## FCC PART 15 SUBPART C TEST REPORT

for

## **DONGLE BLUETOOTH BT-400**

Model No.: 5F.4431K.001

FCC ID: VRSBT400

of

Applicant: Qisda Corporation

Address: NO.157, SHAN-YING ROAD, SHAN-TING LI,

GUEISHAN DIST., TAOYUAN 333 Taiwan

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1, IC 5107A-1

A2LA Accredited No.: 2732.01





Report No.: W6D21607-16048-C-1

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C. TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com

FCC ID: VRSBT400

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### 1 General Information

#### 1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that is performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.

The test report may only be reproduced or published in full.

Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.

### Specific Conditions:

September 07, 2016

Usage of the hereunder tested device in combination with other integrated or external antennas requires at least additional output power measurements, spurious emission measurements, conducted emission measurements (AC supply lines) and radio frequency exposure evaluations for each individual configuration performed, for certification by FCC.

Rick Chan

Signature

#### **Tester:**

Date

			THUE CHOIC,
Date	WTS-Lab.	Name	Signature
Technical respons	ibility for a	rea of testing:	
September 07, 2016	6	Kevin Wang	Kevin Wang

Name

Rick Chen

WTS

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### 1.2 Testing laboratory

#### 1.2.1 Location

**OATS** 

No.5-1, Lishui, Shuang Sing Village, Wanli Dist., New Taipei City 207,

Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

TEL:886-2-6613-0228 FAX:886-2-2791-5046

#### Company

Worldwide Testing Services(Taiwan) Co., Ltd. 6F, NO. 58, LANE 188, RUEY-KUANG RD. NEIHU, TAIPEI 114, TAIWAN R.O.C.

Tel : 886-2-66068877 Fax : 886-2-66068879

#### 1.2.2 Details of accreditation status

Accredited testing laboratory

A2LA accredited number: 2732.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1, IC 5107A-1

#### Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd.:

Name:	./.
Accredited number:	./.
Street:	./.
Town:	./.
Country:	./.
Telephone:	./.
Fax:	./.

#### 1.3 Details of approval holder

Name: Qisda Corporation

Street: NO.157, SHAN-YING ROAD, SHAN-TING LI,

GUEISHAN DIST.,

Town: TAOYUAN 333

Country: Taiwan
Telephone: (03)359-8800
Fax: (03)359-3395

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#### **Application details** 1.4

Date of receipt of test item: August 26, 2016

from August 29, 2016 to September 05, 2016 Date of test:

1.5 General information of	Test item					
Type of test item:	DONGLE BLUETOOTH BT-400					
Model Number:	5F.4431K.001					
Brand Name:	Qisda					
Multi-listing model number:	./.					
Photos:	see Appendix					
Technical data						
Frequency band:	2.4 GHz – 2.4835 GHz					
Number of Channels:	Bluetooth 2.0 79 channels					
	Bluetooth 4.0 40 channels					
Operation modes:	Duplex					
Modulation Type:	GFSK $\cdot \pi/4$ DQPSK $\cdot 8$ DPSK					
Fixed point-to-point operation:	☐ Yes / ⊠ No					
Type of Antenna:	PCB printed antenna					
Antenna gain:	-4.10 dBi					
Power supply:	USB 5 VDC (power from PC), 500 mA					
Emission designator:	Bluetooth 2.0: 1M31F1D					
	Bluetooth 4.0: 1M25G1D					
Host device:	none					
Classification :						
Fixed Device						
	nan Body distance > 20cm)					
·	man Body distance < 20cm)					
Modular Radio Devi	ce	1 1				

Fixed Device	
Mobile Device (Human Body distance > 20cm)	
Portable Device (Human Body distance < 20cm)	
Modular Radio Device	

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<u>Transmitter</u> <u>Unom</u>

#### Mode A (Bluetooth 2.0 Normal mode)

Power (ch 0 or A): Conducted: -2.76 dBm Power (ch 39 or B): Conducted: -0.73 dBm Power (ch 78 or C): Conducted: -0.56 dBm

### Mode B (Bluetooth 2.0 EDR mode)

Power (ch 0 or A): Conducted: 1.03 dBm Power (ch 39 or B): Conducted: 2.15 dBm Power (ch 78 or C): Conducted: 2.36 dBm

#### Mode C (Bluetooth 4.0)

Power ( ch 0): Conducted: -1.93 dBm Power ( ch 19): Conducted: -0.42 dBm Power ( ch 39): Conducted: -0.21 dBm

### **Manufacturer:** (if applicable)

Name: CC&C Technologies, Inc.

Street: 8F, No.150, Jian Yi Road, Zhonghe District,

Town: New Taipei City, Country: Taiwan 235, R. O. C

#### 1.6 Test standards

Technical standard: FCC RULES PART 15 SUBPART C § 15.247 (2015-10)

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### 2 Technical test

## 2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.	X
or	
The deviations as specified in 2.5 were ascertained in the course of the tests	

### 2.2 Test environment

performed.

Temperature: 23 °C

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Power supply: USB 5 VDC (power on PC), 500 mA

Extreme conditions parameters: ./.



Registration number: W6D21607-16048-C-1

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## 2.3 Test Equipment List

No.	Test equipment	Туре	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2016/5/20	2017/5/19
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function	on Test
ETSTW-CE 008	HF-EICHLEITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Functio	on Test
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2016/7/15	2017/7/14
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2015/9/7	2016/9/6
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2016/5/20	2017/5/19
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2016/5/25	2017/5/24
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2016/7/4	2017/7/3
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function	on Test
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function	on Test
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2016/6/24	2017/6/23
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2016/6/29	2017/6/28
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2016/3/23	2017/3/22
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2016/1/25	2017/1/24
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2016/3/28	2017/3/27
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2016/4/14	2017/4/13
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2016/2/25	2017/2/24
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2016/2/25	2017/2/24
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2016/2/25	2017/2/24
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2016/2/27	2017/2/26
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2016/2/25	2017/2/24
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2016/4/13	2017/4/12
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu Fun		on Test
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	ETS-Lindgren	Function	on Test
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	НР	2015/9/6	2016/9/5
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2015/9/21	2016/9/20
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2016/2/25	2017/2/24
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Functi	on test
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2016/1/13	2017/1/12
ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Functi	on test
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2016/5/23	2017/5/22
ETSTW-RE 125	5GHz Notch filter	5NSL11- 5200/E221.3-O/O	1	K&L Microwave	2016/8/10	2017/8/9



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FCC ID. VKSI	51 100	T			1	
ETSTW-RE 126	5GHz Notch filter	5NSL12- 5800/E221.3-O/O	1	K&L Microwave	2016/8/10	2017/8/9
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2016/2/25	2017/2/24
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2016/8/10	2017/8/9
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2016/8/10	2017/8/9
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-te	st Use
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2016/4/13	2017/4/12
ETSTW-RE 143	Humidity Temperature Meter	TES-1260	110104623	TES	2015/9/9	2016/9/8
ETSTW-RE 147	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04005	ETC	2016/3/31	2017/3/30
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2016/5/4	2017/5/3
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2016/3/4	2017/3/3
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2016/2/3	2017/2/2
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849- 822/851-40 /12+9SS	3	WI	2016/1/13	2017/1/12
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748- 1743/1752-32/5SS	1	WI	2016/1/13	2017/1/12
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5 -1875.5/1884.5- 32/5SS	3	WI	2016/1/13	2017/1/12
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1- 904.25-50/8SS	1	WI	2016/1/13	2017/1/12
ETSTW-GSM 023	TW-GSM 023 Power Divider		None	SUHNER	2015/9/16	2016/9/15
ETSTW-Cable 010	BNC Cable	5 M BNC Cable	None	JYE BAO CO.,LTD.	2015/9/11	2016/9/10
ETSTW-Cable 011	BNC Cable	BNC Cable 1	None	JYE BAO CO.,LTD.	Pre-test I	Use NCR
ETSTW-Cable 012	N TYPE To SMA Cable	Cable 012	None	JYE BAO CO.,LTD.	2015/9/11	2016/9/10
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2016/2/24	2017/2/23
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2016/2/24	2017/2/23
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2016/2/24	2017/2/23
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2016/2/24	2017/2/23
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2016/4/22	2017/4/21
ETSTW-Cable 022	N TYPE Cable	5006	0002	JYE BAO CO.,LTD.	2016/4/7	2017/4/6
ETSTW-Cable 026	Microwave Cable	SUCOFLEX 104	279075	HUBER+SUHNER	2016/2/25	2017/2/24
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2016/5/13	2017/5/12
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2015/9/21	2016/9/20
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2015/9/21	2016/9/20
ETSTW-Cable 030	Microwave Cable SUCOFLEX 104 (S Cable 9)		279067	HUBER+SUHNER	2016/2/25	2017/2/24
ETSTW-Cable 031	Microwave Cable	SUCOFLEX 104 (S Cable 10)	238092	HUBER+SUHNER	2016/4/13	2017/4/12
ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2016/4/13	2017/4/12
ETSTW-Cable 048	Microwave Cable	SUCOFLEX 104	325518	HUBER+SUHNER	2016/4/13	2017/4/12
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2016/4/7	2017/4/6
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2016/4/13	2017/4/12
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version F	ETS-03A1

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#### 2.4 General Test Procedure

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.10-2013 6.2 using a LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

**RADIATION INTERFERENCE:** The test procedure used was according to ANSI STANDARD C63.10-2013 6.3 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of  $dB\mu V$ ) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz) METER READING + ACF + CABLE LOSS (to the receiver) = FS

The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.10-2013 6.2.2. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1)-(a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this Section, whichever is the higher frequency range of investigation.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.

Measurements were made by Worldwide Testing Services(Taiwan) Co., Ltd. at the registered open field test site located at No.5-1, Lishui, Shuang Sing Village, Wanli Dist., New Taipei City 207, Taiwan (R.O.C.). The Registration Number: 930600.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.



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When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

The formula is as follows:

Average = Peak + Duty Factor

Duty Factor = 20 log (dwell time/T)

T = 100ms when the pulse train period is over 100 ms or the period of the pulse train.

Modified Limits for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

ANSI STANDARD C63.10-2013 B.2.7: Any measurements that utilize special test software shall be indicated and referenced in the test report. During testing, test software 'EZ EMC' was used for setting up different operation modes.



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## 3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)	×	×	
Equivalent isotropically radiated Power	15.247(b)	×	×	
Spurious Emissions radiated – Transmitter operating	15.247(c)	×	×	
Spurious Emissions conducted – Transmitter operating	15.247			
Carrier Frequency Separation	15.247(a) (1)	×	×	
Number of Hopping Frequencies	15.247(a) (1)(i)	×	×	
Time of Occupancy (Dwell Time)	15.247(a) (1)(i)	×	×	
20 dB Bandwidth	15.247(a) (1)(i)	×	×	
Minimum 6 dB Bandwidth	15.247(a)(2)	×	×	
Band-edge Compliance of RF Emission	15.247(d)	×	×	
Peak Power Spectral Density	15.247(e)	×	×	
Radiated Emission from Digital Part	15.109			
Power Line Conducted Emission	15.207(a)	×	×	

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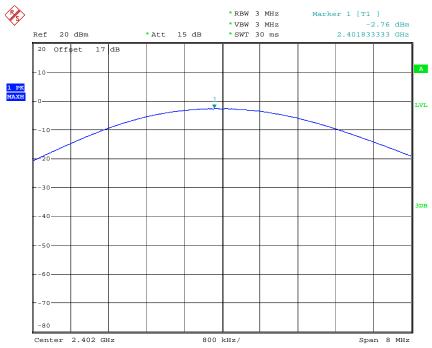
### 3.1 Peak Output Power (transmitter)

FCC Rule: 15.247(b)(3)

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant.

The power was measured with modulation (declared by the applicant).

# Bluetooth 2.0 Normal mode

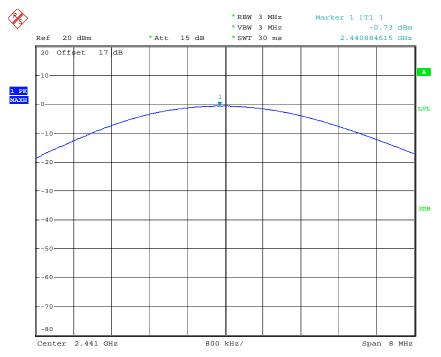


MAX OUTPUT POWER CH0
Date: 30.AUG.2016 18:11:17

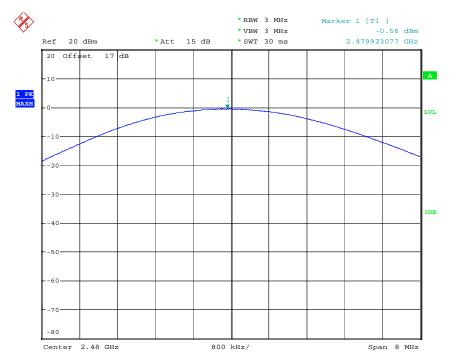


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MAX OUTPUT POWER CH39
Date: 30.AUG.2016 18:11:49



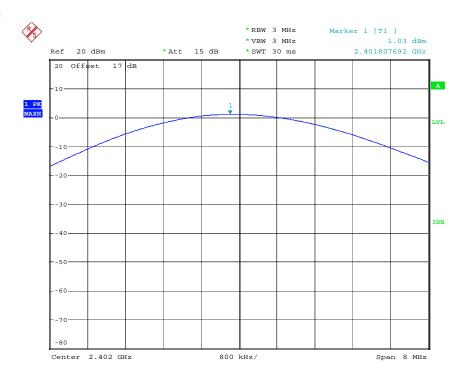
MAX OUTPUT POWER CH78
Date: 30.AUG.2016 18:12:09



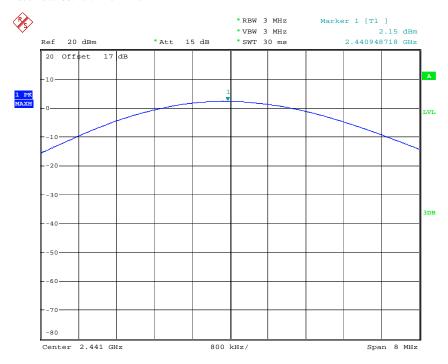
Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400

EDR mode



MAX OUTPUT POWER CH0 EDR MODE Date: 30.AUG.2016 18:17:29

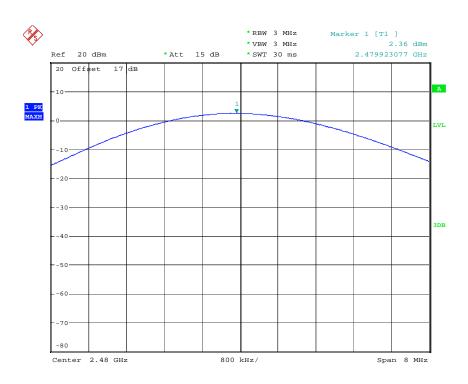


MAX OUTPUT POWER CH39 EDR MODE Date: 30.AUG.2016 18:18:01



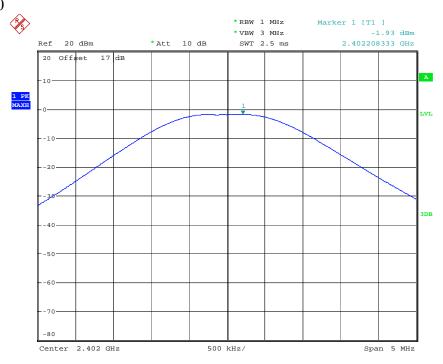
Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



MAX OUTPUT POWER CH78 EDR MODE Date: 30.AUG.2016 18:18:21

### Bluetooth 4.0



MAX OUTPUT POWER BT4.0 CH00 Date: 30.AUG.2016 18:03:31



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MAX OUTPUT POWER BT4.0 CH19 Date: 30.AUG.2016 18:04:21



MAX OUTPUT POWER BT4.0 CH39 Date: 30.AUG.2016 18:05:49

FCC ID: VRSBT400

### Limits:

Frequency	Power
MHz	dBm
902 - 928	30
2400 – 2483.5	30
5725 – 5850	30

In case of employing transmitter antennas having antenna gain > 6 dBi and using fixed point-to point operation consider \$15.247 (b)(4)

Test equipment used: ETSTW-RE 055

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### 3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3) Bluetooth 2.0+EDR

EIRP = max. conducted output power + antenna gain

EIRP = 2.36 dBm + (-4.10 dBi) = -1.74 dBmLimit: EIRP = +36 dBm for Antenna gain <6 dBi

Bluetooth 4.0

EIRP = max. conducted output power + antenna gain

EIRP = -0.21 dBm + (-4.10 dBi) = -4.31 dBmLimit: EIRP = +36 dBm for Antenna gain <6 dBi

Test equipment used: ETSTW-RE 055

## 3.3 RF Exposure Compliance Requirements

#### **RESULT:**

Test standard : FCC KDB Publication

447498 D01 General RF Exposure Guidance v06

According to 447498 D01 General RF Exposure Guidance v06:

SAR evaluation, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

The enclosure of the device provides  $\geq 0.5$  cm separation from the antenna elements to significant metal parts of the enclosure to minimize potential perturbations.

Frequency Band:2400-2483.5 MHz

Maximum Power fed to Antenna (BT2.0): 1.7219 mW Maximum Power fed to Antenna (BT4.0):0.9528 mW

Separation distances:

Radiator to user: > 5 mm

Distance prescribed in user manual: > 5 mm

Distair	Distance prescribed in user manual: > 5 mm															
M	ΙΗz		5		10	0		15		20		25			mm	
24	450		10		19	9		29		38		48		Exc	R Test clusion old (m)	W)
M	IHz		30		3:	5		40 45		45		50		mm		
24	450		57		6	7		77		86	96			Exc	R Test clusion old (m)	W)
MHz	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	mm

FCC ID: VRSBT400

2450 96 196 296 396 496 596 696 796 896 996 1096 1196 1296 1396 1496 mW

#### 3.4 Transmitter Radiated Emissions in Restricted Bands

FCC Rules: 15.247 (c), 15.205, 15.209, 15.35

Radiated emission measurements were performed from 30 MHz to 26500 MHz.

For radiated emission tests, the analyzer setting was as followings:

Frequency ≤ 1 GHz, RBW:100 kHz, VBW: 100 kHz (Peak measurements) Frequency > 1 GHz, RBW: 1 MHz, VBW: 1 MHz (Peak measurements) Frequency > 1 GHz, RBW:1 MHz, VBW: 10 Hz (Average measurements)

Limits.

For frequencies below 1GHz:

Frequency of Emission	Field strength	Field Strength
(MHz)	(microvolts/meter)	(dB microvolts/meter)
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above	500	54.0

For frequencies above 1GHz (Average measurements).

Guidance on Measurement of Digit Transmission Systems:

"If the emission is pulsed, modify the unit for continuous operation, use the setting shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation."

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty cycle correction = 20 log (dwell time/ 100ms)

Note: No duty cycle correction was added to the reading of this EUT.

Explanation: See attached diagrams in Appendix.

FCC ID: VRSBT400

### 3.5 Spurious Emissions (tx)

Spurious emission was measured with modulation (declared by manufacturer).

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, 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))

FCC Rule: 15.247(c), 15.35

For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement.

#### Limits:

For frequencies above 1GHz (Peak measurements). Modified Limit for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

For frequencies above 1GHz (Average measurements).

Max. reading – 20dB

Max. reading – 20 dB

Guidance on Measurement of Digit Transmission Systems:

"If the emission is pulsed, modify the unit for continuous operation, use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation."

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty Cycle correction = 20 log (dwell time/100ms)

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 147

Note: No duty cycle correction was added to the reading of EUT.

FCC ID: VRSBT400

SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance with point 2.3.

#### Calculation of test results:

calculated Limits.

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits. In the Table being listed the critical peak and average value and exhibit the compliance with the above

If in the column's correction factor states a value then the max. Field strength in the same row is corrected by a value gained from the "Correction Factor".

#### Summary table with radiated data of the test plots

Model:		5F.4431K.001			Date:				
	Mode:				Temperature:		°C	Engineer:	
	Polarization:				Humidity:		%		
	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
				-					
ĺ									

Frequency	Read (dB)		Factor (dB)		@3m V/m)	Limit (dBu		Margin	Table Degree	Ant. High
(MHz)	Peak	Áve.	Corr.	Peak	Ave.		Ave.	(dB)	(Deg.)	(cm)
						-	-		1	
						-	-		1	-
					-	1	1		1	1

#### Note

- 1. Correction Factor = Antenna factor + Cable loss Preamplifier
- 2. The formula of measured value as: Test Result = Reading + Correction Factor
- 3. Detector function in the form: PK = Peak, QP = Quasi Peak, AV = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.
- 5. Measurement uncertainty for 3m measurement:  $30\text{-}1000 \text{ MHz} = \pm 4.69 \text{ dB}$ ,  $1\text{-}18 \text{ GHz} = \pm 4.78 \text{ dB}$ ,  $18\text{-}40 \text{ GHz} = \pm 2.44 \text{ dB}$ ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
- 6. Up Line: PK Limit Line, Down Line: Ave Limit Line.
- 7. See attached diagrams in appendix.

**TEST RESULT (Transmitter):** The unit DOES meet the FCC requirements.

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 147

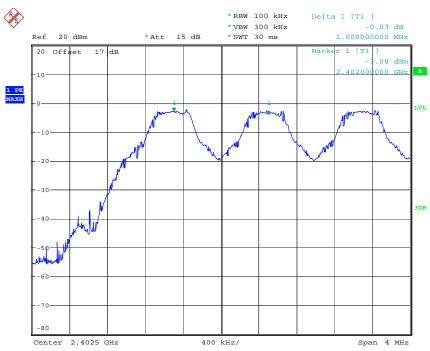
FCC ID: VRSBT400

### 3.6 Carrier Frequency Separation

Carrier Frequency Separation was measured with modulation (declared by manufacturer).

According to FCC rules part 15 subpart C §15.247 frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or 20 dB bandwidth of the hopping channel, whichever is greater.

Bluetooth 2.0 Normal mode

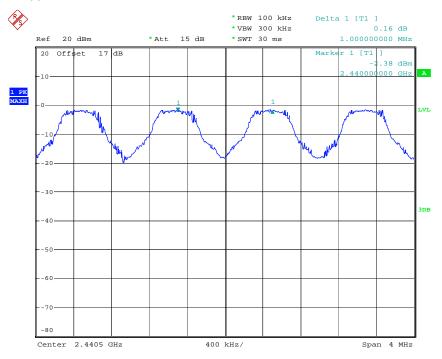


FREQUENCY SEPARATION CHO
Date: 30.AUG.2016 18:15:45

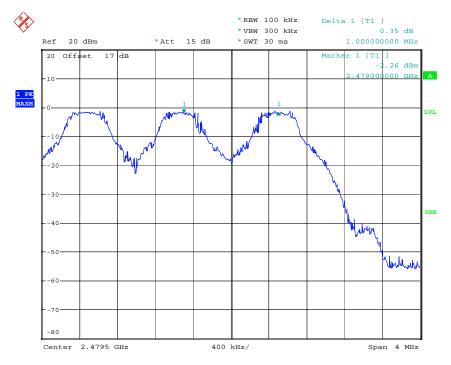


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



FREQUENCY SEPARATION CH39
Date: 30.AUG.2016 18:16:29



FREQUENCY SEPARATION CH78
Date: 30.AUG.2016 18:17:17

FCC ID: VRSBT400

### **Limits:**

Frequency Range	Limits				
MHz	20 dB bandwidth < 25 kHz	20 dB bandwidth > 25 kHz			
902-928	25 kHz	20 dB bandwidth			
2400-2483.5 5725-5850.0	25 kHz	20 dB bandwidth			

Test equipment used: ETSTW-RE 055, ETSTW-RE 064

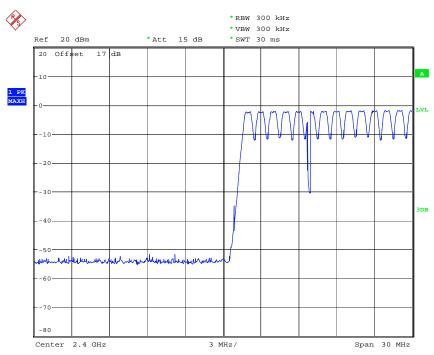
FCC ID: VRSBT400

## 3.7 Number of Hopping Frequencies

According to FCC rules part 15 subpart C §15.247 frequency hopping systems operating in the 2400-2483.5 MHz band shall use at least 15 hopping frequencies. Frequency hopping systems in 5725-5850 MHz bands shall use least 75 hopping frequencies.

For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies; if the 20dB bandwidth of the hopping channel 250 kHz or greater, the system shall use at least 25 hopping frequencies.

#### Bluetooth 2.0

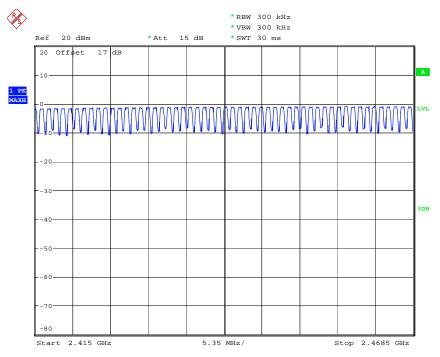


NUMBER OF HOPPING CH0-13 Date: 30.AUG.2016 18:13:05

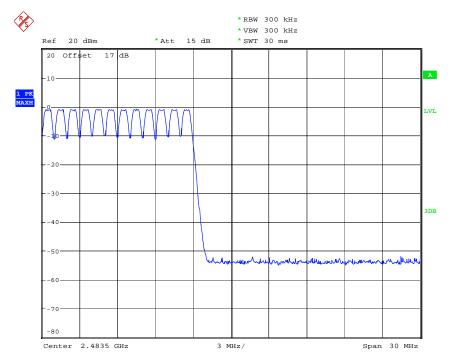


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



NUMBER OF HOPPING CH14-66
Date: 30.AUG.2016 18:14:53



NUMBER OF HOPPING CH67-78
Date: 30.AUG.2016 18:13:45

FCC ID: VRSBT400

#### **Limits:**

Frequency Range	Limit				
MHz	20dB Bandwidth	Number of Channels			
002 029 MHz	Bandwidth < 250 kHz	≥ 50			
902-928 MHz	Bandwidth ≥ 250 kHz	≥ 25			
2400-2483.5	not defined	15			
5725-5850.0 MHz	1 MHz	75			

Test equipment used: ETSTW-RE 055, ETSTW-RE 064

## 3.7.1 Pseudorandom Frequency Hopping Sequence

The generation of the hopping sequence is determined by the Bluetooth core specification and complies with the FCC requirements.

#### 3.7.2 Coordination of hopping sequences to other transmitters

According to the Bluetooth core specification such a coordination is not possible. During scatternet function only one of the two hopping sequences will be used at a definite moment.

### 3.7.3 System Receiver Hopping Capability

According to the Bluetooth core specification. The system receivers shift frequencies in synchronization with the transmitted signals.

FCC ID: VRSBT400

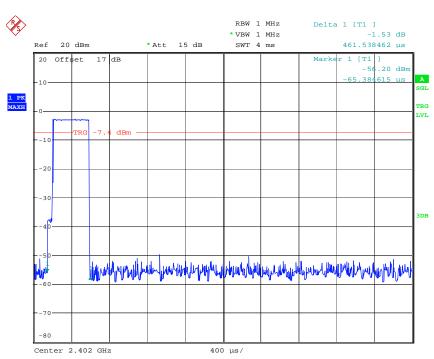
## 3.8 Time of Occupancy (Dwell Time)

Frequency hopping systems operating in the 5725-5850 MHz band shall use an average time of occupancy on any frequency not greater than 0.4 seconds within a 30 second period.

In 2400-2483.5 MHz band the average time of occupancy on any channel shall not be greater than 0.4 seconds multiplied by the number of hopping channels employed.

For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any frequency shall not greater than 0.4 seconds within a 20 second period; if the 20dB bandwidth of the hopping channel is 250 kHz or greater, the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

#### Bluetooth 2.0



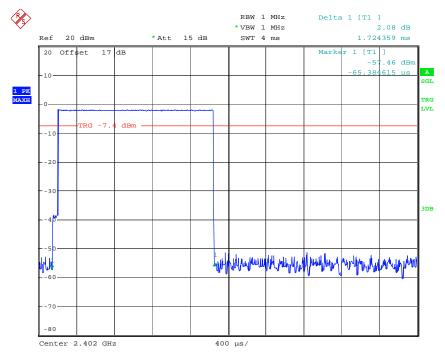
DWELL TIME CH0 DH1(0.462ms \* 320events = 147.84ms)

Date: 30.AUG.2016 18:27:53

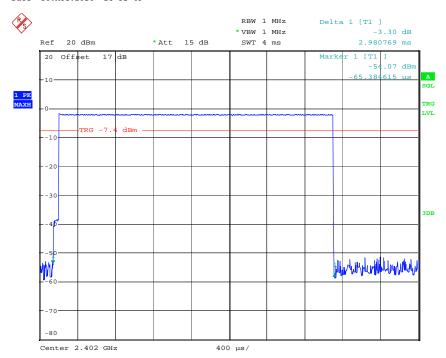


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



DWELL TIME CH0 DH3(1.724ms \* 160events = 285.84ms)
Date: 30.AUG.2016 18:31:43



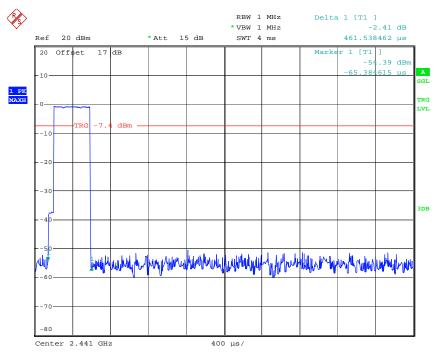
DWELL TIME CH0 DH5(2.981ms \* 106events = 315.986ms)

Date: 30.AUG.2016 18:33:13

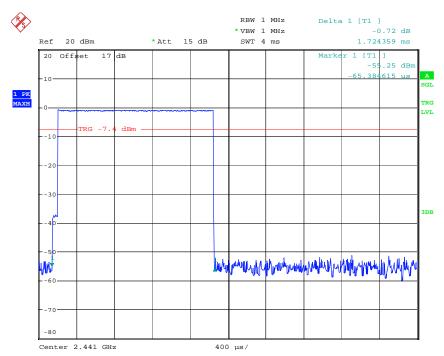


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



DWELL TIME CH39 DH1(0.462ms \* 320events = 147.84ms)
Date: 30.AUG.2016 18:28:15



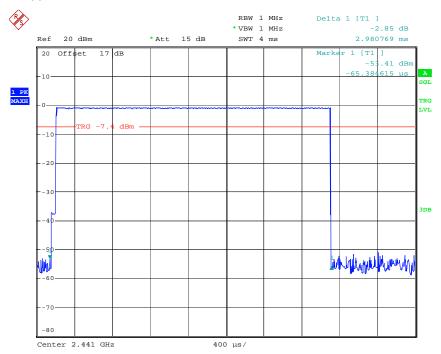
DWELL TIME CH39 DH3(1.724ms \* 160events = 285.84ms)

Date: 30.AUG.2016 18:30:55

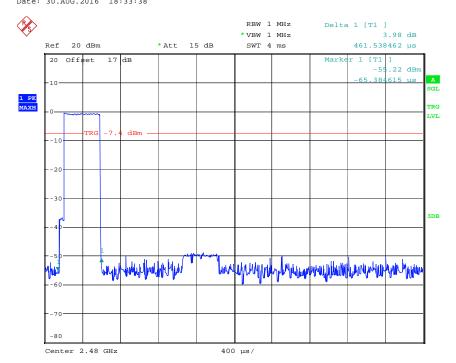


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



DWELL TIME CH39 DH5(2.981ms \* 106events = 315.986ms)
Date: 30.AUG.2016 18:33:38



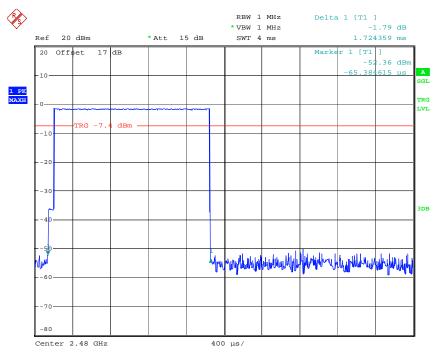
DWELL TIME CH78 DH1(0.462ms \* 320events = 147.84ms)

Date: 30.AUG.2016 18:28:36

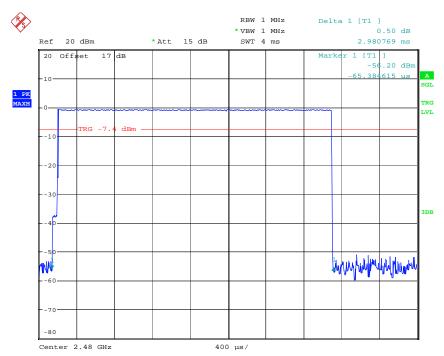


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



DWELL TIME CH78 DH3(1.724ms \* 160events = 285.84ms)
Date: 30.AUG.2016 18:30:31



DWELL TIME CH78 DH5(2.981ms \* 106events = 315.986ms)

Date: 30.AUG.2016 18:34:04



FCC ID: VRSBT400

## Limits and measurement periods:

Frequency MHz	Frequency MHz Number of channels		Limit
902 – 928	≥50	20 s	0.4 s
902 – 928	49 ≥ 25	10 s	0.4 s
2400 – 2483.5	≥ 15	0.4 s * number of used channels	0.4 s
5725- 5850	≥ 75	30 s	0.4s

Test equipment used: ETSTW-RE 055, ETSTW-RE 064

FCC ID: VRSBT400

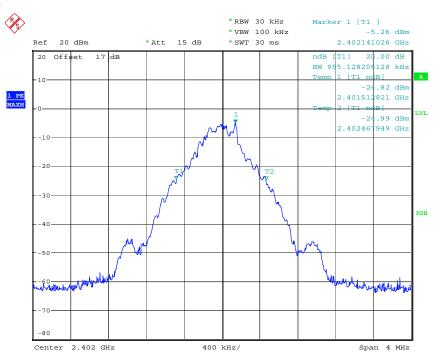
#### 3.9 20dB Bandwidth

Frequency hopping systems operating in the 5725-5850 MHz bands shall use a maximum 20dB bandwidth of 1 MHz.

The 20dB bandwidth is measured on the lowest, middle and highest hopping channel.

For frequency hopping systems operating in the 902-928 MHz band the maximum 20dB bandwidth of the hopping channel is 500 kHz.

# Bluetooth 2.0 Normal mode

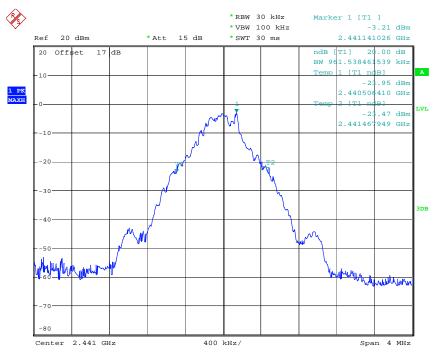


20DB BANDWIDTH CH0
Date: 30.AUG.2016 18:11:25

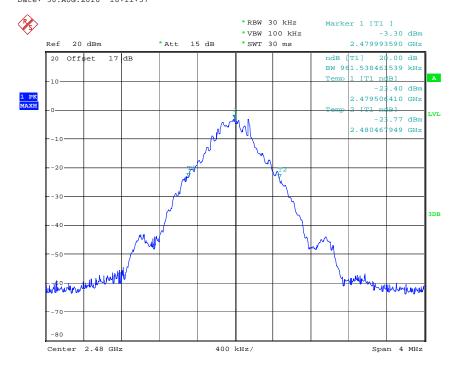


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



20DB BANDWIDTH CH39
Date: 30.AUG.2016 18:11:57



20DB BANDWIDTH CH78

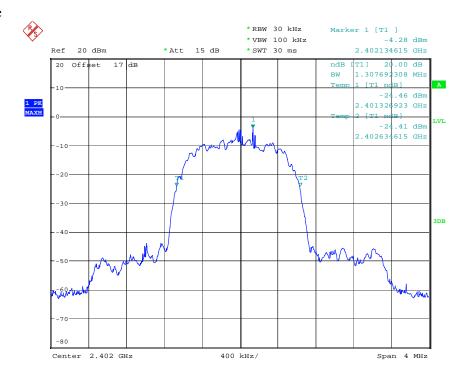
Date: 30.AUG.2016 18:12:17



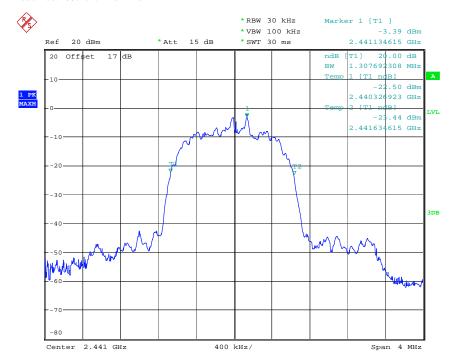
Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400

EDR mode



20DB BANDWIDTH CH0 EDR MODE Date: 30.AUG.2016 18:17:37

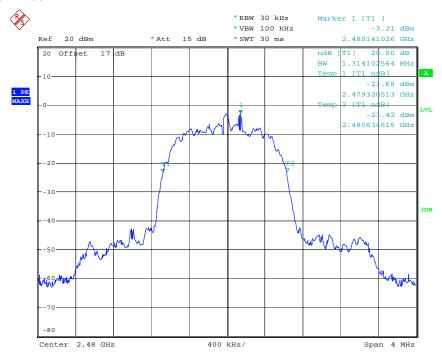


20DB BANDWIDTH CH39 EDR MODE Date: 30.AUG.2016 18:18:09



Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



20DB BANDWIDTH CH78 EDR MODE Date: 30.AUG.2016 18:18:29

#### **Limits:**

Frequency Range / MHz	Limit
902-928	≤ 500 kHz
2400-2483.5	not defined
5725-5850	≤ 1 MHz

Test equipment used: ETSTW-RE 055, ETSTW-RE 064

#### 3.9.1 System Receiver Input Bandwidth

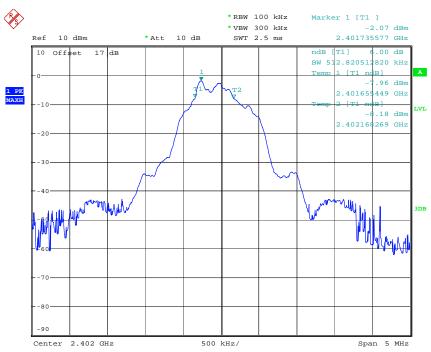
It is determined in the Bluetooth core specification. The value matches to the bandwidth of transmitter signal.

FCC ID: VRSBT400

#### 3.10 Minimum 6 dB Bandwidth

The analyzer ResBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK reading was taken, two markers were set 6 dB below the maximum level on the right and the left side of the emission. The 6 dB bandwidth is the frequency difference between the two markers.

#### Bluetooth 4.0

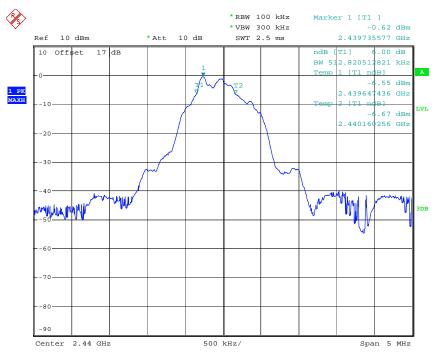


6DB BANDWIDTH BT4.0 CH0
Date: 30.AUG.2016 18:08:19

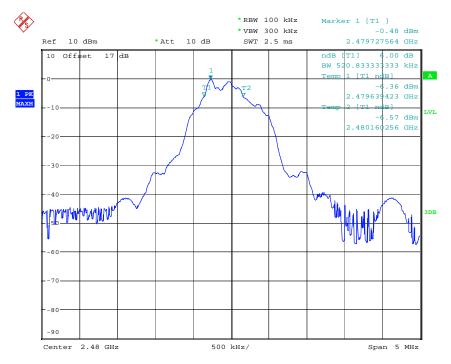


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



6DB BANDWIDTH BT4.0 CH19
Date: 30.AUG.2016 18:07:46



6DB BANDWIDTH BT4.0 CH39
Date: 30.AUG.2016 18:07:06



FCC ID: VRSBT400

#### **Limits:**

Frequency Range MHz	Limits
902-928	min 500 kHz
2400-2483.5	min 500 kHz
5725-5850	min 500 kHz

Test equipment used: ETSTW-RE 055

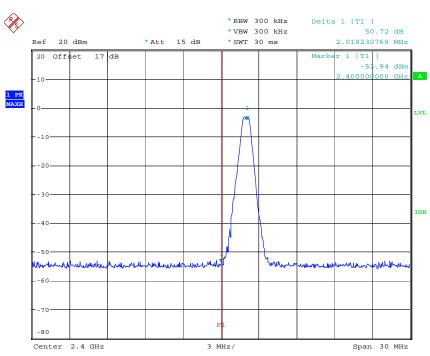
FCC ID: VRSBT400

#### 3.11 Radiated Emission on the band edge

According to FCC rules part 15 subpart C §15.247(c) in any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required.

In addition radiated emission which fall in the restricted bands, as defined in section 15.205(a), must also with the radiated emission limits.

## Bluetooth 2.0 Normal mode



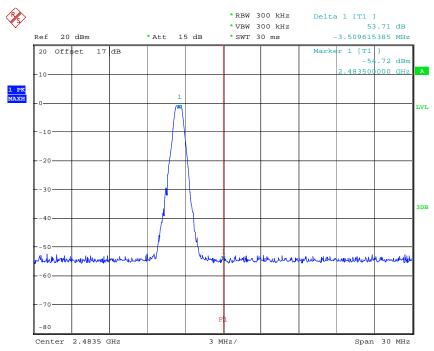
BANDEDGE CHO

Date: 30.AUG.2016 18:11:37



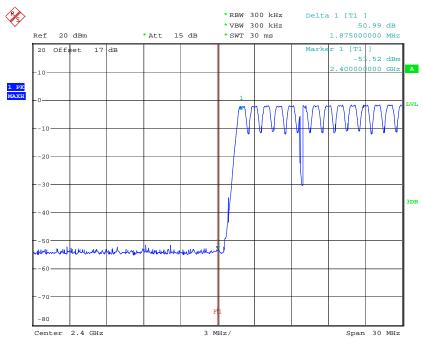
Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



BANDEDGE CH78

Date: 30.AUG.2016 18:12:25



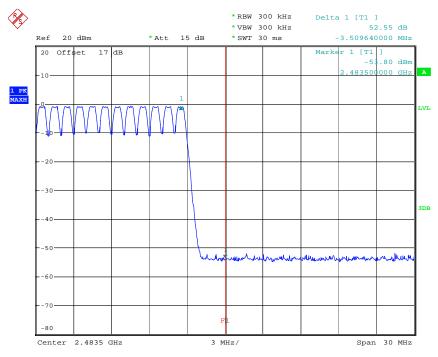
BANDEDGE CHO HOPPING MODE

Date: 30.AUG.2016 18:13:05



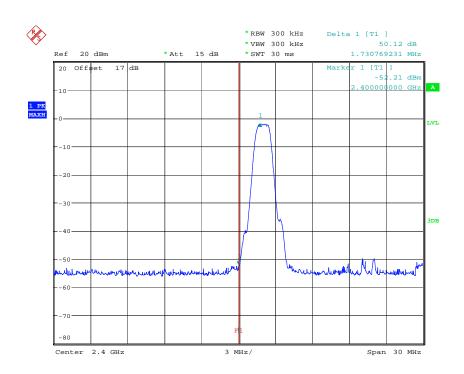
Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



BANDEDGE CH78 HOPPING MODE Date: 30.AUG.2016 18:13:45

#### EDR mode

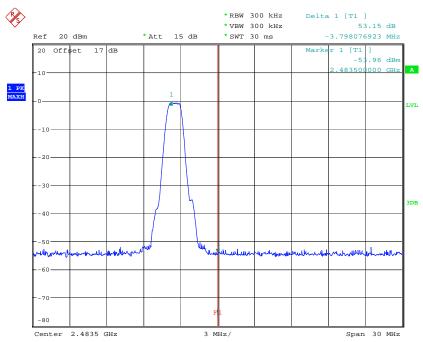


BANDEDGE CH0 EDR MODE
Date: 30.AUG.2016 18:17:45

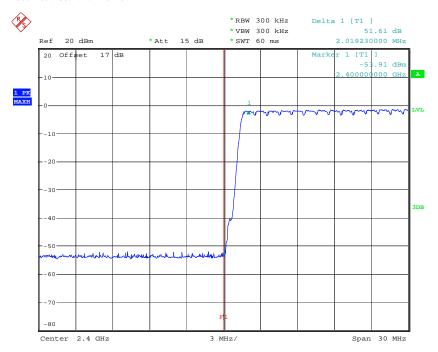


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



BANDEDGE CH78 EDR MODE
Date: 30.AUG.2016 18:18:41

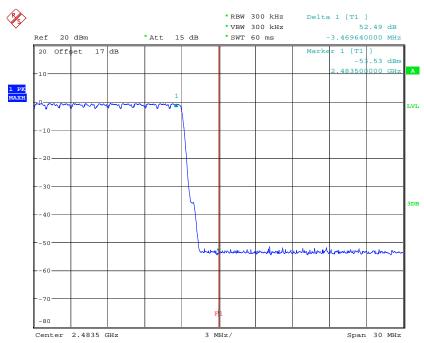


BANDEDGE CH0 EDR HOPPING MODE Date: 30.AUG.2016 18:20:29



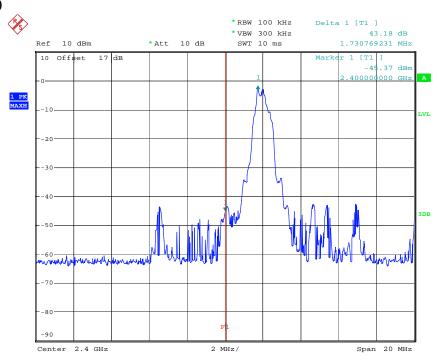
Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



BANDEDGE CH78 EDR HOPPING MODE Date: 30.AUG.2016 18:22:13

#### Bluetooth 4.0

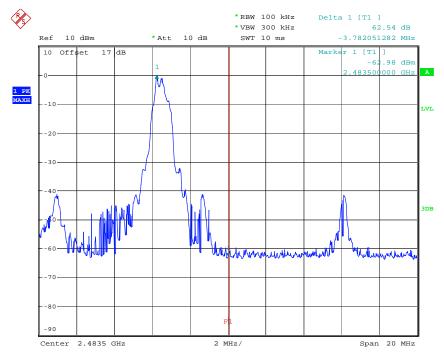


BANDEDGE BT4.0 CH00 Date: 30.AUG.2016 18:03:59



Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



BANDEDGE BT4.0 CH39

Date: 30.AUG.2016 18:05:37

#### Limit:

Frequency Range / MHz	Limit
902 –928	
2400 – 2483.5	- 20 dB
5725 - 5850	

Test equipment used: ETSTW-RE 055

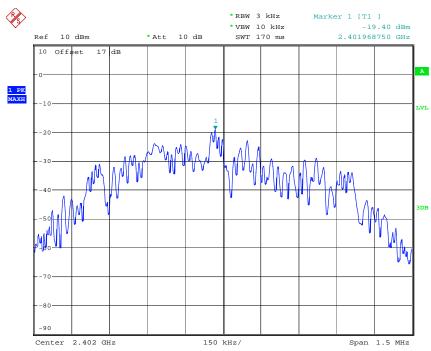
FCC ID: VRSBT400

#### 3.12 Peak Power Spectral Density

Peak Power Spectral density is a measured at low, middle and high channel.

The peak output power is measured with a measurement bandwidth of 10 MHz and displayed on diagram together with Peak Power Spectral Density result which was measured with a bandwidth of 3 kHz, appreciate frequency span and sweep time.

Bluetooth 4.0

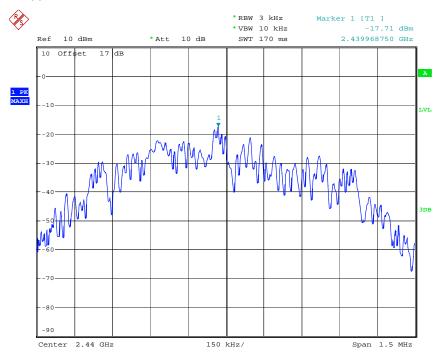


POWER DENSITY BT4.0 CH00
Date: 30.AUG.2016 18:03:51

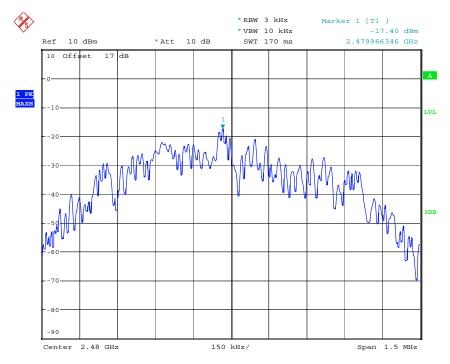


Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



POWER DENSITY BT4.0 CH19
Date: 30.AUG.2016 18:04:41



POWER DENSITY BT4.0 CH39
Date: 30.AUG.2016 18:05:29



Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400

#### **Limits:**

Frequency Range MHz	dBm
902-928	8
2400-2483.5	8
5725-5850	8

Test equipment used: ETSTW-RE 055

FCC ID: VRSBT400

#### 3.13 Radiated Emission from Digital Part

FCC Rule: 15.109

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission	Field Strength	Field Strength
(MHz)	(microvolts/meter)	(dBmicrovolts/meter)
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 147

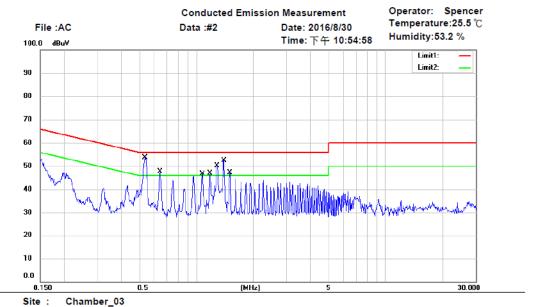
Explanation: Please refer to separated test report no.: W6D21607-16048-P-15B.

FCC ID: VRSBT400

#### 3.14 Power Line Conducted Emission

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.



Condition: FCC Part 15 Class B Conduction (QP)

Condition: FCC Part 15 Class B Conduction (QP)
EUT: W6D21607-16048

Phase: Power: 120VAC

M/N:

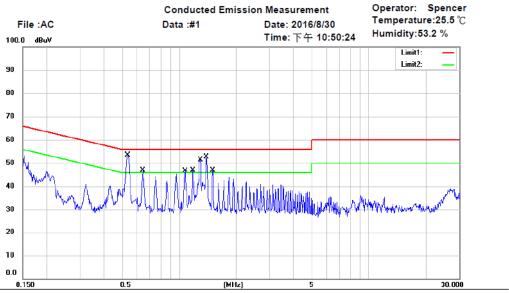
Test Mode: BT Note:

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
*	0.5360	41.41	QP	9.68	51.09	56.00	-4.91	
	0.5360	23.52	AVG	9.68	33.20	46.00	-12.80	
	0.6440	35.13	QP	9.69	44.82	56.00	-11.18	
	0.6440	19.87	AVG	9.69	29.56	46.00	-16.44	
	1.0760	33.60	QP	9.70	43.30	56.00	-12.70	
	1.0760	20.44	AVG	9.70	30.14	46.00	-15.86	
	1.1818	32.64	QP	9.71	42.35	56.00	-13.65	
	1.1818	18.32	AVG	9.71	28.03	46.00	-17.97	
	1.2853	34.36	QP	9.71	44.07	56.00	-11.93	
	1.2853	16.28	AVG	9.71	25.99	46.00	-20.01	
	1.3977	38.40	QP	9.72	48.12	56.00	-7.88	
	1.3977	22.37	AVG	9.72	32.09	46.00	-13.91	
	1.5013	34.55	QP	9.73	44.28	56.00	-11.72	
	1.5013	20.56	AVG	9.73	30.29	46.00	-15.71	



Registration number: W6D21607-16048-C-1

FCC ID: VRSBT400



Site: Chamber\_03

Condition: FCC Part 15 Class B Conduction (QP)

Phase: L Power: 120VAC

EUT: W6D21607-16048

M/N:

Test Mode: BT

Note:

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
*	0.5360	41.41	QP	9.67	51.08	56.00	-4.92	
	0.5360	23.10	AVG	9.67	32.77	46.00	-13.23	
	0.6440	34.67	QP	9.68	44.35	56.00	-11.65	
	0.6440	17.40	AVG	9.68	27.08	46.00	-18.92	
	1.0737	34.04	QP	9.70	43.74	56.00	-12.26	
	1.0737	18.40	AVG	9.70	28.10	46.00	-17.90	
	1.1840	30.65	QP	9.71	40.36	56.00	-15.64	
	1.1840	14.61	AVG	9.71	24.32	46.00	-21.68	
	1.2897	36.09	QP	9.71	45.80	56.00	-10.20	
	1.2897	17.32	AVG	9.71	27.03	46.00	-18.97	
	1.3955	39.06	QP	9.72	48.78	56.00	-7.22	
	1.3955	21.80	AVG	9.72	31.52	46.00	-14.48	
	1.5012	33.66	QP	9.73	43.39	56.00	-12.61	
	1.5012	18.03	AVG	9.73	27.76	46.00	-18.24	

Eraguanay	Level (dBμV)				
Frequency	quasi-peak	average			
150 kHz	lower limit line	Lower limit line			

Note: 1. The formula of measured value as: Test Result = Reading + Correction Factor

- 2. The Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss
- 3. Detector function in the form: PK = Peak, QP = Quasi Peak, AV = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.
- 5. Measurement uncertainty =  $\pm 1.14$  dB; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
- 6. Up Line: QP Limit Line, Down Line: Ave Limit Line.

FCC ID: VRSBT400

#### **Limits:**

Frequency of Emission (MHz)	Conducted Limit (dBuV)				
	Quasi Peak	Average			
0.15-0.5	66 to 56	56 to 46			
0.5-5	56	46			
5-30	60	50			

Test equipment used: ETSTW-CE 001, ETSTW-CE 016

FCC ID: VRSBT400

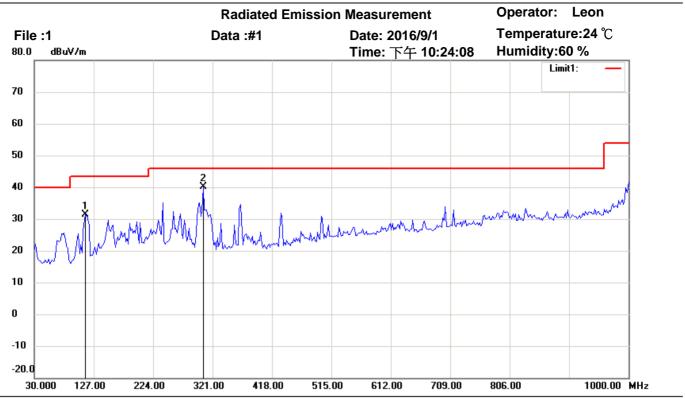
### **Appendix**

### **Measurement diagrams**

Spurious Emissions radiated



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Site: Chamber

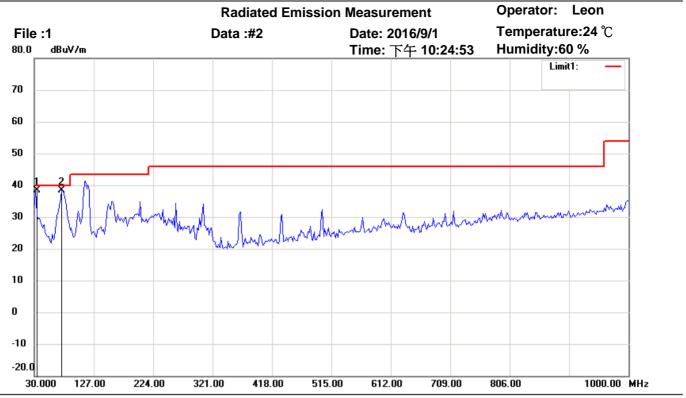
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	113.5871	18.73	peak	12.71	31.44	43.50	100	60	-12.06	
*	306.0321	24.02	peak	16.14	40.16	46.00	100	135	-5.84	



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Site: Chamber

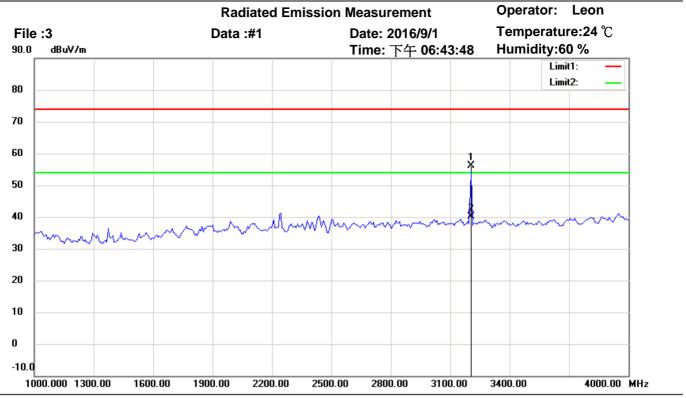
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Vertical

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	31.9440	25.10	QP	13.26	38.36	40.00	100	225	-1.64	
*	74.7094	27.75	QP	10.67	38.42	40.00	100	80	-1.58	



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Site: Chamber

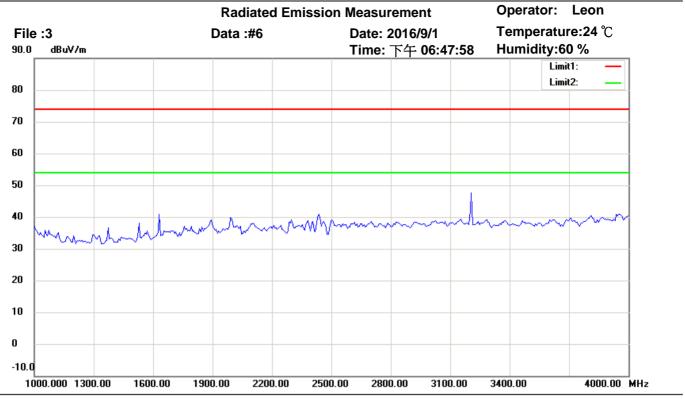
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3202.639	59.34	peak	-3.09	56.25	74.00	100	147	-17.75	
*	3202.639	43.15	AVG	-3.09	40.06	54.00	100	147	-13.94	



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Site: Chamber

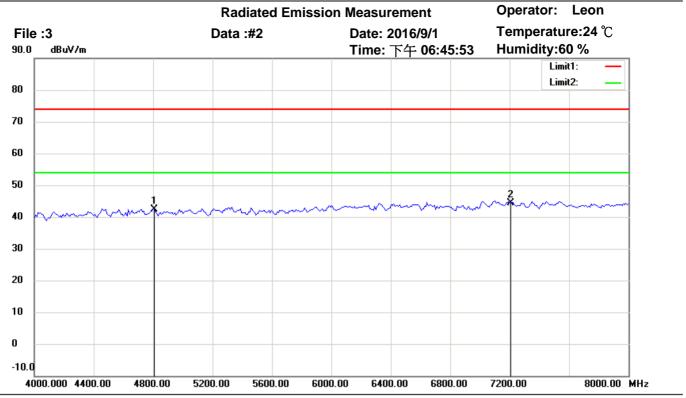
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

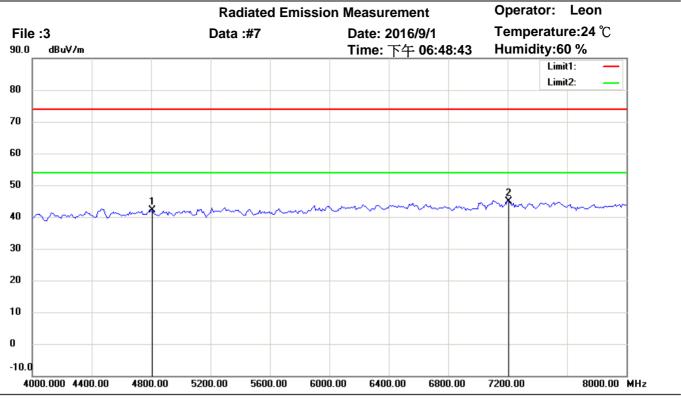
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4804.000	42.18	peak	0.28	42.46	74.00	100	155	-31.54	
*	7206.000	40.65	peak	3.85	44.50	74.00	100	130	-29.50	



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Site: Chamber

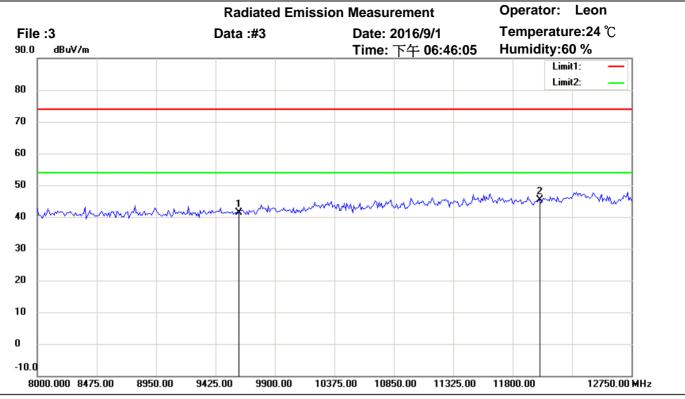
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4804.000	41.76	peak	0.28	42.04	74.00	100	235	-31.96	
*	7206.000	41.13	peak	3.85	44.98	74.00	100	140	-29.02	



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Site: Chamber

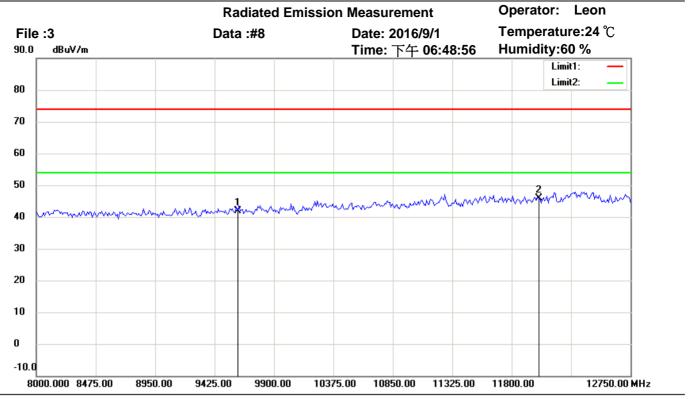
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9608.000	33.54	peak	7.93	41.47	74.00	100	210	-32.53	
*	12010.000	32.76	peak	12.65	45.41	74.00	100	175	-28.59	



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Site: Chamber

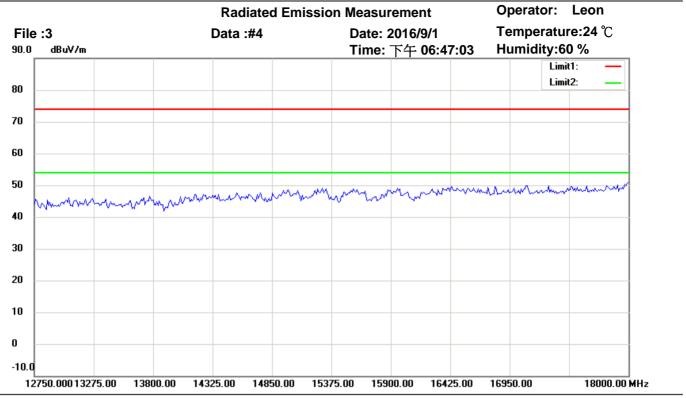
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9608.000	33.91	peak	7.93	41.84	74.00	100	90	-32.16	
*	12010.000	33.35	peak	12.65	46.00	74.00	100	240	-28.00	



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Site: Chamber

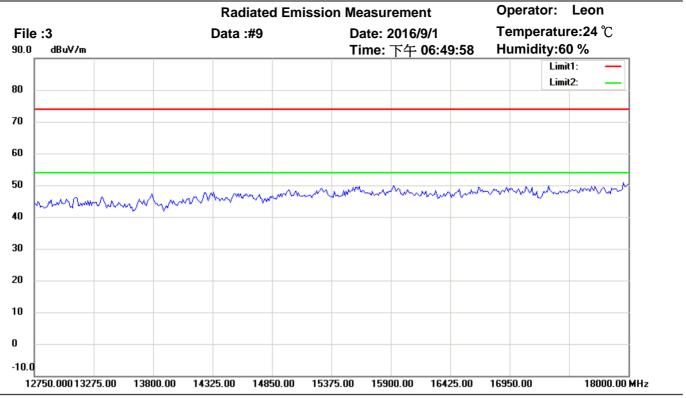
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

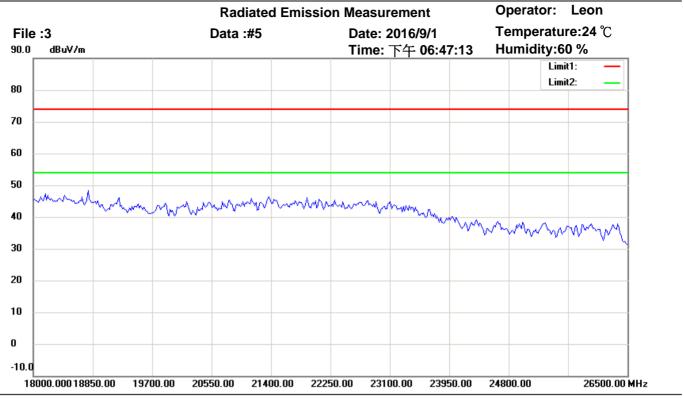
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment	1
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)		



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Site: Chamber

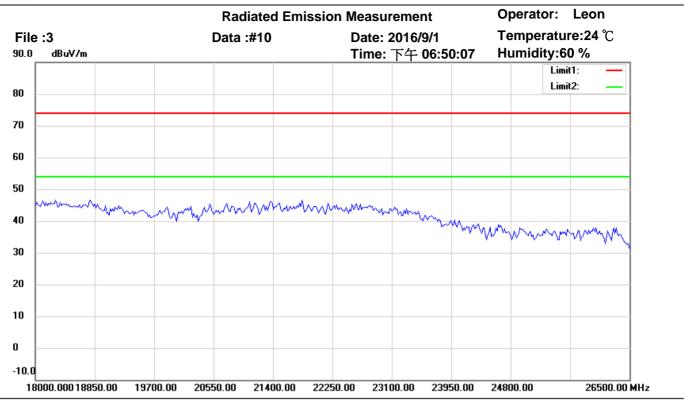
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

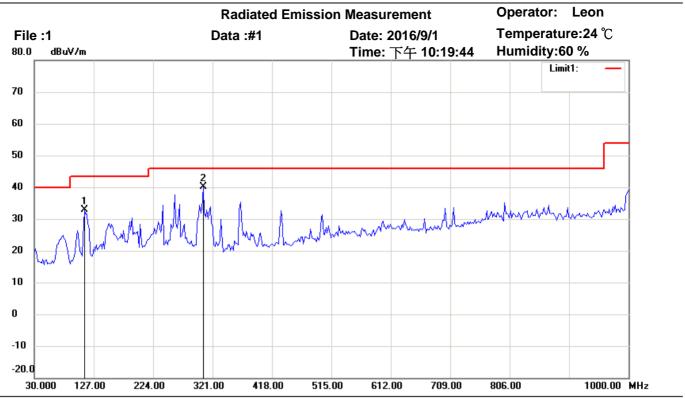
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

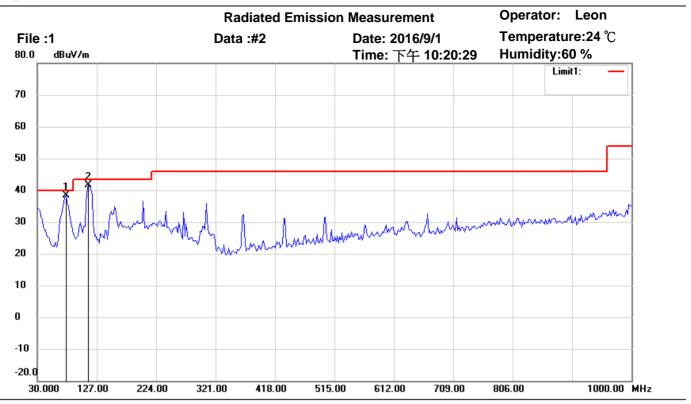
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Horizontal

Test Mode: 2441MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	111.6432	20.27	peak	12.56	32.83	43.50	100	85	-10.67	
*	306.0321	24.01	peak	16.14	40.15	46.00	100	130	-5.85	



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Site: Chamber

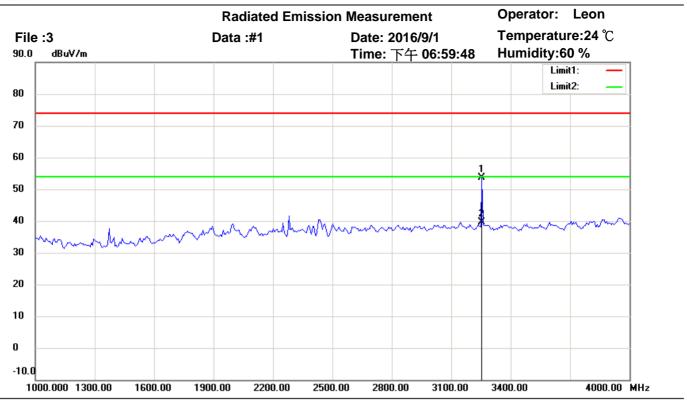
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Vertical

Test Mode: 2441MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	76.6533	27.92	QP	10.37	38.29	40.00	100	85	-1.71	
	113.5872	28.81	QP	12.71	41.52	43.50	100	30	-1.98	



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Site: Chamber

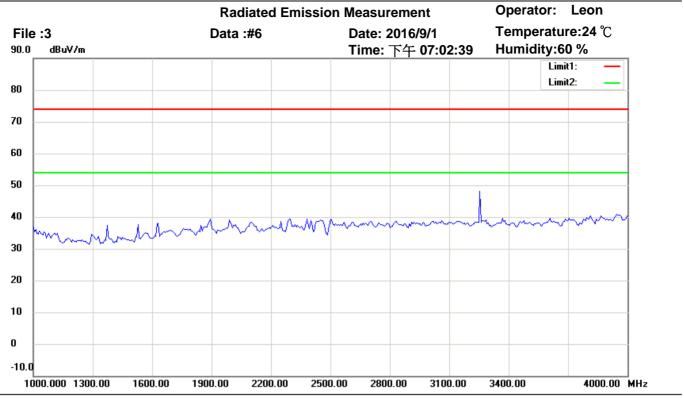
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2441MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3254.509	56.71	peak	-3.00	53.71	74.00	100	135	-20.29	
*	3254.509	42.63	AVG	-3.00	39.63	54.00	100	135	-14.37	



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Site: Chamber

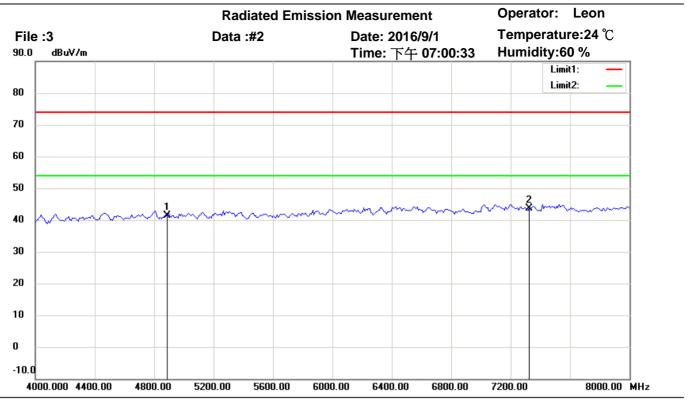
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2441MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment	
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)		l



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Site: Chamber

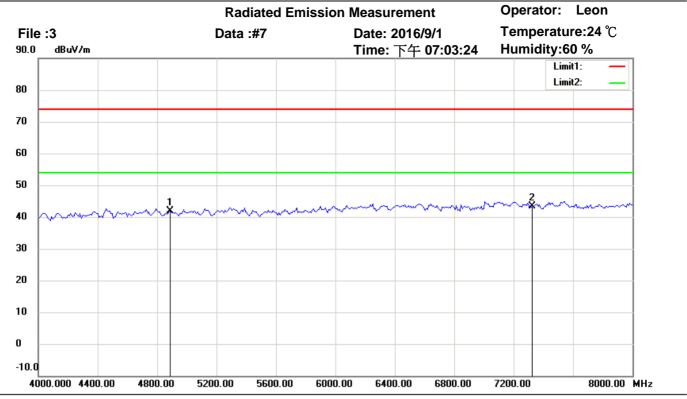
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2441MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4882.000	40.97	peak	0.48	41.45	74.00	100	230	-32.55	
*	7323.000	40.05	peak	3.66	43.71	74.00	100	195	-30.29	



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Site: Chamber

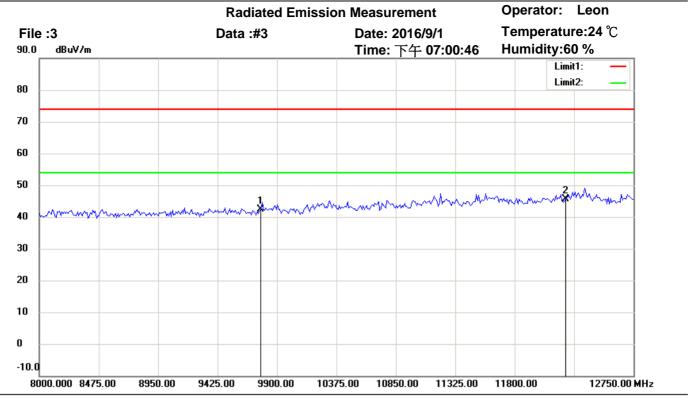
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2441MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4882.000	41.46	peak	0.48	41.94	74.00	100	175	-32.06	
*	7323.000	39.67	peak	3.66	43.33	74.00	100	120	-30.67	



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Site: Chamber

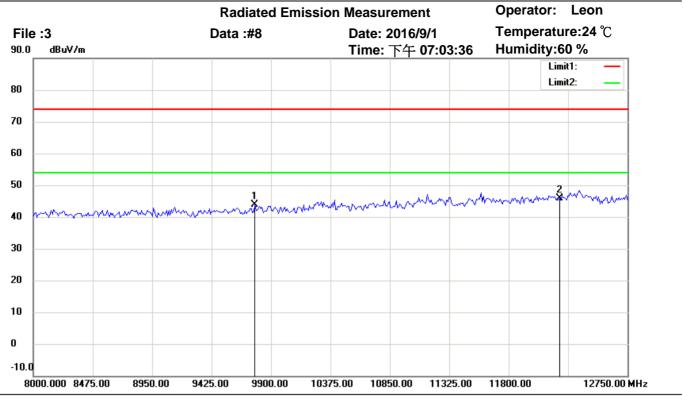
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2441MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9764.000	33.97	peak	8.33	42.30	74.00	100	50	-31.70	
*	12205.000	31.78	peak	13.75	45.53	74.00	100	210	-28.47	



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Site: Chamber

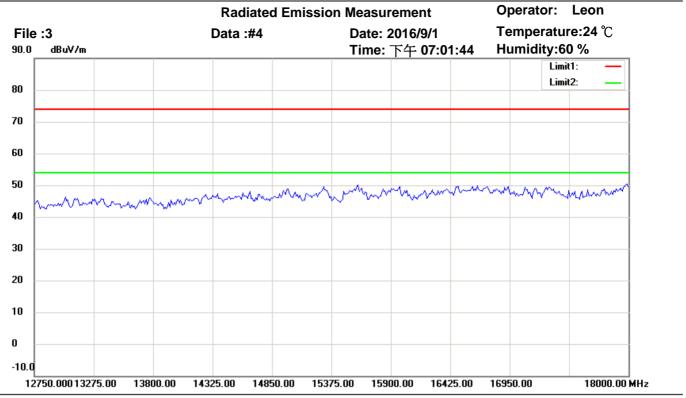
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2441MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9764.000	35.52	peak	8.33	43.85	74.00	100	85	-30.15	
*	12205.000	32.14	peak	13.75	45.89	74.00	100	170	-28.11	



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Site: Chamber

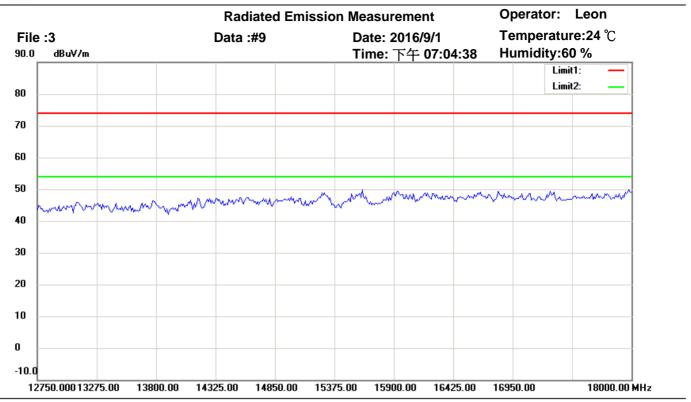
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2441MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

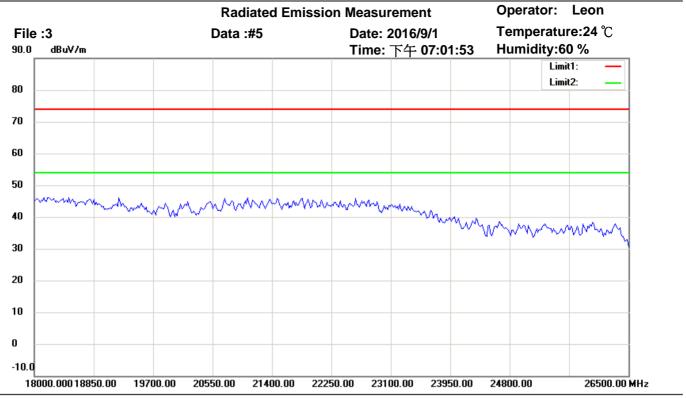
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2441MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

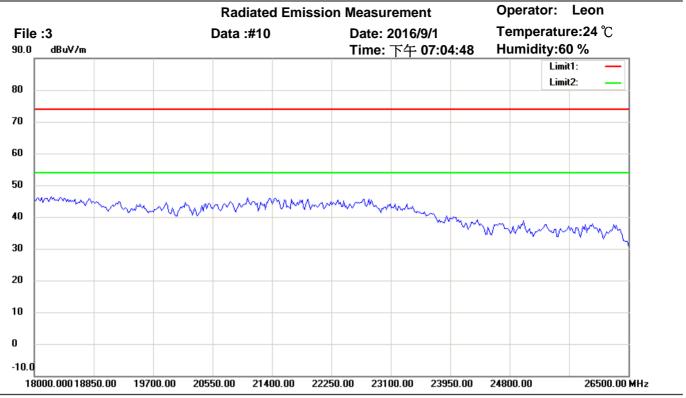
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2441MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

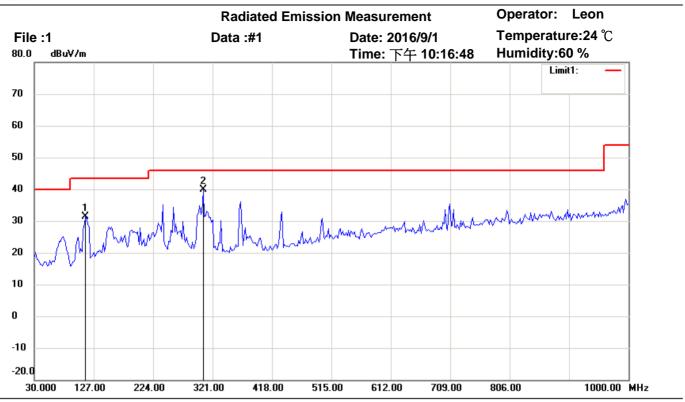
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2441MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

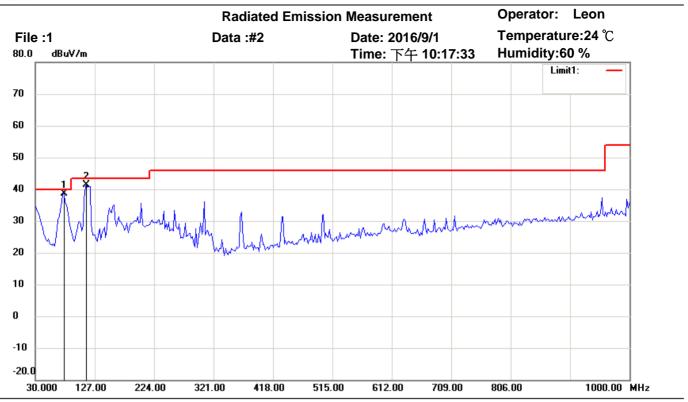
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	113.5871	18.57	peak	12.71	31.28	43.50	100	105	-12.22	
*	306.0321	23.76	peak	16.14	39.90	46.00	100	170	-6.10	



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Site: Chamber

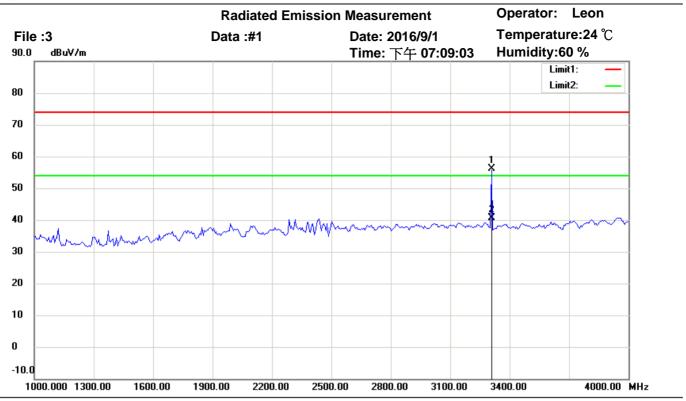
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Vertical

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	76.6533	28.23	QP	10.37	38.60	40.00	100	95	-1.40	
	113.5872	28.59	QP	12.71	41.30	43.50	100	60	-2.20	



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Site: Chamber

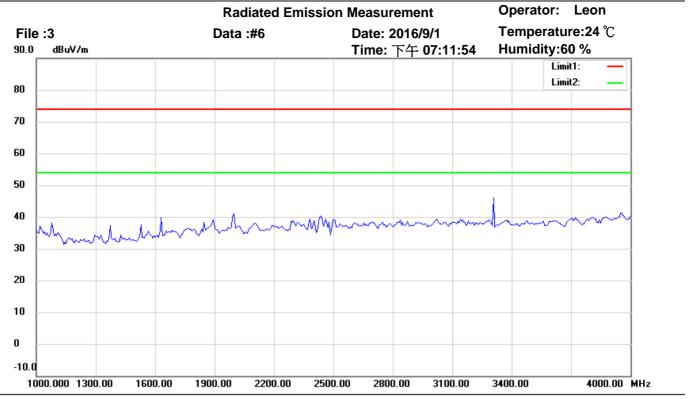
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3308.617	59.13	peak	-2.94	56.19	74.00	100	155	-17.81	
*	3308.617	43.55	AVG	-2.94	40.61	54.00	100	155	-13.39	



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Site: Chamber

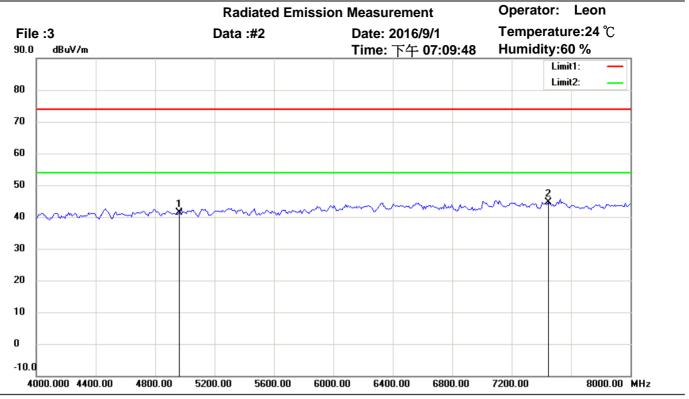
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

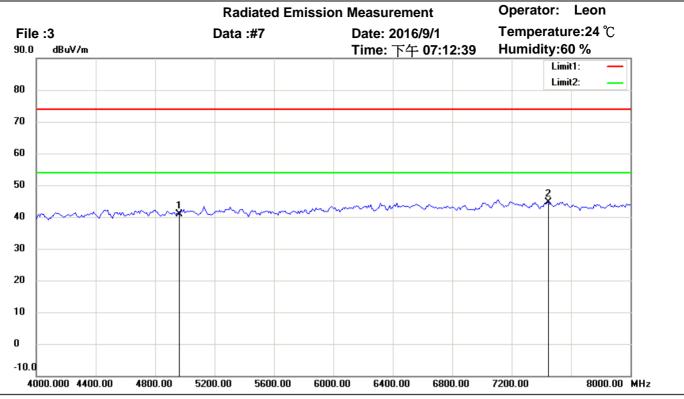
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4960.000	40.52	peak	0.88	41.40	74.00	100	135	-32.60	
*	7440.000	40.69	peak	3.93	44.62	74.00	100	220	-29.38	



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Site: Chamber

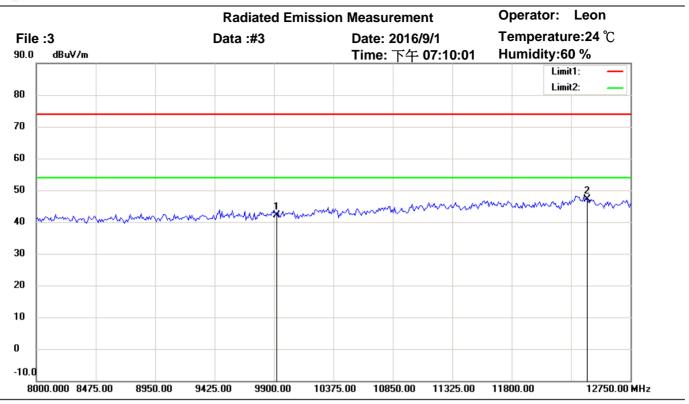
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4960.000	40.09	peak	0.88	40.97	74.00	100	175	-33.03	
*	7440.000	40.60	peak	3.93	44.53	74.00	100	65	-29.47	



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Site: Chamber

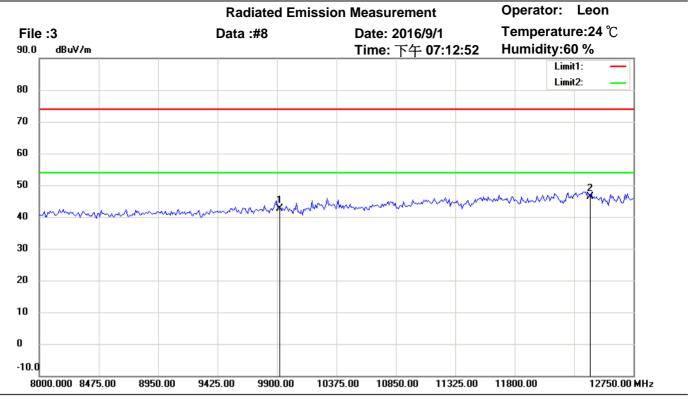
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9920.000	33.70	peak	8.50	42.20	74.00	100	265	-31.80	
*	12400.000	32.57	peak	14.46	47.03	74.00	100	210	-26.97	



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Site: Chamber

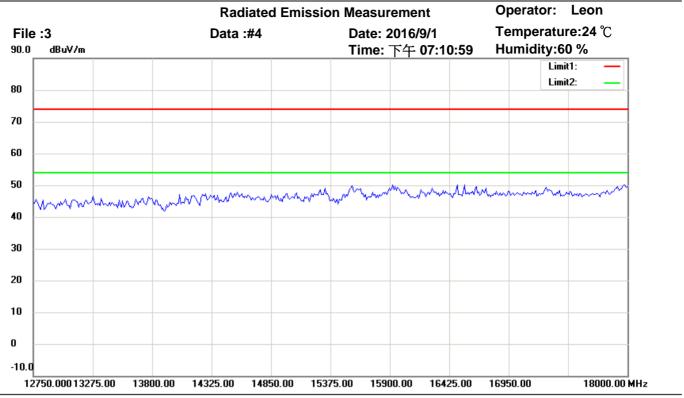
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9920.000	34.22	peak	8.50	42.72	74.00	100	45	-31.28	
*	12400.000	31.80	peak	14.46	46.26	74.00	100	110	-27.74	



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Site: Chamber

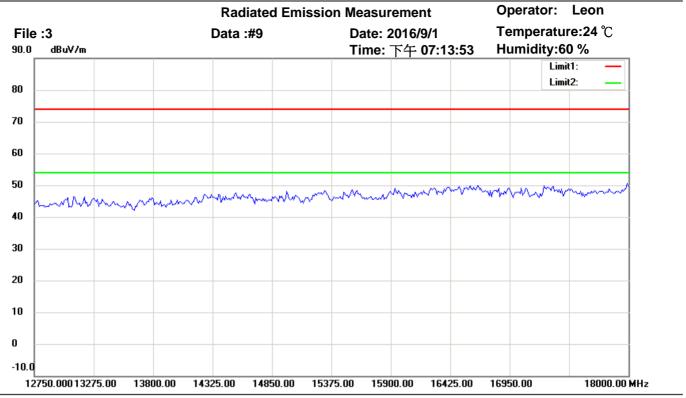
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

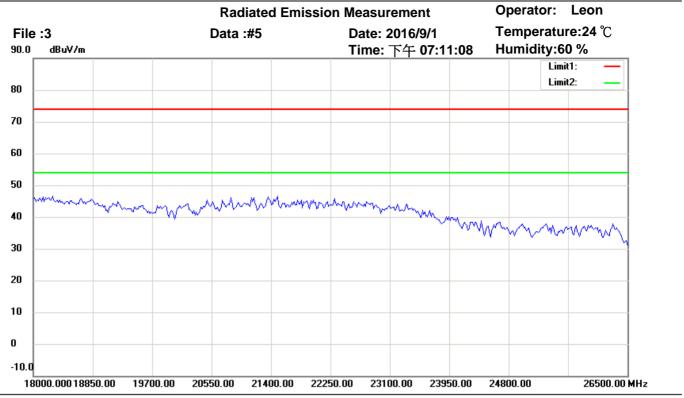
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

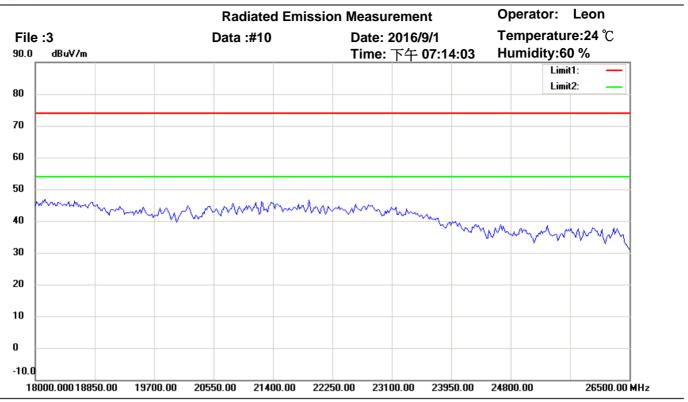
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

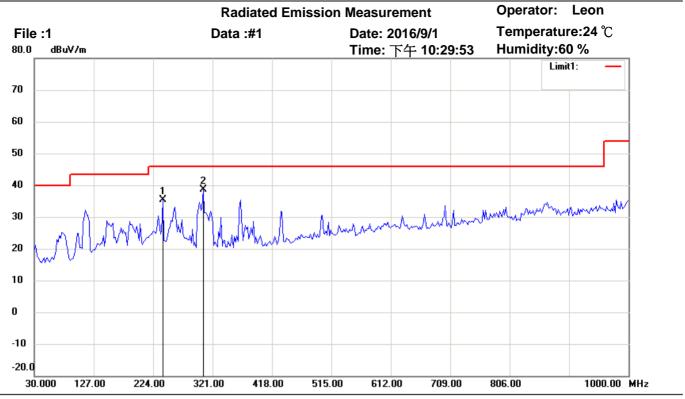
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

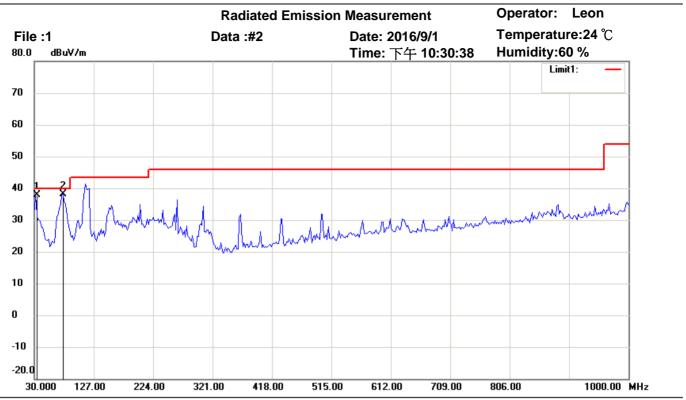
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	239.9398	21.12	peak	14.16	35.28	46.00	100	50	-10.72	
*	306.0321	22.58	peak	16.14	38.72	46.00	100	130	-7.28	



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Site: Chamber

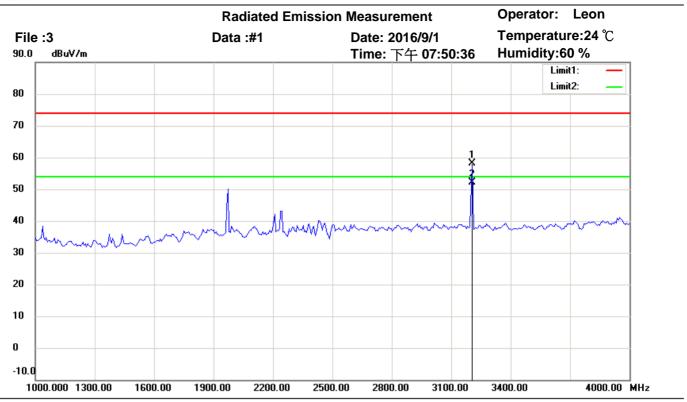
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Vertical

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	31.9440	24.72	QP	13.26	37.98	40.00	100	75	-2.02	
*	76.6533	27.86	QP	10.37	38.23	40.00	100	120	-1.77	



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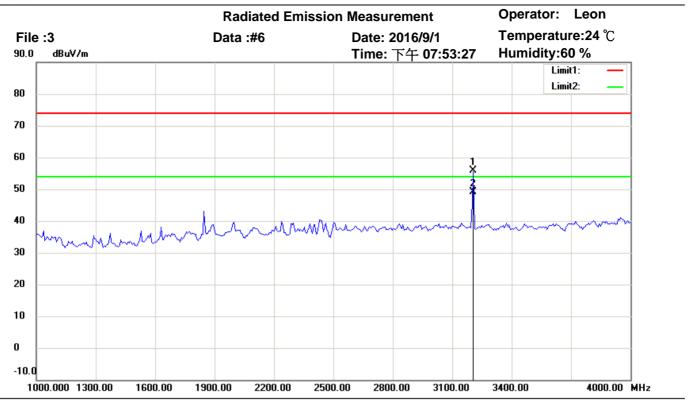
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3202.700	61.19	peak	-3.09	58.10	74.00	100	140	-15.90	
*	3202.700	55.18	AVG	-3.09	52.09	54.00	100	140	-1.91	



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Site: Chamber

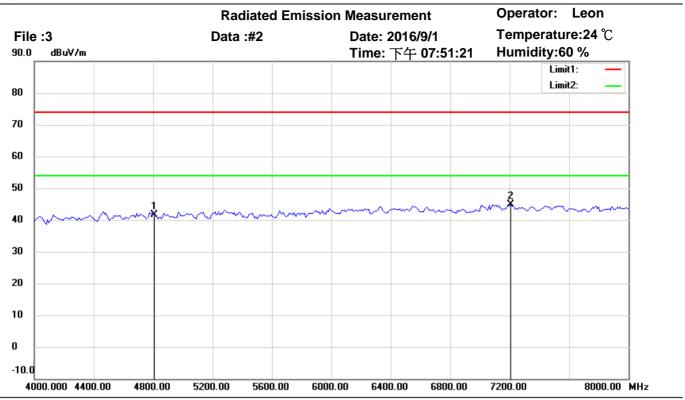
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3202.659	58.99	peak	-3.09	55.90	74.00	100	134	-18.10	
*	3202.659	52.11	AVG	-3.09	49.02	54.00	100	134	-4.98	



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Site: Chamber

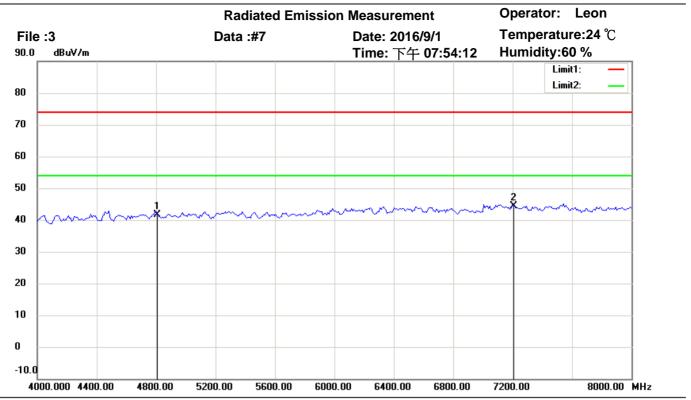
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4804.000	41.36	peak	0.28	41.64	74.00	100	205	-32.36	
*	7206.000	41.04	peak	3.85	44.89	74.00	100	130	-29.11	



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Site: Chamber

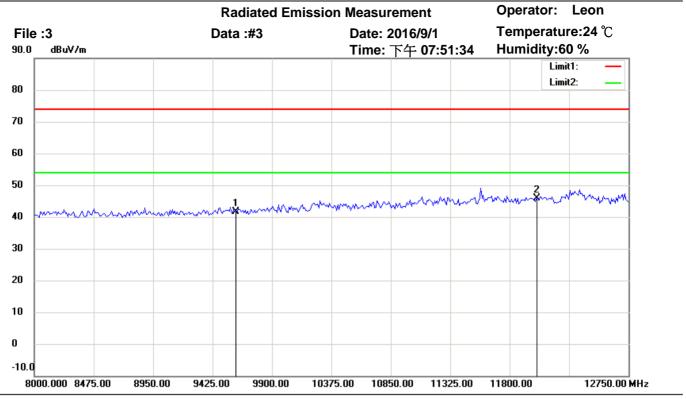
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4804.000	41.40	peak	0.28	41.68	74.00	100	250	-32.32	
*	7206.000	40.52	peak	3.85	44.37	74.00	100	190	-29.63	



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Site: Chamber

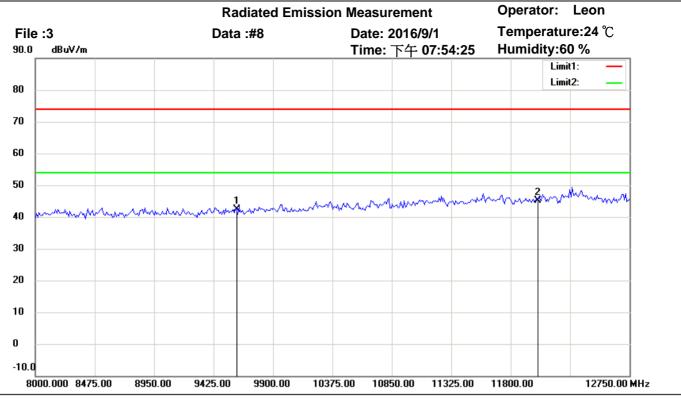
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9608.000	33.67	peak	7.93	41.60	74.00	100	210	-32.40	
*	12010.000	33.34	peak	12.65	45.99	74.00	100	145	-28.01	



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Site: Chamber

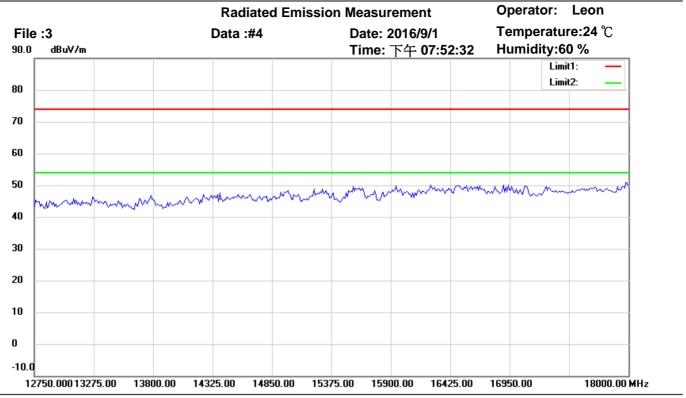
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9608.000	34.42	peak	7.93	42.35	74.00	100	245	-31.65	
*	12010.000	32.40	peak	12.65	45.05	74.00	100	170	-28.95	



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Site: Chamber

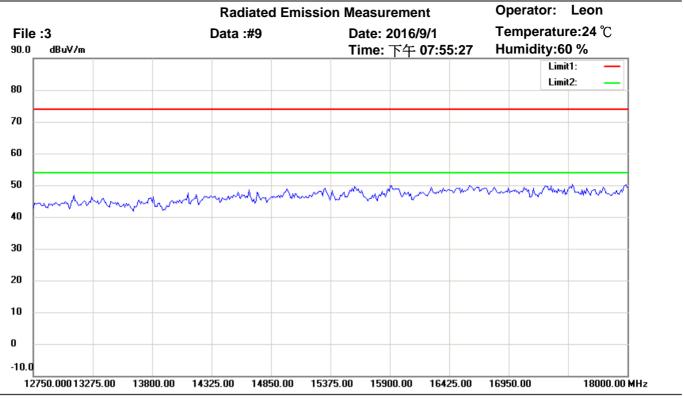
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

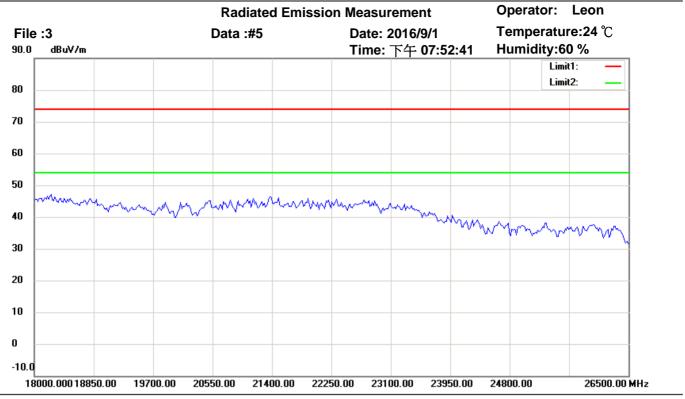
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

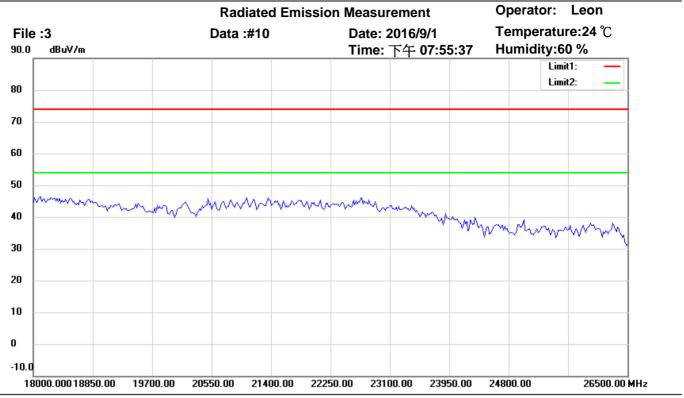
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

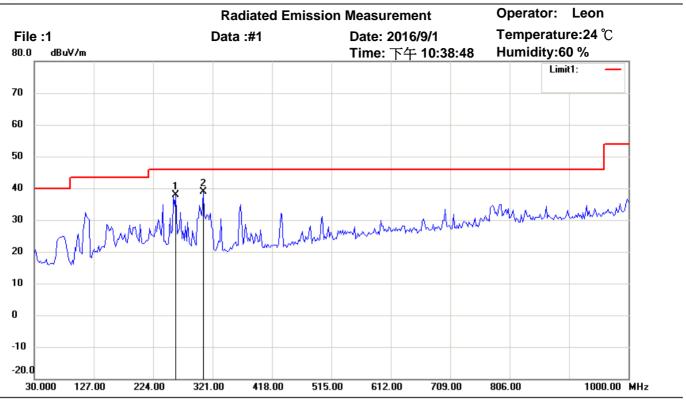
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2402MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

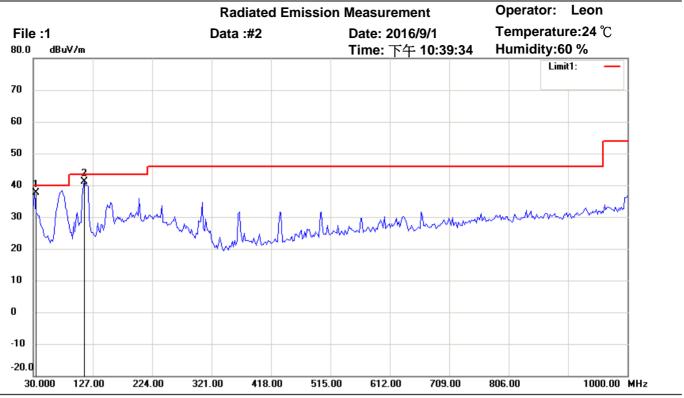
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Horizontal

Test Mode: 2440MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	261.3226	23.07	peak	14.71	37.78	46.00	100	90	-8.22	
*	306.0321	22.72	peak	16.14	38.86	46.00	100	135	-7.14	



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Site: Chamber

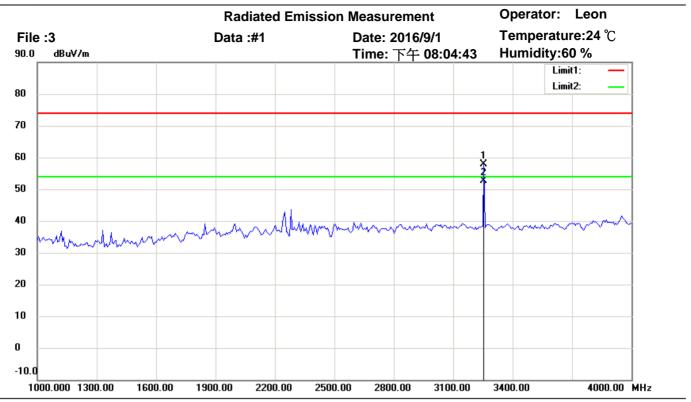
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Vertical

Test Mode: 2440MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	31.9440	24.36	QP	13.26	37.62	40.00	100	105	-2.38	
*	113.5872	28.44	QP	12.71	41.15	43.50	100	210	-2.35	



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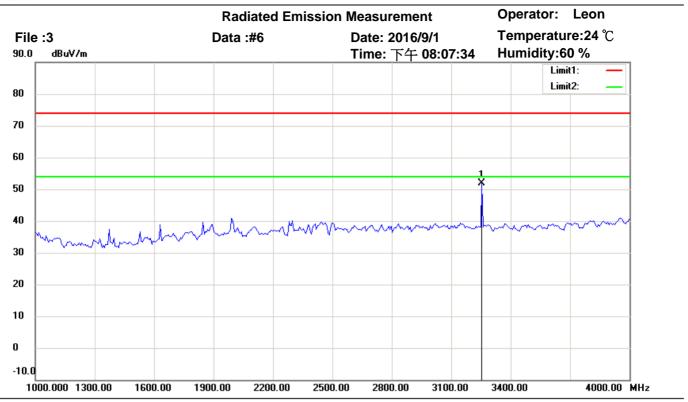
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2440MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3254.509	60.83	peak	-3.00	57.83	74.00	100	137	-16.17	
*	3254.509	55.75	AVG	-3.00	52.75	54.00	100	137	-1.25	



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Site: Chamber

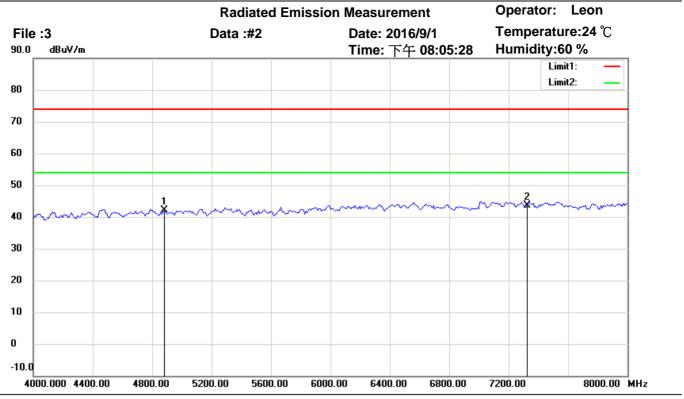
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2440MHz

	VIk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
Γ	*	3254.509	54.77	peak	-3.00	51.77	74.00	100	135	-22.23	



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Site: Chamber

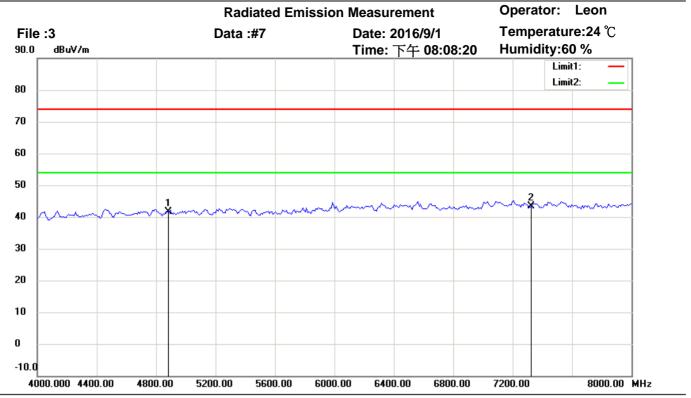
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2440MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4880.000	41.54	peak	0.47	42.01	74.00	100	85	-31.99	
*	7320.000	39.94	peak	3.65	43.59	74.00	100	110	-30.41	



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Site: Chamber

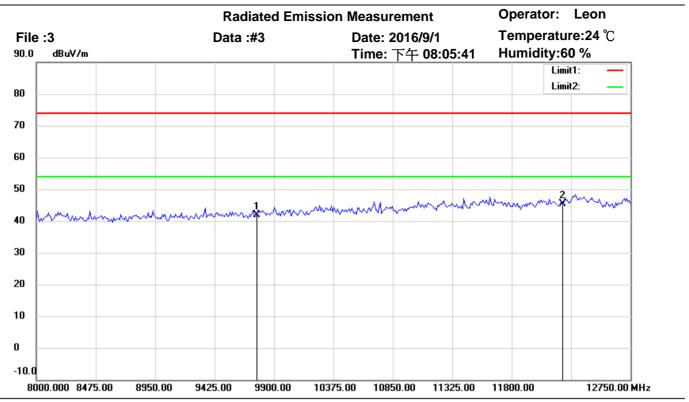
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Test Mode: 2440MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4880.000	41.08	peak	0.47	41.55	74.00	100	225	-32.45	
*	7320.000	39.71	peak	3.65	43.36	74.00	100	140	-30.64	



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Site: Chamber

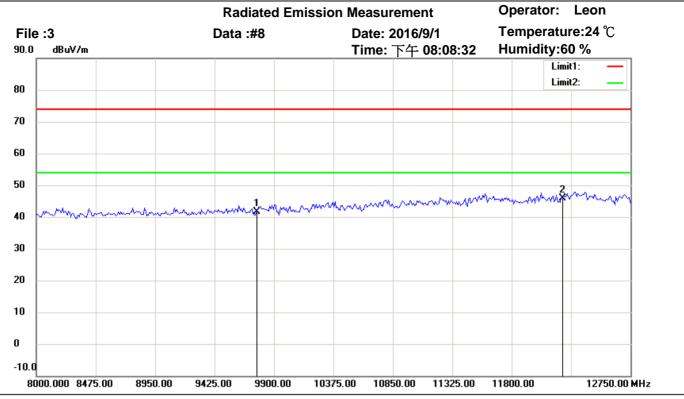
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2440MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9760.000	33.54	peak	8.29	41.83	74.00	100	95	-32.17	
*	12200.000	31.69	peak	13.72	45.41	74.00	100	170	-28.59	



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Site: Chamber

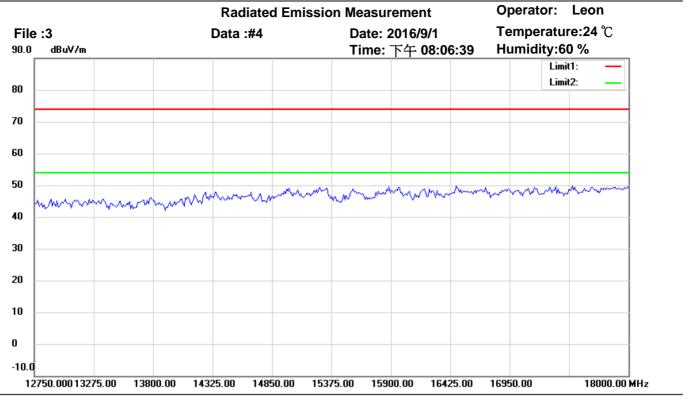
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2440MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9760.000	33.26	peak	8.29	41.55	74.00	100	95	-32.45	
*	12200.000	32.23	peak	13.72	45.95	74.00	100	160	-28.05	



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Site: Chamber

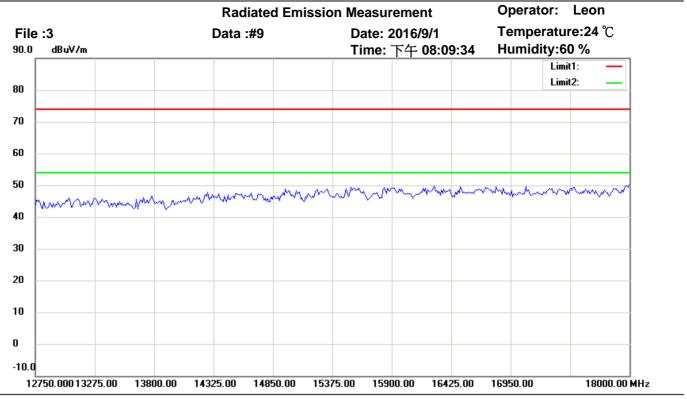
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2440MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

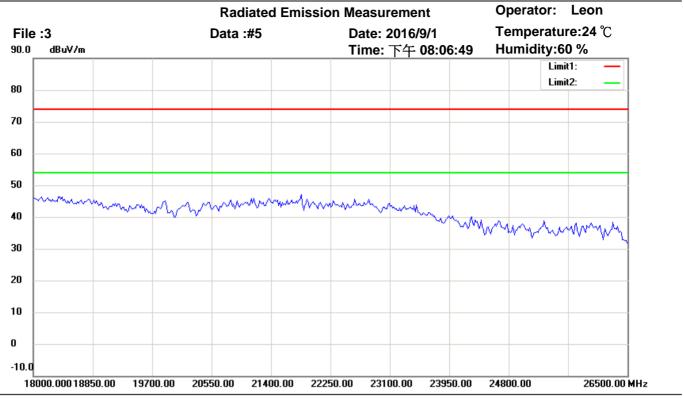
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2440MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

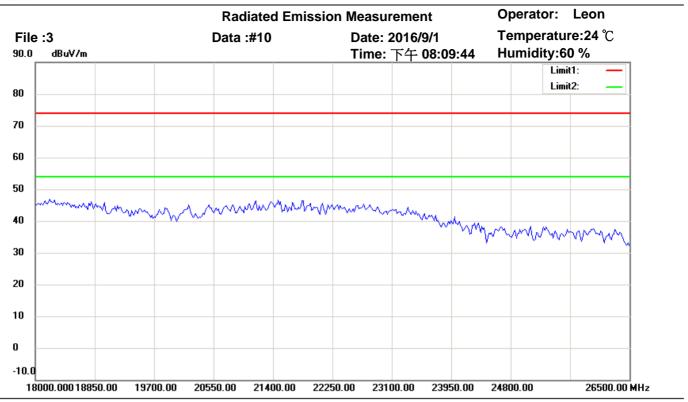
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2440MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

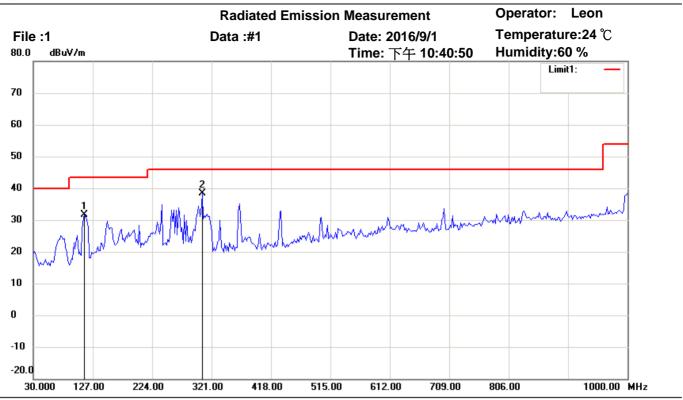
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2440MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)	



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Site: Chamber

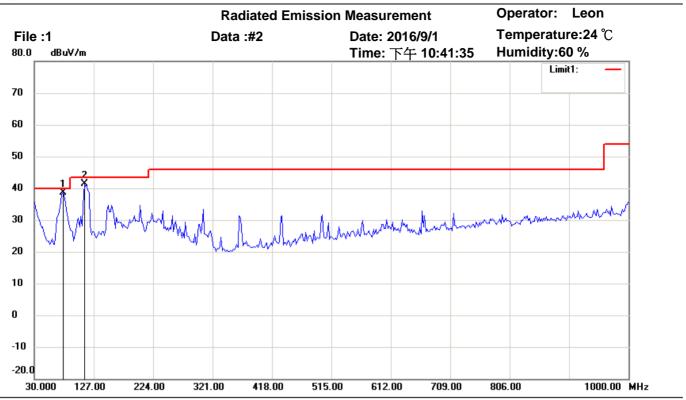
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	113.5871	18.99	peak	12.71	31.70	43.50	100	90	-11.80	
*	306.0321	22.24	peak	16.14	38.38	46.00	100	135	-7.62	



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Site: Chamber

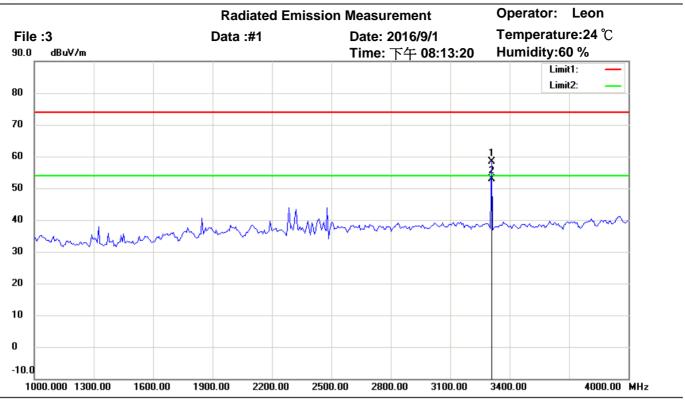
Condition: FCC\_part 15 RE-Class C\_30-1000MHz Polarization: Vertical

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
*	76.6533	28.29	QP	10.37	38.66	40.00	100	155	-1.34	
	111.6433	28.94	QP	12.56	41.50	43.50	100	20	-2.00	



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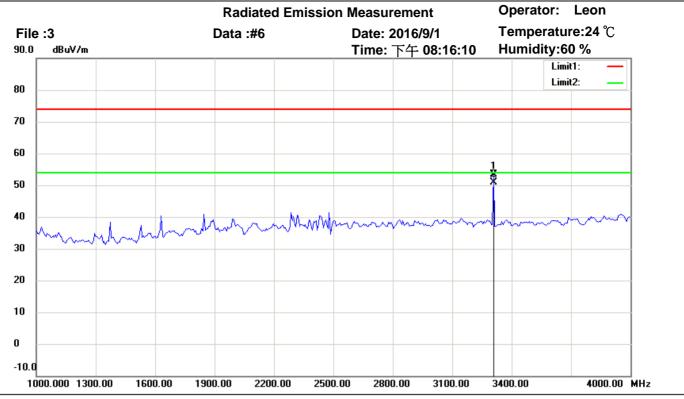
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3308.617	61.31	peak	-2.94	58.37	74.00	100	145	-15.63	
*	3308.617	55.93	AVG	-2.94	52.99	54.00	100	145	-1.01	



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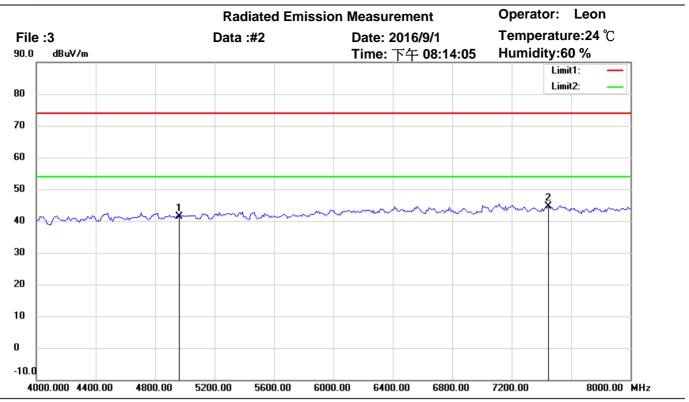
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	3308.617	56.24	peak	-2.94	53.30	74.00	100	85	-20.70	
*	3308.617	53.75	AVG	-2.94	50.81	54.00	100	85	-3.19	



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Site: Chamber

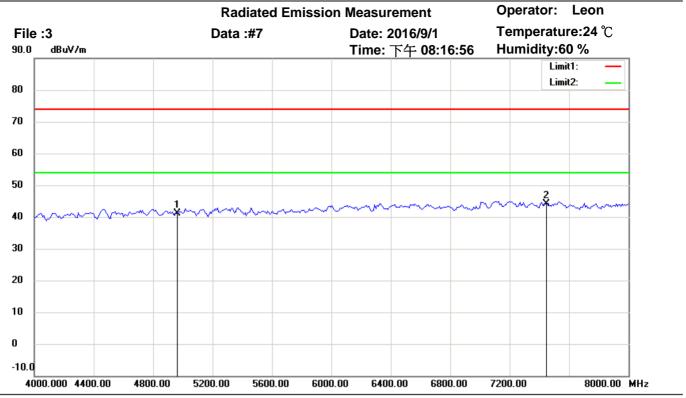
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4960.000	40.48	peak	0.88	41.36	74.00	100	195	-32.64	
*	7440.000	40.79	peak	3.93	44.72	74.00	100	60	-29.28	



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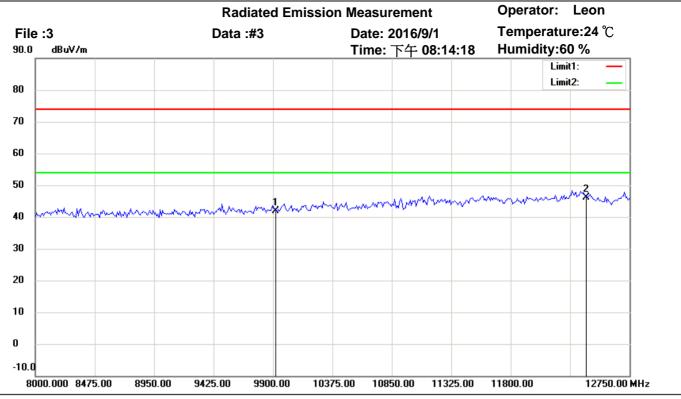
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	4960.000	40.22	peak	0.88	41.10	74.00	100	220	-32.90	
*	7440.000	40.19	peak	3.93	44.12	74.00	100	130	-29.88	



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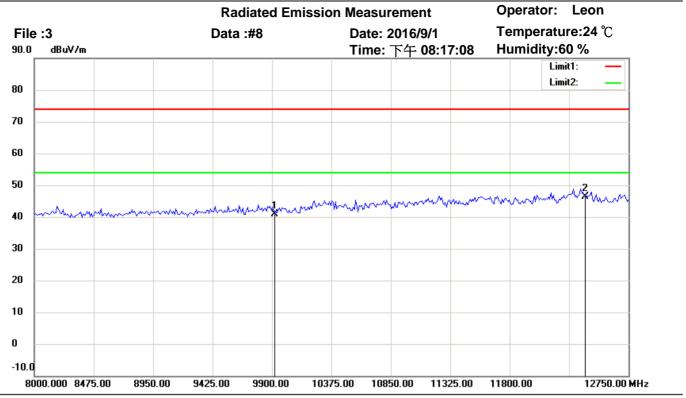
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9920.000	33.37	peak	8.50	41.87	74.00	100	215	-32.13	
*	12400.000	31.75	peak	14.46	46.21	74.00	100	170	-27.79	



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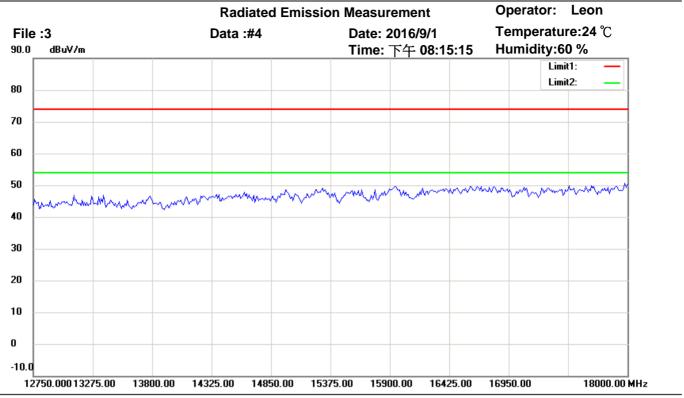
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	9920.000	32.43	peak	8.50	40.93	74.00	100	105	-33.07	
*	12400.000	31.97	peak	14.46	46.43	74.00	100	170	-27.57	



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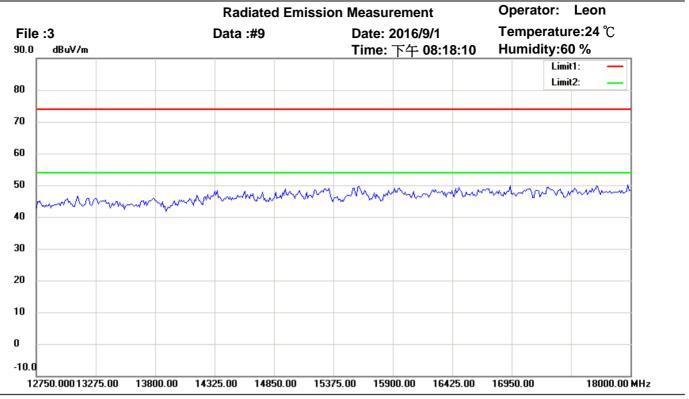
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment	1
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)		l



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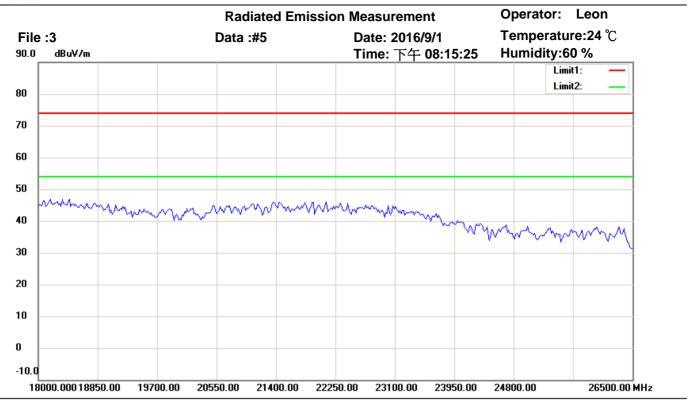
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment	1
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)		l



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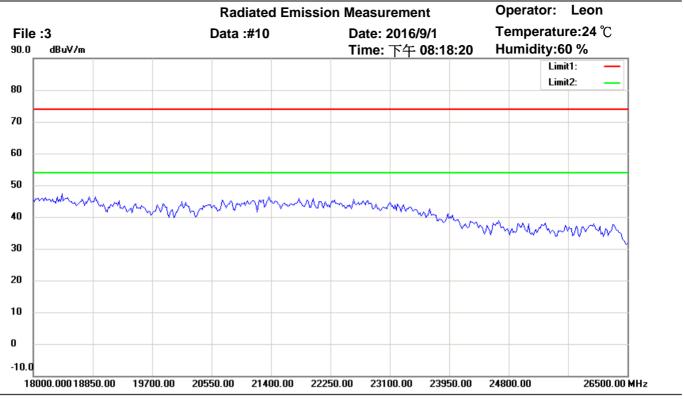
Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Horizontal

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment	1
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)		l



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Site: Chamber

Condition: FCC\_part 15 RE-Class C\_Above 1GHz\_PK Polarization: Vertical

Test Mode: 2480MHz

	Frequency	Reading	Detector	Corr. factor	Result	Limit	Ant.Pos	Tab.Pos	Margin	Comment	1
Mk.	(MHz)	(dBuV)		(dB/m)	(dBuV/m)	(dBuV/m)	(cm)	(deg.)	(dB)		l