

# 7. Channel Number

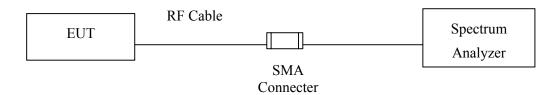
# 7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2010
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2010
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

# 7.2. Test Setup



#### **7.3.** Limit

Frequency hopping systems operating in the 2400-2483.5 MHz bands shall use at least 75 hopping frequencies.

# 7.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

# 7.5. Uncertainty

N/A



#### 7.6. Test Result of Channel Number

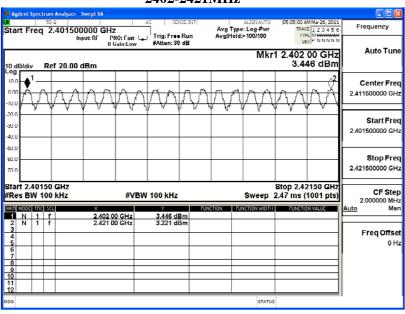
Product : Slate PC

Test Item : Channel Number
Test Site : No.3 OATS

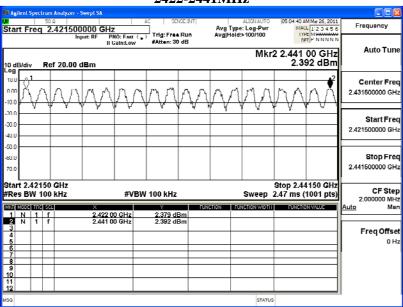
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Frequency Range	Measurement	Required Limit	Result	
(MHz)	(Hopping Channel)	(Hopping Channel)		
2402 ~ 2480	79	>75	Pass	

#### 2402-2421MHz

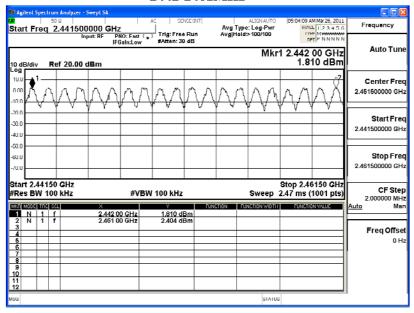


#### 2422-2441MHz

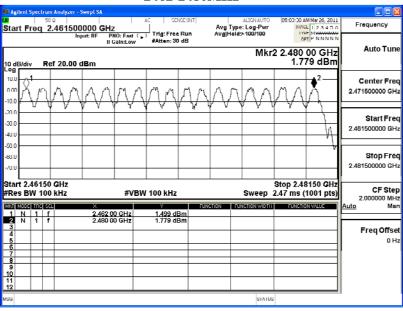




#### 2442-2461MHz



#### 2462-2480MHz



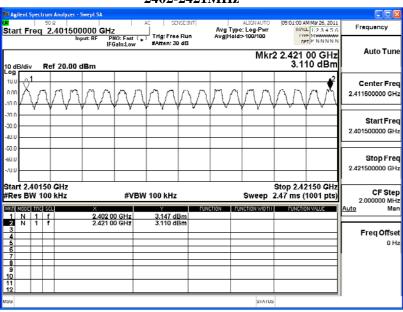


Test Item : Channel Number
Test Site : No.3 OATS

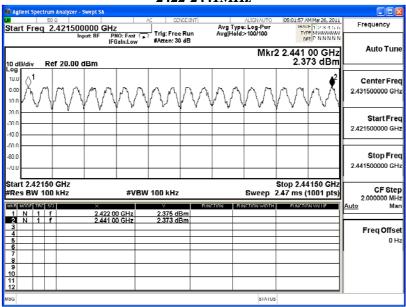
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Frequency Range	Measurement	Required Limit	Result	
(MHz)	(Hopping Channel)	(Hopping Channel)		
2402 ~ 2480	79	>75	Pass	

#### 2402-2421MHz

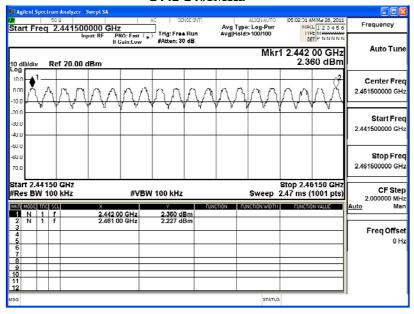


#### 2422-2441MHz

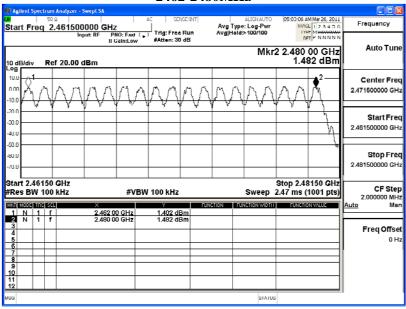




#### 2442-2461MHz



#### 2462-2480MHz





# 8. Channel Separation

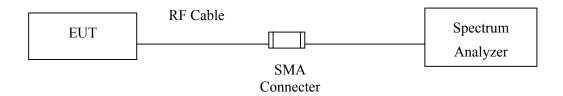
# 8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2010
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2010
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

Note: 1. All equipments are calibrated every one year.

2. The test instruments mark by "X" are used to measure the final test results.

# 8.2. Test Setup



#### **8.3.** Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

#### **8.4.** Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

# 8.5. Uncertainty

± 150Hz



# 8.6. Test Result of Channel Separation

Product : Slate PC

Test Item : Channel Separation

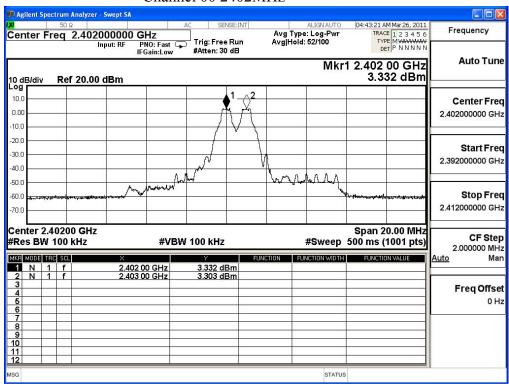
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

	Fraguanay	Measurement	Limit	Limit of (2/3)*20dB	
Channel No.	Frequency (MHz)	Level	(kHz)	Bandwidth (kHz)	Result
		(kHz)	(MIL)	Buna waan (RHZ)	
00	2402	1000	>25 kHz	740.0	Pass
39	2441	1000	>25 kHz	746.7	Pass
78	2480	1000	>25 kHz	746.7	Pass

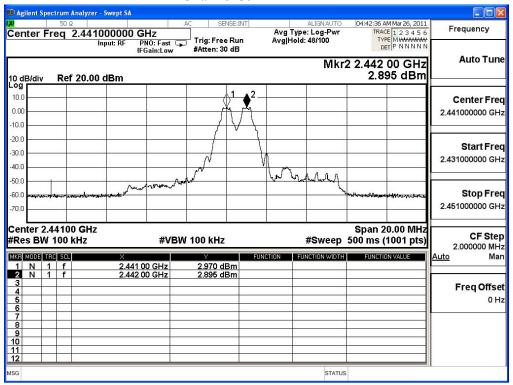
NOTE: The 20dB Bandwidth is refer to section 10.

# Channel 00 2402MHz

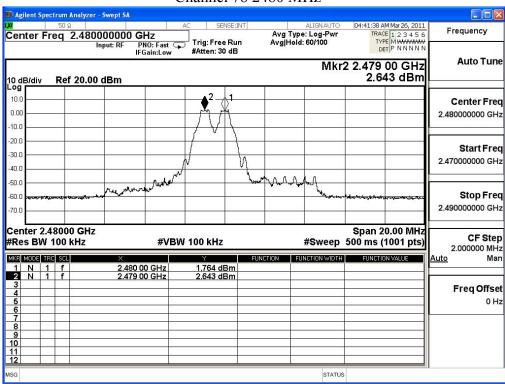




#### Channel 39 2441MHz



#### Channel 78 2480 MHz





Test Item : Channel Separation

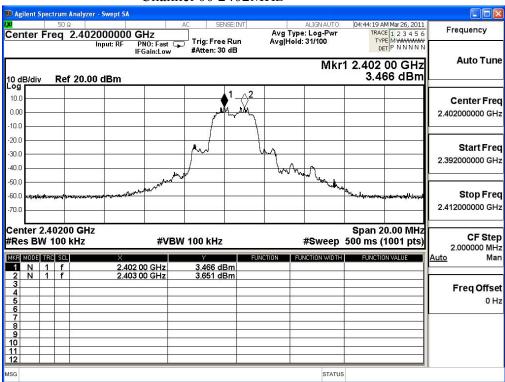
Test Site : No.3 OATS

Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

	Frequency	Measurement	Limit	Limit of (2/3)*20dB	
Channel No.	(MHz)	Level	(kHz)	Bandwidth (kHz)	Result
	(WITE)	(kHz)	(KIIZ)	Dandwidth (KHZ)	
00	2402	1000	>25 kHz	933.3	Pass
39	2441	1000	>25 kHz	933.3	Pass
78	2480	1000	>25 kHz	933.3	Pass

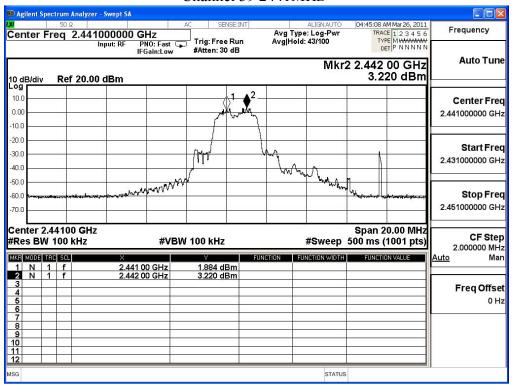
NOTE: The 20dB Bandwidth is refer to section 10.

#### Channel 00 2402MHz

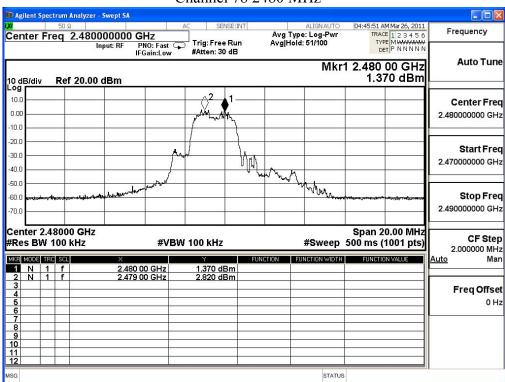




#### Channel 39 2441MHz



#### Channel 78 2480 MHz





# 9. Dwell Time

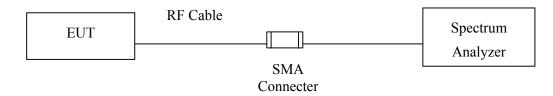
# 9.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.	
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2010	
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2010	
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011	

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

# 9.2. Test Setup



#### **9.3.** Limit

The dwell time shall be the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

# 9.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

# 9.5. Uncertainty

± 25msec



#### 9.6. Test Result of Dwell Time

Product : Slate PC
Test Item : Dwell Time
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (Channel 00,39,78 –DH5)

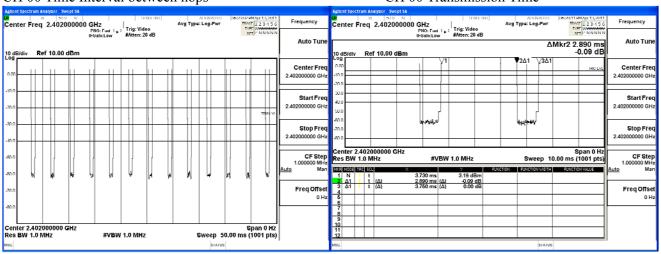
Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.890	14	50	0.81	0.324	0.4	Pass
2441	2.890	14	50	0.81	0.324	0.4	Pass
2480	2.890	14	50	0.81	0.324	0.4	Pass

Duty cycle =((Time slot length(ms)\*Hopping of Number) / Sweep time (ms)

Dwell time = (Duty cycle /79) \* (79\*0.4)

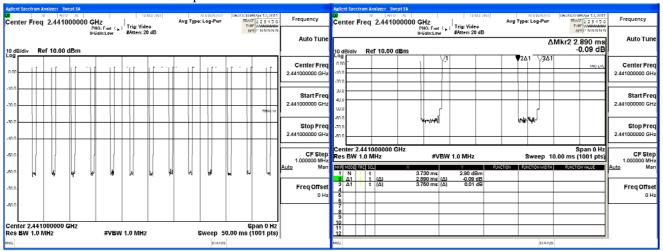
# CH 00 Time Interval between hops

CH 00 Transmission Time



#### CH39 Time Interval between hops

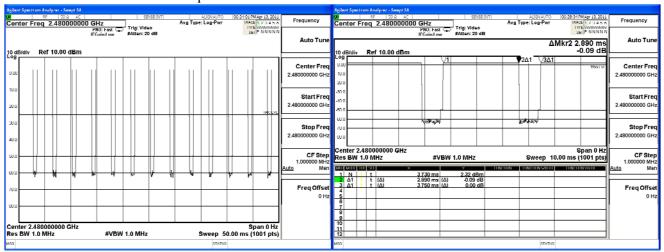
#### CH 39Transmission Time





# CH 78 Time Interval between hops

# **CH 78 Transmission Time**



# Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.



Product : Slate PC
Test Item : Dwell Time
Test Site : No.3 OATS

Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (Channel 00,39,78 –DH5)

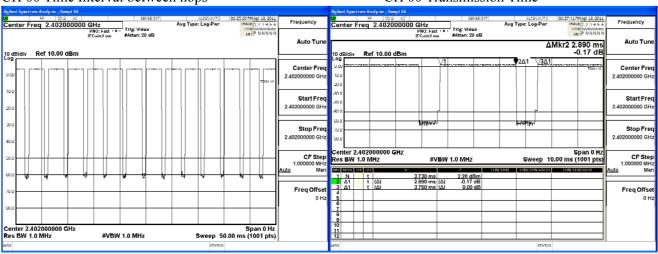
Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.890	14	50	0.81	0.324	0.4	Pass
2441	2.890	14	50	0.81	0.324	0.4	Pass
2480	2.890	14	50	0.81	0.324	0.4	Pass

Duty cycle =((Time slot length(ms)\*Hopping of Number) / Sweep time (ms)

Dwell time = (Duty cycle /79) \* (79\*0.4)

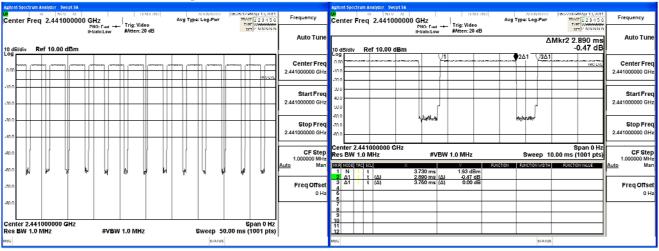
# CH 00 Time Interval between hops

#### CH 00 Transmission Time



# CH39 Time Interval between hops

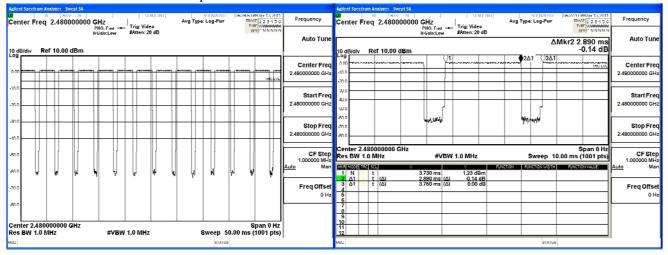
#### CH 39Transmission Time





# CH 78 Time Interval between hops

# CH 78 Transmission Time



# Note:

The dwell times of the packet type of DH1, DH3, and DH5 are tested. Only the worst case is shown on the report.



# 10. Occupied Bandwidth

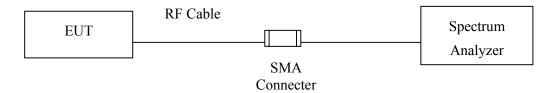
# 10.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2010
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2010
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

# 10.2. Test Setup



#### **10.3.** Limits

N/A

# 10.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

# 10.5. Uncertainty

± 150Hz



# 10.6. Test Result of Occupied Bandwidth

Product : Slate PC

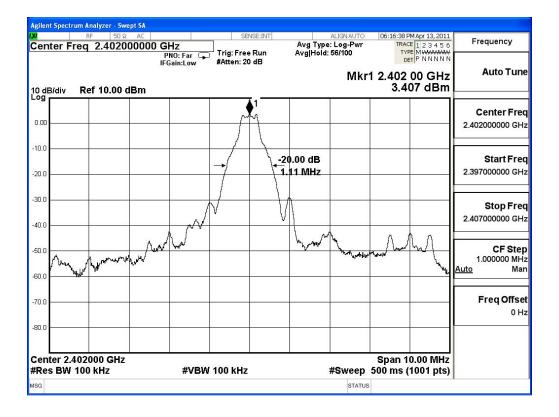
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1110		NA

# **Figure Channel 00:**





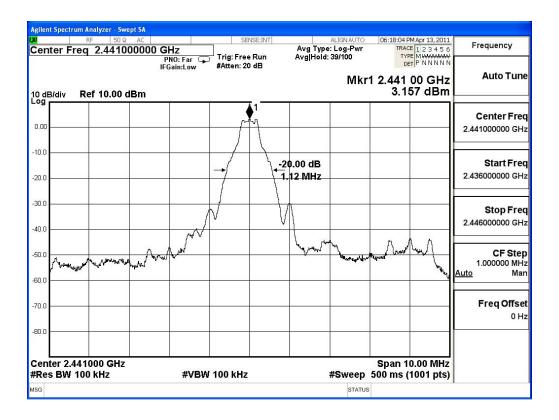
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
39	2441	1120		NA

# **Figure Channel 39:**





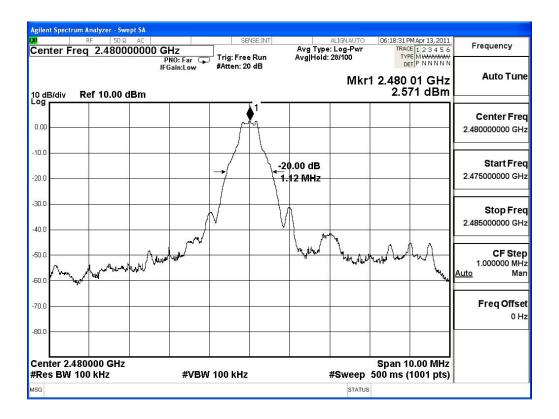
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
78	2480	1120		NA

# **Figure Channel 78:**





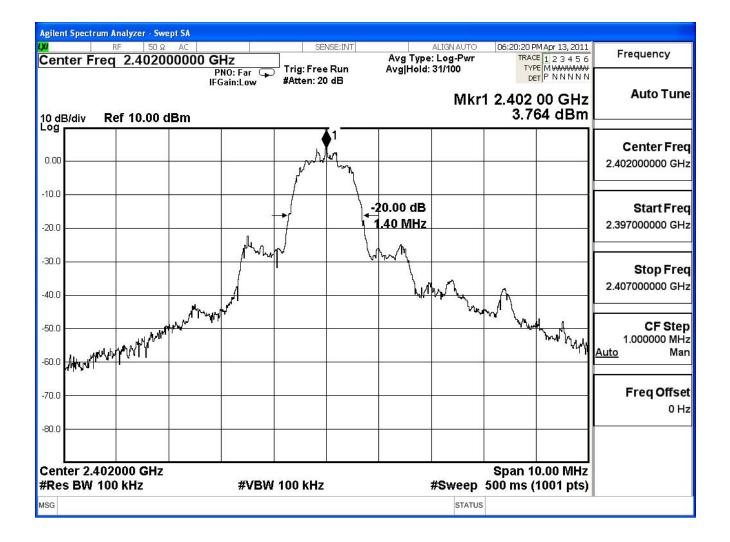
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1400		NA

# Figure Channel 00:





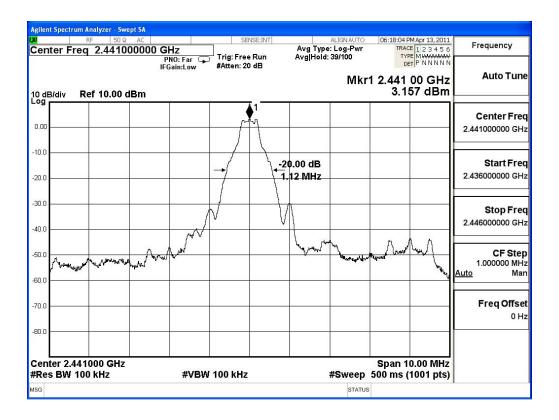
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
39	2441	1400		NA

# Figure Channel 39:





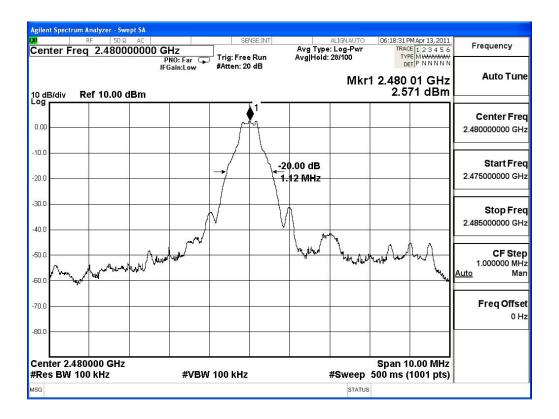
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)(2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
78	2480	1400		NA

# **Figure Channel 78:**





# 11. EMI Reduction Method During Compliance Testing

No modification was made during testing.