

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

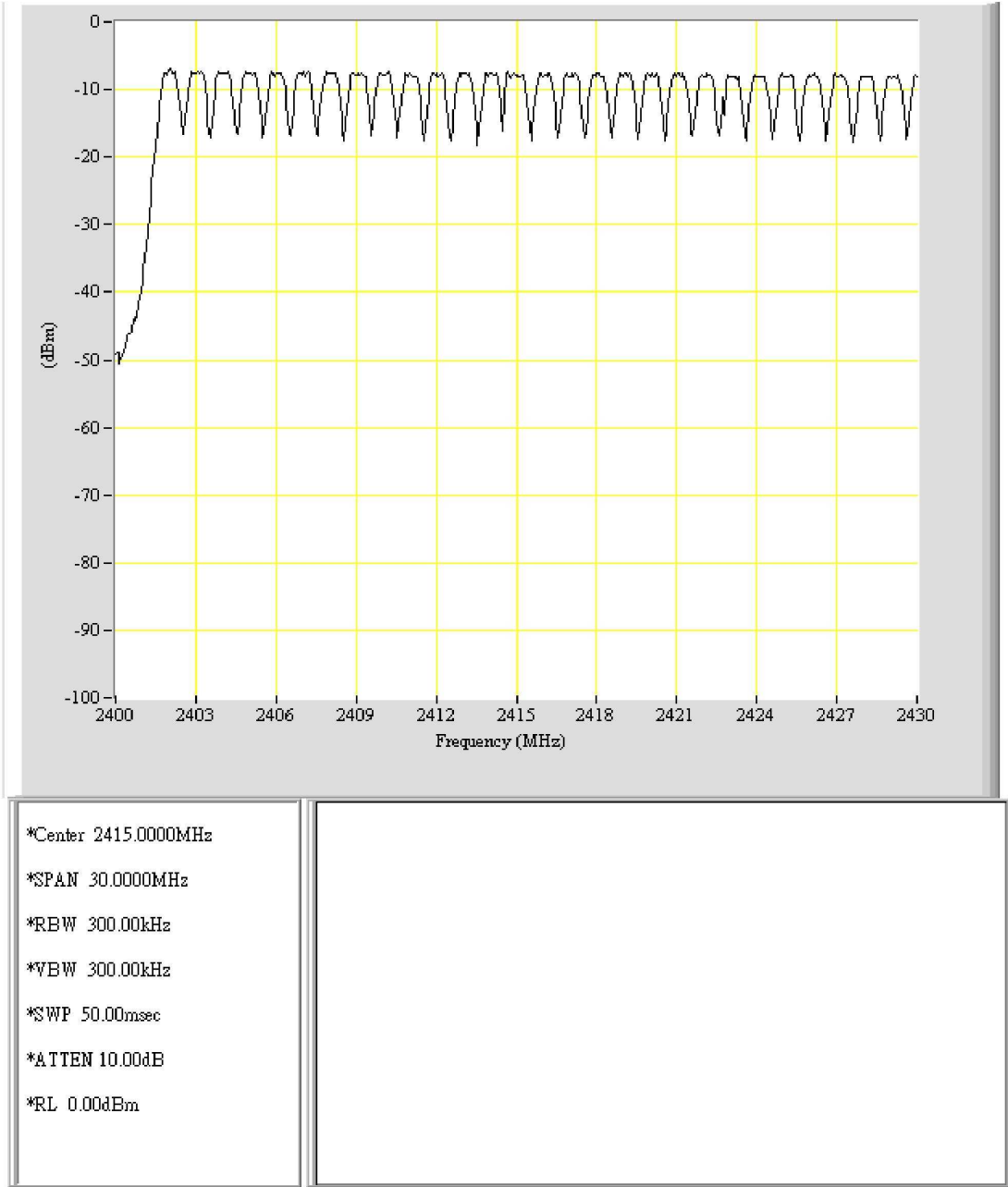
Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Agilent	8564EC	09/23/2006

10.4 Measurement Data

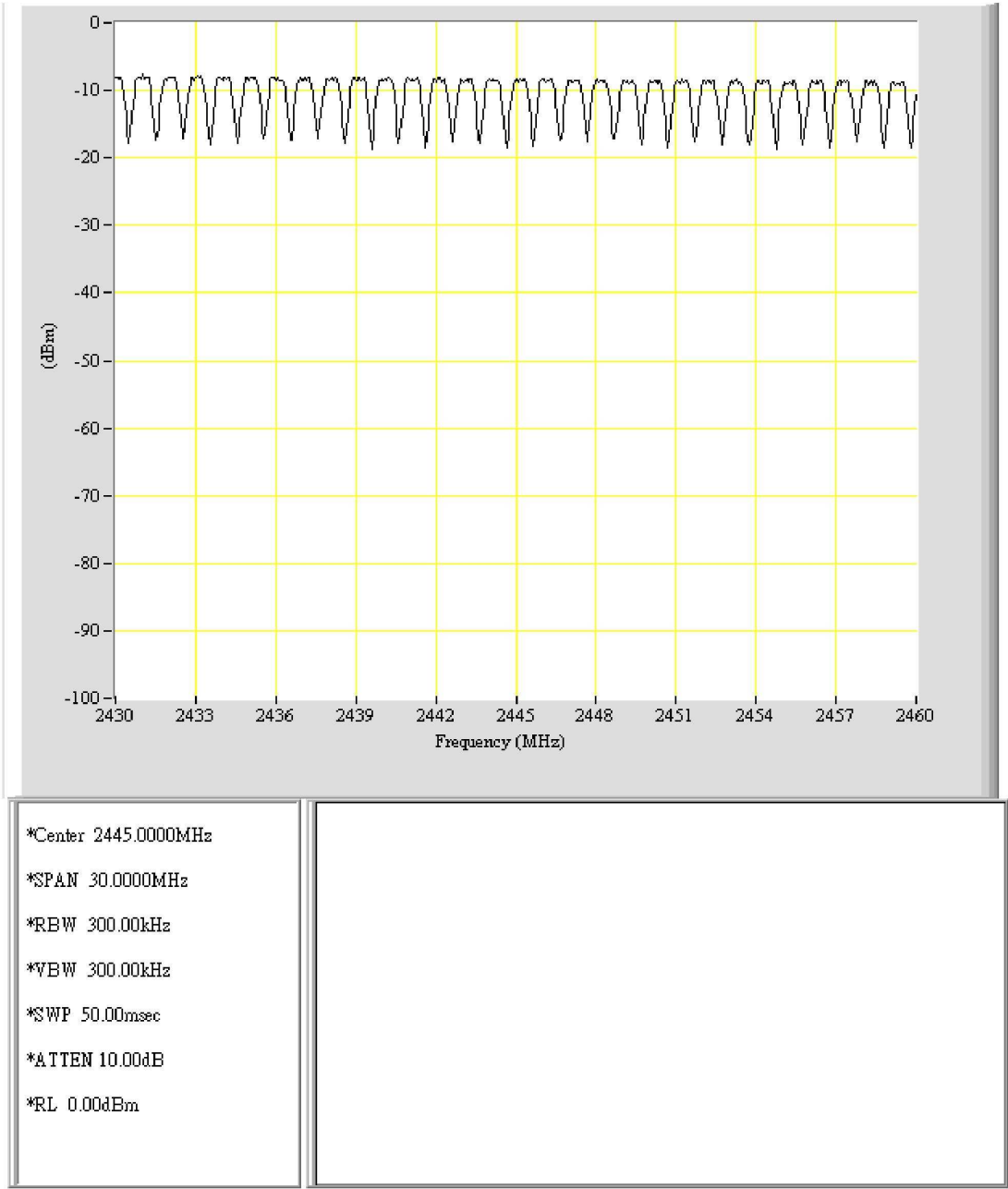
Test Date : Sep. 04, 2006 Temperature : 24°C Humidity : 53%

Number of hopping channels = 79 channels

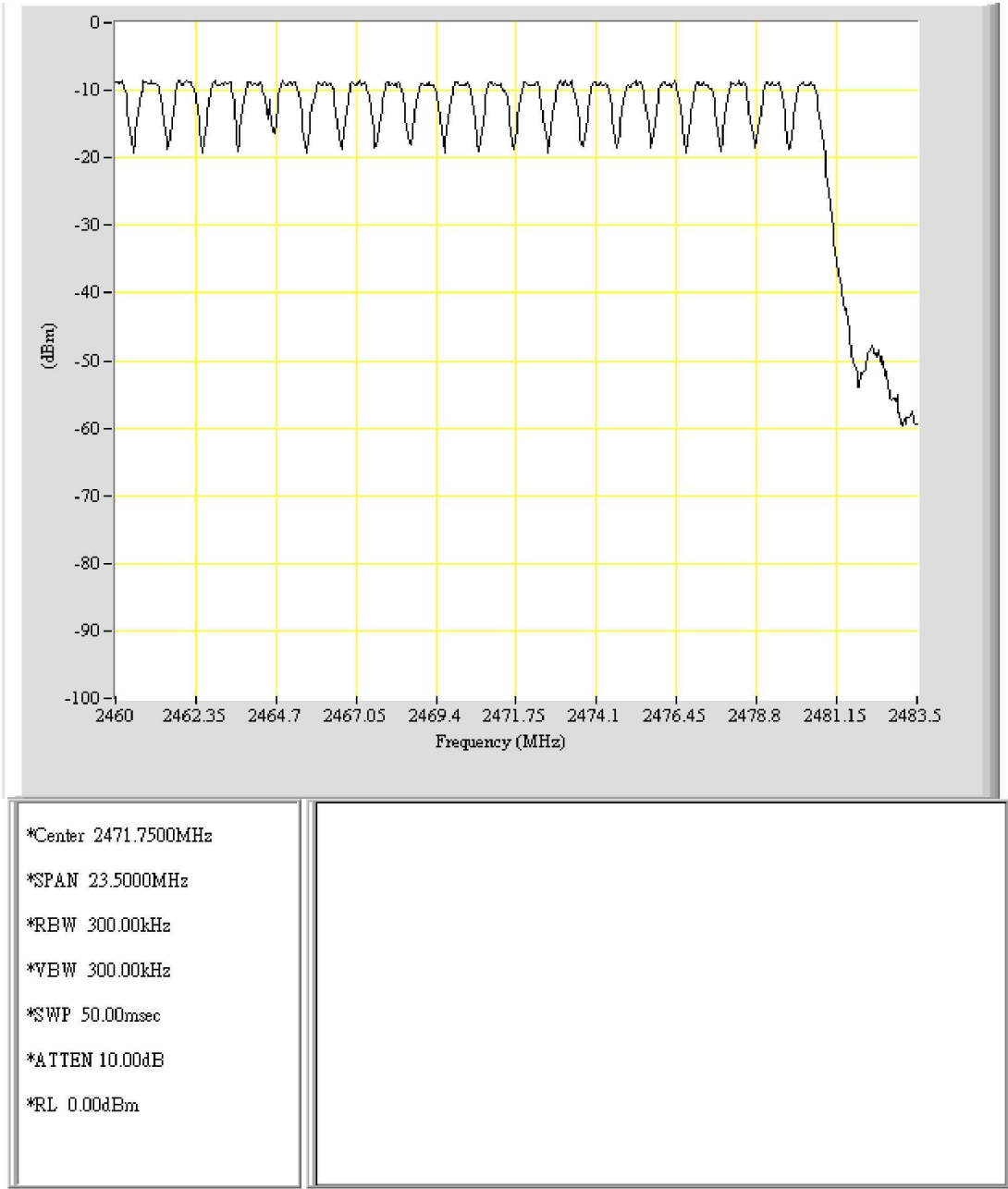
Note: Please refer to page 46 to page 48 for chart.



EUT: BT
Purpose: No_of_Channel
Condition: 1
Note:



EUT: BT
Purpose: No_of_Channel
Condition: 2
Note:



EUT: BT
Purpose: No_of_Channel
Condition: 3
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.

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125mW.

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	Agilent	8564EC	09/23/2006

11.4 Measurement Data

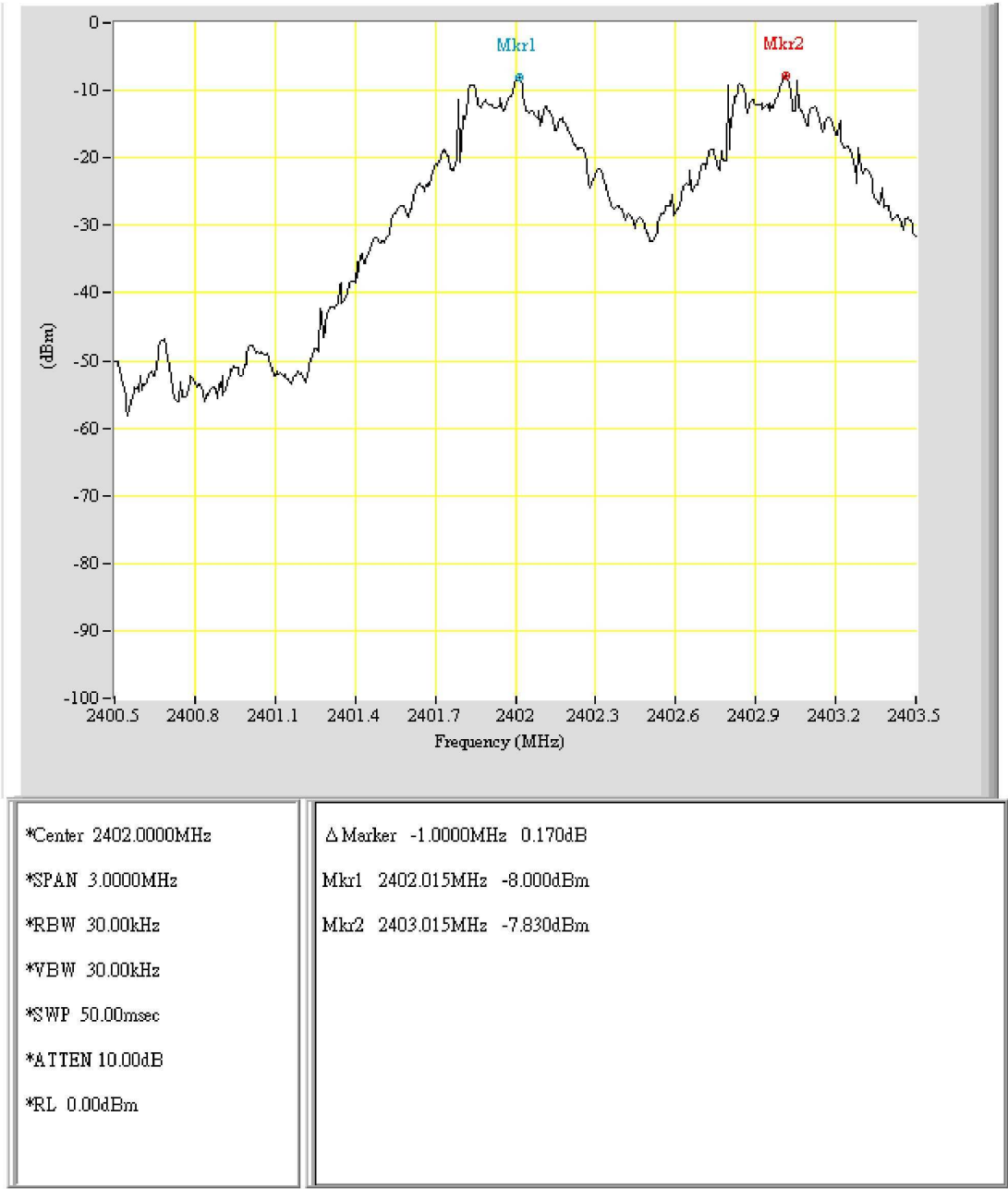
Test Date : Sep. 04, 2006

Temperature : 24°C

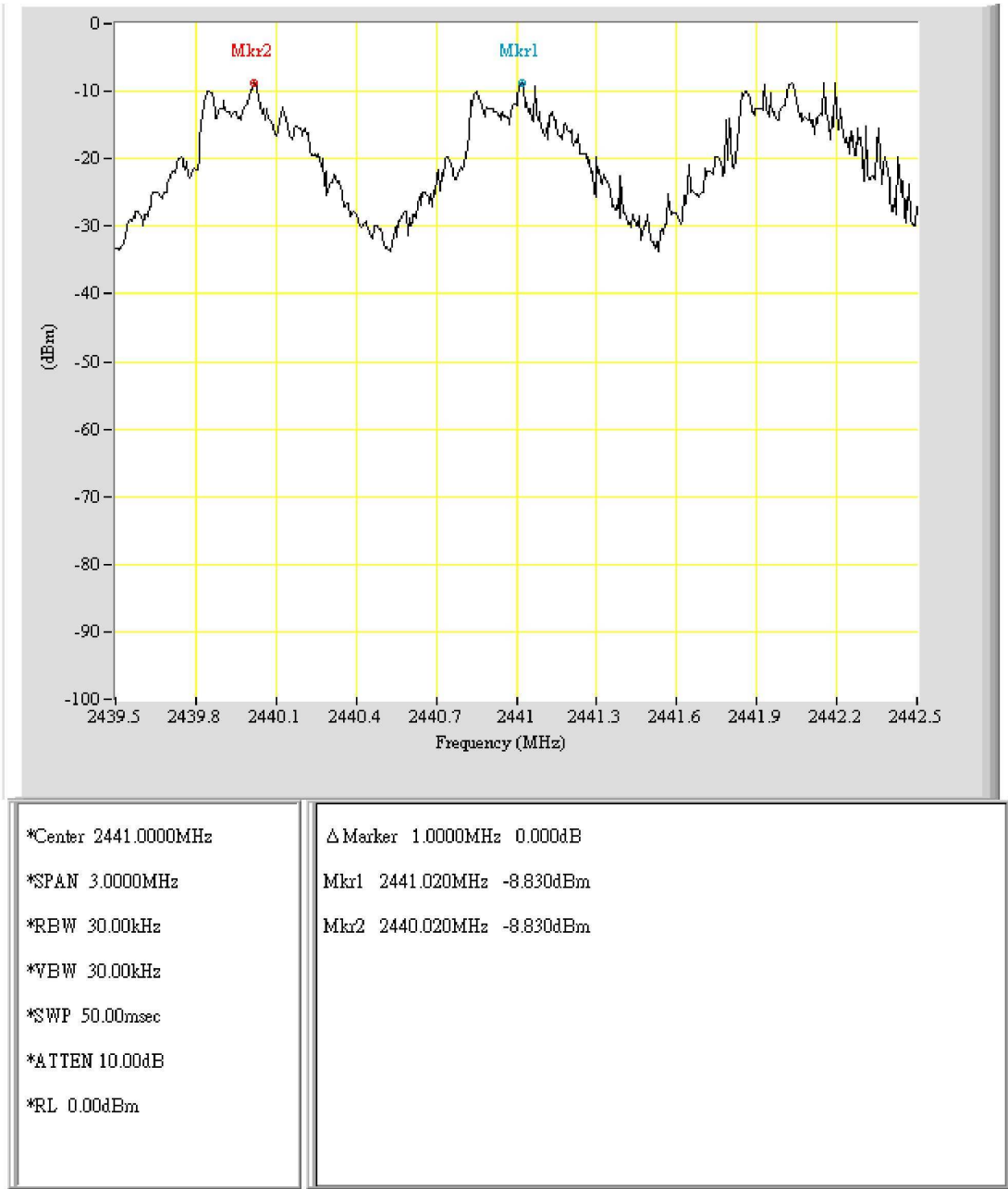
Humidity : 53%

Channel	Frequency (MHz)	Hopping Channel Carrier Frequency Separated (MHz)	Chart
0	2402	1	Page 51
39	2441	1	Page 52
78	2480	1	Page 53

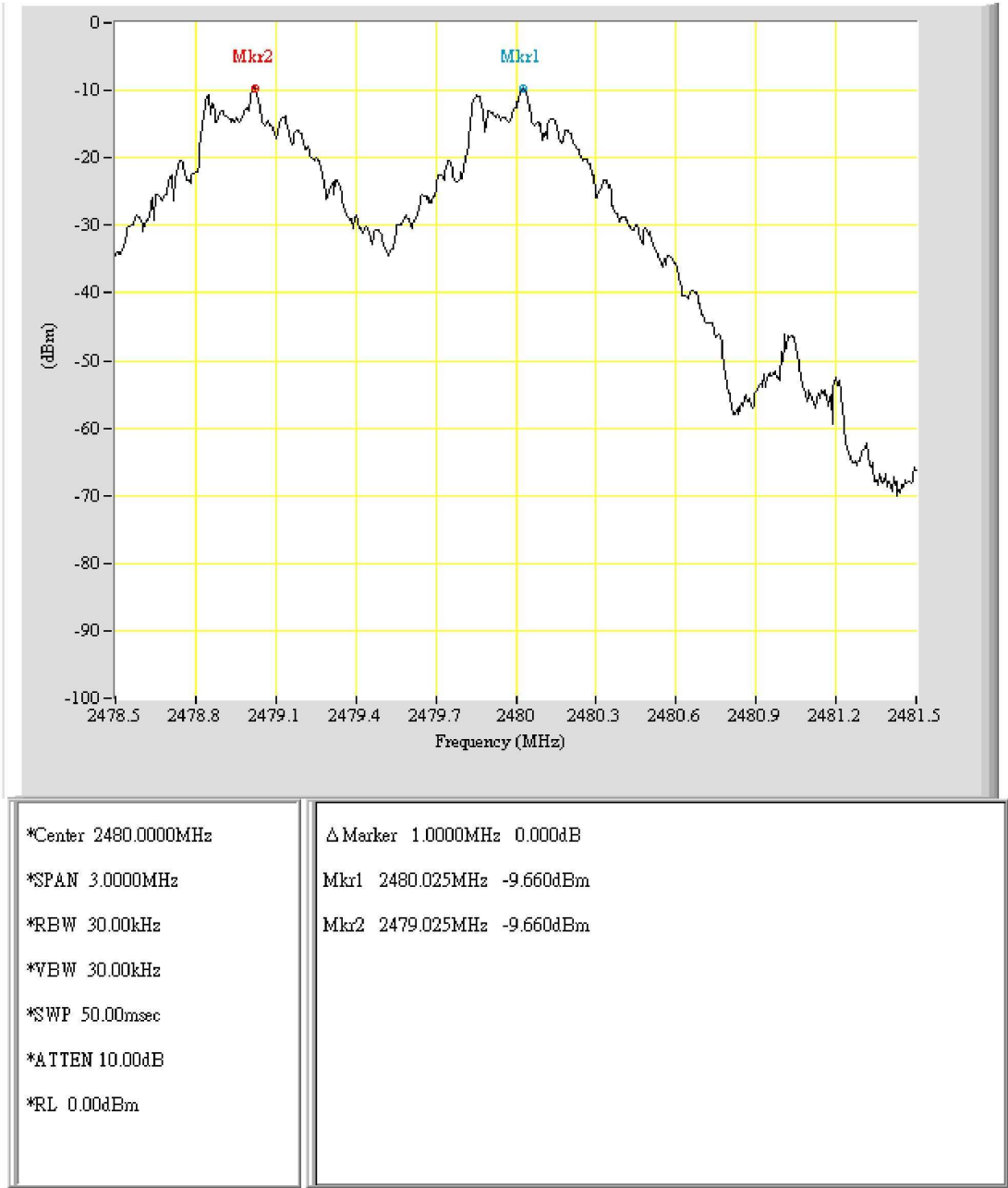
Note: Please refer to page 51 to page 53 for chart.



EUT: BT
Purpose: Channel_Seperation
Condition: CH00
Note:



EUT: BT
Purpose: Channel_Seperation
Condition: CH39
Note:



EUT: BT
Purpose: Channel_Seperation
Condition: CH78
Note:

12 Dwell Time

12.1 Standard Applicable

According to 15.247(a)(1)(iii), frequency hopping system in the 2400-2483.5MHz band employing at least 15 non-overlapping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 second multiplied by the number of hopping channels employed.

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.

12.3 Measurement Equipment

Equipment	Manufacturer	Model No.	Next Cal. Due
Spectrum Analyzer	Agilent	8564EC	09/23/2006

12.4 Measurement Data

Test Date : Sep. 04, 2006

Temperature : 24°C

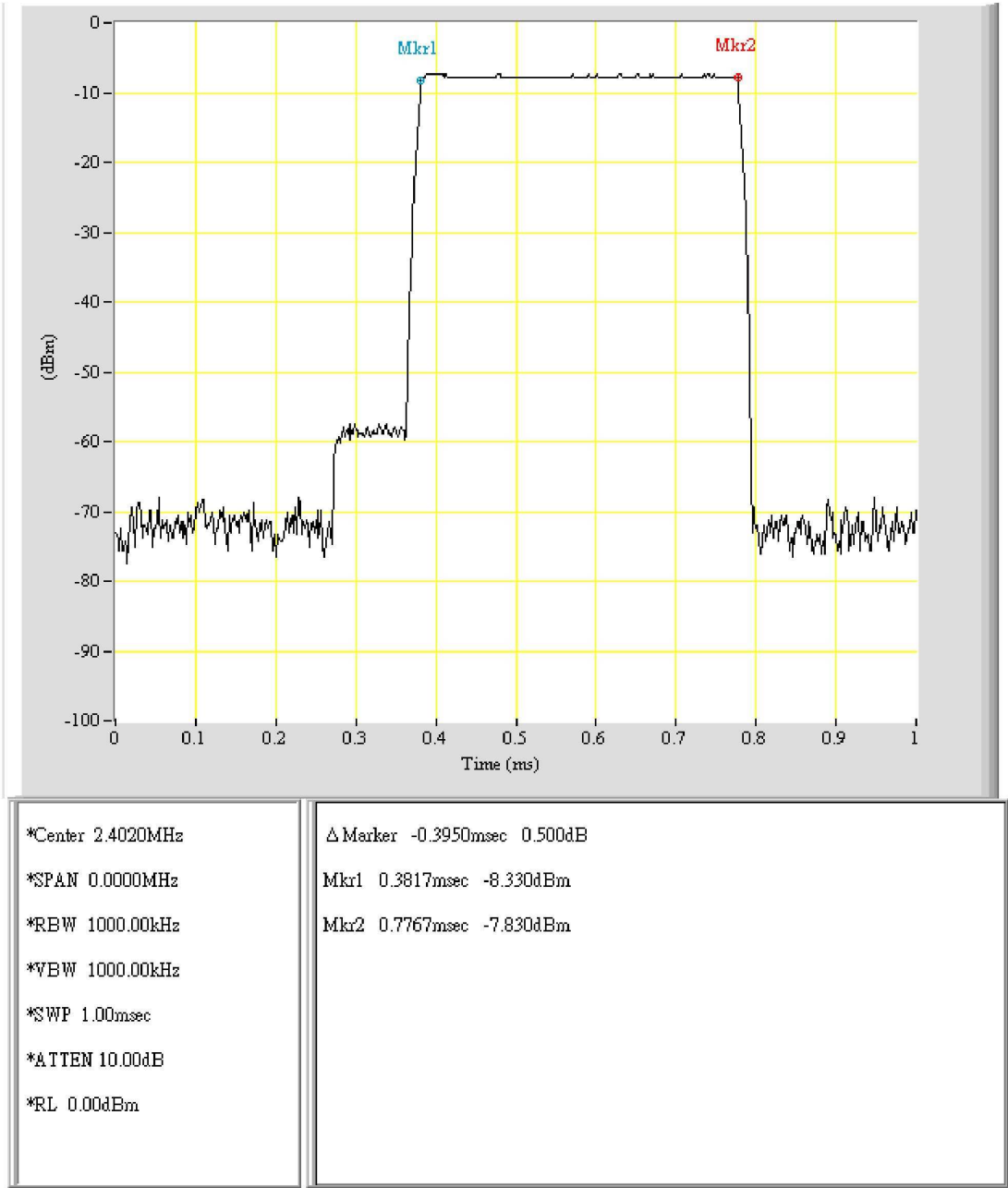
Humidity : 53%

12.4.1 DH1

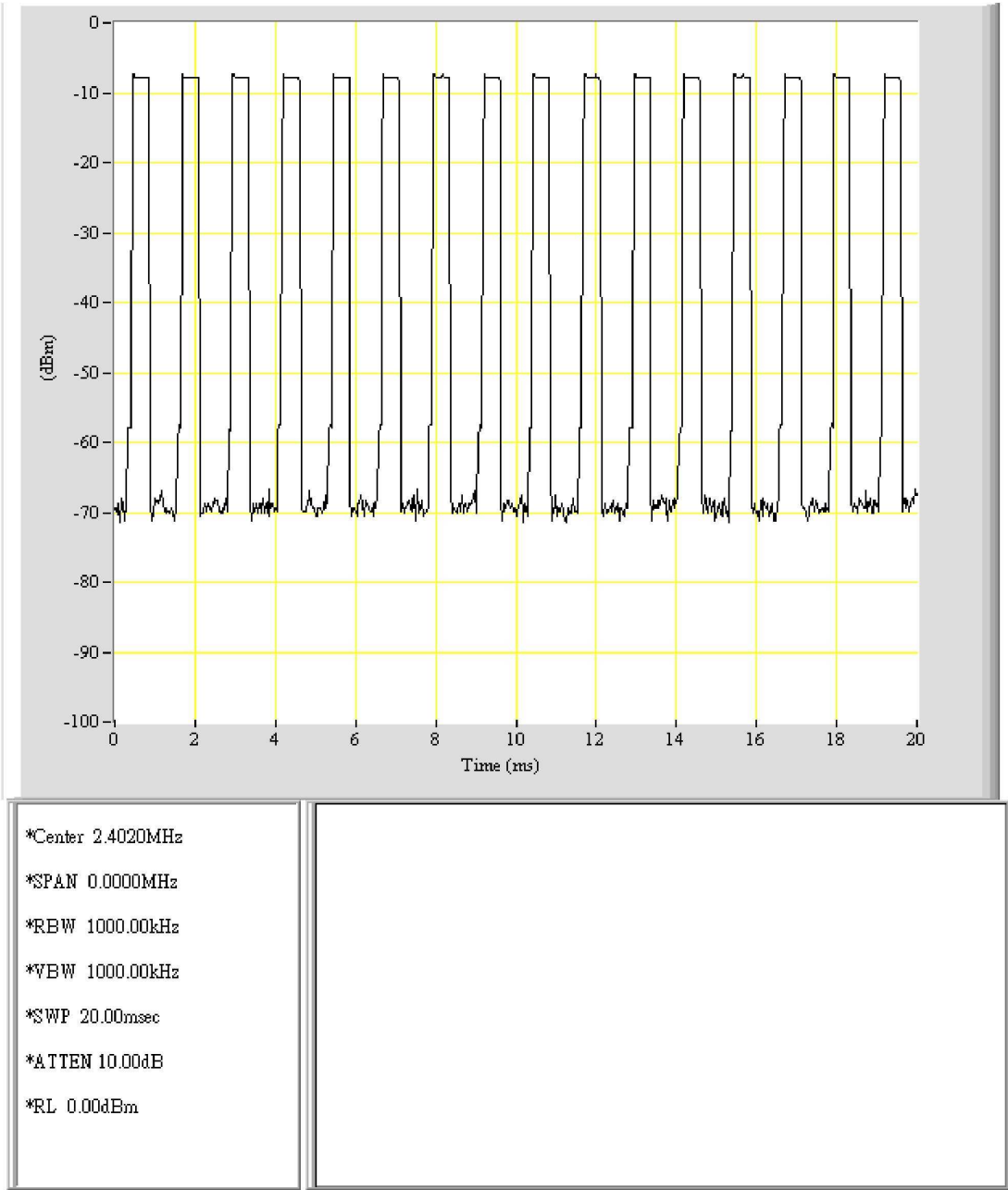
Test period=0.4(second/channel)×79 channel=31.6sec

2402MHz dwell time= $395 \text{ us} \times \frac{800}{79} \times 31.6 = 126.4 \text{ ms}$

Note: Please refer to page 55 to page 56 for chart.



EUT: BT
Purpose: Dwell_Time
Condition: CH00_DH1
Note:



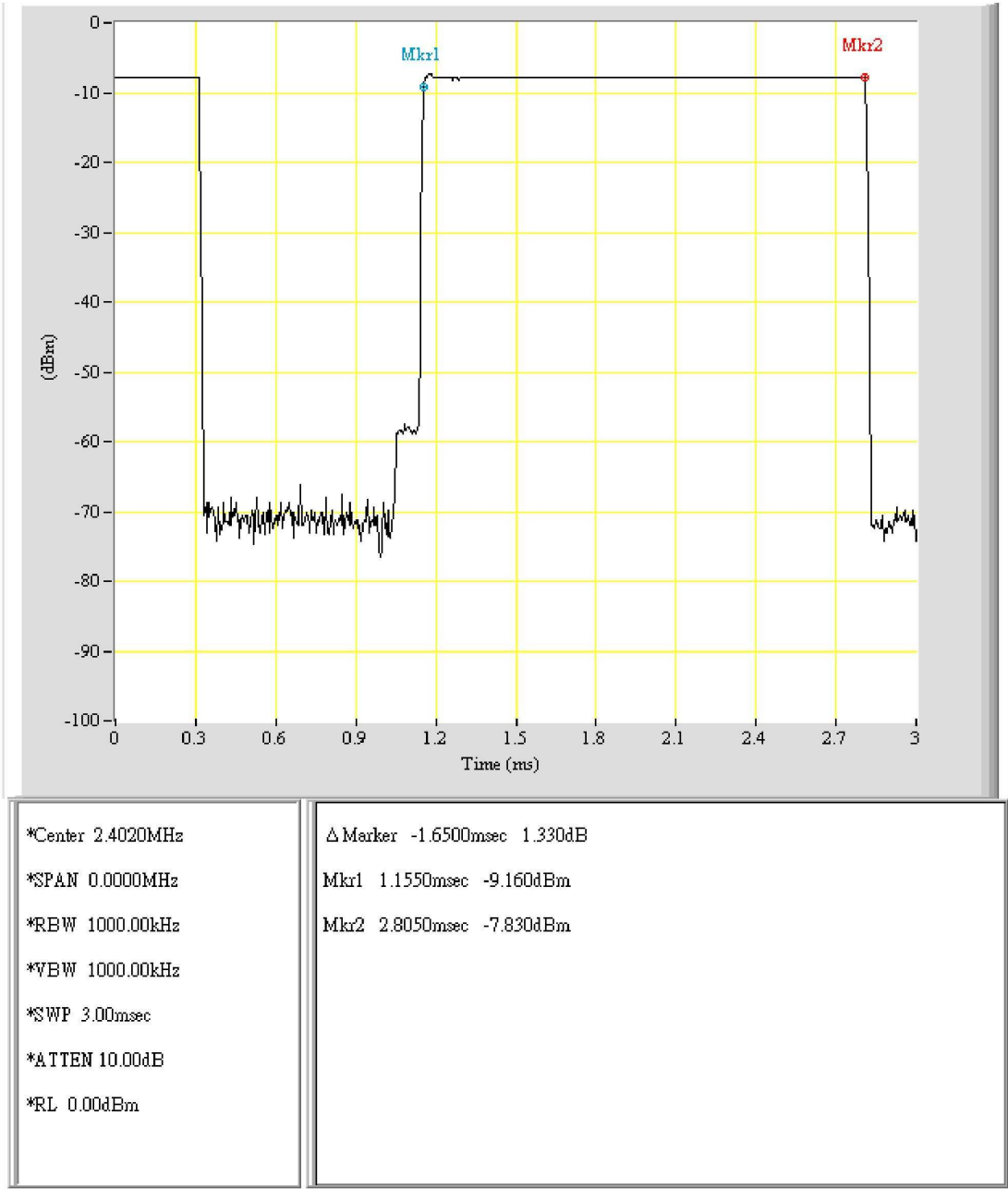
EUT: BT
Purpose: Dwell_Time_Peroid
Condition: CH00_DH1
Note:

12.4.2 DH3

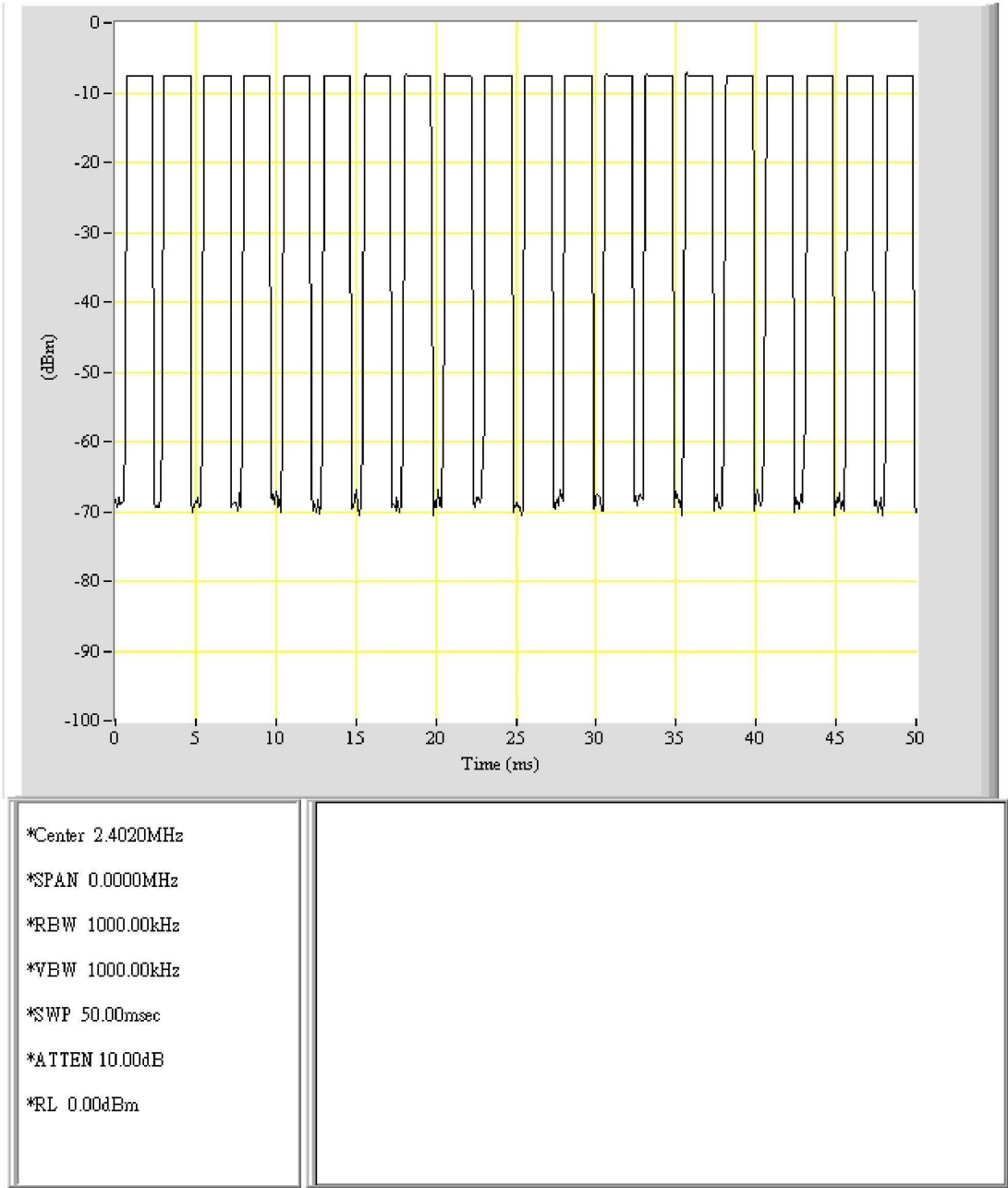
Test period=0.4(second/channel)×79 channel=31.6sec

$$2441\text{MHz dwell time} = 1.65 \text{ ms} \times \frac{400}{79} \times 31.6 = 264.0 \text{ ms}$$

Note: Please refer to page 58 to page 59 for chart.



EUT: BT
Purpose: Dwell_Time
Condition: CH39_DH3
Note:



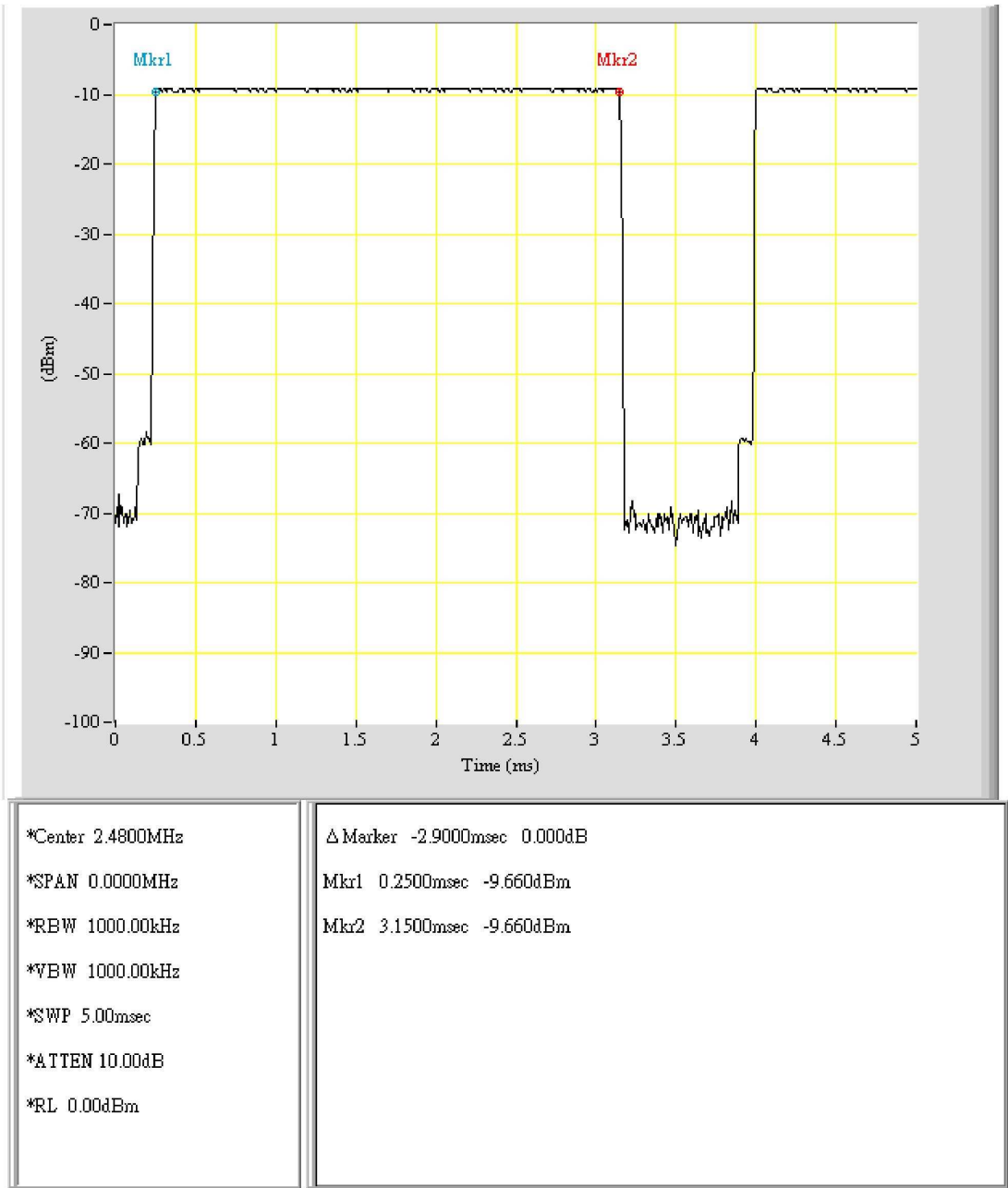
EUT: BT
Purpose: Dwell_Time_Peroid
Condition: CH39_DH3
Note:

12.4.3 DH5

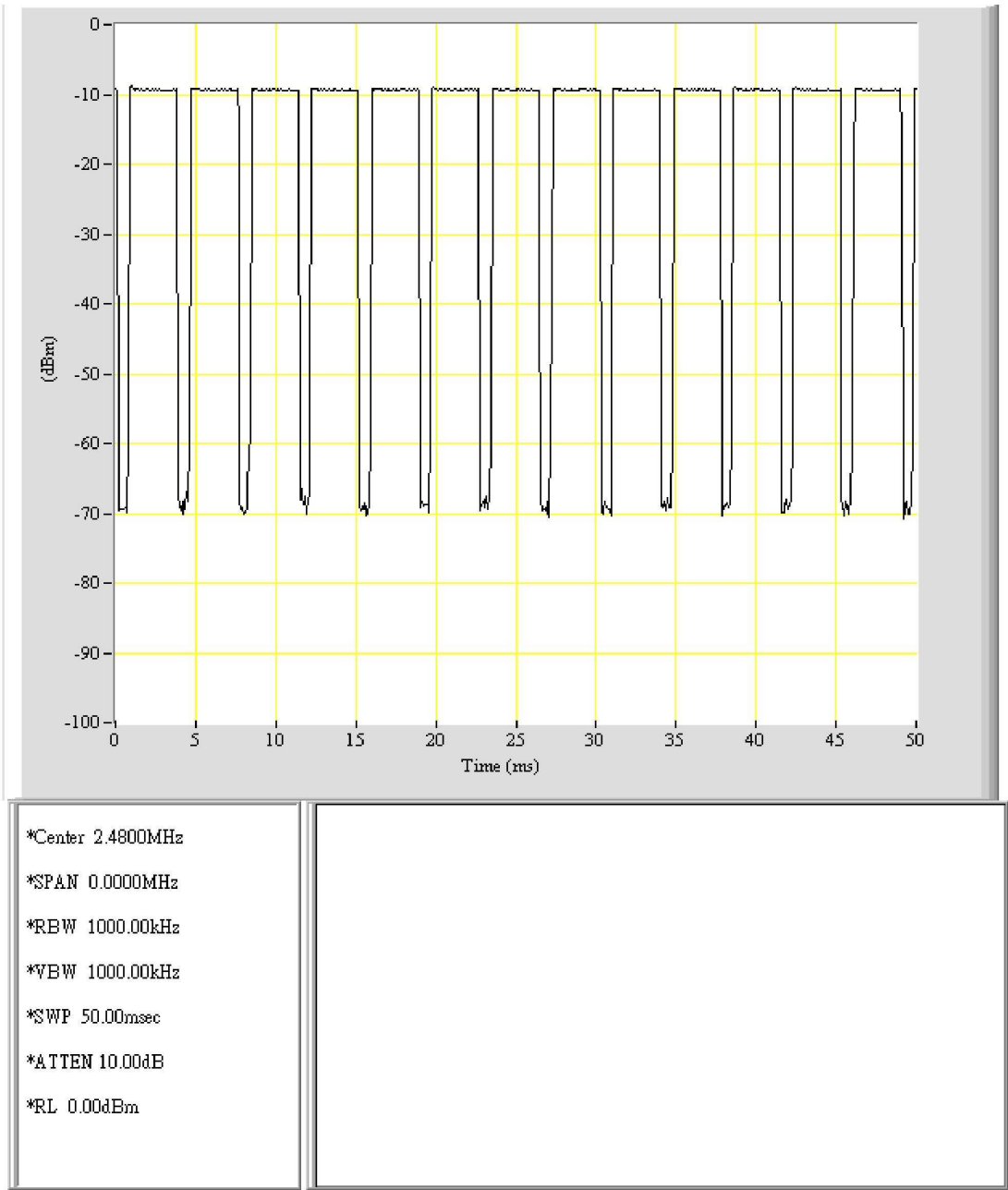
Test period=0.4(second/channel)×79 channel=31.6sec

$$2480\text{MHz dwell time}= 2.9 \text{ ms} \times \frac{260}{79} \times 31.6 = 301.6 \text{ ms}$$

Note: Please refer to page 61 to page 62 for chart.



EUT: BT
Purpose: Dwell_Time
Condition: CH78_DH5
Note:



EUT: BT
Purpose: Dwell_Time_Peroid
Condition: CH78_DH5
Note: