FCC Radio Test Report

FCC ID: V7TMESH3FV3

This report concerns: Original Grant

Project No.	:	2011C201
Equipment	:	AC1200 Whole Home Mesh WiFi System
Brand Name	:	Tenda
Test Model	:	Mesh3f
Series Model	:	MW3
Applicant	:	SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address	:	6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Manufacturer	:	SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address	:	6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Date of Receipt	:	Nov. 26, 2020
Date of Test	:	Dec. 04, 2020 ~ Dec. 25, 2020
Issued Date	:	Jan. 13, 2021
Report Version	:	R00
Test Sample	:	Engineering Sample No.:DG202011279 for conducted, DG2020112710 for radiated.
Standard(s)	:	FCC Part15, Subpart C (15.247) ANSI C63.10-2013 FCC KDB 558074 D01 15.247 Meas Guidance v05r02

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

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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.

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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 14

2.4 DUTY CYCLE 15

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED 16

2.6 SUPPORT UNITS 16

3 . AC POWER LINE CONDUCTED EMISSIONS TEST 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 TEST 19

4.1 LIMIT 19

4.2 TEST PROCEDURE 20

4.3 DEVIATION FROM TEST STANDARD 20

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 TEST 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 OUTPUT POWER TEST 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 TEST 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 33
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ 38
APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ 43
APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ 46
APPENDIX E - BANDWIDTH 97
APPENDIX F - MAXIMUM OUTPUT POWER 102
APPENDIX G - CONDUCTED SPURIOUS EMISSIONS 108

Table of Contents **Page**

APPENDIX H - POWER SPECTRAL DENSITY **115**

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Jan. 13, 2021

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.247)				
Standard(s) Section	**Test Item**	**Test Result**	**Judgment**	**Remark**
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	------
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	------
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	------
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS	------
15.247(d)	Conducted Spurious Emissions	APPENDIX G	PASS	------
15.247(e)	Power Spectral Density	APPENDIX H	PASS	------
15.203	Antenna Requirement	------	PASS	Note(2)

Note:

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

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

1.1 TEST FACILITY

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

1.2 MEASUREMENT UNCERTAINTY

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

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.68

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz ~ 30MHz	-	3.02
		30MHz ~ 200MHz	V	4.26
		30MHz ~ 200MHz	H	3.38
		200MHz ~ 1,000MHz	V	3.98
		200MHz ~ 1,000MHz	H	3.94
		1GHz ~ 6GHz	-	3.96
		6GHz ~ 18GHz	-	5.24
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

C. Other Measurement:

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

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	53%	AC 120V/60Hz AC 240V/50Hz	Grani Zhou
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Grani Zhou
Radiated Emissions-30 MHz to 1GHz	26°C	52%	AC 120V/60Hz	Grani Zhou
Radiated Emissions-Above 1000 MHz	26°C	52%	AC 120V/60Hz	Grani Zhou
Bandwidth	26°C	52%	AC 120V/60Hz	Hayden Chen
Maximum Output Power	26°C	52%	AC 120V/60Hz	Hayden Chen
Conducted Spurious Emissions	26°C	52%	AC 120V/60Hz	Hayden Chen
Power Spectral Density	26°C	52%	AC 120V/60Hz	Hayden Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1200 Whole Home Mesh WiFi System
Brand Name	Tenda
Test Model	Mesh3f
Series Model	MW3
Model Difference(s)	Only differ in model name
Power Source	DC Voltage supplied from AC adapter. Model: BN073-A09009U
Power Rating	I/P: 100-240V~ 50/60Hz 0.4A O/P: 9.0V ⎓ 1.0A
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps
Maximum Peak Output Power_Non-Beamforming	IEEE 802.11b: 24.43 dBm (0.2773 W) IEEE 802.11g: 27.48 dBm (0.5598 W) IEEE 802.11n (HT20): 29.65 dBm (0.9226 W) IEEE 802.11n (HT40): 29.86 dBm (0.9683 W)
Maximum Peak Output Power_Beamforming	IEEE 802.11n (HT20): 29.48 dBm (0.8872 W) IEEE 802.11n (HT40): 29.69 dBm (0.9311 W)
Maximum Average Output Power_Non Beamforming	IEEE 802.11b: 21.65 dBm (0.1462 W) IEEE 802.11g: 20.94dBm (0.1242 W) IEEE 802.11n (HT20): 21.31 dBm (0.1352 W) IEEE 802.11n (HT40): 20.62 dBm (0.1153 W)
Maximum Average Output Power_Beamforming	IEEE 802.11n (HT20): 20.33 dBm (0.1079 W) IEEE 802.11n (HT40): 18.94 dBm (0.0783 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	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Internal	N/A	3
2	N/A	N/A	Internal	N/A	3

Note:

1) This EUT supports CDD, and all antennas have the same gain, Directional gain = G_{ANT}+Array Gain.
For power measurements, Array Gain=0dB ($N_{ANT} \leqslant 4$), so the Directional gain=3.
For power spectral density measurements, N_{ANT}=2, N_{SS} = 1.
So the Directional gain=G_{ANT}+Array Gain=G_{ANT}+10log(N_{ANT}/ N_{SS})dBi=3+10log(2/1)dBi=6.01.
Then, the power spectral density limit is 8-(6.01-6)=7.99.
2) Beamforming Gain: 3dB. So Directional gain=3+3=6.
3) The antenna gain and beamforming gain are provided by the manufacturer.

4. Table for Antenna Configuration:

For Non Beamforming:

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

For Beamforming:

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

2.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09
Mode 5	TX N-40 MHz Mode Channel 06

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

AC power line conducted emissions test	
Final Test Mode	Description
Mode 5	TX N-40 MHz Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 5	TX N-40 MHz Mode Channel 06

Radiated emissions test- Above 1GHz_Non Beamforming	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

Maximum Output Power test_Non Beamforming	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

Maximum Output Power test_Beamforming	
Final Test Mode	Description
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

Other Conducted test_Non Beamforming	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

NOTE:
(1) The measurements are performed at the high, middle, low available channels.
(2) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
(3) For radiated emission below 1 GHz test, the IEEE 802.11n40 Channel 06 is found to be the worst case and recorded.
(4) For radiated emission above 1 GHz test, 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.
(5) The measurements for Maximum Output Power were tested, the Non Beamforming and Beamforming are recorded in the report. The worst case was Non Beamforming and only worst case were documented for other test items.
(6) For radiated emissions, the TX WLAN 2.4G B Mode 2462MHz + WLAN 5G A Mode 5180MHz was found the worst case of simultaneous transmission and recorded.
(7) For radiated spurious emissions below 1 GHz test, all adapters had been pre-tested and in this report only recorded the worst case.

2.3 PARAMETERS OF TEST SOFTWARE

Non-Beamforming

Test Software	MP-v3.6		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	107	107	96
IEEE 802.11g	101	108	95
IEEE 802.11n (HT20)	100	102	95
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	97	100	91

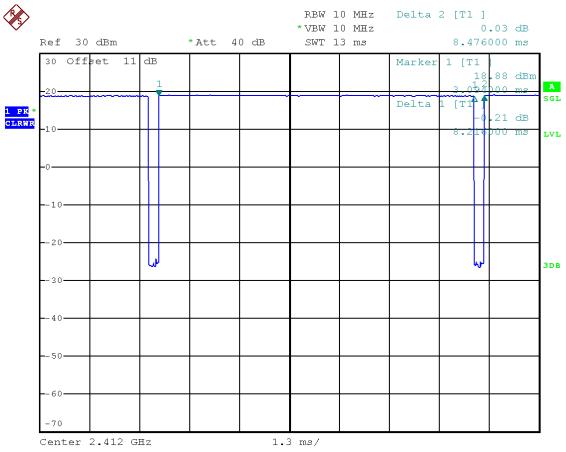
Beamforming

Test Software	MP-v3.6		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n (HT20)	99	101	94
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	96	99	90

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.

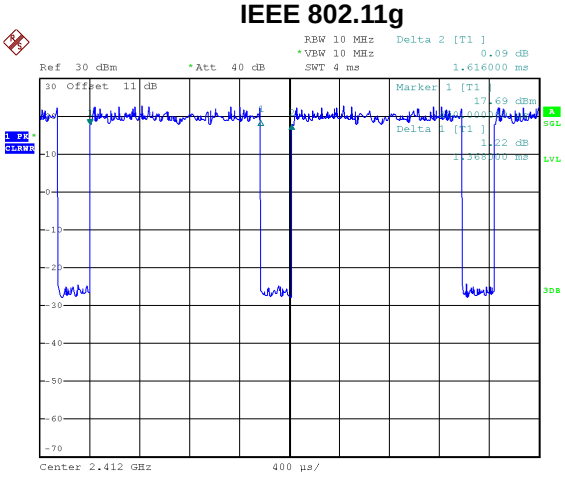
IEEE 802.11b



Date: 4.DEC.2020 09:46:05

Duty cycle = 8.216 ms / 8.476 ms = 96.93%
Duty Factor = 10 log(1/Duty cycle) = 0.14

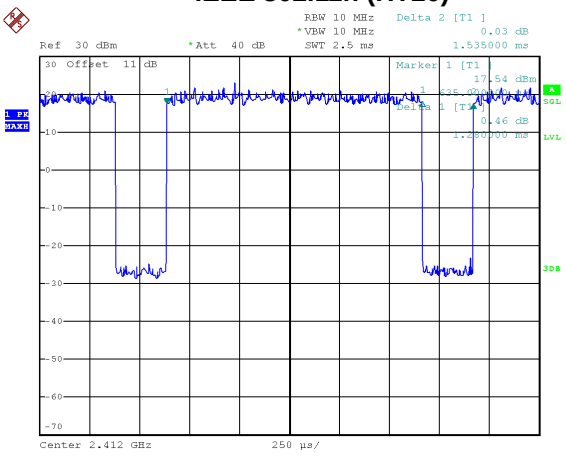
IEEE 802.11g



Date: 4.DEC.2020 09:46:45

Duty cycle = 1.368 ms / 1.616 ms = 84.65%
Duty Factor = 10 log(1/Duty cycle) = 0.72

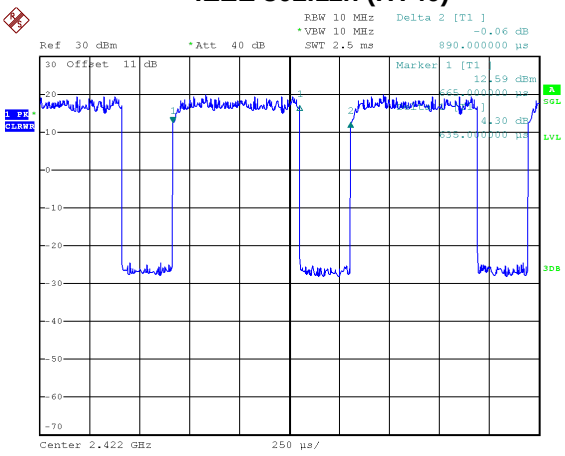
IEEE 802.11n (HT20)



Date: 4.DEC.2020 09:49:39

Duty cycle = 1.280 ms / 1.535 ms = 83.39%
Duty Factor = 10 log(1/Duty cycle) = 0.79

IEEE 802.11n (HT40)



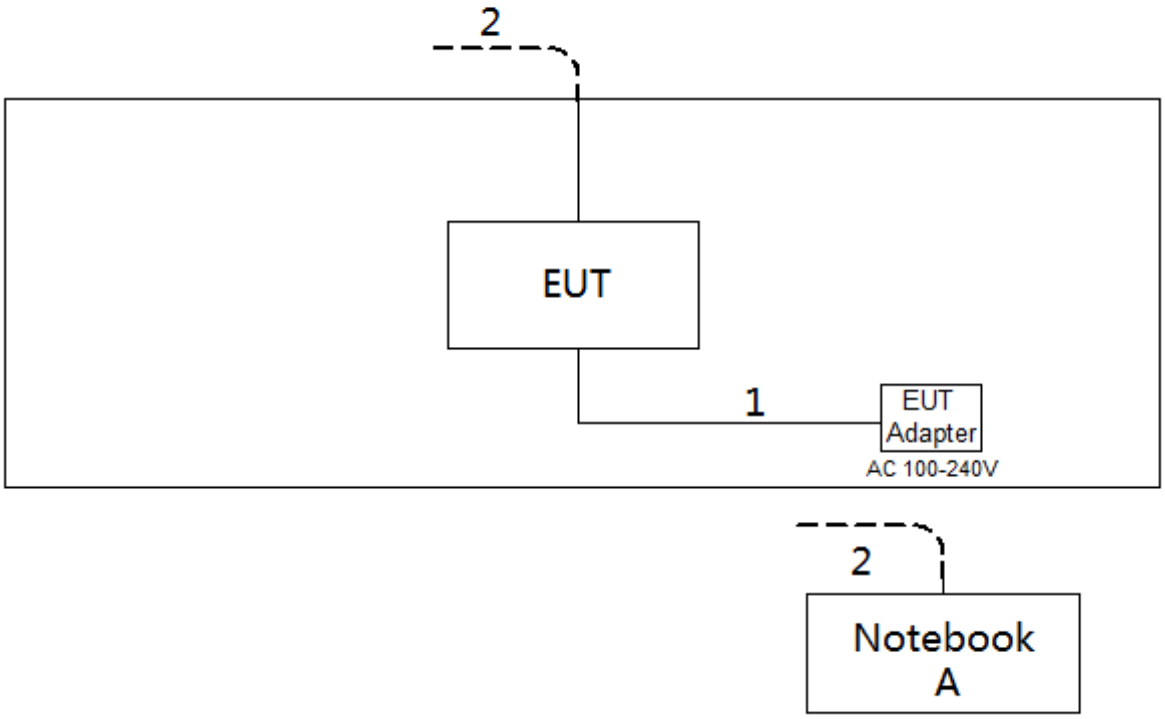
Date: 4.DEC.2020 09:50:17

Duty cycle = 0.635 ms / 0.890 ms = 71.35%
Duty Factor = 10 log(1/Duty cycle) = 1.47

NOTE:
For IEEE 802.11g and 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 1 kHz (Duty cycle < 98%).

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 2 kHz (Duty cycle < 98%).

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	DC Cable	NO	NO	1.5m
2	RJ45 Cable	NO	NO	10m

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56*	56 to 46*
0.50 - 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.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

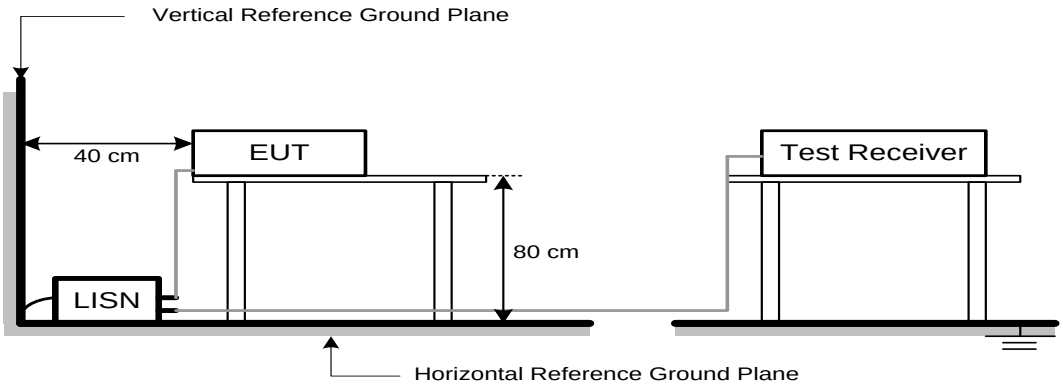
3.2 TEST PROCEDURE

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.

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 TEST

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 PART 15C.

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

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

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for Peak, 1 MHz / 1/T for Average

Receiver Parameter	Setting
Attenuation	Auto
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

4.2 TEST PROCEDURE

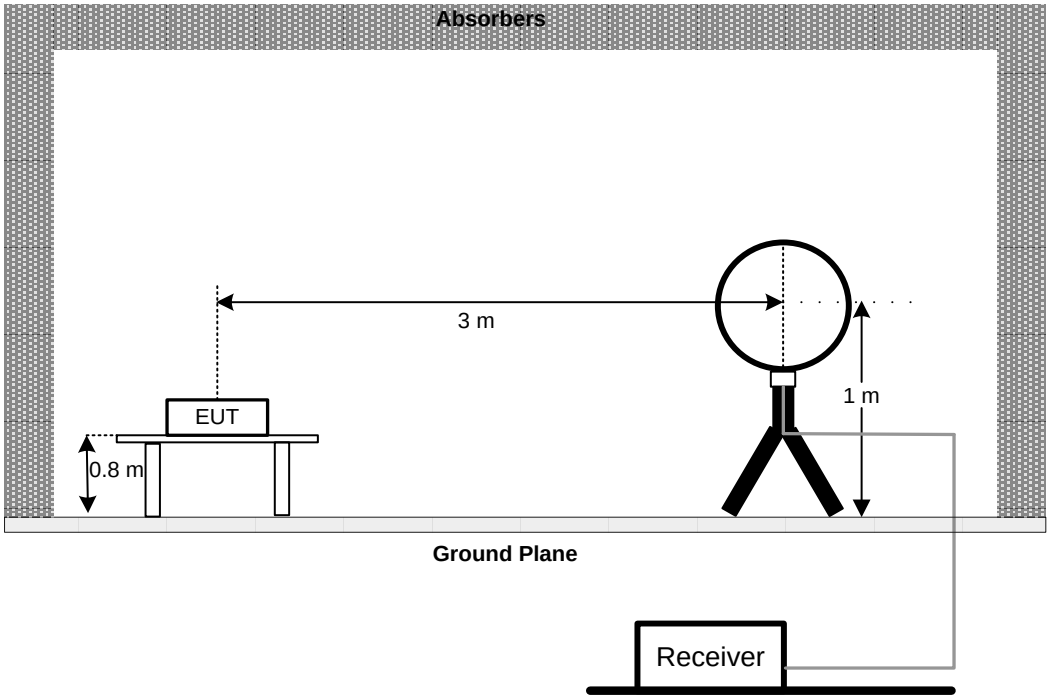
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance of 3 m or 1.5m 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 1GHz)
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.

4.3 DEVIATION FROM TEST STANDARD

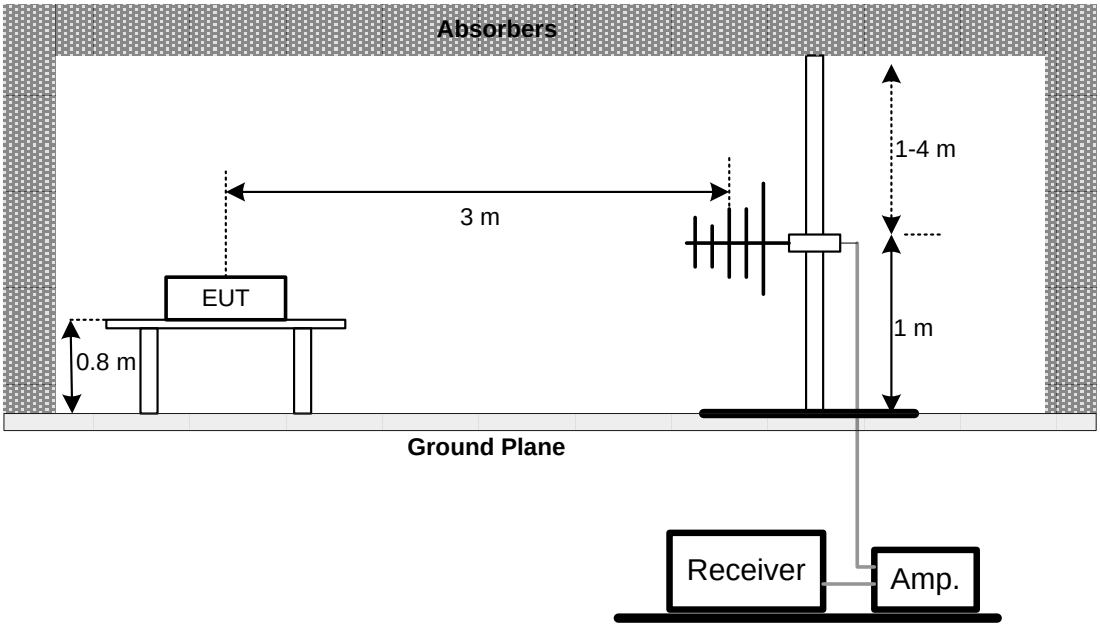
No deviation

4.4 TEST SETUP

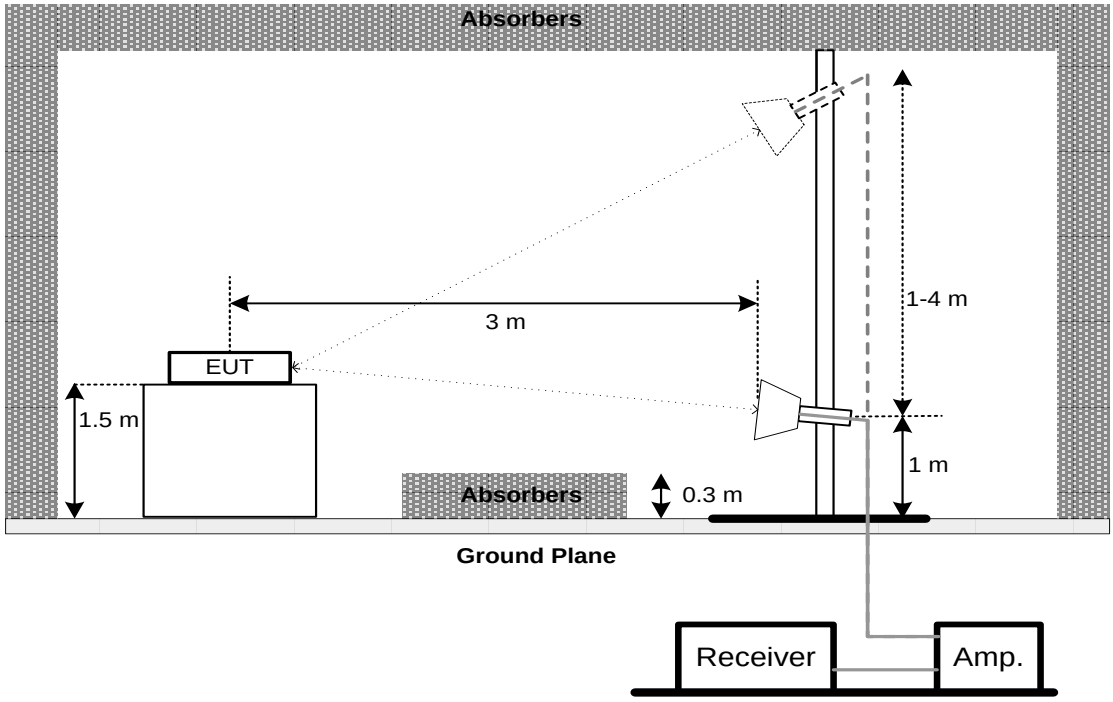
9 kHz-30 MHz



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 TEST

5.1 LIMIT

FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(a)(2)	6 dB Bandwidth	Minimum 500 kHz
	99% Emission Bandwidth	-

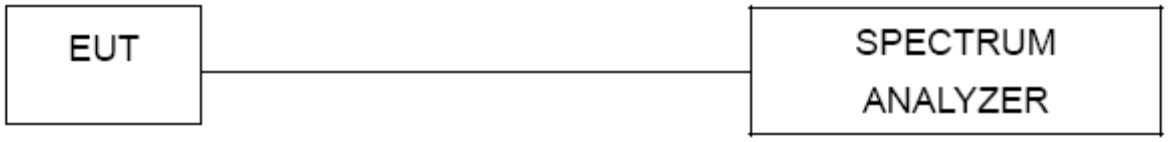
5.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. Spectrum Setting:
For 6 dB Bandwidth : RBW= 100 kHz, VBW=300 kHz, Sweep time = auto.
For 99% Emission Bandwidth B/G/N-20 Mode: RBW= 300 KHz, VBW=1 MHz, Sweep time = 2.5 ms.
For 99% Emission Bandwidth N-40 Mode: RBW= 1 MHz, VBW=3 MHz, Sweep time = 2.5 ms.
c. The bandwidth was performed in accordance with method 11.8.1 of ANSI C63.10-2013.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER TEST

6.1 LIMIT

FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm

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 11.9.1.3 and 11.9.2.3.1 of ANSI C63.10-2013.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP

6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. CONDUCTED SPURIOUS EMISSIONS

7.1 LIMIT

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

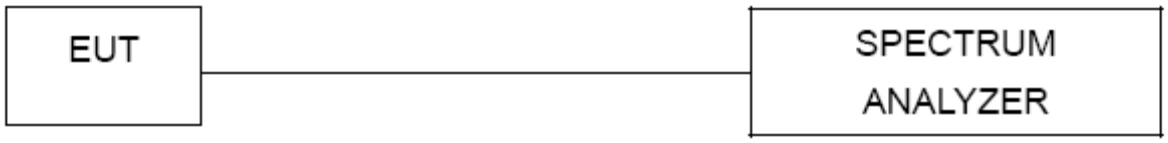
7.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. Spectrum Setting: RBW= 100 kHz, VBW=300 kHz, 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 TEST

8.1 LIMIT

FCC Part15, Subpart C (15.247)		
Section	Test Item	Limit
15.247(e)	Power Spectral Density	8 dBm (in any 3 kHz)

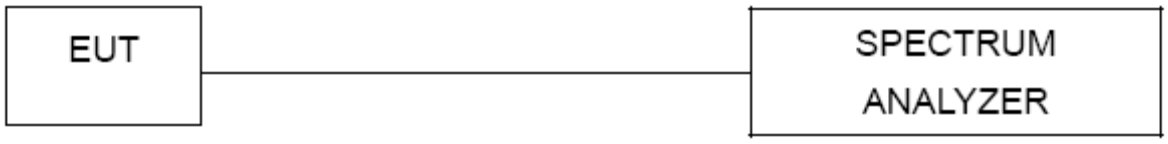
8.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. Spectrum Setting: RBW=3 kHz, VBW=10 kHz, Sweep time = Auto.
c. The Power Spectral Density was performed in accordance with method 11.10.2 of ANSI C63.10-2013.

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, 2021
2	LISN	EMCO	3816/2	52765	Mar. 01, 2021
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 28, 2021
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 01, 2021
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 10, 2021
7	643 Shield Room	ETS	6*4*3m	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	EM	EM-6876-1	230	Apr. 16, 2021
2	Cable	N/A	RG 213/U	N/A	May 29, 2021
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 28, 2021
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

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. 09, 2021
2*	Amplifier	HP	8447D	2944A09673	Aug. 11, 2021
3	Receiver	Agilent	N9038A	MY52130039	Jul. 25, 2021
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 22, 2021
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	May 12, 2021
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jul. 07, 2021
3	Amplifier	Agilent	8449B	3008A02333	Mar. 01, 2021
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 07, 2021
5	Receiver	Agilent	N9038A	MY52130039	Jul. 25, 2021
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	N/A	EMC104-SM-SM-6 000	N/A	May 09, 2021
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Filter	STI	STI15-9912	N/A	Jul. 25, 2021
11	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

Bandwidth & Antenna 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. 25, 2021
2	RF Cable	Tongkaichuan	N/A	N/A	N/A
3	DC Block	Mini	N/A	N/A	N/A
4	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 11, 2021

Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 07, 2021
2	Wideband power sensor	Keysight	N1923A	MY58310004	Jul. 25, 2021
3	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 11, 2021
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.

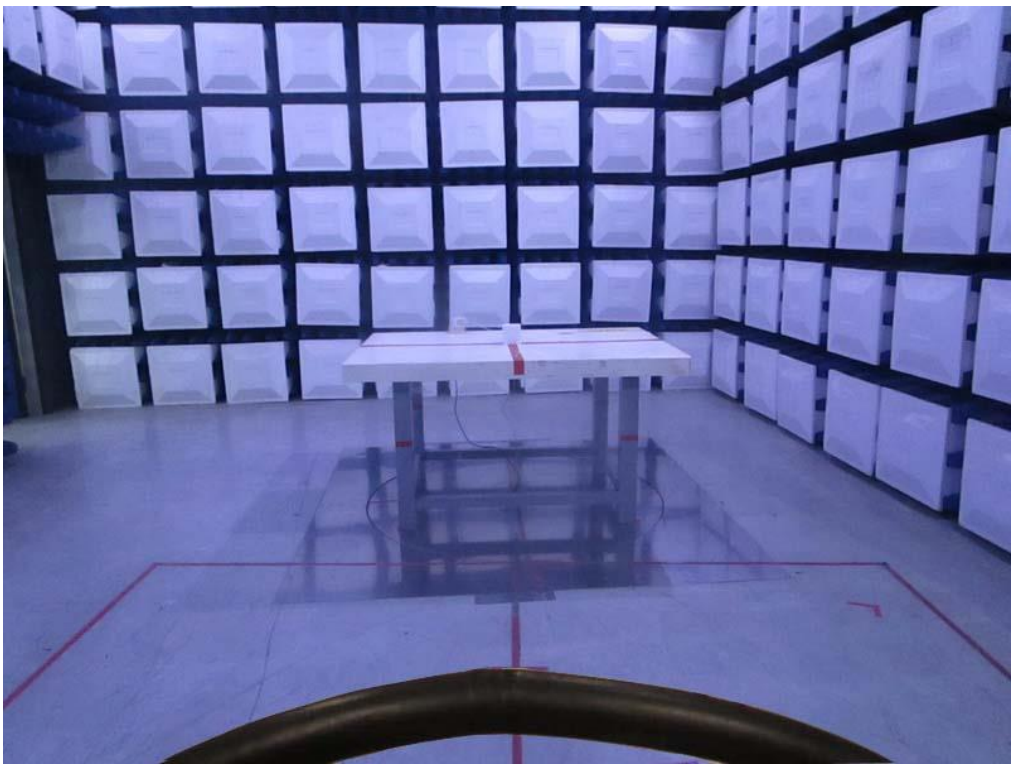
Except * item, all calibration period of equipment list is one year.

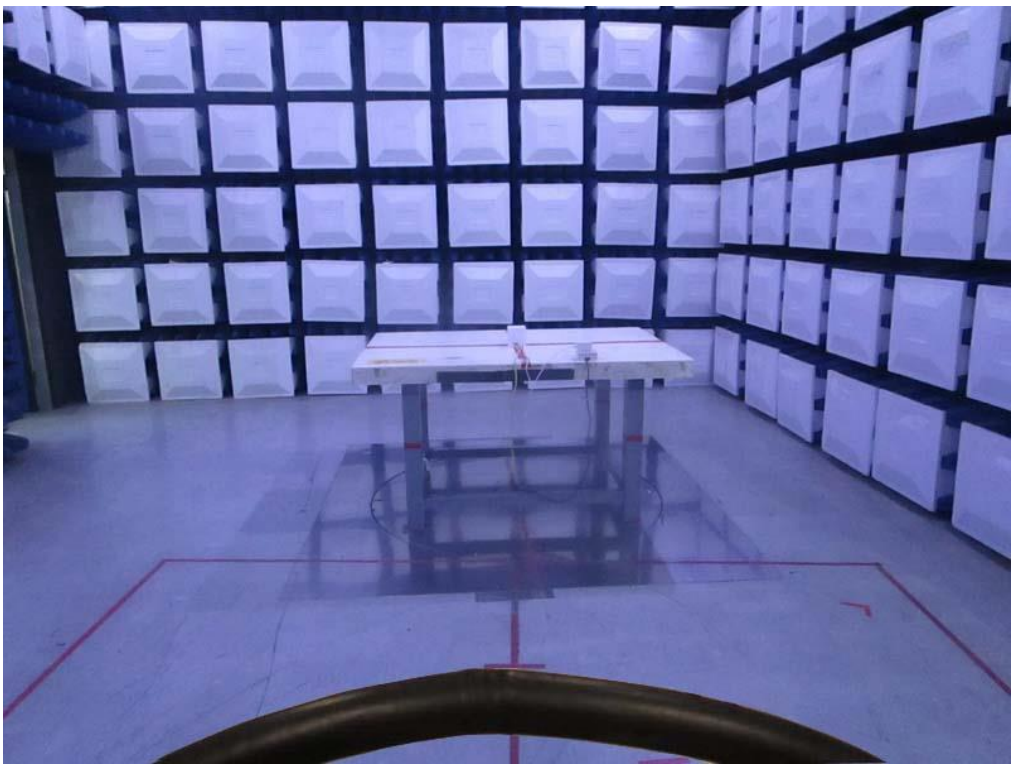
10. EUT TEST PHOTO

AC Power Line Conducted Emissions Test Photos

Radiated Emissions Test Photos

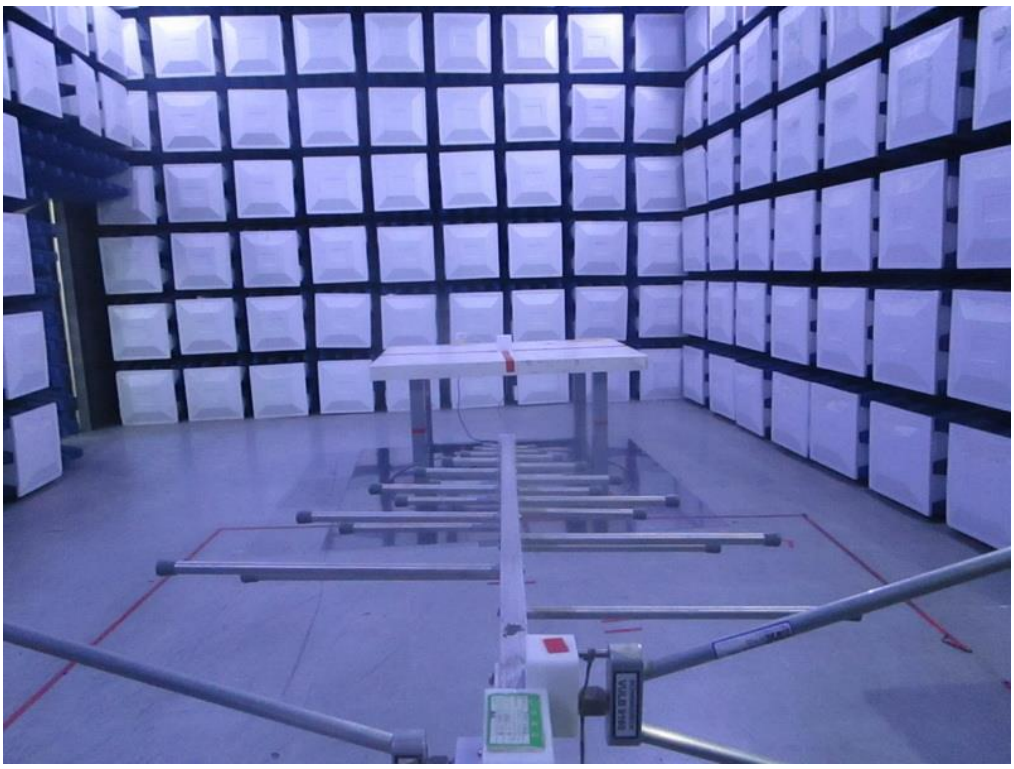
9 kHz to 30 MHz

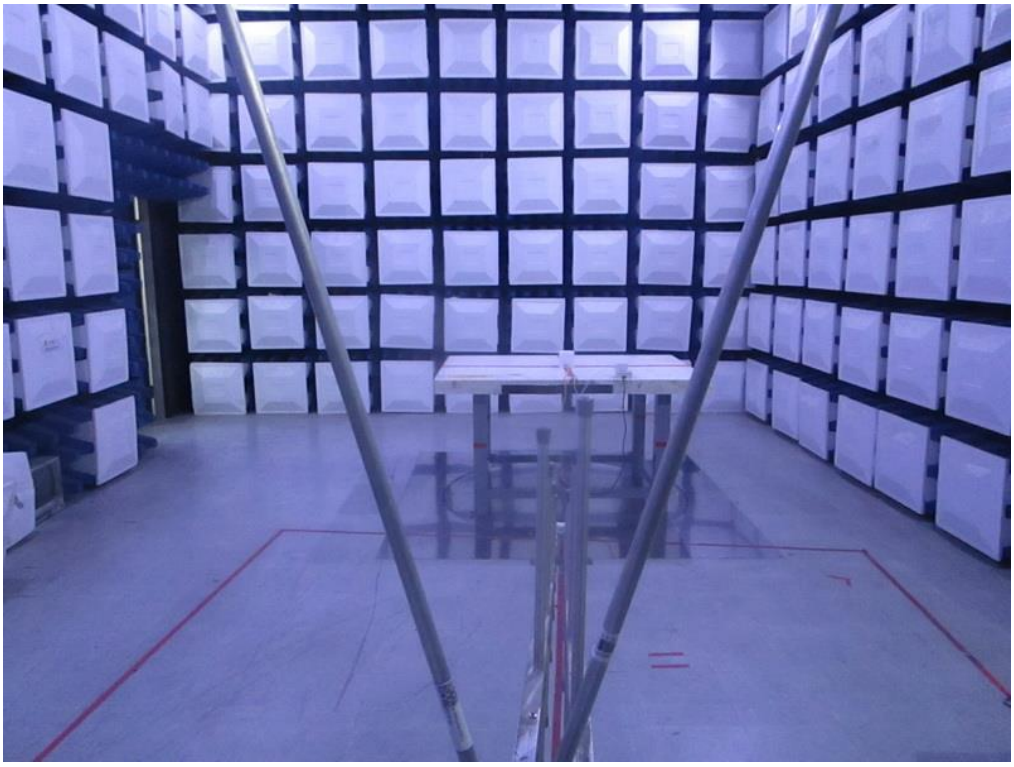




Radiated Emissions Test Photos

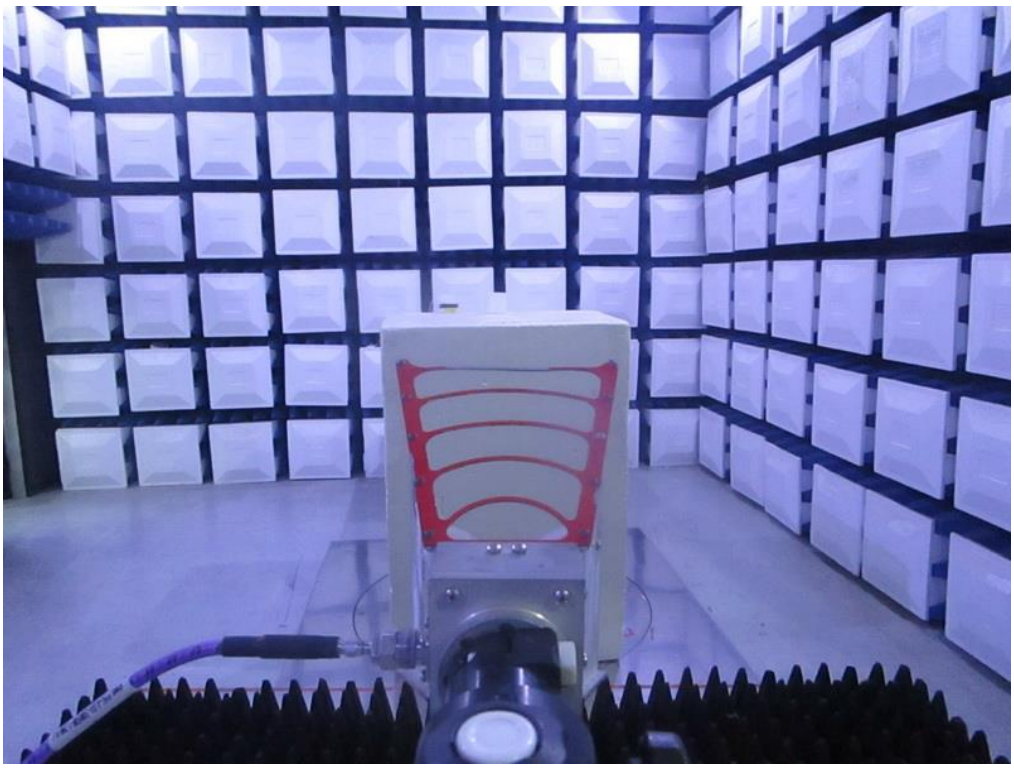
30 MHz to 1 GHz

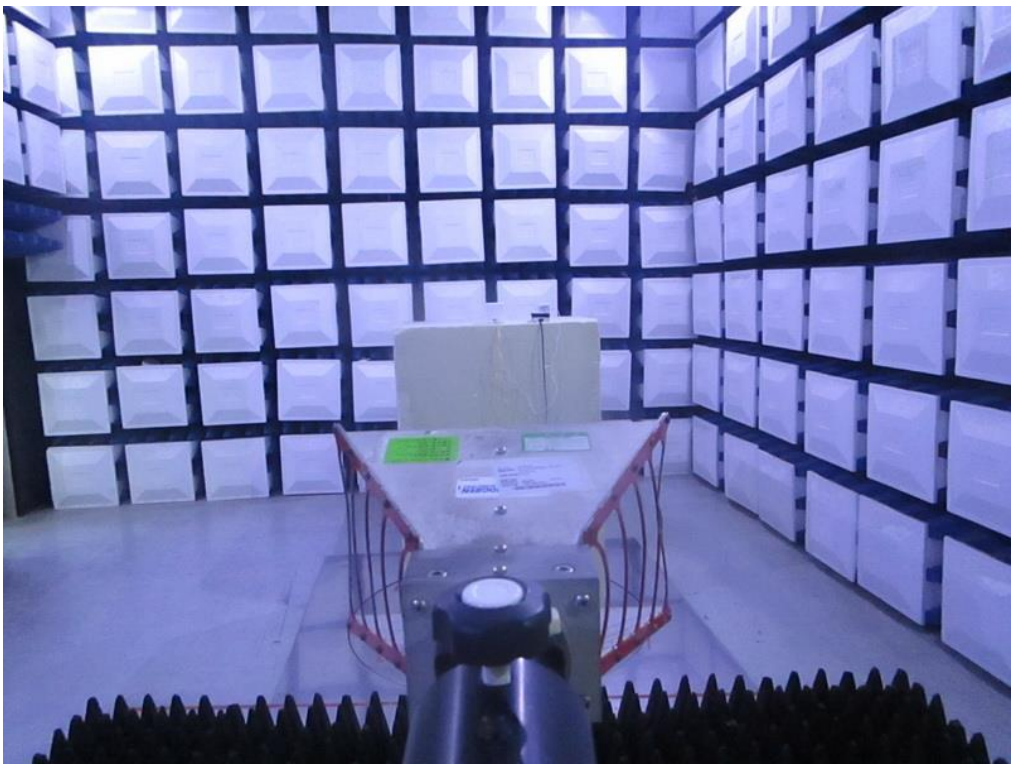




Radiated Emissions Test Photos

Above 1 GHz

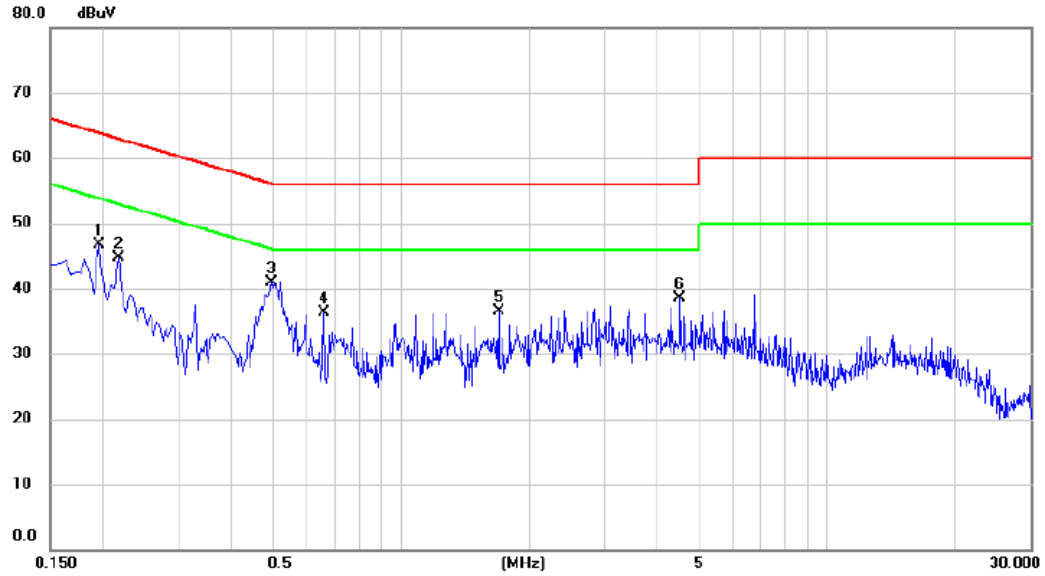




APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Voltage	AC 120V/60Hz
Test Mode	TX N40 Mode Channel 06

Line

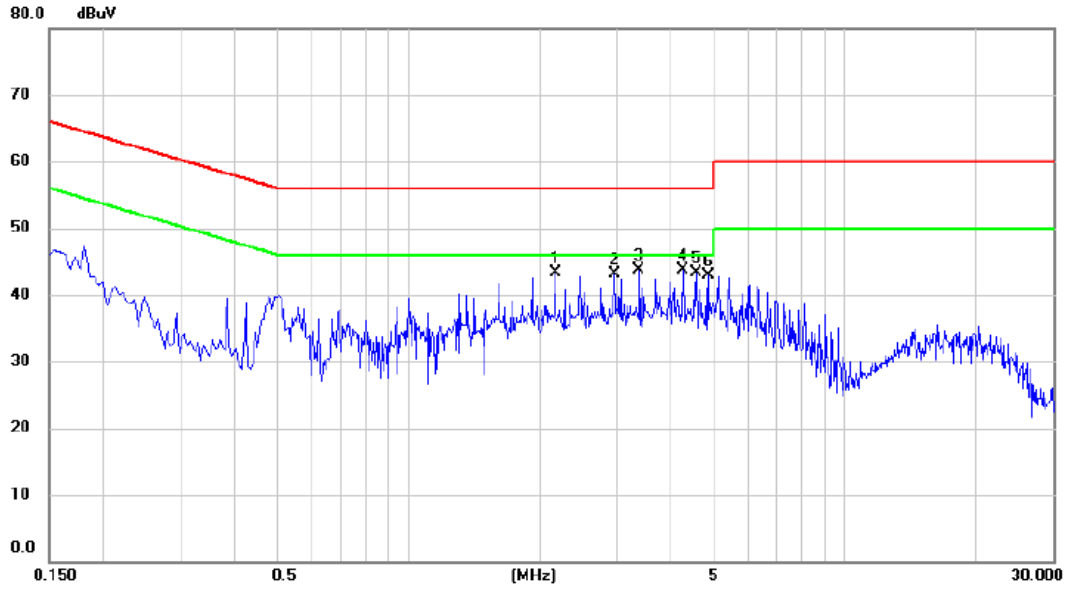


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1950	36.83	9.90	46.73	63.82	-17.09	peak	
2		0.2175	34.88	9.90	44.78	62.91	-18.13	peak	
3	*	0.4965	30.88	9.95	40.83	56.06	-15.23	peak	
4		0.6585	26.41	9.91	36.32	56.00	-19.68	peak	
5		1.6935	26.42	10.06	36.48	56.00	-19.52	peak	
6		4.5150	28.13	10.29	38.42	56.00	-17.58	peak	

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

Test Voltage	AC 120V/60Hz
Test Mode	TX N40 Mode Channel 06

Neutral

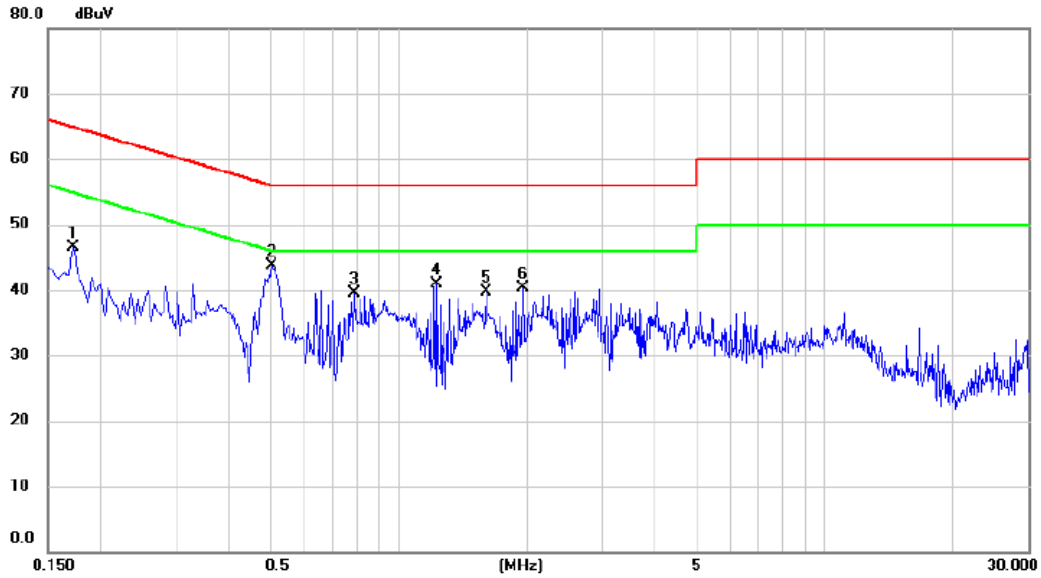


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		2.1750	32.80	10.43	43.23	56.00	-12.77	peak	
2		2.9760	32.66	10.52	43.18	56.00	-12.82	peak	
3	*	3.3720	33.21	10.54	43.75	56.00	-12.25	peak	
4		4.2675	33.06	10.61	43.67	56.00	-12.33	peak	
5		4.5645	32.70	10.63	43.33	56.00	-12.67	peak	
6		4.8660	32.23	10.65	42.88	56.00	-13.12	peak	

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

Test Voltage	AC 240V/50Hz
Test Mode	TX N40 Mode Channel 06

Line

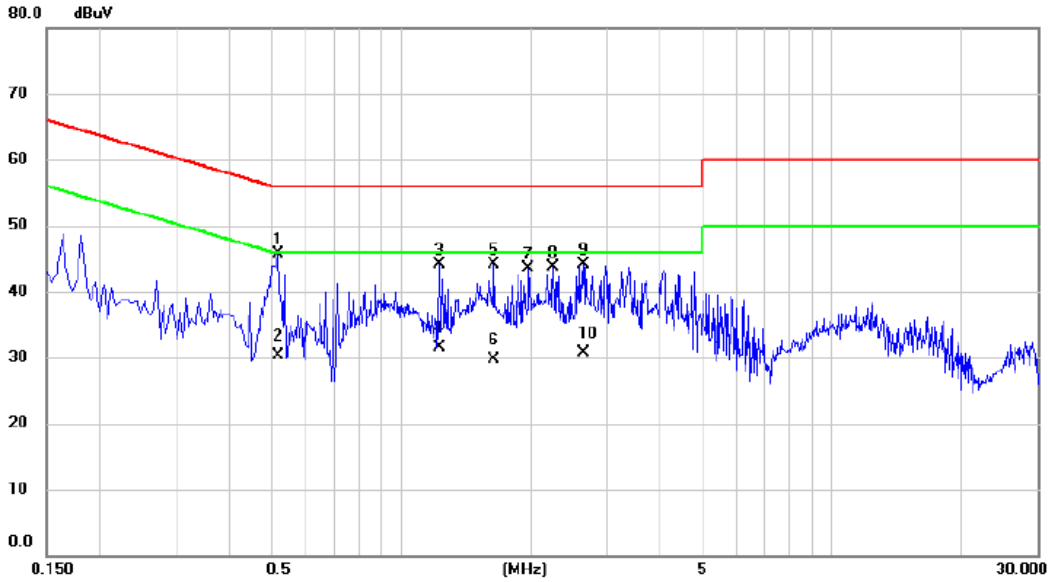


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1725	36.64	9.83	46.47	64.84	-18.37	peak	
2	*	0.5055	33.71	9.95	43.66	56.00	-12.34	peak	
3		0.7845	29.54	9.96	39.50	56.00	-16.50	peak	
4		1.2300	30.83	10.03	40.86	56.00	-15.14	peak	
5		1.6080	29.68	10.05	39.73	56.00	-16.27	peak	
6		1.9590	30.16	10.09	40.25	56.00	-15.75	peak	

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

Test Voltage	AC 240V/50Hz
Test Mode	TX N40 Mode Channel 06

Neutral



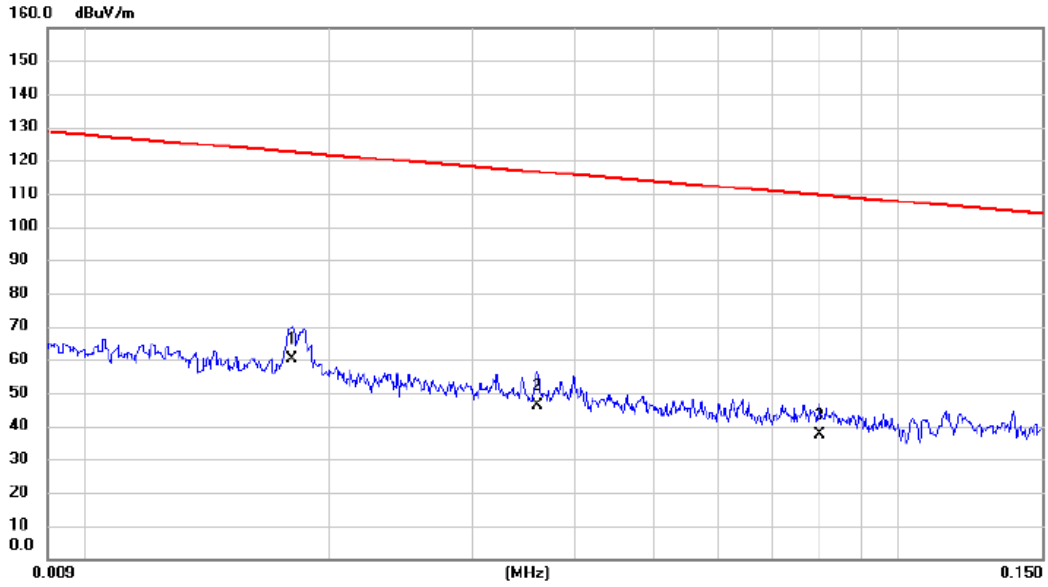
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.5190	35.54	10.15	45.69	56.00	-10.31	peak	
2		0.5190	20.20	10.15	30.35	46.00	-15.65	AVG	
3		1.2255	33.68	10.33	44.01	56.00	-11.99	peak	
4		1.2255	21.20	10.33	31.53	46.00	-14.47	AVG	
5		1.6395	33.65	10.38	44.03	56.00	-11.97	peak	
6		1.6395	19.40	10.38	29.78	46.00	-16.22	AVG	
7		1.9725	33.10	10.42	43.52	56.00	-12.48	peak	
8		2.2605	33.25	10.45	43.70	56.00	-12.30	peak	
9		2.6475	33.60	10.49	44.09	56.00	-11.91	peak	
10		2.6475	20.30	10.49	30.79	46.00	-15.21	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 N40 Mode Channel 06

Ant 0°

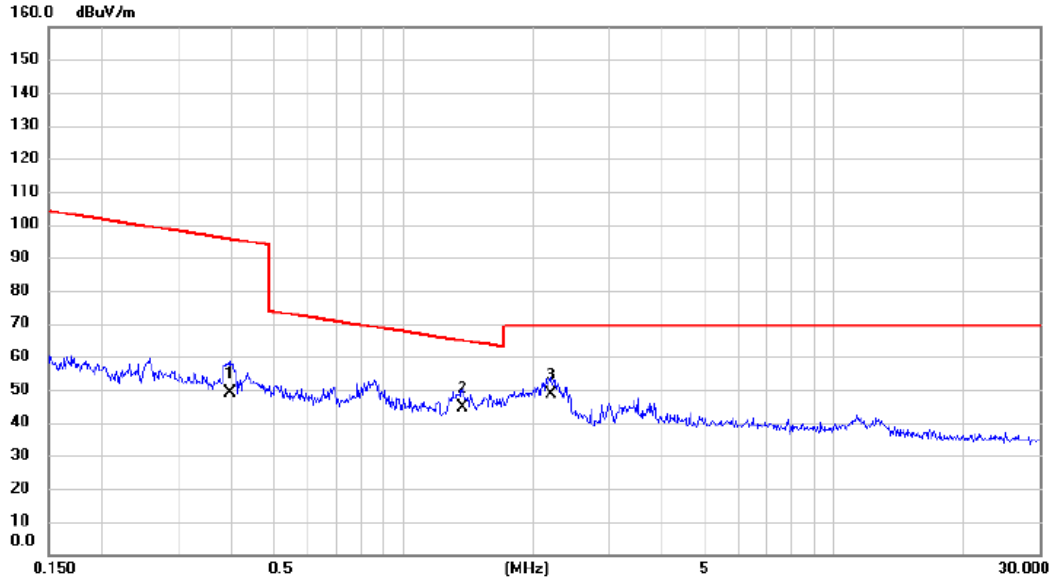


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0180	46.31	13.84	60.15	122.50	-62.35	AVG	
2		0.0360	33.59	12.79	46.38	116.48	-70.10	AVG	
3		0.0800	24.80	12.60	37.40	109.54	-72.14	AVG	

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

Test Mode:	TX N40 Mode Channel 06

Ant 0°

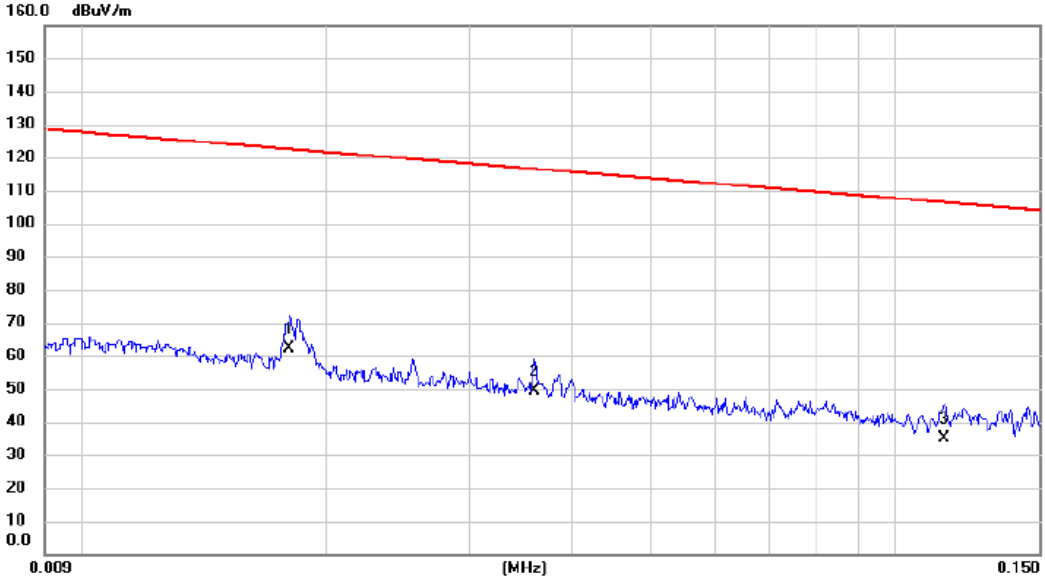


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.3976	36.54	12.27	48.81	95.62	-46.81	AVG	
2	*	1.3738	33.16	11.62	44.78	64.85	-20.07	QP	
3		2.2015	37.21	11.20	48.41	69.54	-21.13	QP	

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

Test Mode:	TX N40 Mode Channel 06

Ant 90°

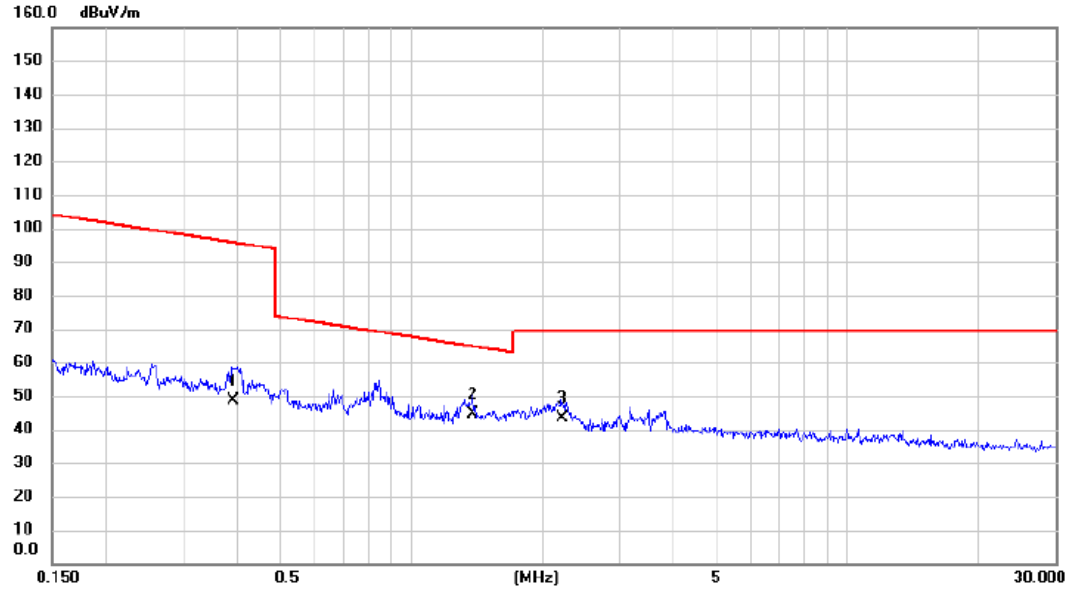


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0180	48.20	13.84	62.04	122.50	-60.46	AVG	
2		0.0360	36.49	12.79	49.28	116.48	-67.20	AVG	
3		0.1148	22.19	12.73	34.92	106.41	-71.49	AVG	

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

Test Mode:	TX N40 Mode Channel 06

Ant 90°



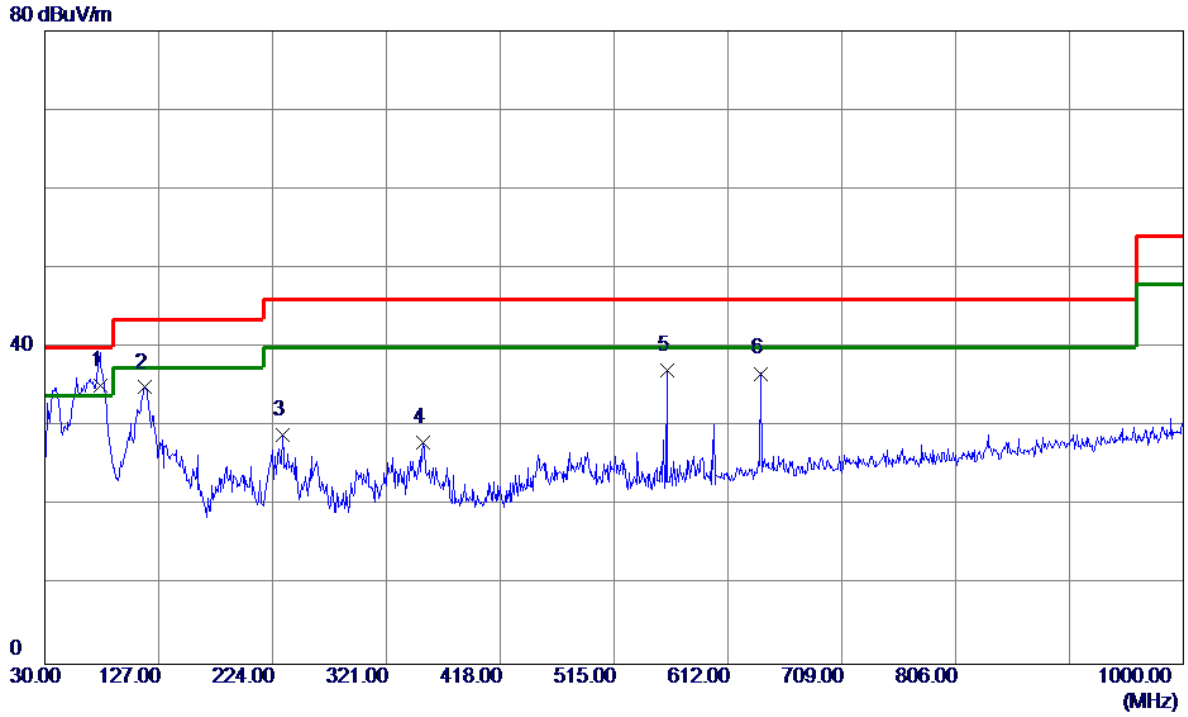
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.3893	36.37	12.29	48.66	95.80	-47.14	AVG	
2	*	1.3810	33.10	11.61	44.71	64.80	-20.09	QP	
3		2.2132	32.28	11.19	43.47	69.54	-26.07	QP	

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 N40 Mode Channel 06

Vertical

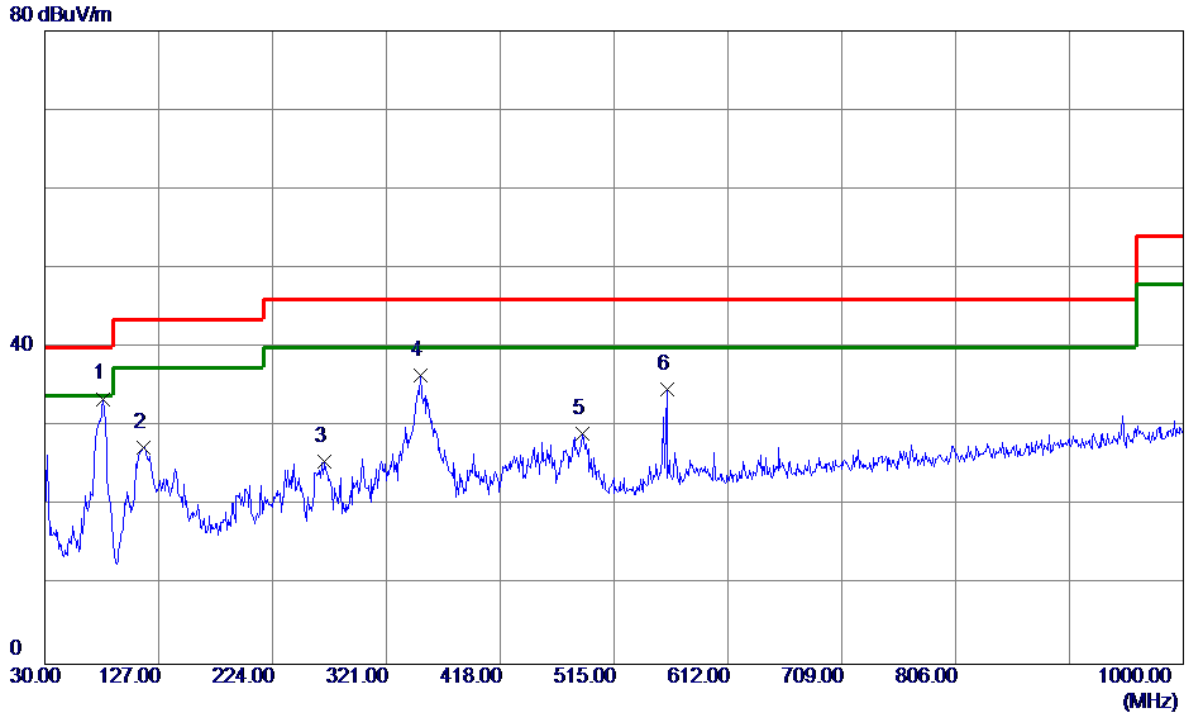


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	77.0450	52.38	-17.20	35.18	40.00	-4.82	QP	
2	115.3600	48.39	-13.43	34.96	43.50	-8.54	Peak	
3	232.2450	42.76	-13.80	28.96	46.00	-17.04	Peak	
4	352.5250	38.12	-10.14	27.98	46.00	-18.02	Peak	
5	560.1050	43.63	-6.51	37.12	46.00	-8.88	Peak	
6	640.1300	41.20	-4.48	36.72	46.00	-9.28	Peak	

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

Test Mode:	TX N40 Mode Channel 06

Horizontal



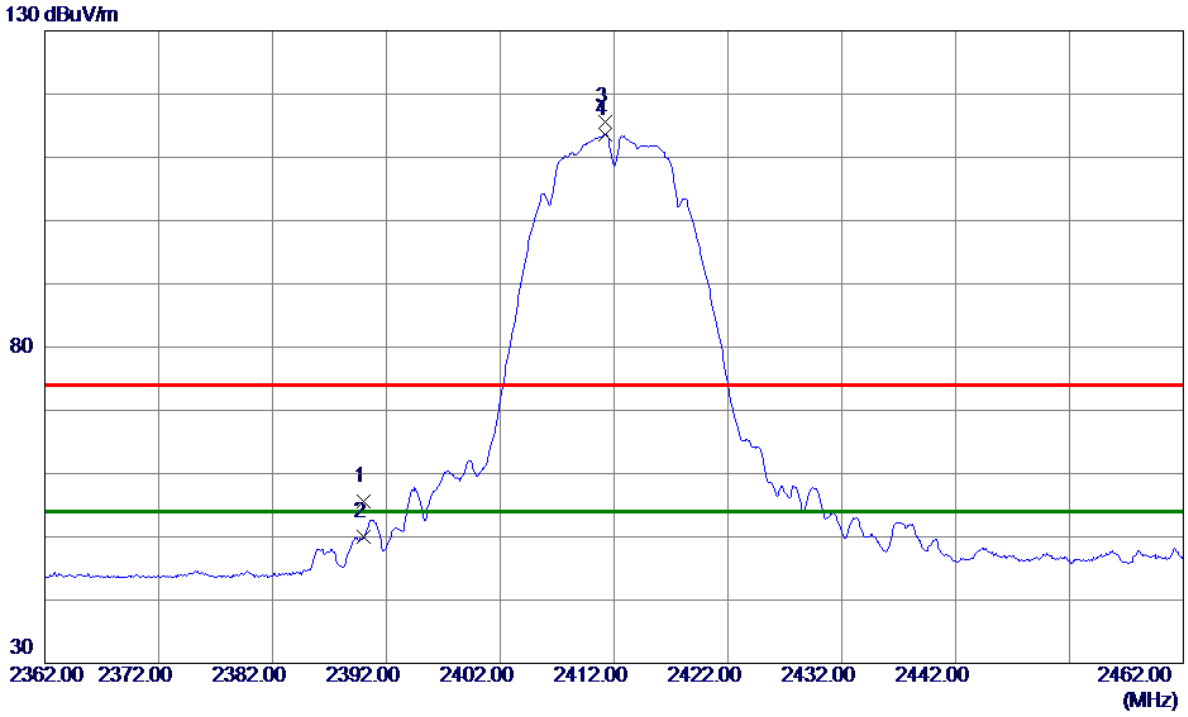
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	79.4700	51.13	-17.61	33.52	40.00	-6.48	Peak	
2	113.9050	41.06	-13.65	27.41	43.50	-16.09	Peak	
3	268.6200	38.15	-12.58	25.57	46.00	-20.43	Peak	
4	350.5850	46.69	-10.19	36.50	46.00	-9.50	Peak	
5	487.8400	36.45	-7.35	29.10	46.00	-16.90	Peak	
6	560.1050	41.23	-6.51	34.72	46.00	-11.28	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

Vertical

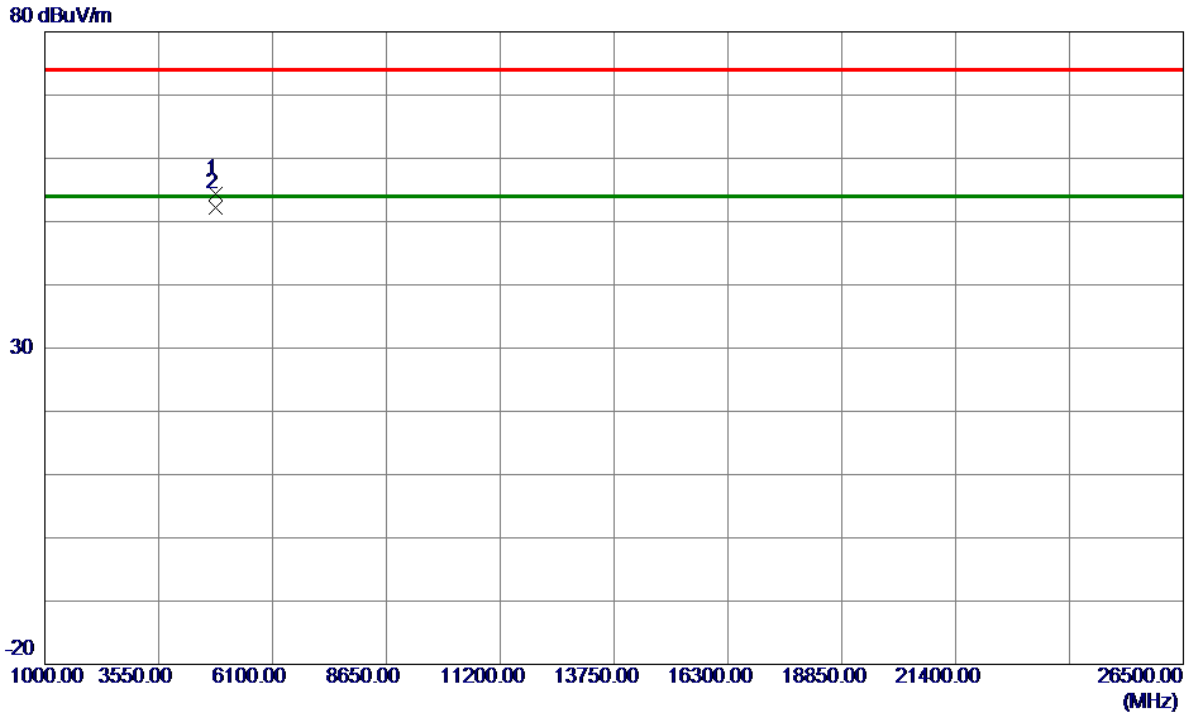


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	48.40	7.26	55.66	74.00	-18.34	Peak	
2	2390.0000	42.71	7.26	49.97	54.00	-4.03	AVG	
3	2411.2000	108.25	7.26	115.51	74.00	41.51	Peak	No Limit
4 *	2411.2000	106.41	7.26	113.67	54.00	59.67	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

Vertical

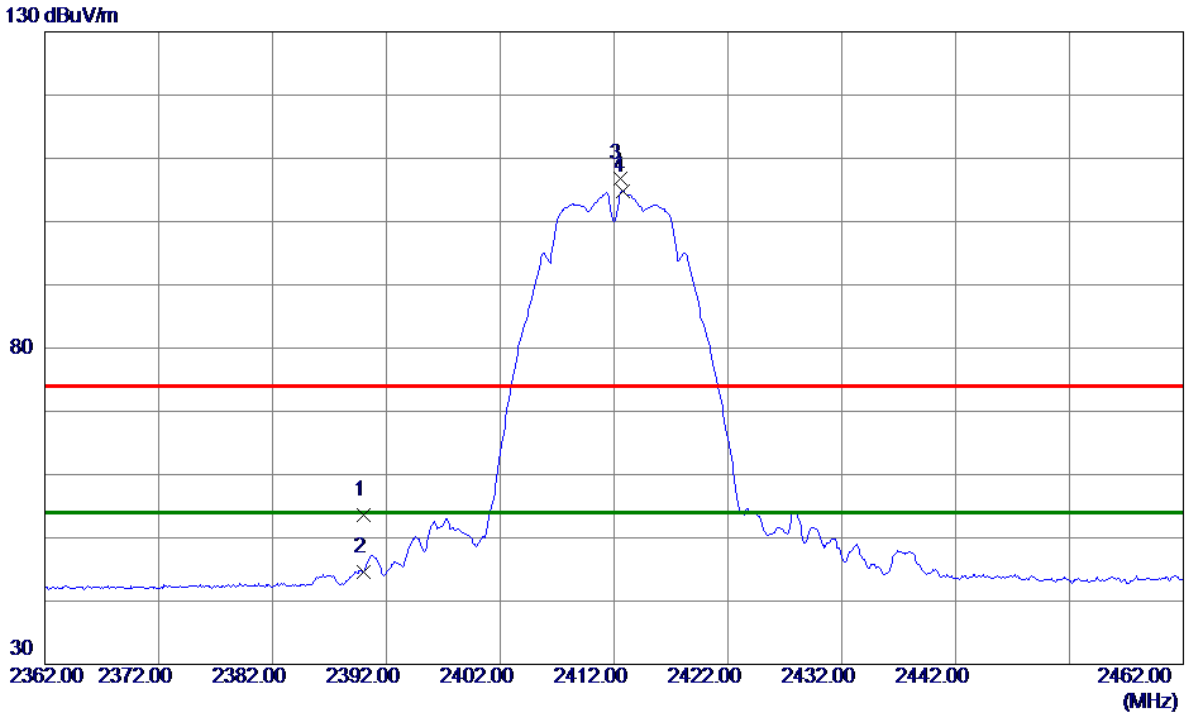


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.9750	50.03	4.45	54.48	74.00	-19.52	Peak	
2 *	4824.0480	47.70	4.45	52.15	54.00	-1.85	AVG	

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

Test Mode:	TX B Mode 2412 MHz

Horizontal

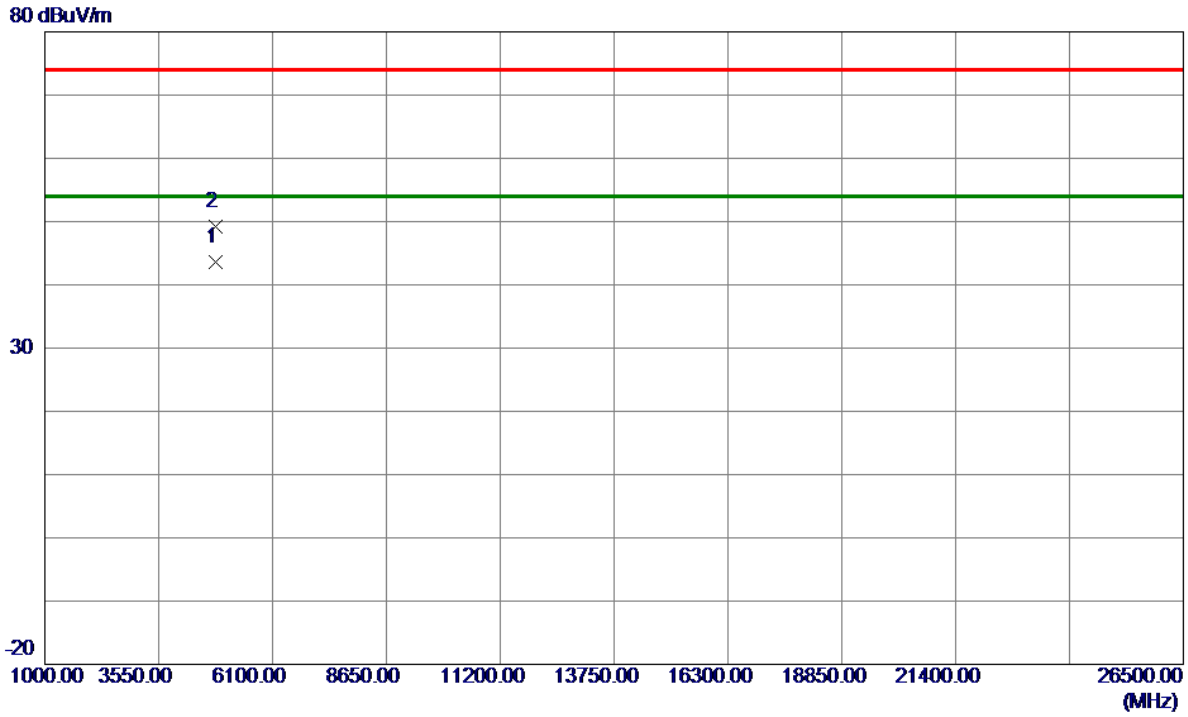


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	46.41	7.26	53.67	74.00	-20.33	Peak	
2	2390.0000	37.28	7.26	44.54	54.00	-9.46	AVG	
3	2412.5000	99.50	7.26	106.76	74.00	32.76	Peak	No Limit
4 *	2412.8000	97.53	7.26	104.79	54.00	50.79	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

Horizontal

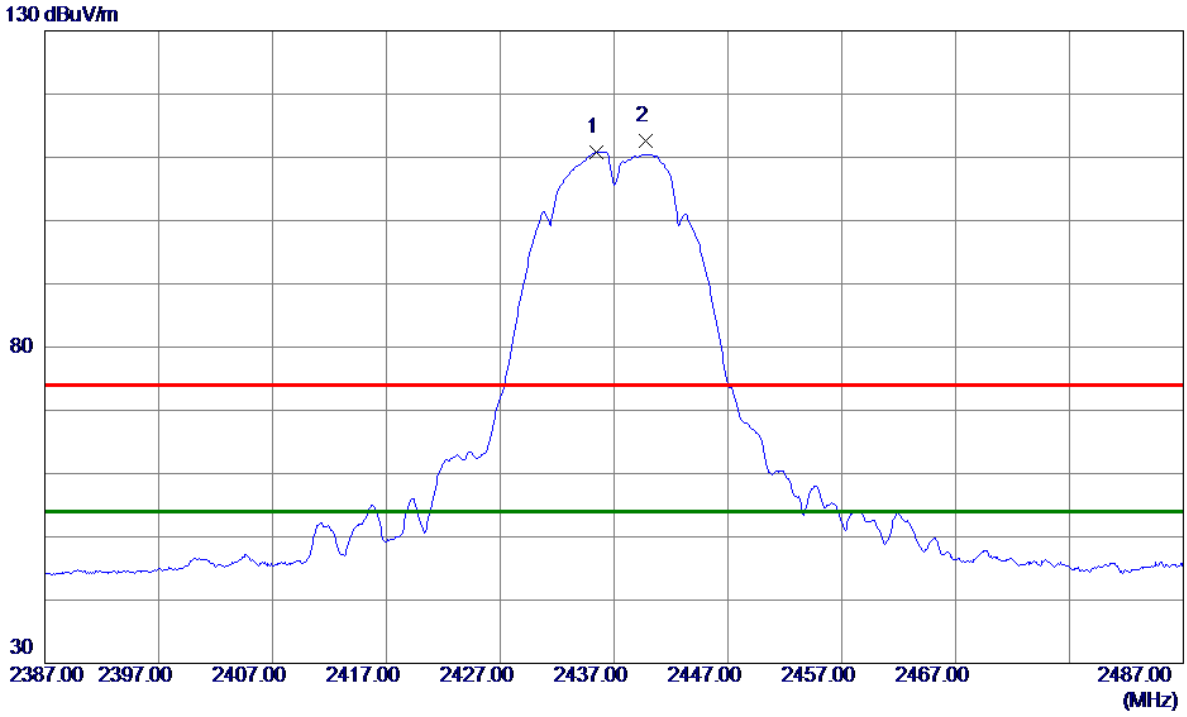


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4824.0350	39.17	4.45	43.62	54.00	-10.38	AVG	
2	4824.0930	44.73	4.45	49.18	74.00	-24.82	Peak	

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

Test Mode:	TX B Mode 2437 MHz

Vertical

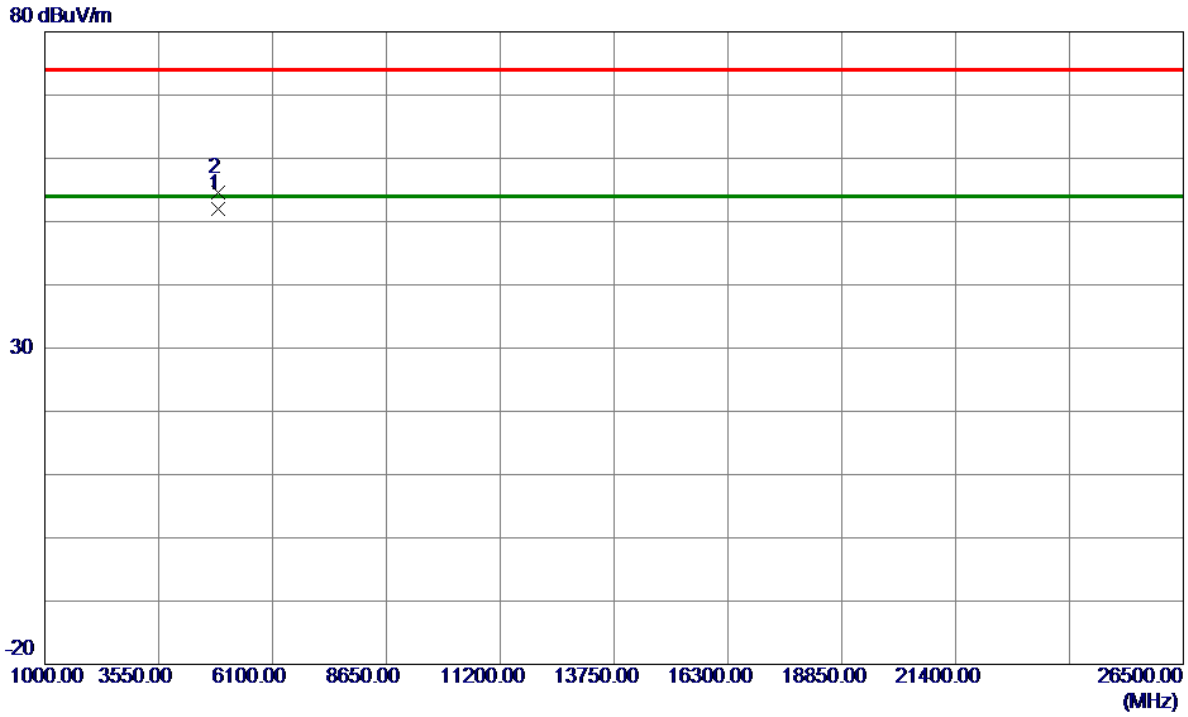


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2435.4000	103.60	7.25	110.85	54.00	56.85	AVG	No Limit
2	2439.8000	105.28	7.25	112.53	74.00	38.53	Peak	No Limit

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

Test Mode:	TX B Mode 2437 MHz

Vertical

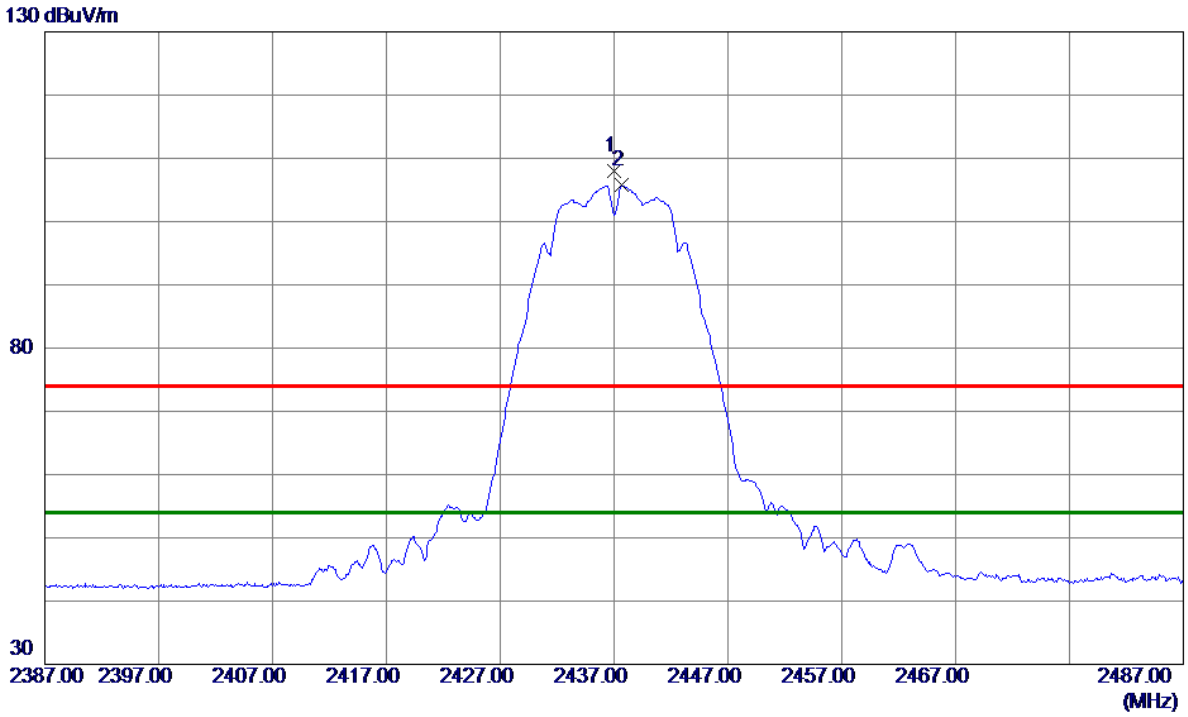


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874.0510	47.44	4.58	52.02	54.00	-1.98	AVG	
2	4874.0790	49.95	4.58	54.53	74.00	-19.47	Peak	

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

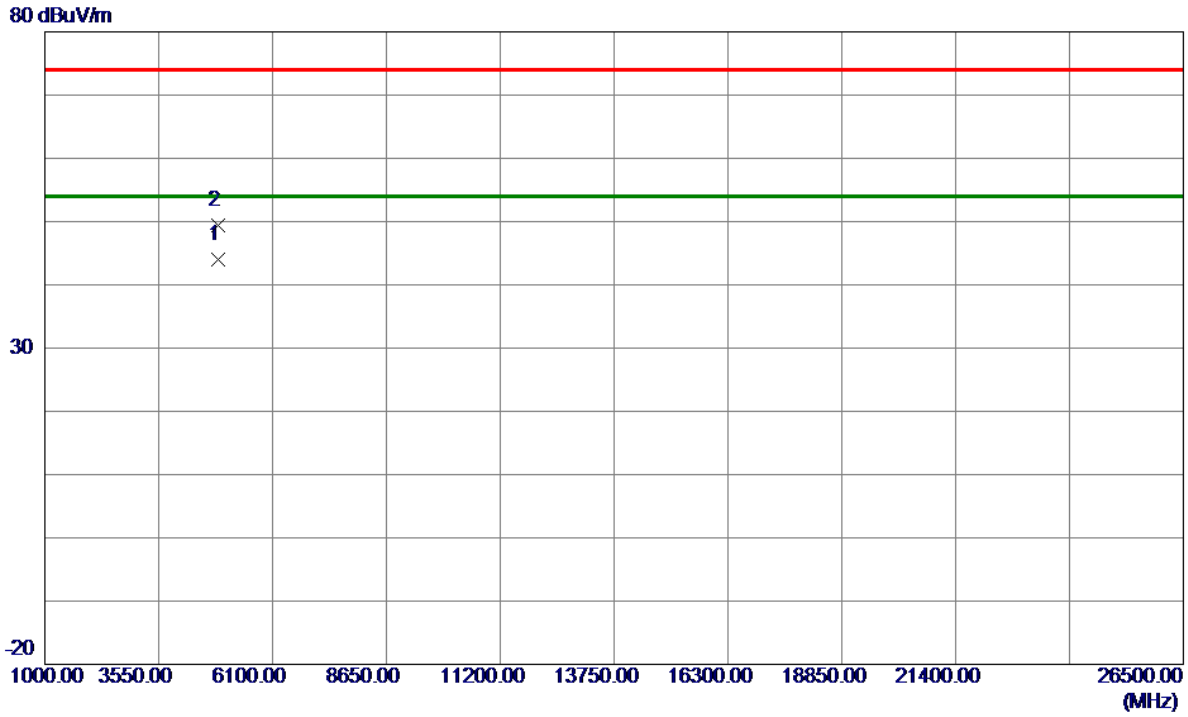


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2437.0000	100.70	7.25	107.95	74.00	33.95	Peak	No Limit
2 *	2437.7000	98.46	7.25	105.71	54.00	51.71	AVG	No Limit

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

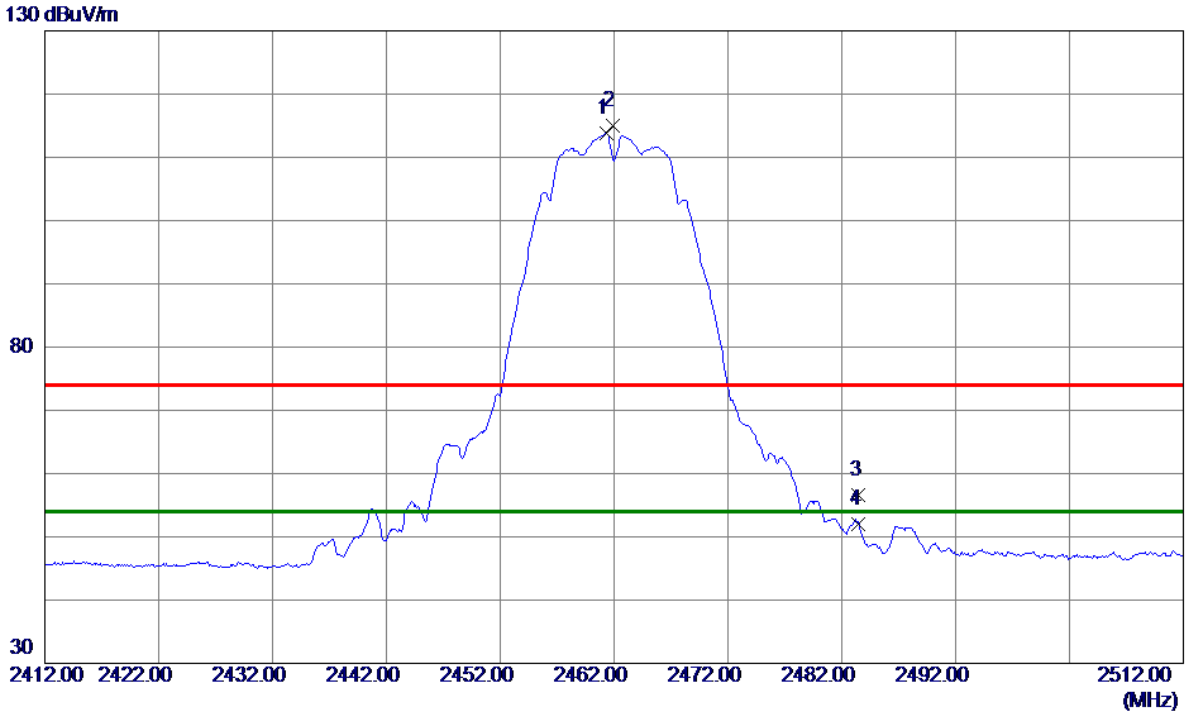


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874.0530	39.38	4.58	43.96	54.00	-10.04	AVG	
2	4874.0760	44.76	4.58	49.34	74.00	-24.66	Peak	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

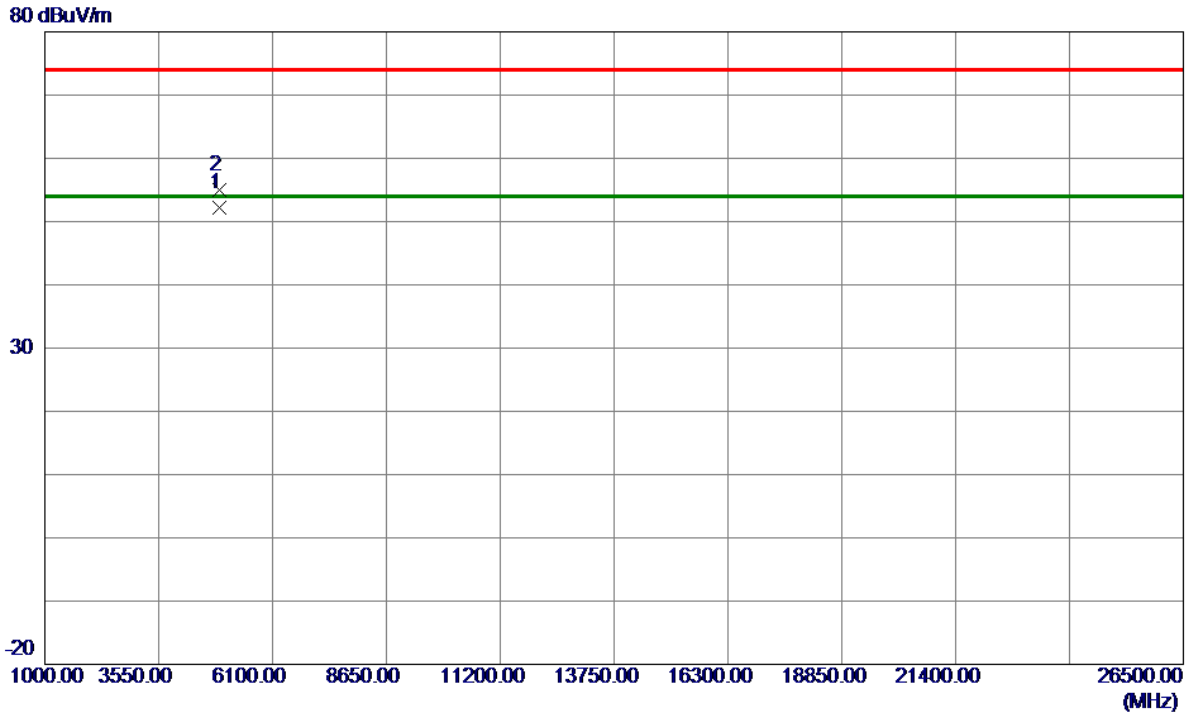


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461.3000	106.54	7.25	113.79	54.00	59.79	AVG	No Limit
2	2461.9000	107.66	7.25	114.91	74.00	40.91	Peak	No Limit
3	2483.5000	49.26	7.25	56.51	74.00	-17.49	Peak	
4	2483.5000	44.81	7.25	52.06	54.00	-1.94	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

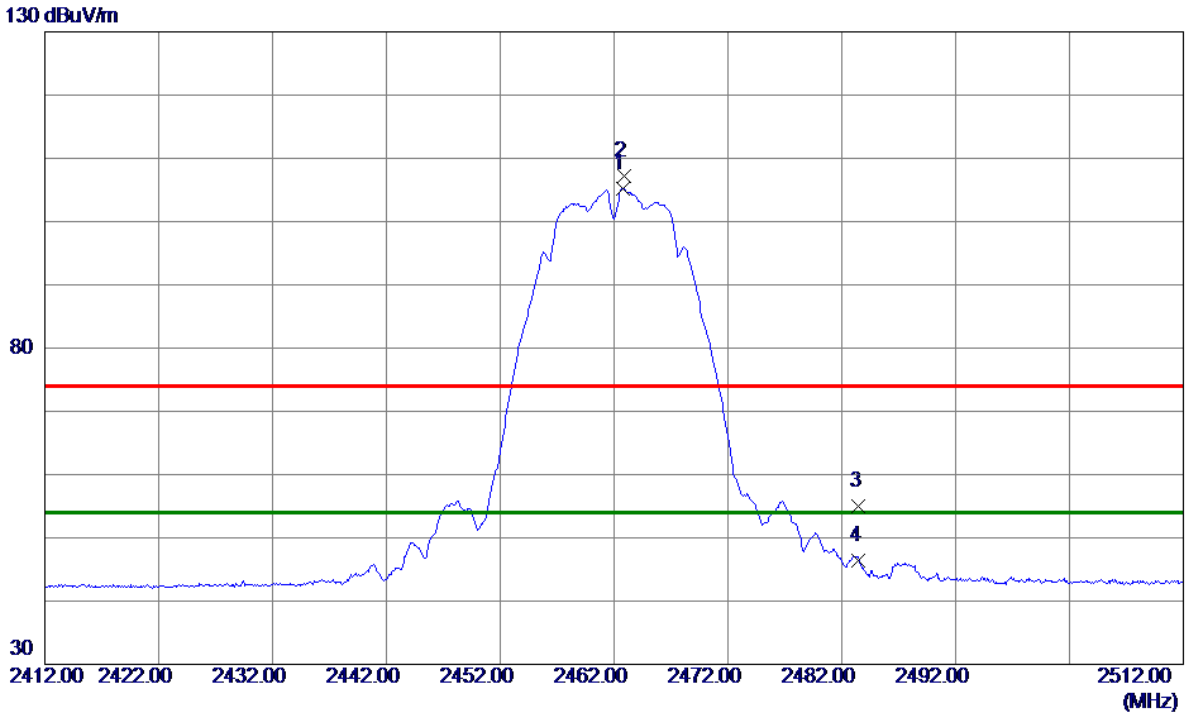


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924.0390	47.54	4.72	52.26	54.00	-1.74	AVG	
2	4924.0710	50.27	4.72	54.99	74.00	-19.01	Peak	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

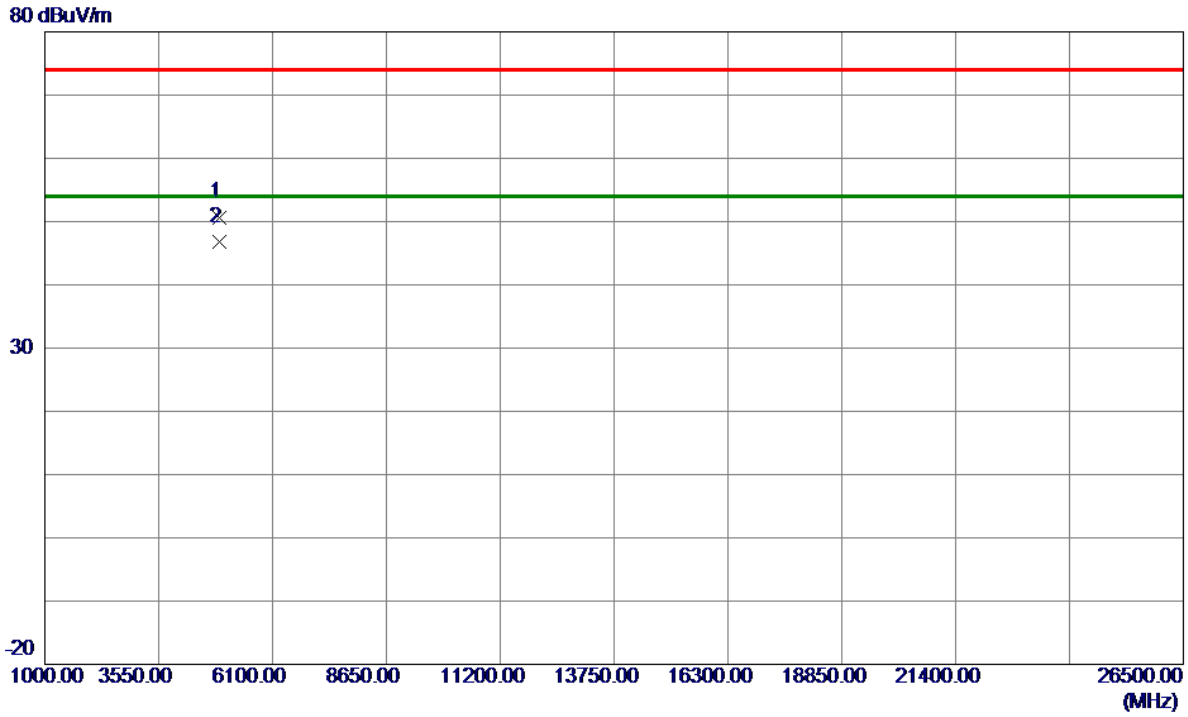


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2462.8000	98.01	7.25	105.26	54.00	51.26	AVG	No Limit
2	2462.9000	100.01	7.25	107.26	74.00	33.26	Peak	No Limit
3	2483.5000	47.76	7.25	55.01	74.00	-18.99	Peak	
4	2483.5000	39.08	7.25	46.33	54.00	-7.67	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

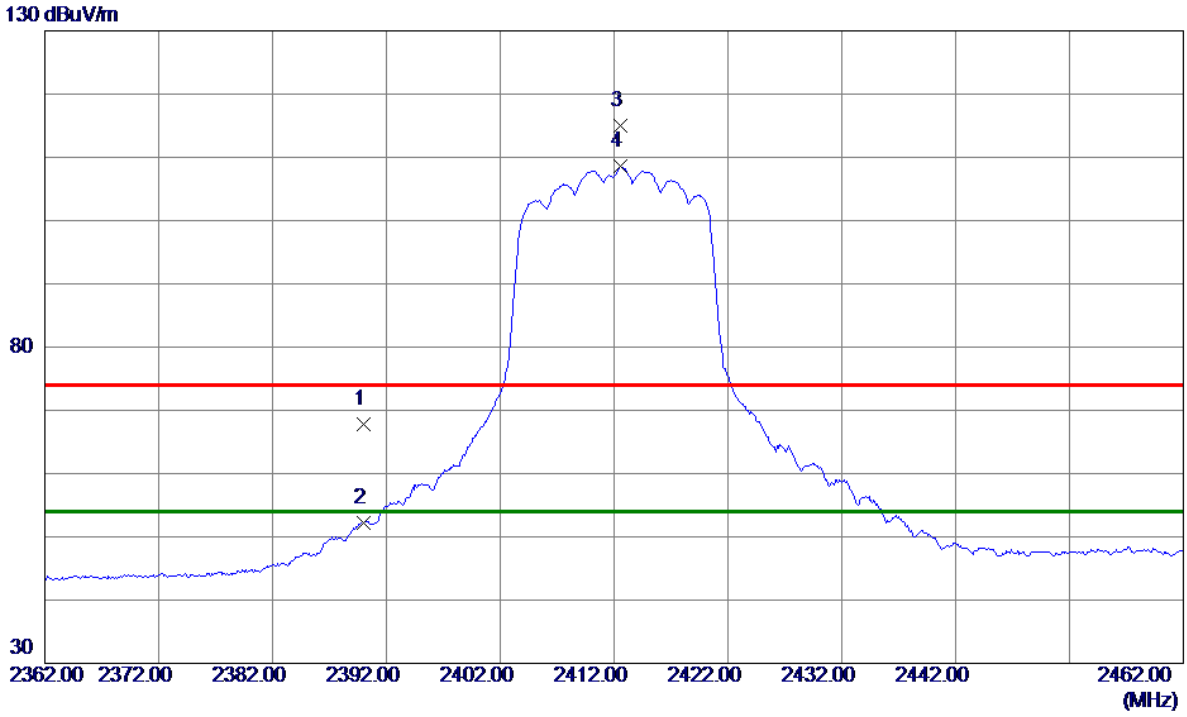


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.0270	45.98	4.72	50.70	74.00	-23.30	Peak	
2 *	4924.0630	42.09	4.72	46.81	54.00	-7.19	AVG	

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

Test Mode:	TX G Mode 2412 MHz

Vertical

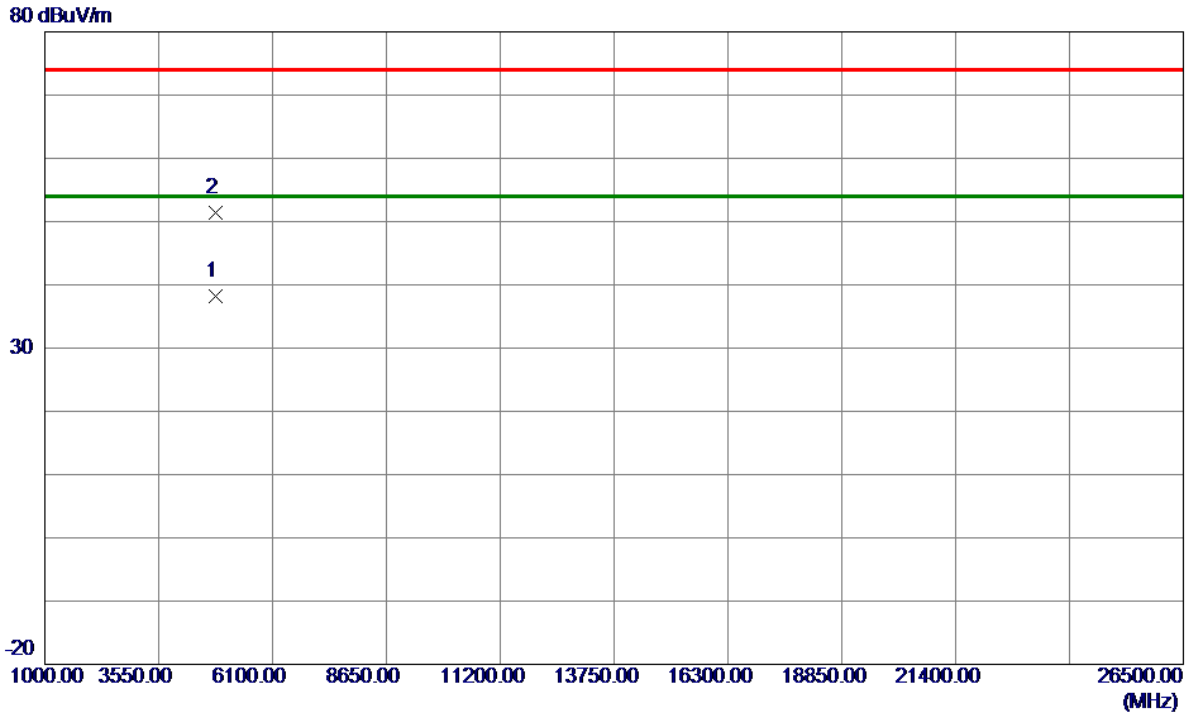


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	60.57	7.26	67.83	74.00	-6.17	Peak	
2	2390.0000	45.02	7.26	52.28	54.00	-1.72	AVG	
3	2412.6000	107.73	7.26	114.99	74.00	40.99	Peak	No Limit
4 *	2412.6000	101.29	7.26	108.55	54.00	54.55	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

Vertical

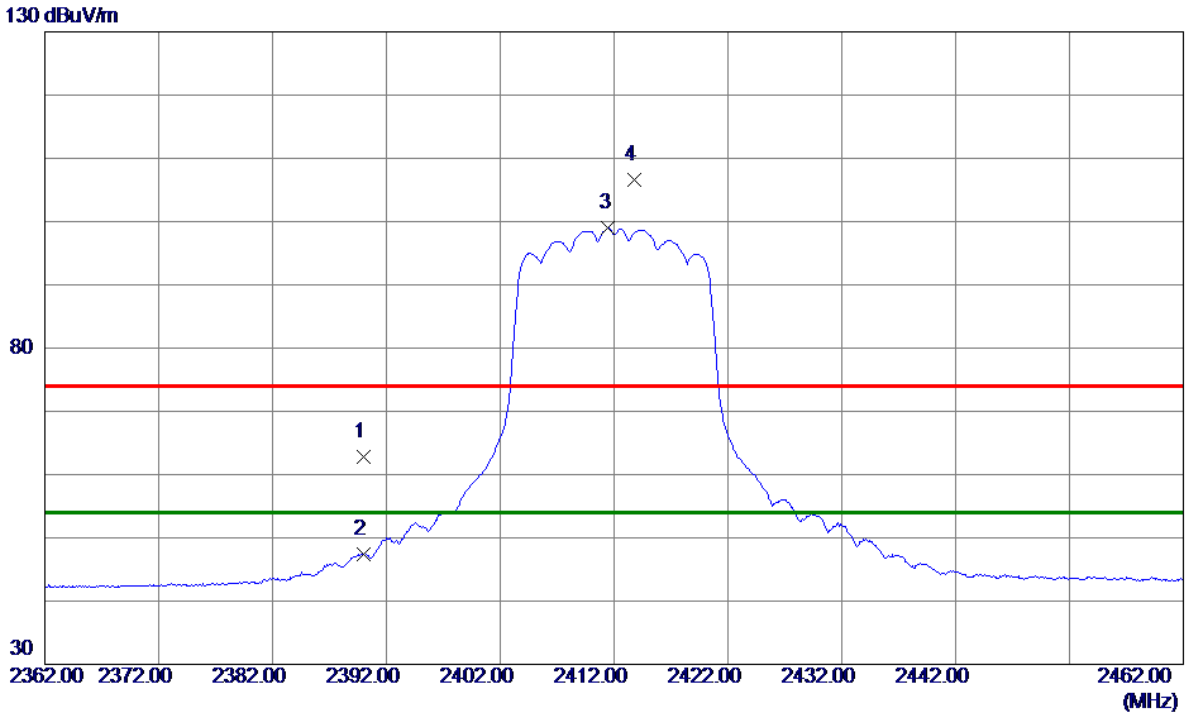


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.5070	33.67	4.45	38.12	54.00	-15.88	AVG	
2	4823.5150	46.98	4.45	51.43	74.00	-22.57	Peak	

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

Test Mode:	TX G Mode 2412 MHz

Horizontal

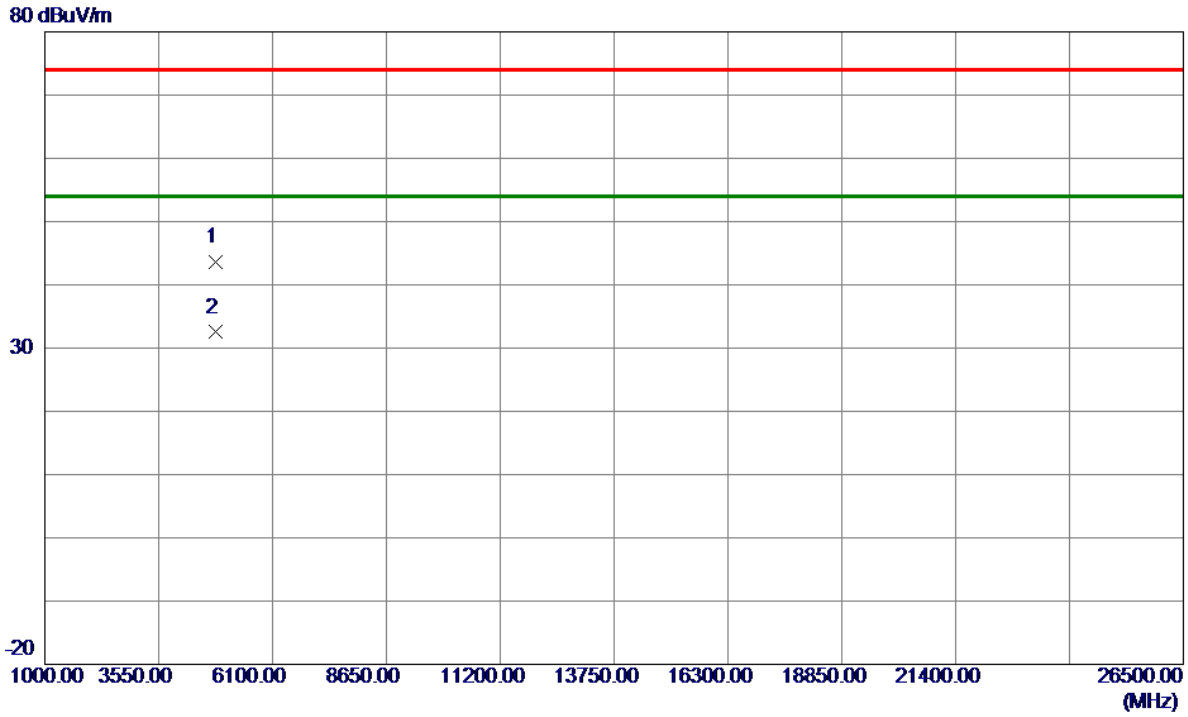


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	55.53	7.26	62.79	74.00	-11.21	Peak	
2	2390.0000	40.12	7.26	47.38	54.00	-6.62	AVG	
3 *	2411.5000	91.76	7.26	99.02	54.00	45.02	AVG	No Limit
4	2413.8000	99.40	7.26	106.66	74.00	32.66	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

Horizontal

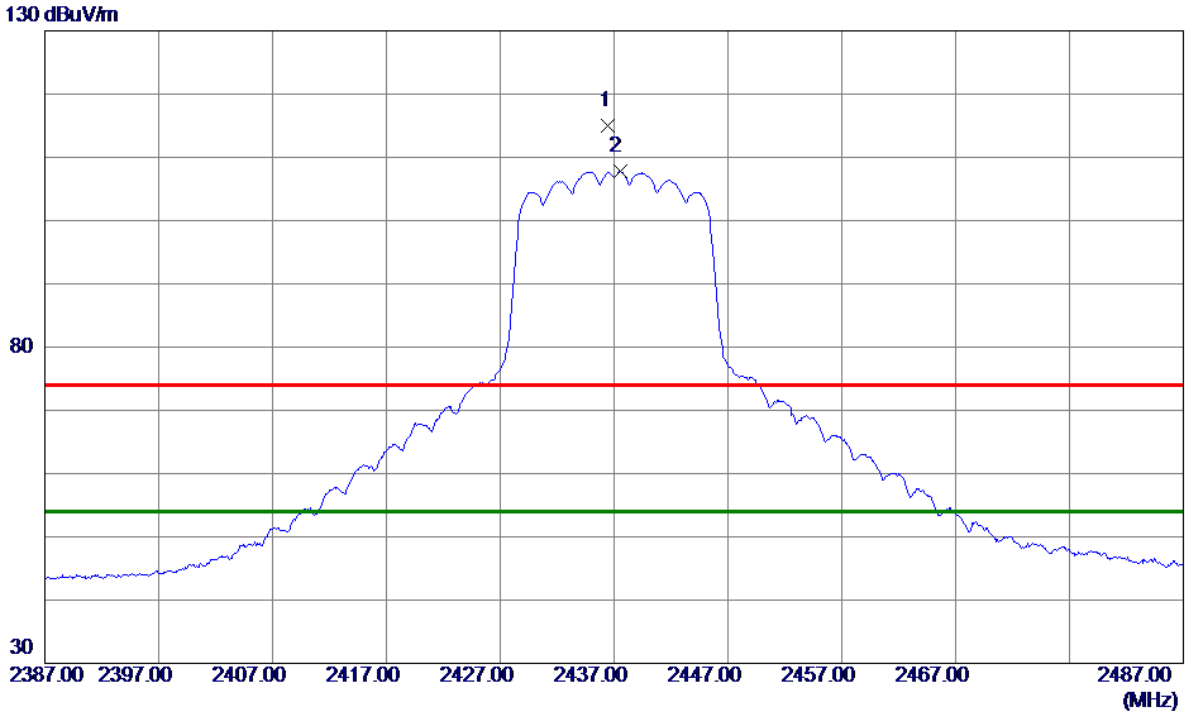


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0270	39.21	4.45	43.66	74.00	-30.34	Peak	
2 *	4824.3370	28.05	4.45	32.50	54.00	-21.50	AVG	

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

Test Mode:	TX G Mode 2437 MHz

Vertical

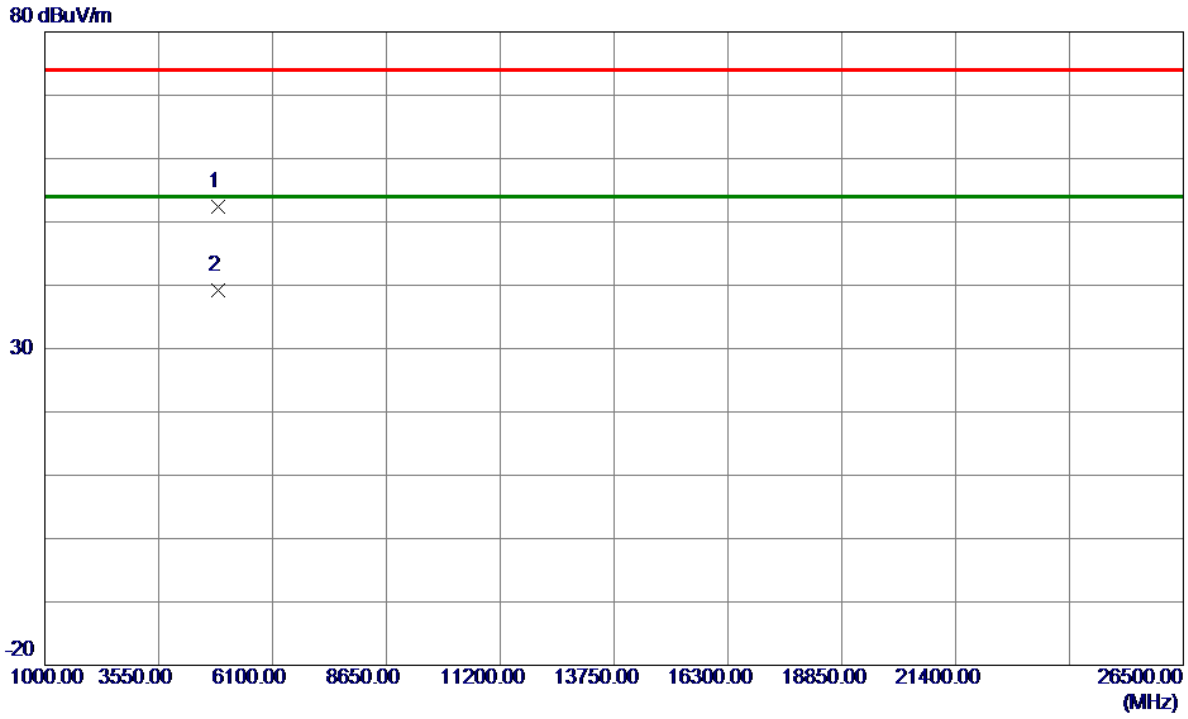


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2436.5000	107.78	7.25	115.03	74.00	41.03	Peak	No Limit
2 *	2437.5000	100.53	7.25	107.78	54.00	53.78	AVG	No Limit

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

Test Mode:	TX G Mode 2437 MHz

Vertical

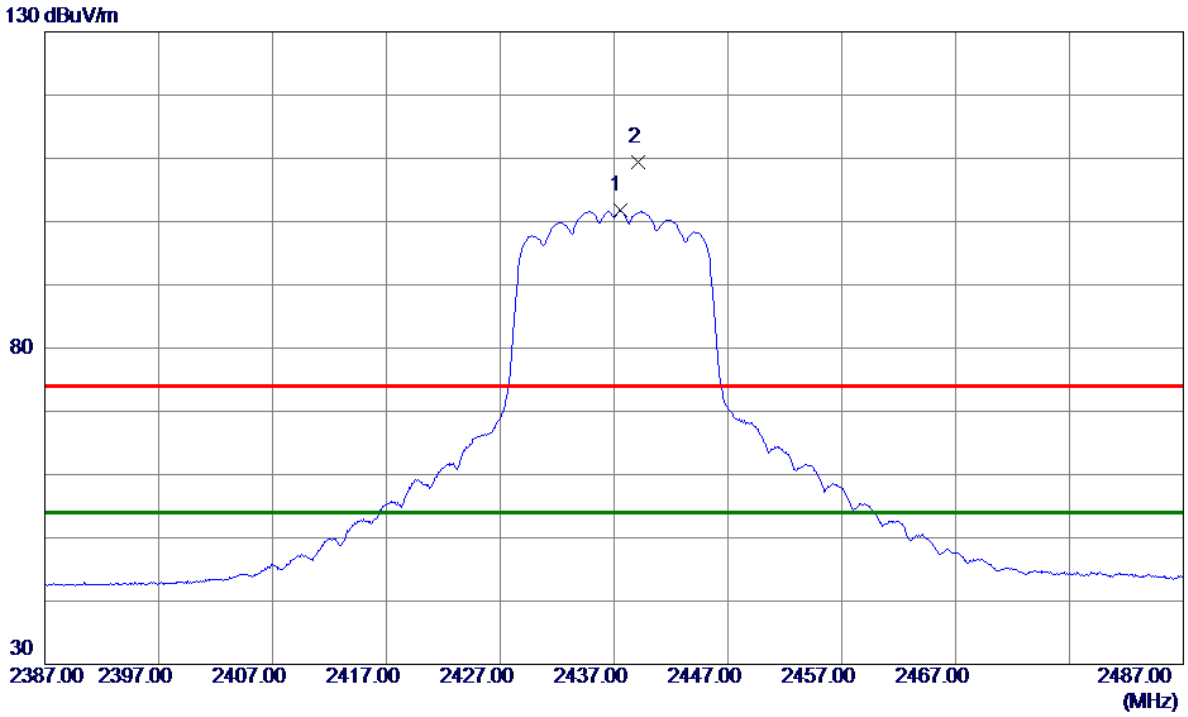


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.5450	47.85	4.58	52.43	74.00	-21.57	Peak	
2 *	4873.6820	34.63	4.58	39.21	54.00	-14.79	AVG	

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

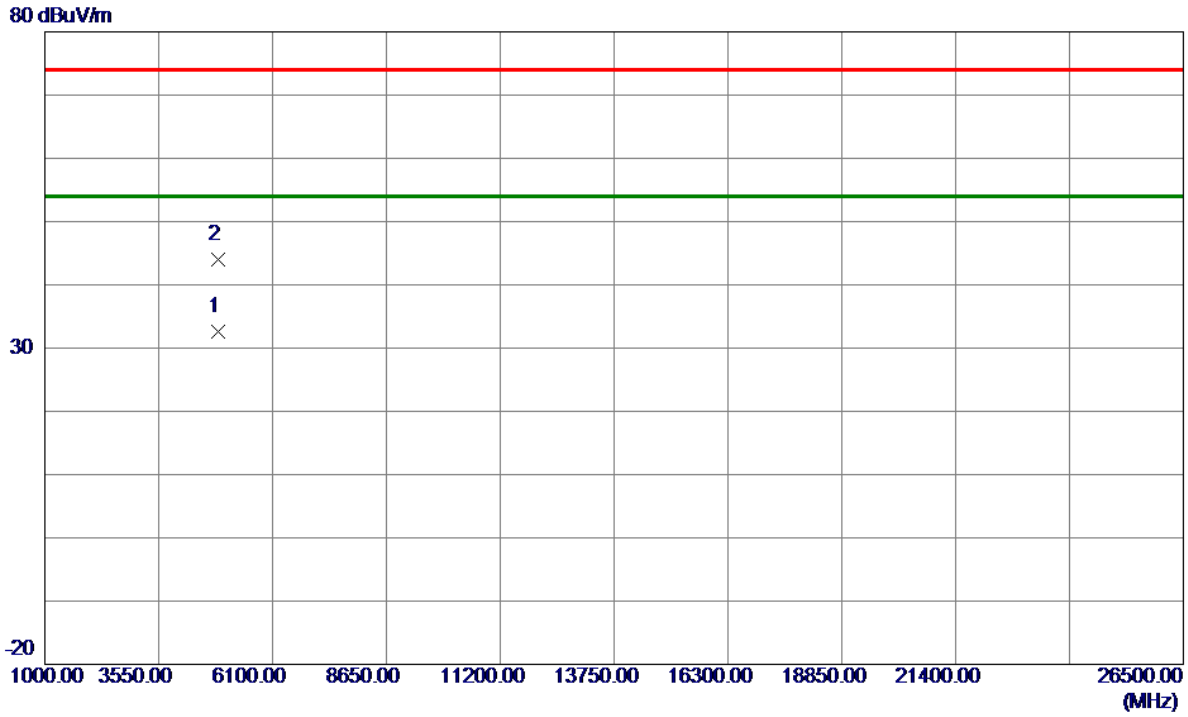


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2437.5000	94.55	7.25	101.80	54.00	47.80	AVG	No Limit
2	2439.1000	102.11	7.25	109.36	74.00	35.36	Peak	No Limit

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

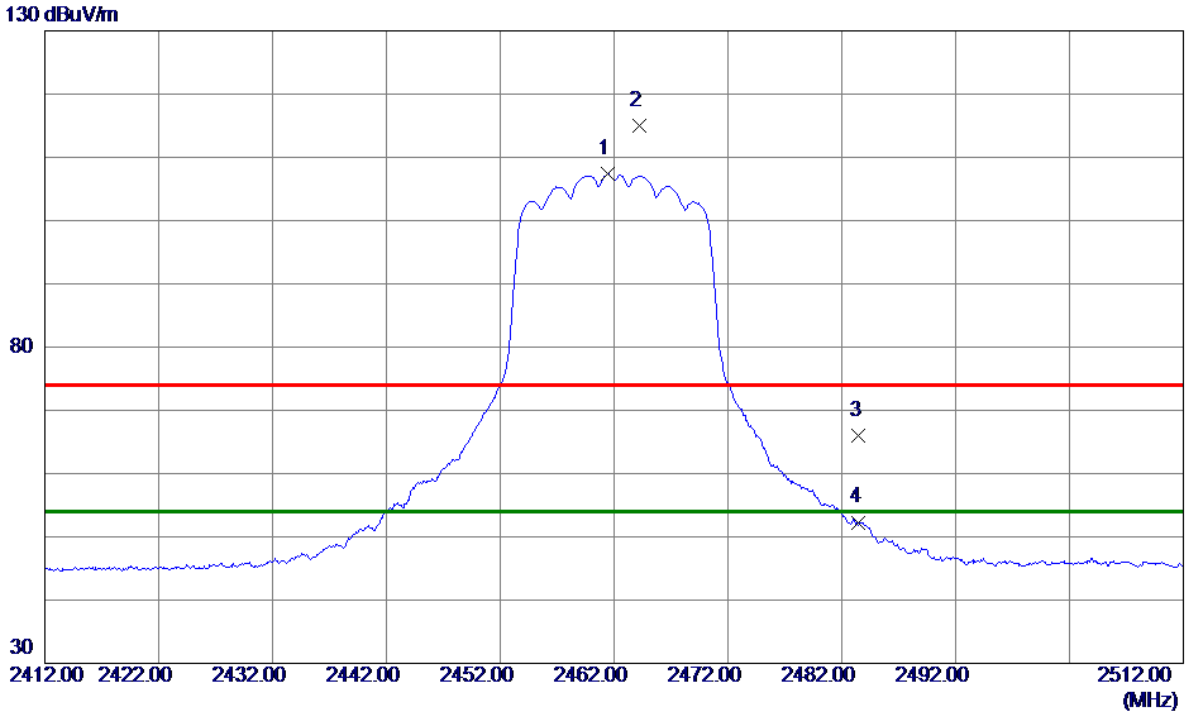


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873.8190	28.05	4.58	32.63	54.00	-21.37	AVG	
2	4874.1440	39.35	4.58	43.93	74.00	-30.07	Peak	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

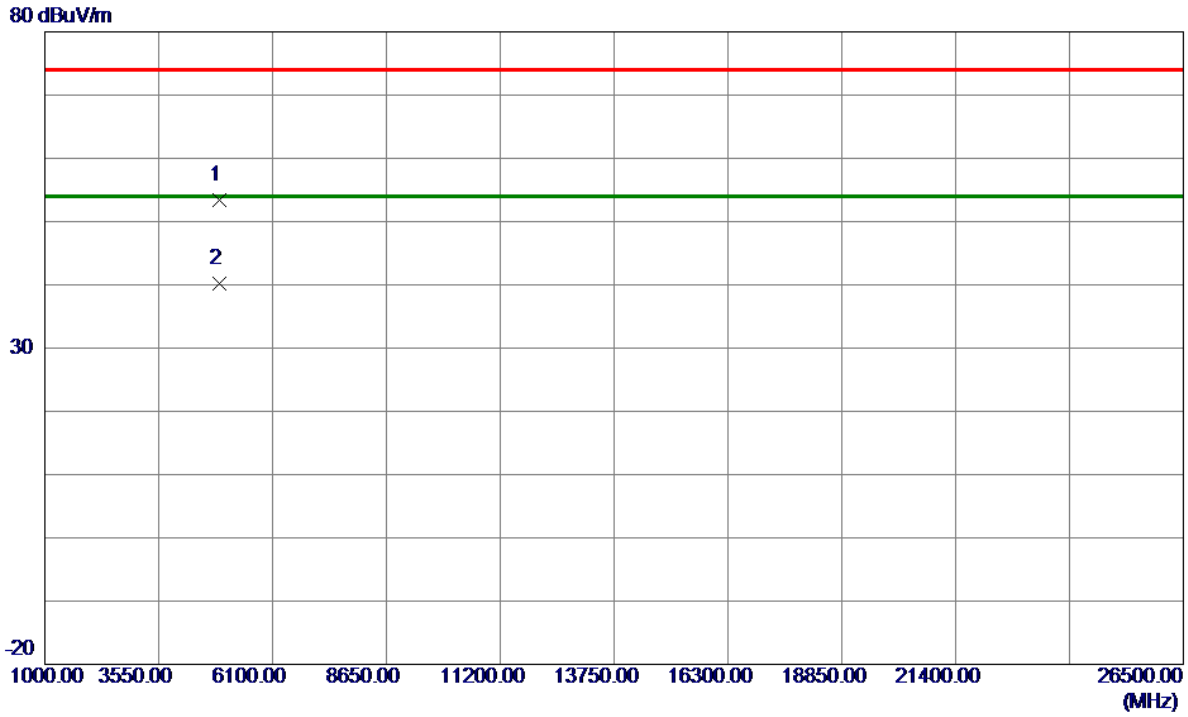


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461.4000	100.11	7.25	107.36	54.00	53.36	AVG	No Limit
2	2464.2000	107.67	7.25	114.92	74.00	40.92	Peak	No Limit
3	2483.5000	58.76	7.25	66.01	74.00	-7.99	Peak	
4	2483.5000	45.05	7.25	52.30	54.00	-1.70	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

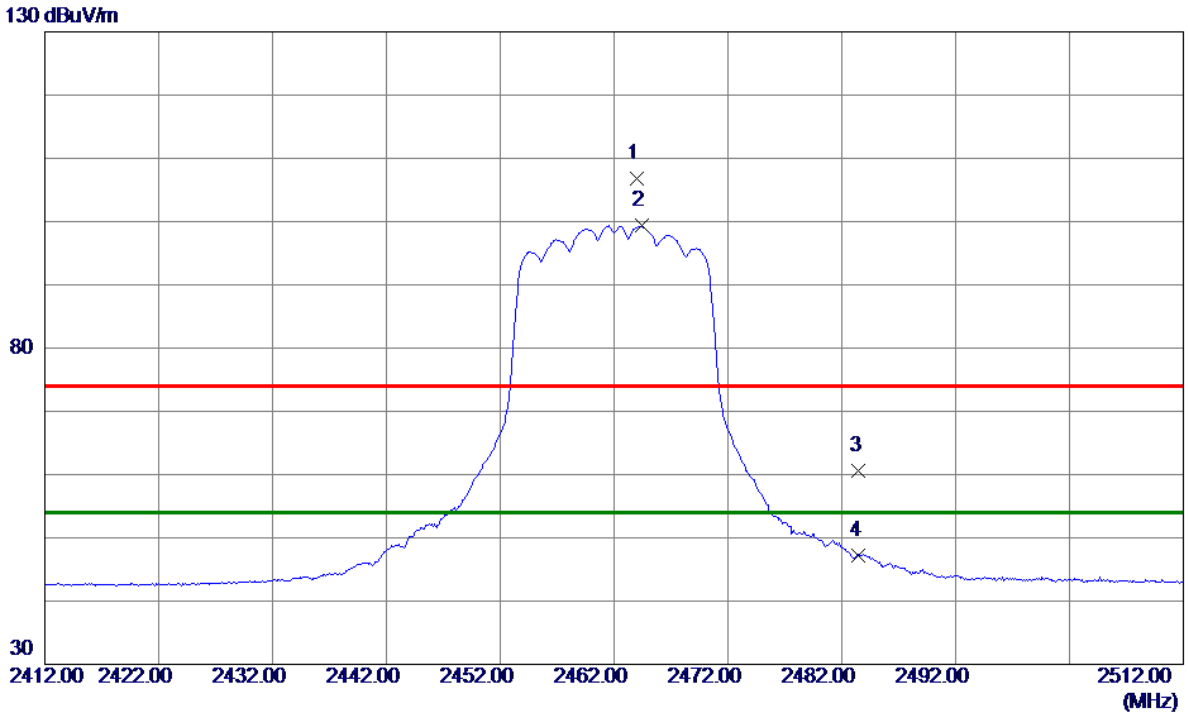


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.5620	48.75	4.72	53.47	74.00	-20.53	Peak	
2 *	4923.6349	35.44	4.72	40.16	54.00	-13.84	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

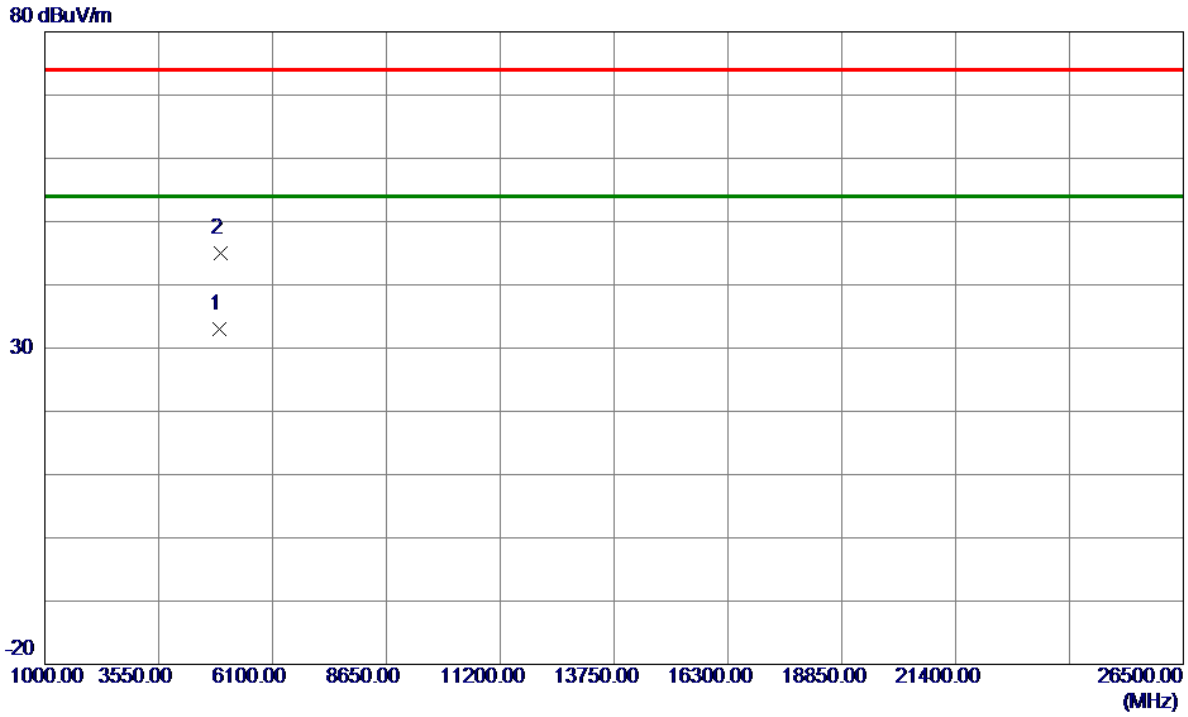


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2464.0000	99.58	7.25	106.83	74.00	32.83	Peak	No Limit
2 *	2464.4000	92.11	7.25	99.36	54.00	45.36	AVG	No Limit
3	2483.5000	53.42	7.25	60.67	74.00	-13.33	Peak	
4	2483.5000	40.01	7.25	47.26	54.00	-6.74	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

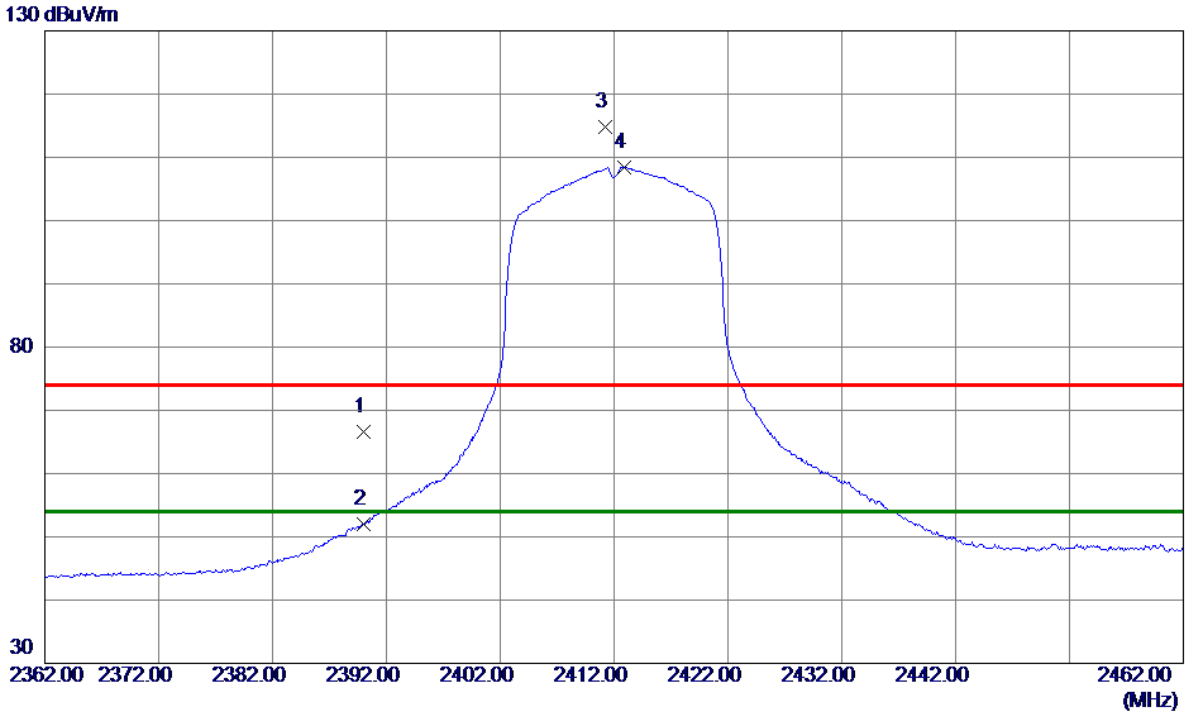


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923.5000	28.19	4.72	32.91	54.00	-21.09	AVG	
2	4924.4250	40.27	4.72	44.99	74.00	-29.01	Peak	

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

Test Mode:	TX N-20M Mode 2412 MHz

Vertical

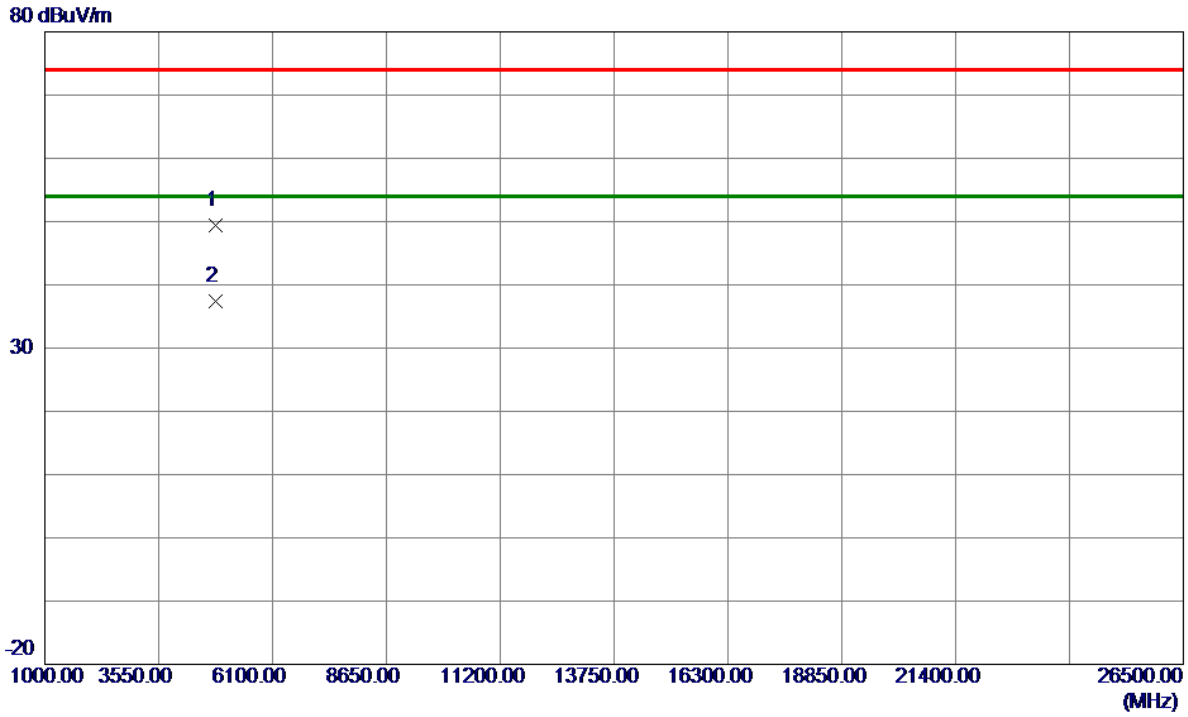


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	59.29	7.26	66.55	74.00	-7.45	Peak	
2	2390.0000	44.82	7.26	52.08	54.00	-1.92	AVG	
3	2411.2000	107.50	7.26	114.76	74.00	40.76	Peak	No Limit
4 *	2412.9000	101.20	7.26	108.46	54.00	54.46	AVG	No Limit

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

Test Mode:	TX N-20M Mode 2412 MHz

Vertical

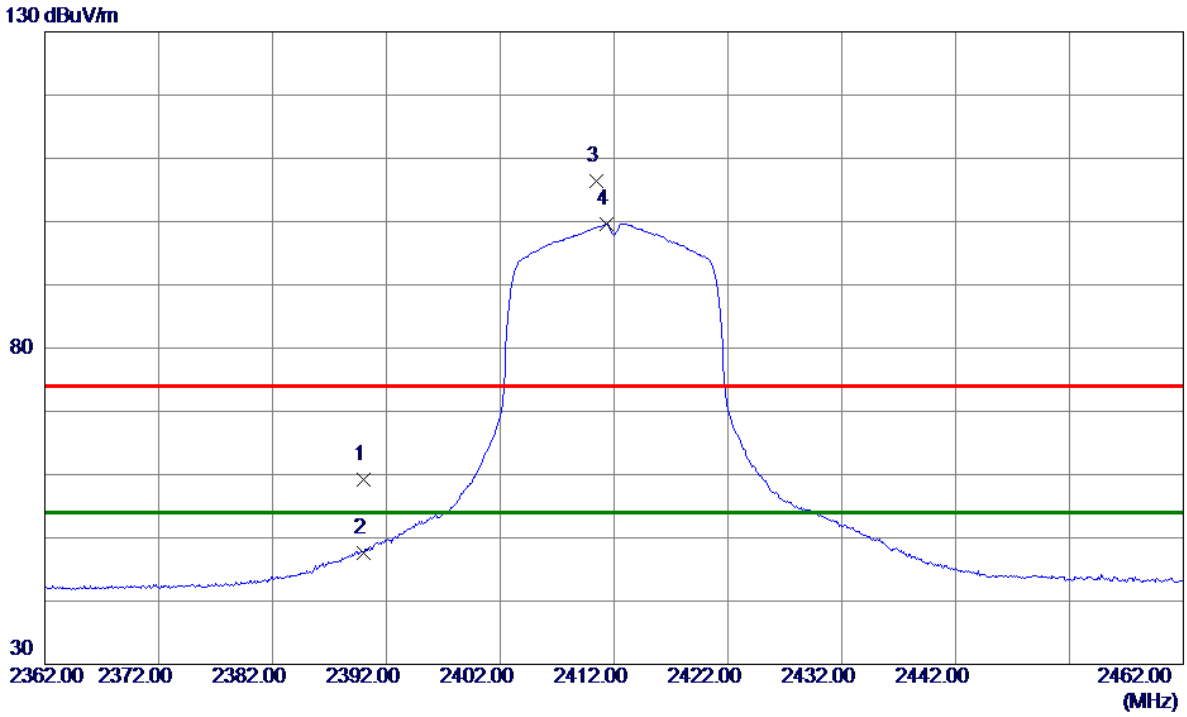


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.6380	44.99	4.45	49.44	74.00	-24.56	Peak	
2 *	4824.3400	33.04	4.45	37.49	54.00	-16.51	AVG	

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

Test Mode:	TX N-20M Mode 2412 MHz

Horizontal

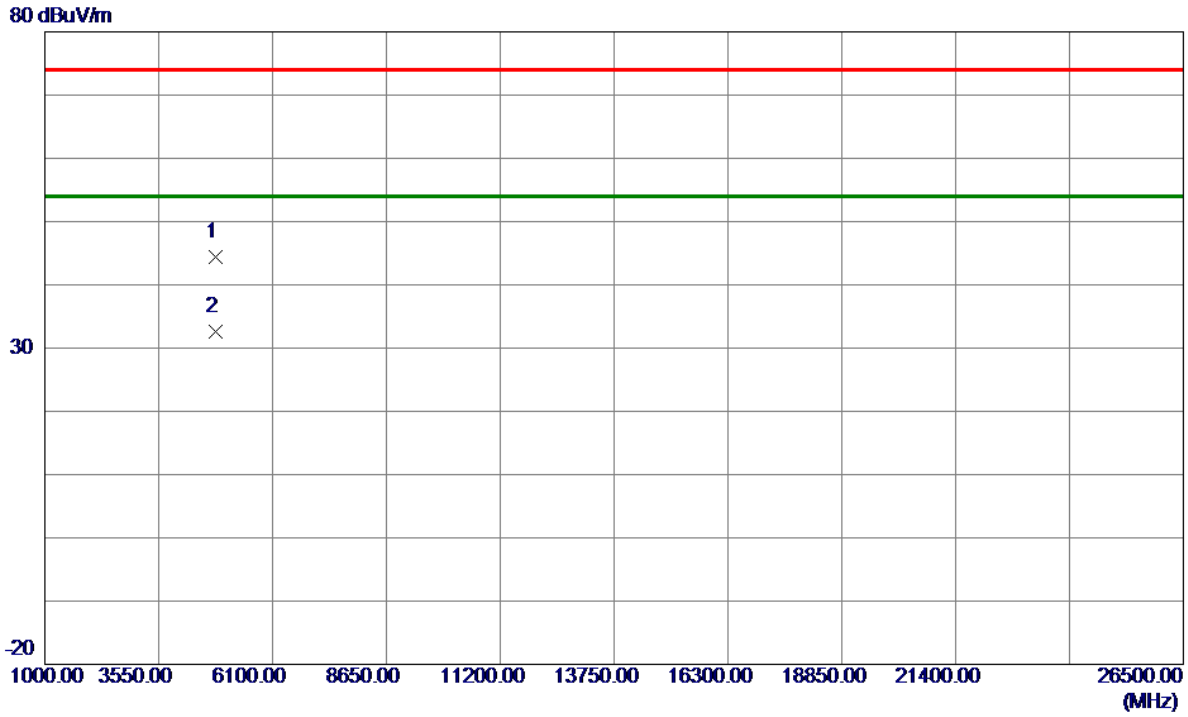


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	51.88	7.26	59.14	74.00	-14.86	Peak	
2	2390.0000	40.41	7.26	47.67	54.00	-6.33	AVG	
3	2410.4000	99.16	7.26	106.42	74.00	32.42	Peak	No Limit
4 *	2411.3000	92.37	7.26	99.63	54.00	45.63	AVG	No Limit

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

Test Mode:	TX N-20M Mode 2412 MHz

Horizontal

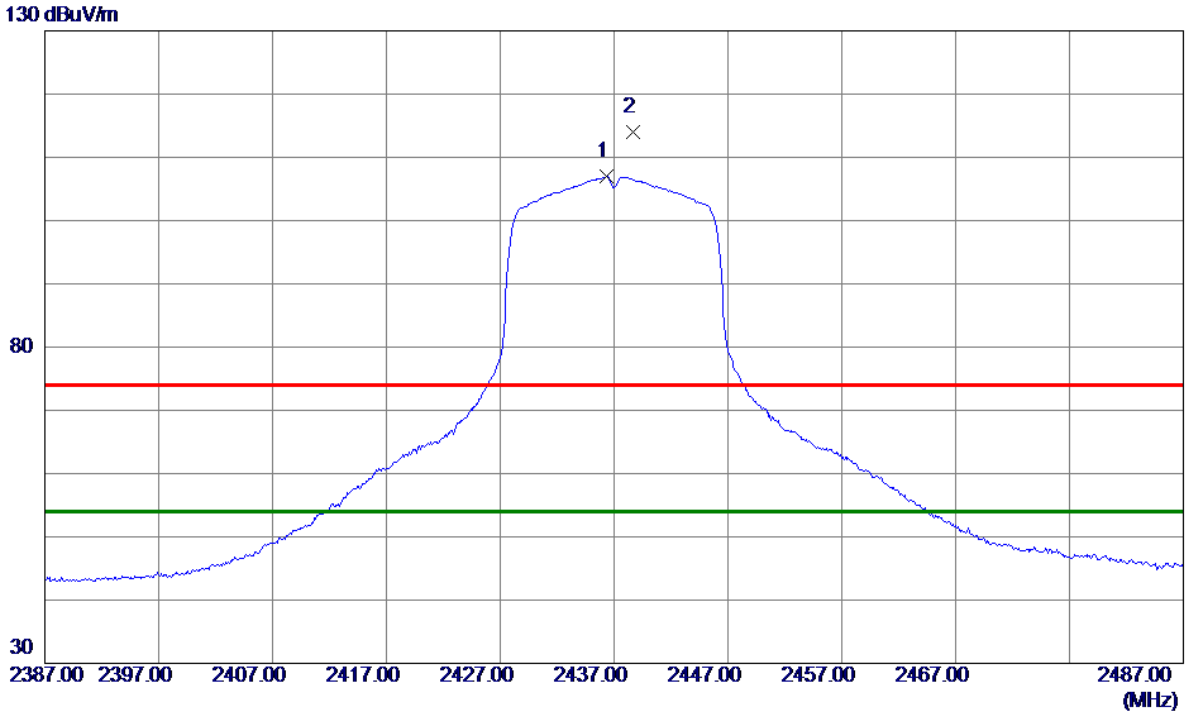


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.2150	39.96	4.45	44.41	74.00	-29.59	Peak	
2 *	4824.2690	28.16	4.45	32.61	54.00	-21.39	AVG	

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

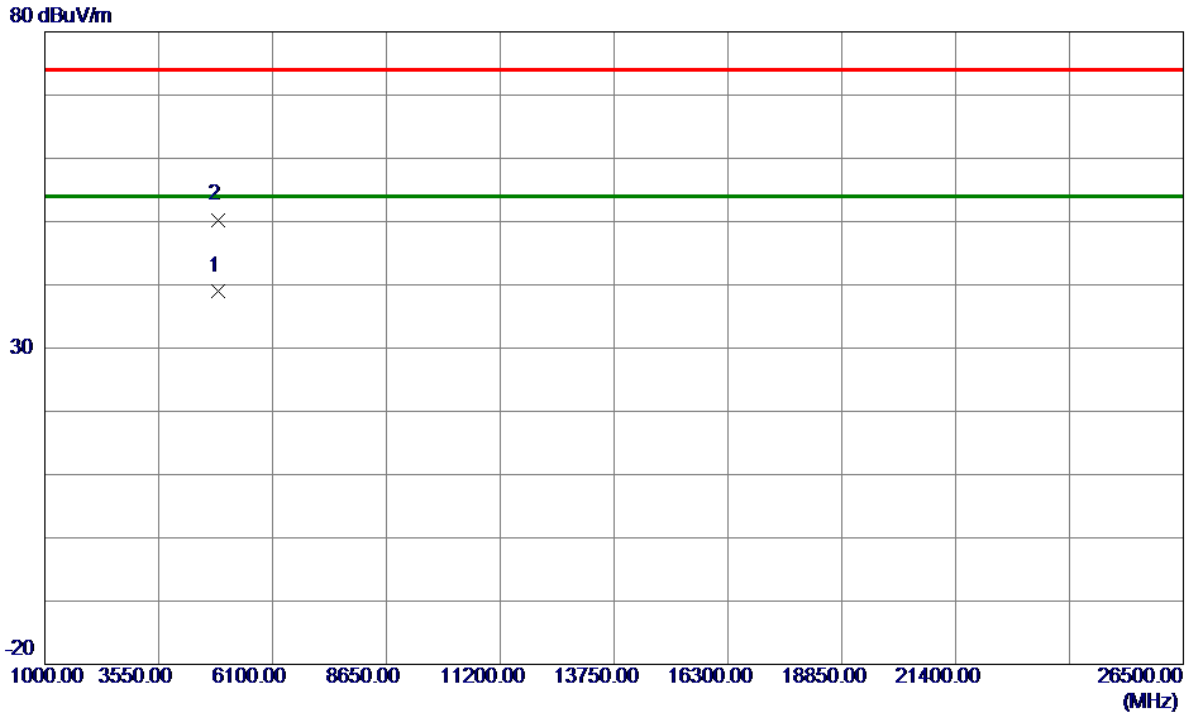


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436.3000	99.69	7.25	106.94	54.00	52.94	AVG	No Limit
2	2438.7000	106.84	7.25	114.09	74.00	40.09	Peak	No Limit

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

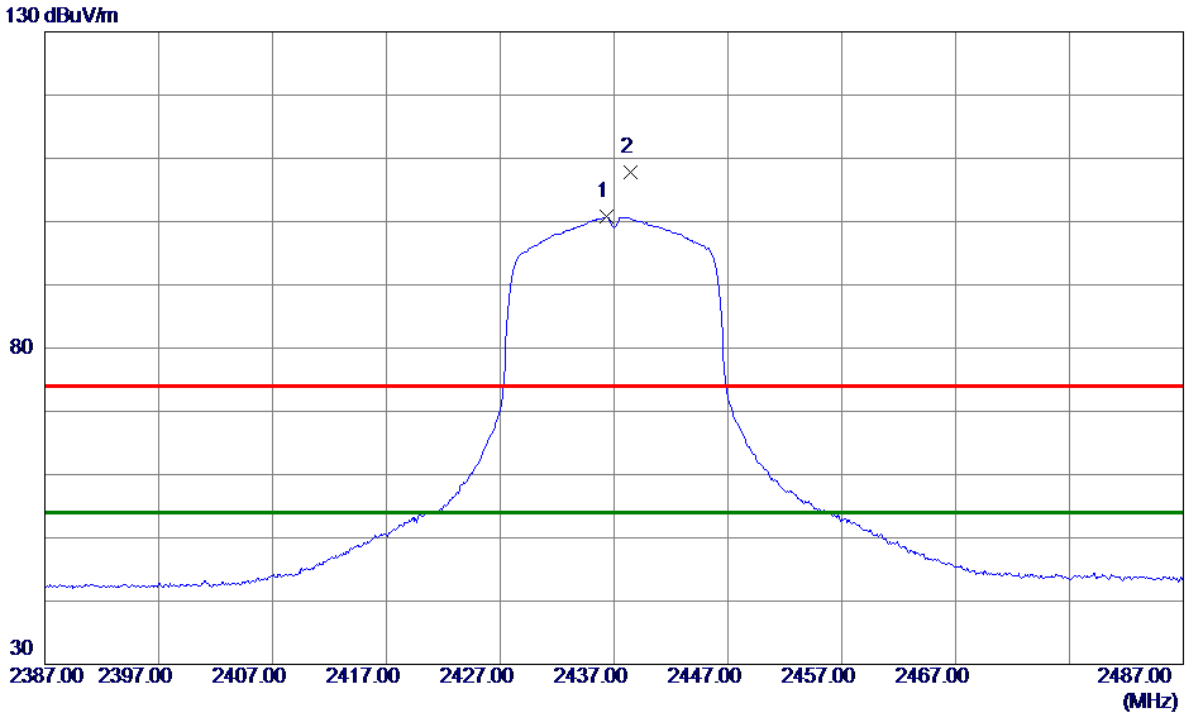


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874.4740	34.49	4.58	39.07	54.00	-14.93	AVG	
2	4874.5000	45.72	4.58	50.30	74.00	-23.70	Peak	

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

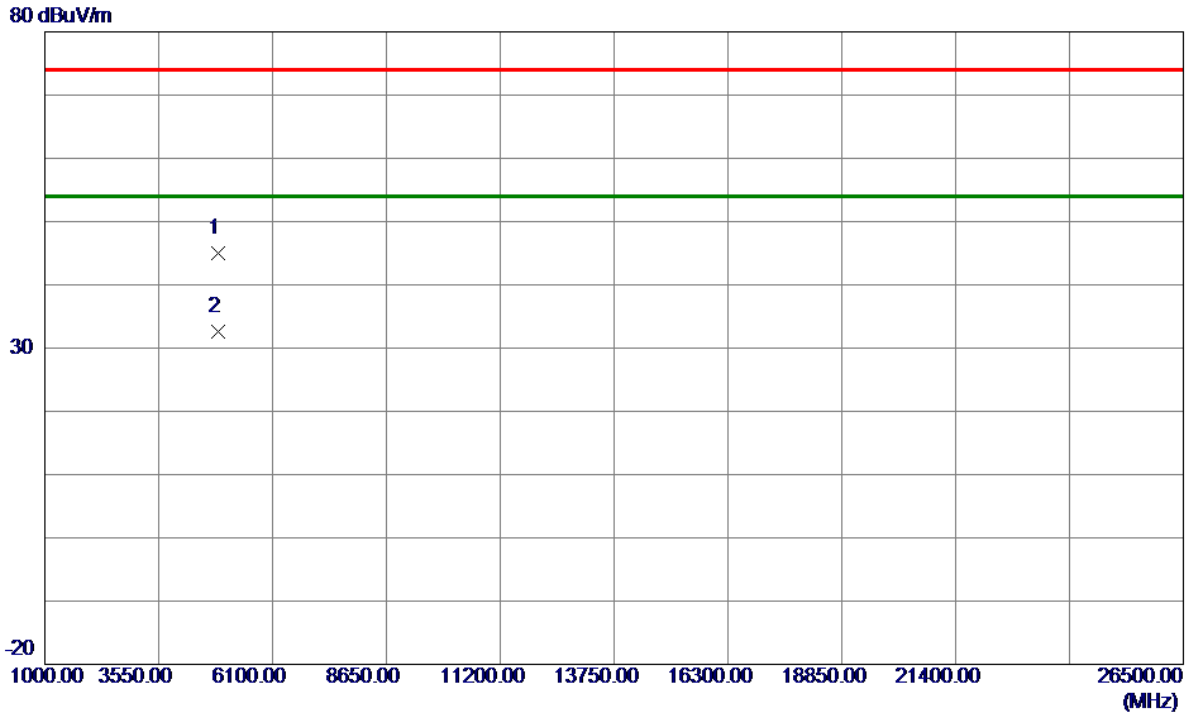


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436.3000	93.48	7.25	100.73	54.00	46.73	AVG	No Limit
2	2438.4000	100.49	7.25	107.74	74.00	33.74	Peak	No Limit

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

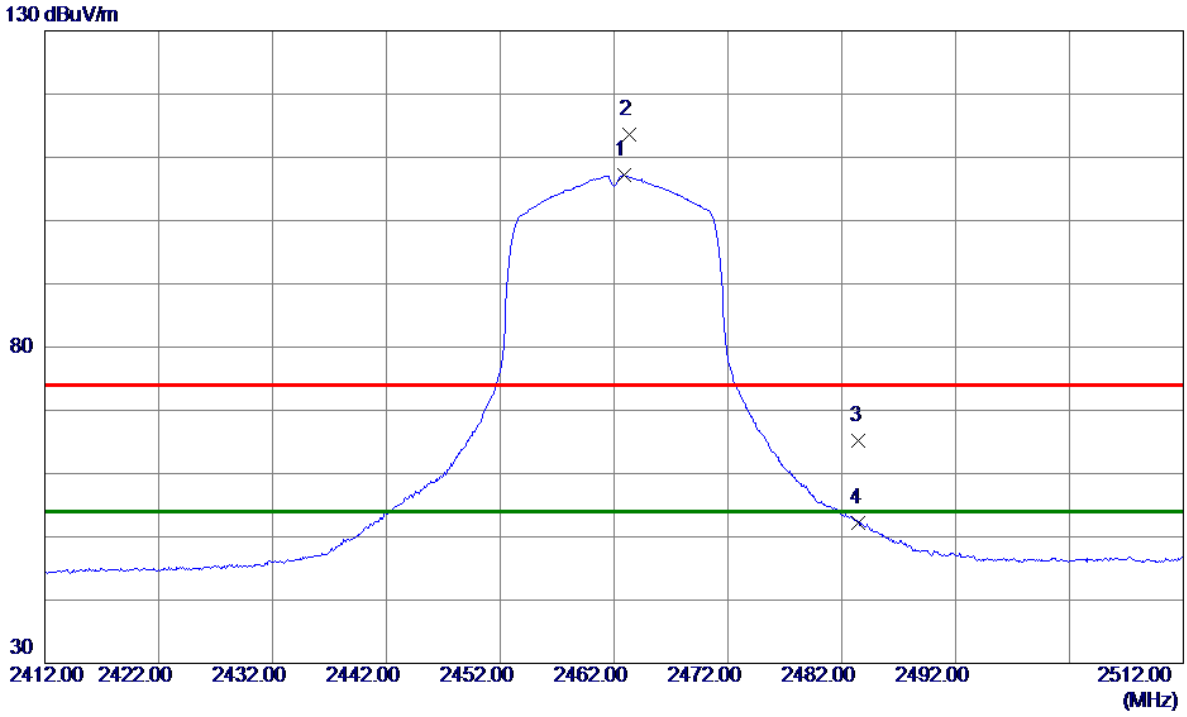


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.2980	40.36	4.58	44.94	74.00	-29.06	Peak	
2 *	4874.4200	27.98	4.58	32.56	54.00	-21.44	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Vertical

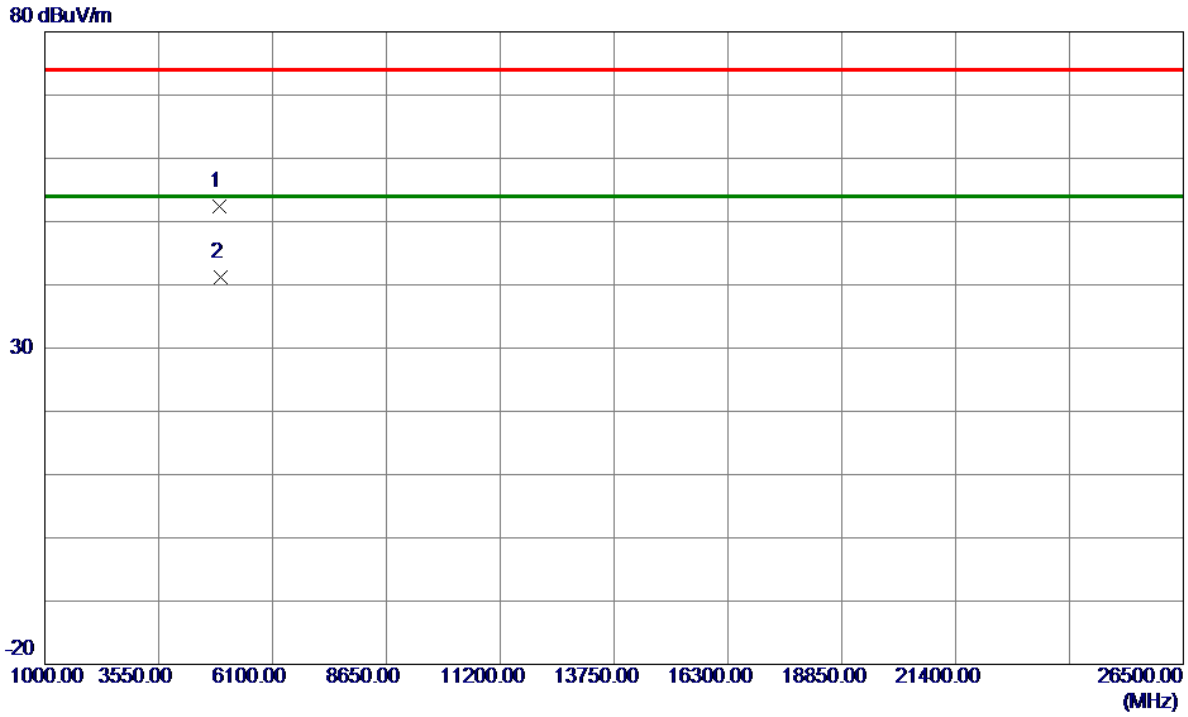


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2462.9000	99.89	7.25	107.14	54.00	53.14	AVG	No Limit
2	2463.3000	106.37	7.25	113.62	74.00	39.62	Peak	No Limit
3	2483.5000	57.97	7.25	65.22	74.00	-8.78	Peak	
4	2483.5000	44.93	7.25	52.18	54.00	-1.82	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Vertical

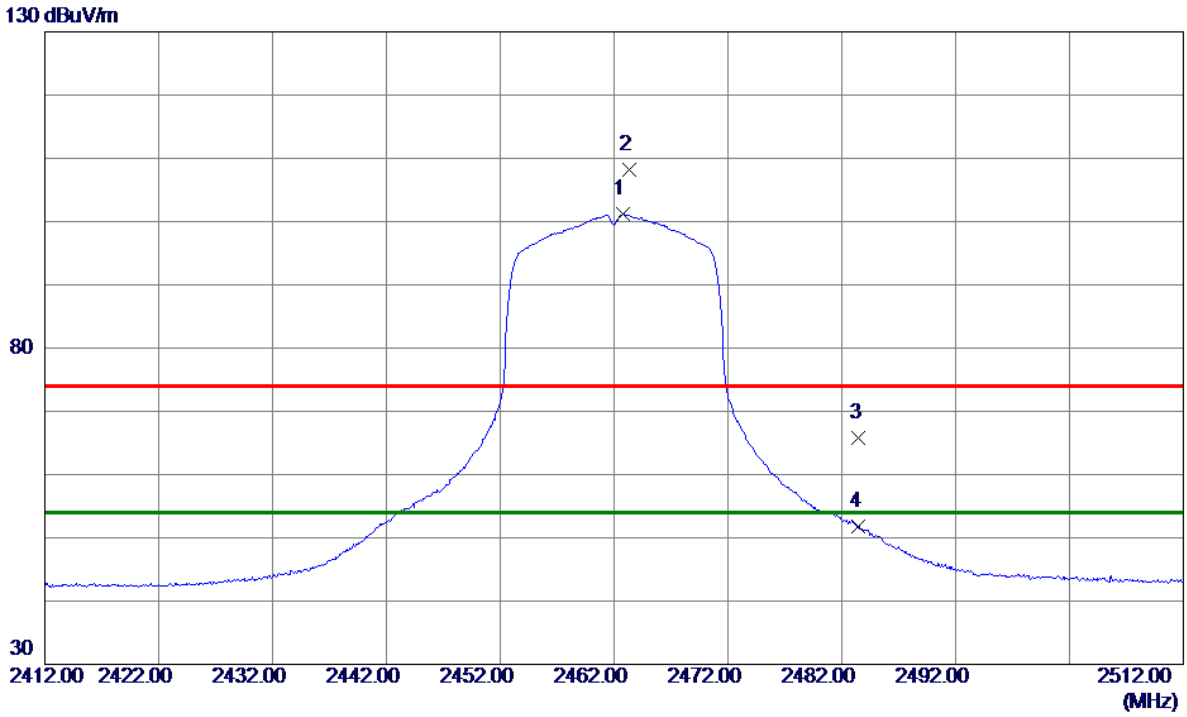


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.7390	47.67	4.72	52.39	74.00	-21.61	Peak	
2 *	4924.4790	36.42	4.72	41.14	54.00	-12.86	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Horizontal

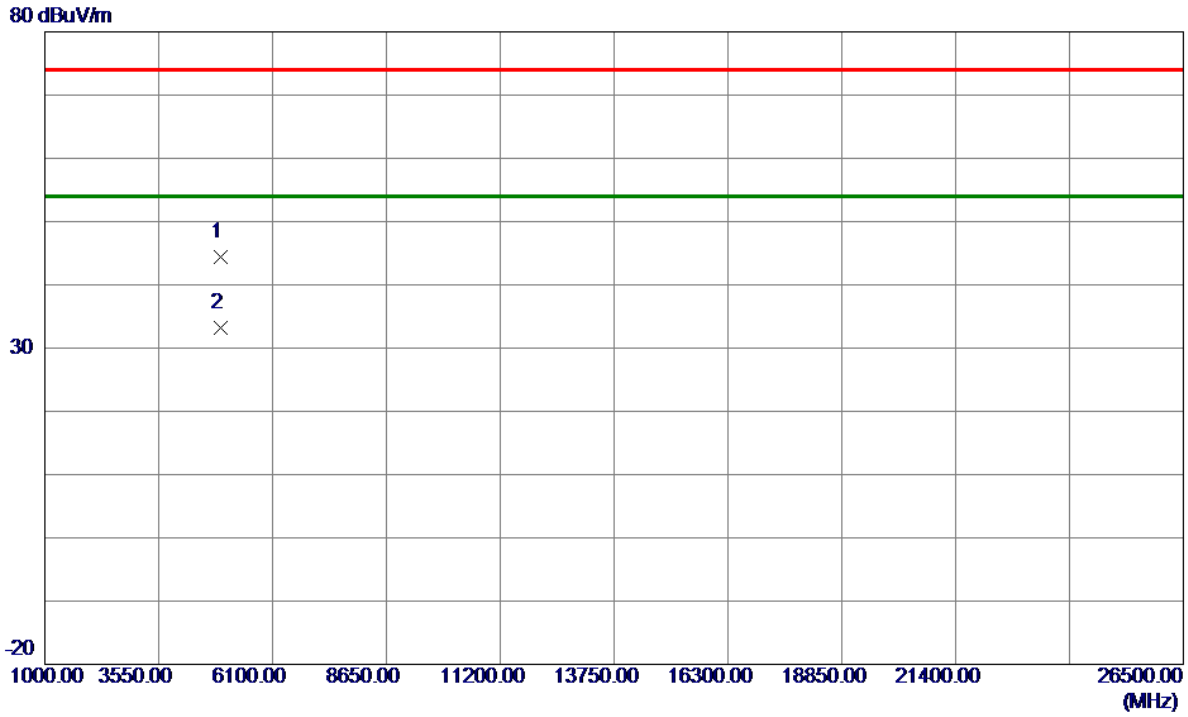


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2462.8000	93.89	7.25	101.14	54.00	47.14	AVG	No Limit
2	2463.3000	100.90	7.25	108.15	74.00	34.15	Peak	No Limit
3	2483.5000	58.57	7.25	65.82	74.00	-8.18	Peak	
4	2483.5000	44.54	7.25	51.79	54.00	-2.21	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Horizontal

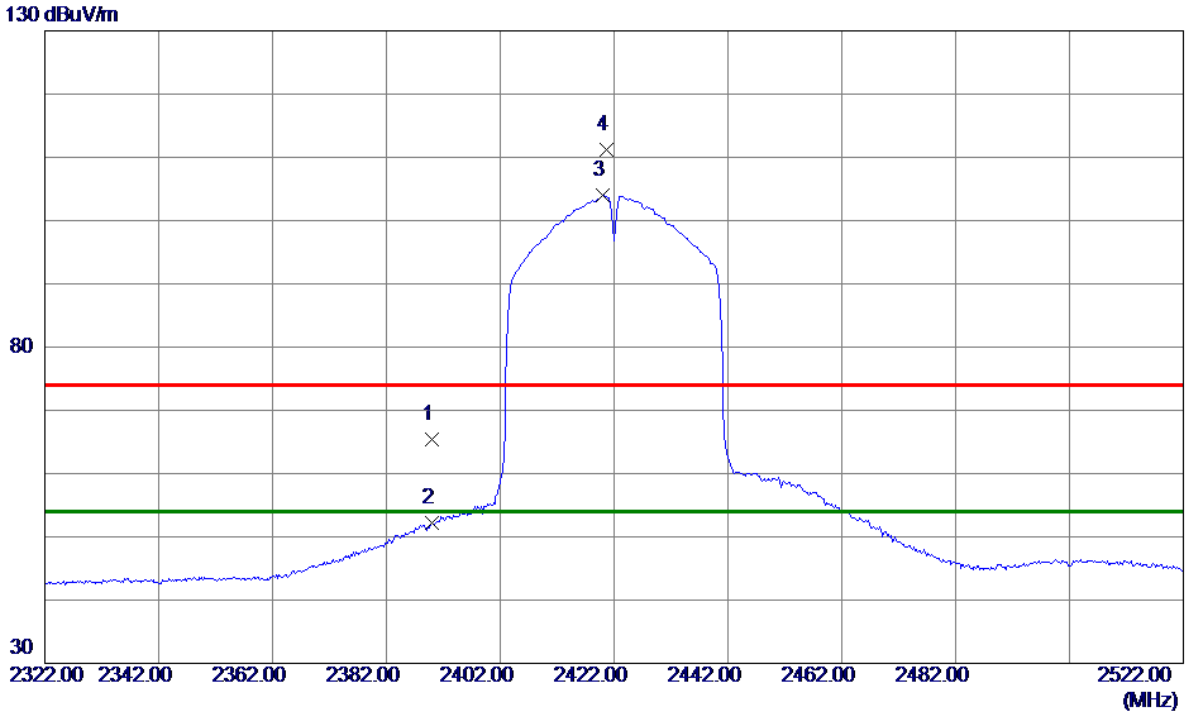


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.2610	39.66	4.72	44.38	74.00	-29.62	Peak	
2 *	4924.3110	28.43	4.72	33.15	54.00	-20.85	AVG	

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

Test Mode:	TX N-40M Mode 2422MHz

Vertical

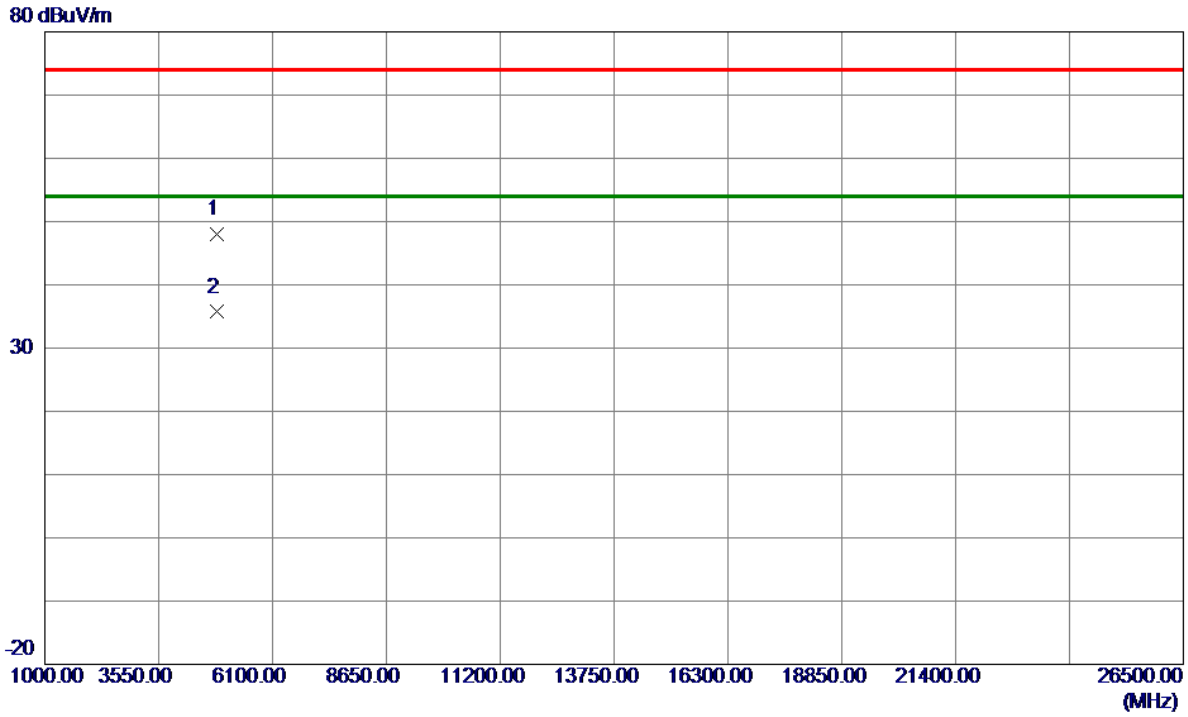


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	58.19	7.26	65.45	74.00	-8.55	Peak	
2	2390.0000	44.89	7.26	52.15	54.00	-1.85	AVG	
3 *	2420.0000	96.71	7.26	103.97	54.00	49.97	AVG	No Limit
4	2420.6000	103.94	7.26	111.20	74.00	37.20	Peak	No Limit

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

Test Mode:	TX N-40M Mode 2422MHz

Vertical

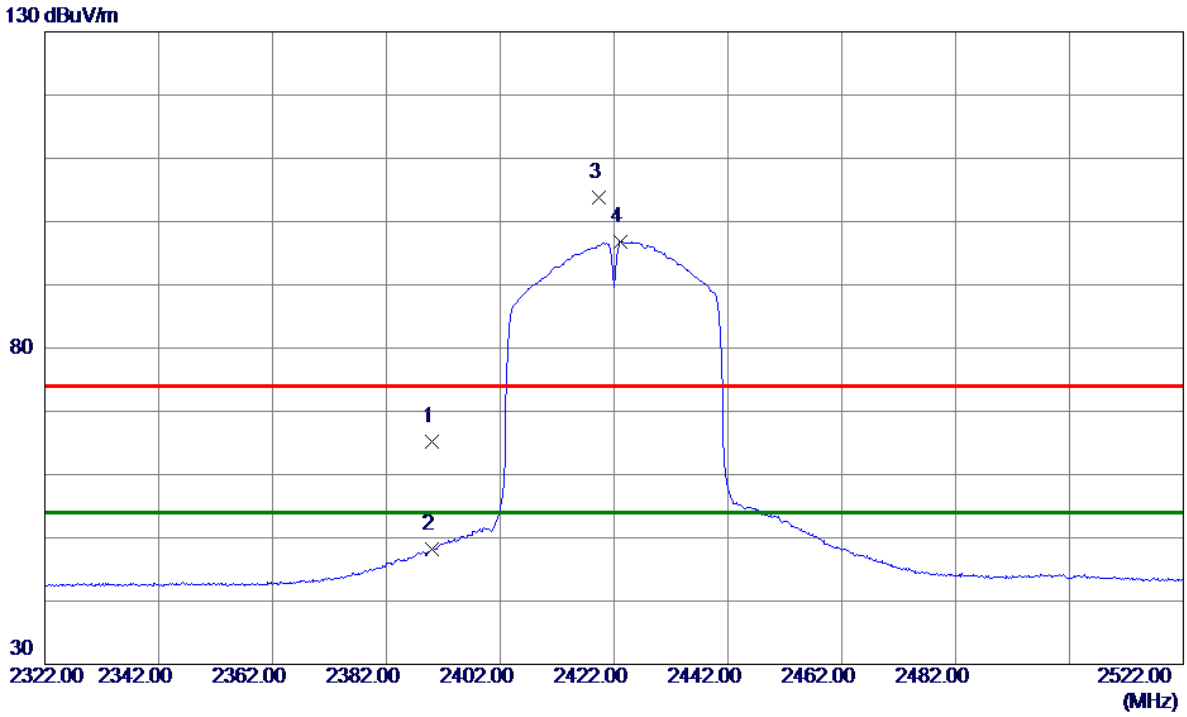


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4843.5280	43.50	4.50	48.00	74.00	-26.00	Peak	
2 *	4843.9140	31.20	4.50	35.70	54.00	-18.30	AVG	

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

Test Mode:	TX N-40M Mode 2422MHz

Horizontal

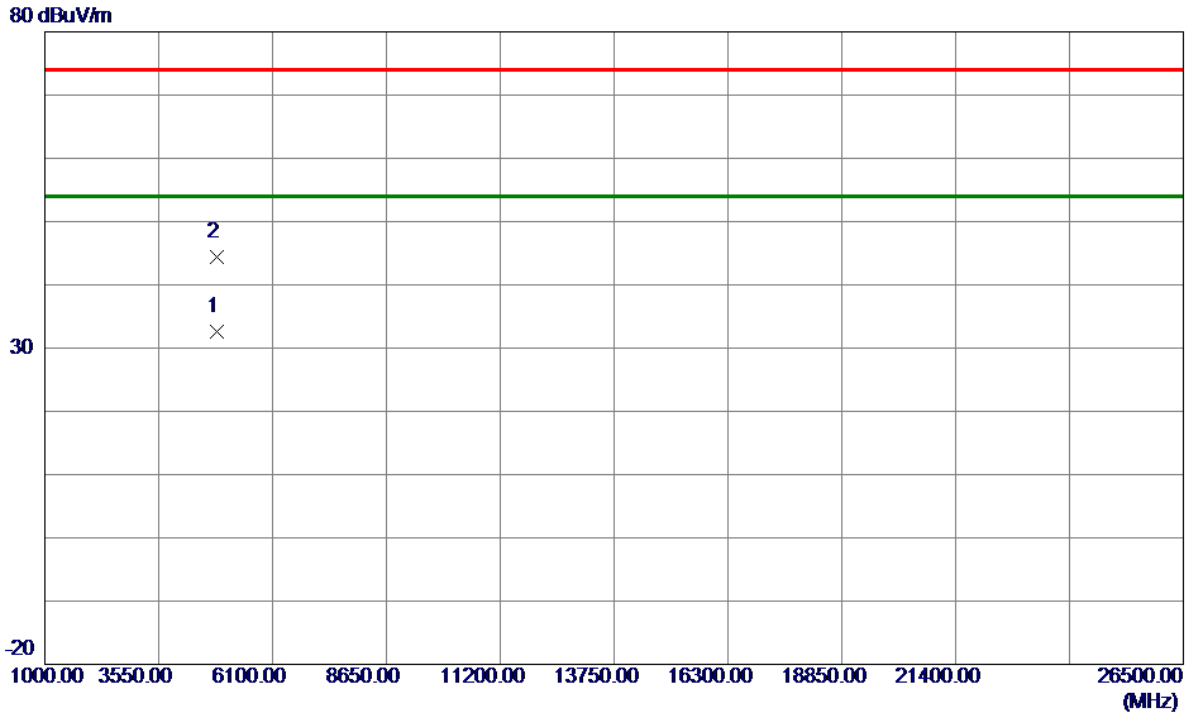


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	57.98	7.26	65.24	74.00	-8.76	Peak	
2	2390.0000	41.02	7.26	48.28	54.00	-5.72	AVG	
3	2419.4000	96.62	7.26	103.88	74.00	29.88	Peak	No Limit
4 *	2423.2000	89.55	7.25	96.80	54.00	42.80	AVG	No Limit

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

Test Mode:	TX N-40M Mode 2422MHz

Horizontal

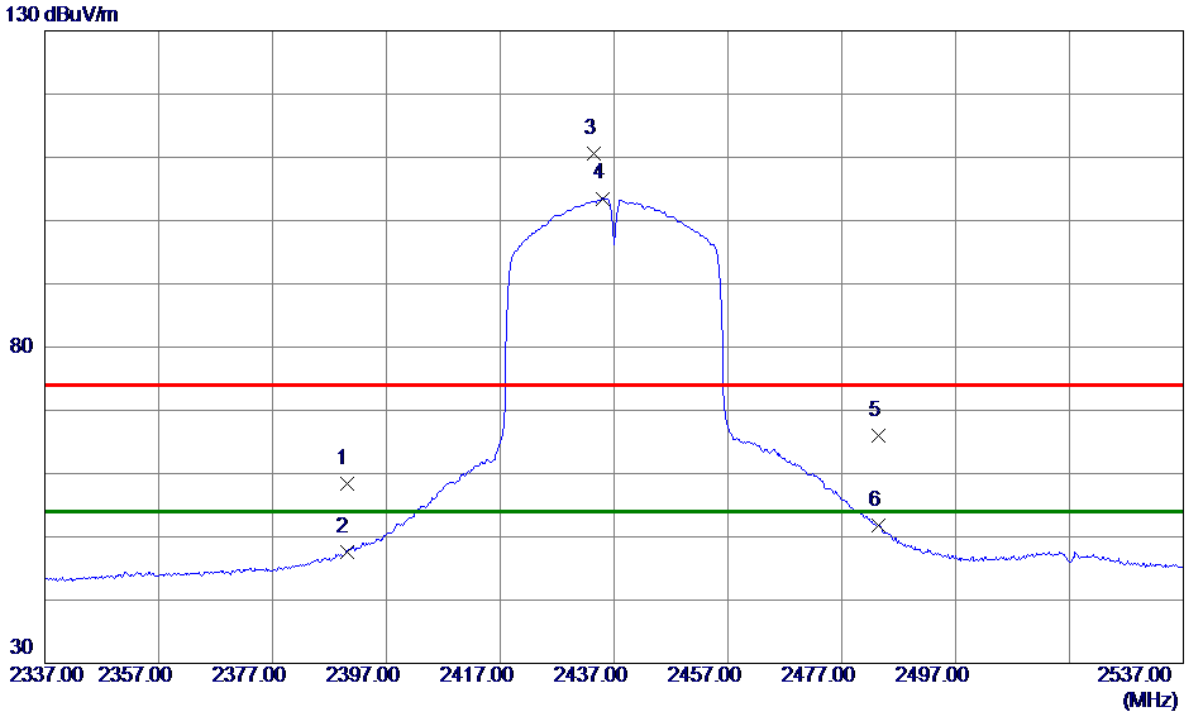


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4843.7580	28.05	4.50	32.55	54.00	-21.45	AVG	
2	4844.4610	39.96	4.50	44.46	74.00	-29.54	Peak	

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

Test Mode:	TX N-40M Mode 2437 MHz

Vertical

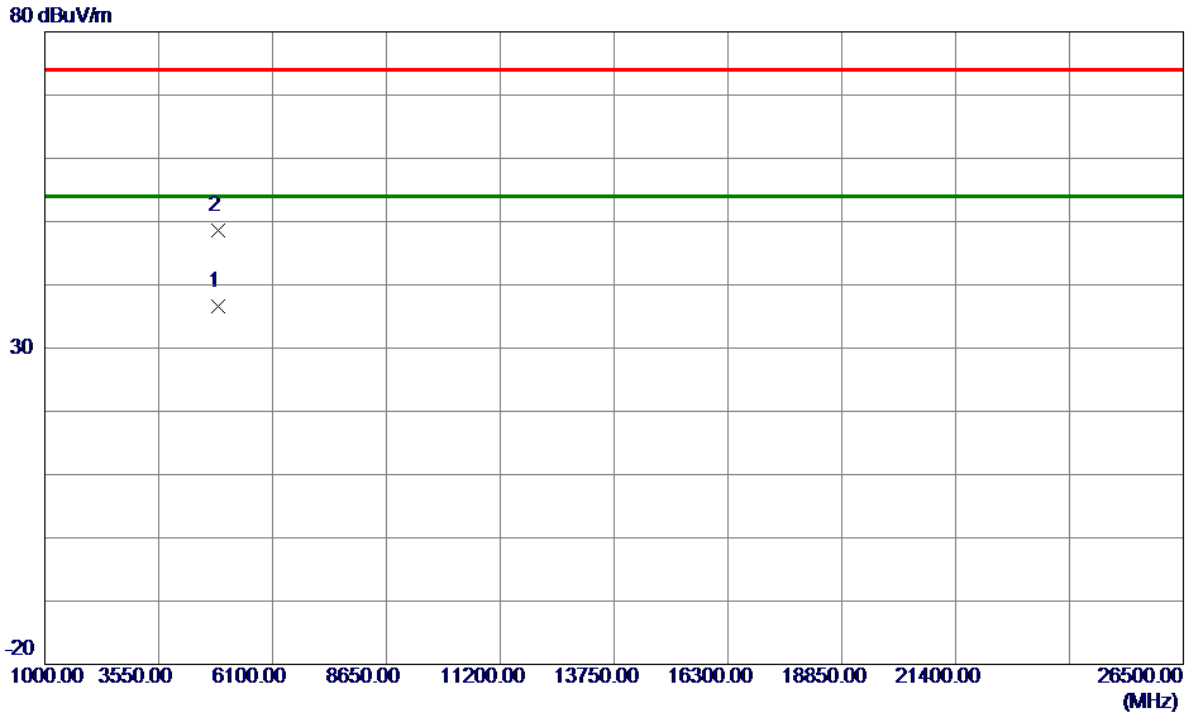


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	51.18	7.26	58.44	74.00	-15.56	Peak	
2	2390.0000	40.38	7.26	47.64	54.00	-6.36	AVG	
3	2433.4000	103.34	7.25	110.59	74.00	36.59	Peak	No Limit
4 *	2435.0000	96.25	7.25	103.50	54.00	49.50	AVG	No Limit
5	2483.5000	58.74	7.25	65.99	74.00	-8.01	Peak	
6	2483.5000	44.47	7.25	51.72	54.00	-2.28	AVG	

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

Test Mode:	TX N-40M Mode 2437 MHz

Vertical

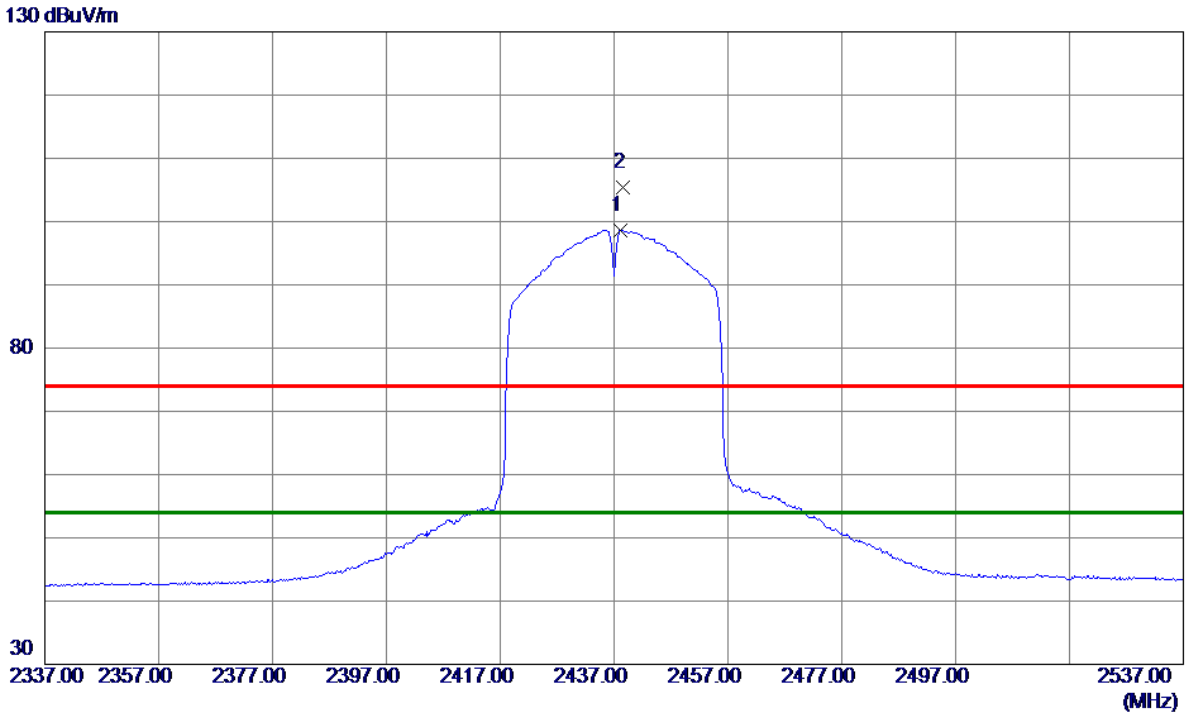


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874.1509	31.94	4.58	36.52	54.00	-17.48	AVG	
2	4874.3830	44.08	4.58	48.66	74.00	-25.34	Peak	

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

Test Mode:	TX N-40M Mode 2437 MHz

Horizontal

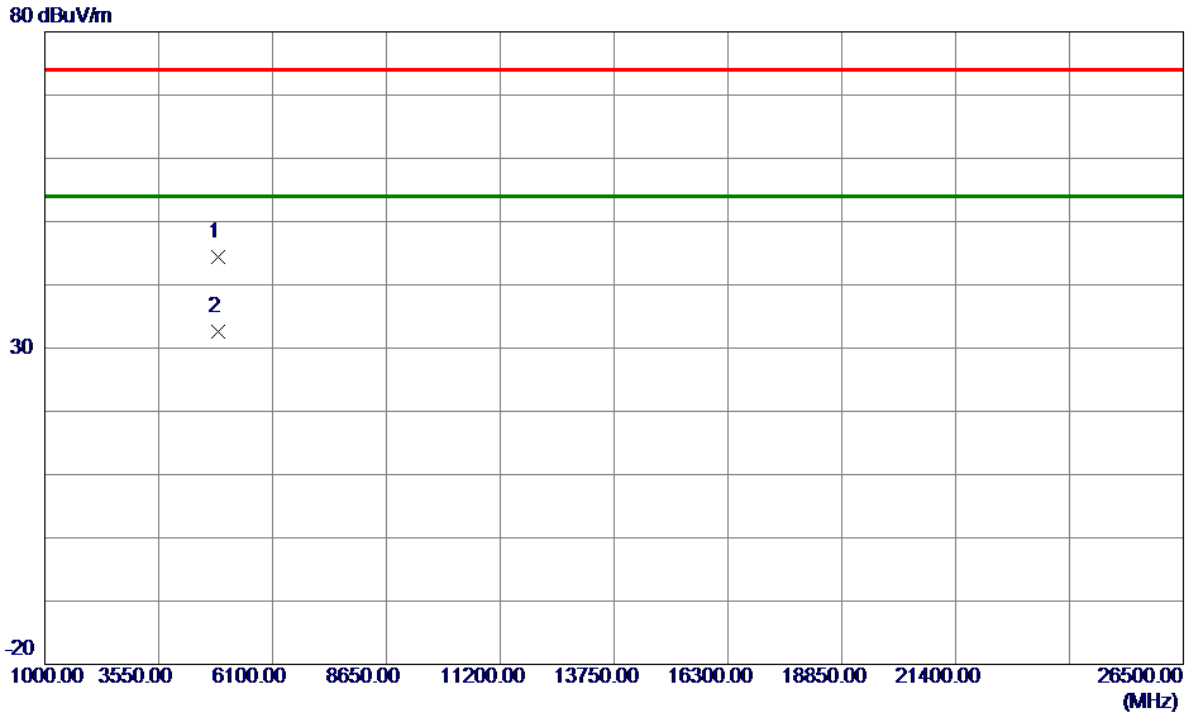


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2438.2000	91.41	7.25	98.66	54.00	44.66	AVG	No Limit
2	2438.6000	98.20	7.25	105.45	74.00	31.45	Peak	No Limit

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

Test Mode:	TX N-40M Mode 2437 MHz

Horizontal

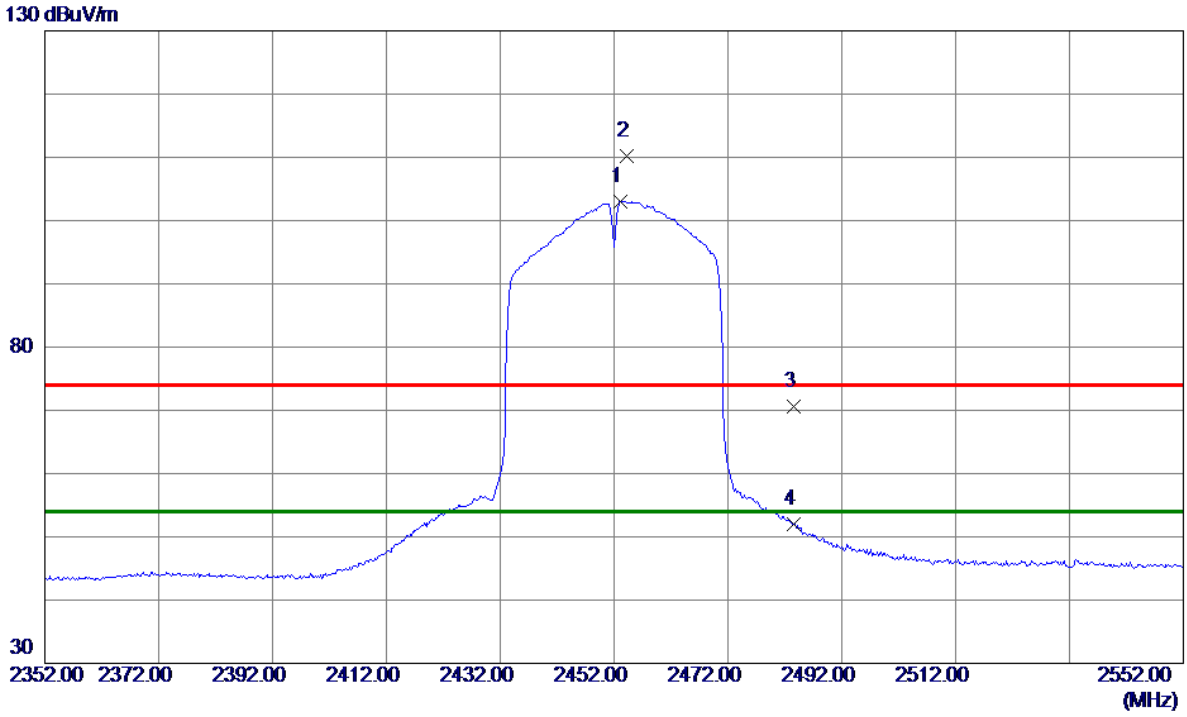


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.6100	39.76	4.58	44.34	74.00	-29.66	Peak	
2 *	4873.8340	27.97	4.58	32.55	54.00	-21.45	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

Vertical

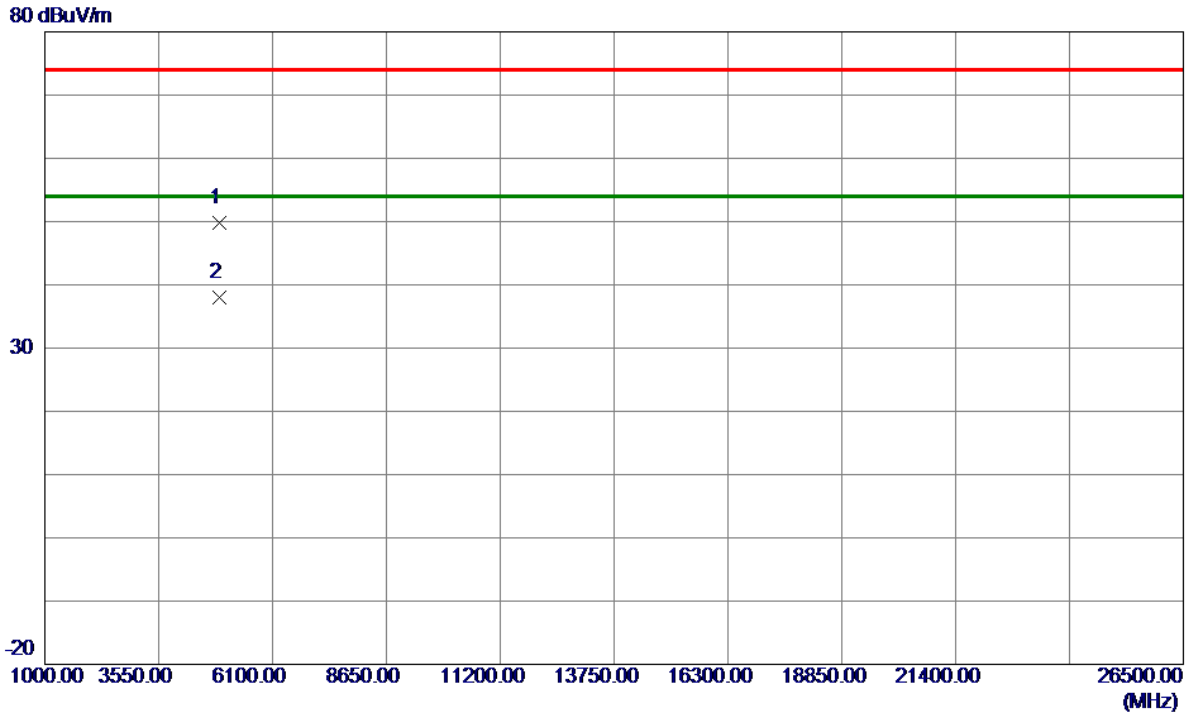


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2453.2000	95.85	7.25	103.10	54.00	49.10	AVG	No Limit
2	2454.2000	102.93	7.25	110.18	74.00	36.18	Peak	No Limit
3	2483.5000	63.35	7.25	70.60	74.00	-3.40	Peak	
4	2483.5000	44.82	7.25	52.07	54.00	-1.93	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

Vertical

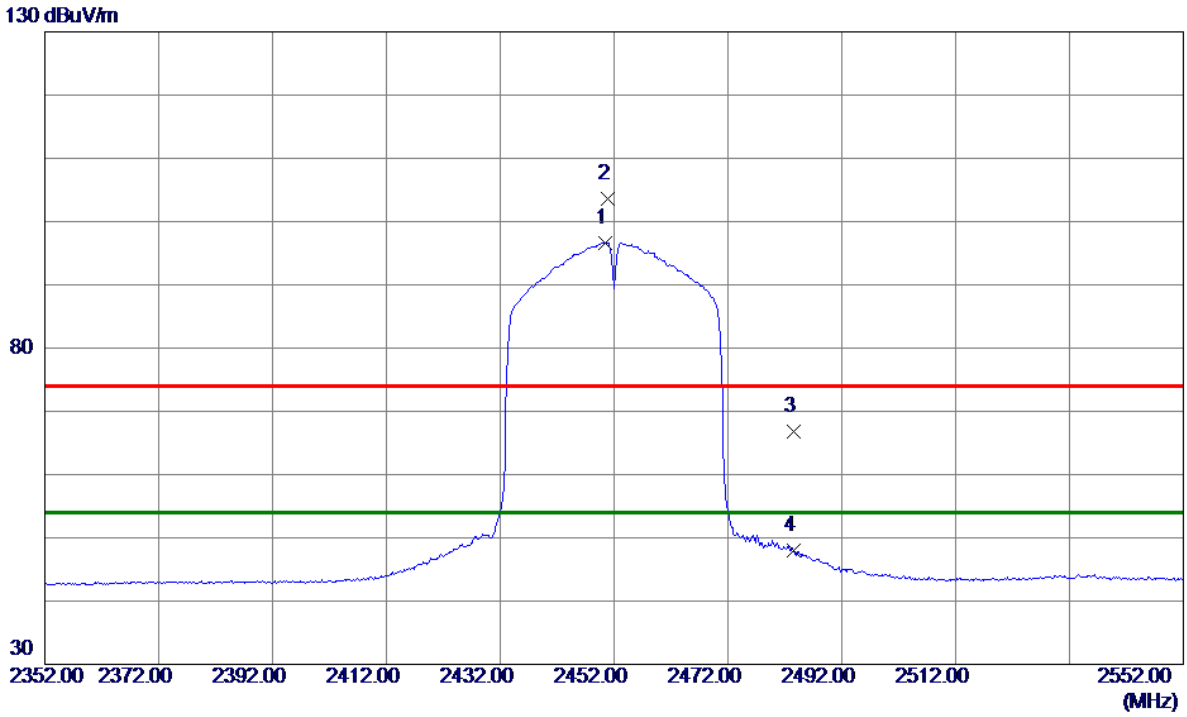


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4903.5620	45.23	4.66	49.89	74.00	-24.11	Peak	
2 *	4904.0400	33.29	4.66	37.95	54.00	-16.05	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

Horizontal

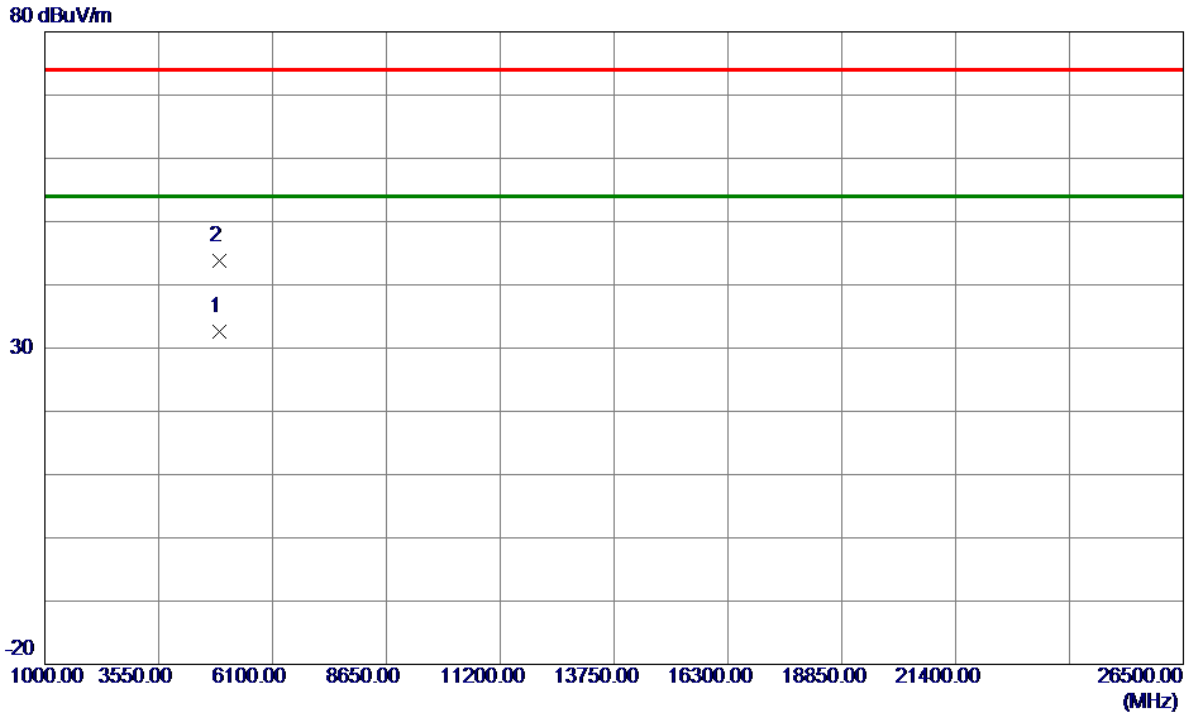


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2450.4000	89.41	7.25	96.66	54.00	42.66	AVG	No Limit
2	2450.8000	96.34	7.25	103.59	74.00	29.59	Peak	No Limit
3	2483.5000	59.47	7.25	66.72	74.00	-7.28	Peak	
4	2483.5000	40.70	7.25	47.95	54.00	-6.05	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

Horizontal



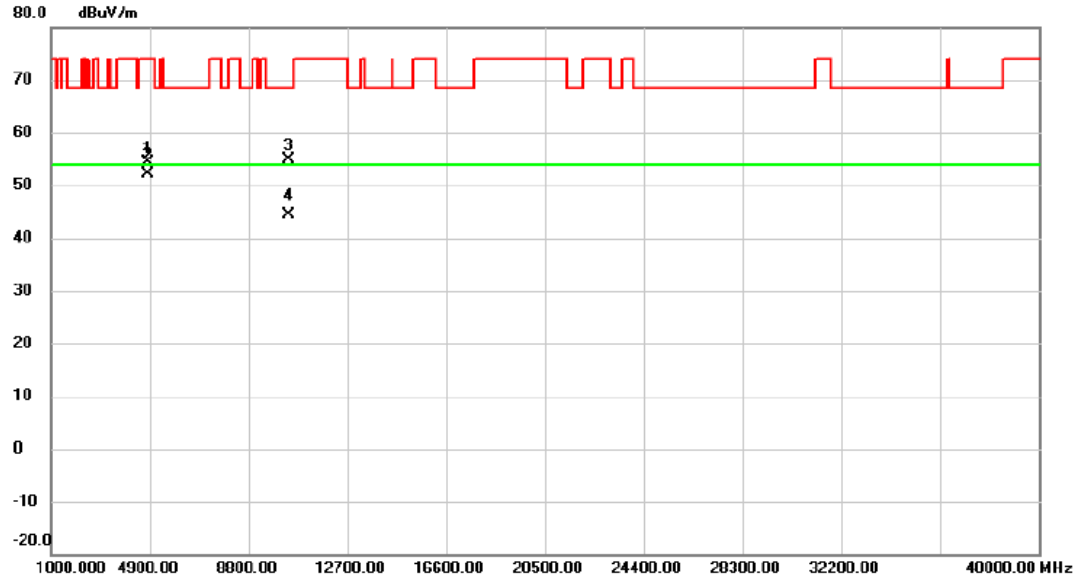
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4903.9530	27.90	4.66	32.56	54.00	-21.44	AVG	
2	4904.4070	39.11	4.66	43.77	74.00	-30.23	Peak	

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

The worst case of simultaneous transmission:

Test Mode:	TX WLAN 2.4G B Mode 2462MHz + WLAN 5G A Mode 5180MHz

Vertical

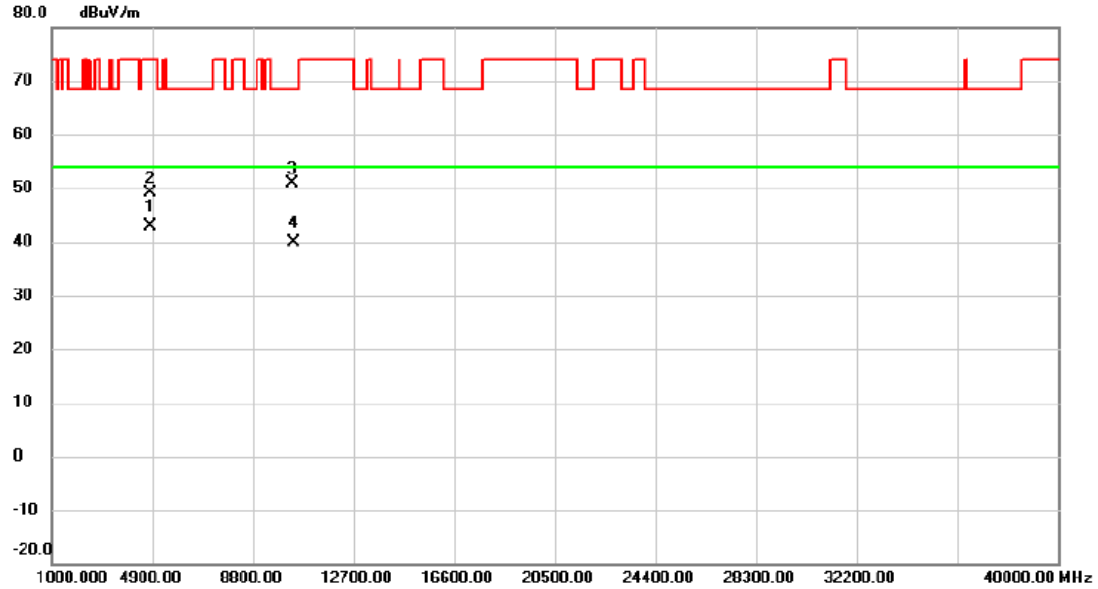


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.245	49.83	4.45	54.28	74.00	-19.72	peak	
2	*	4824.367	47.56	4.45	52.01	54.00	-1.99	AVG	
3		10360.412	42.57	12.29	54.86	68.30	-13.44	peak	
4		10361.223	32.03	12.29	44.32	54.00	-9.68	AVG	

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

Test Mode:	TX WLAN 2.4G B Mode 2462MHz + WLAN 5G A Mode 5180MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4824.385	38.34	4.45	42.79	54.00	-11.21	AVG	
2		4825.012	44.66	4.46	49.12	74.00	-24.88	peak	
3		10359.420	38.65	12.29	50.94	68.30	-17.36	peak	
4		10361.020	27.52	12.29	39.81	54.00	-14.19	AVG	

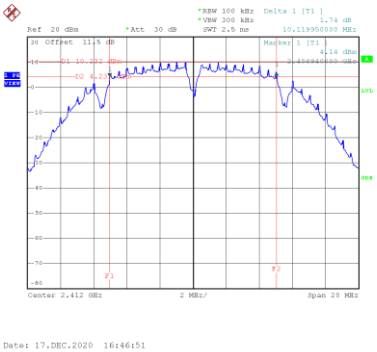
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

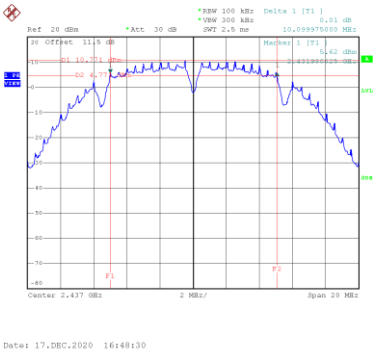
Test Mode	TX B Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	10.12	500	Complies
06	2437	10.10	500	Complies
11	2462	10.16	500	Complies

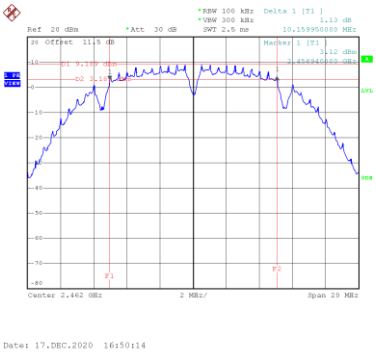
CH01



CH06

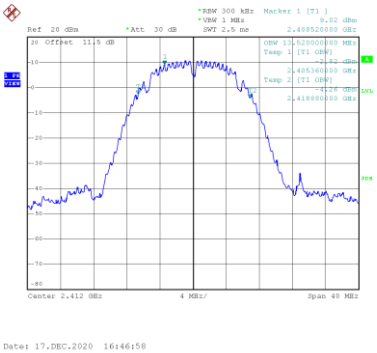


CH11

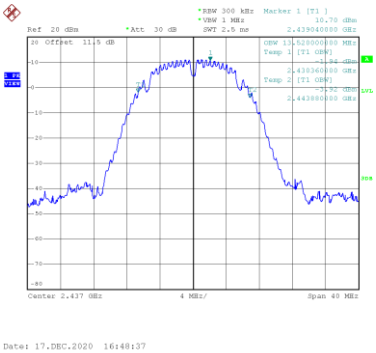


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	13.52	Complies
06	2437	13.52	Complies
11	2462	13.44	Complies

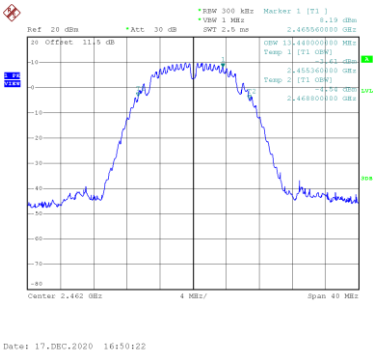
CH01



CH06



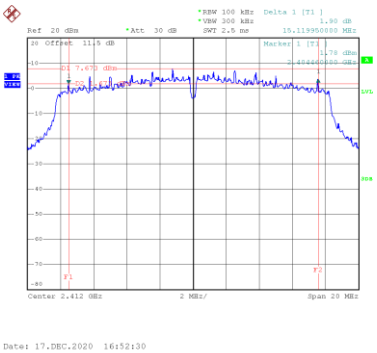
CH11



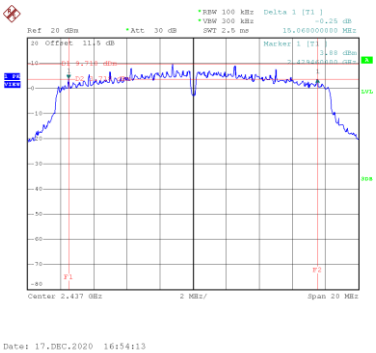
Test Mode	TX G Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.12	500	Complies
06	2437	15.06	500	Complies
11	2462	15.12	500	Complies

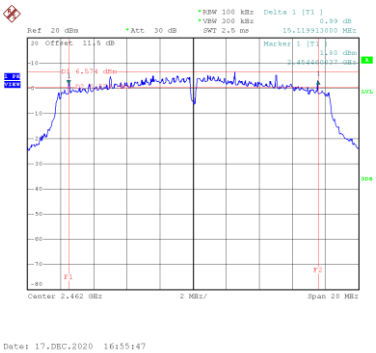
CH01



CH06

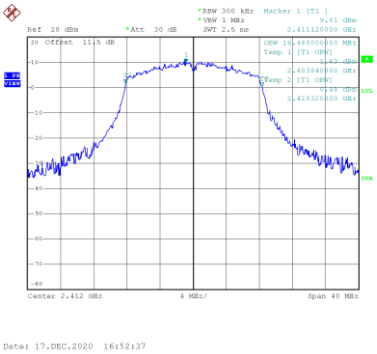


CH11

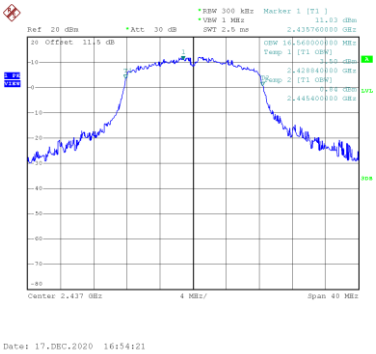


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.48	Complies
06	2437	16.56	Complies
11	2462	16.48	Complies

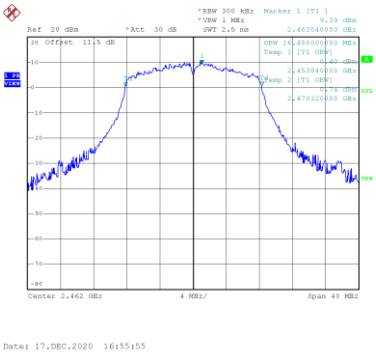
CH01



CH06



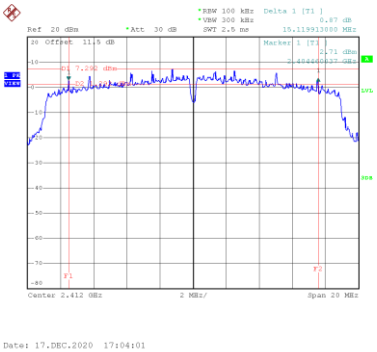
CH11



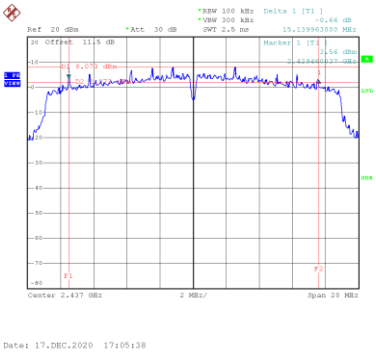
Test Mode	TX N-20M Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.12	500	Complies
06	2437	15.14	500	Complies
11	2462	15.12	500	Complies

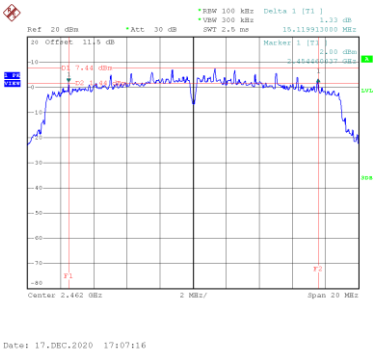
CH01



CH06

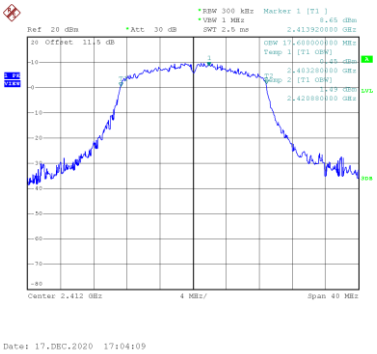


CH11

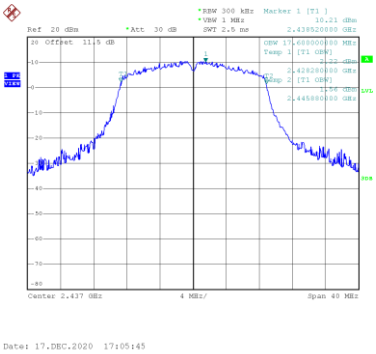


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.60	Complies
06	2437	17.60	Complies
11	2462	17.60	Complies

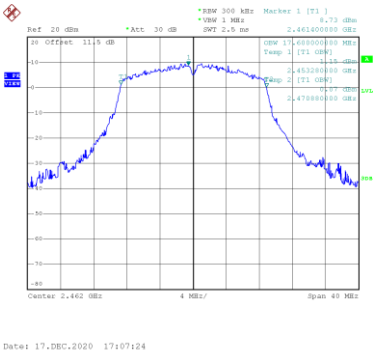
CH01



CH06



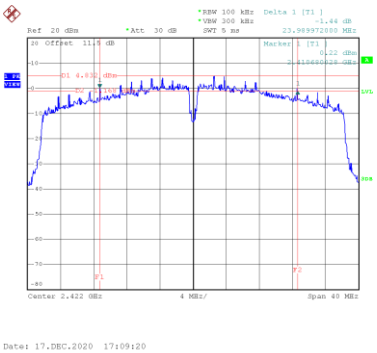
CH11



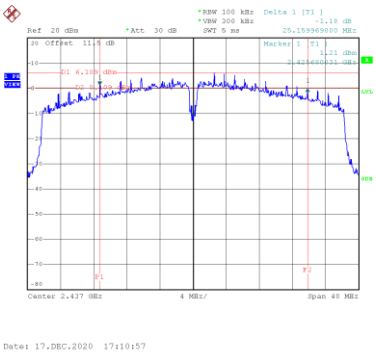
Test Mode	TX N-40M Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	23.99	500	Complies
06	2437	25.16	500	Complies
09	2452	25.19	500	Complies

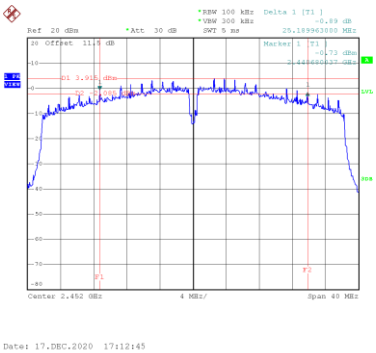
CH03



CH06

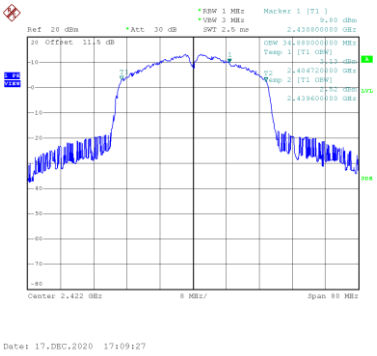


CH09

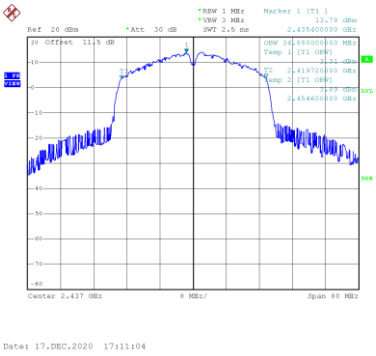


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	34.88	Complies
06	2437	34.88	Complies
09	2452	34.88	Complies

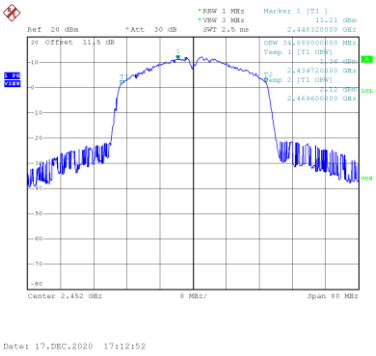
CH03



CH06



CH09



APPENDIX F - MAXIMUM OUTPUT POWER

Non-Beamforming

Test Mode	TX B Mode

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	24.04	30.00	1.0000	Complies
06	2437	24.43	30.00	1.0000	Complies
11	2462	22.96	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.16	30.00	1.0000	Complies
06	2437	21.66	30.00	1.0000	Complies
11	2462	20.02	30.00	1.0000	Complies

Test Mode	TX G Mode

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.96	30.00	1.0000	Complies
06	2437	27.48	30.00	1.0000	Complies
11	2462	26.65	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.01	30.00	1.0000	Complies
06	2437	20.94	30.00	1.0000	Complies
11	2462	18.48	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 1

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.44	30.00	1.0000	Complies
06	2437	26.73	30.00	1.0000	Complies
11	2462	24.48	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.68	30.00	1.0000	Complies
06	2437	18.27	30.00	1.0000	Complies
11	2462	16.81	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 2

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.28	30.00	1.0000	Complies
06	2437	26.55	30.00	1.0000	Complies
11	2462	23.96	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.35	30.00	1.0000	Complies
06	2437	18.33	30.00	1.0000	Complies
11	2462	16.83	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Total

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.37	30.00	1.0000	Complies
06	2437	29.65	30.00	1.0000	Complies
11	2462	27.24	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.53	30.00	1.0000	Complies
06	2437	21.31	30.00	1.0000	Complies
11	2462	19.83	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 1

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.83	30.00	1.0000	Complies
06	2437	26.83	30.00	1.0000	Complies
09	2452	23.64	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.59	30.00	1.0000	Complies
06	2437	17.44	30.00	1.0000	Complies
09	2452	14.66	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 2

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	26.03	30.00	1.0000	Complies
06	2437	26.87	30.00	1.0000	Complies
09	2452	23.91	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.93	30.00	1.0000	Complies
06	2437	17.79	30.00	1.0000	Complies
09	2452	14.84	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Total

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	28.94	30.00	1.0000	Complies
06	2437	29.86	30.00	1.0000	Complies
09	2452	26.79	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	19.77	30.00	1.0000	Complies
06	2437	20.62	30.00	1.0000	Complies
09	2452	17.76	30.00	1.0000	Complies

Beamforming

Test Mode	TX N-20M Mode_Ant. 1

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.15	30.00	1.0000	Complies
06	2437	26.51	30.00	1.0000	Complies
11	2462	24.21	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.41	30.00	1.0000	Complies
06	2437	17.98	30.00	1.0000	Complies
11	2462	16.66	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 2

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.02	30.00	1.0000	Complies
06	2437	26.43	30.00	1.0000	Complies
11	2462	23.76	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.10	30.00	1.0000	Complies
06	2437	18.23	30.00	1.0000	Complies
11	2462	16.55	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Total

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.10	30.00	1.0000	Complies
06	2437	29.48	30.00	1.0000	Complies
11	2462	27.00	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.48	30.00	1.0000	Complies
06	2437	20.33	30.00	1.0000	Complies
11	2462	18.83	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 1

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.61	30.00	1.0000	Complies
06	2437	26.62	30.00	1.0000	Complies
09	2452	23.43	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.42	30.00	1.0000	Complies
06	2437	17.21	30.00	1.0000	Complies
09	2452	14.46	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 2

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.75	30.00	1.0000	Complies
06	2437	26.73	30.00	1.0000	Complies
09	2452	23.72	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.82	30.00	1.0000	Complies
06	2437	17.59	30.00	1.0000	Complies
09	2452	14.61	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Total

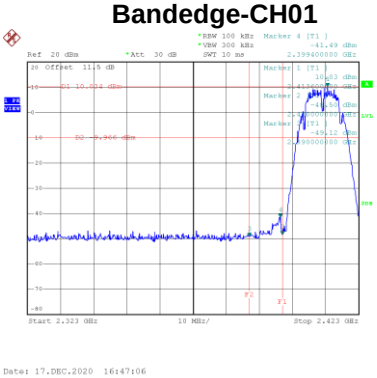
Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	28.69	30.00	1.0000	Complies
06	2437	29.69	30.00	1.0000	Complies
09	2452	26.59	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.16	30.00	1.0000	Complies
06	2437	18.94	30.00	1.0000	Complies
09	2452	16.08	30.00	1.0000	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

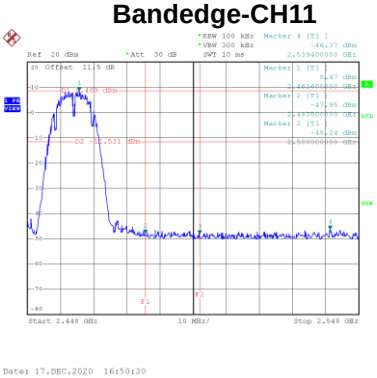
Test Mode	TX B Mode

Bandedge-CH01



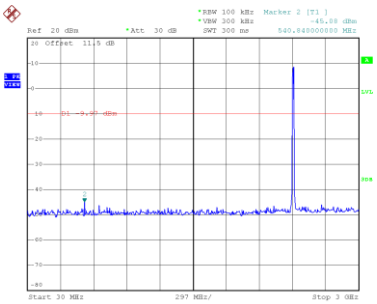
Date: 17.DEC.2020 16:47:06

Bandedge-CH11

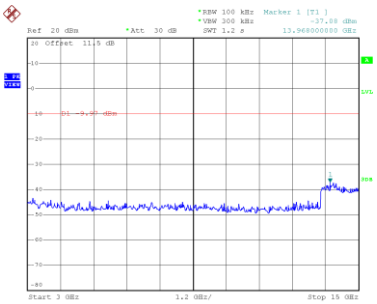


Date: 17.DEC.2020 16:50:30

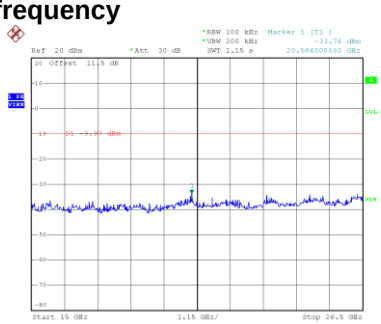
CH01 – 10th Harmonic of the fundamental frequency



Date: 17.DEC.2020 16:47:20

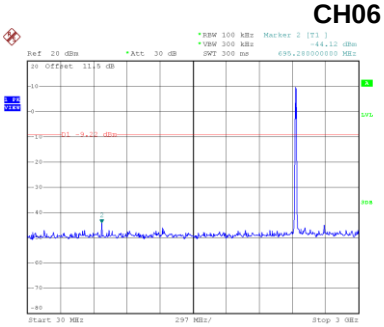


Date: 17.DEC.2020 16:47:28

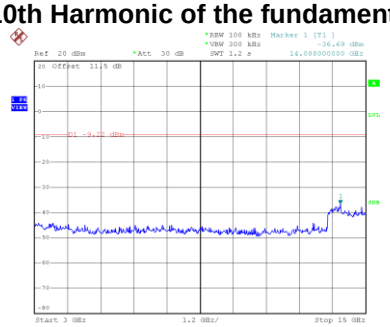


Date: 17.DEC.2020 16:47:36

CH06 – 10th Harmonic of the fundamental frequency



Date: 17.DEC.2020 16:48:59



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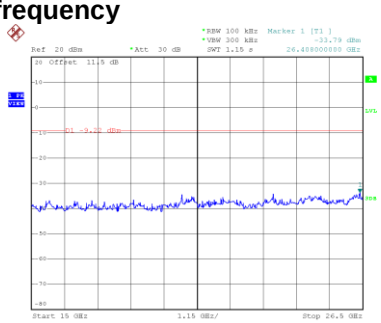
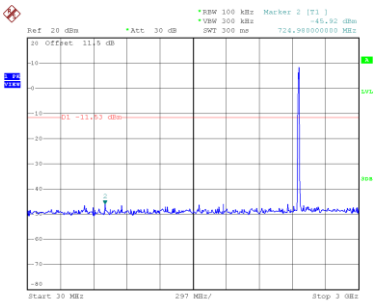
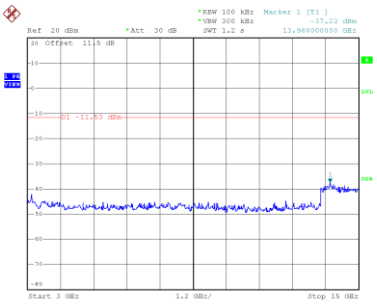


Date: 17.DEC.2020 16:49:15

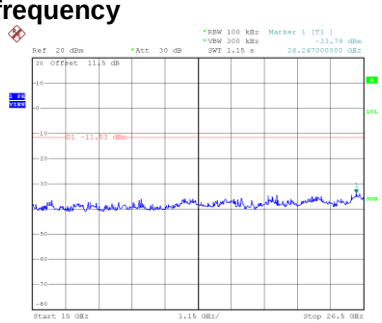
CH11 – 10th Harmonic of the fundamental frequency



Date: 17.DEC.2020 16:50:43



Date: 17.DEC.2020 16:50:51



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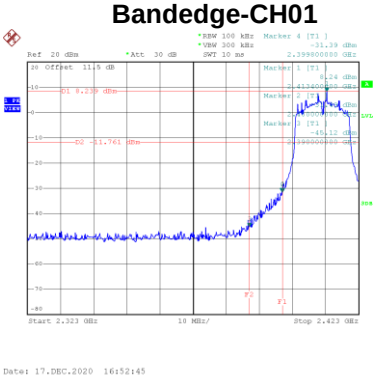
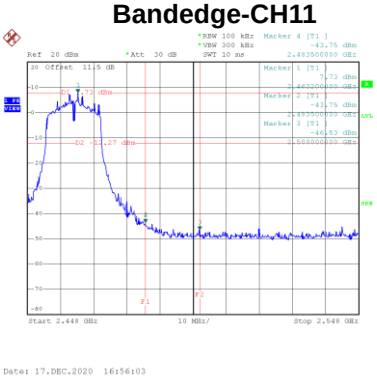
Test Mode	TX G Mode

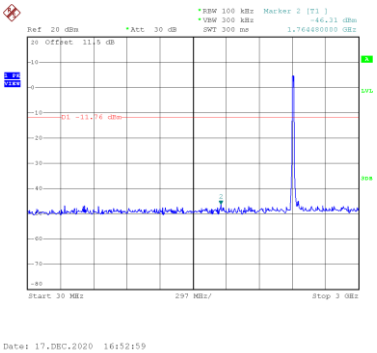
Bandedge-CH01

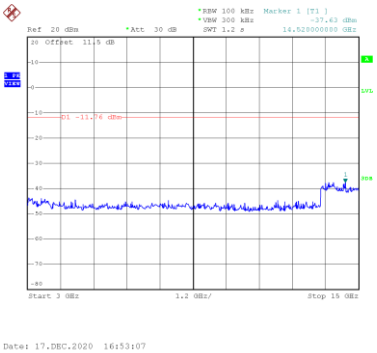


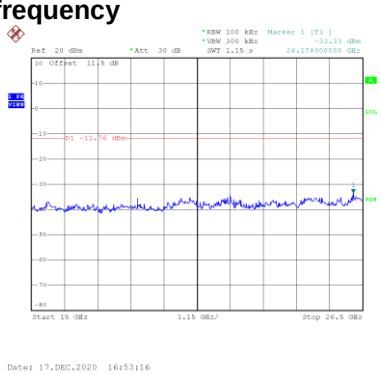
Bandedge-CH11



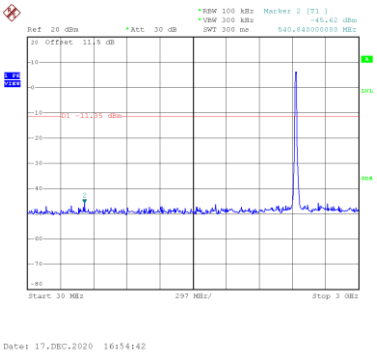
CH01 – 10th Harmonic of the fundamental frequency

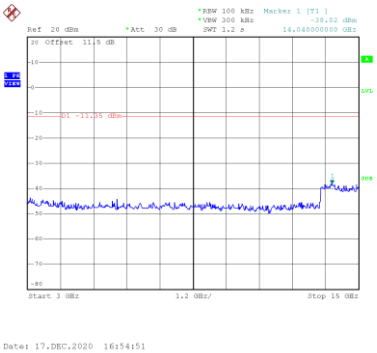


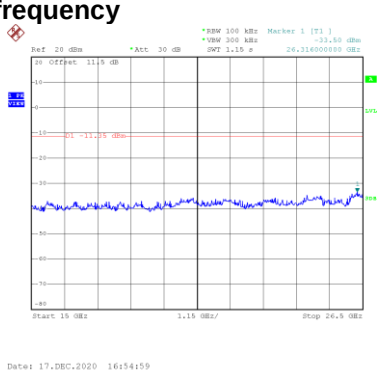




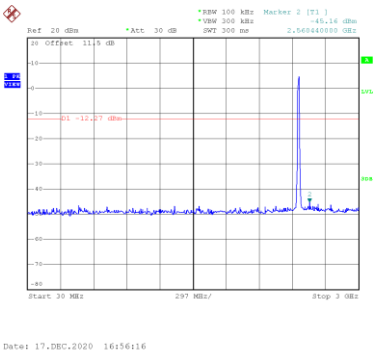
CH06 – 10th Harmonic of the fundamental frequency

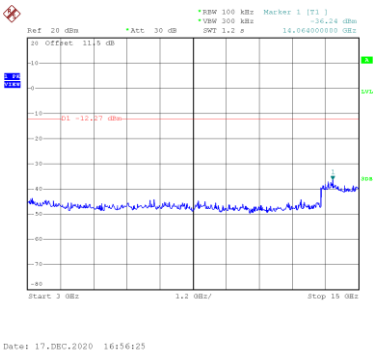


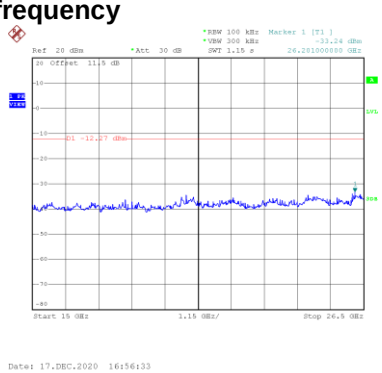




CH11 – 10th Harmonic of the fundamental frequency

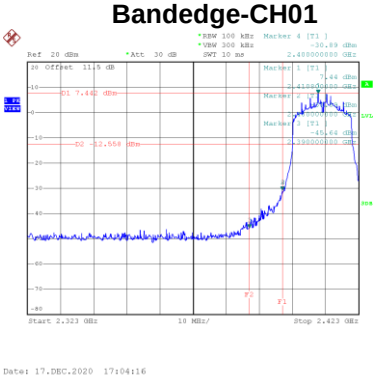




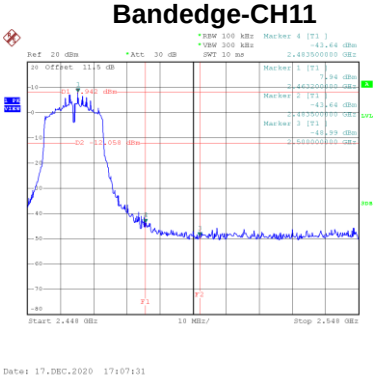


Test Mode	TX N-20M Mode_Ant. 1

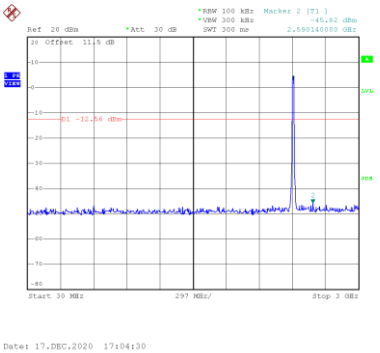
Bandedge-CH01

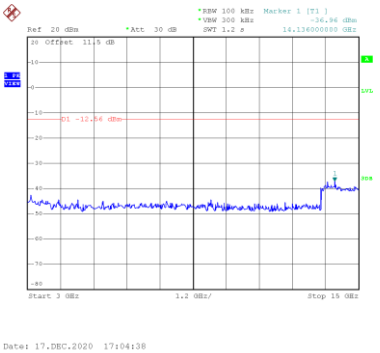


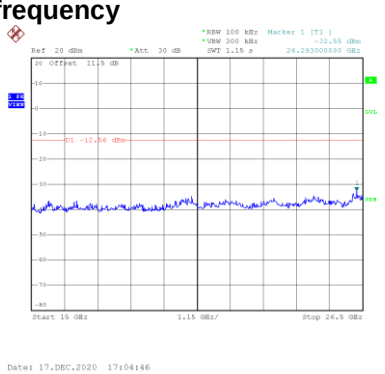
Bandedge-CH11



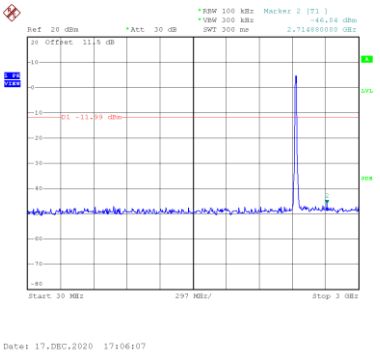
CH01 – 10th Harmonic of the fundamental frequency

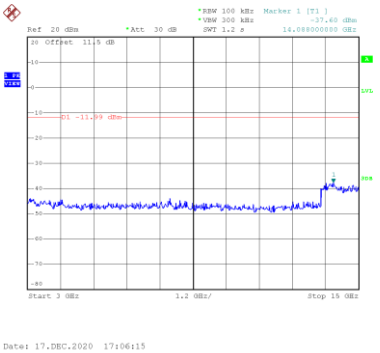


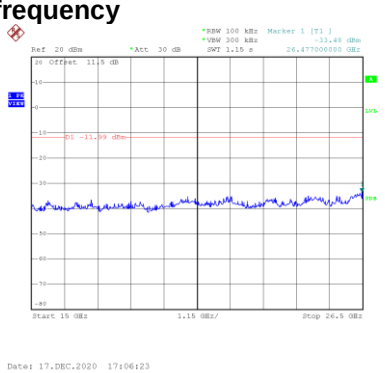




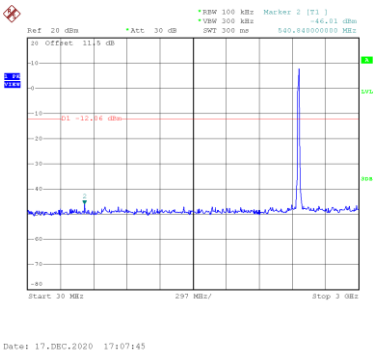
CH06 – 10th Harmonic of the fundamental frequency

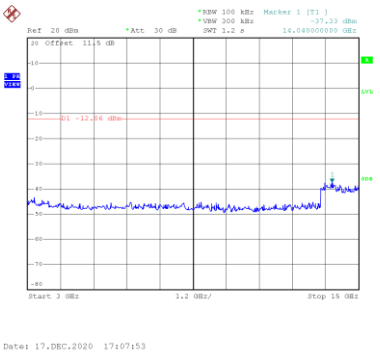


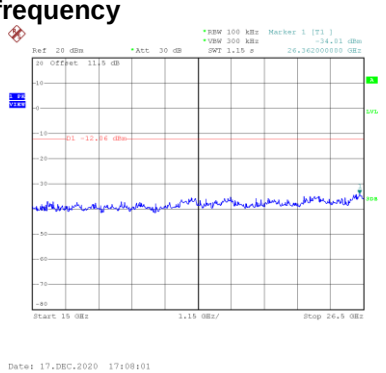




CH11 – 10th Harmonic of the fundamental frequency

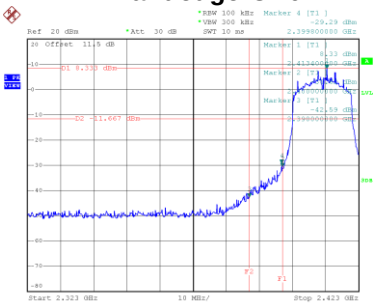




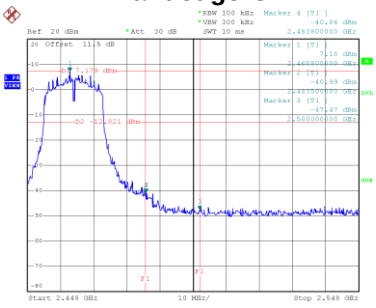


Test Mode	TX N-20M Mode_Ant. 2

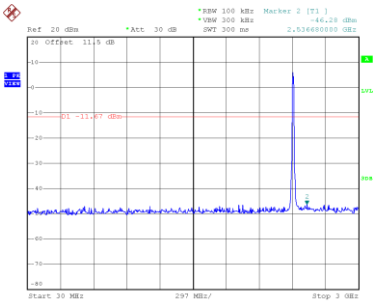
Bandedge-CH01

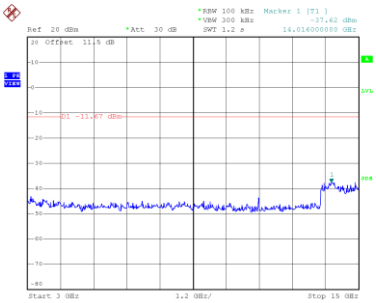


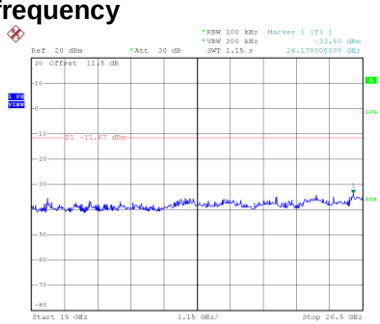
Bandedge-CH11



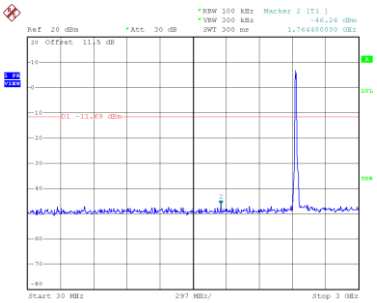
CH01 – 10th Harmonic of the fundamental frequency

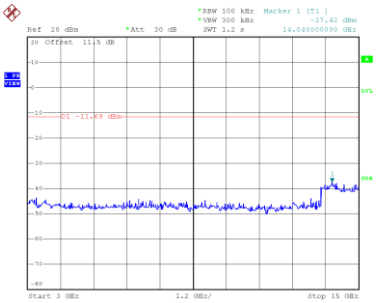


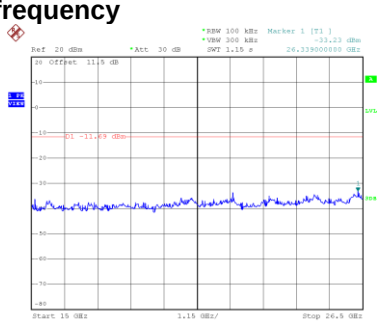




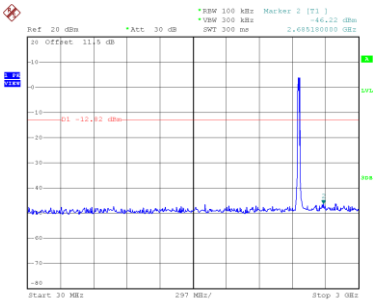
CH06 – 10th Harmonic of the fundamental frequency

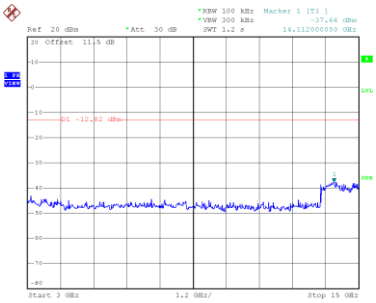


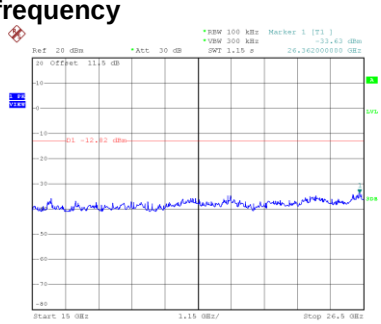




CH11 – 10th Harmonic of the fundamental frequency

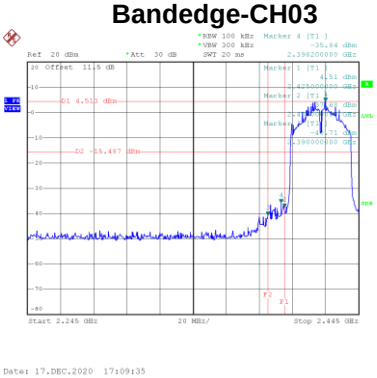




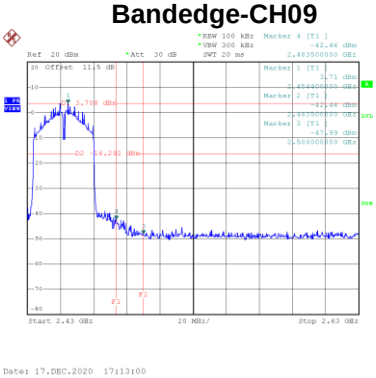


Test Mode	TX N-40M Mode_Ant. 1

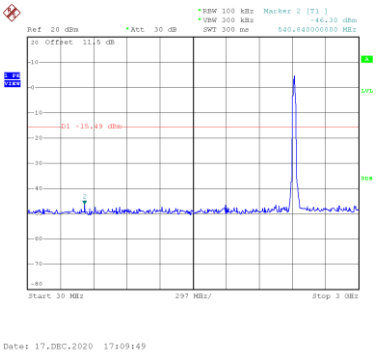
Bandedge-CH03

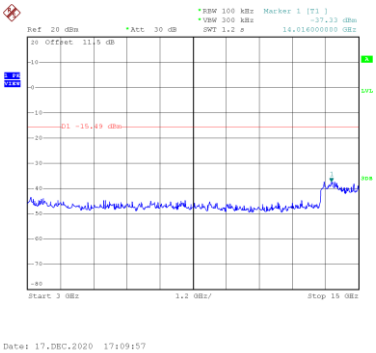


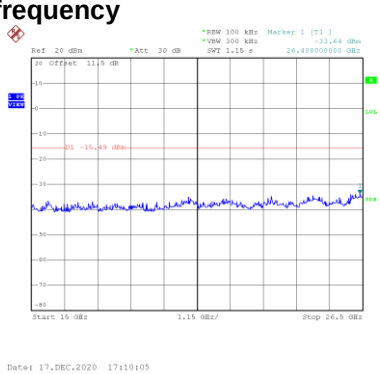
Bandedge-CH09



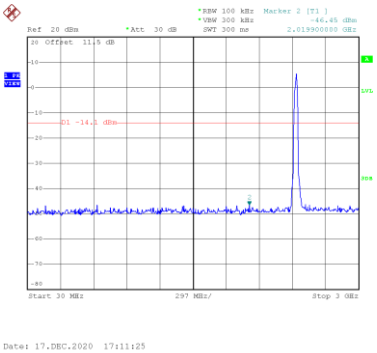
CH03 – 10th Harmonic of the fundamental frequency

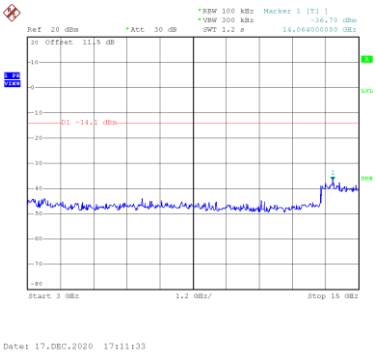


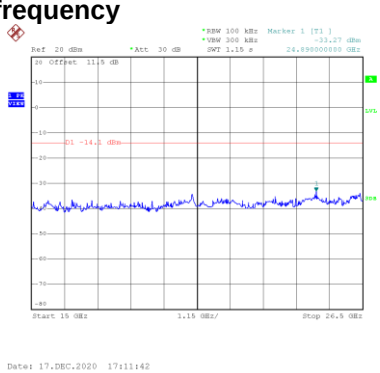




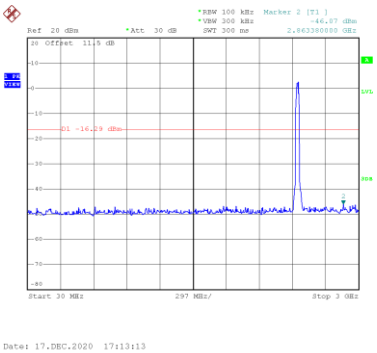
CH06 – 10th Harmonic of the fundamental frequency

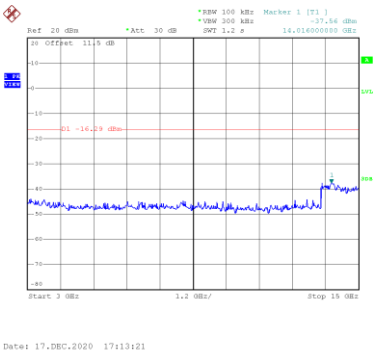


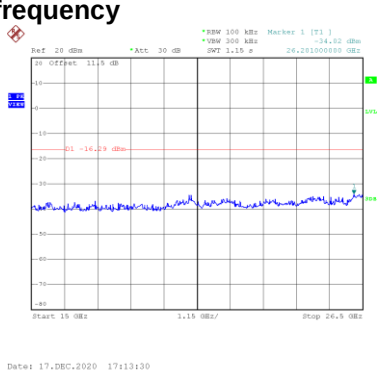




CH09 – 10th Harmonic of the fundamental frequency

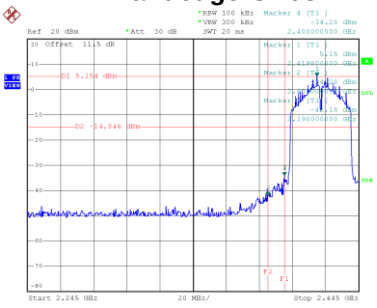






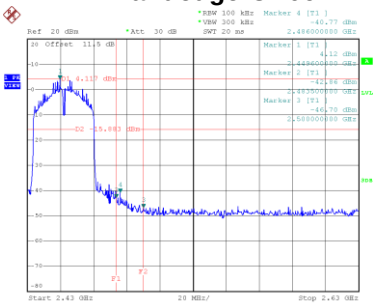
Test Mode	TX N-40M Mode_Ant. 2

Bandedge-CH03



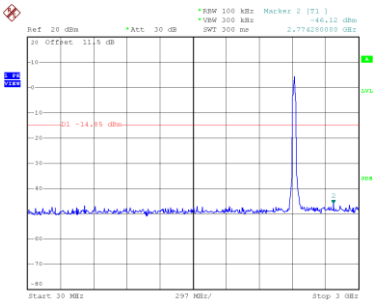
Date: 17.DEC.2020 17:48:12

Bandedge-CH09

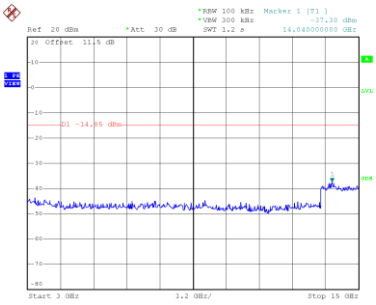


Date: 17.DEC.2020 17:51:53

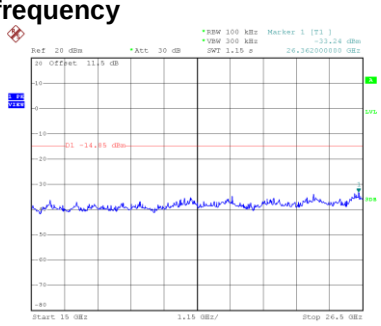
CH03 – 10th Harmonic of the fundamental frequency



Date: 17.DEC.2020 17:48:26

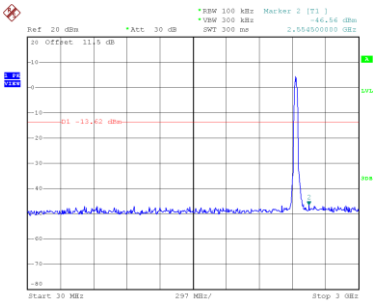


Date: 17.DEC.2020 17:48:34

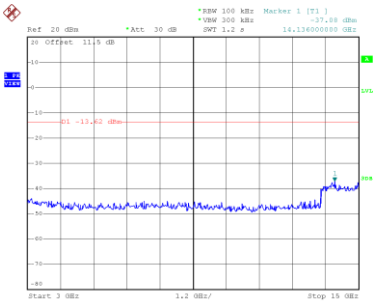


Date: 17.DEC.2020 17:48:42

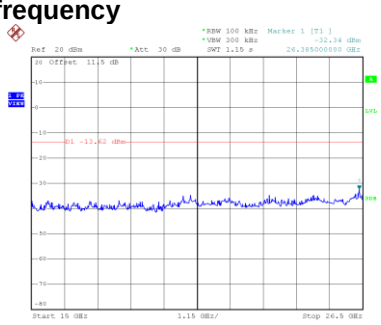
CH06 – 10th Harmonic of the fundamental frequency



Date: 17.DEC.2020 17:50:27

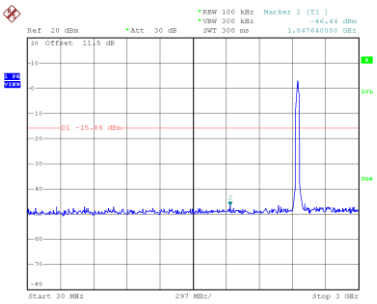


Date: 17.DEC.2020 17:50:36



Date: 17.DEC.2020 17:50:44

CH09 – 10th Harmonic of the fundamental frequency



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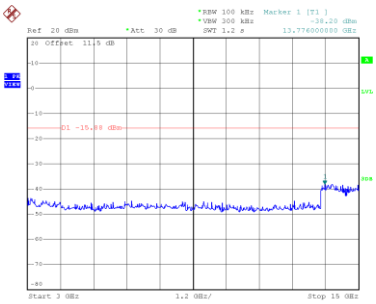

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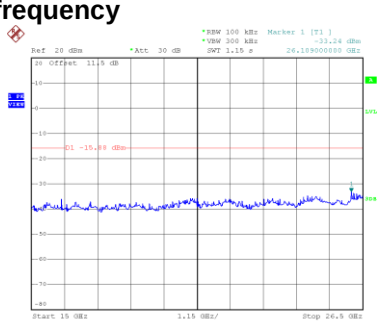

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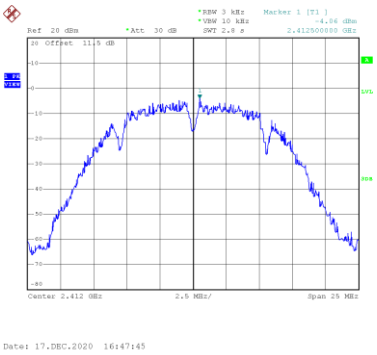
APPENDIX H - POWER SPECTRAL DENSITY

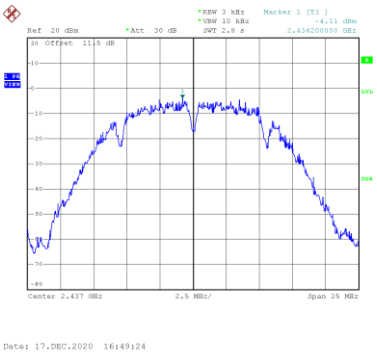
Test Mode	TX B Mode

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-4.06	8	Complies
06	2437	-4.11	8	Complies
11	2462	-5.18	8	Complies

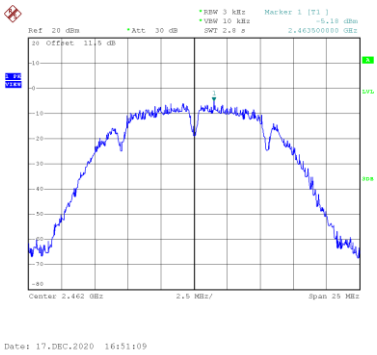
CH01



CH06



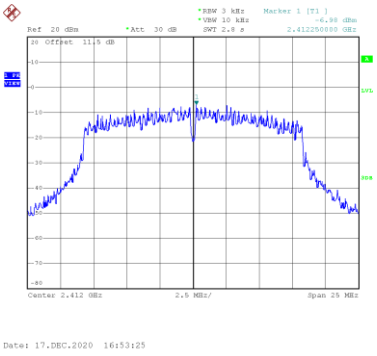
CH11



Test Mode	TX G Mode

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-6.98	8	Complies
06	2437	-5.62	8	Complies
11	2462	-7.40	8	Complies

CH01



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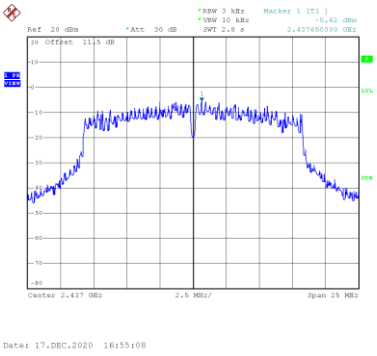

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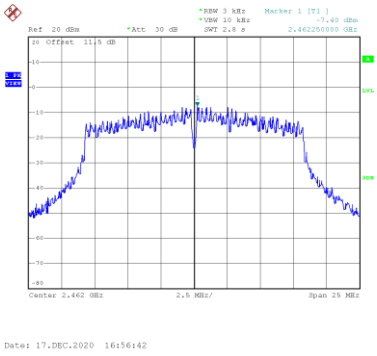
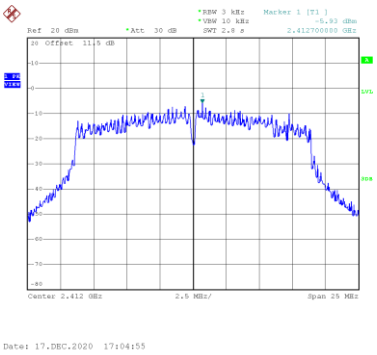


Test Mode	TX N-20M Mode_Ant. 1

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.93	8	Complies
06	2437	-5.39	8	Complies
11	2462	-7.24	8	Complies

CH01



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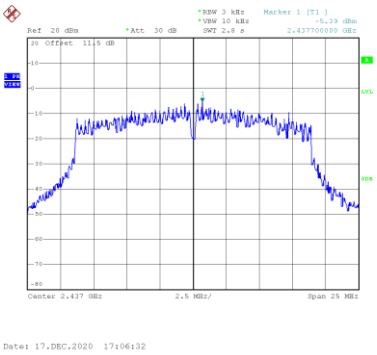

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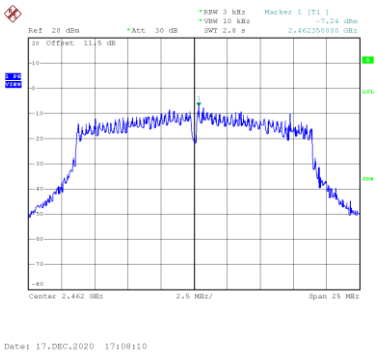
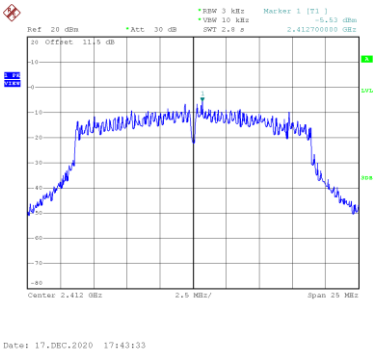


Test Mode	TX N-20M Mode_Ant. 2

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.53	8	Complies
06	2437	-5.63	8	Complies
11	2462	-7.00	8	Complies

CH01



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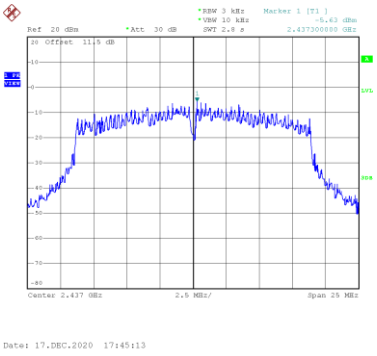
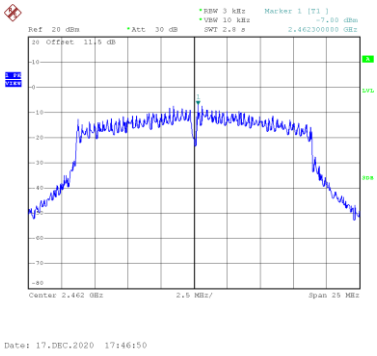


CH11



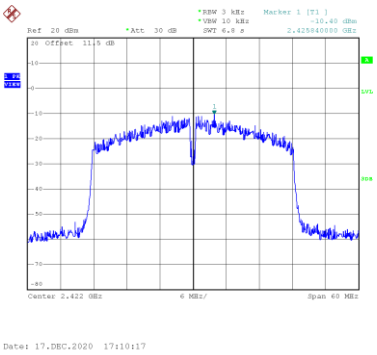
Test Mode	TX N-20M Mode_Total

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-2.72	7.99	Complies
06	2437	-2.50	7.99	Complies
11	2462	-4.11	7.99	Complies

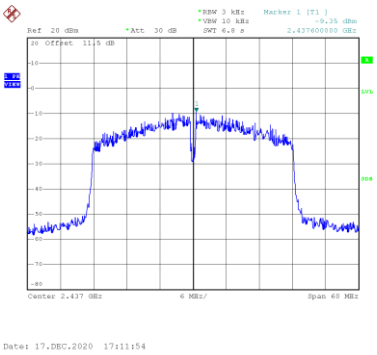
Test Mode	TX N-40M Mode_Ant. 1

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-10.40	8	Complies
06	2437	-9.35	8	Complies
09	2452	-10.98	8	Complies

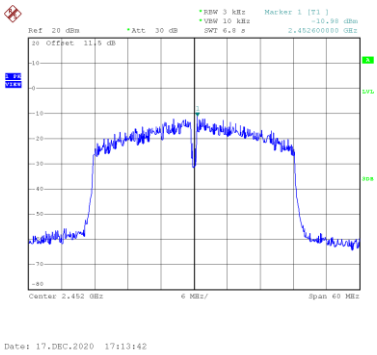
CH03



CH06



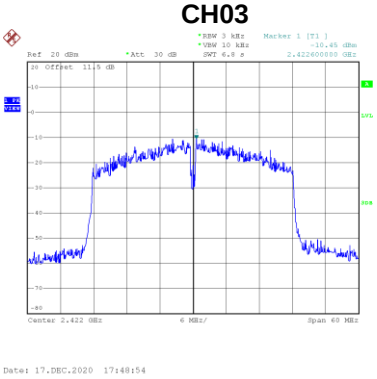
CH09



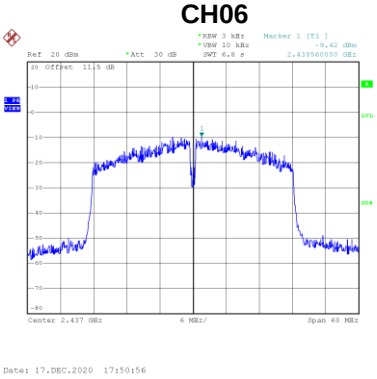
Test Mode	TX N-40M Mode_Ant. 2

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-10.45	8	Complies
06	2437	-9.42	8	Complies
09	2452	-11.76	8	Complies

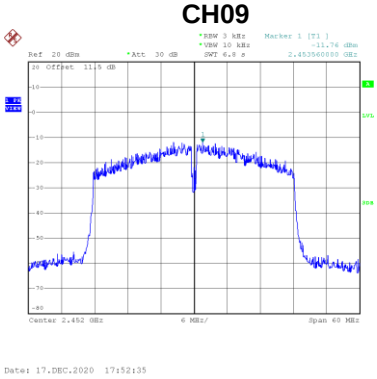
CH03



CH06



CH09



Test Mode	TX N-40M Mode_Total

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-7.41	7.99	Complies
06	2437	-6.37	7.99	Complies
09	2452	-8.34	7.99	Complies

End of Test Report