FCC Radio Test Report

FCC ID: 2AXJ4EAP225V4

This report concerns: Original Grant

Project No.	:	2108C221A
Equipment	:	AC1350 Wireless Dual Band Gigabit Ceiling Mount Access Point
Brand Name	:	tp-link
Test Model	:	EAP225
Series Model	:	N/A
Applicant	:	TP-Link Corporation Limited
Address	:	Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hong Kong
Manufacturer	:	TP-Link Corporation Limited
Address	:	Room 901, 9/F. , New East Ocean Centre, 9 Science Museum Road, Tsim Sha Tsui, Kowloon, Hong Kong
Date of Receipt	:	Jan. 04, 2022
Date of Test	:	Jan. 05, 2022 ~ Feb. 23, 2022
Issued Date	:	Mar. 16, 2022
Report Version	:	R01
Test Sample	:	Engineering Sample No.: DG2022010453 for conducted, DG2022010454 for radiated
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 : Antony Liang

Approved by : Chay Cai

TESTING CERT #5123.02

Add: No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China

Tel: +86-769-8318-3000

Web: 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.

Table of Contents Page

REPORT ISSUED HISTORY 6

1 . SUMMARY OF TEST RESULTS 7

1.1 TEST FACILITY 8

1.2 MEASUREMENT UNCERTAINTY 8

1.3 TEST ENVIRONMENT CONDITIONS 9

2 . GENERAL INFORMATION 10

2.1 GENERAL DESCRIPTION OF EUT 10

2.2 DESCRIPTION OF TEST MODES 12

2.3 PARAMETERS OF TEST SOFTWARE 13

2.4 DUTY CYCLE 14

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED 16

2.6 SUPPORT UNITS 16

3 . AC POWER LINE CONDUCTED EMISSIONS 17

3.1 LIMIT 17

3.2 TEST PROCEDURE 17

3.3 DEVIATION FROM TEST STANDARD 17

3.4 TEST SETUP 18

3.5 EUT OPERATION CONDITIONS 18

3.6 TEST RESULTS 18

4 . RADIATED EMISSIONS 19

4.1 LIMIT 19

4.2 TEST PROCEDURE 20

4.3 DEVIATION FROM TEST STANDARD 21

4.4 TEST SETUP 21

4.5 EUT OPERATION CONDITIONS 22

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ 22

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ 22

4.8 TEST RESULTS - ABOVE 1000 MHZ 22

5 . BANDWIDTH 23

5.1 LIMIT 23

5.2 TEST PROCEDURE 23

5.3 DEVIATION FROM STANDARD 23

5.4 TEST SETUP 23

Table of Contents Page

5.5 EUT OPERATION CONDITIONS 23
5.6 TEST RESULTS 23
6 . MAXIMUM AVERAGE OUTPUT POWER 24
6.1 LIMIT 24
6.2 TEST PROCEDURE 24
6.3 DEVIATION FROM STANDARD 24
6.4 TEST SETUP 24
6.5 EUT OPERATION CONDITIONS 24
6.6 TEST RESULTS 24
7 . CONDUCTED SPURIOUS EMISSIONS 25
7.1 LIMIT 25
7.2 TEST PROCEDURE 25
7.3 DEVIATION FROM STANDARD 25
7.4 TEST SETUP 25
7.5 EUT OPERATION CONDITIONS 25
7.6 TEST RESULTS 25
8 . POWER SPECTRAL DENSITY 26
8.1 LIMIT 26
8.2 TEST PROCEDURE 26
8.3 DEVIATION FROM STANDARD 26
8.4 TEST SETUP 26
8.5 EUT OPERATION CONDITIONS 26
8.6 TEST RESULTS 26
9 . MEASUREMENT INSTRUMENTS LIST 27
10 . EUT TEST PHOTO 29
APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS 34
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ 37
APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ 42
APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ 45
APPENDIX E - BANDWIDTH 126
APPENDIX F - MAXIMUM AVERAGE OUTPUT POWER 131
APPENDIX G - CONDUCTED SPURIOUS EMISSIONS 136

Table of Contents Page

APPENDIX H - POWER SPECTRAL DENSITY 161

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Mar. 08, 2022
R01	Revised the product name.	Mar. 16, 2022

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 Average Output Power	APPENDIX F	PASS	------
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS	------
15.247(e)	Power Spectral Density	APPENDIX H	PASS	------
15.203	Antenna Requirement	------	PASS	Note(2)

Note:

(1) “N/A” denotes test is not applicable in this test report.

(2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 People's Republic of China.
BTL's Registration Number for FCC: 357015
BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

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

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

B. Radiated emissions test:

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

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

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

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

A. Other Measurement:

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

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	23°C	61%	AC 120V/60Hz	Rod Tang
Radiated Emissions-9kHz to 30 MHz	19°C	49%	POE 24V	Torocat Yuan
Radiated Emissions-30MHz to 1000MHz	21°C	48%	POE 24V	Jakyri Wen
Radiated Emissions-Above 1000MHz	21°C	48%	POE 24V	Jakyri Wen
Bandwidth	21°C - 22°C	45% - 51%	POE 24V	Longdage Feng
Maximum Average Output Power	23.6°C – 24.6°C	47% - 57%	POE 24V	Longdage Feng
Conducted Spurious Emissions	21°C - 22°C	45% - 51%	POE 24V	Longdage Feng
Power Spectral Density	21°C - 22°C	45% - 51%	POE 24V	Longdage Feng

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1350 Wireless Dual Band Gigabit Ceiling Mount Access Point
Brand Name	tp-link
Test Model	EAP225
Series Model	N/A
Model Difference(s)	N/A
HVIN	EAP225V4
Power Source	1# DC voltage supplied from PoE adapter. 2# Supplied from PoE switch.
Power Rating	1# Power: 24V ⎓ 0.5A Passive PoE 2# PoE: 36-57V ⎓ 0.36A 802.3af
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 450 Mbps
Maximum Average Output Power	IEEE 802.11g: 24.45 dBm (0.2786 W)

Note:

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

2. Channel List:

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

3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	tp-link	EAP225 4.0	PIFA	N/A	3.98
2	tp-link	EAP225 4.0	PIFA	N/A	3.99
3	tp-link	EAP225 4.0	PIFA	N/A	3.99

Note:

1) This EUT supports CDD, and all antennas are not exactly the same, Directional gain = G_{ANT}+Array Gain.
For power measurements, Array Gain=0dB ($N_{ANT} \leqslant 4$), so the Directional gain=3.99.
For power spectral density measurements, N_{ANT}=3, N_{SS} = 1.
So the Directional gain=G_{ANT}+Array Gain=G_{ANT}+10log(N_{ANT}/ N_{SS})dBi=3.99+10log(3/1)dBi=8.76.
Then, the power spectral density limit is 8-(8.76-6)=5.24.
2) The antenna gain is provided by the manufacturer.

4. Table for Antenna Configuration:

Operating Mode / TX Mode	3TX
IEEE 802.11b	V(Ant. 1 + Ant. 2 + Ant. 3)
IEEE 802.11g	V(Ant. 1 + Ant. 2 + Ant. 3)
IEEE 802.11n(HT20)	V(Ant. 1 + Ant. 2 + Ant. 3)
IEEE 802.11n(HT40)	V(Ant. 1 + Ant. 2 + Ant. 3)

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 G Mode Channel 06
Mode 6	TX B Mode Channel 01/02/06/10/11
Mode 7	TX G Mode Channel 01/02/06/10/11
Mode 8	TX N(HT20) Mode Channel 01/02/06/10/11
Mode 9	TX N(HT40) Mode Channel 03/04/06/08/09

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 G Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 5	TX G Mode Channel 06

Radiated emissions test- Above 1GHz	
Final Test Mode	Description
Mode 6	TX B Mode Channel 01/02/06/10/11
Mode 7	TX G Mode Channel 01/02/06/10/11
Mode 8	TX N(HT20) Mode Channel 01/02/06/10/11
Mode 9	TX N(HT40) Mode Channel 03/04/06/08/09

Conducted test	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N(HT20) Mode Channel 01/06/11
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 G Mode Channel 06 is found to be the worst case and recorded.
(3) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
(4) For radiated emission test, every axis (X, Y, Z) are verified. The test results shown in the following sections represent the worst case emissions.

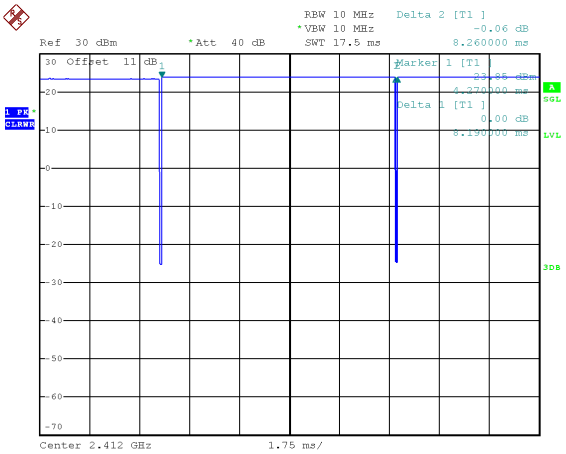
2.3 PARAMETERS OF TEST SOFTWARE

Test Software Version	SSHSecureShellClient-3.2.9

2.4 DUTY CYCLE

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

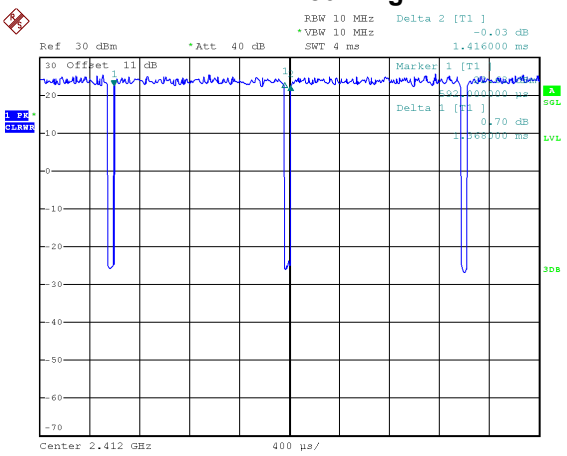
IEEE 802.11b



Date: 13.JAN.2022 17:15:24

Duty cycle = 8.190 ms / 8.260 ms = 99.15%
Duty Factor = 10 log(1/Duty cycle) = 0.00

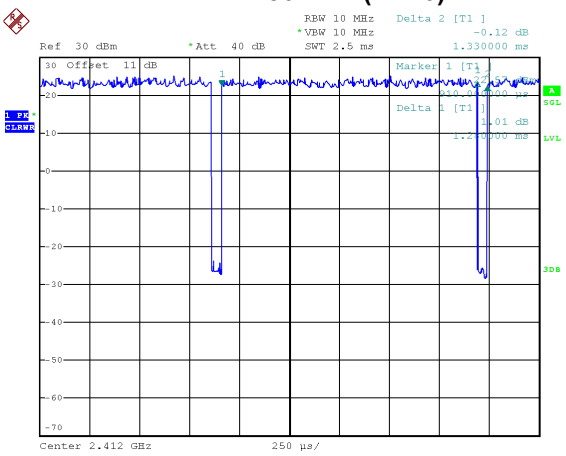
IEEE 802.11g



Date: 13.JAN.2022 17:14:39

Duty cycle = 1.368 ms / 1.416 ms = 96.61%
Duty Factor = 10 log(1/Duty cycle) = 0.15

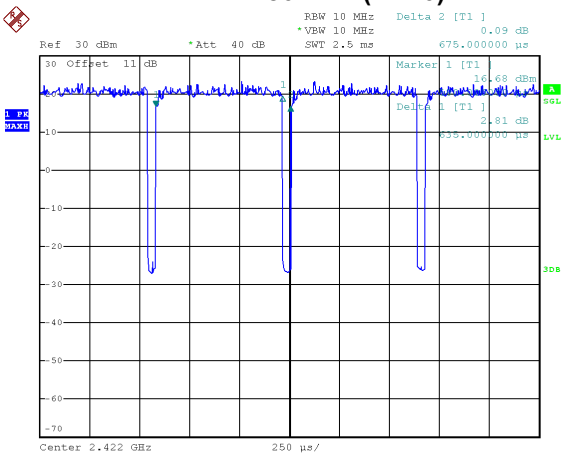
IEEE 802.11n(HT20)



Date: 13.JAN.2022 17:14:07

Duty cycle = 1.280 ms / 1.330 ms = 96.24%
Duty Factor = 10 log(1/Duty cycle) = 0.17

IEEE 802.11n(HT40)



Date: 13.JAN.2022 17:13:29

Duty cycle = 0.635 ms / 0.675 ms = 94.07%
Duty Factor = 10 log(1/Duty cycle) = 0.27

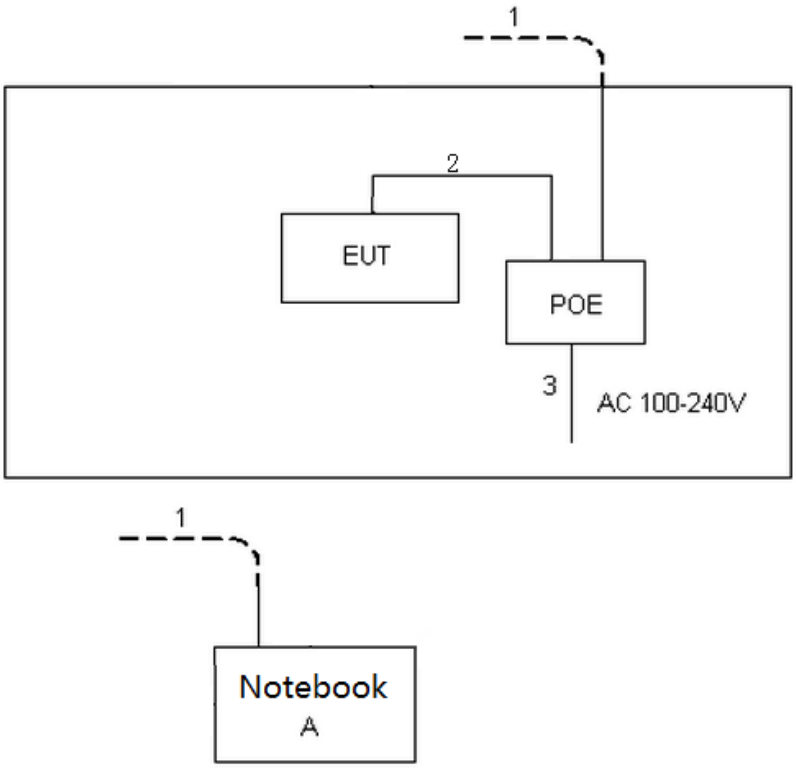
NOTE:
For IEEE 802.11b:
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz.

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 731 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 781 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 1575 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
2	RJ45 Cable	NO	NO	1m
3	AC Cable	NO	NO	0.4m

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

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

NOTE:

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

3.2 TEST PROCEDURE

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

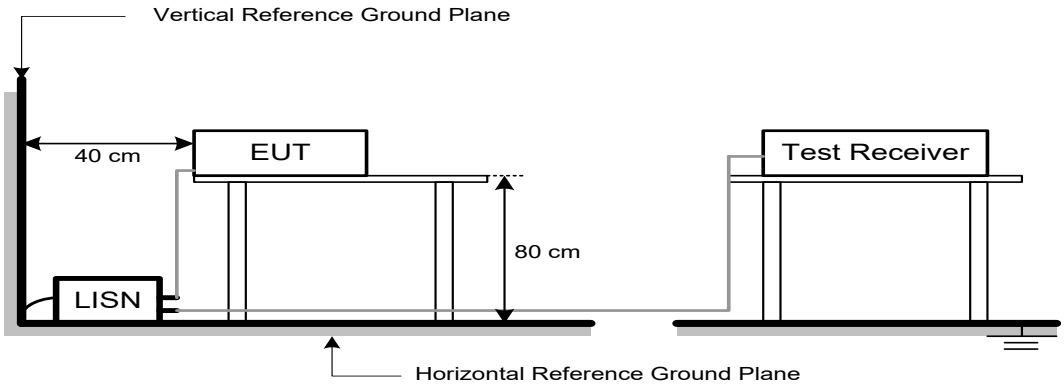
The following table is the setting of the receiver:

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

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS

4.1 LIMIT

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

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

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

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

NOTE:

(1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2 TEST PROCEDURE

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

The following table is the setting of the receiver:

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

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

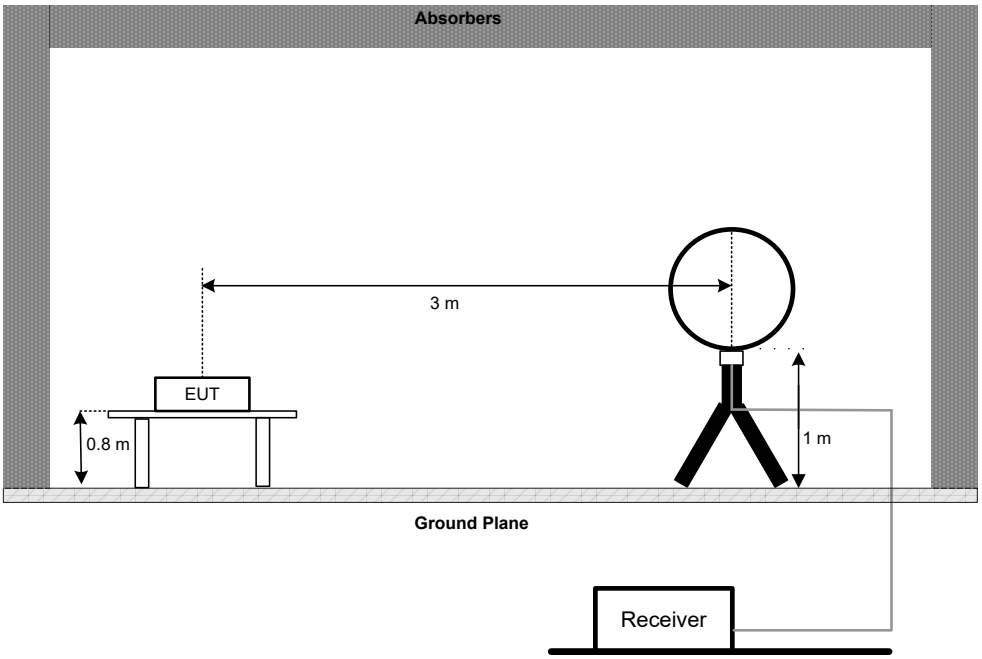
Receiver Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector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

4.3 DEVIATION FROM TEST STANDARD

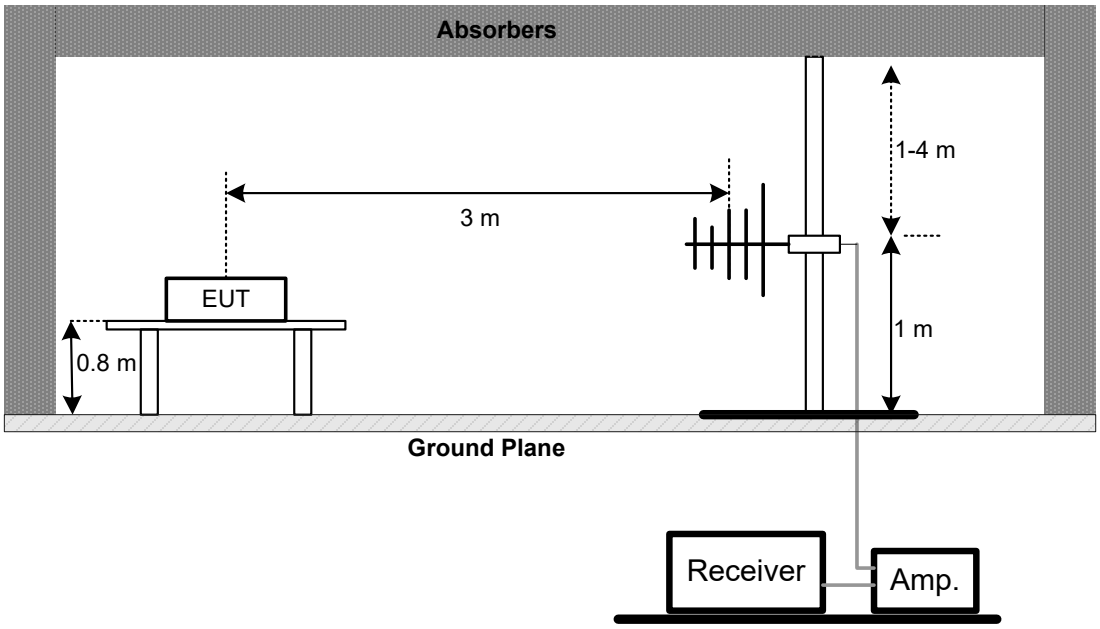
No deviation.

4.4 TEST SETUP

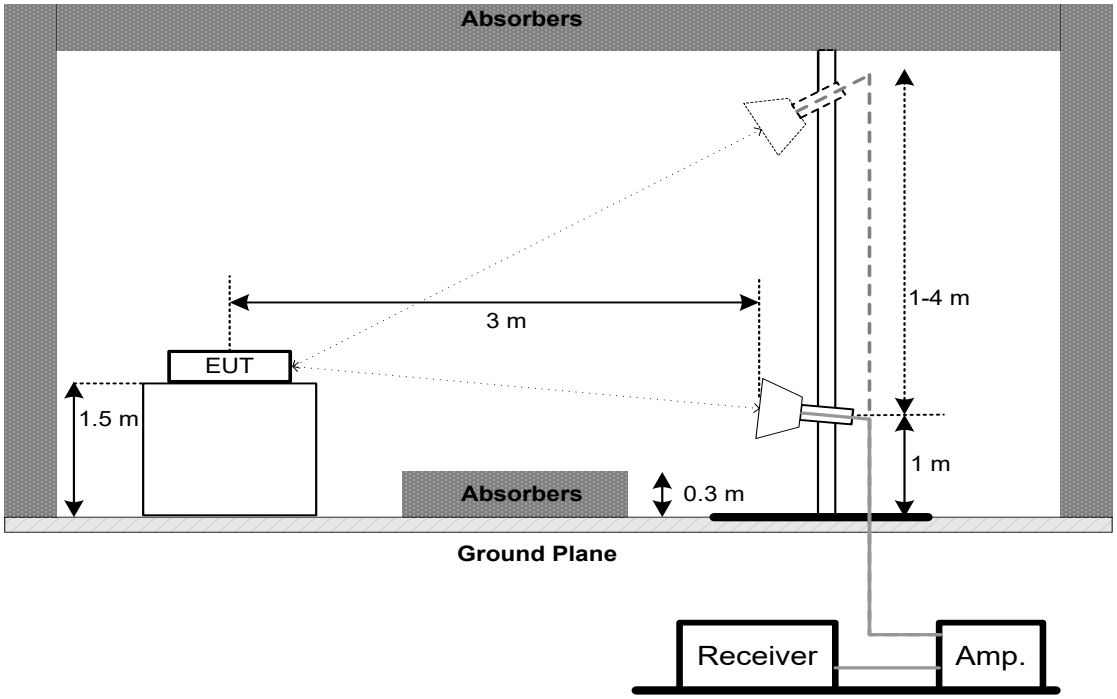
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 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 (specific distance / 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

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

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

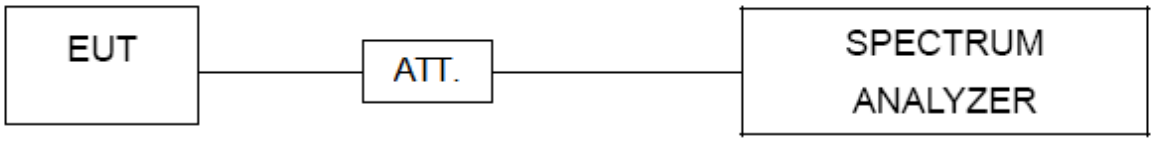
For 99% Emission Bandwidth:

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 AVERAGE OUTPUT POWER

6.1 LIMIT

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

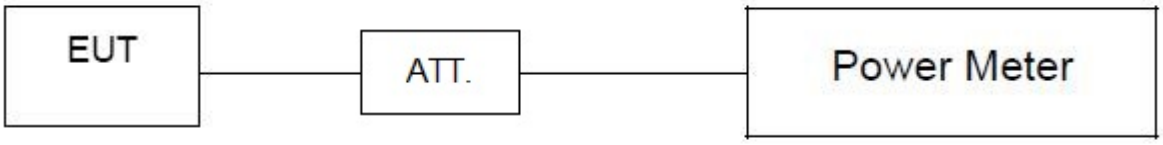
6.2 TEST PROCEDURE

a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
b. The maximum conducted output power was performed in accordance with method 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

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

For Reference Level:

Spectrum Parameters	Setting
Span Frequency	⩾ 1.5 times the bandwidth.
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

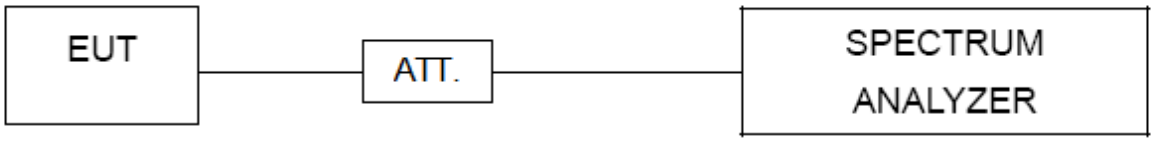
For Emission Level:

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

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. POWER SPECTRAL DENSITY

8.1 LIMIT

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

8.2 TEST PROCEDURE

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

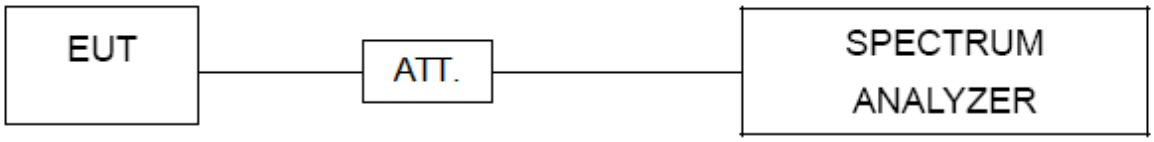
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	25 MHz (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*3	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	MXE EMI Receiver	Keysight	N9038A	MY56400091	Feb. 27, 2022
2*	Active Loop Antenna	R&S	HFH2-Z2	830749/020	Aug. 23, 2024
3	Cable	N/A	RG 213/U(9kHz~1GHz)	N/A	May 27, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chamber Room	ETS	9*6*6	N/A	Jul. 17, 2022

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 15, 2022
2	Amplifier	HP	8447D	2944A08742	Feb. 28, 2022
3	Cable	emci	LMR-400	N/A	Nov. 30, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	966 Chamber Room	RM	9*6*6	N/A	Jul. 24, 2022

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Horn Antenna	ARA	DRG-118A	16554	Apr. 21, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
3	Amplifier	Agilent	8449B	3008A02584	Jul. 10, 2022
4	Controller	CT	SC100	N/A	N/A
5	Controller	MF	MF-7802	MF780208416	N/A
6	Receiver	Agilent	N9038A	MY52130039	Mar. 19, 2022
7	EXA Spectrum Analyzer	Keysight	N9010A	MY56480488	Feb. 28, 2022
8	Low Noise Amplifier	CONNPHY	CLN-18G40G-4330 -K	619413	Jul. 16, 2022
9	Cable	N/A	A81-SMAMSMAM-12.5M	N/A	Oct. 15, 2022
10	Cable	Talent microwave	A40-2.92M2.92M-2.5M	N/A	Nov. 30, 2022
11	Filter	STI	STI15-9912	N/A	Jul. 10, 2022
12	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
13	966 Chamber Room	RM	9*6*6	N/A	Jul. 24, 2022

Bandwidth & Conducted Spurious Emissions & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 10, 2022
2	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
3	RF Cable	Tongkaichuan	N/A	N/A	N/A
4	DC Block	Mini	N/A	N/A	N/A

Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Jul. 10, 2022
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 10, 2022
3	Attenuator	WOKEN	6SM3502	VAS1214NL	N/A
4	RF Cable	Tongkaichuan	N/A	N/A	N/A

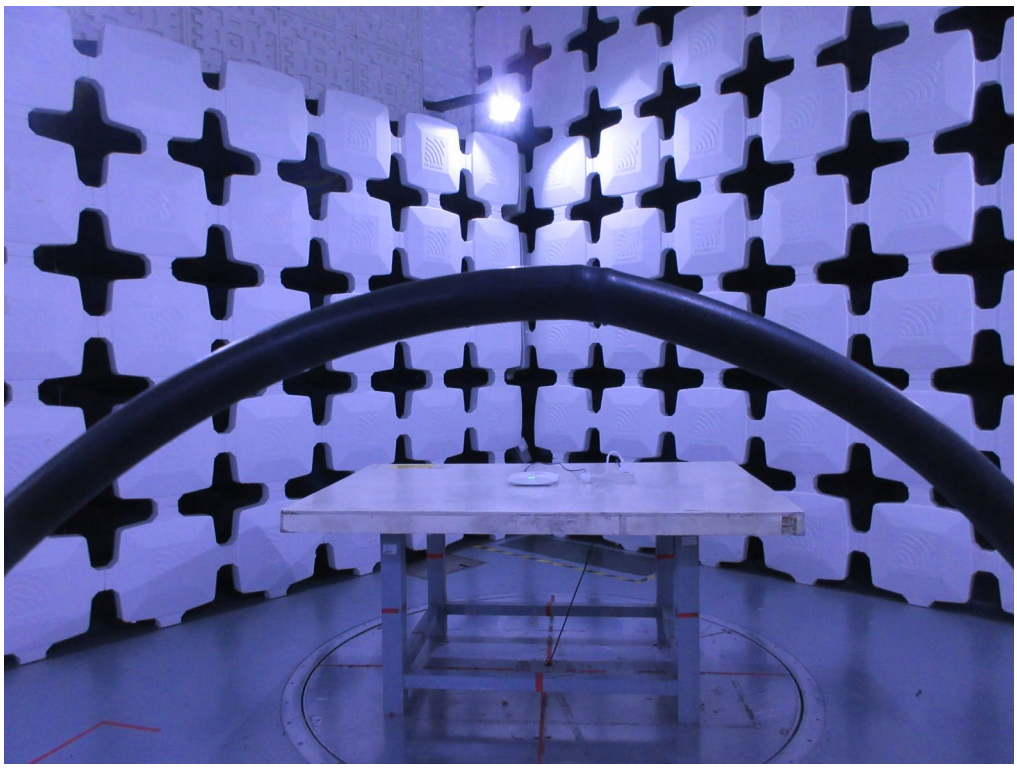
Remark: ”N/A” denotes no model name, serial no. or calibration specified.
“*” calibration period of equipment list is three year.
Except * item, all calibration period of equipment list is one year.

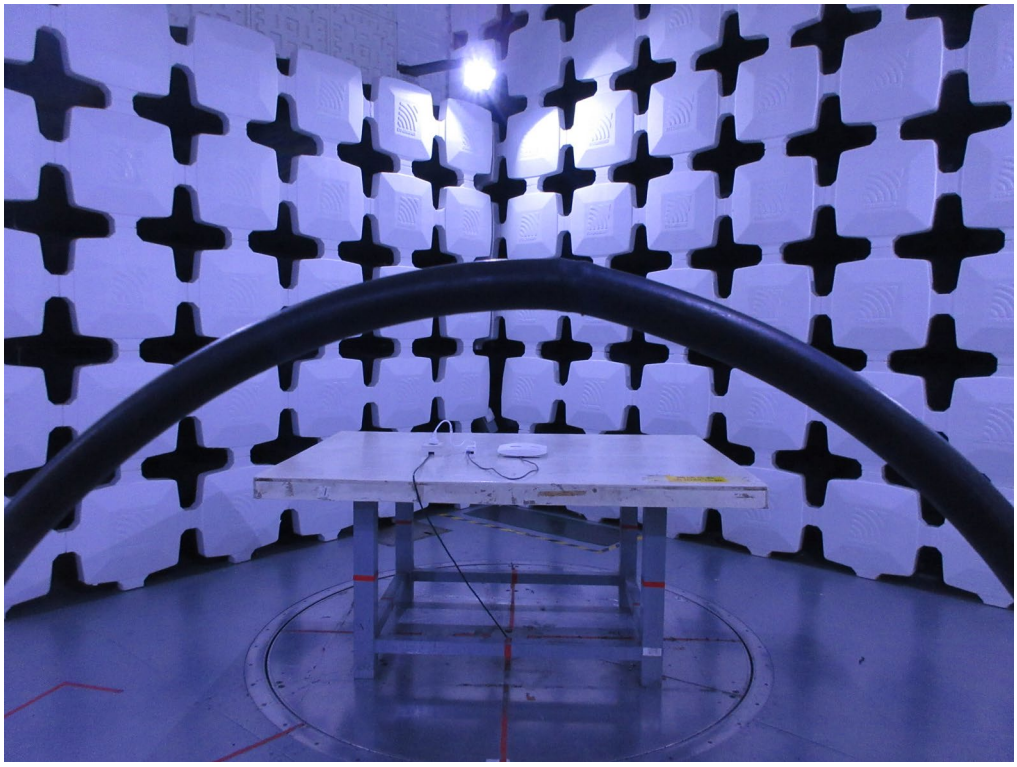
10. EUT TEST PHOTO

AC Power Line Conducted Emissions Test Photos

Radiated Emissions Test Photos

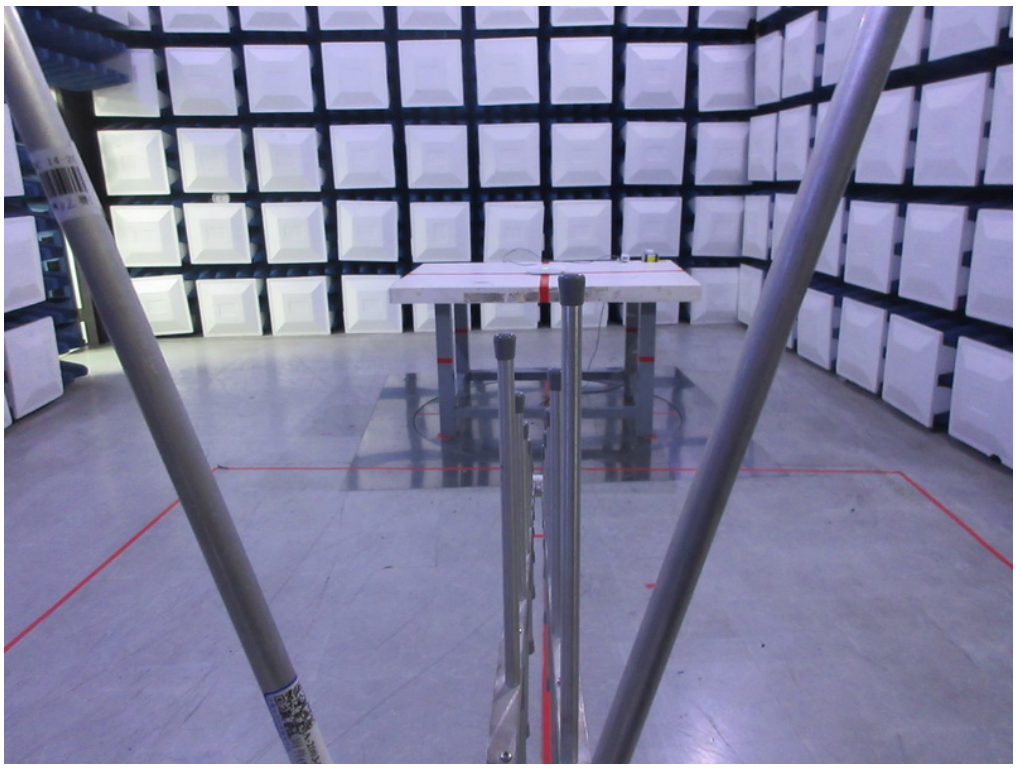
9 kHz to 30 MHz

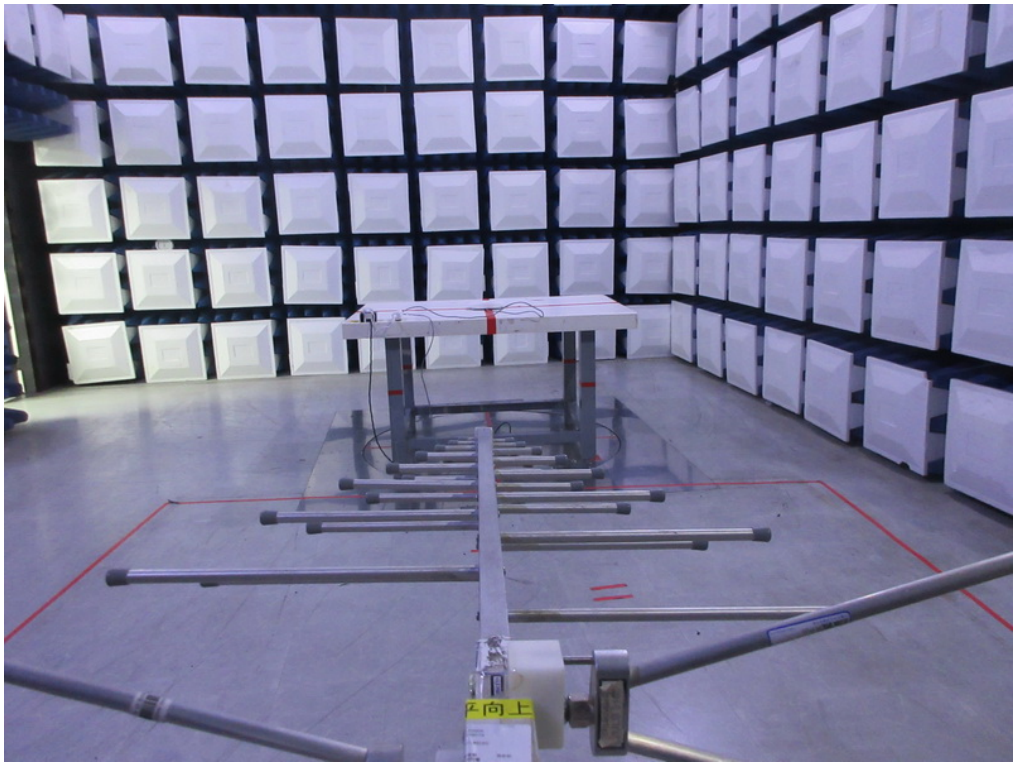




Radiated Emissions Test Photos

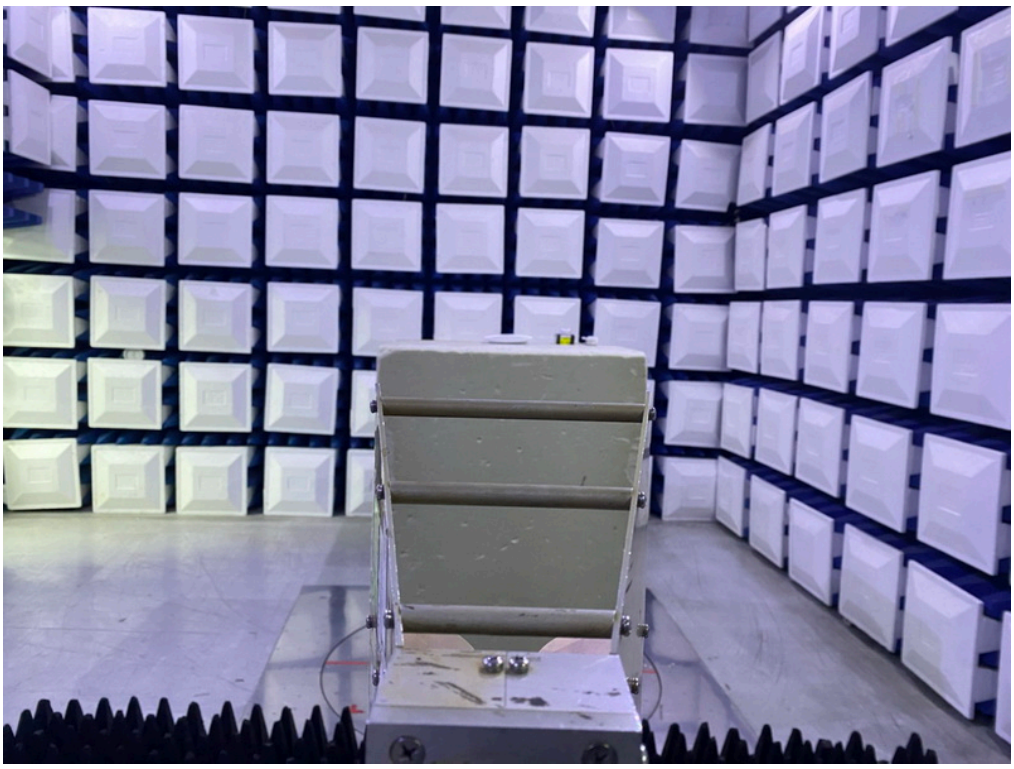
30 MHz to 1 GHz

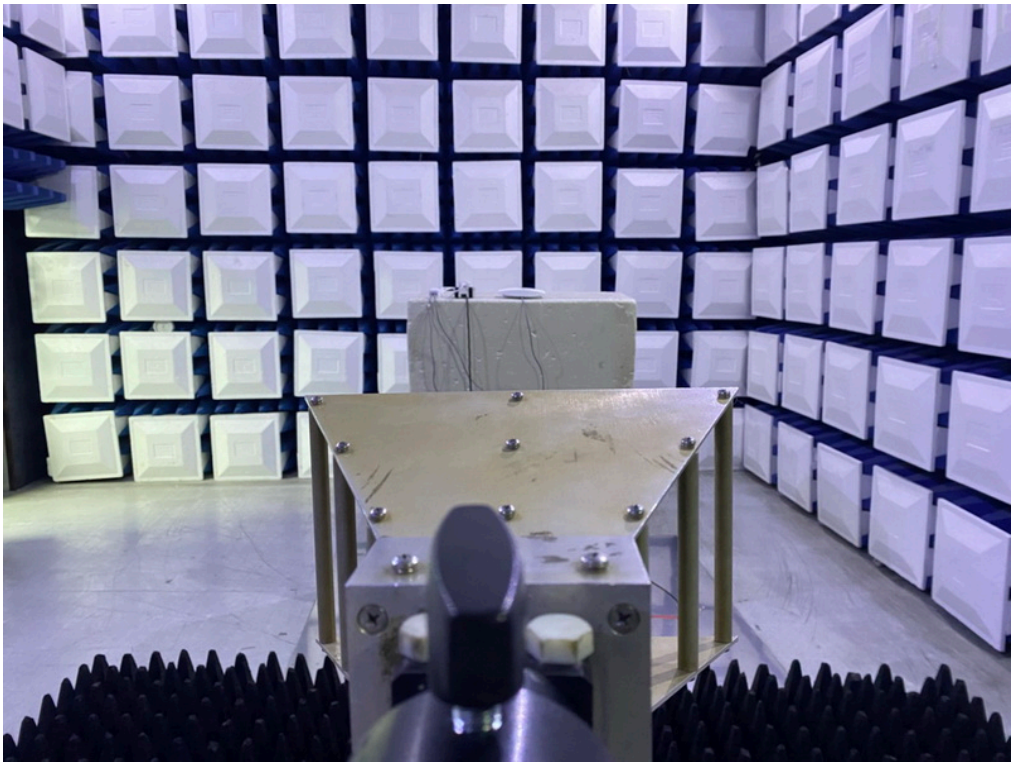




Radiated Emissions Test Photos

Above 1 GHz

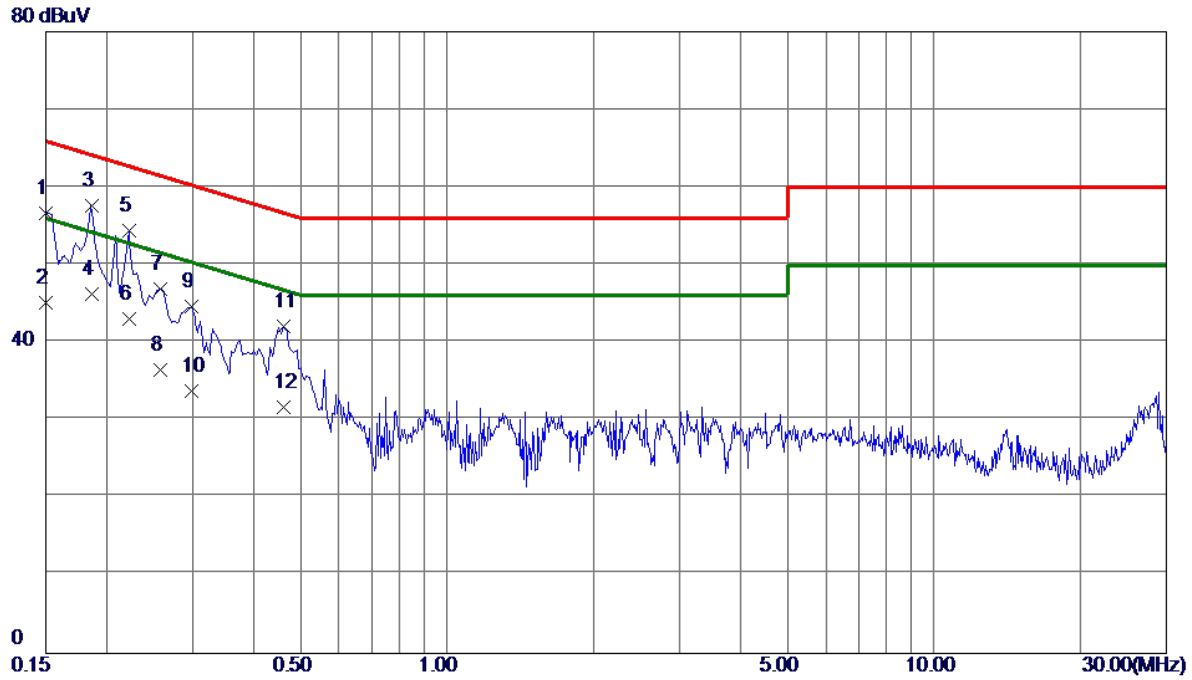




Conducted Test Photos

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

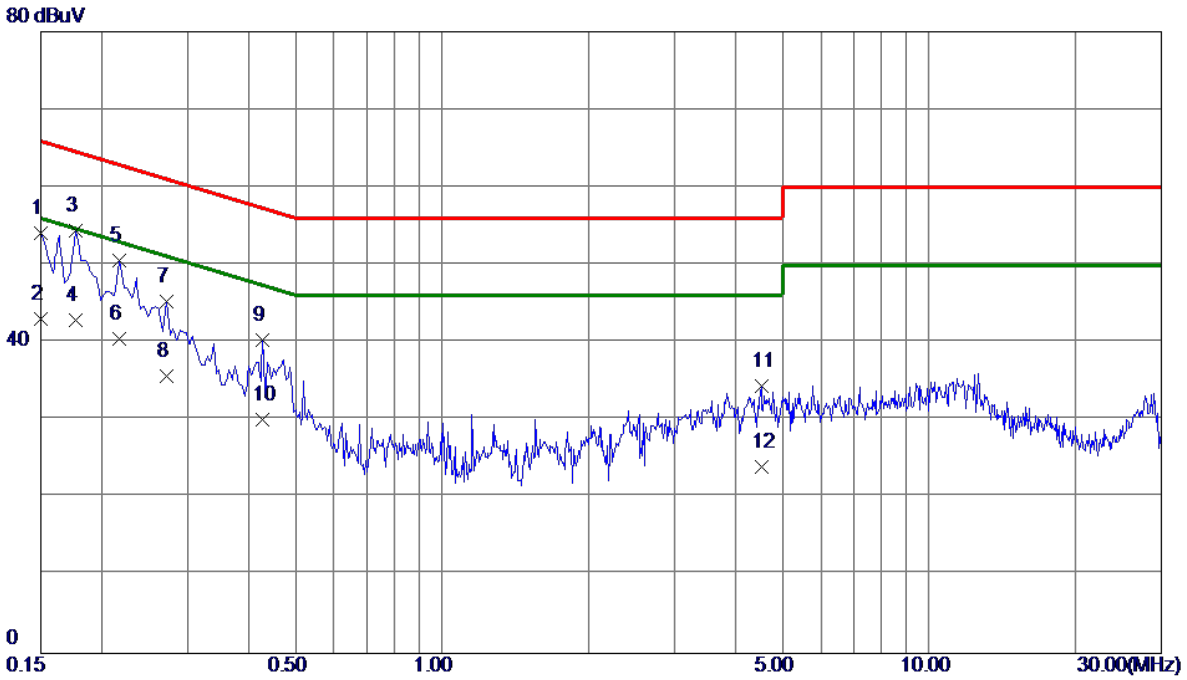
Test Mode	TX G Mode Channel 06	Phase	Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1500	46.88	9.78	56.66	66.00	-9.34	QP	
2	0.1500	35.40	9.78	45.18	56.00	-10.82	AVG	
3 *	0.1860	47.75	9.81	57.56	64.21	-6.65	QP	
4	0.1860	36.49	9.81	46.30	54.21	-7.91	AVG	
5	0.2220	44.53	9.82	54.35	62.74	-8.39	QP	
6	0.2220	33.20	9.82	43.02	52.74	-9.72	AVG	
7	0.2580	37.06	9.82	46.88	61.50	-14.62	QP	
8	0.2580	26.70	9.82	36.52	51.50	-14.98	AVG	
9	0.2985	34.80	9.83	44.63	60.28	-15.65	QP	
10	0.2985	23.90	9.83	33.73	50.28	-16.55	AVG	
11	0.4605	32.23	9.86	42.09	56.68	-14.59	QP	
12	0.4605	21.80	9.86	31.66	46.68	-15.02	AVG	

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

Test Mode	TX G Mode Channel 06	Phase	Neutral

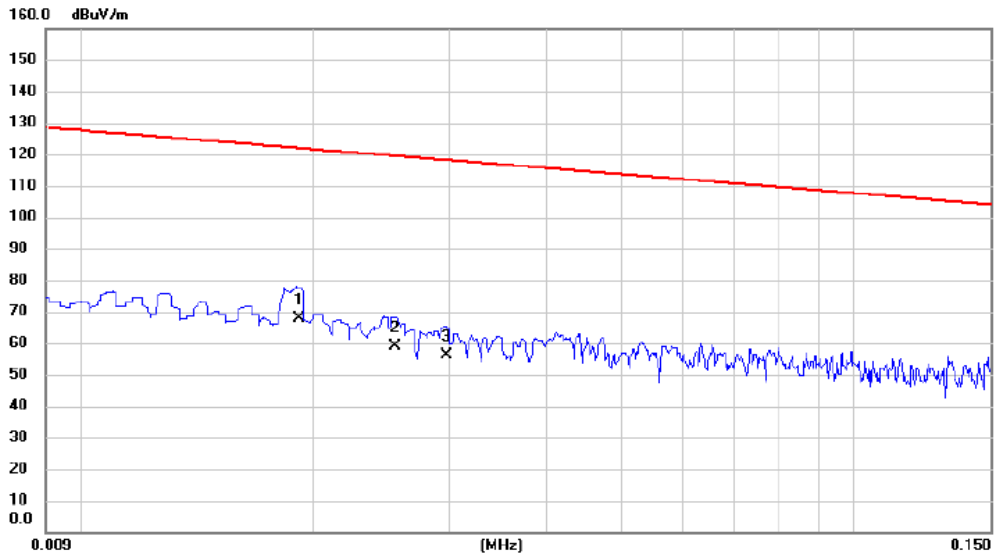


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1500	44.34	9.82	54.16	66.00	-11.84	QP	
2	0.1500	33.20	9.82	43.02	56.00	-12.98	AVG	
3 *	0.1770	44.50	9.84	54.34	64.63	-10.29	QP	
4	0.1770	33.10	9.84	42.94	54.63	-11.69	AVG	
5	0.2175	40.75	9.85	50.60	62.91	-12.31	QP	
6	0.2175	30.60	9.85	40.45	52.91	-12.46	AVG	
7	0.2714	35.39	9.87	45.26	61.07	-15.81	QP	
8	0.2714	25.80	9.87	35.67	51.07	-15.40	AVG	
9	0.4290	30.34	9.93	40.27	57.27	-17.00	QP	
10	0.4290	20.09	9.93	30.02	47.27	-17.25	AVG	
11	4.5240	24.13	10.34	34.47	56.00	-21.53	QP	
12	4.5240	13.60	10.34	23.94	46.00	-22.06	AVG	

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

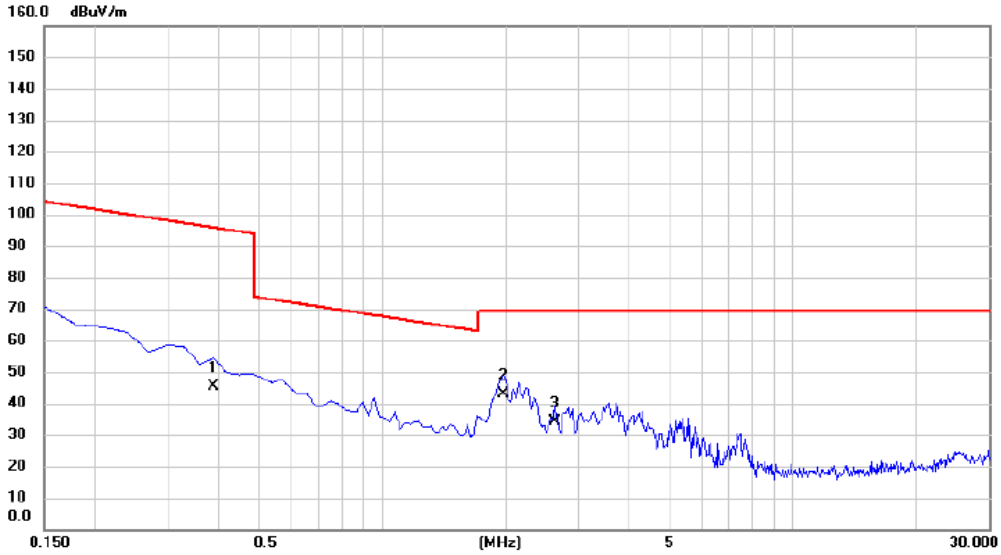
Test Mode	TX G Mode Channel 06	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0192	53.12	14.54	67.66	121.94	-54.28	AVG	
2		0.0255	44.85	14.16	59.01	119.47	-60.46	AVG	
3		0.0297	41.96	14.07	56.03	118.15	-62.12	AVG	

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

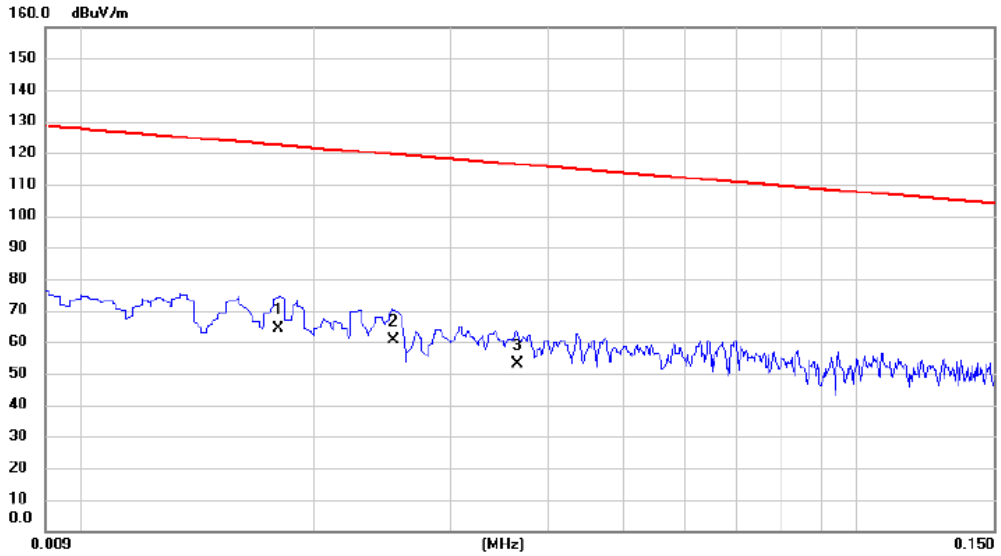
Test Mode	TX G Mode Channel 06	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.3888	31.85	13.47	45.32	95.81	-50.49	AVG	
2	*	1.9708	30.96	12.11	43.07	69.54	-26.47	QP	
3		2.6275	22.18	11.86	34.04	69.54	-35.50	QP	

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

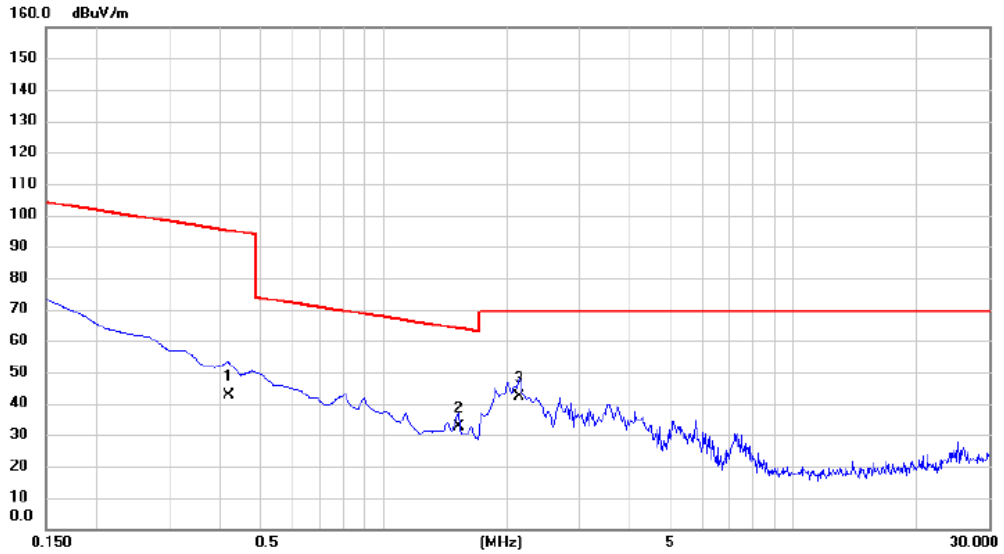
Test Mode	TX G Mode Channel 06	Polarization	Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0180	49.21	14.92	64.13	122.50	-58.37	AVG	
2		0.0253	46.33	14.17	60.50	119.54	-59.04	AVG	
3		0.0365	39.15	13.91	53.06	116.36	-63.30	AVG	

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

Test Mode	TX G Mode Channel 06	Polarization	Ant 90°

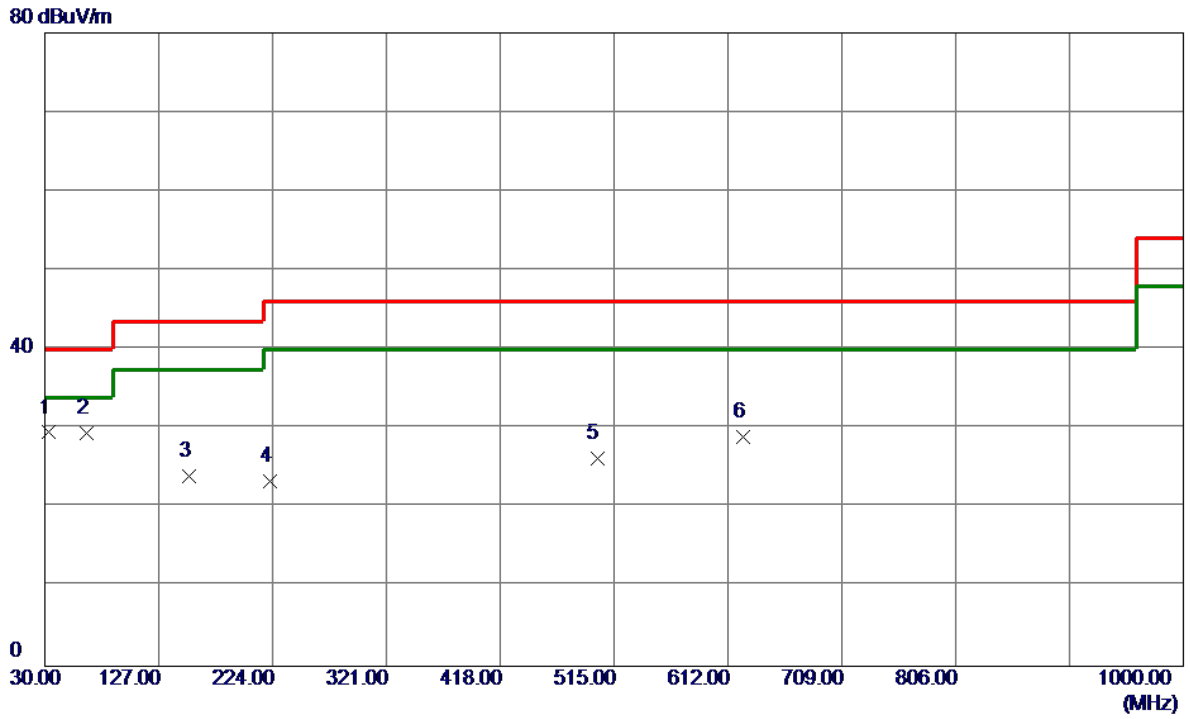


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.4187	29.15	13.43	42.58	95.17	-52.59	AVG	
2		1.5231	20.11	12.44	32.55	63.95	-31.40	QP	
3	*	2.1500	30.18	12.03	42.21	69.54	-27.33	QP	

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

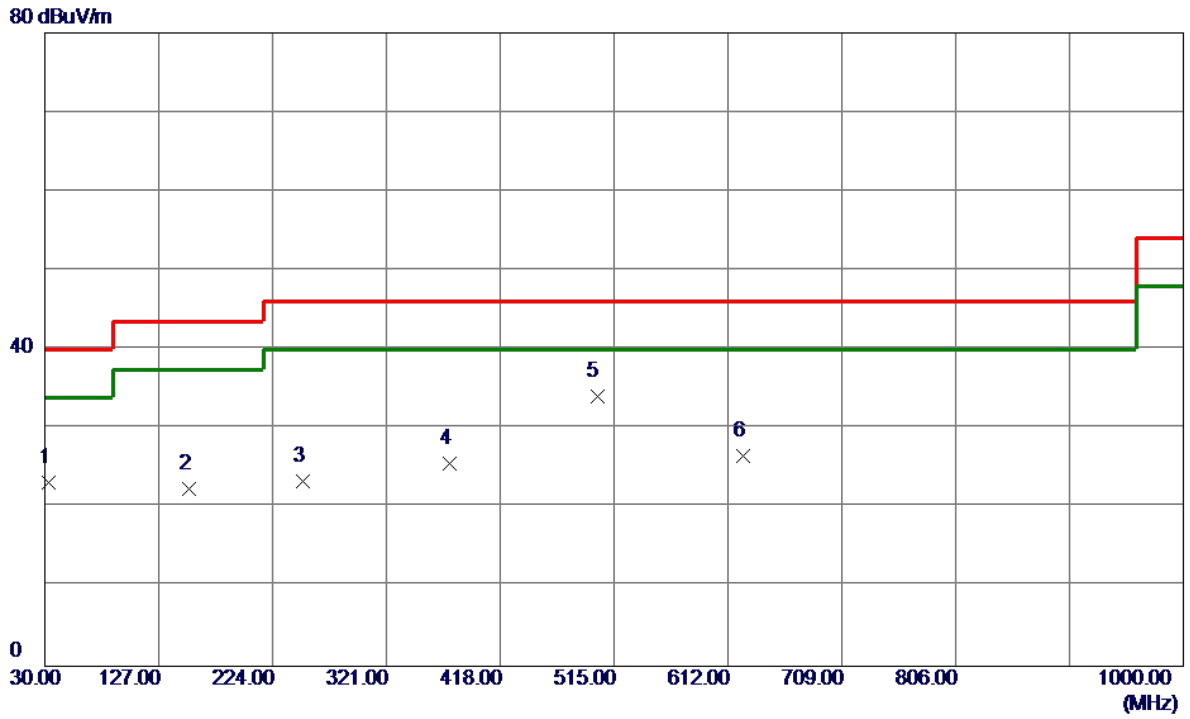
Test Mode	TX G Mode Channel 06	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	32.9100	44.72	-15.20	29.52	40.00	-10.48	Peak	
2	65.8900	44.83	-15.40	29.43	40.00	-10.57	Peak	
3	153.1900	36.63	-12.61	24.02	43.50	-19.48	Peak	
4	222.0600	38.02	-14.72	23.30	46.00	-22.70	Peak	
5	500.4500	33.02	-6.77	26.25	46.00	-19.75	Peak	
6	624.6100	33.44	-4.43	29.01	46.00	-16.99	Peak	

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

Test Mode	TX G Mode Channel 06	Polarization	Horizontal

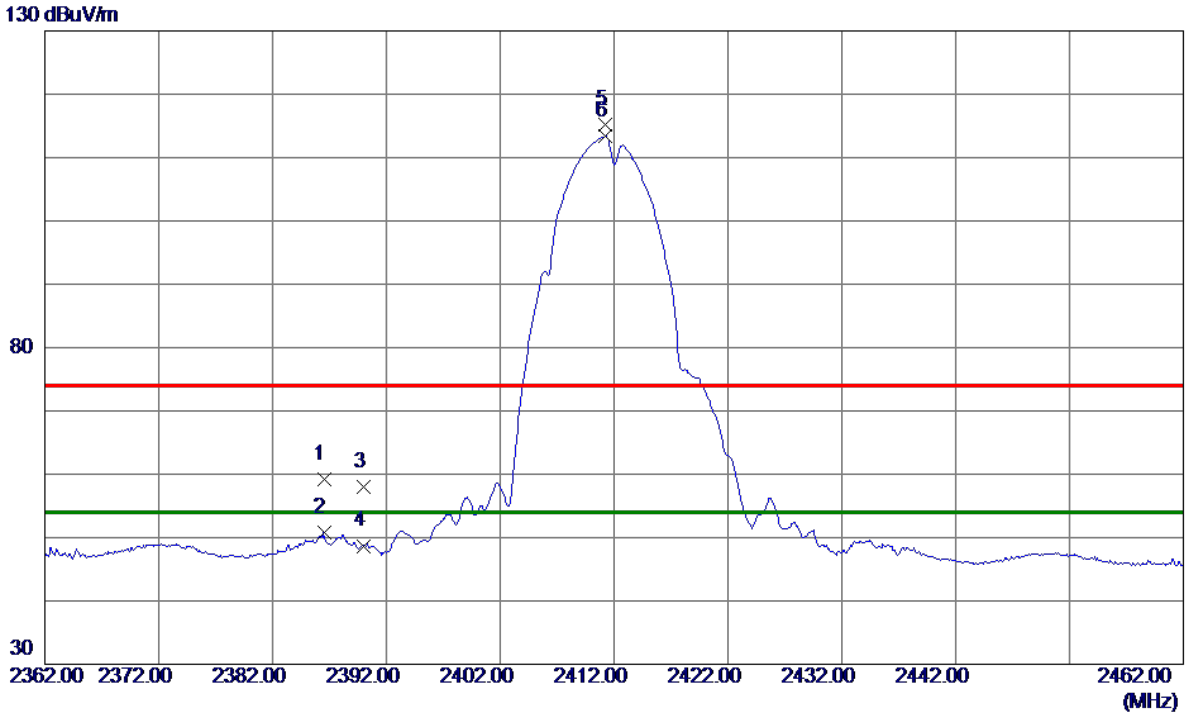


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	32.9100	38.42	-15.20	23.22	40.00	-16.78	Peak	
2	153.1900	34.99	-12.61	22.38	43.50	-21.12	Peak	
3	250.1900	36.36	-13.02	23.34	46.00	-22.66	Peak	
4	375.3200	35.16	-9.52	25.64	46.00	-20.36	Peak	
5 *	500.4500	40.86	-6.77	34.09	46.00	-11.91	Peak	
6	624.6100	30.99	-4.43	26.56	46.00	-19.44	Peak	

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

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

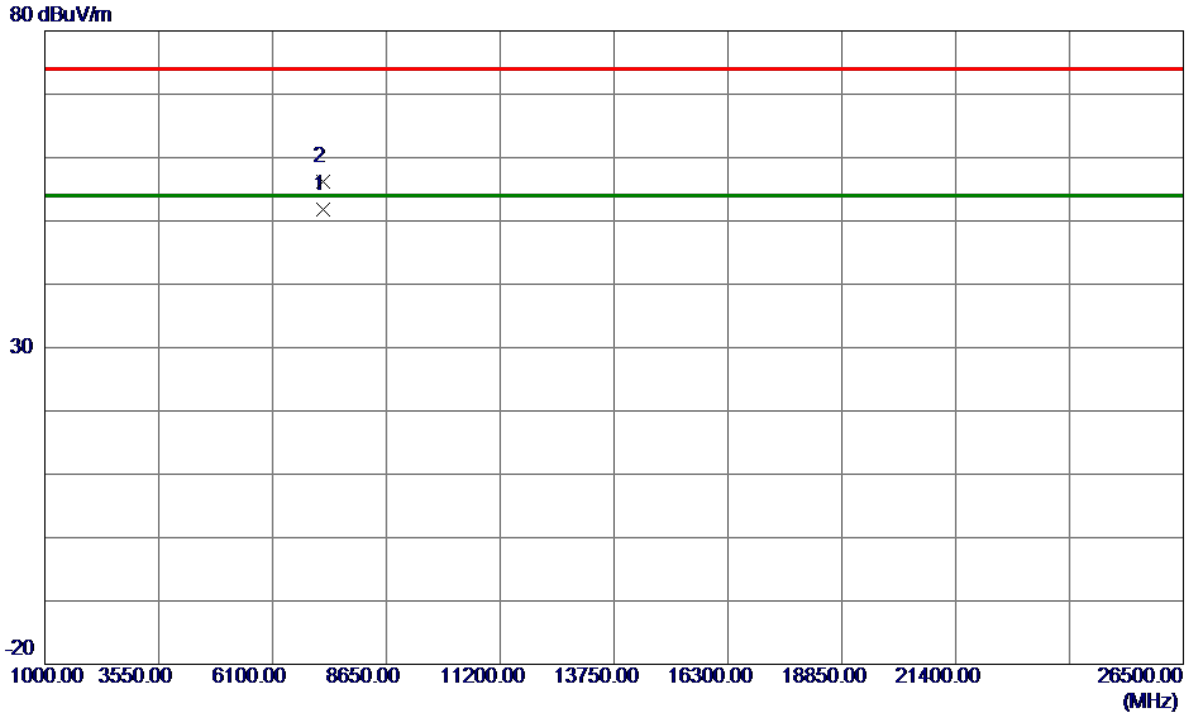
Test Mode	TX B Mode 2412 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386.5000	50.88	8.30	59.18	74.00	-14.82	Peak	
2	2386.5000	42.41	8.30	50.71	54.00	-3.29	AVG	
3	2390.0000	49.66	8.31	57.97	74.00	-16.03	Peak	
4	2390.0000	40.39	8.31	48.70	54.00	-5.30	AVG	
5	2411.2000	106.92	8.33	115.25	74.00	41.25	Peak	No Limit
6 *	2411.2000	105.04	8.33	113.37	54.00	59.37	AVG	No Limit

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

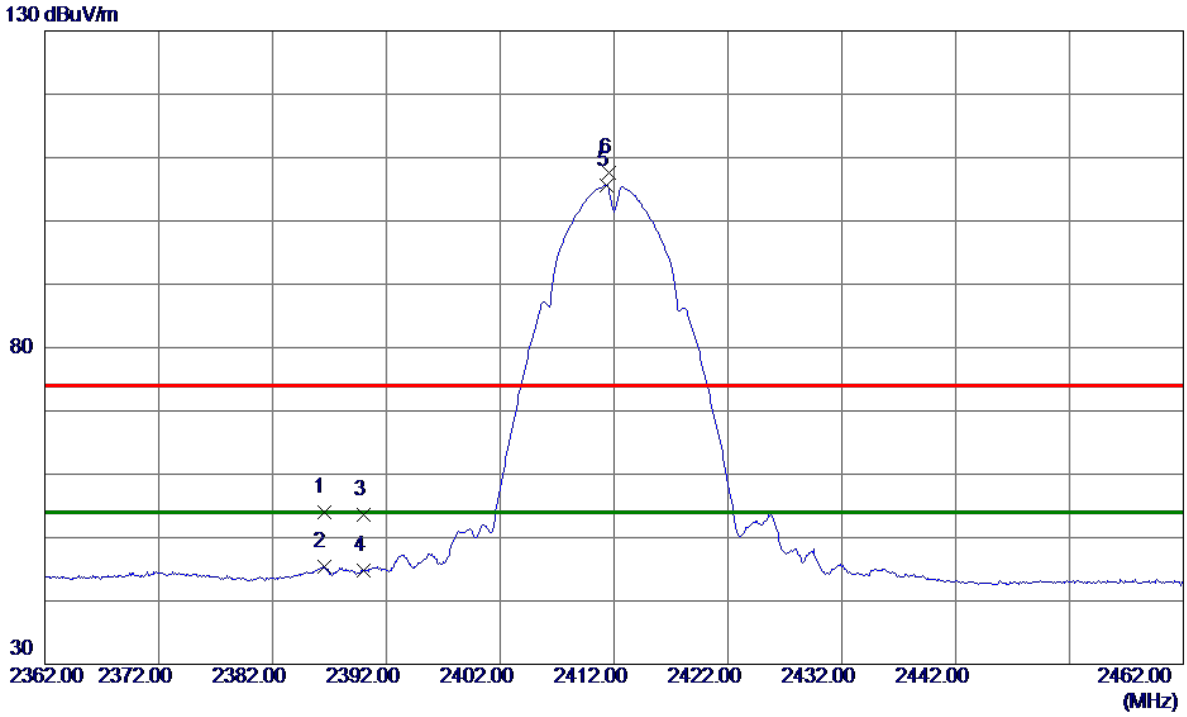
Test Mode	TX B Mode 2412 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7234.3450	41.16	10.59	51.75	54.00	-2.25	AVG	
2	7235.4900	45.66	10.60	56.26	74.00	-17.74	Peak	

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

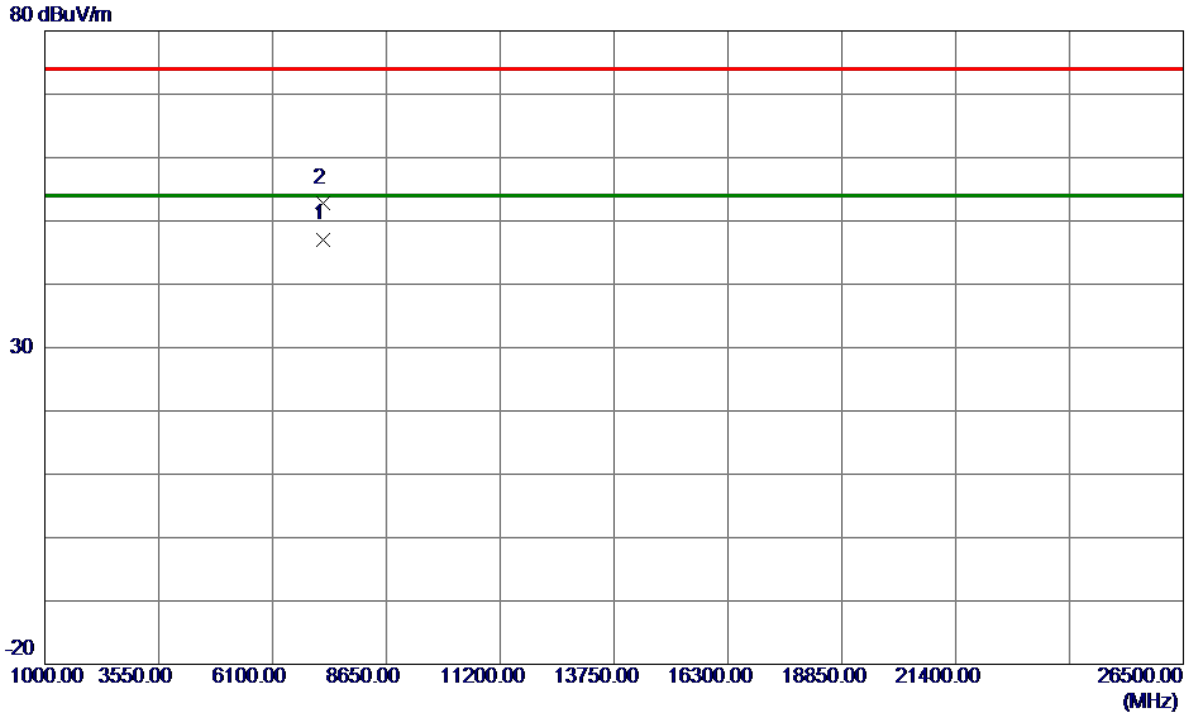
Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386.5000	45.62	8.30	53.92	74.00	-20.08	Peak	
2	2386.5000	37.17	8.30	45.47	54.00	-8.53	AVG	
3	2390.0000	45.35	8.31	53.66	74.00	-20.34	Peak	
4	2390.0000	36.42	8.31	44.73	54.00	-9.27	AVG	
5 *	2411.3000	97.33	8.33	105.66	54.00	51.66	AVG	No Limit
6	2411.6000	99.32	8.33	107.65	74.00	33.65	Peak	No Limit

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

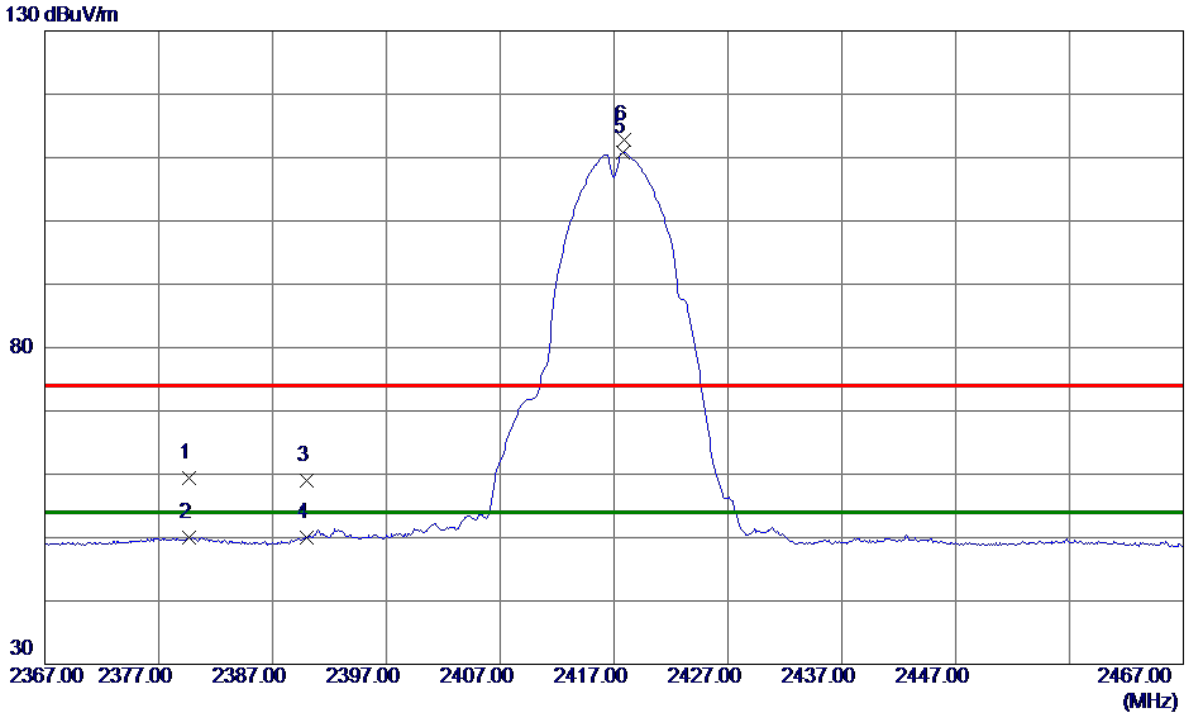
Test Mode	TX B Mode 2412 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7234.2700	36.51	10.59	47.10	54.00	-6.90	AVG	
2	7236.0650	42.20	10.60	52.80	74.00	-21.20	Peak	

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

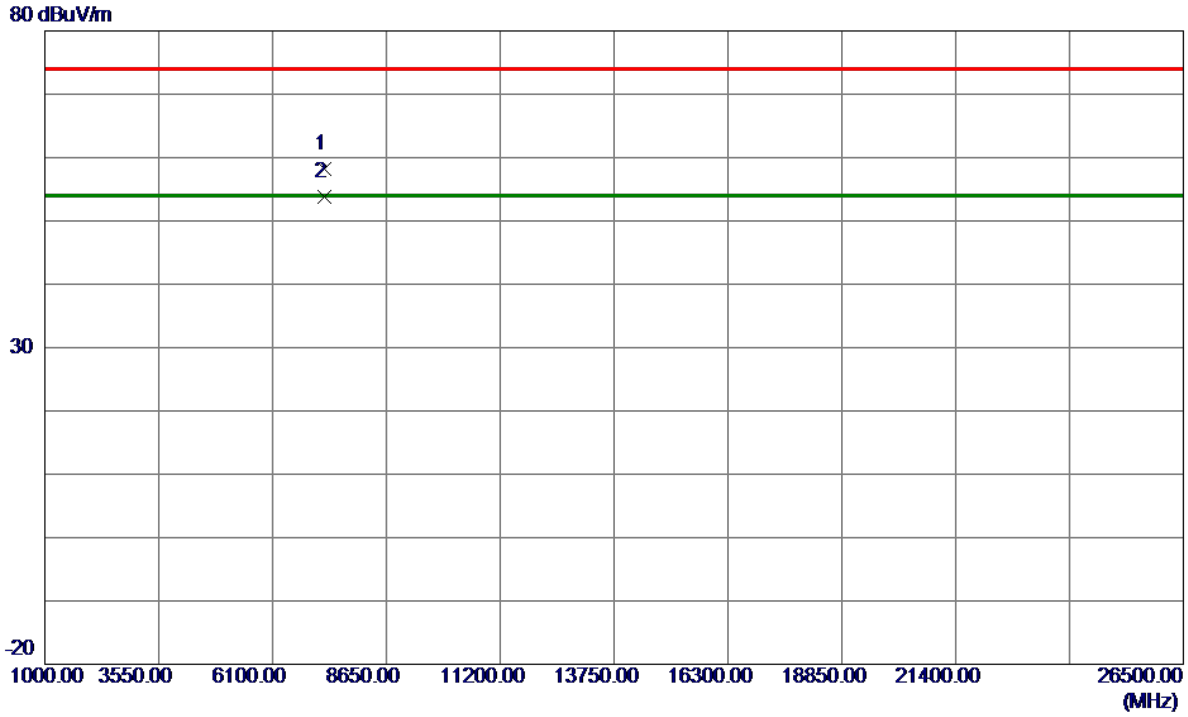
Test Mode	TX B Mode 2417 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2379.7000	51.11	8.29	59.40	74.00	-14.60	Peak	
2	2379.7000	41.70	8.29	49.99	54.00	-4.01	AVG	
3	2390.0000	50.64	8.31	58.95	74.00	-15.05	Peak	
4	2390.0000	41.70	8.31	50.01	54.00	-3.99	AVG	
5 *	2417.8000	102.45	8.34	110.79	54.00	56.79	AVG	No Limit
6	2417.9000	104.50	8.34	112.84	74.00	38.84	Peak	No Limit

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

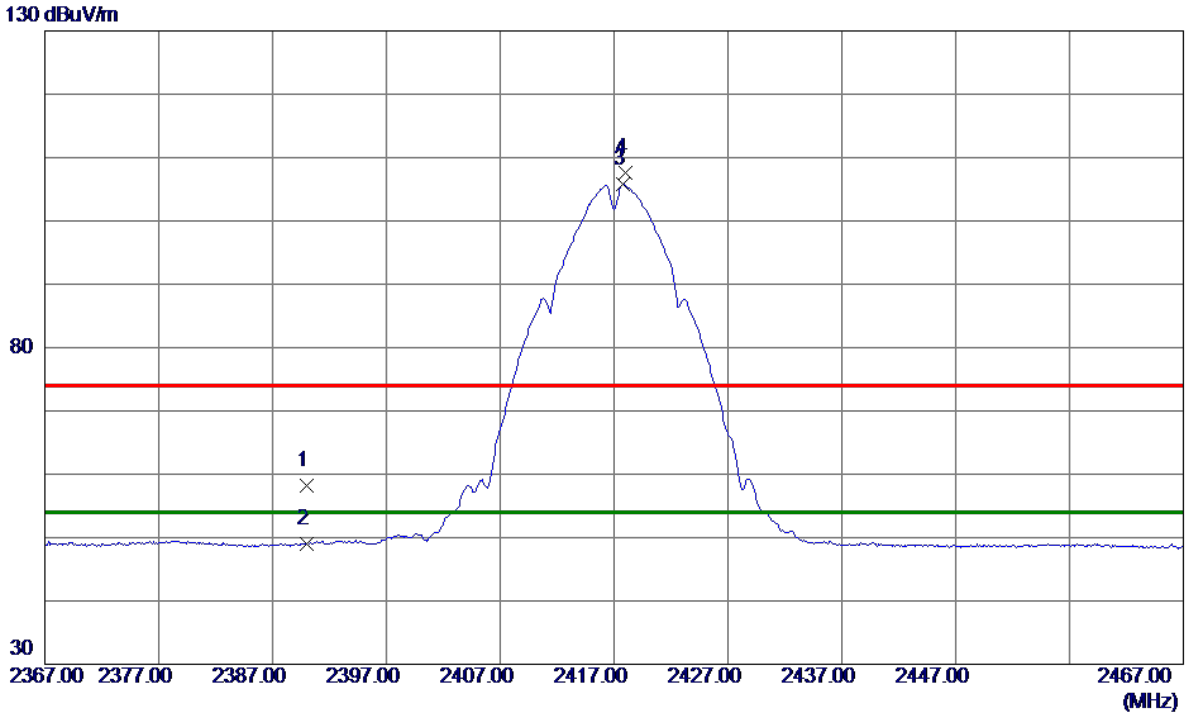
Test Mode	TX B Mode 2417 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7251.9400	47.59	10.62	58.21	74.00	-15.79	Peak	
2 *	7252.3200	43.18	10.62	53.80	54.00	-0.20	AVG	

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

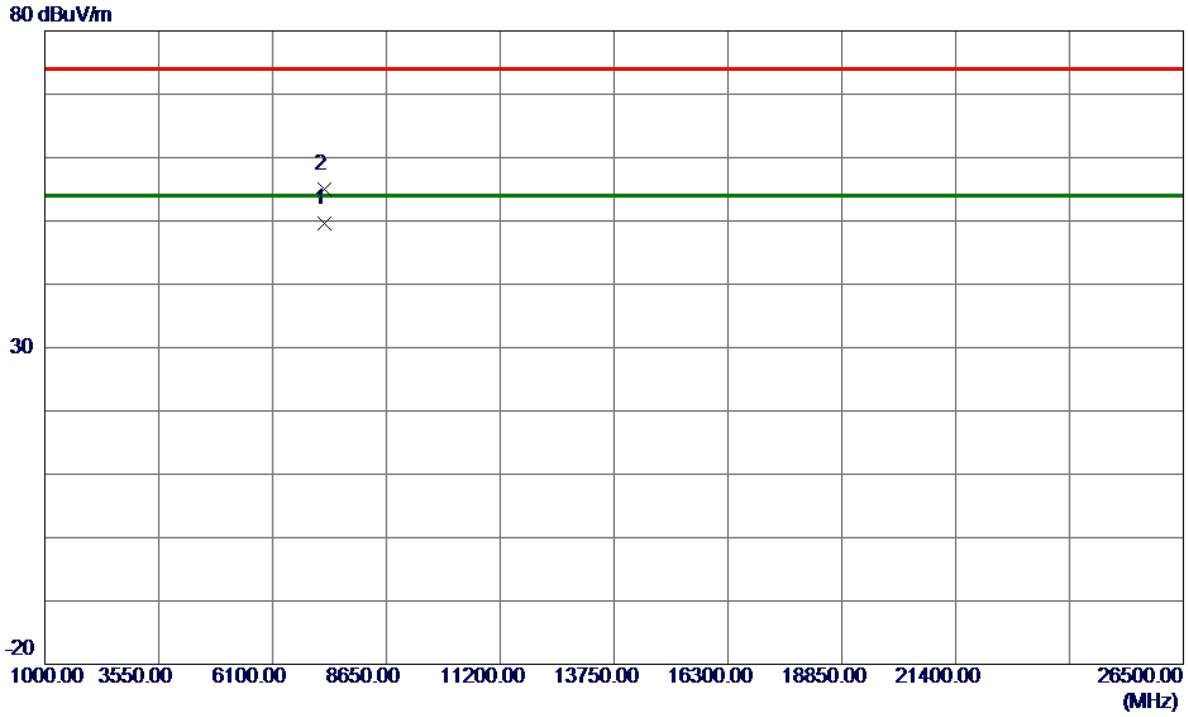
Test Mode	TX B Mode 2417 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	49.88	8.31	58.19	74.00	-15.81	Peak	
2	2390.0000	40.71	8.31	49.02	54.00	-4.98	AVG	
3 *	2417.8000	97.40	8.34	105.74	54.00	51.74	AVG	No Limit
4	2418.0000	99.28	8.34	107.62	74.00	33.62	Peak	No Limit

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

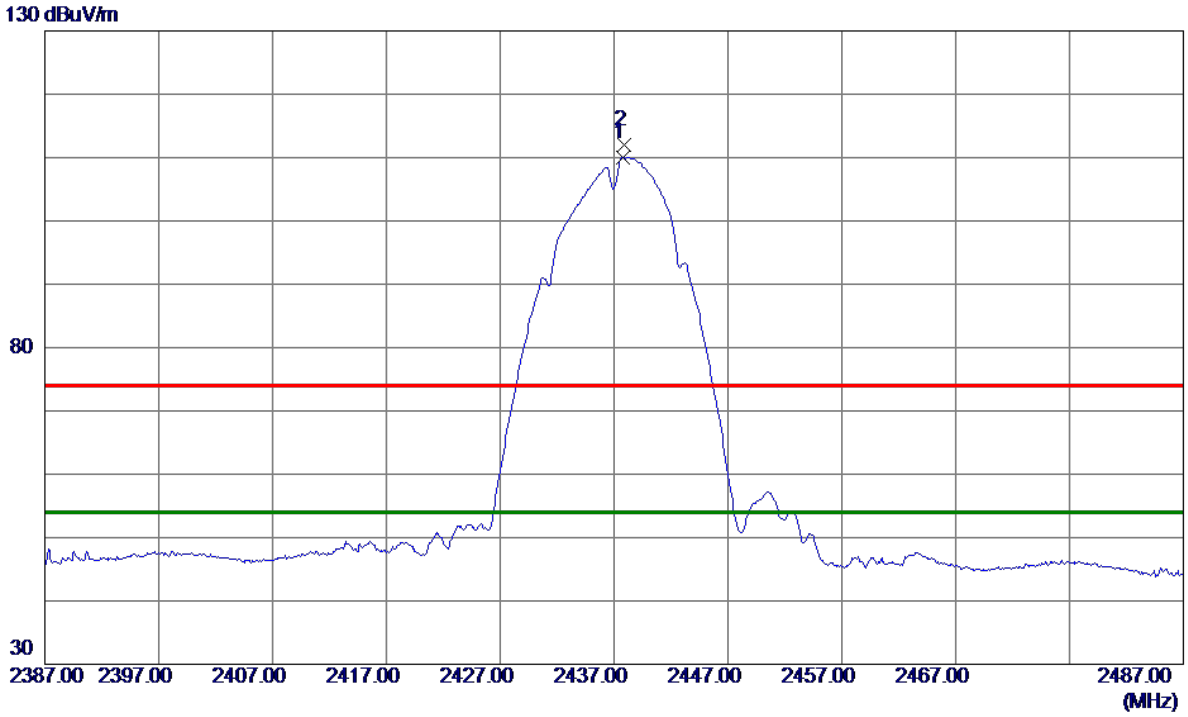
Test Mode	TX B Mode 2417 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7250.1800	39.04	10.62	49.66	54.00	-4.34	AVG	
2	7250.8050	44.45	10.62	55.07	74.00	-18.93	Peak	

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

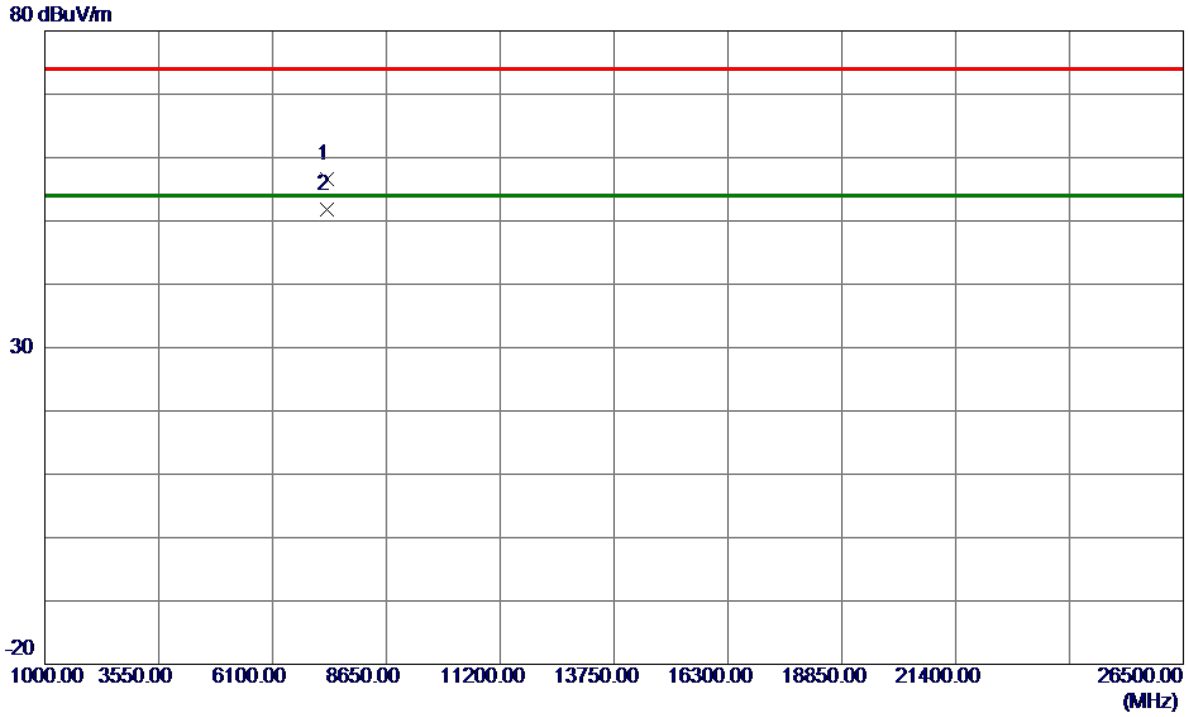
Test Mode	TX B Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2437.8000	101.68	8.37	110.05	54.00	56.05	AVG	No Limit
2	2437.9000	103.62	8.37	111.99	74.00	37.99	Peak	No Limit

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

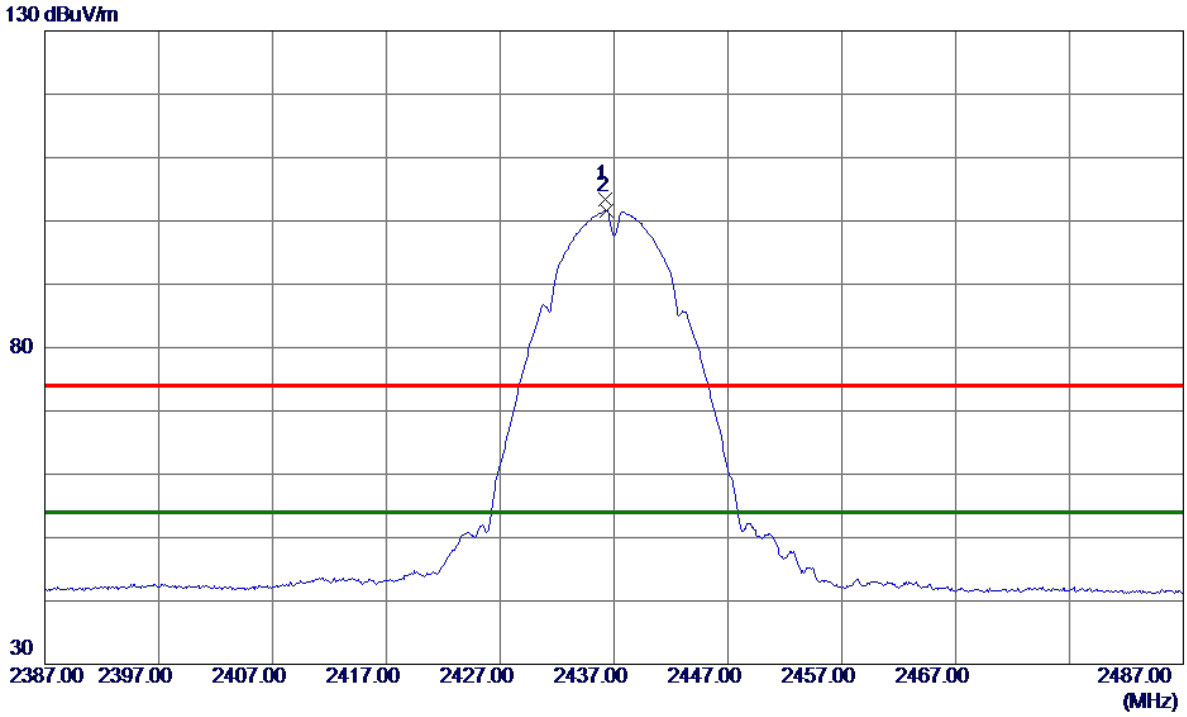
Test Mode	TX B Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7312.4650	45.86	10.70	56.56	74.00	-17.44	Peak	
2 *	7312.6900	41.07	10.70	51.77	54.00	-2.23	AVG	

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

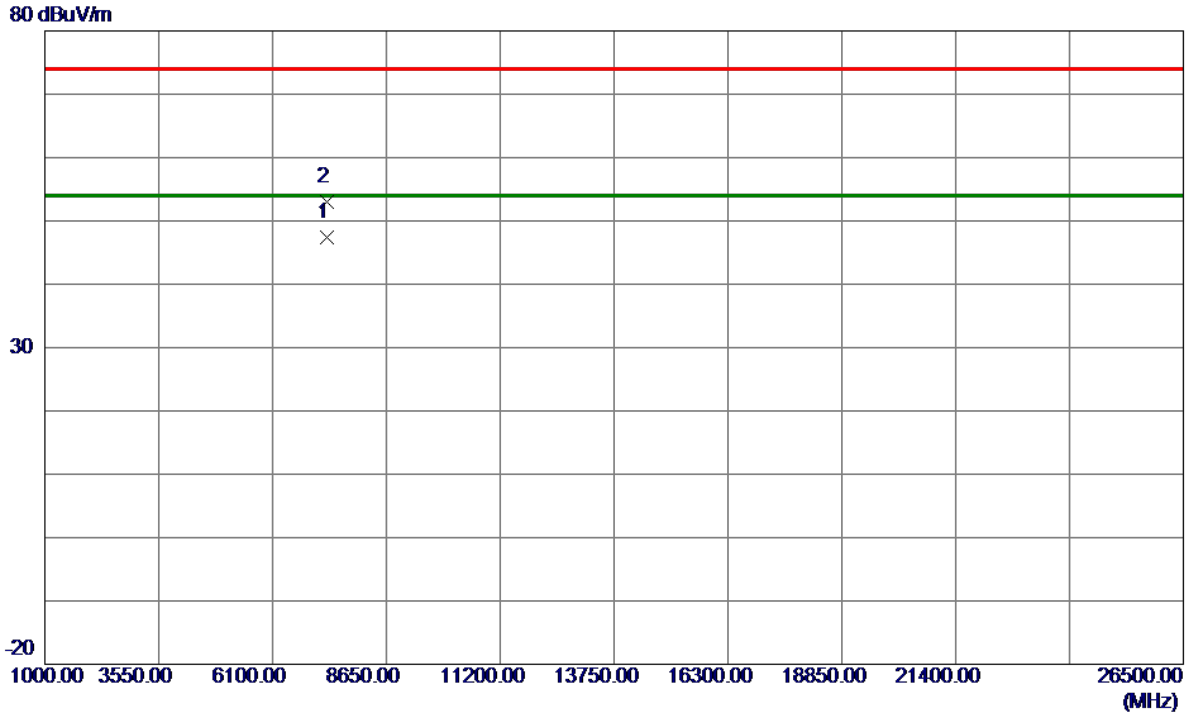
Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436.2000	95.12	8.36	103.48	74.00	29.48	Peak	No Limit
2 *	2436.3000	93.25	8.36	101.61	54.00	47.61	AVG	No Limit

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

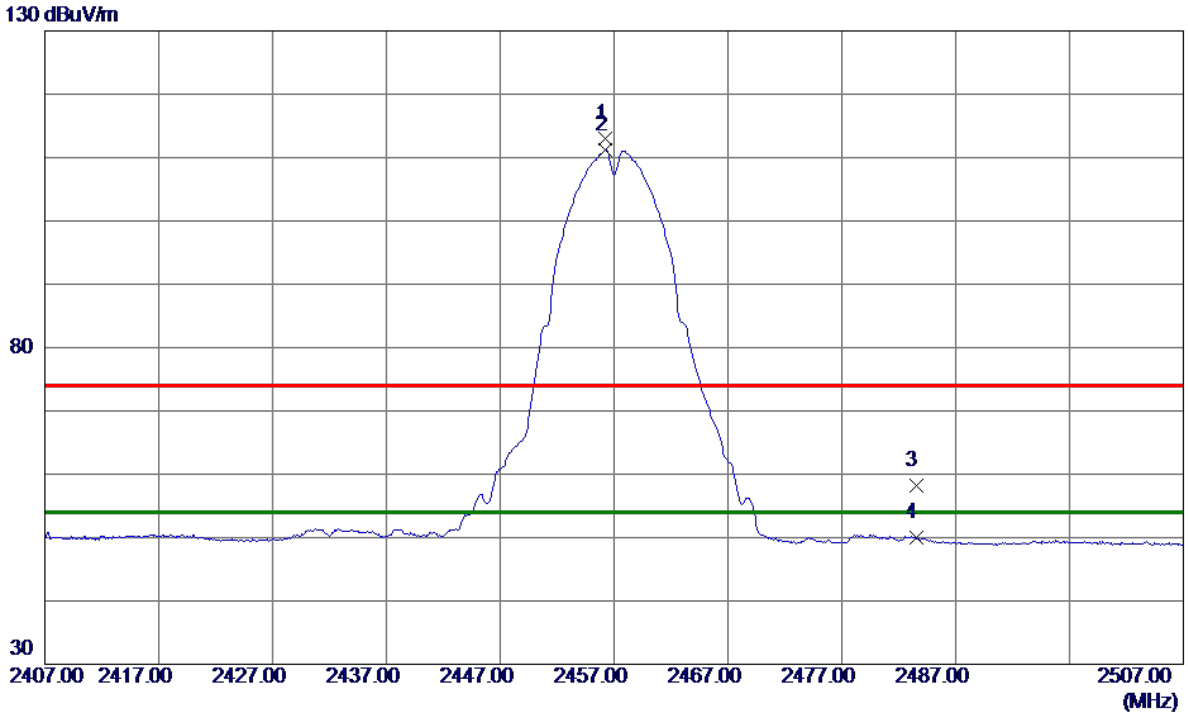
Test Mode	TX B Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7312.7300	36.76	10.70	47.46	54.00	-6.54	AVG	
2	7312.8650	42.36	10.70	53.06	74.00	-20.94	Peak	

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

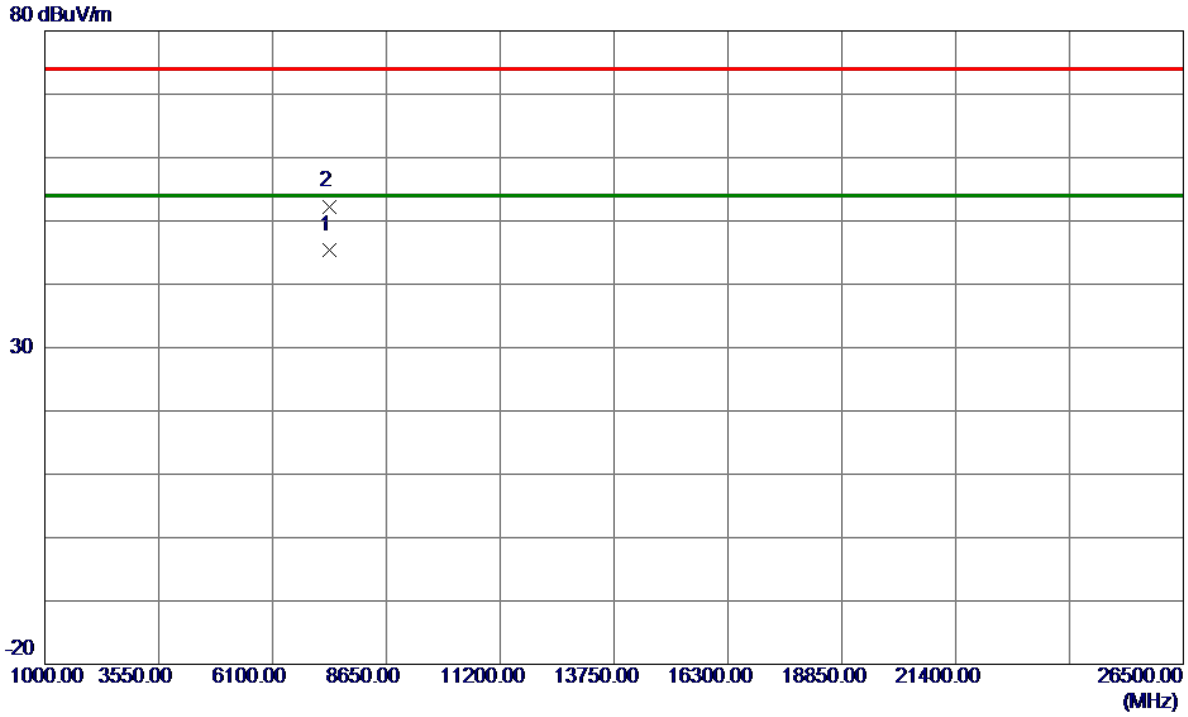
Test Mode	TX B Mode 2457 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2456.2000	104.60	8.39	112.99	74.00	38.99	Peak	No Limit
2 *	2456.2000	102.75	8.39	111.14	54.00	57.14	AVG	No Limit
3	2483.5000	49.78	8.42	58.20	74.00	-15.80	Peak	
4	2483.5000	41.55	8.42	49.97	54.00	-4.03	AVG	

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

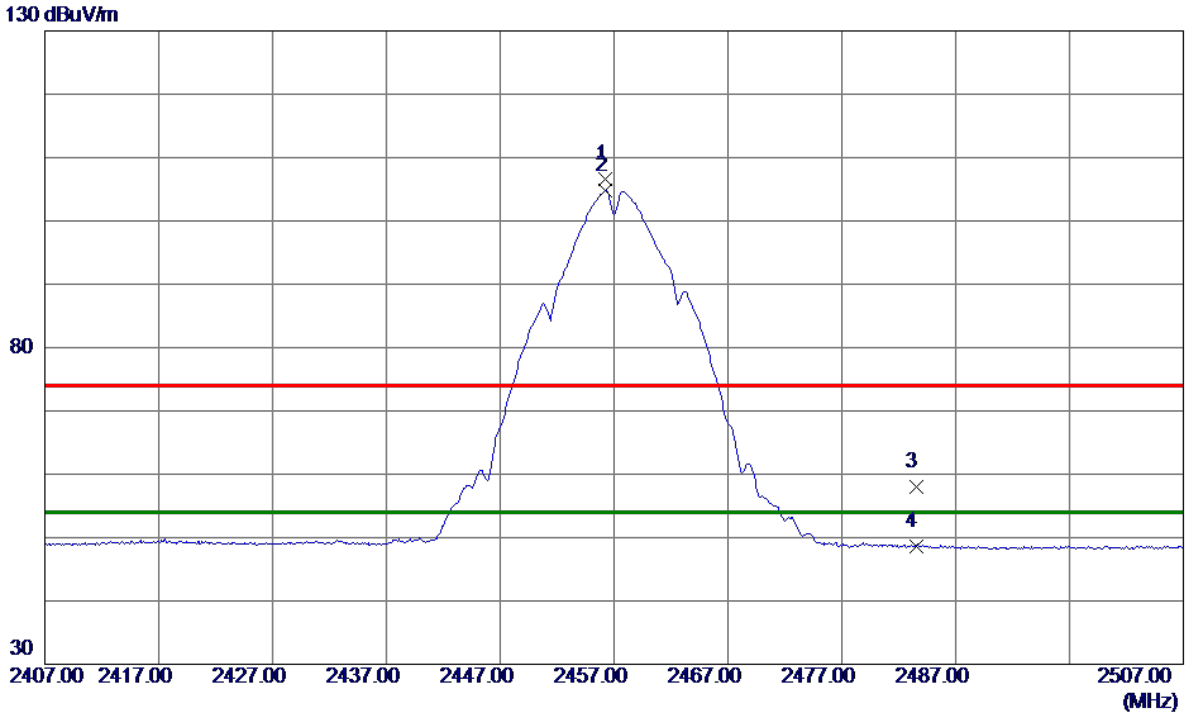
Test Mode	TX B Mode 2457 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7369.1250	34.69	10.77	45.46	54.00	-8.54	AVG	
2	7369.9500	41.53	10.77	52.30	74.00	-21.70	Peak	

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

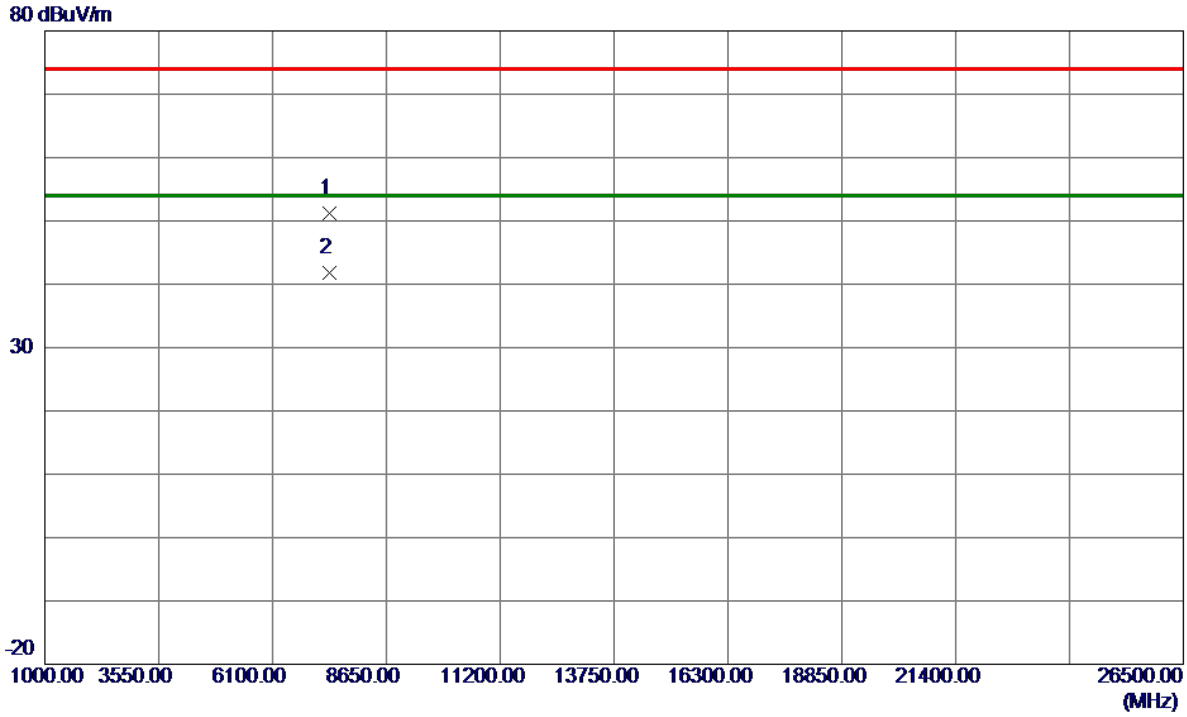
Test Mode	TX B Mode 2457 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2456.2000	98.15	8.39	106.54	74.00	32.54	Peak	No Limit
2 *	2456.2000	96.37	8.39	104.76	54.00	50.76	AVG	No Limit
3	2483.5000	49.64	8.42	58.06	74.00	-15.94	Peak	
4	2483.5000	40.14	8.42	48.56	54.00	-5.44	AVG	

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

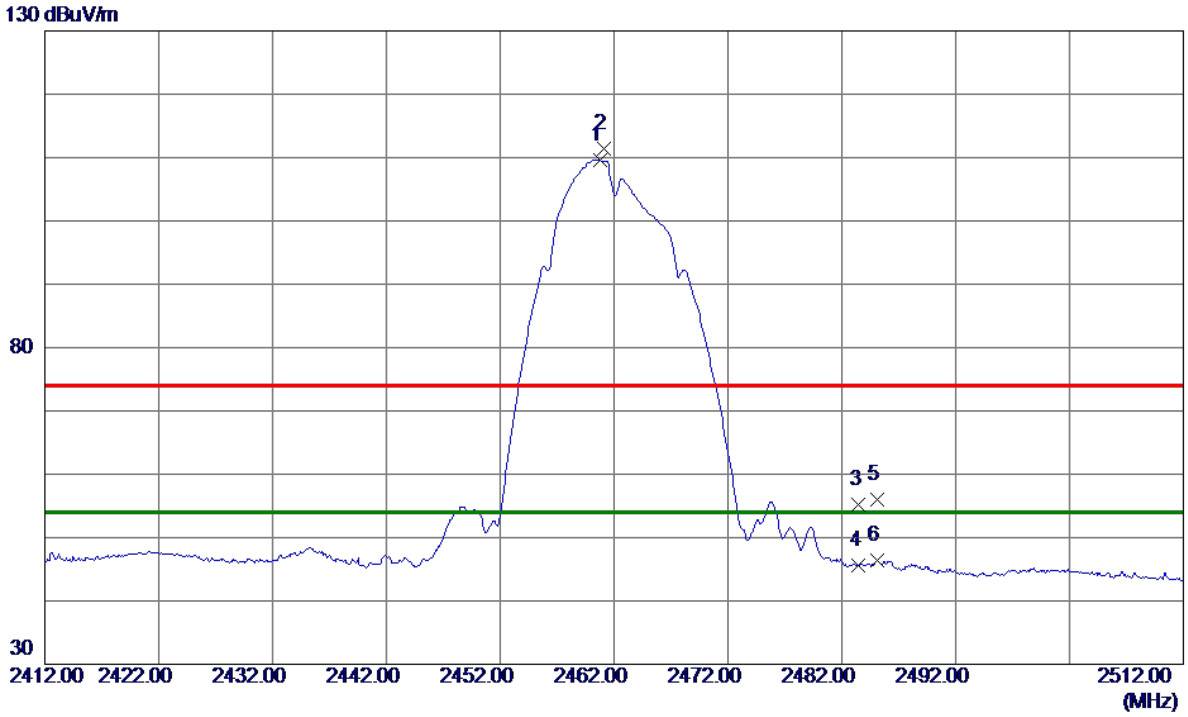
Test Mode	TX B Mode 2457 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7369.6700	40.39	10.77	51.16	74.00	-22.84	Peak	
2 *	7372.4150	30.97	10.77	41.74	54.00	-12.26	AVG	

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

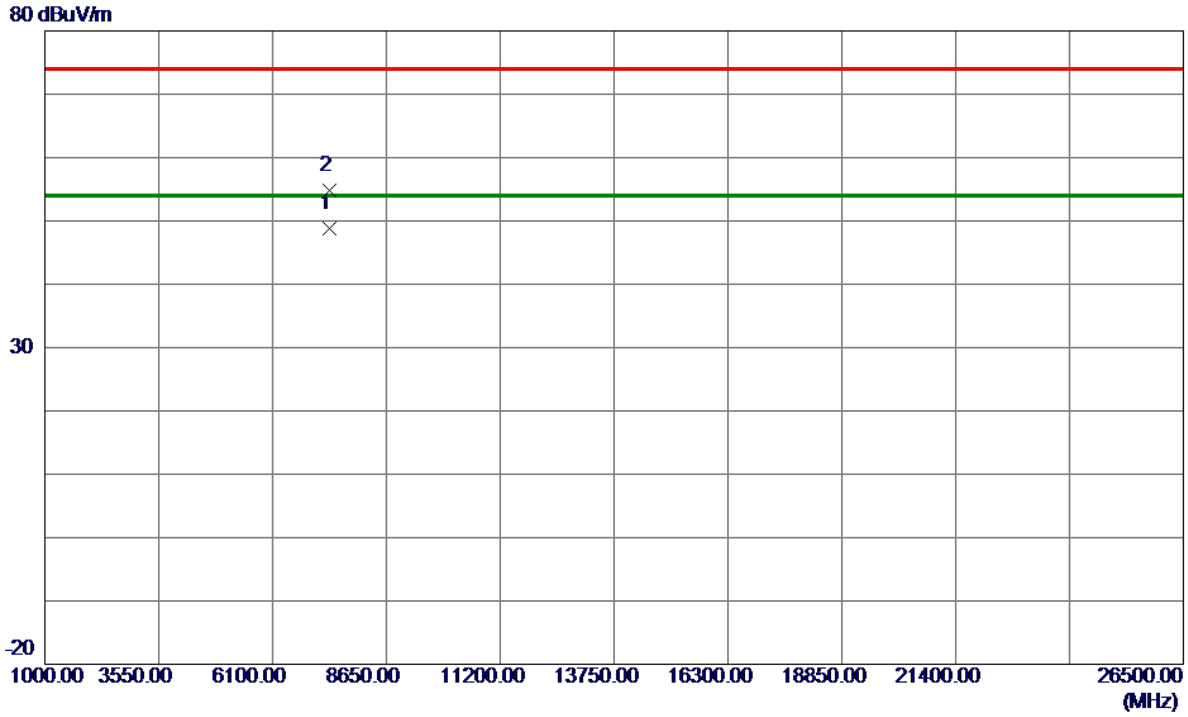
Test Mode	TX B Mode 2462 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2460.8000	101.20	8.40	109.60	54.00	55.60	AVG	No Limit
2	2461.1000	103.00	8.40	111.40	74.00	37.40	Peak	No Limit
3	2483.5000	46.86	8.42	55.28	74.00	-18.72	Peak	
4	2483.5000	37.10	8.42	45.52	54.00	-8.48	AVG	
5	2485.1000	47.50	8.43	55.93	74.00	-18.07	Peak	
6	2485.1000	37.93	8.43	46.36	54.00	-7.64	AVG	

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

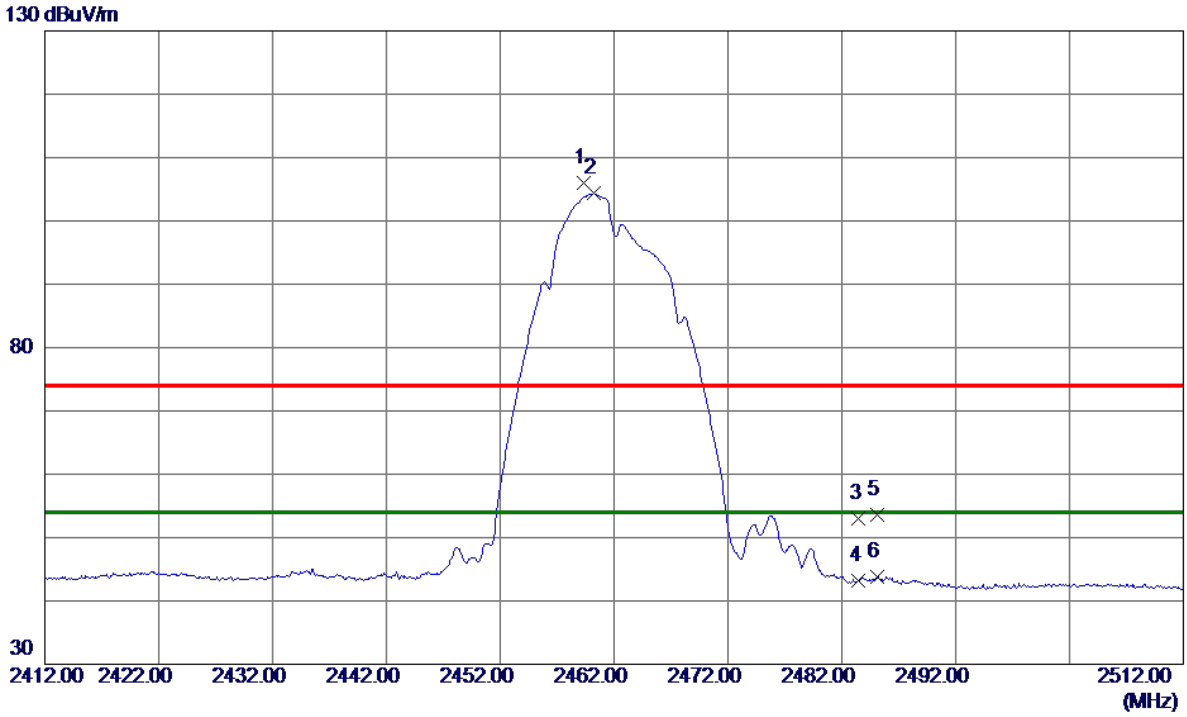
Test Mode	TX B Mode 2462 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7384.4300	37.93	10.79	48.72	54.00	-5.28	AVG	
2	7385.3700	44.03	10.79	54.82	74.00	-19.18	Peak	

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

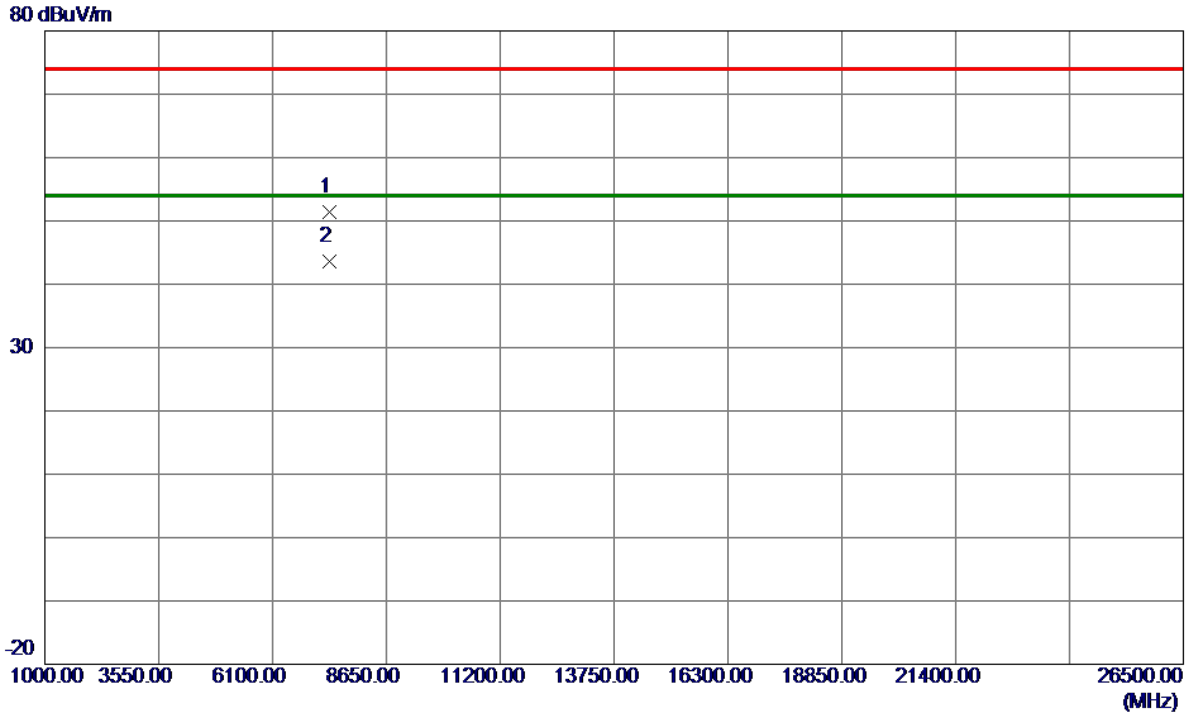
Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2459.3000	97.63	8.39	106.02	74.00	32.02	Peak	No Limit
2 *	2460.2000	95.92	8.39	104.31	54.00	50.31	AVG	No Limit
3	2483.5000	44.52	8.42	52.94	74.00	-21.06	Peak	
4	2483.5000	34.71	8.42	43.13	54.00	-10.87	AVG	
5	2485.1000	45.09	8.43	53.52	74.00	-20.48	Peak	
6	2485.1000	35.43	8.43	43.86	54.00	-10.14	AVG	

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

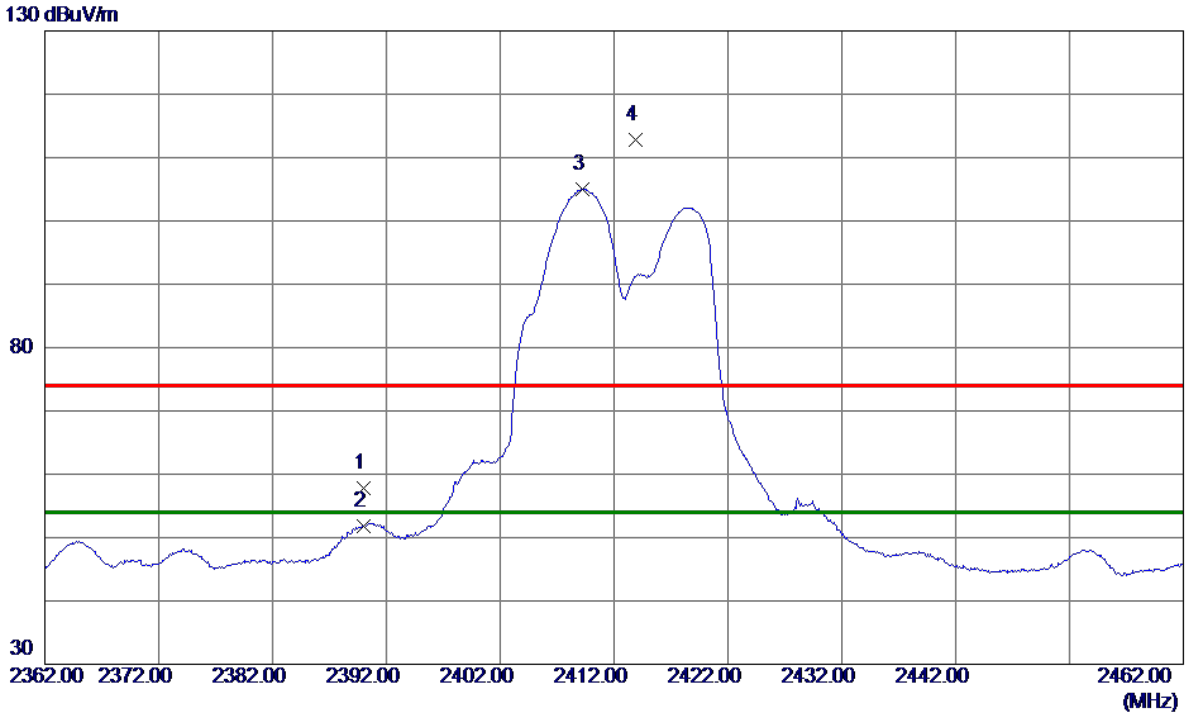
Test Mode	TX B Mode 2462 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7384.1250	40.57	10.79	51.36	74.00	-22.64	Peak	
2 *	7384.3050	32.88	10.79	43.67	54.00	-10.33	AVG	

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

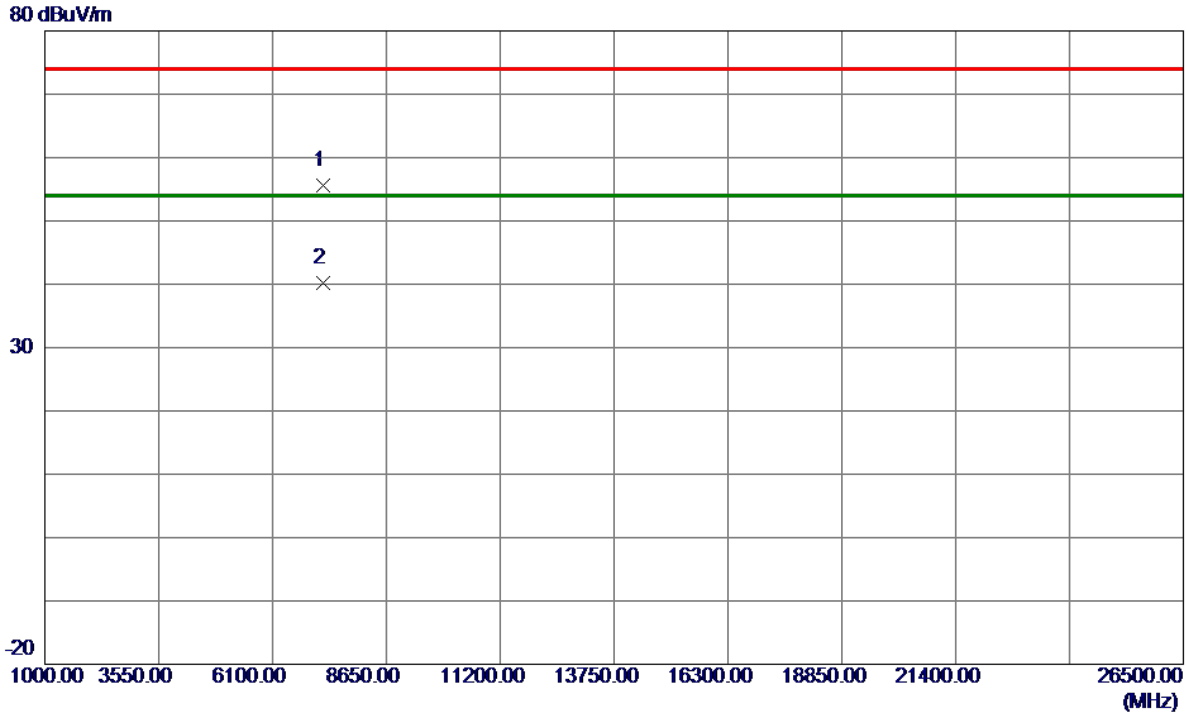
Test Mode	TX G Mode 2412 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	49.41	8.31	57.72	74.00	-16.28	Peak	
2	2390.0000	43.48	8.31	51.79	54.00	-2.21	AVG	
3 *	2409.2000	96.70	8.33	105.03	54.00	51.03	AVG	No Limit
4	2413.8500	104.44	8.34	112.78	74.00	38.78	Peak	No Limit

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

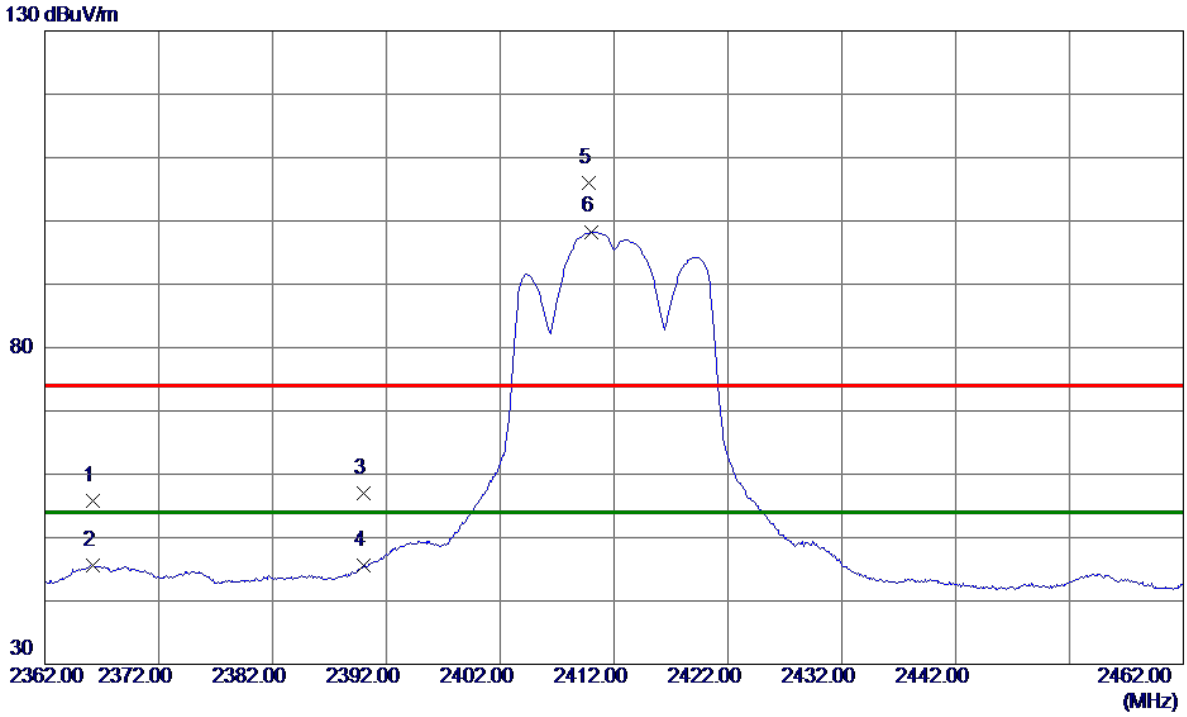
Test Mode	TX G Mode 2412 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7230.1400	44.95	10.59	55.54	74.00	-18.46	Peak	
2 *	7240.1700	29.66	10.60	40.26	54.00	-13.74	AVG	

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

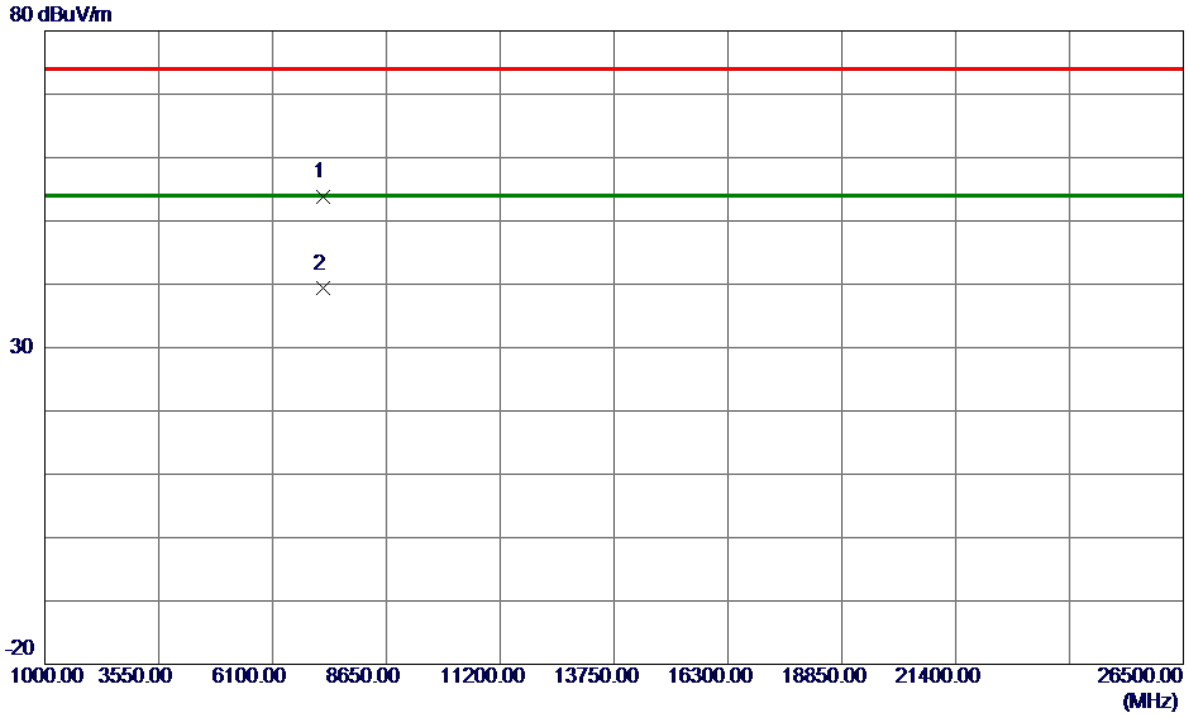
Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2366.2000	47.51	8.28	55.79	74.00	-18.21	Peak	
2	2366.2000	37.33	8.28	45.61	54.00	-8.39	AVG	
3	2390.0000	48.78	8.31	57.09	74.00	-16.91	Peak	
4	2390.0000	37.23	8.31	45.54	54.00	-8.46	AVG	
5	2409.8000	97.74	8.33	106.07	74.00	32.07	Peak	No Limit
6 *	2410.0000	89.97	8.33	98.30	54.00	44.30	AVG	No Limit

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

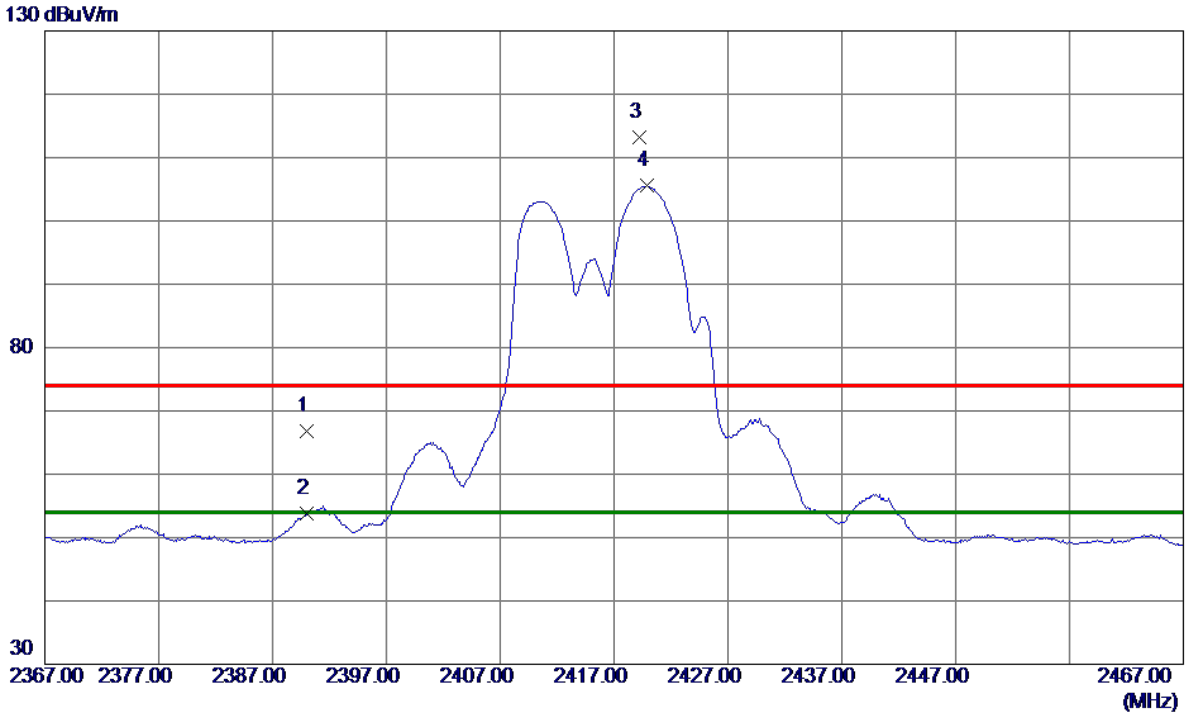
Test Mode	TX G Mode 2412 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7231.6200	43.22	10.59	53.81	74.00	-20.19	Peak	
2 *	7240.6400	28.70	10.60	39.30	54.00	-14.70	AVG	

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

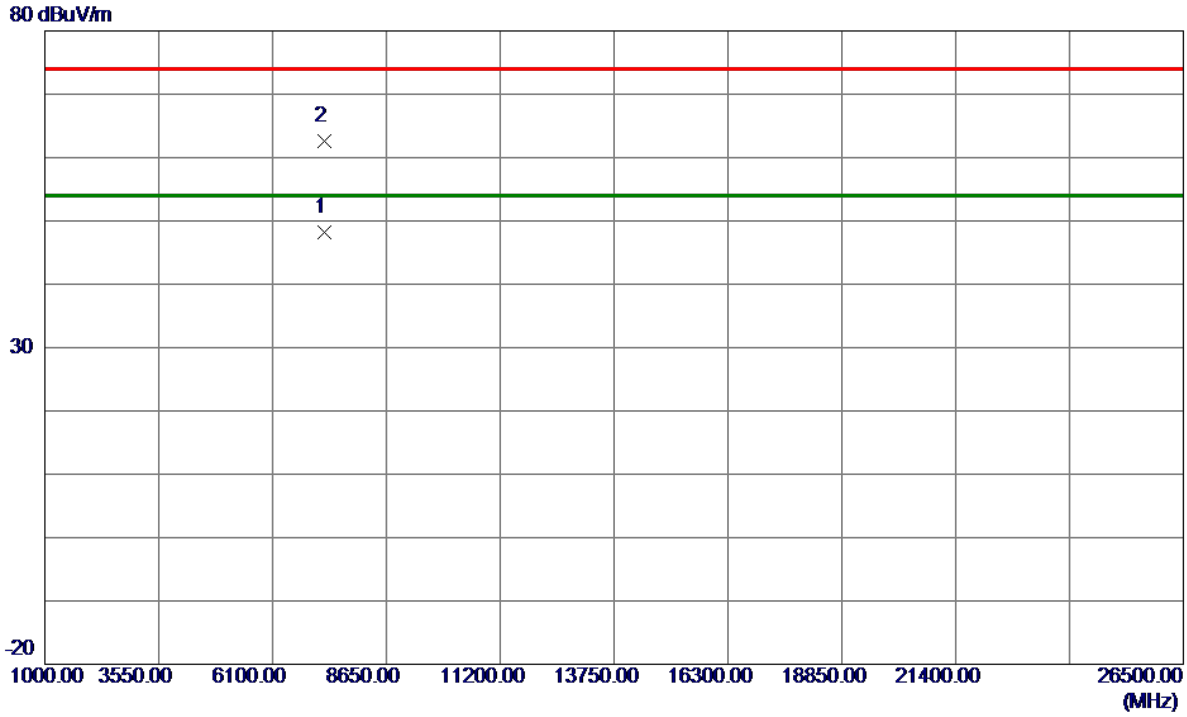
Test Mode	TX G Mode 2417 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	58.46	8.31	66.77	74.00	-7.23	Peak	
2	2390.0000	45.50	8.31	53.81	54.00	-0.19	AVG	
3	2419.2000	104.80	8.34	113.14	74.00	39.14	Peak	No Limit
4 *	2419.9000	97.21	8.34	105.55	54.00	51.55	AVG	No Limit

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

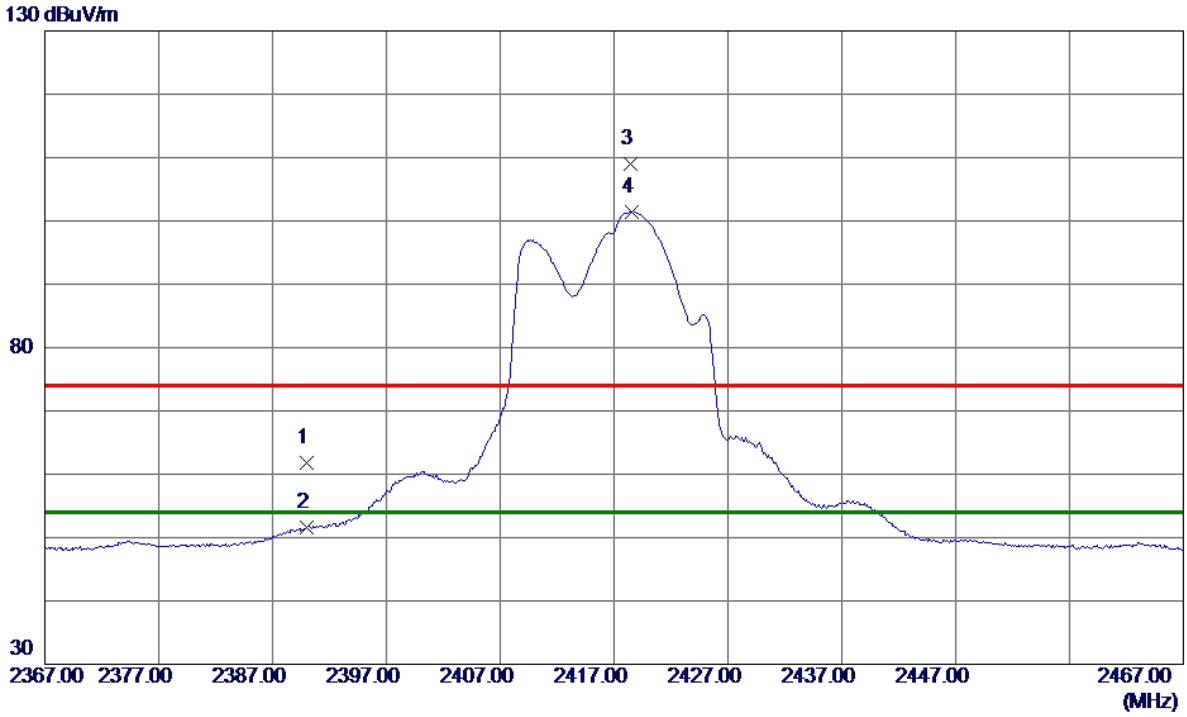
Test Mode	TX G Mode 2417 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7248.4400	37.61	10.61	48.22	54.00	-5.78	AVG	
2	7249.0700	51.93	10.61	62.54	74.00	-11.46	Peak	

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

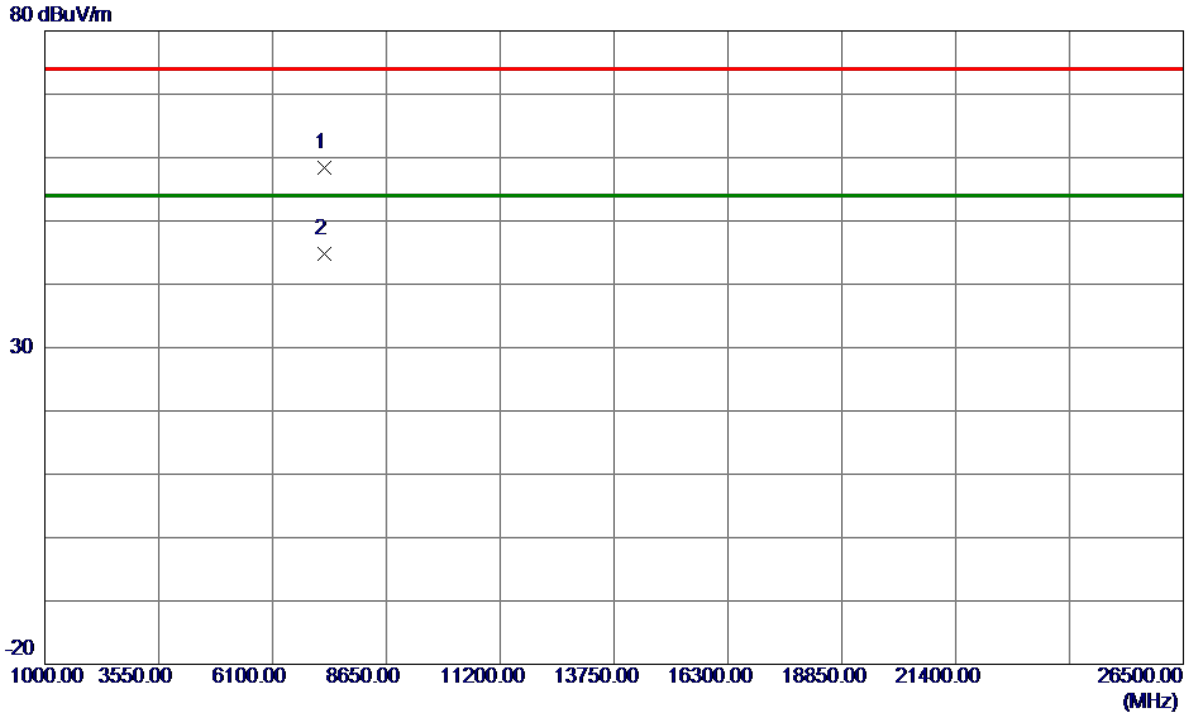
Test Mode	TX G Mode 2417 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	53.47	8.31	61.78	74.00	-12.22	Peak	
2	2390.0000	43.34	8.31	51.65	54.00	-2.35	AVG	
3	2418.4000	100.64	8.34	108.98	74.00	34.98	Peak	No Limit
4 *	2418.6000	93.10	8.34	101.44	54.00	47.44	AVG	No Limit

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

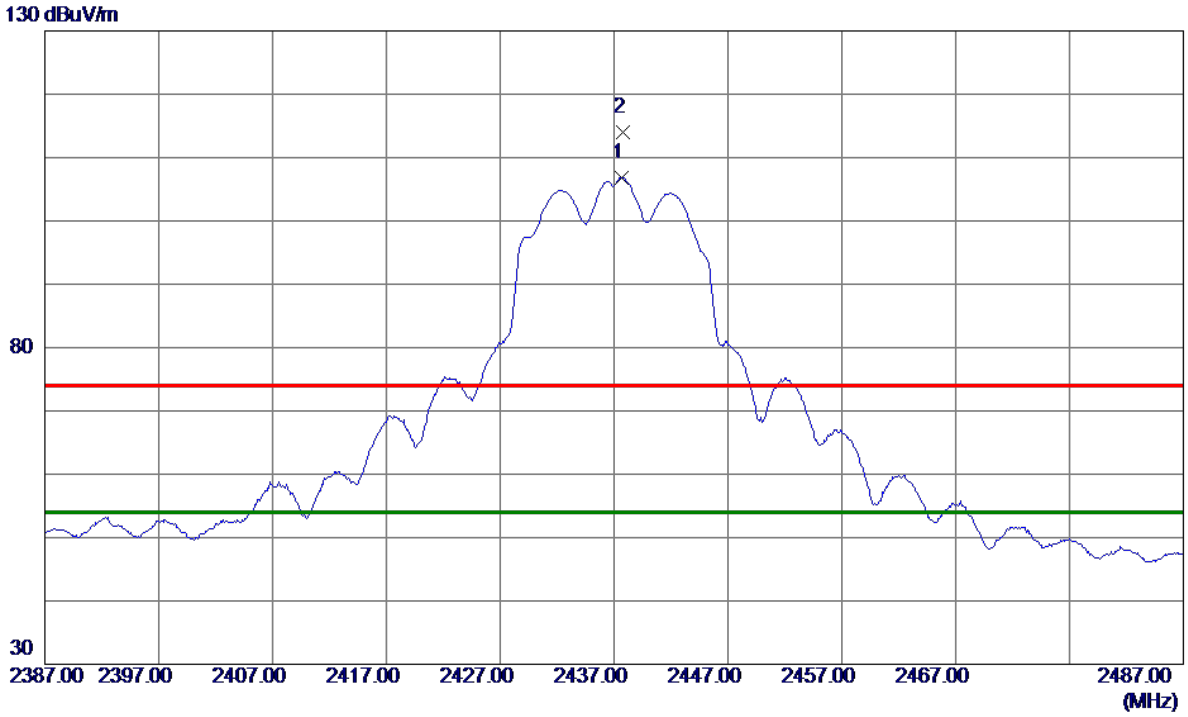
Test Mode	TX G Mode 2417 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7248.4900	47.80	10.61	58.41	74.00	-15.59	Peak	
2 *	7249.1100	34.14	10.61	44.75	54.00	-9.25	AVG	

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

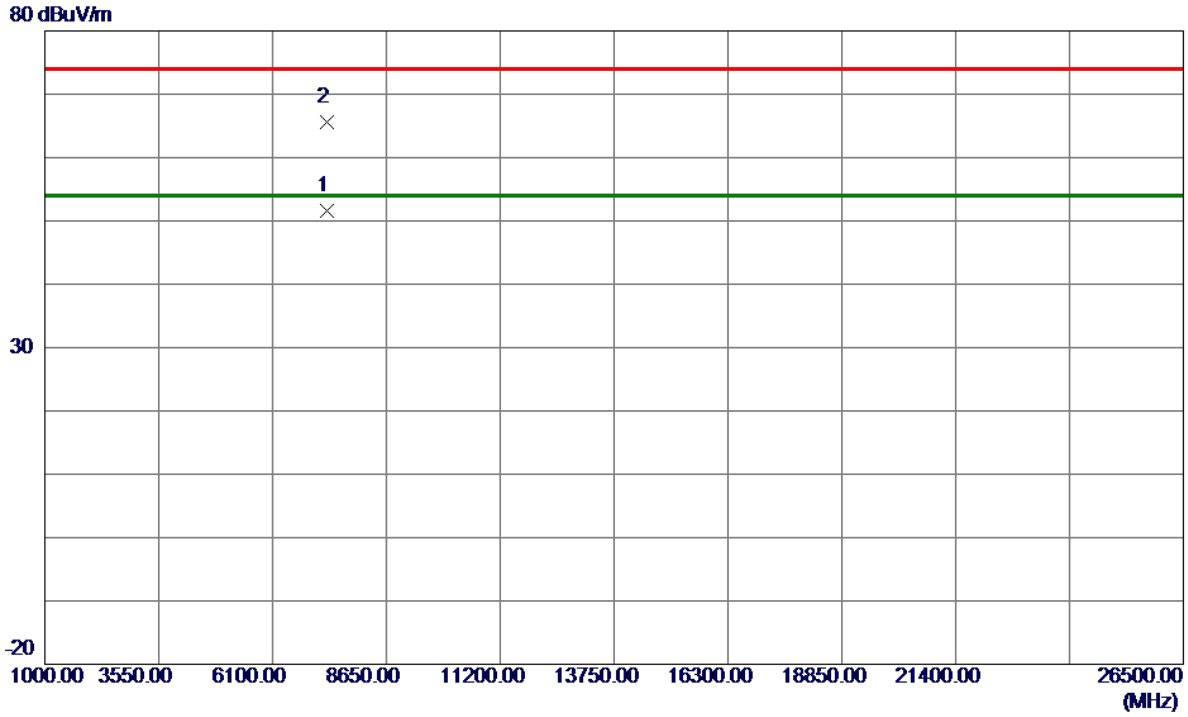
Test Mode	TX G Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2437.7000	98.51	8.37	106.88	54.00	52.88	AVG	No Limit
2	2437.8000	105.69	8.37	114.06	74.00	40.06	Peak	No Limit

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

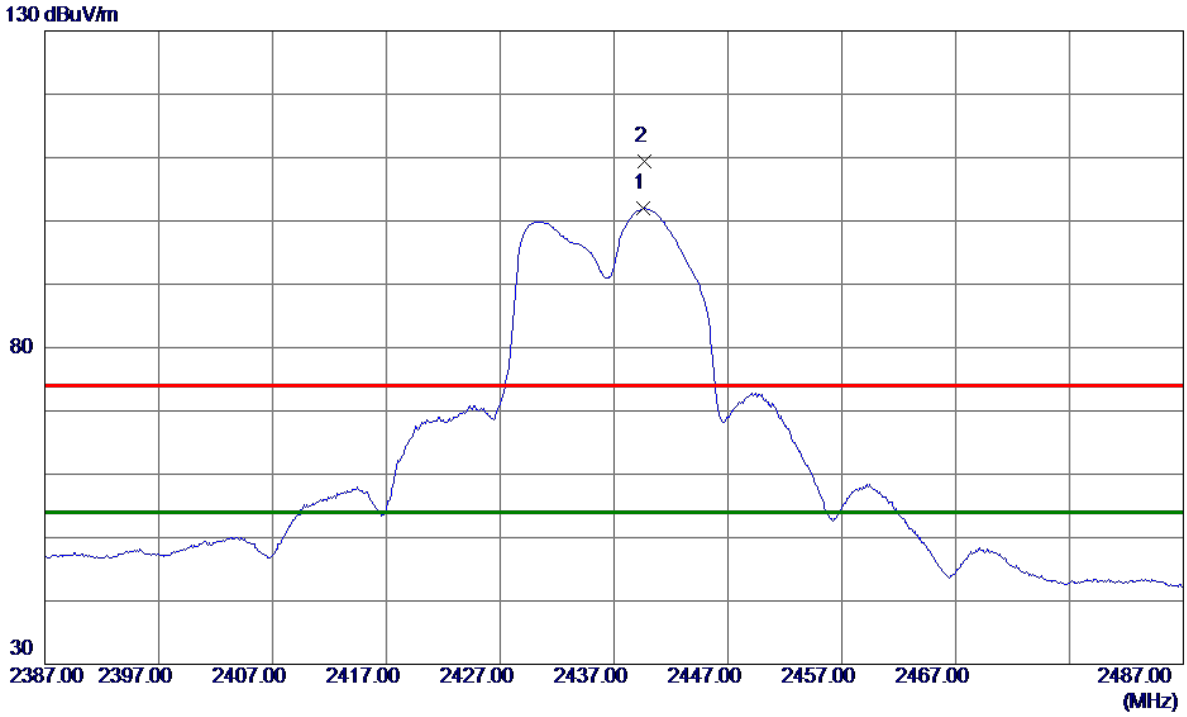
Test Mode	TX G Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7305.9700	40.97	10.69	51.66	54.00	-2.34	AVG	
2	7315.4400	54.82	10.70	65.52	74.00	-8.48	Peak	

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

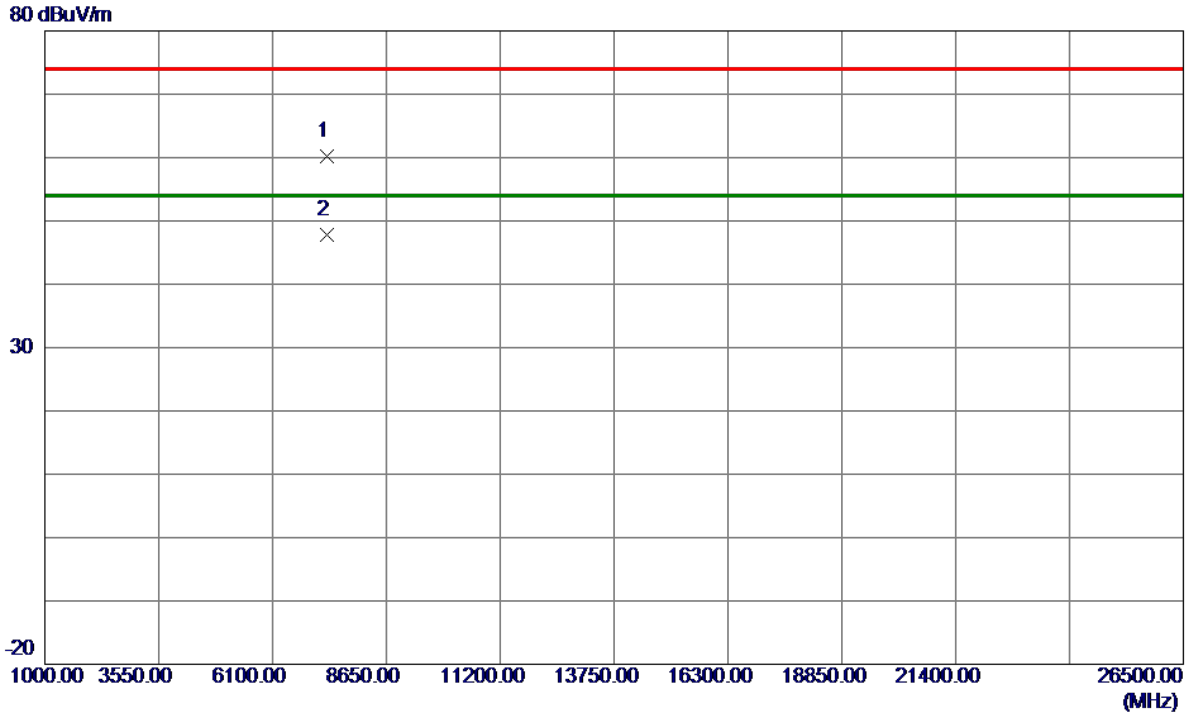
Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2439.6000	93.59	8.37	101.96	54.00	47.96	AVG	No Limit
2	2439.7000	101.08	8.37	109.45	74.00	35.45	Peak	No Limit

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

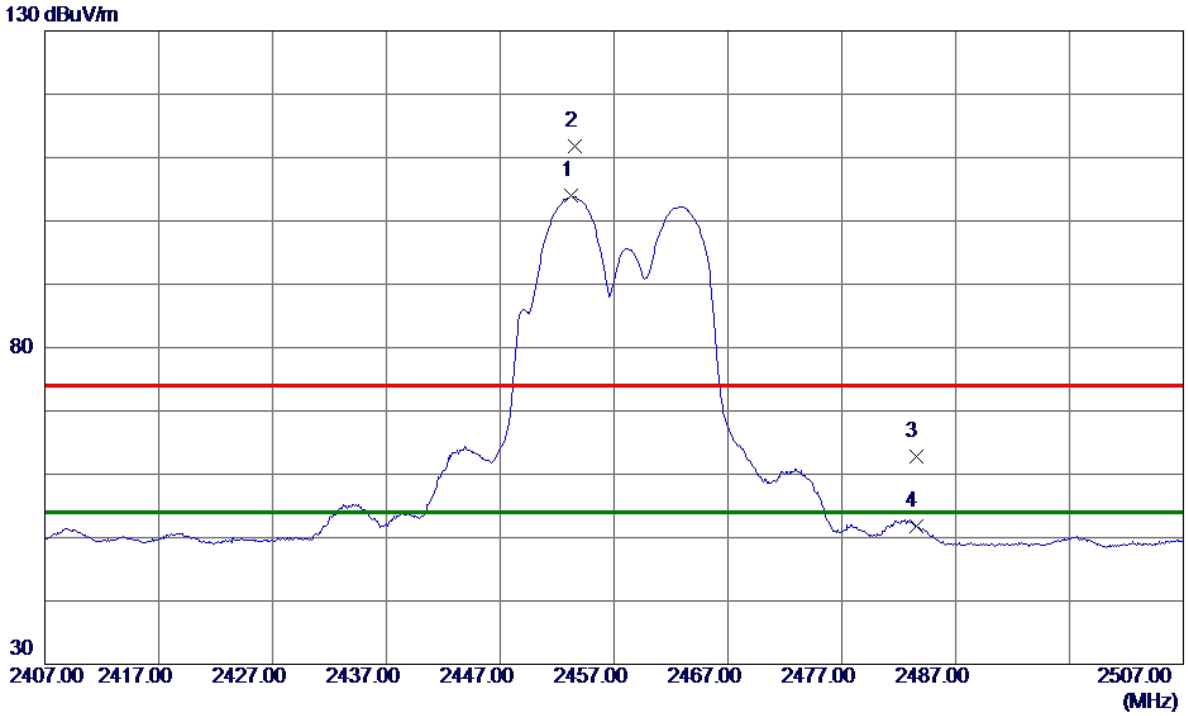
Test Mode	TX G Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7306.7100	49.46	10.69	60.15	74.00	-13.85	Peak	
2 *	7307.0300	37.17	10.69	47.86	54.00	-6.14	AVG	

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

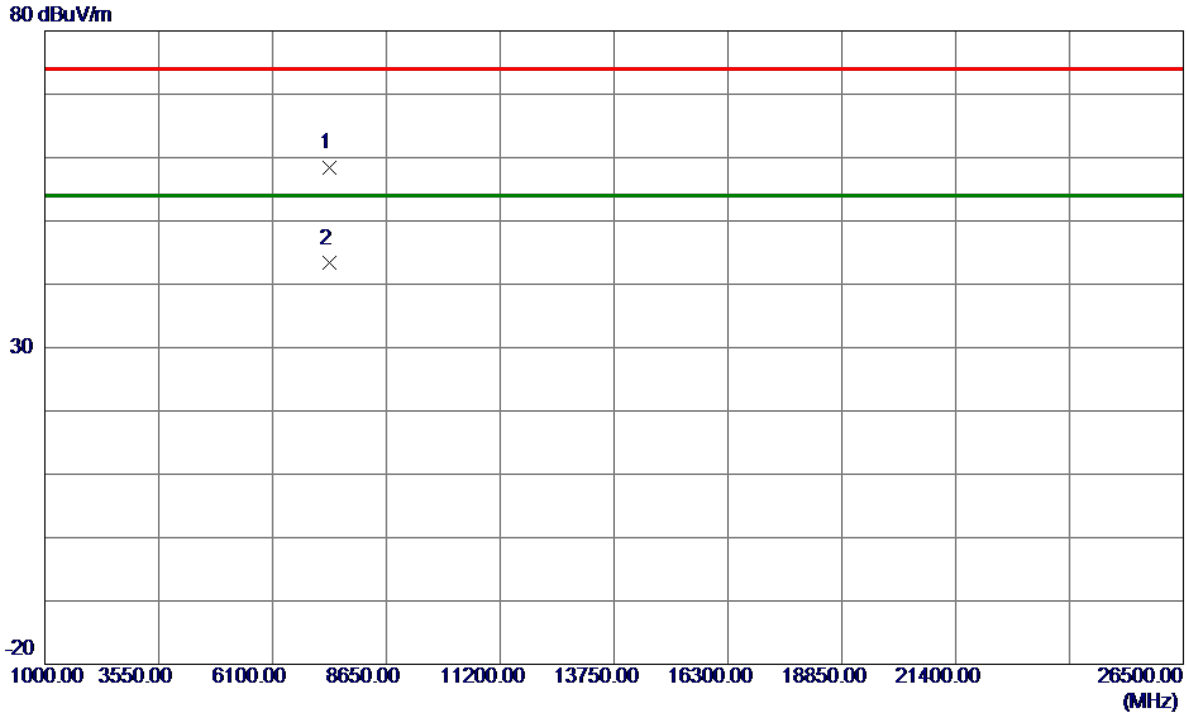
Test Mode	TX G Mode 2457 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2453.2000	95.54	8.39	103.93	54.00	49.93	AVG	No Limit
2	2453.6000	103.32	8.39	111.71	74.00	37.71	Peak	No Limit
3	2483.5000	54.32	8.42	62.74	74.00	-11.26	Peak	
4	2483.5000	43.40	8.42	51.82	54.00	-2.18	AVG	

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

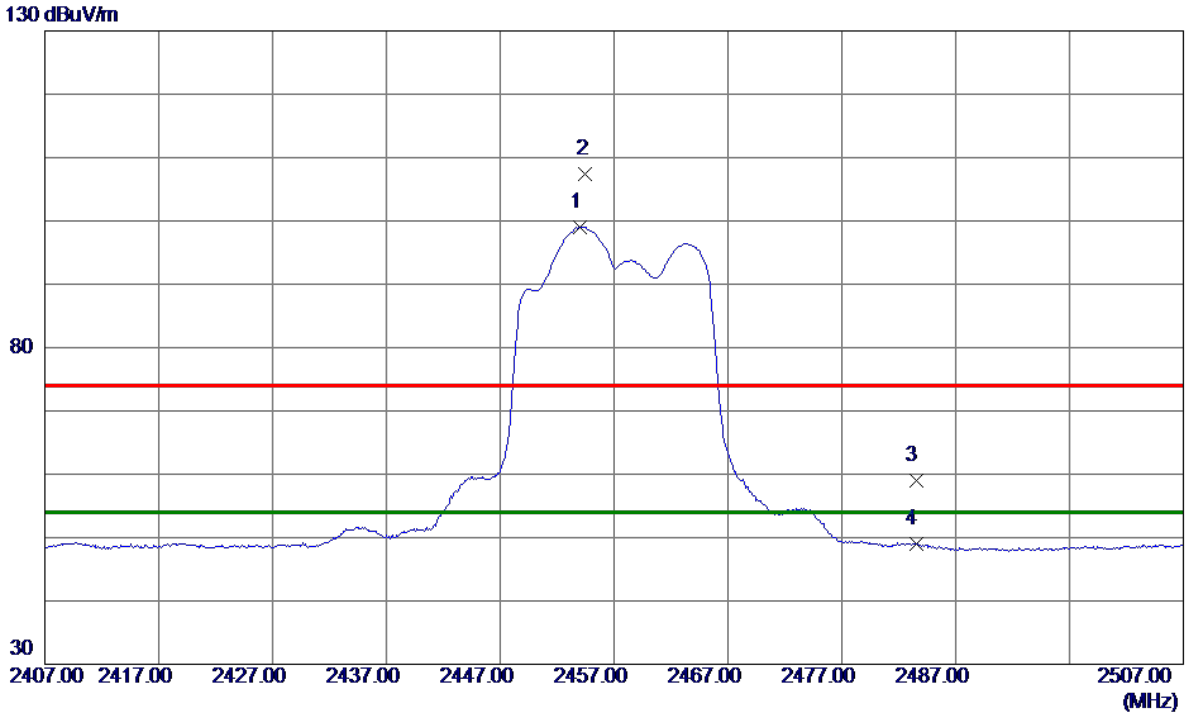
Test Mode	TX G Mode 2457 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7368.7500	47.70	10.77	58.47	74.00	-15.53	Peak	
2 *	7373.7200	32.52	10.78	43.30	54.00	-10.70	AVG	

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

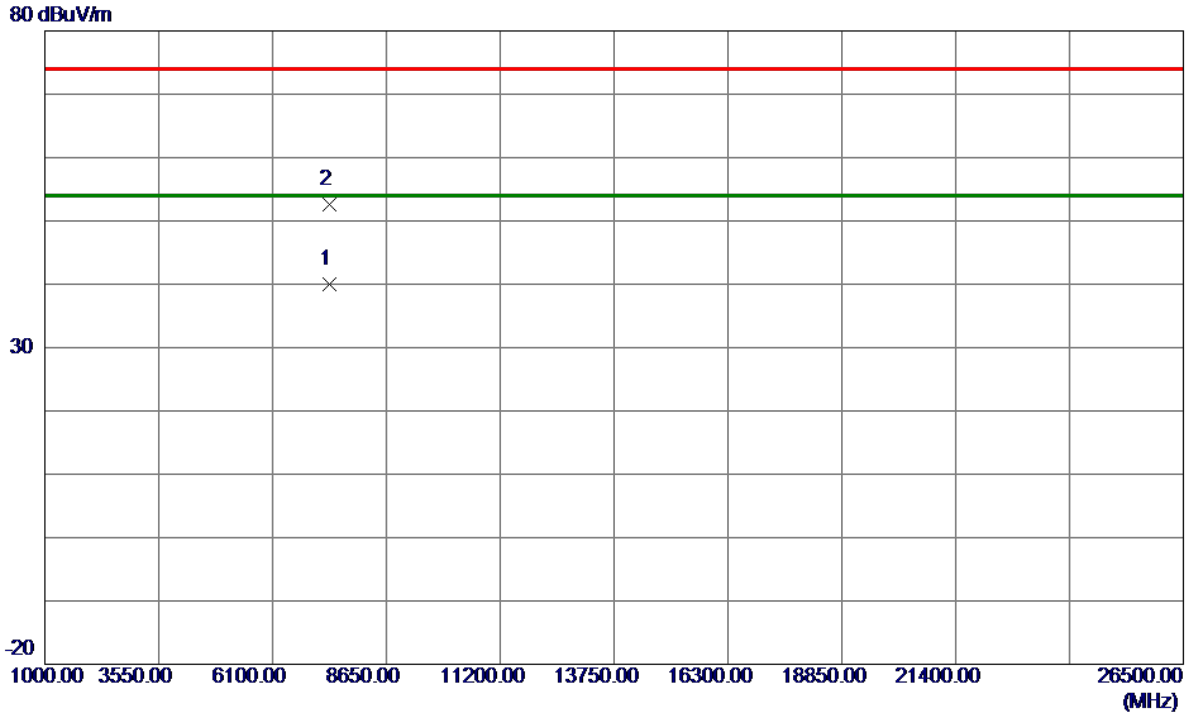
Test Mode	TX G Mode 2457 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2454.0000	90.67	8.39	99.06	54.00	45.06	AVG	No Limit
2	2454.5000	98.94	8.39	107.33	74.00	33.33	Peak	No Limit
3	2483.5000	50.65	8.42	59.07	74.00	-14.93	Peak	
4	2483.5000	40.64	8.42	49.06	54.00	-4.94	AVG	

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

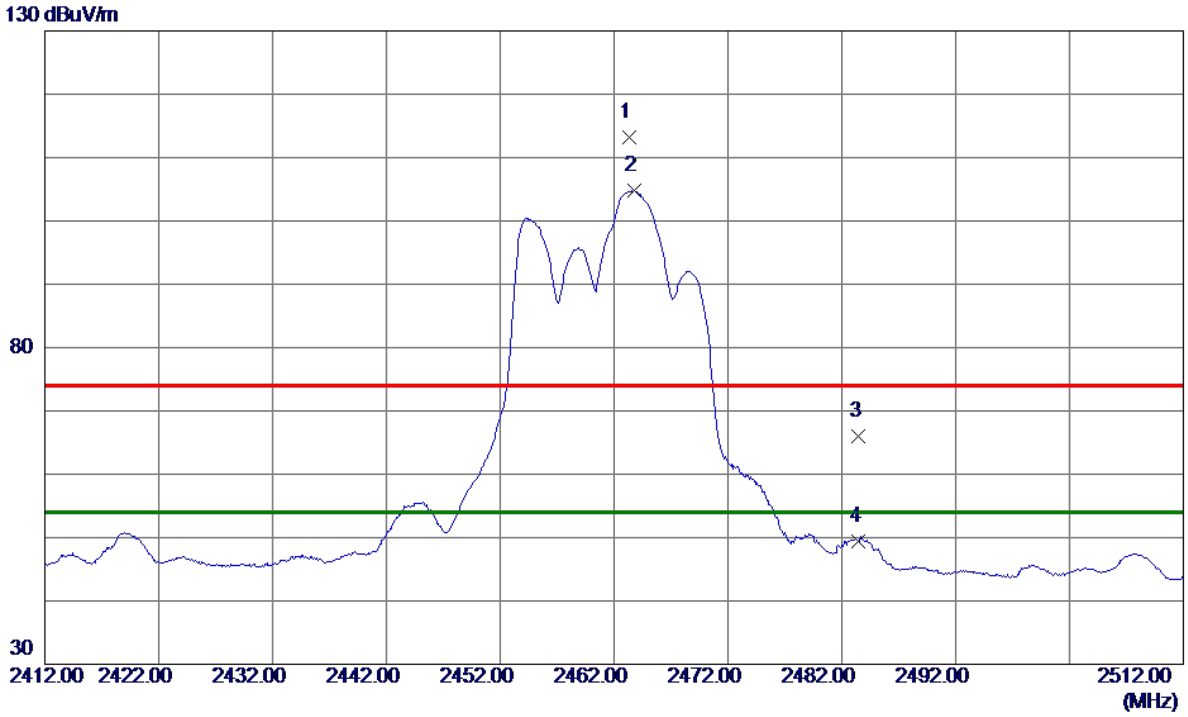
Test Mode	TX G Mode 2457 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7366.1100	29.14	10.77	39.91	54.00	-14.09	AVG	
2	7366.8400	41.86	10.77	52.63	74.00	-21.37	Peak	

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

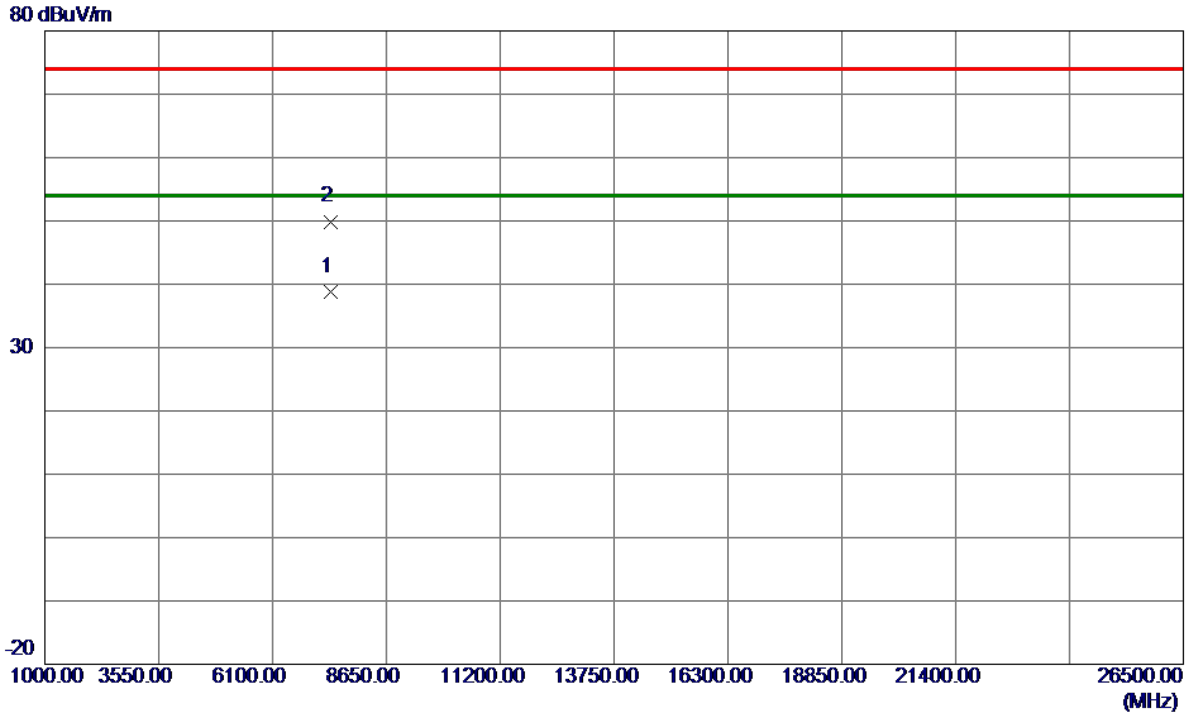
Test Mode	TX G Mode 2462 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2463.3000	104.79	8.40	113.19	74.00	39.19	Peak	No Limit
2 *	2463.8000	96.33	8.40	104.73	54.00	50.73	AVG	No Limit
3	2483.5000	57.50	8.42	65.92	74.00	-8.08	Peak	
4	2483.5000	41.06	8.42	49.48	54.00	-4.52	AVG	

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

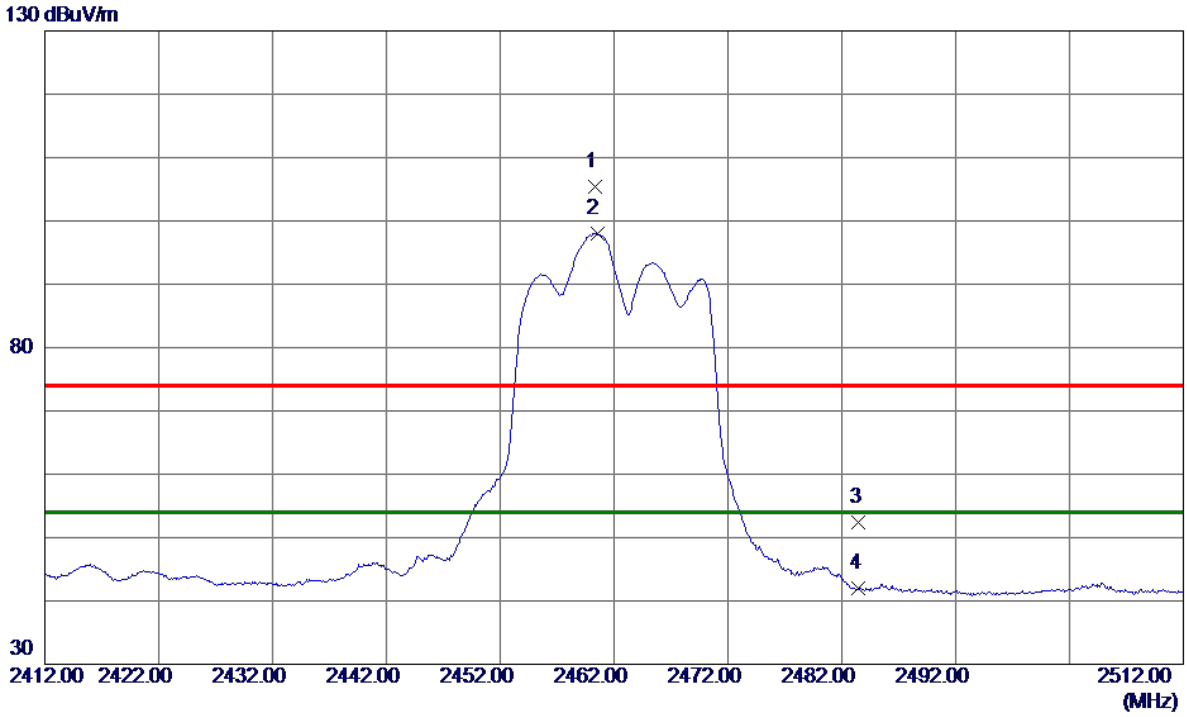
Test Mode	TX G Mode 2462 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7389.5600	28.08	10.80	38.88	54.00	-15.12	AVG	
2	7390.2900	39.10	10.80	49.90	74.00	-24.10	Peak	

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

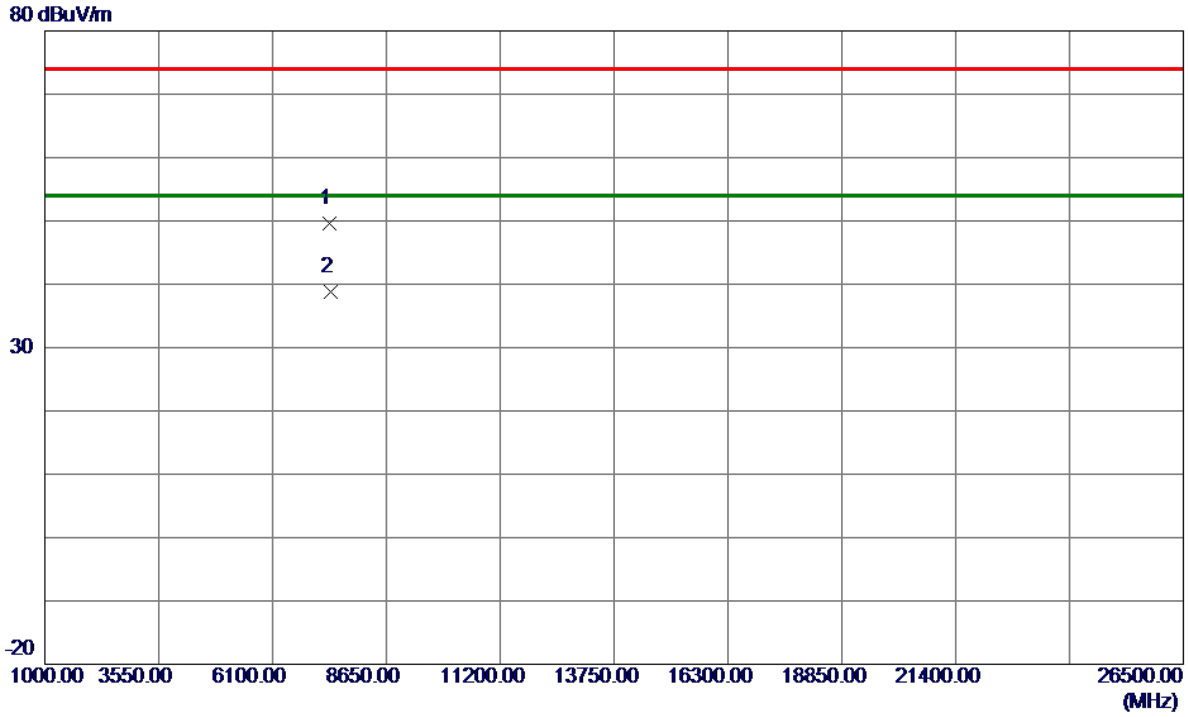
Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2460.3000	96.94	8.39	105.33	74.00	31.33	Peak	No Limit
2 *	2460.5000	89.63	8.39	98.02	54.00	44.02	AVG	No Limit
3	2483.5000	43.89	8.42	52.31	74.00	-21.69	Peak	
4	2483.5000	33.57	8.42	41.99	54.00	-12.01	AVG	

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

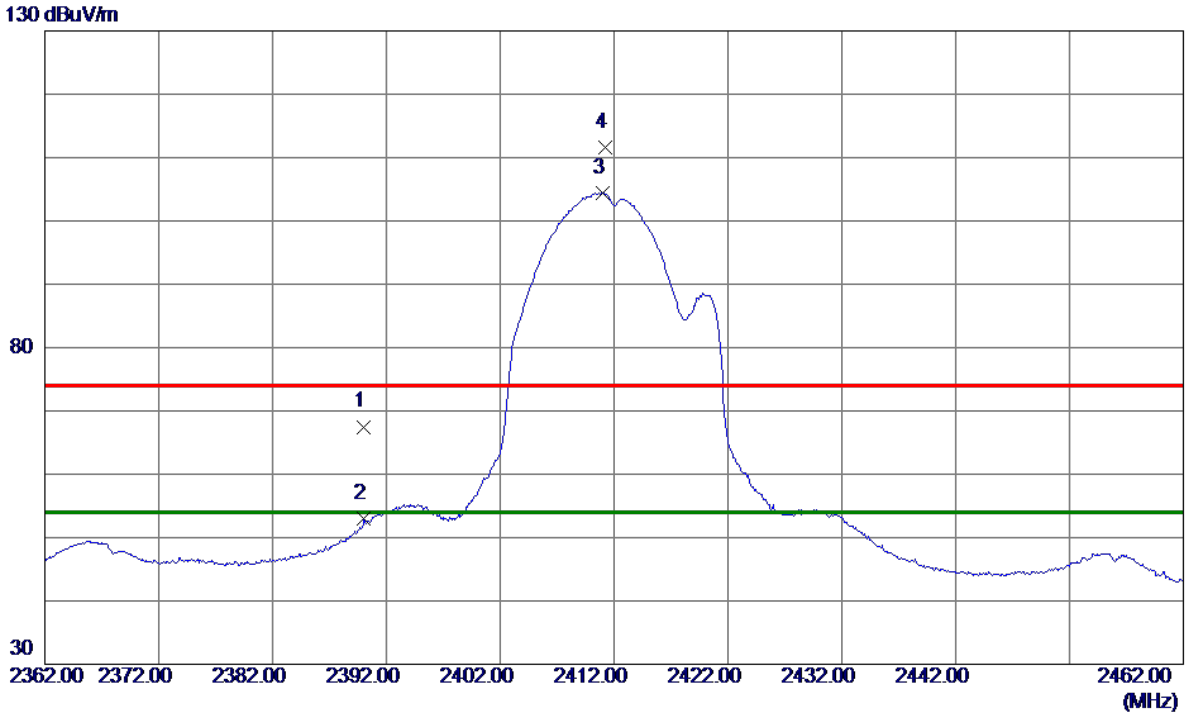
Test Mode	TX G Mode 2462 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7387.3200	38.80	10.79	49.59	74.00	-24.41	Peak	
2 *	7392.3600	27.97	10.80	38.77	54.00	-15.23	AVG	

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

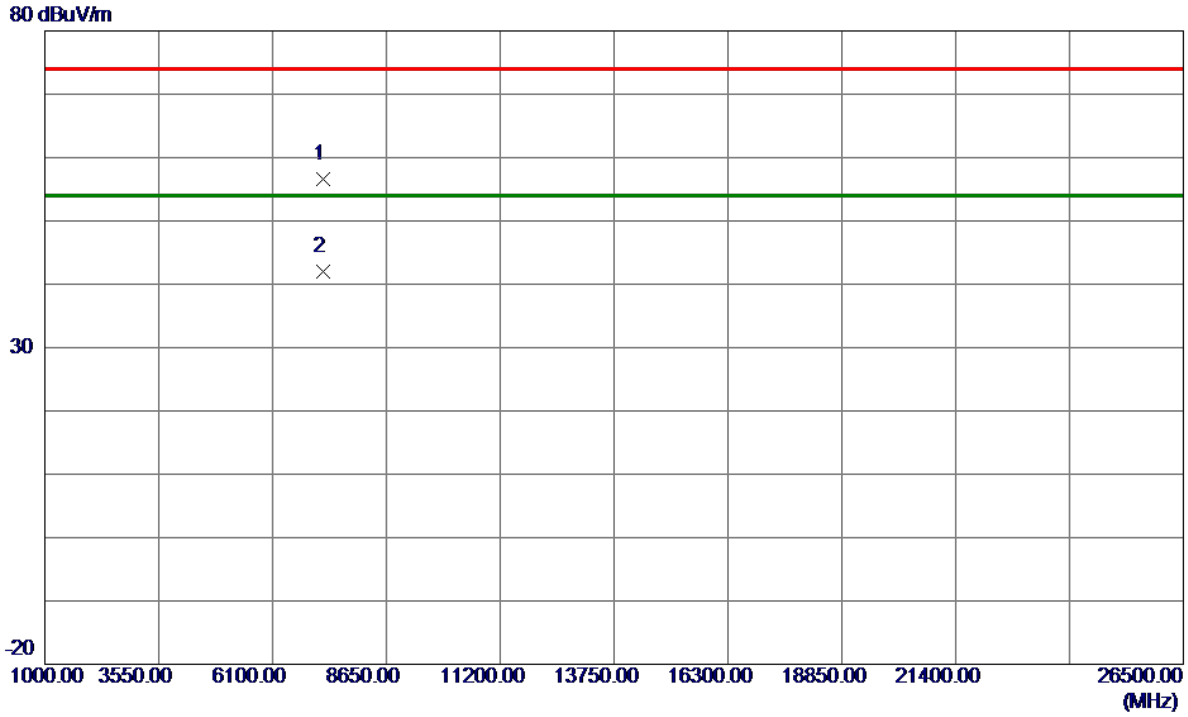
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	59.19	8.31	67.50	74.00	-6.50	Peak	
2	2390.0000	44.65	8.31	52.96	54.00	-1.04	AVG	
3 *	2411.0000	96.14	8.33	104.47	54.00	50.47	AVG	No Limit
4	2411.2500	103.34	8.33	111.67	74.00	37.67	Peak	No Limit

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

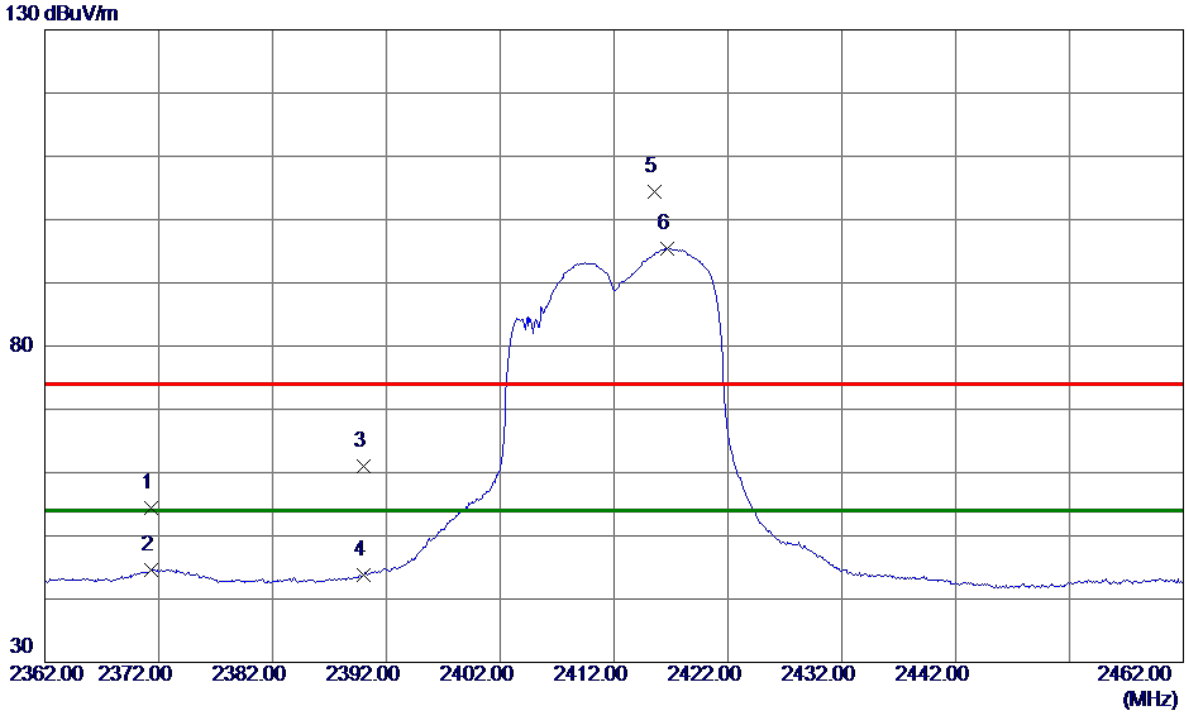
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7229.7700	45.94	10.59	56.53	74.00	-17.47	Peak	
2 *	7230.0900	31.36	10.59	41.95	54.00	-12.05	AVG	

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

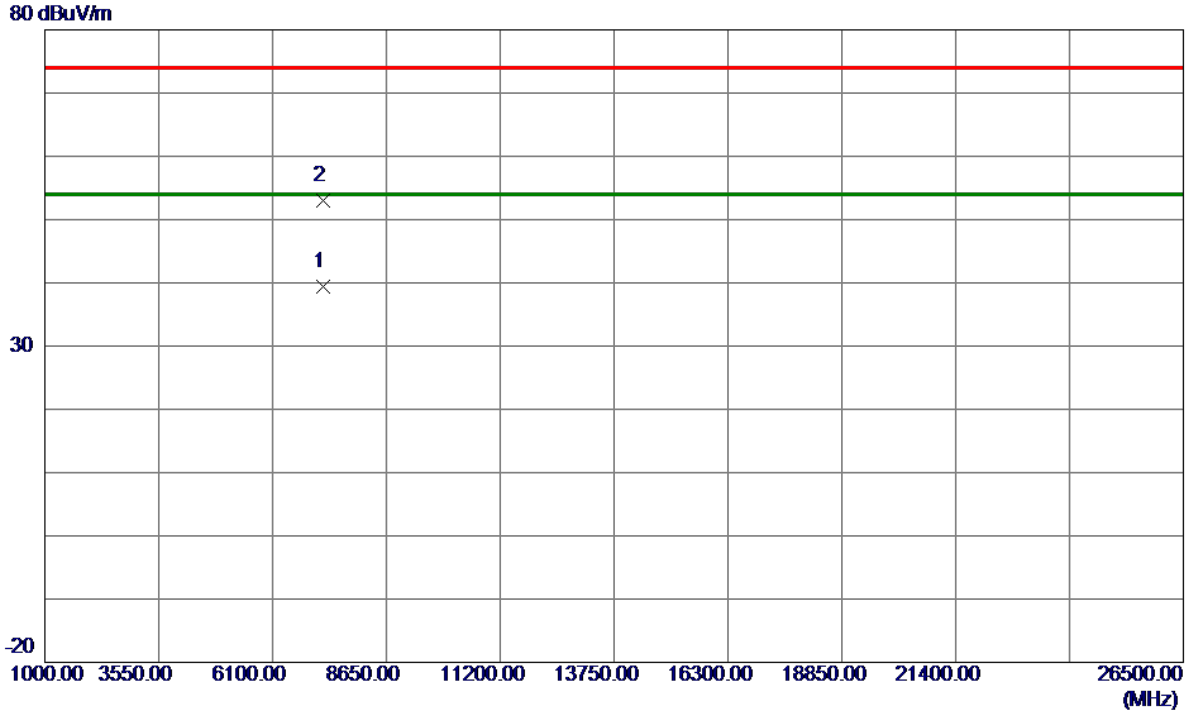
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2371.3000	46.21	8.28	54.49	74.00	-19.51	Peak	
2	2371.3000	36.39	8.28	44.67	54.00	-9.33	AVG	
3	2390.0000	52.76	8.31	61.07	74.00	-12.93	Peak	
4	2390.0000	35.48	8.31	43.79	54.00	-10.21	AVG	
5	2415.6000	96.03	8.34	104.37	74.00	30.37	Peak	No Limit
6 *	2416.7000	87.04	8.34	95.38	54.00	41.38	AVG	No Limit

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

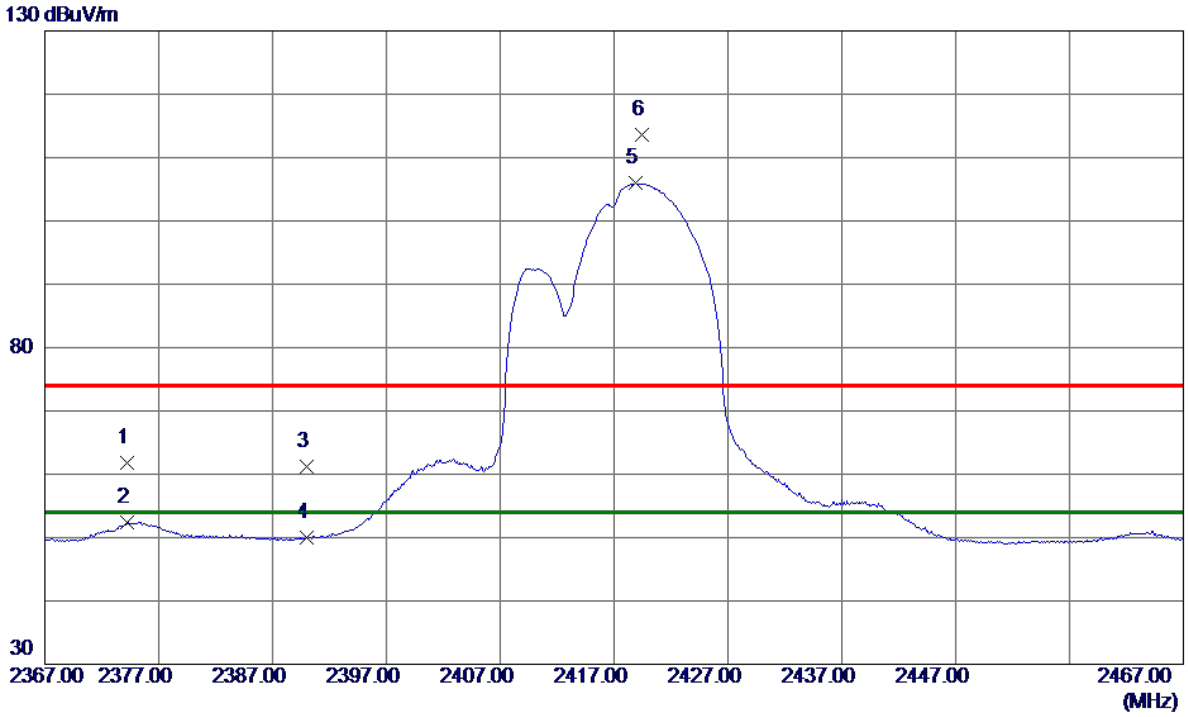
Test Mode	TX N(HT20) Mode 2412 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7233.6200	28.80	10.59	39.39	54.00	-14.61	AVG	
2	7234.0600	42.41	10.59	53.00	74.00	-21.00	Peak	

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

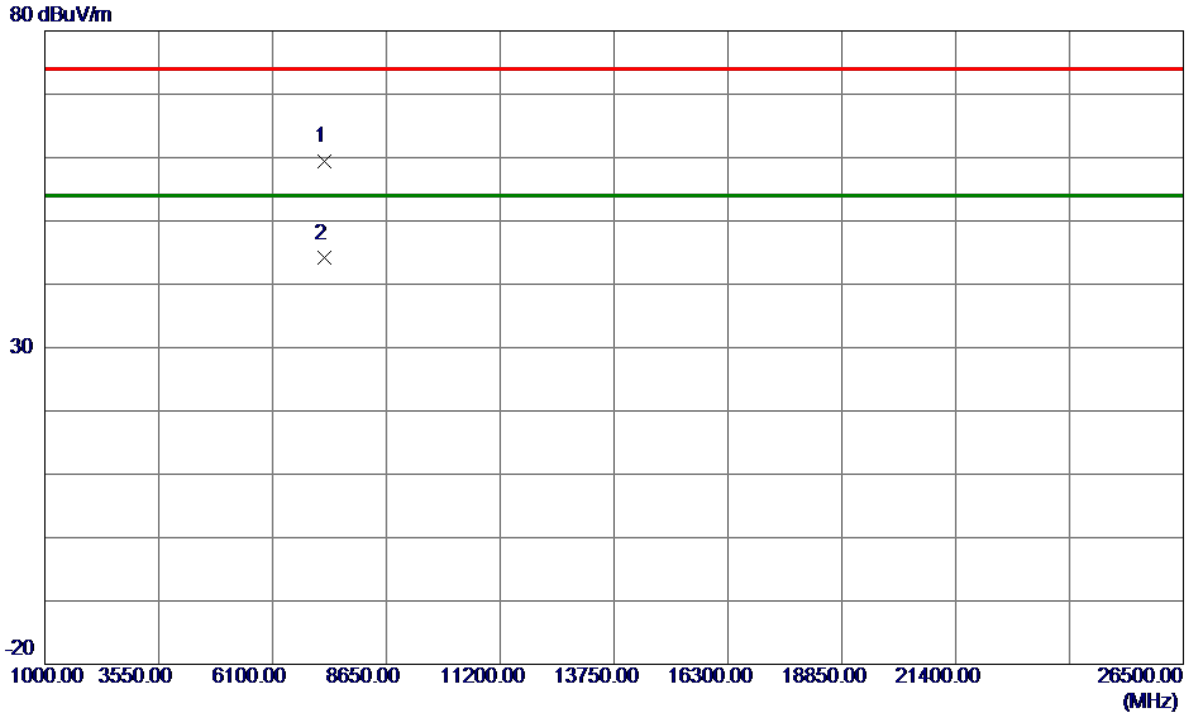
Test Mode	TX N(HT20) Mode 2417 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2374.2000	53.47	8.29	61.76	74.00	-12.24	Peak	
2	2374.2000	44.14	8.29	52.43	54.00	-1.57	AVG	
3	2390.0000	52.80	8.31	61.11	74.00	-12.89	Peak	
4	2390.0000	41.63	8.31	49.94	54.00	-4.06	AVG	
5 *	2418.9000	97.57	8.34	105.91	54.00	51.91	AVG	No Limit
6	2419.4000	105.31	8.34	113.65	74.00	39.65	Peak	No Limit

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

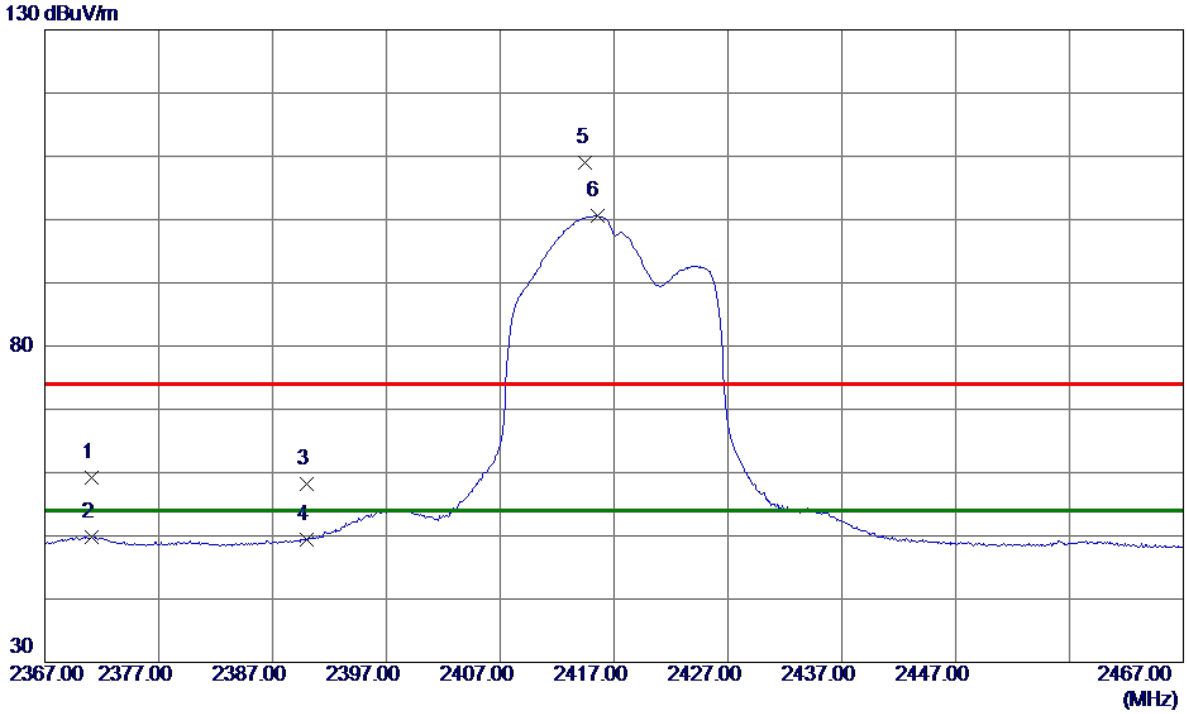
Test Mode	TX N(HT20) Mode 2417 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7252.5200	48.73	10.62	59.35	74.00	-14.65	Peak	
2 *	7255.9400	33.48	10.62	44.10	54.00	-9.90	AVG	

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

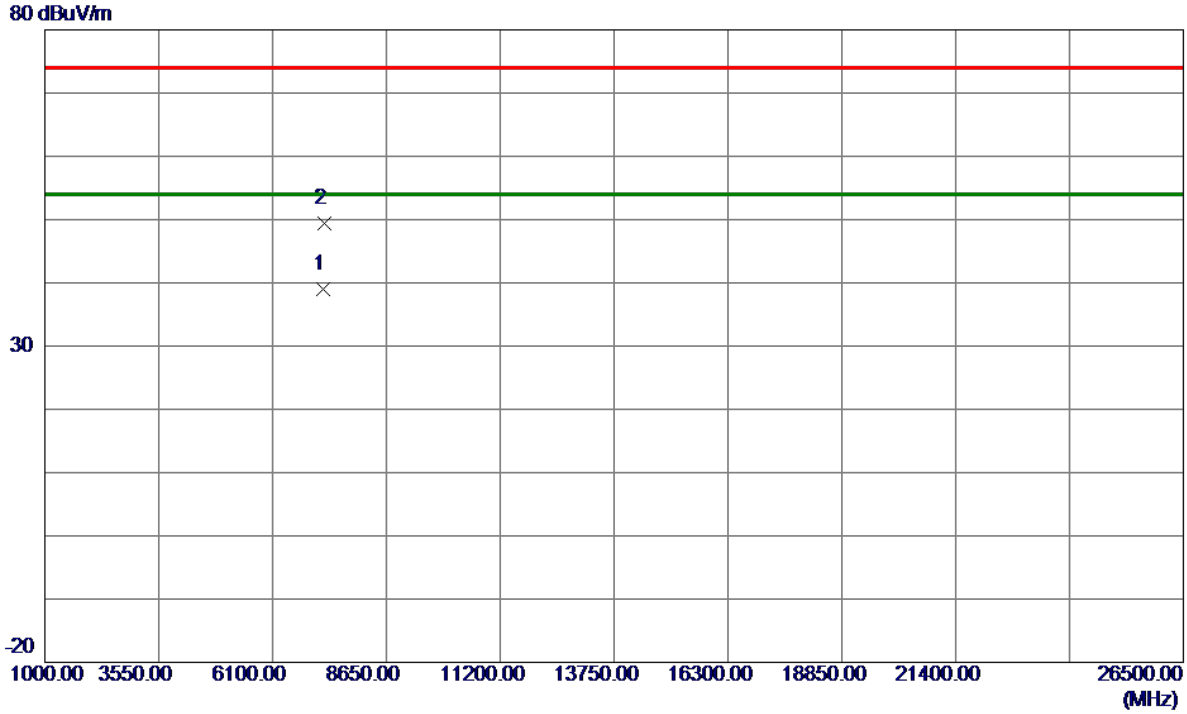
Test Mode	TX N(HT20) Mode 2417 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2371.1000	50.95	8.28	59.23	74.00	-14.77	Peak	
2	2371.1000	41.57	8.28	49.85	54.00	-4.15	AVG	
3	2390.0000	49.92	8.31	58.23	74.00	-15.77	Peak	
4	2390.0000	41.18	8.31	49.49	54.00	-4.51	AVG	
5	2414.5000	100.67	8.34	109.01	74.00	35.01	Peak	No Limit
6 *	2415.5000	92.26	8.34	100.60	54.00	46.60	AVG	No Limit

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

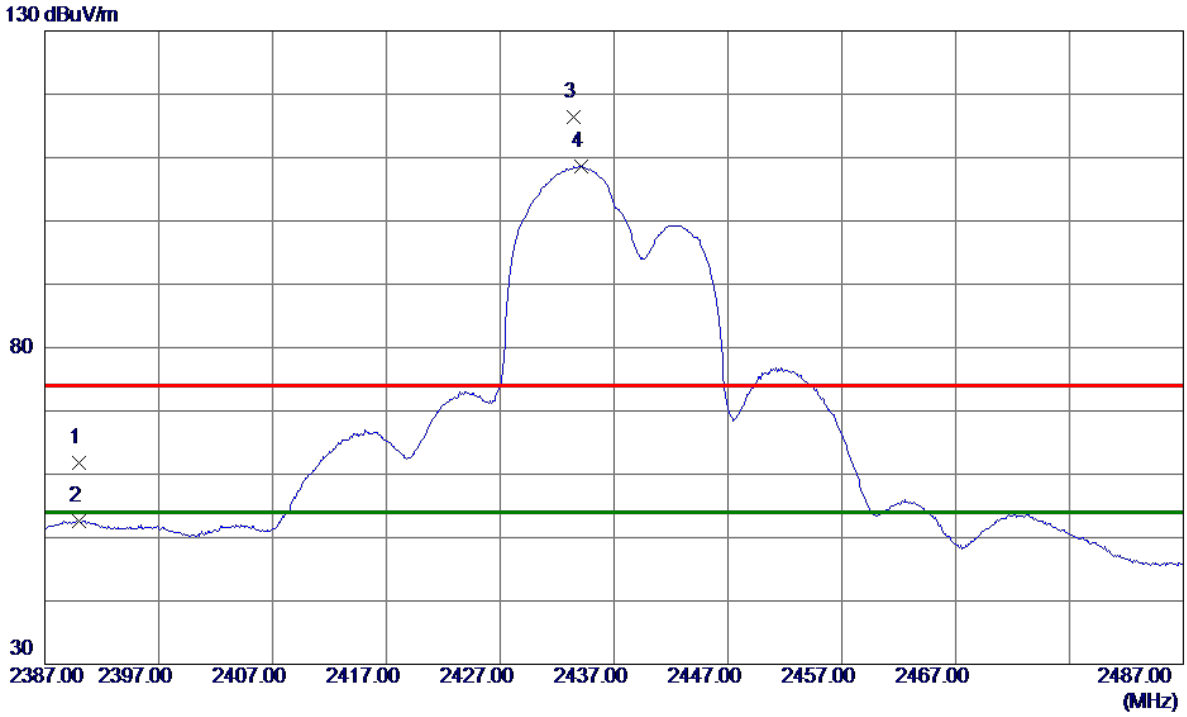
Test Mode	TX N(HT20) Mode 2417 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7243.9700	28.42	10.61	39.03	54.00	-14.97	AVG	
2	7260.8100	38.75	10.63	49.38	74.00	-24.62	Peak	

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

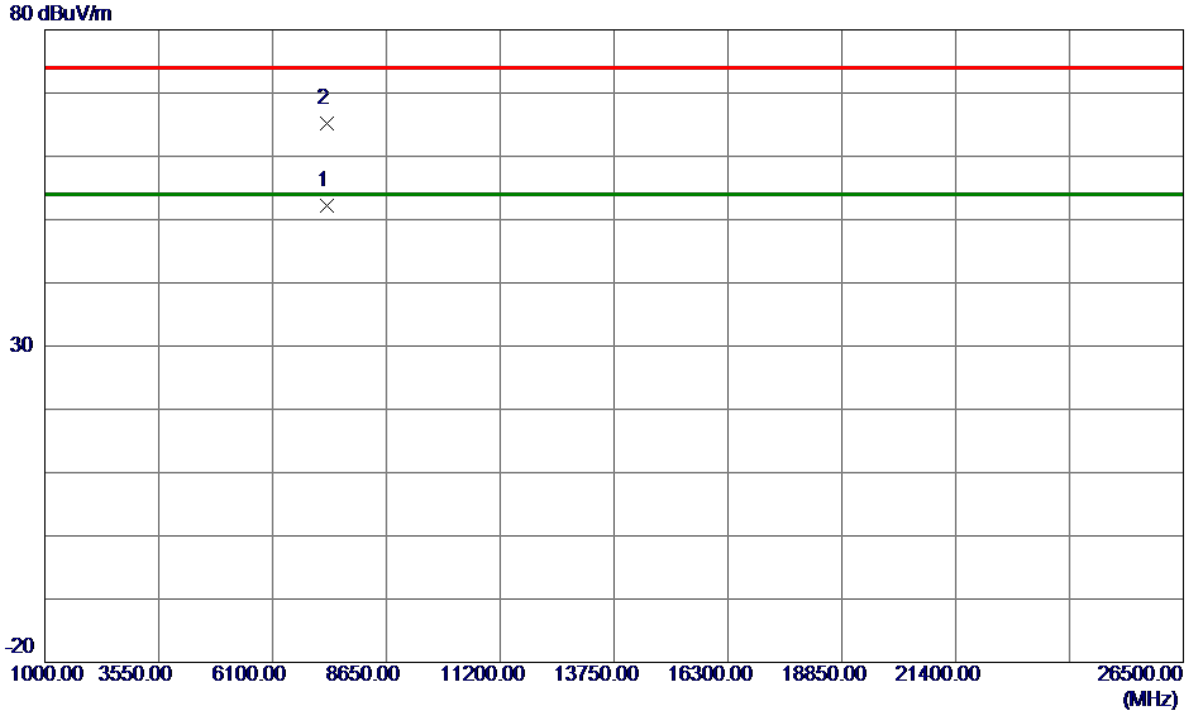
Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	53.50	8.31	61.81	74.00	-12.19	Peak	
2	2390.0000	44.20	8.31	52.51	54.00	-1.49	AVG	
3	2433.4000	108.02	8.36	116.38	74.00	42.38	Peak	No Limit
4 *	2434.1000	100.22	8.36	108.58	54.00	54.58	AVG	No Limit

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

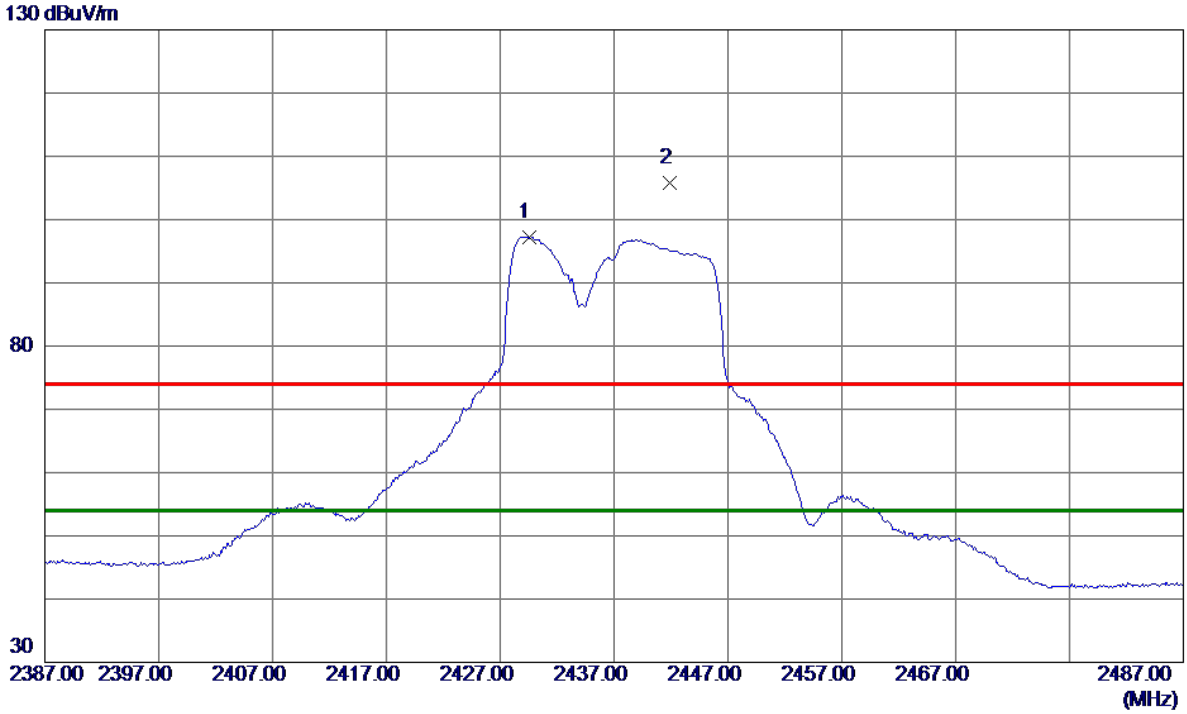
Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7311.4100	41.46	10.69	52.15	54.00	-1.85	AVG	
2	7311.8300	54.53	10.70	65.23	74.00	-8.77	Peak	

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

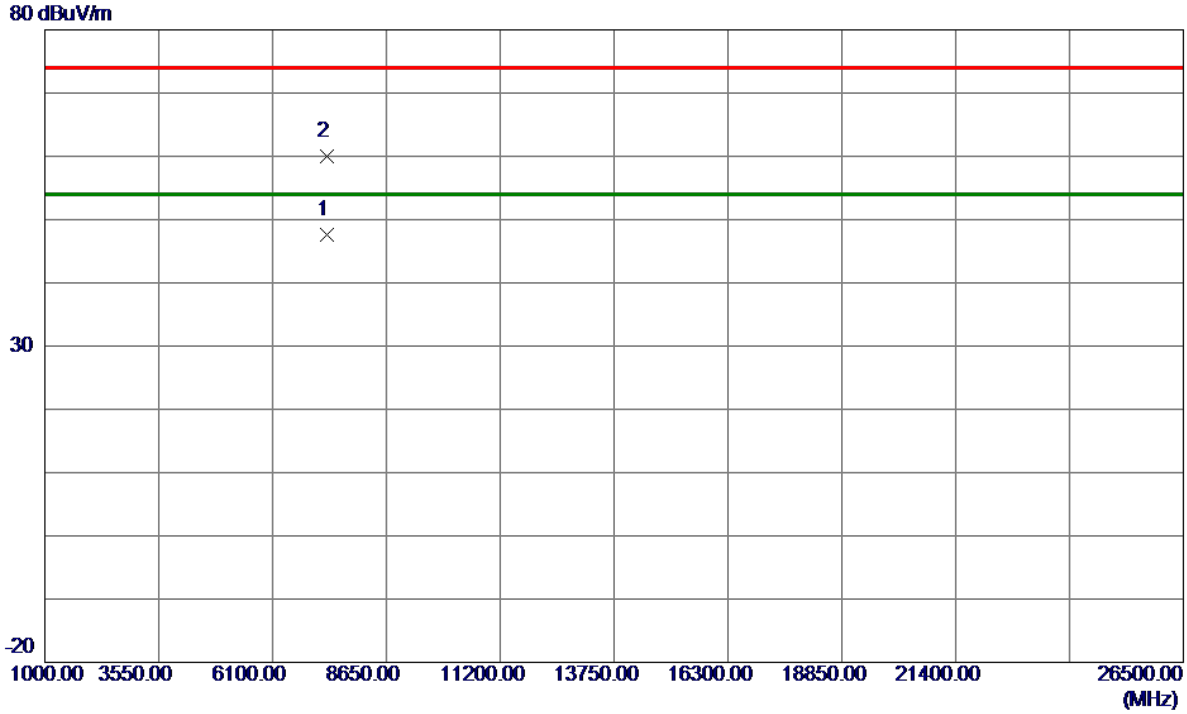
Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2429.5000	88.92	8.36	97.28	54.00	43.28	AVG	No Limit
2	2441.9000	97.46	8.37	105.83	74.00	31.83	Peak	No Limit

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

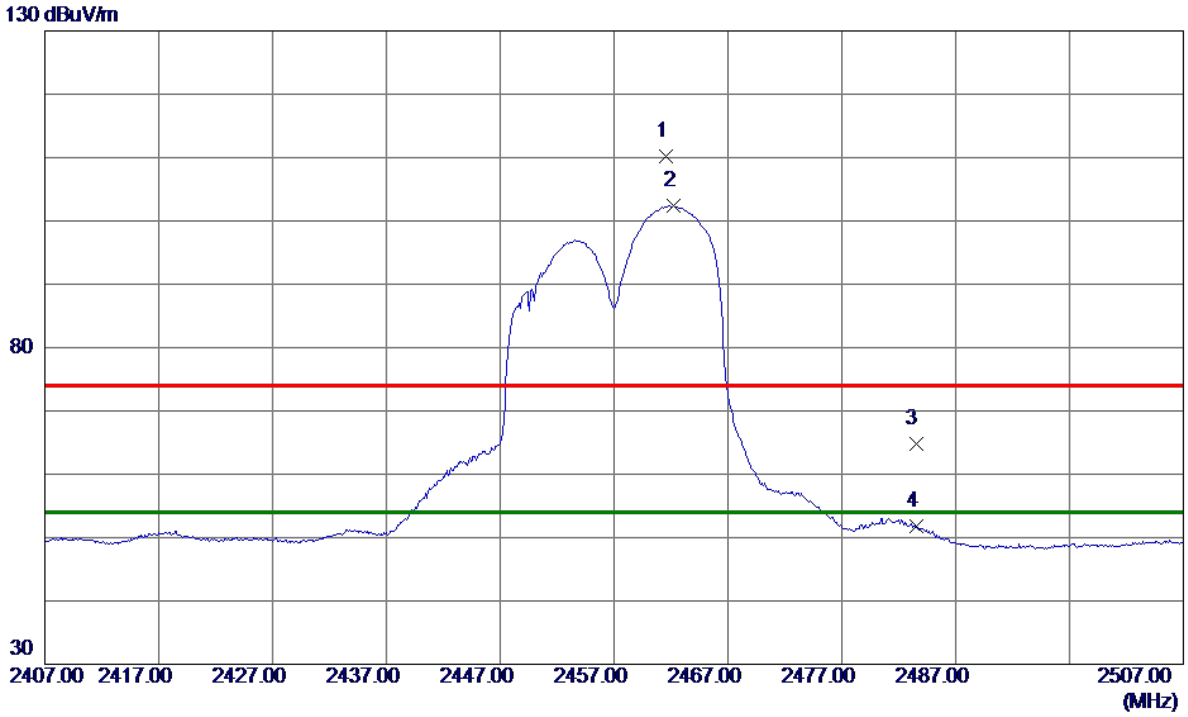
Test Mode	TX N(HT20) Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7313.1800	36.89	10.70	47.59	54.00	-6.41	AVG	
2	7313.2100	49.28	10.70	59.98	74.00	-14.02	Peak	

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

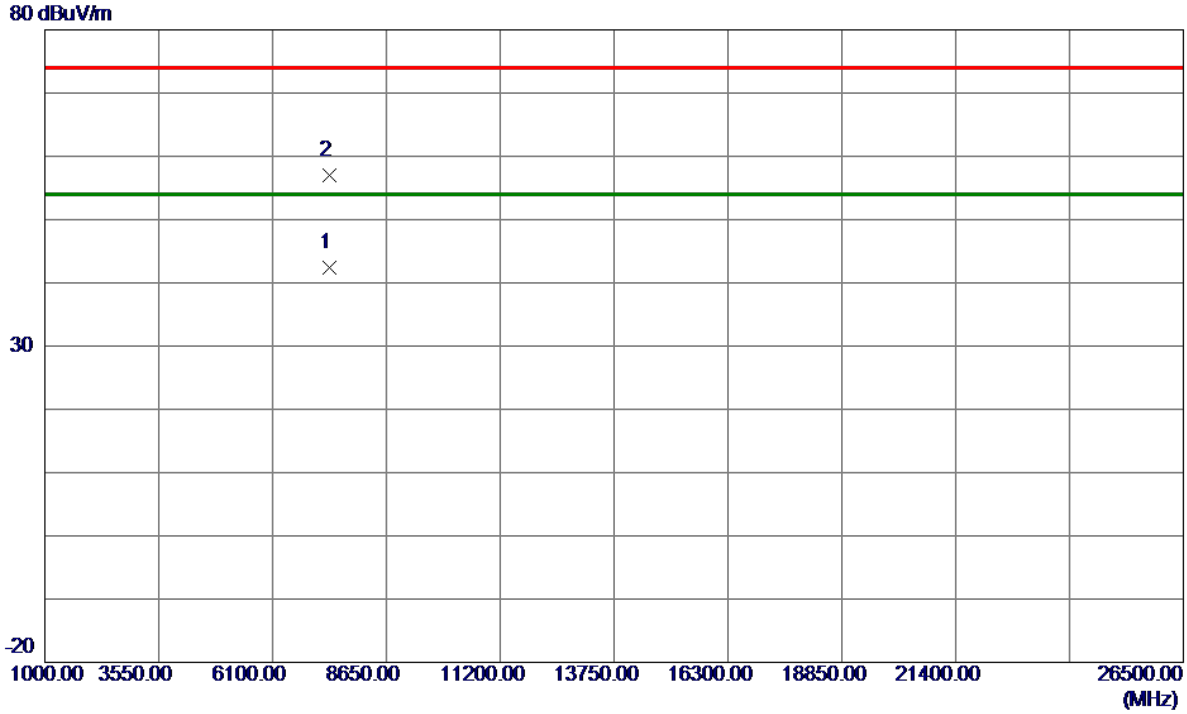
Test Mode	TX N(HT20) Mode 2457 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461.6000	101.86	8.40	110.26	74.00	36.26	Peak	No Limit
2 *	2462.2000	93.99	8.40	102.39	54.00	48.39	AVG	No Limit
3	2483.5000	56.29	8.42	64.71	74.00	-9.29	Peak	
4	2483.5300	43.29	8.42	51.71	54.00	-2.29	AVG	

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

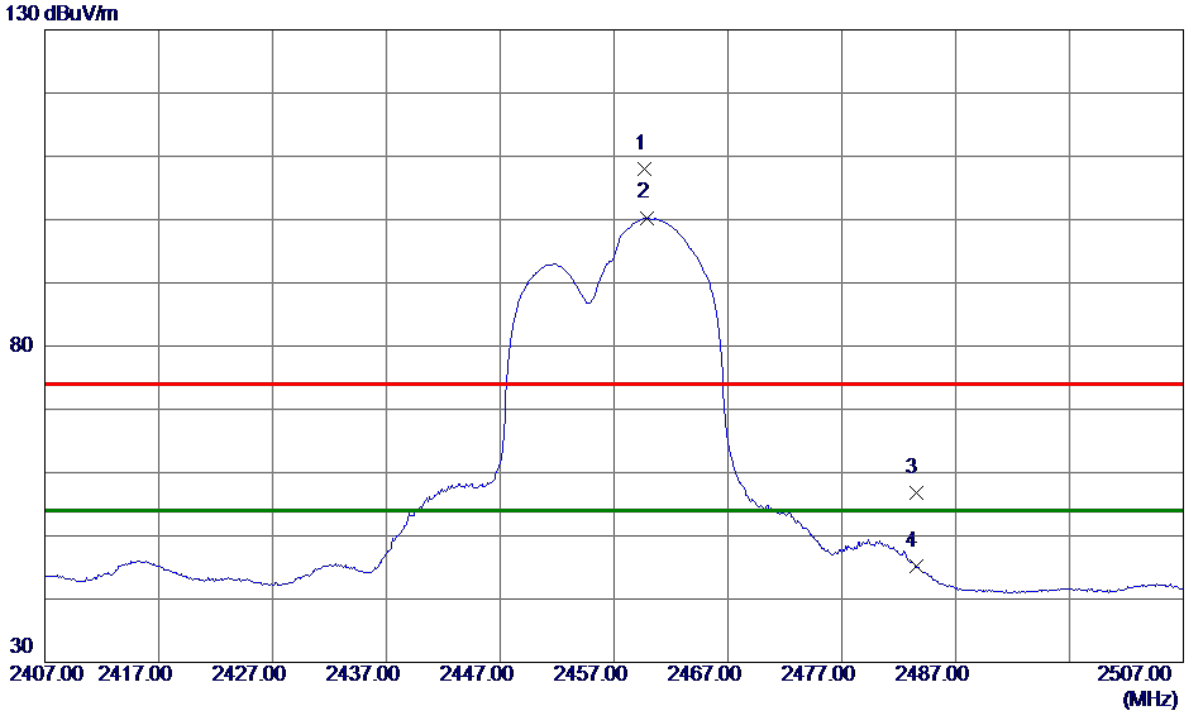
Test Mode	TX N(HT20) Mode 2457 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7367.3600	31.62	10.77	42.39	54.00	-11.61	AVG	
2	7367.5200	46.15	10.77	56.92	74.00	-17.08	Peak	

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

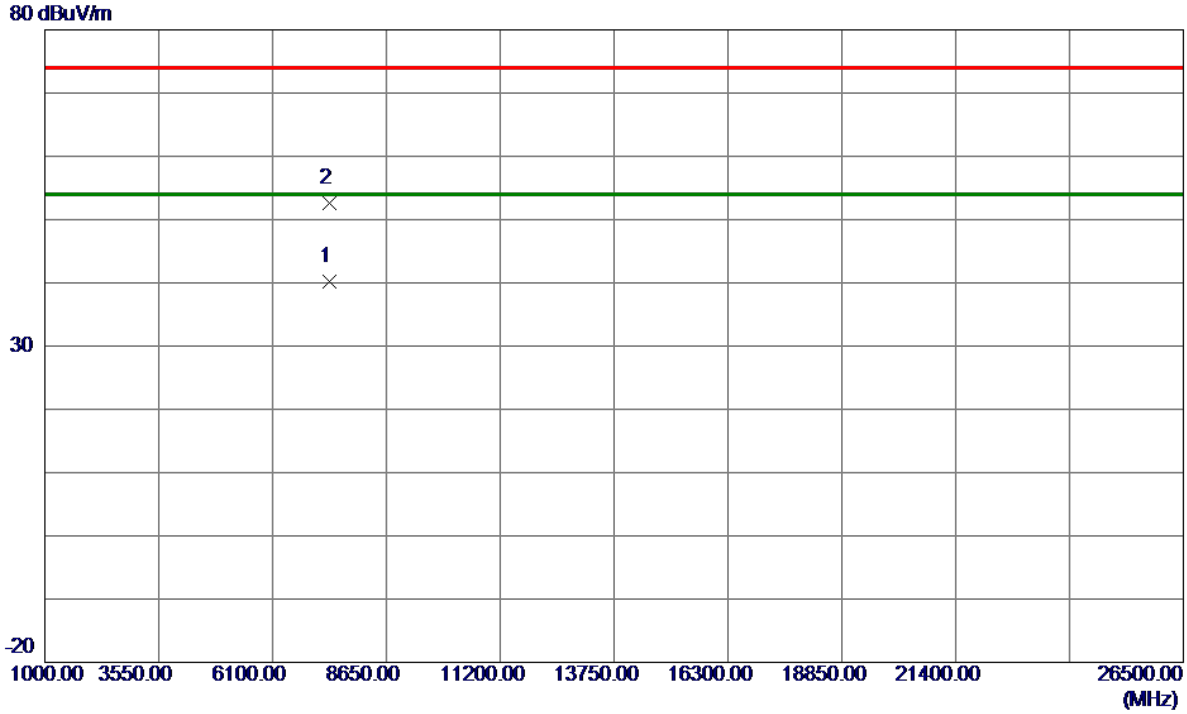
Test Mode	TX N(HT20) Mode 2457 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2459.7000	99.65	8.39	108.04	74.00	34.04	Peak	No Limit
2 *	2459.9000	91.91	8.39	100.30	54.00	46.30	AVG	No Limit
3	2483.5000	48.44	8.42	56.86	74.00	-17.14	Peak	
4	2483.5000	36.83	8.42	45.25	54.00	-8.75	AVG	

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

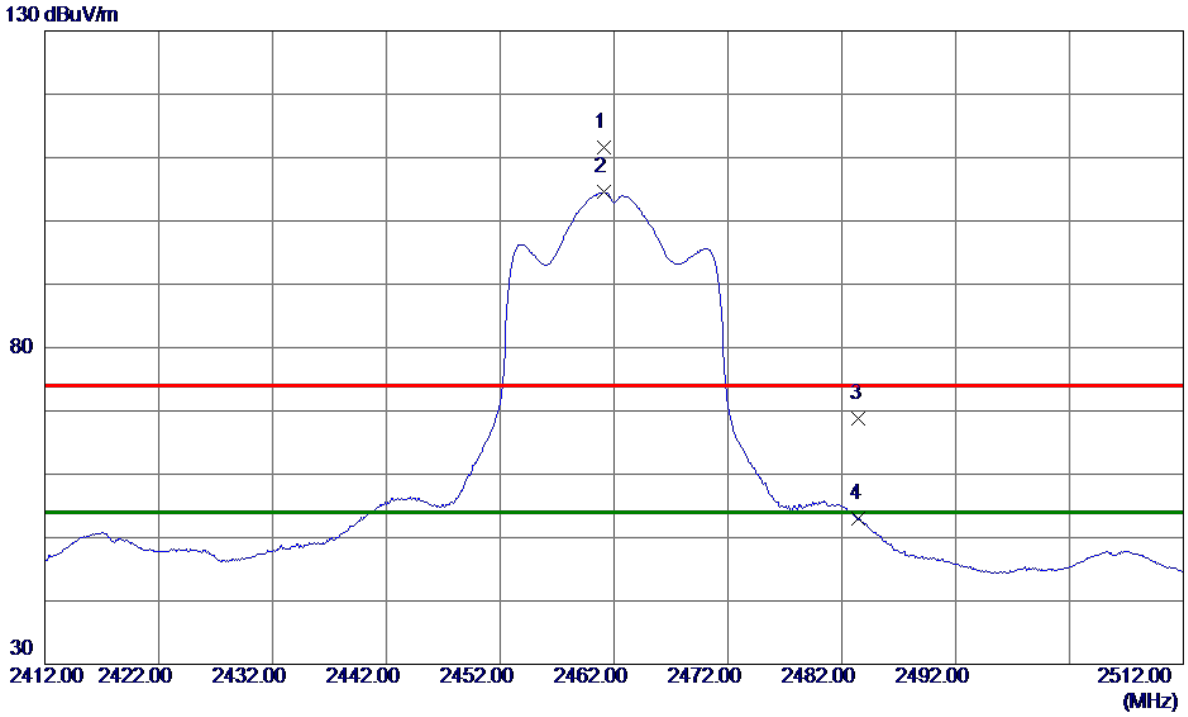
Test Mode	TX N(HT20) Mode 2457 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7369.1000	29.34	10.77	40.11	54.00	-13.89	AVG	
2	7371.0500	41.81	10.77	52.58	74.00	-21.42	Peak	

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

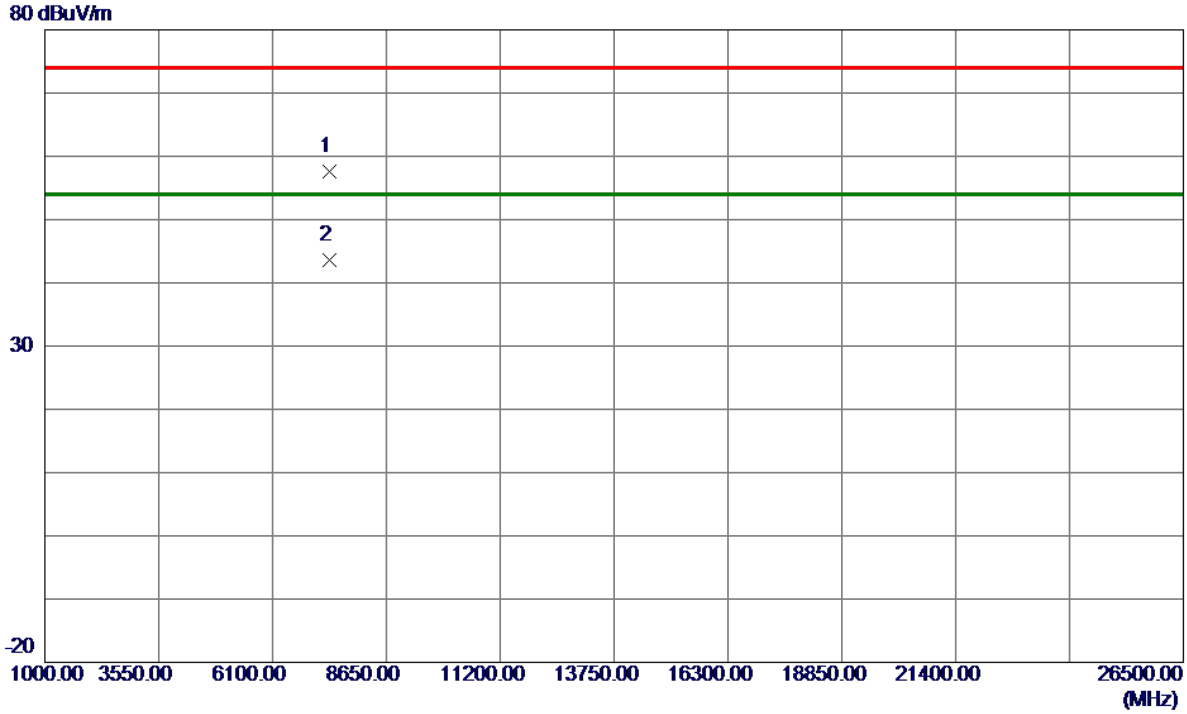
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2461.1000	103.14	8.40	111.54	74.00	37.54	Peak	No Limit
2 *	2461.1000	96.20	8.40	104.60	54.00	50.60	AVG	No Limit
3	2483.5000	60.41	8.42	68.83	74.00	-5.17	Peak	
4	2483.5000	44.55	8.42	52.97	54.00	-1.03	AVG	

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

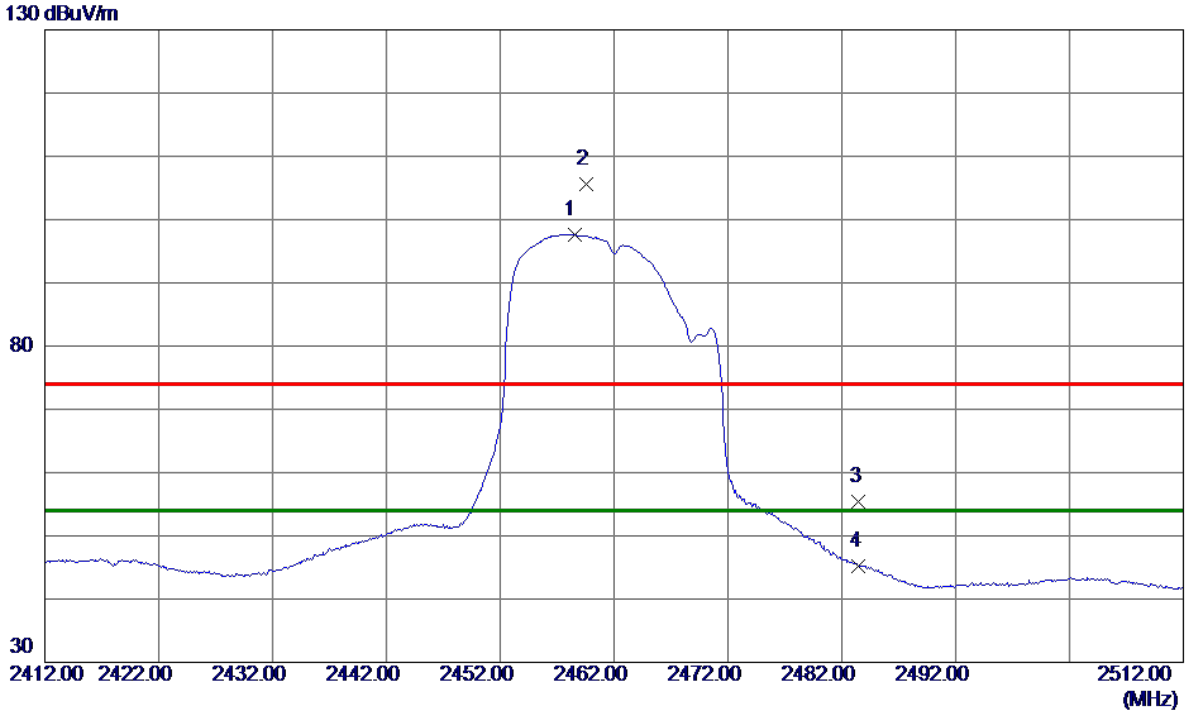
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7386.0700	46.89	10.79	57.68	74.00	-16.32	Peak	
2 *	7386.3100	32.81	10.79	43.60	54.00	-10.40	AVG	

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

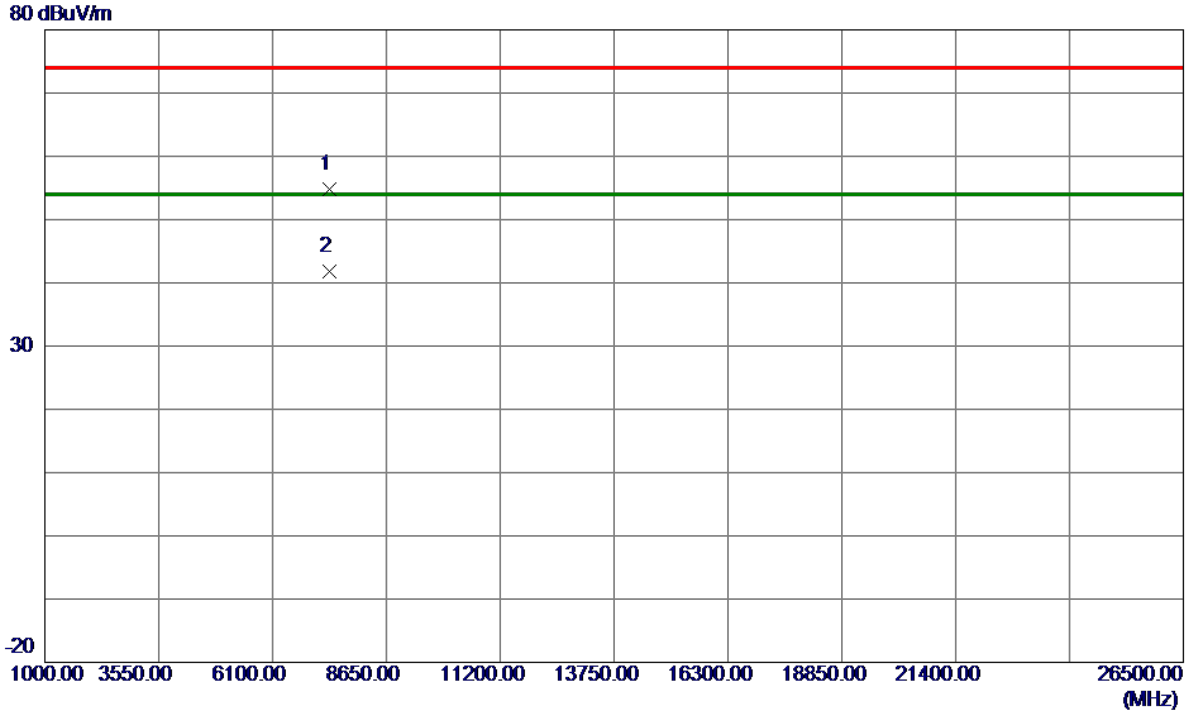
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2458.5000	89.28	8.39	97.67	54.00	43.67	AVG	No Limit
2	2459.6000	97.19	8.39	105.58	74.00	31.58	Peak	No Limit
3	2483.5000	46.92	8.42	55.34	74.00	-18.66	Peak	
4	2483.5000	36.70	8.42	45.12	54.00	-8.88	AVG	

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

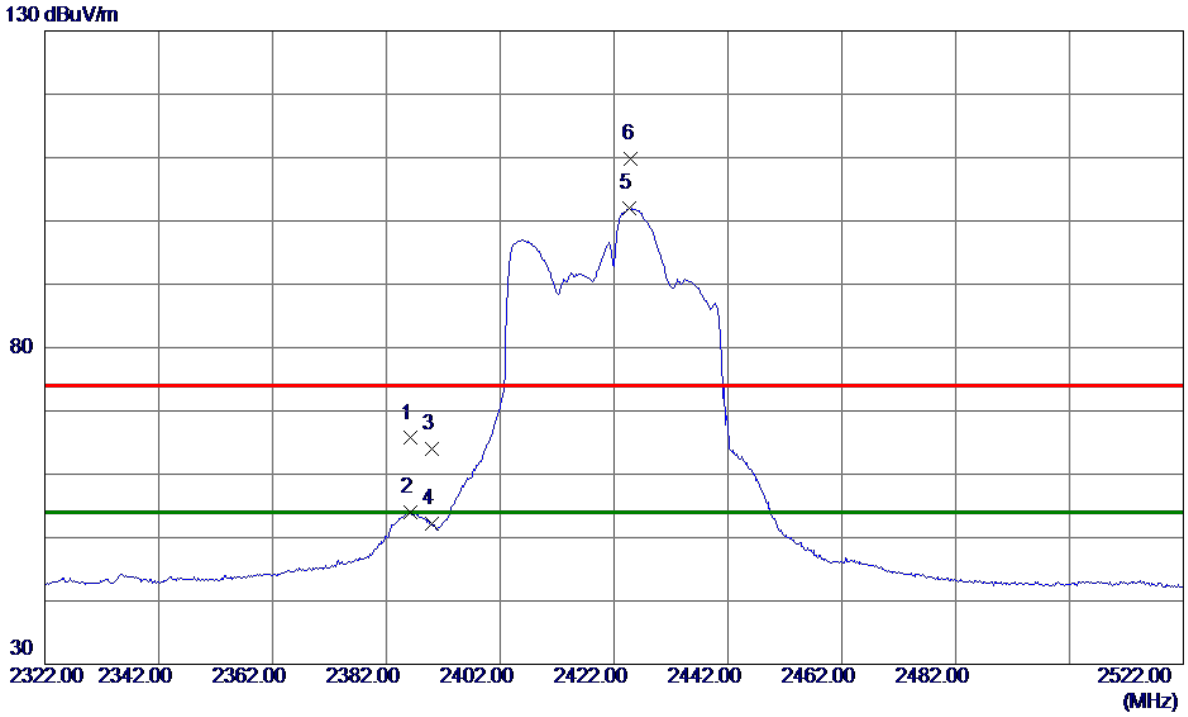
Test Mode	TX N(HT20) Mode 2462 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7386.0000	43.98	10.79	54.77	74.00	-19.23	Peak	
2 *	7387.6400	31.10	10.79	41.89	54.00	-12.11	AVG	

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

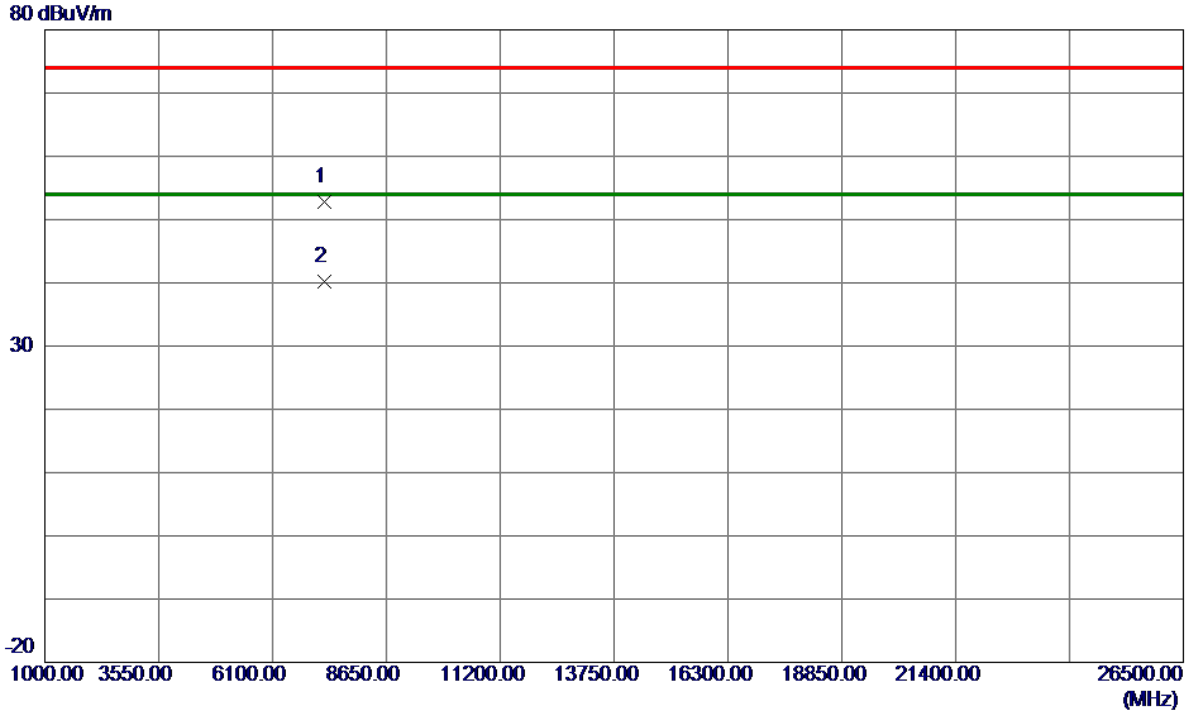
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2386.2000	57.40	8.30	65.70	74.00	-8.30	Peak	
2	2386.2000	45.67	8.30	53.97	54.00	-0.03	AVG	
3	2390.0000	55.63	8.31	63.94	74.00	-10.06	Peak	
4	2390.0000	43.82	8.31	52.13	54.00	-1.87	AVG	
5 *	2424.6000	93.56	8.35	101.91	54.00	47.91	AVG	No Limit
6	2425.0000	101.36	8.35	109.71	74.00	35.71	Peak	No Limit

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

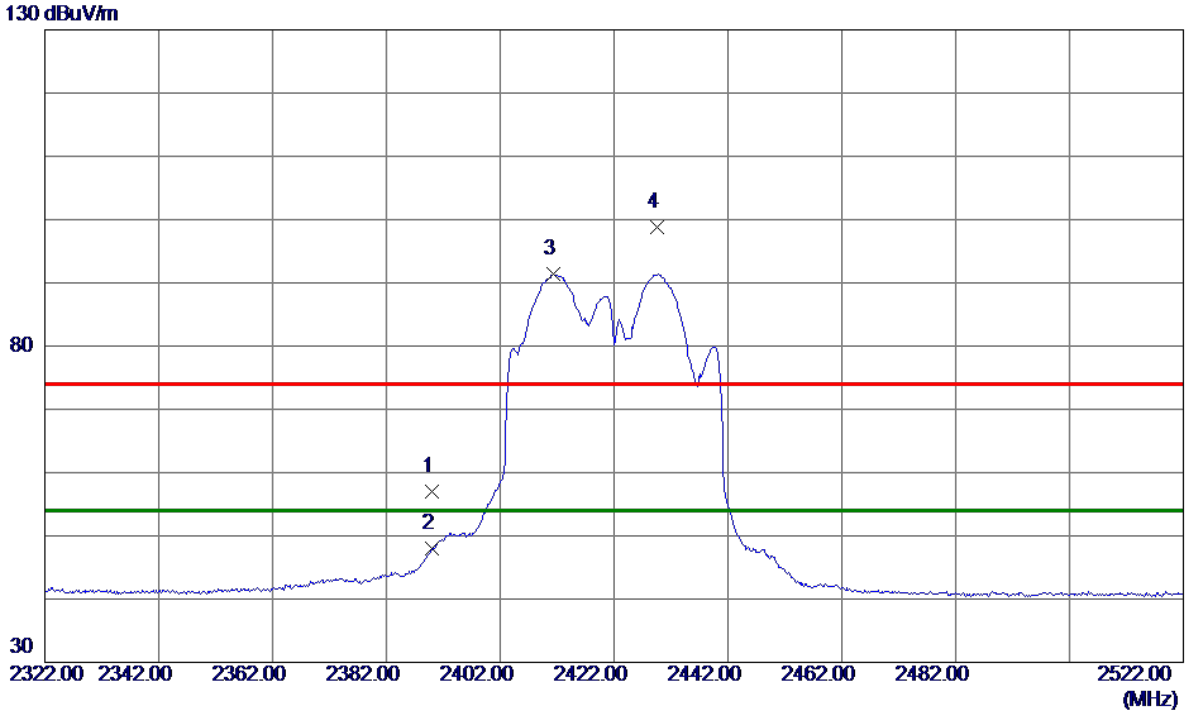
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7255.0650	42.12	10.62	52.74	74.00	-21.26	Peak	
2 *	7255.3800	29.53	10.62	40.15	54.00	-13.85	AVG	

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

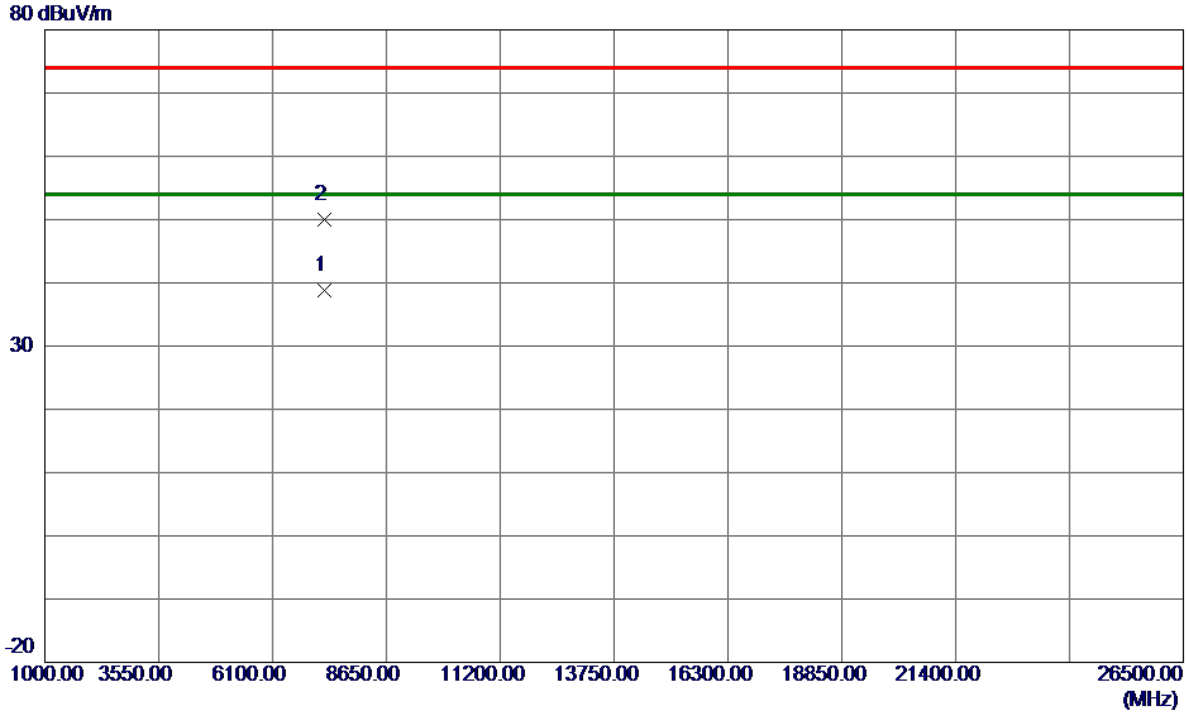
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	48.65	8.31	56.96	74.00	-17.04	Peak	
2	2390.0000	39.63	8.31	47.94	54.00	-6.06	AVG	
3 *	2411.4000	83.04	8.33	91.37	54.00	37.37	AVG	No Limit
4	2429.6000	90.35	8.36	98.71	74.00	24.71	Peak	No Limit

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

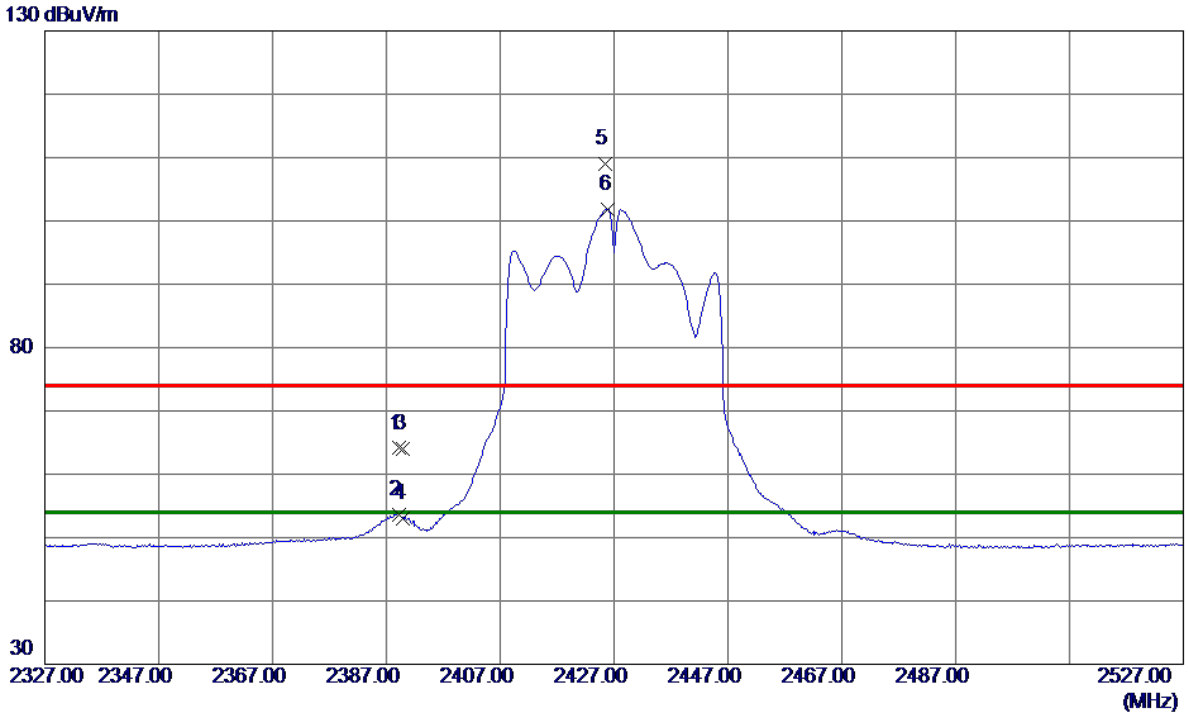
Test Mode	TX N(HT40) Mode 2422 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7254.9750	28.19	10.62	38.81	54.00	-15.19	AVG	
2	7269.7350	39.40	10.64	50.04	74.00	-23.96	Peak	

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

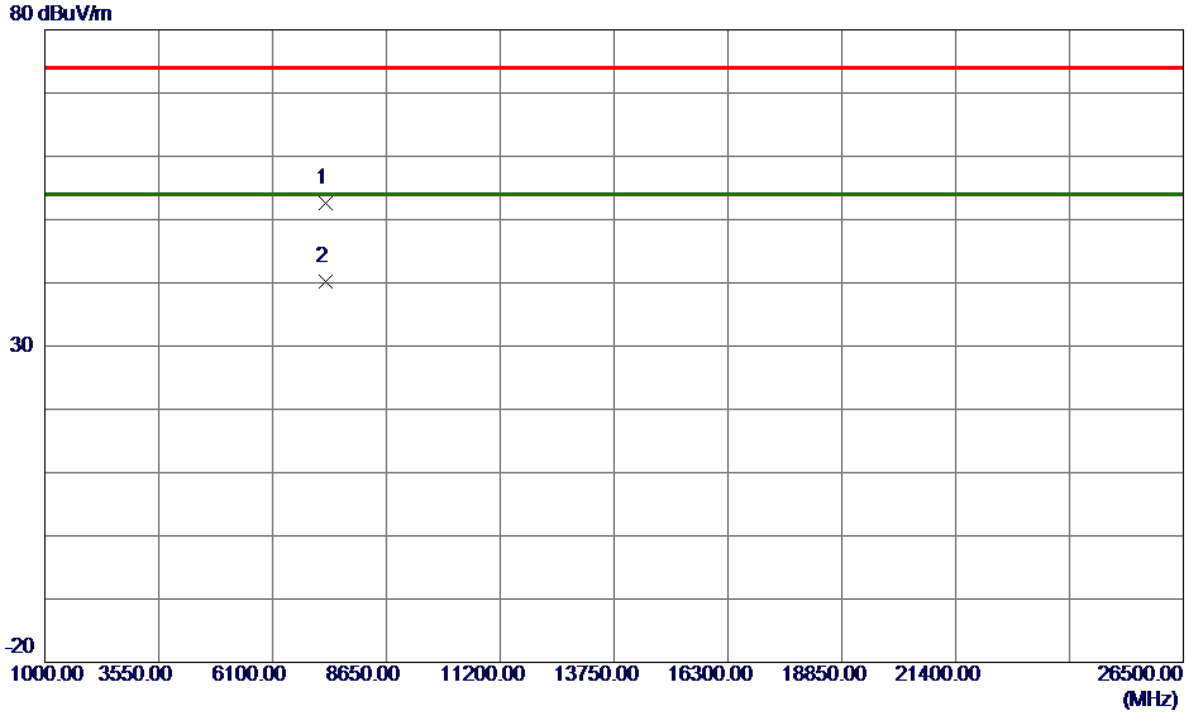
Test Mode	TX N(HT40) Mode 2427 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.2000	55.80	8.30	64.10	74.00	-9.90	Peak	
2	2389.2000	45.28	8.30	53.58	54.00	-0.42	AVG	
3	2390.0000	55.67	8.31	63.98	74.00	-10.02	Peak	
4	2390.0000	44.76	8.31	53.07	54.00	-0.93	AVG	
5	2425.4000	100.55	8.35	108.90	74.00	34.90	Peak	No Limit
6 *	2426.0000	93.44	8.35	101.79	54.00	47.79	AVG	No Limit

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

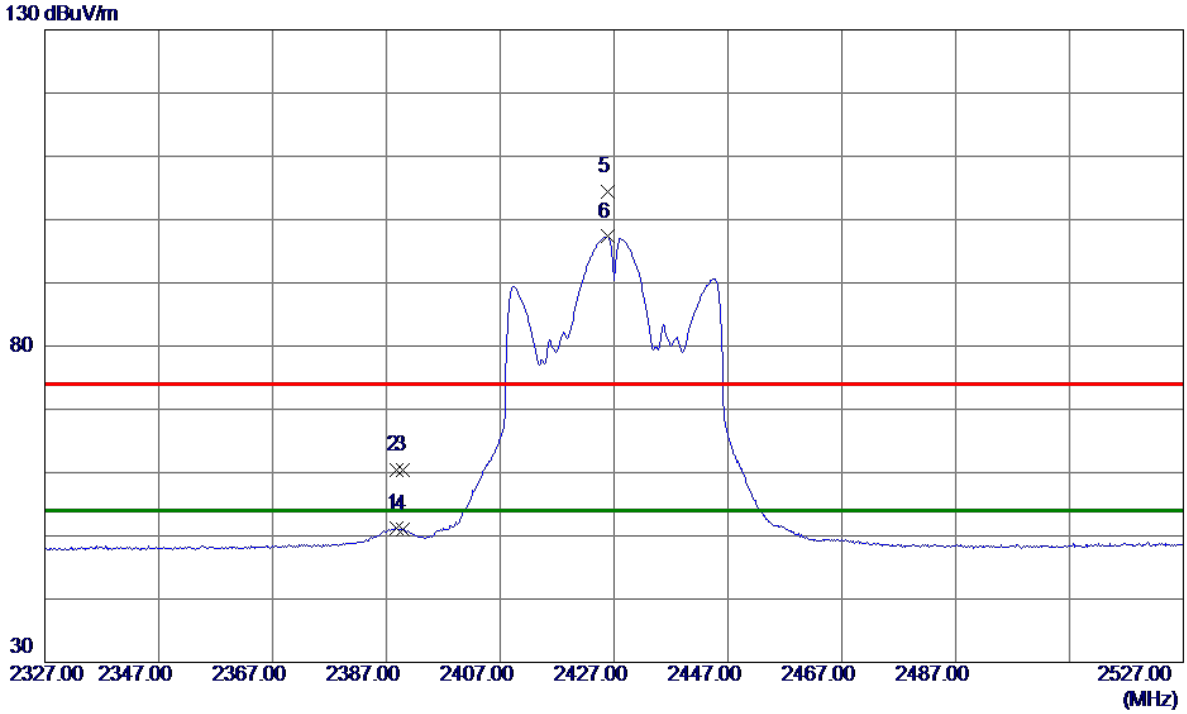
Test Mode	TX N(HT40) Mode 2427 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7279.9050	41.87	10.65	52.52	74.00	-21.48	Peak	
2 *	7280.3100	29.56	10.65	40.21	54.00	-13.79	AVG	

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

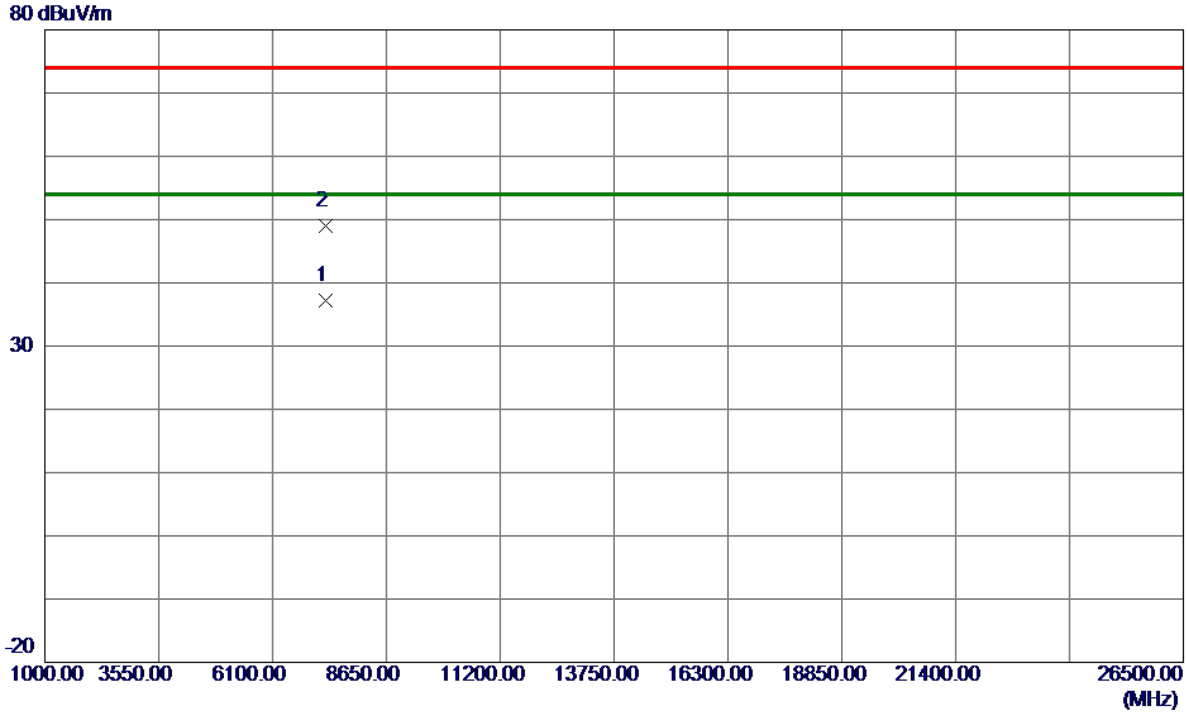
Test Mode	TX N(HT40) Mode 2427 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2388.8000	42.88	8.30	51.18	54.00	-2.82	AVG	
2	2388.8799	52.06	8.30	60.36	74.00	-13.64	Peak	
3	2390.0000	52.00	8.31	60.31	74.00	-13.69	Peak	
4	2390.0000	42.61	8.31	50.92	54.00	-3.08	AVG	
5	2425.8000	96.12	8.35	104.47	74.00	30.47	Peak	No Limit
6 *	2425.8000	88.95	8.35	97.30	54.00	43.30	AVG	No Limit

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

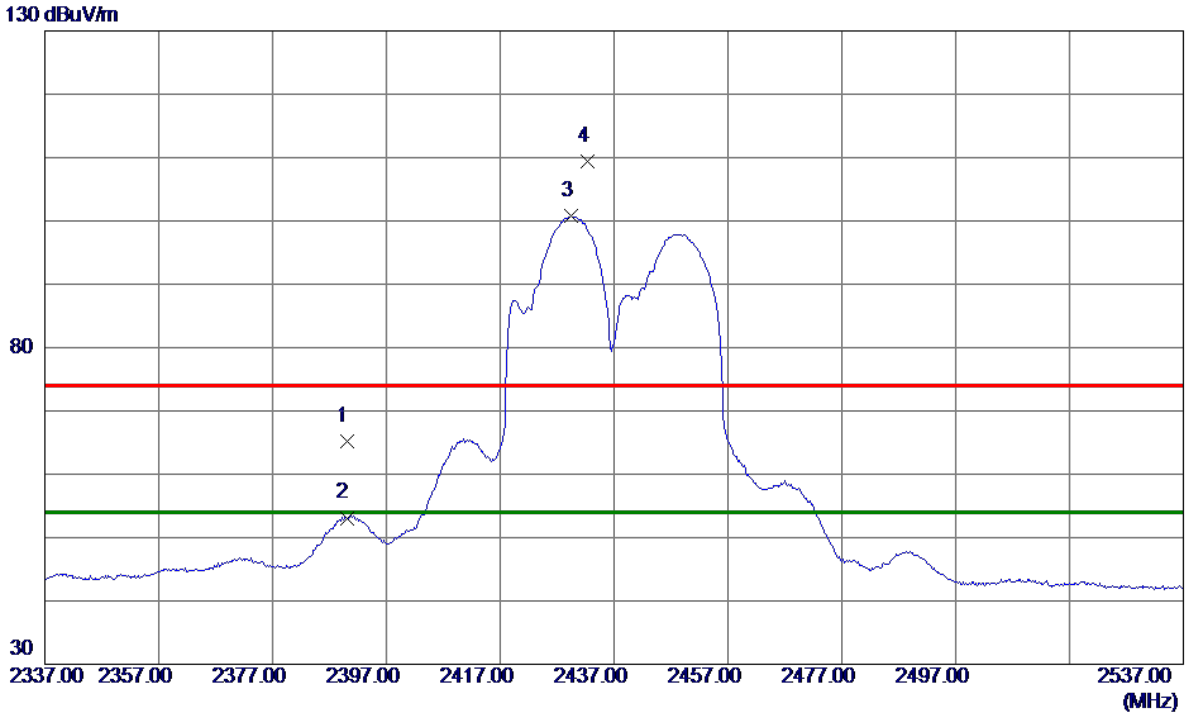
Test Mode	TX N(HT40) Mode 2427 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7278.5550	26.64	10.65	37.29	54.00	-16.71	AVG	
2	7282.6800	38.26	10.66	48.92	74.00	-25.08	Peak	

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

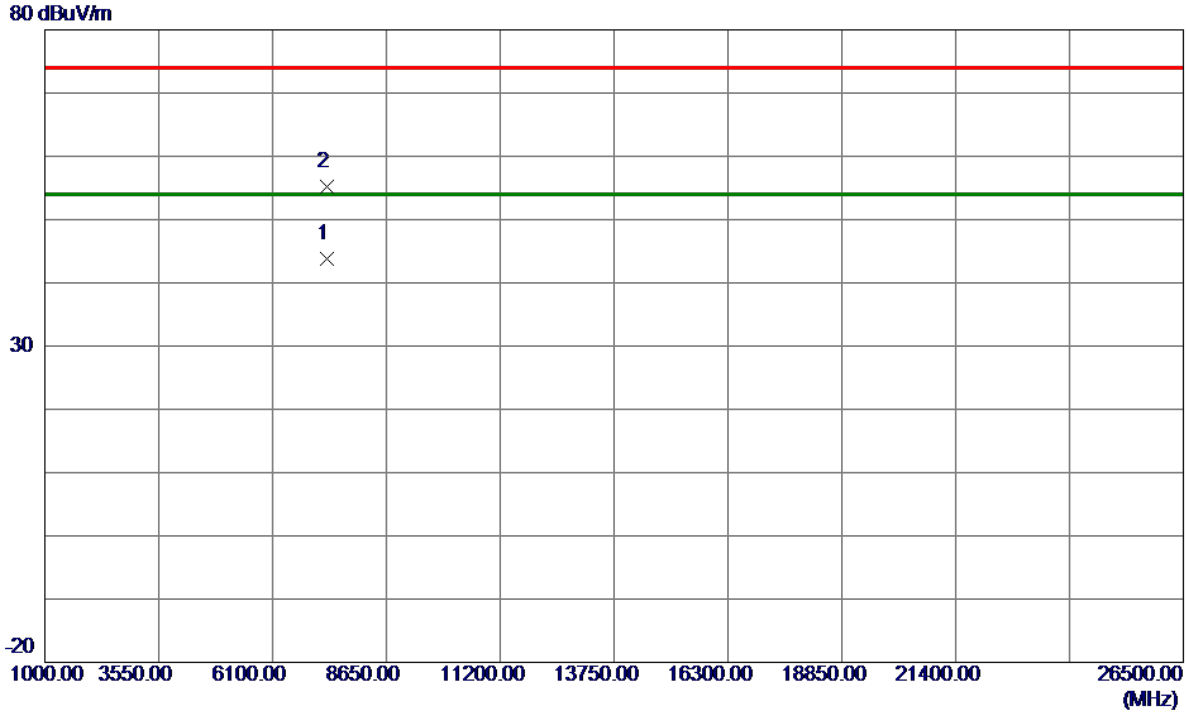
Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	56.87	8.31	65.18	74.00	-8.82	Peak	
2	2390.0000	44.79	8.31	53.10	54.00	-0.90	AVG	
3 *	2429.4000	92.50	8.36	100.86	54.00	46.86	AVG	No Limit
4	2432.4000	101.12	8.36	109.48	74.00	35.48	Peak	No Limit

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

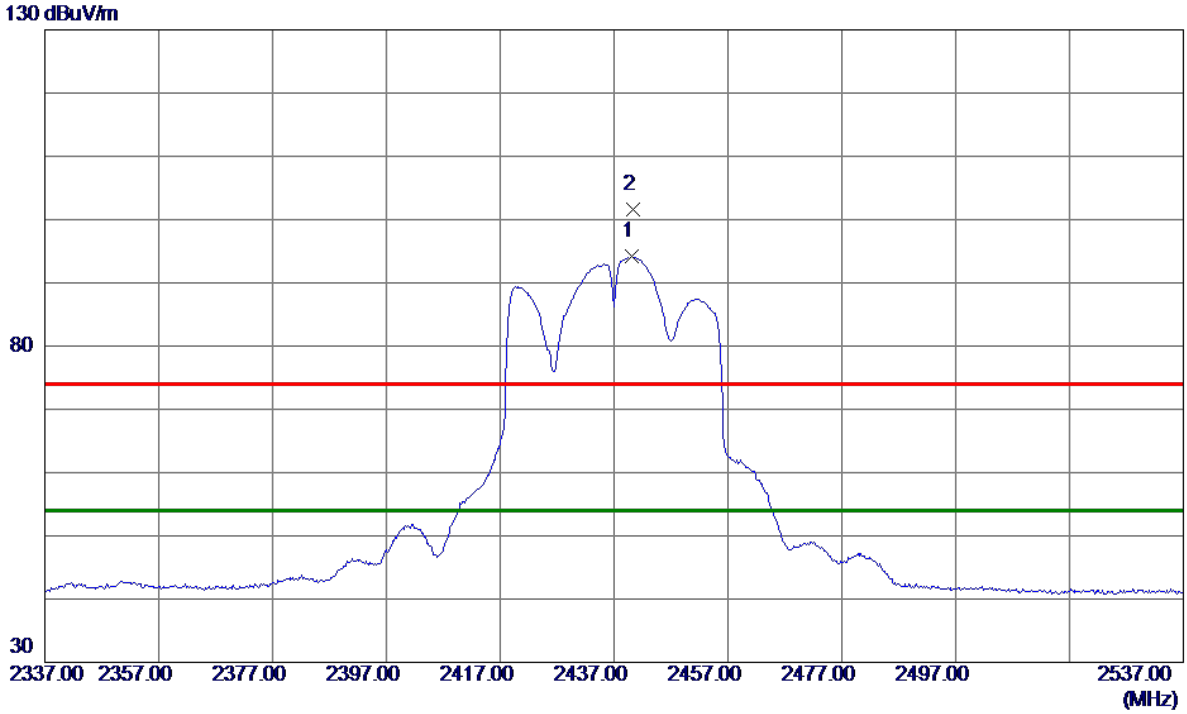
Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7305.8100	33.05	10.69	43.74	54.00	-10.26	AVG	
2	7306.5450	44.57	10.69	55.26	74.00	-18.74	Peak	

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

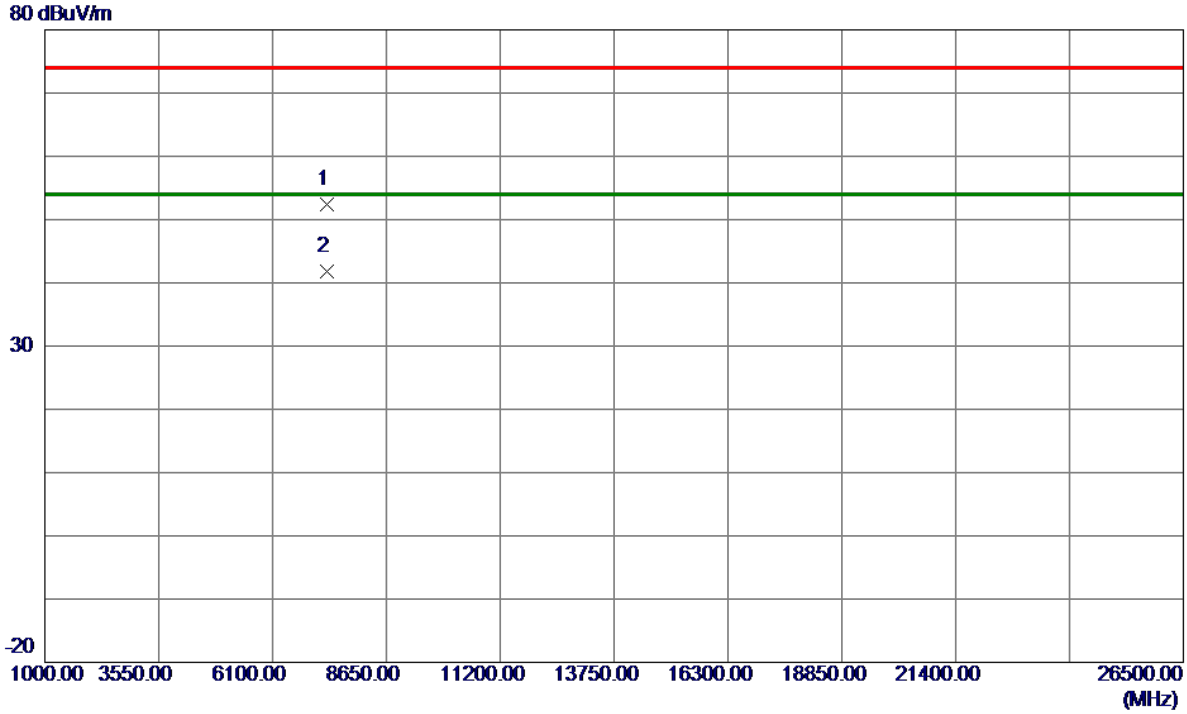
Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440.2000	85.82	8.37	94.19	54.00	40.19	AVG	No Limit
2	2440.4000	93.32	8.37	101.69	74.00	27.69	Peak	No Limit

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

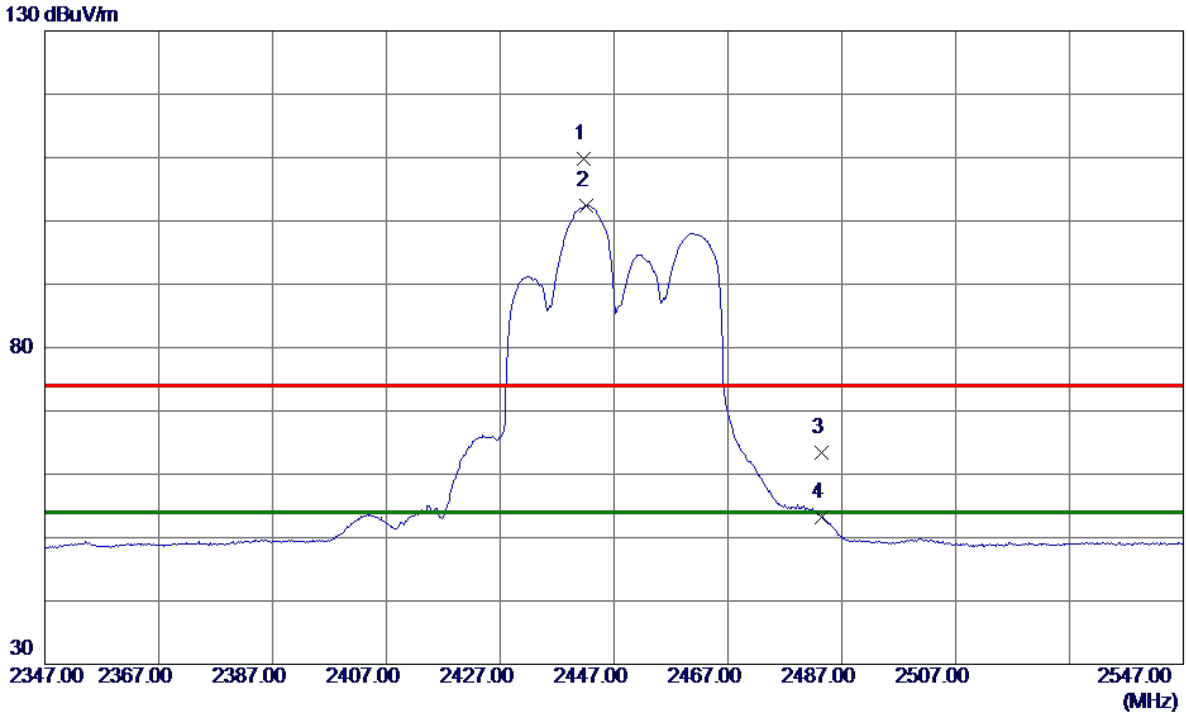
Test Mode	TX N(HT40) Mode 2437 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7306.3050	41.80	10.69	52.49	74.00	-21.51	Peak	
2 *	7307.0700	31.10	10.69	41.79	54.00	-12.21	AVG	

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

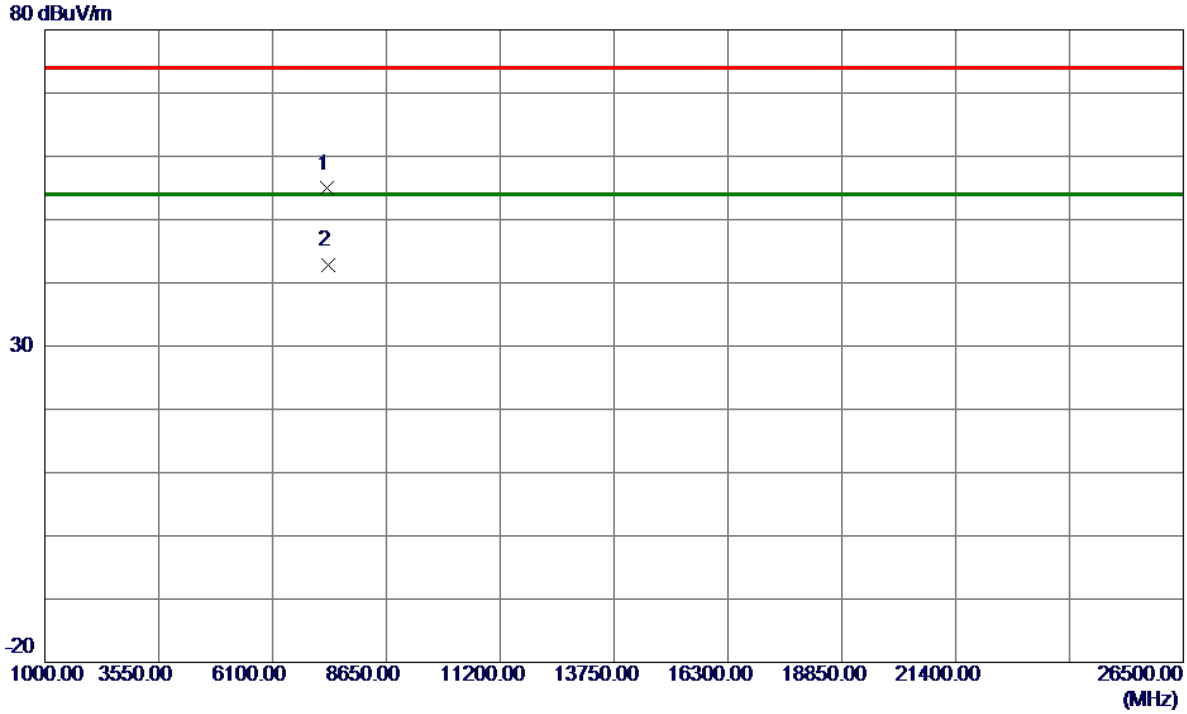
Test Mode	TX N(HT40) Mode 2447 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2441.6000	101.44	8.37	109.81	74.00	35.81	Peak	No Limit
2 *	2442.2000	94.04	8.37	102.41	54.00	48.41	AVG	No Limit
3	2483.5000	54.91	8.42	63.33	74.00	-10.67	Peak	
4	2483.5000	44.71	8.42	53.13	54.00	-0.87	AVG	

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

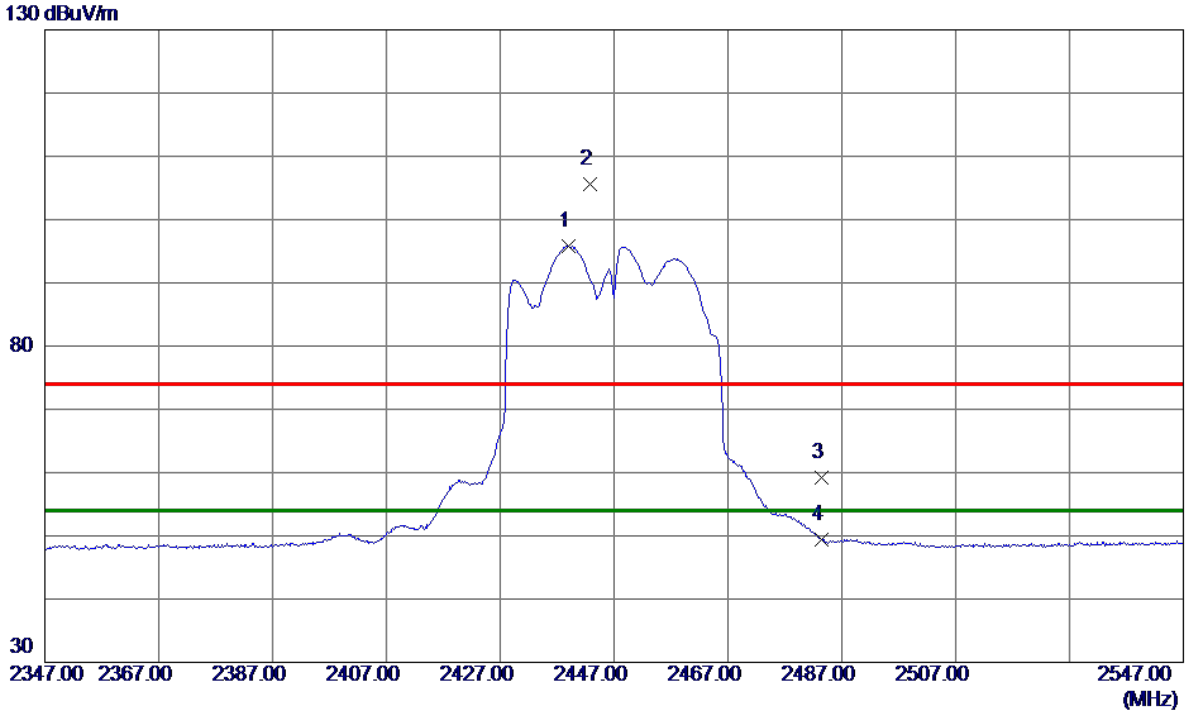
Test Mode	TX N(HT40) Mode 2447 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7331.6250	44.18	10.72	54.90	74.00	-19.10	Peak	
2 *	7333.3950	32.00	10.72	42.72	54.00	-11.28	AVG	

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

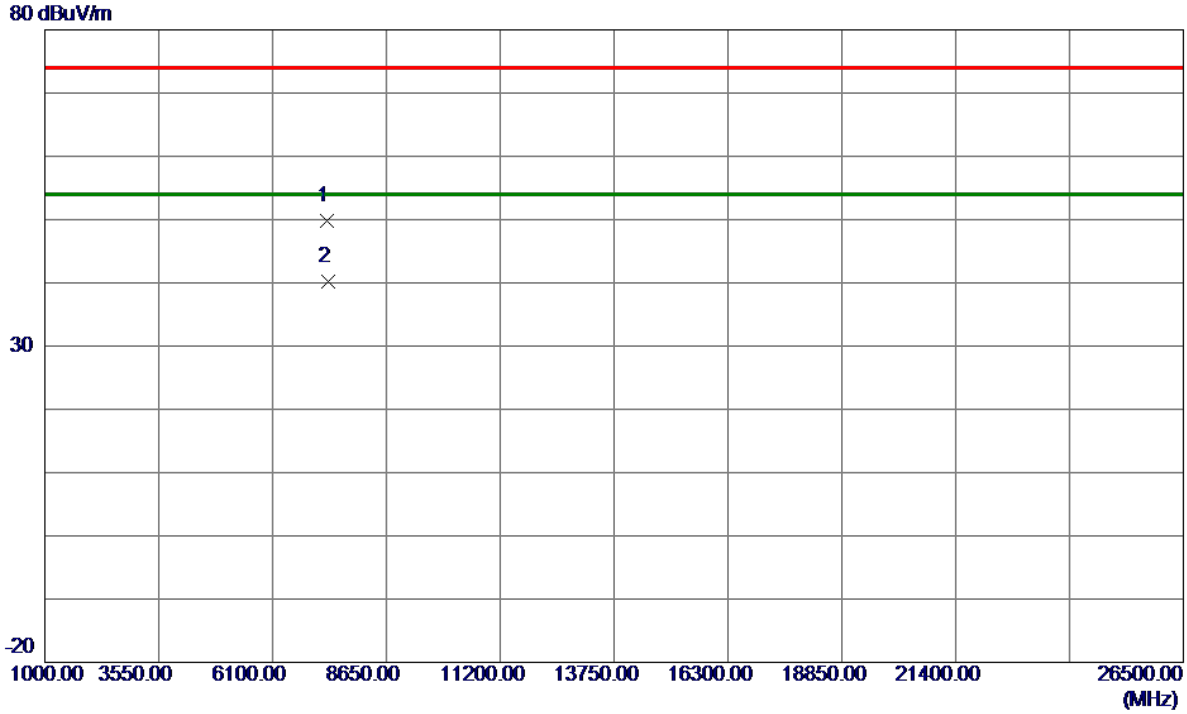
Test Mode	TX N(HT40) Mode 2447 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2439.0000	87.44	8.37	95.81	54.00	41.81	AVG	No Limit
2	2442.8000	97.28	8.37	105.65	74.00	31.65	Peak	No Limit
3	2483.5000	50.83	8.42	59.25	74.00	-14.75	Peak	
4	2483.5000	40.92	8.42	49.34	54.00	-4.66	AVG	

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

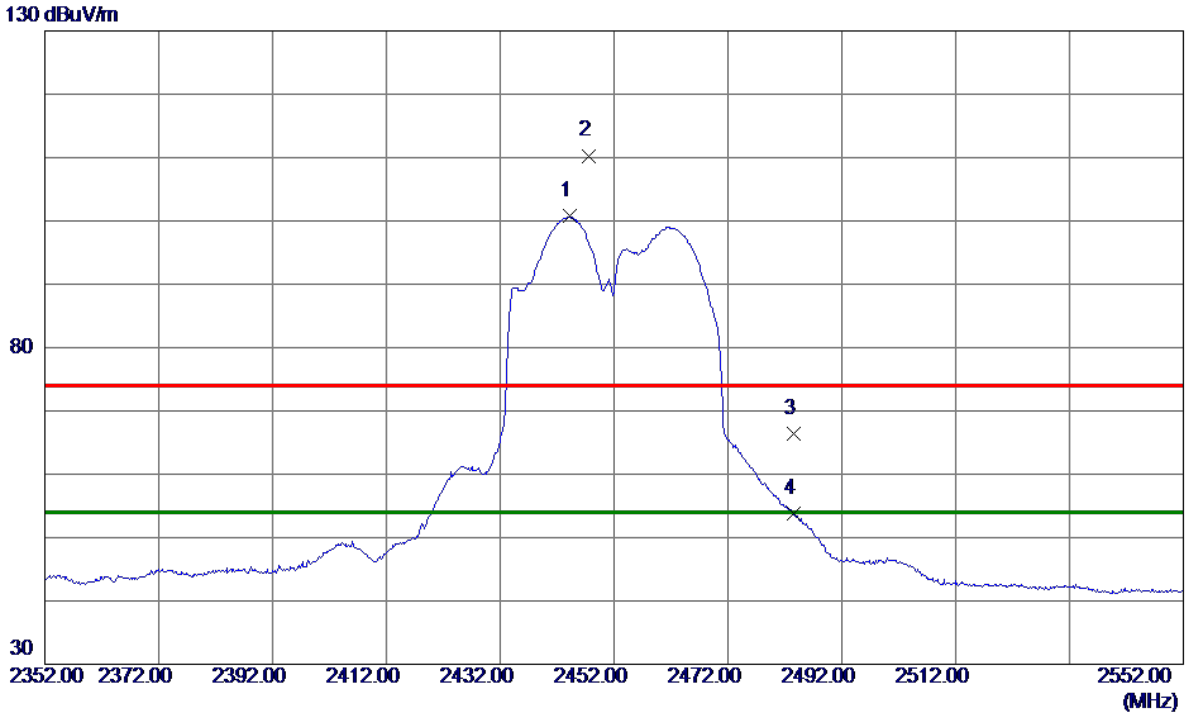
Test Mode	TX N(HT40) Mode 2447 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7331.6400	39.10	10.72	49.82	74.00	-24.18	Peak	
2 *	7333.4250	29.49	10.72	40.21	54.00	-13.79	AVG	

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

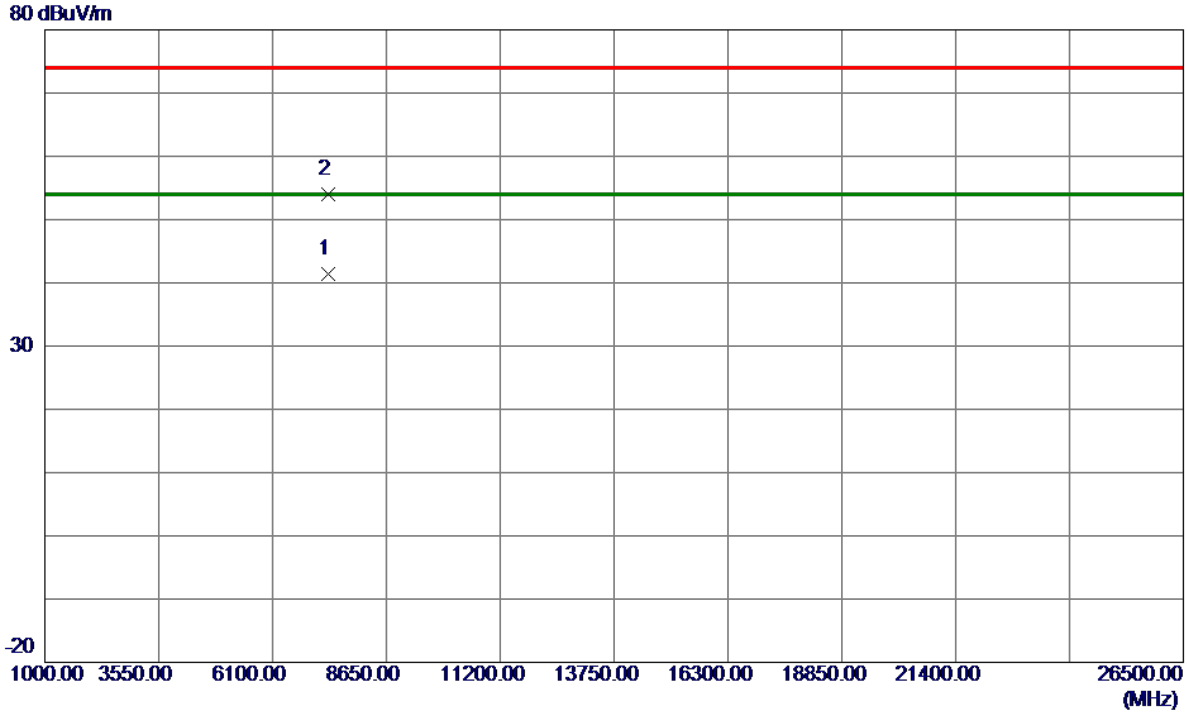
Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2444.2000	92.38	8.37	100.75	54.00	46.75	AVG	No Limit
2	2447.6000	101.92	8.38	110.30	74.00	36.30	Peak	No Limit
3	2483.5000	58.02	8.42	66.44	74.00	-7.56	Peak	
4	2483.5000	45.47	8.42	53.89	54.00	-0.11	AVG	

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

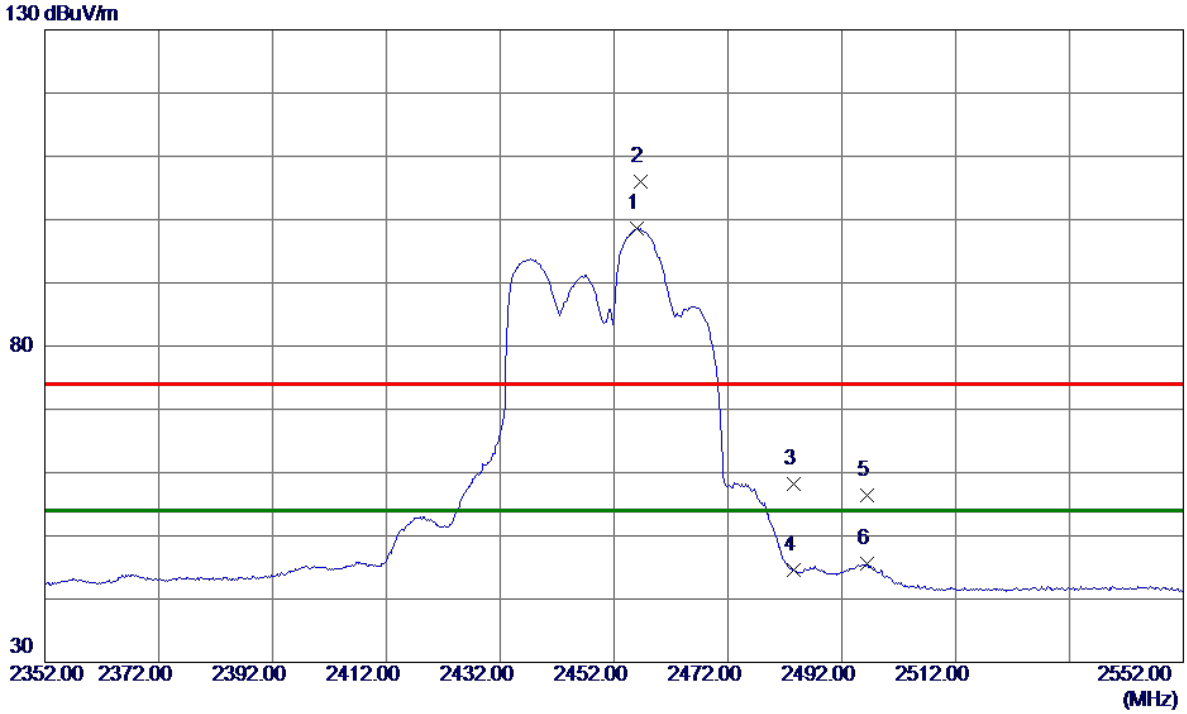
Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7356.2550	30.74	10.75	41.49	54.00	-12.51	AVG	
2	7356.3000	43.27	10.75	54.02	74.00	-19.98	Peak	

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

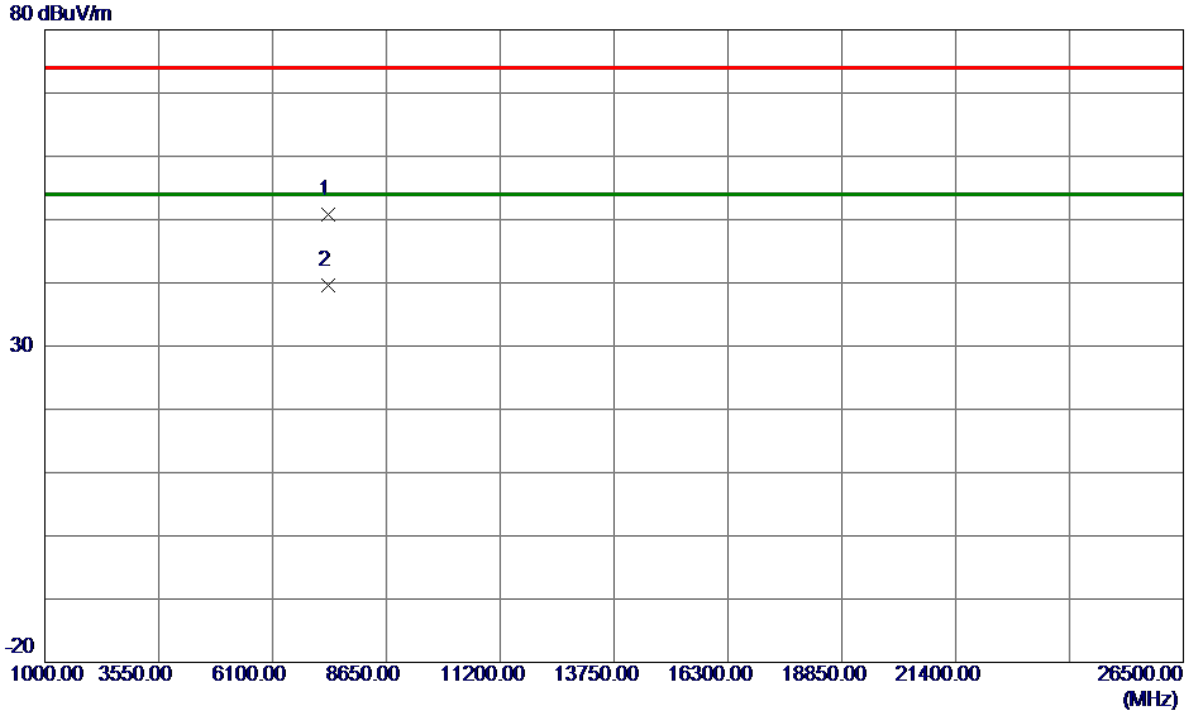
Test Mode	TX N(HT40) Mode 2452 MHz	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2456.0000	90.13	8.39	98.52	54.00	44.52	AVG	No Limit
2	2456.6000	97.69	8.39	106.08	74.00	32.08	Peak	No Limit
3	2483.5000	49.87	8.42	58.29	74.00	-15.71	Peak	
4	2483.5000	36.16	8.42	44.58	54.00	-9.42	AVG	
5	2496.4000	47.87	8.44	56.31	74.00	-17.69	Peak	
6	2496.4000	37.07	8.44	45.51	54.00	-8.49	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.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7346.9400	39.97	10.74	50.71	74.00	-23.29	Peak	
2 *	7357.9050	28.90	10.76	39.66	54.00	-14.34	AVG	

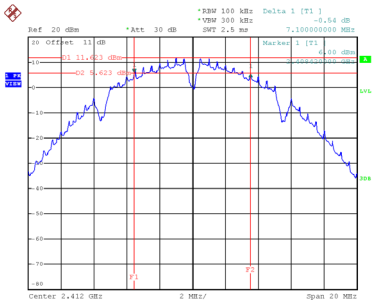
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

Test Mode	TX B Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Result
01	2412	7.100	11.440	0.5	Complies
06	2437	7.580	11.760	0.5	Complies
11	2462	7.120	11.520	0.5	Complies

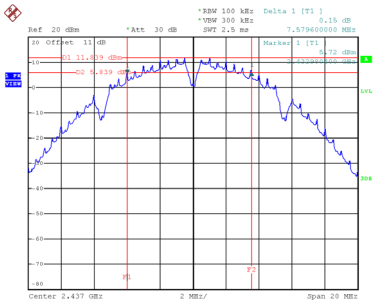
CH01



Date: 13.JAN.2022 16:15:31

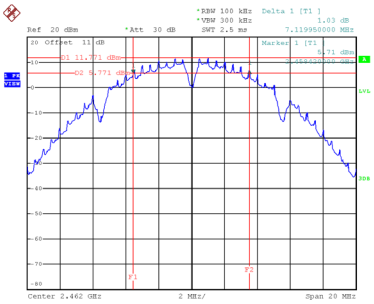
CH06

6 dB Bandwidth



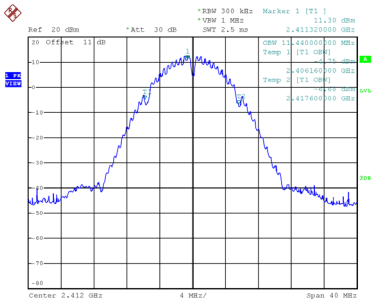
Date: 13.JAN.2022 16:16:17

CH11

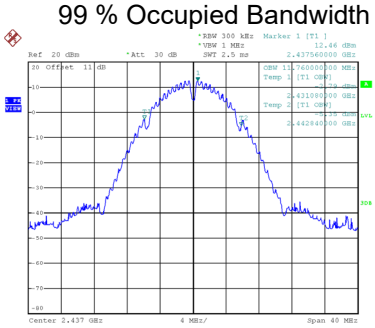


Date: 13.JAN.2022 16:17:40

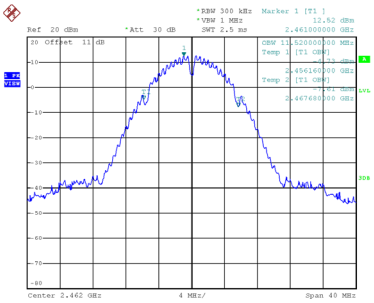
99 % Occupied Bandwidth



Date: 13.JAN.2022 16:15:38



Date: 13.JAN.2022 16:16:24



Date: 13.JAN.2022 16:17:47