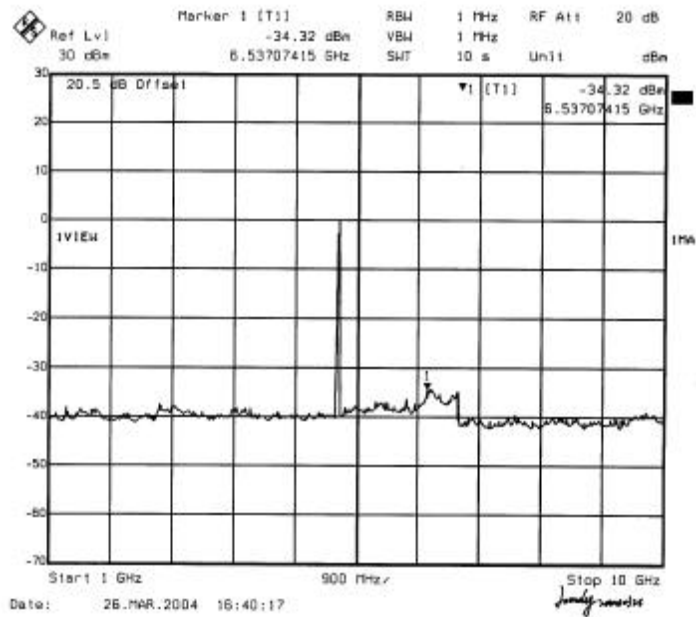
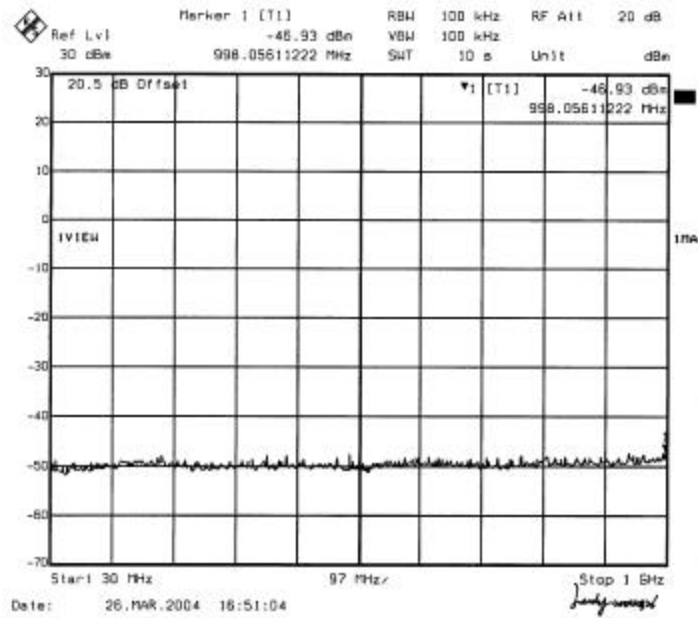
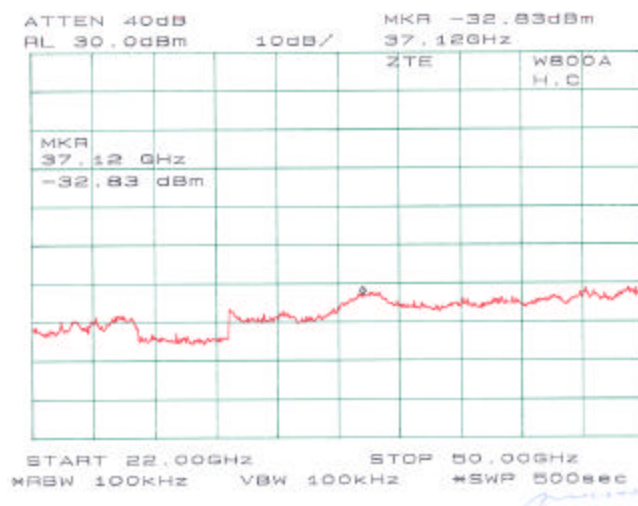
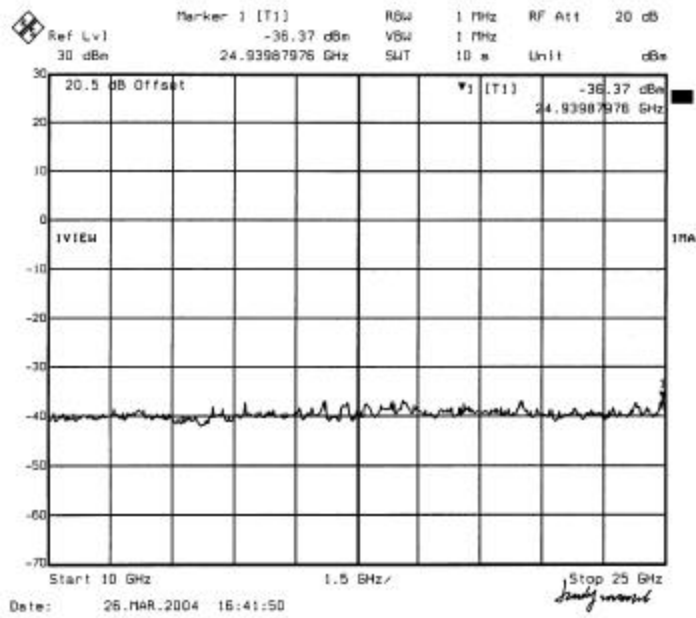
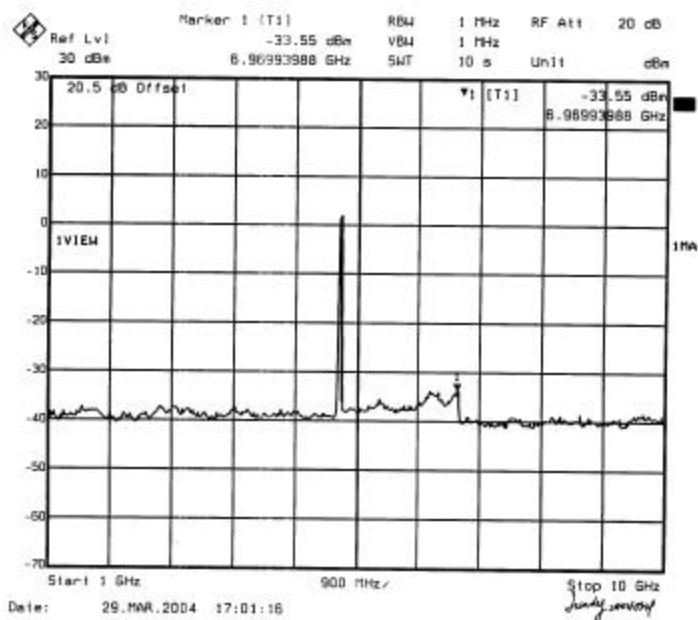
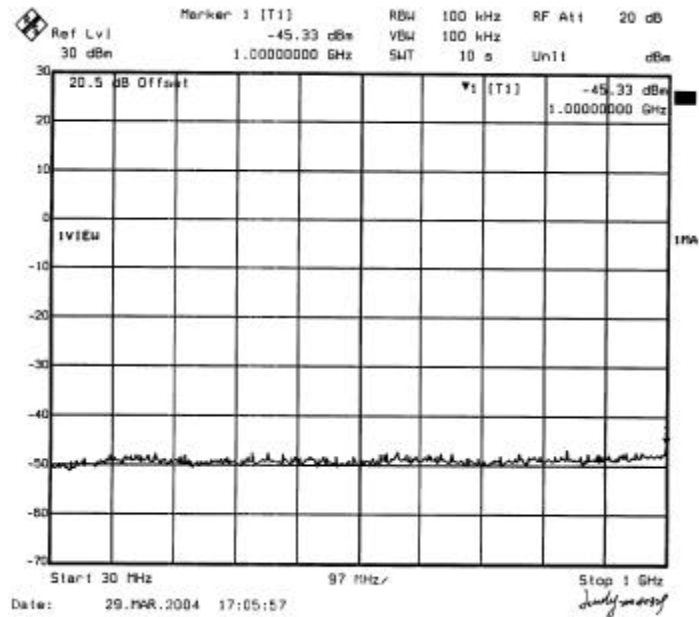


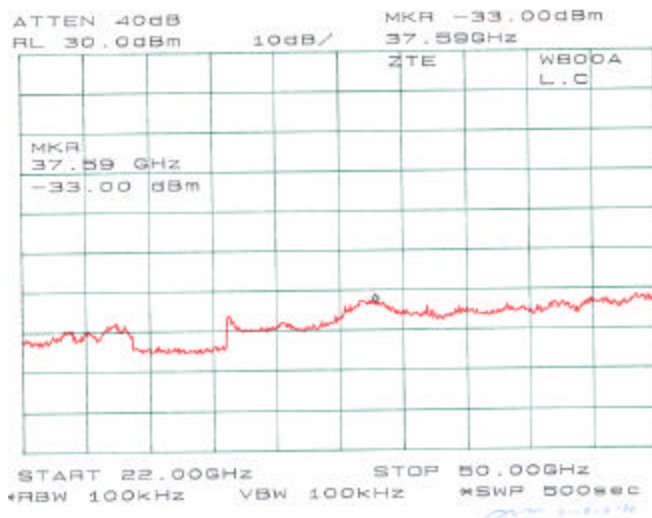
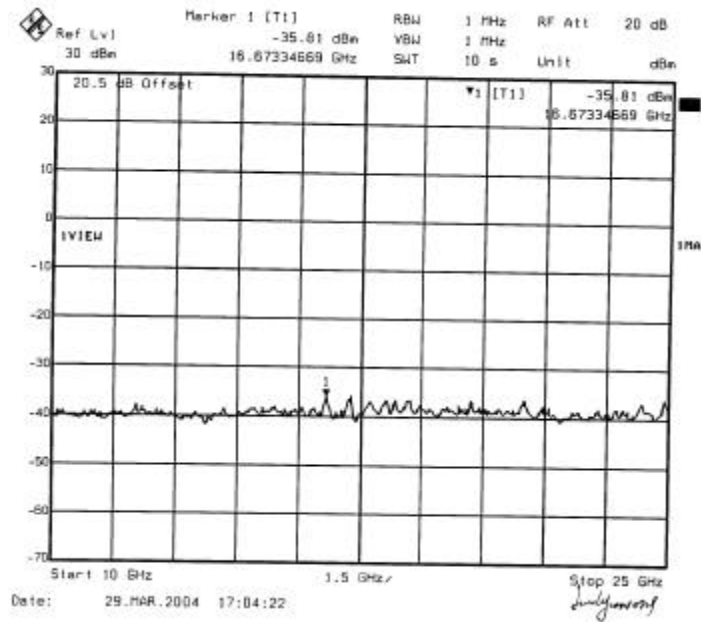
(5.15GHz-5.25GHz) High Channel BPSK 802.11a



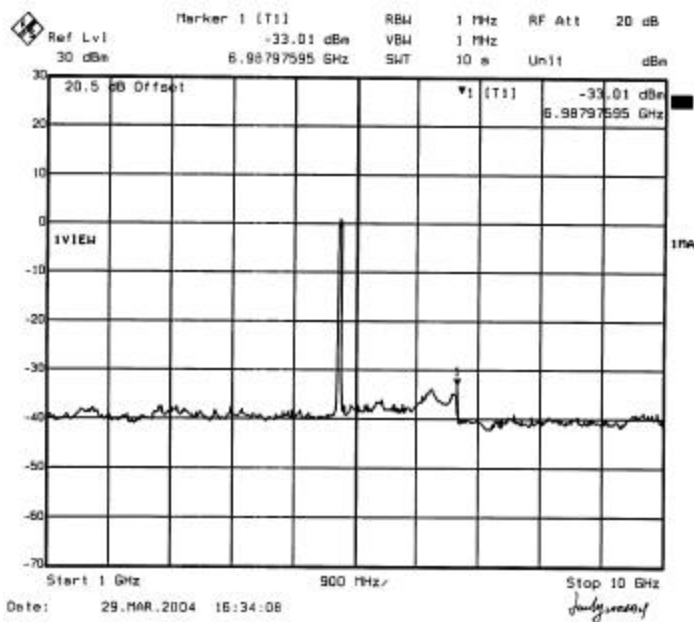
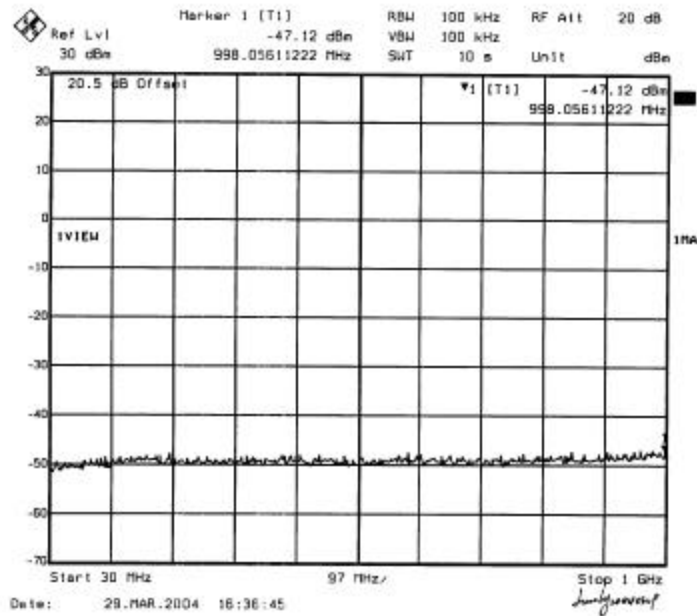


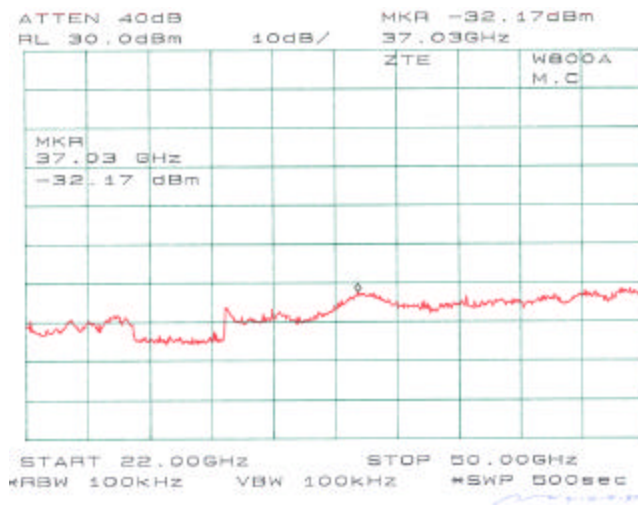
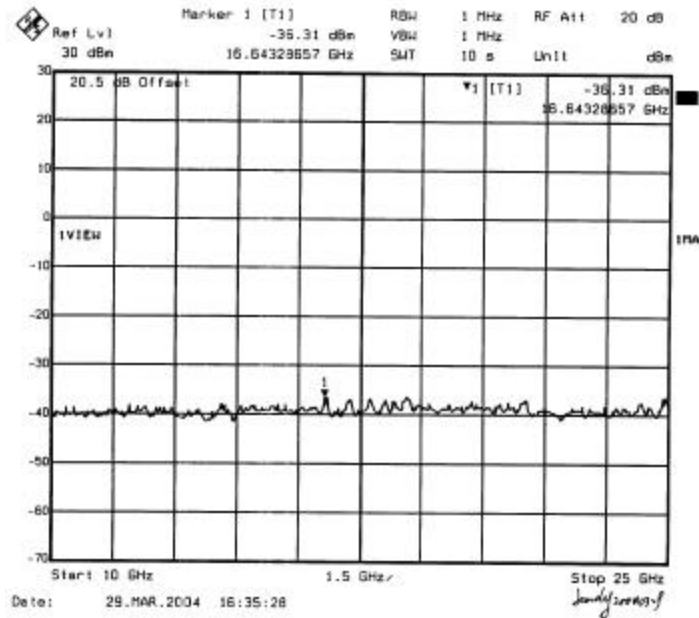
(5.25GHz-5.35GHz) Low Channel BPSK 802.11a



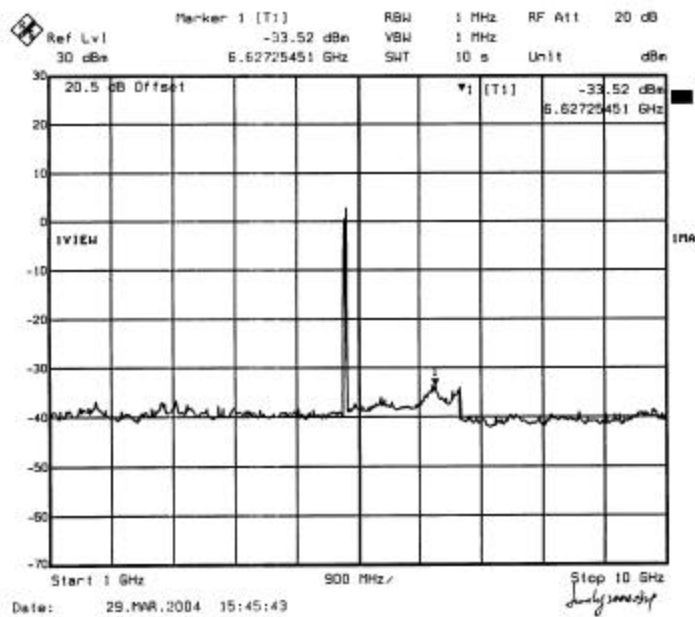
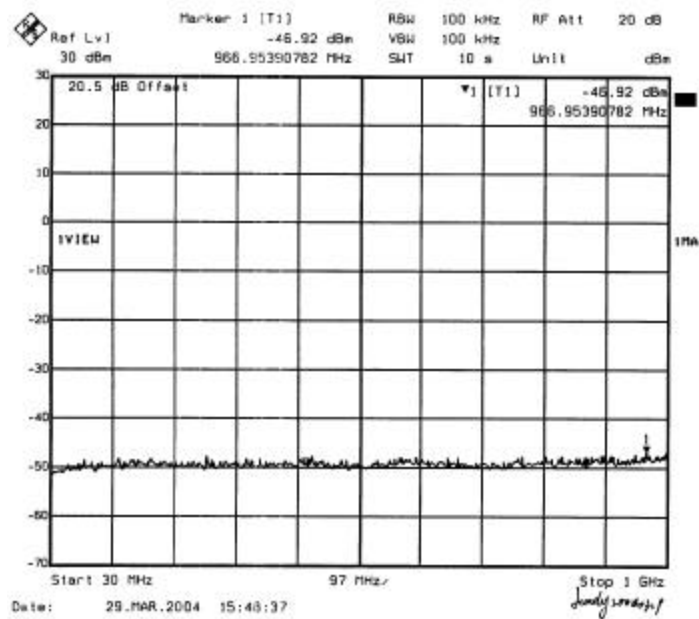


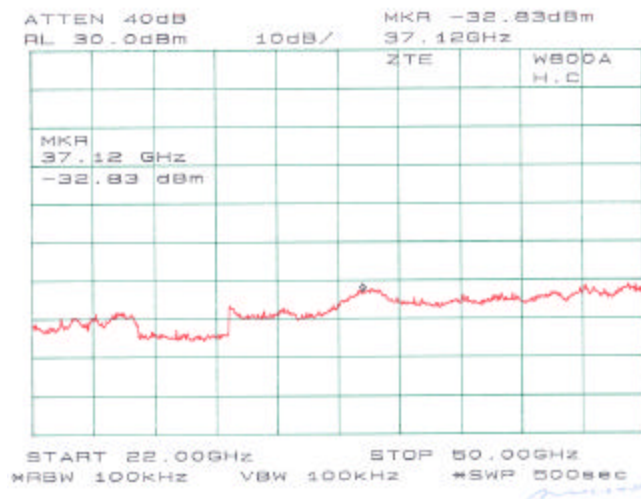
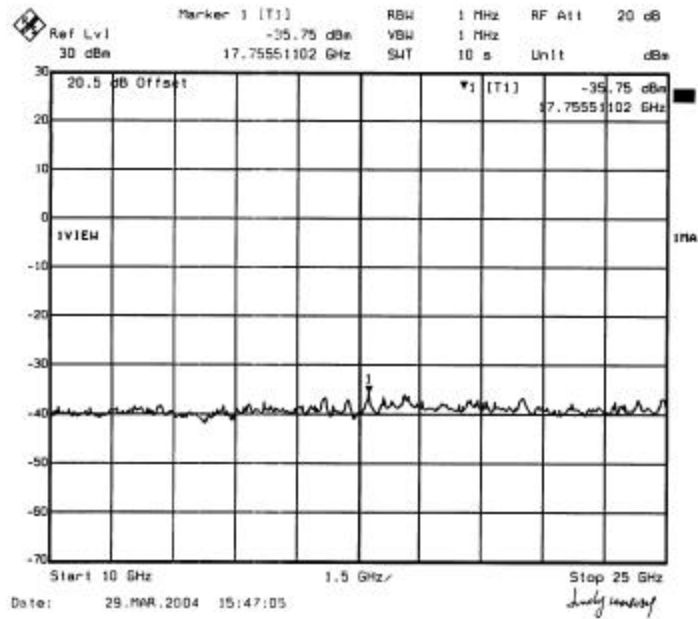
(5.25GHz-5.35GHz) Middle Channel BPSK 802.11a

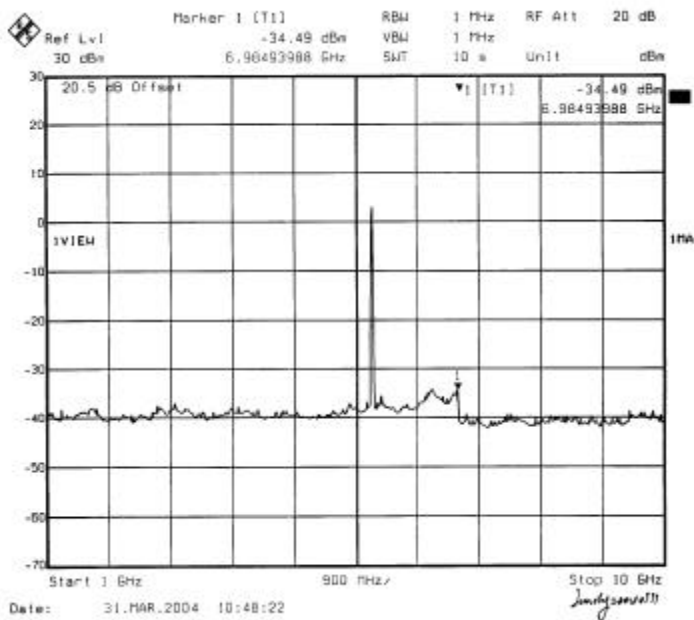


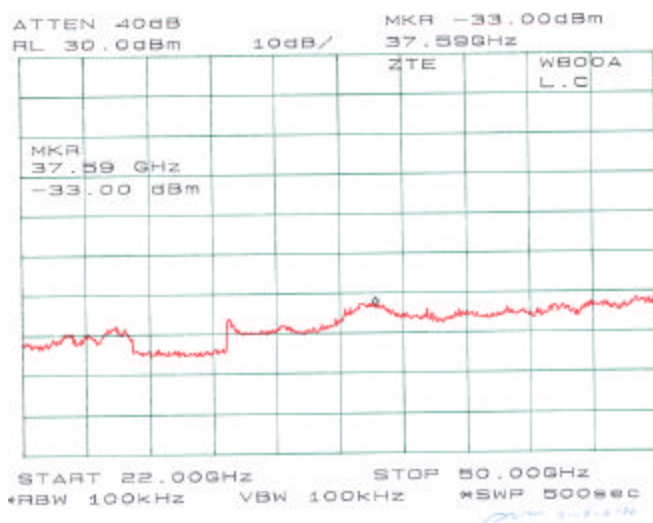
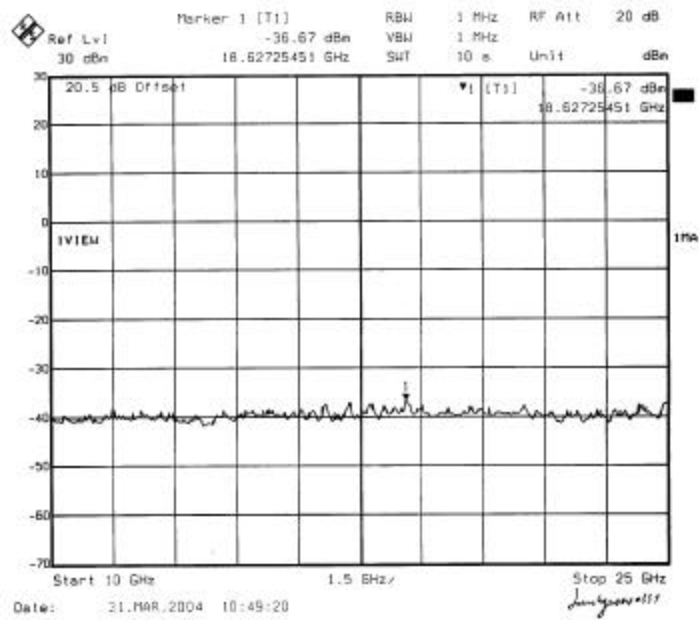


(5.25GHz-5.35GHz) High Channel BPSK 802.11a

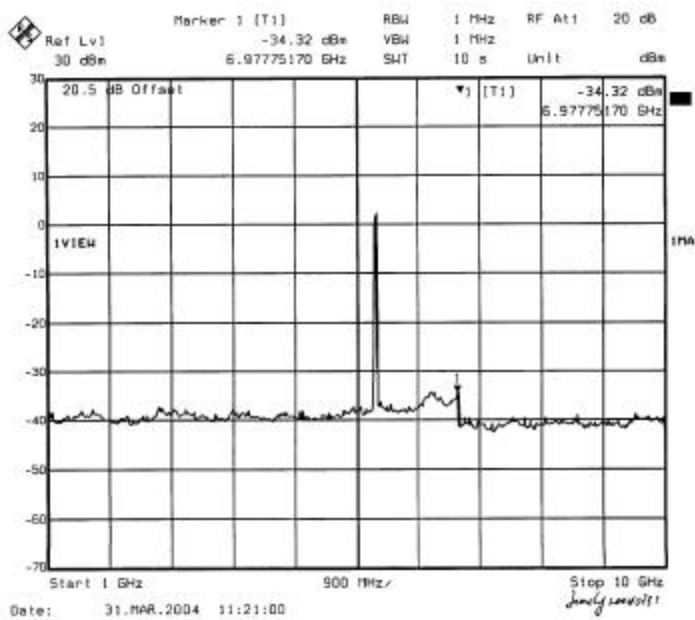
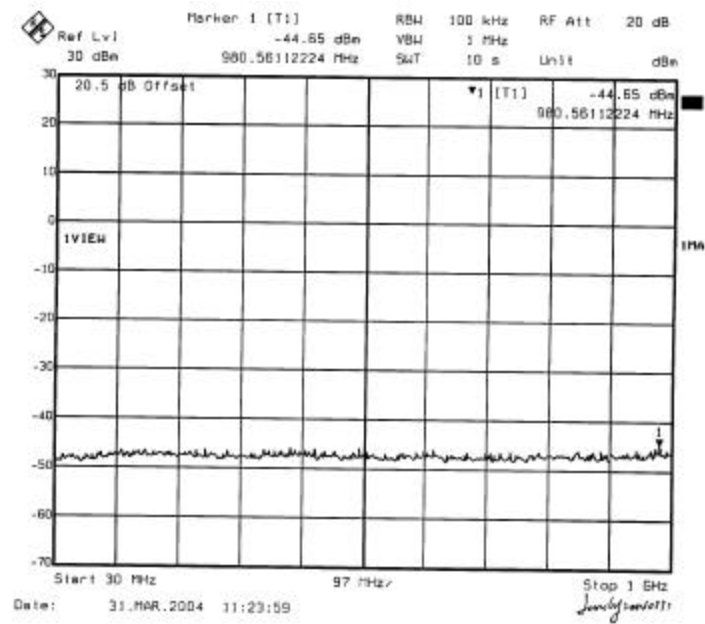


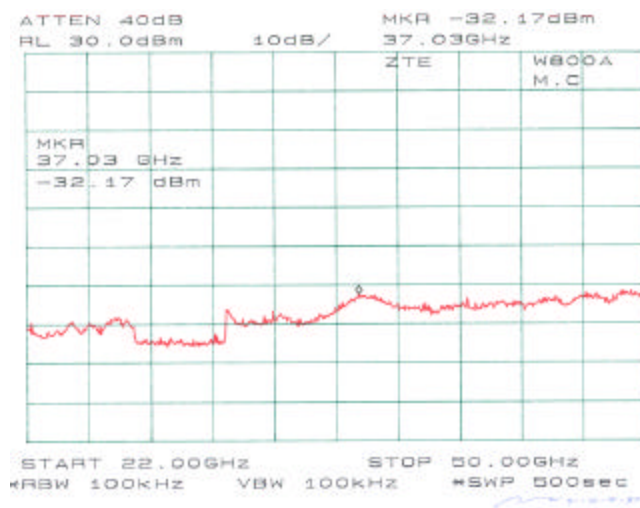
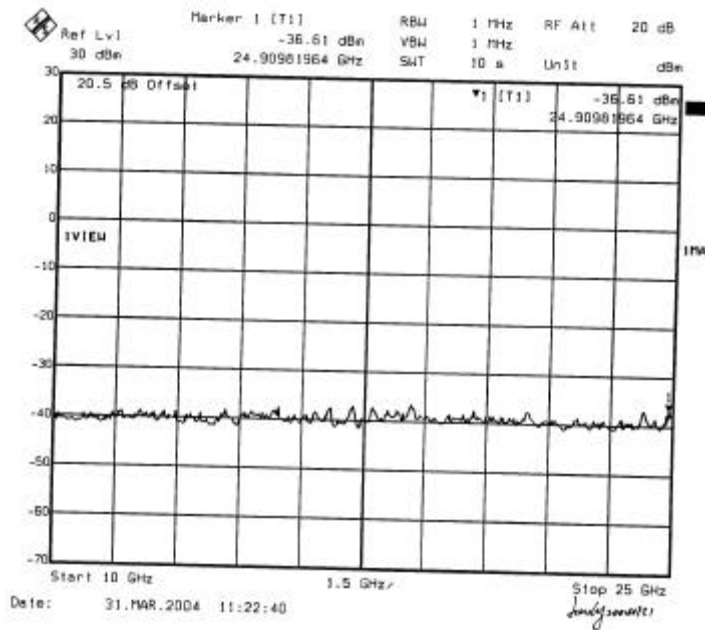






(5.725GHz-5.825GHz) Middle Channel BPSK 802.11a



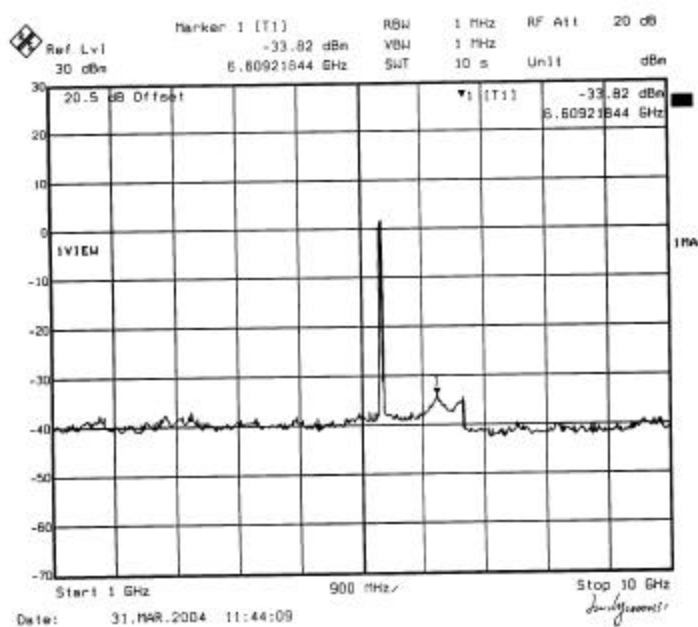


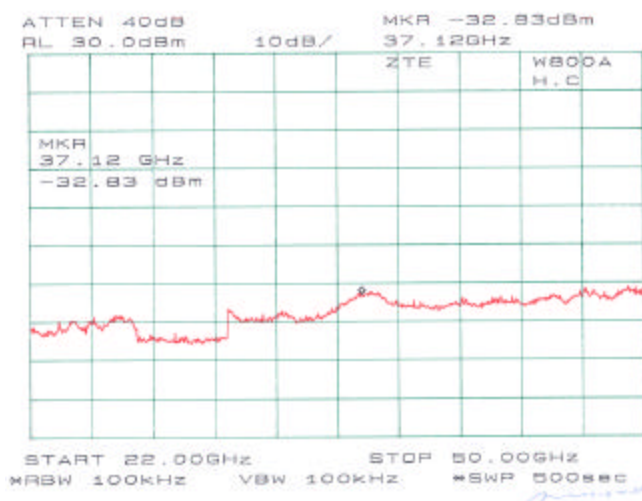
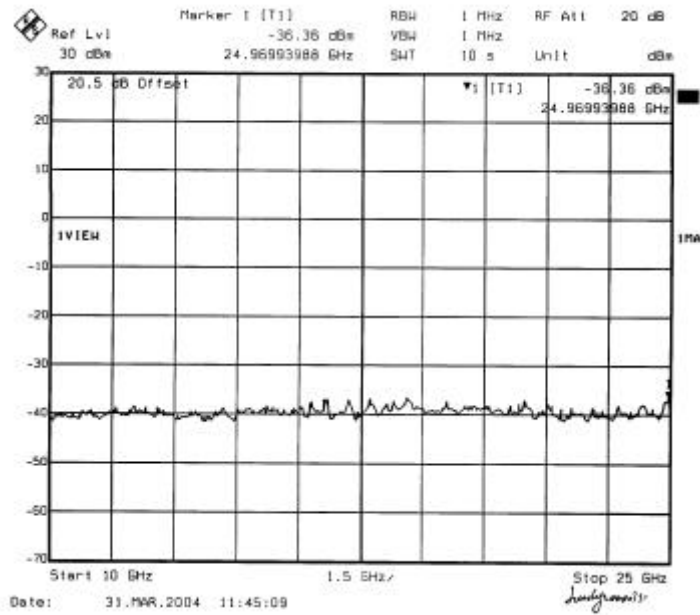
Ref Lvl 30 dBm Marker 1 [T1] -46.86 dBm RBW 100 kHz RF Att 20 dB
 768.11623246 MHz YBW 100 kHz SMT 10 s Unit dBm

VIEW 30dB

Start 30 MHz 97 MHz Stop 1 GHz

Date: 31.MAR.2004 11:46:28





§15.247(b)(3), §15.407(a)(2) - PEAK OUTPUT POWER MEASUREMENT**Standard Applicable**

According to §15.247(b) (3), for systems using digital modulation in 2400-2483.5 MHz: 1 Watt

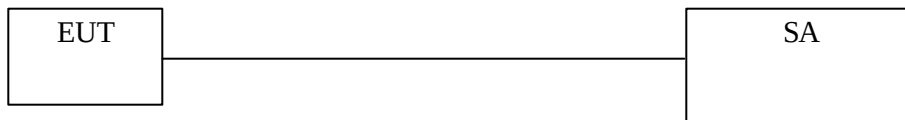
According to §15.407(a)(1), for the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.

According to §15.407(a)(2), for the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.

According to §15.407(a)(3), for the band 5.725-5.825 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.

Measurement Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a spectrum analyzer.
3. Add a correction factor to the display.

**Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date
R/S	Spectrum Analyzer	FSEM	849720/019	2003-10-30

Measurement Result**Environmental Conditions**

Temperature:	24° C
Relative Humidity:	63%
ATM Pressure:	1100 mbar

2.4GHz-2.4835GHz Peak power output BPSK 802.11b

Channel	Frequency (MHZ)	RF Power (dBm)	Correction Factor (dB)	Corrected RF power (dBm)	Limit	Result
Low Channel	2412	6.99	10.98	17.97	1w (30dBm)	Pass
Middle Channel	2437	7.30	10.87	18.17	1w (30dBm)	Pass
High Channel	2462	8.74	11.01	19.75	1w (30dBm)	Pass

2.4GHz-2.4835GHz Peak power output BPSK 802.11g

Channel	Frequency (MHZ)	RF Power (dBm)	Correction Factor (dB)	Corrected RF power (dBm)	Limit	Result
Low Channel	2412	6.74	11.00	17.74	1w (30dBm)	Pass
Middle Channel	2437	7.11	11.15	18.26	1w (30dBm)	Pass
High Channel	2462	6.35	11.01	17.36	1w (30dBm)	Pass

5.15-5.25G Peak power output, BPSK 802.11a

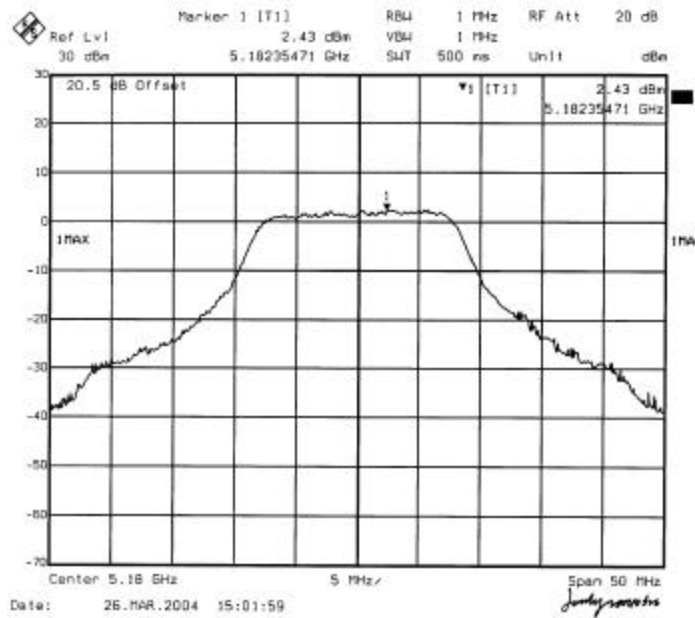
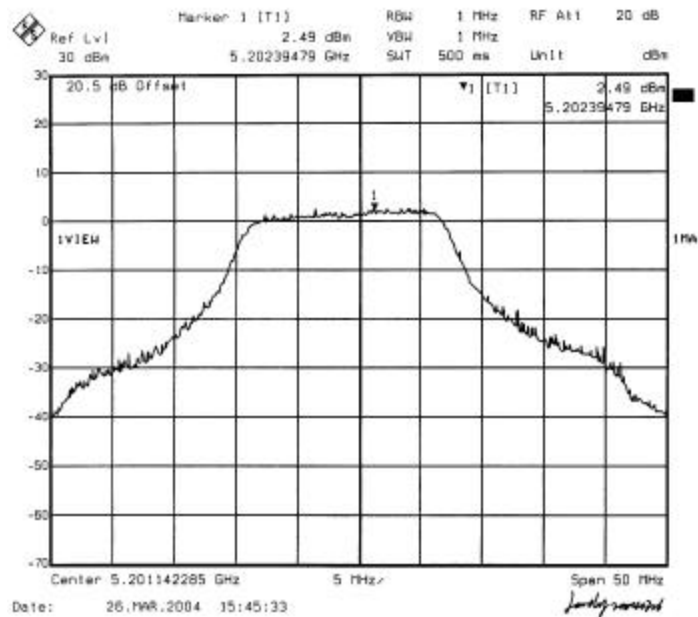
Channel	Frequency (MHZ)	RF Power (dBm)	Correction Factor (dB)	Corrected RF power (dBm)	Limit	Result
Low Channel	5175	2.43	14.17	16.60	17dBm or 4dBm + 10 log B	Pass
Middle Channel	5201	2.49	14.17	16.66	7dBm or 4dBm + 10 log B	Pass
High Channel	5234	1.16	13.83	14.99	7dBm or 4dBm + 10 log B	Pass

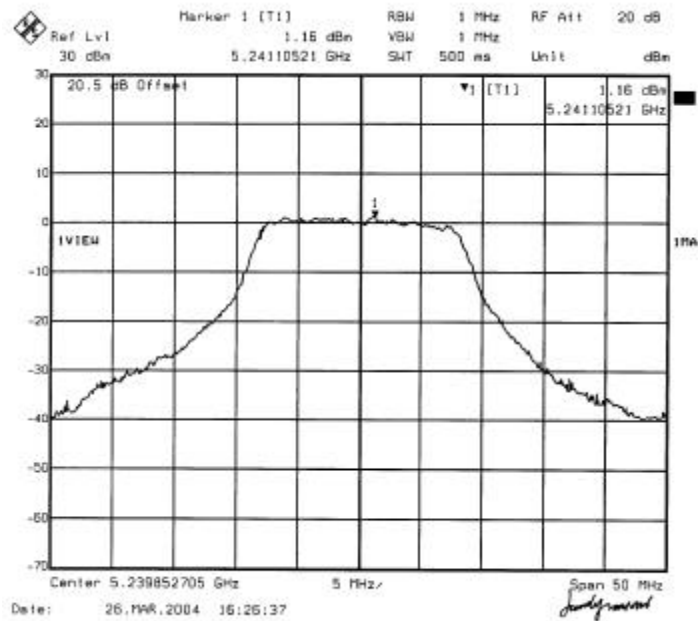
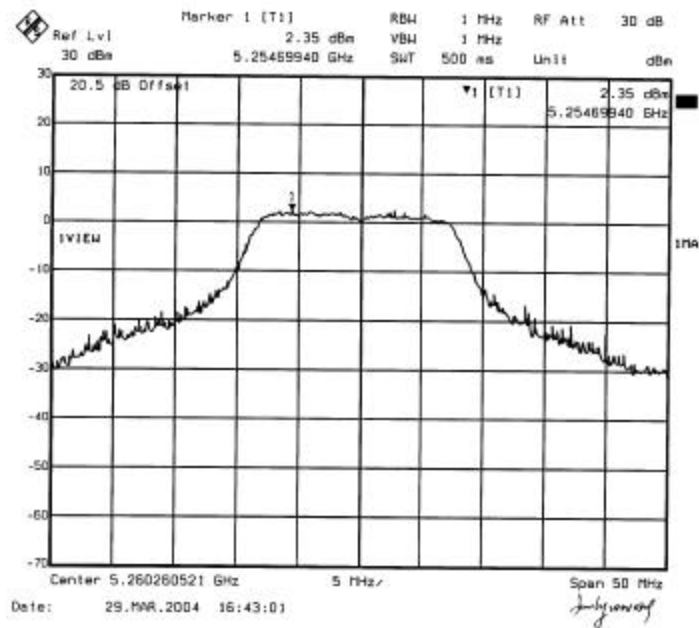
5.25-5.35G Peak power output, BPSK 802.11a

Channel	Frequency (MHZ)	RF Power (dBm)	Correction Factor (dB)	Corrected RF power (dBm)	Limit	Result
Low Channel	5258	2.35	14.99	17.34	24dBm or 10dBm + 10 log B	Pass
Middle Channel	5284	2.01	15.31	17.32	24dBm or 10dBm + 10 log B	Pass
High Channel	5320	2.66	14.48	17.14	24dBm or 10dBm + 10 log B	Pass

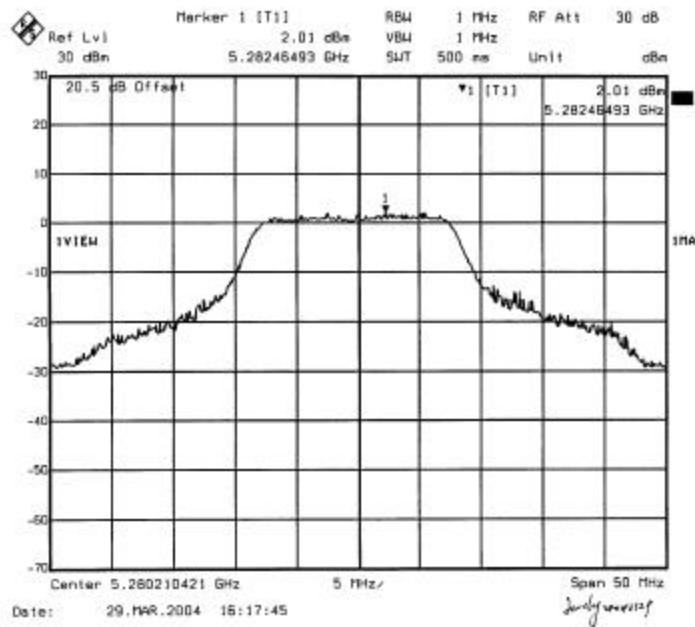
5.725-5.825G Peak power output, BPSK 802.11a

Channel	Frequency (MHZ)	RF Power (dBm)	Correction Factor (dB)	Corrected RF power (dBm)	Limit	Result
Low Channel	5746	3.04	15.52	18.56	3dBm or 17dBm + 10 log B	Pass
Middle Channel	5785	2.87	14.79	17.66	3dBm or 17dBm + 10 log B	Pass
High Channel	5806	2.81	14.42	17.23	3dBm or 17dBm + 10 log B	Pass

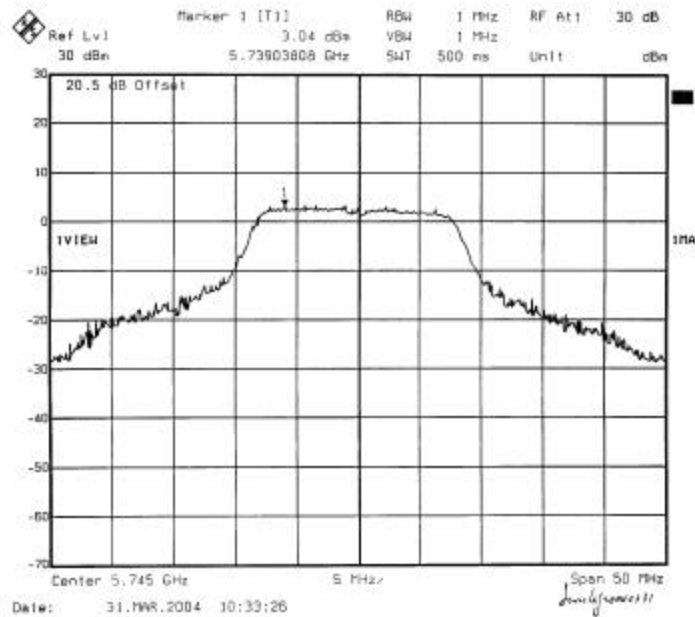
(5.15GHz-5.25GHz) Low Channel BPSK 802.11a*(5.15GHz-5.25GHz) Middle Channel BPSK 802.11a*

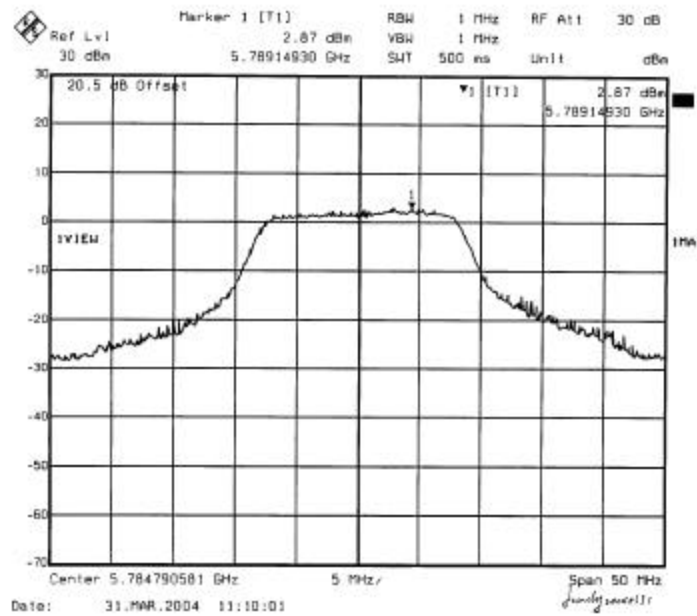
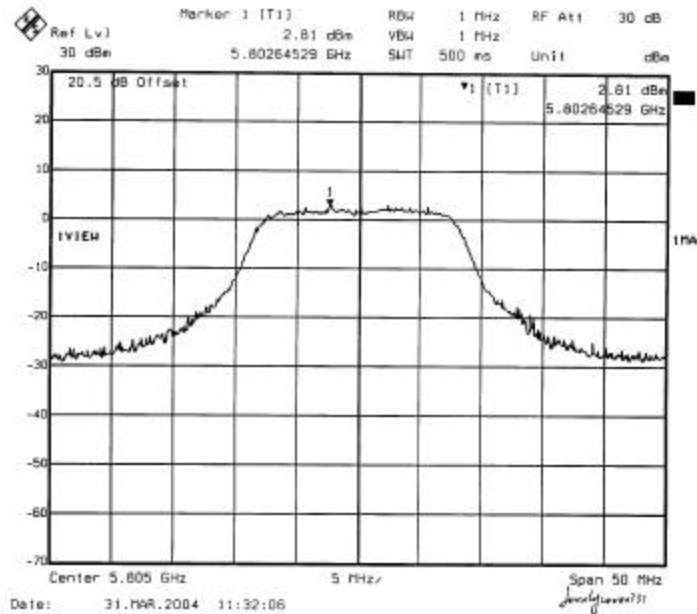
(5.15GHz-5.25GHz) High Channel BPSK 802.11a*(5.25GHz-5.35GHz) Low Channel BPSK 802.11a*

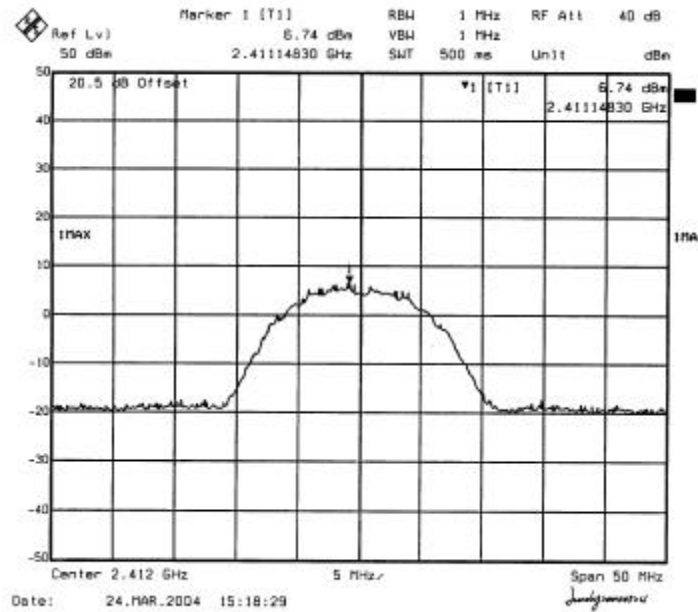
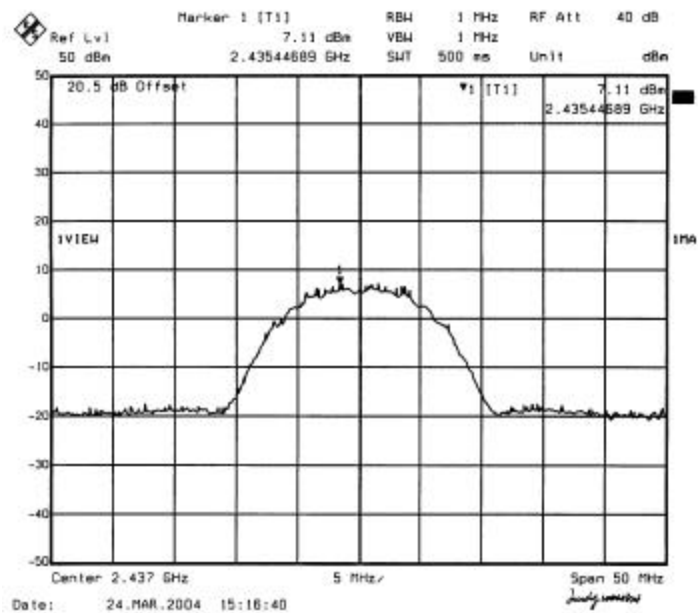
(5.25GHz-5.35GHz) Middle Channel BPSK 802.11a

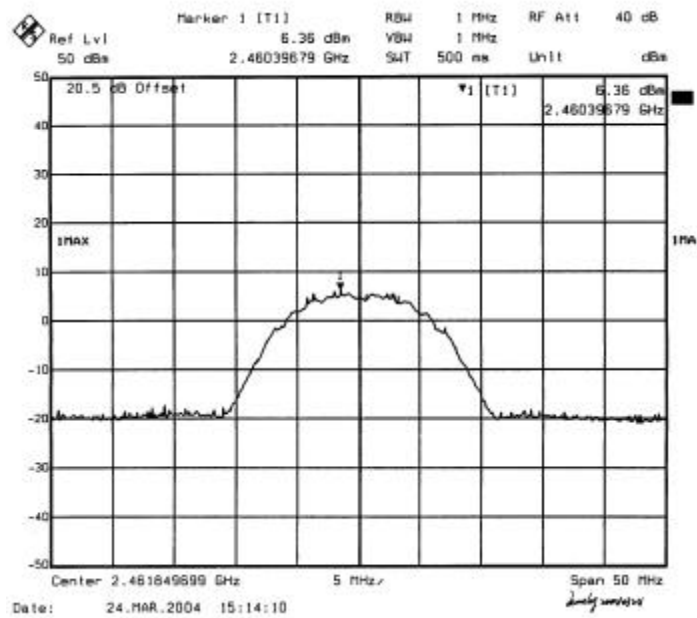
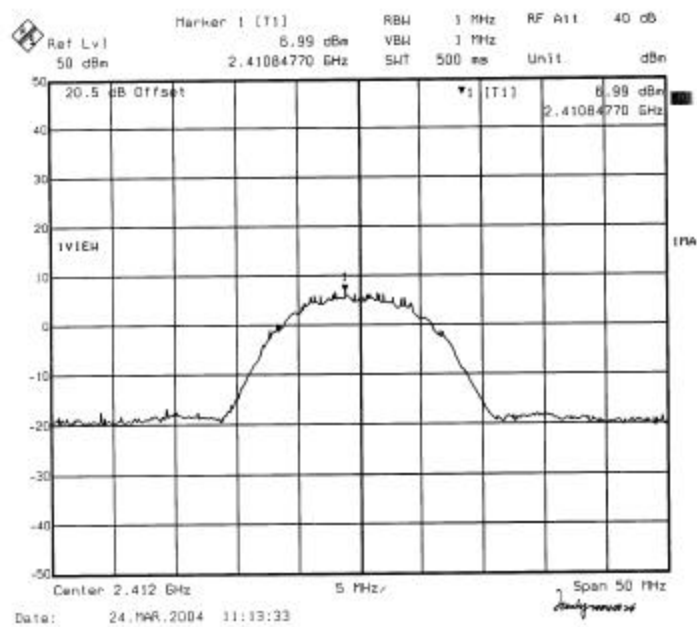


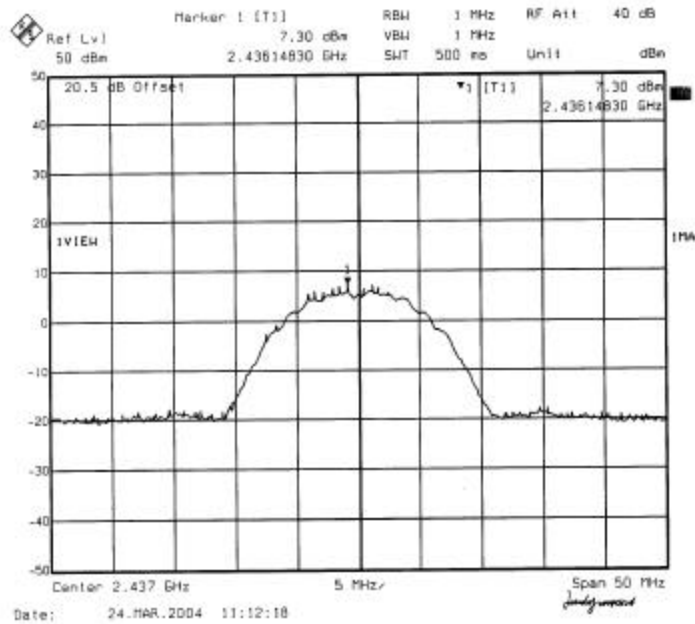
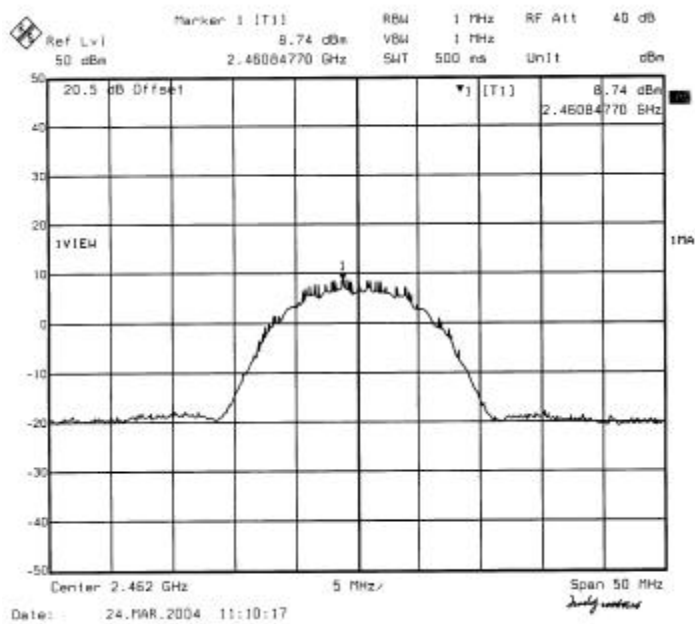
(5.725GHz-5.735GHz) Low Channel BPSK 802.11a



(5.725GHz-5.735GHz) Middle Channel BPSK 802.11a*(5.725GHz-5.735GHz) High Channel BPSK 802.11a*

(2.4GHz-2.4835GHz) Low Channel BPSK 802.11g*(2.4GHz-2.4835GHz) Middle Channel BPSK 802.11g*

(2.4GHz-2.4835GHz) High Channel BPSK 802.11g*(2.4GHz-2.4835GHz) Low Channel BPSK 802.11b*

(2.4GHz-2.4835GHz) Middle Channel BPSK 802.11b*(2.4GHz-2.4835GHz) High Channel BPSK 802.11b*

§15.247(a)(2) & §15.407 – 6 DB BANDWIDTH and 26 DB BANDWIDTH

Standard Applicable

According to §15.247(a)(2), for direct sequence systems, the minimum 6dB bandwidth shall be at least 500 kHz. According to §15.407, 26dB Bandwidth should be shown.

Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth. (6 dB bandwidth for DTS)
4. Same as (3) except 26 dB. (26dB bandwidth for UNII)
5. Repeat above procedures until all frequencies measured were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R/S	Spectrum Analyzer	FSEM	849720/019	2003-10-30	2004-10-29

Measurement Result

Environmental Conditions

Temperature:	24° C
Relative Humidity:	63%
ATM Pressure:	1100 mbar

2.4GHz-2.4835GHz 6dB bandwidth BPSK 802.11b

Channel	Frequency (MHz)	Measured (MHz)	Standard (kHz)	Result
Low Channel	2412	12.53 MHz	≥ 500	Pass
Middle Channel	2437	12.22 MHz	≥ 500	Pass
High Channel	2462	12.63 MHz	≥ 500	Pass

2.4GHz-2.4835GHz 6dB bandwidth BPSK 802.11g

Channel	Frequency (MHz)	Measured (MHz)	Standard (kHz)	Result
Low Channel	2412	12.63 MHz	≥ 500	Pass
Middle Channel	2437	13.02MHz	≥ 500	Pass
High Channel	2462	12.63MHz	≥ 500	Pass

5.15GHz-5.25GHz 26dB bandwidth BPSK 802.11a

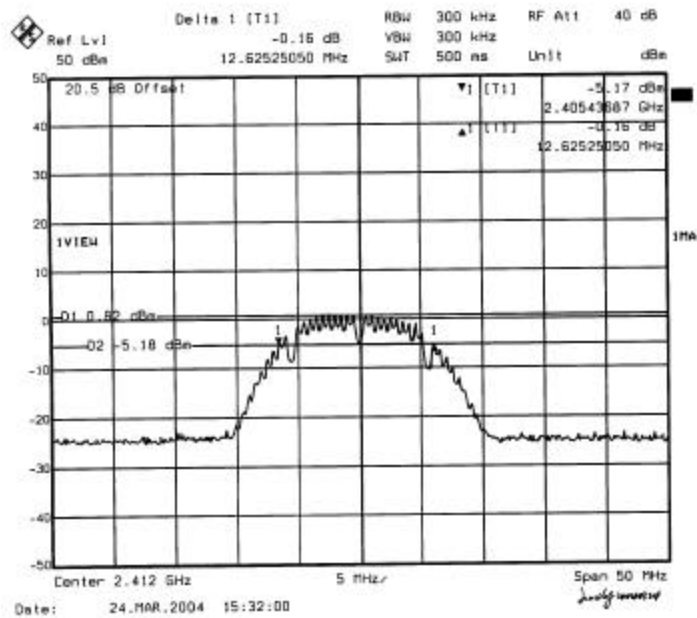
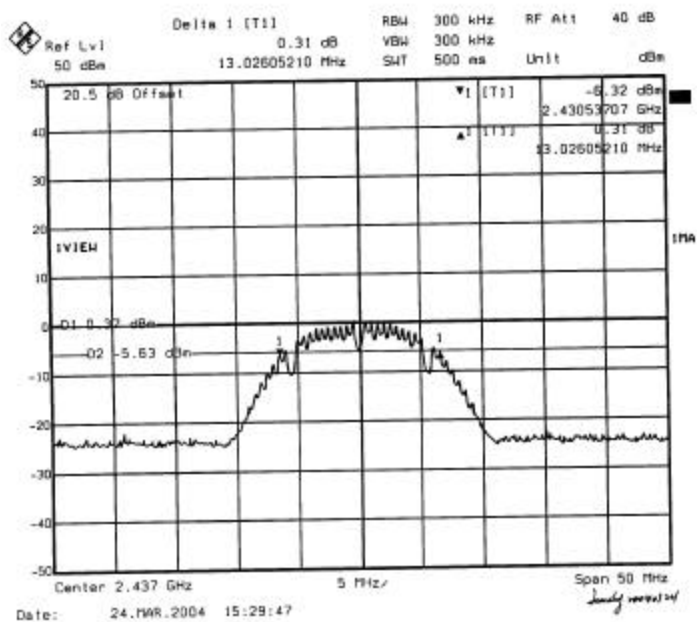
Channel	Frequency (MHz)	Measured (MHz)	Standard (kHz)	Result
Low Channel	5175	26.15MHz	≥ 500	Pass
Middle Channel	5201	26.15MHz	≥ 500	Pass
High Channel	5234	24.05MHz	≥ 500	Pass

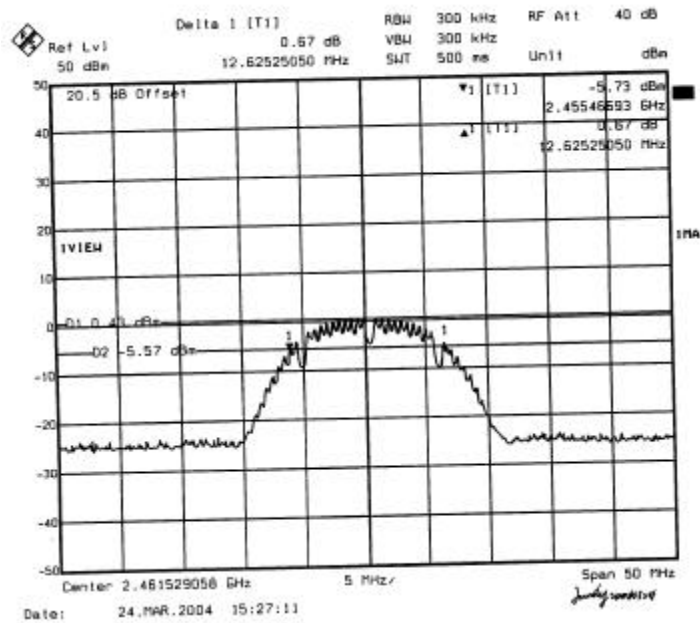
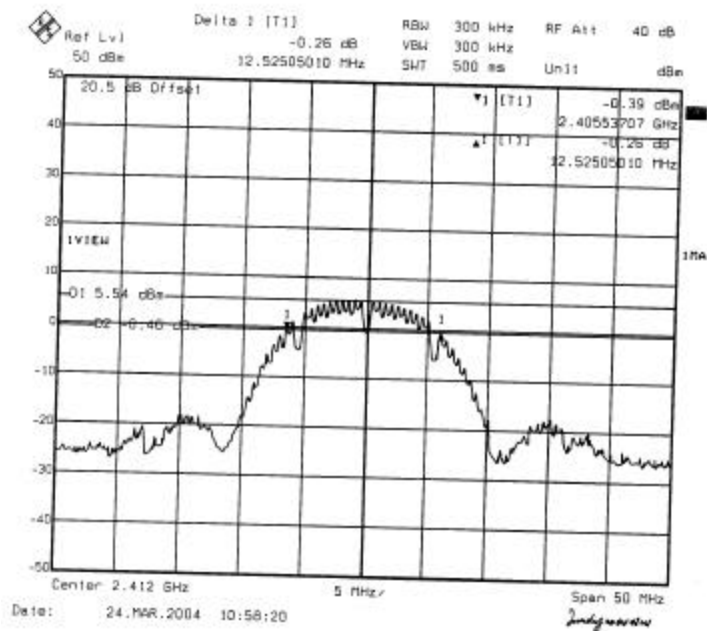
5.25GHz-5.35GHz 26dB bandwidth BPSK 802.11a

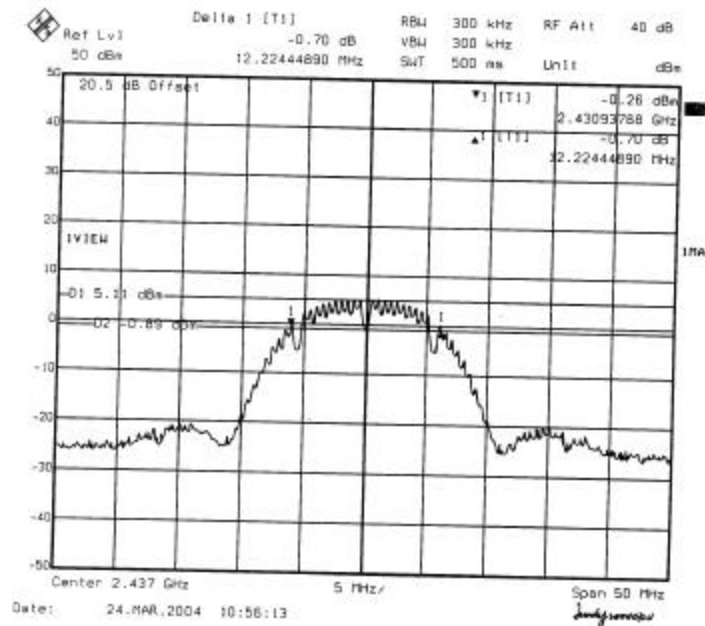
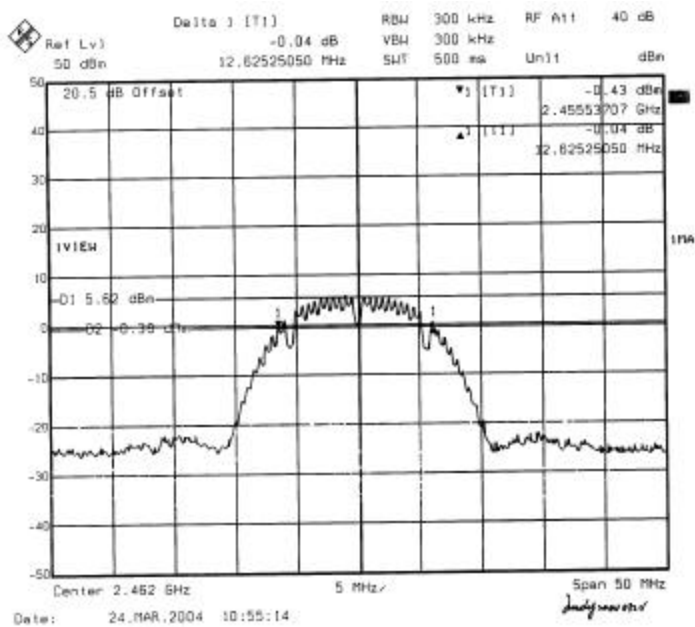
Channel	Frequency (MHz)	Measured (MHz)	Standard (kHz)	Result
Low Channel	5258	31.56MHz	≥ 500	Pass
Middle Channel	5284	33.97MHz	≥ 500	Pass
High Channel	5320	28.06MHz	≥ 500	Pass

5.725GHz-5.825GHz 26dB bandwidth BPSK 802.11a

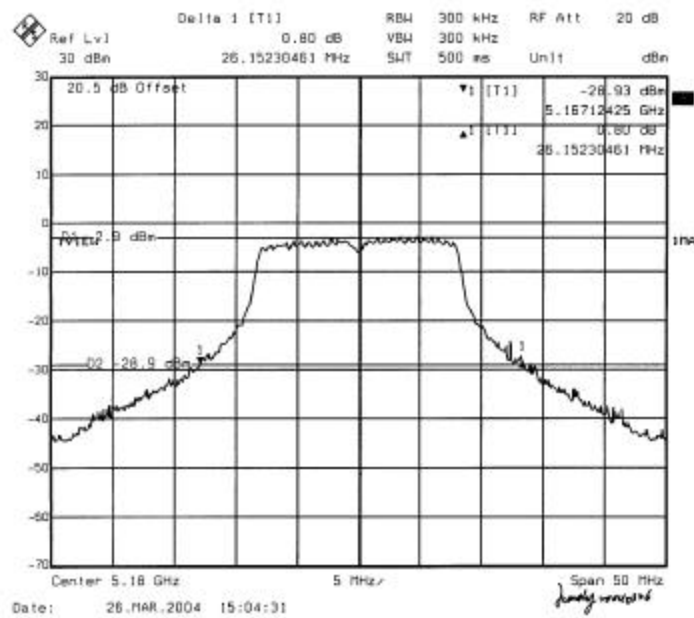
Channel	Frequency (MHz)	Measured (MHz)	Standard (kHz)	Result
Low Channel	5746	35.67MHz	≥ 500	Pass
Middle Channel	5785	30.16MHz	≥ 500	Pass
High Channel	5806	27.66MHz	≥ 500	Pass

(2.4GHz-2.4835GHz) Low Channel BPSK 802.11g*(2.4GHz-2.4835GHz) Middle Channel BPSK 802.11g*

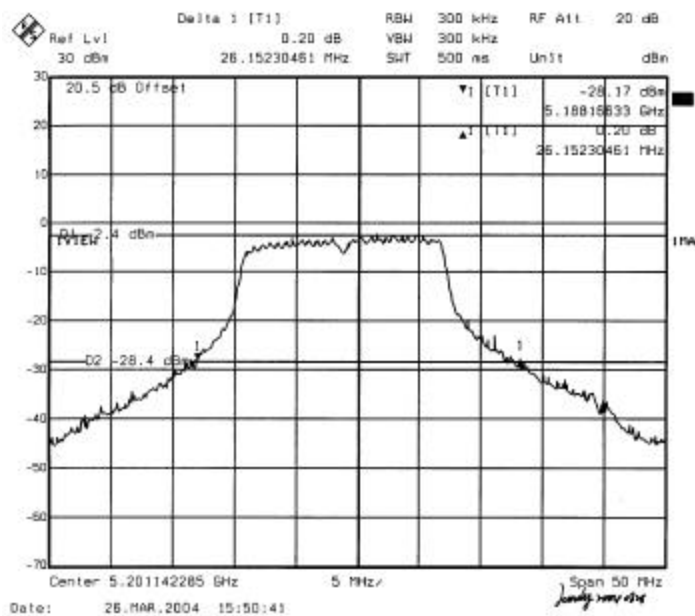
(2.4GHz-2.4835GHz) High Channel BPSK 802.11g*(2.4GHz-2.4835GHz) Low Channel BPSK 802.11b*

(2.4GHz-2.4835GHz) Middle Channel BPSK 802.11b*(2.4GHz-2.4835GHz) High Channel BPSK 802.11b*

(5.15GHz-5.25GHz) Low Channel BPSK 802.11a



(5.15GHz-5.25GHz) Middle Channel BPSK 802.11a



Delta 1 [T1]

Ref Lvl -0.06 dB

RBW 300 kHz

VBW 300 kHz

SMT 500 ns

RF Att 20 dB

Unit dBm

20.5 dB Offset

24.04809619 MHz

-25.68 dBm

5.2274796 GHz

-0.06 dB

24.04809619 MHz

Center 5.239852705 GHz

5 MHz

Span 50 MHz

Date: 26.MAR.2004 16:30:29

Judy-verweil

Delta 1 [T1] -0.63 dB RBW 300 kHz RF Att 20 dB
 Ref Lvl 30 dBm 24.64929860 MHz VBW 300 kHz SMT 500 ns Unit dBm

20.5 dB Offset

▼1 [T1] -27.81 dBm
 ▲1 [T1] -0.63 dB
 5.16812525 GHz
 24.64929860 MHz

01 -27.22 dBm
 02 -28.22 dBm

Center 5.18 GHz 5 MHz Span 50 MHz

Date: 25.MAR.2004 16:37:07

Judy