

FCC Radio Test Report

FCC ID: XMR202207FC800L

This report concerns: Original Grant

Project No. : 2206H051
Equipment : Wi-Fi&Bluetooth Module
Brand Name : Quectel
Test Model : FC800L
Series Model : N/A
Applicant : Quectel Wireless Solutions Co., Ltd
Address : Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Manufacturer : Quectel Wireless Solutions Co., Ltd
Address : Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Date of Receipt : Jul. 07, 2022
Date of Test : Jul. 08, 2022~Aug. 04, 2022
Issued Date : Aug. 12, 2022
Report Version : R00
Test Sample : Engineering Sample No.: SH2022070834 for radiation, conduction and conducted,
SH2022070831-24 for adapter.
Standard(s) : FCC CFR Title 47, Part 15, Subpart C
FCC KDB 558074 D01 15.247 Meas Guidance v05r02
ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Maker Qi

Prepared by : Maker Qi

Approved by : Ryan Wang



TESTING CERT #5123.03

BTL Inc.

No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China

TEL: +86-021-61765666 Web: www.newbtl.com Service mail: btl_qa@newbtl.com

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

Table of Contents	Page
REPORT ISSUED HISTORY	6
1 . SUMMARY OF TEST RESULTS	7
1.1 TEST FACILITY	8
1.2 MEASUREMENT UNCERTAINTY	8
1.3 TEST ENVIRONMENT CONDITIONS	8
2 . GENERAL INFORMATION	9
2.1 GENERAL DESCRIPTION OF EUT	9
2.2 DESCRIPTION OF TEST MODES	11
2.3 PARAMETERS OF TEST SOFTWARE	12
2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	13
2.5 SUPPORT UNITS	13
3 . AC POWER LINE CONDUCTED EMISSIONS	14
3.1 LIMIT	14
3.2 TEST PROCEDURE	14
3.3 DEVIATION FROM TEST STANDARD	14
3.4 TEST SETUP	15
3.5 EUT OPERATING CONDITIONS	15
3.6 TEST RESULTS	15
4 . RADIATED EMISSIONS	16
4.1 LIMIT	16
4.2 TEST PROCEDURE	17
4.3 DEVIATION FROM TEST STANDARD	18
4.4 TEST SETUP	18
4.5 EUT OPERATING CONDITIONS	19
4.6 TEST RESULT - 9 KHZ TO 30 MHZ	19
4.7 TEST RESULT - 30 MHZ TO 1000 MHZ	19
4.8 TEST RESULT - ABOVE 1000 MHZ	19
5 . BANDWIDTH	20
5.1 LIMIT	20
5.2 TEST PROCEDURE	20
5.3 DEVIATION FROM STANDARD	20
5.4 TEST SETUP	20

Table of Contents	Page
5.5 EUT OPERATION CONDITIONS	20
5.6 TEST RESULTS	20
6 . MAXIMUM OUTPUT POWER	21
6.1 LIMIT	21
6.2 TEST PROCEDURE	21
6.3 DEVIATION FROM STANDARD	21
6.4 TEST SETUP	21
6.5 EUT OPERATION CONDITIONS	21
6.6 TEST RESULTS	21
7 . CONDUCTED SPURIOUS EMISSION	22
7.1 LIMIT	22
7.2 TEST PROCEDURE	22
7.3 DEVIATION FROM STANDARD	22
7.4 TEST SETUP	22
7.5 EUT OPERATION CONDITIONS	22
7.6 TEST RESULTS	22
8 . POWER SPECTRAL DENSITY	23
8.1 LIMIT	23
8.2 TEST PROCEDURE	23
8.3 DEVIATION FROM STANDARD	23
8.4 TEST SETUP	23
8.5 EUT OPERATION CONDITIONS	23
8.6 TEST RESULTS	23
9 . MEASUREMENT INSTRUMENTS LIST	24
10 . EUT TEST PHOTO	26
APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS	30
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ	33
APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ	34
APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ	37
APPENDIX E - BANDWIDTH	58
APPENDIX F - MAXIMUM OUTPUT POWER	61

Table of Contents**Page****APPENDIX G - CONDUCTED SPURIOUS EMISSION****64****APPENDIX H - POWER SPECTRAL DENSITY****67**

REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-5-2206H051	R00	Original Report.	Aug. 12, 2022	Valid

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	-----
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS	-----
15.247(d)	Conducted Spurious Emission	APPENDIX G	PASS	-----
15.247(e)	Power Spectral Density	APPENDIX H	PASS	-----
15.203	Antenna Requirement	-----	PASS	Note(2)

Note:

- (1) "N/A" denotes test is not applicable to this device.
- (2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China

BTL's Registration Number for FCC: 476765

BTL's Designation Number for FCC: CN1241

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$))

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
SH-C01	CISPR	150 kHz ~ 30 MHz	2.64

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
SH-CB02	CISPR	9 KHz~30 MHz	-	2.16
		30 MHz~200 MHz	V	4.04
		30 MHz~200 MHz	H	2.90
		200 MHz~1,000 MHz	V	3.76
		200 MHz~1,000 MHz	H	3.82
		1GHz ~ 6GHz	-	4.56
		6GHz ~ 18GHz	-	4.14
		18 ~ 26.5 GHz	-	3.48

C. Conducted test:

Parameter	U
Output Power	± 0.95 dB
Occupied Channel Bandwidth	± 3.8 %
Power Spectral Density	± 0.86 dB
Conducted Spurious Emission	± 2.71 dB
Temperature	± 0.08 °C
Humidity	± 1.5 %
Supply voltages	± 0.3 %

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	26°C	51%	AC 120V/60Hz	Max Liu
Radiated Emissions-9 kHz to 30 MHz	24°C	58%	AC 120V/60Hz	Forest Li
Radiated Emissions-30 MHz to 1000 MHz	24°C	58%	AC 120V/60Hz	Forest Li
Radiated Emissions-Above 1000 MHz	24°C	58%	AC 120V/60Hz	Forest Li
Bandwidth	24°C	58%	DC 3.3V	Forest Li
Maximum Output Power	24°C	58%	DC 3.3V	Forest Li
Conducted Spurious Emission	24°C	58%	DC 3.3V	Forest Li
Power Spectral Density	24°C	58%	DC 3.3V	Forest Li

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Wi-Fi&Bluetooth Module
Brand Name	Quectel
Test Model	FC800L
Series Model	N/A
Model Difference(s)	N/A
Software Version	N/A
Hardware Version	R1.0
Power Source	DC power supply.
Power Rating	DC 3.3V
Operation Frequency	2402 MHz ~ 2480 MHz
Modulation Type	GFSK
Bit Rate of Transmitter	1Mbps, 2Mbps
Max. Output Power	1Mbps: 4.45 dBm (0.0028 W)

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	20	2442
01	2404	21	2444
02	2406	22	2446
03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

3. Table for Filed Antenna:

Brand	P/N	Antenna Type	Connector	Gain (dBi)
	YE0038AA	Dipole	SMA Male	0.52

Note:

- 1) The antenna gain is provided by the manufacturer.
- 2) The antenna is for testing only and will not be sold with the equipment.

2.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

Pretest Mode	Description
Mode 1	TX Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_2Mbps Channel 00/19/39

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test	
Final Test Mode	Description
Mode 1	TX Mode_1Mbps Channel 19

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 1	TX Mode_1Mbps Channel 19

Radiated emissions test - Above 1GHz	
Final Test Mode	Description
Mode 1	TX Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_2Mbps Channel 00/19/39

Conducted test	
Final Test Mode	Description
Mode 1	TX Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_2Mbps Channel 00/19/39

Note:

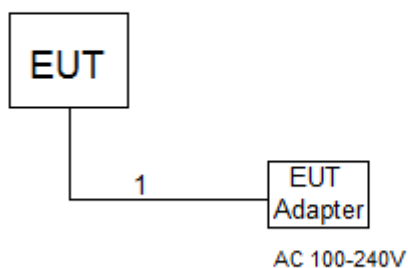
- (1) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (2) For AC power line conducted emissions and radiated emissions below 1 GHz test, the 1Mbps Channel 19 is found to be the worst case and recorded.

2.3 PARAMETERS OF TEST SOFTWARE

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Test Software Version	adb		
Frequency (MHz)	2402	2440	2480
1Mbps	Default	Default	Default
2Mbps	Default	Default	Default

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.5 SUPPORT UNITS

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC	N/A	N/A	1m

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

3.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

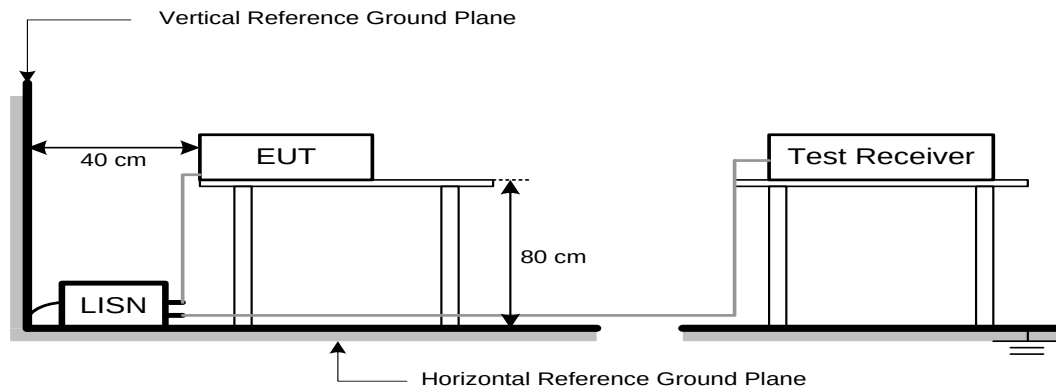
The following table is the setting of the receiver:

Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a “*” marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150 kHz to 30 MHz.

4. RADIATED EMISSIONS

4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Frequency (MHz)	(dBuV/m at 3 m)	
	Peak	Average
Above 1000	74	54

Note:

- (1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2 TEST PROCEDURE

- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
- The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
(below 1 GHz)
- All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

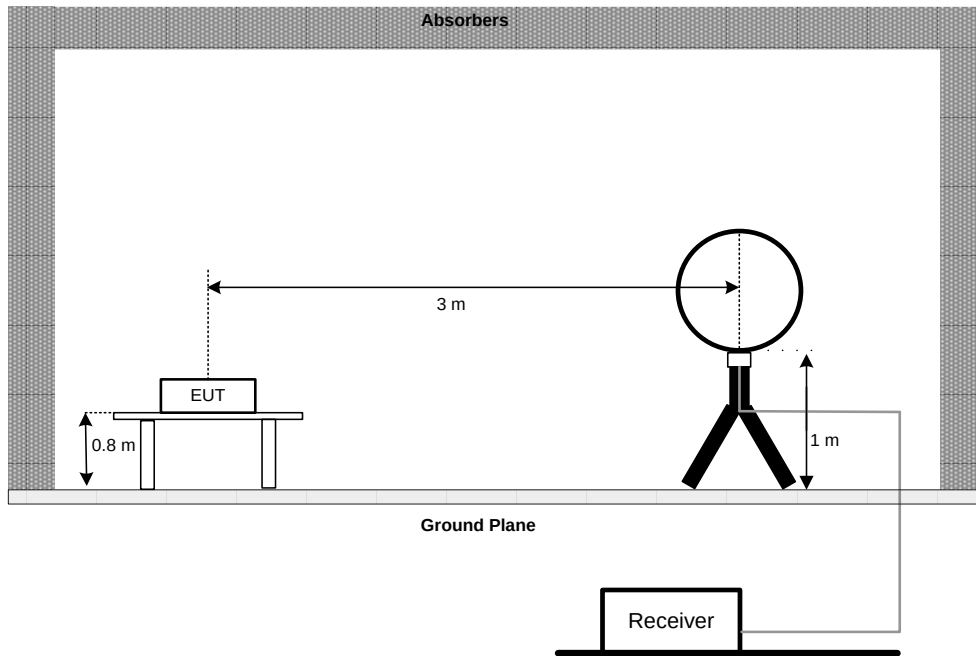
Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

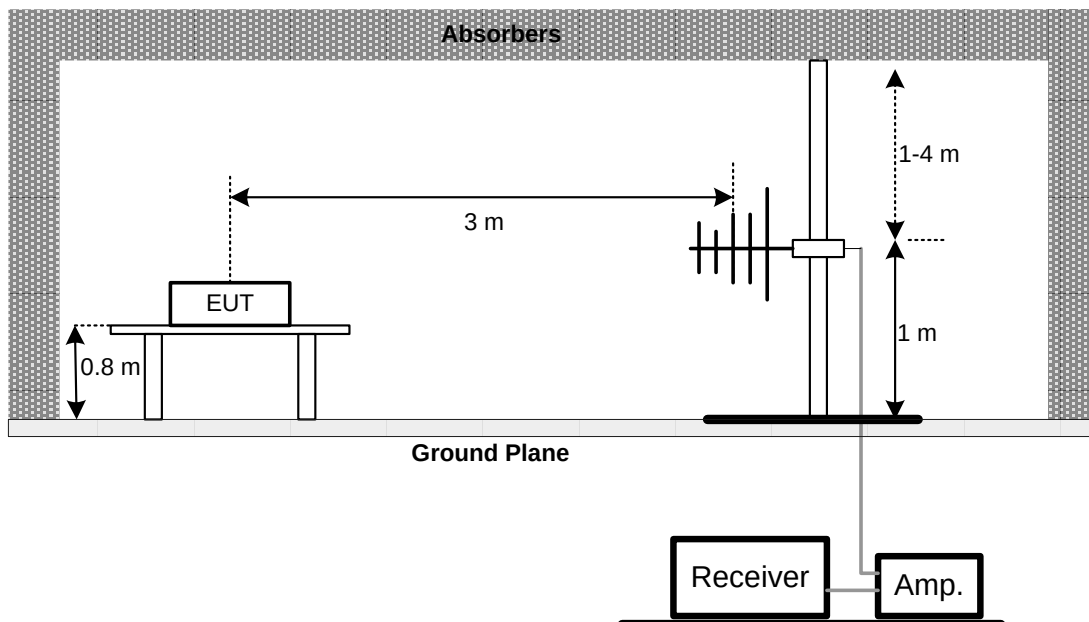
No deviation.

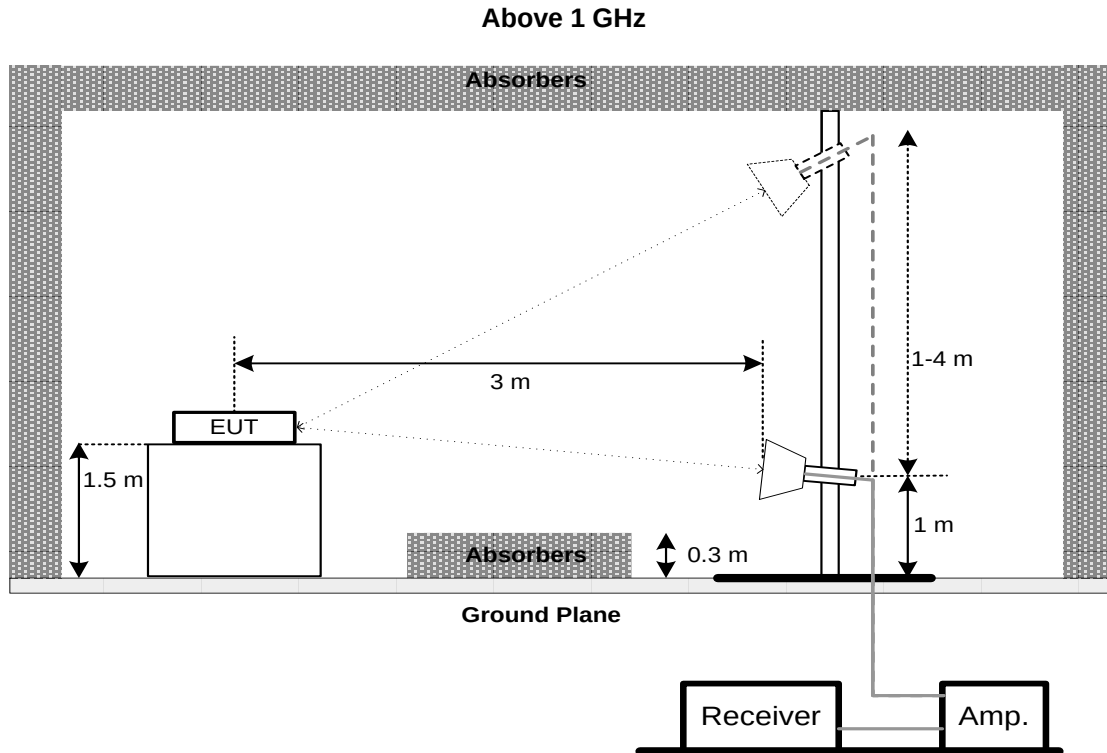
4.4 TEST SETUP

9 kHz to 30 MHz



30 MHz to 1 GHz





4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULT - 9 kHz TO 30 MHz

Please refer to the APPENDIX B.

Remark:

- (1) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULT - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

4.8 TEST RESULT - ABOVE 1000 MHz

Please refer to the APPENDIX D.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH

5.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500 kHz
	99% Emission Bandwidth	-

5.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

Spectrum Parameters	Setting
Span Frequency	$>$ Measurement Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

For 99% Emission Bandwidth:

Spectrum Parameters	Setting
Span Frequency	Between 1.5 times and 5.0 times the OBW
RBW	30 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER

6.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 watt or 30.00 dBm

6.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	$\geq 3 \times \text{RBW}$
RBW	3 MHz
VBW	3 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. CONDUCTED SPURIOUS EMISSION

7.1 LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB 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, provided the transmitter demonstrates compliance with the peak Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

7.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. POWER SPECTRAL DENSITY

8.1 LIMIT

Section	Test Item	Limit
FCC 15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

8.2 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	2 MHz (1 Mbps) / 4 MHz (2 Mbps)
RBW	3 kHz
VBW	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Line Impedance Stabilisation Network	Schwarzbeck	NNLK 8121	8121-822	Mar. 19, 2023
2	TWO-LINE V-NETWORK	R&S	ENV216	101340	Aug. 23, 2022
3	Test Cable	emci	EMCRG400-BM-N M-10000	N/A	Apr. 05, 2023
4	EMI Test Receiver	R&S	ESCI	100082	Mar. 19, 2023
5	50Ω Terminator	SHX	TF2-1G-A	17051602	Mar. 19, 2023
6	50Ω coaxial switch	Anritsu	MP59B	6201750902	Mar. 19, 2023
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EMCI	EMCI LPA600	275	Mar. 25, 2023
2	MXE EMI Receiver	Keysight	N9038A	MY56400088	Mar. 19, 2023
3	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB 9160	9160-3233	Mar. 18, 2023
2	Pre-Amplifier	emci	EMC9135	980401	Mar. 19, 2023
3	MXE EMI Receiver	Keysight	N9038A	MY56400088	Mar. 19, 2023
4	Test Cable	emci	EMC104-SM-SM-7 000	181020	Apr. 05, 2023
5	Test Cable	emci	EMC104-SM-SM-2 500	170618	Apr. 05, 2023
6	Test Cable	emci	EMC104-SM-NM-8 00	170647	Apr. 05, 2023
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double-Ridged Waveguide Horn Antenna	ETS-Lindgren	BBHA 9120D	9120D-1817	Mar. 23, 2023
2	Pre-Amplifier	emci	EMC051845SE	980725	Aug. 23, 2022
3	EXA Spectrum Analyzer	Keysight	N9010A	MY56480579	Mar. 19, 2023
4	Test Cable	emci	EMC104-SM-SM-7000	181020	Apr. 05, 2023
5	Test Cable	emci	EMC104-SM-SM-2500	170618	Apr. 05, 2023
6	Test Cable	emci	EMC104-SM-NM-800	170647	Apr. 05, 2023
7	Double-Ridged Waveguide Horn Antenna	ETS-Lindgren	3116C	00203919	Mar. 19, 2023
8	Pre-Amplifier	EMC INSTRUMENT	EMC184045B	980265	Jun. 13, 2023
9	Test Cable	emci	EMC102-SM-SM-800	170335	Apr. 05, 2023
10	Test Cable	emci	EMC102-KM-KM-2500	170627	Apr. 05, 2023
11	MXE EMI Receiver	Keysight	N9038A	MY5640088	Mar. 19, 2023
12	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
13	Double-Ridged Waveguide Horn Antenna	ETS-Lindgren	BBHA 9120D	9120D-1817	Mar. 23, 2023

Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	May. 28, 2023
2	Attenuator	JUK	ATT-2W6G-S-10	N/A	N/A

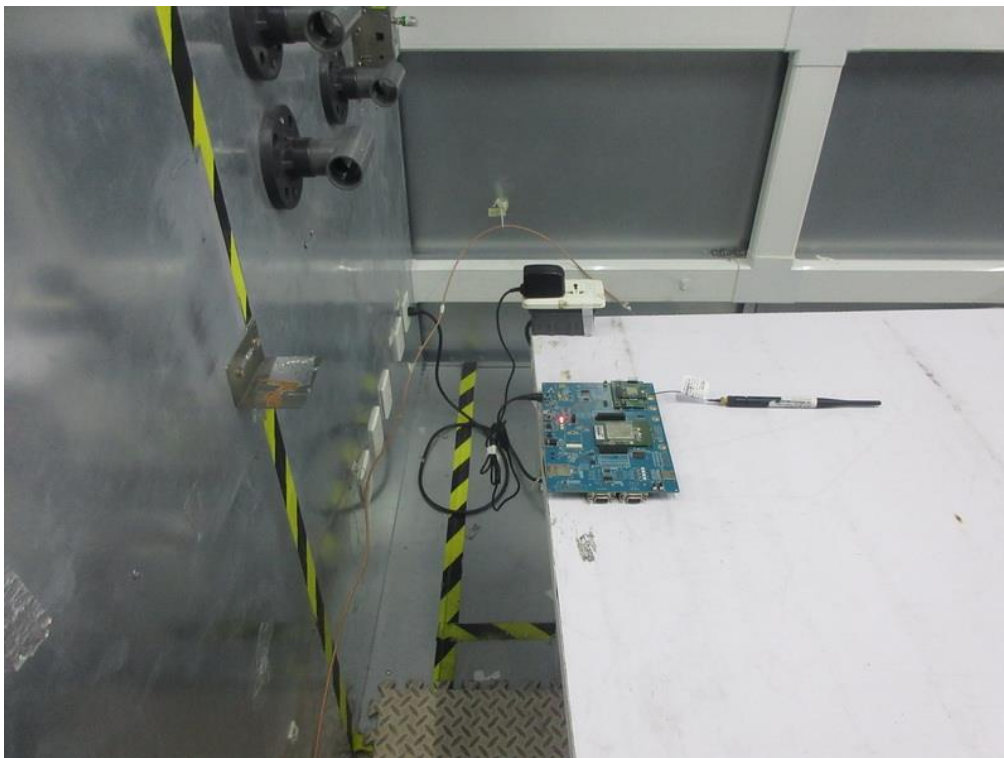
Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyze	Keysight	8990B	MY51000507	Mar. 19, 2023
2	Wideband Power Sensor	Keysight	N1923A	MY58310003	Mar. 19, 2023
3	Attenuator	JUK	ATT-2W6G-S-10	N/A	N/A

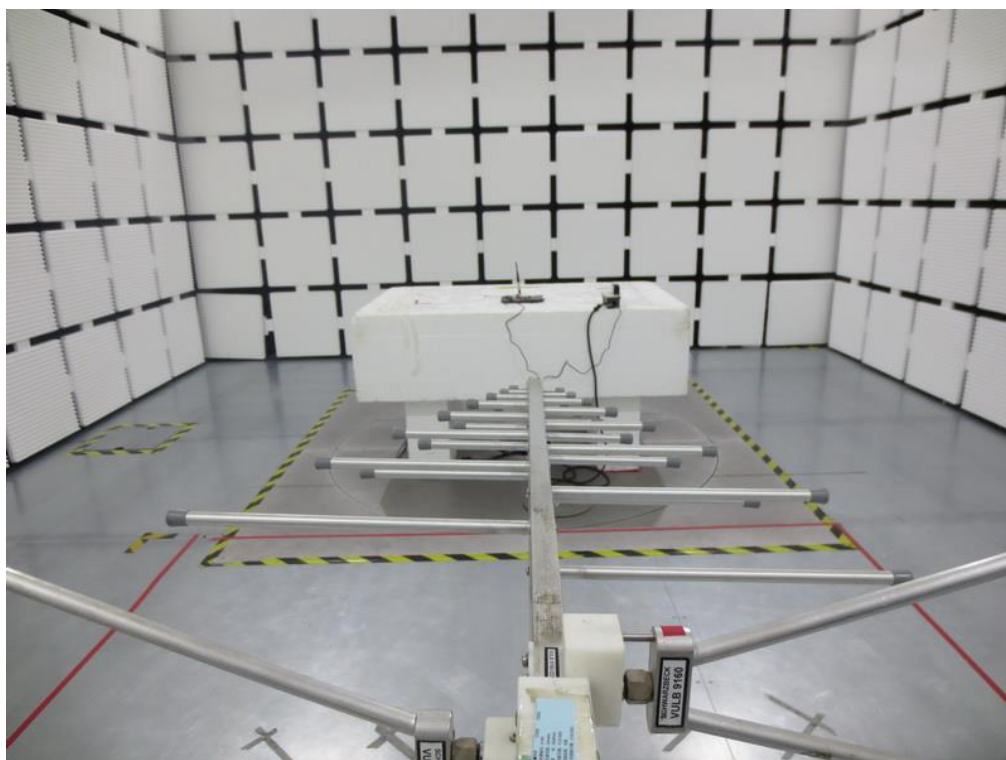
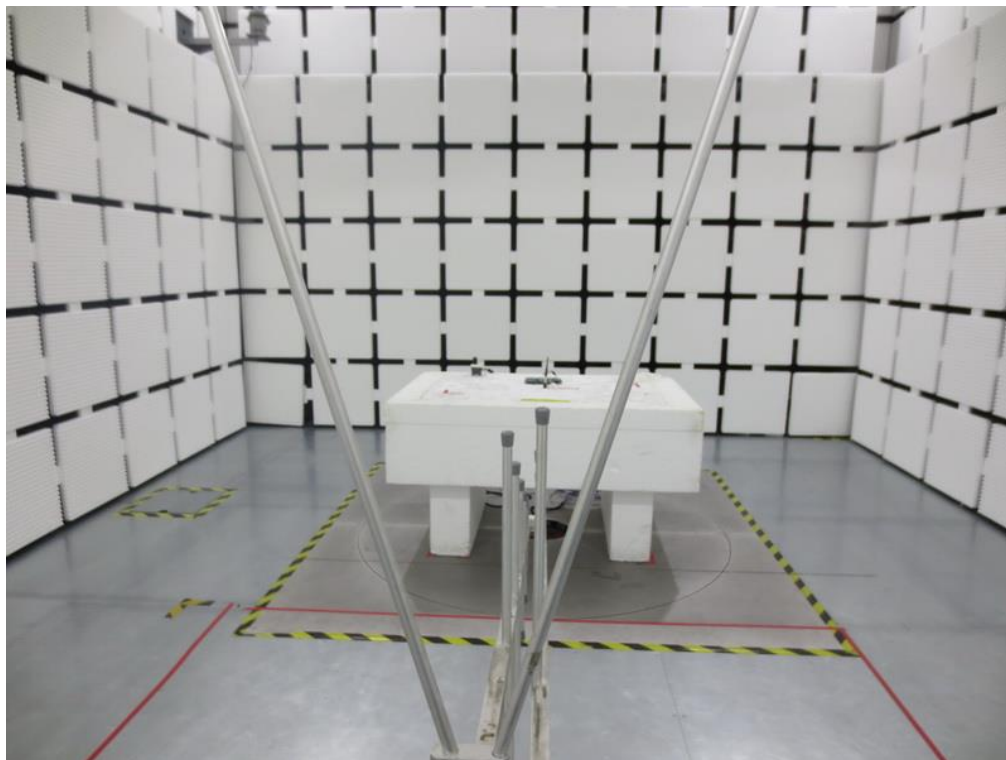
Antenna Conducted Spurious Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	May. 28, 2023
2	Attenuator	JUK	ATT-2W6G-S-10	N/A	N/A

Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100626	May. 28, 2023
2	Attenuator	JUK	ATT-2W6G-S-10	N/A	N/A

Remark: "N/A" denotes no model name, serial no. or calibration specified.

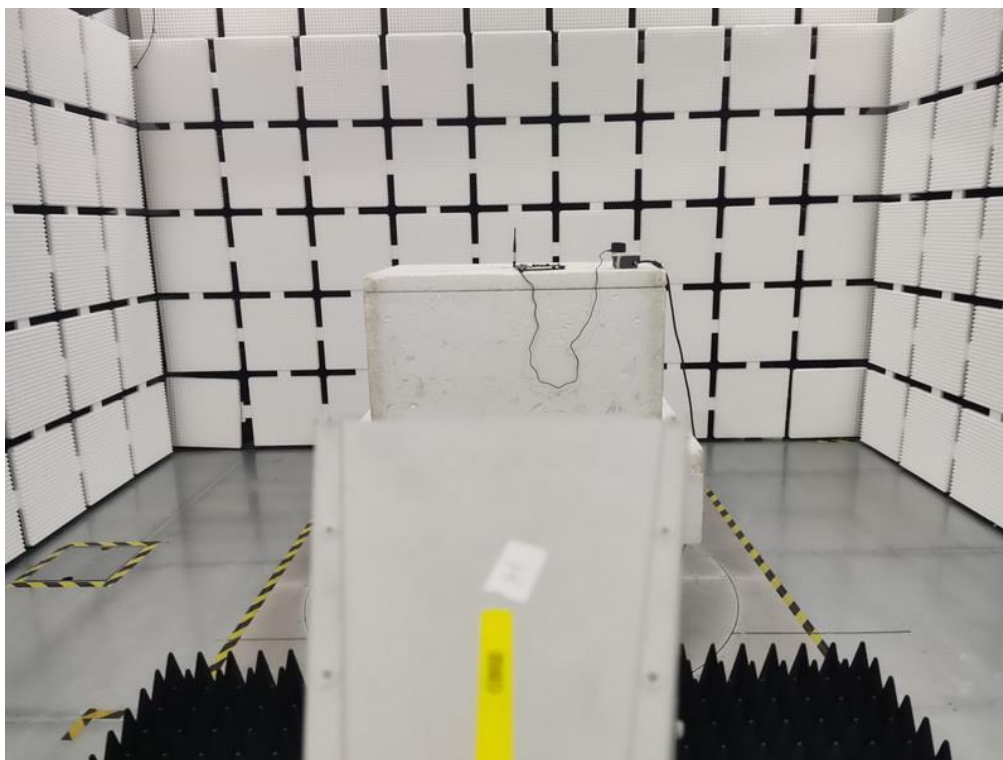
All calibration period of equipment list is one year.

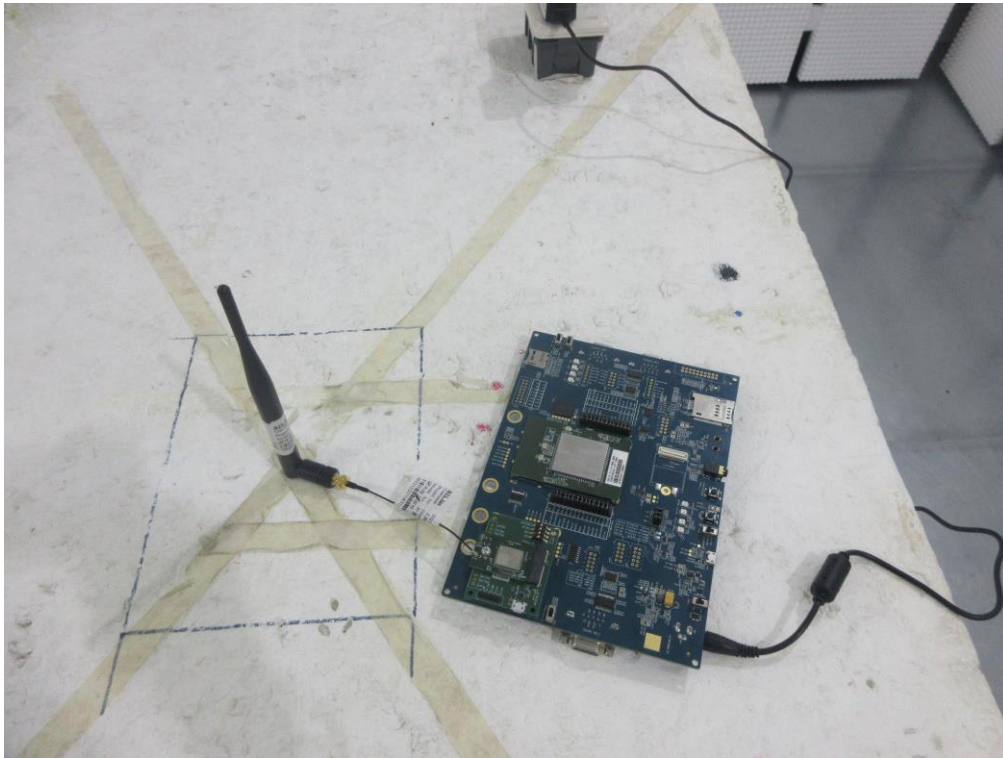
10. EUT TEST PHOTO**AC Power Line Conducted Emissions Test Photos**

Radiated Emissions Test Photos**30 MHz to 1 GHz**

Radiated Emissions Test Photos

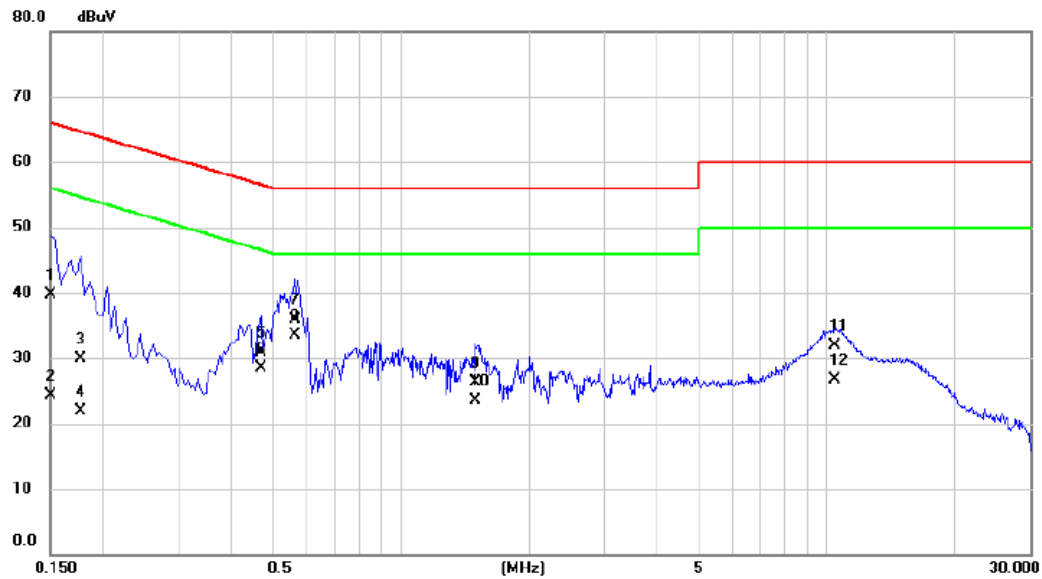
Above 1 GHz



Close-up Test Photos

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode	TX Mode_1Mbps Channel 19	Phase	Line
-----------	--------------------------	-------	------

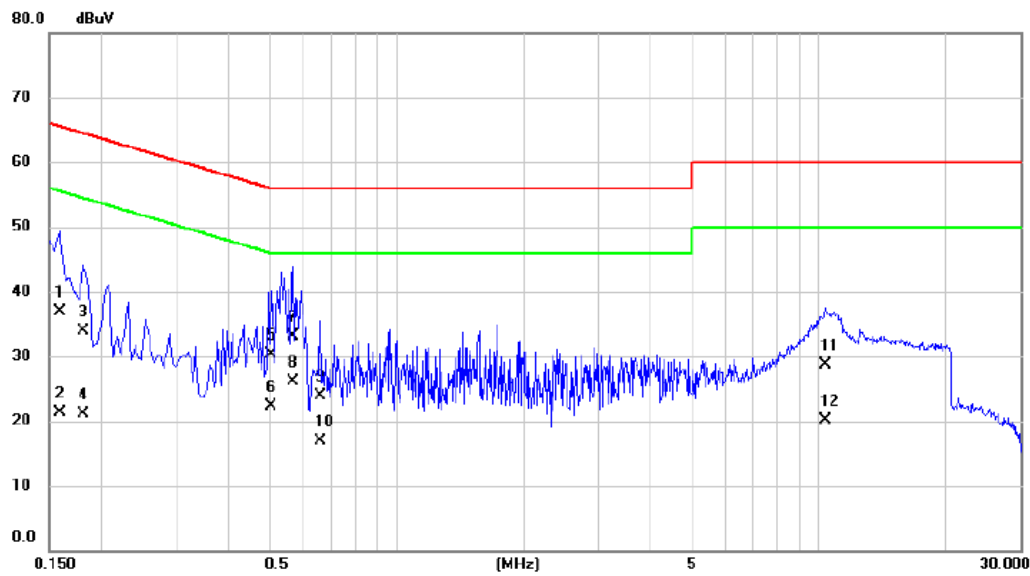


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	30.00	9.75	39.75	66.00	-26.25	QP	
2		0.1500	14.50	9.75	24.25	56.00	-31.75	AVG	
3		0.1770	20.20	9.79	29.99	64.63	-34.64	QP	
4		0.1770	12.10	9.79	21.89	54.63	-32.74	AVG	
5		0.4695	21.10	9.90	31.00	56.52	-25.52	QP	
6		0.4695	18.60	9.90	28.50	46.52	-18.02	AVG	
7		0.5640	26.10	9.84	35.94	56.00	-20.06	QP	
8	*	0.5640	23.60	9.84	33.44	46.00	-12.56	AVG	
9		1.4955	16.40	10.00	26.40	56.00	-29.60	QP	
10		1.4955	13.50	10.00	23.50	46.00	-22.50	AVG	
11		10.4055	21.50	10.32	31.82	60.00	-28.18	QP	
12		10.4055	16.40	10.32	26.72	50.00	-23.28	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX Mode_1Mbps Channel 19	Phase	Neutral
-----------	--------------------------	-------	---------



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1590	27.30	9.68	36.98	65.52	-28.54	QP	
2	0.1590	11.70	9.68	21.38	55.52	-34.14	AVG	
3	0.1815	24.30	9.65	33.95	64.42	-30.47	QP	
4	0.1815	11.40	9.65	21.05	54.42	-33.37	AVG	
5	0.5055	20.30	9.94	30.24	56.00	-25.76	QP	
6	0.5055	12.40	9.94	22.34	46.00	-23.66	AVG	
7	0.5685	23.20	9.90	33.10	56.00	-22.90	QP	
8 *	0.5685	16.20	9.90	26.10	46.00	-19.90	AVG	
9	0.6585	14.00	9.85	23.85	56.00	-32.15	QP	
10	0.6585	7.00	9.85	16.85	46.00	-29.15	AVG	
11	10.3695	18.20	10.45	28.65	60.00	-31.35	QP	
12	10.3695	9.60	10.45	20.05	50.00	-29.95	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

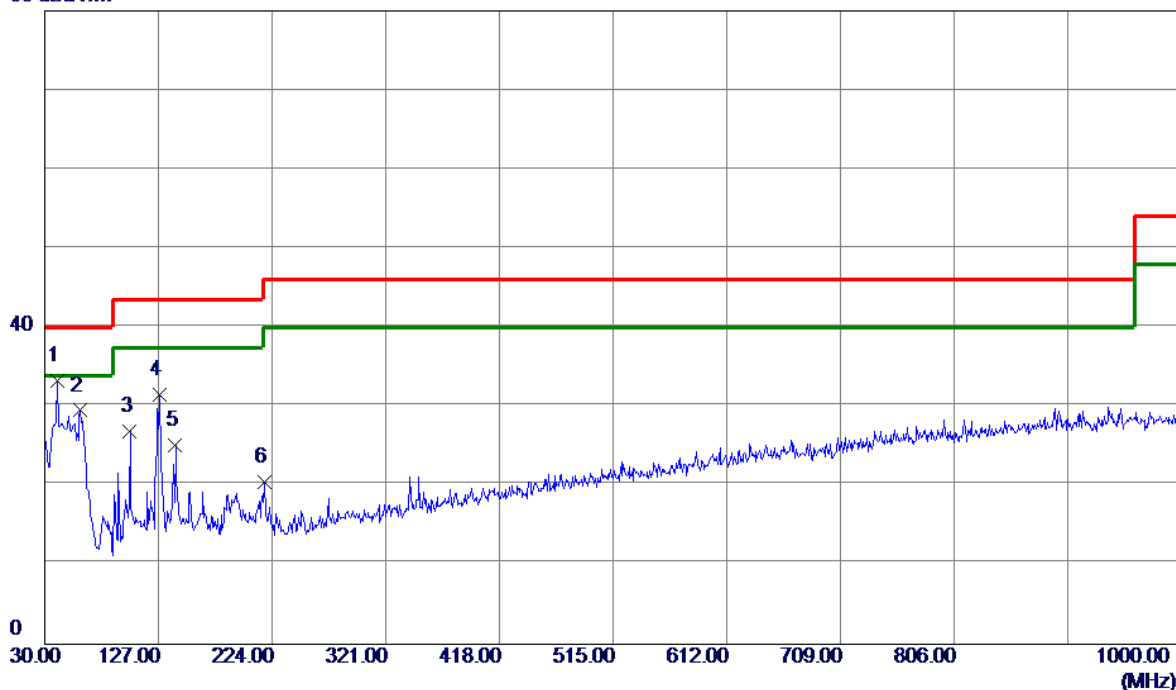
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Note: The measured value have enough margin over 20dB than the limit, therefore they are not reported.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode	TX Mode_1Mbps Channel 19	Polarization	Vertical
-----------	--------------------------	--------------	----------

80 dBuV/m



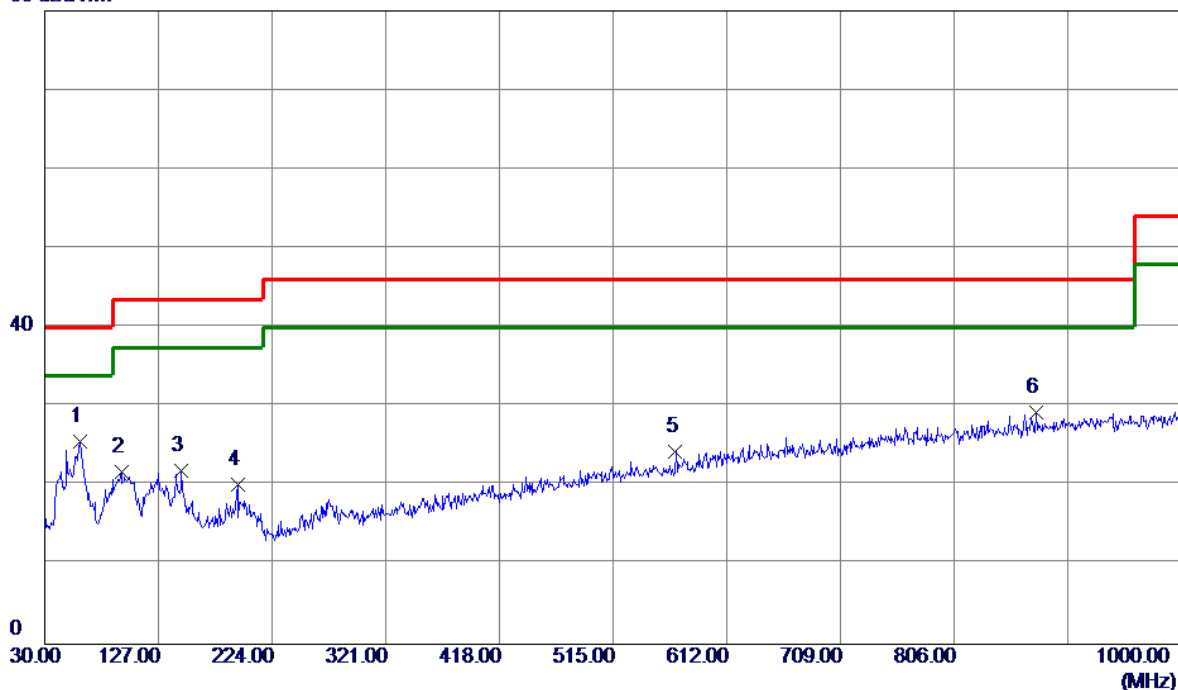
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	40.6699	50.99	-17.76	33.23	40.00	-6.77	Peak	
2	60.0700	47.32	-17.80	29.52	40.00	-10.48	Peak	
3	102.7500	46.57	-19.72	26.85	43.50	-16.65	Peak	
4	127.9700	48.76	-17.31	31.45	43.50	-12.05	Peak	
5	141.5500	41.55	-16.40	25.15	43.50	-18.35	Peak	
6	217.2100	38.94	-18.42	20.52	46.00	-25.48	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX Mode_1Mbps Channel 19	Polarization	Horizontal
-----------	--------------------------	--------------	------------

80 dBuV/m



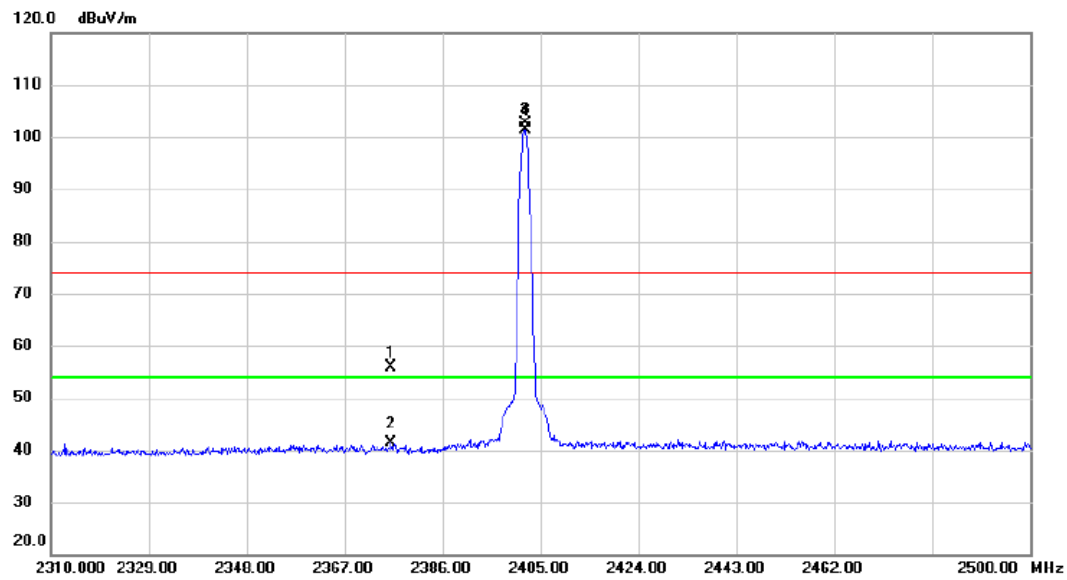
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	60.0700	43.36	-17.80	25.56	40.00	-14.44	Peak	
2	95.4750	42.48	-20.78	21.70	43.50	-21.80	Peak	
3	146.8850	38.08	-16.17	21.91	43.50	-21.59	Peak	
4	194.4149	38.50	-18.41	20.09	43.50	-23.41	Peak	
5	568.3500	33.57	-9.32	24.25	46.00	-21.75	Peak	
6	876.3250	34.19	-4.89	29.30	46.00	-16.70	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------



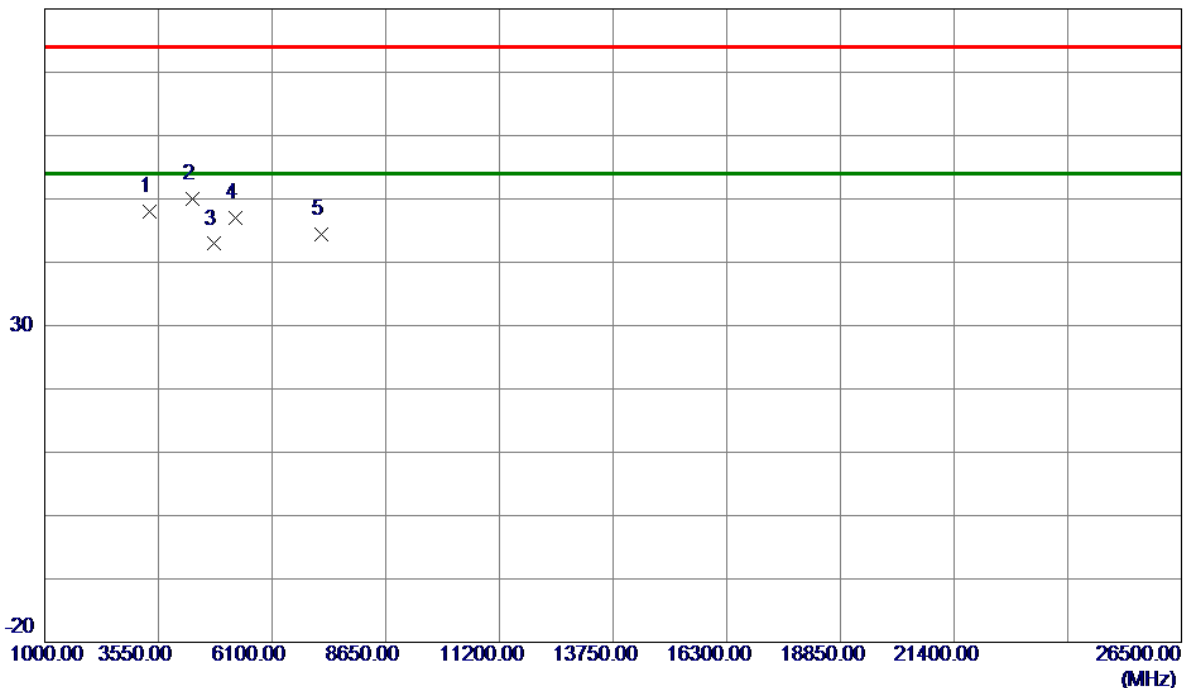
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2376.025	25.47	30.48	55.95	74.00	-18.05	peak	
2		2376.025	10.80	30.48	41.28	54.00	-12.72	AVG	
3	X	2401.960	72.12	30.60	102.72	74.00	28.72	peak	NO limit
4	*	2401.960	70.76	30.60	101.36	54.00	47.36	AVG	NO limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------

80 dBuV/m

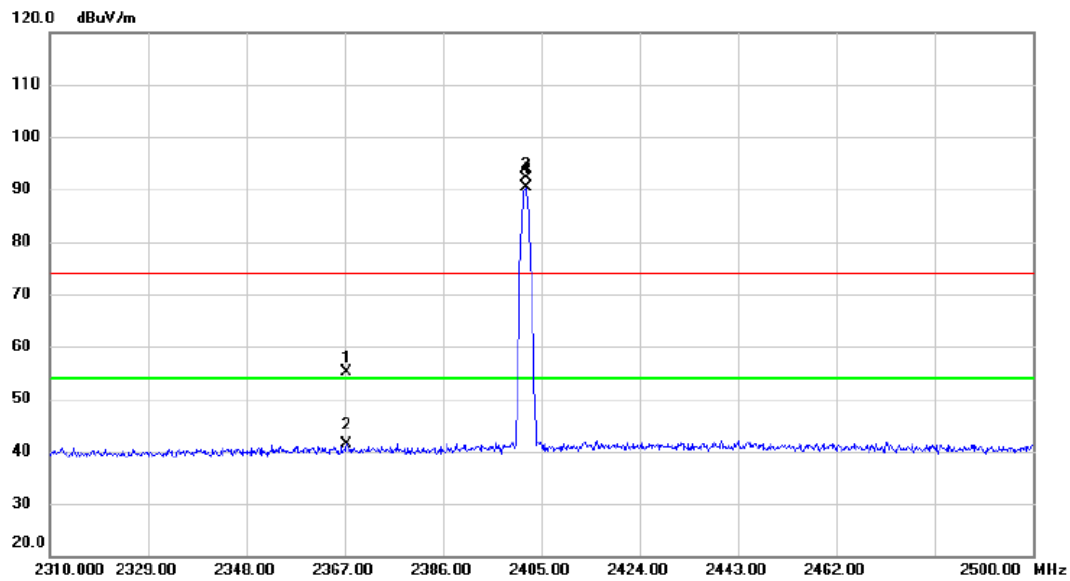


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3362.5750	68.53	-20.51	48.02	74.00	-25.98	Peak	
2 *	4323.9250	68.23	-18.24	49.99	74.00	-24.01	Peak	
3	4804.6000	60.17	-17.27	42.90	74.00	-31.10	Peak	
4	5284.0000	63.59	-16.55	47.04	74.00	-26.96	Peak	
5	7206.7000	57.72	-13.40	44.32	74.00	-29.68	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------



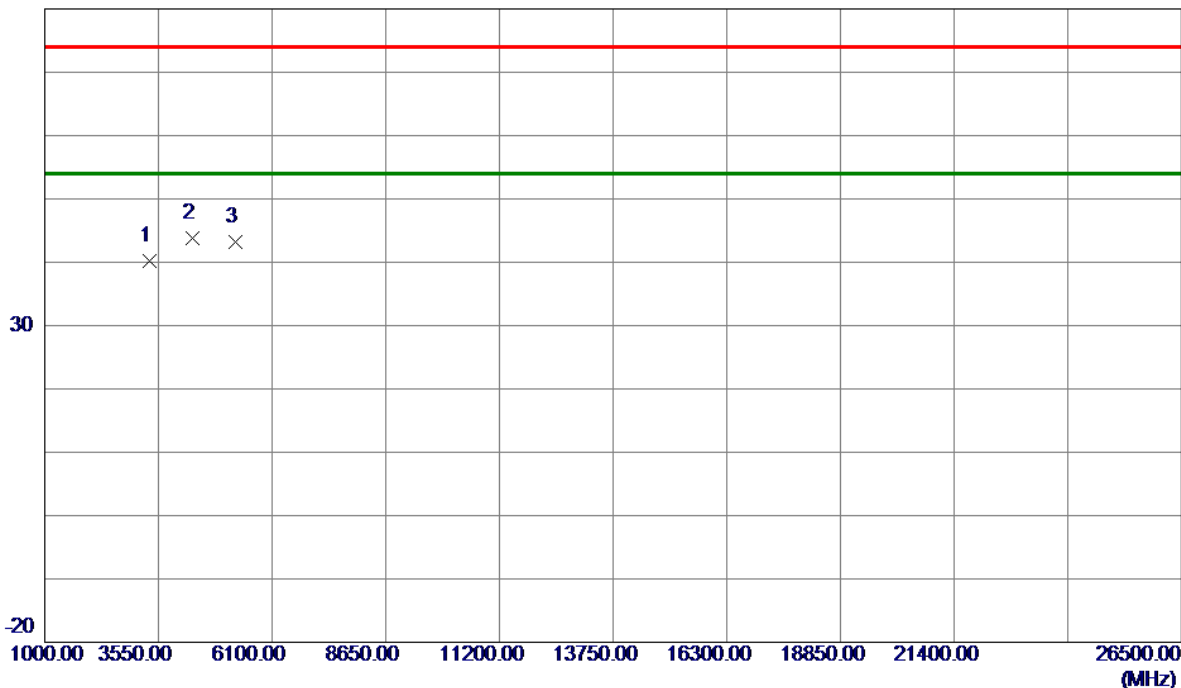
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2367.380	24.79	30.44	55.23	74.00	-18.77	peak	
2		2367.380	11.01	30.44	41.45	54.00	-12.55	AVG	
3	X	2402.150	61.60	30.60	92.20	74.00	18.20	peak	NO limit
4	*	2402.150	59.89	30.60	90.49	54.00	36.49	AVG	NO limit

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------

80 dBuV/m

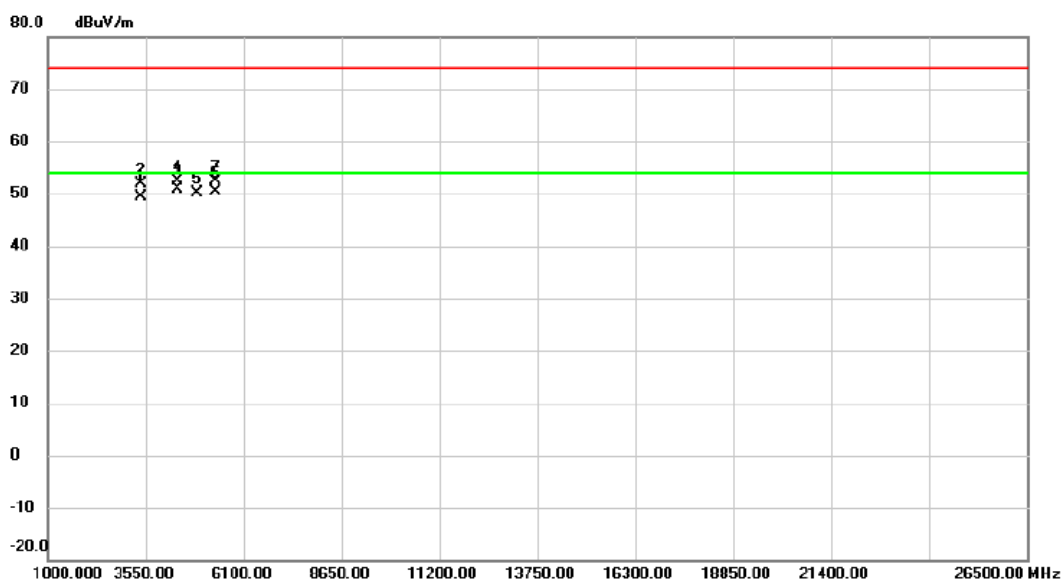


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3362.5750	60.66	-20.51	40.15	74.00	-33.85	Peak	
2 *	4323.9250	62.12	-18.24	43.88	74.00	-30.12	Peak	
3	5284.0000	59.80	-16.55	43.25	74.00	-30.75	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------

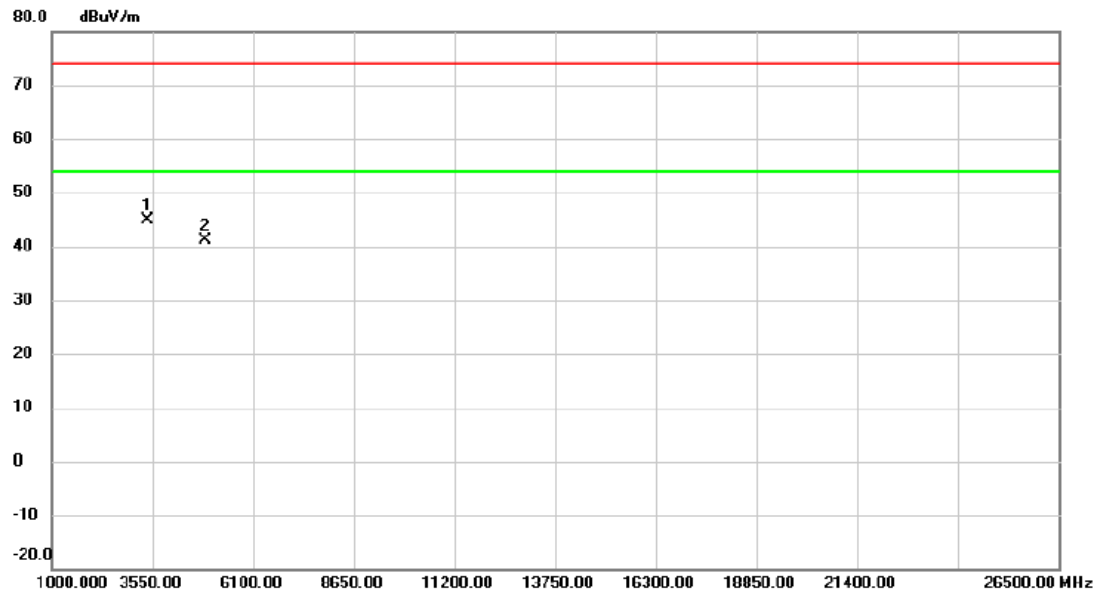


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		3415.961	69.78	-20.41	49.37	54.00	-4.63	AVG	
2		3416.125	72.33	-20.41	51.92	74.00	-22.08	peak	
3	*	4391.838	68.96	-18.06	50.90	54.00	-3.10	AVG	
4		4392.775	70.46	-18.06	52.40	74.00	-21.60	peak	
5		4879.825	67.03	-16.98	50.05	74.00	-23.95	peak	
6		5367.895	66.86	-16.49	50.37	54.00	-3.63	AVG	
7		5368.150	68.97	-16.49	52.48	74.00	-21.52	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------

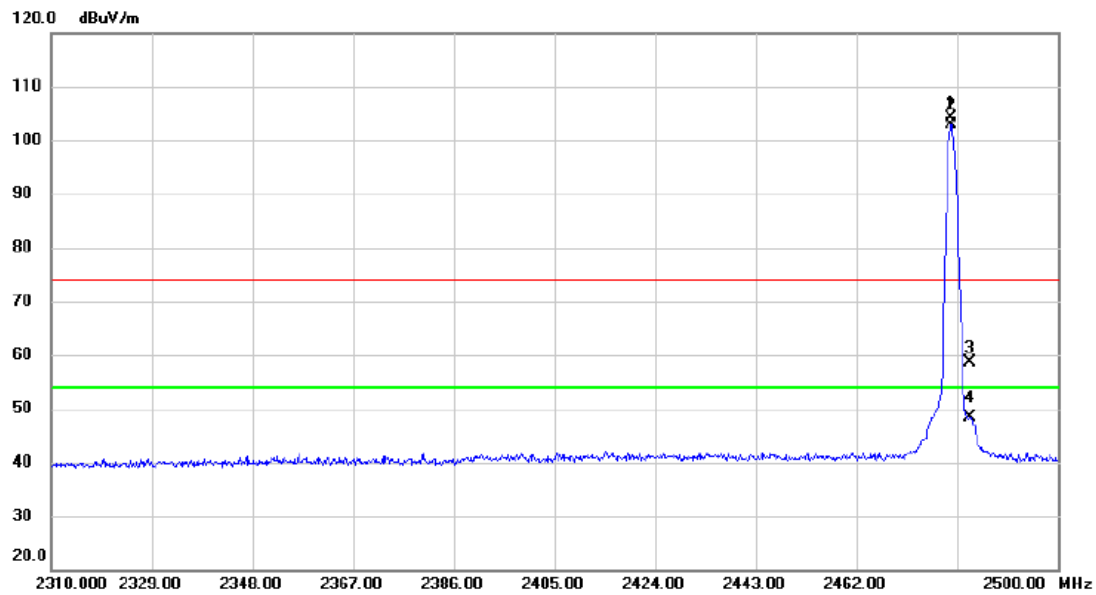


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	3416.125	65.31	-20.41	44.90	74.00	-29.10	peak	
2		4879.825	58.14	-16.98	41.16	74.00	-32.84	peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------



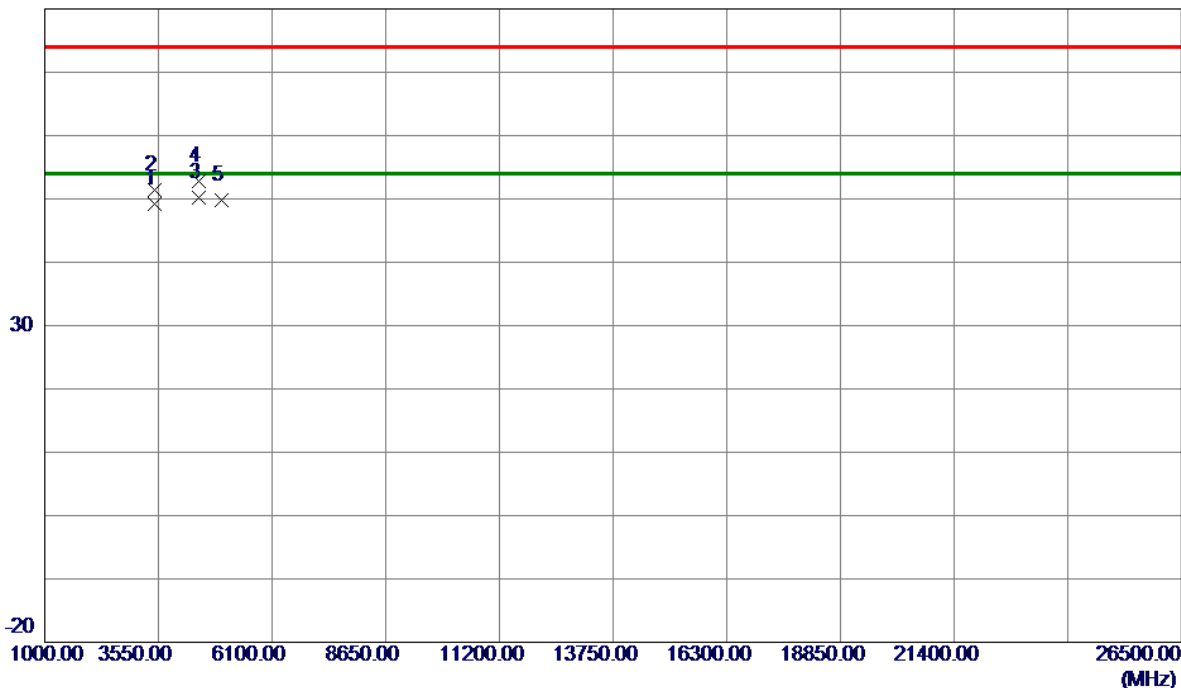
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2479.955	73.21	30.92	104.13	74.00	30.13	peak	NO limit
2	*	2479.955	71.99	30.92	102.91	54.00	48.91	AVG	NO limit
3		2483.500	27.69	30.95	58.64	74.00	-15.36	peak	
4		2483.500	17.47	30.95	48.42	54.00	-5.58	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------

80 dBuV/m

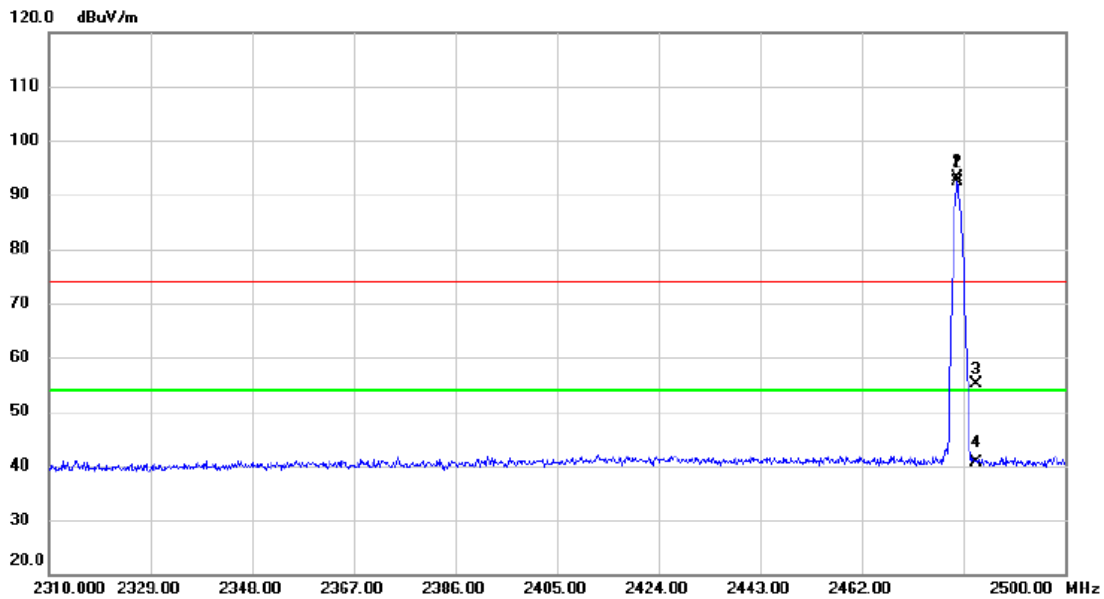


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3471.9270	69.53	-20.32	49.21	54.00	-4.79	AVG	
2	3472.2250	71.67	-20.32	51.35	74.00	-22.65	Peak	
3 *	4463.9470	68.09	-17.87	50.22	54.00	-3.78	AVG	
4	4464.1750	70.70	-17.87	52.83	74.00	-21.17	Peak	
5	4960.1500	66.39	-16.68	49.71	74.00	-24.29	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------



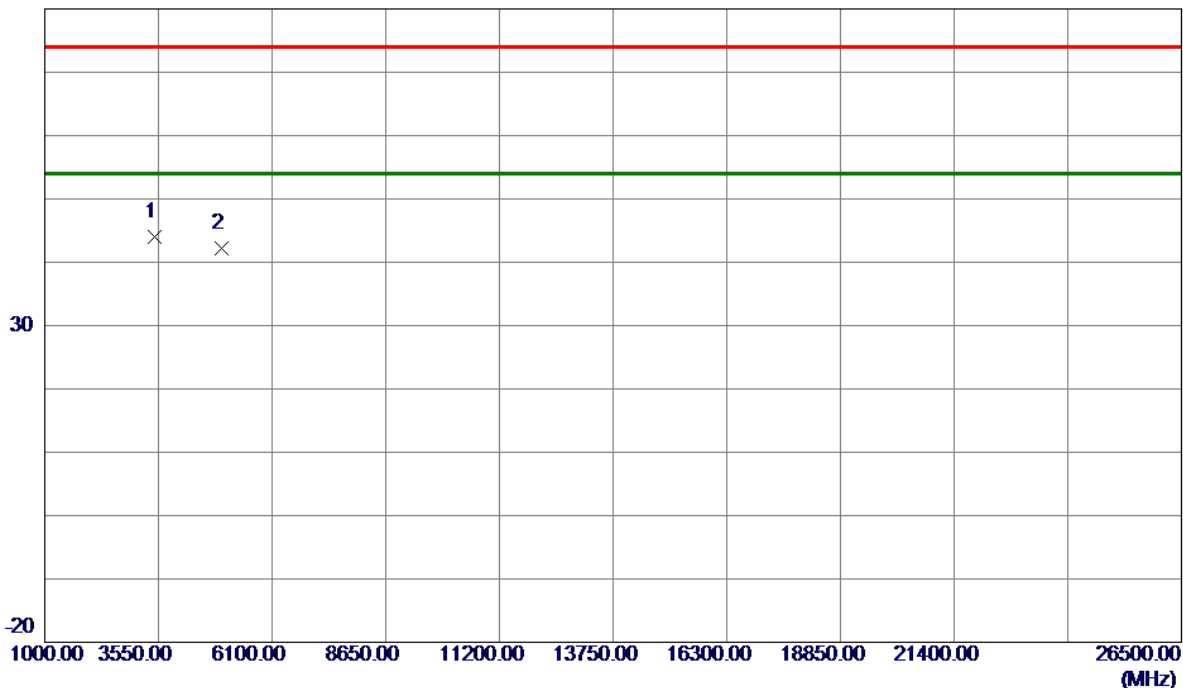
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2479.860	62.33	30.92	93.25	74.00	19.25	peak	NO limit
2	*	2479.860	61.34	30.92	92.26	54.00	38.26	AVG	NO limit
3		2483.500	24.08	30.95	55.03	74.00	-18.97	peak	
4		2483.500	9.75	30.95	40.70	54.00	-13.30	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------

80 dBuV/m

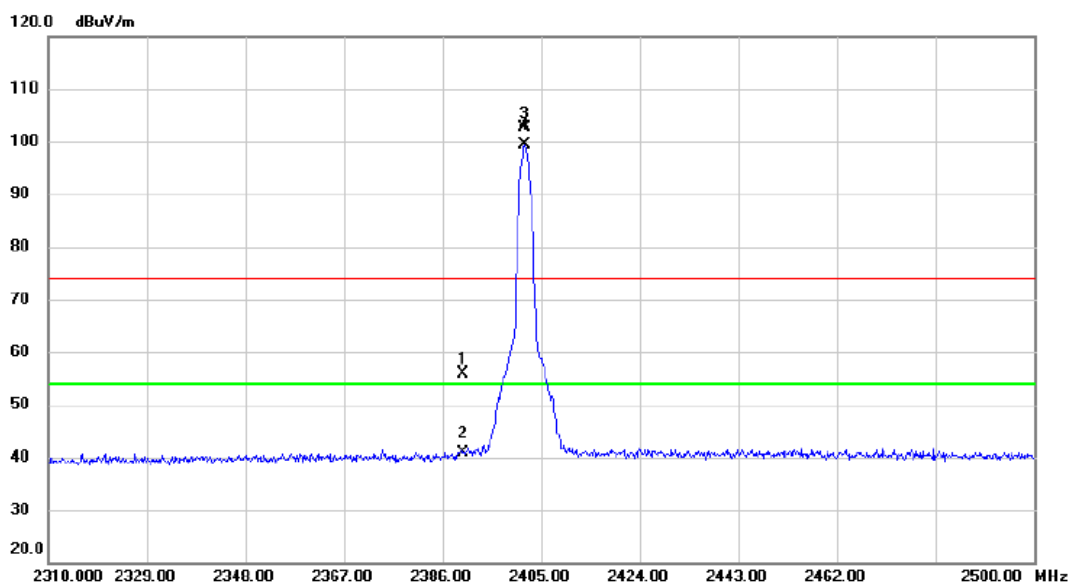


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3472.2250	64.34	-20.32	44.02	74.00	-29.98	Peak	
2	4960.1500	58.84	-16.68	42.16	74.00	-31.84	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	25.21	30.55	55.76	74.00	-18.24	peak	
2		2390.000	10.27	30.55	40.82	54.00	-13.18	AVG	
3	X	2401.865	72.03	30.60	102.63	74.00	28.63	peak	NO limit
4	*	2401.865	68.72	30.60	99.32	54.00	45.32	AVG	NO limit

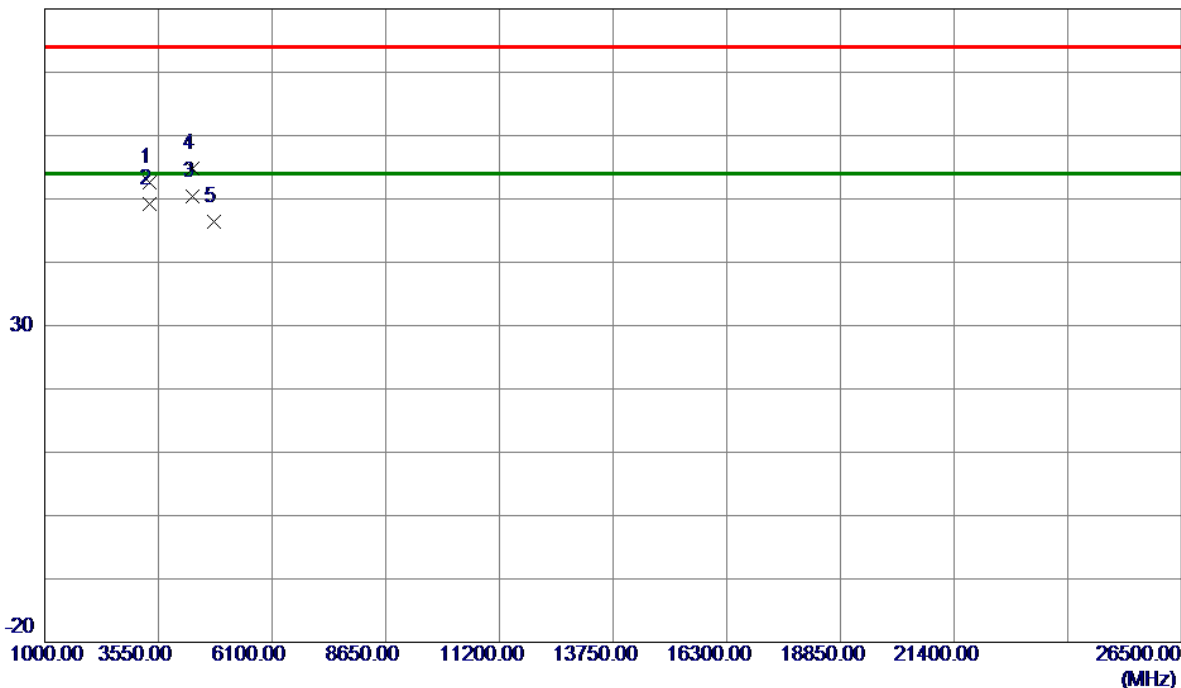
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------

80 dBuV/m

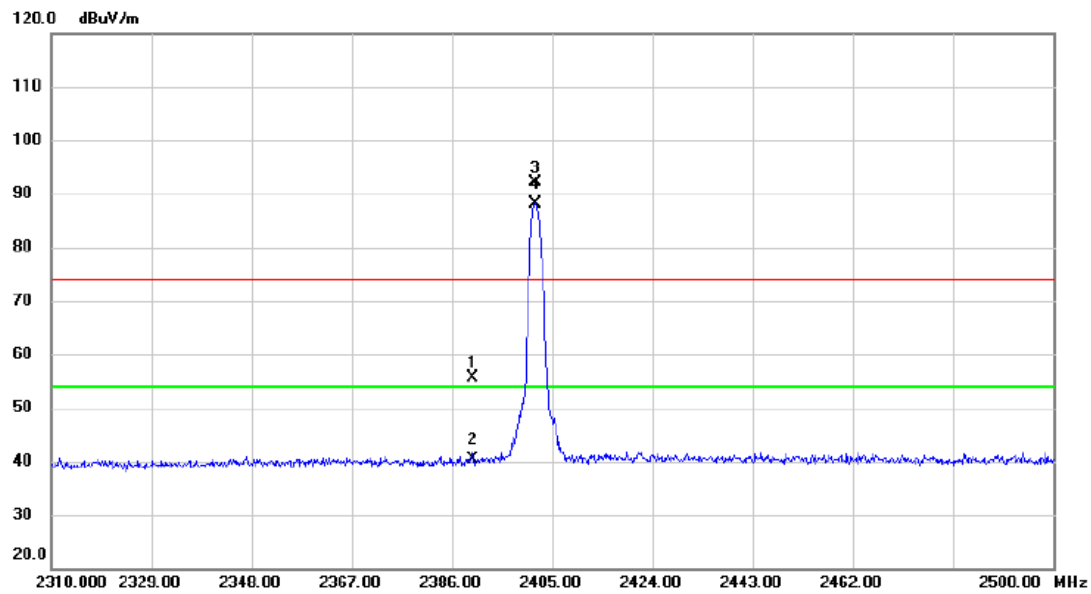


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	3362.5750	73.03	-20.51	52.52	74.00	-21.48	Peak	
2	3362.7390	69.64	-20.51	49.13	54.00	-4.87	AVG	
3 *	4323.4169	68.63	-18.24	50.39	54.00	-3.61	AVG	
4	4323.9250	72.96	-18.24	54.72	74.00	-19.28	Peak	
5	4804.6000	63.64	-17.27	46.37	74.00	-27.63	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	24.97	30.55	55.52	74.00	-18.48	peak	
2		2390.000	9.89	30.55	40.44	54.00	-13.56	AVG	
3	X	2401.770	61.47	30.60	92.07	74.00	18.07	peak	NO limit
4	*	2401.770	57.65	30.60	88.25	54.00	34.25	AVG	NO limit

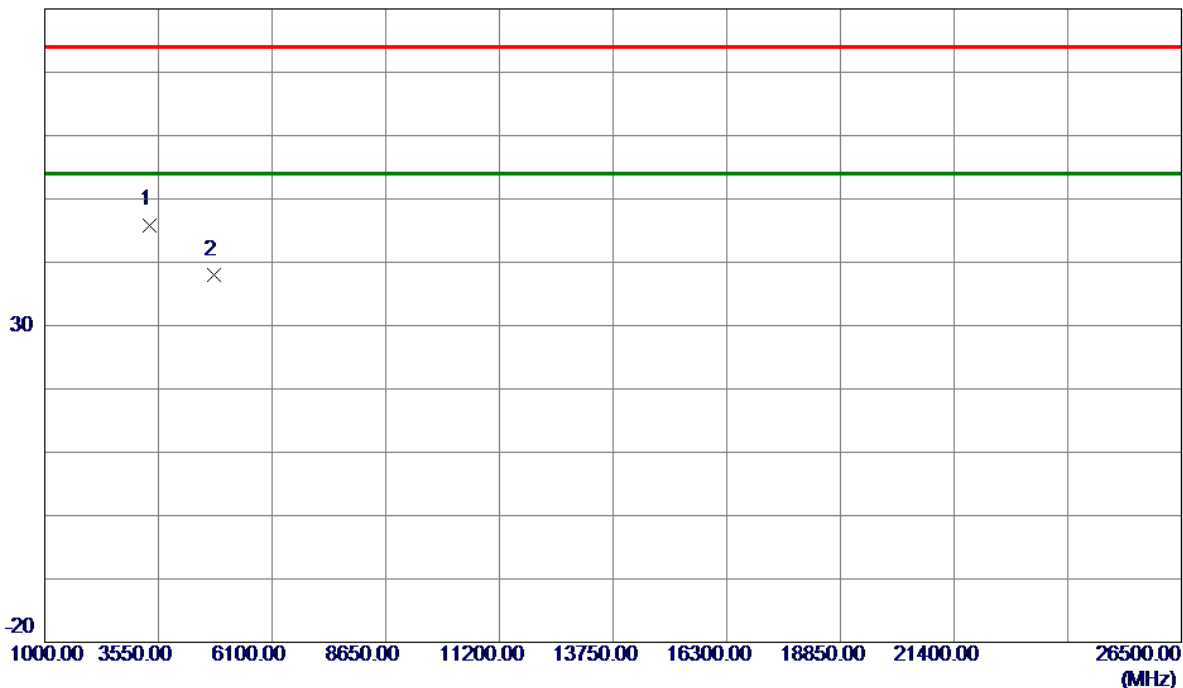
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------

80 dBuV/m

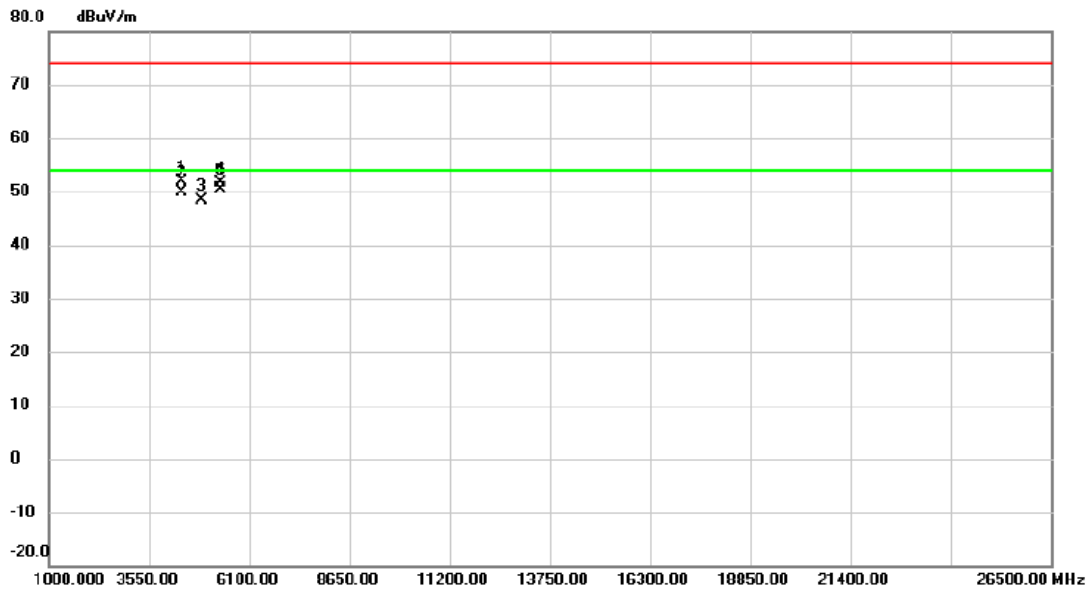


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	3362.5750	66.41	-20.51	45.90	74.00	-28.10	Peak	
2	4803.3250	55.27	-17.27	38.00	74.00	-36.00	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------

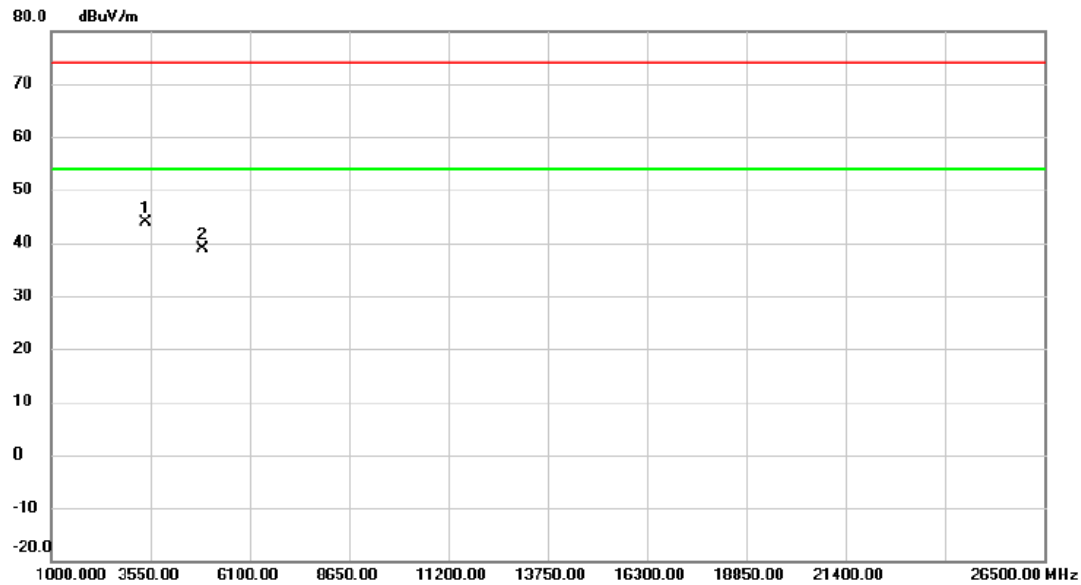


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4391.500	69.87	-18.06	51.81	74.00	-22.19	peak	
2		4391.826	68.02	-18.06	49.96	54.00	-4.04	AVG	
3		4881.100	65.29	-16.97	48.32	74.00	-25.68	peak	
4		5368.150	68.23	-16.49	51.74	74.00	-22.26	peak	
5	*	5368.196	66.87	-16.49	50.38	54.00	-3.62	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------



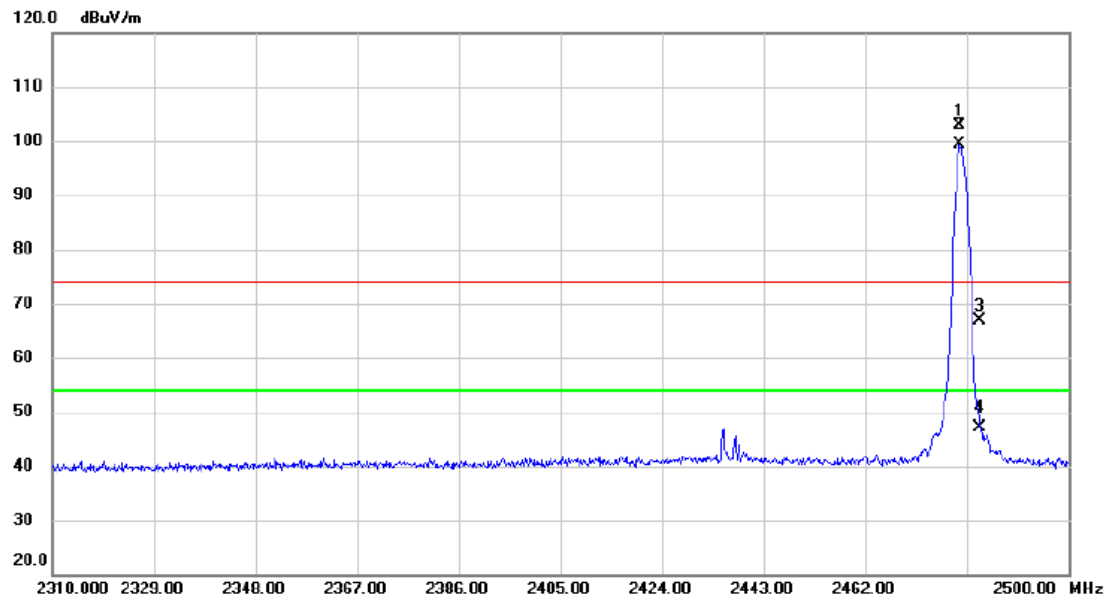
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	3416.125	64.28	-20.41	43.87	74.00	-30.13	peak	
2		4879.825	55.98	-16.98	39.00	74.00	-35.00	peak	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------



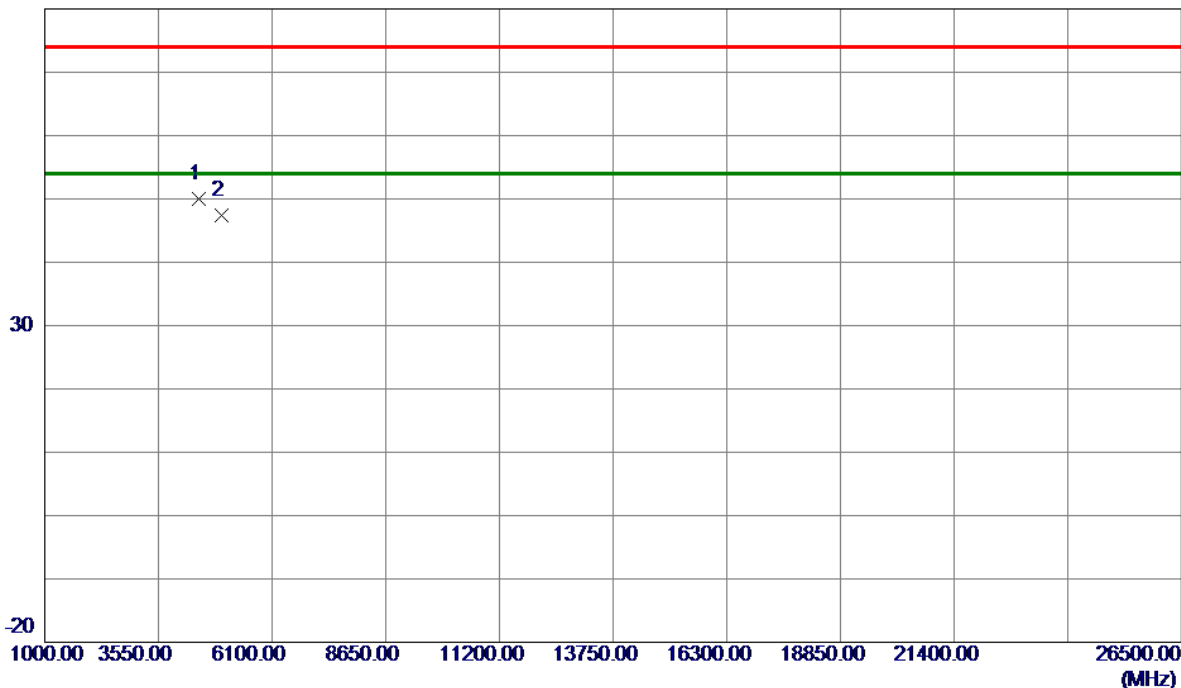
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2479.670	71.88	30.92	102.80	74.00	28.80	peak	No limit
2	*	2479.670	68.49	30.92	99.41	54.00	45.41	AVG	No limit
3		2483.500	35.83	30.95	66.78	74.00	-7.22	peak	
4		2483.500	16.25	30.95	47.20	54.00	-6.80	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Vertical
-----------	-------------------------	--------------	----------

80 dBuV/m

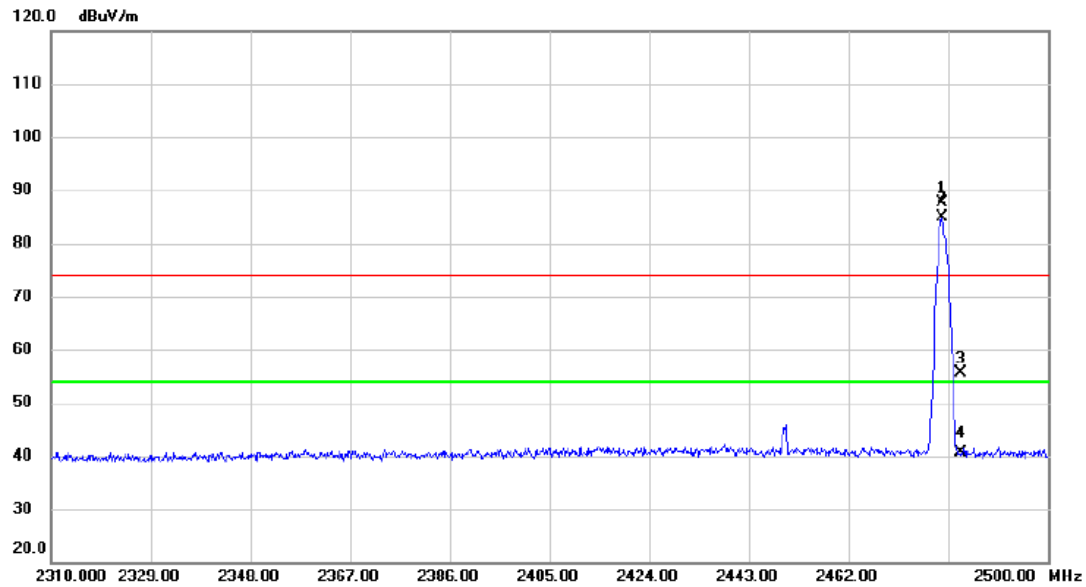


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4464.1750	67.85	-17.87	49.98	74.00	-24.02	Peak	
2	4960.1500	64.02	-16.68	47.34	74.00	-26.66	Peak	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------



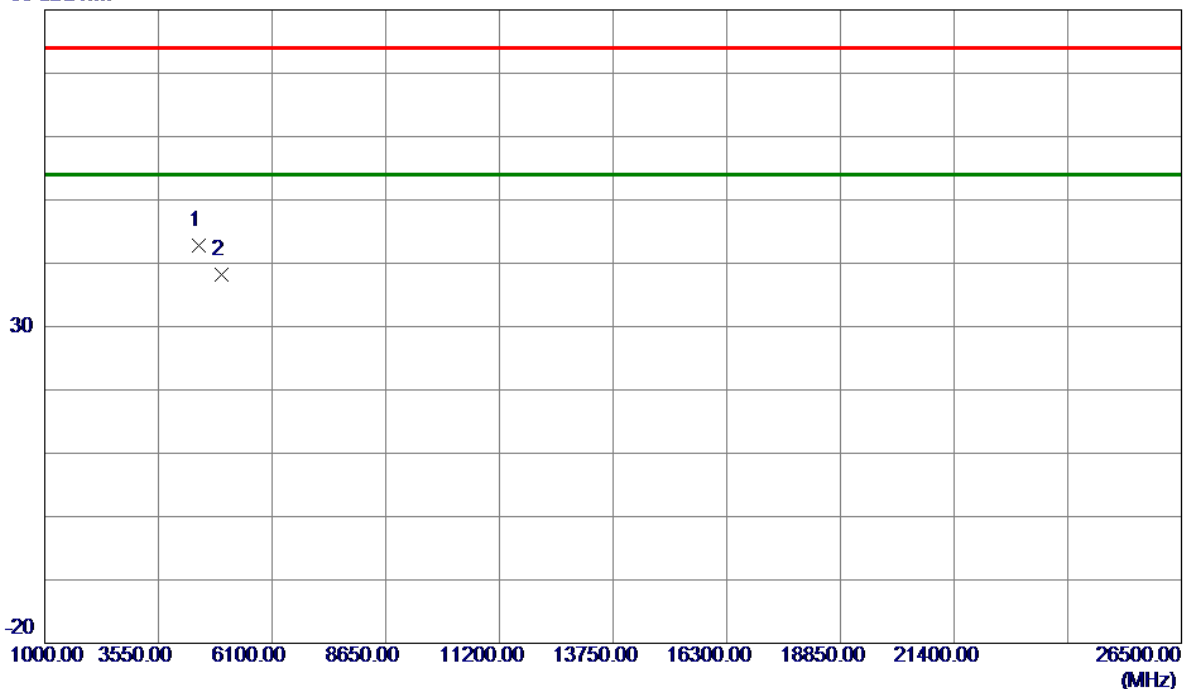
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2479.765	56.80	30.92	87.72	74.00	13.72	peak	No limit
2	*	2479.765	53.87	30.92	84.79	54.00	30.79	AVG	No limit
3		2483.500	24.63	30.95	55.58	74.00	-18.42	peak	
4		2483.500	9.59	30.95	40.54	54.00	-13.46	AVG	

REMARKS:

- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Horizontal
-----------	-------------------------	--------------	------------

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4464.1750	60.75	-17.87	42.88	74.00	-31.12	Peak	
2	4960.1500	54.87	-16.68	38.19	74.00	-35.81	Peak	

REMARKS:

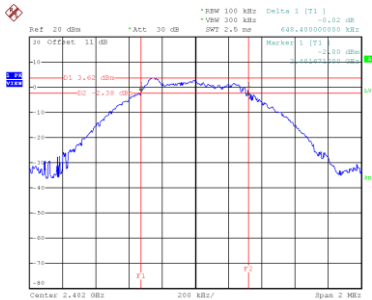
- (1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

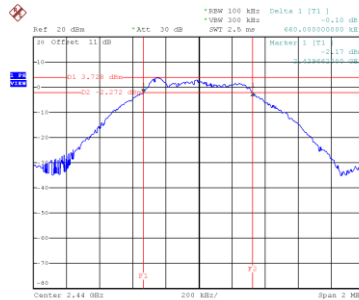
Test Mode	TX Mode _1Mbps
-----------	----------------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Test Result
00	2402	0.648	1.060	0.5	Pass
19	2440	0.660	1.068	0.5	Pass
39	2480	0.666	1.060	0.5	Pass

CH00

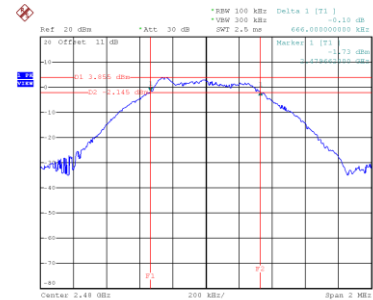


Date: 1.AUG.2022 19:36:47

CH19
6 dB Bandwidth


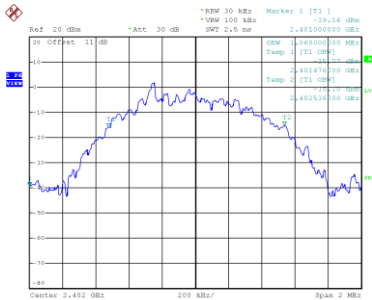
Date: 1.AUG.2022 19:38:35

CH39

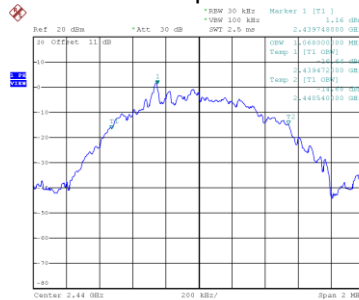


Date: 1.AUG.2022 19:40:24

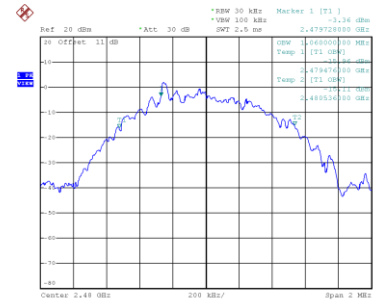
99 % Occupied Bandwidth



Date: 1.AUG.2022 19:36:09



Date: 1.AUG.2022 19:38:40

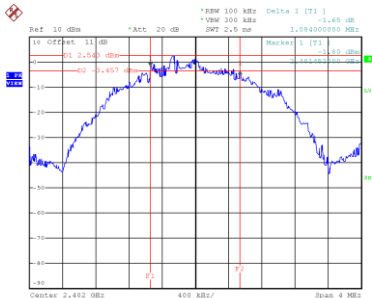


Date: 1.AUG.2022 19:40:30

Test Mode	TX Mode _2Mbps
-----------	----------------

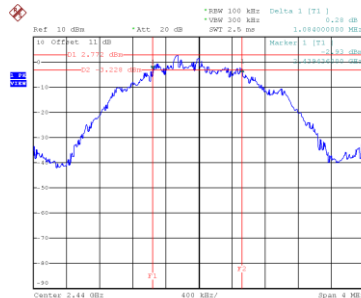
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Test Result
00	2402	1.084	2.080	0.5	Pass
19	2440	1.084	2.088	0.5	Pass
39	2480	1.080	2.088	0.5	Pass

CH00



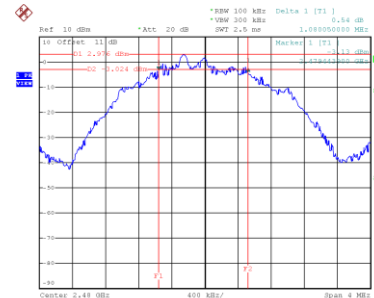
Date: 4.AUG.2022 17:11:04

CH19
6 dB Bandwidth



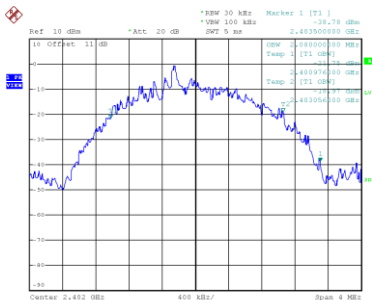
Date: 4.AUG.2022 17:12:51

CH39

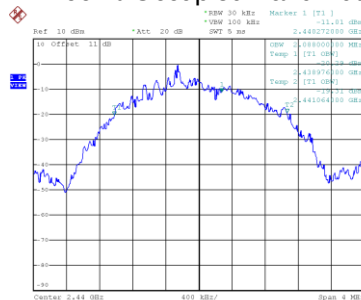


Date: 4.AUG.2022 17:14:48

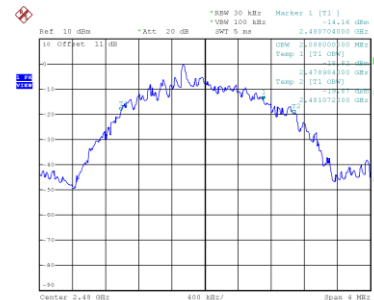
99 % Occupied Bandwidth



Date: 4.AUG.2022 17:10:27



Date: 4.AUG.2022 17:12:57

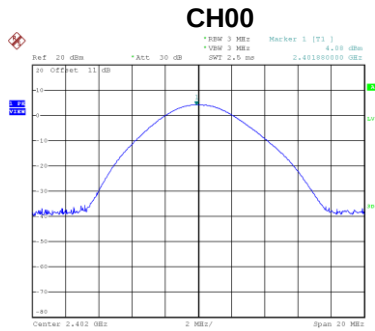


Date: 4.AUG.2022 17:14:54

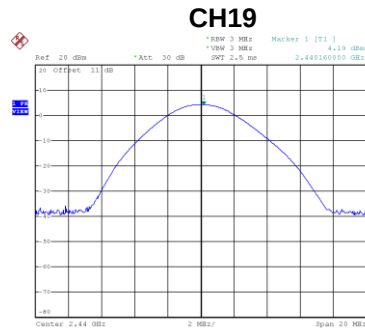
APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode	TX Mode _1Mbps
-----------	----------------

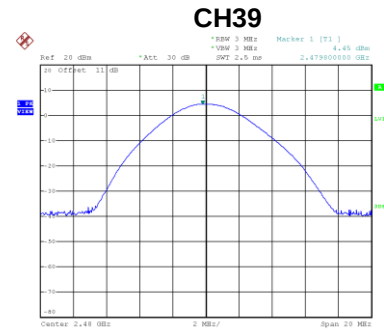
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	4.08	0.0026	30.00	1.0000	Pass
2440	4.19	0.0026	30.00	1.0000	Pass
2480	4.45	0.0028	30.00	1.0000	Pass



Date: 1.AUG.2022 19:37:34



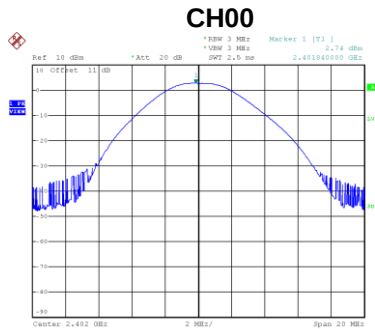
Date: 1.AUG.2022 19:39:27



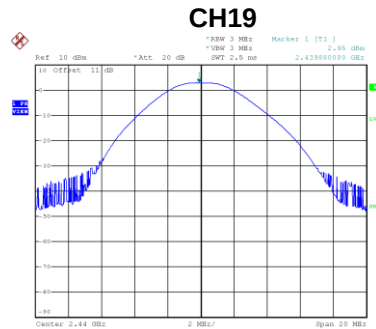
Date: 1.AUG.2022 19:41:16

Test Mode	TX Mode _2Mbps
-----------	----------------

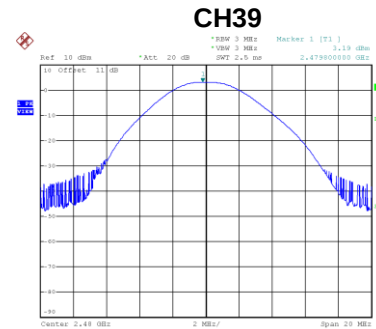
Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	2.74	0.0019	30.00	1.0000	Pass
2440	2.95	0.0020	30.00	1.0000	Pass
2480	3.19	0.0021	30.00	1.0000	Pass



Date: 4.AUG.2022 17:11:50



Date: 4.AUG.2022 17:13:44

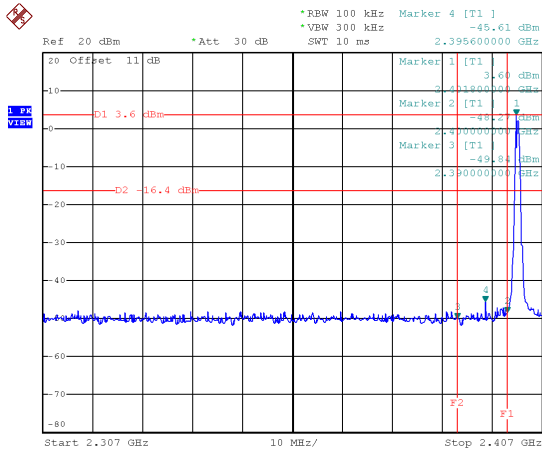


Date: 4.AUG.2022 17:15:40

APPENDIX G - CONDUCTED SPURIOUS EMISSION

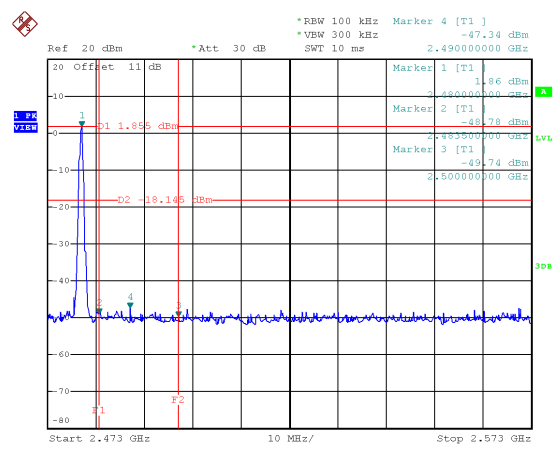
Test Mode TX Mode_1Mbps

Bandedge CH00 (Lower)



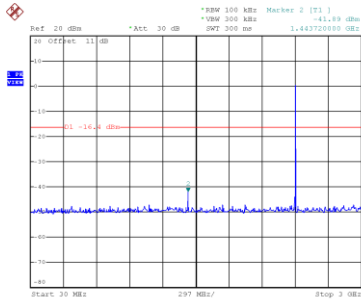
Date: 1.AUG.2022 19:36:54

Bandedge CH39 (Upper)

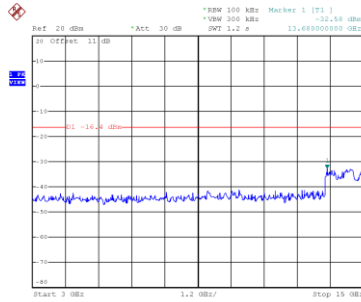


Date: 1.AUG.2022 19:40:37

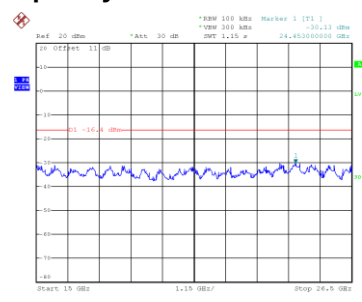
CH00 – 10th Harmonic of the fundamental frequency



Date: 1.AUG.2022 19:37:07

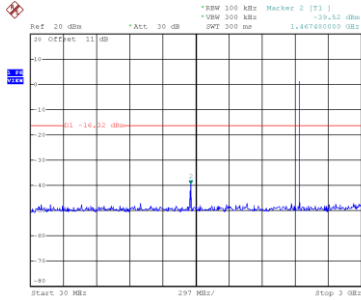


Date: 1.AUG.2022 19:37:15

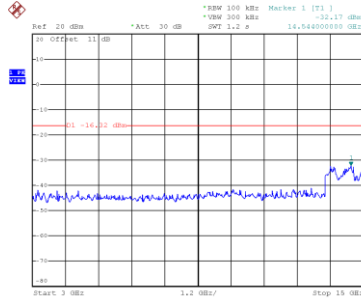


Date: 1.AUG.2022 19:37:22

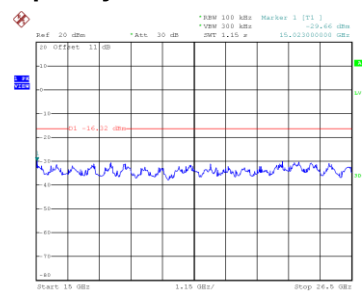
CH19 – 10th Harmonic of the fundamental frequency



Date: 1.AUG.2022 19:39:01

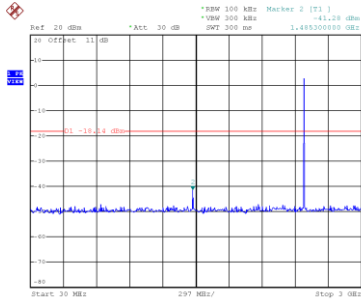


Date: 1.AUG.2022 19:39:08

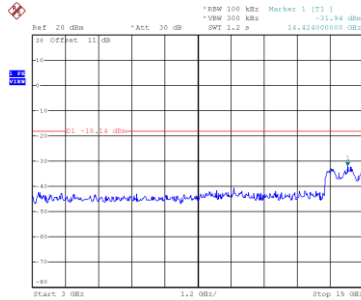


Date: 1.AUG.2022 19:39:15

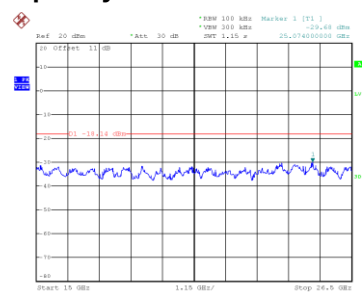
CH39 – 10th Harmonic of the fundamental frequency



Date: 1.AUG.2022 19:40:50



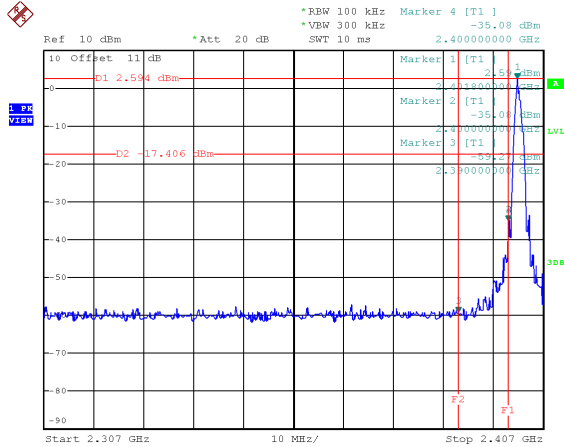
Date: 1.AUG.2022 19:40:58



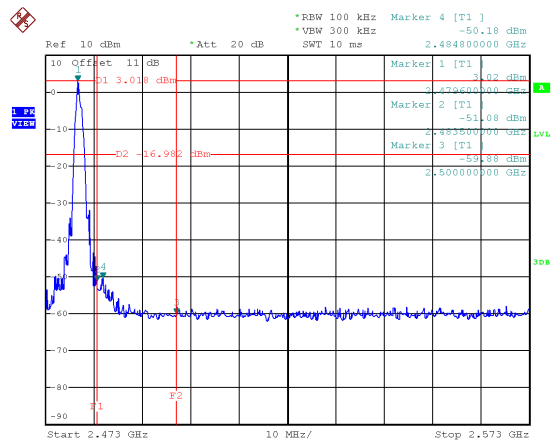
Date: 1.AUG.2022 19:41:05

Test Mode TX Mode _2Mbps

Bandedge CH00 (Lower)



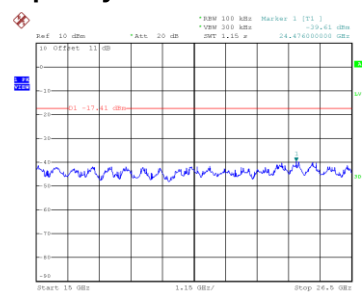
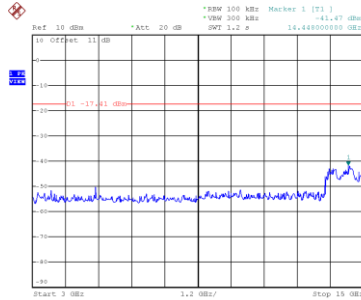
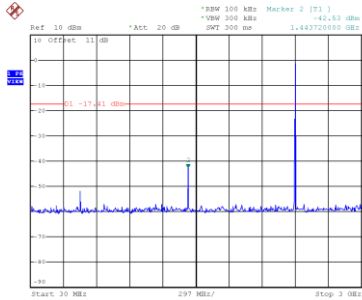
Bandedge CH39 (Upper)



Date: 4.AUG.2022 17:11:11

Date: 4.AUG.2022 17:15:01

CH00 – 10th Harmonic of the fundamental frequency

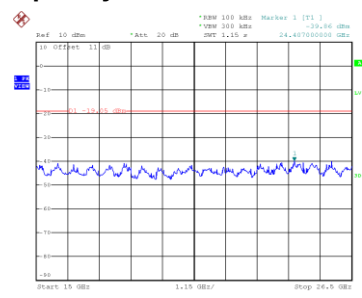
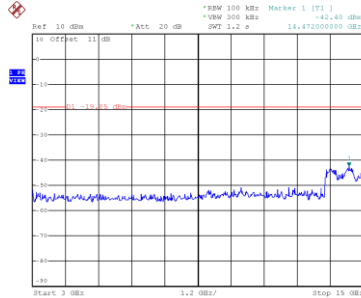
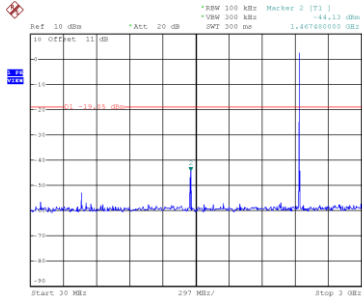


Date: 4.AUG.2022 17:11:24

Date: 4.AUG.2022 17:11:32

Date: 4.AUG.2022 17:11:39

CH19 – 10th Harmonic of the fundamental frequency

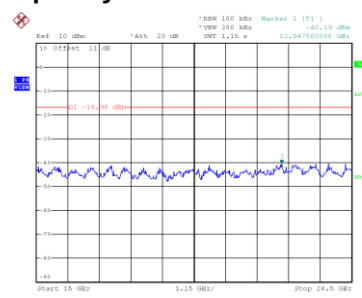
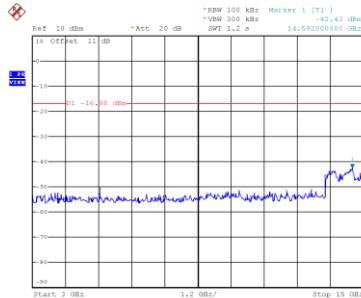
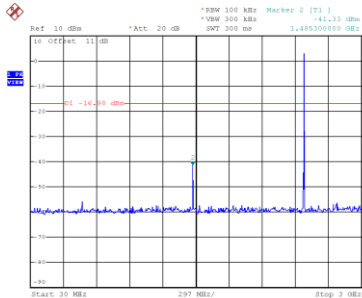


Date: 4.AUG.2022 17:13:18

Date: 4.AUG.2022 17:13:26

Date: 4.AUG.2022 17:13:33

CH39 – 10th Harmonic of the fundamental frequency



Date: 4.AUG.2022 17:15:14

Date: 4.AUG.2022 17:15:21

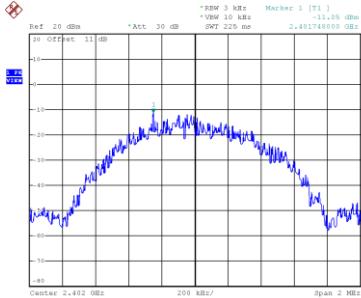
Date: 4.AUG.2022 17:15:28

APPENDIX H - POWER SPECTRAL DENSITY

Test Mode	TX Mode _1Mbps
-----------	----------------

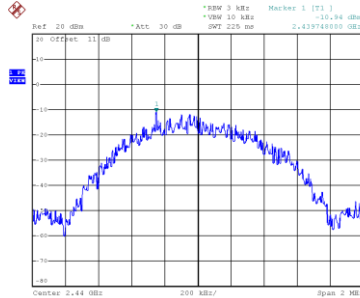
Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Max. Limit (dBm/3 kHz)	Test Result
00	2402	-11.05	8.00	Pass
19	2440	-10.94	8.00	Pass
39	2480	-10.83	8.00	Pass

CH00



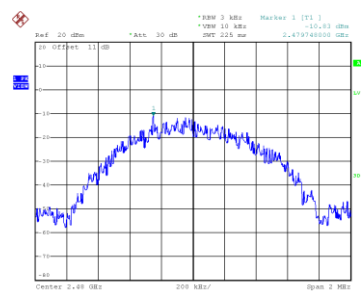
Date: 1.AUG.2022 19:37:28

CH19



Date: 1.AUG.2022 19:39:21

CH39

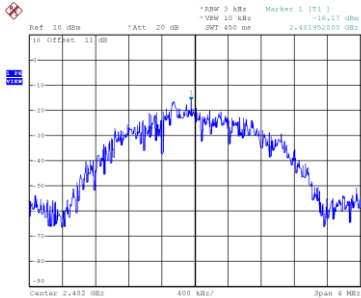


Date: 1.AUG.2022 19:41:31

Test Mode	TX Mode _2Mbps
-----------	----------------

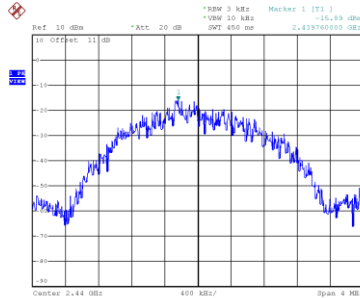
Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Max. Limit (dBm/3 kHz)	Test Result
00	2402	-16.17	8.00	Pass
19	2440	-15.89	8.00	Pass
39	2480	-15.14	8.00	Pass

CH00



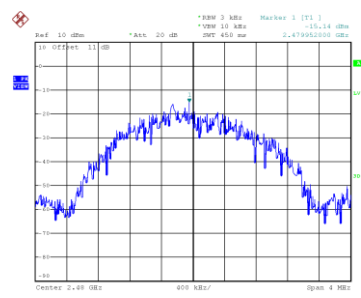
Date: 4.AUG.2022 17:11:45

CH19



Date: 4.AUG.2022 17:13:39

CH39



Date: 4.AUG.2022 17:15:34

End of Test Report