

# FCC Radio Test Report

## FCC ID: 2APPZ-V67

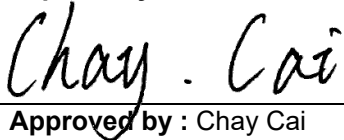
This report concerns: Original Grant

**Project No.** : 2108C114  
**Equipment** : Smart Video Phone  
**Brand Name** : Fanvil  
**Test Model** : V67  
**Series Model** : N/A  
**Applicant** : Fanvil Technology Co., Ltd  
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**Date of Receipt** : Aug. 13, 2021  
**Date of Test** : Aug. 17, 2021 ~ Dec. 04, 2021  
**Issued Date** : Dec. 17, 2021  
**Report Version** : R00  
**Test Sample** : Engineering Sample No.: DG20210816158 for conducted,  
DG20210816159 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.



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TESTING CERT #5123.02

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**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.

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**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.

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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 Version	Description	Issued Date
R00	Original Issue.	Dec. 17, 2021

### 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, 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	65%	AC 120V/60Hz	Aries Tang
Radiated Emissions-9kHz to 30 MHz	25°C	60%	AC 120V/60Hz	Sparrow Liu
Radiated Emissions-30MHz to 1000MHz	22°C	47%	AC 120V/60Hz	Jakyri Wen
Radiated Emissions-Above 1000MHz	22°C	43%	AC 120V/60Hz	Hayden Chen
Bandwidth	25°C	36%	DC 12V	Longdage Feng
Maximum Output Power	24°C	47%	DC 12V	Jesse Wang
Conducted Spurious Emissions	25°C	36%	DC 12V	Longdage Feng
Power Spectral Density	25°C	36%	DC 12V	Longdage Feng



## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart Video Phone
Brand Name	Fanvil
Test Model	V67
Series Model	N/A
Model Difference(s)	N/A
Power Source	1# DC voltage supplied from AC adapter. Model: F18L16-120150SPAU 2# Supplied from PoE.
Power Rating	1# I/P: 100-240V~ 50/60Hz 0.6A O/P: 12.0V $\overline{=}$ 1.5A 2# DC 48V
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 72.2 Mbps
Maximum Output Power	IEEE 802.11g: 17.49 dBm (0.0561 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)							
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	Dongguan YiJia Electronics Communication Technology Co.,Ltd.	YJL01.106.020.301A	FPC	IPEX	3.0

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 G Mode Channel 06

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 4	TX G Mode Channel 06

<b>Radiated emissions test - Below 1GHz</b>	
Final Test Mode	Description
Mode 4	TX G Mode Channel 06

<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

Conducted test	
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

**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 G Mode Channel 06 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 radiated emission test, every axis (X, Y, Z) are verified. The test results shown in the following sections represent the worst case emissions.

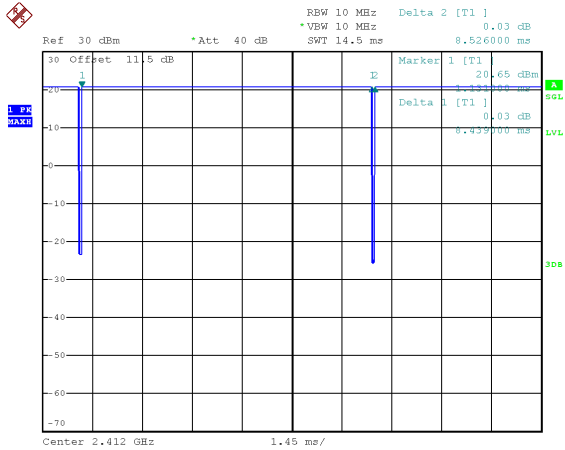
**2.3 PARAMETERS OF TEST SOFTWARE**

Test Software Version	ADB		
	2412	2437	2462
IEEE 802.11b	16	16	15
IEEE 802.11g	11	17	12
IEEE 802.11n(HT20)	12	17	13

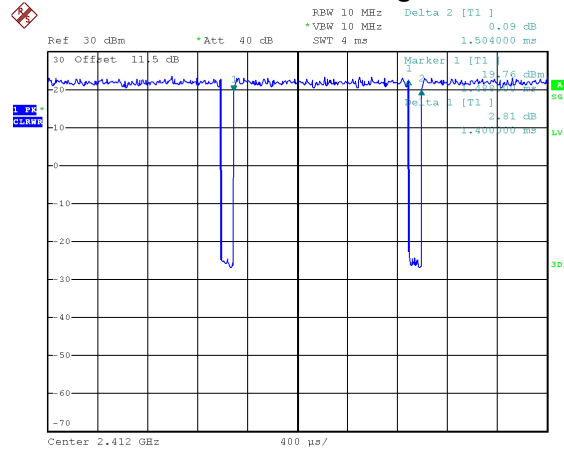
## 2.4 DUTY CYCLE

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**



**IEEE 802.11g**



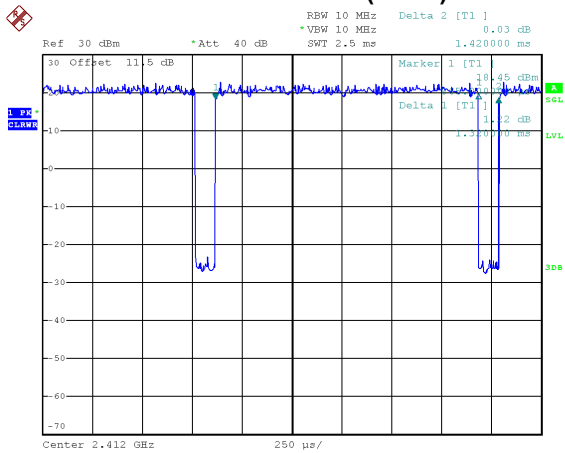
Date: 11.NOV.2021 14:36:02

Duty cycle =  $8.439 \text{ ms} / 8.526 \text{ ms} = 98.98\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.00$

Date: 11.NOV.2021 14:36:41

Duty cycle =  $1.400 \text{ ms} / 1.504 \text{ ms} = 93.09\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.31$

**IEEE 802.11n(HT20)**



Date: 11.NOV.2021 14:37:14

Duty cycle =  $1.320 \text{ ms} / 1.420 \text{ ms} = 92.96\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.32$

**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.

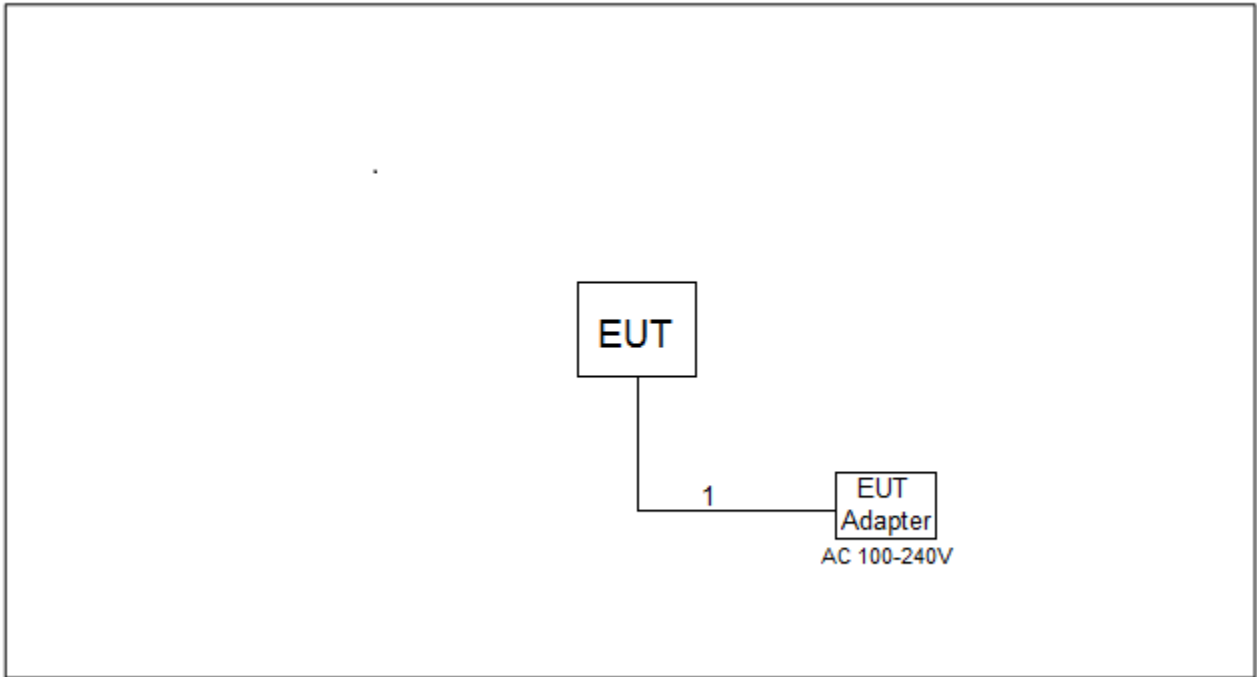
For IEEE 802.11g:

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 758 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	DC 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.

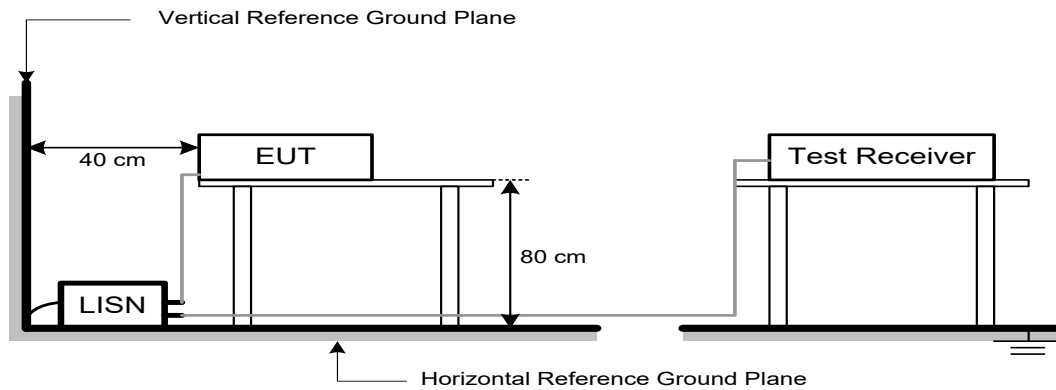
The following table is the setting of the receiver:

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

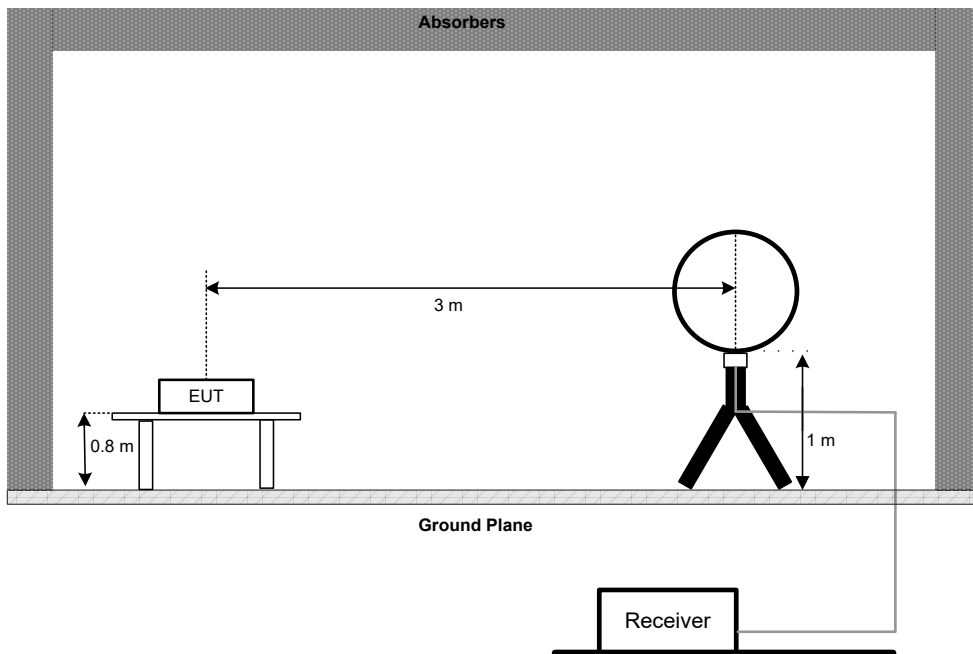
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector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

### 4.3 DEVIATION FROM TEST STANDARD

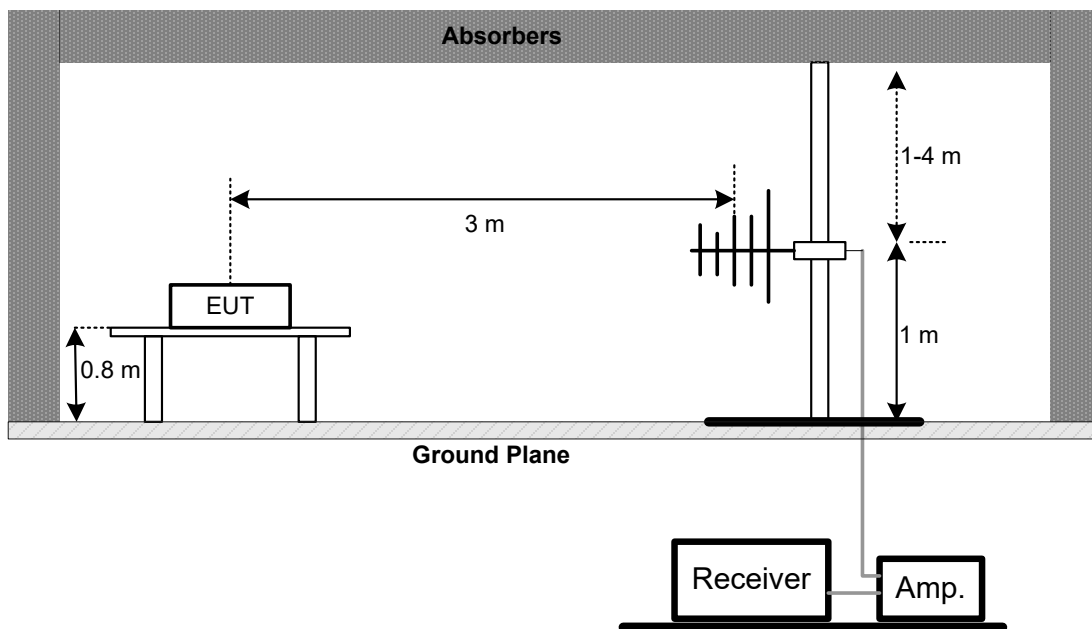
No deviation.

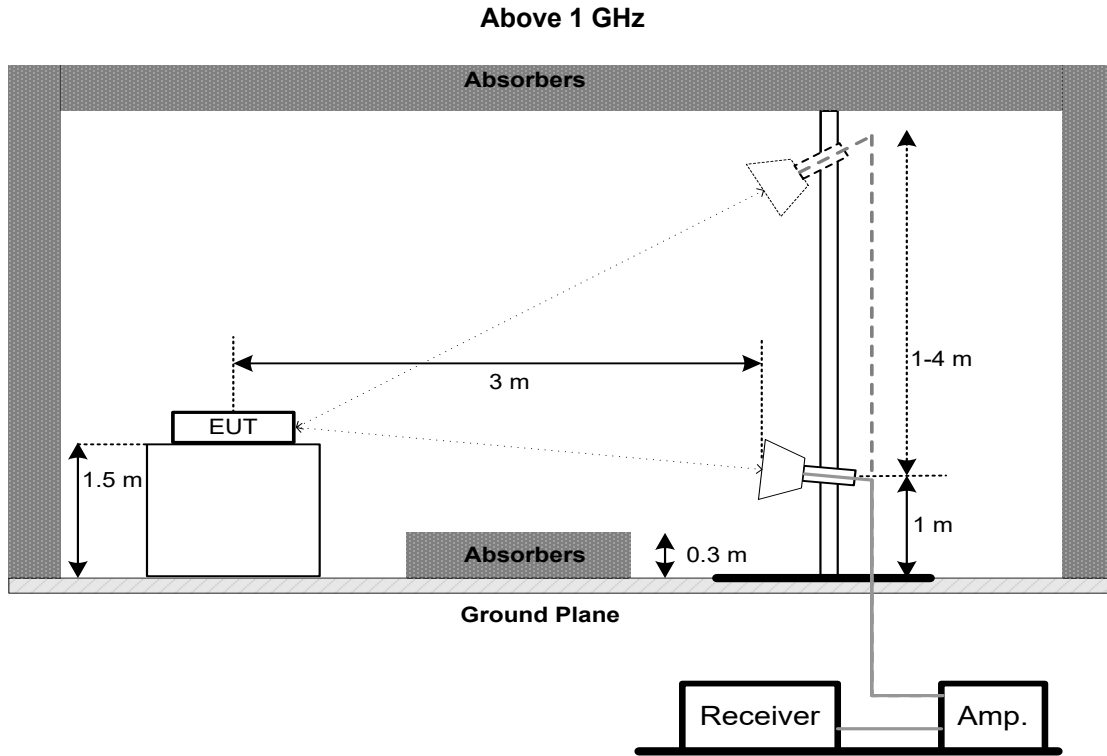
### 4.4 TEST SETUP

#### 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
VBW	1 MHz
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

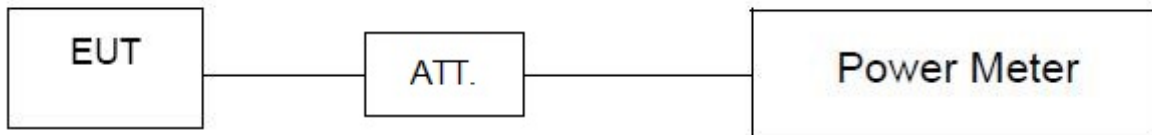
### 6.2 TEST PROCEDURE

- The EUT was directly connected to the power meter 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 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

- 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
Span Frequency	25 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	Feb. 28, 2022
2	LISN	EMCO	3816/2	52765	Feb. 27, 2022
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 27, 2022
4	50Ω Terminator	SHX	TF5-3	15041305	Feb. 27, 2022
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 09, 2022
7	643 Shield Room	ETS	6*4*3m	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	Feb. 27, 2022
2*	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 23, 2024
3	Cable	N/A	RG 213/U(9kHz~1GHz)	N/A	May 27, 2022
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. 17, 2022

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. 15, 2022
2	Amplifier	HP	8447D	2944A08742	Feb. 28, 2022
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	Mar. 19, 2022
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. 24, 2022

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. 21, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
7	EXA Spectrum Analyzer	Keysight	N9010A	MY56480488	Feb. 28, 2022
8	Low Noise Amplifier	CONNPHY	CLN-18G40G-4330-K	619413	Jul. 16, 2022
9	Cable	N/A	A81-SMAMSMAM-12.5M	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. 10, 2022
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. 24, 2022

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. 10, 2022
2	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 07, 2022
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. 10, 2022
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 10, 2022
3	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 07, 2022
4	RF Cable	Tongkaichuan	N/A	N/A	N/A

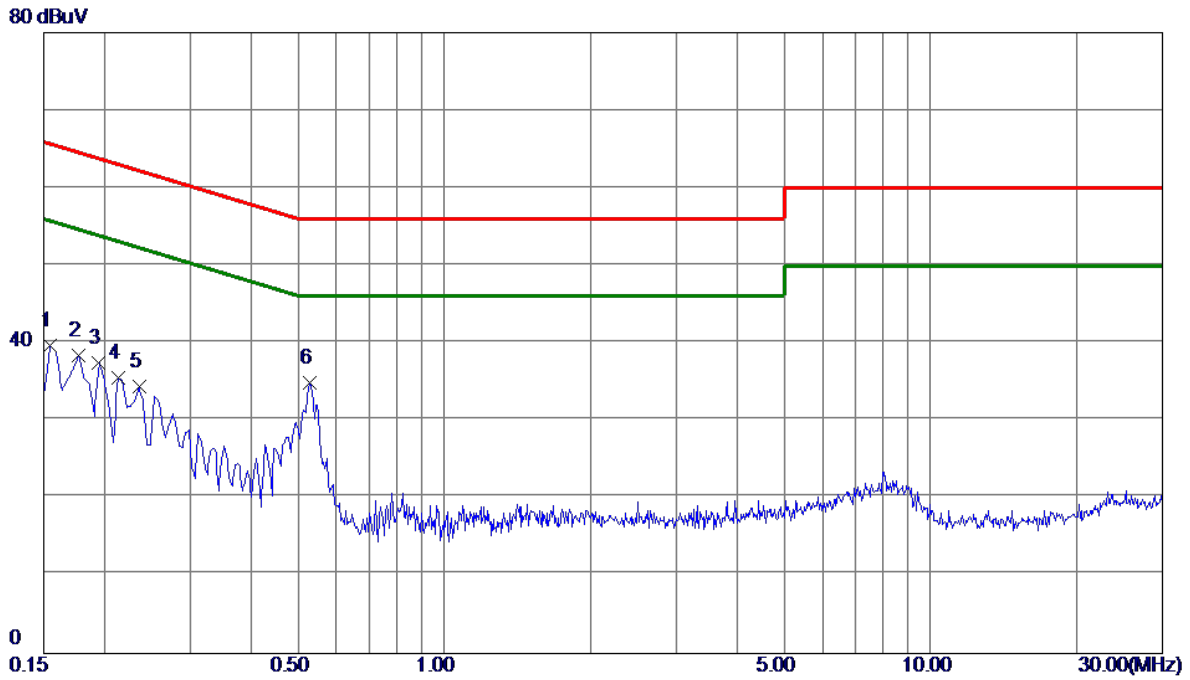
Remark: "N/A" denotes no model name, serial no. or calibration specified.

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

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

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

Test Mode	TX G Mode Channel 06	Phase	Line
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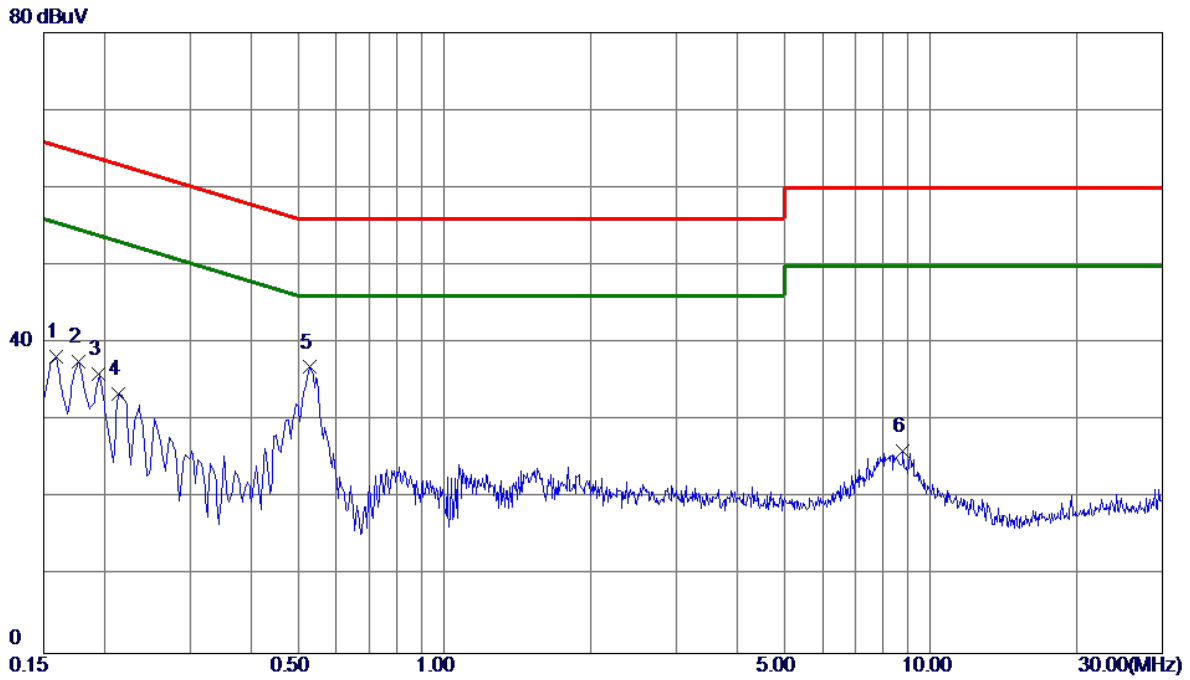


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1545	29.94	9.78	39.72	65.75	-26.03	Peak	
2	0.1770	28.58	9.80	38.38	64.63	-26.25	Peak	
3	0.1949	27.56	9.81	37.37	63.83	-26.46	Peak	
4	0.2130	25.77	9.82	35.59	63.09	-27.50	Peak	
5	0.2355	24.63	9.82	34.45	62.25	-27.80	Peak	
6 *	0.5280	24.94	9.87	34.81	56.00	-21.19	Peak	

**REMARKS:**

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

Test Mode	TX G Mode Channel 06	Phase	Neutral
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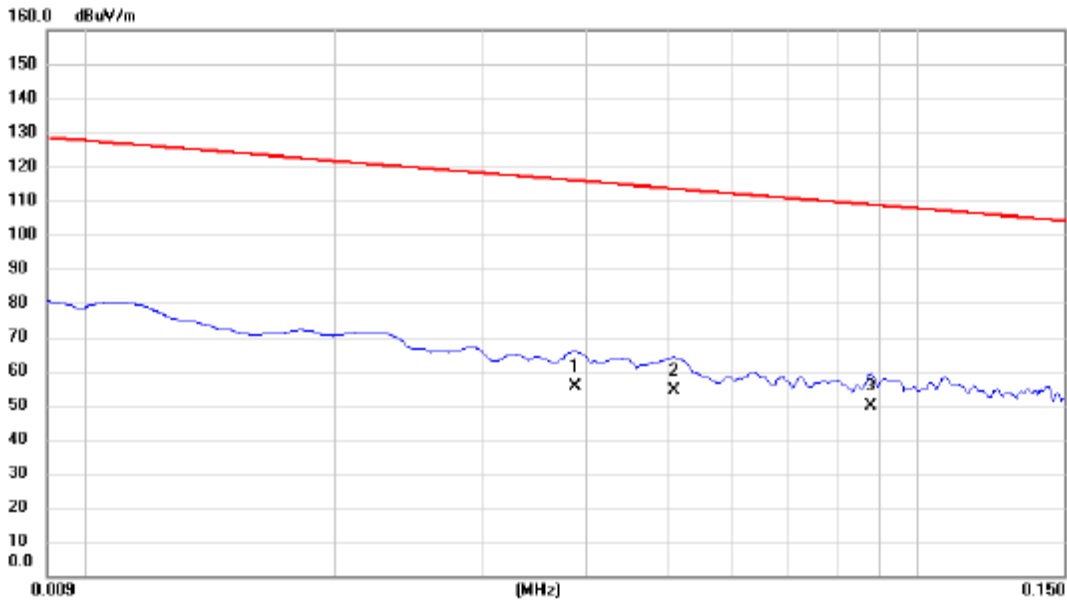
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1590	28.39	9.83	38.22	65.52	-27.30	Peak	
2	0.1770	27.78	9.84	37.62	64.63	-27.01	Peak	
3	0.1949	26.20	9.85	36.05	63.83	-27.78	Peak	
4	0.2130	23.66	9.85	33.51	63.09	-29.58	Peak	
5 *	0.5280	26.93	9.95	36.88	56.00	-19.12	Peak	
6	8.7765	15.58	10.46	26.04	60.00	-33.96	Peak	

**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 G Mode Channel 06	Polarization	Ant 0°
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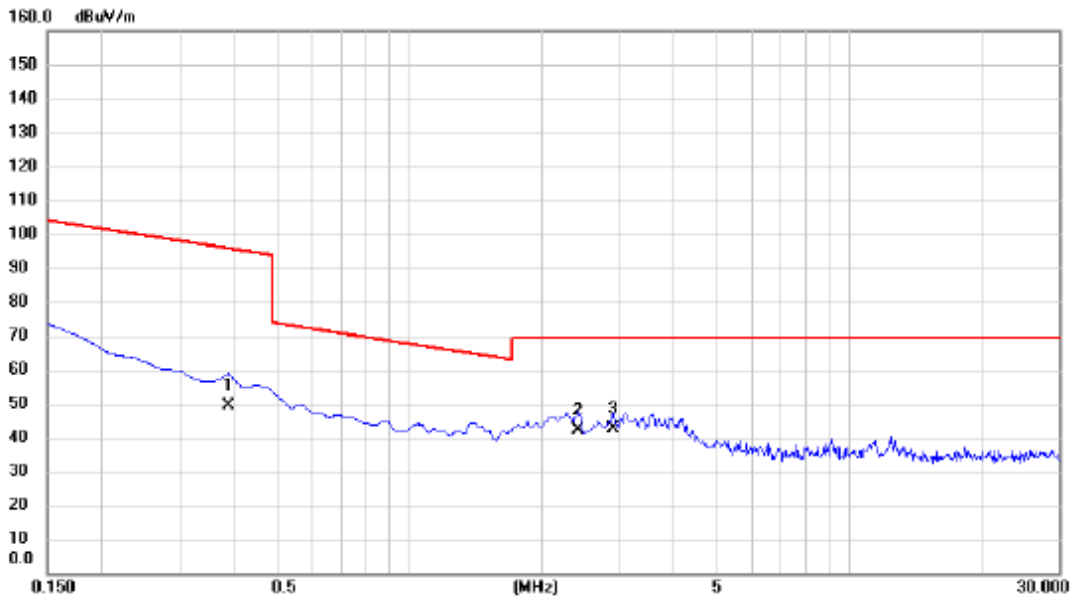


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1	0.0388	41.36	13.98	55.34	115.83	-60.49	AVG			
2	0.0510	40.58	13.72	54.30	113.45	-59.15	AVG			
3 *	0.0878	35.96	13.77	49.73	108.73	-59.00	AVG			

REMARKS:

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

Test Mode	TX G Mode Channel 06	Polarization	Ant 0°
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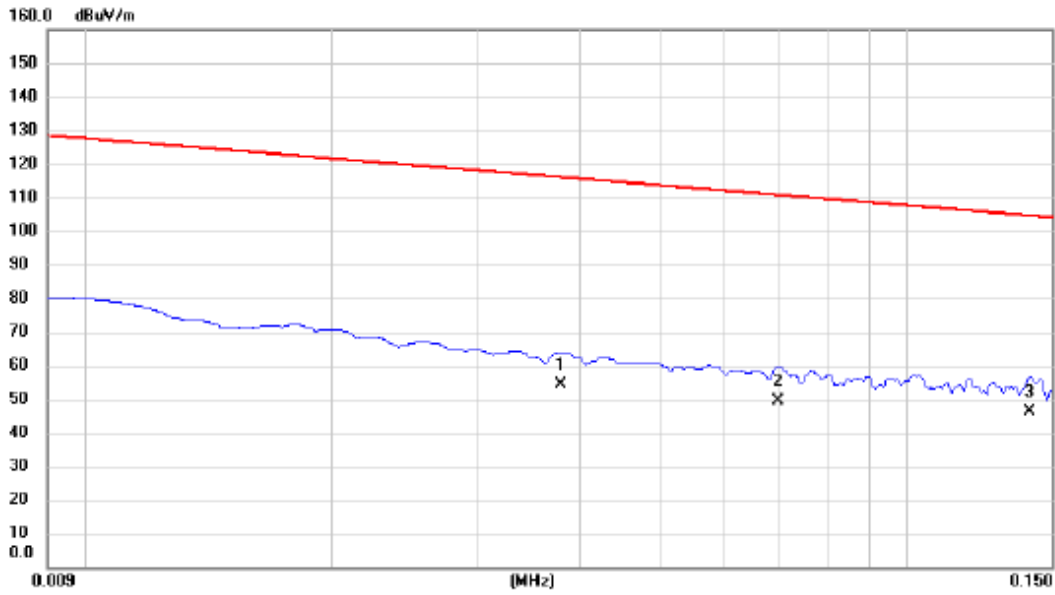
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1	0.3887	35.68	13.65	49.33	95.81	-46.48	AVG			
2	2.4186	30.24	12.13	42.37	69.54	-27.17	QP			
3 *	2.8961	30.69	11.98	42.67	69.54	-26.87	QP			

**REMARKS:**

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



Test Mode	TX G Mode Channel 06	Polarization	Ant 90°
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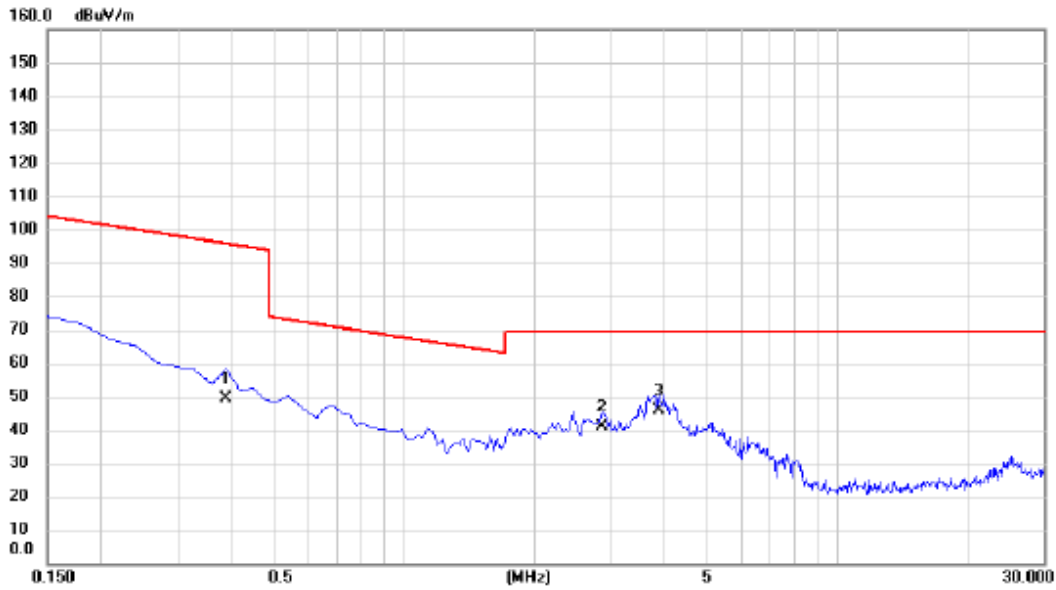


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1		0.0380	40.26	14.00	54.26	116.01	-61.75	AVG			
2		0.0697	35.74	13.73	49.47	110.74	-61.27	AVG			
3	*	0.1412	32.59	13.78	46.37	104.61	-58.24	AVG			

**REMARKS:**

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

Test Mode	TX G Mode Channel 06	Polarization	Ant 90°
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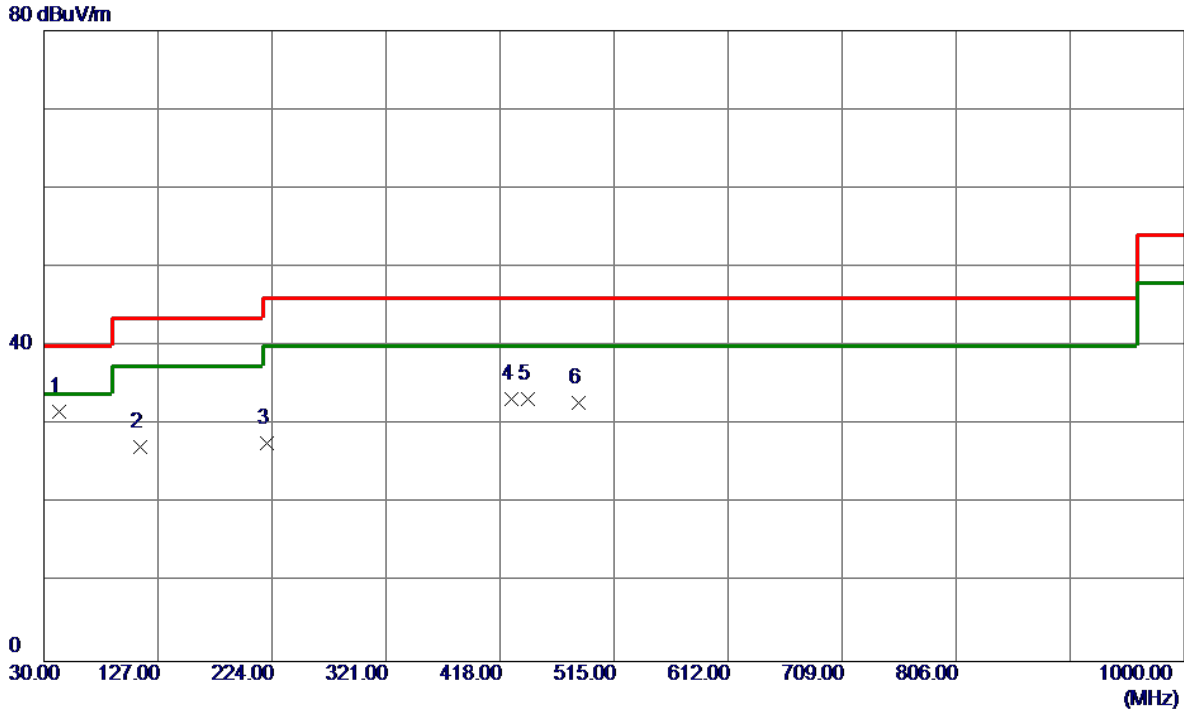
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Antenna Height cm	Table Degree	Comment
1	0.3888	35.67	13.65	49.32	95.81	-46.49	AVG			
2	2.8664	28.93	11.99	40.92	69.54	-28.62	QP			
3 *	3.8813	33.64	12.03	45.67	69.54	-23.87	QP			

**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 G Mode Channel 06	Polarization	Vertical
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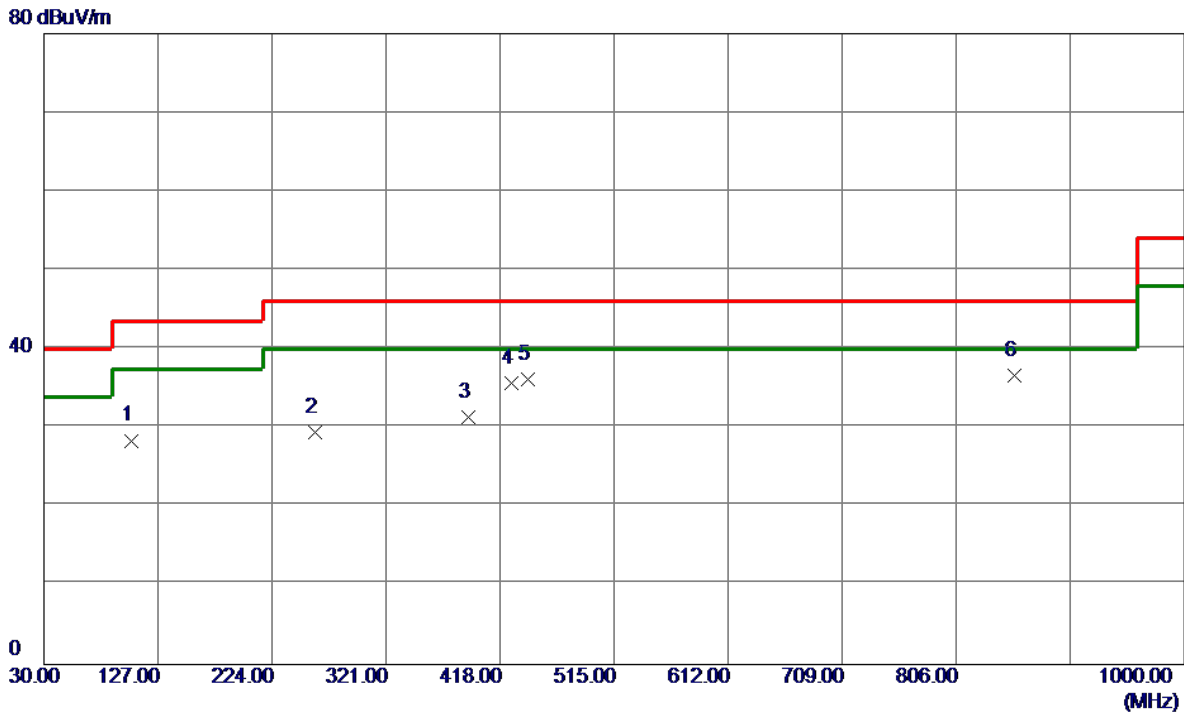


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	42.6100	45.63	-13.95	31.68	40.00	-8.32	Peak	
2	111.4800	42.18	-14.91	27.27	43.50	-16.23	Peak	
3	220.1200	42.46	-14.80	27.66	46.00	-18.34	Peak	
4	427.7000	41.31	-8.02	33.29	46.00	-12.71	Peak	
5	441.2800	40.99	-7.64	33.35	46.00	-12.65	Peak	
6	484.9300	39.66	-6.80	32.86	46.00	-13.14	Peak	

**REMARKS:**

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

Test Mode	TX G Mode Channel 06	Polarization	Horizontal
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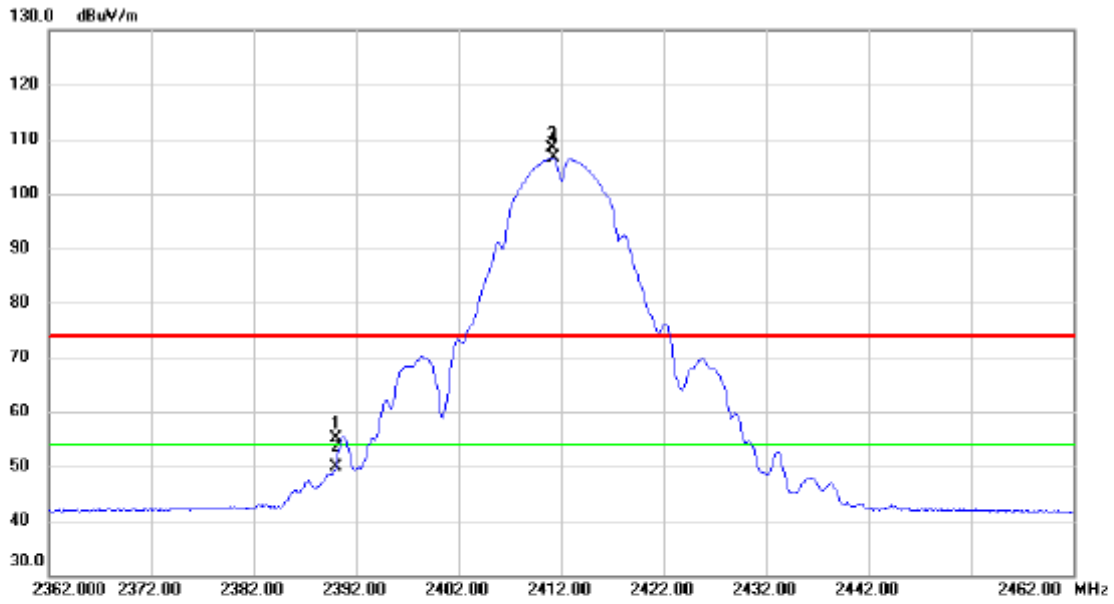
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	104.6900	44.24	-15.84	28.40	43.50	-15.10	Peak	
2	260.8599	41.99	-12.53	29.46	46.00	-16.54	Peak	
3	390.8400	40.33	-8.99	31.34	46.00	-14.66	Peak	
4	427.7000	43.70	-8.02	35.68	46.00	-10.32	Peak	
5	441.2800	43.80	-7.64	36.16	46.00	-9.84	Peak	
6 *	855.4700	37.20	-0.54	36.66	46.00	-9.34	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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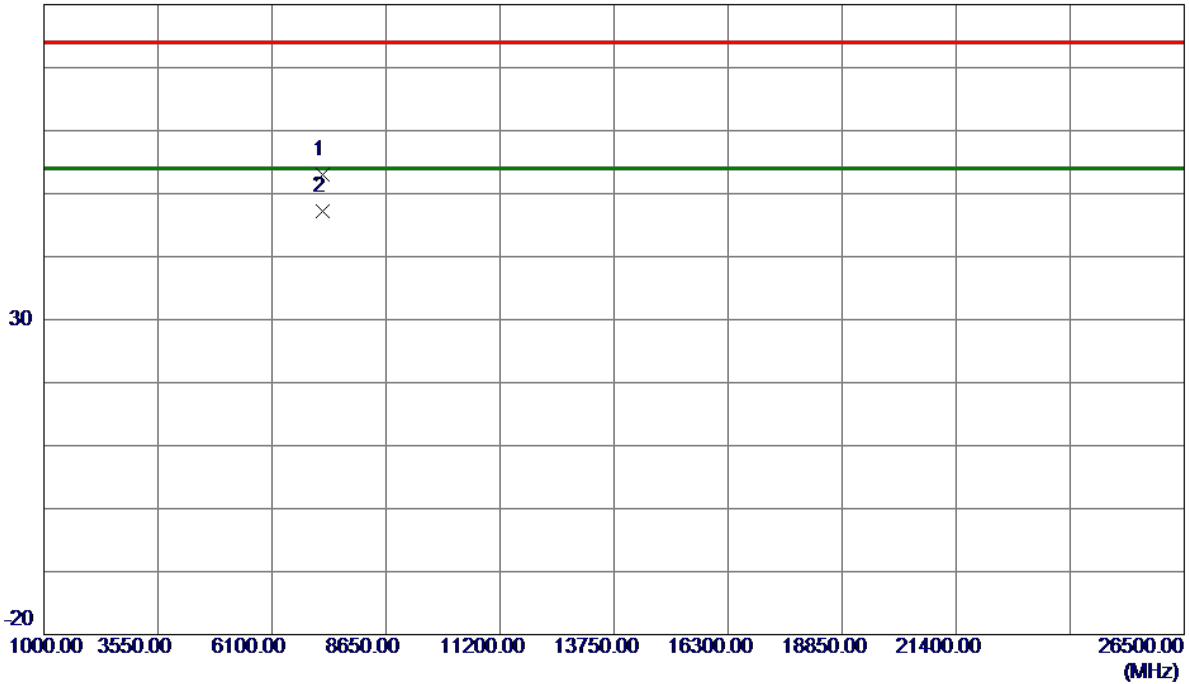
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	46.92	8.31	55.23	74.00	-18.77	peak	
2		2390.000	41.58	8.31	49.89	54.00	-4.11	AVG	
3	X	2411.150	100.06	8.33	108.39	74.00	34.39	peak	No Limit
4	*	2411.250	98.25	8.33	106.58	54.00	52.58	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



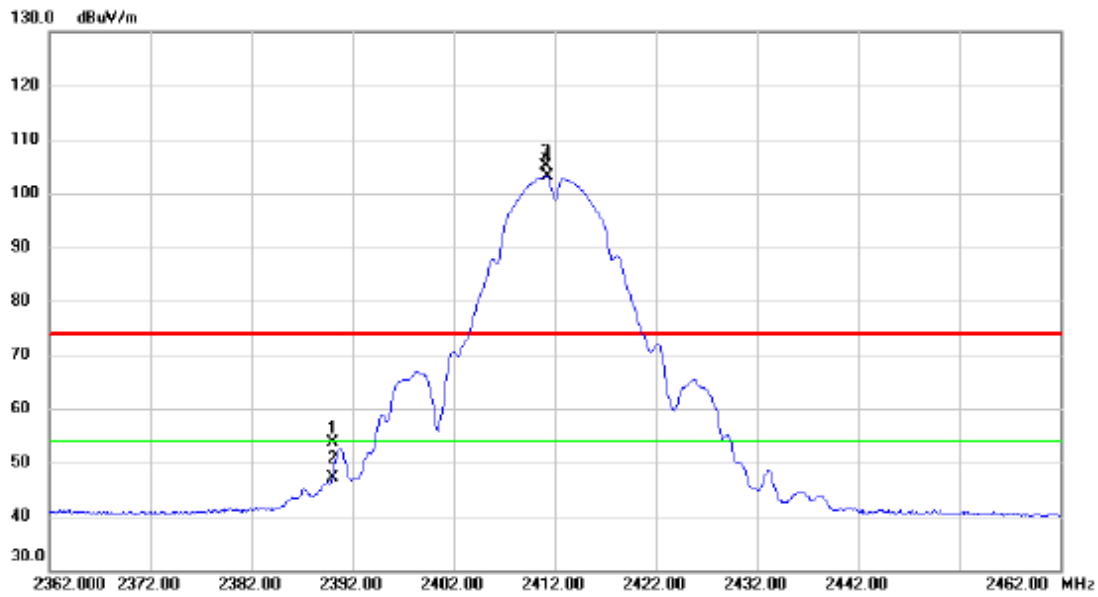
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7234.6450	42.33	10.60	52.93	74.00	-21.07	Peak	
2 *	7235.1450	36.55	10.60	47.15	54.00	-6.85	AVG	

**REMARKS:**

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



Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal
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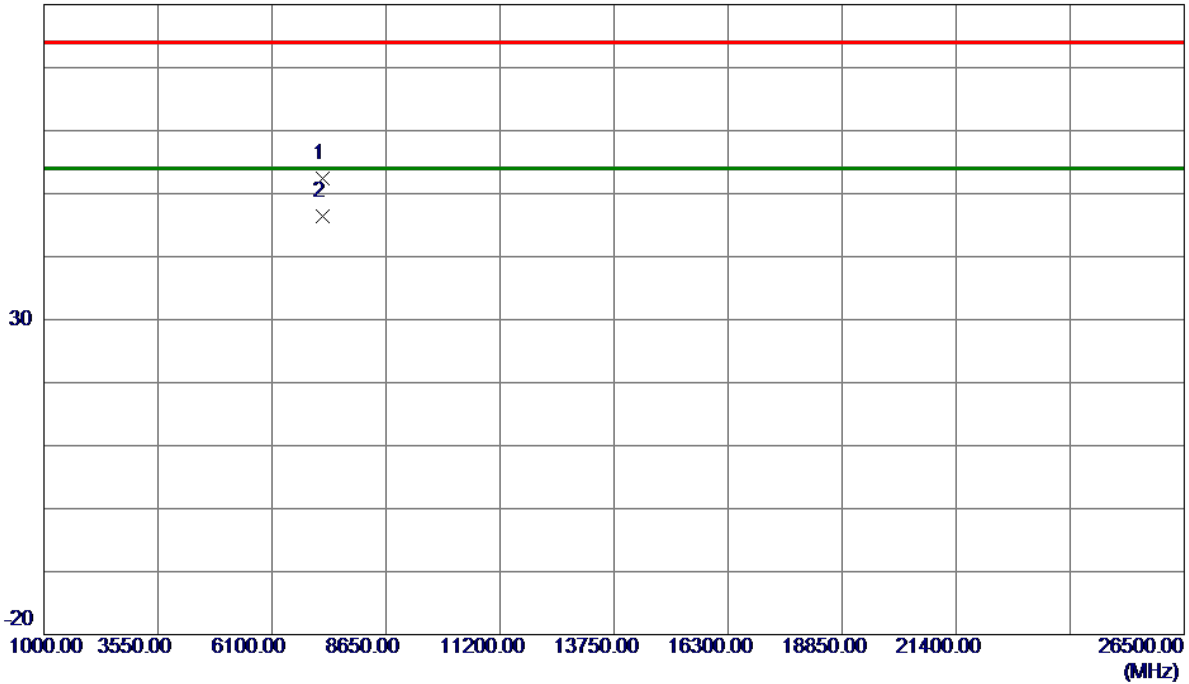
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	45.42	8.31	53.73	74.00	-20.27	peak	
2		2390.000	38.94	8.31	47.25	54.00	-6.75	AVG	
3	X	2411.150	96.71	8.33	105.04	74.00	31.04	peak	No Limit
4	*	2411.300	94.82	8.33	103.15	54.00	49.15	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	Horizontal
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80 dBuV/m

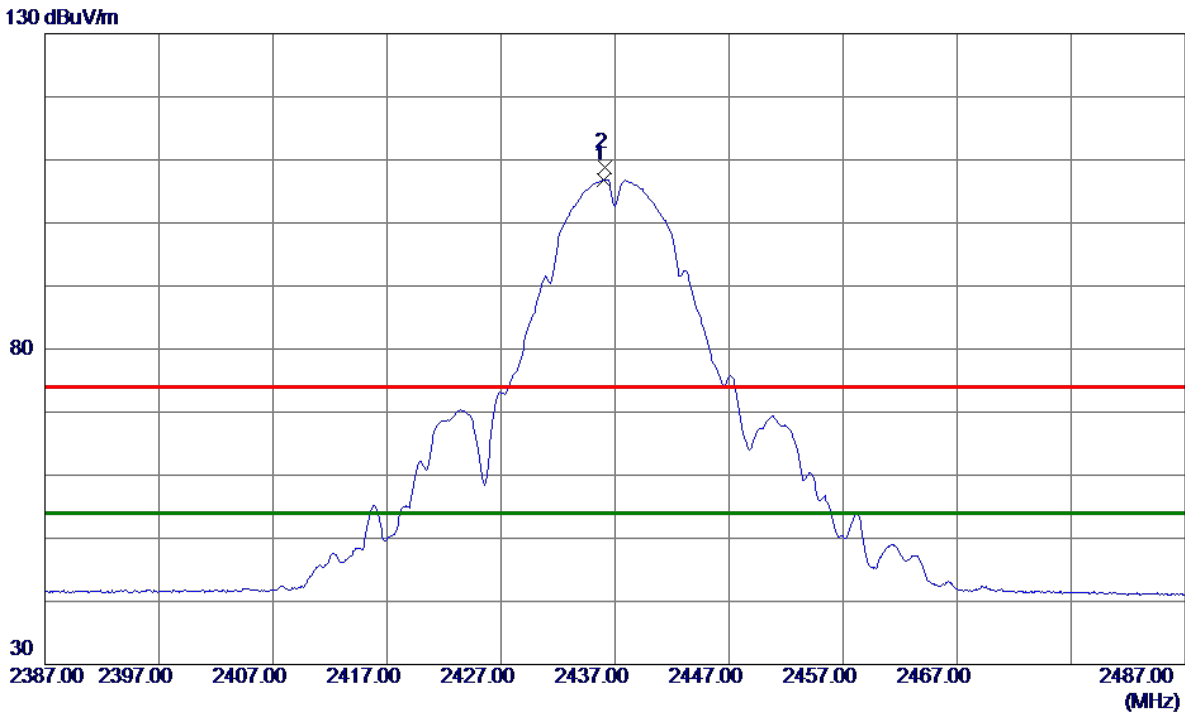


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7234.0600	41.86	10.59	52.45	74.00	-21.55	Peak	
2 *	7235.1950	35.74	10.60	46.34	54.00	-7.66	AVG	

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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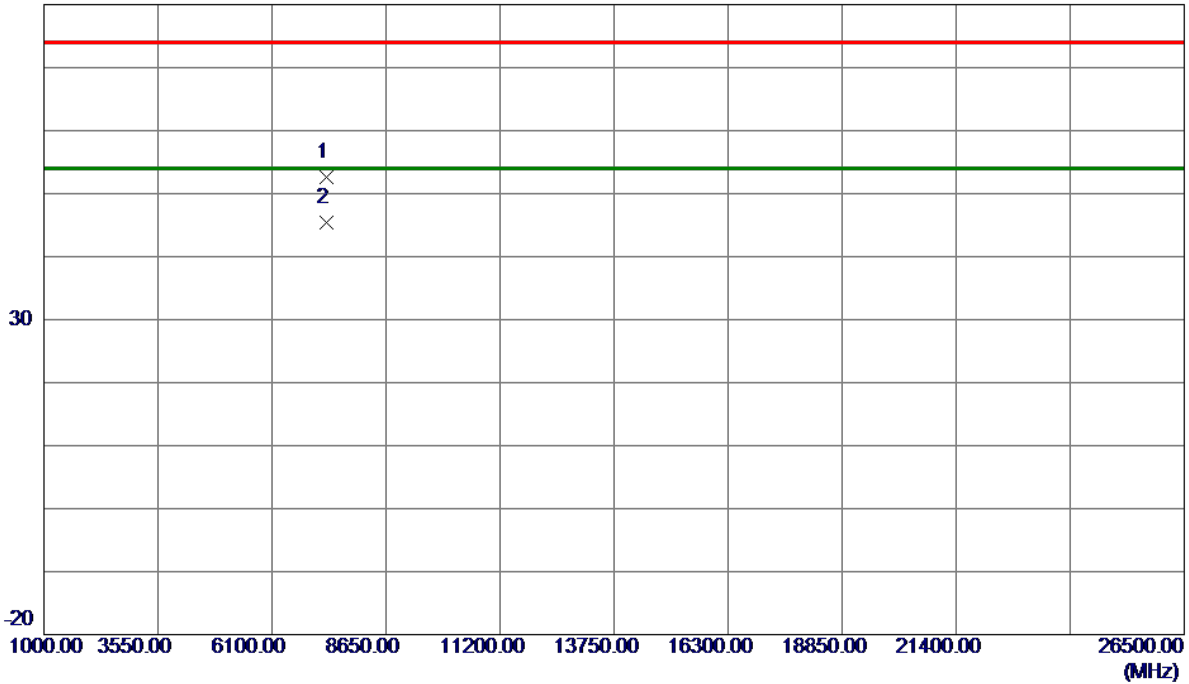
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.9500	98.53	8.36	106.89	54.00	52.89	AVG	No Limit
2	2436.1500	100.39	8.36	108.75	74.00	34.75	Peak	No Limit

**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

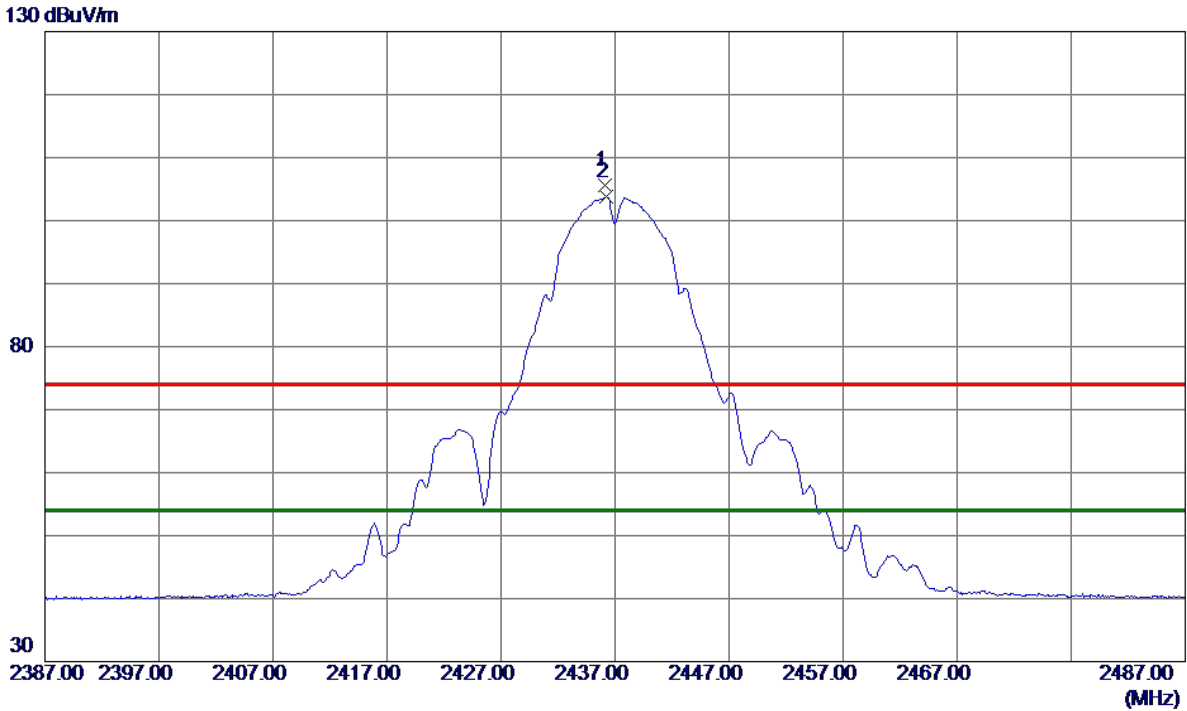


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7309.9000	41.96	10.69	52.65	74.00	-21.35	Peak	
2 *	7310.1200	34.71	10.69	45.40	54.00	-8.60	AVG	

REMARKS:

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

Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal
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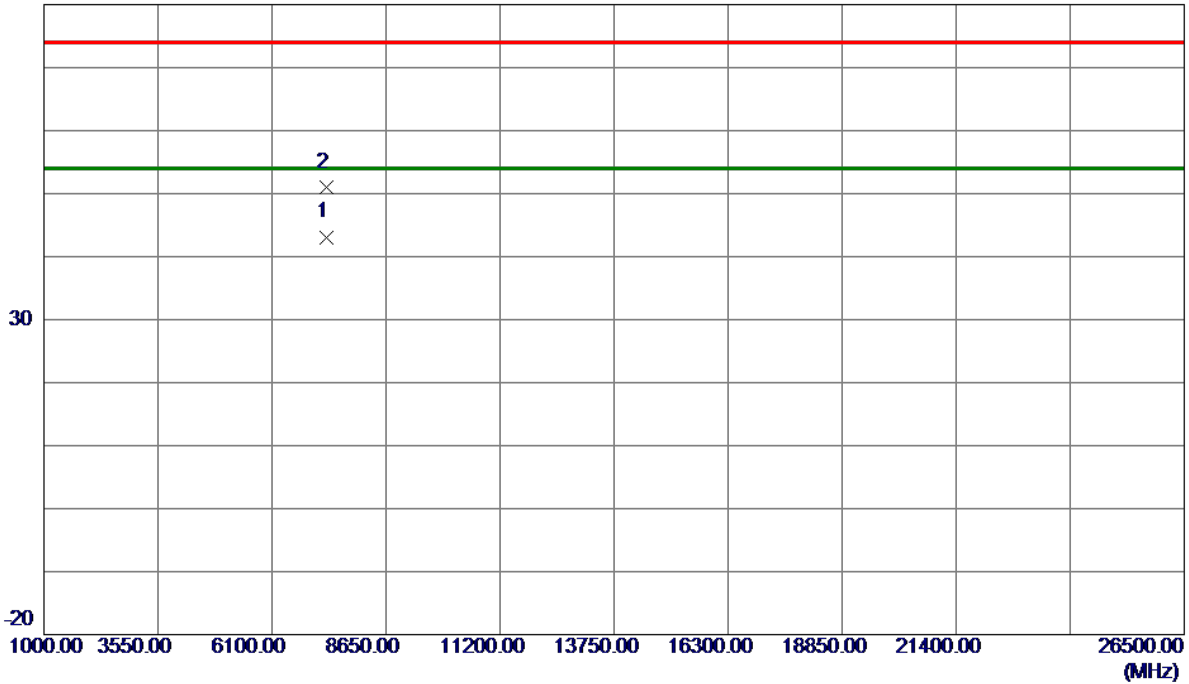
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.1500	97.25	8.36	105.61	74.00	31.61	Peak	No Limit
2 *	2436.2500	95.36	8.36	103.72	54.00	49.72	AVG	No Limit

**REMARKS:**

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

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

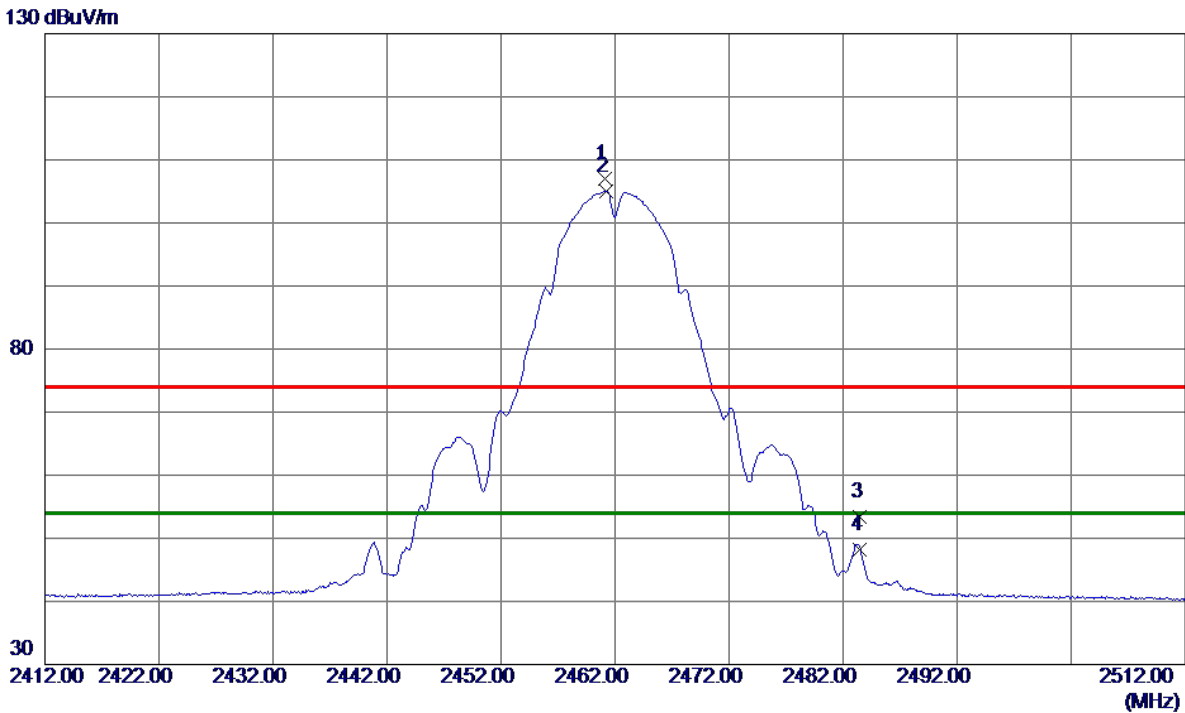


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7310.1350	32.41	10.69	43.10	54.00	-10.90	AVG	
2	7313.7800	40.39	10.70	51.09	74.00	-22.91	Peak	

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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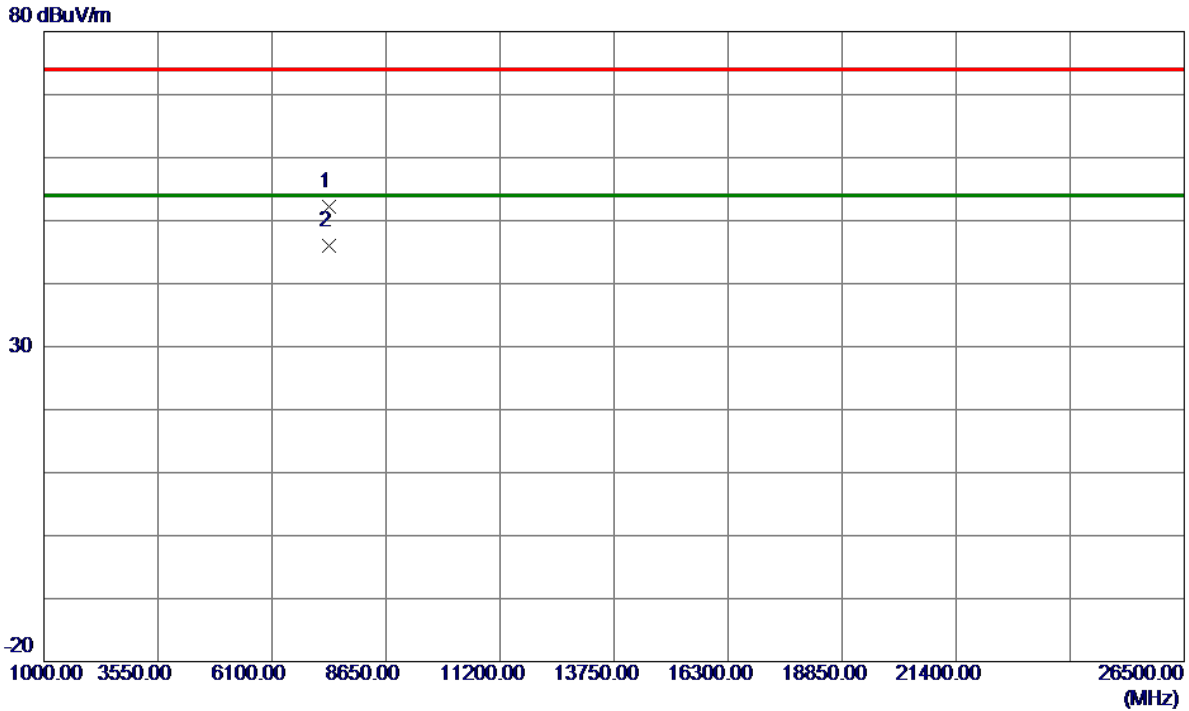


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.1500	98.53	8.40	106.93	74.00	32.93	Peak	No Limit
2 *	2461.2000	96.69	8.40	105.09	54.00	51.09	AVG	No Limit
3	2483.5000	45.06	8.42	53.48	74.00	-20.52	Peak	
4	2483.5000	39.73	8.42	48.15	54.00	-5.85	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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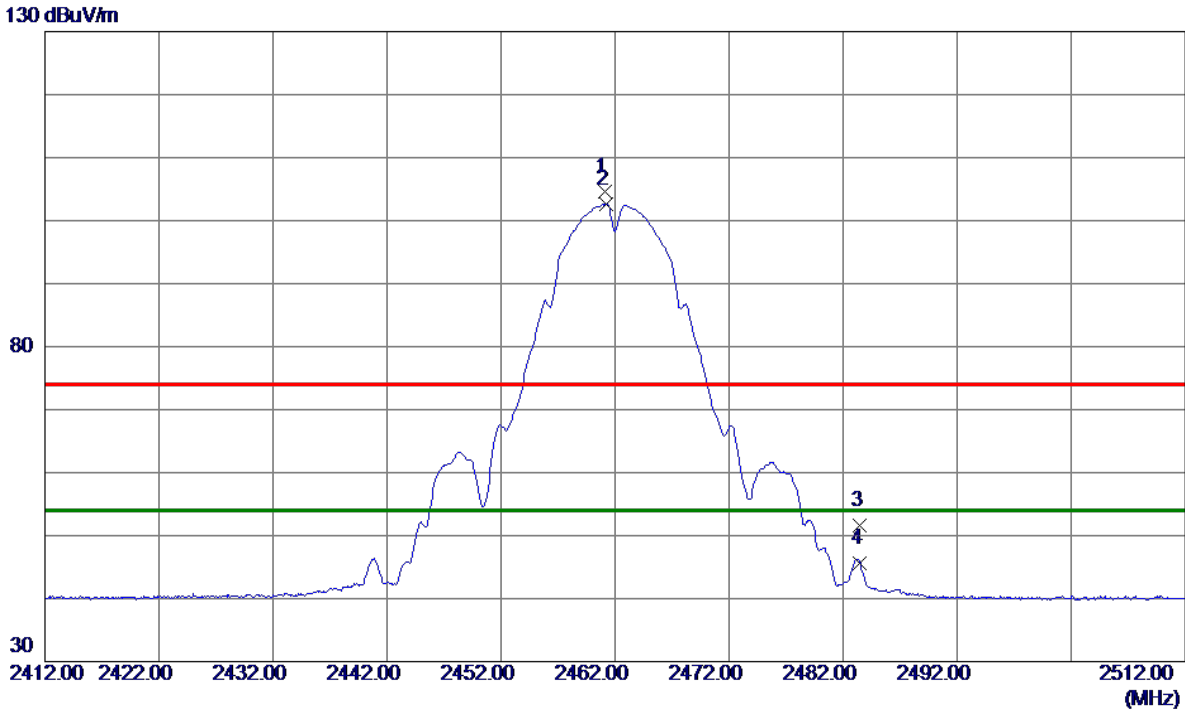
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7383.9300	41.43	10.79	52.22	74.00	-21.78	Peak	
2 *	7385.0950	35.28	10.79	46.07	54.00	-7.93	AVG	

REMARKS:

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



Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal
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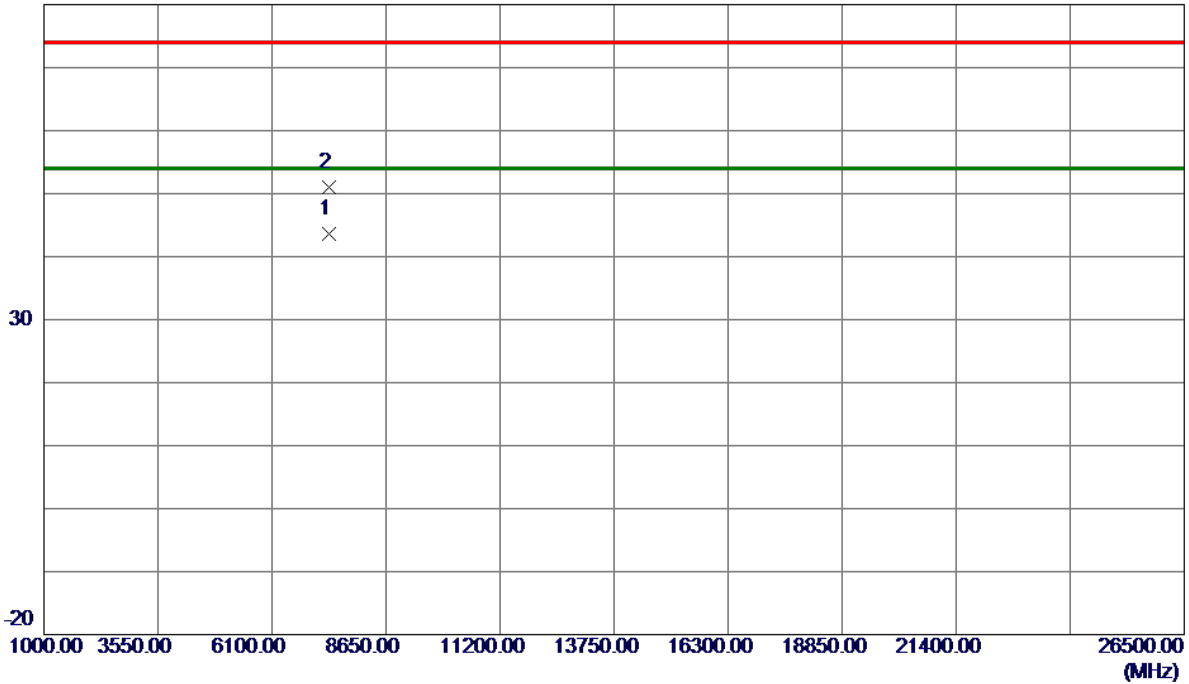
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.1500	96.14	8.40	104.54	74.00	30.54	Peak	No Limit
2 *	2461.2000	94.21	8.40	102.61	54.00	48.61	AVG	No Limit
3	2483.5000	43.19	8.42	51.61	74.00	-22.39	Peak	
4	2483.5000	37.11	8.42	45.53	54.00	-8.47	AVG	

**REMARKS:**

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

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

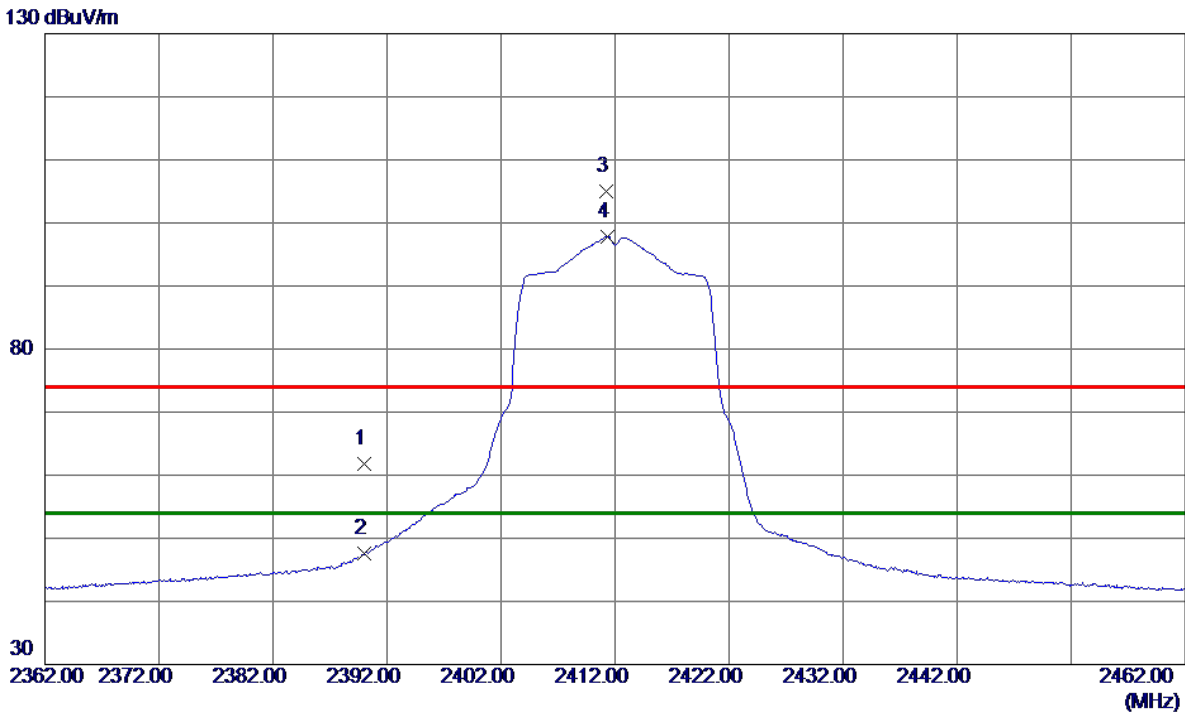


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7385.2750	32.82	10.79	43.61	54.00	-10.39	AVG	
2	7385.7500	40.21	10.79	51.00	74.00	-23.00	Peak	

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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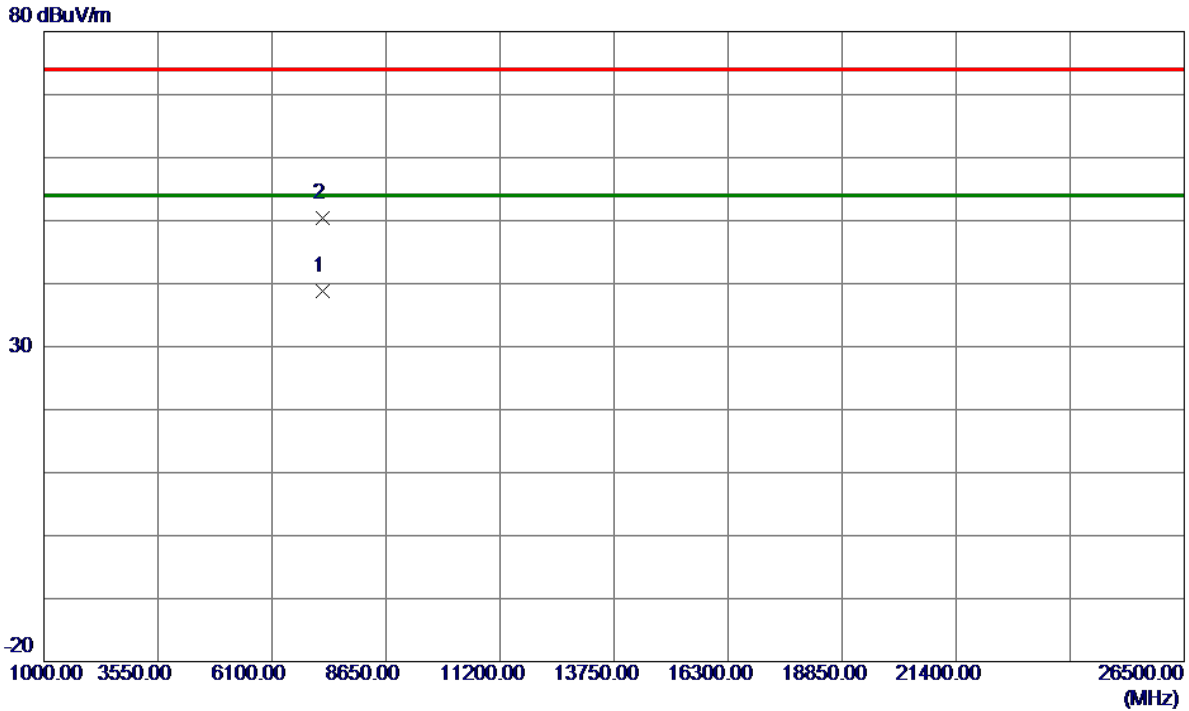


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	53.40	8.31	61.71	74.00	-12.29	Peak	
2	2390.0000	39.34	8.31	47.65	54.00	-6.35	AVG	
3	2411.2000	96.70	8.33	105.03	74.00	31.03	Peak	No Limit
4 *	2411.3500	89.51	8.33	97.84	54.00	43.84	AVG	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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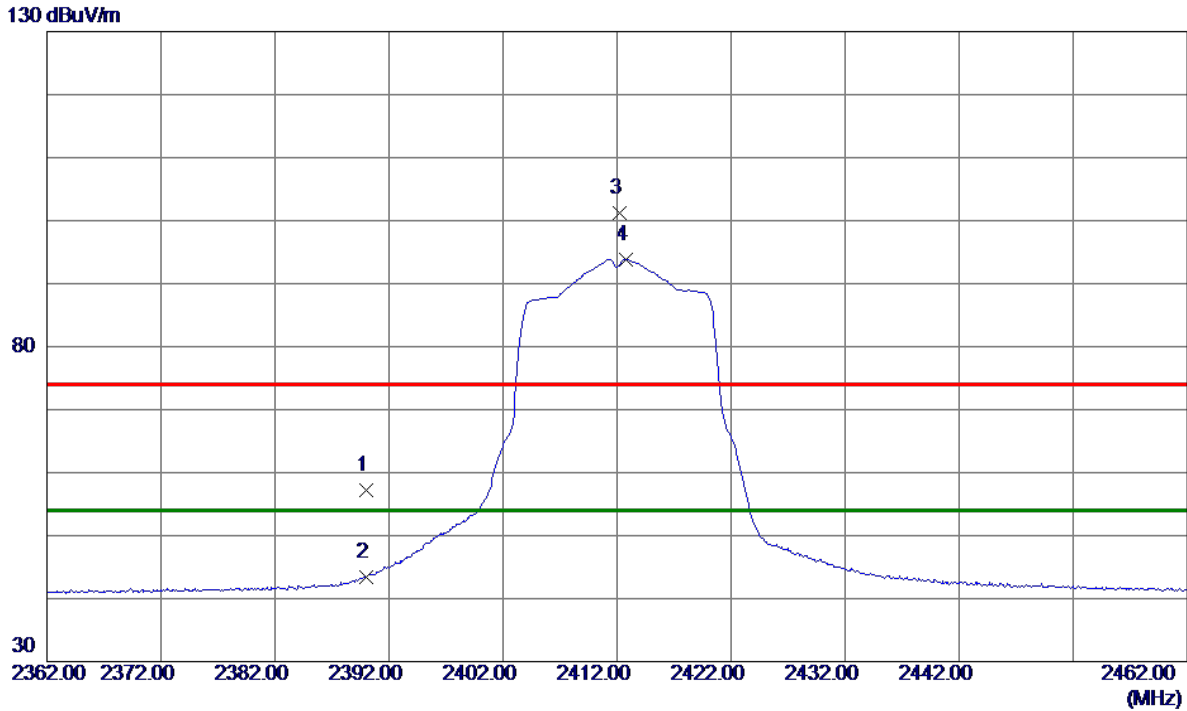


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7236.1800	28.24	10.60	38.84	54.00	-15.16	AVG	
2	7236.6000	39.84	10.60	50.44	74.00	-23.56	Peak	

**REMARKS:**

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

Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal
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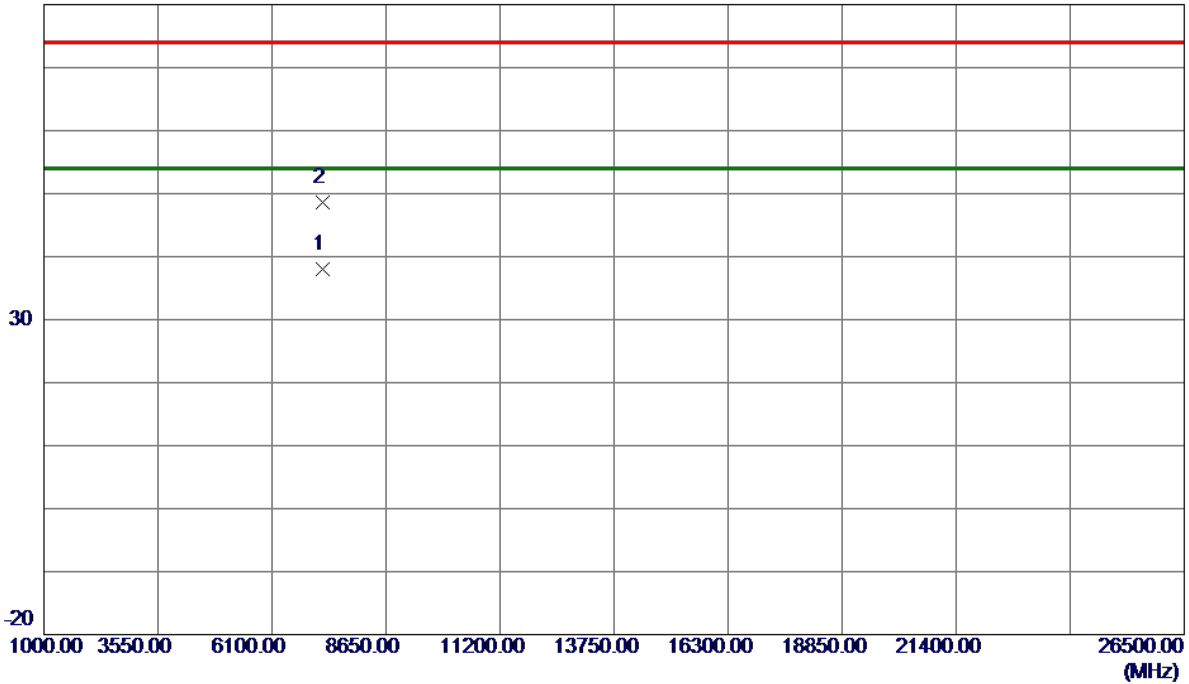
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	48.84	8.31	57.15	74.00	-16.85	Peak	
2	2390.0000	35.12	8.31	43.43	54.00	-10.57	AVG	
3	2412.2500	92.88	8.33	101.21	74.00	27.21	Peak	No Limit
4 *	2412.8000	85.54	8.33	93.87	54.00	39.87	AVG	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	Horizontal
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80 dBuV/m

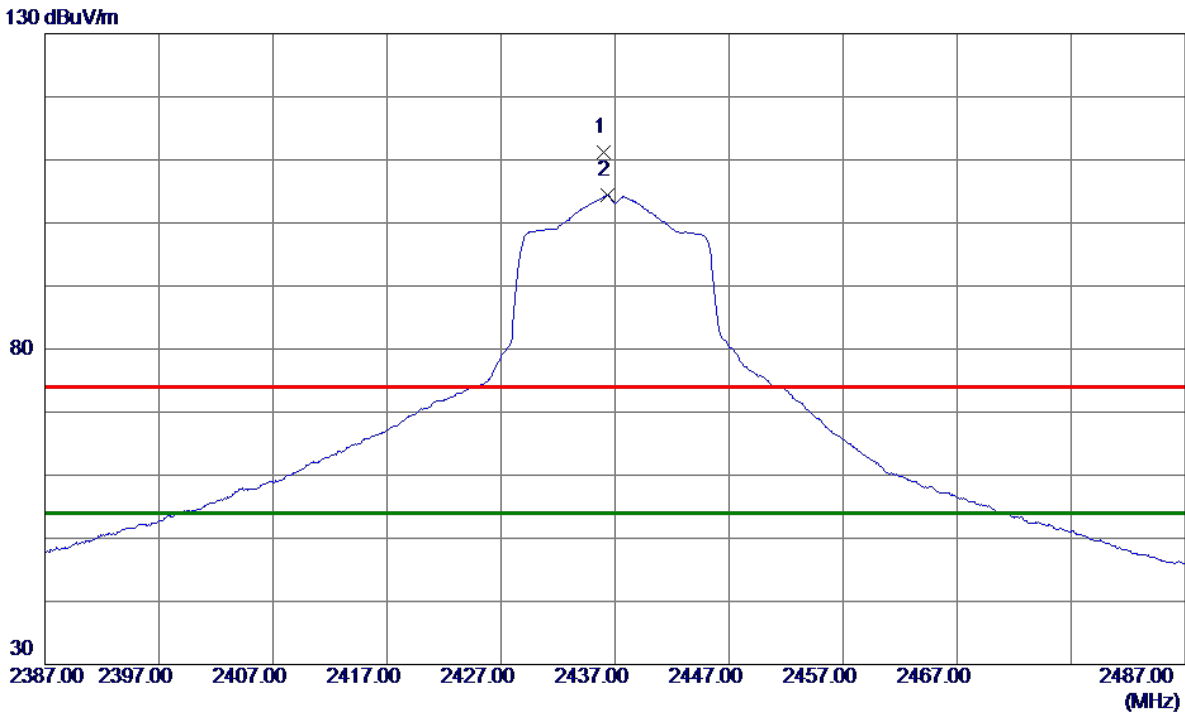


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7234.1500	27.32	10.59	37.91	54.00	-16.09	AVG	
2	7238.4900	37.94	10.60	48.54	74.00	-25.46	Peak	

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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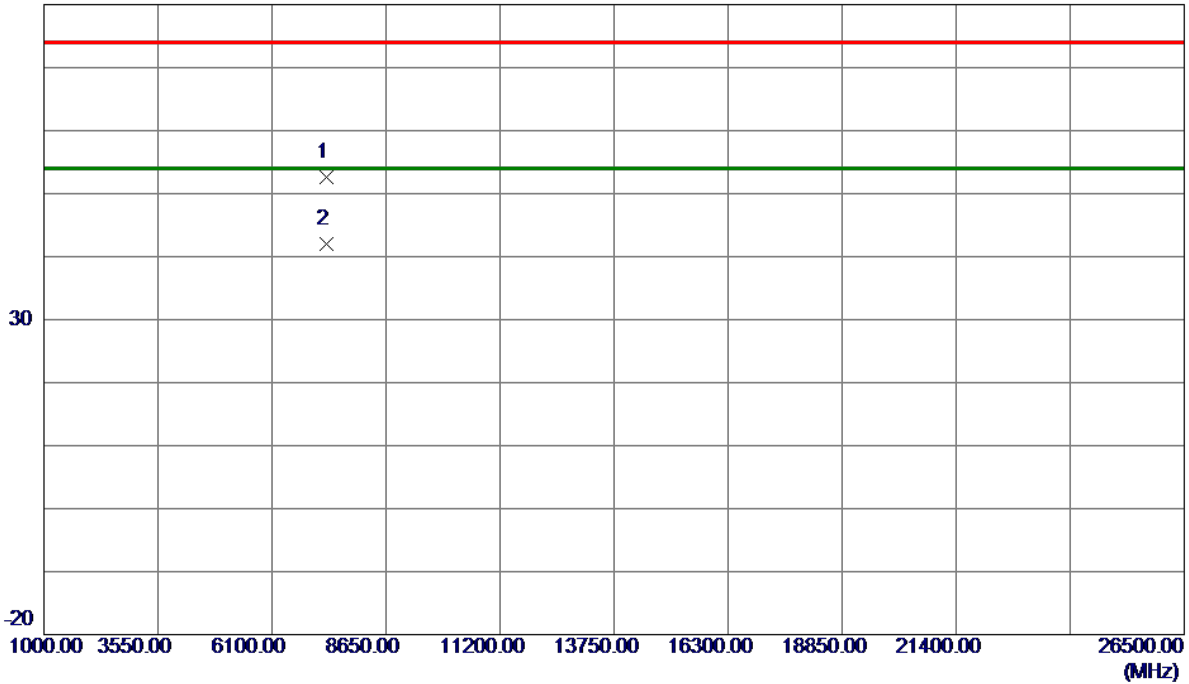
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.0500	102.78	8.36	111.14	74.00	37.14	Peak	No Limit
2 *	2436.3000	96.00	8.36	104.36	54.00	50.36	AVG	No Limit

**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



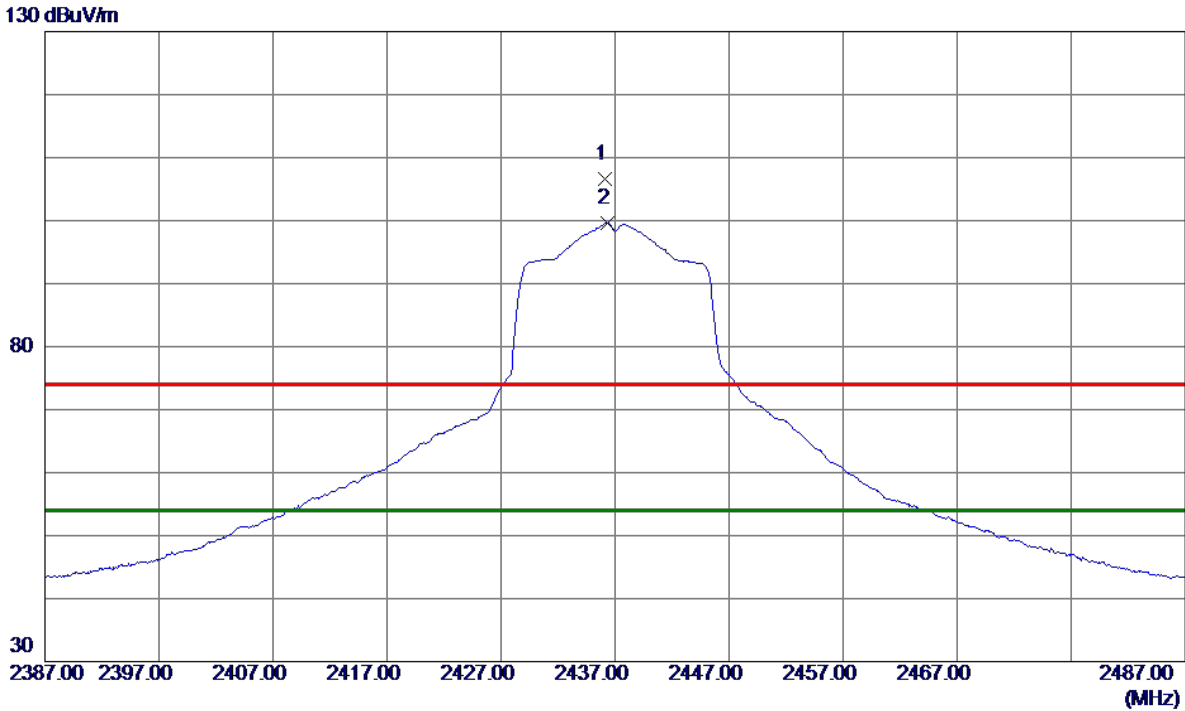
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7305.8400	41.88	10.69	52.57	74.00	-21.43	Peak	
2 *	7308.5000	31.27	10.69	41.96	54.00	-12.04	AVG	

REMARKS:

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



Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal
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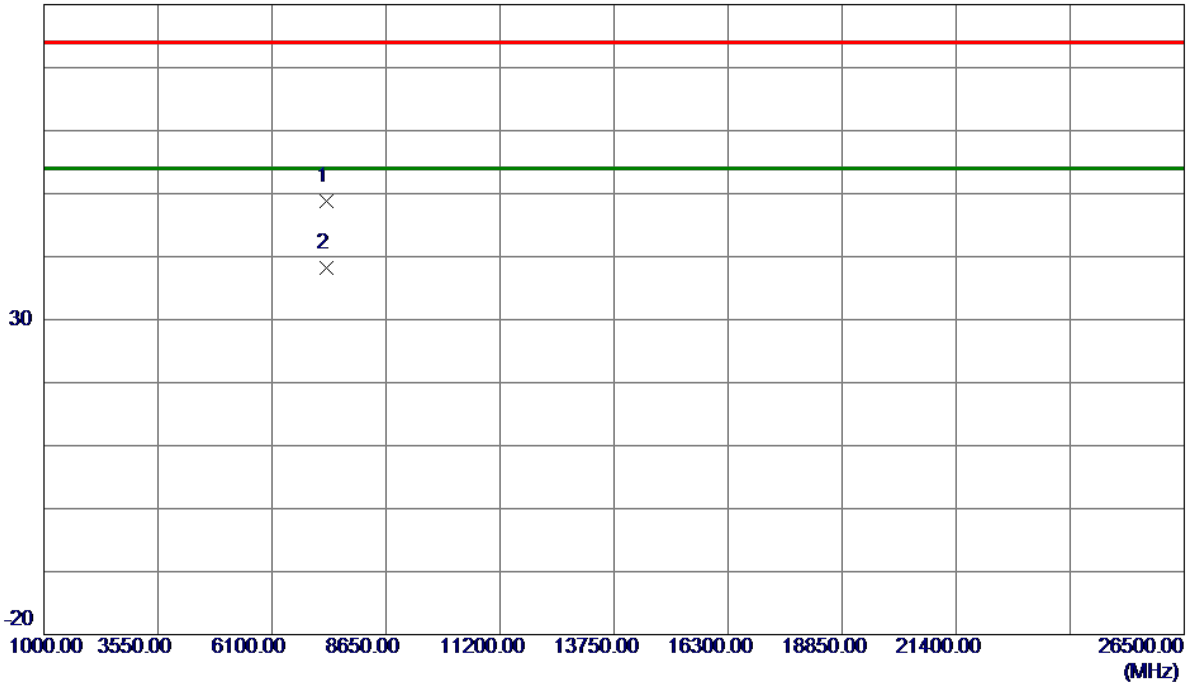
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2436.1500	98.18	8.36	106.54	74.00	32.54	Peak	No Limit
2 *	2436.3500	91.26	8.36	99.62	54.00	45.62	AVG	No Limit

**REMARKS:**

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

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

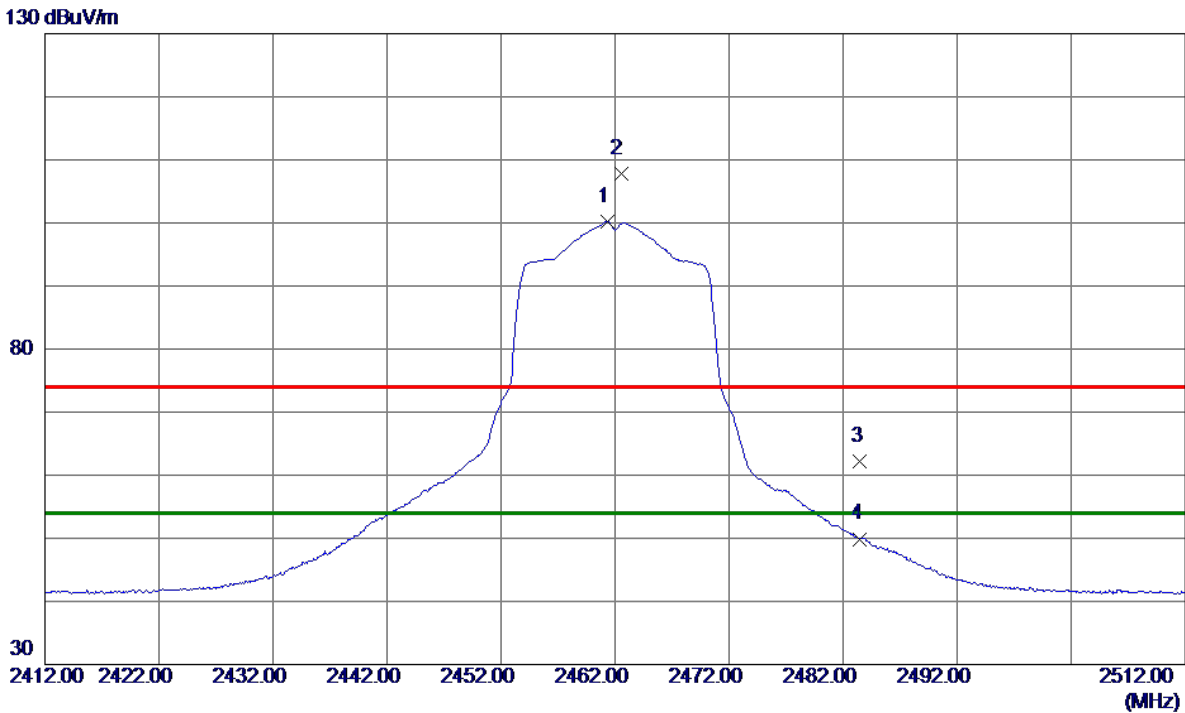


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7307.9900	38.18	10.69	48.87	74.00	-25.13	Peak	
2 *	7313.9900	27.49	10.70	38.19	54.00	-15.81	AVG	

**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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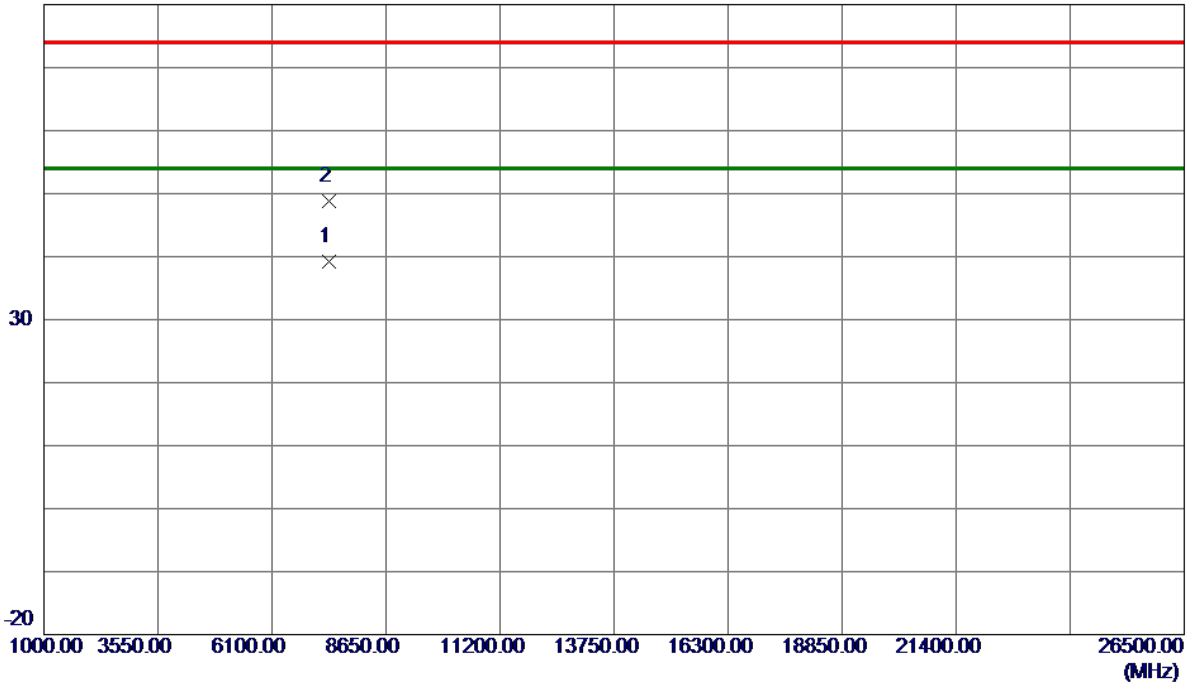
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.3500	91.82	8.40	100.22	54.00	46.22	AVG	No Limit
2	2462.5000	99.31	8.40	107.71	74.00	33.71	Peak	No Limit
3	2483.5000	53.71	8.42	62.13	74.00	-11.87	Peak	
4	2483.5000	41.48	8.42	49.90	54.00	-4.10	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

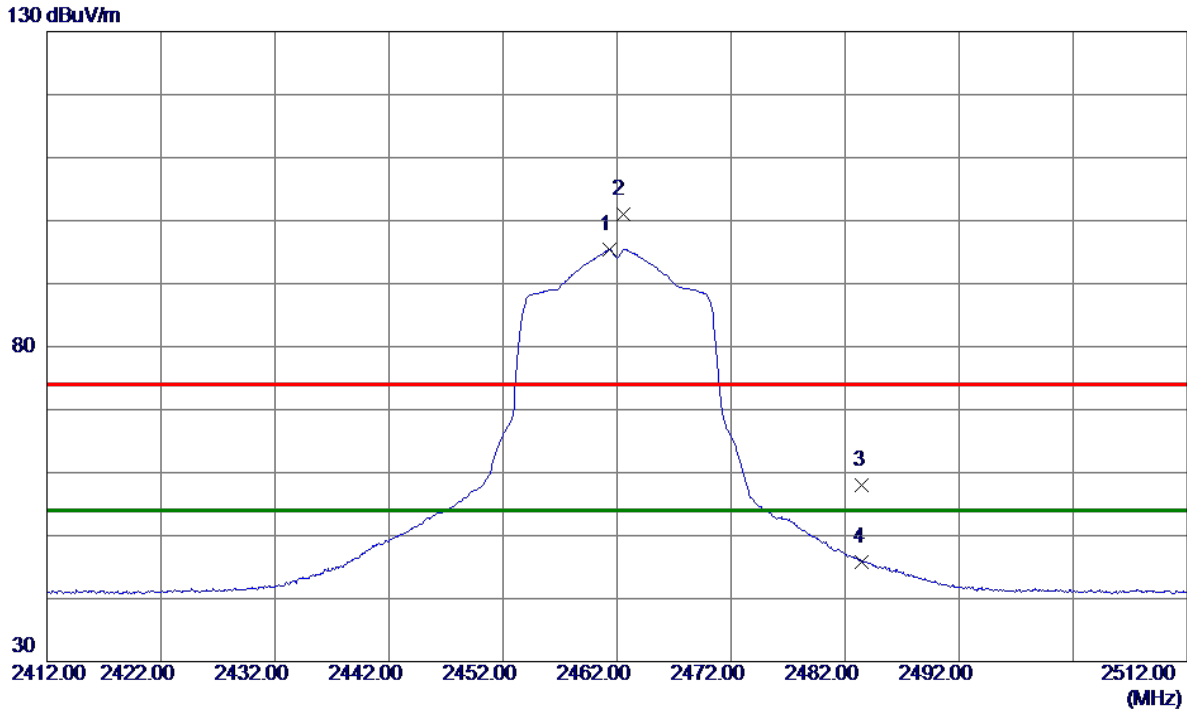


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7378.5200	28.46	10.78	39.24	54.00	-14.76	AVG	
2	7384.4200	38.05	10.79	48.84	74.00	-25.16	Peak	

REMARKS:

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

Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal
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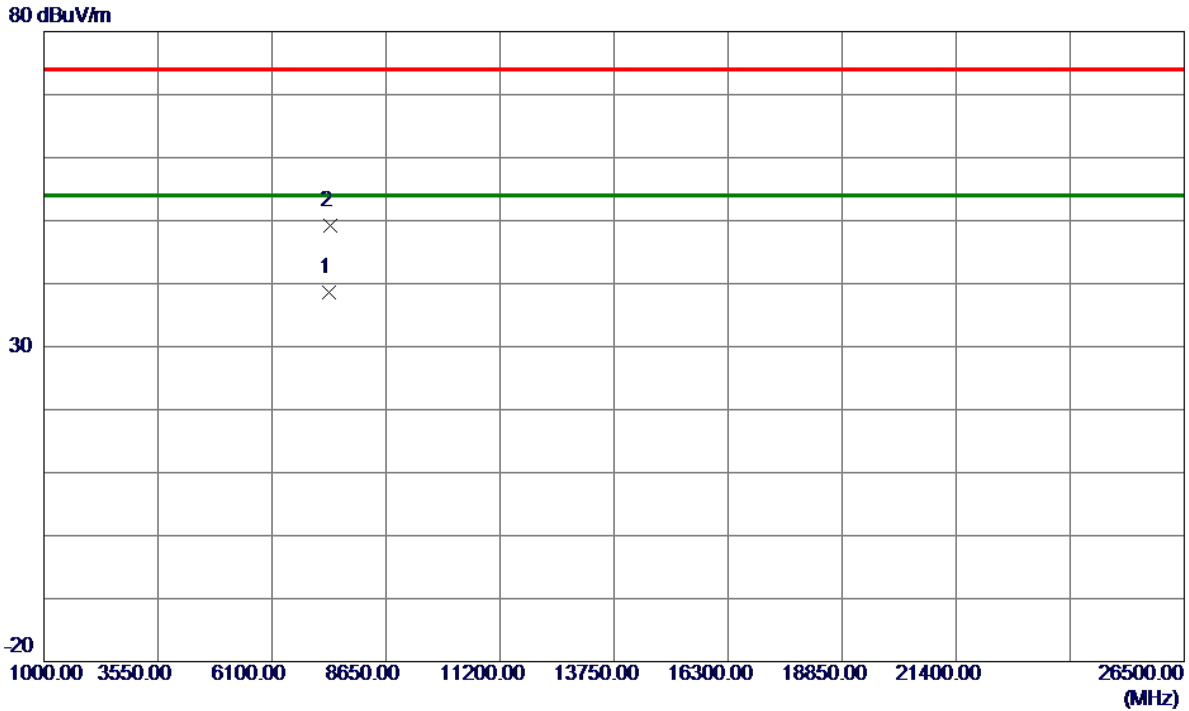


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.3000	87.01	8.40	95.41	54.00	41.41	AVG	No Limit
2	2462.5000	92.70	8.40	101.10	74.00	27.10	Peak	No Limit
3	2483.5000	49.63	8.42	58.05	74.00	-15.95	Peak	
4	2483.5000	37.42	8.42	45.84	54.00	-8.16	AVG	

**REMARKS:**

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

Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal
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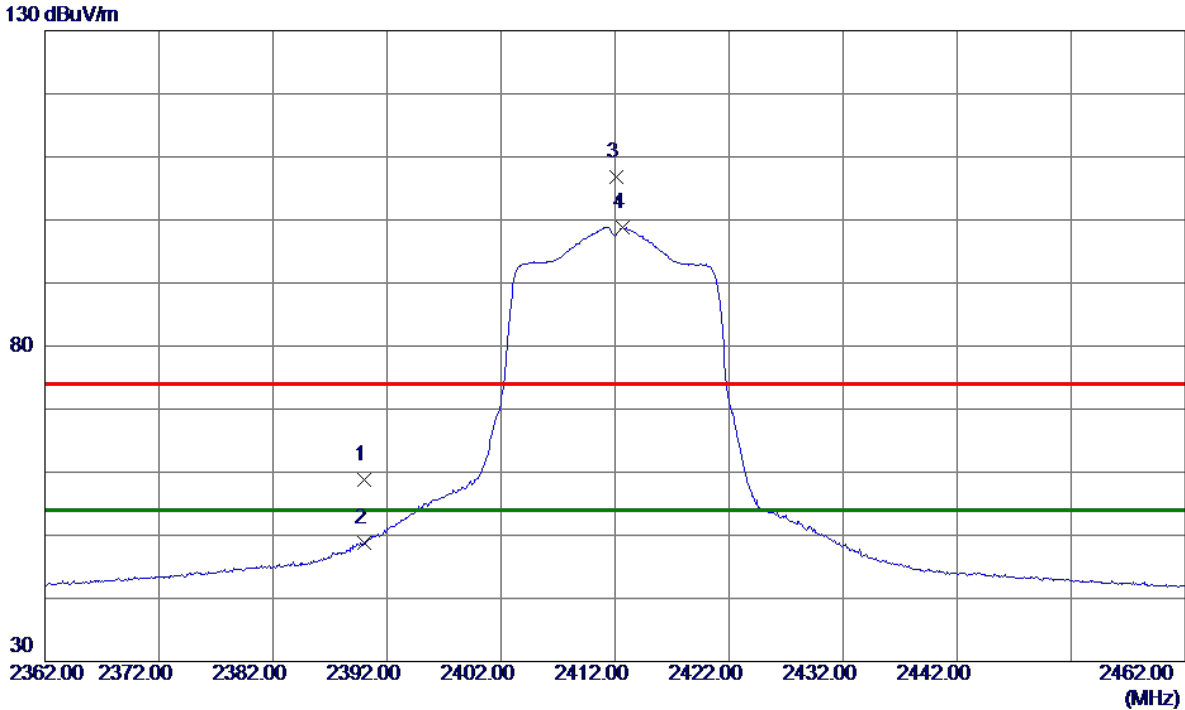


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7384.5500	27.88	10.79	38.67	54.00	-15.33	AVG	
2	7389.3800	38.44	10.80	49.24	74.00	-24.76	Peak	

**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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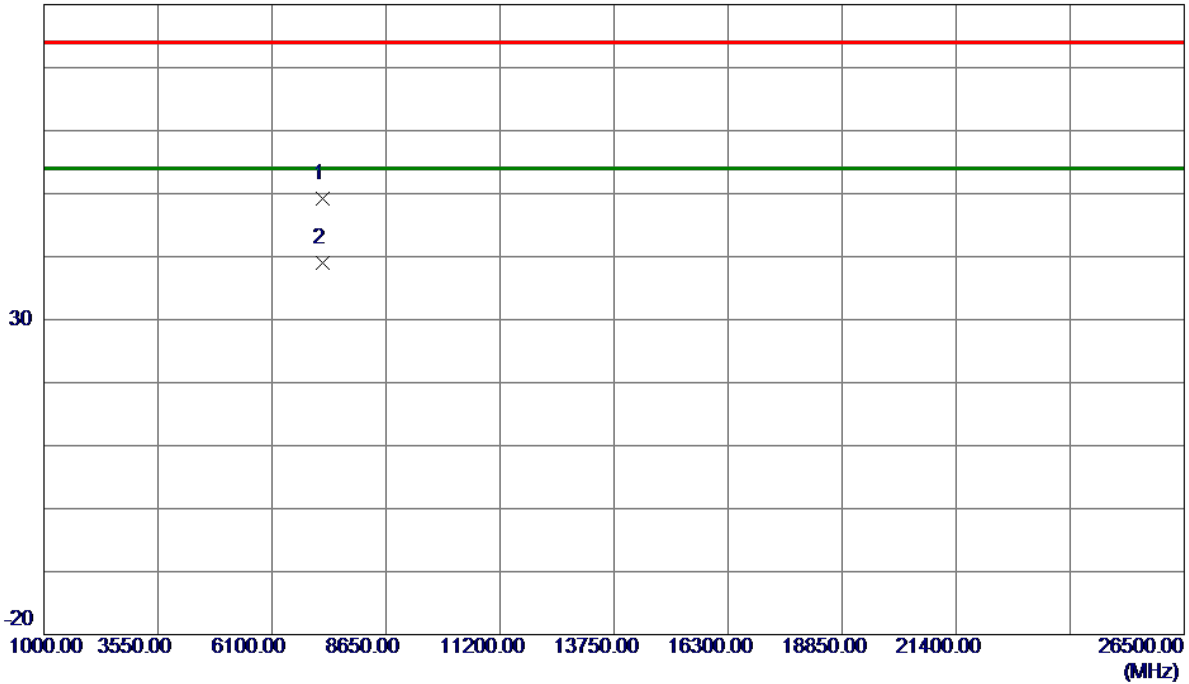
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	50.47	8.31	58.78	74.00	-15.22	Peak	
2	2390.0000	40.51	8.31	48.82	54.00	-5.18	AVG	
3	2412.1000	98.45	8.33	106.78	74.00	32.78	Peak	No Limit
4 *	2412.6500	90.53	8.33	98.86	54.00	44.86	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



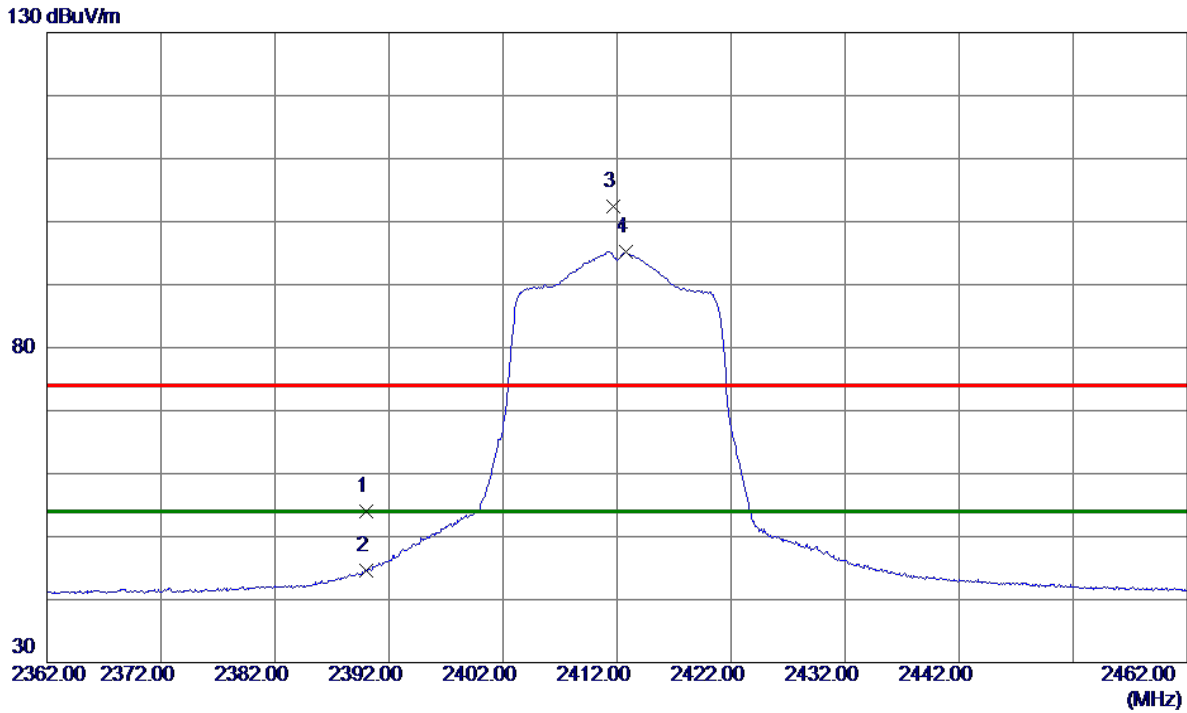
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7232.5000	38.52	10.59	49.11	74.00	-24.89	Peak	
2 *	7234.4100	28.47	10.59	39.06	54.00	-14.94	AVG	

**REMARKS:**

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



Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal
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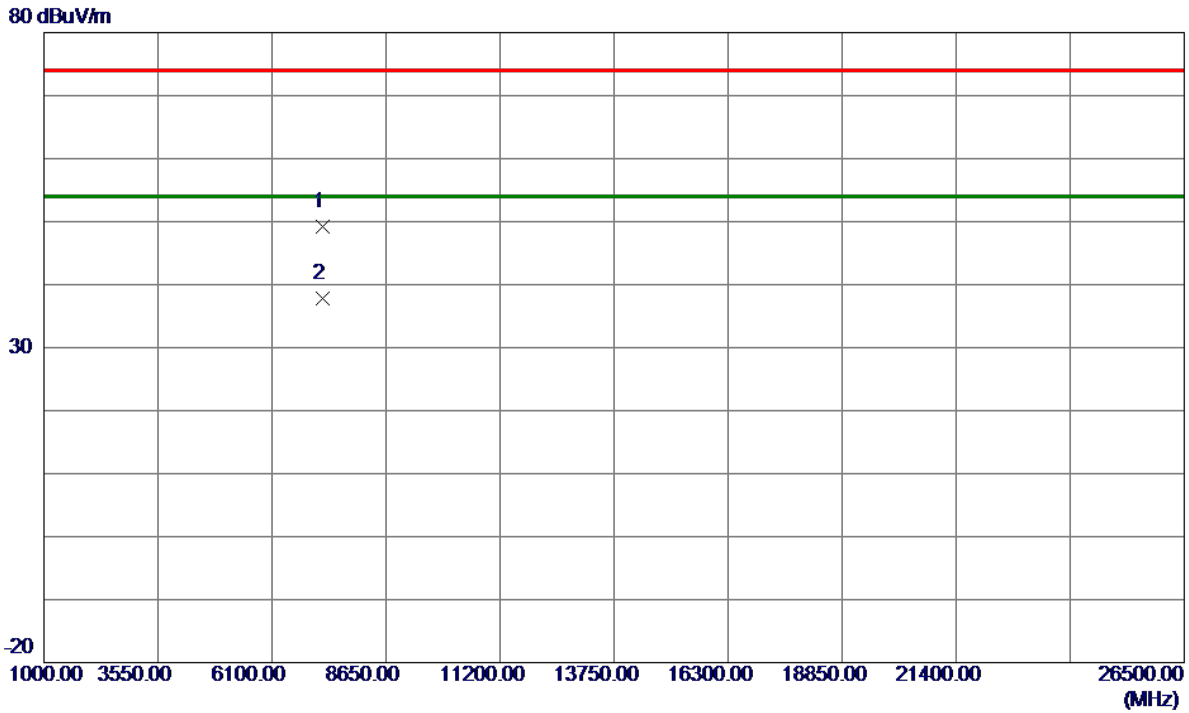


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	45.78	8.31	54.09	74.00	-19.91	Peak	
2	2390.0000	36.21	8.31	44.52	54.00	-9.48	AVG	
3	2411.7000	94.03	8.33	102.36	74.00	28.36	Peak	No Limit
4 *	2412.7500	86.83	8.33	95.16	54.00	41.16	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	Horizontal
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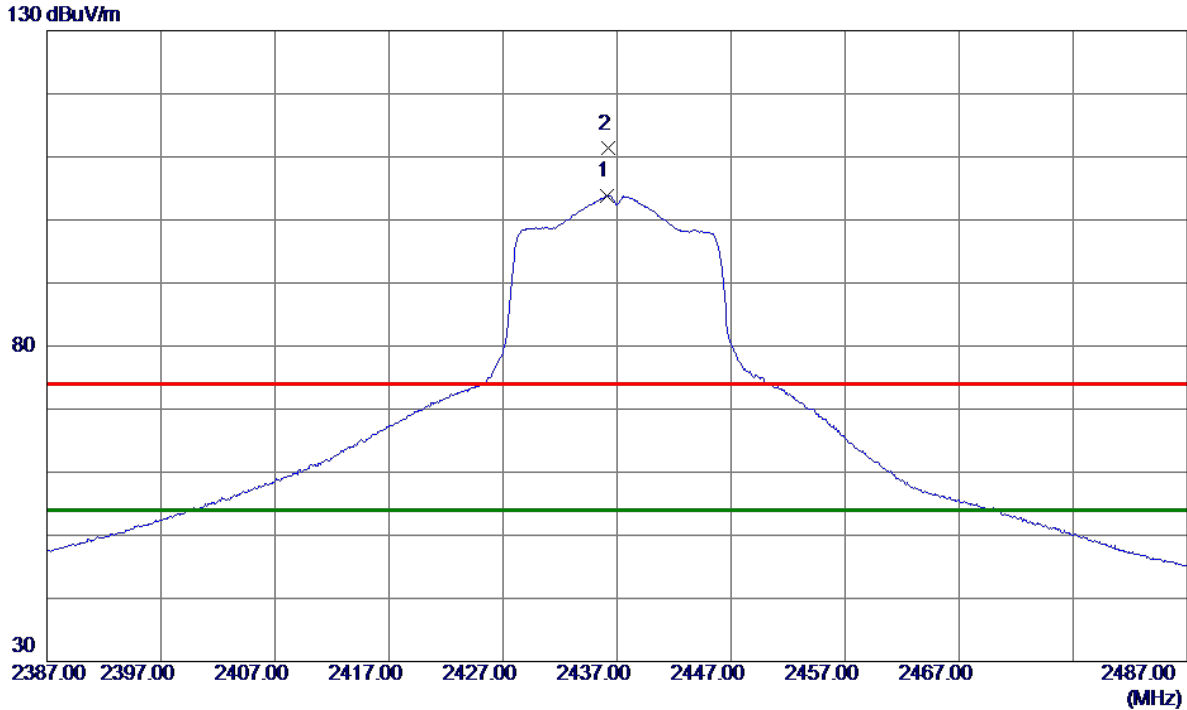


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7236.4100	38.61	10.60	49.21	74.00	-24.79	Peak	
2 *	7242.2600	27.25	10.60	37.85	54.00	-16.15	AVG	

**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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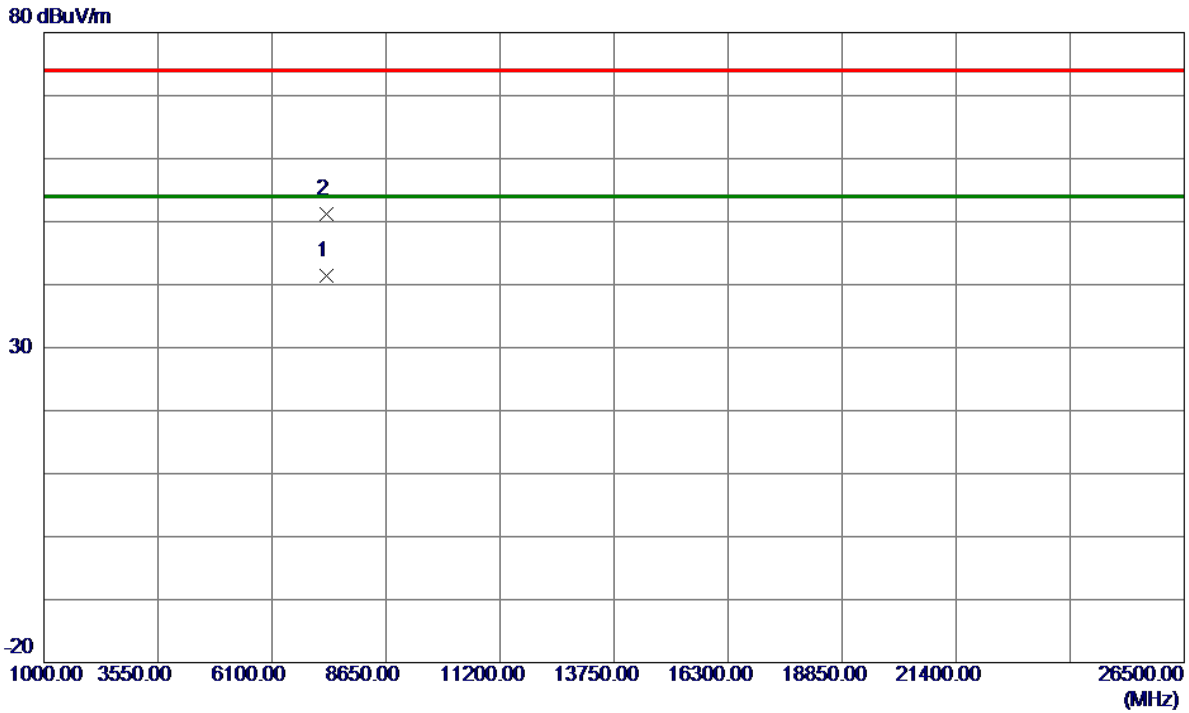


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.1500	95.45	8.36	103.81	54.00	49.81	AVG	No Limit
2	2436.2000	102.94	8.36	111.30	74.00	37.30	Peak	No Limit

**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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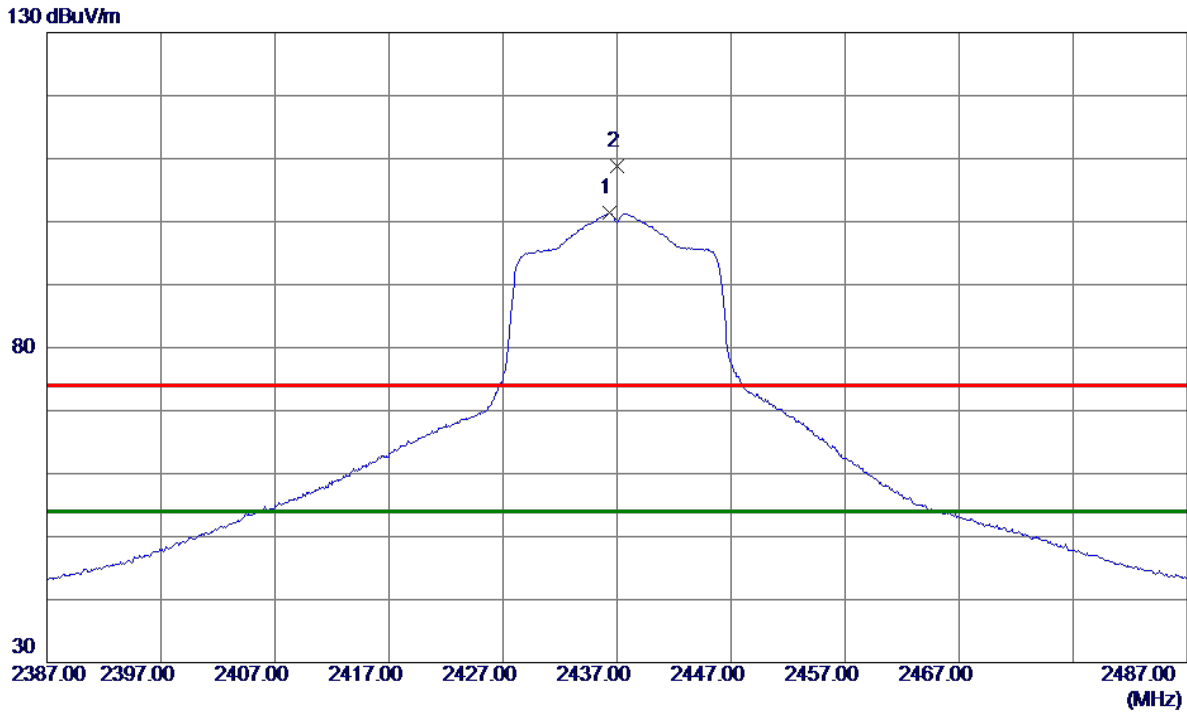


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7309.2500	30.73	10.69	41.42	54.00	-12.58	AVG	
2	7312.7700	40.51	10.70	51.21	74.00	-22.79	Peak	

REMARKS:

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

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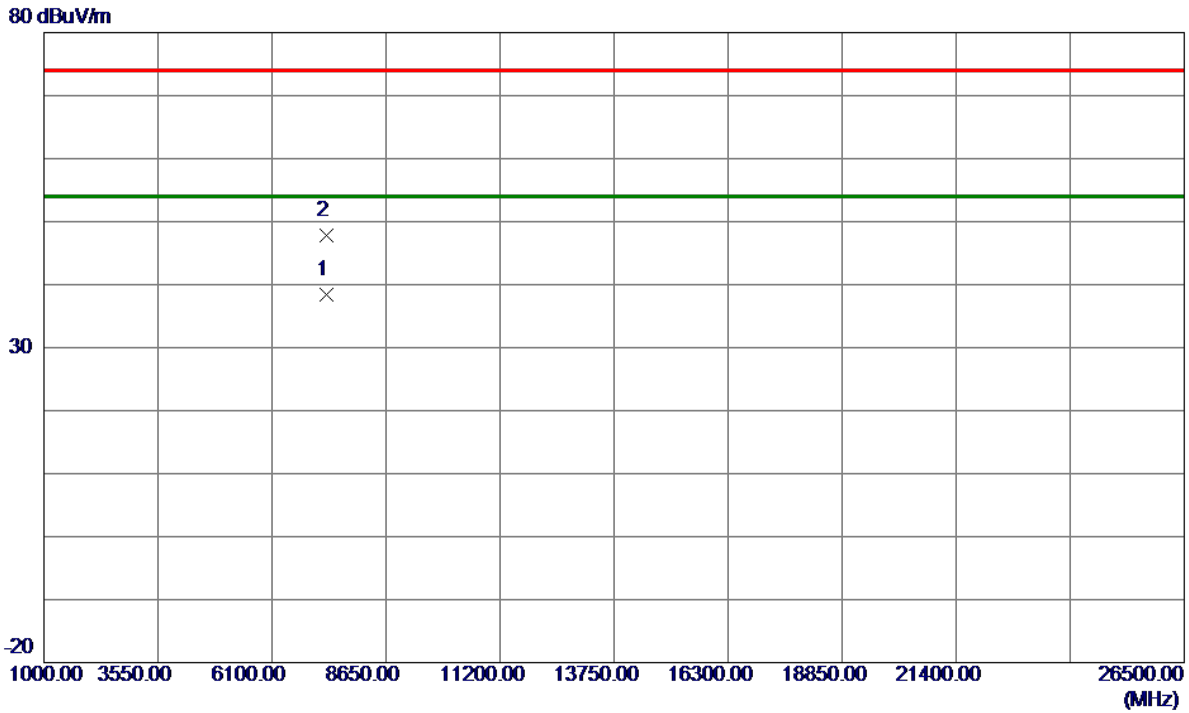


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.3500	92.98	8.36	101.34	54.00	47.34	AVG	No Limit
2	2437.0500	100.44	8.37	108.81	74.00	34.81	Peak	No Limit

**REMARKS:**

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

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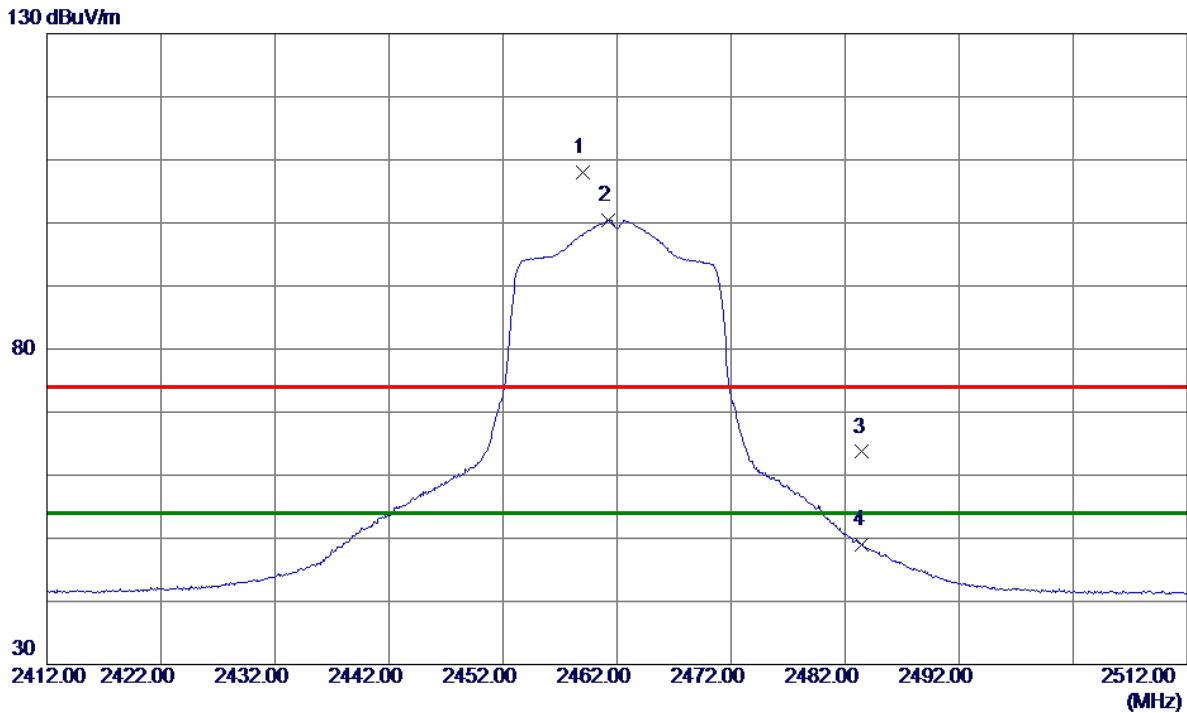


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	7312.7400	27.63	10.70	38.33	54.00	-15.67	AVG	
2	7319.7700	37.08	10.71	47.79	74.00	-26.21	Peak	

**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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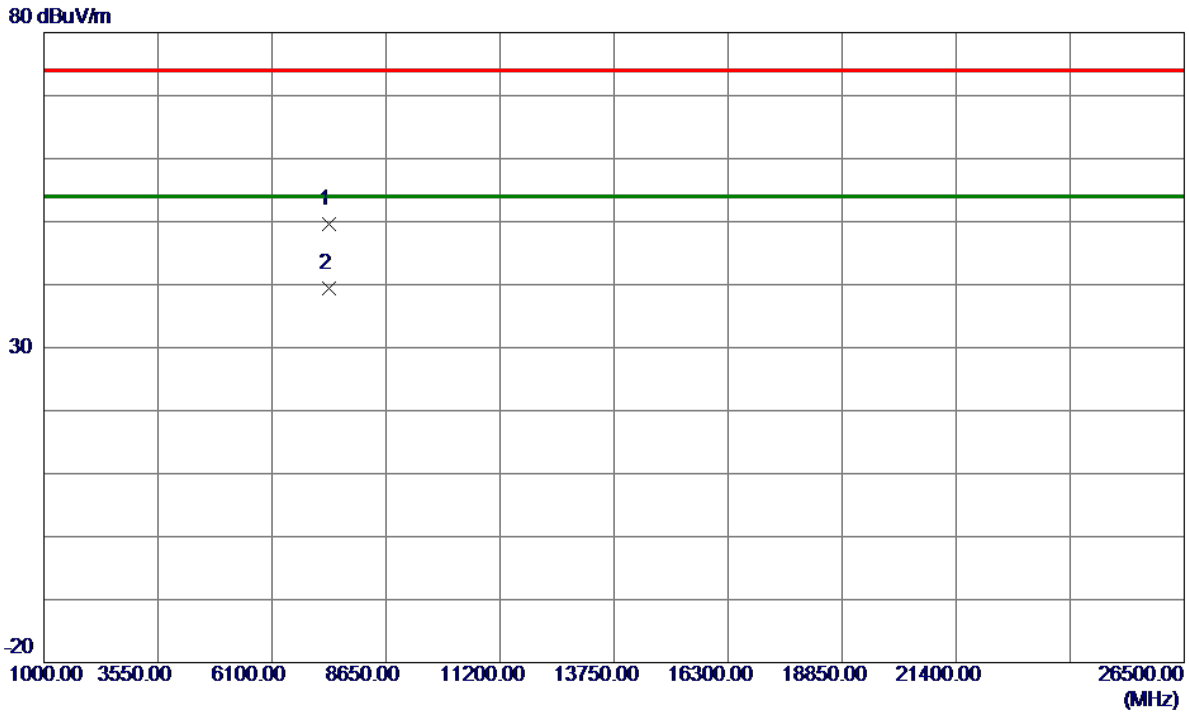


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2458.9500	99.56	8.39	107.95	74.00	33.95	Peak	No Limit
2 *	2461.2500	92.02	8.40	100.42	54.00	46.42	AVG	No Limit
3	2483.5000	55.28	8.42	63.70	74.00	-10.30	Peak	
4	2483.5000	40.60	8.42	49.02	54.00	-4.98	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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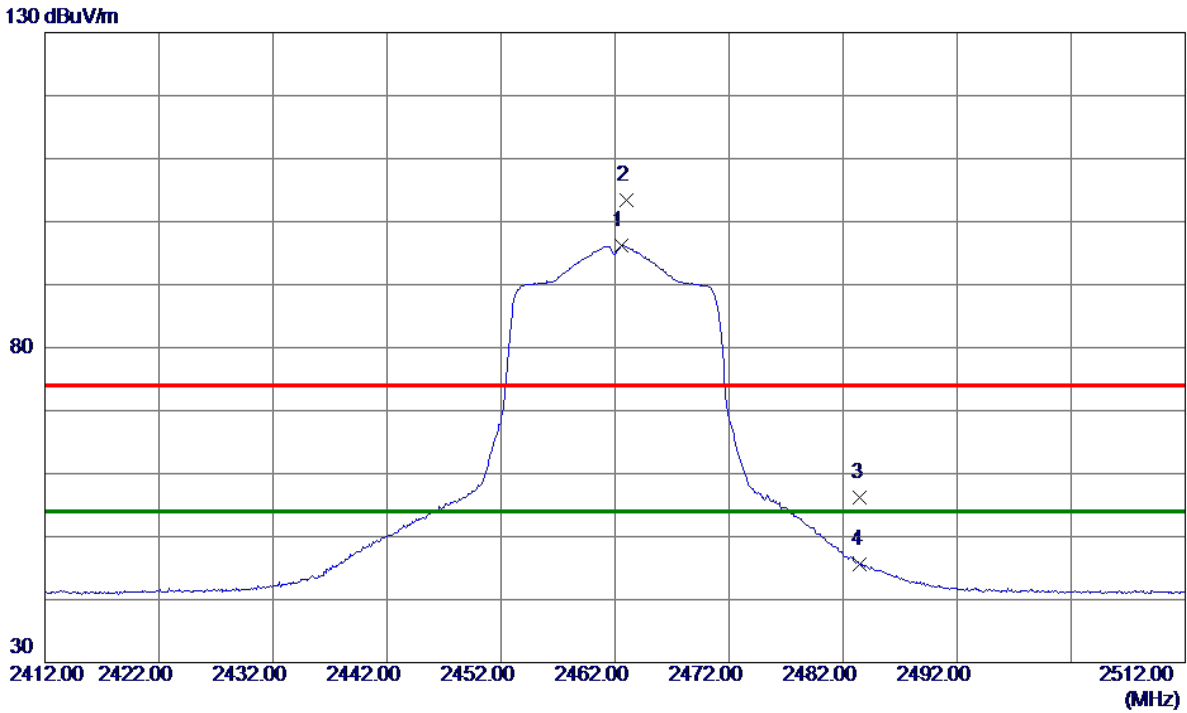
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	7385.4800	38.73	10.79	49.52	74.00	-24.48	Peak	
2 *	7386.1200	28.65	10.79	39.44	54.00	-14.56	AVG	

**REMARKS:**

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



Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Horizontal
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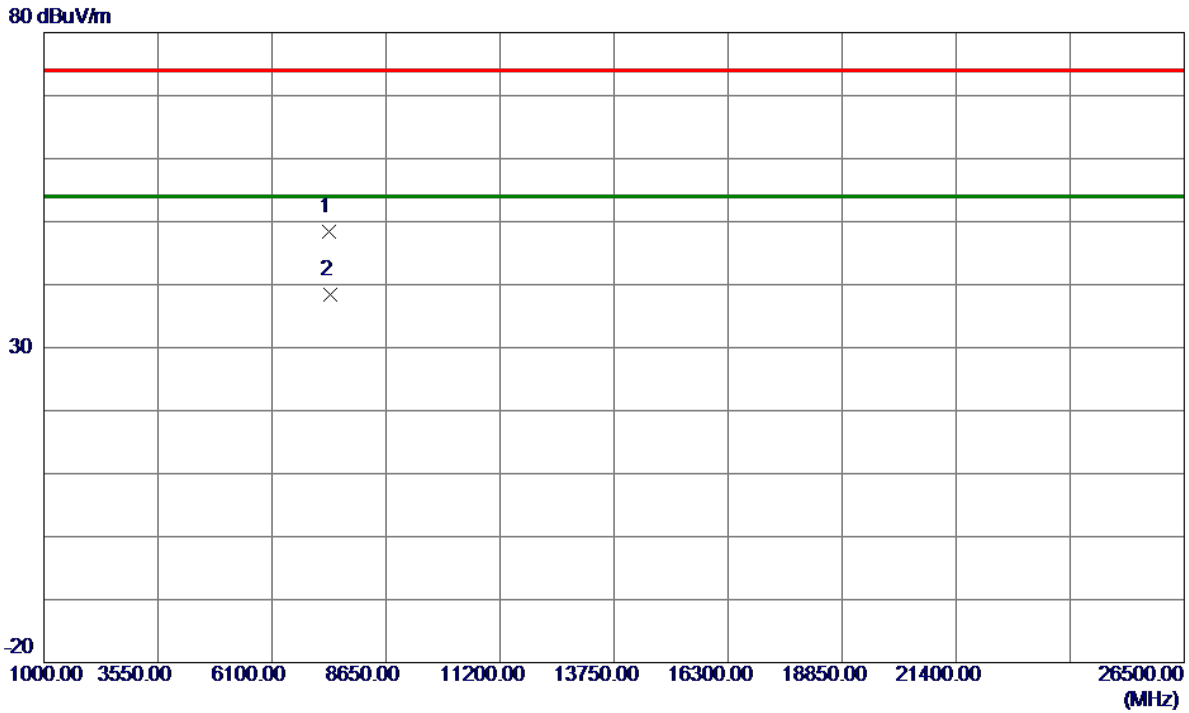


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2462.6000	87.81	8.40	96.21	54.00	42.21	AVG	No Limit
2	2463.0000	95.08	8.40	103.48	74.00	29.48	Peak	No Limit
3	2483.5000	47.85	8.42	56.27	74.00	-17.73	Peak	
4	2483.5000	37.10	8.42	45.52	54.00	-8.48	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	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	7385.4100	37.55	10.79	48.34	74.00	-25.66	Peak	
2 *	7393.6700	27.69	10.80	38.49	54.00	-15.51	AVG	

**REMARKS:**

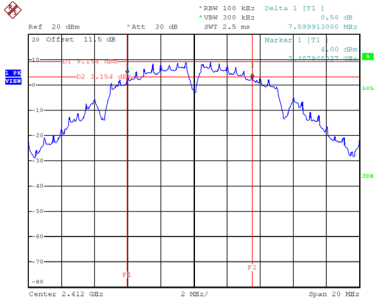
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

## 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	7.60	12.16	0.50	Complies
06	2437	7.12	11.92	0.50	Complies
11	2462	7.10	11.92	0.50	Complies

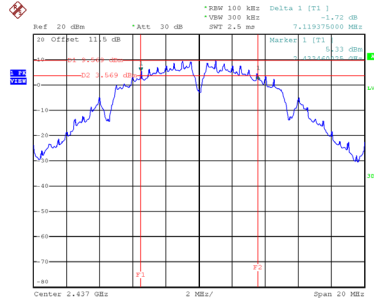
**CH01**



Date: 11.NOV.2021 14:39:57

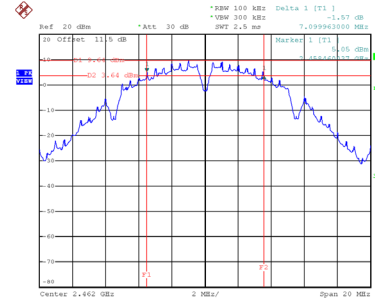
**CH06**

**6 dB Bandwidth**



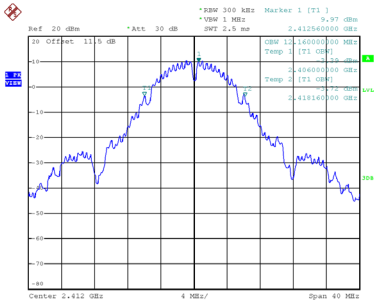
Date: 11.NOV.2021 14:44:19

**CH11**

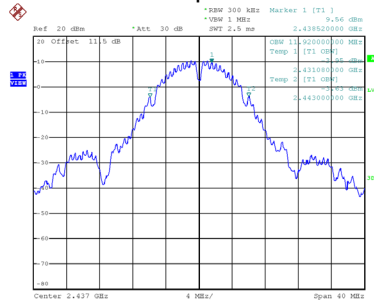


Date: 11.NOV.2021 14:45:50

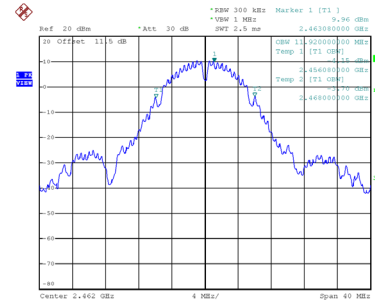
**99 % Occupied Bandwidth**



Date: 11.NOV.2021 14:40:03



Date: 11.NOV.2021 14:44:26

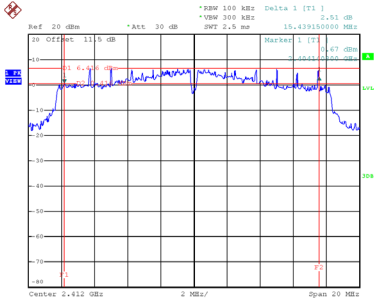


Date: 11.NOV.2021 14:45:57

Test Mode	TX G 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	15.44	17.20	0.50	Complies
06	2437	15.20	17.12	0.50	Complies
11	2462	15.14	17.04	0.50	Complies

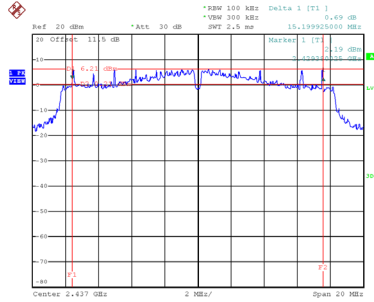
**CH01**



Date: 11.NOV.2021 14:47:29

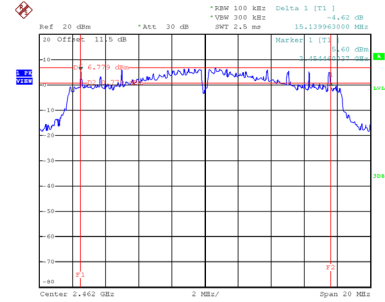
**CH06**

**6 dB Bandwidth**



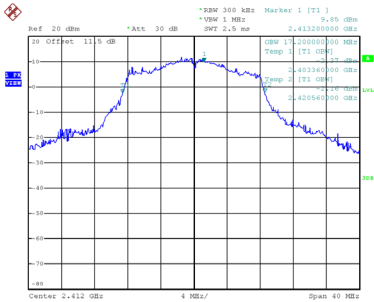
Date: 11.NOV.2021 14:48:47

**CH11**

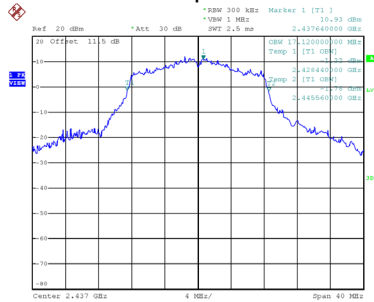


Date: 11.NOV.2021 14:50:15

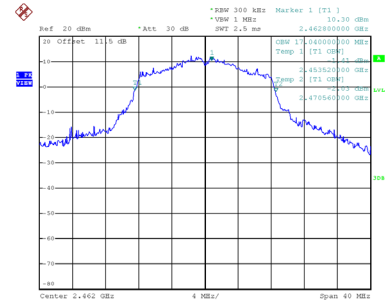
**99 % Occupied Bandwidth**



Date: 11.NOV.2021 14:47:36



Date: 11.NOV.2021 14:48:54

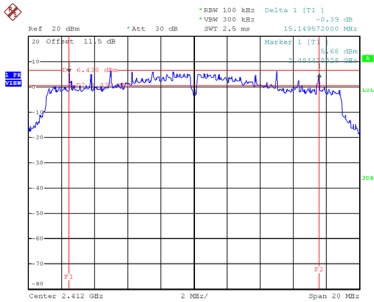


Date: 11.NOV.2021 14:50:21

Test Mode TX N(HT20) Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	15.15	18.16	0.50	Complies
06	2437	15.18	18.16	0.50	Complies
11	2462	15.21	18.00	0.50	Complies

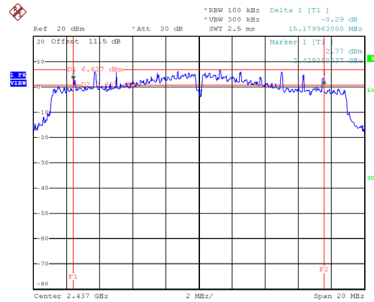
**CH01**



Date: 11.NOV.2021 14:52:40

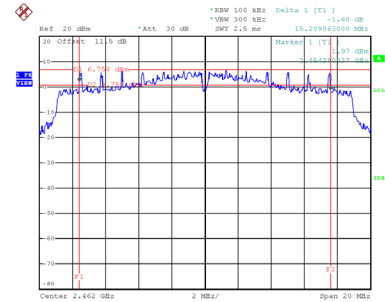
**CH06**

**6 dB Bandwidth**



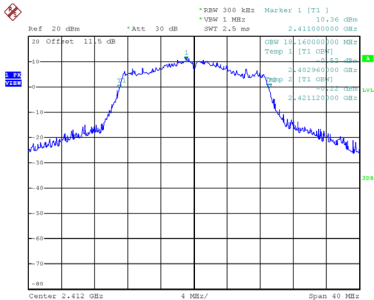
Date: 11.NOV.2021 14:54:14

**CH11**

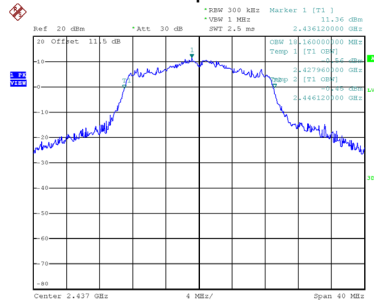


Date: 11.NOV.2021 14:55:44

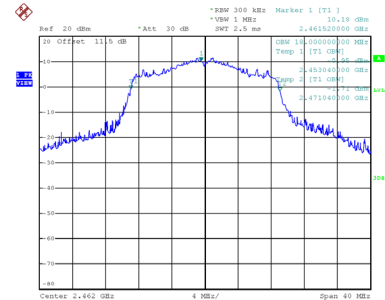
**99 % Occupied Bandwidth**



Date: 11.NOV.2021 14:52:47



Date: 11.NOV.2021 14:54:21



Date: 11.NOV.2021 14:55:50

## **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	17.11	0.00	17.11	30.00	1.0000	Complies
06	2437	17.26	0.00	17.26	30.00	1.0000	Complies
11	2462	15.63	0.00	15.63	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	10.98	0.31	11.29	30.00	1.0000	Complies
06	2437	17.18	0.31	17.49	30.00	1.0000	Complies
11	2462	12.27	0.31	12.58	30.00	1.0000	Complies

Test Mode	TX N(HT20) Mode
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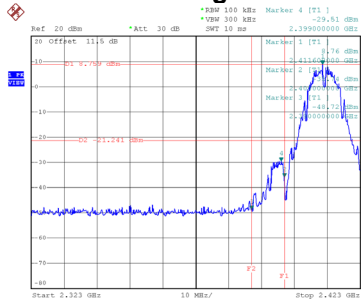
Channel	Frequency (MHz)	Output Power (dBm)	Duty Factor	Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	11.48	0.32	11.80	30.00	1.0000	Complies
06	2437	17.06	0.32	17.38	30.00	1.0000	Complies
11	2462	12.65	0.32	12.97	30.00	1.0000	Complies



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

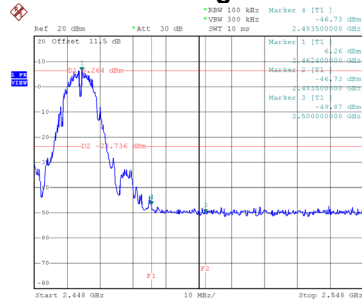
Test Mode TX B Mode

### Bandedge-CH01



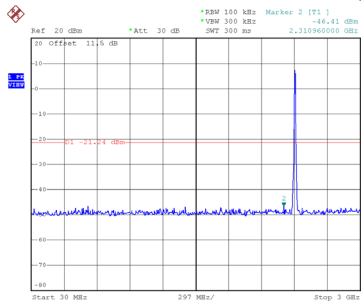
Date: 18.NOV.2021 18:54:07

### Bandedge-CH11

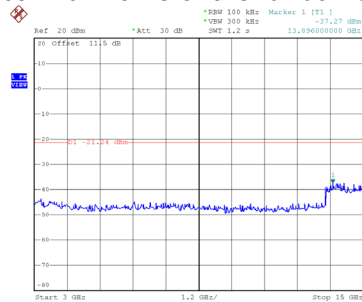


Date: 18.NOV.2021 18:58:22

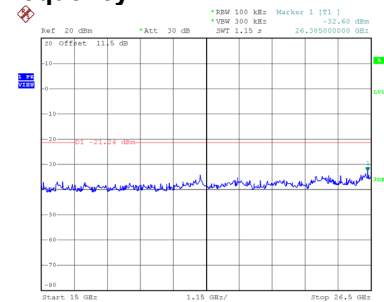
### CH01 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 18:54:22

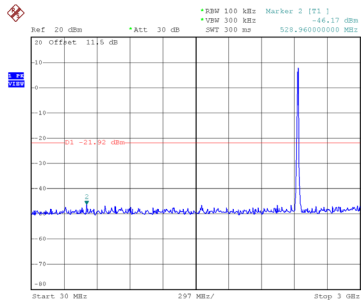


Date: 18.NOV.2021 18:54:30

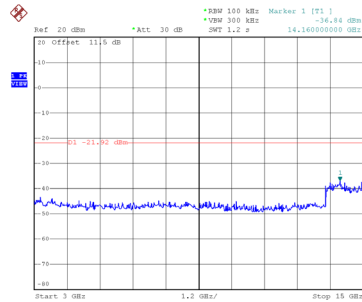


Date: 18.NOV.2021 18:54:39

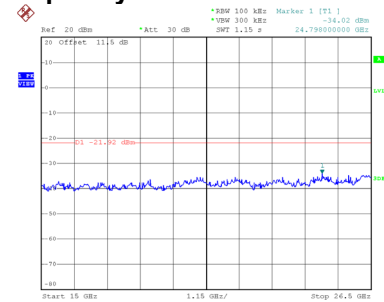
### CH06 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 18:56:33

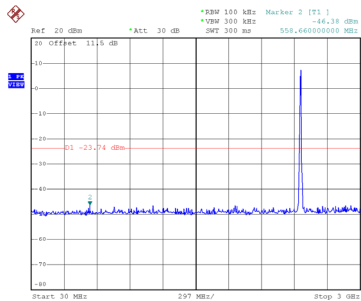


Date: 18.NOV.2021 18:56:42

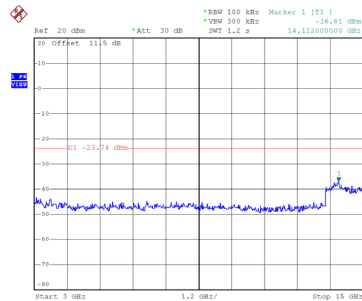


Date: 18.NOV.2021 18:56:51

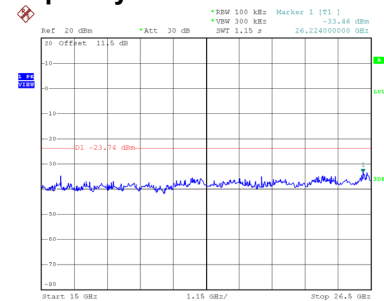
### CH11 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 18:58:36



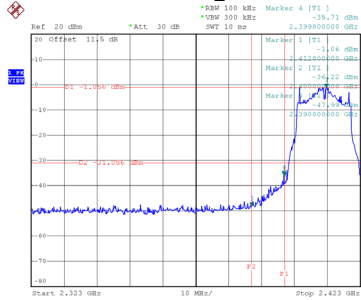
Date: 18.NOV.2021 18:58:45



Date: 18.NOV.2021 18:58:54

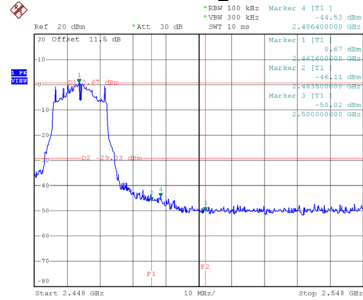
Test Mode TX G Mode

### Bandedge-CH01



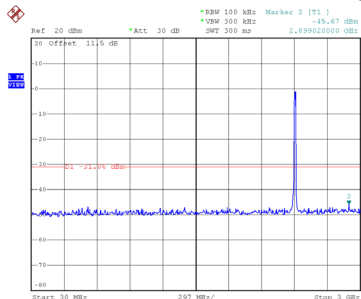
Date: 18.NOV.2021 19:00:12

### Bandedge-CH11

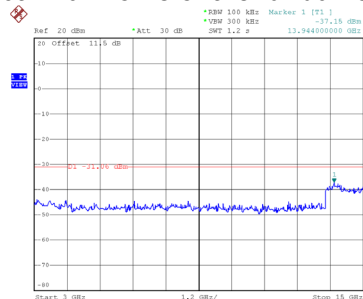


Date: 18.NOV.2021 19:03:28

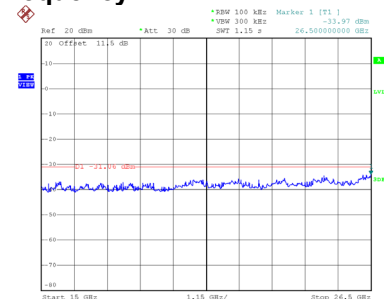
### CH01 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 19:00:27

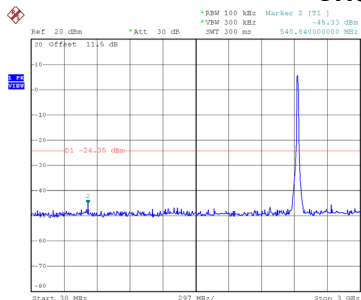


Date: 18.NOV.2021 19:00:36

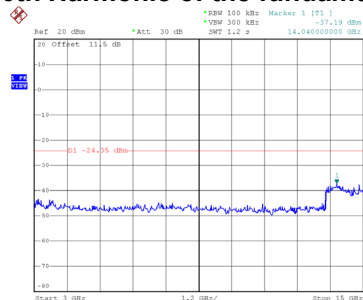


Date: 18.NOV.2021 19:00:45

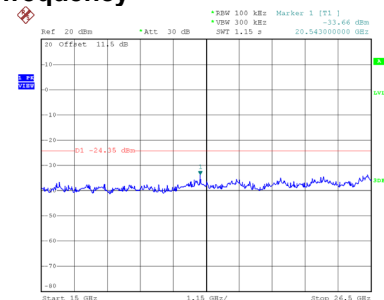
### CH06 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 19:01:56

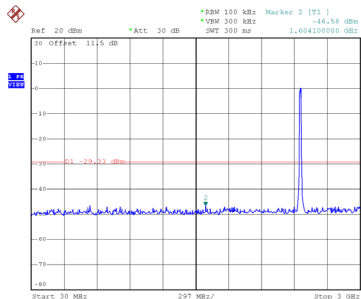


Date: 18.NOV.2021 19:02:05

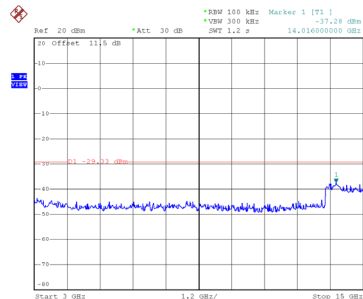


Date: 18.NOV.2021 19:02:14

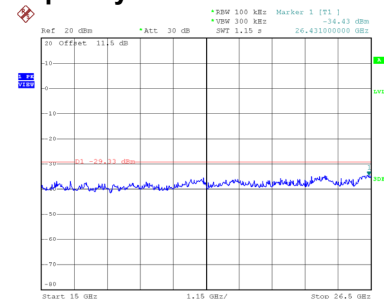
### CH11 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 19:03:42



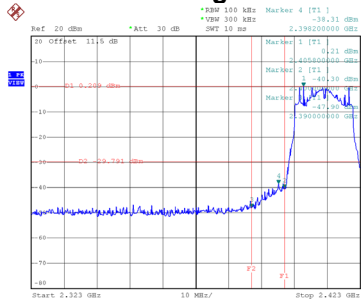
Date: 18.NOV.2021 19:03:51



Date: 18.NOV.2021 19:04:00

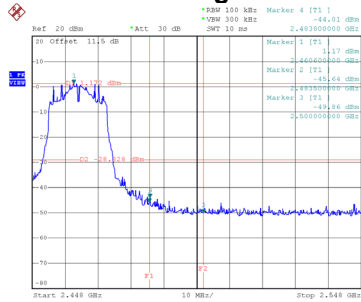
Test Mode TX N(HT20) Mode

### Bandedge-CH01



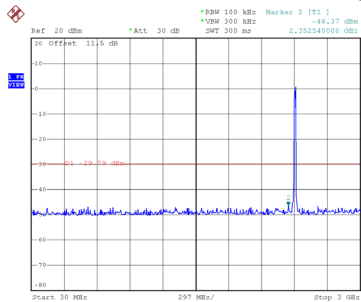
Date: 18.NOV.2021 19:05:23

### Bandedge-CH11

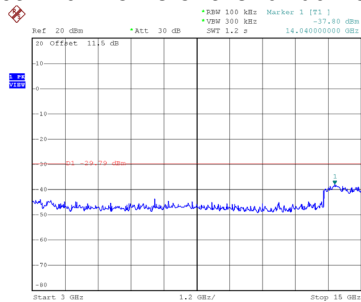


Date: 18.NOV.2021 19:09:06

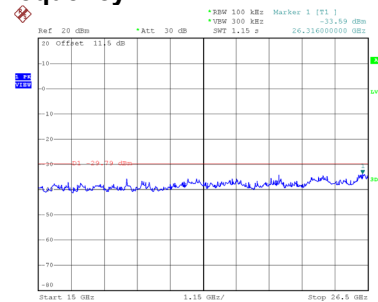
### CH01 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 19:05:37

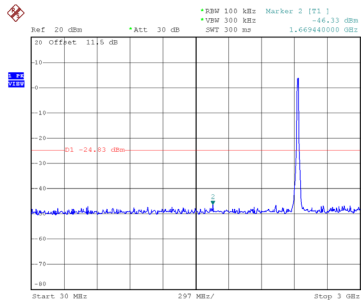


Date: 18.NOV.2021 19:05:46

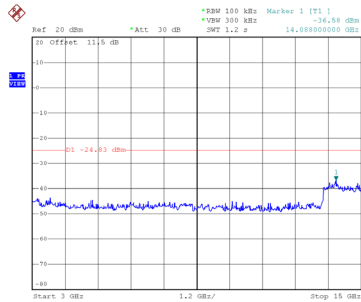


Date: 18.NOV.2021 19:05:55

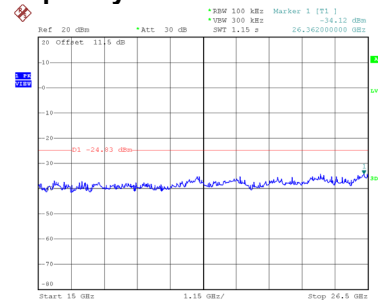
### CH06 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 19:07:52

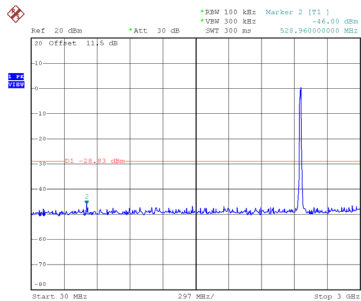


Date: 18.NOV.2021 19:08:01

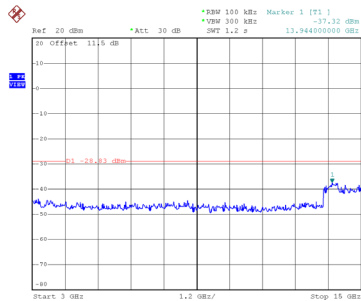


Date: 18.NOV.2021 19:08:10

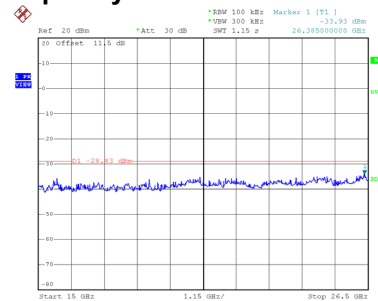
### CH11 – 10th Harmonic of the fundamental frequency



Date: 18.NOV.2021 19:09:20



Date: 18.NOV.2021 19:09:29

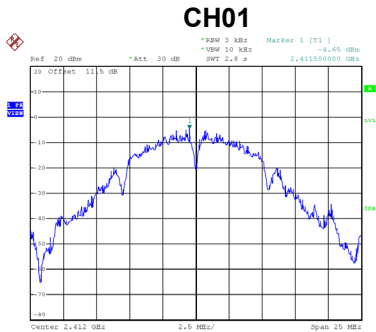


Date: 18.NOV.2021 19:09:38

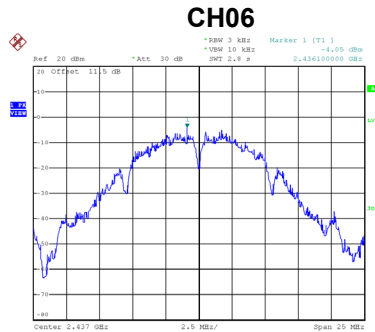
## APPENDIX H - POWER SPECTRAL DENSITY

Test Mode	TX B Mode
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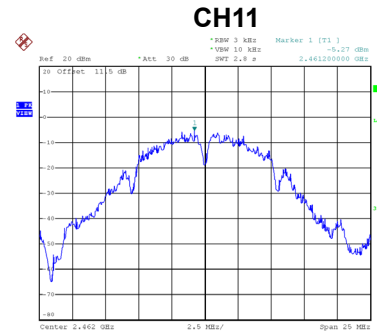
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.65	8.00	Complies
06	2437	-4.05	8.00	Complies
11	2462	-5.27	8.00	Complies



Date: 11.NOV.2021 14:40:45



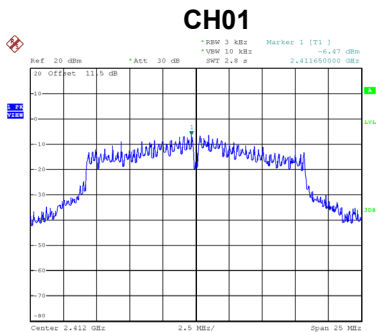
Date: 11.NOV.2021 14:45:08



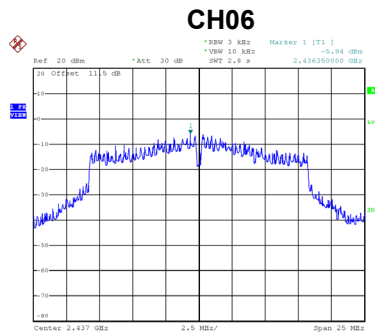
Date: 11.NOV.2021 14:46:39

Test Mode	TX G Mode
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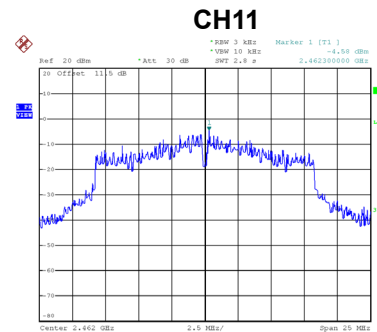
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-6.47	8.00	Complies
06	2437	-5.94	8.00	Complies
11	2462	-4.58	8.00	Complies



Date: 11.NOV.2021 14:48:18



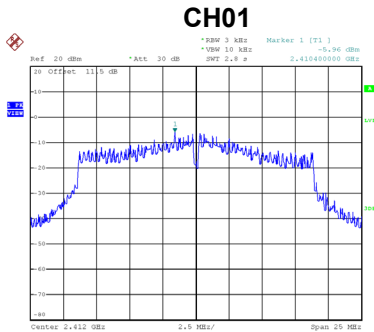
Date: 11.NOV.2021 14:49:36



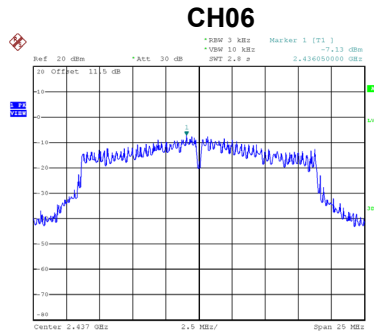
Date: 11.NOV.2021 14:51:03

Test Mode	TX N(HT20) Mode
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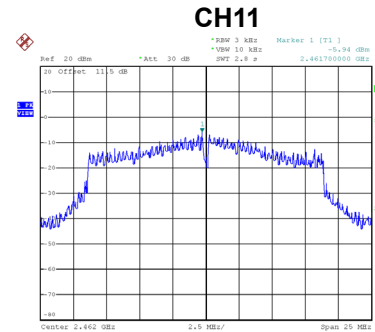
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.96	8.00	Complies
06	2437	-7.13	8.00	Complies
11	2462	-5.94	8.00	Complies



Date: 11.NOV.2021 14:53:29



Date: 11.NOV.2021 14:55:03



Date: 11.NOV.2021 14:56:32

**End of Test Report**