

9 OUT-OF-BAND RF CONDUCTED SPURIOUS EMISSION MEASUREMENT

9.1 Standard Applicable

According to 15.247(c), if any 100 kHz bandwidth outside these frequency bands, the radio frequency power that is produced by the modulation products of the spreading sequence, the information sequence and the carrier frequency shall be either at least 20 dB below that in any 100 kHz bandwidth within the band that contains the highest level of the desired power or shall not exceed the general levels specified in §15.209(a), whichever results in the lesser attenuation.

9.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. The setup of the EUT as shown in figure 4. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

9.3 Measurement Equipment

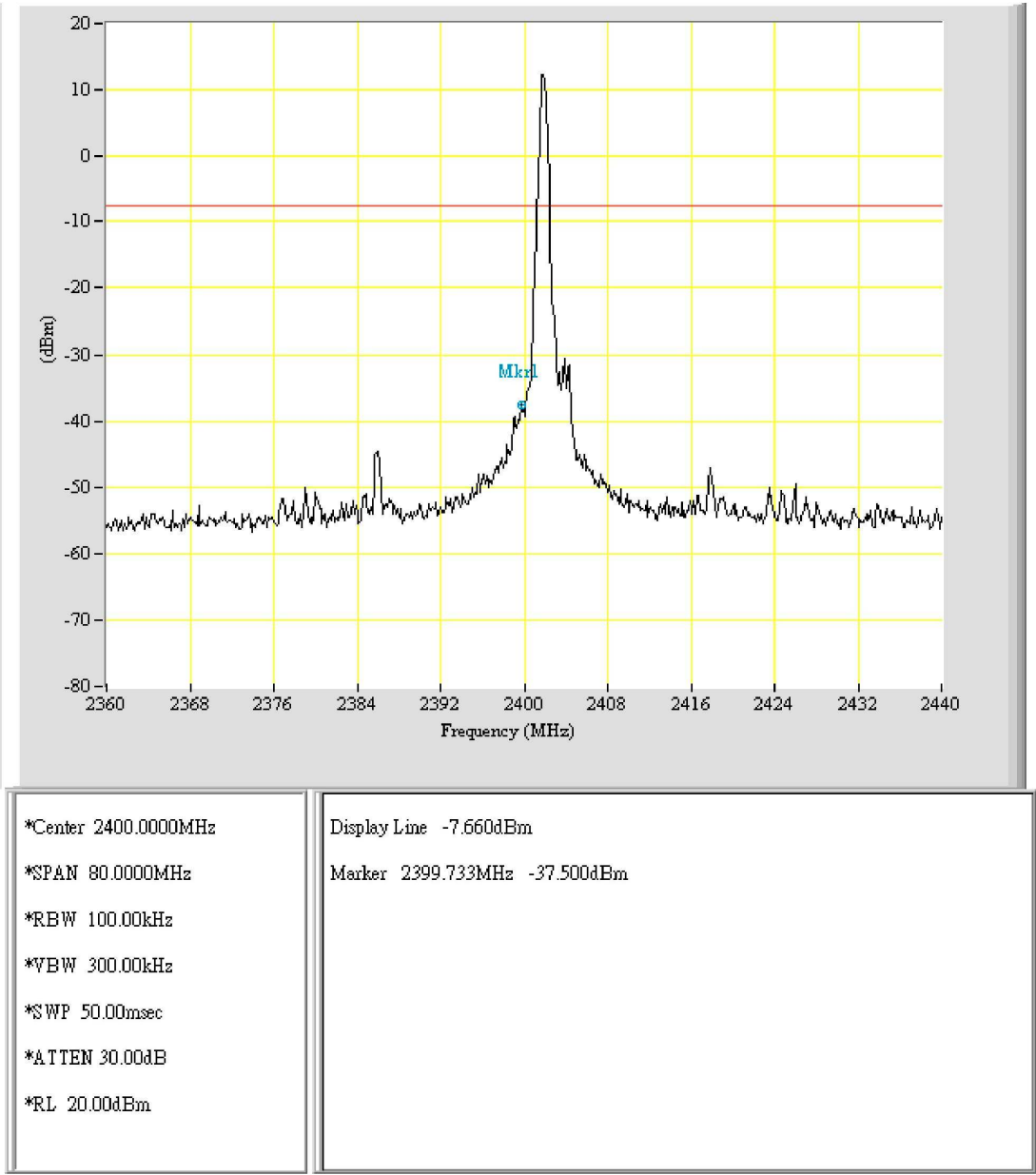
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Hewlett-Packard	8564EC	09/16/2005

9.4 Measurement Data

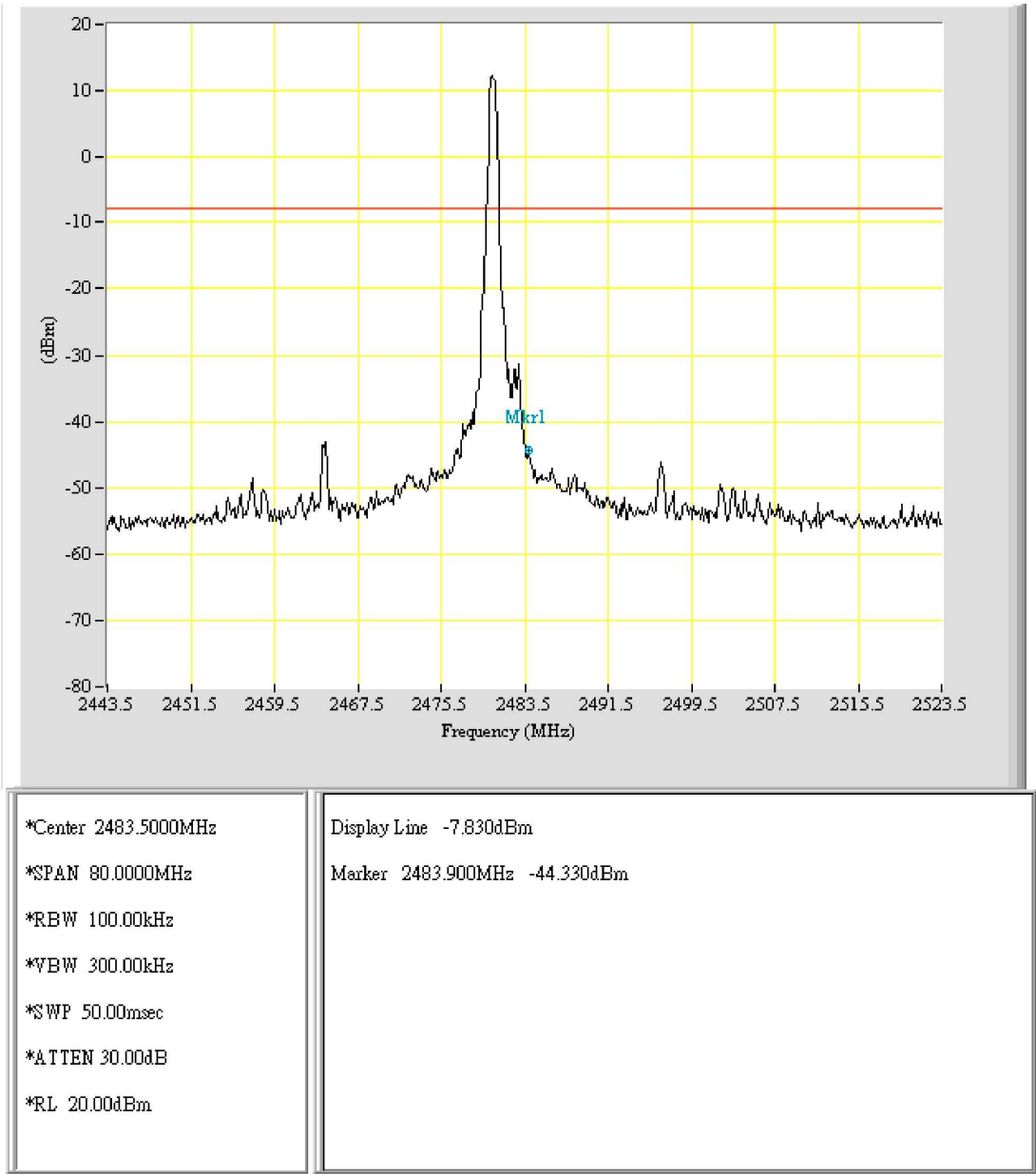
Test Date : Dec. 27, 2004Temperature : 23 °CHumidity: 71%

Channel	Test Frequency Range	Note	Chart
0	2360 MHz - 2440 MHz	Lower Band Edge	Page 71
78	2443.5 MHz - 2523.5 MHz	Upper Band Edge	Page 72
0	30 MHz - 25 GHz		Page 73
39	30 MHz - 25 GHz		Page 74
78	30 MHz - 25 GHz		Page 75

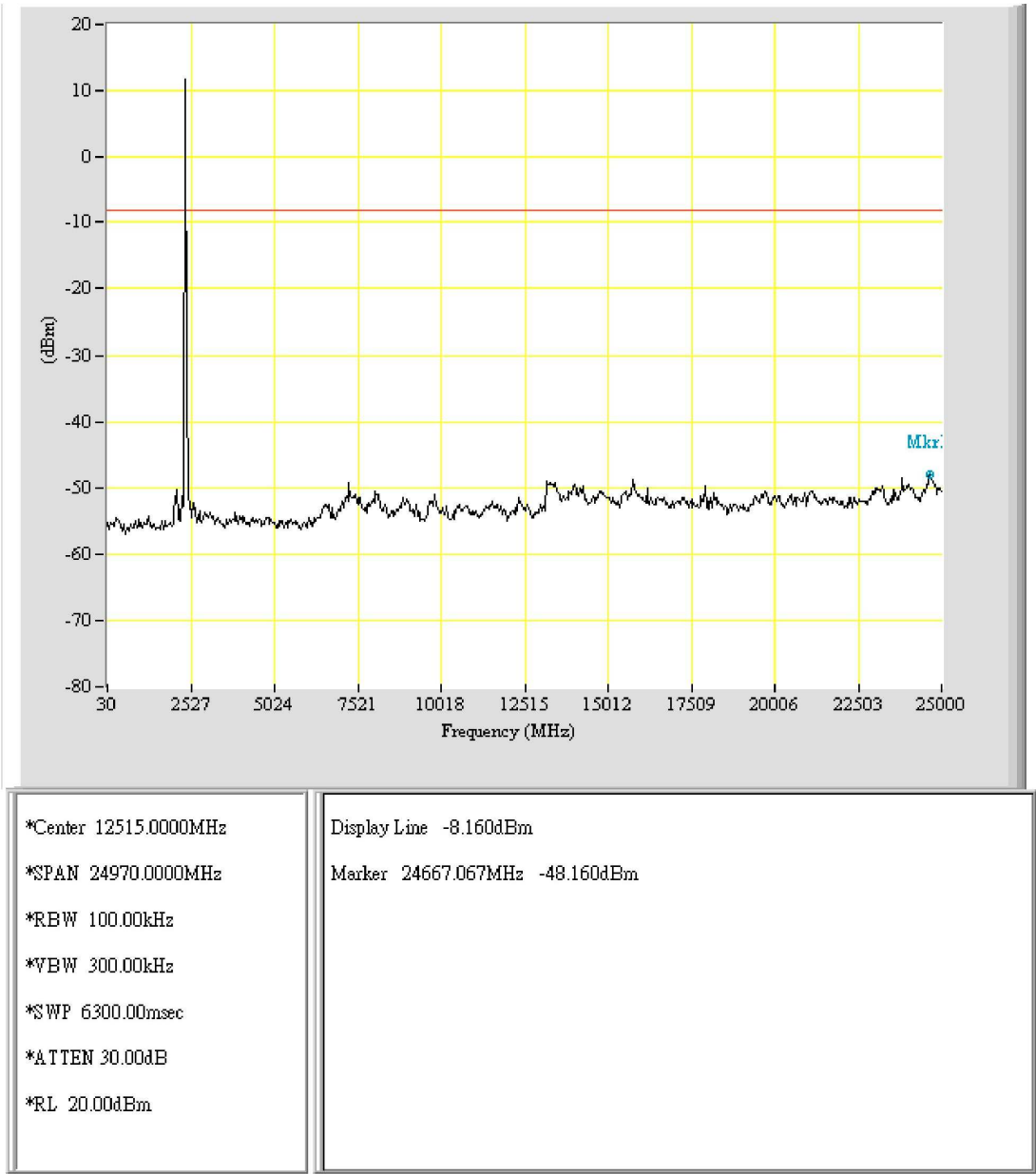
Note: Please refer to page 71 to page 75 for chart



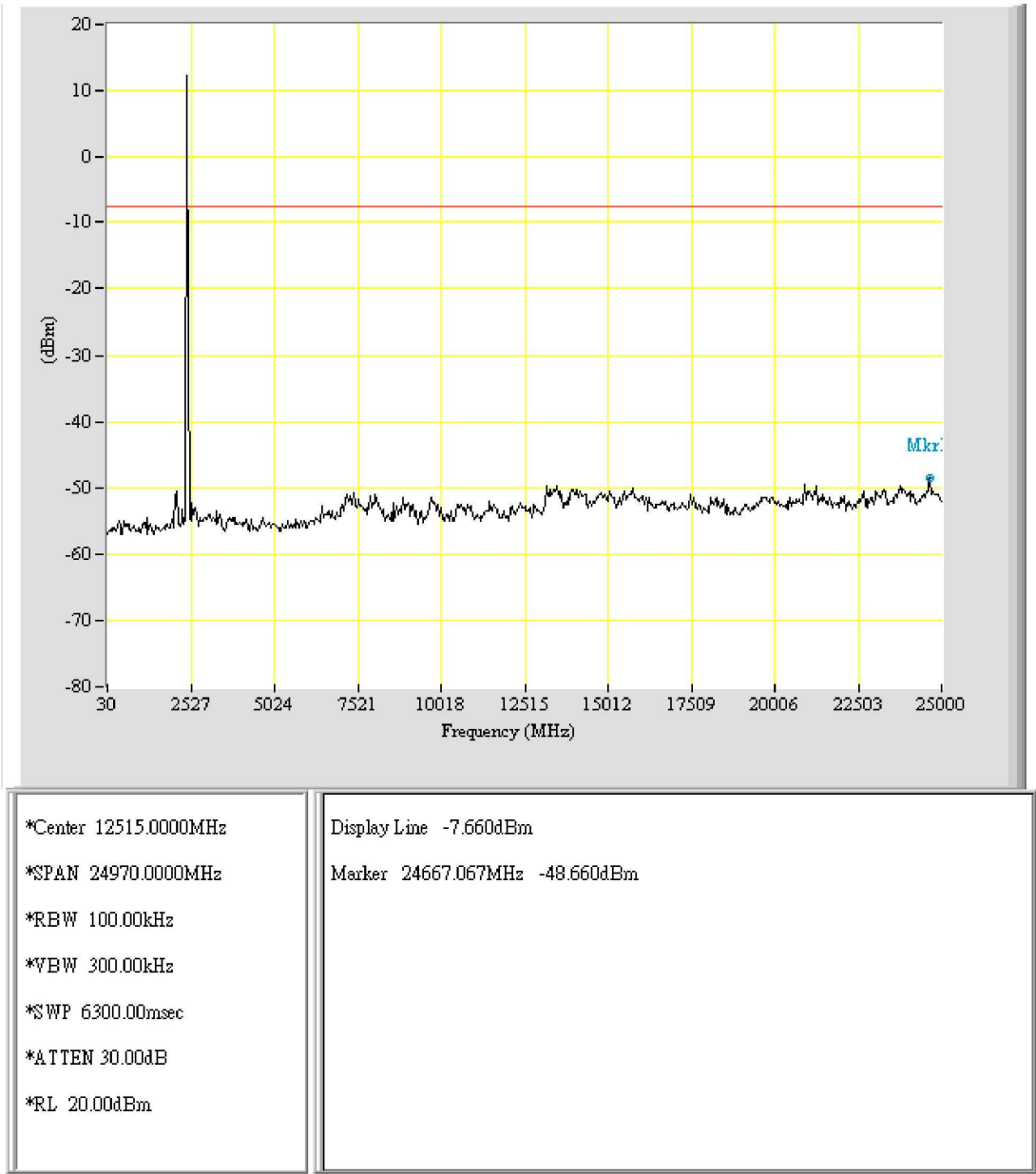
EUT:
Purpose: Band_Edge
Condition: CH0
Note:



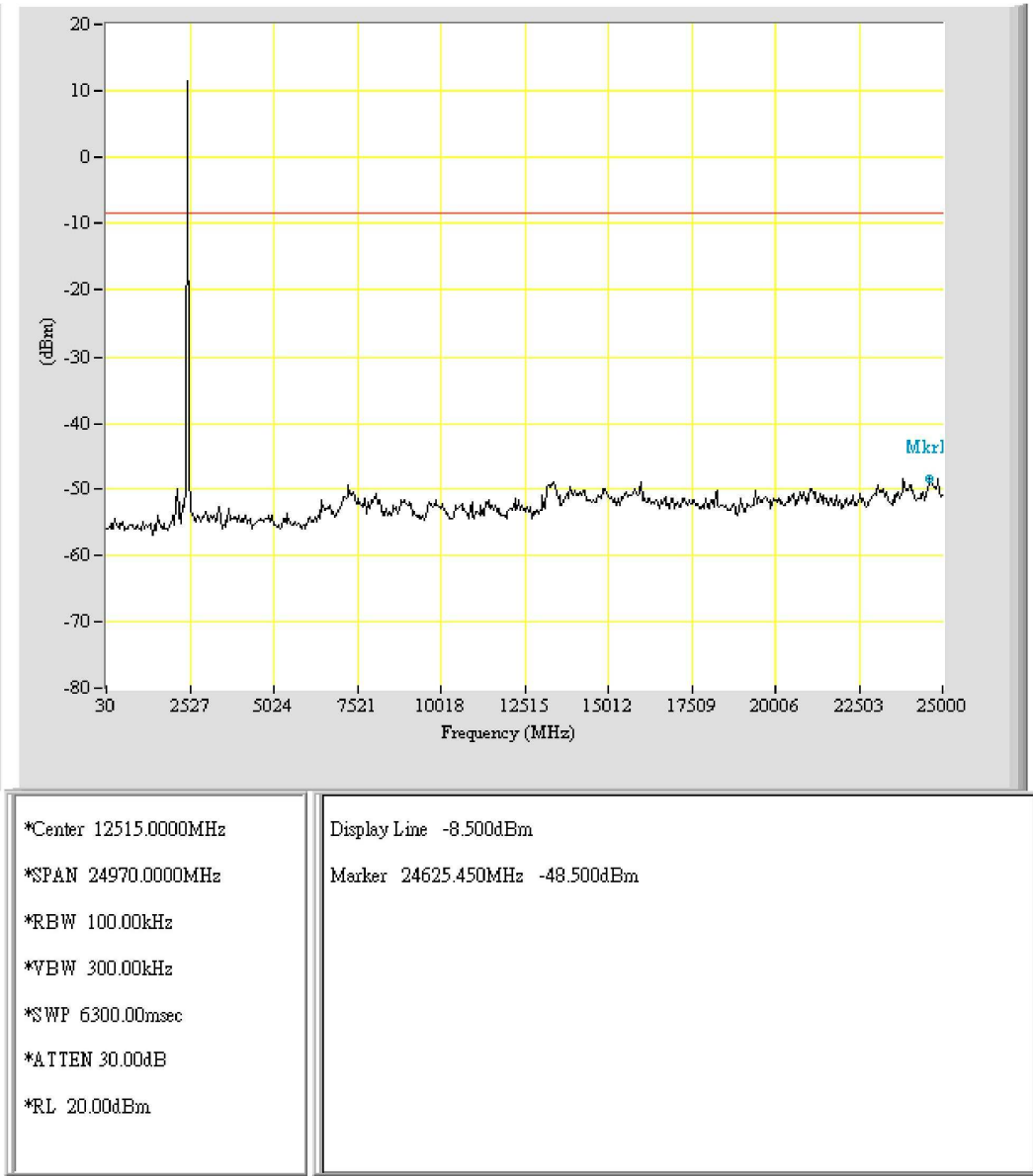
EUT: BAP-100
Purpose: Band_Edge
Condition: CH78
Note:



EUT: BAP-100
Purpose: Band_Edge_All
Condition: CH0
Note:



EUT: BAP-100
Purpose: Band_Edge_All
Condition: CH39
Note:



EUT: BAP-100
Purpose: Band_Edge_All
Condition: CH78
Note:

10 NUMBER of HOPPING CHANNELS

10.1 Standard Applicable

According to 15.247(b)(1), for frequency hopping systems, operating in the 2400-2483.5MHz band employing at least 75 hopping channels

10.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. The setup of the EUT as shown in figure 4. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set EUT to hopping operating mode and set spectrum analyzer maximum to measure the number of hopping channels.

10.3 Measurement Equipment

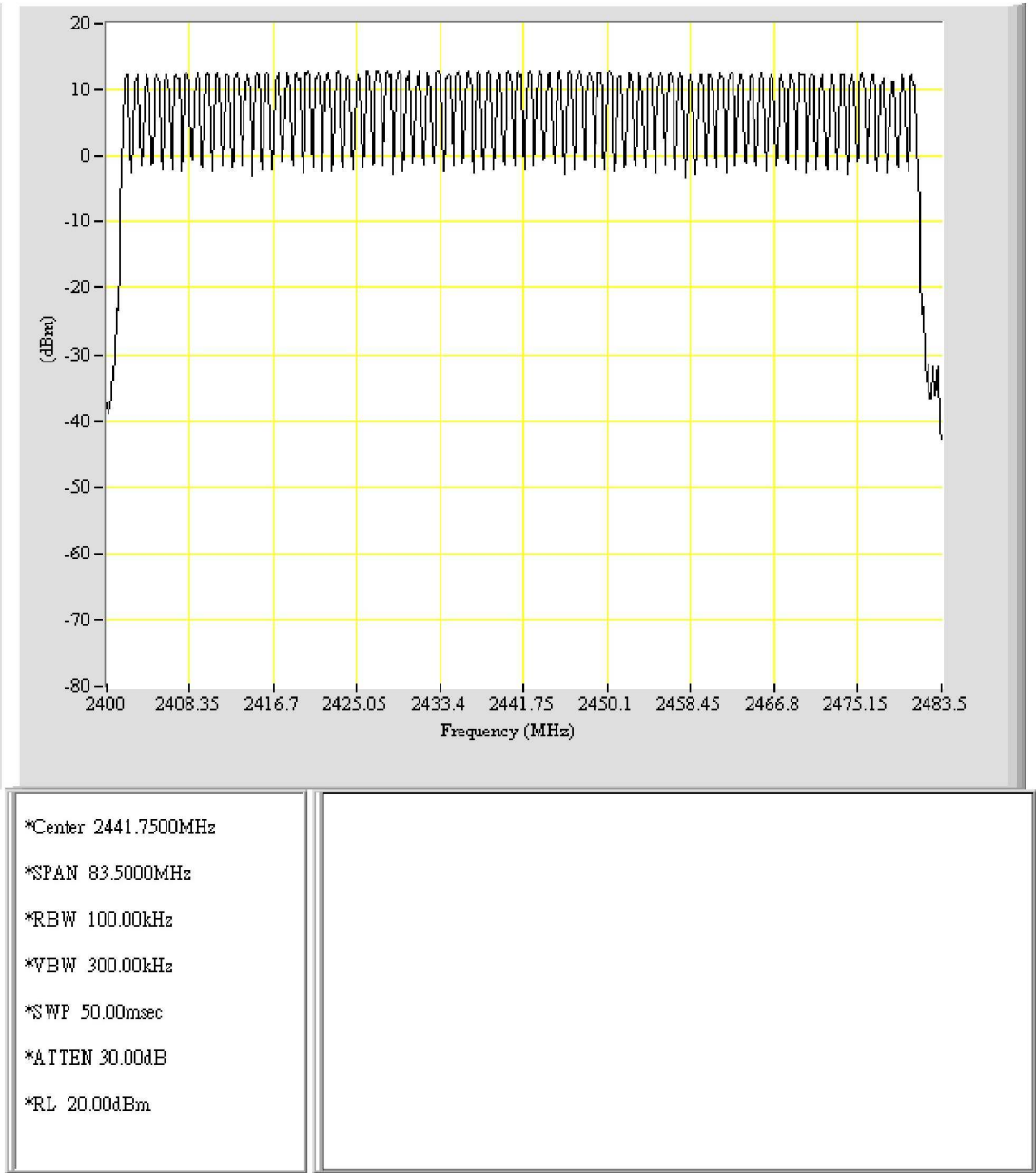
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Hewlett-Packard	8564EC	09/16/2005

10.4 Measurement Data

Test Date : Dec. 27, 2004 Temperature : 23 °C Humidity: 71%

Number of hopping channels = 79 channels

Note: Please refer to page 77 for chart



EUT: [redacted]
Purpose: No_of_Channel
Condition: HOPPING
Note:

11 HOPPING CHANNEL CARRIER FREQUENCY SEPARATED

11.1 Standard Applicable

According to 15.247(a)(1), the frequency hopping system shall have hopping channel carrier frequencies separated by minimum of 25kHz or the 20dB bandwidth of hopping channel, whichever is greater.

11.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. The setup of the EUT as shown in figure 4. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any measurement frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set spectrum analyzer maximum hold to measure channel carrier frequency , then adjust channel carrier frequency to adjacent channel.
4. Repeat above procedure until all measured frequencies were complete.

11.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Hewlett-Packard	8564EC	09/16/2005

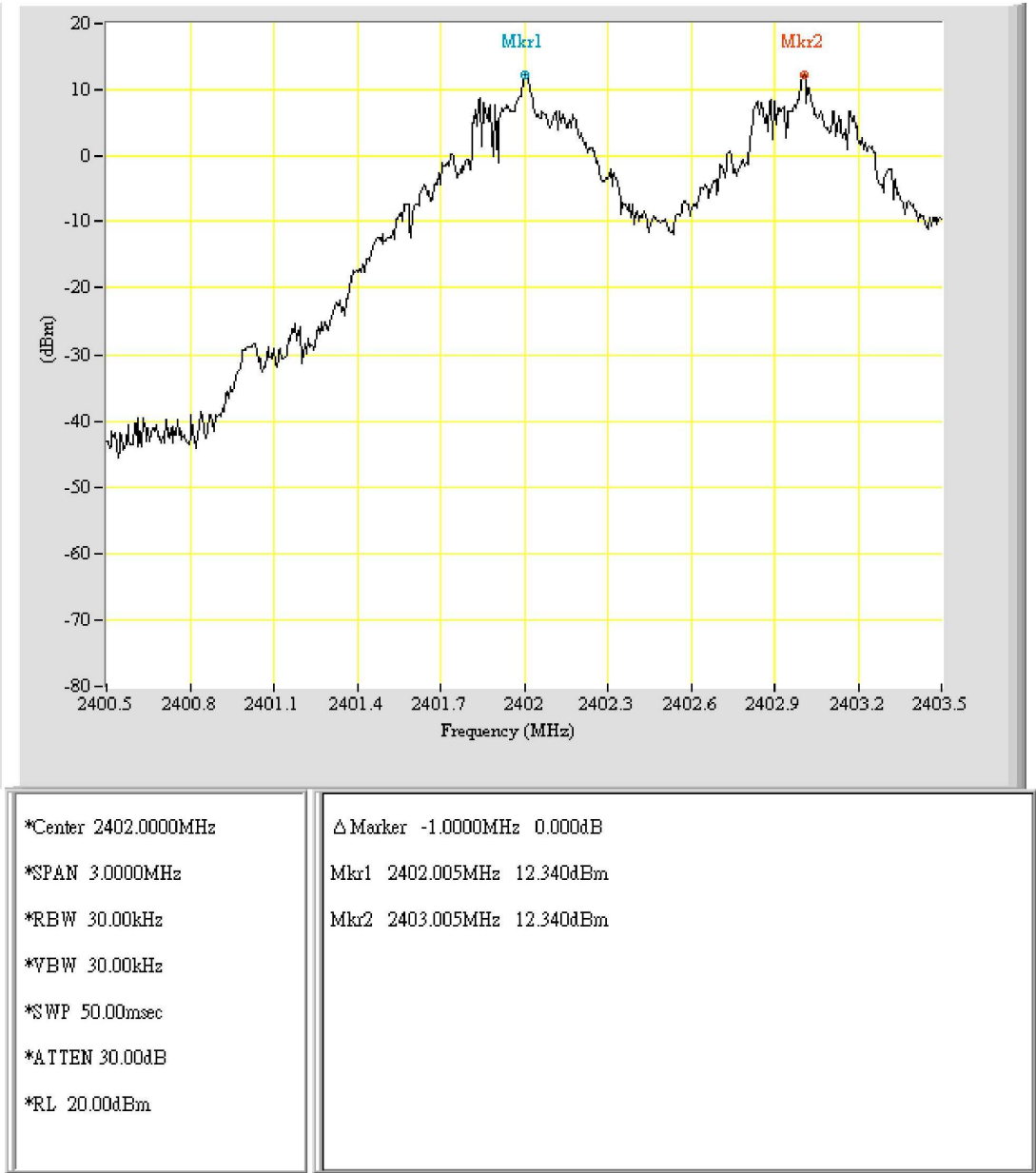
11.4 Measurement Data

Test Date : Dec. 27, 2004Temperature : 23 °CHumidity: 71%

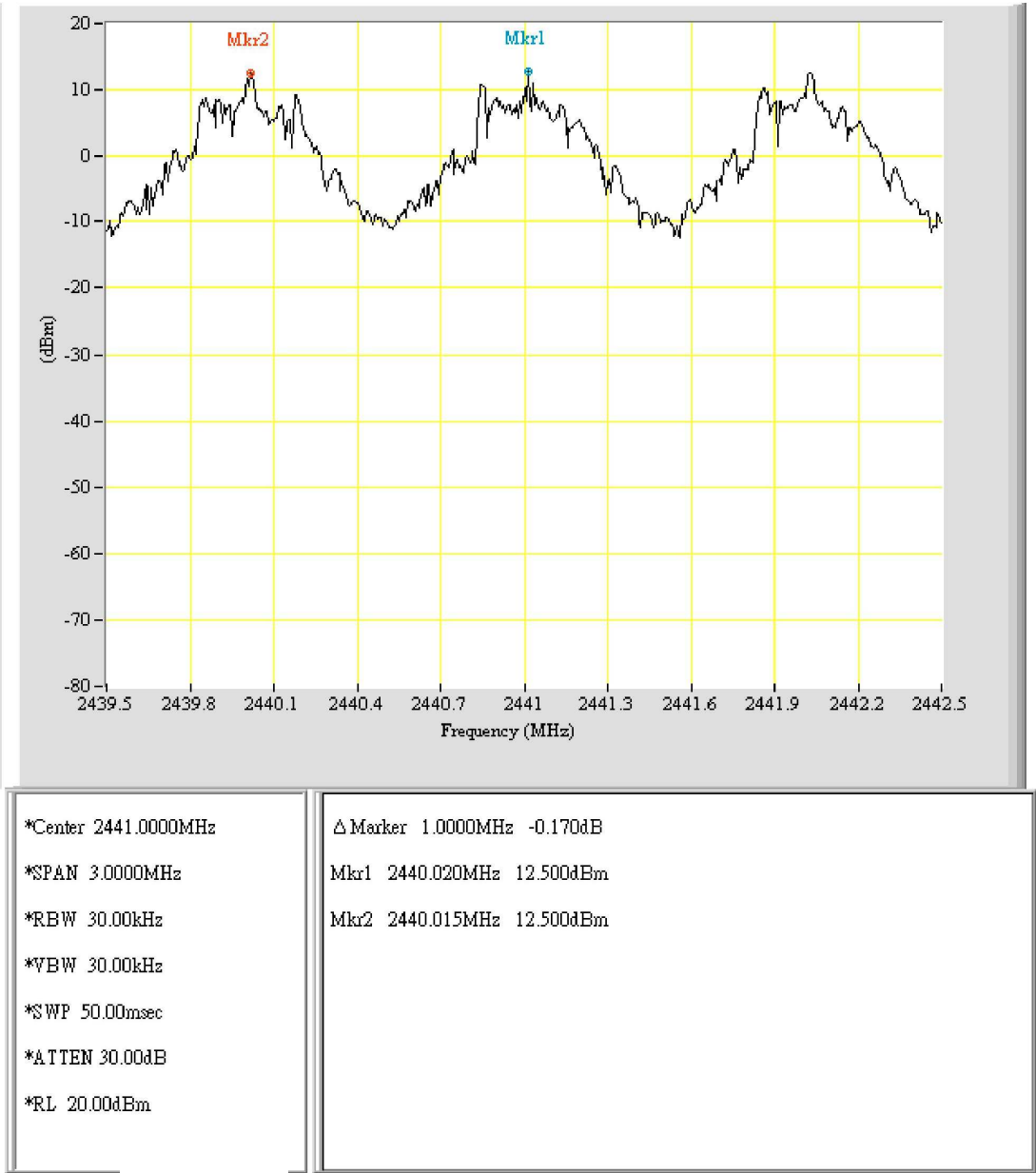
- a) 2402MHz channel separation is 1MHz
- b) 2441MHz channel separation is 1MHz
- c) 2480MHz channel separation is 1MHz

Channel	Frequency (MHz)	Hopping Channel Carrier Frequency Separated (MHz)	Chart
0	2402	1	Page 80
39	2441	1	Page 81
78	2480	1	Page 82

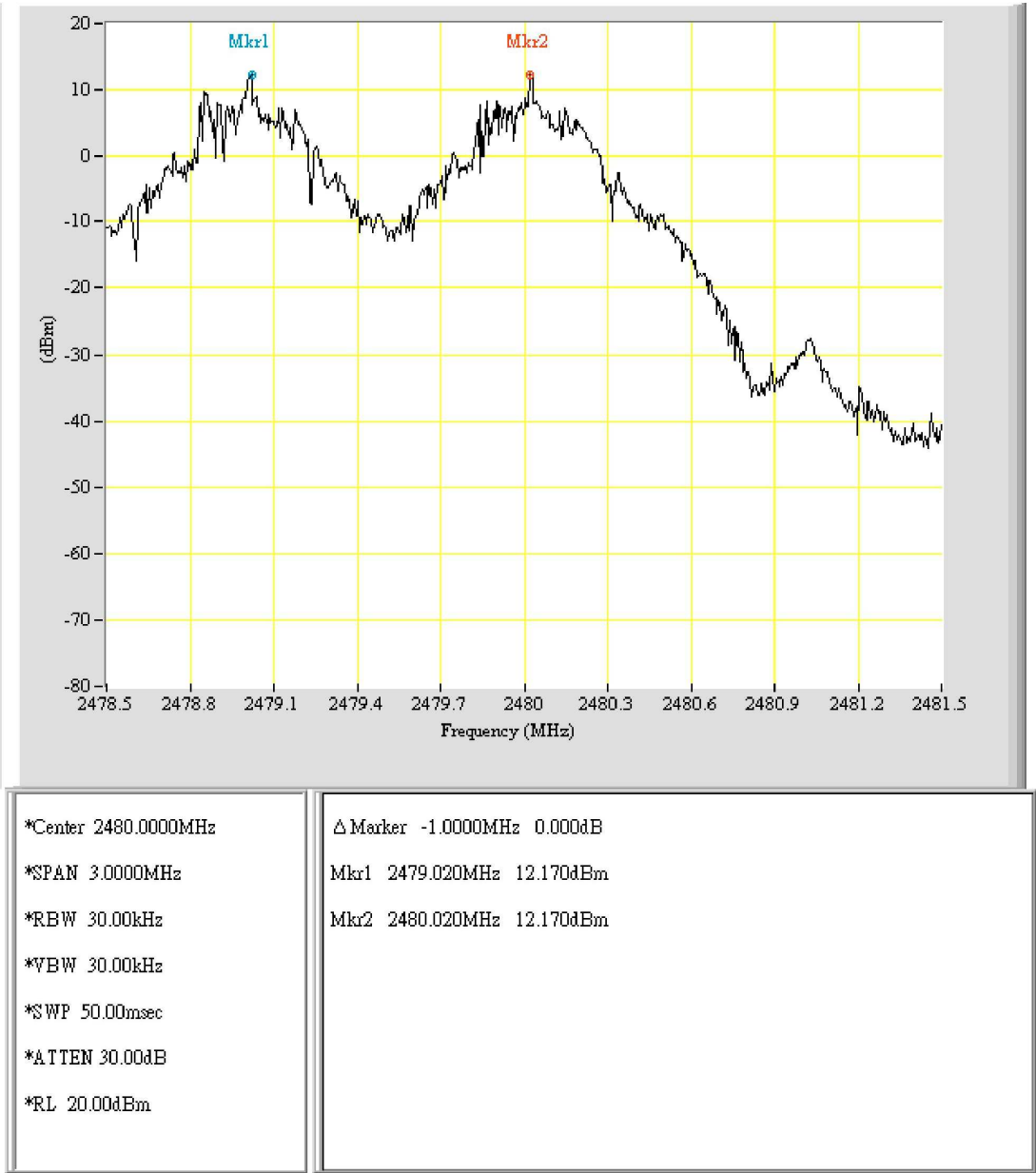
Note: Please refer to page 80 to page 82 for chart



EUT:
Purpose: Channel_Seperation
Condition: CH0
Note:



EUT: BAP-100
Purpose: Channel_Seperation
Condition: CH39
Note:



EUT: BAP-100
Purpose: Channel_Seperation
Condition: CH78
Note:

12 POWER SPECTRAL DENSITY

12.1 Standard Applicable

According to 15.247(d), for bluetooth device, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

12.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. The setup of the EUT as shown in figure 4. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any measured frequency within its operating range and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 3kHz, VBW to 10 kHz, span 300kHz and sweep time 100 sec.
4. Measure the highest amplitude appearing on spectral display and record the level to calculate result data.
5. Repeat above procedures until all frequencies measured were complete.

12.3 Measurement Equipment

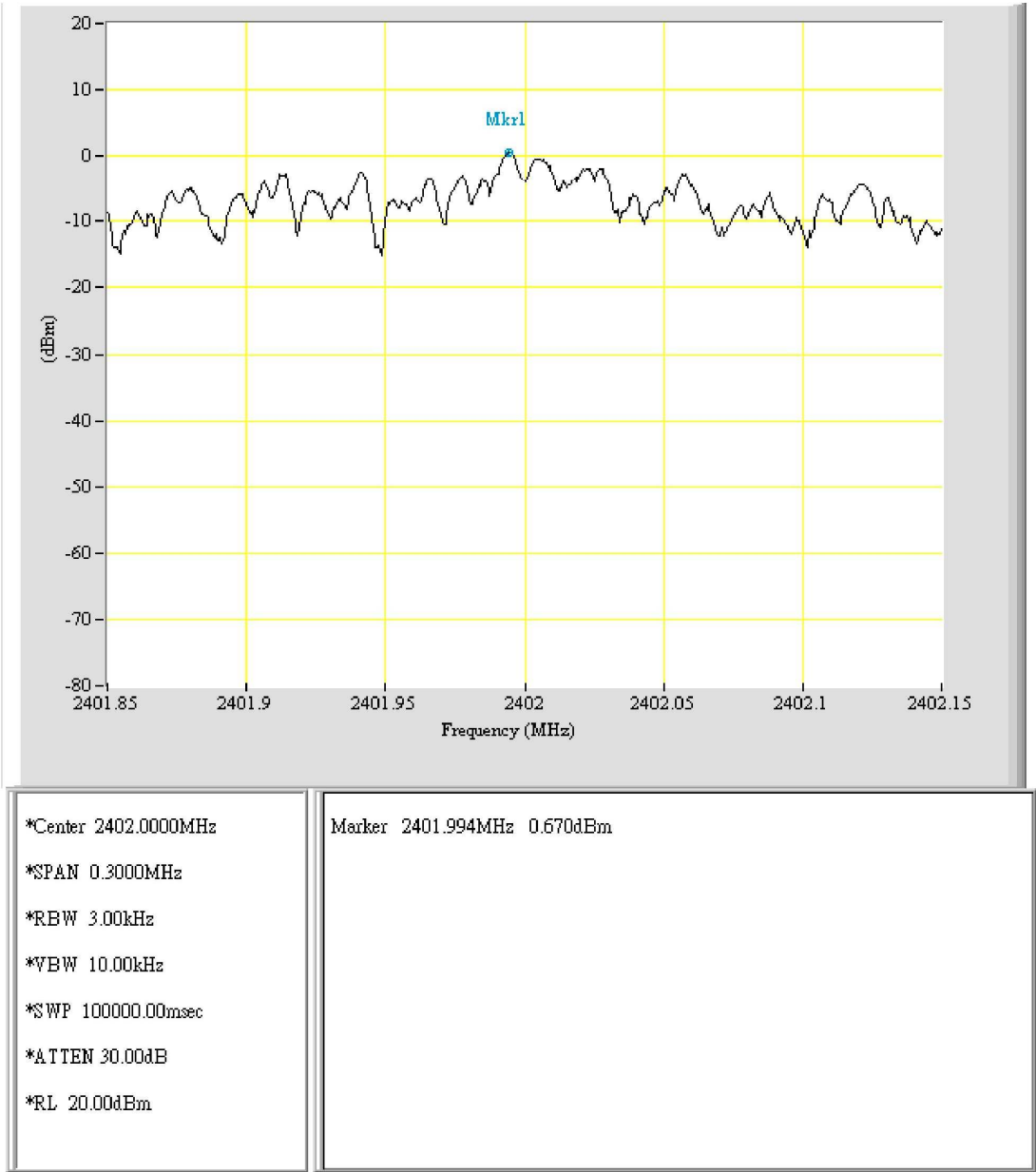
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Hewlett-Packard	8564EC	09/16/2005

12.4 Measurement Data

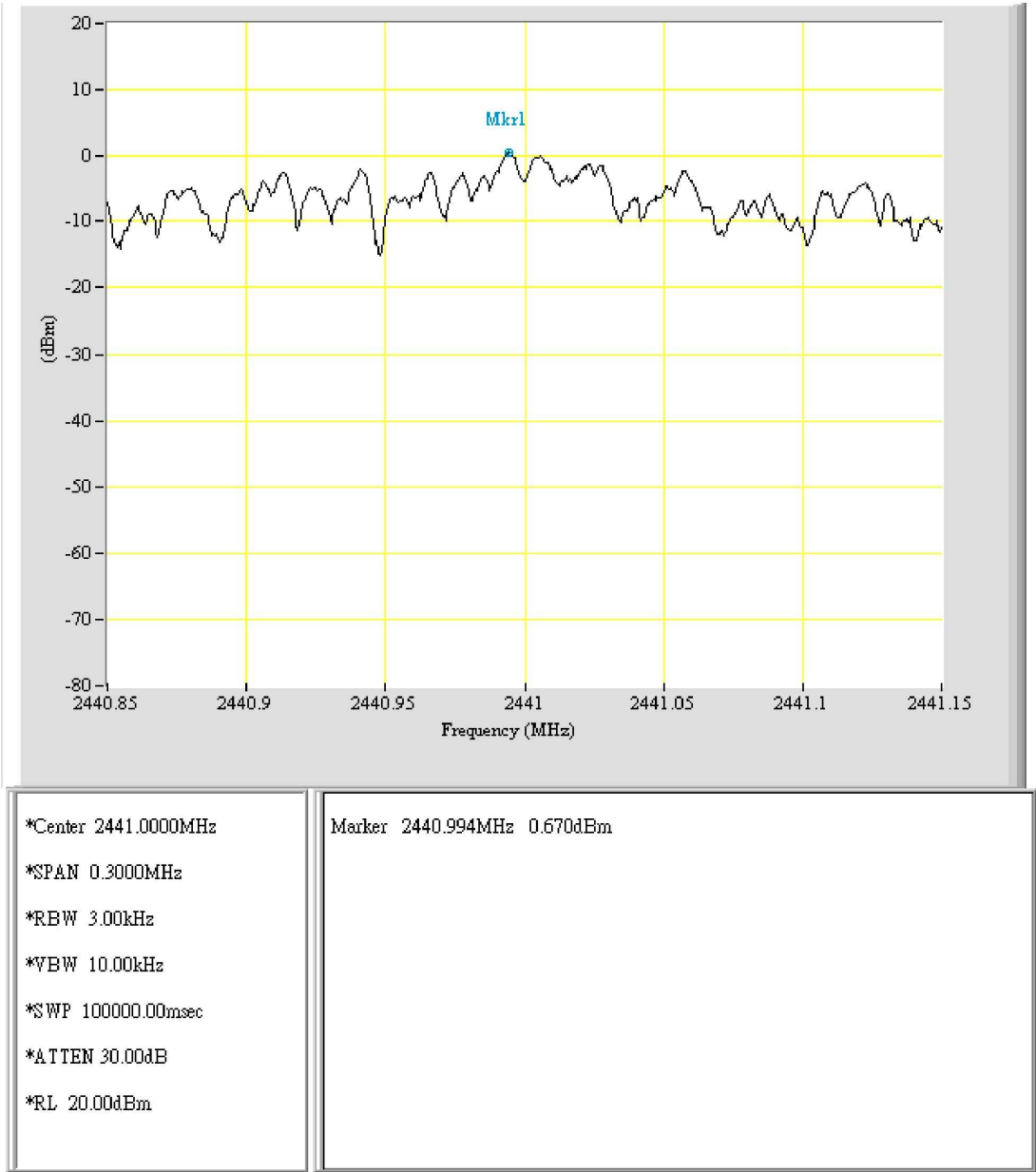
Test Date : Dec. 27, 2004Temperature : 23 °CHumidity: 71%

Channel	Frequency (MHz)	Reading (dBm)	Cable Loss (dB)	Power Spectral Density (dBm)	FCC Limit (dBm)	Chart
0	2402	0.67	0.5	1.17	8	Page 85
39	2441	0.67	0.5	1.17	8	Page 86
78	2480	0.34	0.5	0.84	8	Page 87

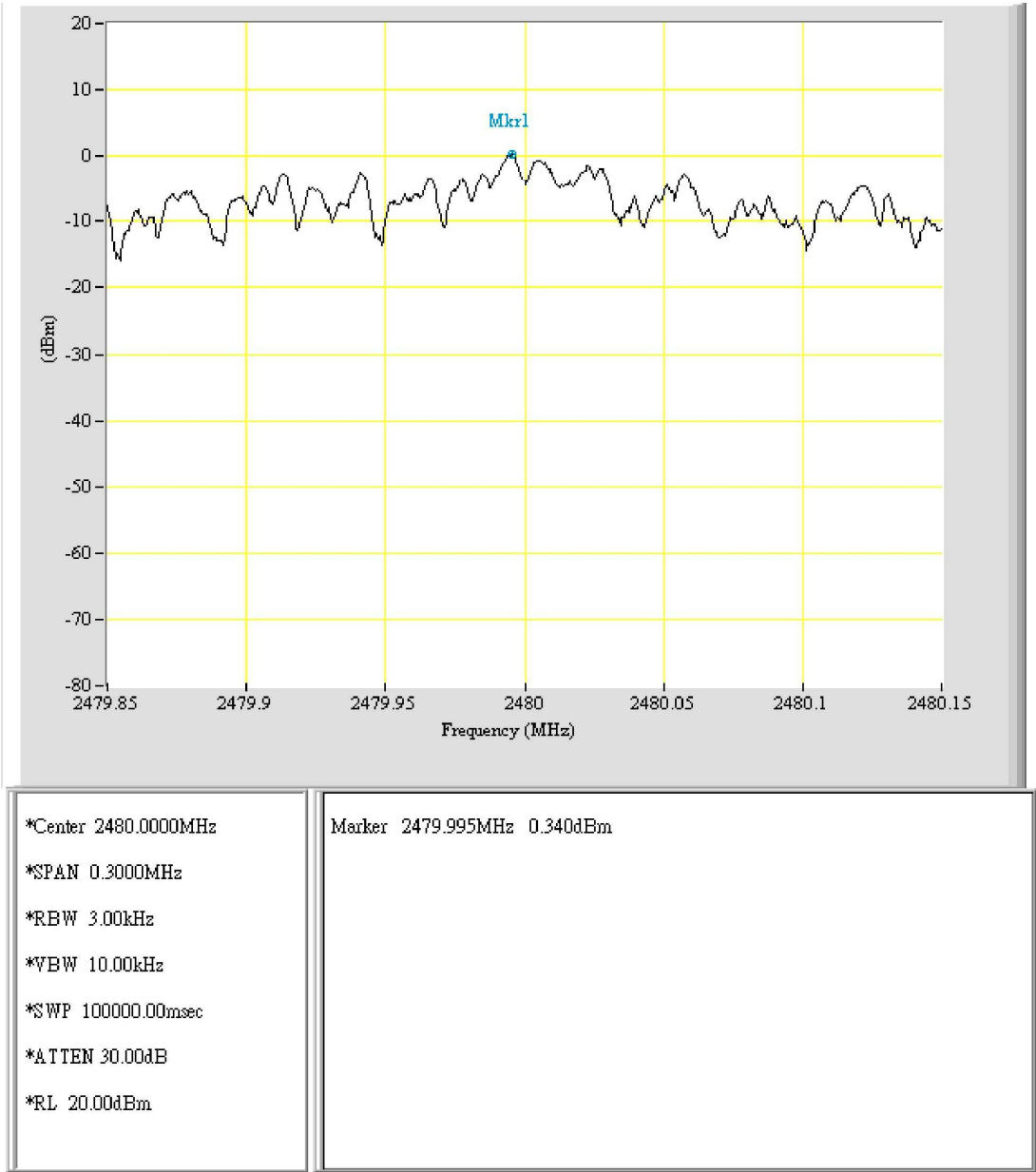
Note: Please refer to page 85 to page 87 for chart



EUT:
Purpose: PwrDensity
Condition: CH0
Note:



EUT:
Purpose: PwrDensity
Condition: CH39
Note:



EUT:
Purpose: PwrDensity
Condition: CH78
Note: