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

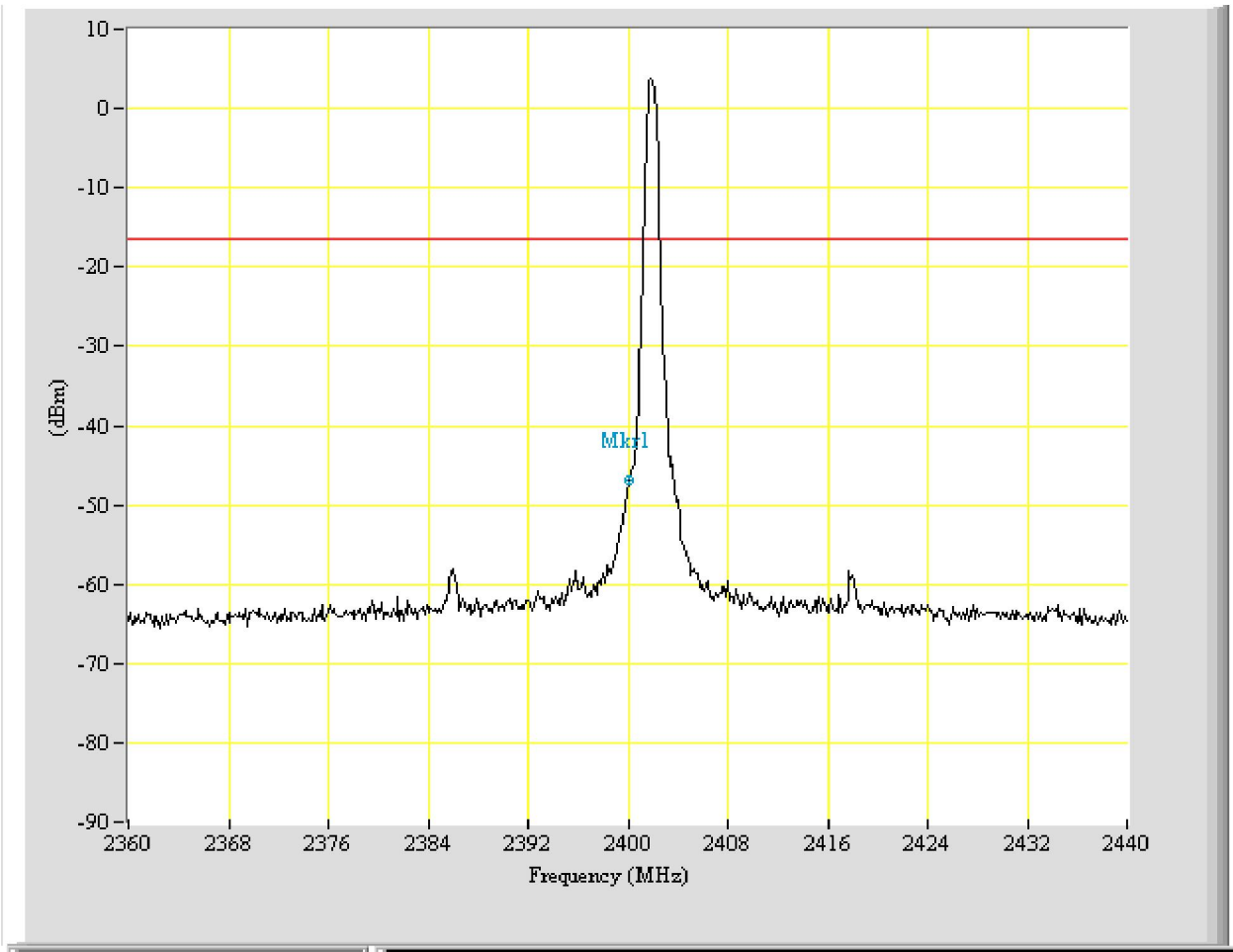
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Hewlett-Packard	8564EC	09/16/2005

9.4 Measurement Data

Test Date : Aug. 27, 2004 Temperature : 21 ℃ Humidity: 69%

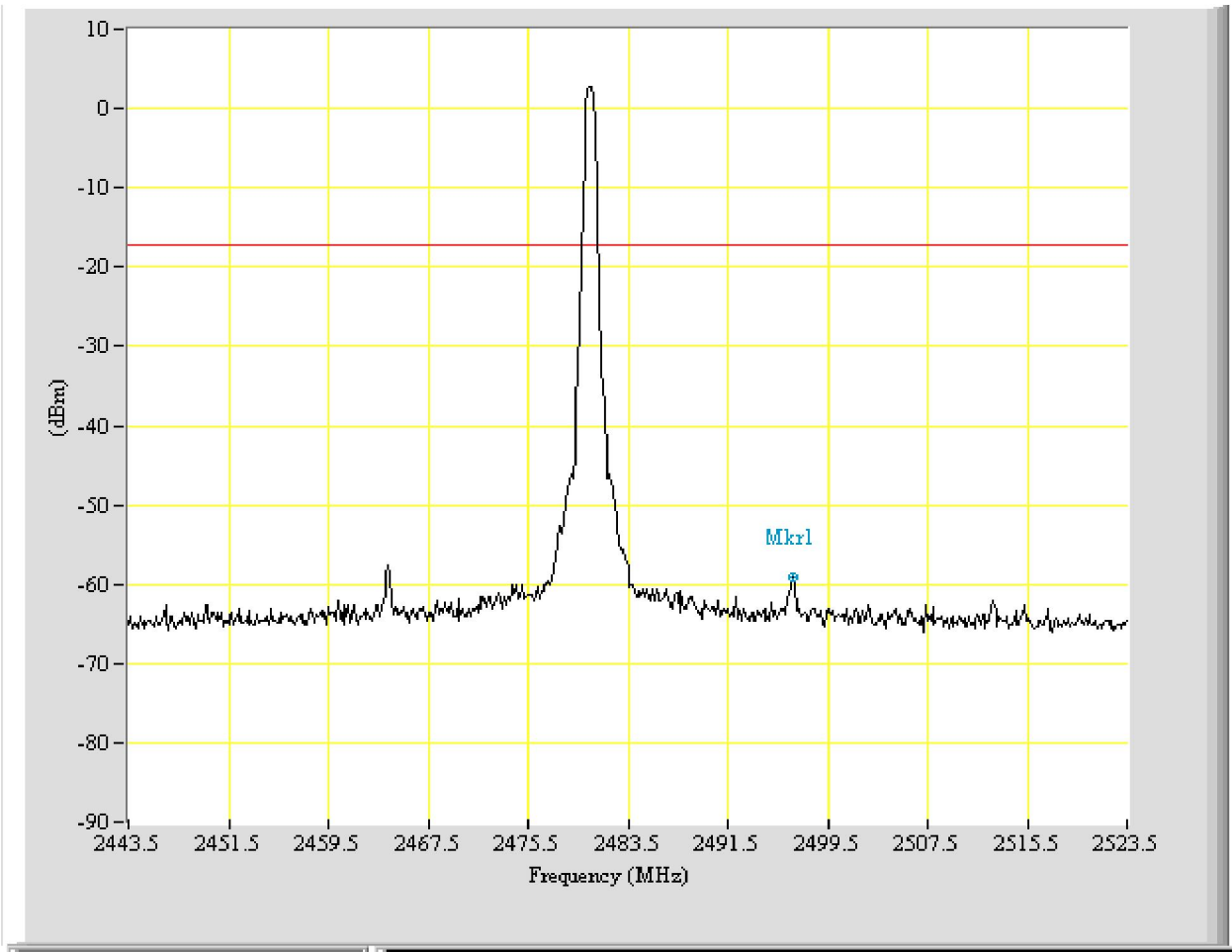
Channel	Test Frequency Range	Note	Chart
0	2360 MHz - 2440 MHz	Lower Band Edge	Page 48
78	2443.5 MHz - 2523.5 MHz	Upper Band Edge	Page 49
0	30 MHz - 25 GHz		Page 50
39	30 MHz - 25 GHz		Page 51
78	30 MHz - 25 GHz		Page 52

Note: Please refer to page 48 to page 52 for chart



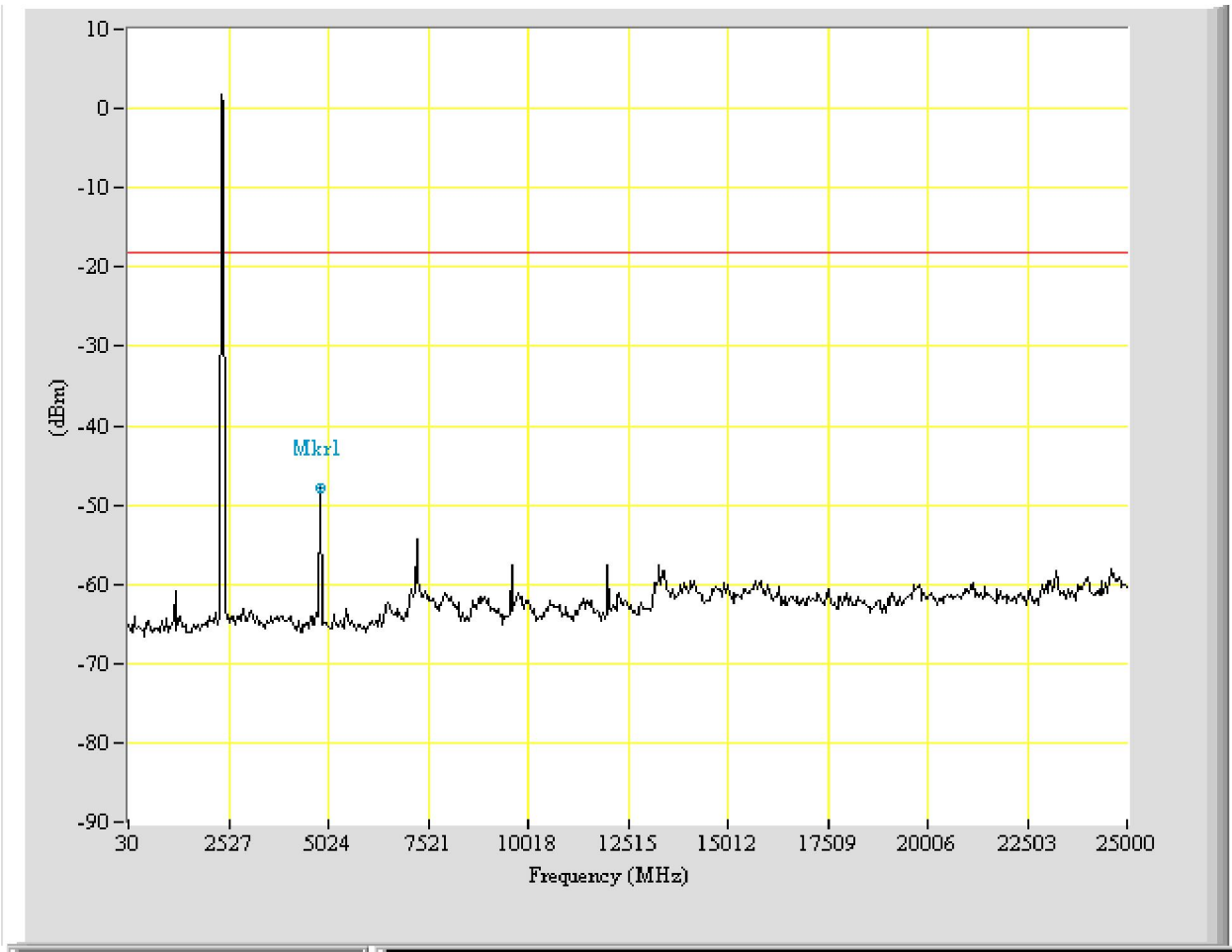
*Center 2400.0000MHz	Display Line -16.330dBm
*SPAN 80.0000MHz	Marker 2400.000MHz -46.830dBm
*RBW 100.00kHz	
*VBW 300.00kHz	
*SWP 50.00msec	
*ATTEN 20.00dB	
*RL 10.00dBm	

EUT: BT29
Purpose: Band_Edge
Condition: CH0
Note:



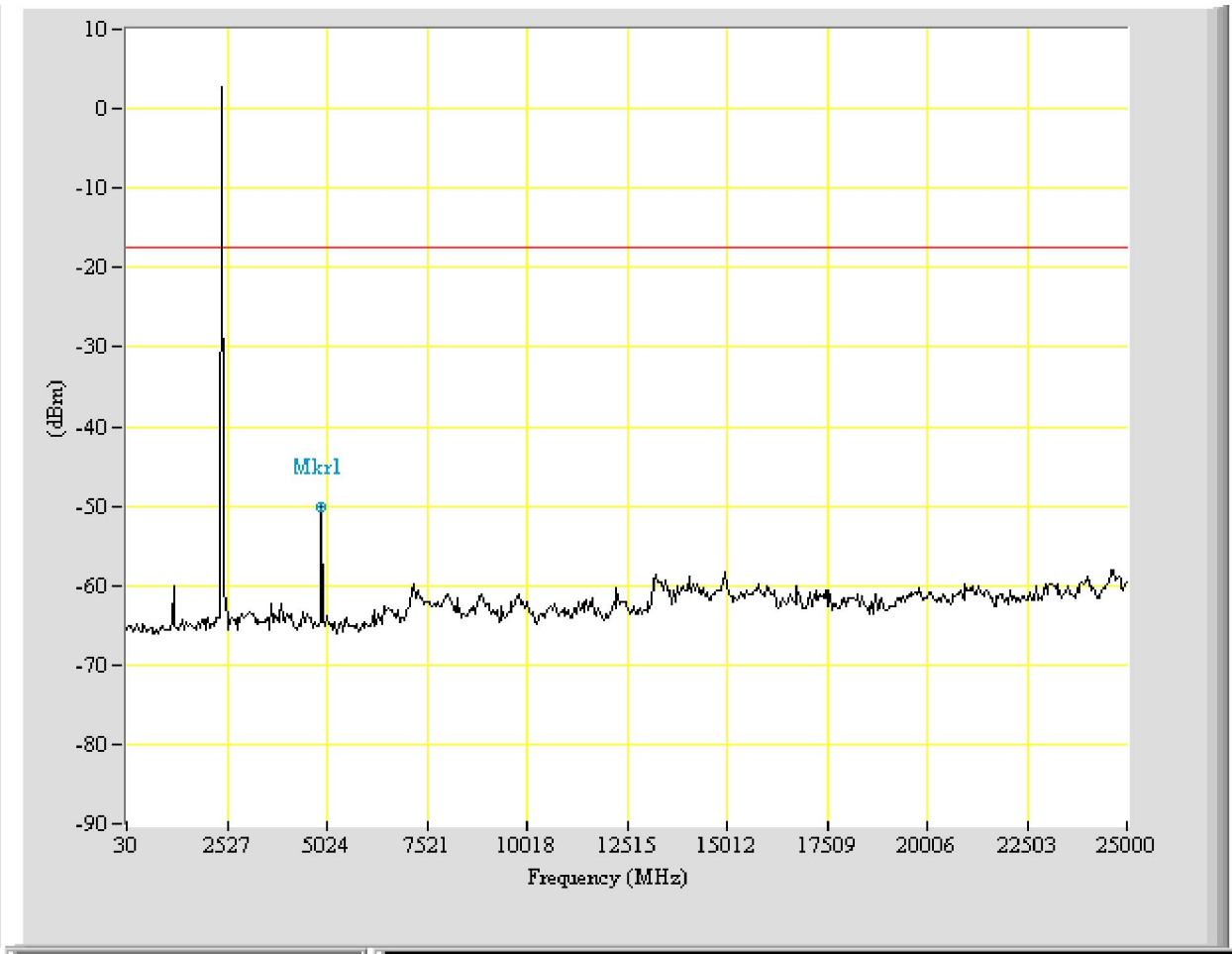
*Center 2483.5000MHz	Display Line -17.160dBm
*SPAN 80.0000MHz	Marker 2496.700MHz -59.160dBm
*RBW 100.00kHz	
*VBW 300.00kHz	
*SWP 50.00msec	
*ATTEN 20.00dB	
*RL 10.00dBm	

EUT: BT29
Purpose: Band_Edge
Condition: CH78
Note:



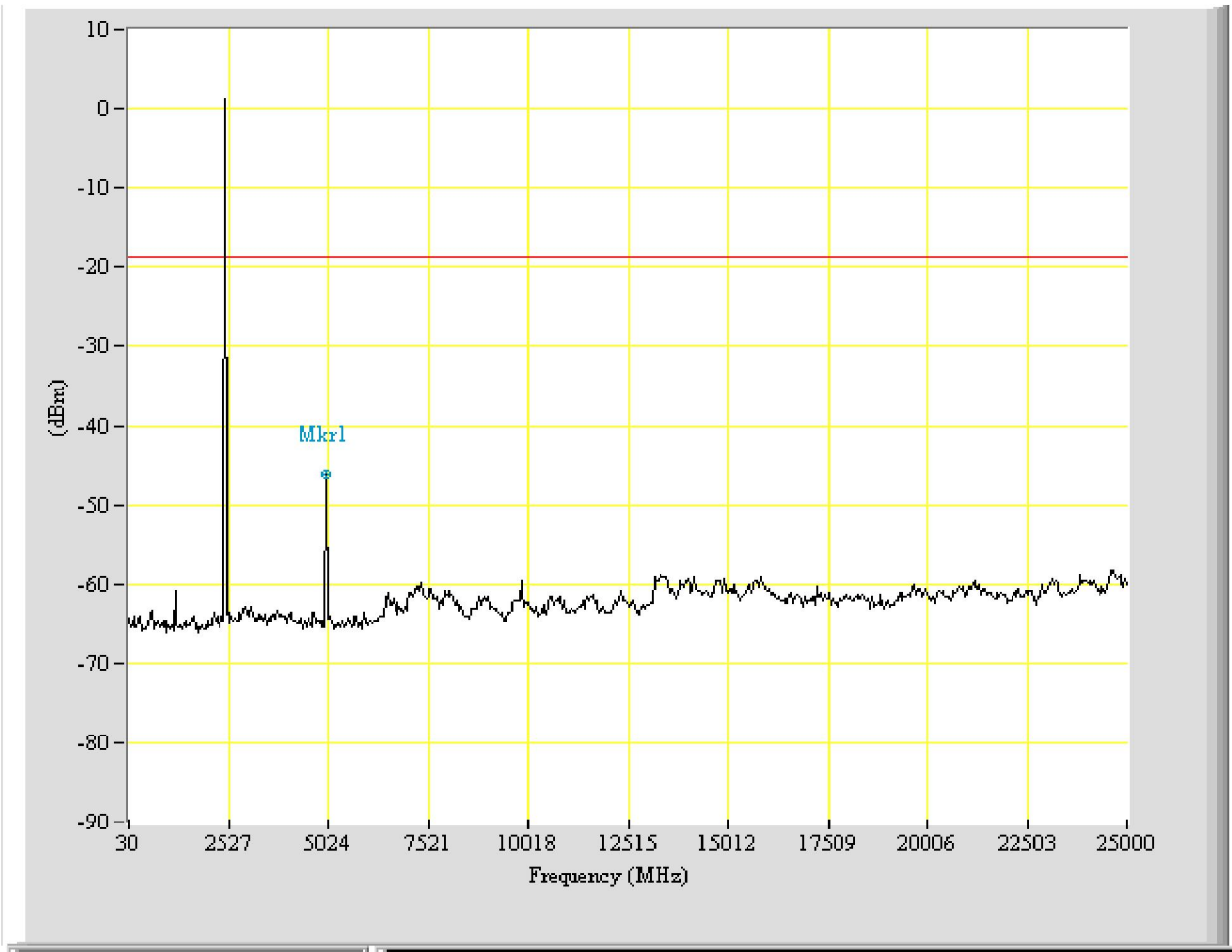
*Center 12515.0000MHz	Display Line -18.160dBm
*SPAN 24970.0000MHz	Marker 4815.917MHz -47.830dBm
*RBW 100.00kHz	
*VBW 300.00kHz	
*SWP 6300.00msec	
*ATTEN 20.00dB	
*RL 10.00dBm	

EUT: BT29
Purpose: Band_Edge_All
Condition: CH0
Note:



*Center 12515.0000MHz *SPAN 24970.0000MHz *RBW 100.00kHz *VBW 300.00kHz *SWP 6300.00msec *ATTEN 20.00dB *RL 10.00dBm	Display Line -17.330dBm Marker 4899.150MHz -50.000dBm

EUT: BT29
Purpose: Band_Edge_All
Condition: CH39
Note:



*Center 12515.0000MHz	Display Line -18.660dBm
*SPAN 24970.0000MHz	Marker 4982.383MHz -46.000dBm
*RBW 100.00kHz	
*VBW 300.00kHz	
*SWP 6300.00msec	
*ATTEN 20.00dB	
*RL 10.00dBm	

EUT: BT29
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 miximum to measure the number of hopping channels.

10.3 Measurement Equipment

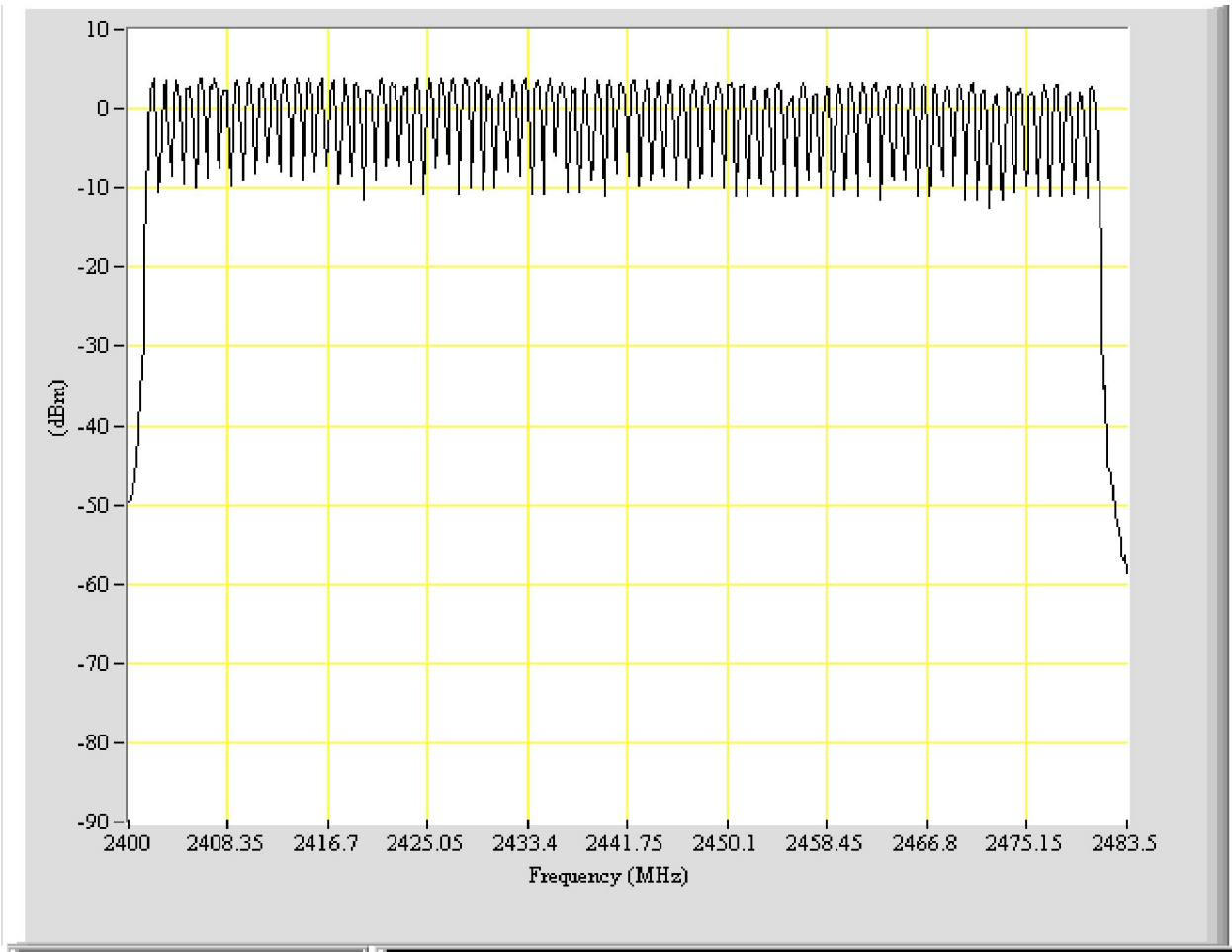
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Hewlett-Packard	8564EC	09/16/2005

10.4 Measurement Data

Test Date : Aug. 27, 2004 Temperature : 21 ℃ Humidity: 69%

Number of hopping channels = 79 channels

Note: Please refer to page 54 for chart



*Center 2441.7500MHz

*SPAN 83.5000MHz

*RBW 100.00kHz

*VBW 300.00kHz

*SWP 50.00msec

*ATTEN 20.00dB

*RL 10.00dBm

EUT: BT29
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 seperated 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 ragne 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

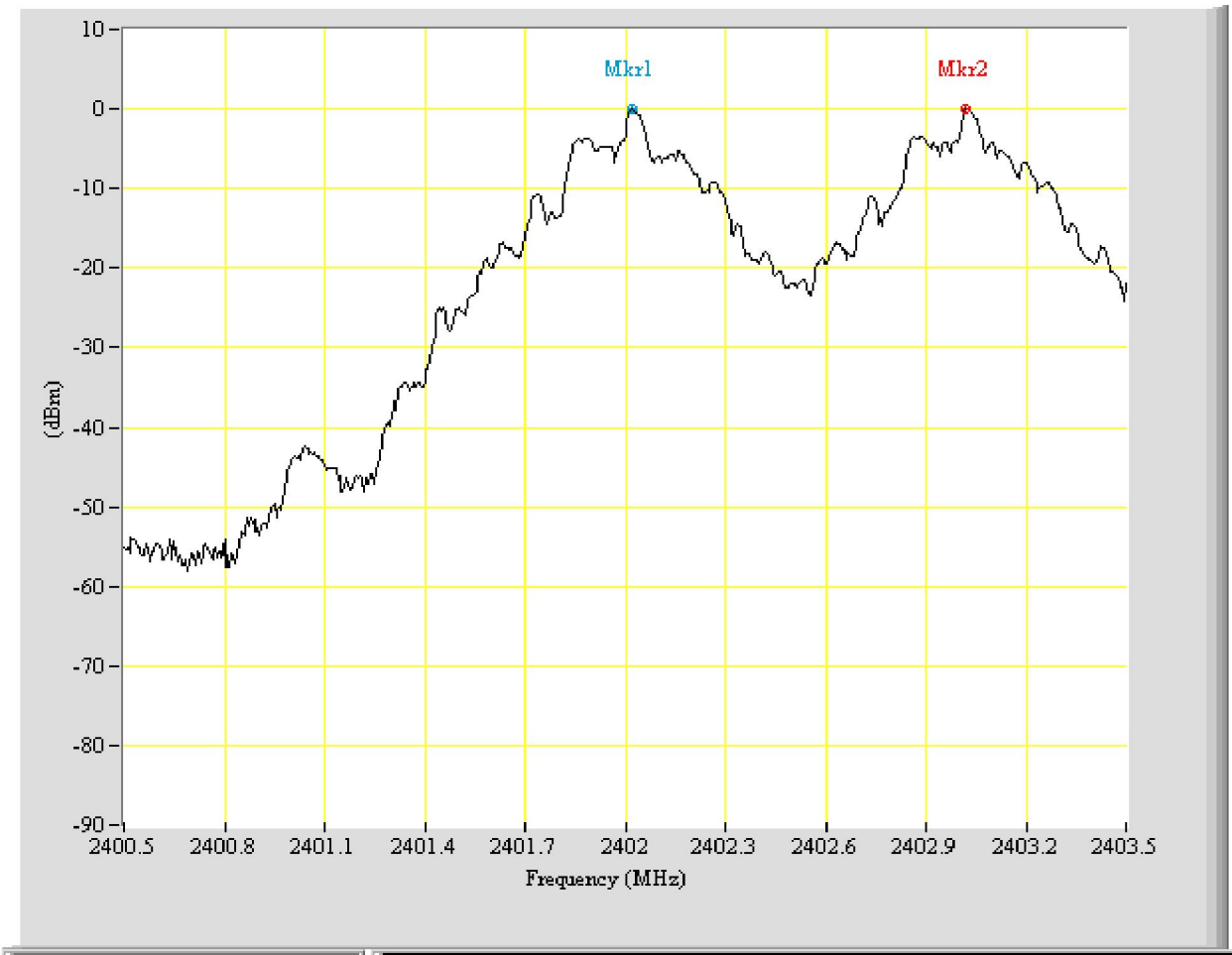
11.4 Measurement Data

Test Date : Nov. 17, 2004 Temperature : 20 ℃ Humidity: 72%

a) 2402MHz channel seperation is 1MHz
b) 2441MHz channel seperation is 1MHz
c) 2480MHz channel seperation is 1MHz

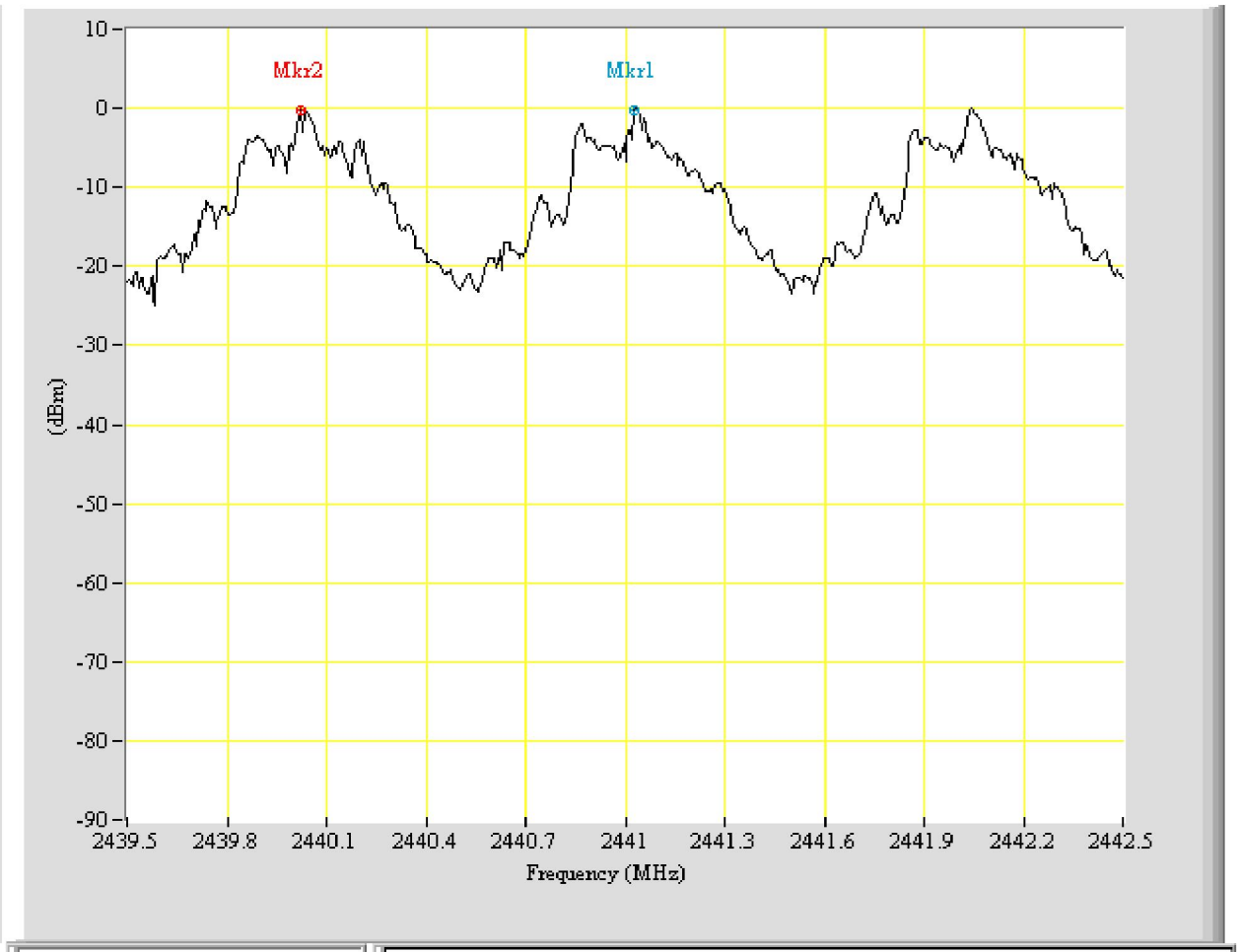
Channel	Frequency (MHz)	Hopping Channel Carrier Frequency Separated (MHz)	Chart
0	2402	1	Page 57
39	2441	1	Page 58
78	2480	1	Page 59

Note: Please refer to page 57 to page 59 for chart



*Center 2402.0000MHz	ΔMarker -1.0000MHz 0.000dB
*SPAN 3.0000MHz	Mkr1 2402.020MHz 0.000dBm
*RBW 30.00kHz	Mkr2 2403.020MHz 0.000dBm
*VBW 30.00kHz	
*SWP 50.00msec	
*ATTEN 20.00dB	
*RL 10.00dBm	

EUT: BT29
Purpose: Channel_Seperation
Condition: CH0
Note:



*Center 2441.0000MHz	ΔMarker 1.0000MHz 0.000dB
*SPAN 3.0000MHz	Mkr1 2441.025MHz -0.330dBm
*RBW 30.00kHz	Mkr2 2440.025MHz -0.330dBm
*VBW 30.00kHz	
*SWP 50.00msec	
*ATTEN 20.00dB	
*RL 10.00dBm	

EUT: BT29
Purpose: Channel_Seperation
Condition: CH39
Note:

*Center 2480.0000MHz	ΔMarker -1.0000MHz -0.170dB
*SPAN 3.0000MHz	Mkr1 2479.035MHz -0.830dBm
*RBW 30.00kHz	Mkr2 2480.035MHz -1.000dBm
*VBW 30.00kHz	
*SWP 50.00msec	
*ATTEN 20.00dB	
*RL 10.00dBm	

EUT: BT29
Purpose: Channel_Seperation
Condition: CH78
Note: