

FCC PART 15 SUBPART C TEST REPORT

for

TX901A

Model No.: CAT1LR

FCC ID: H5OT69

of

Applicant: Advance Security Inc.

Address: 3F, 48, Ta An Street, Hsi Chih, Taipei, Taiwan

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1477, TW0020, TW1072

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

A2LA Accredited No.: 2732.01



Report No.: W6M21809-18450-C-1

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
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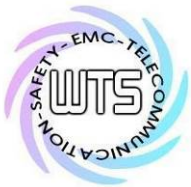
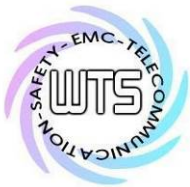


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1 General Information

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 its 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.

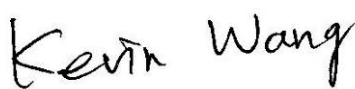
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Tester:

October 22, 2018	Spencer Yang	
Date	WTS-Lab. Name	Signature

Technical responsibility for area of testing:

October 22, 2018	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. TW1477, TW0020, TW1072

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 : Advance Security Inc.

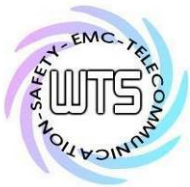
Street : 3F, 48, Ta An Street, Hsi Chih,

Town : Taipei,

Country : Taiwan

Telephone : +886-2-86481688

Fax : +886-2-86481689



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1.4 Application details

Date of receipt of test item : October 4, 2018
Date of test : from October 4, 2018 to October 22, 2018

1.5 General information of Test item

Type of test item : TX901A
Model Number : CAT1LR
Multi-listing model number : ./.
Photos : see Appendix

Technical data

Frequency band : 908.30-923.783 MHz
Frequency (ch A) : 908.30 MHz
Frequency (ch B) : 917.233 MHz
Frequency (ch C) : 923.783 MHz

Transmitter Unom

Power (ch A or ch 1) : Conducted: 9.72 dBm
Power (ch B or ch 16) : Conducted: 9.65 dBm
Power (ch C or ch 25) : Conducted: 9.66 dBm

Power supply : 3Vd.c. (CR 2032)

Operation modes : Duplex

Modulation Type : FHSS

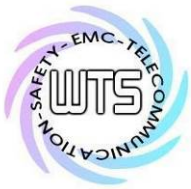
Antenna Type : Helical antenna

Antenna gain : 1.2 dBi

Host device : none

Classification :

Fixed Device	<input type="checkbox"/>
Mobile Device (Human Body distance > 20cm)	<input type="checkbox"/>
Portable Device (Human Body distance < 20cm)	<input checked="" type="checkbox"/>



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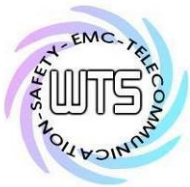
Registration number: W6M21809-18450-C-1
FCC ID: H5OT69

Manufacturer:
(if applicable)

Name : ./.
Street : ./.
Town : ./.
Country : ./.

1.6 Test standards

Technical standard : FCC RULES PART 15 SUBPART C § 15.247 (2017-10)



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2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

or

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

2.2 Test environment

Relative humidity content : 20 ... 75 %

Air pressure : 86 ... 103 kPa

Details of power supply : 3Vd.c. (CR 2032)

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

Description of Tested System : ./.

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission	Expanded Uncertainty : 1.54 dB
Estimation Result of Uncertainty of Radiated Emission(3M)	Expanded Uncertainty : 0.009-30 MHz : 2.17 dB 30-1000 MHz : 3.57 dB 1-18 GHz : 2.60 dB 18-40 GHz : 2.58 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 : 1.73 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 : 0.099 ms



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2.3 Test Equipment List

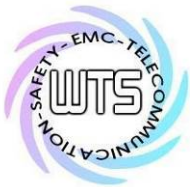
No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2018/5/30	2019/5/29
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V- NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2018/10/15	2019/10/14
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2018/8/21	2019/8/20
ETSTW-CE 008	HF-EICHLITUNG 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	2018/7/13	2019/7/12
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2018/9/25	2019/9/24
ETSTW-CE 028	MXE EMI Receiver	N9038A	MY53220110	Agilent	2018/7/16	2019/7/15
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2018/5/30	2019/5/29
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2018/5/21	2019/5/20
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	2018/7/13	2019/7/12
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2018/7/12	2019/7/11
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2018/3/26	2019/3/25
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2018/1/23	2019/1/22
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2018/4/13	2019/4/12
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2018/4/26	2019/4/25
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2018/3/1	2019/2/28
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2018/3/1	2019/2/28
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2018/3/1	2019/2/28
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2018/3/6	2019/3/5
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2018/3/1	2019/2/28
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2018/3/30	2019/3/29
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	2018/9/17	2019/9/16
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2018/9/18	2019/9/17
ETSTW-RE 091	Match Pad	MDCS1500	None	WOKEN	2018/4/16	2019/4/15
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2018/2/23	2019/2/22
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	



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ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2018/1/15	2019/1/14
ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Function test	
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2018/5/29	2019/5/28
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2018/8/8	2019/8/7
ETSTW-RE 126	5GHz Notch filter	5NSL12-5800/E221.3-O/O	1	K&L Microwave	2018/8/8	2019/8/7
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2018/2/27	2019/2/26
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2018/8/8	2019/8/7
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2018/8/8	2019/8/7
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2018/3/30	2019/3/29
ETSTW-RE 147	Bi-log Hybrid Antenna	MCTD 2786B	BLB16M04005	ETC	2018/3/23	2019/3/22
ETSTW-RE 151	Thermohygrometer	608-h1	45104376	TESTO	2018/8/17	2019/8/16
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2018/5/10	2019/5/9
ETSTW-EMS 008	Exposure Level Tester	ELT-400	G-0009	Narda	2018/7/17	2019/7/16
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2018/2/27	2019/2/26
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2018/3/2	2019/3/1
ETSTW-GSM 004	Wideband Radio Communication Tester	CMW500	128092	R&S	2018/10/15	2019/10/14
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2018/1/11	2019/1/10
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2018/1/11	2019/1/10
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2018/1/11	2019/1/10
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2018/1/11	2019/1/10
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2018/9/12	2019/9/11
ETSTW-GSM 024	Radio Communication Analyzer	MT8821C	None	Anritsu	2018/3/7	2019/3/6
ETSTW-GSM 025	Band Reject Filter	BRM19835	001	Micro-Tronics	2018/8/9	2019/8/8
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	2018/2/22	2019/2/21
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2018/2/22	2019/2/21
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2018/2/22	2019/2/21
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2018/2/22	2019/2/21
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2018/7/2	2019/7/1
ETSTW-Cable 026	Microwave Cable	SUCOFLEX 104	279075	HUBER+SUHNER	2018/2/27	2019/2/26
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2018/5/14	2019/5/13
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2018/9/18	2019/9/17
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2018/9/18	2019/9/17
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S Cable 9)	279067	HUBER+SUHNER	2018/2/27	2019/2/26
ETSTW-Cable 031	Microwave Cable	SUCOFLEX 104 (S Cable 10)	238092	HUBER+SUHNER	2018/3/30	2019/3/29



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ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2018/3/30	2019/3/29
ETSTW-Cable 048	Microwave Cable	SUCOFLEX 104	325519	HUBER+SUHNER	2018/3/30	2019/3/29
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2018/6/9	2019/6/8
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2018/3/30	2019/3/29
ETSTW-Cable 066	SMA type cable	32022	None	ASTROLAB	2018/8/30	2019/8/29
ETSTW-Cable 071	N TYPE CABLE	EMCCFD400-NM-NM-25000	170239	EMCI	2018/6/9	2019/6/8
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	



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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 dBμV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

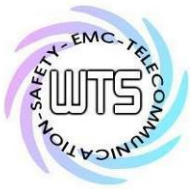
Example:

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.



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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:

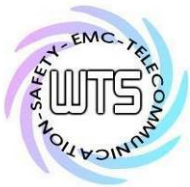
Average = Peak + Duty Factor

Duty Factor = $20 \log(\text{dwell time}/T)$

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

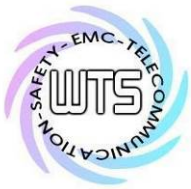
ANSI STANDARD C63.10-2013 B.2.7: Any measurements that utilize special test software shall be indicated and referenced in the test report. During testing, test software 'EZ EMC' was used for setting up different operation modes.



Registration number: W6M21809-18450-C-1
 FCC ID: H5OT69

3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equivalent isotropically radiated Power	15.247(b)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions radiated – Transmitter operating	15.247(c)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions conducted – Transmitter operating	15.247	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carrier Frequency Separation	15.247(a) (1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Number of Hopping Frequencies	15.247(a) (1)(i)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Time of Occupancy (Dwell Time)	15.247(a) (1)(i)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20 dB Bandwidth	15.247(a) (1)(i)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Band-edge Compliance of RF Emission	15.247(c)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiated Emission from Receiver L.O.	15.109	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power Line Conducted Emission	15.207(a)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



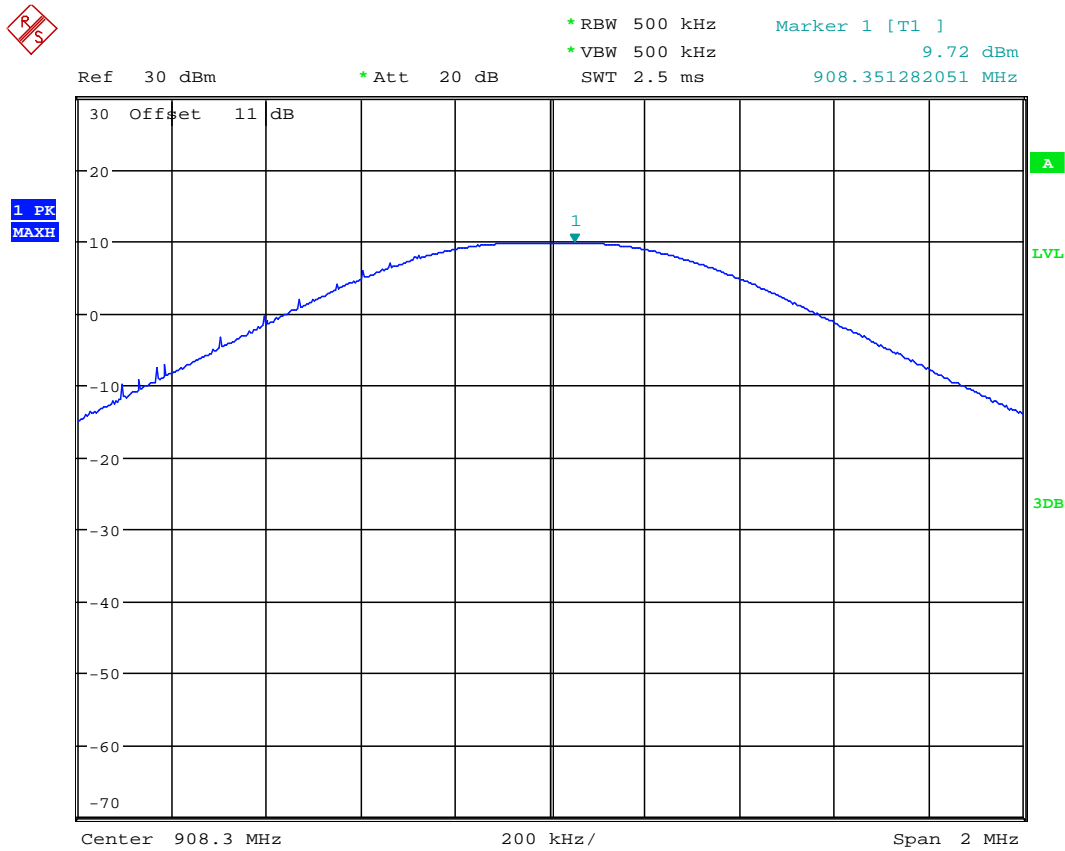
Registration number: W6M21809-18450-C-1
FCC ID: H50T69

3.1 Peak Output Power (transmitter)

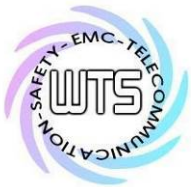
FCC Rule: 15.247

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.

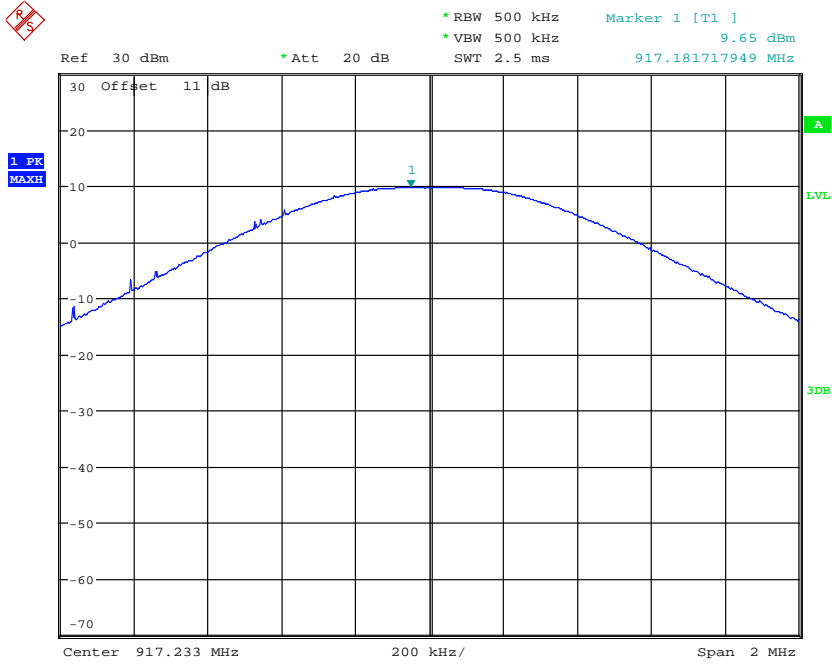
The power was measured with modulation (declared by the applicant).



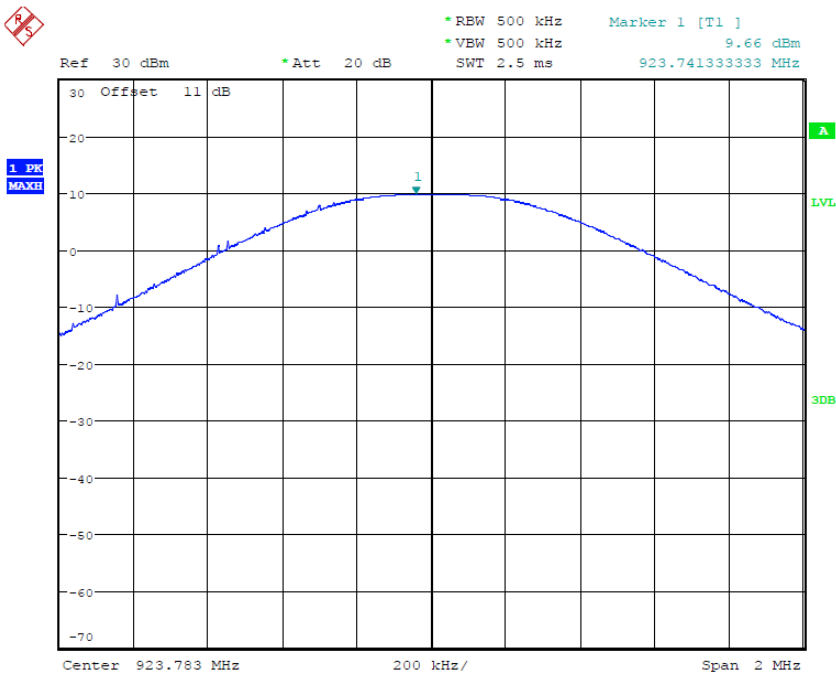
MAX OUTPUT POWER 908.3MHZ
Date: 4.OCT.2018 14:12:17



Registration number: W6M21809-18450-C-1
FCC ID: H5OT69



MAX OUTPUT POWER 917.233MHZ
Date: 4.OCT.2018 14:12:50



MAX OUTPUT POWER 923.783MHZ
Date: 4.OCT.2018 14:13:15

Measurement uncertainty: $\leq \pm 1.01$ dB



Registration number: W6M21809-18450-C-1
FCC ID: H5OT69

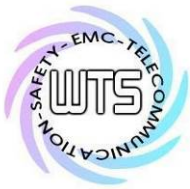
Maximum Peak Output Power

Limits:

Frequency MHz	Number of hopping channels			
	≥ 75	≥ 50	$49 \geq 25$	$74 \geq 15$
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 064



Registration number: W6M21809-18450-C-1
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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 = $20 \log(\text{dwell time}/100\text{ms})$

For frequencies above 1GHz (Peak measurements).

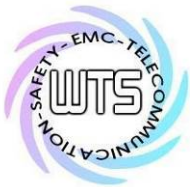
Limit = max. aver. reading-20dB +20dB(because Peak detector is used)

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



Registration number: W6M21809-18450-C-1
FCC ID: H5OT69

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 = $20 \log (\text{dwell time}/100\text{ms})$

For frequencies above 1GHz (Average measurements).

Limit – duty cycle correction

No duty cycle correction was added to the reading.

54.0dB μ V/m

For frequencies above 1GHz (Peak measurements).

Limit + 20dB

54.0dB μ V/m + 20 dB= 74 dB μ 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



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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“.

Model: CAT1LR 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)		Factor (dB) Corr.	Result (dBuV/m)		Limit (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--



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Polarization: Vertical

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

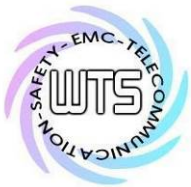
Note

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 = ± 3.57 dB, 1-18 GHz = ± 2.60 dB, 18-40 GHz = ± 2.58 dB ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2. The decision rule is "false acceptance".
6. Up Line: PK Limit Line, Down Line: Ave Limit Line.
7. See attached diagram as 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

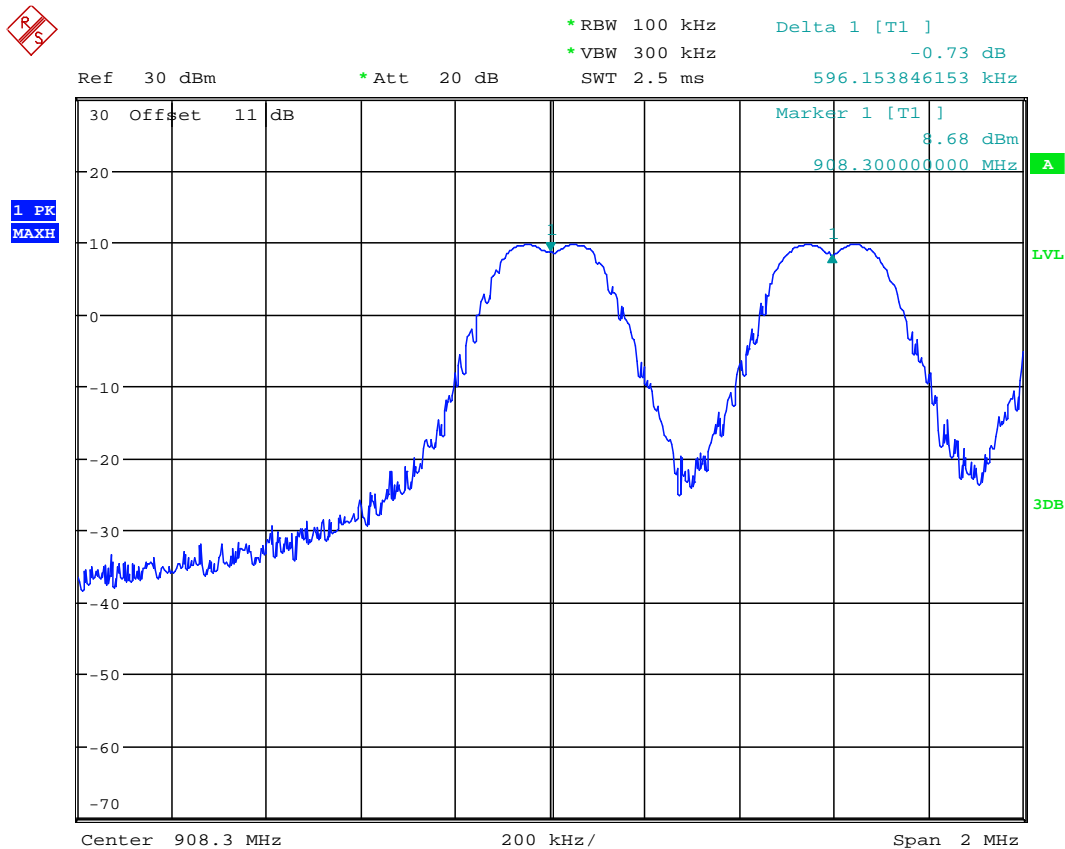


Registration number: W6M21809-18450-C-1
FCC ID: H50T69

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.



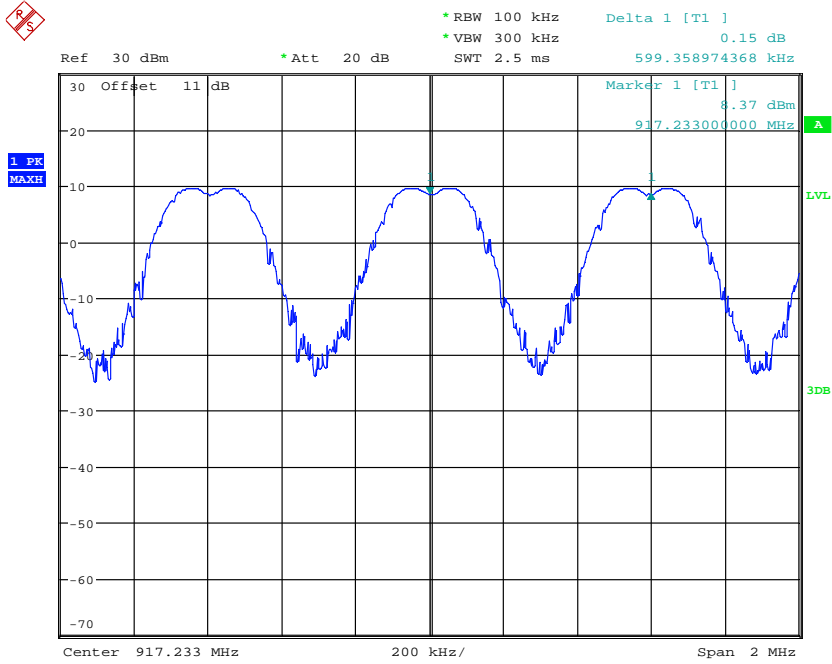
FREQUENCY SEPARATION 908.3MHZ

Date: 4.OCT.2018 14:19:57

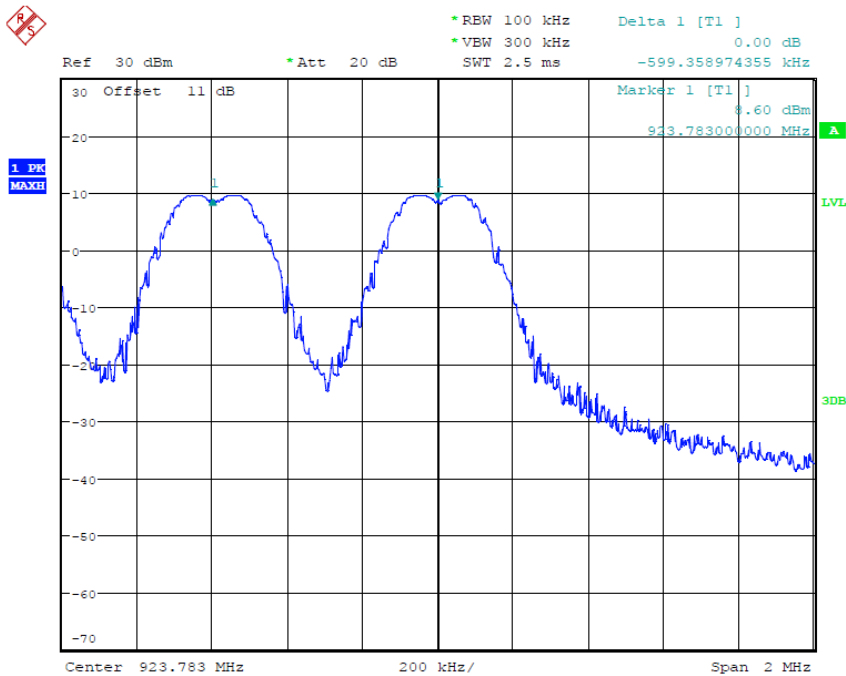


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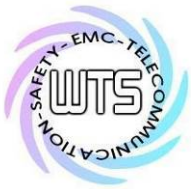
Registration number: W6M21809-18450-C-1
FCC ID: H50T69



FREQUENCY SEPARATION 917.233MHZ
Date: 4.OCT.2018 14:20:42



FREQUENCY SEPARATION 923.783MHZ
Date: 4.OCT.2018 14:21:29



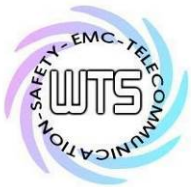
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21809-18450-C-1
FCC ID: H5OT69

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

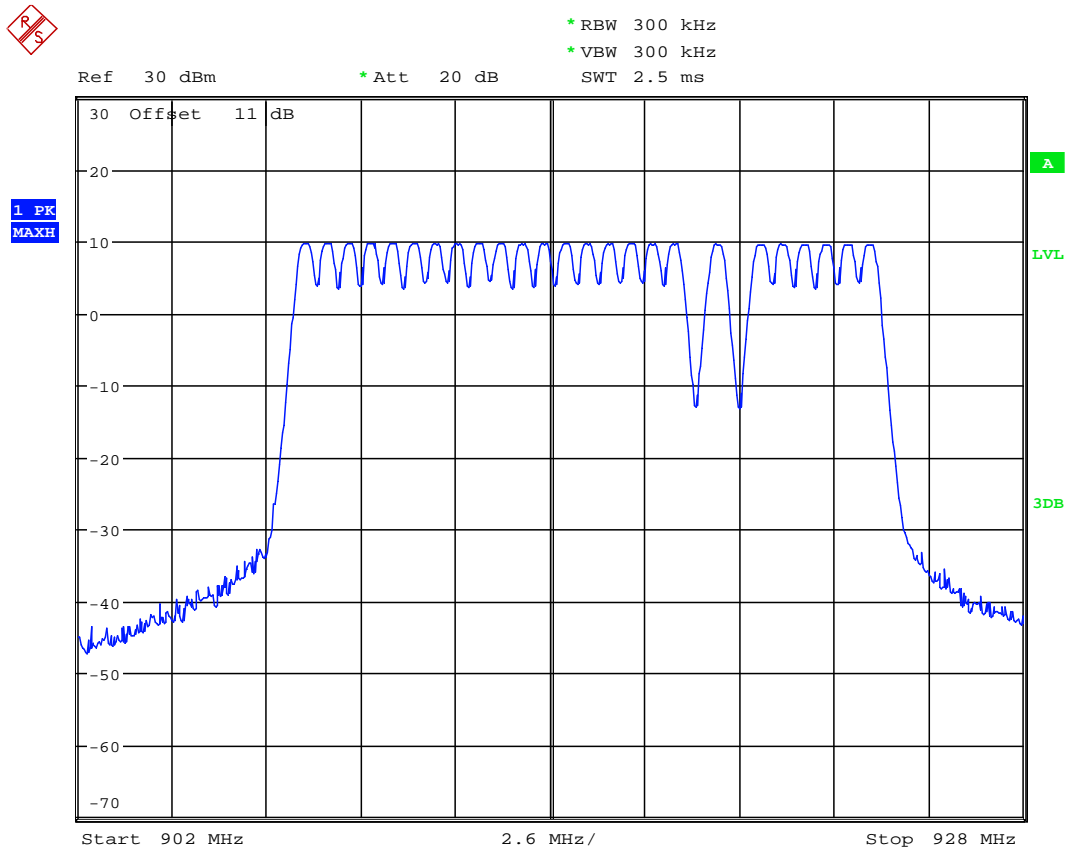


Registration number: W6M21809-18450-C-1
FCC ID: H50T69

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: 4.OCT.2018 14:29:00



Registration number: W6M21809-18450-C-1
FCC ID: H5OT69

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

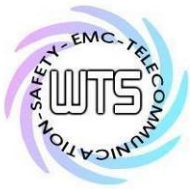
3.7.1 Pseudorandom Frequency Hopping Sequence

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

908.300, 908.895, 909.490, 910.085, 910.680, 911.277, 911.872, 912.467, 913.063, 913.658, 914.255, 914.850, 915.444, 916.040, 916.635, 917.233, 917.825, 918.422, 919.612, 920.805, 921.400, 921.995, 922.590, 923.188, 923.783MHz

3.7.2 Coordination of hopping sequences to other transmitters

This transmitter does not have the ability of being coordinated with other FHSS system for as soon as the transmitter is in operation, the hopping frequency will follow the selected hopping sequence to transmit independently and no coordination is possible. Especially, this transmitter is used as a duplex car alarm system, so no coordination of hopping frequency is required.



Registration number: W6M21809-18450-C-1
FCC ID: H5OT69

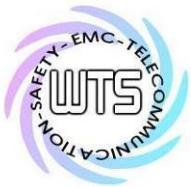
3.7.3 System Receiver Hopping Capability

There are two steps to make the receiver to shift the frequencies in synchronization with the transmitted signals:

First, the Transmitter will emit a preamble signal of 150 ms and the receiver will scan this signal by 2ms sweeping until the preamble signal is caught. Second, the preamble signal is coded with the information of hopping sequence and the next transmitting frequency.

3.7.4 Equal Hopping Frequency Use

Due to each hopping frequency will be transmitted in accordance to the frequency tables described above, there is no any frequency will be able to hop more times than others. Therefore each frequency will be used equally.

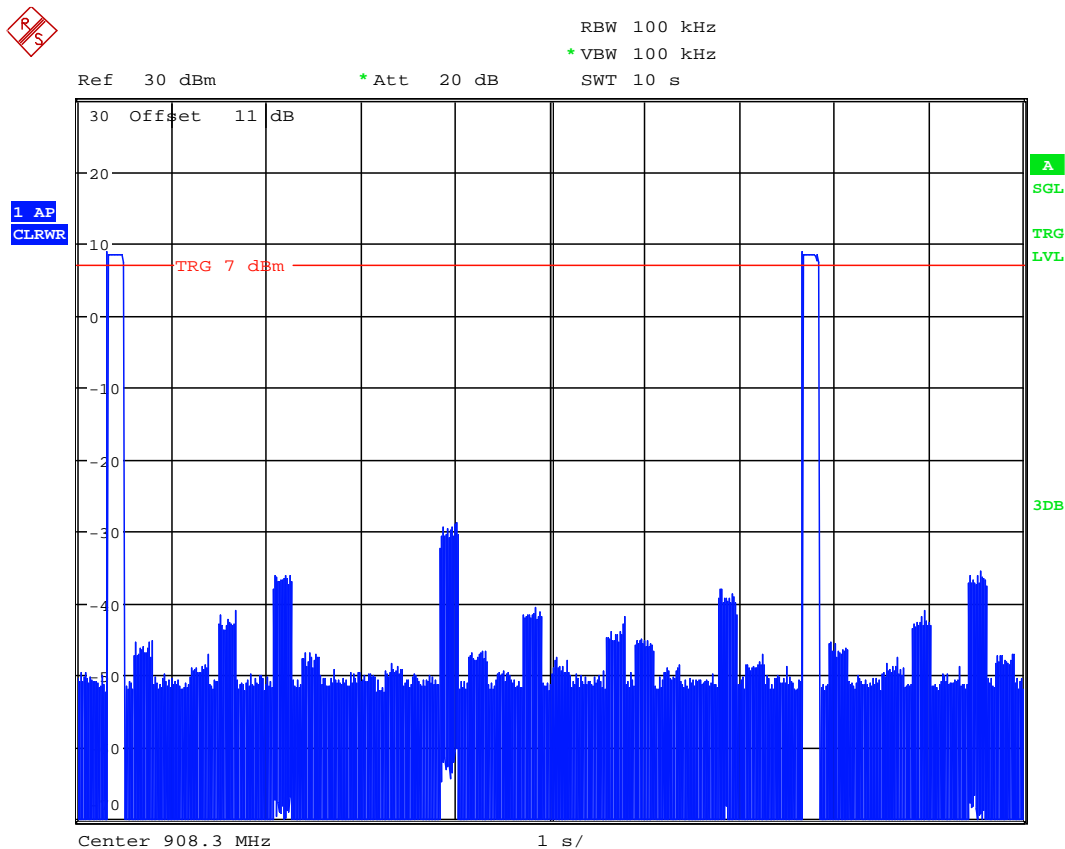


Registration number: W6M21809-18450-C-1
FCC ID: H50T69

3.8 Time of Occupancy (Dwell Time)

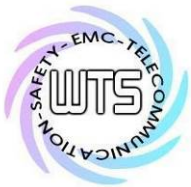
Frequency hopping systems operating in the 5725-5850 MHz band shall use an average time of occupancy on any frequency not greater than 0.4 seconds within a 30 second period.
In 2400-2483.5 MHz band the average time of occupancy on any channel shall not be greater than 0.4 seconds multiplied by the number 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 be 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.

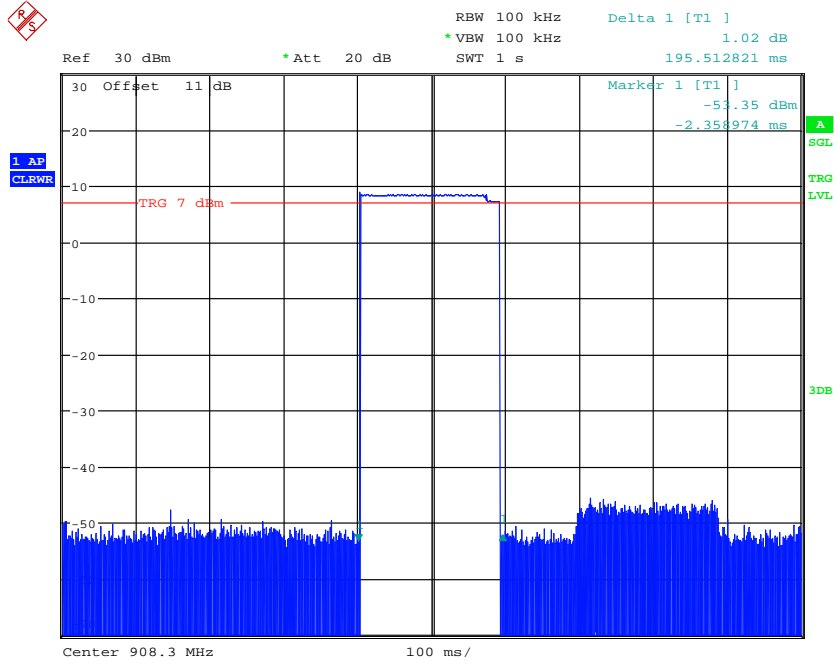


DWELL TIME 908.3MHZ

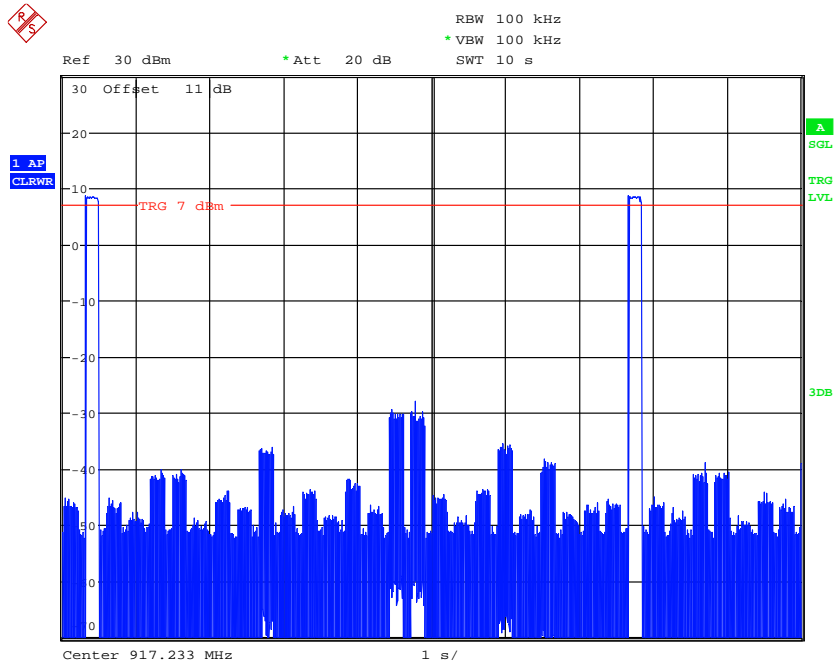
Date: 4.OCT.2018 14:00:52



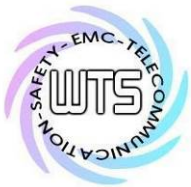
Registration number: W6M21809-18450-C-1
FCC ID: H50T69



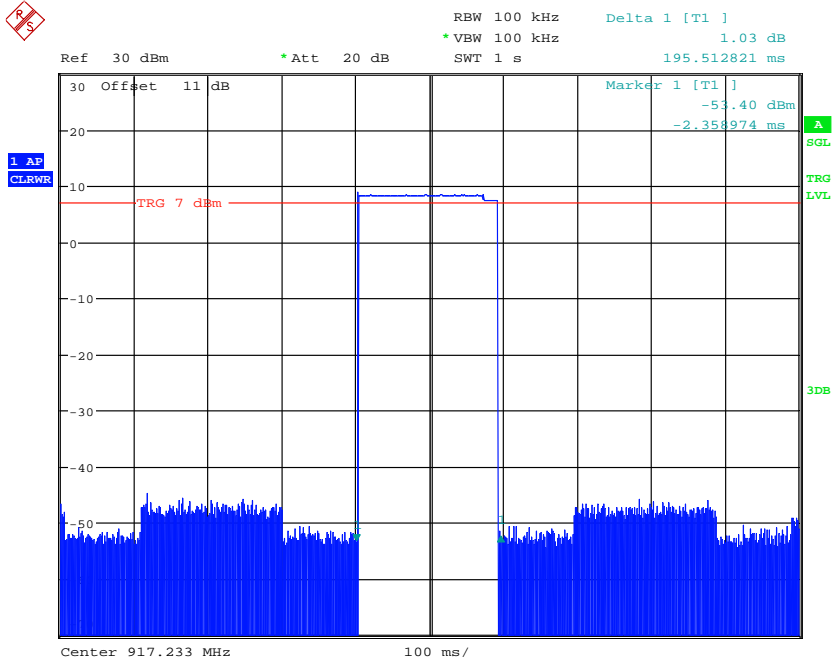
DWELL TIME 908.3MHZ (195.512ms * 2events = 391.024ms)
Date: 4.OCT.2018 14:07:26



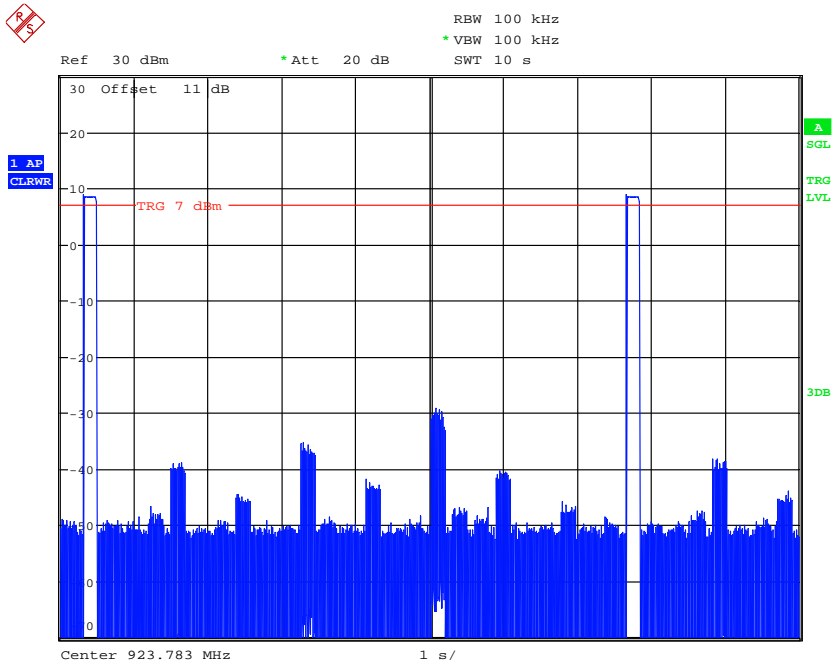
DWELL TIME 917.233MHZ
Date: 4.OCT.2018 13:59:56



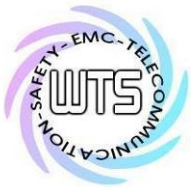
Registration number: W6M21809-18450-C-1
FCC ID: H50T69



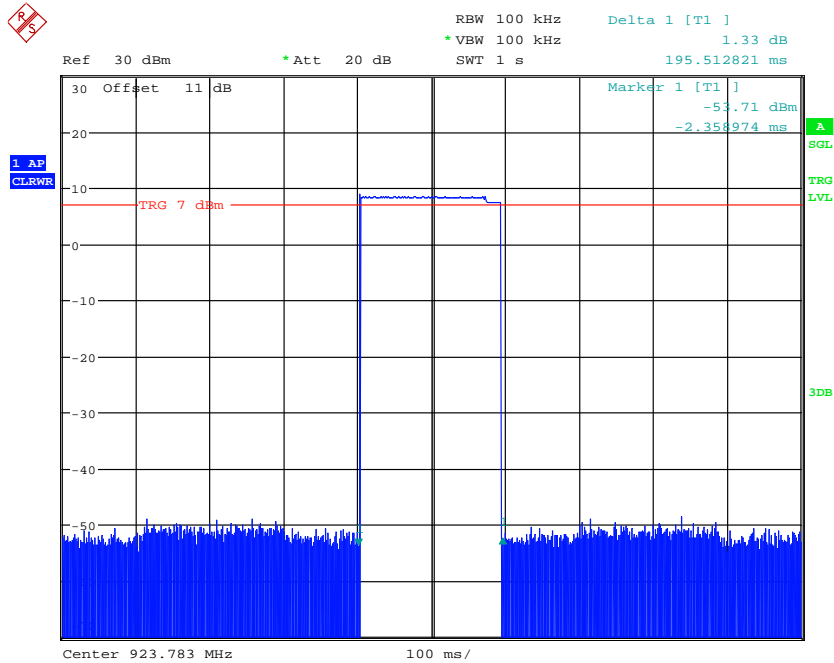
DWELL TIME 917.233MHZ (195.512ms * 2events = 391.024ms)
Date: 4.OCT.2018 14:06:38



DWELL TIME 923.783MHZ
Date: 4.OCT.2018 14:02:27



Registration number: W6M21809-18450-C-1
 FCC ID: H5OT69

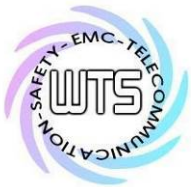


DWELL TIME 923.783MHZ (195.512ms * 2events = 391.024ms)
 Date: 4.OCT.2018 14:05:42

Limits and measurement periods:

Frequency MHz	Number of channels	Measurement Period	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



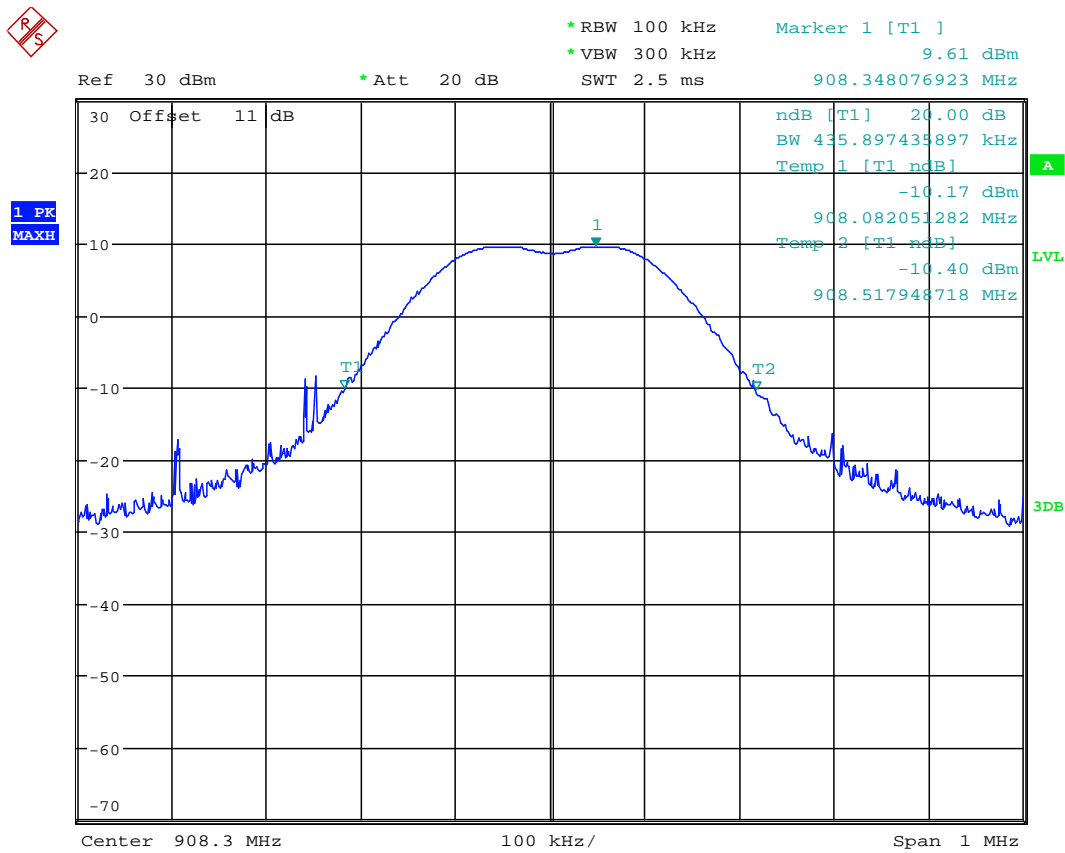
Registration number: W6M21809-18450-C-1
FCC ID: H50T69

3.9 20dB Bandwidth

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

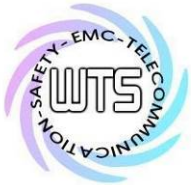
The 20dB bandwidth is measured on the lowest, middle and highest hopping channel.

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



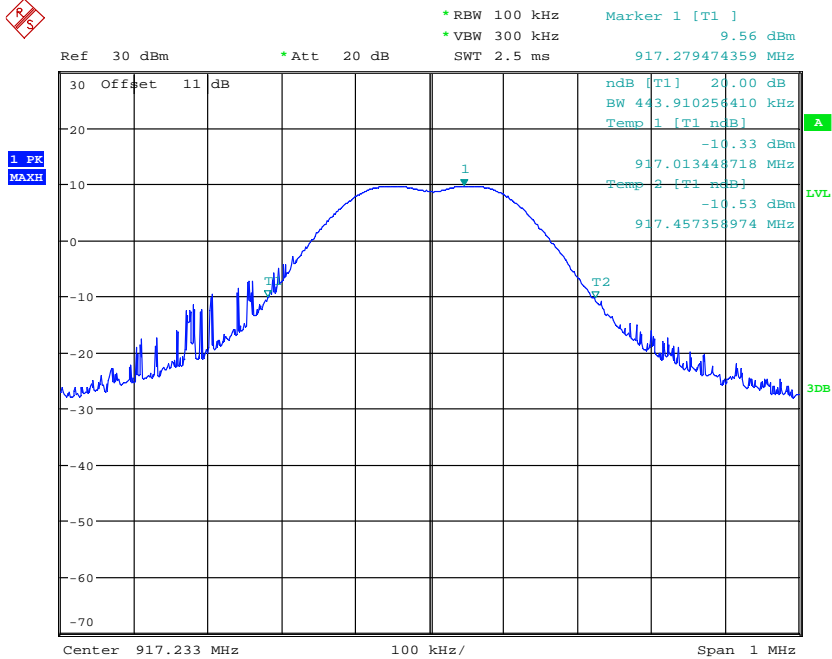
20DB BANDWIDTH 908.3MHZ

Date: 4.OCT.2018 14:11:27

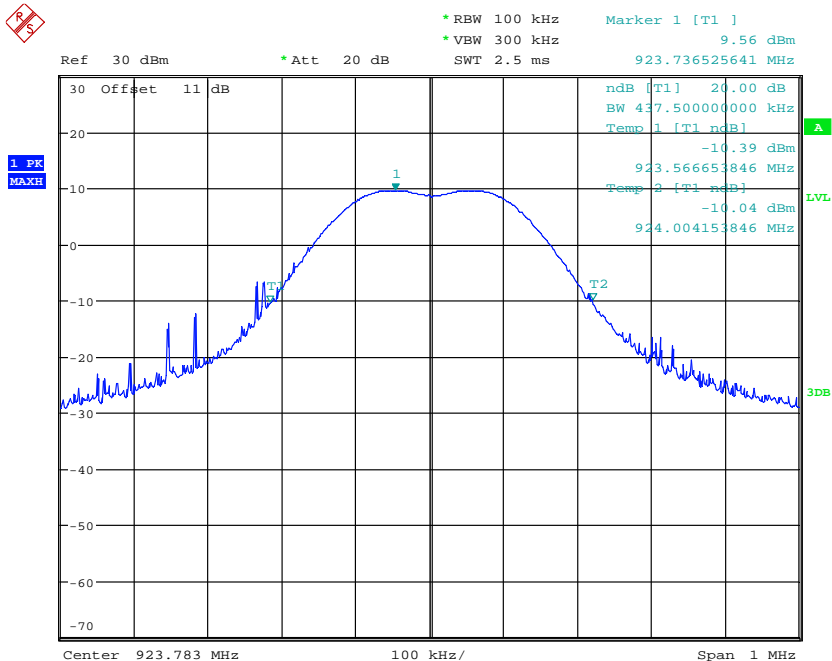


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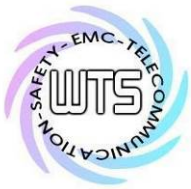
Registration number: W6M21809-18450-C-1
 FCC ID: H50T69



20DB BANDWIDTH 917.233MHZ
 Date: 4.OCT.2018 14:10:22



20DB BANDWIDTH 923.783MHZ
 Date: 4.OCT.2018 14:10:59

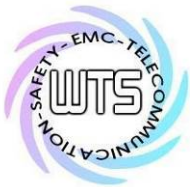


Registration number: W6M21809-18450-C-1
FCC ID: H5OT69

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

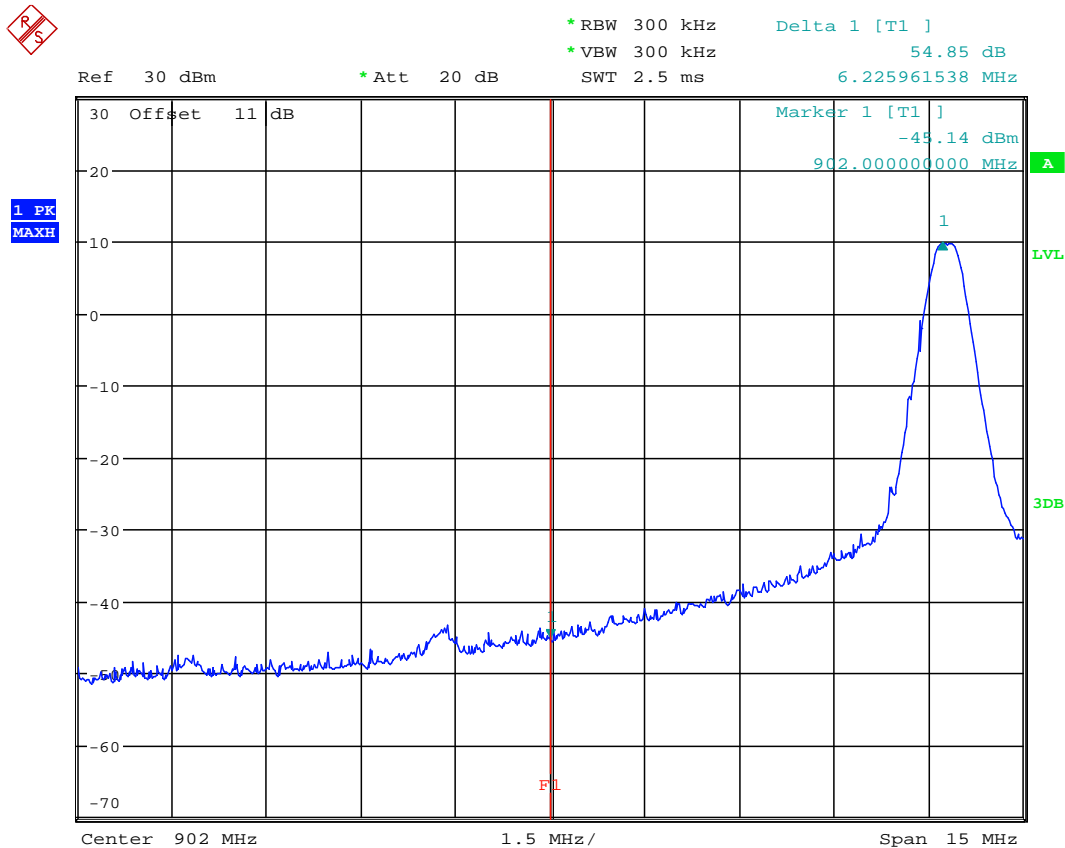


Registration number: W6M21809-18450-C-1
FCC ID: H50T69

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.



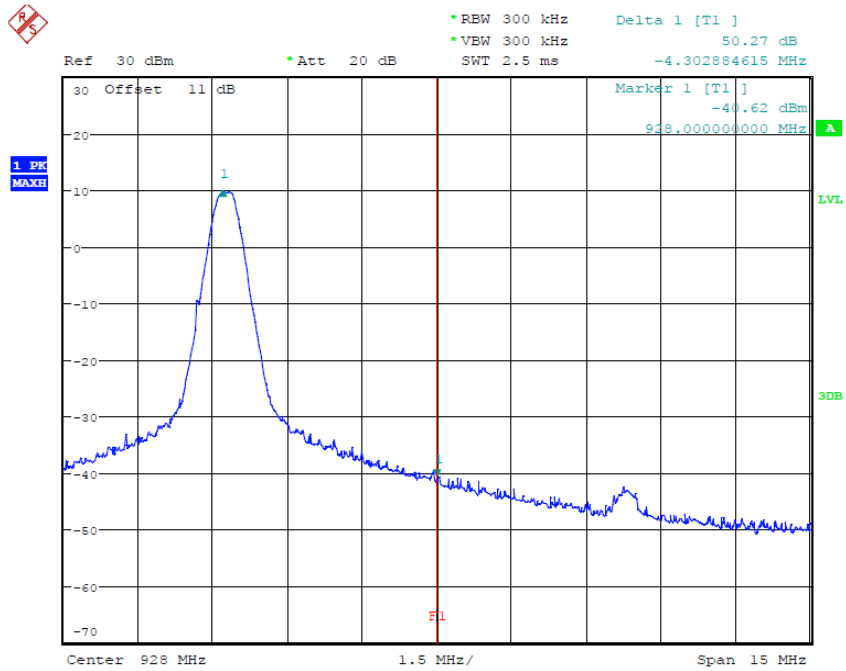
BANDEDGE 908.3MHZ

Date: 4.OCT.2018 14:15:36

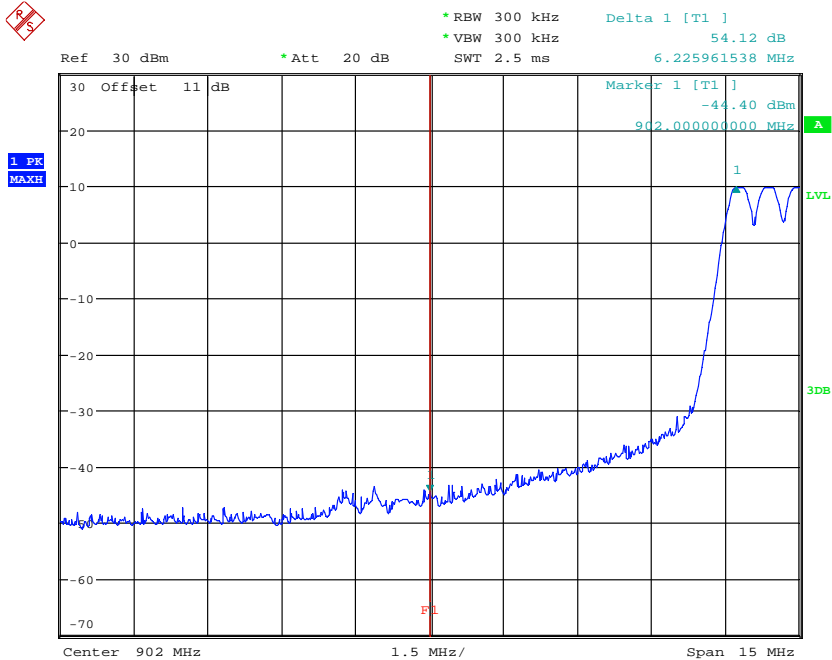


Worldwide Testing Services(Taiwan) Co., Ltd.

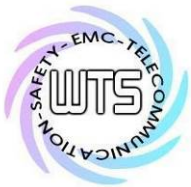
Registration number: W6M21809-18450-C-1
FCC ID: H50T69



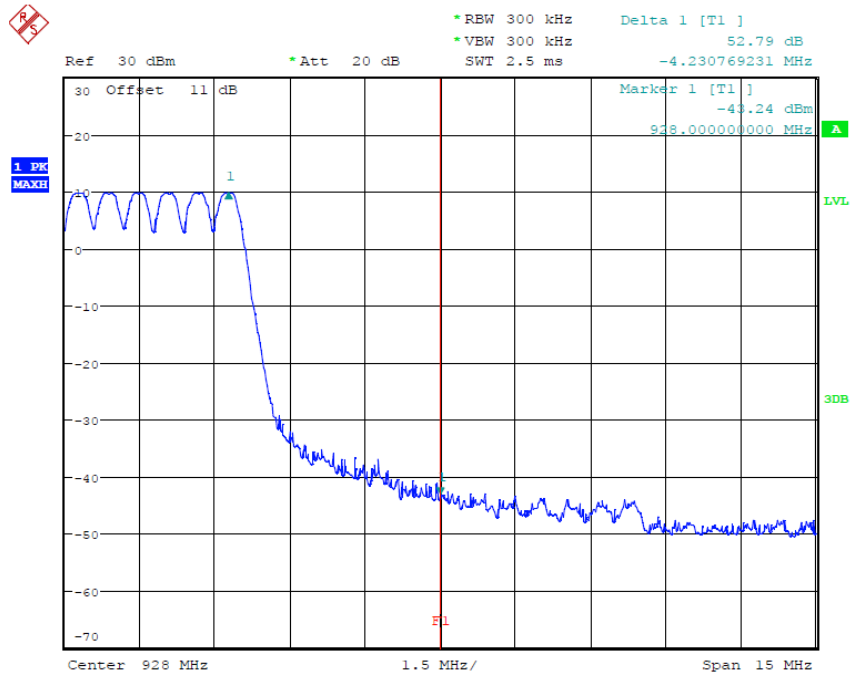
BANDEDGE 923.783MHZ
Date: 4.OCT.2018 14:14:40



BANDEDGE HOPPING MODE 908.3MHZ
Date: 4.OCT.2018 14:17:39



Registration number: W6M21809-18450-C-1
 FCC ID: H50T69

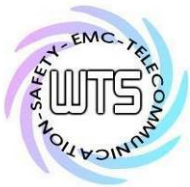


BANDEDGE HOPPING MODE 923.783MHZ
 Date: 4.OCT.2018 14:18:18

Limits:

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

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



Registration number: W6M21809-18450-C-1
FCC ID: H50T69

3.11 Radiated Emissions from Receiver Section of Transceiver

FCC Rule: 15.109

Summary table with radiated data of the test plots

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 055, ETSTW-RE 064, ETSTW-RE 004, ETSTW-RE 030
ETSTW-RE 062, ETSTW-RE 142, ETSTW-RE 147

Explanation: See attached diagram as appendix.



Registration number: W6M21809-18450-C-1
 FCC ID: H50T69

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.

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

Model: CAT1LR Date: --
 Mode: -- Temperature: -- °C Engineer: --
 Polarization: N Humidity: -- %

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result (dBuV)		Limit (dBuV)		Margin (dB)
	QP	Ave.		QP	Ave.	QP	Ave.	
--	--	--	--	--	--	--	--	--

Polarization: L1

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result (dBuV)		Limit (dBuV)		Margin (dB)
	QP	Ave.		QP	Ave.	QP	Ave.	
--	--	--	--	--	--	--	--	--

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 = ±1.54 dB; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2. The decision rule is “false acceptance”.
6. Up Line: QP Limit Line, Down Line: Ave Limit Line.
7. This test is not required.

Limits:

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

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



Radiated Emission Measurement

Operator: Vincent

File :1

Data :#1

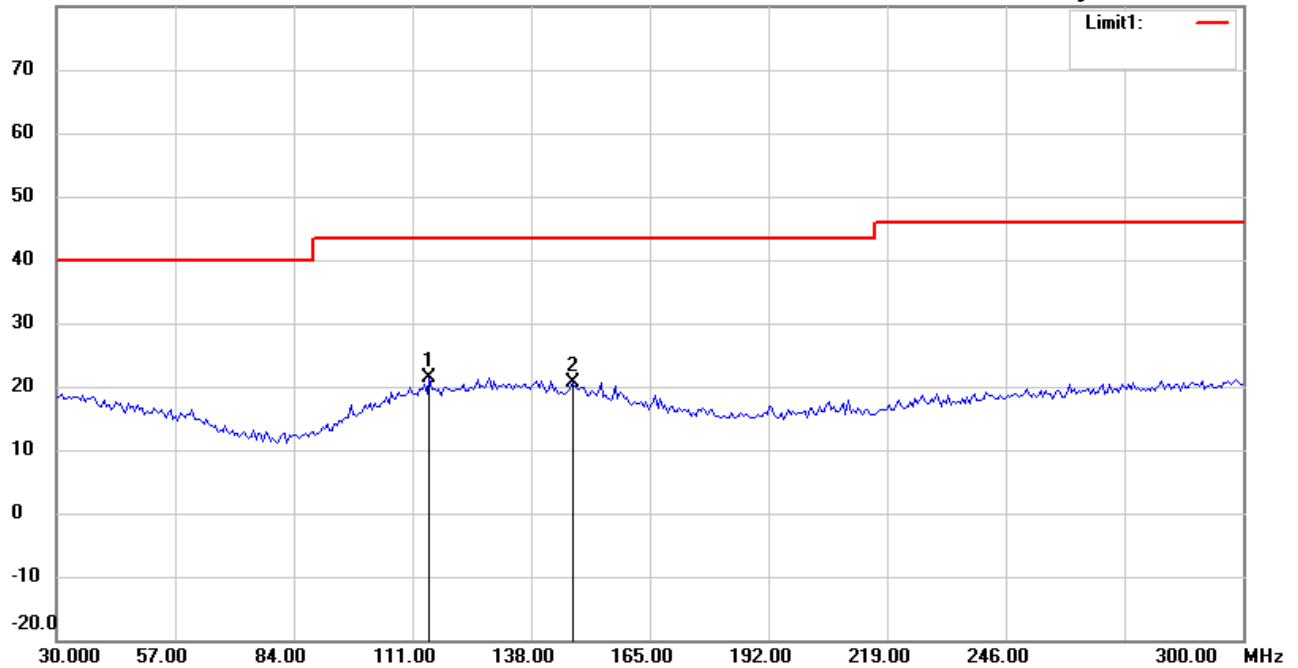
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:47:31 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 908.30MHz

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
*	114.9497	28.34	peak	-7.00	21.34	43.50	100	235	-22.16	
	147.4148	27.79	peak	-7.08	20.71	43.50	100	170	-22.79	



Radiated Emission Measurement

Operator: Vincent

File :1

Data :#2

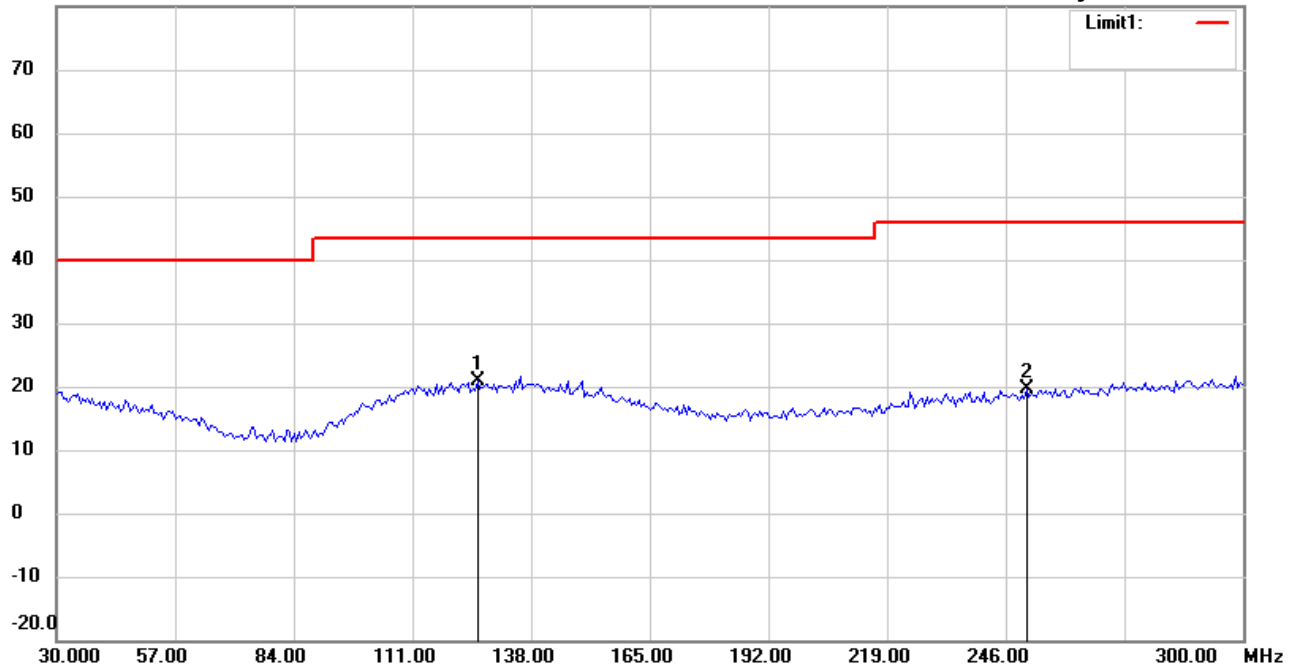
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:48:32 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

EUT : W6M21809-18450

M/N:

Test Mode : TX 908.30MHz

Note :

Polarization: Vertical

Power : 3 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
*	125.7715	27.34	peak	-6.43	20.91	43.50	100	225	-22.59	
	250.7615	27.00	peak	-7.34	19.66	46.00	100	40	-26.34	



Radiated Emission Measurement

Operator: Vincent

File :2

Data :#1

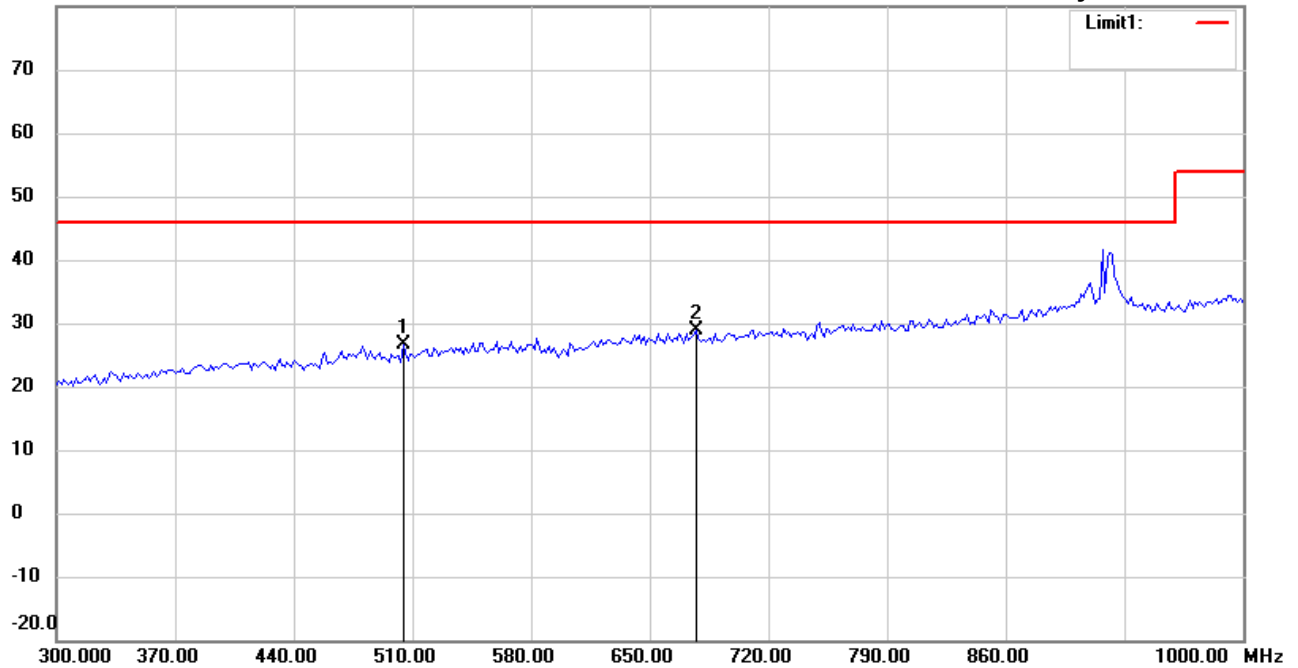
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:49:46 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 908.30MHz

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
	504.8096	28.78	peak	-2.11	26.67	46.00	100	125	-19.33	
*	677.3547	28.22	peak	0.62	28.84	46.00	100	290	-17.16	



Radiated Emission Measurement

Operator: Vincent

File :2

Data :#2

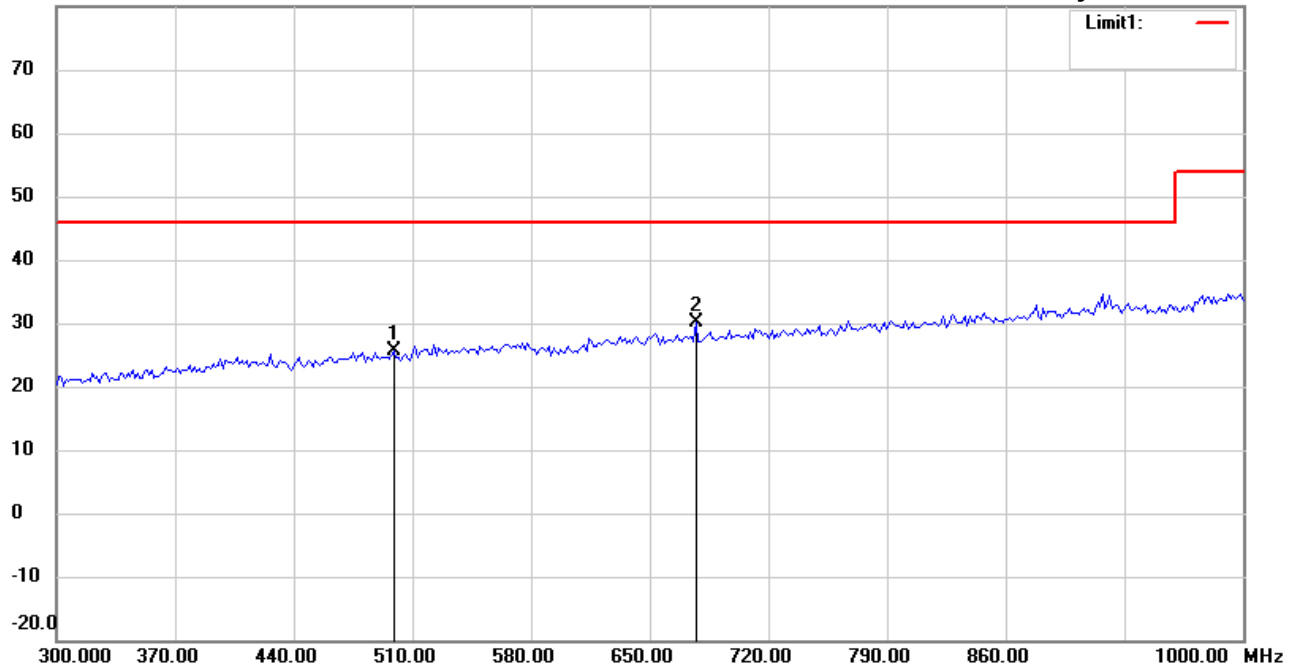
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:51:13 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 908.30MHz

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
	499.1984	27.81	peak	-2.23	25.58	46.00	100	80	-20.42	
*	677.3547	29.48	peak	0.62	30.10	46.00	100	140	-15.90	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#1

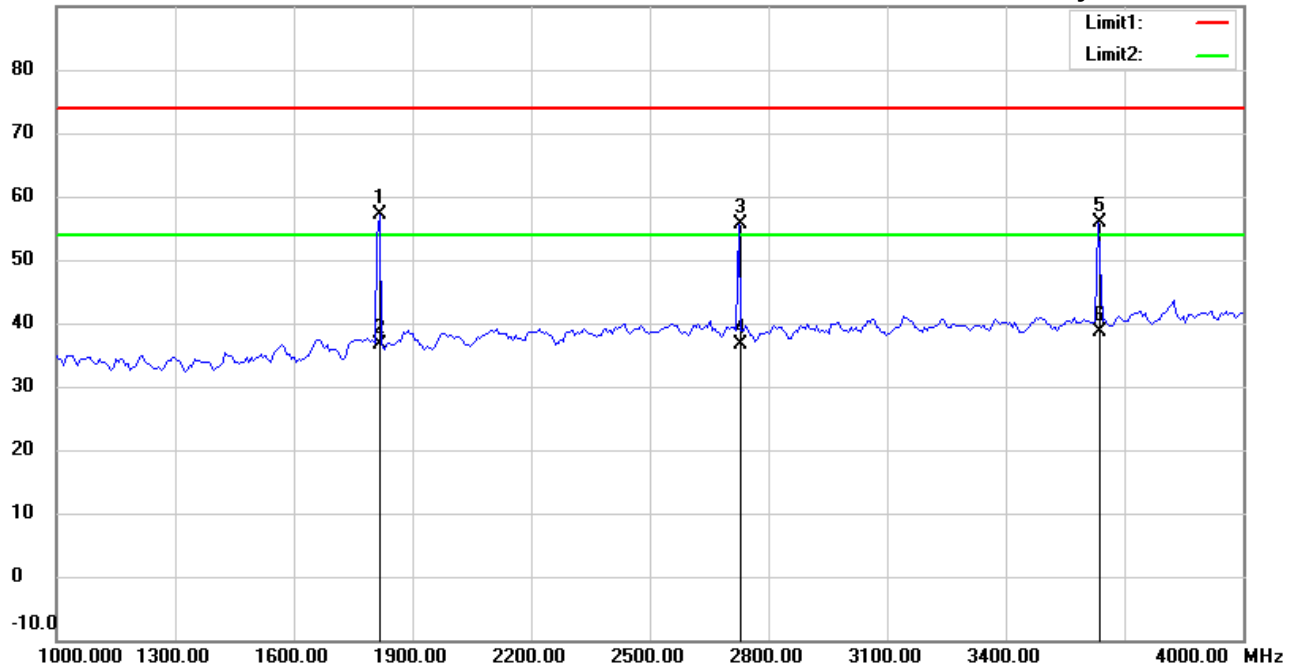
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 2:34:18 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M21809-18450

M/N:

Test Mode : TX 908.30MHz

Note :

Polarization: *Horizontal*

Power : 3 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
	1817.635	63.51	peak	-6.44	57.07	74.00	210	100	-16.93	
	1817.635	43.05	AVG	-6.44	36.61	54.00	210	100	-17.39	
	2725.451	59.42	peak	-3.84	55.58	74.00	235	125	-18.42	
	2725.451	40.53	AVG	-3.84	36.69	54.00	235	125	-17.31	
	3633.267	57.08	peak	-1.19	55.89	74.00	190	180	-18.11	
*	3633.267	39.78	AVG	-1.19	38.59	54.00	190	180	-15.41	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#4

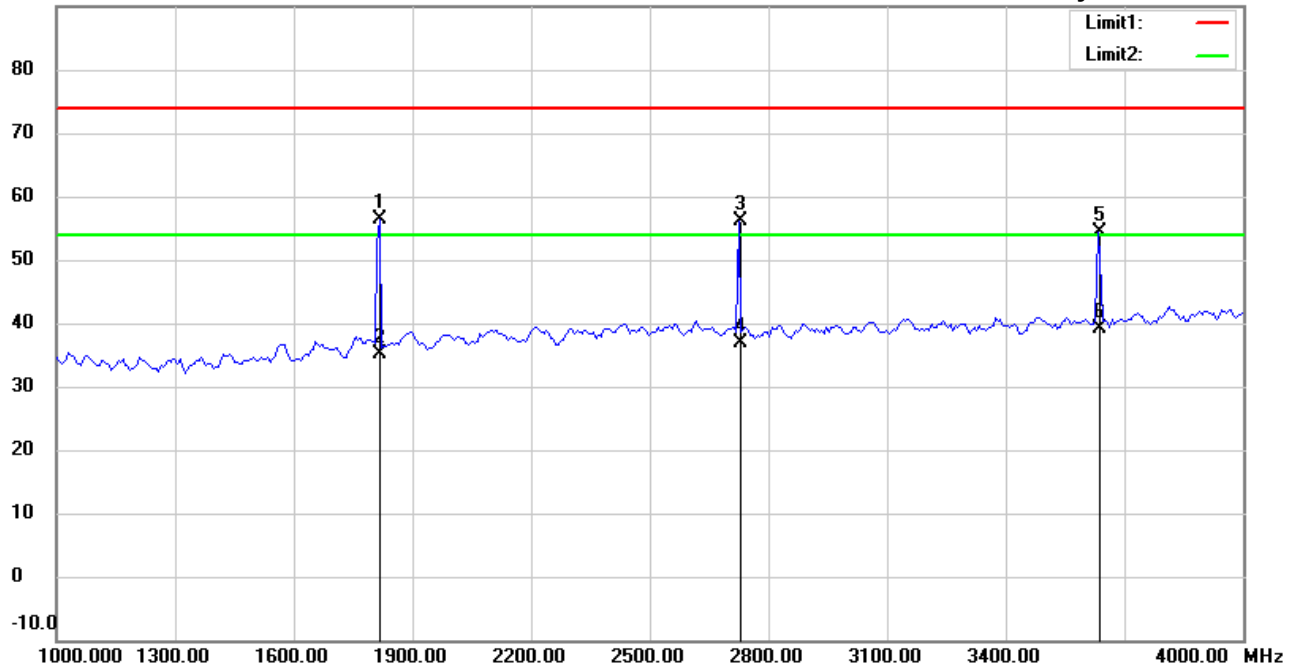
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 2:39:25 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M21809-18450

M/N:

Test Mode : TX 908.30MHz

Note :

Polarization: **Vertical**

Power : 3 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
	1817.635	62.94	peak	-6.44	56.50	74.00	155	35	-17.50	
	1817.635	41.69	AVG	-6.44	35.25	54.00	155	35	-18.75	
	2725.451	59.94	peak	-3.84	56.10	74.00	210	170	-17.90	
	2725.451	40.73	AVG	-3.84	36.89	54.00	210	170	-17.11	
	3633.267	55.61	peak	-1.19	54.42	74.00	180	220	-19.58	
*	3633.267	40.26	AVG	-1.19	39.07	54.00	180	220	-14.93	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#2

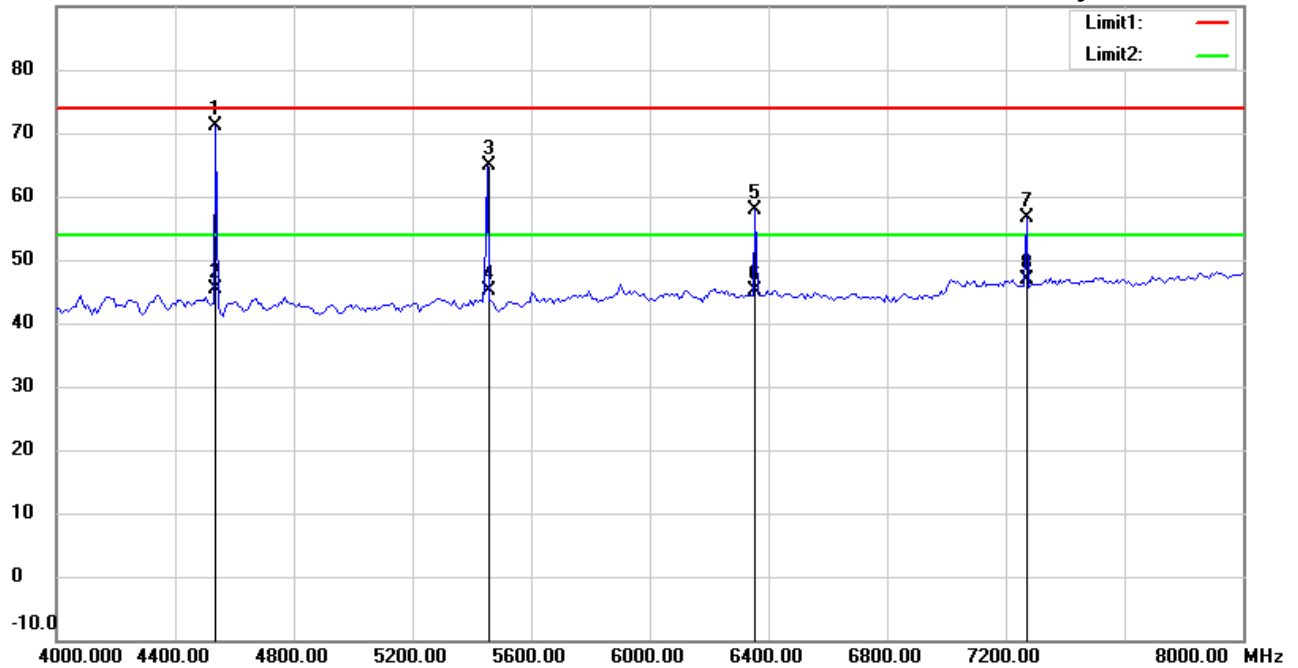
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 2:35:43 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 908.30MHz

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
*	4537.074	70.28	peak	0.78	71.06	74.00	200	300	-2.94	
	4537.074	44.52	AVG	0.78	45.30	54.00	200	300	-8.70	
	5450.902	62.59	peak	2.36	64.95	74.00	205	330	-9.05	
	5450.902	42.69	AVG	2.36	45.05	54.00	205	330	-8.95	
	6356.713	53.55	peak	4.31	57.86	74.00	185	295	-16.14	
	6356.713	40.88	AVG	4.31	45.19	54.00	185	295	-8.81	
	7270.541	51.15	peak	5.47	56.62	74.00	220	180	-17.38	
	7270.541	41.37	AVG	5.47	46.84	54.00	220	180	-7.16	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#5

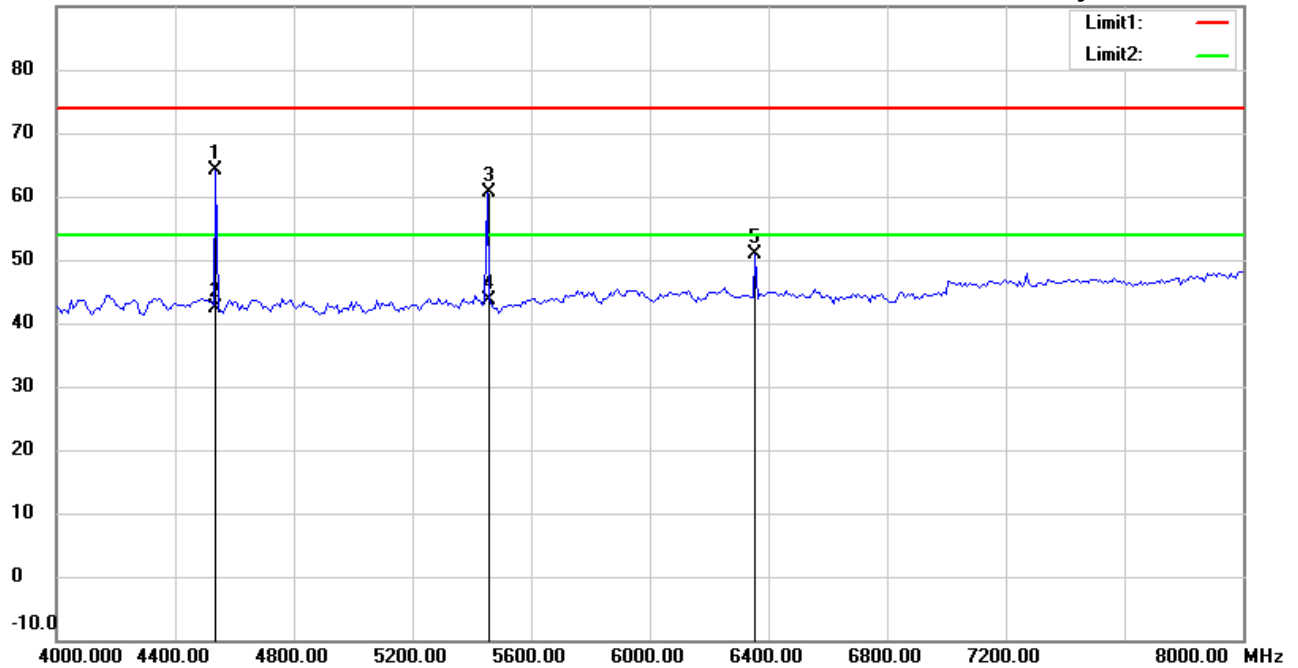
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 2:41:19 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M21809-18450

M/N:

Test Mode : TX 908.30MHz

Note :

Polarization: *Vertical*

Power : 3 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
*	4537.074	63.41	peak	0.78	64.19	74.00	175	222	-9.81	
	4537.074	41.56	AVG	0.78	42.34	54.00	175	222	-11.66	
	5450.902	58.34	peak	2.36	60.70	74.00	200	175	-13.30	
	5450.902	41.37	AVG	2.36	43.73	54.00	200	175	-10.27	
	6356.713	46.58	peak	4.31	50.89	74.00	205	310	-23.11	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#3

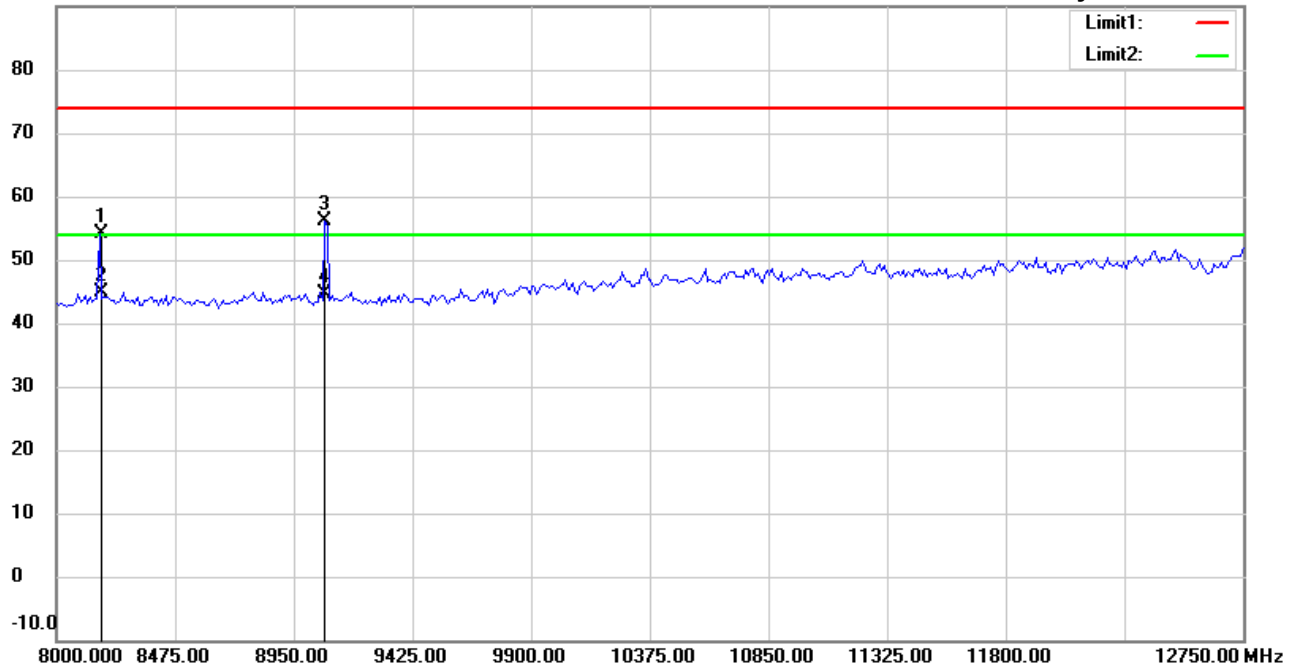
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 2:37:59 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 908.30MHz

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
	8171.343	46.73	peak	7.30	54.03	74.00	150	290	-19.97	
*	8171.343	37.56	AVG	7.30	44.86	54.00	150	290	-9.14	
	9075.651	48.82	peak	7.39	56.21	74.00	185	235	-17.79	
	9075.651	37.12	AVG	7.39	44.51	54.00	185	235	-9.49	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#6

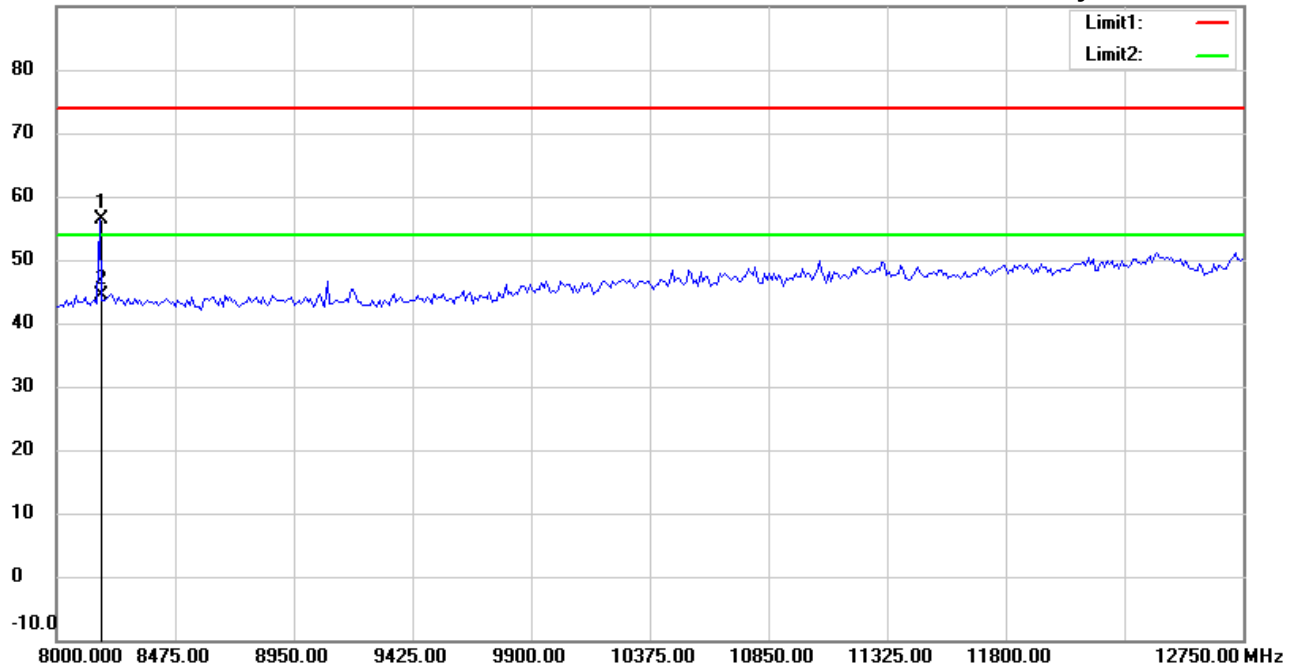
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 2:42:52 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 908.30MHz

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
	8171.343	49.19	peak	7.30	56.49	74.00	150	180	-17.51	
*	8171.343	37.16	AVG	7.30	44.46	54.00	150	180	-9.54	



Radiated Emission Measurement

Operator: Vincent

File :1

Data :#1

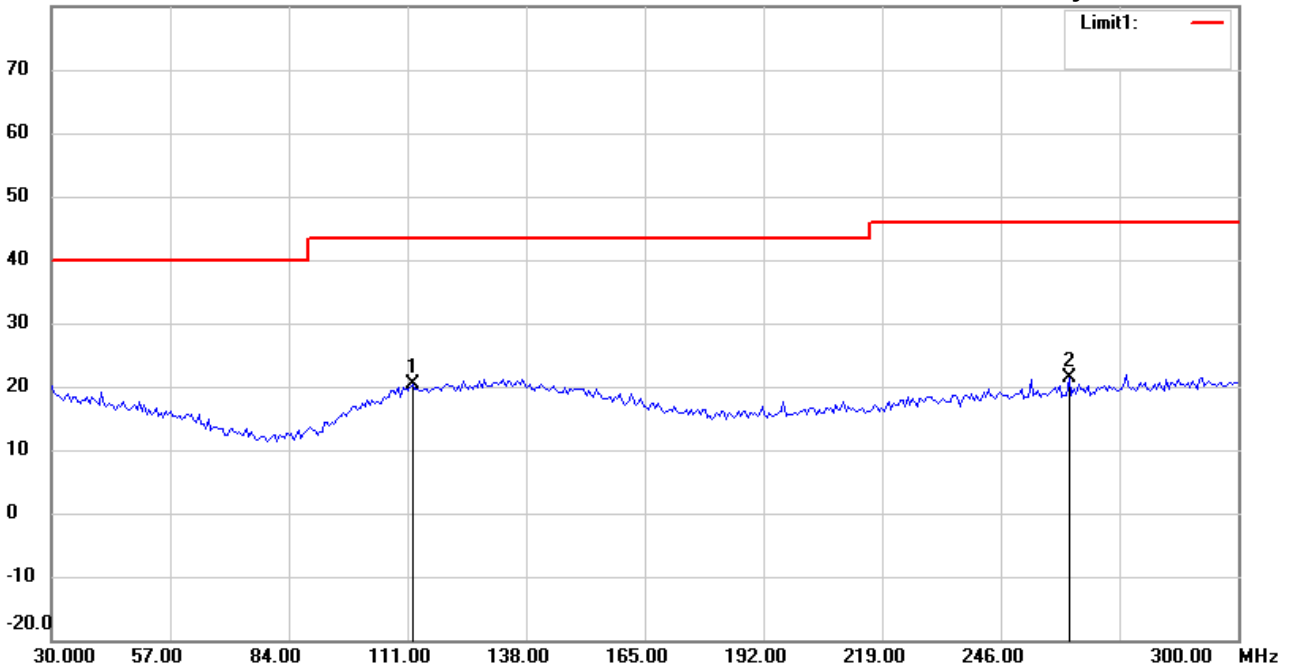
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:55:02 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

EUT : W6M21809-18450

M/N:

Test Mode : TX 917.233MHz

Note :

Polarization: *Horizontal*

Power : 3 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
*	112.2445	27.70	peak	-7.22	20.48	43.50	100	73	-23.02	
	261.5831	28.24	peak	-6.85	21.39	46.00	100	154	-24.61	



Radiated Emission Measurement

Operator: Vincent

File :1

Data :#2

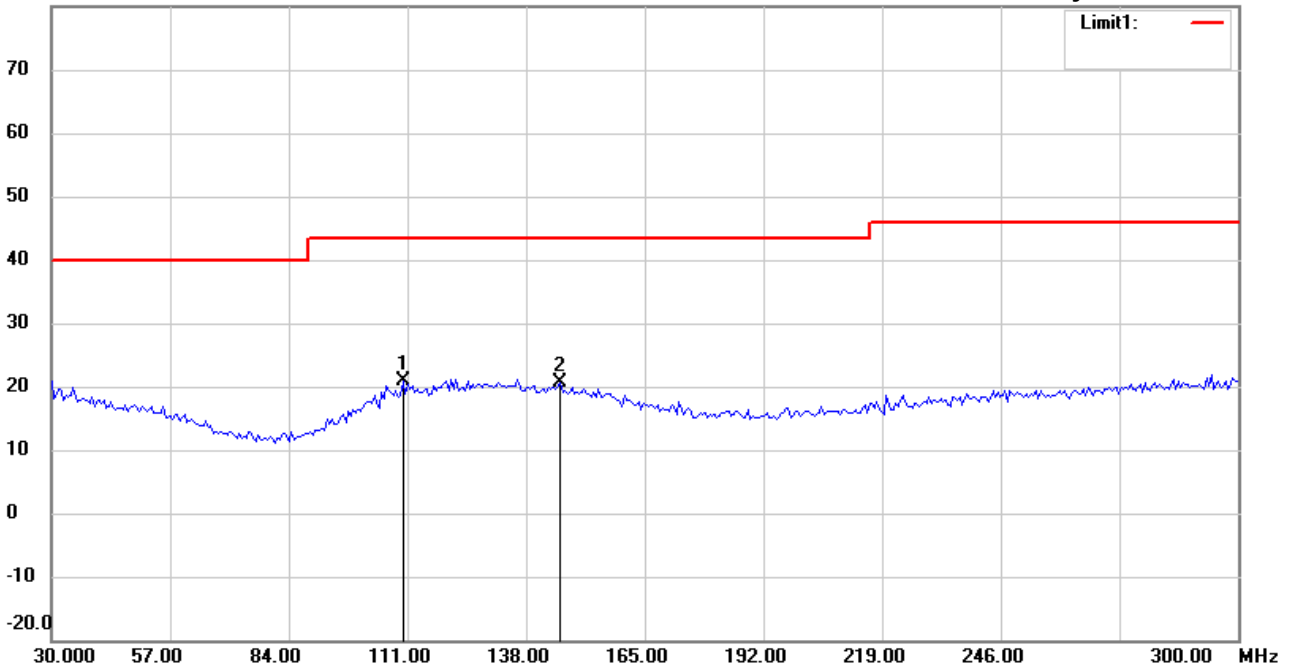
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:56:08 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 917.233MHz

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
*	110.0802	28.16	peak	-7.39	20.77	43.50	100	13	-22.73	
	145.7915	27.65	peak	-6.94	20.71	43.50	100	155	-22.79	



Radiated Emission Measurement

Operator: Vincent

File :2

Data :#1

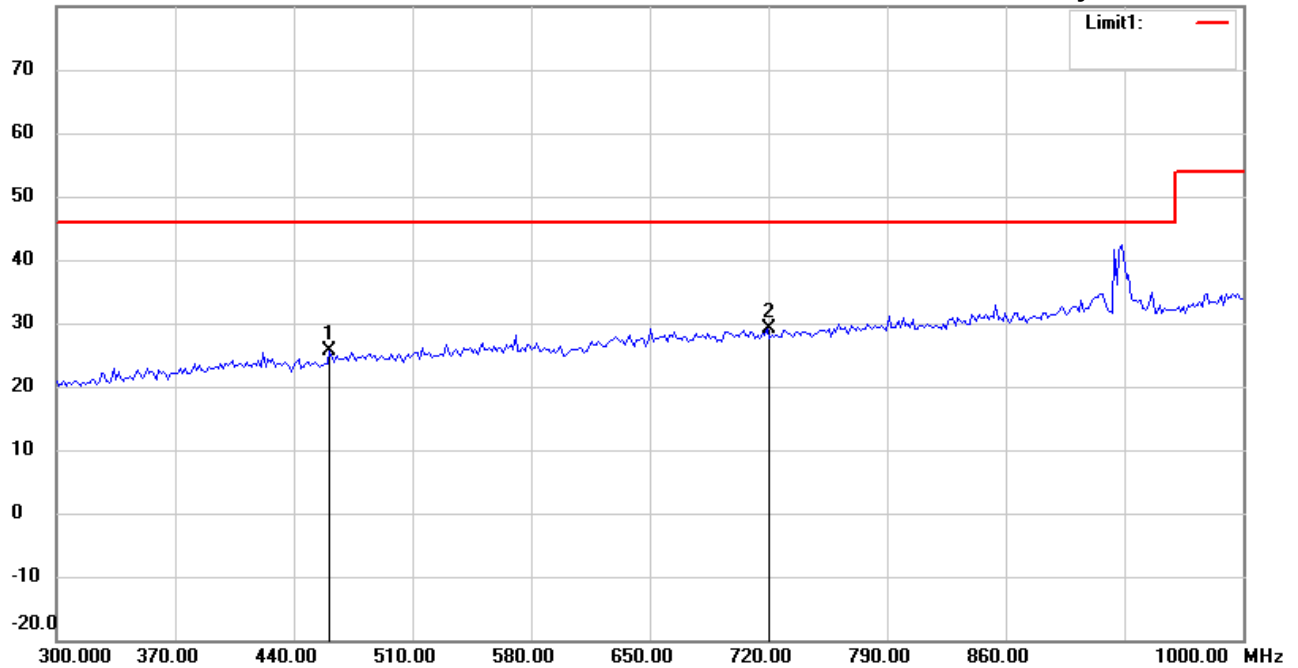
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:57:24 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 917.233MHz

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
	461.3226	28.48	peak	-2.85	25.63	46.00	100	120	-20.37	
*	719.4390	27.86	peak	1.15	29.01	46.00	100	275	-16.99	



Radiated Emission Measurement

Operator: Vincent

File :2

Data :#2

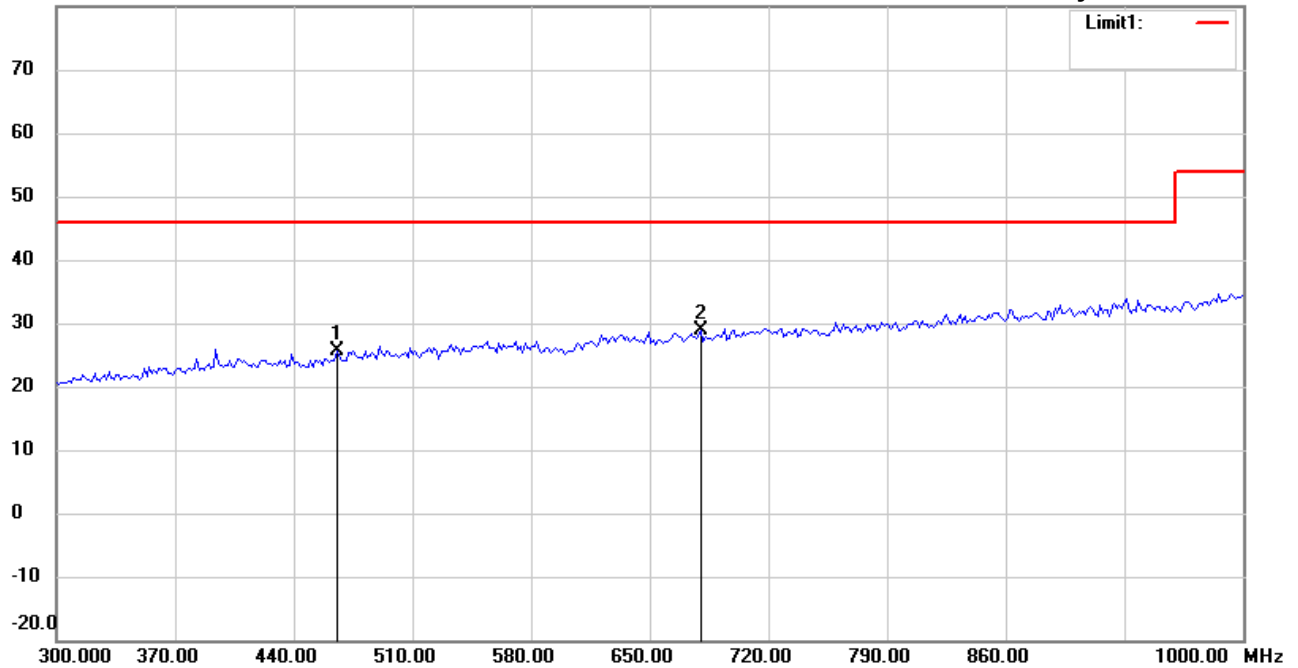
Date: 10/15/2018

Temperature:23 °C

80.0 dBuV/m

Time: 1:59:16 PM

Humidity:74.2 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 917.233MHz

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
	465.5311	28.42	peak	-2.77	25.65	46.00	100	140	-20.35	
*	680.1603	28.34	peak	0.65	28.99	46.00	100	320	-17.01	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#1

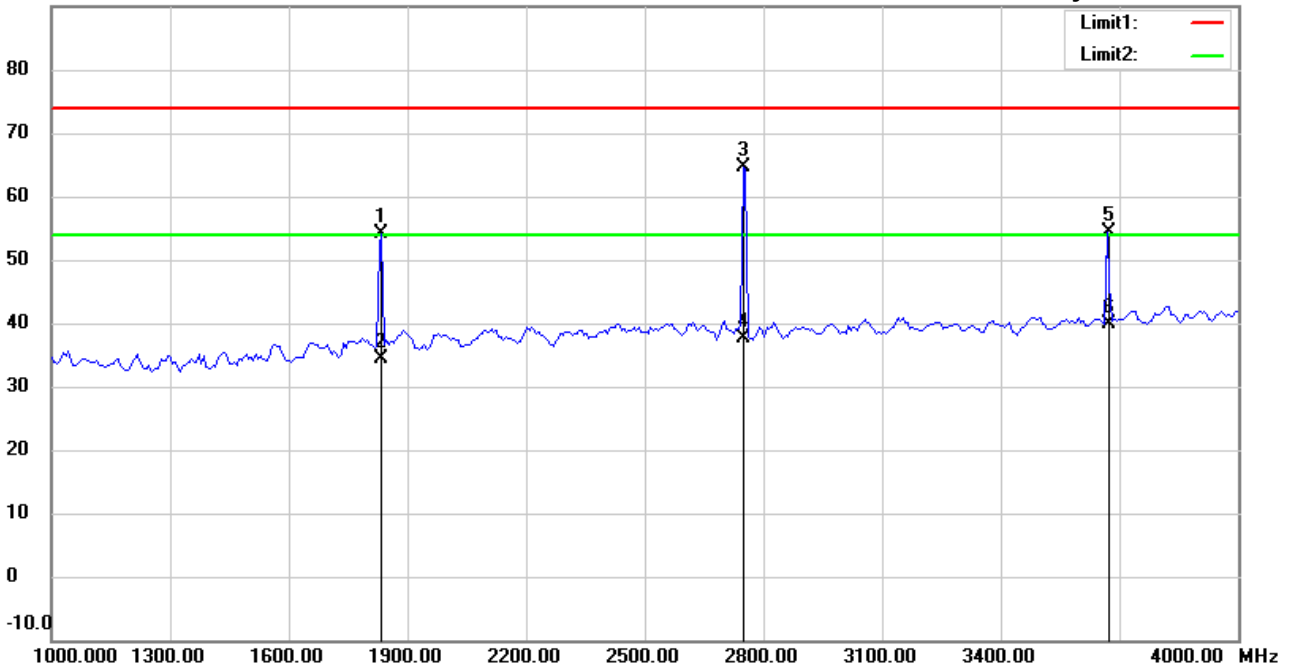
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 1:14:57 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 917.233MHz

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
	1835.671	60.56	peak	-6.36	54.20	74.00	210	235	-19.80	
	1835.671	40.81	AVG	-6.36	34.45	54.00	210	235	-19.55	
*	2749.499	68.47	peak	-3.84	64.63	74.00	200	200	-9.37	
	2749.499	41.52	AVG	-3.84	37.68	54.00	200	200	-16.32	
	3669.339	55.43	peak	-1.11	54.32	74.00	185	195	-19.68	
	3669.339	40.96	AVG	-1.11	39.85	54.00	185	195	-14.15	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#4

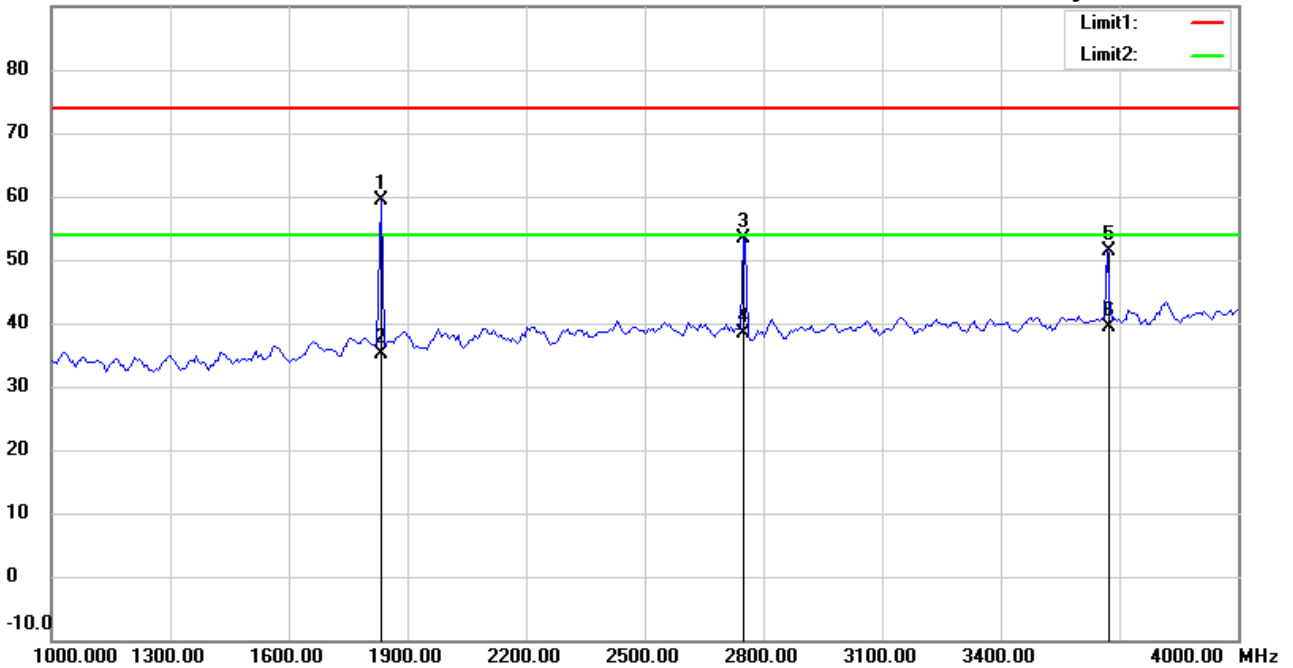
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 1:19:56 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M21809-18450

M/N:

Test Mode : TX 917.233MHz

Note :

Polarization: *Vertical*

Power : 3 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
*	1835.671	65.72	peak	-6.36	59.36	74.00	180	330	-14.64	
	1835.671	41.59	AVG	-6.36	35.23	54.00	180	330	-18.77	
	2749.499	57.32	peak	-3.84	53.48	74.00	220	110	-20.52	
	2749.499	42.10	AVG	-3.84	38.26	54.00	220	110	-15.74	
	3669.339	52.44	peak	-1.11	51.33	74.00	160	280	-22.67	
	3669.339	40.38	AVG	-1.11	39.27	54.00	160	280	-14.73	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#2

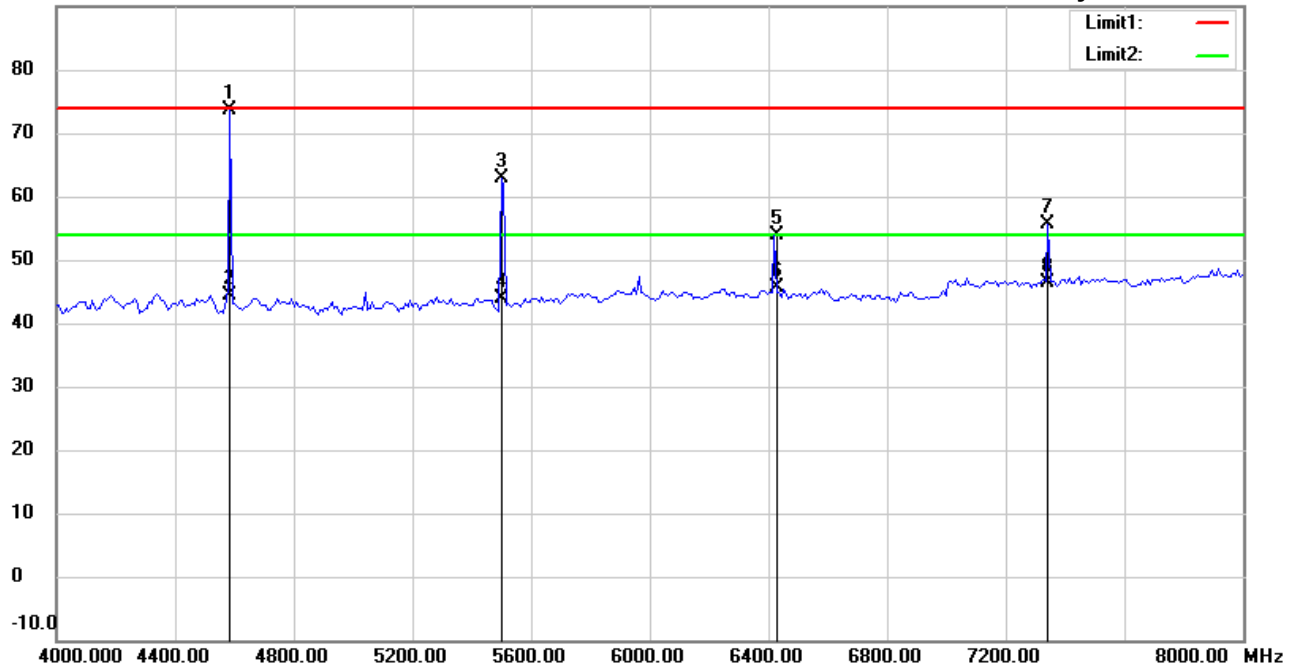
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 1:16:18 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 917.233MHz

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
*	4585.170	72.90	peak	0.64	73.54	74.00	195	110	-0.46	
	4585.170	43.66	AVG	0.64	44.30	54.00	195	110	-9.70	
	5498.998	60.72	peak	2.19	62.91	74.00	205	185	-11.09	
	5498.998	41.63	AVG	2.19	43.82	54.00	205	185	-10.18	
	6420.842	49.61	peak	4.29	53.90	74.00	200	170	-20.10	
	6420.842	41.24	AVG	4.29	45.53	54.00	200	170	-8.47	
	7342.685	49.83	peak	5.75	55.58	74.00	160	80	-18.42	
	7342.685	40.59	AVG	5.75	46.34	54.00	160	80	-7.66	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#5

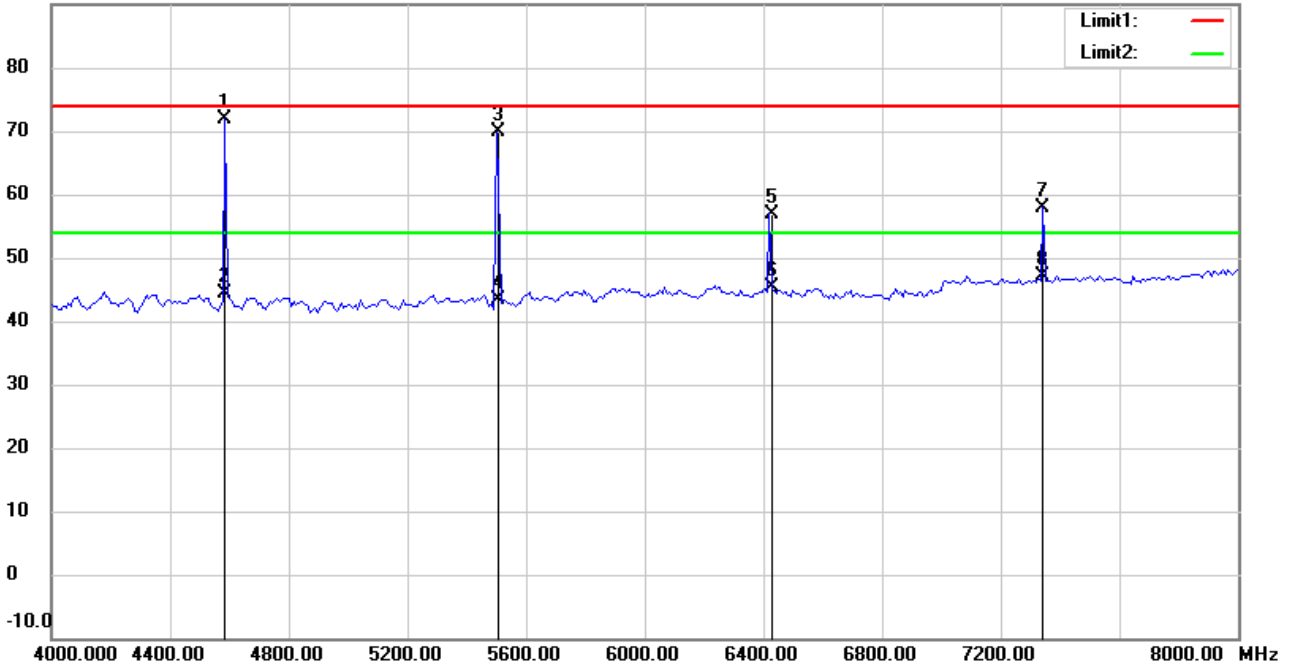
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 1:21:17 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M21809-18450

M/N:

Test Mode : TX 917.233MHz

Note :

Polarization: **Vertical**

Power : 3 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
*	4585.170	71.33	peak	0.64	71.97	74.00	206	160	-2.03	
	4585.170	43.64	AVG	0.64	44.28	54.00	206	160	-9.72	
	5503.642	67.60	peak	2.20	69.80	74.00	235	165	-4.20	
	5503.642	41.28	AVG	2.20	43.48	54.00	235	165	-10.52	
	6420.842	52.60	peak	4.29	56.89	74.00	235	160	-17.11	
	6420.842	41.21	AVG	4.29	45.50	54.00	235	160	-8.50	
	7337.610	52.05	peak	5.72	57.77	74.00	240	155	-16.23	
	7337.610	41.32	AVG	5.72	47.04	54.00	240	155	-6.96	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#3

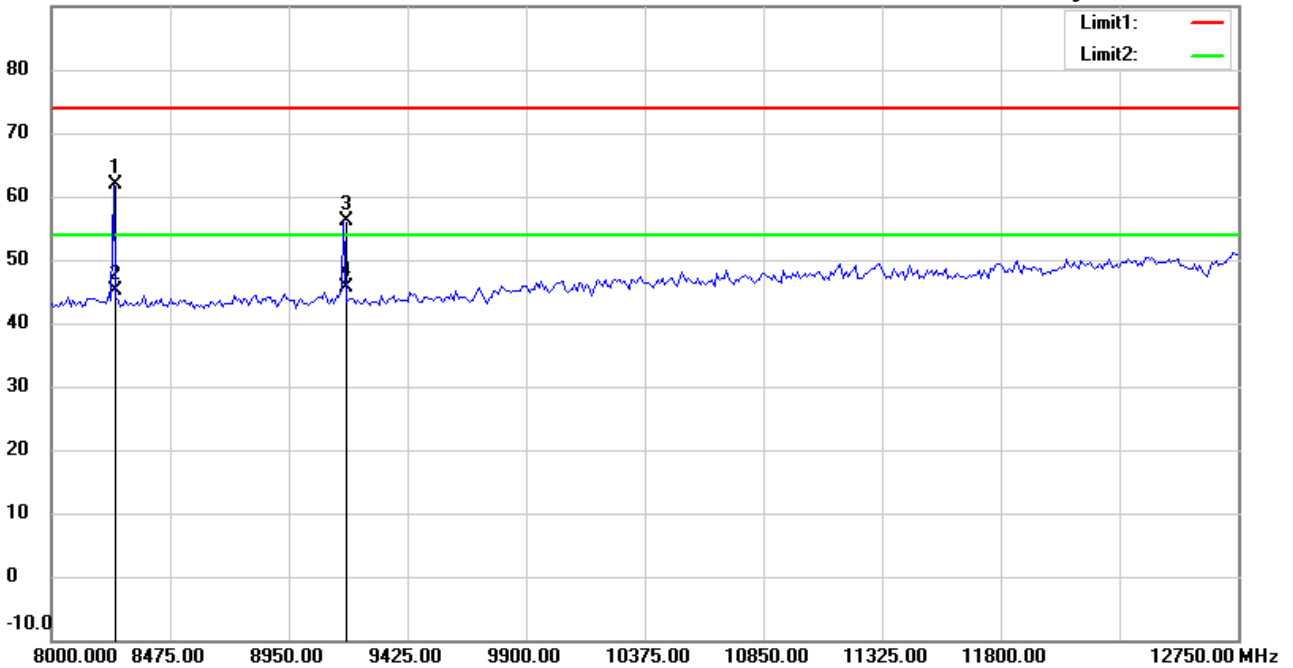
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 1:17:56 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 917.233MHz

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
	8254.644	54.83	peak	7.10	61.93	74.00	200	180	-12.07	
	8254.644	38.07	AVG	7.10	45.17	54.00	200	180	-8.83	
	9172.761	48.62	peak	7.63	56.25	74.00	215	185	-17.75	
*	9172.761	38.12	AVG	7.63	45.75	54.00	215	185	-8.25	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#6

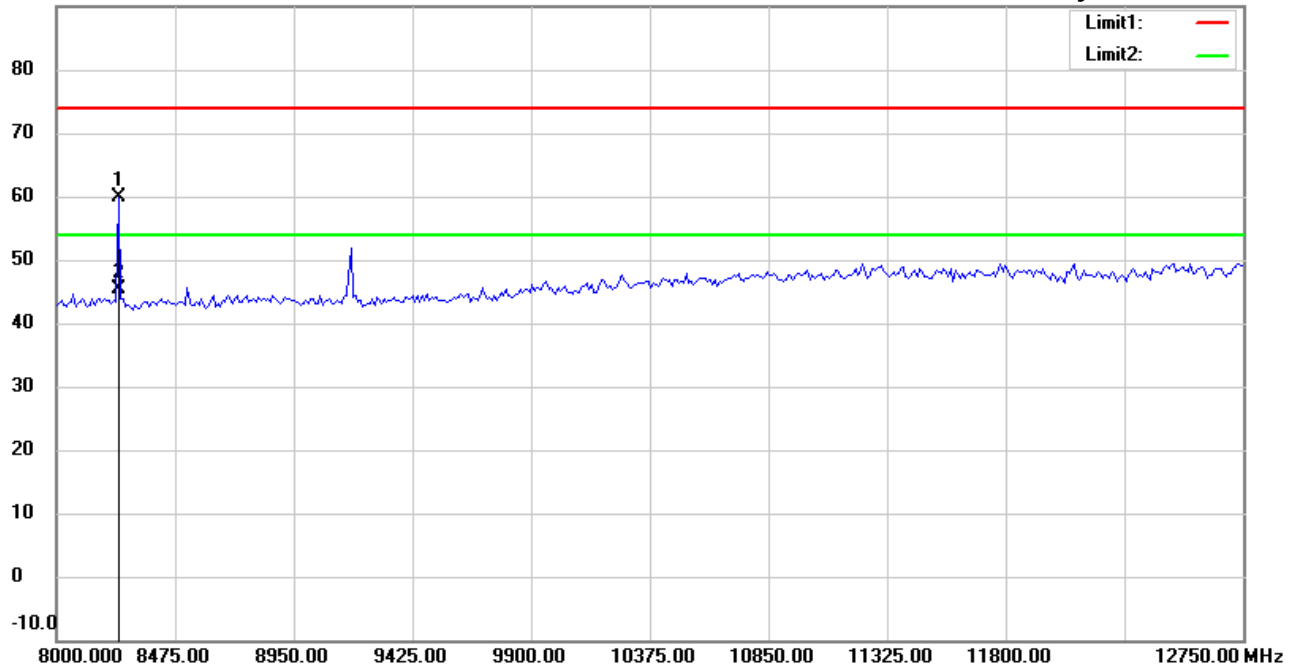
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 1:22:46 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: **Vertical**

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 917.233MHz

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
	8247.495	52.71	peak	7.14	59.85	74.00	165	160	-14.15	
*	8247.495	38.16	AVG	7.14	45.30	54.00	165	160	-8.70	



Radiated Emission Measurement

Operator: Sky

File :1

Data :#1

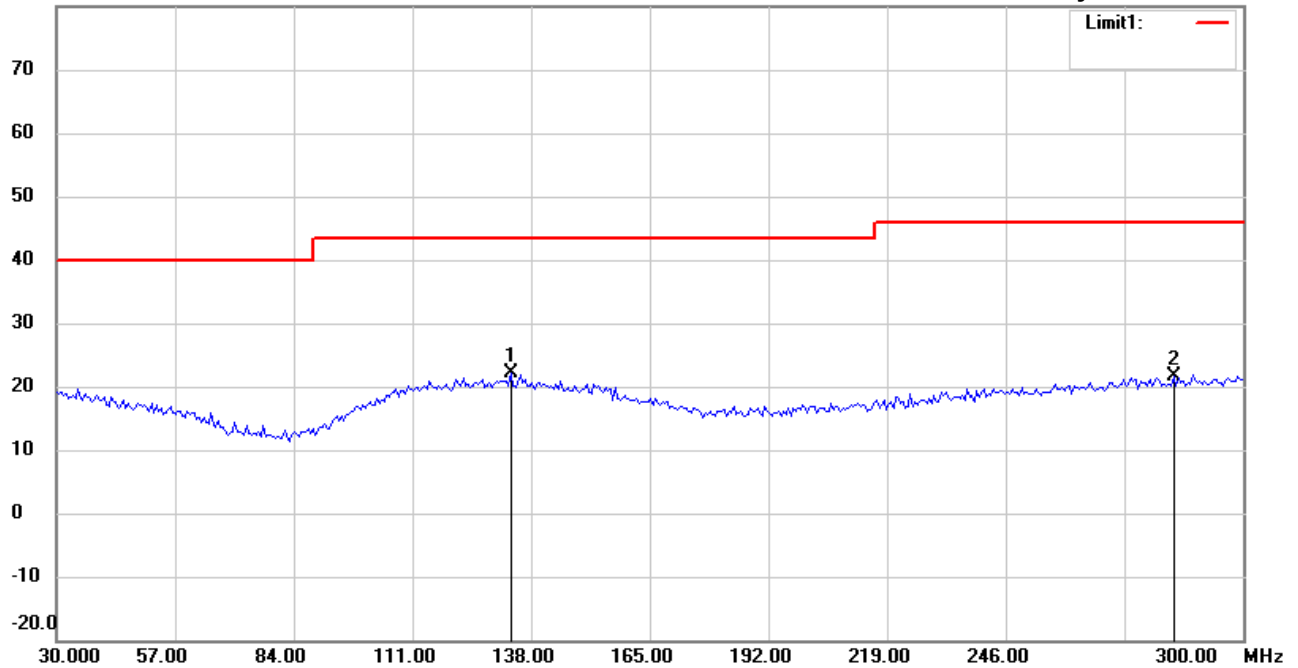
Date: 10/16/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 8:59:34 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

EUT : W6M21809-18450

M/N:

Test Mode : TX 923.783MHz

Note :

Polarization: *Horizontal*

Power : 3 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
*	133.3465	28.38	peak	-6.36	22.02	43.50	100	35	-21.48	
	284.3086	27.67	peak	-5.93	21.74	46.00	100	140	-24.26	



Radiated Emission Measurement

Operator: Sky

File :1

Data :#2

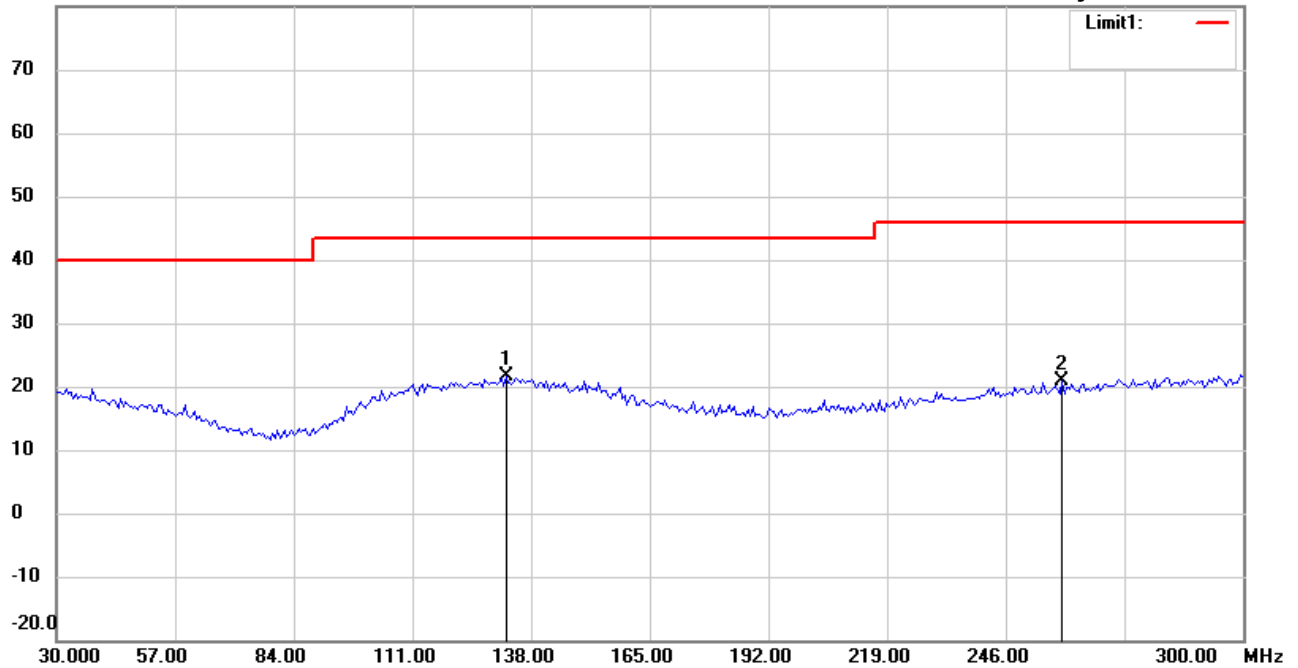
Date: 10/16/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 9:00:50 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

EUT : W6M21809-18450

M/N:

Test Mode : TX 923.783MHz

Note :

Polarization: Vertical

Power : 3 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
*	132.2642	27.90	peak	-6.34	21.56	43.50	100	25	-21.94	
	258.8777	27.77	peak	-6.97	20.80	46.00	100	178	-25.20	



Radiated Emission Measurement

Operator: Sky

File :2

Data :#1

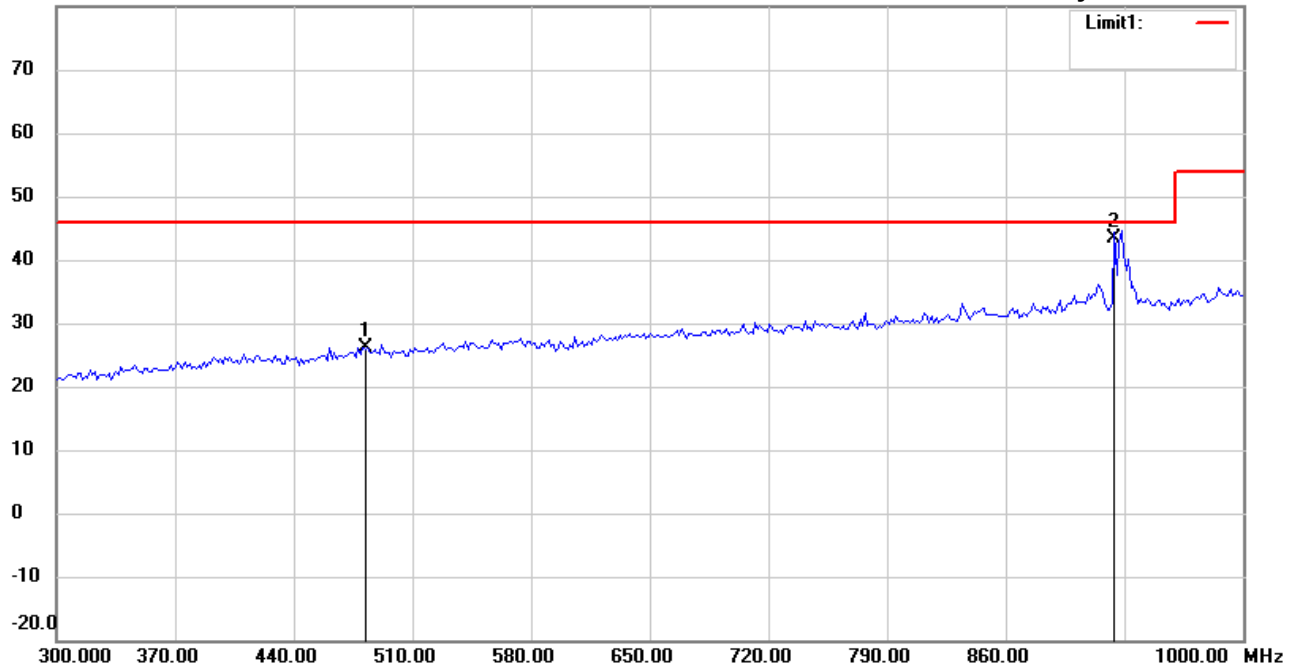
Date: 10/16/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 8:50:18 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 923.783MHz

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
	480.9620	28.69	peak	-2.49	26.20	46.00	100	45	-19.80	
*	923.8151	38.15	QP	5.27	43.42	46.00	100	70	-2.58	



Radiated Emission Measurement

Operator: Sky

File :2

Data :#2

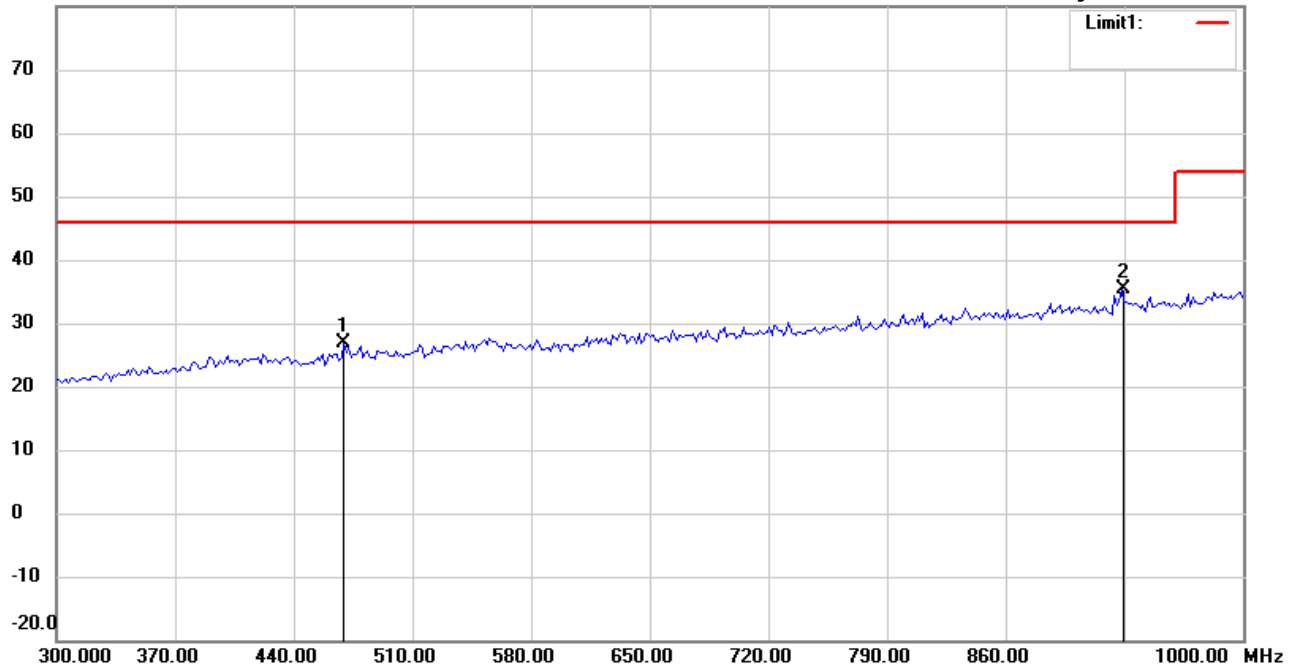
Date: 10/16/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 8:56:50 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: **Vertical**

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 923.783MHz

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
	469.7395	29.46	peak	-2.69	26.77	46.00	100	152	-19.23	
*	928.4570	30.05	peak	5.34	35.39	46.00	100	237	-10.61	



Radiated Emission Measurement

Operator: Sky

File :3

Data :#1

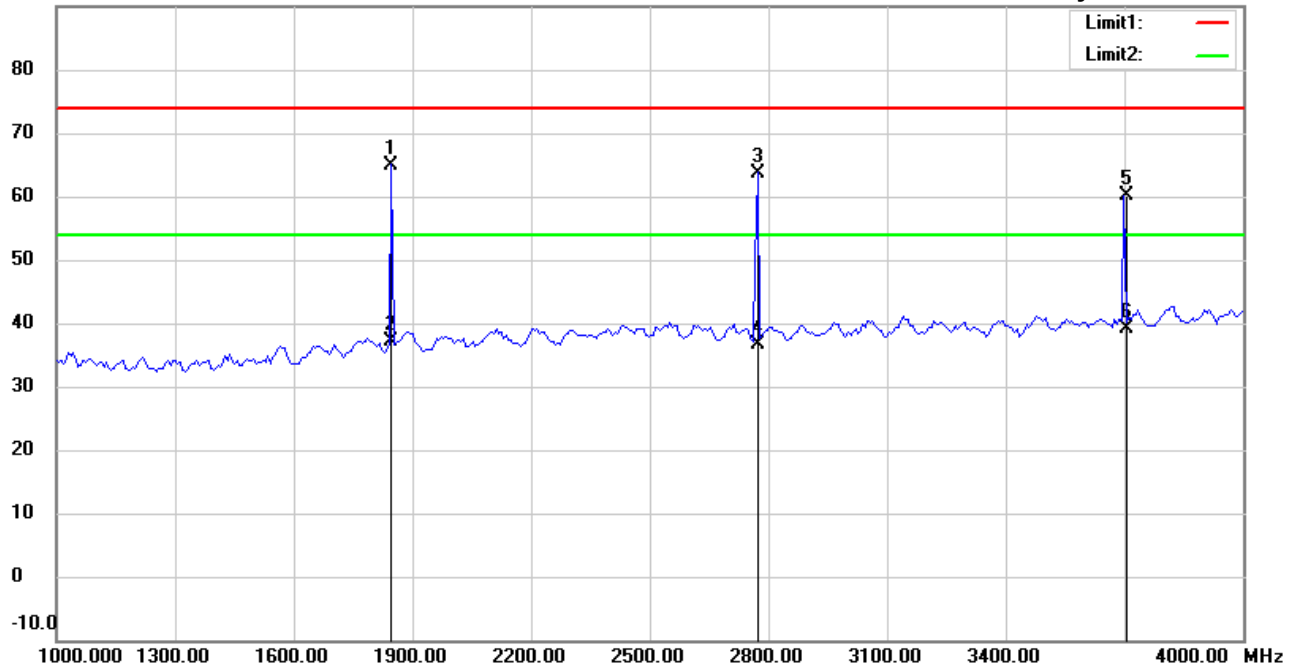
Date: 10/16/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 9:26:45 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 923.783MHz

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
*	1847.439	71.29	peak	-6.31	64.98	74.00	150	349	-9.02	
	1847.439	43.55	AVG	-6.31	37.24	54.00	150	349	-16.76	
	2773.547	67.51	peak	-3.85	63.66	74.00	150	210	-10.34	
	2773.547	40.56	AVG	-3.85	36.71	54.00	150	210	-17.29	
	3699.399	61.27	peak	-1.04	60.23	74.00	175	265	-13.77	
	3699.399	40.29	AVG	-1.04	39.25	54.00	175	265	-14.75	



Radiated Emission Measurement

Operator: Sky

File :3

Data :#4

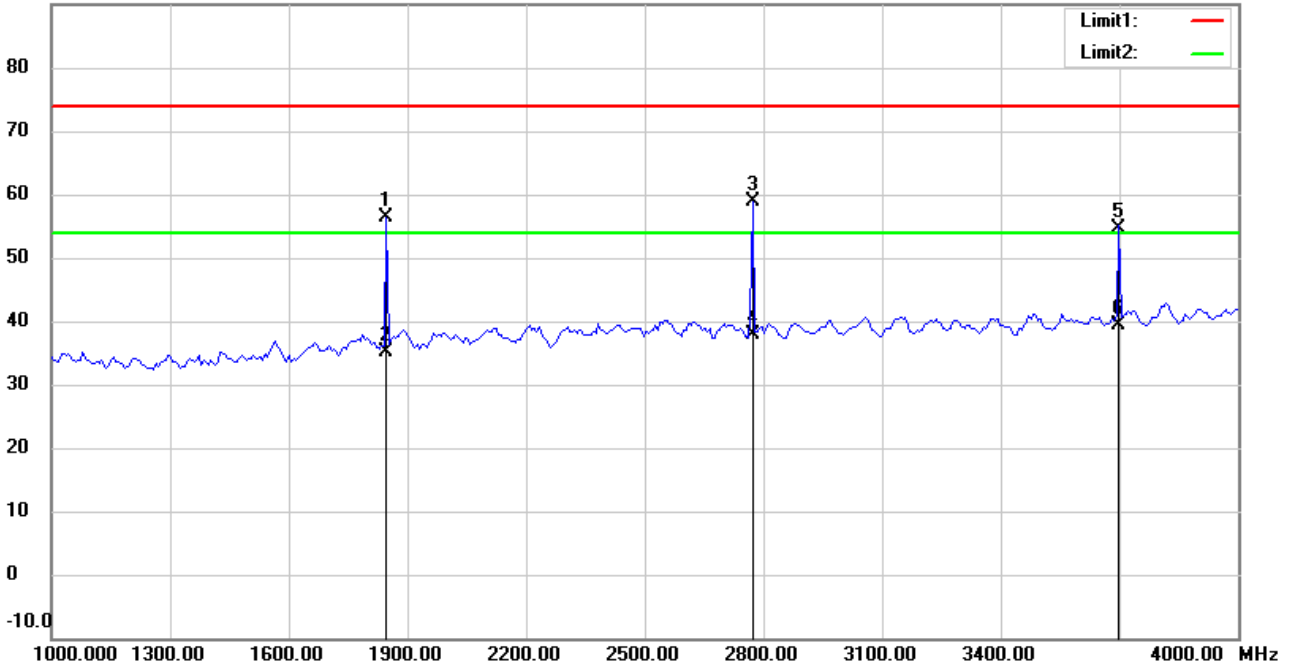
Date: 10/16/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 9:27:53 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M21809-18450

M/N:

Test Mode : TX 923.783MHz

Note :

Polarization: *Vertical*

Power : 3 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
	1847.409	62.62	peak	-6.31	56.31	74.00	280	60	-17.69	
	1847.409	41.55	AVG	-6.31	35.24	54.00	280	60	-18.76	
	2771.237	62.73	peak	-3.85	58.88	74.00	220	124	-15.12	
	2771.237	41.67	AVG	-3.85	37.82	54.00	220	124	-16.18	
	3695.336	55.58	peak	-1.05	54.53	74.00	270	245	-19.47	
*	3695.336	40.36	AVG	-1.05	39.31	54.00	270	245	-14.69	



Radiated Emission Measurement

Operator: Sky

File :3

Data :#2

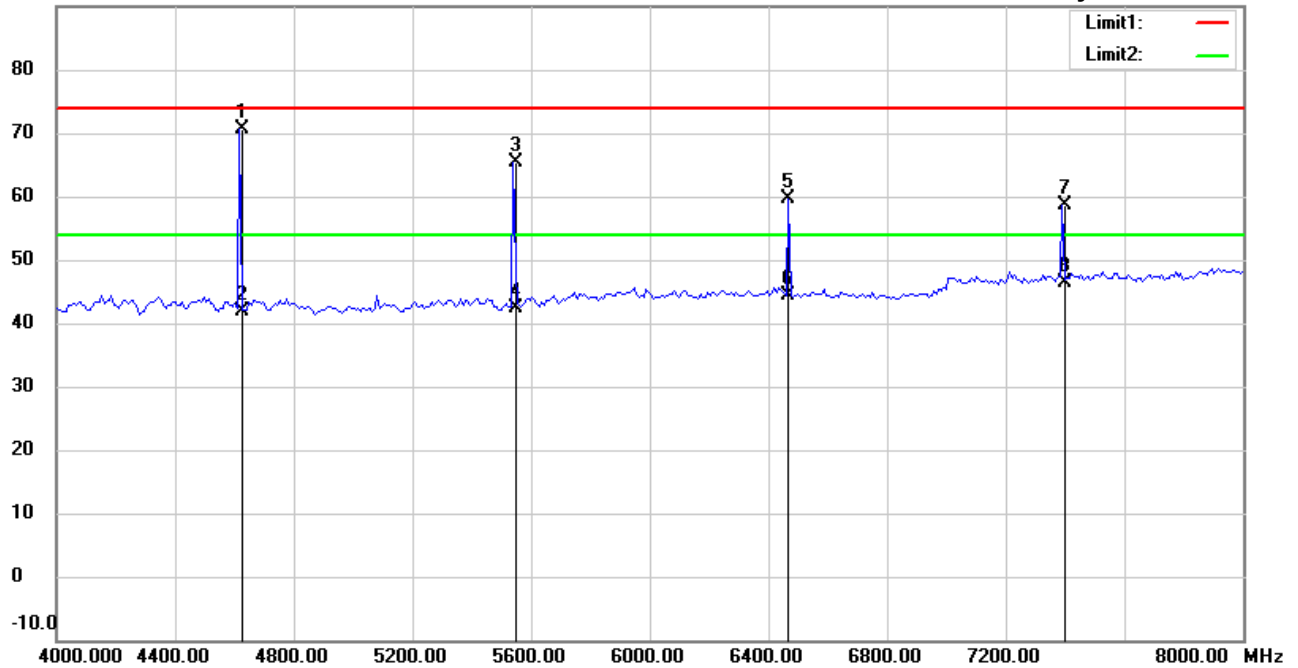
Date: 10/16/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 10:57:06 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 923.783MHz

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
*	4619.083	70.10	peak	0.58	70.68	74.00	165	220	-3.32	
	4619.083	41.32	AVG	0.58	41.90	54.00	165	220	-12.10	
	5542.901	63.15	peak	2.32	65.47	74.00	235	200	-8.53	
	5542.901	40.17	AVG	2.32	42.49	54.00	235	200	-11.51	
	6466.849	55.53	peak	4.14	59.67	74.00	184	130	-14.33	
	6466.849	40.29	AVG	4.14	44.43	54.00	184	130	-9.57	
	7391.108	52.68	peak	6.02	58.70	74.00	166	330	-15.30	
	7391.108	40.36	AVG	6.02	46.38	54.00	166	330	-7.62	



Radiated Emission Measurement

Operator: Sky

File :3

Data :#5

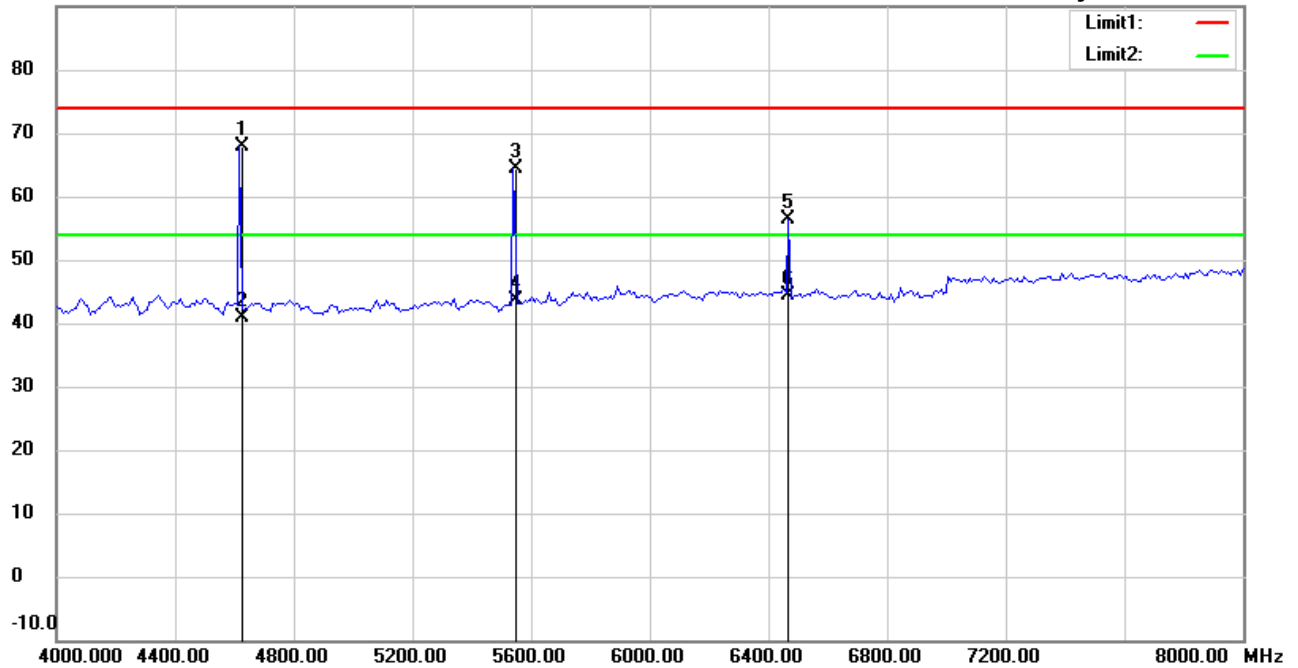
Date: 10/16/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 10:58:18 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: Vertical

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 923.783MHz

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
*	4619.193	67.39	peak	0.58	67.97	74.00	228	161	-6.03	
	4619.193	40.23	AVG	0.58	40.81	54.00	228	161	-13.19	
	5542.415	61.99	peak	2.32	64.31	74.00	150	214	-9.69	
	5542.415	41.35	AVG	2.32	43.67	54.00	150	214	-10.33	
	6466.268	52.33	peak	4.14	56.47	74.00	231	170	-17.53	
	6466.268	40.27	AVG	4.14	44.41	54.00	231	170	-9.59	



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Radiated Emission Measurement

Operator: Sky

File :3

Data :#3

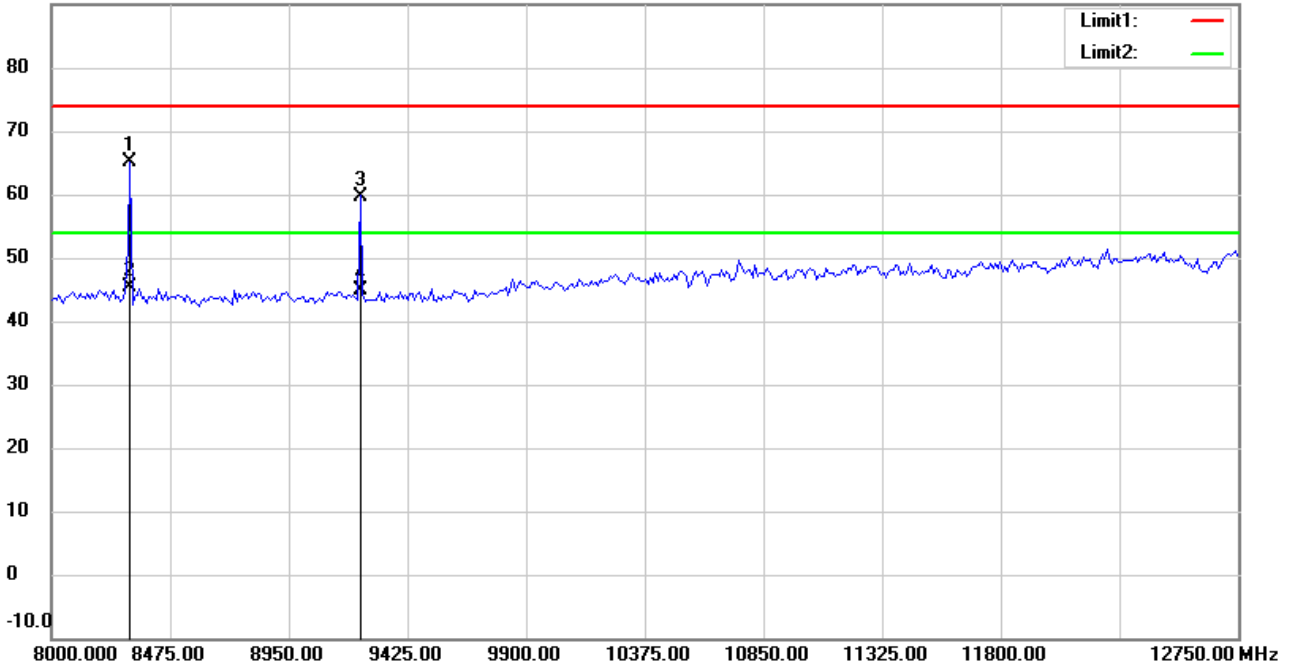
Date: 10/16/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 11:36:24 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 923.783MHz

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
	8314.128	58.21	peak	6.89	65.10	74.00	198	202	-8.90	
*	8314.128	38.56	AVG	6.89	45.45	54.00	198	202	-8.55	
	9237.360	52.12	peak	7.61	59.73	74.00	180	190	-14.27	
	9237.360	37.38	AVG	7.61	44.99	54.00	180	190	-9.01	

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



Radiated Emission Measurement

Operator: Sky

File :3

Data :#6

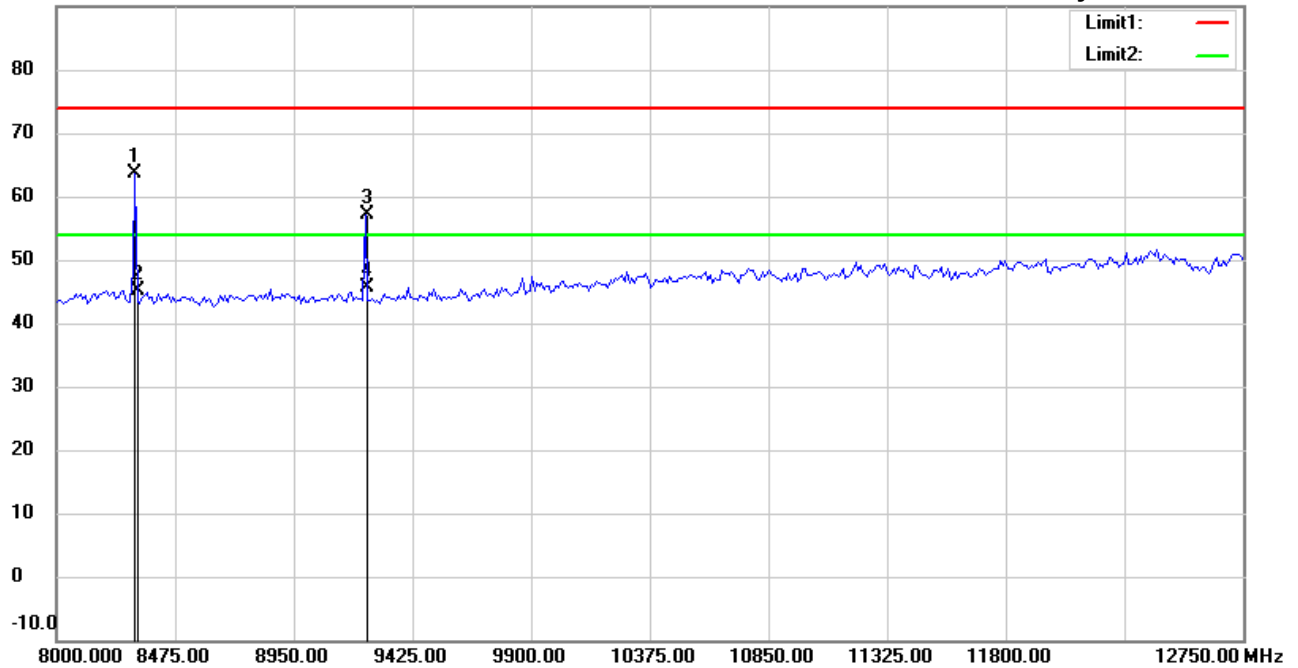
Date: 10/16/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 11:38:17 PM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : TX 923.783MHz

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
	8314.128	56.84	peak	6.89	63.73	74.00	195	160	-10.27	
	8314.414	38.29	AVG	6.89	45.18	54.00	195	160	-8.82	
	9237.475	49.60	peak	7.61	57.21	74.00	160	225	-16.79	
*	9237.475	38.11	AVG	7.61	45.72	54.00	160	225	-8.28	



Radiated Emission Measurement

Operator: Allen

File :1

Data :#1

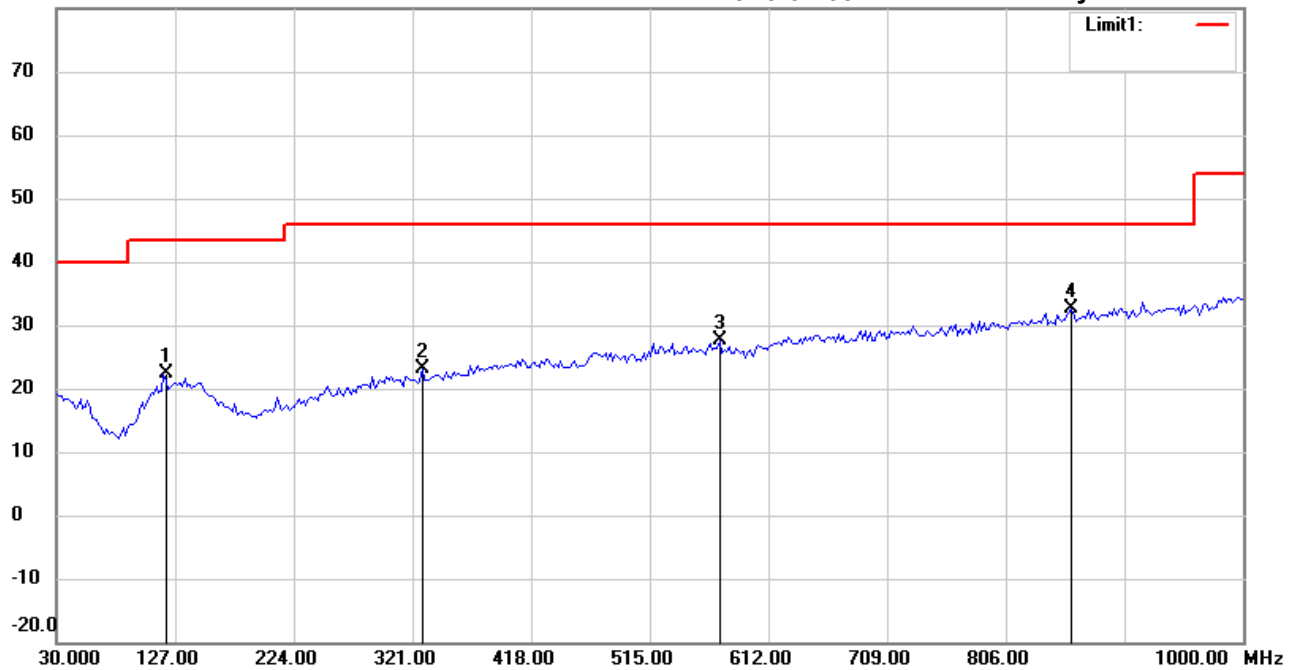
Date: 10/17/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 5:37:58 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 908.30MHz

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
	117.4750	29.08	peak	-6.79	22.29	43.50	100	245	-21.21	
	329.3586	28.17	peak	-4.98	23.19	46.00	100	180	-22.81	
	572.3446	28.74	peak	-1.16	27.58	46.00	100	30	-18.42	
*	860.0401	28.49	peak	4.09	32.58	46.00	100	100	-13.42	



Radiated Emission Measurement

Operator: Allen

File :1

Data :#2

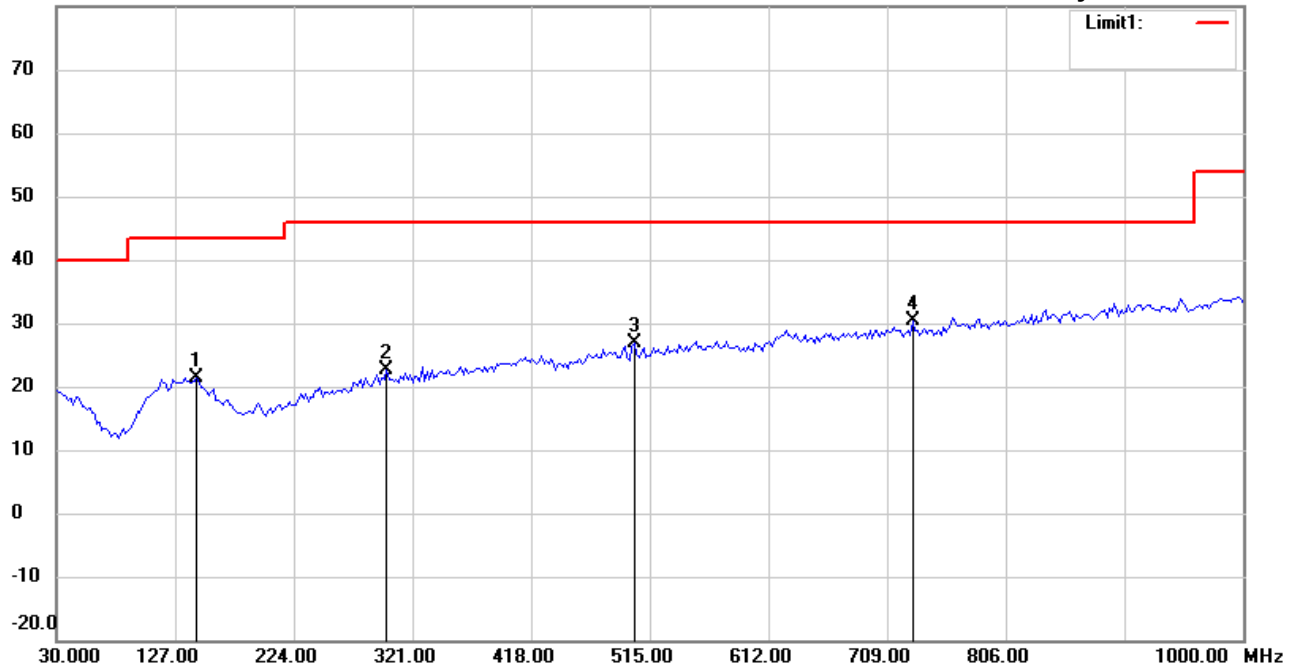
Date: 10/17/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 5:38:58 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: **Vertical**

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 908.30MHz

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
	144.6894	28.13	peak	-6.85	21.28	43.50	100	50	-22.22	
	300.2004	28.06	peak	-5.55	22.51	46.00	100	200	-23.49	
	502.3647	29.16	peak	-2.17	26.99	46.00	100	175	-19.01	
*	729.7996	29.04	peak	1.31	30.35	46.00	100	190	-15.65	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#1

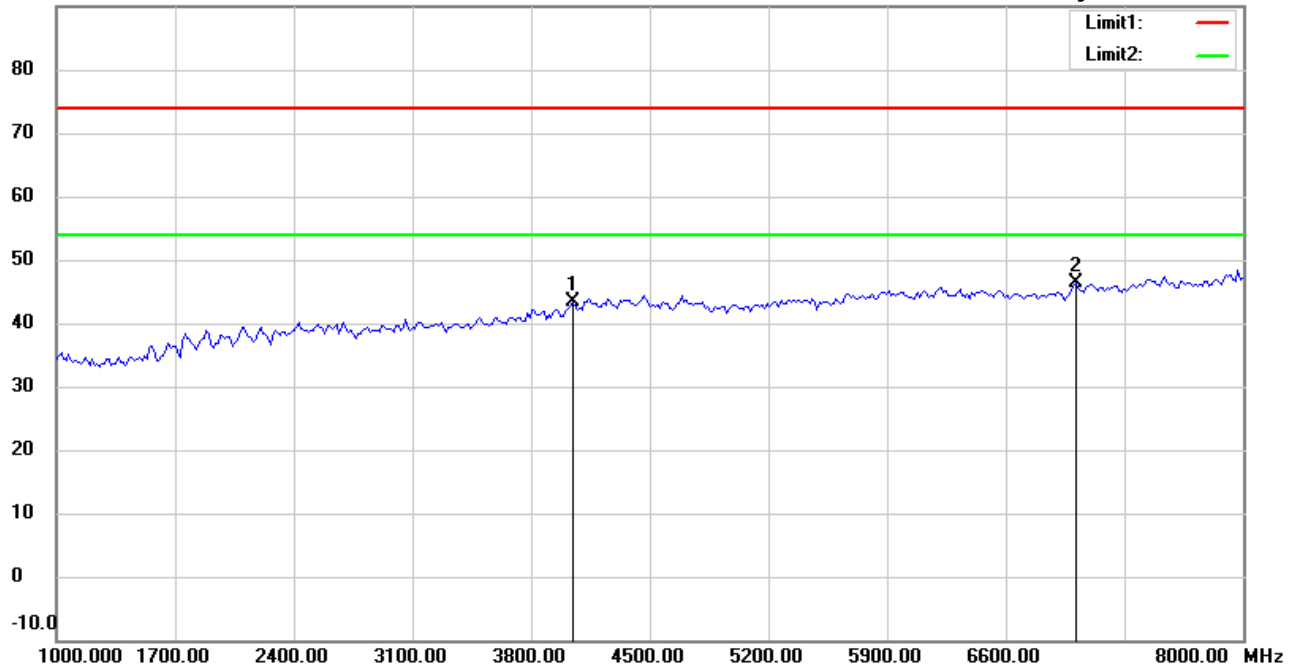
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 4:58:47 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 908.3MHz

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
	4044.088	43.28	peak	0.16	43.44	74.00	150	80	-30.56	
*	7018.036	40.91	peak	5.43	46.34	74.00	150	145	-27.66	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#3

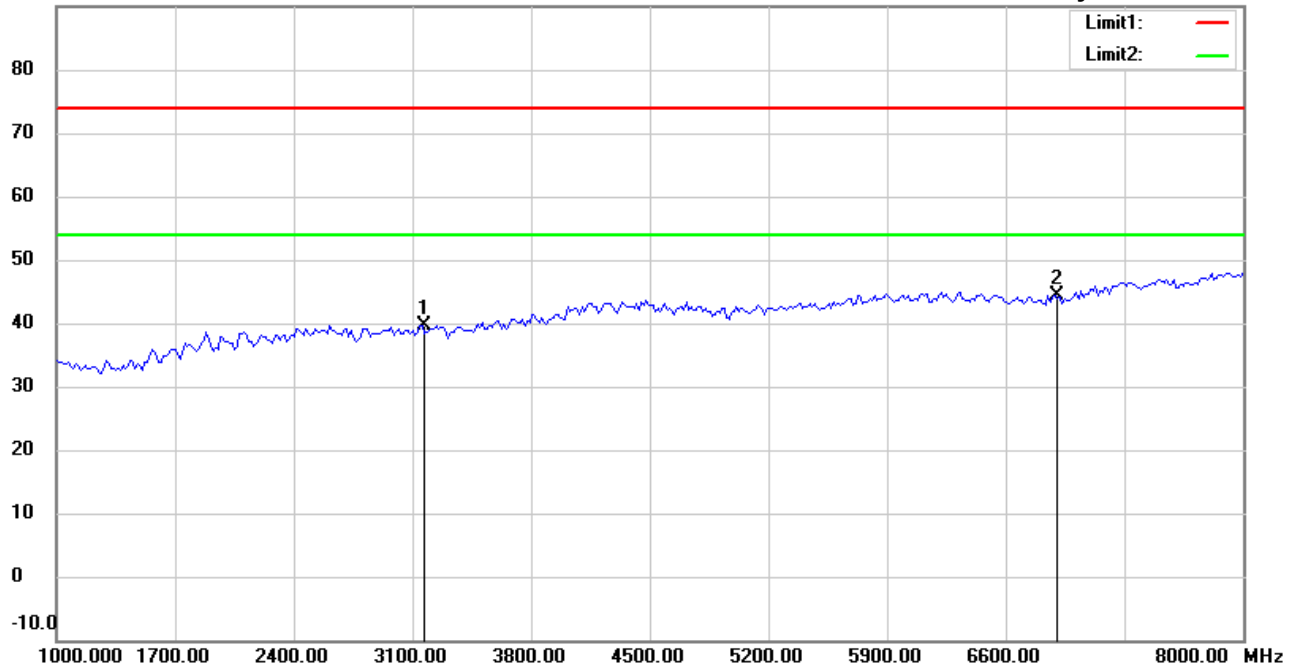
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:02:05 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

EUT : W6M21809-18450

M/N:

Test Mode : RX 908.3MHz

Note :

Polarization: **Vertical**

Power : 3 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
	3160.321	42.40	peak	-2.77	39.63	74.00	150	40	-34.37	
*	6891.784	39.67	peak	4.66	44.33	74.00	150	260	-29.67	



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#2

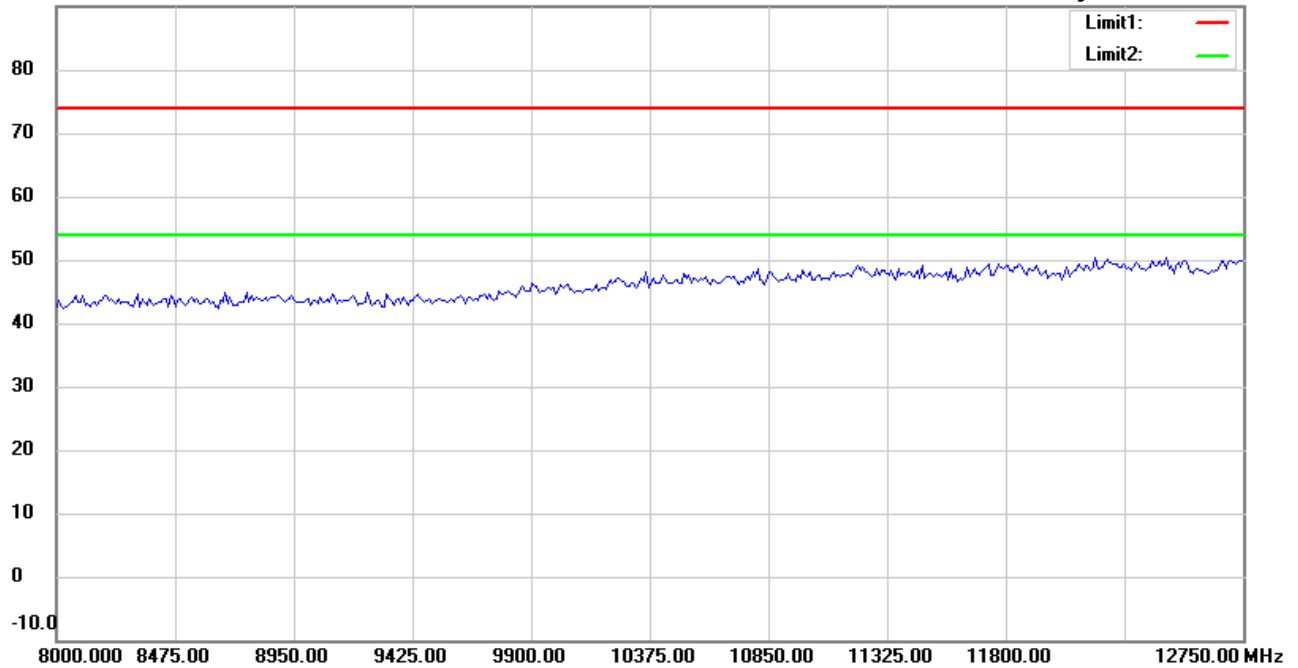
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:00:28 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 908.3MHz

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



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#4

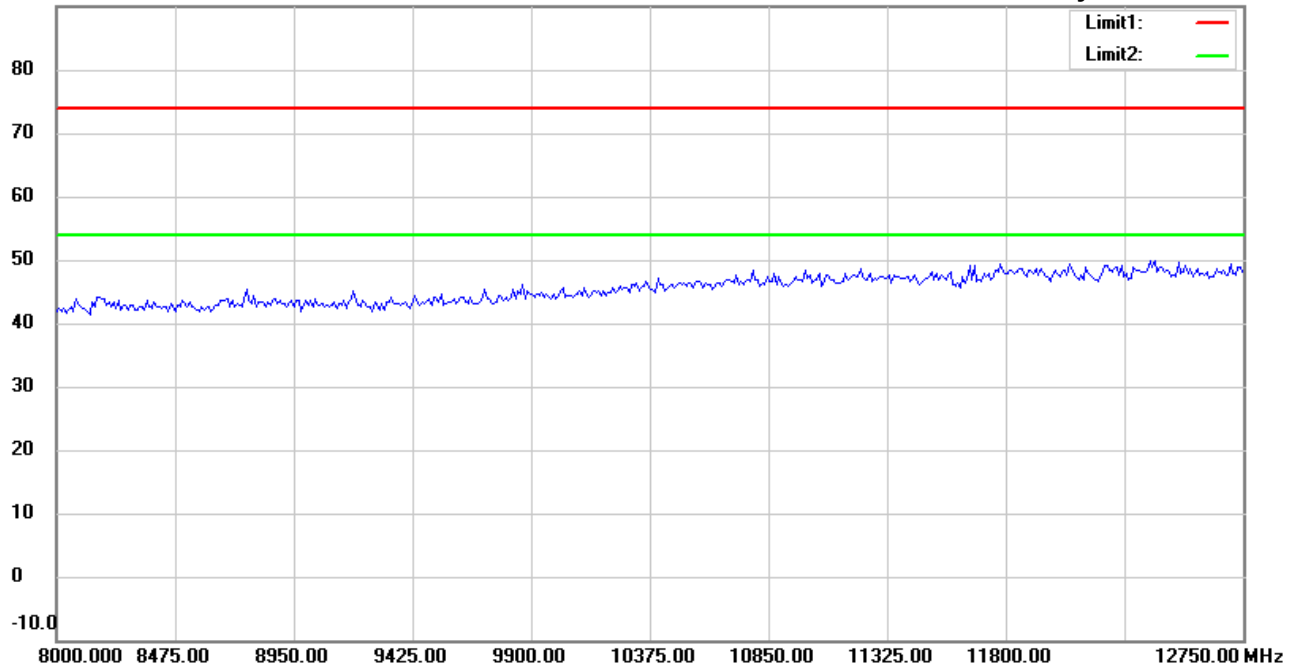
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:03:58 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 908.3MHz

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



Radiated Emission Measurement

Operator: Allen

File :1

Data :#1

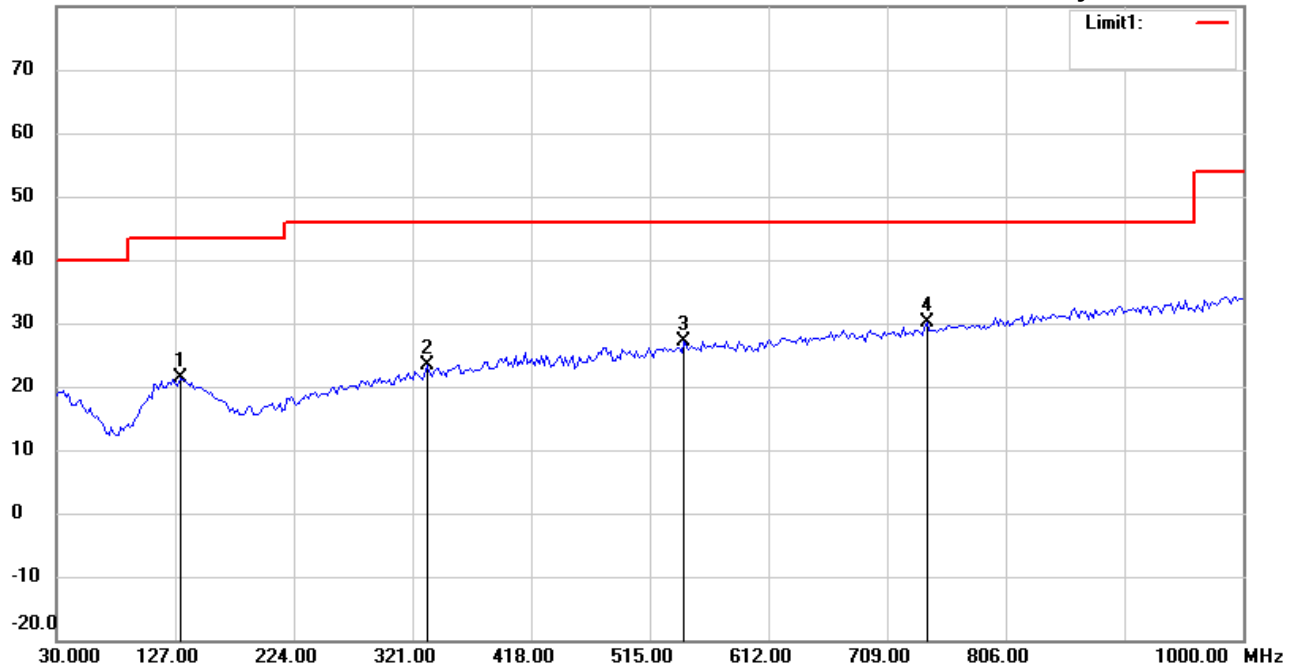
Date: 10/17/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 5:29:05 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 917.233MHz

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	27.59	peak	-6.32	21.27	43.50	100	360	-22.23	
	333.2465	28.22	peak	-4.91	23.31	46.00	100	185	-22.69	
	543.1864	28.53	peak	-1.28	27.25	46.00	100	90	-18.75	
*	741.4628	28.55	peak	1.49	30.04	46.00	100	130	-15.96	



Radiated Emission Measurement

Operator: Allen

File :1

Data :#2

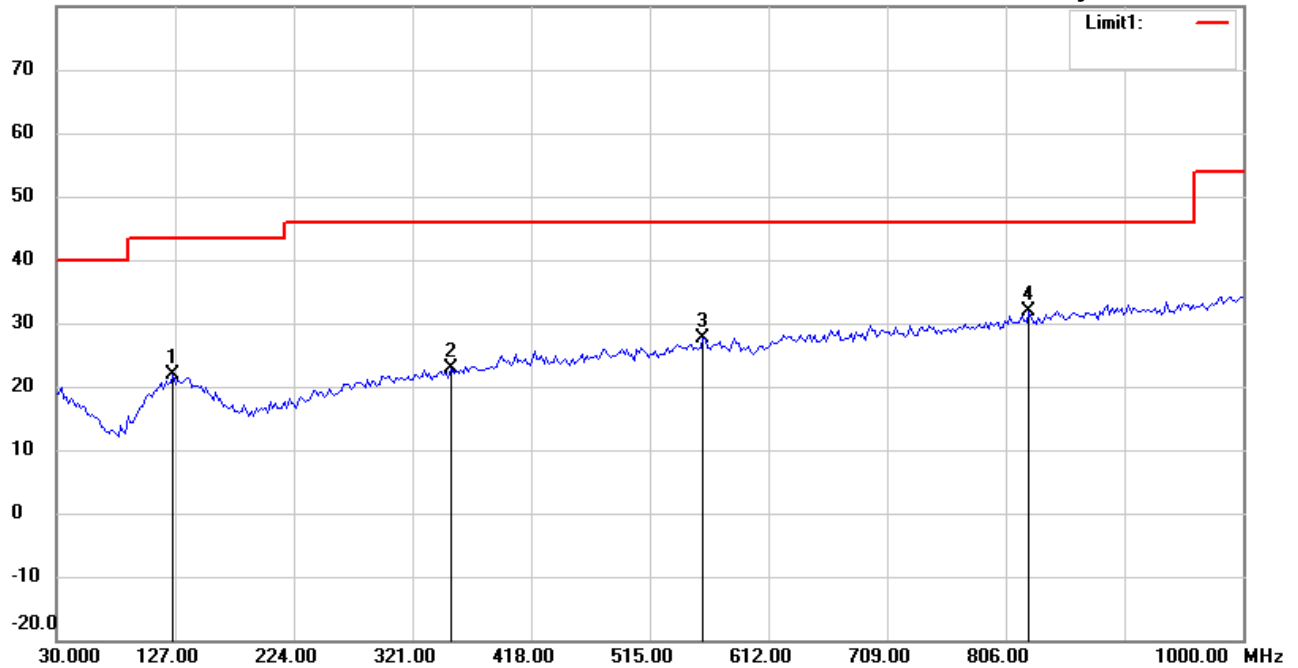
Date: 10/17/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 5:30:05 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 917.233MHz

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
	125.2505	28.23	peak	-6.44	21.79	43.50	100	90	-21.71	
	352.6854	27.31	peak	-4.50	22.81	46.00	100	165	-23.19	
	558.7375	28.74	peak	-1.17	27.57	46.00	100	200	-18.43	
*	825.0501	28.63	peak	3.24	31.87	46.00	100	155	-14.13	



Radiated Emission Measurement

Operator: Allen

File :3

Data :#1

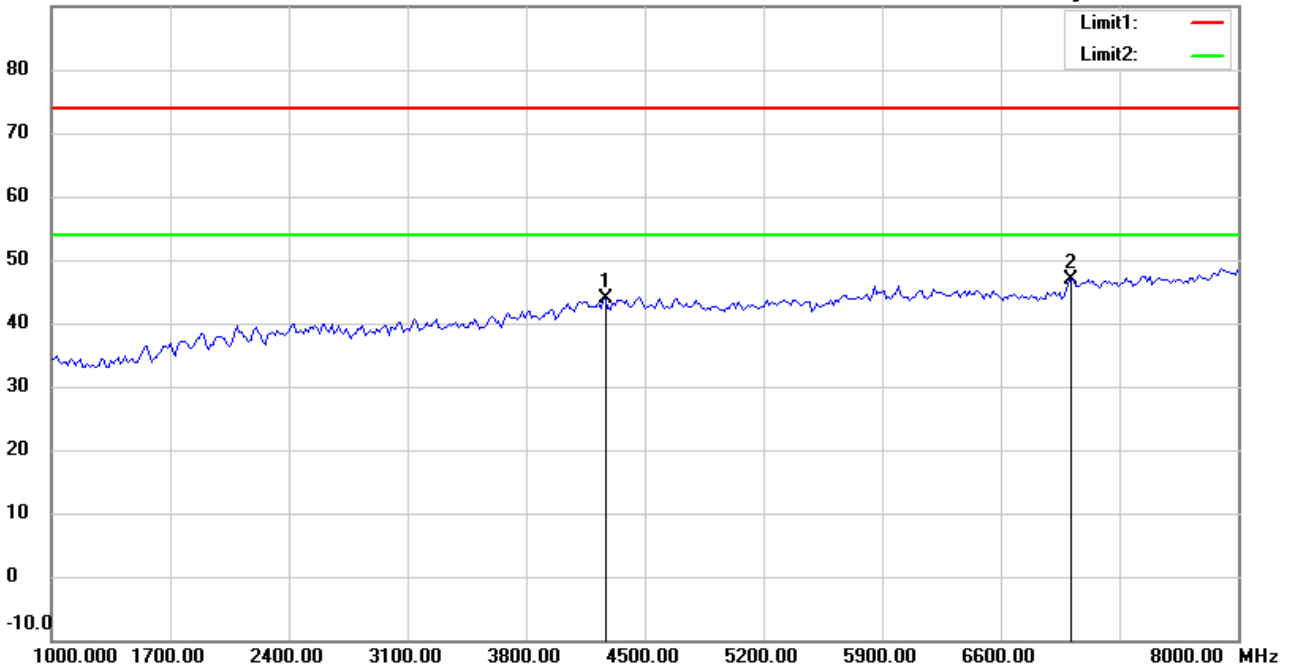
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:05:57 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 917.233MHz

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
	4268.537	42.92	peak	1.03	43.95	74.00	150	200	-30.05	
*	7018.036	41.47	peak	5.43	46.90	74.00	150	130	-27.10	



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#3

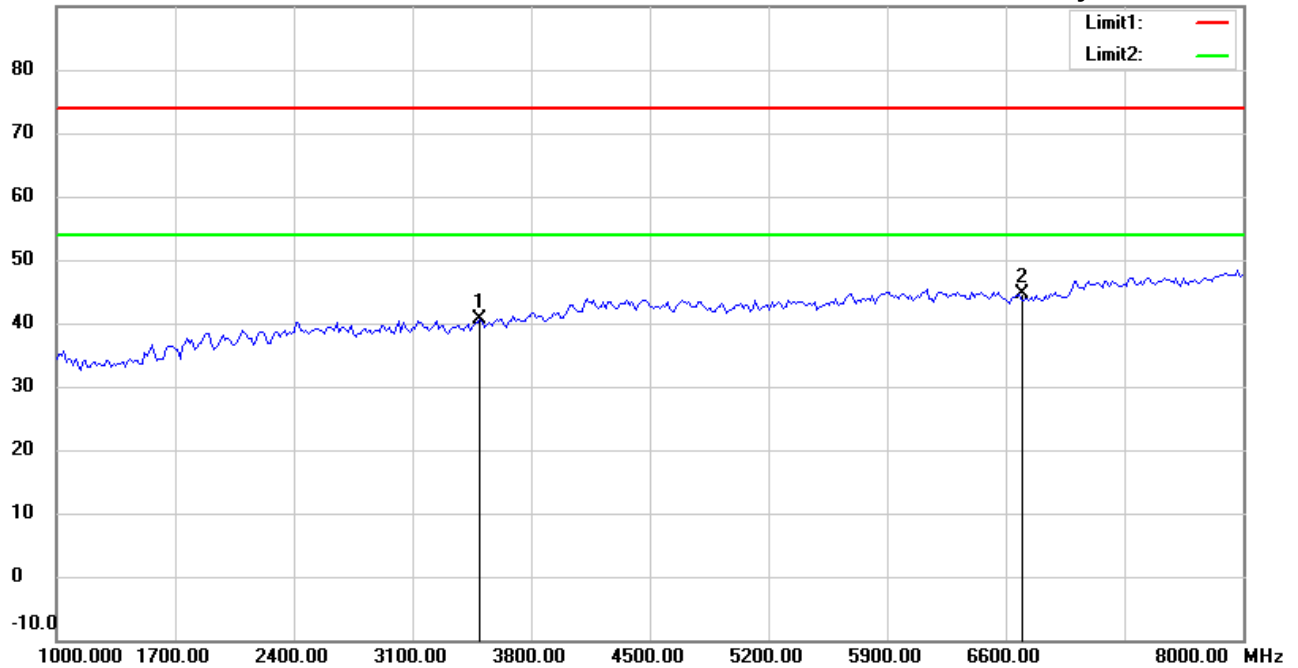
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:08:26 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 917.233MHz

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
	3496.994	42.64	peak	-2.02	40.62	74.00	150	175	-33.38	
*	6681.363	40.10	peak	4.55	44.65	74.00	150	290	-29.35	

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



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#2

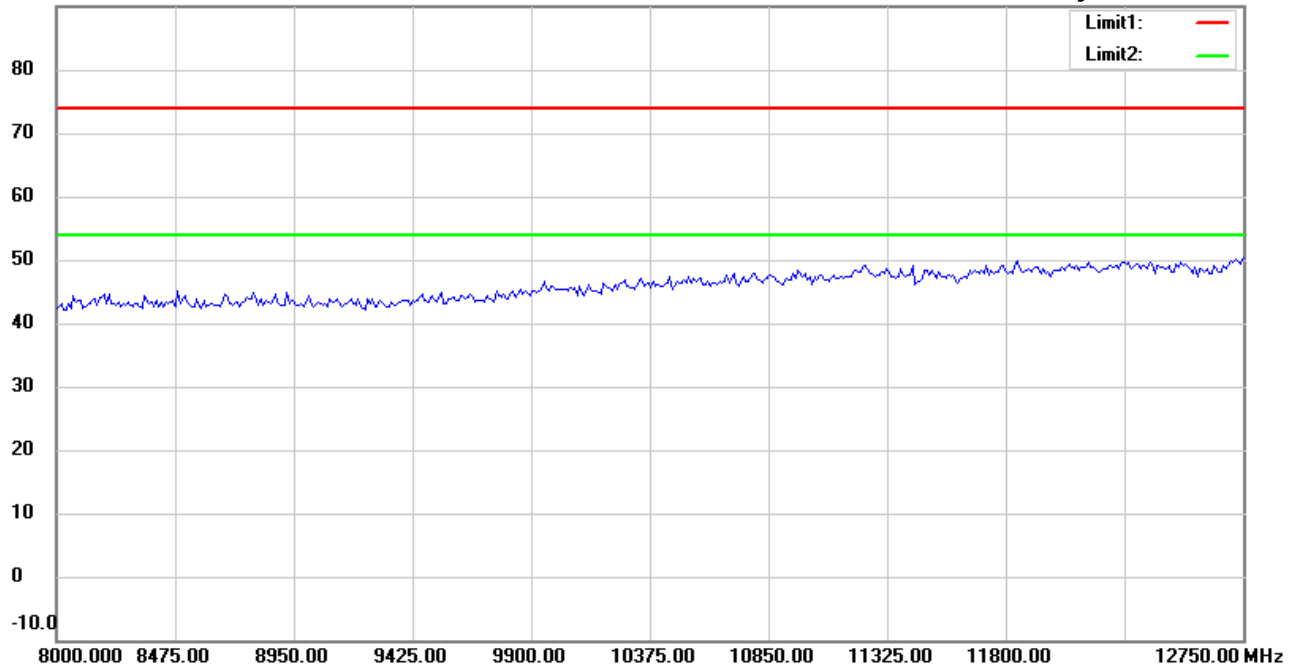
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:07:15 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 917.233MHz

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



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#4

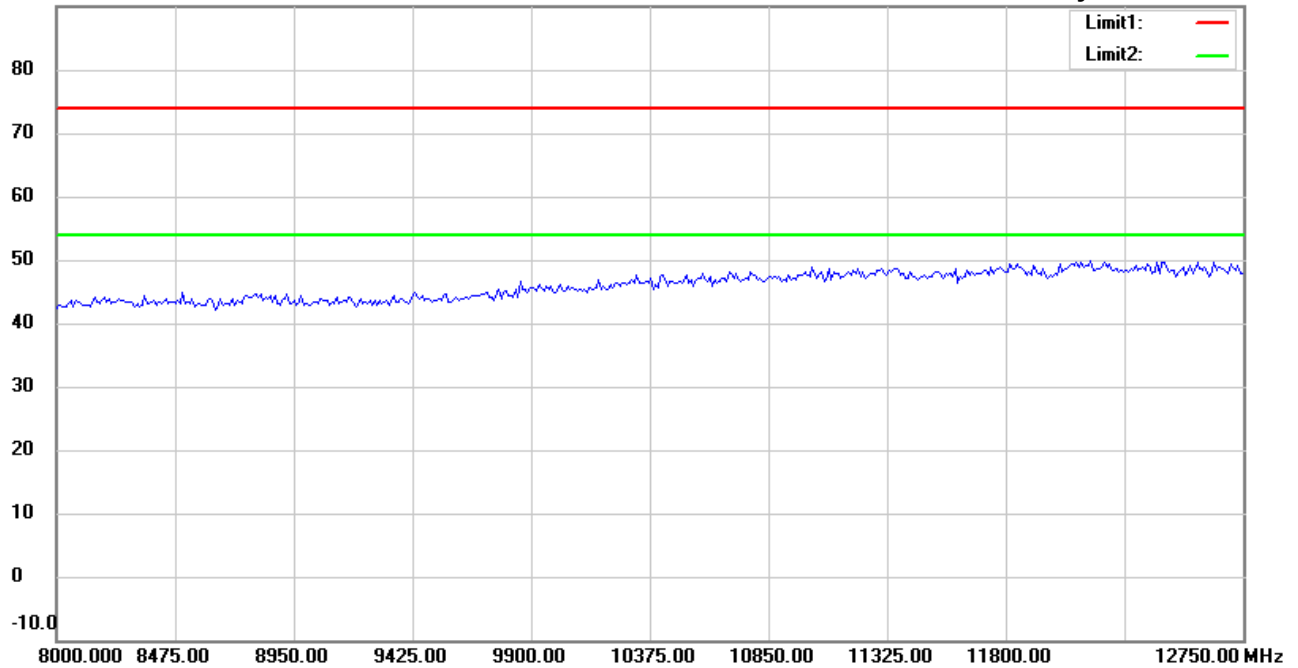
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:10:26 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 917.233MHz

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



Radiated Emission Measurement

Operator: Allen

File :1

Data :#1

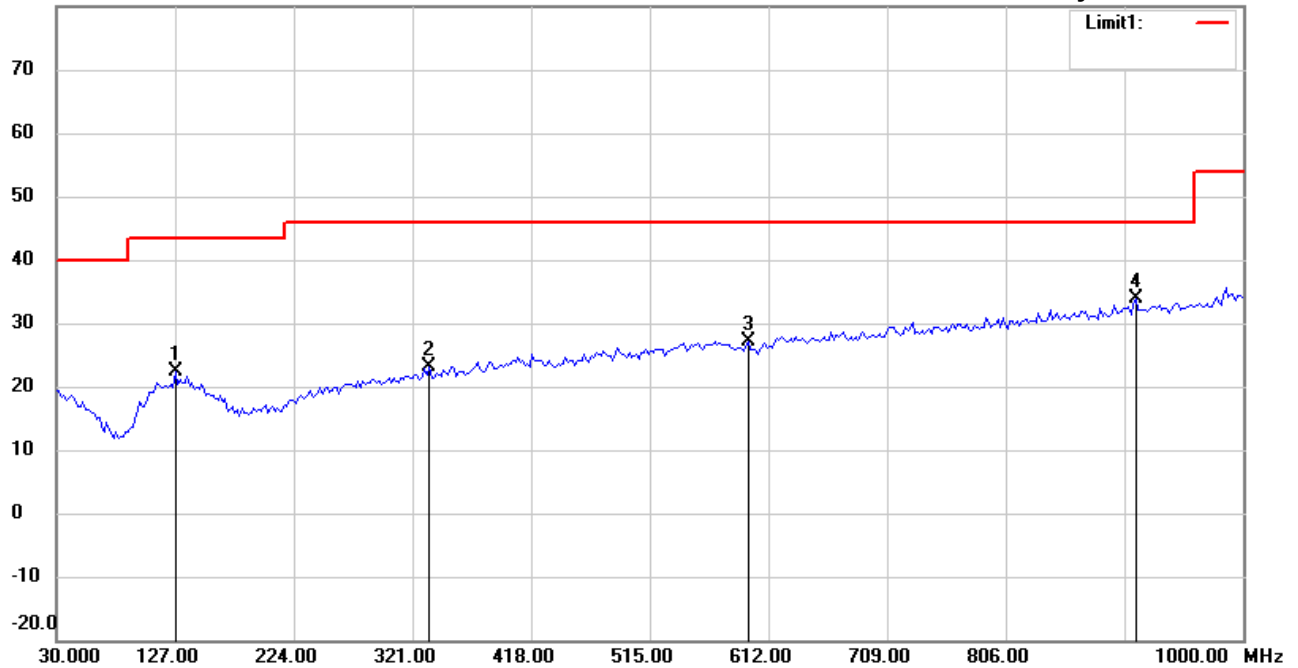
Date: 10/17/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 5:25:35 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 923.783MHz

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
	127.1944	28.69	peak	-6.39	22.30	43.50	100	135	-21.20	
	335.1904	27.88	peak	-4.87	23.01	46.00	100	200	-22.99	
	595.6712	28.30	peak	-1.07	27.23	46.00	100	70	-18.77	
*	912.5250	28.70	peak	5.08	33.78	46.00	100	145	-12.22	



Radiated Emission Measurement

Operator: Allen

File :1

Data :#2

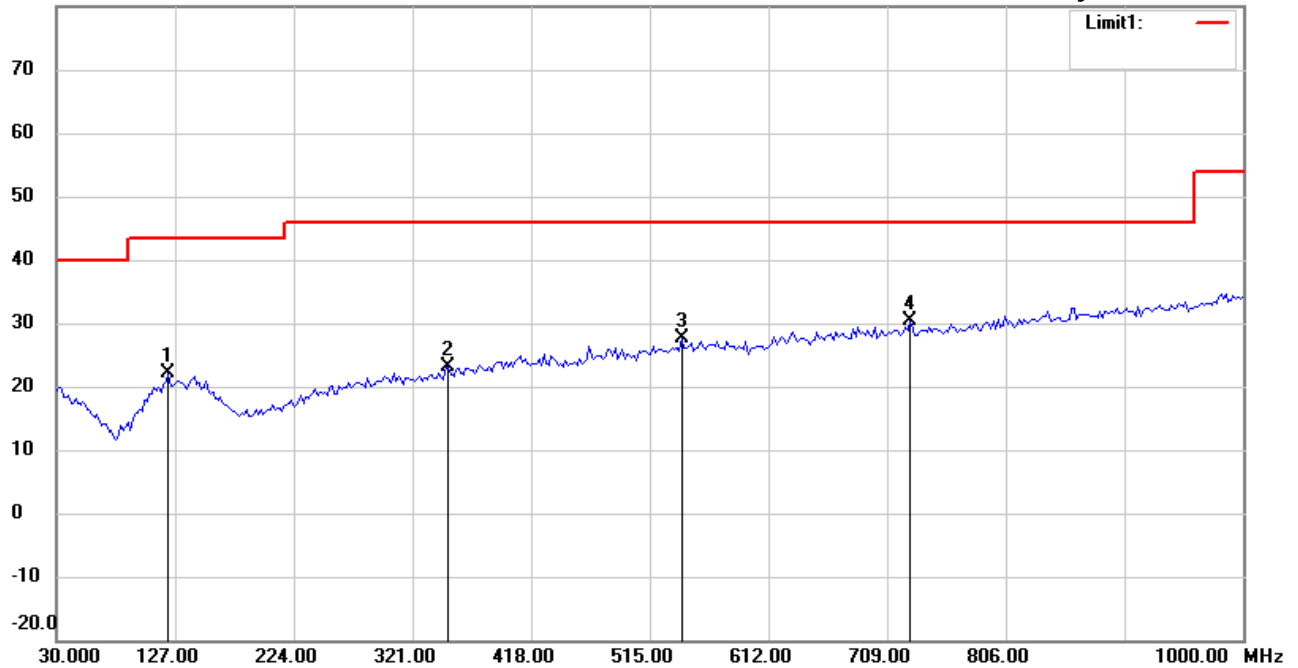
Date: 10/17/2018

Temperature:24.2 °C

80.0 dBuV/m

Time: 5:26:35 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_30-1000MHz

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 923.783MHz

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
	121.3627	28.66	peak	-6.55	22.11	43.50	100	50	-21.39	
	350.7415	27.74	peak	-4.56	23.18	46.00	100	175	-22.82	
	541.2425	28.87	peak	-1.32	27.55	46.00	100	85	-18.45	
*	727.8557	29.15	peak	1.28	30.43	46.00	100	260	-15.57	



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#1

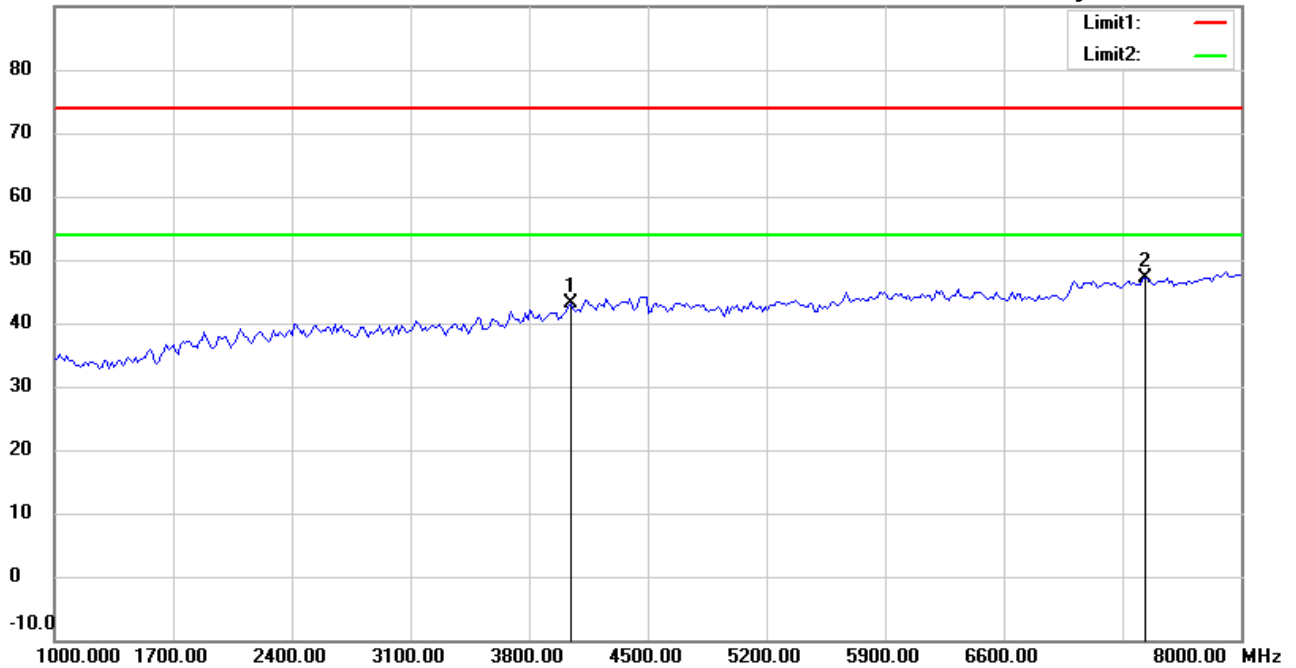
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:12:03 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 923.783MHz

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
	4044.088	42.90	peak	0.16	43.06	74.00	150	200	-30.94	
*	7424.850	41.09	peak	6.02	47.11	74.00	150	55	-26.89	

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



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#3

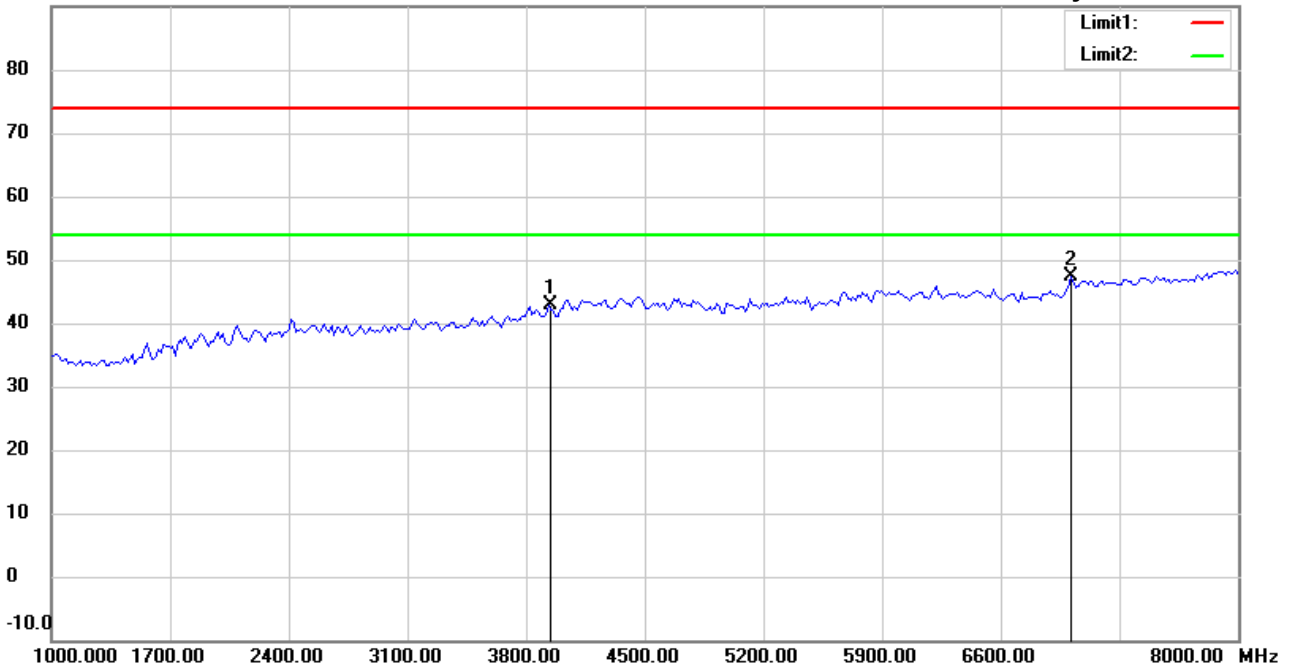
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:16:09 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 923.783MHz

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
	3931.864	42.95	peak	-0.17	42.78	74.00	150	95	-31.22	
*	7018.036	41.85	peak	5.43	47.28	74.00	150	300	-26.72	

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



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Radiated Emission Measurement

Operator: Allen

File :3

Data :#2

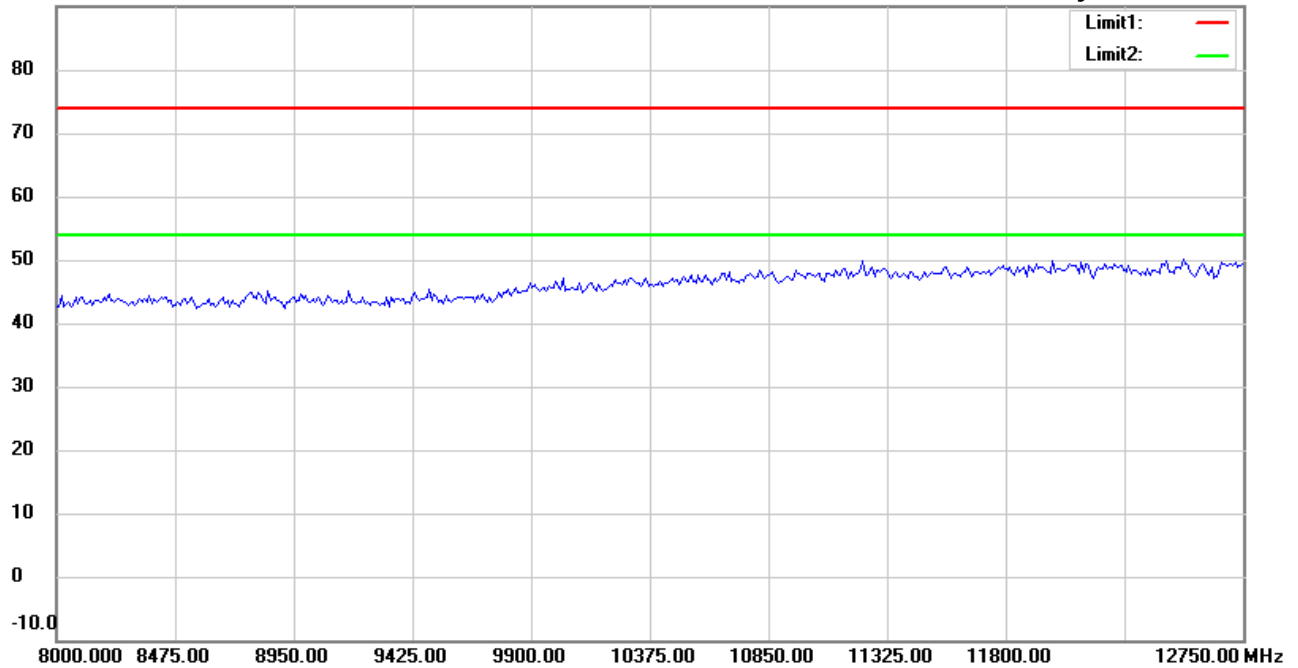
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:14:00 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 923.783MHz

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



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 Fax:+886-2-6606-8879

Radiated Emission Measurement

Operator: Allen

File :3

Data :#4

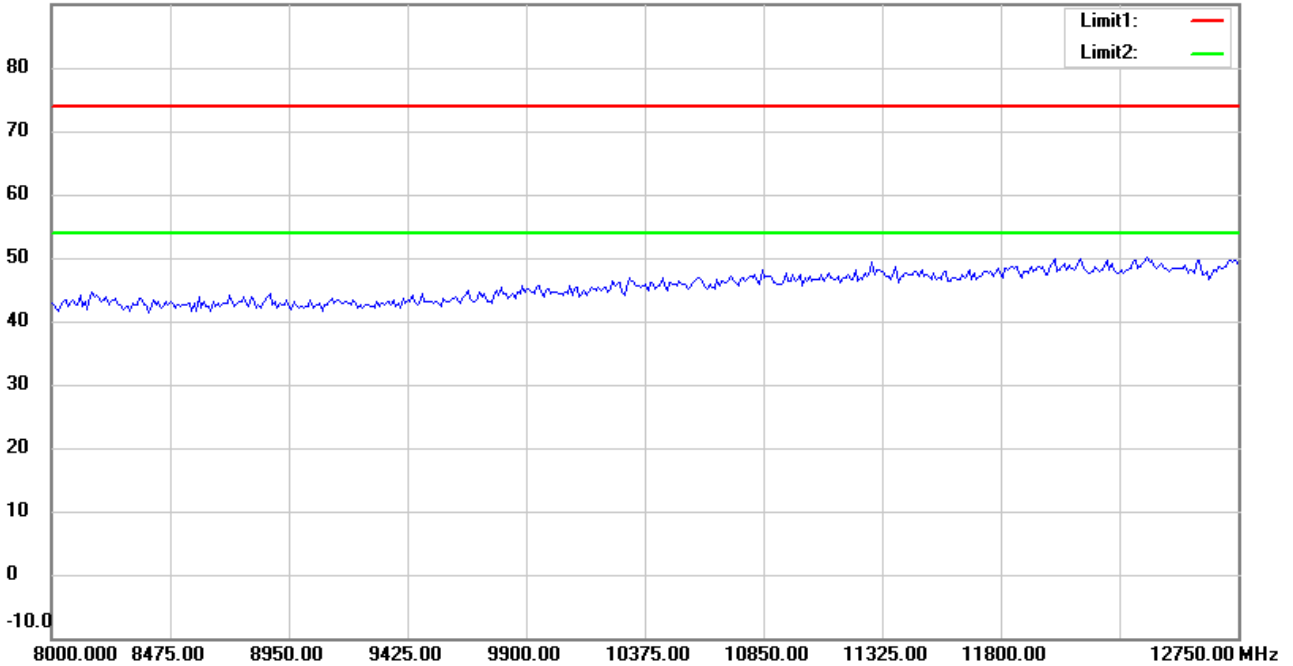
Date: 10/17/2018

Temperature:24.2 °C

90.0 dBuV/m

Time: 5:17:00 AM

Humidity:73.5 %



Site : Chamber

Condition : FCC_part 15 RE-Class B_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M21809-18450

Power : 3 Vd.c.

M/N:

Distance: 3m

Test Mode : RX 923.783MHz

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