FCC Test Report

Product Name	Tablet PC
Model No	TM105, TM105A, TM105AS, TM105S, TM105-W, TM105S-W,
	TM105A-W, TM105AS-W, MG101A1T, CTA-E10-11E
FCC ID.	WL6-TMBCM4330

Applicant	ELITEGROUP COMPUTER SYSTEMS CO., LTD.
Address	No.239, Sec. 2, Ti Ding Blvd., Taipei, Taiwan

Date of Receipt	Apr. 30, 2013
Issue Date	May 22, 2013
Report No.	135049R-RFUSP42V01
Report Version	V1.0



The test results relate only to the samples tested.

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Test Report Certification

Issue Date: May 22, 2013 Report No.: 135049R-RFUSP42V01



Product Name	Tablet PC		
Applicant	ELITEGROUP COMPUTER SYSTEMS CO., LTD.		
Address	No.239, Sec. 2, Ti Ding Blvd., Taipei, Taiwan		
Manufacturer	ELITEGROUP COMPUTER SYSTEMS CO., LTD.		
Model No.	TM105, TM105A, TM105AS, TM105S, TM105-W, TM105S-W, TM105A-W,		
	TM105AS-W, MG101A1T, CTA-E10-11E		
FCC ID.	WL6-TMBCM4330		
EUT Rated Voltage	AC 100-240V, 50-60Hz		
EUT Test Voltage	AC 120V/60Hz		
Trade Name	ECS		
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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Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Tablet PC		
Trade Name	ECS		
Model No.	TM105, TM105A, TM105AS, TM105S, TM105-W, TM105S-W, TM105A-W,		
	TM105AS-W, MG101A1T, CTA-E10-11E		
FCC ID.	WL6-TMBCM4330		
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	PCB Antenna		
Antenna Gain	Refer to the table "Antenna List"		
Channel Control	Auto		
USB Cable	Non-Shielded, 1.5m		
Power Adapter	MFR: SHENZHEN FRECOM, M/N: F12W-050200SPAU		
	Input: 100-240V, 50/60Hz, 0.3A		
	Output: 5V==2A		
	Cable Out: Non-Shielded, 1.8m		

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	JEM	13H130-JU5071	PCB Antenna	1.94 dBi for 2.4 GHz

Note:

1. The antenna of EUT is conform 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 Tablet PC with a built-in WLAN
 Bluetooth transceiver, this report for WLAN.
- 2. The EUT is including ten models for different marketing requirement.
- 3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 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 radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

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:

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	PPT	N/A	Non-Shielded, 0.8m
2	LED Monitor	DELL	ST2402Lb	CN-0X0K27-74261-27E-0M6U T	Non-Shielded, 1.8m
3	Microphone & Earphone	Ergotech	ET-E201	N/A	N/A

Signal Cable Type		Signal cable Description
Α	USB Cable	Non-Shielded, 1.0m
В	HDMI Cable	Non-Shielded, 1.5m
С	Microphone & Earphone Cable	Non-Shielded, 1.6m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute software "adb.exe V1.0.29" on the Notebook PC.
- (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/tw/ctg/cts/accreditations.htm</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:	File on						
	Federal Communications Commission						
	FCC Engineering Laboratory						
	7435 Oakland Mills Road						
	Columbia, MD 21046						
	Registration Number: 92195						
	Accreditation on NVLAP						
	NVLAP Lab Code: 200533-0						
Site Name:	Quietek Corporation						
Site Address:	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., 2012	
Х	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2013	Peripherals
Х	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2013	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2013	EUT
Х	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	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 C63.10: 2009 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	:	Tablet PC
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	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.181	9.790	31.940	41.730	-23.384	65.114
0.396	9.790	37.900	47.690	-11.281	58.971
0.865	9.790	25.730	35.520	-20.480	56.000
1.584	9.800	24.480	34.280	-21.720	56.000
2.279	9.810	23.340	33.150	-22.850	56.000
14.595	10.075	26.340	36.415	-23.585	60.000
Average					
0.181	9.790	19.220	29.010	-26.104	55.114
0.396	9.790	31.230	41.020	-7.951	48.971
0.865	9.790	20.790	30.580	-15.420	46.000
1.584	9.800	17.070	26.870	-19.130	46.000
2.279	9.810	17.600	27.410	-18.590	46.000
14.595	10.075	21.860	31.935	-18.065	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	: Tablet PC									
Test Item	: Conducted Emission Test									
Power Line	: Line 2									
Test Mode	: Mode 3	: Transmit (802.11	n MCS0 7.2Mbps 20	M-BW) (2437MI	Hz)					
			*		,					
Frequency	Correct	Reading	Measurement	Margin	Limit					
	Factor	Level	Level							
MHz	dB	dBuV	dBuV	dB	dBuV					
Line 2										
Quasi-Peak										
0.205	9.770	29.210	38.980	-25.449	64.429					
0.396	9.770	35.430	45.200	-13.771	58.971					
0.556	9.770	25.040	34.810	-21.190	56.000					
1.318	9.780	22.900	32.680	-23.320	56.000					
2.826	9.800	21.720	31.520	-24.480	56.000					
14.189	10.118	25.700	35.818	-24.182	60.000					
Average										
0.205	9.770	15.810	25.580	-28.849	54.429					
0.396	9.770	27.880	37.650	-11.321	48.971					
0.556	9.770	17.370	27.140	-18.860	46.000					
1.318	9.780	14.780	24.560	-21.440	46.000					
2.826	9.800	12.740	22.540	-23.460	46.000					
14.189	10.118	19.740	29.858	-20.142	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, 2013
Х	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2012
Note:				
1.	All equipments are	calibrated with trac	eable calibrations. Each calibra	ation is traceable to the
	national or internat	ional 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 ANSI C63.10: 2009 for compliance to FCC 47CFR 15.247 requirements.

3.5. Uncertainty

 \pm 1.27 dB

3.6. Test Result of Peak Power Output

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

Channel No	Frequency	For d	Average ifferent Da	e Power ata Rate (N	(lbps)	Peak Power	Required	Result
	(MHz)	1	2	5.5	11	1	Limit	
			Measur					
01	2412	14.24				17.60	<30dBm	Pass
06	2437	14.18	14.13	14.06	13.99	17.62	<30dBm	Pass
11	2462	14.15				17.65	<30dBm	Pass

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

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

			Average PowerPeakFor different Data Rate (Mbps)Power								D : 1	
Channel No	(MHz)	6	9	12	18	24	36	48	54	6	Limit	Result
			Measurement Level (dBm)									
01	2412	14.11								23.98	<30dBm	Pass
06	2437	14.02	13.97	13.92	13.9	13.87	13.81	13.74	13.7	24.01	<30dBm	Pass
11	2462	14.17								24.23	<30dBm	Pass

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

Product	:	Tablet PC
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 For different Data Pate (Mbps) Power										
Channel No	Frequency (MHz)	7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2	Required Limit	Result
			Measurement Level (dBm)									
01	2412	13.91								23.96	<30dBm	Pass
06	2437	13.93	13.91	13.84	13.76	13.71	13.68	13.63	13.51	24.12	<30dBm	Pass
11	2462	14.03								24.15	<30dBm	Pass

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

4. Radiated Emission

4.1. Test Equipment

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

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

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 Subpart C Paragraph 15.209(a) Limits							
Frequency MHz	Field strength	Measurement distance					
	(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 $(dBuV/m) = 20 \log E$ field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009 and tested according to DTS test procedure of ANSI C63.10: 2009 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 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: 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 in the Open Area Test Site on the Final Measurement. The frequency range from 9KHz to 10th harminics is checked.

4.5. Uncertainty

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

4.6. Test Result of Radiated Emission

Product	:	Tablet PC
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	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	49.900	53.161	-20.839	74.000
7236.000	10.650	42.580	53.230	-20.770	74.000
9648.000	13.337	36.880	50.216	-23.784	74.000
Average Detector:					
Vertical					
Peak Detector:					
4824.000	6.421	50.530	56.951	-17.049	74.000
7236.000	11.495	40.560	52.055	-21.945	74.000
9648.000	13.807	36.590	50.396	-23.604	74.000
Average Detector:					
4824.000	6.421	47.080	53,501	-0.499	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.

Product	: Tablet PC					
Test Item	: Harmonic Radiated Emission Data					
Test Site	: No.3 OATS					
Test Mode	: Mode 1:	Transmit (802.11	lb 1Mbps) (2437 MH	z)		
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
4874.000	3.038	46.910	49.947	-24.053	74.000	
7311.000	12.630	39.590	52.219	-21.781	74.000	
9748.000	13.126	36.880	50.006	-23.994	74.000	
Average Detector:						
 Vertical						
Peak Detector:						
4874.000	5.812	48.070	53.881	-20.119	74.000	
7311.000	12.630	38.640	51.269	-22.731	74.000	
9748.000	13.126	37.590	50.716	-23.284	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	: Tablet PC						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 1:	Transmit (802.11	b 1Mbps) (2462 MH	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
1	Factor	Level	Level	C			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
4924.000	2.858	45.460	48.317	-25.683	74.000		
7386.000	13.254	37.290	50.544	-23.456	74.000		
9848.000	13.367	37.550	50.917	-23.083	74.000		
Average Detector:							
Vertical							
Peak Detector:							
4924.000	5.521	46.840	52.360	-21.640	74.000		
7386.000	13.254	36.590	49.844	-24.156	74.000		
9848.000	13.367	36.880	50.247	-23.753	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	: Tablet P	С					
Test Item	n : Harmonic Radiated Emission Data						
Test Site	: No.3 OA	ATS					
Test Mode	: Mode 2:	Transmit (802.11	lg 6Mbps) (2412MHz	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
4824.000	3.261	53.810	57.071	-16.929	74.000		
7236.000	10.650	47.850	58.500	-15.500	74.000		
9648.000	13.337	37.560	50.896	-23.104	74.000		
Average Detector:							
4824.000	3.261	36.710	39.971	-14.029	54.000		
7236.000	10.650	30.880	41.530	-12.470	54.000		
Vertical							
Peak Detector:							
4824.000	6.421	53.980	60.401	-13.599	74.000		
7236.000	11.495	41.020	52.515	-21.485	74.000		
9648.000	13.807	36.290	50.096	-23.904	74.000		
Average Detector:							
4824.000	6.421	35.640	42.061	-11.939	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.

Product	: Tablet PC						
Test Item	: Harmonic Radiated Emission Data						
Test Site	: No.3 OATS						
Test Mode	: Mode 2:	Transmit (802.11	lg 6Mbps) (2437 MH	z)			
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
4874.000	3.038	50.570	53.607	-20.393	74.000		
7311.000	11.795	44.350	56.144	-17.856	74.000		
9748.000	12.635	37.550	50.185	-23.815	74.000		
Average Detector:							
7311.000	11.795	27.820	39.614	-14.386	54.000		
Peak Detector:							
4874.000	5.812	51.640	57.451	-16.549	74.000		
7311.000	12.630	39.220	51.849	-22.151	74.000		
9748.000	13.126	37.590	50.716	-23.284	74.000		
Average Detector:							
4874.000	5.812	34.530	40.341	-13.659	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.

Product	: Tablet PC						
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				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
4924.000	2.858	49.920	52.777	-21.223	74.000		
7386.000	13.254	42.530	55.784	1.784	54.000		
9848.000	12.852	37.590	50.443	-23.557	74.000		
Average Detector:							
7386.000	12.127	24.900	37.028	-16.972	54.000		
Vertical							
Peak Detector:							
4924.000	5.521	51.200	56.720	-17.280	74.000		
7386.000	13.254	38.260	51.514	-22.486	74.000		
9848.000	13.367	36.290	49.657	-24.343	74.000		
Average Detector:							
4924.000	5.521	33.580	39.100	-14.900	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.

Product	: Tablet PC					
Test Item	: Harmonic Radiated Emission Data					
Test Site	: No.3 OATS					
Test Mode	: Mode 3:	Transmit (802.11	n MCS0 7.2Mbps 20	M-BW)(2412MF	Iz)	
Frequency	Correct	Reading	Measurement	Margin	Limit	
	Factor	Level	Level			
MHz	dB	dBuV	dBuV/m	dB	dBuV/m	
Horizontal						
Peak Detector:						
4824.000	3.261	50.900	54.161	-19.839	74.000	
7236.000	10.650	47.600	58.250	-15.750	74.000	
9648.000	13.337	37.050	50.386	-23.614	74.000	
Average Detector.						
Average Detector.	2.2(1	24.410	27 (71	16 220	54.000	
4824.000	3.201	34.410	37.071	-16.329	54.000	
7236.000	10.650	30.720	41.370	-12.630	54.000	
Vertical						
Peak Detector:						
4824.000	6.421	53.430	59.851	-14.149	74.000	
7236.000	11.495	41.720	53.215	-20.785	74.000	
9648.000	13.807	37.060	50.866	-23.134	74.000	
Average Detector:						
4824.000	6.421	36.540	42.961	-11.039	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.

Product	:	Tablet PC
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	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	50.590	53.627	-20.373	74.000
7311.000	12.630	43.570	56.199	2.199	54.000
9748.000	12.635	36.930	49.565	-24.435	74.000
Average Detector:					
7311.000	11.795	26.720	38.514	-15.486	54.000
Vertical					
Peak Detector:					
4874.000	5.812	51.210	57.021	-16.979	74.000
7311.000	12.630	38.290	50.919	-23.081	74.000
9748.000	13.126	37.560	50.686	-23.314	74.000
Average Detector:					
4874.000	5.812	34.340	40.151	-13.849	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.

Product	:	Tablet PC
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	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	50.620	53.477	-20.523	74.000
7386.000	13.254	40.460	53.714	-0.286	54.000
9848.000	13.367	36.430	49.797	-4.203	54.000
Average Detector:					
Vertical					
Peak Detector:					
4924.000	5.521	50.480	56.000	-18.000	74.000
7386.000	13.254	36.290	49.544	-24.456	74.000
9848.000	13.367	37.060	50.427	-23.573	74.000
Average Detector:					
4924.000	5.521	32.700	38.220	-15.780	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.

Product	: Tablet PC								
Test Item	: General Radiated Emission Data								
Test Site	: No.3 OATS								
Test Mode	: Mode 1: 7	Fransmit (802.11	b 1Mbps)(2437 MHz	z)					
Frequency	Correct	Reading	Measurement	Margin	Limit				
	Factor	Level	Level						
MHz	dB	dBuV	dBuV/m	dB	dBuV/m				
Horizontal									
132.820	-10.230	41.490	31.260	-12.240	43.500				
191.020	-10.040	47.548	37.508	-5.992	43.500				
365.620	-1.329	39.926	38.597	-7.403	46.000				
608.120	4.384	34.971	39.355	-6.645	46.000				
767.200	4.235	29.925	34.160	-11.840	46.000				
881.660	6.307	29.845	36.152	-9.848	46.000				
Vertical									
130.880	-4.239	42.512	38.273	-5.227	43.500				
247.280	-8.042	45.683	37.640	-8.360	46.000				
365.620	-2.179	39.926	37.747	-8.253	46.000				
509.180	-0.158	40.826	40.668	-5.332	46.000				
664.380	-1.918	36.213	34.295	-11.705	46.000				
899.120	3.063	34.330	37.393	-8.607	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	: Tablet PC								
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	dBuV	dBuV/m	dB	dBuV/m				
Horizontal									
198.780	-10.661	45.939	35.278	-8.222	43.500				
330.700	-4.492	41.600	37.108	-8.892	46.000				
462.620	1.172	32.004	33.176	-12.824	46.000				
615.880	3.215	34.855	38.070	-7.930	46.000				
749.740	3.320	31.507	34.827	-11.173	46.000				
899.120	5.433	34.330	39.763	-6.237	46.000				
Vertical									
55.220	-4.699	39.649	34.950	-5.050	40.000				
169.680	-8.728	48.635	39.907	-3.593	43.500				
365.620	-2.179	39.926	37.747	-8.253	46.000				
509.180	-0.158	40.826	40.668	-5.332	46.000				
664.380	-1.918	36.213	34.295	-11.705	46.000				
825.400	3.430	30.617	34.047	-11.953	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 Test Item Test Site Test Mode	 Tablet PC General Radiated Emission Data No.3 OATS Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz) 								
Frequency	Correct	Reading	Measurement	Margin	Limit				
MHz	Factor dB	Level dBuV	Level dBuV/m	dB	dBuV/m				
Horizontal									
142.520	-10.427	47.064	36.637	-6.863	43.500				
330.700	-4.492	41.600	37.108	-8.892	46.000				
462.620	1.172	32.004	33.176	-12.824	46.000				
586.780	3.436	33.377	36.813	-9.187	46.000				
747.800	3.296	31.404	34.700	-11.300	46.000				
899.120	5.433	34.330	39.763	-6.237	46.000				
Vertical									
130.880	-4.239	42.512	38.273	-5.227	43.500				
330.700	-4.912	41.600	36.688	-9.312	46.000				
509.180	-0.158	40.826	40.668	-5.332	46.000				
664.380	-1.918	37.175	35.257	-10.743	46.000				
825.400	3.430	30.617	34.047	-11.953	46.000				

965.080

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.

37.277

-16.723

54.000

- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

29.345

4. Measurement Level = Reading Level + Correct Factor.

7.932

- 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, 2012
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2012
Х	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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 ANSI C63.10: 2009 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	:	Tablet PC
Test Item	:	RF antenna conducted test
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

Channel 01 (2412MHz)

Agiler	nt Spe	ectru	m An	alyzer - Sw	ept SA								
Cer	L nter	Fre	RF eq :	50 Ω	AC 0000 MH:	z	S Taias Fac	ENSE:INT	Avg T	ALIGNAUTO	12:00:55 P TRAC	M May 17, 2013	Frequency
10 d	PN0: Fast Ing: Free Kun PETER KUN PE								Auto Tune				
Log 10.0 0.00													Center Freq 515.000000 MHz
-20.0 -30.0 -40.0												-16.09 dBm	Start Freq 30.000000 MHz
-50.0 -60.0 -70.0	u) ller		1-2				ata din Una senta In	la si se si filmon k		ng ayo ng terini ya katanya di	♦ ¹		Stop Freq 1.00000000 GHz
Stai #Re	nt 30 Is B1).0 W 1	VIH: 00	z kHz	×	#VE	3W 1.0 MH2 Y	Z	JNCTION	Sweep 9	Stop 1.0 0.0 ms (1	0000 GHz 0001 pts) NVALUE	CF Step 97.000000 MHz <u>Auto</u> Man
2 3 4 5 6 7 8 9 10 11 12	N	1	f		878.75	0 MHz	-59.34 c	IBm					Freq Offset 0 Hz
MSG										STATUS	5		

Agilent Spectrum Analyzer - Swept SA			
Center Freq 6.500000000 GHz		ALIGN AUTO 12:00:21 PM May 17 pe: Log-Pwr TRACE 1 2 3	4 5 6 Frequency
PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 30 dB		
10 dB/div Ref 20.00 dBm		3.90 dl	3m
			Center Freq
0.00			6.50000000 GHz
-10.0		-16.0	9 dBm
-20.0			Start Freq
-40.0			1.000000000 GHz
-50.0			
-60.0		and the second	stop Freq 🖌
-70.0			12.000000000 GHz
Start 1.000 GHz		Stop 12.000 (GHZ CF Step
		Sweep 1.02 S (10001	1.10000000 GHz
MRH MODE THC SCL X 1 N 1 f 2.410 2 GHz	3.90 dBm	ONCTION WIDTH FUNCTION VALUE	Auto Man
3			Eren Offset
4 5			0 Hz
6			
8			
9			_
MSG		STATUS	

Agilent Spect	rum Analyzer -	Swept SA								
Center F	RF 5	οΩ AC 100000000	GHz	SE Tria: Eroz		Avg Type	ALIGNAUTO : Log-Pwr	12:01:29 F TRA	M May 17, 2013 CE 1 2 3 4 5 6	Frequency
10 dB/div	PN0: Fast Trg: Free Run IFGain:Low #Atten: 30 dB Mkr1 23.207 3 GHz -47.93 dBm -47.93 dBm									Auto Tune
10.0 0.00										Center Freq 18.500000000 GHz
-20.0 -30.0 -40.0								1-	-16.09 dBm	Start Freq 12.00000000 GHz
-50.0 -60.0	less of the little of									Stop Freq 25.00000000 GHz
Start 12.0 #Res BW	000 GHz 100 kHz RC SC	× 23.207	#VBV	V 1.0 MHz Y -47.93 dl	FUN Bm	ICTION FU	Sweep	Stop 25 1.20 s (1	5.000 GHz 0001 pts) 01 VALUE	CF Step 1.30000000 GHz <u>Auto</u> Man
2 3 4 5 6 7 8 9 10 11 12										Freq Offset 0 Hz
MSG							STATUS	;		

MSG

Channel 06 (2437MHz)

Agilen	nt Spectru	um Ana	ilyzer - Sw	ept SA									
	L Fr	RF	50 Ω		-		SEI	NSE:INT	Ανα Τιτρ	ALIGNAUTO	12:29:15 P	M May 17, 2013	Frequency
Cen	ILEI FI	eq a	15.000	PI	2 VO: Fast	Ģ	Trig: Free	Run	1119 134	c. Log i Mi	TY		
_				IFC	Gain:Lov	v	#Atten: 30	dB			De	th tatatata	
										Mki	1 876.7	13 MHz	Autorune
10 d	B/div	Ref	20.00	dBm							-59.3	26 dBm	
10.0													Conton Error
0.00													Center Freq
0.00													515.000000 MHZ
-10.0												-15.36 dBm	
-20.0		-				-		1					Start Fred
-30.0		-								-			30 000000 MHz
-40.0					-								
-50.0						-				-	1		
-60.0	or Latin state	a d starte in h	to the state	A PARTICIPATION OF THE PARTICIPATION	and of the second	(benerod)		ar where the second last of the	the second shales	al di Baurda (andara), anda		111 (a)	Stop Freq
-70.0						and and a	and all house here and		and the state of t				1.00000000 GHz
													1
Star	rt 30.0	MHz									Stop 1.0	0000 GHz	CE Stop
#Re	s BW	100	KHZ		#V	BW	1.0 MHz			Sweep 9	0.0 ms (1	0001 pts)	97.000000 MHz
MKR	MODE TR	C SCL		Х			Y	FUN	CTION FL	INCTION WIDTH	FUNCTIO	IN VALUE	<u>Auto</u> Man
	N 1	f		876.71	3 MHz		-59.26 di	3m					
3													Eron Offeet
4						2							Frequise
6													0 HZ
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9													
10													
12			-										
MSG													
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Agilen	nt Spectru	ım Ana	ılyzer - Sw	ept SA						STATUS	5		
Agilen LXI R	nt Spectru L	u m An a RF	llyzer - Sw 50 Ω	ept SA AC			SE	NSE:INT		STATUS ALIGN AUTO	12:28:40 P	M May 17, 2013	Frequency
Agiler IXI R Cen	t Spectru L	rn Ana RF Teq 6	llyzer - Sw 50 Ω 5.50000	ept SA AC D0000 GH	łz		SEI	NSE:INT	Avg Typ	ALIGN AUTO e: Log-Pwr	12:28:40 P TRAC TYI	M May 17, 2013 E 1 2 3 4 5 6 E M MANANANA	Frequency
Agilen (XI) R Cen	t Spectru L	r <mark>RF</mark> RF	ilyzer - Sw 50 Ω 5.50000	ept SA AC DOOOO GH PI IFC	1 Z NO: Fast Gain:Lov	Ģ	SE Trig: Free #Atten: 30	NSE:INT Run dB	Avg Typ	ALIGN AUTO e: Log-Pwr	12:28:40 P TRAC TYI D	M May 17, 2013 E 1 2 3 4 5 6 E M WWWWW T P N N N N N	Frequency
Agilen (XI R Cen	nt Spectru L Iter Fr	Im Ana RF Teq 6	llyzer - Sw 50 ହ 5.50000	ept SA AC DOOOO GH PI IFC	12 NO: Fast Gain:Lov	Ţ	SE Trig: Free #Atten: 30	NSE:INT Run) dB	Avg Typ	ALIGNAUTO e: Log-Pwr	12:28:40 P TRAC TYI DI Akr1 2 4	MMay 17, 2013 E 1 2 3 4 5 6 E MWWWW T P N N N N 41 GH7	Frequency Auto Tune
Agilen (X) R Cen	nt Spectru L Iter Fr	req 6	llyzer - Sw 50 Ω 5.50000	ept SA AC DOOOO GH PI IFC dBm	12 NO: Fast Gain:Lov	Ţ	SEI Trig: Free #Atten: 30	vse:INT ≥ Run) dB	Avg Typ	alignauto e: Log-Pwr	12:28:40 P TRAC TYI DI Akr1 2.4 4.1	May 17, 2013 ^E 1 2 3 4 5 6 ^E MWWWW TP NNNN 41 GHz 64 dBm	Frequency Auto Tune
Agilen (X) R Cen 10 di Log	nt Spectru L nter Fr B/div	req 6 Ref	llyzer - Sw 50 Ω 5.50000	ept SA AC DOOOO GH PI IFC dBm	1 Z NO: Fast Gain:Low	v v	SE Trig: Free #Atten: 30	vse:INT ≥ Run) dB	Avg Typ	alignauto e: Log-Pwr	12:28:40 P TRAC TYJ DI Akr1 2.4 4.1	^{м мау 17, 2013} ≇ 1 2 3 4 5 6 е м имими т Р N N N N N 41 GHz 64 dBm	Frequency Auto Tune
Agilen (X) R Cen 10 dl Log 10.0	nt Spectru L Inter Fr B/div	req 6 Ref	llyzer - Sw 50 Ω 5.50000 20.00 0	ept SA AC DOOOO GH IFC dBm	†z NO: Fast Gain:Low	•	SEI Trig: Free #Atten: 30	vse:int Run d B	Avg Typ	alignauto e: Log-Pwr	12:28:40 P TRAC TYI DI Akr1 2.4 4.1	MMay 17, 2013 E 1 2 3 4 5 6 E MWWWWW TP NNNNN 41 GHz 64 dBm	Frequency Auto Tune Center Freq
Agilen UXI R Cen 10 dl Log 10.0	nt Spectru L Iter Fr B/div	req 6	llyzer - Sw 50 Ω 5.50000 20.00 0	ept SA AC DOOOO GH IFC dBm	Hz NO: Fast Sain:Low	v	Trig: Free #Atten: 30	vse:int Run d B	Avg Typ	ALIGNAUTO e: Log-Pwr	12:28:40 P TRAC TYI DR Akr1 2.4 4.1	^{м мау 17, 2013} ≇ 1 2 3 4 5 6 ем тР NNNN 41 GHz 64 dBm	Frequency Auto Tune Center Freq 6.50000000 GHz
Agilen (X) R Cen 10 di Log 10.0 0.00 -10.0	nt Spectru L Iter Fr	req 6	llyzer - Sw 50 Ω 5.50000 20.00 (∳1	ept SA AC DOOOOO GH PI IFC dBm	1 Z NO: Fast Gain:Low	•	Trig: Free #Atten: 30	vse:in⊤ e Run o dB	Avg Typ		12:28:40 P TRAC TYI DI Akr1 2.4 4.1	ммау 17, 2013 # 1 2 3 4 5 6 тем тР NNNN 41 GHz 64 dBm	Frequency Auto Tune Center Freq 6.50000000 GHz
Agilen (X) R Cen 10 di Log 10.0 0.00 -10.0 -20.0	nt Spectru L Iter Fr	Ref	lyzer - Sw 50 Ω 5.50000 20.00 €	ept SA AC DOOOO GH PI IFC	1 Z NO: Fast Gain:Low	P	Trig: Free #Atten: 30	vse:INT e Run d B	Avg Typ	ALIGNAUTO e: Log-Pwr	12:28:40 P TRAC TYI DR Akr1 2.4 4.1	May 17, 2013 E [1 2 3 4 5 6 MMMMMMW TP NNNN 41 GHz 64 dBm	Frequency Auto Tune Center Freq 6.50000000 GHz
Agilen (X) R Cen 10 di Log 10.0 0.00 -10.0 -20.0 -30.0	nt Spectru L Iter Fr B/div	Ref	liyzer - Sw 50 Ω 5.50000 20.00 ¢	ept SA AC POOOO GH PE IFC	Iz NO: Fast Gain:Low	v	Trig: Free #Atten: 30	vse:int e Run dB	Avg Typ		12:28:40 P TRAC TYI D Akr1 2.4 4.	ммау 17, 2013 E [1 2 3 4 5 6 е [миличичи г] Р NNNN 41 GHz 64 dBm -15 36 авт	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq
Agilen (X) R Cen 10 dil Log 10.0 -10.0 -20.0 -30.0 40 C	B/div	Ref	liyzer - Sw 50 Ω 5.50000 20.00 (∳1	ept SA AC PD PD IFC dBm	IZ NO: Fast Sain:Lov		Trig: Free #Atten: 30	vse:int Run dB	Avg Typ		12:28:40 P TRAC TVY DR Akr1 2.4 4.	ммау 17, 2013 E [1 2 3 4 5 6 е миличичи т Р NNNN 41 GHz 64 dBm -1536 dBm	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.00000000 GHz
Agilen (X) R Cen 10 di Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0	B/div	Ref	llyzer - Sw 50 Ω 5.50000 20.00 0	ept SA AC PD0000 GF PP IFC dBm	IZ NO: Fast Gain:Lov	•	Trig: Free #Atten: 30	Run dB	Avg Typ	ALIGNAUTO e: Log-Pwr	12:28:40 P TRAC TYI 71 71 71 71 71 71 71 71 71 71 71 71 71	May 17, 2013 E [12 3 4 5 6 M MANANAN T P NNNN M 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.00000000 GHz
Agilen X R Cen 10 di Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -50.0	B/div	Ref	20.00 €	ept SA AC D0000 GF PI IFC dBm	1z NO: Fast Gain:Low	v	Trig: Free #Atten: 30	Run dB	Avg Typ		12:28:40 P TRAC TYT D Mkr1 2.4 4.1	MMay 17, 2013 E [1 2 3 4 5 6 E [M WANNAWAW F NUNN N 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz 1.00000000 GHz
Agiler (XI R Cen 10.0 10.0 -20.0 -20.0 -30.0 -50.0 -60.0	B/div	Ref	llyzer - Sw 50 Ω 5.50000 20.00 0 ∳1	apt SA AC PI IFC dBm	12 NO: Fast Gain:Low	v	Trig: Free #Atten: 30	Run dB	Avg Typ		12:28:40 P TRAC TYI 7 1 1 1 1 1 1 1 1 1 1	MMay 17, 2013 E 12 3 4 5 6 Fe Mutuumuuu F NNNN N 41 GHz 64 dBm	Frequency Auto Tune Center Freq 6.50000000 GHz 1.00000000 GHz Stop Freq
Agiler (x) R Cen 10.0 10.0 -10.0 -20.0 -30.0 -30.0 -60.0 -70.0	B/div	Ref	llyzer - Sw 50 Ω 5.50000 20.00 0 ↓1	apt SA AC PI IFC dBm	IZ NO: Fast Gain:Low		Trig: Free #Atten: 30	vse:INT dB	Avg Typ		12:28:40 P TRAC TYI 1 1 1 1 1 1 1 1 1 1	MMay 17, 2013 E [1 2 3 4 5 6 F [Mumanum F NNNN N 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.000000000 GHz Stop Freq 12.00000000 GHz
Agiler (x) R Cen 10.0 10.0 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0	B/div	Ref	1yzer - Sw 50 ∞ 5.50000 20.00 0 1 1	apt SA AC PI IFC	Z NO: Fast Sain:Lov	· · · · · · · · · · · · · · · · · · ·	Trig: Free #Atten: 30	vse:INT dB	Avg Typ	ALIGNAUTO	12:28:40 P TRAC TYP 71 71 71 71 71 71 71 71 71 71 71 71 71	MMay 17, 2013 E [1 2 3 4 5 6 E [M.M.M.M.W. IP NNNN N 41 GHz 64 dBm 15.38 dBm	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.000000000 GHz Stop Freq 12.00000000 GHz
Agiler (X) R Cen 10 di Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Star	B/div	Ref	20.00 €	ept SA AC PPI IFC dBm	1z 10: Fast jain: Low		Trig: Free #Atten: 30	vse:INT	Avg Typ	ALIGNAUTO e: Log-Pwr	12:28:40 P TRAC TYP 71 71 71 71 71 71 71 71 71 71 71 71 71	MMay 17, 2013 E [1 2 3 4 5 6 E [M WANNAWA TP NNNN N 41 GHz 64 dBm 15.38 dBm 15.38 dBm 15.38 dBm 15.38 dBm 15.38 dBm 15.38 dBm	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.000000000 GHz Stop Freq 12.00000000 GHz
Agilen X R Cen 10 dl Log 10.0 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Star #Re	B/div B/div	Ref	llyzer - Sw 50 Ω 5.50000 1 1 20.00 (1 20.00 (20.00 (1 20.00 (20.00 (20.00) (20.00) (20.00) (ept SA AC PI PI IFC dBm	Iz VO: Fast Jain:Low	· · · · · · · · · · · · · · · · · · ·	Trig: Free #Atten: 30	vse:int e Run dB	Avg Typ	ALIGNAUTO e: Log-Pwr	12:28:40 P TRAC TVI D 7 1kr1 2.4 4.1 4.1 5 5 102 s (1	May 17, 2013 E 12 3 4 5 6 May 17 P NNNN 41 GHz 64 dBm 15 38 dbm	Frequency Auto Tune Center Freq 6.500000000 GHz Start Freq 1.000000000 GHz Stop Freq 12.000000000 GHz CF Step 1.100000000 GHz
Agilen X R Cen 10 di Log 10.0 -10.0 -20.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Star #Re	B/div B/div	Ref	llyzer - Sw 50 Ω 5.50000 1 1 20.00 (1 20.00 (20.00 (1 20.00 (20.00 (20.00) (20.00) (20.00) (ept SA AC D0000 GH PI PI AL AL AL AL AL AL AL AL AL AL	HZ Sain:Lov	BW	Trig: Free #Atten: 30	vse:int Run dB	Avg Typ	ALIGNAUTO e: Log.Pwr	12:28:40 P TRAC TYI D 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8	May 17, 2013 E [1 2 3 4 5 6 E [MWWWWW 41 GHz 64 dBm 15.36 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.000000000 GHz 200000000 GHz 12.00000000 GHz 1.10000000 GHz 1.10000000 GHz Auto Man
Agiler (X) R Cen 10 dil Log 10.0 -10.0 -10.0 -20.0 -30.0 -40.0 -50	B/div B/div ter Fr	Ref	llyzer - Sw 50 Ω 5.50000 1 1 20.00 (1 20.00 (20.00 (20.00) (20.00 (20.00) (20.00 (20.00) (20.00) (20.00 (20	ept SA AC PP PI IFC dBm AU AU AU AU AU AU AU AU AU AU	Hz V0: Fasta ain:Low #V	BW	1.0 MHz	vse:int e Run d B	Avg Typ	ALIGNAUTO e: Log-Pwr N Sweep	12:28:40 P TRAC TYP 174 4.1 4.1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	MMay 17, 2013 E [12 3 4 5 6 MMMMMMM 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz 1.00000000 GHz 12.00000000 GHz 12.00000000 GHz 1.100000000 GHz 0.100000000 GHz 0.100000000 GHz
Agiler (X) R Cen 10 dil Log 10.0 -10.0 -10.0 -20.0 -30.0 -40.0 -50	B/div B/div	Ref	llyzer - Sw 50 Ω 5.50000 1 1 20.00 (1 20.00 (20.00 (20.00) (20.00 (20.00) (20.00 (20.00) (20.00) (20.00 (20	ept SA AC PP PI IFC dBm AU AU AU AU AU AU AU AU AU AU	Hz VO: Fast ain:Low #V	BW	Trig: Free #Atten: 30	vse:int dB	Avg Typ		12:28:40 P TRAC TY Mkr1 2.4 4.1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	MMay 17, 2013 E [12 3 4 5 6 MMANANANA T P NUNNN 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz 1.00000000 GHz 12.00000000 GHz 12.00000000 GHz CF Step 1.10000000 GHz Auto Man
Agiler Agiler Cen Cen Con 10.0 0.00 -10.0 -20.0 -20.0 -30.0 -30.0 -60.0 -70.0 Star #Re 1 2 3 4 5	ter Fr B/div B/div ter Sr b/div	Ref 0 GH	llyzer - Sw 50 Ω 5.50000 1 1 20.00 (1 20.00 (20.00 (20.00) (20.00 (20.00) (20.00 (20.00) (20.00) (20.00 (20	ept SA AC PP PI IFC dBm AU AU AU AU AU AU AU AU AU AU	Hz NO: Fast Jain:Low #V	BW	Trig: Free #Atten: 30	VSE:INT	Avg Typ		12:28:40 P TRAC TYT D Mkr1 2.4 4.1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	MMay 17, 2013 E [1 2 3 4 5 6 MMANANANA F [1 2 3 4 5 6 MMANANANA A 1 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz 1.00000000 GHz 12.00000000 GHz 12.00000000 GHz CF Step 1.10000000 GHz Auto Man
Agiler Agiler Cen Cen Con 10.0 10.0 10.0 -20.0 -30.0 -40.0 -30.0 -40.0 -50.0 -50.0 Star #Ree 1 2 3 4 5 6 6	B/div B/div	Ref 0 GH	llyzer - Sw 50 Ω 5.50000 20.00 (1 20.00 (20.00 (ept SA AC PI PI IFC dBm AL AL AL AL AL AL AL AL AL AL	Hz NO: Fast Jain:Low #V	BW	Trig: Free #Atten: 30		Avg Typ		12:28:40 P TRAC TYT Mkr1 2.4 4.1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 12 1.02 s (1 1 1.02 s (1	MMay 17, 2013 E [1 2 3 4 5 6 E [MIWAMAWA F] P NINNN 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz 1.00000000 GHz 12.00000000 GHz 12.00000000 GHz 1.100000000 GHz CF Step 1.100000000 GHz Auto Man Freq Offset 0 Hz
Agiler Agiler Agiler Cen 10 dil Log 10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Star #Ree 1 2 3 4 5 6 7 8	B/div B/div B/div	Ref	llyzer - Sw 50 Ω 5.50000 1 1 20.00 0 20.00 0 20.00 0 20.00 0	ept SA AC D0000 GF PI IFC dBm 2.44	Hz NO: Fast ain:Low #V	BW	Trig: Free #Atten: 30		Avg Typ		12:28:40 P TRAC TYI 71 71 71 71 71 71 71 71 71 71 71 71 71	MMay 17, 2013 E 12 3 4 5 6 E MUMAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Frequency Auto Tune Center Freq 6.50000000 GHz 1.00000000 GHz 12.00000000 GHz 12.00000000 GHz 1.100000000 GHz Auto Man Freq Offset 0 Hz
Agiler Agiler Agiler Cen 10 dil Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -40.0 -50.0 -50.0 -50.0 Star #Ree 1 2 3 4 5 6 7 7 8 9 9	B/div B/div B/div S BW	Ref	lyzer - Sw 50 p 5.50000 20.00 (↓1 ↓ z KHz	ept SA AC AC D00000 GH PIP IFC	Hz NO: Fast ain:Low #V	BW	Trig: Free #Atten: 30	VSE:INT			12:28:40 P TRAC TYI 174 174 174 174 174 174 174 174 174 174	MMay 17, 2013 E 12 3 4 5 6 Fe MWAMANN 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.00000000 GHz 200000000 GHz 1100000000 GHz 1.100000000 GHz Auto Man Freq Offset 0 Hz
Agiler M R Cen 10 di Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -50.0 Star #Re 1 2 3 4 5 6 6 7 7 8 9 10 11 11 11 11 10 10 10 10 10	B/div B/div	Ref	llyzer - Sw 50 Ω 5.50000 1 1 20.00 (1 20.00 (1 2 (1 2 (1 2 (1 2 (1) 2 (2 (1) 2 (2 (2) (2)	ept SA AC PP PP IFC dBm X 2,44	Hz Bain:Lov #V	BW	Trig: Free #Atten: 30	VSE:INT			12:28:40 P TRAC TYT 174 174 174 174 174 174 174 174 174 174	MMay 17, 2013 E [1 2 3 4 5 6 Fe [MuMAANAN TP NNNN N 17 P NNNN N 41 GHz 64 dBm 	Frequency Auto Tune Center Freq 6.50000000 GHz Start Freq 1.00000000 GHz 200000000 GHz 12.00000000 GHz 1.100000000 GHz Auto Man Freq Offset 0 Hz

STATUS



Agilent Spectr	um Ana	lyzer - Swe	ept SA									
Center Fi	RF req 1	50 Ω	AC 00000 G	SHz	Tuin	SENSE:INT	A	vg Typ	ALIGNAUTO e: Log-Pwr	12:29:49 F TRA	PM May 17, 2013 CE 1 2 3 4 5 6	Frequency
10 dB(div	Ref	20.00.0	PI IFC	NO: Fast Gain:Low	#Atten	: 30 dB			Mkr	1 24.66 -48.	5 9 GHz 16 dBm	Auto Tune
10.0												Center Freq 18.50000000 GHz
-10.0 -20.0 -30.0 -40.0											-15.36 dBm	Start Freq 12.000000000 GHz
-50.0 -60.0		-			len and and a second			and the second second				Stop Fred 25.00000000 GHz
Start 12.0 #Res BW	00 G 100	Hz kHz	×	#VE	3W 1.0 MI	-Iz	FUNCTIO		Sweep	Stop 25 1.20 s (1	5.000 GHz 10001 pts)	CF Step 1.300000000 GHz Auto Man
1 N 1 2 3 - 3 - - 6 - - 7 - - 9 - - 10 - - 11 - - 12 - -	f		24.665	9 GHz	-48.16	dBm						Freq Offset

Agilent Spect	rum Analyzer -	Swept SA								
Center F	RF 5	ο ΑC 00000 MHz		SENSE:	INT	Avg Typ	ALIGNAUTO e: Log-Pwr	12:44:56 P TRAC	M May 17, 2013	Frequency
10 dB(div	Ref 20.0	PNO: Fa IFGain:L	ow #A	g: Free Ru tten: 30 dE			Mkr	1 822.8 -59.0	78 MHz	Auto Tune
									-15.12 dBm	Center Freq 515.000000 MHz
-20.0 -30.0 -40.0										Start Freq 30.000000 MHz
-50.0 -60.0 -70.0			ner skult Urada					♦ ¹	n an	Stop Freq 1.000000000 GHz
Start 30.0 #Res BW) MHz 100 kHz RC SC	# × 822.878 MH	VBW 1.0	MHz Y 9.03 dBm	FUN	CTION F	Sweep 9	Stop 1.(0.0 ms (1	0000 GHz 0001 pts)	CF Step 97.000000 MHz <u>Auto</u> Man
2 3 4 5 6 7										Freq Offset 0 Hz
8 9 10 11 12										

Channel 11 (2462MHz)

Agilent S	pectru	m Ana	alyzer - Si	wept SA									-		
LXI RL		RF	50	Ω AC			SE	NSE:IN	IT			ALIGN AUTO	12:44:22 P	M May 17, 2013	Frequency
Cente	er Fro	eq 6	6.5000	00000	GHz PNO: Fa IFGain:L	ist 🖵 ow	Trig: Fre #Atten: 3	e Run 0 dB	i	Avg T	ype:	Log-Pwr	TRAC TYI DI	CE 1 2 3 4 5 6 PE MWWWWW ET P N N N N N	Trequency
10 dB/d	div	Ref	20.00	dBm								Mk	r1 2.46 4.	30 GHz 88 dBm	Auto Tune
10.0 0.00 -10.0			♦ ¹											-15.12 dBm	Center Freq 6.50000000 GHz
-20.0 - -30.0 - -40.0 -															Start Freq 1.00000000 GHz
-60.0			Alum			A MARINE	a de la constante de la constan La constante de la constante de			and the second	-	and the second sec			Stop Freq 12.00000000 GHz
Start #Res	1.000 BW 1) GH 100	lz kHz		#	VBW	1.0 MHz					Sweep	Stop 12 1.02 s (1	.000 GHz 0001 pts)	CF Step 1.100000000 GHz
MKR MO	de Tro	f		× 2.4	463 0 GH	z	¥ 4.88 d	Bm	FUN	CTION	FUN	CTION WIDTH	FUNCTION	ON VALUE	<u>Auto</u> Man
2 3 4 5 6 7															Freq Offset 0 Hz
8 9 10 11 12															
MSG												STATUS			



Agilen	t Spe	ctru	n Ana	lyzer - Sw	ept SA									
Cen	ter	Fre	RF	50 Ω	AC 000000	GHz		BENSE:IN	Г	Avg Typ	ALIGNAUTO e: Log-Pwr	12:45:29 P TRAC	M May 17, 2013	Frequency
10 de	3/div	,	Ref	20.00 (IF IF	NO: Fast Gain:Low	#Atten:	30 dB			Mkr	1 23.16 -46.	7 0 GHz 80 dBm	Auto Tune
Log 10.0 0.00														Center Freq 18.50000000 GHz
-10.0 -20.0 -30.0 -40.0												1	-15.12 dBm	Start Freq 12.00000000 GHz
-50.0 -60.0 -70.0			-letter	and the second secon										Stop Freq 25.000000000 GHz
Star #Re:	t 12 s B1 MODE	2.00 W 1	0 G 00	Hz kHz	× 23 167	#VE	3W 1.0 MH	z	FUNCT	TION	Sweep	Stop 25 1.20 s (1	.000 GHz 0001 pts) NVALUE	CF Step 1.300000000 GHz <u>Auto</u> Man
2 3 4 5 6		-			20.107	0 0112	40.00							Freq Offset 0 Hz
7 8 9 10 11 12														
MSG											STATUS			

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

Channel 01 (2412MHz)

Agilent Sp	ectru	m Ana	alyzer - Sw	vept SA										
LXI RL		RF	50 \$	2 AC			SE	NSE:INT		ALIGN AU	JTO	12:51:23 F	M May 17, 2013	Fraguanay
Center	r Fre	eq (515.00	0000 N	MHz				Avg T	ype: Log-P	wr	TRA	E123456	Frequency
					PNO: Fast	P	Irig: Free	Run				IY D		
					IFGain:Low	v	#Atten: 30					ĩ		Auto Tuno
										N	/kr	1 803.3	81 MHz	Auto Tune
	h.,	Dof	20.00	dBm								-58.	76 dBm	
Log	I V	Rei	20.00											
10.0									_					Conton From
10.0														Center Freq
0.00				5					-					515.000000 MHz
-10.0		_							_	_				
20.0		-											-19.30 dBm	
-20.0														Start Fred
-30.0		-									-		-	
-40.0														30.000000 MHz
40.0														
-50.0											-	1		
-60.0			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	the Linear Street	a la dila conditionalia	. Local de la	I also that the shall been	difference of	in the second with	Addition of addition of the	I hard head to			Stop Freq
70.0			A CONTRACTOR OF	Television and the same		in a second second								1.000000000 GHz
-70.0														
Start 2	0.01	MU-			0	26						Stop 1		
Start J	0.01		: -		40.0					0		Stop 1.	0000 GHZ	CF Step
#Res B	SVV 1	00	KHZ		#V	BM.	1.U IVIMZ			Sweep) 9(J.U MS (1	0001 pts)	97.000000 MHz
MKR MODE	El TRC	SCL		×			Y	FI	JNCTION	FUNCTION W	IDTH I	FUNCTI	ON VALUE	Auto Man
1 N	1	f		803	3.381 MHz		-58.76 dl	3m						
2				0707.00				1.160-161						
3			0					_						Freq Offset
4	-	-				-		_		-				
6								-						UHZ
7														
8														
9								_						
10	-	-						_						
12		-												
	1										_			
MSG										ST	ATUS			

Agiler	nt Spe	ctru	m Ana	ılyzer -	Swe	pt SA																					
lX∥ ℝ Cer	L nter	Fre	RF eq 6	6.500	50Ω 000	AC 000)0 G	Hz]	SE	NSE:II	VT	ļ	\vg T	/ ype:	LIGN A	NUTO Pwr	12:5	0:49 P TRAC	M May 11	7, 2013 3 4 5 6		Frequ	ency	
							- J	PNO: IFGai	: Fast n:Lov	t Ģ w	#Att	en: 30	∋Run DdB	1							D	ET P N N	INNN		A		
10 d	B/div	,	Ref	20.0)0 d	Bm	Ľ												Mk	r1 2	.41 0.	130 70d	GHz Bm		Au		e
Log 10.0				1 1-											-										Cent	ter Fre	a
0.00	_			Y											+									6.	500000	000 GH	z
-10.0 -20.0																						-19.	.30 dBm				
-30.0 -40 0																								1.	Sta 000000	ooo GH	q
-50.0 -60.0				A	and the	dunne					أرعصانا	Baston		the bucket	11.1	-			J.		1. 10 . I		Sec. 10		St	op Fre	a
-70.0		-																						12.	000000	000 GH	z
Stai #Re	rt 1. s Bl	000 W 1	GH 00	z kHz				-63	#\	/BW	1.0 [MHz	0				17	Swe	eep	Sto 1.02	p 12 s (1	.000 0001	GHz pts)	1.	(100000	CF Ste	p
	MODE N	TRC 1	SCL f			×	< 2.41	130	GHz		Ү О.	.70 d	Bm	FU	INCTIO	N	FUN	CTION	WIDTH		UNCTI	on valu	-	Auto	<u>!</u>	Ma	n
2 3 4 5 6																							_		Free	qOffse 0H	t
7 8 9										-													_				
10 11 12																											
MSG																		s	STATUS	5							

Agilent Spect	rum Analyzer - Sv	vept SA							
Center F	RF 50 s req 18.500	2 AC 000000 GHz	SEM	ISE:INT	Avg Type	ALIGNAUTO : Log-Pwr	12:51:56 P TRAC	M May 17, 2013	Frequency
10 dB/div	Ref 20.00	PNO: Fast IFGain:Lov dBm	#Atten: 30	dB		Mkr	¤ 1 23.770 -47.	D 2 GHz 54 dBm	Auto Tune
10.0 0.00									Center Freq 18.50000000 GHz
-20.0 -30.0 -40.0								-19.30 dBm	Start Freq 12.000000000 GHz
-50.0 -60.0									Stop Freq 25.000000000 GHz
Start 12.0 #Res BW	000 GHz 100 kHz	#V × 23.770 2 GHz	/BW 1.0 MHz -47.54 dE	FUNC	TION FUI	Sweep	Stop 25 1.20 s (1	.000 GHz 0001 pts) IN VALUE	CF Step 1.300000000 GHz <u>Auto</u> Man
2 3 4 5 7 8 9 10 11									Freq Offset 0 Hz
MSG						STATUS			



Channel 06 (2437MHz)

Spec	ctrun	n Ana	alyzer - Swe	ept SA												
ter	Fre	RF	50 Ω	AC 0000 MH:	z		SE	NSE:INT	Avg	Туре	ALIGNAUTO : Log-Pwr	01:38:59 P TRAC	M May 17, 2013	Frequency		
3/div		Ref	20.00 0	P IF	NO: Fast Gain:Low	, • ,	#Atten: 30	dB			Mkr	1 515.6 -59.	79 MHz 31 dBm	Auto Tune		
														Center Freq 515.000000 MHz		
									_				-17.36 dBm	Start Freq 30.000000 MHz		
and the last								1				а ^{, 1} тота п (удотока и ал		Stop Freq 1.00000000 GHz		
t 30 5 BV 10009	.0 M N 1	VIH2 00 SCC f	z kHz	× 515.67	#V 9 MHz	BW 1	.0 MHz Y -59.31 dl	Bm	JNCTION	FU	Sweep 9 NCTION WIDTH	Stop 1.0 0.0 ms (1	0000 GHz 0001 pts) IN VALUE	CF Step 97.000000 MHz <u>Auto</u> Man		
														Freq Offset 0 Hz		
	Spee er /div	Spectrum er Fre /div 30.0 P BW 1 BW 1 N 1 N 1	Spectrum And RF er Freq 5 /div Ref 30.0 MHz BW 100 1003 FRC Scl N 1 f	Spectrum Analyzer - Sw RF 50 g er Freq 515.000 /div Ref 20.00 (/div Bef 20.00	Spectrum Analyzer - Swept SA RF 50 Q AC er Freq 515.000000 MP /div Ref 20.00 dBm //div Ref 20.00 dBm	Spectrum Analyzer - Swept SA RF 50 Q AC I er Freq 515.000000 MHz PN0: Fast IFGain:Low /div Ref 20.00 dBm I /div Ref 20.00	Spectrum Analyzer - Swept SA RF SO & AC Image: Solar and the system of the syst	Spectrum Analyzer - Swept SA RF S0 @ AC SE er Freq 515.000000 MHZ PN0: Fast Colspan="2">Trig: Free #Atten: 3 ///////////////////////////////////	Spectrum Analyzer - Swept SA er Freq 515.000000 MHz PN0: Fast Trig: Free Run #Atten: 30 dB /div Ref 20.00 dBm /div Ref 20.00 dBm	Spectrum Analyzer - Swept SA SERVE::NT Avg er Freq 515.000000 MHz Trig: Free Run Avg PNO: Fast	Spectrum Analyzer - Swept SA er S0 @ AC SENSE:INT Avg Type er Freq 515.000000 MHz Trig: Free Run #Atten: 30 dB Avg Type /div Ref 20.00 dBm #Atten: 30 dB Image: Sense:Int in the sense:Int intt in the sense:Int in the sense:Int in the sense:Int in the sens	Spectrum Analyzer - Swept SA RF 50 Q AC SENSE:INT AUGNAUTO Avg Type: Log-Pwr Trig: Free Run #Atten: 30 dB Mkr //div RF 20.00 dBm //div //div RF 20.00 dBm //div //div <th <="" colspan="2" div<="" td=""><td>Spectrum Analyzer - Swept SA RF 50 Q AC SENSE:INT ALIGNAUTO DI:38:59P Tree S15.000000 MHz Trig: Free Run PIO: Fast Trig: Free Run Mkr1 515.6 /// // // // // // // // // // // // //</td><td>Spectrum Analyzer - Swept SA er 50.9 AC SENSE:INT ALIGNAUTO D1:38:59 PM May 17, 2013 er Freq 515.000000 MHz Trig: Free Run Avg Type: Log-Pwr TRACE [12:34:5 0 Trig: Free Run //div Ref 20.00 dBm Trig: Free Run Mkr1 515.679 MHz -59.31 dBm //div Ref 20.00 dBm -59.31 dBm -17.36 dbn -17.36 dbn //div Ref 20.00 dBm -17.36 dbn -17.36 dbn -17.36 dbn //div Ref 20.00 dBm -17.36 dbn -17.36 dbn -17.36 dbn //div Ref 20.00 dHz YVBW 1.0 MHz Stop 1.0000 GHz Stop 1.0000 GHz 30.0 MHz #VBW 1.0 MHz Stop 1.0000 GHz Stop 1.0000 GHz Stop 1.0000 GHz BW 100 KHz Y Y FUNCTION FUNCTION VIDIT FUNCTION VIDIT</td></th>	<td>Spectrum Analyzer - Swept SA RF 50 Q AC SENSE:INT ALIGNAUTO DI:38:59P Tree S15.000000 MHz Trig: Free Run PIO: Fast Trig: Free Run Mkr1 515.6 /// // // // // // // // // // // // //</td> <td>Spectrum Analyzer - Swept SA er 50.9 AC SENSE:INT ALIGNAUTO D1:38:59 PM May 17, 2013 er Freq 515.000000 MHz Trig: Free Run Avg Type: Log-Pwr TRACE [12:34:5 0 Trig: Free Run //div Ref 20.00 dBm Trig: Free Run Mkr1 515.679 MHz -59.31 dBm //div Ref 20.00 dBm -59.31 dBm -17.36 dbn -17.36 dbn //div Ref 20.00 dBm -17.36 dbn -17.36 dbn -17.36 dbn //div Ref 20.00 dBm -17.36 dbn -17.36 dbn -17.36 dbn //div Ref 20.00 dHz YVBW 1.0 MHz Stop 1.0000 GHz Stop 1.0000 GHz 30.0 MHz #VBW 1.0 MHz Stop 1.0000 GHz Stop 1.0000 GHz Stop 1.0000 GHz BW 100 KHz Y Y FUNCTION FUNCTION VIDIT FUNCTION VIDIT</td>		Spectrum Analyzer - Swept SA RF 50 Q AC SENSE:INT ALIGNAUTO DI:38:59P Tree S15.000000 MHz Trig: Free Run PIO: Fast Trig: Free Run Mkr1 515.6 /// // // // // // // // // // // // //	Spectrum Analyzer - Swept SA er 50.9 AC SENSE:INT ALIGNAUTO D1:38:59 PM May 17, 2013 er Freq 515.000000 MHz Trig: Free Run Avg Type: Log-Pwr TRACE [12:34:5 0 Trig: Free Run //div Ref 20.00 dBm Trig: Free Run Mkr1 515.679 MHz -59.31 dBm //div Ref 20.00 dBm -59.31 dBm -17.36 dbn -17.36 dbn //div Ref 20.00 dBm -17.36 dbn -17.36 dbn -17.36 dbn //div Ref 20.00 dBm -17.36 dbn -17.36 dbn -17.36 dbn //div Ref 20.00 dHz YVBW 1.0 MHz Stop 1.0000 GHz Stop 1.0000 GHz 30.0 MHz #VBW 1.0 MHz Stop 1.0000 GHz Stop 1.0000 GHz Stop 1.0000 GHz BW 100 KHz Y Y FUNCTION FUNCTION VIDIT FUNCTION VIDIT

Agilent Spectrum Analyzer -	Swept SA						
Center Freq 6.500	000000 GHz	SENSE:INT	Avg Type:	LIGN AUTO Log-Pwr	01:38:23 PM TRACE	May 17, 2013	Frequency
10 dB/div Ref 20.0	PNO: Fast (L) IFGain:Low	#Atten: 30 dB		M	_{عة} 12.44 2.6	^{P NNNNN} 41 GHz 4 dBm	Auto Tune
10.0 10.00							Center Freq 6.500000000 GHz
-20.0						-17.36 dBm	Start Freq 1.000000000 GHz
-50.0 -60.0 -70.0		ana mana kar		~~~	1000 - 10 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -		Stop Freq 12.00000000 GHz
Start 1.000 GHz #Res BW 100 kHz	#VBW	1.0 MHz	CTION FUNC	Sweep 1	Stop 12. 1.02 s (10	000 GHz 0001 pts)	CF Step 1.100000000 GHz Auto Man
I N 1 f 2	2.441 GHz	2.64 dBm					Freq Offset 0 Hz



Agilent Spectrum Analyzer	- Swept SA				
Center Freq 18.5	50 Ω AC 0000000 GHz	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	01:39:33 PM May 17, 2013 TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 20.	PNO: Fast IFGain:Low 00 dBm	#Atten: 30 dB	Mkr	1 23.073 4 GHz -48.06 dBm	Auto Tune
10.0 0.00					Center Freq 18.50000000 GHz
-20.0 -30.0 -40.0				-17.36 dBm	Start Freq 12.000000000 GHz
-50.0 -60.0 -70.0					Stop Freq 25.000000000 GHz
Start 12.000 GHz #Res BW 100 kHz MKR MODE TRE SC 1 N 1 f	#VE × 23.073 4 GHz	SW 1.0 MHz -48.06 dBm	Sweep	Stop 25.000 GHz 1.20 s (10001 pts) FUNCTION VALUE	CF Step 1.300000000 GHz <u>Auto</u> Man
2 3 4 5 6 7					Freq Offset 0 Hz
8 9 10 11 12					



Channel 11 (2462MHz)

OX RL RF SOR AC SENSE:INT ALIGNAUTO D1:45:12 PM May 17, 2013 Frequency Center Freq 515.000000 MHz Trig: Free Run IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr TRACE 12.3 4.5 6 Frequency 10 dB/div Ref 20.00 dBm Trig: Free Run #Atten: 30 dB Mkr1 915.707 MHz -59.20 dBm Auto Tur 10 dB/div Ref 20.00 dBm Center Free 515.000000 MH Center Free 515.000000 MH Start Free 30.000000 MH	Agilent Spe	Agilent Spectrum Analyzer - Swept SA											
PN0: Fast Ing. Free Kun Der PNNNNN IFGain:Low #Atten: 30 dB Mkr1 915.707 MHz .59.20 dBm .59.20 dBm .000 .59.20 dBm 10.0 .20.14 dBm .20.0 .20.14 dBm .30.0 .20.00000 MH	Center	Freq	⊧ 50 Ω 515.000	AC 0000 MH:	z	SE Taias Eno	INSE:INT	Avg Ty	ALIGN AUTO be: Log-Pwr	01:45:12 P TRAC	M May 17, 2013	Frequency	
Log 10.0 0.00 -20.0 -20.0 -30.0 -40.0	10 dB/div	للت المعنى المعن معنى المعنى الم معنى المعنى المعن									Auto Tune		
-20.0	Log 10.0 0.00 -10.0											Center Freq 515.000000 MHz	
	-20.0										-20.14 dBm	Start Freq 30.000000 MHz	
-50.0 -60.0 -70.0 -70.0	-50.0 -60.0 -70.0	un di la la d	t i a man dage ser a tal	an a								Stop Freq 1.00000000 GHz	
Start 30.0 MHz Stop 1.0000 GHz CF Step 90.0 ms (10001 pts) #Res BW 100 kHz #VBW 1.0 MHz Sweep 90.0 ms (10001 pts) 97.000000 MHz M33 M0009 TEO SCL X Y FUNCTION FUNCTION WIDTH FUNCTION WIDTH FUNCTION WIDTH 1 N 1 f 915.707 MHz -59.20 dBm Max	Start 30 #Res Bl).0 MH; W 100	z kHz	× 915.70	#VB	W 1.0 MHz -59.20 d	Bm	ICTION	Sweep 9	Stop 1.0 0.0 ms (1	0000 GHz 0001 pts) IN VALUE	CF Step 97.000000 MHz <u>Auto</u> Man	
2	2 3 4 5 6 7 8 9 10 11 12											Freq Offset 0 Hz	

Agilent Spectrum Analyzer - Sv	vept SA				
Center Freq 6.5000	00000 GHz	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr	01:44:38 PM May 17, 2013 TRACE 1 2 3 4 5 6 TYPE MINIMUM	Frequency
10 dB/div Ref 20.00	PNO: Fast Law	#Atten: 30 dB	Mk	r1 2.463 0 GHz -0.13 dBm	Auto Tune
10.0 0.00					Center Freq 6.50000000 GHz
-20.0				-20.14 dBm	Start Freq 1.000000000 GHz
-50.0 -60.0 -70.0		An tend of a the the start of a second s	Contraction and contraction		Stop Freq 12.000000000 GHz
Start 1.000 GHz #Res BW 100 kHz	#VBW	1.0 MHz	Sweep	Stop 12.000 GHz 1.02 s (10001 pts)	CF Step 1.100000000 GHz
N 1 f 2 3 - 3 - - 4 - - 5 - - 6 - - 7 - - 8 - - 9 - - 10 - - 11 - -	2.463 0 GHz	-0.13 dBm			Freq Offset



Agilent	Spec	ctrum	Ana	lyzer - Sw	ept SA										
Cent	er	Fre	RF q 1	50 Ω	AC 00000	00 GHz		SE	NSE:INT	Av	з Туре	ALIGNAUTO : Log-Pwr	01:45:45 P TRA	M May 17, 2013 CE 1 2 3 4 5 6	Frequency
10 dB	/div		Ref	20.00	dBm	PNO: Fast IFGain:Lov	t 😱 W	#Atten: 30) dB			Mkr	1 23.71 -47.6	4 3 GHz 88 dBm	Auto Tune
10.0 - 0.00 -															Center Freq 18.50000000 GHz
-20.0 - -30.0 - -40.0 -														-20.14 dBm	Start Freq 12.000000000 GHz
-50.0 - -60.0											1999 (Marine)				Stop Freq 25.000000000 GHz
Start #Res	12. BV	.000 N 10) G 00 501	Hz (Hz	×	#V	/BW	1.0 MHz Y		UNCTION	FU	Sweep	Stop 25 1.20 s (1	0000 GHz 0001 pts)	CF Step 1.30000000 GHz <u>Auto</u> Man
1 2 3 4 5 6 7 7 8 9 10 11 11 12	N	1	f		23	.714 3 GHz		-47.688 dl	3m						Freq Offset 0 Hz
MSG												STATUS			

Product	:	Tablet PC
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)

Agilent Spectrum Analyzer - Swept SA			
IXI RL RF 50Ω AC	SENSE:INT	ALIGNAUTO 01:51:54	PM May 17, 2013 Frequency
Center Freq 515.000000 MHz	Trig: Free Run	/g Type: Log-Pwr TR	AUE 1 2 3 4 5 6
IFGain:Lo	w #Atten: 30 dB		DET P N N N N N
		Mkr1 543 (033 MHz Auto Tune
10 dB/dive Bof 20 00 dBm		-59	07 dBm
10.0			Center Fred
0.00			515 000000 MH-
10.0			515.00000 MHZ
-10.0			-19 92 dBm
-20.0			Start Fred
-30.0	<u> </u>		30 000000 MH-
-40.0			50.00000 MH2
.50.0			
50.0			Stop Fred
-bu.u			Stop Freq
-70.0			1.00000000 GH2
Stort 20.0 MHz		Oton 1	0000 CH-
		Sween 000mc (10001 ptc) CF Step
#Res DW 100 RH2 #4	BW 1.0 101112	3weep 30.0 ms (97.000000 MHz
MKR MODE TRC SCL X	Y FUNCTION	FUNCTION WIDTH FUNCT	ION VALUE Auto Man
1 N 1 f 543.033 MHz	-59.07 dBm		
3			Erog Offsot
4			Frequise
6			0 Hz
7			
8			
10			
11			
MSG		STATUS	



Agilent S	ipectru	im Ana	alyzer - Sw	ept SA											
Cente	er Fr	RF eq (50 Ω	AC 00000 G	Hz		SE	NSE:IN	Т	Avg T	/ ype:	LIGNAUTO	01:51:21 F	M May 17, 2013 E 1 2 3 4 5 6	Frequency
10 dB/c	div	Ref	20.00	dBm	PNO: Fast Gain:Lov	t 😱 W	#Atten: 3	e Run 0 dB				Mk	r1 2.41: 0.	2 4 GHz 08 dBm	Auto Tune
10.0 - 0.00 - -10.0 -			● ¹												Center Freq 6.50000000 GHz
-20.0 — -30.0 — -40.0 —					1									-19.92 dBm	Start Freq 1.000000000 GHz
-50.0	ada yani ji		Ann		, and the second se				and dependent			~			Stop Freq 12.000000000 GHz
Start ' #Res MKR MO	1.000 BW) GH 100	lz kHz	×	#V	/BW	1.0 MHz Y	ļ	FUN	CTION	FUN	Sweep	Stop 12 1.02 s (1	.000 GHz 0001 pts)	CF Step 1.100000000 GHz <u>Auto</u> Man
1 N 2 3 4 5 6 7 8 9 10 11 12		f		2.412	2 4 GHz		0.08 d	Bm							Freq Offset 0 Hz
MSG												STATUS			

Agilent Spectrum Analyzer - Swept SA	
X RL RF 50 Ω AC SENSE:INT ALIGNAUTO D1:52:28 PM May 17, 2013 Constor Frog. 18, 500000000 CHz Avg. Type: Log-Pwr TRACE 12.3.4.5.6	Frequency
PNO: Fast C	
IFGain:Low #Atten: 30 dB	Auto Tune
10 dB/div Ref 20.00 dBm -48.13 dBm	
10.0	Contor From
0.00	18 50000000 GHz
-10.0	
-20.0 -19.92 dBm	
-30.0	Start Freq
-40.0	12.000000000 GHz
-60.0	Stop Freq
-70.0	25.00000000 GHz
Start 42 000 CHa	
#Res BW 100 kHz #VBW 1.0 MHz Sweep 1.20 s (10001 pts)	CF Step
	1.300000000 GHz
Index Index <th< td=""><td></td></th<>	
6	0112
9	
Idl Idl <td></td>	



Channel 06 (2437MHz)

Agilent S	pectru	m Ana	alyzer - Swo	ept SA									
Cente	r Fre	RF	50 Ω 515.000	AC 0000 MH2	z		SENSE:	INT	Avg T	ALIGNAUT ype: Log-Pwi	0 01:56:36 r TR/	PM May 17, 2013 ACE 1 2 3 4 5 6	Frequency
10 484	4111	Dof	. 20 00 /	Pi IF(NO: Fast Gain:Low	Trig: #Atte	#Atten: 30 dB Mkr					206 MHz	Auto Tune
10.00 - -10.0 -			20.00 (Center Freq 515.000000 MHz
-20.0 — -30.0 — -40.0 —												-19.98 dBm	Start Freq 30.000000 MHz
-60.0 -70.0					a mad the a difference of the second			Miner (1) John I.	a bin dah kengti k	an dire seesa ah ad bad dalara			Stop Freq 1.00000000 GHz
Start : #Res MKE MO	30.0 BW 1 09 1130	VIH2 00 SCL	z kHz	× 825.20	#VE 6 MHz	3W 1.0 M -58.6	IHz 3 dBm	FUN	CTION	Sweep	Stop 1 90.0 ms (11 EUNO	.0000 GHz 10001 pts) ION VALUE	CF Step 97.000000 MHz <u>Auto</u> Man
2 3 4 5 6 7													Freq Offset 0 Hz
8 9 10 11 12 MSG										STAT			

Agilent Spectr	rum Analyzer - Sv	wept SA								
Center F	RF 50 s	Ω AC 00000 GHz		SEN	NSE:INT	Avg Typ	e: Log-Pwr	01:56:03 P TRAC	M May 17, 2013	Frequency
10 dB/div	Ref 20.00	PNO: IFGair dBm	Fast (⊾) n:Low	#Atten: 30	dB		N	/kr1 2.4 0.1	41 GHz 02 dBm	Auto Tune
10.0 0.00	1									Center Freq 6.50000000 GHz
-20.0 -30.0 -40.0									-19.98 dBm	Start Freq 1.000000000 GHz
-50.0 -60.0 -70.0		www.l.e		ana -klander				and the second s		Stop Freq 12.000000000 GHz
Start 1.00 #Res BW	00 GHz 100 kHz	×	#VBW	1.0 MHz	EIIN	INTION	Sweep	Stop 12 1.02 s (1	.000 GHz 0001 pts)	CF Step 1.100000000 GHz Auto Man
1 N 1 2 3 - 3 - - 6 - - 7 - - 8 - - 9 - - 10 - - 11 - -		2.441 0	GHZ	0.02 dE	3m					Freq Offset 0 Hz
MSG							STATUS	5		



DM RL RF 50.9 AC SENSE:INT ALIGNAUTO D1:57:10 PM May 17, 2013 Center Freq 18.500000000 GHz PNO: Fast Trig: Free Run Avg Type: Log-Pwr Trace T (2.3.4.5.6) Freq PNO: Fast Frig: Free Run #Atten: 30 dB Def P NNNNN Def P NNNNN	quency
PNO: Fast Ting: Free Run DET PNNNNN IFGain:Low #Atten: 30 dB DET PNNNNN	
Мkr1 23.969 1 GHz А 10 dB/div Ref 20.00 dBm – 48.15 dBm	Auto Tune
Log 10.0 0.00 -10.0	e nter Freq 000000 GHz
-20.0	Start Freq 100000 GHz
-50.0 -60.0 -70.0	Stop Freq 100000 GHz
Start 12.000 GHz Stop 25.000 GHz #Res BW 100 KHz #VBW 1.0 MHz Sweep 1.20 s (10001 pts) Image: Model Tere Set X Y Function Function width Function value Image: Model Tere Set X Y Function Function value Auto	CF Step 000000 GHz Man
1 1 20.00 (012) 40.10 (001) 1000 (012)	r eq Offset 0 Hz
1 1 9 1 10 1 11 1 12 1	

Channel 11	(2462MHz)
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Agile	nt Sp	ectru	m Ana	alyzer - Sw	rept SA	-								
LXI F	L		RF	50 G	AC		SE	NSE:INT	A	ALIGN	AUTO	03:33:26 P	M May 17, 2013	Frequency
Cei	nter	Fre	eq :	515.00	0000 MH	Z NO: Fact (Tria: Fre	e Run	Avg	TYPE			E MWWWWW	
					IF	Gain:Low	#Atten: 3	0 dB				DE		
10 0	Bidi		Ref	20.00	dBm			Mkr					10 MHz 40 dBm	Auto Tune
Log	Γ			20100										
10.0														Center Freq
0.00)		_						-					515.000000 MHz
-10.0			_						_					
-20.0			_										-18.30 dBm	
20.0														Start Freq
-30.0														30.000000 MHz
-40.0									-					
-50.0			-						-					
-60.0	ale als	کو راہ بال اور پ	-	Print Party in the local division	والمرواد والأركاد وردائه	hours through the	11 Contraction of the Internation		and sheet and	and the state of the state of the		ra nimena and	NAME OF DRIVING	Stop Freq
-70.0		photos p.		All the second se	a such a set folder bei under									1.00000000 GHz
Sta	rt 30	0.01	MHZ	Z								Stop 1.0	0000 GHz	CE Stop
#Re	es B	W 1	00	kHz		#VBI	N 1.0 MHz			Swee	ep 90	0.0 ms (1	0001 pts)	97 000000 MHz
MKR	MODE	TRC	SCL		X		Y	F	UNCTION	FUNCTION	WIDTH	FUNCTIO	IN VALUE	Auto Man
1	Ν	1	f		983.51	0 MHz	-59.40 d	Bm						
2								_			-			
4														Freq Offset
5														0 Hz
7				8										
8														
9		-		-										
11				1)								
12	_													
MSG										5	STATUS			

Agilent Spect	rum Analyzer - Sw	ept SA							
Center F	RF 50 Ω req 6.50000	AC 00000 GHz	SEN:	BE:INT	vg Type	ALIGNAUTO	03:32:51 P TRAC	M May 17, 2013	Frequency
	D -6 00 00	PNO: Fast IFGain:Lov	v #Atten: 30	Run dB		Mk	r1 2.468	B 5 GHz	Auto Tune
10 dB/div Log 10.0 0.00	1						1.		Center Freq 6.50000000 GHz
-20.0 -30.0 -40.0								-18.30 dBm	Start Freq 1.000000000 GHz
-60.0 -70.0		new Joseph Marcalak	, syn ei ann - bl ei theu			~~	and the second second		Stop Freq 12.000000000 GHz
Start 1.00 #Res BW	00 GHz 100 kHz	#V	'BW 1.0 MHz	FUNCTION	FUN	Sweep	Stop 12 1.02 s (1	2.000 GHz 0001 pts) INVALUE	CF Step 1.10000000 GHz Auto Man
1 N 2 3 4 5 6 7 7 8 9 10 11 12 N S S S S S S S S S S S S S		2.468 5 GHz	1.70 dB			STATIS			Freq Offset 0 Hz



Agilent Sp	ectrun	1 Analy	zer - Swe	ept SA										
Center	r Fre	RF q 18	50 Ω 3.5000	AC	0 GHz		SE	NSE:INT	Avg	A Type:	LIGNAUTO Log-Pwr	03:33:59 F	M May 17, 2013 E 1 2 3 4 5 6	Frequency
10 dB/di	iv	Ref 2	20.00 0	dBm	PNO: Fa IFGain:Lo	st 🖵 ow	#Atten: 3	e Run 0 dB			Mkr	1 23.70: -48.	2 6 GHz 14 dBm	Auto Tune
10.0 0.00														Center Freq 18.50000000 GHz
-20.0 -30.0													-18.30 dBm	Start Freq 12.000000000 GHz
-50.0 -60.0				an a										Stop Freq 25.00000000 GHz
Start 1 #Res B	2.00 W 1	0 GH 00 ki SCL	z Hz	× 23	#	VBW	1.0 MHz -48.14 d	Bm	UNCTION	FUNC	Sweep	Stop 25 1.20 s (1	.000 GHz 0001 pts) INVALUE	CF Step 1.300000000 GHz <u>Auto</u> Man
2 3 4 5 6 7														Freq Offset 0 Hz
8 9 10 11 12											STATUS			

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.
\square Site # 3	Bilog Antenna		Schaffner Chase	CBL6112B/2673	Sep., 2012
	Х	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2012
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2012
	Х	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2012
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2012
	Х	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2013
	Х	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	Х	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

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: 2009 and tested according to DTS test procedure of ANSI C63.10: 2009 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.

6.5. Uncertainty

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

6.6. Test Result of Band Edge

Product	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

RF Radiated Measurement (Horizontal):

Channel No	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamler 100.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2375.000	31.451	26.655	58.106	74.000	54.000	Pass
01 (Peak)	2390.000	31.509	24.863	56.372	74.000	54.000	Pass
01 (Peak)	2413.000	31.646	66.934	98.580			
01 (Average)	2390.000	31.509	12.912	44.421	74.000	54.000	Pass
01 (Average)	2412.800	31.645	62.596	94.240			



Horizontal (Peak)





Horizontal (Average)



- 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	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

RF Radiated Measurement (Vertical):

Channal Ma	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2386.800	30.930	26.255	57.185	74.000	54.000	Pass
01 (Peak)	2390.000	30.915	26.156	57.071	74.000	54.000	Pass
01 (Peak)	2413.000	30.956	67.680	98.636			
01 (Average)	2390.000	30.915	13.199	44.114	74.000	54.000	Pass
01 (Average)	2411.200	30.944	63.460	94.404			

Figure Channel 01:

Vertical (Peak)





Vertical (Average)



- 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	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

RF Radiated Measurement (Horizontal):

Channal No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2462.900	32.026	65.847	97.873			
11 (Peak)	2483.500	32.182	24.568	56.750	74.000	54.000	Pass
11 (Peak)	2484.100	32.186	25.678	57.865	74.000	54.000	Pass
11 (Average)	2461.300	32.014	61.545	93.559			
11 (Average)	2483.500	32.182	13.205	45.387	74.000	54.000	Pass

Figure Channel 11:

Horizontal (Peak)



Figure Channel 11:

Horizontal (Average)



- 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	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2462.900	31.296	67.536	98.832			
11 (Peak)	2483.500	31.435	25.041	56.476	74.000	54.000	Pass
11 (Peak)	2485.900	31.451	26.569	58.021	74.000	54.000	Pass
11 (Average)	2462.700	31.295	63.086	94.381			
11 (Average)	2483.500	31.435	13.855	45.290	74.000	54.000	Pass

Figure Channel 11:

Vertical (Peak)



Figure Channel 11:

Vertical (Average)



- 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	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2390.000	31.509	29.307	60.816	74.000	54.000	Pass
01 (Peak)	2412.200	31.640	70.957	102.597			
01 (Average)	2390.000	31.509	14.082	45.591	74.000	54.000	Pass
01 (Average)	2412.800	31.645	53.622	85.266			

Figure Channel 01:

Horizontal (Peak)









- 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 etection.

Product	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	30.915	28.594	59.509	74.000	54.000	Pass
01 (Peak)	2411.800	30.948	71.157	102.105			
01 (Average)	2390.000	30.915	14.643	45.558	74.000	54.000	Pass
01 (Average)	2412.800	30.955	54.388	85.343			

Figure Channel 01:

Vertical (Peak)



Figure Channel 01:





- 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	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2463.100	32.028	69.177	101.205			
11 (Peak)	2483.500	32.182	30.958	63.140	74.000	54.000	Pass
11 (Peak)	2487.300	32.211	32.277	64.488	74.000	54.000	Pass
11 (Average)	2462.900	32.026	52.728	84.754			
11 (Average)	2483.500	32.182	13.894	46.076	74.000	54.000	Pass

Figure Channel 11:

Horizontal (Peak)





Horizontal (Average)



- 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 etection.

Product	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2461.700	31.288	71.975	103.263			
11 (Peak)	2483.500	31.435	33.204	64.639	74.000	54.000	Pass
11 (Peak)	2486.500	31.456	33.826	65.282	74.000	54.000	Pass
11 (Average)	2462.700	31.295	54.186	85.481			
11 (Average)	2483.500	31.435	14.526	45.961	74.000	54.000	Pass

Figure Channel 11:

Vertical (Peak)



Figure Channel 11:

110.0 100.0 90.0 80.0 70.0

mel 11: Vertical (Average)

20.0 - 10.0 - 10.0 - 2450.000 2460.000 2470.000 2480.000 2490.000 2500.000 2510.000 2520.000 2533.500 2433.500 2440.000 2450.000 2460.000 2470.000 2480.000 2490.000 2500.000 2510.000 2520.000 2533.500 Frequency (MHz)

Note:

(W/Angp) 50.0 40.0 30.0

- 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	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Pagult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2389.800	31.508	31.817	63.325	74.000	54.000	Pass
01 (Peak)	2390.000	31.509	29.931	61.440	74.000	54.000	Pass
01 (Peak)	2411.800	31.636	70.078	101.715			
01 (Average)	2390.000	31.509	14.708	46.217	74.000	54.000	Pass
01 (Average)	2413.000	31.646	53.145	84.791			

Figure Channel 01:

Horizontal (Peak)





- 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 etection.

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

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
01 (Peak)	2390.000	30.915	33.074	63.989	74.000	54.000	Pass
01 (Peak)	2412.600	30.953	70.716	101.669			
01 (Average)	2390.000	30.915	15.244	46.159	74.000	54.000	Pass
01 (Average)	2413.000	30.956	53.672	84.628			

Figure Channel 01:

Vertical (Peak)



Figure Channel 01:





- 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	:	Tablet PC
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Dogult
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2461.900	32.018	69.258	101.277			
11 (Peak)	2483.500	32.182	33.521	65.703	74.000	54.000	Pass
11 (Average)	2462.900	32.026	51.932	83.958			
11 (Average)	2483.500	32.182	13.709	45.891	74.000	54.000	Pass

Figure Channel 11:

Horizontal (Peak)



Figure Channel 11:





- 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 etection.

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

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
11 (Peak)	2462.100	31.291	70.913	102.204			
11 (Peak)	2483.500	31.435	35.104	66.539	74.000	54.000	Pass
11 (Peak)	2483.900	31.438	36.013	67.451	74.000	54.000	Pass
11 (Average)	2462.900	31.296	53.325	84.621			
11 (Average)	2483.500	31.435	14.662	46.097	74.000	54.000	Pass

Figure Channel 11:

Vertical (Peak)





Vertical (Average)



- 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.