FCC Radio Test Report

FCC ID: 2AUA9-RQZY002

This report concerns: Original Grant

Project No.	:	2006C111
Equipment	:	AC2100 Dual Band WiFi Repeater
Brand Name	:	ROCK, rock space
Test Model	:	RSD0617
Series Model	:	N/A
Applicant	:	Shenzhen Renqing Excellent Technology Co., Ltd.
Address	:	104, No.15, Longfu Industrial Zone, Tongsheng Community, Dalang Street, Longhua District, Shenzhen, Guangdong, China
Manufacturer	:	Shenzhen Renqing Excellent Technology Co., Ltd.
Address	:	104, No.15, Longfu Industrial Zone, Tongsheng Community, Dalang Street, Longhua District, Shenzhen, Guangdong, China
Date of Receipt	:	Jun. 22, 2020
Date of Test	:	Jun. 23, 2020 ~ Jul. 15, 2020
Issued Date	:	Jul. 23, 2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG2020061981 for conducted, DG2020061982 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.

Prepared by : Chay Cai

Approved by : Ethan Ma

Certificate #5123.02

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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).

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

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

Table of Contents Page

Table of Contents Page

Table of Contents Page

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Jul. 23, 2020

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	2.60

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz ~ 30MHz	V	3.79
		9kHz ~ 30MHz	H	3.57
		30MHz ~ 200MHz	V	4.88
		30MHz ~ 200MHz	H	4.14
		200MHz ~ 1,000MHz	V	4.62
		200MHz ~ 1,000MHz	H	4.80
		1GHz ~ 6GHz	-	4.58
		6GHz ~ 18GHz	-	5.18
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

C. Other Measurement:

Parameter	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
Time	±0.58 %
Supply voltages	±0.3 %

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	Sheldon Ou
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Sheldon Ou
Radiated Emissions-30 MHz to 1GHz	22°C	54%	AC 120V/60Hz	Sheldon Ou
Radiated Emissions-Above 1000 MHz	22°C	54%	AC 120V/60Hz	Sheldon Ou
Bandwidth	26°C	59%	AC 120V/60Hz	Hayden Chen
Maximum output power	26°C	59%	AC 120V/60Hz	Laughing Zhang
Conducted Spurious Emissions	26°C	59%	AC 120V/60Hz	Hayden Chen
Power Spectral Density	26°C	59%	AC 120V/60Hz	Hayden Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC2100 Dual Band WiFi Repeater
Brand Name	ROCK, rock space
Test Model	RSD0617
Series Model	N/A
Model Difference(s)	N/A
Power Source	AC Mains.
Power Rating	100-240V~ 0.3A 50/60Hz
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps
Maximum Peak Output Power_Non Beamforming	IEEE 802.11b: 25.93 dBm (0.3917 W) IEEE 802.11g: 28.64 dBm (0.7311 W) IEEE 802.11n (HT20): 29.49 dBm (0.8892 W) IEEE 802.11n (HT40): 29.49 dBm (0.8892 W)
Maximum Peak Output Power_Beamforming	IEEE 802.11n (HT20): 29.36 dBm (0.8630 W) IEEE 802.11n (HT40): 29.36 dBm (0.8630 W)
Maximum Average Output Power_Non Beamforming	IEEE 802.11b: 21.34 dBm (0.1361 W) IEEE 802.11g: 21.14 dBm (0.1300 W) IEEE 802.11n (HT20): 19.75 dBm (0.0944 W) IEEE 802.11n (HT40): 21.64 dBm (0.1459 W)
Maximum Average Output Power_Beamforming	IEEE 802.11n (HT20): 18.98 dBm (0.0791 W) IEEE 802.11n (HT40): 21.47 dBm (0.1403 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	Dipole	N/A	3.4
2	N/A	N/A	Dipole	N/A	3.5

Note:

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

4. Table for Antenna Configuration:

For Non Beamforming

Operating Mode / TX Mode	1TX	2TX
802.11b	V (Ant. 1)	-
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-20 Mode Channel 01

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-20 Mode Channel 01

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 5	TX N-20 Mode Channel 01

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 802.11n20 Channel 01 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 RF 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 N40 Mode 2422MHz + WLAN 5G AC80 Mode 5775MHz was found the worst case of simultaneous transmission and recorded.

2.3 PARAMETERS OF TEST SOFTWARE

Non Beamforming

Test Software	MP_TEST V1.3.8.0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	107	107	107
IEEE 802.11g	100	117	93
IEEE 802.11n (HT20)	88/88	92/87	83/78
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	85/80	90/85	77/72

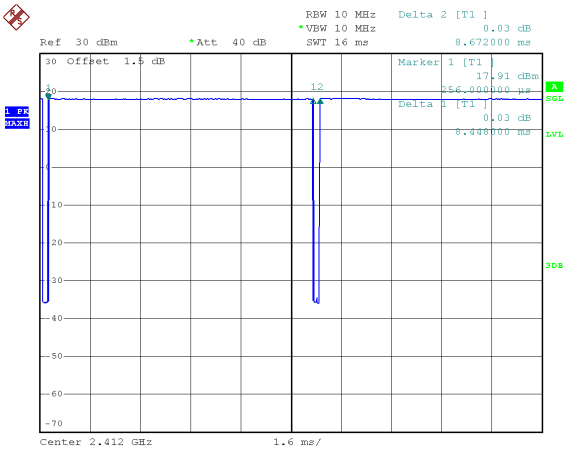
Beamforming

Test Software	MP_TEST V1.3.8.0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n (HT20)	87/87	91/86	82/77
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	84/79	89/84	76/71

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.

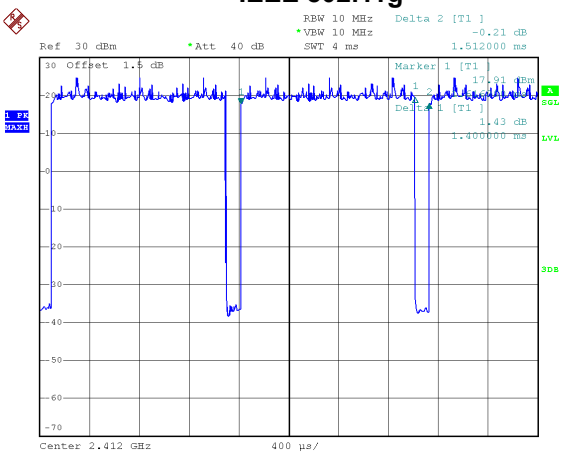
IEEE 802.11b



Date: 14.JUL.2020 14:18:30

Duty cycle = 8.448 ms / 8.672 ms = 97.42%
Duty Factor = 10 log(1/Duty cycle) = 0.11

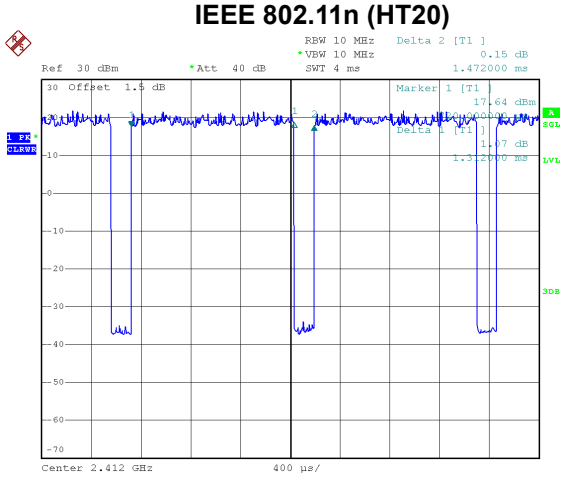
IEEE 802.11g



Date: 14.JUL.2020 14:18:58

Duty cycle = 1.400 ms / 1.512 ms = 92.59%
Duty Factor = 10 log(1/Duty cycle) = 0.33

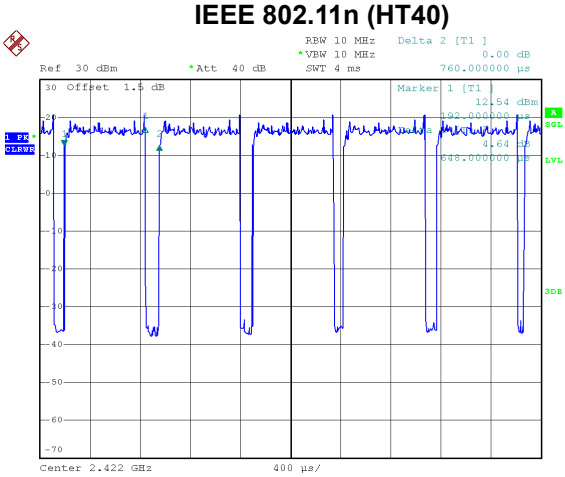
IEEE 802.11n (HT20)



Date: 14.JUL.2020 14:19:31

Duty cycle = 1.312 ms / 1.472 ms = 89.13%
Duty Factor = 10 log(1/Duty cycle) = 0.50

IEEE 802.11n (HT40)



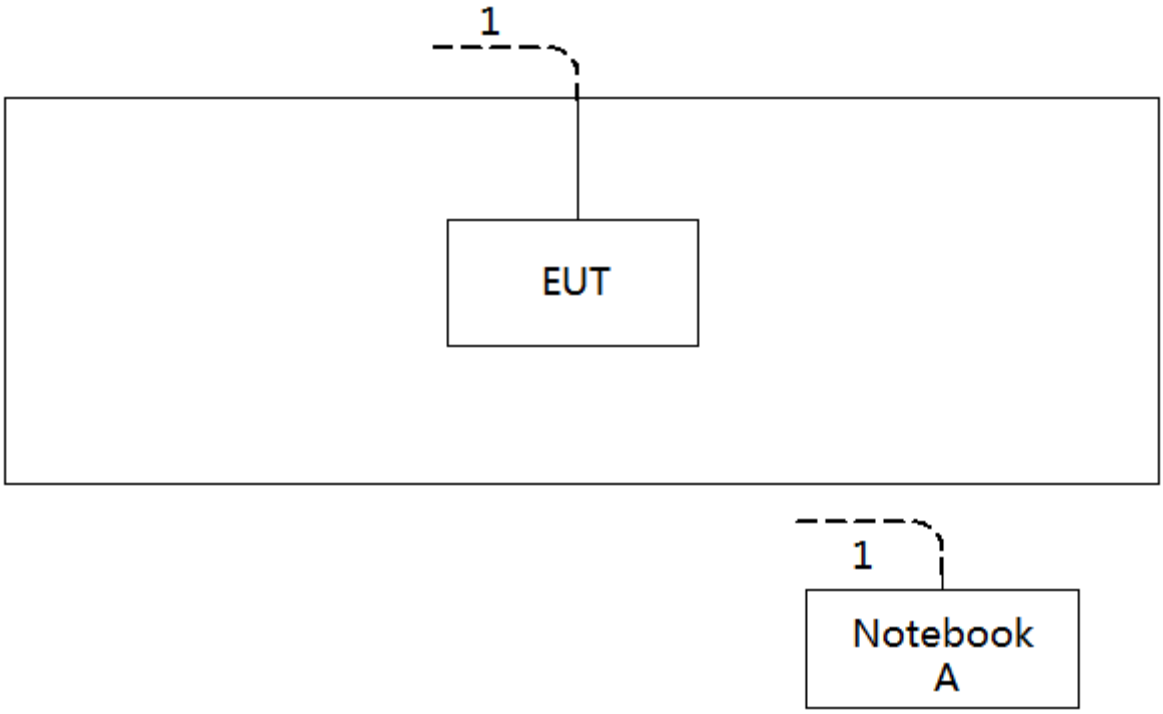
Date: 14.JUL.2020 14:20:39

Duty cycle = 0.648 ms / 0.760 ms = 85.26%
Duty Factor = 10 log(1/Duty cycle) = 0.69

NOTE:
For IEEE 802.11b, 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	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 - 0.5	66 to 56*	56 to 46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:

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

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

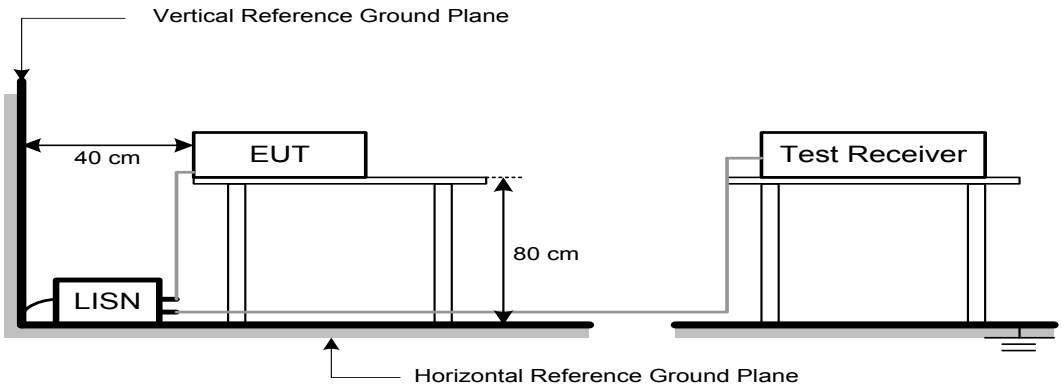
3.2 TEST PROCEDURE

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)

For WLAN 2.4GHz:

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

For WLAN 5GHz:

Frequency (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dBμV/m)
5725-5850	-27 NOTE (4)	68.3
	10 NOTE (4)	105.3
	15.6 NOTE (4)	110.9
	27 NOTE (4)	122.3

NOTE:

(1) The limit for radiated test was performed according to FCC PART 15C & FCC PART 15E.
(2) The tighter limit applies at the band edges.
(3) Emission level (dBuV/m)=20log Emission level (uV/m).
(4) According to 15.407(b)(4)(i), all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

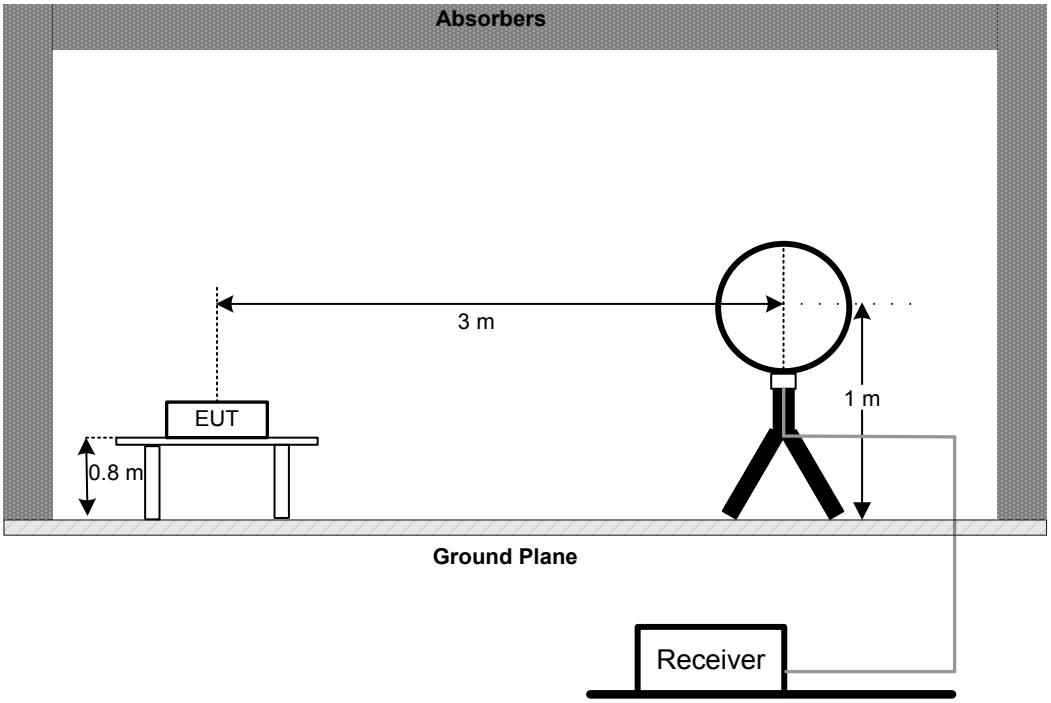
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform. (below 1 GHz)
h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn‘t perform. (above 1 GHz)
i. For the actual test configuration, please refer to the related Item - EUT Test Photos.

4.3 DEVIATION FROM TEST STANDARD

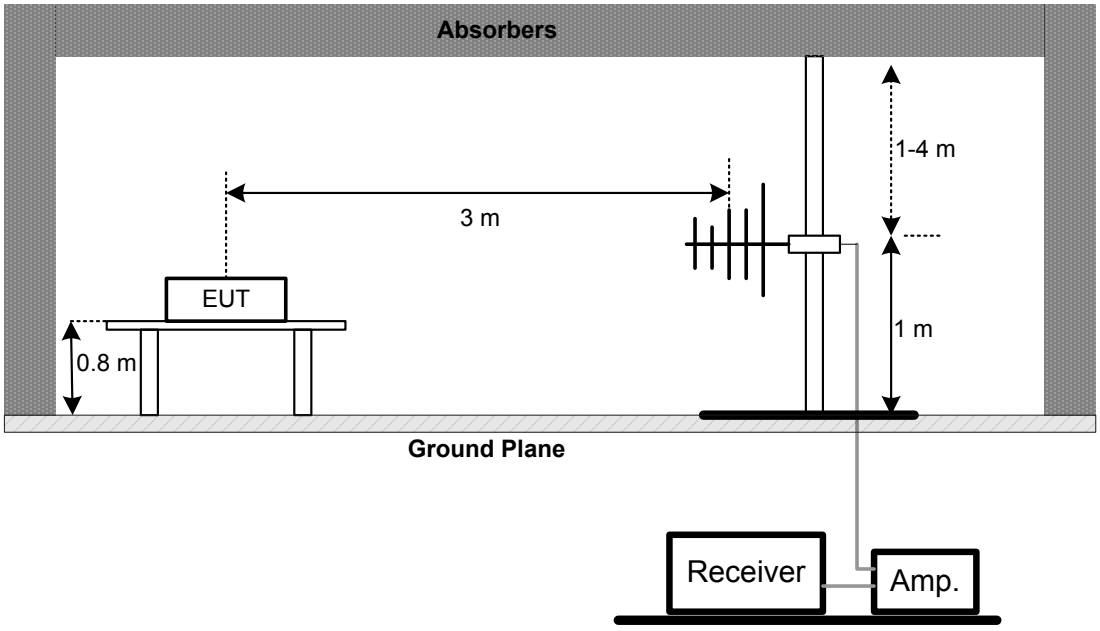
No deviation

4.4 TEST SETUP

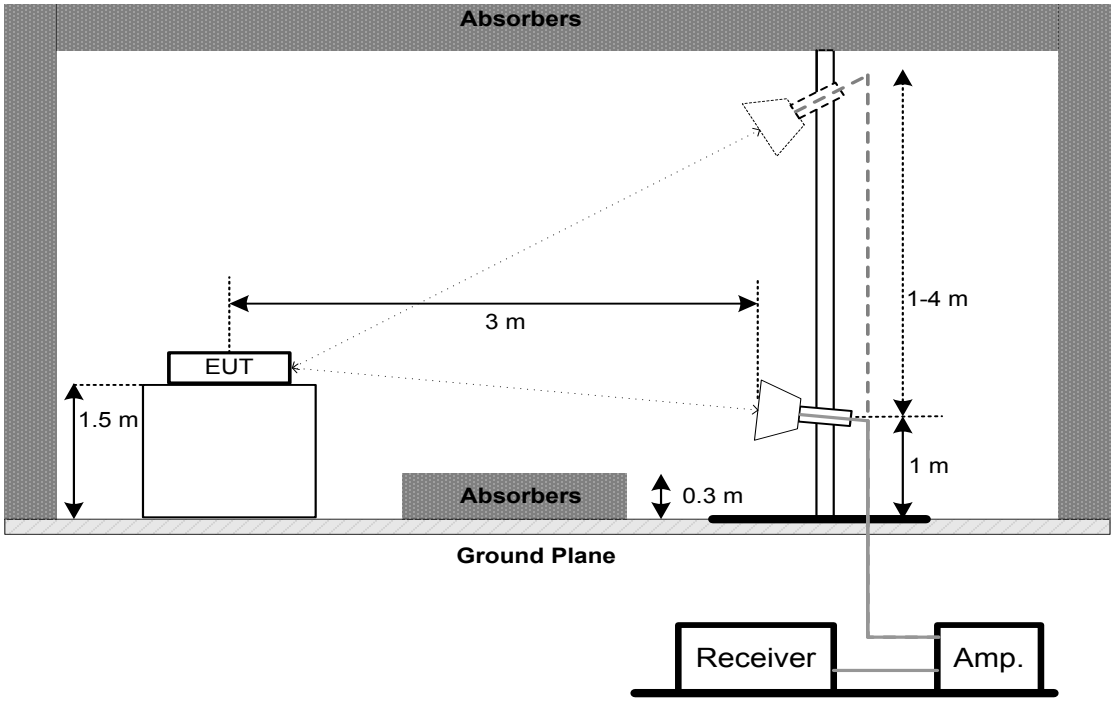
9 kHz-30 MHz



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	-

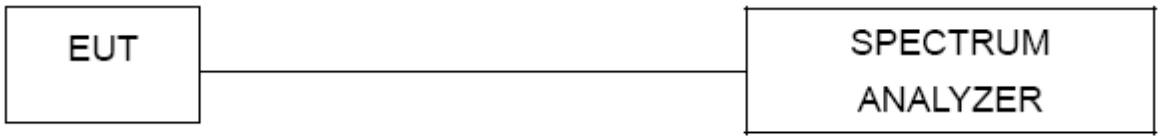
5.2 TEST PROCEDURE

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/N20 Mode: RBW= 300 KHz, VBW=1 MHz, Sweep time = 2.5 ms.
For 99% Emission Bandwidth N40 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

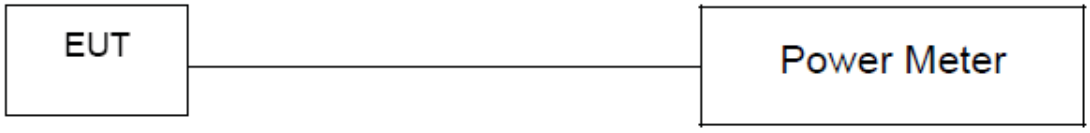
6.2 TEST PROCEDURE

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

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

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	Aug. 03, 2020
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

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	Aug. 03, 2020
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

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	Aug. 03, 2020

Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 03, 2020
2	Wideband power sensor	Keysight	N1923A	MY58310004	Aug. 03, 2020

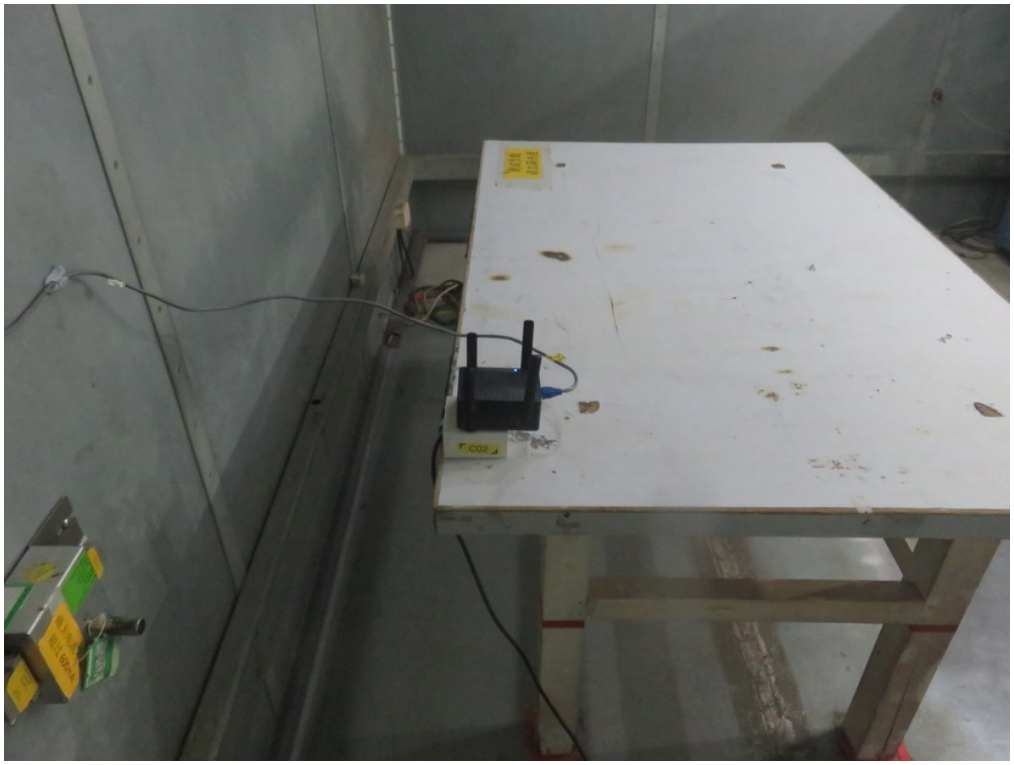
Remark: ”N/A” denotes no model name, serial no. or calibration specified.

“*” calibration period of equipment list is three year.

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

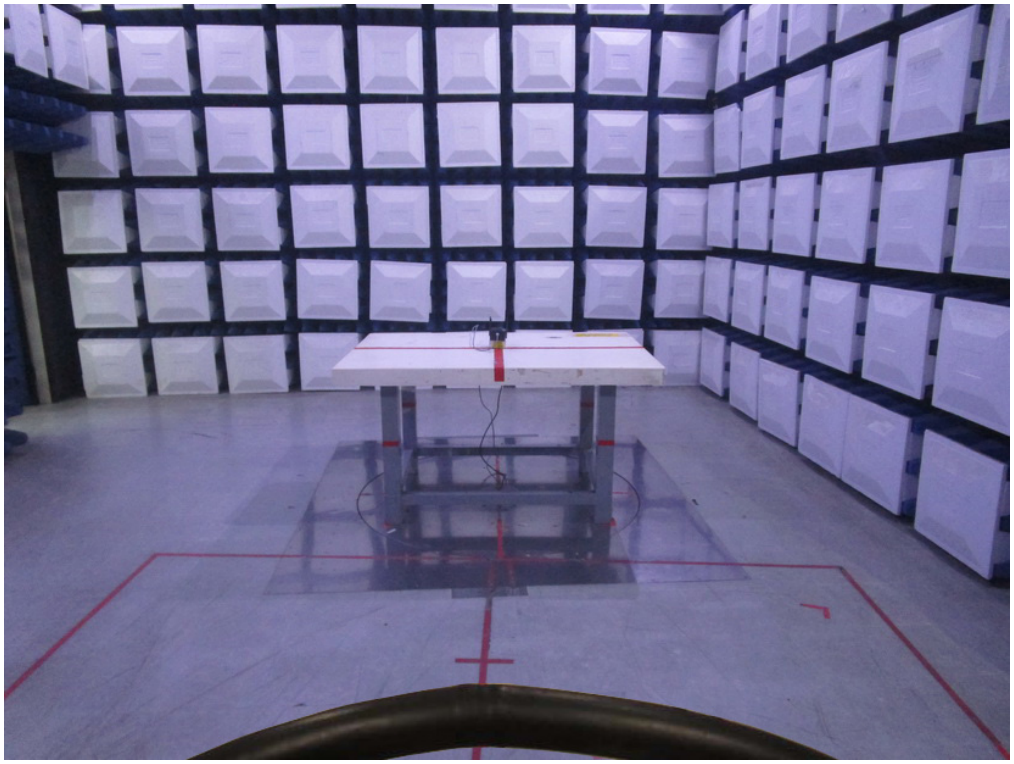
10. EUT TEST PHOTO

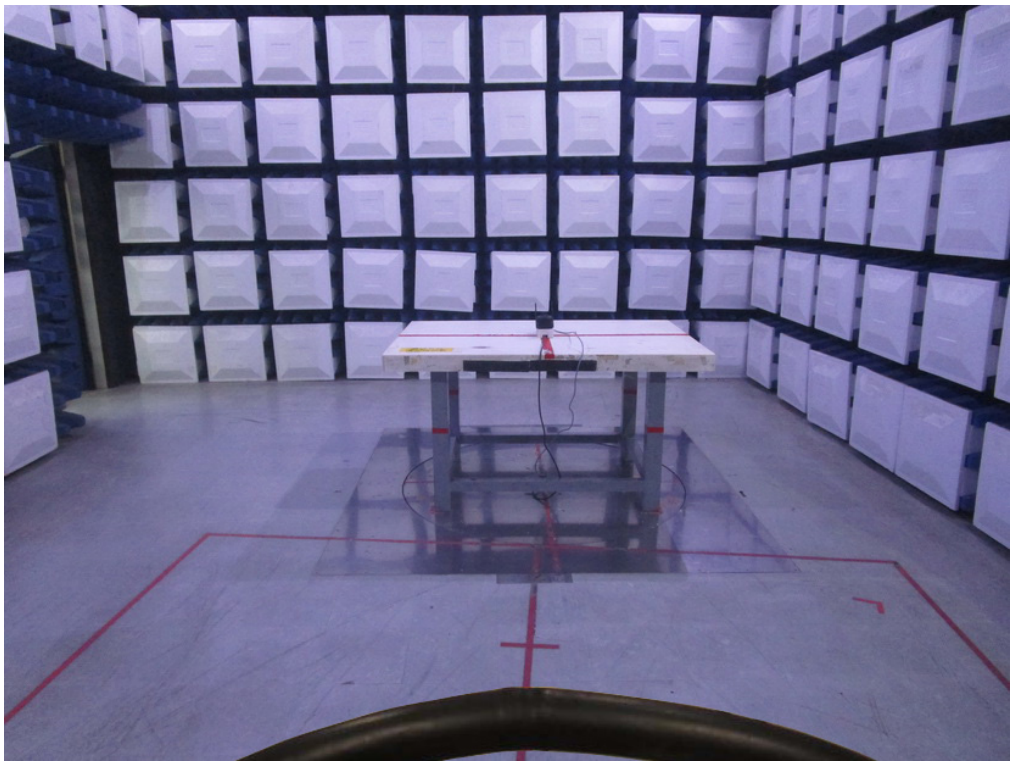
AC Power Line Conducted Emissions Test Photos



Radiated Emissions Test Photos

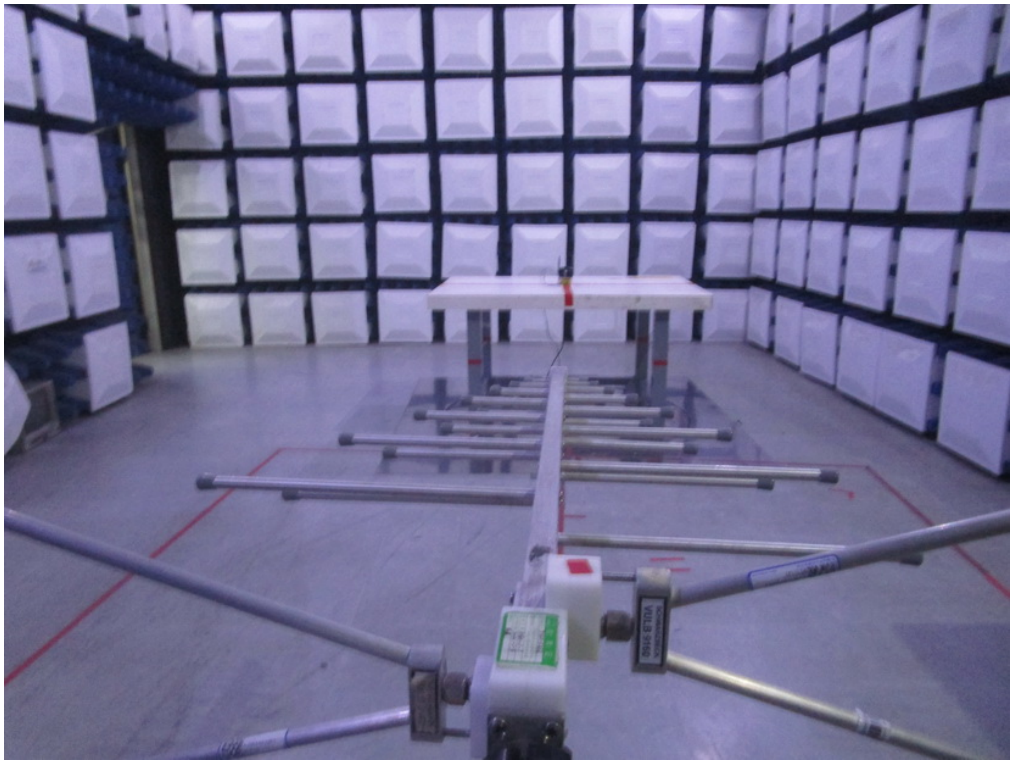
9 kHz to 30 MHz

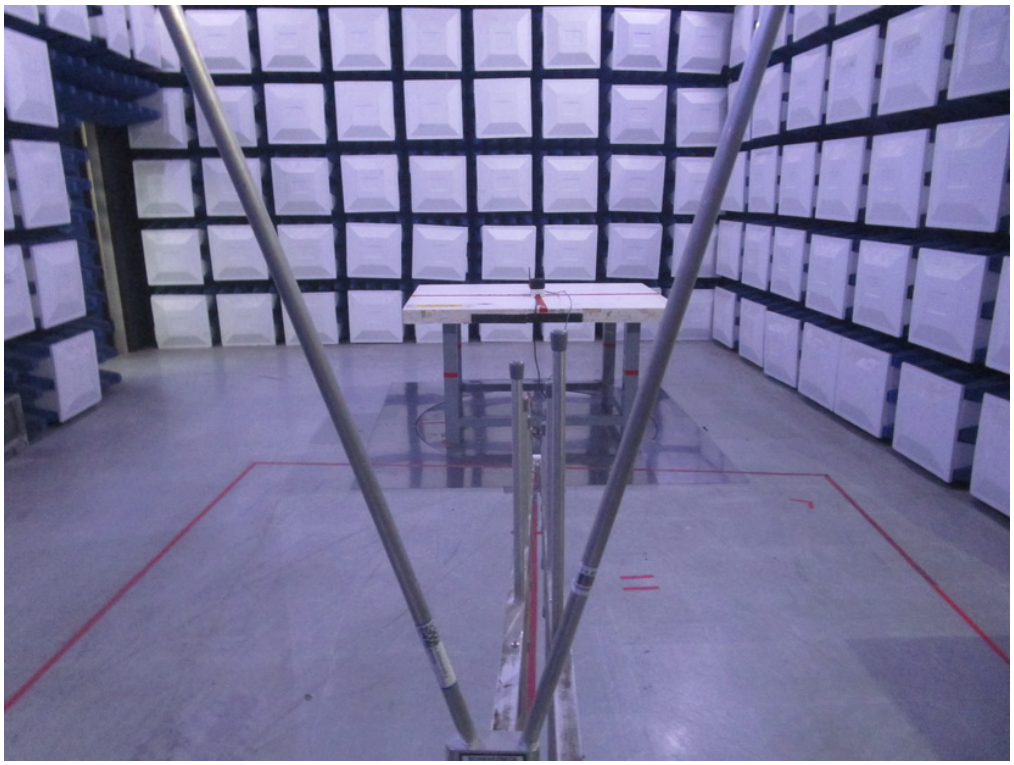




Radiated Emissions Test Photos

30 MHz to 1 GHz





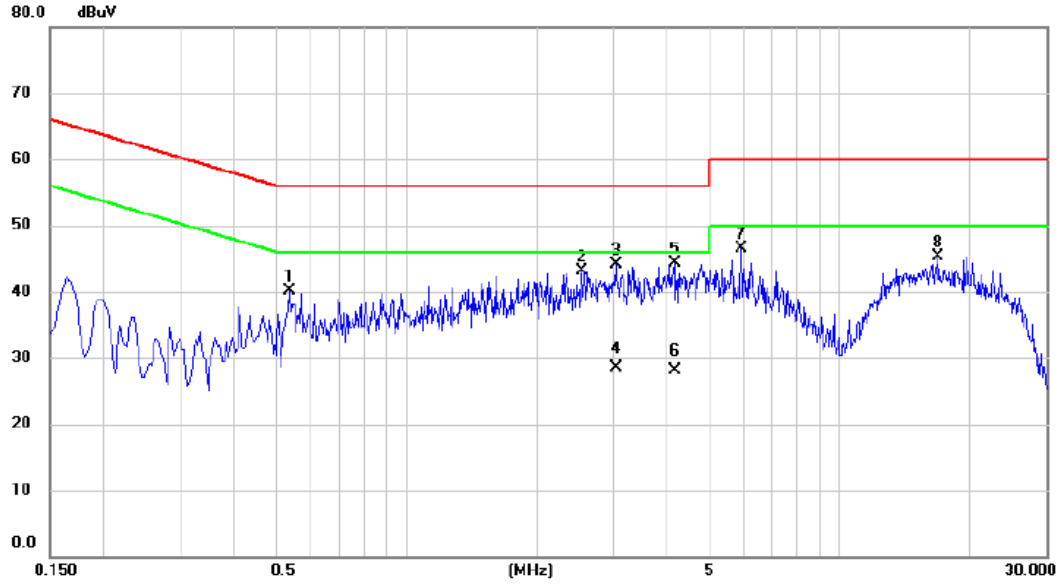
Radiated Emissions Test Photos

Above 1 GHz

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Voltage	AC 120V/60Hz
Test Mode:	TX N20 Mode Channel 01

Line

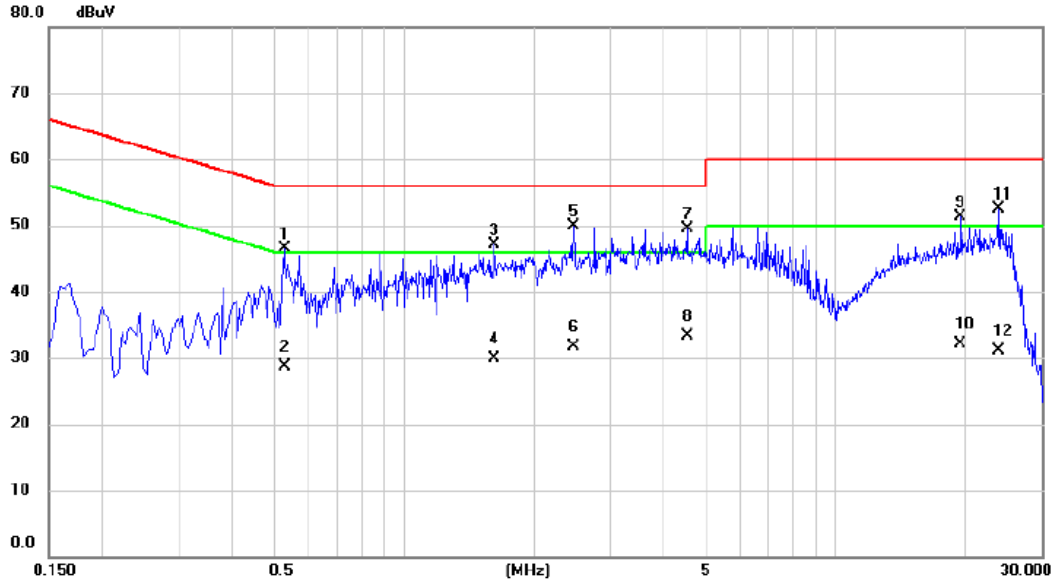


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5370	30.18	9.95	40.13	56.00	-15.87	peak	
2		2.5440	32.92	10.14	43.06	56.00	-12.94	peak	
3		3.0480	33.93	10.18	44.11	56.00	-11.89	peak	
4		3.0480	18.30	10.18	28.48	46.00	-17.52	AVG	
5	*	4.1505	34.12	10.27	44.39	56.00	-11.61	peak	
6		4.1505	17.80	10.27	28.07	46.00	-17.93	AVG	
7		5.9460	36.16	10.40	46.56	60.00	-13.44	peak	
8		16.8720	34.36	10.90	45.26	60.00	-14.74	peak	

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

Test Voltage	AC 120V/60Hz
Test Mode:	TX N20 Mode Channel 01

Neutral

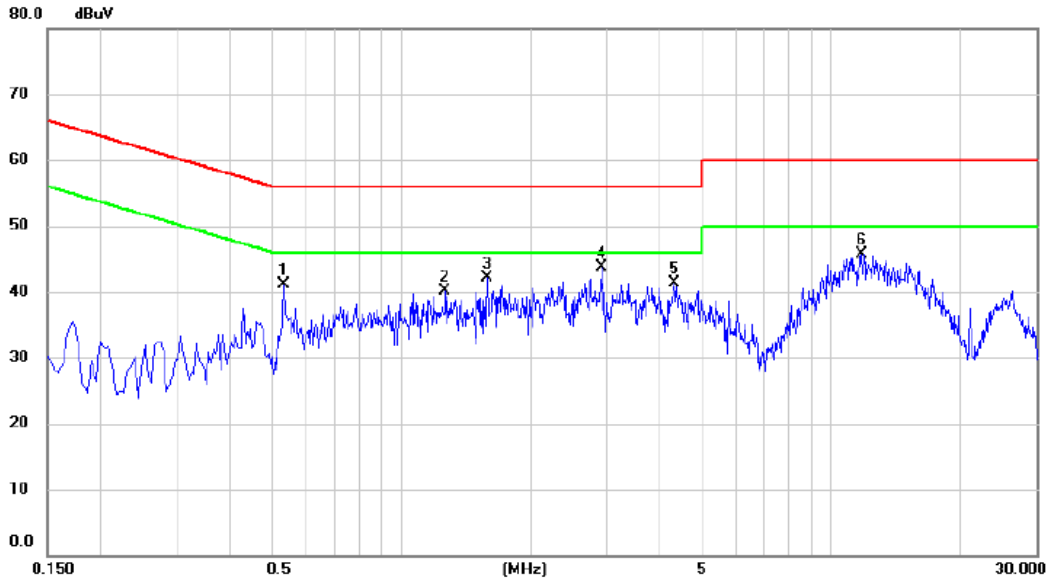


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5280	36.35	10.15	46.50	56.00	-9.50	peak	
2		0.5280	18.50	10.15	28.65	46.00	-17.35	AVG	
3		1.6125	36.67	10.37	47.04	56.00	-8.96	peak	
4		1.6125	19.60	10.37	29.97	46.00	-16.03	AVG	
5	*	2.4675	39.53	10.46	49.99	56.00	-6.01	peak	
6		2.4675	21.20	10.46	31.66	46.00	-14.34	AVG	
7		4.5195	38.92	10.63	49.55	56.00	-6.45	peak	
8		4.5195	22.60	10.63	33.23	46.00	-12.77	AVG	
9		19.4550	40.04	11.20	51.24	60.00	-8.76	peak	
10		19.4550	20.90	11.20	32.10	50.00	-17.90	AVG	
11		23.9010	41.10	11.33	52.43	60.00	-7.57	peak	
12		23.9010	19.70	11.33	31.03	50.00	-18.97	AVG	

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

Test Voltage	AC 240V/50Hz
Test Mode:	TX N20 Mode Channel 01

Line

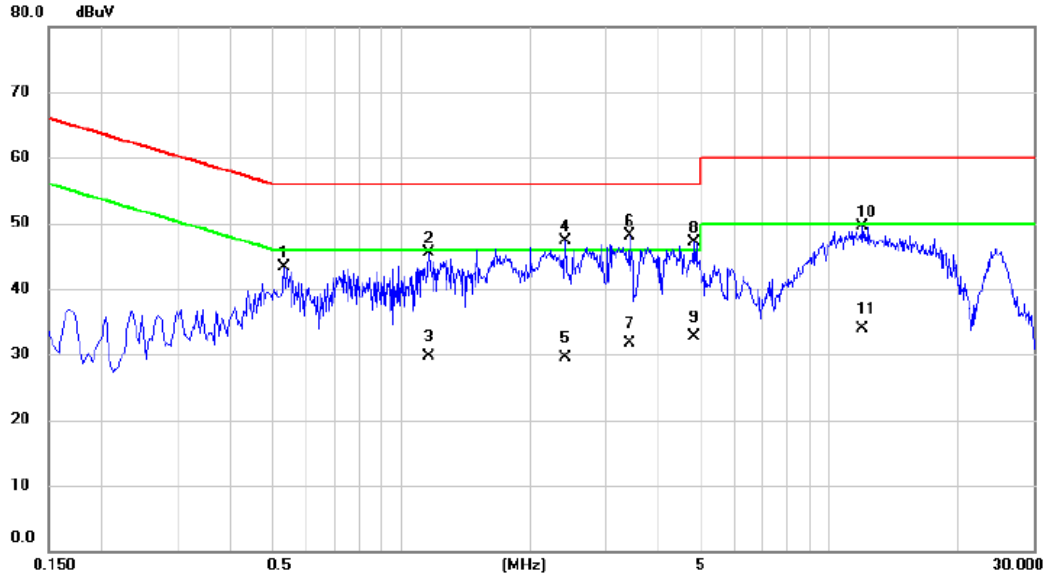


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5325	31.16	9.95	41.11	56.00	-14.89	peak	
2		1.2660	30.09	10.03	40.12	56.00	-15.88	peak	
3		1.5810	32.10	10.05	42.15	56.00	-13.85	peak	
4	*	2.9265	33.62	10.17	43.79	56.00	-12.21	peak	
5		4.3034	31.11	10.27	41.38	56.00	-14.62	peak	
6		11.7600	34.97	10.78	45.75	60.00	-14.25	peak	

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

Test Voltage	AC 240V/50Hz
Test Mode:	TX N20 Mode Channel 01

Neutral



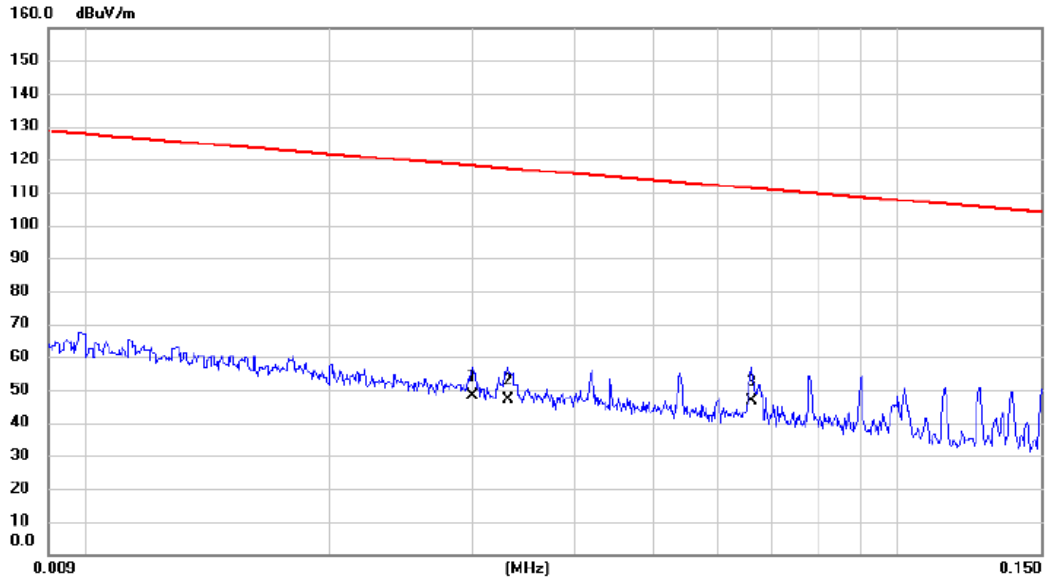
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.5325	33.14	10.15	43.29	56.00	-12.71	peak	
2		1.1625	35.23	10.32	45.55	56.00	-10.45	peak	
3		1.1625	19.40	10.32	29.72	46.00	-16.28	AVG	
4		2.4135	36.76	10.46	47.22	56.00	-8.78	peak	
5		2.4135	19.00	10.46	29.46	46.00	-16.54	AVG	
6	*	3.4125	37.59	10.55	48.14	56.00	-7.86	peak	
7		3.4125	21.20	10.55	31.75	46.00	-14.25	AVG	
8		4.8210	36.48	10.65	47.13	56.00	-8.87	peak	
9		4.8210	22.00	10.65	32.65	46.00	-13.35	AVG	
10		11.9535	38.49	11.08	49.57	60.00	-10.43	peak	
11		11.9535	22.90	11.08	33.98	50.00	-16.02	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 N20 Mode Channel 01

Ant 0°

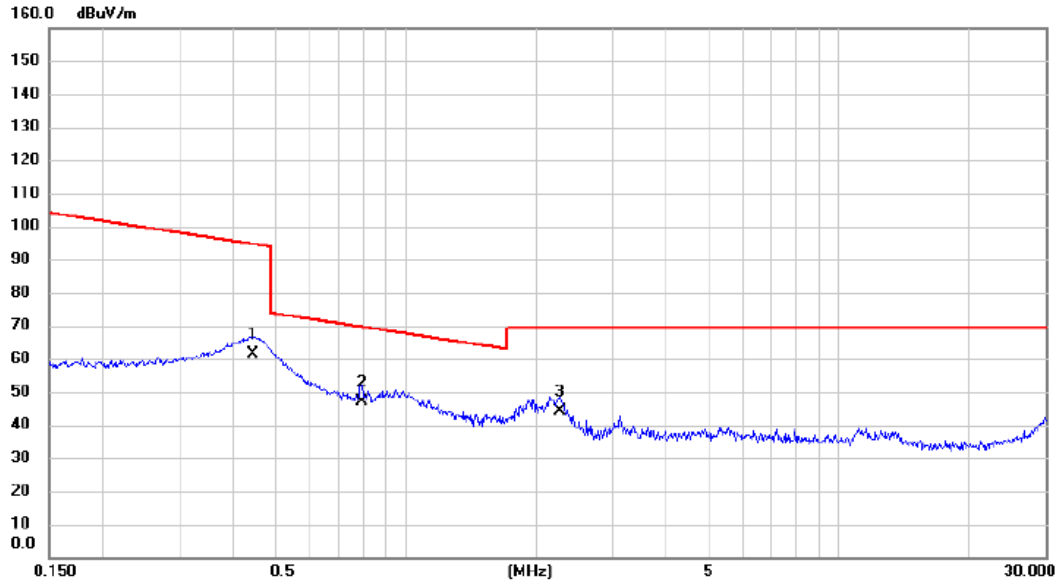


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.030	35.21	12.86	48.07	118.06	-69.99	AVG	
2		0.033	34.21	12.79	47.00	117.21	-70.21	AVG	
3	*	0.066	34.25	12.44	46.69	111.19	-64.50	AVG	

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

Test Mode:	TX N20 Mode Channel 01

Ant 0°

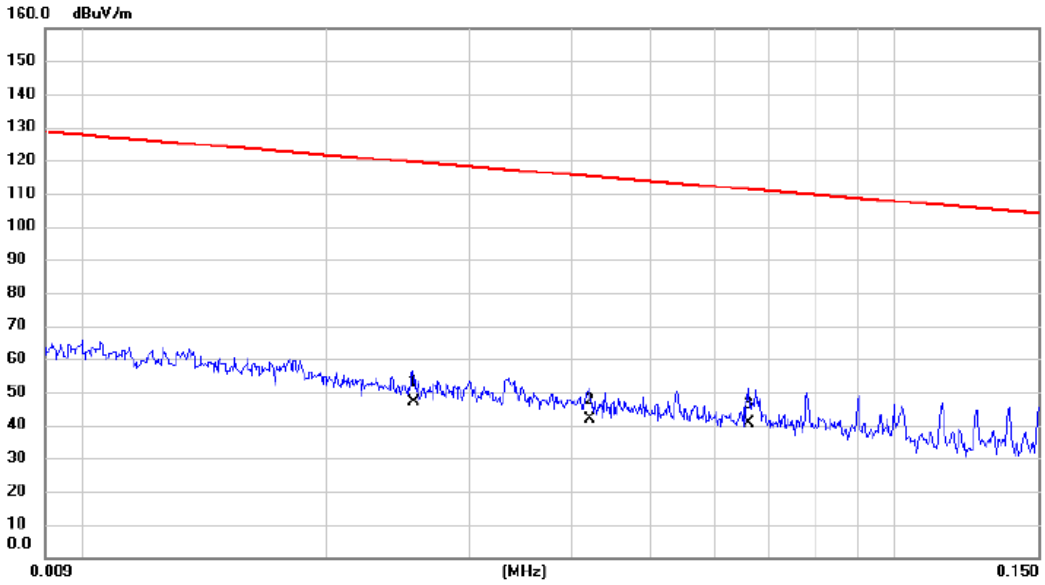


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.444	49.32	11.95	61.27	94.65	-33.38	AVG	
2	*	0.792	35.32	11.70	47.02	69.63	-22.61	QP	
3		2.273	33.10	10.93	44.03	69.54	-25.51	QP	

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

Test Mode:	TX N20 Mode Channel 01

Ant 90°

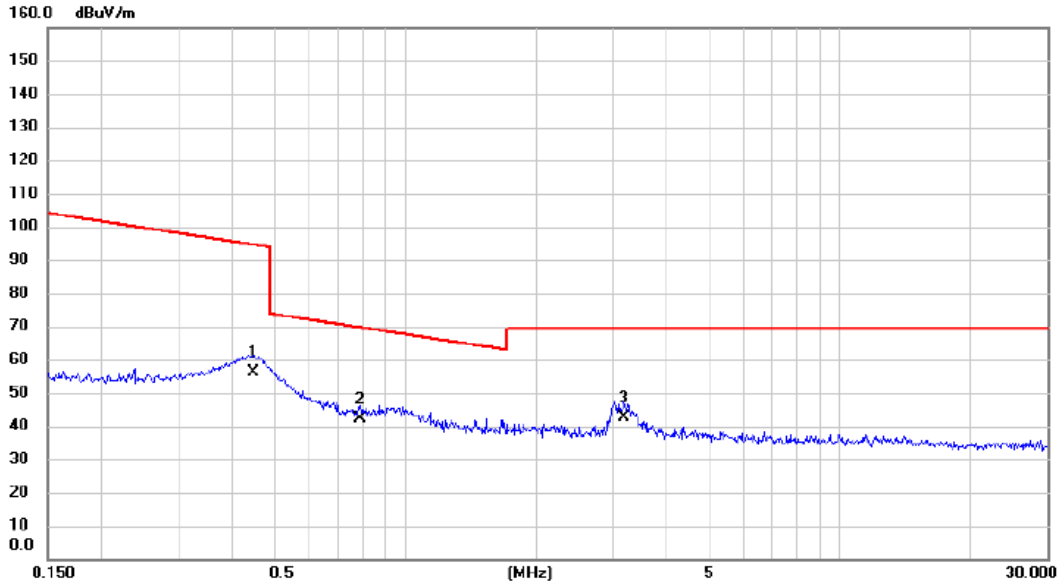


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.026	33.89	12.98	46.87	119.44	-72.57	AVG	
2		0.042	29.32	12.55	41.87	115.12	-73.25	AVG	
3	*	0.066	28.31	12.44	40.75	111.21	-70.46	AVG	

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

Test Mode:	TX N20 Mode Channel 01

Ant 90°



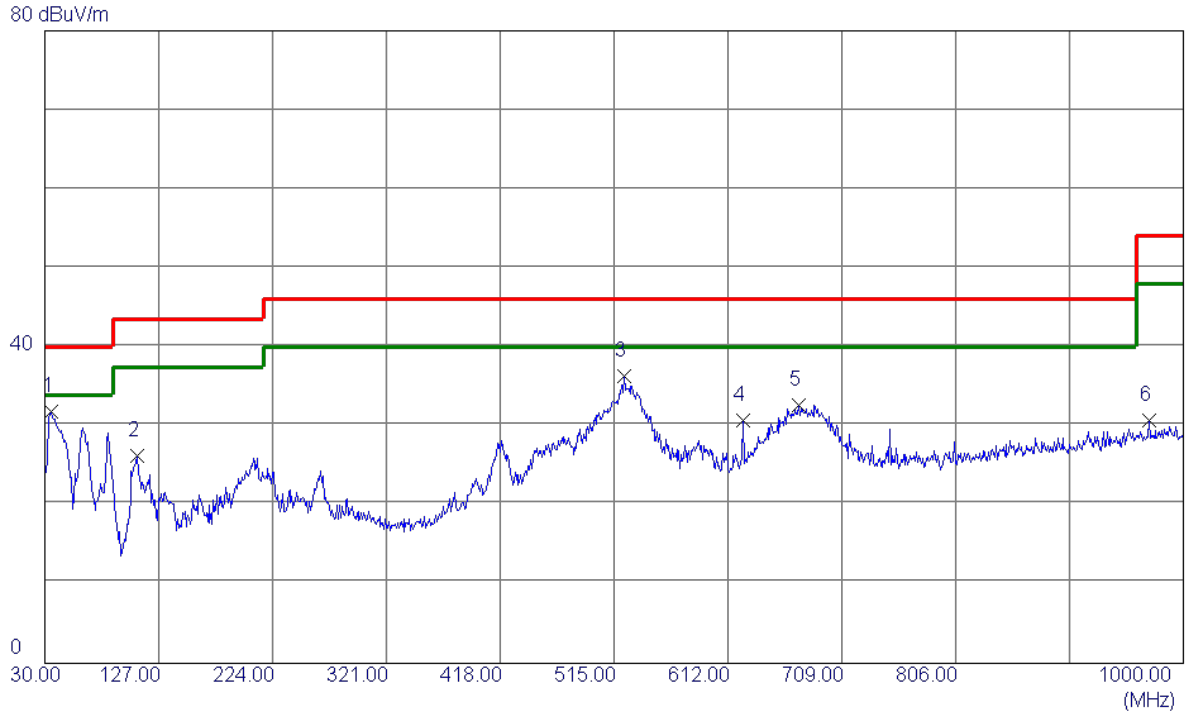
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.447	44.32	11.94	56.26	94.60	-38.34	AVG	
2		0.788	30.34	11.70	42.04	69.68	-27.64	QP	
3	*	3.190	31.95	10.54	42.49	69.54	-27.05	QP	

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 N20 Mode Channel 01

Vertical

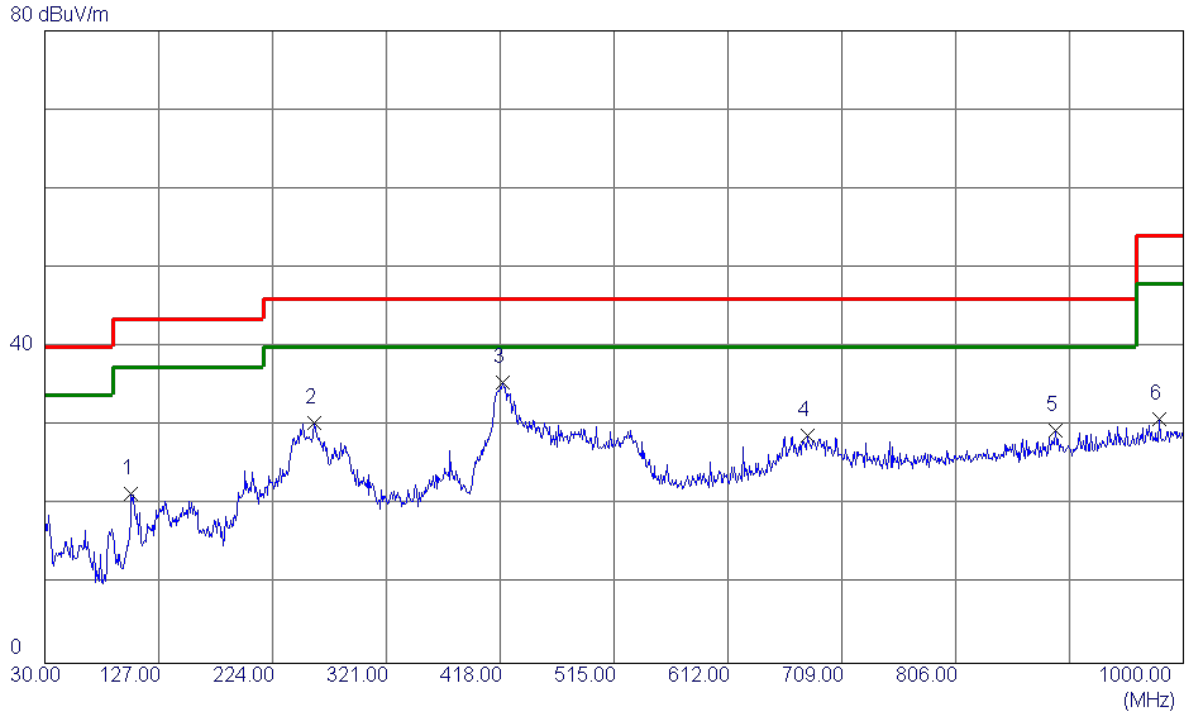


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	35.8200	46.13	-14.34	31.79	40.00	-8.21	Peak	
2	108.5700	40.54	-14.33	26.21	43.50	-17.29	Peak	
3	523.7300	43.43	-7.05	36.38	46.00	-9.62	Peak	
4	624.6100	35.54	-4.82	30.72	46.00	-15.28	Peak	
5	672.1400	36.60	-3.96	32.64	46.00	-13.36	Peak	
6	970.9000	30.18	0.55	30.73	54.00	-23.27	Peak	

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

Test Mode:	TX N20 Mode Channel 01

Horizontal



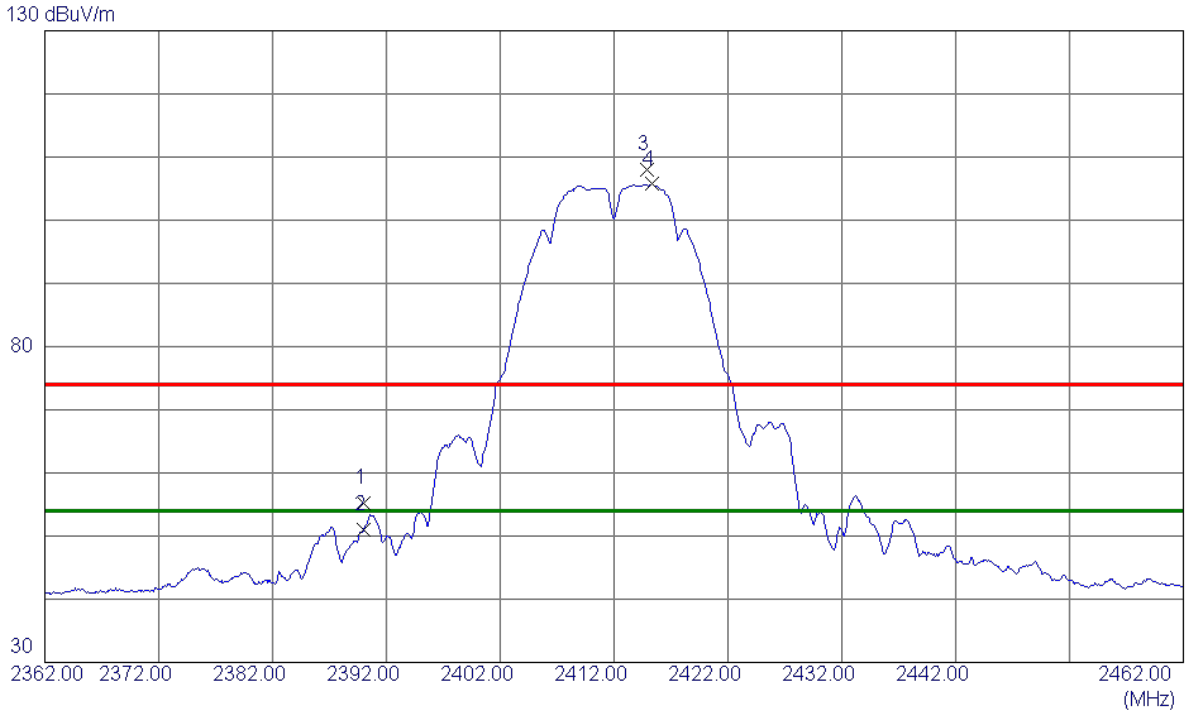
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	103.7200	36.15	-14.66	21.49	43.50	-22.01	Peak	
2	259.8900	42.70	-12.23	30.47	46.00	-15.53	Peak	
3 *	419.9400	44.03	-8.46	35.57	46.00	-10.43	Peak	
4	679.9000	32.62	-3.86	28.76	46.00	-17.24	Peak	
5	891.3600	30.64	-1.26	29.38	46.00	-16.62	Peak	
6	979.6300	30.23	0.72	30.95	54.00	-23.05	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

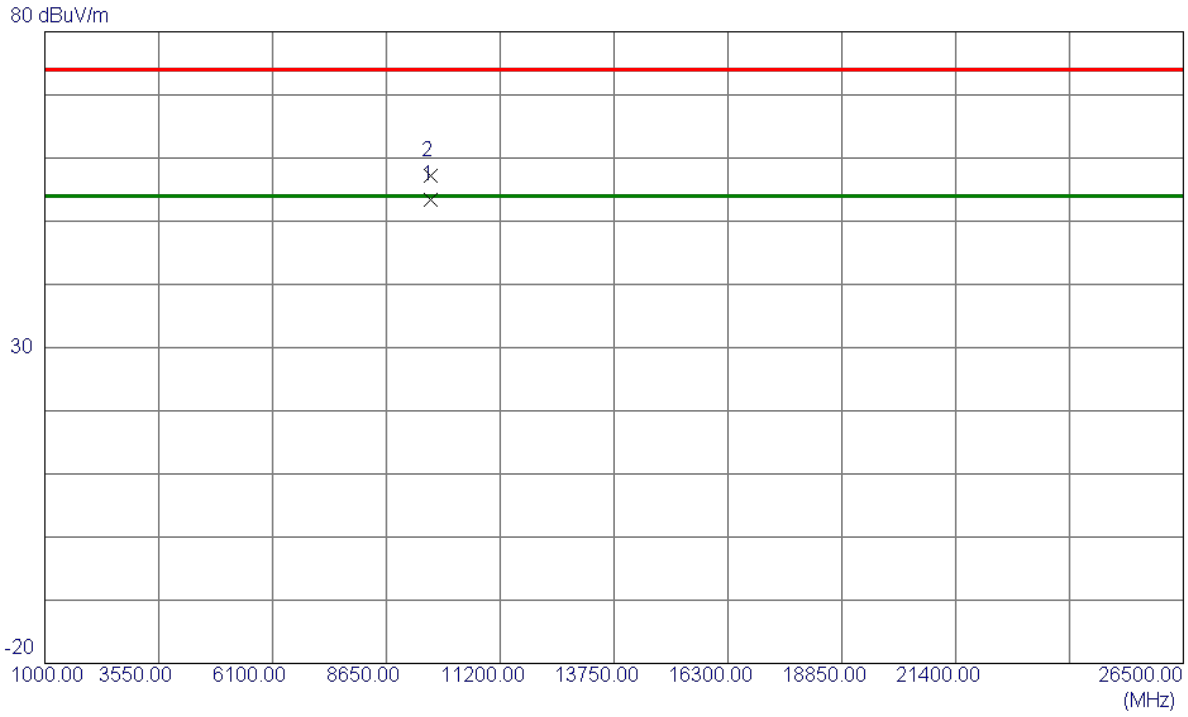


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	47.00	8.29	55.29	74.00	-18.71	Peak	
2	2390.0000	42.64	8.29	50.93	54.00	-3.07	AVG	
3	2414.9000	99.76	8.31	108.07	74.00	34.07	Peak	No Limit
4 *	2415.3000	97.39	8.31	105.70	54.00	51.70	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

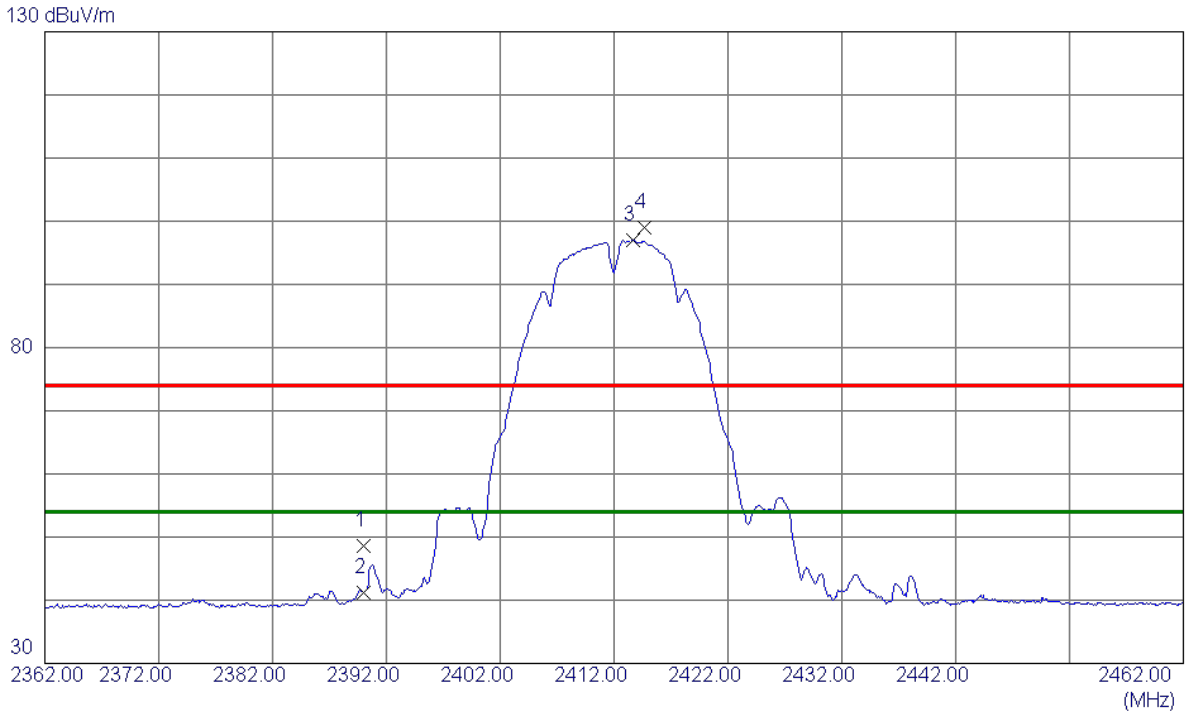


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	9647.9650	40.52	12.88	53.40	54.00	-0.60	AVG	
2	9648.2350	44.39	12.88	57.27	74.00	-16.73	Peak	

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

Test Mode:	TX B Mode 2412 MHz

Horizontal

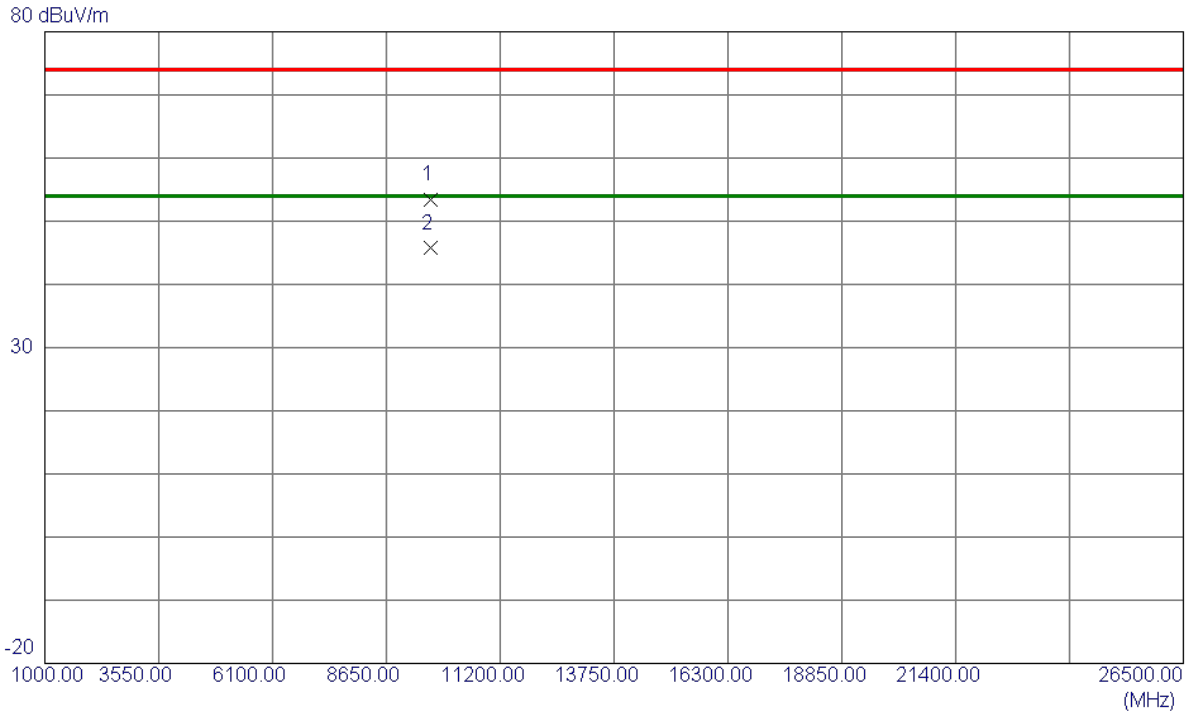


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	40.30	8.29	48.59	74.00	-25.41	Peak	
2	2390.0000	32.87	8.29	41.16	54.00	-12.84	AVG	
3 *	2413.7000	88.68	8.31	96.99	54.00	42.99	AVG	No Limit
4	2414.7000	90.60	8.31	98.91	74.00	24.91	Peak	No Limit

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

Test Mode:	TX B Mode 2412 MHz

Horizontal

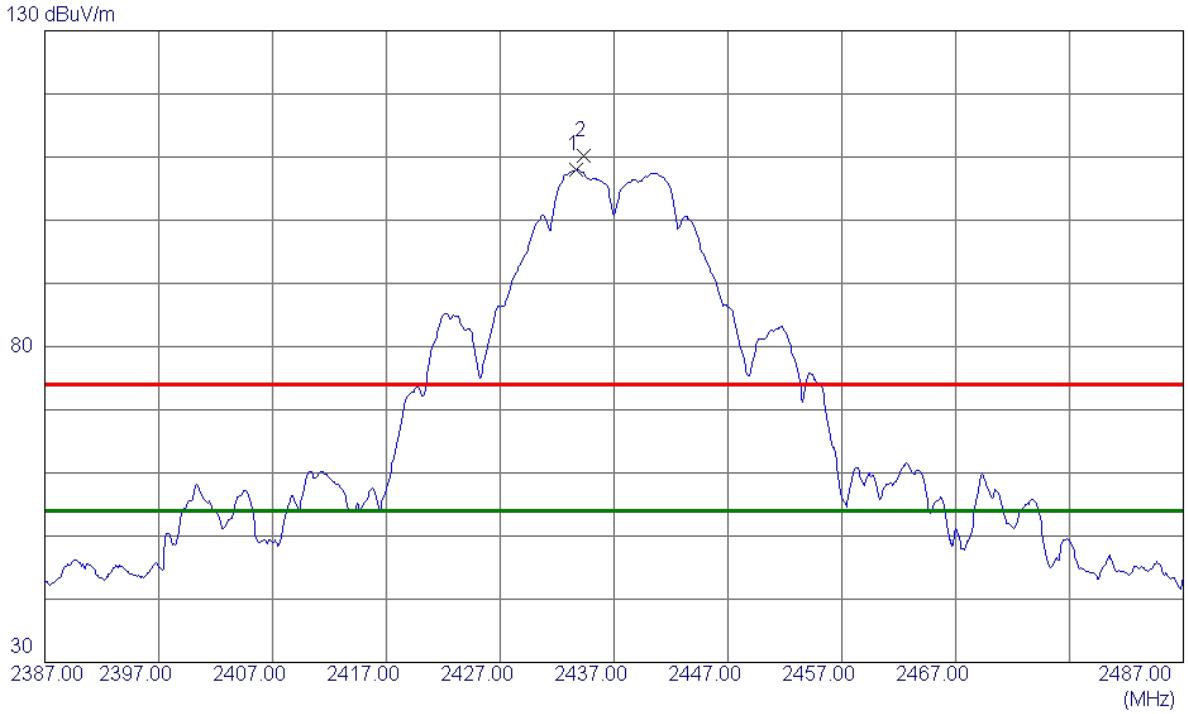


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9648.0000	40.52	12.88	53.40	74.00	-20.60	Peak	
2 *	9648.0000	32.82	12.88	45.70	54.00	-8.30	AVG	

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

Test Mode:	TX B Mode 2437 MHz

Vertical

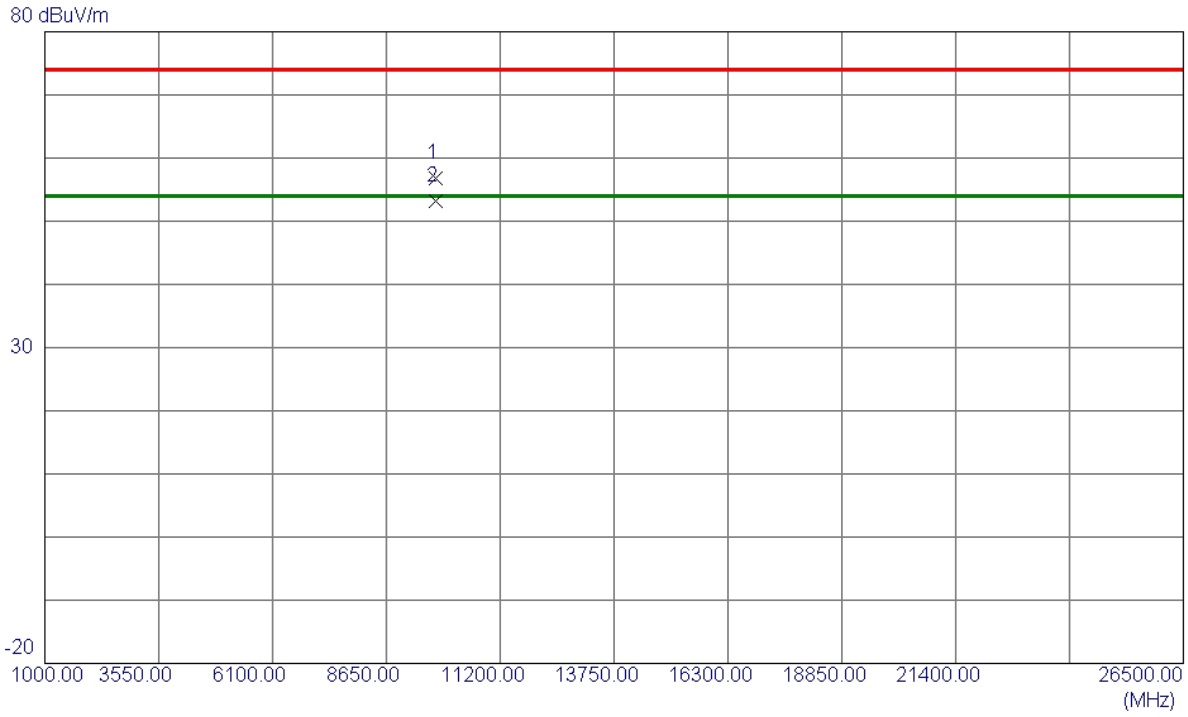


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2433.7000	99.60	8.33	107.93	54.00	53.93	AVG	No Limit
2	2434.3000	101.89	8.33	110.22	74.00	36.22	Peak	No Limit

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

Test Mode:	TX B Mode 2437 MHz

Vertical

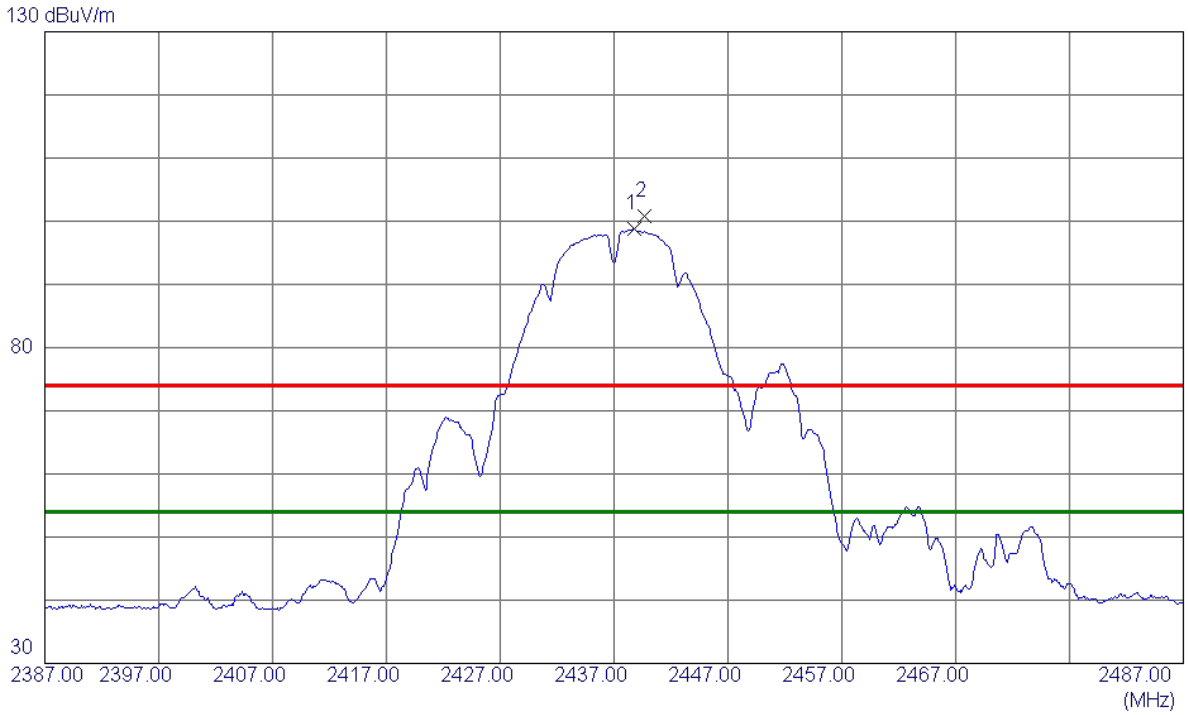


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9747.8200	43.84	12.97	56.81	74.00	-17.19	Peak	
2 *	9747.9349	40.23	12.97	53.20	54.00	-0.80	AVG	

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

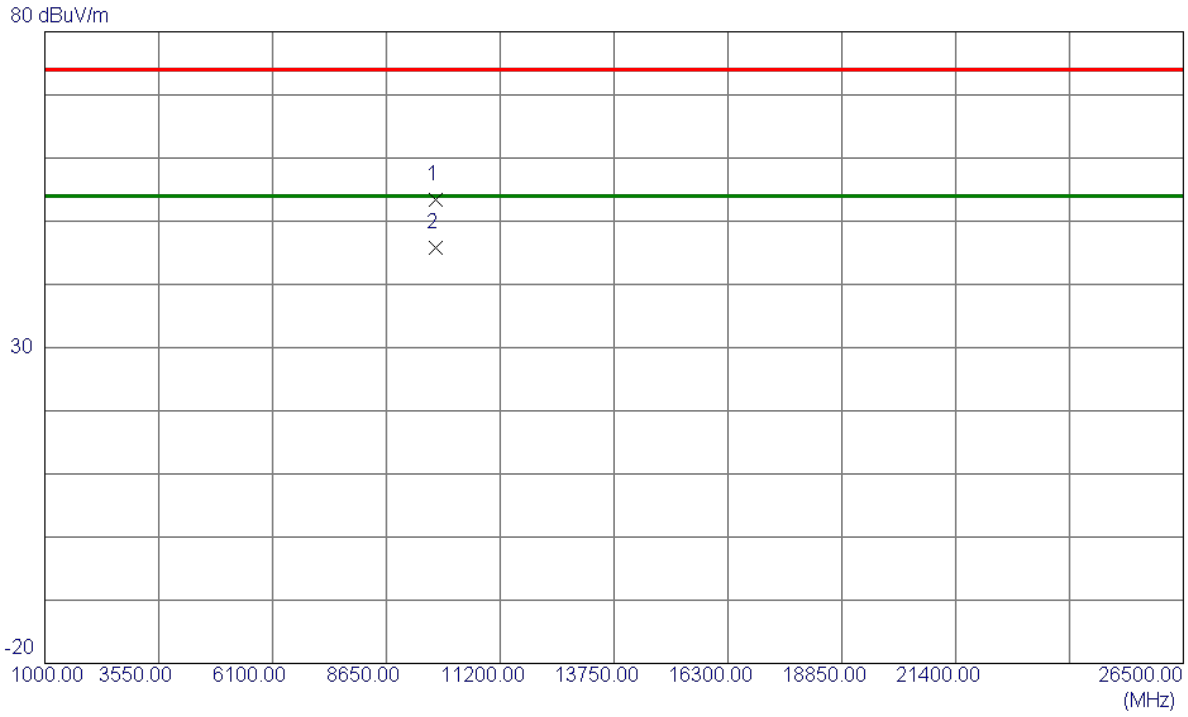


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2438.8000	90.49	8.34	98.83	54.00	44.83	AVG	No Limit
2	2439.7000	92.50	8.34	100.84	74.00	26.84	Peak	No Limit

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

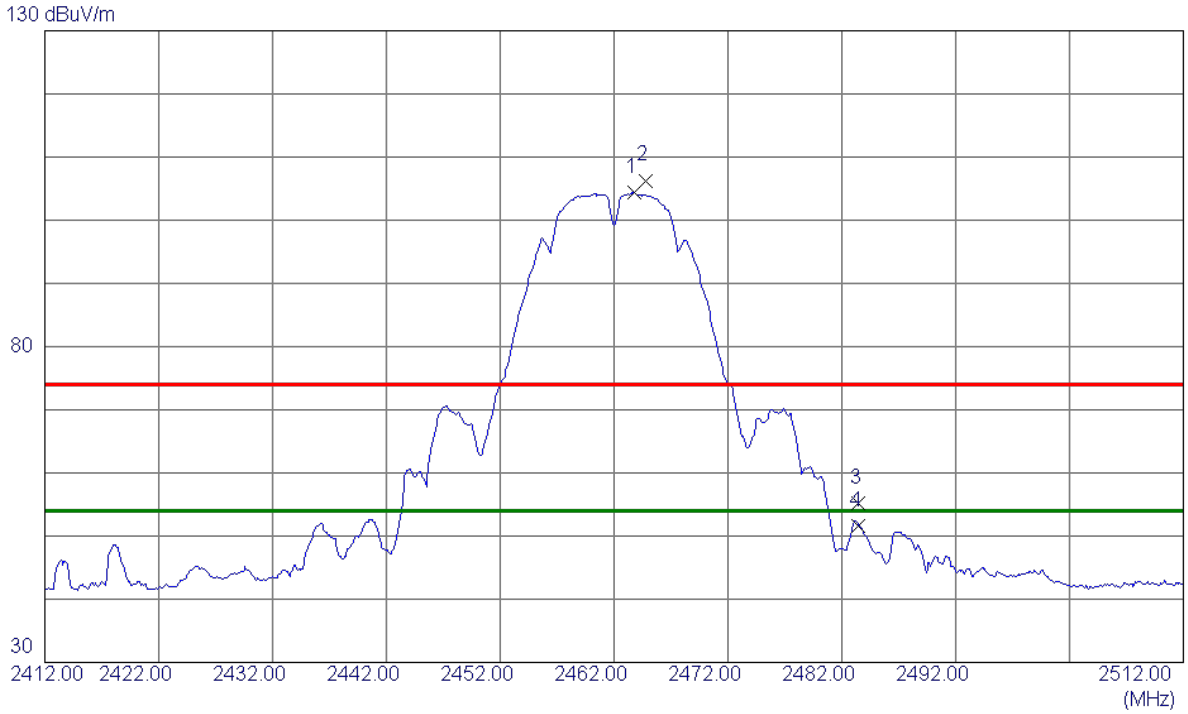


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9748.1000	40.40	12.97	53.37	74.00	-20.63	Peak	
2 *	9748.2000	32.76	12.97	45.73	54.00	-8.27	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

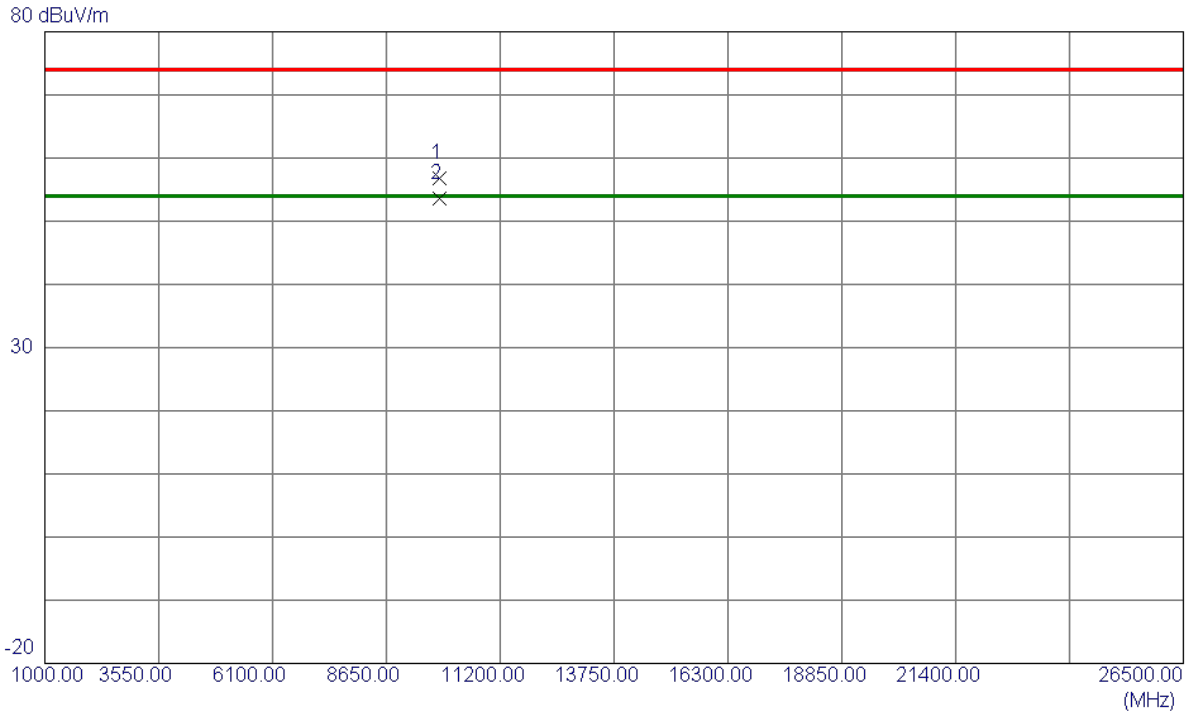


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2463.8000	96.01	8.37	104.38	54.00	50.38	AVG	No Limit
2	2464.8000	97.93	8.37	106.30	74.00	32.30	Peak	No Limit
3	2483.5000	46.74	8.39	55.13	74.00	-18.87	Peak	
4	2483.5000	43.28	8.39	51.67	54.00	-2.33	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

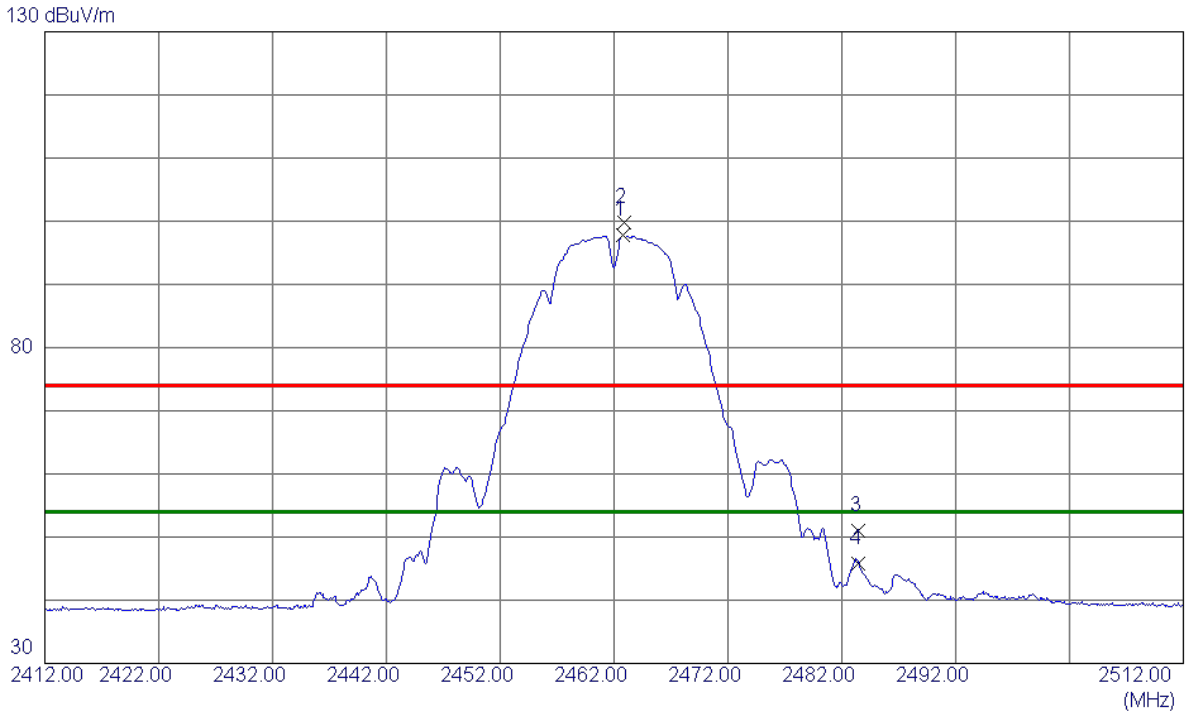


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9847.8949	43.75	13.05	56.80	74.00	-17.20	Peak	
2 *	9847.9750	40.52	13.05	53.57	54.00	-0.43	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

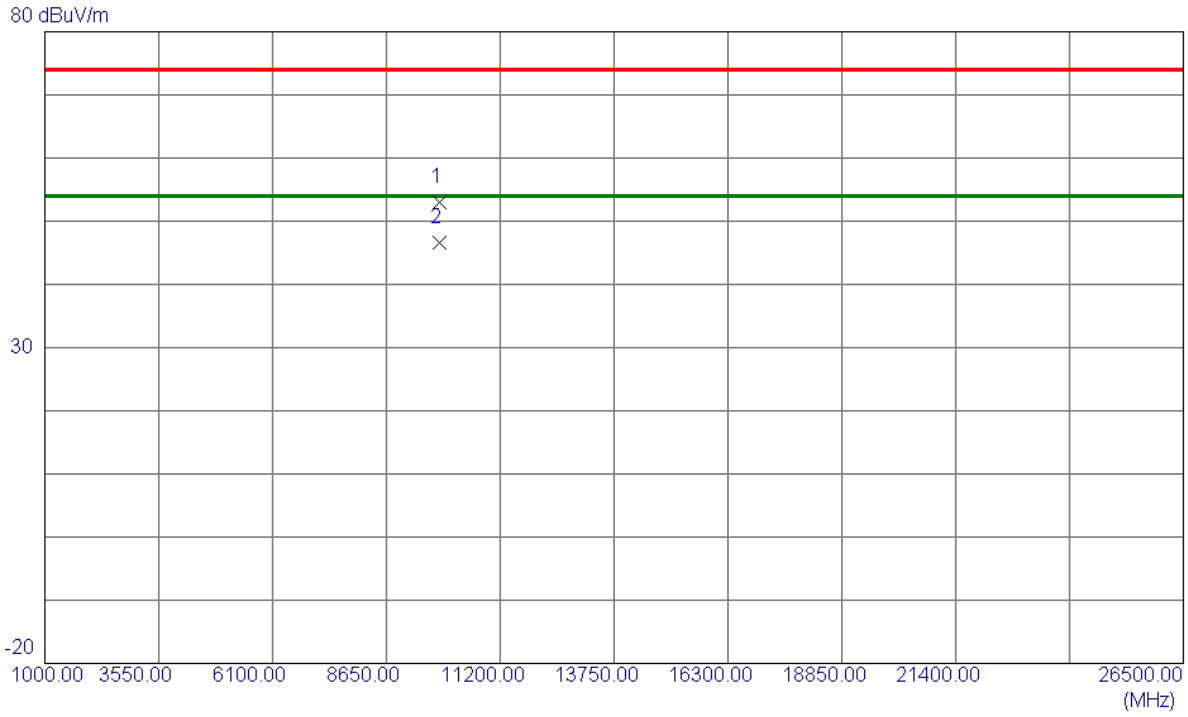


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2462.8000	89.40	8.37	97.77	54.00	43.77	AVG	No Limit
2	2462.9000	91.35	8.37	99.72	74.00	25.72	Peak	No Limit
3	2483.5000	42.52	8.39	50.91	74.00	-23.09	Peak	
4	2483.5000	37.47	8.39	45.86	54.00	-8.14	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

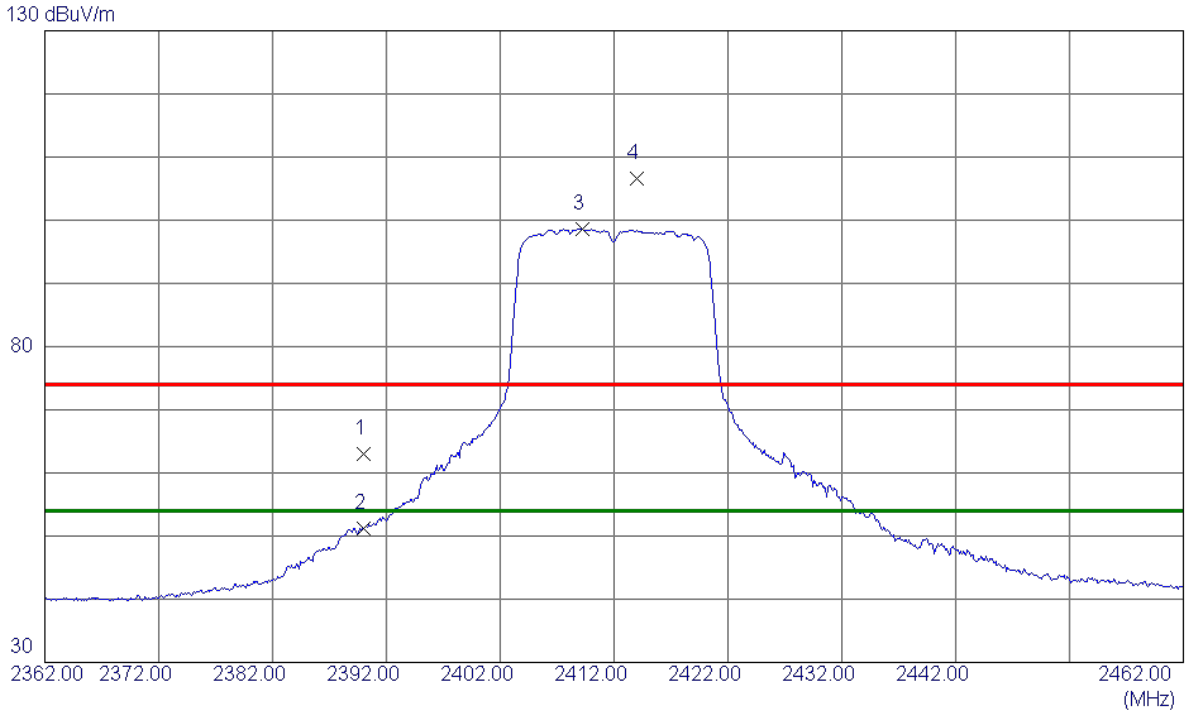


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9847.8400	39.88	13.05	52.93	74.00	-21.07	Peak	
2 *	9847.9800	33.54	13.05	46.59	54.00	-7.41	AVG	

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

Test Mode:	TX G Mode 2412 MHz

Vertical

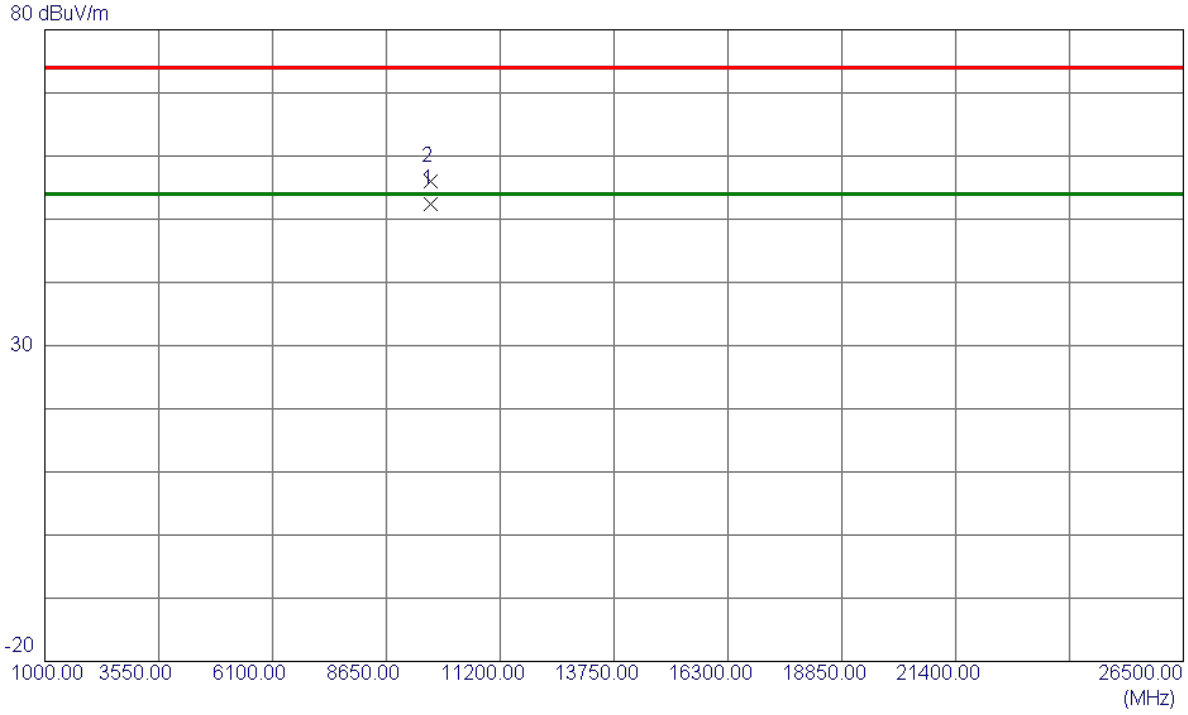


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	54.67	8.29	62.96	74.00	-11.04	Peak	
2	2390.0000	42.94	8.29	51.23	54.00	-2.77	AVG	
3 *	2409.2000	90.31	8.31	98.62	54.00	44.62	AVG	No Limit
4	2414.0000	98.38	8.31	106.69	74.00	32.69	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

Vertical

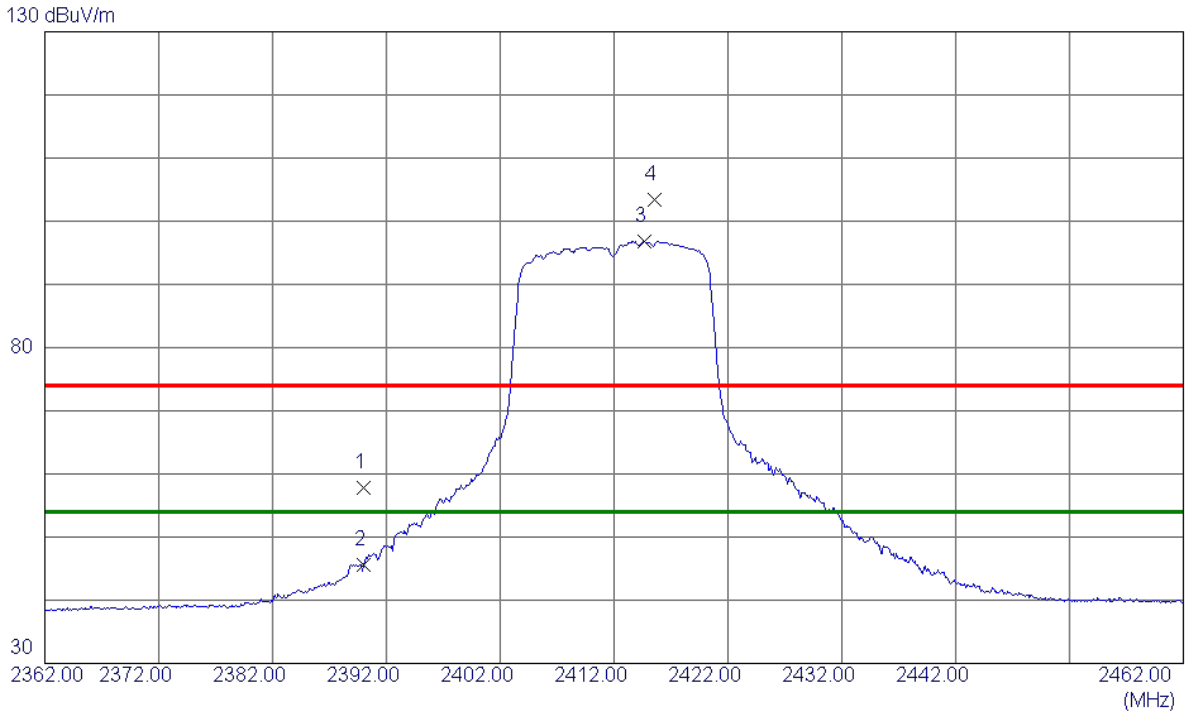


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	9647.9750	39.45	12.88	52.33	54.00	-1.67	AVG	
2	9648.1800	43.09	12.88	55.97	74.00	-18.03	Peak	

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

Test Mode:	TX G Mode 2412 MHz

Horizontal

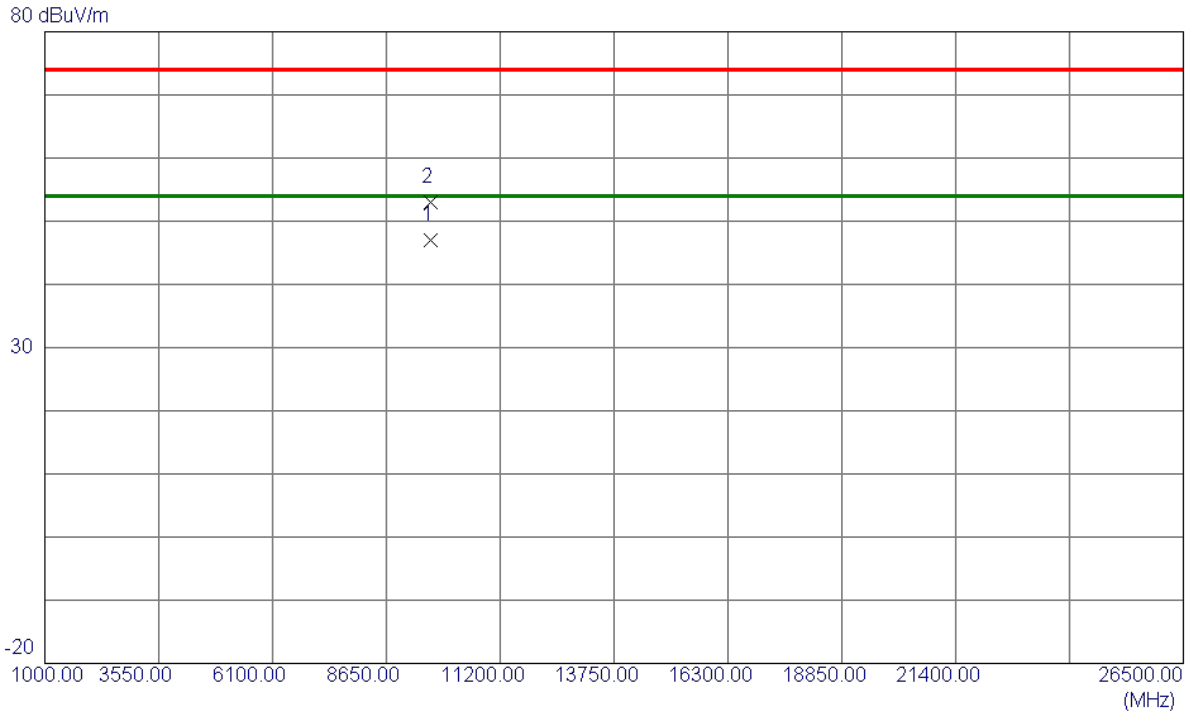


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	49.57	8.29	57.86	74.00	-16.14	Peak	
2	2390.0000	37.23	8.29	45.52	54.00	-8.48	AVG	
3 *	2414.7000	88.47	8.31	96.78	54.00	42.78	AVG	No Limit
4	2415.6000	95.07	8.31	103.38	74.00	29.38	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

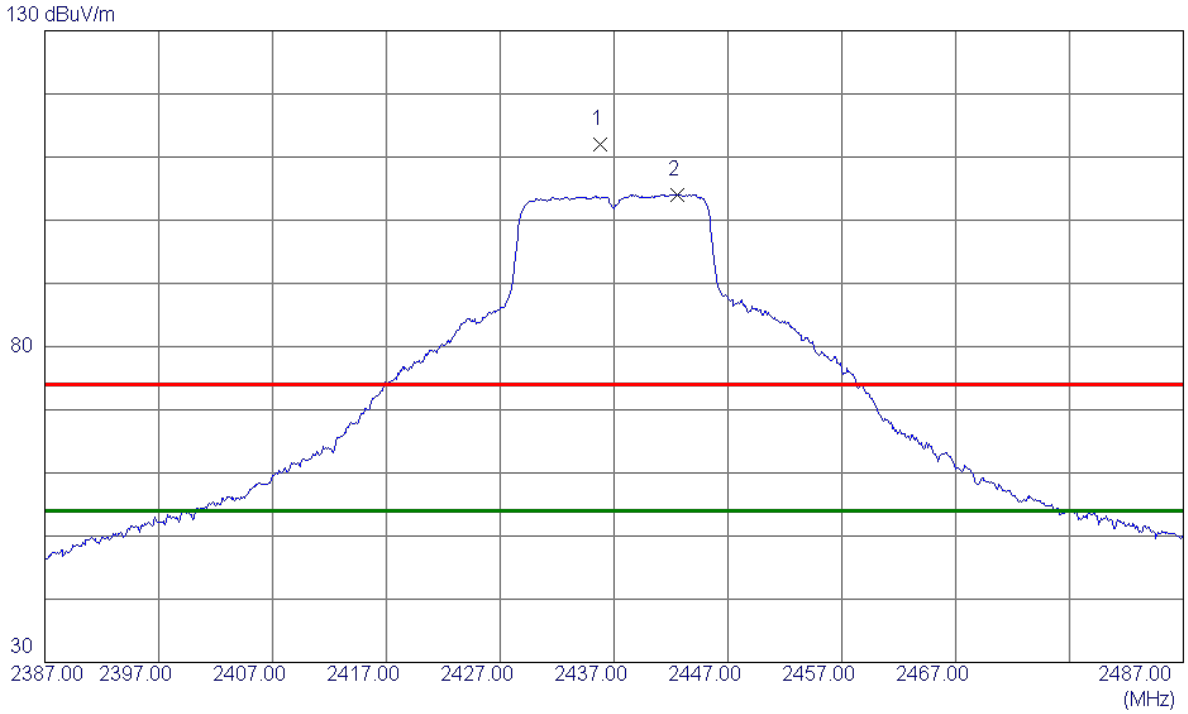


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	9647.9750	34.21	12.88	47.09	54.00	-6.91	AVG	
2	9648.1800	40.21	12.88	53.09	74.00	-20.91	Peak	

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

Test Mode:	TX G Mode 2437 MHz

Vertical

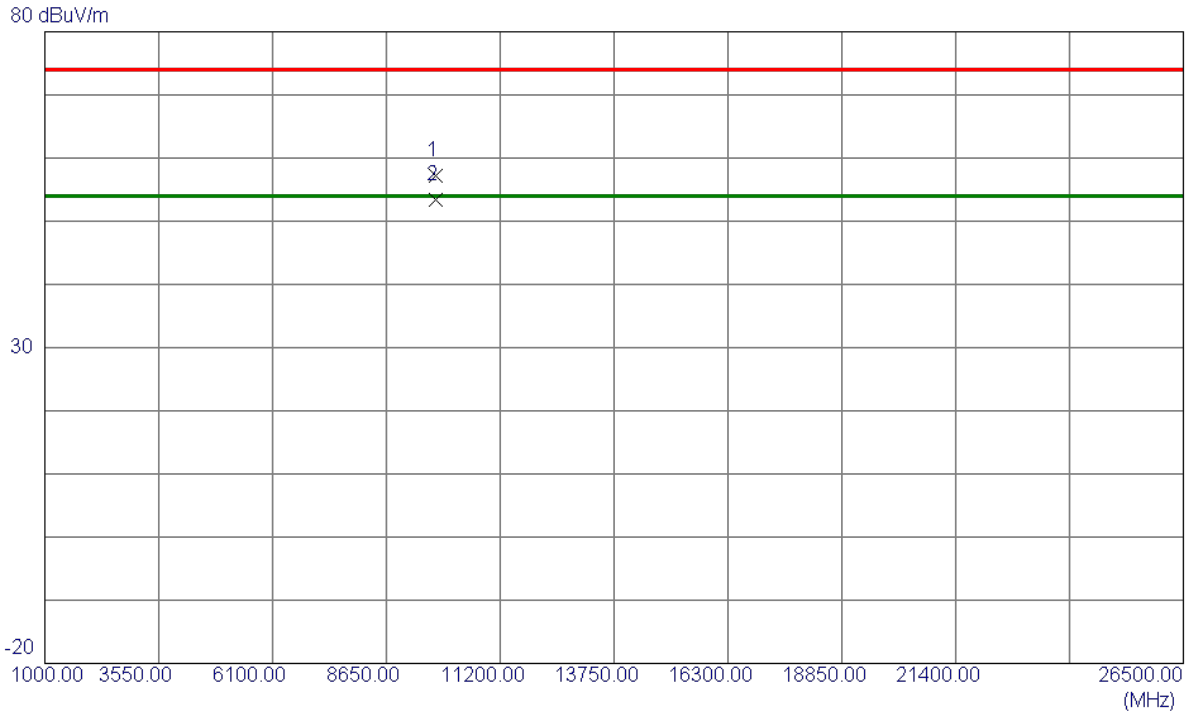


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2435.8000	103.62	8.34	111.96	74.00	37.96	Peak	No Limit
2 *	2442.6000	95.70	8.34	104.04	54.00	50.04	AVG	No Limit

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

Test Mode:	TX G Mode 2437 MHz

Vertical

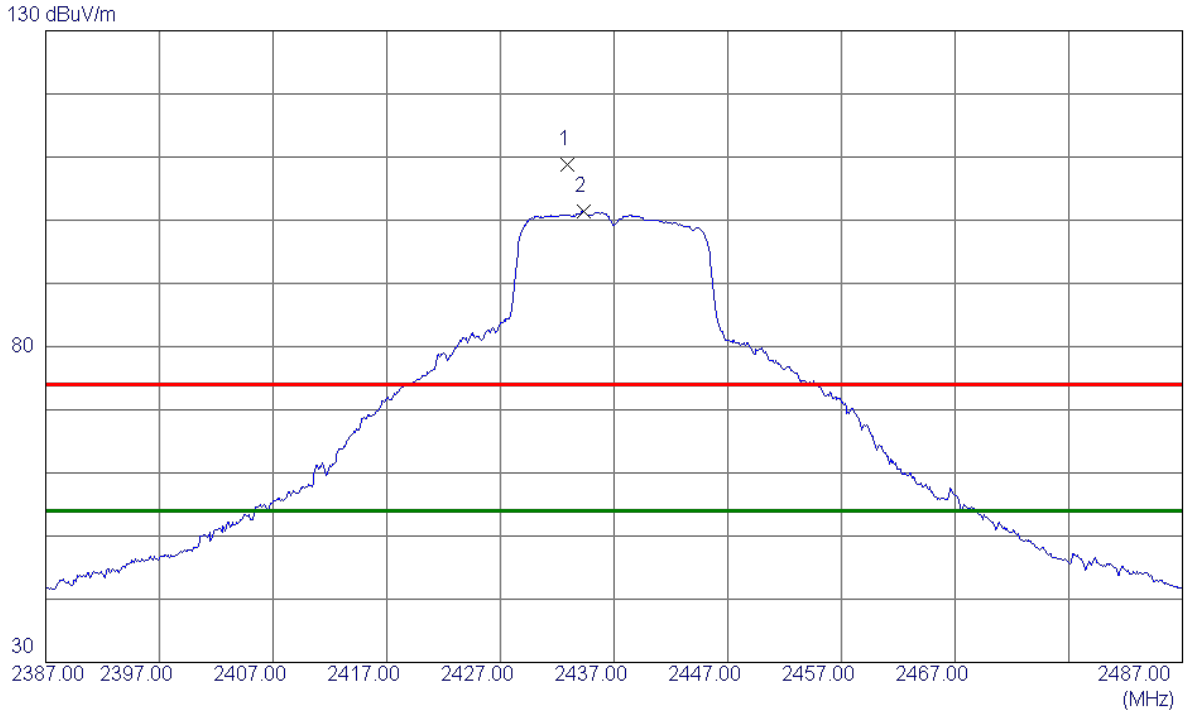


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9747.8900	44.26	12.97	57.23	74.00	-16.77	Peak	
2 *	9747.9400	40.50	12.97	53.47	54.00	-0.53	AVG	

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

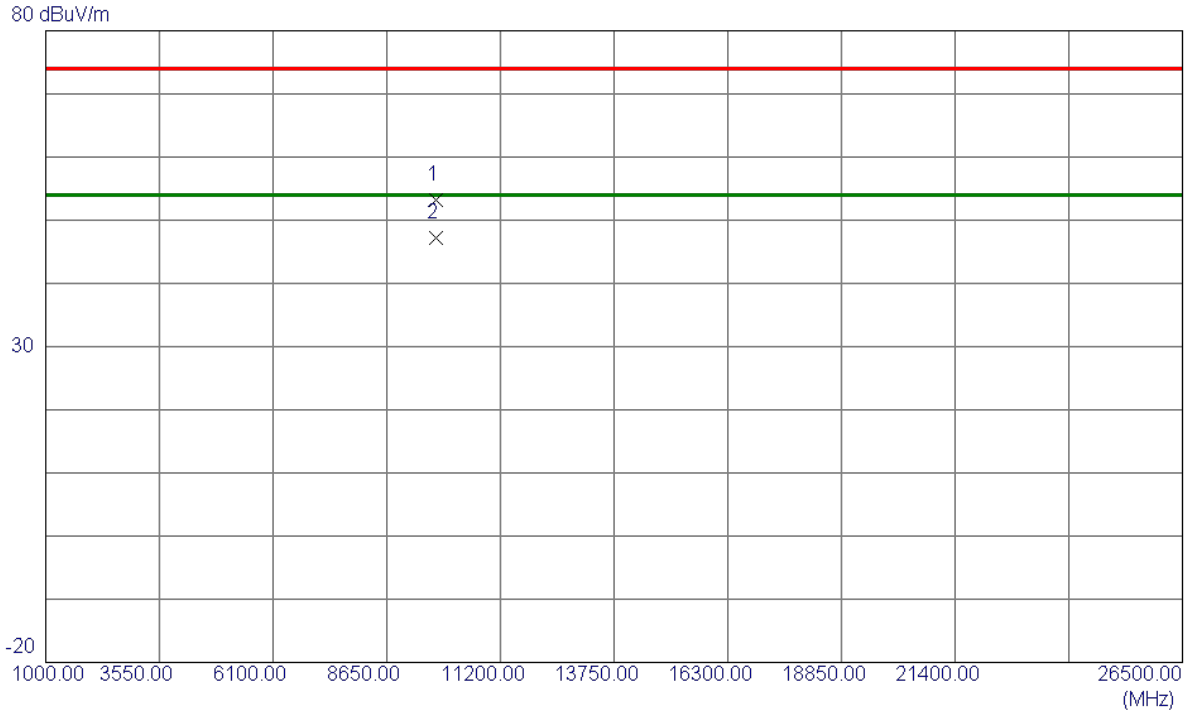


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2432.9000	100.49	8.33	108.82	74.00	34.82	Peak	No Limit
2 *	2434.3000	93.14	8.33	101.47	54.00	47.47	AVG	No Limit

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

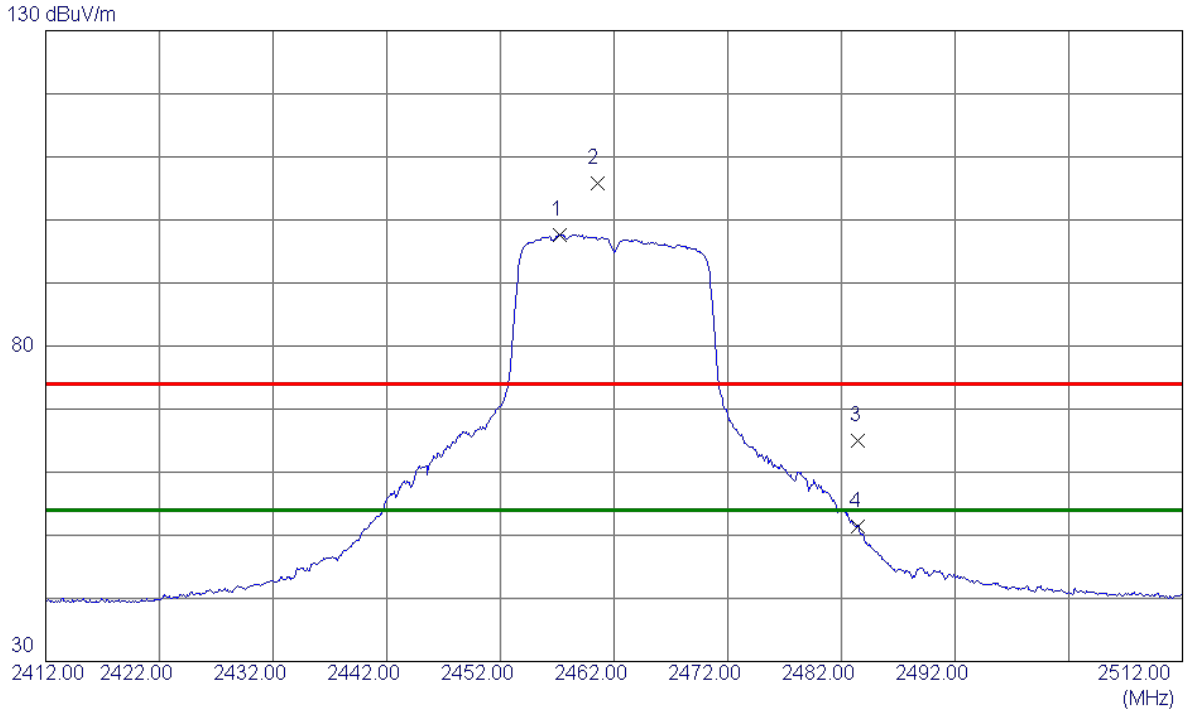


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9747.8900	40.27	12.97	53.24	74.00	-20.76	Peak	
2 *	9747.9400	34.24	12.97	47.21	54.00	-6.79	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

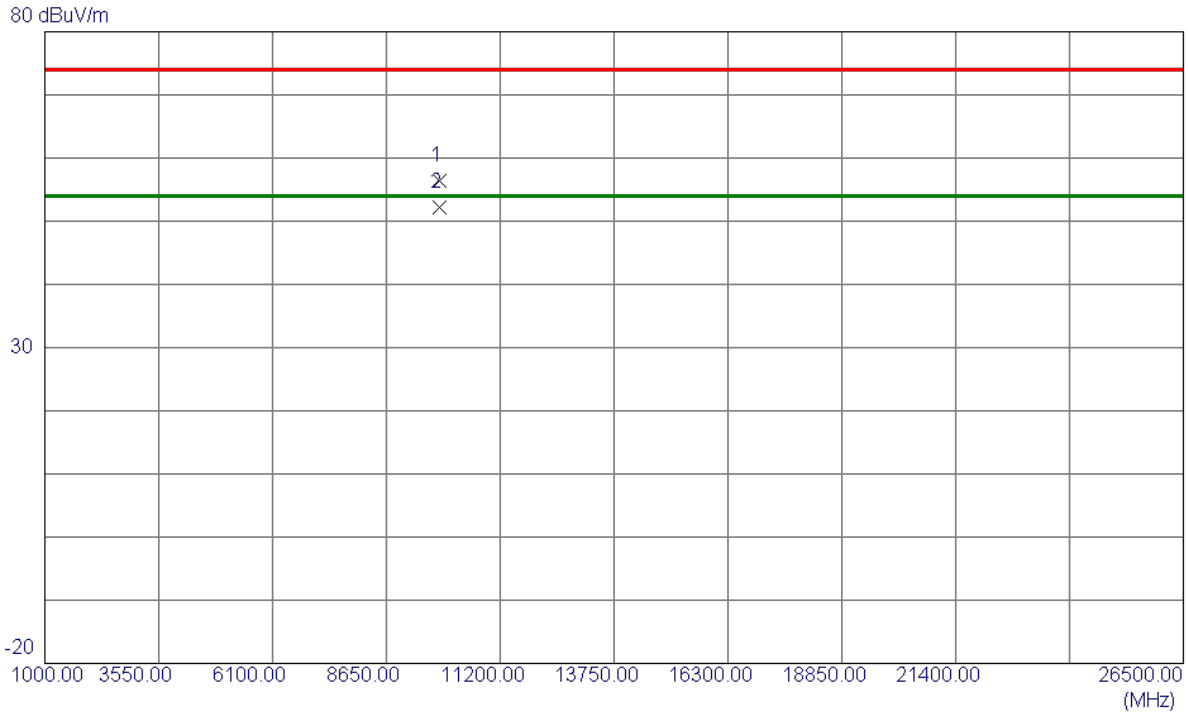


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2457.2000	89.28	8.36	97.64	54.00	43.64	AVG	No Limit
2	2460.5000	97.49	8.36	105.85	74.00	31.85	Peak	No Limit
3	2483.5000	56.54	8.39	64.93	74.00	-9.07	Peak	
4	2483.5000	43.07	8.39	51.46	54.00	-2.54	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

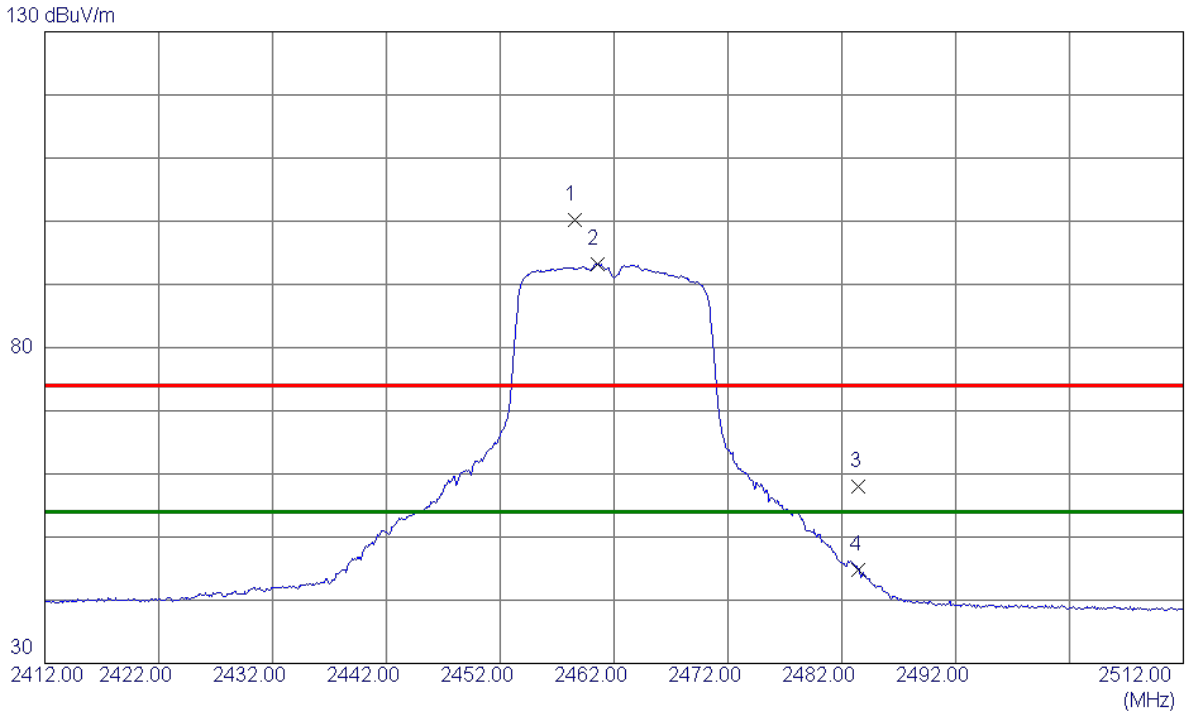


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9847.9800	43.29	13.05	56.34	74.00	-17.66	Peak	
2 *	9847.9950	39.20	13.05	52.25	54.00	-1.75	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

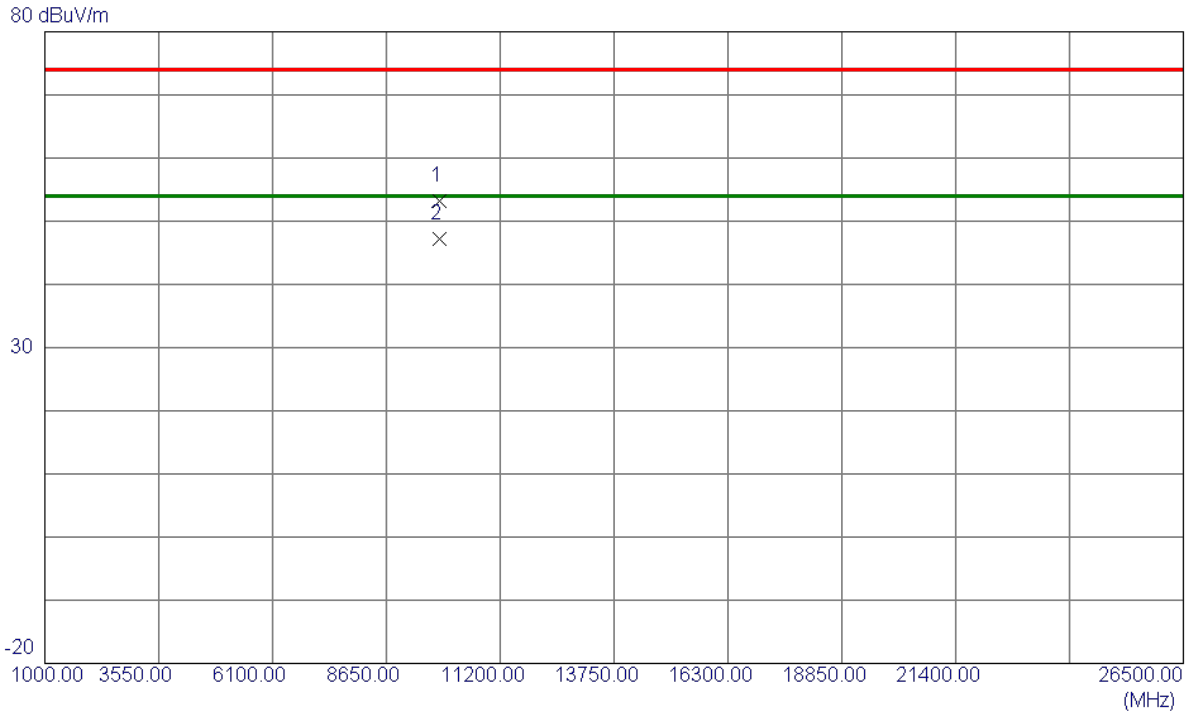


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458.5000	91.86	8.36	100.22	74.00	26.22	Peak	No Limit
2 *	2460.5000	84.87	8.36	93.23	54.00	39.23	AVG	No Limit
3	2483.5000	49.57	8.39	57.96	74.00	-16.04	Peak	
4	2483.5000	36.32	8.39	44.71	54.00	-9.29	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

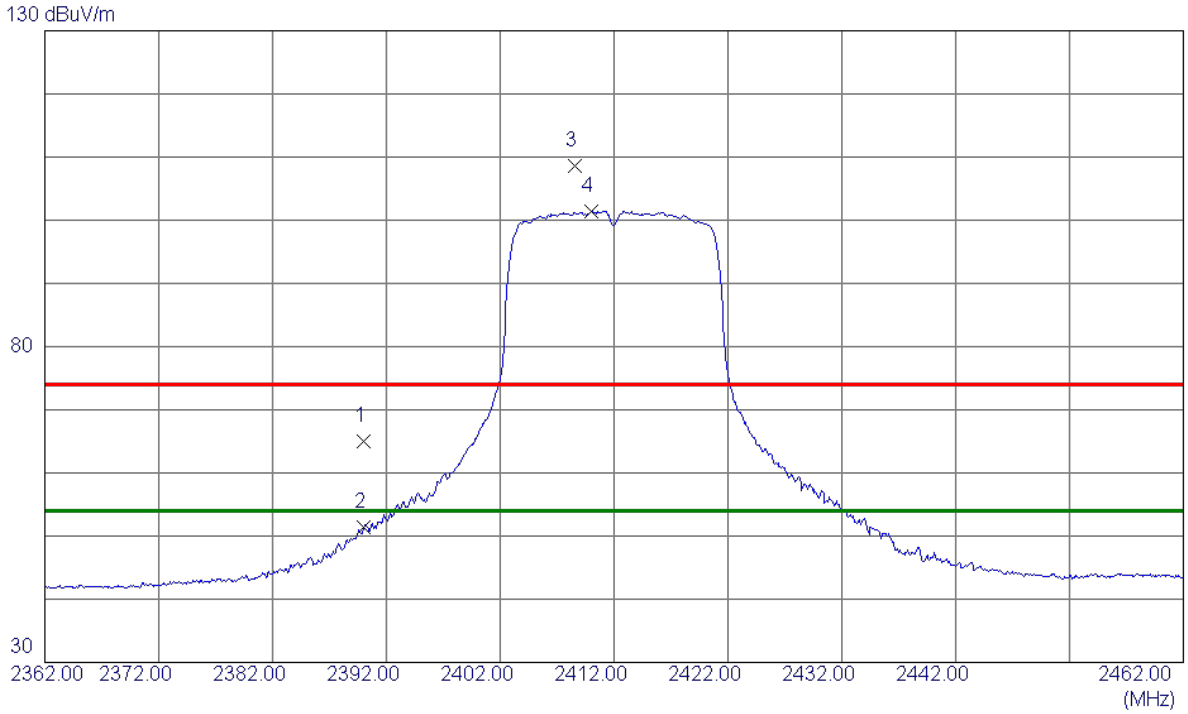


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9847.9800	40.14	13.05	53.19	74.00	-20.81	Peak	
2 *	9847.9950	34.21	13.05	47.26	54.00	-6.74	AVG	

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

Test Mode:	TX N-20M Mode 2412 MHz

Vertical

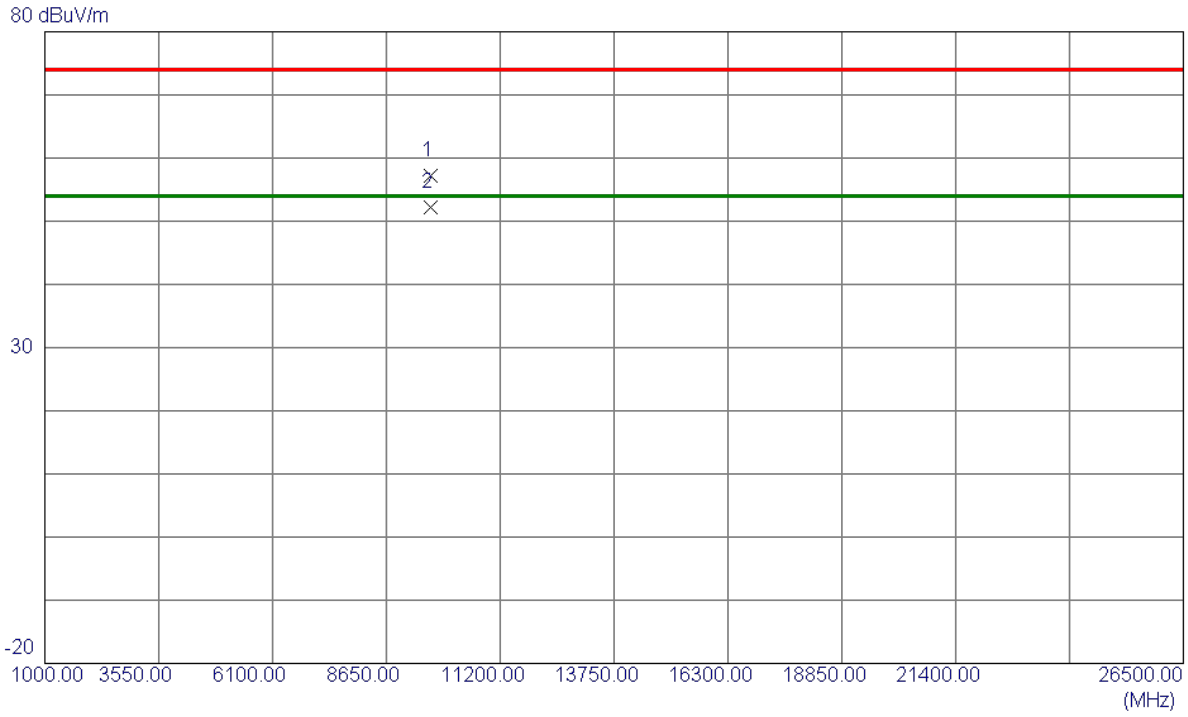


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	56.77	8.29	65.06	74.00	-8.94	Peak	
2	2390.0000	43.09	8.29	51.38	54.00	-2.62	AVG	
3	2408.6000	100.30	8.31	108.61	74.00	34.61	Peak	No Limit
4 *	2410.0000	93.18	8.31	101.49	54.00	47.49	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

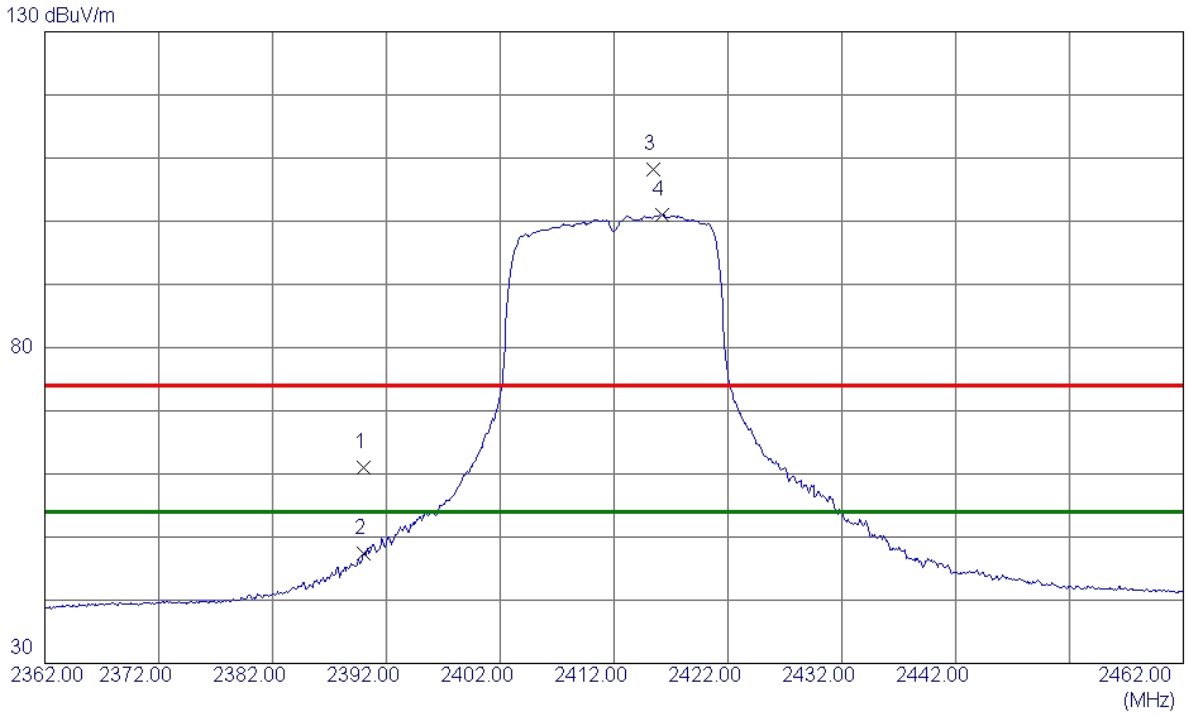


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9647.8050	44.24	12.88	57.12	74.00	-16.88	Peak	
2 *	9647.9200	39.30	12.88	52.18	54.00	-1.82	AVG	

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

Test Mode:	TX N-20M Mode 2412 MHz

Horizontal

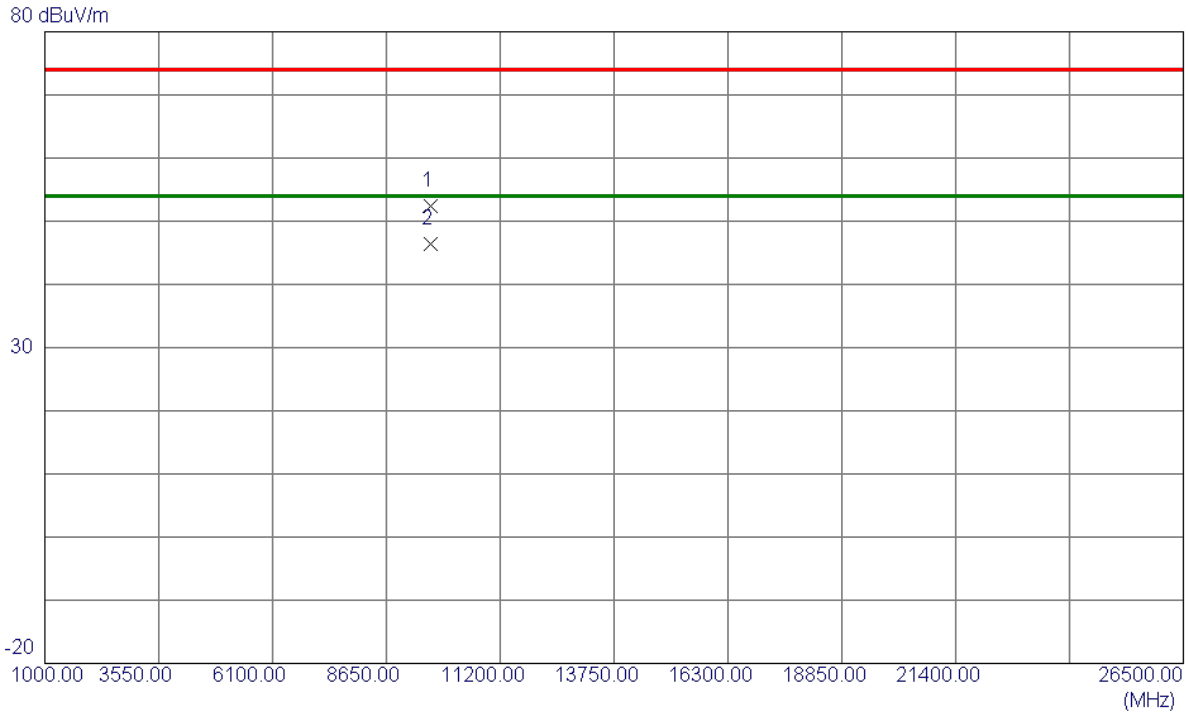


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	52.64	8.29	60.93	74.00	-13.07	Peak	
2	2390.0000	39.18	8.29	47.47	54.00	-6.53	AVG	
3	2415.4000	99.97	8.31	108.28	74.00	34.28	Peak	No Limit
4 *	2416.2000	92.69	8.32	101.01	54.00	47.01	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

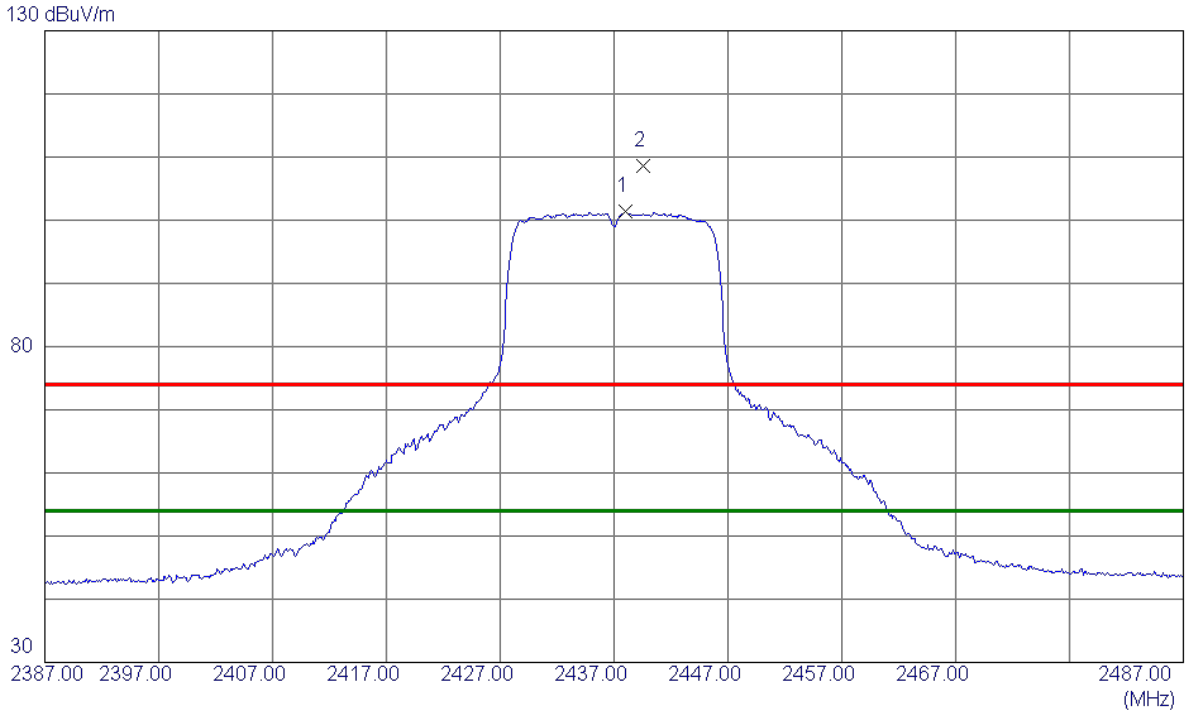


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9647.8050	39.58	12.88	52.46	74.00	-21.54	Peak	
2 *	9647.9200	33.47	12.88	46.35	54.00	-7.65	AVG	

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

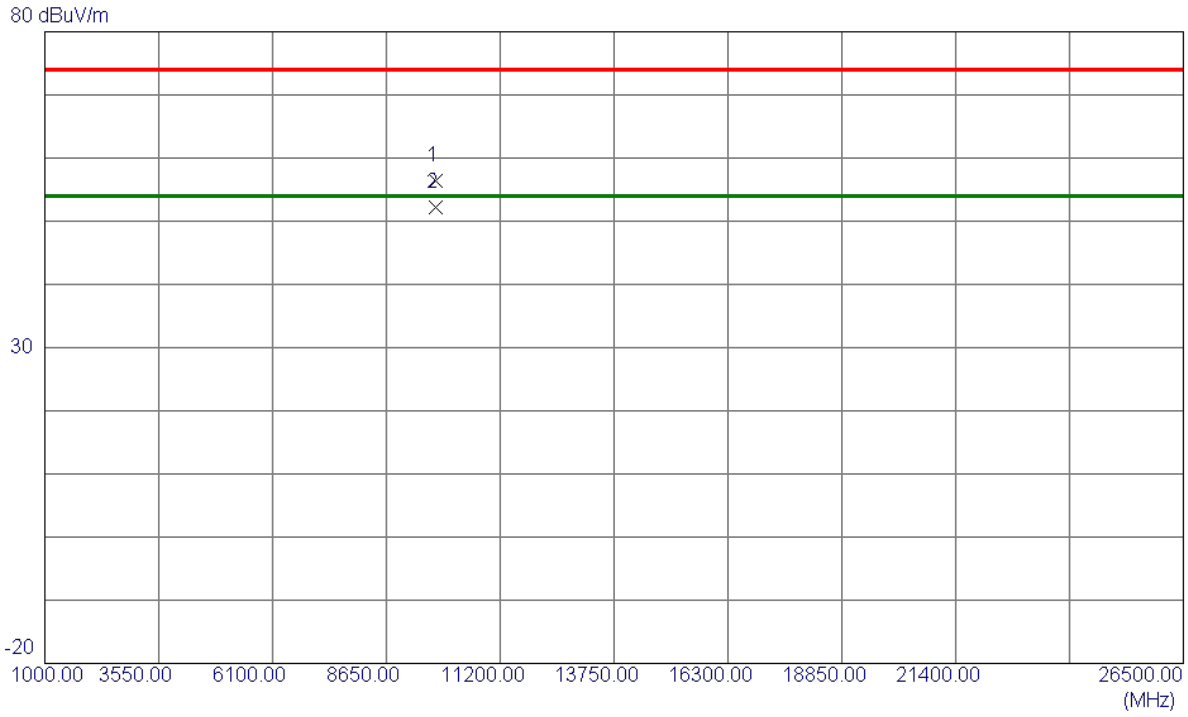


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2438.0000	93.01	8.34	101.35	54.00	47.35	AVG	No Limit
2	2439.6000	100.33	8.34	108.67	74.00	34.67	Peak	No Limit

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

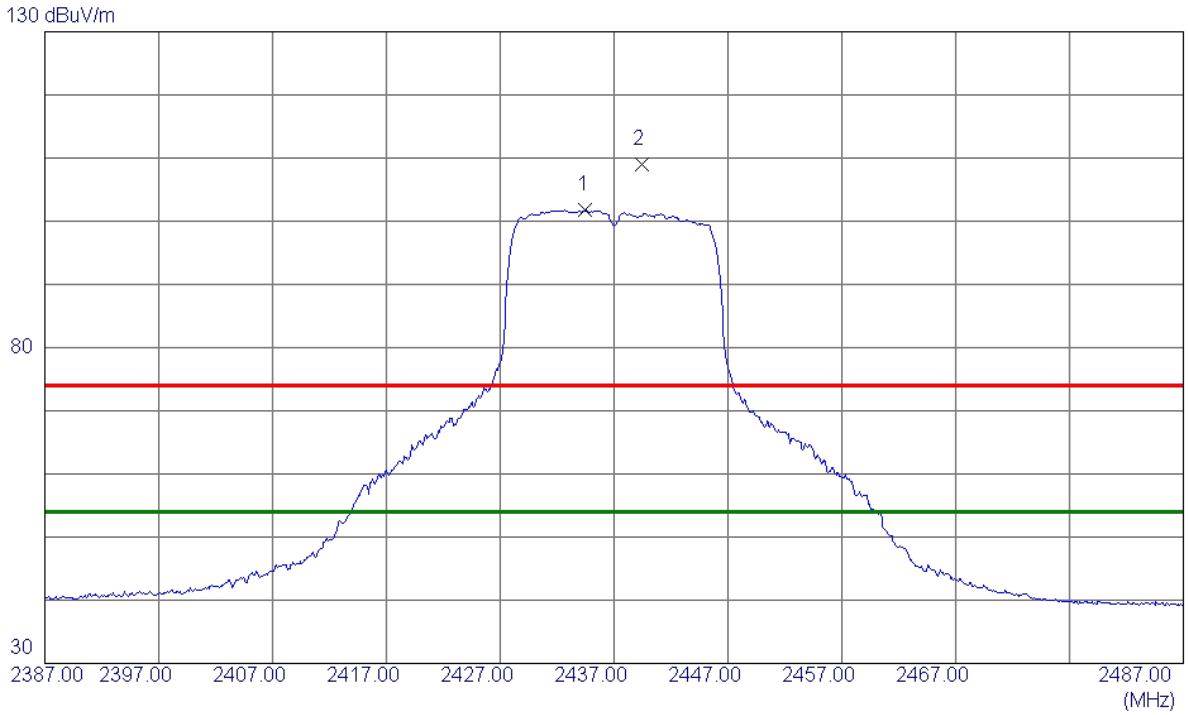


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9747.9500	43.47	12.97	56.44	74.00	-17.56	Peak	
2 *	9747.9800	39.23	12.97	52.20	54.00	-1.80	AVG	

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

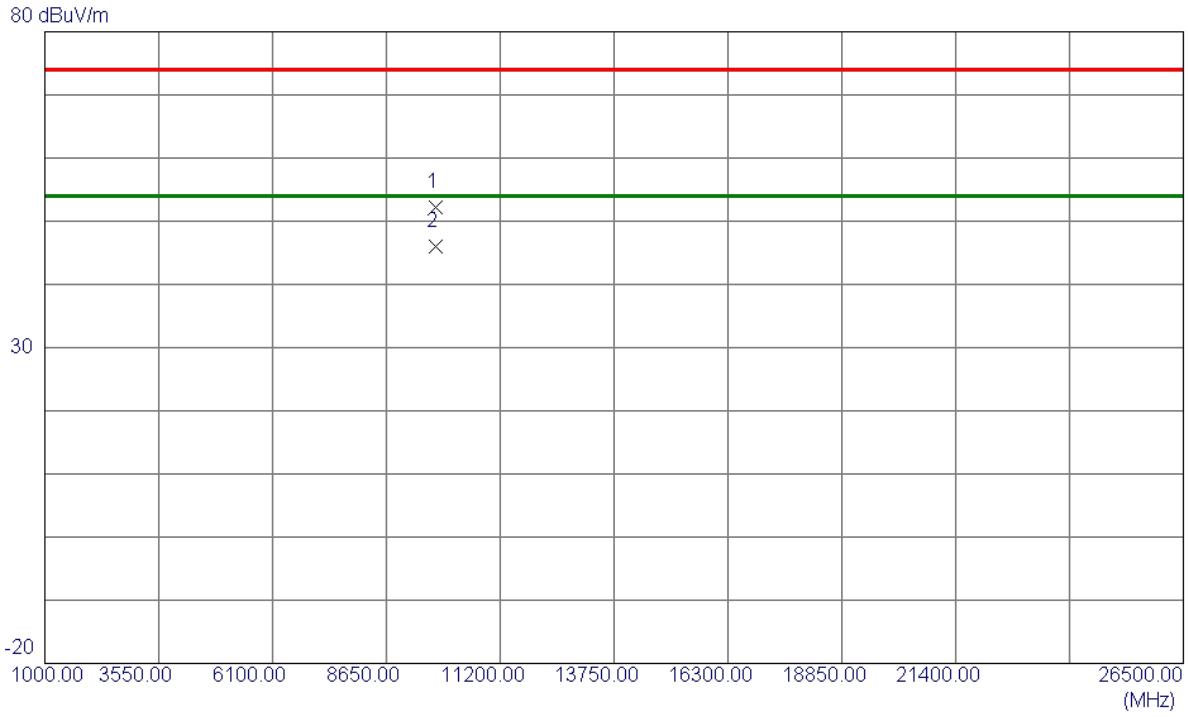


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2434.5000	93.41	8.33	101.74	54.00	47.74	AVG	No Limit
2	2439.4000	100.66	8.34	109.00	74.00	35.00	Peak	No Limit

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

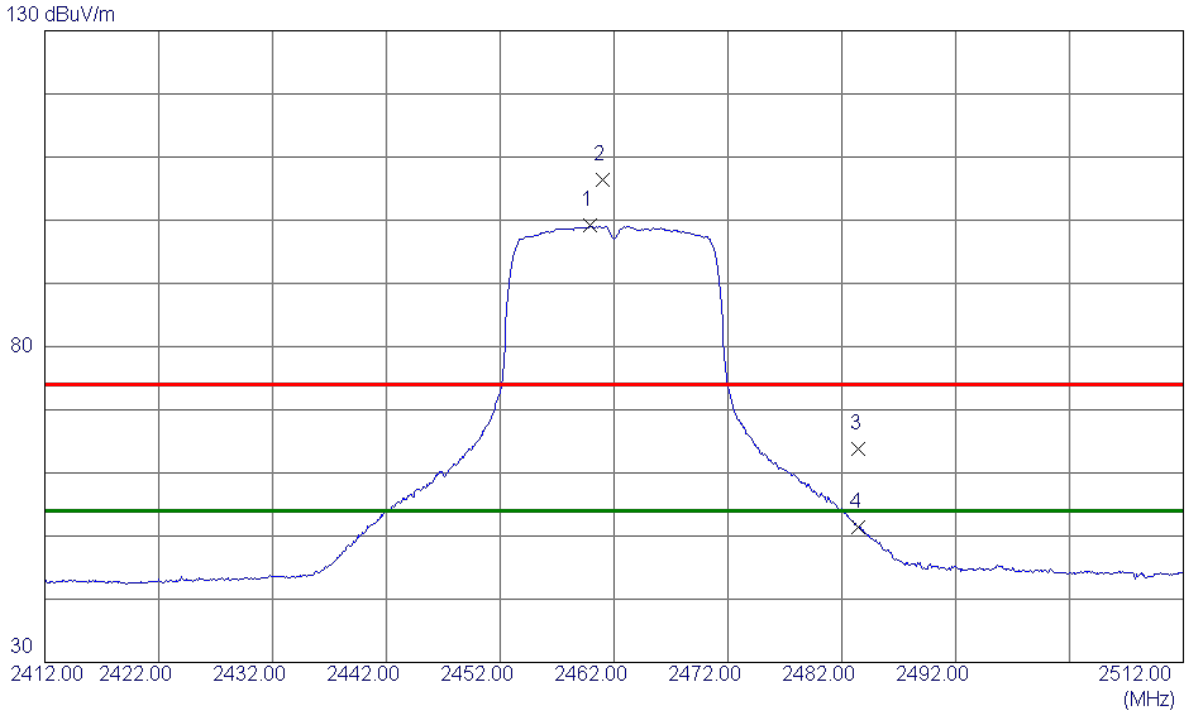


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9747.9500	39.22	12.97	52.19	74.00	-21.81	Peak	
2 *	9747.9800	33.11	12.97	46.08	54.00	-7.92	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Vertical

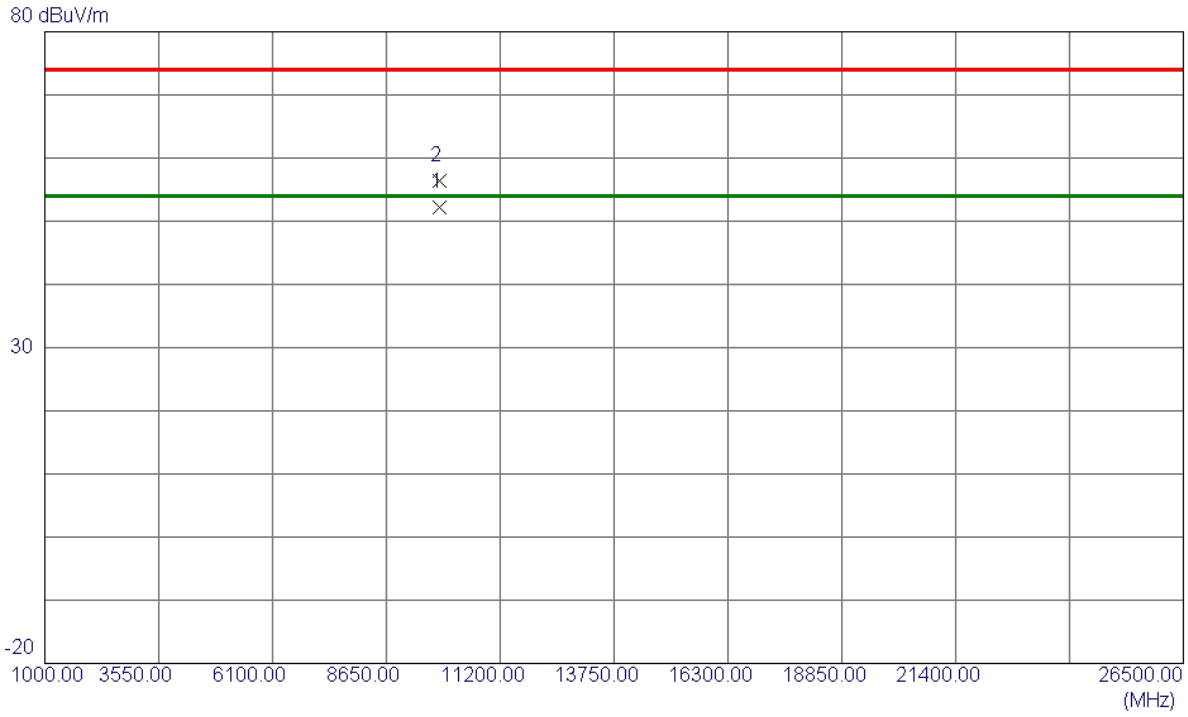


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2459.9000	90.75	8.36	99.11	54.00	45.11	AVG	No Limit
2	2461.0000	98.10	8.36	106.46	74.00	32.46	Peak	No Limit
3	2483.5000	55.40	8.39	63.79	74.00	-10.21	Peak	
4	2483.5000	43.08	8.39	51.47	54.00	-2.53	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

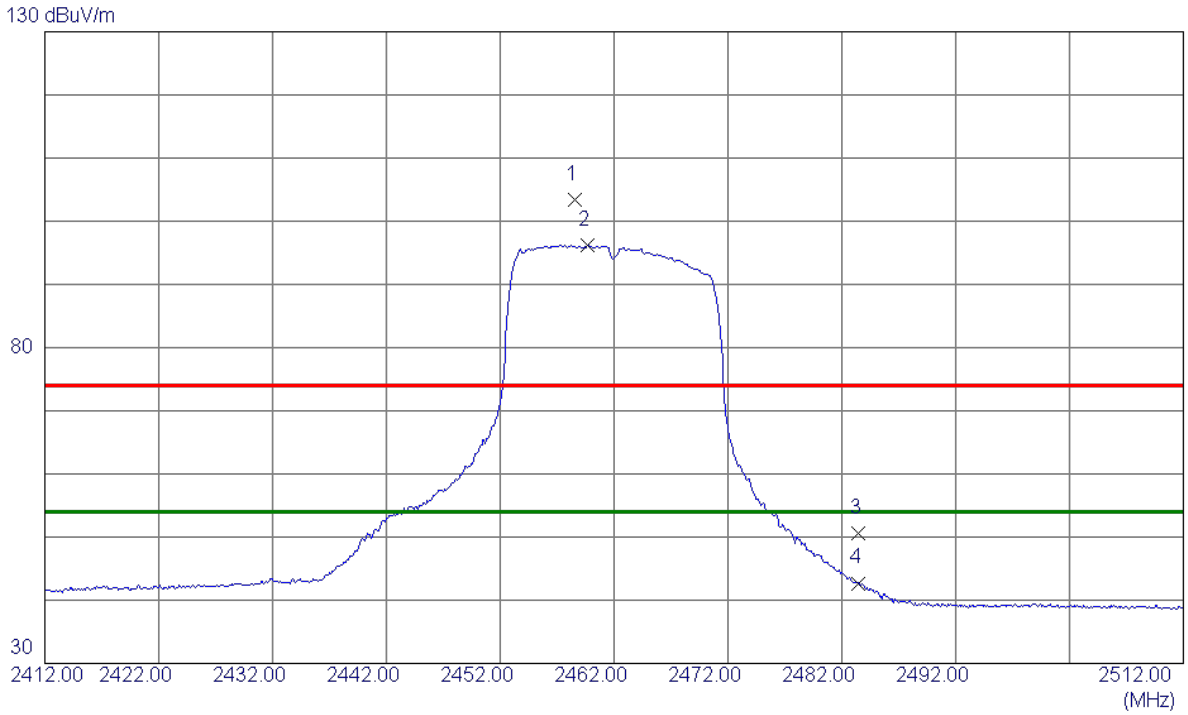


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	9847.9300	39.09	13.05	52.14	54.00	-1.86	AVG	
2	9847.9349	43.34	13.05	56.39	74.00	-17.61	Peak	

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

Test Mode:	TX N-20M Mode 2462 MHz

Horizontal

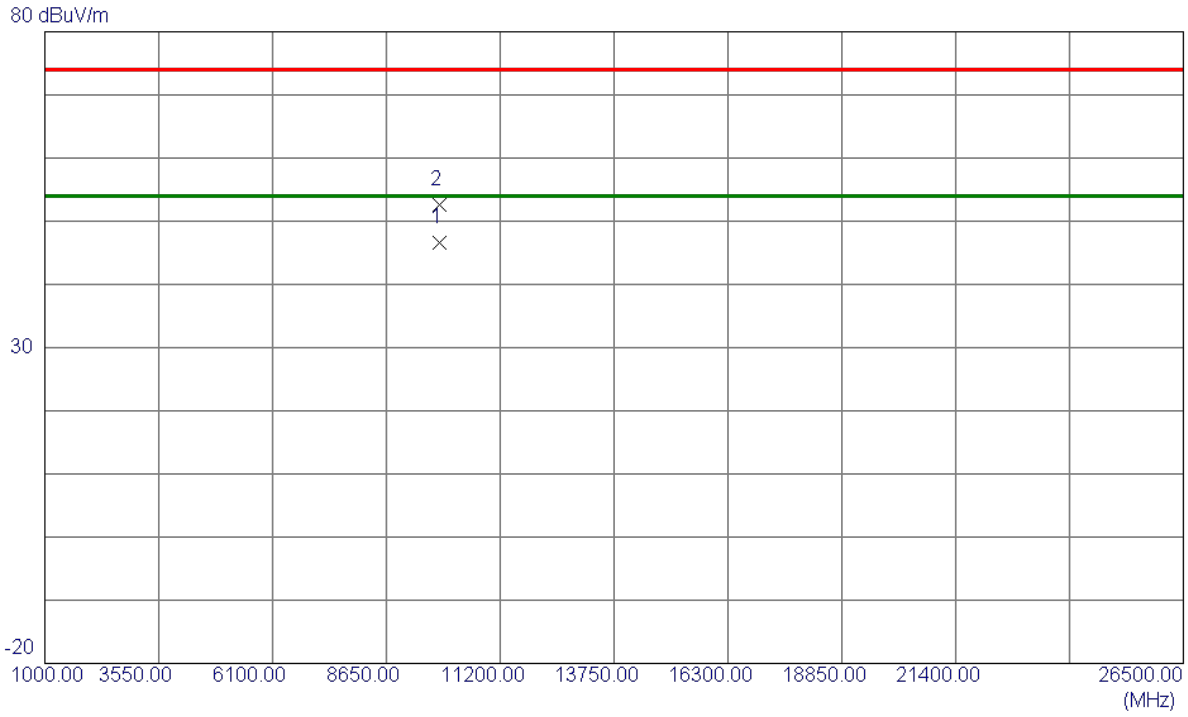


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2458.6000	95.04	8.36	103.40	74.00	29.40	Peak	No Limit
2 *	2459.7000	87.83	8.36	96.19	54.00	42.19	AVG	No Limit
3	2483.5000	42.30	8.39	50.69	74.00	-23.31	Peak	
4	2483.5000	34.31	8.39	42.70	54.00	-11.30	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

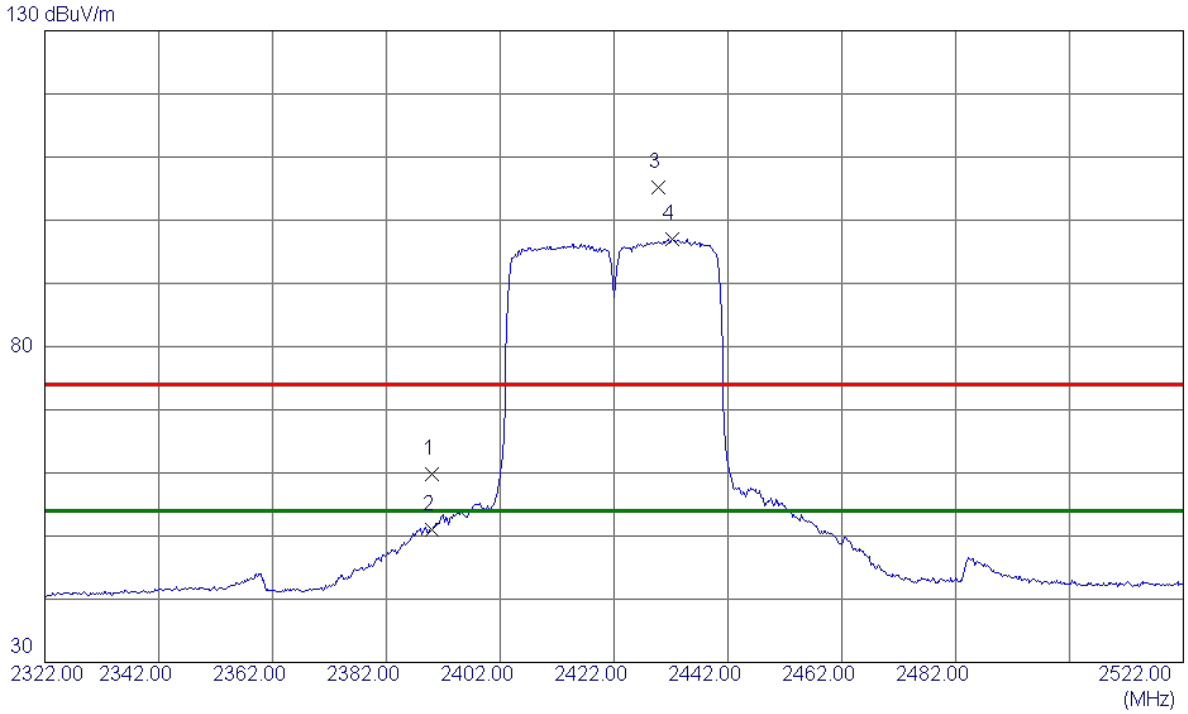


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	9847.9300	33.58	13.05	46.63	54.00	-7.37	AVG	
2	9847.9349	39.57	13.05	52.62	74.00	-21.38	Peak	

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

Test Mode:	TX N-40M Mode 2422MHz

Vertical

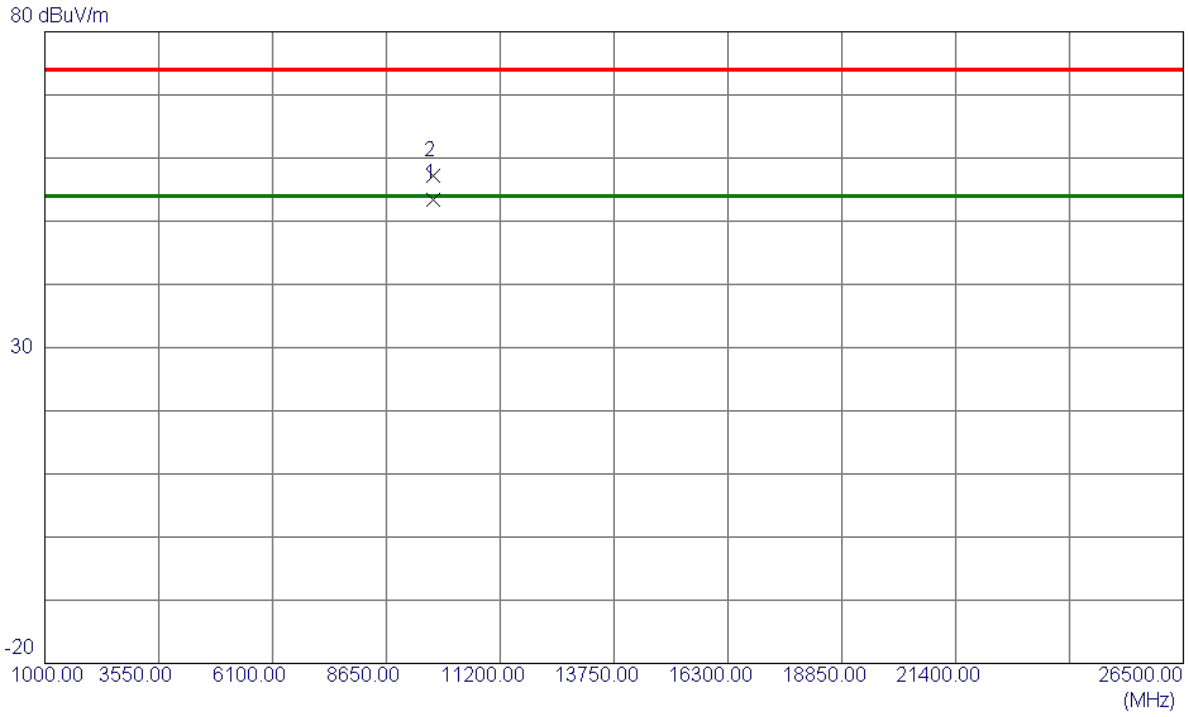


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	51.45	8.29	59.74	74.00	-14.26	Peak	
2	2390.0000	42.74	8.29	51.03	54.00	-2.97	AVG	
3	2429.8000	96.78	8.33	105.11	74.00	31.11	Peak	No Limit
4 *	2432.2000	88.70	8.33	97.03	54.00	43.03	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

Vertical

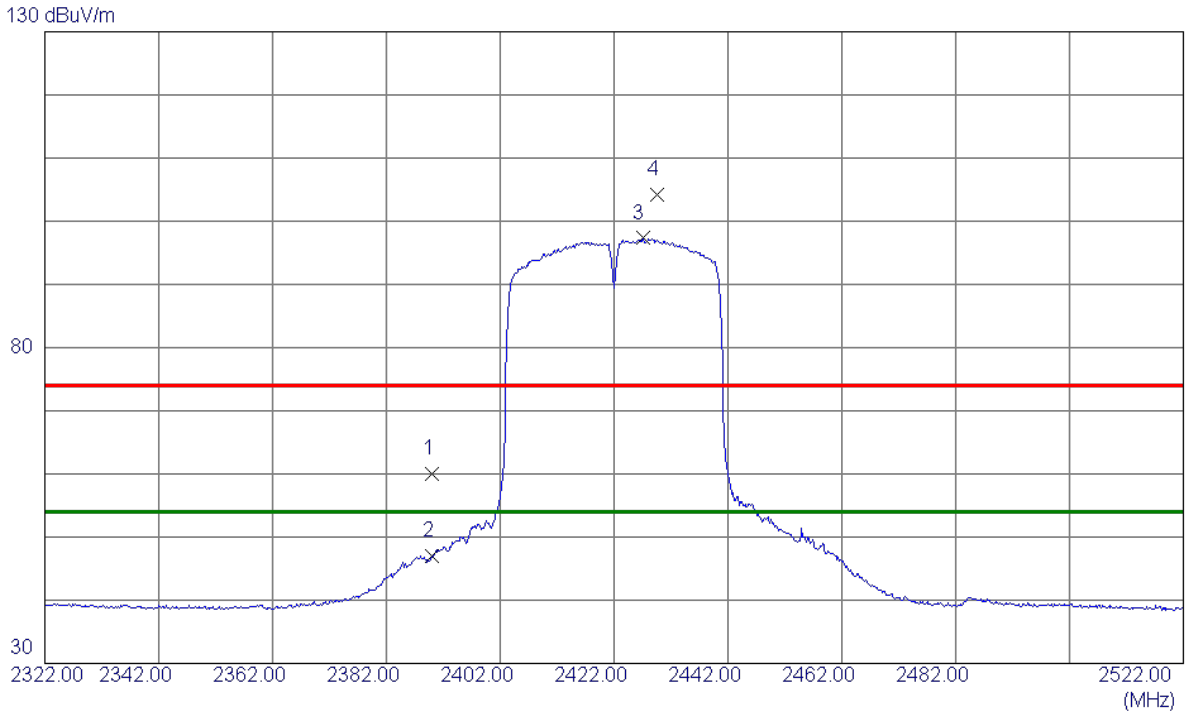


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	9687.9400	40.59	12.91	53.50	54.00	-0.50	AVG	
2	9688.2100	44.20	12.91	57.11	74.00	-16.89	Peak	

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

Test Mode:	TX N-40M Mode 2422MHz

Horizontal

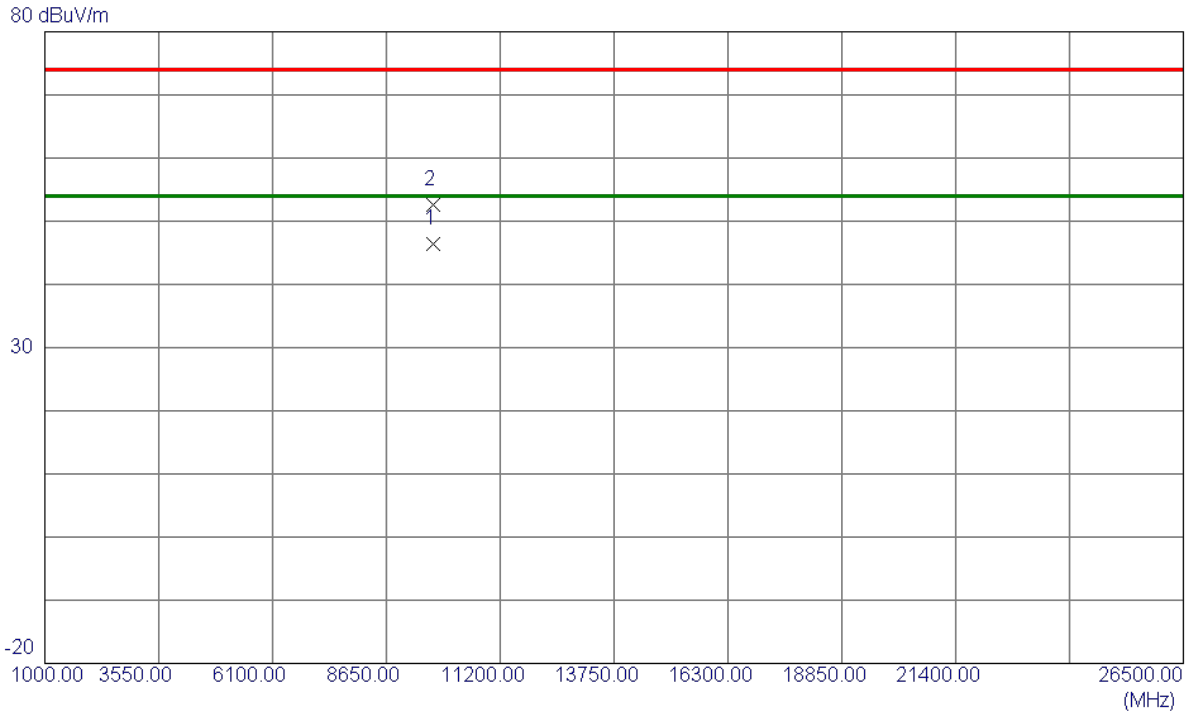


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	51.75	8.29	60.04	74.00	-13.96	Peak	
2	2390.0000	38.69	8.29	46.98	54.00	-7.02	AVG	
3 *	2427.0000	88.97	8.33	97.30	54.00	43.30	AVG	No Limit
4	2429.6000	95.93	8.33	104.26	74.00	30.26	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

Horizontal

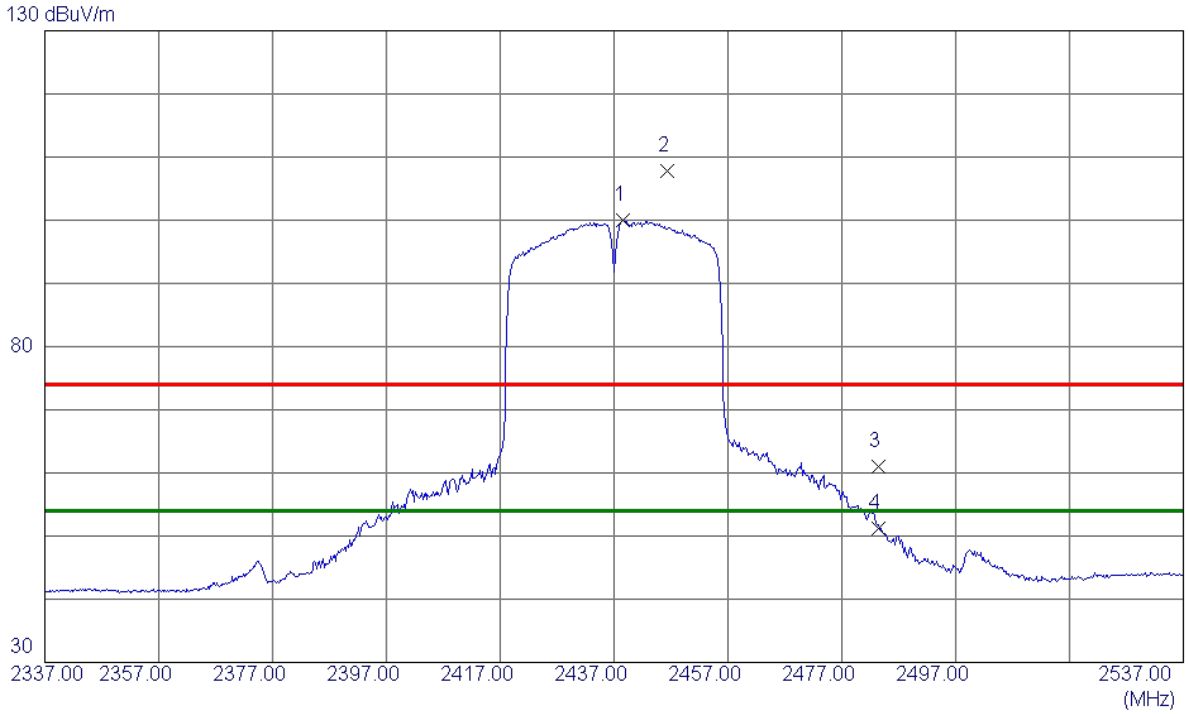


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	9687.9400	33.42	12.91	46.33	54.00	-7.67	AVG	
2	9688.2100	39.65	12.91	52.56	74.00	-21.44	Peak	

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

Test Mode:	TX N-40M Mode 2437 MHz

Vertical

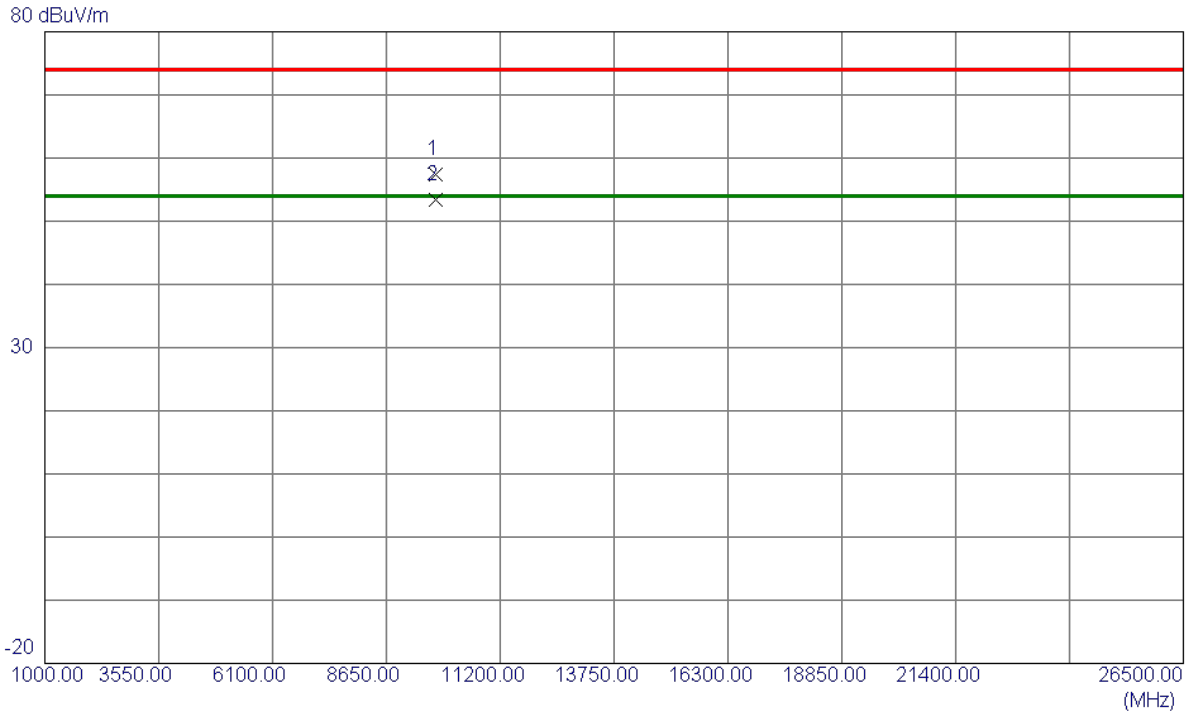


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2438.6000	91.64	8.34	99.98	54.00	45.98	AVG	No Limit
2	2446.4000	99.48	8.35	107.83	74.00	33.83	Peak	No Limit
3	2483.5000	52.70	8.39	61.09	74.00	-12.91	Peak	
4	2483.5000	42.85	8.39	51.24	54.00	-2.76	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

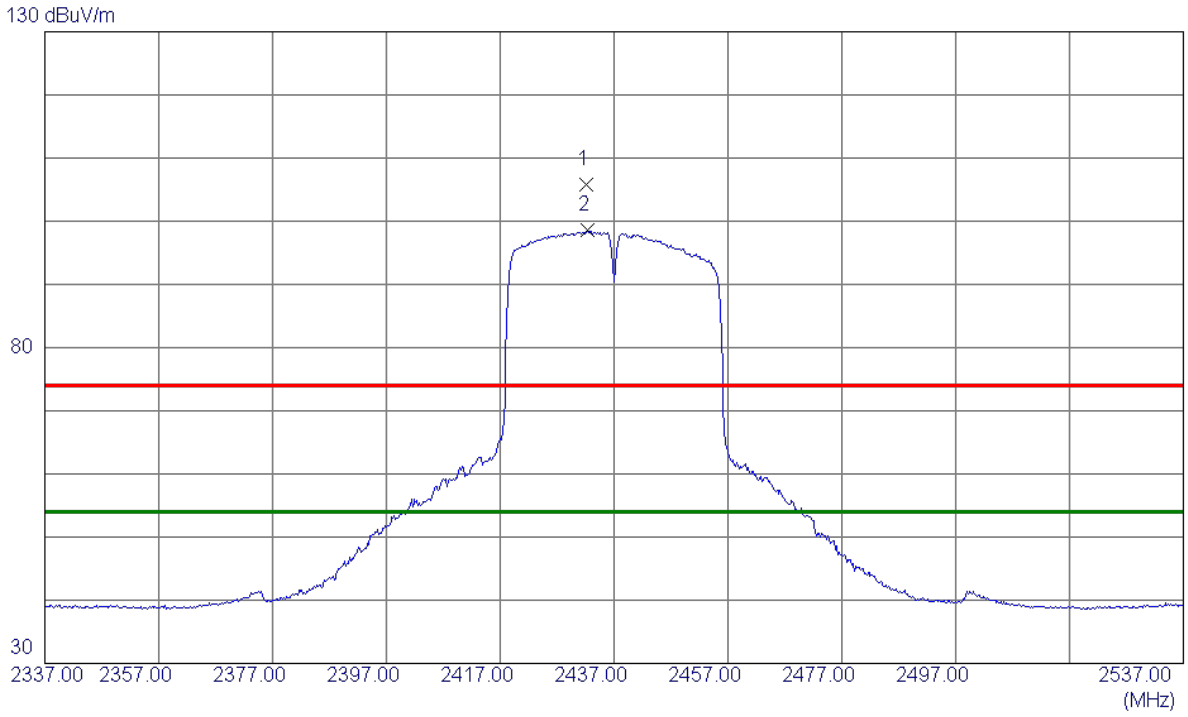


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9748.0000	44.41	12.97	57.38	74.00	-16.62	Peak	
2 *	9748.0000	40.51	12.97	53.48	54.00	-0.52	AVG	

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

Test Mode:	TX N-40M Mode 2437 MHz

Horizontal

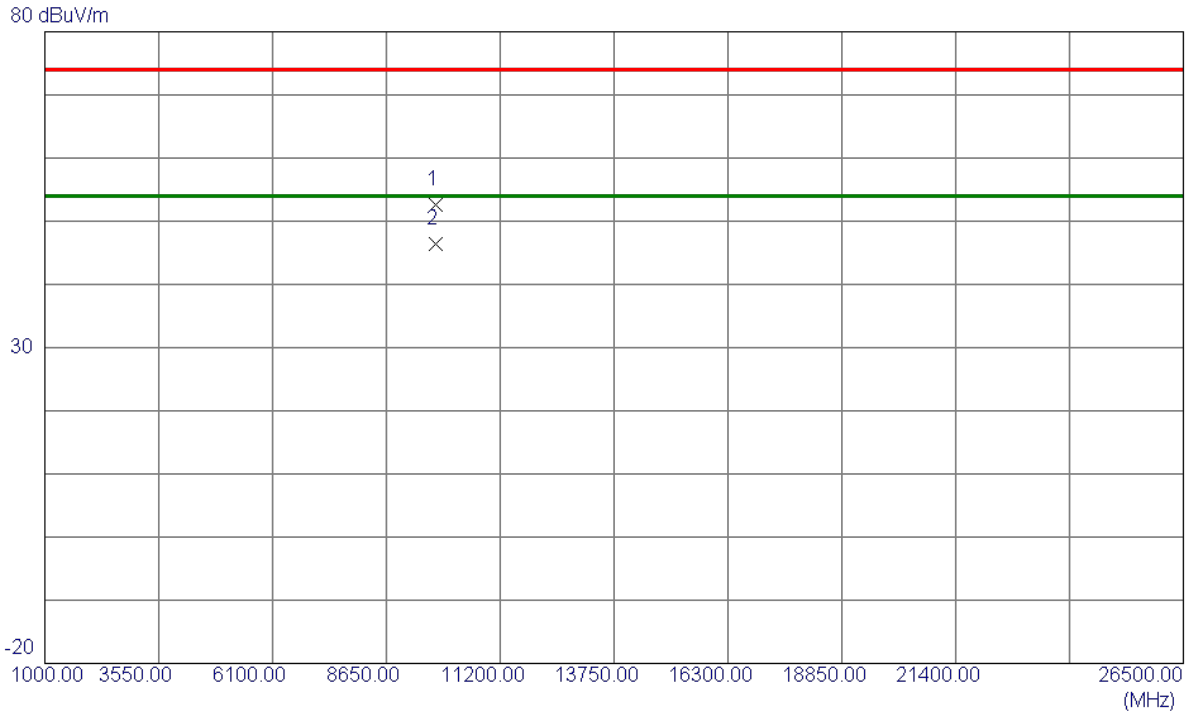


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2432.2000	97.43	8.33	105.76	74.00	31.76	Peak	No Limit
2 *	2432.4000	90.18	8.33	98.51	54.00	44.51	AVG	No Limit

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

Test Mode:	TX N-40M Mode 2437 MHz

Horizontal

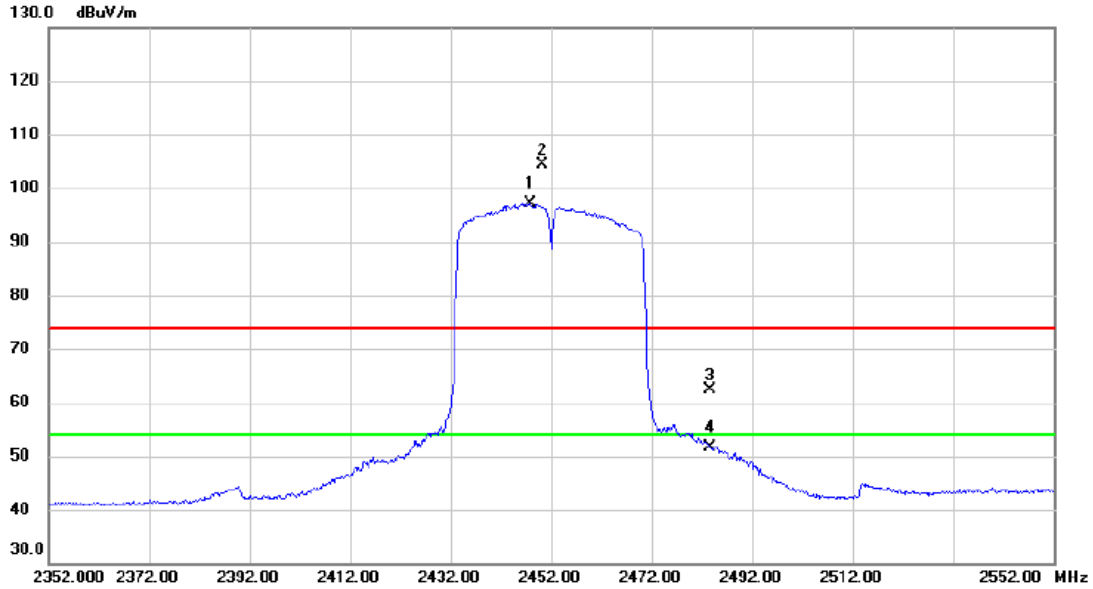


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9748.0000	39.65	12.97	52.62	74.00	-21.38	Peak	
2 *	9748.0000	33.41	12.97	46.38	54.00	-7.62	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

Vertical

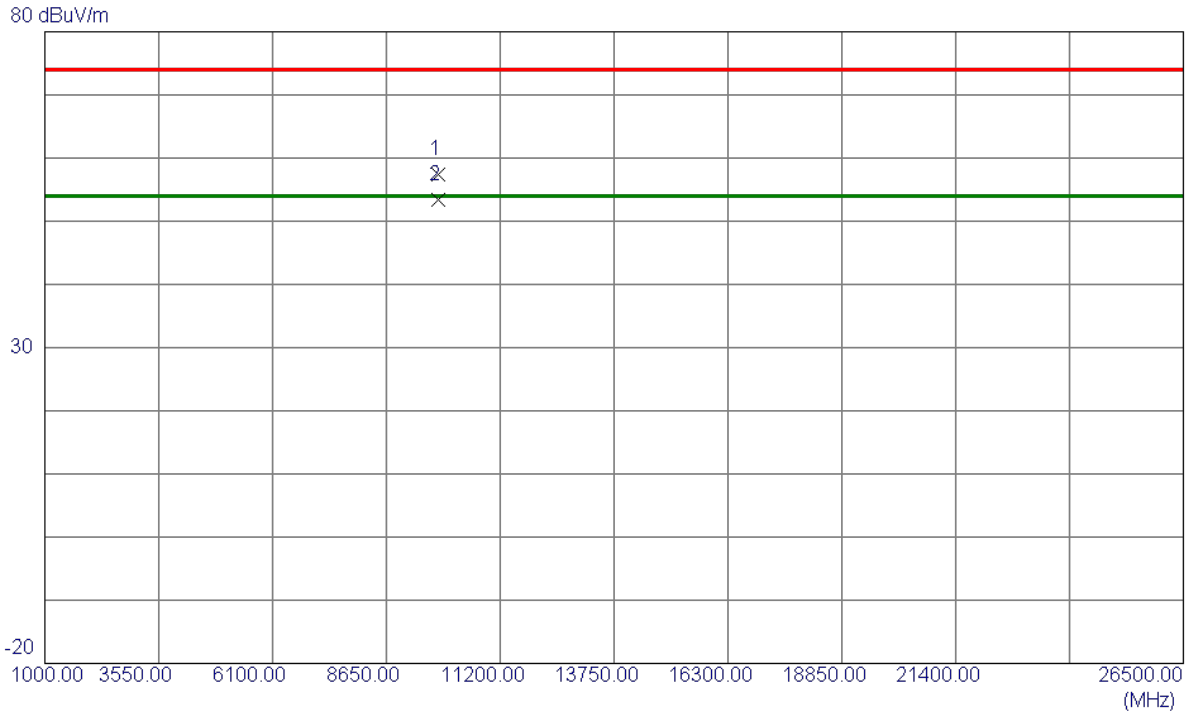


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2447.800	88.77	8.35	97.12	54.00	43.12	AVG	No Limit
2	X	2450.200	96.11	8.35	104.46	74.00	30.46	peak	No Limit
3		2483.500	54.11	8.39	62.50	74.00	-11.50	peak	
4		2483.500	43.29	8.39	51.68	54.00	-2.32	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

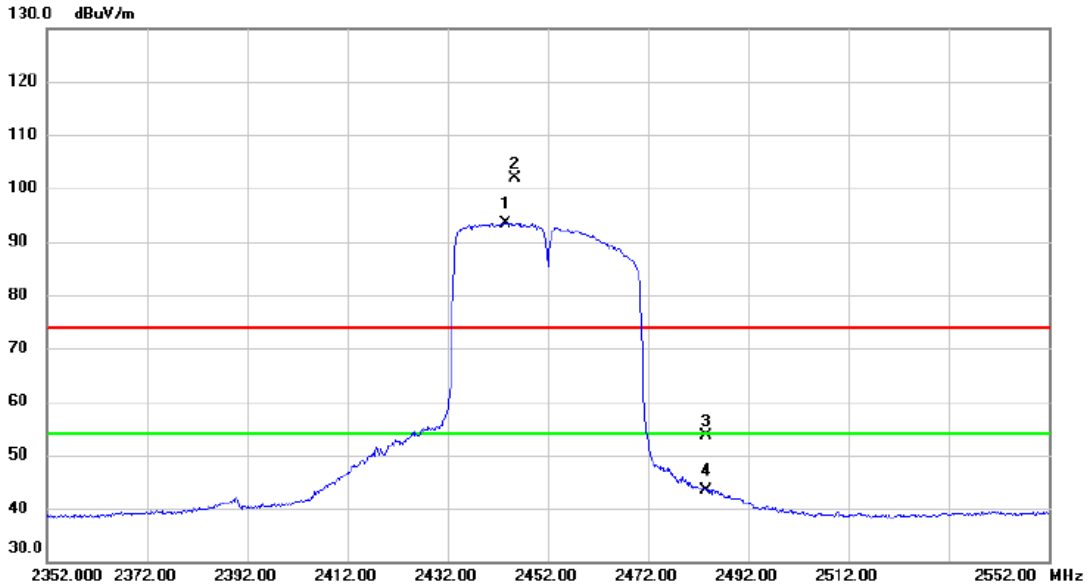


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9808.0000	44.41	13.02	57.43	74.00	-16.57	Peak	
2 *	9808.0000	40.46	13.02	53.48	54.00	-0.52	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

Horizontal

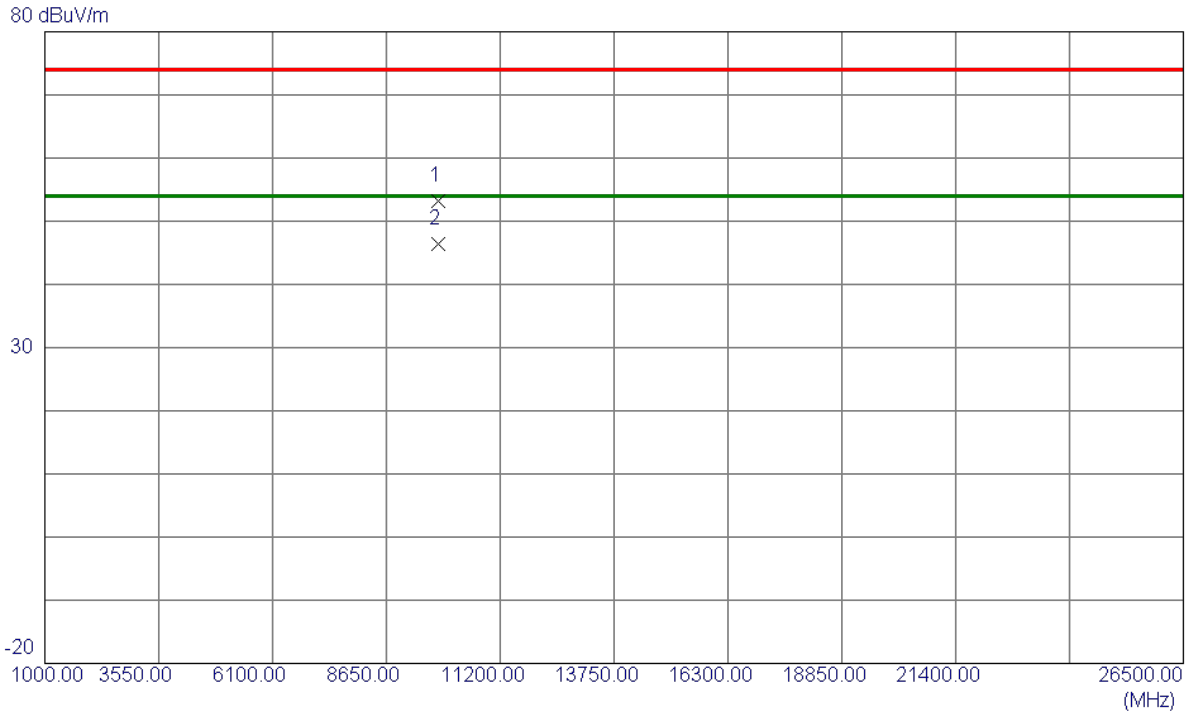


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2443.600	85.11	8.34	93.45	54.00	39.45	AVG	No Limit
2	X	2445.600	93.42	8.35	101.77	74.00	27.77	peak	No Limit
3		2483.500	45.24	8.39	53.63	74.00	-20.37	peak	
4		2483.500	34.92	8.39	43.31	54.00	-10.69	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



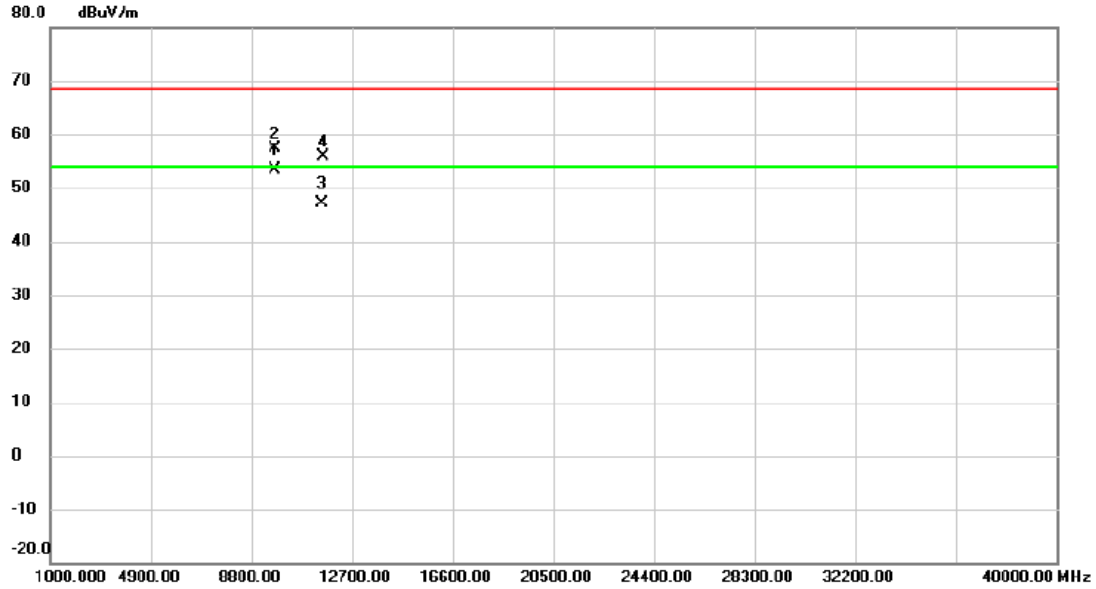
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9808.0000	40.10	13.02	53.12	74.00	-20.88	Peak	
2 *	9808.0000	33.32	13.02	46.34	54.00	-7.66	AVG	

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

The worst case of simultaneous transmission:

Test Mode:	TX WLAN 2.4G N40 Mode 2422MHz + WLAN 5G AC80 Mode 5775MHz

Vertical

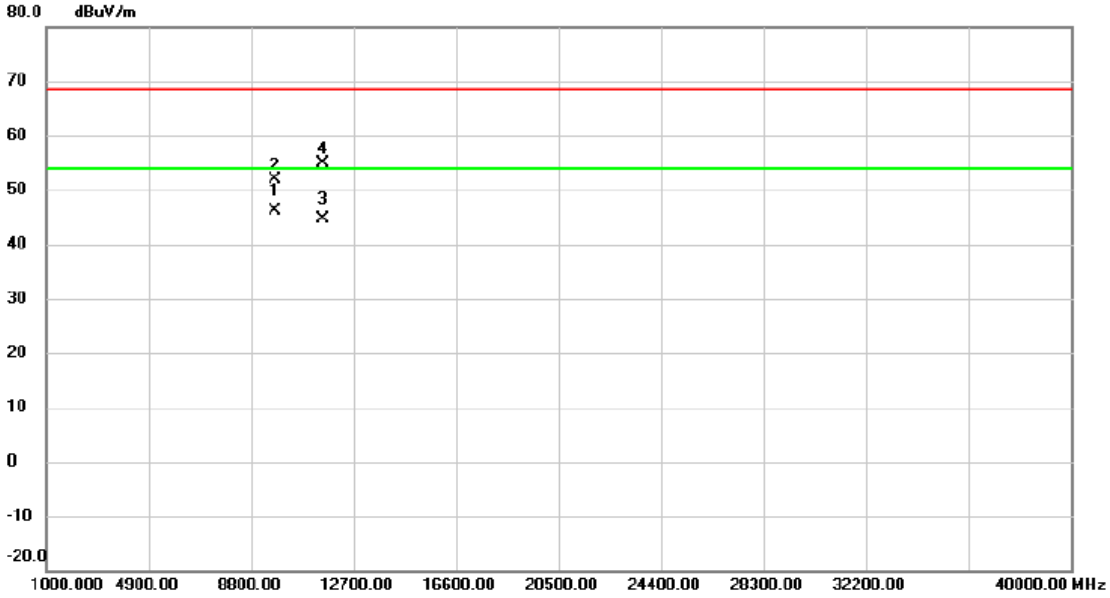


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	9687.960	40.37	12.91	53.28	54.00	-0.72	AVG	
2		9688.560	44.56	12.91	57.47	68.30	-10.83	peak	
3		11550.260	32.64	14.57	47.21	54.00	-6.79	AVG	
4		11556.930	41.22	14.57	55.79	68.30	-12.51	peak	

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

Test Mode:	TX WLAN 2.4G N40 Mode 2422MHz + WLAN 5G AC80 Mode 5775MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	9687.940	33.34	12.91	46.25	54.00	-7.75	AVG	
2		9688.420	38.94	12.91	51.85	68.30	-16.45	peak	
3		11550.250	30.11	14.57	44.68	54.00	-9.32	AVG	
4		11554.380	40.35	14.57	54.92	68.30	-13.38	peak	

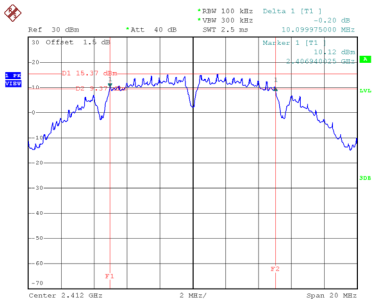
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

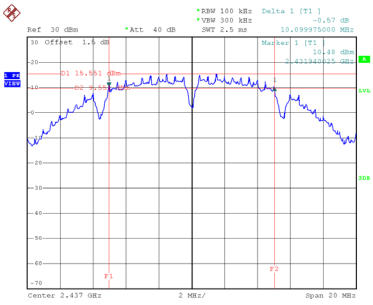
Test Mode	TX B Mode

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

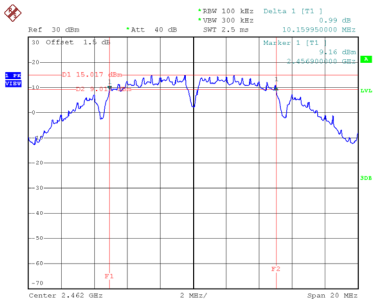
CH01



CH06

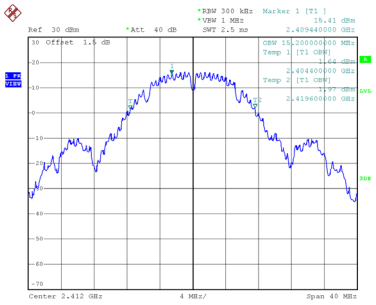


CH11

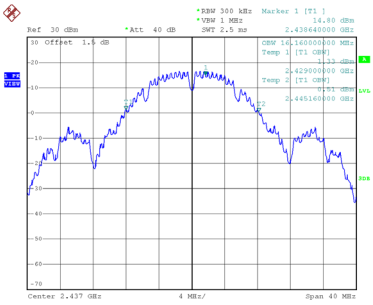


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	15.20	Complies
06	2437	16.16	Complies
11	2462	16.24	Complies

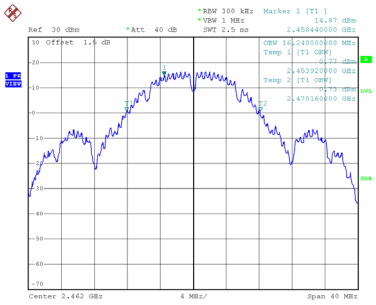
CH01



CH06



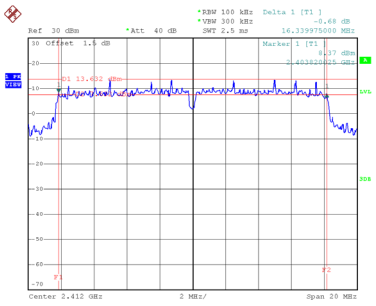
CH11



Test Mode	TX G Mode

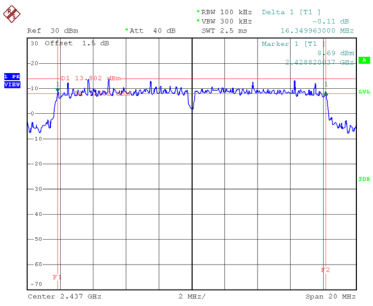
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.34	500	Complies
06	2437	16.35	500	Complies
11	2462	16.36	500	Complies

CH01



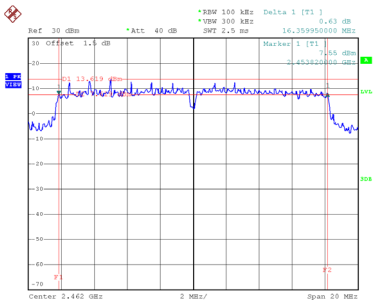
Date: 9.JUL.2020 19:19:59

CH06



Date: 9.JUL.2020 19:21:36

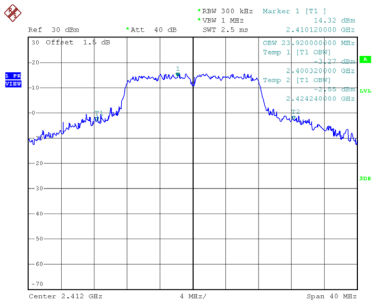
CH11



Date: 9.JUL.2020 19:23:01

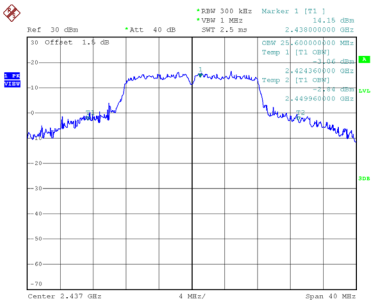
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	23.92	Complies
06	2437	25.60	Complies
11	2462	25.68	Complies

CH01



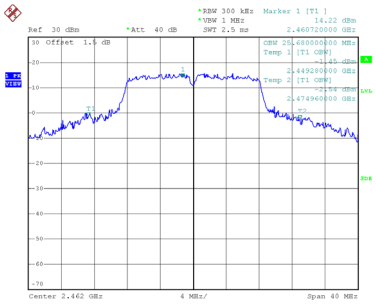
Date: 9.JUL.2020 19:20:07

CH06



Date: 9.JUL.2020 19:21:43

CH11

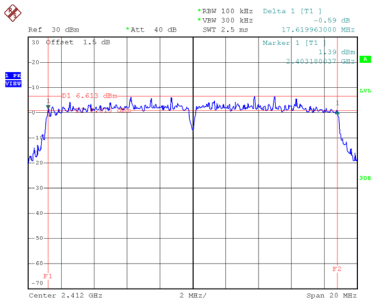


Date: 9.JUL.2020 19:23:09

Test Mode	TX N-20M Mode

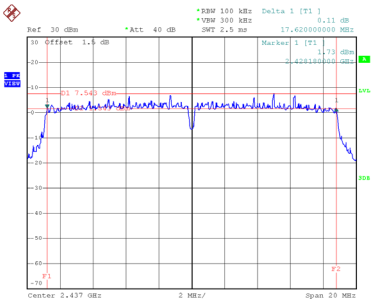
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.62	500	Complies
06	2437	17.62	500	Complies
11	2462	16.76	500	Complies

CH01



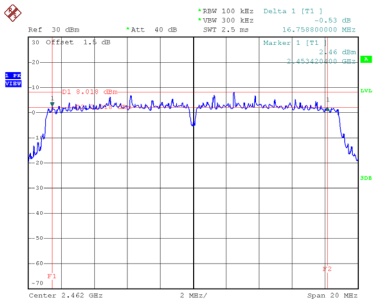
Date: 9.JUL.2020 19:25:01

CH06



Date: 9.JUL.2020 19:26:57

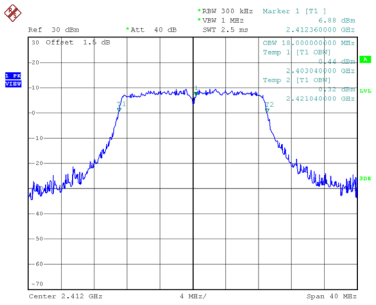
CH11



Date: 9.JUL.2020 19:29:20

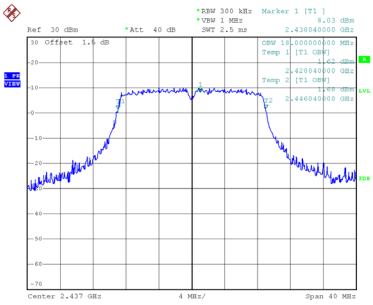
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	18.00	Complies
06	2437	18.00	Complies
11	2462	18.08	Complies

CH01



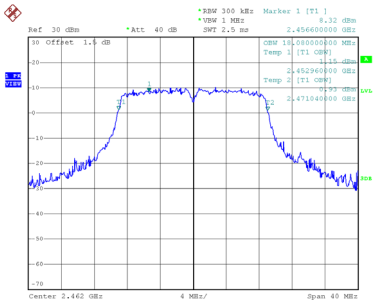
Date: 9.JUL.2020 19:25:09

CH06



Date: 9.JUL.2020 19:27:04

CH11

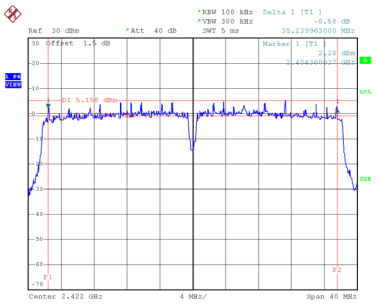


Date: 9.JUL.2020 19:29:28

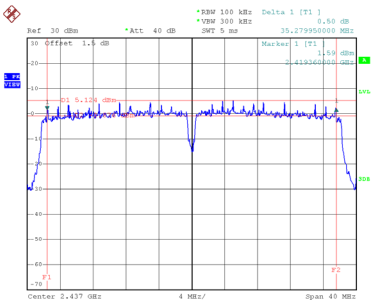
Test Mode	TX N-40M Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	35.24	500	Complies
06	2437	35.28	500	Complies
09	2452	35.80	500	Complies

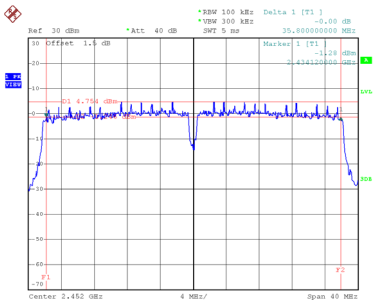
CH03



CH06

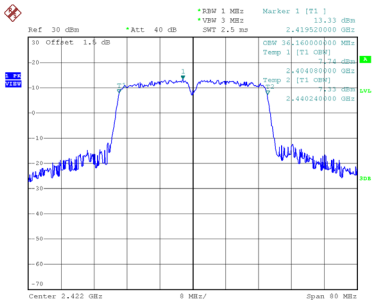


CH09

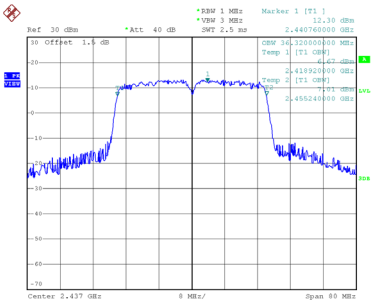


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	36.16	Complies
06	2437	36.32	Complies
09	2452	36.32	Complies

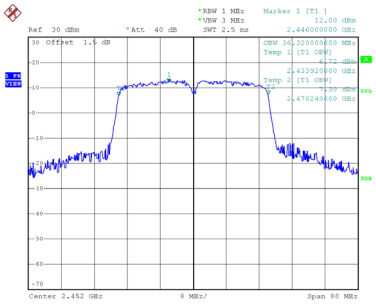
CH03



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	25.39	30.00	1.0000	Complies
06	2437	25.48	30.00	1.0000	Complies
11	2462	25.93	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.34	30.00	1.0000	Complies
06	2437	21.26	30.00	1.0000	Complies
11	2462	20.73	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	28.22	30.00	1.0000	Complies
06	2437	28.64	30.00	1.0000	Complies
11	2462	27.36	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.39	30.00	1.0000	Complies
06	2437	21.14	30.00	1.0000	Complies
11	2462	18.05	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	26.04	30.00	1.0000	Complies
06	2437	26.21	30.00	1.0000	Complies
11	2462	25.71	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.23	30.00	1.0000	Complies
06	2437	16.72	30.00	1.0000	Complies
11	2462	15.38	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	26.88	30.00	1.0000	Complies
06	2437	26.61	30.00	1.0000	Complies
11	2462	25.64	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.62	30.00	1.0000	Complies
06	2437	16.75	30.00	1.0000	Complies
11	2462	15.43	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	29.49	29.54	0.8995	Complies
06	2437	29.42	29.54	0.8995	Complies
11	2462	28.69	29.54	0.8995	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.44	29.54	0.8995	Complies
06	2437	19.75	29.54	0.8995	Complies
11	2462	18.42	29.54	0.8995	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	26.76	30.00	1.0000	Complies
06	2437	26.63	30.00	1.0000	Complies
09	2452	25.27	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.43	30.00	1.0000	Complies
06	2437	18.70	30.00	1.0000	Complies
09	2452	13.17	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	26.18	30.00	1.0000	Complies
06	2437	26.31	30.00	1.0000	Complies
09	2452	24.72	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.21	30.00	1.0000	Complies
06	2437	18.56	30.00	1.0000	Complies
09	2452	13.55	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	29.49	29.54	0.8995	Complies
06	2437	29.48	29.54	0.8995	Complies
09	2452	28.01	29.54	0.8995	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.33	29.54	0.8995	Complies
06	2437	21.64	29.54	0.8995	Complies
11	2462	16.38	29.54	0.8995	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	25.89	30.00	1.0000	Complies
06	2437	26.12	30.00	1.0000	Complies
11	2462	25.43	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.91	30.00	1.0000	Complies
06	2437	16.03	30.00	1.0000	Complies
11	2462	14.26	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	26.77	30.00	1.0000	Complies
06	2437	26.52	30.00	1.0000	Complies
11	2462	25.52	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.03	30.00	1.0000	Complies
06	2437	15.73	30.00	1.0000	Complies
11	2462	14.92	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	29.36	29.50	0.8913	Complies
06	2437	29.33	29.50	0.8913	Complies
11	2462	28.49	29.50	0.8913	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.98	29.50	0.8913	Complies
06	2437	18.89	29.50	0.8913	Complies
11	2462	17.61	29.50	0.8913	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	26.51	30.00	1.0000	Complies
06	2437	26.47	30.00	1.0000	Complies
09	2452	25.11	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.00	30.00	1.0000	Complies
06	2437	18.51	30.00	1.0000	Complies
09	2452	12.86	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	25.85	30.00	1.0000	Complies
06	2437	26.22	30.00	1.0000	Complies
09	2452	24.62	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.97	30.00	1.0000	Complies
06	2437	18.41	30.00	1.0000	Complies
09	2452	13.10	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Total

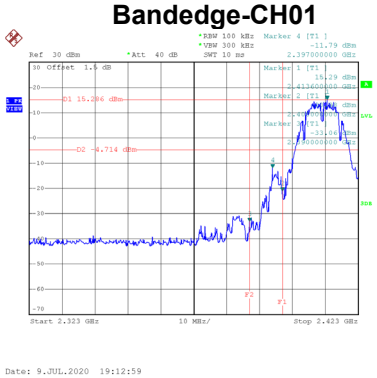
Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	29.20	29.50	0.8913	Complies
06	2437	29.36	29.50	0.8913	Complies
09	2452	27.88	29.50	0.8913	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.00	29.50	0.8913	Complies
06	2437	21.47	29.50	0.8913	Complies
11	2462	15.99	29.50	0.8913	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

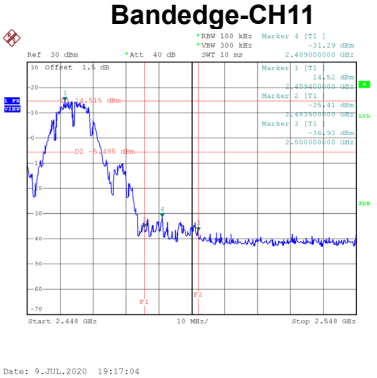
Test Mode	TX B Mode

Bandedge-CH01



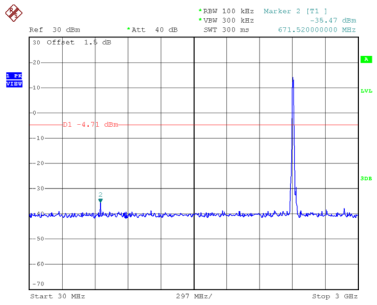
Date: 9.JUL.2020 19:12:59

Bandedge-CH11

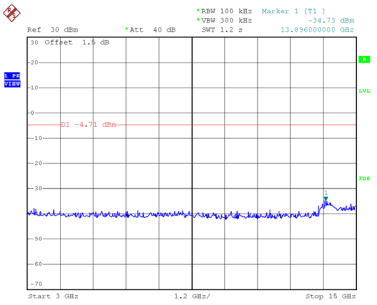


Date: 9.JUL.2020 19:17:04

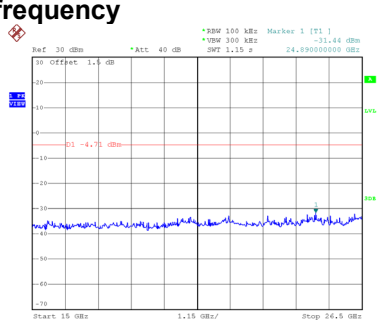
CH01 – 10th Harmonic of the fundamental frequency



Date: 9.JUL.2020 19:13:13

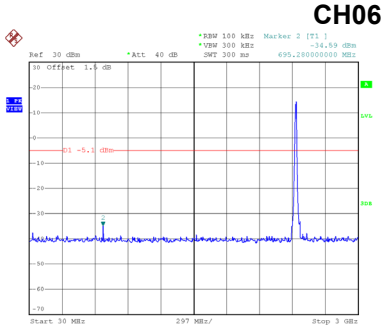


Date: 9.JUL.2020 19:13:21

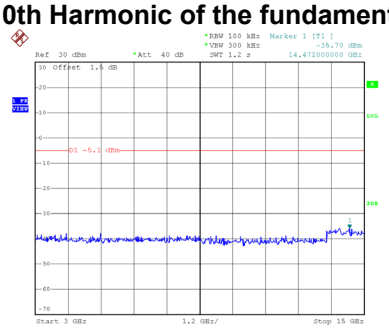


Date: 9.JUL.2020 19:13:30

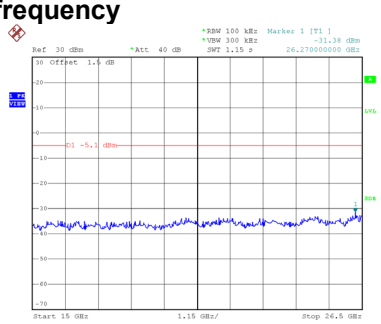
CH06 – 10th Harmonic of the fundamental frequency



Date: 9.JUL.2020 19:15:27

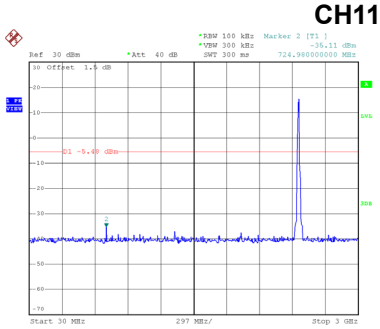


Date: 9.JUL.2020 19:15:36

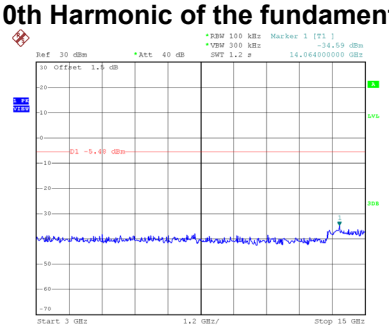


Date: 9.JUL.2020 19:15:44

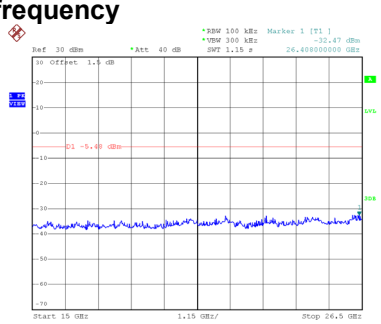
CH11 – 10th Harmonic of the fundamental frequency



Date: 9.JUL.2020 19:17:17



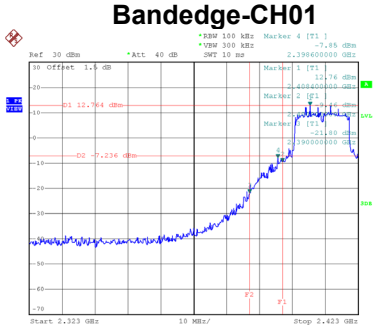
Date: 9.JUL.2020 19:17:26



Date: 9.JUL.2020 19:17:34

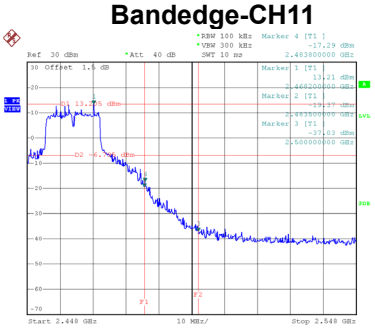
Test Mode	TX G Mode

Bandedge-CH01



Date: 9.JUL.2020 19:20:15

Bandedge-CH11



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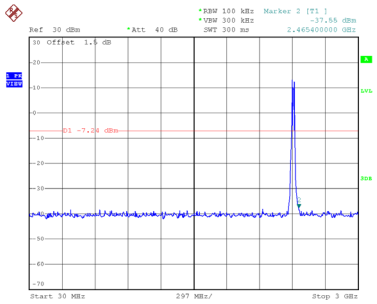
CH01 – 10th Harmonic of the fundamental frequency



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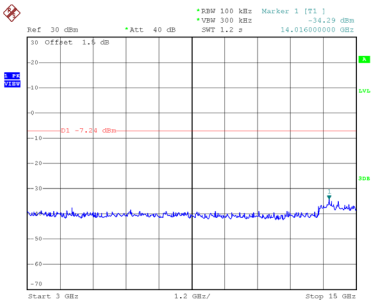

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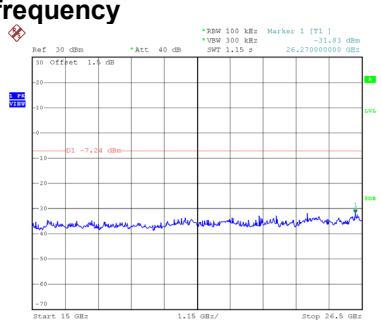

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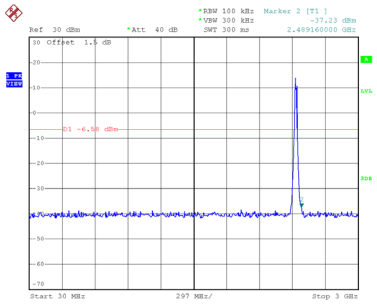
CH06 – 10th Harmonic of the fundamental frequency



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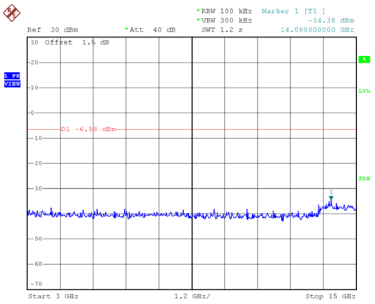

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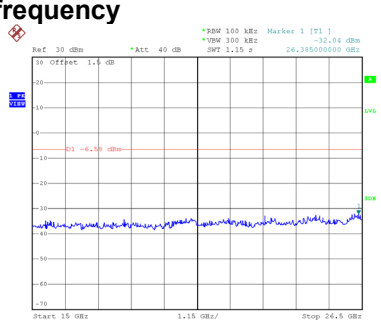

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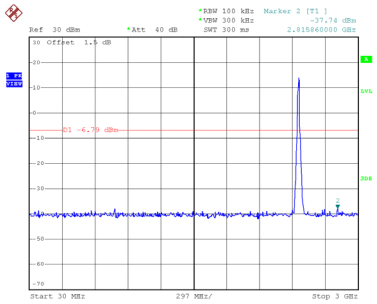
CH11 – 10th Harmonic of the fundamental frequency



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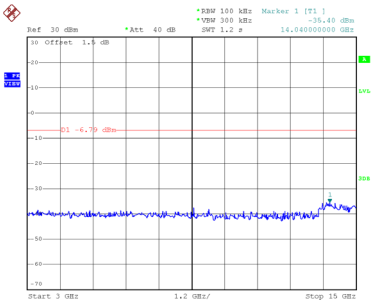

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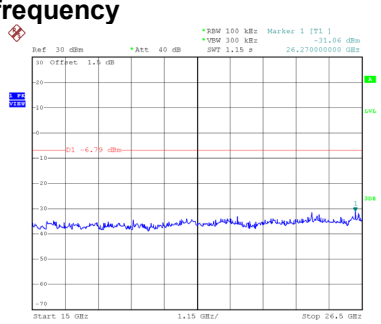

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