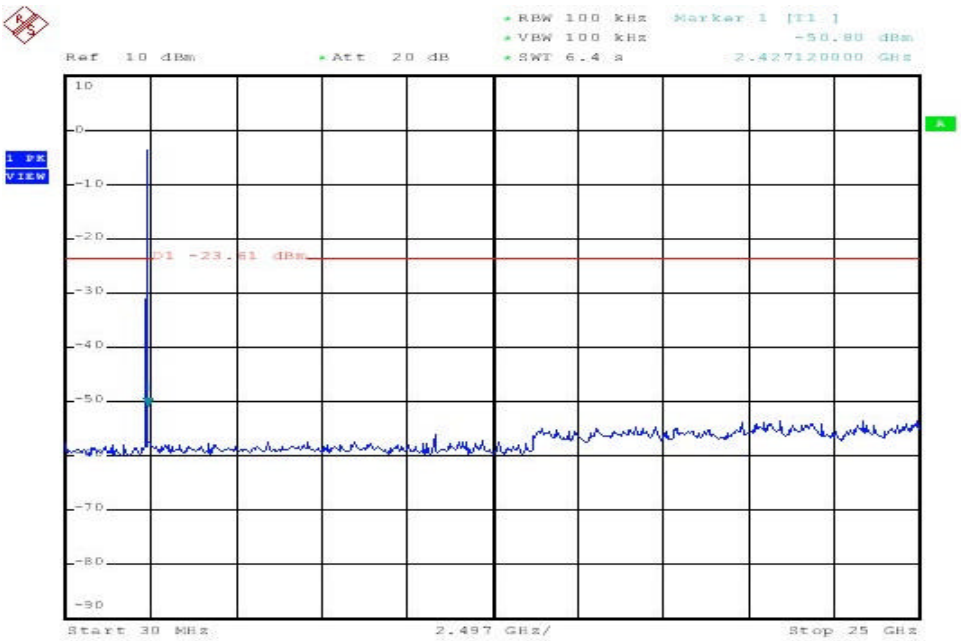
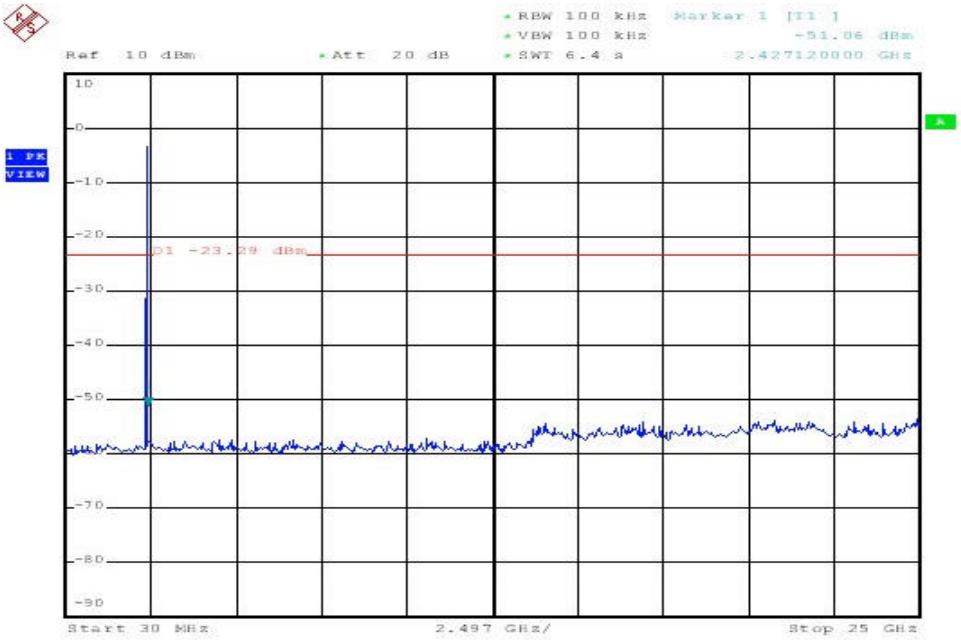
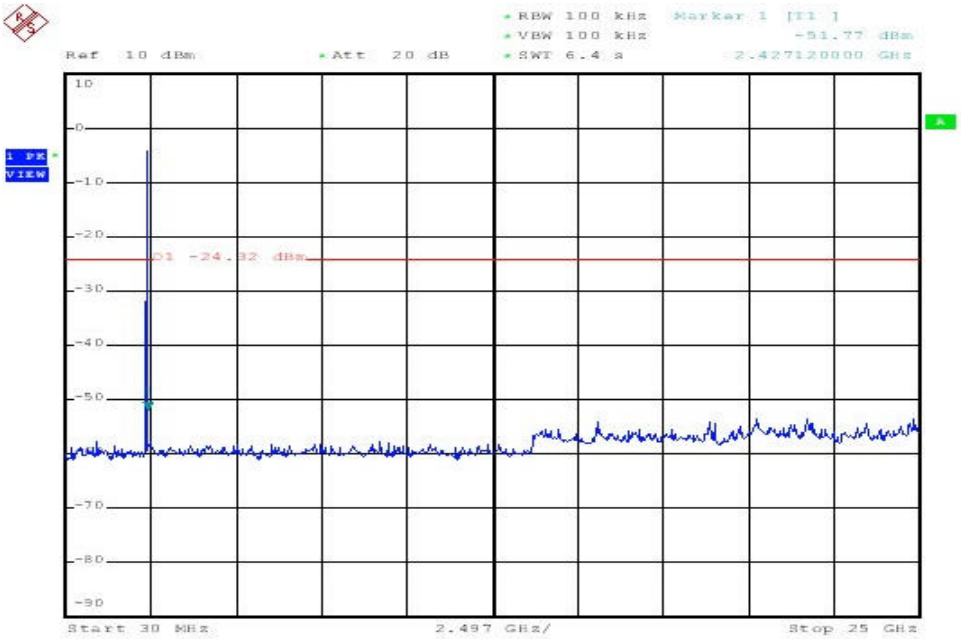
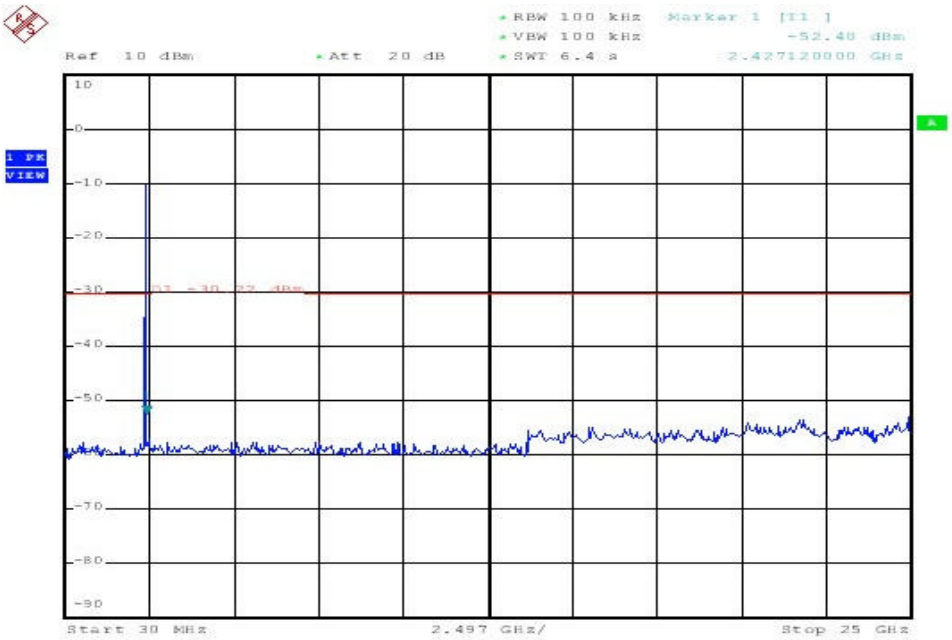
4.3. RF Portion

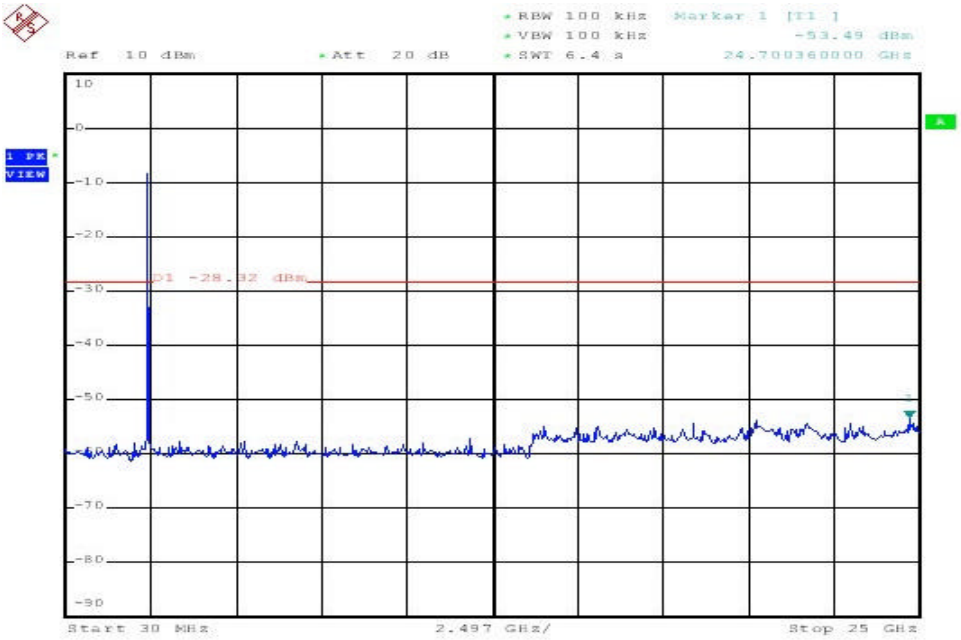
4.3.1. Test Result of Conducted Emission

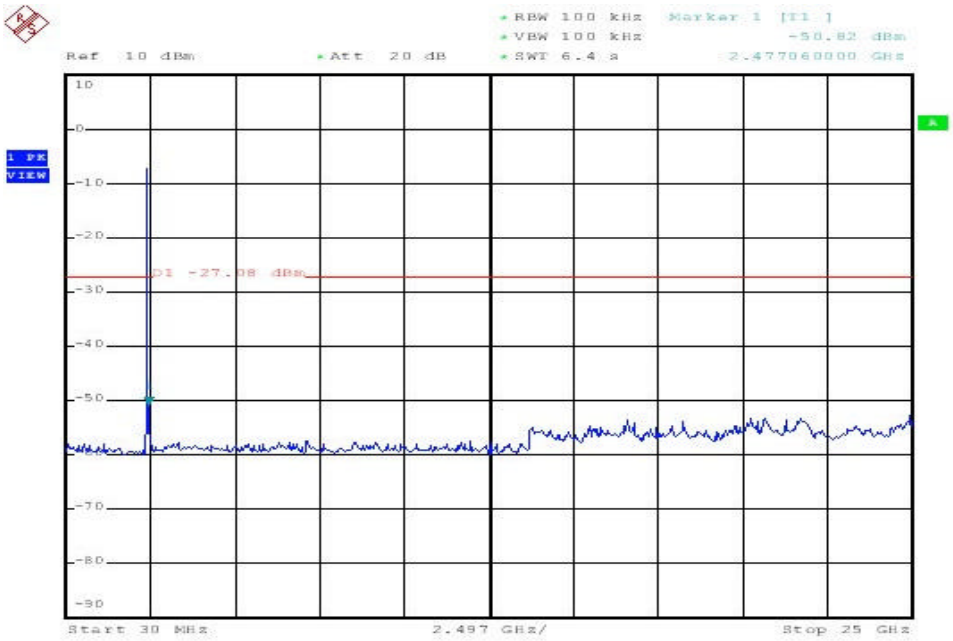





RBW 100 kHz
VBW 100 kHz
SWT 6.4 s
Marker 1 [T1]
-51.77 dBm
2.427120000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
D1 -24.32 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 100 kHz
SWT 6.4 s
Marker 1 [T1]
-52.40 dBm
2.427120000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 100 kHz
SWT 6.4 s
Marker 1 [T1]
-53.49 dBm
24.700360000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
D1 -28.32 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 100 kHz
SWT 6.4 s
Marker 1 [T1]
-50.82 dBm
2.477060000 GHz
Ref 10 dBm
Att 20 dB
1 PK
VIEW
D1 -27.08 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

4.3.2. Test Result of Radiated Emission

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz

Test Date: Jul. 12, 2004 Temperature: 24 ℃ Humidity: 58%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Table Deg.	Ant High (m)
668.90	H	44.95	-2.15	42.80	46	-3.20	180	1.5
901.30	H	39.98	2.58	42.56	46	-3.44	180	1.5
918.80	H	39.41	3.45	42.86	46	-3.14	180	1.5
79.14	V	56.43	-20.32	36.01	40	-3.99	240	1.5
81.84	V	56.48	-19.94	36.54	40	-3.46	240	1.5
668.90	V	48.04	-3.15	44.89	46	-1.11	240	1.5
901.30	V	41.34	2.58	43.92	46	-2.18	240	1.5
934.90	V	39.22	3.95	43.17	46	-2.83	240	1.5

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Table Deg.	Ant High (m)
1084.000	H	55.75	-6.98	48.77	74	-25.23	270	1.5
1784.000	H	64.64	-3.22	61.42	74	-12.58	270	1.5
1954.800	H	65.00	-2.21	62.79	74	-11.21	270	1.5
4924.034	H	60.69	7.61	68.30	74	-5.70	270	1.5
7382.320	H	60.53	11.46	71.99	74	-2.01	270	1.5
4924.034	V	56.05	6.82	62.87	74	-11.13	180	1.5
7382.400	V	57.39	10.48	67.87	74	-6.13	180	1.5

Modulation Standard: IEEE 802.11g

a) Emission frequencies below 1 GHz

Test Date: Jul. 12, 2004 Temperature: 24 ℃ Humidity: 58%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Table Deg.	Ant High (m)
668.90	H	44.19	-2.15	42.04	46	-3.96	240	1.5
902.30	H	38.62	2.58	41.20	46	-4.80	200	1.5
918.80	H	38.18	3.45	41.63	46	-4.36	200	1.5
79.14	V	55.18	-20.32	34.86	40	-5.14	240	1.5
81.84	V	55.46	-19.94	35.52	40	-4.48	240	1.5
668.90	V	47.23	-3.15	44.08	46	-1.92	250	1.5
901.35	V	40.11	2.58	42.69	46	-3.31	250	1.5
934.90	V	38.52	3.95	42.47	46	-3.53	240	1.5

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Table Deg.	Ant High (m)
4924.00	V	48.58	6.82	55.40	74	-18.60	180	1.5
7386.60	V	56.95	10.48	67.43	74	-6.57	180	1.5
1784.00	H	62.59	22.00	59.37	74	-14.63	270	1.5
1952.00	H	62.22	21.00	60.01	74	-13.99	270	1.5
4918.72	H	53.65	7.55	61.20	74	-12.80	270	1.5
7383.12	H	60.72	11.46	72.18	74	-1.82	270	1.5

4.3.3. Photographs of Radiated Emission Test

FRONT VIEW

REAR VIEW

4.4. 6dB Bandwidth Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Jul. 12, 2004 Temperature: 24℃ Humidity: 58%

a) Channel 01: 6dB Emission Bandwidth is 11.8 MHz

b) Channel 06: 6dB Emission Bandwidth is 11.2 MHz

c) Channel 11: 6dB Emission Bandwidth is 10.6 MHz

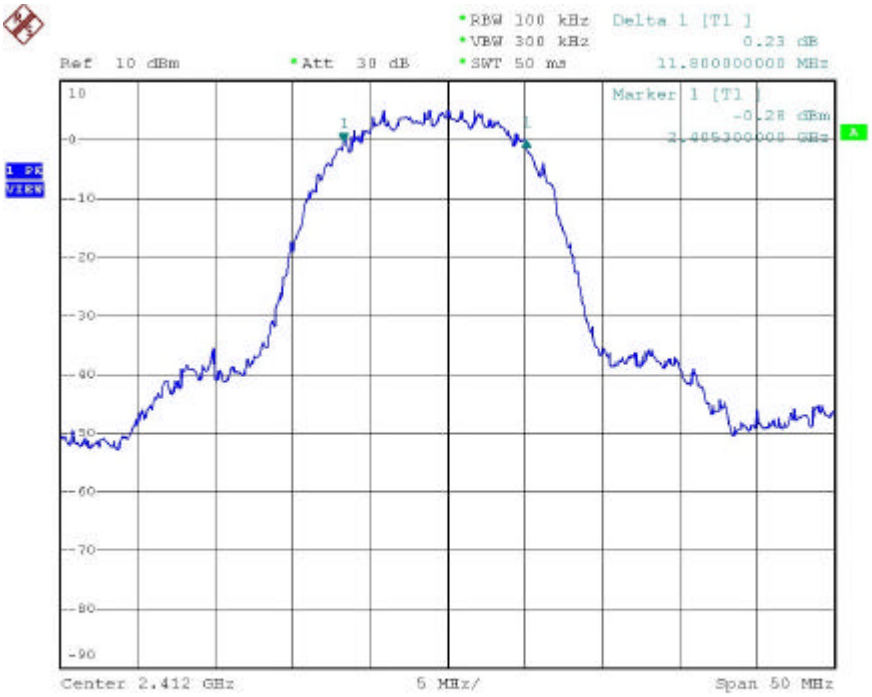
(2) Modulation Standard: IEEE 802.11g

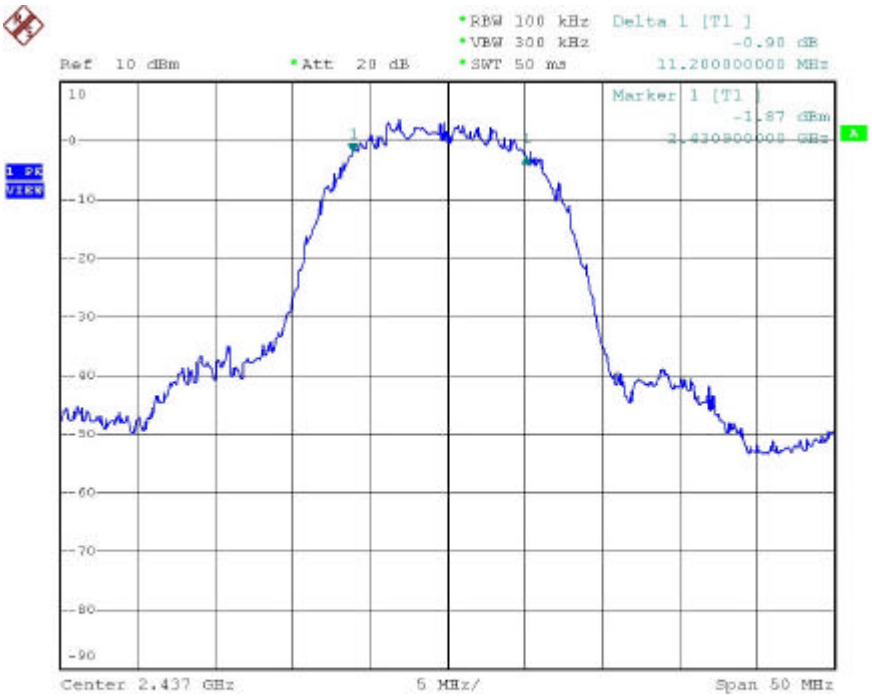
Test Date: Jul. 12, 2004 Temperature: 24℃ Humidity: 58%

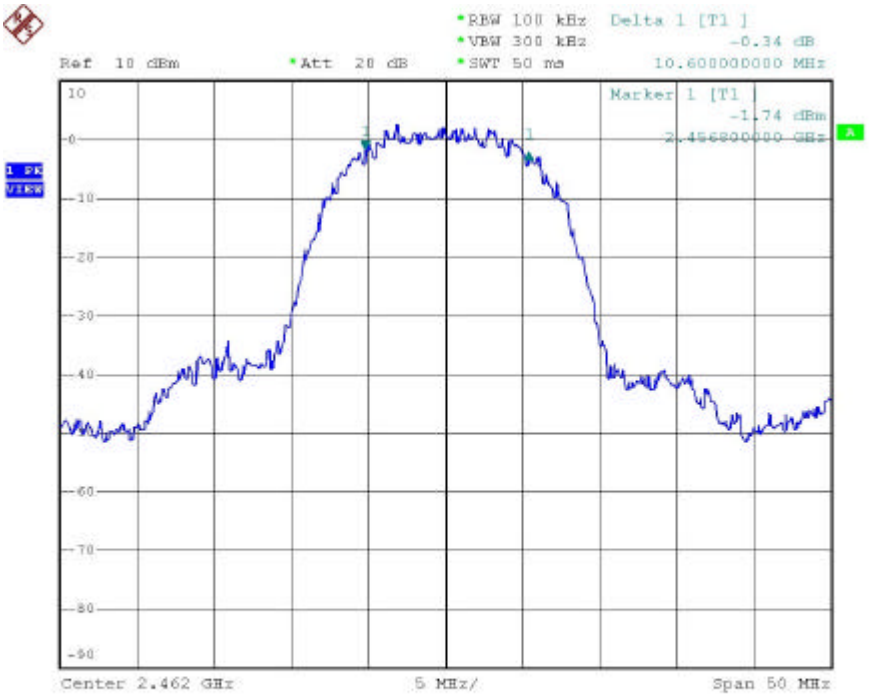
a) Channel 01: 6dB Emission Bandwidth is 16.4 MHz

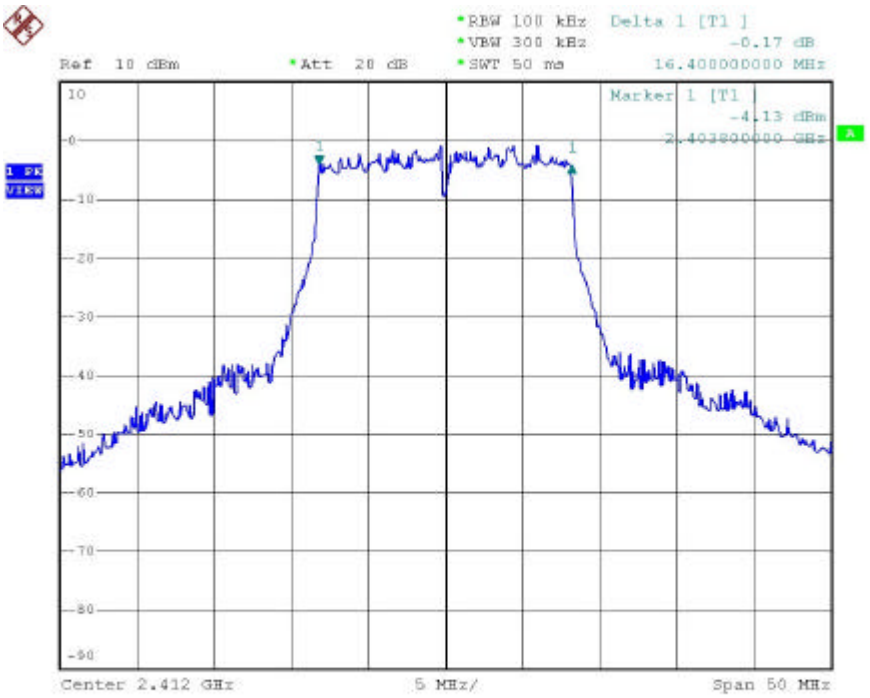
b) Channel 06: 6dB Emission Bandwidth is 16.5 MHz

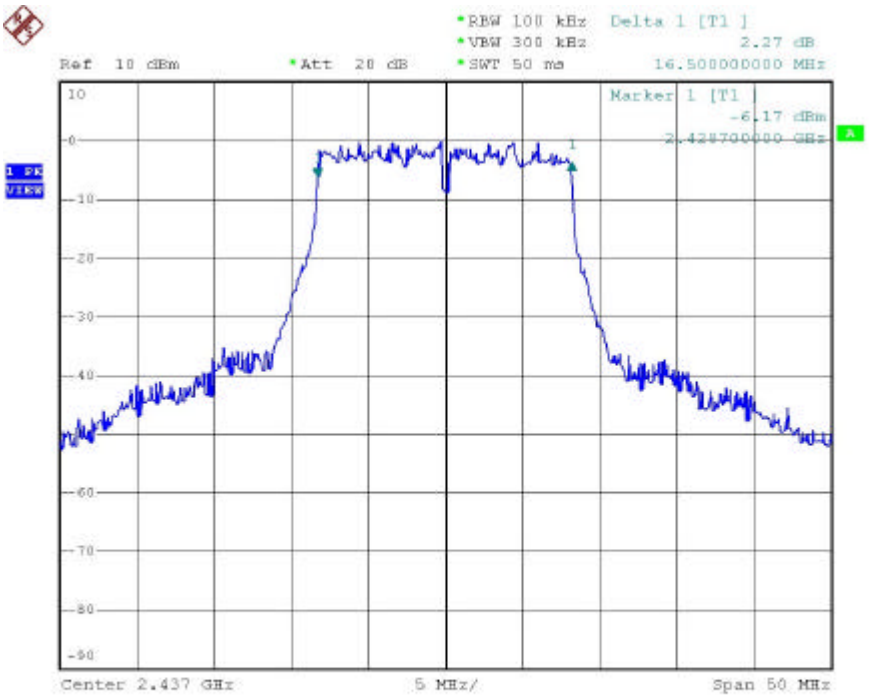
c) Channel 11: 6dB Emission Bandwidth is 16.5 MHz

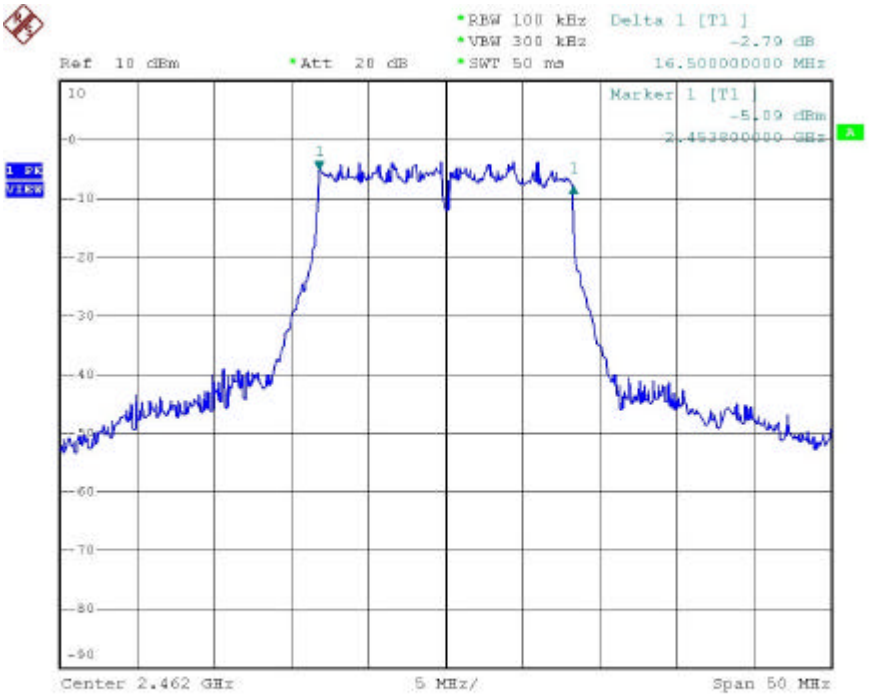

RBW 100 kHz
VBW 300 kHz
SWT 50 ms
Delta 1 [T1]
0.23 dB
11.800000000 MHz
Ref 10 dBm
Att 30 dB
Marker 1 [T1]
-0.28 dBm
2.405300000 GHz
1 PK VIEW
Center 2.412 GHz
5 MHz/
Span 50 MHz


RBW 100 kHz
VBW 300 kHz
SWT 50 ms
Delta 1 [T1]
-0.90 dB
11.200000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-1.87 dBm
2.430800000 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]
-0.34 dB
10.600000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-1.74 dBm
2.456800000 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]
-0.17 dB
16.400000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-4.13 dBm
2.403800000 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]
2.27 dB
16.500000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-6.17 dBm
2.428700000 GHz
Center 2.437 GHz
5 MHz/
Span 50 MHz


RBW 100 kHz
VBW 300 kHz
SWT 50 ms
Delta 1 [T1]
-2.79 dB
16.500000000 MHz
Ref 10 dBm
Att 20 dB
Marker 1 [T1]
-5.09 dBm
2.453800000 GHz
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. 12, 2004 Temperature: 24℃ Humidity: 58%

a) Channel 01: Output Peak Power is 14.96 dBm or 31.33 mW

b) Channel 06: Output Peak Power is 15.69 dBm or 37.07 mW

c) Channel 11: Output Peak Power is 16.25 dBm or 42.17 mW

(2) Modulation Standard: IEEE 802.11g

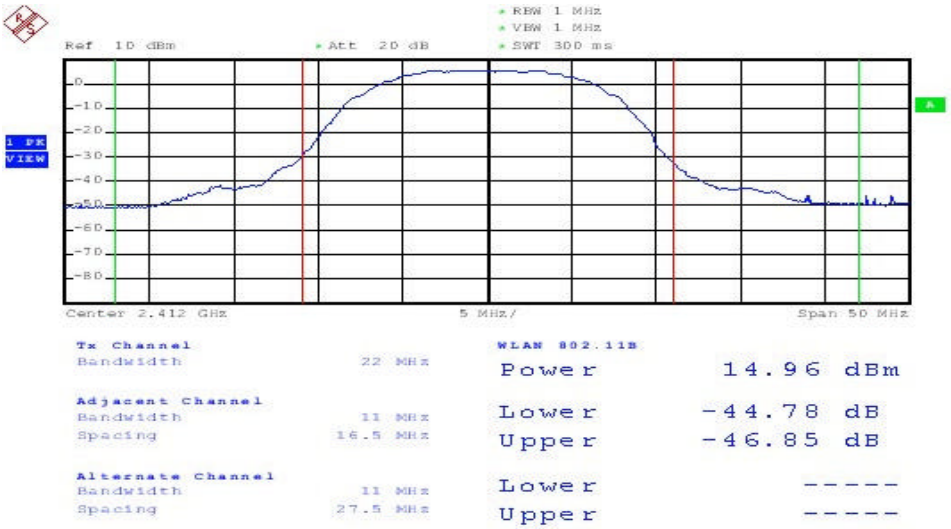
Test Date: Jul. 12, 2004 Temperature: 24℃ Humidity: 58%

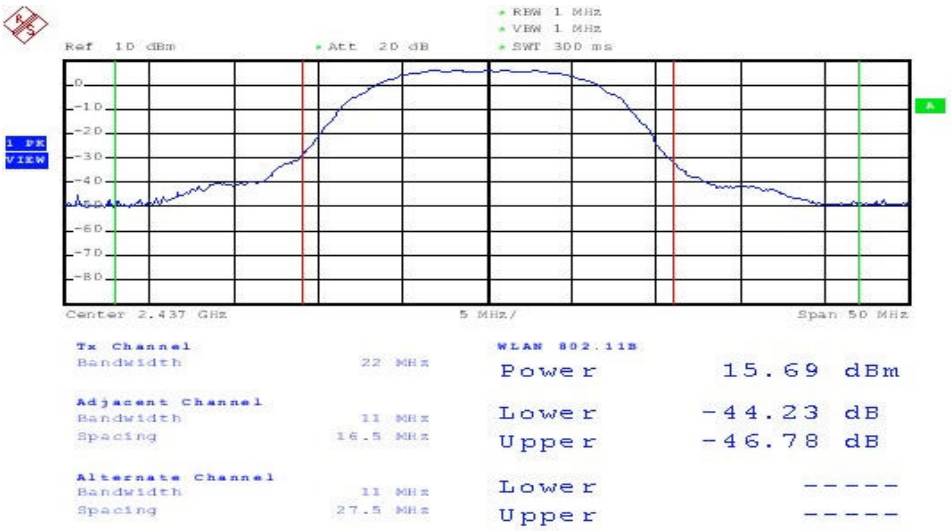
a) Channel 01: Output Peak Power is 12.87 dBm or 19.36 mW

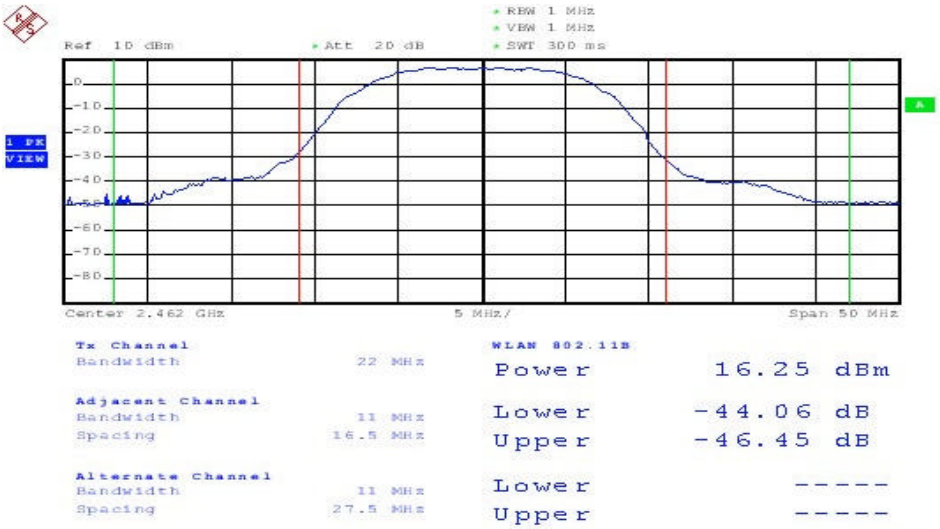
b) Channel 06: Output Peak Power is 13.84 dBm or 24.21 mW

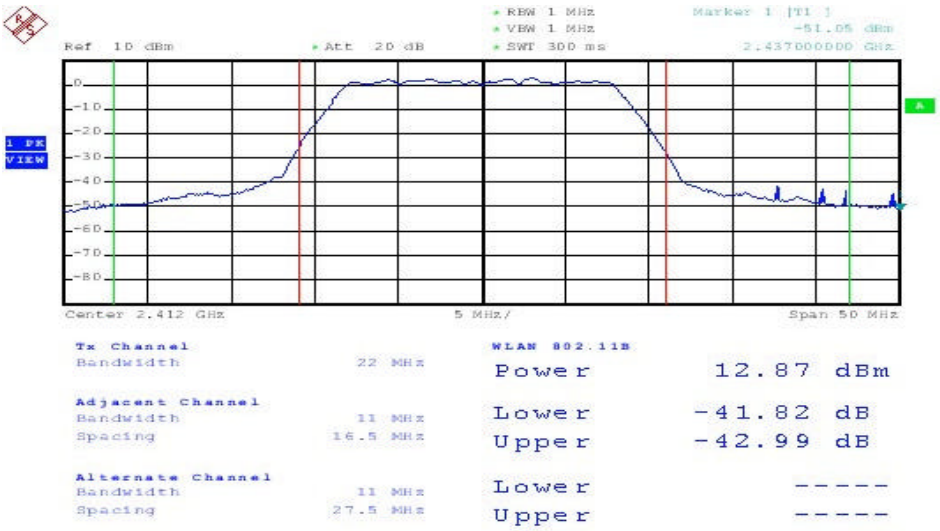
c) Channel 11: Output Peak Power is 14.55 dBm or 28.51 mW

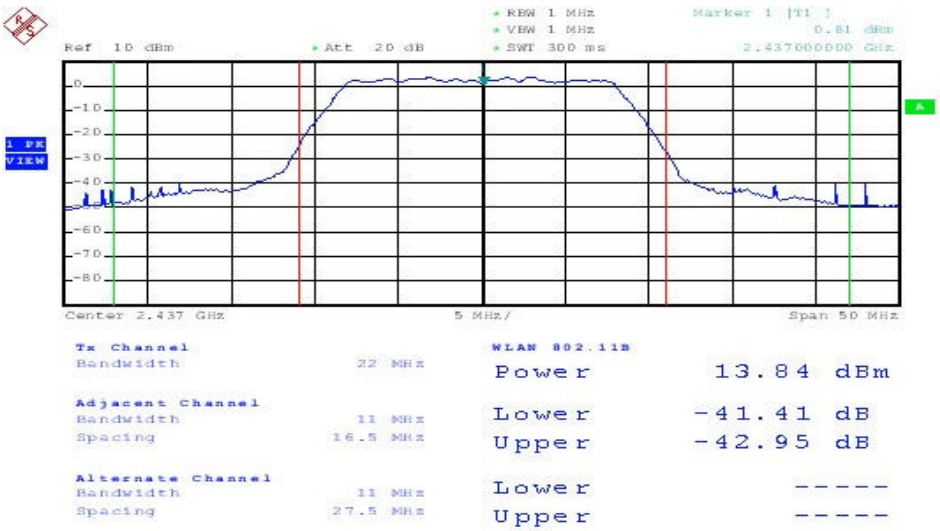
Note: Conducted Power = Reading Value + Cable Loss

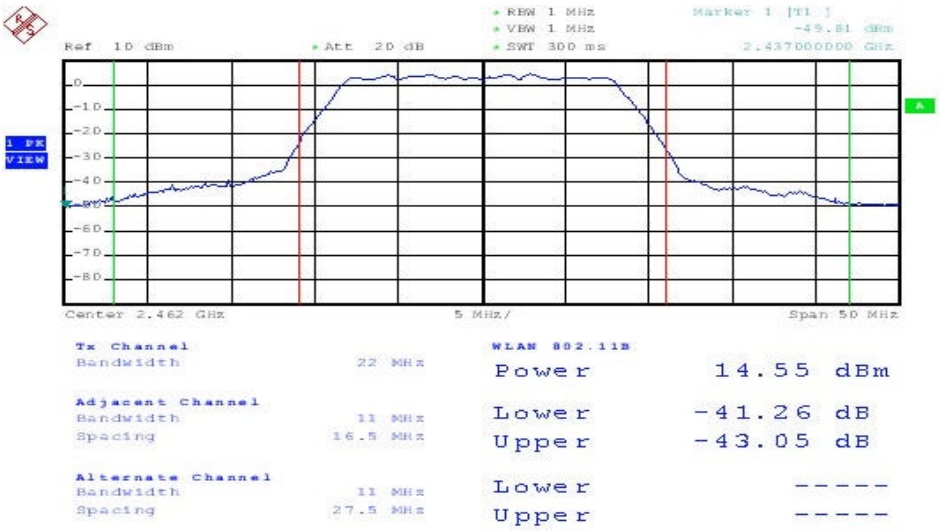

RBW 1 MHz
VBW 1 MHz
SWT 300 ms
Ref 10 dBm
Att 20 dB
1 PK VIEW
A
Center 2.412 GHz
5 MHz/
Span 50 MHz
Tx Channel
Bandwidth 22 MHz
WLAN 802.11B
Power 14.96 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -44.78 dB
Upper -46.85 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----


RBW 1 MHz
VBW 1 MHz
SWT 300 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 15.69 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -44.23 dB
Upper -46.78 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----


RBW 1 MHz
VBW 1 MHz
SWT 300 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 16.25 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -44.06 dB
Upper -46.45 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----


RBW 1 MHz
VBW 1 MHz
SWT 300 ms
Marker 1 [T1]
-51.05 dBm
2.437000000 GHz
Ref 10 dBm
Att 20 dB
1 PK VIEW
A
Center 2.412 GHz
5 MHz/
Span 50 MHz
Tx Channel
Bandwidth 22 MHz
WLAN 802.11B
Power 12.87 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -41.82 dB
Upper -42.99 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----


RBW 1 MHz
VBW 1 MHz
SWT 300 ms
Marker 1 [T1]
0.81 dBm
2.437000000 GHz
Ref 10 dBm
Att 20 dB
1 PK VIEW
Center 2.437 GHz
5 MHz/
Span 50 MHz
Tx Channel
Bandwidth 22 MHz
WLAN 802.11B
Power 13.84 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -41.41 dB
Upper -42.95 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----


RBW 1 MHz
VBW 1 MHz
SWT 300 ms
Marker 1 [T1]
-49.81 dBm
2.437000000 GHz
Ref 10 dBm
Att 20 dB
1 PK VIEW
Center 2.462 GHz
5 MHz/
Span 50 MHz
Tx Channel
Bandwidth 22 MHz
WLAN 802.11B
Power 14.55 dBm
Adjacent Channel
Bandwidth 11 MHz
Spacing 16.5 MHz
Lower -41.26 dB
Upper -43.05 dB
Alternate Channel
Bandwidth 11 MHz
Spacing 27.5 MHz
Lower -----
Upper -----