

FCC Test Report

Product Name	ASUS Tablet
Model No.	K00F
FCC ID.	MSQK00F

Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN

Date of Receipt	Jul. 25, 2013
Issued Date	Aug. 16, 2013
Report No.	137501R-RFUSP43V01
Report Version	V1.0





The Test Results relate only to the samples tested.

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Test Report Certification

Issued Date: Aug. 16, 2013

Report No.: 137501R-RFUSP43V01



Product Name	ASUS Tablet
Applicant	ASUSTeK COMPUTER INC.
Address	4F, No. 150, LI-TE Rd., PEITOU, TAIPEI 112, TAIWAN
Manufacturer	Wistron InfoComm(Kunshan) Co., Ltd.
Model No.	K00F
FCC ID.	MSQK00F
EUT Rated Voltage	AC 100-240V, 50/60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	ASUS
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2012
	ANSI C63.4: 2003, ANSI C63.10: 2009
Test Result	Complied

The Test Results relate only to the samples tested.

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TABLE OF CONTENTS

Des	scription	Page
1.	GENERAL INFORMATION	5
1.1.	EUT Description	5
1.2.	Operational Description	7
1.3.	Tested System Details	8
1.4.	Configuration of Tested System	8
1.5.	EUT Exercise Software	8
1.6.	Test Facility	9
2.	CONDUCTED EMISSION	10
2.1.	Test Equipment	10
2.2.	Test Setup	10
2.3.	Limits	11
2.4.	Test Procedure	11
2.5.	Uncertainty	11
2.6.	Test Result of Conducted Emission	12
3.	PEAK POWER OUTPUT	14
3.1.	Test Equipment	14
3.2.	Test Setup	14
3.3.	Limit	14
3.4.	Test Procedure	14
3.5.	Uncertainty	14
3.6.	Test Result of Peak Power Output	15
4.	RADIATED EMISSION	17
4.1.	Test Equipment	17
4.2.	Test Setup	17
4.3.	Limits	18
4.4.	Test Procedure	19
4.5.	Uncertainty	19
4.6.	Test Result of Radiated Emission	20
5.	RF ANTENNA CONDUCTED TEST	28
5.1.	Test Equipment	28
5.2.	Test Setup	28
5.3.	Limits	28
5.4.	Test Procedure	28
5.5.	Uncertainty	28
5.6.	Test Result of RF Antenna Conducted Test	29
6.	BAND EDGE	45
6.1.	Test Equipment	45
6.2.	Test Setup	46
6.3.	Limit	47
6.4.	Test Procedure	47
6.5.	Uncertainty	47



6.6.	Test Result of Band Edge	48
7.	CHANNEL NUMBER	50
7.1.	Test Equipment	56
7.2.	Test Setup	56
7.3.	Limit	56
7.4.	Test Procedure	56
7.5.	Uncertainty	56
7.6.	Test Result of Channel Number	57
8.	CHANNEL SEPARATION	59
8.1.	Test Equipment	59
8.2.	Test Setup	59
8.3.	Limit	59
8.4.	Test Procedure	59
8.5.	Uncertainty	59
8.6.	Test Result of Channel Separation	60
9.	DWELL TIME	64
9.1.	Test Equipment	64
9.2.	Test Setup	64
9.3.	Limit	64
9.4.	Test Procedure	64
9.5.	Uncertainty	64
9.6.	Test Result of Dwell Time	65
10.	OCCUPIED BANDWIDTH	69
10.1.	Test Equipment	69
10.2.	Test Setup	69
10.3.	Limits	69
10.4.	Test Procedure	69
10.5.	Uncertainty	69
10.6.	Test Result of Occupied Bandwidth	70
11.	EMI REDUCTION METHOD DURING COMPLIANCE TESTING	70

Attachment 1: EUT Test Photographs
Attachment 2: EUT Detailed Photographs



1. GENERAL INFORMATION

1.1. EUT Description

Product Name	ASUS Tablet	
Trade Name	ASUS	
Model No.	K00F	
FCC ID.	MSQK00F	
Frequency Range	2402 – 2480MHz	
Channel Number	79	
Type of Modulation	FHSS: GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps)	
Antenna Type	PIFA Antenna	
Channel Control	Auto	
Antenna Gain	Refer to the table "Antenna List"	
Power Adapter	MFR: ASUS, M/N: PA-1070-07	
Input: AC 100-240V~0.25A, 50/60Hz		
	Output: DC 5.2V, 1.35A	
USB Cable	Non-Shielded, 0.9m	
Contain Module	REALTEK / RTL8723BS	

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	ACON	ME102 WIFI Antenna	PIFA Antenna	1.21 dBi for 2.4 GHz

Note: The antenna of EUT is conform to FCC 15.203.



Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

- 1. The EUT is an ASUS Tablet with a built-in WLAN Bluetooth transceiver, this report for Bluetooth.
- 2. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
- 3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
- 5. Bluetooth operation was evaluated at both 1Mb/s and 3Mb/s data rates. 2Mb/s data rate was found, through pre-testing, to produce emissions similar to those for 3Mb/s.

Test Mode	Mode 1: Transmit - 1Mbps (GFSK)
	Mode 2: Transmit - 3Mbps (8DPSK)



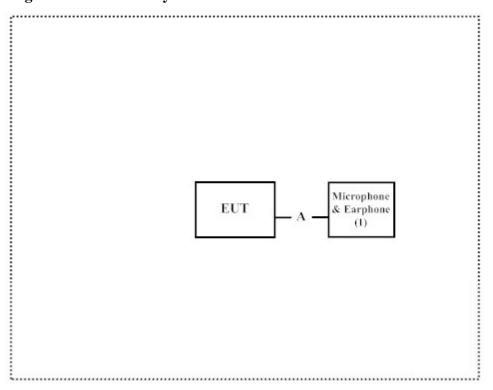
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Prod	uct	Manufacturer	Model No.	Serial No.	Power Cord
1	Microphone &	PCHOME	N/A	N/A	N/A
1	Earphone				

Signal Cable Type		Signal cable Description	
A	Microphone & Earphone Cable	Non-Shielded, 1.2m	

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4.
- (2) Execute program on the EUT.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press "OK" to start the continuous Transmit.
- (5) Verify that the EUT works properly.



1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	30-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site: http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site: http://www.quietek.com/

Site Description: File on

Federal Communications Commission

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2. Conducted Emission

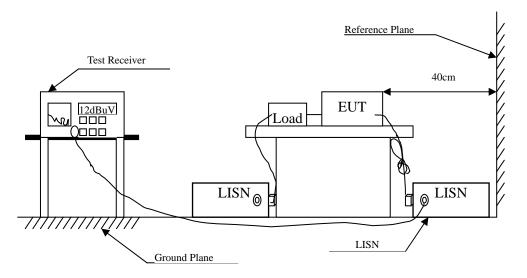
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2012	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2013	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2013	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar., 2013	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2013	
	No.1 Shielded Room				

Note:

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked by "X" are used to measure the final test results.

2.2. Test Setup





2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit				
Frequency	Limits			
MHz	QP	AV		
0.15 - 0.50	66-56	56-46		
0.50-5.0	56	46		
5.0 - 30	60	50		

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and Peripherals are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all the interface cables must be changed according to ANSI C63.10: 2009 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.10, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

2.5. Uncertainty

± 2.26 dB



2.6. Test Result of Conducted Emission

Product : ASUS Tablet

Test Item : Conducted Emission Test

Power Line : Line 1

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.185	9.698	35.090	44.788	-20.212	65.000
1.017	9.736	32.140	41.876	-14.124	56.000
1.966	9.799	34.280	44.079	-11.921	56.000
2.865	9.810	33.430	43.240	-12.760	56.000
4.666	9.830	32.720	42.550	-13.450	56.000
15.685	9.900	31.900	41.800	-18.200	60.000
Average					
0.185	9.698	23.620	33.318	-21.682	55.000
1.017	9.736	21.420	31.156	-14.844	46.000
1.966	9.799	24.580	34.379	-11.621	46.000
2.865	9.810	23.130	32.940	-13.060	46.000
4.666	9.830	23.230	33.060	-12.940	46.000
15.685	9.900	22.920	32.820	-17.180	50.000

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Test Item : Conducted Emission Test

Power Line : Line 2

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.181	9.678	34.630	44.308	-20.806	65.114
0.244	9.681	26.780	36.461	-26.853	63.314
0.486	9.692	29.010	38.702	-17.698	56.400
1.892	9.776	27.860	37.636	-18.364	56.000
4.525	9.820	26.790	36.610	-19.390	56.000
15.611	9.960	32.060	42.020	-17.980	60.000
Average					
0.181	9.678	23.520	33.198	-21.916	55.114
0.244	9.681	17.320	27.001	-26.313	53.314
0.486	9.692	22.550	32.242	-14.158	46.400
1.892	9.776	19.730	29.506	-16.494	46.000
4.525	9.820	18.220	28.040	-17.960	46.000
15.611	9.960	23.220	33.180	-16.820	50.000

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " " means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



3. Peak Power Output

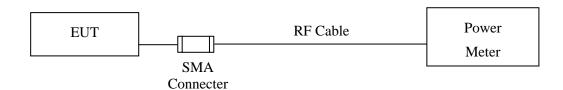
3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2013
X	Power Sensor	Anritsu	MA2411B/0738448	Jun., 2013

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

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

3.2. Test Setup



3.3. Limit

The maximum peak power shall be less 1Watt.

3.4. Test Procedure

The EUT was setup to ANSI C63.10, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

3.5. Uncertainty

± 1.27 dB



3.6. Test Result of Peak Power Output

Product : ASUS Tablet

Test Item : Peak Power Output

Test Site : No.3 OATS

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

Channel No.	Frequency	Measurement	Required Limit	Result
	(MHz)	(dBm)		
Channel 00	2402.00	8.01	1 Watt= 30 dBm	Pass
Channel 39	2441.00	8.54	1 Watt= 30 dBm	Pass
Channel 78	2480.00	8.70	1 Watt= 30 dBm	Pass



Test Item : Peak Power Output

Test Site : No.3 OATS

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

Channel No.	Frequency	Measurement	Required Limit	Result
	(MHz)	(dBm)		
Channel 00	2402.00	9.06	1 Watt= 30 dBm	Pass
Channel 39	2441.00	9.52	1 Watt= 30 dBm	Pass
Channel 78	2480.00	9.72	1 Watt= 30 dBm	Pass



4. Radiated Emission

4.1. Test Equipment

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

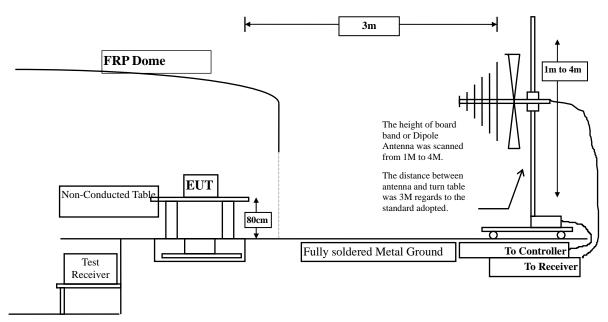
Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
⊠Site # 3	X	Loop Antenna	Teseq	HLA6120 / 26739	Jul., 2013
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2012
	X Horn Antenna		Schwarzbeck	BBHA9120D/D305	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2012
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2012
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2013
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

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

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

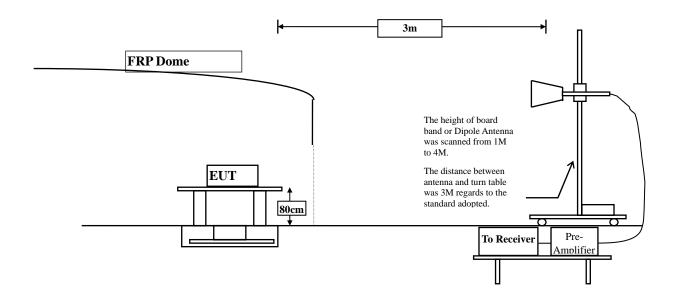
4.2. Test Setup

Below 1GHz





Above 1GHz



4.3. Limits

➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits					
Frequency MHz	Measurement distance (meter)				
	(microvolts/meter)	,			
0.009-0.490	2400/F(kHz)	300			
0.490-1.705	0.490-1.705 24000/F(kHz)				
1.705-30	30	30			
30-88	100	3			
88-216	150	3			
216-960	200	3			
Above 960	500	3			

Remarks: 1. RF Voltage $(dBuV) = 20 \log RF \text{ Voltage } (uV)$

- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.



4.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2009 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10, 2009 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna. The worst radiated emission is measured on the Final Measurement.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

4.5. Uncertainty

- ± 3.9 dB above 1GHz
- ± 3.8 dB below 1GHz



4.6. Test Result of Radiated Emission

Product : ASUS Tablet

Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4804.000	2.511	40.210	42.720	-31.280	74.000
7206.000	9.511	38.780	48.291	-25.709	74.000
9608.000	10.394	39.530	49.924	-24.076	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4804.000	2.923	40.600	43.522	-30.478	74.000
7206.000	9.988	39.870	49.859	-24.141	74.000
9608.000	10.847	38.910	49.757	-24.243	74.000
Average					
Detector:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4882.000	2.025	40.840	42.865	-31.135	74.000
7323.000	9.762	38.720	48.481	-25.519	74.000
9764.000	9.682	38.220	47.901	-26.099	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4882.000	2.488	40.500	42.988	-31.012	74.000
7323.000	10.375	37.990	48.364	-25.636	74.000
9764.000	10.315	38.820	49.135	-24.865	74.000
Average					
Detector:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4960.000	2.582	40.250	42.832	-31.168	74.000
7440.000	10.555	38.420	48.975	-25.025	74.000
9920.000	10.206	39.620	49.826	-24.174	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4960.000	3.398	40.330	43.729	-30.271	74.000
7440.000	11.214	38.640	49.854	-24.146	74.000
9920.000	11.245	38.130	49.375	-24.625	74.000
Average					
Detector:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4804.000	2.511	40.980	43.490	-30.510	74.000
7206.000	9.511	38.670	48.181	-25.819	74.000
9608.000	10.394	39.450	49.844	-24.156	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4804.000	2.923	40.610	43.532	-30.468	74.000
7206.000	9.988	38.600	48.589	-25.411	74.000
9608.000	10.847	38.980	49.827	-24.173	74.000
Average					
Detector:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4882.000	2.025	40.850	42.875	-31.125	74.000
7323.000	9.762	37.820	47.581	-26.419	74.000
9764.000	9.682	38.900	48.581	-25.419	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4882.000	2.488	40.690	43.178	-30.822	74.000
7323.000	10.375	39.320	49.694	-24.306	74.000
9764.000	10.315	38.650	48.965	-25.035	74.000
Average					
Detector:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4960.000	2.582	40.650	43.232	-30.768	74.000
7440.000	10.555	38.240	48.795	-25.205	74.000
9920.000	10.206	38.240	48.446	-25.554	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4960.000	3.398	40.300	43.699	-30.301	74.000
7440.000	11.214	37.940	49.154	-24.846	74.000
9920.000	11.245	38.310	49.555	-24.445	74.000
Average					
Detector:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : General Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
396.660	0.771	34.288	35.059	-10.941	46.000
462.620	3.589	35.745	39.334	-6.666	46.000
528.580	3.074	30.573	33.647	-12.353	46.000
701.240	2.759	37.113	39.872	-6.128	46.000
792.420	6.391	29.501	35.892	-10.108	46.000
924.340	6.589	32.696	39.285	-6.715	46.000
Vertical					
462.620	-2.571	38.901	36.330	-9.670	46.000
594.540	0.175	28.838	29.013	-16.987	46.000
701.240	-0.541	35.355	34.814	-11.186	46.000
792.420	2.681	27.919	30.600	-15.400	46.000
924.340	3.149	31.054	34.203	-11.797	46.000
968.960	3.936	21.841	25.777	-28.223	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					_
394.720	0.683	37.289	37.972	-8.028	46.000
462.620	3.589	37.043	40.632	-5.368	46.000
528.580	3.074	30.610	33.684	-12.316	46.000
701.240	2.759	36.098	38.857	-7.143	46.000
792.420	6.391	29.823	36.214	-9.786	46.000
924.340	6.589	32.173	38.762	-7.238	46.000
Vertical					
47.460	-11.425	41.317	29.892	-10.108	40.000
394.720	-1.697	33.180	31.483	-14.517	46.000
462.620	-2.571	39.260	36.689	-9.311	46.000
594.540	0.175	29.954	30.129	-15.871	46.000
792.420	2.681	28.713	31.394	-14.606	46.000
924.340	3.149	31.069	34.218	-11.782	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



5. RF Antenna Conducted Test

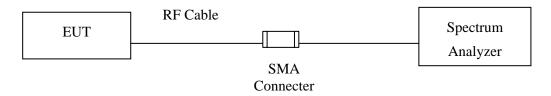
5.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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

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

5.2. Test Setup



5.3. Limits

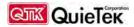
According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

5.4. Test Procedure

The EUT was setup to ANSI C63.10, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

5.5. Uncertainty

± 150Hz



5.6. Test Result of RF Antenna Conducted Test

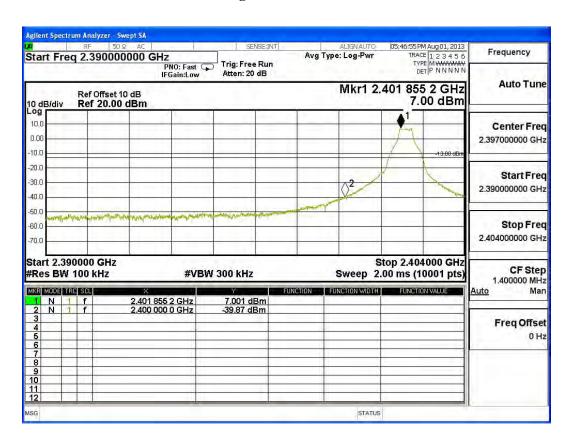
Product : ASUS Tablet

Test Item : RF Antenna Conducted Test

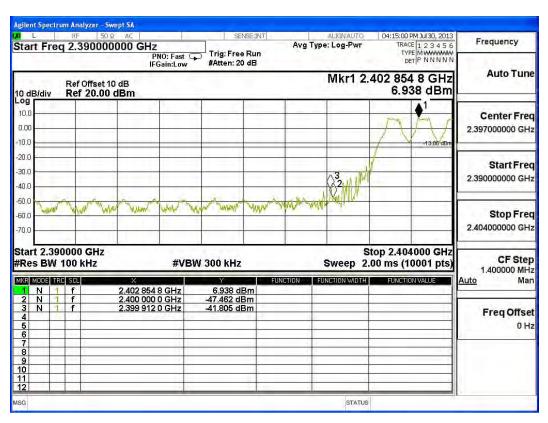
Test Site : No.3 OATS

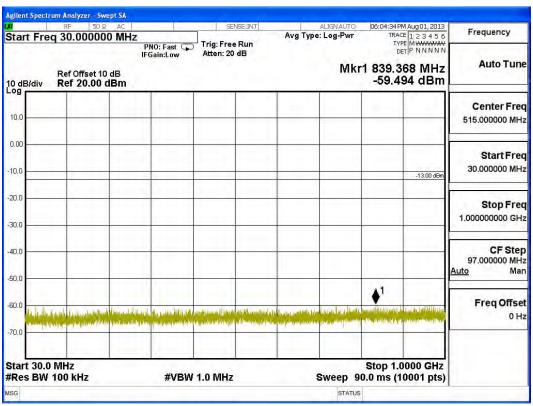
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

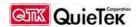
Figure Channel 00:

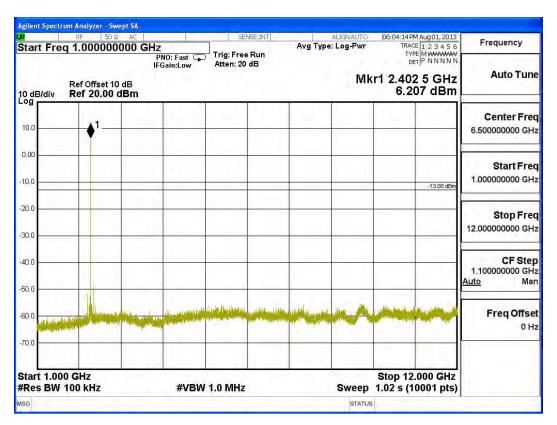


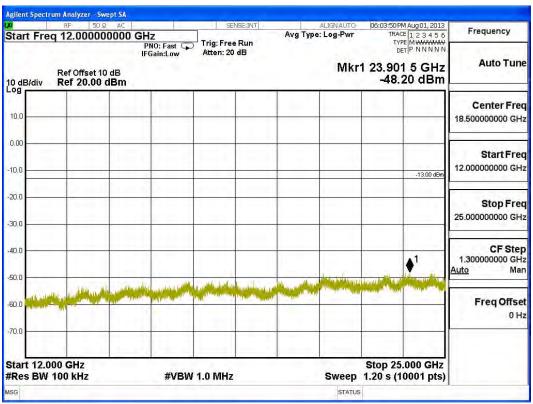












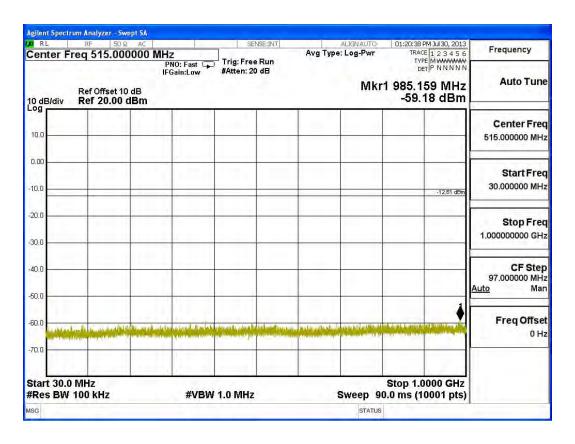


Test Item : RF Antenna Conducted Test

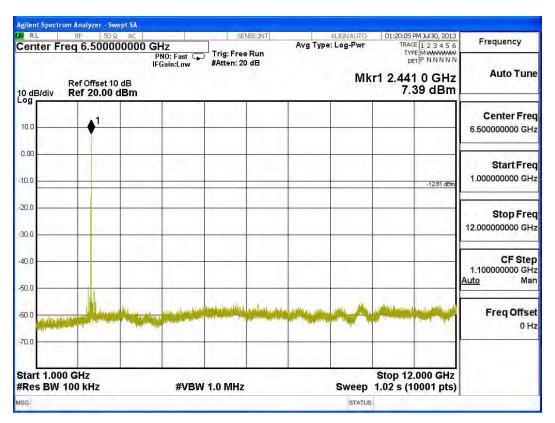
Test Site : No.3 OATS

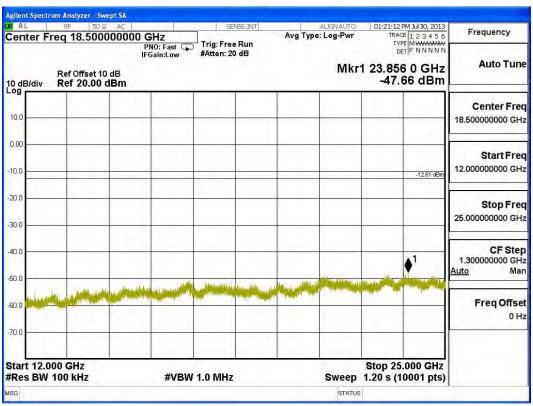
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Figure Channel 39:









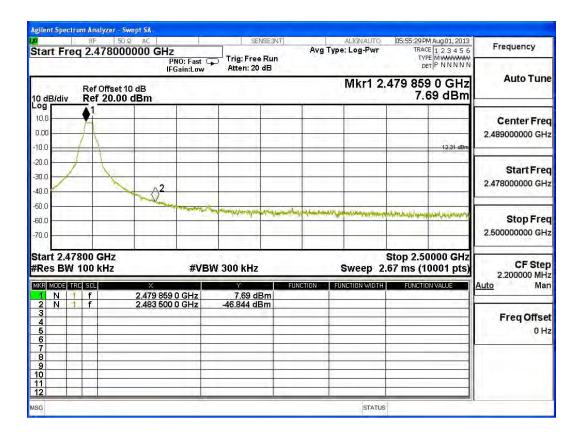


Test Item : RF Antenna Conducted Test

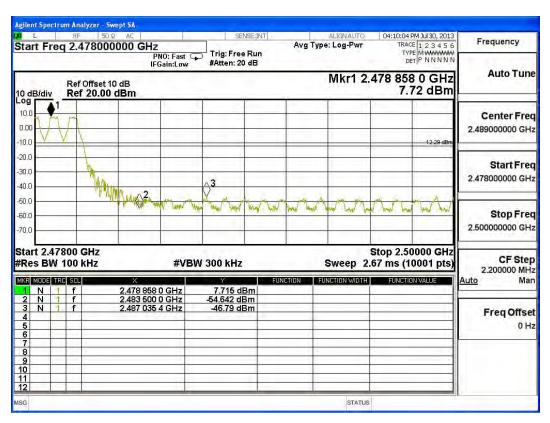
Test Site : No.3 OATS

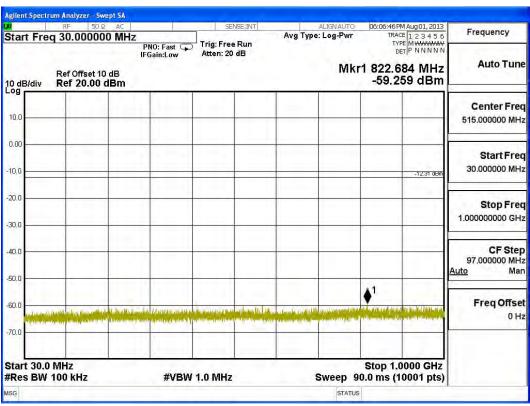
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Figure Channel 78:

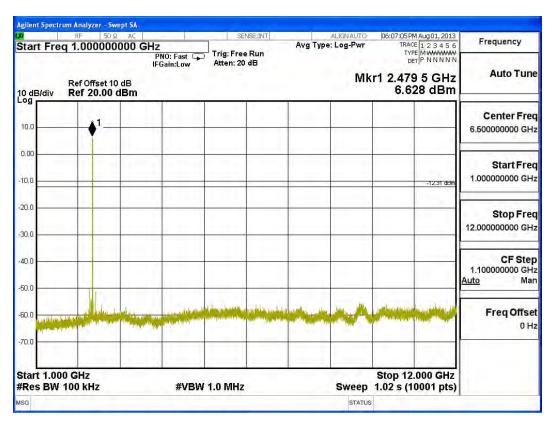


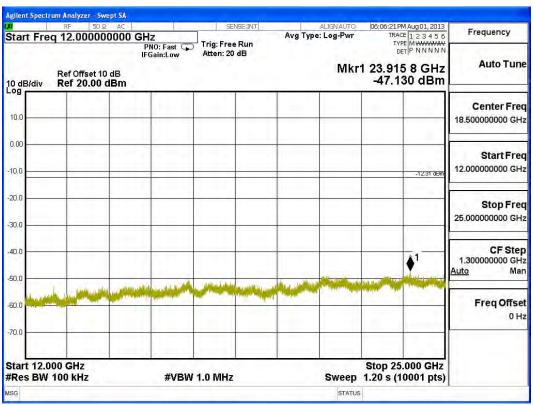












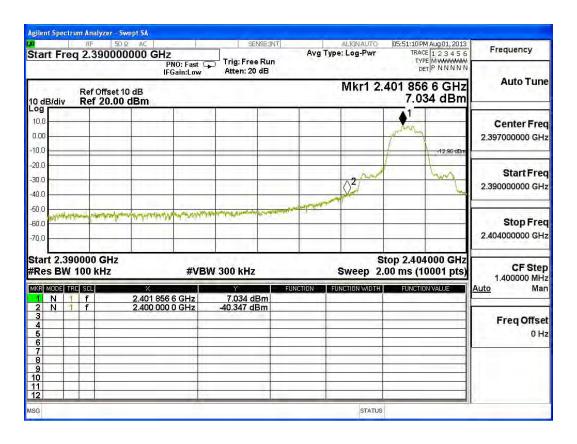


Test Item : RF Antenna Conducted Test

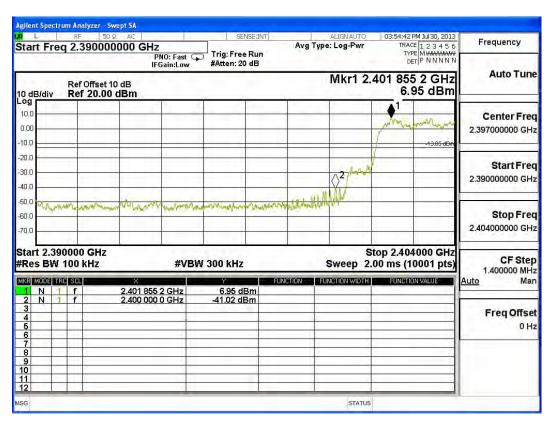
Test Site : No.3 OATS

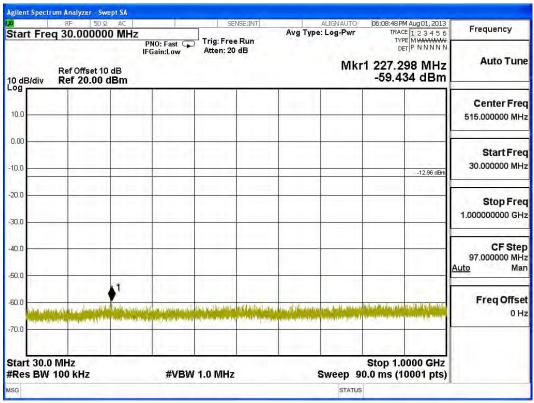
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Figure Channel 00:

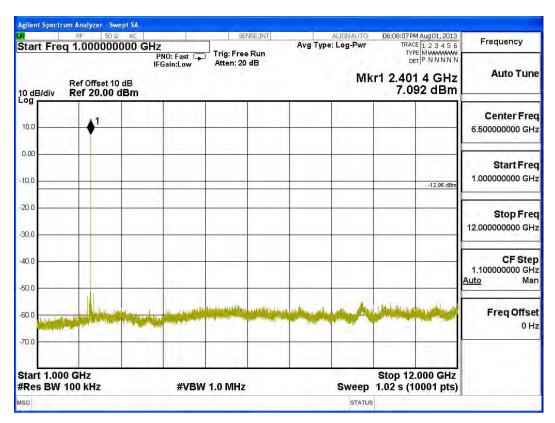


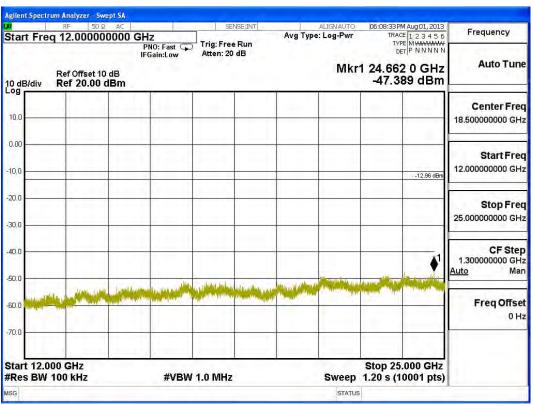












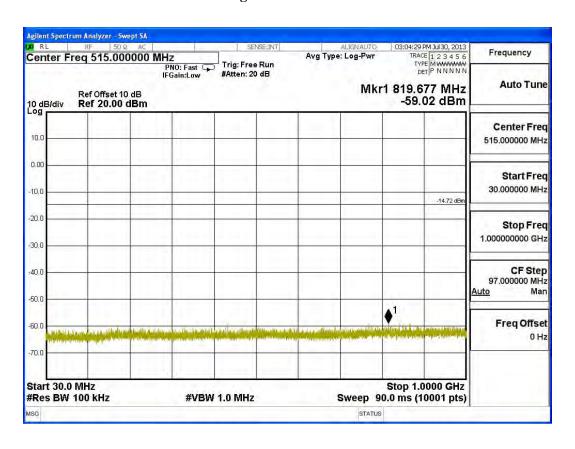


Test Item : RF Antenna Conducted Test

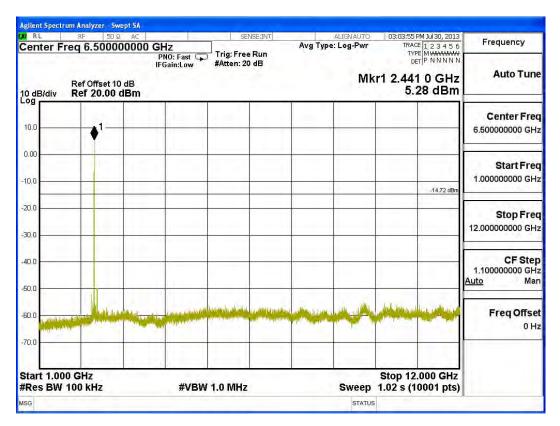
Test Site : No.3 OATS

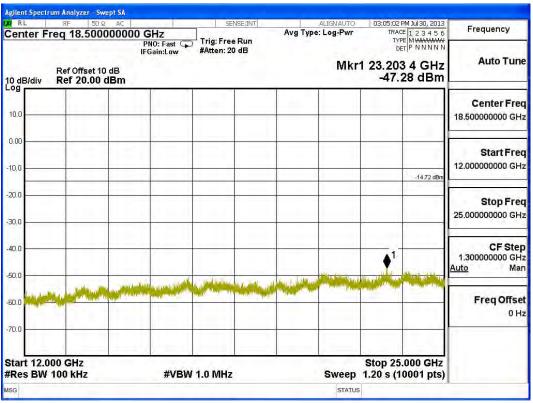
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Figure Channel 39:









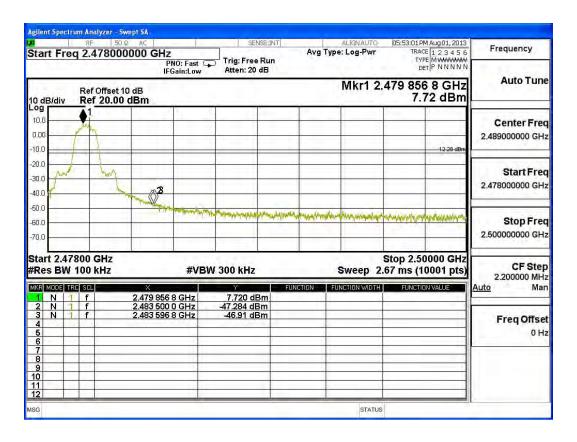


Test Item : RF Antenna Conducted Test

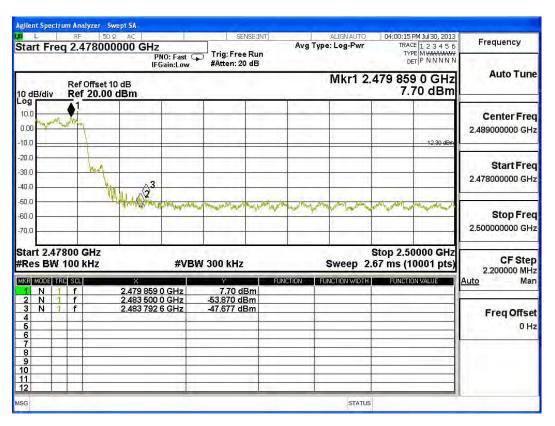
Test Site : No.3 OATS

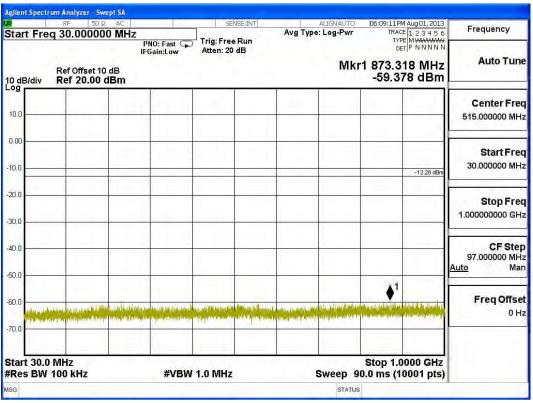
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Figure Channel 78:

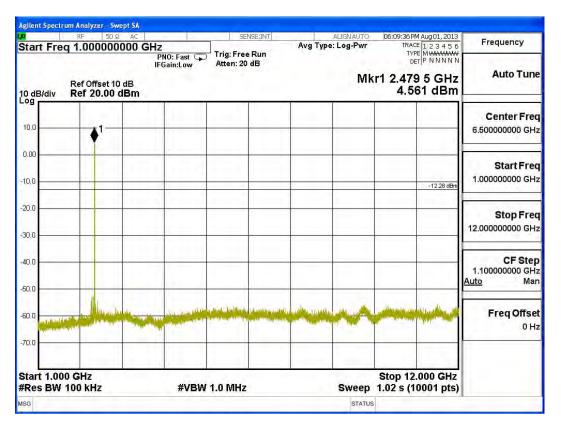


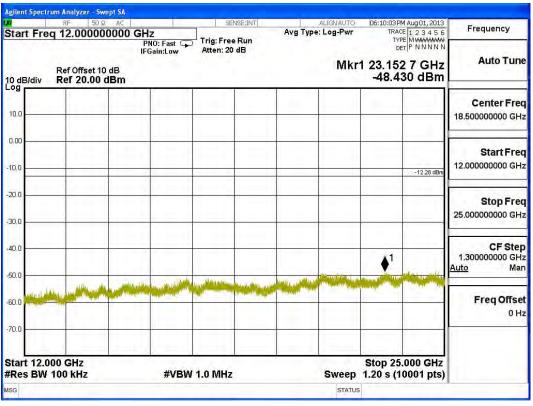














6. Band Edge

6.1. Test Equipment

RF Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.	
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2013	
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2013	
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013	

RF Radiated Measurement:

The following test equipments are used during the band edge tests:

Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
⊠Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2011
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2012
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2012
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

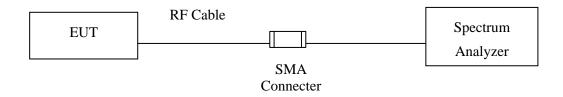
Note:

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked by "X" are used to measure the final test results.



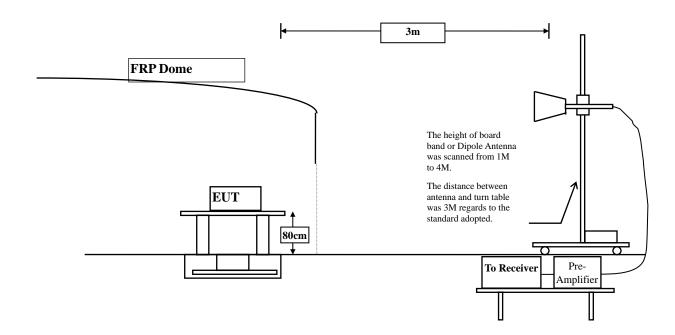
6.2. Test Setup

RF Conducted Measurement



RF Radiated Measurement:

Above 1GHz





6.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2009 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.10, 2009; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

6.5. Uncertainty

- ± 3.9 dB above 1GHz
- + 3.8 dB below 1GHz



6.6. Test Result of Band Edge

Product : ASUS Tablet
Test Item : Band Edge
Test Site : No.3 OATS

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

Fundamental Filed Strength

Antenna	Frequency	Correction Factor	Reading Level	Emission Level	Detector
Pole	[MHz]	[dB/m]	[dBuV]	[dBuV/m]	
Horizontal	2402	33.755	73.77	107.524	Peak
Horizontal	2402	33.755	59.47	93.224	Average
Vertical	2402	32.241	73.83	106.071	Peak
Vertical	2402	32.241	59.57	91.811	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2389.4	107.524	43.19	64.334	74.000	Peak
Horizontal	2362.1	93.224	49.37	43.854	54.000	Average
Vertical	2389.4	106.071	43.19	62.881	74.000	Peak
Vertical	2362.1	91.811	49.37	42.441	54.000	Average

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

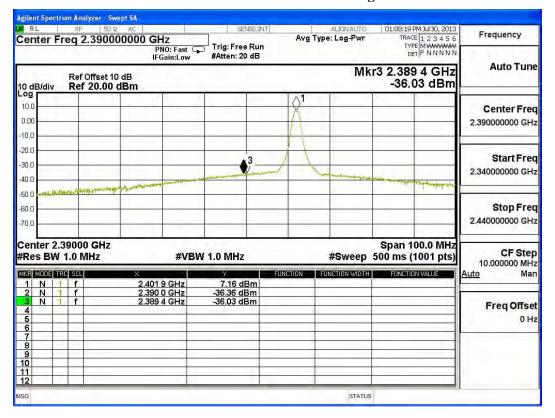
Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

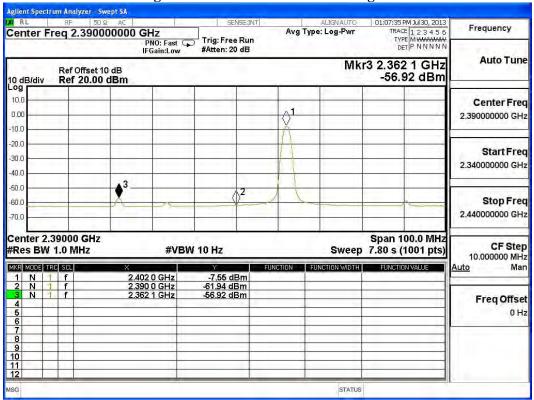
 Δ = Conducted Band Edge Delta (Peak or Average)



Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta





Product : ASUS Tablet
Test Item : Band Edge
Test Site : No.3 OATS

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

Fundamental Filed Strength

Antenna	Frequency	Correction Factor	Reading Level	Emission Level	Detector
Pole	[MHz]	[dB/m]	[dBuV]	[dB(uV/m)]	
Horizontal	2480	33.941	75.86	109.801	Peak
Horizontal	2480	33.941	61.22	95.161	Average
Vertical	2480	32.568	73.81	106.378	Peak
Vertical	2480	32.568	59.67	92.238	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2483.5	109.801	36.68	73.121	74.000	Peak
Horizontal	2483.5	95.161	51.49	43.671	54.000	Average
Vertical	2483.5	106.378	36.68	69.698	74.000	Peak
Vertical	2483.5	92.238	51.49	40.748	54.000	Average

Note:

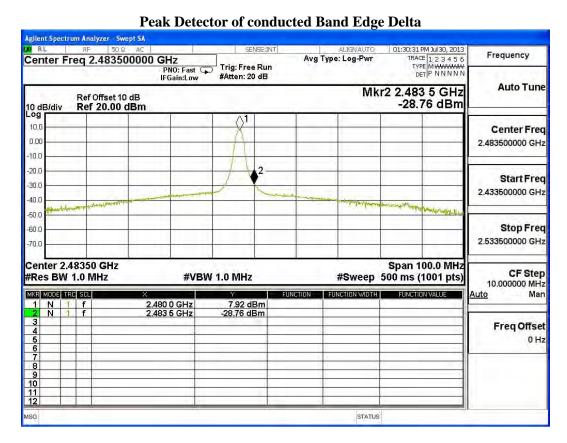
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

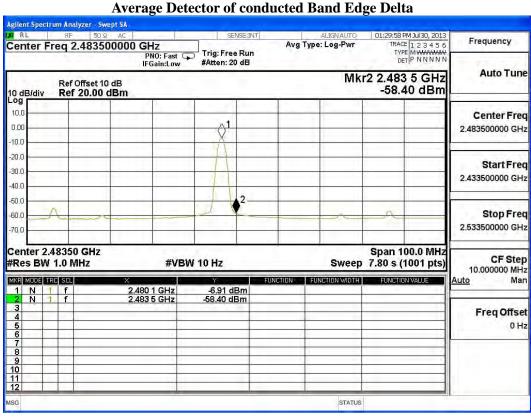
Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

 Δ = Conducted Band Edge Delta (Peak or Average)









Product : ASUS Tablet
Test Item : Band Edge
Test Site : No.3 OATS

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

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2402	33.755	76.62	110.374	Peak
Horizontal	2402	33.755	59.46	93.214	Average
Vertical	2402	32.241	74.93	107.171	Peak
Vertical	2402	32.241	58.25	90.491	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Band Edge Test Bata							
Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	A (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector	
Horizontal	2390	110.374	44.38	65.994	74.000	Peak	
Horizontal	2362	93.214	49.06	44.154	54.000	Average	
Vertical	2390	107.171	44.38	62.791	74.000	Peak	
Vertical	2362	90.491	49.06	41.431	54.000	Average	

Note:

The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

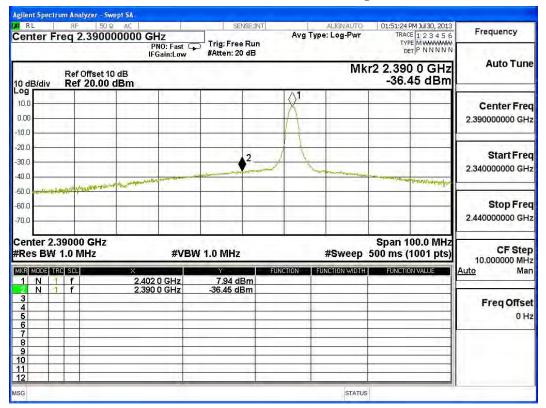
Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

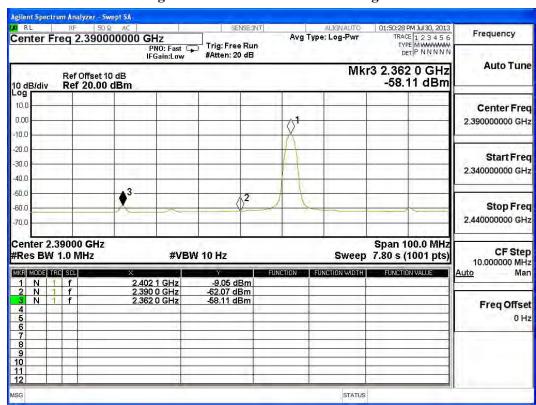
 Δ = Conducted Band Edge Delta (Peak or Average)



Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta





Product : ASUS Tablet
Test Item : Band Edge
Test Site : No.3 OATS

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

Fundamental Filed Strength

Antenna	Frequency	Correction Factor	Reading Level	Emission Level	Detector
Pole	[MHz]	[dB/m]	[dBuV]	[dB(uV/m)]	
Horizontal	2480	33.941	76.69	110.631	Peak
Horizontal	2480	33.941	59.43	93.371	Average
Vertical	2480	32.568	74.69	107.258	Peak
Vertical	2480	32.568	58.06	90.628	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Dana 2050 Tool Data							
Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	$\Delta (dB)$	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector	
Horizontal	2483.6	110.631	37.62	73.011	74.000	Peak	
Horizontal	2483.5	93.371	49.49	43.881	54.000	Average	
Vertical	2483.6	107.258	37.62	69.638	74.000	Peak	
Vertical	2483.5	90.628	49.49	41.138	54.000	Average	

Note:

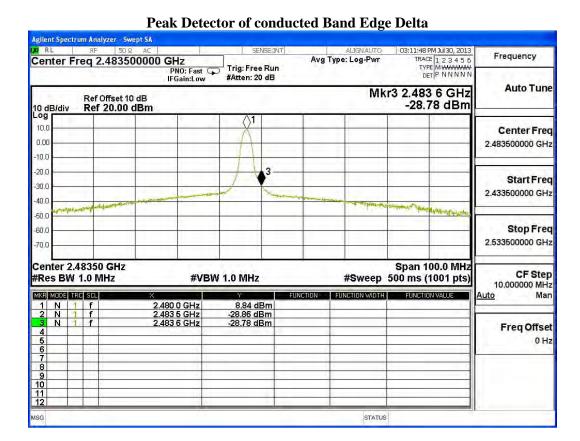
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

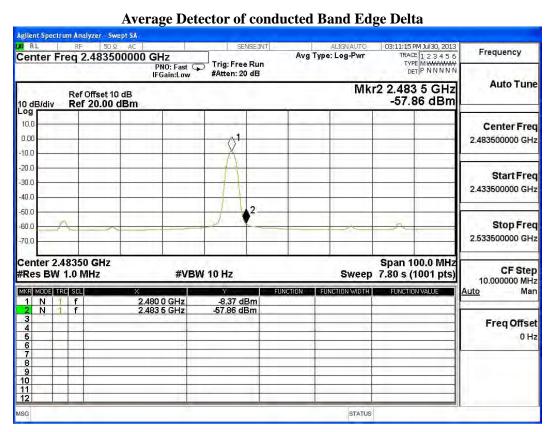
Band Edge field Strength = $F - \Delta$

F = Fundamental field Strength (Peak or Average)

 Δ = Conducted Band Edge Delta (Peak or Average)









7. Channel Number

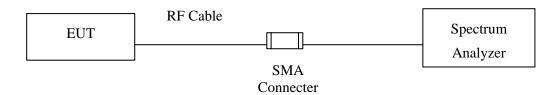
7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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 C63.10, 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

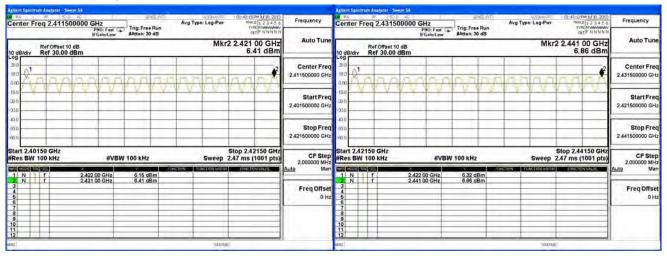
Product : ASUS Tablet
Test Item : Channel Number
Test Site : No.3 OATS

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

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

2402-2421MHz

2422-2441MHz



2442-2461MHz

2462-2480MHz





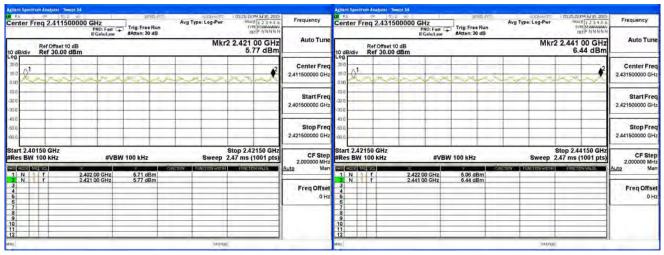
Product : ASUS Tablet
Test Item : Channel Number
Test Site : No.3 OATS

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

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

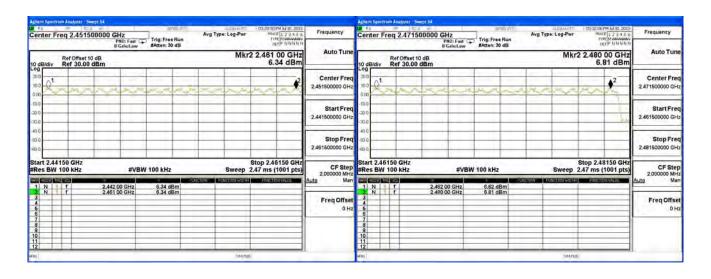
2402-2421MHz

2422-2441MHz



2442-2461MHz

2462-2480MHz





8. Channel Separation

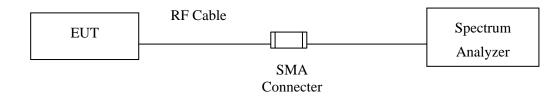
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.	
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2013	
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2013	
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013	

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 C63.10, 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 : ASUS Tablet

Test Item : Channel Separation

Test Site : No.3 OATS

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

	Frequency	Measurement	Limit	Limit of (2/3)*20dB	
Channel No.	(MHz)	Level	(kHz)	Bandwidth (kHz)	Result
	(IVIIIZ)	(kHz)	(KIIZ)	Danawiatii (KHZ)	
00	2402	1000	>25 kHz	753.3	Pass
39	2441	1000	>25 kHz	753.3	Pass
78	2480	1000	>25 kHz	753.3	Pass

Channel 00 2402MHz

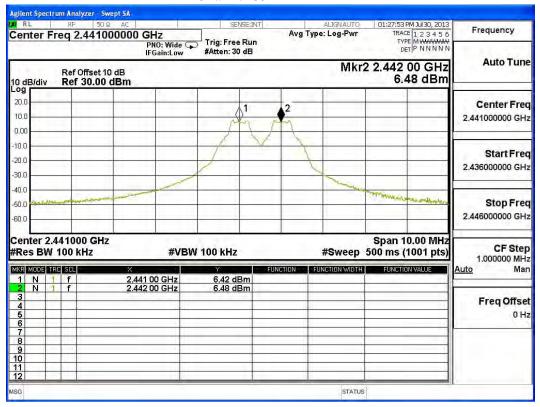
NOTE: The 20dB Bandwidth is refer to section 10.

Agilent Spectrum Analyzer - Swept SA Frequency Center Freq 2.402000000 GHz PNO: Wide (1) IFGain:Low Trig: Free Run #Atten: 30 dB **Auto Tune** Mkr2 2.403 00 GHz 5.95 dBm Ref Offset 10 dB Ref 30.00 dBm 10 dB/div Log 20.0 Center Freq 10.0 2.402000000 GHz 0,00 -10.0 Start Freq -20.0 2.397000000 GHz -30.0 -40.0 -50.0 Stop Freq 2.407000000 GHz -60.0 Center 2.402000 GHz Span 10.00 MHz CF Step 1.000000 MHz #Res BW 100 kHz **#VBW** 100 kHz #Sweep 500 ms (1001 pts) MKR MODE TRC SCL FUNCTION FUNCTION WIDTH FUNCTION VALUE Man 2.402 00 GHz 2.403 00 GHz 5.93 dBm 5.95 dBm 1 N 1 f 2 N 1 f 3 4 5 6 7 8 9 10 11 Freq Offset 0 Hz

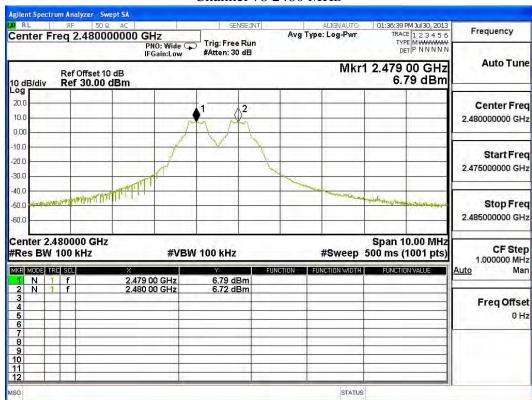
Page: 60 of 78



Channel 39 2441MHz



Channel 78 2480 MHz





Test Item : Channel Separation

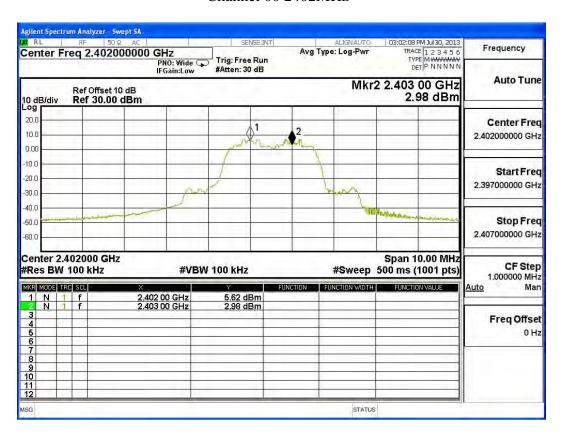
Test Site : No.3 OATS

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

	Frequency	Measurement	Limit	Limit of (2/3)*20dB	
Channel No.	(MHz)	Level	(kHz)	Bandwidth (kHz)	Result
	(WITIZ)	(kHz)	(KIIZ)	Dandwidth (KHZ)	
00	2402	1000	>25 kHz	920.0	Pass
39	2441	1000	>25 kHz	920.0	Pass
78	2480	1000	>25 kHz	920.0	Pass

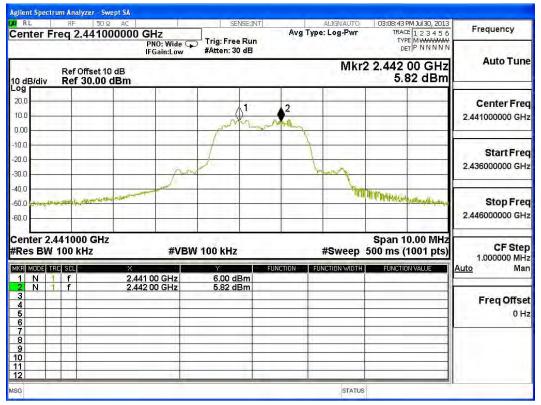
NOTE: The 20dB Bandwidth is refer to section 10.

Channel 00 2402MHz

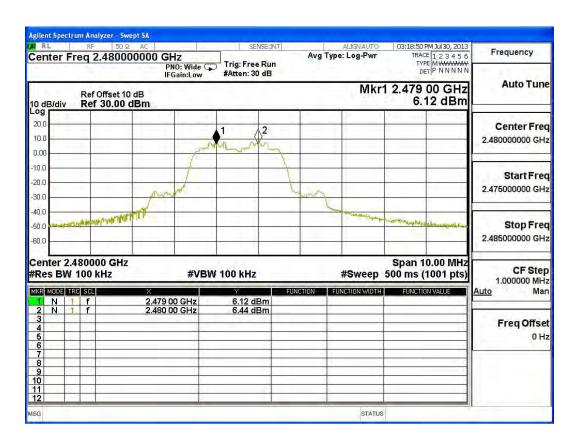


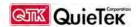


Channel 39 2441MHz



Channel 78 2480 MHz





9. Dwell Time

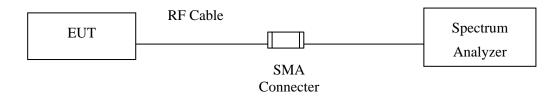
9.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2013
X	Spectrum Analyzer	Agilent	N9010A/MY48030495	Apr., 2013

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 C63.10, 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 : ASUS Tablet
Test Item : Dwell Time
Test Site : No.3 OATS

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

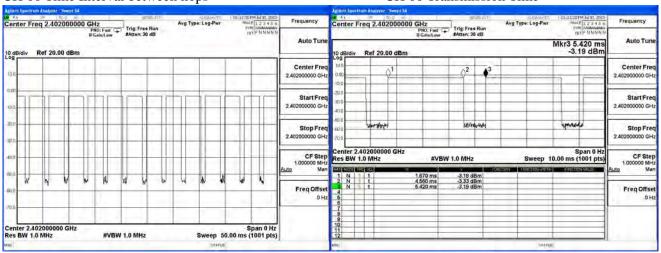
Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.890	13	50	0.75	0.301	0.4	Pass
2441	2.900	13	50	0.75	0.302	0.4	Pass
2480	2.900	13	50	0.75	0.302	0.4	Pass

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

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

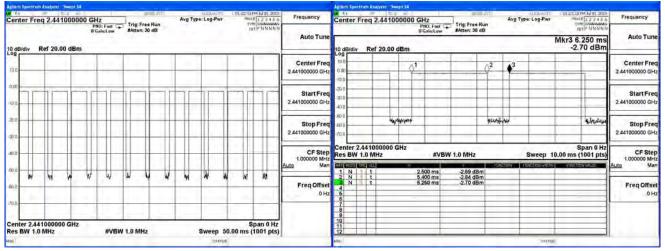
CH 00 Time Interval between hops

CH 00 Transmission Time

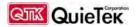


CH39 Time Interval between hops

CH 39Transmission Time

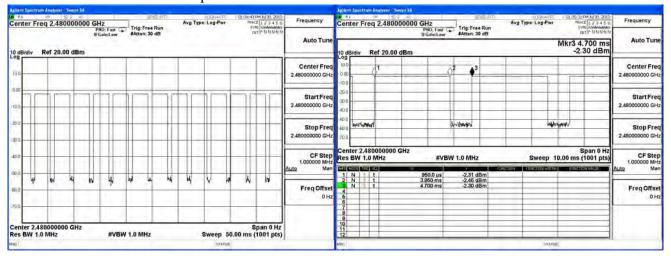


Page: 65 of 78



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 : ASUS Tablet
Test Item : Dwell Time
Test Site : No.3 OATS

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

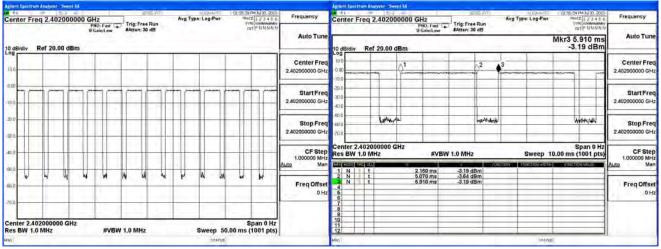
Frequency (MHz)	Time slot length (ms)	Hopping of Number	Sweep time (ms)	Duty cycle	Dwell Time (Sec)	Limit (Sec)	Result
2402	2.910	13	50	0.76	0.303	0.4	Pass
2441	2.910	13	50	0.76	0.303	0.4	Pass
2480	2.910	13	50	0.76	0.303	0.4	Pass

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

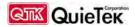
CH 00 Transmission Time



CH39 Time Interval between hops

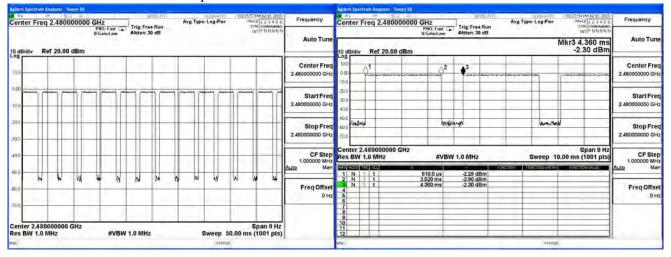
CH 39Transmission Time





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

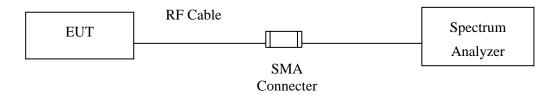
10.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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 C63.10, 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 : ASUS Tablet

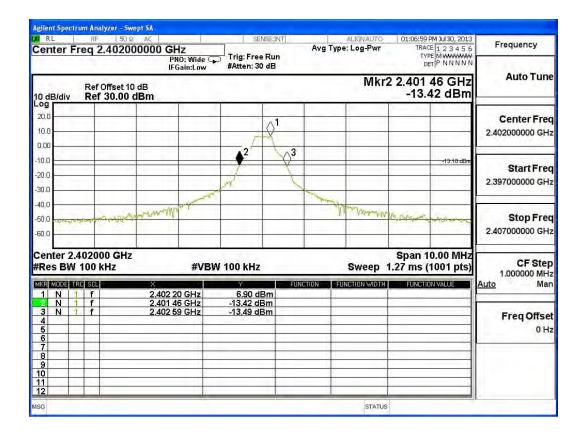
Test Item : Occupied Bandwidth Data

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	1130		NA

Figure Channel 00:





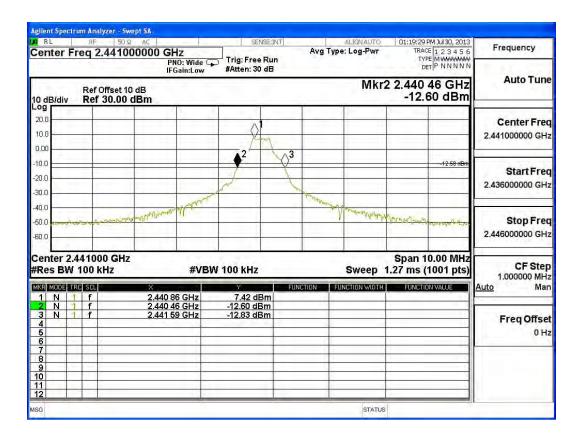
Test Item : Occupied Bandwidth Data

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	1130		NA

Figure Channel 39:





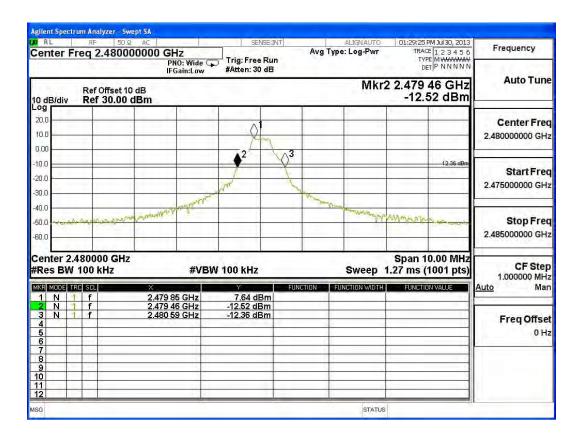
Test Item : Occupied Bandwidth Data

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	1130		NA

Figure Channel 78:





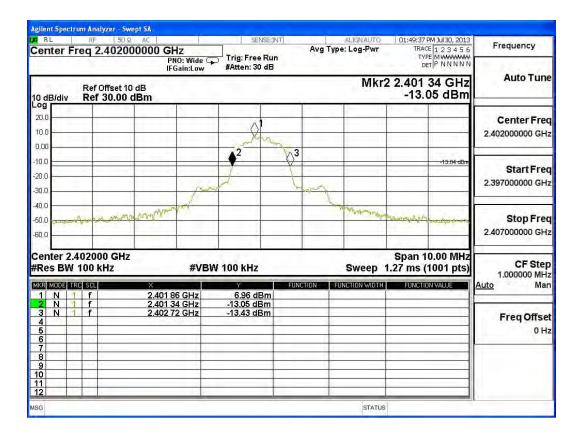
Test Item : Occupied Bandwidth Data

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	1380		NA

Figure Channel 00:





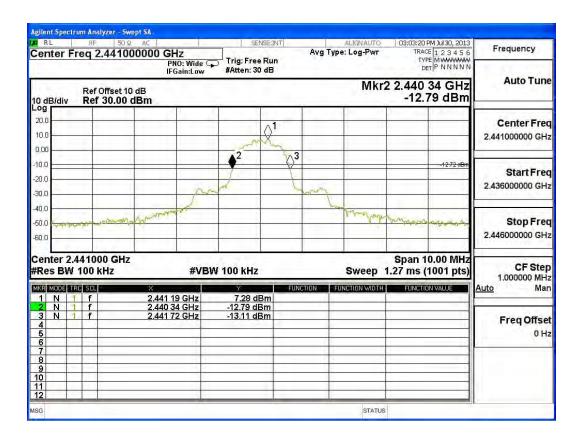
Test Item : Occupied Bandwidth Data

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	1380		NA

Figure Channel 39:





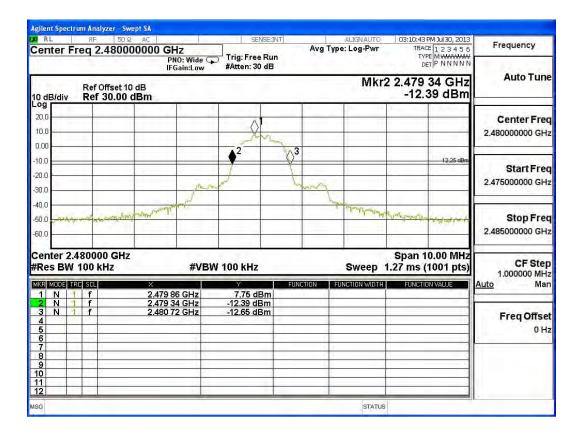
Test Item : Occupied Bandwidth Data

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	1380		NA

Figure Channel 78:





11. EMI Reduction Method During Compliance Testing

No modification was made during testing.