FCC PART 15 SUBPART C / IC RSS-247 TEST REPORT

for

Headphone

Model No.: OV-1-B

FCC ID: 2AOHIOV1B

IC: 22533-OV1B

of

Applicant: **METERS MUSIC LTD**
Address: **THE OLD MALTINGS, HALL ROAD, HEYBRIDGE, ESSEX, CM94NJ, UNITED KINGDOM.**

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1477, TW1111, TW1072, TW1110

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

A2LA Accredited No.: 2732.01

Report No.: W6M21711-17556-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

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

TABLE OF CONTENTS

1 GENERAL INFORMATION 2

1.1 Notes 2
1.2 Testing laboratory 3
1.2.1 Location 3
1.2.2 Details of accreditation status 3
1.3 Details of approval holder 3
1.4 Application details 4
1.5 General information of Test item 4
1.6 Test standards 5

2 TECHNICAL TEST 6

2.1 Summary of test results 6
2.2 Test environment 6
2.3 Test Equipment List 7
2.4 General Test Procedure 10

3 TEST RESULTS (ENCLOSURE) 12

3.1 Peak Output Power (transmitter) 13
3.2 RF Exposure Compliance Requirements 17
3.3 Out of Band Radiated Emissions 19
3.4 Transmitter Radiated Emissions in restricted Bands 19
3.5 Spurious emissions (tx) 21
3.6 Carrier Frequency Separation 23
3.7 Number of Hopping Frequencies 26
3.7.1 Pseudorandom Frequency Hopping Sequence 28
3.7.2 Coordination of hopping sequences to other transmitters 28
3.7.3 System Receiver Hopping Capability 28
3.8 Time of Occupancy (Dwell Time) 29
3.9 20dB Bandwidth 35
3.9.1 System Receiver Input Bandwidth 38
3.10 Band-edge Compliance of RF Emissions 39
3.11 Radiated Emissions from Receiver Section of Transceiver 44
3.12 Power Line Conducted Emission 45
Appendix 44

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

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.

Tester:

December 07, 2017		Kent Lin	Kent Lin
Date	WTS-Lab.	Name	Signature

Technical responsibility for area of testing:

December 07, 2017		Kevin Wang	Kevin Wang
Date	WTS	Name	Signature

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

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. TW1477, TW1111, TW1072, TW1110
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:	METERS MUSIC LTD
Street:	THE OLD MALTINGS, HALL ROAD, HEYBRIDGE,
Town:	ESSEX, CM94NJ,
Country:	UNITED KINGDOM.
Telephone:	+44(0)1621 857853
Fax:	./.

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

1.4 Application details

Date of receipt of test item: November 15, 2017
Date of test: from November 15, 2017 to December 07, 2017

1.5 General information of Test item

Type of test item: Headphone

Model Number: OV-1-B

Multi-listing model number: ./.

Photos: see Annex

Technical data
Frequency band: 2402 MHz – 2480 MHz
Frequency (ch A): 2402 MHz
Frequency (ch B): 2441 MHz
Frequency (ch C): 2480 MHz

Transmitter **Unom**

Normal Mode
Power (ch 0): Conducted: 3.54 dBm
Power (ch 39): Conducted: 5.54 dBm
Power (ch 78): Conducted: 5.36 dBm

EDR Mode
Power (ch 0): Conducted: 3.20 dBm
Power (ch 39): Conducted: 5.29 dBm
Power (ch 78): Conducted: 4.98 dBm

Power supply: Battery 3.7Vd.c., USB 5Vd.c.(power from PC)

Operation modes: duplex

Modulation Type: GFSK、π / 4DQPSK、8DPSK

Antenna Type: Chip antenna

Antenna gain: 1.5 dBi

Host device: none

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

Classification:

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

Manufacturer: (if applicable)

Name: WANSTONIC ELECTRONICS (DONG GUAN) CO., LTD.
Street: Tung Fu Rd. West,
Town: Shi Jie Town, Dongguan City, Guandong,
Country: China

Additional information: ./.

1.6 Test standards

FCC RULES PART 15 SUBPART C § 15.247 (2016-10)

RSS-247 Issue 2: February 2017

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

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. ☒

or

The deviations as specified in 3 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Temperature: 23 ºC

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Details of power supply Battery 3.7Vd.c., USB 5Vd.c.(power from PC)

Extreme conditions parameters: test voltage : -- extreme
min : -- V
max : -- V

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission	Expanded Uncertainty：0.74 dB
Estimation Result of Uncertainty of Radiated Emission(3M)	Expanded Uncertainty： 0.009-30 MHz：2.17 dB 30-1000 MHz：3.30 dB 1-18 GHz：2.28 dB 18-40 GHz：2.19 dB
Estimation Result of Uncertainty of Bandwidth Measurement 20 dB Bandwidth, Occupied bandwidth, Channel bandwidth, Necessary Bandwidth	Expanded Uncertainty：0.45 kHz
Estimation Result of Uncertainty of Conducted Output Power Measurement Output power	Expanded Uncertainty：1.01 dB
Estimation Result of Uncertainty of Power Density Measurement Power density	Expanded Uncertainty：1.09 dB
Estimation Result of Uncertainty of Band Edge Measurement	Expanded Uncertainty：0.98 dBc
Estimation Result of Uncertainty of Frequency Separation Measurement Hopping channel separation	Expanded Uncertainty：552.91 Hz
Estimation Result of Uncertainty of Duty Cycle Measurement Dwell time	Expanded Uncertainty：0.074 ms

2.3 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2017/5/26	2018/5/25
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2017/10/26	2018/10/25
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2017/8/22	2018/8/21
ETSTW-CE 008	HF-EICHLEITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2017/7/14	2018/7/13
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2017/8/31	2018/8/30
ETSTW-CE 028	MXE EMI Receiver	N9038A	MY53220110	Agilent	2017/7/11	2018/7/10
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2017/5/26	2018/5/25
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2017/5/17	2018/5/16
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2017/8/25	2018/8/24
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function Test	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function Test	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2017/7/4	2018/7/3
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2017/7/3	2018/7/2
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2017/3/22	2018/3/21
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2017/2/7	2018/2/6
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2017/4/10	2018/4/9
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2017/4/27	2018/4/26
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2017/3/1	2018/2/28
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2017/3/1	2018/2/28
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2017/3/1	2018/2/28
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2017/3/1	2018/2/28
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2017/3/1	2018/2/28
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2017/4/12	2018/4/11
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function Test	
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	ETS-Lindgren	Function Test	
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2017/9/11	2018/9/10
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2017/9/19	2018/9/18
ETSTW-RE 091	Match Pad	MDCS1500	None	WOKEN	2017/4/6	2018/4/5
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2017/3/1	2018/2/28

ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2017/1/12	2018/1/11
ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Function test	
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2017/5/26	2018/5/25
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2017/8/9	2018/8/8
ETSTW-RE 126	5GHz Notch filter	5NSL12-5800/E221.3-O/O	1	K&L Microwave	2017/8/9	2018/8/8
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2017/3/1	2018/2/28
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2017/8/9	2018/8/8
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2017/8/9	2018/8/8
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2017/4/12	2018/4/11
ETSTW-RE 147	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04005	ETC	2017/3/22	2018/3/21
ETSTW-RE 151	Thermohygrometer	608-h1	45104376	TESTO	2017/8/30	2018/8/29
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2017/5/10	2018/5/9
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2017/2/24	2018/2/23
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2017/2/10	2018/2/9
ETSTW-GSM 004	Wideband Radio Communication Tester	CMW500	128092	R&S	2017/10/16	2018/10/15
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2017/1/12	2018/1/11
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2017/1/12	2018/1/11
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2017/1/12	2018/1/11
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2017/1/12	2018/1/11
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2017/9/13	2018/9/12
ETSTW-Cable 011	SMA to N type Cable	RGU-400	None	THERMAX	Pre-test Use NCR	
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2017/2/23	2018/2/22
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2017/2/23	2018/2/22
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2017/2/23	2018/2/22
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2017/2/23	2018/2/22
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2017/7/3	2018/7/2
ETSTW-Cable 022	N TYPE Cable	5006	0002	JYE BAO CO.,LTD.	2017/4/6	2018/4/5
ETSTW-Cable 026	Microwave Cable	SUCOFLEX 104	279075	HUBER+SUHNER	2017/3/1	2018/2/28
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2017/5/12	2018/5/11
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2017/9/7	2018/9/6
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2017/9/7	2018/9/6
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 （S_Cable 9）	279067	HUBER+SUHNER	2017/3/1	2018/2/28
ETSTW-Cable 031	Microwave Cable	SUCOFLEX 104 （S_Cable 10）	238092	HUBER+SUHNER	2017/4/12	2018/4/11
ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2017/4/12	2018/4/11

ETSTW-Cable 048	Microwave Cable	SUCOFLEX 104	325519	HUBER+SUHNER	2017/4/12	2018/4/11
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2017/2/20	2018/2/19
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2017/4/12	2018/4/11
ETSTW-Cable 066	SMA type cable	32022	None	ASTROLAB	2017/8/31	2018/8/30
ETSTW-Cable 071	N TYPE CABLE	EMCCFD400-NM-NM-25000	170239	EMCI	2017/2/20	2018/2/19
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version ETS-03A1	
WTSTW-SW 006	EMI TEST SOFTWARE	e3	None	AUDIX	Version 9.161014	
WTSTW-SW 008	Signal studio	Agilent	None	AUDIX	Version 2.0.0.1	

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. The ambient. temperature of the UUT was 23°C with a humidity of 40 %.

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 dBμV) 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
33	20 dBμV + 10.36 dB + 6 dB = 36.36 dBμV/m @3m

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.

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.

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.

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

3 Test results (enclosure)

Test case	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b) IC RSS-247 5.4	☒	☒	☐
Equivalent radiated Power	15.247(b) IC RSS-247 5.4	☒	☒	☐
Spurious Emissions radiated – Transmitter operating	15.247(c) IC RSS-247 5.5	☒	☒	☐
Spurious Emissions conducted – Transmitter operating	15.247 IC RSS-247 5.5	☐	☐	☐
Carrier Frequency Separation	15.247(a) (1) IC RSS-247 5.1	☒	☒	☐
Number of Hopping Frequencies	15.247(a) (1)(i) IC RSS-247 5.1	☒	☒	☐
Time of Occupancy (Dwell Time)	15.247(a) (1)(i) IC RSS-247 5.1	☒	☒	☐
20 dB Bandwidth	15.247(a) (1)(i) IC RSS-247 5.1	☒	☒	☐
Band-edge Compliance of RF Emission	15.247(c) IC RSS-247 5.1	☒	☒	☐
Radiated Emissions from Receiver Section of Transceiver	15.109 IC RSS-247 5.5	☒	☒	☐
Power Line Conducted Emission	15.207(a) IC RSS-Gen	☒	☒	☐

The follows is intended to leave blank.

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

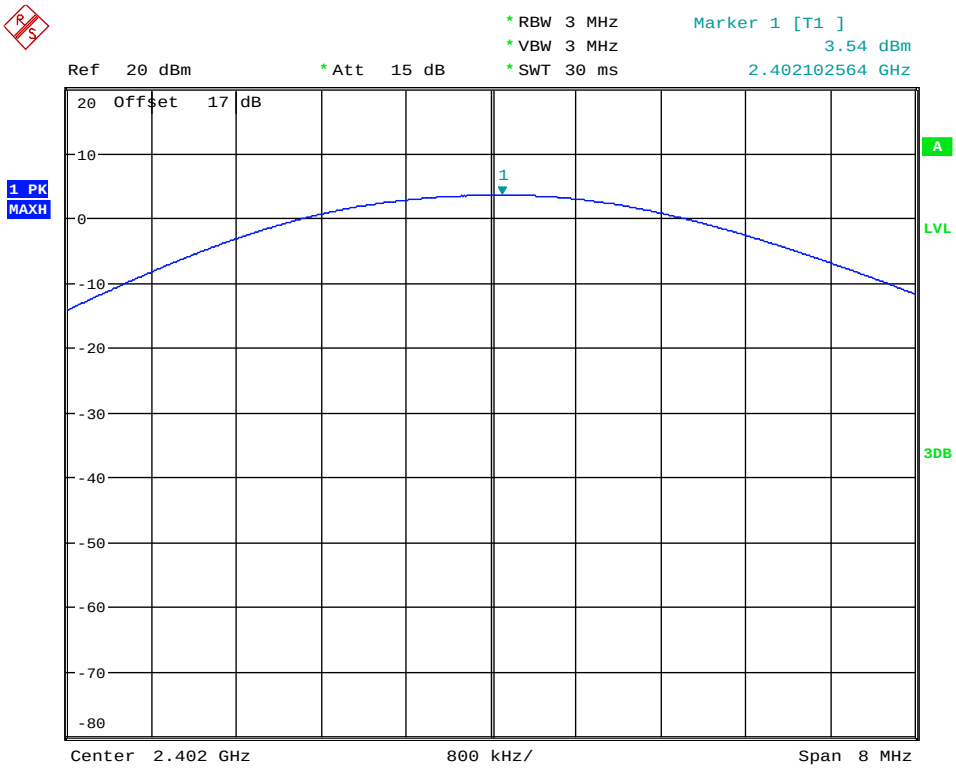
3.1 Peak Output Power (transmitter)

FCC Rule: 15.247

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.

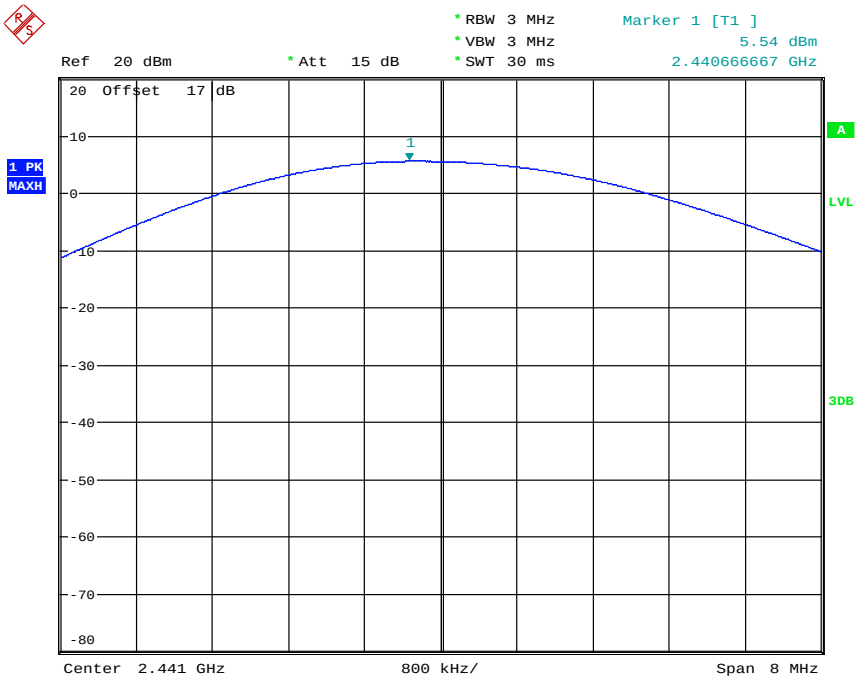
The power was measured with modulation (declared by the applicant).

Normal mode



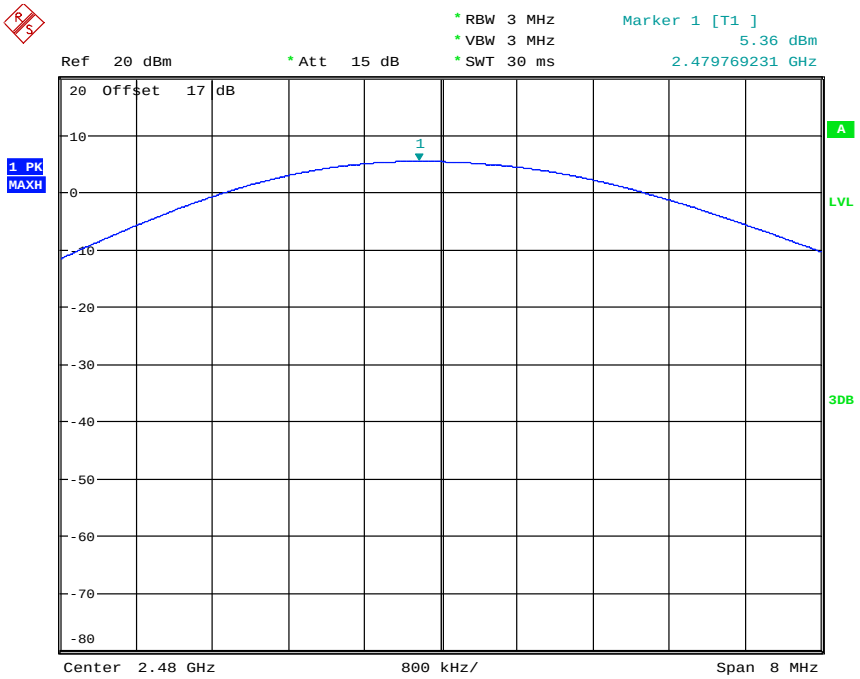
MAX OUTPUT POWER CH0
Date: 17.NOV.2017 16:34:09

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



MAX OUTPUT POWER CH39

Date: 17.NOV.2017 16:35:01

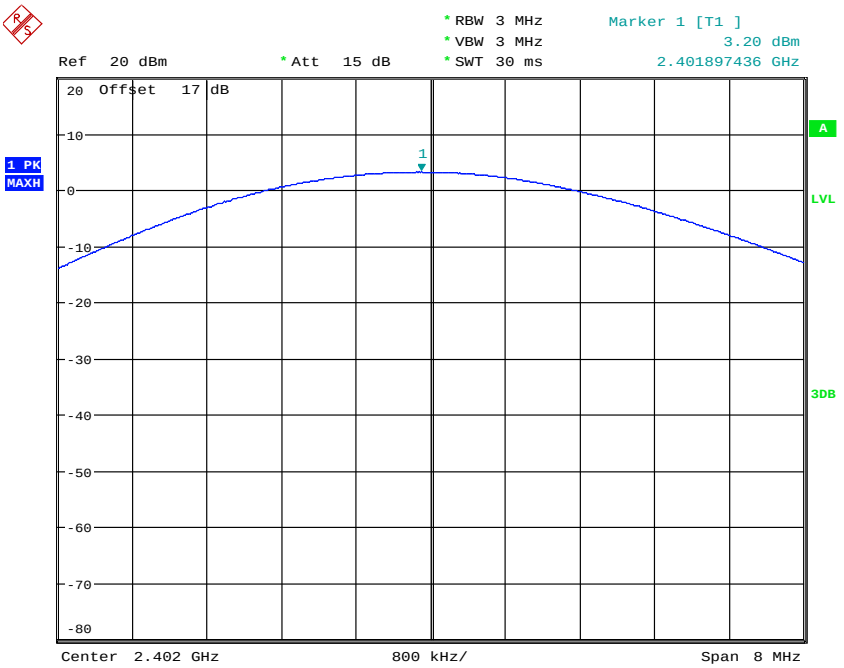


MAX OUTPUT POWER CH78

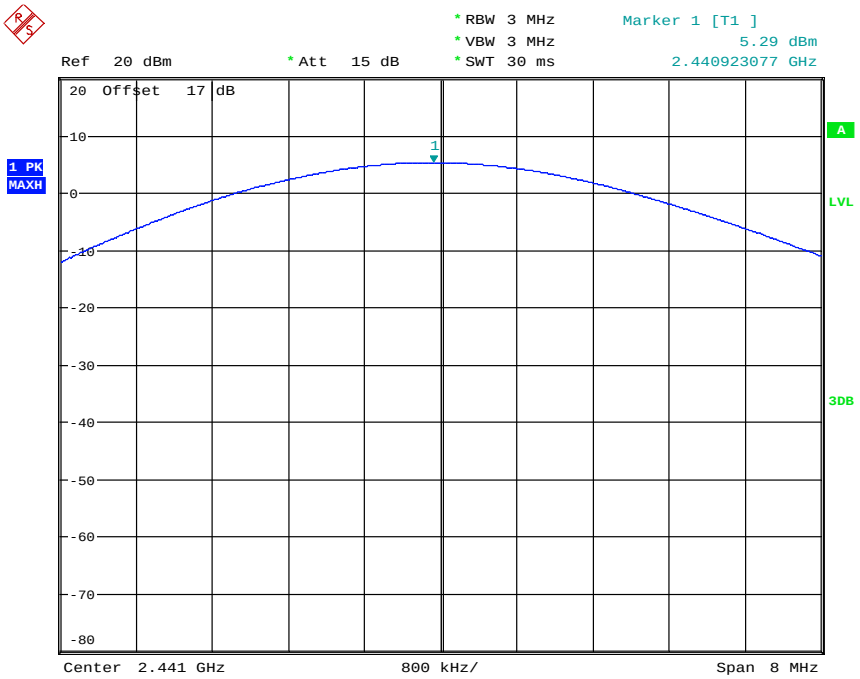
Date: 17.NOV.2017 16:35:37

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

EDR mode

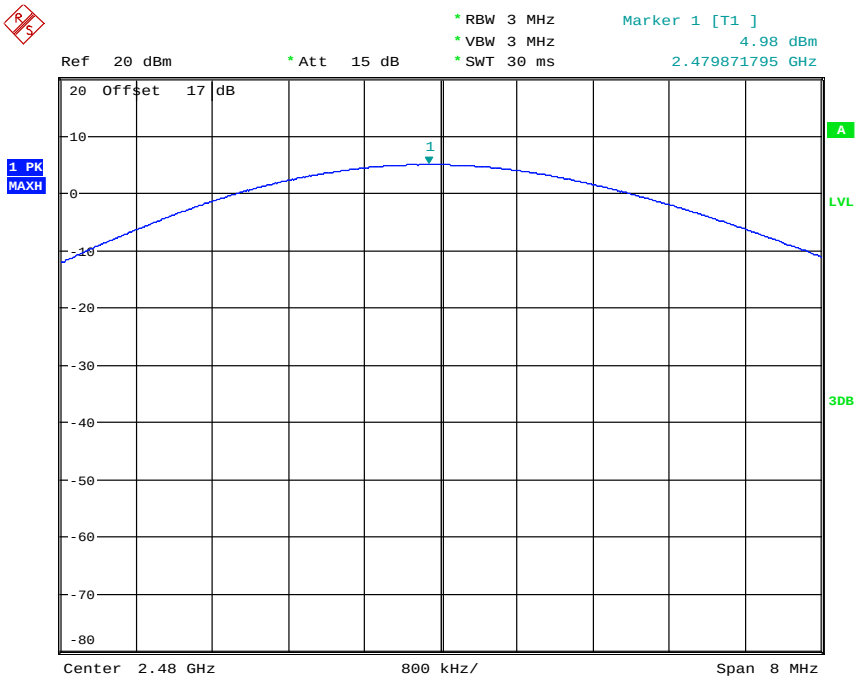


MAX OUTPUT POWER CH0 EDR MODE
Date: 17.NOV.2017 16:42:09



MAX OUTPUT POWER CH39 EDR MODE
Date: 17.NOV.2017 16:43:01

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



MAX OUTPUT POWER CH78 EDR MODE
Date: 17.NOV.2017 16:43:41

Maximum Peak Output Power

Limits:

Frequency MHz	Number of hopping channels			
	≥ 75	≥ 50	49 ≥ 25	74 ≥ 15
902-928	--	30 dBm	24 dBm	--
2400-2483.5 MHz	30 dBm	--	--	21 dBm
5725-5850 MHz	30 dBm	--	--	--

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

Test equipment used: ETSTW-RE 055, ETSTW-RE 050, ETSTW-RE 064

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

3.2 RF Exposure Compliance Requirements (For FCC)

FCC Rule: 15.247(b)(3)
Test exclusion = max. conducted output power
Test exclusion = 5.54 dBm

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 ≥ 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: 3.5810 mW

Separation distances:
Radiator to user: > 5 mm
Distance prescribed in user manual: > 5 mm

MHz	5	10	15	20	25	mm
2450	10	19	29	38	48	SAR Test Exclusion Threshold (mW)

MHz	30	35	40	45	50	mm
2450	57	67	77	86	96	SAR Test Exclusion Threshold (mW)

MHz	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	mm
2450	96	196	296	396	496	596	696	796	896	996	1096	1196	1296	1396	1496	mW

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

RF Exposure Compliance Requirements (For IC)
Test exclusion = max. conducted output power + adjusted for tune-up tolerance
Test exclusion = 5.54 dBm + 1.5 dBi (Claimed by the applicant) = 7.04 dBm

RESULT:

Test standard : RSS-247

According to Notice 2016-DRS0001
2.5.1 Exemption Limits for Routine Evaluation – SAR Evaluation
SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 1 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1.

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of ≤5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤300	71 mW	101 mW	132 mW	162 mW	193 mW
450	52 mW	70 mW	88 mW	106 mW	123 mW
698	29.45 mW	44.23 mW	58.37 mW	73.15 mW	86.93 mW
835	17 mW	30 mW	42 mW	55 mW	67 mW
1900	7 mW	10 mW	18 mW	34 mW	60 mW
2450	4 mW	7 mW	15 mW	30 mW	52 mW
2457	3.99 mW	6.99 mW	15.01 mW	30.01 mW	52.02 mW
2480	3.94 mW	6.97 mW	15.03 mW	30.06 mW	52.09 mW
3500	2 mW	6 mW	16 mW	32 mW	55 mW

Frequency Band:2400-2483.5 MHz
Maximum Power fed to Antenna : 5.0582 mW
This product does not need to do SAR test because e.i.r.p. is smaller than 6.97 mW .

3.3 Out of Band Radiated Emissions

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 below 1GHz :
Max. reading – 20 dB

Guidance on Measurement of FHSS 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." Here the correction was added to the limit instead subtracted from the reading.

Duty Cycle correction = 20 log (dwell time/100ms)
For frequencies above 1GHz (Peak measurements).
Limit = max. aver. reading-20dB +20dB(because Peak detector is used)

For frequencies above 1GHz (Average measurements).
Max. reading – 20 dB - duty cycle correction:

No duty cycle correction was added to the reading

Test equipment used: ETSTW-RE 004, ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 147, ETSTW-RE 030, ETSTW-RE 064

Explanation: See attached diagrams in appendix.

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 26000 MHz.
For radiated emission tests, the analyzer setting was as followings:
RES BW VID BW
Frequency <1 GHz 100 kHz 100 kHz (Peak measurements)
Frequency >1 GHz 1 MHz 1 MHz (Peak measurements)
1 MHz 1 MHz (Average measurements)
Limits:

For frequencies below 1GHz :

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

For frequencies above 1GHz (Average measurements).
Guidance on Measurement of FHSS Systems:
"If the emission is pulsed, modify the unit for continues operation , use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation." Here the correction was added to the limit instead subtracted from the reading.

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

For frequencies above 1GHz (Average measurements).

Limit – duty cycle correction

No duty cycle correction was added to the reading.

54.0dBμV/m

For frequencies above 1GHz (Peak measurements).

Limit + 20dB

54.0dBμV/m + 20 dB= 74 dBμV/m

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 147, ETSTW-RE 064

Explanation: See attached diagrams in appendix.

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

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))

SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance to point 2.3.
Calculation of test results:
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 an exhibit the compliance with the above calculated Limits.

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 “Marker-Delta-Method“ or the „Duty-Cycle Correction Factor“.

Summary table with radiated data of the test plots

Model: OV-1-B Date: --
Mode: -- Temperature: -- °C Engineer: --
Polarization: Horizontal Humidity: -- %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Frequency (MHz)	Reading (dBuV) Peak	Reading (dBuV) Ave.	Factor (dB) Corr.	Result (dBuV/m) Peak	Result (dBuV/m) Ave.	Limit (dBuV/m) Peak	Limit (dBuV/m) Ave.	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

Polarization: Vertifcal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Frequency (MHz)	Reading (dBuV) Peak	Reading (dBuV) Ave.	Factor (dB) Corr.	Result (dBuV/m) Peak	Result (dBuV/m) Ave.	Limit (dBuV/m) Peak	Limit (dBuV/m) Ave.	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

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 above 1GHz: 30-1000 MHz = ±3.3 dB, 1-18 GHz = ± 2.28 dB, 18-40 GHz = ± 2.19 dB ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.**
6. **See attached diagrams in appendix.**

All other not noted test plots do not contain significant test results in relation to the limits.

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

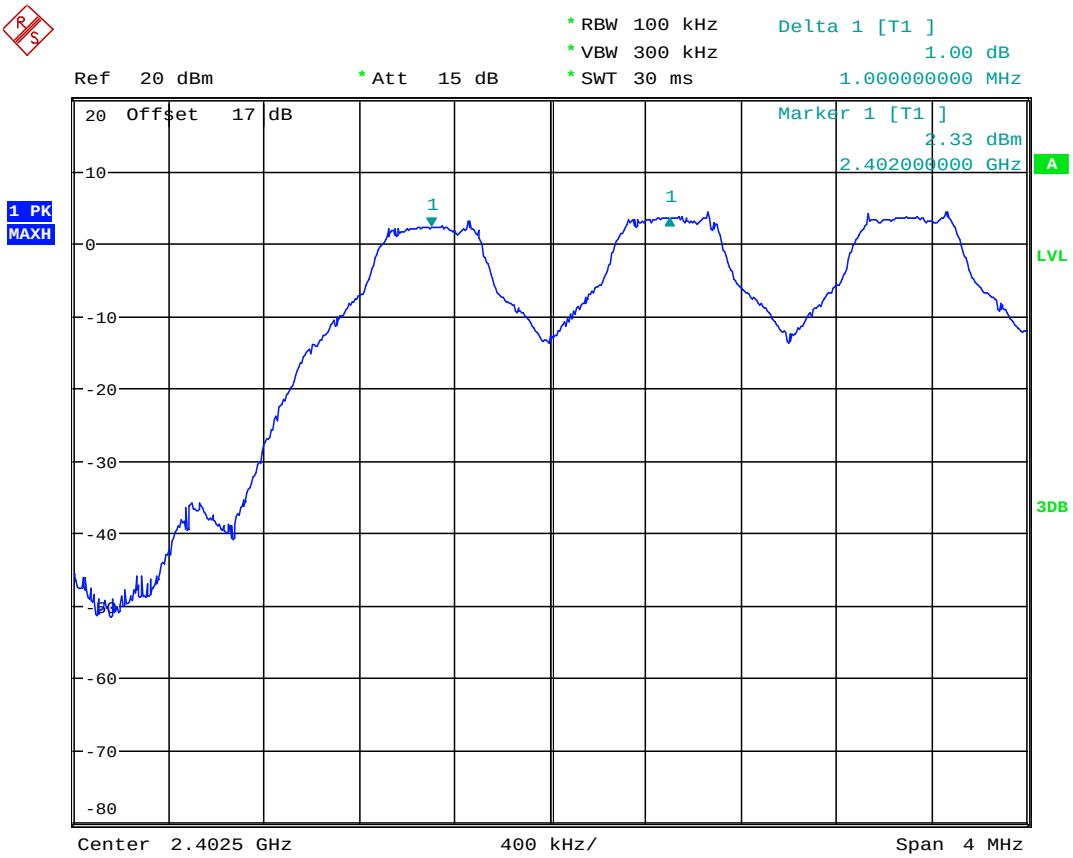
Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 147 ,ETSTW-RE 064, ETSTW-RE 088, ETSTW-RE 018

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

3.6 Carrier Frequency Separation

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

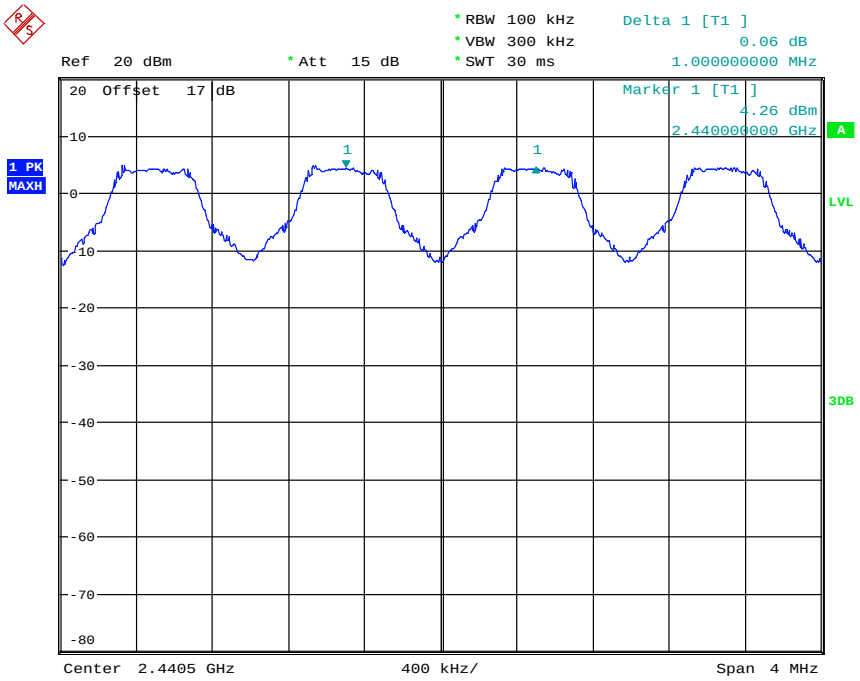
According to FCC rules part 15 subpart C §15.247 frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or 20 dB bandwidth of the hopping channel, whichever is greater.



FREQUENCY SEPARATION CH0

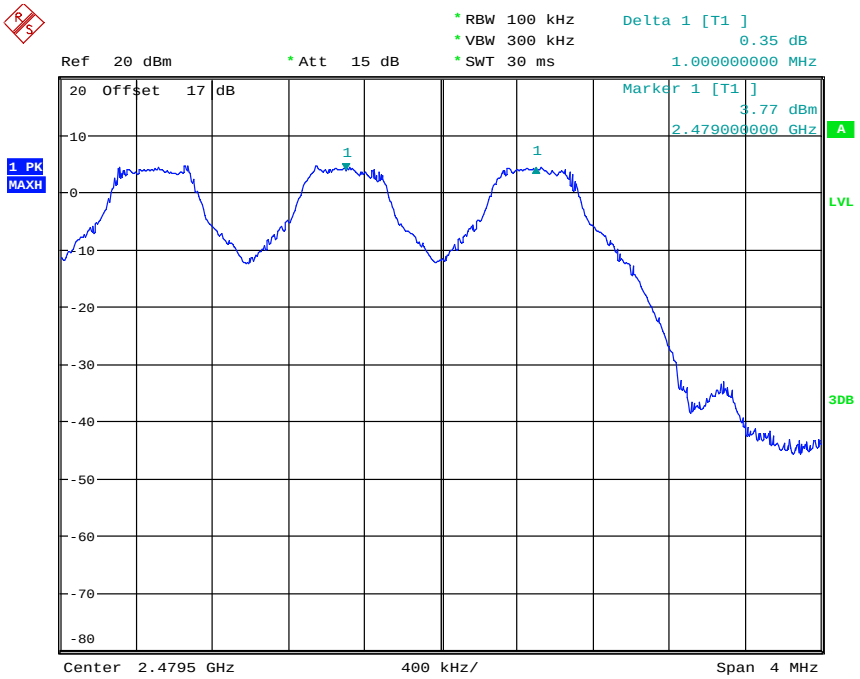
Date: 17.NOV.2017 16:39:25

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



FREQUENCY SEPARATION CH39

Date: 17.NOV.2017 16:40:09



FREQUENCY SEPARATION CH78

Date: 17.NOV.2017 16:40:57

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

Limits:

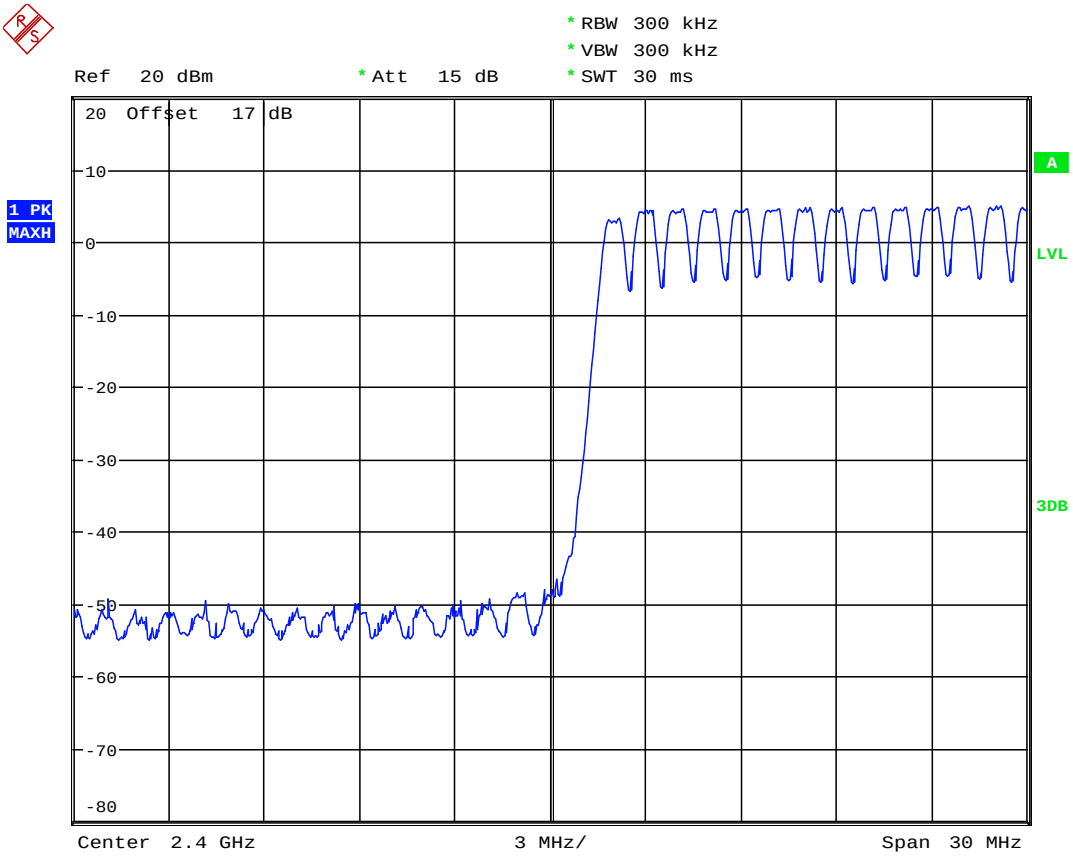
Frequency Range MHz	Limits	
	20 dB bandwidth < 25 kHz	20 dB bandwidth > 25 kHz
902-928	25 kHz	20 dB bandwidth
2400-2483.5 5725-5850.0	25 kHz	20 dB bandwidth

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

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.

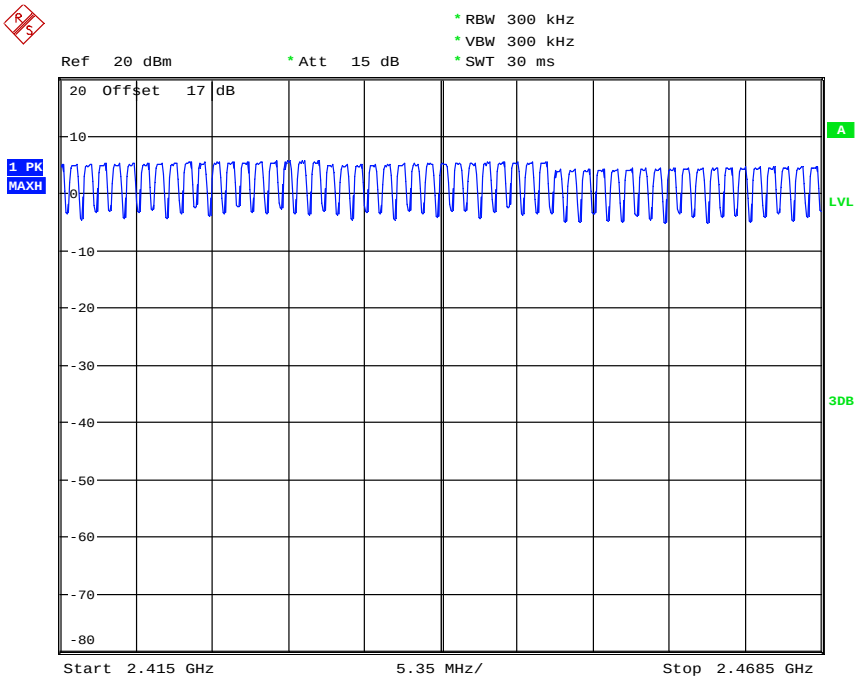
For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies; if the 20dB bandwidth of the hopping channel 250 kHz or greater, the system shall use at least 25 hopping frequencies.



NUMBER OF HOPPING CH0-13

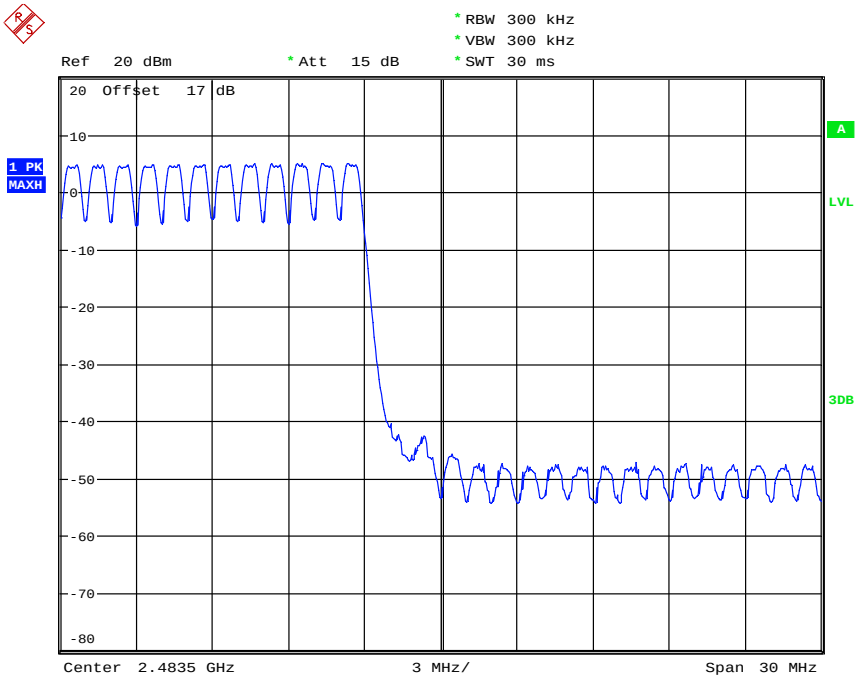
Date: 17.NOV.2017 16:51:08

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



NUMBER OF HOPPING CH14-66

Date: 17.NOV.2017 16:38:33



NUMBER OF HOPPING CH67-78

Date: 17.NOV.2017 16:37:25

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

Limits:

Frequency Range MHz	Limit	
	20dB Bandwidth	Number of Channels
902-928 MHz	Bandwidth < 250 kHz	≥ 50
	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.

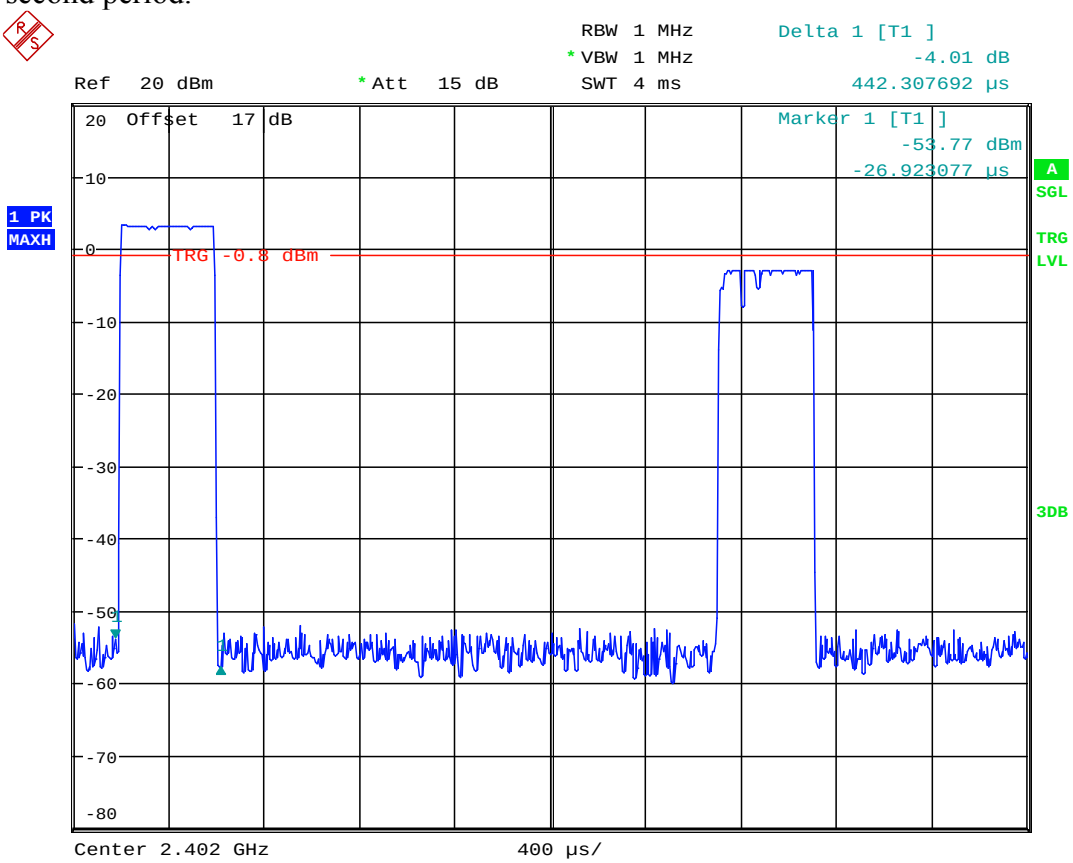
Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

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.

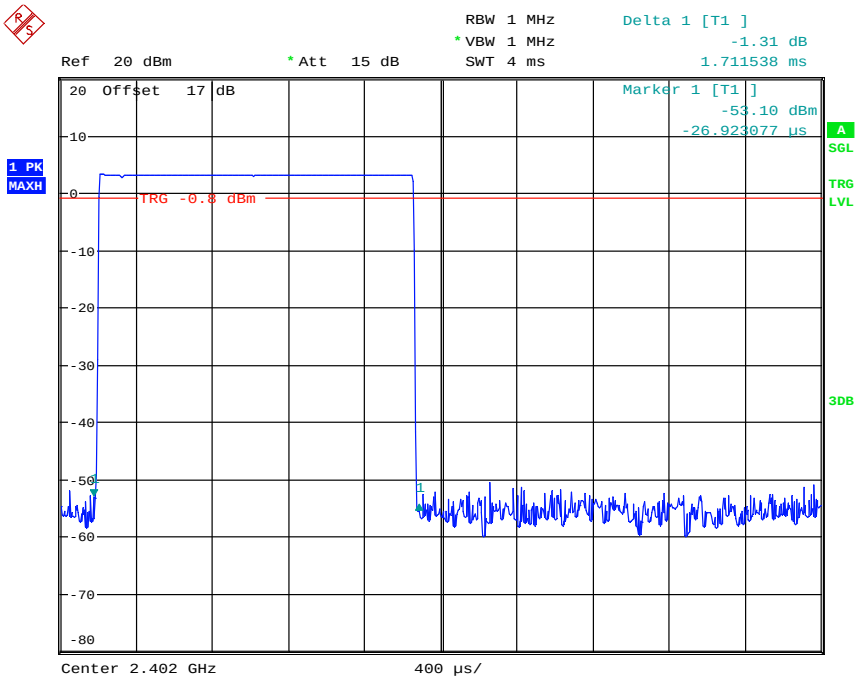
For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any frequency shall not greater than 0.4 seconds within a 20 second period; if the 20dB bandwidth of the hopping channel is 250 kHz or greater,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



DWELL TIME CH0 DH1 (0.442ms * 320event = 141.44ms)

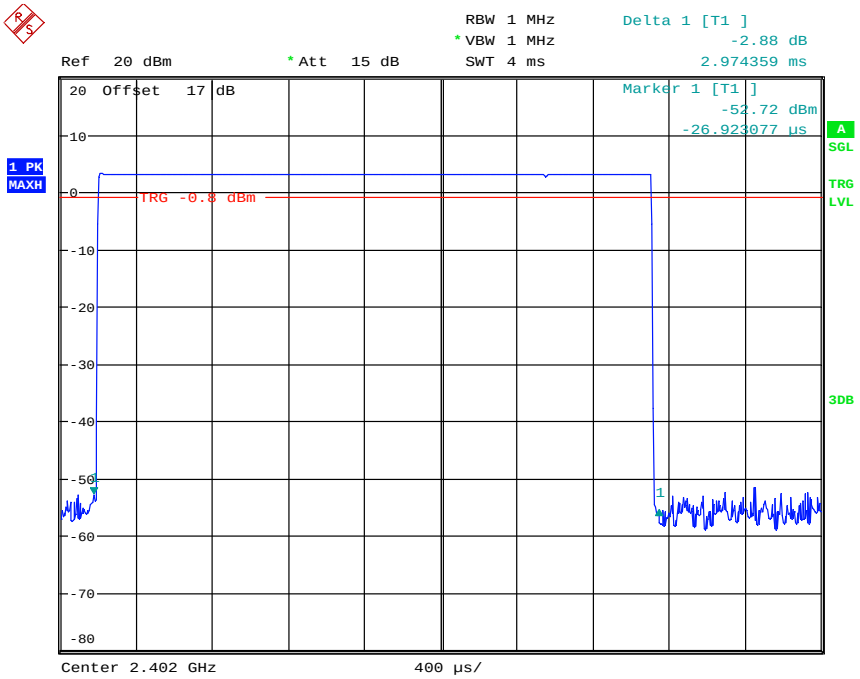
Date: 17.NOV.2017 16:55:30

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



DWELL TIME CH0 DH3 (1.711ms * 160event = 273.76ms)

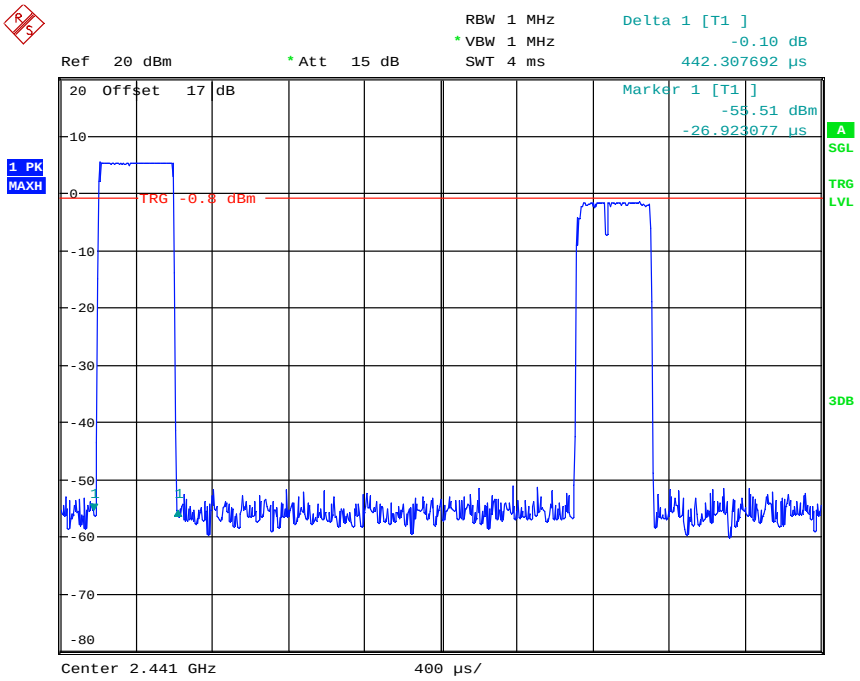
Date: 17.NOV.2017 16:57:30



DWELL TIME CH0 DH5 (2.974ms * 106event = 315.244ms)

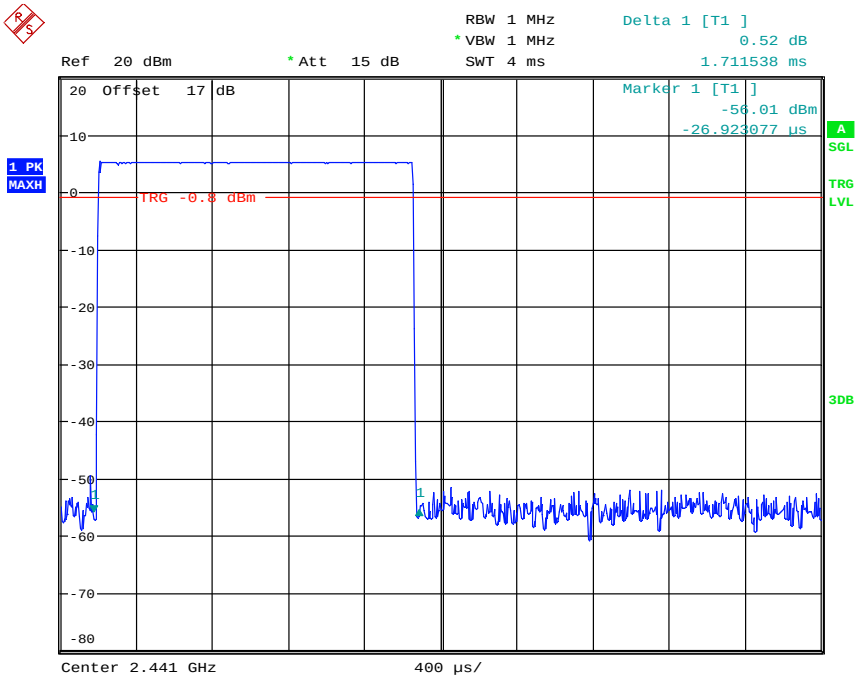
Date: 17.NOV.2017 16:59:58

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



DWELL TIME CH39 DH1 (0.442ms * 320event = 141.44ms)

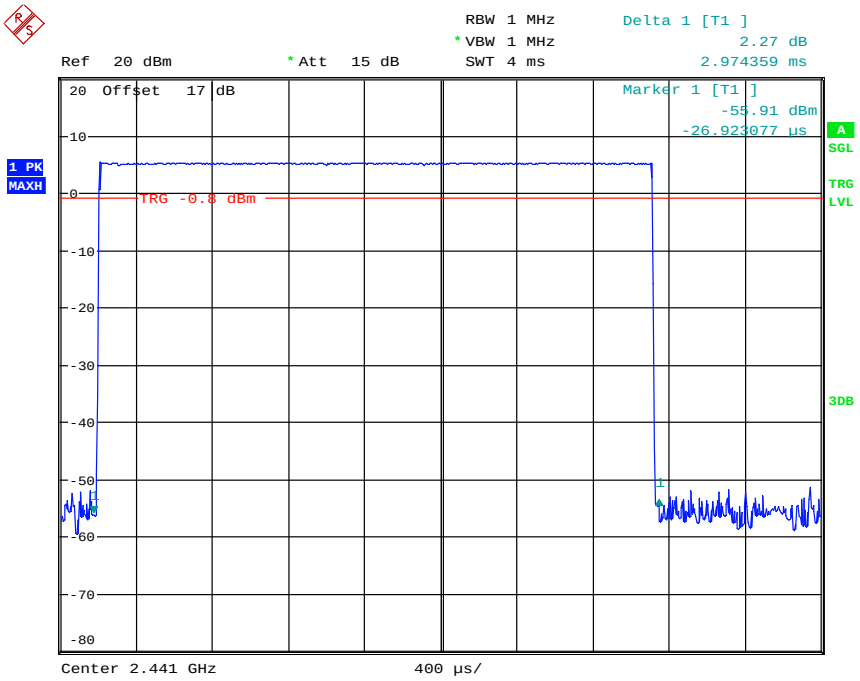
Date: 17.NOV.2017 16:55:51



DWELL TIME CH39 DH3 (1.711ms * 160event = 273.76ms)

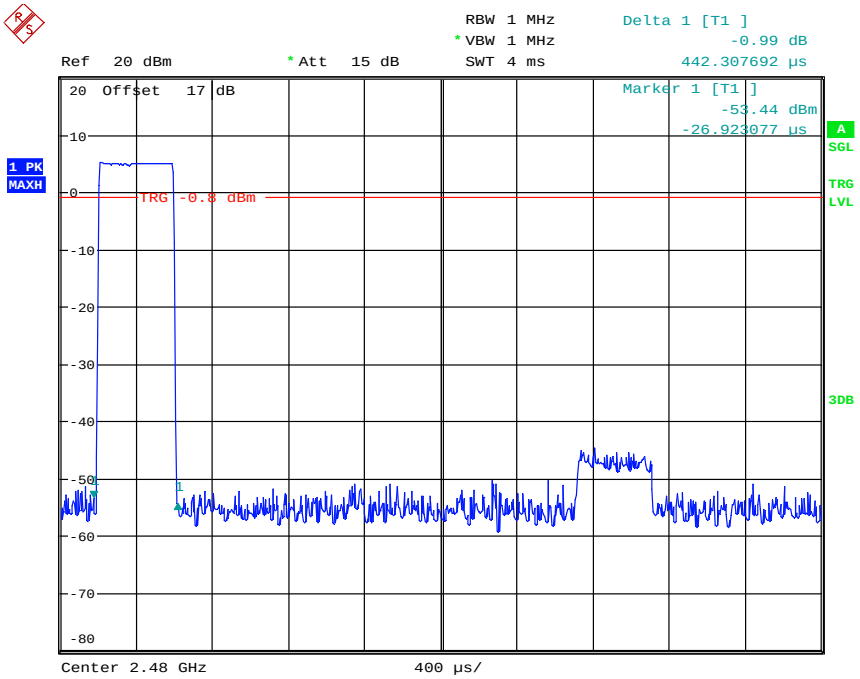
Date: 17.NOV.2017 16:57:49

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



DWELL TIME CH39 DH5 (2.974ms * 106event = 315.244ms)

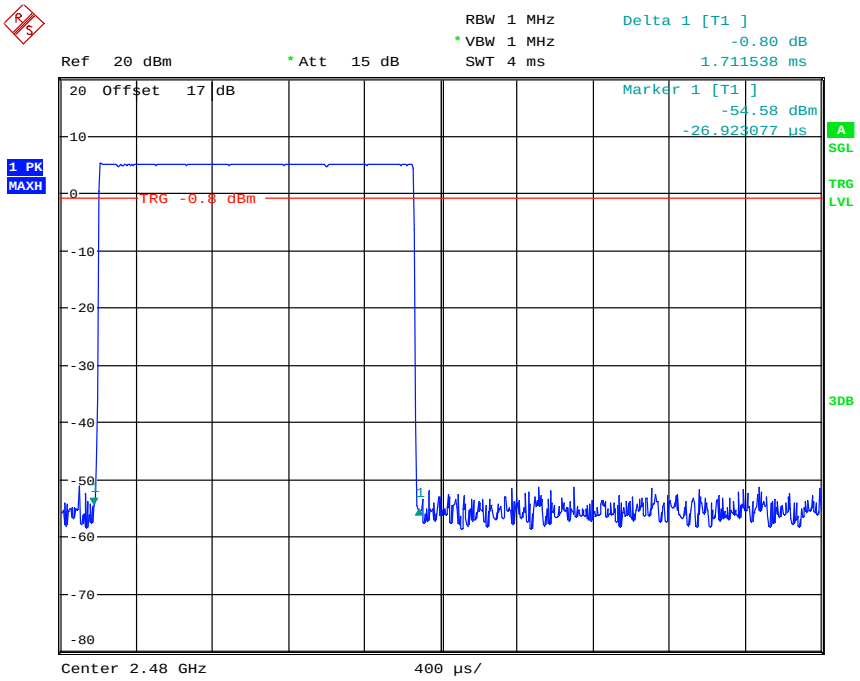
Date: 17.NOV.2017 17:00:22



DWELL TIME CH78 DH1 (0.442ms * 320event = 141.44ms)

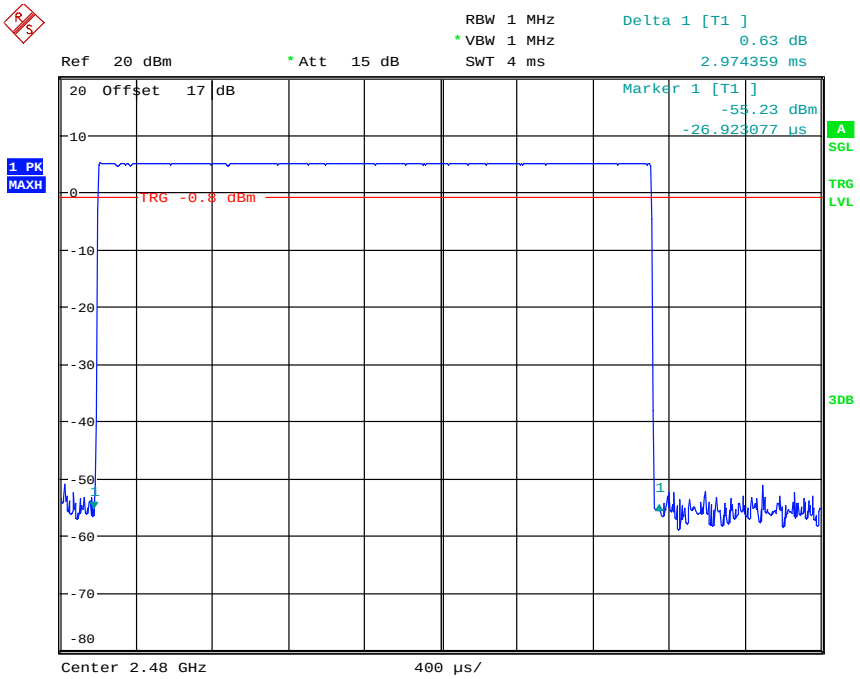
Date: 17.NOV.2017 16:56:10

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



DWELL TIME CH78 DH3 (1.711ms * 160event = 273.76ms)

Date: 17.NOV.2017 16:58:10



DWELL TIME CH78 DH5 (2.974ms * 106event = 315.244ms)

Date: 17.NOV.2017 17:00:44

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

Limits and measurement periods:

Frequency MHz	Number of channels	Measurement Periode	Limit
902 – 928	≥50	20 s	0.4 s
	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

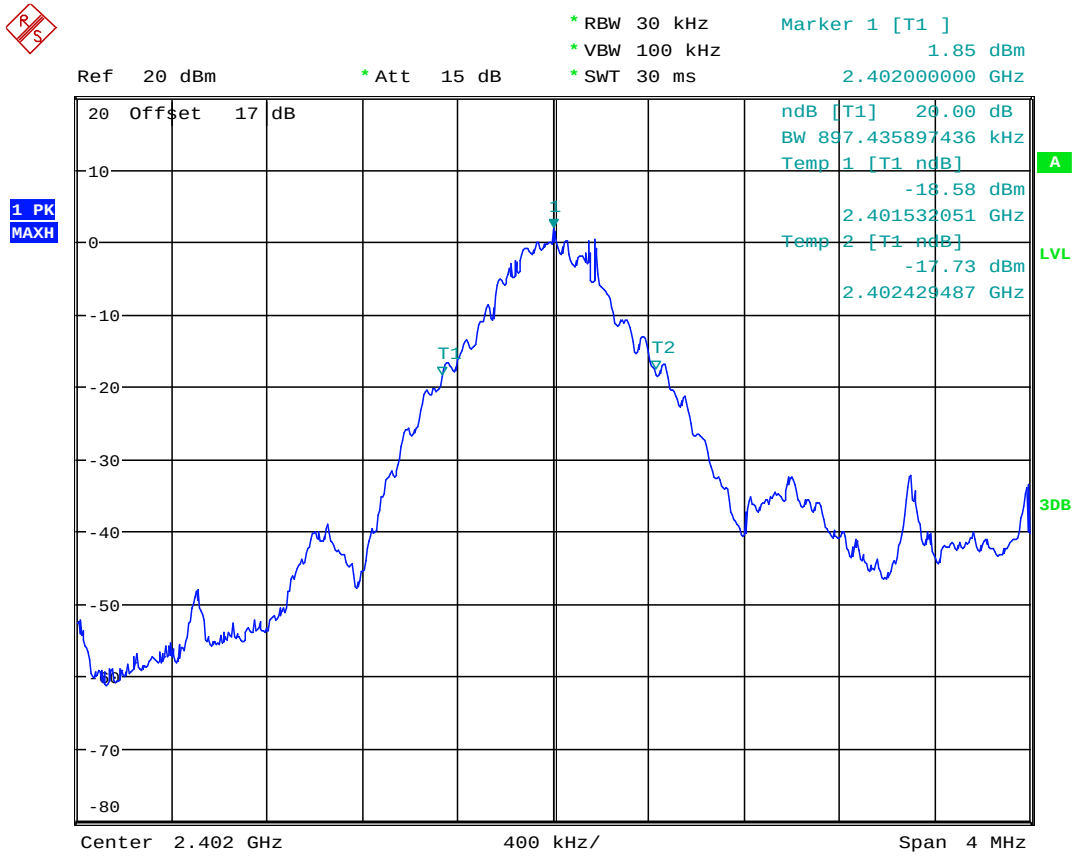
Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

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.

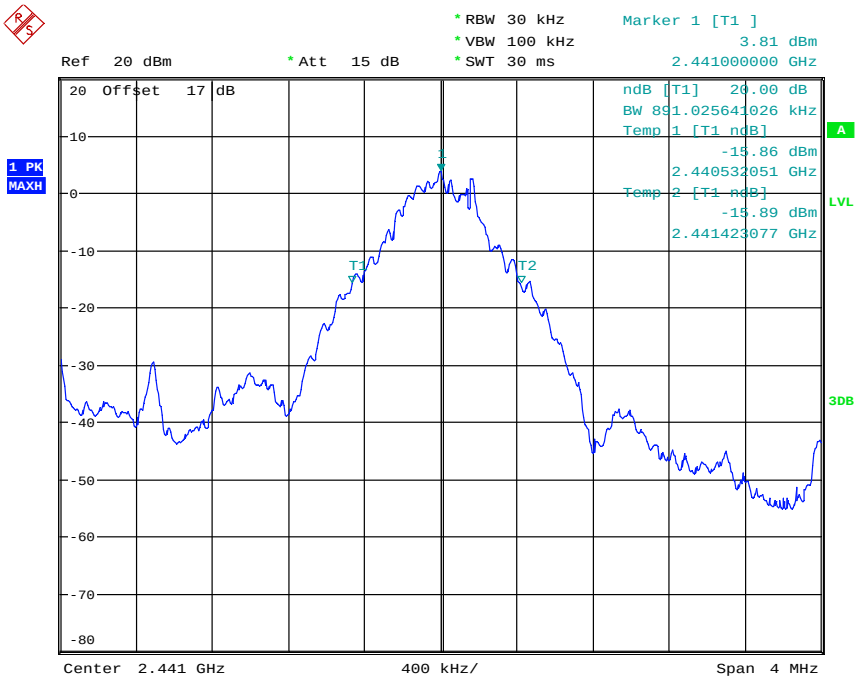
Normal mode



20DB BANDWIDTH CH0

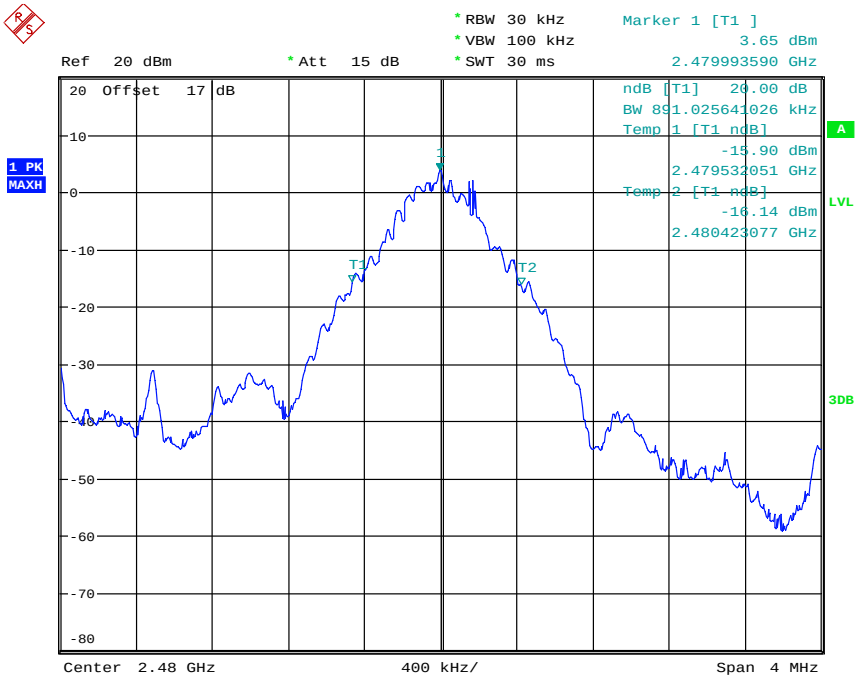
Date: 17.NOV.2017 16:34:17

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



20DB BANDWIDTH CH39

Date: 17.NOV.2017 16:35:09

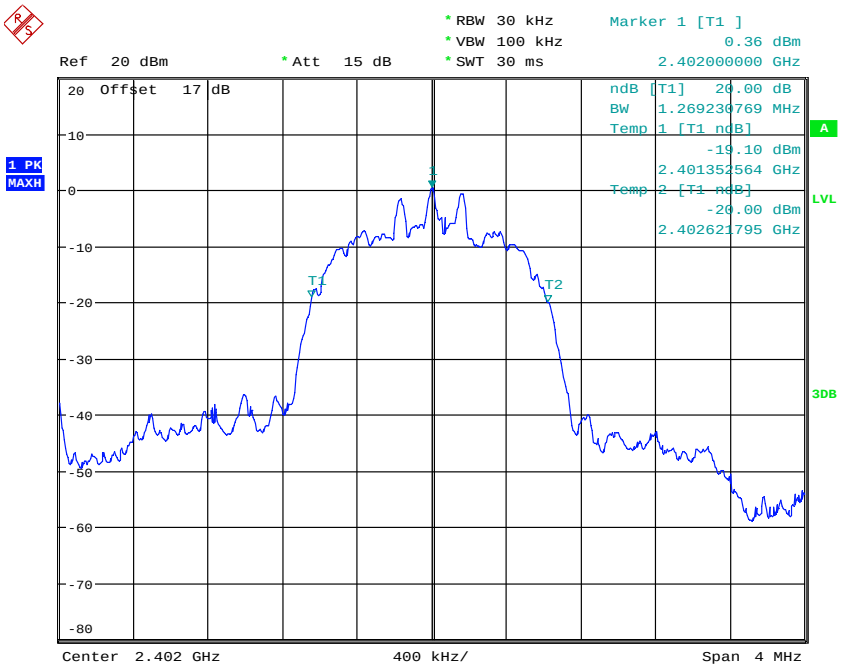


20DB BANDWIDTH CH78

Date: 17.NOV.2017 16:35:45

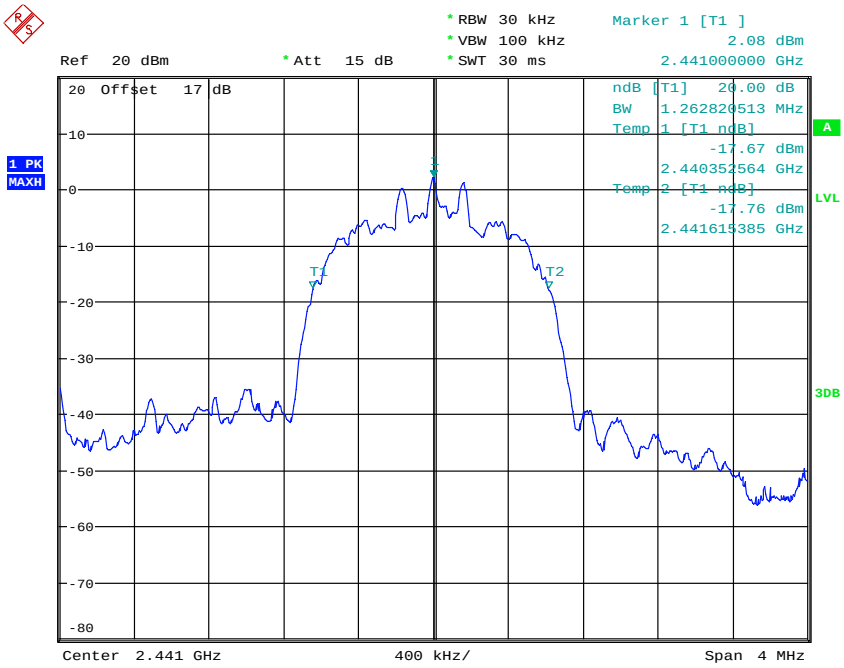
Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

EDR mode



20DB BANDWIDTH CH0 EDR MODE

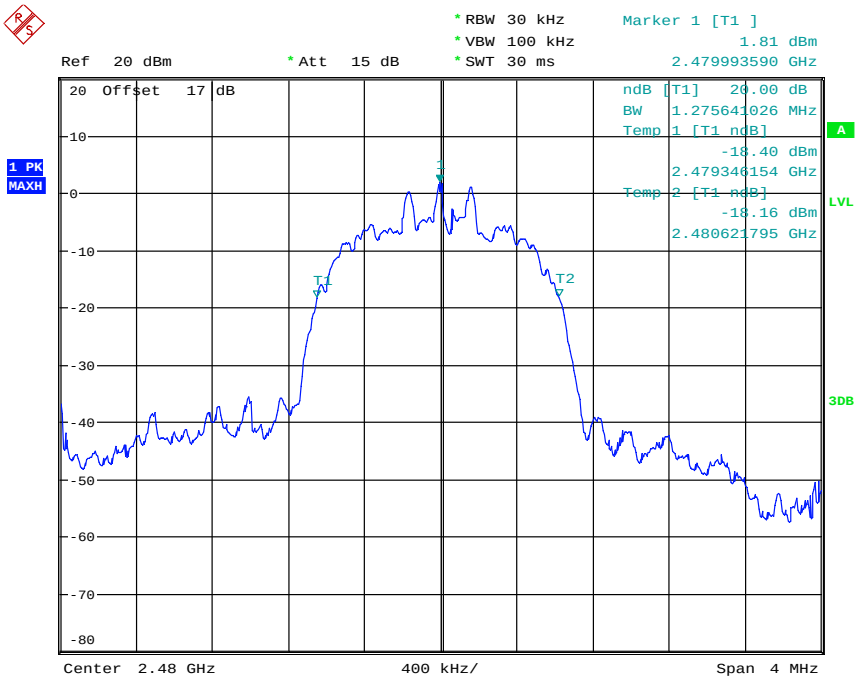
Date: 17.NOV.2017 16:42:17



20DB BANDWIDTH CH39 EDR MODE

Date: 17.NOV.2017 16:43:09

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



20DB BANDWIDTH CH78 EDR MODE
Date: 17.NOV.2017 16:43:49

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

3.8.1 System Receiver Input Bandwidth

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

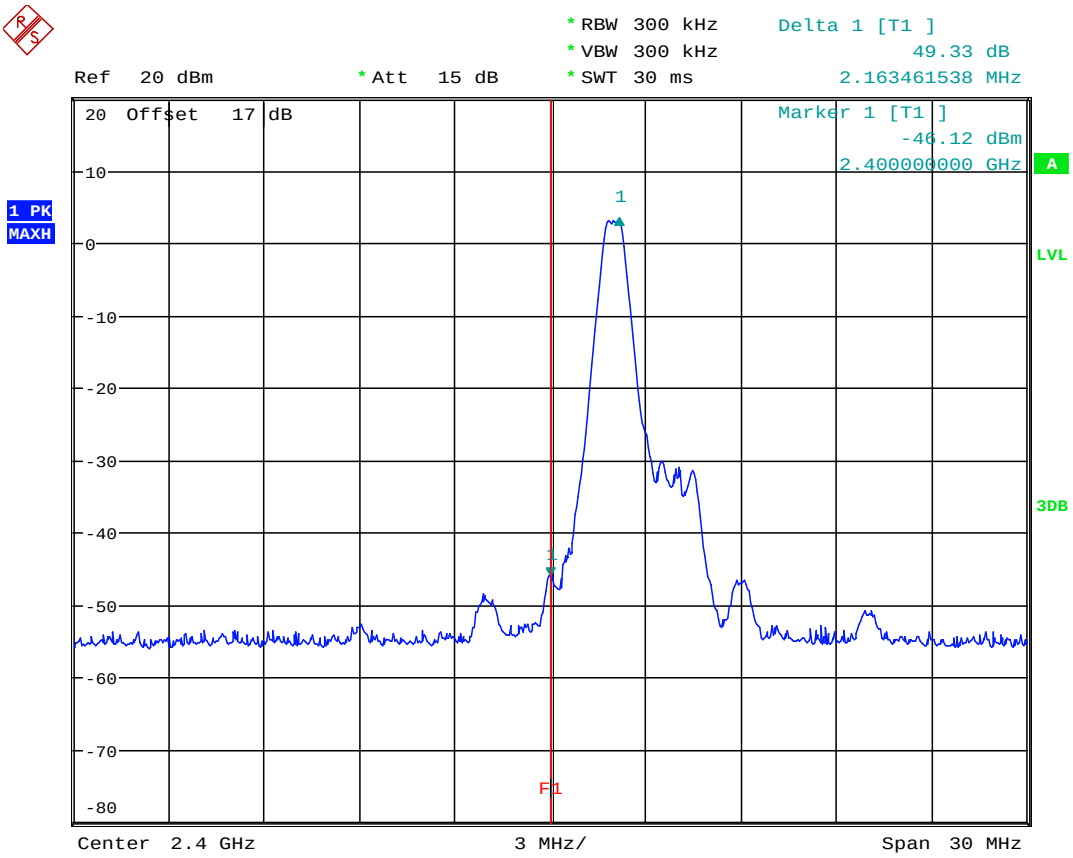
Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

3.10 Band-edge Compliance of RF Emissions

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.

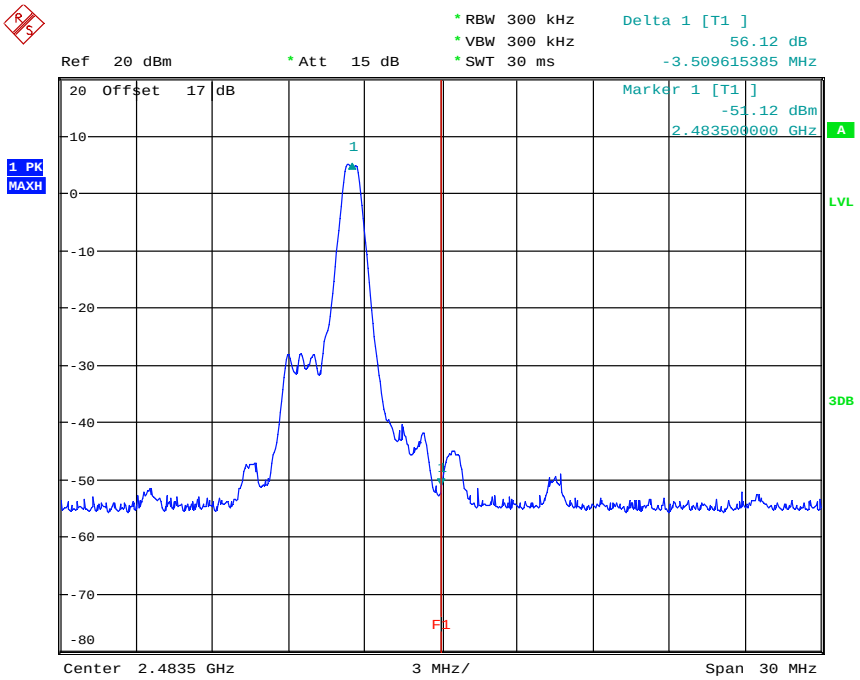
Normal mode



BANDEDGE CH0

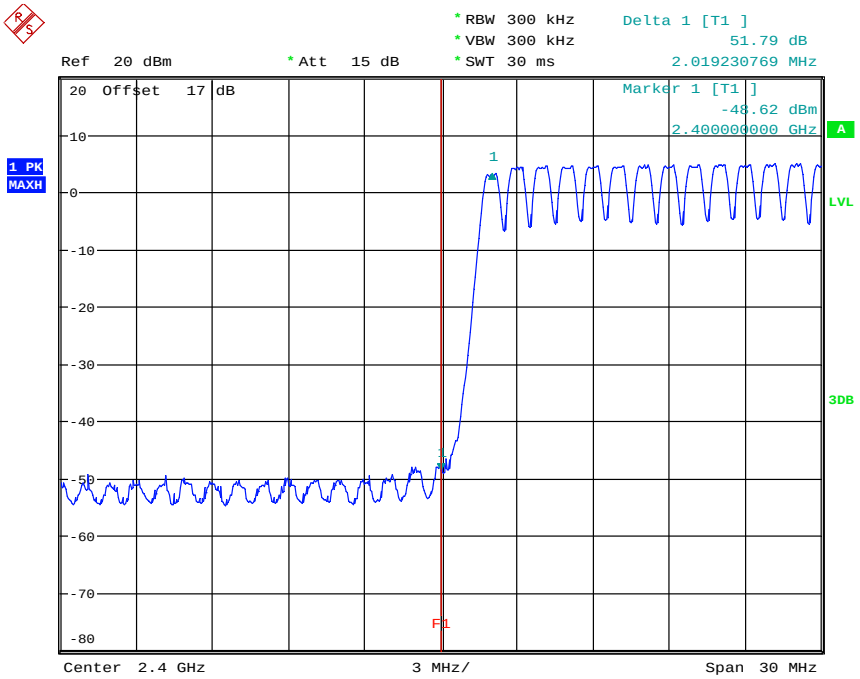
Date: 17.NOV.2017 16:34:29

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



BANDEDGE CH78

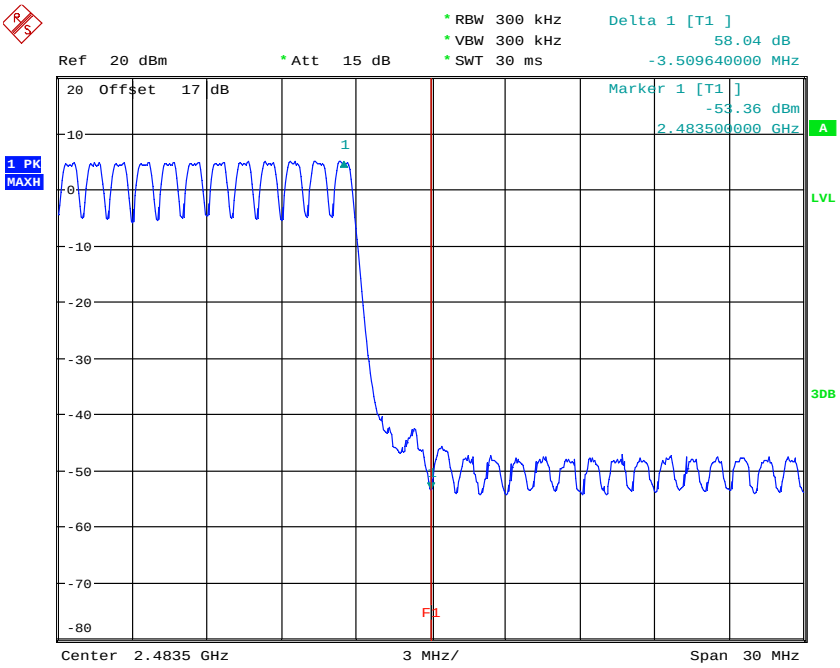
Date: 17.NOV.2017 16:35:53



BANDEDGE CH0 HOPPING MODE

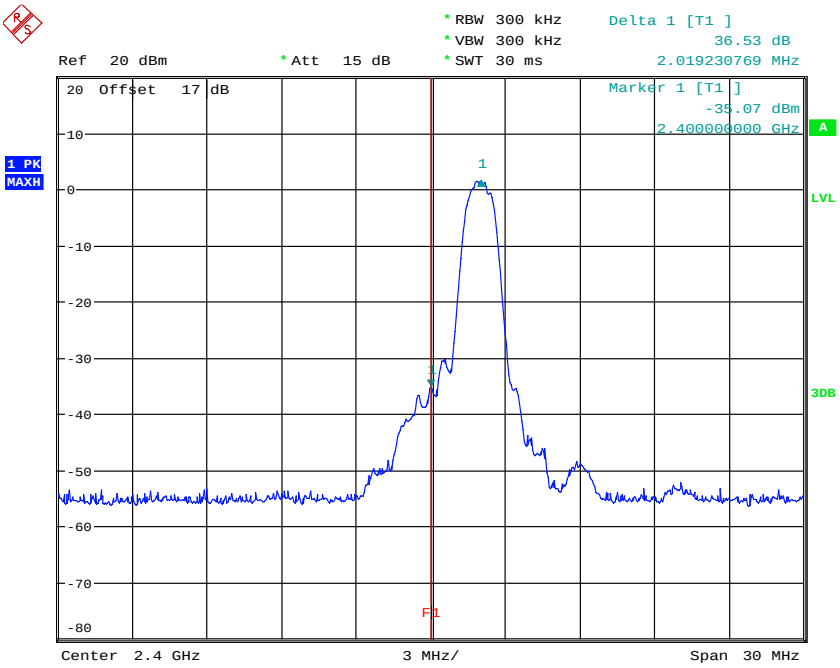
Date: 17.NOV.2017 16:52:11

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



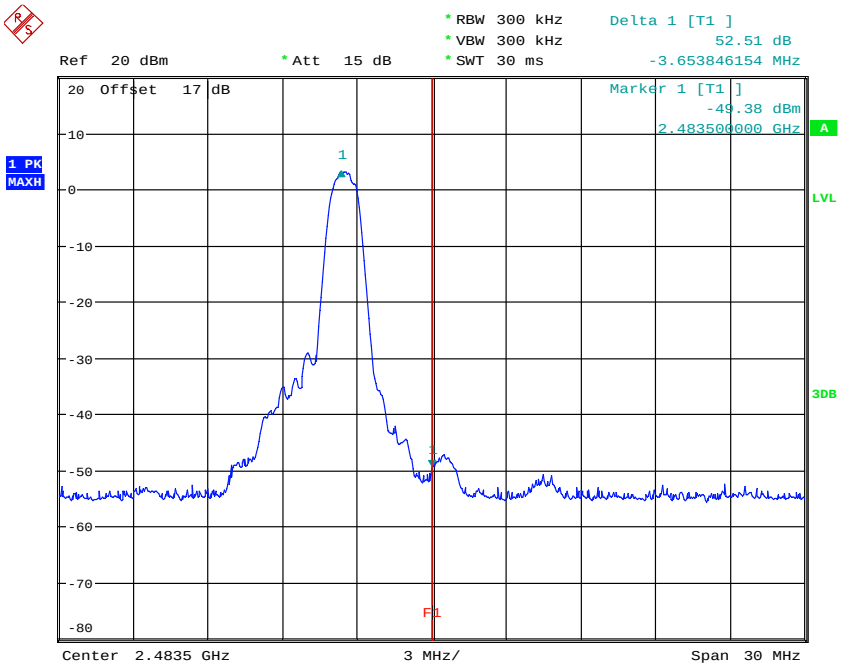
BANDEDGE CH78 HOPPING MODE
Date: 17.NOV.2017 16:37:25

EDR mode

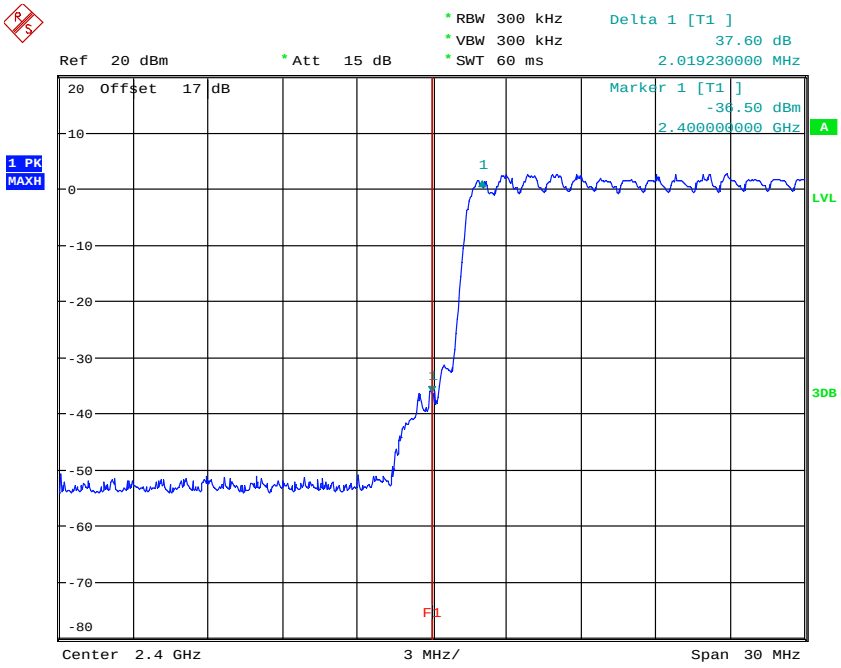


BANDEDGE CH0 EDR MODE
Date: 17.NOV.2017 16:42:25

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

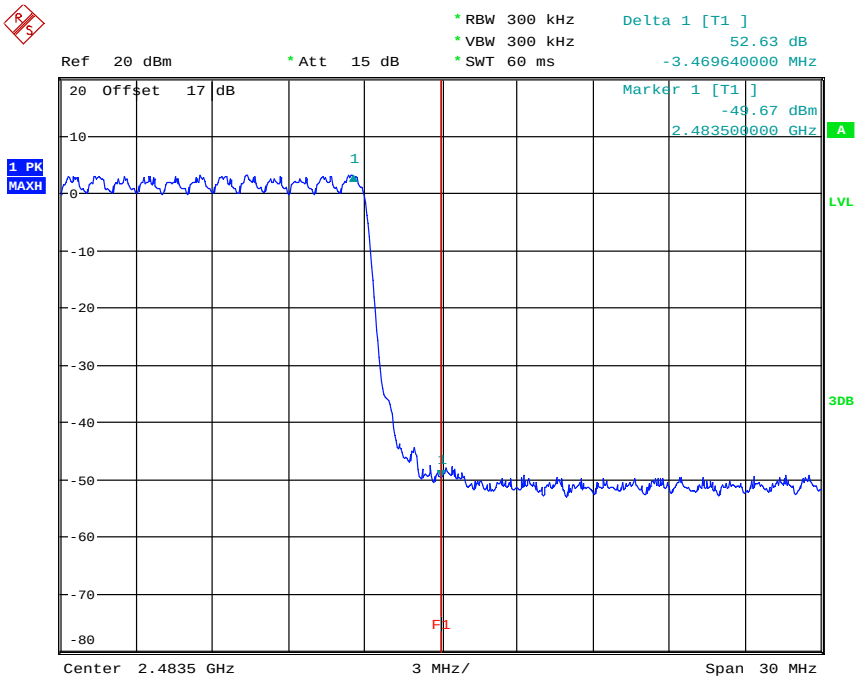


BANDEDGE CH78 EDR MODE
Date: 17.NOV.2017 16:44:01



BANDEDGE CH0 EDR HOPPING MODE
Date: 17.NOV.2017 16:46:05

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



BANDEDGE CH78 EDR HOPPING MODE
Date: 17.NOV.2017 16:47:49

Limits:

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

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

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

3.11 Radiated Emissions from Receiver Part

Model: OV-1-B Date: --
Mode: -- Temperature: -- °C Engineer: --
Polarization: Horizontal Humidity: -- %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Frequency (MHz)	Reading (dBuV) Peak	Reading (dBuV) Ave.	Factor (dB) Corr.	Result (dBuV/m) Peak	Result (dBuV/m) Ave.	Limit (dBuV/m) Peak	Limit (dBuV/m) Ave.	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

Polarization: Vertifcal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Frequency (MHz)	Reading (dBuV) Peak	Reading (dBuV) Ave.	Factor (dB) Corr.	Result (dBuV/m) Peak	Result (dBuV/m) Ave.	Limit (dBuV/m) Peak	Limit (dBuV/m) Ave.	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

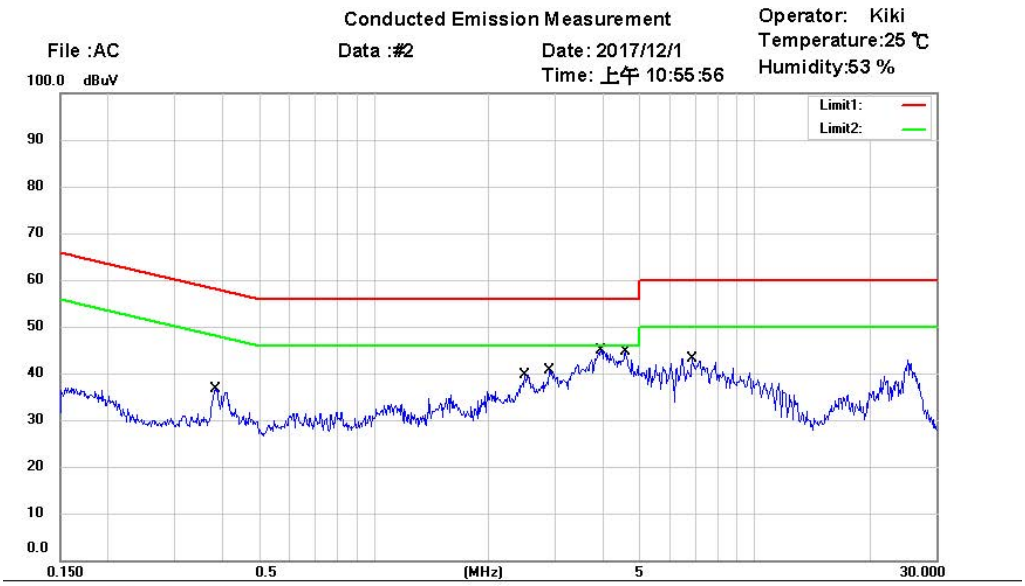
Note
1. **Correction Factor = Antenna factor + Cable loss - Preamplifier**
2. **The formula of measured value as: Test Result = Reading + Correction Factor**
3. **Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average**
4. **All not in the table noted test results are more than 20 dB below the relevant limits.**
5. **Measurement uncertainty above 1GHz: 30-1000 MHz = ±3.3 dB, 1-18 GHz = ± 2.28 dB, 18-40 GHz = ± 2.19 dB ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.**
6. **See attached diagrams in appendix.**

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B

3.12 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.

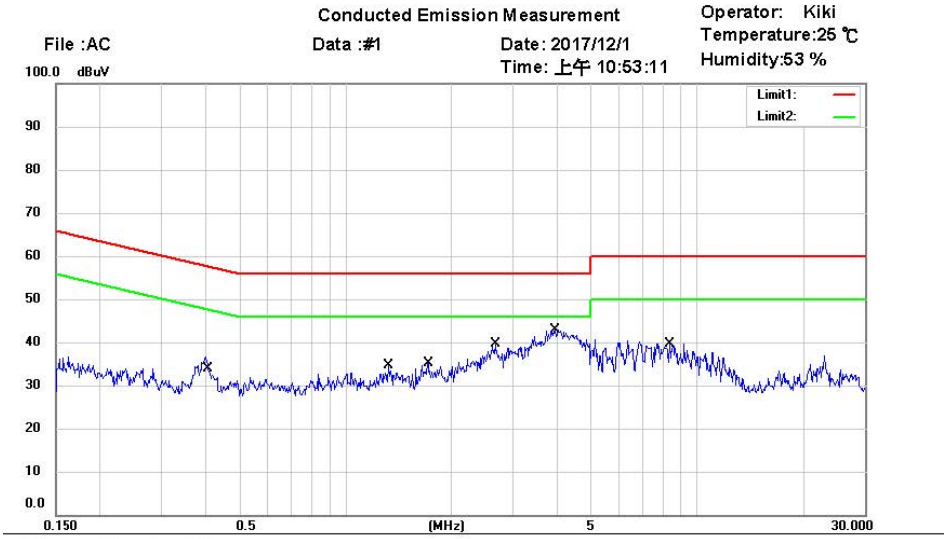
This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.



Site : Chamber_03
Condition : FCC Part 15 Class B Conduction (QP)
Phase: N
EUT : W6M21711-17556
Power : 120 Va.c.
M/N:
Test Mode : Charge
Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.3884	19.81	QP	9.74	29.55	58.10	-28.55	
	0.3884	13.60	AVG	9.74	23.34	48.10	-24.76	
	2.4808	22.15	QP	9.82	31.97	56.00	-24.03	
	2.4808	8.96	AVG	9.82	18.78	46.00	-27.22	
	2.8890	18.02	QP	9.84	27.86	56.00	-28.14	
	2.8890	7.23	AVG	9.84	17.07	46.00	-28.93	
	3.9582	28.24	QP	9.88	38.12	56.00	-17.88	
*	3.9582	21.93	AVG	9.88	31.81	46.00	-14.19	
	4.6141	24.62	QP	9.90	34.52	56.00	-21.48	
	4.6141	15.92	AVG	9.90	25.82	46.00	-20.18	
	6.8721	22.88	QP	9.98	32.86	60.00	-27.14	
	6.8721	13.90	AVG	9.98	23.88	50.00	-26.12	

Registration number: W6M21711-17556-C-1
FCC ID: 2AOHIOV1B
IC: 22533-OV1B



Site : Chamber_03
Condition : FCC Part 15 Class B Conduction (QP)
Phase: L1
EUT : W6M21711-17556
Power : 120 Va.c.
M/N:
Test Mode : Charge
Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.4106	20.41	QP	9.73	30.14	57.64	-27.50	
*	0.4106	14.78	AVG	9.73	24.51	47.64	-23.13	
	1.3161	8.82	QP	9.76	18.58	56.00	-37.42	
	1.3161	1.93	AVG	9.76	11.69	46.00	-34.31	
	1.7084	11.88	QP	9.78	21.66	56.00	-34.34	
	1.7084	-5.34	AVG	9.78	4.44	46.00	-41.56	
	2.6703	6.13	QP	9.82	15.95	56.00	-40.05	
	2.6703	-2.62	AVG	9.82	7.20	46.00	-38.80	
	3.9453	14.40	QP	9.87	24.27	56.00	-31.73	
	3.9453	3.89	AVG	9.87	13.76	46.00	-32.24	
	8.3427	9.14	QP	10.01	19.15	60.00	-40.85	
	8.3427	-1.94	AVG	10.01	8.07	50.00	-41.93	

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

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 = ±0.74 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.

Test equipment used: ETSTW-CE 001, ETSTW-CE 016, ETSTW-RE 045.

Appendix

Measurement diagrams

Spurious Emissions radiated

TX

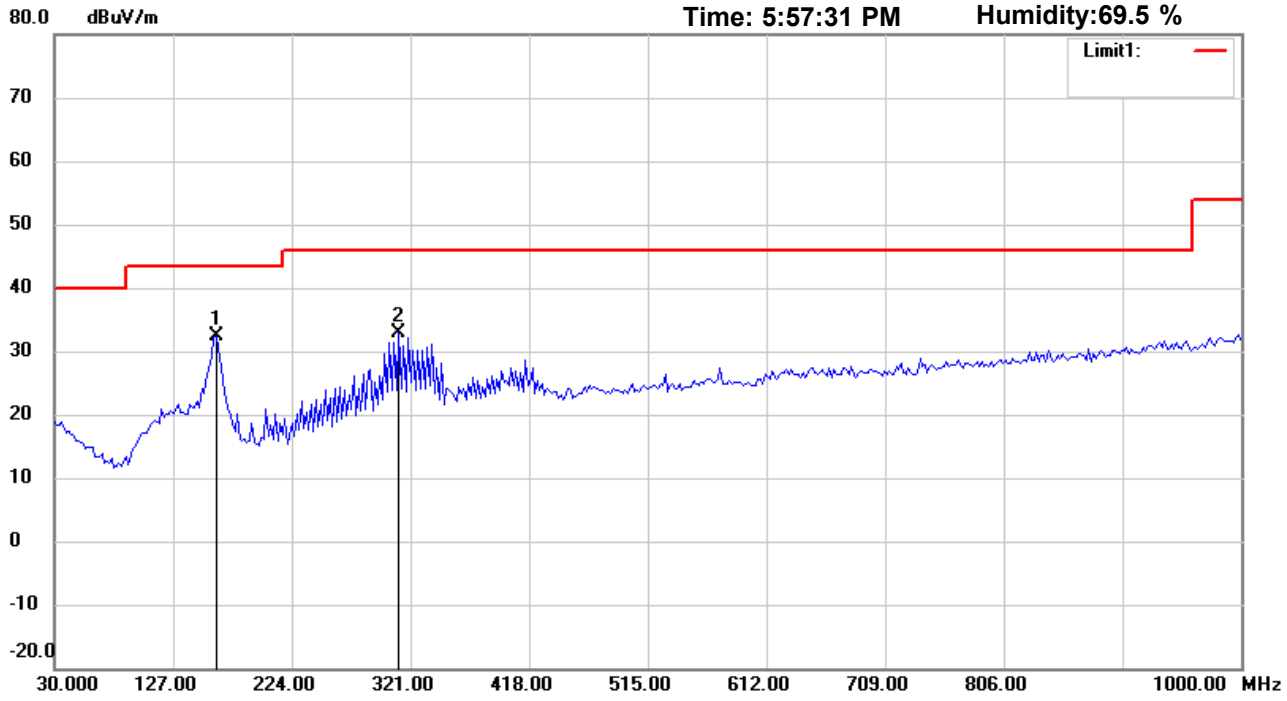
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#1 Date: 12/2/2017 Time: 5:57:31 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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
*	162.1844	41.88	peak	-9.38	32.50	43.50	100	75	-11.00	
	311.8637	38.59	peak	-5.61	32.98	46.00	100	110	-13.02	

*:Maximum data x:Over limit !:over margin

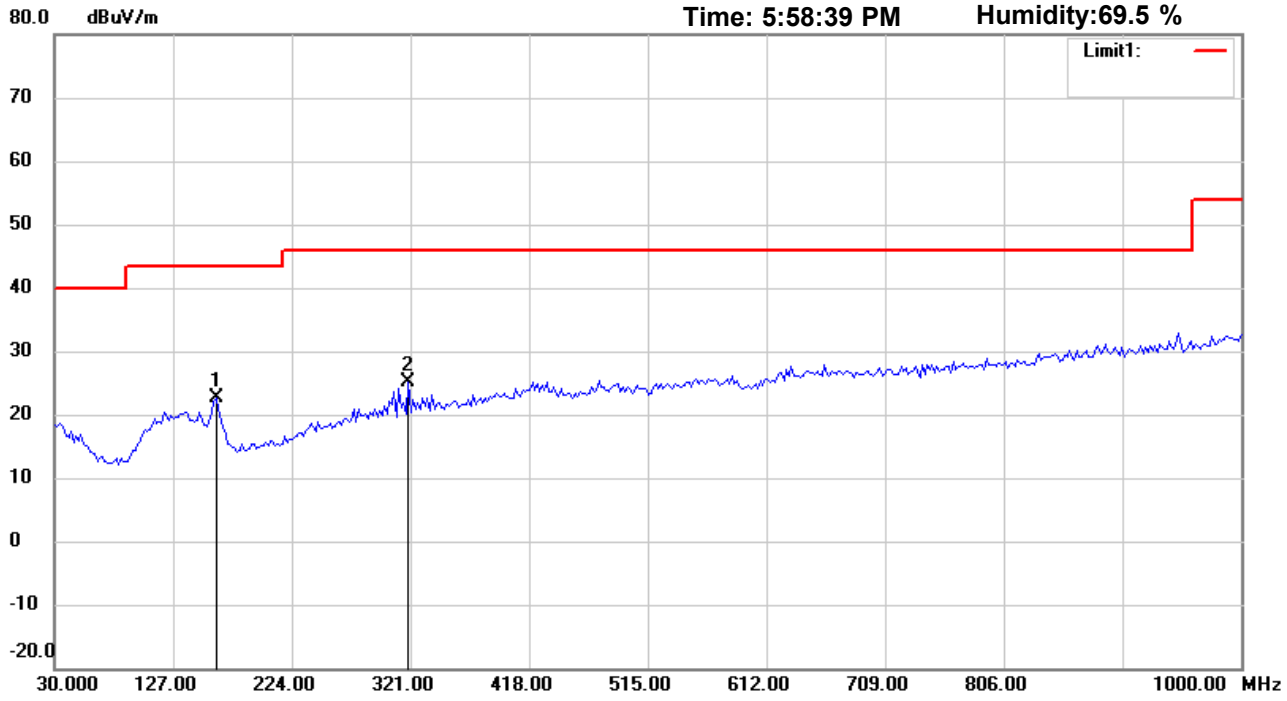
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#2 Date: 12/2/2017 Time: 5:58:39 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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
*	162.1844	31.95	peak	-9.38	22.57	43.50	100	155	-20.93	
	319.6392	30.41	peak	-5.38	25.03	46.00	100	60	-20.97	

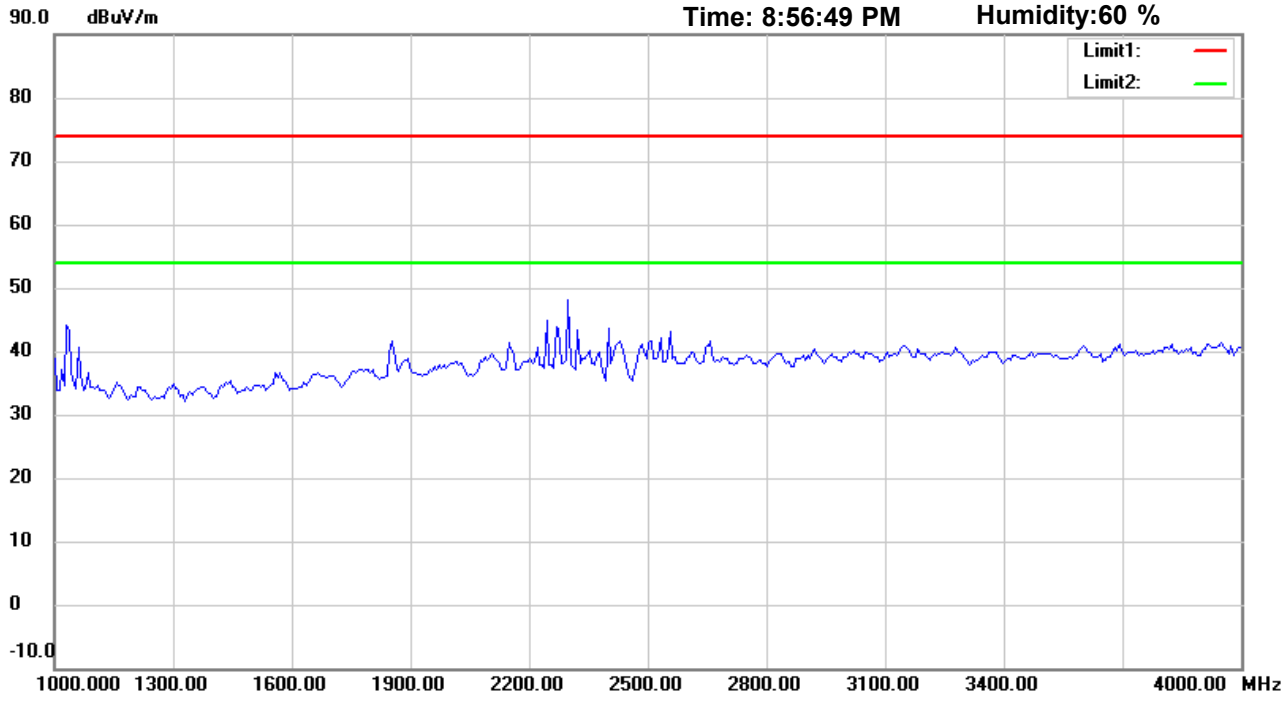
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#1 | Date: 11/21/2017 | Time: 8:56:49 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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

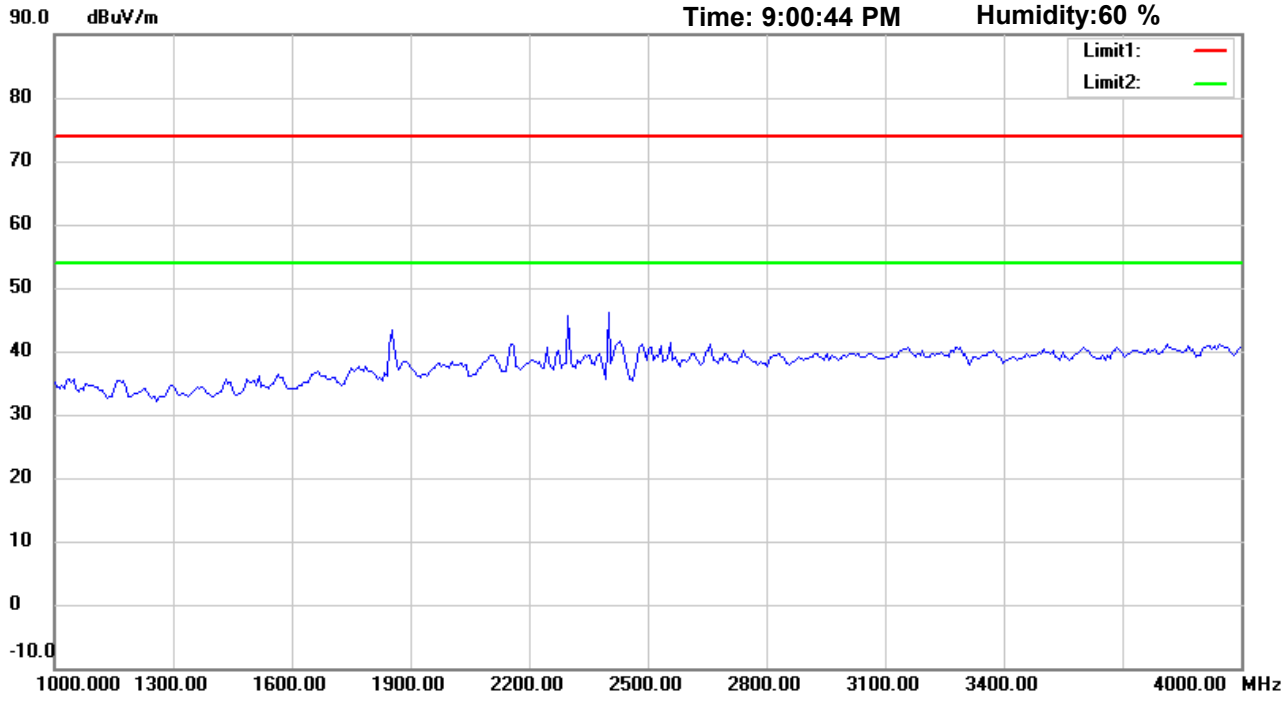
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#6 | Date: 11/21/2017 | Time: 9:00:44 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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

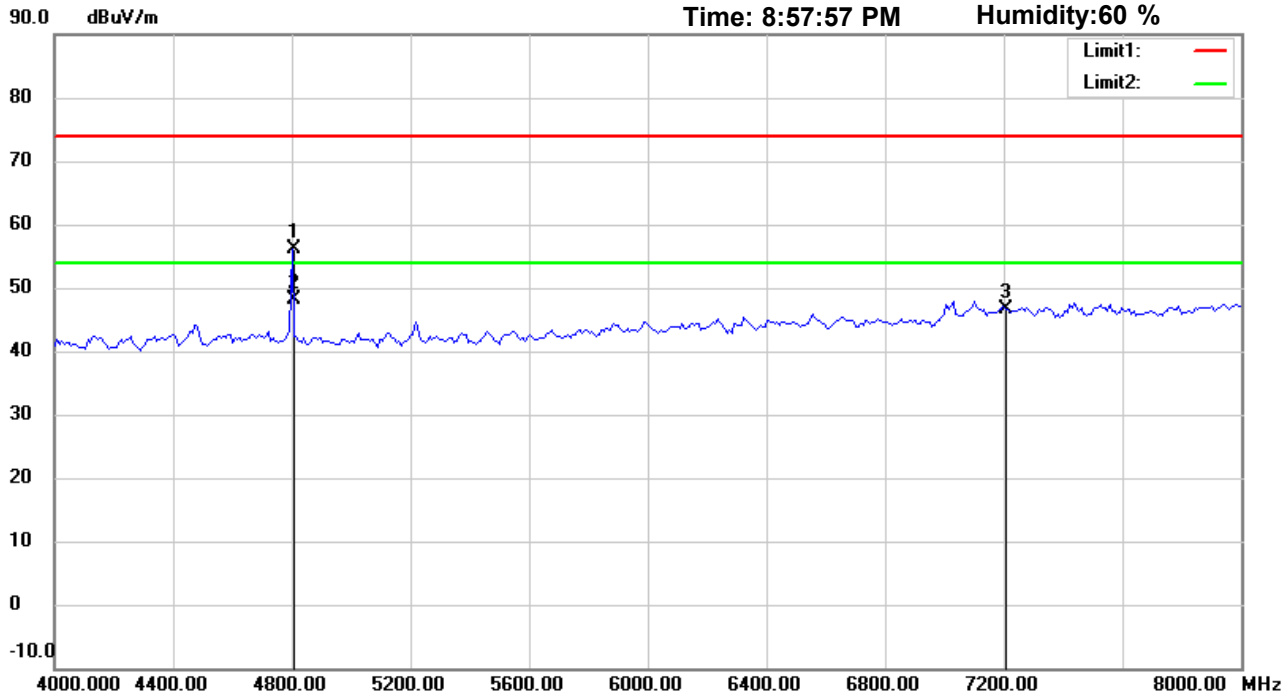
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#2 | Date: 11/21/2017 | Time: 8:57:57 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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
	4804.068	55.97	peak	0.08	56.05	74.00	290	144	-17.95	
*	4804.068	48.12	AVG	0.08	48.20	54.00	290	144	-5.80	
	7206.000	41.54	peak	5.06	46.60	74.00	150	225	-27.40	

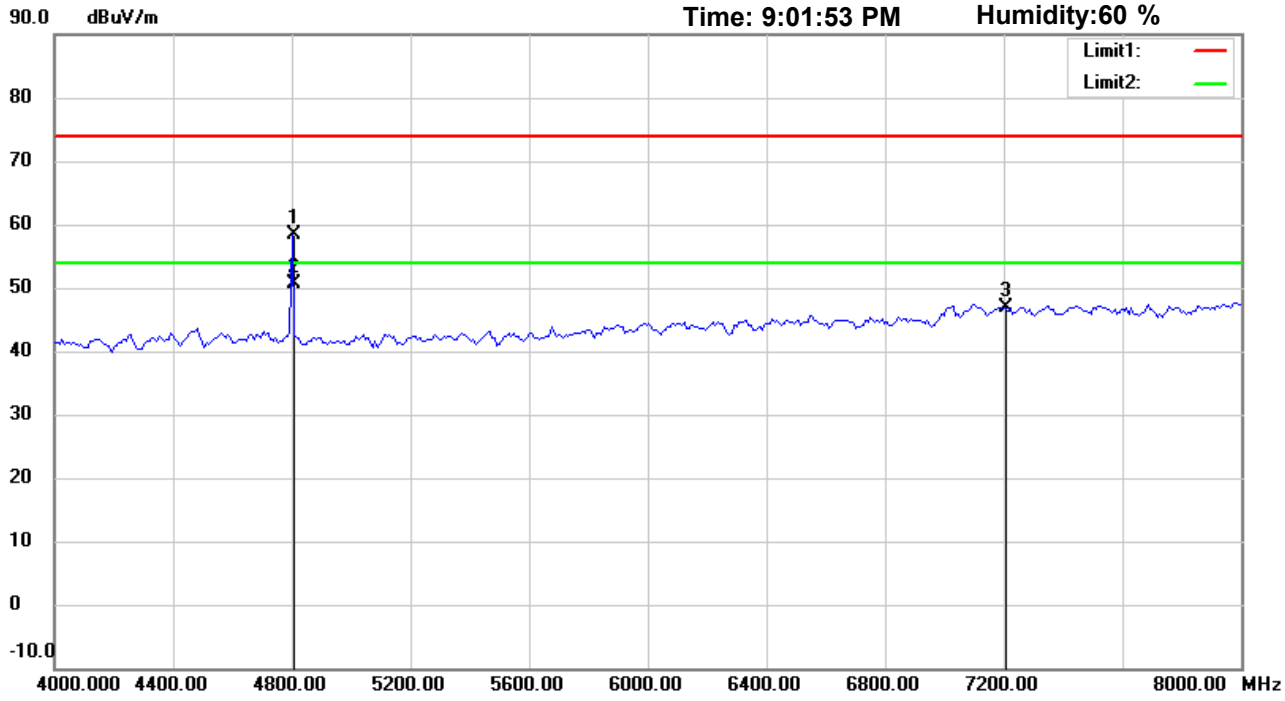
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#7 | Date: 11/21/2017 | Time: 9:01:53 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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
	4804.058	58.33	peak	0.08	58.41	74.00	225	110	-15.59	
*	4804.058	50.57	AVG	0.08	50.65	54.00	225	110	-3.35	
	7206.000	41.78	peak	5.06	46.84	74.00	150	65	-27.16	

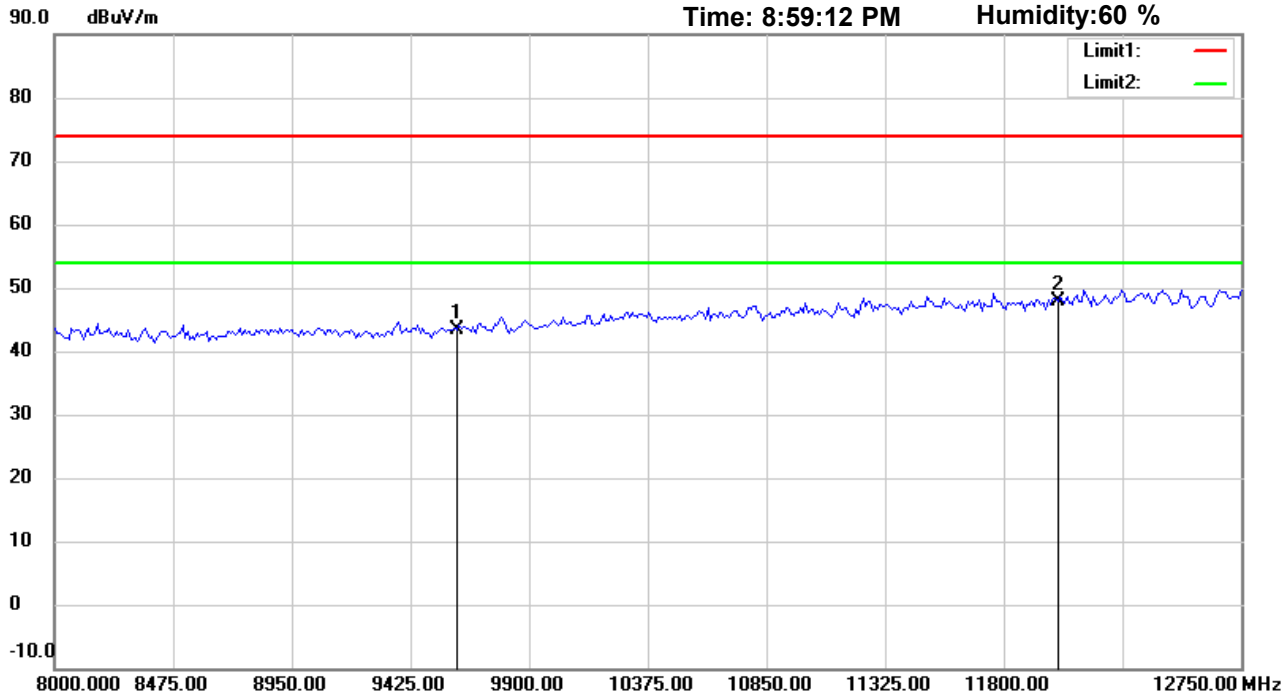
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#3 Date: 11/21/2017 Time: 8:59:12 PM Temperature:24 ℃ Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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	35.52	peak	7.96	43.48	74.00	150	200	-30.52	
*	12010.000	34.95	peak	12.90	47.85	74.00	150	130	-26.15	

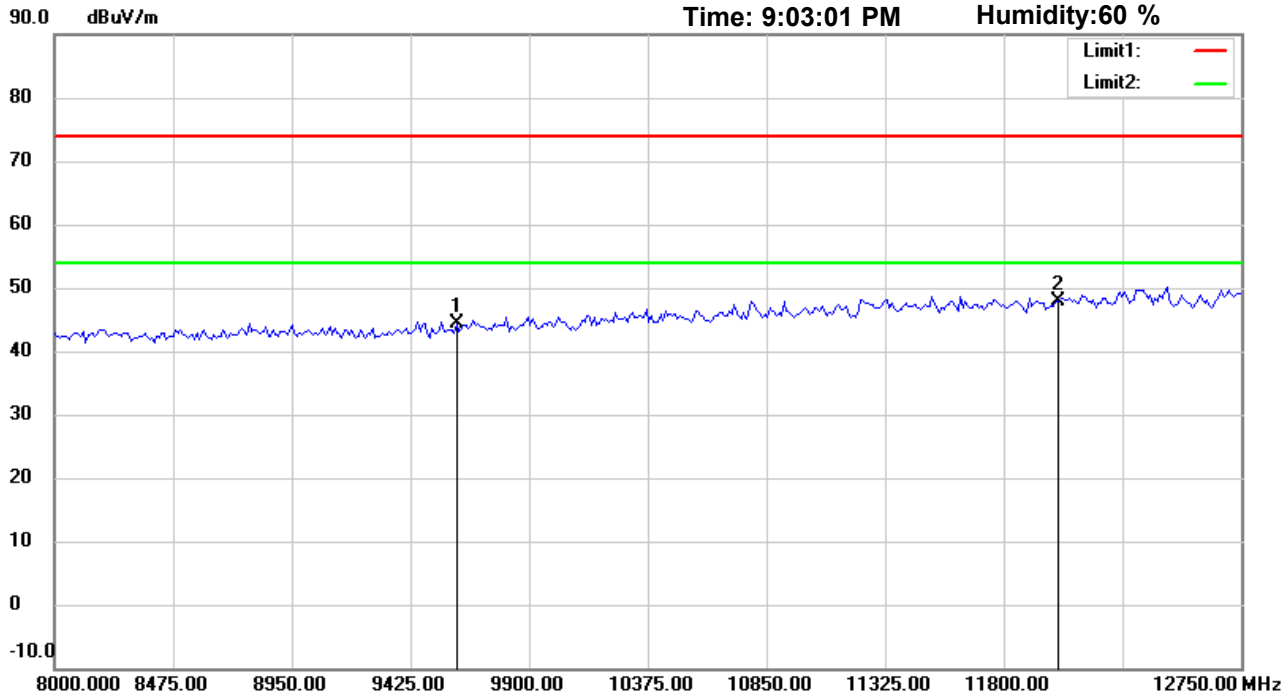
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#8 | Date: 11/21/2017 | Time: 9:03:01 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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	36.40	peak	7.96	44.36	74.00	150	205	-29.64	
*	12010.000	34.93	peak	12.90	47.83	74.00	150	190	-26.17	

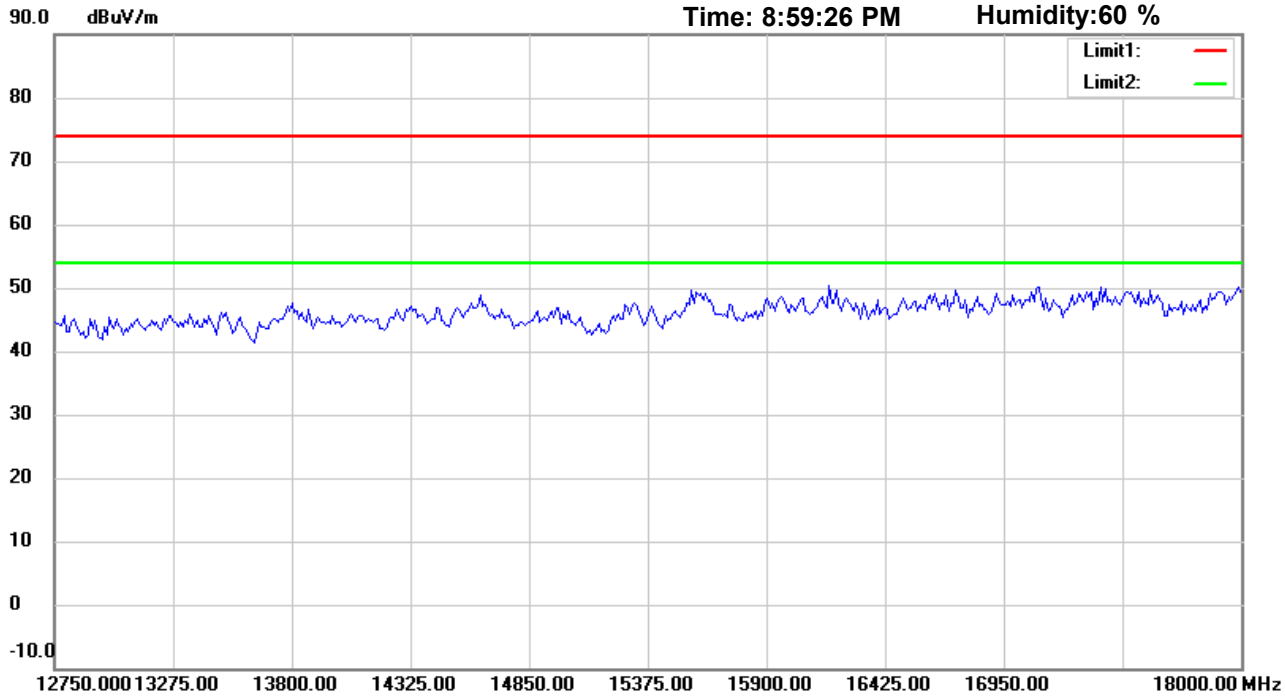
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#4 | Date: 11/21/2017 | Time: 8:59:26 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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

*:Maximum data x:Over limit !:over margin

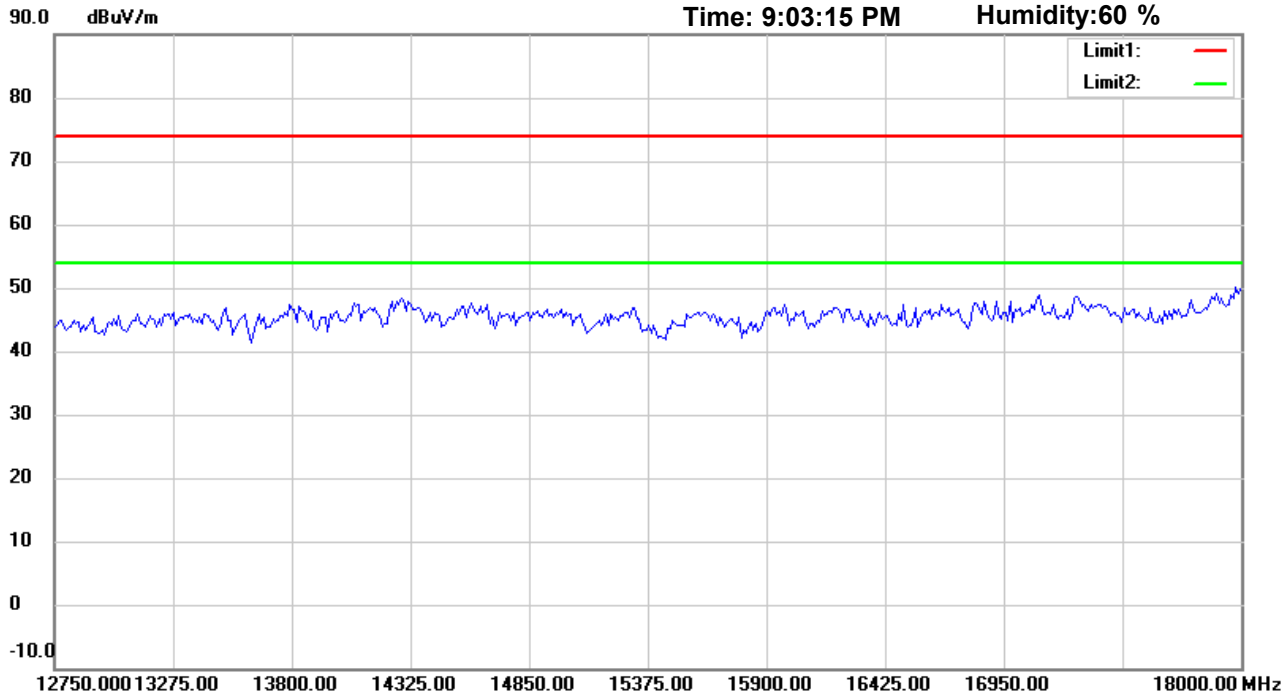
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#9 Date: 11/21/2017 Time: 9:03:15 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber
Condition : FCC_part 15 RE-Class C_Above 1GHz_PK
EUT : W6M21711-17556
M/N:
Test Mode : TX 2402MHz
Note :

Polarization: *Vertical*
Power : 3.7 Vd.c.
Distance: 3m

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

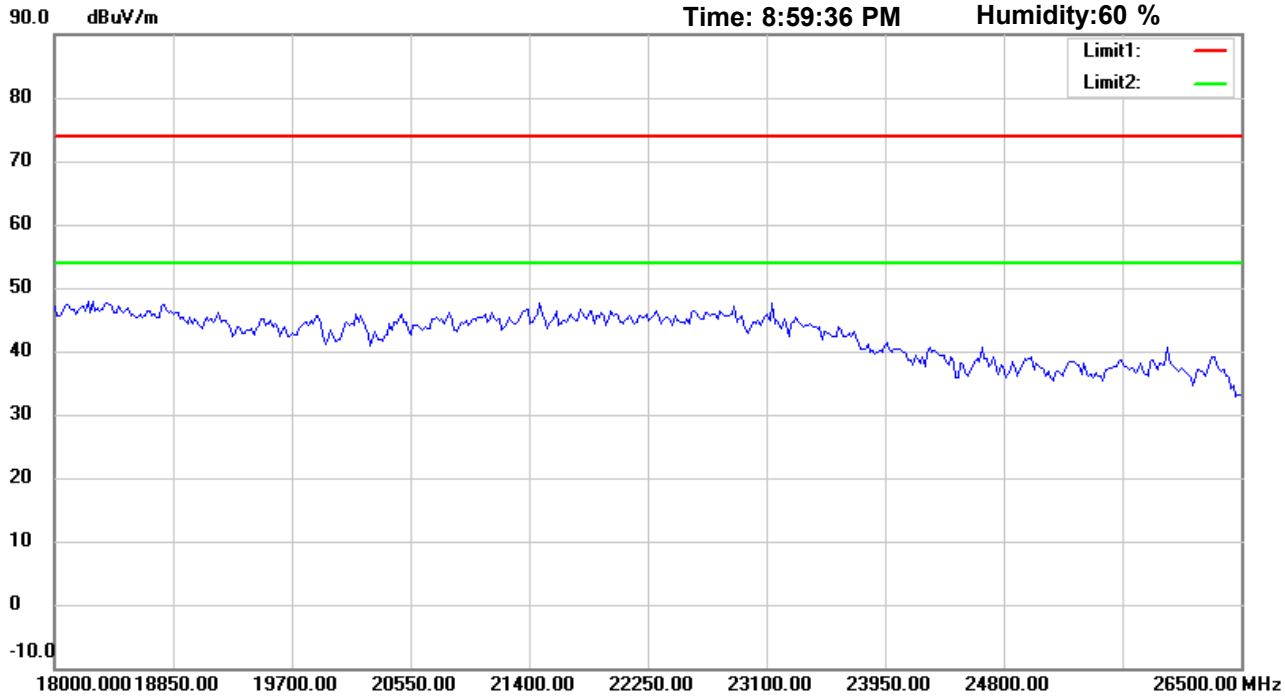
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#5 | Date: 11/21/2017 | Time: 8:59:36 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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

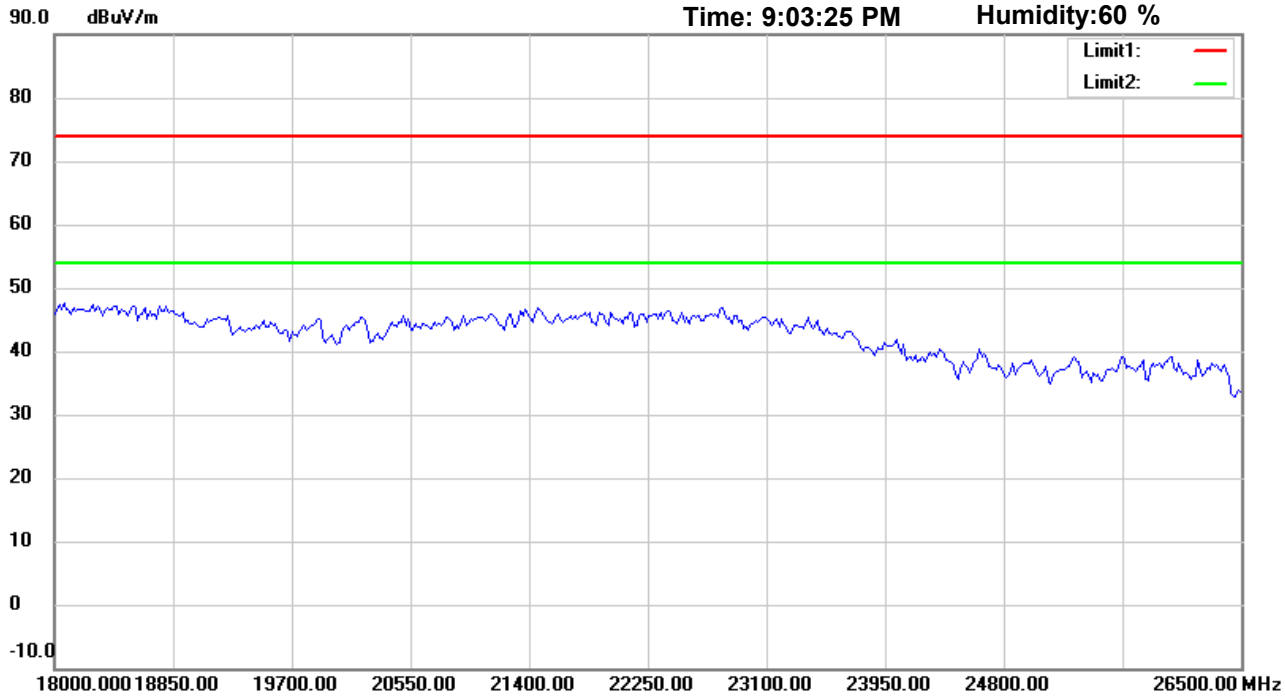
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#10 | Date: 11/21/2017 | Time: 9:03:25 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2402MHz

Note :

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

*:Maximum data x:Over limit !:over margin

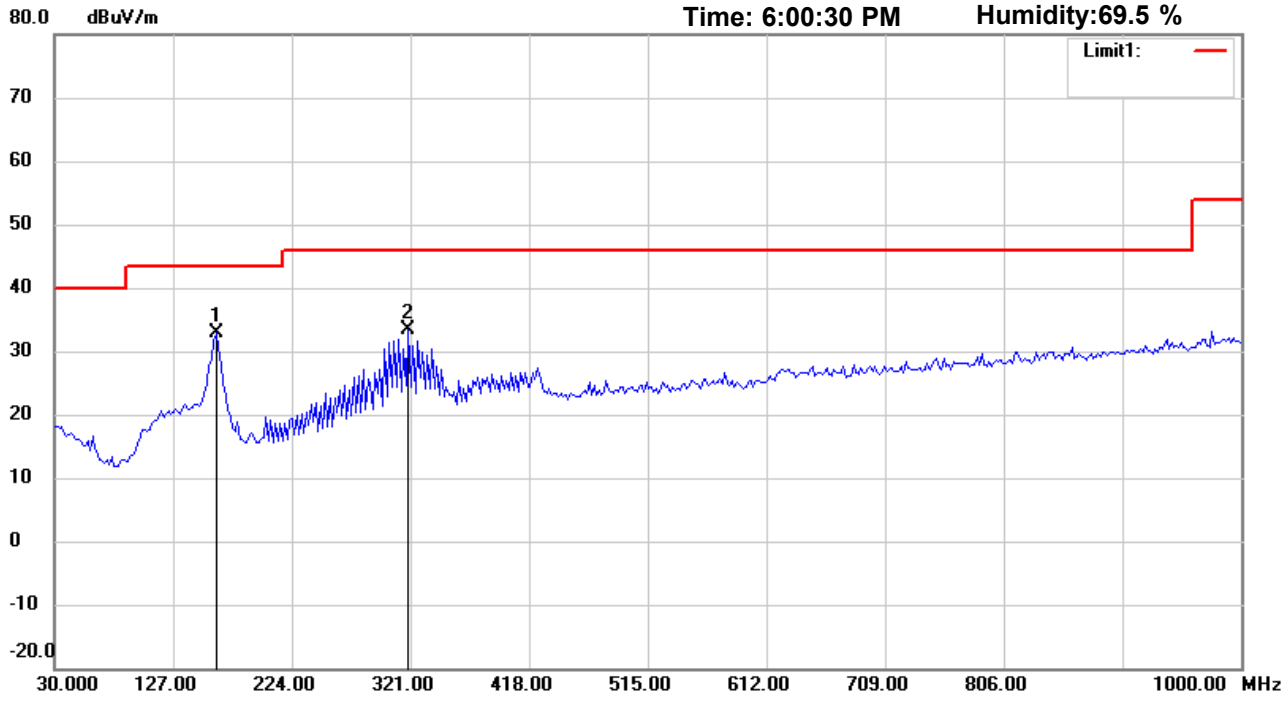
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#1 Date: 12/2/2017 Time: 6:00:30 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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
*	162.1844	42.19	peak	-9.38	32.81	43.50	100	95	-10.69	
	319.6393	38.82	peak	-5.38	33.44	46.00	100	220	-12.56	

*:Maximum data x:Over limit !:over margin

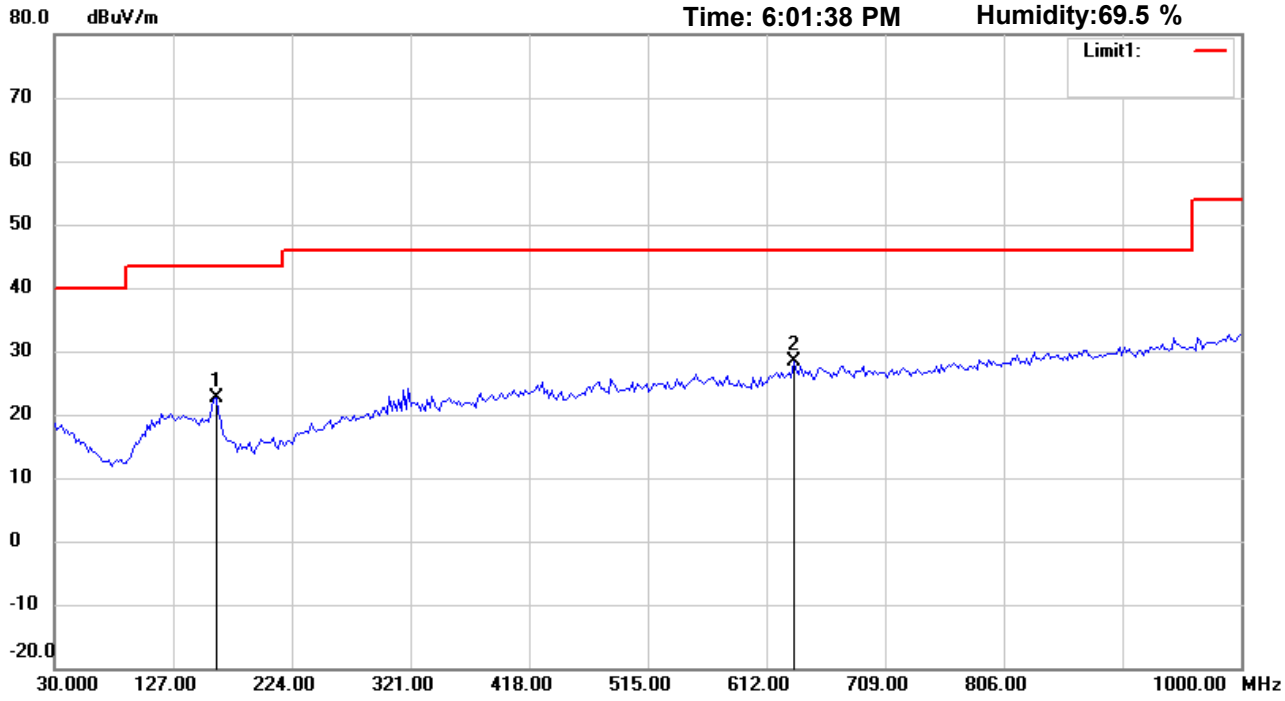
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#2 Date: 12/2/2017 Time: 6:01:38 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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
	162.1844	31.95	peak	-9.38	22.57	43.50	100	35	-20.93	
*	634.5490	29.01	peak	-0.72	28.29	46.00	100	160	-17.71	

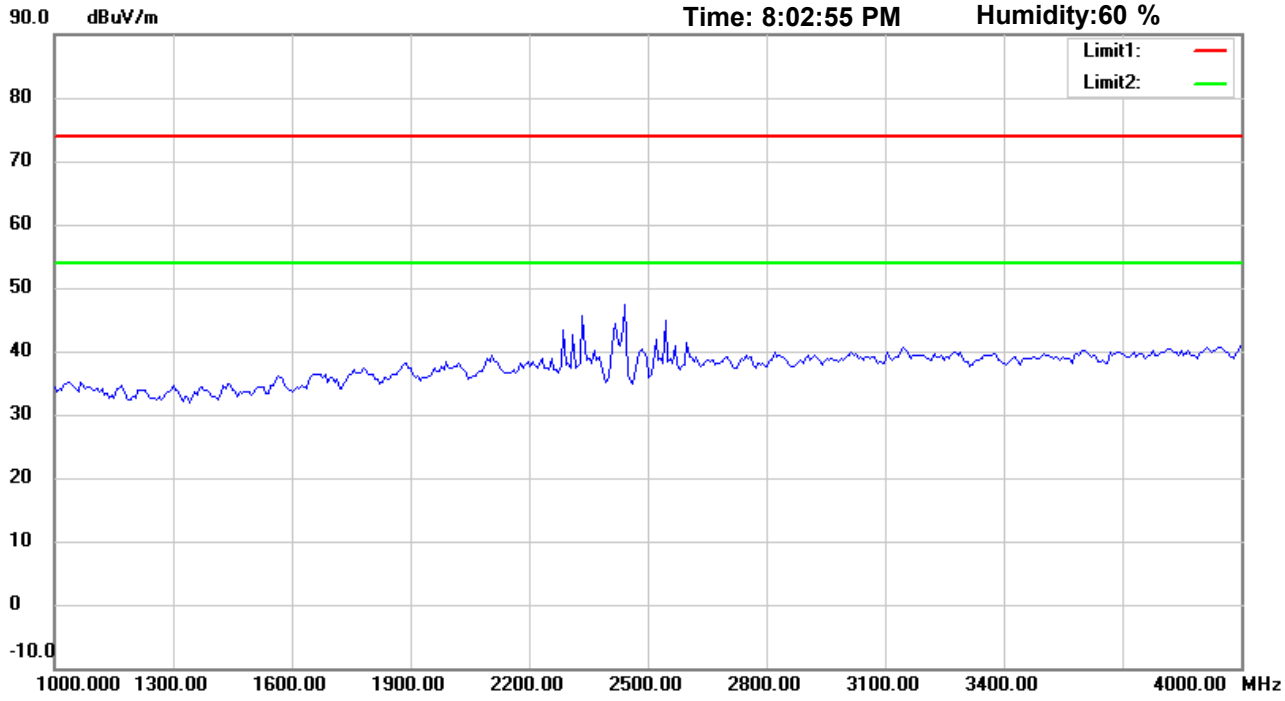
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#1 | Date: 11/22/2017 | Time: 8:02:55 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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

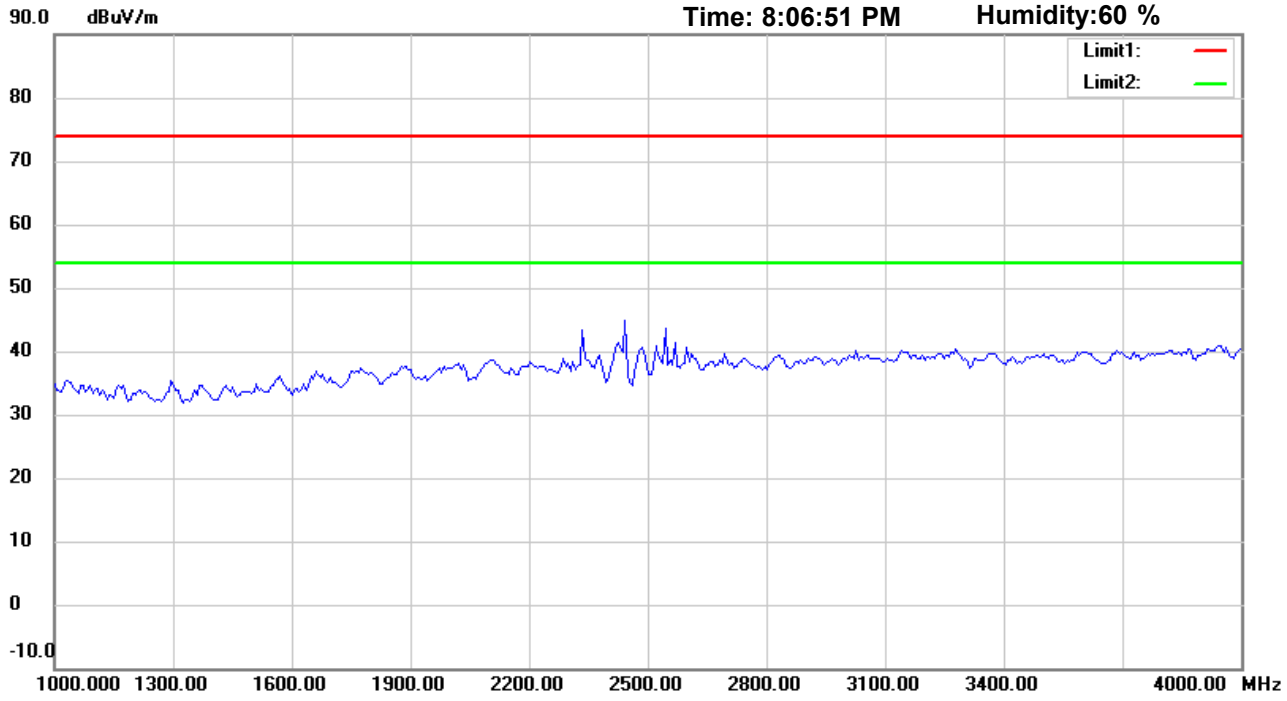
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#6 | Date: 11/22/2017 | Time: 8:06:51 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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

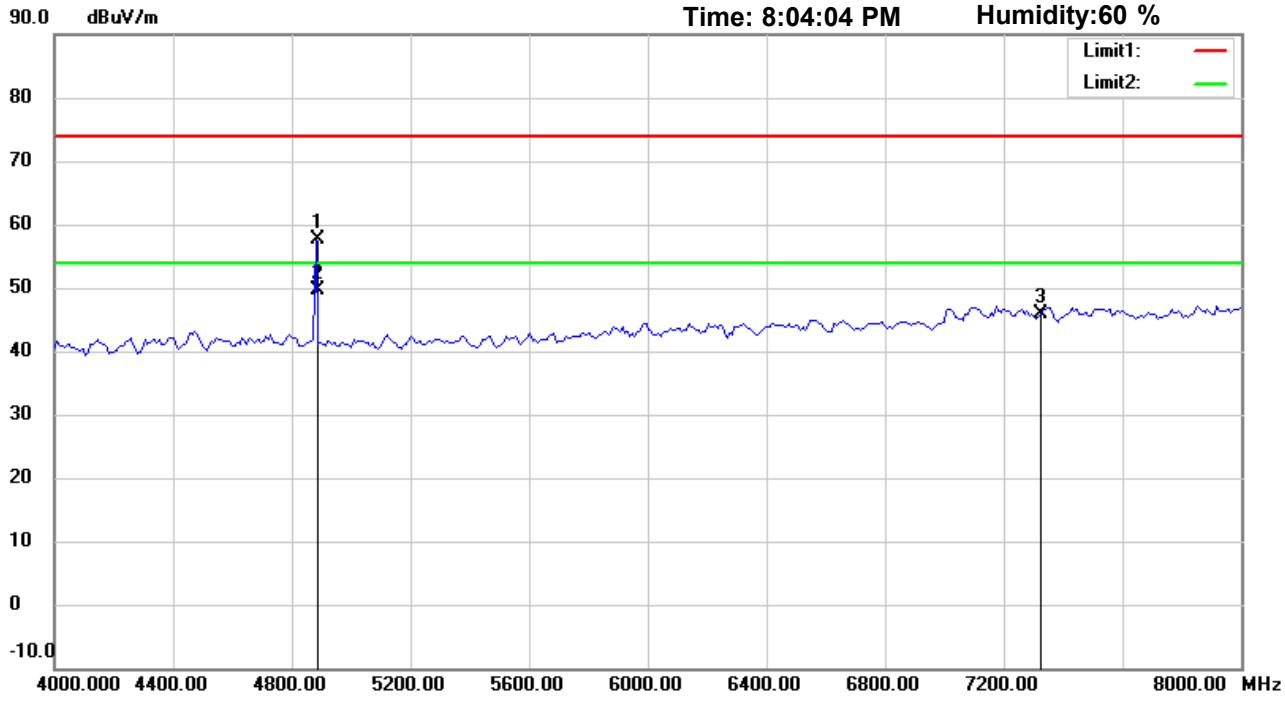
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#2 | Date: 11/22/2017 | Time: 8:04:04 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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
	4881.814	57.39	peak	0.17	57.56	74.00	200	140	-16.44	
*	4881.814	49.38	AVG	0.17	49.55	54.00	200	140	-4.45	
	7323.000	40.88	peak	5.11	45.99	74.00	150	115	-28.01	

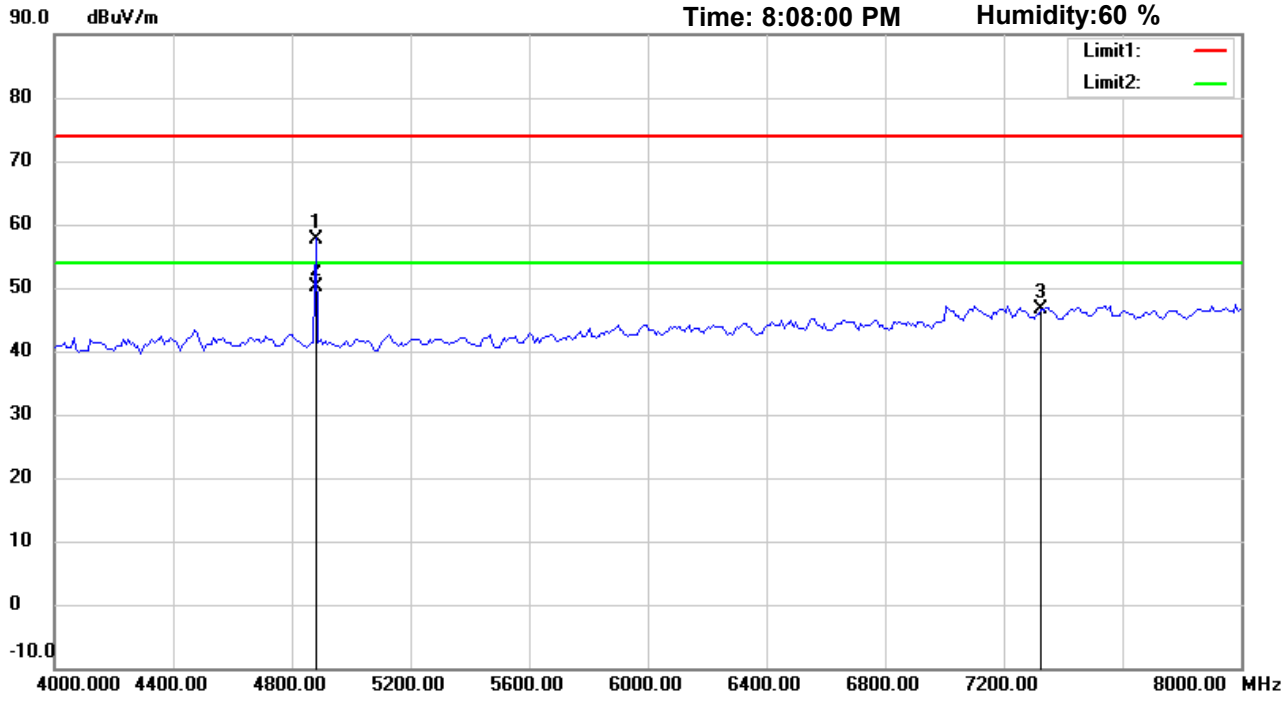
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#7 | Date: 11/22/2017 | Time: 8:08:00 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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
	4881.594	57.52	peak	0.17	57.69	74.00	160	285	-16.31	
*	4881.594	49.84	AVG	0.17	50.01	54.00	160	285	-3.99	
	7323.000	41.49	peak	5.11	46.60	74.00	150	35	-27.40	

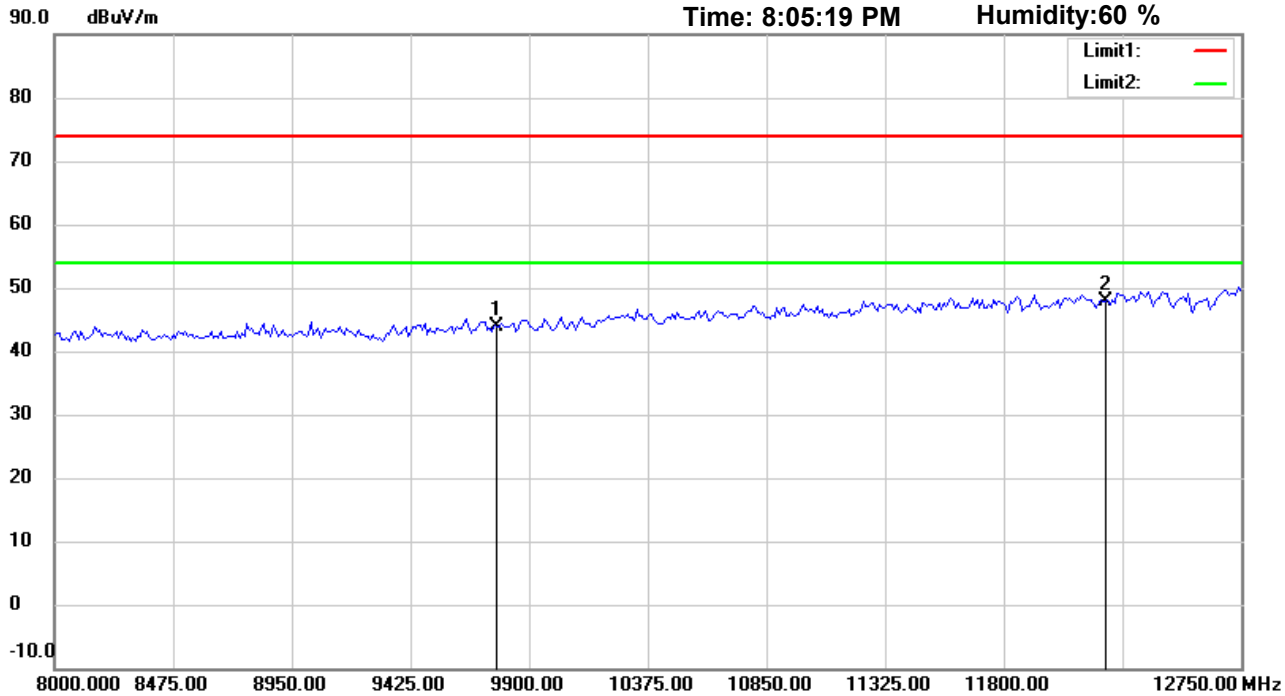
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#3 | Date: 11/22/2017 | Time: 8:05:19 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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	35.76	peak	8.22	43.98	74.00	150	210	-30.02	
*	12205.000	33.90	peak	14.08	47.98	74.00	150	95	-26.02	

*:Maximum data x:Over limit !:over margin

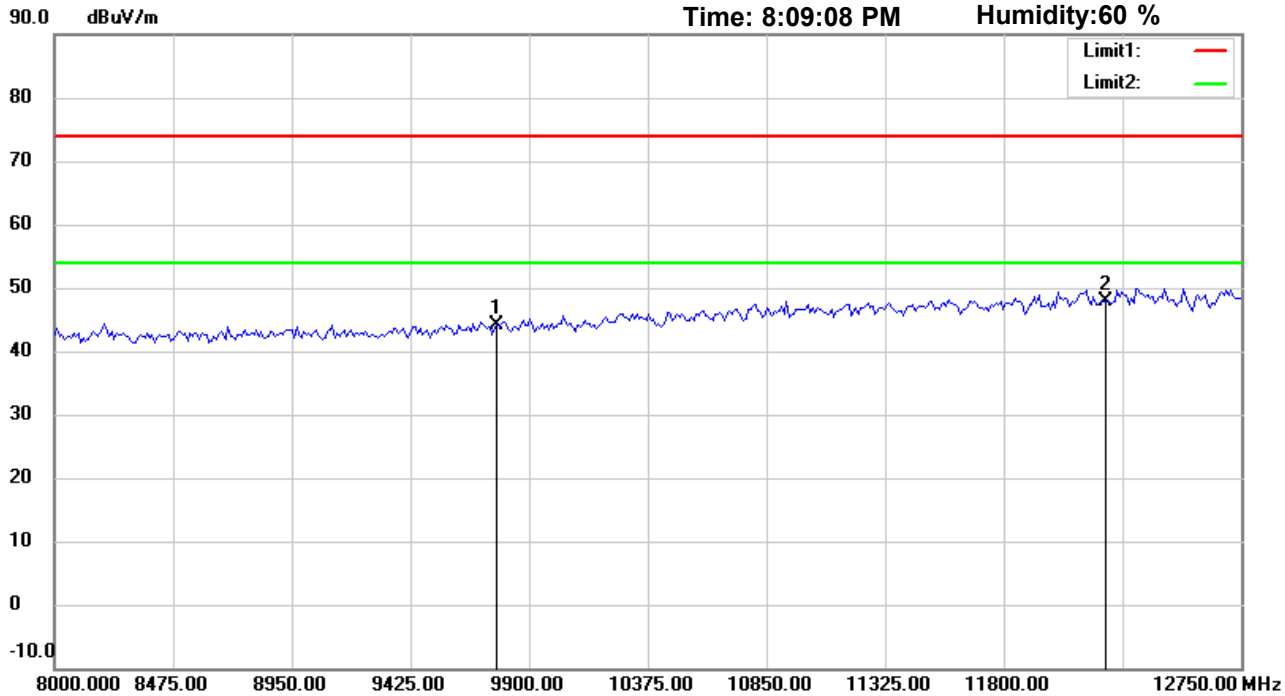
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#8 Date: 11/22/2017 Time: 8:09:08 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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	36.03	peak	8.22	44.25	74.00	150	85	-29.75	
*	12205.000	33.72	peak	14.08	47.80	74.00	150	200	-26.20	

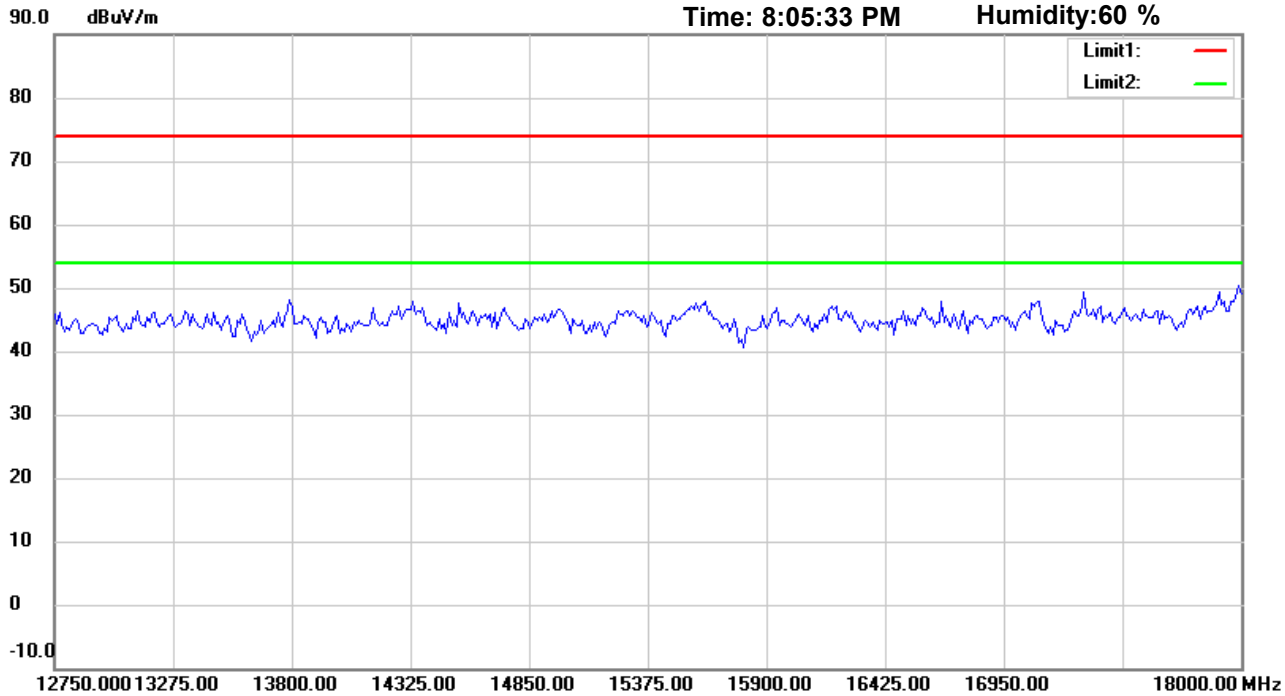
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#4 | Date: 11/22/2017 | Time: 8:05:33 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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

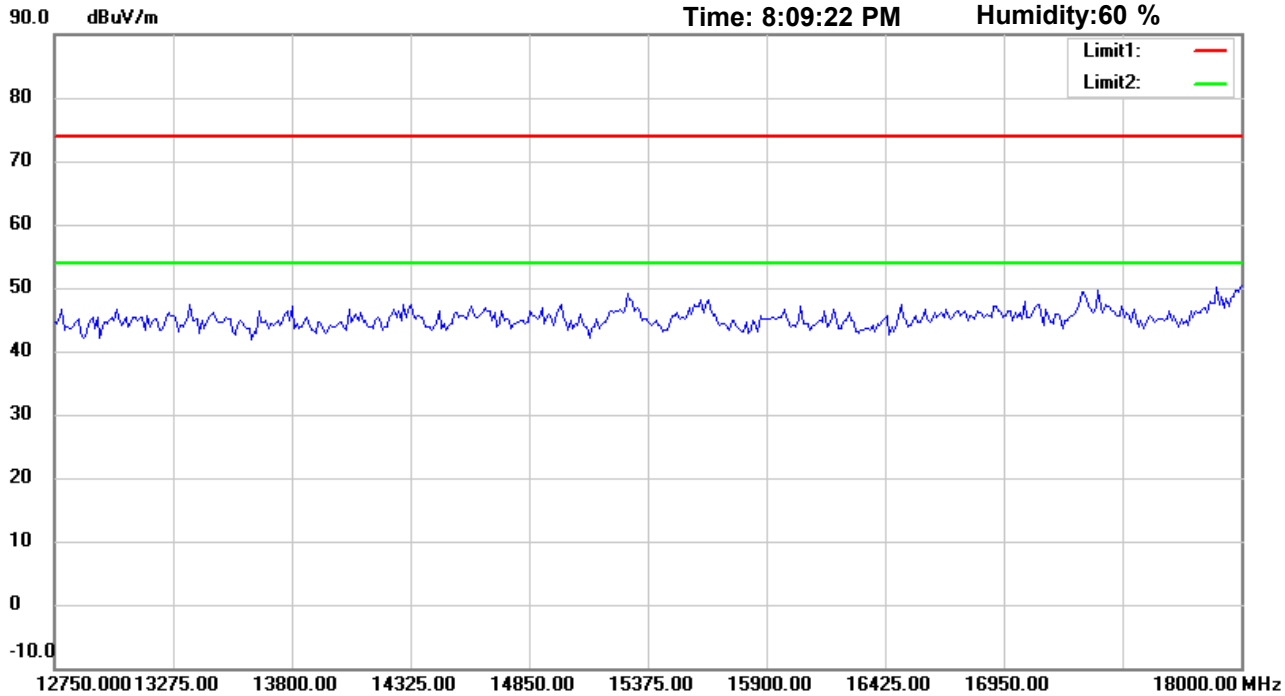
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#9 | Date: 11/22/2017 | Time: 8:09:22 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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

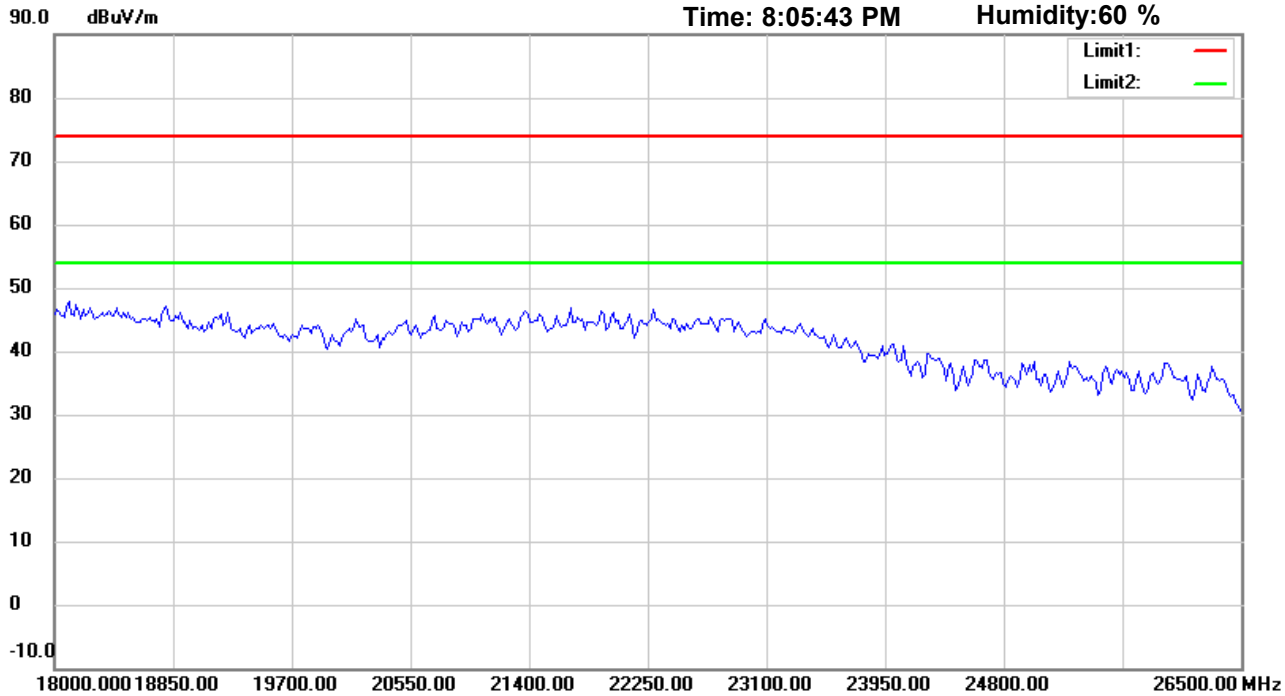
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#5 | Date: 11/22/2017 | Time: 8:05:43 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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

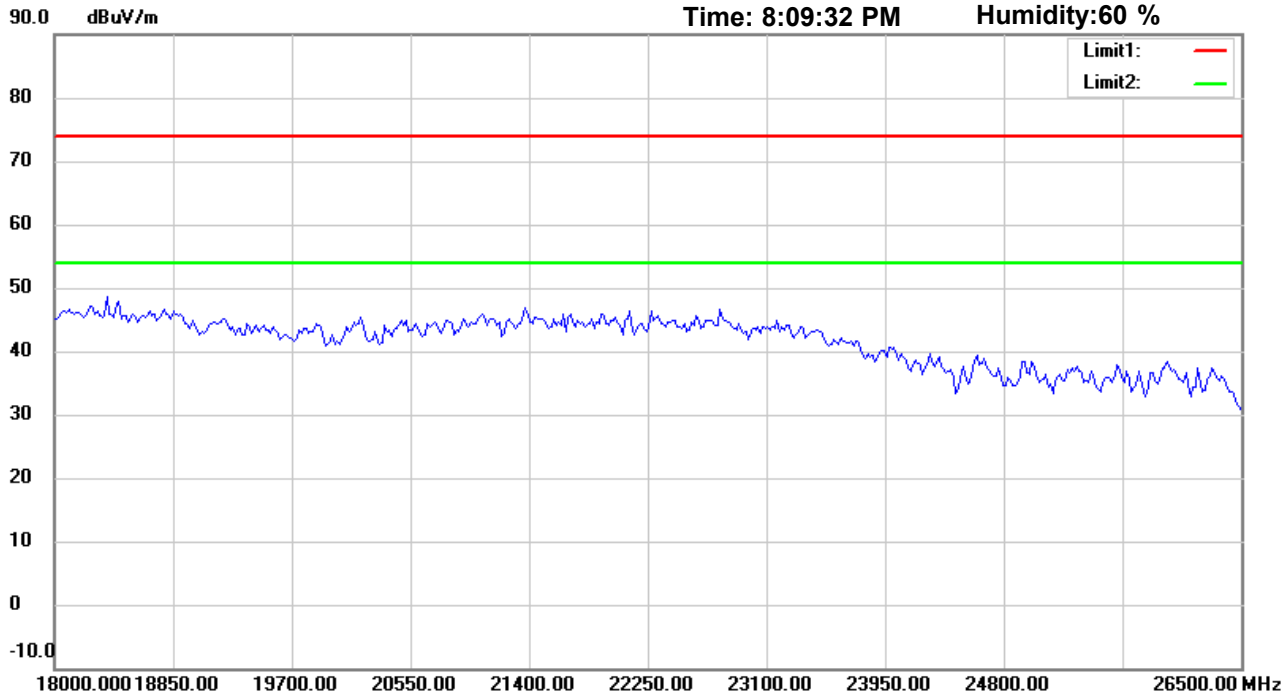
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#10 | Date: 11/22/2017 | Time: 8:09:32 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2441MHz

Note :

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

*:Maximum data x:Over limit !:over margin

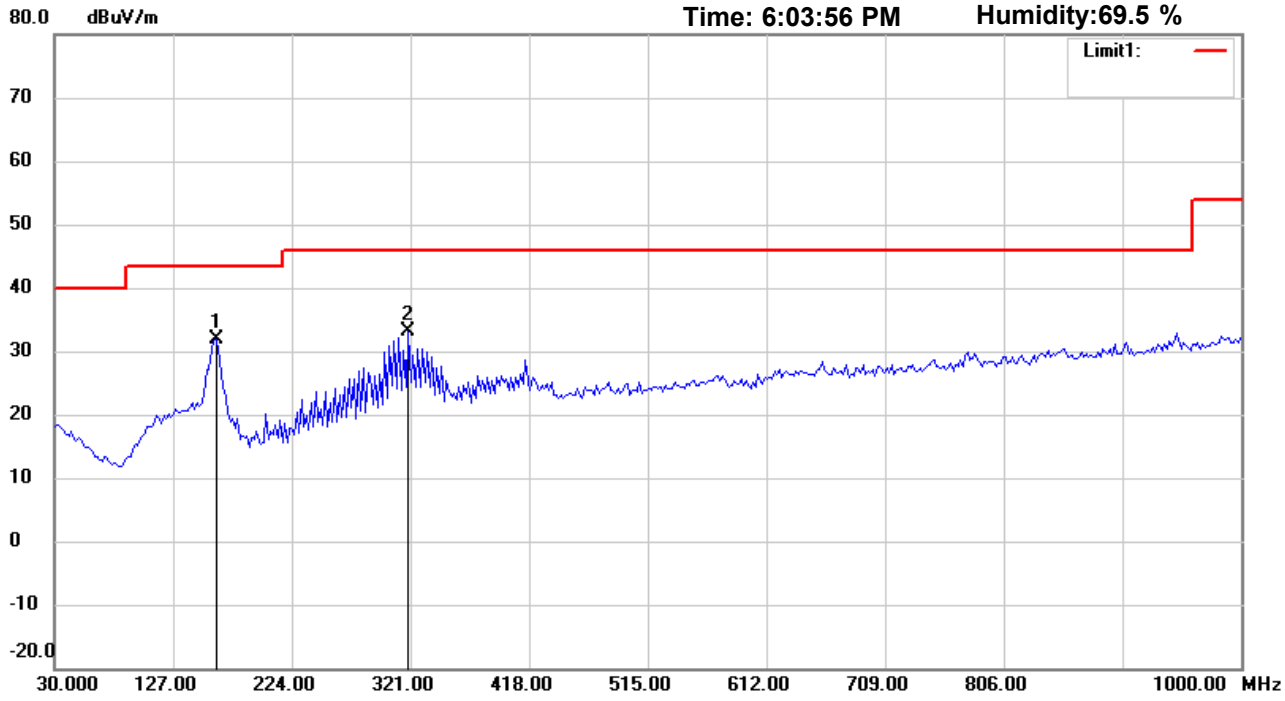
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#1 Date: 12/2/2017 Time: 6:03:56 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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
*	162.1844	41.26	peak	-9.38	31.88	43.50	100	65	-11.62	
	319.6393	38.56	peak	-5.38	33.18	46.00	100	70	-12.82	

*:Maximum data x:Over limit !:over margin

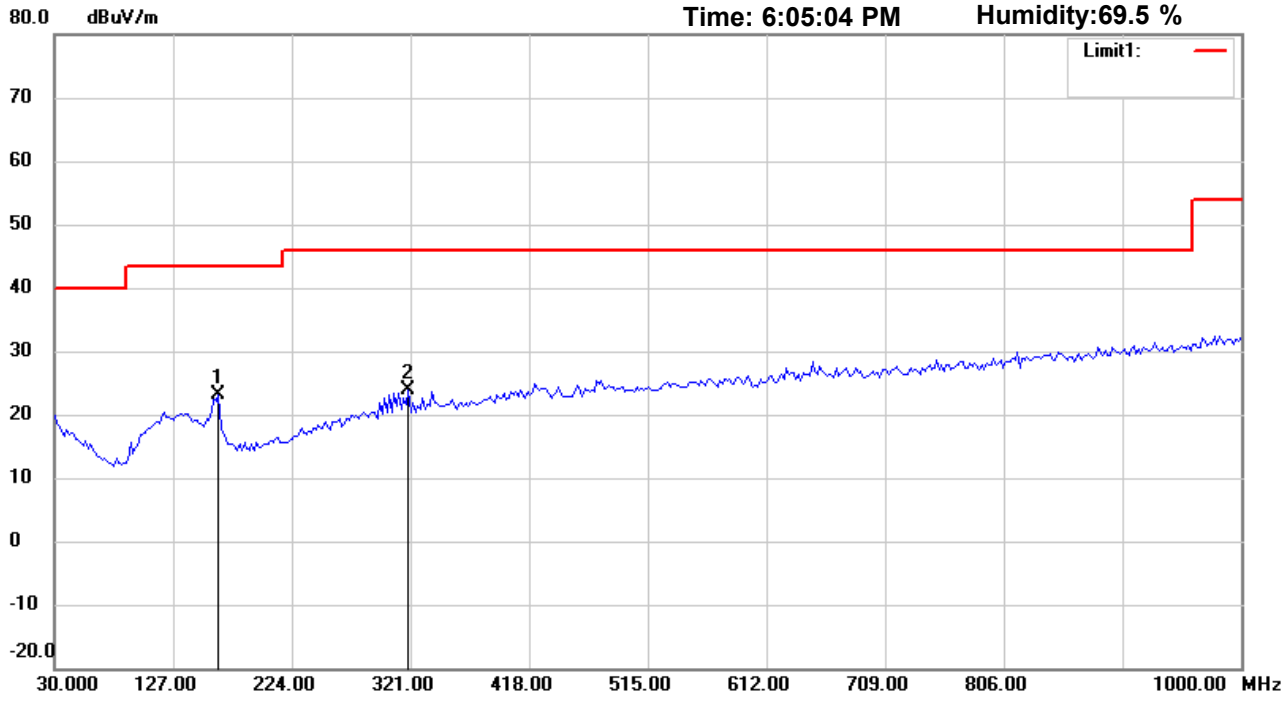
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#2 Date: 12/2/2017 Time: 6:05:04 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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
*	164.1283	32.69	peak	-9.63	23.06	43.50	100	75	-20.44	
	319.6393	29.32	peak	-5.38	23.94	46.00	100	220	-22.06	

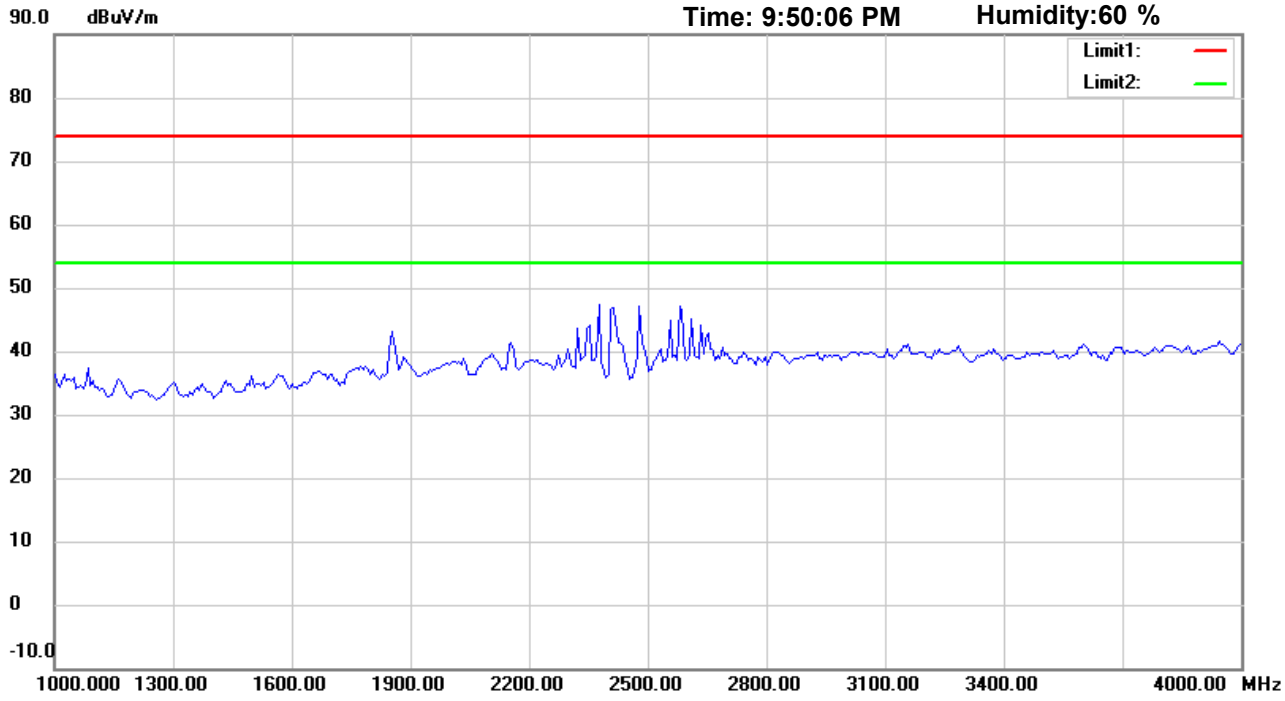
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#1 | Date: 11/21/2017 | Time: 9:50:06 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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

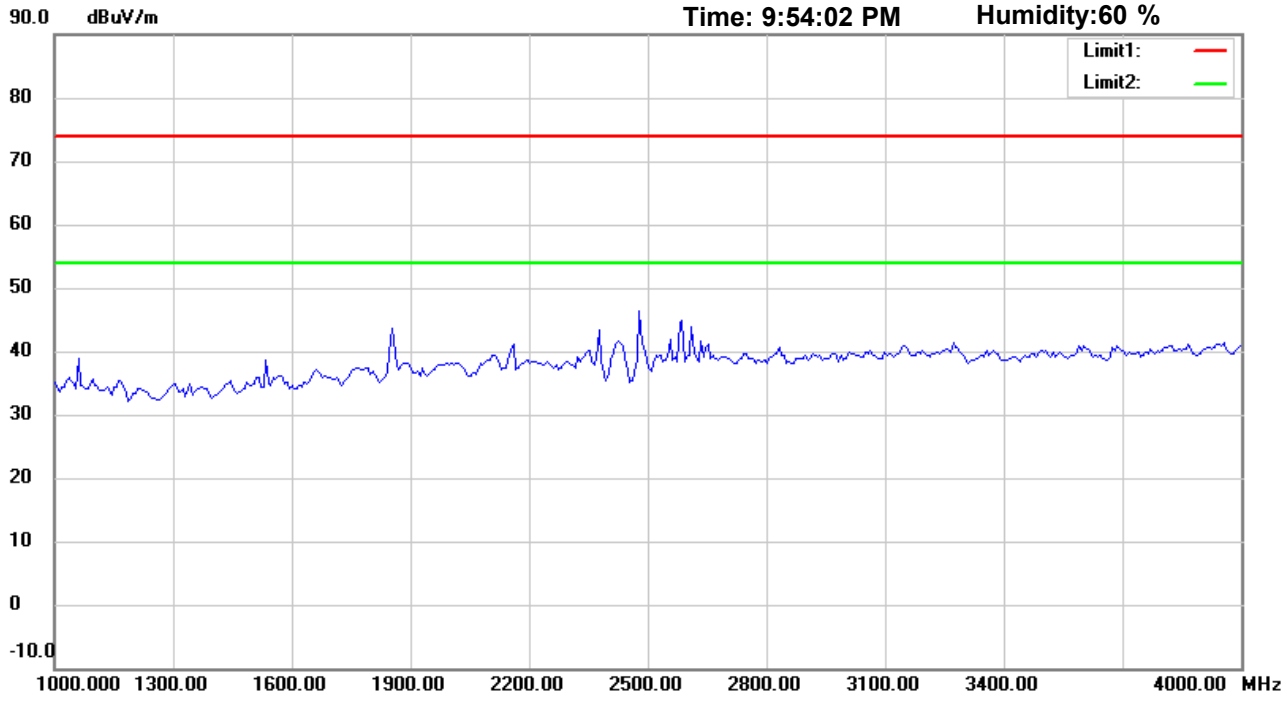
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#6 | Date: 11/21/2017 | Time: 9:54:02 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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

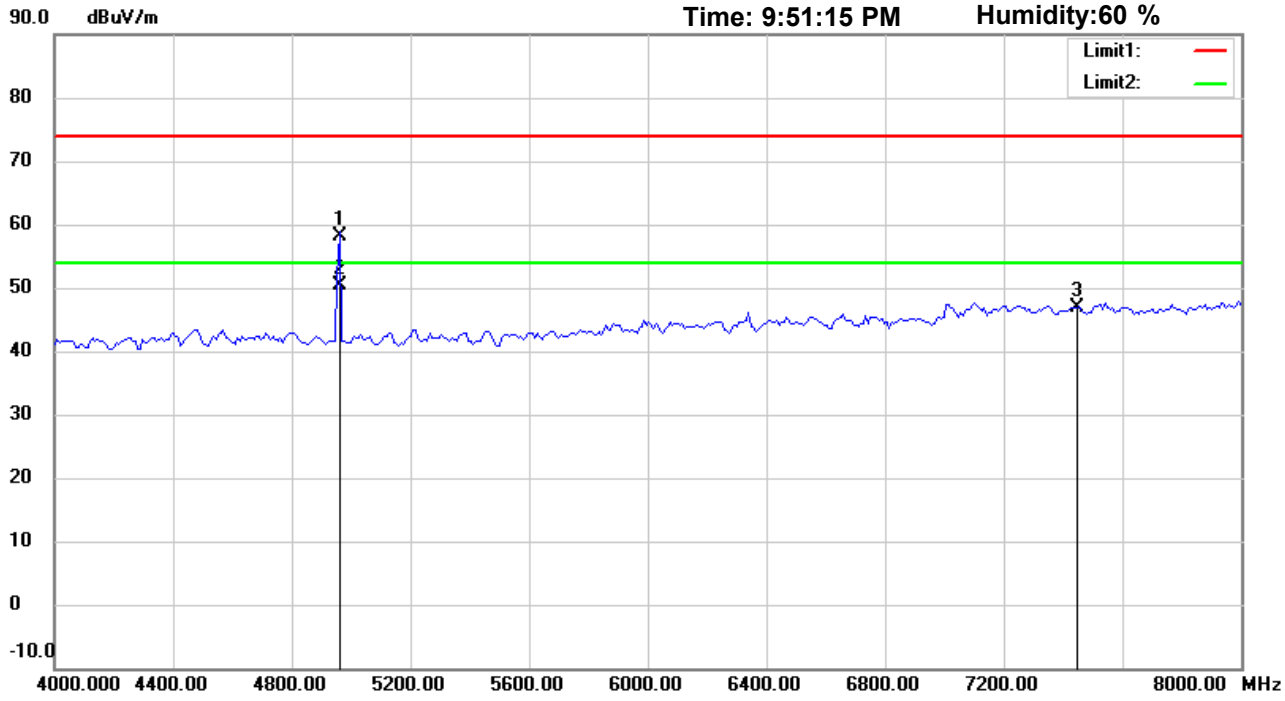
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#2 | Date: 11/21/2017 | Time: 9:51:15 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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
	4959.569	57.80	peak	0.21	58.01	74.00	165	210	-15.99	
*	4959.569	50.13	AVG	0.21	50.34	54.00	165	210	-3.66	
	7440.000	41.69	peak	5.18	46.87	74.00	150	195	-27.13	

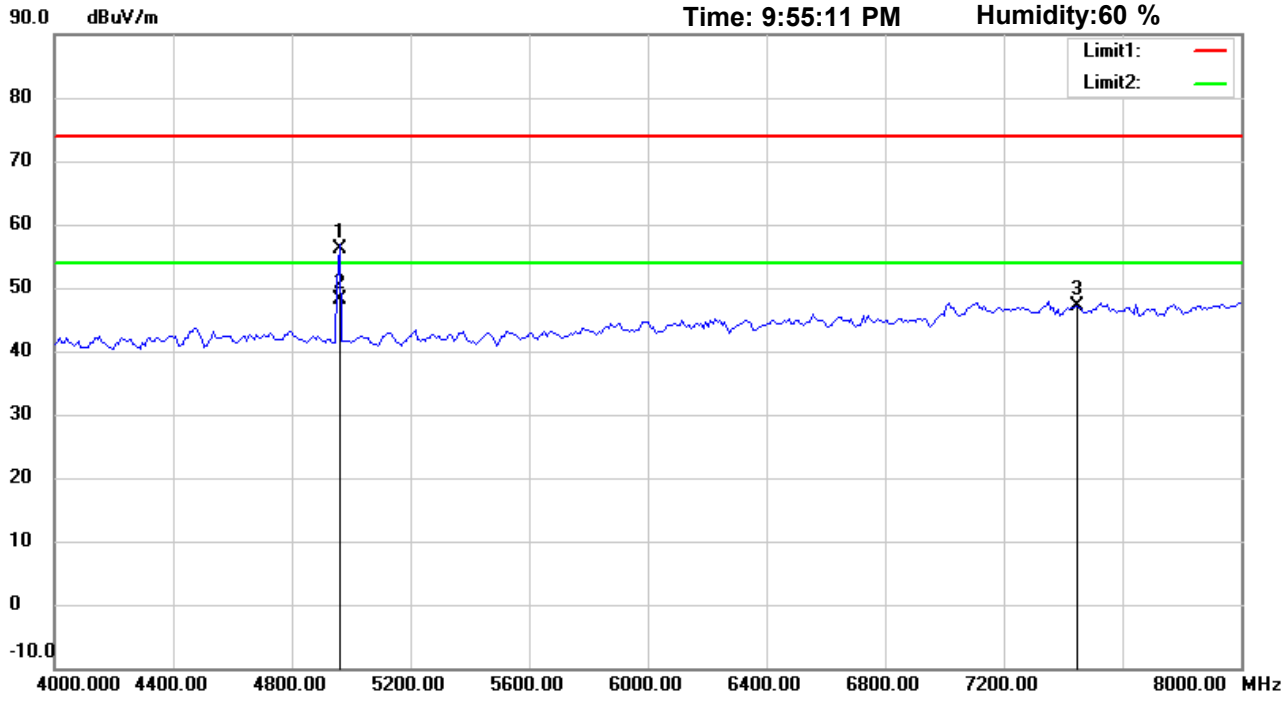
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#7 | Date: 11/21/2017 | Time: 9:55:11 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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
	4960.150	55.93	peak	0.21	56.14	74.00	210	109	-17.86	
*	4960.150	47.87	AVG	0.21	48.08	54.00	210	109	-5.92	
	7440.000	41.89	peak	5.18	47.07	74.00	150	235	-26.93	

*:Maximum data x:Over limit !:over margin

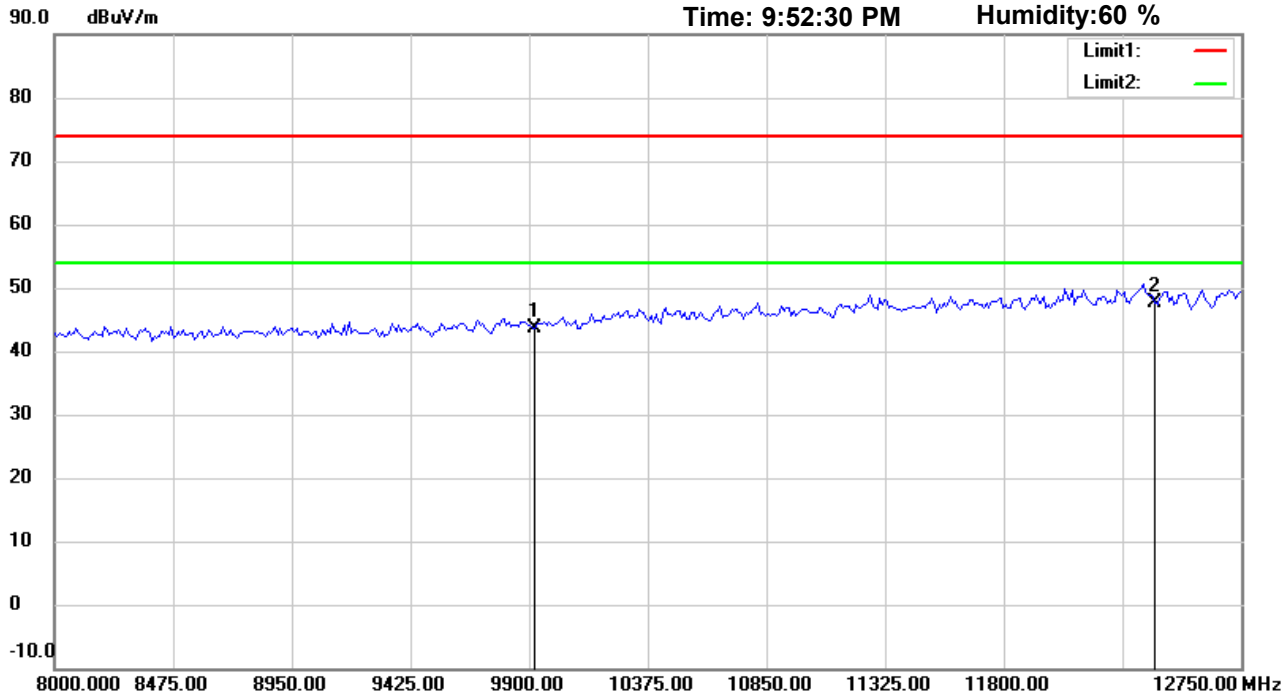
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#3 Date: 11/21/2017 Time: 9:52:30 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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	35.18	peak	8.55	43.73	74.00	150	175	-30.27	
*	12400.000	33.26	peak	14.41	47.67	74.00	150	280	-26.33	

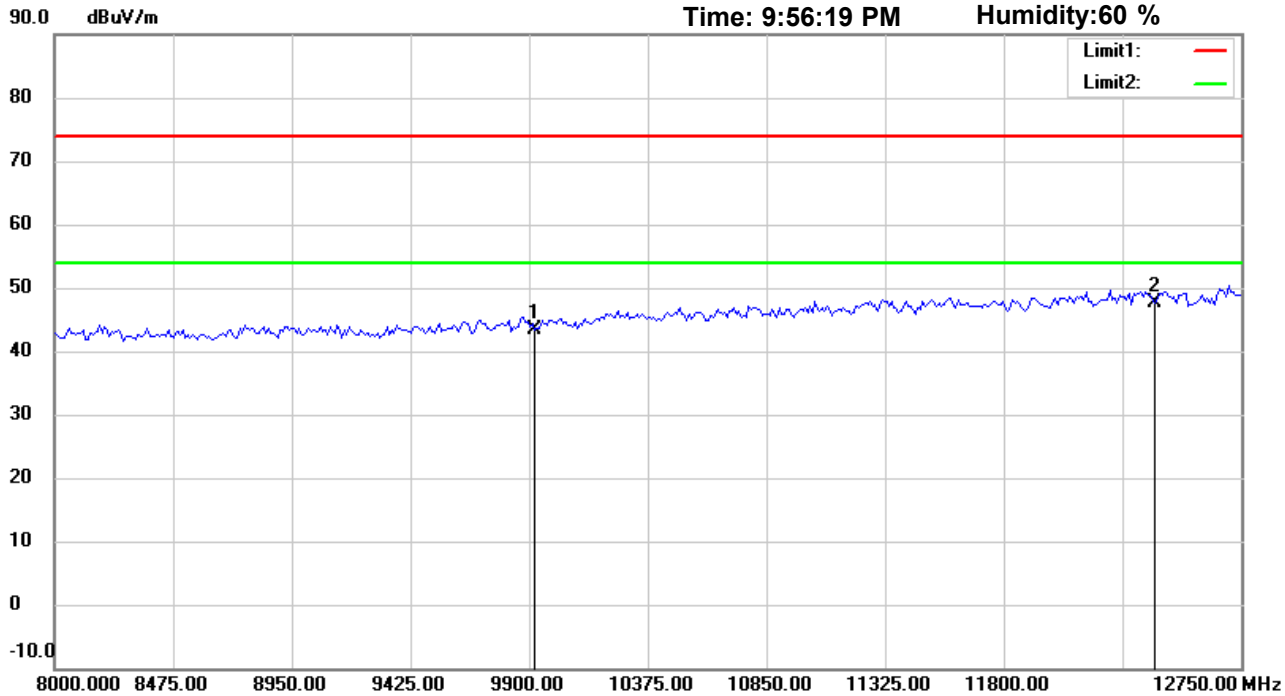
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#8 | Date: 11/21/2017 | Time: 9:56:19 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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	34.85	peak	8.55	43.40	74.00	150	70	-30.60	
*	12400.000	33.28	peak	14.41	47.69	74.00	150	100	-26.31	

*:Maximum data x:Over limit !:over margin

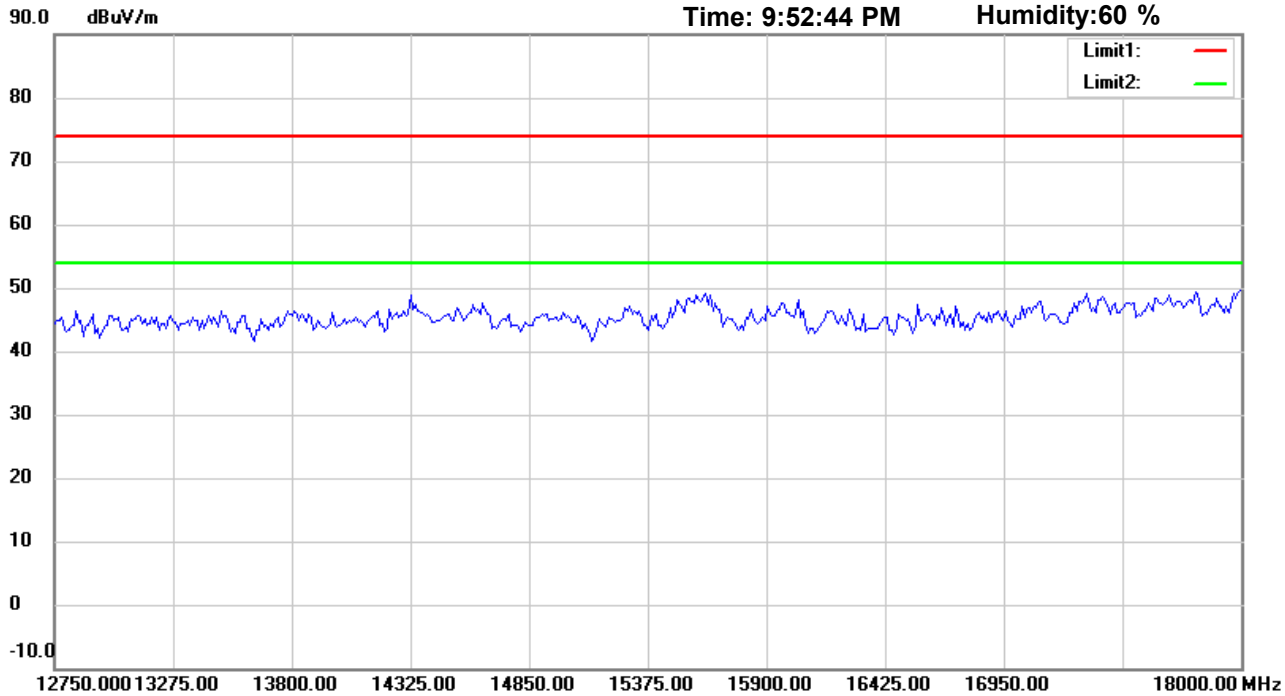
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#4 Date: 11/21/2017 Time: 9:52:44 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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

*:Maximum data x:Over limit !:over margin

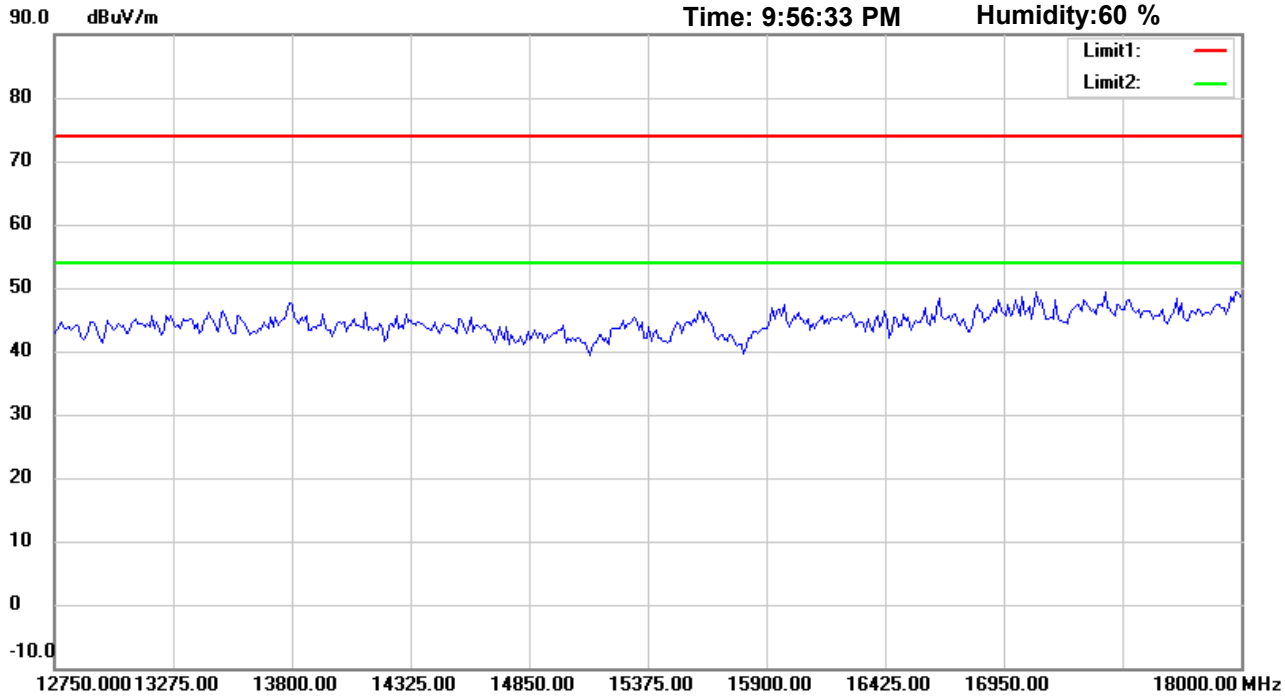
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#9 Date: 11/21/2017 Time: 9:56:33 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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

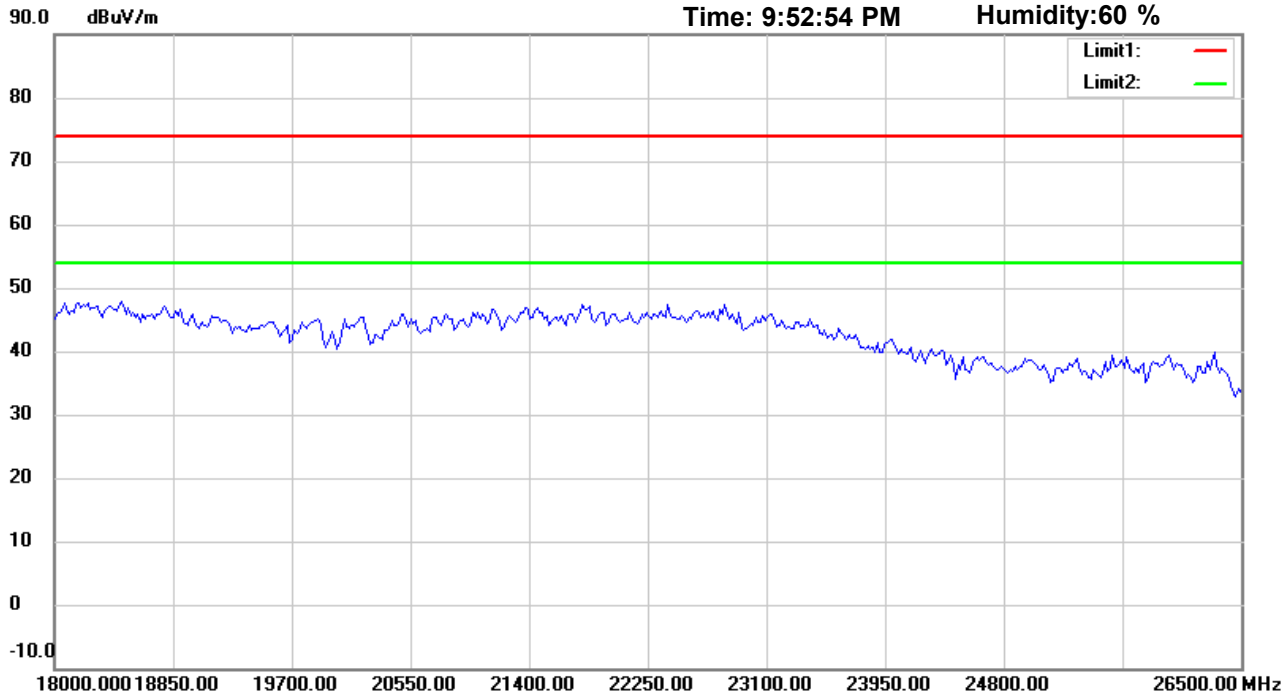
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#5 | Date: 11/21/2017 | Time: 9:52:54 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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

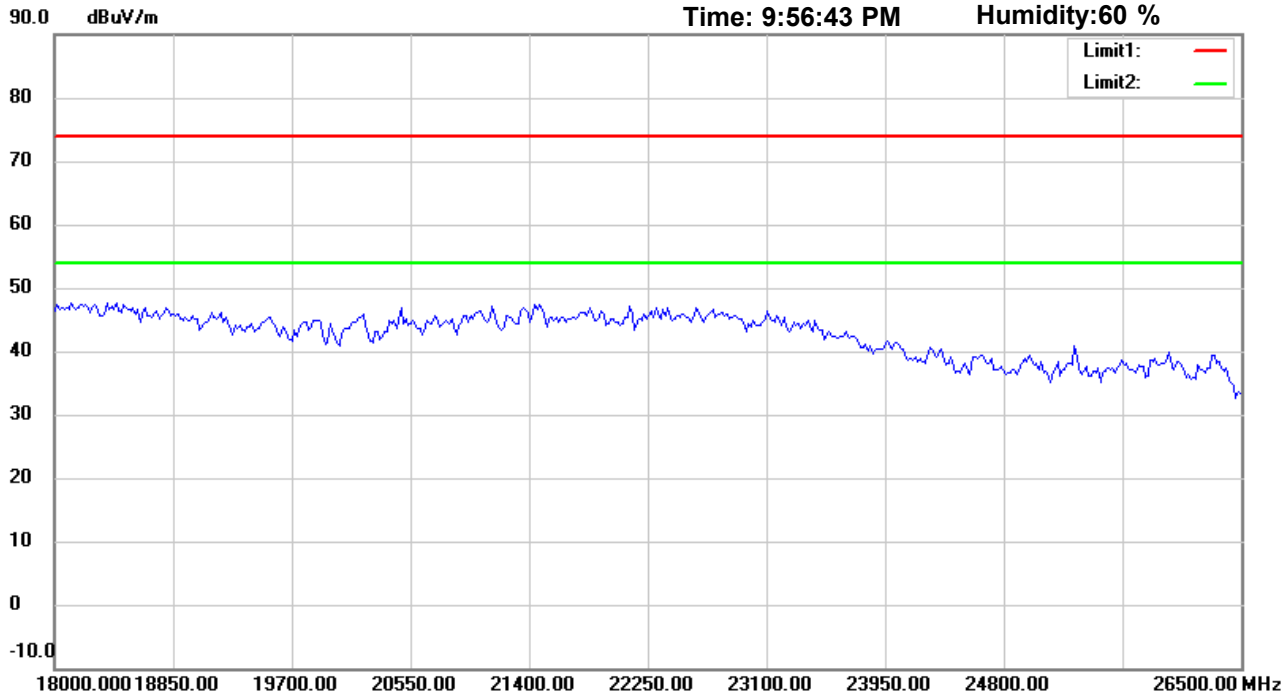
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#10 | Date: 11/21/2017 | Time: 9:56:43 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 2480MHz

Note :

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

*:Maximum data x:Over limit !:over margin

RX

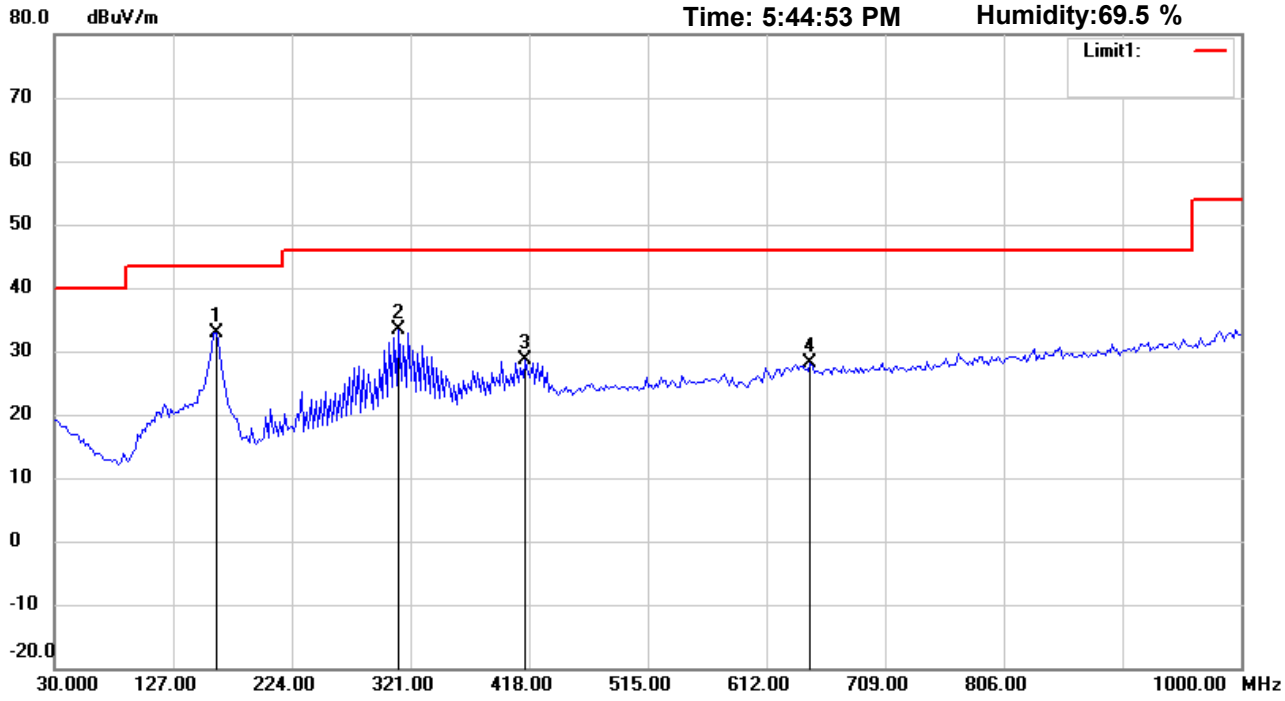
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#1 Date: 12/2/2017 Time: 5:44:53 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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
*	162.1844	42.25	peak	-9.38	32.87	43.50	100	175	-10.63	
	311.8637	38.97	peak	-5.61	33.36	46.00	100	200	-12.64	
	414.8898	31.93	peak	-3.39	28.54	46.00	100	90	-17.46	
	648.1563	28.44	peak	-0.28	28.16	46.00	100	145	-17.84	

*:Maximum data x:Over limit !:over margin

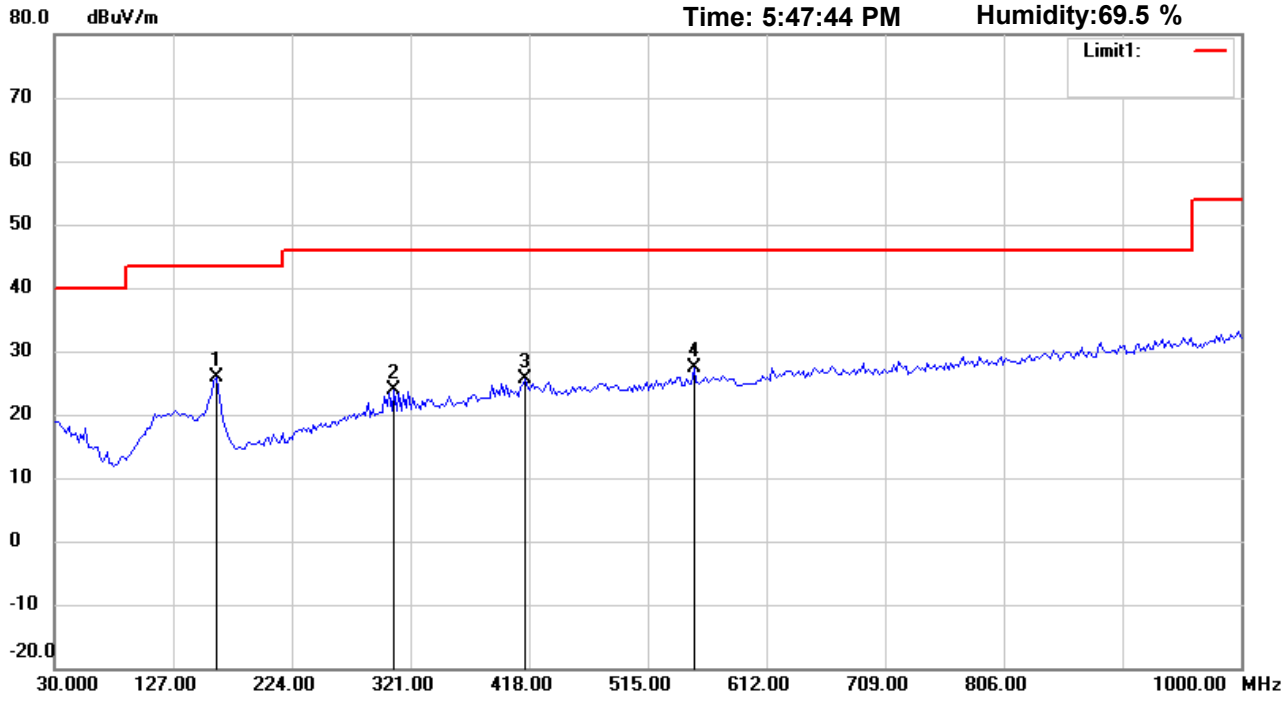
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#2 Date: 12/2/2017 Time: 5:47:44 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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
*	162.1844	35.36	peak	-9.38	25.98	43.50	100	85	-17.52	
	307.9760	29.72	peak	-5.72	24.00	46.00	100	220	-22.00	
	414.8897	28.96	peak	-3.39	25.57	46.00	100	145	-20.43	
	552.9057	29.21	peak	-1.88	27.33	46.00	100	90	-18.67	

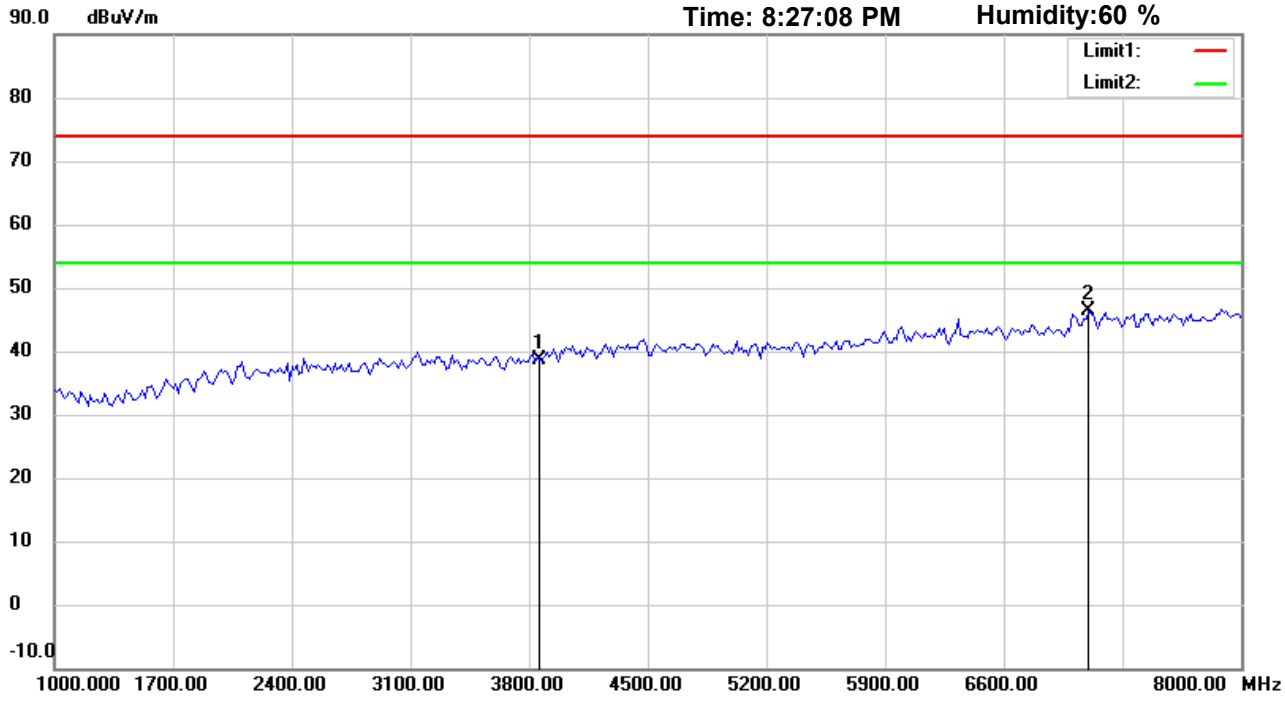
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#1 | Date: 11/22/2017 | Time: 8:27:08 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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
	3861.723	40.06	peak	-1.31	38.75	74.00	150	45	-35.25	
*	7102.204	41.24	peak	5.22	46.46	74.00	150	10	-27.54	

*:Maximum data x:Over limit !:over margin

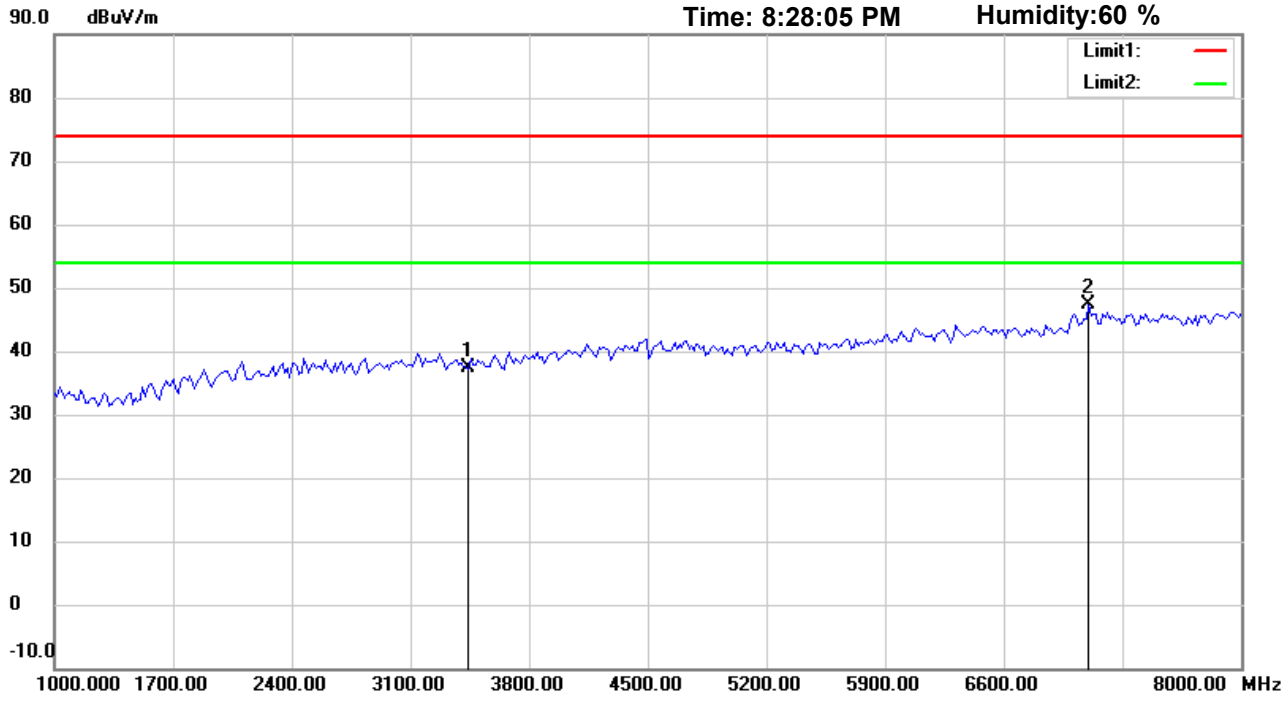
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#5 Date: 11/22/2017 Time: 8:28:05 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber
Condition : FCC_part 15 RE-Class B_Above 1GHz_PK
EUT : W6M21711-17556
M/N:
Test Mode : RX 2402MHz
Note :

Polarization: *Vertical*
Power : 3.7 Vd.c.
Distance: 3m

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
	3426.854	40.10	peak	-2.68	37.42	74.00	150	175	-36.58	
*	7102.204	42.19	peak	5.22	47.41	74.00	150	60	-26.59	

*:Maximum data x:Over limit !:over margin

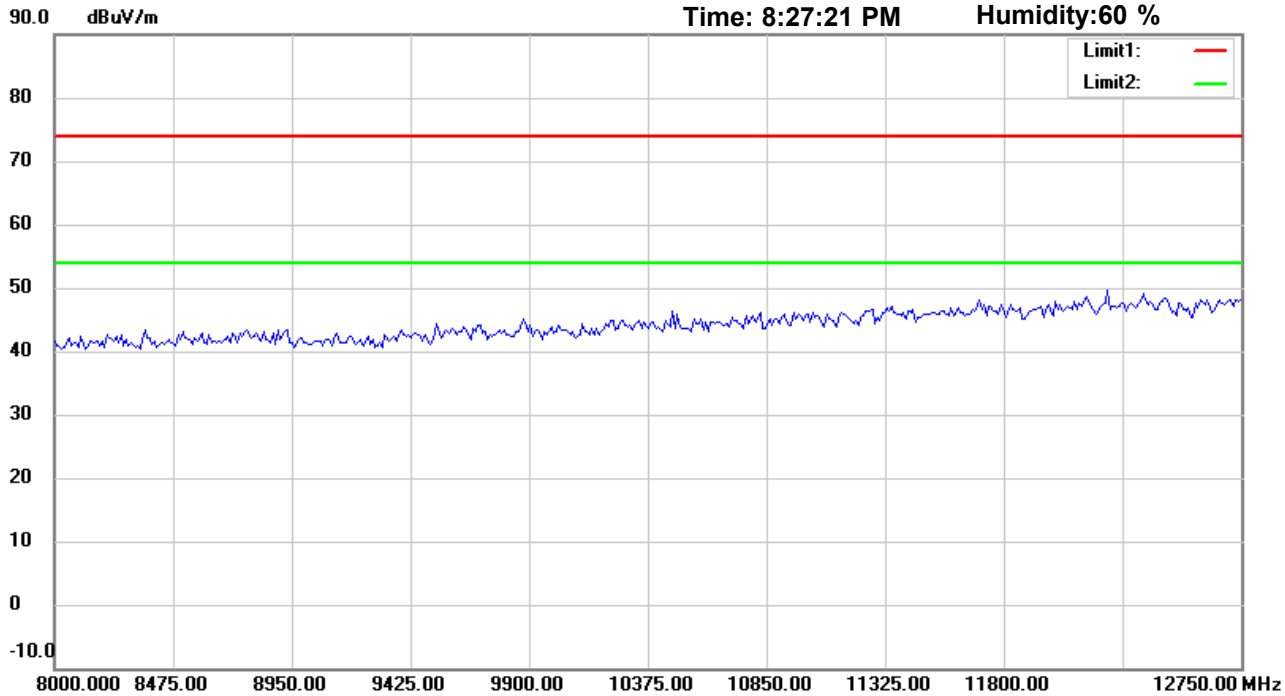
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#2 Date: 11/22/2017 Time: 8:27:21 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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

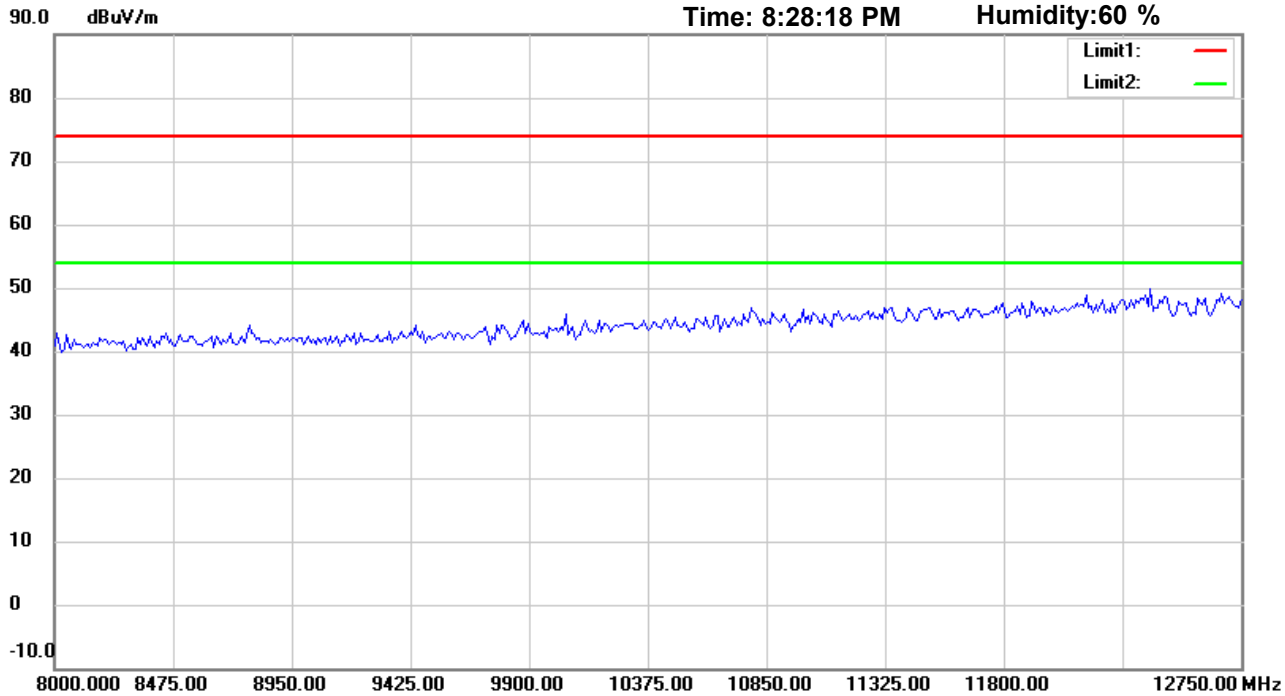
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#6 | Date: 11/22/2017 | Time: 8:28:18 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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

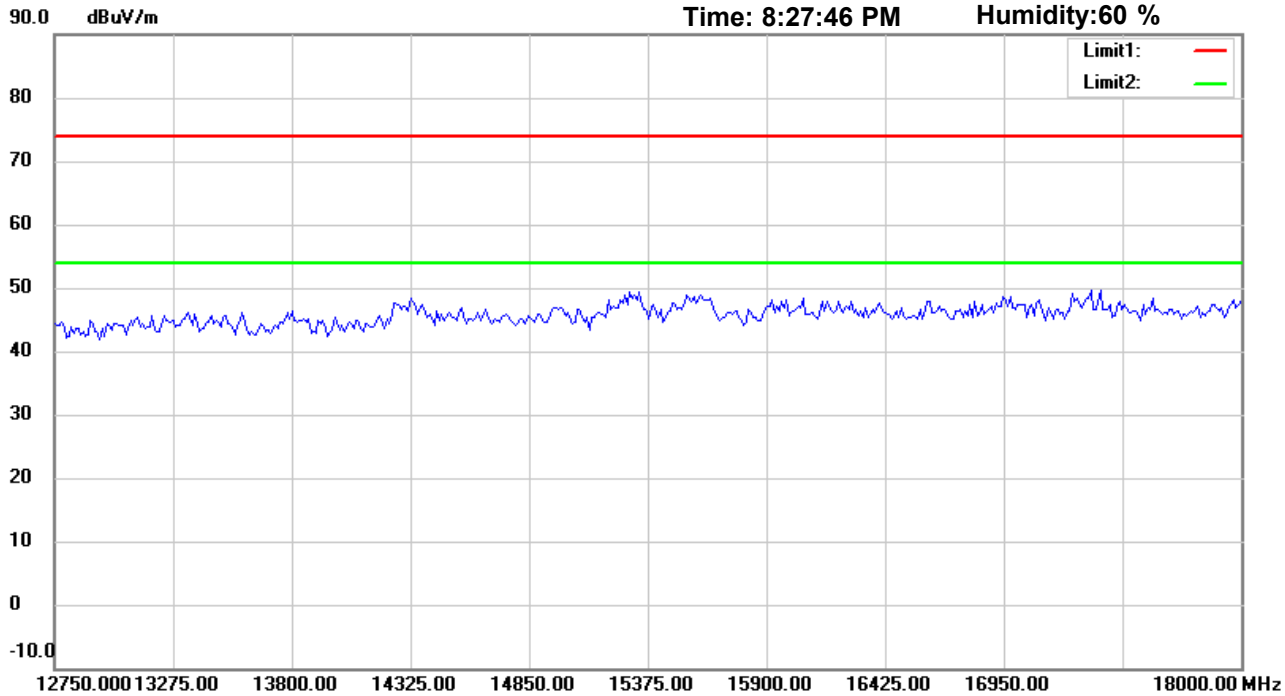
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#3 | Date: 11/22/2017 | Time: 8:27:46 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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

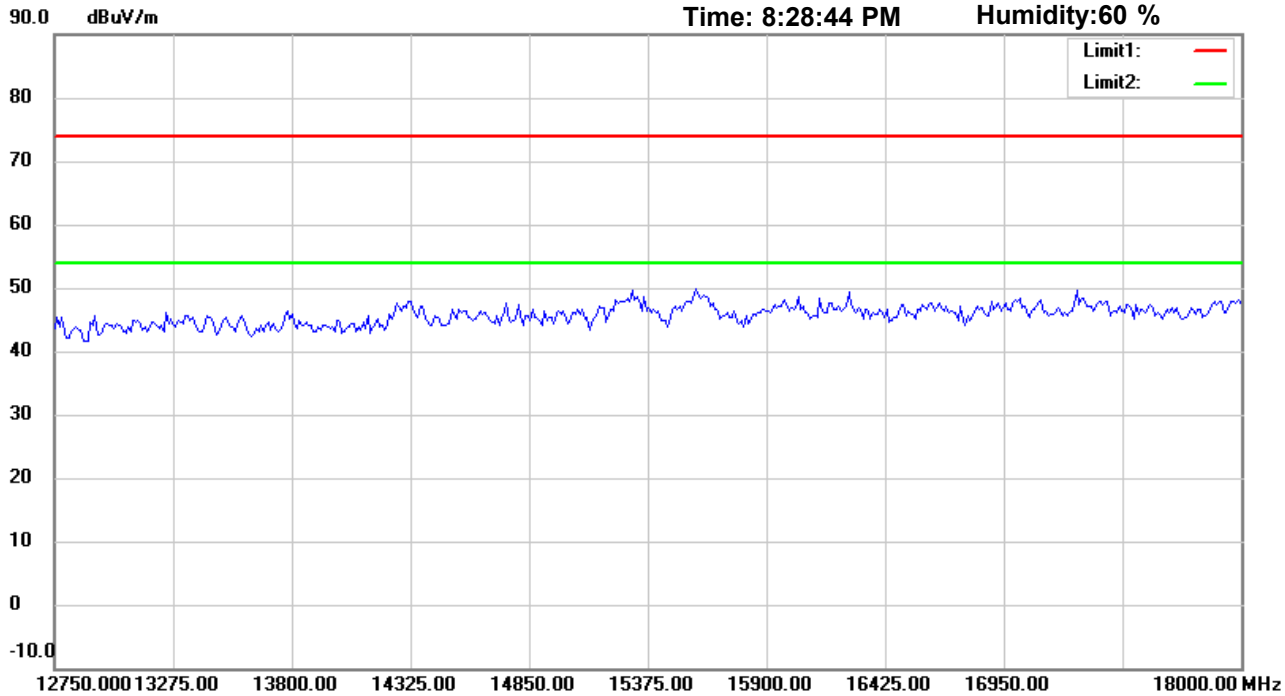
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#7 | Date: 11/22/2017 | Time: 8:28:44 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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

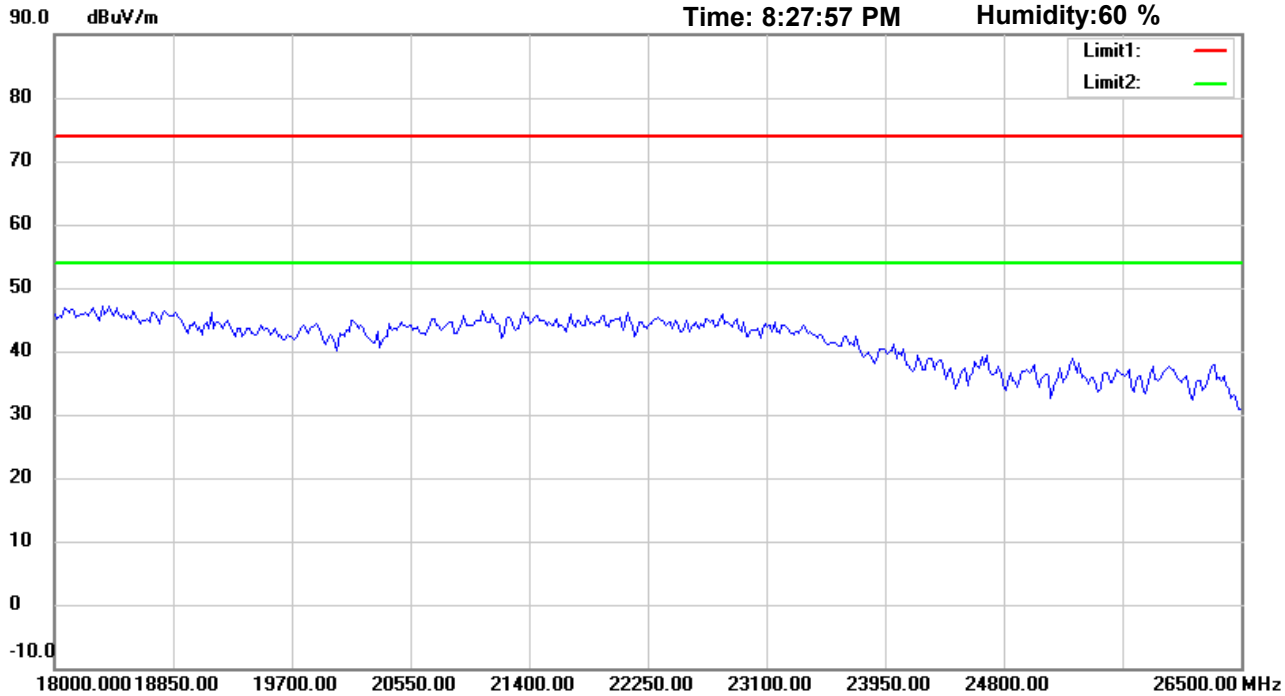
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#4 | Date: 11/22/2017 | Time: 8:27:57 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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

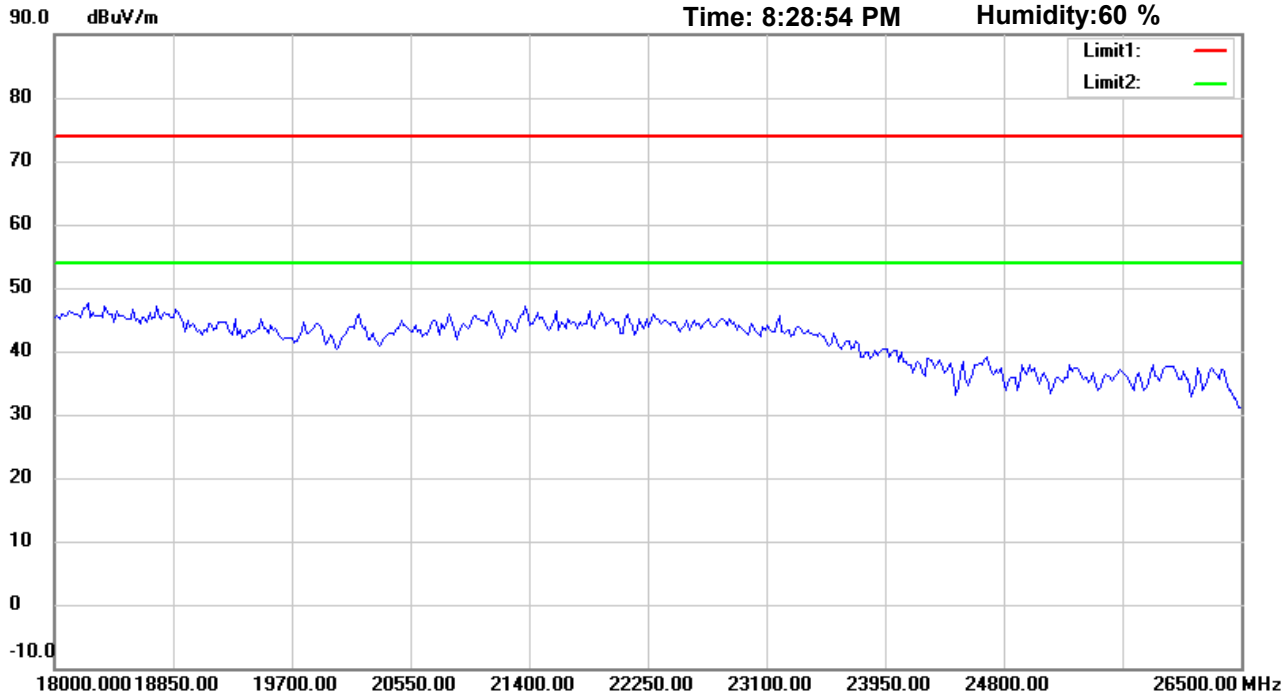
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#8 | Date: 11/22/2017 | Time: 8:28:54 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2402MHz

Note :

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

*:Maximum data x:Over limit !:over margin

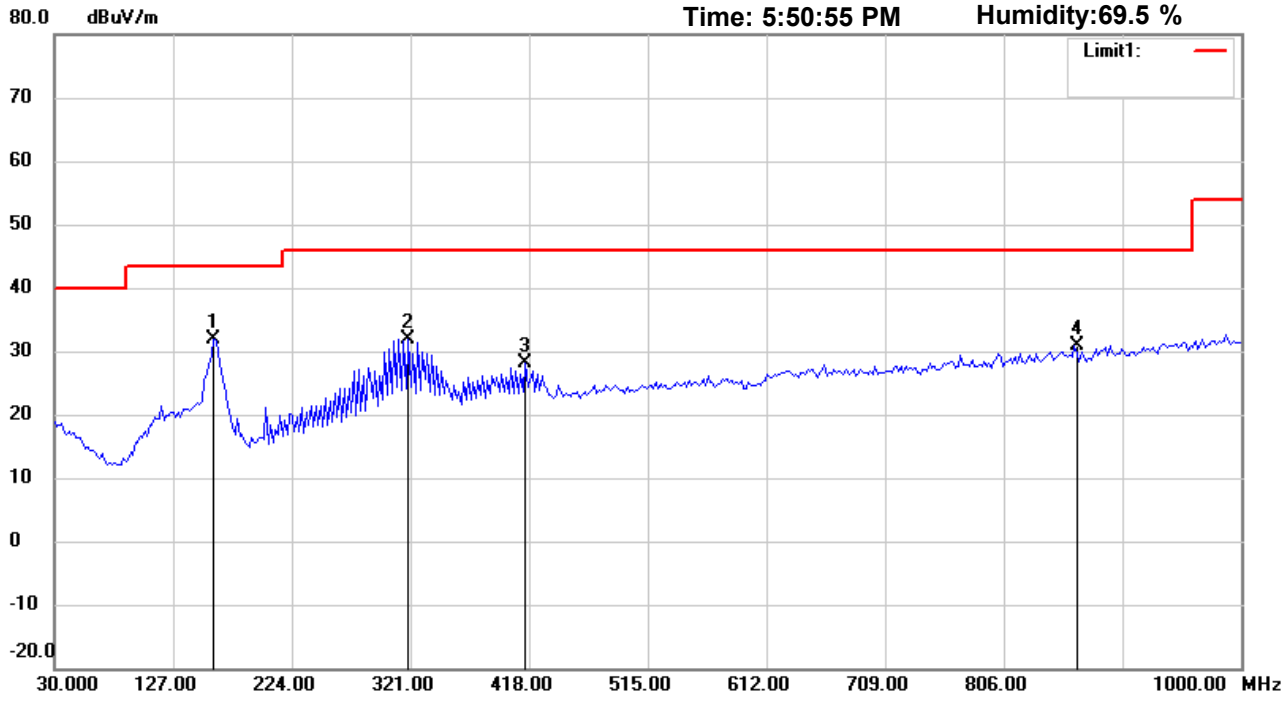
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#1 Date: 12/2/2017 Time: 5:50:55 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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
*	160.2404	40.90	peak	-9.12	31.78	43.50	100	175	-11.72	
	319.6392	37.37	peak	-5.38	31.99	46.00	100	40	-14.01	
	414.8897	31.48	peak	-3.39	28.09	46.00	100	235	-17.91	
	863.9280	28.26	peak	2.68	30.94	46.00	100	90	-15.06	

*:Maximum data x:Over limit !:over margin

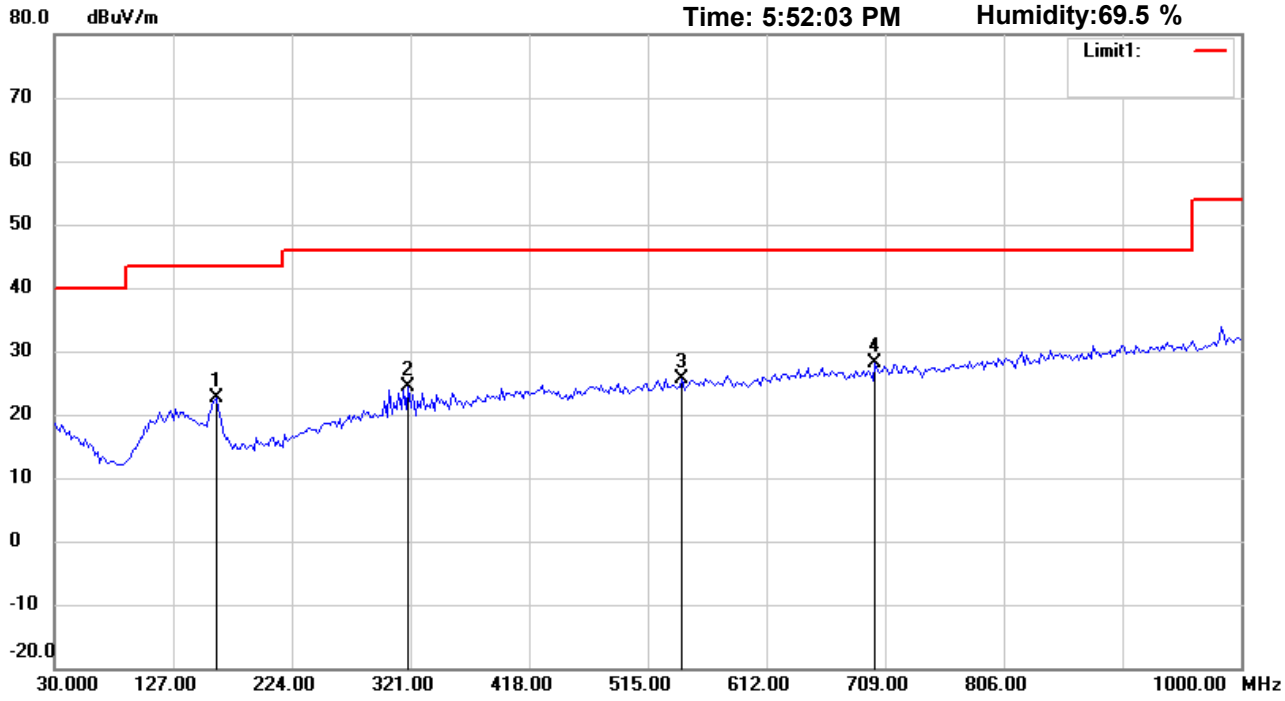
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#2 Date: 12/2/2017 Time: 5:52:03 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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
	162.1844	32.01	peak	-9.38	22.63	43.50	100	75	-20.87	
	319.6393	29.79	peak	-5.38	24.41	46.00	100	220	-21.59	
	543.1864	27.56	peak	-2.03	25.53	46.00	100	145	-20.47	
*	700.6413	28.57	peak	-0.32	28.25	46.00	100	90	-17.75	

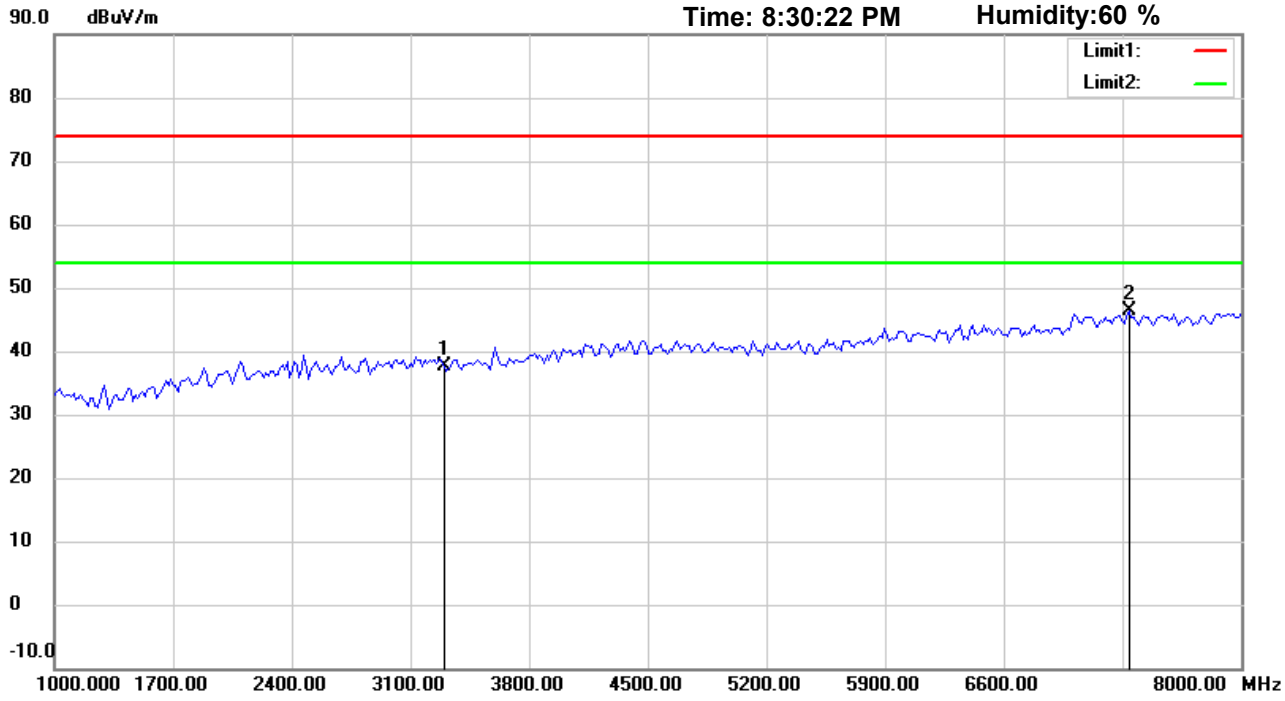
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#1 | Date: 11/22/2017 | Time: 8:30:22 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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
	3300.601	40.16	peak	-2.43	37.73	74.00	150	175	-36.27	
*	7340.681	41.27	peak	5.12	46.39	74.00	150	115	-27.61	

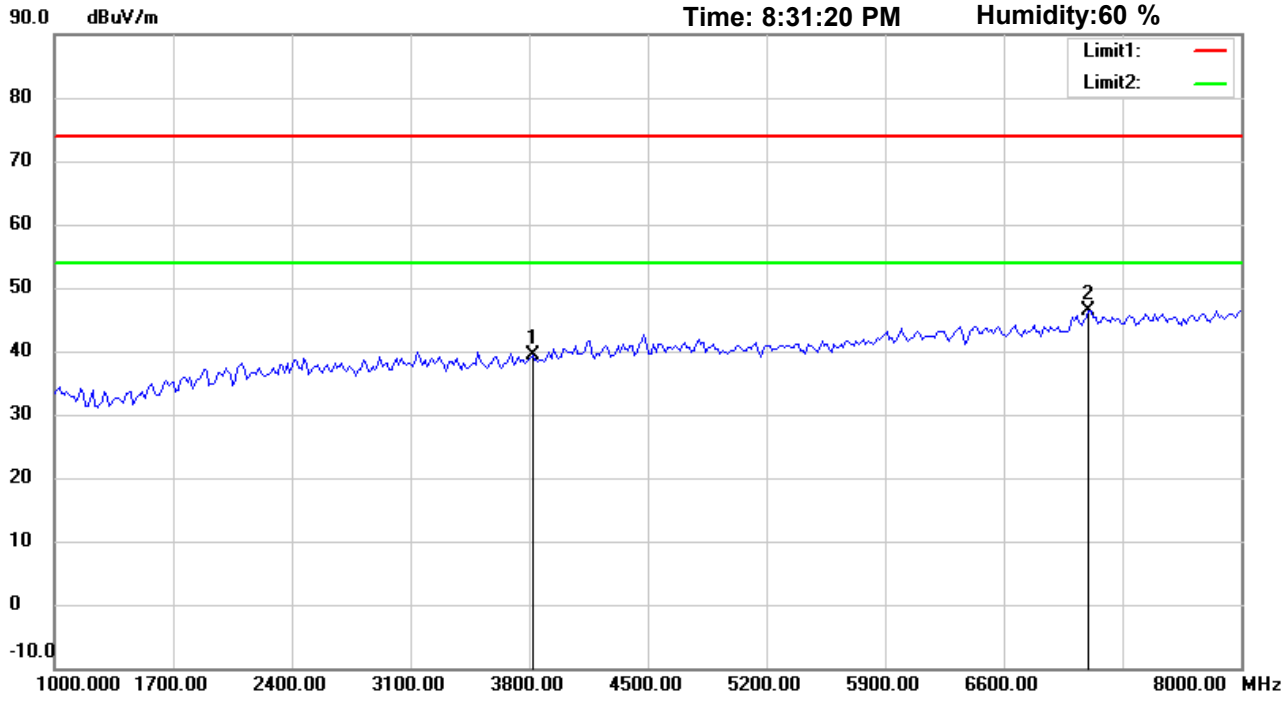
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#5 | Date: 11/22/2017 | Time: 8:31:20 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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
	3819.639	40.79	peak	-1.47	39.32	74.00	150	95	-34.68	
*	7102.204	41.22	peak	5.22	46.44	74.00	150	200	-27.56	

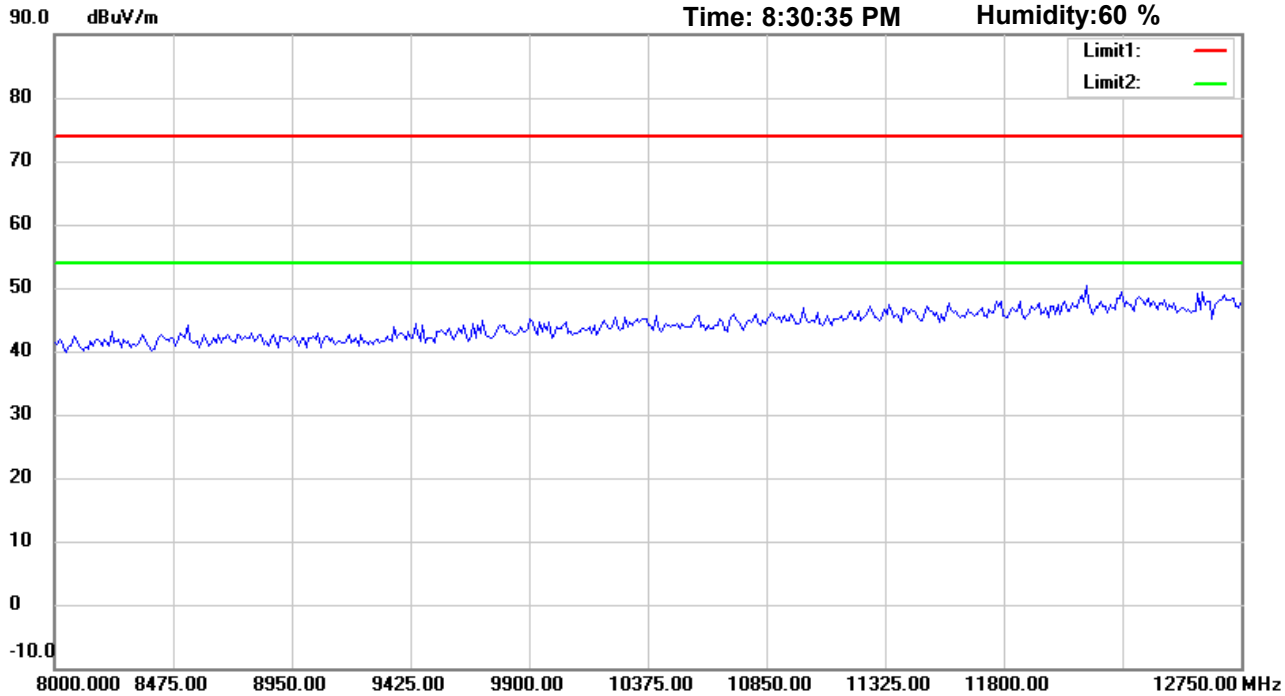
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#2 | Date: 11/22/2017 | Time: 8:30:35 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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

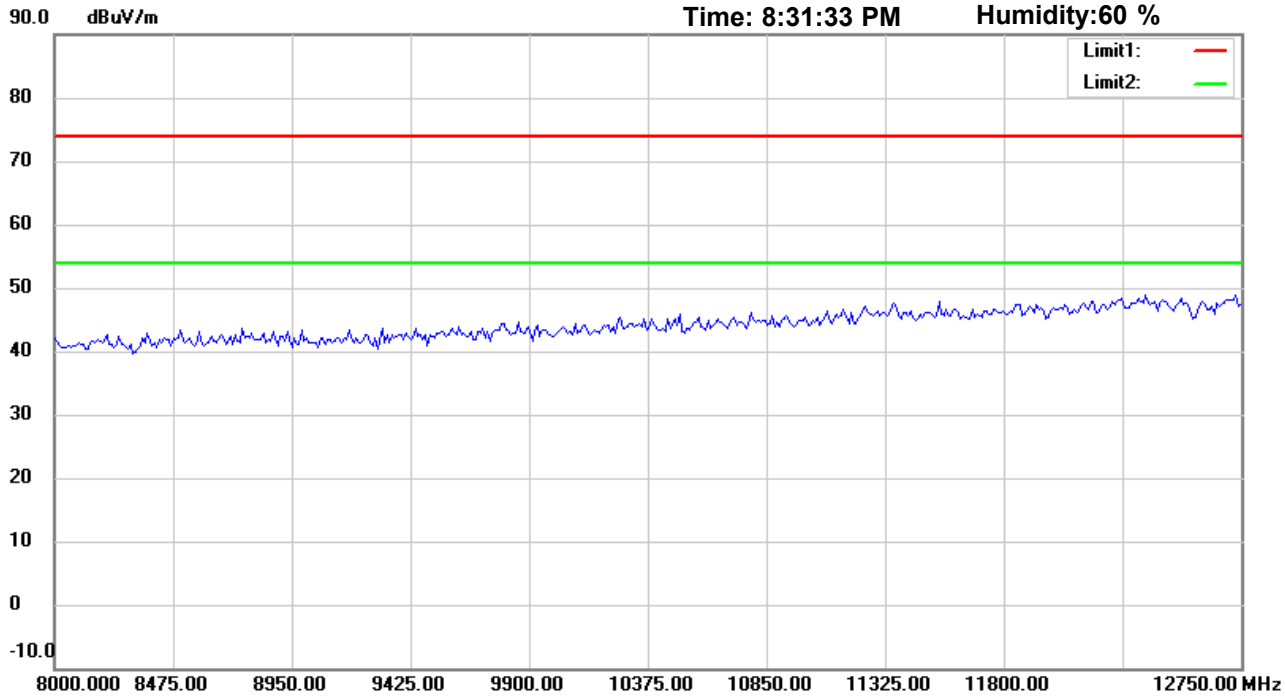
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#6 | Date: 11/22/2017 | Time: 8:31:33 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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

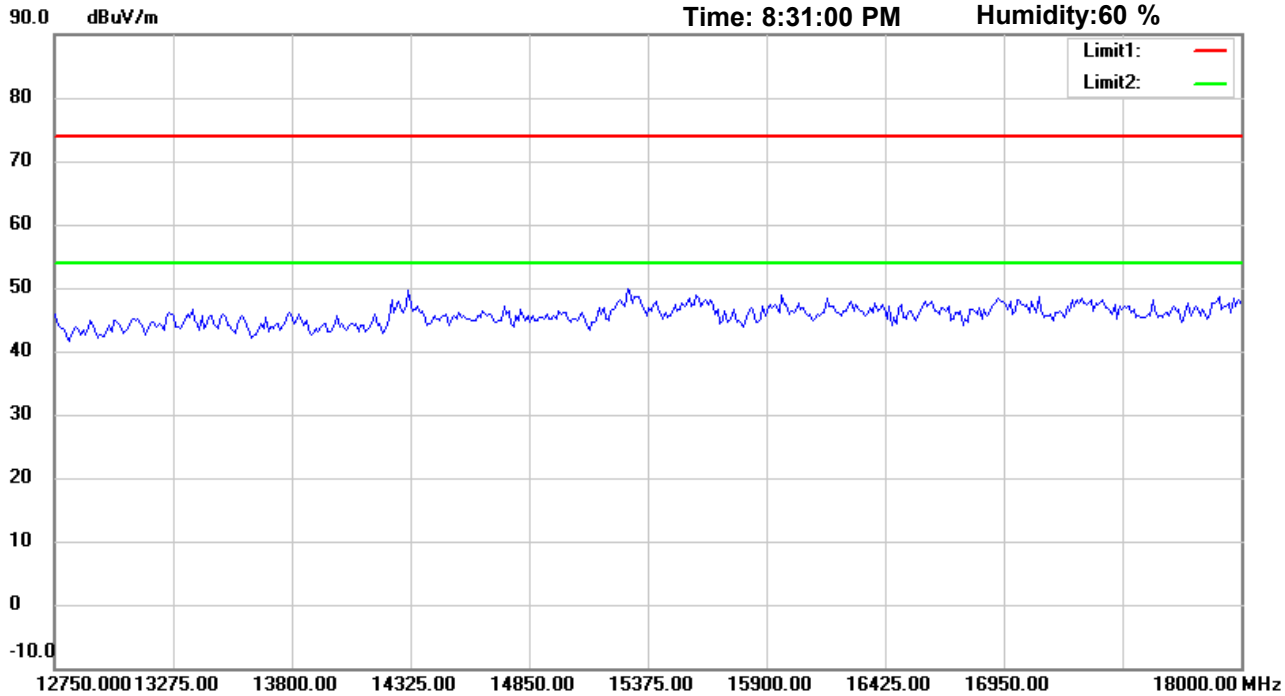
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#3 | Date: 11/22/2017 | Time: 8:31:00 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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

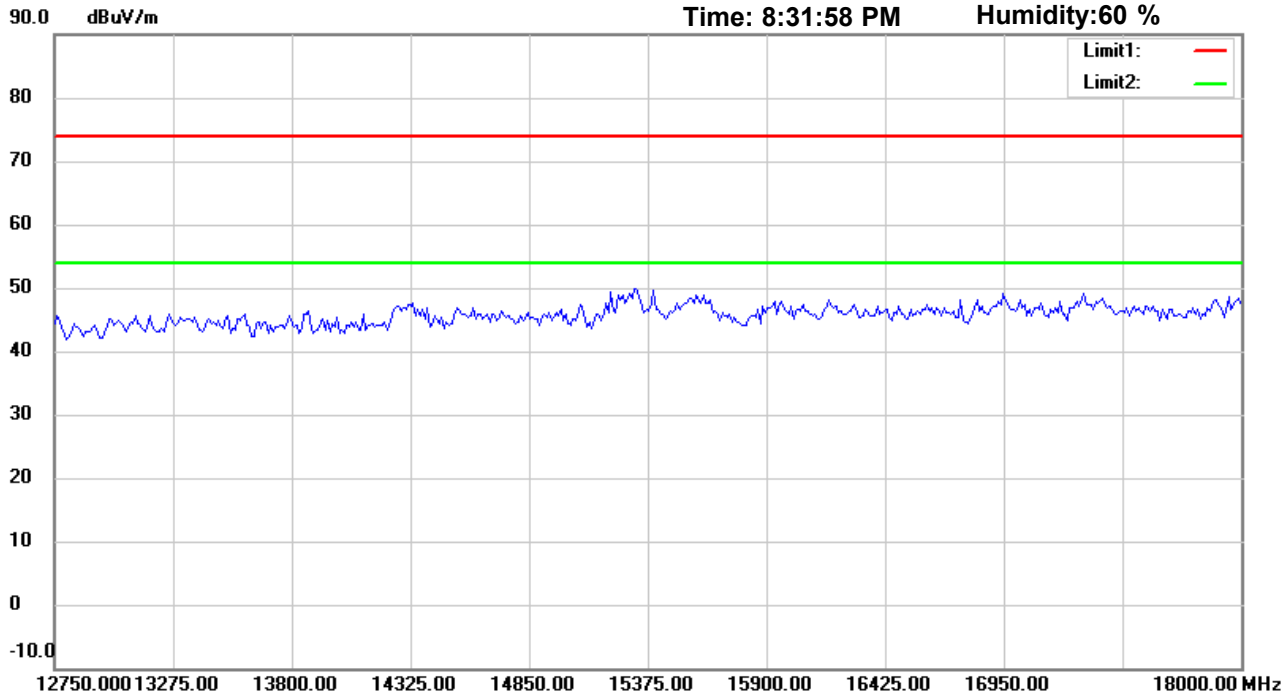
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#7 | Date: 11/22/2017 | Time: 8:31:58 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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

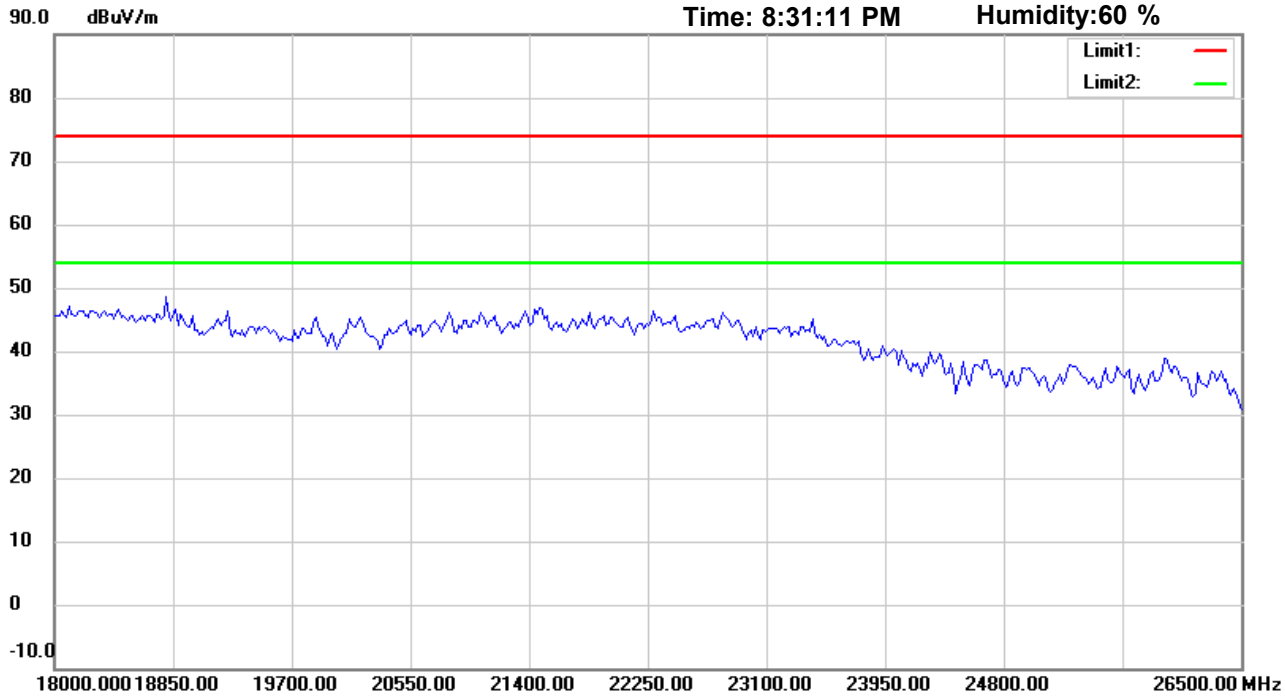
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#4 | Date: 11/22/2017 | Time: 8:31:11 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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

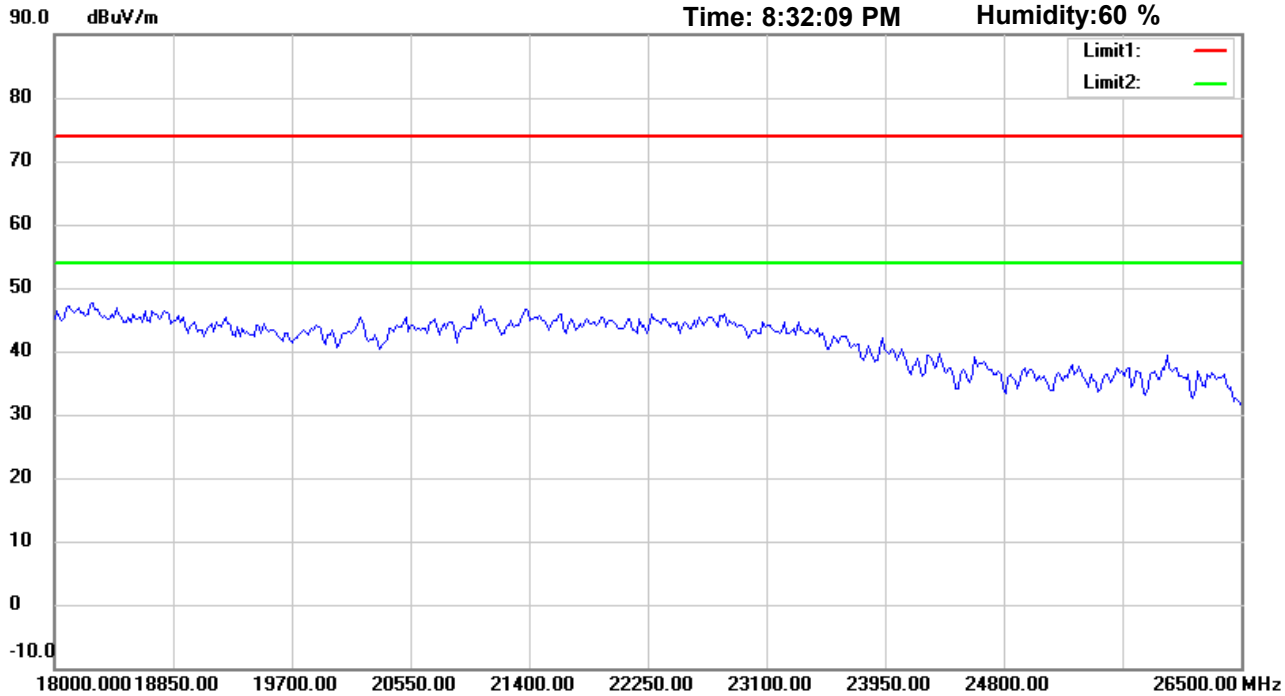
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#8 | Date: 11/22/2017 | Time: 8:32:09 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2441MHz

Note :

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

*:Maximum data x:Over limit !:over margin

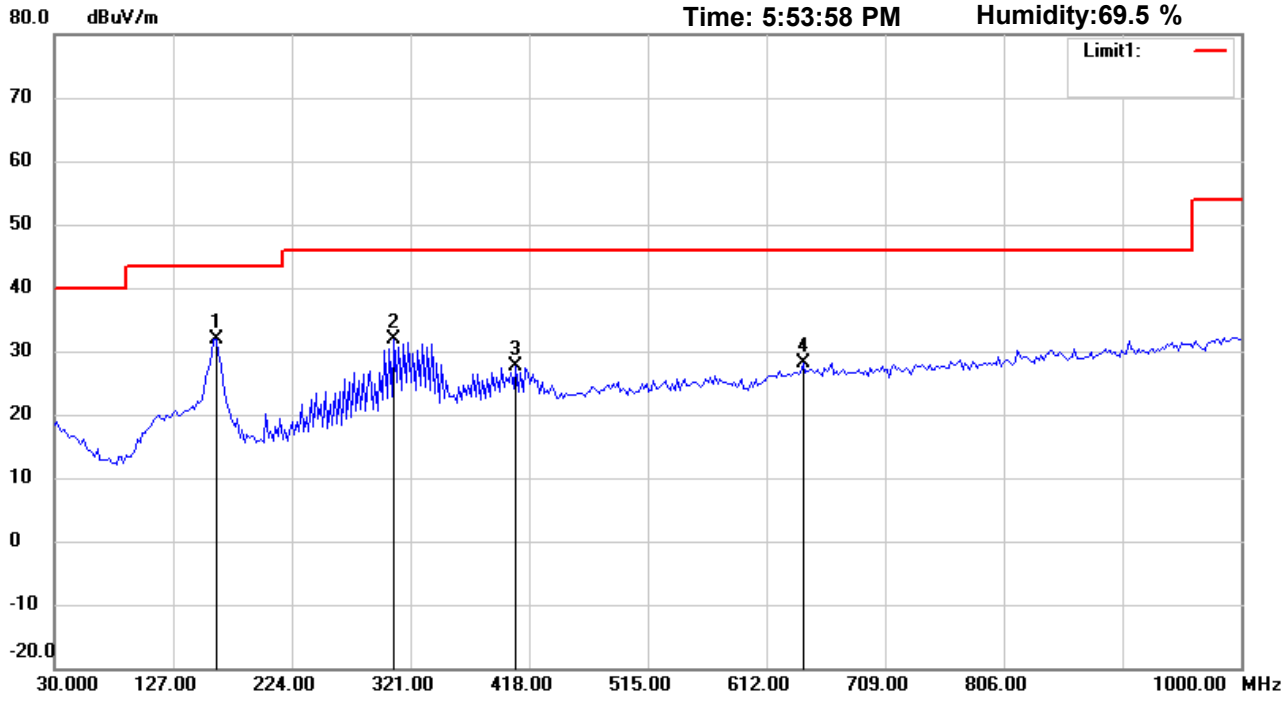
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#1 Date: 12/2/2017 Time: 5:53:58 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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
*	162.1844	41.36	peak	-9.38	31.98	43.50	100	175	-11.52	
	307.9760	37.61	peak	-5.72	31.89	46.00	100	240	-14.11	
	407.1141	31.20	peak	-3.48	27.72	46.00	100	165	-18.28	
	642.3246	28.65	peak	-0.47	28.18	46.00	100	90	-17.82	

*:Maximum data x:Over limit !:over margin

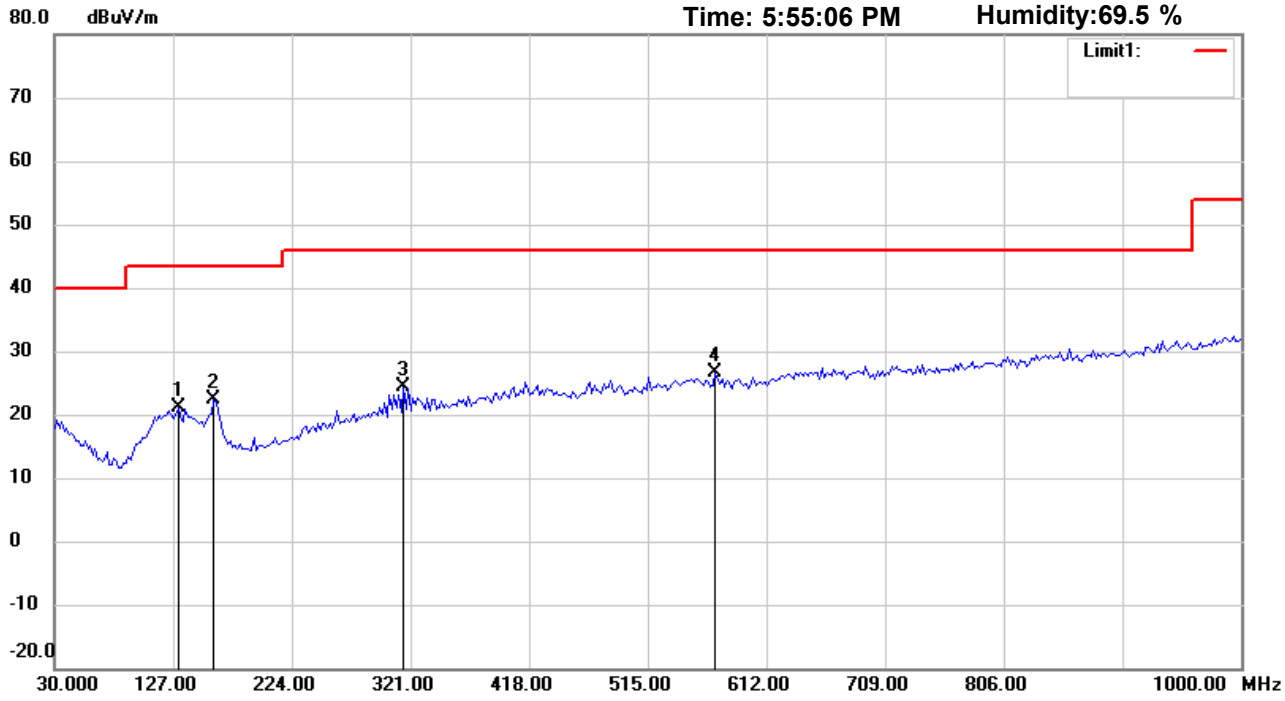
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Leon

File :1 Data :#2 Date: 12/2/2017 Time: 5:55:06 PM

Temperature:24.5 ℃
Humidity:69.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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
	131.0822	27.87	peak	-6.67	21.20	43.50	100	90	-22.30	
	160.2405	31.38	peak	-9.12	22.26	43.50	100	65	-21.24	
	315.7515	29.79	peak	-5.49	24.30	46.00	100	220	-21.70	
*	570.4008	28.42	peak	-1.82	26.60	46.00	100	175	-19.40	

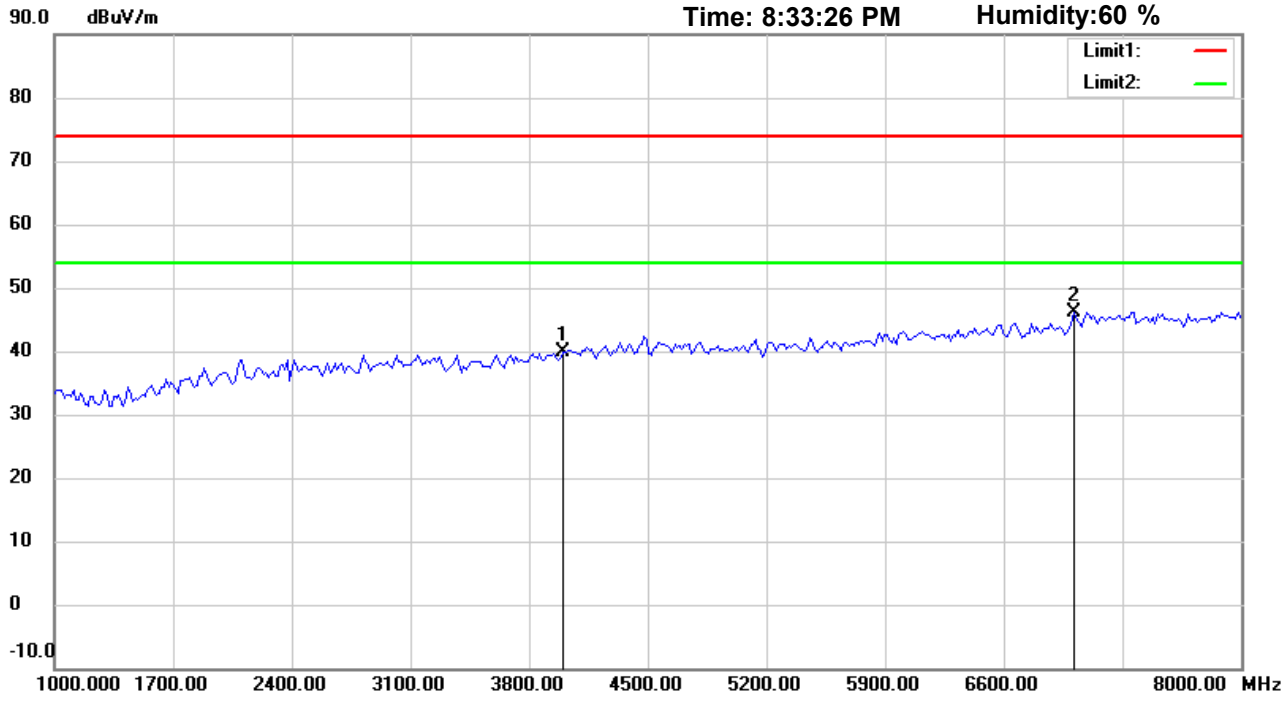
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#1 Date: 11/22/2017 Time: 8:33:26 PM Temperature:24 ℃ Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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
	4002.004	40.62	peak	-0.75	39.87	74.00	150	105	-34.13	
*	7018.036	41.11	peak	5.11	46.22	74.00	150	220	-27.78	

*:Maximum data x:Over limit !:over margin

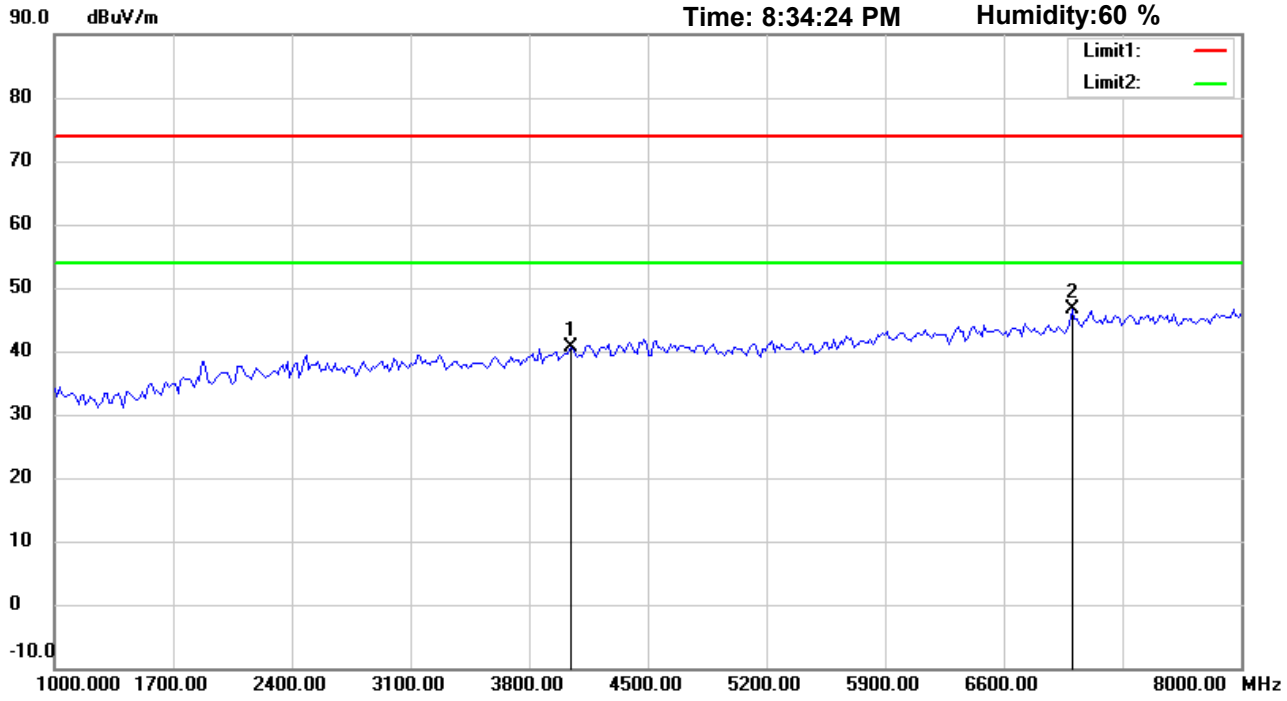
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#5 Date: 11/22/2017 Time: 8:34:24 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber
Condition : FCC_part 15 RE-Class B_Above 1GHz_PK
EUT : W6M21711-17556
M/N:
Test Mode : RX 2480MHz
Note :

Polarization: *Vertical*
Power : 3.7 Vd.c.
Distance: 3m

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
	4044.088	41.42	peak	-0.91	40.51	74.00	150	110	-33.49	
*	7004.008	41.41	peak	5.10	46.51	74.00	150	55	-27.49	

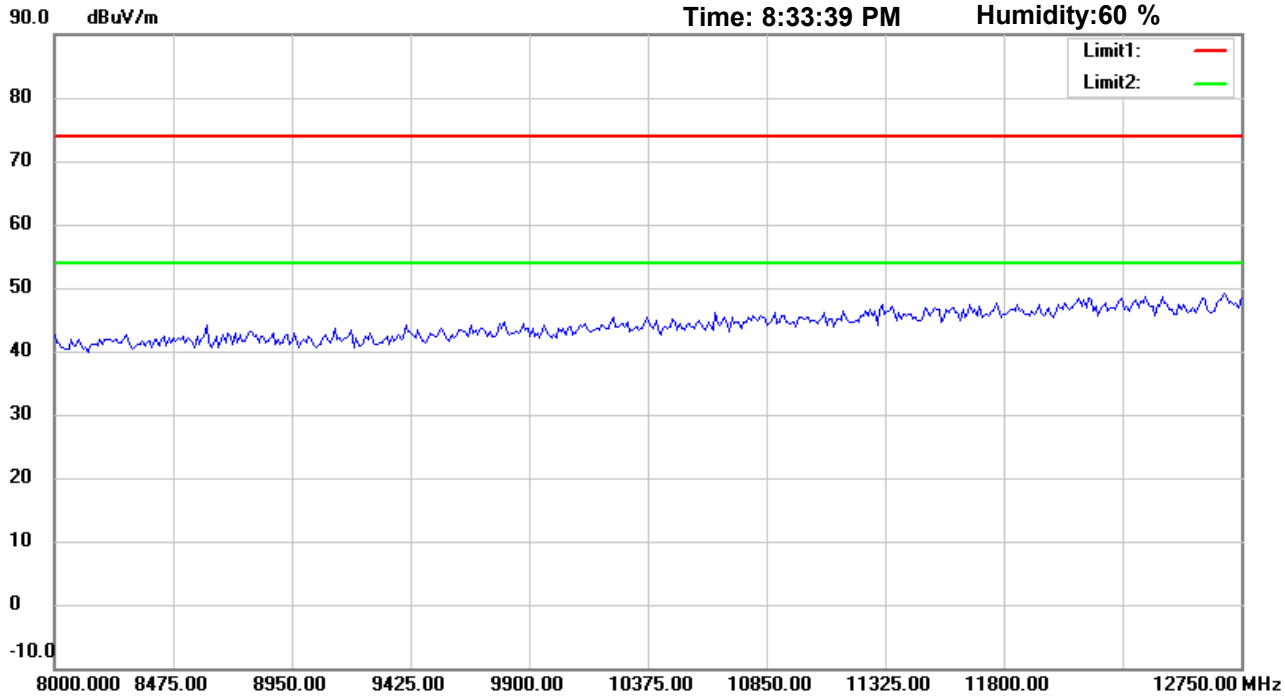
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#2 | Date: 11/22/2017 | Time: 8:33:39 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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

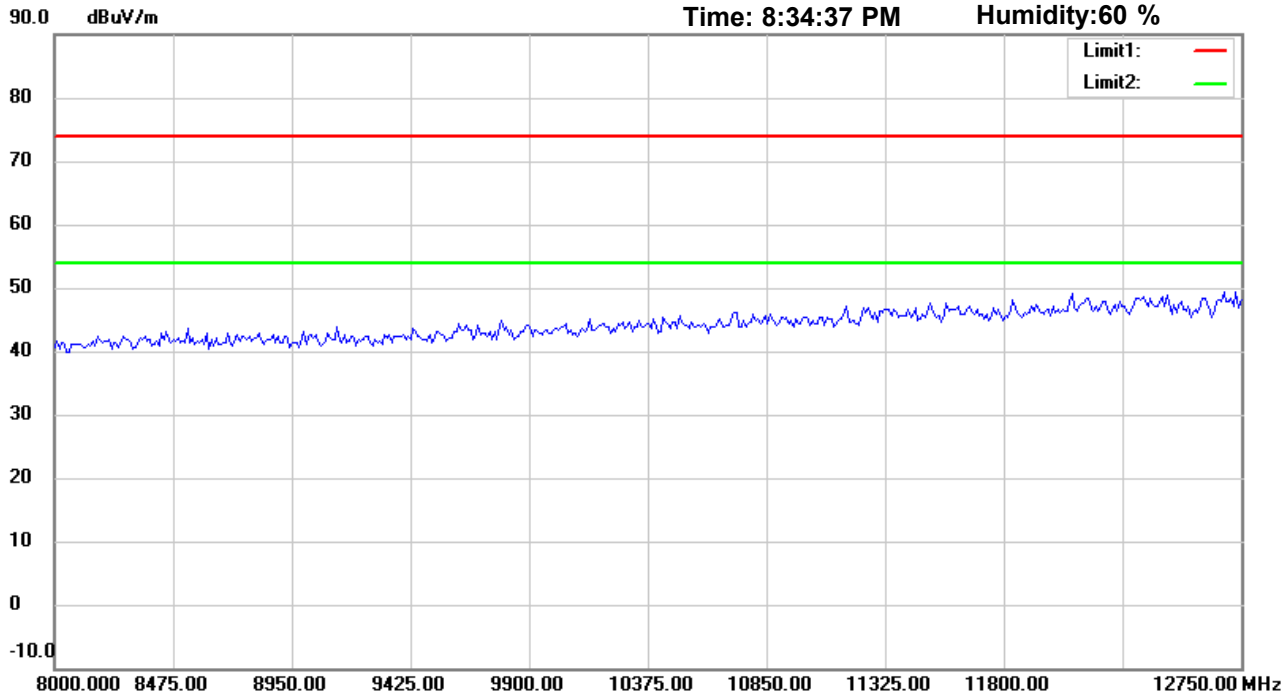
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#6 | Date: 11/22/2017 | Time: 8:34:37 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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

*:Maximum data x:Over limit !:over margin

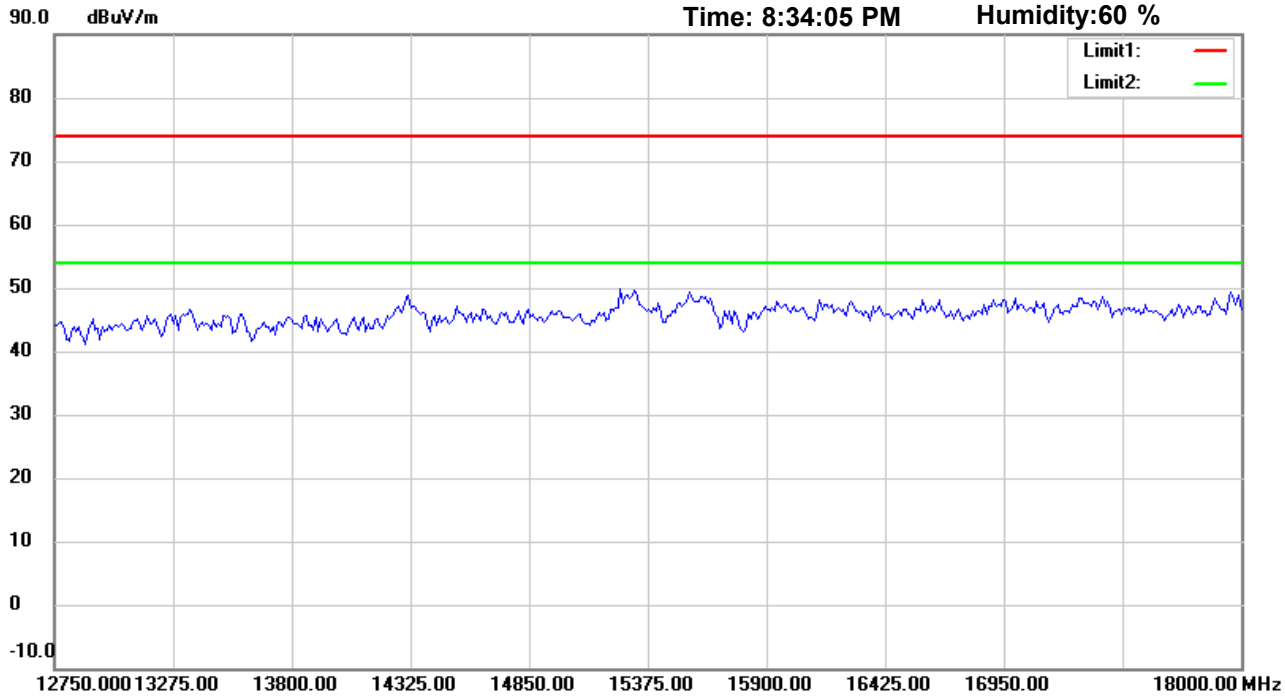
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 Data :#3 Date: 11/22/2017 Time: 8:34:05 PM

Temperature:24 ℃
Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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

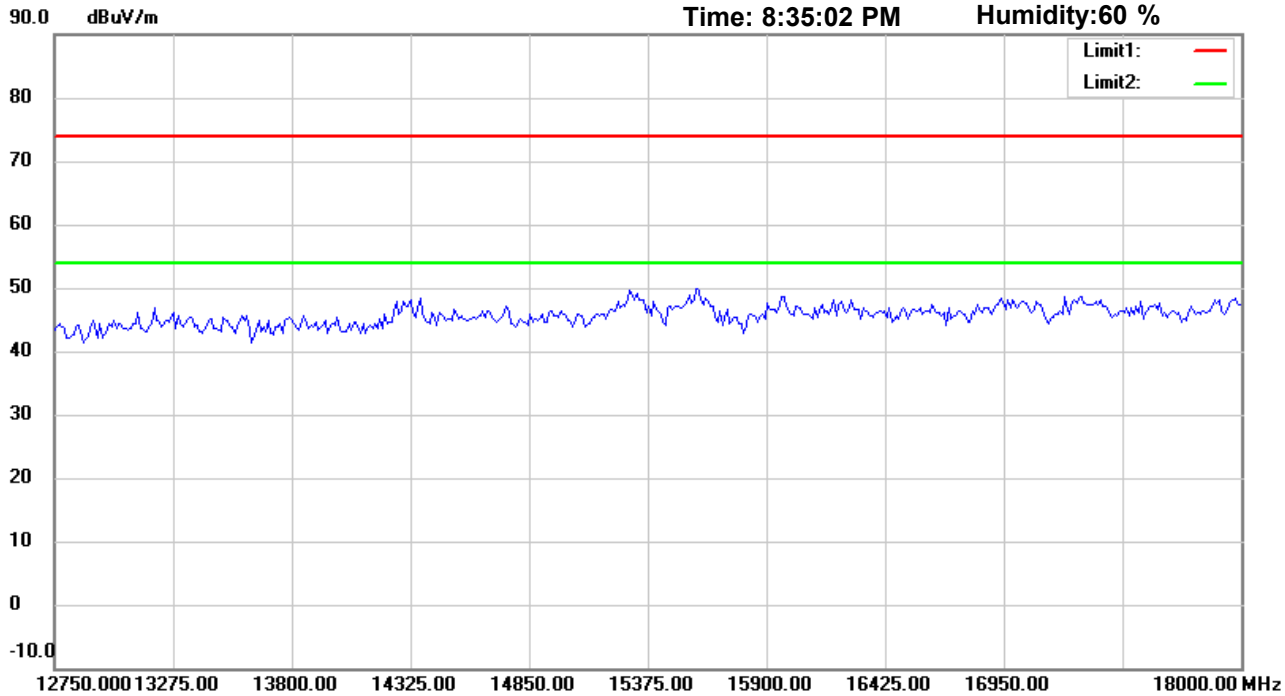
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#7 | Date: 11/22/2017 | Time: 8:35:02 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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

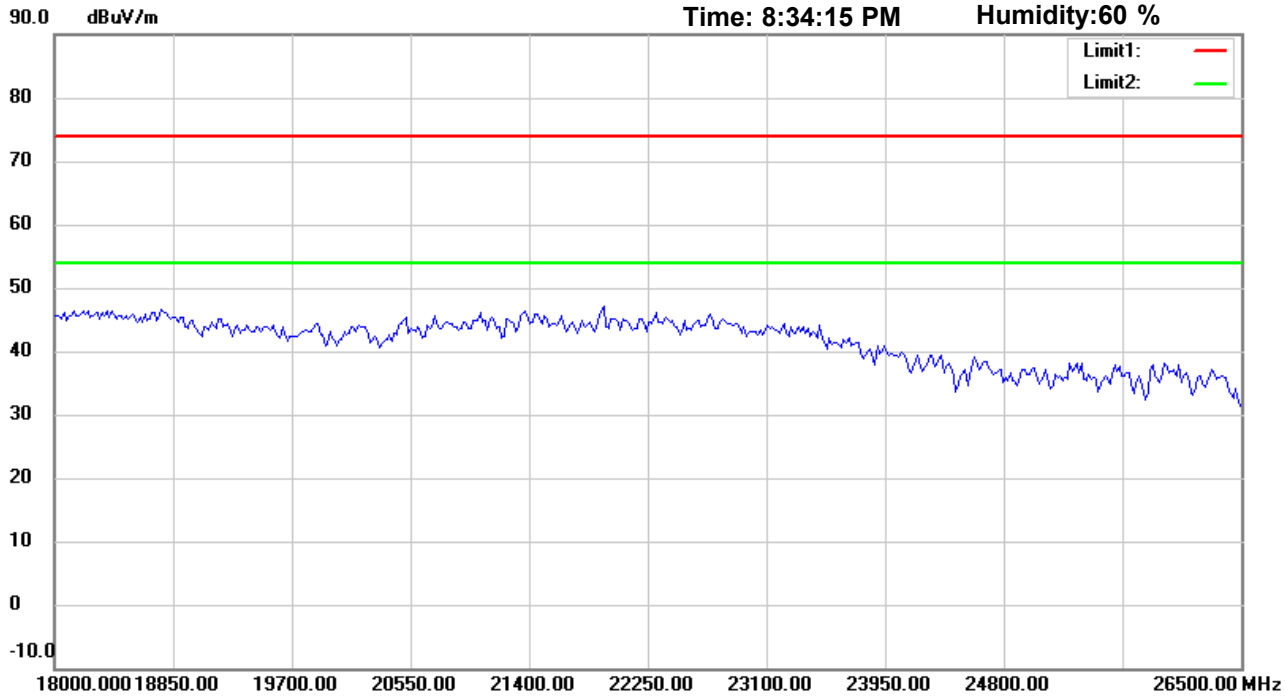
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#4 | Date: 11/22/2017 | Time: 8:34:15 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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

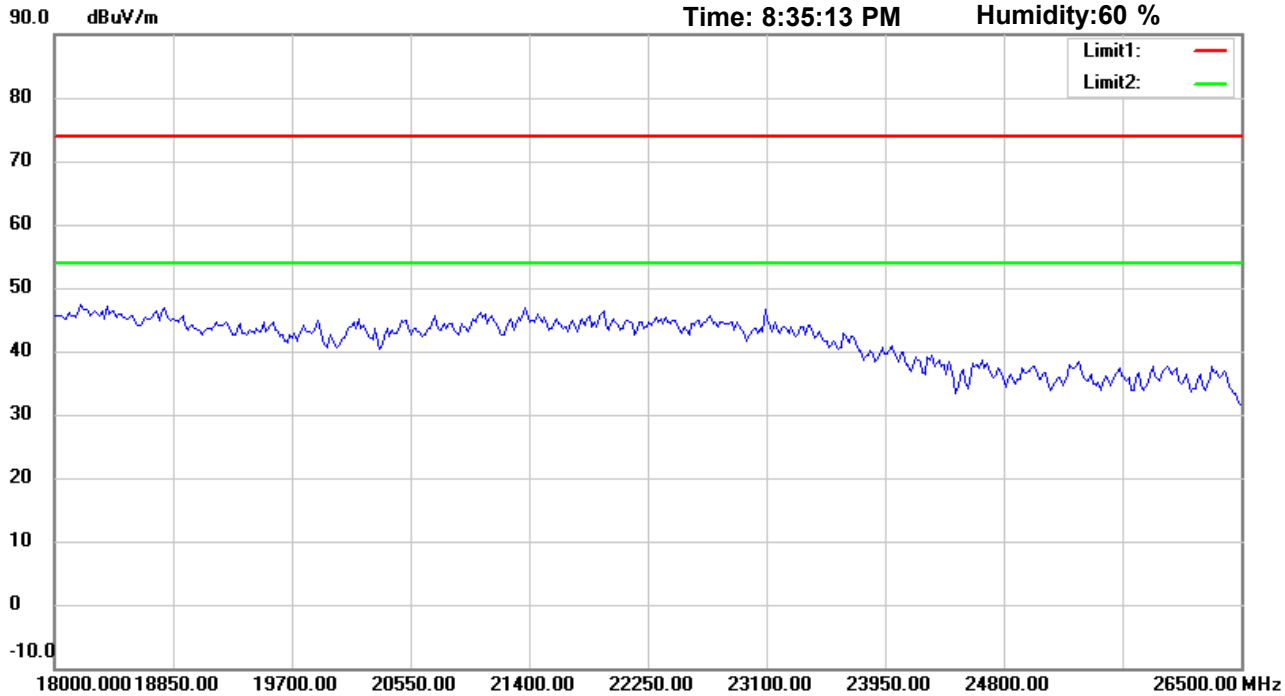
*:Maximum data x:Over limit !:over margin

Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Sky

File :3 | Data :#8 | Date: 11/22/2017 | Time: 8:35:13 PM | Temperature:24 ℃ | Humidity:60 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21711-17556

Power : 3.7 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 2480MHz

Note :

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

*:Maximum data x:Over limit !:over margin