

APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
IMC INTERNATIONAL INC.

4 inch 3G TABLET
Model No.: ICE

FCC ID: 2ACI7-ICE

Prepared for : IMC INTERNATIONAL INC.
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Report No. : ATE20141087
Date of Test : Jun 18, 2014- July 11, 2014
Date of Report : July 11, 2014

TABLE OF CONTENTS

Description	Page
Test Report Certification	
1. GENERAL INFORMATION	5
1.1. Description of Device (EUT).....	5
1.2. Carrier Frequency of Channels.....	6
1.3. Accessory and Auxiliary Equipment	6
1.4. Description of Test Facility	6
1.5. Measurement Uncertainty.....	7
2. MEASURING DEVICE AND TEST EQUIPMENT	8
3. OPERATION OF EUT DURING TESTING	9
3.1. Operating Mode	9
3.2. Configuration and peripherals	9
4. TEST PROCEDURES AND RESULTS	10
5. POWER LINE CONDUCTED MEASUREMENT	11
5.1. Block Diagram of Test Setup.....	11
5.2. Power Line Conducted Emission Measurement Limits.....	11
5.3. Configuration of EUT on Measurement	11
5.4. Operating Condition of EUT	11
5.5. Test Procedure	12
5.6. Power Line Conducted Emission Measurement Results	13
6. 6DB BANDWIDTH MEASUREMENT	16
6.1. Block Diagram of Test Setup.....	16
6.2. The Requirement For Section 15.247(a)(2).....	16
6.3. EUT Configuration on Measurement	16
6.4. Operating Condition of EUT	16
6.5. Test Procedure	16
6.6. Test Result	17
7. MAXIMUM CONDUCTED (AVERAGE) OUTPUT POWER	24
7.1. Block Diagram of Test Setup.....	24
7.2. The Requirement For Section 15.247(b)(3).....	24
7.3. EUT Configuration on Measurement	24
7.4. Operating Condition of EUT	24
7.5. Test Procedure	24
7.6. Test Result	25
8. POWER SPECTRAL DENSITY MEASUREMENT.....	32
8.1. Block Diagram of Test Setup.....	32
8.2. The Requirement For Section 15.247(e).....	32
8.3. EUT Configuration on Measurement	32
8.4. Operating Condition of EUT	32
8.5. Test Procedure	32
8.6. Test Result	33
9. BAND EDGE COMPLIANCE TEST	40
9.1. Block Diagram of Test Setup.....	40
9.2. The Requirement For Section 15.247(d)	40

9.3.	EUT Configuration on Measurement	40
9.4.	Operating Condition of EUT	40
9.5.	Test Procedure	40
9.6.	Test Result	41
10.	RADIATED SPURIOUS EMISSION TEST	62
10.1.	Block Diagram of Test Setup.....	62
10.2.	The Limit For Section 15.247(d)	62
10.3.	Restricted bands of operation	63
10.4.	Configuration of EUT on Measurement	63
10.5.	Operating Condition of EUT	64
10.6.	Test Procedure	64
10.7.	The Field Strength of Radiation Emission Measurement Results	65
11.	CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST	90
11.1.	Block Diagram of Test Setup.....	90
11.2.	The Requirement For Section 15.247(d)	90
11.3.	EUT Configuration on Measurement	90
11.4.	Operating Condition of EUT	90
11.5.	Test Procedure	91
11.6.	Test Result	91
12.	ANTENNA REQUIREMENT.....	98
12.1.	The Requirement	98
12.2.	Antenna Construction	98

Test Report Certification

Applicant : IMC INTERNATIONAL INC.
Manufacturer : IMC INTERNATIONAL INC.
EUT Description : 4 inch 3G TABLET
(A) MODEL NO.: ICE
(B) Trade Name.: /
(C) POWER SUPPLY: DC 3.7V (Powered by battery) or AC 120V/60Hz
(Powered by adapter)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247
ANSI C63.4: 2009

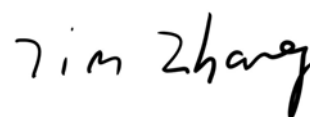
The EUT was tested according to DTS test procedure of Jun 05, 2014 KDB558074 D01 DTS Meas Guidance v03r02 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : Jun 18, 2014-July 11, 2014

Prepared by :



(Tim.zhang, Engineer)

Approved & Authorized Signer :



(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	4 inch 3G TABLET
Model Number	:	ICE
Frequency Range	:	802.11b/g/n(20MHz): 2412-2462MHz 802.11n(40MHz): 2422-2452MHz
Number of Channels	:	802.11b/g/n (20MHz):11 802.11n (40MHz): 7
Antenna Gain	:	1.0dBi
Type of Antenna	:	Integral Antenna
Power Supply	:	DC 3.7V (Powered by Battery) AC 120V/60Hz (Powered by Adapter)
Data Rate	:	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n: up to 150Mbps
Adapter	:	Model:UBP-A806-051000 Input: AC 100-240VAC 50/60Hz Output: 5.0V 1.0A
Modulation Type	:	CCK, OFDM
Applicant	:	IMC INTERNATIONAL INC.
Address	:	28E Jingang, xixiang,Bao an District, Shenzhen, Guangdong Province, China
Manufacturer	:	IMC INTERNATIONAL INC.
Address	:	28E Jingang, xixiang,Bao an District, Shenzhen, Guangdong Province, China
Date of sample received	:	Jun 18, 2014
Date of Test	:	Jun 18, 2014-July 11, 2014

1.2.Carrier Frequency of Channels

802.11b, 802.11g, 802.11n (20MHz)

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

802.11n (40MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---

1.3.Accessory and Auxiliary Equipment

N/A

1.4.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC
The Registration Number is 752051

Listed by Industry Canada
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee
for Laboratories
The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.
Science & Industry Park, Nanshan, Shenzhen, Guangdong
P.R. China

1.5.Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty
(9kHz-30MHz) = 3.08dB, k=2

Radiated emission expanded uncertainty
(30MHz-1000MHz) = 4.42dB, k=2

Radiated emission expanded uncertainty
(Above 1GHz) = 4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 11, 2014	Jan. 10, 2015
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 11, 2014	Jan. 10, 2015
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 11, 2014	Jan. 10, 2015
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 11, 2014	Jan. 10, 2015
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 15, 2014	Jan. 14, 2015
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 15, 2014	Jan. 14, 2015
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 15, 2014	Jan. 14, 2015
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 11, 2014	Jan. 10, 2015
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 11, 2014	Jan. 10, 2015
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 11, 2014	Jan. 10, 2015
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 11, 2014	Jan. 10, 2015

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **1.802.11b Transmitting mode**

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

2.802.11g Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

3.802.11n (20MHz) Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

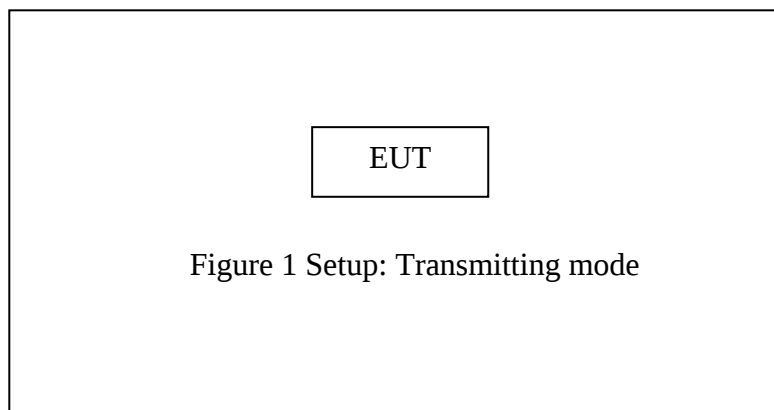
4.802.11n (40MHz) Transmitting mode

Low Channel: 2422MHz

Middle Channel: 2437MHz

High Channel: 2452MHz

3.2.Configuration and peripherals

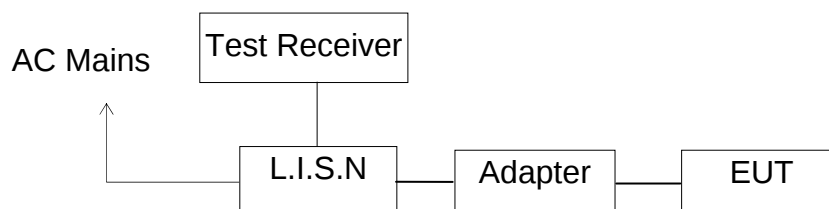


4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Power Line Conducted Emission	Compliant
Section 15.247(a)(2)	6dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.247(d)	Conducted Spurious Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. POWER LINE CONDUCTED MEASUREMENT

5.1. Block Diagram of Test Setup



(EUT: 4 inch 3G TABLET)

5.2. Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0
NOTE1: The lower limit shall apply at the transition frequencies. NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

5.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 5.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in test mode and measure it.

5.5. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2009 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

5.6. Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Test mode : Charging&WIFI communicating								
MEASUREMENT RESULT: "IMC-WF-V01_fin"								
2014-6-27 9:11								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150000	57.40	10.5	66	8.6	QP	L1	GND	
0.216214	57.00	10.7	63	6.0	QP	L1	GND	
0.288294	48.40	10.8	61	12.2	QP	L1	GND	
MEASUREMENT RESULT: "IMC-WF-V01_fin2"								
2014-6-27 9:11								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150000	43.30	10.5	56	12.7	AV	L1	GND	
0.215783	45.80	10.7	53	7.2	AV	L1	GND	
0.287719	39.50	10.8	51	11.1	AV	L1	GND	
MEASUREMENT RESULT: "IMC-WF-V02_fin"								
2014-6-27 9:13								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.150300	55.50	10.5	66	10.5	QP	N	GND	
0.215783	56.20	10.7	63	6.8	QP	N	GND	
0.287719	47.90	10.8	61	12.7	QP	N	GND	
MEASUREMENT RESULT: "IMC-WF-V02_fin2"								
2014-6-27 9:13								
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE	
0.215783	43.90	10.7	53	9.1	AV	N	GND	
0.359876	36.90	10.9	49	11.8	AV	N	GND	
0.503420	33.10	11.0	46	12.9	AV	N	GND	

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.

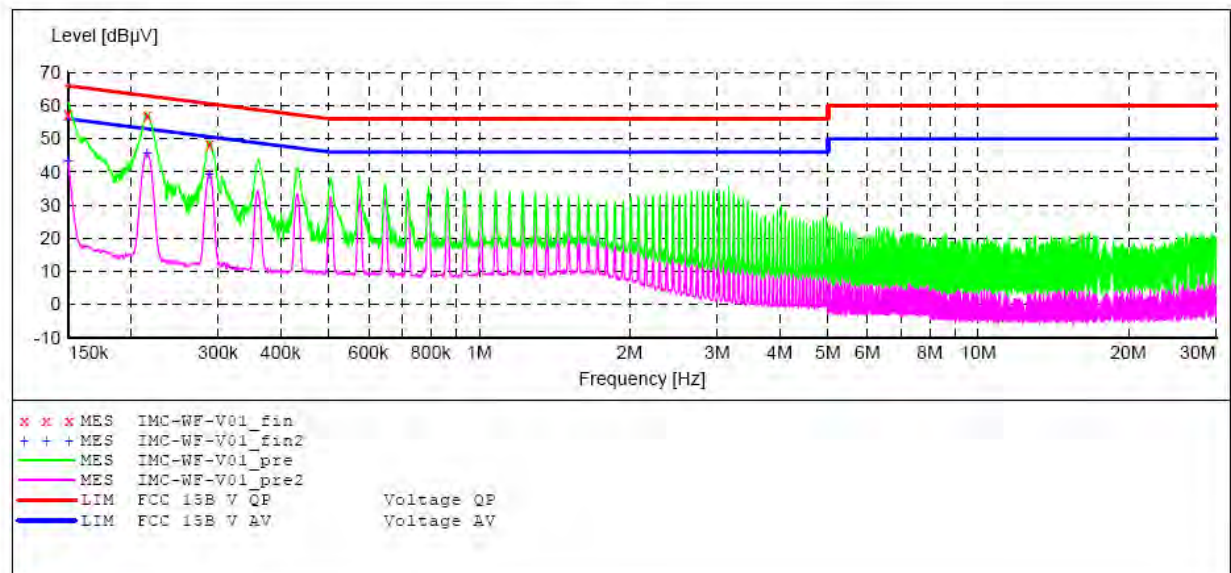
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 4"3G TABLET M/N:ICE
 Manufacturer: IMC
 Operating Condition: WiFi/Charging
 Test Site: 1#Shielding Room
 Operator: Alen
 Test Specification: L 120V/60Hz
 Comment: Report No:ATE20141087
 Start of Test: 2014-6-27 / 9:09:44

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz LISN(ESH3-Z5)
 Average



MEASUREMENT RESULT: "IMC-WF-V01_fin"

2014-6-27 9:11

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	57.40	10.5	66	8.6	QP	L1	GND
0.216214	57.00	10.7	63	6.0	QP	L1	GND
0.288294	48.40	10.8	61	12.2	QP	L1	GND

MEASUREMENT RESULT: "IMC-WF-V01_fin2"

2014-6-27 9:11

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	43.30	10.5	56	12.7	AV	L1	GND
0.215783	45.80	10.7	53	7.2	AV	L1	GND
0.287719	39.50	10.8	51	11.1	AV	L1	GND

ACCURATE TECHNOLOGY CO., LTD

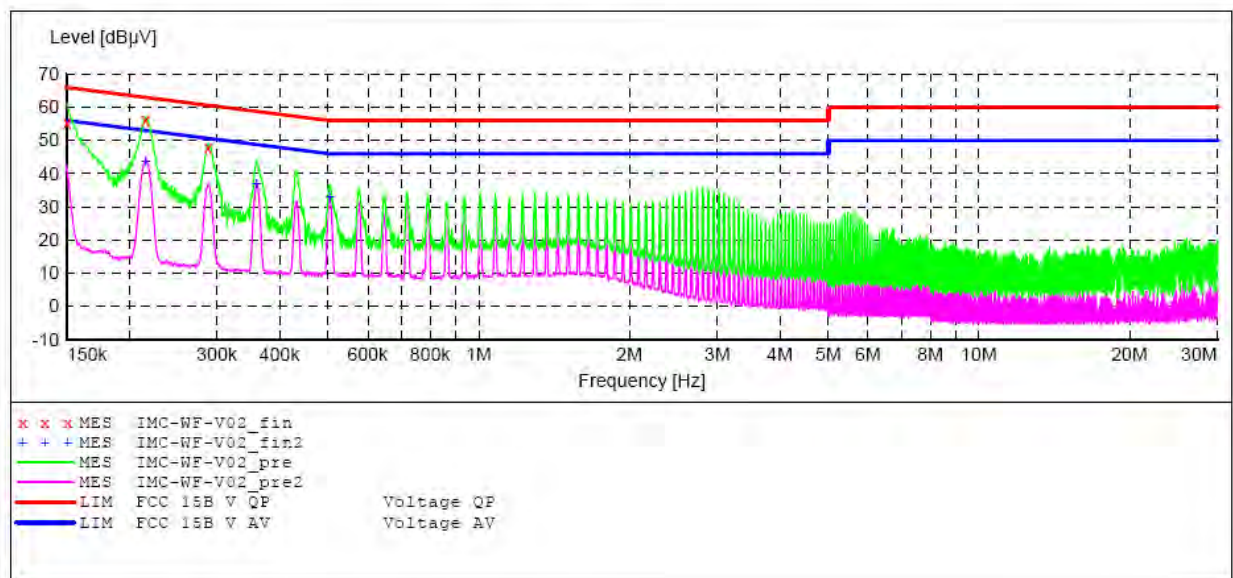
CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: 4"3G TABLET M/N:ICE
Manufacturer: IMC
Operating Condition: WiFi/Charging
Test Site: 1#Shielding Room
Operator: Alen
Test Specification: N 120V/60Hz
Comment: Report No:ATE20141087
Start of Test: 2014-6-27 / 9:12:06

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency 150.0 kHz	Frequency 30.0 MHz	Width 4.5 kHz	QuasiPeak	1.0 s	9 kHz	LISN(ESH3-Z5)
			Average			



MEASUREMENT RESULT: "IMC-WF-V02_fin"

2014-6-27 9:13

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150300	55.50	10.5	66	10.5	QP	N	GND
0.215783	56.20	10.7	63	6.8	QP	N	GND
0.287719	47.90	10.8	61	12.7	QP	N	GND

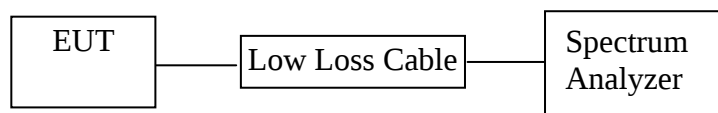
MEASUREMENT RESULT: "IMC-WF-V02_fin2"

2014-6-27 9:13

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.215783	43.90	10.7	53	9.1	AV	N	GND
0.359876	36.90	10.9	49	11.8	AV	N	GND
0.503420	33.10	11.0	46	12.9	AV	N	GND

6. 6DB BANDWIDTH MEASUREMENT

6.1. Block Diagram of Test Setup



6.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

6.3. EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

6.5. Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.6.Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	10.32	> 0.5MHz
Middle	2437	10.32	> 0.5MHz
High	2462	10.32	> 0.5MHz

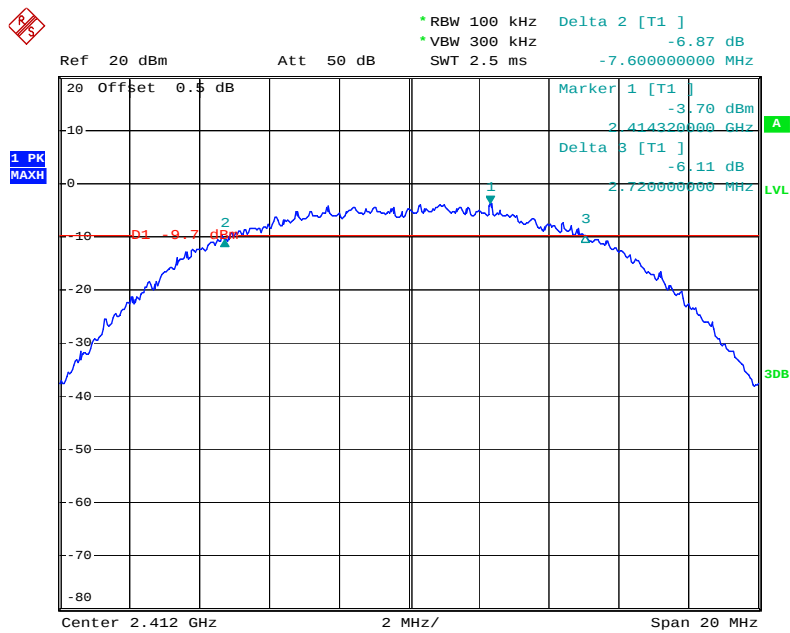
The test was performed with 802.11g			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	16.60	> 0.5MHz
Middle	2437	16.60	> 0.5MHz
High	2462	16.60	> 0.5MHz

The test was performed with 802.11n (Bandwidth: 20 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	17.80	> 0.5MHz
Middle	2437	17.80	> 0.5MHz
High	2462	17.80	> 0.5MHz

The test was performed with 802.11n (Bandwidth: 40 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2422	36.56	> 0.5MHz
Middle	2437	36.56	> 0.5MHz
High	2452	36.56	> 0.5MHz

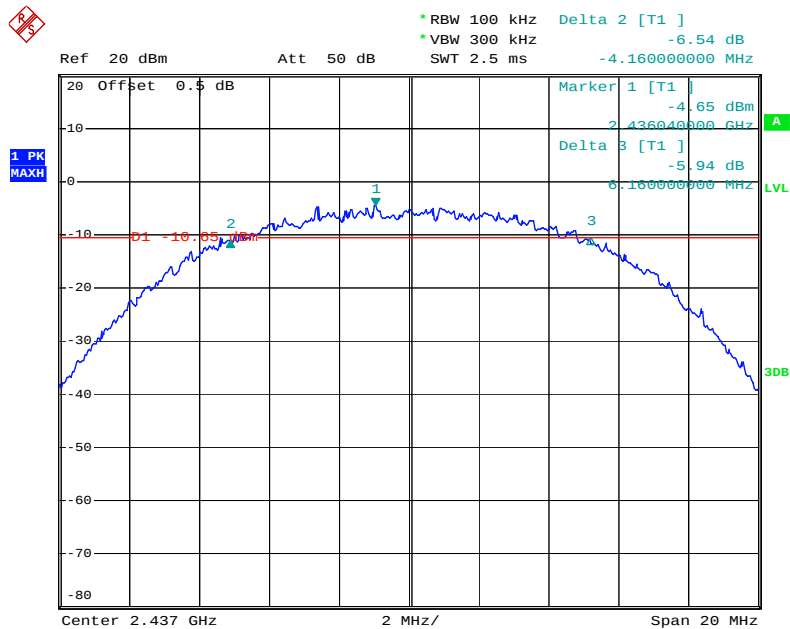
The spectrum analyzer plots are attached as below.

802.11b Channel Low 2412MHz



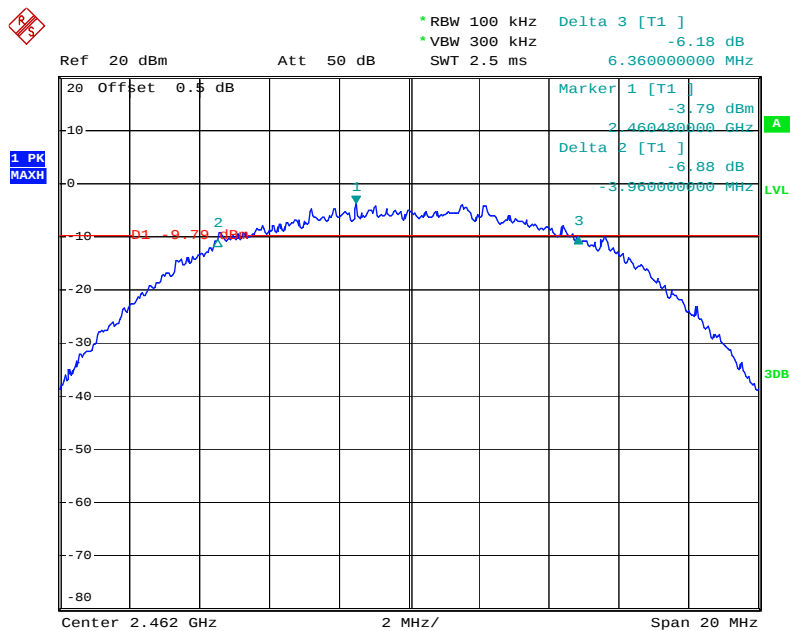
Date: 27.JUN.2014 18:33:03

802.11b Channel Middle 2437MHz



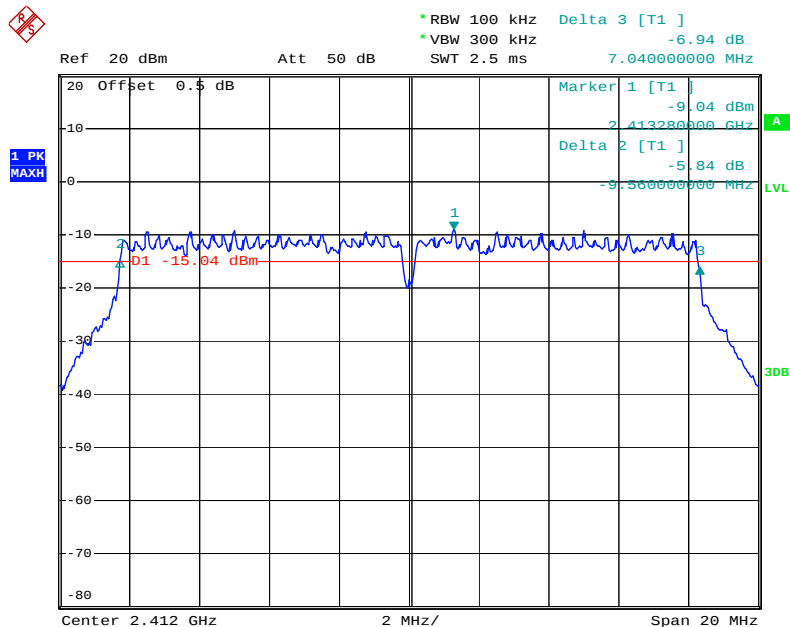
Date: 28.JUN.2014 14:47:08

802.11b Channel High 2462MHz



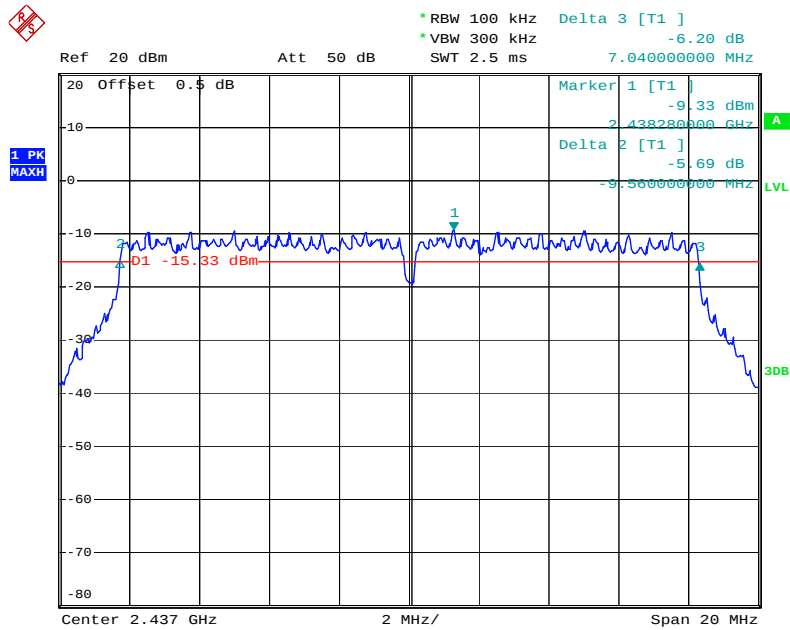
Date: 27.JUN.2014 18:30:28

802.11g Channel Low 2412MHz



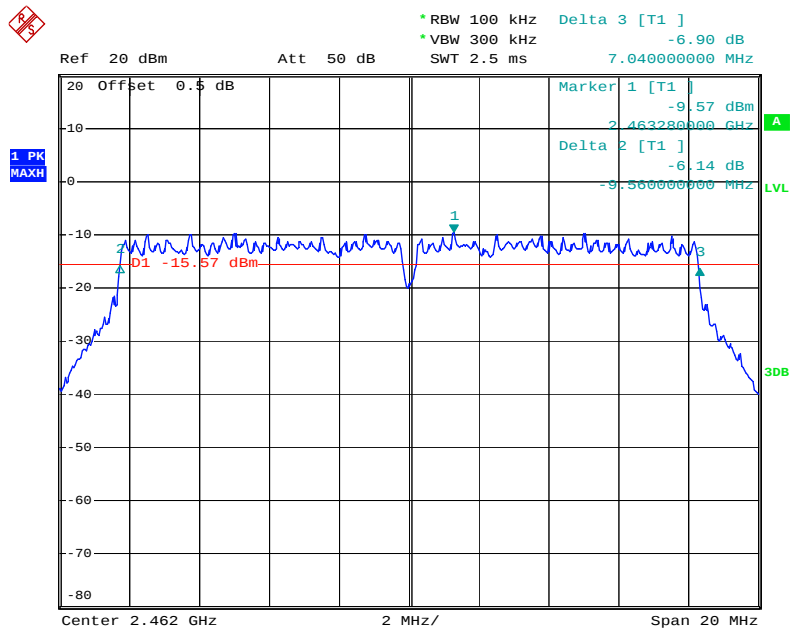
Date: 28.JUN.2014 14:24:02

802.11g Channel Middle 2437MHz



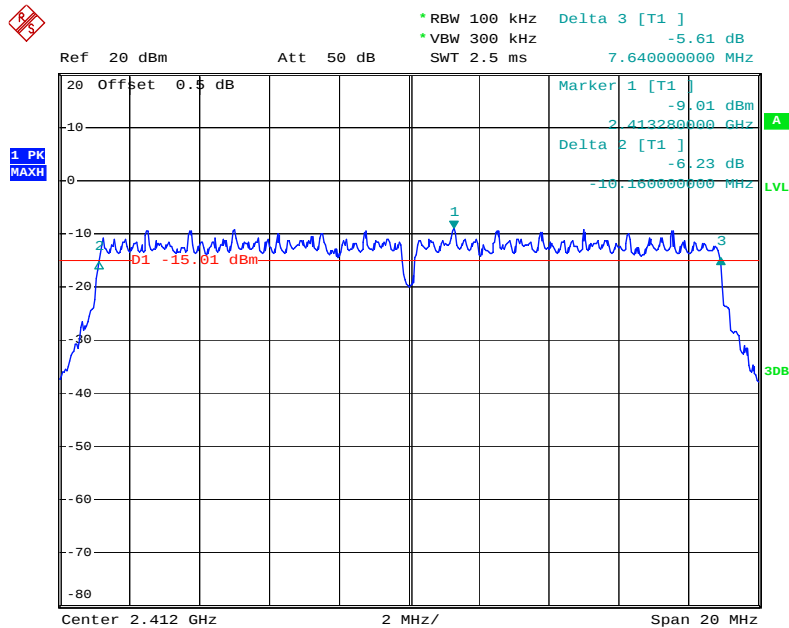
Date: 28.JUN.2014 14:25:47

802.11g Channel High 2462MHz



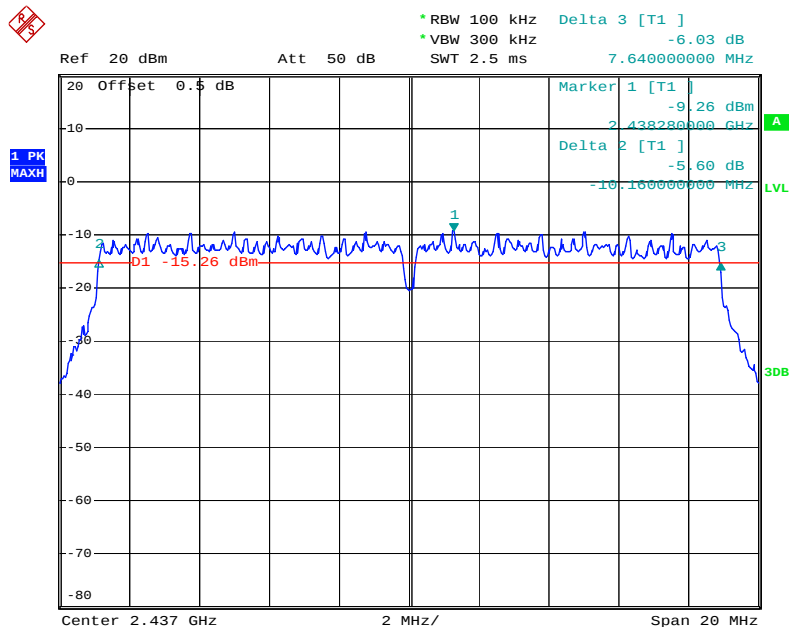
Date: 28.JUN.2014 14:27:27

802.11n Channel Low 2412MHz (20MHz)



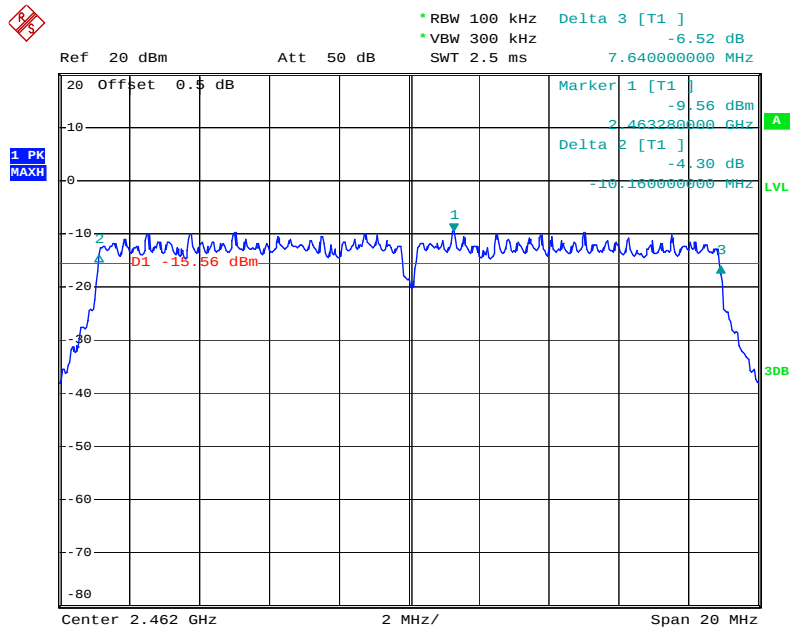
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802.11n Channel Middle 2437MHz(20MHz)



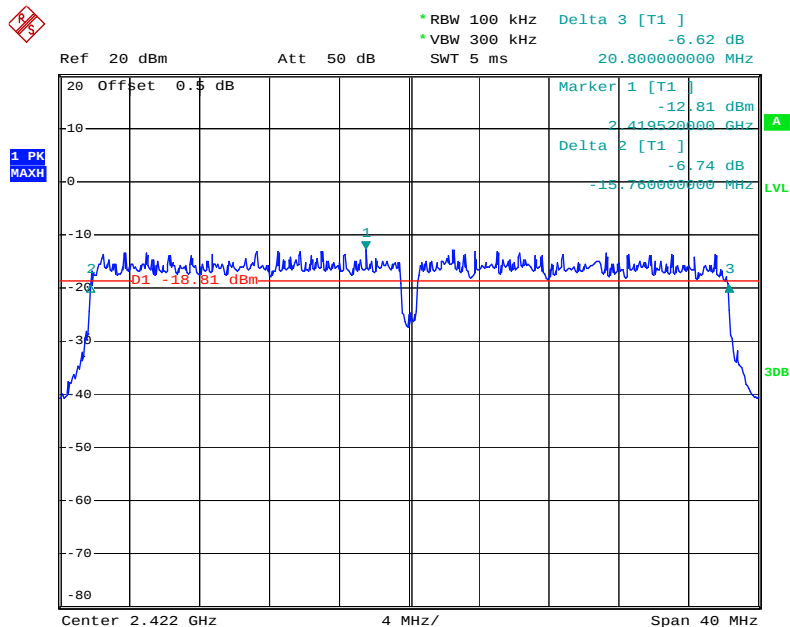
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802.11n Channel High 2462MHz(20MHz)



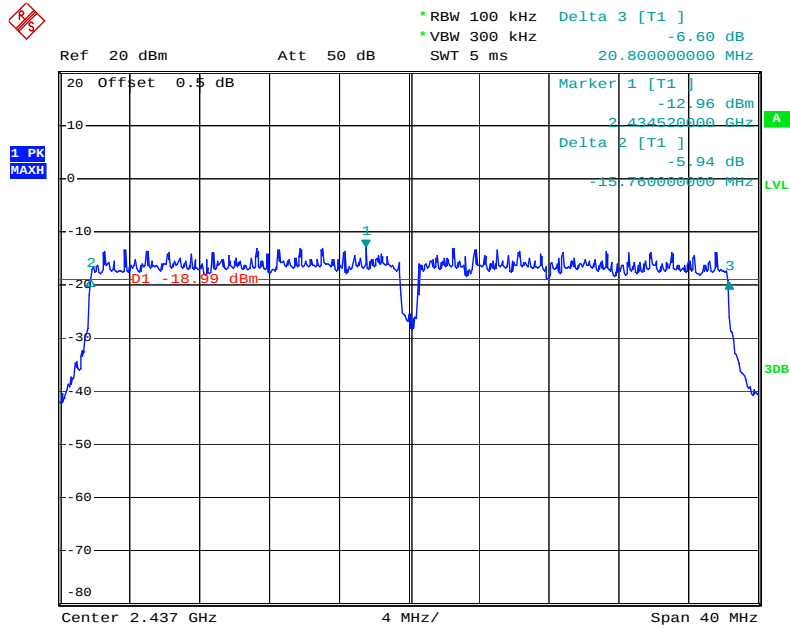
Date: 28.JUN.2014 14:29:28

802.11n Channel Low 2422MHz (40MHz)



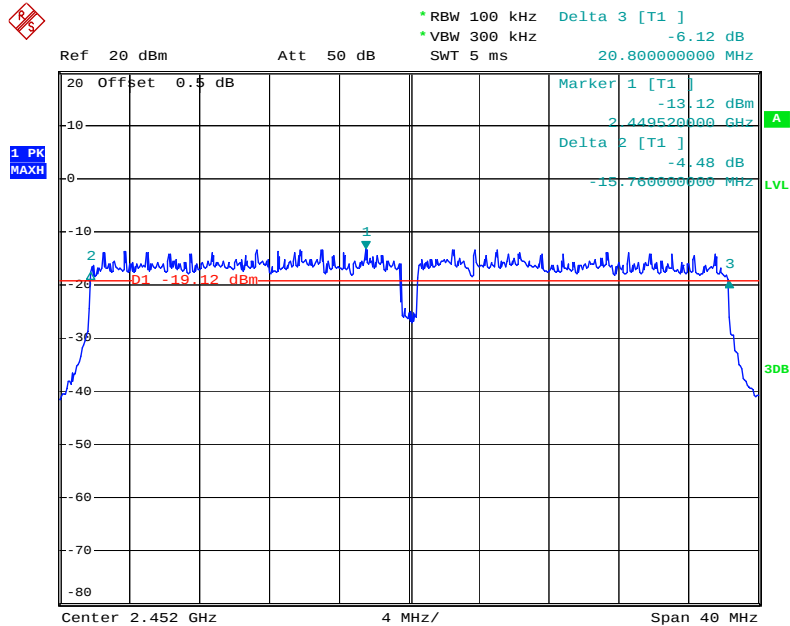
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802.11n Channel Middle 2437MHz(40MHz)



Date: 28.JUN.2014 14:40:10

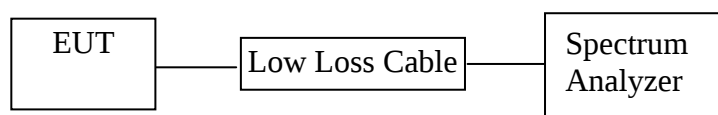
802.11n Channel High 2452MHz(40MHz)



Date: 28.JUN.2014 14:38:41

7. MAXIMUM CONDUCTED (AVERAGE) OUTPUT POWER

7.1. Block Diagram of Test Setup



7.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

7.3. EUT Configuration on Measurement

The equipment is installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

7.5. Test Procedure

7.5.1. The EUT was tested according to DTS test procedure of Jun 05, 2014 KDB558074 D01 DTS Meas Guidance v03r02 for compliance to FCC 47CFR 15.247 requirements.

7.5.2. The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.3. Set RBW = 1-5% of the OBW, not to exceed 1 MHz, VBW $\geq$ 3 x RBW, Sweep time = auto, Set span to at least 1.5 times the OBW, Detector = RMS.

7.5.4. Measurement the Maximum conducted (average) output power.

7.6.Test Result

The test was performed with 802.11b				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2412	9.35	8.61	30 dBm / 1 W
Middle	2437	9.49	8.89	30 dBm / 1 W
High	2462	9.26	8.43	30 dBm / 1 W

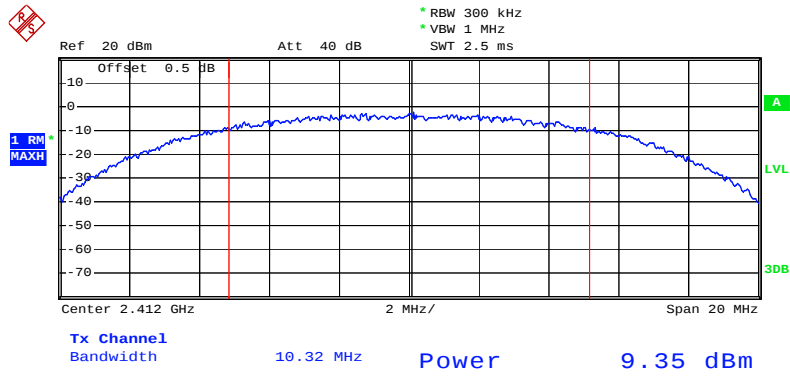
The test was performed with 802.11g				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2412	8.57	7.19	30 dBm / 1 W
Middle	2437	8.54	7.14	30 dBm / 1 W
High	2462	8.79	7.57	30 dBm / 1 W

The test was performed with 802.11n (20MHz)				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2412	8.16	6.55	30 dBm / 1 W
Middle	2437	7.98	6.28	30 dBm / 1 W
High	2462	7.57	5.71	30 dBm / 1 W

The test was performed with 802.11n (40MHz)				
Channel	Frequency (MHz)	Ave output power (dBm)	Ave output power (mW)	Limits dBm / W
Low	2422	7.20	5.25	30 dBm / 1 W
Middle	2437	7.03	5.05	30 dBm / 1 W
High	2452	7.11	5.14	30 dBm / 1 W

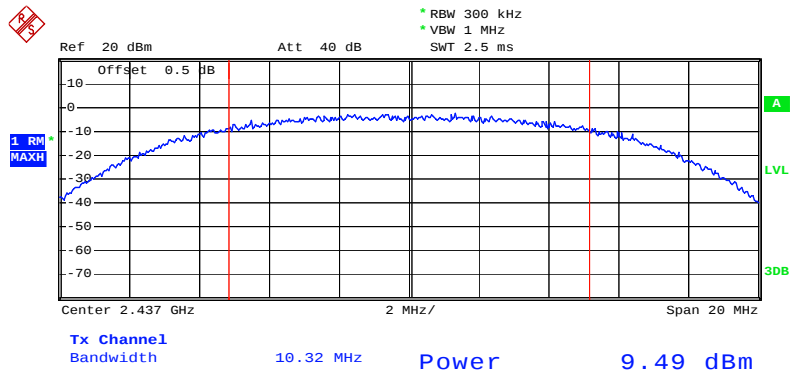
The spectrum analyzer plots are attached as below.

802.11b Channel Low 2412MHz



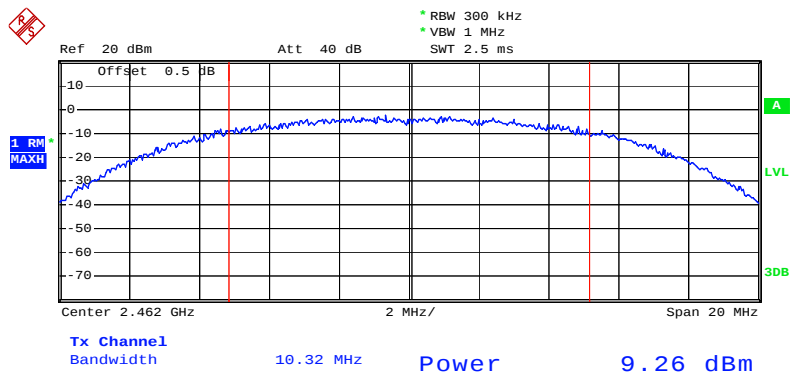
Date: 30.JUN.2014 08:56:50

802.11b Channel Middle 2437MHz



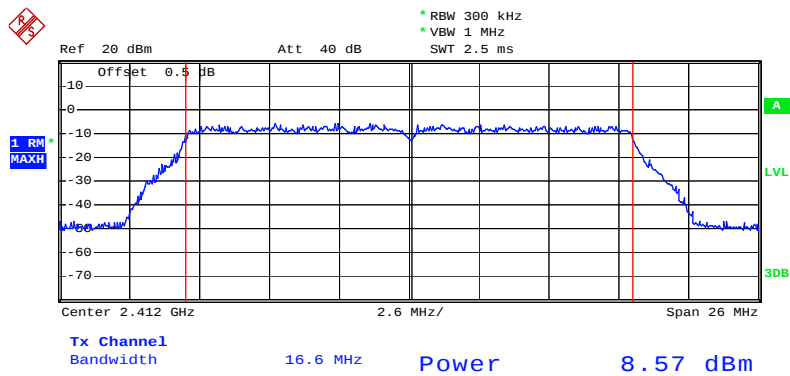
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802.11b Channel High 2462MHz



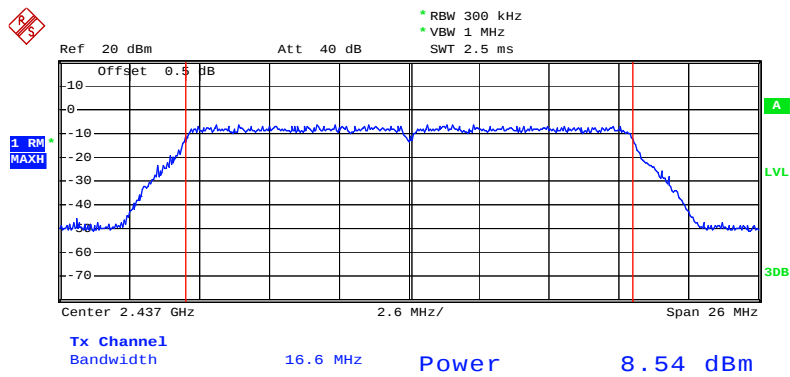
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802.11g Channel Low 2412MHz



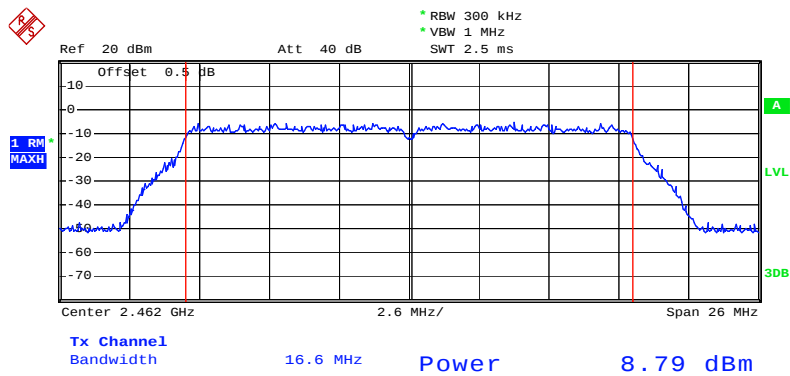
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802.11g Channel Middle 2437MHz



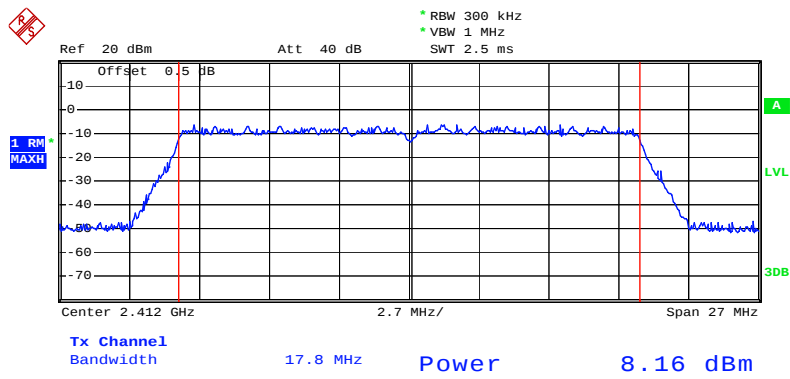
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802.11g Channel High 2462MHz



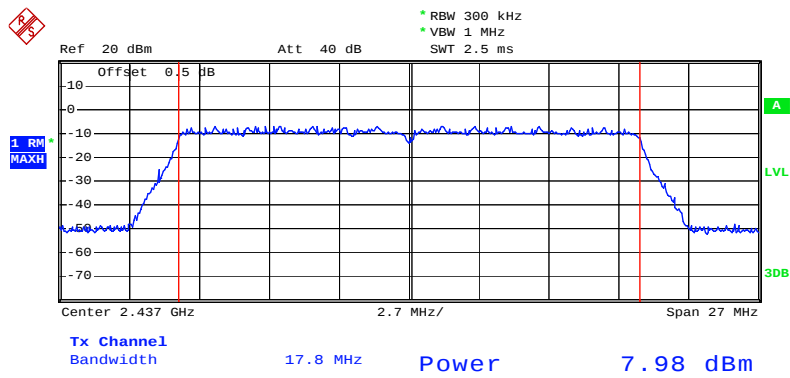
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802.11n Channel Low 2412MHz (20MHz)



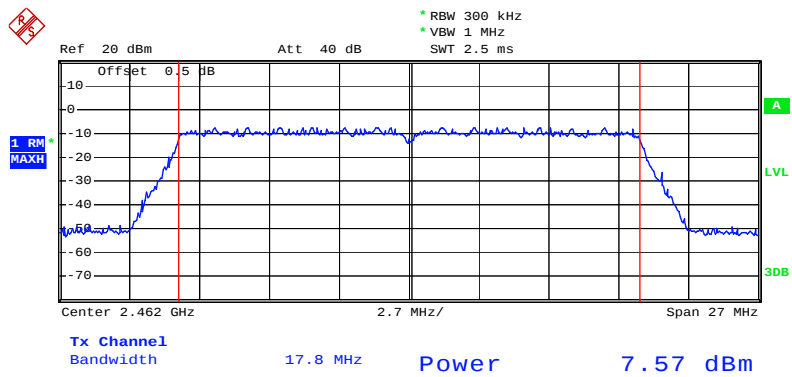
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802.11n Channel Middle 2437MHz (20MHz)



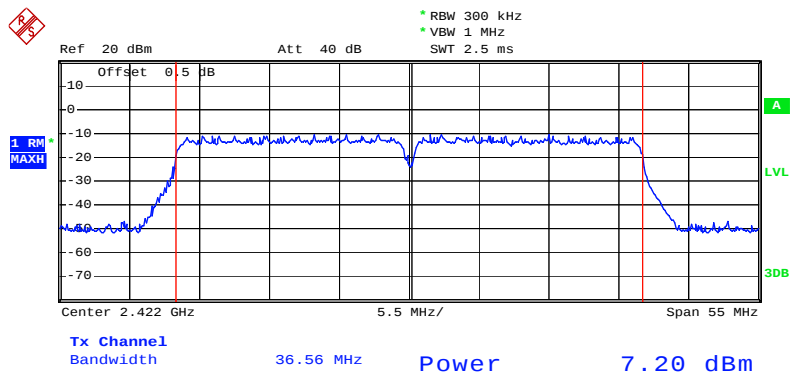
Date: 30.JUN.2014 09:04:05

802.11n Channel High 2462MHz (20MHz)



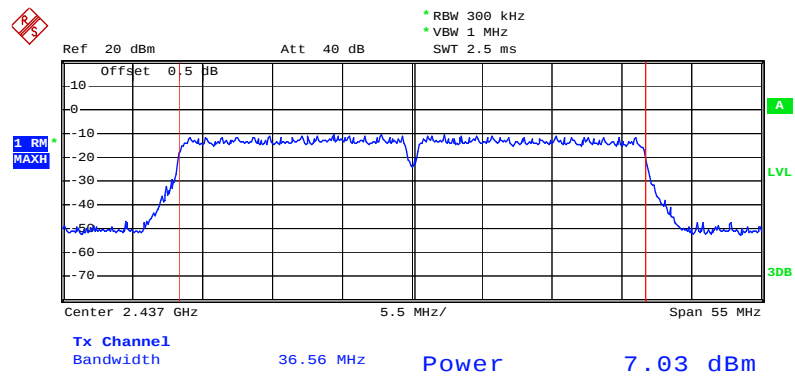
Date: 30.JUN.2014 09:04:42

802.11n Channel Low 2422MHz (40MHz)



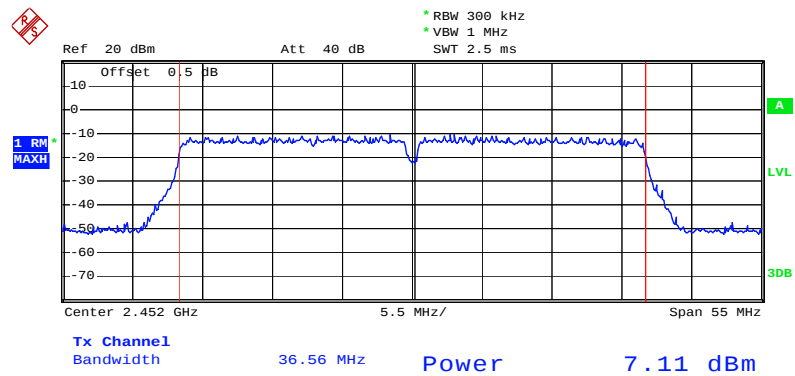
Date: 30.JUN.2014 09:05:45

802.11n Channel Middle 2437MHz (40MHz)



Date: 30.JUN.2014 09:06:39

802.11n Channel High 2452MHz (40MHz)



Date: 30.JUN.2014 09:07:19

8. POWER SPECTRAL DENSITY MEASUREMENT

8.1. Block Diagram of Test Setup



8.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

8.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

8.5. Test Procedure

8.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2. Measurement Procedure PKPSD:

This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.

3. Set the RBW $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

8.5.3.Measurement the maximum power spectral density.

8.6.Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-19.36	8 dBm
Middle	2437	-19.20	8 dBm
High	2462	-20.11	8 dBm

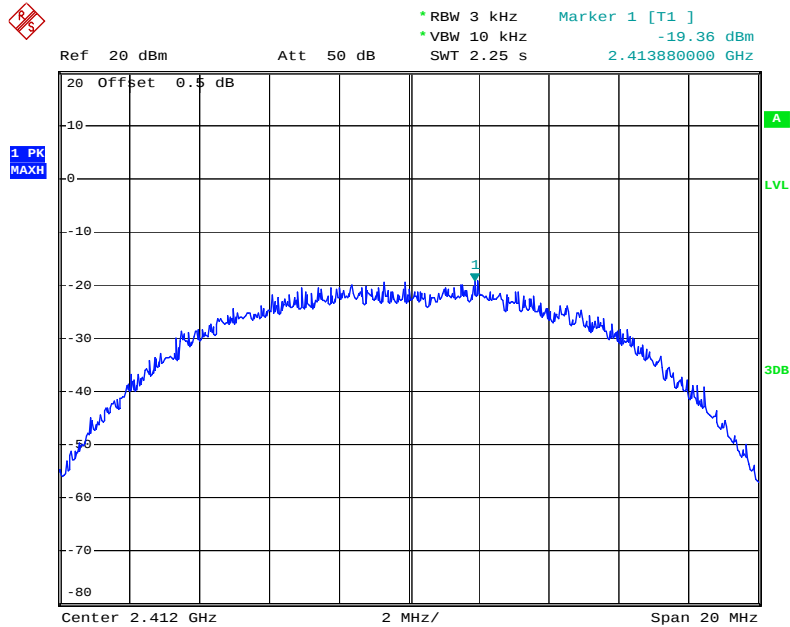
The test was performed with 802.11g			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-23.88	8 dBm
Middle	2437	-24.52	8 dBm
High	2462	-23.79	8 dBm

The test was performed with 802.11n (20MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-24.54	8 dBm
Middle	2437	-25.50	8 dBm
High	2462	-24.74	8 dBm

The test was performed with 802.11n (40MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2422	-29.52	8 dBm
Middle	2437	-29.55	8 dBm
High	2452	-30.52	8 dBm

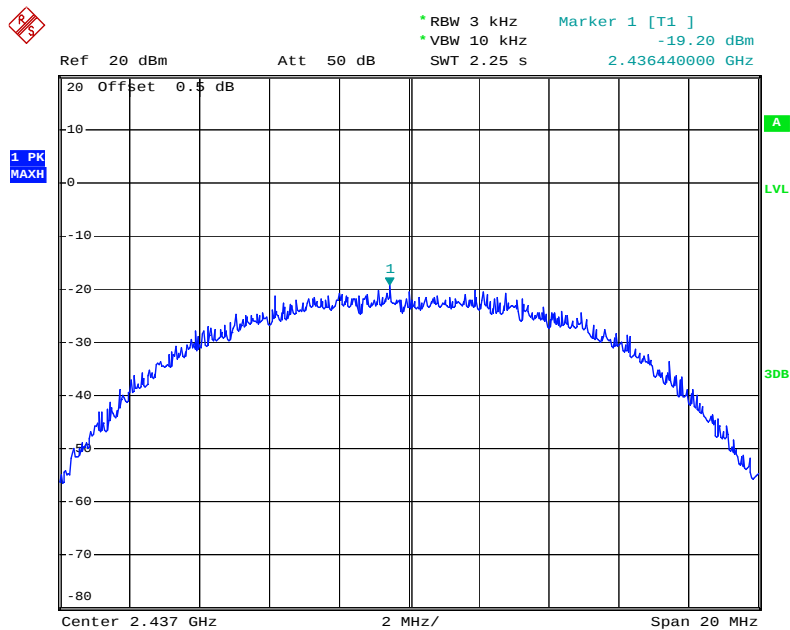
The spectrum analyzer plots are attached as below.

802.11b Channel Low 2412MHz



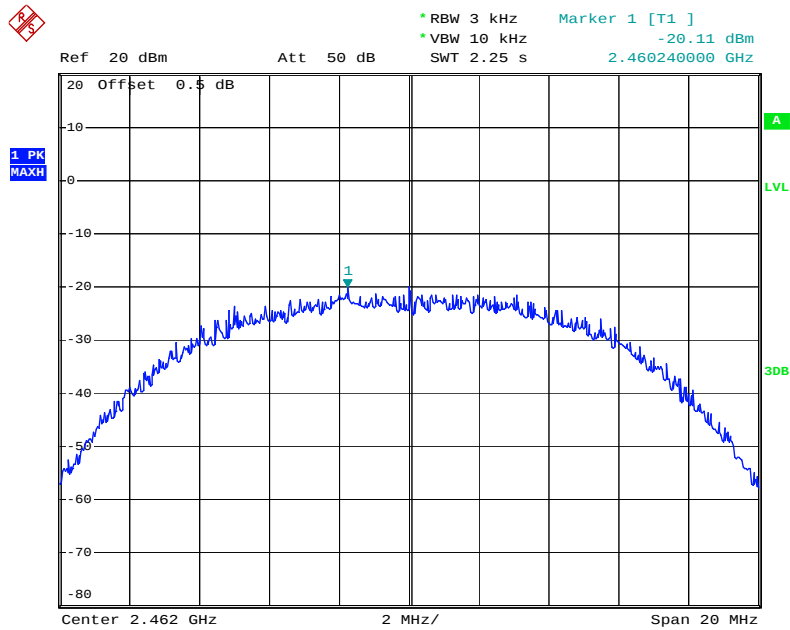
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802.11b Channel Middle 2437MHz



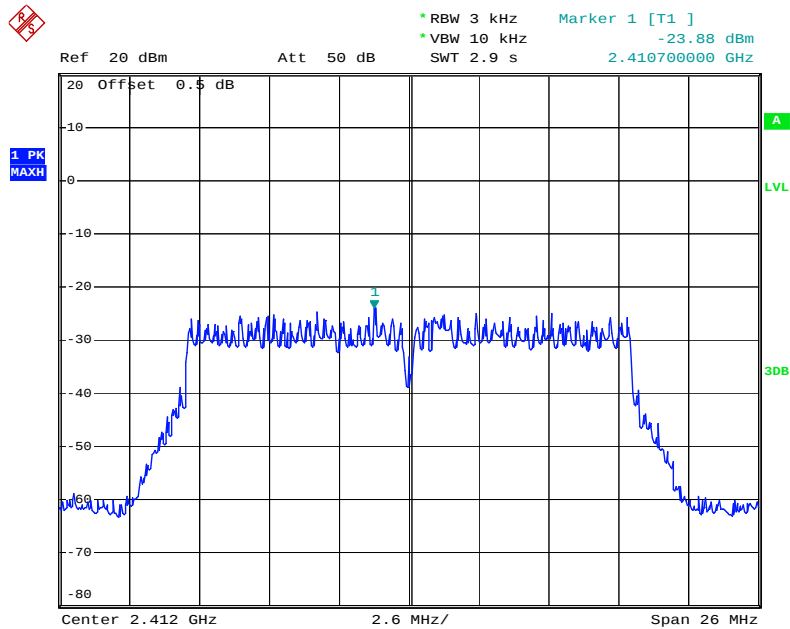
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802.11b Channel High 2462MHz



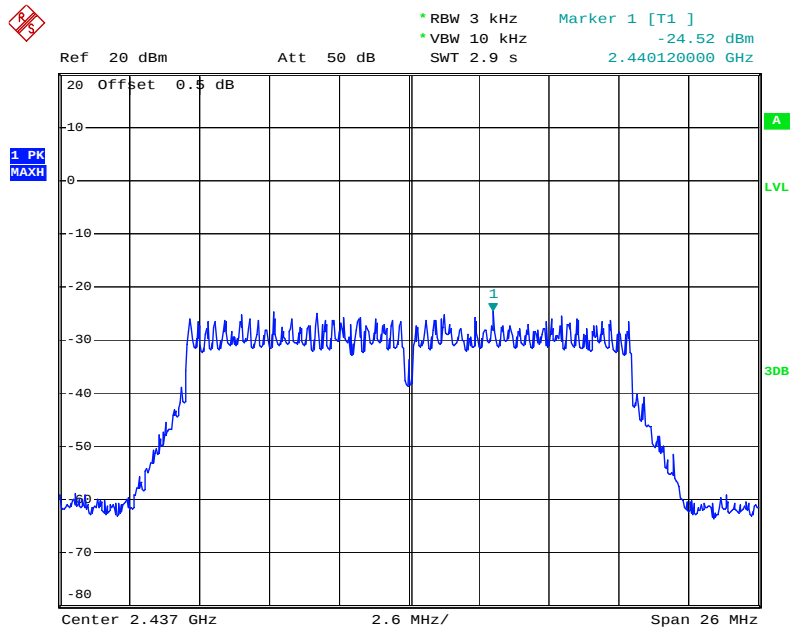
Date: 28.JUN.2014 15:04:59

802.11g Channel Low 2412MHz



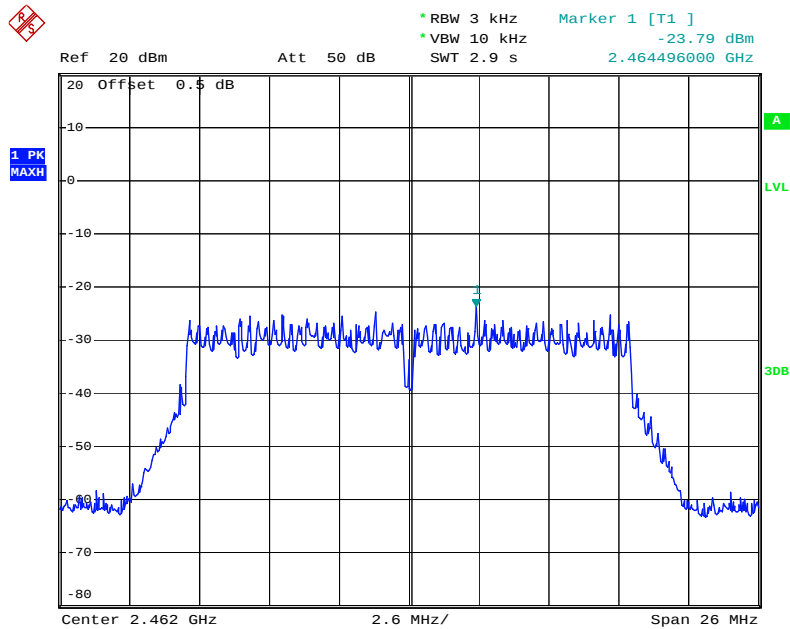
Date: 28.JUN.2014 15:03:24

802.11g Channel Middle 2437MHz



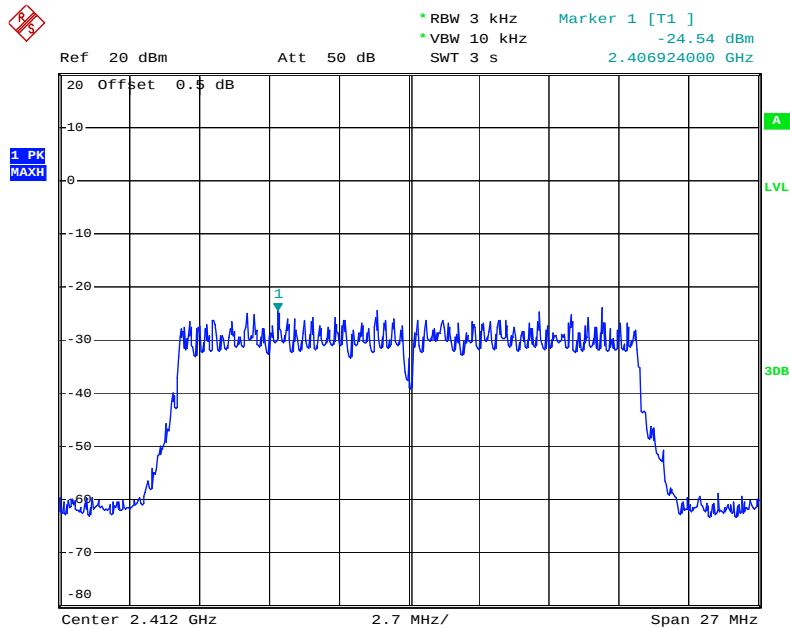
Date: 28.JUN.2014 15:02:55

802.11g Channel High 2462MHz



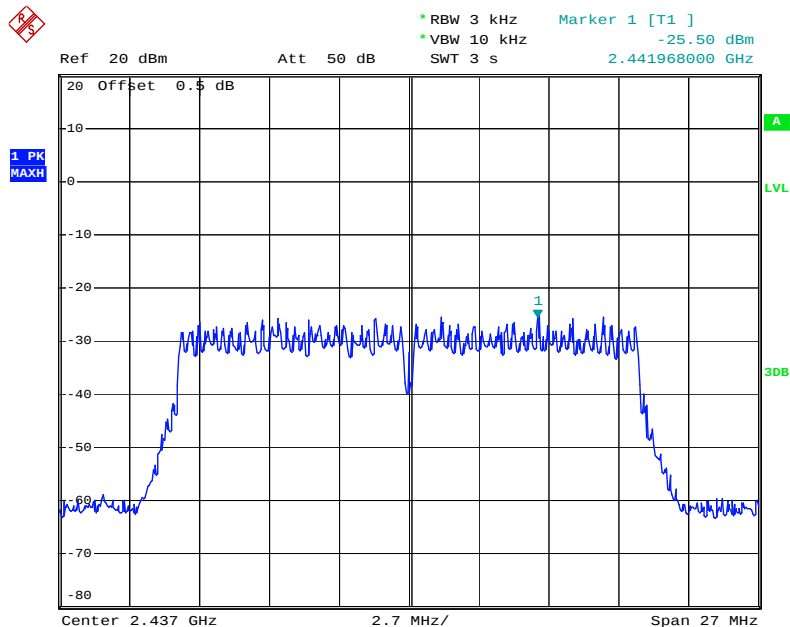
Date: 28.JUN.2014 15:02:24

802.11n Channel Low 2412MHz (20MHz)



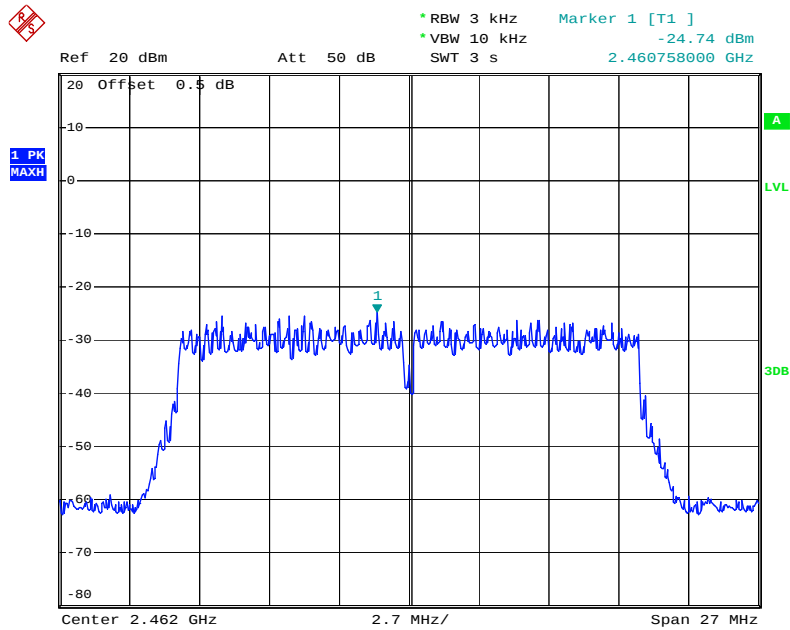
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802.11n Channel Middle 2437MHz (20MHz)



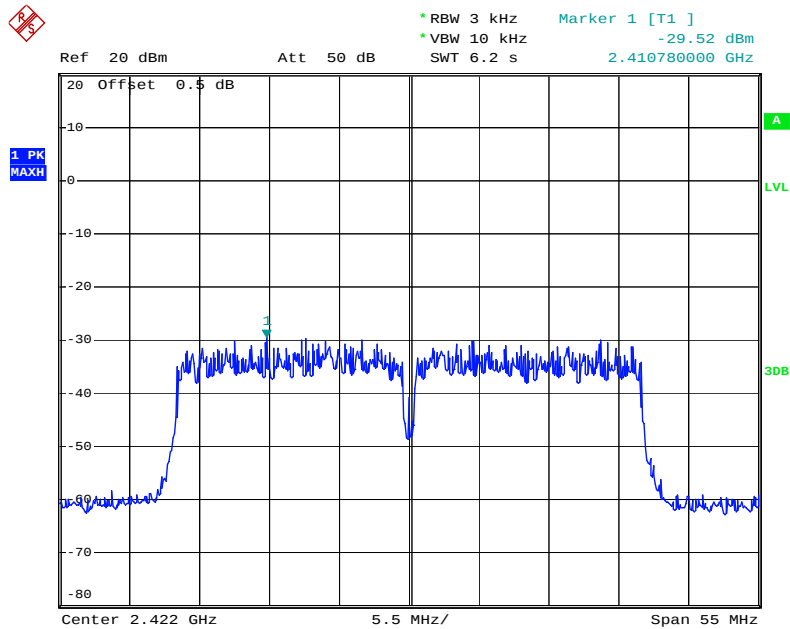
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802.11n Channel High 2462MHz(20MHz)



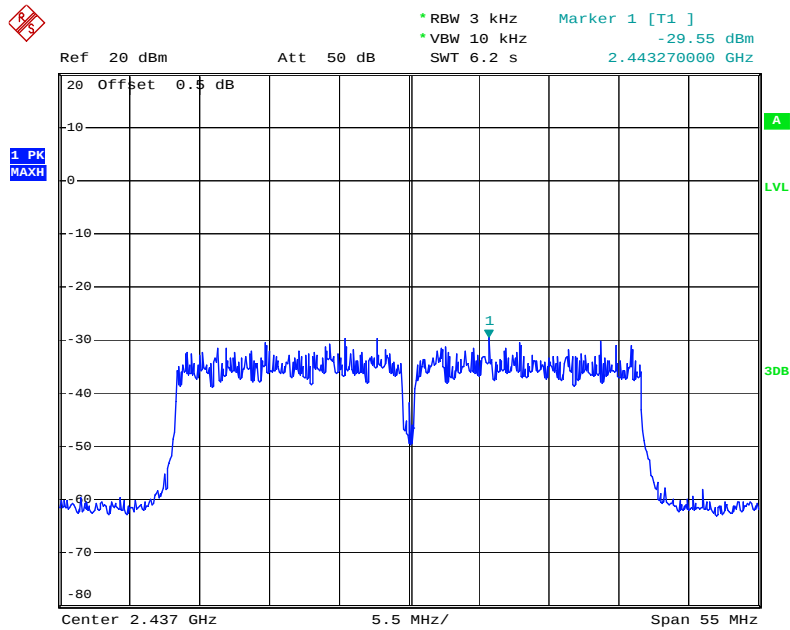
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802.11n Channel Low 2422MHz (40MHz)



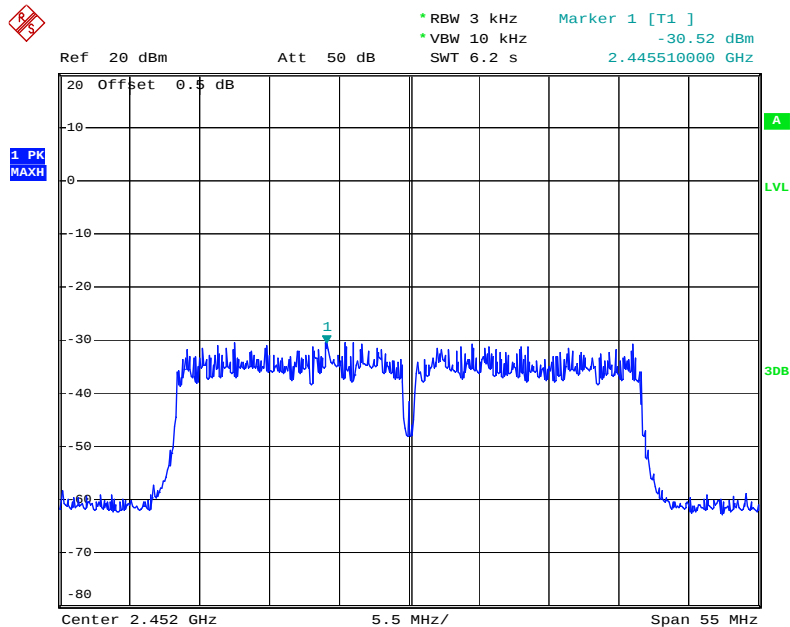
Date: 28.JUN.2014 14:58:28

802.11n Channel Middle 2437MHz(40MHz)



Date: 28.JUN.2014 14:59:01

802.11n Channel High 2452MHz(40MHz)



Date: 28.JUN.2014 14:59:51

9. BAND EDGE COMPLIANCE TEST

9.1. Block Diagram of Test Setup



9.2. The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

9.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.4. Operating Condition of EUT

9.4.1. Setup the EUT and simulator as shown as Section 9.1.

9.4.2. Turn on the power of all equipment.

9.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz MHz. We select 2412MHz, 2462MHz and 2422MHz, 2452MHz TX frequency to transmit.

9.5. Test Procedure

Conducted Band Edge:

9.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

9.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.

Radiate Band Edge:

9.5.3.The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

9.5.4.The turntable was rotated for 360 degrees to determine the position of maximum emission level.

9.5.5.EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

9.5.6.Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

9.5.7.RBW=1MHz, VBW=1MHz

9.5.8.The band edges was measured and recorded.

9.6.Test Result

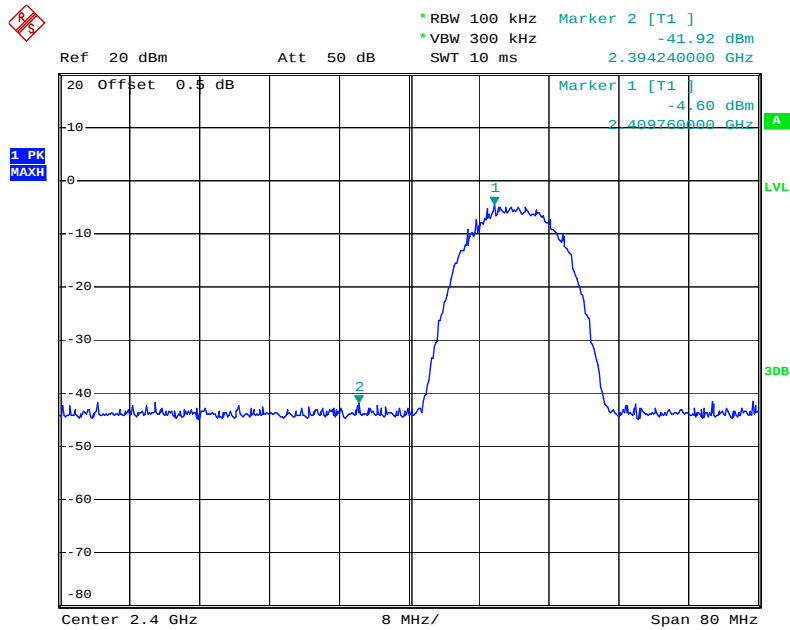
The test was performed with 802.11b		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	37.32	> 20dBc
2462	36.98	> 20dBc

The test was performed with 802.11g		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	33.63	> 20dBc
2462	33.11	> 20dBc

The test was performed with 802.11n (20MHz)		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	34.39	> 20dBc
2462	33.21	> 20dBc

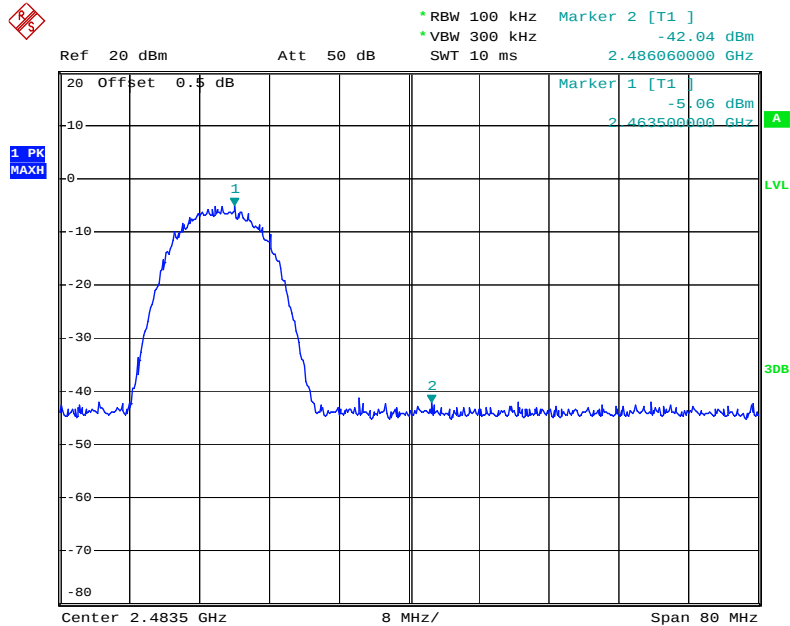
The test was performed with 802.11n (40MHz)		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2422	29.43	> 20dBc
2452	29.21	> 20dBc

802.11b Channel Low 2412MHz



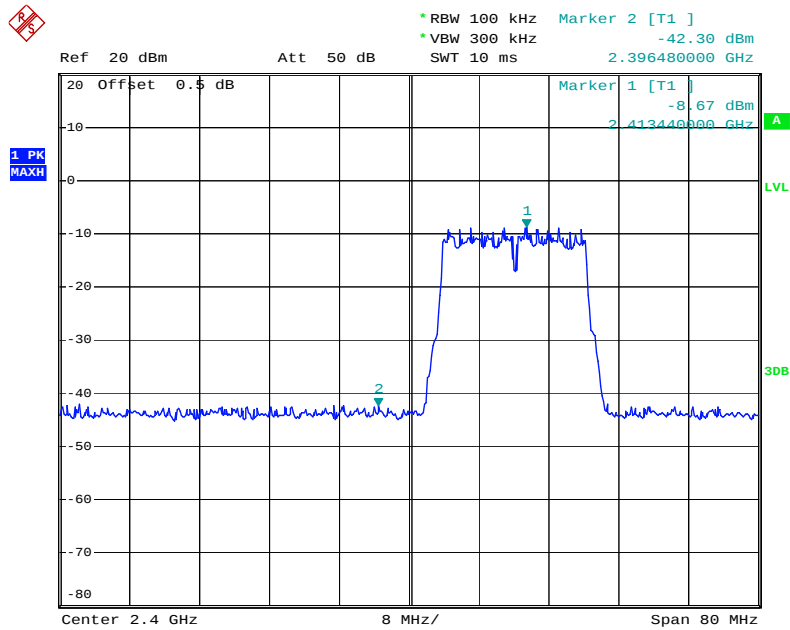
Date: 28.JUN.2014 14:51:06

802.11b Channel High 2462MHz



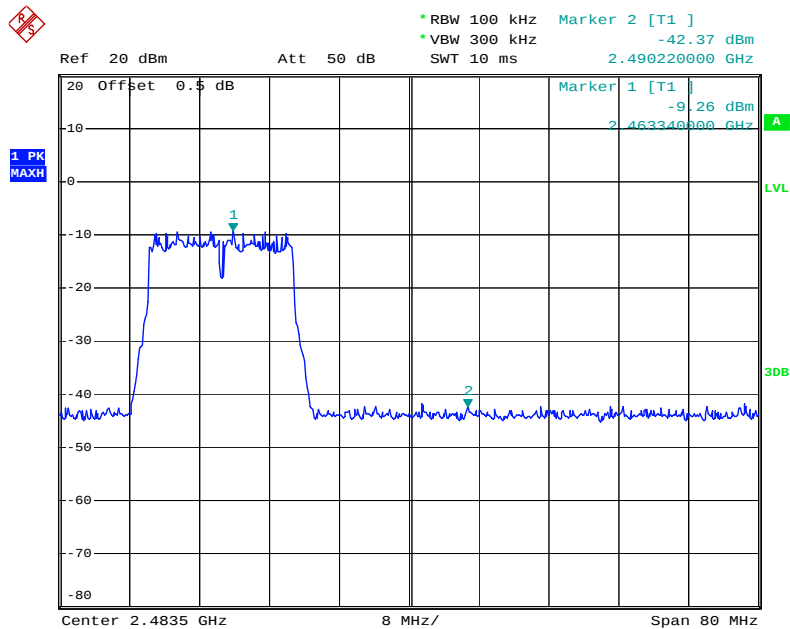
Date: 28.JUN.2014 14:52:00

802.11g Channel Low 2412MHz



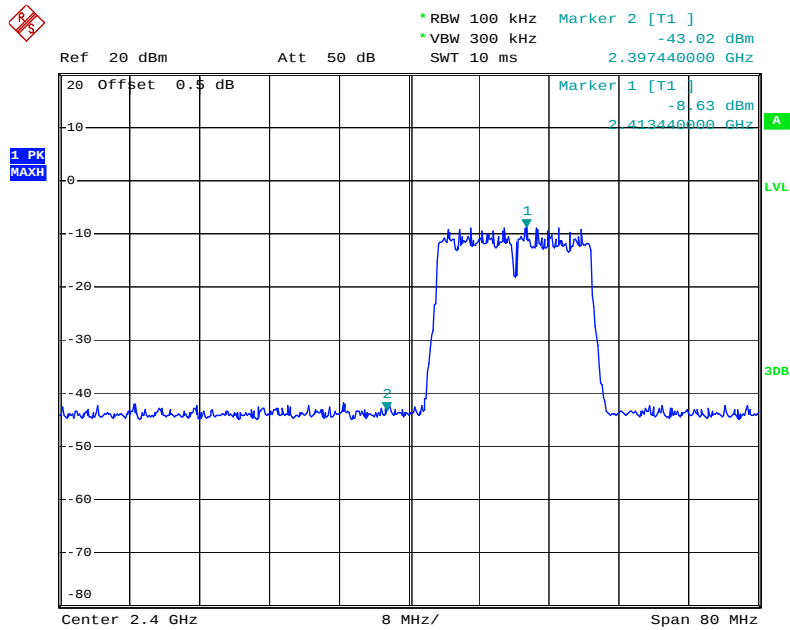
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802.11g Channel High 2462MHz



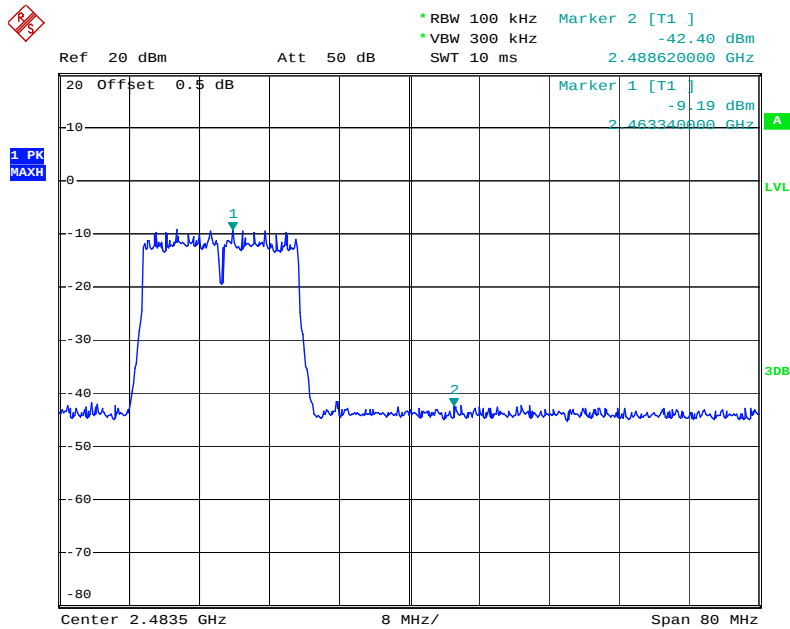
Date: 28.JUN.2014 14:52:57

802.11n Channel Low 2412MHz (20MHz)



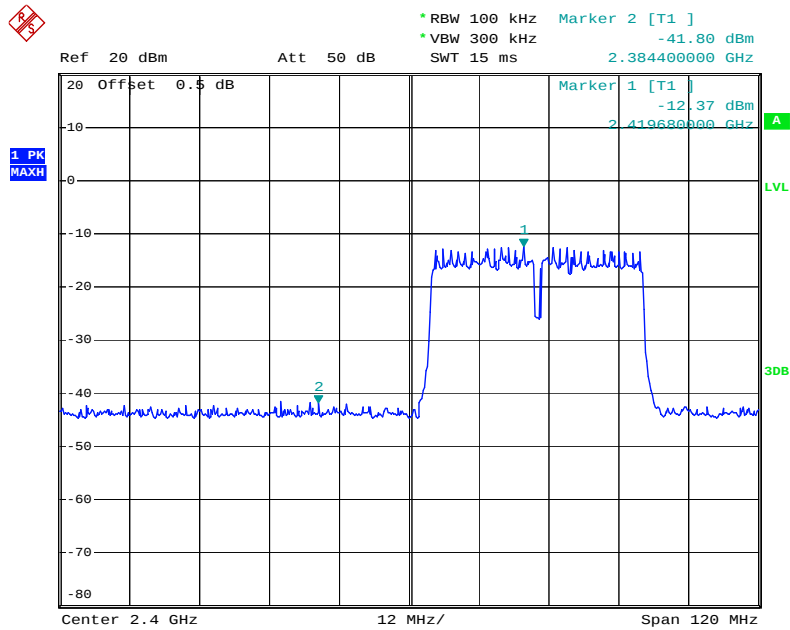
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802.11n Channel High 2462MHz (20MHz)



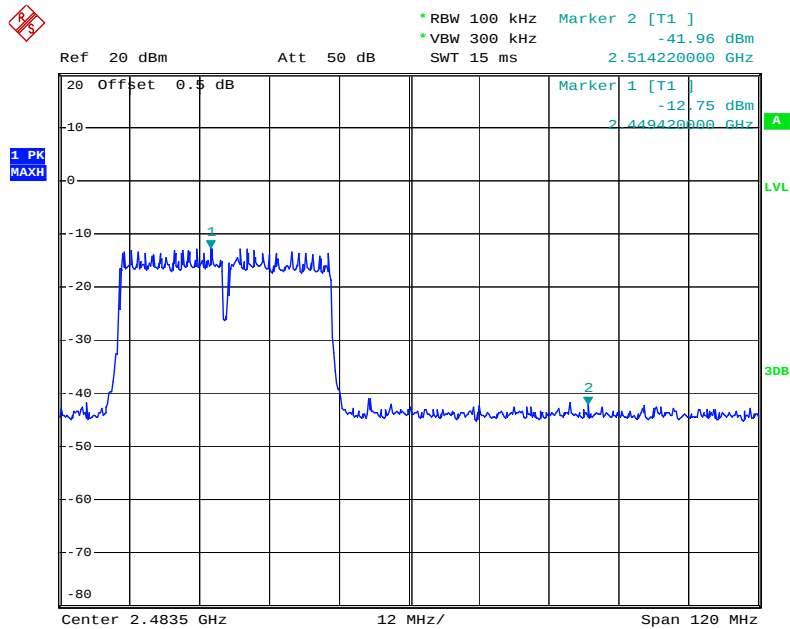
Date: 28.JUN.2014 14:55:36

802.11n Channel Low 2422MHz (40MHz)



Date: 28.JUN.2014 14:57:19

802.11n Channel High 2452MHz (40MHz)



Date: 28.JUN.2014 14:56:32

Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

3. Display the measurement of peak values.



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Site: 1# Chamber

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Fax:+86-0755-26503396

Job No.: alen #4582

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 4 inch 3G Tablet

Mode: TX 2412MHz(802.11b)

Model: ICE

Manufacturer: IMC

Polarization: Horizontal

Power Source: AC 120V/60Hz

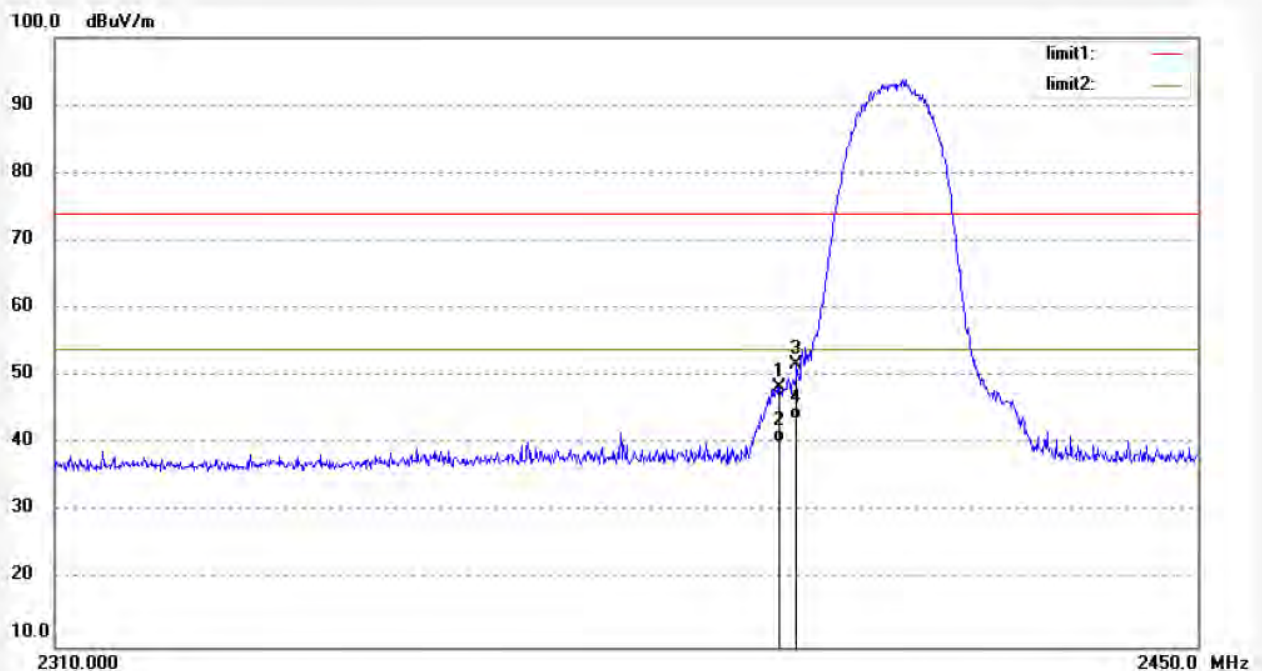
Date: 14/06/26/

Time: 9/32/45

Engineer Signature:

Distance: 3m

Note: Report No:ATE20141087

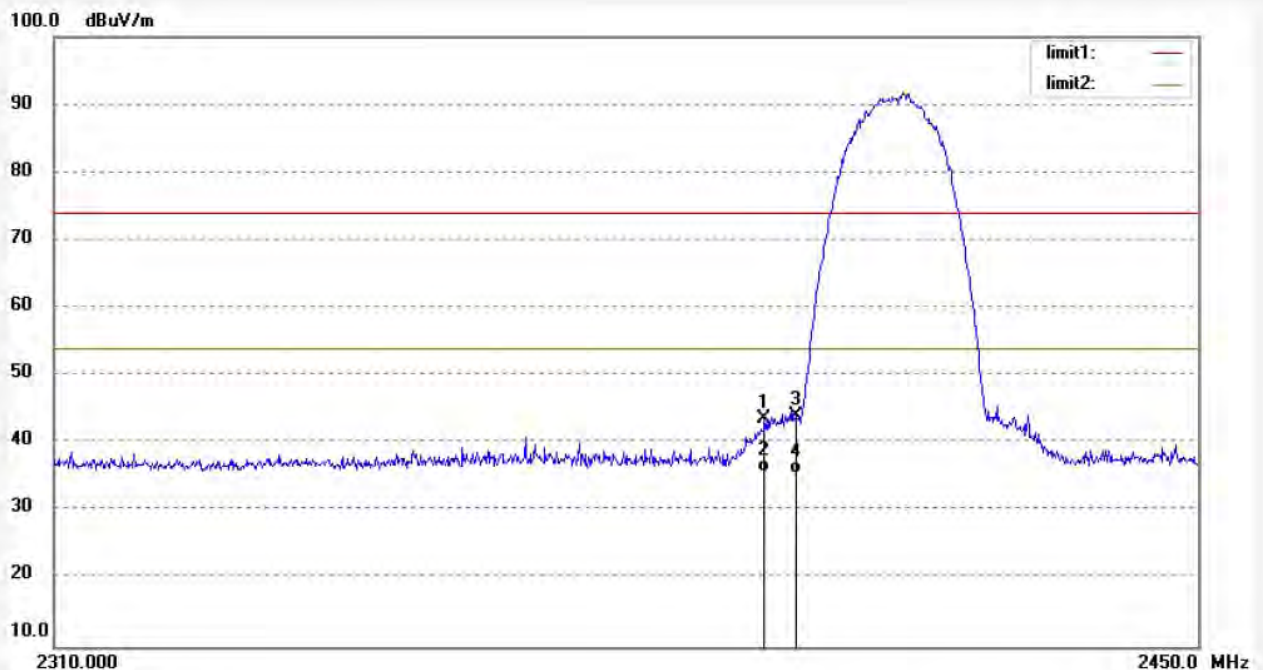


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2397.920	55.02	-6.76	48.26	74.00	-25.74	peak			
2	2397.920	47.01	-6.76	40.25	54.00	-13.75	AVG			
3	2400.020	58.43	-6.76	51.67	74.00	-22.33	peak			
4	2400.020	50.37	-6.76	43.61	54.00	-10.39	AVG			

Job No.: alen #4583
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/35/57
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

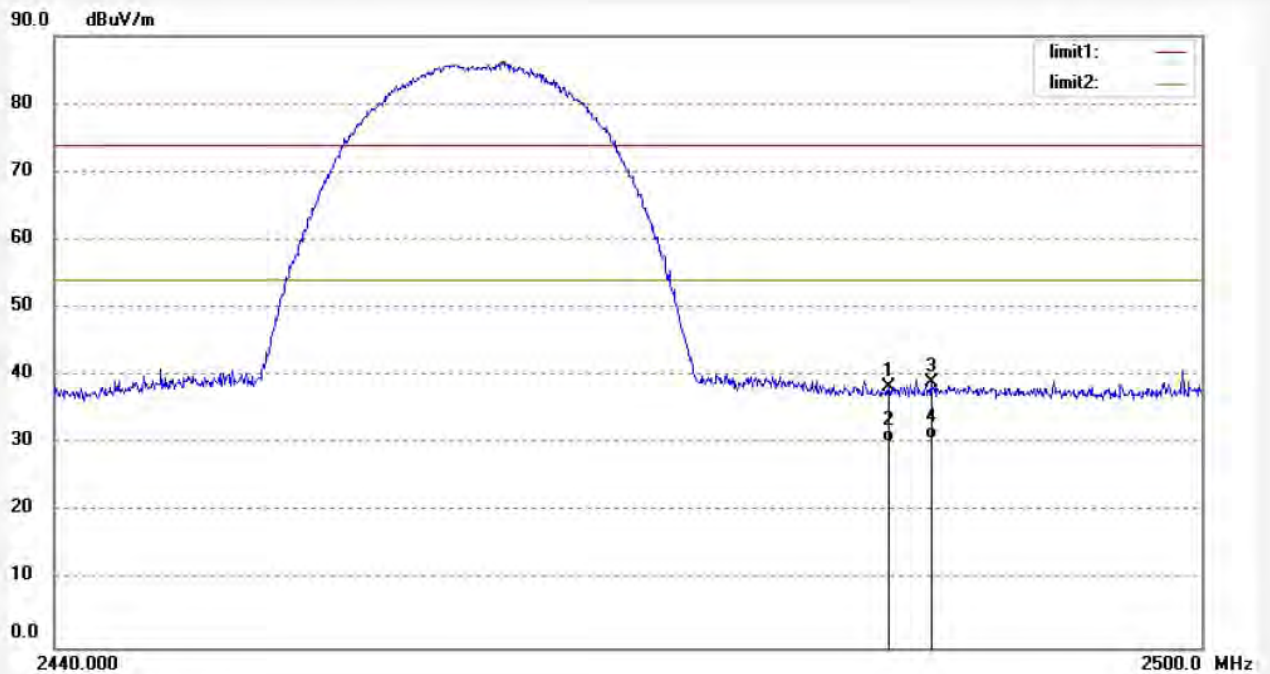


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2396.100	50.41	-6.76	43.65	74.00	-30.35	peak			
2	2396.100	42.48	-6.76	35.72	54.00	-18.28	AVG			
3	2400.020	50.74	-6.76	43.98	74.00	-30.02	peak			
4	2400.020	42.38	-6.76	35.62	54.00	-18.38	AVG			

Job No.: alen #4585
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/39/55
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

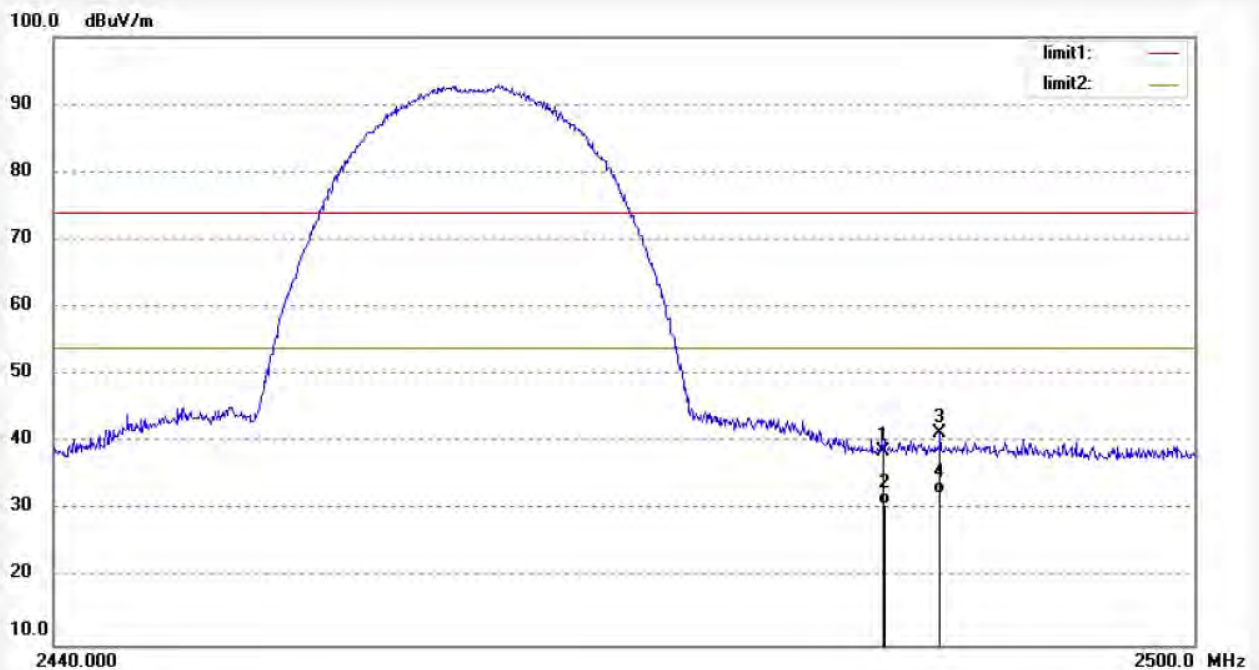


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.83	-6.54	38.29	74.00	-35.71	peak			
2	2483.500	36.78	-6.54	30.24	54.00	-23.76	AVG			
3	2485.720	45.47	-6.54	38.93	74.00	-35.07	peak			
4	2485.720	37.35	-6.54	30.81	54.00	-23.19	AVG			

Job No.: alen #4584
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/38/37
Engineer Signature:
Distance: 3m

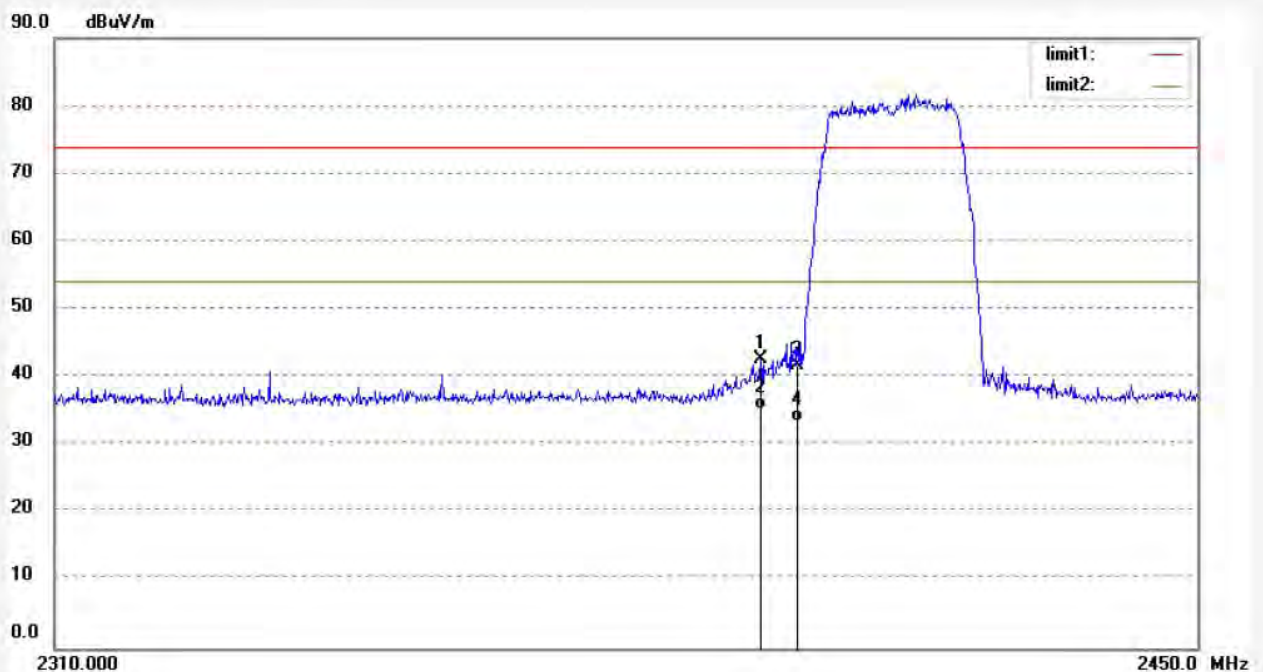
Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.22	-6.54	38.68	74.00	-35.32	peak			
2	2483.500	37.35	-6.54	30.81	54.00	-23.19	AVG			
3	2486.500	47.98	-6.54	41.44	74.00	-32.56	peak			
4	2486.500	38.98	-6.54	32.44	54.00	-21.56	AVG			

Job No.: alen #4589	Polarization: Horizontal
Standard: FCC PK	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 14/06/26/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/45/37
EUT: 4 inch 3G Tablet	Engineer Signature:
Mode: TX 2412MHz(802.11g)	Distance: 3m
Model: ICE	
Manufacturer: IMC	

Note: Report No:ATE20141087

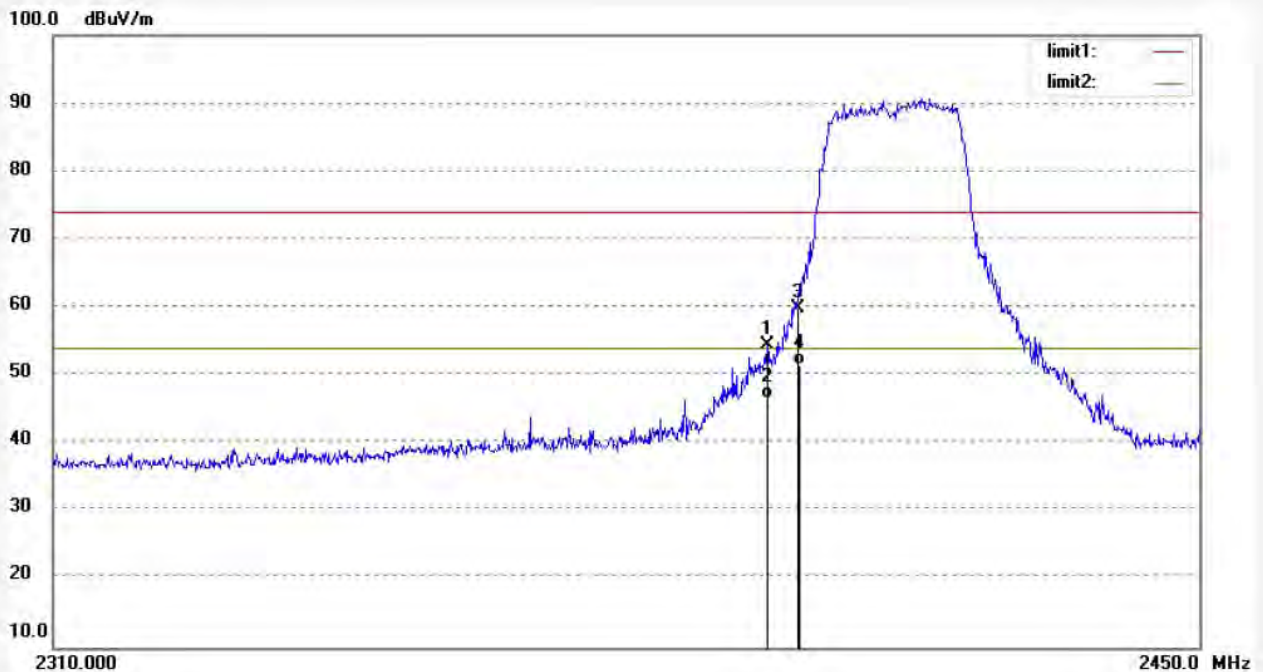


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2395.680	49.44	-6.76	42.68	74.00	-31.32	peak			
2	2395.680	42.03	-6.76	35.27	54.00	-18.73	AVG			
3	2400.020	48.43	-6.76	41.67	74.00	-32.33	peak			
4	2400.020	40.21	-6.76	33.45	54.00	-20.55	AVG			

Job No.: alen #4588
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11g)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/44/28
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

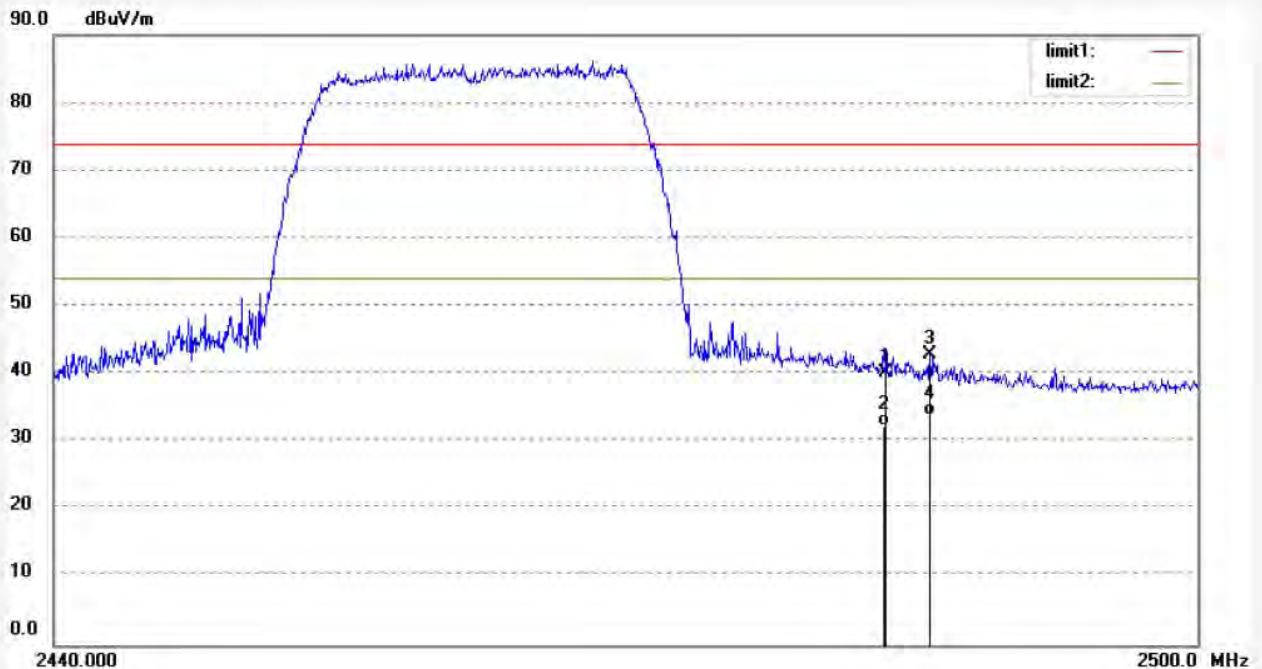


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2396.380	61.12	-6.76	54.36	74.00	-19.64	peak			
2	2396.380	53.24	-6.76	46.48	54.00	-7.52	AVG			
3	2400.020	66.59	-6.76	59.83	74.00	-14.17	peak			
4	2400.020	58.23	-6.76	51.47	54.00	-2.53	AVG			

Job No.: alen #4586
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11g)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/41/23
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	46.73	-6.54	40.19	74.00	-33.81	peak			
2	2483.500	38.86	-6.54	32.32	54.00	-21.68	AVG			
3	2485.840	49.37	-6.54	42.83	74.00	-31.17	peak			
4	2485.840	40.35	-6.54	33.81	54.00	-20.19	AVG			

Job No.: alen #4587

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 4 inch 3G Tablet

Mode: TX 2462MHz(802.11g)

Model: ICE

Manufacturer: IMC

Polarization: Vertical

Power Source: AC 120V/60Hz

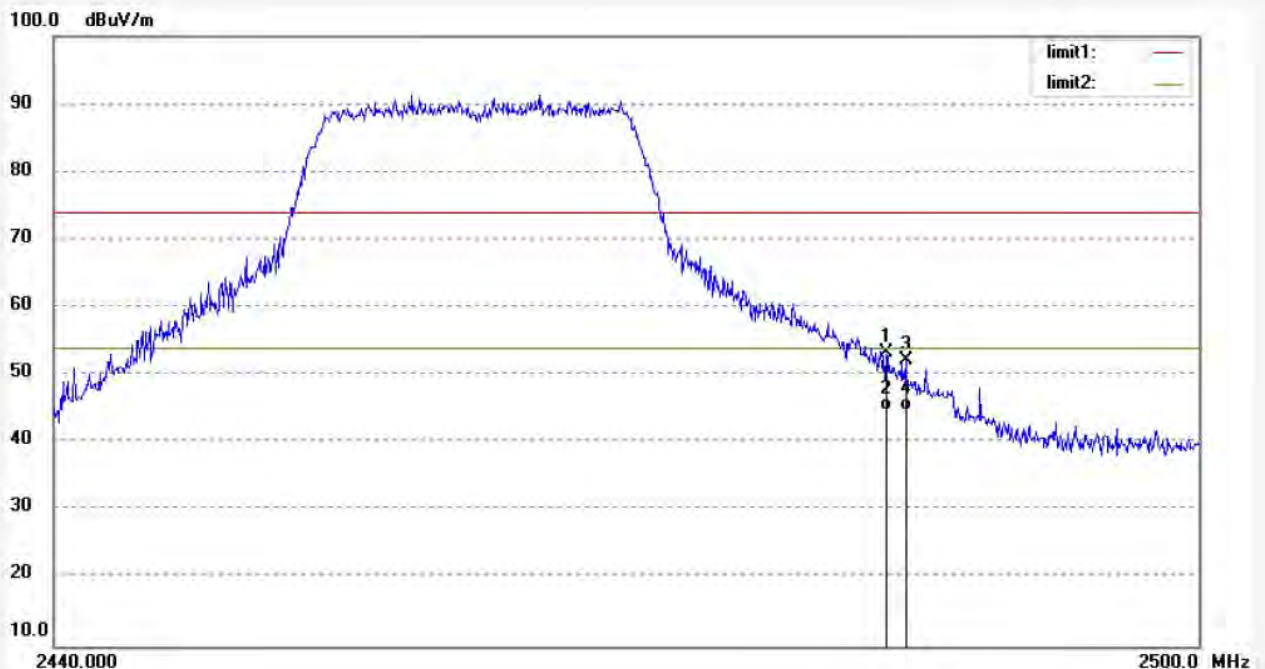
Date: 14/06/26/

Time: 9/42/26

Engineer Signature:

Distance: 3m

Note: Report No:ATE20141087

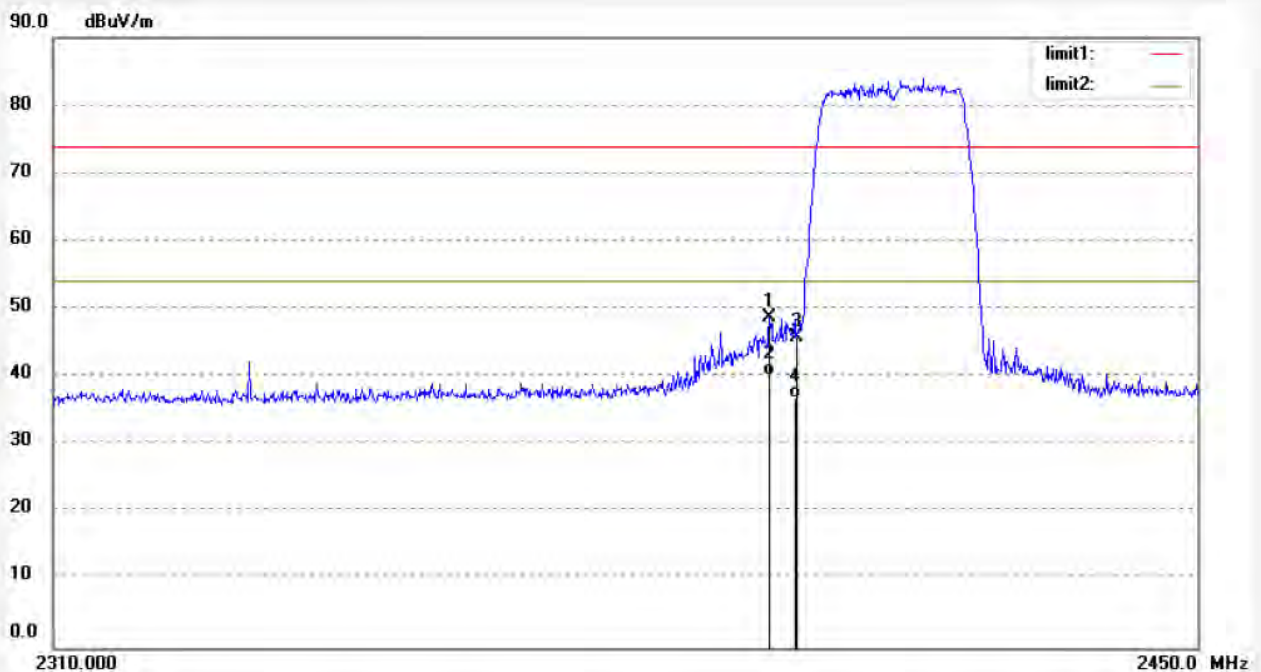


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	59.74	-6.54	53.20	74.00	-20.80	peak			
2	2483.500	51.36	-6.54	44.82	54.00	-9.18	AVG			
3	2484.520	58.78	-6.54	52.24	74.00	-21.76	peak			
4	2484.520	51.23	-6.54	44.69	54.00	-9.31	AVG			

Job No.: alen #4590
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/47/04
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

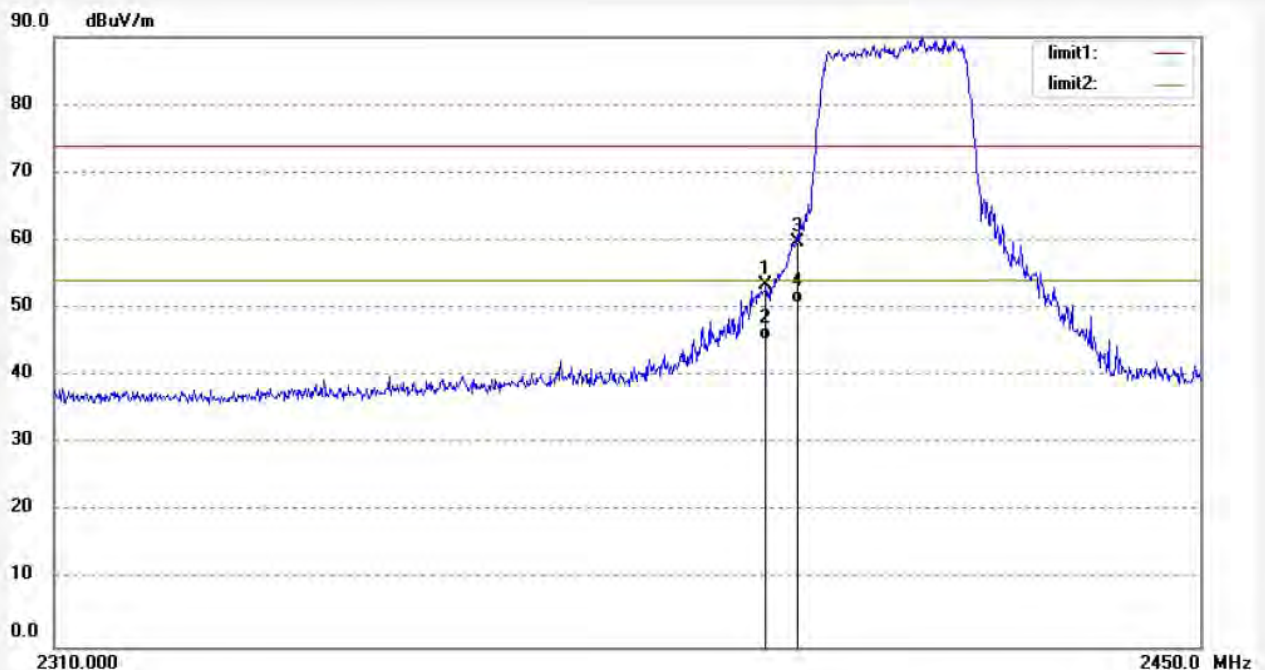


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2396.800	55.41	-6.76	48.65	74.00	-25.35	peak			
2	2396.800	46.89	-6.76	40.13	54.00	-13.87	AVG			
3	2400.020	52.56	-6.76	45.80	74.00	-28.20	peak			
4	2400.020	43.51	-6.76	36.75	54.00	-17.25	AVG			

Job No.: alen #4591
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/48/12
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

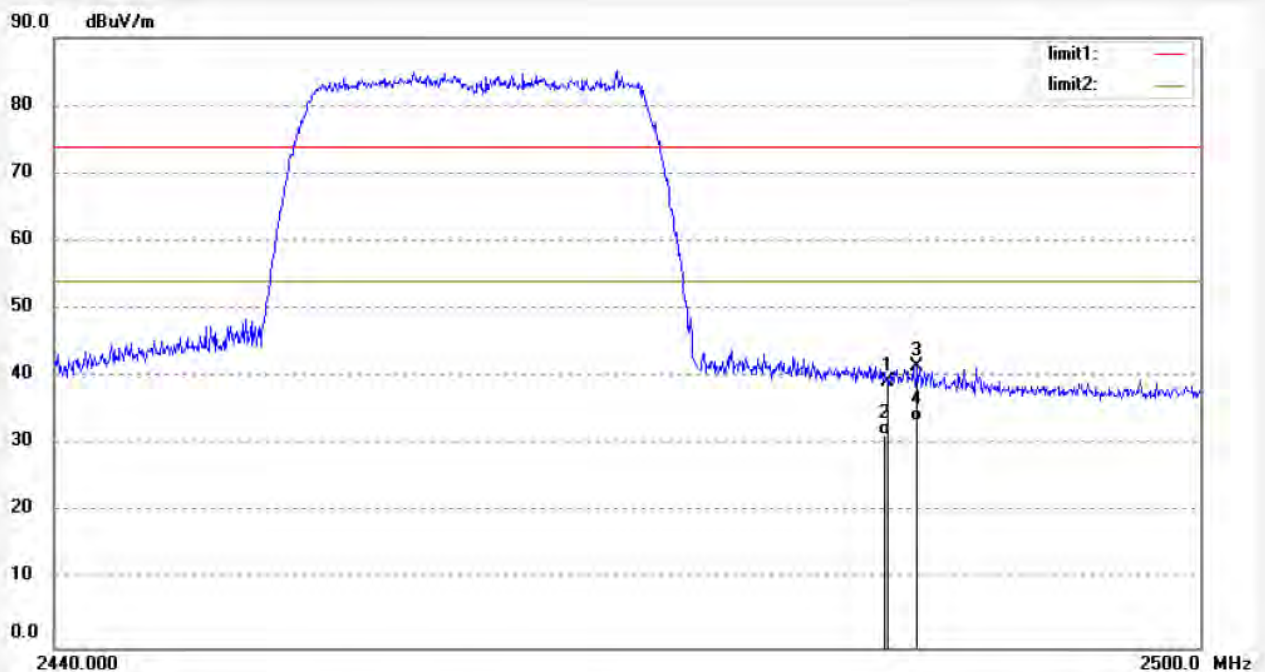


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2396.100	60.28	-6.76	53.52	74.00	-20.48	peak			
2	2396.100	52.12	-6.76	45.36	54.00	-8.64	AVG			
3	2399.740	66.39	-6.76	59.63	74.00	-14.37	peak			
4	2399.740	57.54	-6.76	50.78	54.00	-3.22	AVG			

Job No.: alen #4593
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/51/40
Engineer Signature:
Distance: 3m

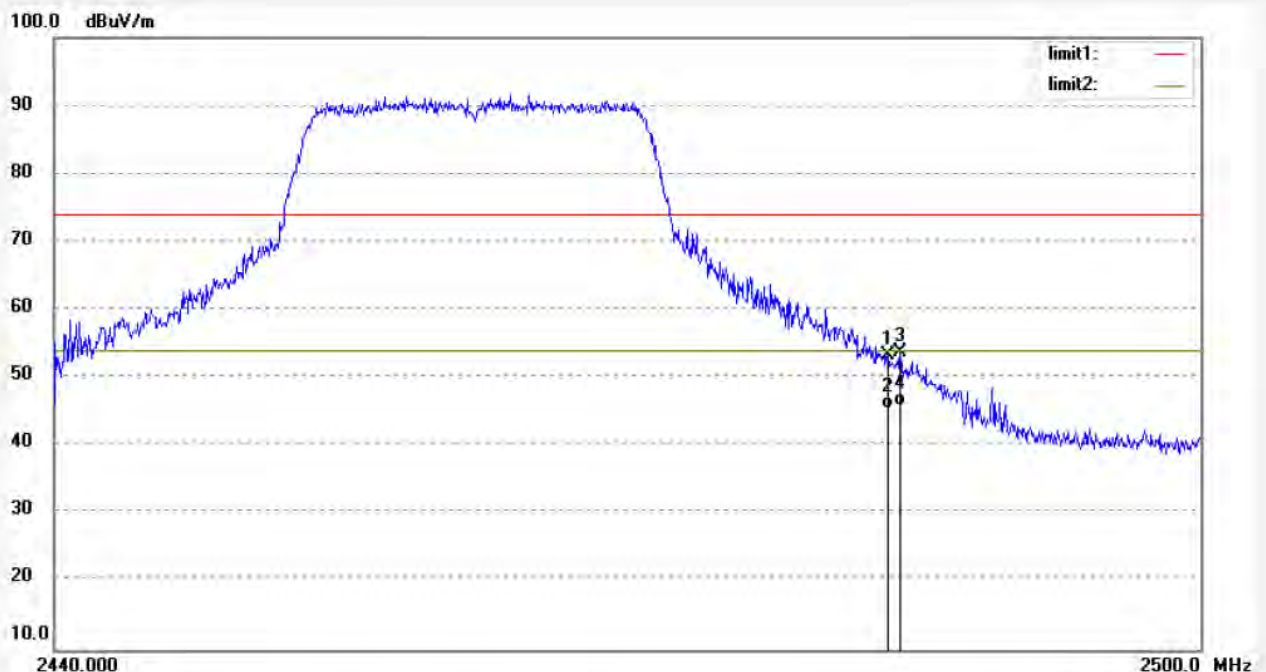
Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.86	-6.54	39.32	74.00	-34.68	peak			
2	2483.500	38.01	-6.54	31.47	54.00	-22.53	AVG			
3	2485.060	48.05	-6.54	41.51	74.00	-32.49	peak			
4	2485.060	40.02	-6.54	33.48	54.00	-20.52	AVG			

Job No.: alen #4592	Polarization: Vertical
Standard: FCC PK	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 14/06/26/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 9/50/28
EUT: 4 inch 3G Tablet	Engineer Signature:
Mode: TX 2462MHz(802.11n20)	Distance: 3m
Model: ICE	
Manufacturer: IMC	

Note: Report No:ATE20141087

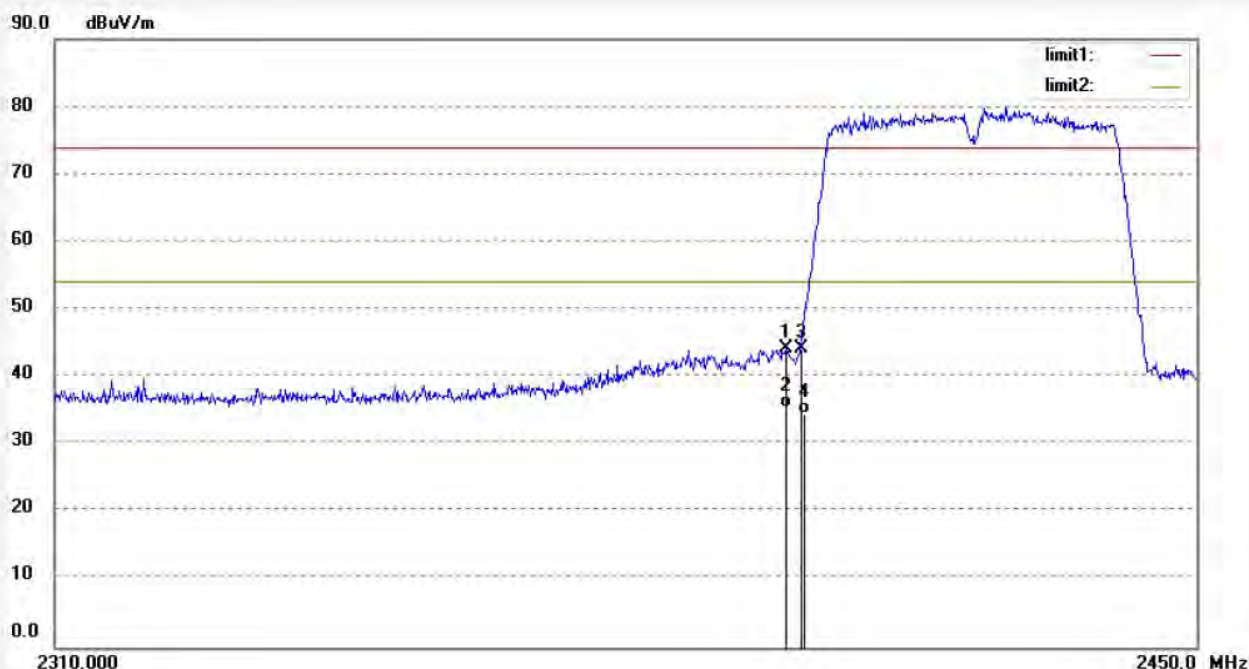


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	59.90	-6.54	53.36	74.00	-20.64	peak			
2	2483.500	52.01	-6.54	45.47	54.00	-8.53	AVG			
3	2484.160	60.41	-6.54	53.87	74.00	-20.13	peak			
4	2484.160	52.35	-6.54	45.81	54.00	-8.19	AVG			

Job No.: alen #4597
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2422MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/58/40
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

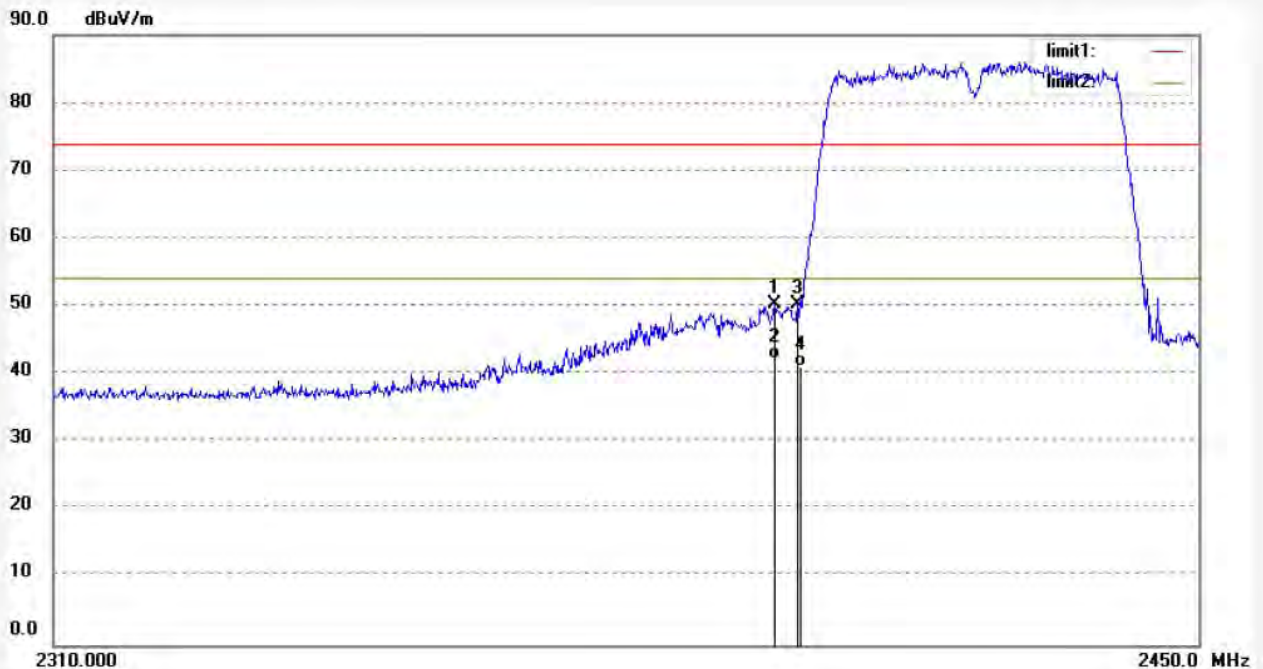


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.760	51.08	-6.76	44.32	74.00	-29.68	peak			
2	2398.760	42.13	-6.76	35.37	54.00	-18.63	AVG			
3	2400.580	50.95	-6.76	44.19	74.00	-29.81	peak			
4	2400.580	41.36	-6.76	34.60	54.00	-19.40	AVG			

Job No.: alen #4596
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2422MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/26/
Time: 9/57/08
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2397.360	57.00	-6.76	50.24	74.00	-23.76	peak			
2	2397.360	48.96	-6.76	42.20	54.00	-11.80	AVG			
3	2400.160	56.99	-6.76	50.23	74.00	-23.77	peak			
4	2400.160	47.89	-6.76	41.13	54.00	-12.87	AVG			

Job No.: alen #4594

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 4 inch 3G Tablet

Mode: TX 2452MHz(802.11n40)

Model: ICE

Manufacturer: IMC

Polarization: Horizontal

Power Source: AC 120V/60Hz

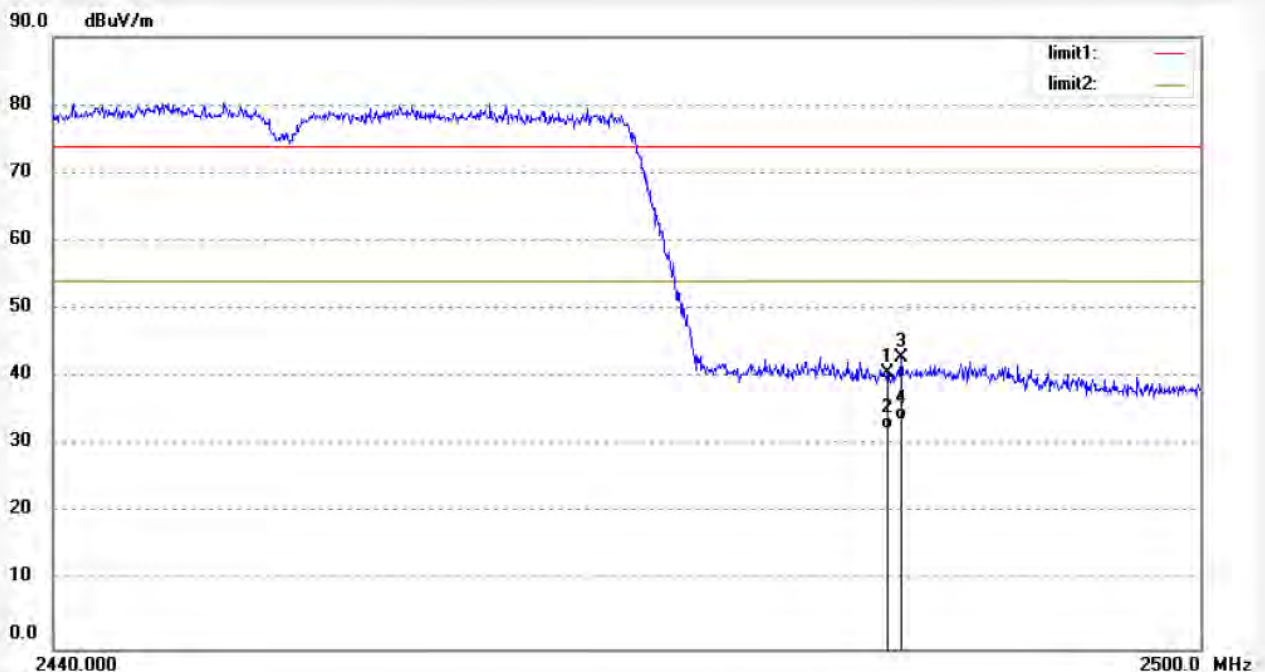
Date: 14/06/26/

Time: 9/53/17

Engineer Signature:

Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	47.13	-6.54	40.59	74.00	-33.41	peak			
2	2483.500	38.89	-6.54	32.35	54.00	-21.65	AVG			
3	2484.220	49.32	-6.54	42.78	74.00	-31.22	peak			
4	2484.220	40.24	-6.54	33.70	54.00	-20.30	AVG			

Job No.: alen #4595

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 55 %

EUT: 4 inch 3G Tablet

Mode: TX 2452MHz(802.11n40)

Model: ICE

Manufacturer: IMC

Polarization: Vertical

Power Source: AC 120V/60Hz

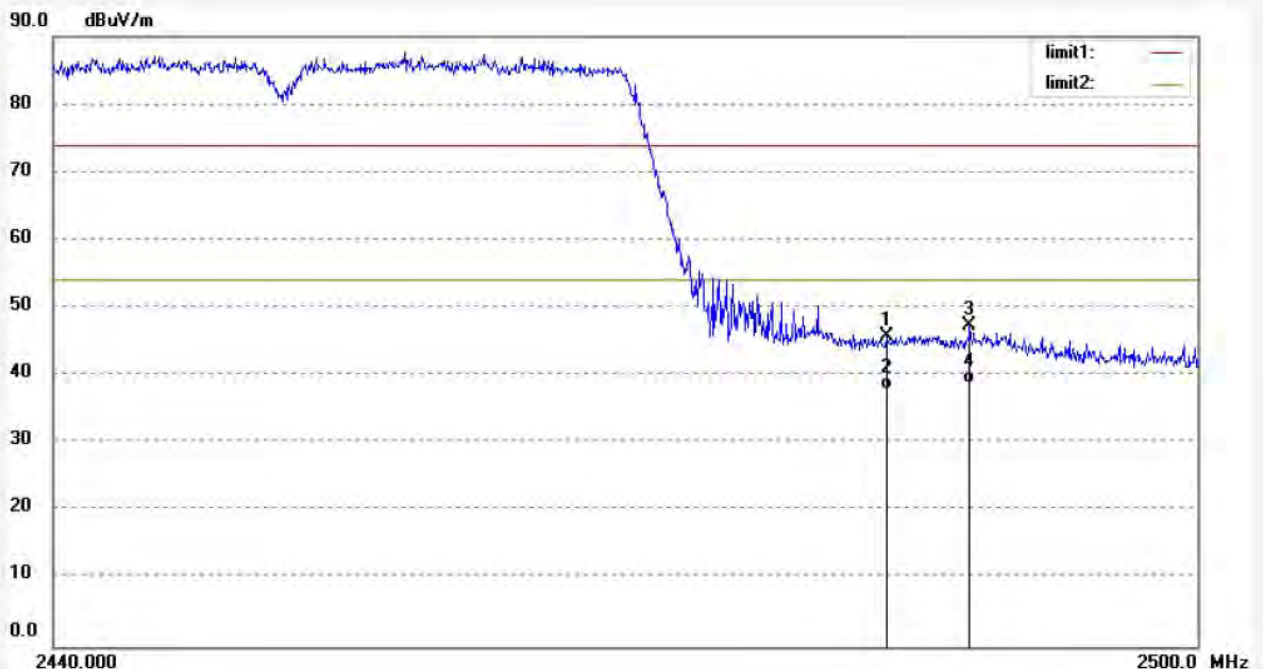
Date: 14/06/26/

Time: 9/54/42

Engineer Signature:

Distance: 3m

Note: Report No:ATE20141087

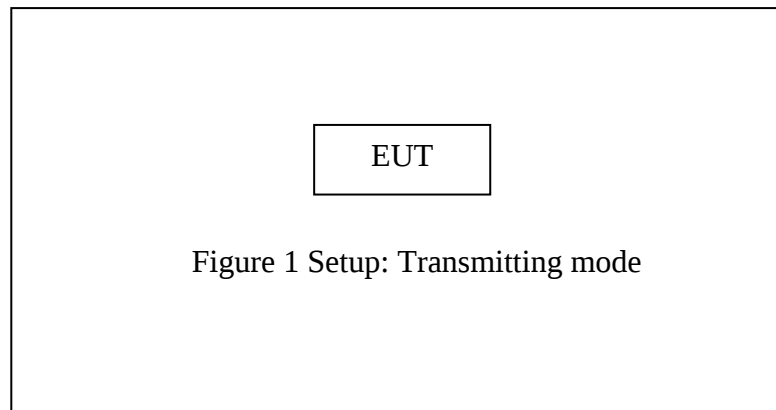


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.560	52.22	-6.54	45.68	74.00	-28.32	peak			
2	2483.560	44.35	-6.54	37.81	54.00	-16.19	AVG			
3	2488.000	53.90	-6.52	47.38	74.00	-26.62	peak			
4	2488.000	45.35	-6.52	38.83	54.00	-15.17	AVG			

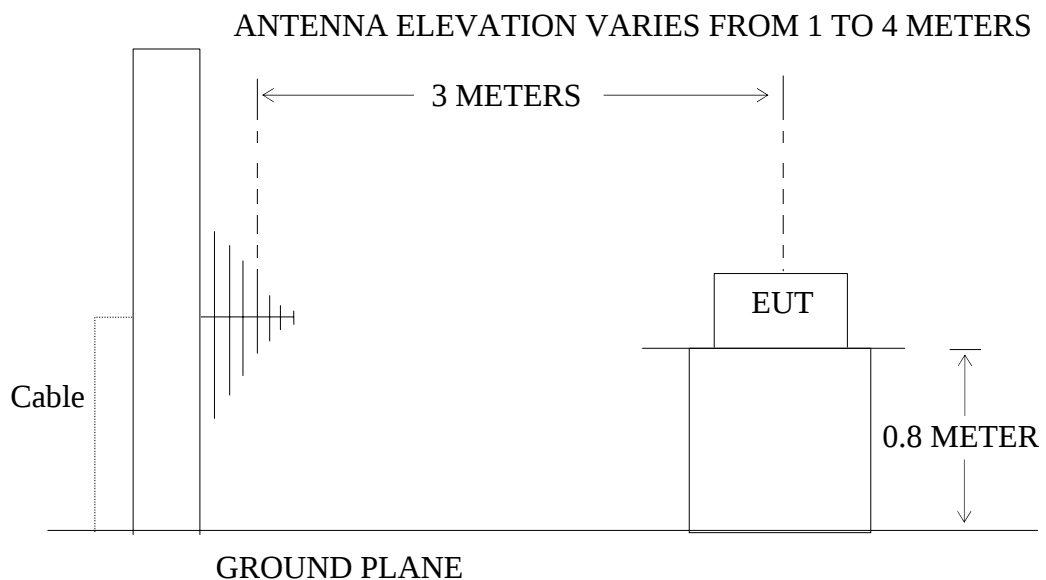
10.RADIATED SPURIOUS EMISSION TEST

10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and peripherals



10.1.2.Semi-Anechoic Chamber Test Setup Diagram



10.2.The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the

transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

10.3.Restricted bands of operation

10.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

²Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

10.4.Configuration of EUT on Measurement

The equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.5. Operating Condition of EUT

10.5.1. Setup the EUT and simulator as shown as Section 10.1.

10.5.2. Turn on the power of all equipment.

10.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

10.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The worst-case data rate for this channel to be 1Mbps for 802.11b mode and 6Mbps for 802.11g mode and 150Mbps for 802.11n mode, based on previous with 802.11 WLAN product design architectures.

The final measurement in band 9-90 kHz, 110-490 kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector. When average radiated emissions measurements are specified there is also a limit on the peak emissions level which is 20 dB above the applicable maximum permitted average emission limit

A Quasi-peak measurement was then made for that frequency point for below 1GHz test. PK and AV for above 1GHz emission test.

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth for average detection(AV) at below at frequency above 1GHz.

During the radiated emission test, the spectrum analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution Bandwidth	Video Bandwidth
30 to 1000	Peak	100 kHz	100 kHz
Above 1000	Peak	1 MHz	1 MHz
	Average	1 MHz	10 Hz

10.7.The Field Strength of Radiation Emission Measurement Results

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by Band Reject Filter in the attached plots.

4. The EUT is tested radiation emission at each test mode (802.11 b/g/n) in three axes. The worst emissions are reported in all test mode and channels.

5. The radiation emissions from 18-25GHz are not reported, because the test values lower than the limits of 20dB.

Below 1G



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Job No.: alen #4538
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/25/
Time: 10/44/01
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

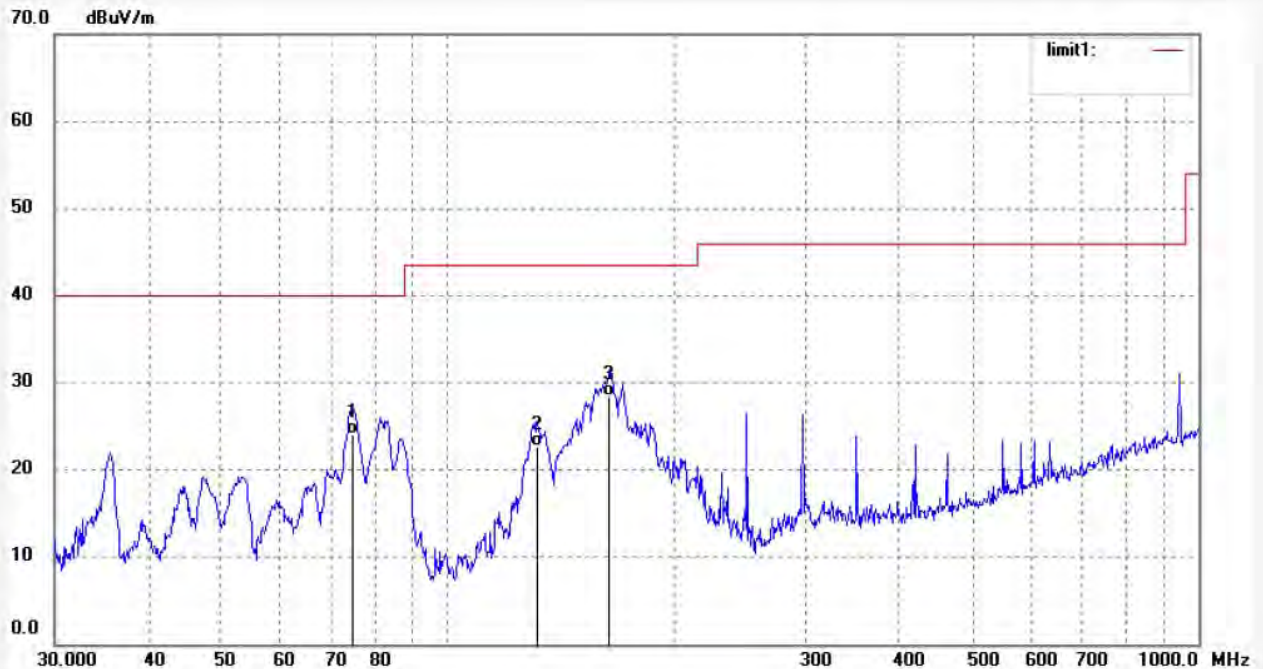


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	86.8067	44.82	-21.60	23.22	40.00	-16.78	QP			
2	130.3788	40.03	-23.04	16.99	43.50	-26.51	QP			
3	169.5989	42.09	-21.84	20.25	43.50	-23.25	QP			

Job No.: alen #4537
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/25/
Time: 10/42/40
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	74.6568	45.68	-21.61	24.07	40.00	-15.93	QP			
2	131.7576	45.78	-23.12	22.66	43.50	-20.84	QP			
3	164.3301	50.86	-22.40	28.46	43.50	-15.04	QP			

Job No.: alen #4539
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/25/
Time: 10/44/51
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

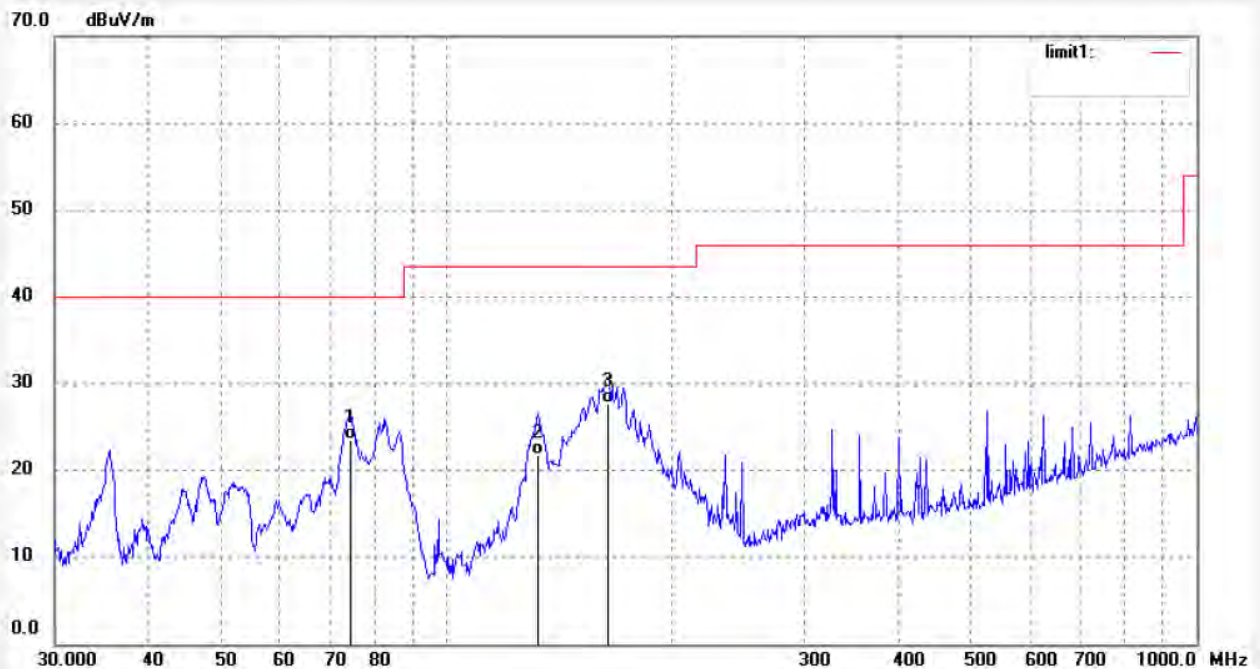


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	86.8068	44.74	-21.60	23.14	40.00	-16.86	QP			
2	133.1511	40.01	-23.18	16.83	43.50	-26.67	QP			
3	169.5990	41.75	-21.84	19.91	43.50	-23.59	QP			

Job No.: alen #4540
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/25/
Time: 10/45/52
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	74.3954	45.12	-21.59	23.53	40.00	-16.47	QP			
2	132.2205	44.84	-23.13	21.71	43.50	-21.79	QP			
3	163.7549	50.23	-22.45	27.78	43.50	-15.72	QP			

Job No.: alen #4542
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/25/
Time: 10/48/40
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

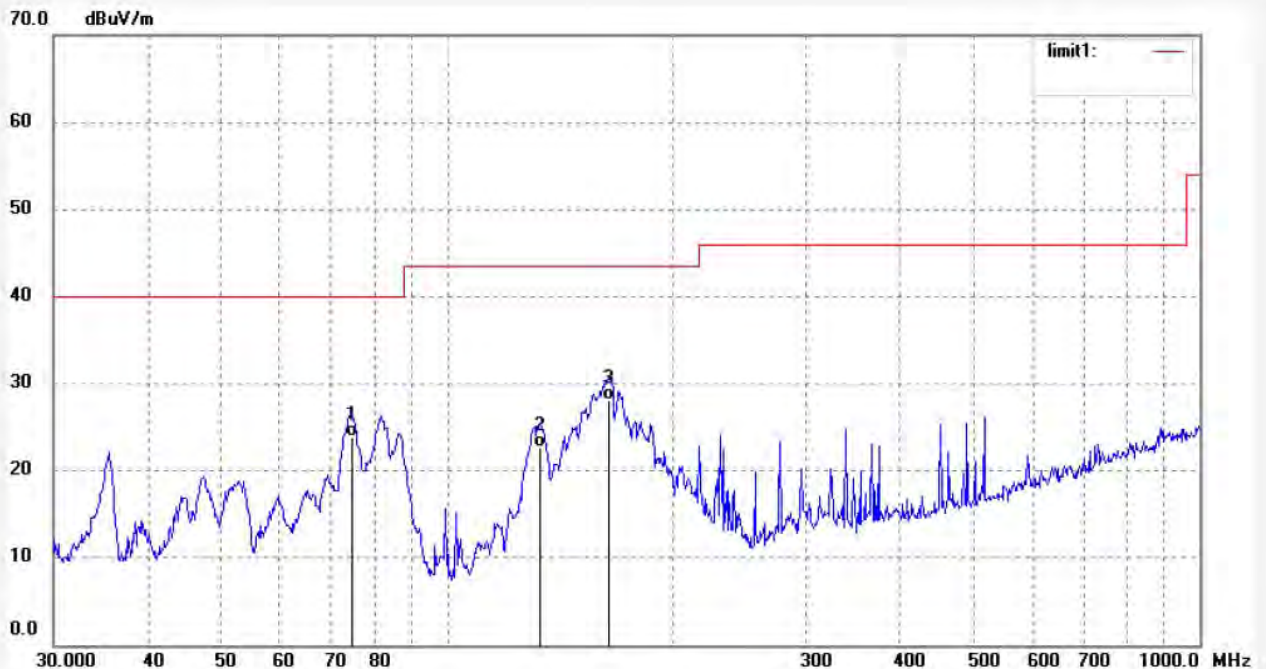


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	86.8067	44.68	-21.60	23.08	40.00	-16.92	QP			
2	133.1511	40.45	-23.18	17.27	43.50	-26.23	QP			
3	164.9074	41.86	-22.34	19.52	43.50	-23.98	QP			

Job No.: alen #4541
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/25/
Time: 10/46/51
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



Above 1G



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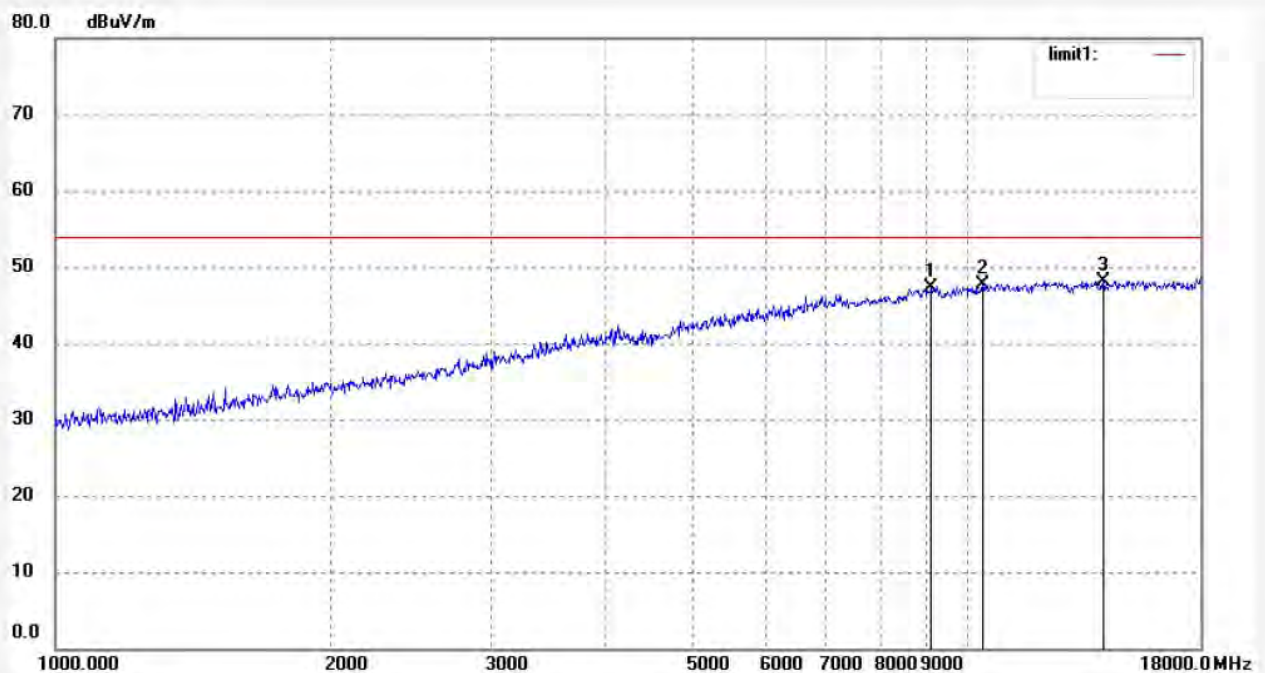
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: alen #4613
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/16/16
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

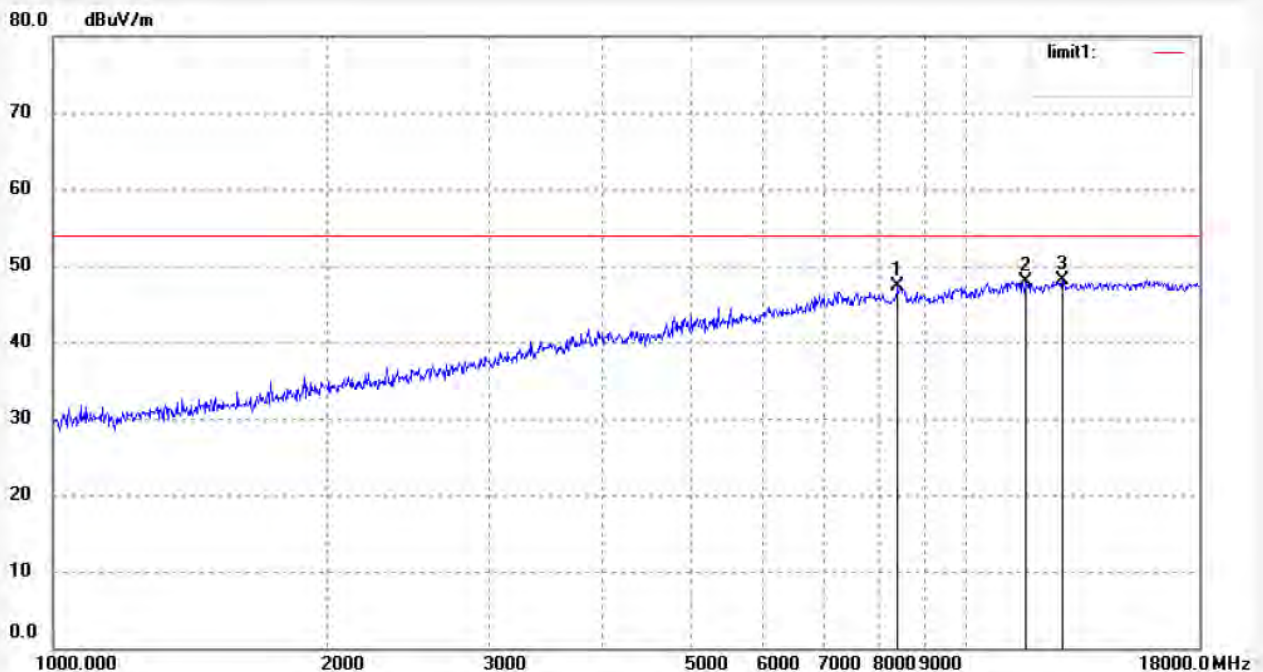


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9126.063	43.56	3.81	47.37	54.00	-6.63	peak			
2	10393.713	42.51	5.24	47.75	54.00	-6.25	peak			
3	14079.082	37.27	10.82	48.09	54.00	-5.91	peak			

Job No.: alen #4612
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/15/15
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

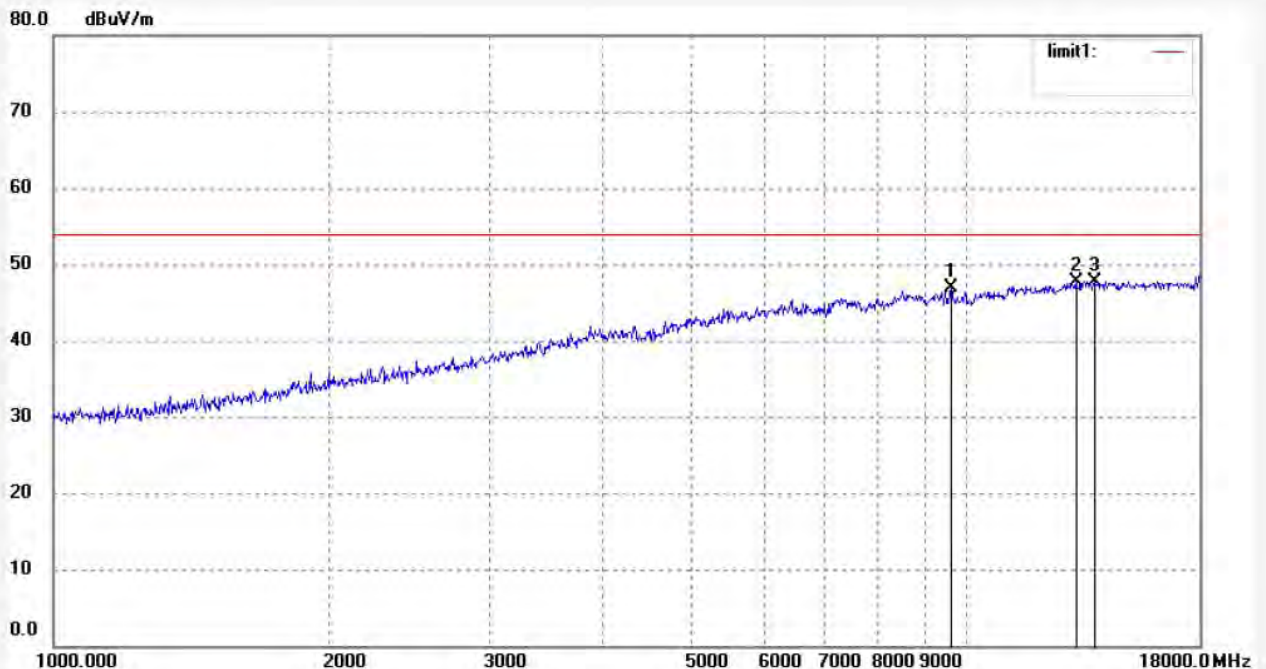


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	8416.584	44.55	2.85	47.40	54.00	-6.60	peak			
2	11633.928	41.74	6.16	47.90	54.00	-6.10	peak			
3	12761.305	40.61	7.54	48.15	54.00	-5.85	peak			

Job No.: alen #4614
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/17/24
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

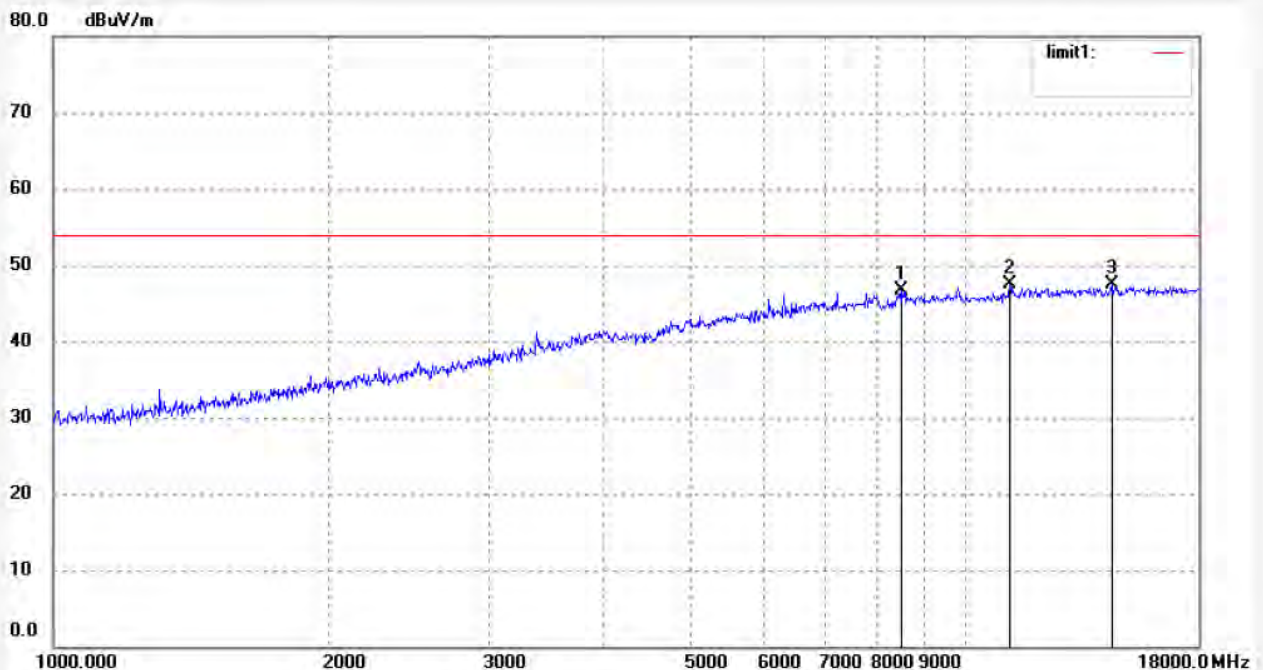


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9613.430	41.90	4.92	46.82	54.00	-7.18	peak			
2	13173.558	39.36	8.28	47.64	54.00	-6.36	peak			
3	13837.024	37.72	9.98	47.70	54.00	-6.30	peak			

Job No.: alen #4615
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/18/43
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	8514.456	43.74	3.01	46.75	54.00	-7.25	peak			
2	11172.556	41.83	5.69	47.52	54.00	-6.48	peak			
3	14450.131	34.84	12.74	47.58	54.00	-6.42	peak			



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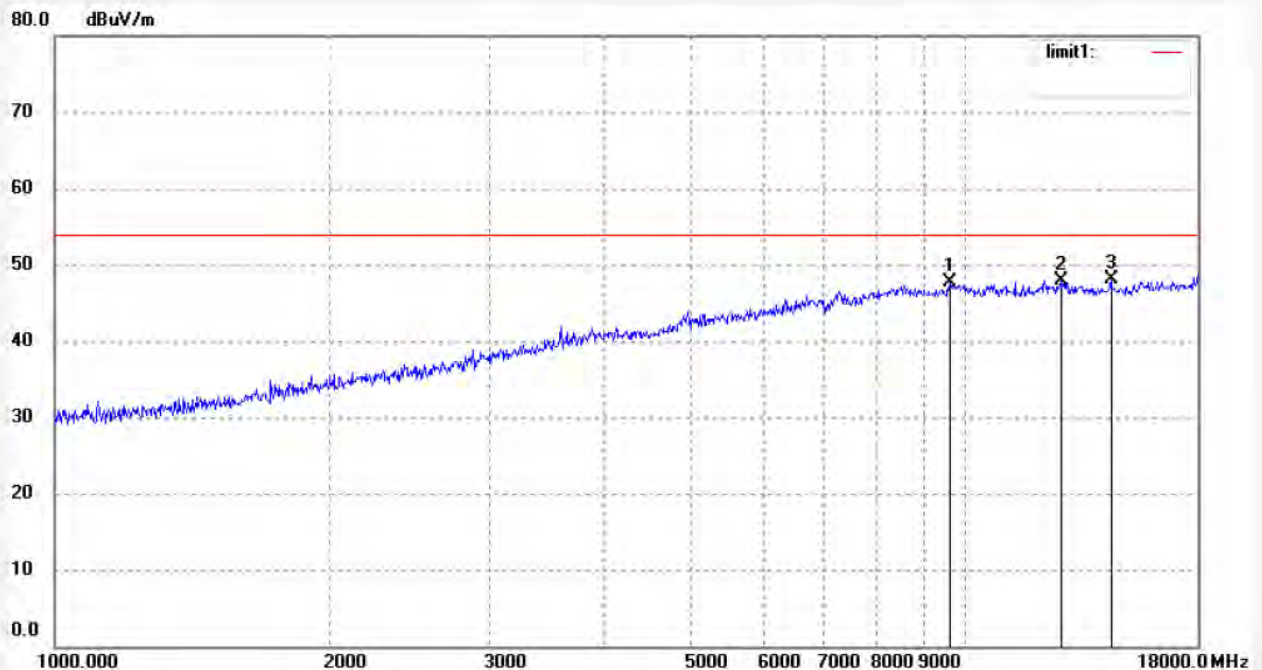
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: alen #4617
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/21/20
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

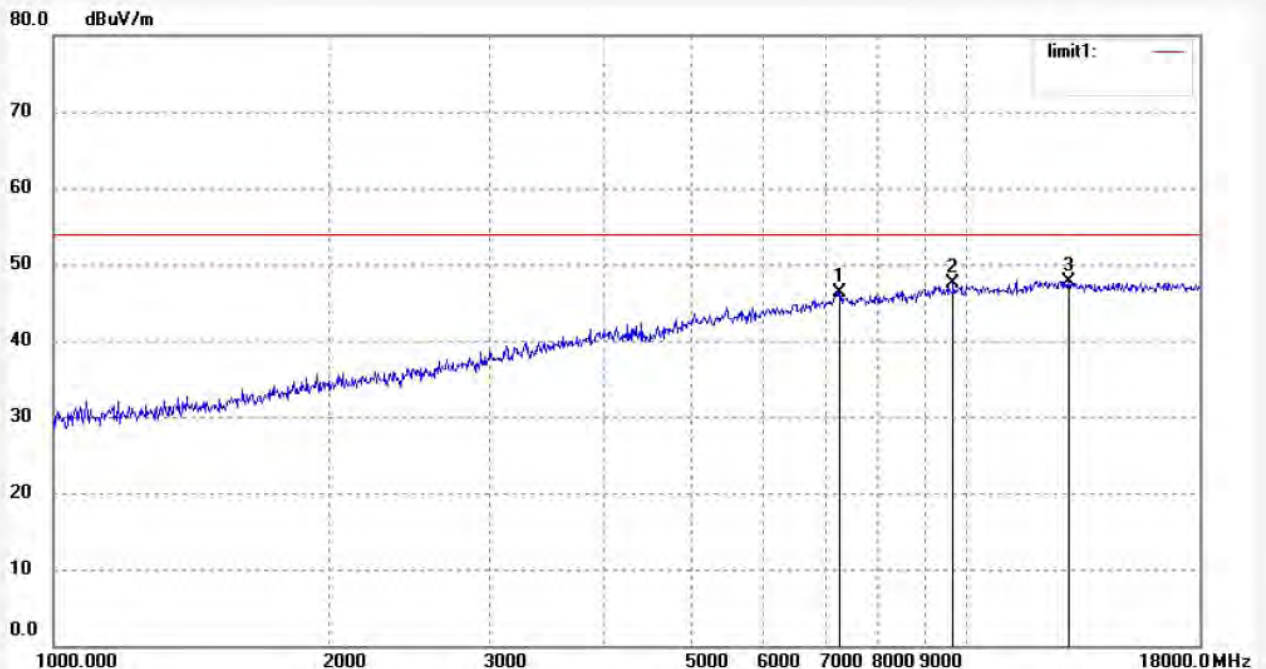


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9613.430	42.87	4.92	47.79	54.00	-6.21	peak			
2	12724.473	40.39	7.49	47.88	54.00	-6.12	peak			
3	14450.131	35.32	12.74	48.06	54.00	-5.94	peak			

Job No.: alen #4616
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11b)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/19/36
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	7263.015	44.99	1.35	46.34	54.00	-7.66	peak			
2	9669.164	42.49	4.97	47.46	54.00	-6.54	peak			
3	12947.068	39.95	7.83	47.78	54.00	-6.22	peak			



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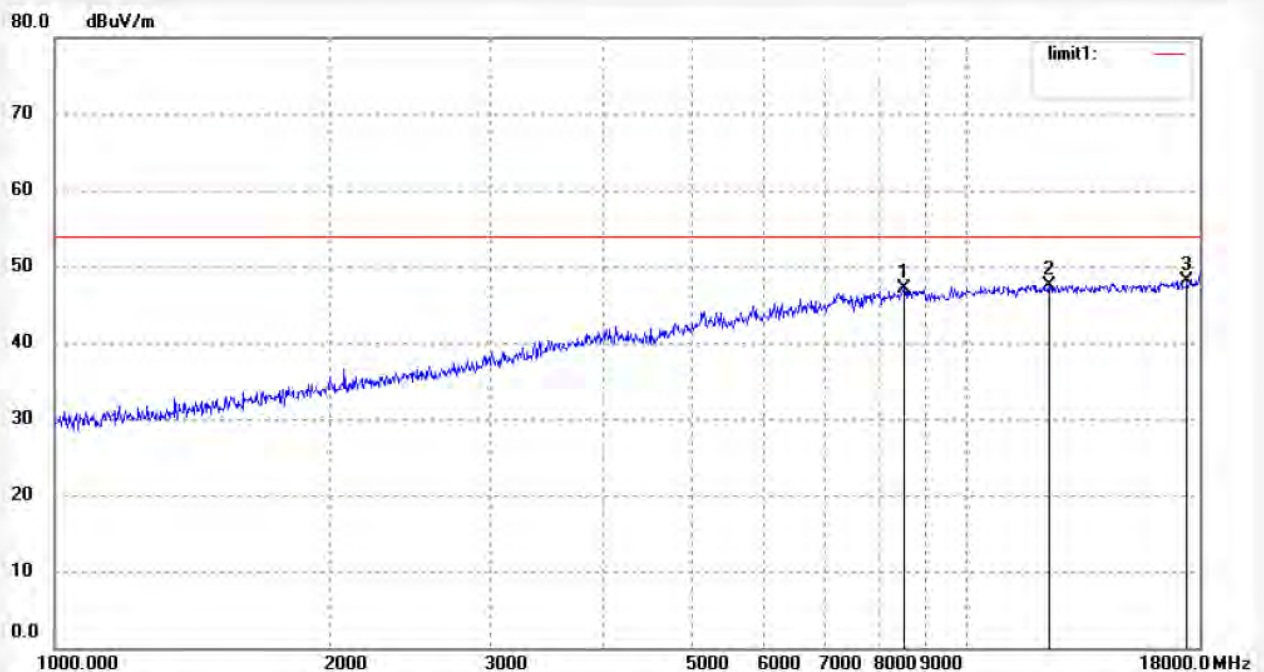
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: alen #4625
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/31/35
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

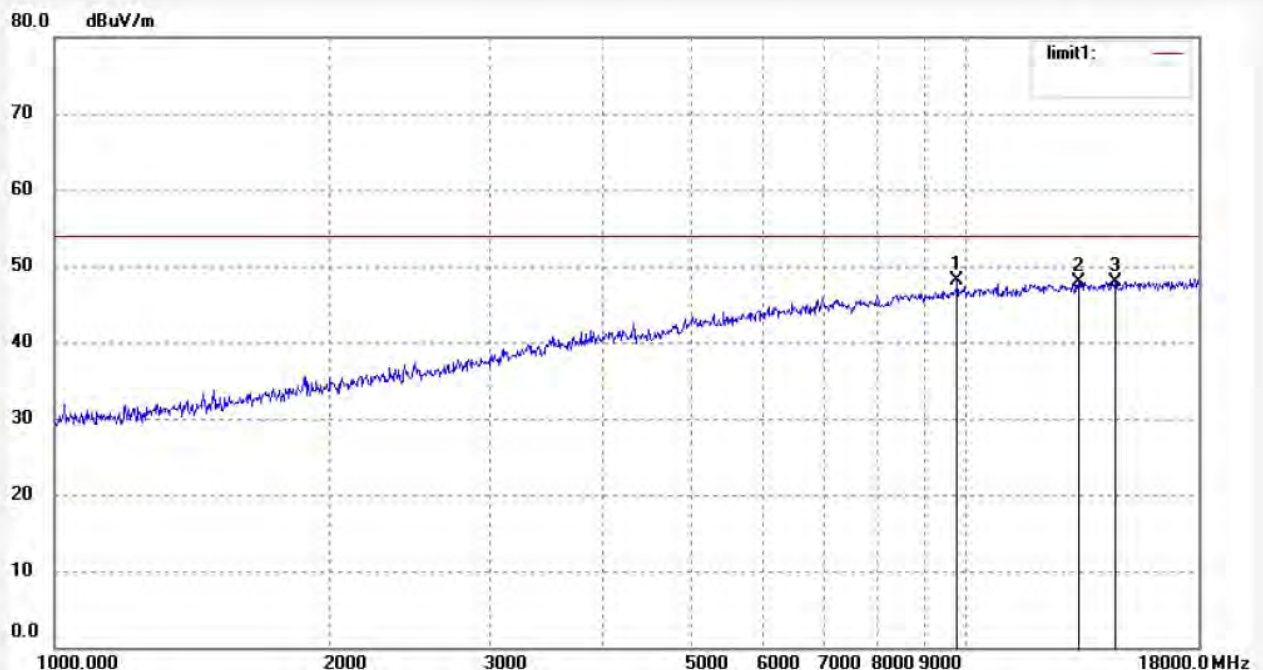


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	8539.102	44.09	3.04	47.13	54.00	-6.87	peak			
2	12290.698	40.70	6.88	47.58	54.00	-6.42	peak			
3	17436.709	33.93	14.14	48.07	54.00	-5.93	peak			

Job No.: alen #4624
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2412MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/30/31
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

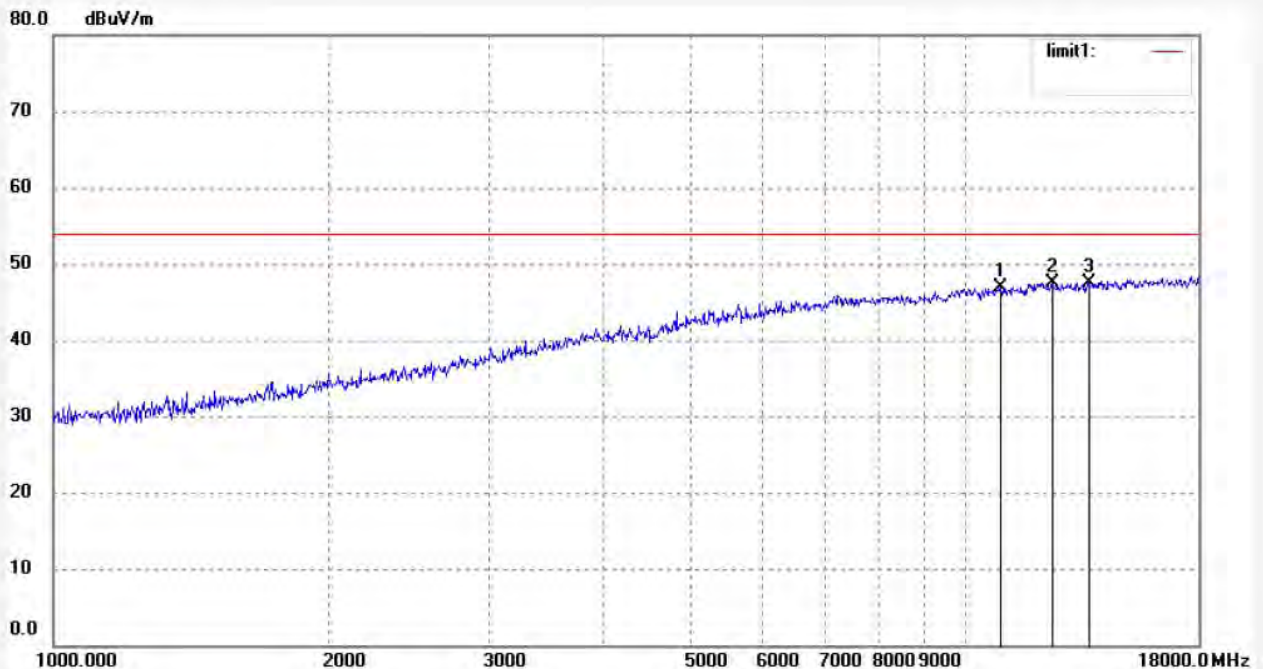


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9781.602	42.94	5.08	48.02	54.00	-5.98	peak			
2	13288.284	39.26	8.56	47.82	54.00	-6.18	peak			
3	14575.975	35.06	12.82	47.88	54.00	-6.12	peak			

Job No.: alen #4626
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/32/48
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

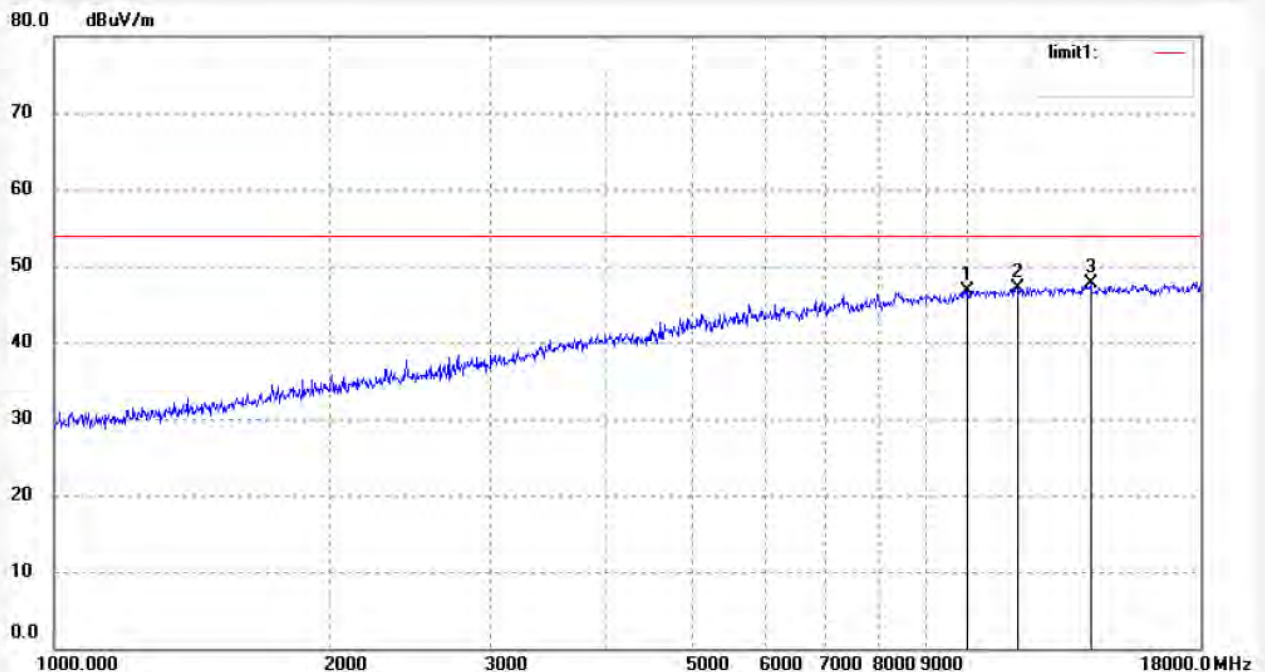


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10917.177	41.44	5.44	46.88	54.00	-7.12	peak			
2	12433.621	40.41	7.06	47.47	54.00	-6.53	peak			
3	13638.492	38.12	9.43	47.55	54.00	-6.45	peak			

Job No.: alen #4627
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/33/52
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

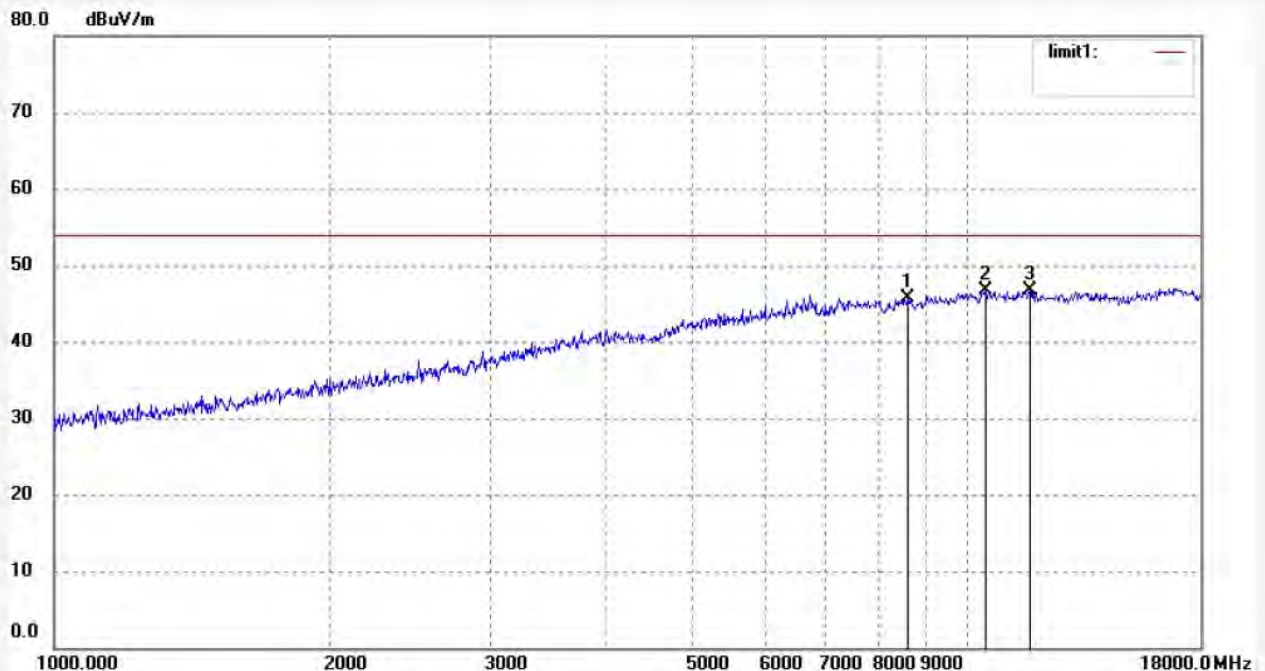


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10010.417	41.46	5.32	46.78	54.00	-7.22	peak			
2	11335.193	41.18	5.86	47.04	54.00	-6.96	peak			
3	13638.492	38.18	9.43	47.61	54.00	-6.39	peak			

Job No.: alen #4629
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/36/16
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	8613.467	42.50	3.11	45.61	54.00	-8.39	peak			
2	10484.230	41.55	5.20	46.75	54.00	-7.25	peak			
3	11701.375	40.43	6.23	46.66	54.00	-7.34	peak			



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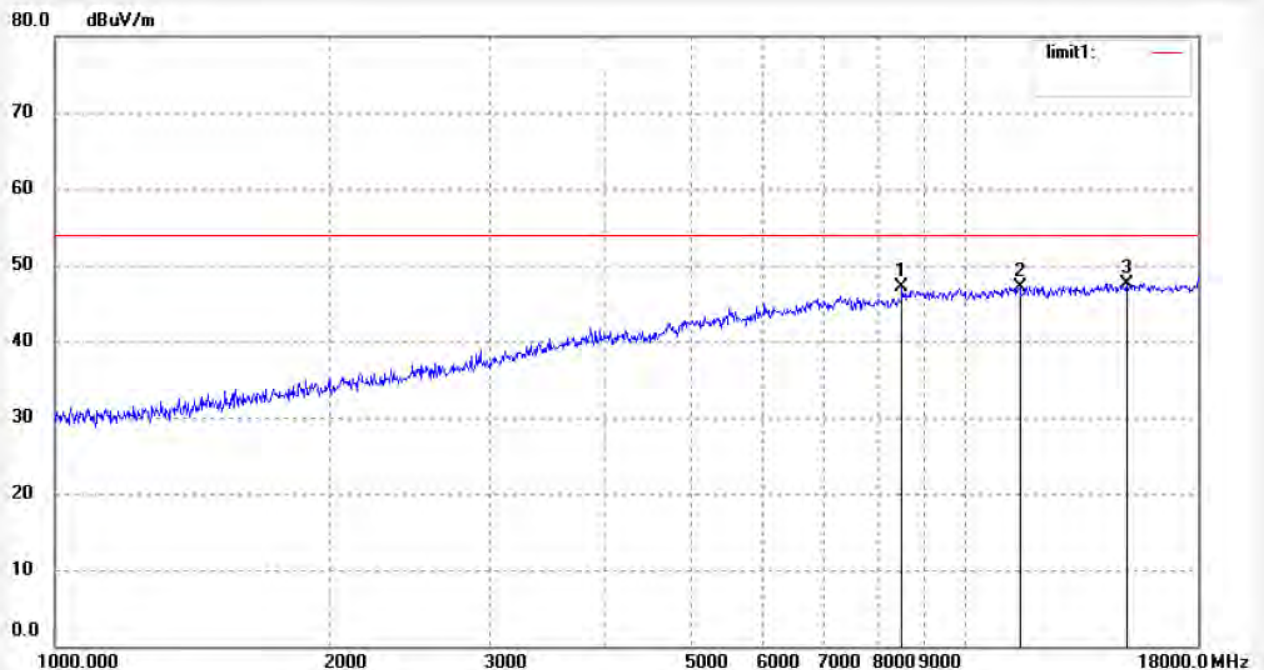
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: alen #4628
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2462MHz(802.11n20)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/34/49
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

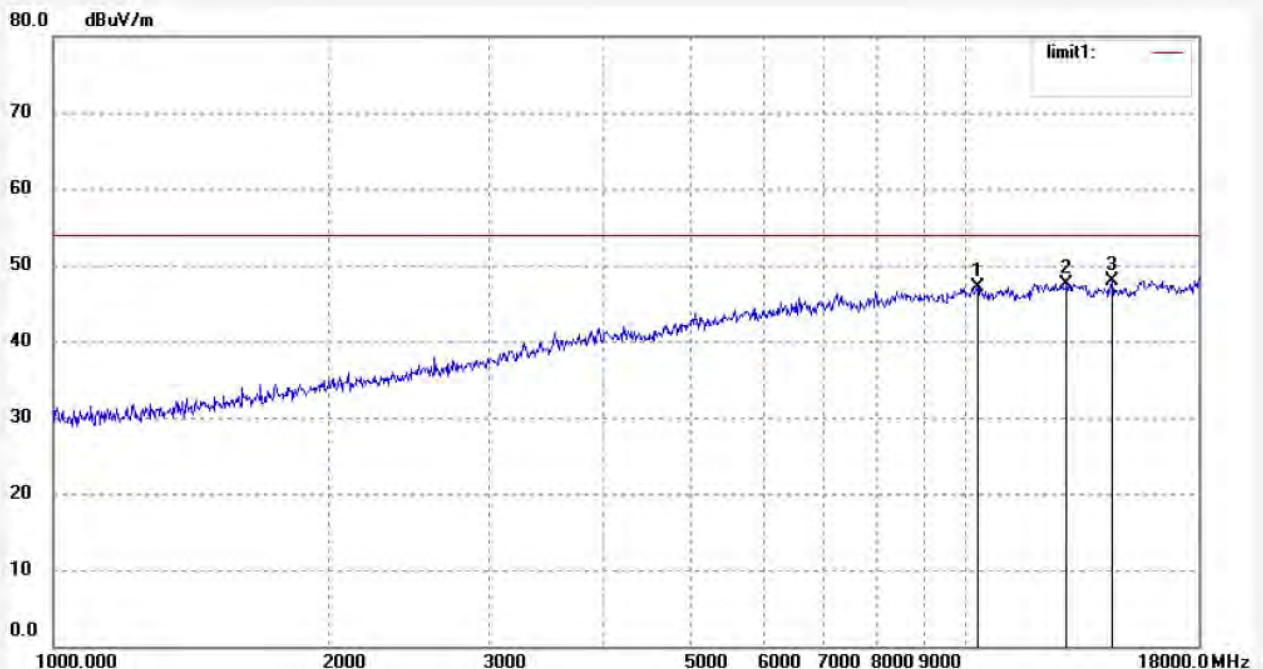


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	8514.456	44.11	3.01	47.12	54.00	-6.88	peak			
2	11467.005	41.08	6.01	47.09	54.00	-6.91	peak			
3	15046.851	35.67	11.82	47.49	54.00	-6.51	peak			

Job No.: alen #4634
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2422MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/41/43
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

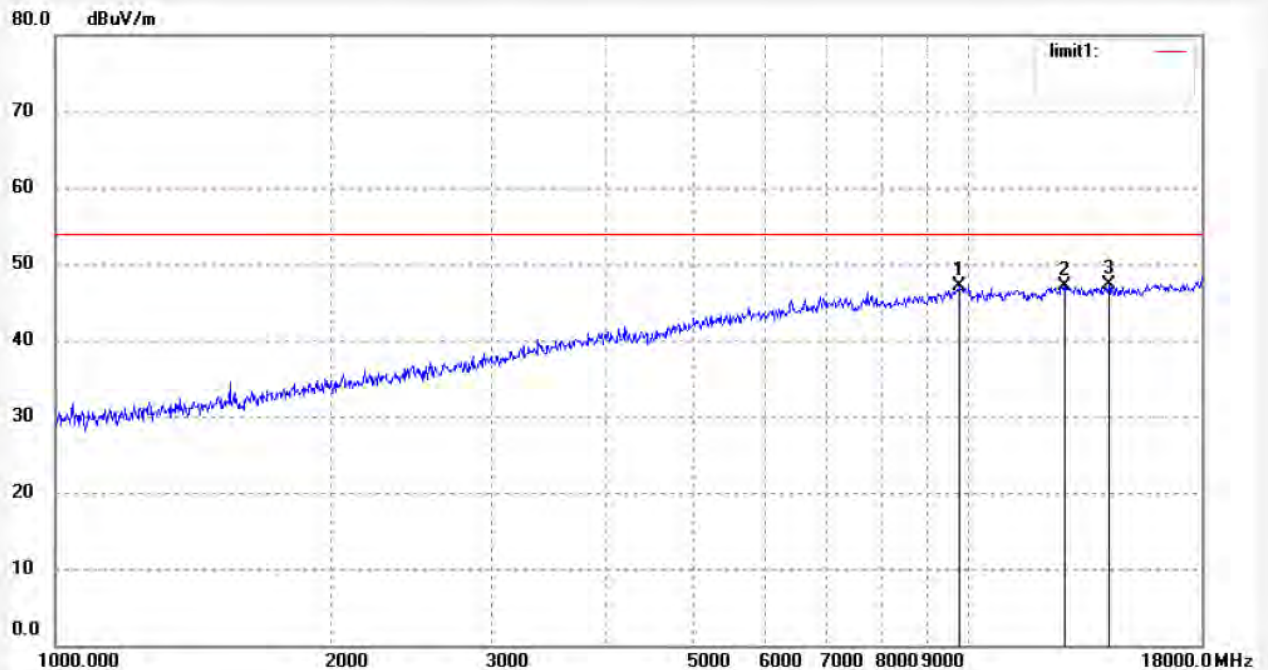


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	10303.978	41.82	5.27	47.09	54.00	-6.91	peak			
2	12909.701	39.79	7.76	47.55	54.00	-6.45	peak			
3	14491.958	34.90	12.95	47.85	54.00	-6.15	peak			

Job No.: alen #4635
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2422MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/42/45
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

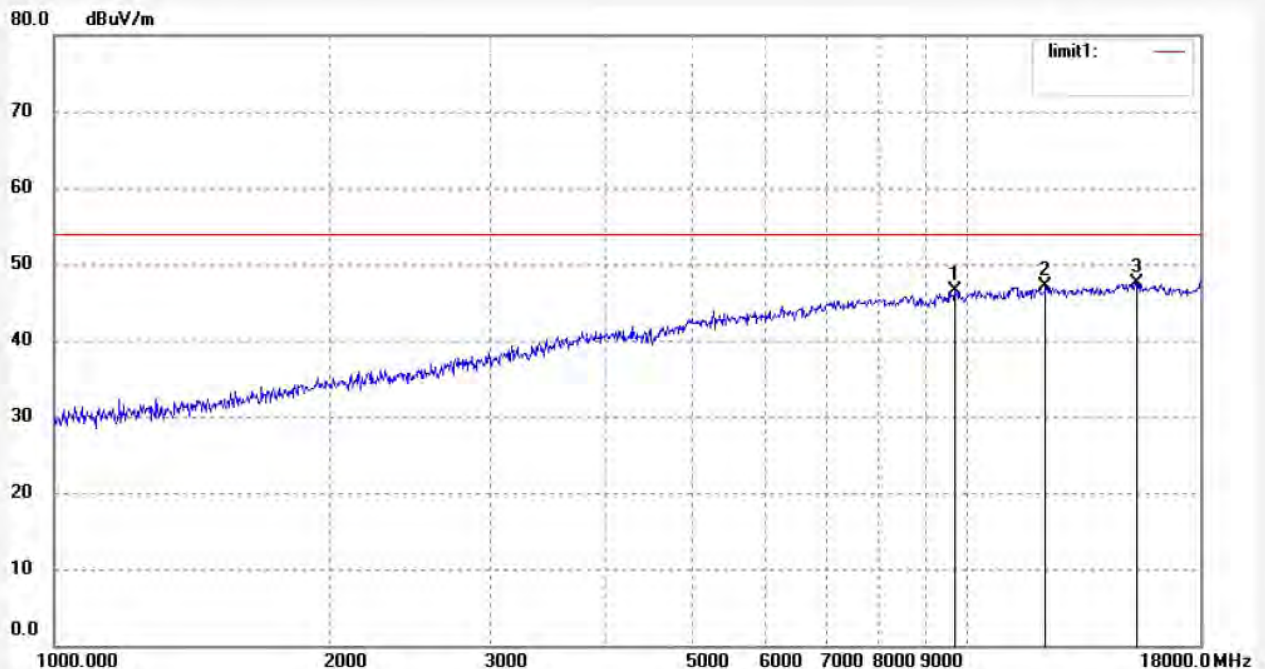


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9753.371	42.01	5.06	47.07	54.00	-6.93	peak			
2	12724.473	39.68	7.49	47.17	54.00	-6.83	peak			
3	14242.802	35.67	11.66	47.33	54.00	-6.67	peak			

Job No.: alen #4633
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/40/39
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

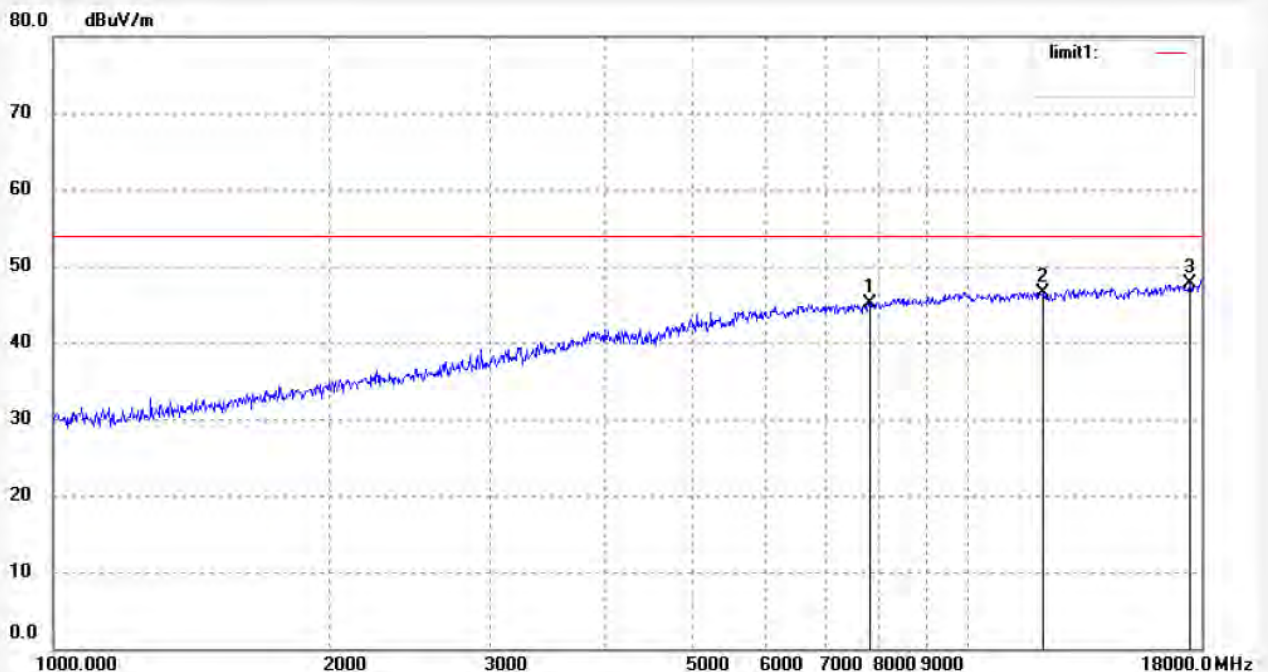


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9697.152	41.49	5.00	46.49	54.00	-7.51	peak			
2	12184.584	40.40	6.73	47.13	54.00	-6.87	peak			
3	15310.072	35.94	11.48	47.42	54.00	-6.58	peak			

Job No.: alen #4632
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2437MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/39/31
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

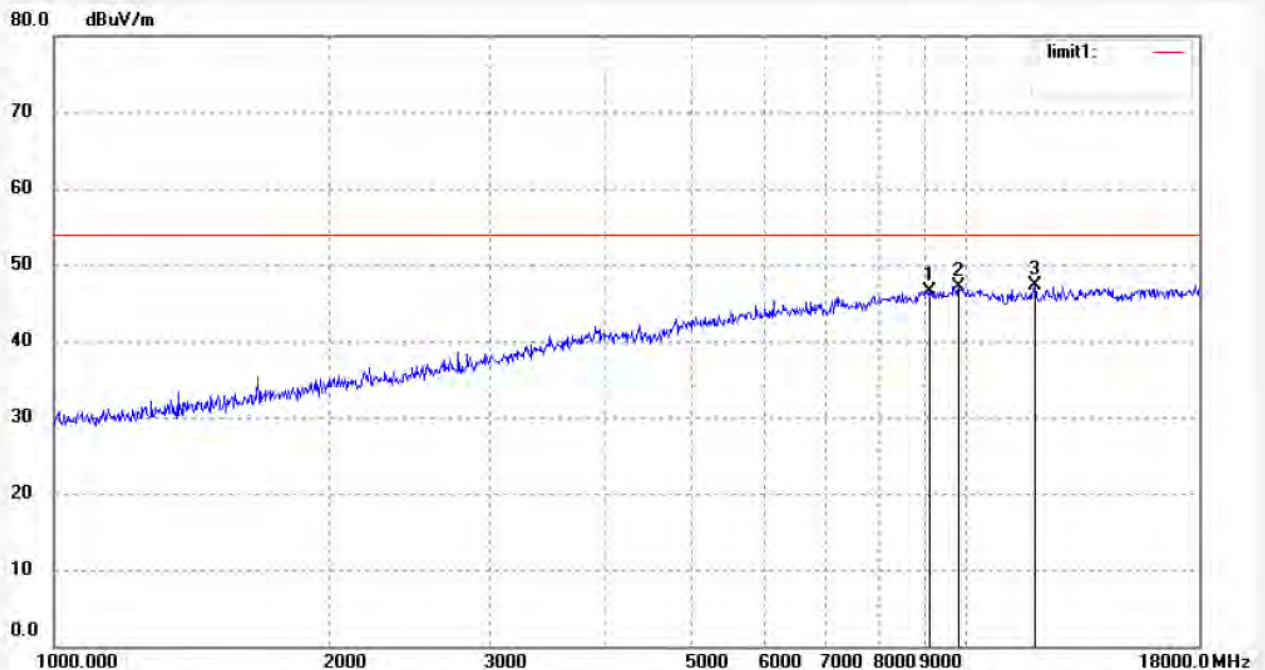


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	7807.262	43.22	1.89	45.11	54.00	-8.89	peak			
2	12079.387	39.93	6.61	46.54	54.00	-7.46	peak			
3	17487.180	31.61	16.03	47.64	54.00	-6.36	peak			

Job No.: alen #4630
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2452MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/37/17
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087

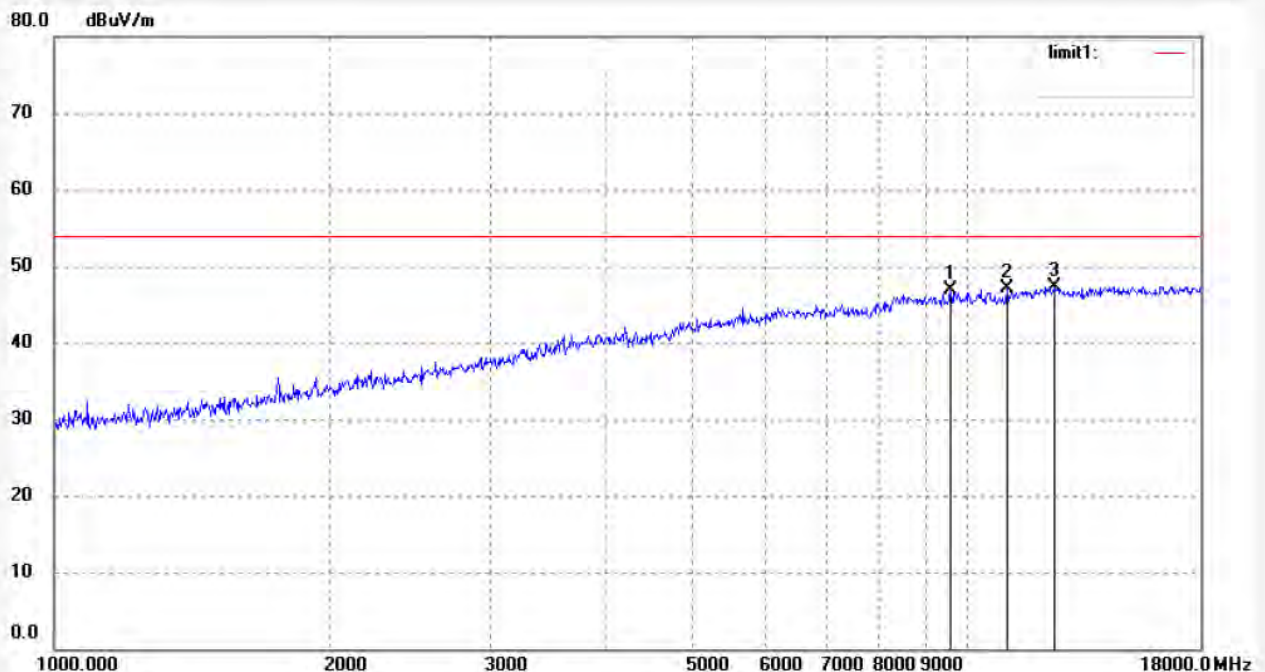


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9126.063	42.72	3.81	46.53	54.00	-7.47	peak			
2	9809.916	42.04	5.11	47.15	54.00	-6.85	peak			
3	11906.073	40.84	6.41	47.25	54.00	-6.75	peak			

Job No.: alen #4631
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: 4 inch 3G Tablet
Mode: TX 2452MHz(802.11n40)
Model: ICE
Manufacturer: IMC

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 14/06/28/
Time: 9/38/16
Engineer Signature:
Distance: 3m

Note: Report No:ATE20141087



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	9585.684	42.04	4.88	46.92	54.00	-7.08	peak			
2	11044.129	41.53	5.55	47.08	54.00	-6.92	peak			
3	12469.611	40.19	7.12	47.31	54.00	-6.69	peak			

11.CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST

11.1.Block Diagram of Test Setup



11.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

11.3.EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.4.Operating Condition of EUT

11.4.1.Setup the EUT and simulator as shown as Section 11.1.

11.4.2.Turn on the power of all equipment.

11.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

11.5. Test Procedure

11.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

11.5.2. Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz (below 1GHz).

11.5.3. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz (above 1GHz).

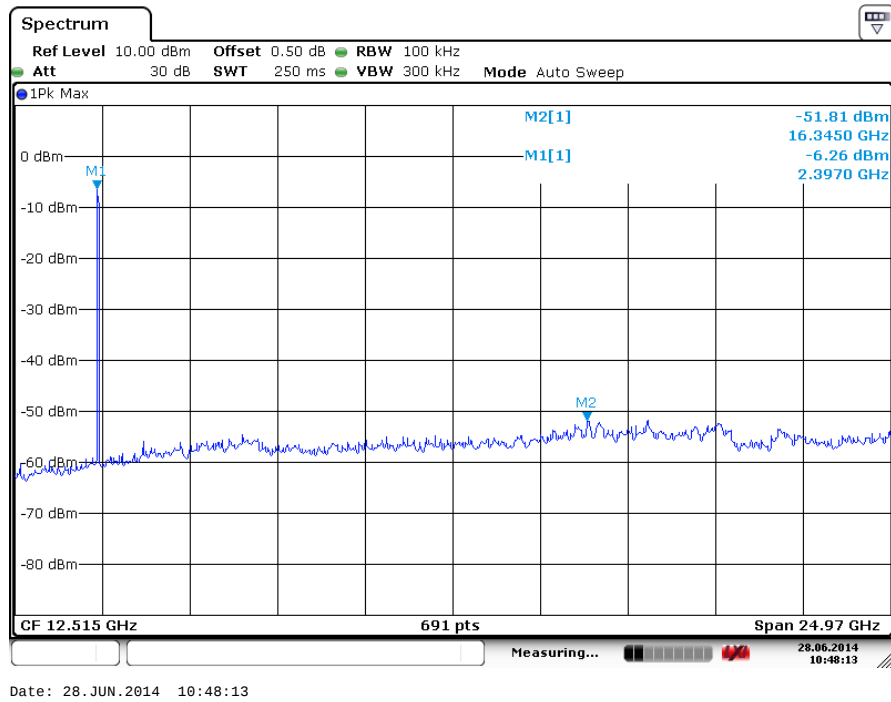
11.5.4. The Conducted Spurious Emission was measured and recorded.

11.6. Test Result

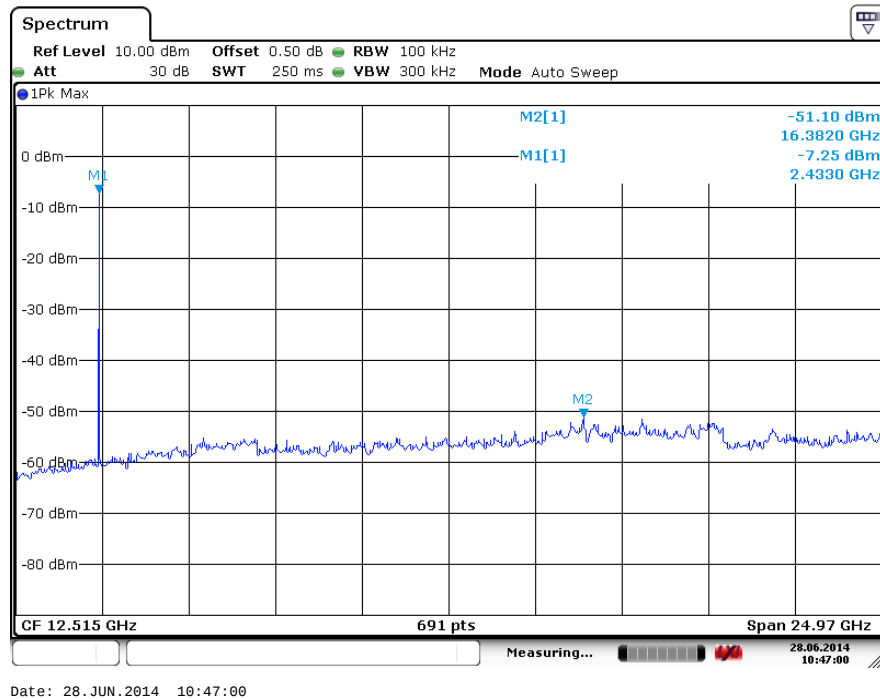
Pass.

The spectrum analyzer plots are attached as below.

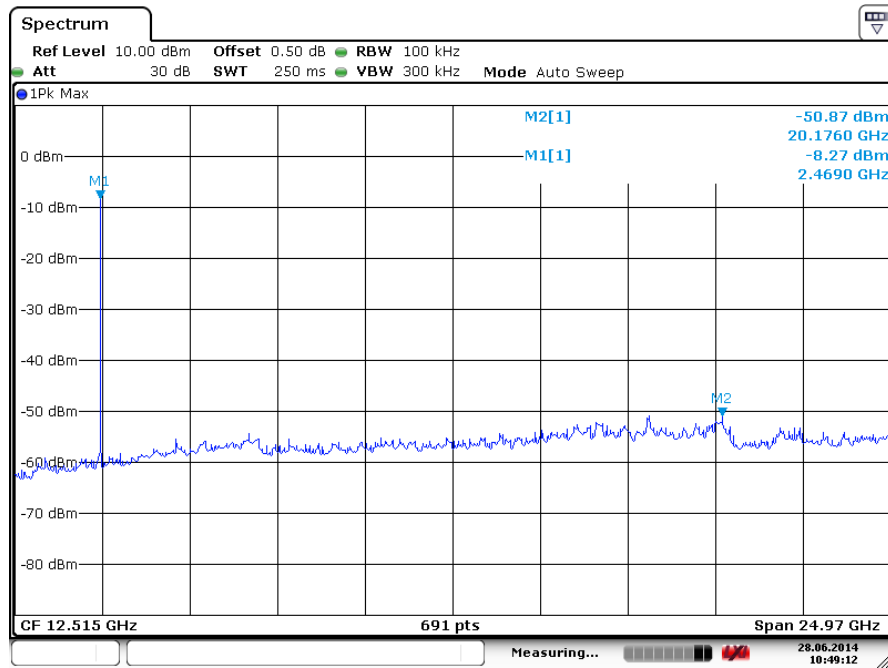
TX 802.11b Channel Low 2412MHz



TX 802.11b Channel Middle 2437MHz

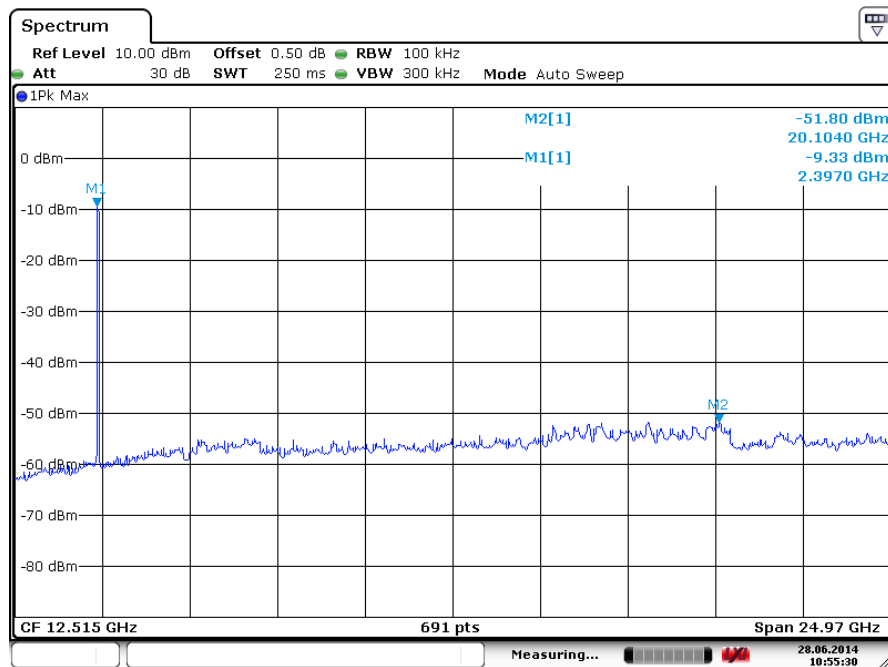


TX 802.11b Channel High 2462MHz



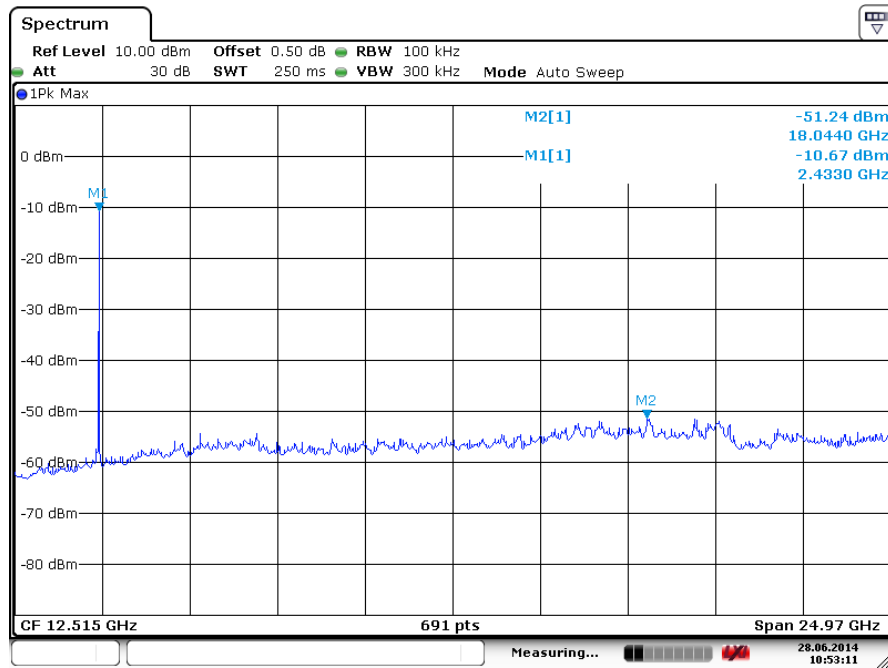
Date: 28.JUN.2014 10:49:12

TX 802.11g Channel Low 2412MHz



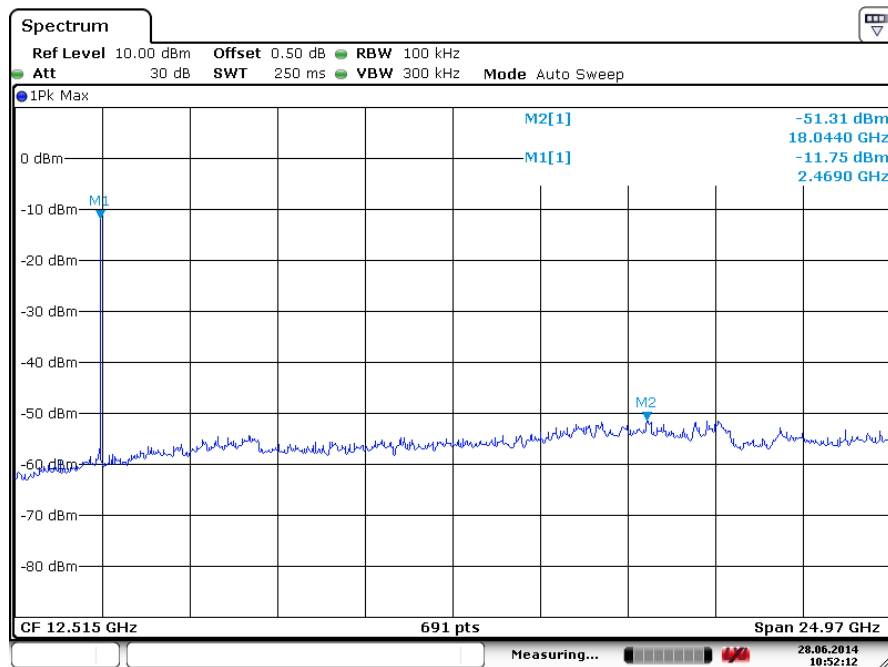
Date: 28.JUN.2014 10:55:30

TX 802.11g Channel Middle 2437MHz



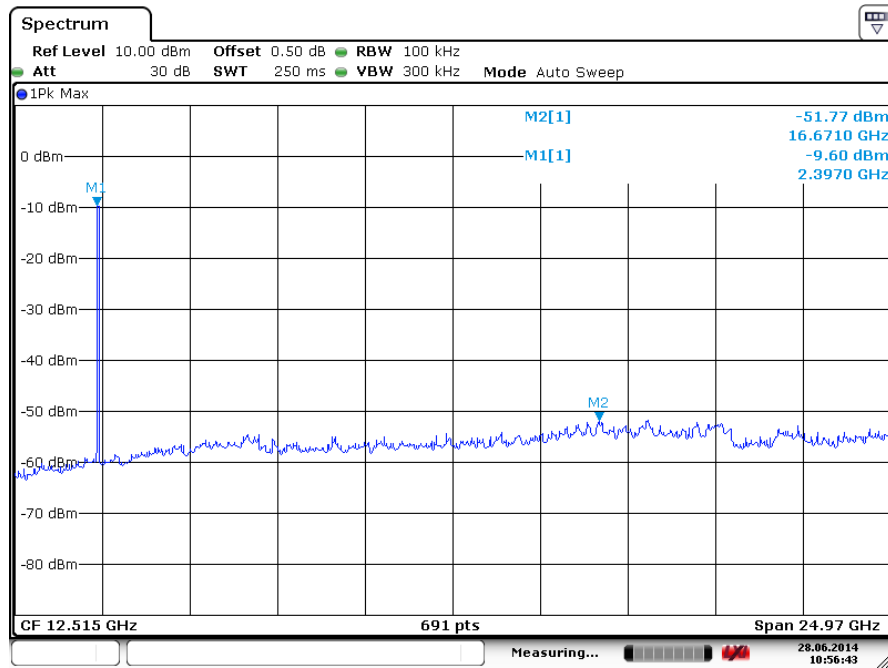
Date: 28. JUN. 2014 10:53:11

TX 802.11g Channel High 2462MHz



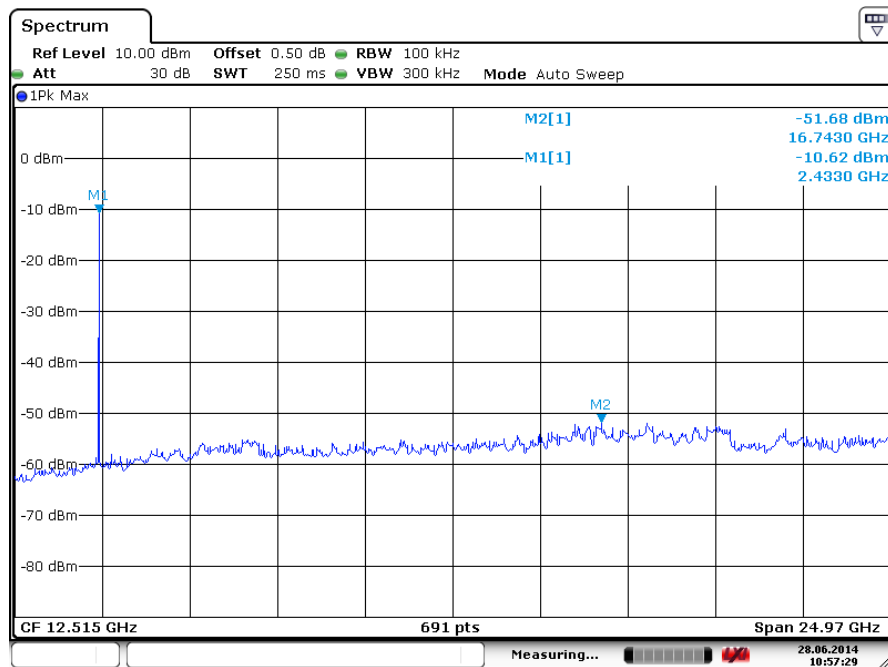
Date: 28. JUN. 2014 10:52:12

TX 802.11n Channel Low 2412MHz (20MHz)



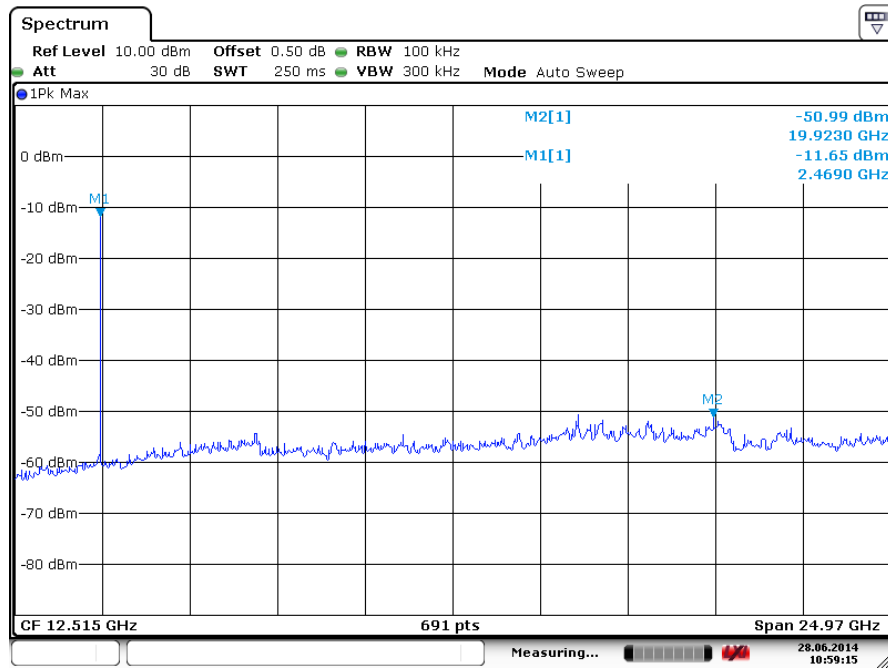
Date: 28.JUN.2014 10:56:43

TX 802.11n Channel Middle 2437MHz (20MHz)



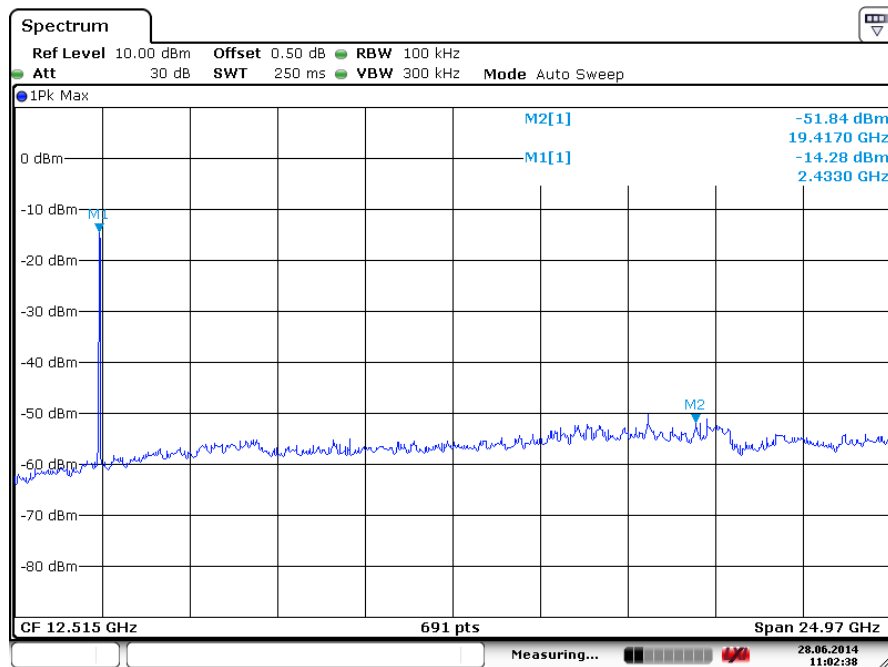
Date: 28.JUN.2014 10:57:29

TX 802.11n Channel High 2462MHz (20MHz)



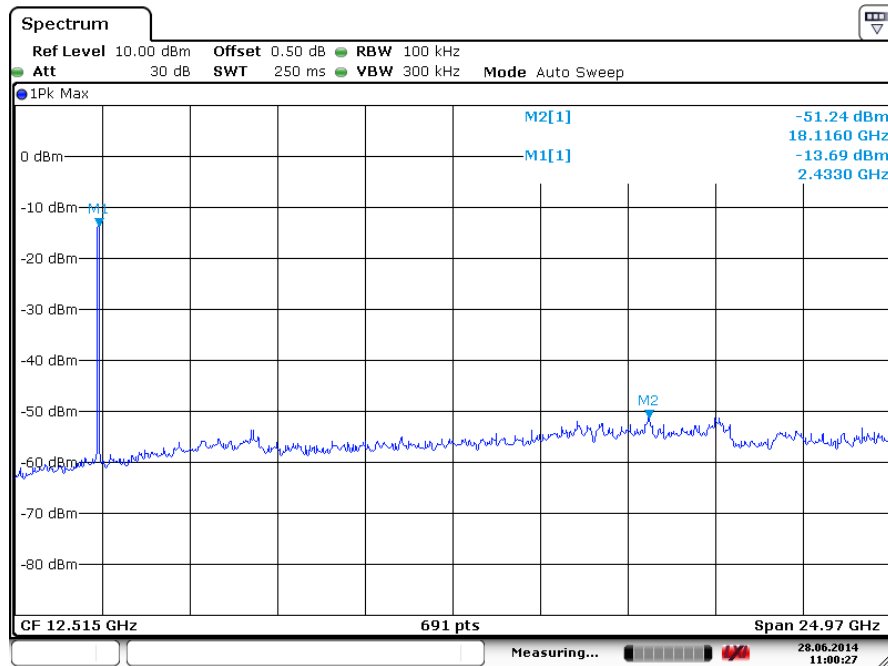
Date: 28.JUN.2014 10:59:15

TX 802.11n Channel Low 2422MHz (40MHz)



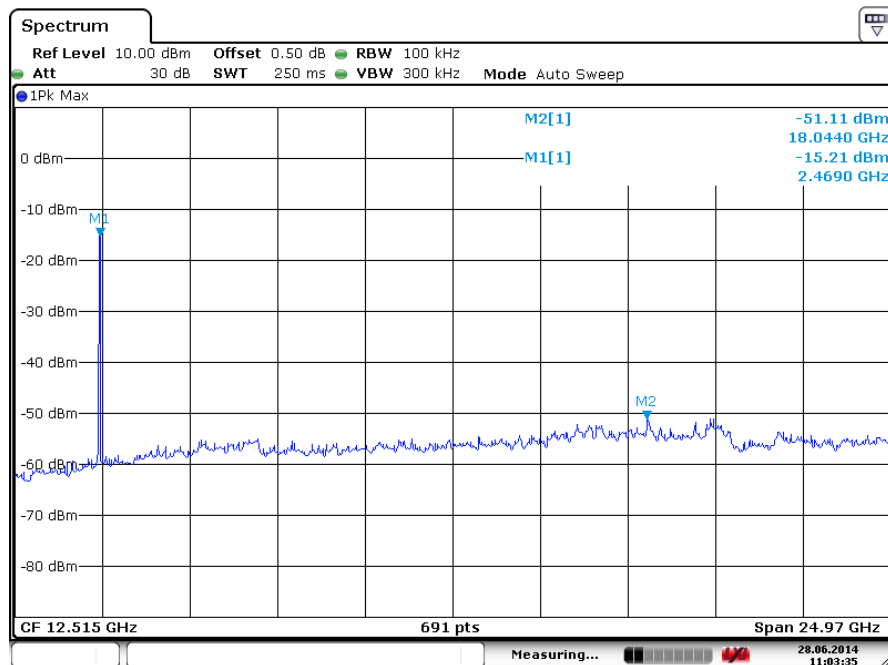
Date: 28.JUN.2014 11:02:38

TX 802.11n Channel Middle 2437MHz (40MHz)



Date: 28.JUN.2014 11:00:27

TX 802.11n Channel High 2452MHz (40MHz)



Date: 28.JUN.2014 11:03:35

12.ANTENNA REQUIREMENT

12.1.The Requirement

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

12.2.Antenna Construction

Device is equipped with Ceramic antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.

Antenna

