

Shenzhen Huatongwei International Inspection Co., Ltd.

1/F,Bldg 3,Hongfa Hi-tech Industrial Park,Genyu Road,Tianliao,Gongming,Shenzhen,China Phone:86-755-26748019 Fax:86-755-26748089 http://www.szhtw.com.cn



TEST REPORT

Report Reference No.....: TRE1608017803 R/C.....: 11165

FCC ID.....: 2ABOSELITE50P

Applicant's name.....: Sky Phone LLC

Manufacturer...... DongGuan Tenexon Communication Technology Co., Ltd

Address..... L1-L3 , Block A, Building B, KeYuan 9th Road No.1, Tang Xia Town,

Dongguan City, Guangdong China.

Test item description: Smart Phone

Trade Mark SKY

Model/Type reference..... Elite 5.0P

Listed Model(s) -

Standard: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of receipt of test sample...... Aug.26 ,2016

Date of testing...... Aug.27 ,2016 ~ Sep.12, 2016

Date of issue...... Sep.13, 2016

Result...... PASS

Compiled by

(position+printedname+signature)...: File administrators Candy Liu

Supervised by

(position+printedname+signature)....: Project Engineer Lion Cai

Approved by

(position+printedname+signature)....: RF Manager Hans Hu

Testing Laboratory Name: Shenzhen Huatongwei International Inspection Co., Ltd

Gongming, Shenzhen, China

Shenzhen Huatongwei International Inspection Co., Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen Huatongwei International Inspection Co., Ltd is acknowledged as copyright owner and source of the material. Shenzhen Huatongwei International Inspection Co., Ltd takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Report No: TRE1608017803 Page: 2 of 37 Issued: 2016-09-13

Contents

<u>1.</u>	APPLICABLE STANDARDS ANDTEST DESCRIPTION	3
1.1.	Applicable Standards	3
1.2.	Test Description	3
<u>2.</u>	SUMMARY	4
2.1.	Client Information	4
2.2.	Product Description	4
2.3.	Operation state	5
2.4.	EUT configuration	5
2.5.	Modifications	5
<u>3.</u>	TEST ENVIRONMENT	6
3.1.	Address of the test laboratory	6
3.2.	Test Facility	6
3.3.	Equipments Used during the Test	7
3.4.	Environmental conditions	8
3.5.	Statement of the measurement uncertainty	8
<u>4.</u>	TEST CONDITIONS AND RESULTS	9
4.1.	Antenna requirement	9
4.2.	Conducted Emission (AC Main)	10
4.3.	Conducted Peak Output Power	13
4.4.	Power Spectral Density	14
4.5.	6dB bandwidth	17
4.6.	Restricted band	20
4.7.	Band edge and Spurious Emission (conducted)	22
4.8.	Spurious Emission (radiated)	26
<u>5.</u>	TEST SETUP PHOTOS OF THE EUT	35
6.	EXTERNAL AND INTERNAL PHOTOS OF THE EUT	37

Report No: TRE1608017803 Page: 3 of 37 Issued: 2016-09-13

1. APPLICABLE STANDARDS ANDTEST DESCRIPTION

1.1. Applicable Standards

The tests were performed according to following standards:

<u>FCC Rules Part 15.247:</u> Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices

<u>KDB558074 D01 V03R03:</u> Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS)

1.2. Test Description

ReportSection	Test Item	FCC Rule	Result
4.1	Antenna requirement 15.203/15.247 (c)		Pass
4.2	Line Conducted Emission (AC Main)	15.207	Pass
4.3	Conducted Peak Output Power	15.247 (b)(3)	Pass
4.4	Power Spectral Density	15.247 (e)	Pass
4.5	6dB Bandwidth	15.247 (a)(2)	Pass
4.6	Restricted band	15.247(d)/15.205	Pass
4.7/4.8	Spurious Emission	15.247(d)/15.209	Pass

Remark: The measurement uncertainty is not included in the test result.

Report No: TRE1608017803 Page: 4 of 37 Issued: 2016-09-13

2. **SUMMARY**

2.1. Client Information

Applicant:	Sky Phone LLC
Address:	1348 Washington Av. #350, Miami Beach FL. 33139,United States
Manufacturer:	DongGuan Tenexon Communication Technology Co., Ltd
Address:	L1-L3 , Block A, Building B, KeYuan 9th Road No.1, Tang Xia Town, Dongguan City,Guangdong China.

2.2. Product Description

Name of EUT	Smart Phone	
Trade Mark:	SKY	
Model No.:	Elite 5.0P	
Listed Model(s):	-	
IMEI 1:	357518073163545	
IMEI 2:	357518073163552	
Power supply:	DC 3.8V From internal battery	
Adapter information:	Model: Elite 5.0P	
	Input:AC 100-240V 50/60Hz 0.2A	
	Output: 5Vd.c., 1.0A	
WIFI		
Supported type:	802.11b/802.11g/802.11n(H20)	
Modulation:	802.11b: DSSS (DBPSK / DQPSK / CCK) 802.11g/n(H20): OFDM (BPSK / QPSK / 16QAM / 64QAM)	
Operation frequency: 802.11b/g/n(H20): 2412MHz~2462MHz		
Channel number: 802.11b/g/n(H20): 11		
Channel separation: 5MHz		
Antenna type:	Internal Antenna	
Antenna gain:	-0.5dBi	

Report No: TRE1608017803 Page: 5 of 37 Issued: 2016-09-13

2.3. Operation state

◆ Test frequency list

According to section 15.31(m), regards to the operating frequency range over 10 MHz, must select three channel which were tested. the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the above gray bottom.

802.11b/g/n(H20)			
Channel	Frequency (MHz)		
01	2412		
02	2417		
03	2422		
i:	:		
06	2437		
i:	:		
09	2452		
10	2457		
11	2462		

◆ Data Rated

Preliminary tests were performed in different data rate, and found which the below bit rate is worst case mode, so only show data which it is a worst case mode.

Mode	datarate (worst mode)
802.11b	11Mbps
802.11g	54Mbps
802.11n(H20)	65Mbps

♦ Test mode

For RF test items:

the engineering test program was provided and enabled to make EUT continuous transmit/receive. The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

For AC power line conducted emissions:

the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.4. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- supplied by the manufacturer

O - supplied by the lab

Length (m):	1
Shield:	1
Detachable :	1
Manufacturer:	1
Model No. :	1

2.5. Modifications

No modifications were implemented to meet testing criteria.

Report No: TRE1608017803 Page: 6 of 37 Issued: 2016-09-13

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Laboratory: Shenzhen Huatongwei International Inspection Co., Ltd.

Address: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China

Phone: 86-755-26748019 Fax: 86-755-26748089

3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories

(identical to ISO/IEC17025: 2005 General Requirements) for the Competence of Testing and Calibration Labo ratories, Date of Registration: February 28, 2015. Valid time is until February 27, 2018.

A2LA-Lab Cert. No. 3902.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for tec hnical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time is until December 31, 2016.

FCC-Registration No.: 317478

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FC C is maintained in our files. Registration 317478, Renewal date Jul. 18, 2014, valid time is until Jul. 18, 2017.

IC-Registration No.: 5377A&5377B

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377A on Dec. 31, 2013, valid time is until Dec. 31, 2016.

Two 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377B on Dec.03, 2014, valid time is until Dec.03, 2017.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Aust ralian C-Tick mark as a result of our A2LA accreditation.

VCCI

The 3m Semi-

anechoic chamber (12.2m×7.95m×6.7m) of Shenzhen Huatongwei International Inspection Co., Ltd.

has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2484. Date of Registration: Dec. 20, 2012. Valid time is until Dec. 29, 2015.

Radiated disturbance above 1GHz measurement of Shenzhen Huatongwei International Inspection Co., Ltd. h as been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-292. Date of Registration: Dec. 24, 2013. Valid time is until Dec. 23, 2016.

Main Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-2726. Date of Registration: Dec. 20, 2012. Valid time is until Dec. 19, 2015.

Telecommunication Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-1837. Date of Registration: May 07, 2013. Valid time is until May 06, 2016.

DNV

Shenzhen Huatongwei International Inspection Co., Ltd. has been found to comply with the requirements of D NV towards subcontractor of EMC and safety testing services in conjunction with the EMC and Low voltage Di rectives and in the voluntary field. The acceptance is based on a formal quality Audit and follow-ups according to relevant parts of ISO/IEC Guide 17025 (2005), in accordance with the requirements of the D NV Laboratory Quality Manual towards subcontractors. Valid time is until Aug. 24, 2016.

Report No: TRE1608017803 Page: 7 of 37 Issued: 2016-09-13

3.3. Equipments Used during the Test

Radia	Radiated Emission				
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal
1	Ultra-Broadband Antenna	ShwarzBeck	VULB9163	538	2015/11/02
2	EMI TEST RECEIVER	Rohde&Schwarz	ESI 26	100009	2015/11/02
3	EMI TEST Software	Audix	E3	N/A	N/A
4	TURNTABLE	ETS	2088	2149	N/A
5	ANTENNA MAST	ETS	2075	2346	N/A
6	EMI TEST Software	Rohde&Schwarz	ESK1	N/A	N/A
7	HORNANTENNA	ShwarzBeck	9120D	1011	2015/11/02
8	Amplifer	Sonoma	310N	E009-13	2015/11/02
9	JS amplifer	Rohde&Schwarz	JS4-00101800- 28-5A	F201504	2015/11/02
10	High pass filter	Compliance Direction systems	BSU-6	34202	2015/11/02
11	HORNANTENNA	ShwarzBeck	9120D	1012	2015/11/02
12	Amplifer	Compliance Direction systems	PAP1-4060	120	2015/11/02
13	Loop Antenna	Rohde&Schwarz	HFH2-Z2	100020	2015/11/02
14	TURNTABLE	MATURO	TT2.0		N/A
15	ANTENNA MAST	MATURO	TAM-4.0-P		N/A
16	Horn Antenna	SCHWARZBECK	BBHA9170	25841	2015/11/02
17	ULTRA-BROADBAND ANTENNA	Rohde&Schwarz	HL562	100015	2015/11/02

	Maximum Peak Output Power / Power Spectral Density / 6dB Bandwidth / Band Edge Compliance of RF					
Emiss	Emission / Spurious RF Conducted Emission					
Item	m Test Equipment Manufacturer Model No. Serial No. Last Cal					
1	Spectrum Analyzer	Rohde&Schwarz	FSP	1164.4391.40	2015/11/02	
2	2 Power Meter Anritsu ML2480B 100798 2015/11/02					
3	Power Sensor	Anritsu	MA2411B	100258	2015/11/02	

The Cal.Interval was one year

Report No: TRE1608017803 Page: 8 of 37 Issued: 2016-09-13

3.4. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35°C
lative Humidity:	30~60 %
Air Pressure:	950~1050mba

3.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01"Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1"and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test Items	MeasurementUncertainty	Notes
Transmitter power conducted	0.57 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	1.60 dB	(1)
Radiated spurious emission 9KHz-40 GHz	2.20 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission 30~1000MHz	4.24 dB	(1)
Radiated Emissio 1~18GHz	5.16 dB	(1)
Radiated Emissio 18-40GHz	5.54 dB	(1)
Occupied Bandwidth		(1)

⁽¹⁾ This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

Report No: TRE1608017803 Page: 9 of 37 Issued: 2016-09-13

4. TEST CONDITIONS AND RESULTS

4.1. Antenna requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

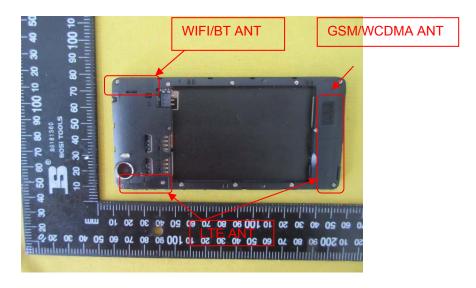
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of anantenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1)(i):

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Test Result:

The antenna is integral antenna, the best case gain of the antenna is -0.5dBi.



Report No: TRE1608017803 Page: 10 of 37 Issued: 2016-09-13

4.2. Conducted Emission (AC Main)

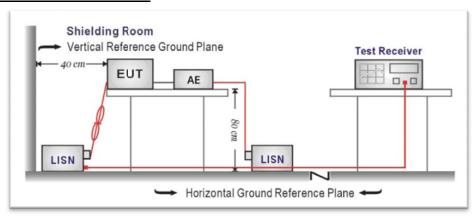
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency range (MHz)	Limit (dBuV)		
	Quasi-peak	Average	
0.15-0.5	66 to 56*	56 to 46*	
0.5-5	56	46	
5-30	60	50	

^{*} Decreases with the logarithm of the frequency.

TEST CONFIGURATION



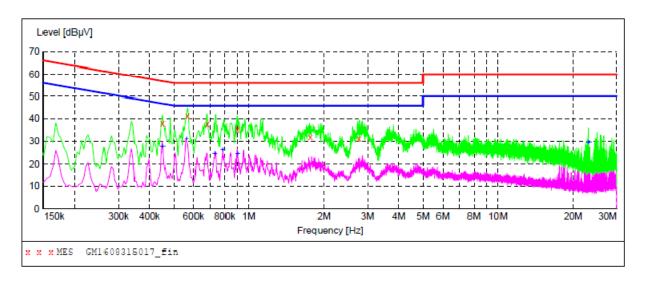
TEST PROCEDURE

- The EUT was setup and tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
- 2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above theconducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
- 3. The EUT and simulators are connected to the main power through a line impedancestabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for themeasuring equipment.
- 4. The peripheral devices are also connected to the main power through aLISN. (Please refer to the block diagram of the test setup and photographs)
- 5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor,was individually connected through a LISN to the input power source.
- 6. The excess length of the power cord between the EUT and the LISN receptacle were foldedback and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
- 7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHzusing a receiver bandwidth of 9 kHz.

TEST RESULTS

Report No: TRE1608017803 Page: 11 of 37 Issued: 2016-09-13

Test mode:AC 120V WIFI Polarization L



MEASUREMENT RESULT: "GM1608315017_fin"

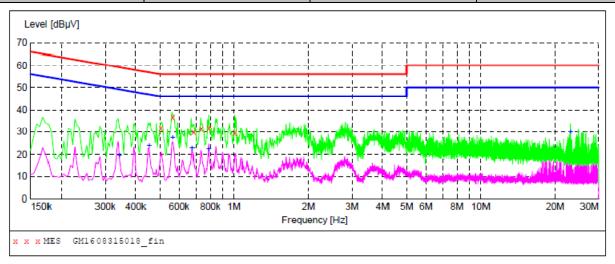
8/31/2016 1:4	41PM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.451500	37.90	10.2	57	18.9	QP	L1	GND
0.568500	41.00	10.2	56	15.0	QP	L1	GND
0.681000	37.50	10.2	56	18.5	QP	L1	GND
0.901500	35.40	10.2	56	20.6	QP	L1	GND
1.770000	32.10	10.3	56	23.9	QP	L1	GND
2.764500	31.20	10.4	56	24.8	QP	L1	GND

MEASUREMENT RESULT: "GM1608315017_fin2"

8	/31/2016 1:4	1PM						
	Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	0.451500	27.50	10.2	47	19.3	AV	ь1	GND
	0.564000	31.40	10.2	46	14.6	AV	L1	GND
	0.730500	24.30	10.2	46	21.7	AV	L1	GND
	0.789000	26.10	10.2	46	19.9	AV	L1	GND
	0.901500	24.20	10.2	46	21.8	AV	L1	GND
	23.127000	29.60	10.8	50	20.4	AV	L1	GND

Report No: TRE1608017803 Page: 12 of 37 Issued: 2016-09-13

Test mode: AC 120V WIFI Polarization N



MEASUREMENT RESULT: "GM1608315018_fin"

8,	/31/2016 1:4	44PM						
	Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	0.505500	31.70	10.2	56	24.3	QP	N	GND
	0.564000	36.70	10.2	56	19.3	QP	N	GND
	0.685500	29.70	10.2	56	26.3	QP	N	GND
	0.735000	31.30	10.2	56	24.7	QP	N	GND
	0.789000	31.80	10.2	56	24.2	QP	N	GND
	1.009500	29.40	10.3	56	26.6	QP	N	GND

MEASUREMENT RESULT: "GM1608315018_fin2"

8/31/2016 1:4	4PM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.343500	19.50	10.2	49	29.6	AV	N	GND
0.451500	23.70	10.2	47	23.1	.AV	N	GND
0.564000	27.40	10.2	46	18.6	AV	N	GND
0.676500	22.60	10.2	46	23.4	.AV	N	GND
0.789000	22.00	10.2	46	24.0	AV	N	GND
23.127000	29.90	10.8	50	20.1	AV	N	GND

Remark:Transd=Cable lose+PULSE LIMITER factor+ARTIFICIAL MAINS factor;Margin=Limit-Level

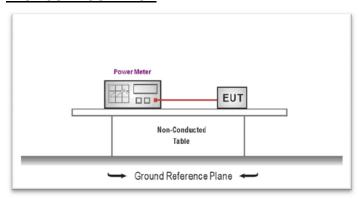
Report No: TRE1608017803 Page: 13 of 37 Issued: 2016-09-13

4.3. Conducted Peak Output Power

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (b)(3): 30dBm

TEST CONFIGURATION



TEST PROCEDURE

- 1. The EUT was tested according to ANSI C63.10: 2013 for compliance to FCC 47CFR 15.247requirements.
- 2. The maximum peak conducted output power may be measured using a broadband peak RF power meter.
- 3. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector
- 4. Record the measurement data.

TEST RESULTS

Type	Channel	Output power (dBm)	Limit (dBm)	Result
	01	16.01		
802.11b	06	17.11	30.00	Pass
	11	17.36		
	01	13.82		
802.11g	06	13.44	30.00	Pass
	11	14.72		
	01	13.18		
802.11n(H20)	06	13.99	30.00	Pass
	11	13.94		

Report No: TRE1608017803 Page: 14 of 37 Issued: 2016-09-13

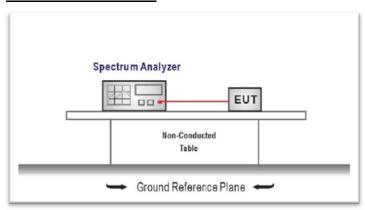
4.4. Power Spectral Density

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (e): 8dBm/3KHz

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.

TEST CONFIGURATION



TEST PROCEDURE

- 1. Connect the antenna port(s) to the spectrum analyzer input,
- Configurethe spectrum analyzer as shown below:

Center frequency=DTS channel center frequency

Span =1.5 times the DTS bandwidth

 $RBW = 3 \text{ kHz} \le RBW \le 100 \text{ kHz}, VBW \ge 3 \times RBW$

Sweep time = auto couple

Detector = peak

Trace mode = max hold

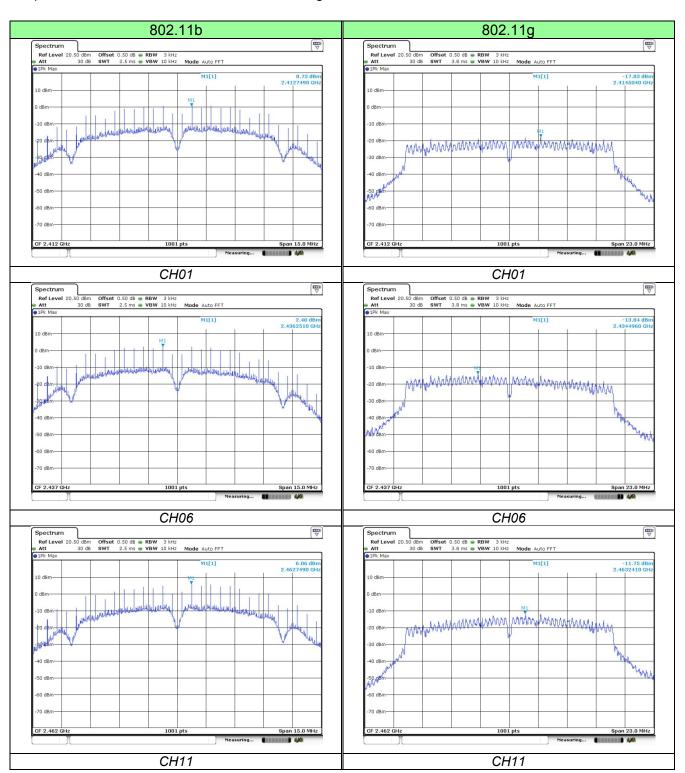
- 3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
- 4. Use the peak marker function to determine the maximum amplitude level within the RBW.
- 5. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST RESULTS

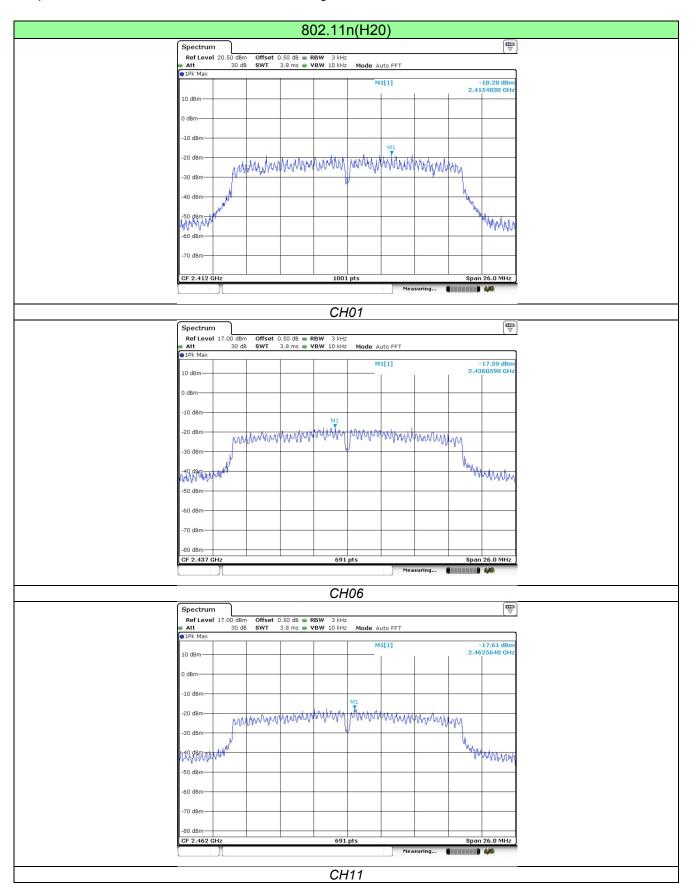
Туре	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
	01 0.73			
802.11b	06	2.40	8.00	Pass
	11	6.06		
	01	-17.83		
802.11g	06	-13.84	8.00	Pass
	11	-11.75		
	01	-18.28		
802.11n(H20)	06	-17.59	8.00	Pass
	11	-17.61		

Test plot as follows:

Report No: TRE1608017803 Page: 15 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 16 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 17 of 37 Issued: 2016-09-13

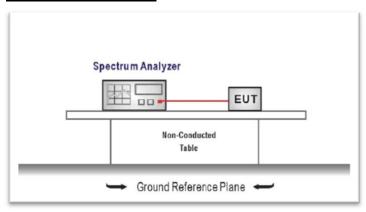
4.5. 6dB bandwidth

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (a)(2): at least 500KHz

For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

TEST CONFIGURATION



TEST PROCEDURE

- 1. Connect the antenna port(s) to the spectrum analyzer input.
- 2. Configure the spectrum analyzer as shown below (enter all losses between the transmitter output andthe spectrum analyzer).

Center Frequency =DTS channel center frequency

Span=2 x DTS bandwidth

RBW = 100 kHz, VBW ≥ 3 × RBW

Sweep time= auto couple

Detector = Peak

Trace mode = max hold

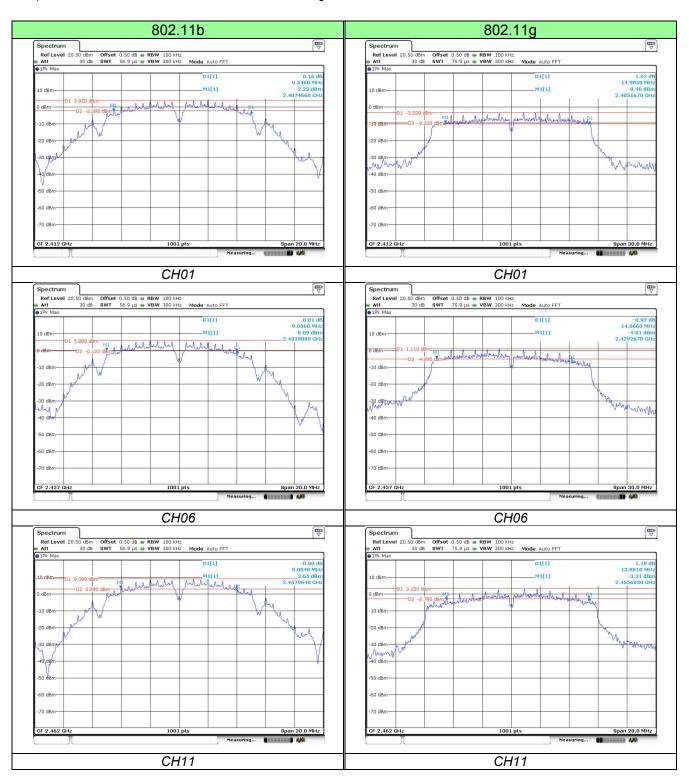
- 3. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
- 4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission, andrecord the pertinent measurements.

TEST RESULTS

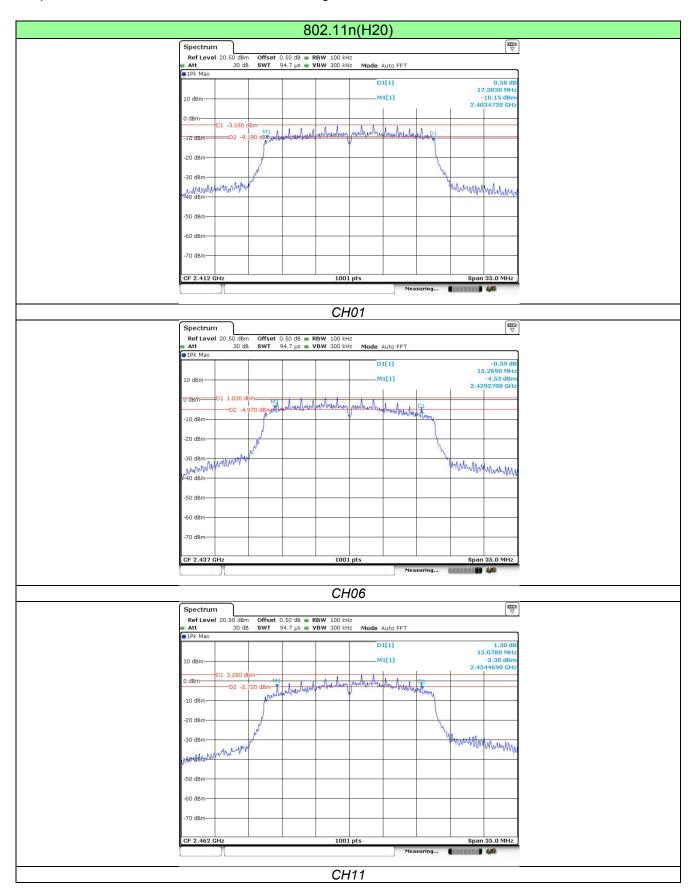
Туре	Channel	6dB Bandwidth(MHz)	Limit (KHz)	Result
	01	9.54		
802.11b	06	9.06	≥500	Pass
	11	8.08		
	01	14.99		
802.11g	06	14.07	≥500	Pass
	11	13.88		
	01	17.30		
802.11n(H20)	06	15.27	≥500	Pass
	11	15.08		

Test plot as follows:

Report No: TRE1608017803 Page: 18 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 19 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 20 of 37 Issued: 2016-09-13

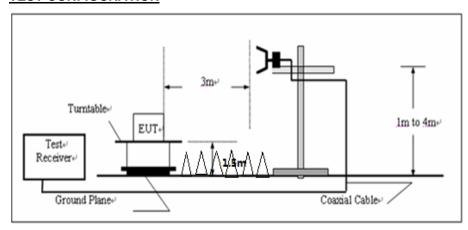
4.6. Restricted band

LIMIT

FCC CFR Title 47 Part 15 Subpart C 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, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

TEST CONFIGURATION



TEST PROCEDURE

- The EUT was setup and tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
- 2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated360 degrees to determine the position of the maximum emission level.
- 3. The EUT waspositioned such that the distance from antenna to the EUT was 3 meters.
- 4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. Thisis repeated for both horizontal and vertical polarization of the antenna. In order to find themaximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
- The receiver set as follow:
 - RBW=1MHz, VBW=3MHz for Peak value
 - RBW=1MHz, VBW=10Hz for Average value.
- Pre-scan 2310-2390MHz,2483.5-2500MHz,and only mark the worst case data in the test report

TEST RESULTS

Note:Level=Read+Antenna Factor+Cable Loss-Preamp Factor

Report No: TRE1608017803 Page: 21 of 37 Issued: 2016-09-13

CH01 for 802.11b											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value		
2388.65	51.54	27.53	6.81	37.45	48.43	74.00	-25.57	Vertical	Peak		
2388.47	50.63	27.53	6.81	37.45	47.52	74.00	-26.48	Horizontal	reak		
2389.46	45.25	27.53	6.81	37.45	42.14	54.00	-11.86	Vertical	Average		
2389.52	44.74	27.53	6.81	37.45	41.63	54.00	-12.37	Horizontal	Average		

CH11 for 802.11b												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value			
2484.38	53.01	27.85	6.96	37.57	50.25	74.00	-23.75	Vertical	Peak			
2484.57	52.14	27.85	6.96	37.57	49.38	74.00	-24.62	Horizontal	reak			
2484.63	47.28	27.85	6.96	37.57	44.52	54.00	-9.48	Vertical	Average			
2484.75	46.12	27.85	6.96	37.57	43.36	54.00	-10.64	Horizontal	Average			

CH01 for 802.11g											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value		
2386.75	50.05	27.53	6.81	37.92	46.47	74.00	-27.53	Vertical	Peak		
2386.74	49.43	27.53	6.81	37.92	45.85	74.00	-28.15	Horizontal	reak		
2386.40	43.72	27.53	6.81	37.92	40.14	54.00	-13.86	Vertical	Average		
2386.25	43.90	27.53	6.81	37.99	40.25	54.00	-13.75	Horizontal	Average		

	CH11 for 802.11g												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value				
2484.66	51.53	27.85	6.96	37.60	48.74	74.00	-25.26	Vertical	Peak				
2484.47	50.31	27.85	6.96	37.60	47.52	74.00	-26.48	Horizontal	reak				
2484.85	45.17	27.85	6.96	37.60	42.38	54.00	-11.62	Vertical	Average				
2484.36	43.94	27.85	6.96	37.60	41.15	54.00	-12.85	Horizontal	Average				

	CH01 for 802.11n(H20)												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value				
2389.25	47.99	27.53	6.81	37.58	44.75	74.00	-29.25	Vertical	Peak				
2389.35	46.76	27.53	6.81	37.58	43.52	74.00	-30.48	Horizontal	reak				
2389.26	41.99	27.53	6.81	37.58	38.75	54.00	-15.25	Vertical	Average				
2389.47	41.67	27.53	6.81	37.58	38.43	54.00	-15.57	Horizontal	Average				

	CH11 for 802.11n(H20)												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value				
2484.64	49.38	27.85	6.96	37.67	46.52	74.00	-27.48	Vertical	Peak				
2484.62	48.55	27.85	6.96	37.67	45.69	74.00	-28.31	Horizontal	reak				
2484.58	43.29	27.85	6.96	37.67	40.43	54.00	-13.57	Vertical	Average				
2484.66	43.01	27.85	6.96	37.67	40.15	54.00	-13.85	Horizontal	Average				

Report No: TRE1608017803 Page: 22 of 37 Issued: 2016-09-13

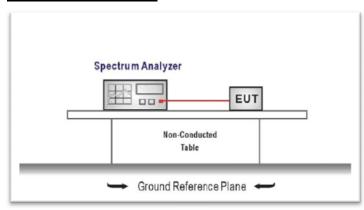
4.7. Band edge and Spurious Emission (conducted)

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):

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.

TEST CONFIGURATION



TEST PROCEDURE

- 1. Connect the antenna port(s) to the spectrum analyzer input.
- 2. Establish a reference level by using the following procedure

Center frequency=DTS channel center frequency

The span = 1.5 times the DTS bandwidth.

 $RBW = 100 \text{ kHz}, VBW \ge 3 \text{ x } RBW$

Detector = peak, Sweep time = auto couple, Trace mode = max hold

Allow trace to fully stabilize

Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

3. Emission level measurement

Set the center frequency and span to encompass frequency range to be measured

RBW = 100 kHz, VBW ≥ 3 x RBW

Detector = peak, Sweep time = auto couple, Trace mode = max hold

Allow trace to fully stabilize

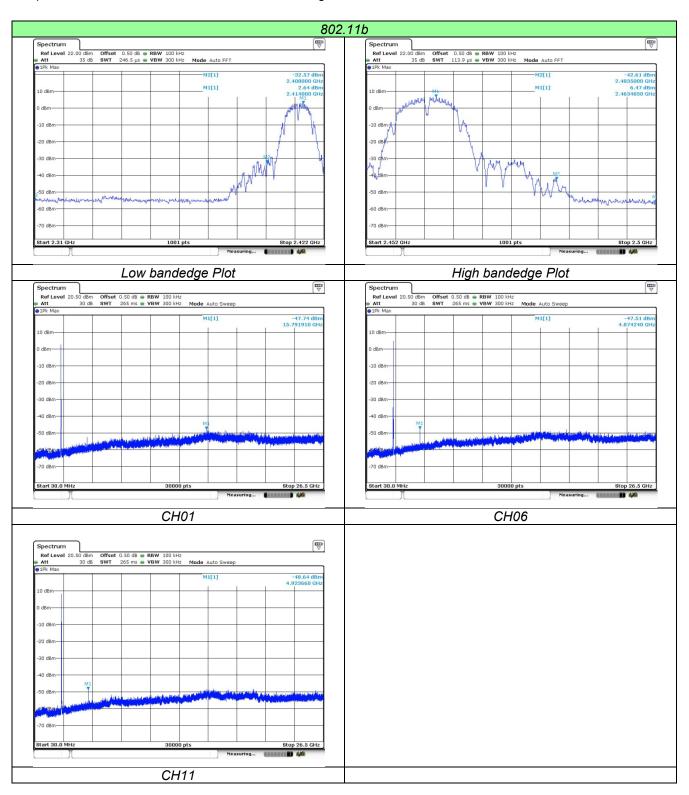
Use the peak marker function to determine the maximum amplitude level.

- 4. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
- 5. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band excluding restricted frequency bands) are attenuated by at least the minimum requirements specified (at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz). Report the three highest emissions relative to the limit.

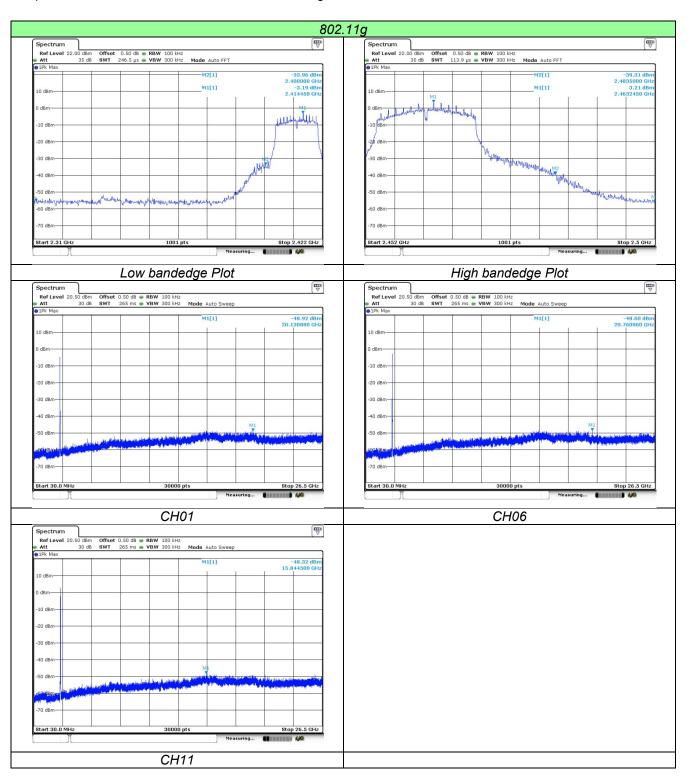
TEST RESULTS

Test plot as follows:

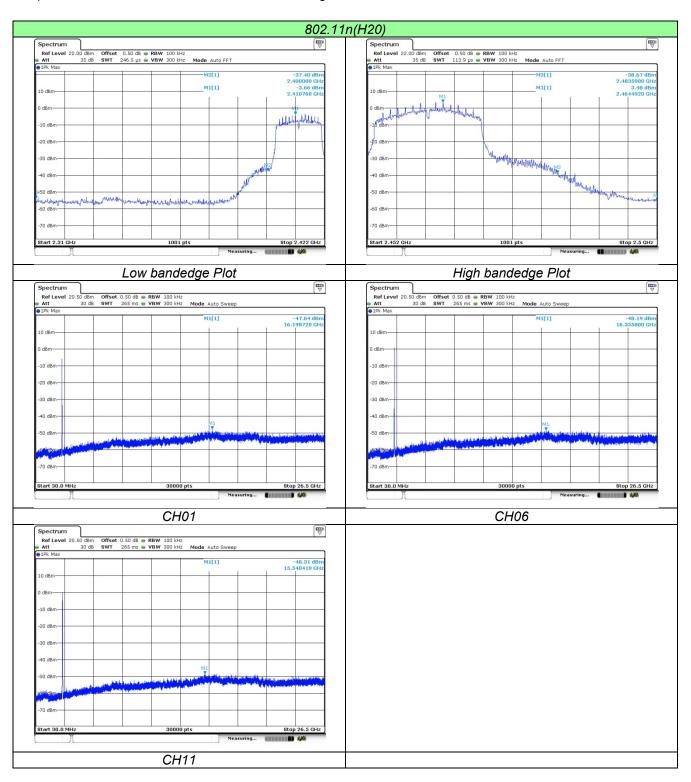
Report No: TRE1608017803 Page: 23 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 24 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 25 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 26 of 37 Issued: 2016-09-13

4.8. Spurious Emission (radiated)

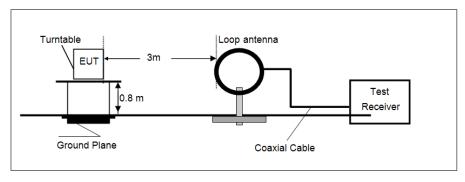
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

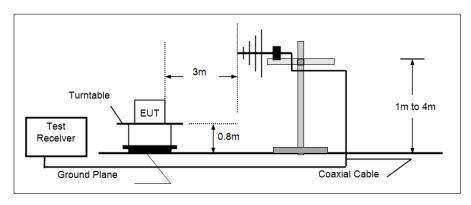
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
Above IGHZ	74.00	Peak

TEST CONFIGURATION

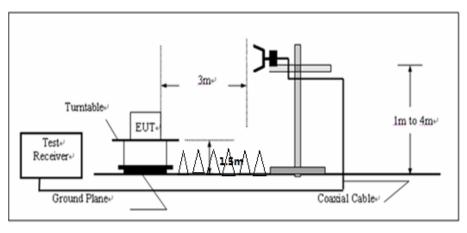
● 9KHz ~30MHz



● 30MHz ~ 1GHz



Above 1GHz



Report No: TRE1608017803 Page: 27 of 37 Issued: 2016-09-13

TEST PROCEDURE

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

- 2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1GHz, and 1.5m for above 1GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
- The EUT waspositioned such that the distance from antenna to the EUT was 3 meters.
- 4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. Thisis repeated for both horizontal and vertical polarization of the antenna. In order to find themaximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
- 5. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Below 1GHz, RBW=120KHz, VBW=300KHz, Sweep=auto, Detector function=peak, Trace=max hold; If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, theemission measurement will be repeated using the guasi-peak detector and reported.
 - (3) Above 1GHz, RBW=1MHz, VBW=3MHz for Peak value

RBW=1MHz, VBW=10Hz for Average value.

TEST RESULTS

Noted:

Below 1GHz, Have pre-scan all modulation mode, found the 802.11b mode which it was worst case, so only the worst case's data on the test report.

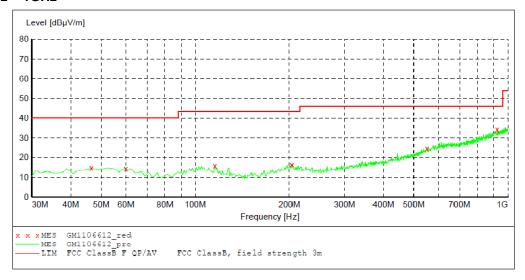
Measurement data:

■ 9kHz ~ 30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

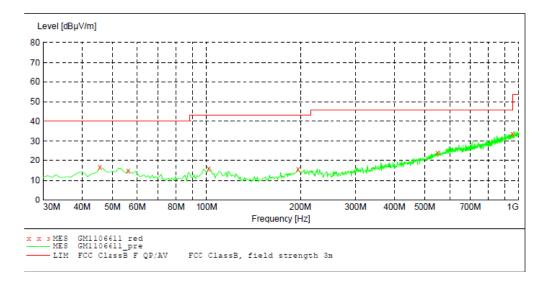
Report No: TRE1608017803 Page: 28 of 37 Issued: 2016-09-13

■ 30MHz ~ 1GHz



MEASUREMENT RESULT: "GM1106612_red"

8/31/2016 9 Frequency MHz	:59AM Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
46.490000	14.70	-14.6	40.0	25.3	QP	100.0	121.00	HORIZONTAL
60.070000	14.50	-14.9	40.0	25.5	QP	100.0	321.00	HORIZONTAL
115.360000	15.90	-15.5	43.5	27.6	QP	300.0	44.00	HORIZONTAL
203.630000	16.50	-13.7	43.5	27.0	QP	300.0	360.00	HORIZONTAL
550.890000	24.70	-4.8	46.0	21.3	QP	300.0	153.00	HORIZONTAL
922.400000	34.30	3.1	46.0	11.7	QP	100.0	284.00	HORIZONTAL



MEASUREMENT RESULT: "GM1106611_red"

8/31/2016 9: Frequency MHz			Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	16.40	-14.7	40.0	23.6	QP	100.0	116.00	VERTICAL
56.190000	14.70	-14.7	40.0	25.3	QP	100.0	116.00	VERTICAL
101.780000	16.00	-14.4	43.5	27.5	QP	100.0	295.00	VERTICAL
196.840000	15.50	-13.9	43.5	28.0	QP	100.0	63.00	VERTICAL
549.920000	24.10	-4.8	46.0	21.9	QP	100.0	80.00	VERTICAL
955.380000	33.60	3.8	46.0	12.4	QP	100.0	0.00	VERTICAL

Report No: TRE1608017803 Page: 29 of 37 Issued: 2016-09-13

Above 1GHz

				CH01	for 802.11b				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4824.00	39.65	29.18	8.61	37.99	39.45	74.00	-34.55	Vertical	
7236.00	41.46	36.17	10.95	38.15	50.43	74.00	-23.57	Vertical	
9648.00	33.46	38.2	12.17	38.08	45.75	74.00	-28.25	Vertical	
13161.62	*					74.00		Vertical	Peak
4824.00	37.50	32	9.53	38.39	40.64	74.00	-33.36	Horizontal	Peak
7236.00	43.84	35.92	6.94	35.18	51.52	74	-28.16	Horizontal	
9648.00	33.79	38.2	12.17	38.08	46.08	74.00	-27.92	Horizontal	
13161.62	*					74.00		Horizontal	
4824.00	34.78	29.18	8.61	37.99	34.58	54.00	-19.42	Vertical	
7236.00	34.47	36.17	10.95	38.15	43.44	54.00	-10.56	Vertical	
9648.00	27.96	38.2	12.17	38.08	40.25	54.00	-13.75	Vertical	
13161.62	0.00					54.00		Vertical	A.,
4824.00	31.44	32	9.53	38.39	34.58	54.00	-19.42	Horizontal	Average
7236.00	36.79	35.92	6.94	35.18	44.47	54.00	-9.53	Horizontal	
9648.00	27.96	38.2	12.17	38.08	40.25	54.00	-13.75	Horizontal	
13161.62	*					54.00		Horizontal	

				CH06	for 802.11b				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4874.00	38.96	30.91	8.99	38.34	40.52	74.00	-33.48	Vertical	
7311.00	41.90	35.44	10.53	38.02	49.85	74.00	-24.15	Vertical	
9748.00	33.97	38.02	12.17	38.08	46.08	74.00	-27.92	Vertical	
12341.44	*					74.00		Vertical	Dook
4874.00	39.39	30.24	8.81	38.17	40.27	74.00	-33.73	Horizontal	Peak
7311.00	42.90	35.44	10.53	38.02	50.85	74.00	-23.15	Horizontal	
9748.00	34.55	38.2	12.17	38.08	46.84	74.00	-27.16	Horizontal	
12341.44	*					74.00		Horizontal	
4874.00	32.96	30.91	8.99	38.34	34.52	54.00	-19.48	Vertical	
7311.00	34.92	35.44	10.53	38.02	42.87	54.00	-11.13	Vertical	
9748.00	28.14	38.02	12.17	38.08	40.25	54.00	-13.75	Vertical	
12341.44	0.00					54.00		Vertical	Average
4874.00	33.40	30.24	8.81	38.17	34.28	54.00	-19.72	Horizontal	Average
7311.00	35.74	35.44	10.53	38.02	43.69	54.00	-10.31	Horizontal	
9748.00	28.57	38.2	12.17	38.08	40.86	54.00	-13.14	Horizontal	
12341.44	*					54.00		Horizontal	

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Report No: TRE1608017803 Page: 30 of 37 Issued: 2016-09-13

				CH11	for 802.11b				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4924.00	38.31	31.17	9.31	38.62	40.17	74.00	-33.83	Vertical	
7386.00	40.53	36.72	11.24	38.24	50.25	74.00	-23.75	Vertical	
9848.00	33.48	38.33	12.39	38.12	46.08	74.00	-27.92	Vertical	
11692.64	*					74.00		Vertical	Dook
4924.00	38.22	31.17	9.31	38.62	40.08	74.00	-33.92	Horizontal	Peak
7386.00	42.74	36.13	10.93	38.14	51.66	74.00	-22.34	Horizontal	
9848.00	33.68	38.33	12.39	38.12	46.28	74.00	-27.72	Horizontal	
11692.64	*					74.00		Horizontal	
4924.00	32.57	31.17	9.31	38.62	34.43	54.00	-19.57	Vertical	
7386.00	33.80	36.72	11.24	38.24	43.52	54.00	-10.48	Vertical	
9848.00	28.07	38.33	12.39	38.12	40.67	54.00	-13.33	Vertical	
11692.64	*					54.00		Vertical	A
4924.00	32.80	31.17	9.31	38.62	34.66	54.00	-19.34	Horizontal	Average
7386.00	35.16	36.13	10.93	38.14	44.08	54.00	-9.92	Horizontal	
9848.00	28.25	38.33	12.39	38.12	40.85	54.00	-13.15	Horizontal	
11692.64	*					54.00		Horizontal	

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Report No: TRE1608017803 Page: 31 of 37 Issued: 2016-09-13

				CH01	for 802.11g				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4824.00	39.94	29.18	8.61	37.99	39.74	74.00	-34.26	Vertical	
7236.00	36.28	36.17	10.95	38.15	45.25	74.00	-28.75	Vertical	
9648.00	34.45	38.2	12.17	38.08	46.74	74.00	-27.26	Vertical	
12060.00	*					74.00		Vertical	Dook
4824.00	37.14	32	9.53	38.39	40.28	74.00	-33.72	Horizontal	Peak
7236.00	39.20	35.92	6.94	35.18	46.88	74	-28.16	Horizontal	
9648.00	34.65	38.2	12.17	38.08	46.94	74.00	-27.06	Horizontal	
12060.00	*					74.00		Horizontal	
4824.00	34.72	29.18	8.61	37.99	34.52	54.00	-19.48	Vertical	
7236.00	30.67	36.17	10.95	38.15	39.64	54.00	-14.36	Vertical	
9648.00	27.96	38.2	12.17	38.08	40.25	54.00	-13.75	Vertical	
12060.00	*					54.00		Vertical	A.,
4824.00	31.44	32	9.53	38.39	34.58	54.00	-19.42	Horizontal	Average
7236.00	33.07	35.92	6.94	35.18	40.75	54.00	-13.25	Horizontal	
9648.00	27.92	38.2	12.17	38.08	40.21	54.00	-13.79	Horizontal	
12060.00	*					54.00		Horizontal	

				CH06	for 802.11g				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4874.00	38.30	30.91	8.99	38.34	39.86	74.00	-34.14	Vertical	
7311.00	36.79	35.44	10.53	38.02	44.74	74.00	-29.26	Vertical	
9748.00	33.14	38.02	12.17	38.08	45.25	74.00	-28.75	Vertical	
12185.00	*					74.00		Vertical	Peak
4874.00	39.78	30.24	8.81	38.17	40.66	74.00	-33.34	Horizontal	reak
7311.00	38.79	35.44	10.53	38.02	46.74	74.00	-27.26	Horizontal	
9748.00	34.56	38.2	12.17	38.08	46.85	74.00	-27.15	Horizontal	
12185.00	*					74.00		Horizontal	
4874.00	32.96	30.91	8.99	38.34	34.52	54.00	-19.48	Vertical	
7311.00	31.90	35.44	10.53	38.02	39.85	54.00	-14.15	Vertical	
9748.00	28.14	38.02	12.17	38.08	40.25	54.00	-13.75	Vertical	
12185.00	*					54.00		Vertical	A.,
4874.00	33.78	30.24	8.81	38.17	34.66	54.00	-19.34	Horizontal	Average
7311.00	32.33	35.44	10.53	38.02	40.28	54.00	-13.72	Horizontal	
9748.00	28.59	38.2	12.17	38.08	40.88	54.00	-13.12	Horizontal	
12185.00	*					54.00		Horizontal	

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Report No: TRE1608017803 Page: 32 of 37 Issued: 2016-09-13

				CH11	for 802.11g				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4924.00	38.28	31.17	9.31	38.62	40.14	74.00	-33.86	Vertical	
7386.00	34.66	36.72	11.24	38.24	44.38	74.00	-29.62	Vertical	
9848.00	33.36	38.33	12.39	38.12	45.96	74.00	-28.04	Vertical	
12310.00	*					74.00		Vertical	Dools
4924.00	38.42	31.17	9.31	38.62	40.28	74.00	-33.72	Horizontal	Peak
7386.00	36.96	36.13	10.93	38.14	45.88	74.00	-28.12	Horizontal	
9848.00	33.87	38.33	12.39	38.12	46.47	74.00	-27.53	Horizontal	
12310.00	*					74.00		Horizontal	
4924.00	32.66	31.17	9.31	38.62	34.52	54.00	-19.48	Vertical	
7386.00	29.04	36.72	11.24	38.24	38.76	54.00	-15.24	Vertical	
9848.00	27.65	38.33	12.39	38.12	40.25	54.00	-13.75	Vertical	
12310.00	*					54.00		Vertical	Avanaga
4924.00	33.02	31.17	9.31	38.62	34.88	54.00	-19.12	Horizontal	Average
7386.00	30.73	36.13	10.93	38.14	39.65	54.00	-14.35	Horizontal	
9848.00	28.26	38.33	12.39	38.12	40.86	54.00	-13.14	Horizontal	
12310.00	*					54.00		Horizontal	

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Report No: TRE1608017803 Page: 33 of 37 Issued: 2016-09-13

CH01 for 802.11n(H20)											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value		
4824.00	39.72	29.18	8.61	37.99	39.52	74.00	-34.48	Vertical			
7236.00	32.68	36.17	10.95	38.15	41.65	74.00	-32.35	Vertical			
9648.00	33.14	38.2	12.17	38.08	45.43	74.00	-28.57	Vertical			
12060.00	*					74.00		Vertical	Dools		
4824.00	37.50	32	9.53	38.39	40.64	74.00	-33.36	Horizontal	Peak		
7236.00	35.98	35.92	6.94	35.18	43.66	74	-28.16	Horizontal			
9648.00	33.69	38.2	12.17	38.08	45.98	74.00	-28.02	Horizontal			
12060.00	*					74.00		Horizontal			
4824.00	34.68	29.18	8.61	37.99	34.48	54.00	-19.52	Vertical			
7236.00	26.78	36.17	10.95	38.15	35.75	54.00	-18.25	Vertical			
9648.00	27.39	38.2	12.17	38.08	39.68	54.00	-14.32	Vertical			
12060.00	*					54.00		Vertical	Averege		
4824.00	31.38	32	9.53	38.39	34.52	54.00	-19.48	Horizontal	Average		
7236.00	29.75	35.92	6.94	35.18	37.43	54.00	-16.57	Horizontal			
9648.00	27.45	38.2	12.17	38.08	39.74	54.00	-14.26	Horizontal			
4824.00	34.68	29.18	8.61	37.99	34.48	54.00	-19.52	Horizontal			

				CH06 for	⁻ 802.11n(H2	20)			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4874.00	38.56	30.91	8.99	38.34	40.12	74.00	-33.88	Vertical	
7311.00	33.79	35.44	10.53	38.02	41.74	74.00	-32.26	Vertical	
9748.00	33.74	38.02	12.17	38.08	45.85	74.00	-28.15	Vertical	
12185.00	*					74.00		Vertical	Peak
4874.00	39.78	30.24	8.81	38.17	40.66	74.00	-33.34	Horizontal	reak
7311.00	35.79	35.44	10.53	38.02	43.74	74.00	-30.26	Horizontal	
9748.00	34.23	38.2	12.17	38.08	46.52	74.00	-27.48	Horizontal	
12185.00	*					74.00		Horizontal	
4874.00	33.02	30.91	8.99	38.34	34.58	54.00	-19.42	Vertical	
7311.00	27.90	35.44	10.53	38.02	35.85	54.00	-18.15	Vertical	
9748.00	28.14	38.02	12.17	38.08	40.25	54.00	-13.75	Vertical	
12185.00	0.00					54.00		Vertical	Average
4874.00	33.90	30.24	8.81	38.17	34.78	54.00	-19.22	Horizontal	Average
7311.00	29.48	35.44	10.53	38.02	37.43	54.00	-16.57	Horizontal	
9748.00	27.89	38.2	12.17	38.08	40.18	54.00	-13.82	Horizontal	
12185.00	*					54.00		Horizontal	

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Report No: TRE1608017803 Page: 34 of 37 Issued: 2016-09-13

CH11 for 802.11n(H20)									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
4924.00	37.99	31.17	9.31	38.62	39.85	74.00	-34.15	Vertical	Peak
7386.00	31.94	36.72	11.24	38.24	41.66	74.00	-32.34	Vertical	
9848.00	33.27	38.33	12.39	38.12	45.87	74.00	-28.13	Vertical	
12310.00	*					74.00		Vertical	
4924.00	38.66	31.17	9.31	38.62	40.52	74.00	-33.48	Horizontal	
7386.00	34.73	36.13	10.93	38.14	43.65	74.00	-30.35	Horizontal	
9848.00	34.34	38.33	12.39	38.12	46.94	74.00	-27.06	Horizontal	
12310.00	*					74.00		Horizontal	
4924.00	32.66	31.17	9.31	38.62	34.52	54.00	-19.48	Vertical	
7386.00	26.13	36.72	11.24	38.24	35.85	54.00	-18.15	Vertical	Average
9848.00	27.28	38.33	12.39	38.12	39.88	54.00	-14.12	Vertical	
12310.00	*					54.00		Vertical	
4924.00	33.00	31.17	9.31	38.62	34.86	54.00	-19.14	Horizontal	
7386.00	28.23	36.13	10.93	38.14	37.15	54.00	-16.85	Horizontal	
9848.00	27.42	38.33	12.39	38.12	40.02	54.00	-13.98	Horizontal	
12310.00	*					54.00		Horizontal	

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. "*", means this data is the too weak instrument of signal is unable to test.
- 3. The emission levels of other frequencies are very lower than the limit and not show in test report.

Report No: TRE1608017803 Page: 35 of 37 Issued: 2016-09-13

5. Test Setup Photos of the EUT

Radiated Emission







Conducted Emission (AC Mains)

Report No: TRE1608017803 Page: 36 of 37 Issued: 2016-09-13



Report No: TRE1608017803 Page: 37 of 37 Issued: 2016-09-13

6. External and Internal Photos of the EUT

Reference to Test Report TRE160	8017801
	End of Report