47 CFR PART 15 SUBPART C TEST REPORT

for

TPMS TOOL

Model No.: XXX66XXX, XXX67XXX

(X=A-Z, 0-9 or blank)

FCC ID: 2ANR7-VT67RFID

of

Applicant: ATEQ INSTRUMENTS (ASIA)PTE LTD.
TAIWAN BRANCH (SINGAPORE)
Address: NO.3, LANE 223, SAN JIA DONG STREET, 40642,
TAICHUNG, TAIWAN

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1477, TW1072

Industry Canada filed test laboratory Reg. No.: 20037, 5107A

Testing Laboratory
1477

Report No.: W6M22311-23090-C-2

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

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.
The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.
Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.
Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.
The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that is performance generally conforms to representative cases of communications equipment.

Laboratory disclaimer-
1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.

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

Tester:

December 21, 2023		Sora Kuo	Sora
Date	WTS-Lab.	Name	Signature

Technical responsibility for area of testing:

December 21, 2023		Kevin Wang	Kevin Wang
Date	WTS	Name	Signature

1.2 Testing laboratory

1.2.1 Location

10m 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

Worldwide Testing Services (Taiwan) Co., Ltd.
6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,
Taipei City 114 , Taiwan (R.O.C.)
Tel: 886-2-6606-8877

1.2.2 Details of accreditation status

Accredited testing laboratory

FCC filed test laboratory Reg. No.: TW1477, TW1072

Industry Canada filed test laboratory Reg. No.: 20037, 5107A

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

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

1.3 Details of approval holder

Name:	ATEQ INSTRUMENTS (ASIA)PTE LTD. TAIWAN BRANCH (SINGAPORE)
Street:	NO.3, LANE 223, SAN JIA DONG STREET, 40642,
Town:	TAICHUNG,
Country:	TAIWAN

1.4 Application details

Date of receipt of test item: November 24, 2023

Date of test: from November 27, 2023 to December 19, 2023

1.5 General information of Test item

Type of test item: TPMS TOOL

Model number: XXX66XXX, XXX67XXX (X=A-Z, 0-9 or blank)

Brand name: ATEQ

Multi-listing model number: ./.

Sample no.: WLAN 2.4GHz & Bluetooth & Low Energy #02
RFID #04

Technical data

WLAN 2.4G

Band	Mode	Channel	Conducted Power (dBm)
2.4GHz	802.11b	Ch 1 : 2412 MHz	11.49
		Ch 6 : 2437 MHz	11.37
		Ch 11 : 2462 MHz	11.71
	802.11g	Ch 1 : 2412 MHz	15.34
		Ch 6 : 2437 MHz	15.28
		Ch 11 : 2462 MHz	15.26
	802.11n 20M	Ch 1 : 2412 MHz	15.26
		Ch 6 : 2437 MHz	15.24
		Ch 11 : 2462 MHz	15.18
	802.11n 40M	Ch 1 : 2422 MHz	14.61
		Ch 4 : 2437 MHz	14.55
		Ch 7 : 2452 MHz	14.58

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

Bluetooth

Normal & EDR & Low energy

Band	Mode	Channel	Conducted Power (dBm)
2.4GHz	BR	Ch 0 : 2402 MHz	2.31
		Ch 39 : 2441 MHz	2.74
		Ch 78 : 2480 MHz	3.18
	EDR	Ch 0 : 2402 MHz	1.66
		Ch 39 : 2441 MHz	2.11
		Ch 78 : 2480 MHz	2.54
	BLE	Ch 0 : 2402 MHz	-2.02
		Ch 19 : 2440 MHz	-1.87
		Ch 39 : 2480 MHz	-1.74

RFID

Mode	Channel	Power (dBm)
UHF	902.75 MHz	11.08
	914.75 MHz	10.68
	927.25 MHz	10.48

Frequency band: WLAN 2.4G
Bluetooth Normal, EDR, Low energy: 2400-2483.5 MHz
RFID: 902-928 MHz

Number of channels: WLAN 2.4G:
802.11b, g, n 20MHz: 11 channels, n 40MHz: 7 channels
Bluetooth: 79 channels(Normal & EDR), 40 channels(LE)
RFID: 50 channels

Operation modes: Duplex

Modulation type: WLAN 2.4G: DSSS/OFDM
Bluetooth Normal, EDR, Low energy:
GFSK、π/4DQPSK、8DPSK
RFID: DSB-ASK

Fixed point-to-point operation: ☐ Yes / ☒ No

Type of antenna: PCB antenna

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

Antenna gain:	WLAN 2.4G Bluetooth Normal, EDR, Low energy: 0.73dBi RFID: -0.5dBi
Power supply:	Adapter (I/P: 100-240V~50/60Hz 0.3A O/P: +5.0V⎓2.0A, 10.0W) Battery 3.8Vd.c. 6200mAh 23.56Wh
Host device:	none

Manufacturer: (if applicable)

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

1.5 Duty cycle and factor

WLAN 2.4G

Mode	T_{on} (ms)	$T_{on}+T_{off}$ (ms)	Duty cycle (%)	Duty Factor (dB)	1/T - VBW (kHz)
802.11b	8.43	8.43	100.00%	0.00	0.12
802.11g	1.415	1.439	98.33%	0.07	0.71
802.11n 20MHz	1.317	1.341	98.21%	0.08	0.76
802.11n 40MHz	0.6578	0.6939	94.80%	0.23	1.52

BLE

Mode	T_{on} (ms)	$T_{on}+T_{off}$ (ms)	Duty cycle (%)	1/T - VBW (kHz)
BLE	0.407	0.628	64.81%	2.46

1.6 Test standards

47 CFR PART 15 SUBPART C § 15.247 (2021-10)

Special statement:

1. This test report is valid in connection to the model has been tested, any modification to the product which is different from the test model will avoid the certification of the test report.
2. This test report shall always be duplicated in full pages unless the written approval of the testing laboratory is obtained.
3. The x in model number is representing different marketing purpose.

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 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Relative humidity content: 20 ... 75 %
Air pressure: 86 ... 103 kPa
Power supply: Adapter (I/P: 100-240V~50/60Hz 0.3A
O/P: +5.0V⎓2.0A, 10.0W)
Battery 3.8Vd.c. 6200mAh 23.56Wh

Extreme conditions parameters: ./.

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission (Power Line Conducted Emission)	Expanded Uncertainty： AMN：0.94 dB Voltage probe：0.96 dB Include Pulse Limiter：1.52 dB
Estimation Result of Uncertainty of Radiated Emission(3M-966A) (Transmitter Radiated Emissions in Restricted Bands, Spurious Emissions (tx), Radiated Emission from Digital Part)	Expanded Uncertainty： 0.009-30 MHz：1.88 dB 30-1000 MHz：3.20 dB 1-18 GHz：3.56 dB 18-40 GHz：2.94 dB
Estimation Result of Uncertainty of Bandwidth Measurement (20 dB Bandwidth, Minimum 6 dB Bandwidth)	Expanded Uncertainty：0.45 kHz
Estimation Result of Uncertainty of Conducted Output Power Measurement (Peak Output Power (transmitter))	Expanded Uncertainty：1.48 dB
Estimation Result of Uncertainty of Power Density Measurement (Peak Power Spectral Density)	Expanded Uncertainty：1.48 dB
Estimation Result of Uncertainty of Band Edge Measurement (Radiated Emission on the band edge)	Expanded Uncertainty：0.67 dBc
Estimation Result of Uncertainty of Frequency Separation Measurement (Carrier Frequency Separation, Number of Hopping Frequencies)	Expanded Uncertainty：554.14 Hz
Estimation Result of Uncertainty of Duty Cycle Measurement (Time of Occupancy (Dwell Time))	Expanded Uncertainty：0.1 ms

The decision rule is: Measurement uncertainty is not included in the calculation of test results.

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	2023/6/12	2024/6/11
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	2023/9/19	2024/9/18
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2023/9/25	2024/9/24
ETSTW-CE 008	HF-EICHLEITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2023/7/24	2024/7/23
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2023/10/26	2024/10/25
ETSTW-CE 028	MXE EMI Receiver	N9038A	MY53220110	Agilent	2023/7/17	2024/7/16
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2023/6/12	2024/6/11
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2023/10/19	2024/10/18
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	2023/7/21	2024/7/20
ETSTW-RE 019	MICROWAVE HORN ANTENNA	22240-25	121074	FM	2023/6/9	2024/6/8
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2023/6/28	2024/6/27
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	ETS-Lindgren	2023/5/5	2024/5/4
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2023/3/2	2024/3/1
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2023/7/28	2024/7/27
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2023/7/31	2024/7/30
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2023/3/22	2024/3/21
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2023/2/17	2024/2/16
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2023/2/20	2024/2/19
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	2023/10/22	2024/10/21
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2023/9/15	2024/9/14
ETSTW-RE 091	Match Pad	MDCS1500	None	WOKEN	2023/5/25	2024/5/24
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2023/2/17	2024/2/16
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	T-0A023536	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2023/12/21	2024/12/20

ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	2023/10/24	2024/10/23
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2023/6/7	2024/6/6
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2023/8/4	2024/8/3
ETSTW-RE 126	5GHz Notch filter	5NSL12-5800/E221.3-O/O	1	K&L Microwave	2023/8/4	2024/8/3
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2023/2/17	2024/2/16
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2023/8/4	2024/8/3
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2023/8/4	2024/8/3
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-RE 142	Amplifier	8447D	2805A03378	Agilent	2023/2/20	2024/2/19
ETSTW-RE 146	Preamplifier	JPA-10M1G	15090004	JPT	2023/5/26	2024/5/25
ETSTW-RE 152	Bi-log Hybrid Antenna	MCTD 2786B	BLB20J04029	ETC	2023/3/21	2024/3/20
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2023/9/20	2024/9/19
ETSTW-RE 154	EMI Test Receiver	ESR3	102829	R&S	2023/4/13	2024/4/12
ETSTW-RE 159	Bi-log Hybrid Antenna (30M~1000 MHz)	MCTD 2786B	BLB21N04035	ETC	2023/12/21	2024/12/20
ETSTW-RE 160	Amplifier Module	CHC 3	None	WTS	2023/7/14	2024/7/13
ETSTW-RE 176	Loop Antenna	FMZB 1513-60	00039	SCHWARZBECK	2023/8/10	2024/8/9
ETSTW-RE 177	TRILOG Broadband Antenna	VULB 9168& EMCI-N-6-06	01380& AT-06007	SCHWARZBECK& EMC	2023/8/24	2024/8/23
ETSTW-RE 178	Double Ridged Guide Horn Antenna	DRH18-E	210505A18ES	RFSPIN	2023/8/17	2024/8/16
ETSTW-RF 002	Electromagnetic field probe	LF-30	K-0007	STT	2023/6/13	2024/6/12
ETSTW-EMI 011	USB Compact Modulator	SFC-U	101689	R&S	2023/5/28	2024/5/27
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2023/3/22	2024/3/21
ETSTW-GSM 003	Radio Communication Analyzer	MT8820C	6201342073	Anritsu	2023/5/10	2024/5/9
ETSTW-GSM 004	Wideband Radio Communication Tester	CMW500	128092	R&S	2023/10/18	2024/10/17
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2023/12/21	2024/12/20
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2023/12/21	2024/12/20
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2023/12/21	2024/12/20
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2023/12/21	2024/12/20
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2023/8/28	2024/8/27
ETSTW-GSM 024	Radio Communication Analyzer	MT8821C	None	Anritsu	2023/4/24	2024/4/23
ETSTW-GSM 025	Band Reject Filter	BRM19835	001	Micro-Tronics	2023/8/4	2024/8/3
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2023/2/4	2024/2/3
ETSTW-Cable 020	N TYPE Cable	OATS Cable 1	N30N30-L335-15M	JYE BAO CO.,LTD.	2023/6/26	2024/6/25
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2023/4/27	2024/4/26

ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2023/9/15	2024/9/14
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2023/9/15	2024/9/14
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 （S_Cable 9）	279067	HUBER+SUHNER	2023/02/17	2024/2/16
ETSTW-Cable 045	Microwave Cable	SUCOFLEX 104	325536	HUBER+SUHNER	2023/10/20	2024/10/19
ETSTW-Cable 049	Microwave Cable	FA147A0015M2020	30064-1	UTIFLEX	2023/8/16	2024/8/15
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2023/5/26	2024/5/25
ETSTW-Cable 064	Microwave Cable	SUCOFLEX 104	MY28891	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 071	N TYPE CABLE	EMCCFD400-NM-NM-25000	170239	EMCI	2023/10/23	2024/10/22
ETSTW-Cable 072	SMA type cable (8m)	SUCOFLEX 104	805800/4	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 074	SMA type cable (2m)	SUCOFLEX 104	802563/4	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 076	SMA type cable (1m)	N/A	812652/4	HUBER+SUHNER	2023/2/20	2024/2/19
ETSTW-Cable 077	SMA type cable (10m)	EMC104-SM-SM-10000	230511	EMCI	2023/7/14	2024/7/13
ETSTW-Cable 084	SMA type cable (1m)	SF104-11SMA-1000	816477/4	HONOVA	2023/7/14	2024/7/13
ETSTW-Cable 089	SMA type cable (2m)	SF104-11SMA-2000	SN 811889/4	HUBER+SUHNER	2023/7/14	2024/7/13
ETSTW-Cable 090	N type Cable (15m)	EMCCFD400-NM-NM-15000	230732	EMCI	2023/8/4	2024/8/3
ETSTW-Cable 091	N type Cable (15m)	EMCCFD400-NM-NM-15000	230733	EMCI	2023/8/4	2024/8/3
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	
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	
ETSTW-TH 002	Thermohygrometer	608-H1	45204317	Testo	2023/7/21	2024/7/20
ETSTW-TH 003	Wireless weather station	GAIA	N/A	TFA	2023/10/20	2024/10/19
ETSTW-TH 004	Thermohygrometer	88163	2205131	AZ	2023/9/13	2024/9/12

2.4 General Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.10-2013 6.2 using a 50µH LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

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

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

Example:

Freq (MHz)	METER READING + ACF + CABLE LOSS (to the receiver) = FS
33	20 dBµV + 10.36 dB + 6 dB = 36.36 dBµV/m @3m

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

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

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

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

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over

one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

The formula is as follows:
Average = Peak + Duty Factor
Duty Factor = 20 log (dwell time/T)
T = 100ms when the pulse train period is over 100 ms or the period of the pulse train.

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

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

3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)	☒	☒	☐
Equivalent isotropically radiated Power	15.247(b)	☒	☒	☐
Spurious Emissions radiated – Transmitter operating	15.247(d):15.209	☒	☒	☐
Spurious Emissions conducted – Transmitter operating	15.247	☐	☐	☐
Carrier Frequency Separation	15.247(a) (1)	☒	☒	☐
Number of Hopping Frequencies	15.247(a) (1)(i)	☒	☒	☐
Time of Occupancy (Dwell Time)	15.247(a) (1)(i)	☒	☒	☐
20 dB Bandwidth	15.247(a) (1)(i)	☒	☒	☐
Minimum 6 dB Bandwidth	15.247(a)(2)	☒	☒	☐
Band-edge Compliance of RF Emission	15.247(d)	☒	☒	☐
Peak Power Spectral Density	15.247(e)	☒	☒	☐
Radiated Emission from Digital Part	15.109	☐	☐	☐
Power Line Conducted Emission	15.207(a)	☒	☒	☐

3.1 Peak Output Power (transmitter)

FCC Rule: 15.247(b)(3)

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant.
The power was measured with modulation (declared by the applicant).

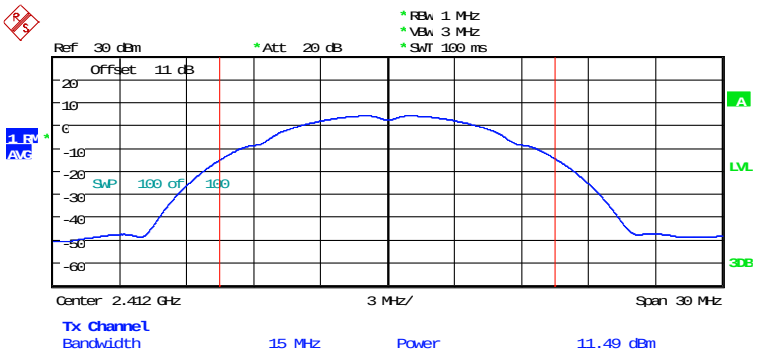
Test date: December 03, 2023-December 14, 2023
Temperature: 25.1 ˚C
Humidity: 54.6%
Tester: Sora

WLAN 2.4G

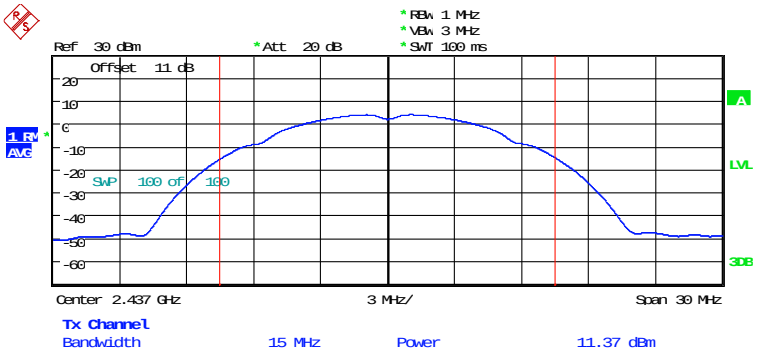
Band	Mode	Channel	Conducted power with DF (dBm)	DF (dB)	Limit (dBm)
2.4GHz	802.11b	Ch 1 : 2412 MHz	11.49	0.00	30
		Ch 6 : 2437 MHz	11.37	0.00	30
		Ch 11 : 2462 MHz	11.71	0.00	30
	802.11g	Ch 1 : 2412 MHz	15.34	0.07	30
		Ch 6 : 2437 MHz	15.28	0.07	30
		Ch 11 : 2462 MHz	15.26	0.07	30
	802.11n 20M	Ch 1 : 2412 MHz	15.26	0.08	30
		Ch 6 : 2437 MHz	15.24	0.08	30
		Ch 11 : 2462 MHz	15.18	0.08	30
	802.11n 40M	Ch 1 : 2422 MHz	14.61	0.23	30
		Ch 4 : 2437 MHz	14.55	0.23	30
		Ch 7 : 2452 MHz	14.58	0.23	30

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

802.11b

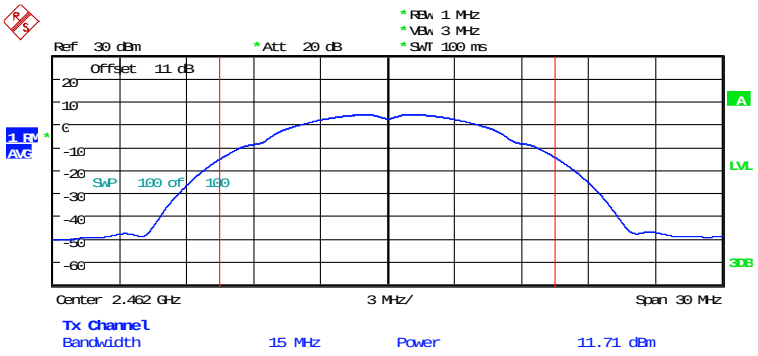


MAX OUTPUT POWER 802.11B CH01
Date: 3.DEC.2023 09:03:22



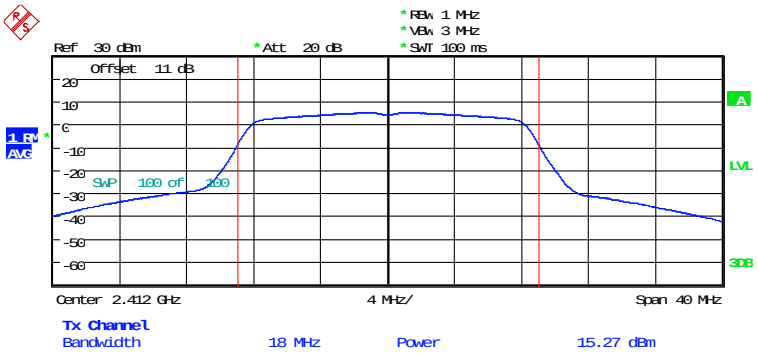
MAX OUTPUT POWER 802.11B CH06
Date: 3.DEC.2023 09:03:56

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



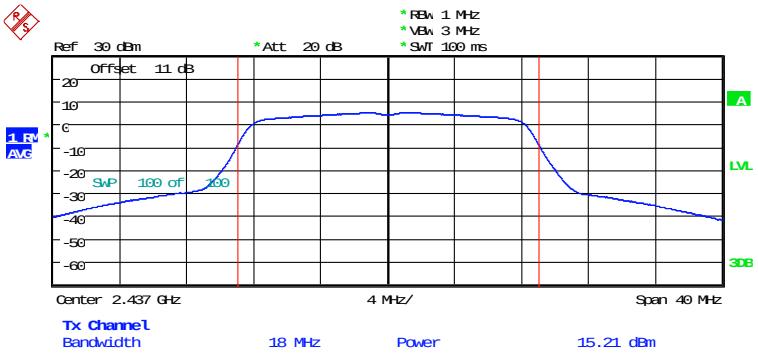
MAX OUTPUT POWER 802.11B CH11
Date: 3.DEC.2023 09:04:26

802.11g



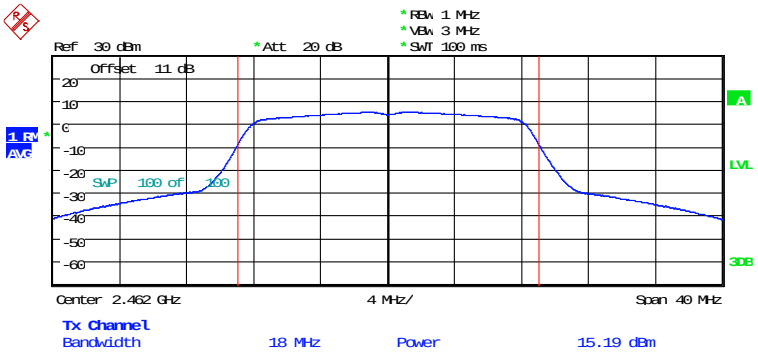
MAX OUTPUT POWER 802.11G CH01
Date: 3.DEC.2023 09:01:54

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



MAX OUTPUT POWER 802.11G CH06

Date: 3.DEC.2023 09:02:14

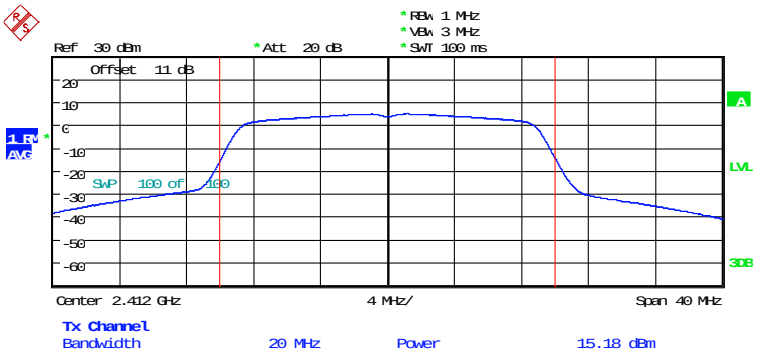


MAX OUTPUT POWER 802.11G CH11

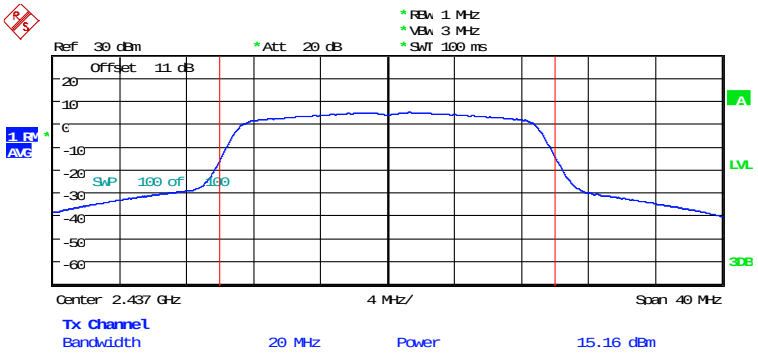
Date: 3.DEC.2023 09:02:37

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

802.11n 20MHz

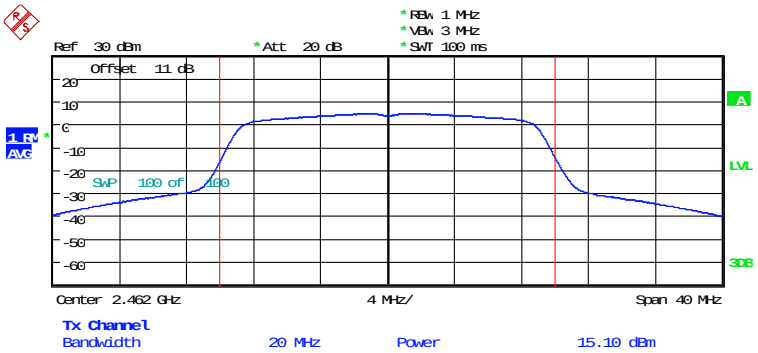


MAX OUTPUT POWER 802.11N 20MHZ CH01
Date: 3.DEC.2023 09:00:25



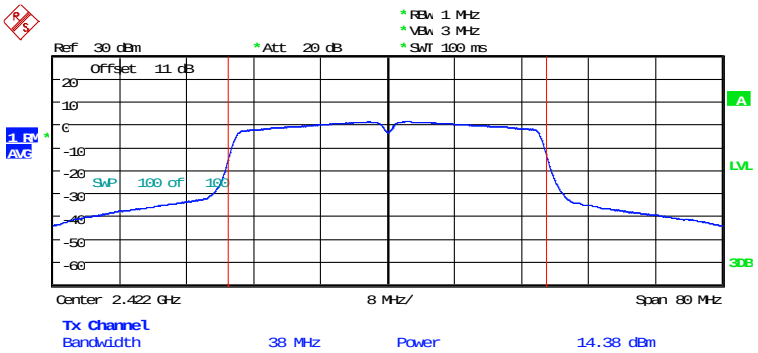
MAX OUTPUT POWER 802.11N 20MHZ CH06
Date: 3.DEC.2023 09:00:45

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

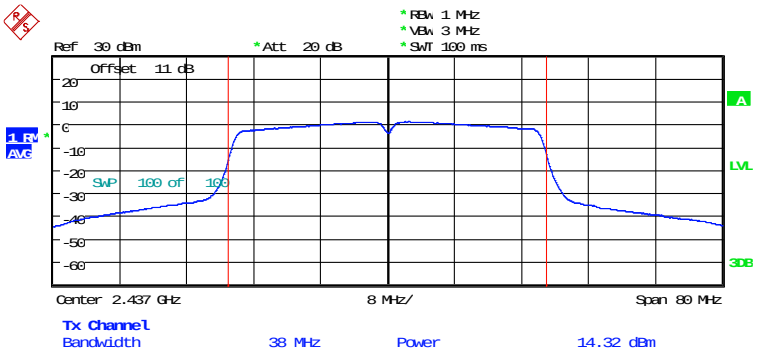


MAX OUTPUT POWER 802.11N 20MHZ CH11
Date: 3.DEC.2023 09:01:08

802.11n 40MHz

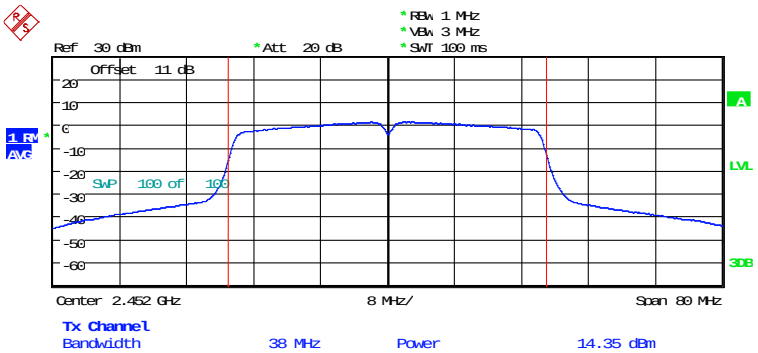


MAX OUTPUT POWER 802.11N 40MHZ CH01
Date: 3.DEC.2023 08:59:42



MAX OUTPUT POWER 802.11N 40MHZ CH04

Date: 3.DEC.2023 08:59:23



MAX OUTPUT POWER 802.11N 40MHZ CH07

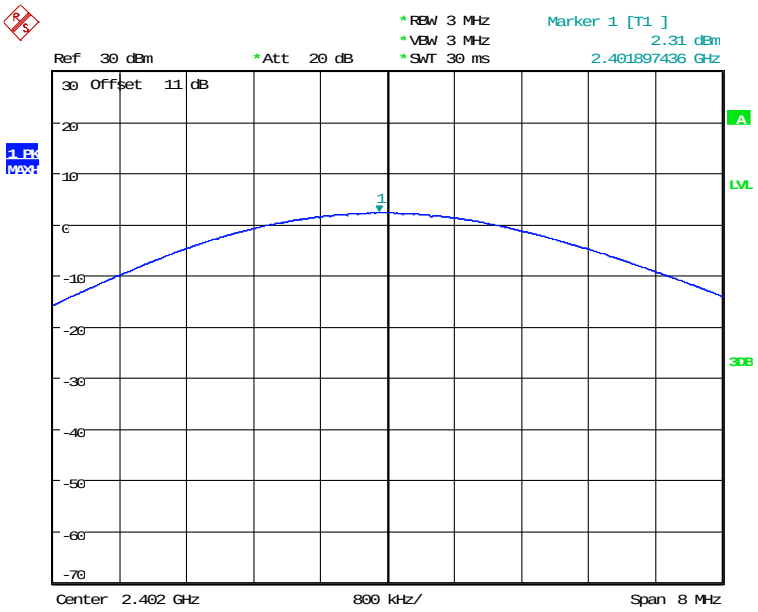
Date: 3.DEC.2023 08:59:01

Bluetooth

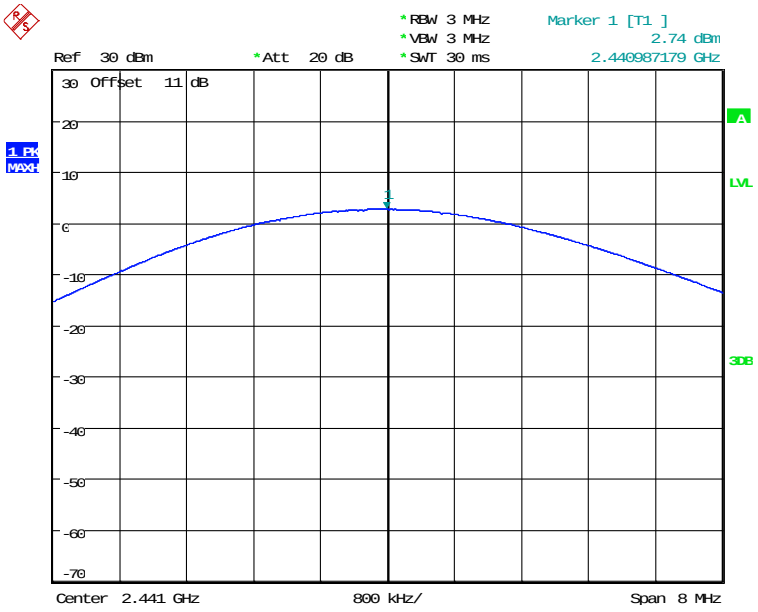
Band	Mode	Channel	Power (dBm)	Limit (dBm)
2.4GHz	BR	Ch 0 : 2402 MHz	2.31	21
		Ch 39 : 2441 MHz	2.74	21
		Ch 78 : 2480 MHz	3.18	21
	EDR	Ch 0 : 2402 MHz	1.66	21
		Ch 39 : 2441 MHz	2.11	21
		Ch 78 : 2480 MHz	2.54	21
	BLE	Ch 0 : 2402 MHz	-2.02	30
		Ch 19 : 2440 MHz	-1.87	30
		Ch 39 : 2480 MHz	-1.74	30

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

Normal

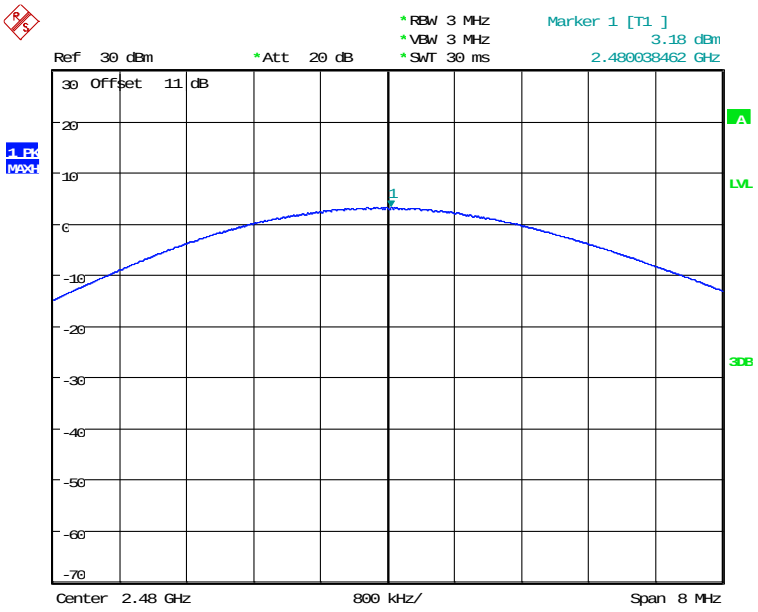


MAX OUTPUT POWER CH0
Date: 8.DEC.2023 11:11:06



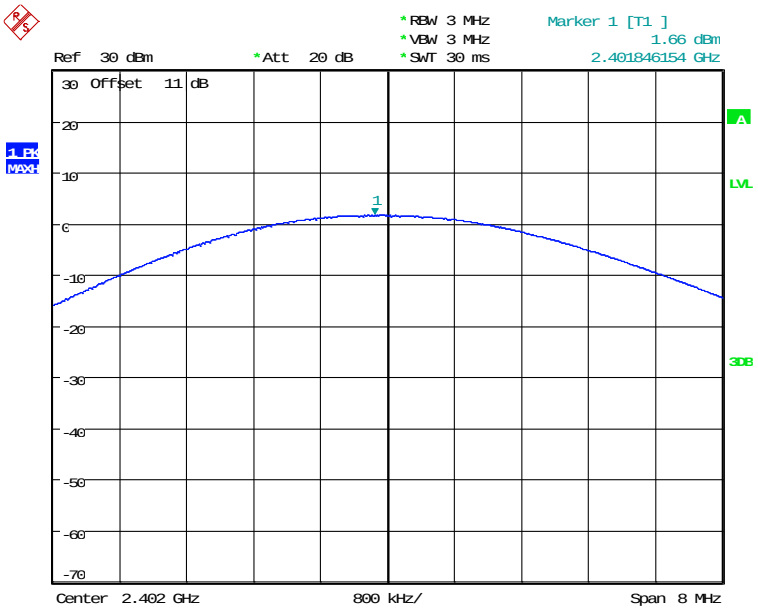
MAX OUTPUT POWER CH39
Date: 8.DEC.2023 11:11:46

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



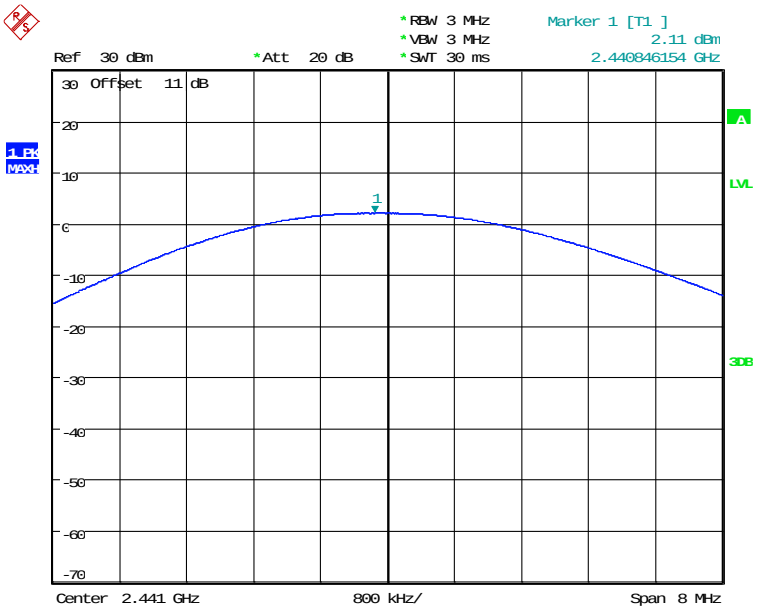
MAX OUTPUT POWER CH78
Date: 8.DEC.2023 11:12:14

EDR

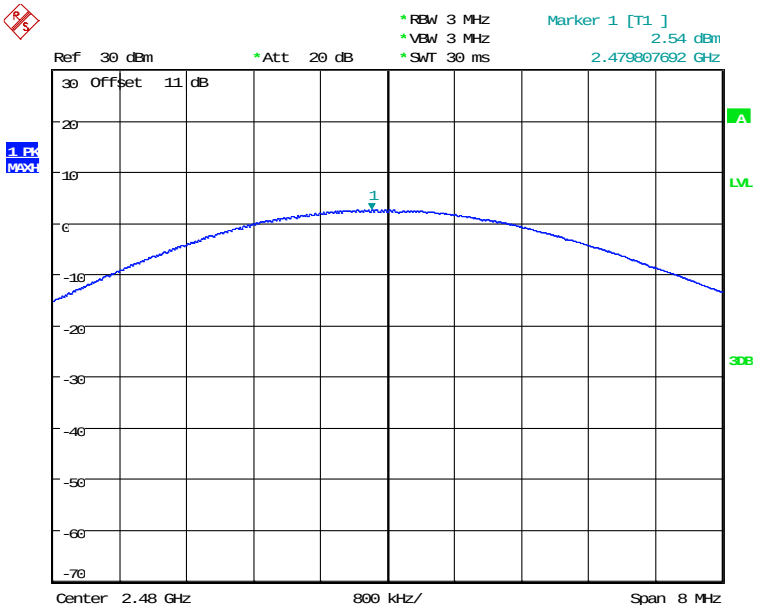


MAX OUTPUT POWER CH0 EDR MODE
Date: 8.DEC.2023 11:19:38

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

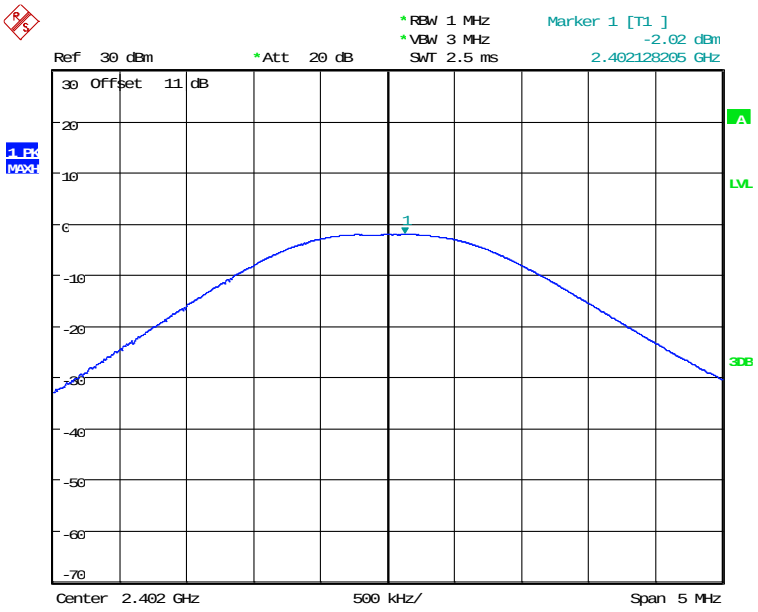


MAX OUTPUT POWER CH39 EDR MODE
Date: 8.DEC.2023 11:20:26

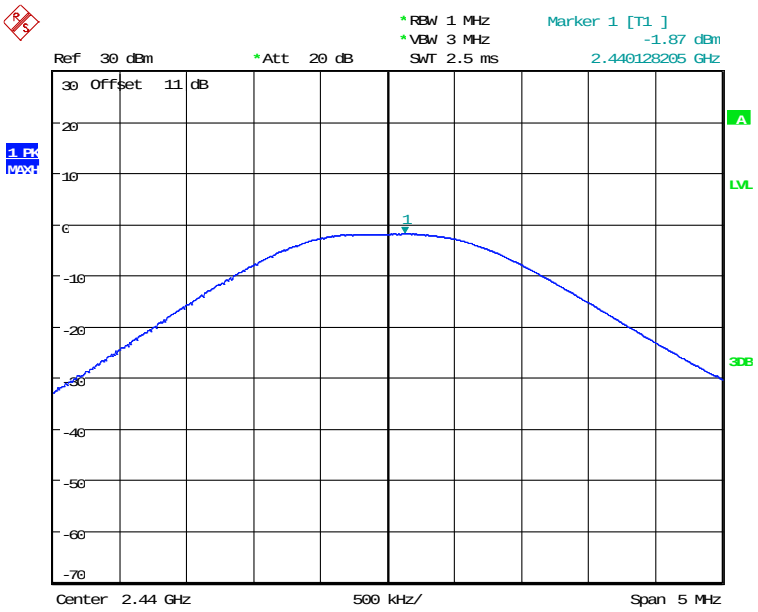


MAX OUTPUT POWER CH78 EDR MODE
Date: 8.DEC.2023 11:21:06

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

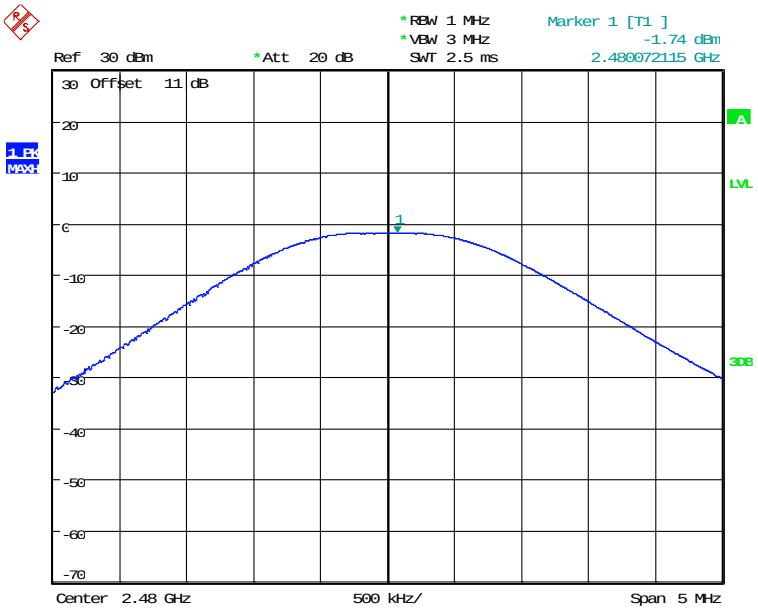


MAX OUTPUT POWER BLE 1M CH00
Date: 1.DEC.2023 19:26:37



MAX OUTPUT POWER BLE 1M CH19
Date: 1.DEC.2023 19:27:19

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

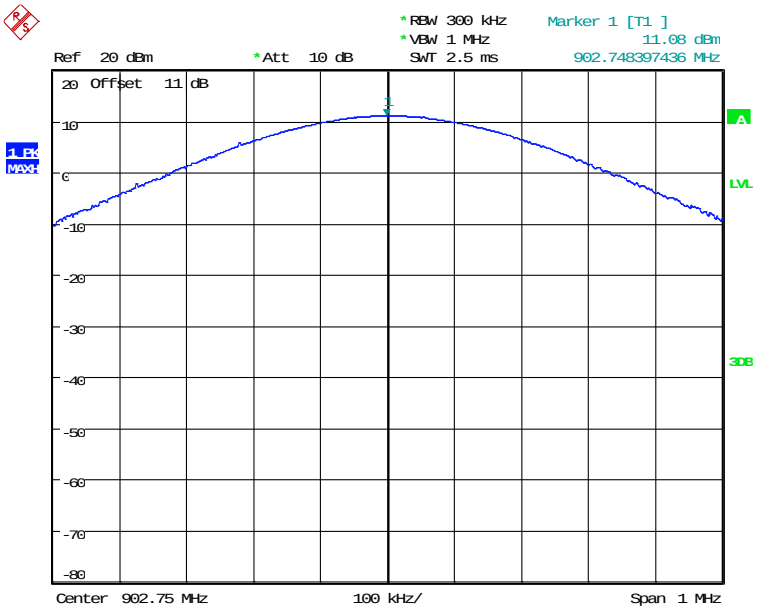


MAX OUTPUT POWER BLE 1M CH39
Date: 1.DEC.2023 19:27:59

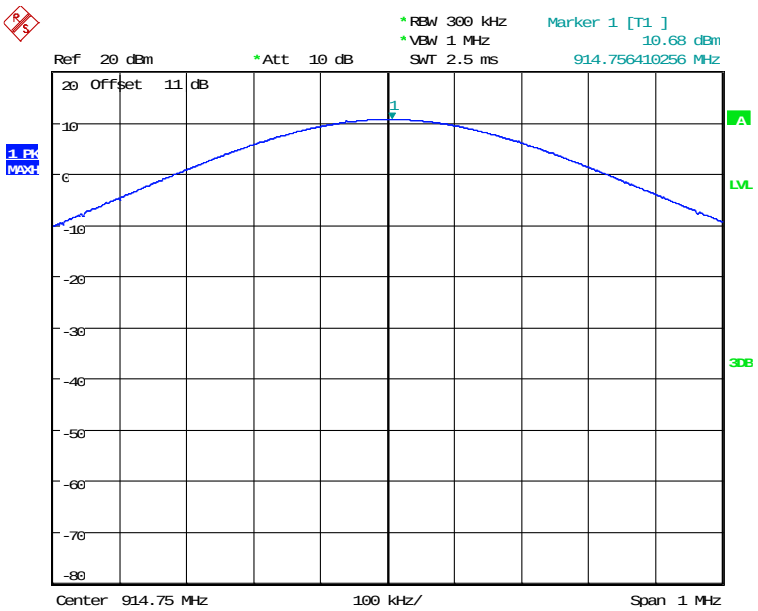
RFID

Band	Channel	Power (dBm)	Limit (dBm)
UHF	902.75 MHz	11.08	30
	914.75 MHz	10.68	30
	927.25 MHz	10.48	30

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

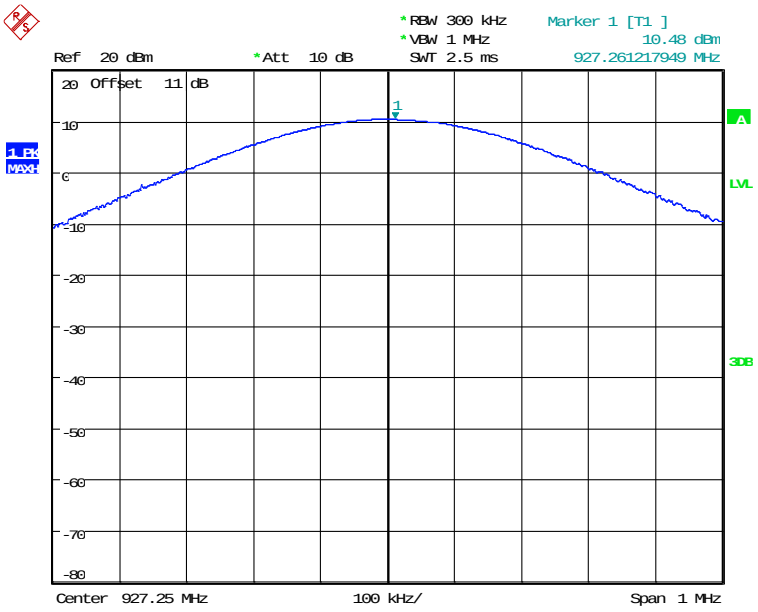


MAX OUTPUT POWER 902.75MHz
Date: 14.DEC.2023 09:27:52



MAX OUTPUT POWER 914.75MHz
Date: 14.DEC.2023 09:26:57

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



MAX OUTPUT POWER 927.25MHz
Date: 14.DEC.2023 09:28:41

Limits:

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

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

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

3.2 Transmitter Radiated Emissions in Restricted Bands

FCC Rules: 15.247 (c), 15.205, 15.209, 15.35
Radiated emission measurements were performed from 30 MHz to 26500 MHz.
For radiated emission tests, the analyzer setting was as followings:

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

Limits.

For frequencies below 1GHz:

Frequency of Emission (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	500	54.0

For frequencies above 1GHz (Average measurements).

Guidance on Measurement of Digit Transmission Systems:
“If the emission is pulsed, modify the unit for continuous operation, use the setting shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.”

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

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

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

Explanation: See attached diagrams in Appendix.

3.3 Spurious Emissions (tx)

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

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))

FCC Rule: 15.247(d), 15.35
For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement.

Limits:

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

For frequencies above 1GHz (Average measurements).
Max. reading – 20dB

Max. reading – 20 dB
Guidance on Measurement of Digit Transmission Systems:
“If the emission is pulsed, modify the unit for continuous operation, use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.”

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

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

Test equipment used: ETSTW-RE 030, ETSTW-RE 111, ETSTW-RE 088, ETSTW-RE 018, ETSTW-RE 064

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

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance with 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 and 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 "Correction Factor".

Summary table with radiated data of the test plots

Model:	XXX66XXX, XXX67XXX (X=A-Z, 0-9 or blank)	Date:	--		
Mode:	--	Temperature:	-- °C	Engineer:	--
Polarization:	--	Humidity:	-- %		

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

Frequency (MHz)	Reading (dBuV) Peak	Reading (dBuV) Ave.	Factor (dB) Corr.	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) Ave.	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) Ave.	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

Note

1. **Correction Factor = Antenna factor + Cable loss - Preamplifier**
2. **The formula of measured value as: Test Result = Reading + Correction Factor**
3. **Detector function in the form : PK = Peak, QP = Quasi Peak, AV = Average**
4. **All not in the table noted test results are more than 20 dB below the relevant limits.**
5. **After evaluated, the test result in this report adopt the worst case to measure, please see attached diagrams in appendix.**

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

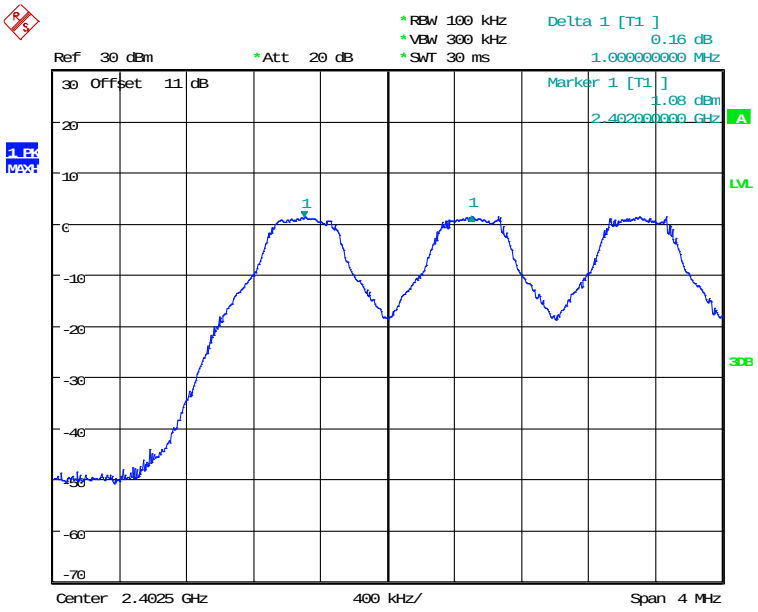
Test equipment used: ETSTW-RE 030, ETSTW-RE 111, ETSTW-RE 088, ETSTW-RE 018, ETSTW-RE 064

3.4 Carrier Frequency Separation

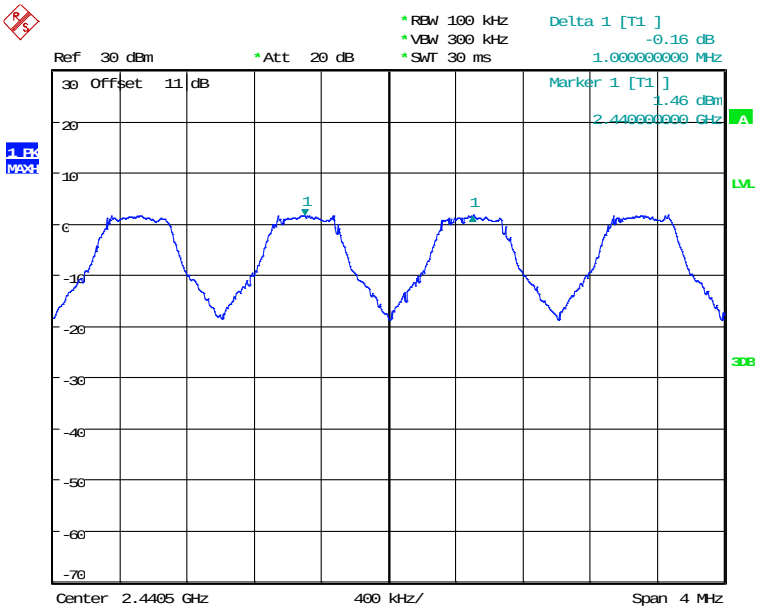
Carrier Frequency Separation was measured with modulation (declared by manufacturer).
According to FCC rules part 15 subpart C §15.247 frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or 20 dB bandwidth of the hopping channel, whichever is greater.

Test date: December 08, 2023- December 14, 2023
Temperature: 25.1 ˚C
Humidity: 54.6%
Tester: Sora

Bluetooth
Normal & EDR

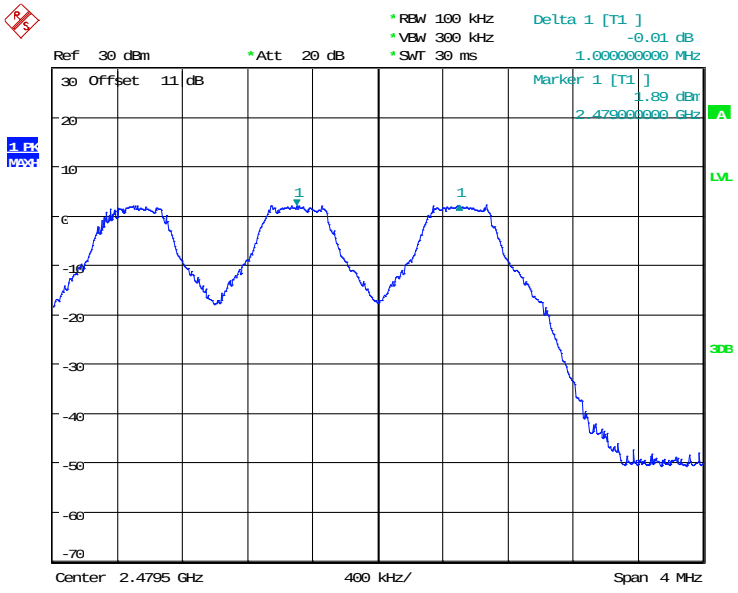


FREQUENCY SEPARATION CH0
Date: 8.DEC.2023 11:16:30



FREQUENCY SEPARATION CH39

Date: 8.DEC.2023 11:17:22

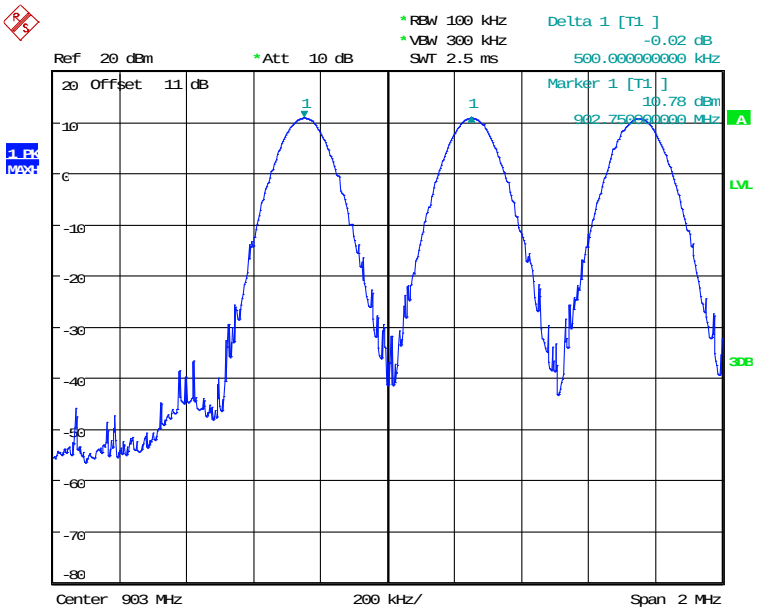


FREQUENCY SEPARATION CH78

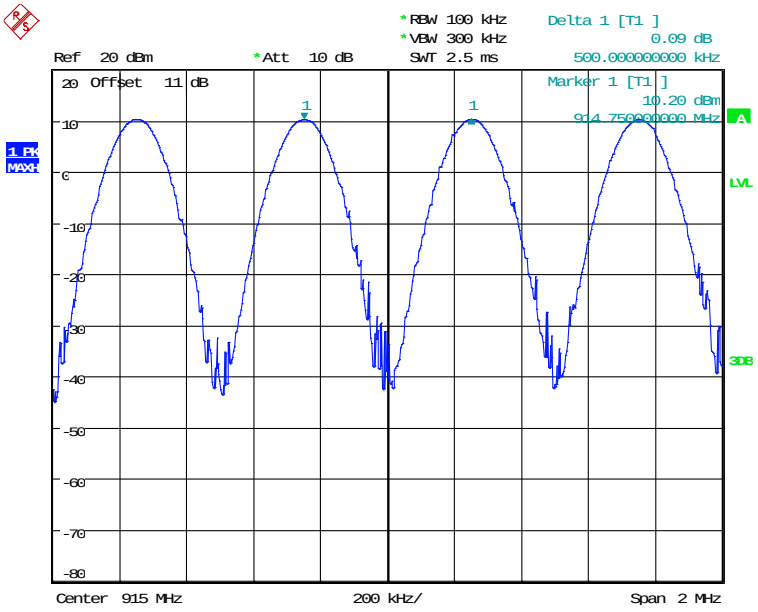
Date: 8.DEC.2023 11:18:18

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

RFID

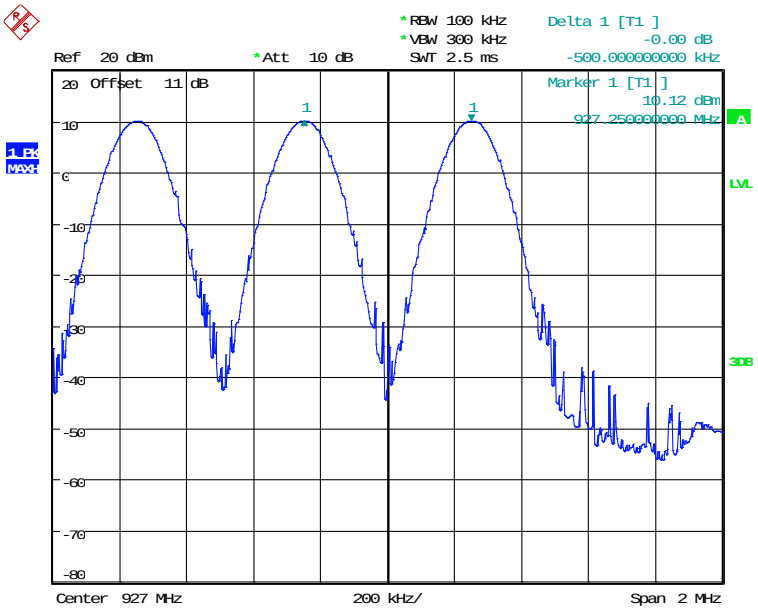


FREQUENCY SEPARATION 902.75MHz
Date: 14.DEC.2023 09:42:06



FREQUENCY SEPARATION 914.75MHz
Date: 14.DEC.2023 09:42:43

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



FREQUENCY SEPARATION 927.25MHz
Date: 14.DEC.2023 09:44:25

Limits:

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

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

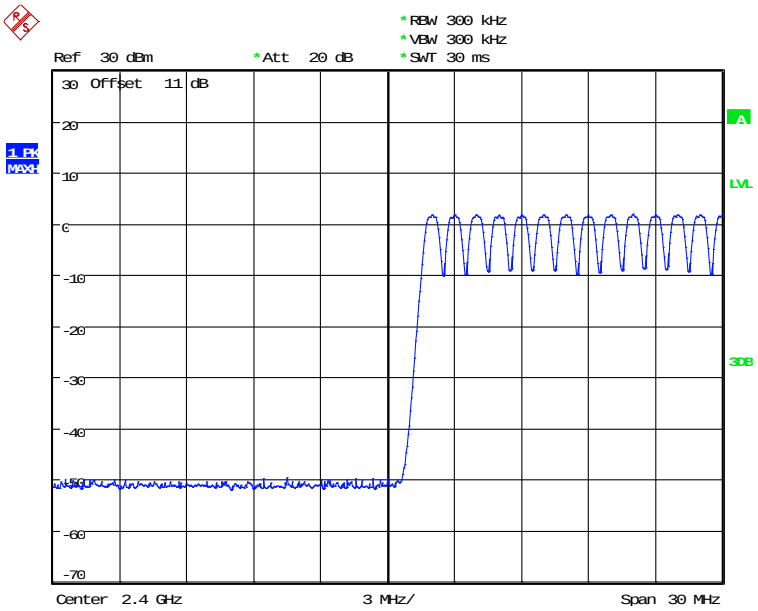
3.5 Number of Hopping Frequencies

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.

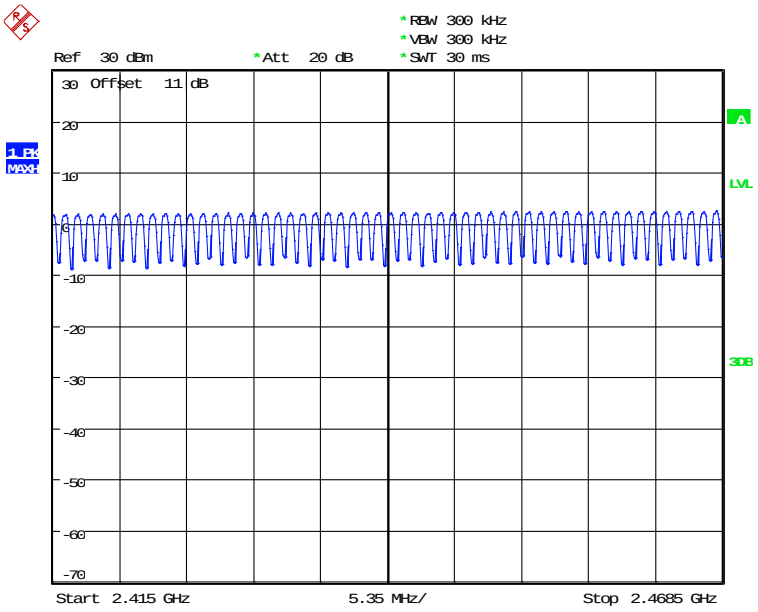
Test date: December 08, 2023- December 14, 2023
Temperature: 25.1 ˚C
Humidity: 54.6%
Tester: Sora

Bluetooth
Normal & EDR

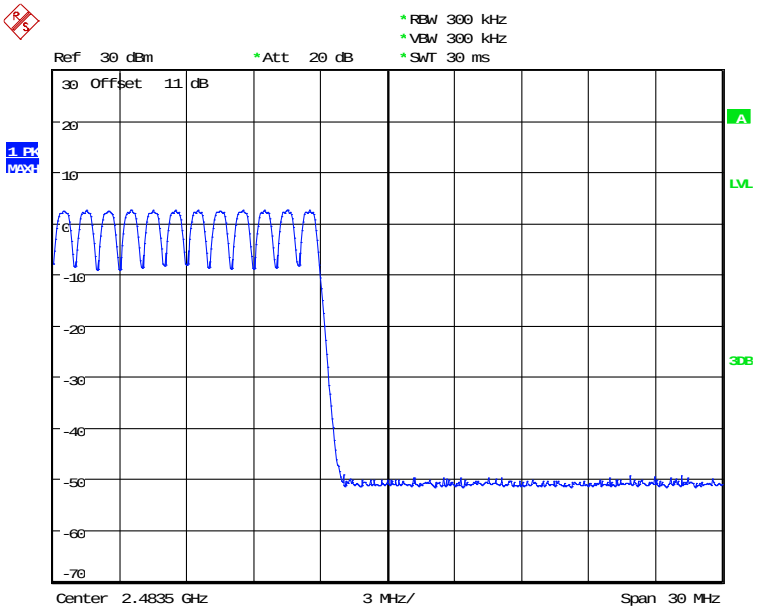


NUMBER OF HOPPING CH0-13
Date: 8.DEC.2023 11:13:26

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



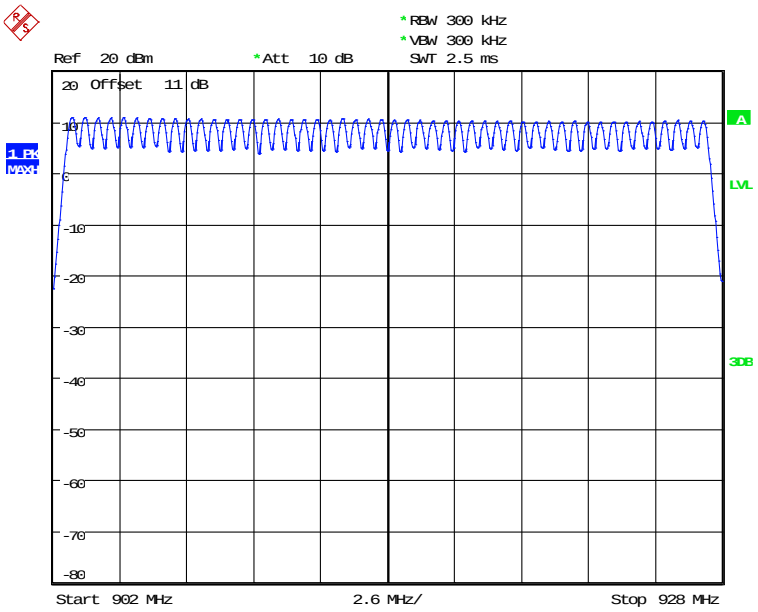
NUMBER OF HOPPING CH14-66
Date: 8.DEC.2023 11:15:30



NUMBER OF HOPPING CH67-78
Date: 8.DEC.2023 11:14:14

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

RFID



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

3.6.1 Pseudorandom Frequency Hopping Sequence

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

3.6.2 Coordination of hopping sequences to other transmitters

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

3.6.3 System Receiver Hopping Capability

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

3.6 Time of Occupancy (Dwell Time)

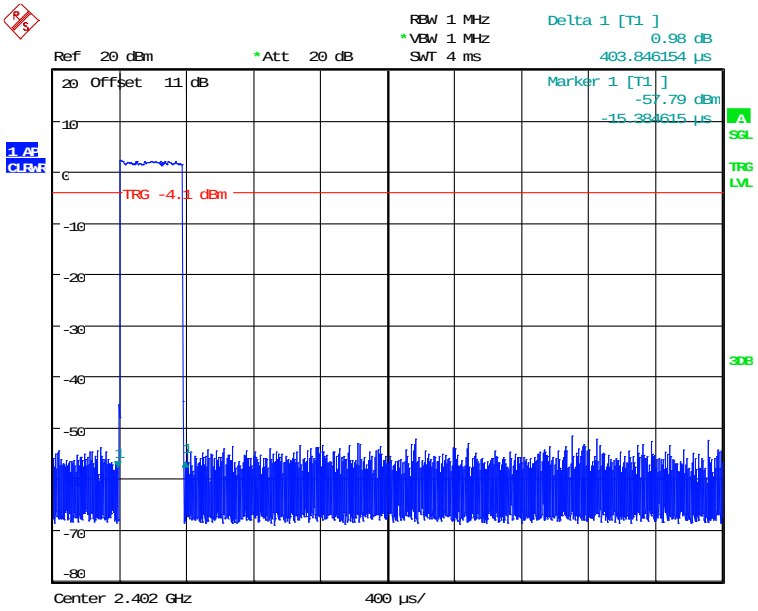
Frequency hopping systems operating in the 5725-5850 MHz band shall use an average time of occupancy on any frequency not greater than 0.4 seconds within a 30 second period.

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

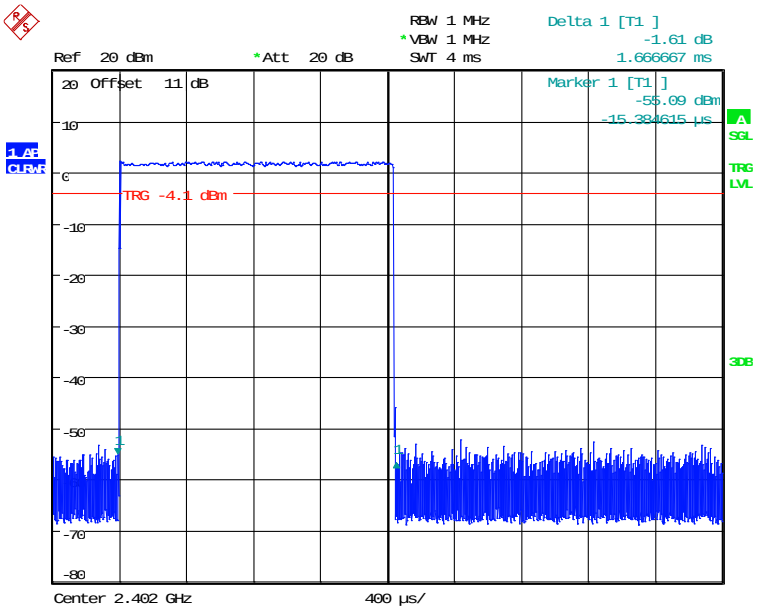
For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any frequency shall not greater than 0.4 seconds within a 20 second period; if the 20dB bandwidth of the hopping channel is 250 kHz or greater,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

Test date: December 08, 2023- December 14, 2023
Temperature: 25.1 ˚C
Humidity: 54.6%
Tester: Sora

Bluetooth
Normal & EDR

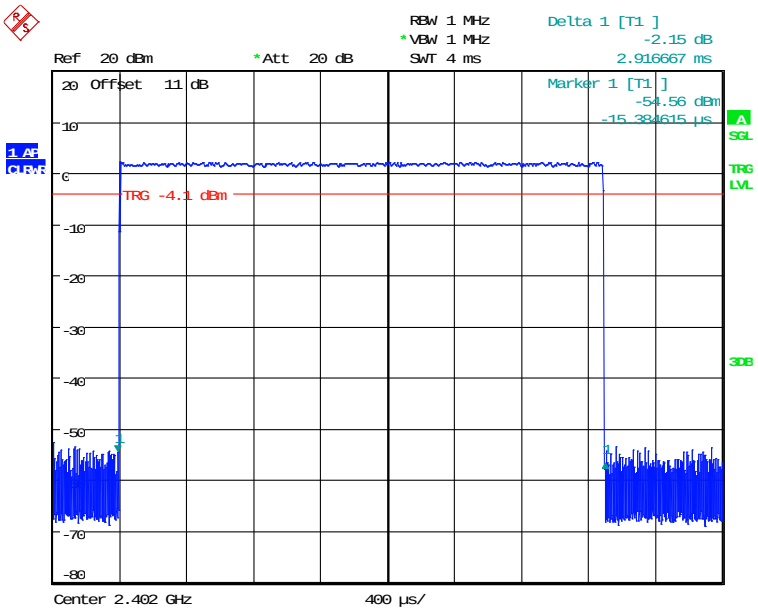


DWELL TIME CH0 DH1 (0.404ms * 320events = 129.28ms)
Date: 8.DEC.2023 11:36:52



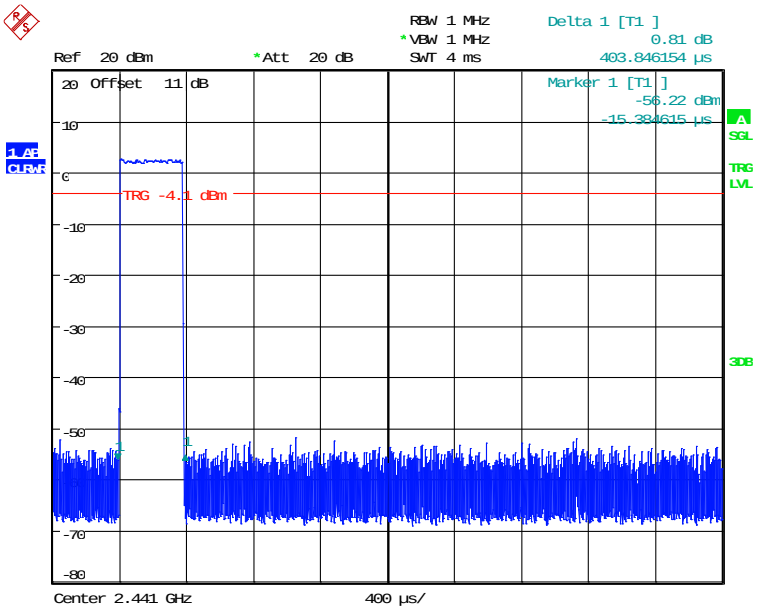
DWELL TIME CH0 DH3 (1.667ms * 160events = 266.72ms)

Date: 8.DEC.2023 11:39:07

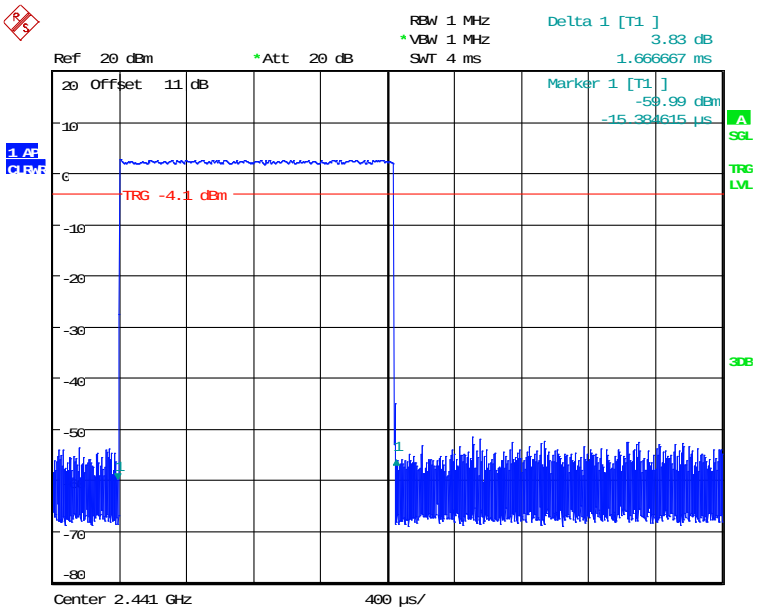


DWELL TIME CH0 DH5 (2.917ms * 106events = 309.202ms)

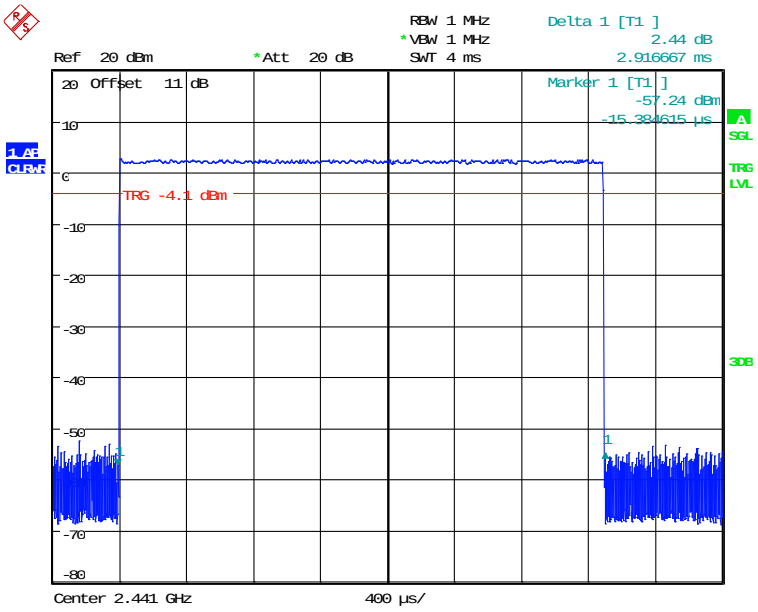
Date: 8.DEC.2023 11:40:19



DWELL TIME CH39 DH1 (0.404ms * 320events = 129.28ms)
Date: 8.DEC.2023 11:37:11

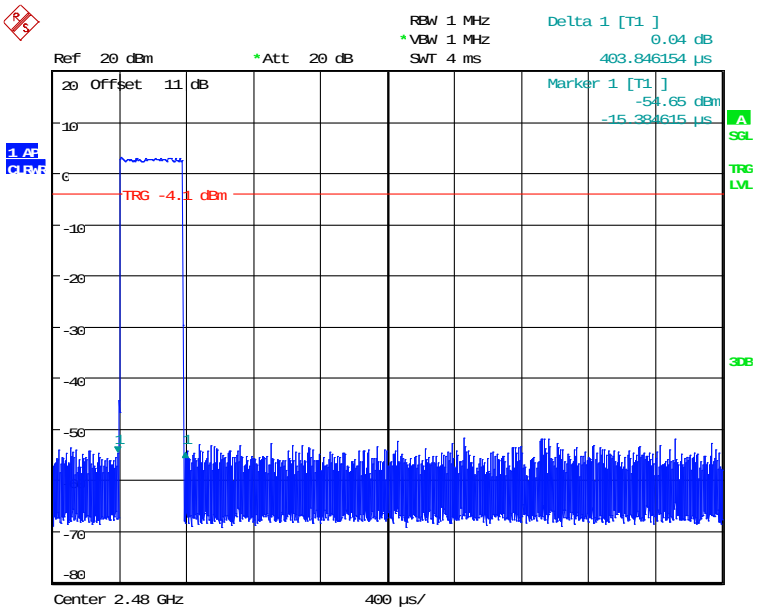


DWELL TIME CH39 DH3 (1.667ms * 160events = 266.72ms)
Date: 8.DEC.2023 11:38:45



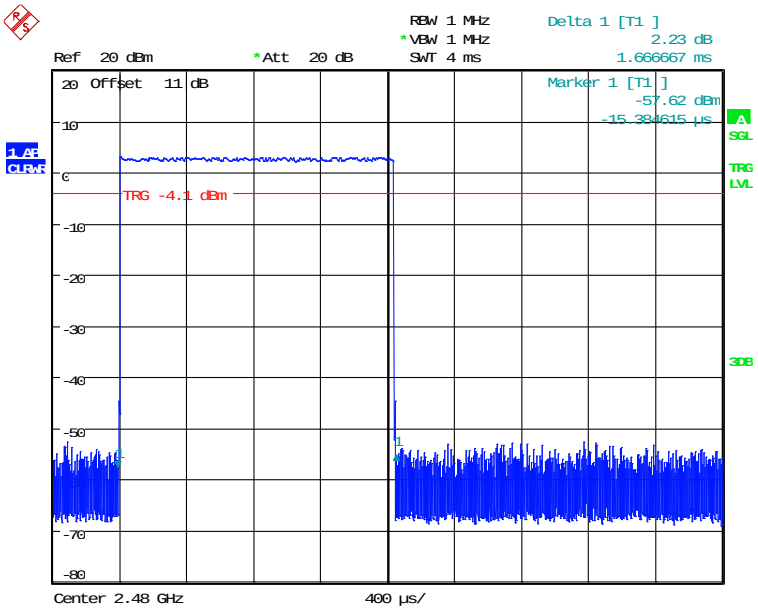
DWELL TIME CH39 DH5 (2.917ms * 106events = 309.202ms)

Date: 8.DEC.2023 11:41:00



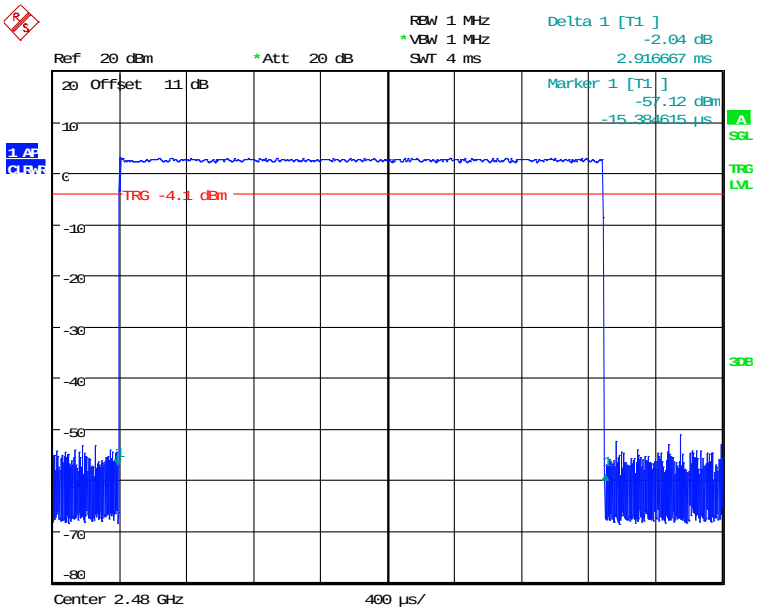
DWELL TIME CH78 DH1 (0.404ms * 320events = 129.28ms)

Date: 8.DEC.2023 11:37:28



DWELL TIME CH78 DH3 (1.667ms * 160events = 266.72ms)

Date: 8.DEC.2023 11:38:24

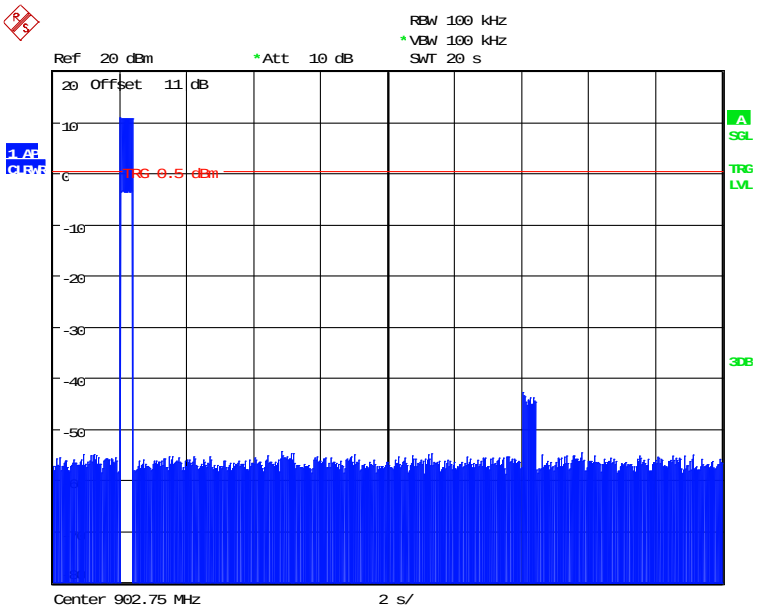


DWELL TIME CH78 DH5 (2.917ms * 106events = 309.202ms)

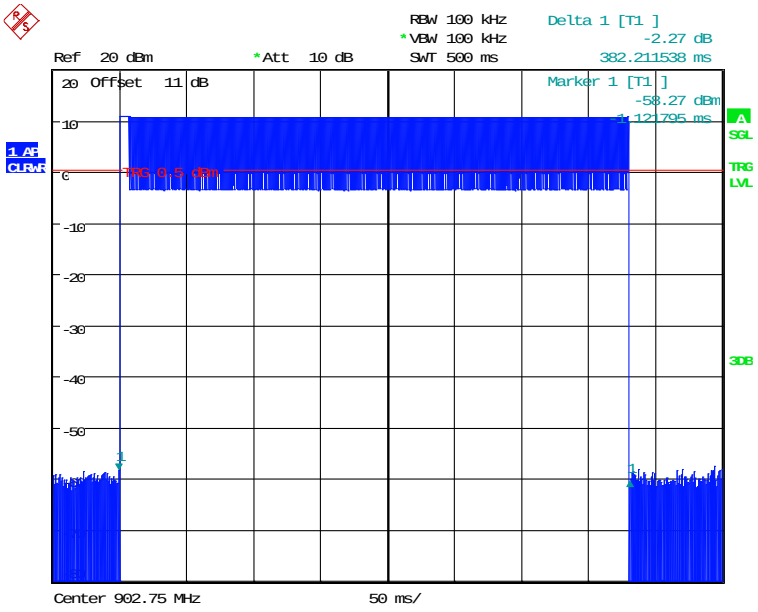
Date: 8.DEC.2023 11:41:24

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

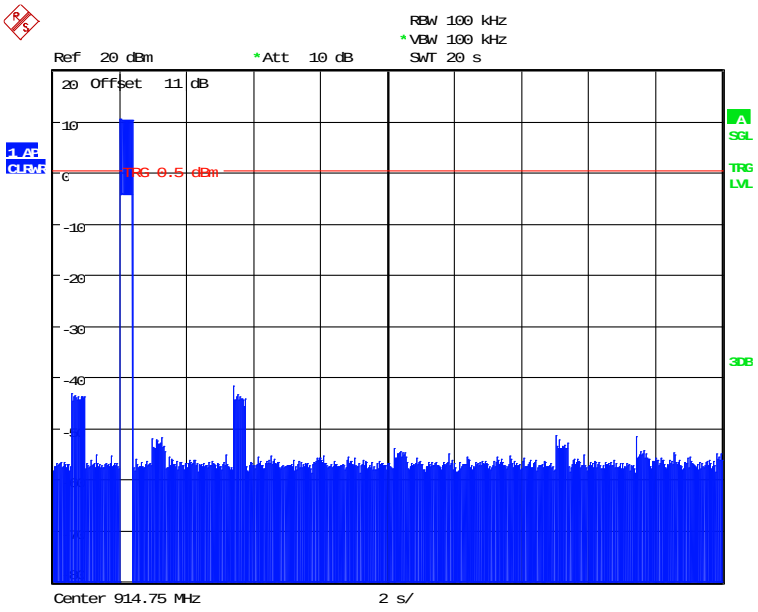
RFID



DWELL TIME 902.75MHz
Date: 14.DEC.2023 09:53:44

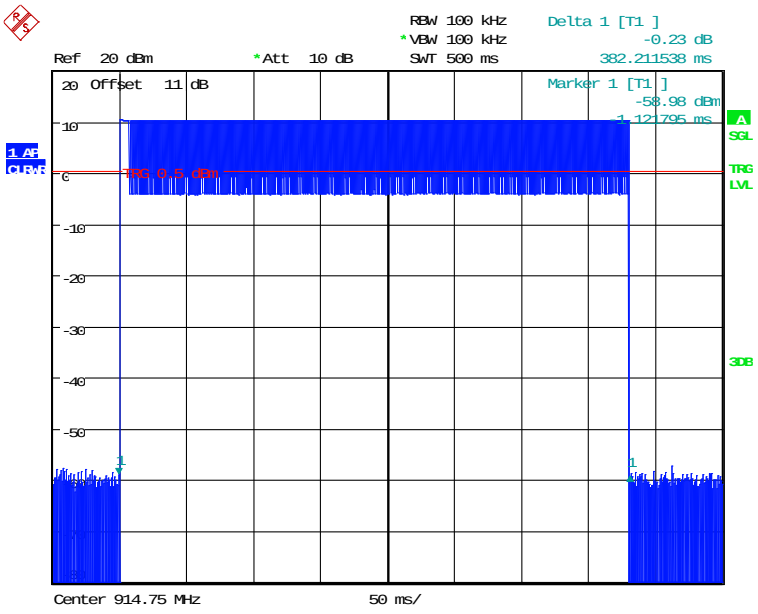


DWELL TIME 902.75MHz (382.21ms * 1events = 382.21ms)
Date: 14.DEC.2023 10:00:20



DWELL TIME 914.75MHz

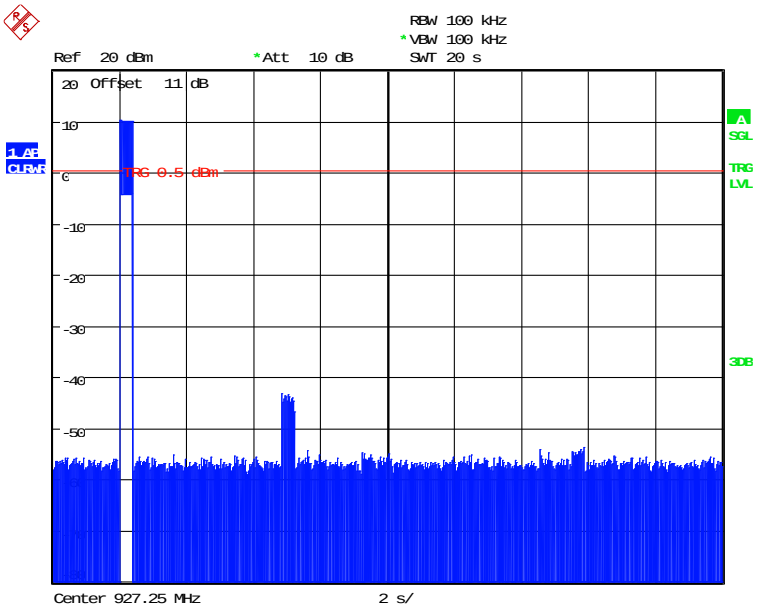
Date: 14.DEC.2023 09:54:54



DWELL TIME 914.75MHz (382.21ms * 1events = 382.21ms)

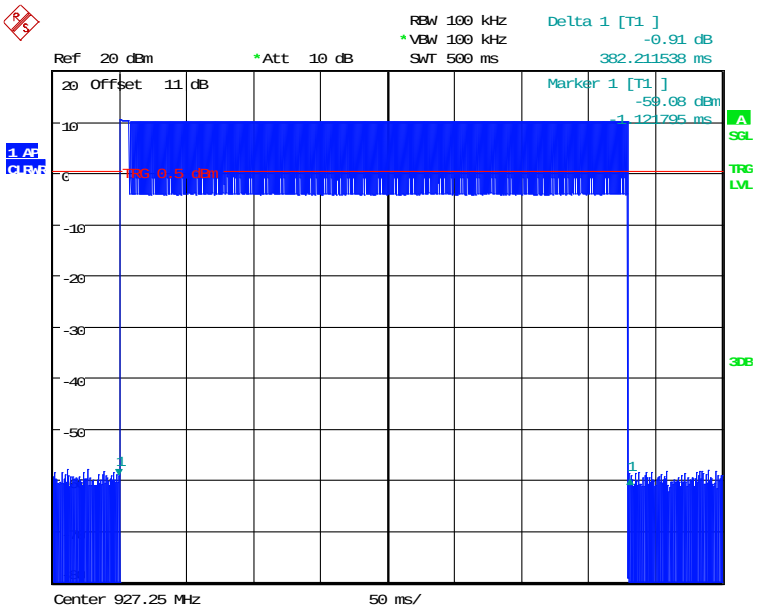
Date: 14.DEC.2023 09:59:50

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



DWELL TIME 927.25MHz

Date: 14.DEC.2023 09:56:28



DWELL TIME 927.25MHz (382.21ms * 1events = 382.21ms)

Date: 14.DEC.2023 10:01:00

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

Limits and measurement periods:

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

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

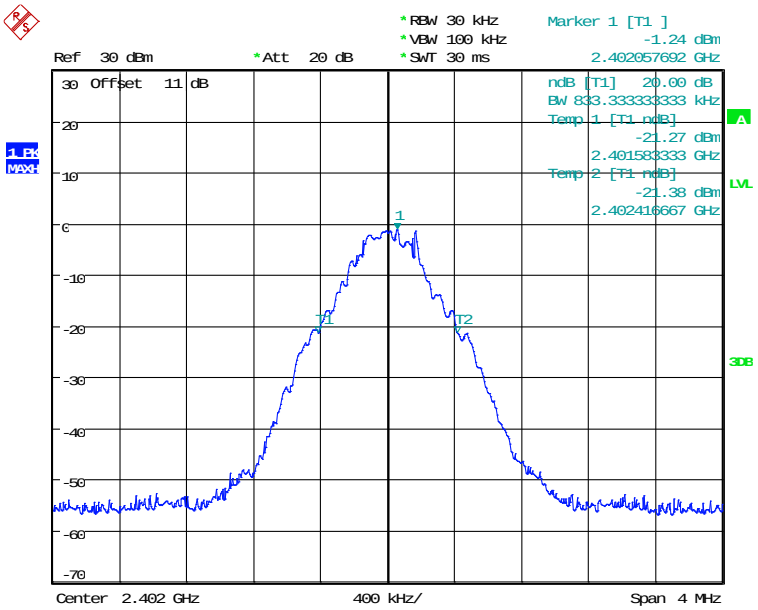
3.7 20dB Bandwidth

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.

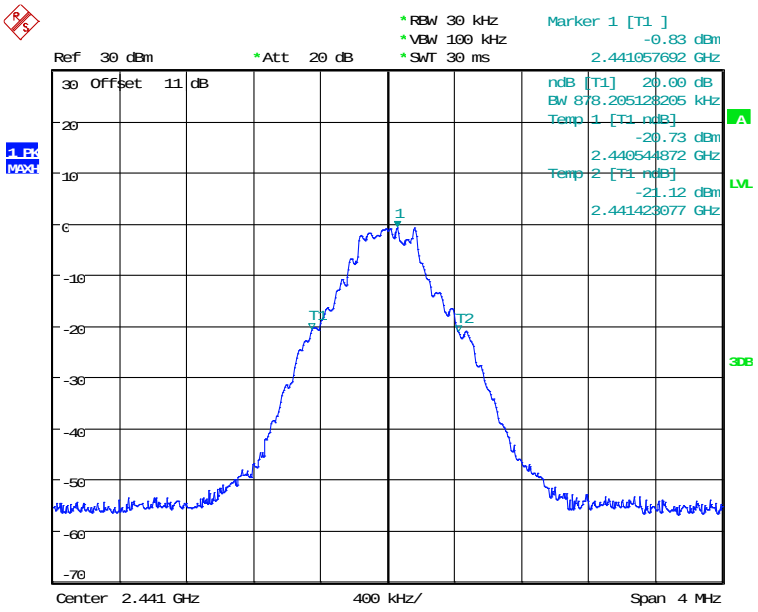
Test date: December 08, 2023- December 14, 2023
Temperature: 25.1 ˚C
Humidity: 54.6%
Tester: Sora

Bluetooth
Normal



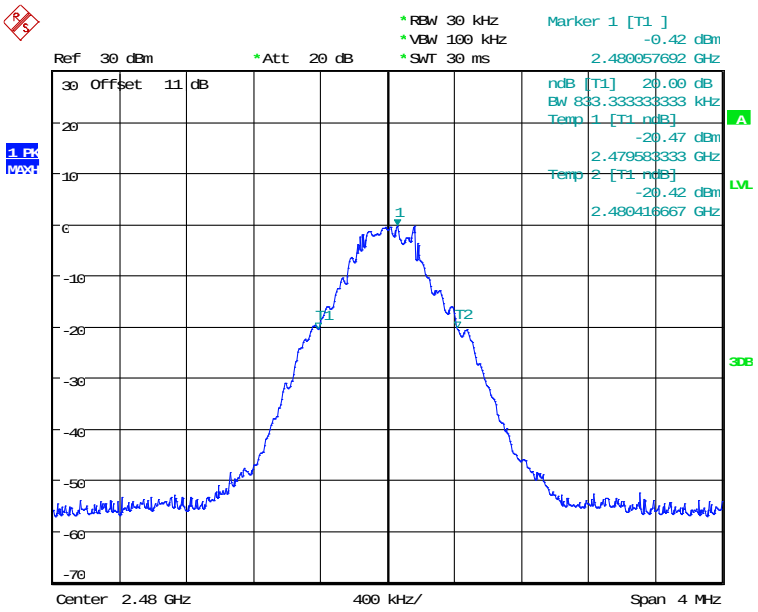
20DB BANDWIDTH CH0
Date: 8.DEC.2023 11:11:14

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



20DB BANDWIDTH CH39

Date: 8.DEC.2023 11:11:54

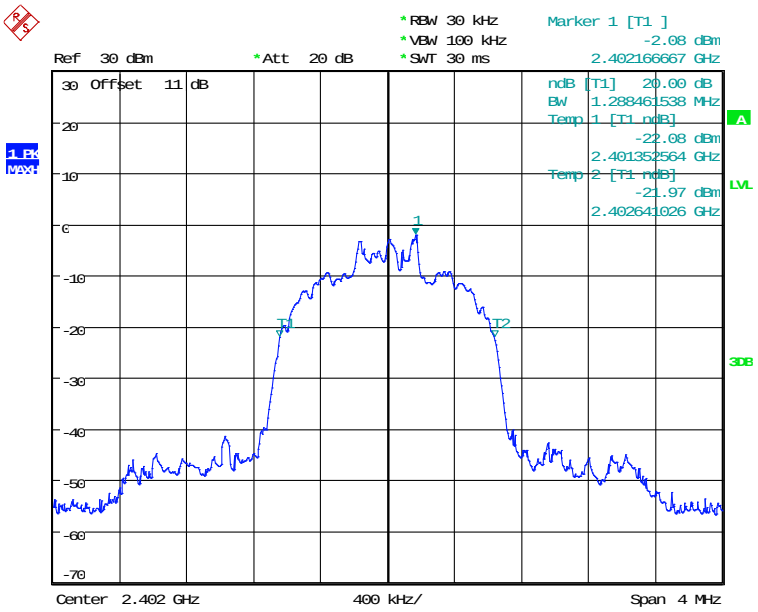


20DB BANDWIDTH CH78

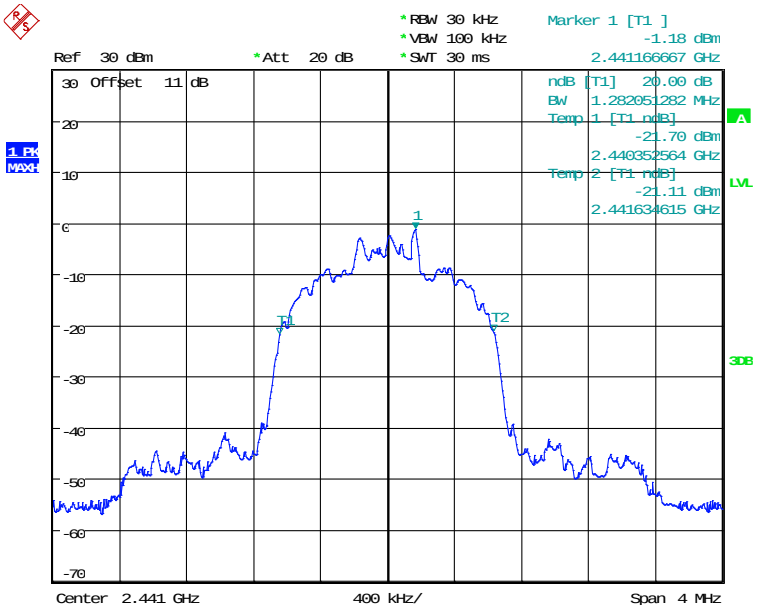
Date: 8.DEC.2023 11:12:22

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

EDR

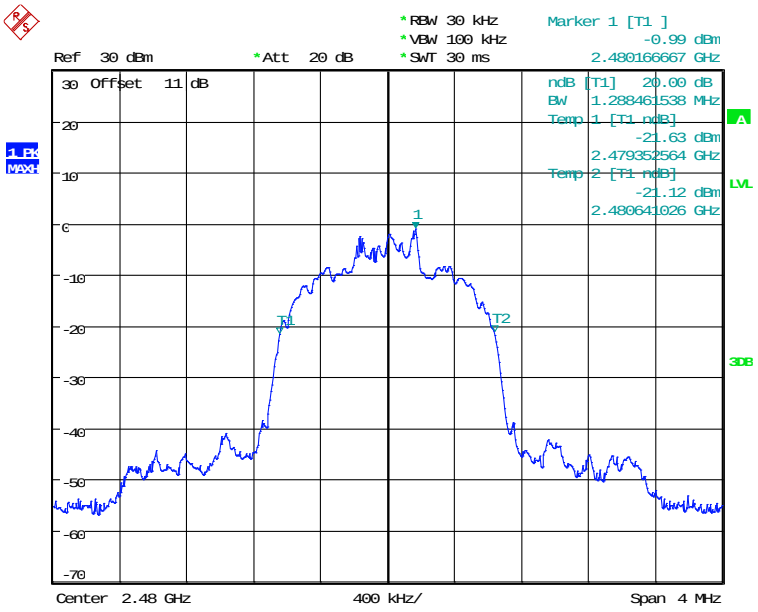


20DB BANDWIDTH CH0 EDR MODE
Date: 8.DEC.2023 11:19:46



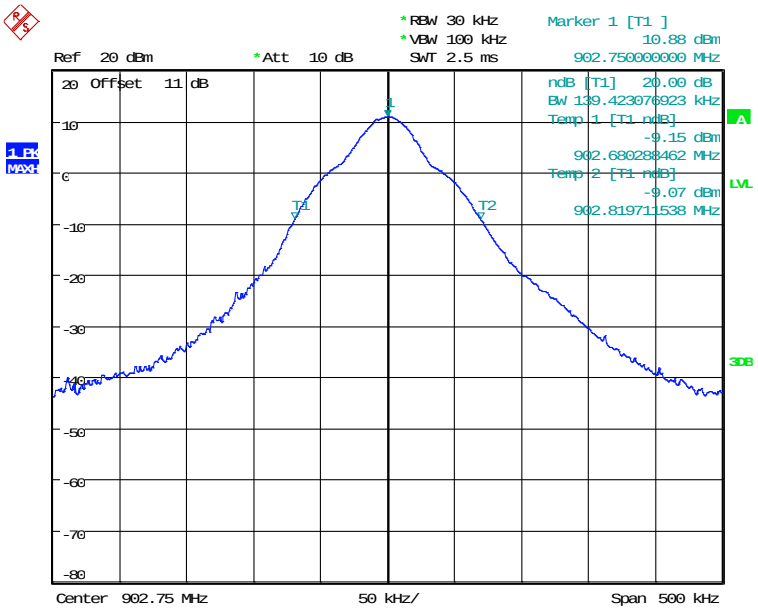
20DB BANDWIDTH CH39 EDR MODE
Date: 8.DEC.2023 11:20:34

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



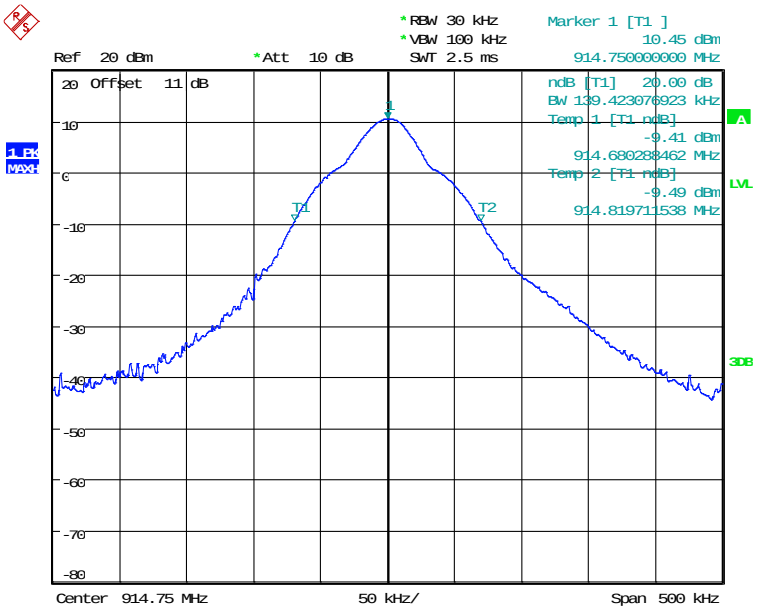
20DB BANDWIDTH CH78 EDR MODE
Date: 8.DEC.2023 11:21:14

RFID

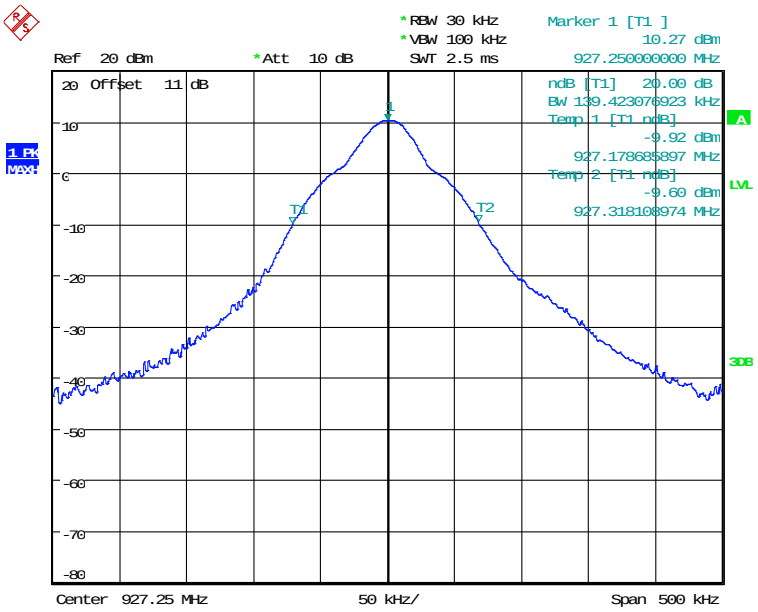


20DB BANDWIDTH 902.75MHz
Date: 14.DEC.2023 09:33:51

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



20DB BANDWIDTH 914.75MHz
Date: 14.DEC.2023 09:32:25



20DB BANDWIDTH 927.25MHz
Date: 14.DEC.2023 09:31:16

Limits:

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

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

3.8.1 System Receiver Input Bandwidth

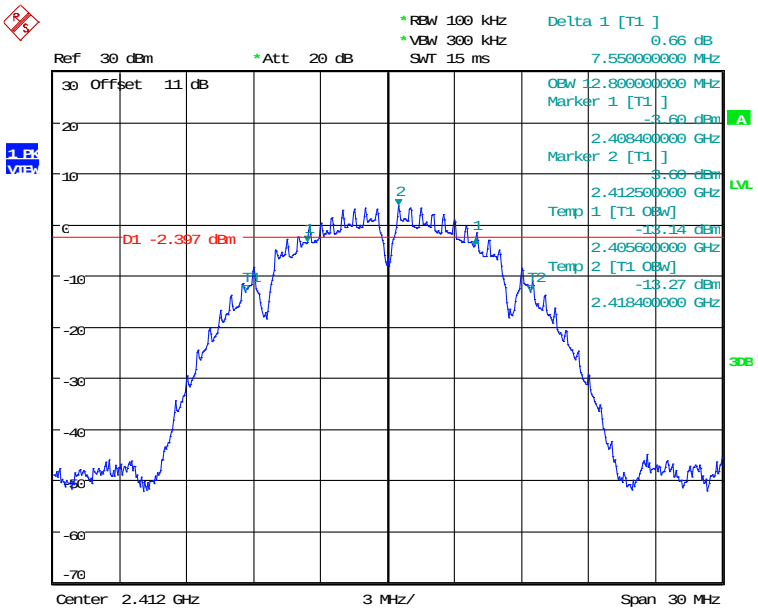
It is determined in the Bluetooth core specification. The value matches to the bandwidth of transmitter signal.

3.8 Minimum 6 dB Bandwidth

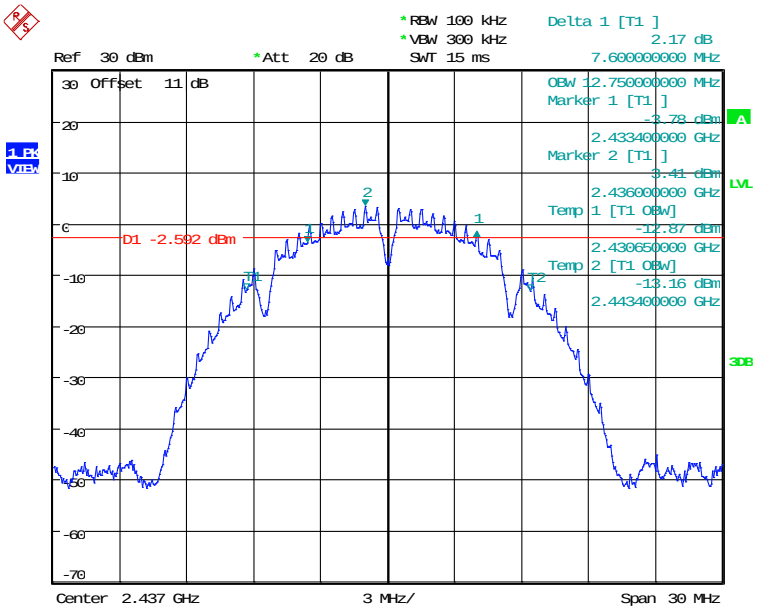
The analyzer ResBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK reading was taken, two markers were set 6 dB below the maximum level on the right and the left side of the emission.
The 6 dB bandwidth is the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

Test date: December 01, 2023- December 03, 2023
Temperature: 22.7 ˚C
Humidity: 58.1%
Tester: Sora

WLAN 2.4G
802.11b

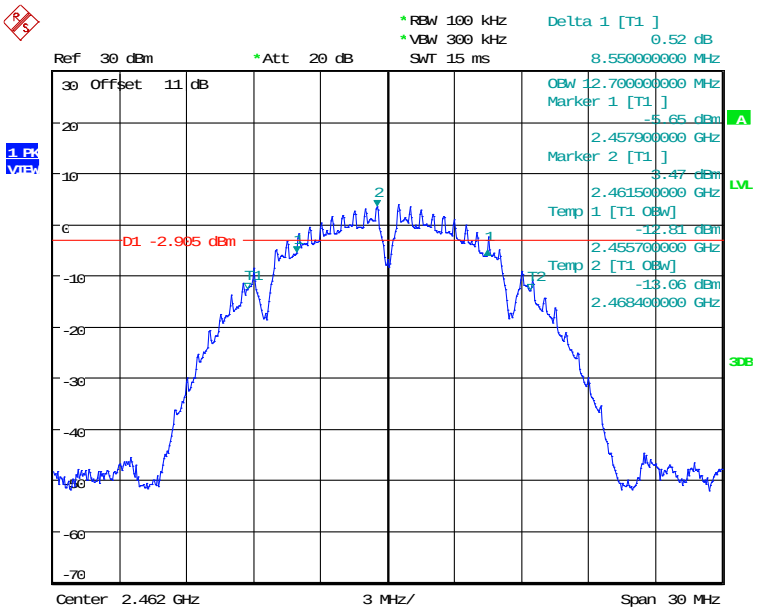


6DB BANDWIDTH 802.11B CH01
Date: 3.DEC.2023 08:44:48



6DB BANDWIDTH 802.11B CH06

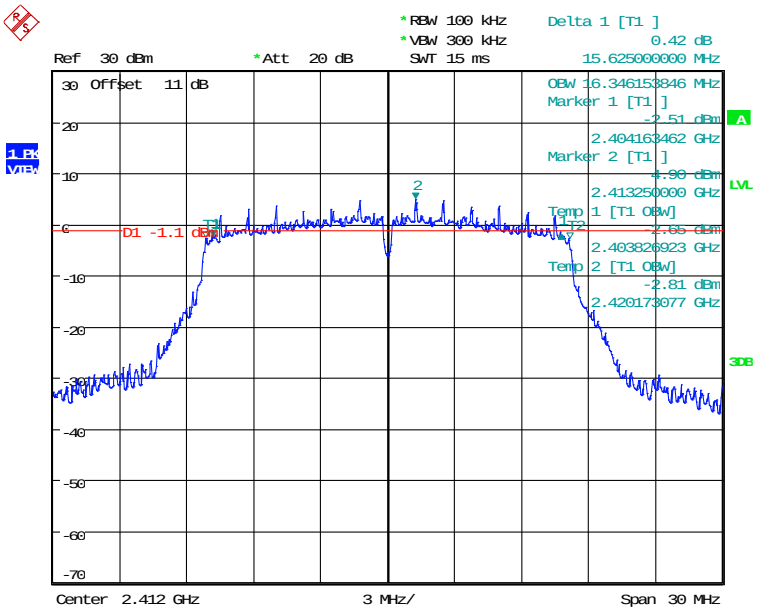
Date: 3.DEC.2023 08:45:31



6DB BANDWIDTH 802.11B CH11

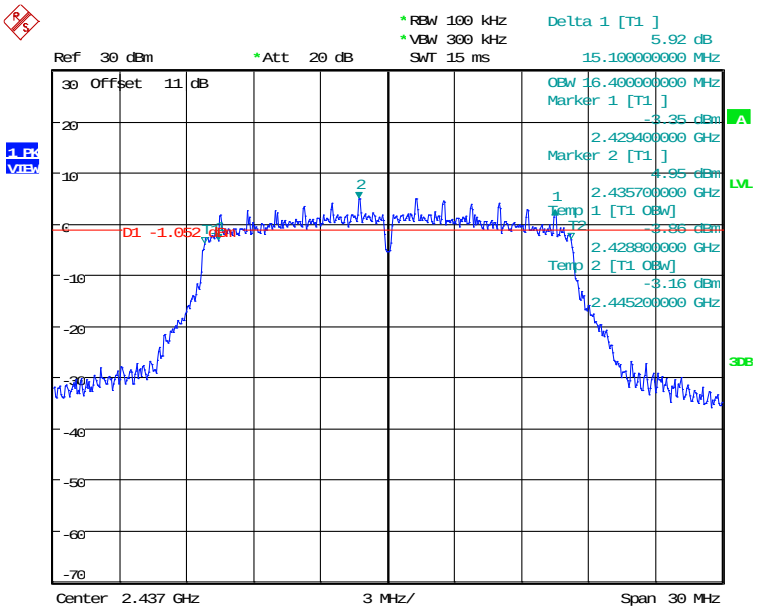
Date: 3.DEC.2023 08:46:09

802.11g



6DB BANDWIDTH 802.11G CH01

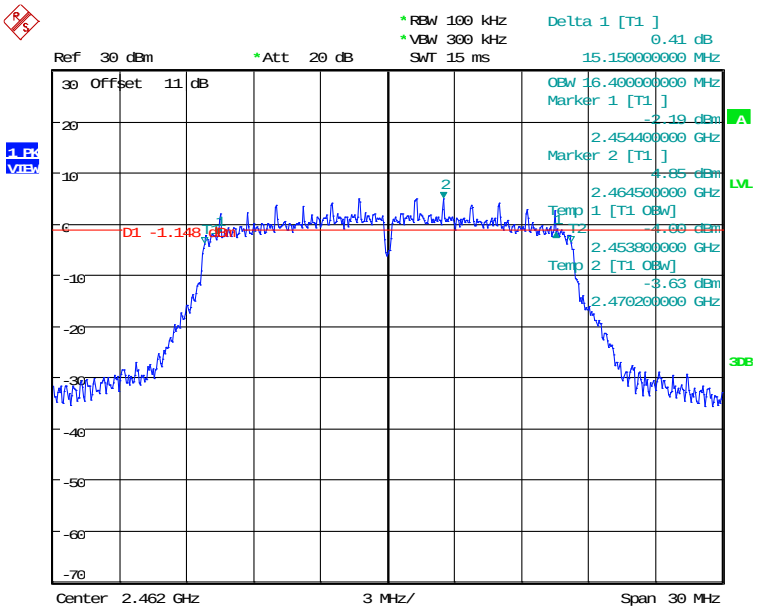
Date: 3.DEC.2023 09:08:20



6DB BANDWIDTH 802.11G CH06

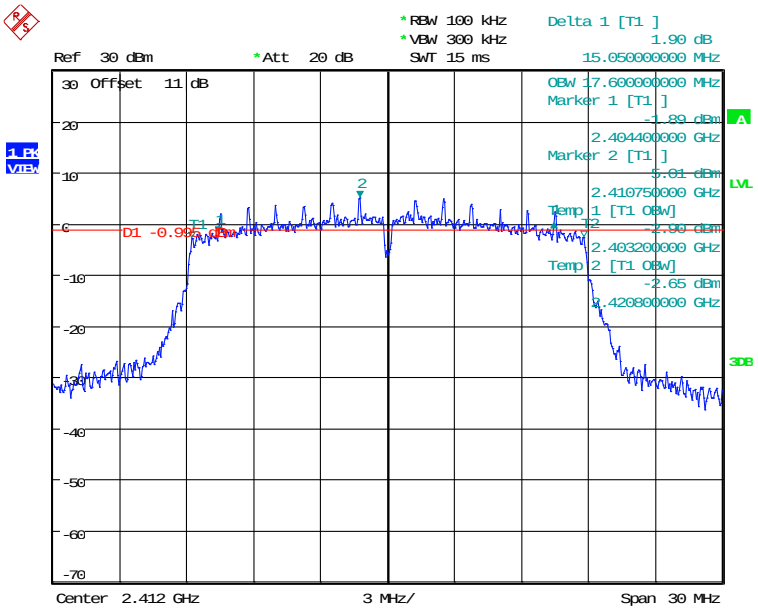
Date: 3.DEC.2023 08:47:24

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



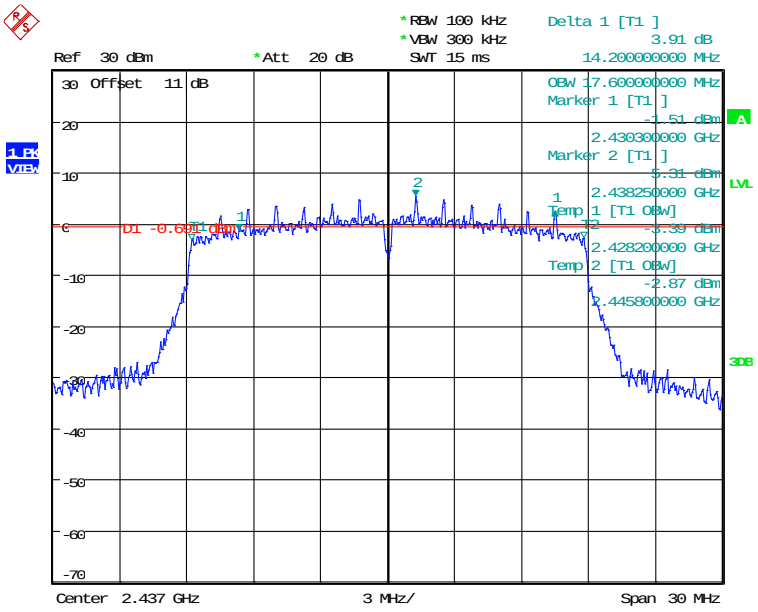
6DB BANDWIDTH 802.11G CH11
Date: 3.DEC.2023 08:47:56

802.11n 20MHz



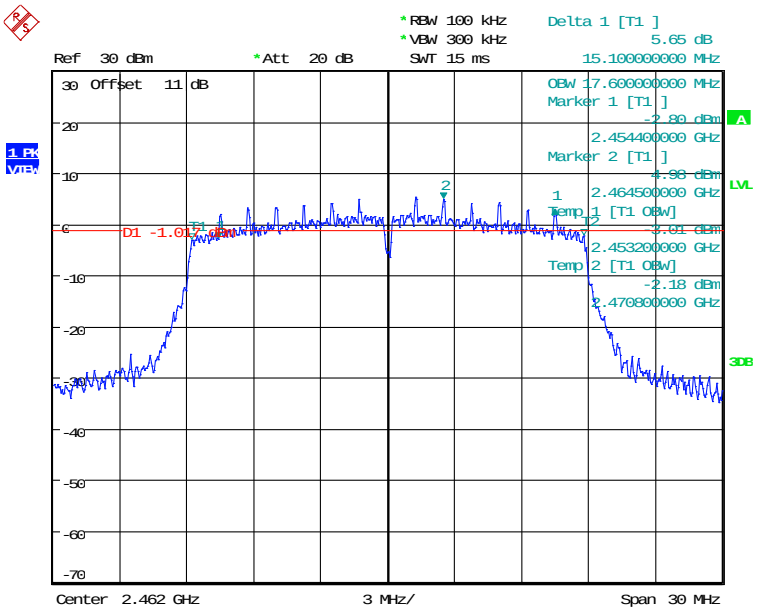
6DB BANDWIDTH 802.11N 20MHZ CH01
Date: 3.DEC.2023 08:48:34

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



6DB BANDWIDTH 802.11N 20MHZ CH06

Date: 3.DEC.2023 08:49:07

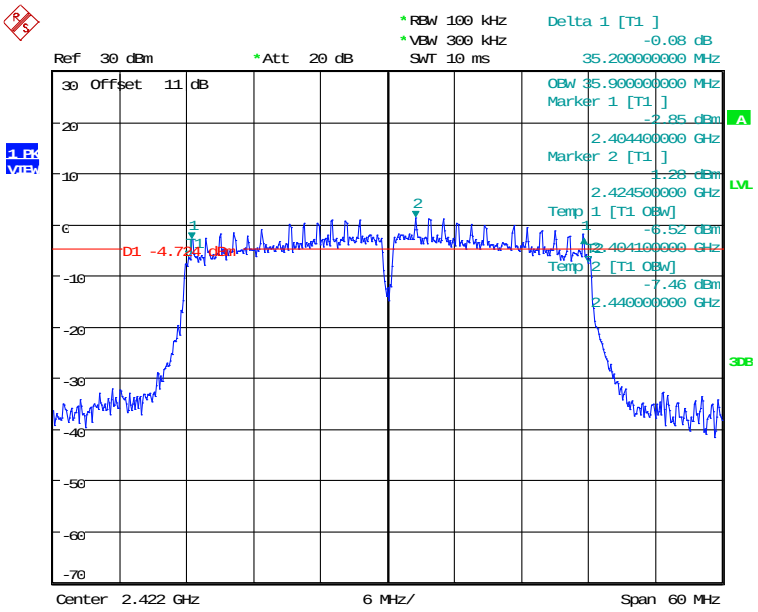


6DB BANDWIDTH 802.11N 20MHZ CH11

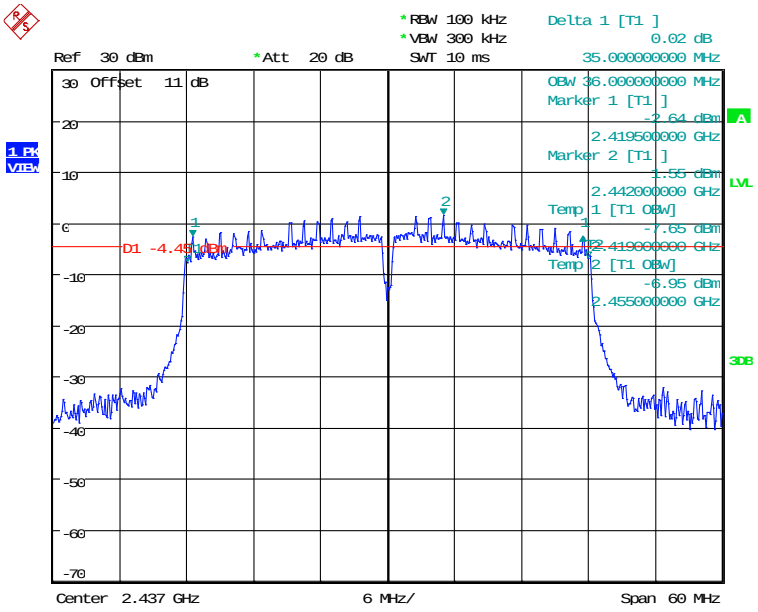
Date: 3.DEC.2023 08:49:41

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

802.11n 40MHz

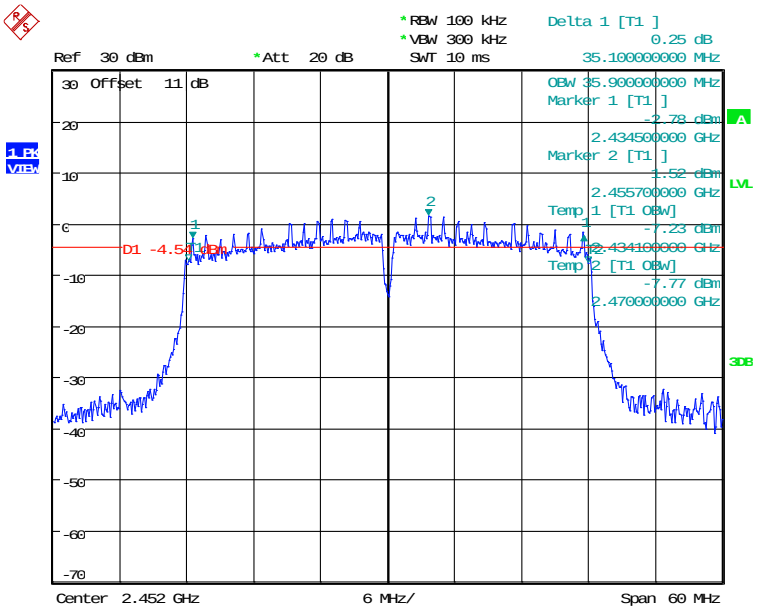


6DB BANDWIDTH 802.11N 40MHZ CH01
Date: 3.DEC.2023 08:50:32



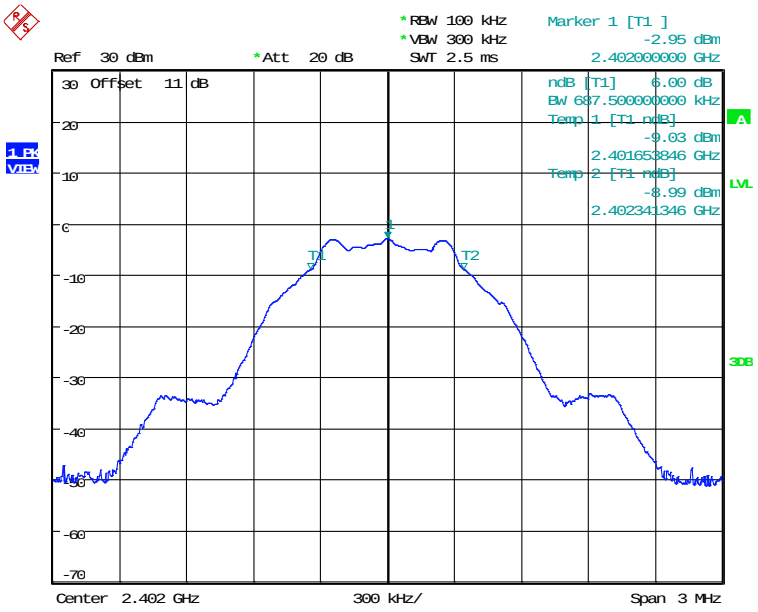
6DB BANDWIDTH 802.11N 40MHZ CH04
Date: 3.DEC.2023 08:51:08

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

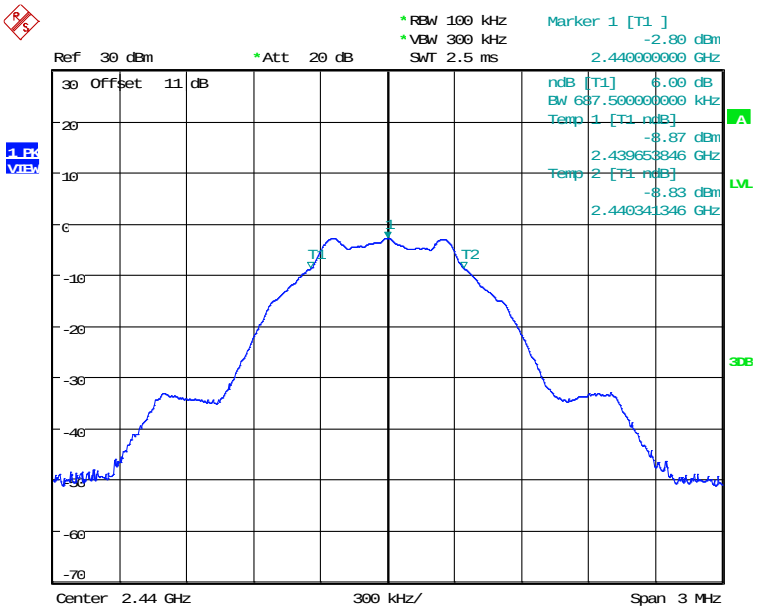


6DB BANDWIDTH 802.11N 40MHZ CH07
Date: 3.DEC.2023 08:51:41

Low energy

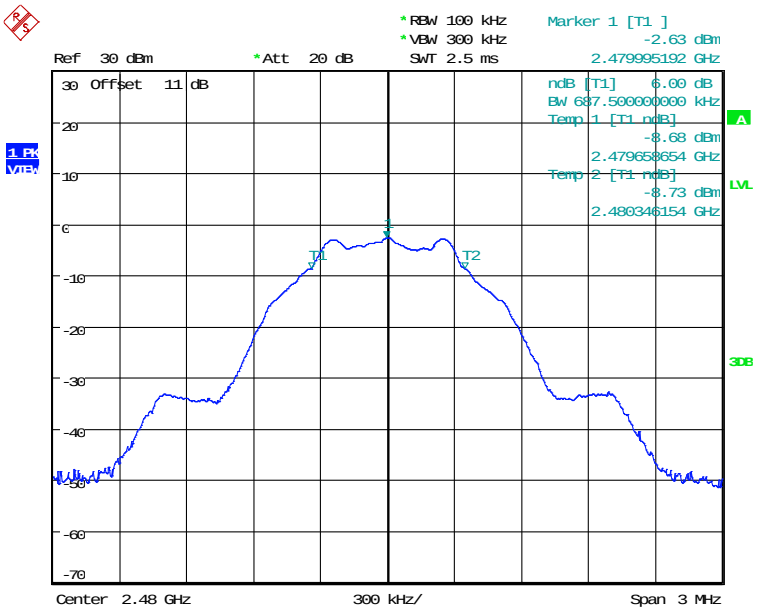


6DB BANDWIDTH BLE 1M CH00
Date: 1.DEC.2023 19:26:47



6DB BANDWIDTH BLE 1M CH19

Date: 1.DEC.2023 19:27:29



6DB BANDWIDTH BLE 1M CH39

Date: 1.DEC.2023 19:28:09

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

Limits:

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

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

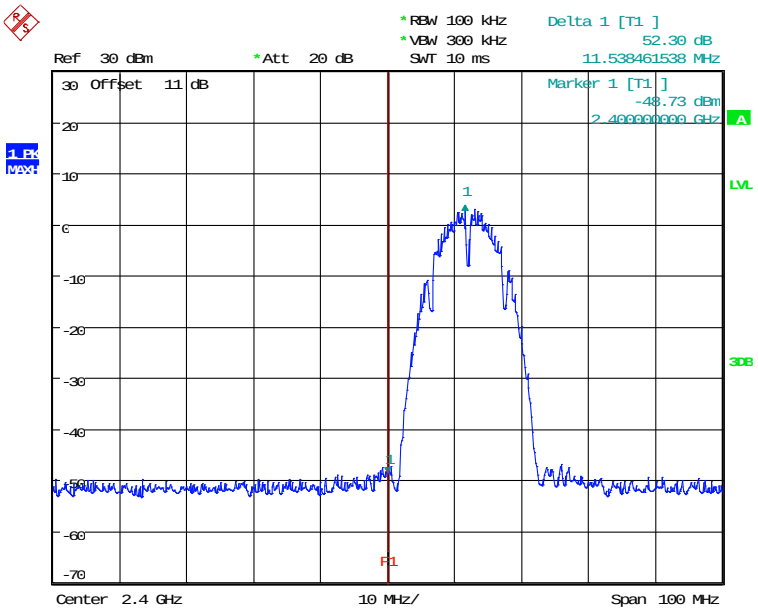
3.9 Radiated Emission on the band edge

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

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

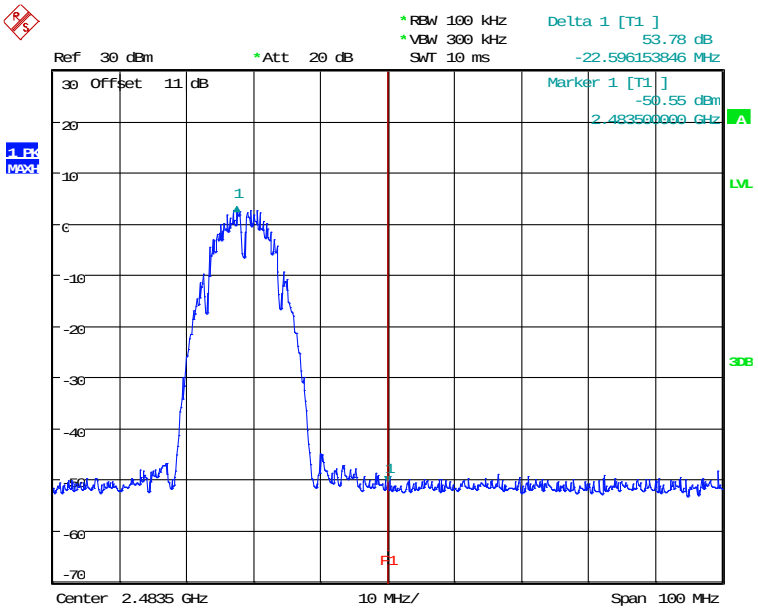
Test date: December 01, 2023- December 14, 2023
Temperature: 25.1 ˚C
Humidity: 54.6%
Tester: Sora

WLAN 2.4G
802.11b



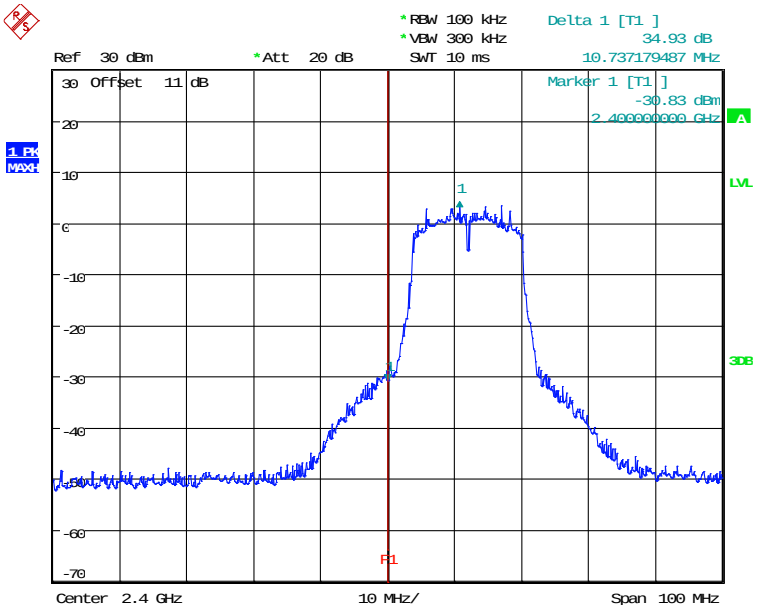
BANDEDGE 802.11B CH01
Date: 3.DEC.2023 08:45:00

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



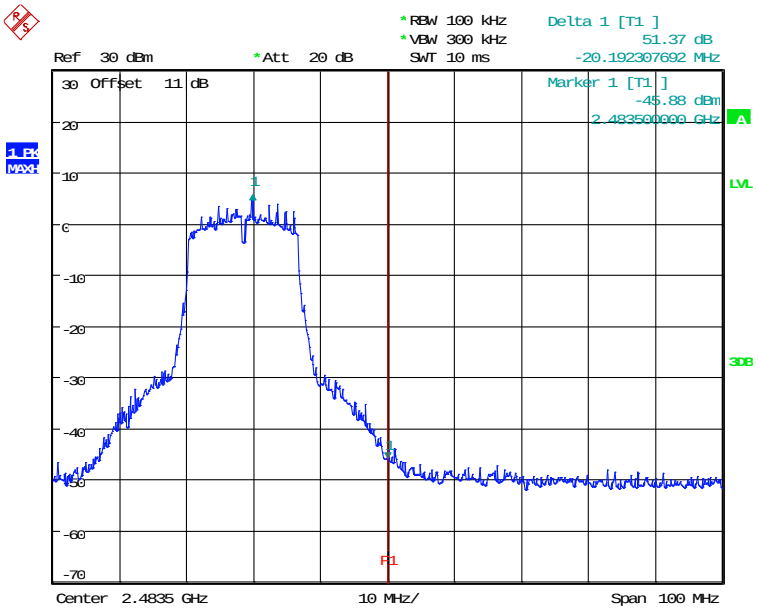
BANDEDGE 802.11B CH11
Date: 3.DEC.2023 08:46:21

802.11g



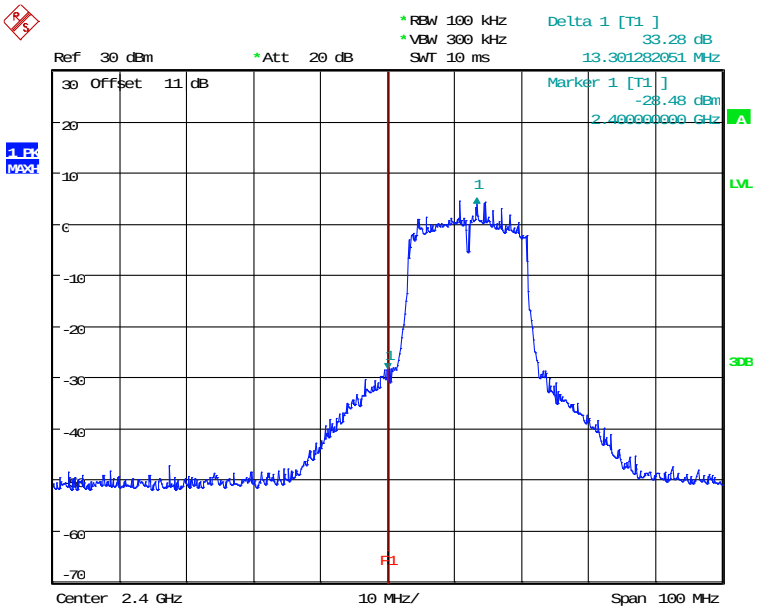
BANDEDGE 802.11G CH01
Date: 3.DEC.2023 08:47:01

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



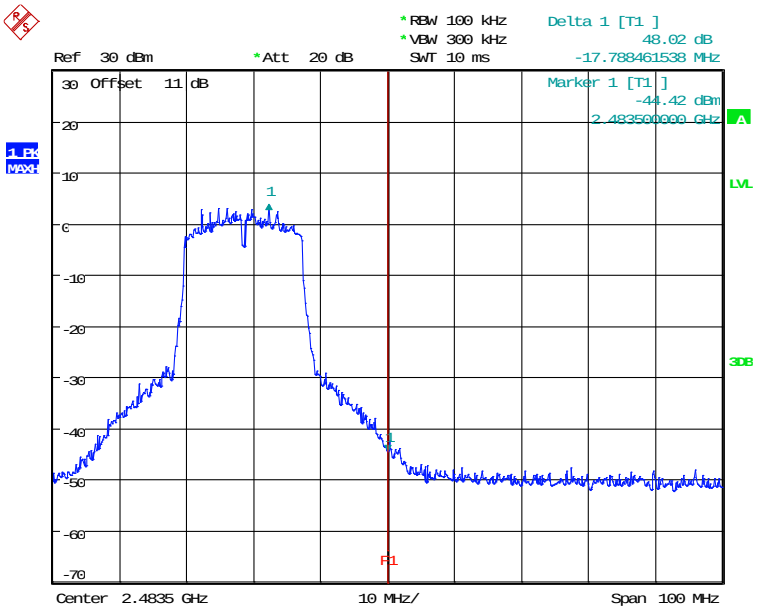
BANDEDGE 802.11G CH11
Date: 3.DEC.2023 08:48:08

802.11n 20MHz



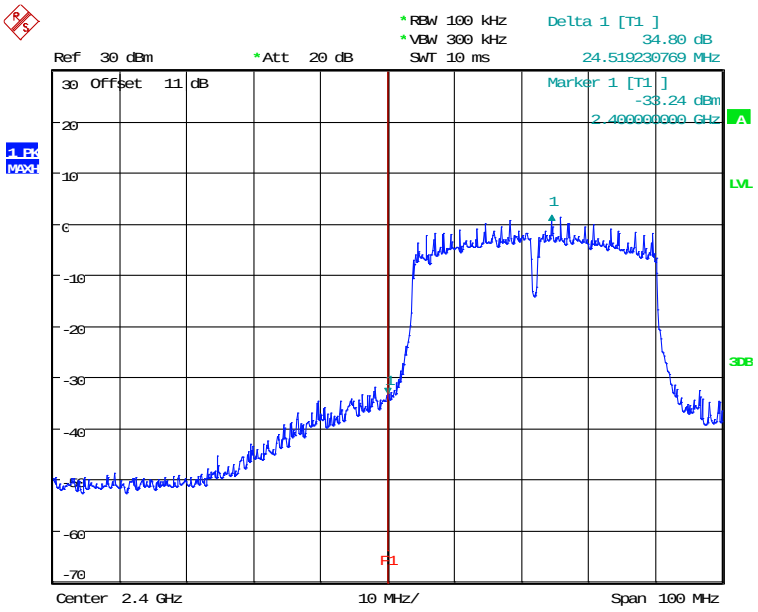
BANDEDGE 802.11N 20MHZ CH01
Date: 3.DEC.2023 08:48:46

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



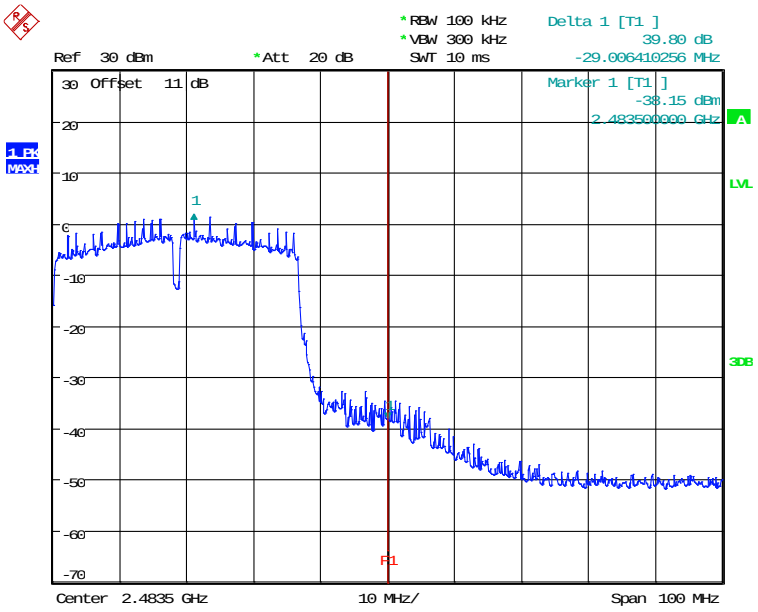
BANDEDGE 802.11N 20MHZ CH11
Date: 3.DEC.2023 08:49:53

802.11n 40MHz



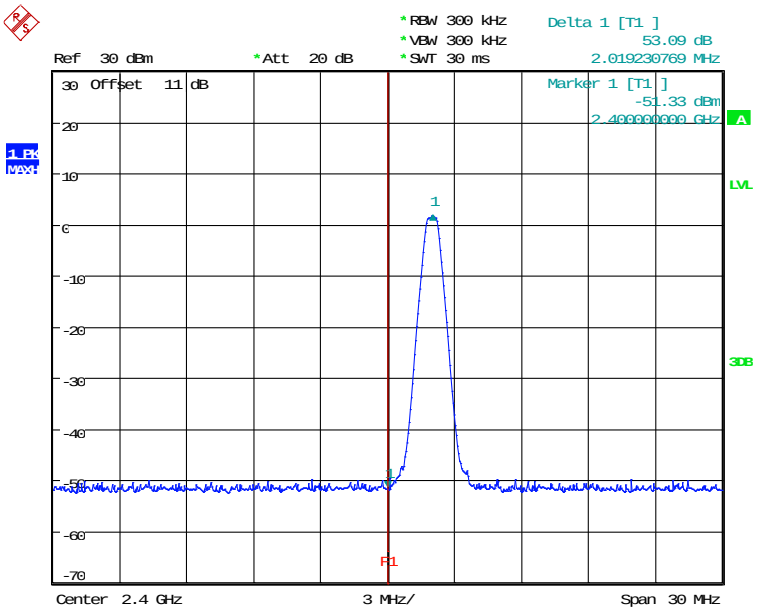
BANDEDGE 802.11N 40MHZ CH01
Date: 3.DEC.2023 08:50:47

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

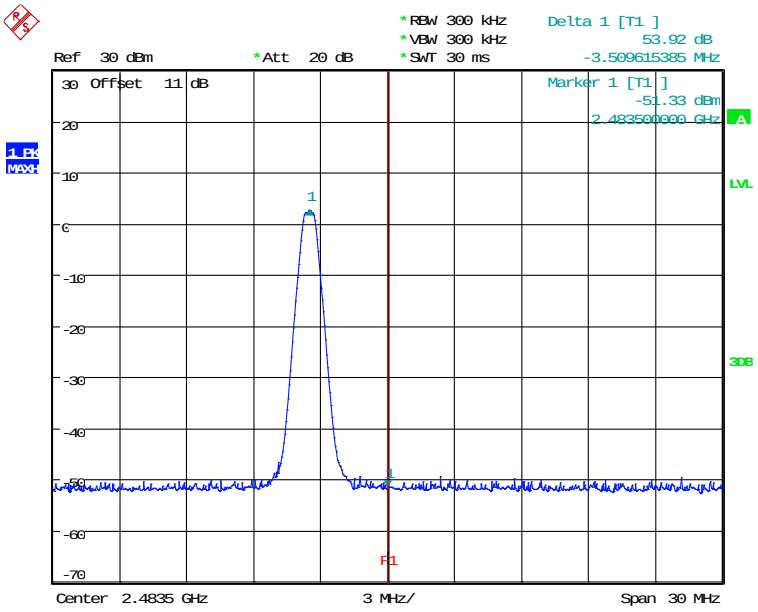


BANDEDGE 802.11N 40MHZ CH07
Date: 3.DEC.2023 08:51:56

Bluetooth
Normal

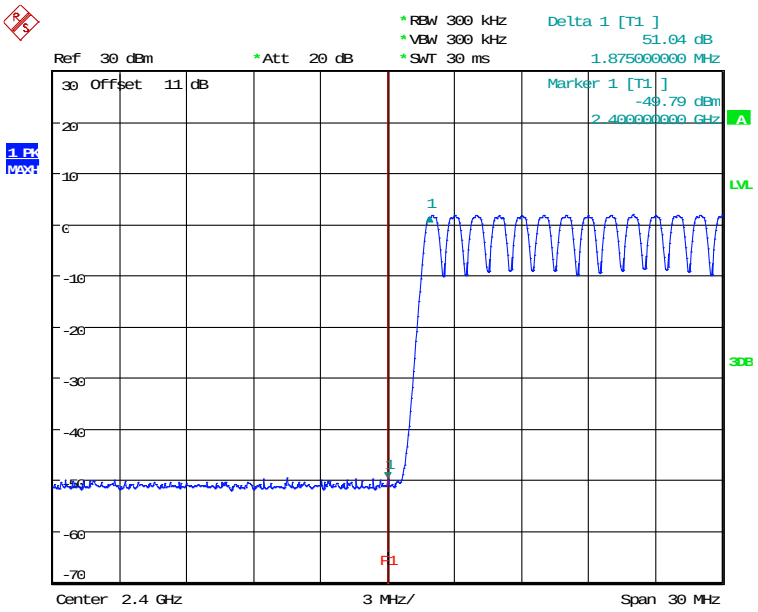


BANDEDGE CH0
Date: 8.DEC.2023 11:11:26



BANDEDGE CH78

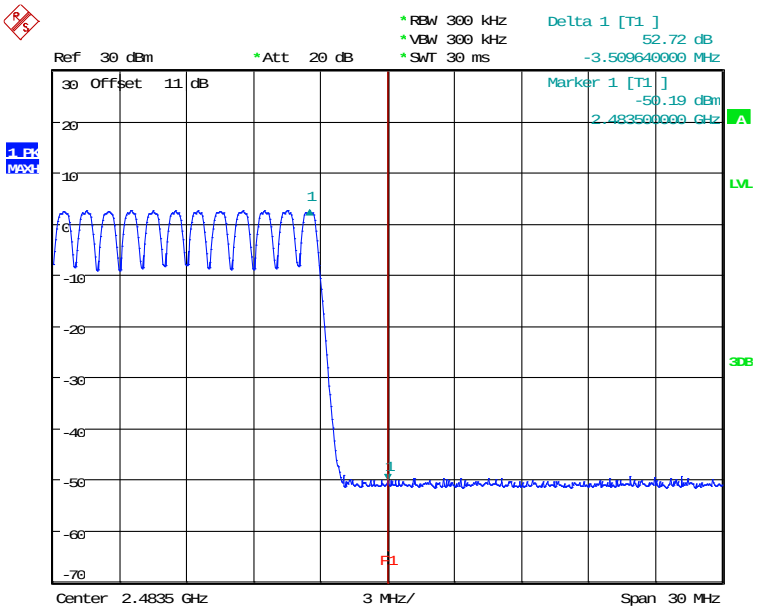
Date: 8.DEC.2023 11:12:30



BANDEDGE CH0 HOPPING MODE

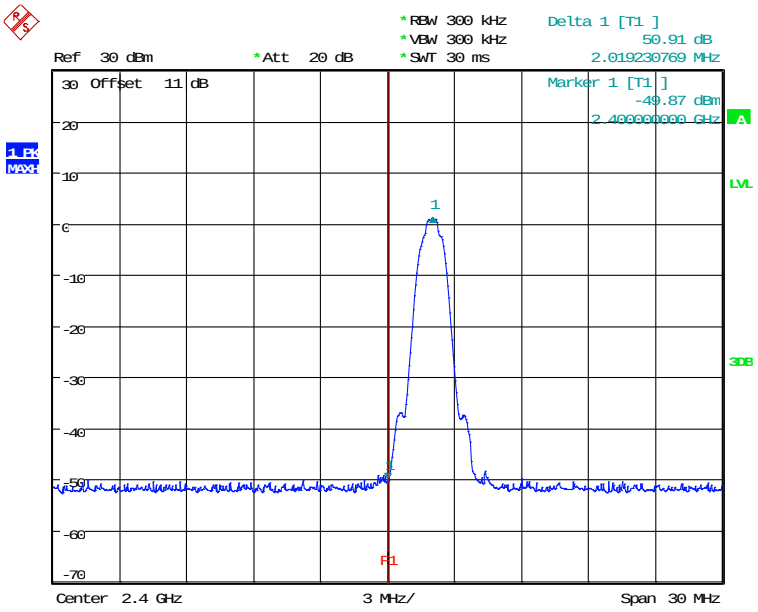
Date: 8.DEC.2023 11:13:26

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



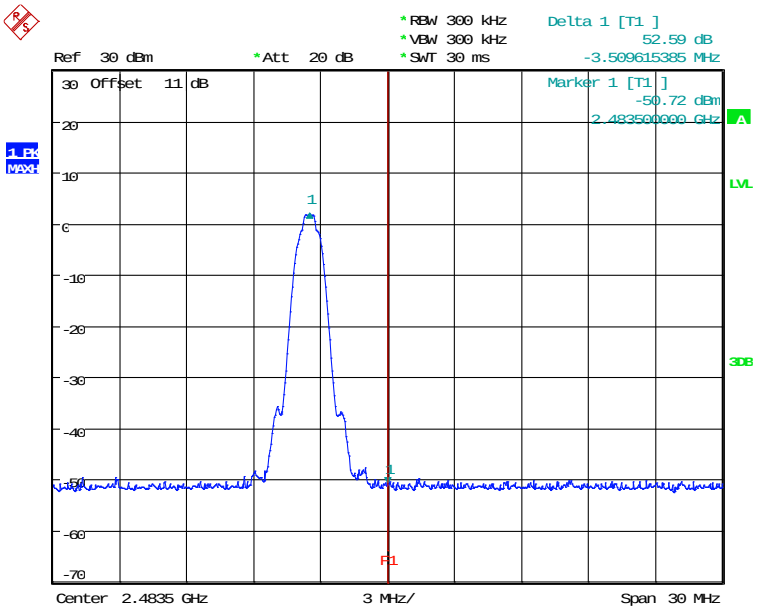
BANDEDGE CH78 HOPPING MODE
Date: 8.DEC.2023 11:14:14

EDR

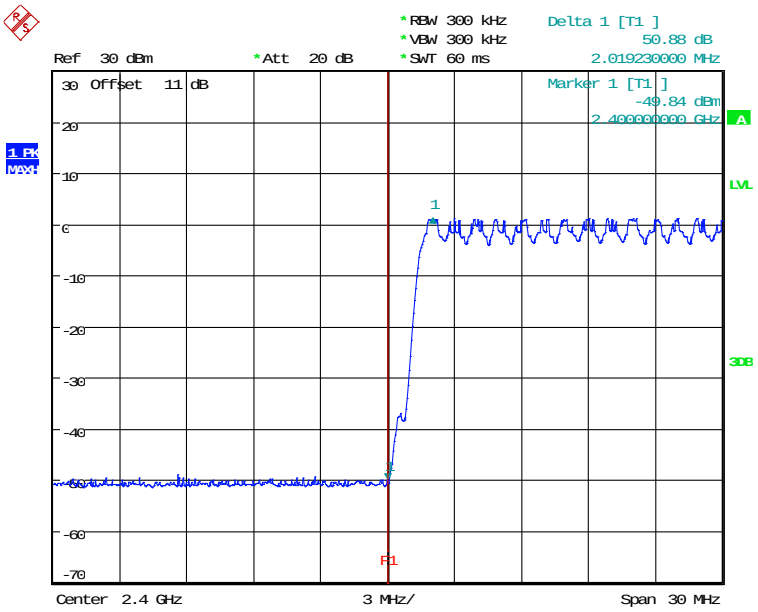


BANDEDGE CH0 EDR MODE
Date: 8.DEC.2023 11:19:54

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

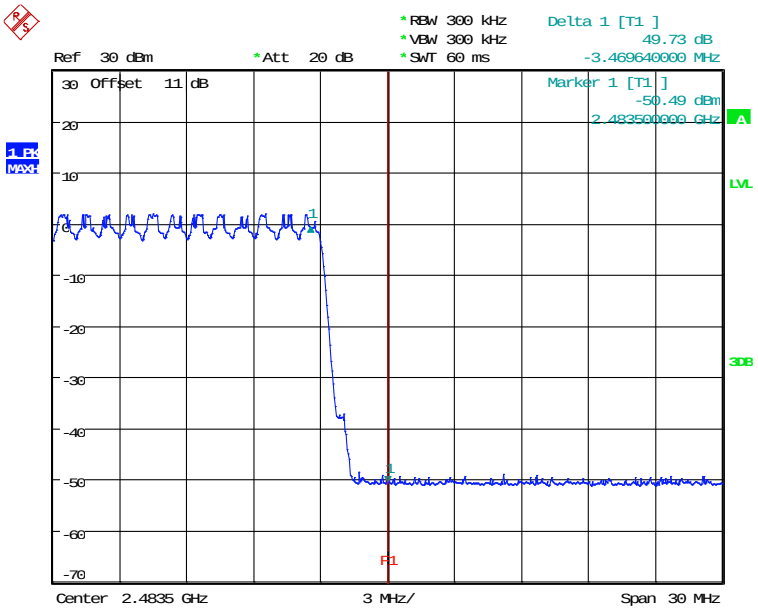


BANDEDGE CH78 EDR MODE
Date: 8.DEC.2023 11:21:26



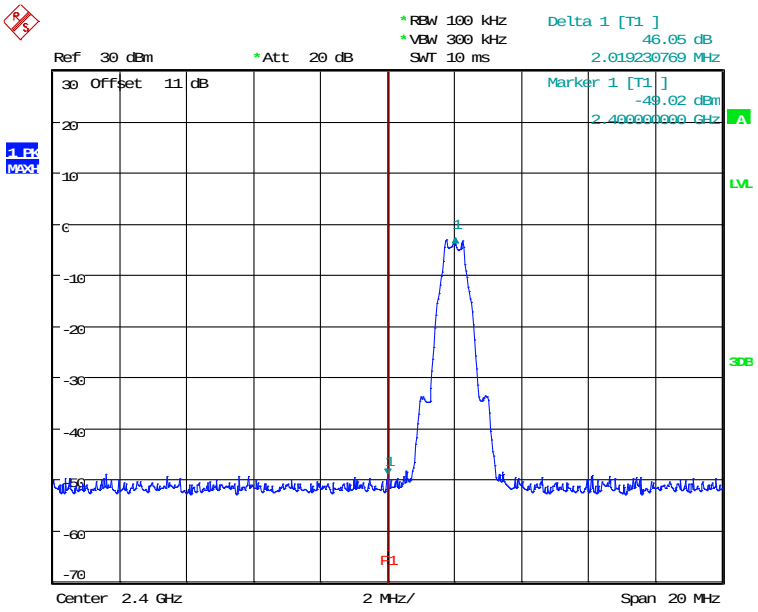
BANDEDGE CH0 EDR HOPPING MODE
Date: 8.DEC.2023 11:23:58

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



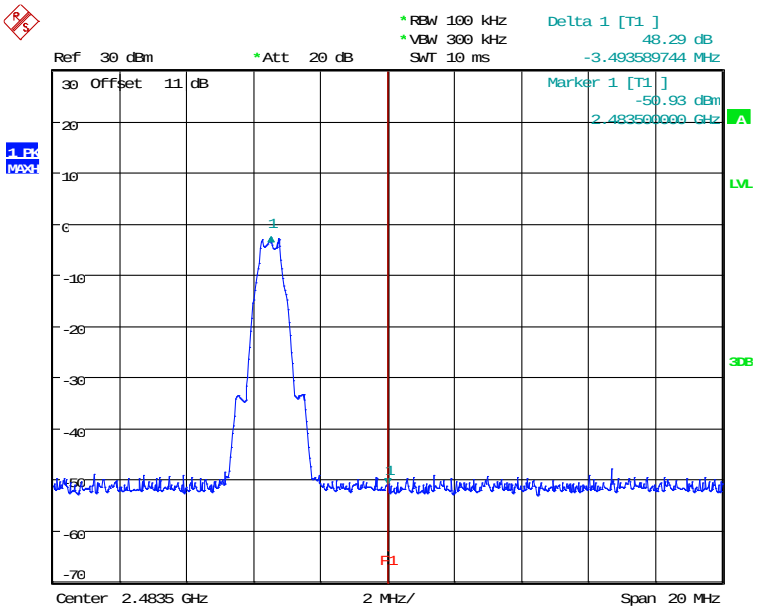
BANDEDGE CH78 EDR HOPPING MODE
Date: 8.DEC.2023 11:25:50

Low energy



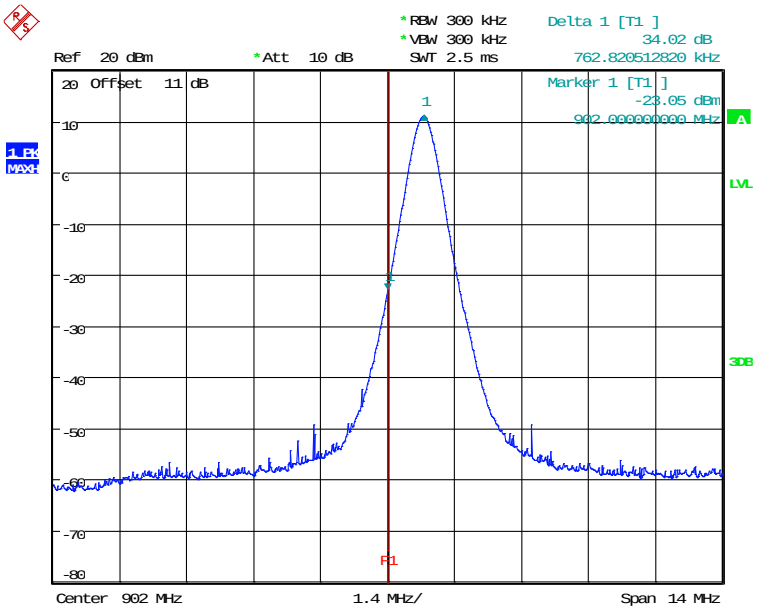
BANDEDGE BLE 1M CH00
Date: 1.DEC.2023 19:27:05

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



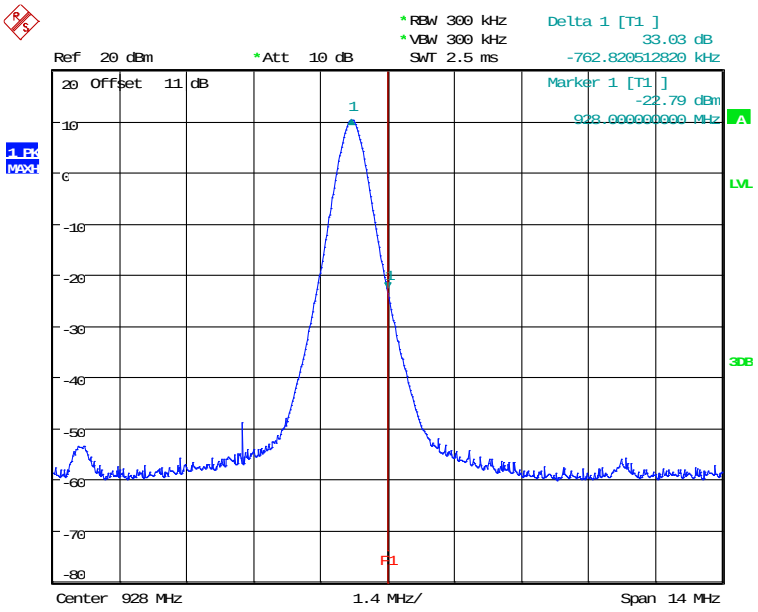
BANDEDGE BLE 1M CH39
Date: 1.DEC.2023 19:28:27

RFID



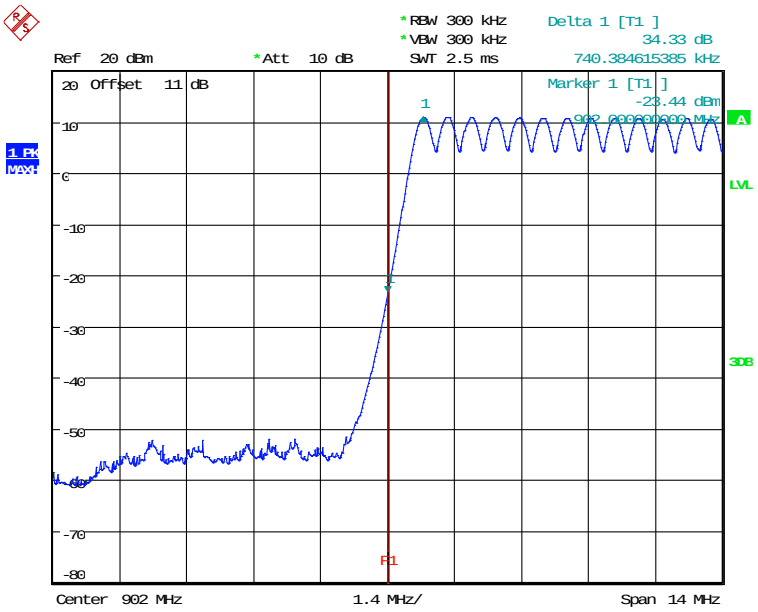
BANDEDGE 902.75MHz
Date: 14.DEC.2023 09:34:52

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



BANDEDGE 927.25MHz

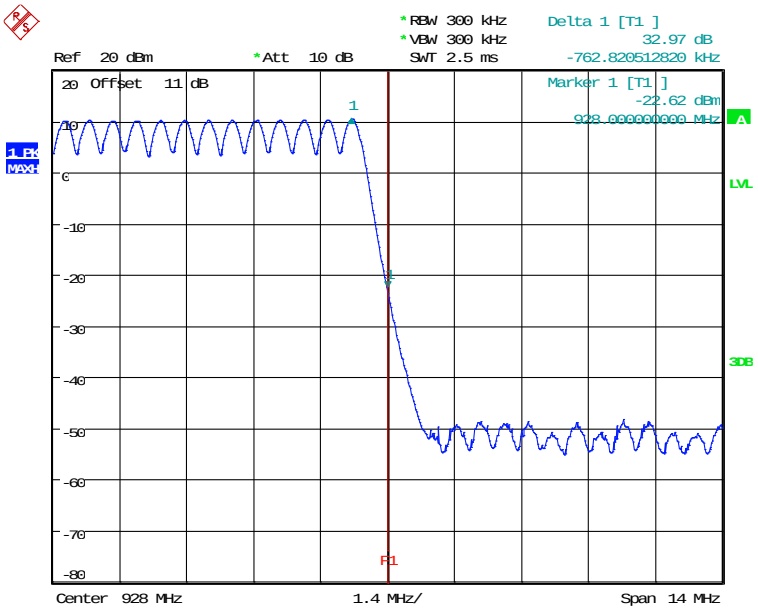
Date: 14.DEC.2023 09:35:55



BANDEDGE HOPPING MODE 902.75MHz

Date: 14.DEC.2023 09:37:28

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



BANDEDGE HOPPING MODE 927.25MHz
Date: 14.DEC.2023 09:36:48

Limit:

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

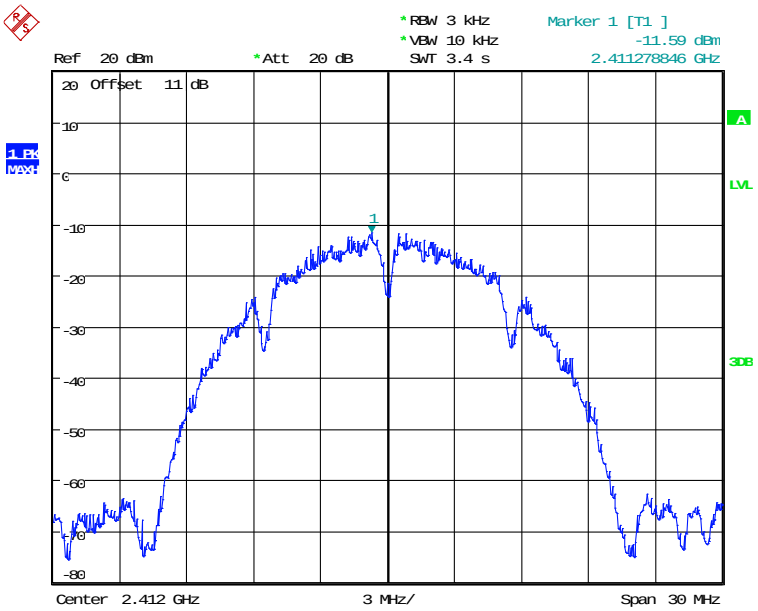
Test equipment used: ETSTW-RE 055, ETSTW-RE 050, ETSTW-RE 064

3.10 Peak Power Spectral Density

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

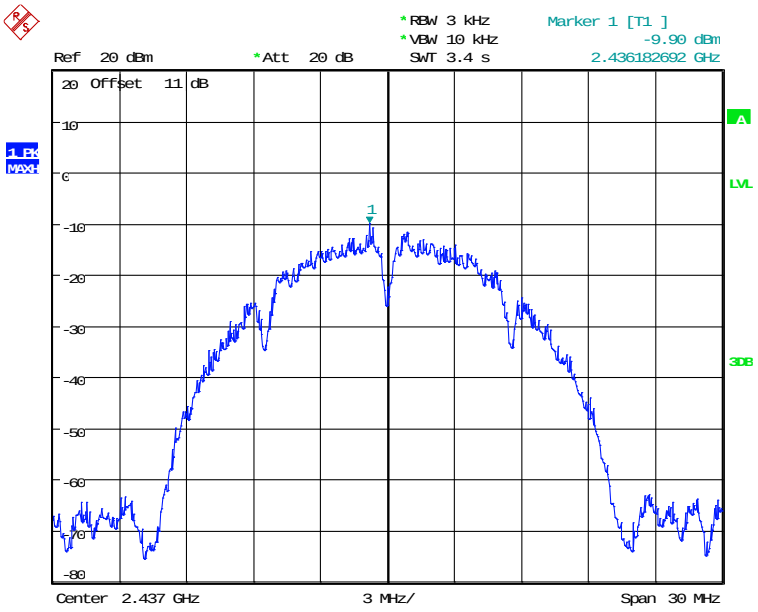
Test date: December 01, 2023- December 03, 2023
Temperature: 22.7 ˚C
Humidity: 58.1%
Tester: Sora

WLAN 2.4G
802.11b

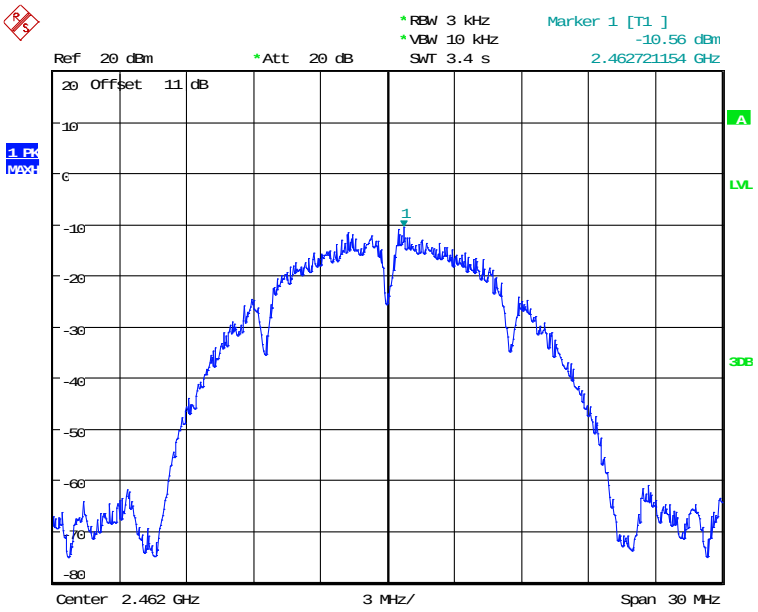


POWER DENSITY 802.11B CH01
Date: 3.DEC.2023 08:44:56

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



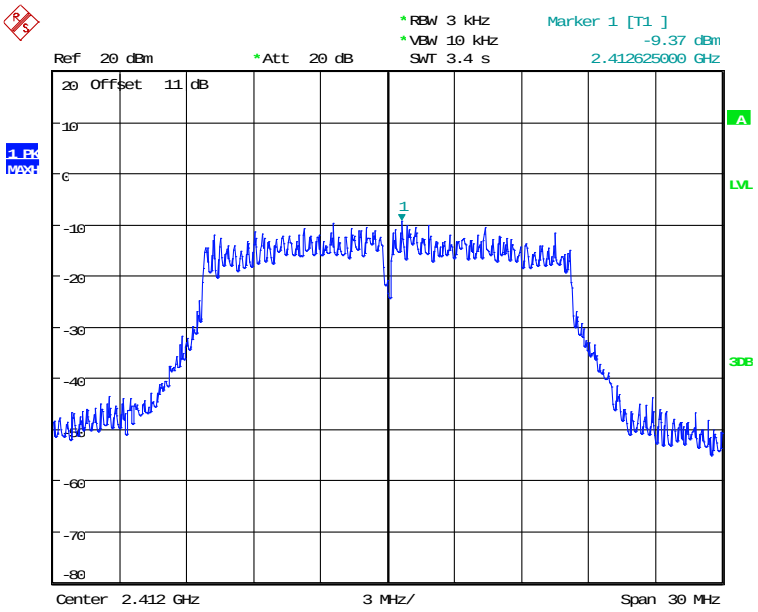
POWER DENSITY 802.11B CH06
Date: 3.DEC.2023 08:45:39



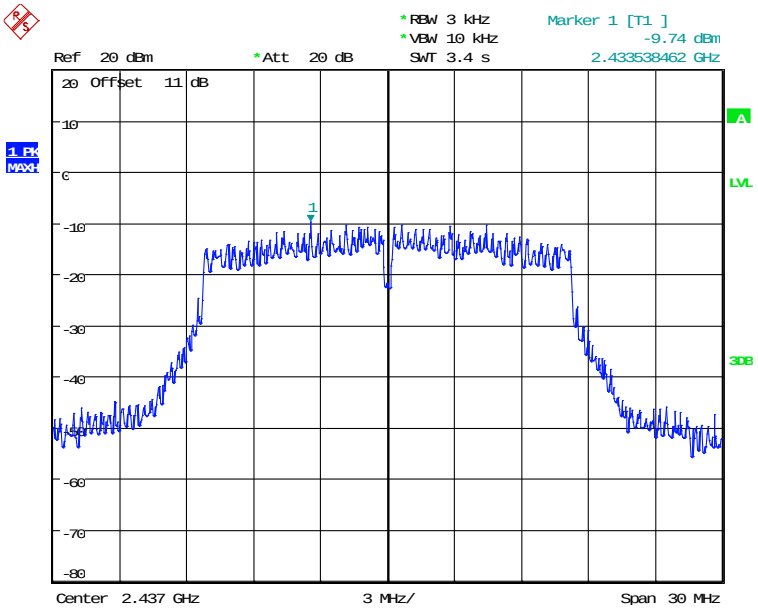
POWER DENSITY 802.11B CH11
Date: 3.DEC.2023 08:46:17

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

802.11g

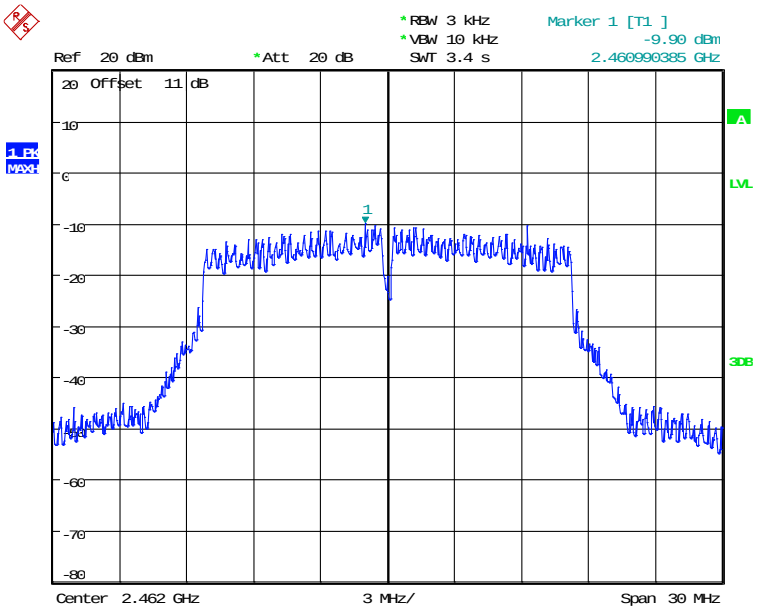


POWER DENSITY 802.11G CH01
Date: 3.DEC.2023 08:46:57



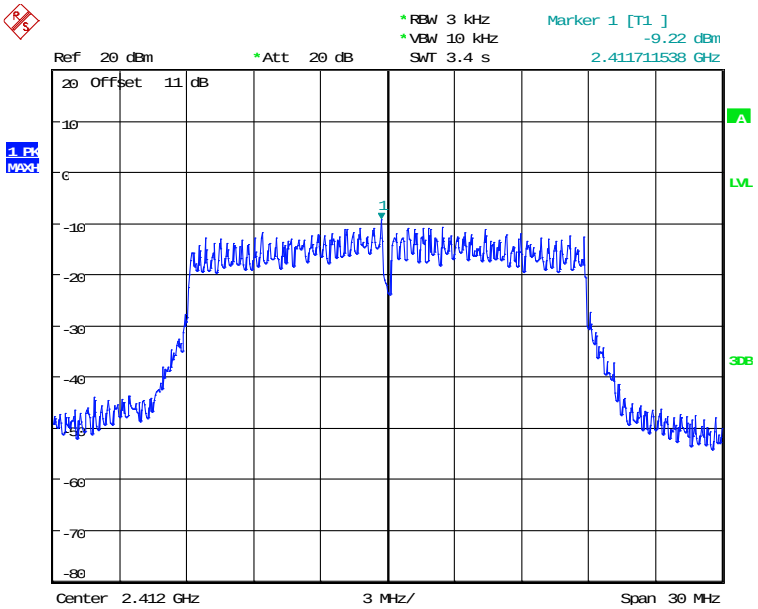
POWER DENSITY 802.11G CH06
Date: 3.DEC.2023 08:47:32

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



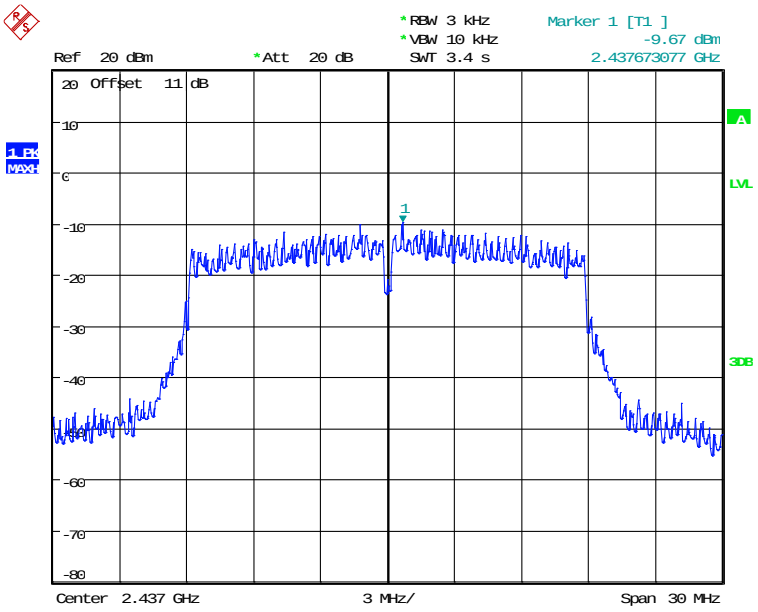
POWER DENSITY 802.11G CH11
Date: 3.DEC.2023 08:48:04

802.11n 20MHz

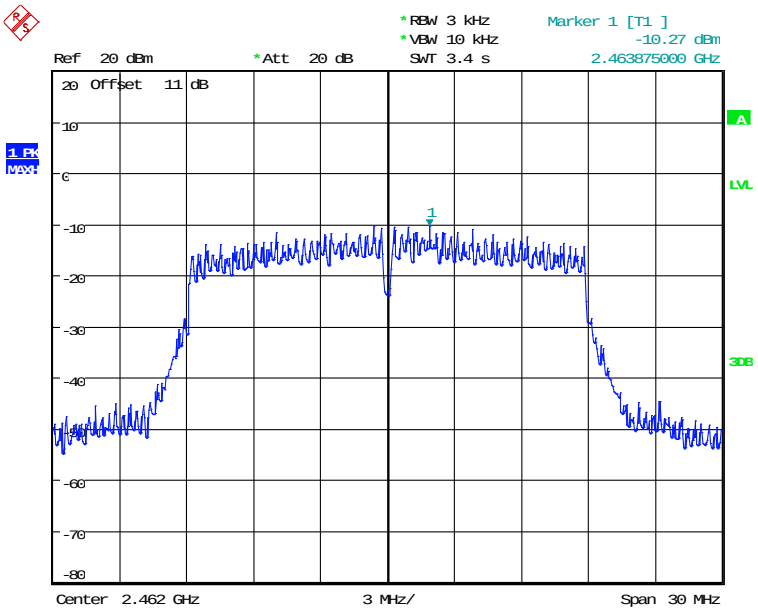


POWER DENSITY 802.11N 20MHZ CH01
Date: 3.DEC.2023 08:48:42

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



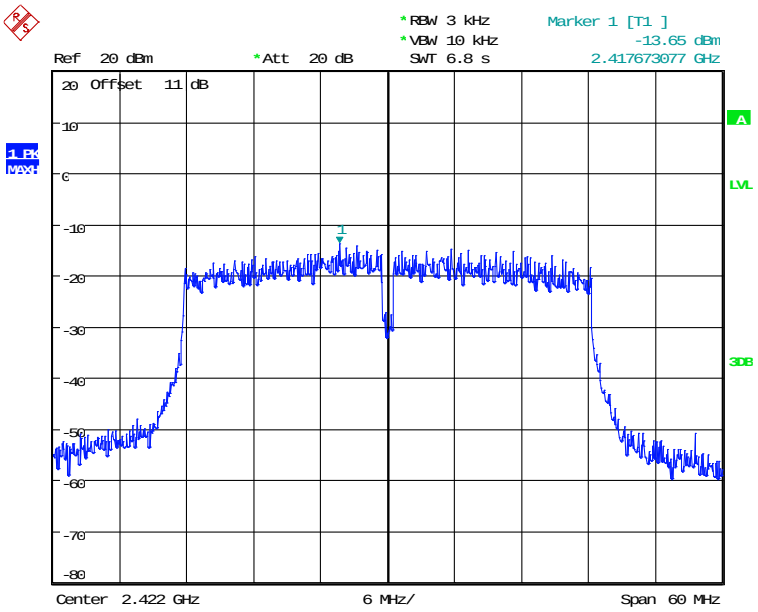
POWER DENSITY 802.11N 20MHZ CH06
Date: 3.DEC.2023 08:49:15



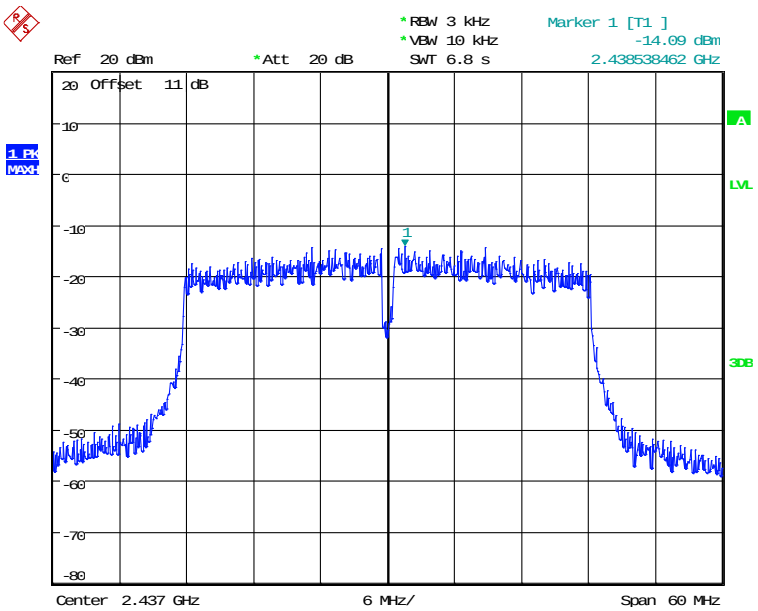
POWER DENSITY 802.11N 20MHZ CH11
Date: 3.DEC.2023 08:49:49

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

802.11n 40MHz

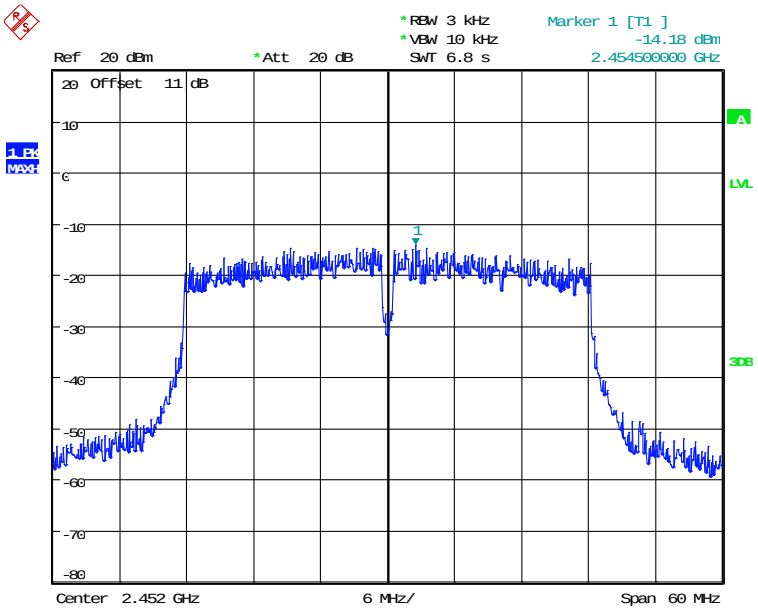


POWER DENSITY 802.11N 40MHZ CH01
Date: 3.DEC.2023 08:50:43



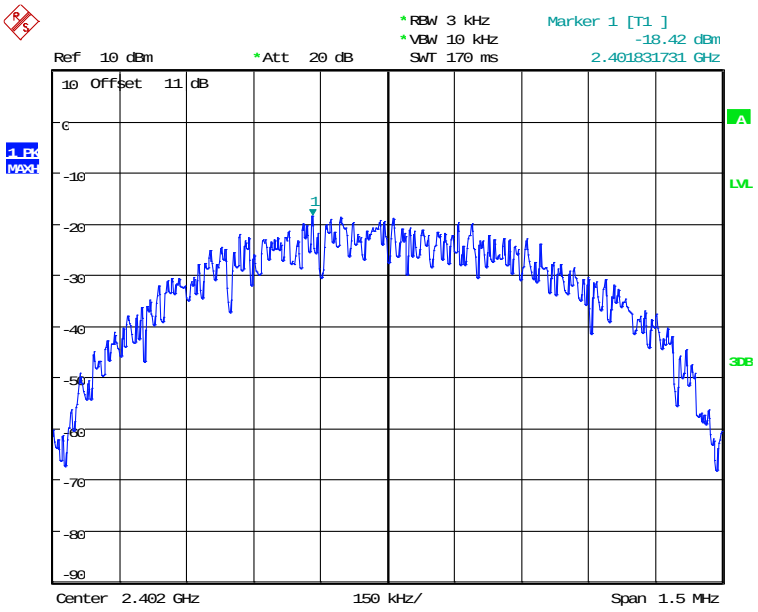
POWER DENSITY 802.11N 40MHZ CH04
Date: 3.DEC.2023 08:51:19

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



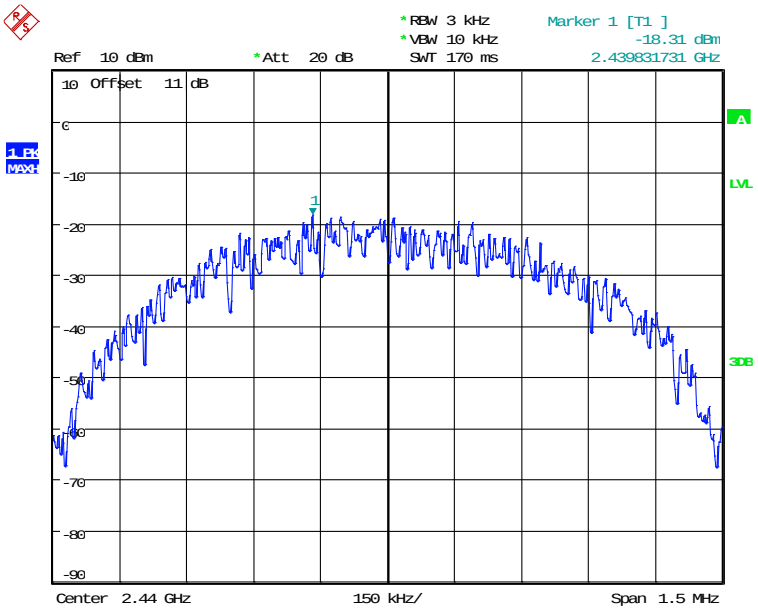
POWER DENSITY 802.11N 40MHZ CH07
Date: 3.DEC.2023 08:51:52

Low energy

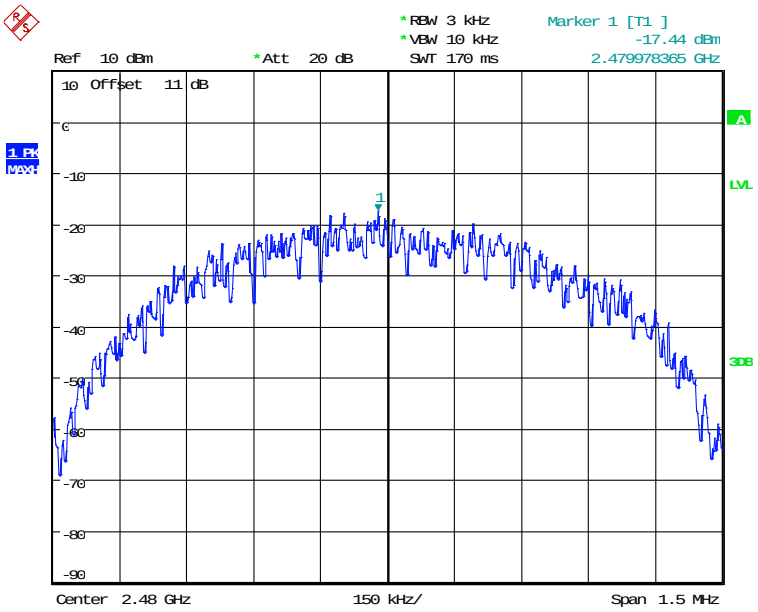


POWER DENSITY BLE 1M CH00
Date: 1.DEC.2023 19:26:57

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



POWER DENSITY BLE 1M CH19
Date: 1.DEC.2023 19:27:39



POWER DENSITY BLE 1M CH39
Date: 1.DEC.2023 19:28:19

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

Limits:

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

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

3.11 Radiated Emission from Digital Part

FCC Rule: 15.109

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

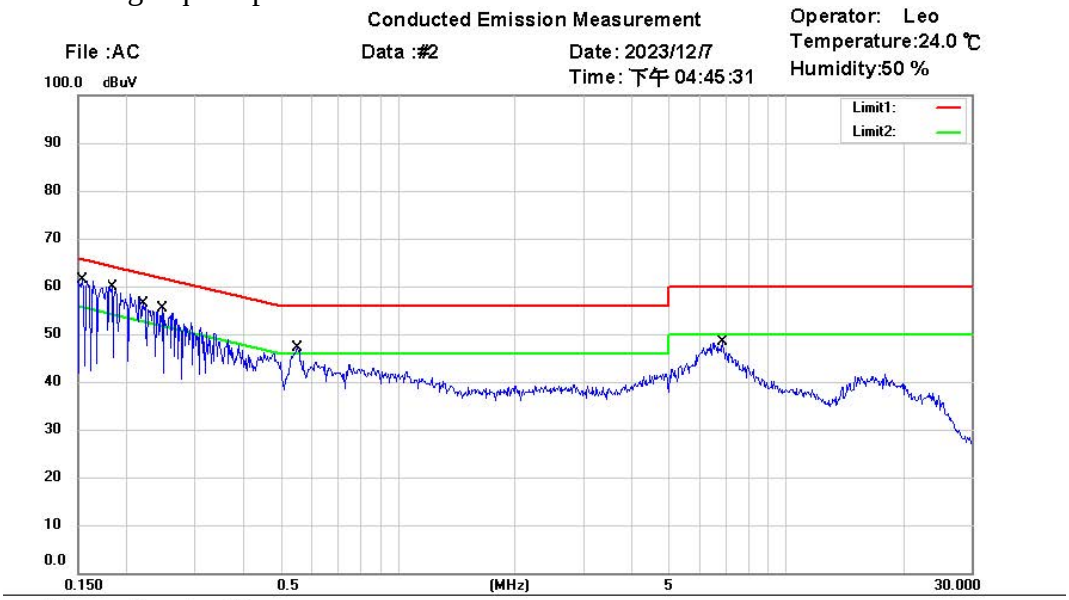
Frequency of Emission (MHz)	Field Strength (microvolts/meter)	Field Strength (dBmicrovolts/meter)
30 – 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.0
Above 960	500	54.0

Test equipment used: ETSTW-RE 030, ETSTW-RE 055, ETSTW-RE 064, ETSTW-RE 111

Explanation: Please refer to separated test report no.: W6M22311-23090-P-15B.

3.12 Power Line Conducted Emission

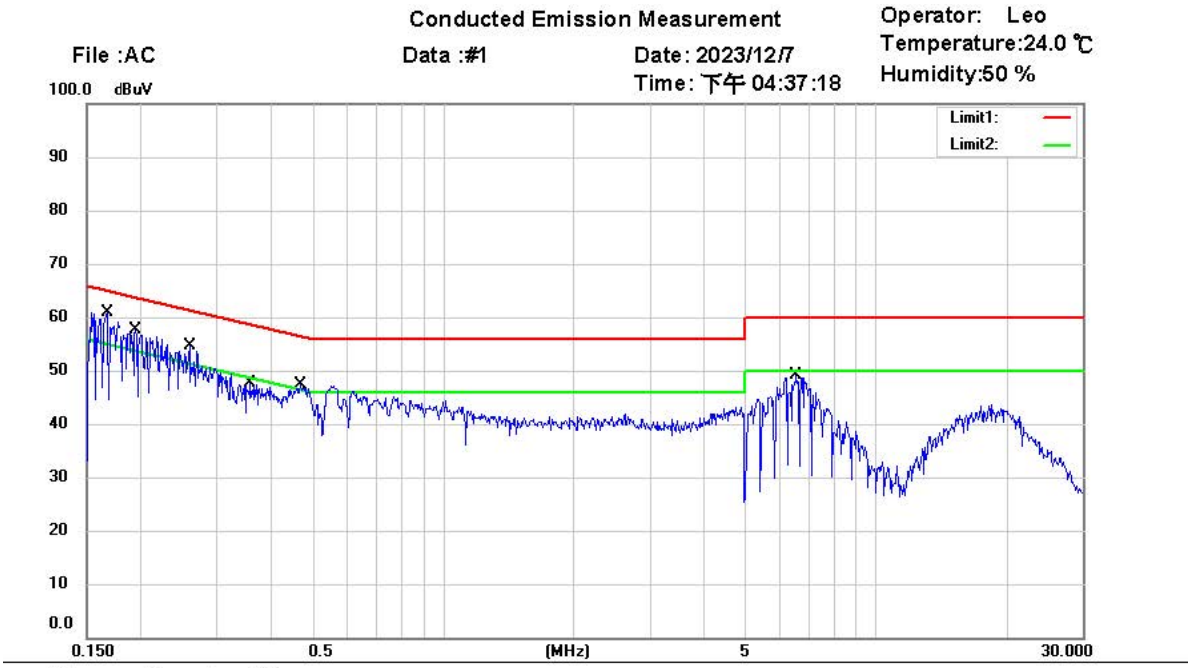
For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.
This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.



Site : Chamber_03
Condition : FCC Part 15 Class B Conduction (QP)
Phase: N
EUT : W6M22311-23090
Power : 120Va.c.
M/N:
Test Mode :
Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1528	39.51	QP	9.72	49.23	65.85	-16.62	
	0.1528	22.55	AVG	9.72	32.27	55.85	-23.58	
	0.1838	36.68	QP	9.71	46.39	64.31	-17.92	
	0.1838	22.88	AVG	9.71	32.59	54.31	-21.72	
	0.2216	33.35	QP	9.71	43.06	62.76	-19.70	
	0.2216	13.69	AVG	9.71	23.40	52.76	-29.36	
	0.2477	32.43	QP	9.71	42.14	61.83	-19.69	
	0.2477	17.27	AVG	9.71	26.98	51.83	-24.85	
	0.5517	32.35	QP	9.70	42.05	56.00	-13.95	
*	0.5517	25.39	AVG	9.70	35.09	46.00	-10.91	
	6.8625	30.84	QP	9.80	40.64	60.00	-19.36	
	6.8625	20.97	AVG	9.80	30.77	50.00	-19.23	

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID



Site : Chamber_03
Condition : FCC Part 15 Class B Conduction (QP) Phase: L1
EUT : W6M22311-23090 Power : 120Va.c.
M/N:
Test Mode :
Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1661	37.69	QP	9.73	47.42	65.15	-17.73	
	0.1661	15.47	AVG	9.73	25.20	55.15	-29.95	
	0.1948	35.52	QP	9.72	45.24	63.83	-18.59	
	0.1948	14.35	AVG	9.72	24.07	53.83	-29.76	
	0.2596	32.49	QP	9.71	42.20	61.44	-19.24	
	0.2596	13.99	AVG	9.71	23.70	51.44	-27.74	
	0.3582	29.78	QP	9.70	39.48	58.77	-19.29	
	0.3582	12.34	AVG	9.70	22.04	48.77	-26.73	
*	0.4685	31.48	QP	9.69	41.17	56.54	-15.37	
	0.4685	13.03	AVG	9.69	22.72	46.54	-23.82	
	6.5500	31.37	QP	9.78	41.15	60.00	-18.85	
	6.5500	16.31	AVG	9.78	26.09	50.00	-23.91	

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. **Up Line: QP Limit Line, Down Line: Ave Limit Line.**

Registration number: W6M22311-23090-C-2
FCC ID: 2ANR7-VT67RFID

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-Cable 045, ETSTW-Cable 047

Appendix

Measurement diagrams

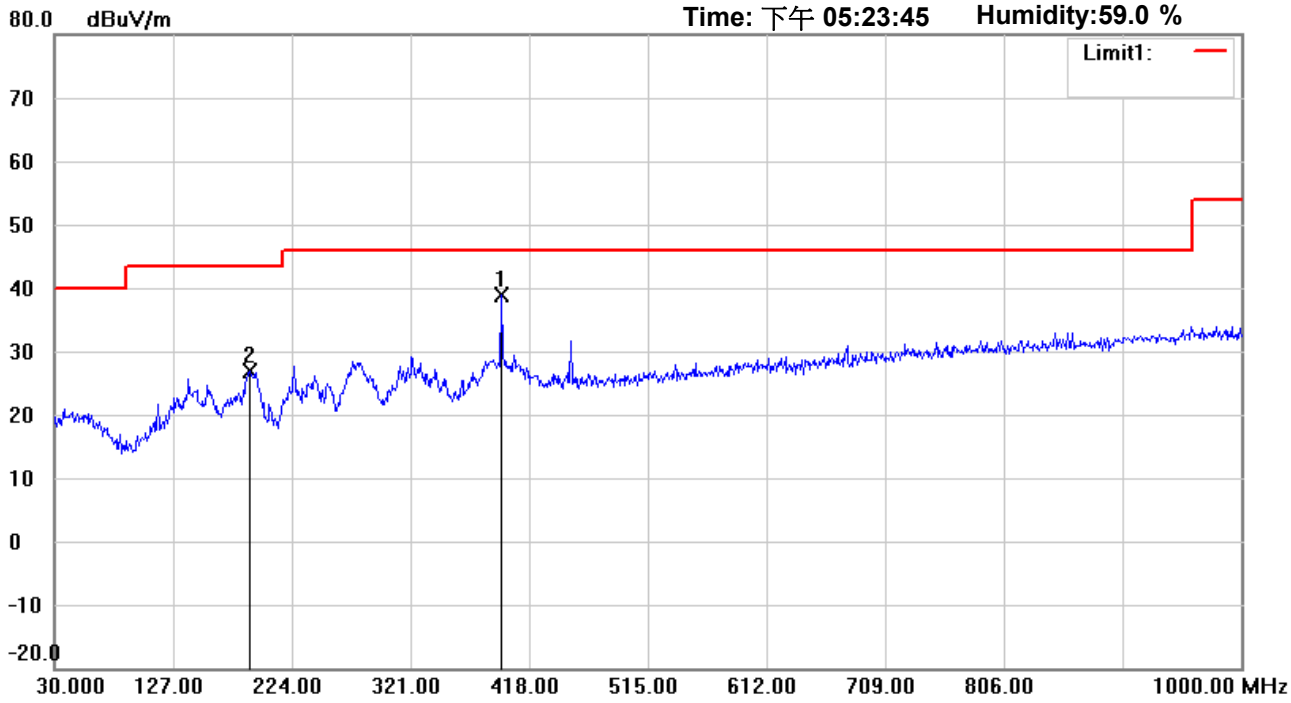
Spurious Emissions radiated

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

Radiated Emission Measurement

Operator: Kai

File :1_WiFi 2 | Data :#1 | Date: 2023/11/29 | Time: 下午 05:23:45 | Temperature:23.4 ℃ | Humidity:59.0 %



Site : Chamber
Condition : FCC_part 15 RE-Class C_30-1000MHz
EUT : W6M22311-23090
M/N:
Test Mode : TX 802.11b CH1
Note :

Polarization: *Horizontal*
Power : 120 Va.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
*	395.6900	47.60	peak	-8.84	38.76	46.00	100	198	-7.24	
	190.0500	40.94	peak	-14.04	26.90	43.50	100	96	-16.60	

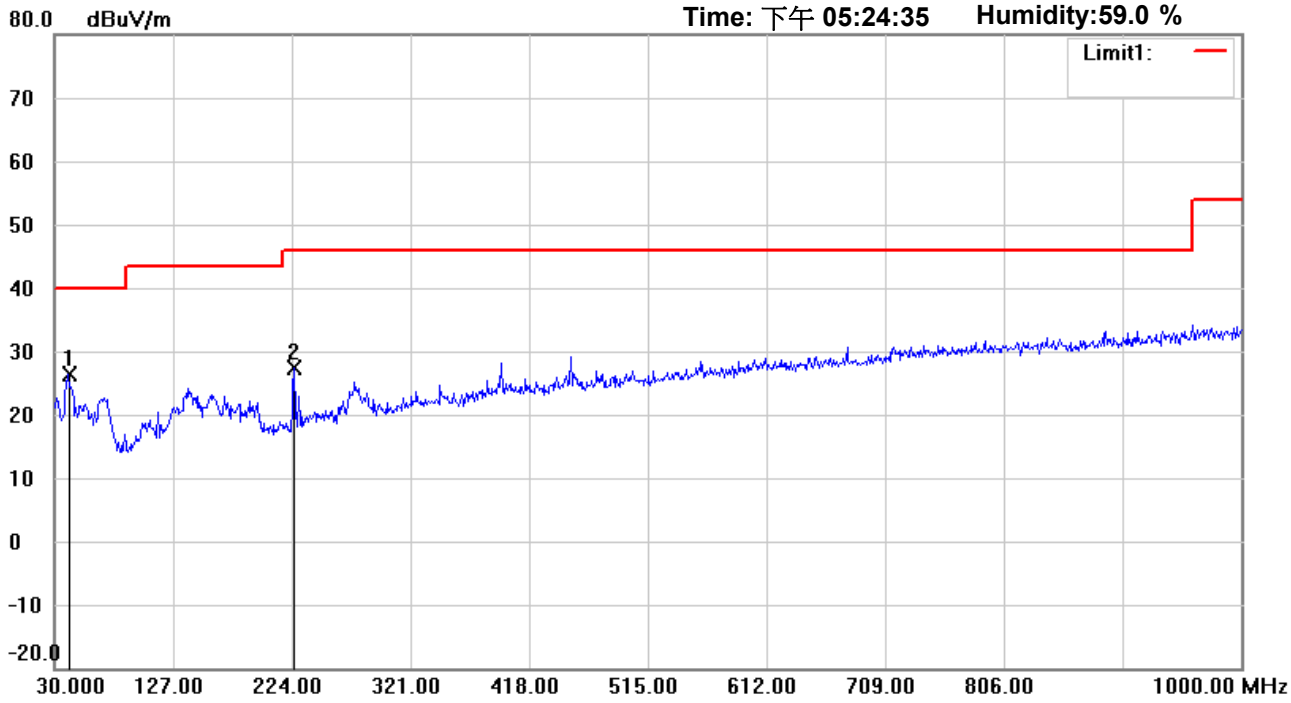
*:Maximum data x:Over limit !:over margin

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

Radiated Emission Measurement

Operator: Kai

File :1_WiFi 2 | Data :#2 | Date: 2023/11/29 | Time: 下午 05:24:35 | Temperature:23.4 ℃ | Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

Polarization: *Vertical*

EUT : W6M22311-23090

Power : 120 Va.c.

M/N:

Distance: 3m

Test Mode : TX 802.11b CH1

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
*	41.1550	39.03	peak	-12.64	26.39	40.00	100	355	-13.61	
	225.9400	41.58	peak	-14.13	27.45	46.00	100	102	-18.55	

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

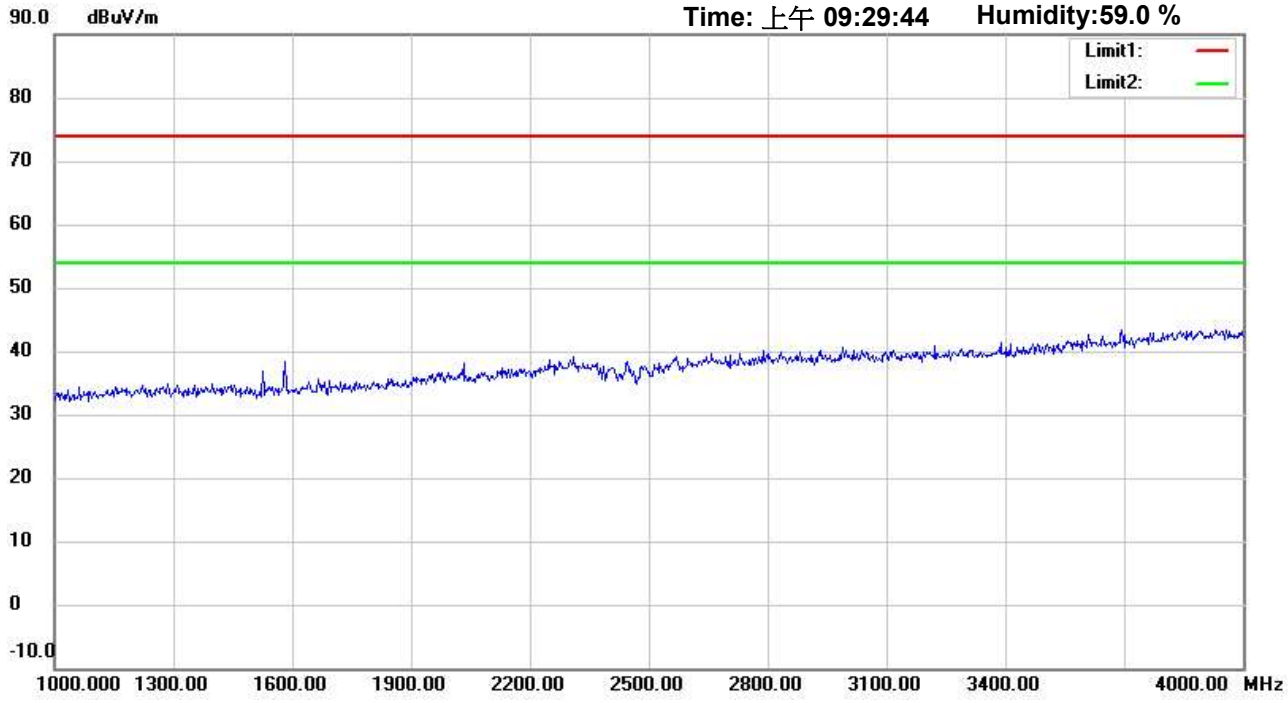
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#1 Date: 2023/11/29 Time: 上午 09:29:44

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22311-23090

M/N:

Test Mode : TX 802.11b CH1

Note :

Polarization: *Horizontal*

Power : 120 Va.c.

Distance: 3m

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

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

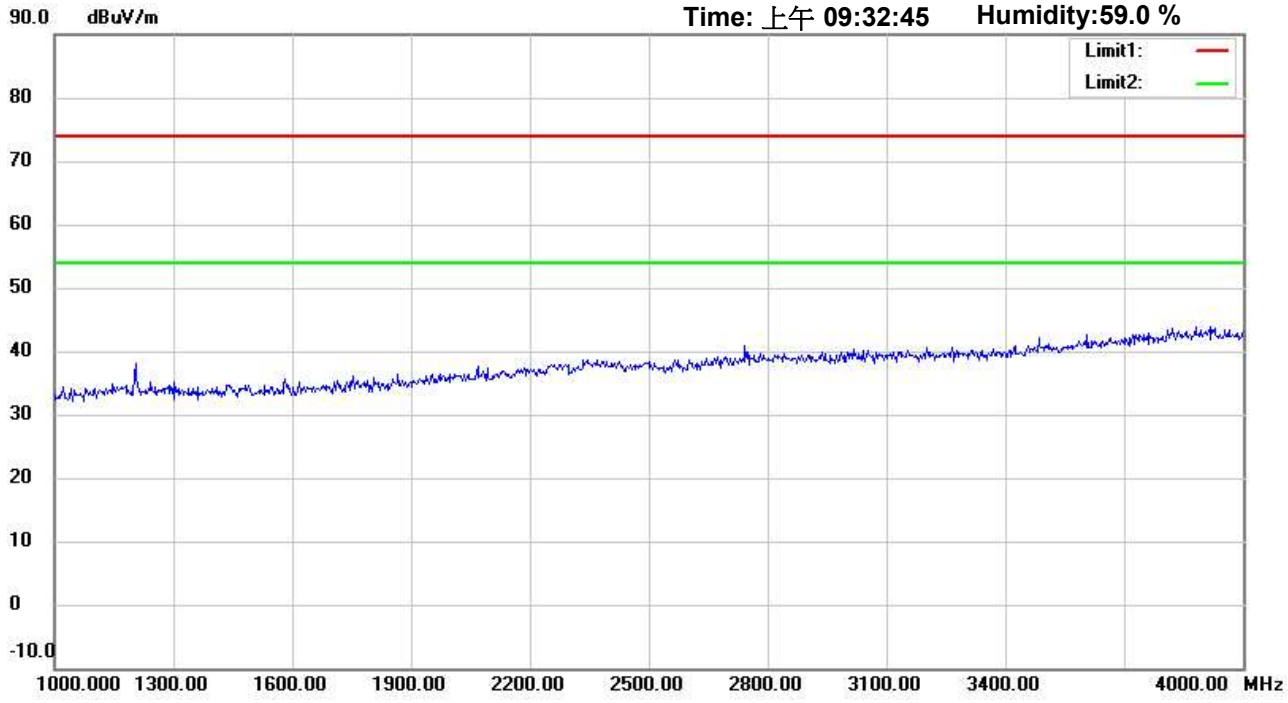
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#6 Date: 2023/11/29 Temperature:23.4 ℃

Time: 上午 09:32:45 Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M22311-23090

Power : 120 Va.c.

M/N:

Distance: 3m

Test Mode : TX 802.11b CH1

Note :

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

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

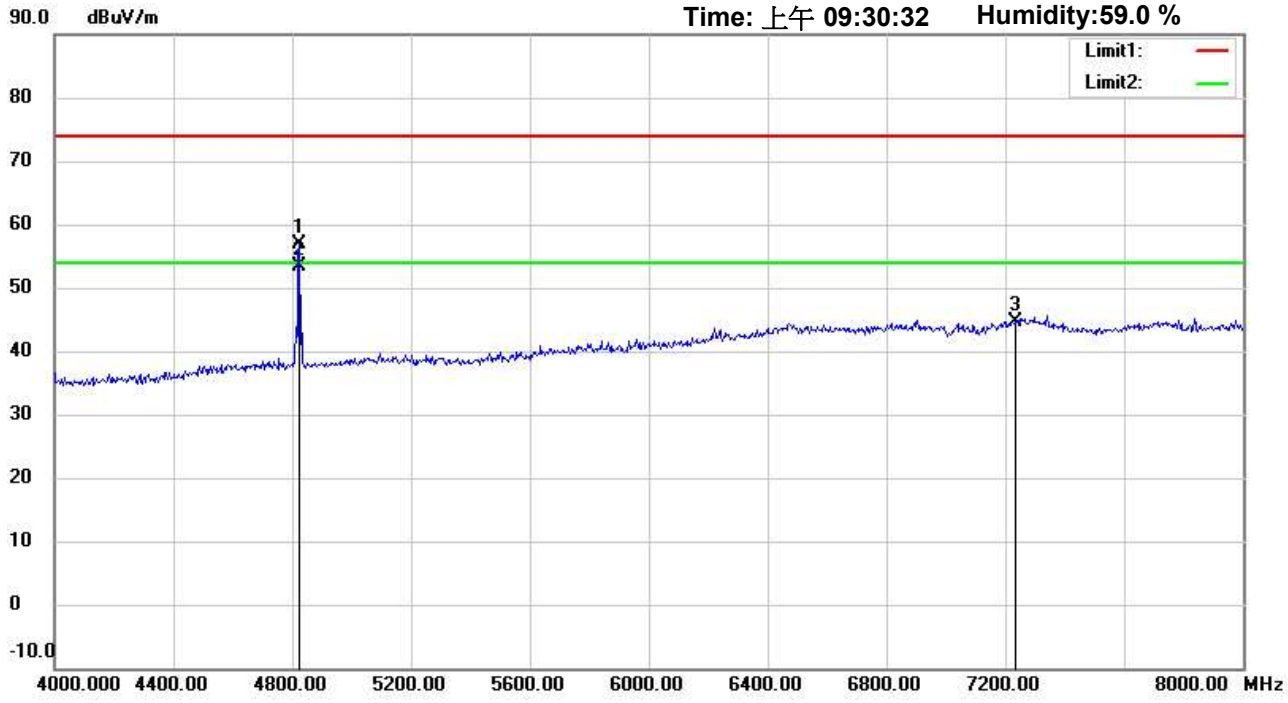
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#2 Date: 2023/11/29 Time: 上午 09:30:32

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22311-23090

M/N:

Test Mode : TX 802.11b CH1

Note :

Polarization: *Horizontal*

Power : 120 Va.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
	4824.000	51.82	peak	5.08	56.90	74.00	150	38	-17.10	
*	4824.000	48.41	AVG	5.08	53.49	54.00	150	38	-0.51	
	7236.000	33.19	peak	11.50	44.69	74.00	150	26	-29.31	

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

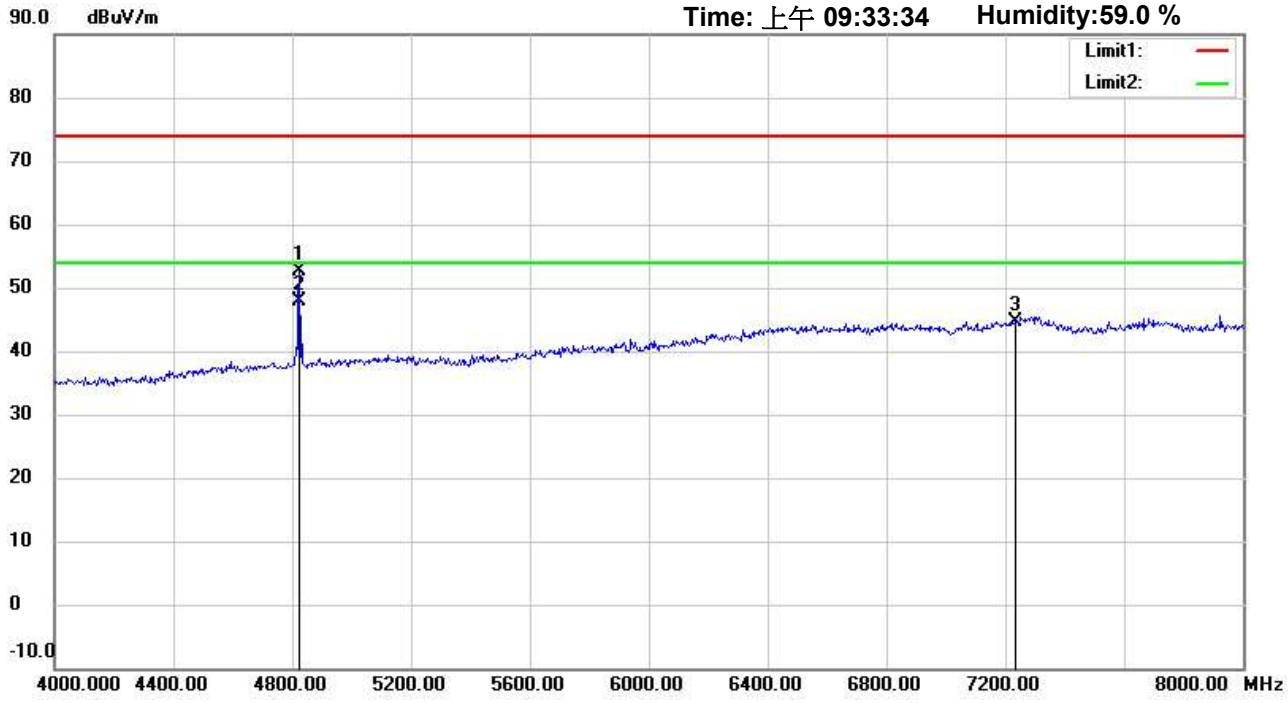
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#7 Date: 2023/11/29 Time: 上午 09:33:34

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22311-23090

M/N:

Test Mode : TX 802.11b CH1

Note :

Polarization: *Vertical*

Power : 120 Va.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
	4824.000	47.51	peak	5.08	52.59	74.00	150	112	-21.41	
*	4824.000	42.84	AVG	5.08	47.92	54.00	150	112	-6.08	
	7236.000	33.14	peak	11.50	44.64	74.00	150	321	-29.36	

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

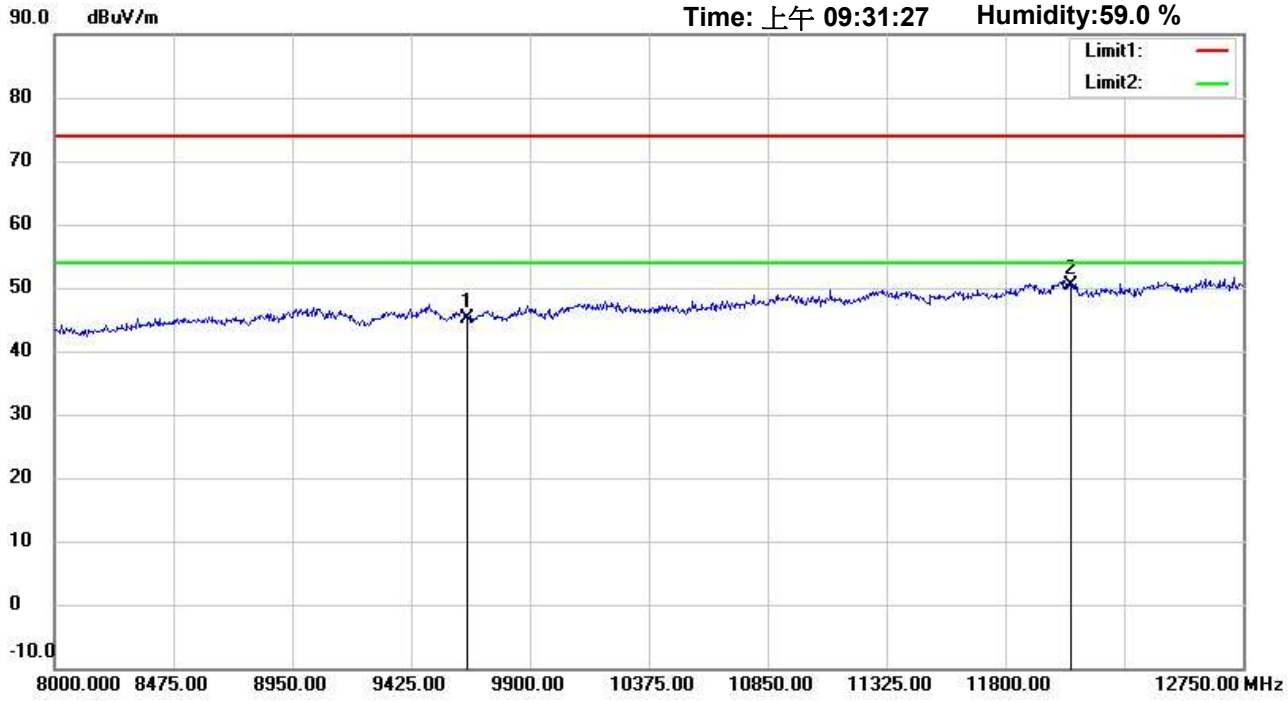
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#3 Date: 2023/11/29 Time: 上午 09:31:27

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22311-23090

M/N:

Test Mode : TX 802.11b CH1

Note :

Polarization: *Horizontal*

Power : 120 Va.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
	9648.000	31.64	peak	13.44	45.08	74.00	150	10	-28.92	
*	12060.000	33.17	peak	17.10	50.27	74.00	150	332	-23.73	

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

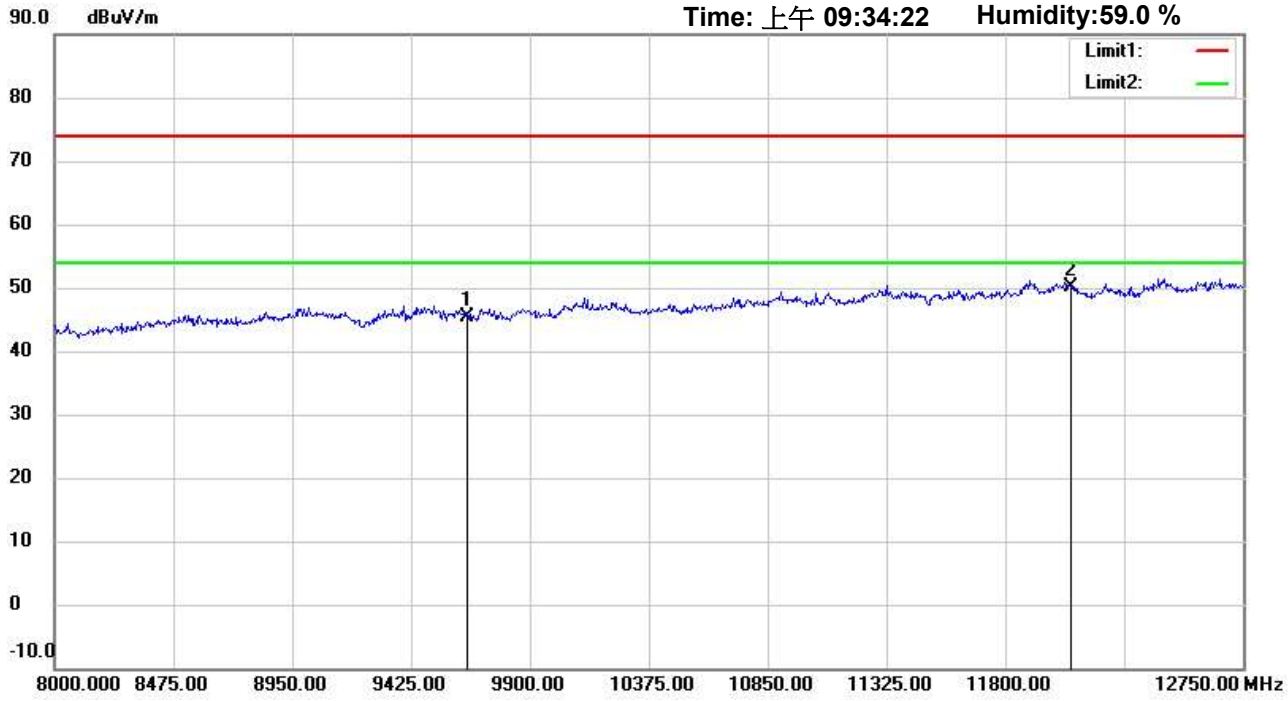
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#8 Date: 2023/11/29 Temperature:23.4 ℃

Time: 上午 09:34:22 Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22311-23090

M/N:

Test Mode : TX 802.11b CH1

Note :

Polarization: *Vertical*

Power : 120 Va.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
	9648.000	31.86	peak	13.44	45.30	74.00	150	281	-28.70	
*	12060.000	33.04	peak	17.10	50.14	74.00	150	270	-23.86	

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

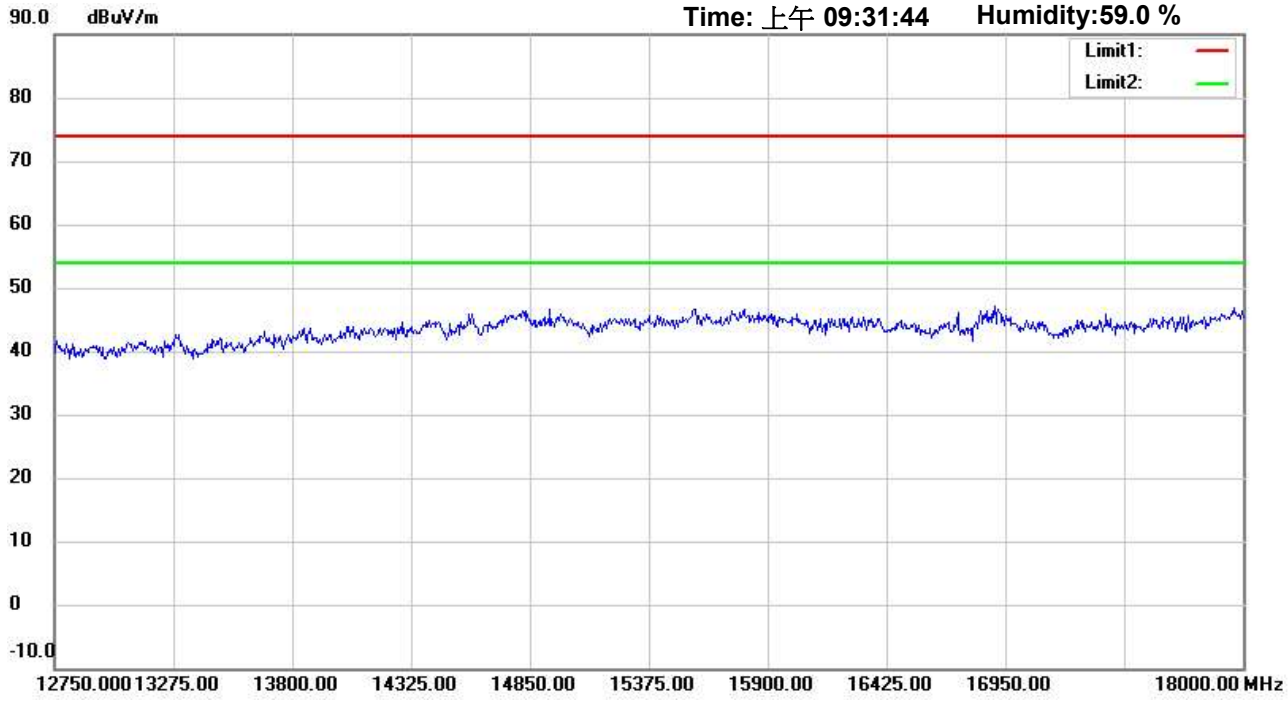
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#4 Date: 2023/11/29 Time: 上午 09:31:44

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Horizontal*

EUT : W6M22311-23090

Power : 120 Va.c.

M/N:

Distance: 3m

Test Mode : TX 802.11b CH1

Note :

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

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

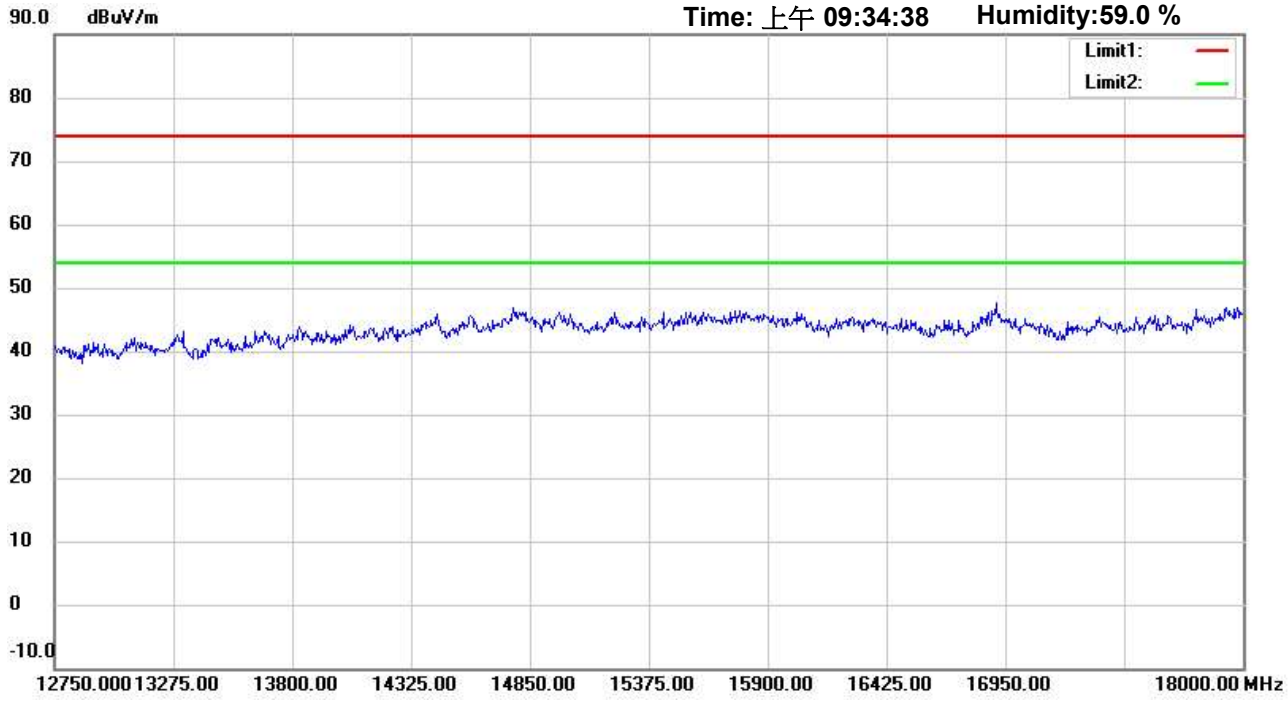
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#9 Date: 2023/11/29 Temperature:23.4 ℃

Time: 上午 09:34:38 Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M22311-23090

Power : 120 Va.c.

M/N:

Distance: 3m

Test Mode : TX 802.11b CH1

Note :

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

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

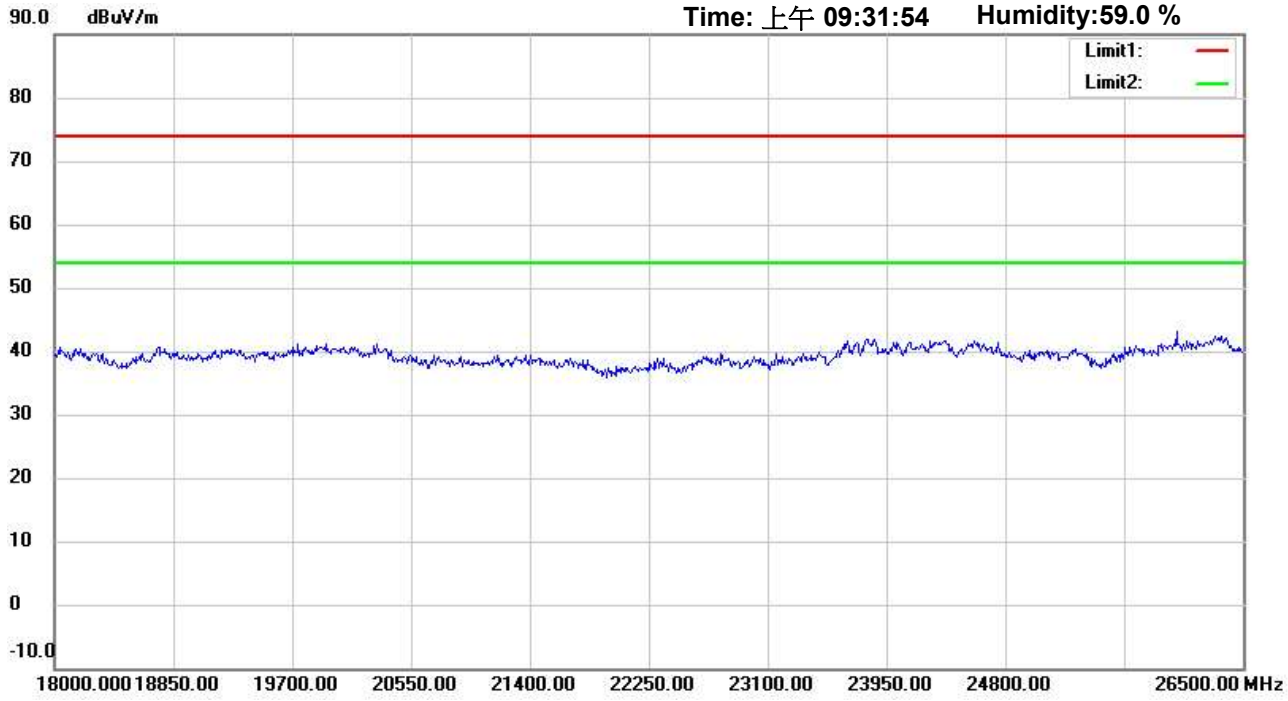
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#5 Date: 2023/11/29 Time: 上午 09:31:54

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22311-23090

M/N:

Test Mode : TX 802.11b CH1

Note :

Polarization: *Horizontal*

Power : 120 Va.c.

Distance: 3m

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

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

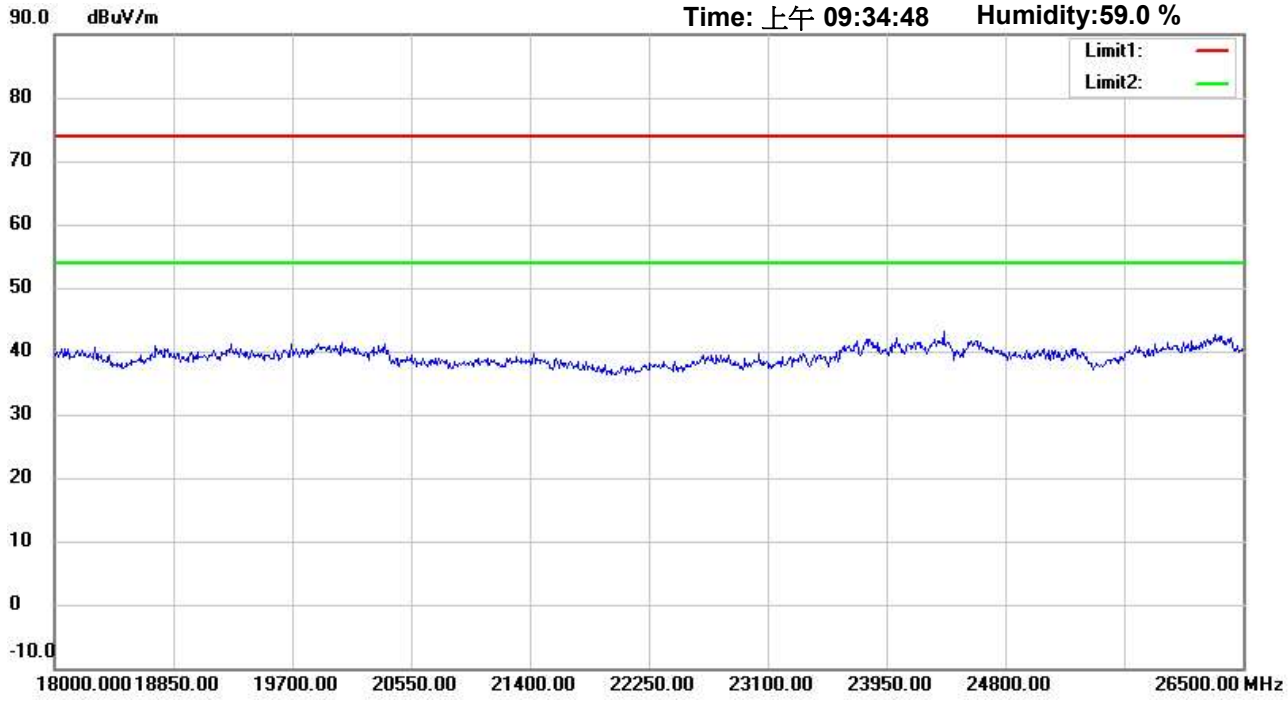
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#10 Date: 2023/11/29 Time: 上午 09:34:48

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M22311-23090

Power : 120 Va.c.

M/N:

Distance: 3m

Test Mode : TX 802.11b CH1

Note :

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

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

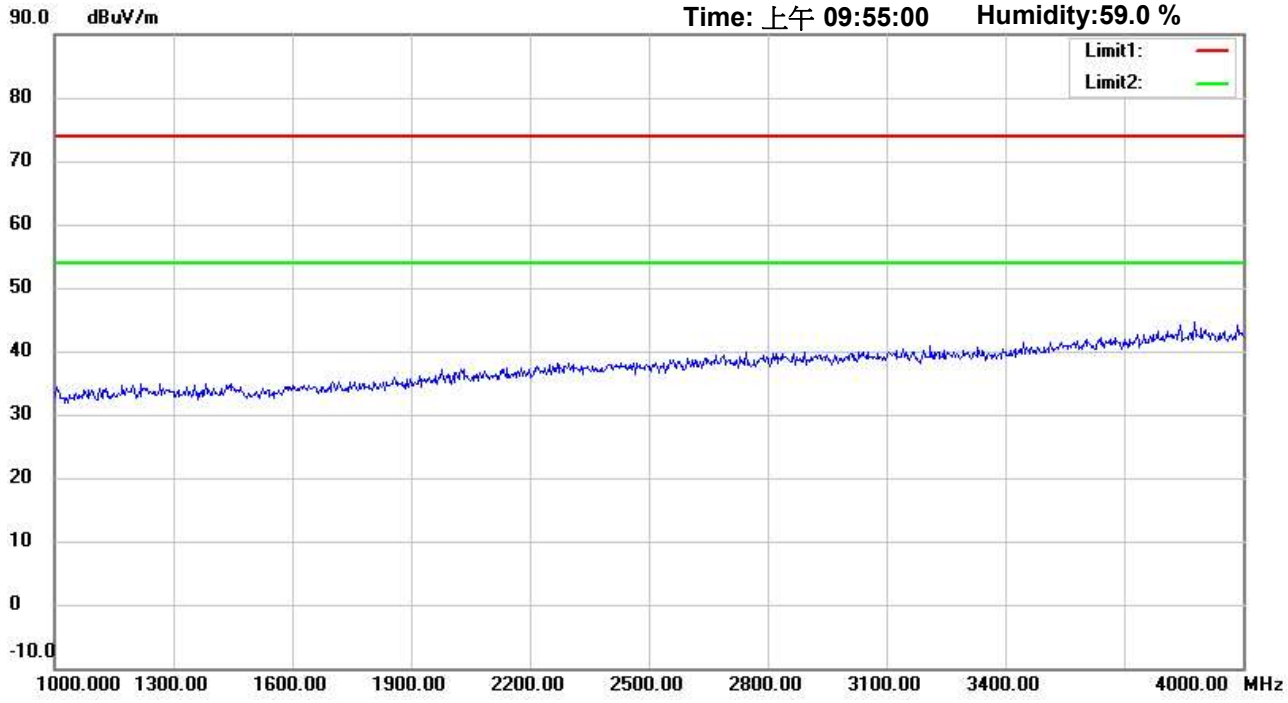
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#1 Date: 2023/11/29 Temperature:23.4 ℃

Time: 上午 09:55:00 Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22311-23090

M/N:

Test Mode : TX 802.11b CH6

Note :

Polarization: *Horizontal*

Power : 120 Va.c.

Distance: 3m

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

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

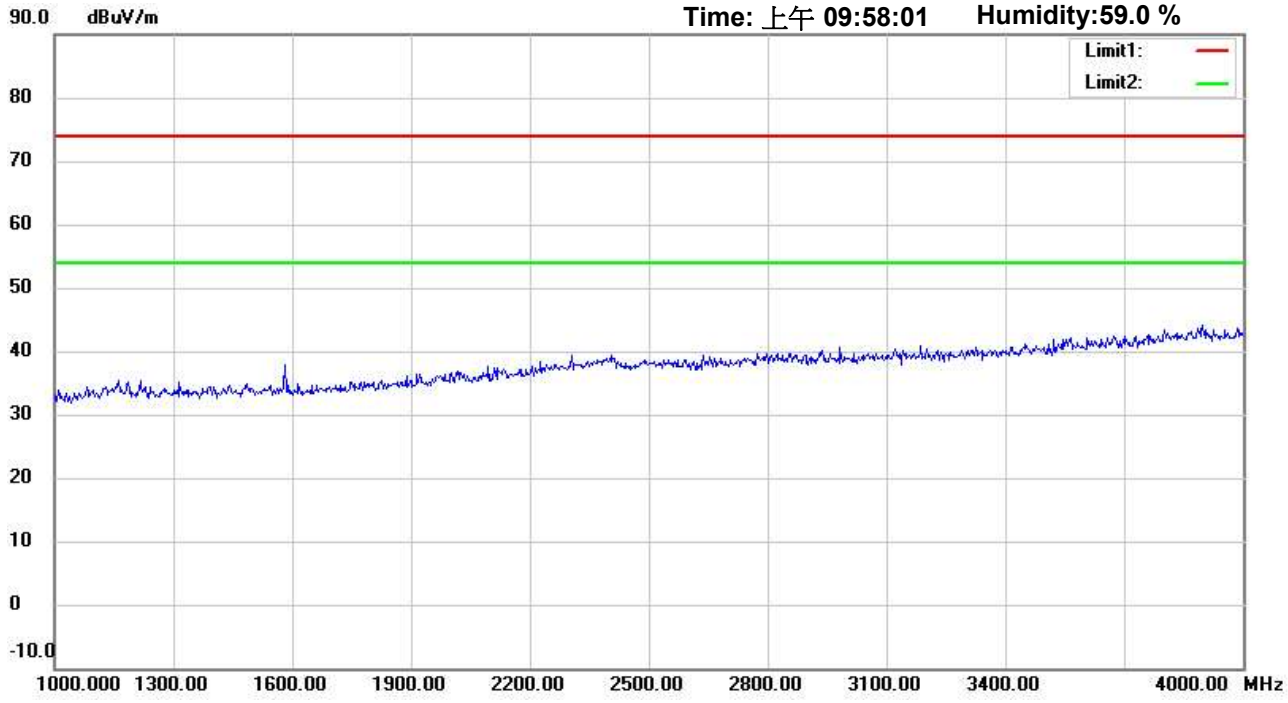
Address:6F.,No.58,Ln 188,Ruey Kuang Rd,Neihu,Taipei
Tel:+886-2-6606-8877
Fax:+886-2-6606-8875

Radiated Emission Measurement

Operator: Kai

File :3 Data :#6 Date: 2023/11/29 Time: 上午 09:58:01

Temperature:23.4 ℃ Humidity:59.0 %



Site : Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

Polarization: *Vertical*

EUT : W6M22311-23090

Power : 120 Va.c.

M/N:

Distance: 3m

Test Mode : TX 802.11b CH6

Note :

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

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