

47 CFR PART 15 SUBPART C TEST REPORT

for

RP300 UHF RFID Mobile Reader

Model No.: RP300

FCC ID: HLERP300BU

of

Applicant: **unitech Electronics Co., Ltd.**

Address: 5F., No. 136, Ln. 235, Baoqiao Rd. , Xindian Dist.,
New Taipei City , Taiwan

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634



Report No.: W6M22411-23922-C-1

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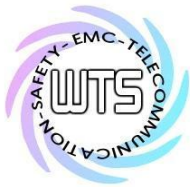


TABLE OF CONTENTS

1	GENERAL INFORMATION	2
1.1	NOTES	2
1.2	TESTING LABORATORY	3
1.2.1	Location	3
1.2.2	Details of accreditation status	3
1.3	DETAILS OF APPROVAL HOLDER.....	3
1.4	APPLICATION DETAILS	4
1.5	GENERAL INFORMATION OF TEST ITEM	4
1.5	DUTY CYCLE AND FACTOR	5
1.6	TEST STANDARDS.....	6
2	TEST CONFIGURATION	7
2.1	TEST ENVIRONMENT	7
2.2	MEASUREMENT UNCERTAINTY	7
2.3	TEST EQUIPMENT LIST	8
2.4	GENERAL TEST PROCEDURE	10
3	TEST RESULTS (ENCLOSURE)	12
3.1	PEAK OUTPUT POWER (TRANSMITTER)	13
3.2	TRANSMITTER RADIATED EMISSIONS IN RESTRICTED BANDS.....	21
3.3	SPURIOUS EMISSIONS (TX)	22
3.4	CARRIER FREQUENCY SEPARATION	24
3.5	NUMBER OF HOPPING FREQUENCIES.....	28
3.5.1	Pseudorandom Frequency Hopping Sequence	30
3.5.2	Coordination of hopping sequences to other transmitters.....	30
3.5.3	System Receiver Hopping Capability.....	30
3.6	TIME OF OCCUPANCY (DWELL TIME)	31
3.7	20dB BANDWIDTH.....	43
3.7.1	System Receiver Input Bandwidth.....	48
3.8	MINIMUM 6 dB BANDWIDTH	49
3.9	RADIATED EMISSION ON THE BAND EDGE	52
3.10	PEAK POWER SPECTRAL DENSITY	58
3.11	RADIATED EMISSION FROM DIGITAL PART	60
3.12	POWER LINE CONDUCTED EMISSION	61
	APPENDIX	70



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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.

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.

Tester:

October 16, 2025

Rick Chen

Rick Chen.

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

October 16, 2025

Kevin Wang

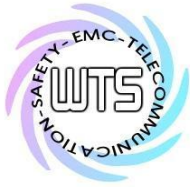
Kevin Wang

Date

WTS

Name

Signature



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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.)

3m meter semi-anechoic chamber

No. 99, Sec. 1, Balian Rd., Xizhi Dist.,
New Taipei City 221032, Taiwan (R.O.C.)

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: unitech Electronics Co., Ltd.

Street: 5F., No. 136, Ln. 235, Baoqiao Rd., Xindian Dist.,

Town: New Taipei City ,

Country: Taiwan

Manufacturer: (if applicable)

Name: ./.

Street: ./.

Town: ./.

Country: ./.



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

1.4 Application details

Date of receipt of test item: July 31, 2025

Date of test: from August 01, 2025 to October 15, 2025

1.5 General information of Test item

Type of test item: RP300 UHF RFID Mobile Reader

Model no.: RP300

Multi-listing model no.: ./.

Brand name: unitech

Power supply: Adapter (I/P: 100-240V~1.5A 50-60Hz
O/P: 5.0V, 3.0A, 15.0W LPS/9.0V, 3.0A/12.0V,
3.0A/15.0V, 3.0A/20.0V, 2.25A, 45.0W)
Battery 3.6Vd.c., 23.76Wh, 6600mAh

Technical data

Mode	Channel	Conducted Power (dBm)
Bluetooth Normal mode	Ch 0 : 2402 MHz	7.47
	Ch 39 : 2441 MHz	5.70
	Ch 78 : 2480 MHz	4.17
Bluetooth EDR mode	Ch 0 : 2402 MHz	10.19
	Ch 39 : 2441 MHz	8.37
	Ch 78 : 2480 MHz	6.89
Bluetooth Low energy mode 1M	Ch 0 : 2402 MHz	7.83
	Ch 19 : 2440 MHz	6.04
	Ch 39 : 2480 MHz	4.45

Mode	Channel	Conducted Power (dBm)
RFID	Ch 0 : 902.75 MHz	29.70
	Ch 24 : 914.75 MHz	29.78
	Ch 49 : 927.25 MHz	29.83

Type of antenna: BT/BLE: Chip Antenna

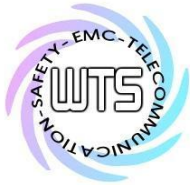
RFID: Patch Antenna

Antenna gain: BT/BLE: 2.5dBi

RFID: 3.6dBi

Operation modes: Duplex

Modulation type: BT/BLE: GFSK、 $\pi/4$ DQPSK、8DPSK



Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU

RFID: PR-ASK

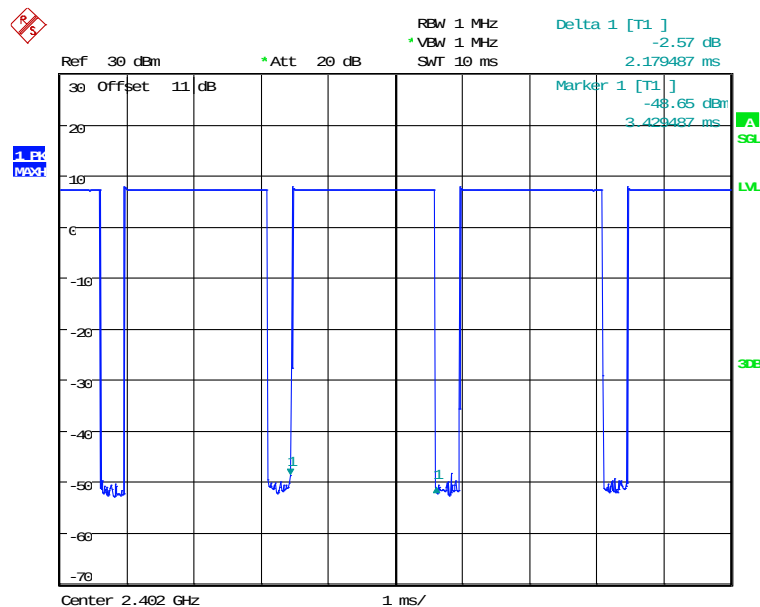
Sample no.: #04

1.5 Duty cycle and factor

The duty factor is computed as $[10 \log (1 / D)]$, where D is the duty cycle.
BLE

Mode	T _{on} (ms)	T _{on} +T _{off} (ms)	Duty cycle (%)	1/T - VBW (kHz)
BLE 1M	2.179	2.5	87.16%	0.46

Duty cycle plot

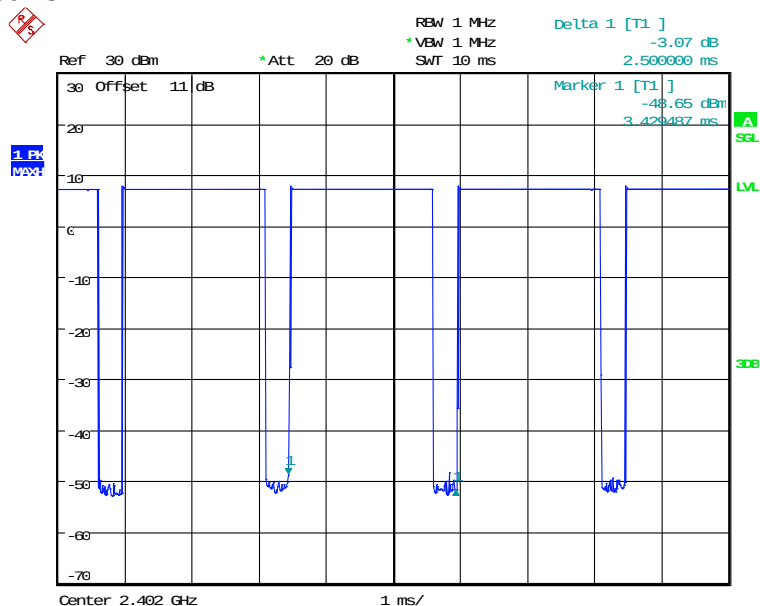


DUTY
Date: 26.AUG.2025 15:01:03



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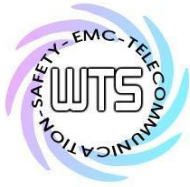


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1.6 Test standards

47 CFR PART 15 SUBPART C § 15.247 (2024-10)



Registration number: W6M22411-23922-C-1

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2 Test configuration

2.1 Test environment

Relative humidity content: 20 ... 75 %

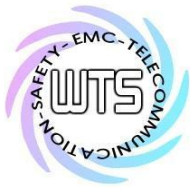
Air pressure: 86 ... 103 kPa

Extreme conditions parameters: ./.

2.2 Measurement uncertainty

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Emission (Power Line Conducted Emission)	Expanded Uncertainty : AMN : 0.94 dB Voltage probe : 1.21 dB Include Pulse Limiter : 1.5 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 : 1.85 dB 30-1000 MHz : 3.92 dB 1-18 GHz : 3.19 dB 18-40 GHz : 1.90 dB
Estimation Result of Uncertainty of Bandwidth Measurement (20 dB Bandwidth, Minimum 6 dB Bandwidth)	Expanded Uncertainty : 0.37 kHz
Estimation Result of Uncertainty of Conducted Output Power Measurement (Peak Output Power (transmitter))	Expanded Uncertainty : 1.63 dB
Estimation Result of Uncertainty of Power Density Measurement (Peak Power Spectral Density)	Expanded Uncertainty : 1.63 dB
Estimation Result of Uncertainty of Band Edge Measurement (Radiated Emission on the band edge)	Expanded Uncertainty : 0.63 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 : 0.18 ms

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



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

2.3 Test Equipment List

BT2.0

Max Output Power&

20DB BANDWIDTH&BANDEDGE&

FREQUENCY SEPARATION&NUMBER OF HOPPING&DWELL TIME

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13

BLE

Max Output Power&6DB Bandwidth&Bandedge&Power Density&Duty

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2025/2/14	2026/2/13
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13

UHF

Max Output Power&20DB BANDWIDTH&

BANDEDGE&FREQUENCY SEPARATION&NUMBER OF HOPPING&DWELL TIME

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2025/2/14	2026/2/13
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2025/3/5	2026/3/4
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2025/2/14	2026/2/13
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S_Cable 9)	279067	HUBER+SUHNER	2025/2/14	2026/2/13



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Registration number: W6M22411-23922-C-1

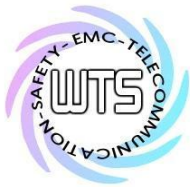
FCC ID: HLERP300BU

Spurious Emission (966A)

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2025/9/10	2026/9/9
ETSTW-RE 154	EMI Test Receiver	ESR3	102829	R&S	2025/4/9	2026/4/8
ETSTW-RE 160	Amplifier Module	CHC 3	None	WTS	2025/7/11	2026/7/10
ETSTW-RE 177	TRILOG Broadband Antenna	VULB 9168&EMCI-N-6-06	01380&AT-06007	SCHWARZBECK&EMC	2025/3/10	2026/3/9
ETSTW-RE 178	Double Ridged Guide Horn Antenna	DRH18-E	210505A18ES	RFSPIN	2025/3/7	2026/3/6
ETSTW-Cable 077	SMA type cable (10m)	EMC104-SM-SM-10000	230511	EMCI	2025/7/11	2026/7/10
ETSTW-Cable 084	SMA type cable (1m)	SF104-11SMA-1000	816477/4	HONOVA	2025/7/11	2026/7/10
ETSTW-Cable 089	SMA type cable (2m)	SF104-11SMA-2000	SN 811889/4	HUBER+SUHNER	2025/7/11	2026/7/10
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2025/7/31	2026/7/30
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2025/9/12	2026/9/11
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2025/9/12	2026/9/11
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2025/9/12	2026/9/11

Conducted Emission

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2025/6/17	2026/6/16
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2024/10/22	2025/10/21
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-Cable 093	BNC Cable (3m)	EMCCFD-300-BM-BM-3000	240109	EMCI	2024/11/7	2025/11/6
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

2.4 General Test Procedure

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

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

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of 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

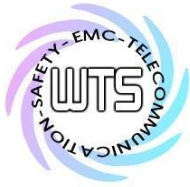
The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.10-2013 6.2.2. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

- (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



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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:

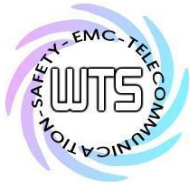
Average = Peak + Duty Factor

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.



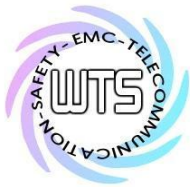
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Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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 Receiver Part	15.109	☐	☐	☐
Power Line Conducted Emission	15.207(a)	☒	☒	☐



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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: August 26, 2025-September 03, 2025

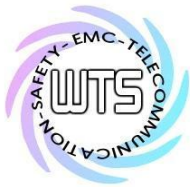
Temperature: 26.5 °C

Humidity: 54.0 %

Tester: Rick

Bluetooth

Band	Mode	Channel	Power (dBm)	Limit (dBm)
2.4GHz	BR	Ch 0 : 2402 MHz	7.47	21
		Ch 39 : 2441 MHz	5.70	21
		Ch 78 : 2480 MHz	4.17	21
	EDR	Ch 0 : 2402 MHz	10.19	21
		Ch 39 : 2441 MHz	8.37	21
		Ch 78 : 2480 MHz	6.89	21
	BLE 1M	Ch 0 : 2402 MHz	7.83	30
		Ch 19 : 2440 MHz	6.04	30
		Ch 39 : 2480 MHz	4.45	30

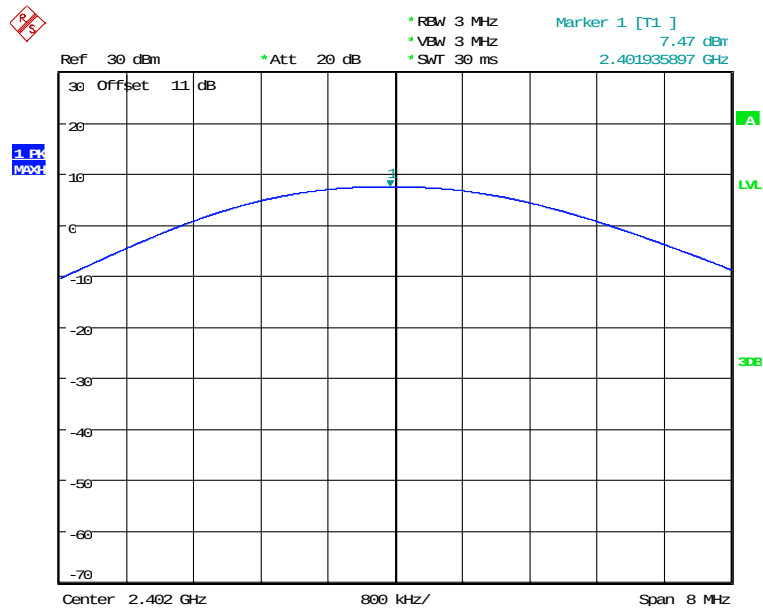


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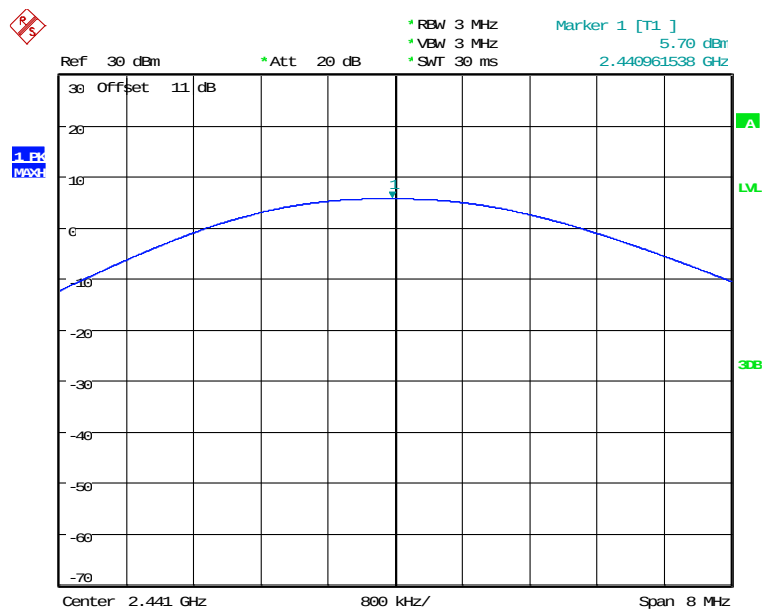
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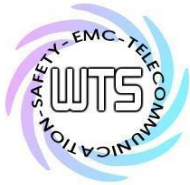
Normal mode



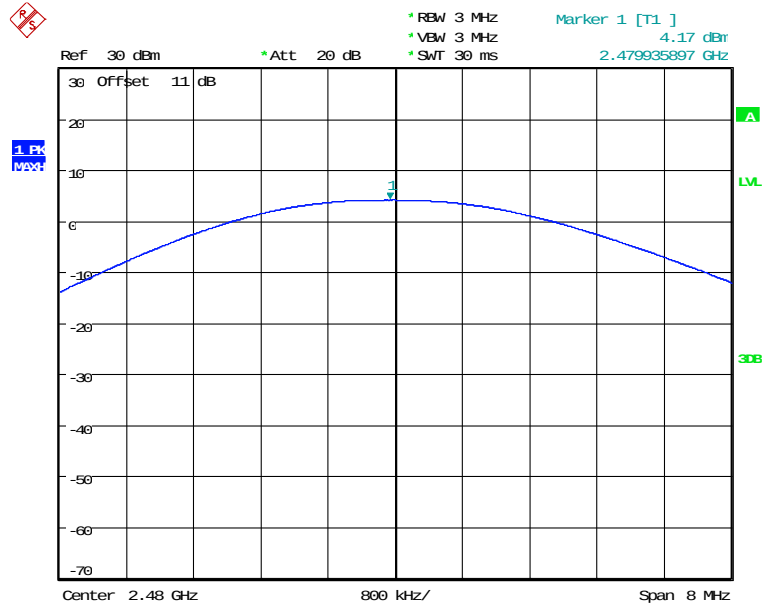
MAX OUTPUT POWER CH0
Date: 26.AUG.2025 14:41:53



MAX OUTPUT POWER CH39
Date: 26.AUG.2025 14:42:49

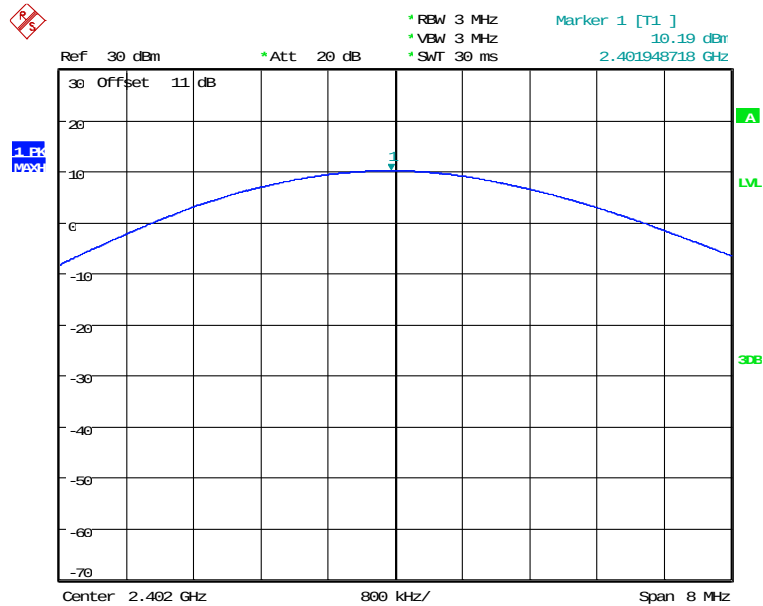


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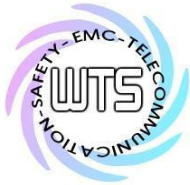


MAX OUTPUT POWER CH78
Date: 26.AUG.2025 14:43:25

EDR mode

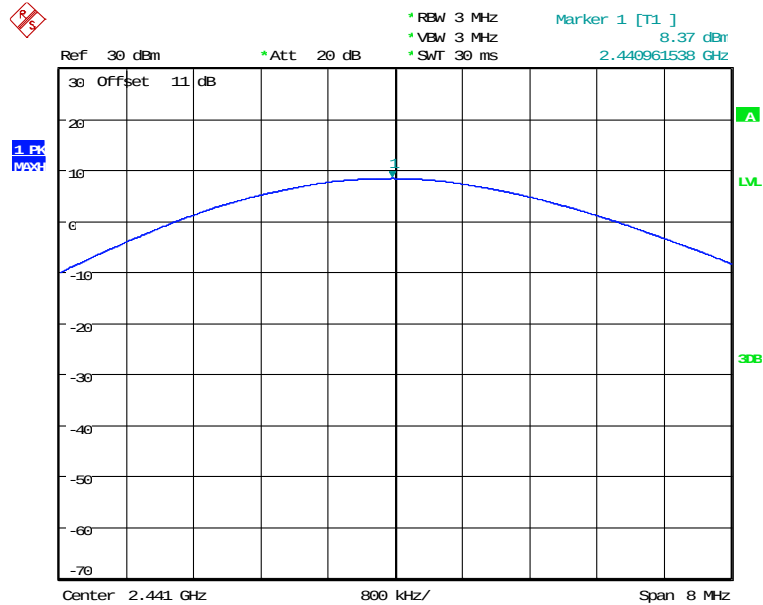


MAX OUTPUT POWER CH0 EDR MODE
Date: 26.AUG.2025 14:50:21

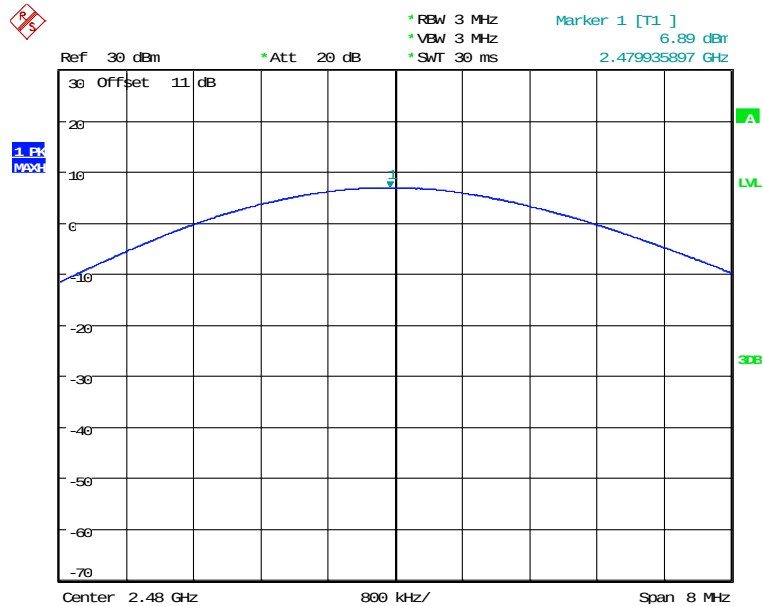


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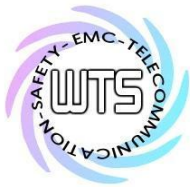
FCC ID: HLERP300BU



MAX OUTPUT POWER CH39 EDR MODE
Date: 26.AUG.2025 14:51:13



MAX OUTPUT POWER CH78 EDR MODE
Date: 26.AUG.2025 14:52:29

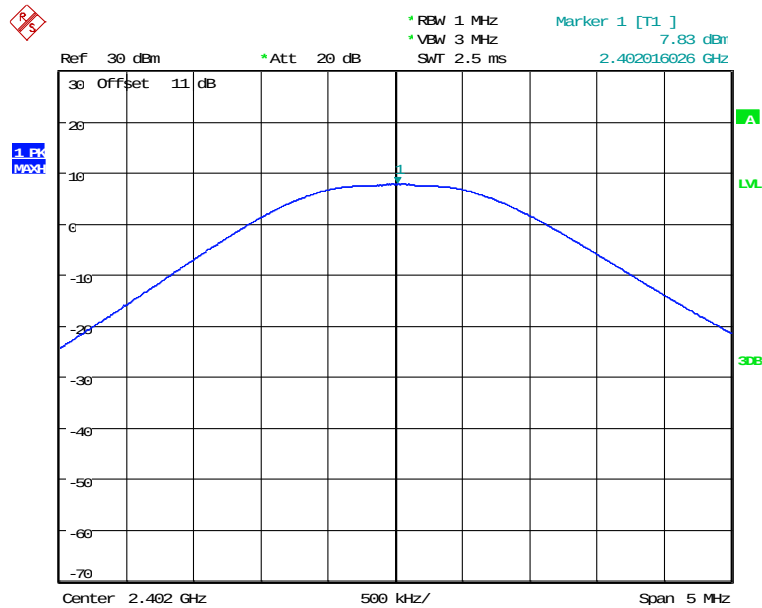


Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

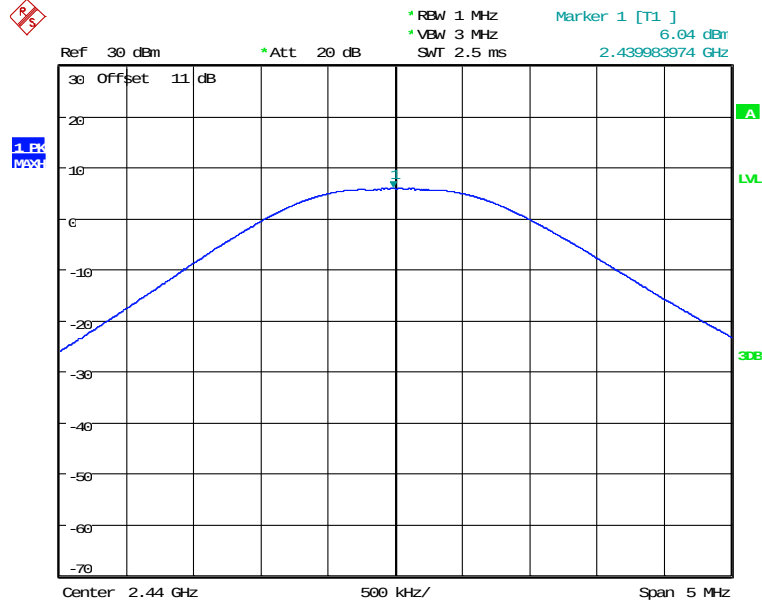
Low energy mode

1M



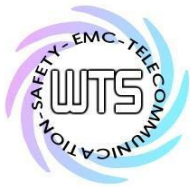
MAX OUTPUT POWER BLE 1M CH00

Date: 26.AUG.2025 14:57:31



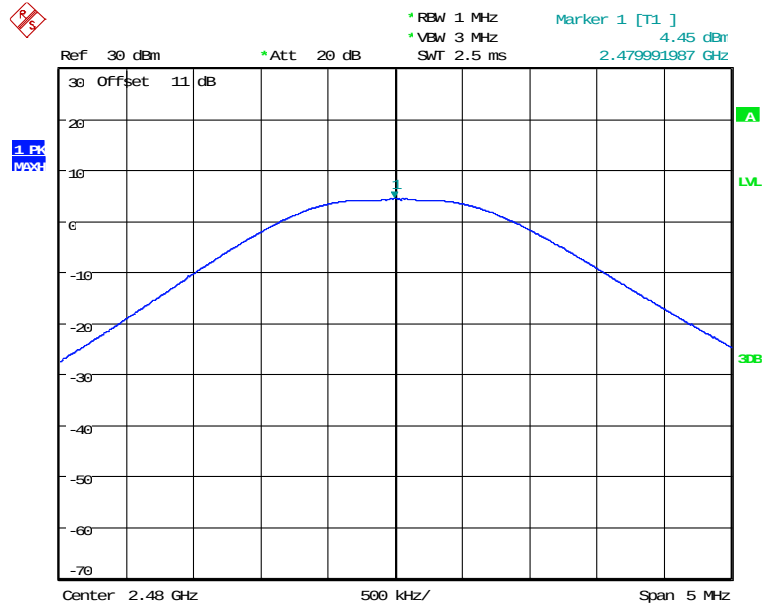
MAX OUTPUT POWER BLE 1M CH19

Date: 26.AUG.2025 14:58:21



Registration number: W6M22411-23922-C-1

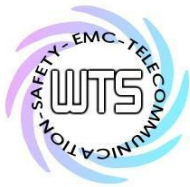
FCC ID: HLERP300BU



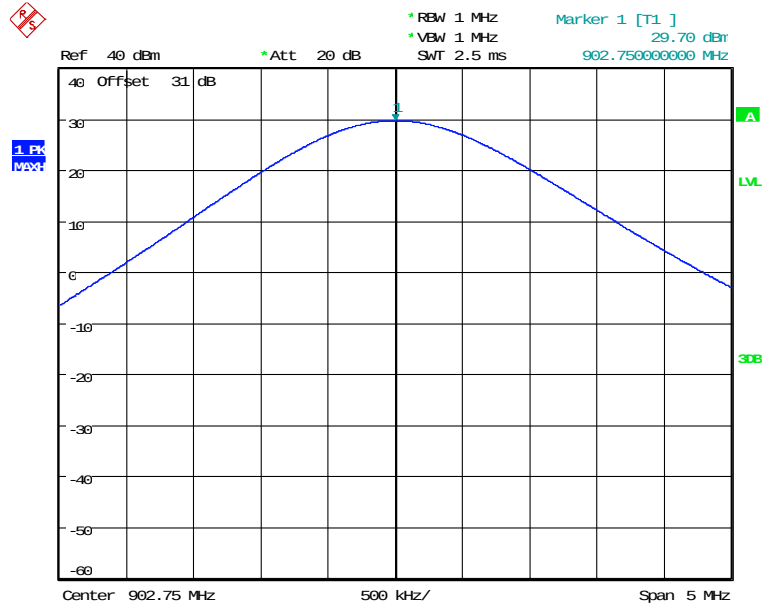
MAX OUTPUT POWER BLE 1M CH39
Date: 26.AUG.2025 14:59:01

RFID

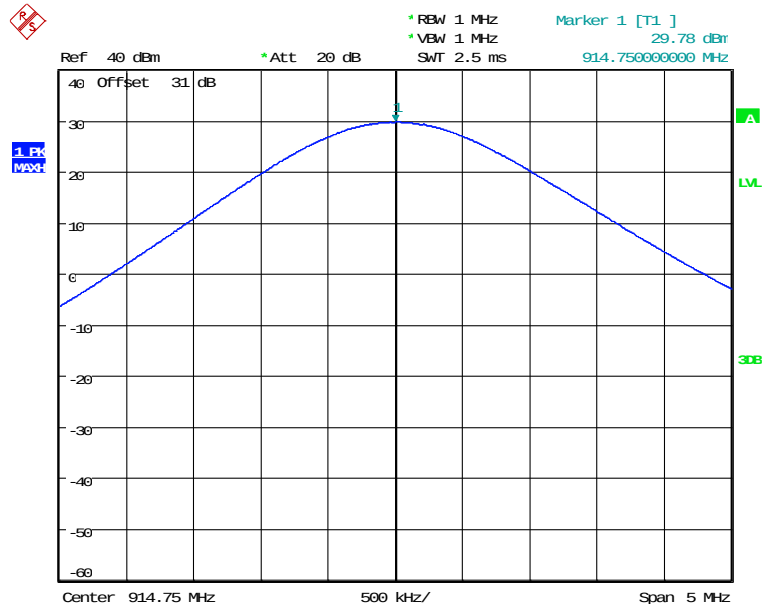
Mode	Channel	Power (dBm)	Limit (dBm)
RFID	Ch 0 : 902.75 MHz	29.70	30
	Ch 24 : 914.75 MHz	29.78	30
	Ch 49 : 927.25 MHz	29.83	30



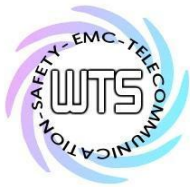
Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU



MAX OUTPUT POWER 902.75MHz
Date: 3.SEP.2025 15:06:04

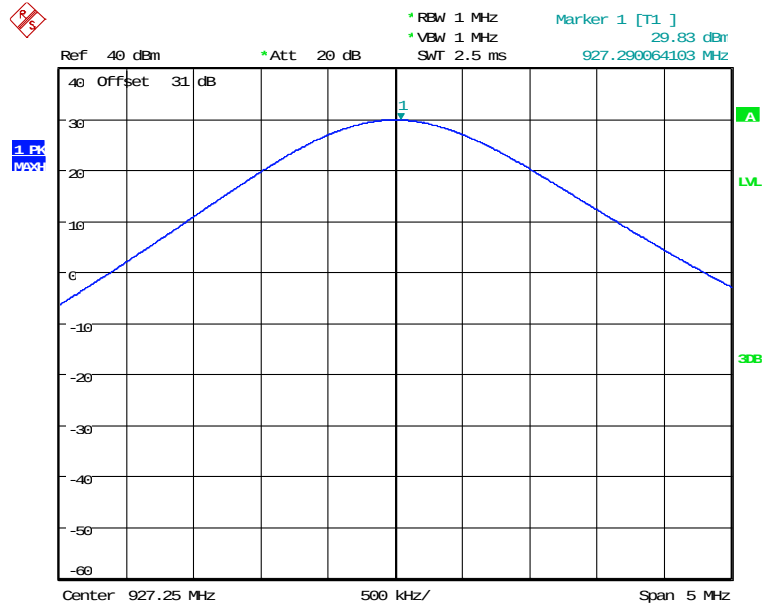


MAX OUTPUT POWER 914.75MHz
Date: 3.SEP.2025 15:07:26



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU



MAX OUTPUT POWER 927.25MHz
Date: 3.SEP.2025 15:08:35

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)



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

3.2 Transmitter Radiated Emissions in Restricted Bands

FCC Rules: 15.247 (d), 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 $\leq$ 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:

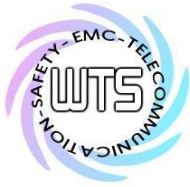
“If the emission is pulsed, modify the unit for continuous operation, use the setting shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.”

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

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

Explanation: See attached diagrams in Appendix.



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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(c), 15.35

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

Limits:

For frequencies above 1GHz (Peak measurements).

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

For frequencies above 1GHz (Average measurements).

Max. reading – 20dB

Max. reading – 20 dB

Guidance on Measurement of Digit Transmission Systems:

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

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

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

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



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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: RP300 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)
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	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. Please see attached diagrams in appendix.

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



FCC ID: HLERP300BU

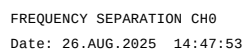
Carrier Frequency Separation was measured with modulation (declared by manufacturer).

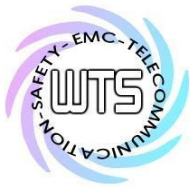
Test date: August 26, 2025-September 03, 2025

Humidity: 54.0 %

Tester: Rick

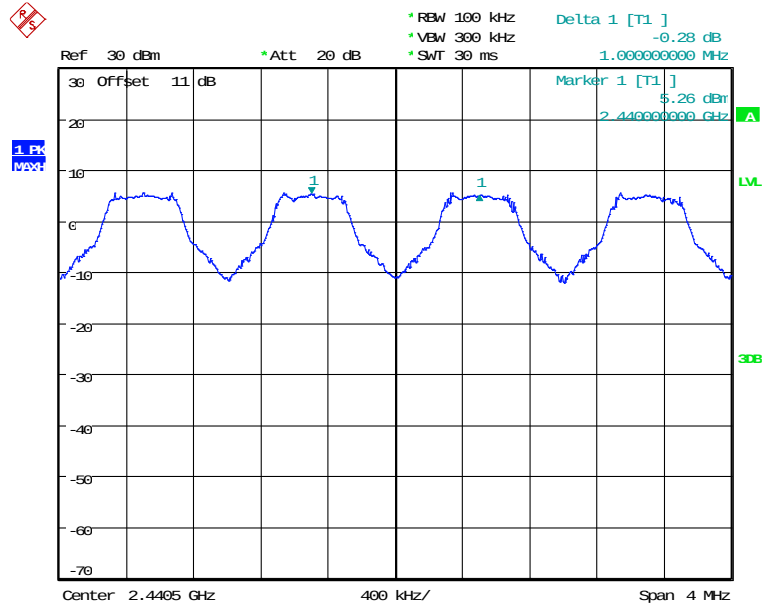
Normal mode



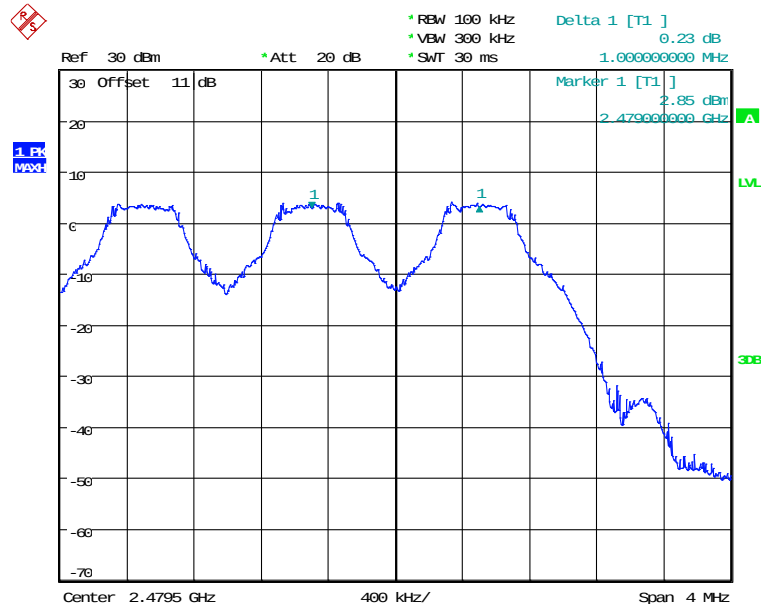


Registration number: W6M22411-23922-C-1

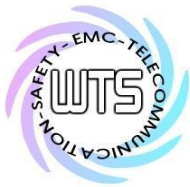
FCC ID: HLERP300BU



FREQUENCY SEPARATION CH39
Date: 26.AUG.2025 14:48:45



FREQUENCY SEPARATION CH78
Date: 26.AUG.2025 14:49:41

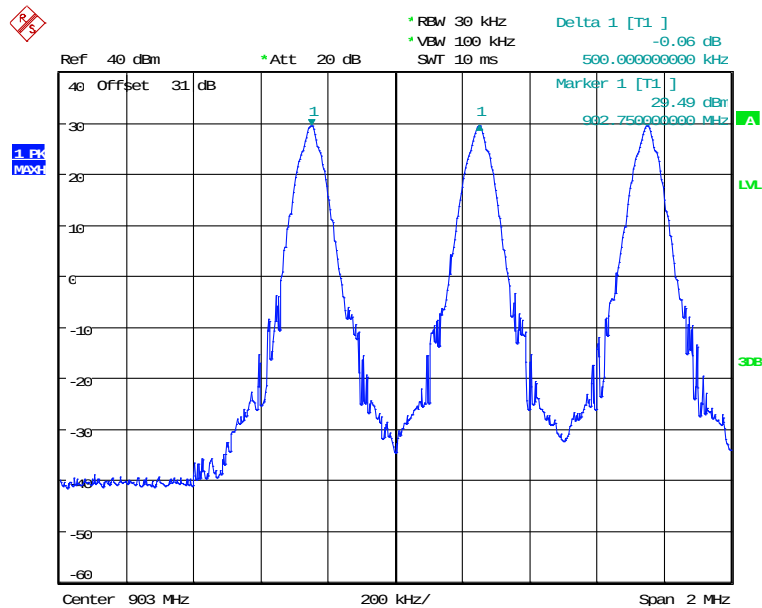


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

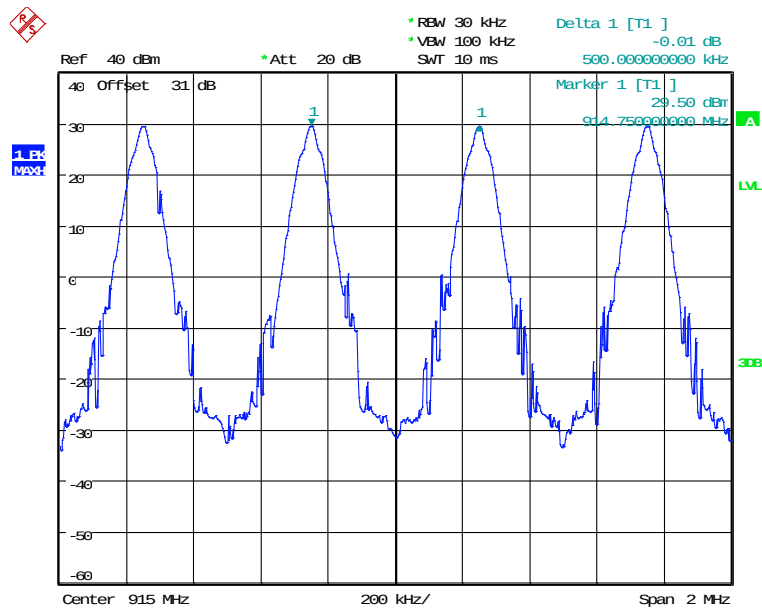
FCC ID: HLERP300BU

RFID



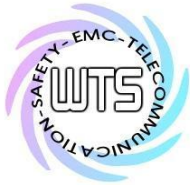
FREQUENCY SEPARATION 902.75MHz

Date: 3.SEP.2025 15:32:51



FREQUENCY SEPARATION 914.75MHz

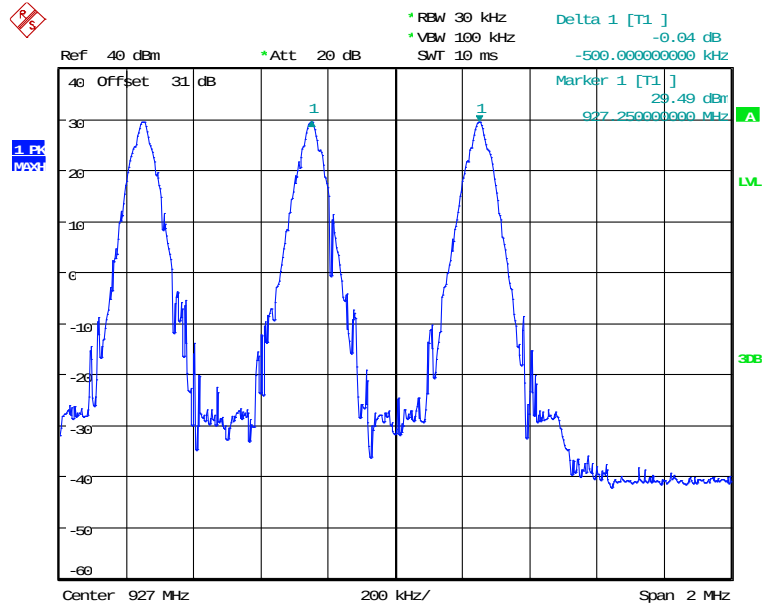
Date: 3.SEP.2025 15:34:30



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

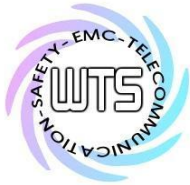


FREQUENCY SEPARATION 927.25MHz

Date: 3.SEP.2025 15:36:26

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



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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: August 26, 2025-September 03, 2025

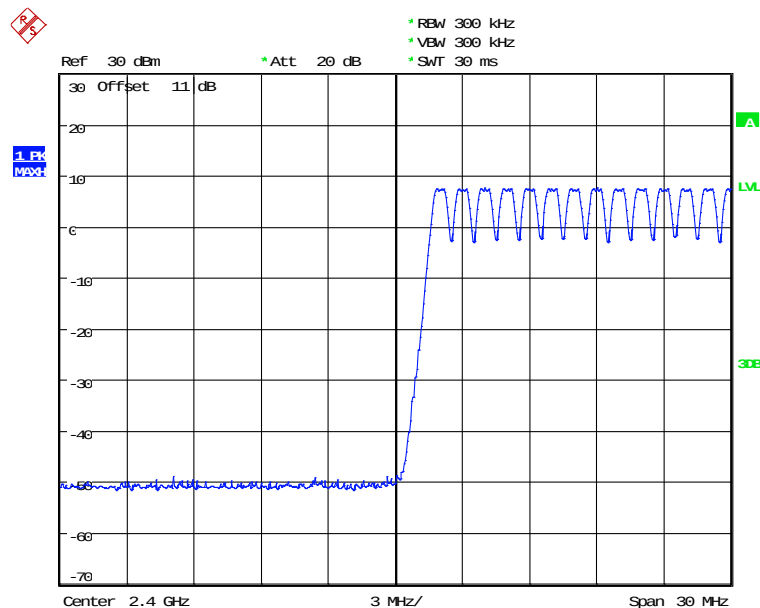
Temperature: 26.5 °C

Humidity: 54.0 %

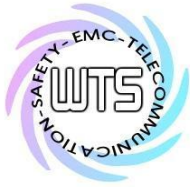
Tester: Rick

Bluetooth

Normal mode



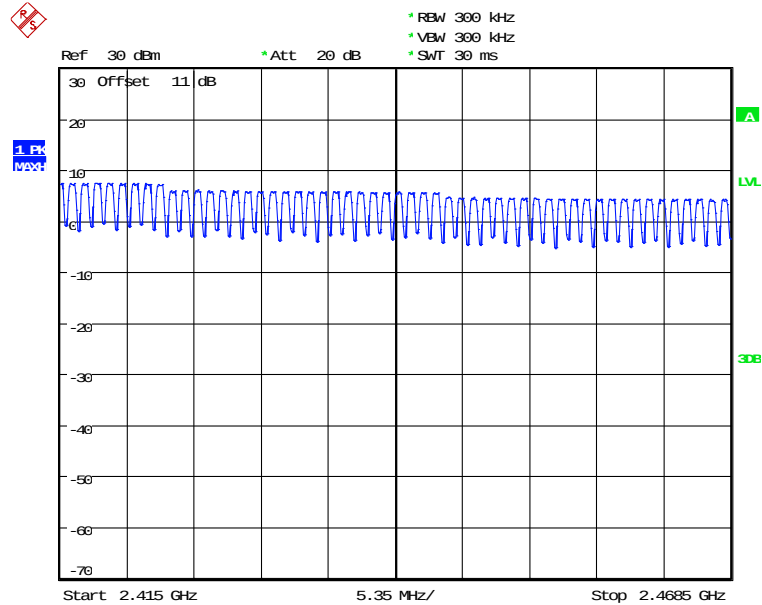
NUMBER OF HOPPING CH0-13
Date: 26.AUG.2025 14:44:49



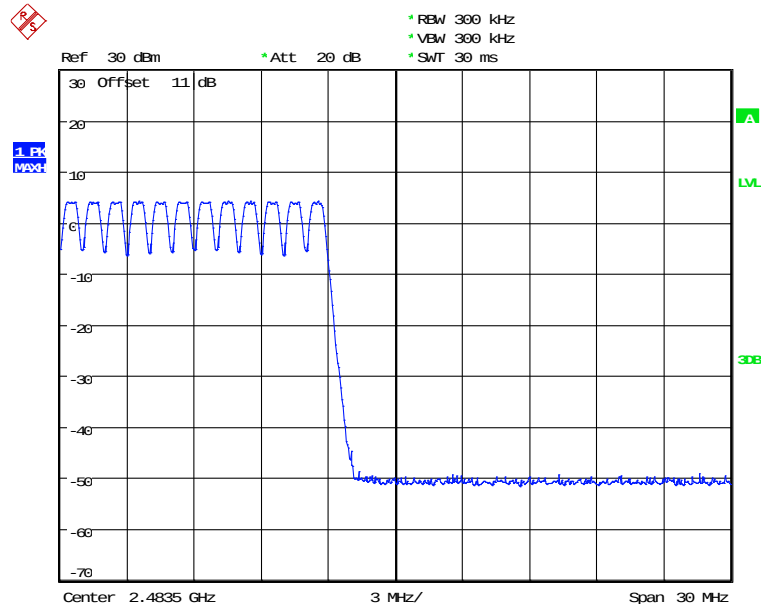
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

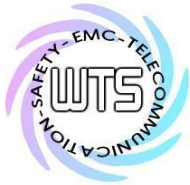
FCC ID: HLERP300BU



NUMBER OF HOPPING CH14-66
Date: 26.AUG.2025 14:46:53



NUMBER OF HOPPING CH67-78
Date: 26.AUG.2025 14:45:37



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Limits:

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

3.5.1 Pseudorandom Frequency Hopping Sequence

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

3.5.2 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.

3.5.3 System Receiver Hopping Capability

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



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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: August 26, 2025-September 03, 2025

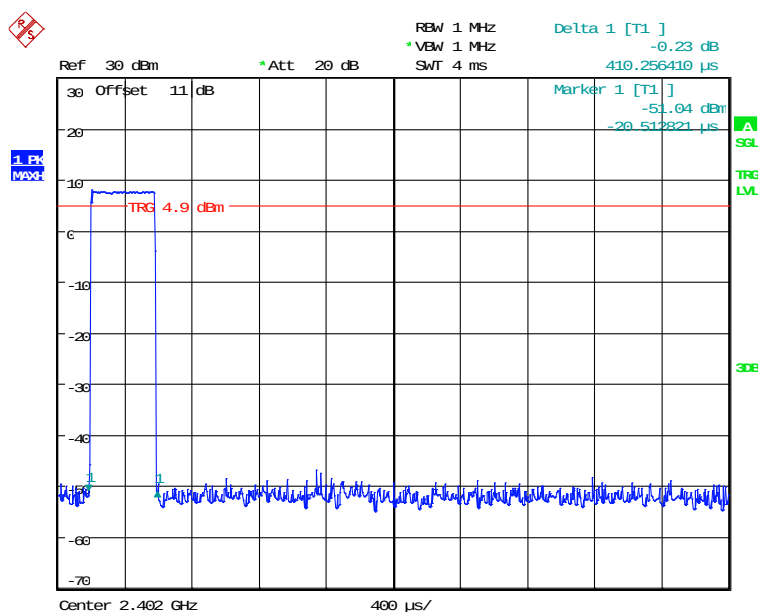
Temperature: 26.5 °C

Humidity: 54.0 %

Tester: Rick

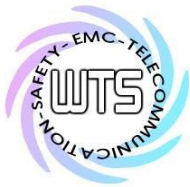
Bluetooth

Normal mode



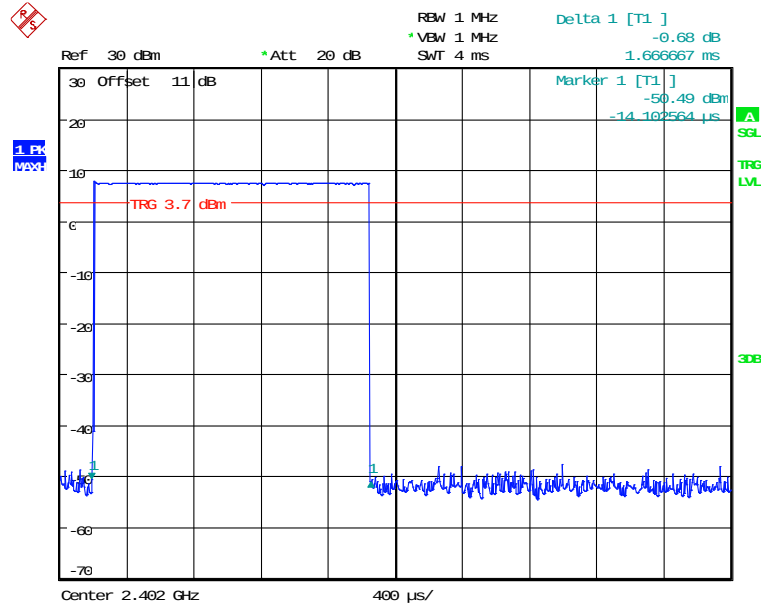
DWELL TIME CH0 DH1(0.41ms * 320events = 131.2ms)

Date: 26.AUG.2025 15:11:54



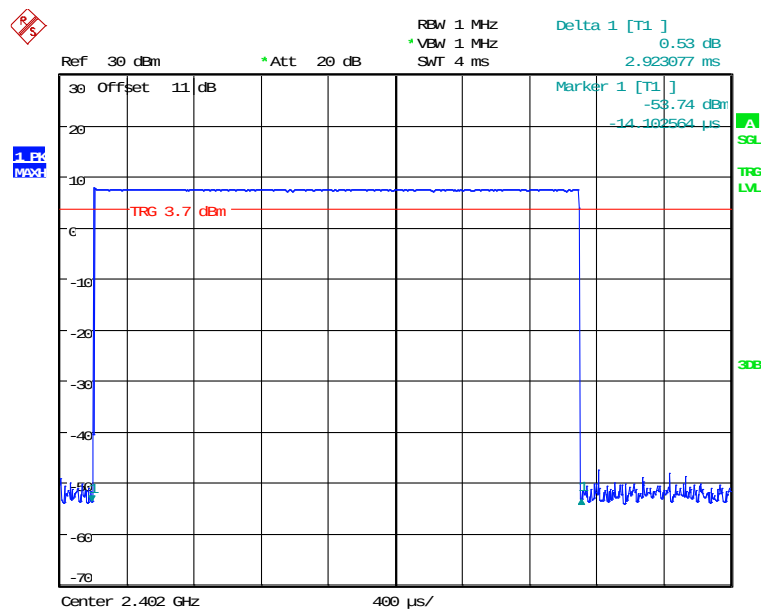
Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU



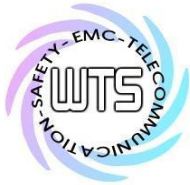
DWELL TIME CH0 DH3(1.667ms * 160events = 266.72ms)

Date: 26.AUG.2025 15:16:59



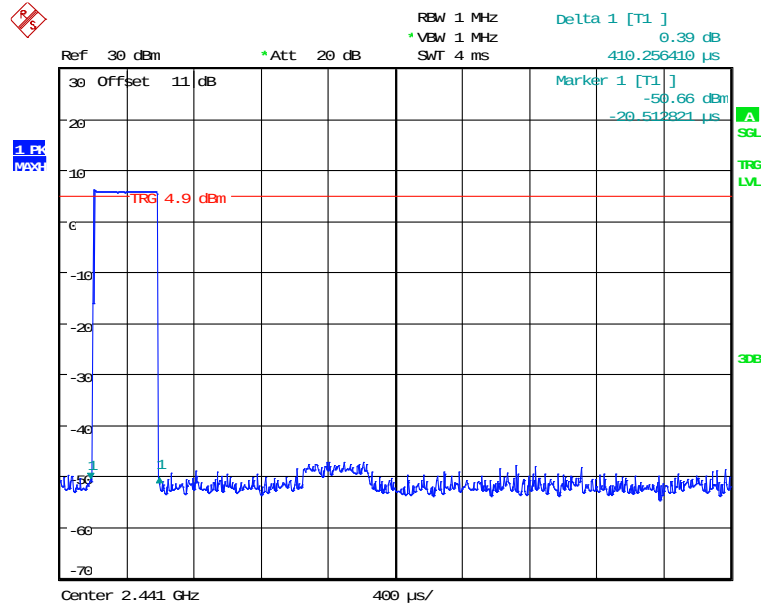
DWELL TIME CH0 DH5(2.923ms * 106events = 309.838ms)

Date: 26.AUG.2025 15:18:35

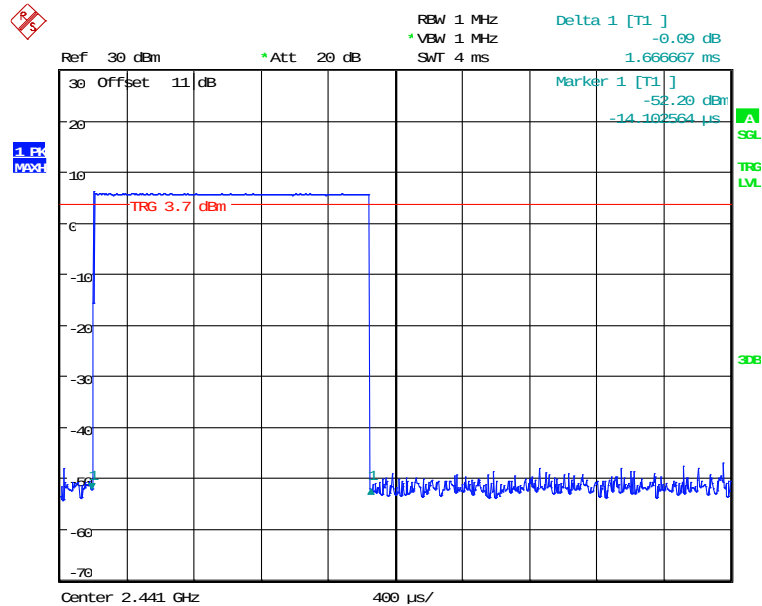


Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU



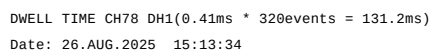
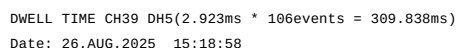
DWELL TIME CH39 DH1(0.41ms * 320events = 131.2ms)
Date: 26.AUG.2025 15:12:29



DWELL TIME CH39 DH3(1.667ms * 160events = 266.72ms)
Date: 26.AUG.2025 15:16:24

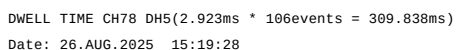
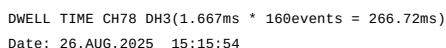


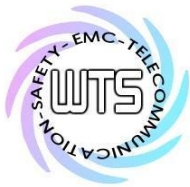
FCC ID: HLERP300BU





FCC ID: HLERP300BU

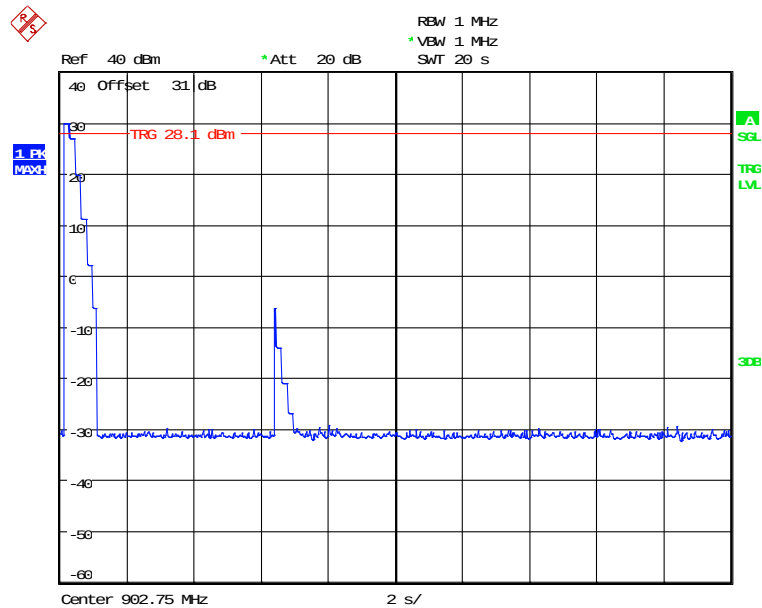




Registration number: W6M22411-23922-C-1

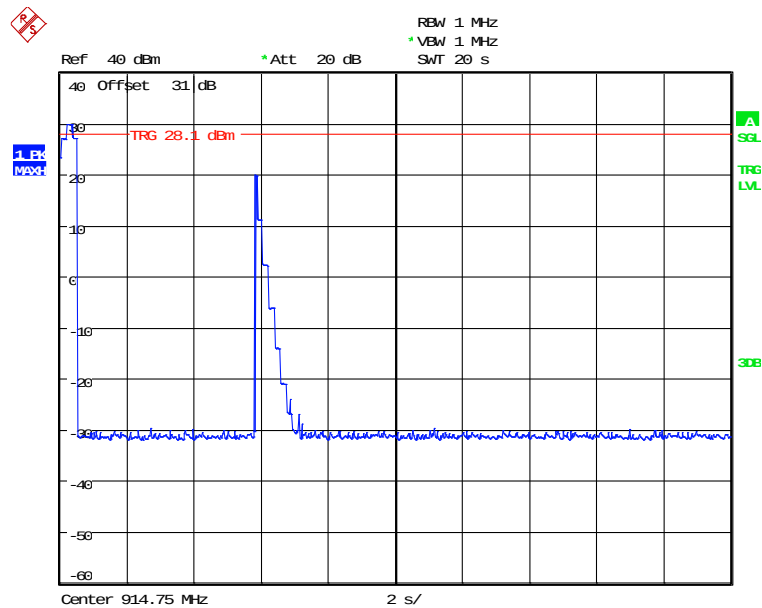
FCC ID: HLERP300BU

RFID



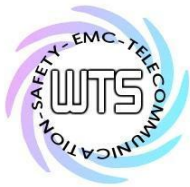
DWELL TIME 902.75MHz

Date: 3.SEP.2025 19:31:45



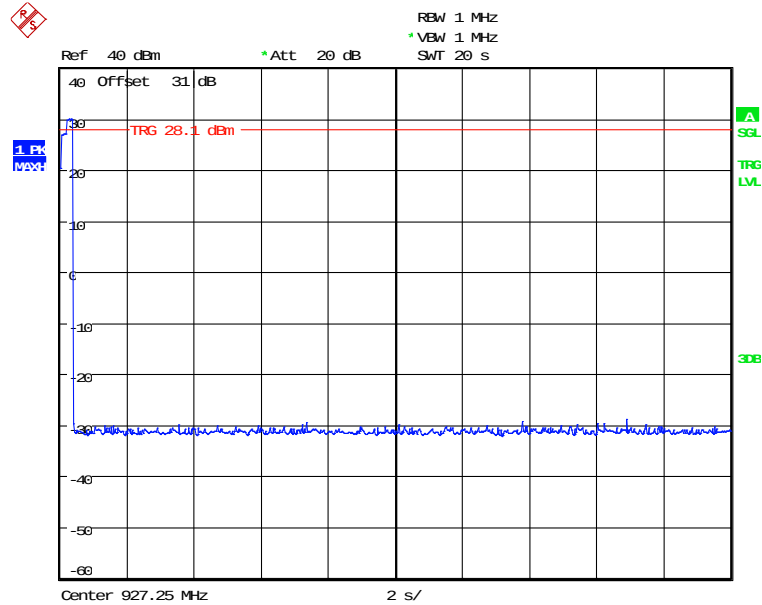
DWELL TIME 914.75MHz

Date: 3.SEP.2025 17:59:24



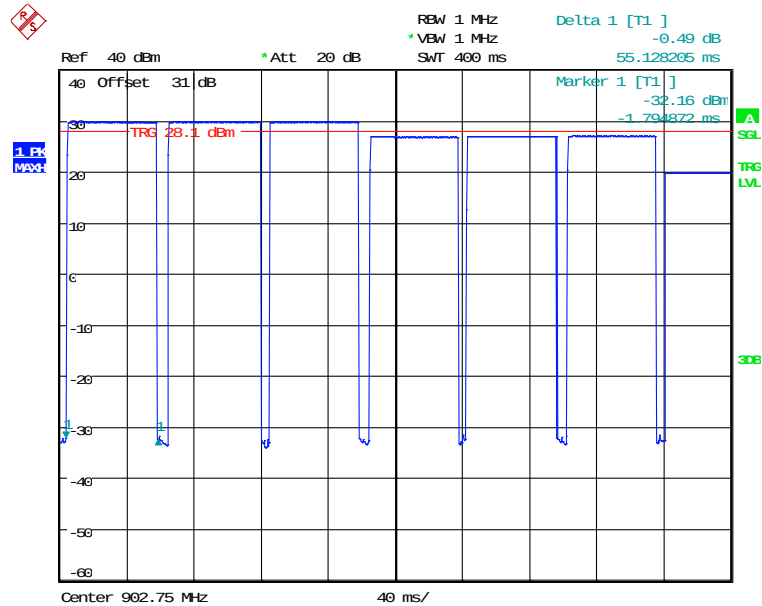
Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU



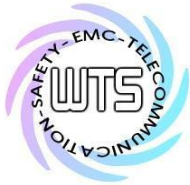
DWELL TIME 927.25MHz

Date: 3.SEP.2025 18:00:42

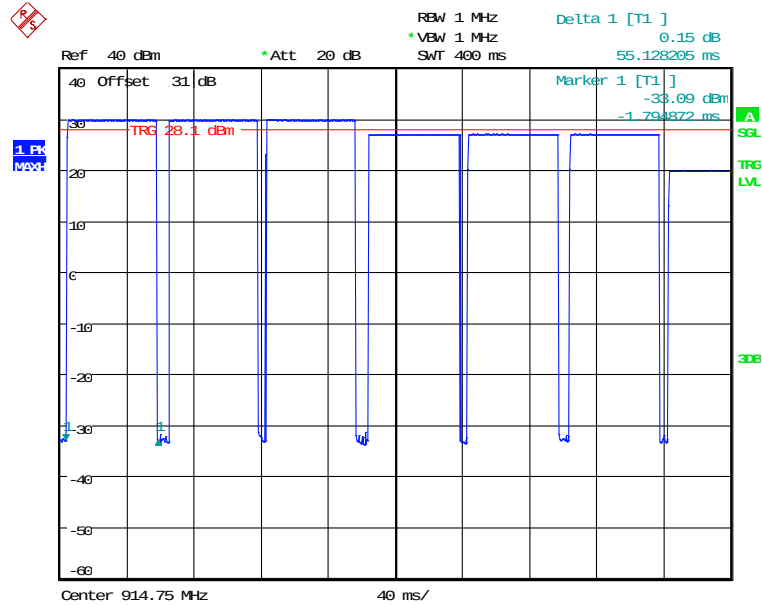


DWELL TIME 902.75MHz

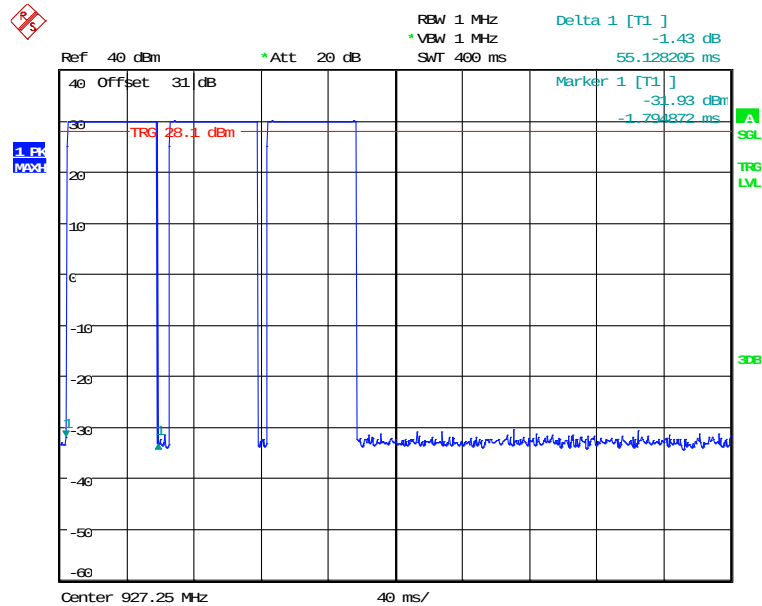
Date: 3.SEP.2025 19:23:04



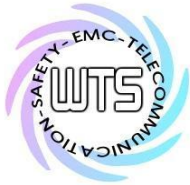
Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU



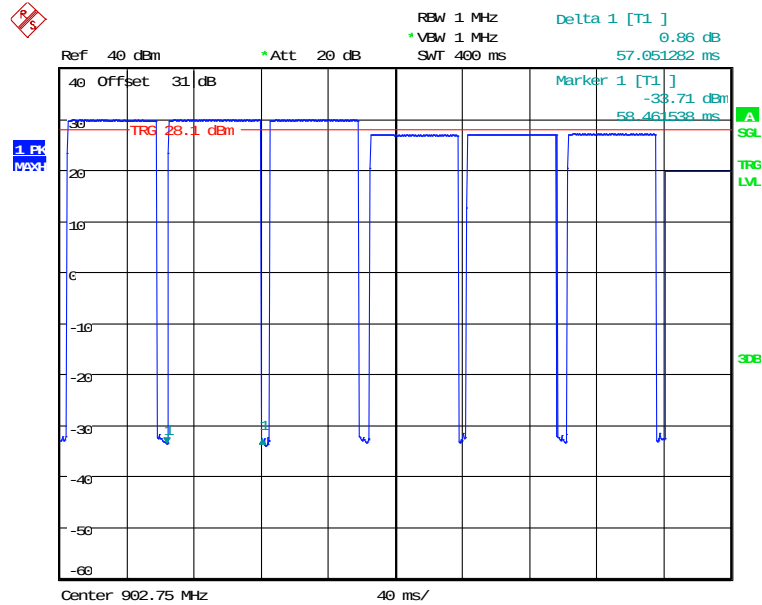
DWELL TIME 914.75MHz
Date: 3.SEP.2025 18:10:39



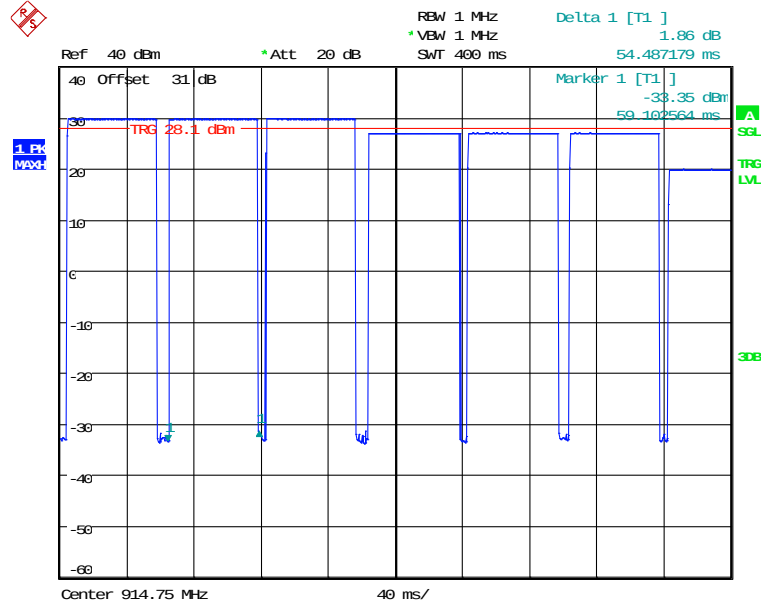
DWELL TIME 927.25MHz
Date: 3.SEP.2025 18:03:13



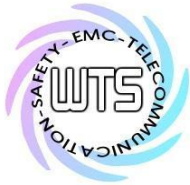
Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU



DWELL TIME 902.75MHz
Date: 3.SEP.2025 19:24:01

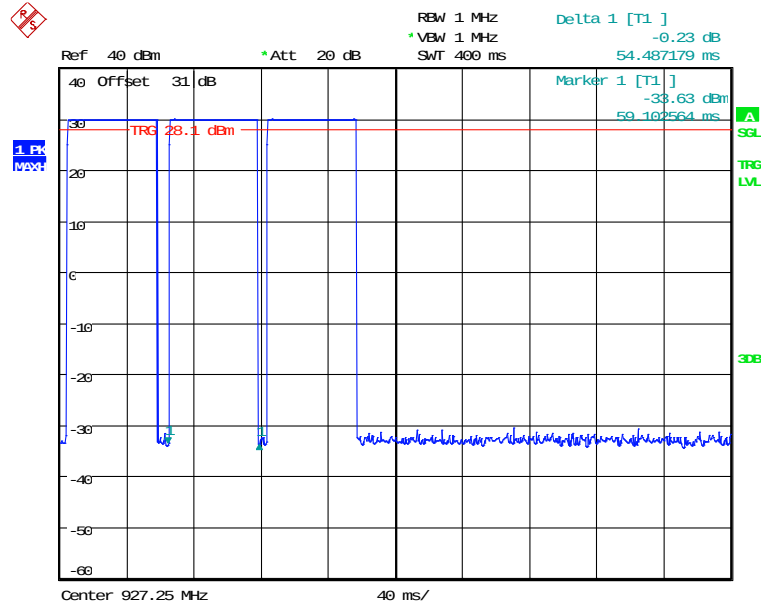


DWELL TIME 914.75MHz
Date: 3.SEP.2025 18:10:09

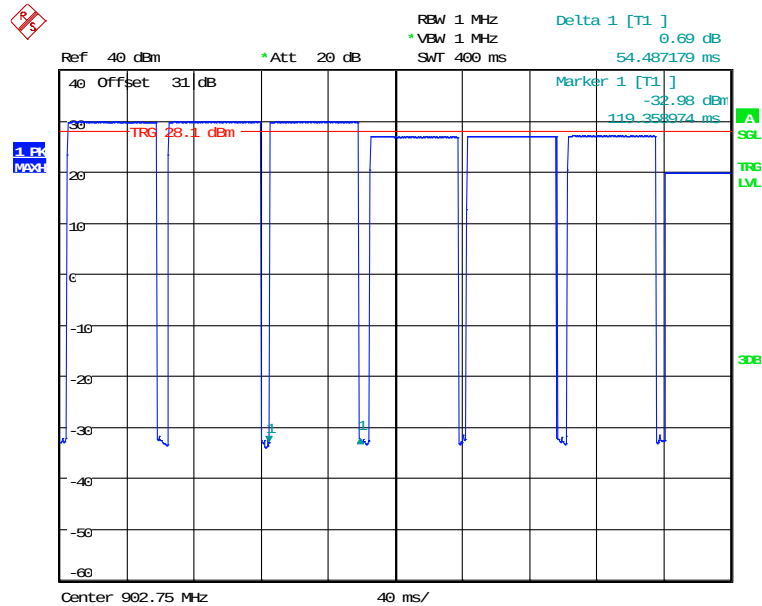


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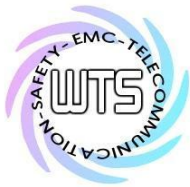
FCC ID: HLERP300BU



DWELL TIME 927.25MHz
Date: 3.SEP.2025 18:04:12

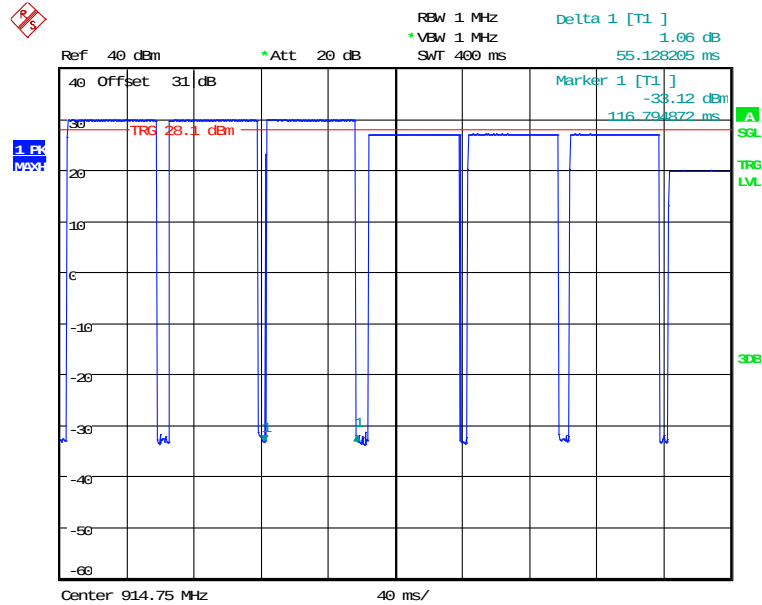


DWELL TIME 902.75MHz(55.128ms+57.051ms+54.487ms =166.666ms)
Date: 3.SEP.2025 19:26:14

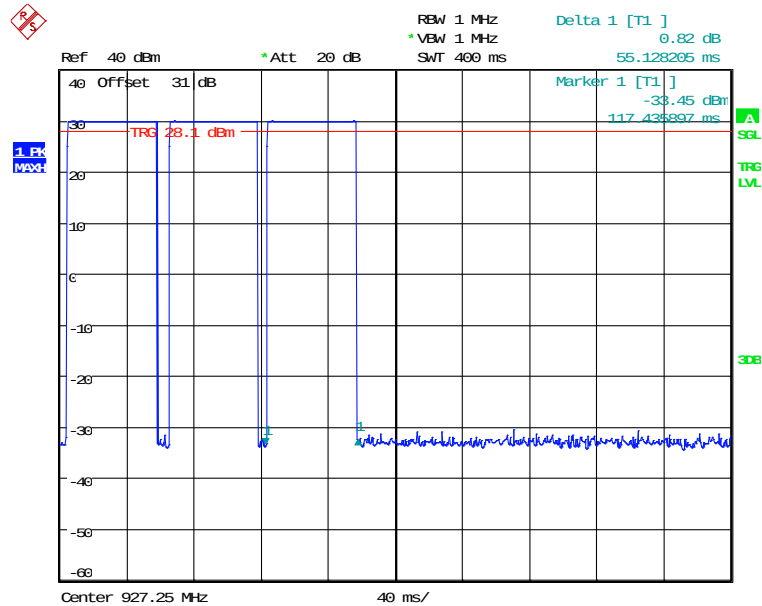


Registration number: W6M22411-23922-C-1

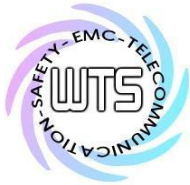
FCC ID: HLERP300BU



DWELL TIME 914.75MHz(55.128ms+54.487ms+55.128ms=164.743ms)
Date: 3.SEP.2025 18:09:11



DWELL TIME 927.25MHz(55.128ms+54.487ms+55.128ms=164.743ms)
Date: 3.SEP.2025 18:06:54



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Limits:

Frequency MHz	Number of channels	Measurement Period	Limit
902 – 928	≥ 50	20 s	0.4 s
	$49 \geq 25$	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



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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: August 26, 2025-September 03, 2025

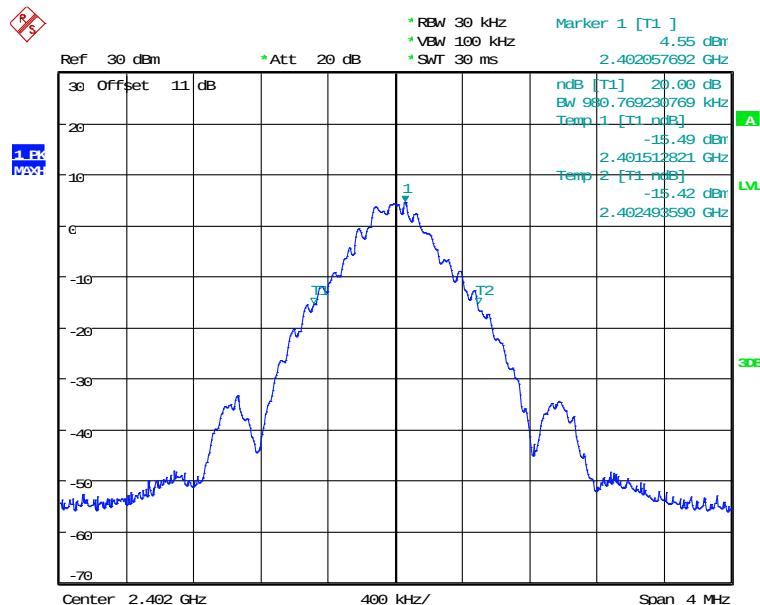
Temperature: 26.5 °C

Humidity: 54.0 %

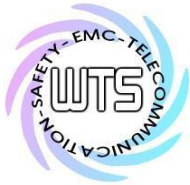
Tester: Rick

Bluetooth

Normal mode

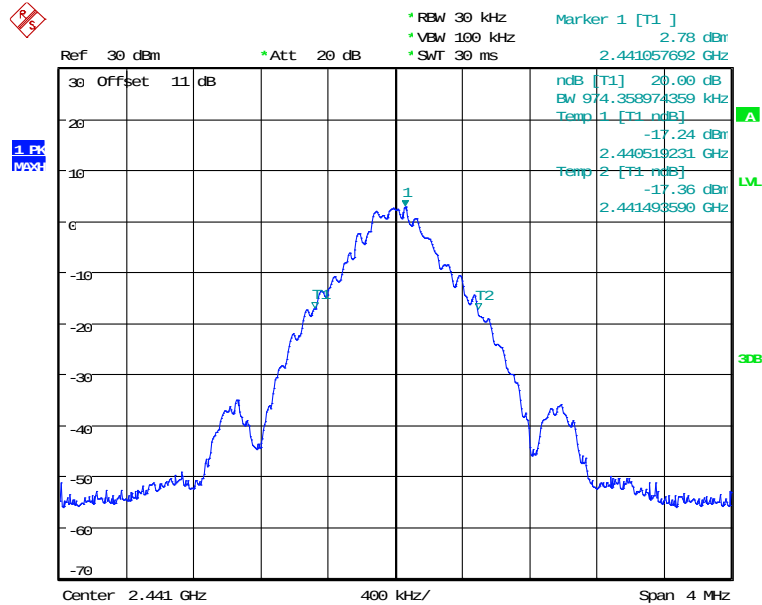


20DB BANDWIDTH CH0
Date: 26.AUG.2025 14:42:01

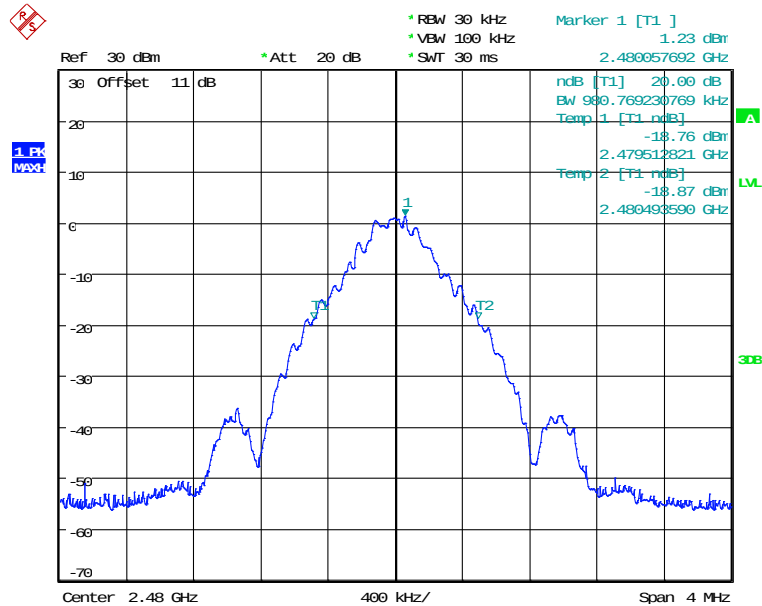


Worldwide Testing Services(Taiwan) Co., Ltd.

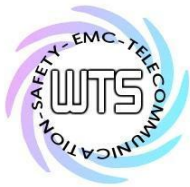
Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU



20DB BANDWIDTH CH39
Date: 26.AUG.2025 14:42:57



20DB BANDWIDTH CH78
Date: 26.AUG.2025 14:43:33

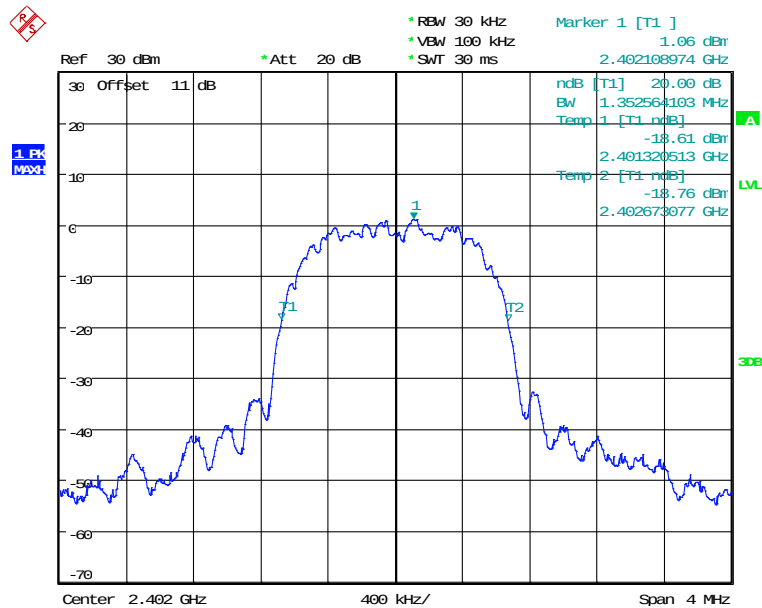


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

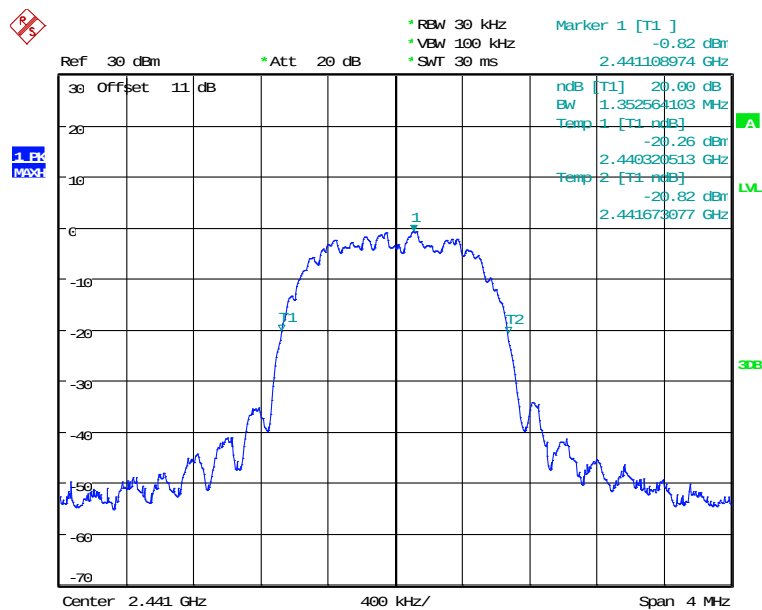
FCC ID: HLERP300BU

EDR mode



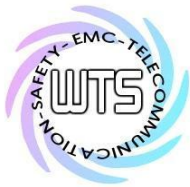
20DB BANDWIDTH CH0 EDR MODE

Date: 26.AUG.2025 14:50:29

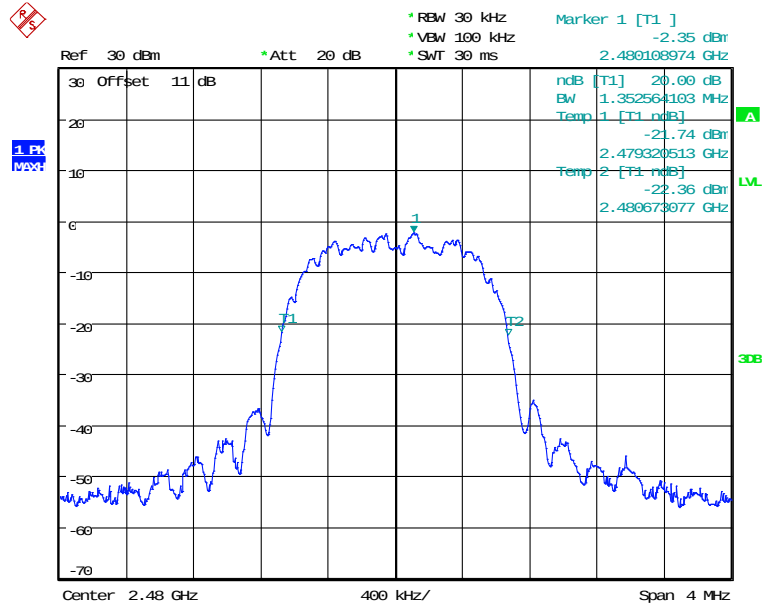


20DB BANDWIDTH CH39 EDR MODE

Date: 26.AUG.2025 14:51:21

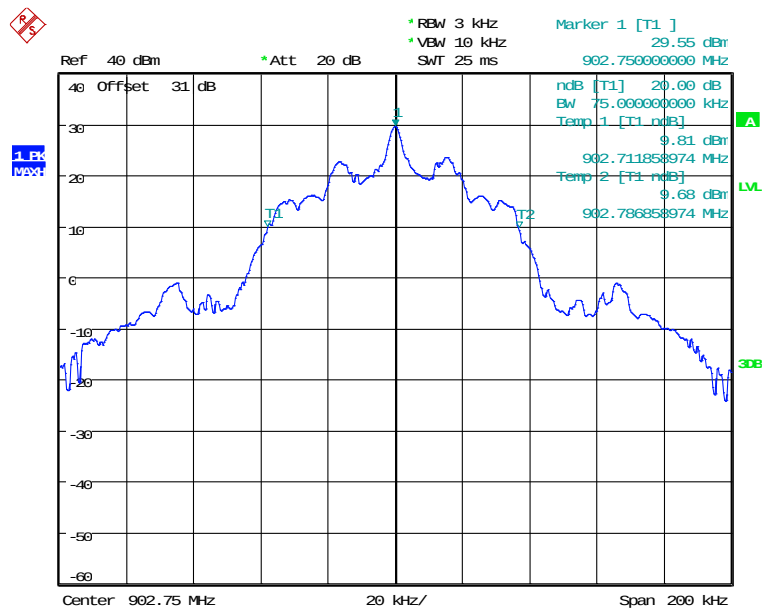


Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU

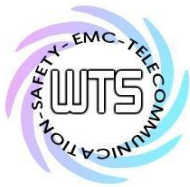


20DB BANDWIDTH CH78 EDR MODE
Date: 26.AUG.2025 14:52:37

RFID



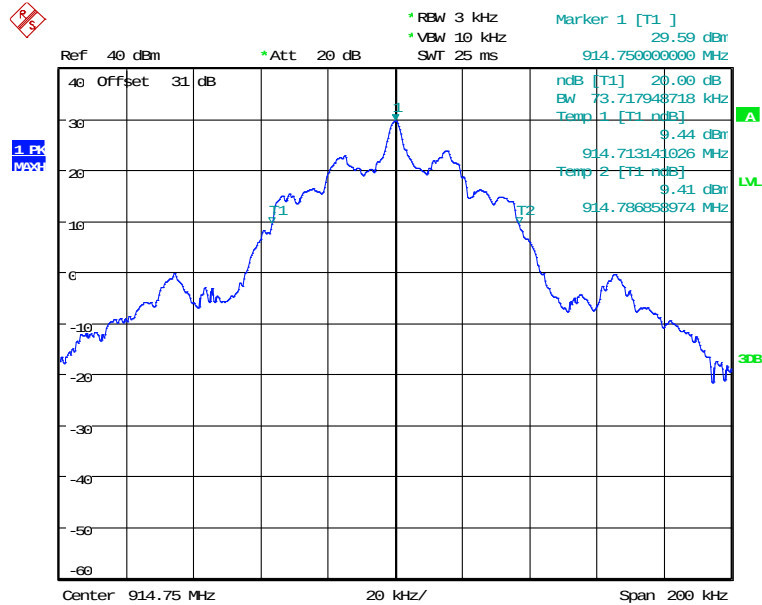
20DB BANDWIDTH 902.75MHz
Date: 3.SEP.2025 15:15:31



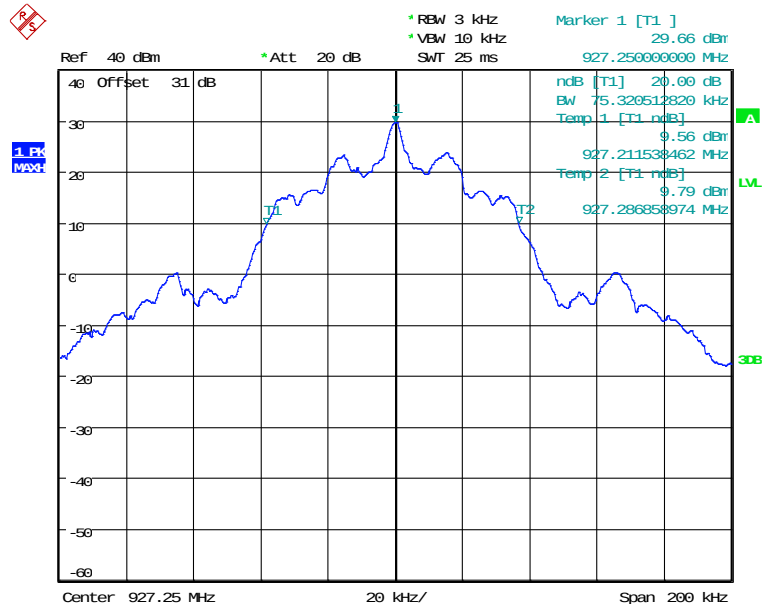
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

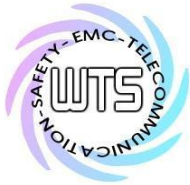
FCC ID: HLERP300BU



20dB BANDWIDTH 914.75MHz
Date: 3.SEP.2025 15:14:25



20dB BANDWIDTH 927.25MHz
Date: 3.SEP.2025 15:13:16



Registration number: W6M22411-23922-C-1

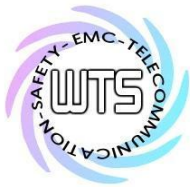
FCC ID: HLERP300BU

Limits:

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

3.7.1 System Receiver Input Bandwidth

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



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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: August 26, 2025

Temperature: 26.1 °C

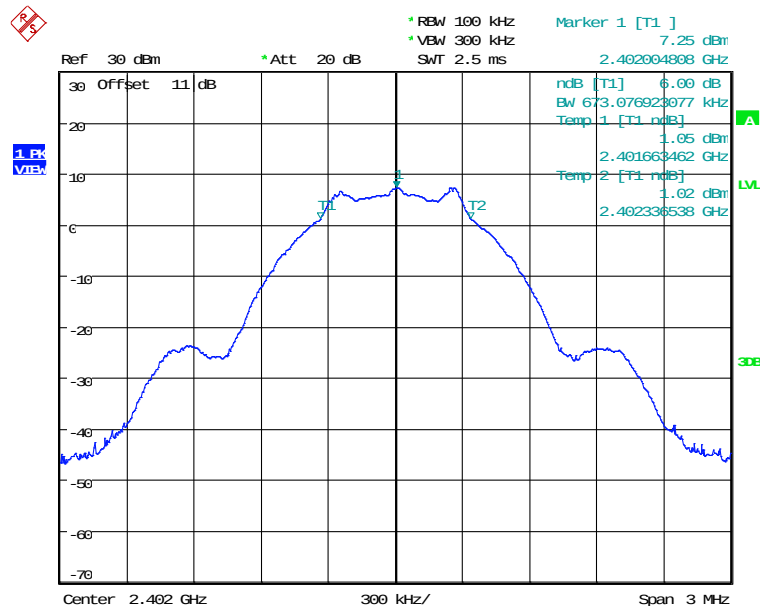
Humidity: 52.0 %

Tester: Rick

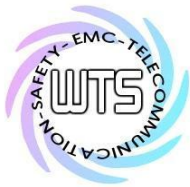
Bluetooth

Low energy mode

1M

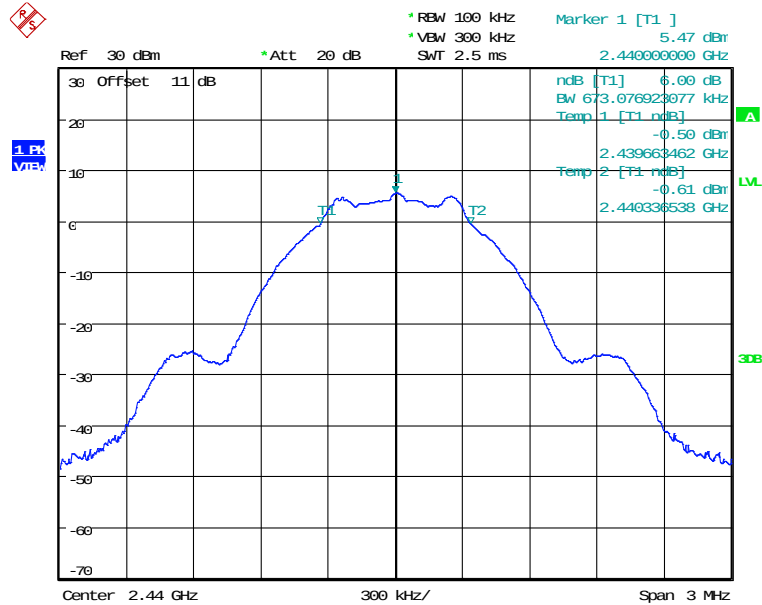


6DB BANDWIDTH BLE 1M CH00
Date: 26.AUG.2025 14:57:41

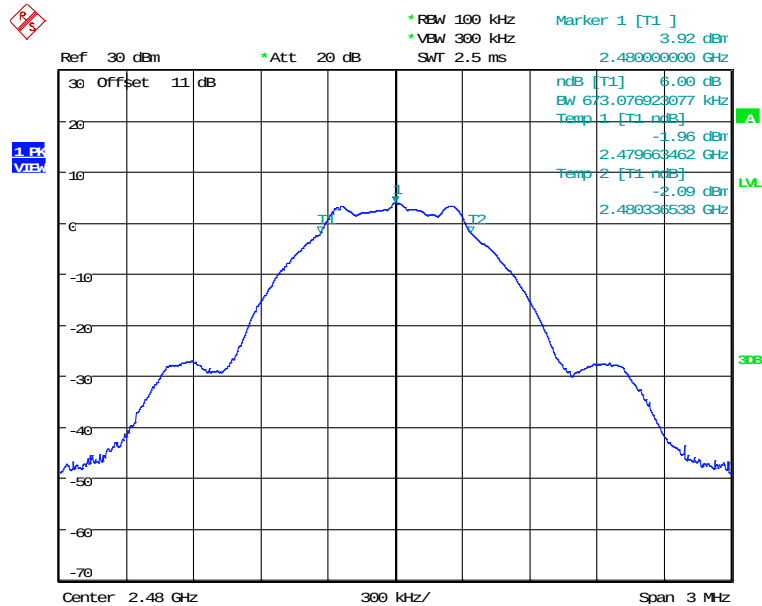


Registration number: W6M22411-23922-C-1

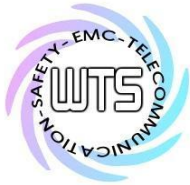
FCC ID: HLERP300BU



6DB BANDWIDTH BLE 1M CH19
Date: 26.AUG.2025 14:58:31



6DB BANDWIDTH BLE 1M CH39
Date: 26.AUG.2025 14:59:11



Registration number: W6M22411-23922-C-1

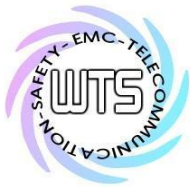
FCC ID: HLERP300BU

Limits:

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

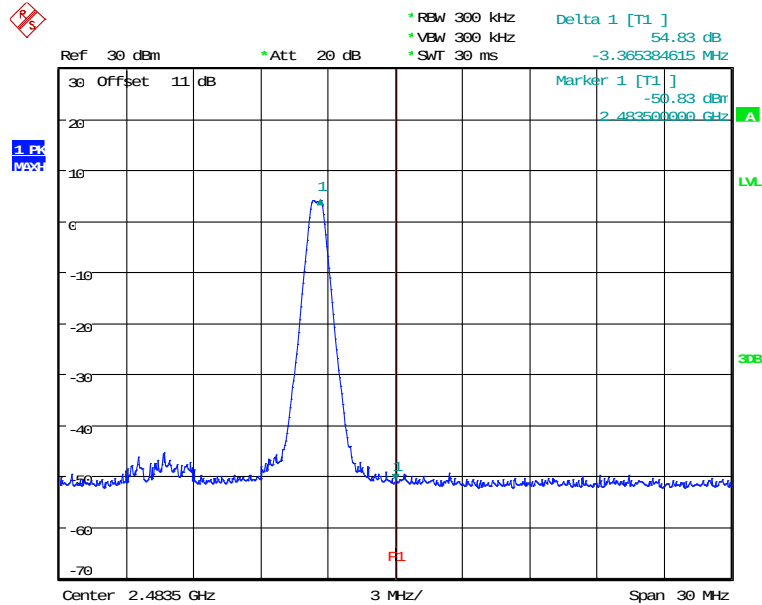


FCC ID: HLERP300BU



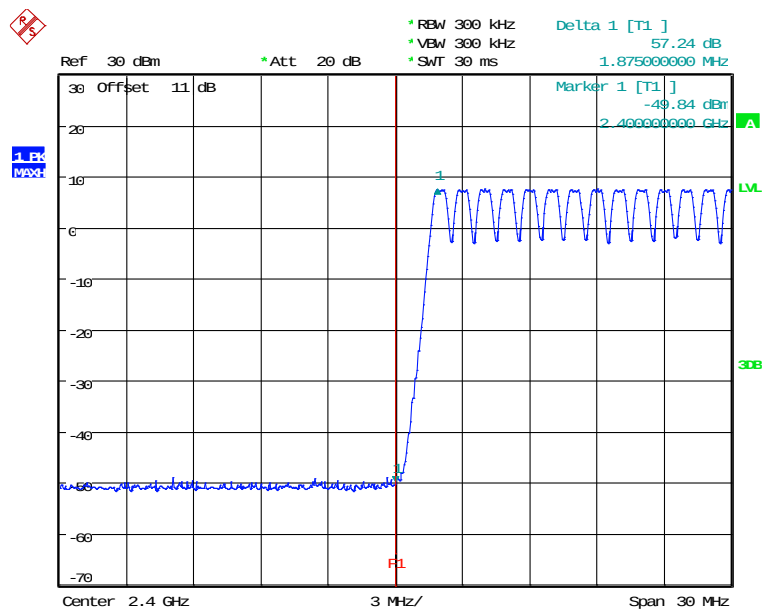
Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU



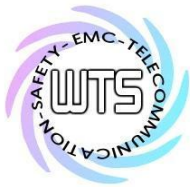
BANDEDGE CH78

Date: 26.AUG.2025 14:43:41

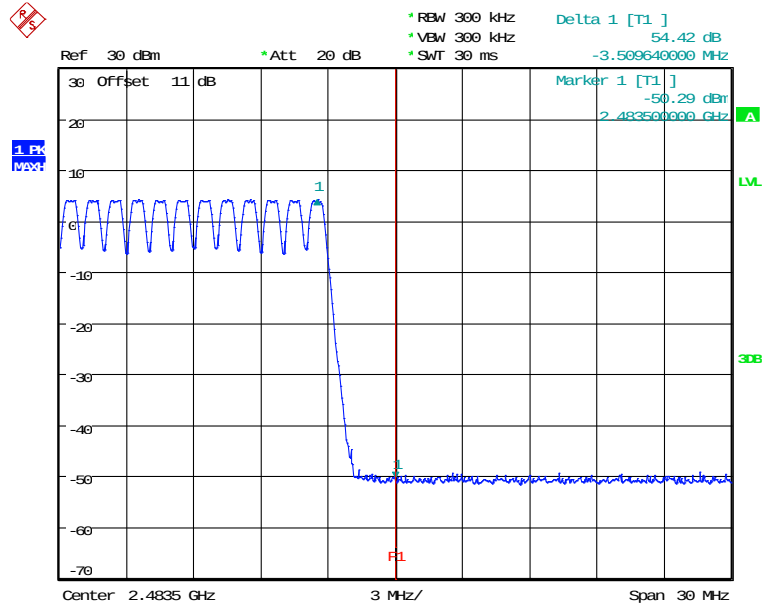


BANDEDGE CH0 HOPPING MODE

Date: 26.AUG.2025 14:44:49

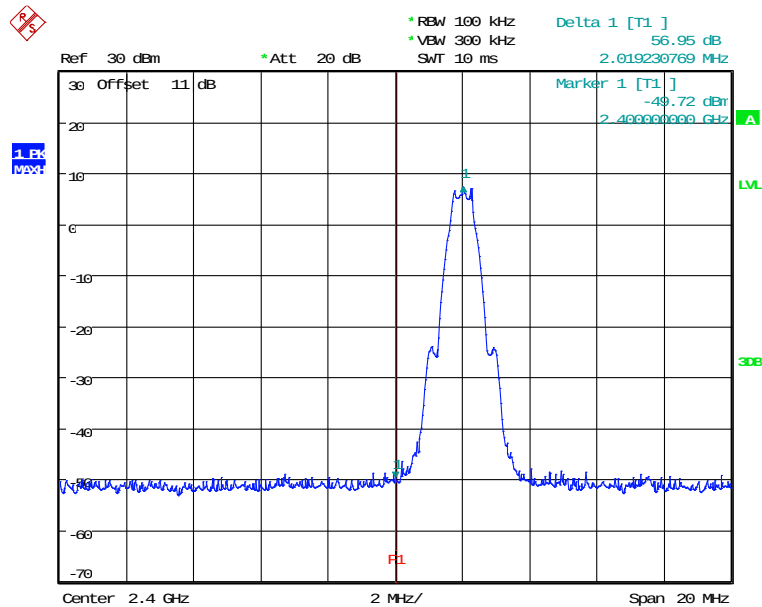


Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU

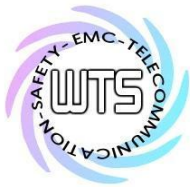


BANDEDGE CH78 HOPPING MODE
Date: 26.AUG.2025 14:45:37

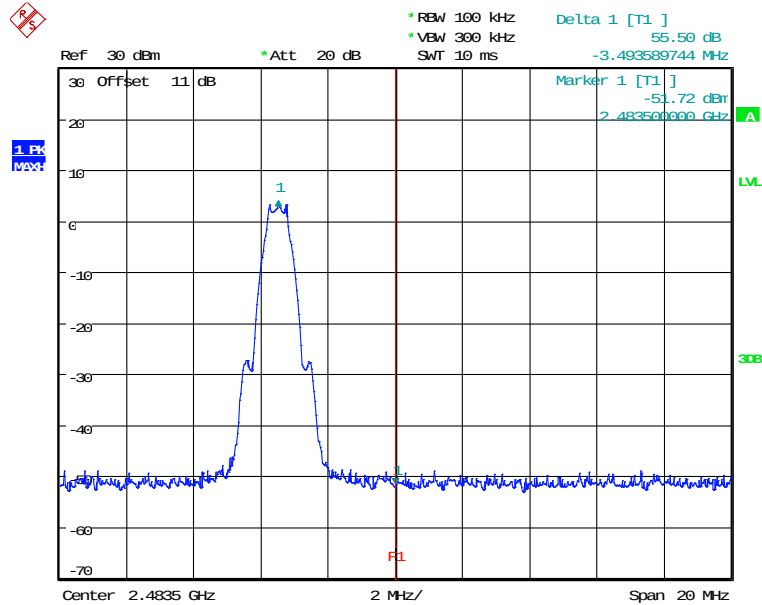
Low energy mode
1M



BANDEDGE BLE 1M CH00
Date: 26.AUG.2025 14:57:59

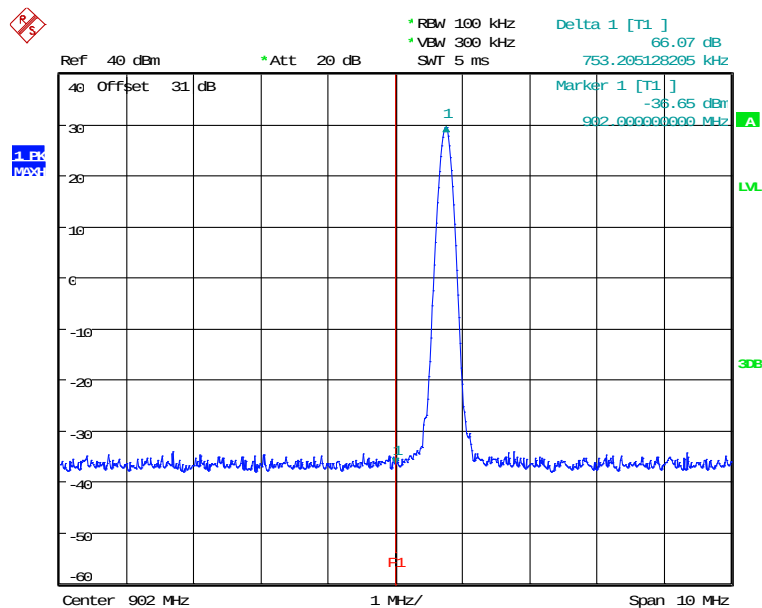


Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU

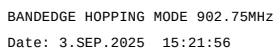
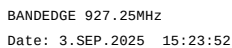


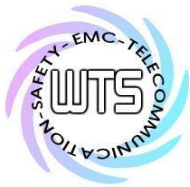
BANDEDGE BLE 1M CH39
Date: 26.AUG.2025 14:59:29

RFID



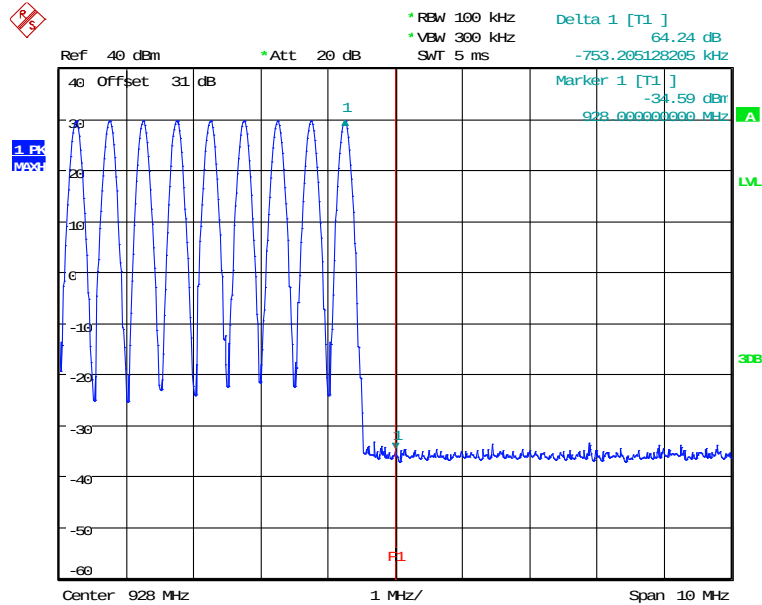
BANDEDGE 902.75MHz
Date: 3.SEP.2025 15:19:47





Registration number: W6M22411-23922-C-1

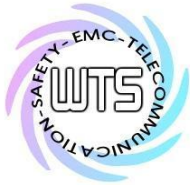
FCC ID: HLERP300BU



BANDEDGE HOPPING MODE 927.25MHz
Date: 3.SEP.2025 15:23:02

Limit:

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



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

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: August 26, 2025

Temperature: 26.1 °C

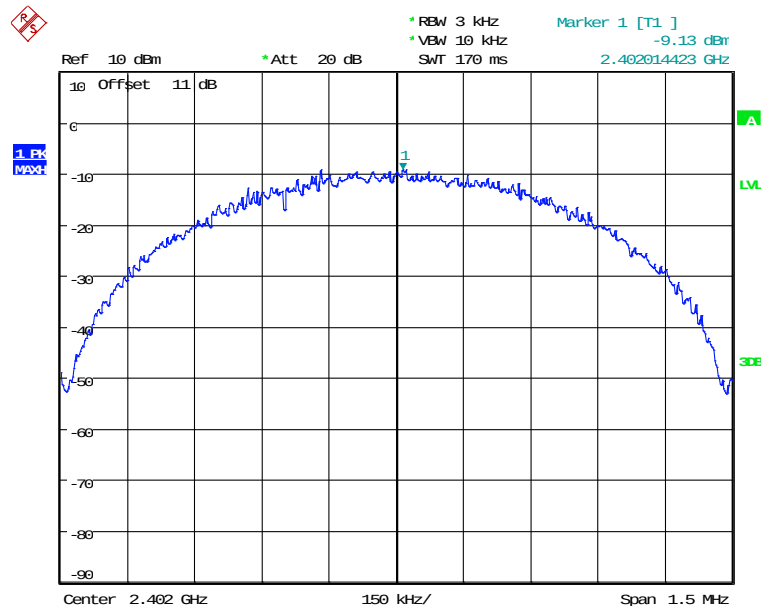
Humidity: 52.0 %

Tester: Rick

Bluetooth

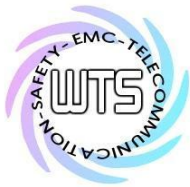
Low energy mode

1M



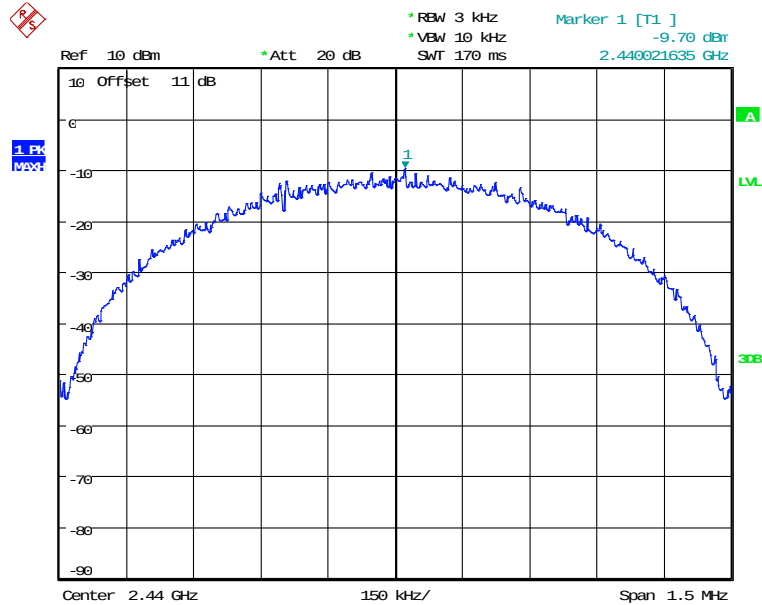
POWER DENSITY BLE 1M CH00

Date: 26.AUG.2025 14:57:51

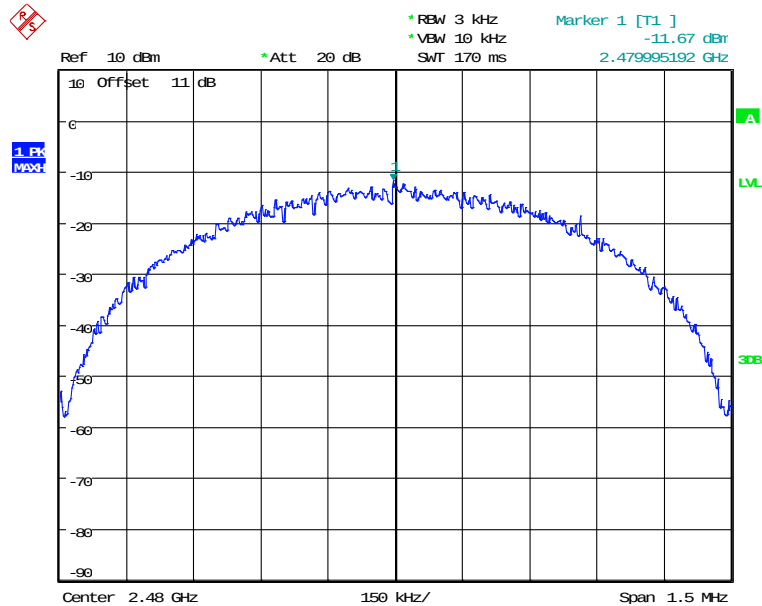


Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU



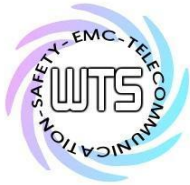
POWER DENSITY BLE 1M CH19
Date: 26.AUG.2025 14:58:41



POWER DENSITY BLE 1M CH39
Date: 26.AUG.2025 14:59:21

Limits:

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



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

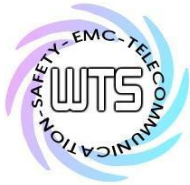
3.11 Radiated Emission from Receiver Part

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

Explanation: Please refer to separated test report no.: W6M22411-23922-P-15B.



Registration number: W6M22411-23922-C-1

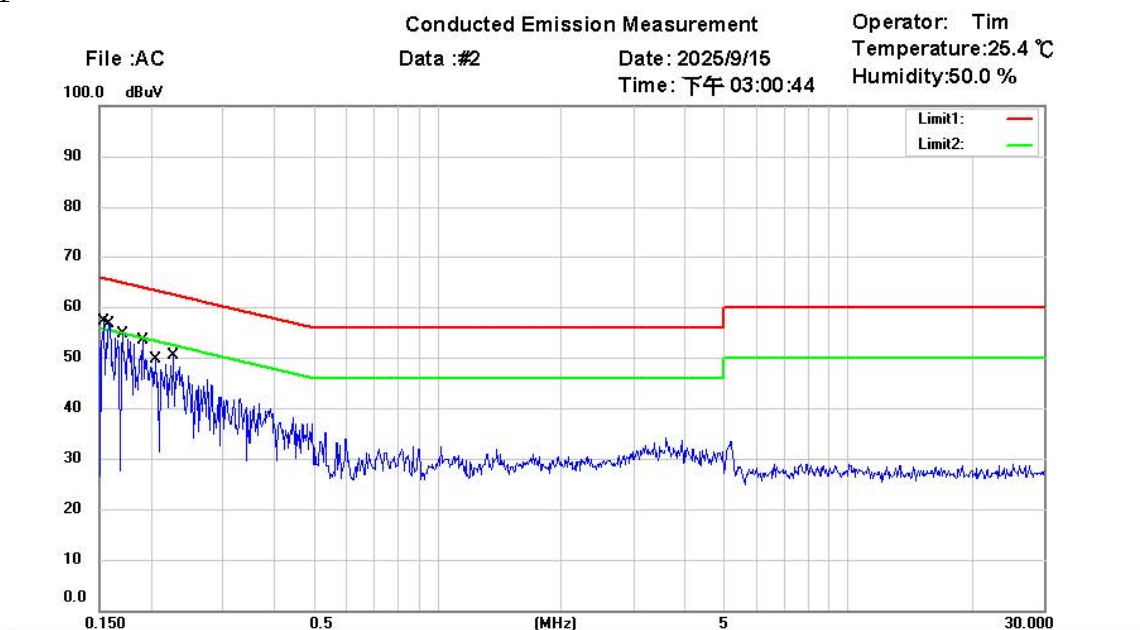
FCC ID: HLERP300BU

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.

Mode 1



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

EUT : W6M22411-23922

M/N:

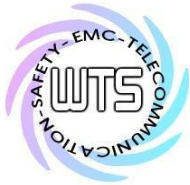
Test Mode : Mode 1

Note :

Phase: N

Power : 120V.a.c.

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1538	38.60	QP	9.59	48.19	65.79	-17.60	
	0.1538	18.08	AVG	9.59	27.67	55.79	-28.12	
	0.1582	37.98	QP	9.59	47.57	65.56	-17.99	
	0.1582	16.56	AVG	9.59	26.15	55.56	-29.41	
*	0.1698	39.18	QP	9.59	48.77	64.97	-16.20	
	0.1698	20.82	AVG	9.59	30.41	54.97	-24.56	
	0.1908	32.61	QP	9.60	42.21	64.00	-21.79	
	0.1908	15.26	AVG	9.60	24.86	54.00	-29.14	
	0.2048	33.53	QP	9.60	43.13	63.41	-20.28	
	0.2048	12.09	AVG	9.60	21.69	53.41	-31.72	
	0.2258	31.10	QP	9.62	40.72	62.60	-21.88	
	0.2258	14.87	AVG	9.62	24.49	52.60	-28.11	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Conducted Emission Measurement

Operator: Tim

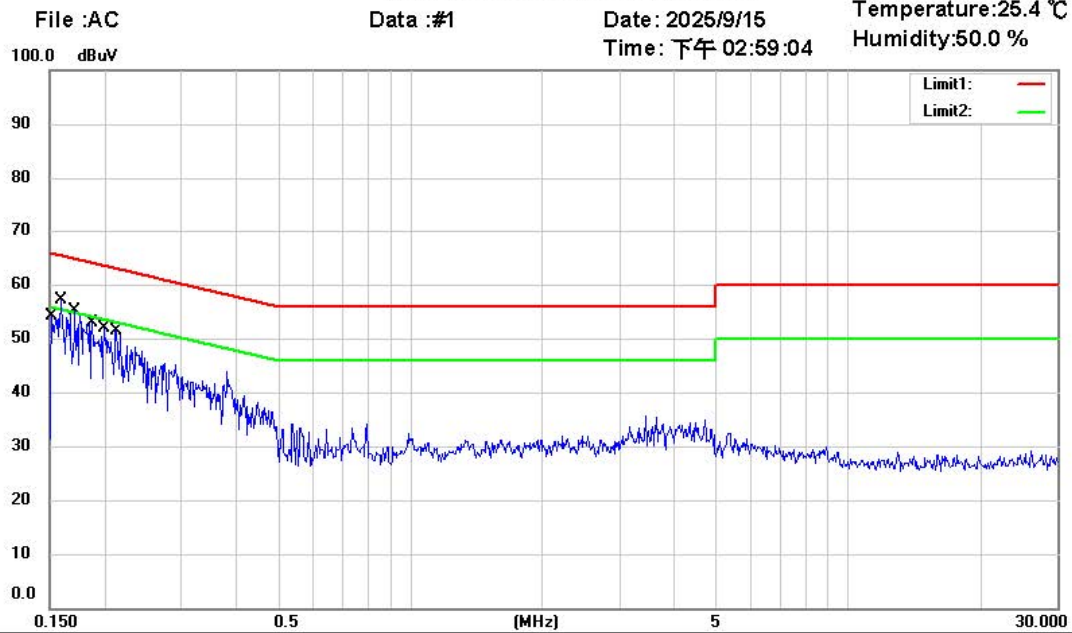
Data :#1

Date: 2025/9/15

Temperature: 25.4 °C

Time: 下午 02:59:04

Humidity: 50.0 %



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M22411-23922

Power : 120V.a.c.

M/N:

Test Mode : Mode 1

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
*	0.1514	42.76	QP	9.59	52.35	65.92	-13.57	
	0.1514	20.81	AVG	9.59	30.40	55.92	-25.52	
	0.1587	37.60	QP	9.59	47.19	65.53	-18.34	
	0.1587	17.75	AVG	9.59	27.34	55.53	-28.19	
	0.1705	38.67	QP	9.59	48.26	64.94	-16.68	
	0.1705	19.50	AVG	9.59	29.09	54.94	-25.85	
	0.1873	36.18	QP	9.60	45.78	64.16	-18.38	
	0.1873	17.36	AVG	9.60	26.96	54.16	-27.20	
	0.1988	32.79	QP	9.60	42.39	63.66	-21.27	
	0.1988	15.83	AVG	9.60	25.43	53.66	-28.23	
	0.2118	34.74	QP	9.61	44.35	63.13	-18.78	
	0.2118	15.39	AVG	9.61	25.00	53.13	-28.13	

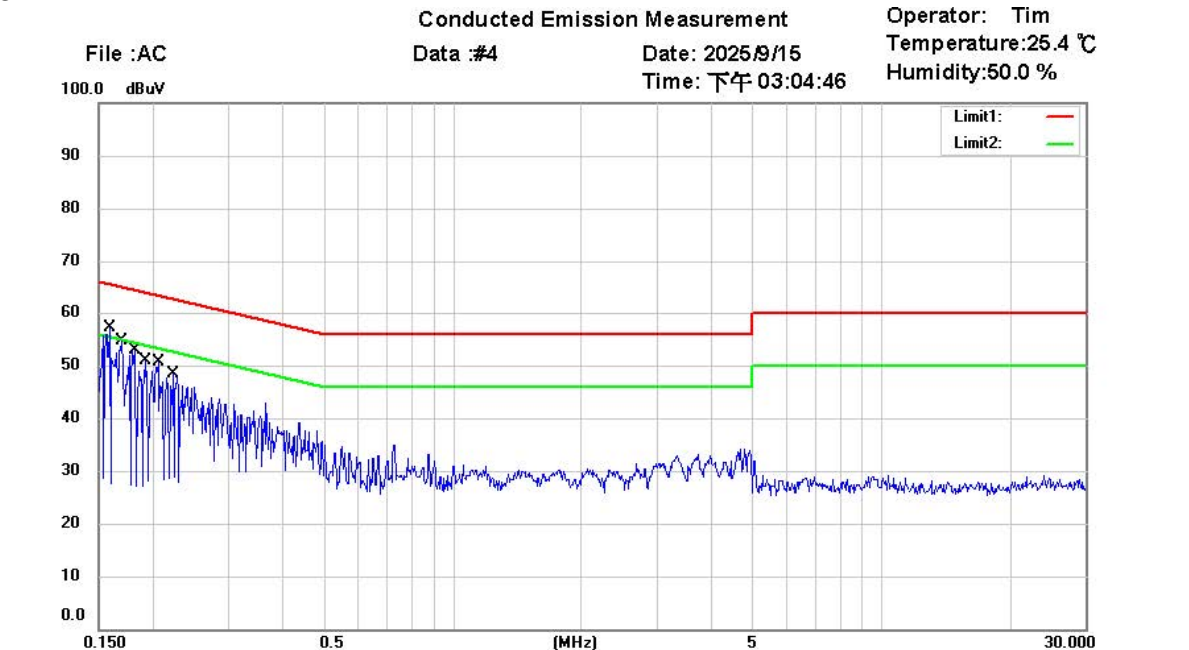


Worldwide Testing Services(Taiwan) Co., Ltd.

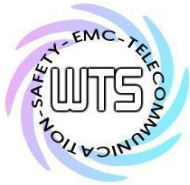
Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Mode 2



Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
*	0.1570	39.81	QP	9.59	49.40	65.62	-16.22	
	0.1570	22.67	AVG	9.59	32.26	55.62	-23.36	
	0.1691	31.32	QP	9.59	40.91	65.00	-24.09	
	0.1691	12.14	AVG	9.59	21.73	55.00	-33.27	
	0.1822	35.66	QP	9.60	45.26	64.38	-19.12	
	0.1822	18.33	AVG	9.60	27.93	54.38	-26.45	
	0.1920	33.11	QP	9.60	42.71	63.95	-21.24	
	0.1920	12.40	AVG	9.60	22.00	53.95	-31.95	
	0.2055	28.49	QP	9.60	38.09	63.39	-25.30	
	0.2055	12.76	AVG	9.60	22.36	53.39	-31.03	
	0.2230	26.04	QP	9.62	35.66	62.71	-27.05	
	0.2230	12.84	AVG	9.62	22.46	52.71	-30.25	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Conducted Emission Measurement

Operator: Tim

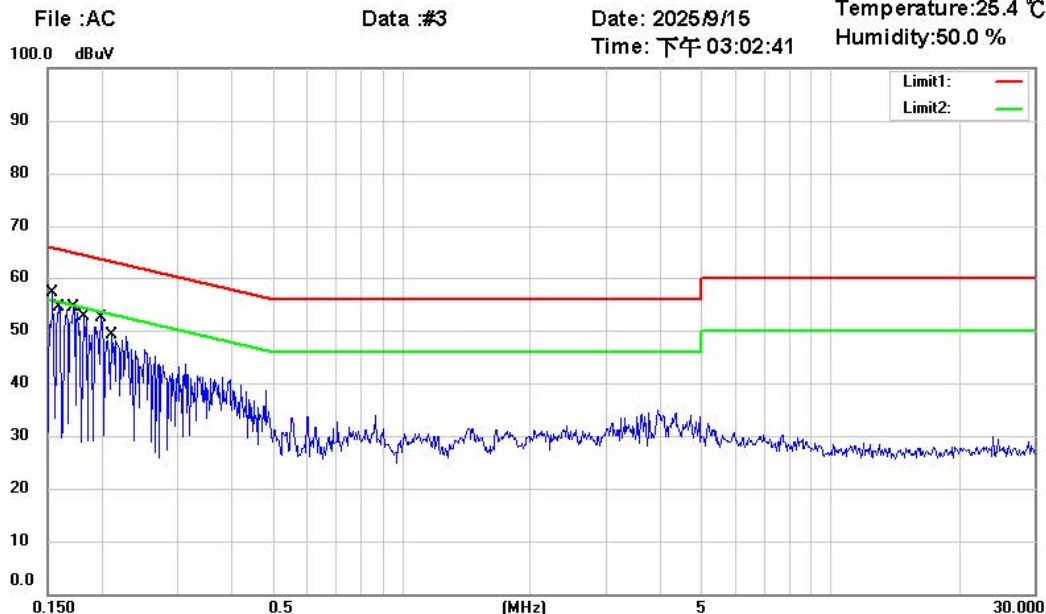
Data :#3

Date: 2025/9/15

Temperature: 25.4 °C

Time: 下午 03:02:41

Humidity: 50.0 %



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M22411-23922

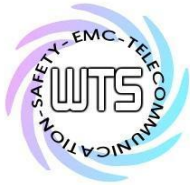
Power : 120Vac.

M/N:

Test Mode : Mode 2

Note :

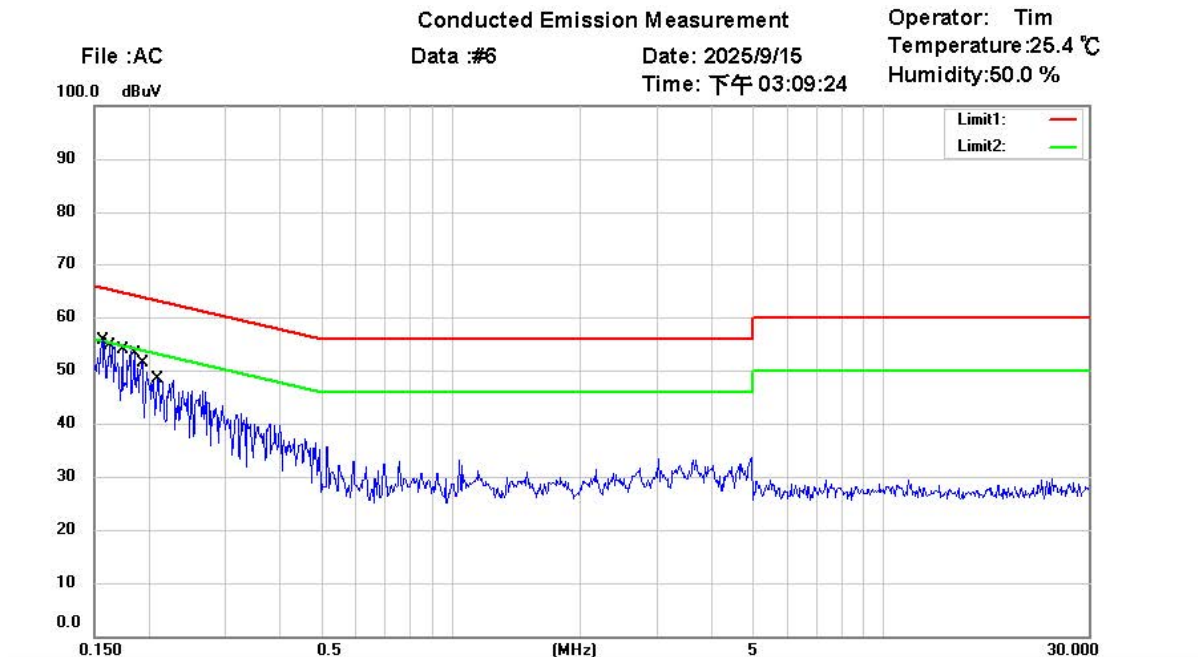
Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1537	39.31	QP	9.59	48.90	65.80	-16.90	
	0.1537	17.25	AVG	9.59	26.84	55.80	-28.96	
	0.1584	39.43	QP	9.59	49.02	65.55	-16.53	
	0.1584	19.09	AVG	9.59	28.68	55.55	-26.87	
*	0.1722	39.20	QP	9.59	48.79	64.85	-16.06	
	0.1722	18.85	AVG	9.59	28.44	54.85	-26.41	
	0.1820	32.11	QP	9.60	41.71	64.39	-22.68	
	0.1820	15.51	AVG	9.60	25.11	54.39	-29.28	
	0.1988	32.23	QP	9.60	41.83	63.66	-21.83	
	0.1988	17.62	AVG	9.60	27.22	53.66	-26.44	
	0.2105	30.82	QP	9.61	40.43	63.19	-22.76	
	0.2105	13.49	AVG	9.61	23.10	53.19	-30.09	



Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Mode 3



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: N

EUT : W6M22411-23922

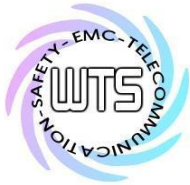
Power : 120Va.c.

M/N:

Test Mode : Mode 3

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1565	35.81	QP	9.59	45.40	65.65	-20.25	
	0.1565	15.44	AVG	9.59	25.03	55.65	-30.62	
*	0.1620	36.60	QP	9.59	46.19	65.36	-19.17	
	0.1620	19.65	AVG	9.59	29.24	55.36	-26.12	
	0.1736	30.15	QP	9.59	39.74	64.79	-25.05	
	0.1736	12.76	AVG	9.59	22.35	54.79	-32.44	
	0.1852	34.08	QP	9.60	43.68	64.25	-20.57	
	0.1852	16.29	AVG	9.60	25.89	54.25	-28.36	
	0.1925	29.94	QP	9.60	39.54	63.93	-24.39	
	0.1925	14.46	AVG	9.60	24.06	53.93	-29.87	
	0.2086	30.80	QP	9.61	40.41	63.26	-22.85	
	0.2086	15.89	AVG	9.61	25.50	53.26	-27.76	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU

Conducted Emission Measurement

Operator: Tim

Data :#5

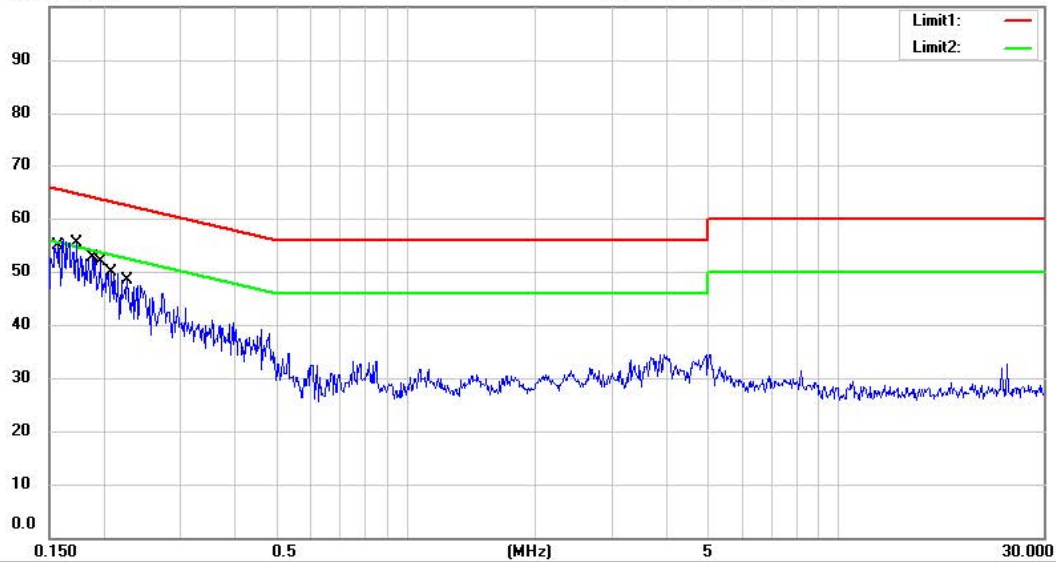
Date: 2025/9/15

Temperature:25.4 °C

Time: 下午 03:07:38

Humidity:50.0 %

File :AC
100.0 dBuV



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M22411-23922

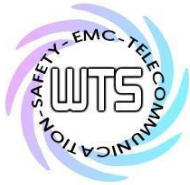
Power : 120Va.c.

M/N:

Test Mode : Mode 3

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1563	36.64	QP	9.59	46.23	65.66	-19.43	
	0.1563	19.88	AVG	9.59	29.47	55.66	-26.19	
	0.1724	34.92	QP	9.59	44.51	64.84	-20.33	
	0.1724	15.01	AVG	9.59	24.60	54.84	-30.24	
*	0.1878	36.61	QP	9.60	46.21	64.13	-17.92	
	0.1878	20.30	AVG	9.60	29.90	54.13	-24.23	
	0.1960	28.57	QP	9.60	38.17	63.78	-25.61	
	0.1960	9.70	AVG	9.60	19.30	53.78	-34.48	
	0.2076	30.74	QP	9.61	40.35	63.30	-22.95	
	0.2076	16.78	AVG	9.61	26.39	53.30	-26.91	
	0.2263	26.08	QP	9.62	35.70	62.58	-26.88	
	0.2263	10.07	AVG	9.62	19.69	52.58	-32.89	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Mode 4

Conducted Emission Measurement

Operator: Tim

Data :#8

Date: 2025/9/15

Temperature:25.4 °C

Time: 下午 03:13:52

Humidity:50.0 %



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: N

EUT : W6M22411-23922

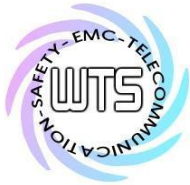
Power : 120V.a.c.

M/N:

Test Mode : Mode 4

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1550	33.20	QP	9.59	42.79	65.73	-22.94	
	0.1550	22.69	AVG	9.59	32.28	55.73	-23.45	
*	0.1666	37.75	QP	9.59	47.34	65.13	-17.79	
	0.1666	21.43	AVG	9.59	31.02	55.13	-24.11	
	0.2134	33.49	QP	9.61	43.10	63.07	-19.97	
	0.2134	7.79	AVG	9.61	17.40	53.07	-35.67	
	0.2424	32.73	QP	9.63	42.36	62.01	-19.65	
	0.2424	6.49	AVG	9.63	16.12	52.01	-35.89	
	0.2600	27.80	QP	9.64	37.44	61.43	-23.99	
	0.2600	6.01	AVG	9.64	15.65	51.43	-35.78	
	0.2833	27.93	QP	9.66	37.59	60.72	-23.13	
	0.2833	12.37	AVG	9.66	22.03	50.72	-28.69	



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Conducted Emission Measurement

Operator: Tim

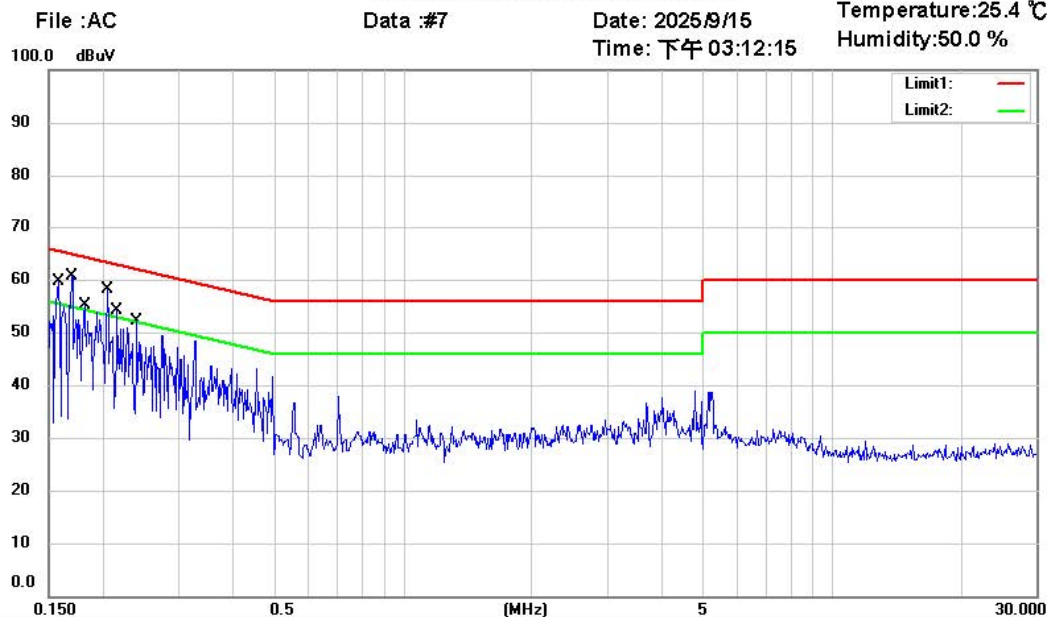
Data :#7

Date: 2025/9/15

Temperature: 25.4 °C

Time: 下午 03:12:15

Humidity: 50.0 %



Site : Chamber_03

Condition : FCC Part 15 Class B Conduction (QP)

Phase: L1

EUT : W6M22411-23922

Power : 120Va.c.

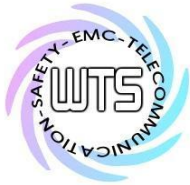
M/N:

Test Mode : Mode 4

Note :

Mk.	Frequency (MHz)	Reading (dBuV)	Detector	Corrected factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Comment
	0.1577	32.76	QP	9.59	42.35	65.58	-23.23	
	0.1577	26.12	AVG	9.59	35.71	55.58	-19.87	
*	0.1694	40.56	QP	9.59	50.15	64.99	-14.84	
	0.1694	25.46	AVG	9.59	35.05	54.99	-19.94	
	0.1810	36.93	QP	9.60	46.53	64.44	-17.91	
	0.1810	6.84	AVG	9.60	16.44	54.44	-38.00	
	0.2044	36.81	QP	9.60	46.41	63.43	-17.02	
	0.2044	8.17	AVG	9.60	17.77	53.43	-35.66	
	0.2162	32.93	QP	9.61	42.54	62.96	-20.42	
	0.2162	7.08	AVG	9.61	16.69	52.96	-36.27	
	0.2394	33.43	QP	9.63	43.06	62.12	-19.06	
	0.2394	4.16	AVG	9.63	13.79	52.12	-38.33	

- 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.



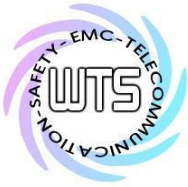
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22411-23922-C-1

FCC ID: HLERP300BU

Limits:

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



Registration number: W6M22411-23922-C-1
FCC ID: HLERP300BU

Appendix

Measurement diagrams

Spurious Emissions radiated



Address:No.99,Sec.1,Balian Rd.,Xizhi Dist.,New Taipei City
Tel:+886-2-2646-1508
Fax:+886-2-2646-1533

Radiated Emission Measurement

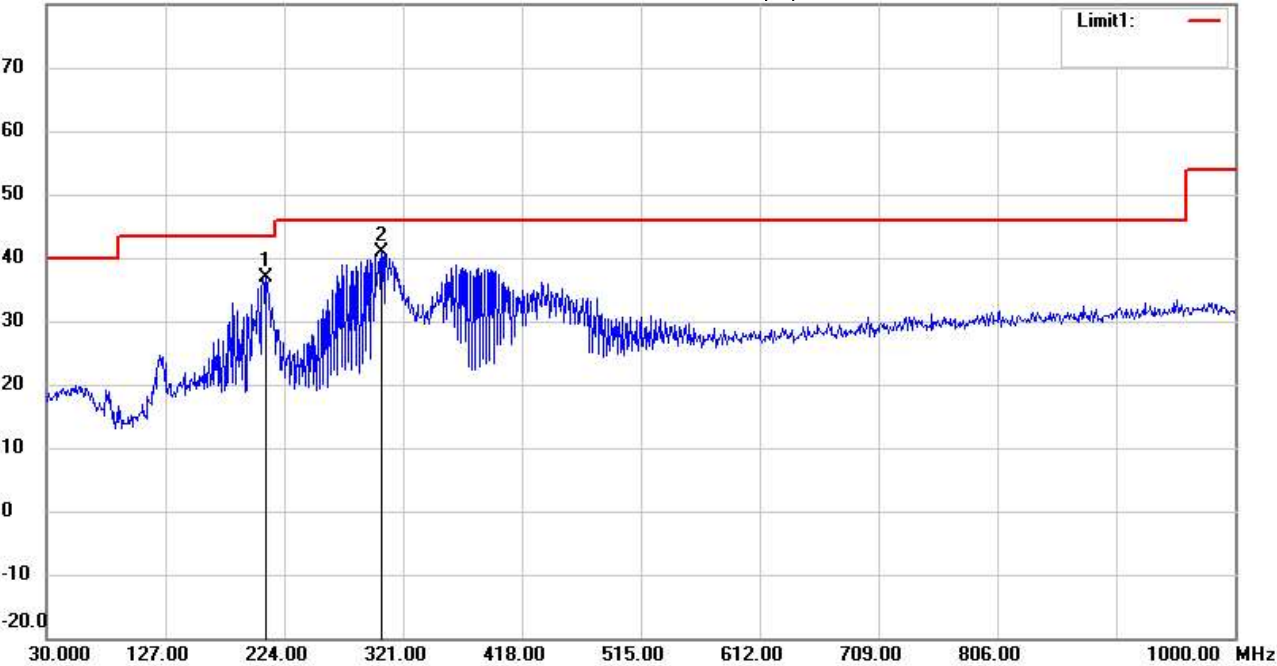
Operator: Gino
Temperature:26.0 °C
Humidity:42.1 %

File :1_BT_TX 2402MHz

Data :#1

Date: 2025/9/5
Time: 下午 10:53:34

80.0 dBuV/m



Site : 966A Chamber

Condition : FCC_part 15 RE-Class C_30-1000MHz

EUT : W6M22411-23922

M/N:

Test Mode : TX 2402MHz

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
	209.4500	52.56	peak	-15.79	36.77	43.50	100	258	-6.73	
*	303.5400	52.67	peak	-11.82	40.85	46.00	100	153	-5.15	



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Gino

File: 1_BT_TX 2402MHz

Data: #2

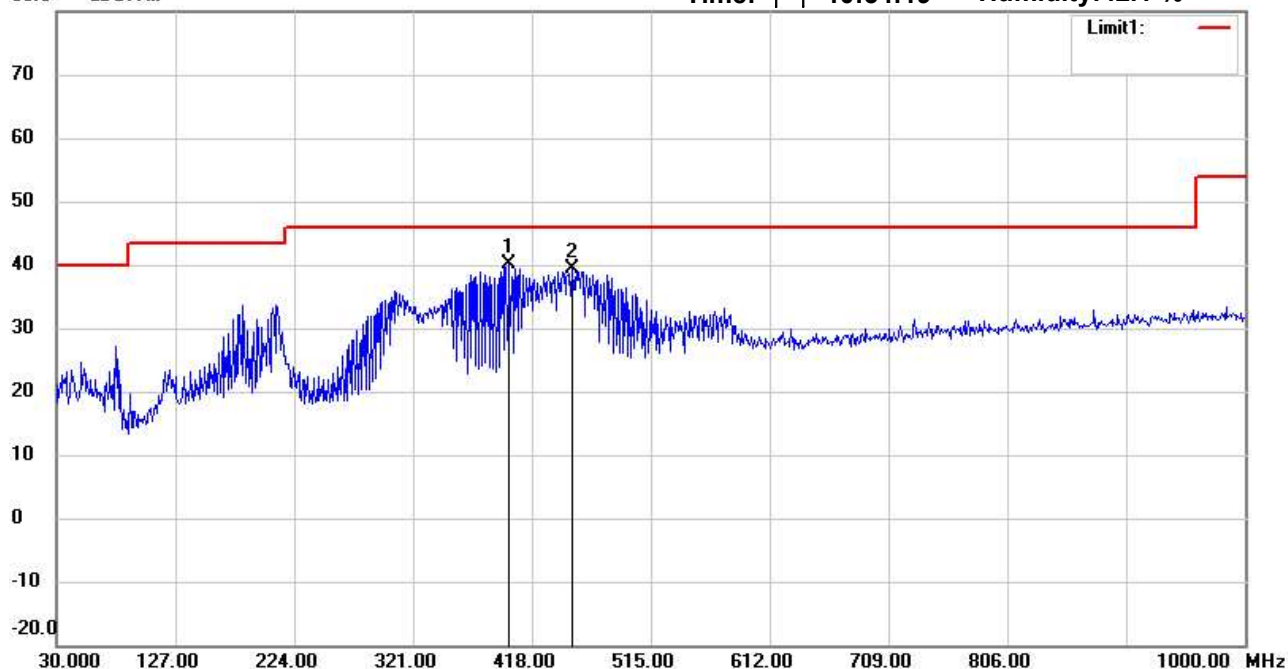
Date: 2025/9/5

Temperature: 26.0 °C

80.0 dBuV/m

Time: 下午 10:54:19

Humidity: 42.1 %



Site: 966A Chamber

Condition: FCC_part 15 RE-Class C_30-1000MHz

EUT: W6M22411-23922

M/N:

Test Mode: TX 2402MHz

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
*	399.5700	49.71	peak	-9.67	40.04	46.00	100	137	-5.96	
	450.9800	47.37	peak	-8.08	39.29	46.00	100	154	-6.71	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Jeff

File : 3

Data : #1

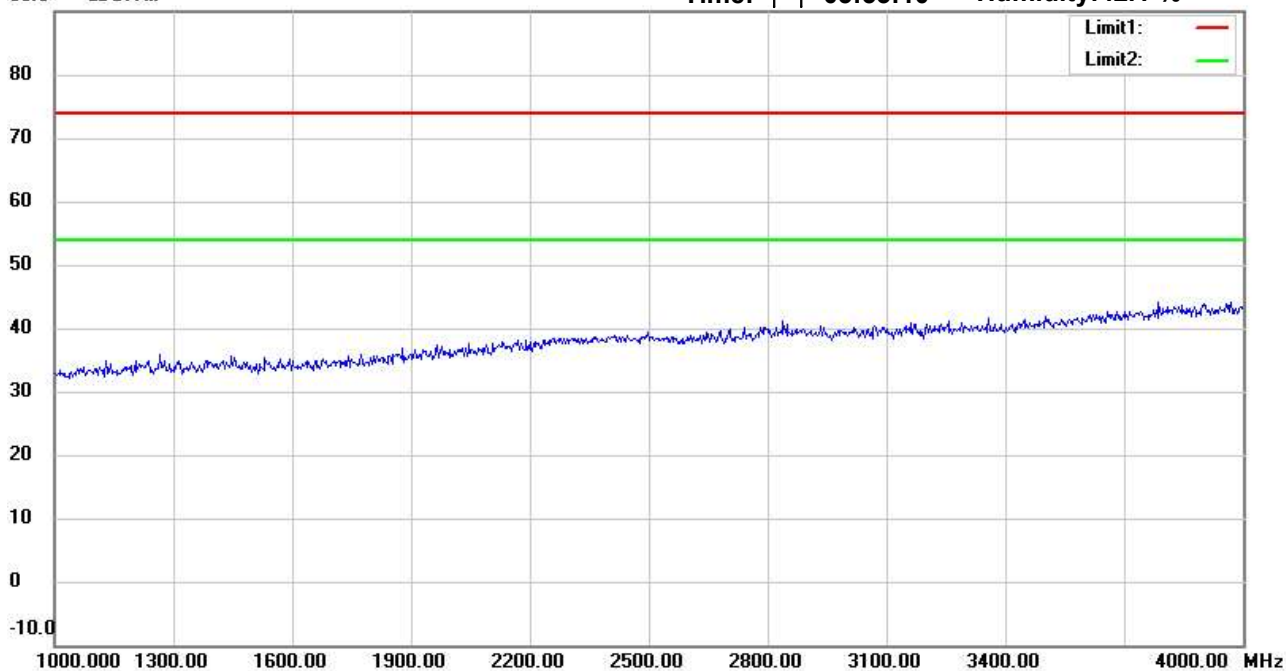
Date: 2025/9/5

Temperature: 26.0 °C

90.0 dBuV/m

Time: 下午 05:53:10

Humidity: 42.1 %



Site : 966A Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22411-23922

M/N:

Test Mode : TX 2402MHz

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



Address:No.99,Sec.1,Balian Rd.,Xizhi Dist.,New Taipei City
Tel:+886-2-2646-1508
Fax:+886-2-2646-1533

Radiated Emission Measurement

Operator: Jeff

File :3

Data :#6

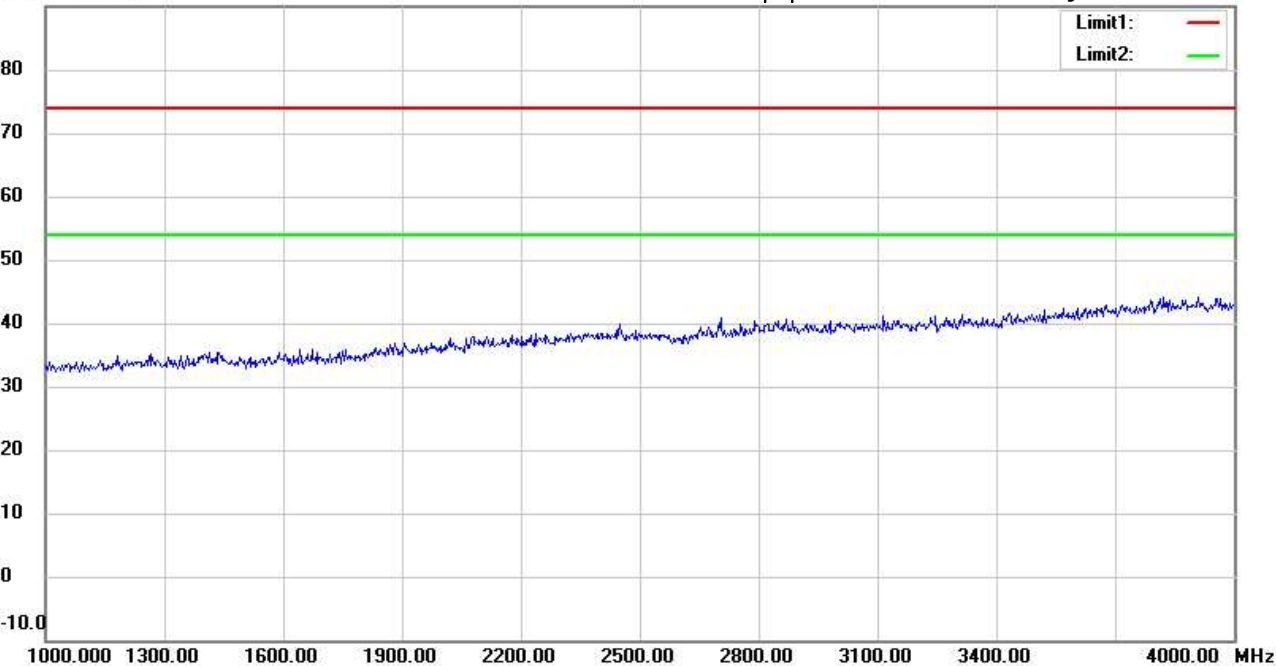
Date: 2025/9/5

Temperature:26.0 °C

90.0 dBuV/m

Time: 下午 05:55:52

Humidity:42.1 %



Site : 966A Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22411-23922

M/N:

Test Mode : TX 2402MHz

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Jeff

File : 3

Data : #2

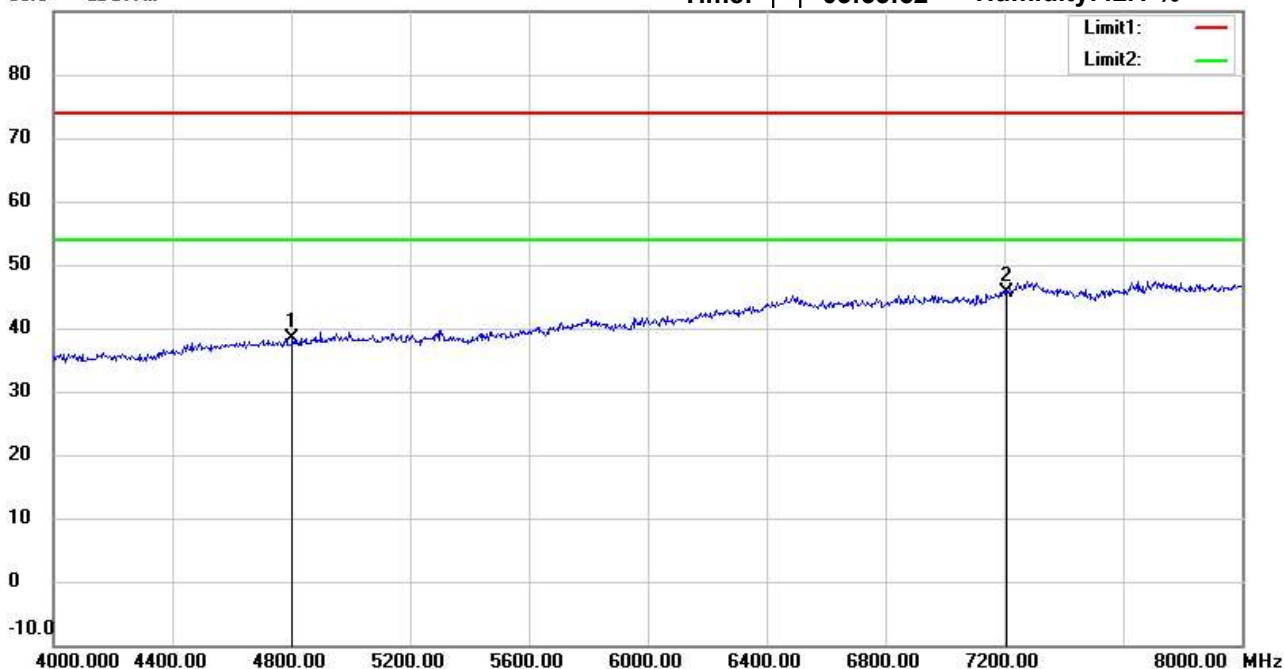
Date: 2025/9/5

Temperature: 26.0 °C

90.0 dBuV/m

Time: 下午 05:53:52

Humidity: 42.1 %



Site : 966A Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22411-23922

M/N:

Test Mode : TX 2402MHz

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
	4804.000	32.57	peak	5.81	38.38	74.00	150	299	-35.62	
*	7206.000	33.04	peak	12.70	45.74	74.00	150	192	-28.26	

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



Address: No. 99, Sec. 1, Balian Rd., Xizhi Dist., New Taipei City
Tel: +886-2-2646-1508
Fax: +886-2-2646-1533

Radiated Emission Measurement

Operator: Jeff

File : 3

Data : #7

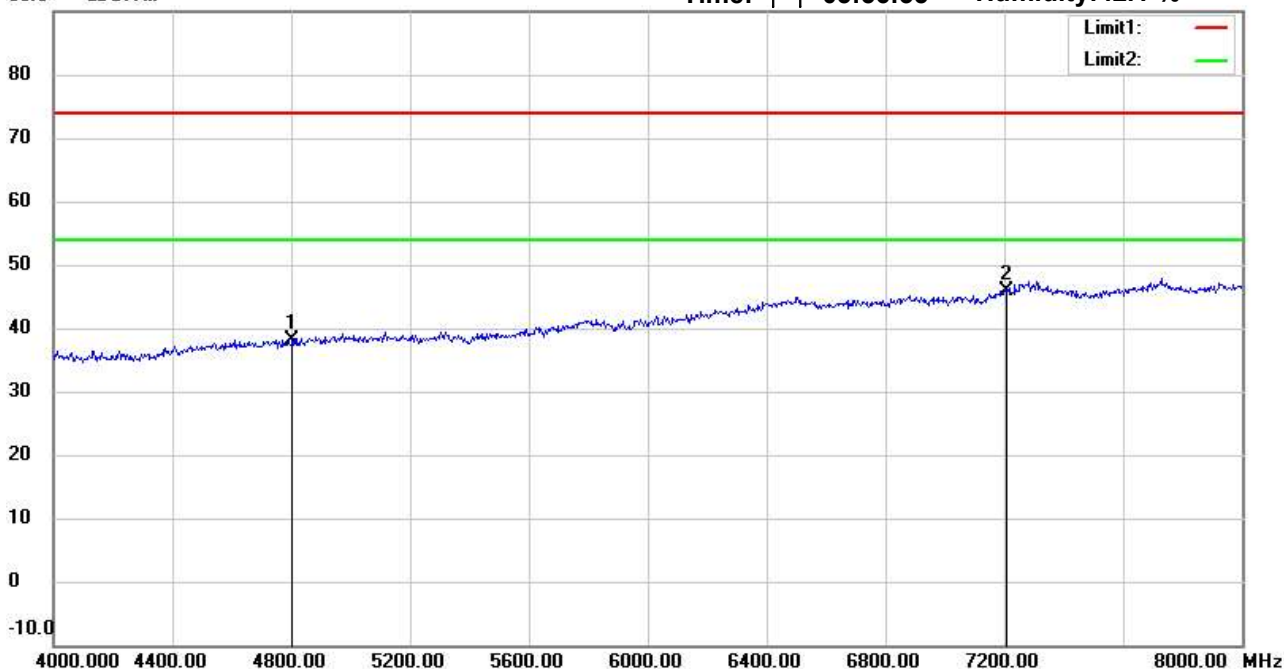
Date: 2025/9/5

Temperature: 26.0 °C

90.0 dBuV/m

Time: 下午 05:56:35

Humidity: 42.1 %



Site : 966A Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22411-23922

M/N:

Test Mode : TX 2402MHz

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
	4804.000	32.21	peak	5.81	38.02	74.00	150	235	-35.98	
*	7206.000	33.23	peak	12.70	45.93	74.00	150	48	-28.07	

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



Address:No.99,Sec.1,Balian Rd.,Xizhi Dist.,New Taipei City
Tel:+886-2-2646-1508
Fax:+886-2-2646-1533

Radiated Emission Measurement

Operator: Jeff

File :3

Data :#3

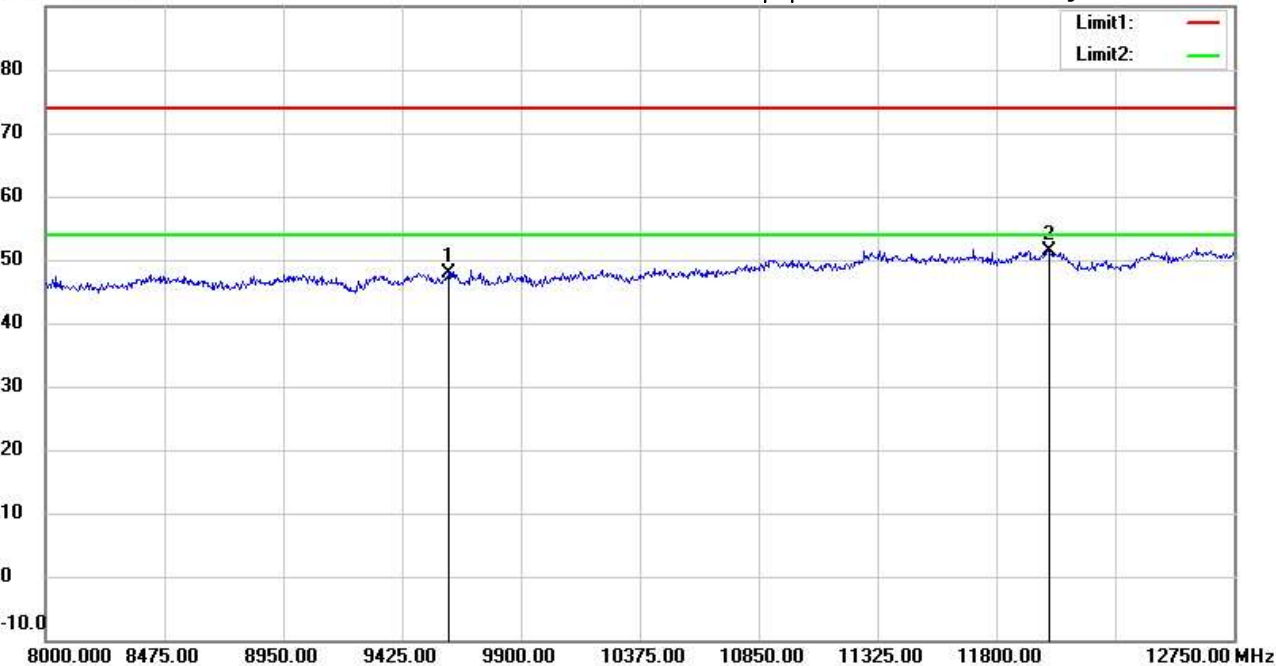
Date: 2025/9/5

Temperature:26.0 °C

90.0 dBuV/m

Time: 下午 05:54:41

Humidity:42.1 %



Site : 966A Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22411-23922

M/N:

Test Mode : TX 2402MHz

Note :

Polarization: **Horizontal**

Power : 120 V.a.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
	9608.000	33.38	peak	14.40	47.78	74.00	150	130	-26.22	
*	12010.000	33.48	peak	17.79	51.27	74.00	150	294	-22.73	

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



Address:No.99,Sec.1,Balian Rd.,Xizhi Dist.,New Taipei City
Tel:+886-2-2646-1508
Fax:+886-2-2646-1533

Radiated Emission Measurement

Operator: Jeff

File :3

Data :#8

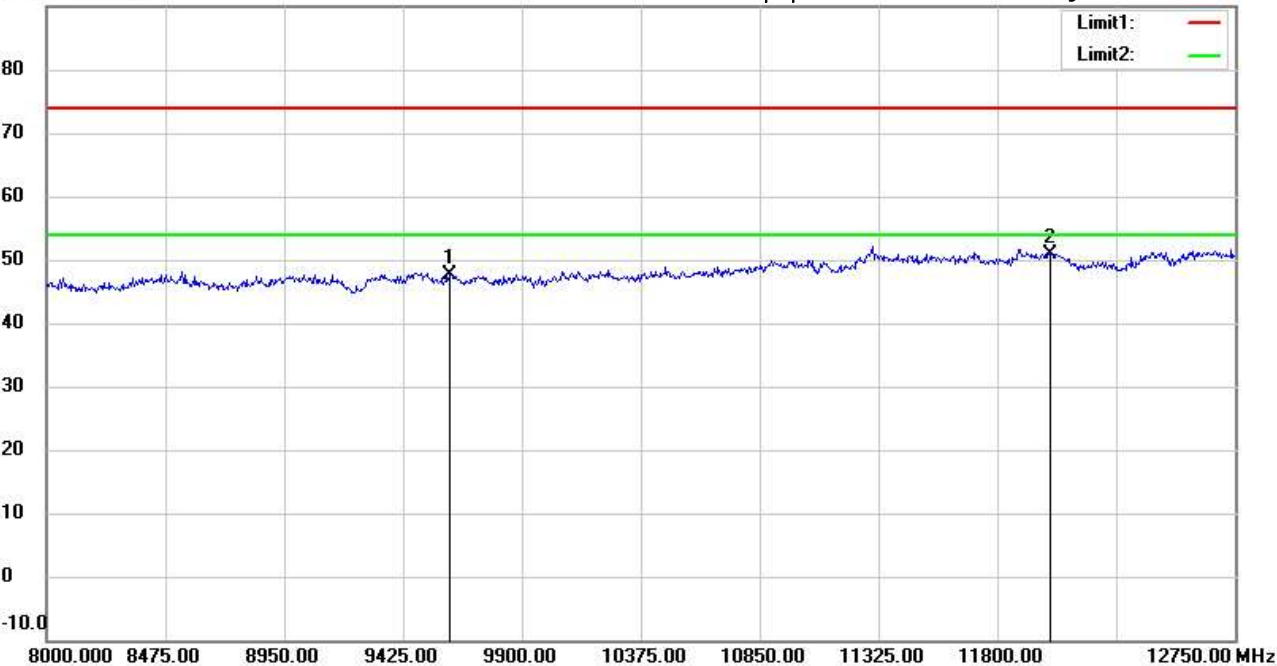
Date: 2025/9/5

Temperature:26.0 °C

90.0 dBuV/m

Time: 下午 05:57:16

Humidity:42.1 %



Site : 966A Chamber

Condition : FCC_part 15 RE-Class C_Above 1GHz_PK

EUT : W6M22411-23922

M/N:

Test Mode : TX 2402MHz

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
	9608.000	33.22	peak	14.40	47.62	74.00	150	196	-26.38	
*	12010.000	32.98	peak	17.79	50.77	74.00	150	26	-23.23	

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