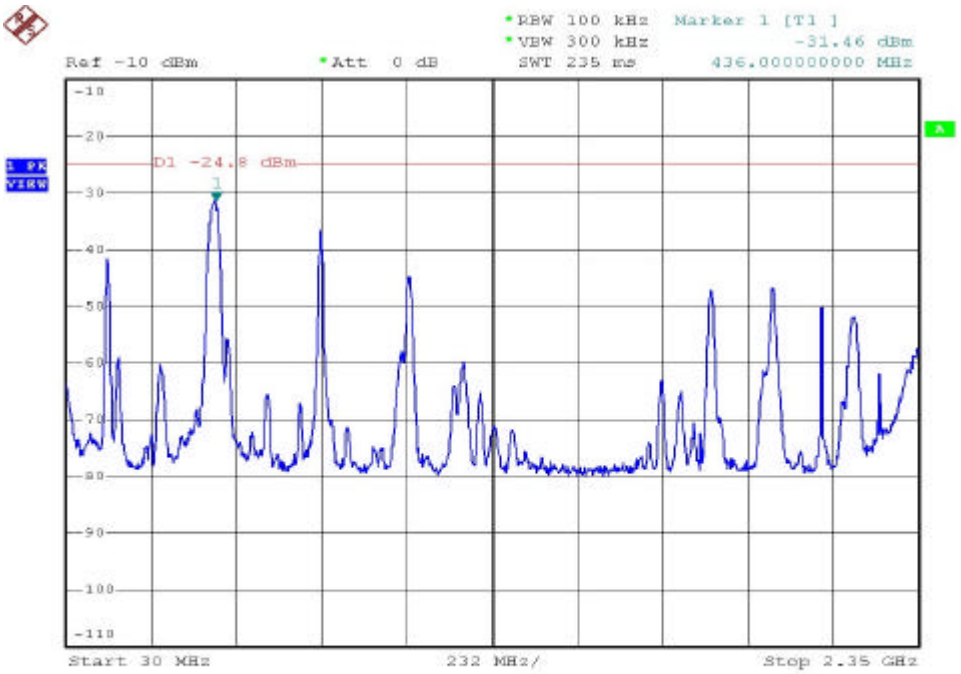

RBW 100 kHz
VBW 300 kHz
SWT 125 ms
Marker 1 [T1]
-47.97 dBm
2.488000000 GHz
Ref 10 dBm
Att 20 dB
D1 -18.11 dBm
Center 2.4835 GHz
10 MHz/
Span 100 MHz

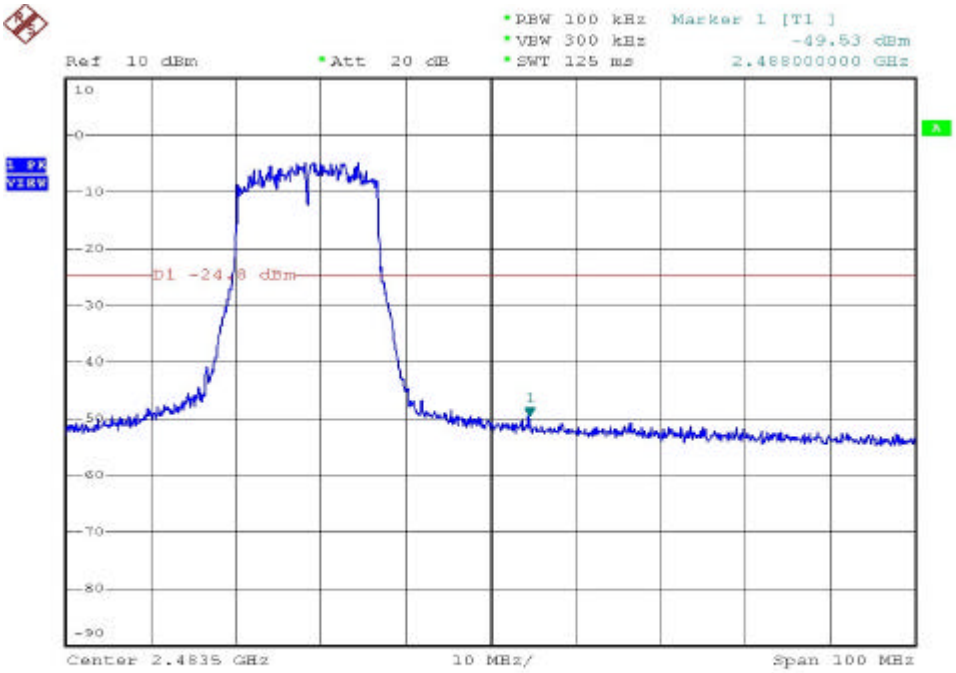

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
Marker 1 [T1]
-30.13 dBm
2.885360000 GHz
Ref -10 dBm
Att 0 dB
D1 -18.11 dBm
Start 2.48 GHz
2.252 GHz/
Stop 25 GHz

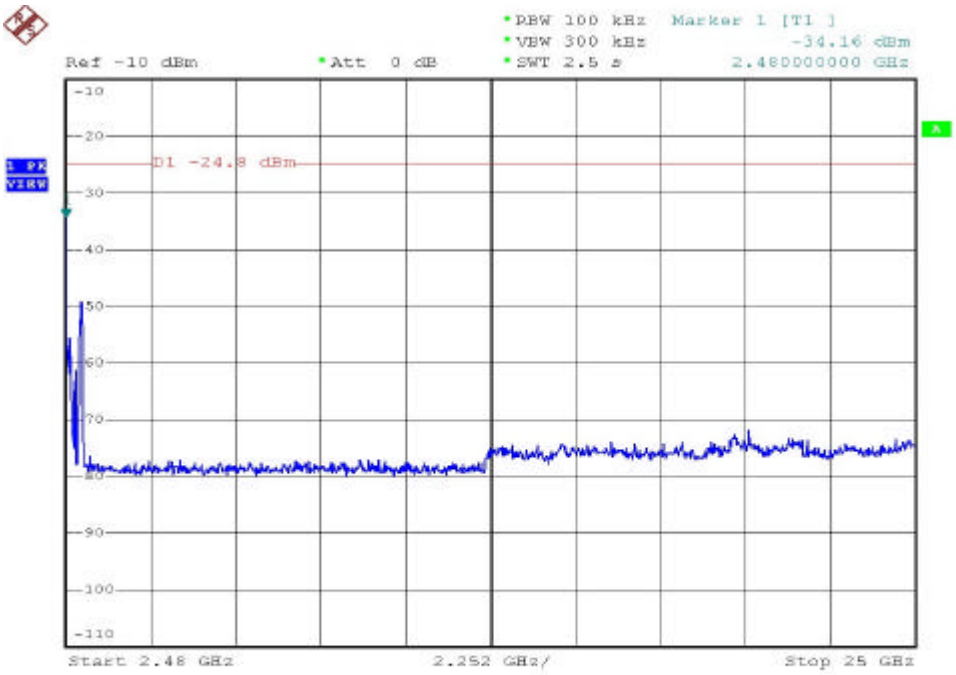

RBW 100 kHz
VBW 300 kHz
SWT 235 ms
Marker 1 [T1]
-32.88 dBm
292.160000000 MHz
Ref -10 dBm
Att 0 dB
D1 -25.67 dBm
Start 30 MHz
232 MHz/
Stop 2.35 GHz


RBW 100 kHz
VBW 300 kHz
SWT 125 ms
Marker 1 [T1]
-46.01 dBm
2.399100000 GHz
Ref 10 dBm
Att 20 dB
D1 -25.67 dBm
Center 2.4 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
Marker 1 [T1]
-48.91 dBm
2.682680000 GHz
Ref -10 dBm
Att 0 dB
D1 -25.67 dBm
Start 2.48 GHz
2.252 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 235 ms
Marker 1 [T1]
-31.46 dBm
436.000000000 MHz
Ref -10 dBm
Att 0 dB
D1 -24.8 dBm
Start 30 MHz
232 MHz/
Stop 2.35 GHz


RBW 100 kHz
VBW 300 kHz
SWT 125 ms
Marker 1 [T1]
-49.53 dBm
2.488000000 GHz
Ref 10 dBm
Att 20 dB
D1 -24.8 dBm
Center 2.4835 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
Marker 1 [T1]
-34.16 dBm
2.480000000 GHz
Ref -10 dBm
Att 0 dB
D1 -24.8 dBm
Start 2.48 GHz
2.252 GHz/
Stop 25 GHz

4.6.1. Note on Band edge Emission

Modulation Standard: IEEE 802.11b
Operation Mode: Normal Operating
Test Date: Jul. 02, 2004 Temperature: 24 ℃ Humidity: 58%

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.			
2359.980	35.34	H	Peak	74	54	-38.66	270	1.5
2359.980	---	H	Ave	74	54	---	---	---
2389.764	32.70	V	Peak	74	54	-41.30	270	1.5
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.			
2483.660	34.03	H	Peak	74	54	-39.97	270	1.5
2483.660	---	H	Ave	74	54	---	---	---
2490.956	32.37	V	Peak	74	54	-41.63	270	1.5
2490.956	---	V	Ave	74	54	---	---	---

4.6.2. Modulation Standard: IEEE 802.11g

Operation Mode: Normal Operating

Test Date: Jul. 02, 2004 Temperature: 24 ℃ Humidity: 58%

c) Channel 1

Fundamental Frequency: 2412 MHz

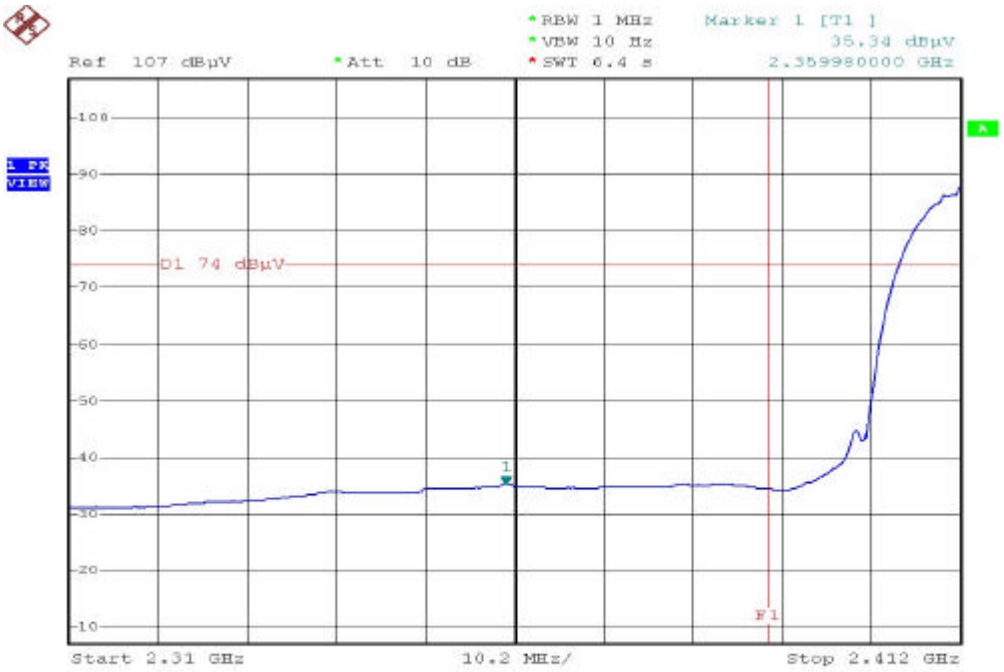
Frequency (MHz)	Level (dBuV)	polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2360.184	34.89	H	Peak	74	54	-39.11	270	1.5
2360.184	---	H	Ave	74	54	---	---	---
2384.868	33.03	V	Peak	74	54	-40.97	270	1.5
2384.868	---	V	Ave	74	54	---	---	---

d) Channel 11

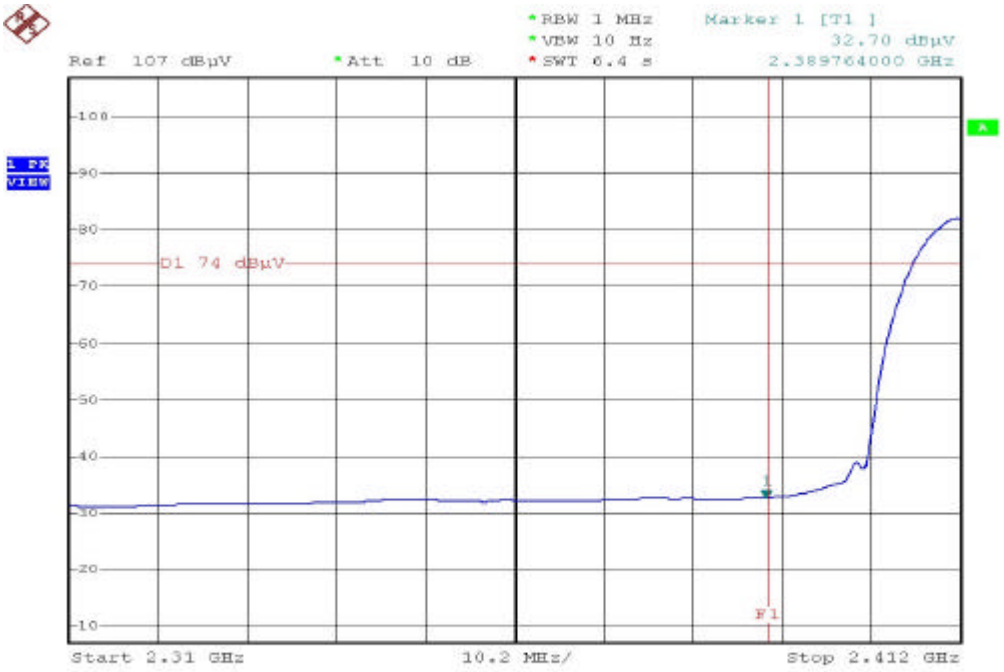
Fundamental Frequency: 2462 MHz

Frequency (MHz)	Level (dBuV)	polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2494.224	34.89	H	Peak	74	54	-39.11	270	1.5
2494.224	---	H	Ave	74	54	---	---	---
2492.552	32.23	V	Peak	74	54	-41.77	270	1.5
2492.552	---	V	Ave	74	54	---	---	---

Modulation Standard: IEEE 802.11b
Channel 1
Pol/Phase: Horizontal

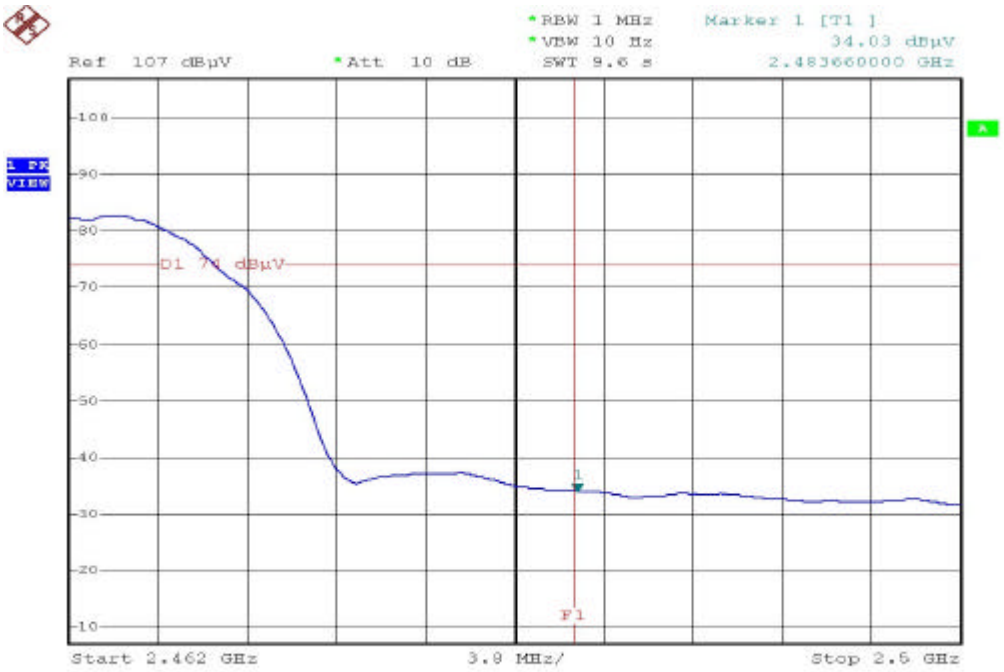


Pol/Phase: Vertical

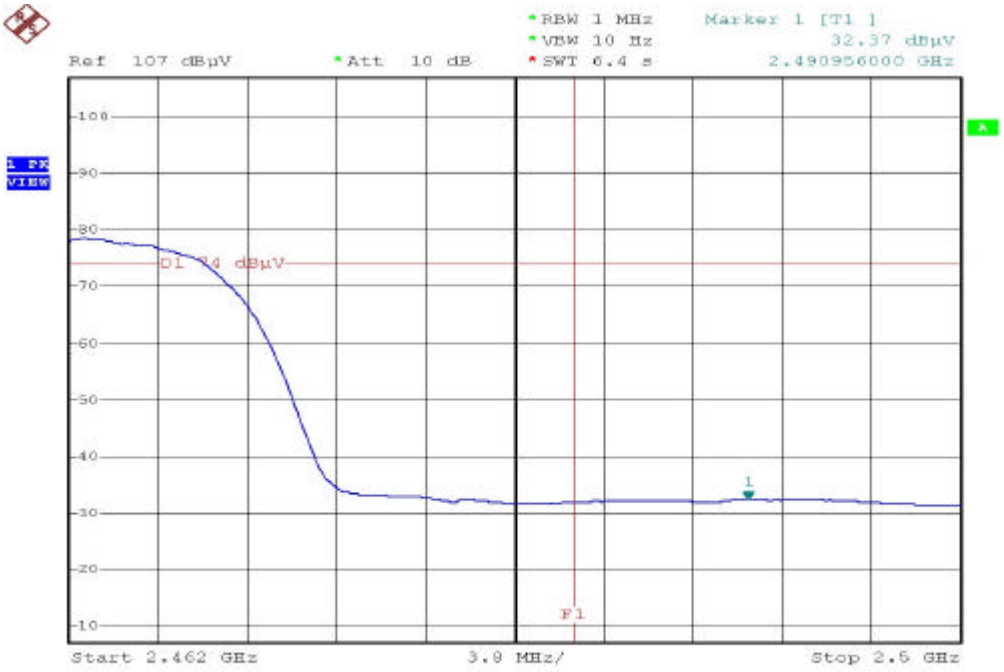


Channel 11

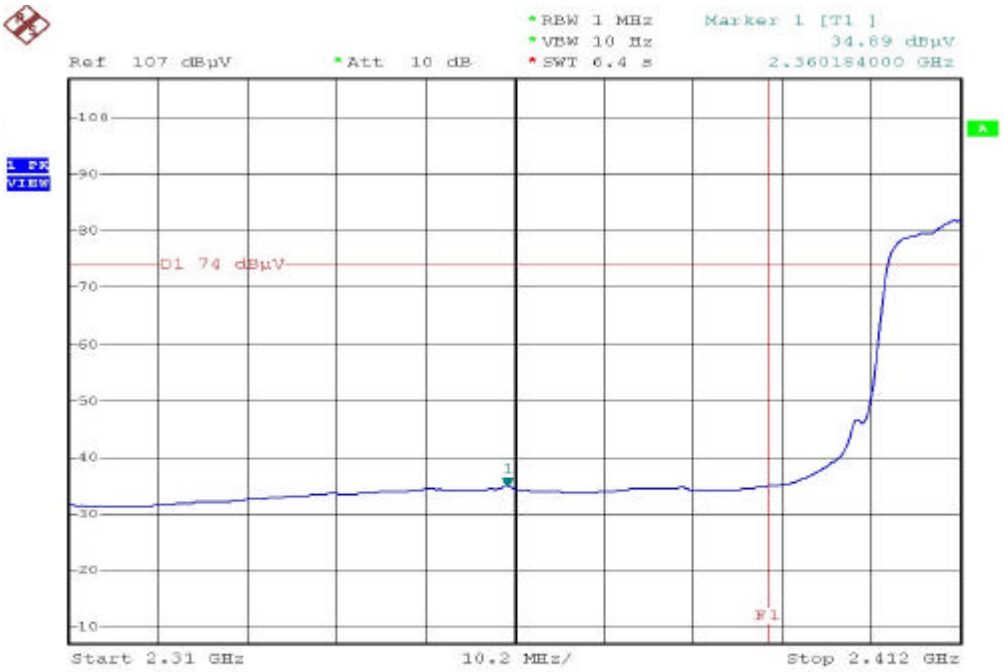
Pol/Phase: Horizontal



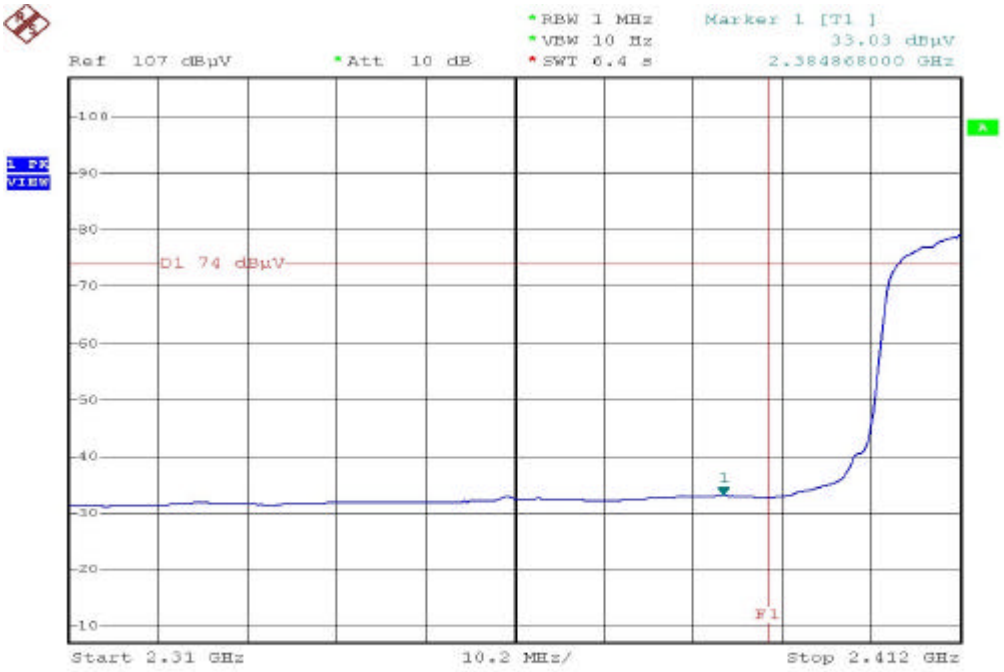
Pol/Phase: Vertical



Modulation Standard: IEEE 802.11g
Channel 1
Pol/Phase: Horizontal

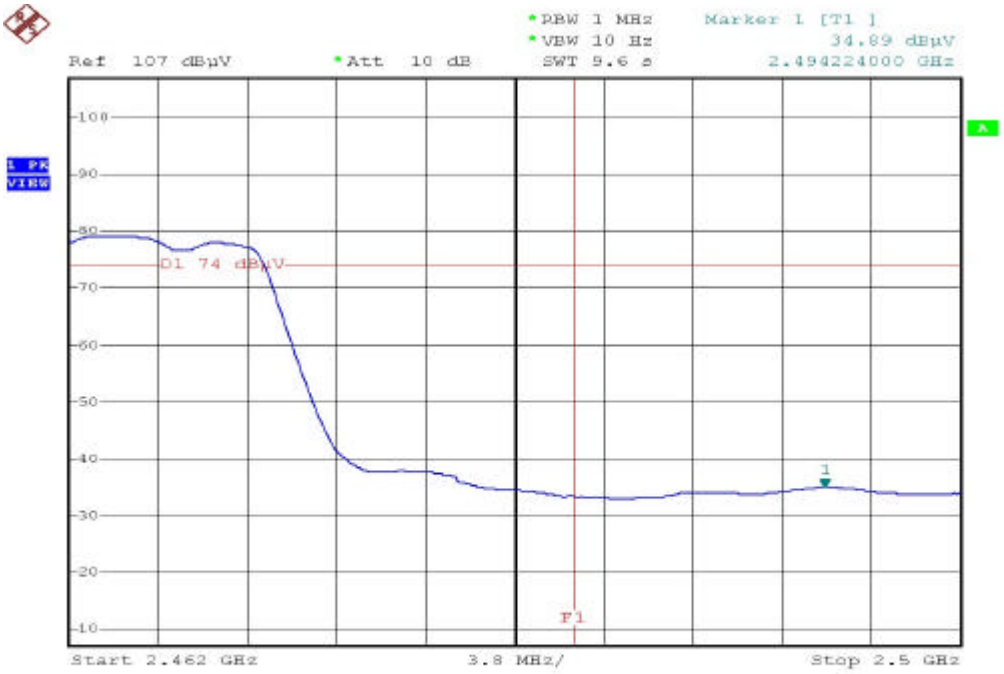


Pol/Phase: Vertical

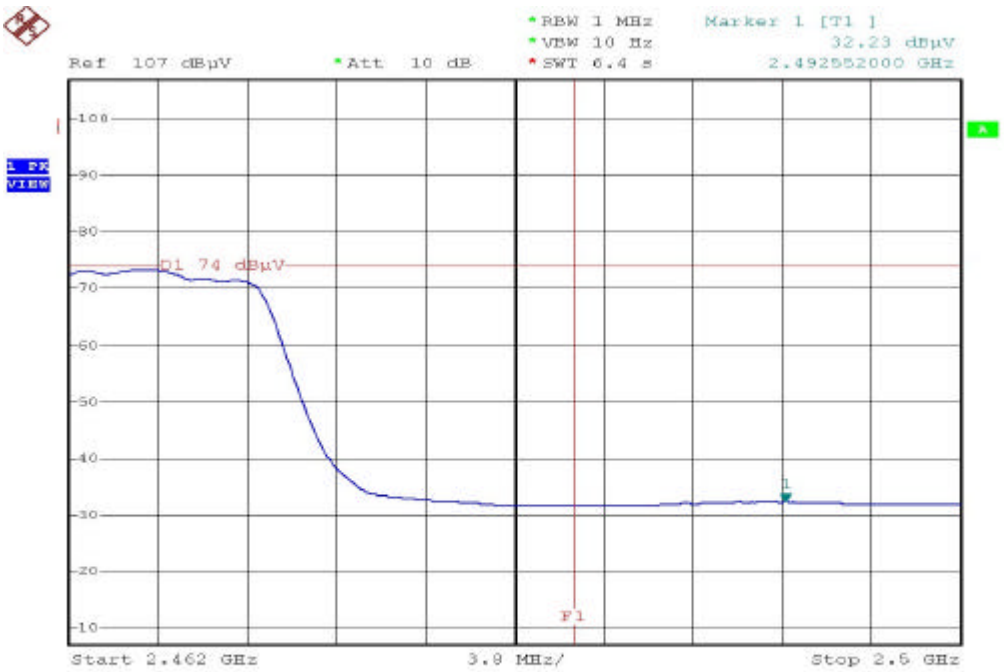


Channel 11

Pol/Phase: Horizontal



Pol/Phase: Vertical



4.7. Power Spectral Density Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Jul. 02, 2004 Temperature: 24℃ Humidity: 58%

a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -13.78 dBm

b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -13.06 dBm

c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -12.77 dBm

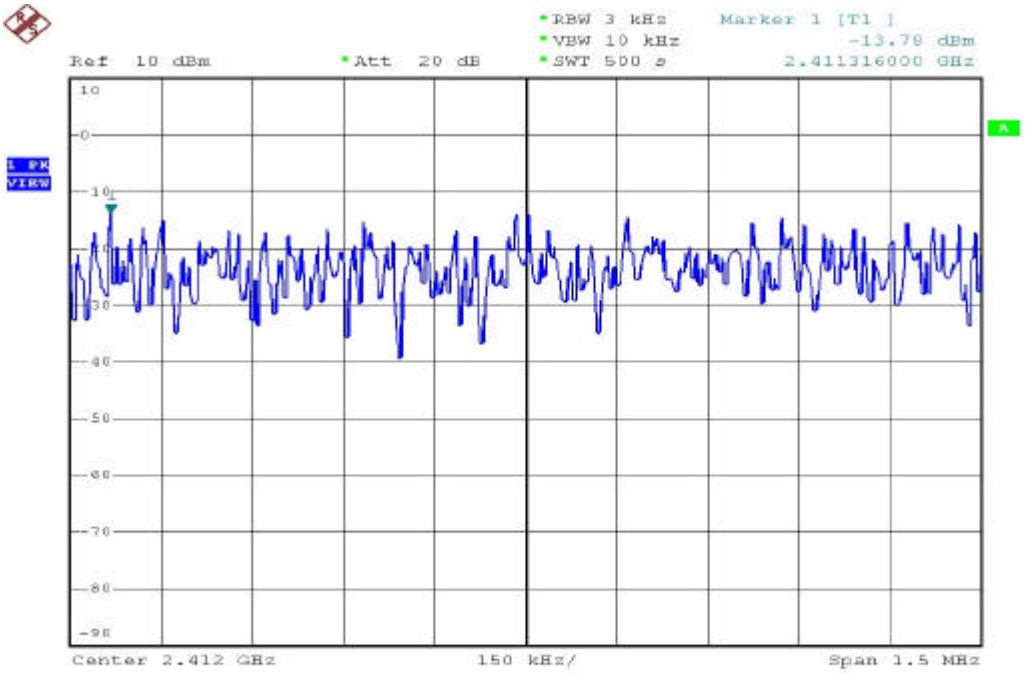
(2) Modulation Standard: IEEE 802.11g

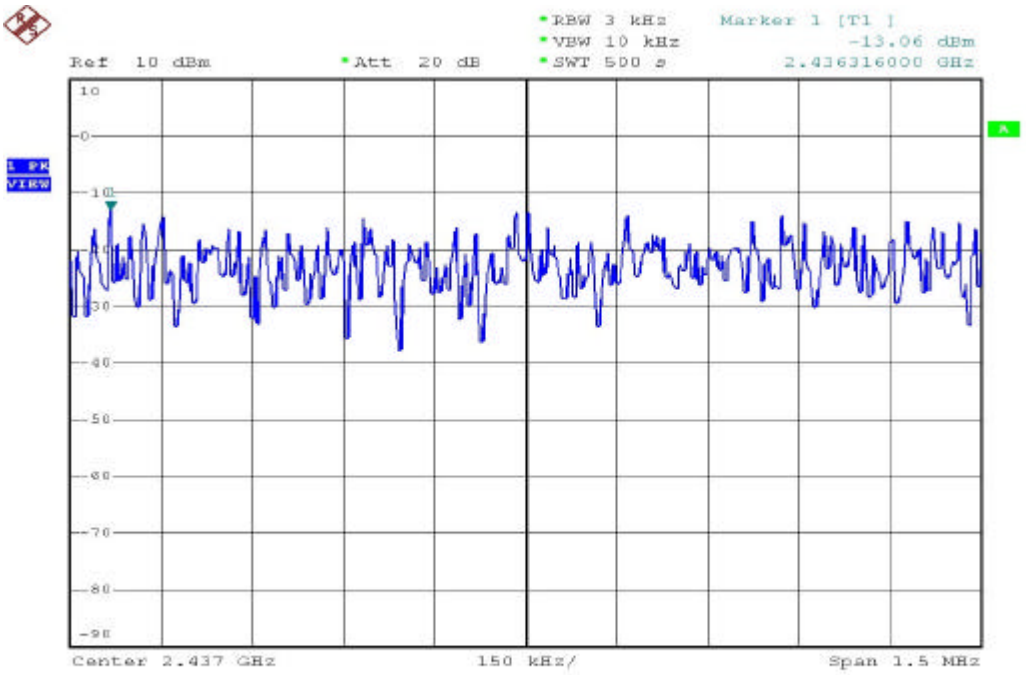
Test Date: Jul. 02, 2004 Temperature: 24℃ Humidity: 58%

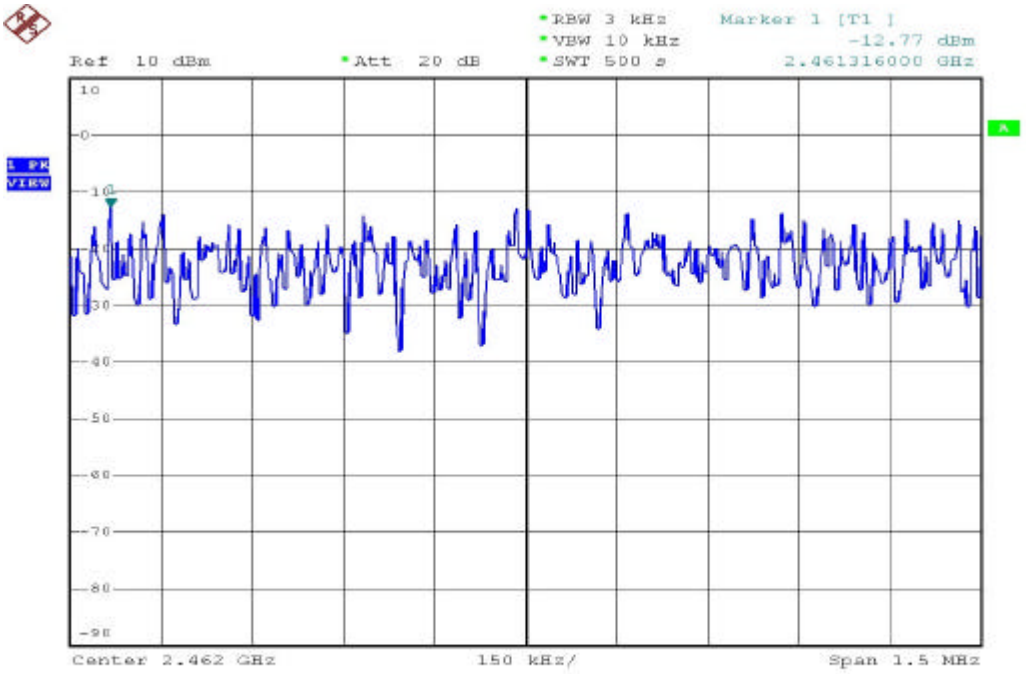
a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -17.50 dBm

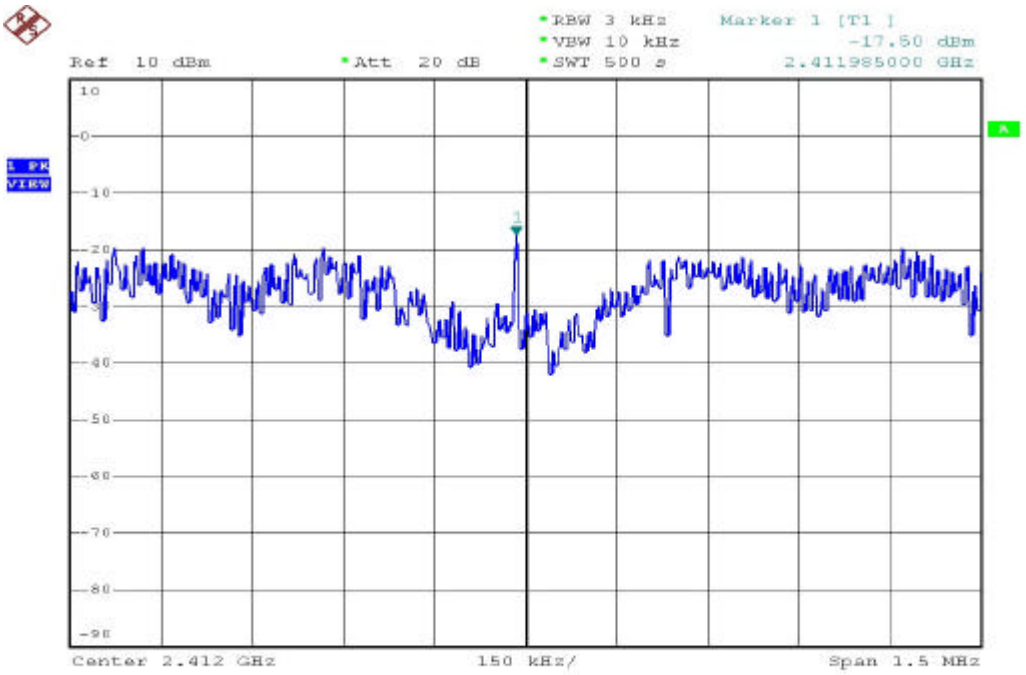
b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -17.12 dBm

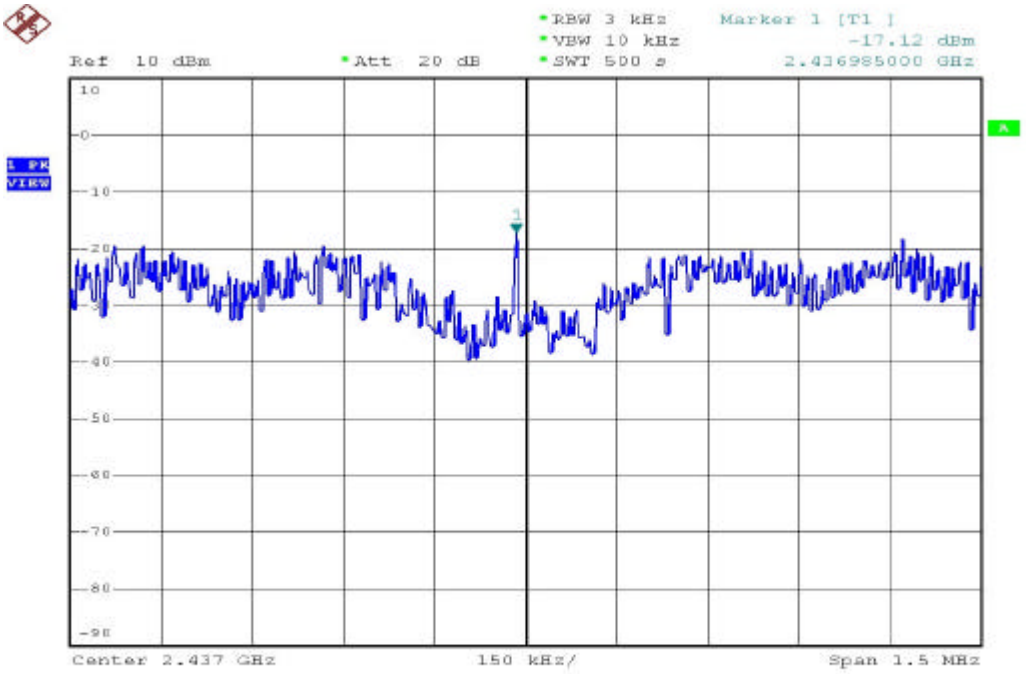
c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -17.02 dBm

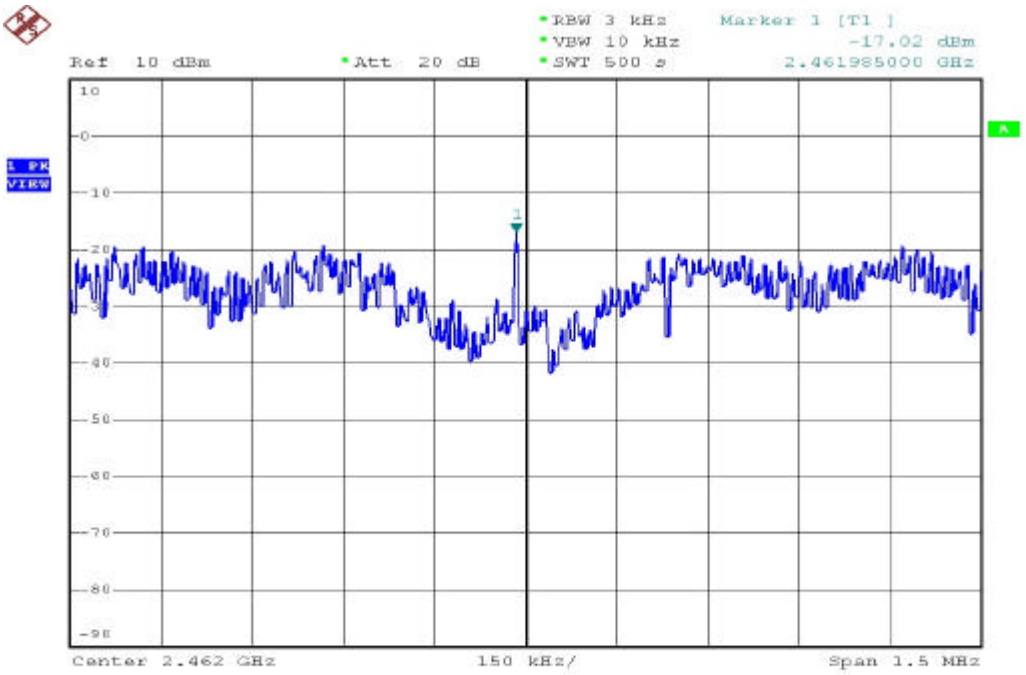

RBW 3 kHz
VBW 10 kHz
SWT 500 s
Marker 1 [T1]
-13.78 dBm
2.411316000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
A
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
Center 2.412 GHz
150 kHz/
Span 1.5 MHz


RBW 3 kHz
VBW 10 kHz
SWT 500 s
Marker 1 [T1]
-13.06 dBm
2.436316000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
A
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
Center 2.437 GHz
150 kHz/
Span 1.5 MHz


RBW 3 kHz
VBW 10 kHz
SWT 500 s
Marker 1 [T1]
-12.77 dBm
2.461316000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
A
Center 2.462 GHz
150 kHz/
Span 1.5 MHz


RBW 3 kHz
VBW 10 kHz
SWT 500 s
Marker 1 [T1]
-17.50 dBm
2.411985000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
A
Center 2.412 GHz
150 kHz/
Span 1.5 MHz





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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	2006/02/08
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	2005/01/14
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	2006/03/16
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	2005/03/05
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