

# FCC Radio Test Report

## FCC ID: V7TA21

**This report concerns: Original Grant**

**Project No.** : 2006C111A  
**Equipment** : AC2100 Dual Band WiFi Range Extender  
**Brand Name** : Tenda  
**Test Model** : A21  
**Series Model** : N/A  
**Applicant** : SHENZHEN TENDA TECHNOLOGY CO.,LTD  
**Address** : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052  
**Manufacturer** : SHENZHEN TENDA TECHNOLOGY CO.,LTD  
**Address** : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052  
**Date of Receipt** : Aug. 13, 2021  
**Date of Test** : Aug. 28, 2021 ~ Sep. 15, 2021  
**Issued Date** : Oct. 19, 2021  
**Report Version** : R01  
**Test Sample** : Engineering Sample No.: DG2021081325  
**Standard(s)** : FCC CFR Title 47, Part 15, Subpart C  
FCC KDB 558074 D01 15.247 Meas Guidance v05r02  
FCC KDB 662911 D01 Multiple Transmitter Output v02r01  
ANSI C63.10-2013

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



**Prepared by** : Sheldon Ou



**Approved by** : Ethan Ma



TESTING CERT #5123.02

Add: No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's  
Republic of China  
Tel: +86-769-8318-3000  
Web: [www.newbtl.com](http://www.newbtl.com)

**Declaration**

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

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

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

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

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

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

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

**Limitation**

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

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

<b>Table of Contents</b>	<b>Page</b>
<b>REPORT ISSUED HISTORY</b>	<b>6</b>
<b>1 . SUMMARY OF TEST RESULTS</b>	<b>7</b>
1.1 TEST FACILITY	8
1.2 MEASUREMENT UNCERTAINTY	8
1.3 TEST ENVIRONMENT CONDITIONS	9
<b>2 . GENERAL INFORMATION</b>	<b>10</b>
2.1 GENERAL DESCRIPTION OF EUT	10
2.2 DESCRIPTION OF TEST MODES	12
2.3 PARAMETERS OF TEST SOFTWARE	14
2.4 DUTY CYCLE	15
2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	17
2.6 SUPPORT UNITS	17
<b>3 . AC POWER LINE CONDUCTED EMISSIONS</b>	<b>18</b>
3.1 LIMIT	18
3.2 TEST PROCEDURE	18
3.3 DEVIATION FROM TEST STANDARD	18
3.4 TEST SETUP	19
3.5 EUT OPERATION CONDITIONS	19
3.6 TEST RESULTS	19
<b>4 . RADIATED EMISSIONS</b>	<b>20</b>
4.1 LIMIT	20
4.2 TEST PROCEDURE	21
4.3 DEVIATION FROM TEST STANDARD	22
4.4 TEST SETUP	22
4.5 EUT OPERATION CONDITIONS	23
4.6 TEST RESULTS - 9 KHZ TO 30 MHZ	23
4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ	23
4.8 TEST RESULTS - ABOVE 1000 MHZ	23
<b>5 . BANDWIDTH</b>	<b>24</b>
5.1 LIMIT	24
5.2 TEST PROCEDURE	24
5.3 DEVIATION FROM STANDARD	24
5.4 TEST SETUP	24

<b>Table of Contents</b>	<b>Page</b>
5.5 EUT OPERATION CONDITIONS	24
5.6 TEST RESULTS	24
<b>6 . MAXIMUM OUTPUT POWER</b>	<b>25</b>
6.1 LIMIT	25
6.2 TEST PROCEDURE	25
6.3 DEVIATION FROM STANDARD	25
6.4 TEST SETUP	25
6.5 EUT OPERATION CONDITIONS	25
6.6 TEST RESULTS	25
<b>7 . CONDUCTED SPURIOUS EMISSIONS</b>	<b>26</b>
7.1 LIMIT	26
7.2 TEST PROCEDURE	26
7.3 DEVIATION FROM STANDARD	26
7.4 TEST SETUP	26
7.5 EUT OPERATION CONDITIONS	26
7.6 TEST RESULTS	26
<b>8 . POWER SPECTRAL DENSITY</b>	<b>27</b>
8.1 LIMIT	27
8.2 TEST PROCEDURE	27
8.3 DEVIATION FROM STANDARD	27
8.4 TEST SETUP	27
8.5 EUT OPERATION CONDITIONS	27
8.6 TEST RESULTS	27
<b>9 . MEASUREMENT INSTRUMENTS LIST</b>	<b>28</b>
<b>10 . EUT TEST PHOTO</b>	<b>30</b>
<b>APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS</b>	<b>35</b>
<b>APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ</b>	<b>40</b>
<b>APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ</b>	<b>45</b>
<b>APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ</b>	<b>48</b>
<b>APPENDIX E - BANDWIDTH</b>	<b>99</b>
<b>APPENDIX F - MAXIMUM OUTPUT POWER</b>	<b>104</b>
<b>APPENDIX G - CONDUCTED SPURIOUS EMISSIONS</b>	<b>115</b>

**Table of Contents****Page****APPENDIX H - POWER SPECTRAL DENSITY****122**

**REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	Oct. 12, 2021
R01	Added the description in Appendix D.	Oct. 19, 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 Test Firm 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	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz ~ 30MHz	-	3.02
		30MHz ~ 200MHz	V	4.36
		30MHz ~ 200MHz	H	3.32
		200MHz ~ 1,000MHz	V	4.08
		200MHz ~ 1,000MHz	H	3.96
		1GHz ~ 6GHz	-	3.80
		6GHz ~ 18GHz	-	4.82
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	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	25°C	53%	AC 120V/60Hz AC 240V/50Hz	Laughing Zhang
Radiated Emissions-9kHz to 30 MHz	25°C	60%	AC 120V/60Hz	Jakyri Wen
Radiated Emissions-30MHz to 1000MHz	26°C	52%	AC 120V/60Hz	Jakyri Wen
Radiated Emissions-Above 1000MHz	26°C	52%	AC 120V/60Hz	Jakyri Wen
Bandwidth	21°C	63%	AC 120V/60Hz	Jesse Wang
Maximum Output Power	21°C	49%	AC 120V/60Hz	Silly Zheng
Conducted Spurious Emissions	21°C	63%	AC 120V/60Hz	Jesse Wang
Power Spectral Density	21°C	63%	AC 120V/60Hz	Jesse Wang

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC2100 Dual Band WiFi Range Extender
Brand Name	Tenda
Test Model	A21
Series Model	N/A
Model Difference(s)	N/A
Power Source	AC Mains.
Power Rating	100-240V~ 0.3A 50/60Hz
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 300 Mbps
Maximum Peak Output Power Non Beamforming	IEEE 802.11n(HT20): 29.46 dBm (0.8831 W)
Maximum Peak Output Power Beamforming	IEEE 802.11n(HT20): 29.11 dBm (0.8147 W)
Maximum Average Output Power Non Beamforming	IEEE 802.11g: 22.93 dBm (0.1963 W)
Maximum Average Output Power Beamforming	IEEE 802.11n(HT20): 19.80 dBm (0.0955 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	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	3.4
2	N/A	N/A	Dipole	N/A	3.5

Note:

- This EUT supports CDD, and antenna gains are not equal, so Directional gain= $10\log\left[\frac{(10^{G1/20}+10^{G2/20}+\dots+10^{GN/20})^2}{N}\right]$  dBi=6.46. So the output power limit is  $30-(6.46-6)=29.54$ , the power spectral density limit is  $8-(6.46-6)=7.54$ .
- Beamforming Gain: 3 dB. Then the Directional Gain= $3+3.5=6.5$  dB. So the output power limit is  $30-(6.5-6)=29.50$ .
- The antenna gain and beamforming gain are provided by the manufacturer.

4. Table for Antenna Configuration:  
For Non Beamforming:

Operating Mode / TX Mode	1TX	2TX
IEEE 802.11b	V (Ant. 1)	-
IEEE 802.11g	V (Ant. 1)	-
IEEE 802.11n(HT20)	-	V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT40)	-	V(Ant. 1 + Ant. 2)

For Beamforming:

Operating Mode / TX Mode	2TX
IEEE 802.11n(HT20)	V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT40)	V(Ant. 1 + Ant. 2)

## 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 N(HT20) Mode Channel 06

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

AC power line conducted emissions test	
Final Test Mode	Description
Mode 5	TX N(HT20) Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 5	TX N(HT20) Mode Channel 06

Radiated emissions test- Above 1GHz_Non Beamforming	
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

Maximum Output Power_Non Beamforming	
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

Maximum Output Power_Beamforming	
Final Test Mode	Description
Mode 3	TX N(HT20) Mode Channel 01/06/11
Mode 4	TX N(HT40) Mode Channel 03/06/09

Other Conducted test_Non Beamforming	
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 N(HT20) 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) The measurements for Output Power are tested, the Non Beamforming and Beamforming are recorded in the report. The worst case is Non Beamforming and only the worst case is documented for other test items.
- (5) For radiated emissions, the TX WLAN 2.4G B Mode 2412MHz + WLAN 5G A Mode 5180MHz was found the worst case of simultaneous transmission and recorded.

## 2.3 PARAMETERS OF TEST SOFTWARE

### Non Beamforming

Test Software Version	mp_tool		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	119	127	109
IEEE 802.11g	96	122	90
IEEE 802.11n(HT20)	94	94/97	88/94
Frequency (MHz)	2422	2437	2452
IEEE 802.11n(HT40)	86	90	83

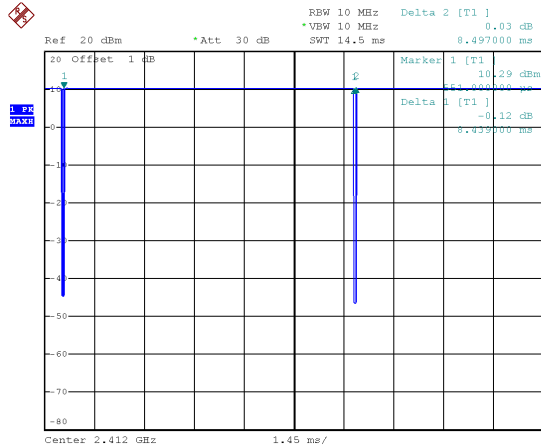
### Beamforming

Test Software Version	mp_tool		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n(HT20)	93	93/96	87/93
Frequency (MHz)	2422	2437	2452
IEEE 802.11n(HT40)	85	89	82

## 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.

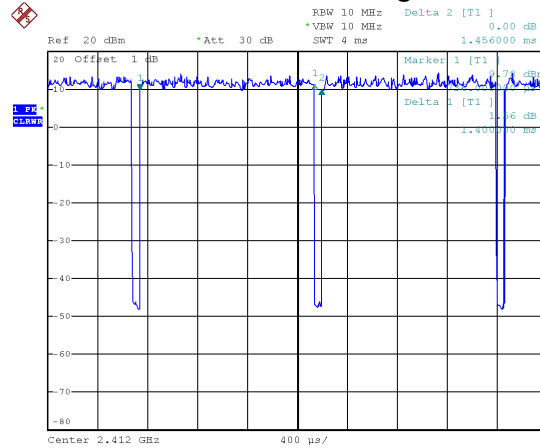
### IEEE 802.11b



Date: 8.SEP.2021 10:51:46

Duty cycle =  $8.439 \text{ ms} / 8.497 \text{ ms} = 99.32\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.00$

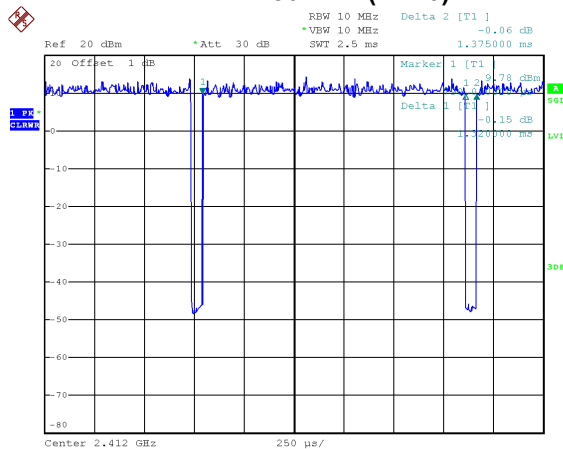
### IEEE 802.11g



Date: 8.SEP.2021 10:53:28

Duty cycle =  $1.400 \text{ ms} / 1.456 \text{ ms} = 96.15\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.17$

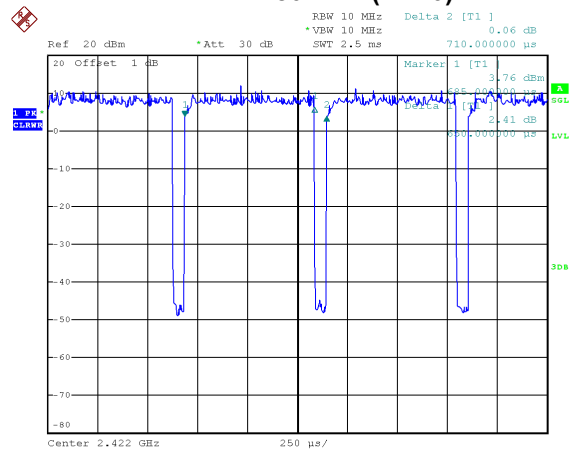
### IEEE 802.11n(HT20)



Date: 8.SEP.2021 10:56:52

Duty cycle =  $1.320 \text{ ms} / 1.375 \text{ ms} = 96.00\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.18$

### IEEE 802.11n(HT40)



Date: 8.SEP.2021 11:06:51

Duty cycle =  $0.650 \text{ ms} / 0.710 \text{ ms} = 91.55\%$   
 Duty Factor =  $10 \log(1/\text{Duty cycle}) = 0.38$

**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):

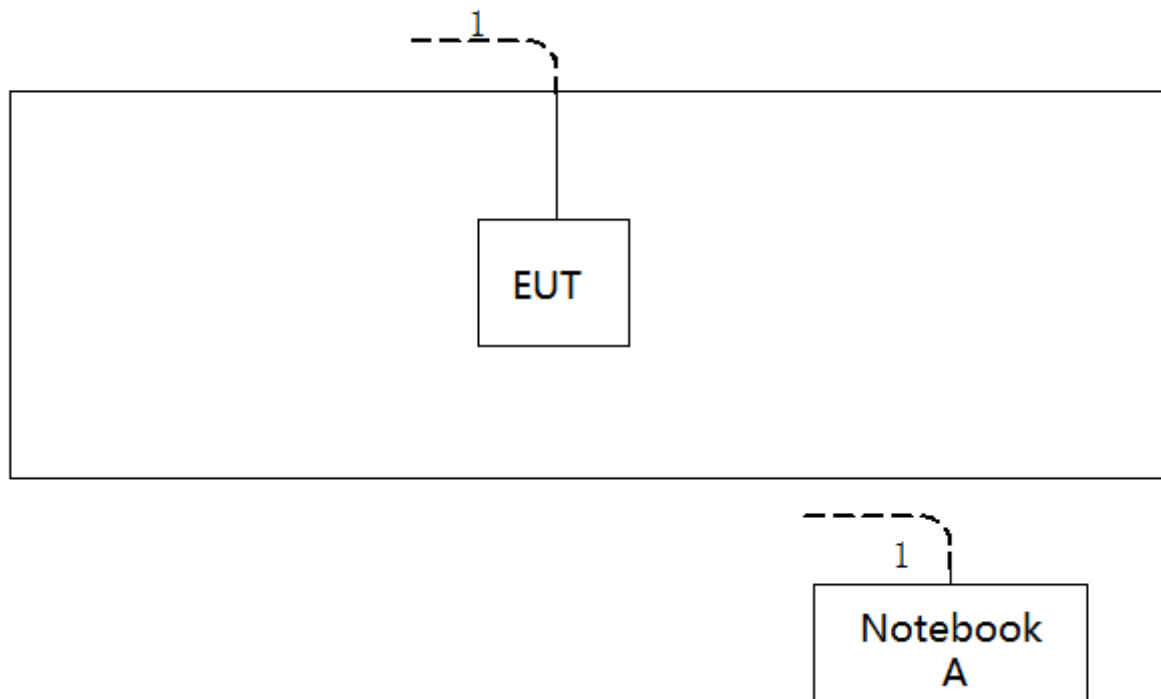
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 758 Hz.

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.
A	Notebook	Dell	Inspiron 15-7559	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	RJ45 Cable	NO	NO	10m

### 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.

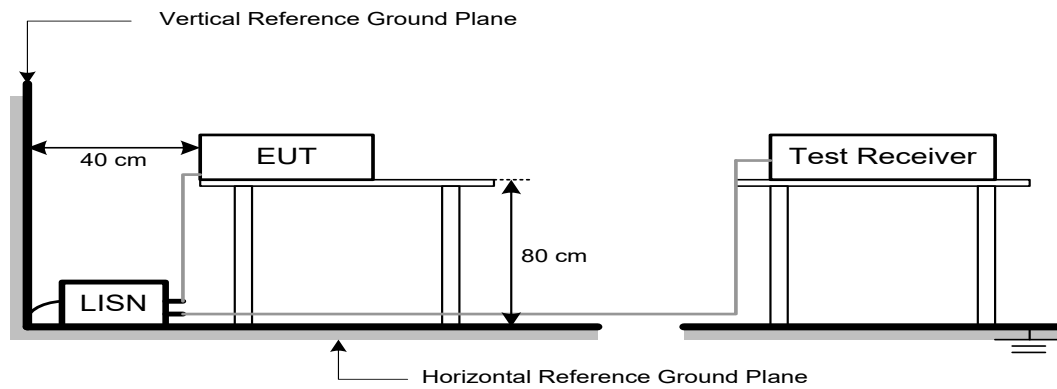
The following table is the setting of the receiver:

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

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

The following table is the setting of the receiver:

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

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

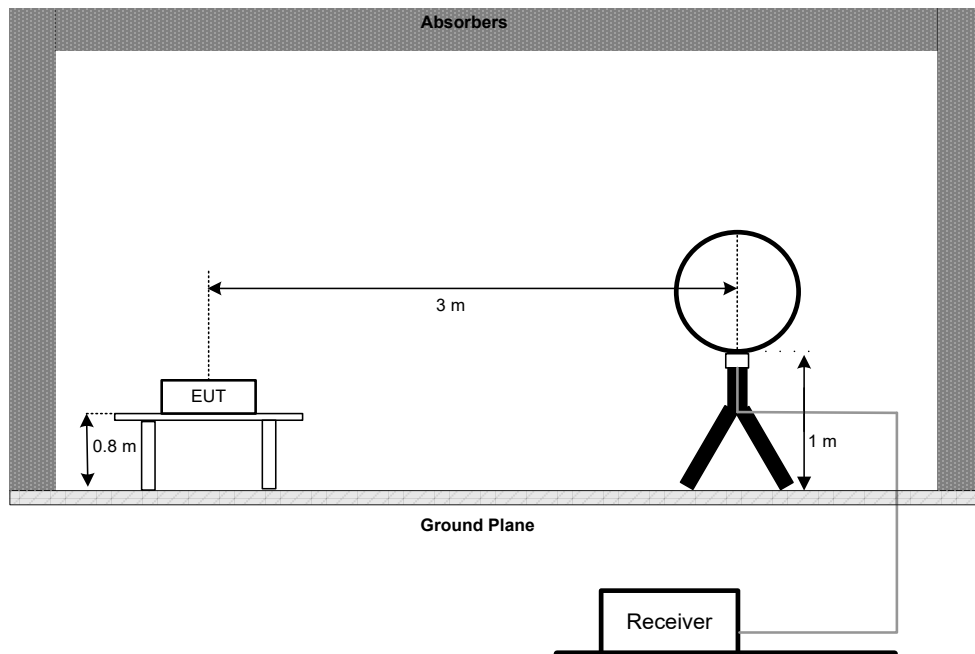
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector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

## 4.3 DEVIATION FROM TEST STANDARD

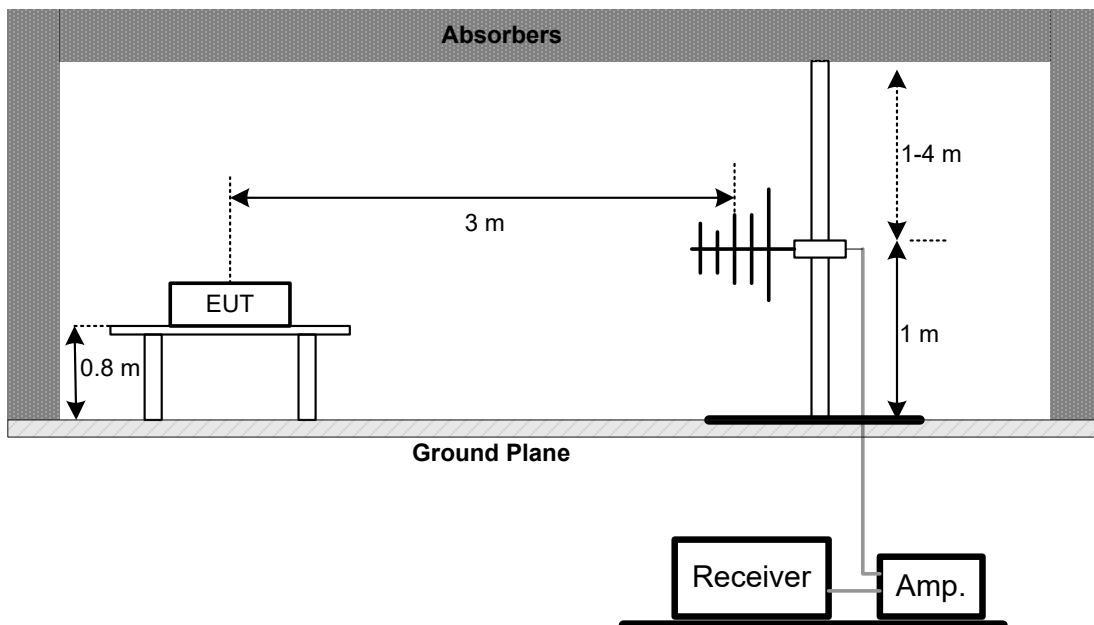
No deviation.

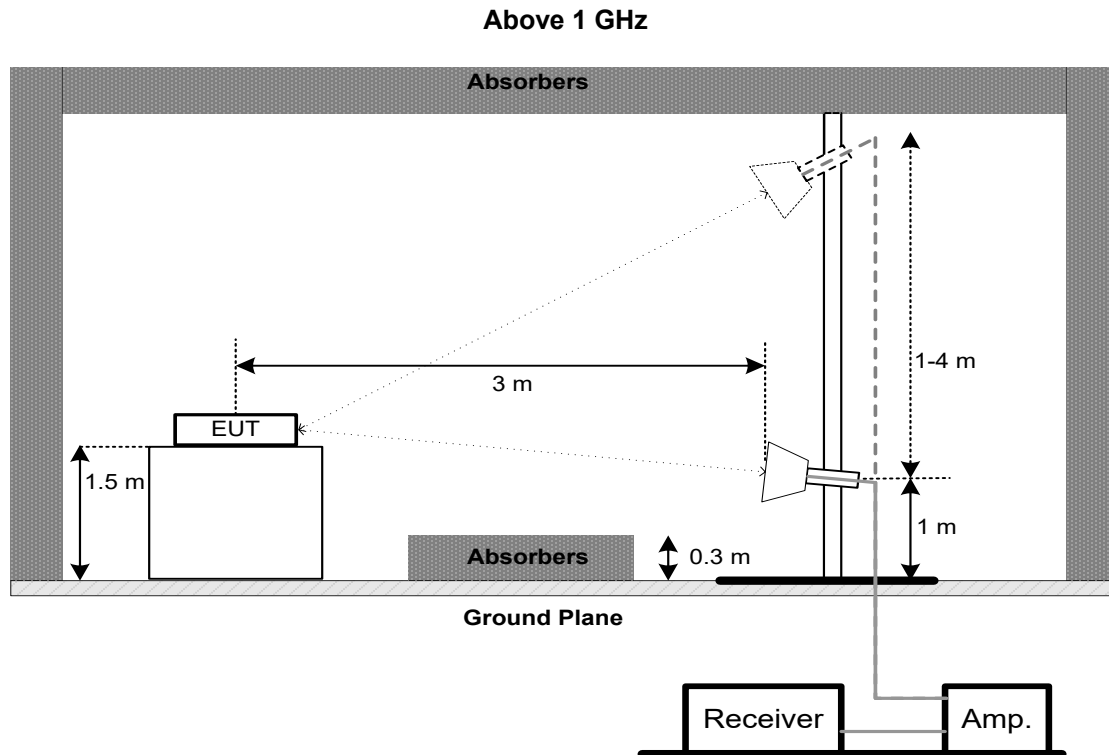
## 4.4 TEST SETUP

### 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

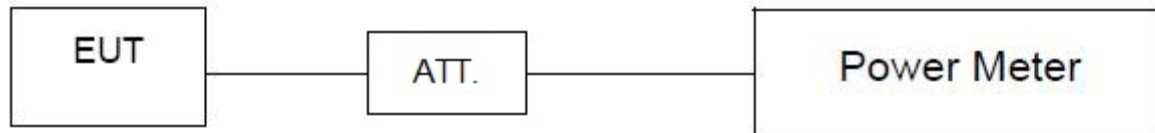
### 6.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- The maximum conducted output power was performed in accordance with method 11.9.1.3 & 11.9.2.3.1 of ANSI C63.10-2013 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

### 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

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

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

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP



### 7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 7.6 TEST RESULTS

Please refer to the APPENDIX G.

## 8. POWER SPECTRAL DENSITY

### 8.1 LIMIT

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

### 8.2 TEST PROCEDURE

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

Spectrum Parameters	Setting
Span Frequency	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	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	Loop Antenna	EM	EM-6876-1	230	Apr. 28, 2022
2	Cable	N/A	RG 213/U	N/A	May 27, 2022
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 27, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 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	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 20, 2022
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 24, 2022

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	May 10, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 28, 2022
5	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	N/A	EMC104-SM-SM-6 000	N/A	Oct. 16, 2021
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Filter	STI	STI15-9912	N/A	Jul. 10, 2022
11	966 Chambe Room	RM	9*6*6m	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.

All calibration period of equipment list is one year.

## 10. EUT TEST PHOTO

### AC Power Line Conducted Emissions Test Photos

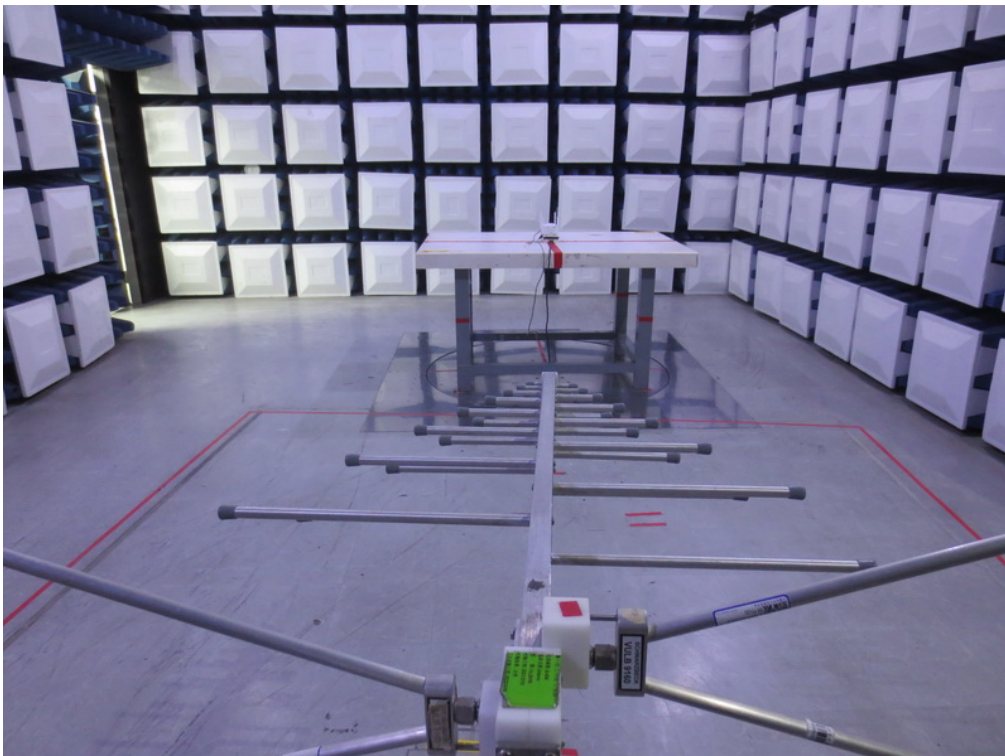
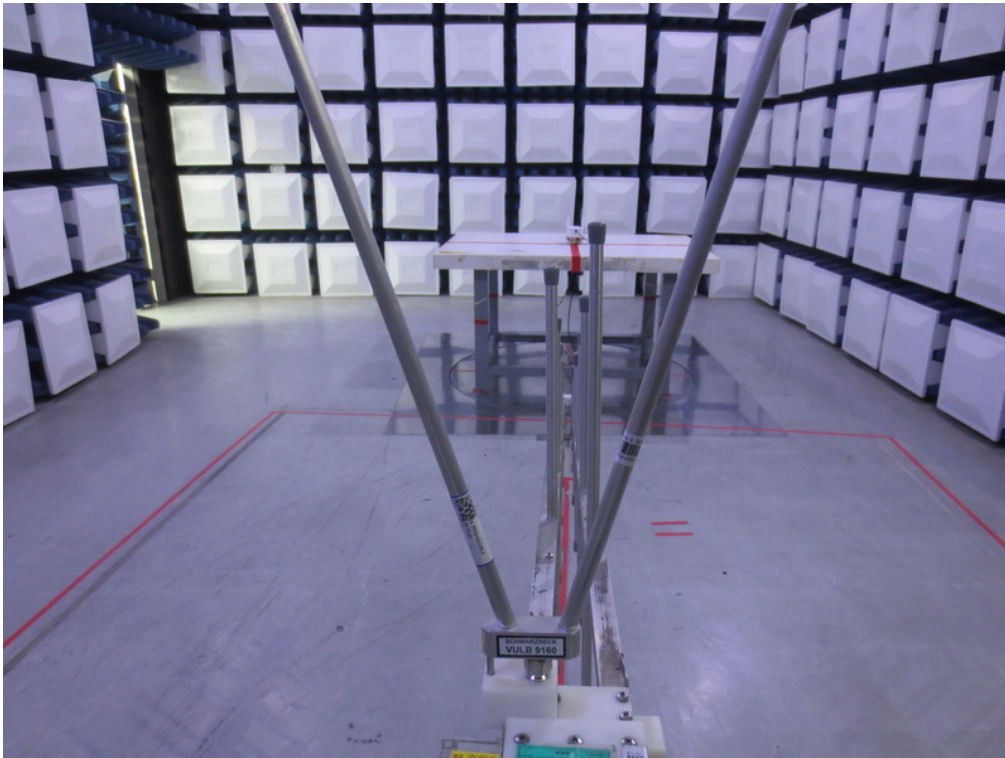




**Radiated Emissions Test Photos****9 kHz to 30 MHz**

## Radiated Emissions Test Photos

30 MHz to 1 GHz



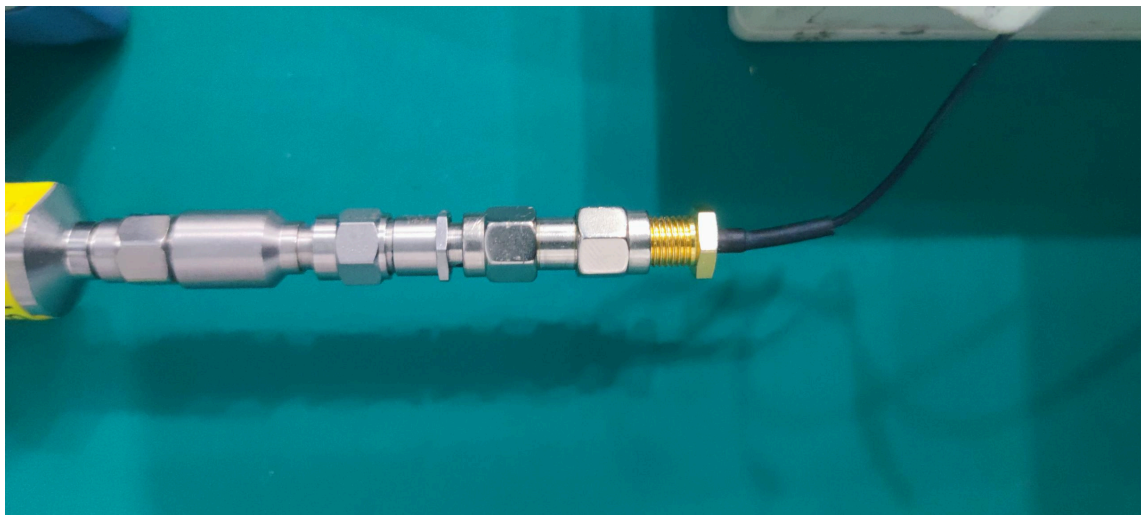
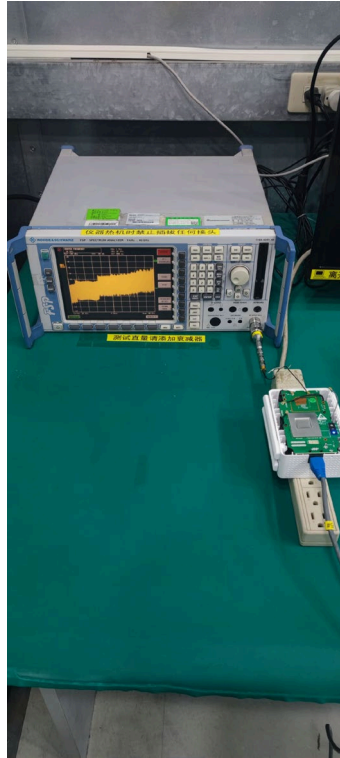


**Radiated Emissions Test Photos**

**Above 1 GHz**

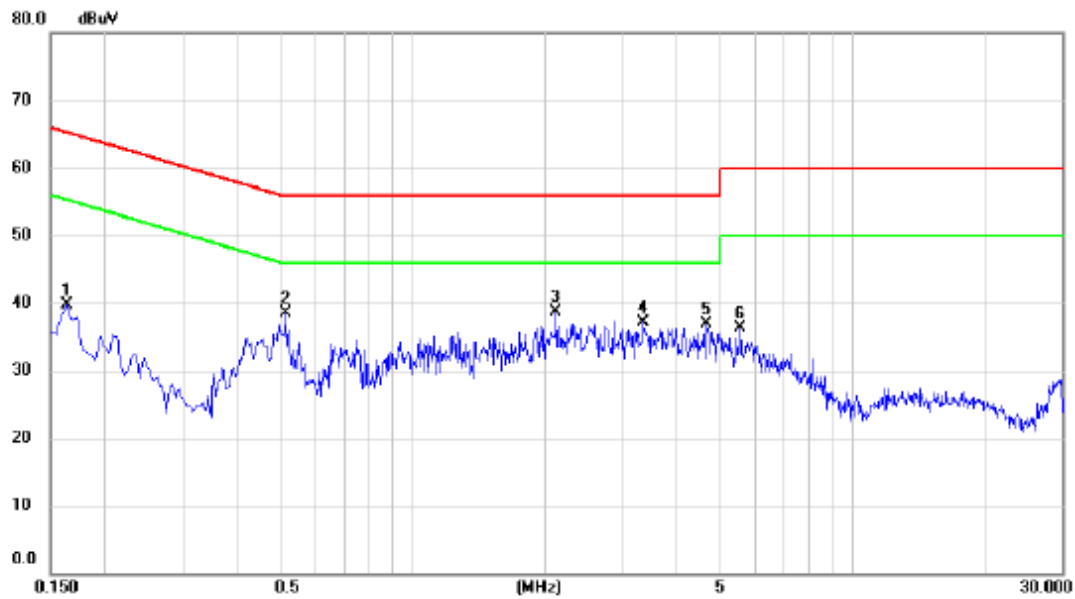


### Conducted Test Photos



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

Test Voltage	AC 120V/60Hz		
Test Mode	TX N(HT20) Mode Channel 06	Phase	Line



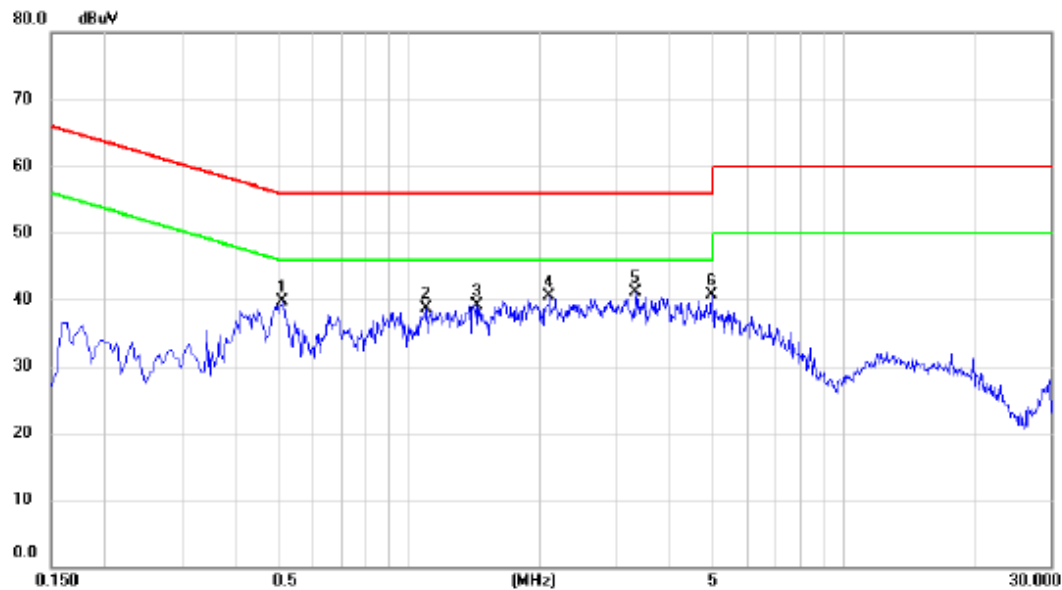
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1635	29.96	9.77	39.73	65.28	-25.55	peak	
2		0.5144	28.48	9.93	38.41	56.00	-17.59	peak	
3	*	2.1210	28.64	10.06	38.70	56.00	-17.30	peak	
4		3.3495	26.86	10.16	37.02	56.00	-18.98	peak	
5		4.6500	26.73	10.26	36.99	56.00	-19.01	peak	
6		5.5590	25.99	10.32	36.31	60.00	-23.69	peak	

## REMARKS:

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

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

Test Voltage	AC 120V/60Hz		
Test Mode	TX N(HT20) Mode Channel 06	Phase	Neutral

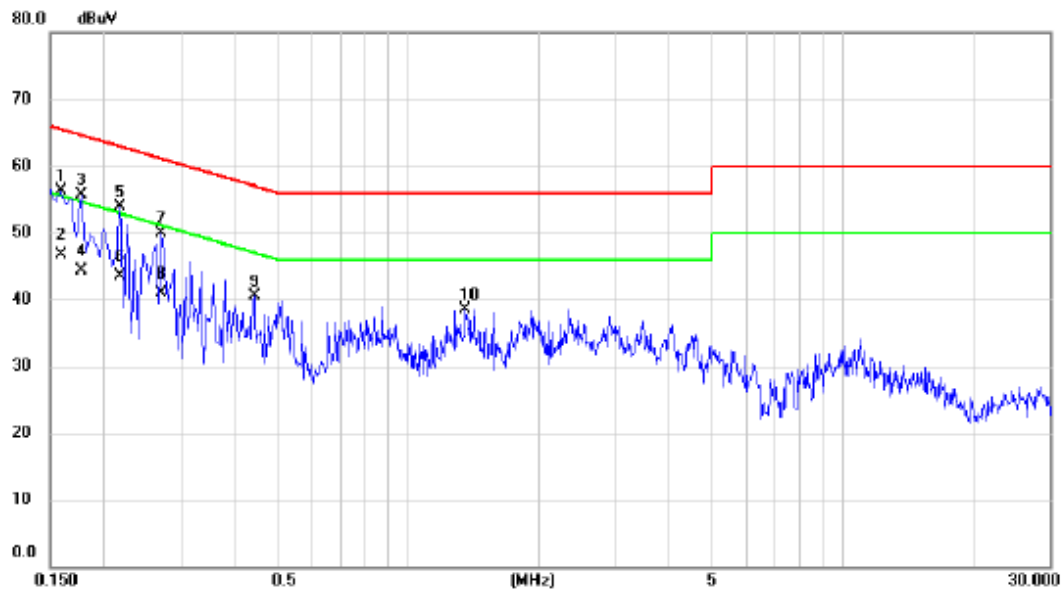


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.5100	29.55	10.12	39.67	56.00	-16.33	peak	
2		1.0950	28.40	10.28	38.68	56.00	-17.32	peak	
3		1.4325	28.86	10.33	39.19	56.00	-16.81	peak	
4		2.1030	30.02	10.39	40.41	56.00	-15.59	peak	
5	*	3.3315	30.56	10.50	41.06	56.00	-14.94	peak	
6		4.9740	30.14	10.62	40.76	56.00	-15.24	peak	

## REMARKS:

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

Test Voltage	AC 240V/50Hz		
Test Mode	TX N(HT20) Mode Channel 06	Phase	Line



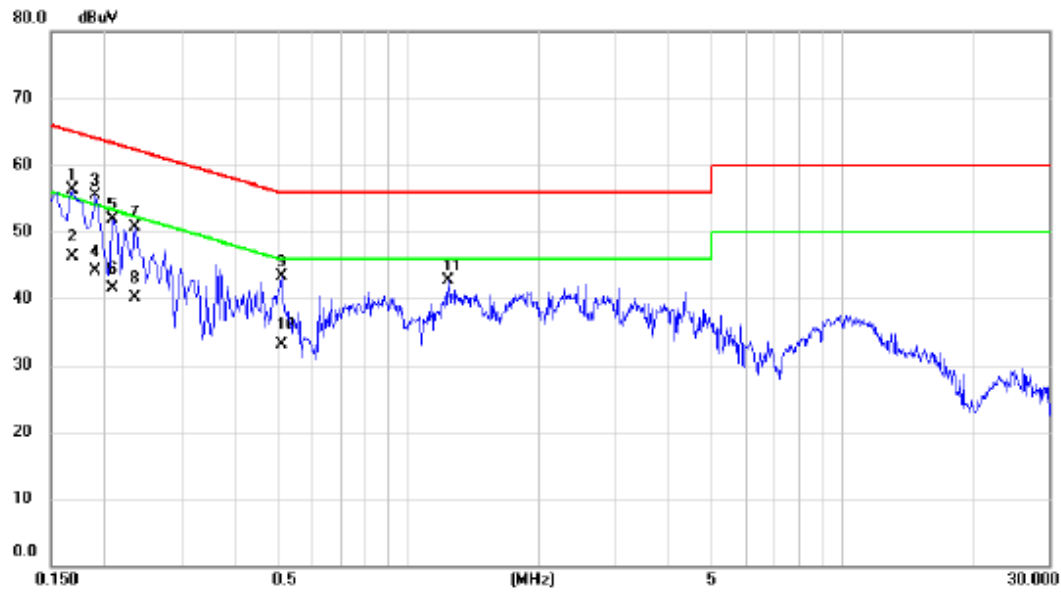
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1590	46.48	9.73	56.21	65.52	-9.31	peak	
2	*	0.1590	36.90	9.73	46.63	55.52	-8.89	AVG	
3		0.1770	45.79	9.84	55.63	64.63	-9.00	peak	
4		0.1770	34.50	9.84	44.34	54.63	-10.29	AVG	
5		0.2175	44.09	9.90	53.99	62.91	-8.92	peak	
6		0.2175	33.70	9.90	43.60	52.91	-9.31	AVG	
7		0.2714	40.06	9.87	49.93	61.07	-11.14	peak	
8		0.2714	31.00	9.87	40.87	51.07	-10.20	AVG	
9		0.4425	30.50	9.91	40.41	57.01	-16.60	peak	
10		1.3560	28.47	10.00	38.47	56.00	-17.53	peak	

## REMARKS:

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

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

Test Voltage	AC 240V/50Hz		
Test Mode	TX N(HT20) Mode Channel 06	Phase	Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1680	46.43	9.88	56.31	65.06	-8.75	peak	
2		0.1680	36.40	9.88	46.28	55.06	-8.78	AVG	
3	*	0.1905	45.56	9.98	55.54	64.01	-8.47	peak	
4		0.1905	34.20	9.98	44.18	54.01	-9.83	AVG	
5		0.2085	41.95	10.00	51.95	63.26	-11.31	peak	
6		0.2085	31.50	10.00	41.50	53.26	-11.76	AVG	
7		0.2355	40.75	9.98	50.73	62.25	-11.52	peak	
8		0.2355	30.20	9.98	40.18	52.25	-12.07	AVG	
9		0.5100	33.21	10.12	43.33	56.00	-12.67	peak	
10		0.5100	22.90	10.12	33.02	46.00	-12.98	AVG	
11		1.2390	32.51	10.29	42.80	56.00	-13.20	peak	

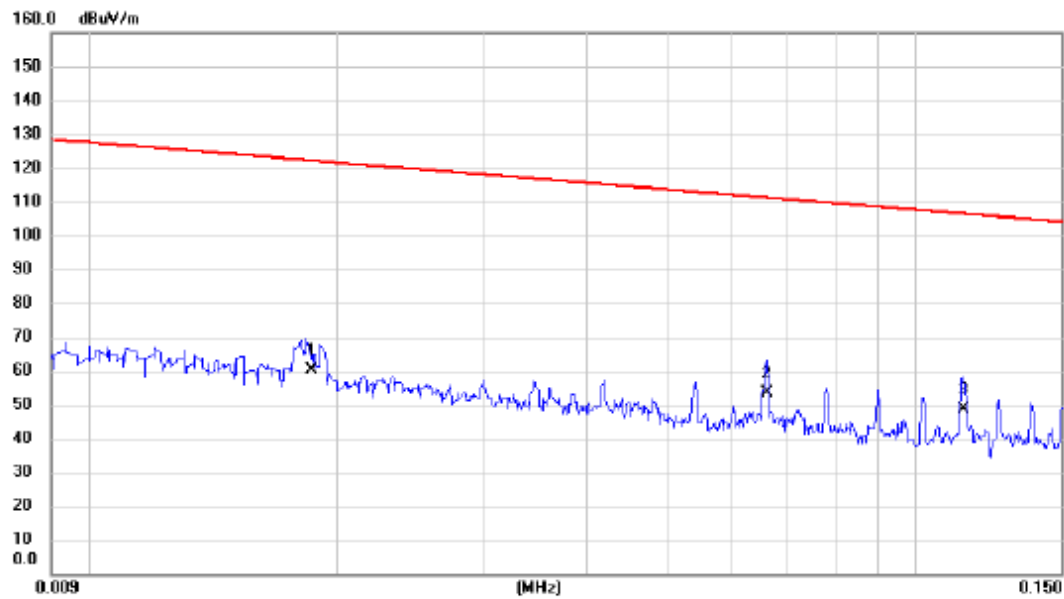
## REMARKS:

- (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 N(HT20) Mode Channel 06	Polarization	Ant 0°
-----------	----------------------------	--------------	--------

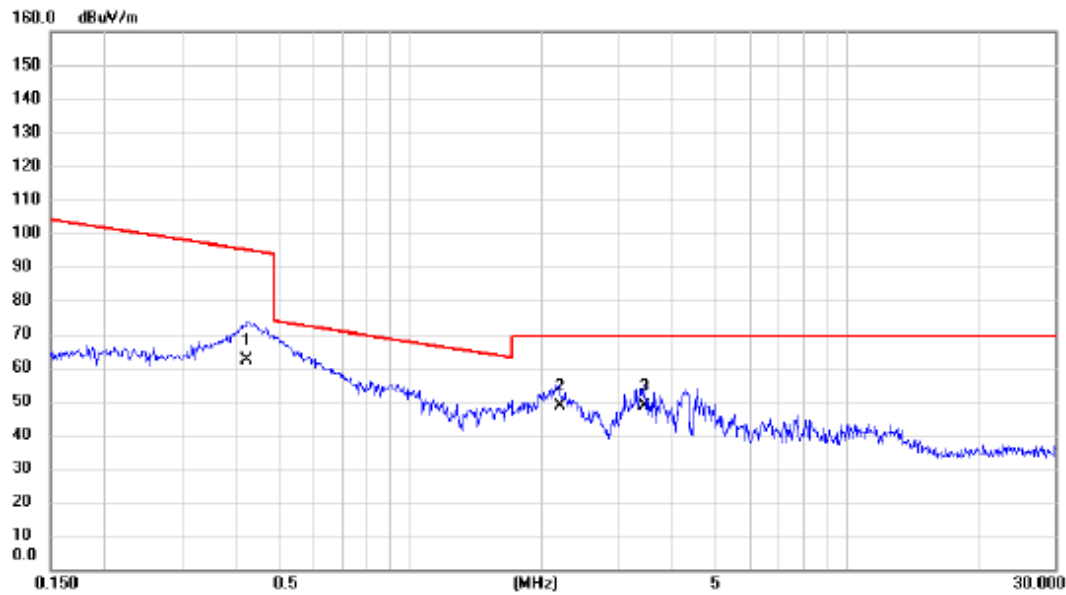


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0186	45.16	14.85	60.01	122.21	-62.20	AVG	
2		0.0660	39.48	13.73	53.21	111.21	-58.00	AVG	
3	*	0.1142	34.69	13.79	48.48	106.45	-57.97	AVG	

## REMARKS:

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

Test Mode	TX N(HT20) Mode Channel 06	Polarization	Ant 0°
-----------	----------------------------	--------------	--------

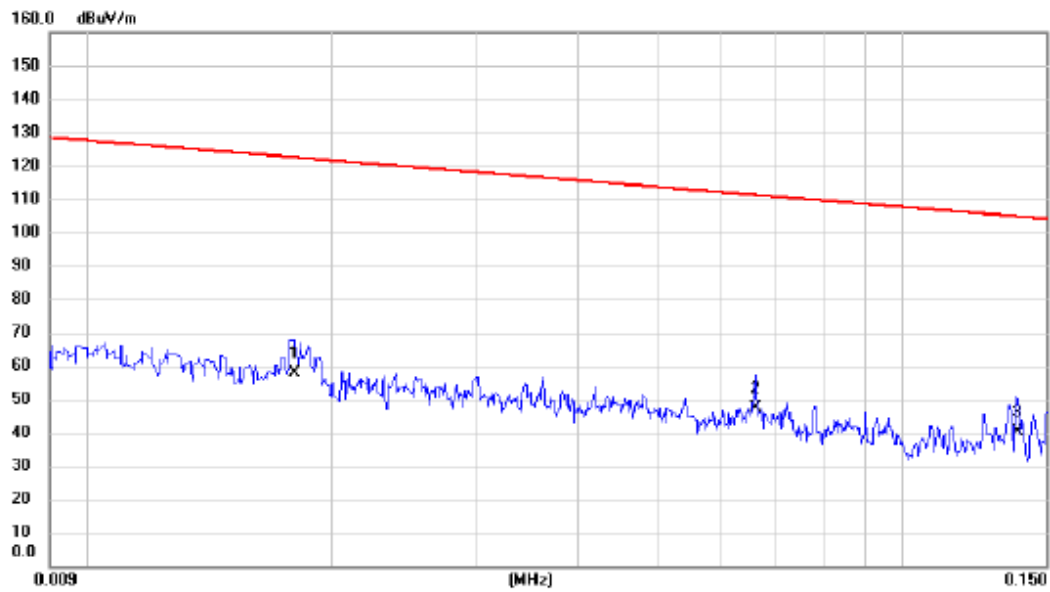


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.4237	48.52	13.62	62.14	95.06	-32.92	AVG	
2	*	2.2015	36.49	12.18	48.67	69.54	-20.87	QP	
3		3.4538	36.58	11.99	48.57	69.54	-20.97	QP	

## REMARKS:

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

Test Mode	TX N(HT20) Mode Channel 06	Polarization	Ant 90°
-----------	----------------------------	--------------	---------



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0180	42.71	15.04	57.75	122.50	-64.75	AVG	
2	*	0.0660	33.59	13.73	47.32	111.21	-63.89	AVG	
3		0.1382	26.48	13.78	40.26	104.80	-64.54	AVG	

## REMARKS:

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

Test Mode	TX N(HT20) Mode Channel 06	Polarization	Ant 90°
-----------	----------------------------	--------------	---------



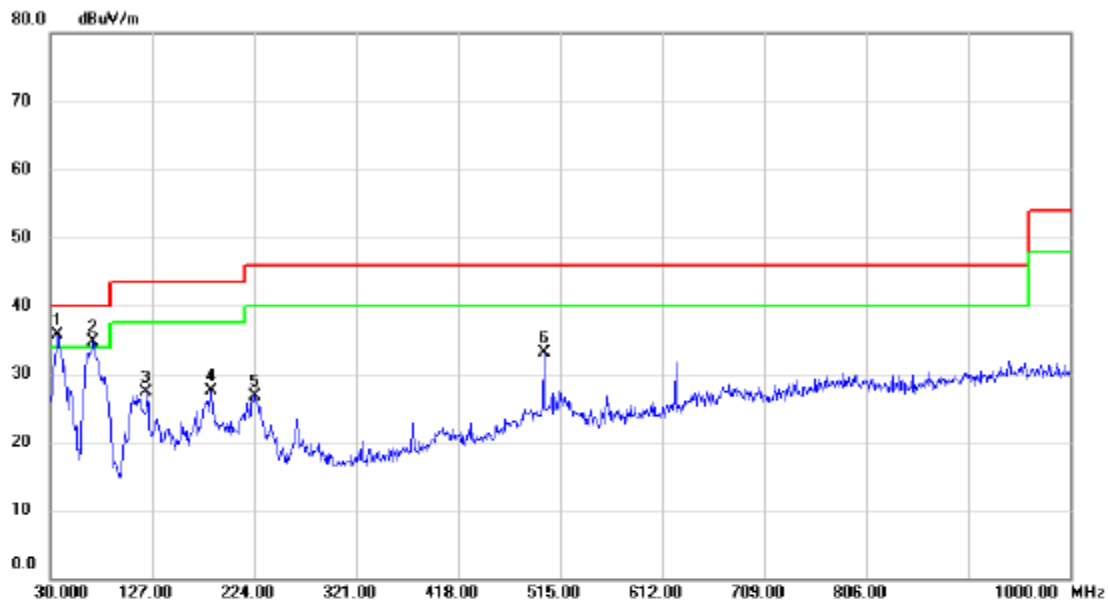
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.4468	41.63	13.60	55.23	94.60	-39.37	AVG	
2		2.1101	33.58	12.21	45.79	69.54	-23.75	QP	
3	*	3.4538	36.79	11.99	48.78	69.54	-20.76	QP	

## 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 N(HT20) Mode Channel 06	Polarization	Vertical
-----------	----------------------------	--------------	----------

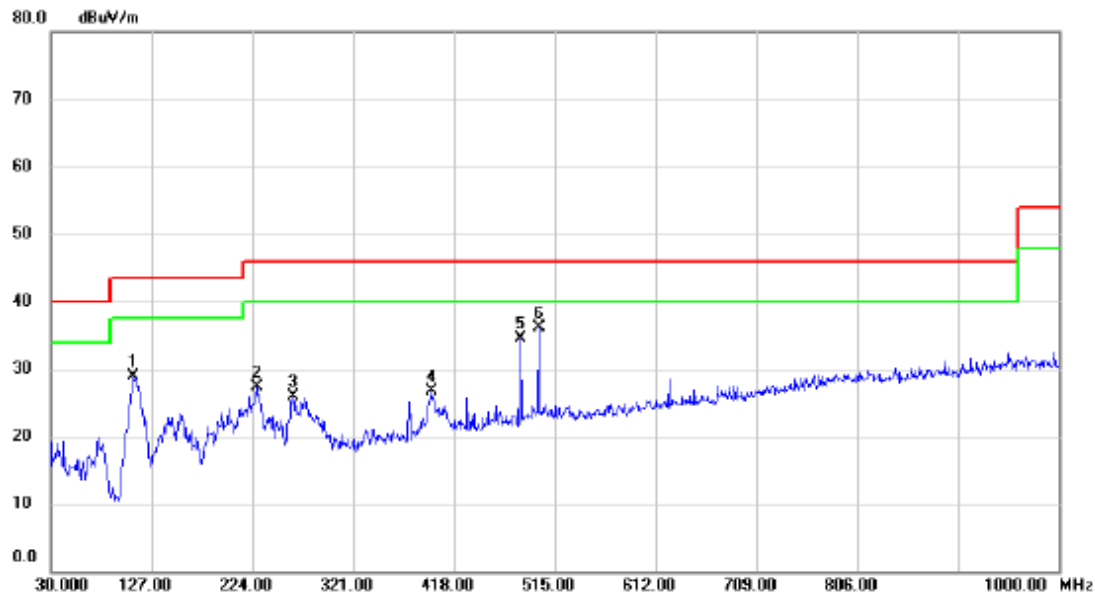


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	36.790	50.57	-14.81	35.76	40.00	-4.24	peak	
2	!	71.225	51.27	-16.48	34.79	40.00	-5.21	peak	
3		121.665	41.34	-14.03	27.31	43.50	-16.19	peak	
4		182.775	41.59	-14.01	27.58	43.50	-15.92	peak	
5		224.970	41.01	-14.38	26.63	46.00	-19.37	peak	
6		499.965	39.70	-6.54	33.16	46.00	-12.84	peak	

## REMARKS:

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

Test Mode	TX N(HT20) Mode Channel 06	Polarization	Horizontal
-----------	----------------------------	--------------	------------



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		109.540	44.08	-15.11	28.97	43.50	-14.53	peak	
2		228.365	41.33	-14.08	27.25	46.00	-18.75	peak	
3		263.285	38.29	-12.43	25.86	46.00	-20.14	peak	
4		396.175	35.50	-8.87	26.63	46.00	-19.37	peak	
5		482.505	41.39	-6.84	34.55	46.00	-11.45	peak	
6 *		499.965	42.58	-6.54	36.04	46.00	-9.96	peak	

## REMARKS:

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

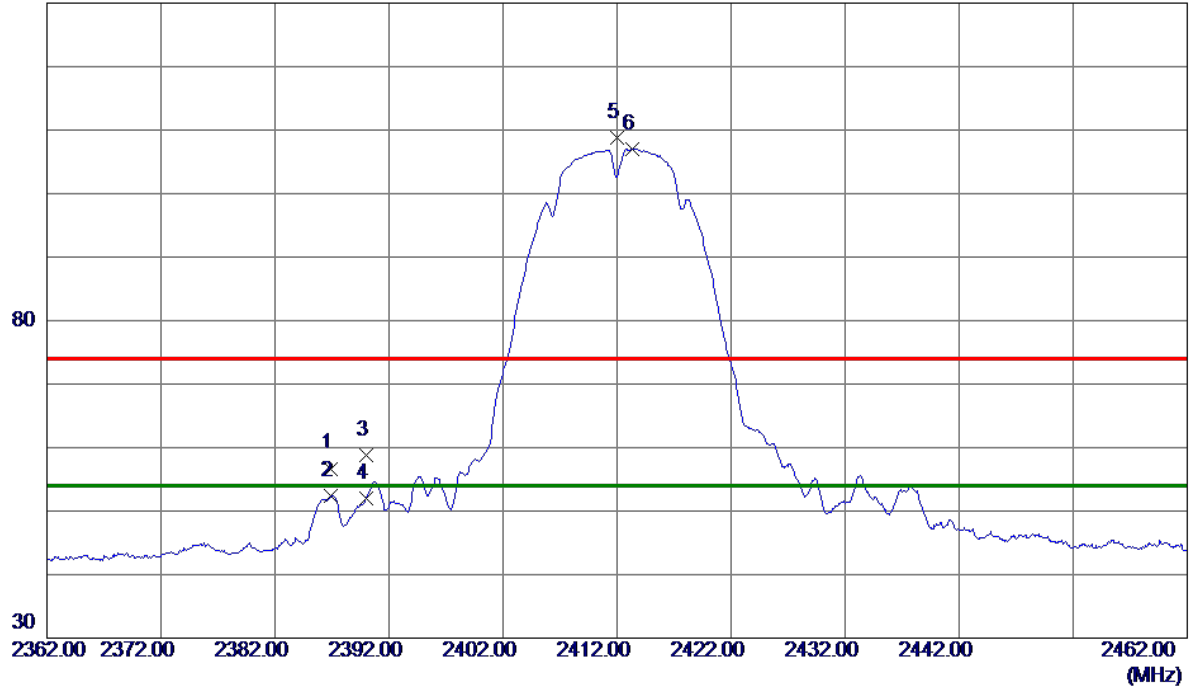
## **APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ**



## Ant. 1

Test Mode	TX B Mode 2412 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

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	2386.8500	48.40	8.30	56.70	74.00	-17.30	Peak	
2	2386.8500	44.08	8.30	52.38	54.00	-1.62	AVG	
3	2390.0000	50.56	8.31	58.87	74.00	-15.13	Peak	
4	2390.0000	43.67	8.31	51.98	54.00	-2.02	AVG	
5	2412.0500	100.49	8.33	108.82	74.00	34.82	Peak	No Limit
6 *	2413.3500	98.71	8.33	107.04	54.00	53.04	AVG	No Limit

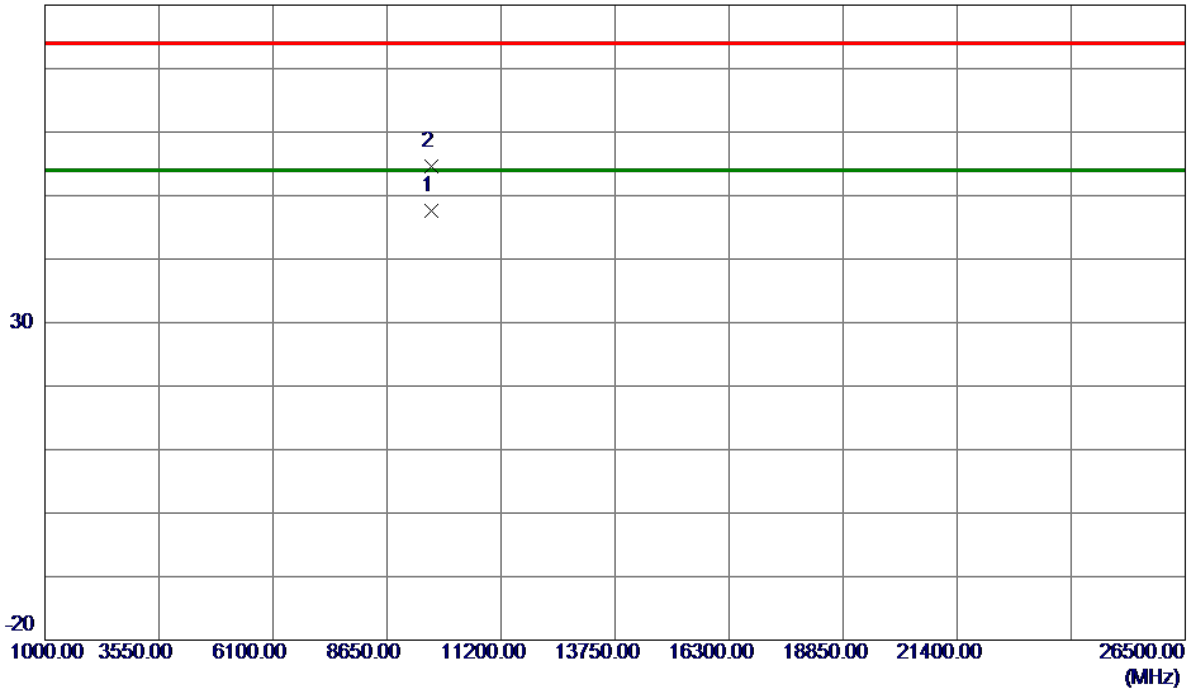
### REMARKS:

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

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

Test Mode	TX B Mode 2412 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

80 dBuV/m



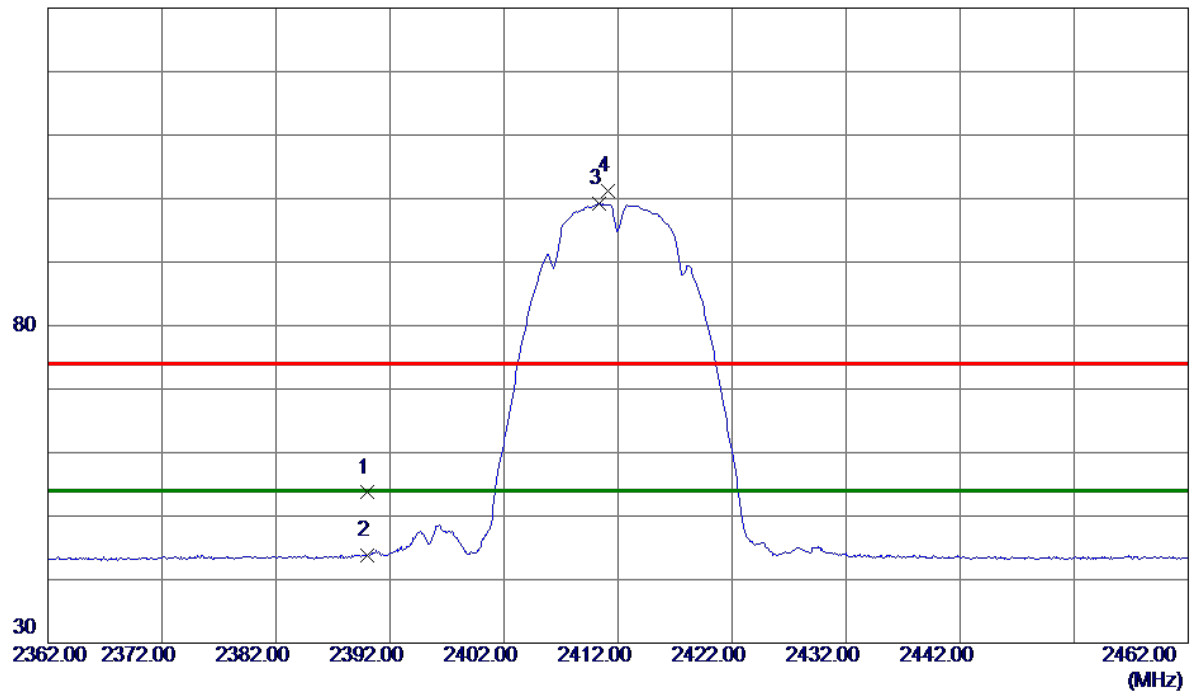
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9647.8710	35.12	12.42	47.54	54.00	-6.46	AVG	
2	9647.9610	42.22	12.42	54.64	74.00	-19.36	Peak	

## REMARKS:

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

Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

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	2390.0000	45.39	8.31	53.70	74.00	-20.30	Peak	
2	2390.0000	35.49	8.31	43.80	54.00	-10.20	AVG	
3 *	2410.3000	90.90	8.33	99.23	54.00	45.23	AVG	No Limit
4	2411.1500	92.78	8.33	101.11	74.00	27.11	Peak	No Limit

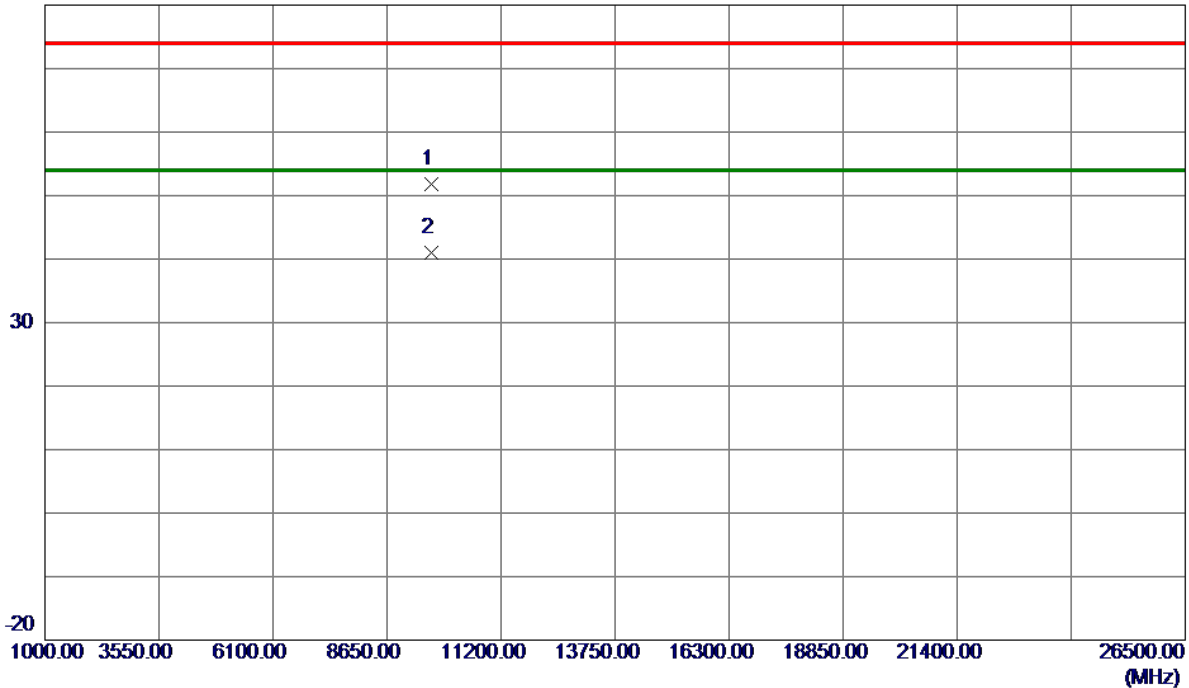
## REMARKS:

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

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

Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

80 dBuV/m



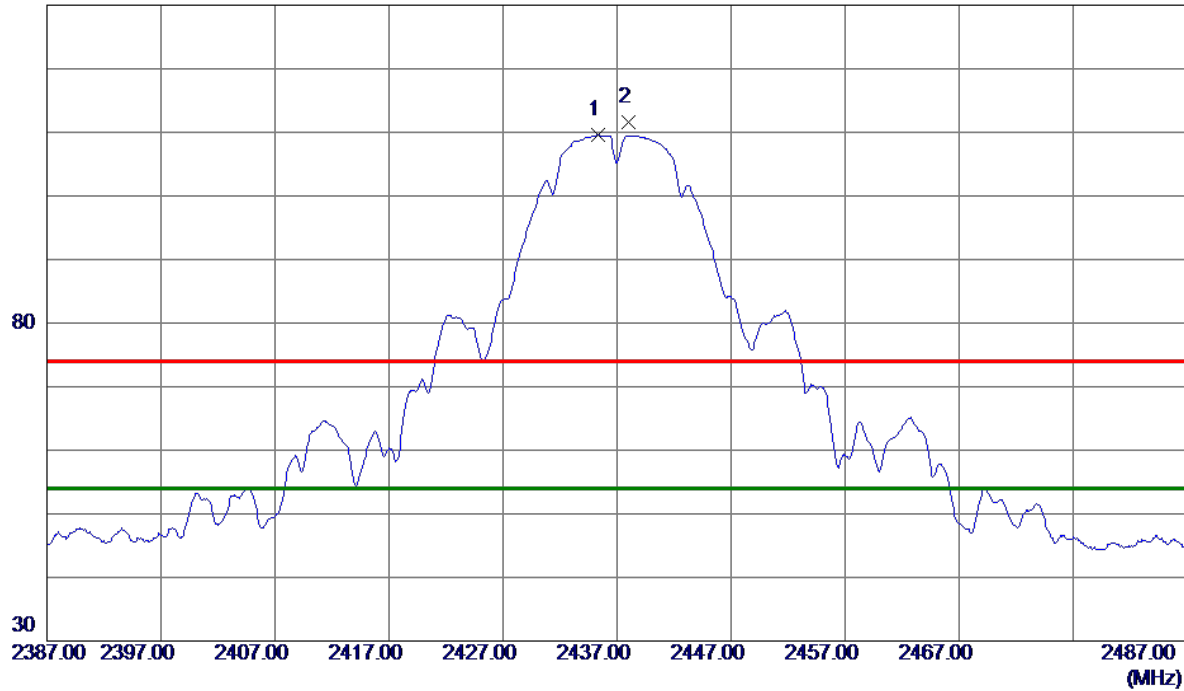
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9647.0119	39.44	12.42	51.86	74.00	-22.14	Peak	
2 *	9647.8070	28.54	12.42	40.96	54.00	-13.04	AVG	

## REMARKS:

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

Test Mode	TX B Mode 2437 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

130 dBuV/m



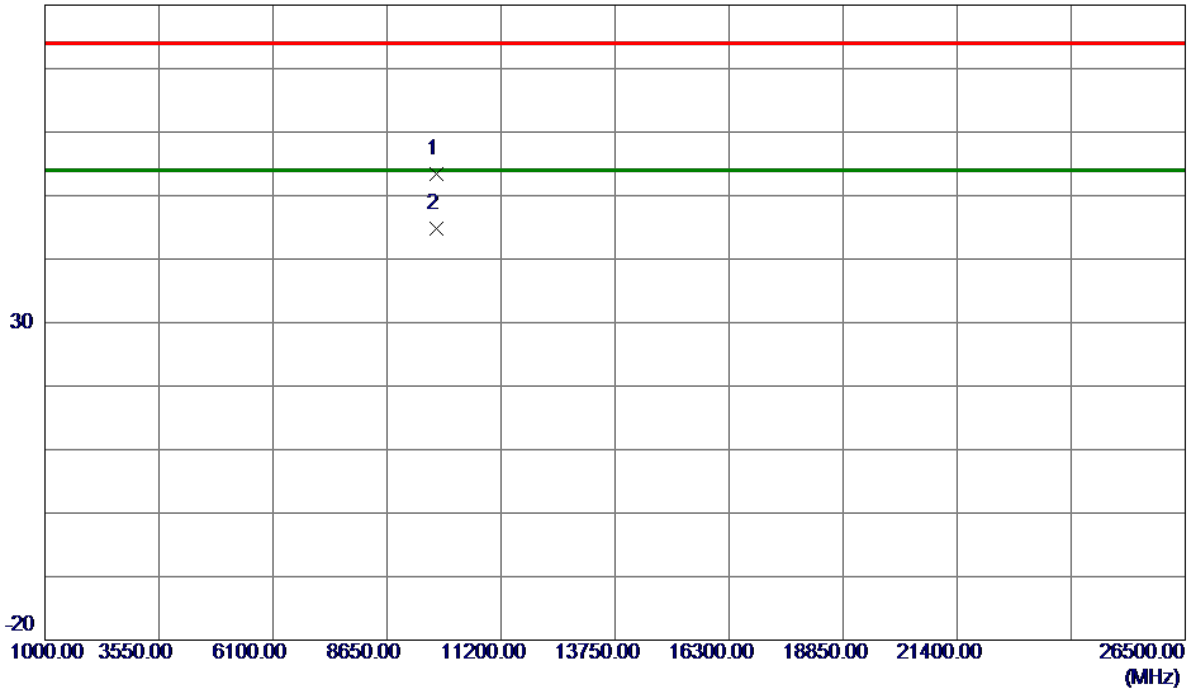
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.3000	101.29	8.36	109.65	54.00	55.65	AVG	No Limit
2	2437.9500	103.22	8.37	111.59	74.00	37.59	Peak	No Limit

## REMARKS:

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

Test Mode	TX B Mode 2437 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

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	9747.7690	40.69	12.63	53.32	74.00	-20.68	Peak	
2 *	9747.8470	32.13	12.63	44.76	54.00	-9.24	AVG	

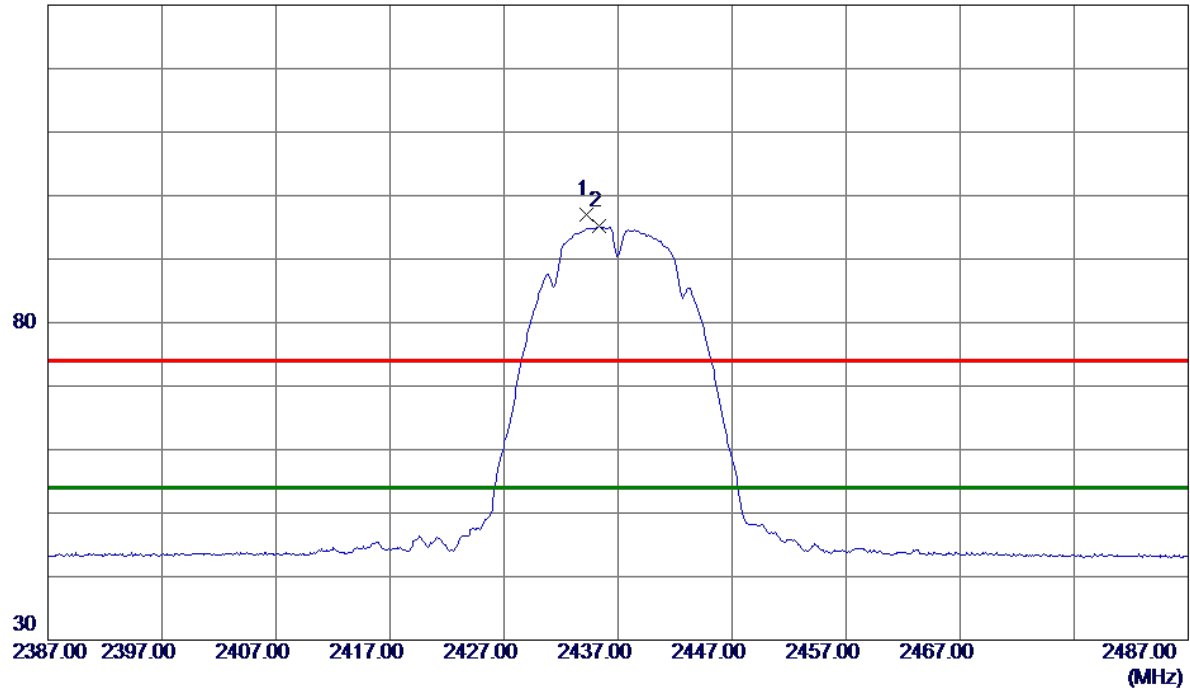
## REMARKS:

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

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

Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

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	2434.2500	88.60	8.36	96.96	74.00	22.96	Peak	No Limit
2 *	2435.3500	86.77	8.36	95.13	54.00	41.13	AVG	No Limit

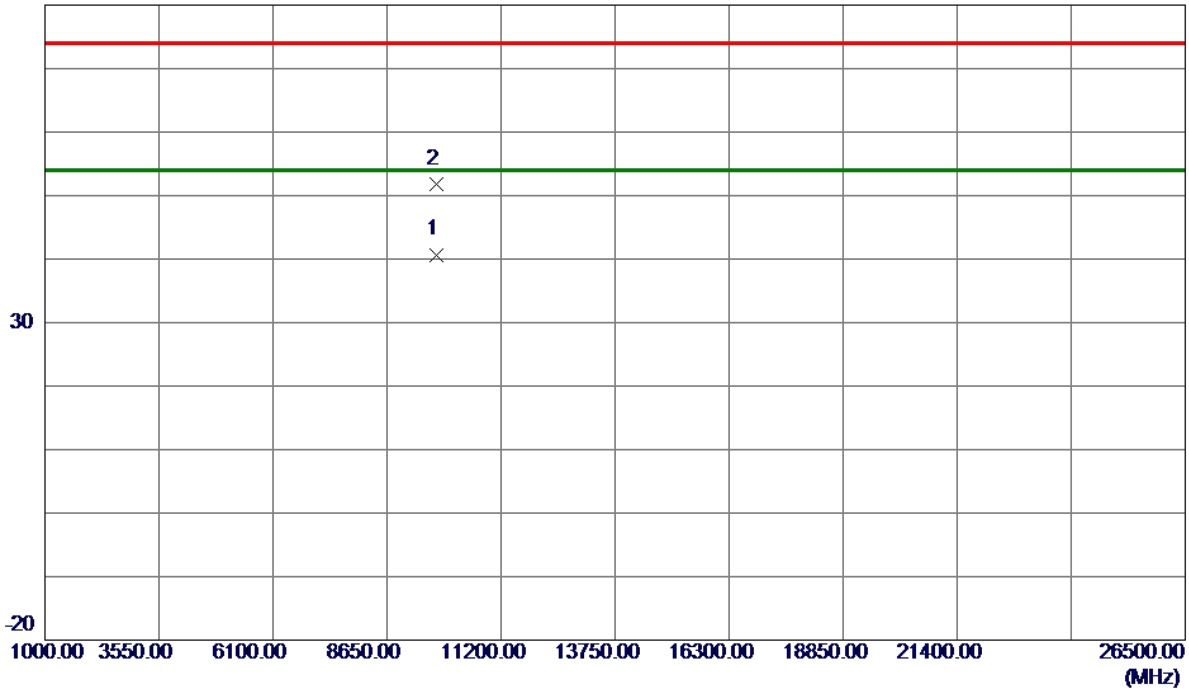
## REMARKS:

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

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

Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

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 *	9747.9109	28.07	12.63	40.70	54.00	-13.30	AVG	
2	9748.2130	39.18	12.63	51.81	74.00	-22.19	Peak	

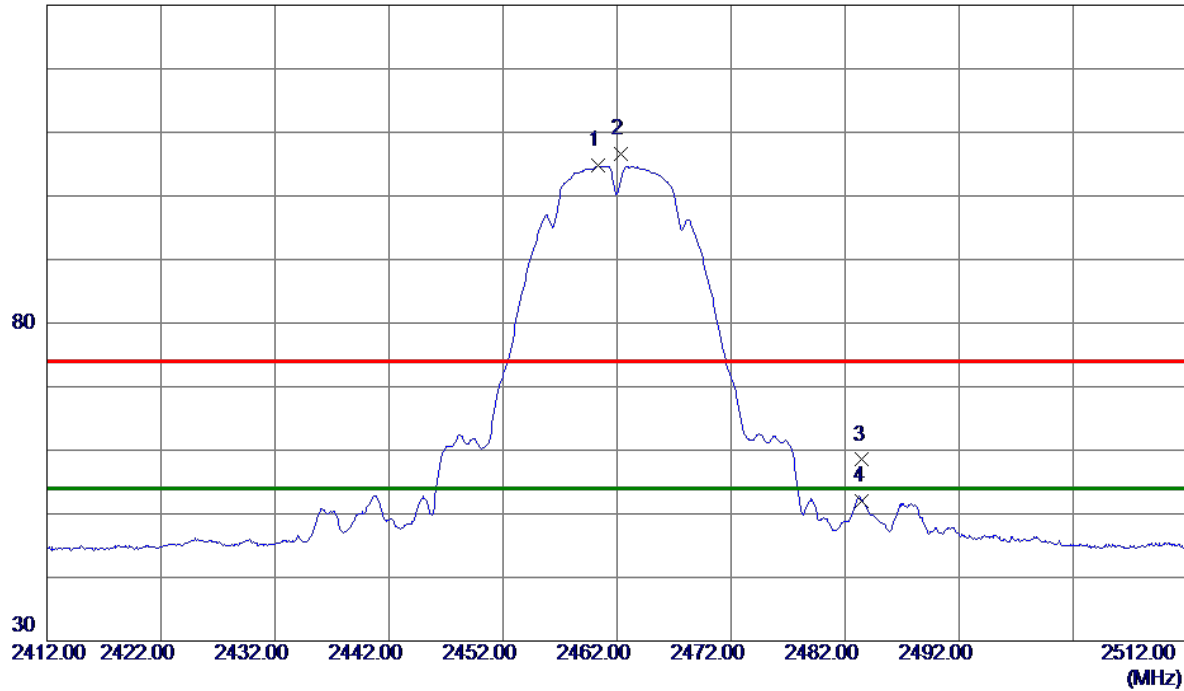
## REMARKS:

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



Test Mode	TX B Mode 2462 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

130 dBuV/m



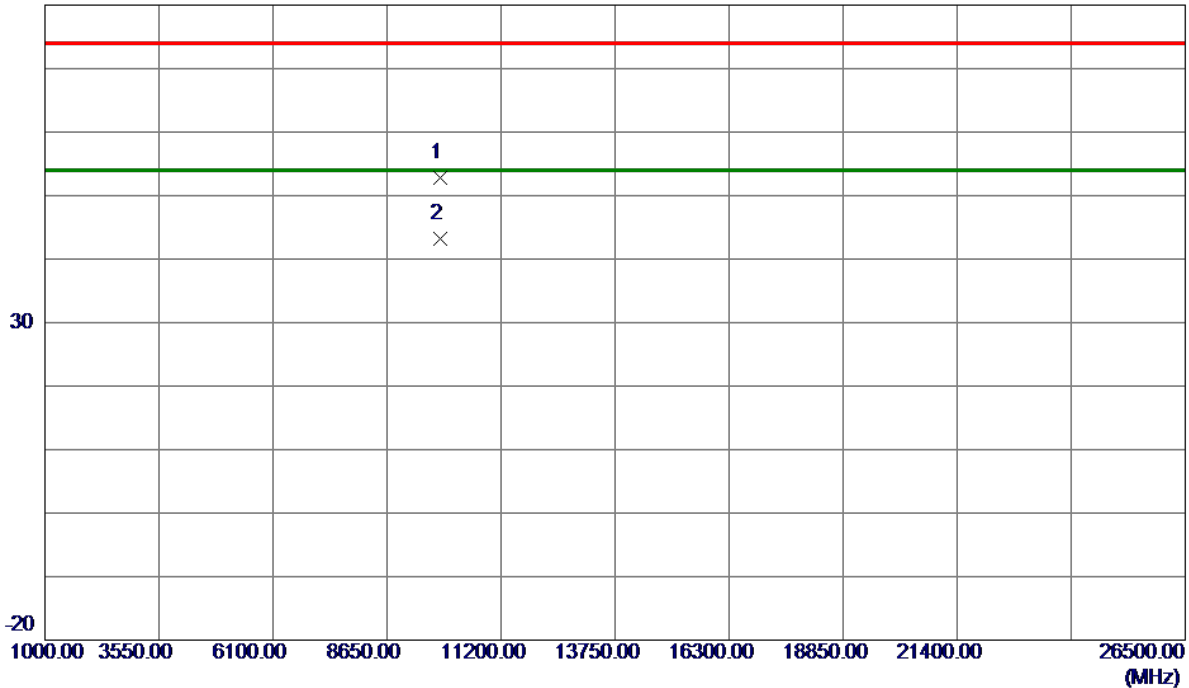
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2460.3000	96.33	8.39	104.72	54.00	50.72	AVG	No Limit
2	2462.3000	98.19	8.40	106.59	74.00	32.59	Peak	No Limit
3	2483.5000	50.08	8.42	58.50	74.00	-15.50	Peak	
4	2483.5000	43.60	8.42	52.02	54.00	-1.98	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
-----------	--------------------	--------------	----------

80 dBuV/m



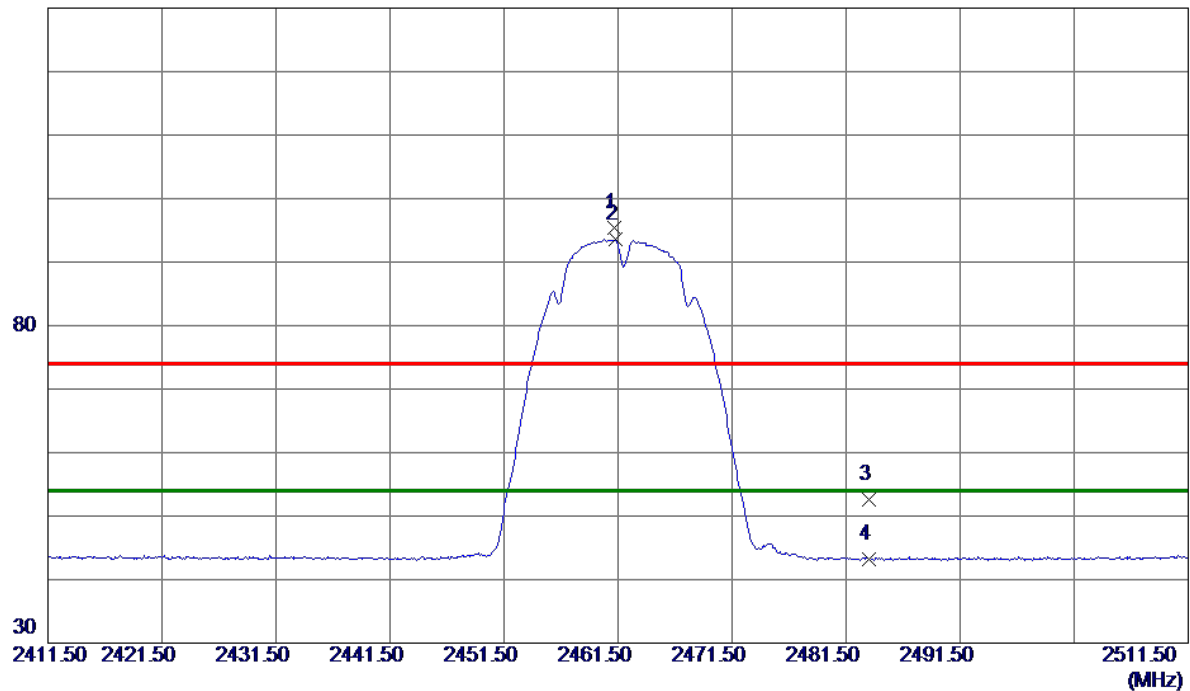
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9847.7820	39.95	12.84	52.79	74.00	-21.21	Peak	
2 *	9847.9400	30.28	12.84	43.12	54.00	-10.88	AVG	

## REMARKS:

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

Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

130 dBuV/m



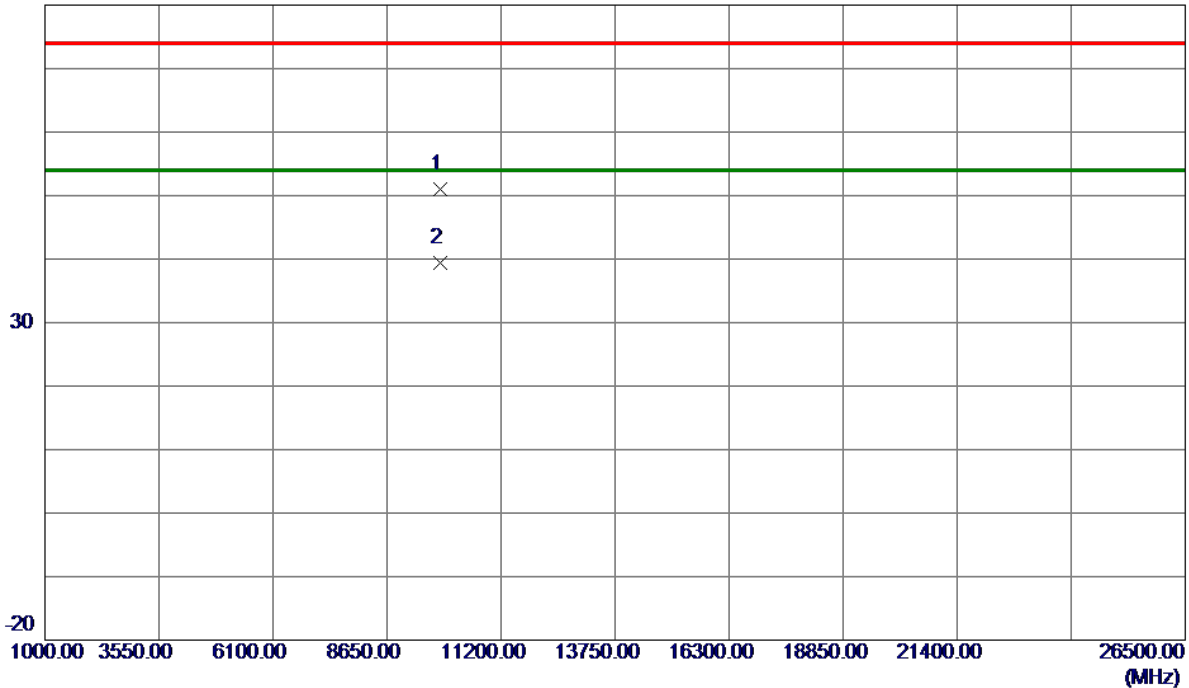
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.1500	87.04	8.40	95.44	74.00	21.44	Peak	No Limit
2 *	2461.3000	85.12	8.40	93.52	54.00	39.52	AVG	No Limit
3	2483.5000	44.24	8.42	52.66	74.00	-21.34	Peak	
4	2483.5000	34.74	8.42	43.16	54.00	-10.84	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
-----------	--------------------	--------------	------------

80 dBuV/m



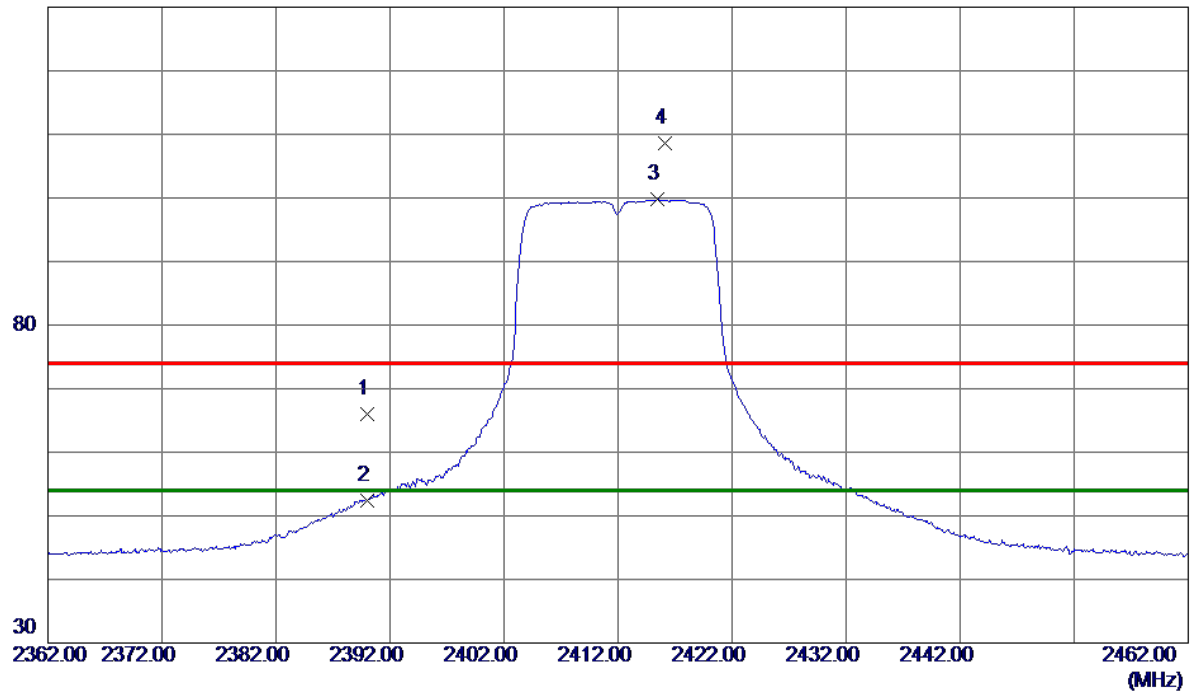
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9847.3600	38.15	12.84	50.99	74.00	-23.01	Peak	
2 *	9848.0320	26.61	12.84	39.45	54.00	-14.55	AVG	

## REMARKS:

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

Test Mode	TX G Mode 2412 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

130 dBuV/m



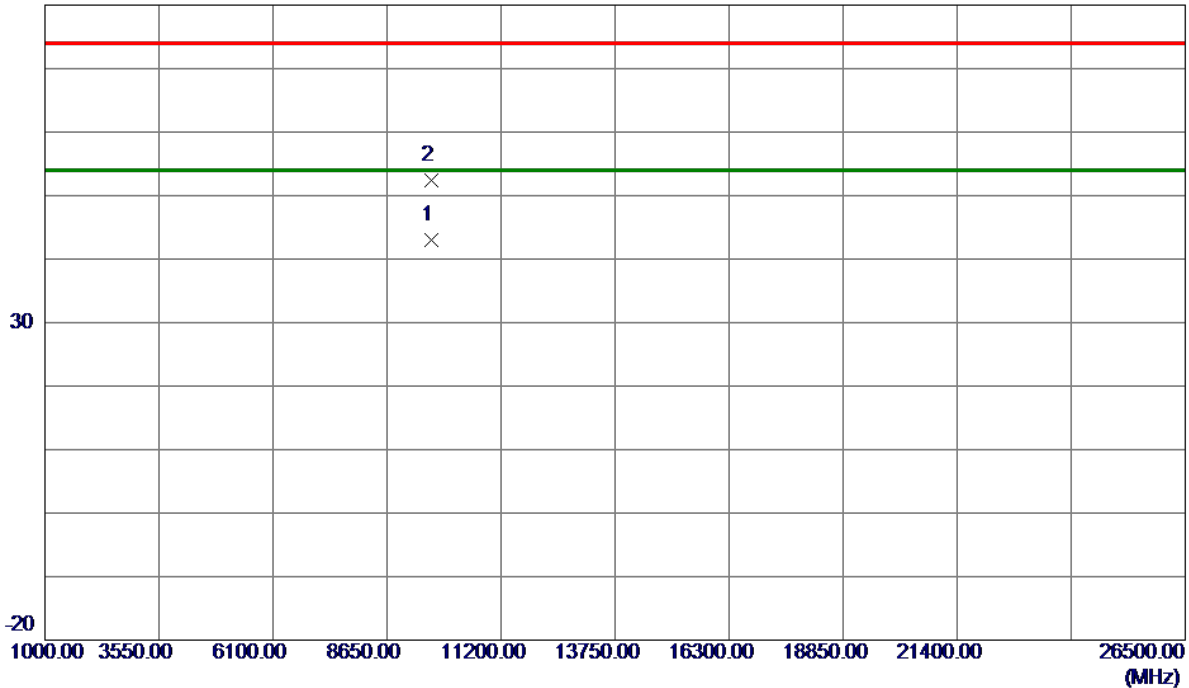
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	57.77	8.31	66.08	74.00	-7.92	Peak	
2	2390.0000	44.11	8.31	52.42	54.00	-1.58	AVG	
3 *	2415.4500	91.41	8.34	99.75	54.00	45.75	AVG	No Limit
4	2416.1500	100.20	8.34	108.54	74.00	34.54	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
-----------	--------------------	--------------	----------

80 dBuV/m

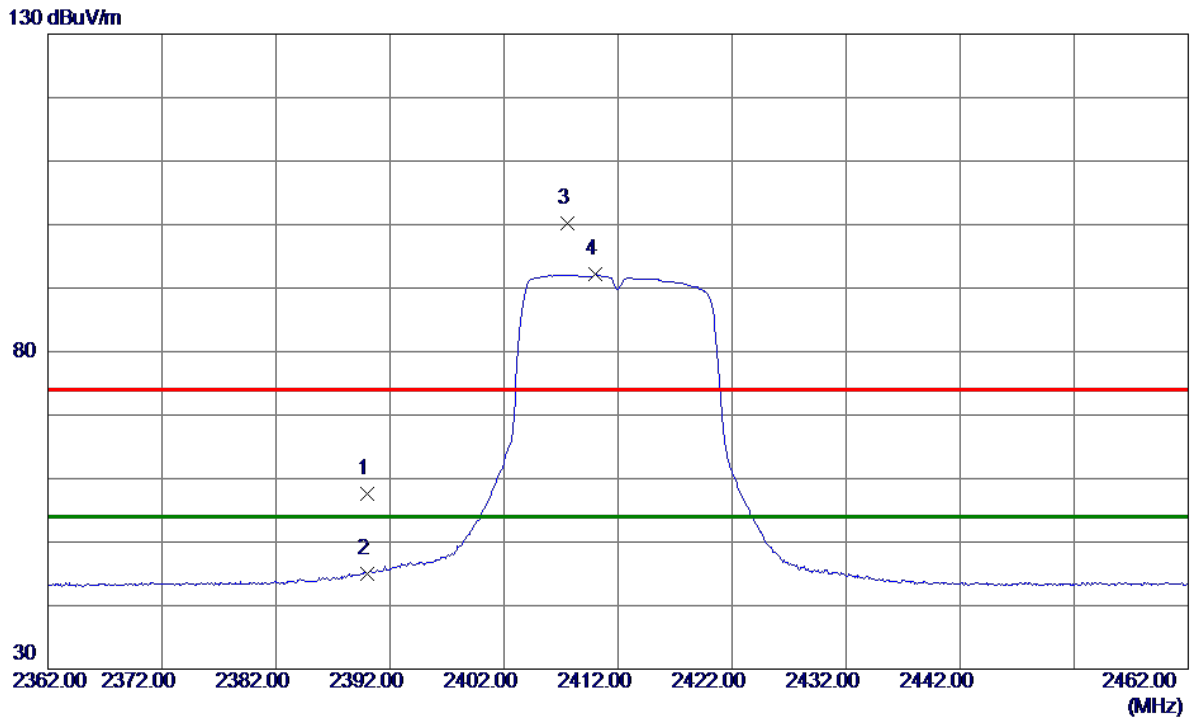


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9647.8920	30.59	12.42	43.01	54.00	-10.99	AVG	
2	9647.9860	39.90	12.42	52.32	74.00	-21.68	Peak	

## REMARKS:

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

Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------



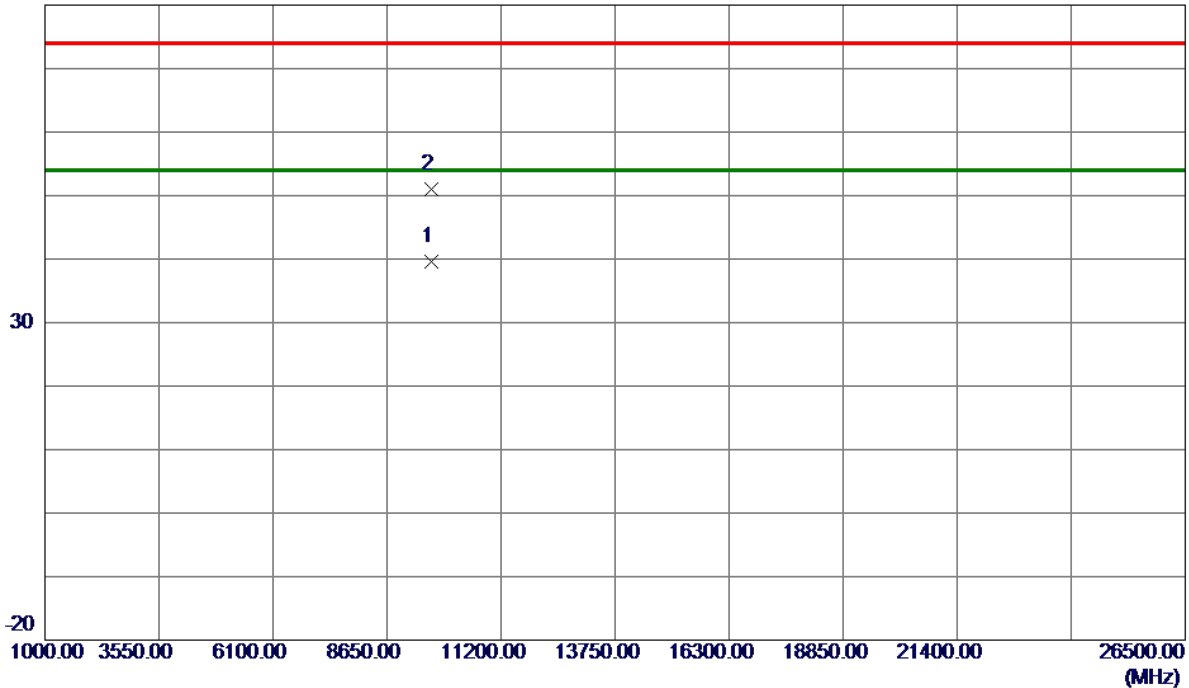
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	49.37	8.31	57.68	74.00	-16.32	Peak	
2	2390.0000	36.63	8.31	44.94	54.00	-9.06	AVG	
3	2407.6000	91.86	8.33	100.19	74.00	26.19	Peak	No Limit
4 *	2410.0000	83.82	8.33	92.15	54.00	38.15	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
-----------	--------------------	--------------	------------

80 dBuV/m



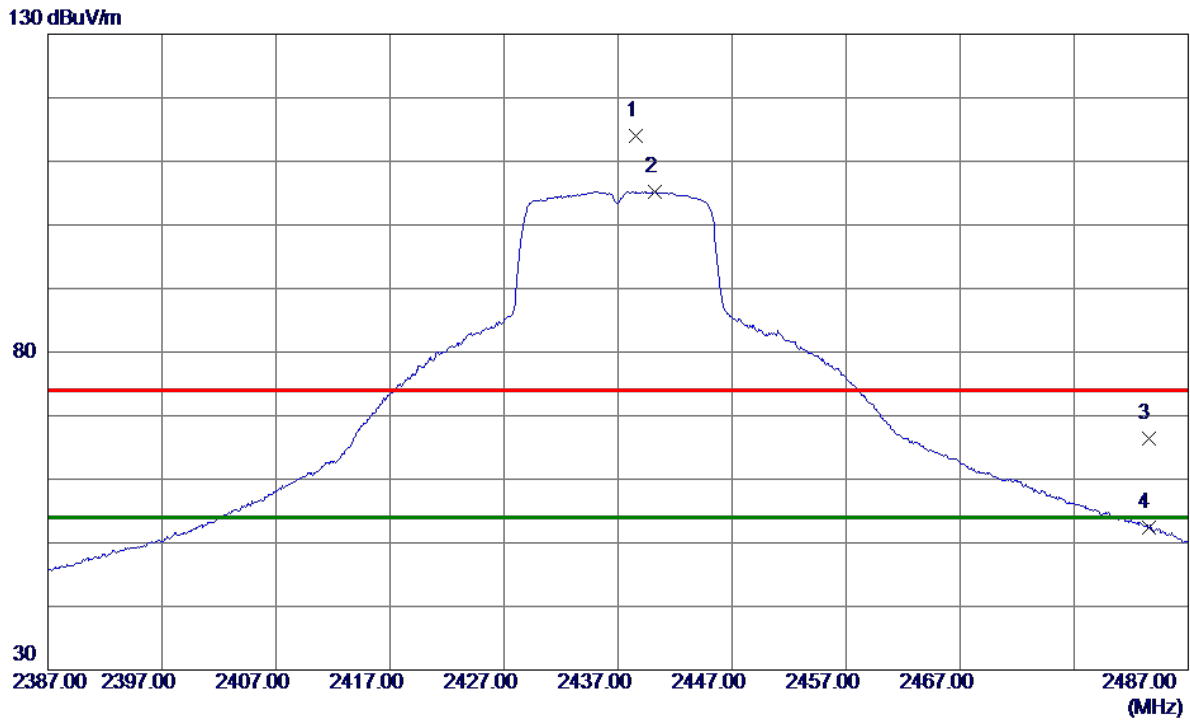
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9647.8150	27.21	12.42	39.63	54.00	-14.37	AVG	
2	9647.8400	38.59	12.42	51.01	74.00	-22.99	Peak	

## REMARKS:

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



Test Mode	TX G Mode 2437 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------



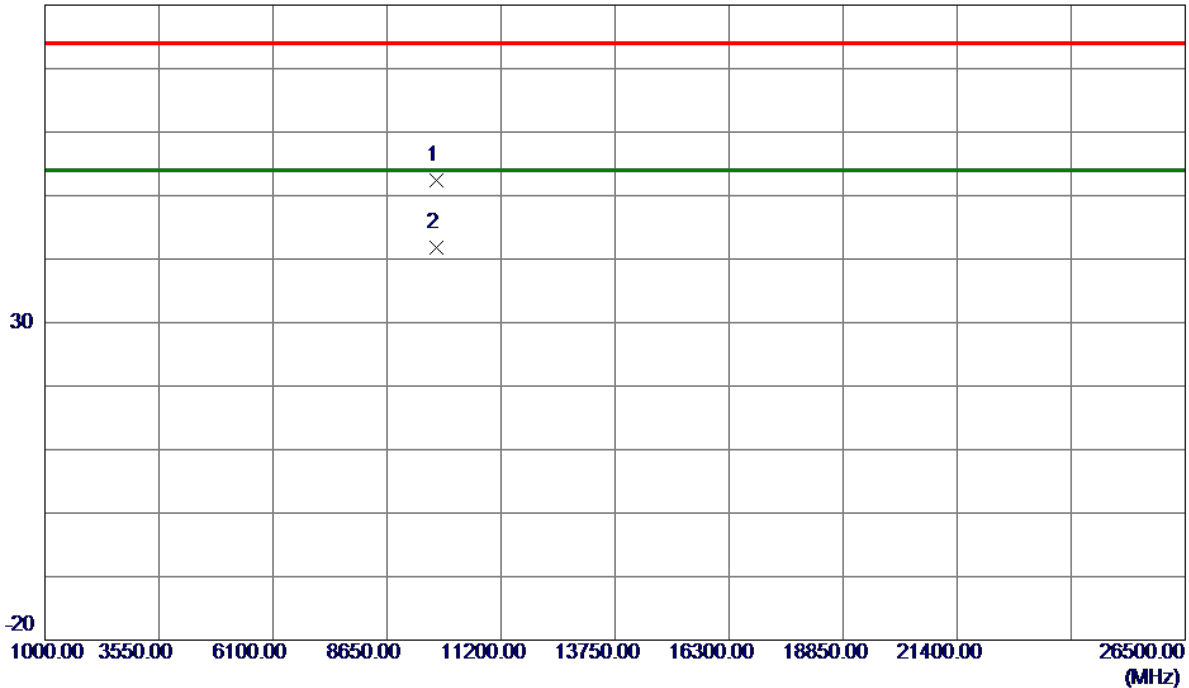
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2438.5500	105.67	8.37	114.04	74.00	40.04	Peak	No Limit
2 *	2440.2500	96.85	8.37	105.22	54.00	51.22	AVG	No Limit
3	2483.5000	57.95	8.42	66.37	74.00	-7.63	Peak	
4	2483.5000	43.98	8.42	52.40	54.00	-1.60	AVG	

## REMARKS:

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

Test Mode	TX G Mode 2437 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

80 dBuV/m



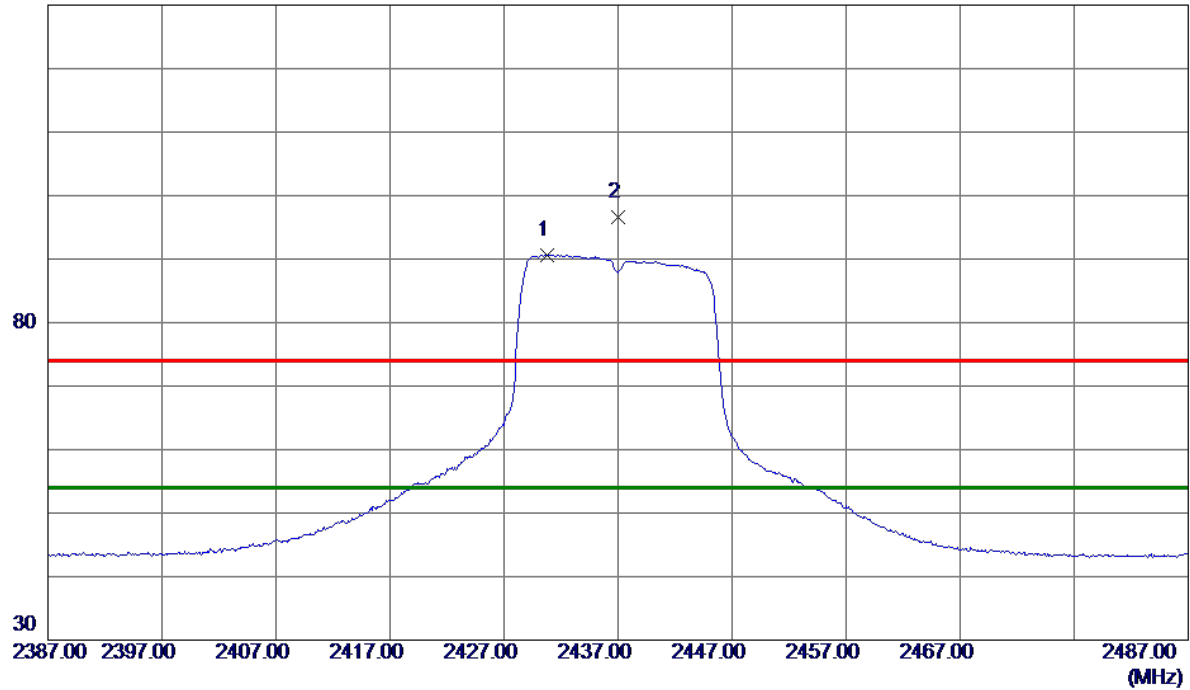
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9747.5759	39.83	12.63	52.46	74.00	-21.54	Peak	
2 *	9747.9180	29.24	12.63	41.87	54.00	-12.13	AVG	

## REMARKS:

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

Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

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 *	2430.8000	82.26	8.36	90.62	54.00	36.62	AVG	No Limit
2	2437.0000	88.27	8.36	96.63	74.00	22.63	Peak	No Limit

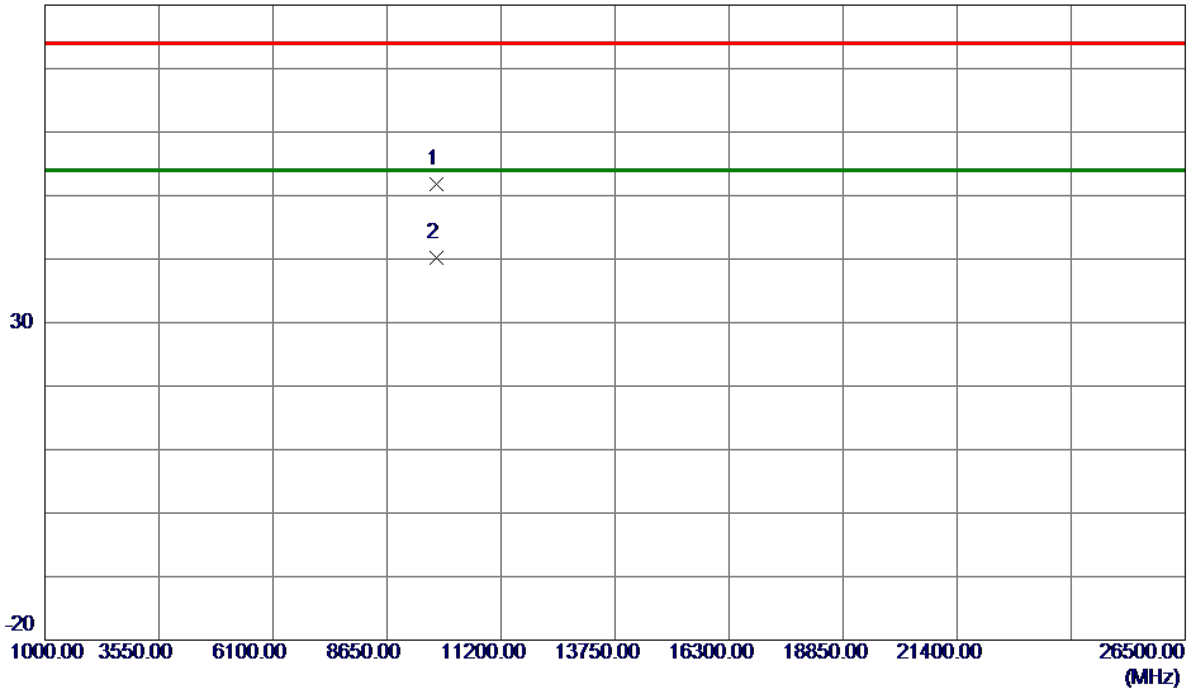
## REMARKS:

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

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

Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

80 dBuV/m



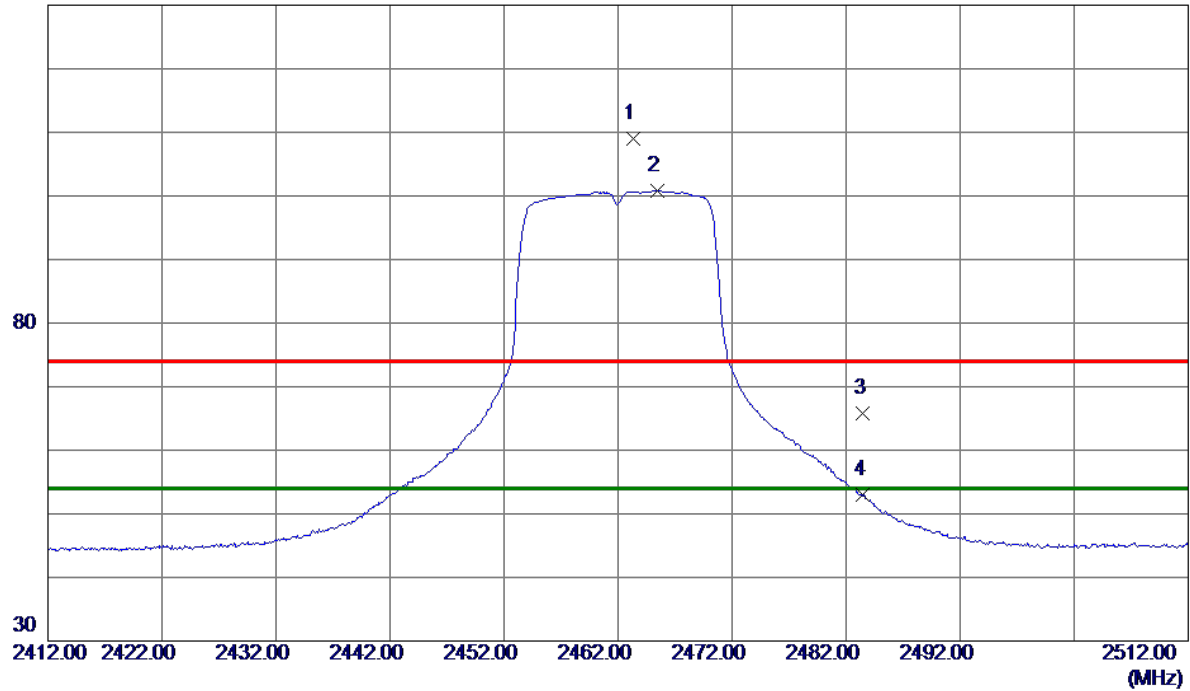
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9747.8510	39.17	12.63	51.80	74.00	-22.20	Peak	
2 *	9747.9290	27.64	12.63	40.27	54.00	-13.73	AVG	

## REMARKS:

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

Test Mode	TX G Mode 2462 MHz	Polarization	Vertical
-----------	--------------------	--------------	----------

130 dBuV/m



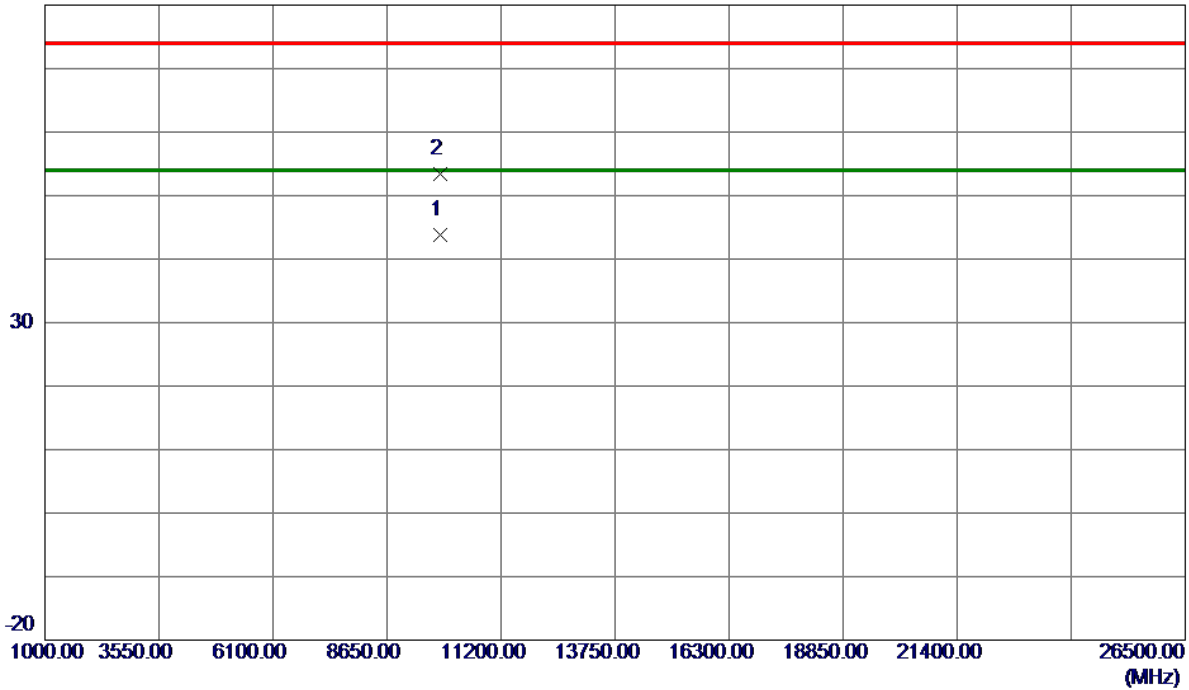
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2463.3000	100.69	8.40	109.09	74.00	35.09	Peak	No Limit
2 *	2465.4000	92.44	8.40	100.84	54.00	46.84	AVG	No Limit
3	2483.5000	57.43	8.42	65.85	74.00	-8.15	Peak	
4	2483.5000	44.51	8.42	52.93	54.00	-1.07	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
-----------	--------------------	--------------	----------

80 dBuV/m



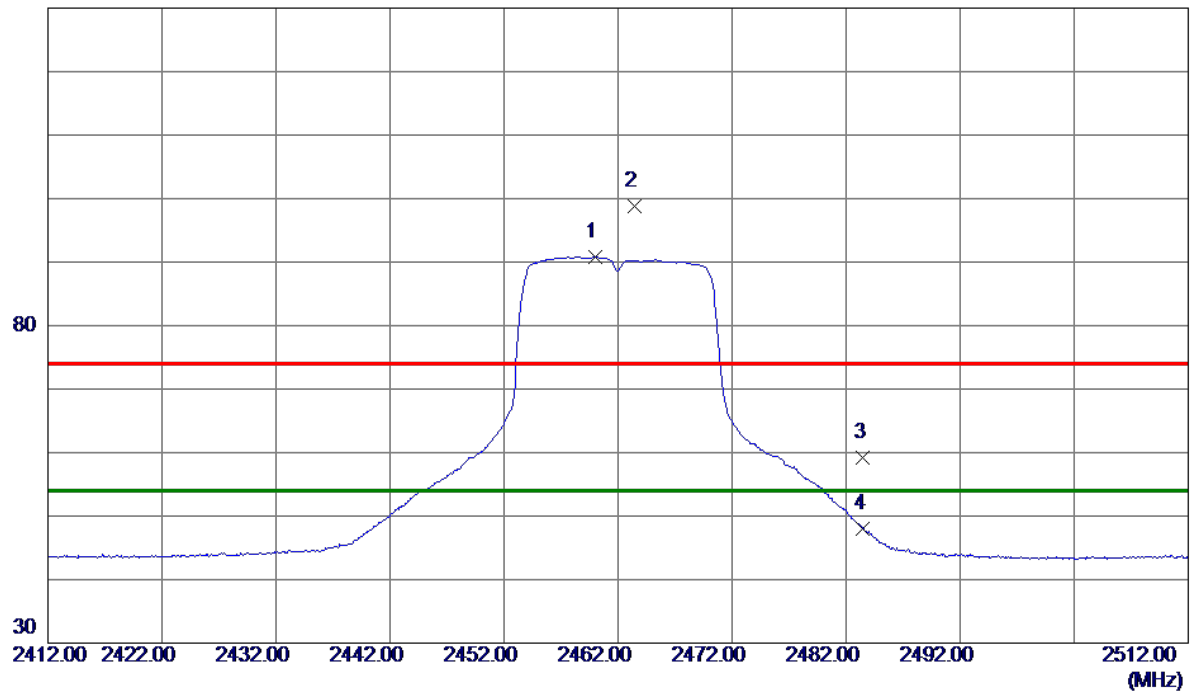
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9847.8850	31.00	12.84	43.84	54.00	-10.16	AVG	
2	9847.9480	40.50	12.84	53.34	74.00	-20.66	Peak	

## REMARKS:

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

Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

130 dBuV/m



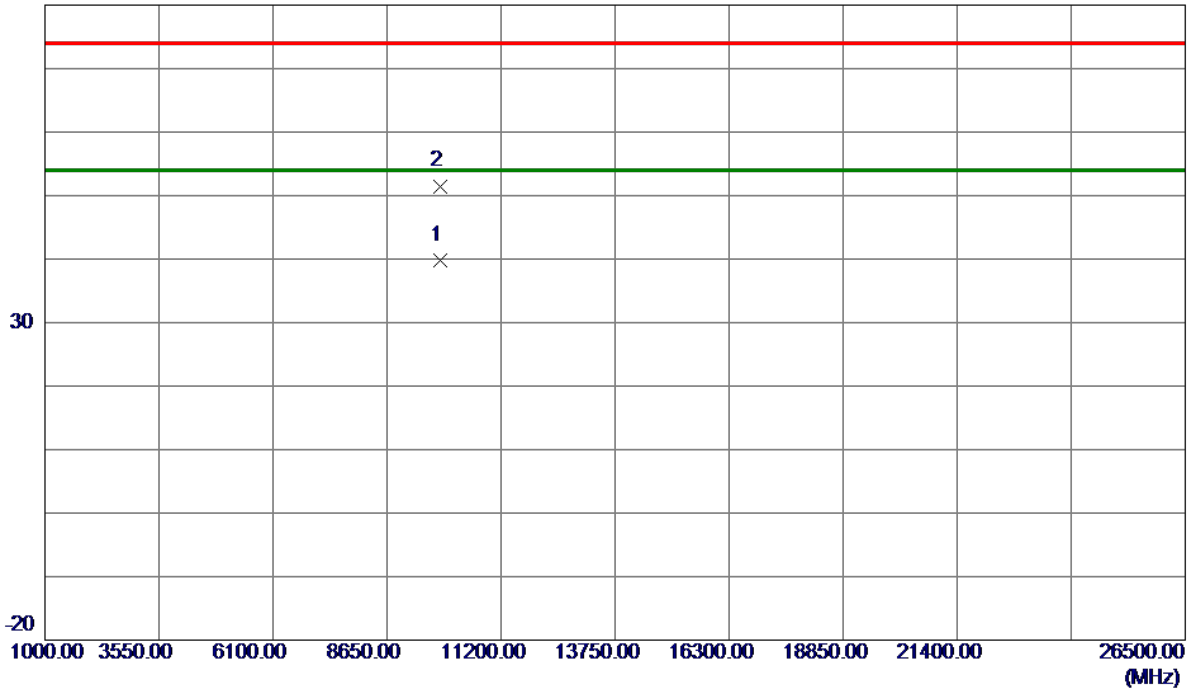
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2459.9500	82.47	8.39	90.86	54.00	36.86	AVG	
2	2463.4500	90.49	8.40	98.89	74.00	24.89	Peak	
3	2483.5000	50.81	8.42	59.23	74.00	-14.77	Peak	
4	2483.5000	39.53	8.42	47.95	54.00	-6.05	AVG	

## REMARKS:

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

Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal
-----------	--------------------	--------------	------------

80 dBuV/m



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB		
1 *	9847.8530	26.89	12.84	39.73	54.00	-14.27	AVG	
2	9848.7650	38.66	12.84	51.50	74.00	-22.50	Peak	

## REMARKS:

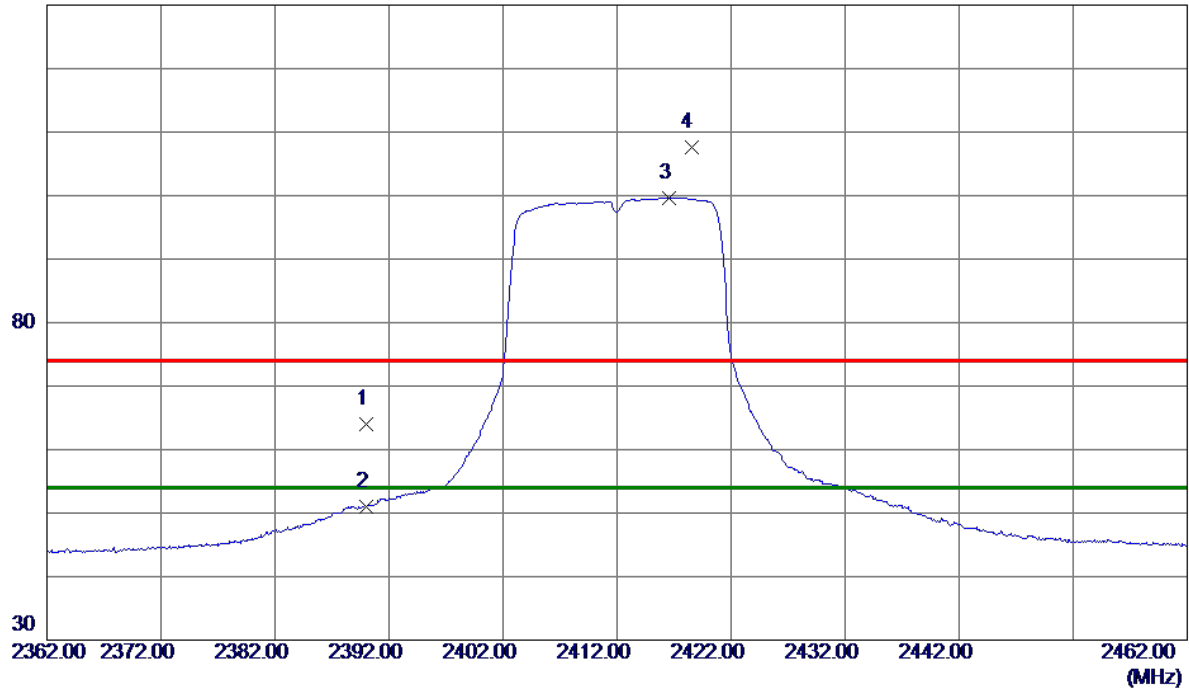
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.



## Ant. 1+Ant. 2

Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical
-----------	--------------------------	--------------	----------

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	2390.0000	55.68	8.31	63.99	74.00	-10.01	Peak	
2	2390.0000	42.77	8.31	51.08	54.00	-2.92	AVG	
3 *	2416.5500	91.35	8.34	99.69	54.00	45.69	AVG	No Limit
4	2418.5000	99.17	8.34	107.51	74.00	33.51	Peak	No Limit

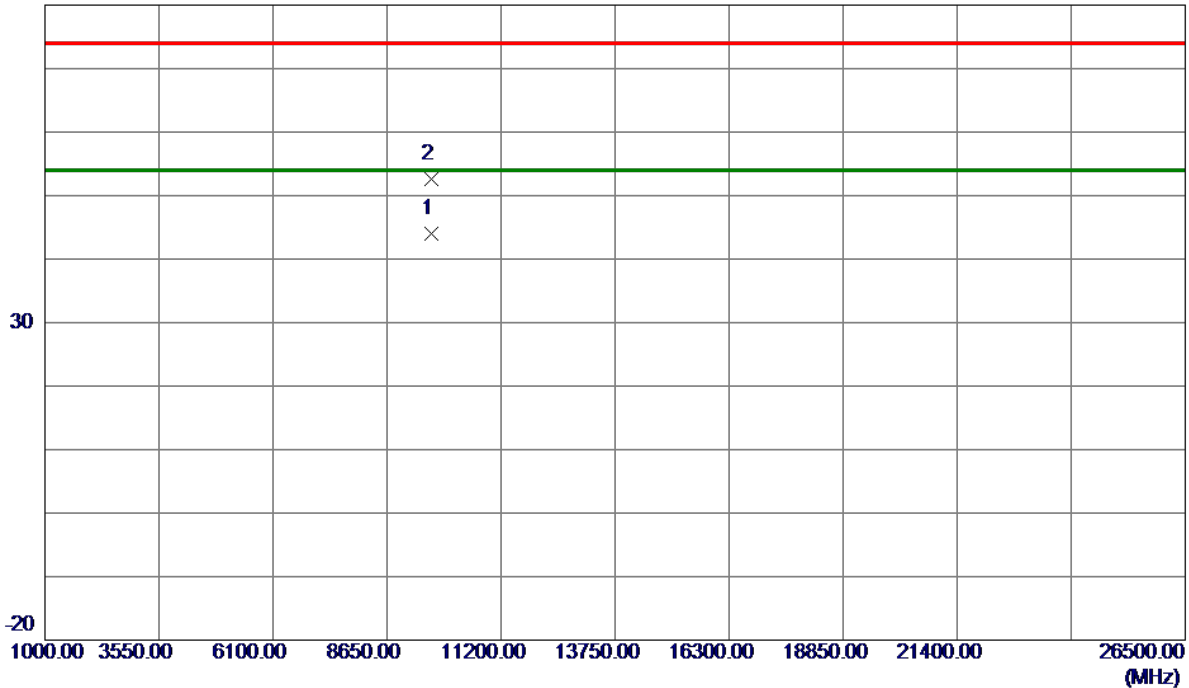
### REMARKS:

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

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

Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical
-----------	--------------------------	--------------	----------

80 dBuV/m



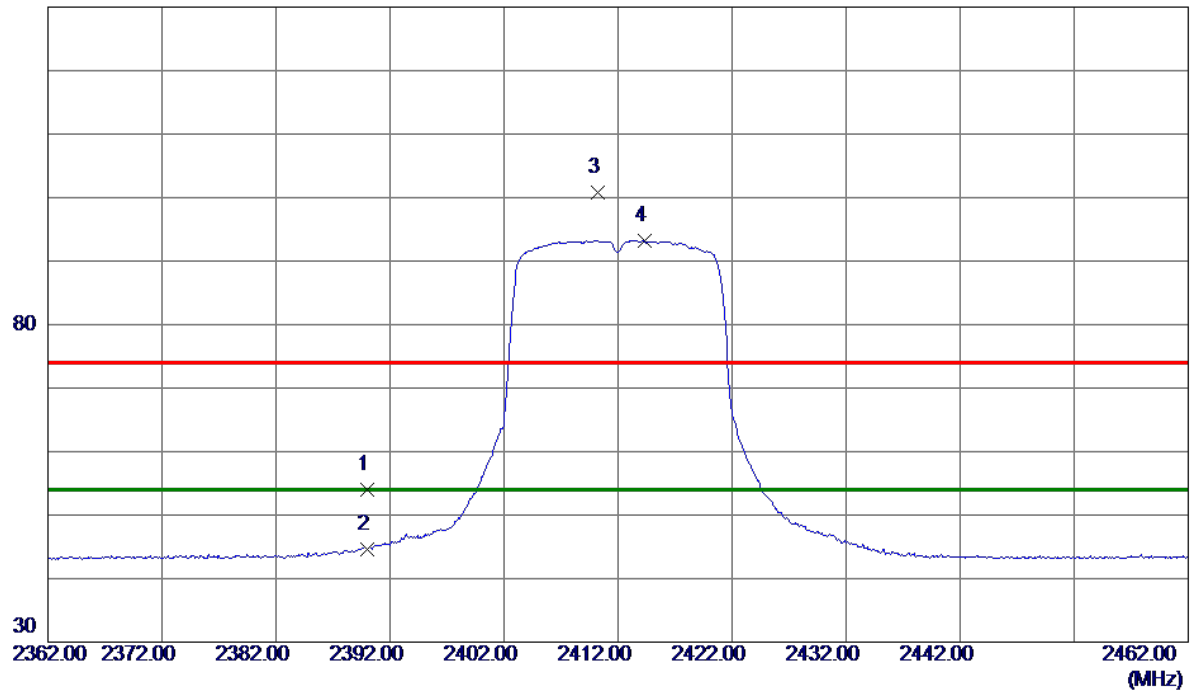
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9647.8800	31.65	12.42	44.07	54.00	-9.93	AVG	
2	9647.8920	40.26	12.42	52.68	74.00	-21.32	Peak	

## REMARKS:

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

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

130 dBuV/m



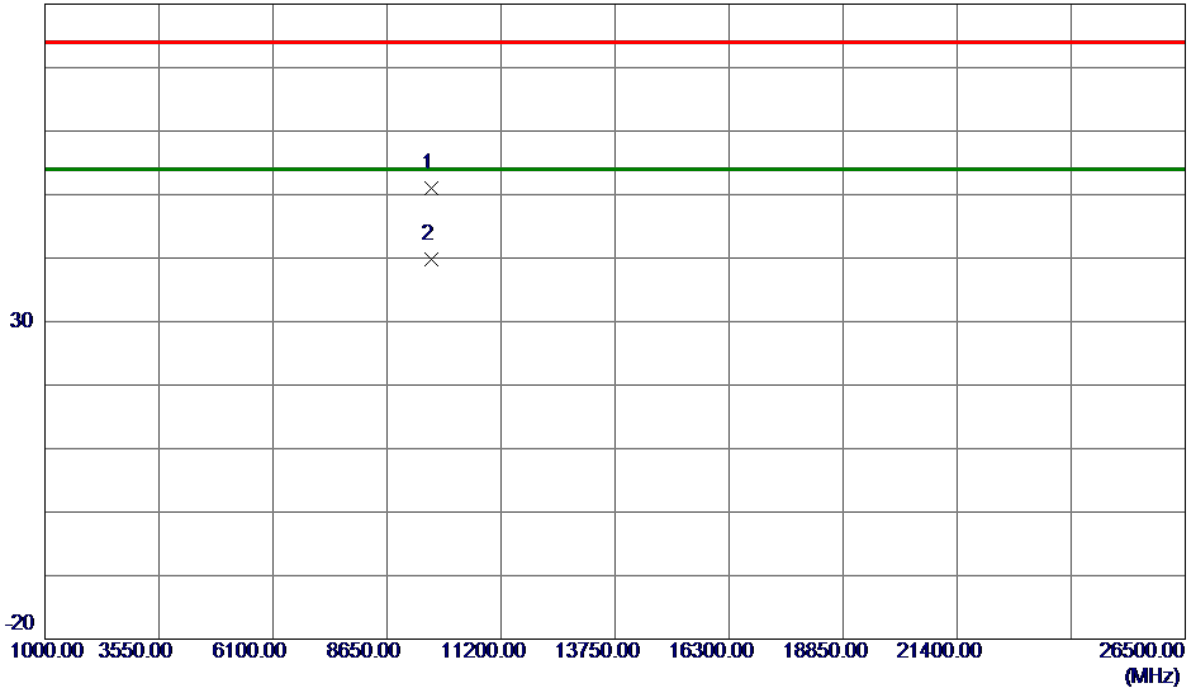
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	45.67	8.31	53.98	74.00	-20.02	Peak	
2	2390.0000	36.38	8.31	44.69	54.00	-9.31	AVG	
3	2410.2500	92.45	8.33	100.78	74.00	26.78	Peak	No Limit
4 *	2414.3000	84.94	8.34	93.28	54.00	39.28	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
-----------	--------------------------	--------------	------------

80 dBuV/m



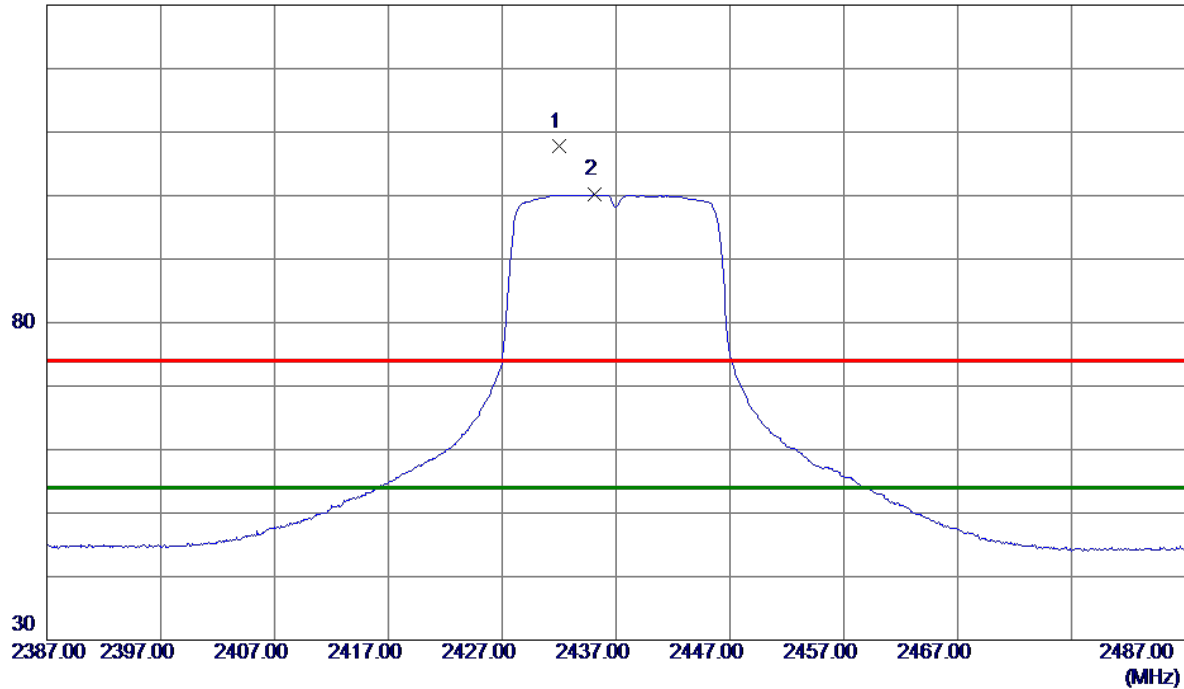
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9647.1990	38.51	12.42	50.93	74.00	-23.07	Peak	
2 *	9648.1140	27.39	12.42	39.81	54.00	-14.19	AVG	

## 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
-----------	--------------------------	--------------	----------

130 dBuV/m



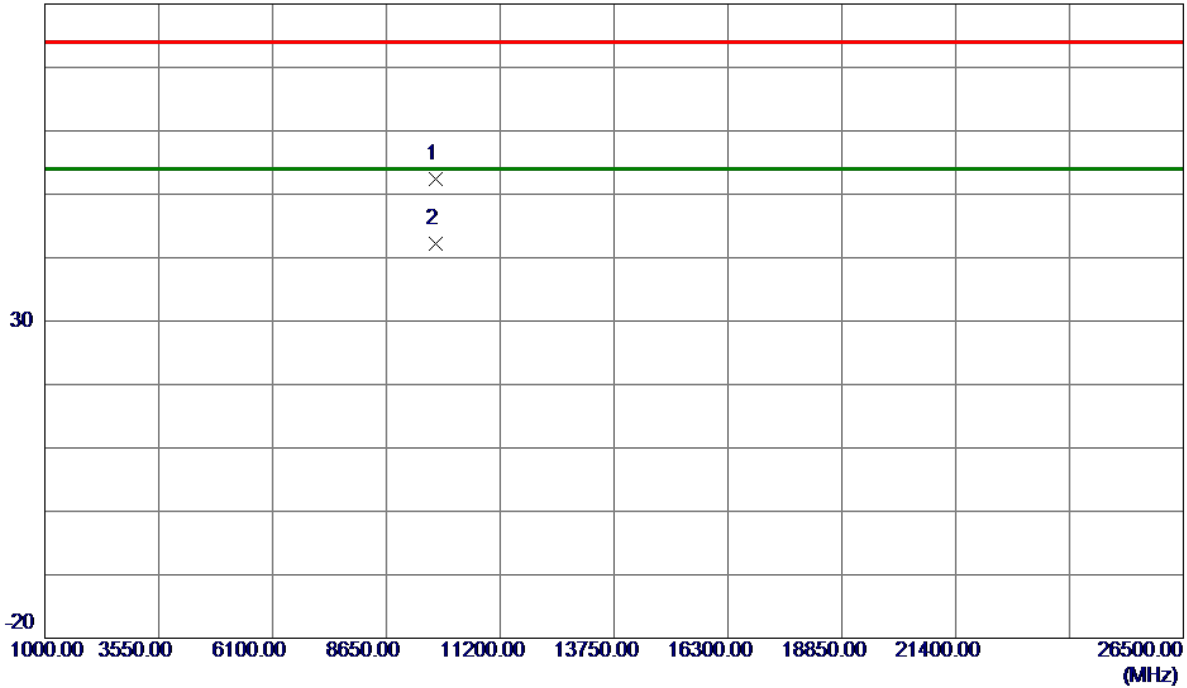
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2431.9500	99.34	8.36	107.70	74.00	33.70	Peak	No Limit
2 *	2435.1500	91.80	8.36	100.16	54.00	46.16	AVG	No Limit

## REMARKS:

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

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

80 dBuV/m



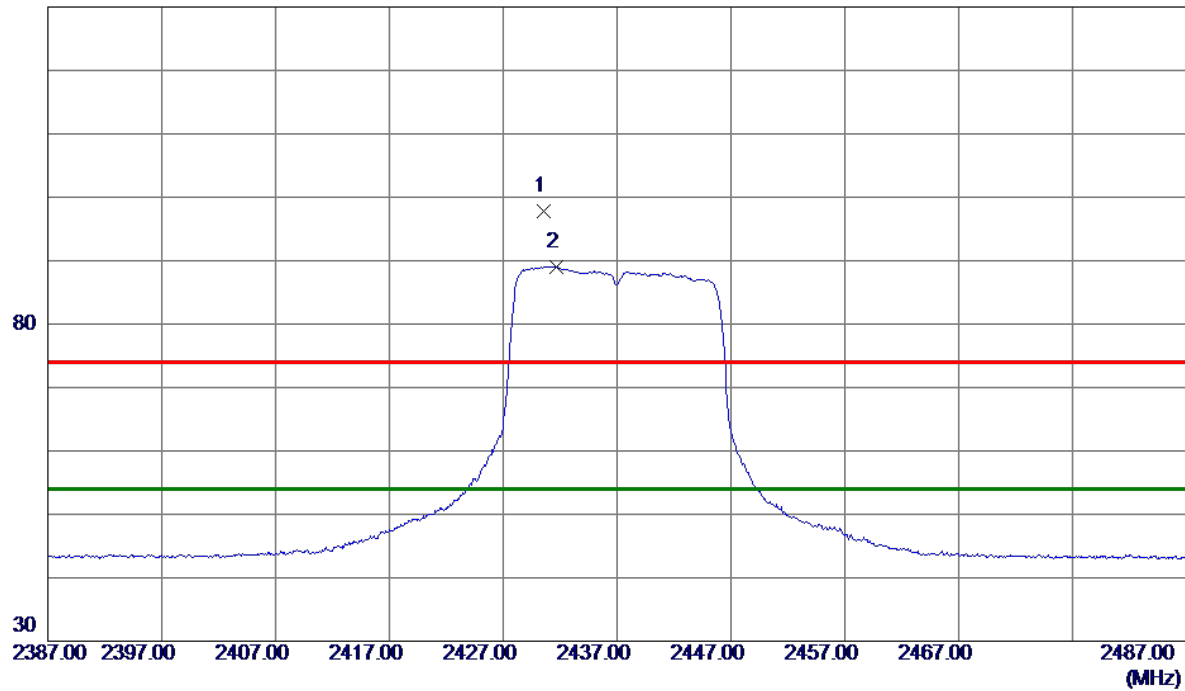
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9747.6440	39.84	12.63	52.47	74.00	-21.53	Peak	
2 *	9747.9250	29.56	12.63	42.19	54.00	-11.81	AVG	

## REMARKS:

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

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

130 dBuV/m



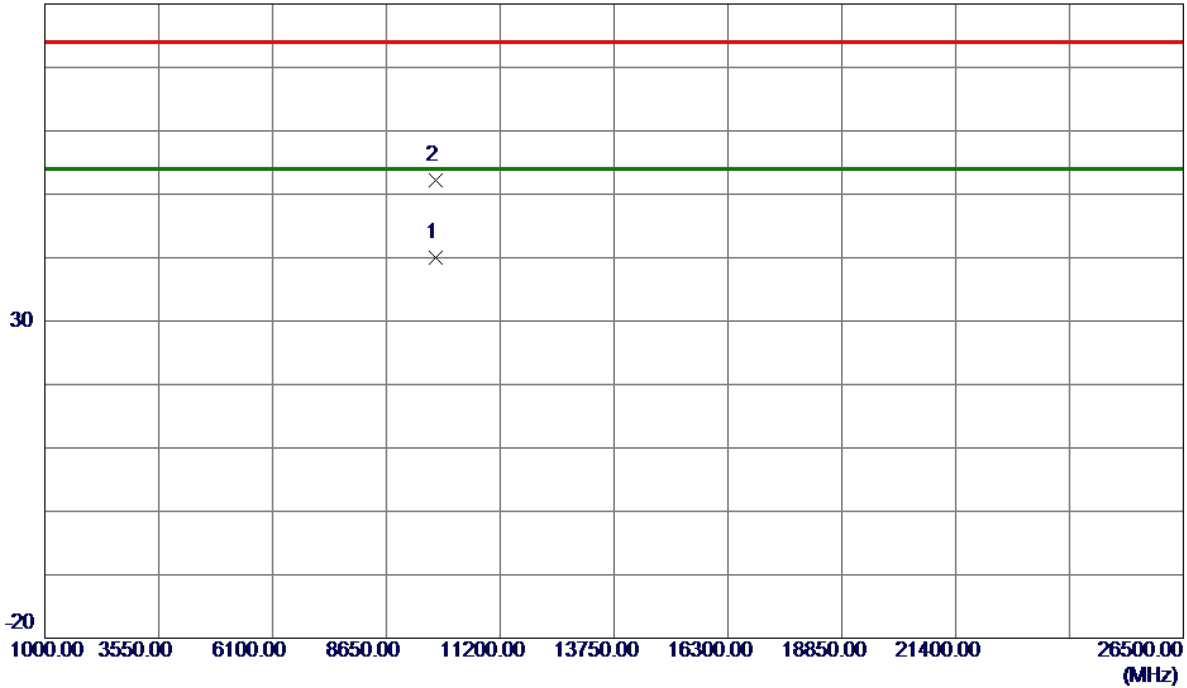
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2430.6000	89.43	8.36	97.79	74.00	23.79	Peak	No Limit
2 *	2431.7000	80.68	8.36	89.04	54.00	35.04	AVG	No Limit

## REMARKS:

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

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

80 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9748.0060	27.44	12.63	40.07	54.00	-13.93	AVG	
2	9748.2550	39.57	12.63	52.20	74.00	-21.80	Peak	

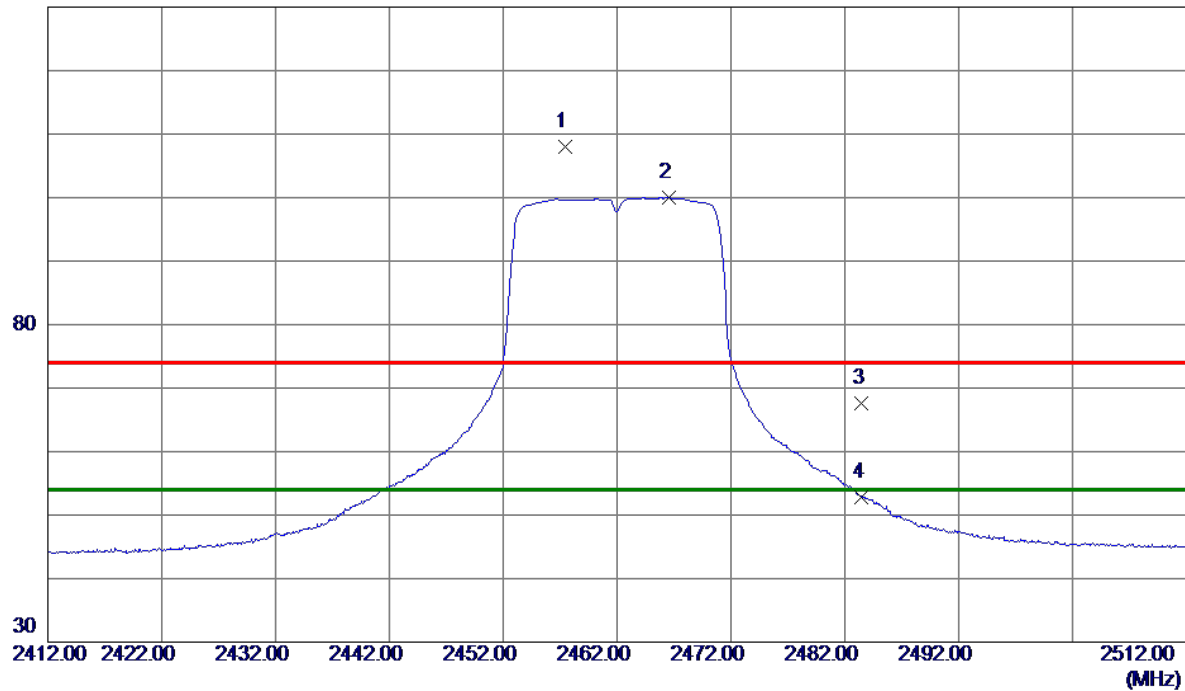
## REMARKS:

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



Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical
-----------	--------------------------	--------------	----------

130 dBuV/m



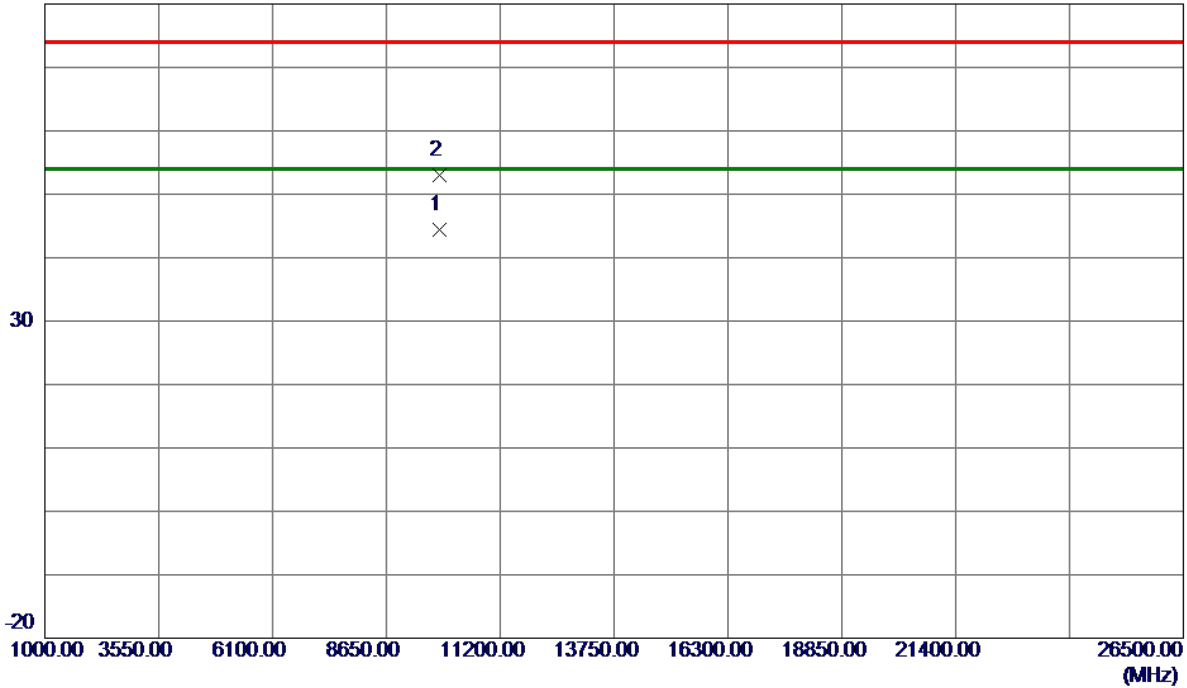
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2457.4500	99.51	8.39	107.90	74.00	33.90	Peak	No Limit
2 *	2466.6000	91.57	8.40	99.97	54.00	45.97	AVG	No Limit
3	2483.5000	59.15	8.42	67.57	74.00	-6.43	Peak	
4	2483.5000	44.42	8.42	52.84	54.00	-1.16	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
-----------	--------------------------	--------------	----------

80 dBuV/m



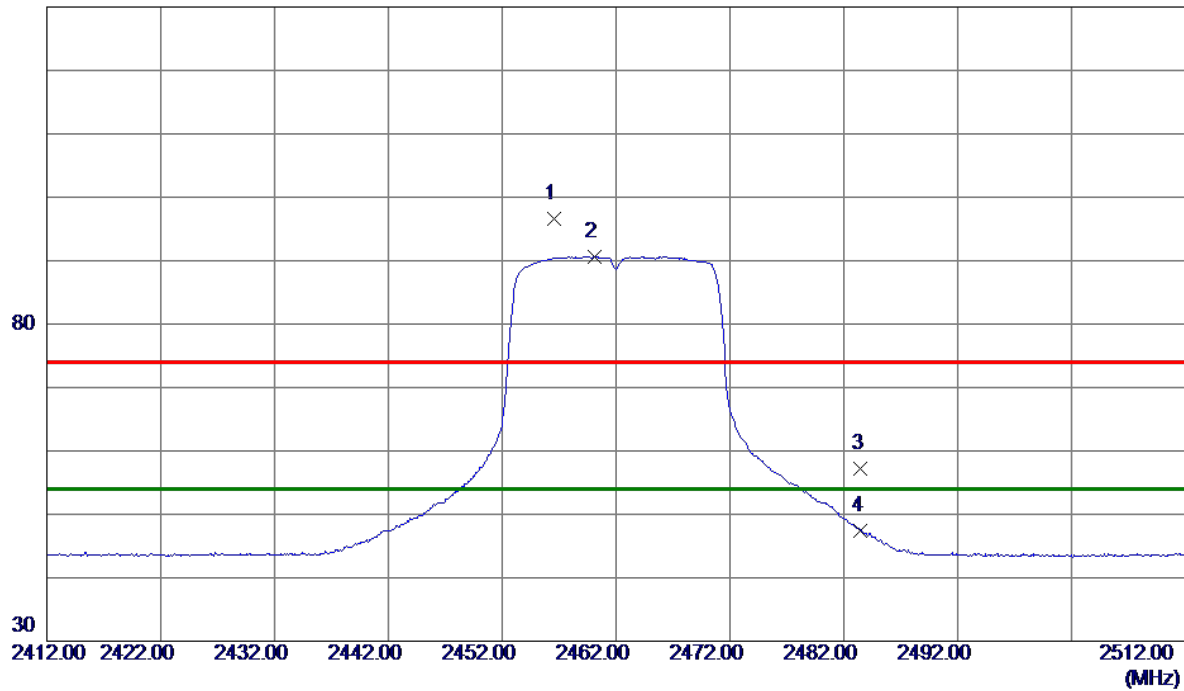
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9847.9040	31.61	12.84	44.45	54.00	-9.55	AVG	
2	9848.2310	40.18	12.84	53.02	74.00	-20.98	Peak	

## REMARKS:

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

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

130 dBuV/m

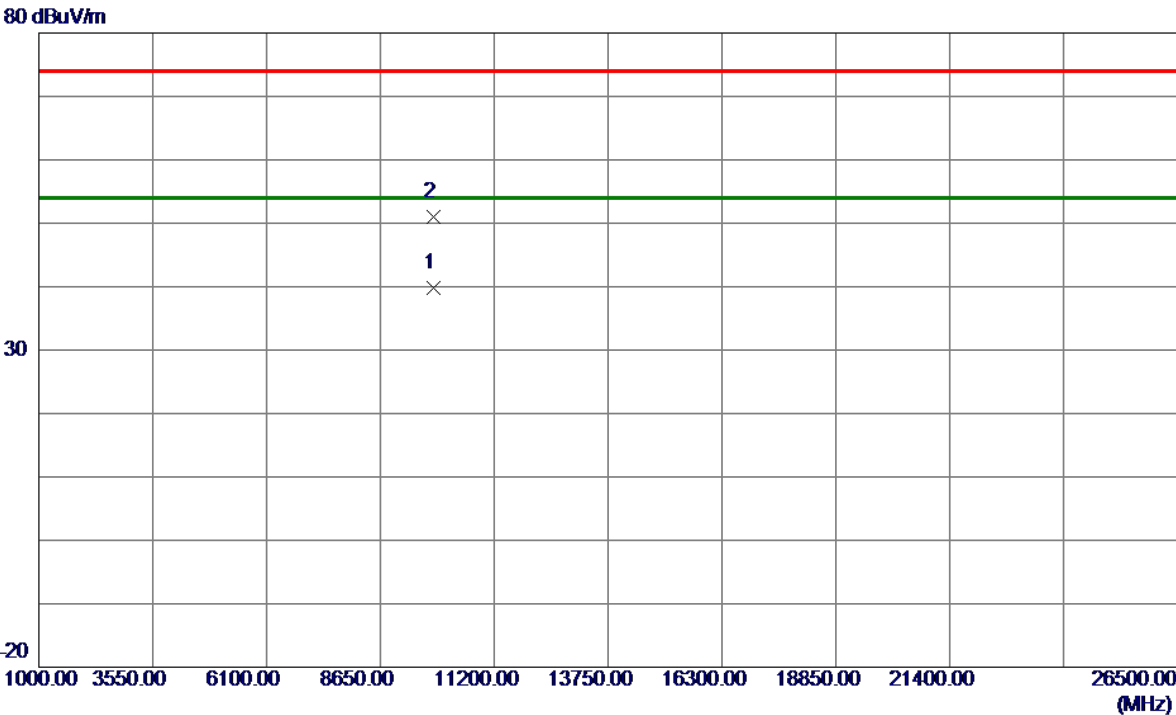


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2456.6000	88.21	8.39	96.60	74.00	22.60	Peak	No Limit
2 *	2460.1000	82.28	8.39	90.67	54.00	36.67	AVG	No Limit
3	2483.5000	48.83	8.42	57.25	74.00	-16.75	Peak	
4	2483.5000	39.00	8.42	47.42	54.00	-6.58	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
-----------	--------------------------	--------------	------------

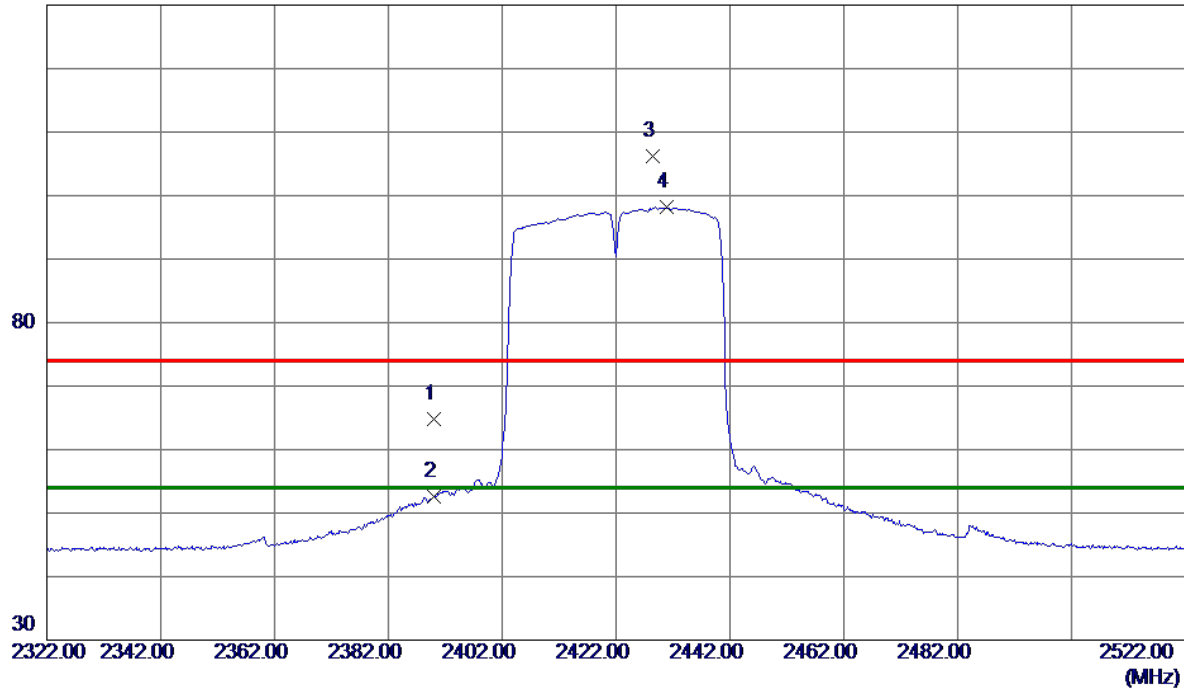


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9847.7800	26.95	12.84	39.79	54.00	-14.21	AVG	
2	9848.3060	38.09	12.84	50.93	74.00	-23.07	Peak	

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
-----------	--------------------------	--------------	----------

130 dBuV/m



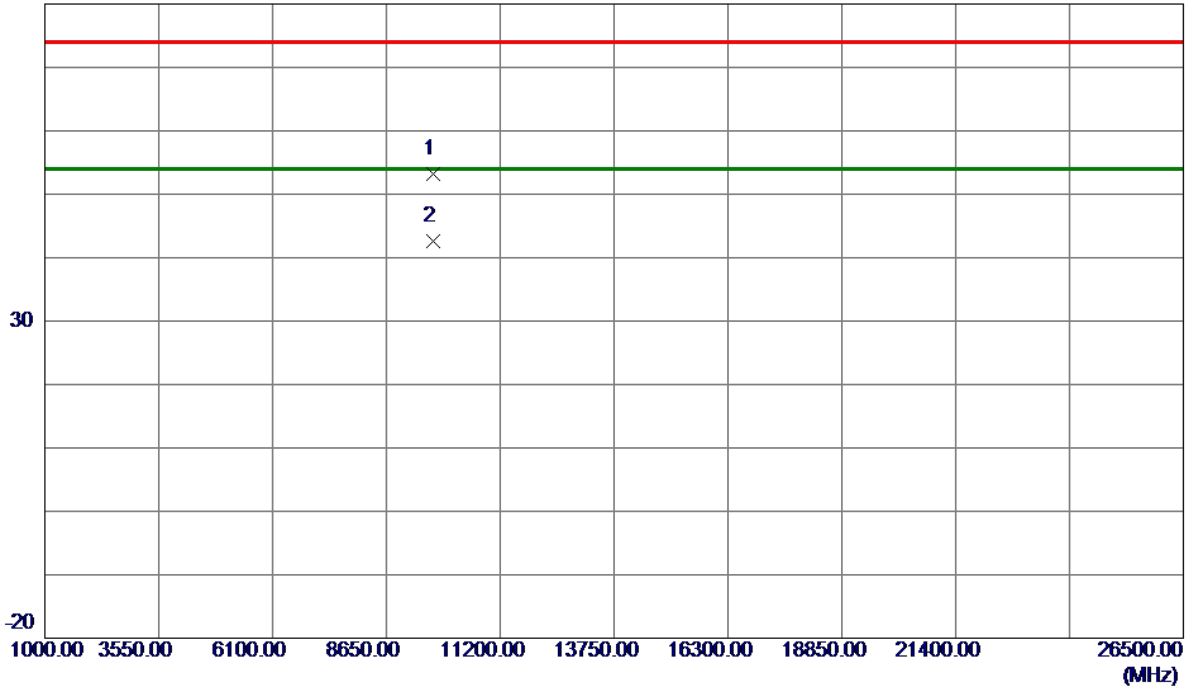
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	56.56	8.31	64.87	74.00	-9.13	Peak	
2	2390.0000	44.21	8.31	52.52	54.00	-1.48	AVG	
3	2428.5000	97.84	8.35	106.19	74.00	32.19	Peak	No Limit
4 *	2430.8000	89.77	8.36	98.13	54.00	44.13	AVG	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
-----------	--------------------------	--------------	----------

80 dBuV/m



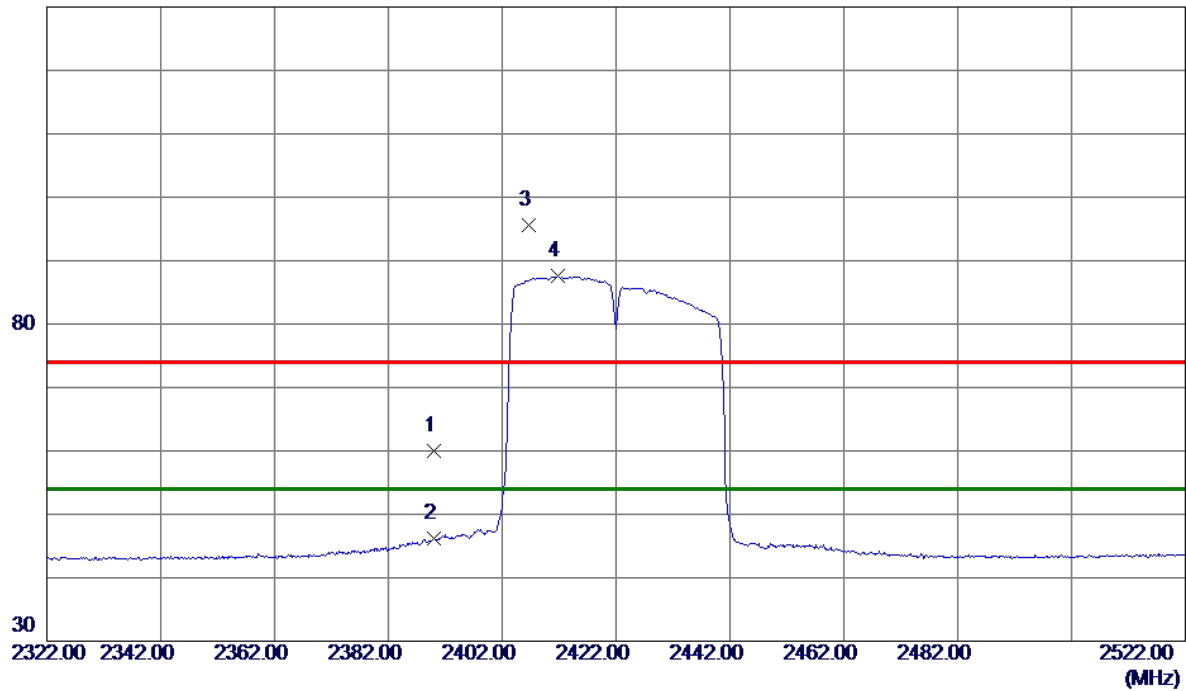
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9687.9160	40.61	12.51	53.12	74.00	-20.88	Peak	
2 *	9687.9390	30.08	12.51	42.59	54.00	-11.41	AVG	

## REMARKS:

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

Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Horizontal
-----------	--------------------------	--------------	------------

130 dBuV/m

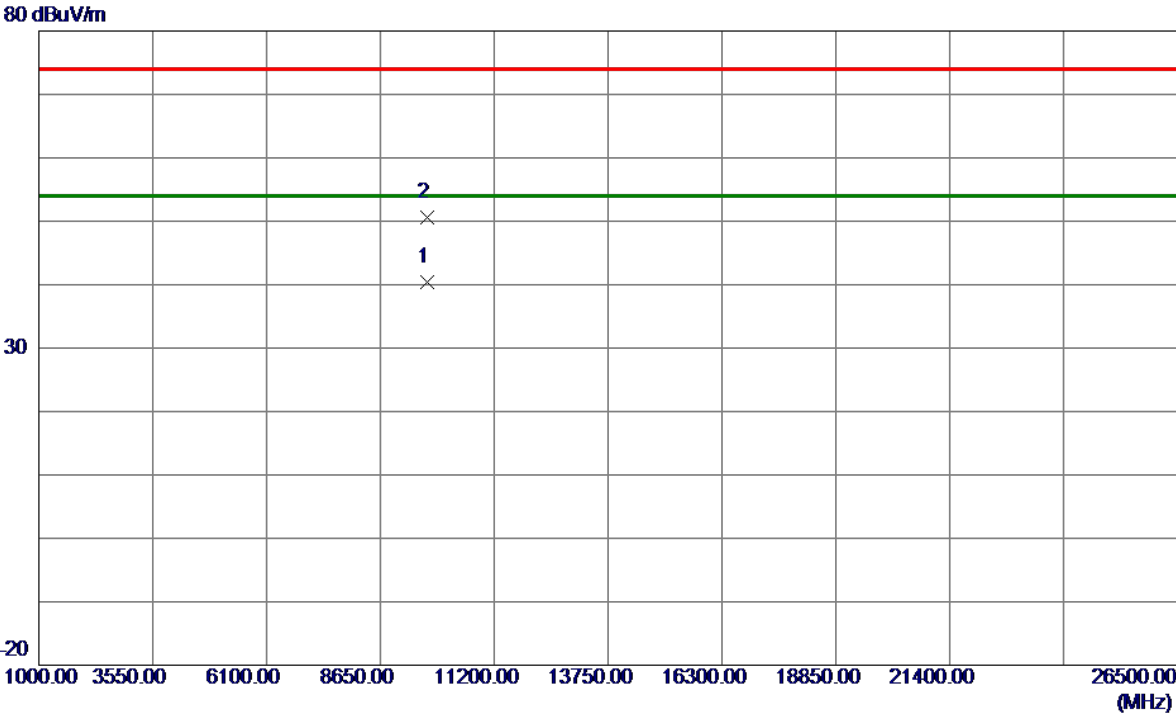


No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	51.76	8.31	60.07	74.00	-13.93	Peak	
2	2390.0000	37.98	8.31	46.29	54.00	-7.71	AVG	
3	2406.6000	87.21	8.33	95.54	74.00	21.54	Peak	No Limit
4 *	2411.7000	79.30	8.33	87.63	54.00	33.63	AVG	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	Horizontal
-----------	--------------------------	--------------	------------



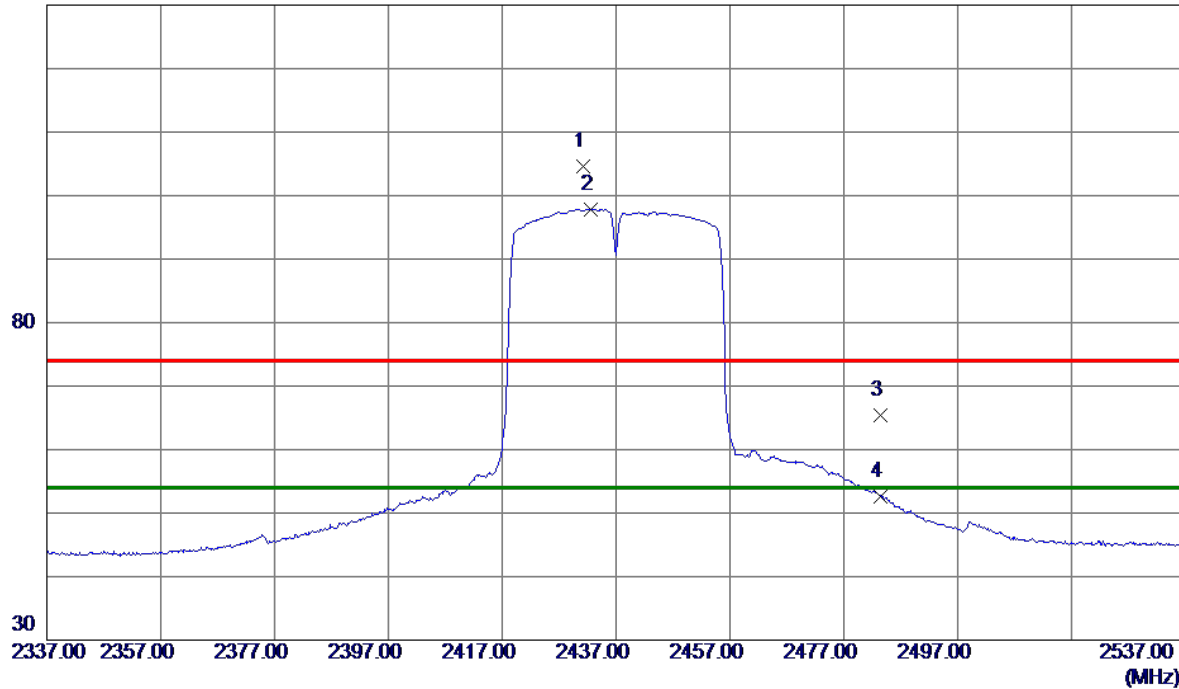
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9687.8810	27.81	12.51	40.32	54.00	-13.68	AVG	
2	9688.5640	38.16	12.51	50.67	74.00	-23.33	Peak	

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
-----------	--------------------------	--------------	----------

130 dBuV/m



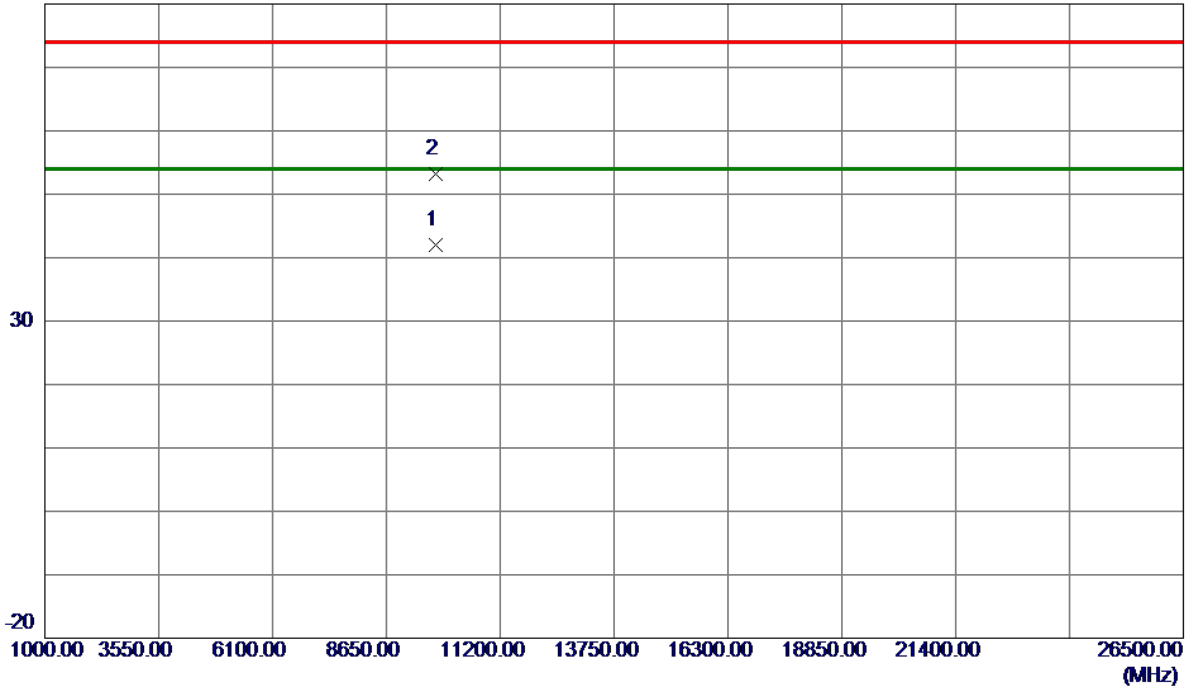
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2431.2000	96.22	8.36	104.58	74.00	30.58	Peak	No Limit
2 *	2432.5000	89.50	8.36	97.86	54.00	43.86	AVG	No Limit
3	2483.5000	57.01	8.42	65.43	74.00	-8.57	Peak	
4	2483.5000	44.24	8.42	52.66	54.00	-1.34	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
-----------	--------------------------	--------------	----------

80 dBuV/m



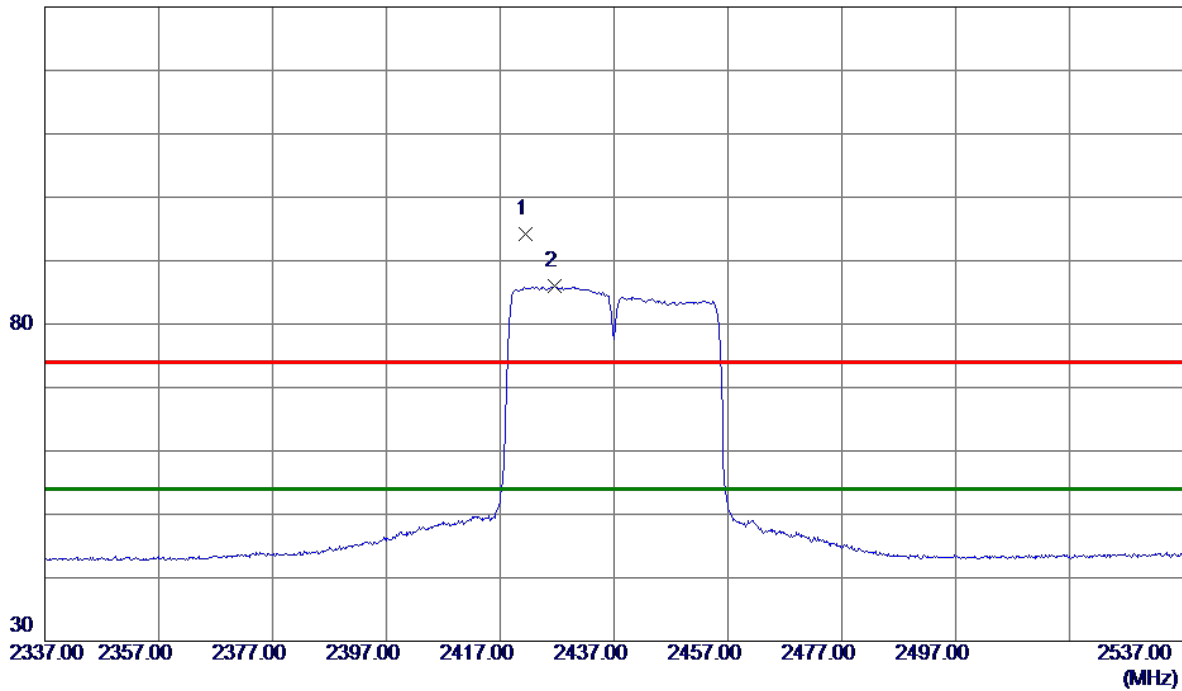
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9747.9920	29.34	12.63	41.97	54.00	-12.03	AVG	
2	9748.5350	40.60	12.63	53.23	74.00	-20.77	Peak	

## REMARKS:

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

Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Horizontal
-----------	--------------------------	--------------	------------

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	2421.4000	85.87	8.35	94.22	74.00	20.22	Peak	No Limit
2 *	2426.6000	77.65	8.35	86.00	54.00	32.00	AVG	No Limit

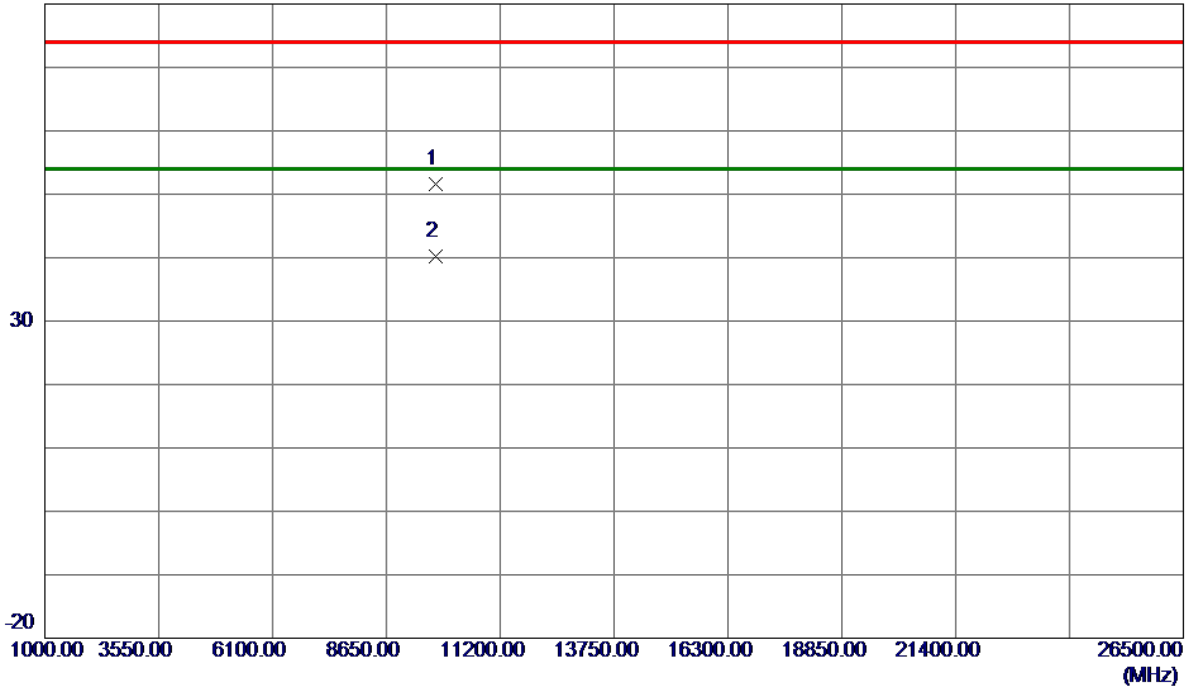
## REMARKS:

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

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

Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Horizontal
-----------	--------------------------	--------------	------------

80 dBuV/m



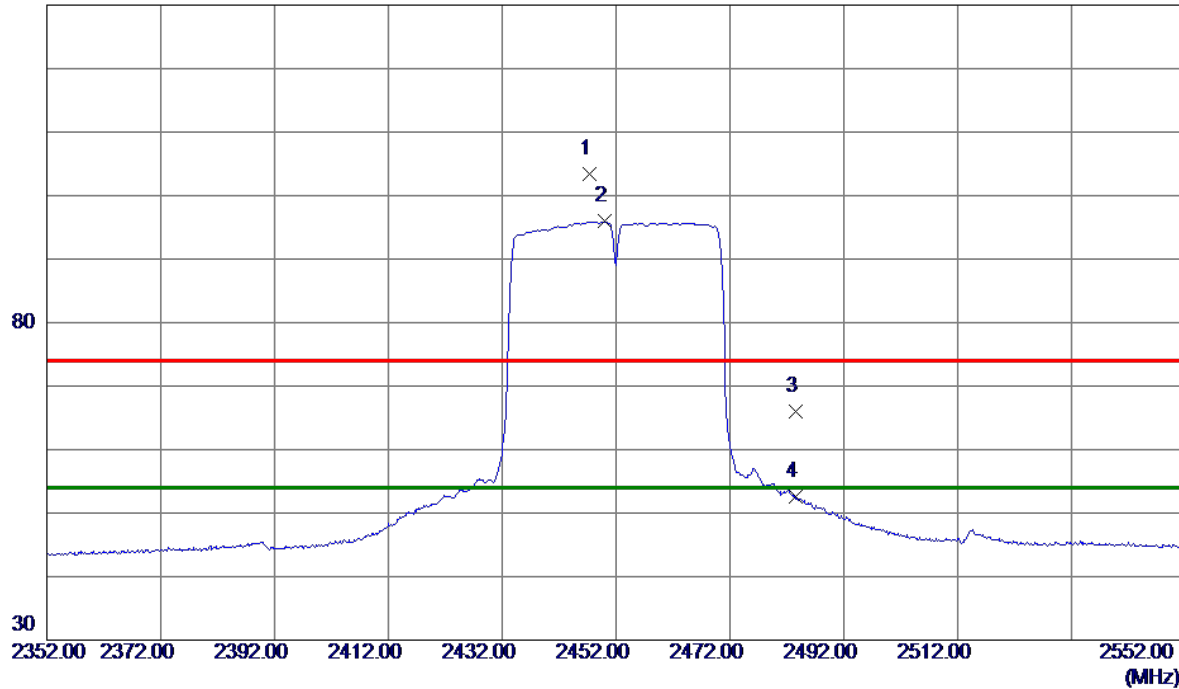
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9747.8850	38.93	12.63	51.56	74.00	-22.44	Peak	
2 *	9747.8920	27.51	12.63	40.14	54.00	-13.86	AVG	

## 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
-----------	--------------------------	--------------	----------

130 dBuV/m



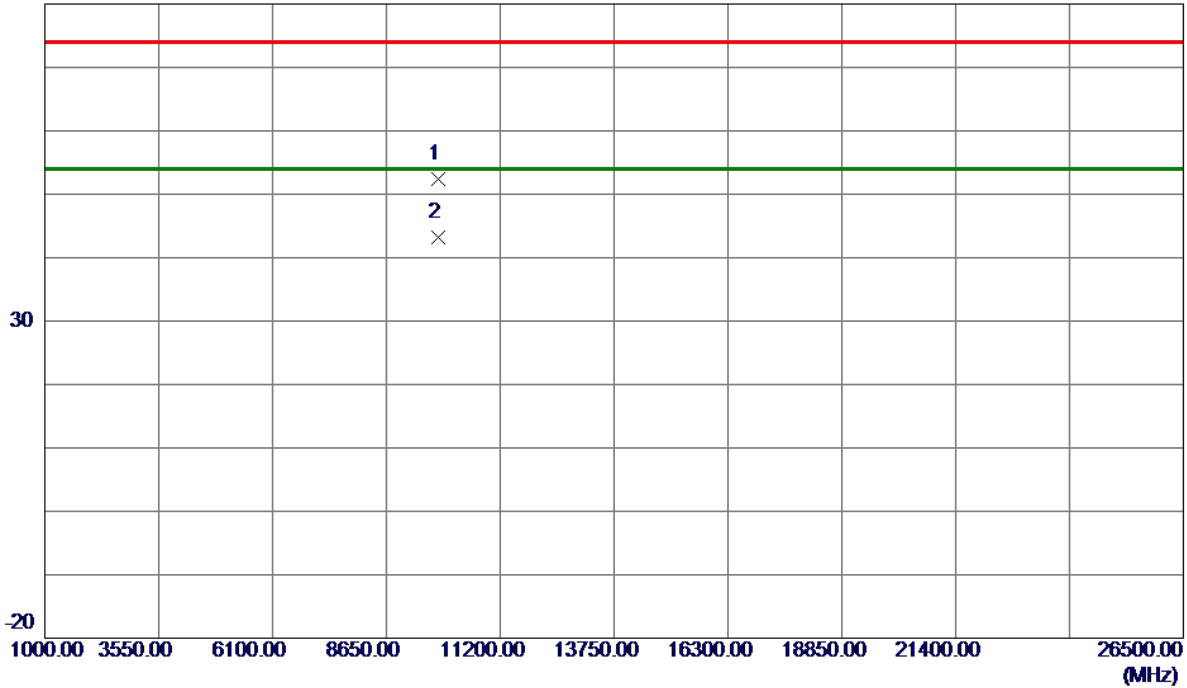
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2447.3000	95.01	8.38	103.39	74.00	29.39	Peak	No Limit
2 *	2450.0000	87.58	8.38	95.96	54.00	41.96	AVG	No Limit
3	2483.5000	57.52	8.42	65.94	74.00	-8.06	Peak	
4	2483.5000	44.14	8.42	52.56	54.00	-1.44	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
-----------	--------------------------	--------------	----------

80 dBuV/m



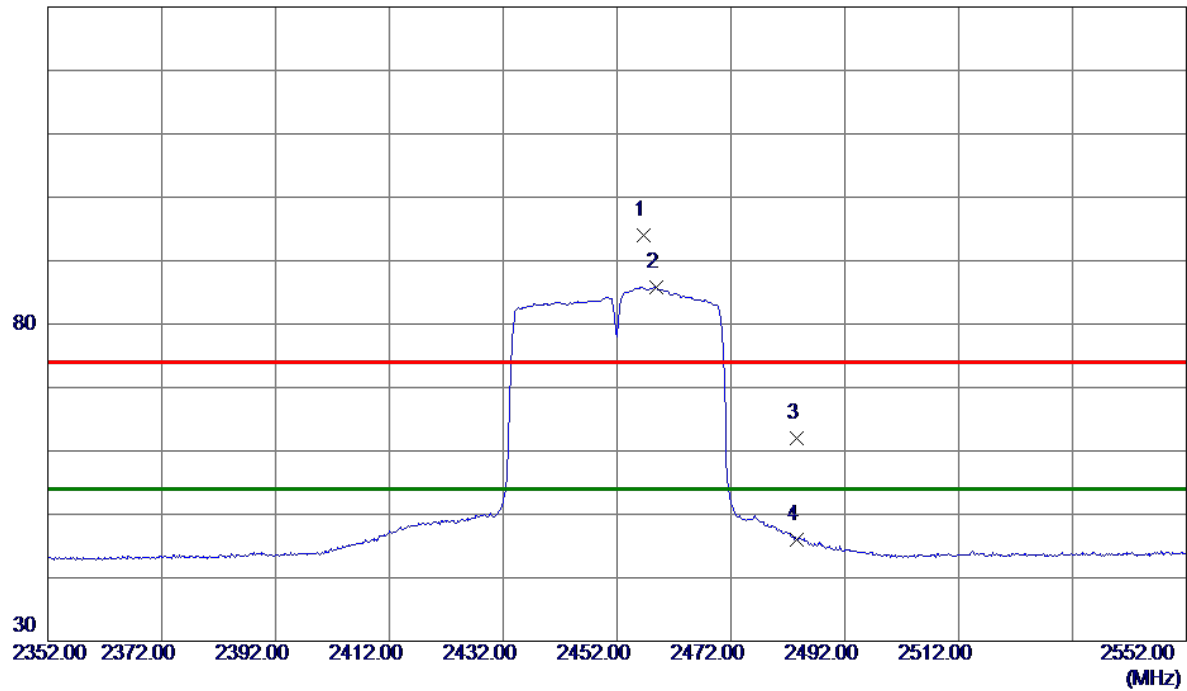
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9807.8080	39.69	12.76	52.45	74.00	-21.55	Peak	
2 *	9807.8500	30.52	12.76	43.28	54.00	-10.72	AVG	

## REMARKS:

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

Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Horizontal
-----------	--------------------------	--------------	------------

130 dBuV/m



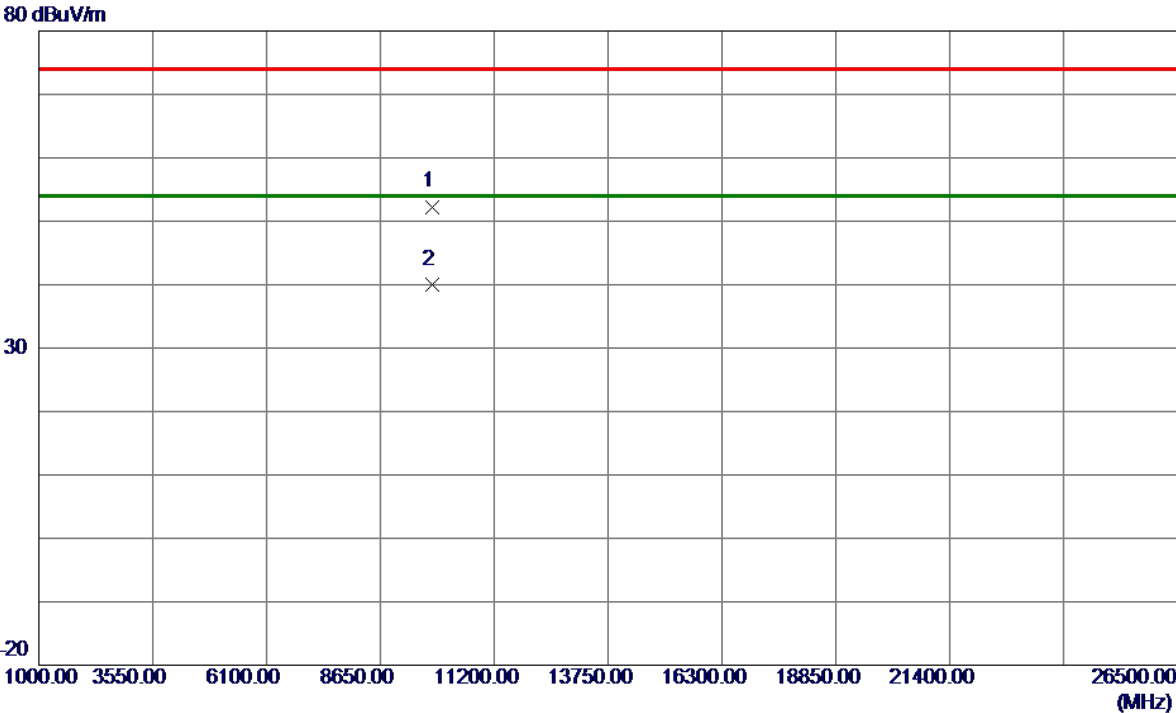
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2456.6000	85.59	8.39	93.98	74.00	19.98	Peak	No Limit
2 *	2458.8000	77.34	8.39	85.73	54.00	31.73	AVG	No Limit
3	2483.5000	53.60	8.42	62.02	74.00	-11.98	Peak	
4	2483.5000	37.61	8.42	46.03	54.00	-7.97	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	Horizontal
-----------	--------------------------	--------------	------------



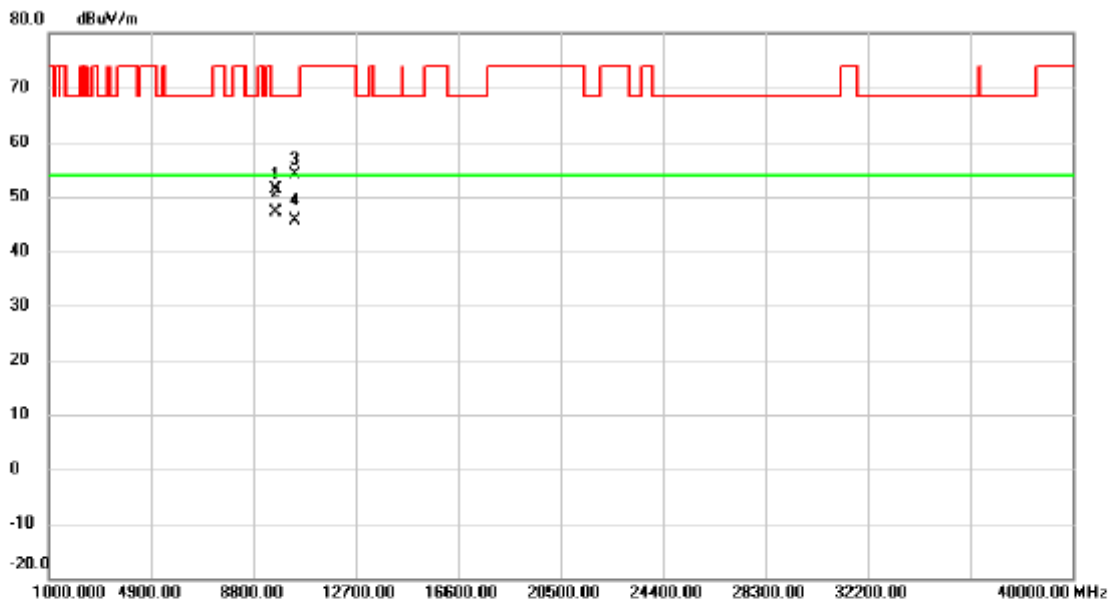
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9807.9570	39.54	12.76	52.30	74.00	-21.70	Peak	
2 *	9807.9650	27.23	12.76	39.99	54.00	-14.01	AVG	

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



The worst case of simultaneous transmission:

Test Mode	TX WLAN 2.4G B Mode 2412MHz + WLAN 5G A Mode 5180MHz	Polarization	Vertical
-----------	---	--------------	----------



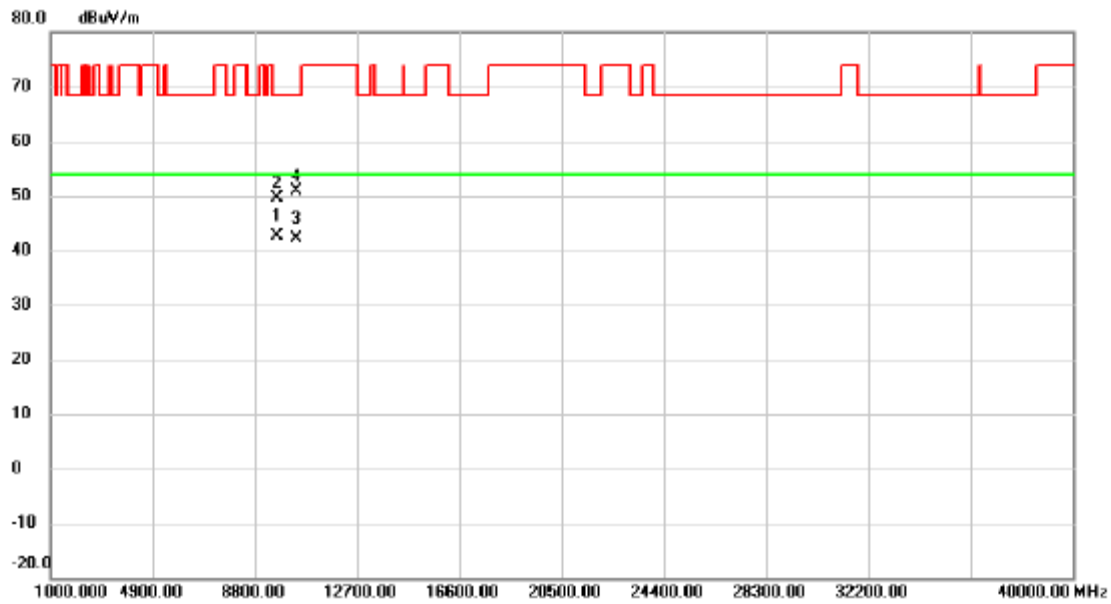
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		9648.217	39.81	11.47	51.28	68.30	-17.02	peak	
2	*	9649.035	35.67	11.47	47.14	54.00	-6.86	AVG	
3		10360.492	41.92	12.29	54.21	68.30	-14.09	peak	
4		10361.137	33.27	12.29	45.56	54.00	-8.44	AVG	

## REMARKS:

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

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

Test Mode	TX WLAN 2.4G B Mode 2412MHz + WLAN 5G A Mode 5180MHz	Polarization	Horizontal
-----------	---	--------------	------------



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9648.176	31.18	11.47	42.65	54.00	-11.35	AVG	
2		9648.234	38.23	11.47	49.70	68.30	-18.60	peak	
3		10360.051	29.88	12.29	42.17	54.00	-11.83	AVG	
4		10361.230	38.54	12.29	50.83	68.30	-17.47	peak	

## REMARKS:

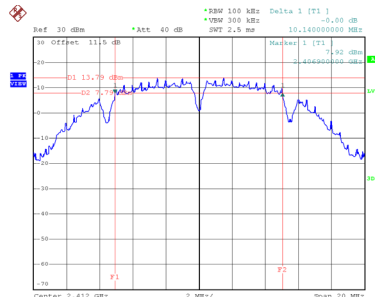
- (1) Measurement Value = Reading Level + Correct Factor.  
(2) Margin Level = Measurement Value - Limit Value.

## **APPENDIX E - BANDWIDTH**

Test Mode	TX B Mode
-----------	-----------

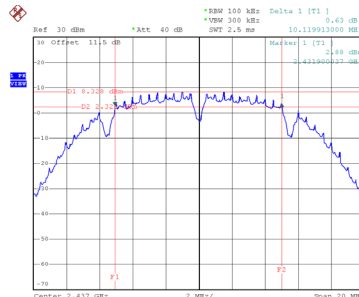
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	10.14	14.56	0.50	Complies
06	2437	10.12	13.84	0.50	Complies
11	2462	10.16	13.84	0.50	Complies

CH01



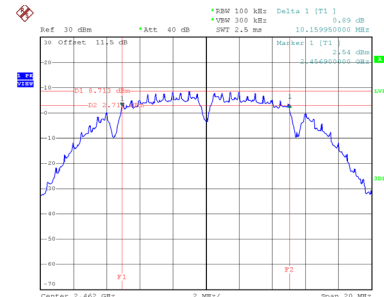
Date: 1.SEP.2021 19:20:08

CH06  
6 dB Bandwidth



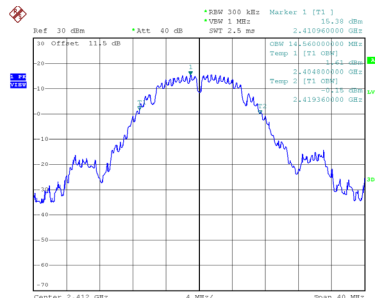
Date: 1.SEP.2021 19:30:21

CH11

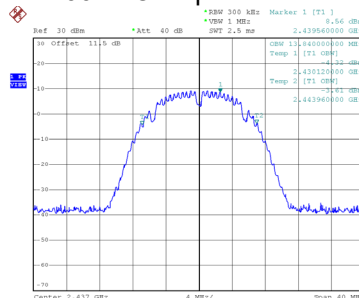


Date: 1.SEP.2021 19:32:39

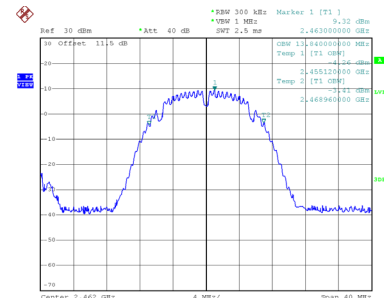
99 % Occupied Bandwidth



Date: 1.SEP.2021 19:20:16



Date: 1.SEP.2021 19:30:30

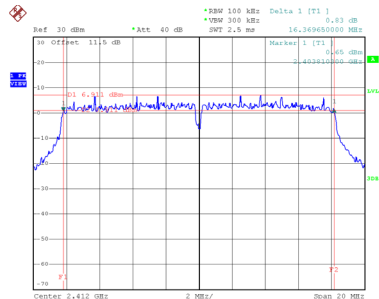


Date: 1.SEP.2021 19:32:48

Test Mode	TX G Mode
-----------	-----------

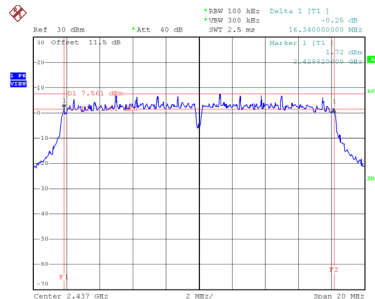
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	16.37	16.88	0.50	Complies
06	2437	16.34	16.88	0.50	Complies
11	2462	16.38	16.88	0.50	Complies

CH01



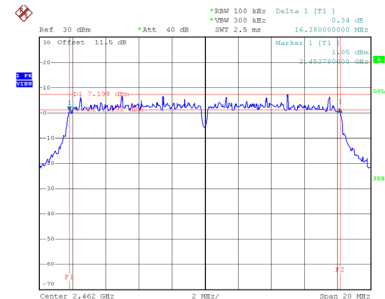
Date: 1.SEP.2021 19:34:59

CH06  
6 dB Bandwidth



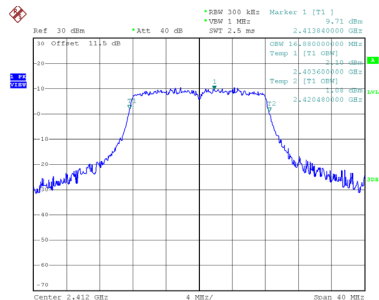
Date: 1.SEP.2021 19:40:58

CH11

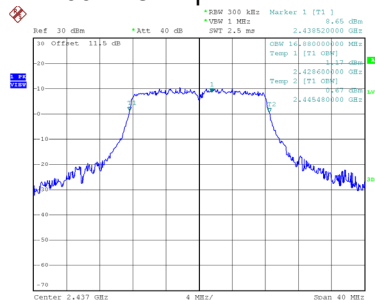


Date: 1.SEP.2021 19:42:34

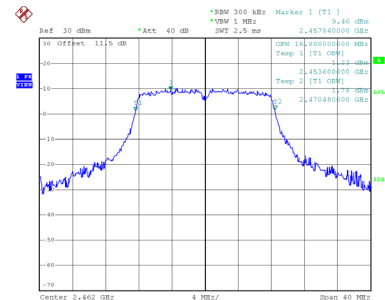
99 % Occupied Bandwidth



Date: 1.SEP.2021 19:35:07



Date: 1.SEP.2021 19:41:07

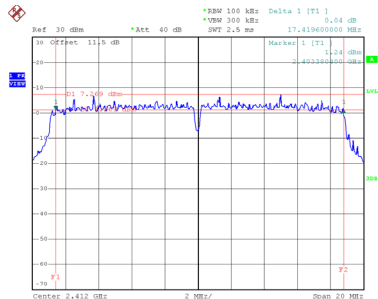


Date: 1.SEP.2021 19:42:42

Test Mode	TX N(HT20) Mode
-----------	-----------------

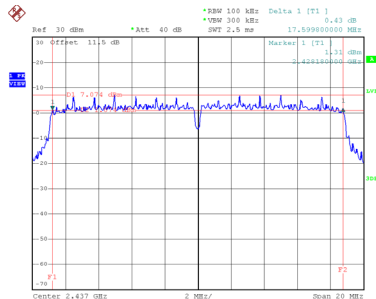
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	17.42	17.92	0.50	Complies
06	2437	17.60	18.00	0.50	Complies
11	2462	17.62	18.08	0.50	Complies

CH01



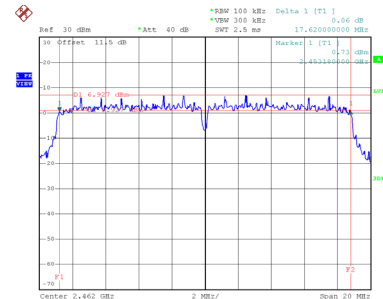
Date: 1.SEP.2021 19:46:03

CH06  
6 dB Bandwidth



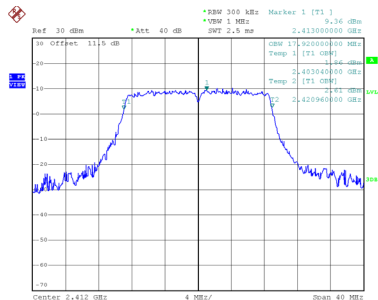
Date: 1.SEP.2021 19:47:34

CH11

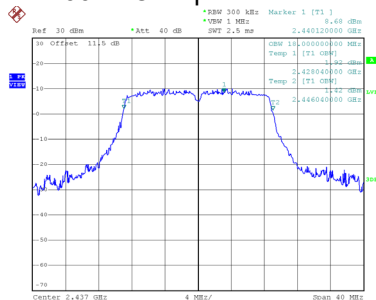


Date: 1.SEP.2021 19:49:18

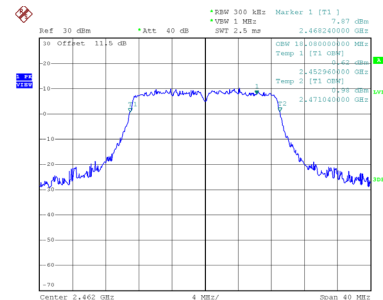
99 % Occupied Bandwidth



Date: 1.SEP.2021 19:46:12



Date: 1.SEP.2021 19:47:43

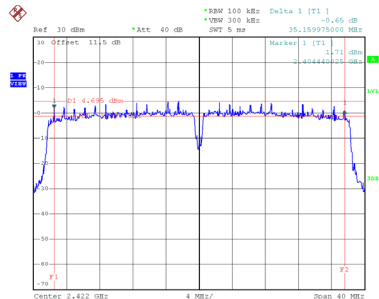


Date: 1.SEP.2021 19:49:27

Test Mode	TX N(HT40) Mode
-----------	-----------------

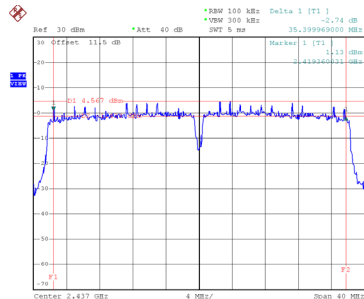
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
03	2422	35.16	36.32	0.50	Complies
06	2437	35.40	36.32	0.50	Complies
09	2452	35.24	36.32	0.50	Complies

CH03



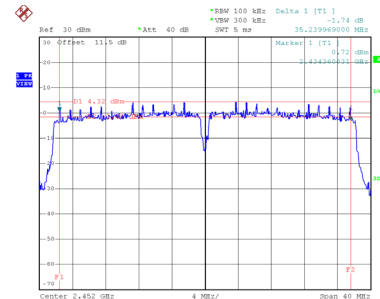
Date: 1.SEP.2021 19:52:13

CH06  
6 dB Bandwidth



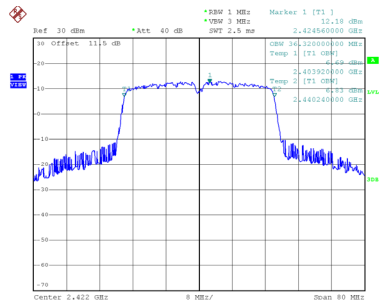
Date: 1.SEP.2021 19:53:53

CH09

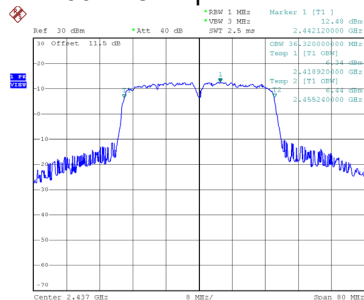


Date: 1.SEP.2021 19:55:26

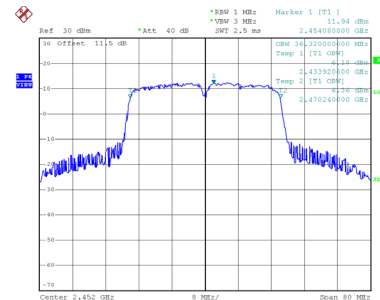
99 % Occupied Bandwidth



Date: 1.SEP.2021 19:52:22



Date: 1.SEP.2021 19:54:01



Date: 1.SEP.2021 19:55:34

## **APPENDIX F - MAXIMUM OUTPUT POWER**



### Non Beamforming

Test Mode	TX B Mode_Ant. 1
-----------	------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.11	30.00	1.0000	Complies
06	2437	27.53	30.00	1.0000	Complies
11	2462	24.21	30.00	1.0000	Complies

Test Mode	TX G Mode_Ant. 1
-----------	------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.96	30.00	1.0000	Complies
06	2437	27.99	30.00	1.0000	Complies
11	2462	26.06	30.00	1.0000	Complies

Test Mode	TX N(HT20) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.52	29.54	0.8995	Complies
06	2437	26.57	29.54	0.8995	Complies
11	2462	25.84	29.54	0.8995	Complies

Test Mode	TX N(HT20) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.29	29.54	0.8995	Complies
06	2437	26.33	29.54	0.8995	Complies
11	2462	25.83	29.54	0.8995	Complies

Test Mode	TX N(HT20) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	29.42	29.54	0.8995	Complies
06	2437	29.46	29.54	0.8995	Complies
11	2462	28.85	29.54	0.8995	Complies

Test Mode	TX N(HT40) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.63	29.54	0.8995	Complies
06	2437	26.03	29.54	0.8995	Complies
09	2452	25.02	29.54	0.8995	Complies

Test Mode	TX N(HT40) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	26.17	29.54	0.8995	Complies
06	2437	26.37	29.54	0.8995	Complies
09	2452	25.58	29.54	0.8995	Complies

Test Mode	TX N(HT40) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	28.92	29.54	0.8995	Complies
06	2437	29.21	29.54	0.8995	Complies
09	2452	28.32	29.54	0.8995	Complies

Test Mode	TX B Mode_Ant. 1
-----------	------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.11	0.00	22.11	30.00	1.0000	Complies
06	2437	22.58	0.00	22.58	30.00	1.0000	Complies
11	2462	21.44	0.00	21.44	30.00	1.0000	Complies

Test Mode	TX G Mode_Ant. 1
-----------	------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.94	0.17	18.11	30.00	1.0000	Complies
06	2437	22.76	0.17	22.93	30.00	1.0000	Complies
11	2462	16.91	0.17	17.08	30.00	1.0000	Complies

Test Mode	TX N(HT20) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.41	0.18	15.59	29.54	0.8995	Complies
06	2437	15.94	0.18	16.12	29.54	0.8995	Complies
11	2462	15.74	0.18	15.92	29.54	0.8995	Complies

Test Mode	TX N(HT20) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.83	0.18	17.01	29.54	0.8995	Complies
06	2437	17.53	0.18	17.71	29.54	0.8995	Complies
11	2462	17.95	0.18	18.13	29.54	0.8995	Complies

Test Mode	TX N(HT20) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.37	29.54	0.8995	Complies
06	2437	19.99	29.54	0.8995	Complies
11	2462	20.17	29.54	0.8995	Complies

Test Mode	TX N(HT40) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.05	0.38	14.43	29.54	0.8995	Complies
06	2437	15.13	0.38	15.51	29.54	0.8995	Complies
09	2452	13.84	0.38	14.22	29.54	0.8995	Complies

Test Mode	TX N(HT40) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.73	0.38	16.11	29.54	0.8995	Complies
06	2437	16.74	0.38	17.12	29.54	0.8995	Complies
09	2452	15.12	0.38	15.50	29.54	0.8995	Complies

Test Mode	TX N(HT40) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.36	29.54	0.8995	Complies
06	2437	19.40	29.54	0.8995	Complies
09	2452	17.92	29.54	0.8995	Complies

### Beamforming

Test Mode	TX N(HT20) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.01	29.50	0.8913	Complies
06	2437	26.17	29.50	0.8913	Complies
11	2462	25.36	29.50	0.8913	Complies

Test Mode	TX N(HT20) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.95	29.50	0.8913	Complies
06	2437	26.03	29.50	0.8913	Complies
11	2462	25.33	29.50	0.8913	Complies

Test Mode	TX N(HT20) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.99	29.50	0.8913	Complies
06	2437	29.11	29.50	0.8913	Complies
11	2462	28.36	29.50	0.8913	Complies

Test Mode	TX N(HT40) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.55	29.50	0.8913	Complies
06	2437	25.86	29.50	0.8913	Complies
09	2452	25.14	29.50	0.8913	Complies

Test Mode	TX N(HT40) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.54	29.50	0.8913	Complies
06	2437	26.08	29.50	0.8913	Complies
09	2452	25.33	29.50	0.8913	Complies

Test Mode	TX N(HT40) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	28.56	29.50	0.8913	Complies
06	2437	28.98	29.50	0.8913	Complies
09	2452	28.25	29.50	0.8913	Complies



Test Mode	TX N(HT20) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.21	0.18	15.39	29.50	0.8913	Complies
06	2437	15.71	0.18	15.89	29.50	0.8913	Complies
11	2462	15.52	0.18	15.70	29.50	0.8913	Complies

Test Mode	TX N(HT20) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.59	0.18	16.77	29.50	0.8913	Complies
06	2437	17.33	0.18	17.51	29.50	0.8913	Complies
11	2462	17.48	0.18	17.66	29.50	0.8913	Complies

Test Mode	TX N(HT20) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.14	29.50	0.8913	Complies
06	2437	19.78	29.50	0.8913	Complies
11	2462	19.80	29.50	0.8913	Complies

Test Mode	TX N(HT40) Mode_Ant. 1
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.97	0.38	14.35	29.50	0.8913	Complies
06	2437	15.07	0.38	15.45	29.50	0.8913	Complies
09	2452	13.58	0.38	13.96	29.50	0.8913	Complies

Test Mode	TX N(HT40) Mode_Ant. 2
-----------	------------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.15	0.38	15.53	29.50	0.8913	Complies
06	2437	16.42	0.38	16.80	29.50	0.8913	Complies
09	2452	14.68	0.38	15.06	29.50	0.8913	Complies

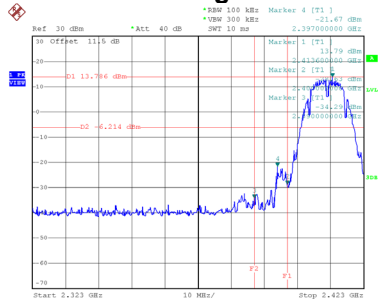
Test Mode	TX N(HT40) Mode_Total
-----------	-----------------------

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	17.99	29.50	0.8913	Complies
06	2437	19.19	29.50	0.8913	Complies
09	2452	17.56	29.50	0.8913	Complies

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

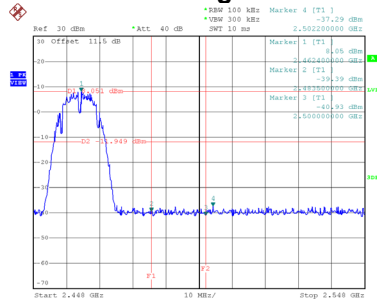
Test Mode TX B Mode\_Ant. 1

## Bandedge-CH01



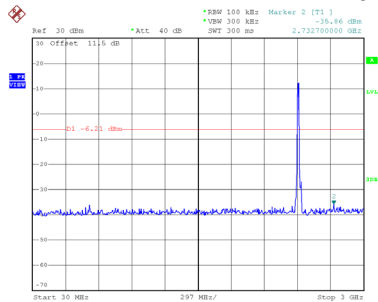
Date: 1.SEP.2021 19:20:26

## Bandedge-CH11

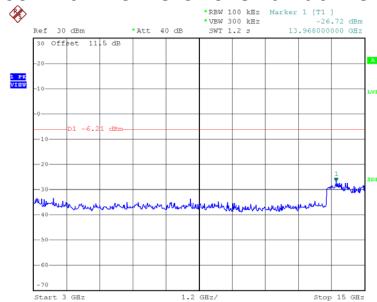


Date: 1.SEP.2021 19:32:57

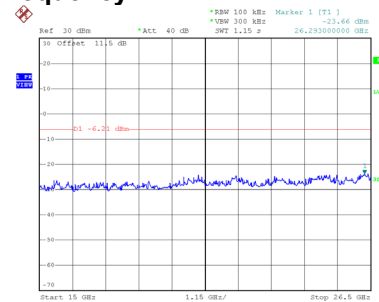
## CH01 – 10th Harmonic of the fundamental frequency



Date: 1.SEP.2021 19:20:40

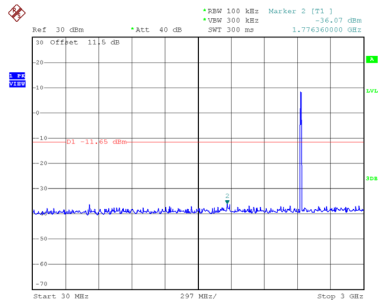


Date: 1.SEP.2021 19:20:50

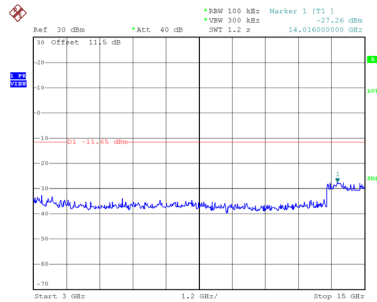


Date: 1.SEP.2021 19:20:59

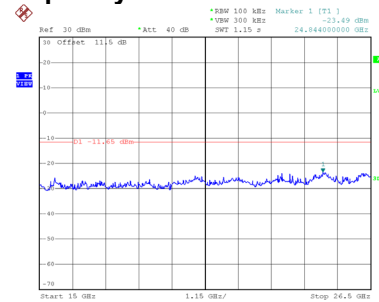
## CH06 – 10th Harmonic of the fundamental frequency



Date: 1.SEP.2021 19:31:10

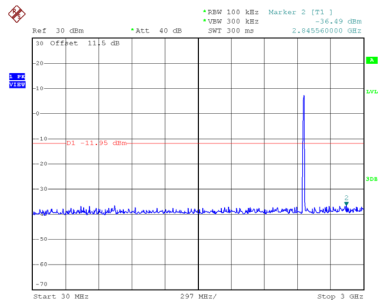


Date: 1.SEP.2021 19:31:19

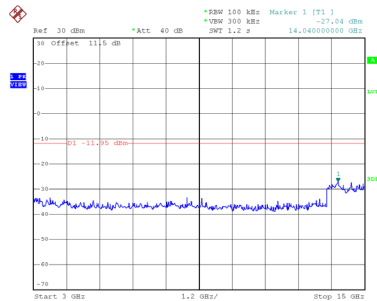


Date: 1.SEP.2021 19:31:29

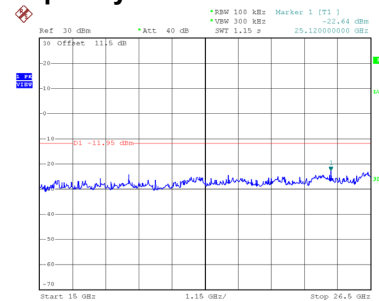
## CH11 – 10th Harmonic of the fundamental frequency



Date: 1.SEP.2021 19:33:12



Date: 1.SEP.2021 19:33:21



Date: 1.SEP.2021 19:33:30