FCC PART 15 SUBPART C TEST REPORT

for

Monitor

Model No.: PNM411

FCC ID: VIXPNM411

of

Applicant: Voxx Accessories Corp.

Address: 3502 Woodview Trace Suite 220 Indianapolis IN 46268 USA

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: 930600

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

A2LA Accredited No.: 2732.01





Report No.: W6M21704-16783-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



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1 General Information

1.1 Notes

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

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

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

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

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

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

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

Tester:

April 25, 2017 Robert Ren Signature

Technical responsibility for area of testing:

April 25, 2017 Kevin Wang

Date WTS Name Signature



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1.2 Testing laboratory

1.2.1 Location

OATS

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

Taiwan (R.O.C.)

3 meter semi-anechoic chamber

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

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

Company

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

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

1.2.2 Details of accreditation status

Accredited testing laboratory

A2LA accredited number: 2732.01

FCC filed test laboratory Reg. No. 930600

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

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

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

1.3 Details of approval holder

Name: Voxx Accessories Corp.

Street: 3502 Woodview Trace Suite 220

Town: Indianapolis IN 46268

Country: USA

Telephone: 317) 218-7302 Fax: 317) 569-0278



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1.4 Application details

Date of receipt of test item: April 12, 2017

Date of test: from April 13, 2017 to April 24, 2017

1.5 General information of Test item

Type of test item: Monitor

Model Number: PNM411

Multi-listing model number: ./.

Brand name: Project Nursery

Photos: see Annex

Technical data

Frequency band: 2406 - 2475 MHz

Frequency (ch 1): 2406 MHz Frequency (ch 13): 2442 MHz Frequency (ch 24): 2475 MHz

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

Power (ch 1): Conducted: 17.98 dBm Power (ch 13): Conducted: 18.00 dBm Power (ch 24): Conducted: 17.43 dBm

Power supply: Adaptor: Input: 100-240Vac~50/60Hz 200mA

Output: 5.0Vdc, 1000mA

Battery: 3.7Vdc, 1440mAh

Operation modes: Half-duplex

Modulation Type: FHSS

Antenna Type: FPC Antenna

Antenna gain: 2 dBi

Host device: none

Classification:

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

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Manufacturer: (if applicable)

Name: LB Technology Co.,Ltd.

Street: No.1 Fuhua Road, 1st Industeial District TanZhou Town,

Town: ZhongShan City, GuangDong Province,

Country: China 528467

Additional information: ./.

1.6 Test standards

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

FCC ID: VIXPNM411 **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 °C

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Details of power supply Adaptor: Input: 100-240Vac~50/60Hz 200mA

Output: 5.0Vdc, 1000mA

Battery: 3.7Vdc, 1440mAh

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



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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



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2.3 Test Equipment List

No.	Test equipment	Туре	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2016/5/20	2017/5/19
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 008	HF-EICHLEITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Functio	on Test
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2016/7/15	2017/7/14
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2016/9/12	2017/9/11
ETSTW-CE 028	MXE EMI Receiver	N9038A	MY53220110	Agilent	2016/8/26	2017/8/25
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2016/5/20	2017/5/19
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2016/5/25	2017/5/24
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2016/7/4	2017/7/3
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function	on Test
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function	on Test
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2016/6/24	2017/6/23
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2016/6/29	2017/6/28
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	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	2017/4/6	2018/4/5
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-te	st 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	2017/4/6	2018/4/5
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function	on Test
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	ETS-Lindgren	Function	on Test
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2016/9/8	2017/9/7
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2016/9/20	2017/9/19
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



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ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Functi	on test
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2016/5/23	2017/5/22
ETSTW-RE 125	5GHz Notch filter	5NSL11- 5200/E221.3-O/O	1	K&L Microwave	2016/8/10	2017/8/9
ETSTW-RE 126	5GHz Notch filter	5NSL12- 5800/E221.3-O/O	1	K&L Microwave	2016/8/10	2017/8/9
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2017/3/1	2018/2/28
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2016/8/10	2017/8/9
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2016/8/10	2017/8/9
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-te	st Use
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2017/4/6	2018/4/5
ETSTW-RE 143	Humidity Temperature Meter	TES-1260	110104623	TES	2016/8/19	2017/8/18
ETSTW-RE 147	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04005	ETC	2017/3/22	2018/3/21
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2016/5/4	2017/5/3
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	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	2016/12/15	2017/12/14
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	2016/9/14	2017/9/13
ETSTW-Cable 010	BNC Cable	RGS-142	None	THERMAX	2016/9/12	2017/9/11
ETSTW-Cable 011	SMA to N type Cable	RGU-400	None	THERMAX	Pre-test I	Jse NCR
ETSTW-Cable 012	BNC Cable	RGS-400	None	THERMAX	2016/9/12	2017/9/11
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.	2017/4/21	2018/4/20
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	2016/5/13	2017/5/12
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2016/9/20	2017/9/19
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2016/9/20	2017/9/19
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	2017/4/6	2018/4/5
ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2017/4/6	2018/4/5



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ETSTW-Cable 048	Microwave Cable	SUCOFLEX 104	325519	HUBER+SUHNER	2017/4/6	2018/4/5
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	2016/4/13	2017/4/12
ETSTW-Cable 066	SMA type cable	32022	None	ASTROLAB	2016/9/12	2017/9/11
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 E	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

Worldwide Testing Services(Taiwan) Co., Ltd.

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2.4 General Test Procedure

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

RADIATION INTERFERENCE: The test procedure used was according to ANSI STANDARD C63.10-2013 6.3 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. 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 $dB\mu V$) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

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

33 $20 \text{ dB}\mu\text{V} + 10.36 \text{ dB} + 6 \text{ dB} = 36.36 \text{ dB}\mu\text{V/m} \text{ @3m}$

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.

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

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



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

The formula is as follows:

Average = Peak + Duty Factor

Duty Factor = 20 log (dwell time/T)

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

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

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



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3 Test results (enclosure)

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

The follows is intended to leave blank.



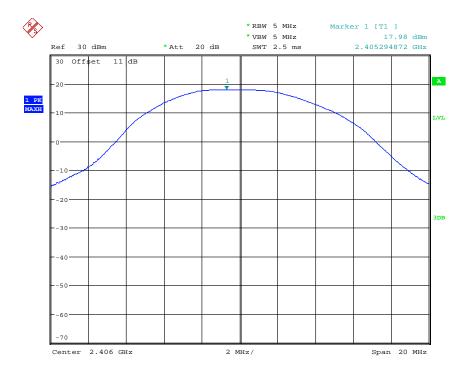
FCC ID: VIXPNM411

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).

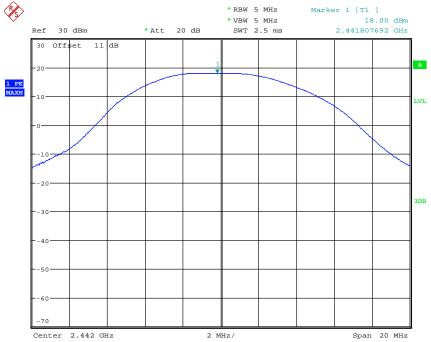


MAX OUTPUT POWER 2406MHz

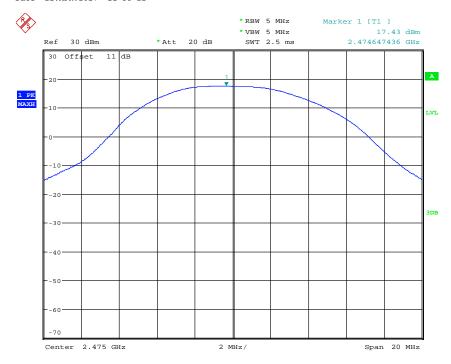


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MAX OUTPUT POWER 2442MHz
Date: 21.APR.2017 11:58:21



MAX OUTPUT POWER 2475MHz
Date: 21.APR.2017 11:57:34



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Maximum Peak Output Power

Limits:

Frequency				
MHz	≥ 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

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3.2 RF Exposure Compliance Requirements

According to Supplement C, Edition 01-01 to OET Bulletin 65, Edition 97-01 this spread spectrum transmitter is categorically excluded from routine environmental evaluation because of the low power level, where there is a high likelihood of compliance with RF exposure standards.

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 003, ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043, ETSTW-RE 044, ETSTW-RE 064



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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.

 $54.0dB\mu V/m$

For frequencies above 1GHz (Peak measurements).

Limit + 20dB

 $54.0 dB \mu V/m + 20 dB = 74 dB \mu V/m$

Note: See attached diagrams.

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 042,

ETSTW-RE 043, ETSTW-RE 044, ETSTW-RE 064



Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411

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:PNM411Date:--Mode:--Temperature:-- °CEngineer:--Polarization:HorizontalHumidity:-- %

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

Frequency		ding uV)	Factor (dB)		sult uV/m)		mit V/m)	Margin	Table Degree	Ant. High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
								-	1	



Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411 Polarization: Vertifical

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

Frequency		ding uV)	Factor (dB)		sult uV/m)		mit V/m)	Margin	Table Degree	Ant. High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
		-						-	1	
		-						-	1	
		-							-	

Note

- 1. Correction Factor = Antenna factor + Cable loss Preamplifier
- 2. The formula of measured value as: Test Result = Reading + Correction Factor
- 3. Detector function in the form: PK = Peak, QP = Quasi Peak, AV = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits. Measurement uncertainty above 1GHz: $30-1000 \text{ MHz} = \pm 3.3 \text{ dB}$, $1-18 \text{ GHz} = \pm 2.28 \text{ dB}$, $18-40 \text{ GHz} = \pm 2.19 \text{ dB}$; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
- 5. Up Line: PK Limit Line, Down Line: Ave Limit Line.
- 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 042, ETSTW-RE 043, ETSTW-RE 044, ETSTW-RE 064

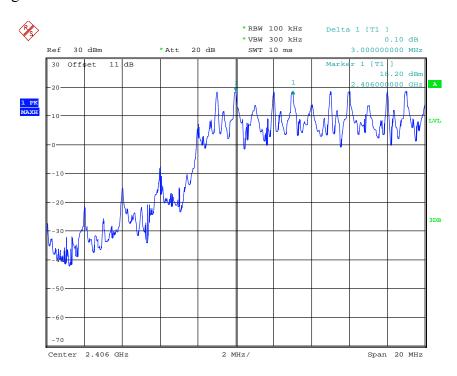
Worldwide Testing Services(Taiwan) Co., Ltd.

FCC ID: VIXPNM411

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.

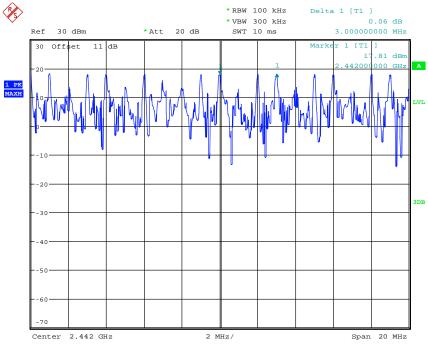


FREQUENCY SEPARATION 2406MHz Date: 21.APR.2017 12:02:12

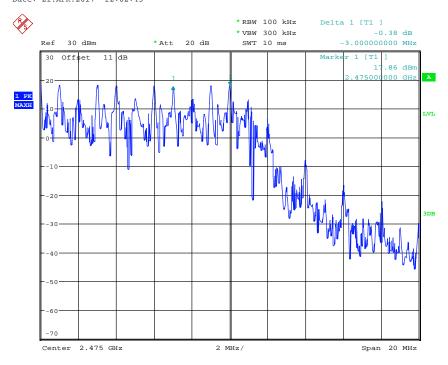


Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411



FREQUENCY SEPARATION 2442MHz Date: 21.APR.2017 12:02:43



FREQUENCY SEPARATION 2475MHz Date: 21.APR.2017 12:03:20



Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411

Limits:

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

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



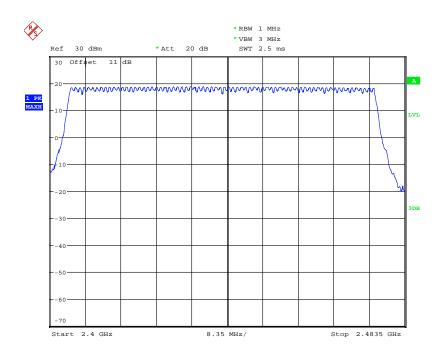
Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411

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
Date: 21.APR.2017 12:04:31

Limits:

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

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

FCC ID: VIXPNM411

3.7.1 Pseudorandom Frequency Hopping Sequence

This FHSS transmitter is controlled by a microchip to generate the Pseudorandom Frequency Hopping Sequence. There is one hopping sequence listed below:

Sequence : 2406, 2409, 2412, 2415, 2418, 2421, 2424, 2427, 2430, 2433, 2436, 2439, 2442, 2445,

2448, 2451, 2454, 2457, 2460, 2463, 2466, 2469, 2472, 2475

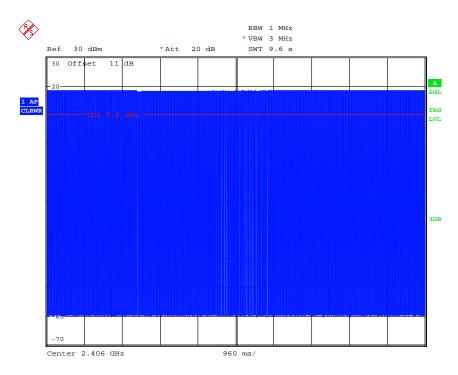
FCC ID: VIXPNM411

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.



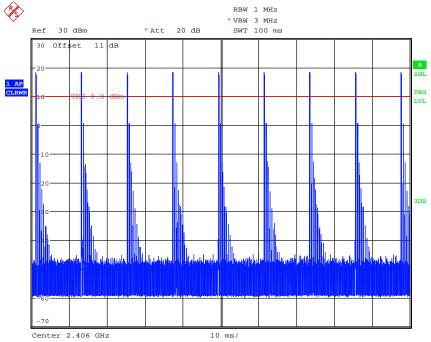
DWELL TIME 2406MHz

Date: 21.APR.2017 13:22:39

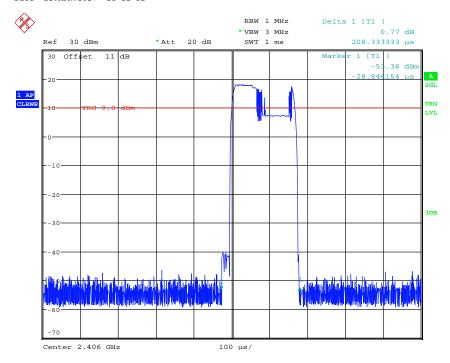


Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411







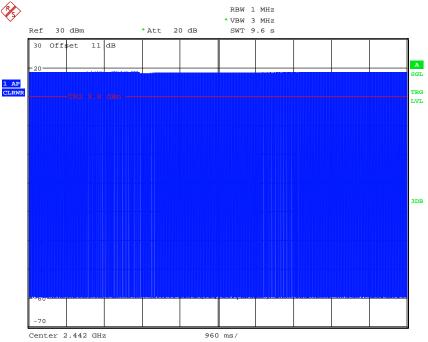
DWELL TIME 2406MHz (0.208ms*9*96=179.712ms)

Date: 21.APR.2017 13:24:17

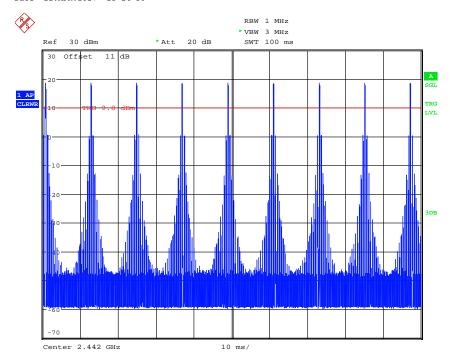


Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411







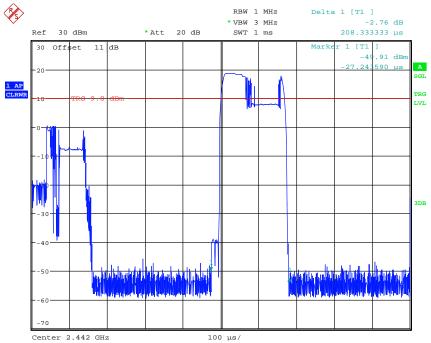
DWELL TIME 2442MHz

Date: 21.APR.2017 13:25:09

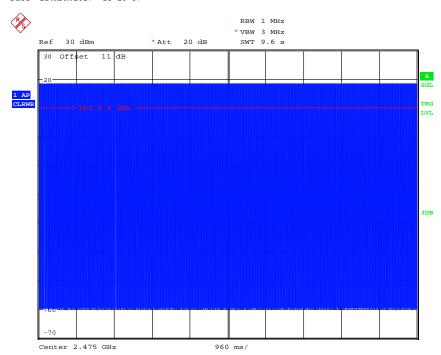


Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411







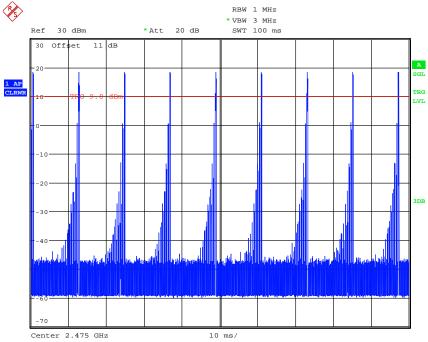
DWELL TIME 2475MHz

Date: 21.APR.2017 13:28:14

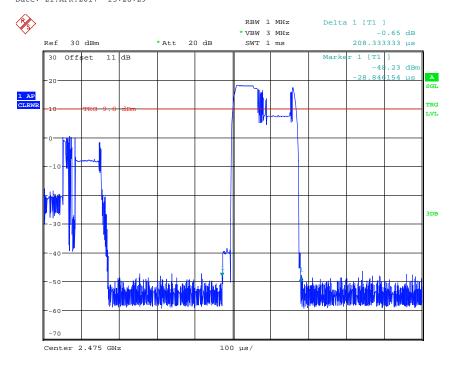


Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411



DWELL TIME 2475MHz
Date: 21.APR.2017 13:28:29



DWELL TIME 2475MHz (0.208ms*9*96=179.712ms)

Date: 21.APR.2017 13:29:48



FCC ID: VIXPNM411

Limits and measurement periods:

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

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

FCC ID: VIXPNM411 **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.



20DB BANDWIDTH 2406MHz
Date: 21.APR.2017 11:54:55

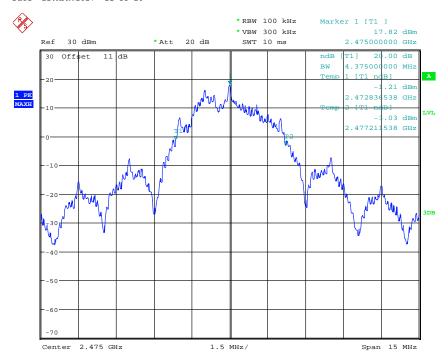


Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411



20DB BANDWIDTH 2442MHz
Date: 21.APR.2017 11:55:26



20DB BANDWIDTH 2475MHz Date: 21.APR.2017 11:55:51



FCC ID: VIXPNM411

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

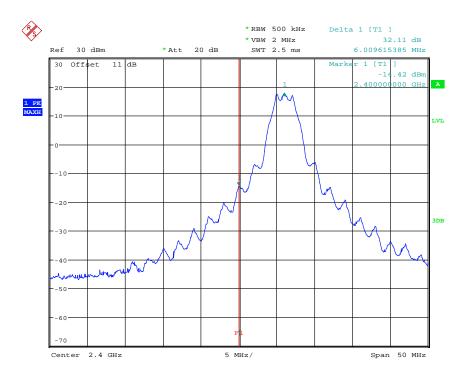


FCC ID: VIXPNM411

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.



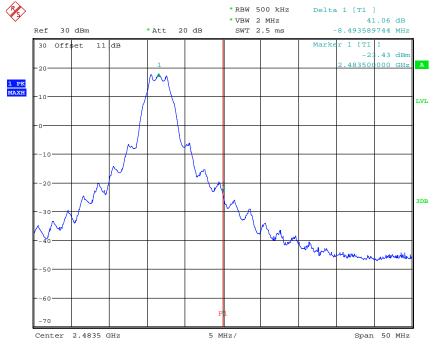
BANDEDGE 2406MHz

Date: 21.APR.2017 11:59:40



Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411



BANDEDGE 2475MHz

Date: 21.APR.2017 12:00:15

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: W6M21704-16783-C-1

FCC ID: VIXPNM411

3.11 Radiated Emissions from Digital Part

FCC Rule: 15.109

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

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

Test equipment used: ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043, ETSTW-RE 044, ETSTW-RE 064

Explanation: The test results are listed in the separated test report no.: W6M21704-16783-P-15B.



Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411

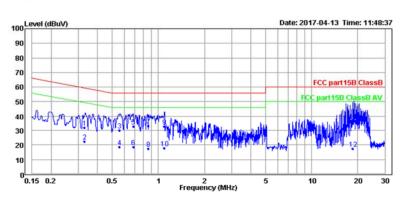
3.12 Power Line Conducted Emission

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.



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



Condition: FCC part15B ClassB ENV216 neutral

EUT : W6M21704-16783 Mode : Adaptor Power : 120 Va.c.

Operator : Kiki Note :

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBu∀	dBuV	dB	dBuV	dB		
1	0.329	32.09	22.30	9.79	59.47	-27.38	neutral	QP
2	0.329	22.55	12.76	9.79	49.47	-26.92	neutral	Average
3	0.556	30.07	20.28	9.79	56.00	-25.93	neutral	QP
4	0.556	18.74	8.95	9.79	46.00	-27.26	neutral	Average
5	0.686	32.69	22.89	9.80	56.00	-23.31	neutral	QP
6	0.686	18.51	8.71	9.80	46.00	-27.49	neutral	Average
7	0.858	32.92	23.11	9.81	56.00	-23.08	neutral	QP
8	0.858	17.63	7.82	9.81	46.00	-28.37	neutral	Average
9	1.095	32.81	22.99	9.82	56.00	-23.19	neutral	QP
10	1.095	17.71	7.89	9.82	46.00	-28.29	neutral	Average
11 *	18.454	36.93	26.70	10.23	60.00	-23.07	neutral	QP
12	18.454	17.63	7.40	10.23	50.00	-32.37	neutral	Average

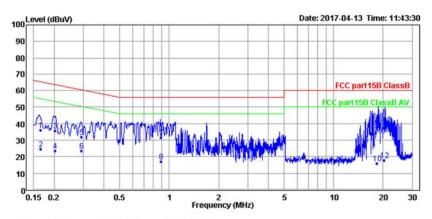


Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411



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



Condition: FCC part15B ClassB ENV216 line

FUT : W6M21704-16783

Mode : Adaptor : 120 Va.c. Operator : Kiki

Note

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBu∀	dBu∀	dB	dBu∀	dB		
1	0.165	36.07	26.24	9.83	65.22	-29.15	line	QP
2	0.165	24.55	14.72	9.83	55.22	-30.67	line	Average
3	0.202	35.58	25.77	9.81	63.51	-27.93	line	QP
4	0.202	23.58	13.77	9.81	53.51	-29.93	line	Average
5	0.293	31.94	22.14	9.80	60.44	-28.50	line	QP
6	0.293	23.59	13.79	9.80	50.44	-26.85	line	Average
7	0.891	31.71	21.94	9.77	56.00	-24.29	line	QP
8	0.891	17.21	7.44	9.77	46.00	-28.79	line	Average
9 *	18.290	37.72	27.59	10.13	60.00	-22.28	line	QP
10	18.290	15.88	5.75	10.13	50.00	-34.12	line	Average
11	20.295	37.66	27.51	10.15	60.00	-22.34	line	QP
12	20.295	17.83	7.68	10.15	50.00	-32.17	line	Average

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.



Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411

Limits:

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

Test equipment used: ETSTW-CE 001, ETSTW-CE 016, ETSTW-CE 028.

Registration number: W6M21704-16783-C-1

FCC ID: VIXPNM411

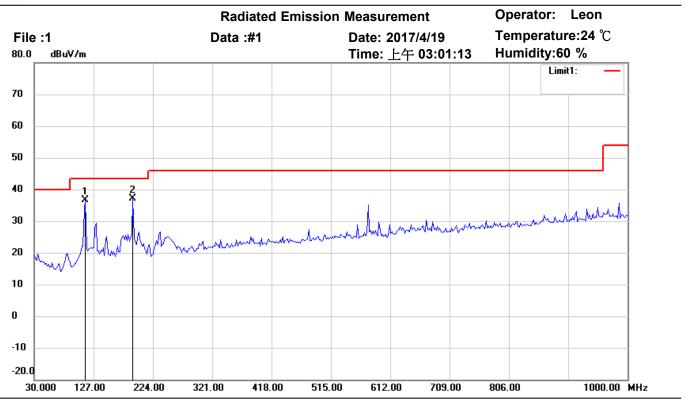
Appendix

Measurement diagrams

Spurious Emissions radiated_TX



Tel:+886-2-6606-8877 Fax:+886-2-6606-8875



Site: Chamber

Condition: FCC_part 15 RE-Class C_30-1000MHz Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

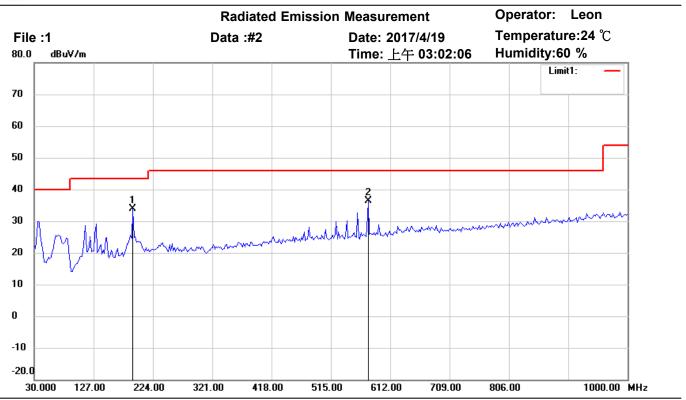
M/N: Distance: 3m

Test Mode: TX 2406MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	113.5872	43.97	peak	-7.35	36.62	43.50	100	95	-6.88	
*	191.3427	48.31	peak	-11.12	37.19	43.50	100	240	-6.31	



Tel:+886-2-6606-8877 Fax:+886-2-6606-8875



Site: Chamber

Condition: FCC_part 15 RE-Class C_30-1000MHz Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

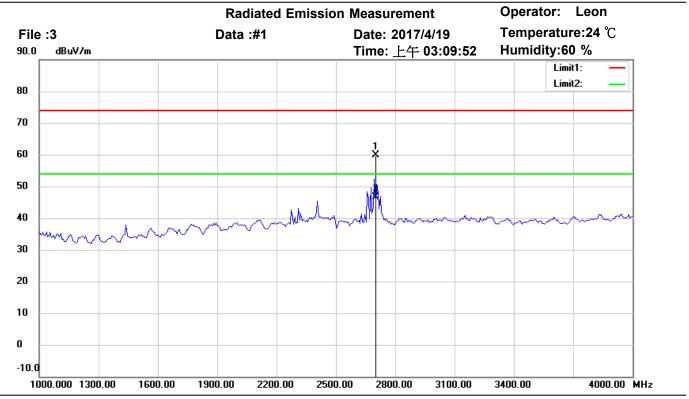
M/N: Distance: 3m

Test Mode: TX 2406MHz

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
*	191.3427	44.93	peak	-11.12	33.81	43.50	100	85	-9.69	
	576.2325	38.08	peak	-1.82	36.26	46.00	100	220	-9.74	



Tel:+886-2-6606-8877 Fax:+886-2-6606-8875



Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

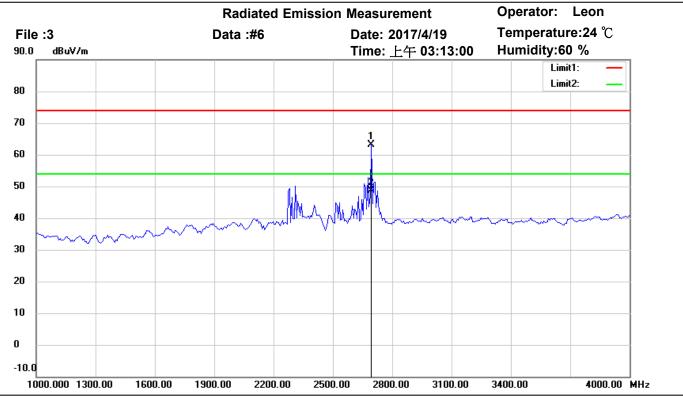
M/N: Distance: 3m

Test Mode: TX 2406MHz

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
	2695.391	63.75	peak	-3.98	59.77	74.00	150	225	-14.23	
*	2695.391	50.66	AVG	-3.98	46.68	54.00	150	225	-7.32	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

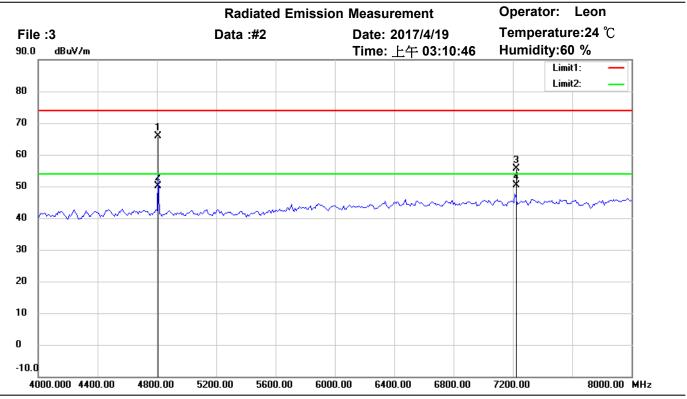
M/N: Distance: 3m

Test Mode: TX 2406MHz

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
	2693.658	67.14	peak	-3.98	63.16	74.00	210	320	-10.84	
*	2693.658	52.64	AVG	-3.98	48.66	54.00	210	320	-5.34	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

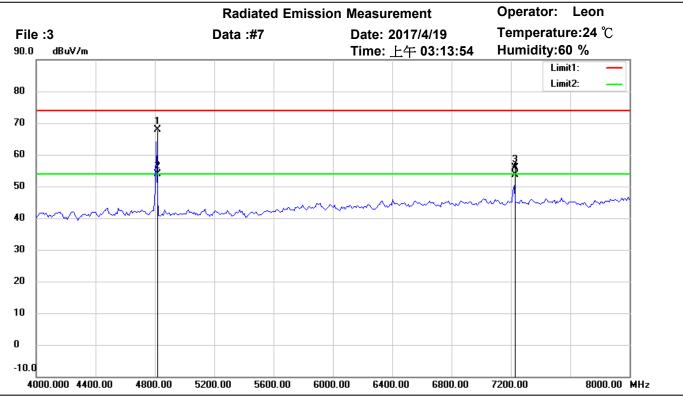
M/N: Distance: 3m

Test Mode: TX 2406MHz

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
	4809.619	65.73	peak	0.09	65.82	74.00	150	145	-8.18	
	4809.619	49.92	AVG	0.09	50.01	54.00	150	145	-3.99	
	7214.429	50.60	peak	5.06	55.66	74.00	150	260	-18.34	
*	7214.429	45.27	AVG	5.06	50.33	54.00	150	260	-3.67	



Tel:+886-2-6606-8877 Fax:+886-2-6606-8875



Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

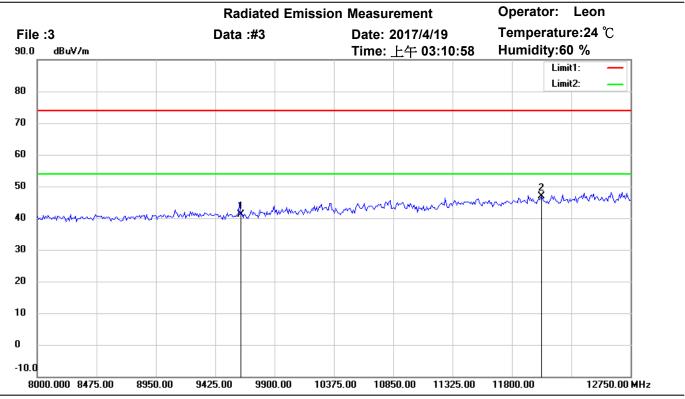
M/N: Distance: 3m

Test Mode: TX 2406MHz

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
	4810.150	67.87	peak	0.09	67.96	74.00	163	135	-6.04	
*	4810.150	53.79	AVG	0.09	53.88	54.00	163	135	-0.12	
	7222.445	50.76	peak	5.06	55.82	74.00	150	245	-18.18	
	7222.445	48.69	AVG	5.06	53.75	54.00	150	245	-0.25	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

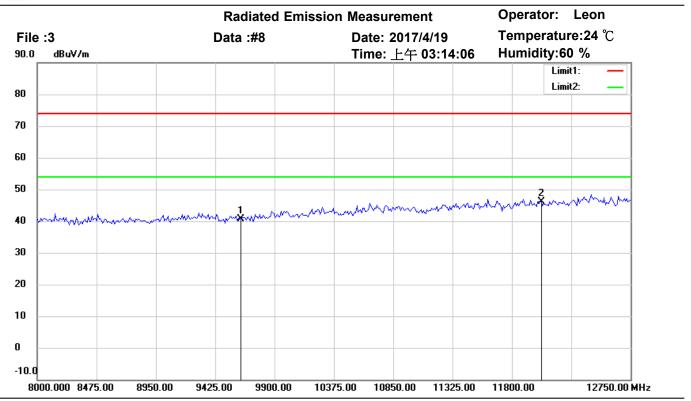
M/N: Distance: 3m

Test Mode: TX 2406MHz

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
	9624.000	33.23	peak	7.97	41.20	74.00	150	245	-32.80	
*	12030.000	33.73	peak	13.08	46.81	74.00	150	60	-27.19	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

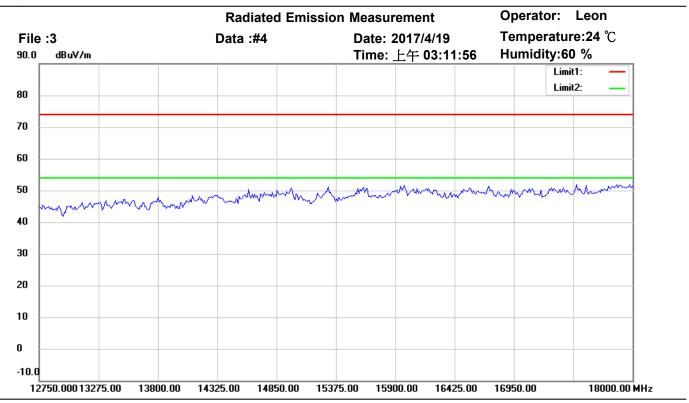
M/N: Distance: 3m

Test Mode: TX 2406MHz

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
	9624.000	32.73	peak	7.97	40.70	74.00	150	75	-33.30	
*	12030.000	32.96	peak	13.08	46.04	74.00	150	60	-27.96	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

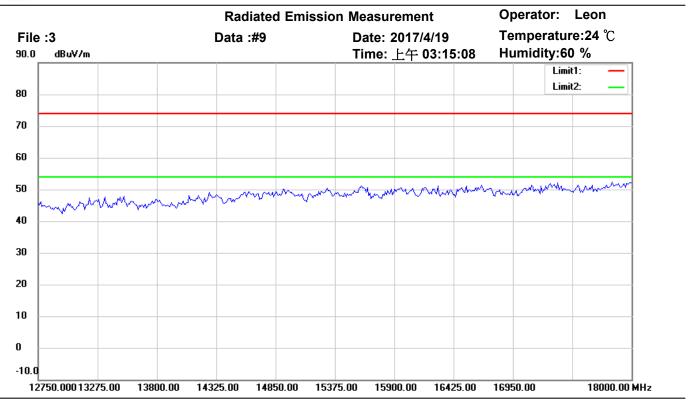
M/N: Distance: 3m

Test Mode: TX 2406MHz

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



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

Test Mode: TX 2406MHz

Note:

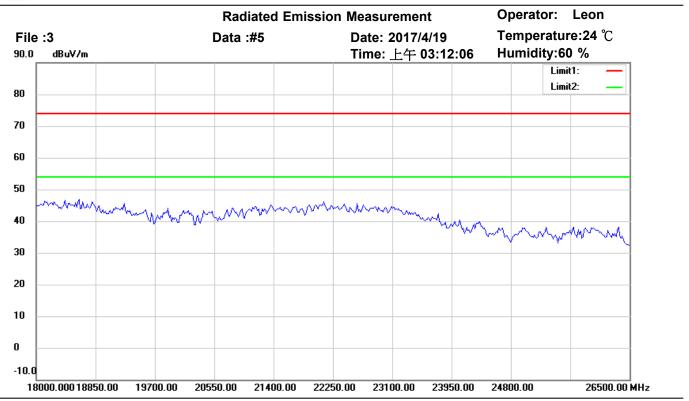
M/N:

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

Distance: 3m



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

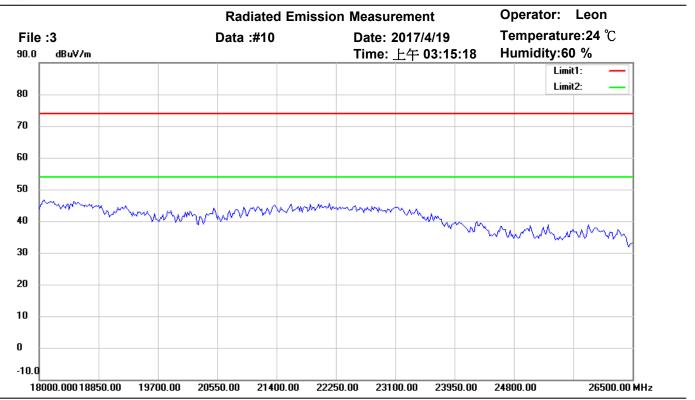
M/N: Distance: 3m

Test Mode: TX 2406MHz

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



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

Test Mode: TX 2406MHz

Note:

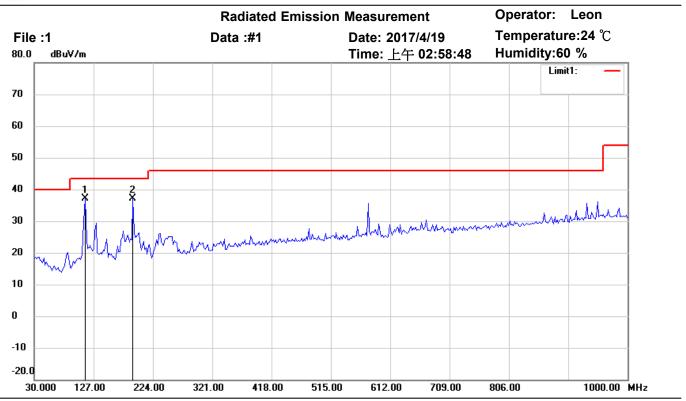
M/N:

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

Distance: 3m



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Site: Chamber

Condition: FCC_part 15 RE-Class C_30-1000MHz Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

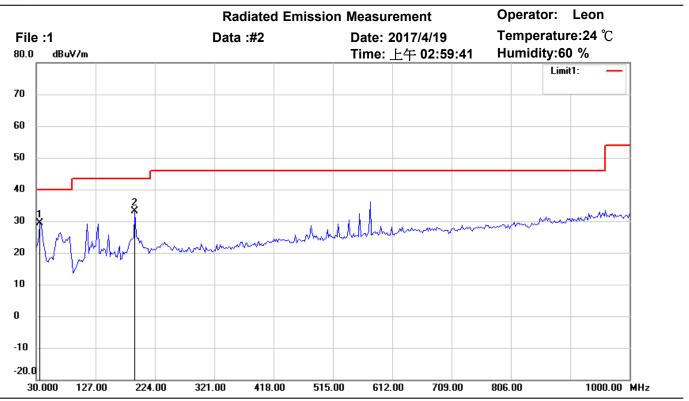
M/N: Distance: 3m

Test Mode: TX 2442MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	113.5872	44.38	peak	-7.35	37.03	43.50	100	95	-6.47	
*	191.3427	48.30	peak	-11.12	37.18	43.50	100	240	-6.32	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_30-1000MHz Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

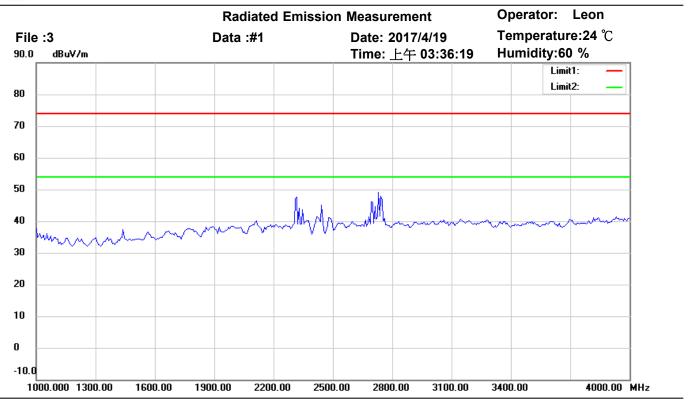
M/N: Distance: 3m

Test Mode: TX 2442MHz

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
	35.8316	38.27	peak	-8.89	29.38	40.00	100	160	-10.62	
*	191.3427	44.16	peak	-11.12	33.04	43.50	100	55	-10.46	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

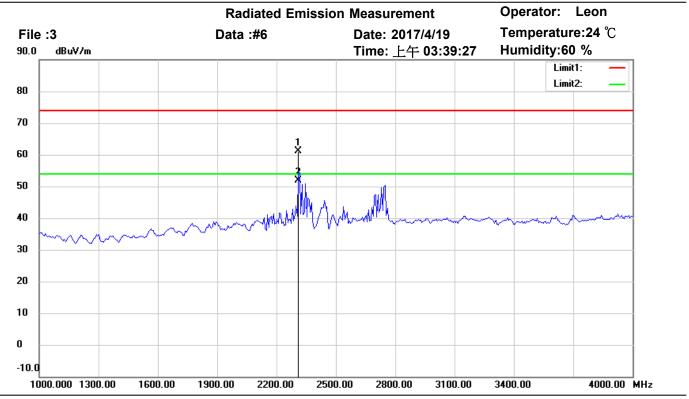
M/N: Distance: 3m

Test Mode: TX 2442MHz

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



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

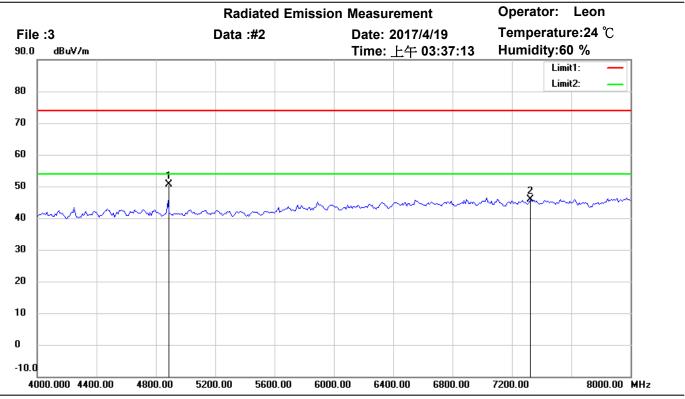
M/N: Distance: 3m

Test Mode: TX 2442MHz

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
	2310.621	65.73	peak	-4.71	61.02	74.00	153	245	-12.98	
*	2310.621	56.69	AVG	-4.71	51.98	54.00	153	245	-2.02	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

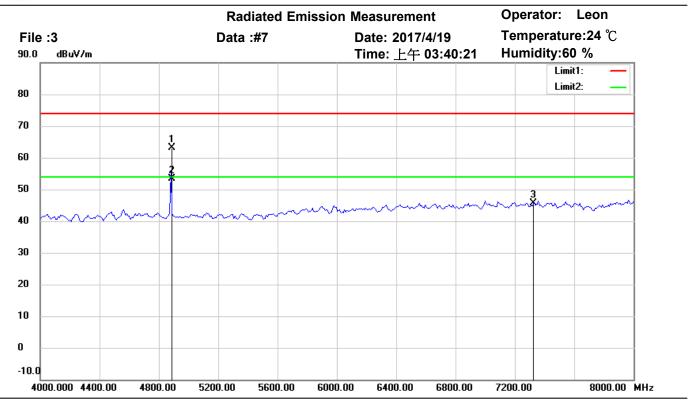
M/N: Distance: 3m

Test Mode: TX 2442MHz

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
*	4881.764	50.39	peak	0.17	50.56	74.00	150	95	-23.44	
	7326.000	40.85	peak	5.11	45.96	74.00	150	220	-28.04	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

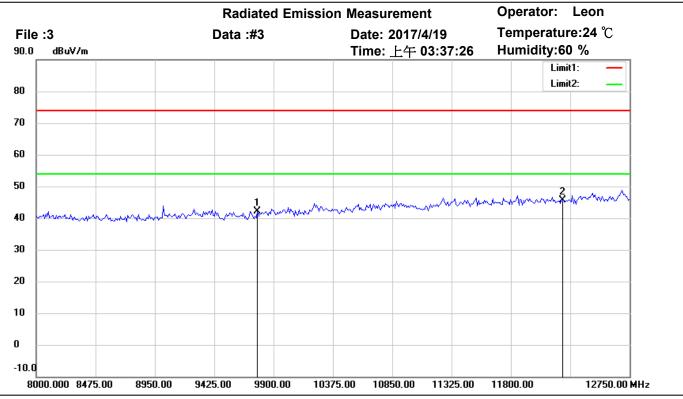
M/N: Distance: 3m

Test Mode: TX 2442MHz

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
	4881.764	62.95	peak	0.17	63.12	74.00	150	237	-10.88	
*	4881.764	53.24	AVG	0.17	53.41	54.00	150	237	-0.59	
	7323.000	40.63	peak	5.11	45.74	74.00	150	190	-28.26	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

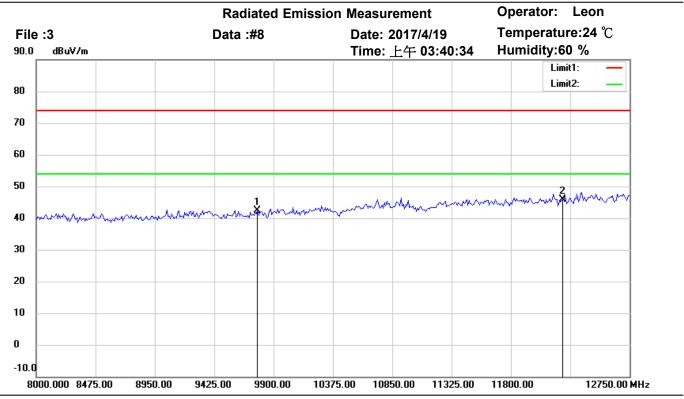
M/N: Distance: 3m

Test Mode: TX 2442MHz

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
	9768.000	33.98	peak	8.23	42.21	74.00	150	175	-31.79	
*	12210.000	31.59	peak	14.07	45.66	74.00	150	40	-28.34	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

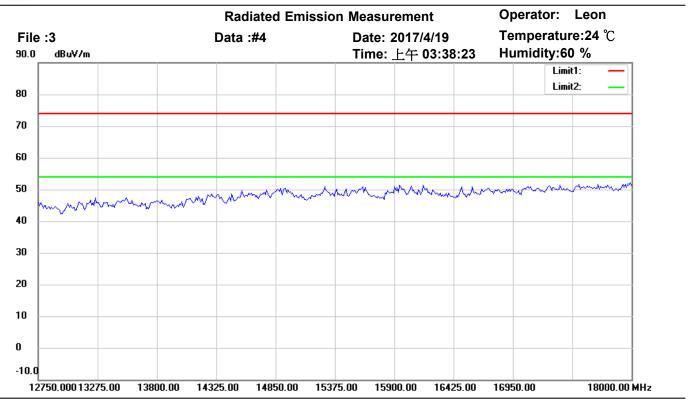
M/N: Distance: 3m

Test Mode: TX 2442MHz

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
	9768.000	34.04	peak	8.23	42.27	74.00	150	275	-31.73	
*	12210.000	31.78	peak	14.07	45.85	74.00	150	90	-28.15	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

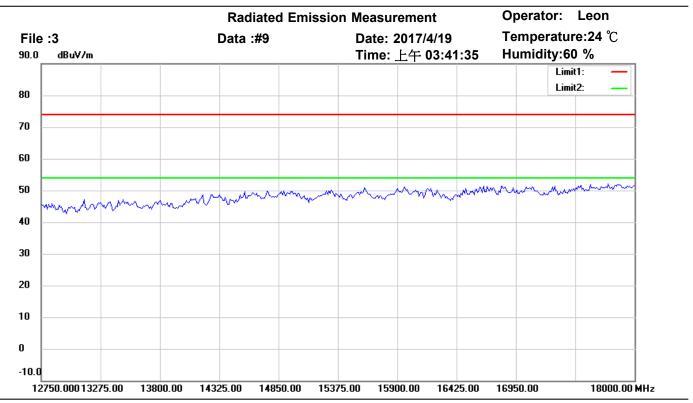
M/N: Distance: 3m

Test Mode: TX 2442MHz

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



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

Test Mode: TX 2442MHz

Note:

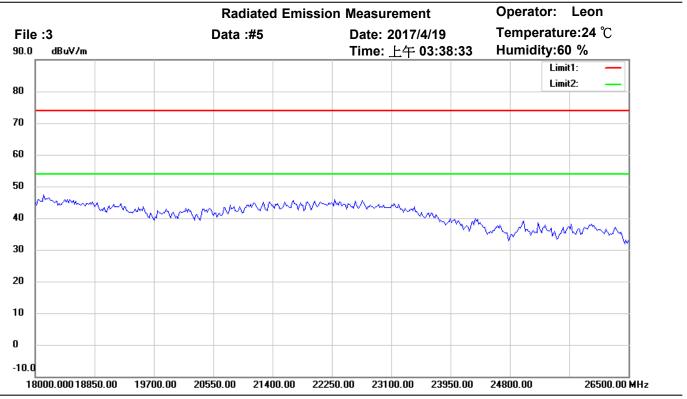
M/N:

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

Distance: 3m



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

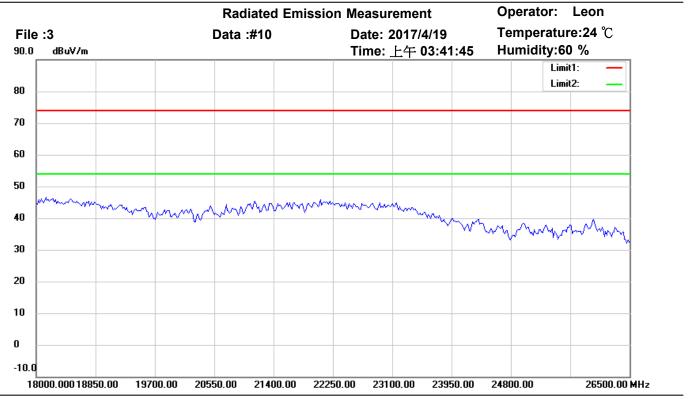
M/N: Distance: 3m

Test Mode: TX 2442MHz

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



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

Test Mode: TX 2442MHz

Note:

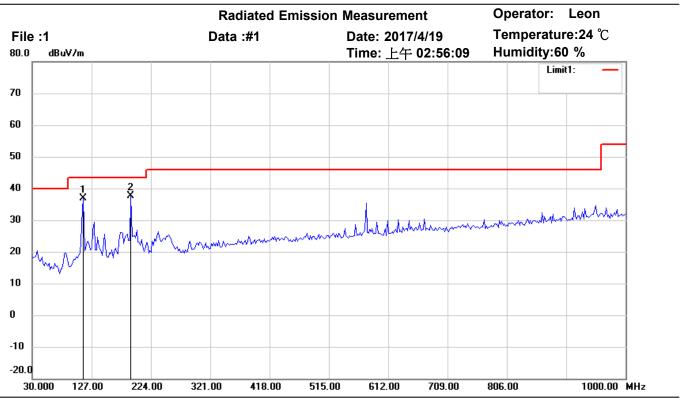
M/N:

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

Distance: 3m



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Site: Chamber

Condition: FCC_part 15 RE-Class C_30-1000MHz Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

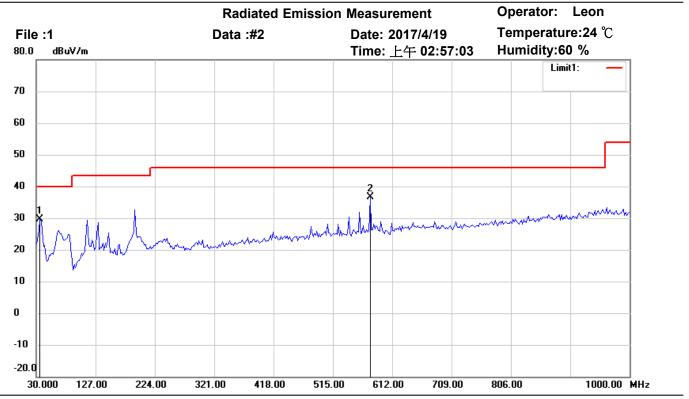
M/N: Distance: 3m

Test Mode: TX 2475MHz

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corr. factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Ant.Pos (cm)	Tab.Pos (deg.)	Margin (dB)	Comment
	113.5872	44.25	peak	-7.35	36.90	43.50	100	175	-6.60	
*	191.3427	48.64	peak	-11.12	37.52	43.50	100	60	-5.98	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_30-1000MHz Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

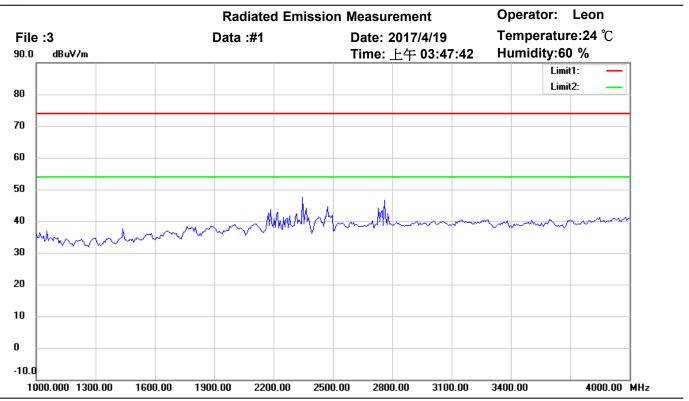
M/N: Distance: 3m

Test Mode: TX 2475MHz

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
	35.8316	38.53	peak	-8.89	29.64	40.00	100	55	-10.36	
*	576.2325	38.38	peak	-1.82	36.56	46.00	100	210	-9.44	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

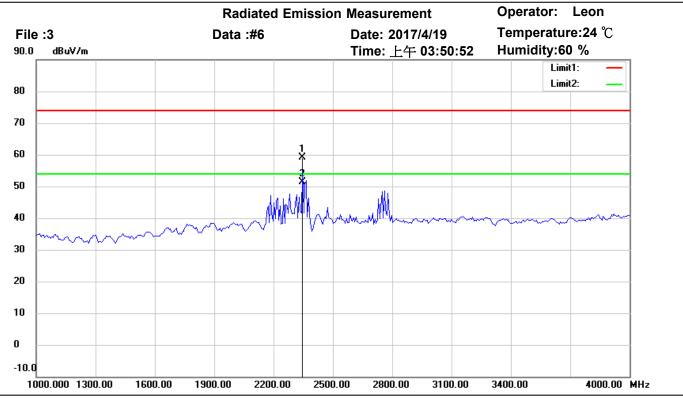
M/N: Distance: 3m

Test Mode: TX 2475MHz

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



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

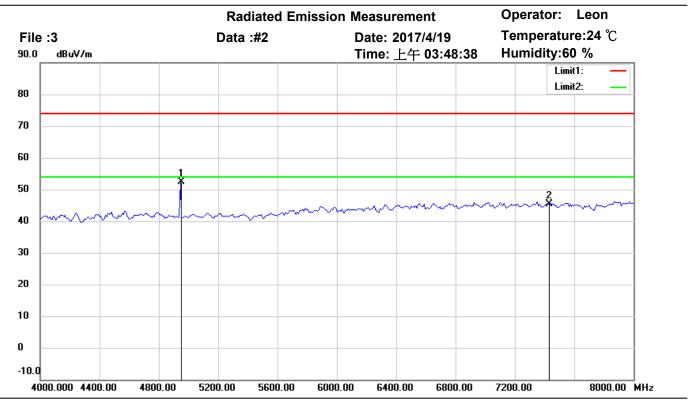
M/N: Distance: 3m

Test Mode: TX 2475MHz

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
	2346.693	63.75	peak	-4.53	59.22	74.00	151	175	-14.78	
*	2346.693	55.97	AVG	-4.53	51.44	54.00	151	175	-2.56	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

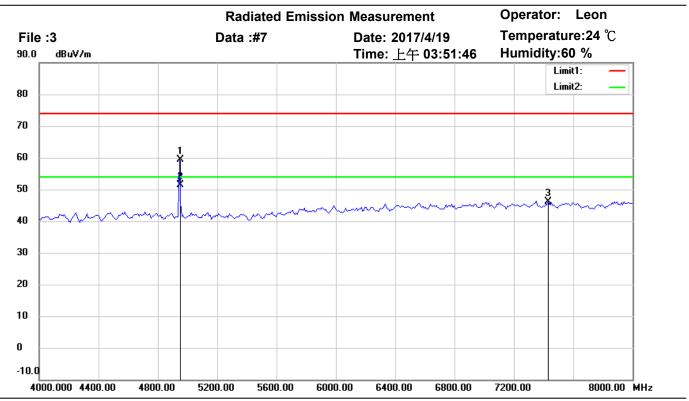
M/N: Distance: 3m

Test Mode: TX 2475MHz

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
*	4945.892	52.07	peak	0.20	52.27	74.00	150	220	-21.73	
	7425.000	40.19	peak	5.18	45.37	74.00	150	95	-28.63	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

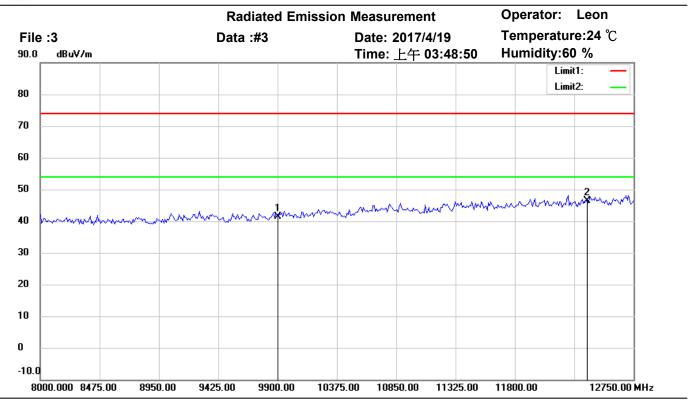
M/N: Distance: 3m

Test Mode: TX 2475MHz

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
	4945.892	59.12	peak	0.20	59.32	74.00	150	260	-14.68	
*	4945.892	51.22	AVG	0.20	51.42	54.00	150	260	-2.58	
	7425.000	40.94	peak	5.18	46.12	74.00	150	195	-27.88	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

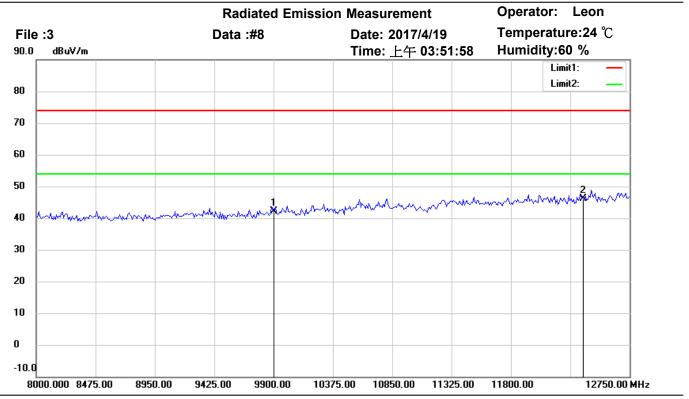
M/N: Distance: 3m

Test Mode: TX 2475MHz

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
	9900.000	32.94	peak	8.56	41.50	74.00	150	185	-32.50	
*	12375.000	32.12	peak	14.28	46.40	74.00	150	60	-27.60	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

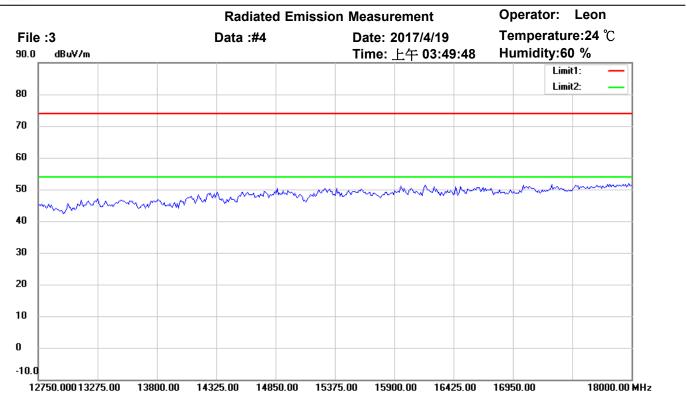
M/N: Distance: 3m

Test Mode: TX 2475MHz

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
	9900.000	33.60	peak	8.56	42.16	74.00	150	225	-31.84	
*	12375.000	31.97	peak	14.28	46.25	74.00	150	170	-27.75	



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

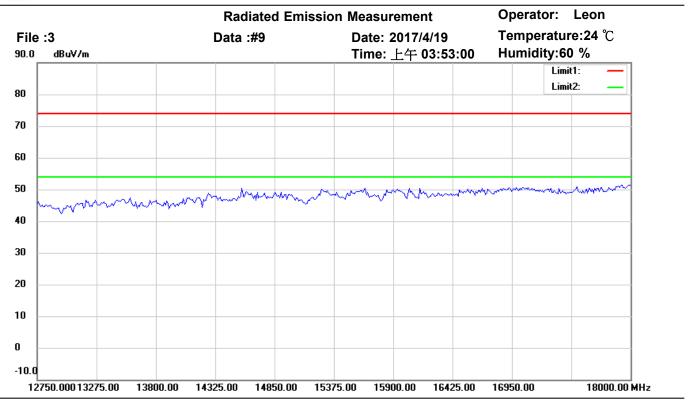
M/N: Distance: 3m

Test Mode: TX 2475MHz

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



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Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

Test Mode: TX 2475MHz

Note:

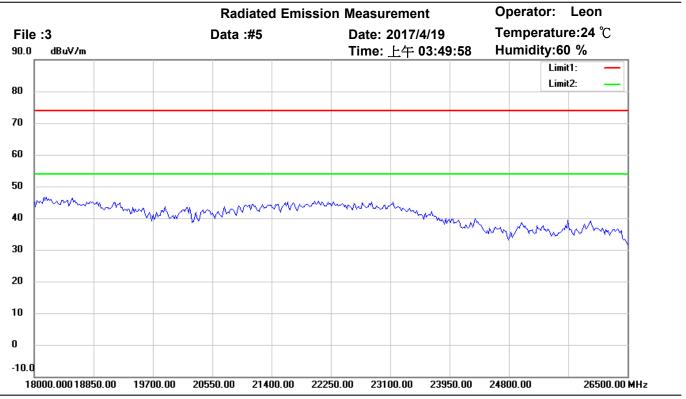
M/N:

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

Distance: 3m



Tel:+886-2-6606-8877 Fax:+886-2-6606-8875



Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Horizontal

EUT: W6M21704-16783 Power: 120 Va.c.

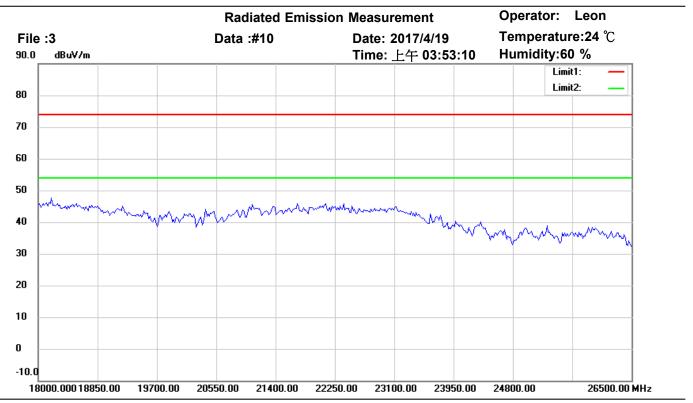
M/N: Distance: 3m

Test Mode: TX 2475MHz

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



Tel:+886-2-6606-8877 Fax:+886-2-6606-8875



Site: Chamber

Condition: FCC_part 15 RE-Class C_Above 1GHz_PK Polarization: Vertical

EUT: W6M21704-16783 Power: 120 Va.c.

Test Mode: TX 2475MHz

Note:

M/N:

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

Distance: 3m