

# FCC Radio Test Report

## FCC ID: XDQN82

This report concerns: Original Grant

**Project No.** : 2207G005  
**Equipment** : POS Terminal  
**Brand Name** : NEXGO  
**Test Model** : N82  
**Series Model** : N/A  
**Applicant** : Shenzhen Xinguodu Technology Co., Ltd.  
**Address** : 17B JinSong Mansion, Terra Industrial & Trade Park Chegongmiao, Futian District, Shenzhen, China  
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**Date of Receipt** : Jul. 05, 2022  
**Date of Test** : Jul. 09, 2022 ~ Jul. 26, 2022  
**Issued Date** : Aug. 03, 2022  
**Report Version** : R00  
**Test Sample** : Engineering Sample No.: DG202207074 for conducted, DG202207075 for radiated.  
**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.

*Grani Zhou*

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TESTING CERT #5123.02

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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.

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**REPORT ISSUED HISTORY**

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-6-2207G005	R00	Original Report.	Aug. 03, 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 Emissions	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 in this test report.
- (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. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.

BTL's Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

## 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)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

### B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB01	CISPR	9kHz ~ 30MHz	2.36

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03 (3m)	CISPR	30MHz ~ 200MHz	V	4.36
		30MHz ~ 200MHz	H	3.32
		200MHz ~ 1,000MHz	V	4.08
		200MHz ~ 1,000MHz	H	3.96

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (3m)	CISPR	1GHz ~ 6GHz	3.80
		6GHz ~ 18GHz	4.82

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (1m)	CISPR	18 ~ 26.5 GHz	3.62
		26.5 ~ 40 GHz	4.00



## C. Other Measurement:

Test Item	Uncertainty
Bandwidth	±3.8 %
Maximum Output Power	±0.95 dB
Conducted Spurious Emission	±2.71 dB
Power Spectral Density	±0.86 dB
Temperature	±0.08 °C
Humidity	±1.5%



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	23°C	52%	AC 120V/60Hz	Jeter Wang
Radiated Emissions-9kHz to 30 MHz	26°C	56%	AC 120V/60Hz	Farun Liang
Radiated Emissions-30MHz to 1000MHz	25°C	53%	AC 120V/60Hz	Berton Luo
Radiated Emissions-Above 1000MHz	24°C	50%	AC 120V/60Hz	Berton Luo
Bandwidth	24.1°C	65.4%	DC 3.7V	Anesi Yang
Maximum Output Power	24.1°C	65.4%	DC 3.7V	Complex Qin
Conducted Spurious Emissions	24.1°C	65.4%	DC 3.7V	Anesi Yang
Power Spectral Density	24.1°C	65.4%	DC 3.7V	Anesi Yang

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	POS Terminal
Brand Name	NEXGO
Test Model	N82
Series Model	N/A
Model Difference(s)	N/A
Software Version	XGD OS V1.0
Hardware Version	V1.0CI
Power Source	1# DC voltage supplied from AC adapter. (1) Model: RJ23B-W050200EU (2) Model: STC-A520A-Z 2# Supplied from battery. Model: GX02 3# Supplied from USB port.
Power Rating	1# (1) I/P: 100-240V~ 50/60Hz 0.3A O/P: 5.0V  2.0A 10.0W (2) I/P: 100-240V~ 50/60Hz 400mA O/P: 5.0V  2000mA 2# DC 3.7V, Rated Capacity: 5200mAh 19.24Wh 3# DC 5V
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 150 Mbps
Maximum Output Power	IEEE 802.11b: 16.04 dBm (0.0402 W)


Note:

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

#### 2. Channel List:

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20) CH03 - CH09 for IEEE 802.11n(HT40)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

#### 3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1		SZ22043IB75-2	FPC	N/A	-2.53

Note: The antenna gain is provided by the manufacturer.

## 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 B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09
Mode 5	TX B Mode Channel 11

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

<b>AC power line conducted emissions test</b>	
Final Test Mode	Description
Mode 5	TX B Mode Channel 11

<b>Radiated emissions test - Below 1GHz</b>	
Final Test Mode	Description
Mode 5	TX B Mode Channel 11

<b>Radiated emissions test- Above 1GHz</b>	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09

<b>Conducted test</b>	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09

**NOTE:**

- (1) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
- (2) For AC power line conducted emissions and radiated emission below 1 GHz test, the TX B Mode Channel 11 is found to be the worst case and recorded.
- (3) 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.
- (4) For AC power line conducted emissions and radiated spurious emissions below 1 GHz test, all adapters had been pre-tested and in this report only recorded the worst adapter (Model: STC-A520A-Z).
- (5) For radiated emission above 1 GHz test: The polarization of Vertical and Horizontal are evaluated, the worst case is Vertical and recorded.

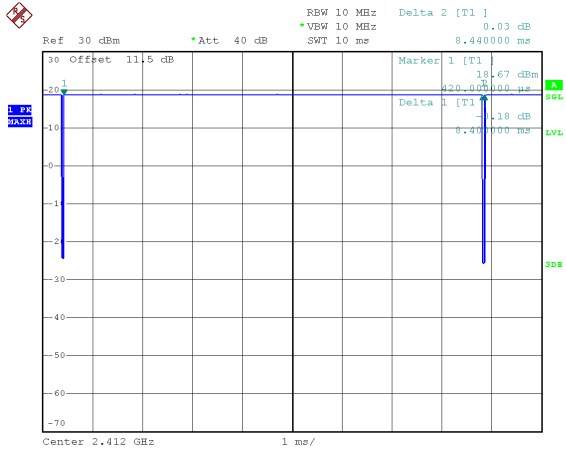
**2.3 PARAMETERS OF TEST SOFTWARE**

Test Software Version	N/A		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	19	18	19
IEEE 802.11g	17	16	16
IEEE 802.11n(HT20)	17	16	16
Frequency (MHz)	2422	2437	2452
IEEE 802.11n(HT40)	16	16.5	16.5

## 2.4 DUTY CYCLE

If duty cycle is  $\geq 98\%$ , duty factor is not required.  
If duty cycle is  $< 98\%$ , duty factor shall be considered.  
The output power = measured power + duty factor.

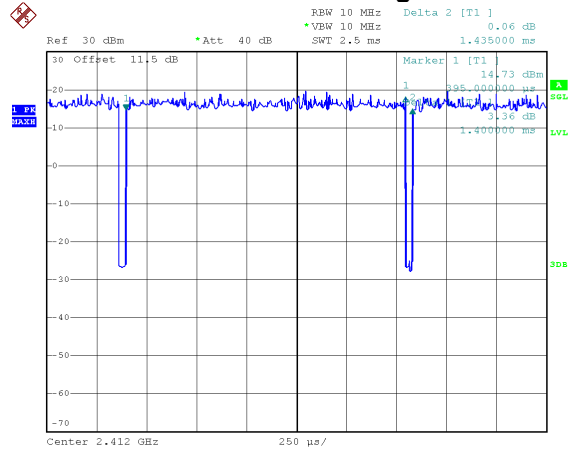
### IEEE 802.11b



Date: 14.JUL.2022 14:07:42

Duty cycle =  $8.400 \text{ ms} / 8.440 \text{ ms} = 99.53\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.00$

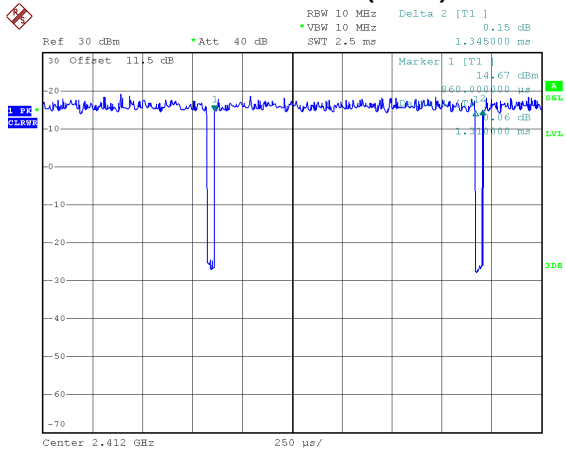
### IEEE 802.11g



Date: 14.JUL.2022 14:09:42

Duty cycle =  $1.400 \text{ ms} / 1.435 \text{ ms} = 97.56\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.11$

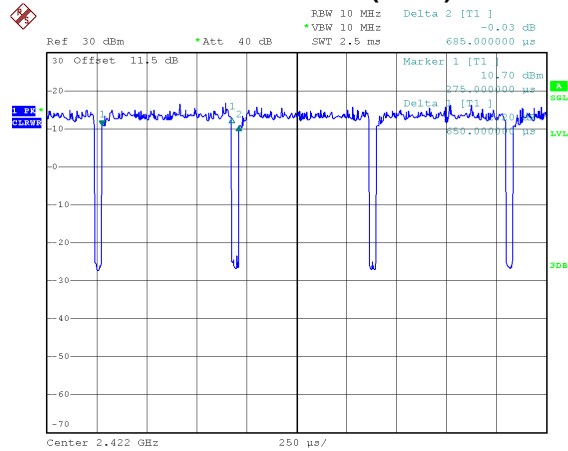
### IEEE 802.11n(HT20)



Date: 14.JUL.2022 14:10:01

Duty cycle =  $1.310 \text{ ms} / 1.345 \text{ ms} = 97.40\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.11$

### IEEE 802.11n(HT40)



Date: 14.JUL.2022 14:10:22

Duty cycle =  $0.650 \text{ ms} / 0.685 \text{ ms} = 94.89\%$   
Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.23$

**NOTE:**

For IEEE 802.11b:

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz.

For IEEE 802.11g:

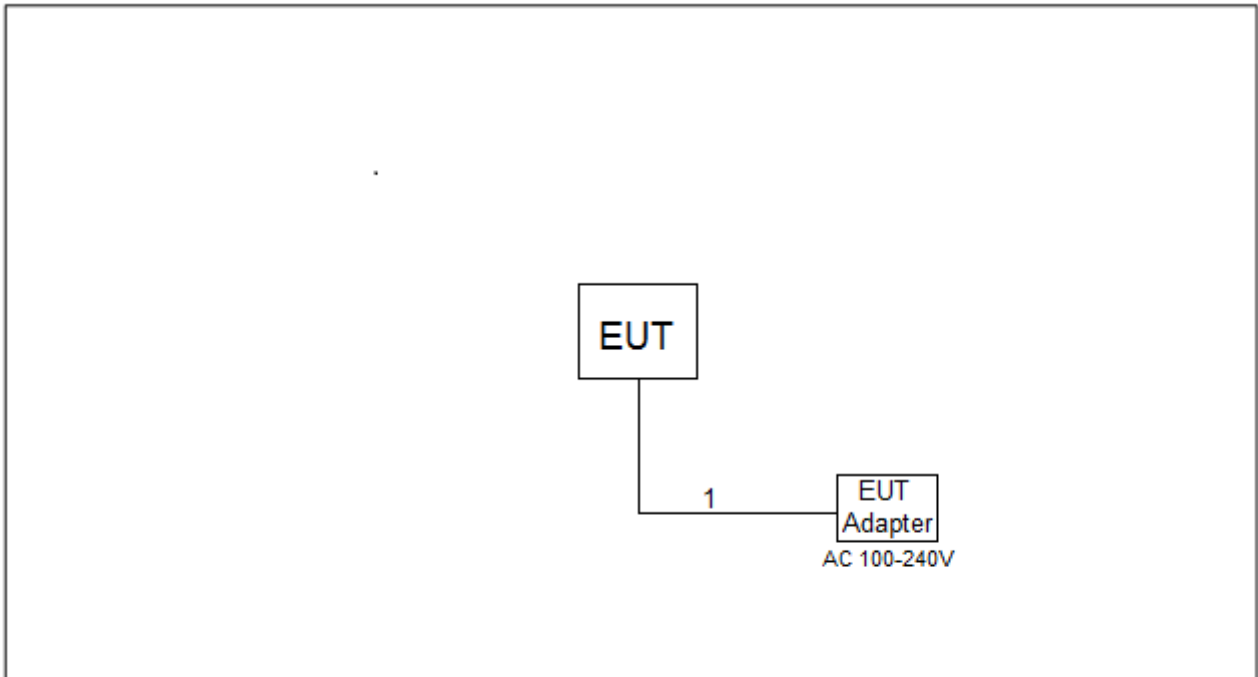
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 714 Hz.

For IEEE 802.11n(HT20):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 763 Hz.

For IEEE 802.11n(HT40):

For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1538 Hz.

**2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED****2.6 SUPPORT UNITS**

Item	Equipment	Brand	Model No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	NO	NO	1.2m

### 3. AC POWER LINE CONDUCTED EMISSIONS

#### 3.1 LIMIT

Frequency of Emission (MHz)	Limit (dB $\mu$ 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:

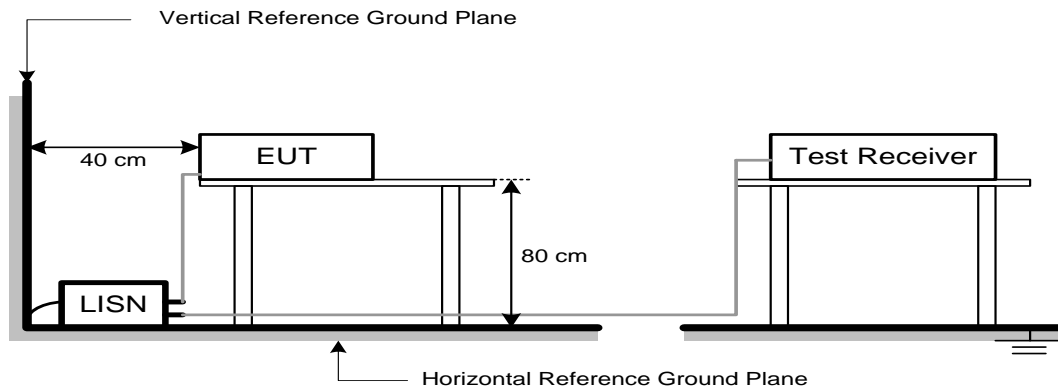
Receiver Parameters	Setting
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

#### 3.3 DEVIATION FROM TEST STANDARD

No deviation.



### 3.4 TEST SETUP



### 3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

### 3.6 TEST RESULTS

Please refer to the APPENDIX A.

## 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

- a. 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)
- b. 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)
- c. 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.
- d. 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).
- e. 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.
- f. 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.
- g. 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)
- h. 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)
- i. 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

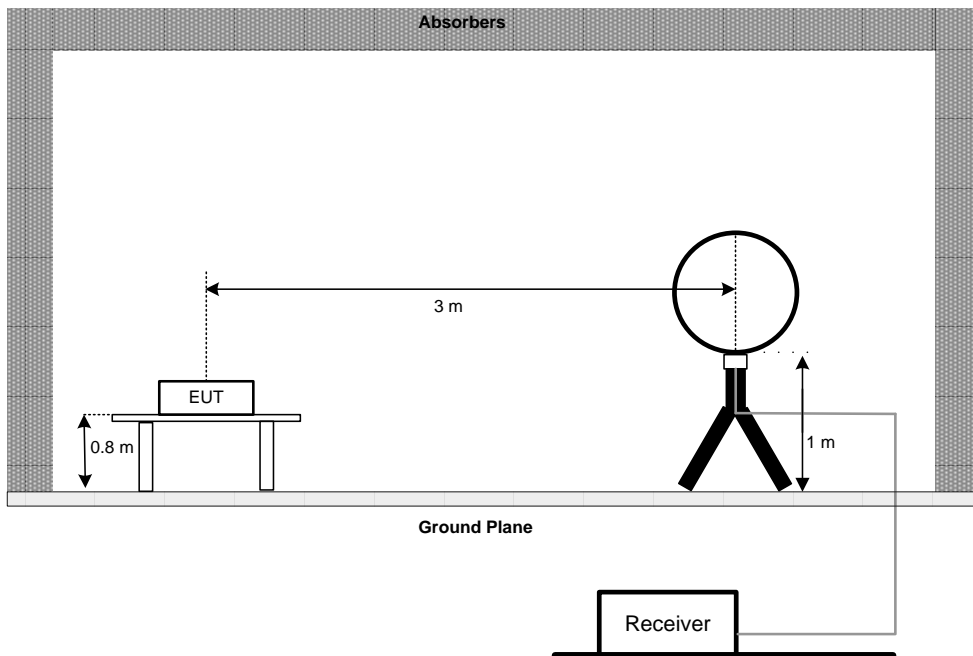
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector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

### 4.3 DEVIATION FROM TEST STANDARD

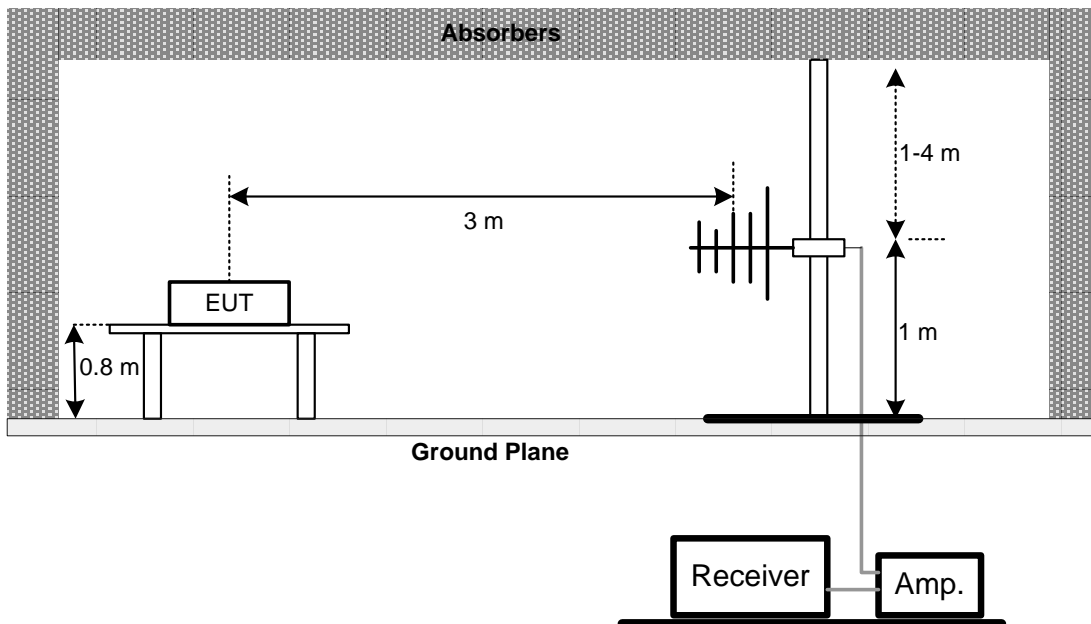
No deviation.

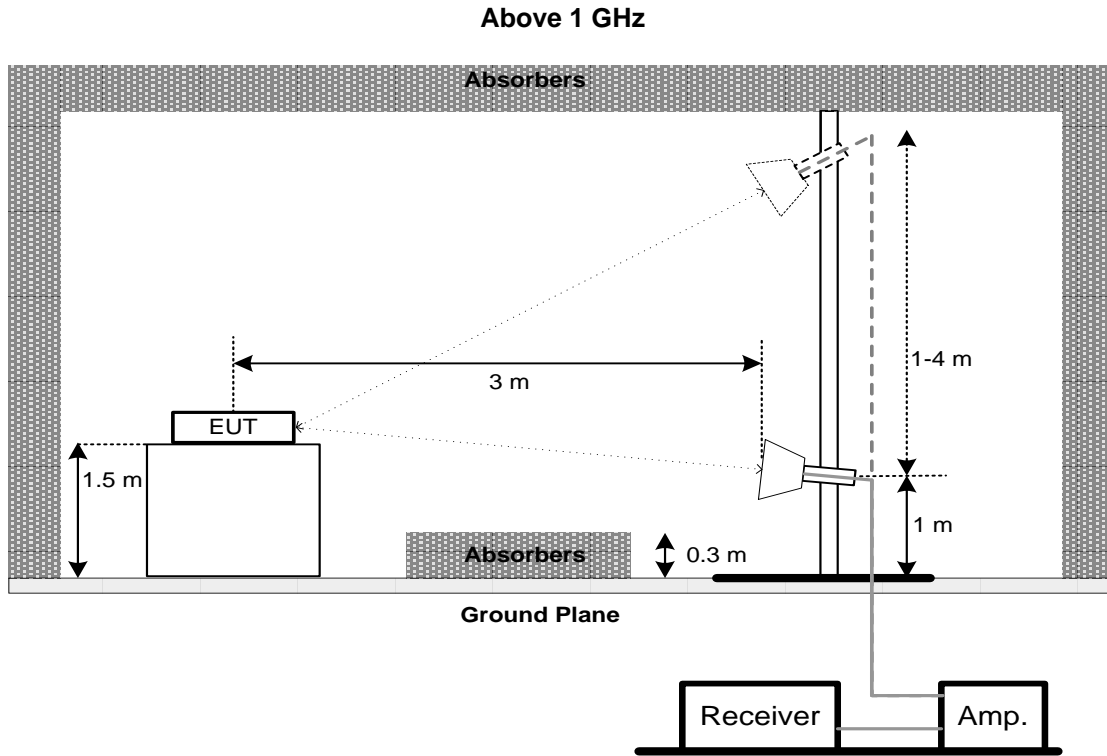
### 4.4 TEST SETUP

#### 9 kHz to 30 MHz



#### 30 MHz to 1 GHz





**4.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

**4.6 TEST RESULTS - 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 RESULTS - 30 MHZ TO 1000 MHZ**

Please refer to the APPENDIX C.

**4.8 TEST RESULTS - 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	Minimum 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	300 kHz For 20MHz 1 MHz For 40MHz
VBW	1 MHz For 20MHz 3 MHz For 40MHz
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

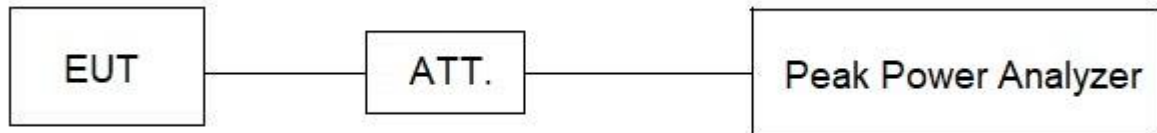
### 6.2 TEST PROCEDURE

- The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.
- The maximum conducted output power was performed in accordance with method 11.9.2.3.1 (for AVG power) of ANSI C63.10-2013.

### 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 EMISSIONS

### 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

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. 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

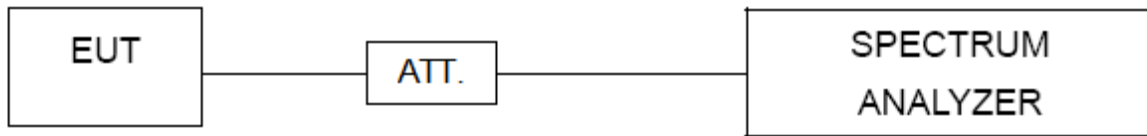
- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	25 MHz (20 MHz) / 60 MHz (40 MHz)
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	EMI Test Receiver	R&S	ESCI	100382	Jan. 22, 2023
2	LISN	EMCO	3816/2	52765	Jan. 23, 2023
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Jan. 23, 2023
4	50Ω Terminator	SHX	TF5-3	15041304	Jan. 22, 2023
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 08, 2023
7	643 Shield Room	ETS	6*4*3	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	MXE EMI Receiver	Keysight	N9038A	MY56400091	Jan. 22, 2023
2*	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 23, 2024
3	Cable	N/A	RG 213/U(9kHz~1GHz)	N/A	Jun. 17, 2023
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chamber Room	ETS	9*6*6	N/A	Jul. 14, 2022 Jul. 14, 2023

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 03, 2023
2	Amplifier	HP	8447D	2944A08742	Jan. 22, 2023
3	Cable	emci	LMR-400	N/A	Nov. 30, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Jan. 22, 2023
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	966 Chamber Room	RM	9*6*6	N/A	Jul. 15, 2022 Jul. 15, 2023

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Horn Antenna	ARA	DRG-118A	16554	Apr. 18, 2023
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun 11, 2023
3	Amplifier	Agilent	8449B	3008A02584	Jul. 03, 2023
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Jan. 22, 2023
7	EXA Spectrum Analyzer	Keysight	N9010A	MY56480488	Jan. 22, 2023
8*	Low Noise Amplifier	CONNPHY	CLN-18G40G-4330-K	619413	Jul. 05, 2025
9	Cable	Talent microwave	A81-SMAMSMAM-12.5 M	N/A	Oct. 15, 2022
10	Cable	Talent microwave	A40-2.92M2.92M-2.5M	N/A	Nov. 30, 2022
11	Filter	STI	STI15-9912	N/A	Jul. 03, 2023
12	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
13	966 Chamber Room	RM	9*6*6	N/A	Jul. 15, 2022 Jul. 15, 2023

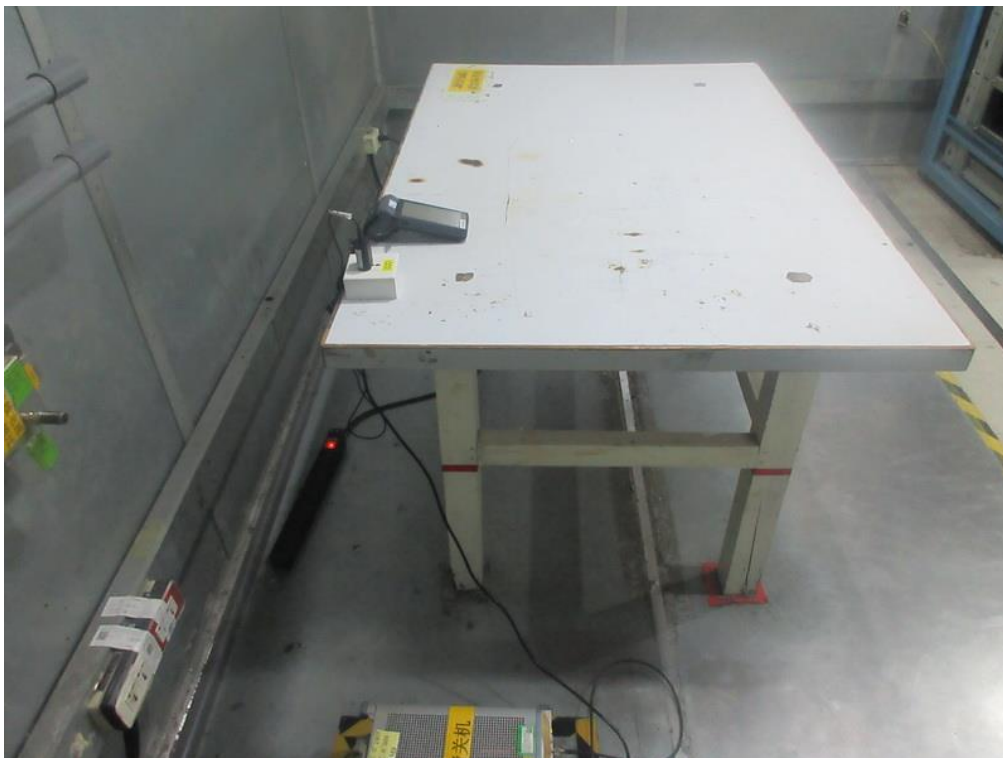
Bandwidth & Conducted Spurious Emissions & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 03, 2023
2	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
3	RF Cable	Tongkaichuan	N/A	N/A	N/A
4	DC Block	Mini	N/A	N/A	N/A

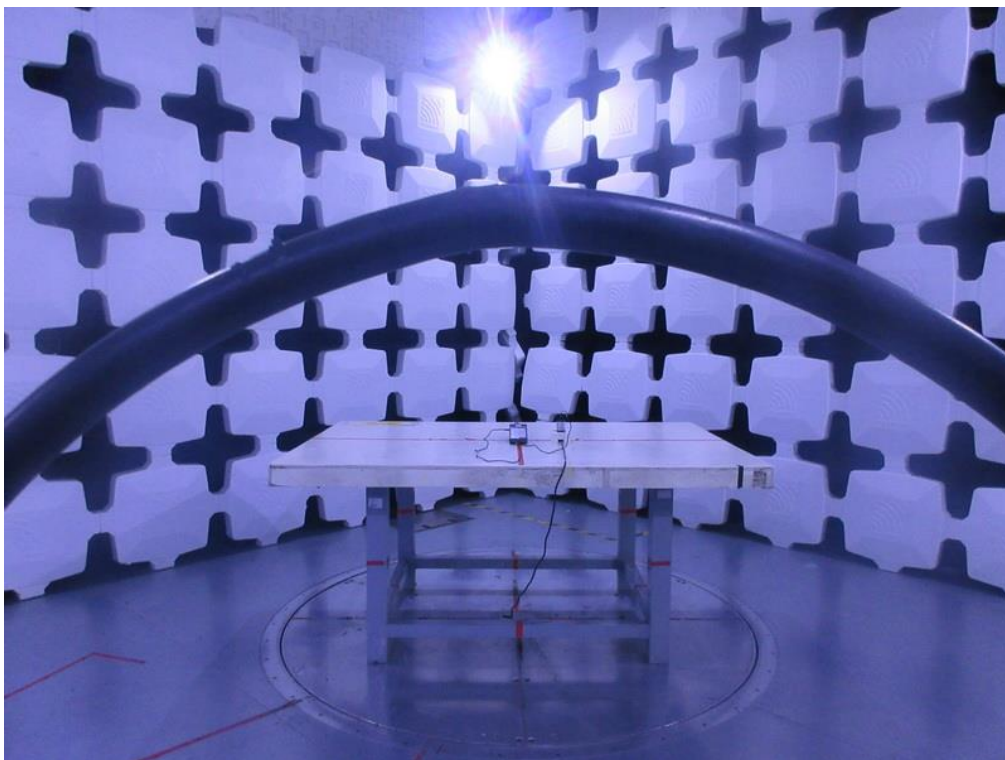
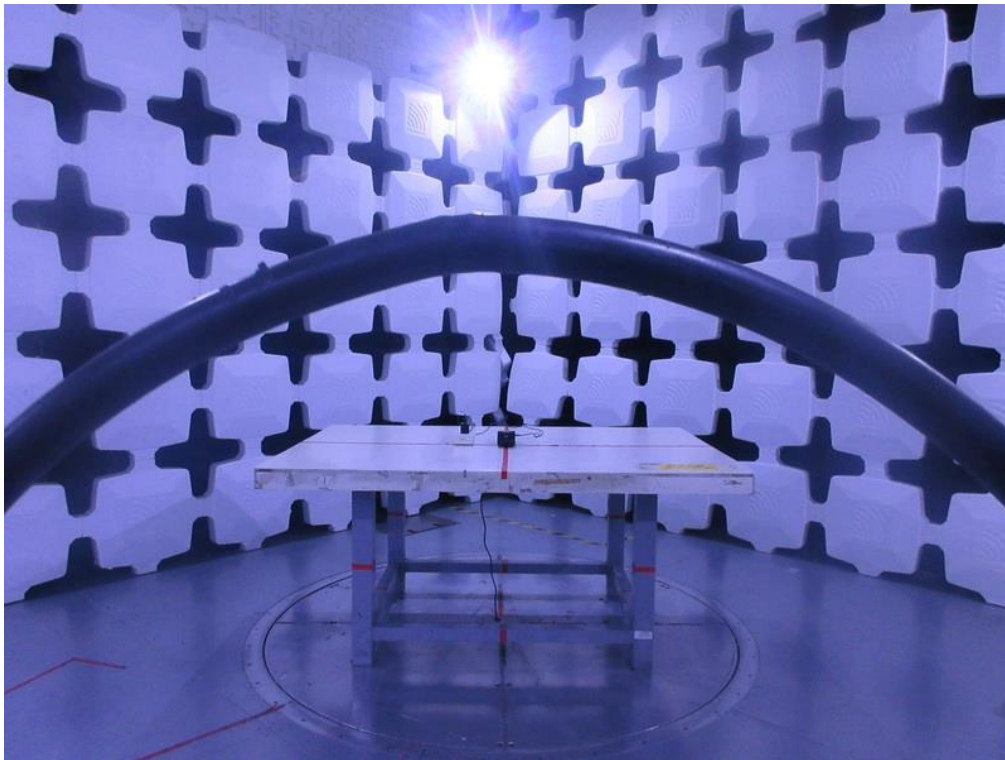
Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Jul. 03, 2023
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 03, 2023
3	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
4	RF Cable	Tongkaichuan	N/A	N/A	N/A

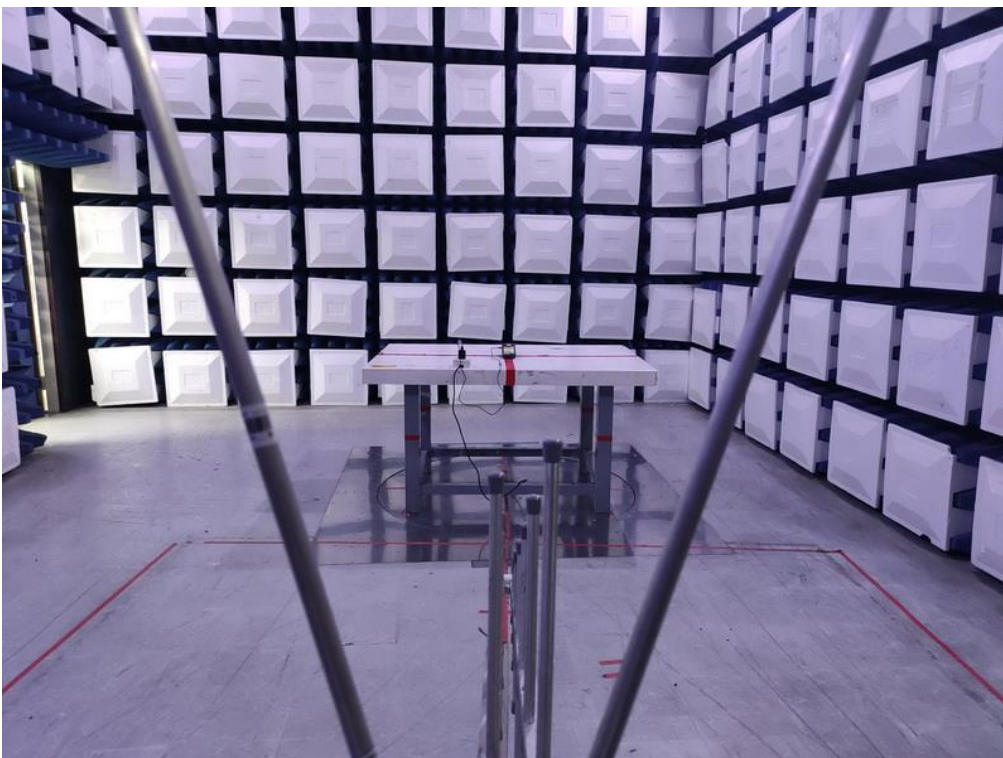
Remark: "N/A" denotes no model name, serial no. or calibration specified.

"\*\*" calibration period of equipment list is three year.

Except \* item, all calibration period of equipment list is one year.

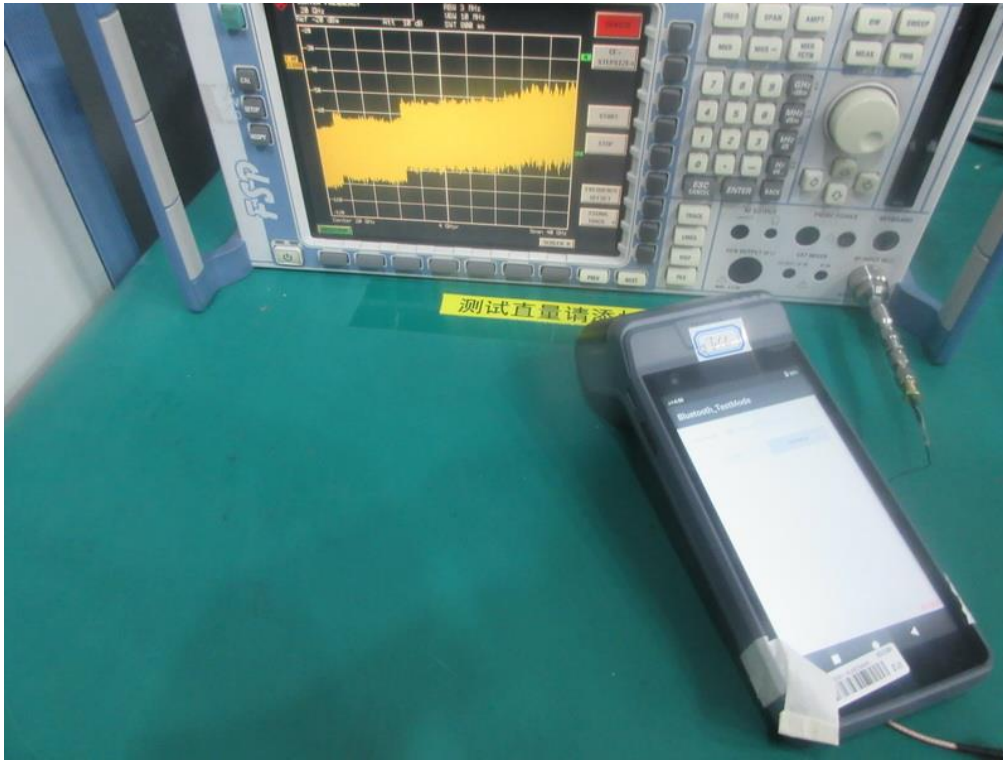
**10. EUT TEST PHOTO****AC Power Line Conducted Emissions Test Photos**

**Radiated Emissions Test Photos****9 kHz to 30 MHz**

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

**Radiated Emissions Test Photos****Above 1 GHz**

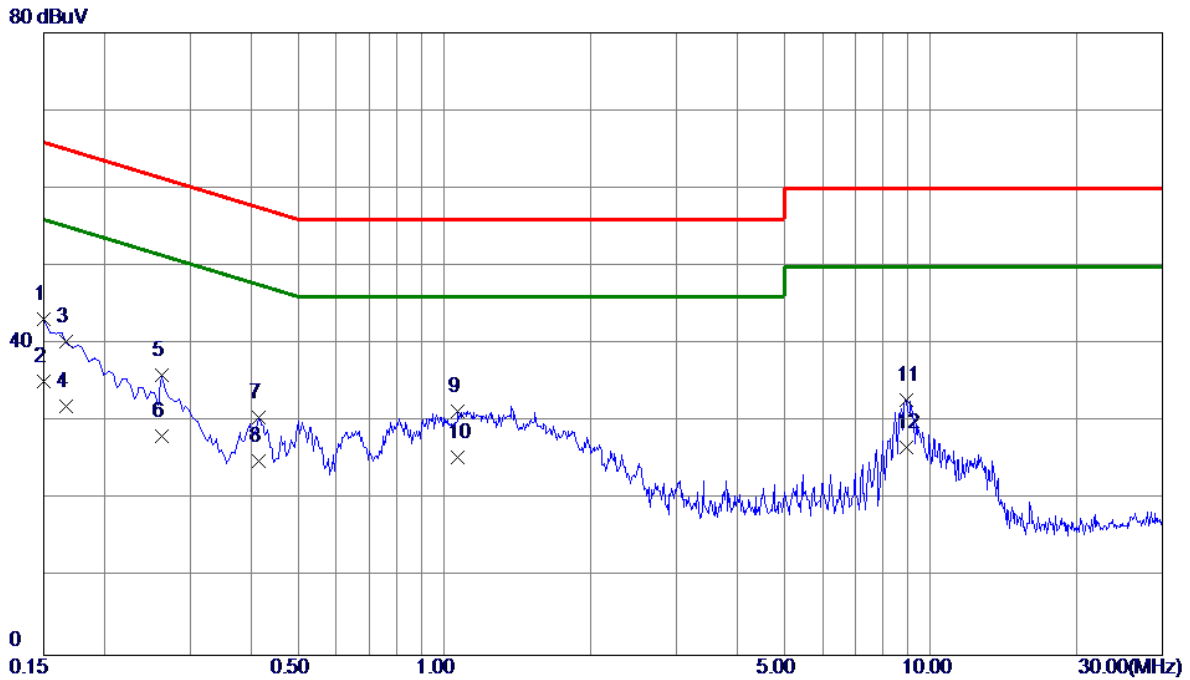
**Conducted Test Photos**





## **APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS**

Test Mode	TX B Mode Channel 11	Phase	Line
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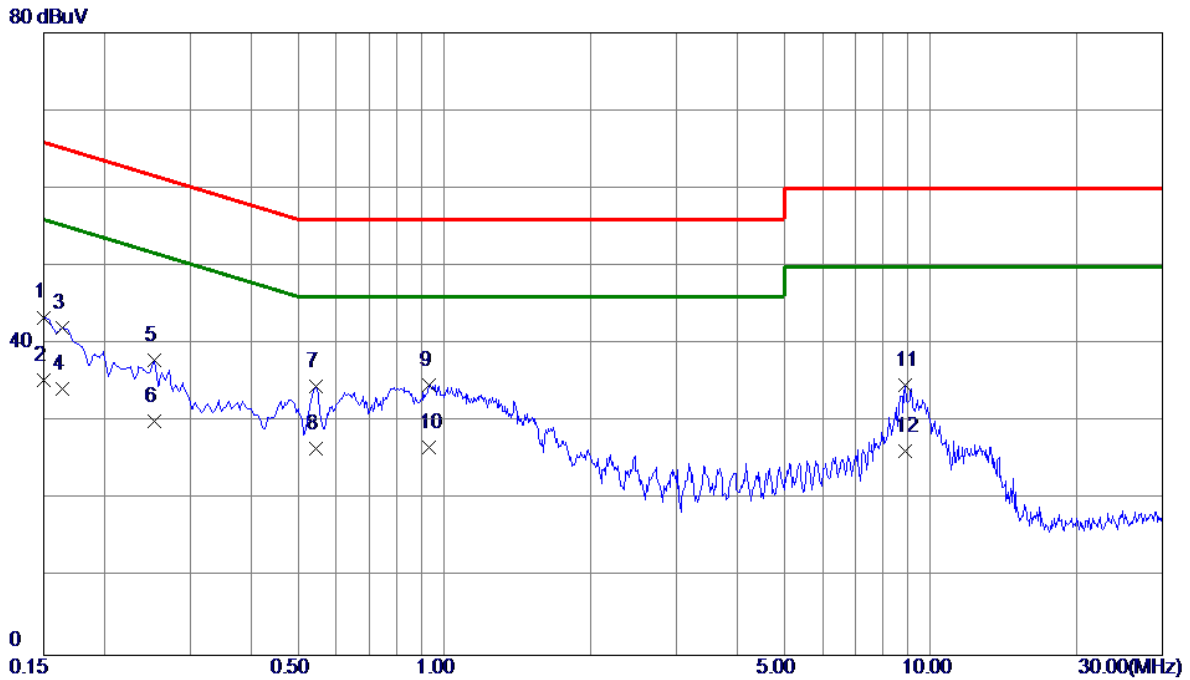


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1500	33.49	9.65	43.14	66.00	-22.86	QP	
2	0.1500	25.61	9.65	35.26	56.00	-20.74	AVG	
3	0.1668	30.69	9.67	40.36	65.12	-24.76	QP	
4	0.1668	22.40	9.67	32.07	55.12	-23.05	AVG	
5	0.2625	26.29	9.71	36.00	61.35	-25.35	QP	
6	0.2625	18.50	9.71	28.21	51.35	-23.14	AVG	
7	0.4155	20.75	9.76	30.51	57.54	-27.03	QP	
8	0.4155	15.20	9.76	24.96	47.54	-22.58	AVG	
9	1.0680	21.50	9.83	31.33	56.00	-24.67	QP	
10 *	1.0680	15.60	9.83	25.43	46.00	-20.57	AVG	
11	8.9475	22.38	10.41	32.79	60.00	-27.21	QP	
12	8.9475	16.30	10.41	26.71	50.00	-23.29	AVG	

**REMARKS:**

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

Test Mode	TX B Mode Channel 11	Phase	Neutral
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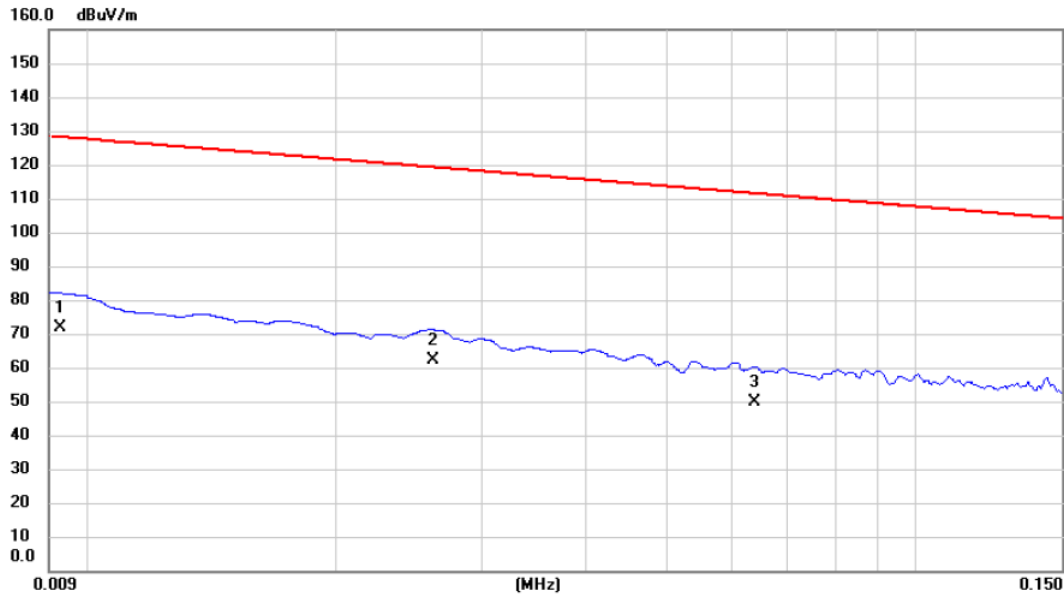
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1500	33.74	9.70	43.44	66.00	-22.56	QP	
2	0.1500	25.61	9.70	35.31	56.00	-20.69	AVG	
3	0.1641	32.32	9.71	42.03	65.25	-23.22	QP	
4	0.1641	24.50	9.71	34.21	55.25	-21.04	AVG	
5	0.2535	28.23	9.75	37.98	61.64	-23.66	QP	
6	0.2535	20.30	9.75	30.05	51.64	-21.59	AVG	
7	0.5460	24.74	9.80	34.54	56.00	-21.46	QP	
8	0.5460	16.70	9.80	26.50	46.00	-19.50	AVG	
9	0.9285	24.92	9.85	34.77	56.00	-21.23	QP	
10 *	0.9285	16.80	9.85	26.65	46.00	-19.35	AVG	
11	8.8800	24.26	10.41	34.67	60.00	-25.33	QP	
12	8.8800	15.90	10.41	26.31	50.00	-23.69	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**

Test Mode	TX B Mode Channel 11	Polarization	Ant 0°
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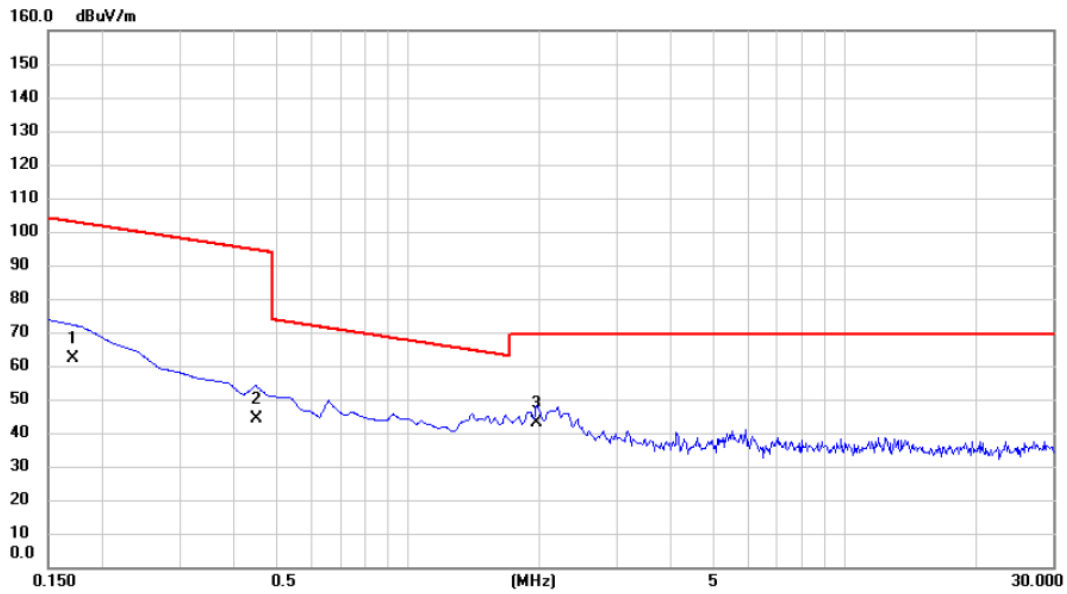


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	0.0093	54.28	17.66	71.94	128.24	-56.30			AVG
2		0.0262	47.99	14.15	62.14	119.24	-57.10			AVG
3		0.0638	36.24	13.61	49.85	111.51	-61.66			AVG

**REMARKS:**

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

Test Mode	TX B Mode Channel 11	Polarization	Ant 0°
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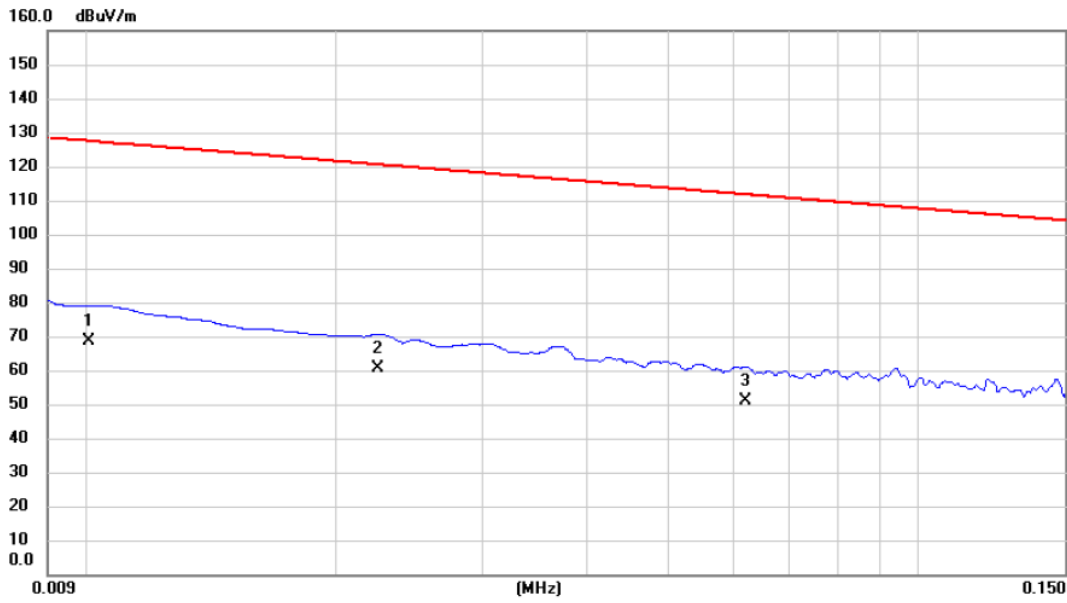


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1	0.1712	48.25	13.80	62.05	102.94	-40.89	AVG			
2	0.4485	30.41	13.73	44.14	94.57	-50.43	AVG			
3 *	1.9708	30.57	12.58	43.15	69.54	-26.39	QP			

**REMARKS:**

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

Test Mode	TX B Mode Channel 11	Polarization	Ant 90°
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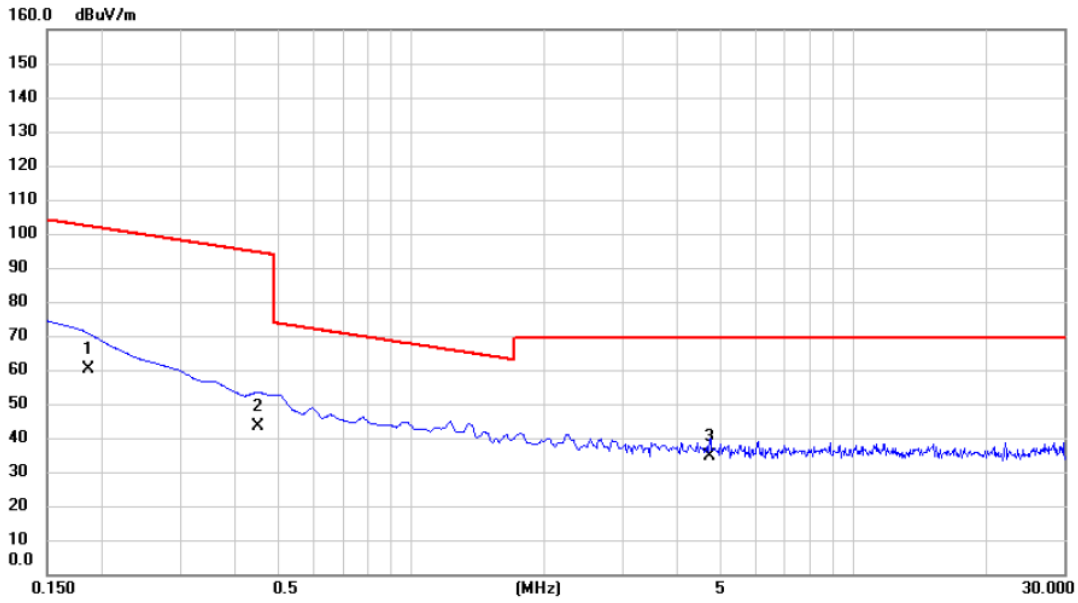


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	0.0101	51.28	17.40	68.68	127.52	-58.84	AVG		
2		0.0224	46.35	14.23	60.58	120.60	-60.02	AVG		
3		0.0620	37.41	13.61	51.02	111.76	-60.74	AVG		

**REMARKS:**

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

Test Mode	TX B Mode Channel 11	Polarization	Ant 90°
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No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		0.1864	46.28	13.81	60.09	102.20	-42.11	AVG		
2		0.4485	29.67	13.73	43.40	94.57	-51.17	AVG		
3	*	4.7171	22.41	12.39	34.80	69.54	-34.74	QP		

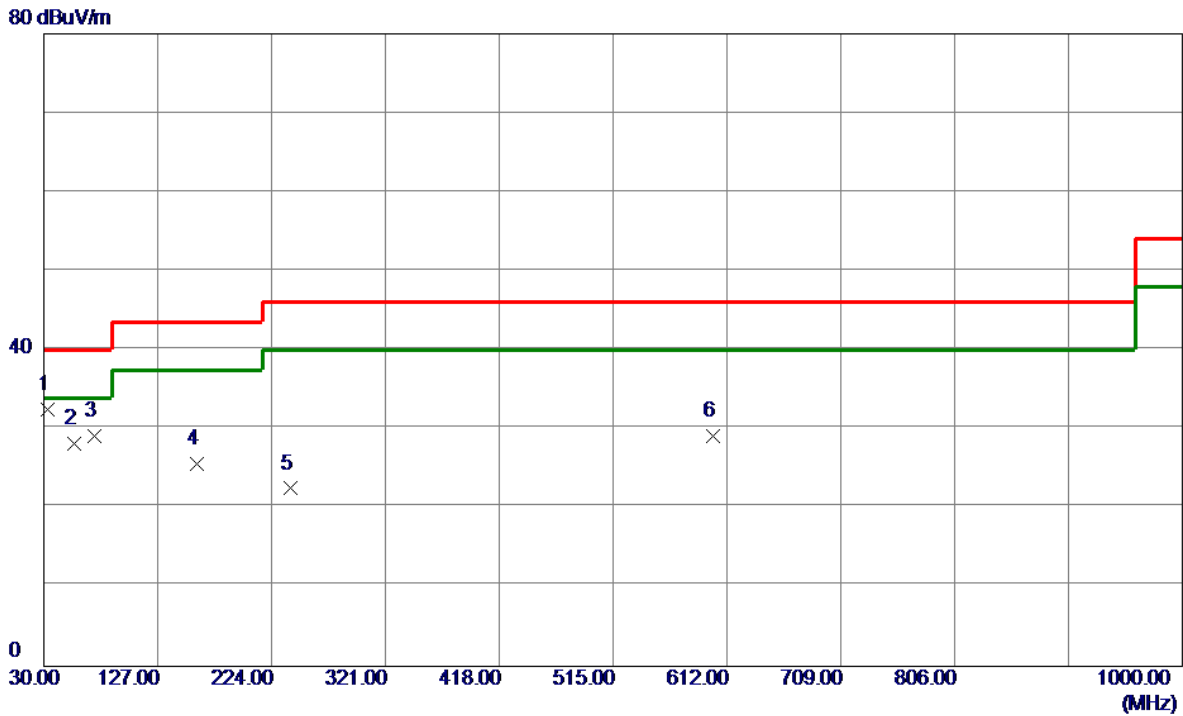
**REMARKS:**

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



## **APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ**

Test Mode	TX B Mode Channel 11	Polarization	Vertical
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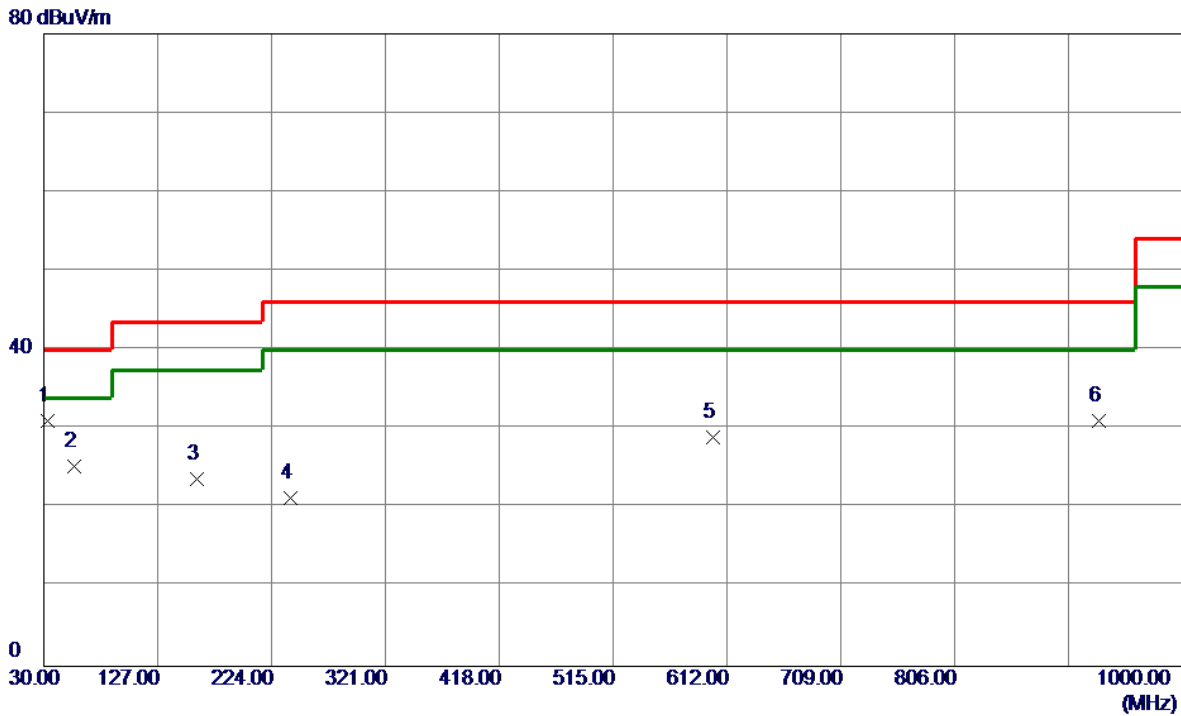


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	32.9100	47.66	-15.16	32.50	40.00	-7.50	Peak	
2	56.1900	42.22	-14.08	28.14	40.00	-11.86	Peak	
3	73.1650	45.85	-16.79	29.06	40.00	-10.94	Peak	
4	159.9800	37.85	-12.19	25.66	43.50	-17.84	Peak	
5	240.0050	35.65	-13.17	22.48	46.00	-23.52	Peak	
6	599.8750	33.39	-4.20	29.19	46.00	-16.81	Peak	

**REMARKS:**

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

Test Mode	TX B Mode Channel 11	Polarization	Horizontal
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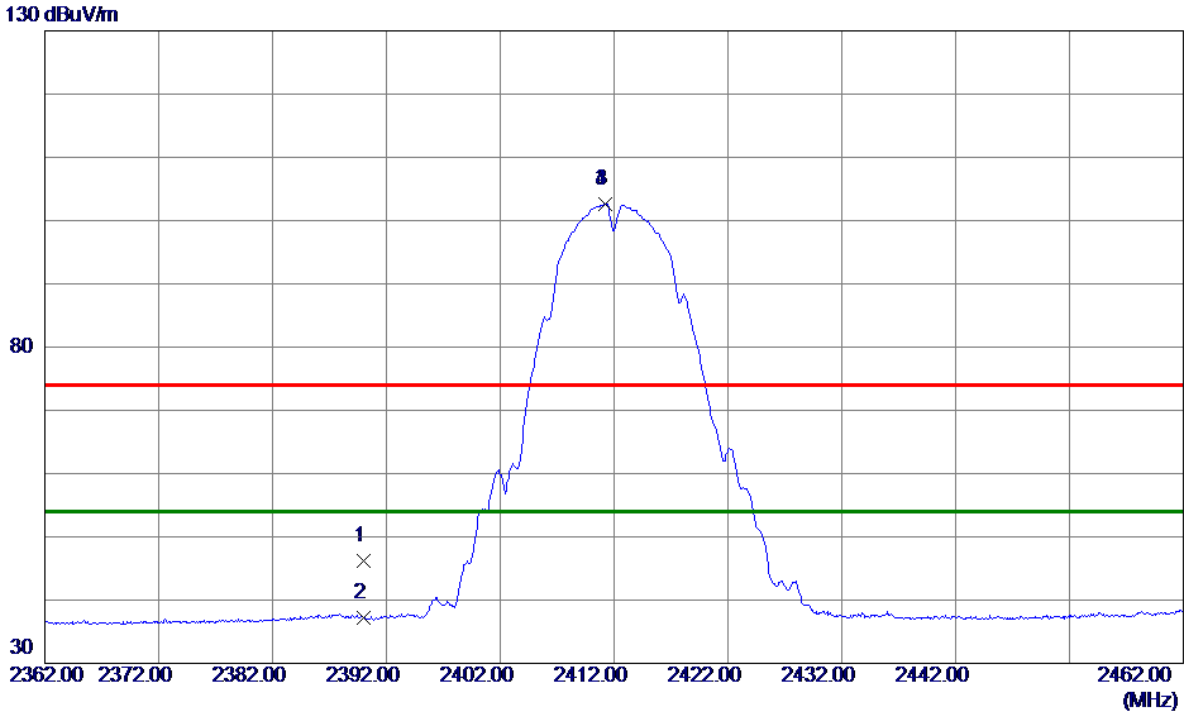
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	32.9100	46.26	-15.16	31.10	40.00	-8.90	Peak	
2	56.1900	39.41	-14.08	25.33	40.00	-14.67	Peak	
3	159.9800	35.92	-12.19	23.73	43.50	-19.77	Peak	
4	240.0050	34.41	-13.17	21.24	46.00	-24.76	Peak	
5	599.8750	33.18	-4.20	28.98	46.00	-17.02	Peak	
6	929.1900	29.56	1.54	31.10	46.00	-14.90	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 B Mode 2412 MHz	Polarization	Vertical
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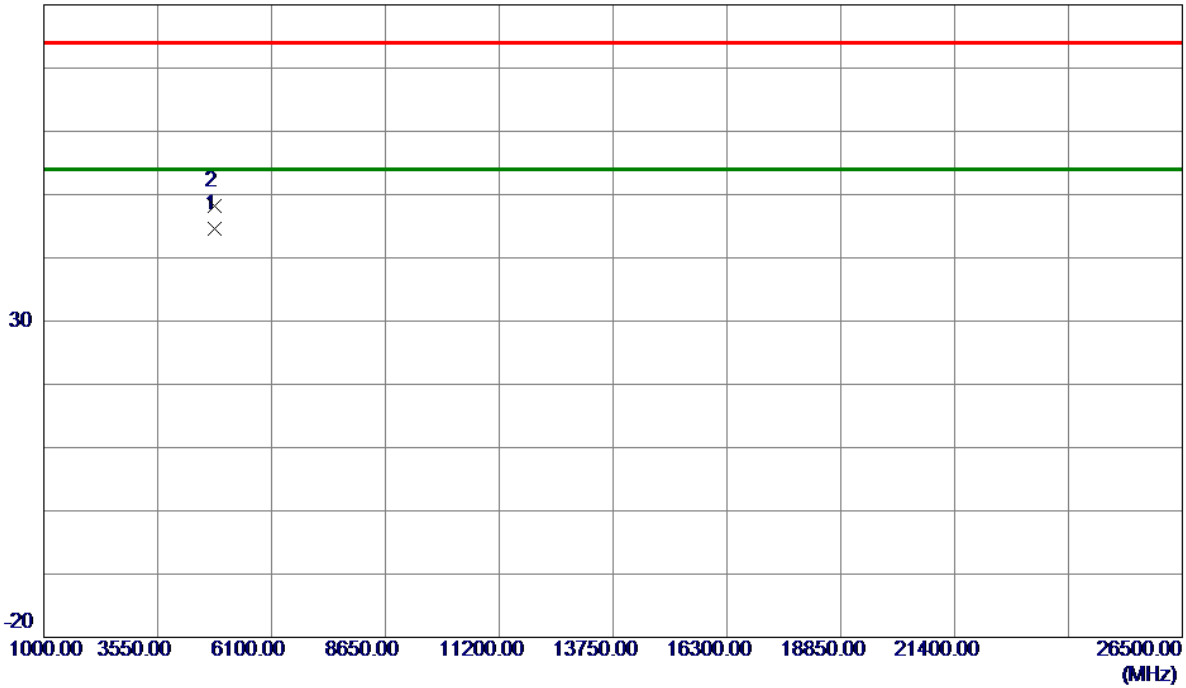
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	38.41	7.75	46.16	74.00	-27.84	Peak	
2	2390.0000	29.44	7.75	37.19	54.00	-16.81	AVG	
3	2411.2500	94.75	7.86	102.61	74.00	28.61	Peak	No Limit
4 *	2411.2500	94.75	7.86	102.61	54.00	48.61	AVG	No Limit

**REMARKS:**

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

Test Mode	TX B Mode 2412 MHz	Polarization	Vertical
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80 dBuV/m

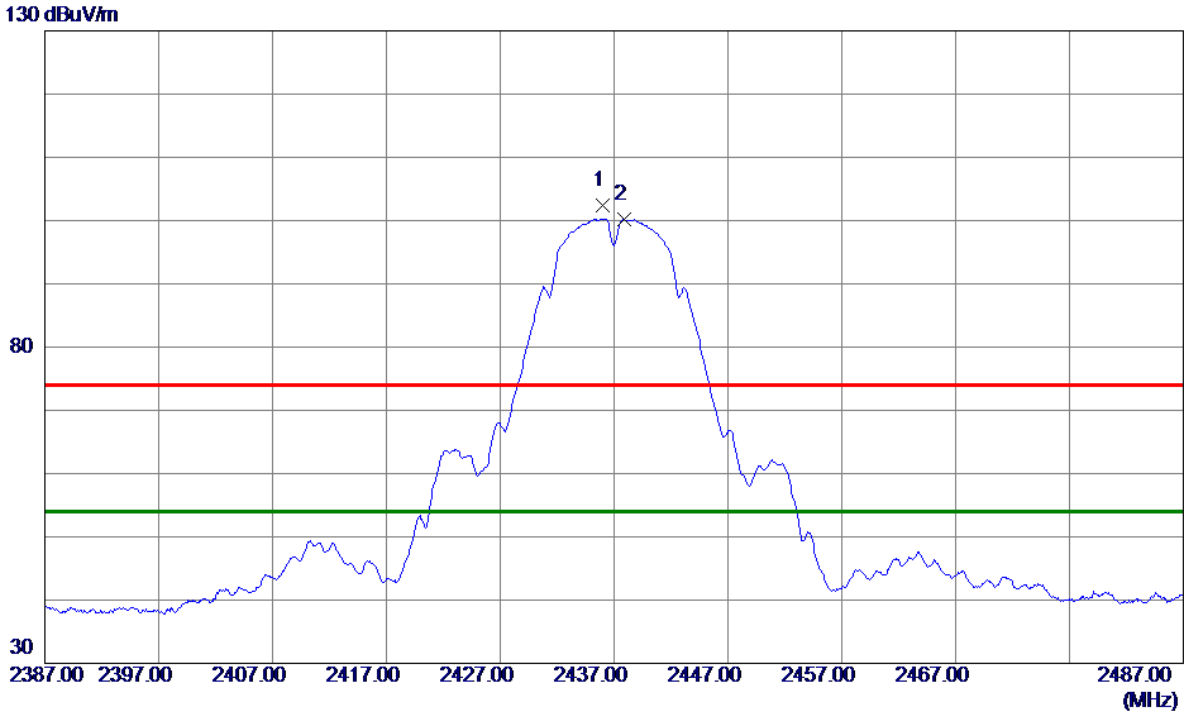


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4823.9400	40.21	4.31	44.52	54.00	-9.48	AVG	
2	4823.9800	43.96	4.31	48.27	74.00	-25.73	Peak	

**REMARKS:**

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

Test Mode	TX B Mode 2437 MHz	Polarization	Vertical
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No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.0000	94.43	8.00	102.43	74.00	28.43	Peak	No Limit
2 *	2437.9000	92.27	8.01	100.28	54.00	46.28	AVG	No Limit

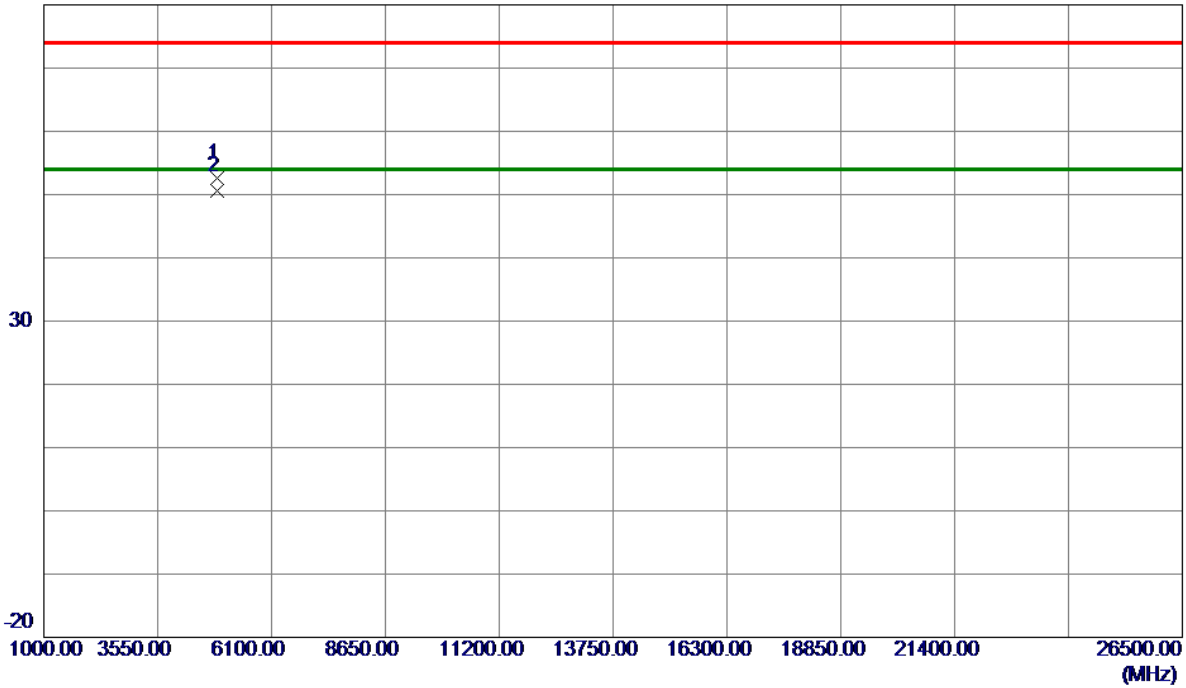
**REMARKS:**

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

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

Test Mode	TX B Mode 2437 MHz	Polarization	Vertical
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80 dBuV/m



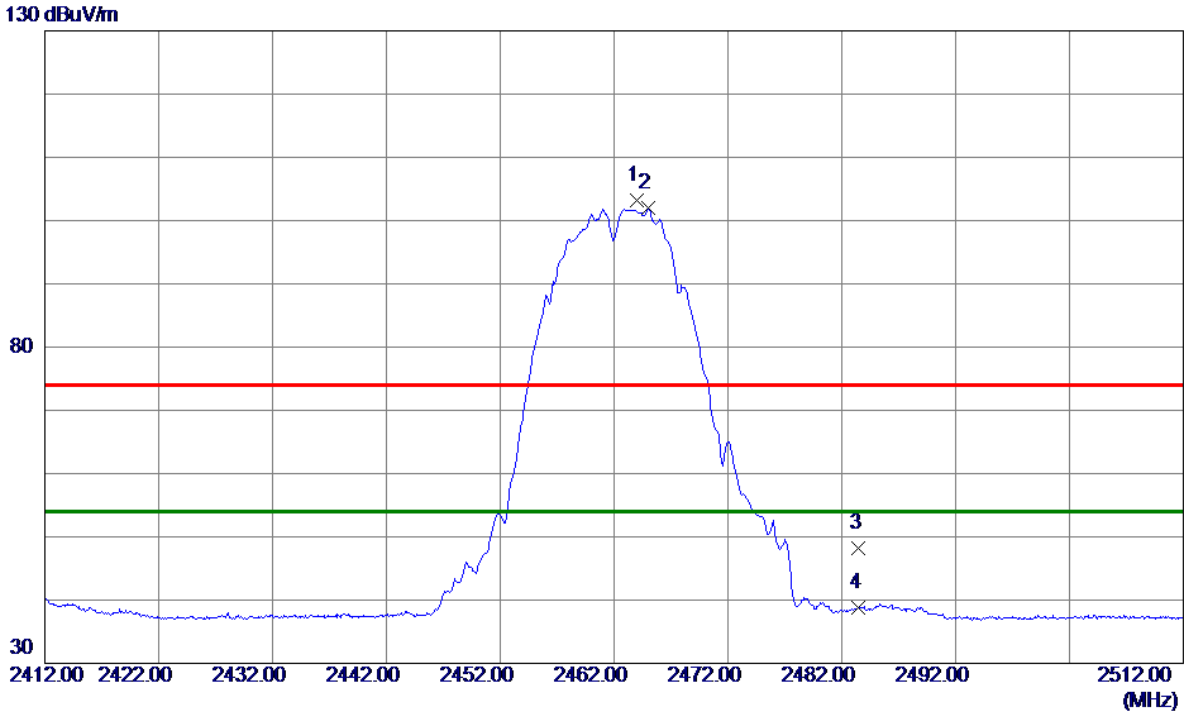
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4873.8900	48.28	4.40	52.68	74.00	-21.32	Peak	
2 *	4873.9500	46.15	4.40	50.55	54.00	-3.45	AVG	

**REMARKS:**

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



Test Mode	TX B Mode 2462 MHz	Polarization	Vertical
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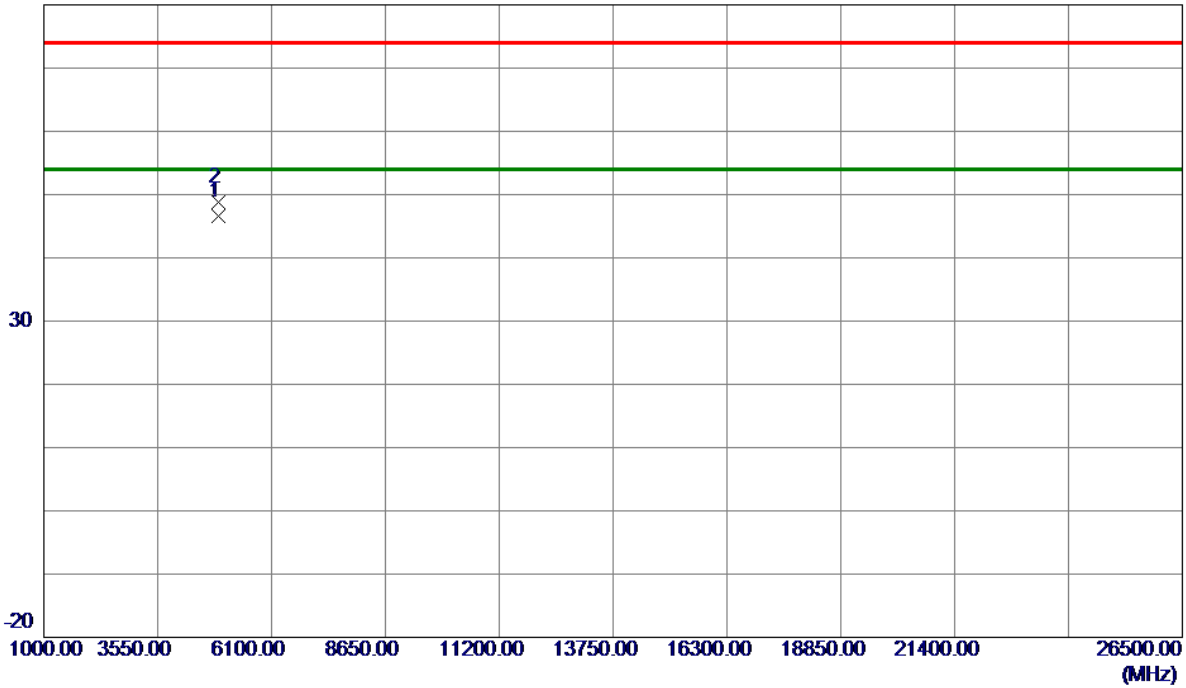
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2464.0000	95.08	8.15	103.23	74.00	29.23	Peak	No Limit
2 *	2465.0000	93.78	8.16	101.94	54.00	47.94	AVG	No Limit
3	2483.5000	39.97	8.26	48.23	74.00	-25.77	Peak	
4	2483.5000	30.47	8.26	38.73	54.00	-15.27	AVG	

**REMARKS:**

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

Test Mode	TX B Mode 2462 MHz	Polarization	Vertical
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80 dBuV/m

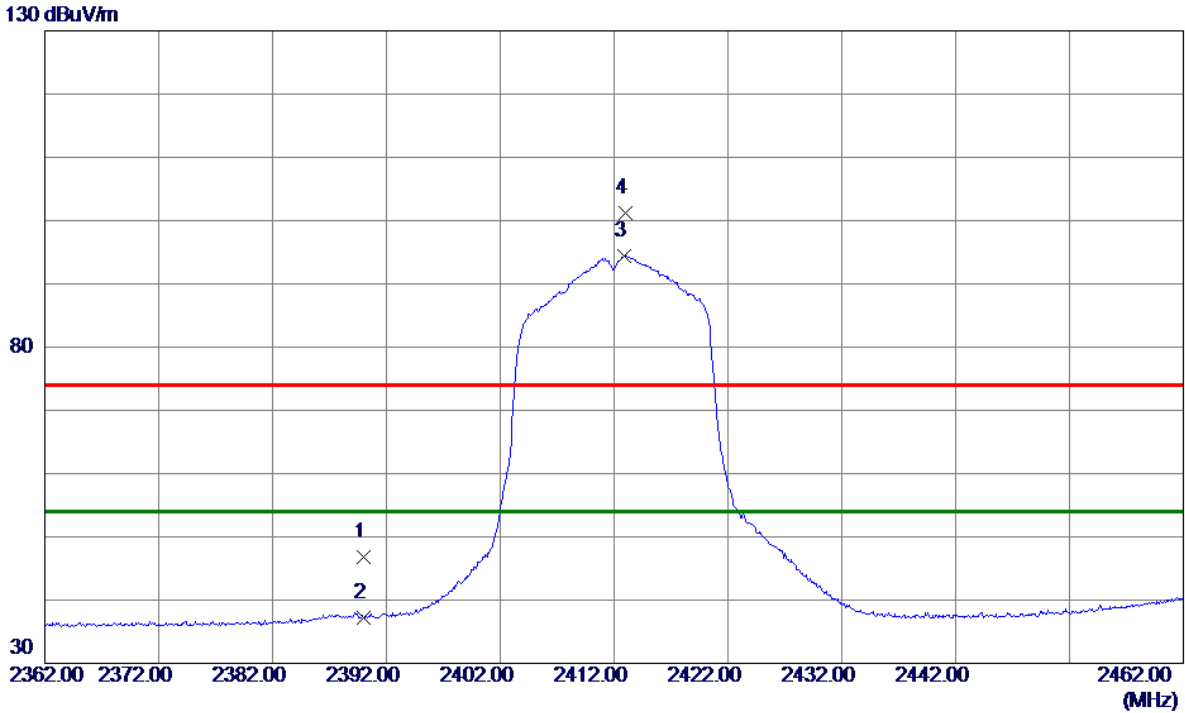


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4924.0000	42.02	4.50	46.52	54.00	-7.48	AVG	
2	4924.1400	44.31	4.50	48.81	74.00	-25.19	Peak	

**REMARKS:**

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

Test Mode	TX G Mode 2412 MHz	Polarization	Vertical
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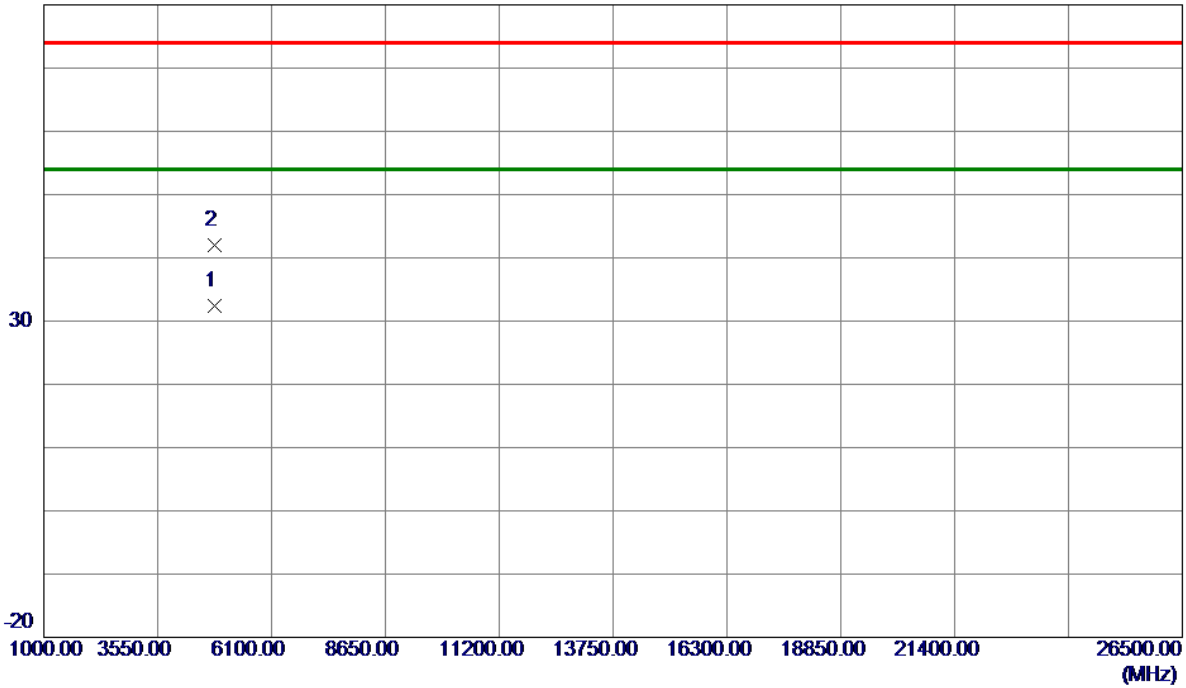
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	39.05	7.75	46.80	74.00	-27.20	Peak	
2	2390.0000	29.46	7.75	37.21	54.00	-16.79	AVG	
3 *	2412.9000	86.59	7.87	94.46	54.00	40.46	AVG	No Limit
4	2413.0500	93.30	7.87	101.17	74.00	27.17	Peak	No Limit

**REMARKS:**

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

Test Mode	TX G Mode 2412 MHz	Polarization	Vertical
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80 dBuV/m



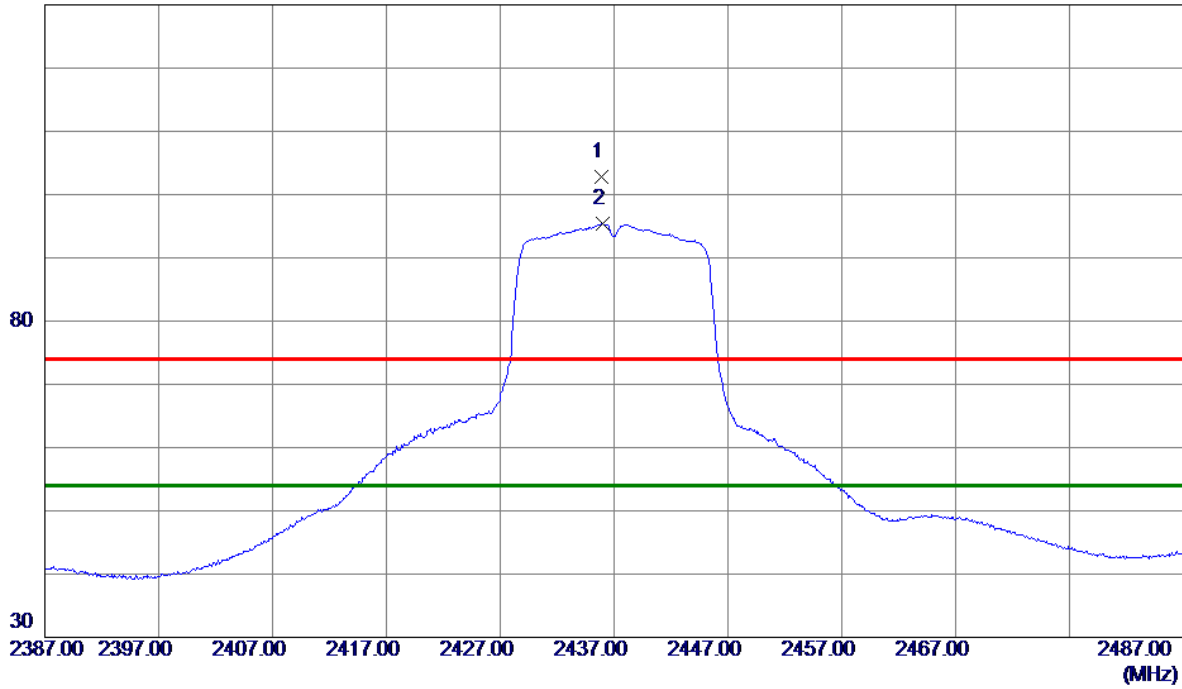
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4817.3400	28.20	4.29	32.49	54.00	-21.51	AVG	
2	4818.4700	37.79	4.30	42.09	74.00	-31.91	Peak	

**REMARKS:**

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

Test Mode	TX G Mode 2437 MHz	Polarization	Vertical
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130 dBuV/m



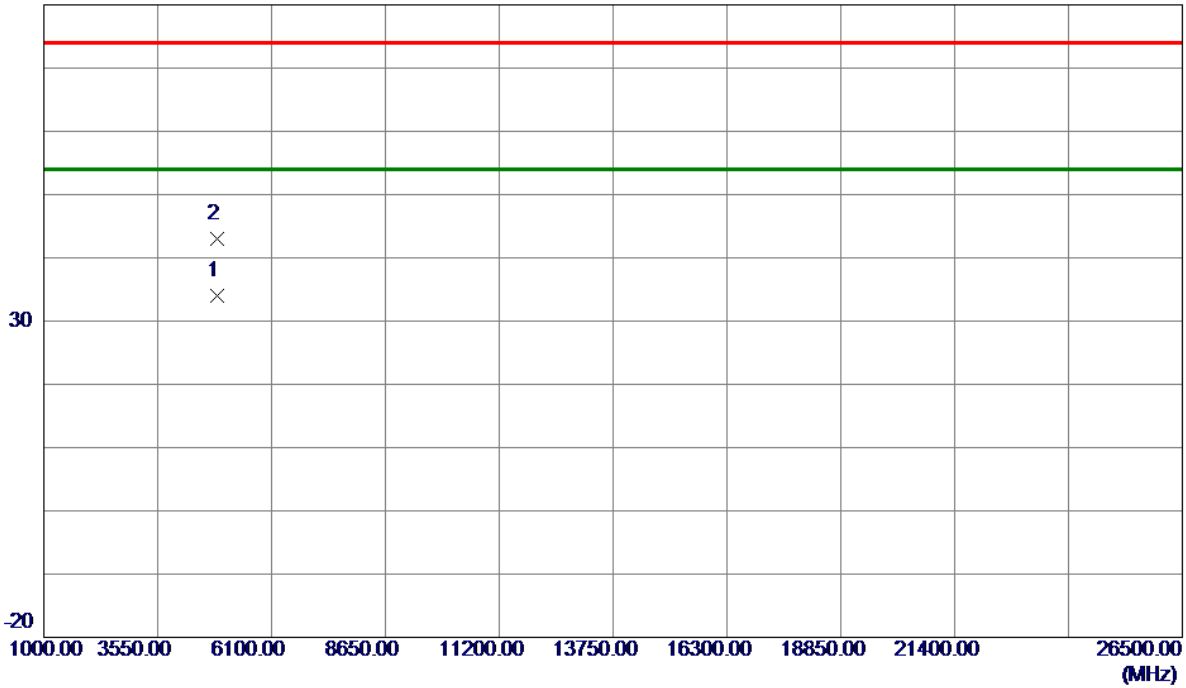
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2435.9000	94.82	8.00	102.82	74.00	28.82	Peak	No Limit
2 *	2436.0000	87.34	8.00	95.34	54.00	41.34	AVG	No Limit

REMARKS:

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

Test Mode	TX G Mode 2437 MHz	Polarization	Vertical
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80 dBuV/m

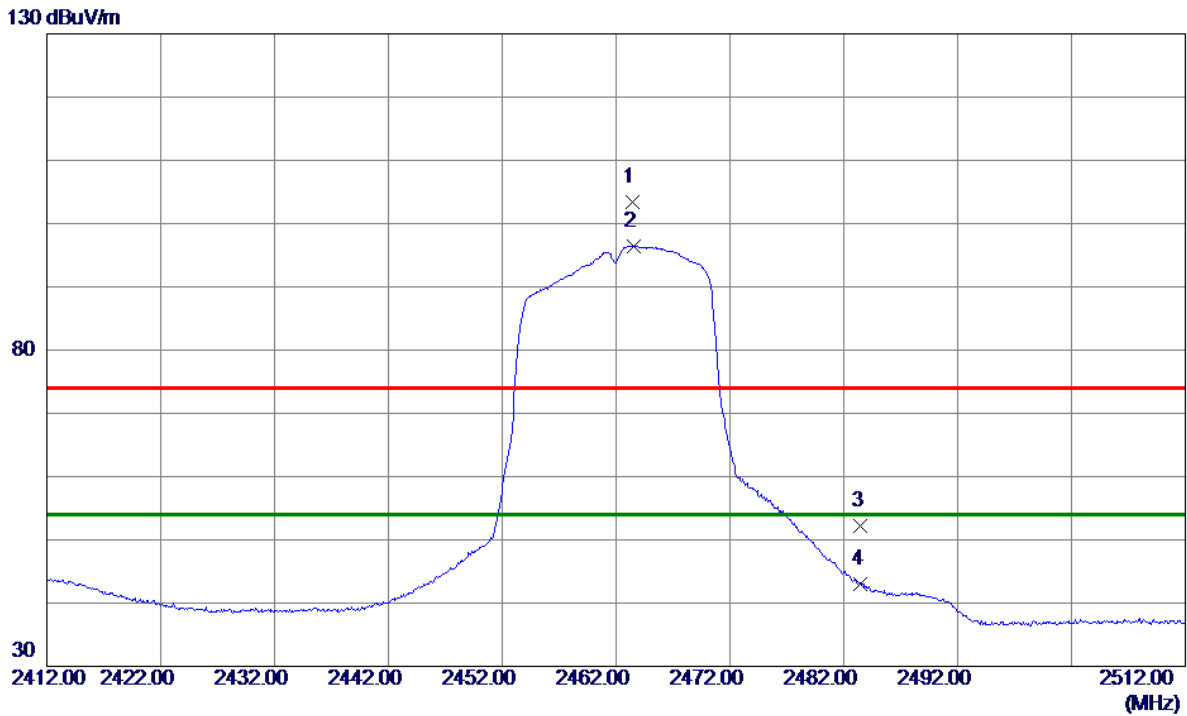


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4875.7700	29.57	4.40	33.97	54.00	-20.03	AVG	
2	4876.5400	38.57	4.41	42.98	74.00	-31.02	Peak	

**REMARKS:**

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

Test Mode	TX G Mode 2462 MHz	Polarization	Vertical
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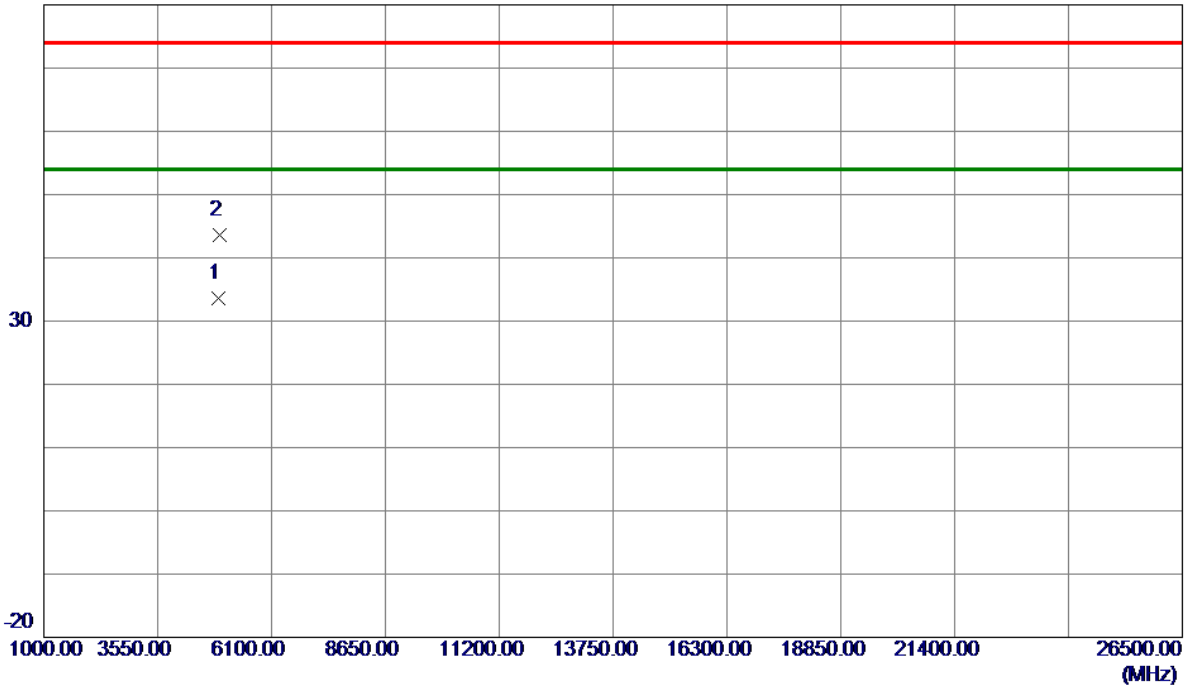
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.4000	95.20	8.15	103.35	74.00	29.35	Peak	No Limit
2 *	2463.5500	88.29	8.15	96.44	54.00	42.44	AVG	No Limit
3	2483.5000	43.98	8.26	52.24	74.00	-21.76	Peak	
4	2483.5000	34.77	8.26	43.03	54.00	-10.97	AVG	

**REMARKS:**

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

Test Mode	TX G Mode 2462 MHz	Polarization	Vertical
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80 dBuV/m



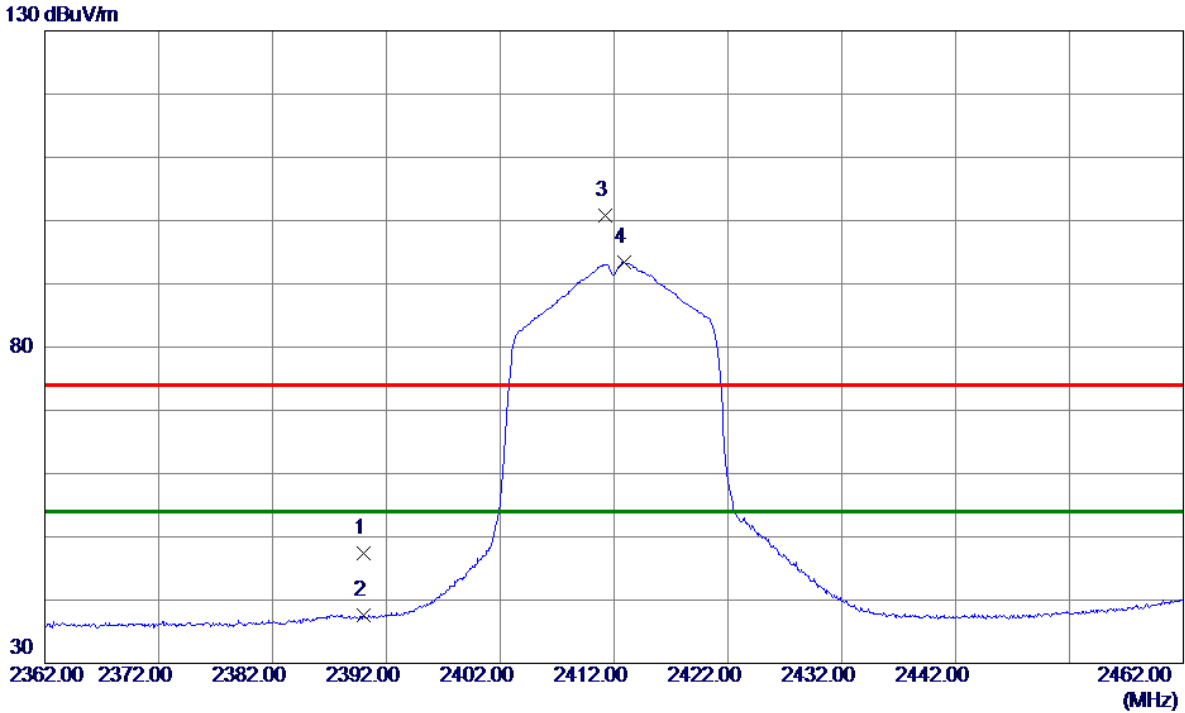
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4924.0500	29.14	4.50	33.64	54.00	-20.36	AVG	
2	4928.8500	39.10	4.50	43.60	74.00	-30.40	Peak	

**REMARKS:**

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



Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical
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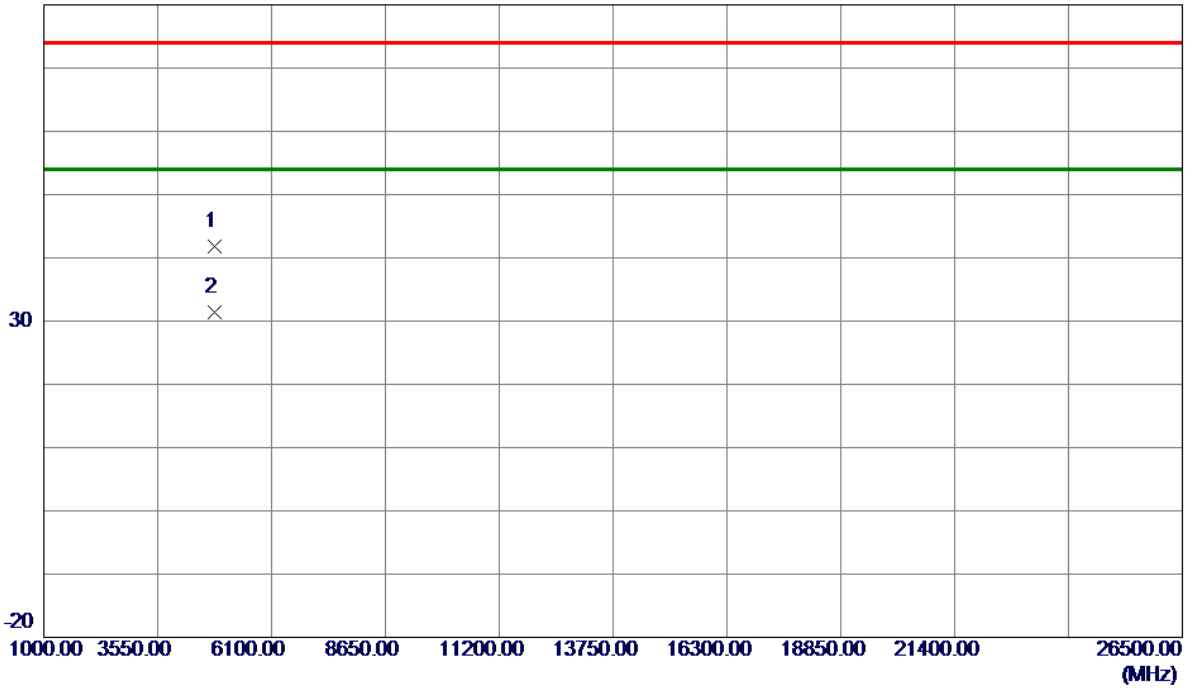
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	39.73	7.75	47.48	74.00	-26.52	Peak	
2	2390.0000	29.81	7.75	37.56	54.00	-16.44	AVG	
3	2411.2500	93.01	7.86	100.87	74.00	26.87	Peak	No Limit
4 *	2412.8500	85.61	7.87	93.48	54.00	39.48	AVG	No Limit

**REMARKS:**

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

Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical
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80 dBuV/m

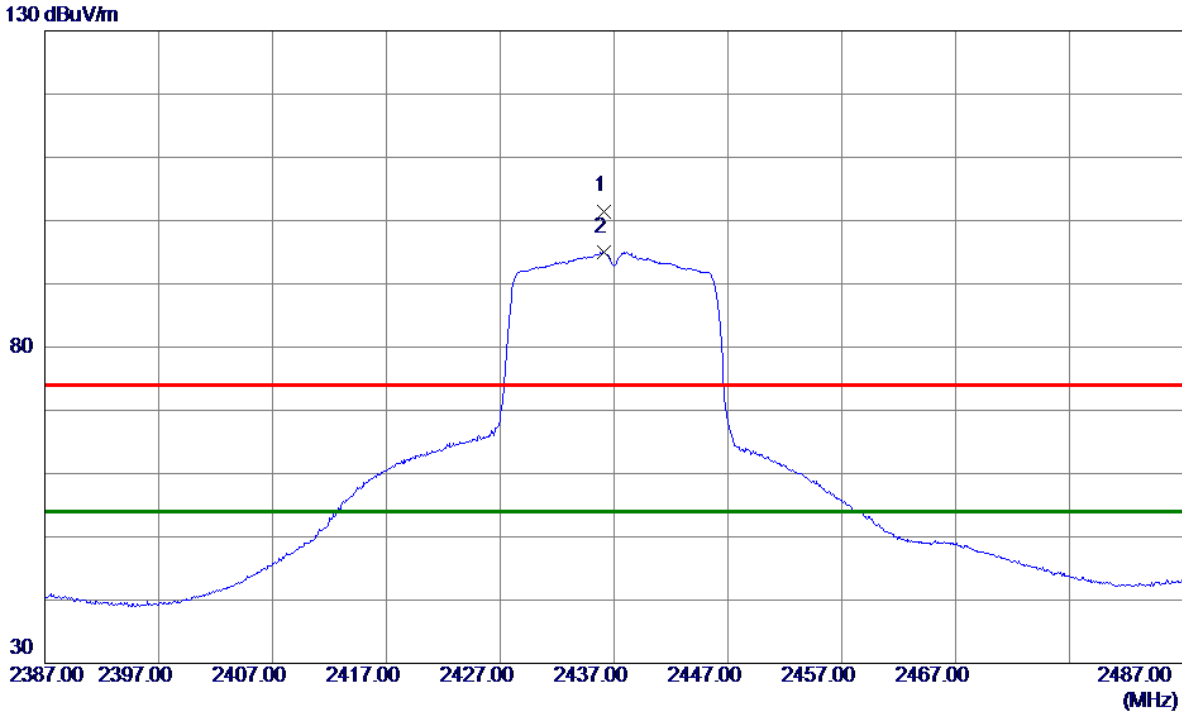


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4819.2100	37.53	4.30	41.83	74.00	-32.17	Peak	
2 *	4822.0600	27.18	4.30	31.48	54.00	-22.52	AVG	

**REMARKS:**

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

Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Vertical
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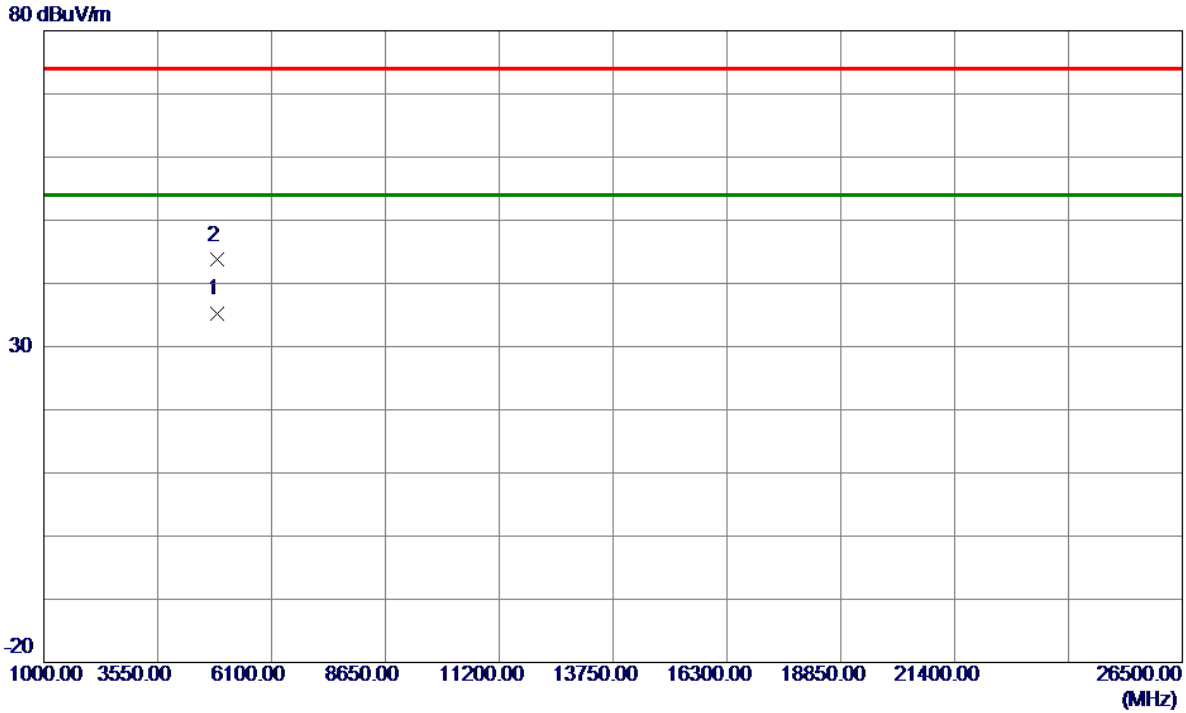


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.1500	93.50	8.00	101.50	74.00	27.50	Peak	No Limit
2 *	2436.1500	87.09	8.00	95.09	54.00	41.09	AVG	No Limit

**REMARKS:**

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

Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Vertical
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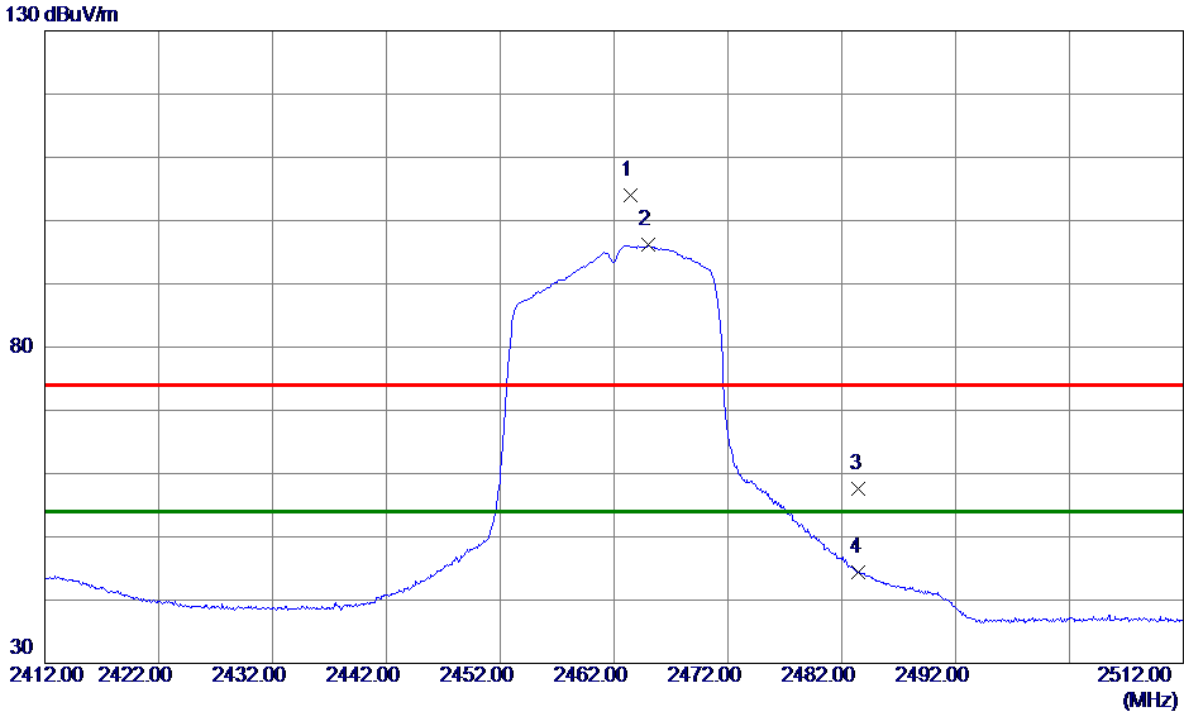


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4876.2700	30.88	4.40	35.28	54.00	-18.72	AVG	
2	4877.4600	39.29	4.41	43.70	74.00	-30.30	Peak	

**REMARKS:**

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

Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical
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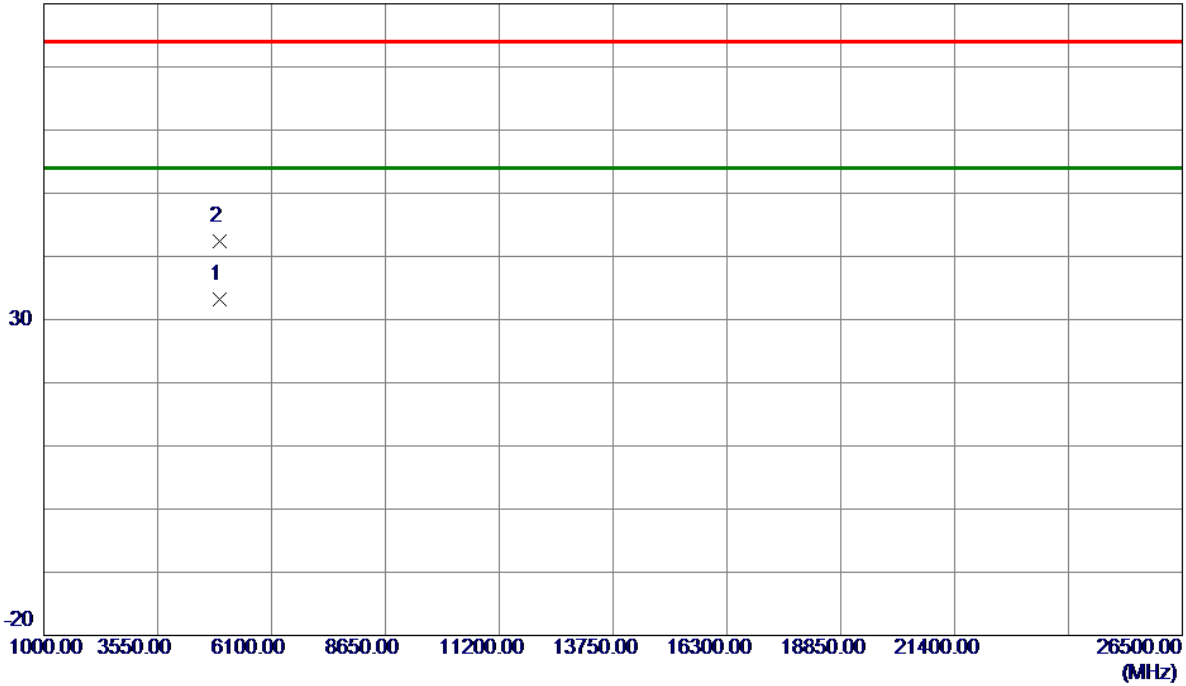
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.4500	95.80	8.15	103.95	74.00	29.95	Peak	No Limit
2 *	2465.0500	87.97	8.16	96.13	54.00	42.13	AVG	No Limit
3	2483.5000	49.38	8.26	57.64	74.00	-16.36	Peak	
4	2483.5000	36.07	8.26	44.33	54.00	-9.67	AVG	

**REMARKS:**

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

Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical
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80 dBuV/m

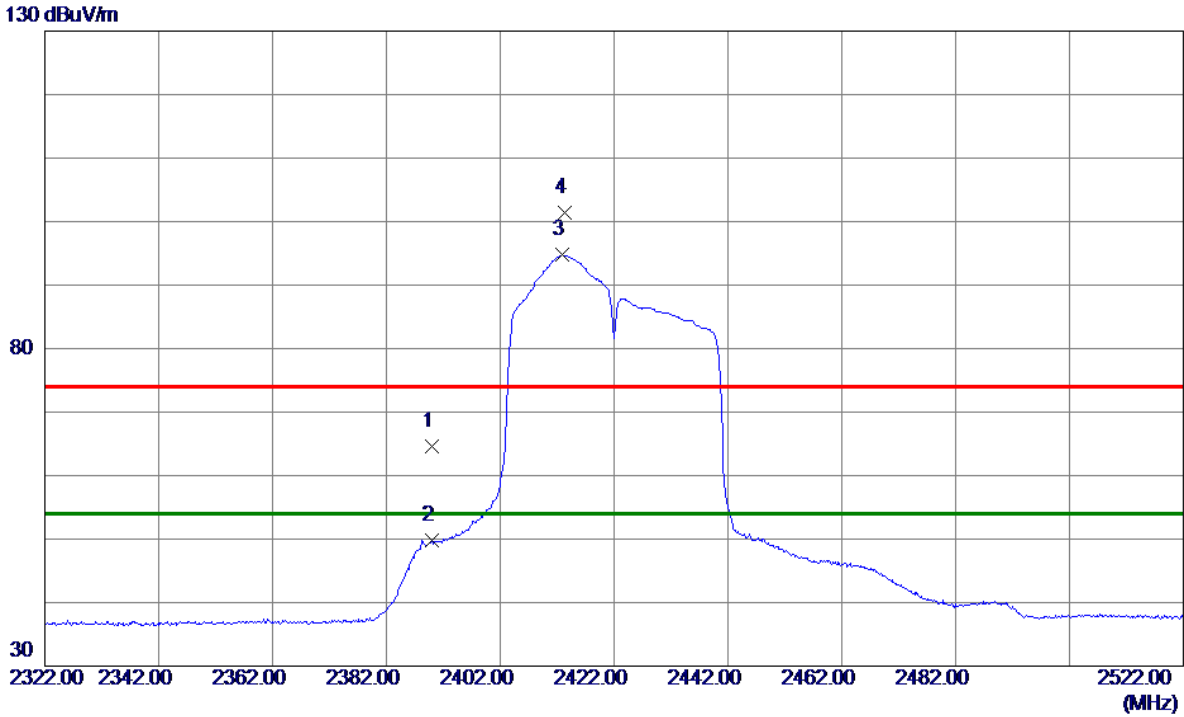


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4925.5200	28.75	4.50	33.25	54.00	-20.75	AVG	
2	4931.3000	37.82	4.51	42.33	74.00	-31.67	Peak	

**REMARKS:**

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

Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Vertical
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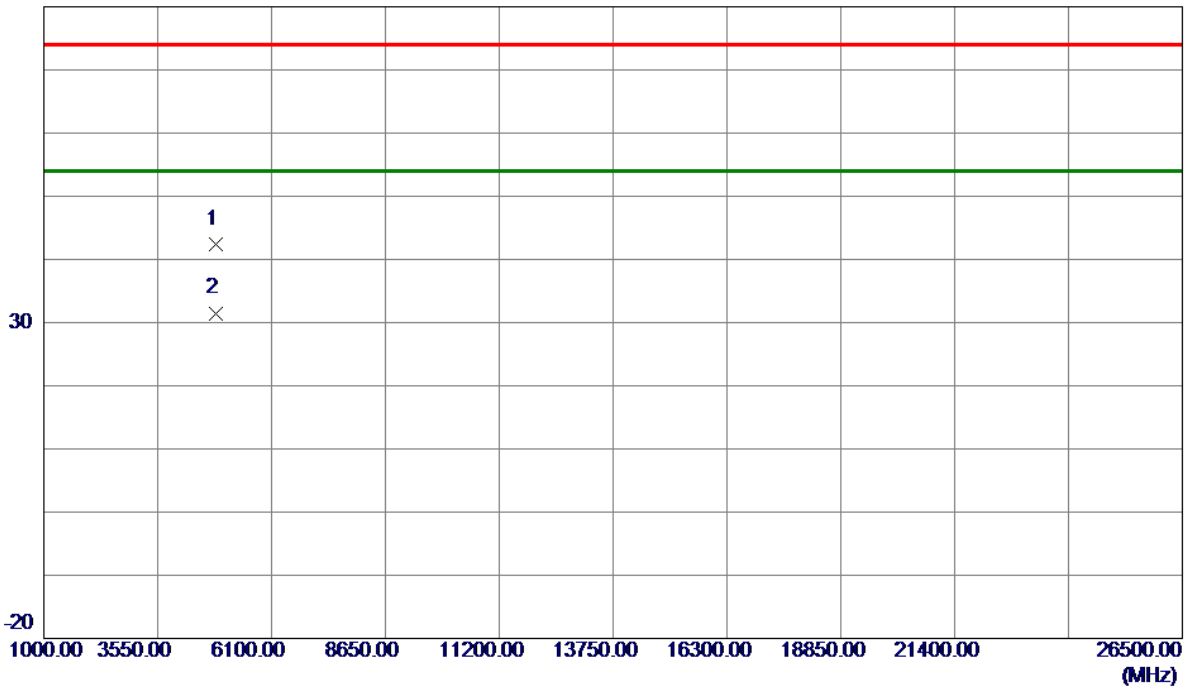
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	56.80	7.75	64.55	74.00	-9.45	Peak	
2	2390.0000	42.10	7.75	49.85	54.00	-4.15	AVG	
3 *	2412.9000	86.84	7.87	94.71	54.00	40.71	AVG	No Limit
4	2413.3000	93.55	7.87	101.42	74.00	27.42	Peak	No Limit

**REMARKS:**

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

Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Vertical
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80 dBuV/m



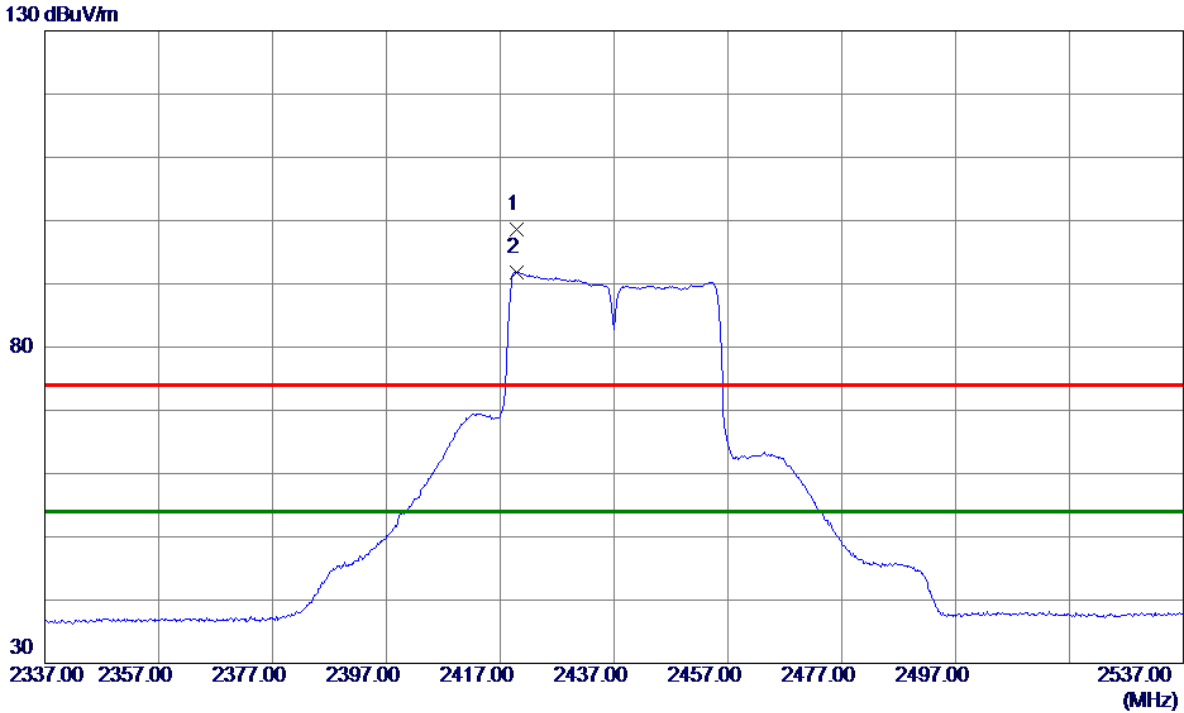
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4850.0099	38.00	4.35	42.35	74.00	-31.65	Peak	
2 *	4853.5400	27.14	4.36	31.50	54.00	-22.50	AVG	

**REMARKS:**

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



Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Vertical
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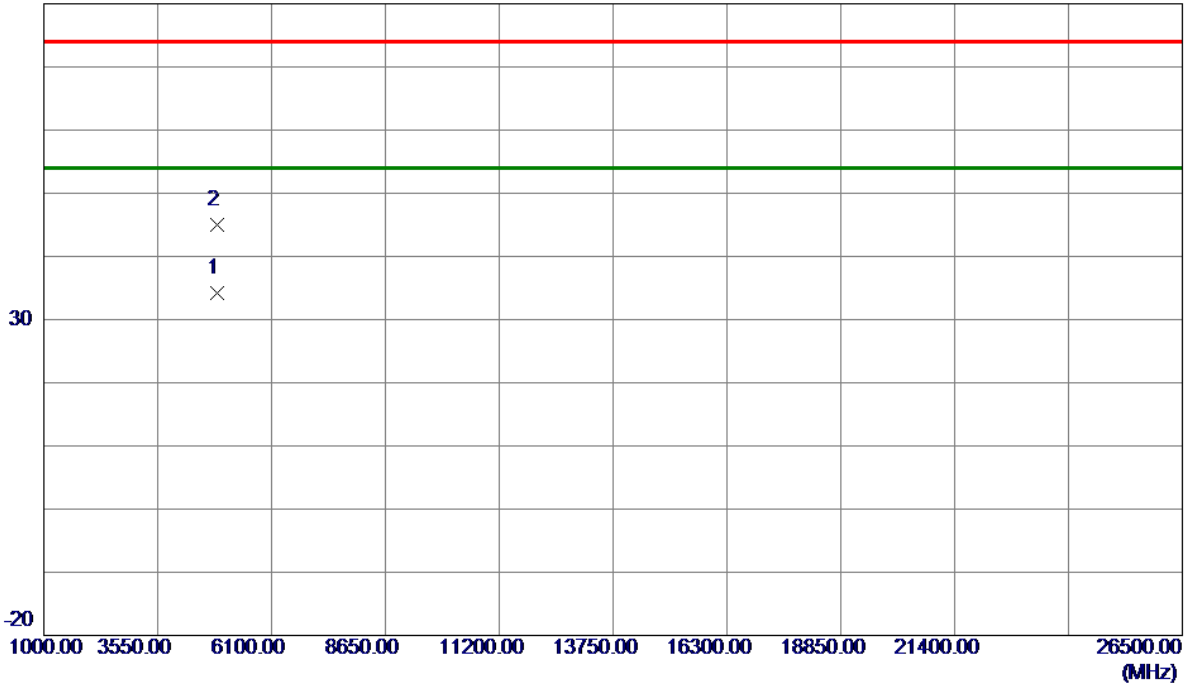
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2419.8000	90.67	7.91	98.58	74.00	24.58	Peak	No Limit
2 *	2419.9000	83.98	7.91	91.89	54.00	37.89	AVG	No Limit

REMARKS:

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

Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Vertical
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80 dBuV/m

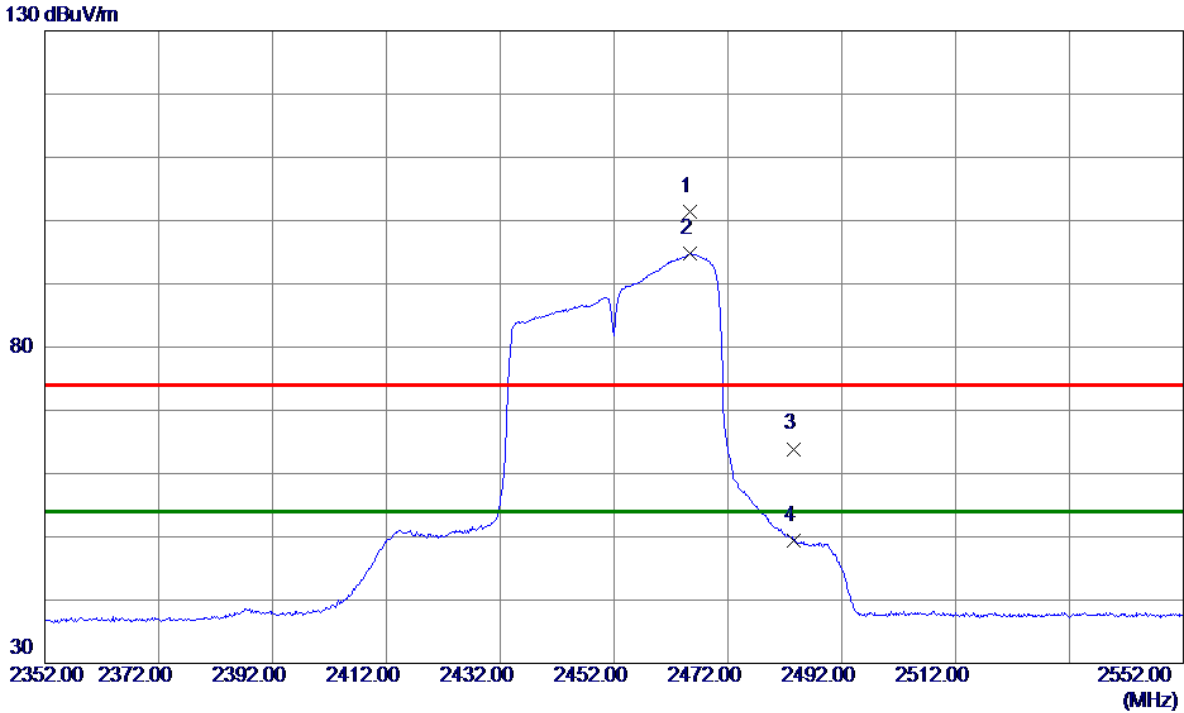


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	4875.1300	29.80	4.40	34.20	54.00	-19.80	AVG	
2	4876.5099	40.57	4.41	44.98	74.00	-29.02	Peak	

**REMARKS:**

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

Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Vertical
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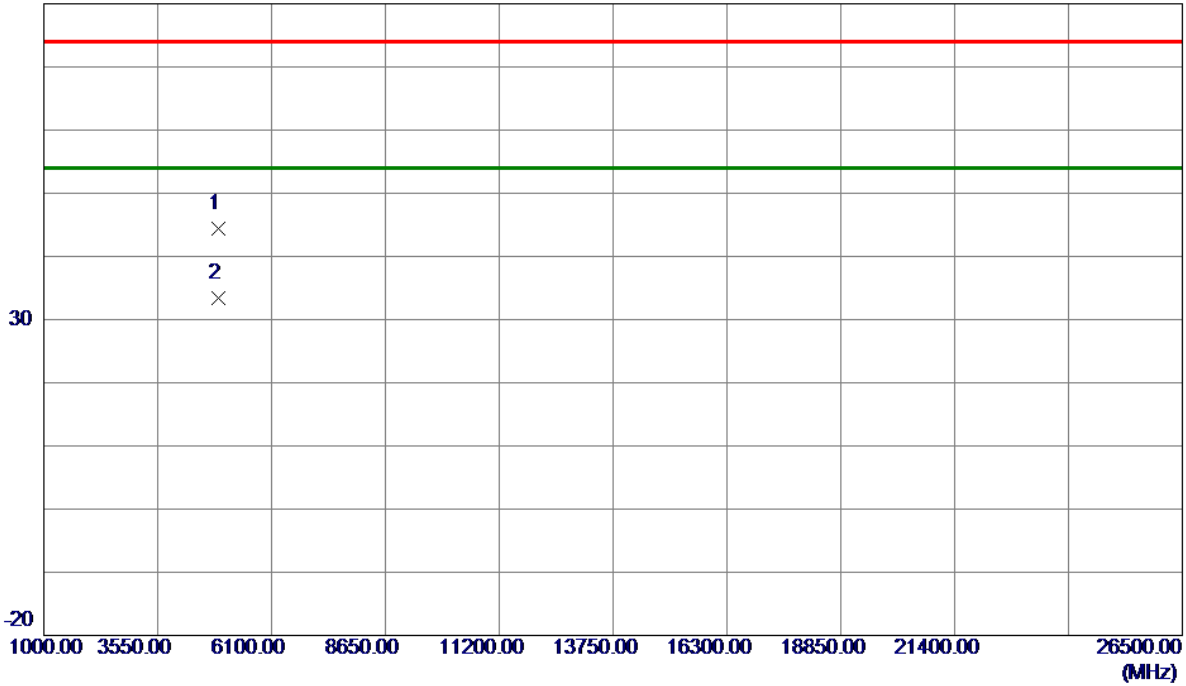
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2465.4000	93.20	8.16	101.36	74.00	27.36	Peak	No Limit
2 *	2465.4000	86.69	8.16	94.85	54.00	40.85	AVG	No Limit
3	2483.5000	55.64	8.26	63.90	74.00	-10.10	Peak	
4	2483.5000	41.23	8.26	49.49	54.00	-4.51	AVG	

**REMARKS:**

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

Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Vertical
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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	4898.8200	39.92	4.45	44.37	74.00	-29.63	Peak	
2 *	4900.8800	29.00	4.45	33.45	54.00	-20.55	AVG	

REMARKS:

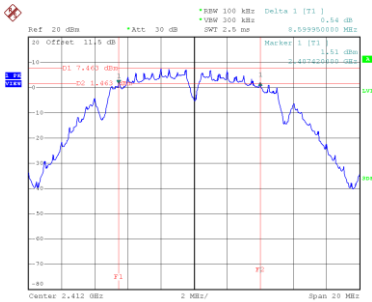
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

## APPENDIX E - BANDWIDTH

Test Mode TX B Mode

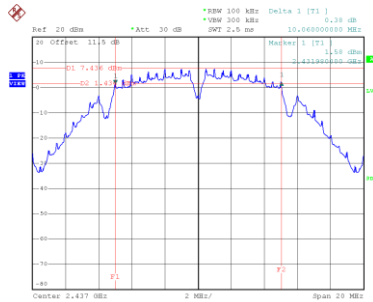
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	8.600	12.240	0.5	Complies
06	2437	10.060	12.800	0.5	Complies
11	2462	9.580	12.240	0.5	Complies

CH01



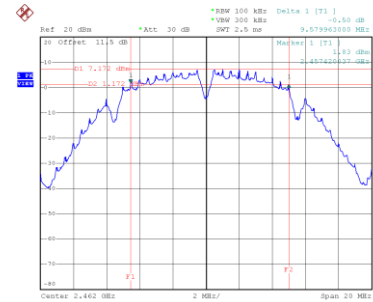
Date: 14.JUL.2022 14:23:19

CH06  
6 dB Bandwidth



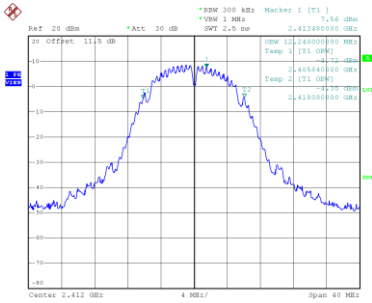
Date: 14.JUL.2022 14:26:08

CH11

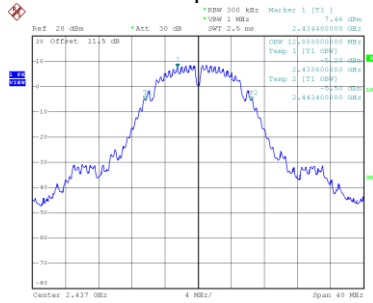


Date: 14.JUL.2022 14:28:18

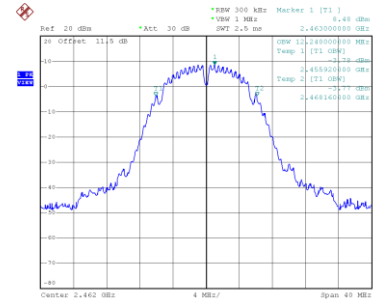
99 % Occupied Bandwidth



Date: 14.JUL.2022 14:23:27



Date: 14.JUL.2022 14:26:16

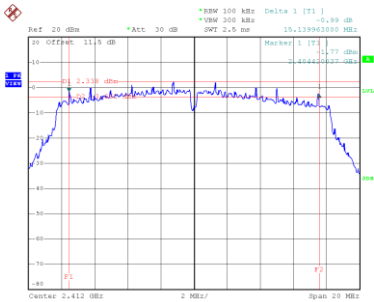


Date: 14.JUL.2022 14:28:26

Test Mode TX G Mode

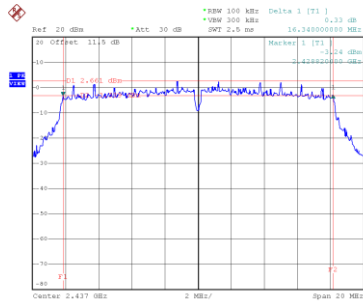
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.140	16.560	0.5	Complies
06	2437	16.340	16.960	0.5	Complies
11	2462	15.160	16.640	0.5	Complies

**CH01**



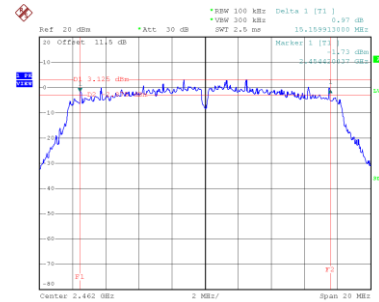
Date: 14.JUL.2022 14:30:15Z

**CH06**  
6 dB Bandwidth



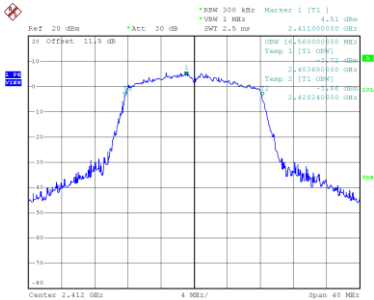
Date: 14.JUL.2022 14:32:12Z

**CH11**

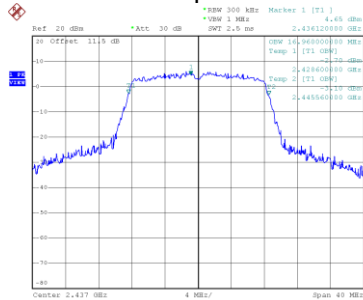


Date: 14.JUL.2022 14:33:15Z

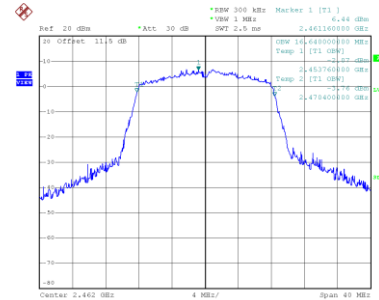
**99 % Occupied Bandwidth**



Date: 14.JUL.2022 14:33:10Z



Date: 14.JUL.2022 14:32:13Z

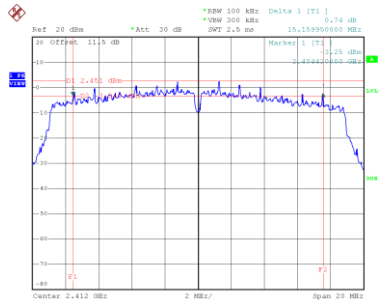


Date: 14.JUL.2022 14:34:06Z

Test Mode	TX N(HT20) Mode
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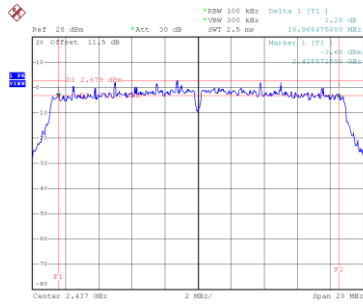
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.160	17.520	0.5	Complies
06	2437	16.968	17.840	0.5	Complies
11	2462	15.020	17.600	0.5	Complies

**CH01**



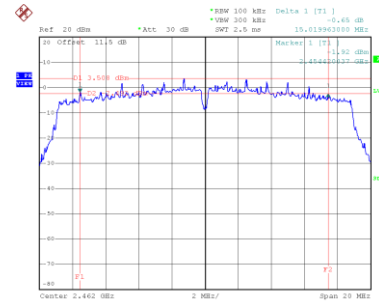
Date: 14.JUL.2022 14:35:127

**CH06**  
6 dB Bandwidth



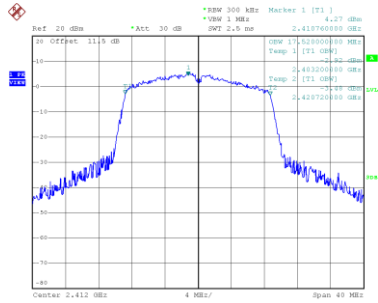
Date: 14.JUL.2022 14:36:156

**CH11**

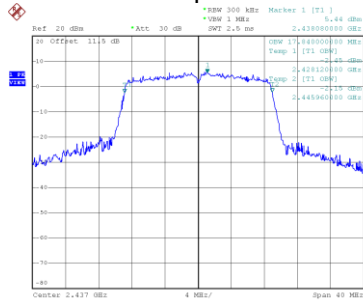


Date: 14.JUL.2022 14:38:131

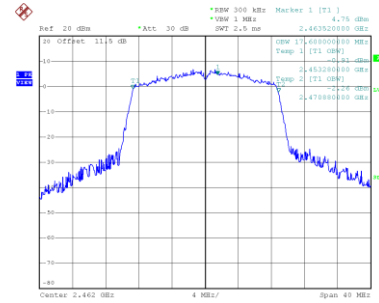
**99 % Occupied Bandwidth**



Date: 14.JUL.2022 14:35:135



Date: 14.JUL.2022 14:37:103



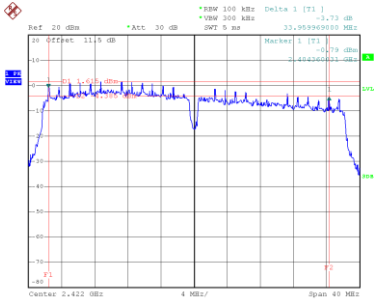
Date: 14.JUL.2022 14:38:139



Test Mode	TX N(HT40) Mode
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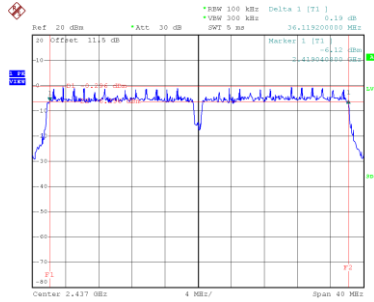
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
03	2422	33.960	36.160	0.5	Complies
06	2437	36.119	37.280	0.5	Complies
09	2452	32.718	36.160	0.5	Complies

**CH03**



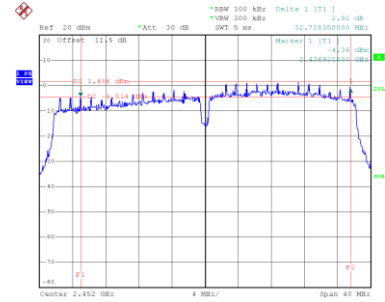
Date: 14.JUL.2022 14:40:12

**CH06**  
6 dB Bandwidth



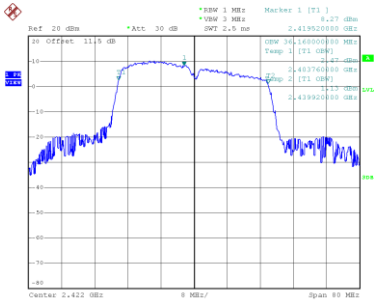
Date: 14.JUL.2022 14:41:52

**CH09**

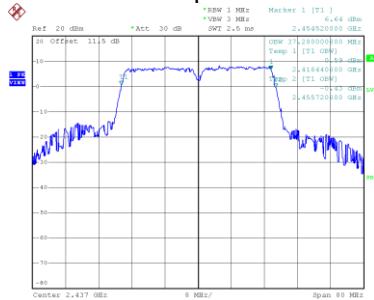


Date: 14.JUL.2022 14:43:08

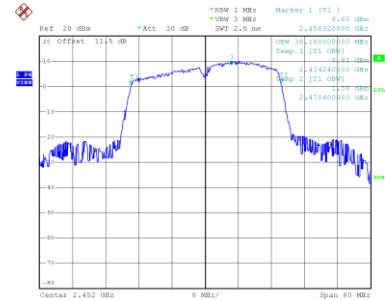
**99 % Occupied Bandwidth**



Date: 14.JUL.2022 14:40:19



Date: 14.JUL.2022 14:42:00



Date: 14.JUL.2022 14:43:46

## APPENDIX F - MAXIMUM OUTPUT POWER

Test Mode	TX B Mode
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.54	0.00	15.54	30.00	1.0000	Complies
06	2437	14.49	0.00	14.49	30.00	1.0000	Complies
11	2462	16.04	0.00	16.04	30.00	1.0000	Complies

Test Mode	TX G Mode
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	11.58	0.11	11.69	30.00	1.0000	Complies
06	2437	12.83	0.11	12.94	30.00	1.0000	Complies
11	2462	12.82	0.11	12.93	30.00	1.0000	Complies

Test Mode	TX N(HT20) Mode
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	11.69	0.11	11.80	30.00	1.0000	Complies
06	2437	12.87	0.11	12.98	30.00	1.0000	Complies
11	2462	12.58	0.11	12.69	30.00	1.0000	Complies

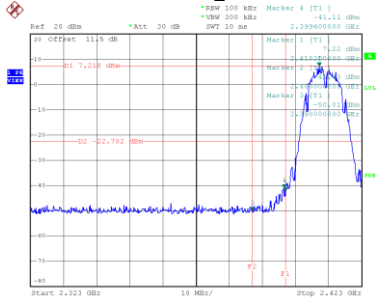
Test Mode	TX N(HT40) Mode
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Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	12.35	0.23	12.58	30.00	1.0000	Complies
06	2437	12.78	0.23	13.01	30.00	1.0000	Complies
09	2452	12.79	0.23	13.02	30.00	1.0000	Complies

## **APPENDIX G - CONDUCTED SPURIOUS EMISSIONS**

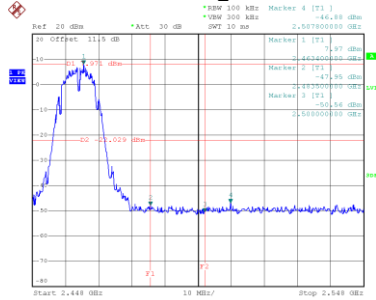
Test Mode TX B Mode

### Bandedge-CH01



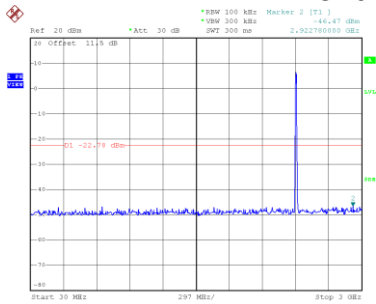
Date: 14.JUL.2022 14:23:35

### Bandedge-CH11

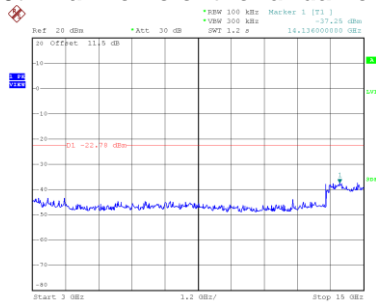


Date: 14.JUL.2022 14:28:35

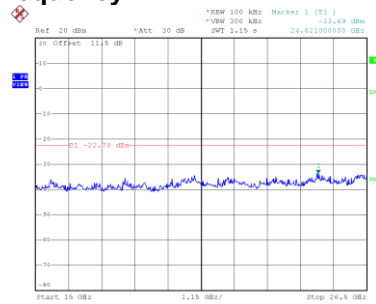
### CH01 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:23:49

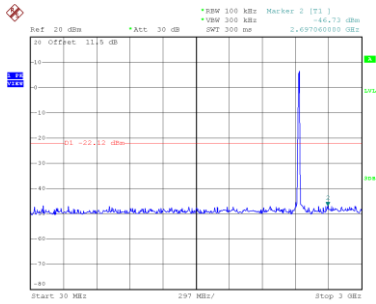


Date: 14.JUL.2022 14:23:57

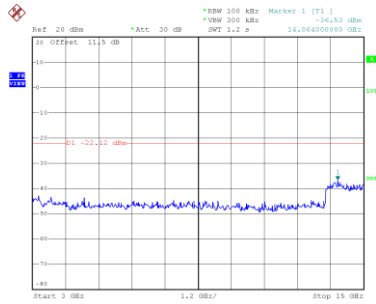


Date: 14.JUL.2022 14:24:06

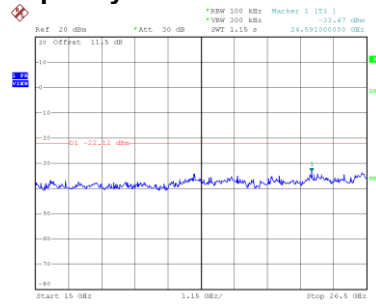
### CH06 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:26:56

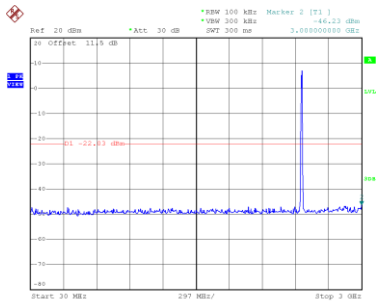


Date: 14.JUL.2022 14:27:04

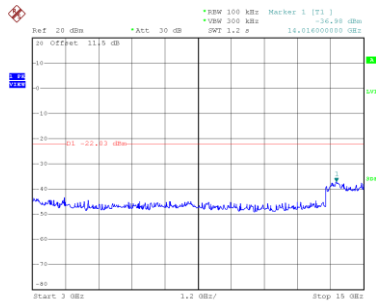


Date: 14.JUL.2022 14:27:13

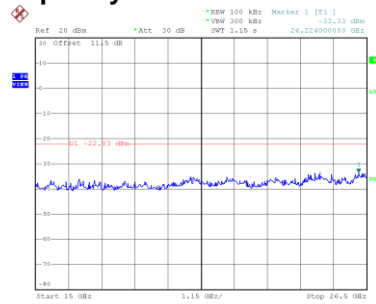
### CH11 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:28:49



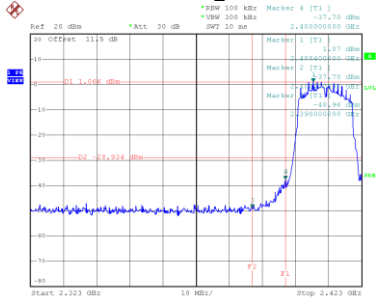
Date: 14.JUL.2022 14:28:57



Date: 14.JUL.2022 14:29:06

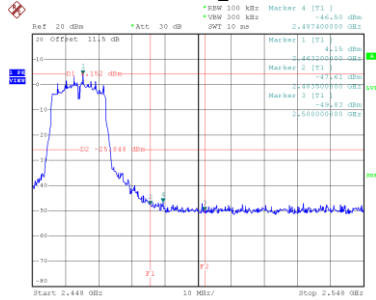
Test Mode TX G Mode

### Bandedge-CH01



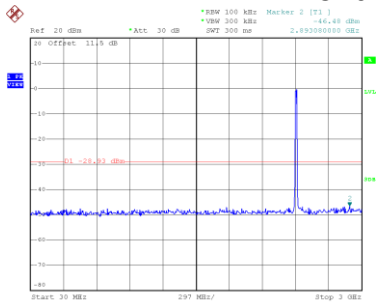
Date: 14.JUL.2022 14:31:08

### Bandedge-CH11

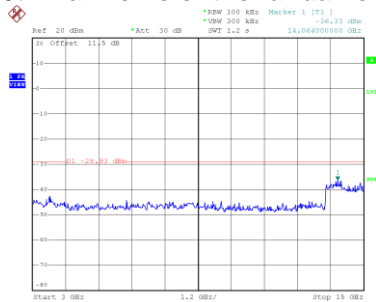


Date: 14.JUL.2022 14:34:15

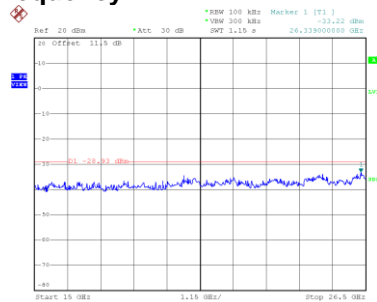
### CH01 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:31:22

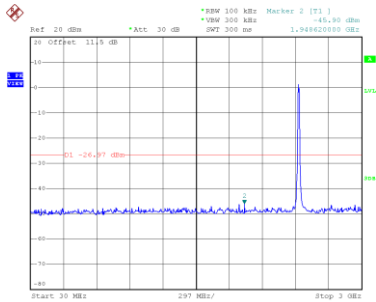


Date: 14.JUL.2022 14:31:31

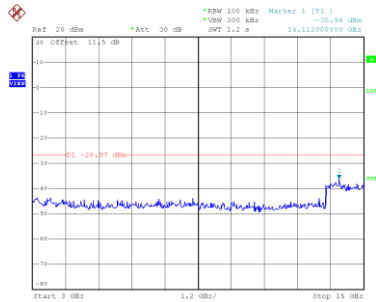


Date: 14.JUL.2022 14:31:39

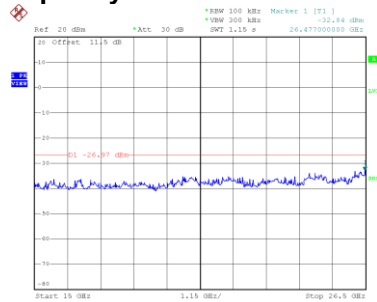
### CH06 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:32:55

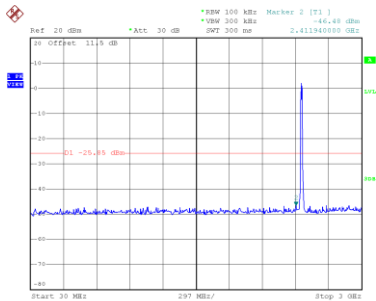


Date: 14.JUL.2022 14:33:03

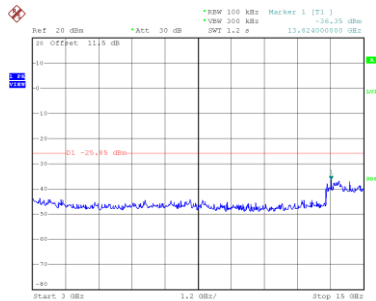


Date: 14.JUL.2022 14:33:12

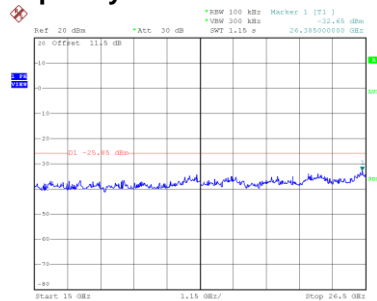
### CH11 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:34:29



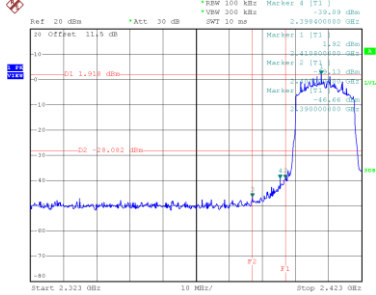
Date: 14.JUL.2022 14:34:37



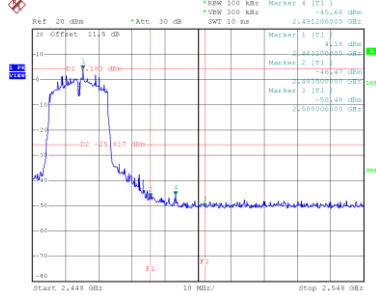
Date: 14.JUL.2022 14:34:46

Test Mode TX N(HT20) Mode

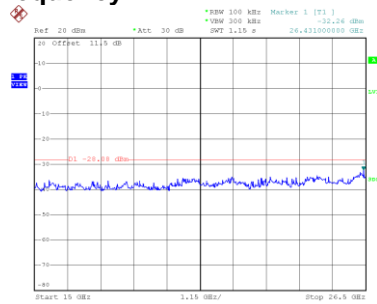
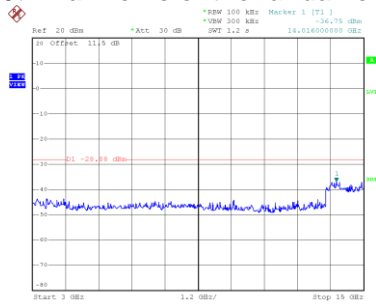
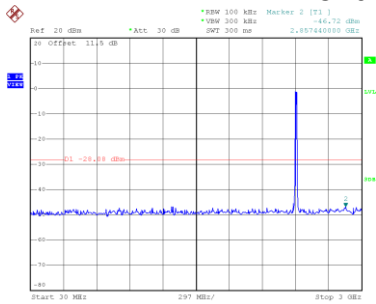
### Bandedge-CH01



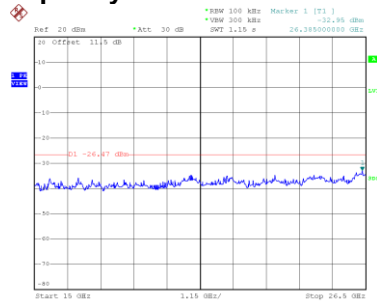
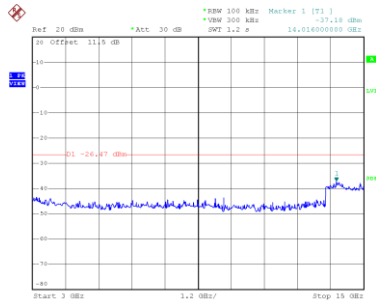
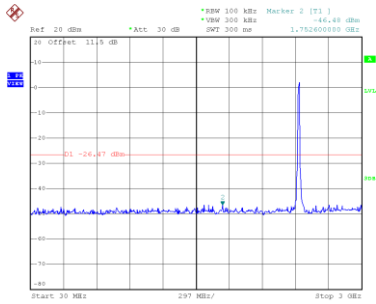
### Bandedge-CH11



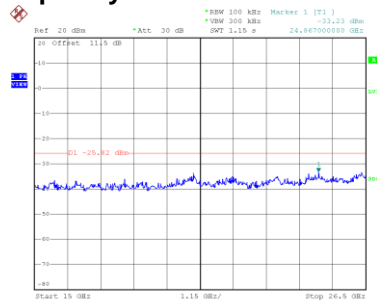
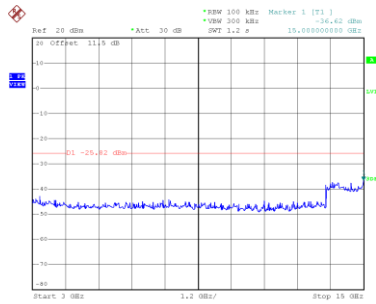
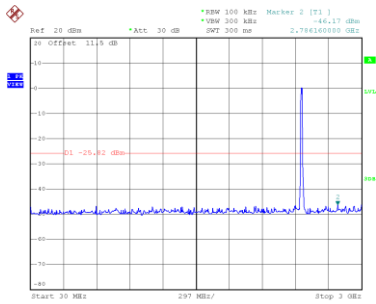
### CH01 – 10th Harmonic of the fundamental frequency



### CH06 – 10th Harmonic of the fundamental frequency

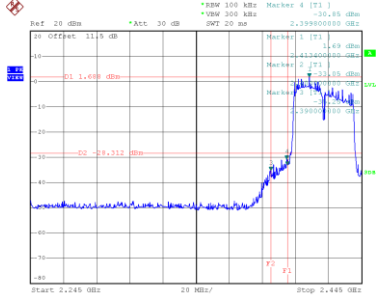


### CH11 – 10th Harmonic of the fundamental frequency



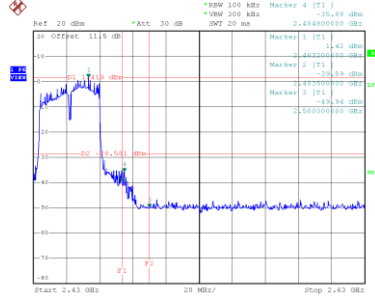
Test Mode TX N(HT40) Mode

### Bandedge-CH03



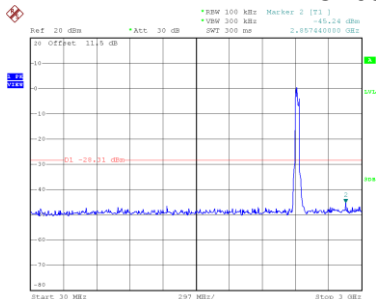
Date: 14.JUL.2022 14:40:45

### Bandedge-CH09

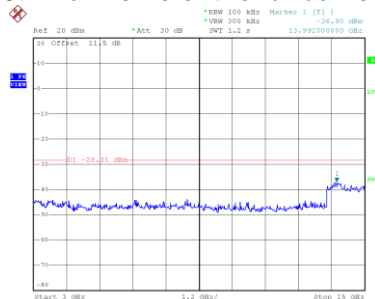


Date: 14.JUL.2022 14:40:54

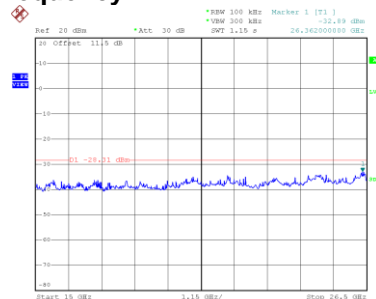
### CH03 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:40:59

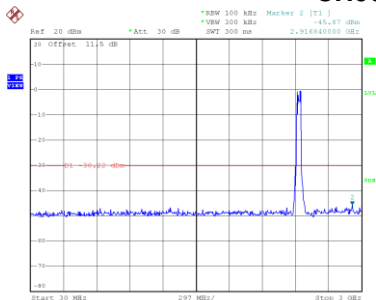


Date: 14.JUL.2022 14:41:07

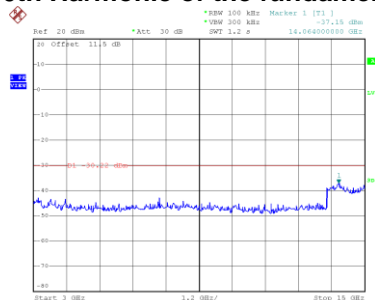


Date: 14.JUL.2022 14:41:16

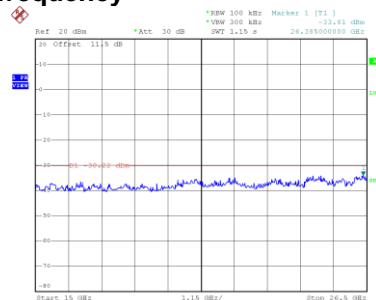
### CH06 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:42:39

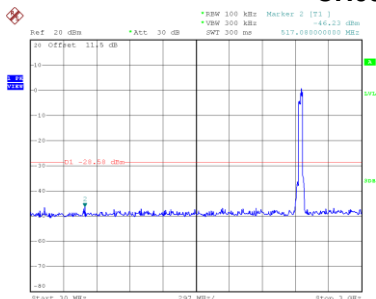


Date: 14.JUL.2022 14:42:46

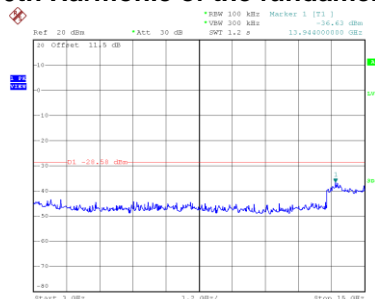


Date: 14.JUL.2022 14:42:56

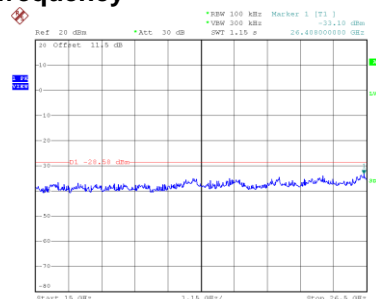
### CH09 – 10th Harmonic of the fundamental frequency



Date: 14.JUL.2022 14:44:08



Date: 14.JUL.2022 14:44:17



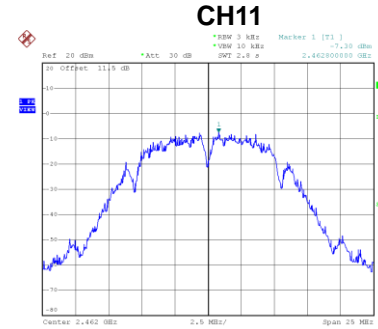
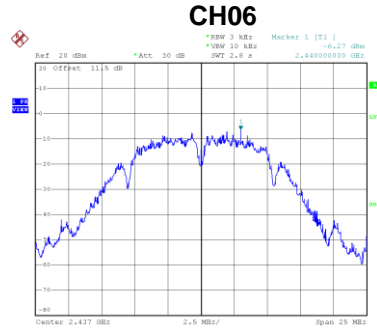
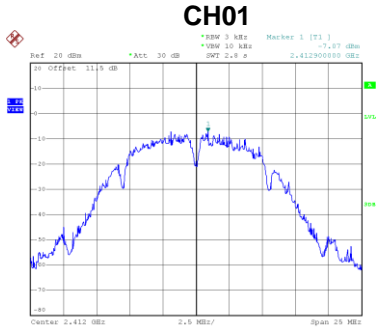
Date: 14.JUL.2022 14:44:25



## APPENDIX H - POWER SPECTRAL DENSITY

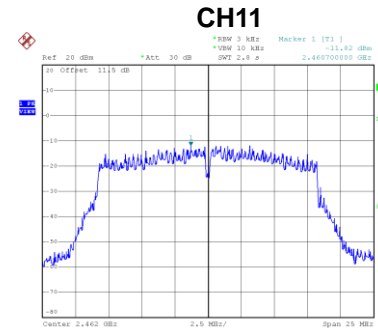
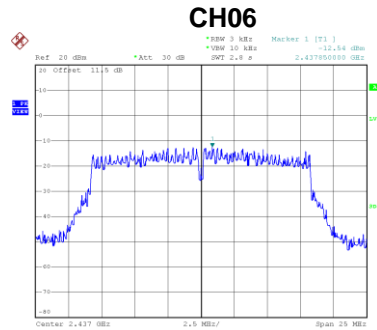
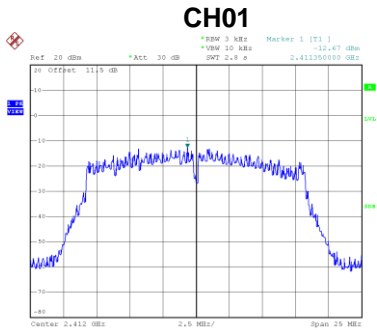
Test Mode	TX B Mode
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-7.07	8.00	Complies
06	2437	-6.27	8.00	Complies
11	2462	-7.30	8.00	Complies



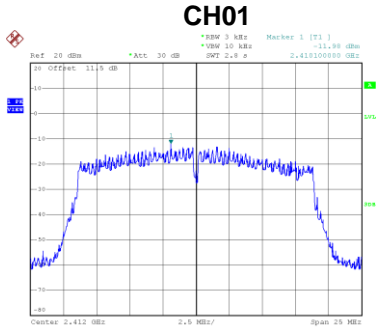
Test Mode	TX G Mode
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Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-12.67	8.00	Complies
06	2437	-12.54	8.00	Complies
11	2462	-11.82	8.00	Complies

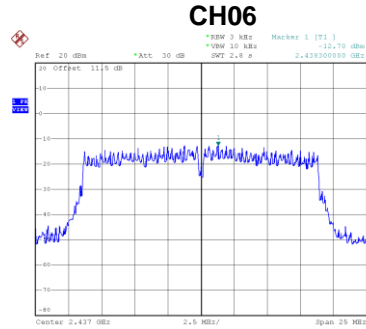


Test Mode	TX N(HT20) Mode
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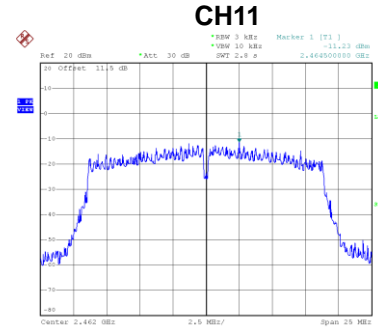
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-11.98	8.00	Complies
06	2437	-12.70	8.00	Complies
11	2462	-11.23	8.00	Complies



Date: 14\_JUL\_2022 14:18:147



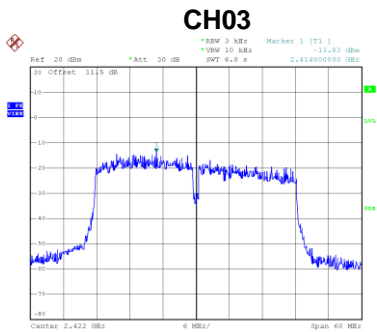
Date: 14\_JUL\_2022 14:19:125



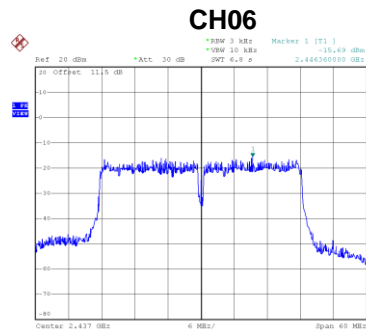
Date: 14\_JUL\_2022 14:19:158

Test Mode	TX N(HT40) Mode
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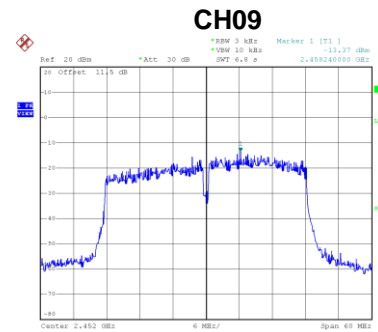
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-13.83	8.00	Complies
06	2437	-15.69	8.00	Complies
09	2452	-13.37	8.00	Complies



Date: 14\_JUL\_2022 14:20:125



Date: 14\_JUL\_2022 14:20:153



Date: 14\_JUL\_2022 14:21:125

End of Test Report