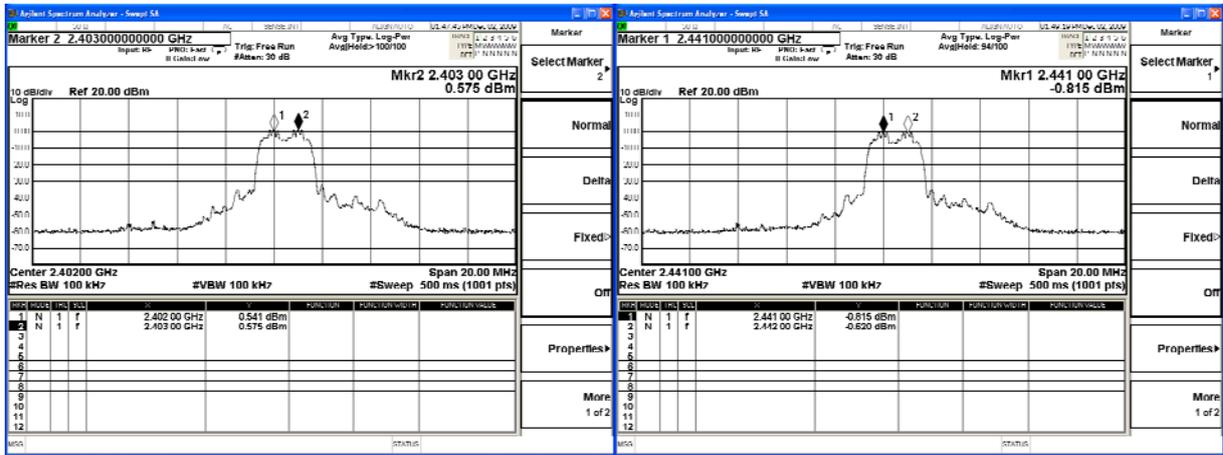


Product : Bluetooth Module
 Test Item : Channel Separation
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter - 3Mbps (8DPSK)

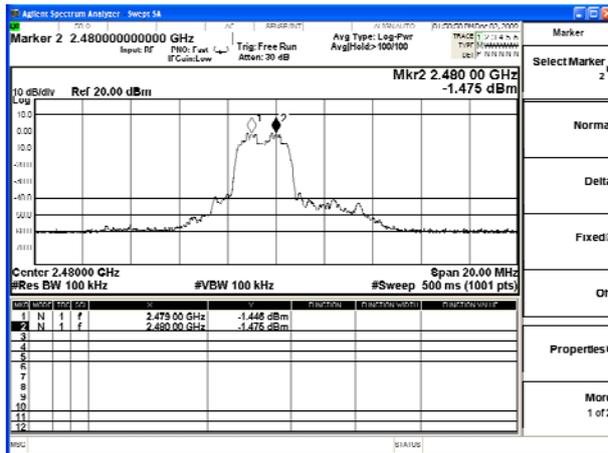
Frequency (MHz)	Measurement Level (kHz)	Limit (kHz)	Limit of (2/3)*20dB Bandwidth (kHz)	Result
2402	1000	>25 kHz	933.80	Pass
2441	1000	>25 kHz	940.47	Pass
2480	1000	>25 kHz	933.80	Pass

Channel 00 2402MHz

Channel 39 2441MHz



Channel 78 2480 MHz



9. Dwell Time

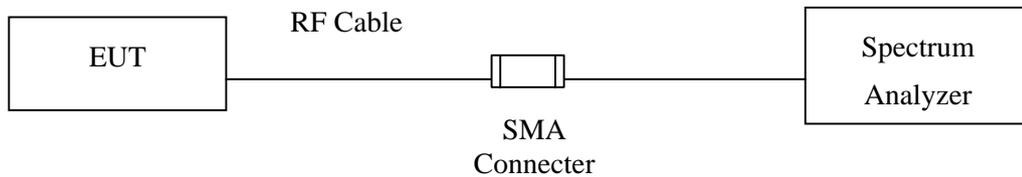
9.1. Test Equipment

The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	R&S	FSP40 / 100339	Jun, 2009
Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2009

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, 2003; 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

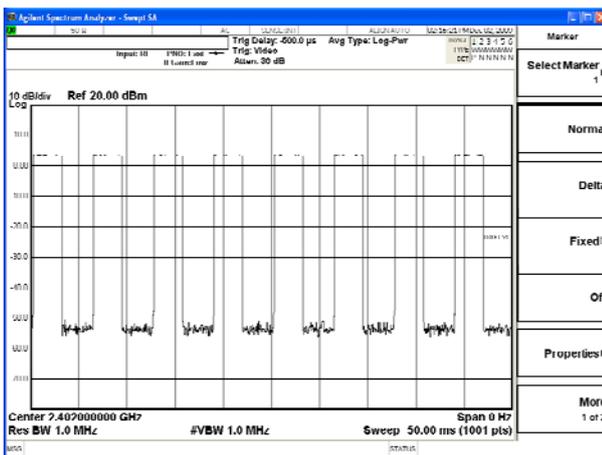
Product : Bluetooth Module
 Test Item : Dwell Time
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter - 1Mbps (GFSK) (Channel 00,39,78 –DH5)

Channel No.	Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
00	2402	2.890	8	50	0.46	0.185	0.4	Pass
39	2441	2.890	8	50	0.46	0.185	0.4	Pass
78	2480	2.890	8	50	0.46	0.185	0.4	Pass

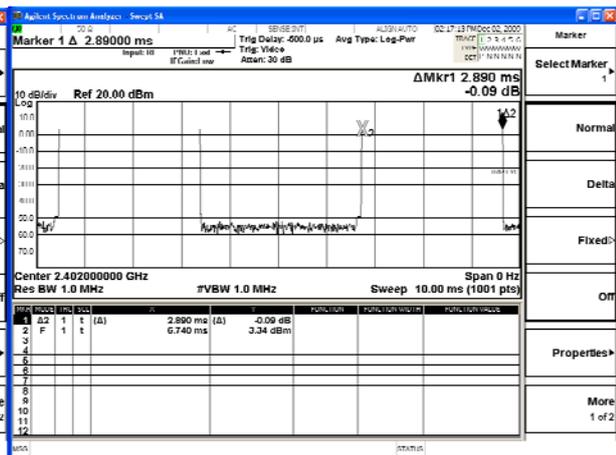
Note: Duty cycle =((Time slot length (ms)*Hopping of Number) / Sweep time (ms)

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

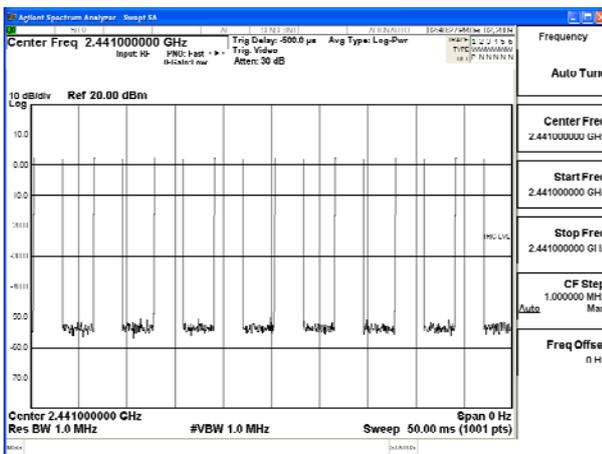
CH 00 2402MHz Dwell Time



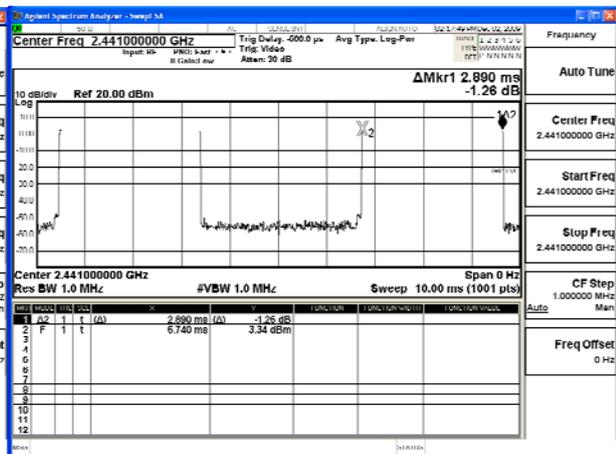
Transmission Time



CH 39 2441MHz Dwell Time

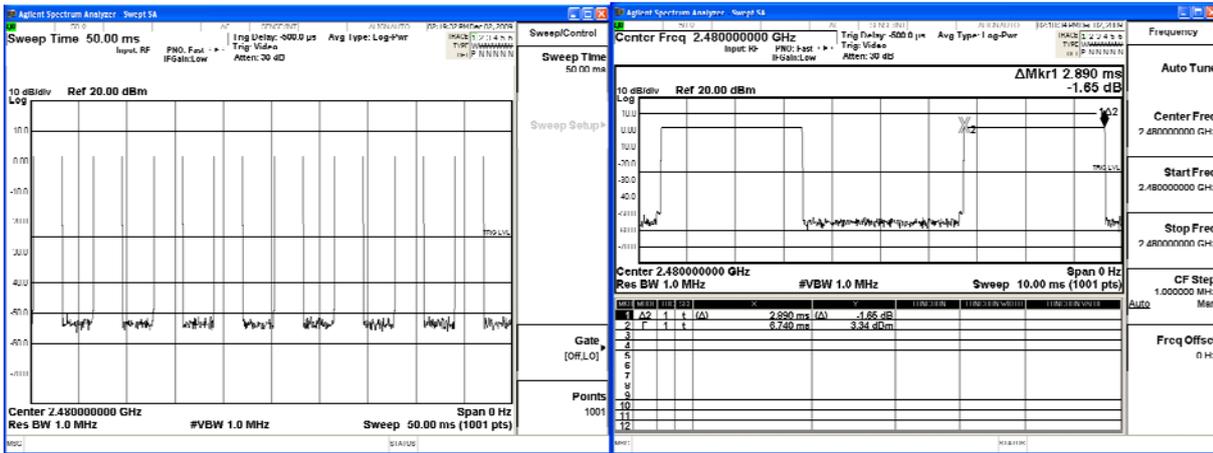


Transmission Time



CH 78 2480MHz Dwell Time

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 : Bluetooth Module
 Test Item : Dwell Time
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter - 3Mbps (8DPSK) (Channel 00,39,78 –DH5)

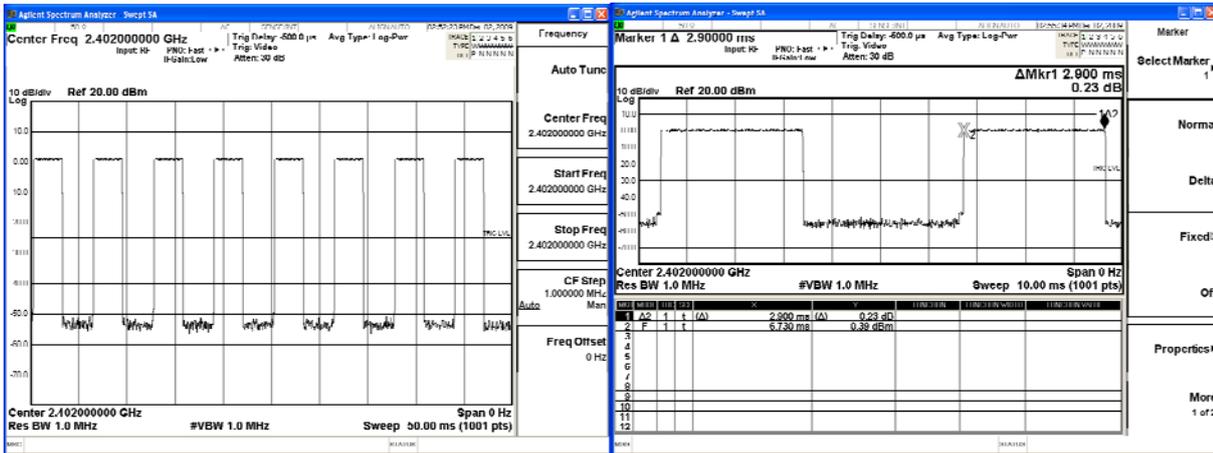
Channel No.	Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
00	2402	2.900	8	50	0.46	0.186	0.4	Pass
39	2441	2.900	8	50	0.46	0.186	0.4	Pass
78	2480	2.900	8	50	0.46	0.186	0.4	Pass

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

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

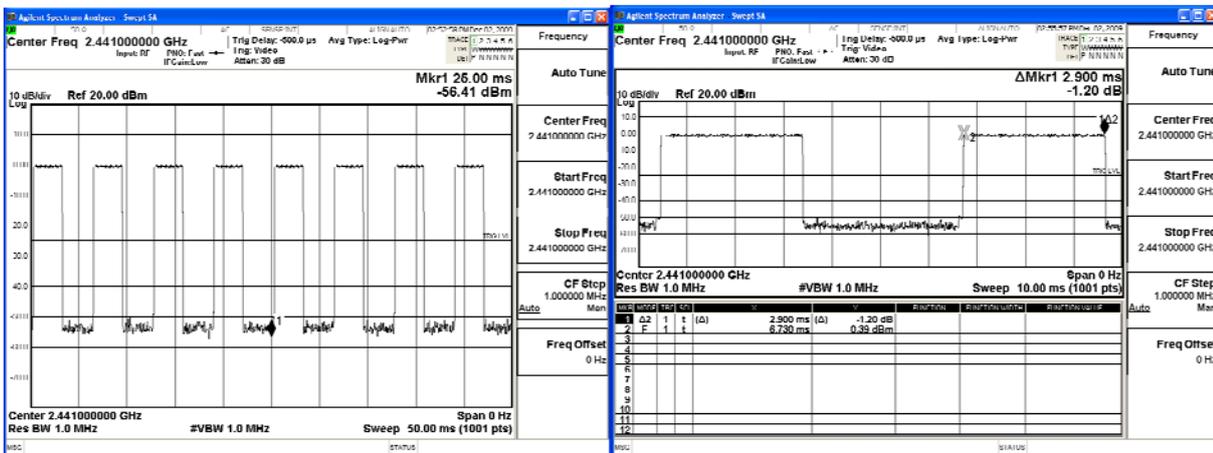
CH 00 2402MHz Dwell Time

Transmission Time



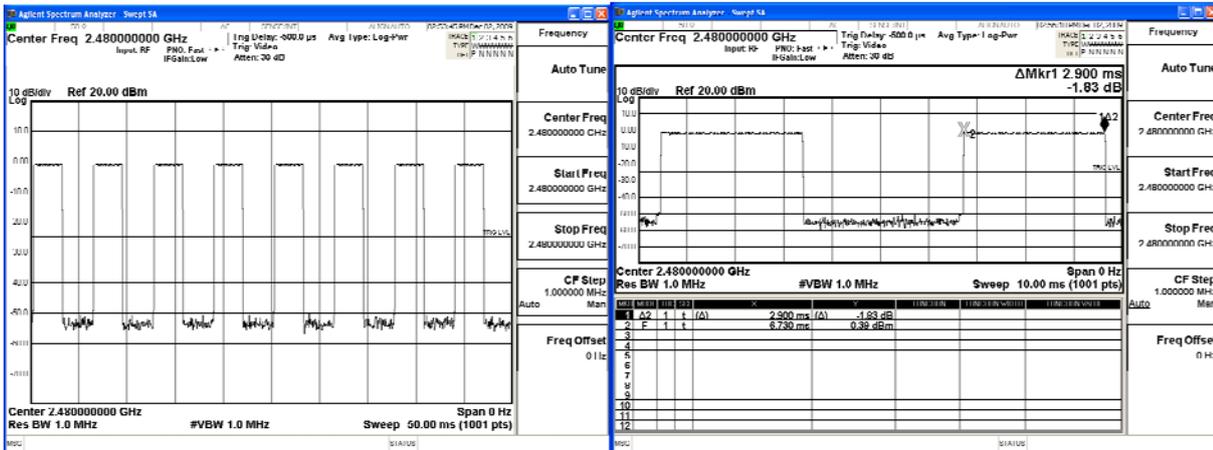
CH 39 2441MHz Dwell Time

Transmission Time



CH 78 2480MHz Dwell Time

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

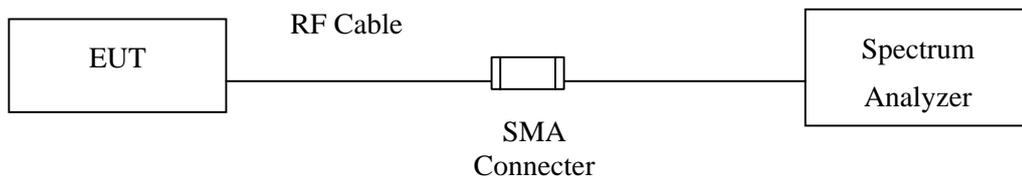
10.1. Test Equipment

The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	R&S	FSP40 / 100339	Jun, 2009
Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2009

- 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, 2003; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

10.5. Uncertainty

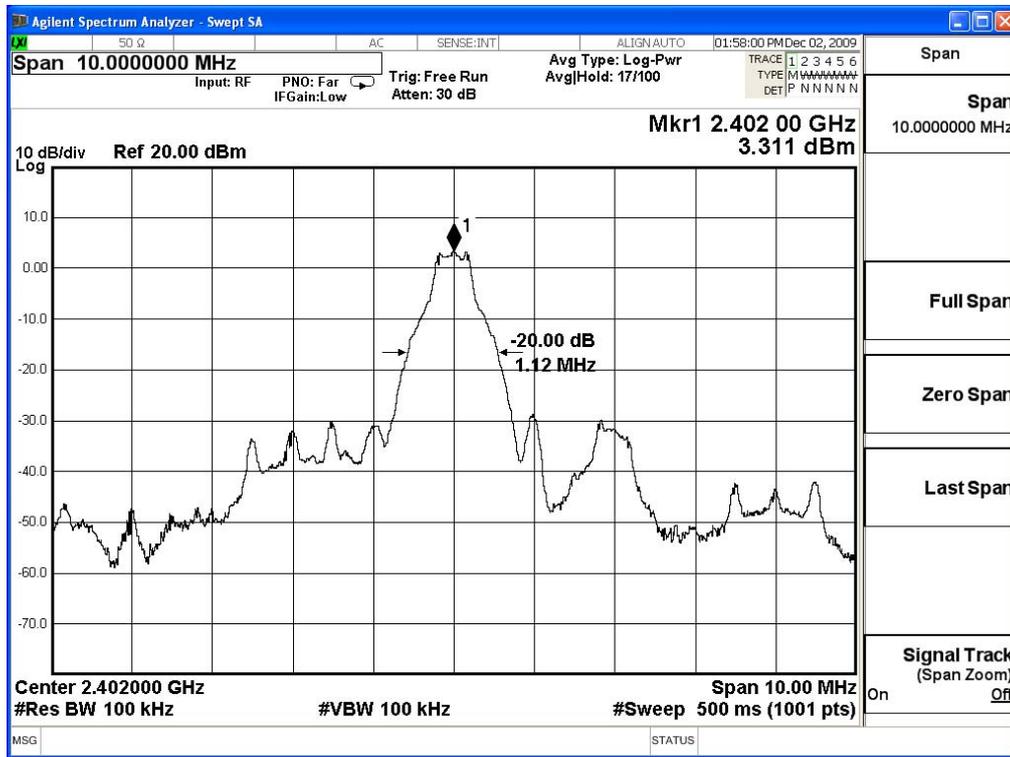
± 150Hz

10.6. Test Result of Occupied Bandwidth

Product : Bluetooth Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter - 1Mbps (GFSK)(2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1120	--	NA

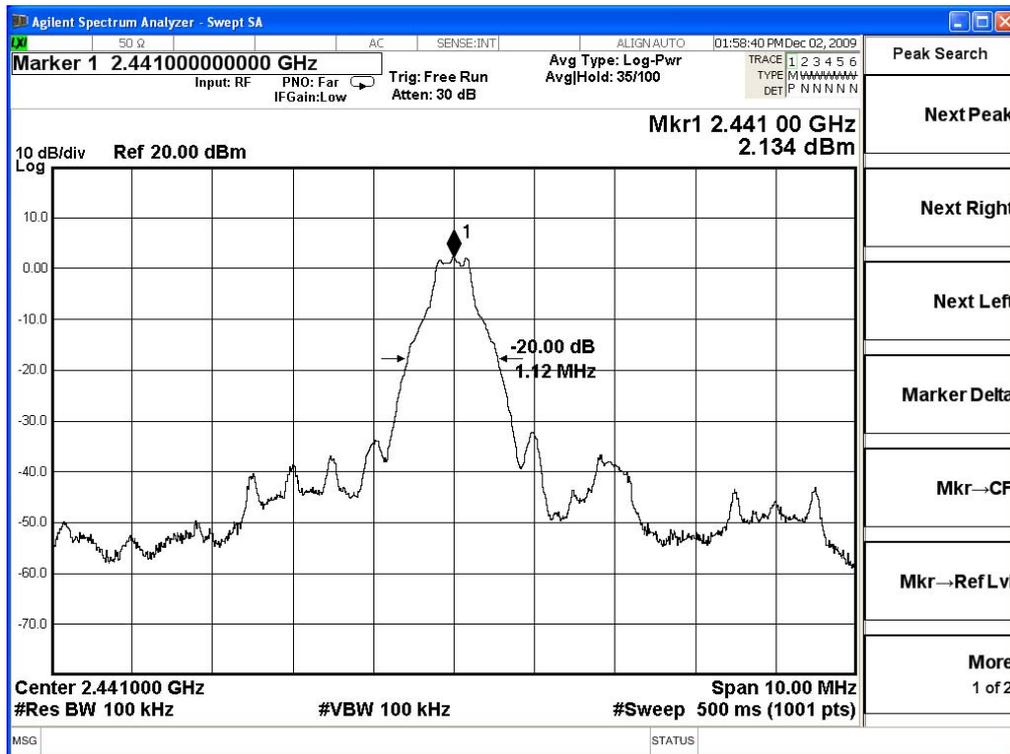
Figure Channel 00:



Product : Bluetooth Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter - 1Mbps (GFSK)(2441MHz)

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

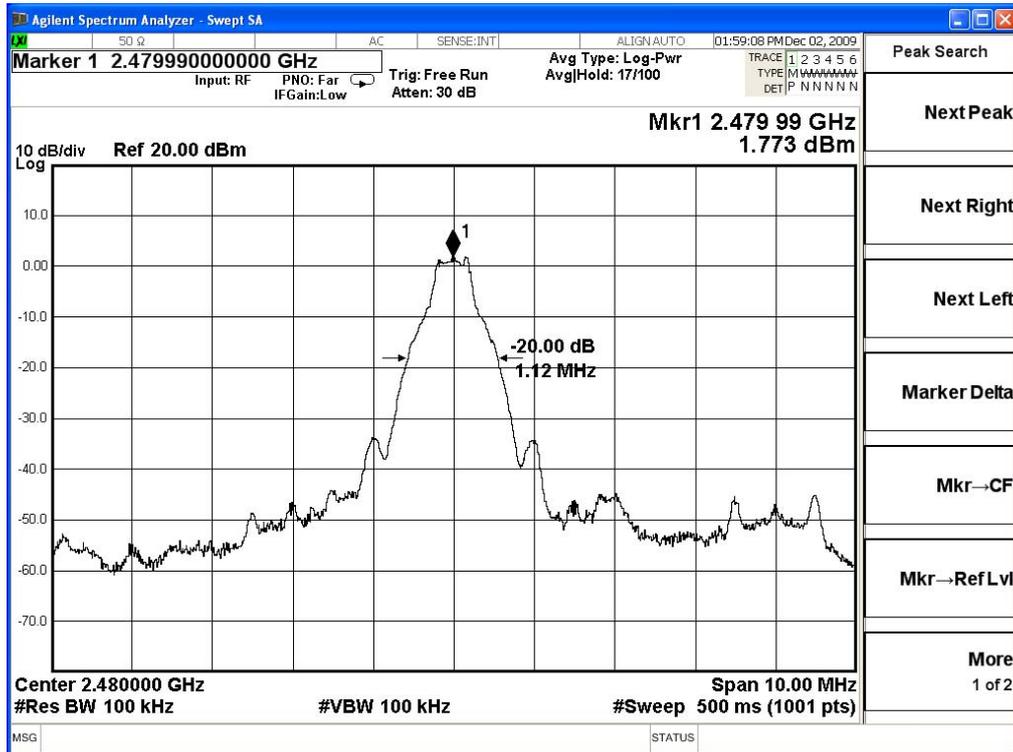
Figure Channel 39:



Product : Bluetooth Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter - 1Mbps (GFSK)(2480MHz)

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

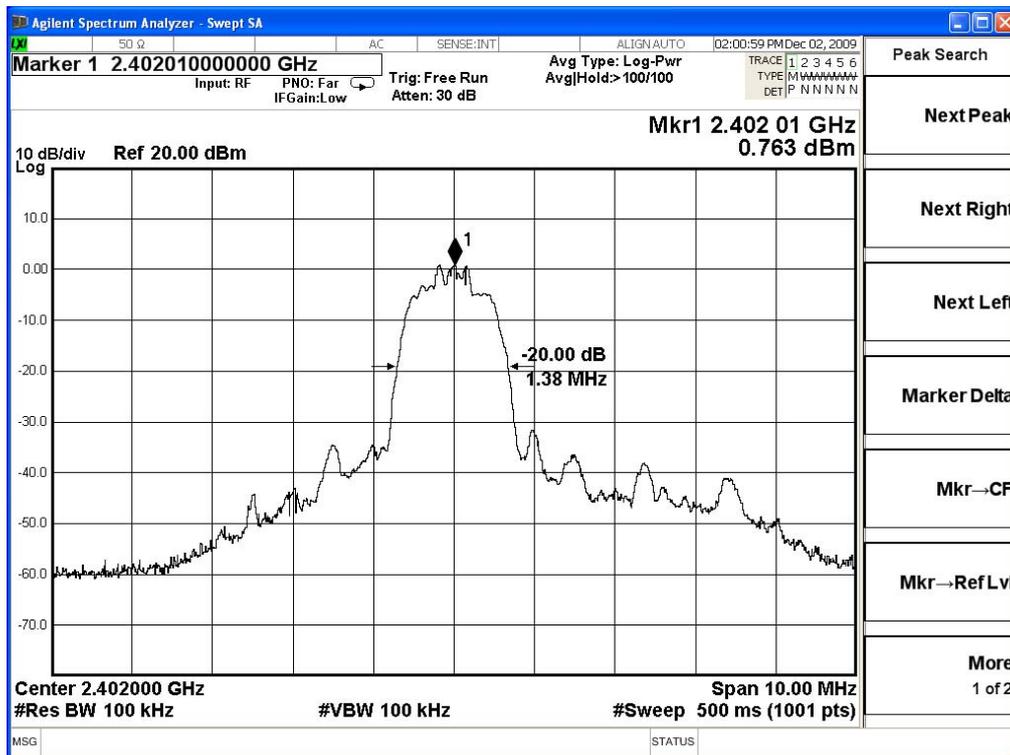
Figure Channel 78:



Product : Bluetooth Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter - 3Mbps (8DPSK) (2402MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
00	2402	1380	--	NA

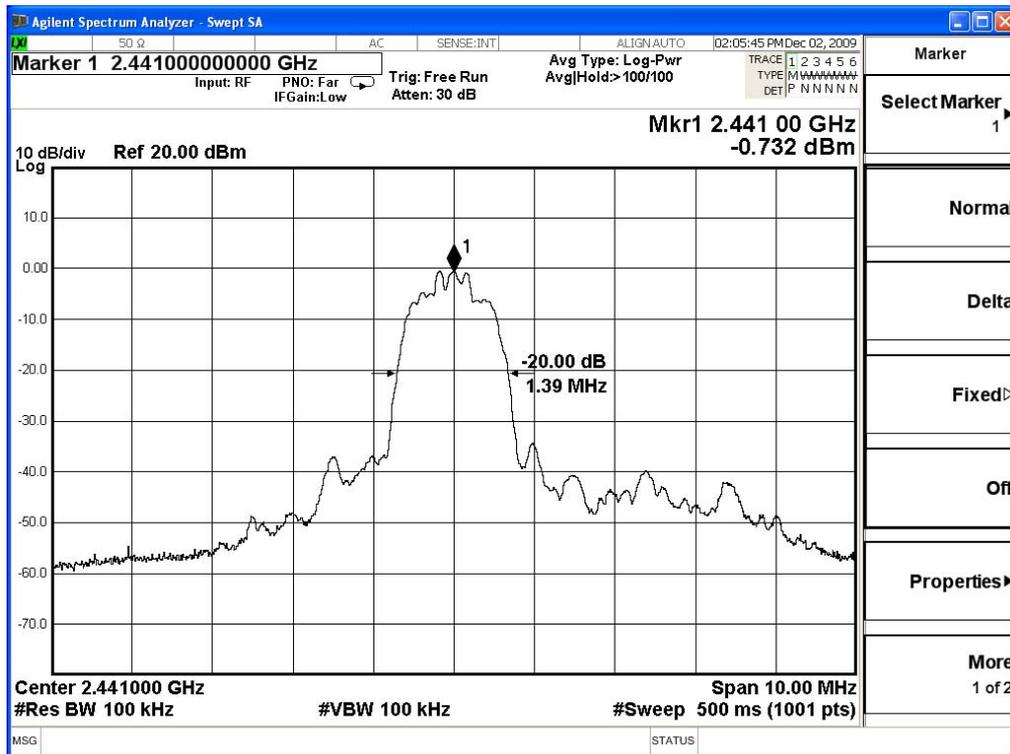
Figure Channel 00:



Product : Bluetooth Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter - 3Mbps (8DPSK) (2441MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
39	2441	1390	--	NA

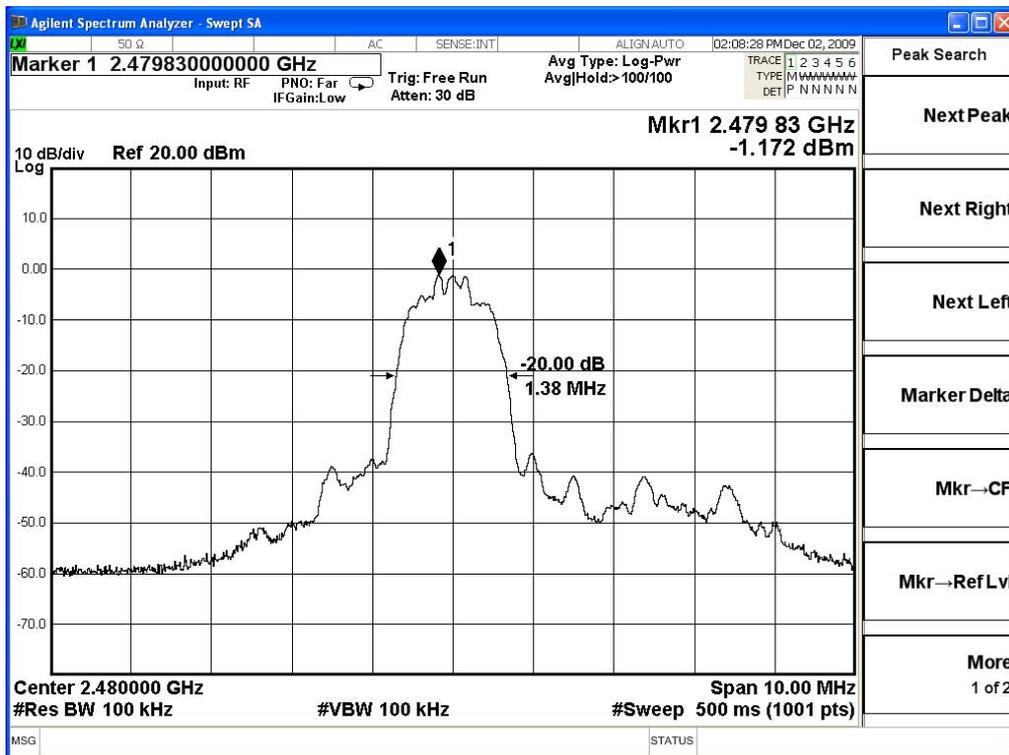
Figure Channel 39:



Product : Bluetooth Module
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter - 3Mbps (8DPSK)(2480MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
78	2480	1380	--	NA

Figure Channel 78:



11. EMI Reduction Method During Compliance Testing

No modification was made during testing.