

FCC Test Report

Product Name	Fixed Computer
Model No	Z-7212,Z-7212(WOC),Z-7210
FCC ID.	JNF-Z-721x

Applicant	ZEBEX INDUSTRIES INC.
Address	B1F1, No. 207, Sec. 3, Beixin Rd., Xindian
	Dist,New Taipei City 23143, TAIWAN

Date of Receipt	Apr. 15, 2016				
Issue Date	May 03, 2016				
Report No.	1640343R-RFUSP27V00				
Report Version	V1.0				
TAFF Testing Laboratory					
	3023				

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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Test Report

Issue Date: May 03, 2016 Report No.: 1640343R-RFUSP27V00



Product Name	Fixed Computer		
Applicant	ZEBEX INDUSTRIES INC.		
Address	B1F1, No. 207, Sec. 3, Beixin Rd., Xindian Dist, New Taipei City 23143,		
	TAIWAN		
Manufacturer	ZEBEX INDUSTRIES INC.		
Model No.	Z-7212,Z-7212(WOC),Z-7210		
FCC ID.	JNF-Z-721x		
EUT Rated Voltage	AC 100-240V, 50-60Hz		
EUT Test Voltage	AC 120V/60Hz		
Trade Name	ZEBEX		
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2016		
	ANSI C63.4: 2014, ANSI C63.10: 2013		
	KDB 558074 D01 DTS Meas Guidance v03r05		
Test Result	Complied		

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(Director / Vincent Lin)



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

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Fixed Computer		
Trade Name	ZEBEX		
Model No.	Z-7212,Z-7212(WOC),Z-7210		
FCC ID.	JNF-Z-721x		
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW		
Number of Channels	802.11b/g/n-20MHz: 11		
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 72.2Mbps		
Type of Modulation 802.11b:DSSS (DBPSK, DQPSK, CCK)			
	802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)		
Antenna Type	Printed on PCB Antenna		
Antenna Gain	Refer to the table "Antenna List"		
Channel Control	Auto		
Power Cable	Shielded, 1.8m		
Power Adapter	MFR: FSP GROUP INC., M/N: FSP050-DIBAN2		
	Input: AC 100-240V~1.5A, 50-60Hz		
	Output: 12.0V == 4.16A		
	Cable Out: Non-Shielded, 1.8m, with one ferrite core bonded.		

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	ASKEY	TBTS-710 2.4G	Printed on PCB	3.8dBi for 2.4 GHz
		TBTS-710 5G		

Note: The antenna of EUT conforms to FCC 15.203.



802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

- 1. The EUT is a Fixed Computer with a built-in WLAN and Bluetooth transceiver, this report for WLAN.
- 2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 3. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report.
- 4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps \$ 802.11g is 6Mbps \$ 802.11n(20M-BW) is 7.2Mbps)
- 5. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
- 6. The different of each model is shown as below:

Z-7212	Z-7212(WOC)	Z-7210
With 2D & With Camera	2D & w/o Camera	w/o 2D & w/o Camera
Fixed Computer	Fixed Computer	Fixed Computer

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

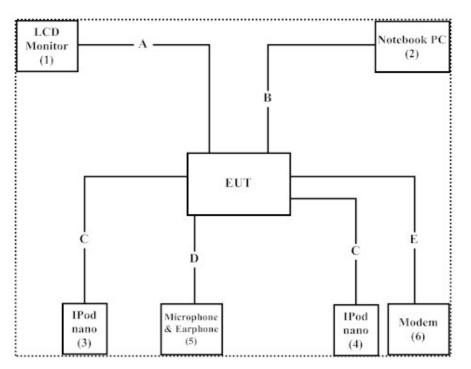
1.3. Tested System Details

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	LCD Monitor	DELL	ST2320Lf	CN-0M2nn6-72872-22I-CA	N/A
1				1S	
2	Notebook PC	DELL	Latitude E5440	FS9TK32	Non-Shielded, 0.8m
3	IPod nano	Apple	A1199	YM7089U5VQ5	N/A
4	IPod nano	Apple	A1199	YM706L7GVQ5	N/A
5	Microphone &	Ergotech	ET-E201	N/A	N/A
5	Earphone				
6	Modem	ACEEX	DM-1414	0102027550	Non-Shielded, 1.8m

Signal Cable Type		Signal cable Description		
Α	HDMI Cable	Non-Shielded, 1.2m		
В	Micro USB to USB Cable	Non-Shielded, 0.6m, with one ferrite core bonded.		
С	USB Cable	Shielded, 1.2m		
D	Microphone & Earphone Cable	Non-Shielded, 1.5m		
Е	Modem Cable	Shielded, 1.5m		

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- 1. Setup the EUT as shown in Section 1.4.
- 2. Execute software "Microsoft Excel v2003" 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	50-65
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: <u>http://www.quietek.com/chinese/about/certificates.aspx?bval=5</u> The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site: <u>http://www.quietek.com/</u>

Site Description:	Federal Communications Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046
Site Name: Site Address:	Registration Number: 92195 Quietek Corporation No.5-22, Ruishukeng, Linkou Dist. New Taipei City 24451, Taiwan, R.O.C. TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
	E-Mail : <u>service@quietek.com</u>

FCC Accreditation Number: TW1014

2. Conducted Emission

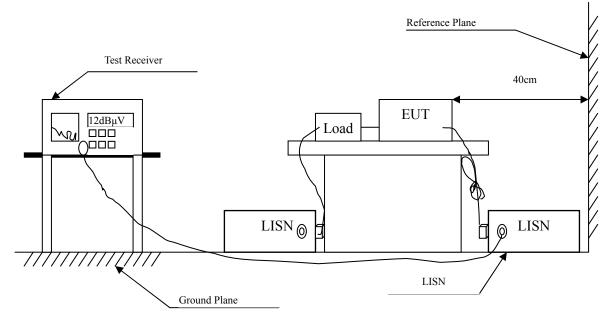
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
Х	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2015	
Х	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2016	Peripherals
Х	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2016	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar., 2016	EUT
Х	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2016	
	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 (dBμV) Limit							
Frequency	Limits						
MHz	QP	AVG					
0.15 - 0.50	66-56	56-46					
0.50-5.0	56	46					
5.0 - 30	60	50					

2.4. Test Procedure

The EUT and simulators 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 refers 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 of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

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

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product	:	Fixed Computer
Test Item	:	Conducted Emission Test
Power Line	:	Line 1
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV	dB	dBµV
Line 1					
Quasi-Peak					
0.158	9.781	36.940	46.722	-19.049	65.771
0.216	9.776	28.830	38.606	-25.508	64.114
0.459	9.785	20.280	30.065	-27.106	57.171
0.763	9.818	18.090	27.908	-28.092	56.000
2.795	9.951	9.620	19.571	-36.429	56.000
15.345	10.159	21.370	31.529	-28.471	60.000
Average					
0.158	9.781	23.180	32.962	-22.809	55.771
0.216	9.776	13.420	23.196	-30.918	54.114
0.459	9.785	11.200	20.985	-26.186	47.171
0.763	9.818	10.010	19.828	-26.172	46.000
2.795	9.951	-0.510	9.441	-36.559	46.000
15.345	10.159	12.640	22.799	-27.201	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.

2. "means the worst emission level.

3. Measurement Level = Reading Level + Correct Factor

Product	:	Fixed Computer
Test Item	:	Conducted Emission Test
Power Line	:	Line 2
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437MHz)

Frequency	Correct	Reading	Reading Measurement		Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV	dB	dBµV
Line 2					
Quasi-Peak					
0.154	9.831	37.200	47.031	-18.855	65.886
0.185	9.834	32.720	42.554	-22.446	65.000
0.248	9.838	25.120	34.958	-28.242	63.200
0.466	9.855	18.400	28.255	-28.716	56.971
1.123	9.906	16.000	25.906	-30.094	56.000
16.240	10.318	16.420	26.738	-33.262	60.000
Average					
0.154	9.831	22.130	31.961	-23.925	55.886
0.185	9.834	17.510	27.344	-27.656	55.000
0.248	9.838	10.700	20.538	-32.662	53.200
0.466	9.855	8.890	18.745	-28.226	46.971
1.123	9.906	9.120	19.026	-26.974	46.000
16.240	10.318	6.280	16.598	-33.402	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.			
Х	Power Meter	Anritsu	ML2495A/6K00003357	May, 2016			
Х	Power Sensor	Anritsu	MA2411B/0738448	Jun., 2015			
Note:							
1.	All equipments are	calibrated with trac	eable calibrations. Each calibrations	ation is traceable to the			
	national or international standards.						

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

3.2. Test Setup



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Procedure

The EUT was tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 D01 DTS Meas Guidance v03r04 section 9.1.2 PKPM1 Peak power meter method.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product	:	Fixed Computer
Test Item	:	Peak Power Output Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)			Peak Power	Required	Decelt	
Channel No		1	2	5.5	11	1	Limit	Result
		Measurement Level (dBm)						
01	2412	14.57				16.83	<30dBm	Pass
06	2437	14.52	14.48	14.36	14.25	16.74	<30dBm	Pass
11	2462	14.36				16.75	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss



Product	:	Fixed Computer
Test Item	:	Peak Power Output Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

	e							Peak Power	Paguirad			
Channel No	Frequency (MHz)	6	9	12	18	24	36	48	54	6	Required Limit	Result
			Measurement Level (dBm)									
01	2412	14.71			-	-	-			22.31	<30dBm	Pass
06	2437	15.55	15.49	15.44	15.38	15.33	15.27	15.22	15.16	23.12	<30dBm	Pass
11	2462	14.39								23.06	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss



Product	:	Fixed Computer
Test Item	:	Peak Power Output Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

	Average Power Peak							Peak				
	Frequency		F	or diffe	erent Da	ata Rate	e (Mbps	s)		Power	Required	
Channel No	(MHz)	7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2	Limit	Result
		Measurement Level (dBm)										
01	2412	13.23								22.11	<30dBm	Pass
06	2437	13.95	13.9	13.84	13.79	13.73	13.68	13.62	13.57	21.82	<30dBm	Pass
11	2462	14.02								21.39	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss



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	Х	Magnetic Loop Antenna	Teseq	HLA6121/ 37133	Sep., 2015
	Х	Bilog Antenna	Schaffner Chase	CBL6112B/ 2707	Jun., 2015
	Х	EMI Test Receiver	R&S	ESCS 30/838251/ 001	Jun., 2015
	Х	Coaxial Cable	QTK(Arnist)	RG 214/ LC003-RG	Jun., 2015
	Х	Coaxial signal switch	Arnist	MP59B/ 6200798682	Jun., 2015

Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
CB # 8	Х	Spectrum Analyzer	R&S	FSP40/ 100339	Oct., 2015
	Х	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar., 2016
	Х	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan., 2016
	Х	Horn Antenna	TRC	AH-0801/95051	Aug., 2015
	Х	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan., 2016
	Х	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul., 2015
	Х	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul., 2015

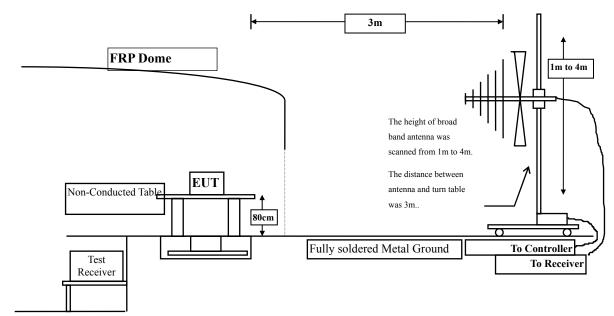
Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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

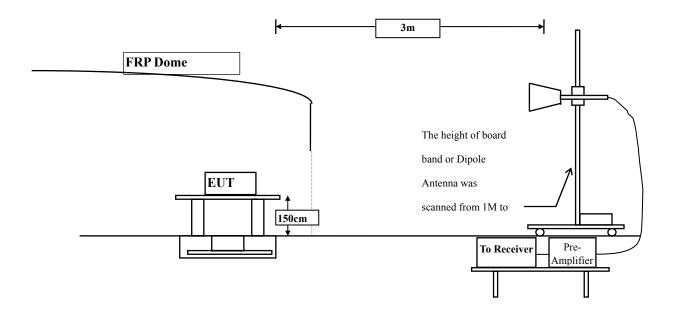


4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. 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	FCC Part 15 Subpart C Paragraph 15.209(a) Limits						
Frequency MHz	Field strength	Measurement distance					
11112	(microvolts/meter)	(meter)					
0.009-0.490	2400/F(kHz)	300					
0.490-1.705	24000/F(kHz)	30					
1.705-30	30	30					
30-88	100	3					
88-216	150	3					
216-960	200	3					
Above 960	500	3					

Remarks: E field strength $(dB\mu V/m) = 20 \log E$ field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 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 between 1 meter and 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: 2013 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 in the Open Area Test Site 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	:	Fixed Computer
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector:					
4824.000	3.261	41.150	44.411	-29.589	74.000
7236.000	10.650	40.290	50.940	-23.060	74.000
9648.000	13.337	40.410	53.746	-20.254	74.000
Average Detector:					
Vertical					
Peak Detector:					
4824.000	6.421	41.960	48.381	-25.619	74.000
7236.000	11.495	40.900	52.395	-21.605	74.000
9648.000	13.807	39.690	53.496	-20.504	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.

Product	: Fixed Computer					
Test Item	: Harmonic Radiated Emission Data					
Test Site	: No.3 OA	TS				
Test Mode	: Mode 1:	Transmit (802.11	lb 1Mbps) (2437 MH	z)		
Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit	
MHz	dB	dBμV	dBµV/m	dB	dBµV/m	
Horizontal	đĐ	dDμv	dDμ V/III	uD		
Peak Detector:						
	2.029	41 120	44.167	20.022	74.000	
4874.000	3.038	41.130	44.167	-29.833	74.000	
7311.000	11.795	40.520	52.314	-21.686	74.000	
9748.000	12.635	40.670	53.305	-20.695	74.000	
Average Detector:						
Vertical						
Peak Detector:						
4874.000	5.812	41.090	46.901	-27.099	74.000	
7311.000	12.630	40.560	53.189	-20.811	74.000	
9748.000	13.126	40.750	53.876	-20.124	74.000	

- 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.

Product Test Item Test Site	 Fixed Computer Harmonic Radiated Emission Data No.3 OATS 					
Test Mode	: Mode 1:	Transmit (802.11	b 1Mbps) (2462 MH	z)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBµV	dBµV/m	dB	dBµV/m	
Horizontal						
Peak Detector:						
4924.000	2.858	41.210	44.067	-29.933	74.000	
7386.000	12.127	40.360	52.488	-21.512	74.000	
9848.000	12.852	40.910	53.763	-20.237	74.000	
Average Detector:						
Vertical						
Peak Detector:						
4924.000	5.521	40.980	46.500	-27.500	74.000	
7386.000	13.254	40.690	53.944	-20.056	74.000	
9848.000	13.367	40.150	53.517	-20.483	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.

Product	:	Fixed Computer
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Limit
dBµV/m
74.000
74.000
74.000
74.000
74.000
74.000

- 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.

Product Test Item Test Site Test Mode	: No.3 OA	c Radiated Emiss TS	sion Data g 6Mbps) (2437 MH	z)	
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
4874.000	3.038	41.000	44.037	-29.963	74.000
7311.000	11.795	40.750	52.544	-21.456	74.000
9748.000	12.635	40.580	53.215	-20.785	74.000
Average Detector:					
Vertical					
Peak Detector:					
4874.000	5.812	40.870	46.681	-27.319	74.000
7311.000	12.630	40.520	53.149	-20.851	74.000
9748.000	13.126	39.230	52.356	-21.644	74.000

- 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.

Product	: Fixed Computer							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 2:	Transmit (802.11	lg 6Mbps) (2462 MH	z)				
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level	C				
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$			
Horizontal								
Peak Detector:								
4924.000	2.858	40.920	43.777	-30.223	74.000			
7386.000	12.127	41.320	53.448	-20.552	74.000			
9848.000	12.852	40.560	53.413	-20.587	74.000			
Average Detector:								
Vertical								
Peak Detector:								
4924.000	5.521	41.360	46.880	-27.120	74.000			
7386.000	13.254	38.970	52.224	-21.776	74.000			
9848.000	13.367	40.090	53.457	-20.543	74.000			

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- 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.

Product	:	Fixed Computer
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
4824.000	3.261	40.970	44.231	-29.769	74.000
7236.000	10.650	40.050	50.700	-23.300	74.000
9648.000	13.337	40.480	53.816	-20.184	74.000
Average Detector:					
Vertical					
Peak Detector:					
4824.000	6.421	41.230	47.651	-26.349	74.000
7236.000	11.495	39.370	50.865	-23.135	74.000
9648.000	13.807	40.160	53.966	-20.034	74.000

- 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.

Product	:	Fixed Computer
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector:					
4874.000	3.038	40.860	43.897	-30.103	74.000
7311.000	11.795	40.300	52.094	-21.906	74.000
9748.000	12.635	40.960	53.595	-20.405	74.000
Average Detector:					
Vertical					
Peak Detector:					
4874.000	5.812	41.140	46.951	-27.049	74.000
7311.000	12.630	40.390	53.019	-20.981	74.000
9748.000	13.126	40.820	53.946	-20.054	74.000

- 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.

Product	:	Fixed Computer
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	dBµV/m	dB	dBµV/m
Horizontal					
Peak Detector:					
4924.000	2.858	41.700	44.557	-29.443	74.000
7386.000	12.127	41.600	53.728	-20.272	74.000
9848.000	12.852	41.050	53.903	-20.097	74.000
Average Detector:					
Vertical					
Peak Detector:					
4924.000	5.521	41.480	47.000	-27.000	74.000
7386.000	13.254	39.250	52.504	-21.496	74.000
9848.000	13.367	40.060	53.427	-20.573	74.000

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- 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.

Product	:	Fixed Computer
Test Item	:	General Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
62.010	-12.187	48.034	35.847	-4.153	40.000
374.350	0.884	39.029	39.913	-6.087	46.000
500.450	2.035	38.976	41.011	-4.989	46.000
623.640	1.606	37.681	39.287	-6.713	46.000
800.180	6.417	34.593	41.010	-4.990	46.000
999.030	9.196	31.929	41.125	-12.875	54.000
Vertical					
74.620	-7.726	46.292	38.566	-1.434	40.000
108.570	-3.762	44.215	40.453	-3.047	43.500
499.480	-0.199	38.533	38.333	-7.667	46.000
623.640	0.376	42.206	42.582	-3.418	46.000
749.740	2.023	34.505	36.528	-9.472	46.000
873.900	0.185	36.093	36.278	-9.722	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.

Product	:	Fixed Computer
Test Item	:	General Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
41.640	-6.175	44.162	37.988	-2.012	40.000
106.630	-7.622	44.282	36.660	-6.840	43.500
374.350	0.884	38.776	39.660	-6.340	46.000
500.450	2.035	38.360	40.395	-5.605	46.000
623.640	1.606	37.952	39.558	-6.442	46.000
800.180	6.417	34.092	40.509	-5.491	46.000
Vertical					
74.620	-7.726	47.553	39.827	-0.173	40.000
108.570	-3.762	45.103	41.341	-2.159	43.500
499.480	-0.199	38.905	38.705	-7.295	46.000
623.640	0.376	41.516	41.892	-4.108	46.000
749.740	2.023	35.504	37.527	-8.473	46.000
873.900	0.185	34.888	35.073	-10.927	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.

Product	:	Fixed Computer
Test Item	:	General Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBµV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
108.570	-7.562	45.016	37.454	-6.046	43.500
374.350	0.884	38.378	39.262	-6.738	46.000
500.450	2.035	38.168	40.203	-5.797	46.000
623.640	1.606	38.116	39.722	-6.278	46.000
800.180	6.417	34.106	40.523	-5.477	46.000
998.060	8.838	32.170	41.008	-12.992	54.000
Vertical					
74.620	-7.726	46.994	39.268	-0.732	40.000
108.570	-3.762	42.883	39.121	-4.379	43.500
374.350	0.224	36.312	36.536	-9.464	46.000
499.480	-0.199	36.983	36.783	-9.217	46.000
623.640	0.376	42.596	42.972	-3.028	46.000
746.830	1.491	37.866	39.357	-6.643	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

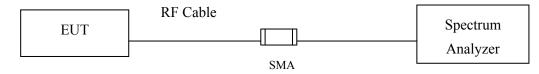
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2015
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2016

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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

5.2. Test Setup

RF antenna Conducted Measurement:



5.3. Limits

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)).

5.4. Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

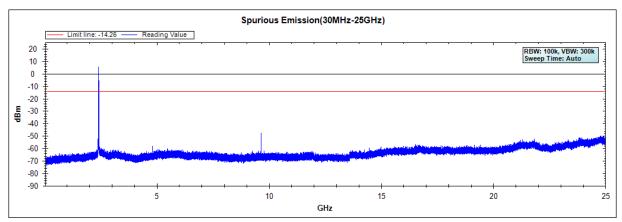
5.5. Uncertainty

The measurement uncertainty Conducted is defined as ± 1.27 dB

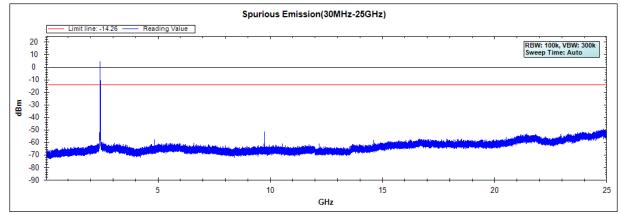
5.6. Test Result of RF antenna conducted test

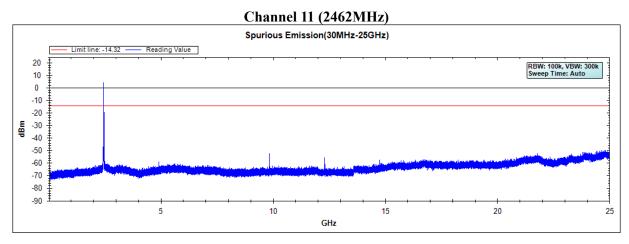
Product	:	Fixed Computer
Test Item	:	RF antenna conducted test
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

Channel 01 (2412MHz)



Channel 06 (2437MHz)



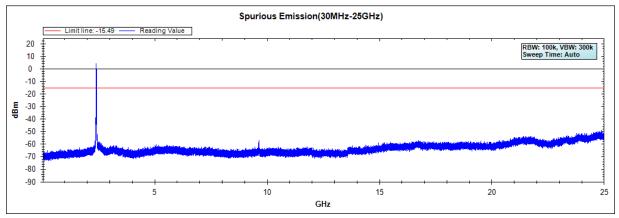


Note: The above test pattern is synthesized by multiple of the frequency range.

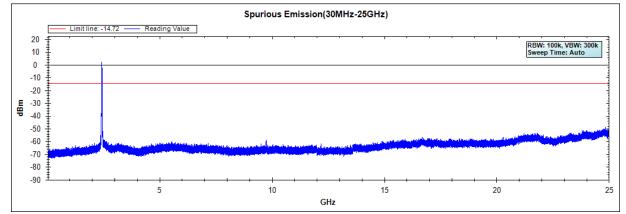


Product	:	Fixed Computer
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

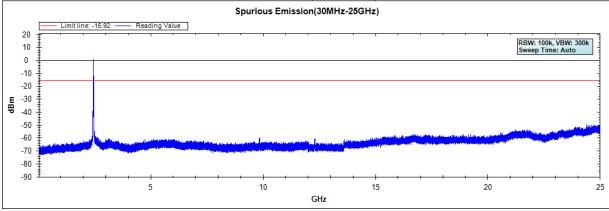
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

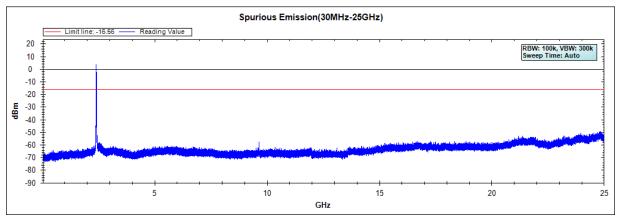


Note: The above test pattern is synthesized by multiple of the frequency range.

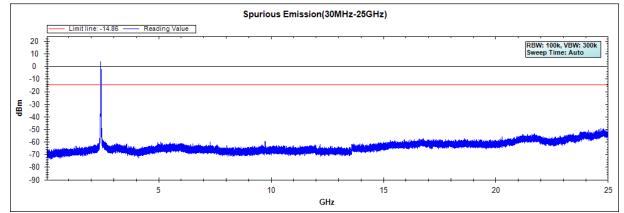


Product	:	Fixed Computer
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

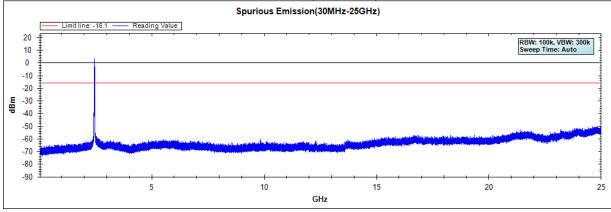
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



Note: The above test pattern is synthesized by multiple of the frequency range.

6. Band Edge

6.1. Test Equipment

RF Radiated Measurement:

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

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
CB # 8	Х	Spectrum Analyzer	R&S	FSP40/ 100339	Oct., 2015
	Х	Horn Antenna	ETS-Lindgren	3117/ 35205	Mar., 2016
	Х	Horn Antenna	Schwarzbeck	BBHA9170/209	Jan., 2016
	Х	Horn Antenna	TRC	AH-0801/95051	Aug., 2015
	Х	Pre-Amplifier	EMCI	EMC012630SE/980210	Jan., 2016
	Х	Pre-Amplifier	MITEQ	JS41-001040000-58-5P/153945	Jul., 2015
	Х	Pre-Amplifier	NARDA	DBL-1840N506/013	Jul., 2015

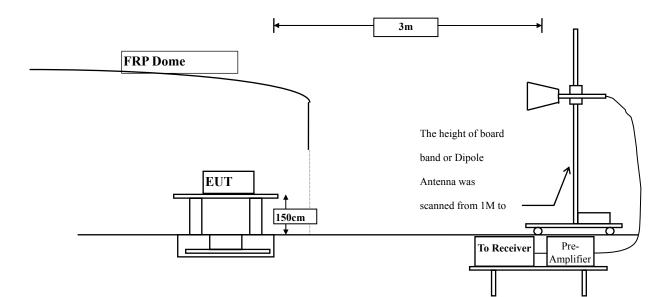
Note:

1. All instruments 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 Radiated Measurement:



6.3. 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.

6.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 1.5 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 C63.10:2013 on radiated measurement.

6.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz



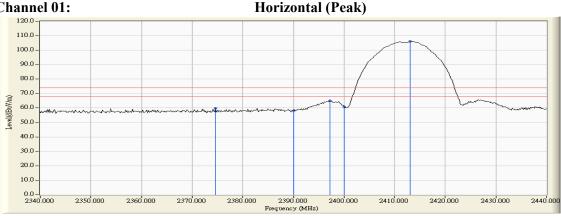
6.6. **Test Result of Band Edge**

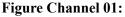
Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

RF Radiated Measurement (Horizontal):

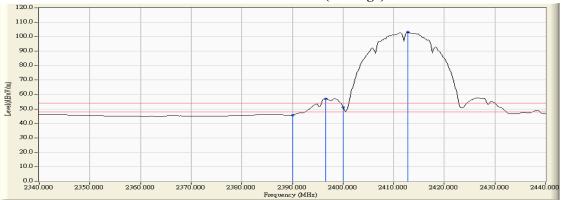
Channel No.	Frequency	Correct Factor	U	Emission Level		Average Limit	Result
Channel IVO.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
01 (Peak)	2374.638	31.449	28.251	59.700	74.00	54.00	Pass
01 (Peak)	2390.000	31.509	26.620	58.129	74.00	54.00	Pass
01 (Peak)	2397.246	31.545	33.348	64.893			
01 (Peak)	2400.000	31.561	29.152	60.713			
01 (Peak)	2413.043	31.646	74.632	106.278			
01 (Average)	2390.000	31.509	14.212	45.721	74.00	54.00	Pass
01 (Average)	2396.522	31.540	25.389	56.929			
01 (Average)	2400.000	31.561	19.505	51.066			
01 (Average)	2412.754	31.644	71.598	103.242			

Figure Channel 01:





Horizontal (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.

- Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto. 2.
- Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. 3.
- "*", means this data is the worst emission level. 4.
- 5. Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average 6. detection.



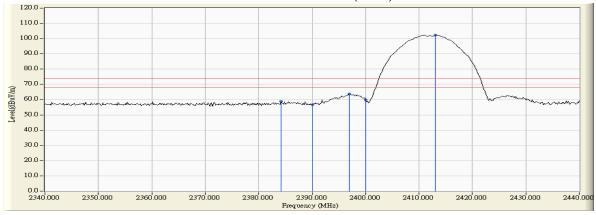
Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency		0	Emission Level			Result
	(MHz)	(dB)	(dBµV)	(dBµV/m)	$(dB\mu V/m)$	(dBµV/m)	
01 (Peak)	2384.203	30.942	28.007	58.949	74.00	54.00	Pass
01 (Peak)	2390.000	30.915	25.783	56.698	74.00	54.00	Pass
01 (Peak)	2396.957	30.905	32.785	63.689			
01 (Peak)	2400.000	30.912	28.983	59.895			
01 (Peak)	2413.043	30.957	71.444	102.400			
01 (Average)	2390.000	30.915	13.842	44.757	74.00	54.00	Pass
01 (Average)	2398.261	30.909	24.873	55.781			
01 (Average)	2400.000	30.912	18.416	49.328			
01 (Average)	2412.754	30.955	68.484	99.438			

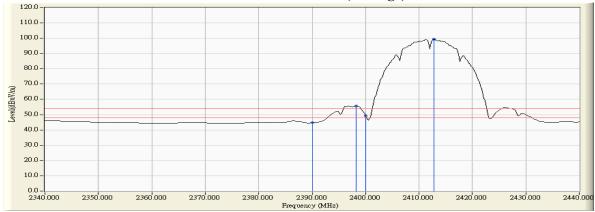
Figure Channel 01:







VERTICAL (Average)



- Note:1. All readings 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. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



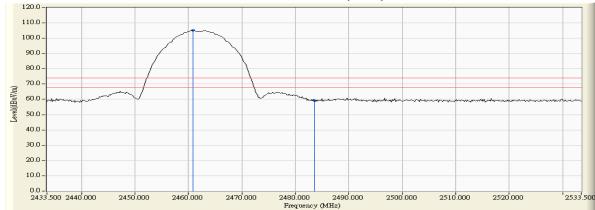
Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
11 (Peak)	2460.891	32.011	73.079	105.090			
11 (Peak)	2483.500	32.182	27.007	59.189	74.00	54.00	Pass
11 (Average)	2461.181	32.014	70.048	102.061			
11 (Average)	2483.500	32.182	14.295	46.477	74.00	54.00	Pass

Figure Channel 11:

Horizontal (Peak)





Horizontal (Average)



- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 - 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
 - 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 - 4. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
11 (Peak)	2460.891	31.283	68.401	99.684			
11 (Peak)	2483.500	31.435	26.918	58.353	74.00	54.00	Pass
11 (Average)	2461.181	31.285	65.347	96.632			
11 (Average)	2483.500	31.435	14.006	45.441	74.00	54.00	Pass

Figure Channel 11:

VERTICAL (Peak)

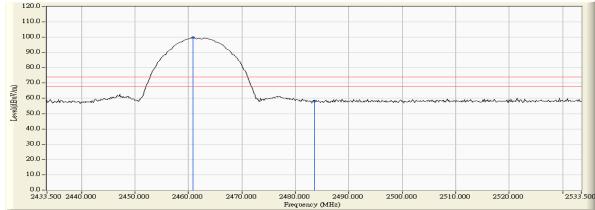
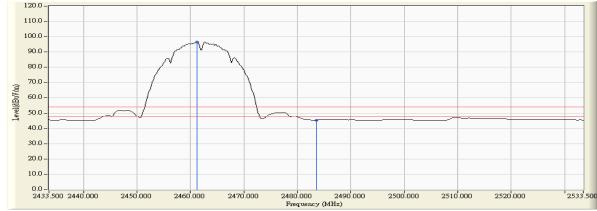


Figure Channel 11:

VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



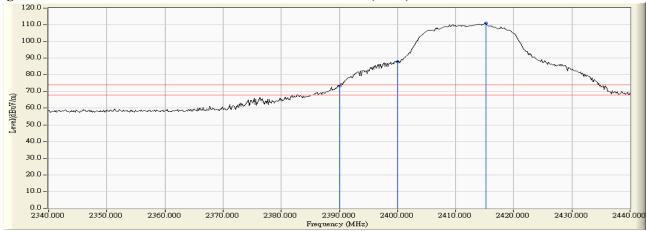
Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

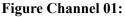
RF Radiated Measurement (Horizontal):

Channel No.	1 2	Correct Factor	U	Emission Level		U	Result
Channel NO.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
01 (Peak)	2390.000	31.509	41.974	73.483	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	56.166	87.727			
01 (Peak)	2415.217	31.663	79.226	110.889			
01 (Average)	2390.000	31.509	18.981	50.490	74.00	54.00	Pass
01 (Average)	2400.000	31.561	33.252	64.813			
01 (Average)	2414.203	31.655	67.582	99.237			

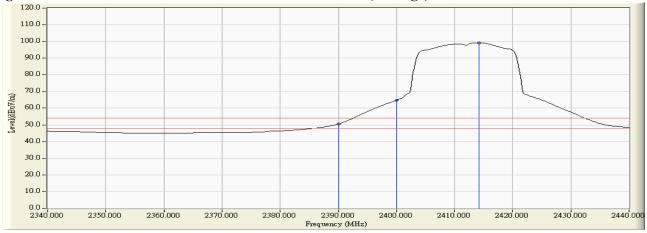
Figure Channel 01:

Horizontal (Peak)





Horizontal (Average)



Note:1. All readings 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. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



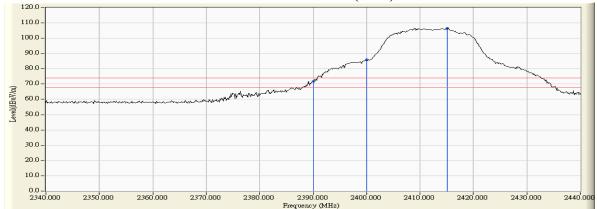
Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBµV)	(dBµV/m)	$(dB\mu V/m)$	(dBµV/m)	Result
01 (Peak)	2390.000	30.915	40.930	71.845	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	54.885	85.797			
01 (Peak)	2415.072	30.970	75.529	106.499			
01 (Average)	2390.000	30.915	18.244	49.159	74.00	54.00	Pass
01 (Average)	2400.000	30.912	31.591	62.503			
01 (Average)	2413.478	30.959	64.274	95.233			

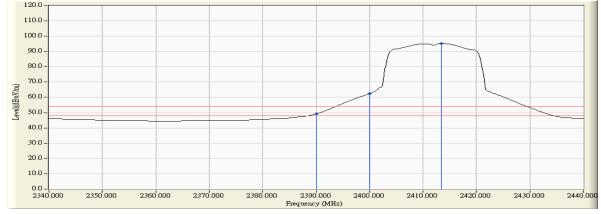
Figure Channel 01:

VERTICAL (Peak)





VERTICAL (Average)



- Note:1. All readings 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. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



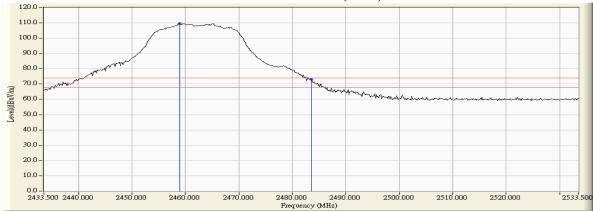
Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
11 (Peak)	2458.862	31.997	77.579	109.575			
11 (Peak)	2483.500	32.182	40.689	72.871	74.00	54.00	Pass
11 (Average)	2460.457	32.008	65.809	97.817			
11 (Average)	2483.500	32.182	17.464	49.646	74.00	54.00	Pass

Figure Channel 11:

Horizontal (Peak)





Horizontal (Average)



- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 - 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
 - 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 - 4. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
11 (Peak)	2458.862	31.270	72.870	104.139			
11 (Peak)	2483.500	31.435	34.218	65.653	74.00	54.00	Pass
11 (Average)	2460.457	31.280	61.159	92.439			
11 (Average)	2483.500	31.435	15.094	46.529	74.00	54.00	Pass

Figure Channel 11:

VERTICAL (Peak)

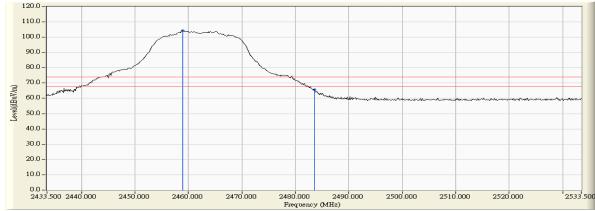
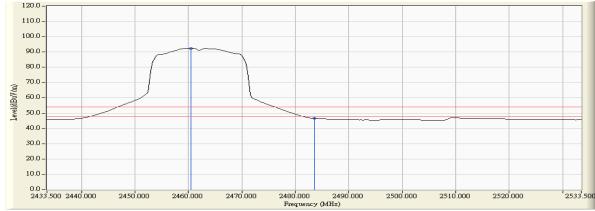


Figure Channel 11:

VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

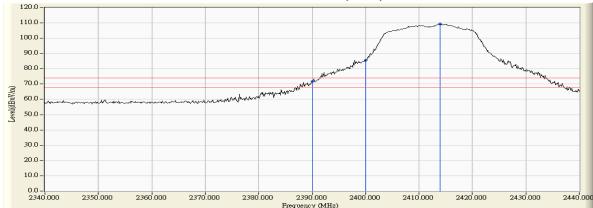


RF Radiated Measurement (Horizontal):						
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)				
Test Site	:	No.3 OATS				
Test Item	:	Band Edge Data				
Product	•	Fixed Computer				

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
01 (Peak)	2390.000	31.509	40.098	71.607	74.00	54.00	Pass
01 (Peak)	2400.000	31.561	54.157	85.718			
01 (Peak)	2413.913	31.653	77.640	109.293			
01 (Average)	2390.000	31.509	17.969	49.478	74.00	54.00	Pass
01 (Average)	2400.000	31.561	31.419	62.980			
01 (Average)	2413.623	31.650	65.523	97.174			

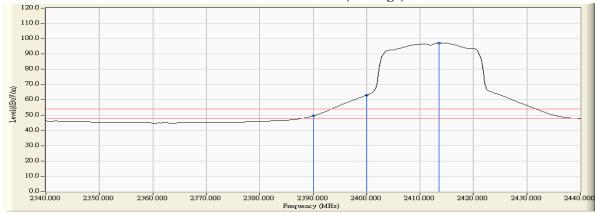
Figure Channel 01:

Horizontal (Peak)





Horizontal (Average)



- Note:1. All readings 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. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
01 (Peak)	2388.551	30.922	39.907	70.829	74.00	54.00	Pass
01 (Peak)	2390.000	30.915	37.758	68.673	74.00	54.00	Pass
01 (Peak)	2400.000	30.912	52.569	83.481			
01 (Peak)	2414.928	30.969	74.689	105.658			
01 (Average)	2390.000	30.915	17.390	48.305	74.00	54.00	Pass
01 (Average)	2400.000	30.912	30.064	60.976			
01 (Average)	2413.478	30.959	62.784	93.743			

Figure Channel 01:

VERTICAL (Peak)

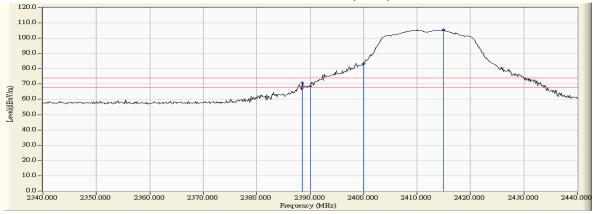
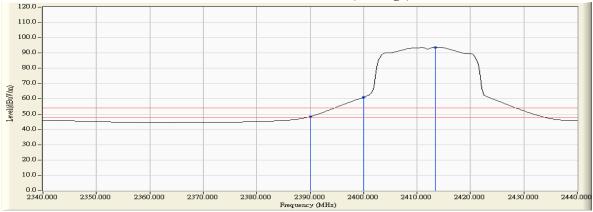


Figure Channel 01:

VERTICAL (Average)



- Note:1. All readings 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. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
11 (Peak)	2459.732	32.002	76.993	108.995			
11 (Peak)	2483.500	32.182	39.593	71.775	74.00	54.00	Pass
11 (Peak)	2483.540	32.182	39.332	71.514	74.00	54.00	Pass
11 (Average)	2460.601	32.009	64.973	96.982			
11 (Average)	2483.500	32.182	18.528	50.710	74.00	54.00	Pass

Figure Channel 11:

Horizontal (Peak)

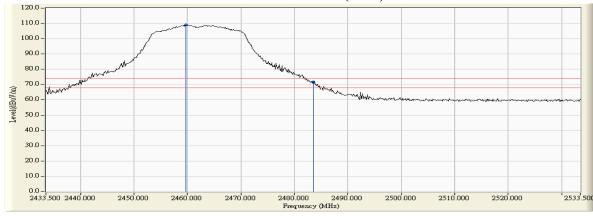


Figure Channel 11:

Horizontal (Average)



- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 - 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
 - 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 - 4. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	Fixed Computer
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (VERTICAL):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
11 (Peak)	2461.761	31.289	73.765	105.054			
11 (Peak)	2483.500	31.435	32.378	63.813	74.00	54.00	Pass
11 (Average)	2460.601	31.281	60.304	91.585			
11 (Average)	2483.500	31.435	15.498	46.933	74.00	54.00	Pass

Figure Channel 11:

VERTICAL (Peak)

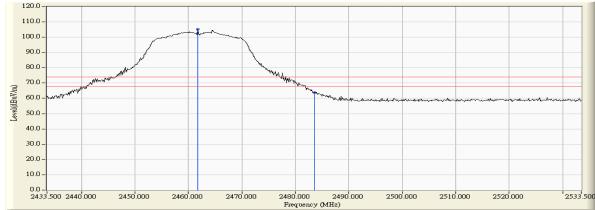
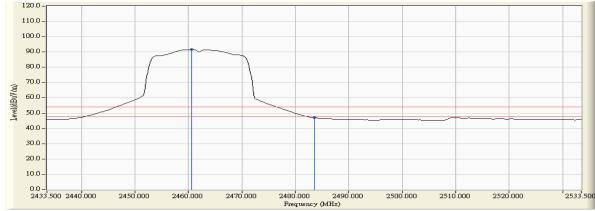


Figure Channel 11:

VERTICAL (Average)



Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.

- 2. Peak measurements: RBW = 1MHz, VBW = 3MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. Occupied Bandwidth

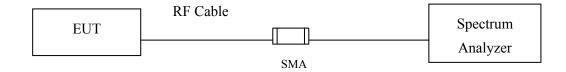
7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2015
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2016

Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

7.2. Test Setup



7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

7.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2014; tested according to DTS test procedure of Jan KDB558074 for compliance to FCC 47CFR 15.247 requirements.

7.5. Uncertainty

 \pm 150Hz

7.6. Test Result of Occupied Bandwidth

Product	:	Fixed Computer
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	9200	>500	Pass
06	2437	9200	>500	Pass
11	2462	9150	>500	Pass

Figure Channel 01:

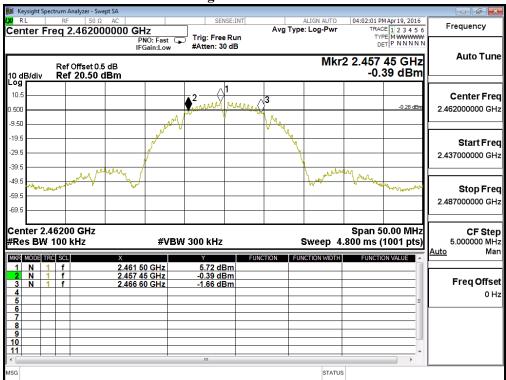
		-							
📜 Keysight Spectrum Analyz									
KIRL RF	50 Ω AC	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	03:49:15 PM Apr 19, 2016 TRACE 1 2 3 4 5 6	Frequency				
Center Freq 2.41	PNO: Fast	Trig: Free Run	Avg Type. Log-Fwi	TYPE M WWWWW					
	IFGain:Low	#Atten: 30 dB		DET P NNNN					
			Mkr	2 2.407 40 GHz	Auto Tune				
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-59.5					2.437000000 GH				
-69.5									
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MKR MODE TRC SCL	Х		TION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Mai				
1 N 1 f	2.412 50 GHz 2.407 40 GHz	5.76 dBm -2.06 dBm							
2 N 1 f 3 N 1 f	2.407 40 GHZ 2.416 60 GHZ	-2.06 dBm -1.53 dBm			Freq Offse				
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7									
8									
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11									
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				#Atten: 3	NO: Fast 😱 Gain:Low					
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Figure Channel 06:

Figure Channel 11:



Product	:	Fixed Computer
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15200	>500	Pass
06	2437	15200	>500	Pass
11	2462	15200	>500	Pass

Figure Channel 01:

	pectrum Analyzer - Sv										
Center F	RF 50 S	00000 GHz				ALIGN AUTO E: Log-Pwr	TRAC	Apr19, 2016 E 1 2 3 4 5 6 E MWWWWW	Frequency		
10 dB/div	PRC: Fast FGain:Low #Atten: 30 dB Det PNNNN IFGain:Low #Atten: 30 dB Mkr2 2.404 40 GHz 0 dB/div Ref 20.50 dBm -3.76 dBm										
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							O: Fast ain:Low		#Atten: 3							DET P N N N		
_						IFG	ain:Low	v	#Atten. t						,	_	Auto Tune	
		F	?ef:	Offset 0.5	S dB									Mkr	2 2.429			Auto Tune
10 di	B/div			20.50											-2	.99 dB	m	1
Log			1															
10.5										<u> 1</u>			_				_	Center Freq
0.500								2	molu	X		3				-0.90	dBm	2.437000000 GHz
0.500			-				1	william?	2101	1	-	when						2.437000000 GHz
-9.50			_							1			_				_	
-19.5							and s					¥	h					
-19.5				Mylmalasopy		aller M	r -						"fi	MUM	www.			Start Freq
-29.5			-	u dour group	Miler								-	With	Wythere		-	2.412000000 GHz
-39.5		a al III-1	nyn	PAPED											1. IVIN	WILL BELL		
-55.5	_{ብንብሥ}	10.10														"PUNYL	mal	
-49.5			+										-				-	Oton From
-59.5																	_	Stop Freq
																		2.462000000 GHz
-69.5																		1
	<u> </u>														_		_	
) GHz												50.00 M		CF Step
#Re	s BV	N 10)0 I	(Hz			#V	BW	300 kHz				SI	weep 4	.800 ms	(1001 p	ts)	5.000000 MHz
MKD	MODE	TRC	eci I		×				V		FUNCT		ELINC	TION WIDTH	ELINCT	ION VALUE		<u>Auto</u> Man
1	N	1	f			38 30	GHz		5.10 d	Bm	1 one		one		1 Onton	ION VALUE		
2	N	1	f) GHz		-2.99 d								- 11	
3	N	1	f) GHz		-2.22 d									Freq Offset
4			_														- 11	0 Hz
5			_														=	
6 7			-														- 11	
8		-+															- 11	
9																		
10																	_	
11																	-	
									111						1			
MSG														STATUS				
															1			

Figure Channel 06:

Figure Channel 11:

🎉 Keysight Spectru	m Analyzer - Swe	pt SA		8						
Center Free	RF 50 Ω 2.46200	AC 0000 GH	z	7	SE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr	TRAC	M Apr 19, 2016 CE 1 2 3 4 5 6	Frequency
10 dB/div F	Ref Offset 0.5 Ref 20.50 d	IFG dB	0: Fast ⊆ ain:Low	#Atten: 30			Mkr	2 2.454	40 GHz 82 dBm	Auto Tune
10.5 0.500			2 2	and so the street	~1 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	3			-1.88 dBm	Center Freq 2.462000000 GHz
-19.5	10 polar Mark	WWWWWW	and the second s				and Controlly	walkanderpro	they have white	Start Freq 2.437000000 GHz
-49.5 -59.5									on the monthly	Stop Fred 2.487000000 GHz
Center 2.46: #Res BW 10	0 kHz	X	#VBW	/ 300 kHz	FUN		Sweep 4	.800 ms (0.00 MHz 1001 pts)	CF Step 5.000000 MHz Auto Mar
2 N 1	f f f	2.463 25 2.454 40 2.469 60	GHz	4.12 dE -3.82 dE -3.23 dE	3m				=	Freq Offsel 0 Hz
7 8 9 10 11										
MSG				m			STATUS	;	► F	



Product	:	Fixed Computer
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	15200	>500	Pass
06	2437	15200	>500	Pass
11	2462	15200	>500	Pass

Figure Channel 01:

🎉 Keysight Spectrum Analyzer -					
Center Freq 2.412	0 Ω AC 000000 GHz PNO: Fast C	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	04:25:33 PM Apr 19, 2016 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
Ref Offset 10 dB/div Ref 20.5	IFGain:Low	#Atten: 30 dB	Mkr	2 2.404 40 GHz -4.30 dBm	Auto Tune
Log 10.5 0.500	2 million Arm	1	3	-2.54 dBn	Center Freq 2.412000000 GHz
-19.5 -29.5 -39.5 -49.5	And Anna and		- Ward with with with with with with with with	ally approximation of the appr	Start Freq 2.387000000 GHz
-49.5					Stop Fred 2.437000000 GHz
Center 2.41200 GH #Res BW 100 kHz		300 kHz	Sweep 4	Span 50.00 MHz .800 ms (1001 pts)	CF Step 5.000000 MHz Auto Mar
I N 1 f 2 N 1 f 3 N 1 f 4 - - - 5 - - 6	2.413 25 GHz 2.404 40 GHz 2.419 60 GHz	3.46 dBm -4.30 dBm -3.38 dBm			Freq Offset 0 Hz
7 8 9 10 11					
MSG			STATU	5	



				Tigu	re Cna		0.			
	ectrum Analyzer - Sv									
RL	RF 50 S			SEN	SE:INT		ALIGN AUTO : Log-Pwr		M Apr 19, 2016	Frequency
enter F	req 2.4370	PN	Z IO: Fast 😱 Jain:Low	Trig: Free #Atten: 30		Avg Type	e. Log-Pwi	TY	PE MWWWWW T P NNNNN	
0 dB/div	Ref Offset 0. Ref 20.50						Mkr		40 GHz 97 dBm	Auto Tun
.og 10.5					1					Conton Fra
500			 	Interla	Autor.	$^{\circ}$			-0.89 dBm	Center Fre 2.437000000 GH
9.50			- And and and a			- marken				2:407000000 01
9.5		Lutwe	/			<u>\</u>	Marylan &			Start Fre
9.5	- and good	pulation.					"Yake dhay	-		2.412000000 GH
9.5 ml 10	uby Mary						Marine Contraction		Wach-gonilewig	
9.5										Stop Fre
9.5										2.462000000 GH
enter 2.	43700 GHz							Span 5	0.00 MHz	CF Ste
	100 kHz		#VBW	300 kHz			Sweep 4.			5.000000 Mi Auto Mi
KR MODE T	1 f	× 2.438 28		Y 5.11 dE		TION FUN	ICTION WIDTH	FUNCTION	DN VALUE	
2 N [·] 3 N [·]		2.429 40		-1.97 dE -2.05 dE						Freq Offs
4										01
6										
8										
0										
1										
G							STATUS			U

Figure Channel 06:

Figure Channel 11:

🚺 Keysight Spectrum Analyzer - Swept SA	8			
RL RF 50 Ω AC Center Freq 2.462000000 GH	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	04:32:27 PM Apr 19, 2016 TRACE 1 2 3 4 5 6	Frequency
IF Ref Offset 0.5 dB 10 dB/div Ref 20.50 dB m	NO: Fast Trig: Free Run Gain:Low #Atten: 30 dB	Mkr	2 2.454 40 GHz -2.56 dBm	Auto Tune
10.5 0.500	2 million and and and and and and and and and an	3	-2.12 dBm	Center Freq 2.462000000 GHz
-19.5 -29.5 -39.5 -5		ha have a second and the second secon	ndrantan and allow the restored	Start Freq 2.437000000 GHz
-49.5				Stop Freq 2.487000000 GHz
Center 2.46200 GHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 4.	Span 50.00 MHz 800 ms (1001 pts)	CF Step 5.000000 MHz <u>Auto</u> Mar
1 N 1 f 2.463.2 2 N 1 f 2.454.4 3 N 1 f 2.469.6 4	0 GHz -2.56 dBm			Freq Offset 0 Hz
7 8 9 10 11 11	III			
MSG		STATUS		

8. **Power Density**

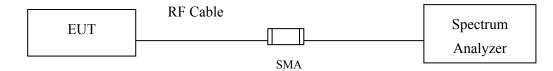
8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun., 2015
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun., 2015
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2016

Note:

- 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
- 2. The test instruments marked with "X" are used to measure the final test results.

8.2. Test Setup



8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum power spectral density using KDB 558074 section 10.2 PKPSD (peak PSD) method.

8.5. Uncertainty

 \pm 1.27 dB

8.6. Test Result of Power Density

Product	:	Fixed Computer
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	5.740	< 8dBm	Pass
06	2437	5.740	< 8dBm	Pass
11	2462	5.680	< 8dBm	Pass

Figure Channel 01:

	ectrum Analyzer - Swe									
Center F	RF 50 Ω Freq 2.41200	0000 GH	z	SET	NSE:INT		ALIGN AUTO : Log-Pwr	TRAC	Apr19, 2016	Frequency
10 dB/div	Ref Offset 0.5 Ref 20.50 d	dB	NO: Fast 🖵 Gain:Low	#Atten: 3			Mkr1 2	.412 51	0 6 GHz 74 dBm	Auto Tune
10.5			0.0	δο	1	00				Center Freq 2.412000000 GHz
0.500 -9.50	~~~~~	p.n.n.	<u></u>					wh	M	Start Freq 2.405100000 GHz
-19.5										Stop Fred 2.418900000 GHz
-39.5										CF Step 1.380000 MHz <u>Auto</u> Mar
-59.5										Freq Offse 0 H;
	412000 GHz		<i>#</i>	000 111-					3.80 MHz	
#Res BW	100 KHZ		#vBW	300 kHz			SWEED 1	<u> </u>	1001 pts)	



		Figure Cl	hannel 06:		
Keysight Spectrum Analyzer - Sw					
₩ RL RF 50 Ω Center Freq 2.43700		SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	03:58:37 PM Apr 19, 2016 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Frequency
Ref Offset 0.5 10 dB/div Ref 20.50 0	IFGain:Low	#Atten: 30 dB	Mkr1 2	.436 503 2 GHz 5.74 dBm	Auto Tune
10.5					Center Freq 2.437000000 GHz
9.500	Maria			M	Start Freq 2.430100000 GHz
29.5					Stop Fred 2.443900000 GHz
49.5					CF Step 1.380000 MH: <u>Auto</u> Mar
59.5					Freq Offse 0 H:
69.5 Center 2.437000 GHz				Span 13.80 MHz	
#Res BW 100 kHz	#VBW	300 kHz	Sweep 1	.333 ms (1001 pts)	

Figure Channel 06:

Figure Channel 11:

Page -				8						
	ctrum Analyzer - Swe									
XI RL	RF 50 Ω	AC	-	SEI	NSE:INT		ALIGN AUTO		1 Apr 19, 2016	Frequency
Center Fr	eq 2.46200	0000 GH	z	Trig: Free	. D	Avg Type	: Log-Pwr		E123456 EM WWWW	riequency
		PI	NO:Fast 🖵 Gain:Low	#Atten: 3				DE	PNNNN	
		IFV	Jam.LOw	#/ teteri. o	0 UD					Auto Tun
	Ref Offset 0.5	dB					MKr1		08 GHz	Autorun
10 dB/div	Ref 20.50 d	Bm						5.	68 dBm	
Log										
										Center Fre
10.5					1					2.462000000 GH
										2.402000000 01
		• • A	A.M.	M	M	MAA	Λ. Α			
0.500	A ala	And			1			Jun 1		Otort Era
. A				V	V				Λ.,	Start Fre
-9.50	\langle / \rangle								7-0	2.455137500 GH
[\mathcal{V}							1	\sim	
10.5										
-19.5										Stop Fre
										2.468862500 GH
-29.5										
-39.5										CF Ste
-35.5										1.372500 MH
										<u>Auto</u> Ma
-49.5										
-59.5										Freq Offs
										0 H
-69.5										
	62000 GHz								3.73 MHz	
#Res BW	100 kHz		#VBW	300 kHz		:	Sweep 1	.333 ms (1001 pts)	
ISG							STATUS			l



Product	:	Fixed Computer
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)			Result	
01	2412	4.510	< 8dBm	Pass	
06	2437	5.280	< 8dBm	Pass	
11	2462	4.080	< 8dBm	Pass	

Figure Channel 01:

🚺 Keysight Spectrum Analyzer - Swept SA						
X RL RF 50 Ω AC Center Freq 2.412000000 0	Hz		ALIGN AUTO Type: Log-Pwr	04:06:29 PM Ap TRACE	23456	Frequency
Ref Offset 0.5 dB 10 dB/div Ref 20.50 dBm	PNO: Fast Trig: Fre IFGain:Low #Atten: :		Mkr1	2.413 27	7 GHz dBm	Auto Tune
10.5		1				Center Fred 2.412000000 GHz
9.500	hove have the sector of the se	l	Aswerting	andry he		Start Free 2.400600000 GH
-19.5 WWW -29.5				V Loon	W WWWWWW	Stop Free 2.423400000 GH
39.5						CF Ste 2.280000 MH <u>Auto</u> Ma
59.5						Freq Offse 0 H
-69.5 Center 2.41200 GHz #Res BW 100 kHz	#VBW 300 kHz	,	Sween 2	Span 22. 200 ms (10		
MSG	#4 D44 300 KU	<u> -</u>	Sweep 2	· ·	o i pisj	



		υ.	annel		r igi					
								Analyzer - Swe		
Frequency	04:17:28 PM Apr 19, 2016 TRACE 1 2 3 4 5 6	IGN AUTO	Avg Type	NSE:INT	1	łz	AC			XI RI Ceni
A	TYPE MWWWW DET PNNNNN				Trig: Free #Atten: 3	NO: Fast 🛛 🖵 Gain:Low	P			
Auto Tune	2.438 254 GHz 5.28 dBm	Mkr1						f Offset 0.5 •f 20.50 d		10 dE Log r
Center Fred										-09
2.437000000 GHz				 1−						10.5
Start Fred	mlm	howing	Ansalaa	mountwar	when	on Amaral	March	mbry		.500
2.425600000 GHz				·	1			r		-9.50
	Wy here							- ¹		10.5
Stop Fred 2.448400000 GHz	- Why Marked								h.Araio	-19.5
CF Step										
2.280000 MH Auto Mar										-39.5 -49.5
Freq Offse										59.5
0 H:										09.0
										69.5
	Span 22.80 MHz 200 ms (1001 pts)	veep 2.			300 kHz	#VBW			er 2.4370 BW 100	
		STATUS								//SG

Figure Channel 06:

Figure Channel 11:

〕 Keysight Sp	ectrum Analyzer - Swept S	SA	8						
Center F	RF 50 Ω / Freq 2.4620000	AC DOO GHz	SENSE:INT	ALIGN AUTO Avg Type: Log-Pw	r TRACE 1 2 3 4 5 6	Frequency			
10 dB/div	Ref Offset 0.5 dl Ref 20.50 dB		#Atten: 30 dB	Mkı	түре Милини Deт Р NNNN Mkr1 2.463 254 GHz 4.08 dBm				
10.5						Center Free 2.462000000 GH			
-9.50	ym Andrew	Annahand	woodbarg gavendre	whenting	hundry	Start Fre 2.450600000 GH			
-19.5	M. M				Margan and a start	Stop Fre 2.473400000 GH			
39.5						CF Ste 2.280000 MH <u>Auto</u> Ma			
59.5						Freq Offs 0 F			
-69.5									
	46200 GHz 100 kHz	#VBW	/ 300 kHz	Sweep	Span 22.80 MHz 2.200 ms (1001 pts)				
MSG				STA	TUS				



Product	:	Fixed Computer
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	FrequencyMeasure Level(MHz)(dBm)		Limit (dBm)	Result	
01	2412	3.440	< 8dBm	Pass	
06	2437	5.140	< 8dBm	Pass	
11	2462	3.900	< 8dBm	Pass	

Figure Channel 01:

	pectrum Analyzer - Swe									
Center	RF 50 Ω Freq 2.41200	00000 GH	Z NO: Fast	1			LIGN AUTO	TRAC TYP	Apr 19, 2016 E 1 2 3 4 5 6 E M WWWW	Frequency
10 dB/div	Ref Offset 0.5 Ref 20.50 c	IFG 6 dB	Gain:Low	#Atten: 3			Mkr1	2.413 2	54 GHz 44 dBm	Auto Tune
10.5					1-					Center Freq 2.412000000 GHz
-9.50	former for	and have been and here	n n hannar ha	www.homm	former former	Awayana	when worky	March way		Start Freq 2.400600000 GHz
-19.5 -29.5	www.								M. Growner	Stop Freq 2.423400000 GHz
-39.5										CF Step 2.280000 MHz <u>Auto</u> Man
-59.5										Freq Offset 0 Hz
-69.5										
	.41200 GHz / 100 kHz	1	#VBW	300 kHz			Sweep 2	Span 2 2.200 ms (2.80 MHz 1001 pts)	
MSG							STATU	IS		



		00.	lannei	gure Cl	rig					
								n Analyzer - Swe		
Frequency	04:28:57 PM Apr 19, 2016 TRACE 1 2 3 4 5 6	ALIGN AUTO	Avg Typ	ENSE:INT		Hz		RF 50 Ω 2.43700		XIR Cen
	DET P N N N N	-			Trig: Fre #Atten: 3	PNO: Fast 🕞 FGain:Low	F	2.10100		
Auto Tun	2.438 277 GHz 5.14 dBm	Mkr1						ef Offset 0.5 ef 20.50 d	B/div	10 di
Center Fre										Jug
2.437000000 GH				1·					5	10.5
StartFre	whenny	monting	ul hanned ige		Marria Marria	Warry Award A	whent	herrory		.500
2.425600000 GH				¥				ſ)	9.50
Stop Fre	U holoway								5 Mm M	19.5
2.448400000 GH	- 10 m (rg)								P.	-29.5
CF Ster										
2.280000 MH <u>Auto</u> Ma										39.5 49.5
FreqOffse										
0 H									5	59.5
									5	69.5
	Span 22.80 MHz 200 ms (1001 pts)	Sweep 2.		z	W 300 kHz	#VBW			nter 2.43 es BW 1	
		STATUS								ISG

Figure Channel 06:

Figure Channel 11:

〕 Keysight Sp	ectrum Analyzer - Swept SA		8			
Center F	RF 50 Ω AC	0 GHz	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	04:32:48 PM Apr 19, 2016 TRACE 1 2 3 4 5 6 TYPE M WWWWW	Frequency
10 dB/div	Ref Offset 0.5 dB Ref 20.50 dBm	PNO: Fast ⊂ IFGain:Low	#Atten: 30 dB	Mkr	TYPE MUNICIPAL DET P NNNNN 1 2.463 254 GHz 3.90 dBm	Auto Tune
10.5			1			Center Free 2.462000000 GH
-9.50	mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	m. Anton Amara	and property and and the	with more horizon.	montan	Start Fre 2.450600000 GH
-19.5 -29.5	pod				hand have	Stop Fre 2.473400000 GH
39.5						CF Ste 2.280000 MH <u>Auto</u> Ma
59.5						Freq Offs 0 H
-69.5						
	46200 GHz 100 kHz	#VBW	300 kHz	Sweep	Span 22.80 MHz 2.200 ms (1001 pts)	
MSG				STATI	JS	



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.



Attachment 1: EUT Test Photographs



Attachment 2: EUT Detailed Photographs