FCC Radio Test Report

FCC ID: 2ABZMEW12

This report concerns: Original Grant

Project No.	:	2007C189
Equipment	:	AC2600 Tri-band Cable-Free WiFi System(Mini Basestation)
Brand Name	:	IP-COM
Test Model	:	EW12
Series Model	:	N/A
Applicant	:	SHENZHEN IP-COM NETWORKS CO.,LTD.
Address	:	Room 101, Unit A, First Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Manufacturer	:	SHENZHEN IP-COM NETWORKS CO.,LTD.
Address	:	Room 101, Unit A, First Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Date of Receipt	:	Jul. 20, 2020
Date of Test	:	Jul. 20, 2020 ~ Sep. 02, 2020
Issued Date	:	Sep. 08, 2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG20200721132 for conducted, DG20200721133 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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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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Limitation

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

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Sep. 08, 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:

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
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%	DC 48V	Sheldon Ou
Radiated Emissions-30 MHz to 1GHz	22°C	54%	DC 48V	Sheldon Ou
Radiated Emissions-Above 1000 MHz	22°C	54%	DC 48V	Sheldon Ou
Bandwidth	26°C	50%	DC 48V	Hayden Chen
Maximum output power	26°C	50%	DC 48V	Laughing Zhang
Conducted Spurious Emissions	26°C	50%	DC 48V	Hayden Chen
Power Spectral Density	26°C	50%	DC 48V	Hayden Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC2600 Tri-band Cable-Free WiFi System(Mini Basestation)
Brand Name	IP-COM
Test Model	EW12
Series Model	N/A
Model Difference(s)	N/A
Power Source	1# DC voltage supplied from AC adapter. Model: BN017-A38048U 2# Supplied from PoE Adapter.
Power Rating	1# I/P: 100-240V ~50/60Hz 1.0A O/P: 48V ⎓ 800mA 2# DC 48V
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps
Maximum Peak Output Power _Non Beamforming	IEEE 802.11b: 28.42 dBm (0.6950 W) IEEE 802.11g: 29.86 dBm (0.9683 W) IEEE 802.11n (HT20): 29.46 dBm (0.8831 W) IEEE 802.11n (HT40): 29.47 dBm (0.8851 W)
Maximum Peak Output Power _Beamforming	IEEE 802.11n (HT20): 28.98 dBm (0.7907 W) IEEE 802.11n (HT40): 29.00 dBm (0.7943 W)
Maximum Average Output Power _Non Beamforming	IEEE 802.11b: 25.73 dBm (0.3741 W) IEEE 802.11g: 23.70 dBm (0.2344 W) IEEE 802.11n (HT20): 20.85 dBm (0.1216 W) IEEE 802.11n (HT40): 20.93 dBm (0.1239 W)
Maximum Average Output Power _Beamforming	IEEE 802.11n (HT20): 19.66 dBm (0.0925 W) IEEE 802.11n (HT40): 20.68 dBm (0.1169 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	4

Note:

1) This EUT supports CDD, and all antenna gains are not equal, so the Directional gain=10log[($10^{G1/20}$+$10^{G2/20}$+...$10^{GN/20}$)^2/N]dBi, that is Directional gain=10log[($10^{3/20}$+$10^{4/20}$)^2/2]dBi=6.52. So, the output power limit is 30-(6.52-6)=29.48, the power spectral density limit is 8-(6.52-6)=7.48.
2) Beamforming Gain: 3dB. So the Directional gain=3+4=7. Then, the output power limit is 30-(7-6)=29.00.

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 802.11b	-
IEEE 802.11g	-
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 G 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 G Mode Channel 06

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

Radiated emissions test- Above 1GHz	
Final Test Mode	Description
Mode 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 802.11g 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 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 2.4GHz G Mode 2437MHz+WLAN 5GHz A Mode 5745Mz was found the worst case of simultaneous transmission and recorded.

2.3 PARAMETERS OF TEST SOFTWARE

Non Beamforming

Test Software	N/A		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	25	25	24.5
IEEE 802.11g	19.5	24	19.5
IEEE 802.11n (HT20)	17	17.5	18
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	15.5	18	18

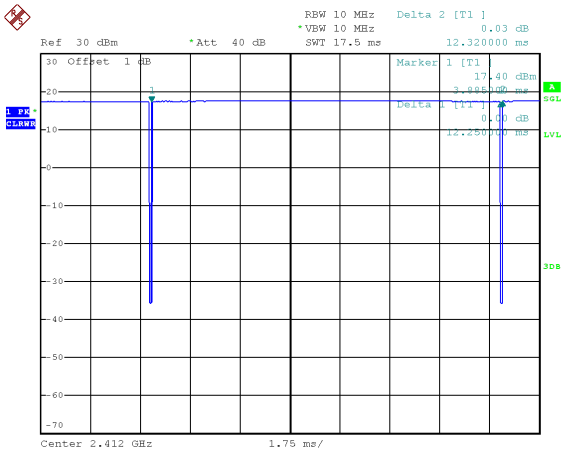
Beamforming

Test Software	N/A		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n (HT20)	16	16.5	16
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	15	17	17.5

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.

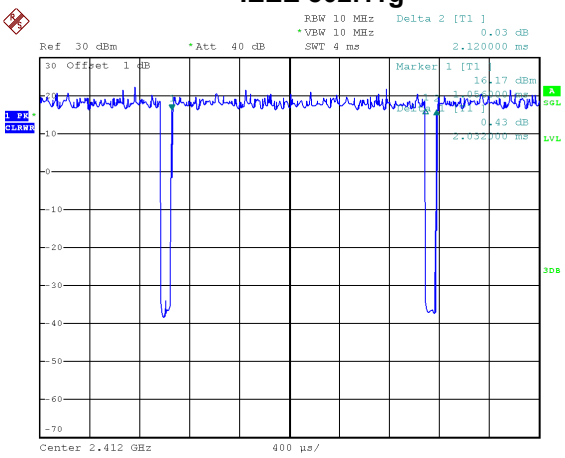
IEEE 802.11b



Date: 28.JUL.2020 11:39:58

Duty cycle = 12.250 ms / 12.320 ms = 99.43%
Duty Factor = 10 log(1/Duty cycle) = 0.00

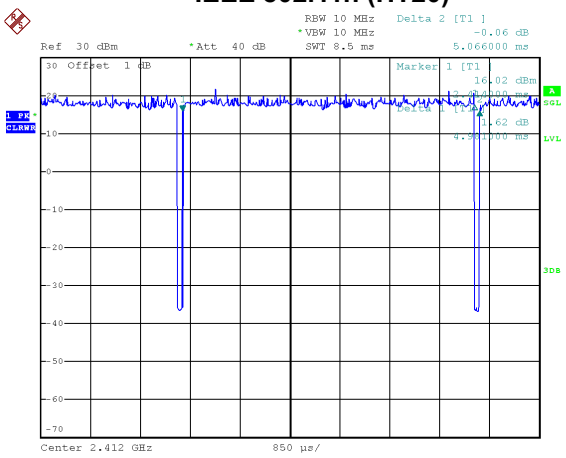
IEEE 802.11g



Date: 28.JUL.2020 11:40:23

Duty cycle = 2.032 ms / 2.120 ms = 95.85%
Duty Factor = 10 log(1/Duty cycle) = 0.18

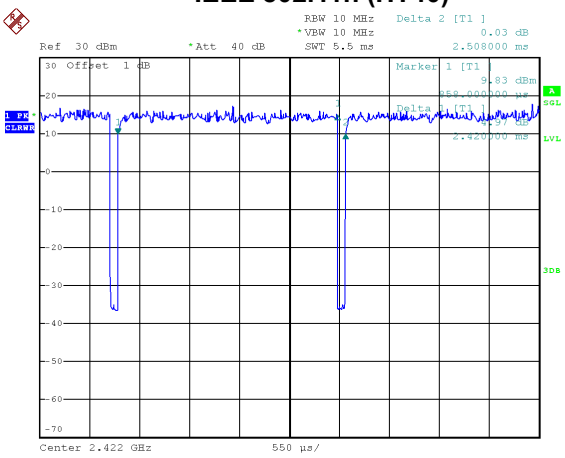
IEEE 802.11n (HT20)



Date: 28.JUL.2020 11:40:46

Duty cycle = 4.981 ms / 5.066 ms = 98.32%
Duty Factor = 10 log(1/Duty cycle) = 0.00

IEEE 802.11n (HT40)



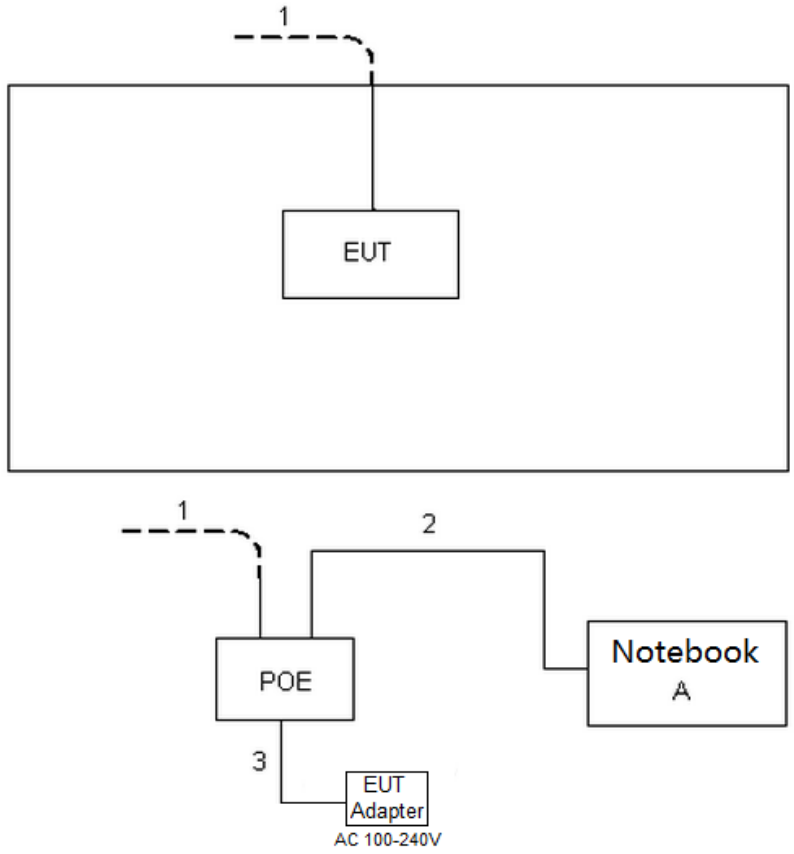
Date: 28.JUL.2020 11:38:47

Duty cycle = 2.420 ms / 2.508 ms = 96.49%
Duty Factor = 10 log(1/Duty cycle) = 0.16

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
2	Network Cable	NO	NO	1m
3	AC Cable	NO	NO	1.5m

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

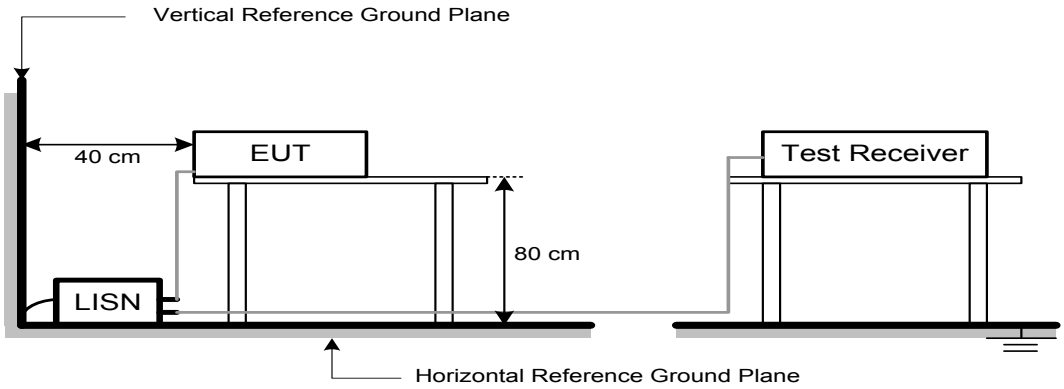
3.2 TEST PROCEDURE

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

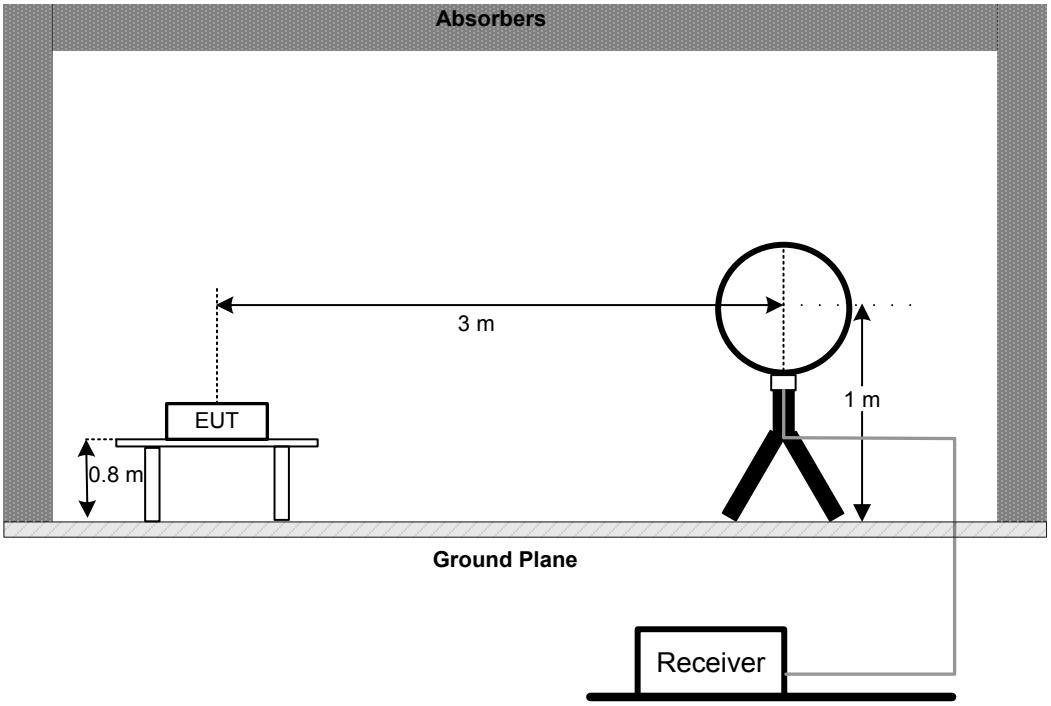
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance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

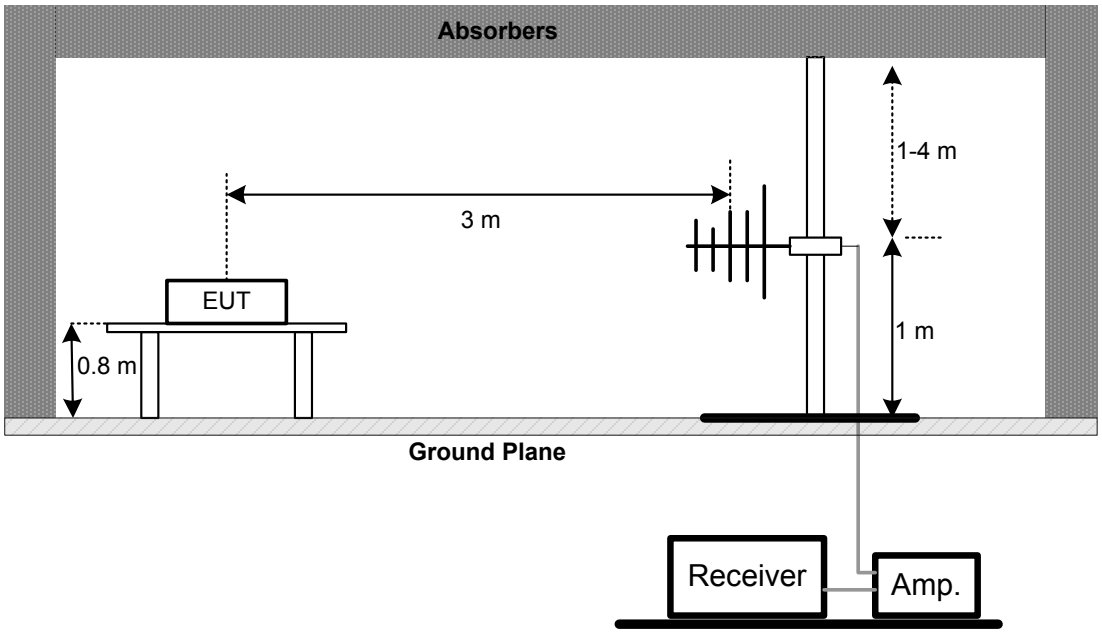
No deviation

4.4 TEST SETUP

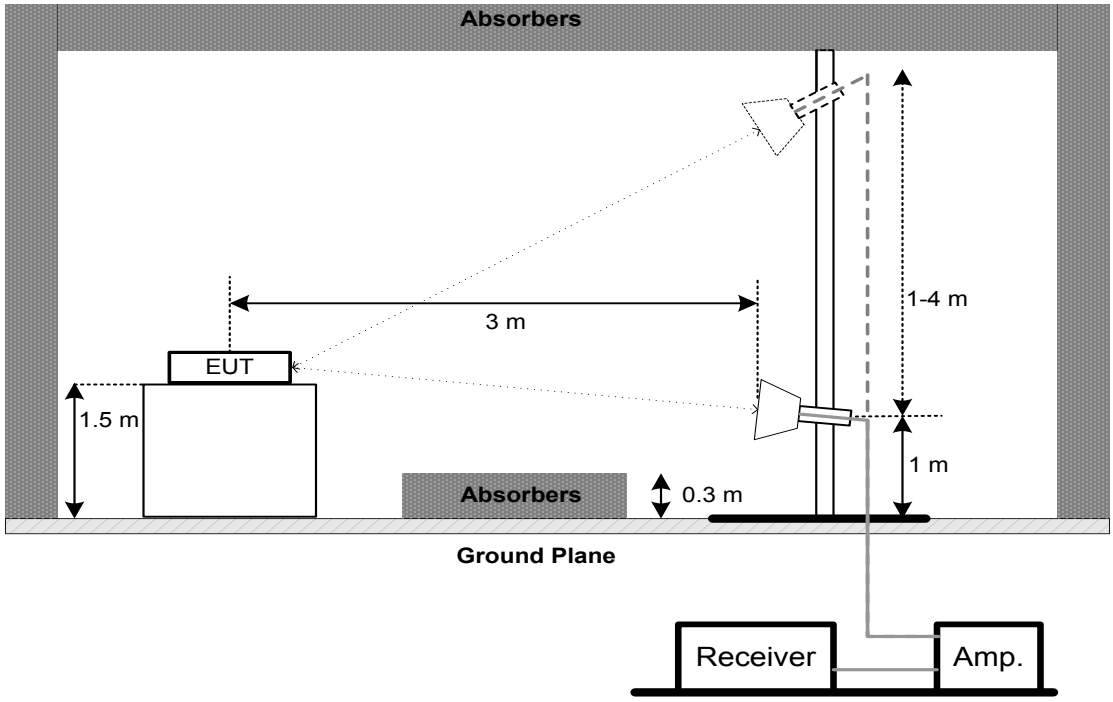
9 kHz-30 MHz



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/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.

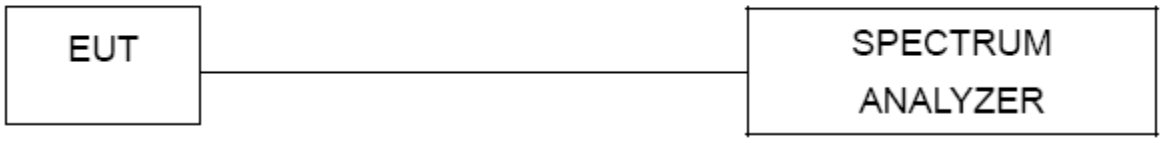
7.2 TEST PROCEDURE

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)

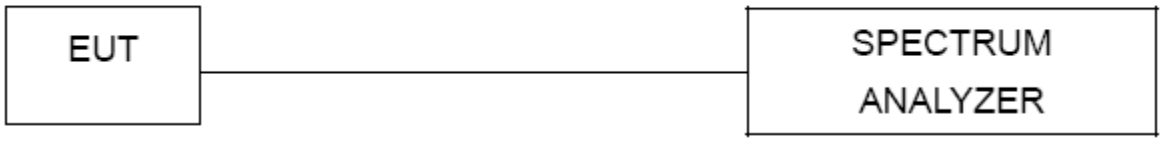
8.2 TEST PROCEDURE

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

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.

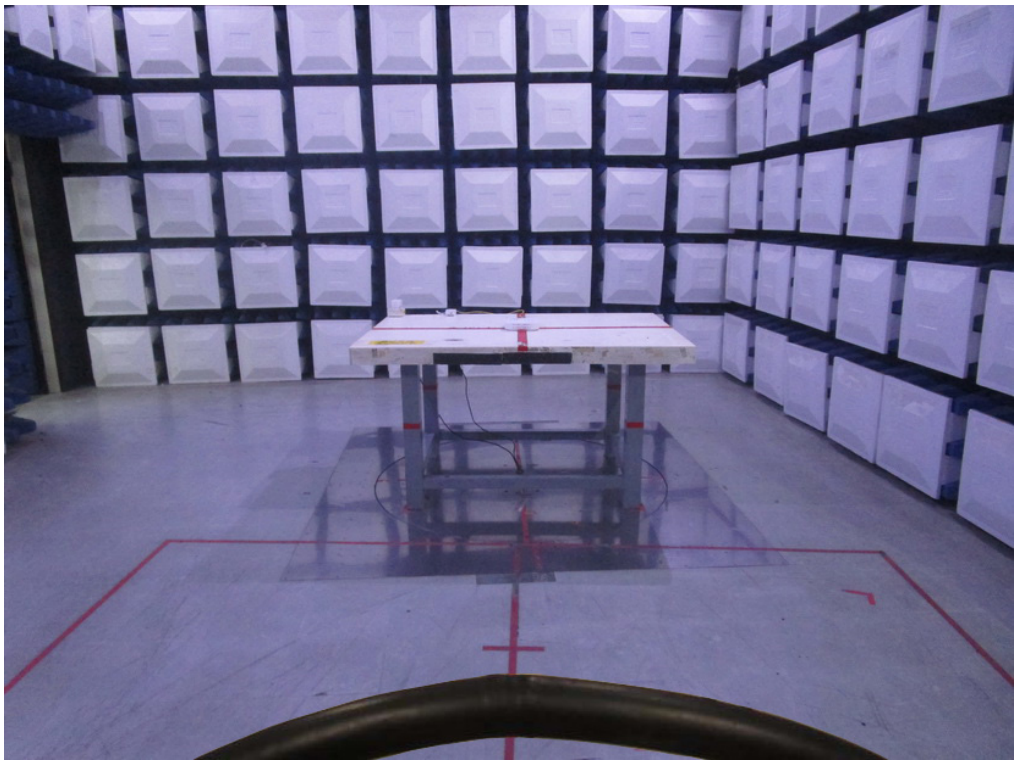
Except * item, all calibration period of equipment list is one year.

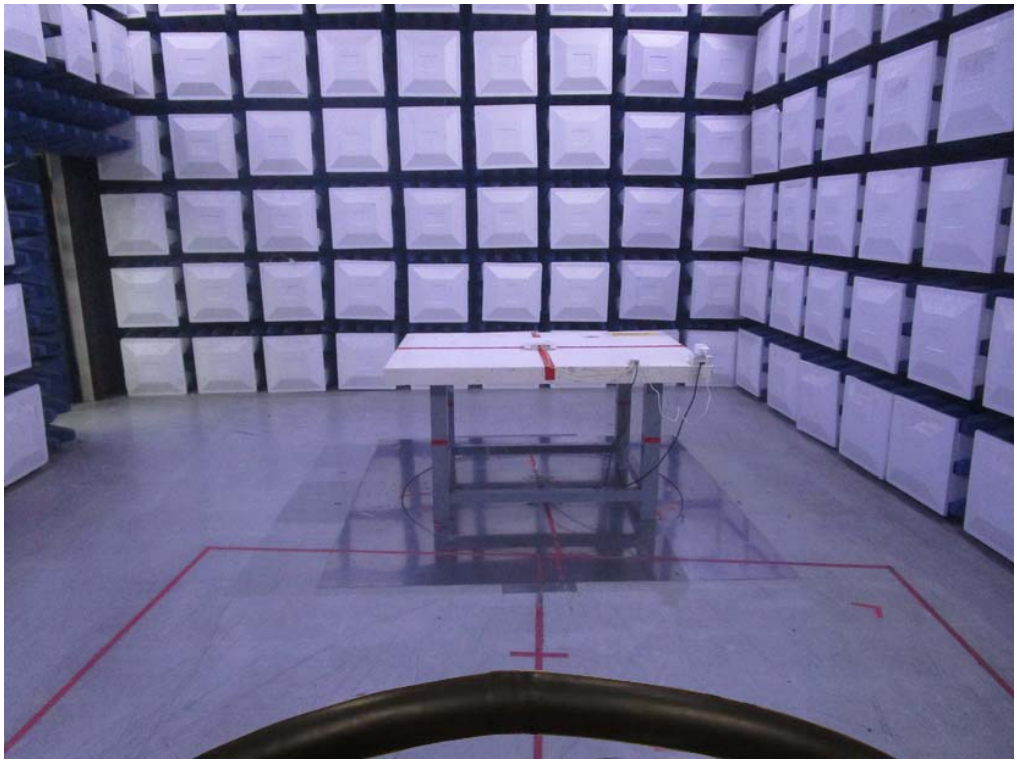
10. EUT TEST PHOTO

AC Power Line Conducted Emissions Test Photos

Radiated Emissions Test Photos

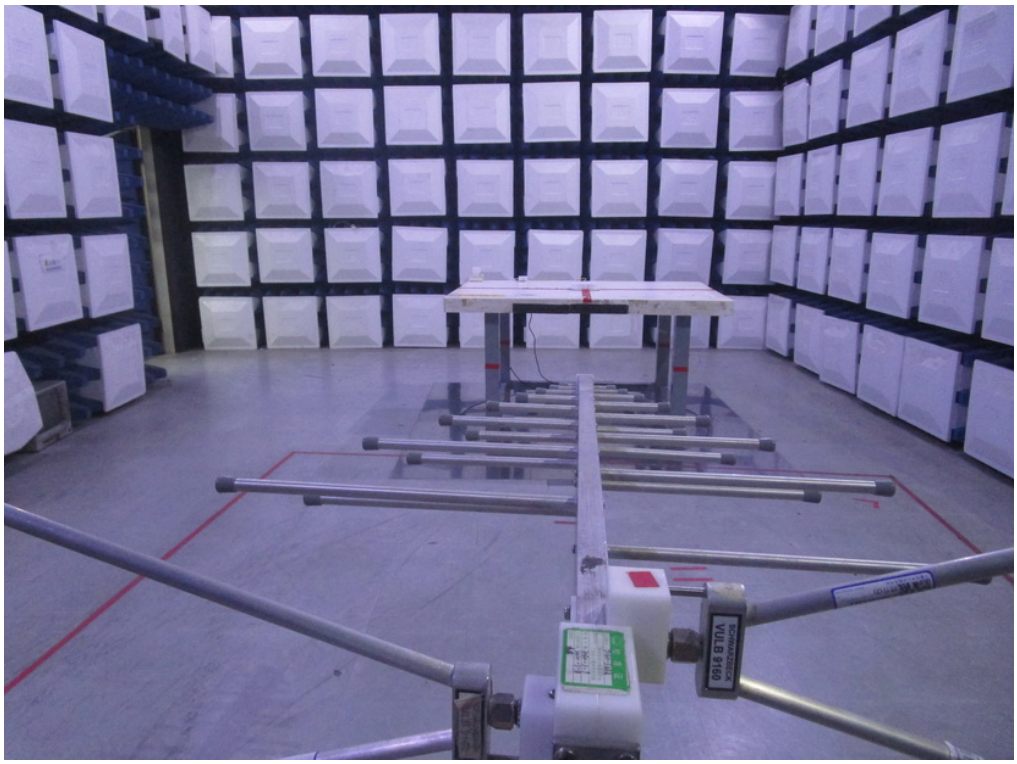
9 kHz to 30 MHz

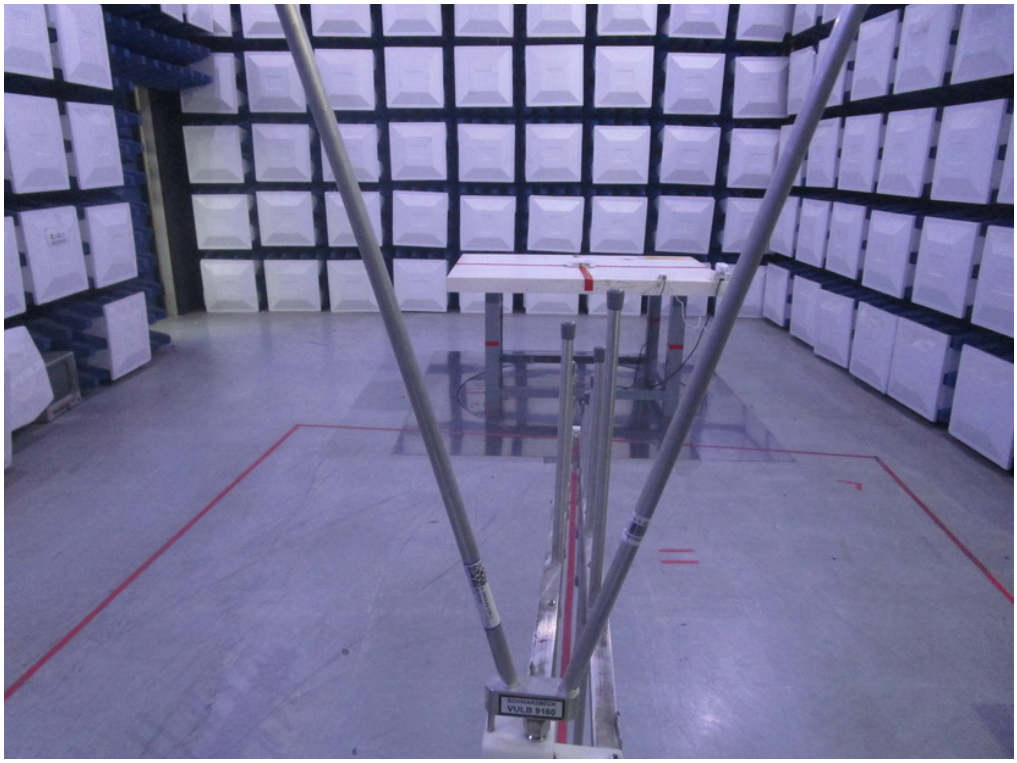




Radiated Emissions Test Photos

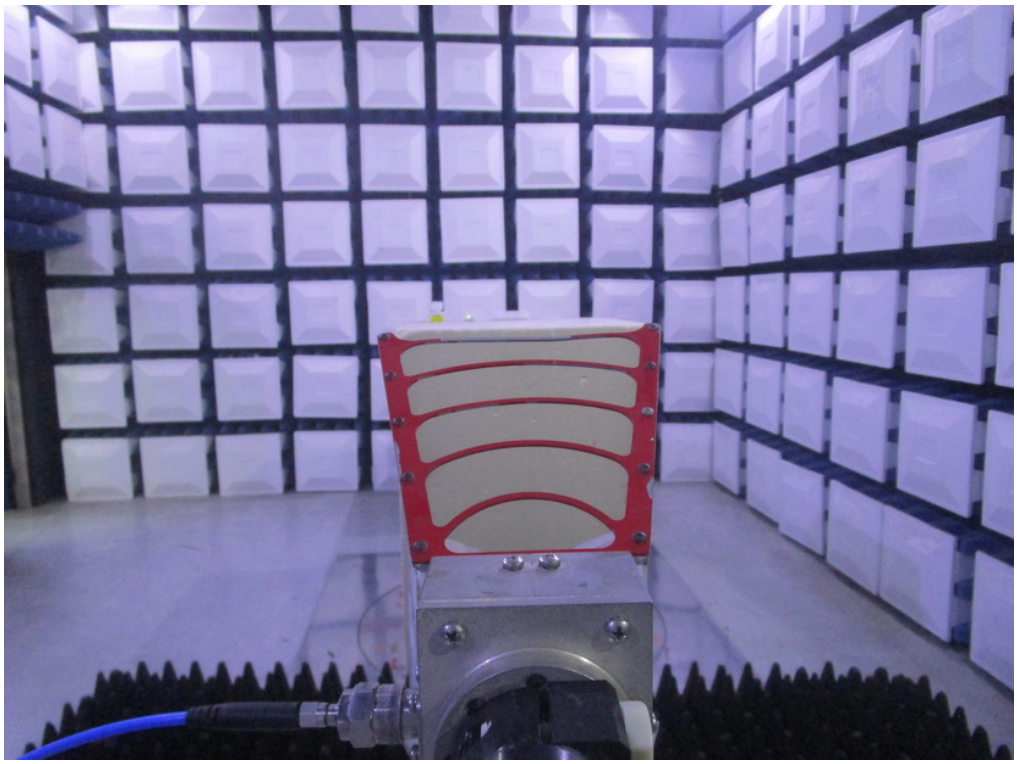
30 MHz to 1 GHz

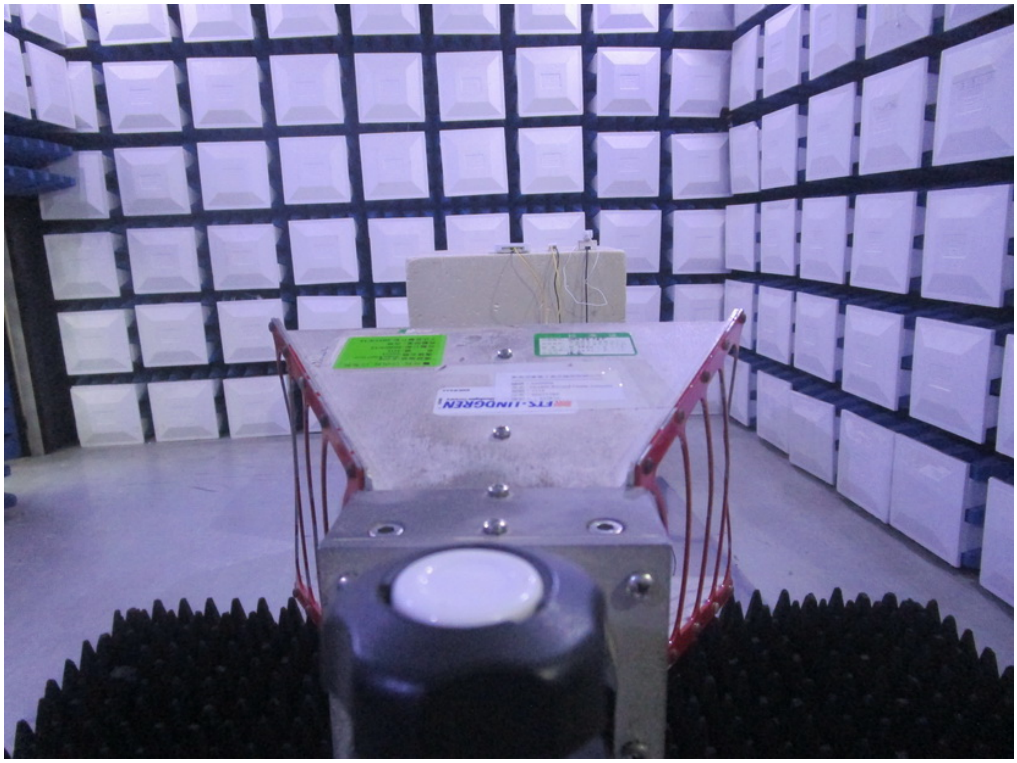




Radiated Emissions Test Photos

Above 1 GHz

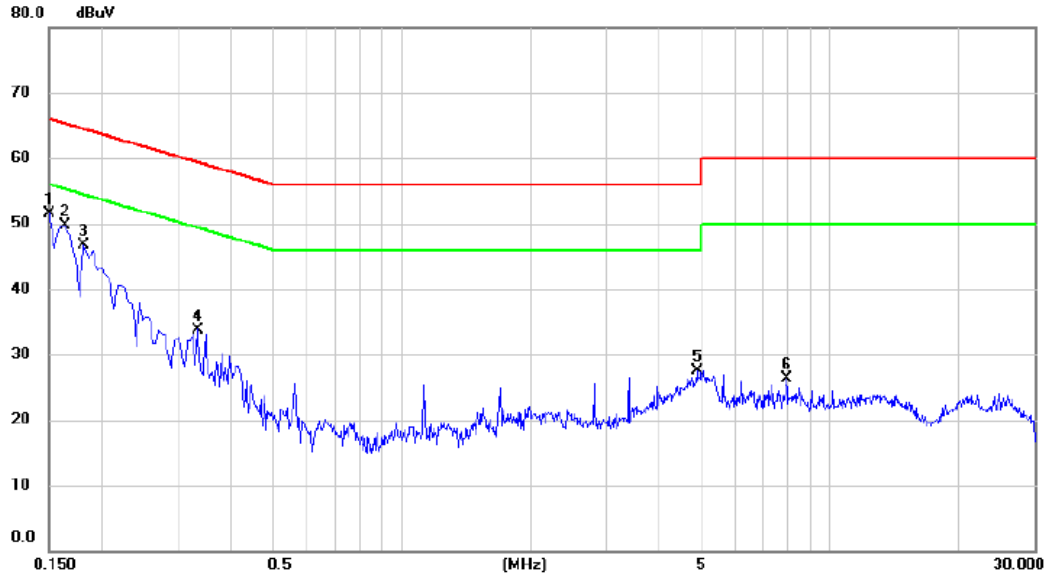




APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

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

Line

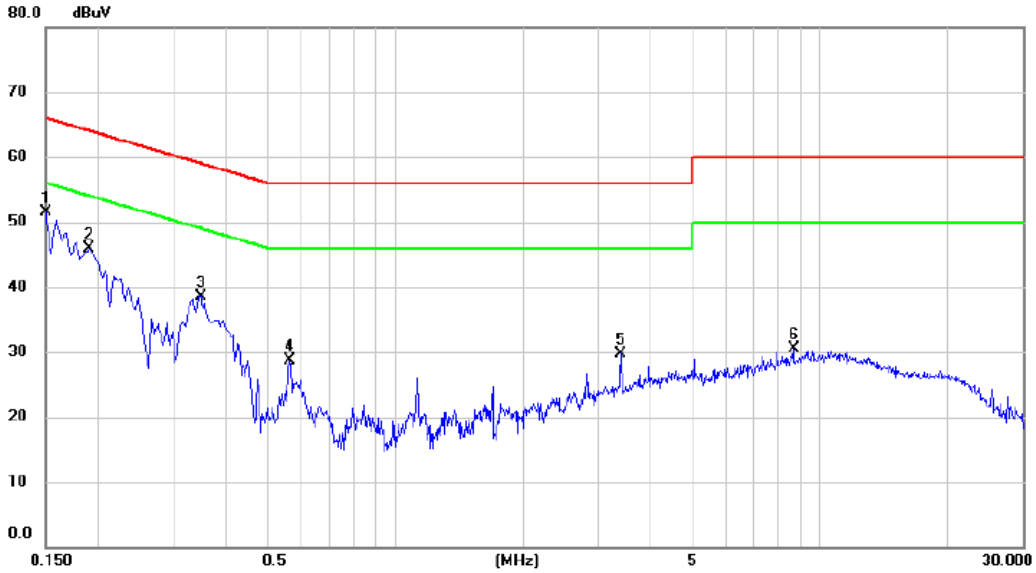


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	41.85	9.67	51.52	66.00	-14.48	peak	
2		0.1635	39.97	9.77	49.74	65.28	-15.54	peak	
3		0.1815	36.94	9.85	46.79	64.42	-17.63	peak	
4		0.3345	23.89	9.91	33.80	59.34	-25.54	peak	
5		4.8885	17.23	10.33	27.56	56.00	-28.44	peak	
6		7.9035	15.66	10.55	26.21	60.00	-33.79	peak	

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

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

Neutral

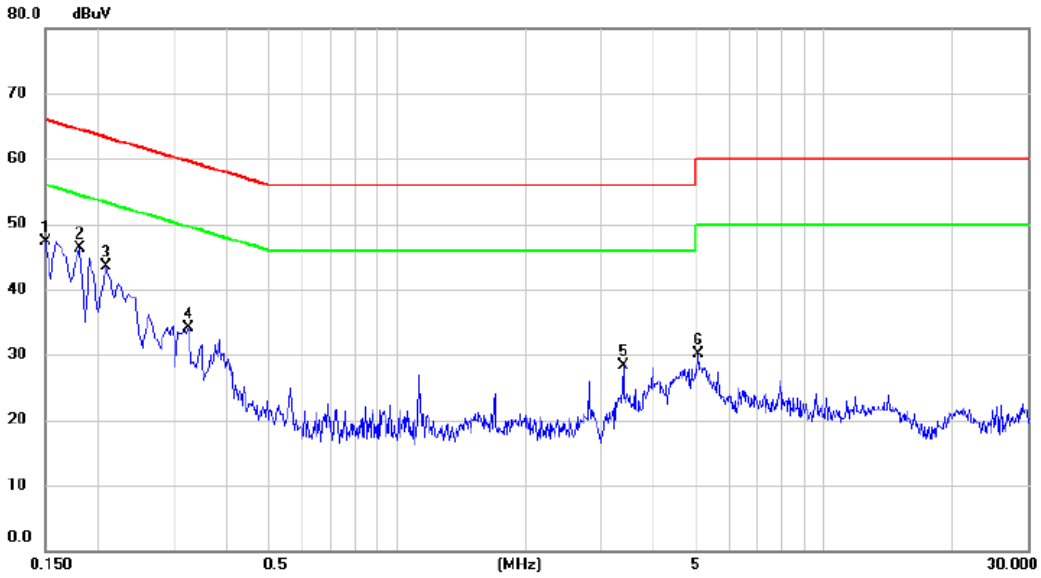


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	41.72	9.74	51.46	66.00	-14.54	peak	
2		0.1905	35.84	9.98	45.82	64.01	-18.19	peak	
3		0.3480	28.46	10.05	38.51	59.01	-20.50	peak	
4		0.5640	18.57	10.18	28.75	56.00	-27.25	peak	
5		3.3855	19.25	10.55	29.80	56.00	-26.20	peak	
6		8.6595	19.64	10.95	30.59	60.00	-29.41	peak	

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

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

Line

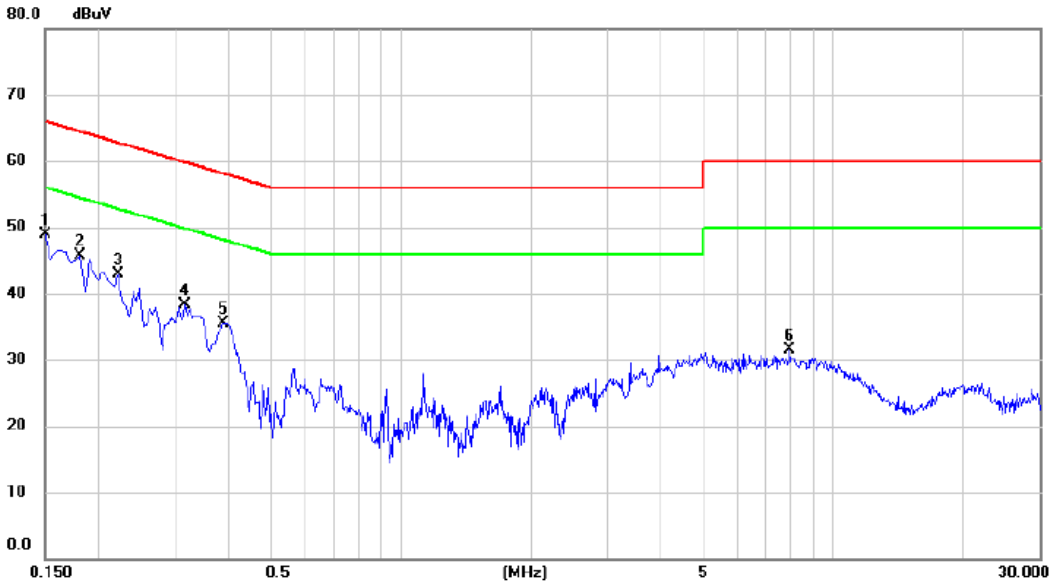


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	37.67	9.67	47.34	66.00	-18.66	peak	
2	*	0.1815	36.37	9.85	46.22	64.42	-18.20	peak	
3		0.2085	33.52	9.90	43.42	63.26	-19.84	peak	
4		0.3255	24.11	9.91	34.02	59.57	-25.55	peak	
5		3.3855	18.10	10.21	28.31	56.00	-27.69	peak	
6		5.0820	19.82	10.33	30.15	60.00	-29.85	peak	

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

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

Neutral



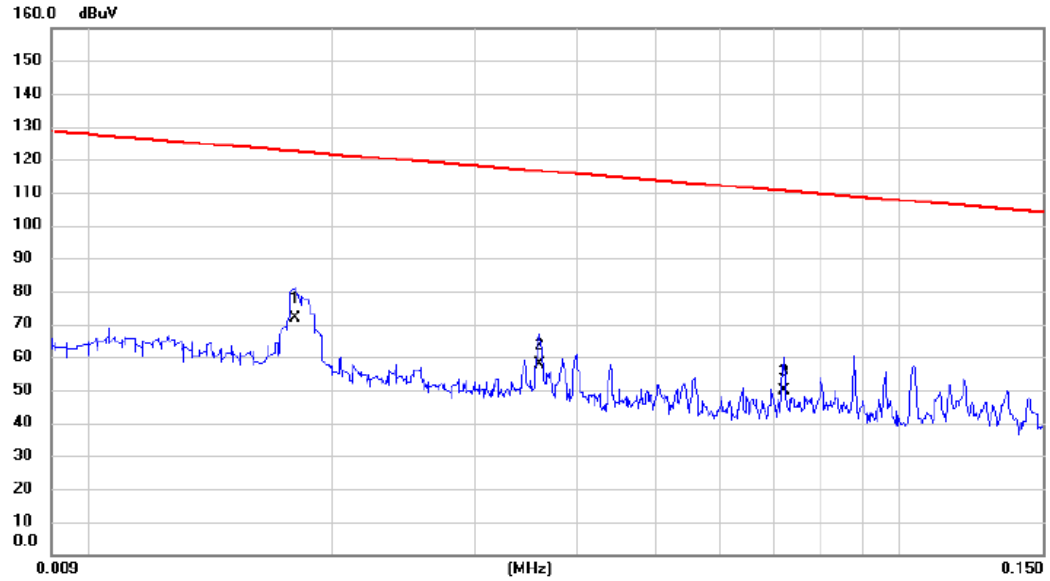
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	39.23	9.74	48.97	66.00	-17.03	peak	
2		0.1815	35.85	9.94	45.79	64.42	-18.63	peak	
3		0.2220	32.97	9.99	42.96	62.74	-19.78	peak	
4		0.3165	28.23	10.03	38.26	59.80	-21.54	peak	
5		0.3885	25.46	10.08	35.54	58.10	-22.56	peak	
6		7.8990	20.52	10.90	31.42	60.00	-28.58	peak	

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode:	TX G Mode Channel 06

Ant 0°

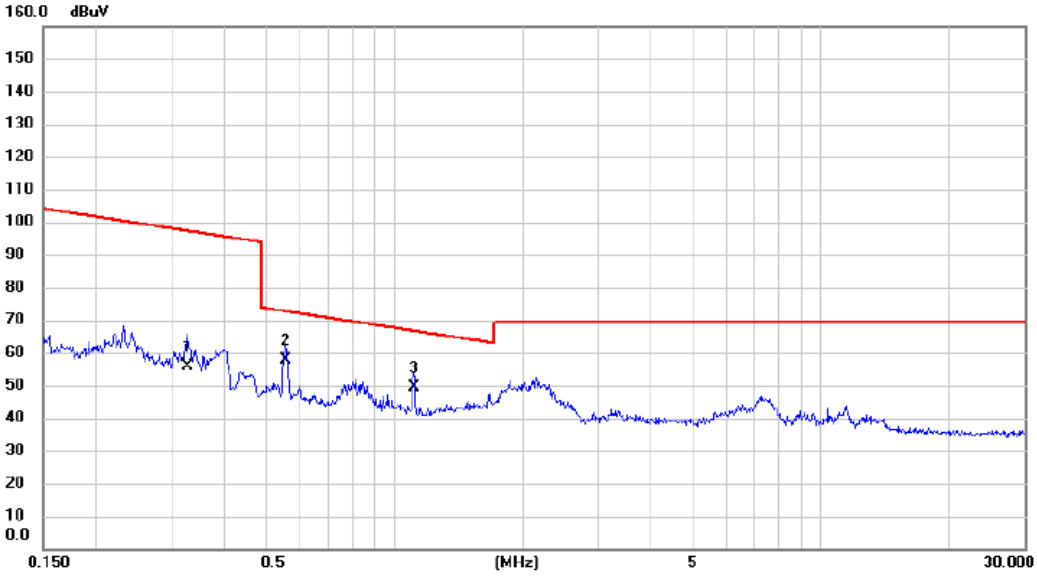


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.0180	58.01	13.84	71.85	122.50	-50.65	AVG	
2		0.0360	45.12	12.79	57.91	116.48	-58.57	AVG	
3		0.0720	37.11	12.55	49.66	110.46	-60.80	AVG	

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

Test Mode:	TX G Mode Channel 06

Ant 0°

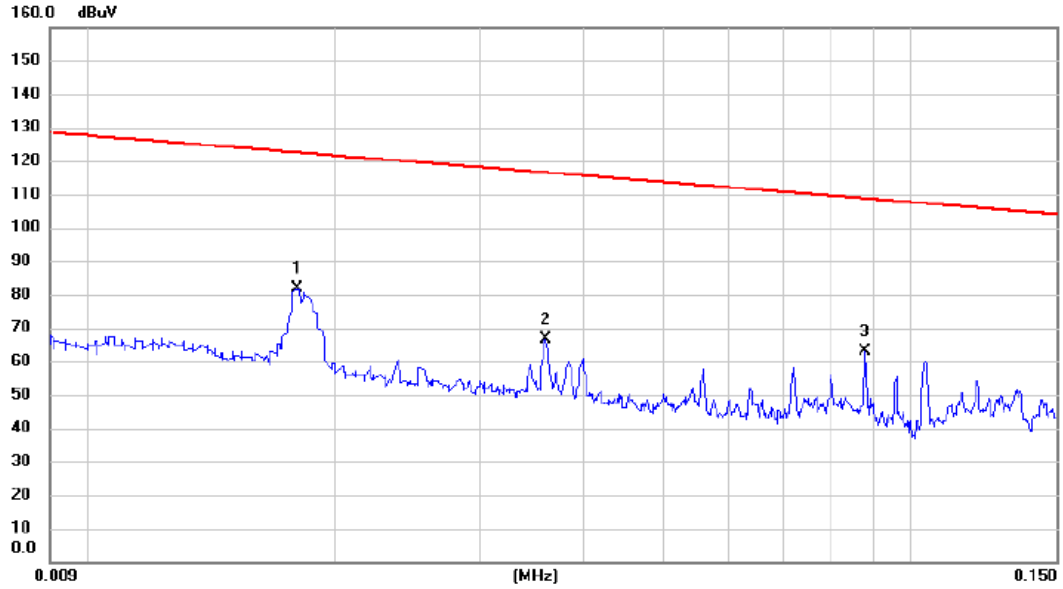


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.3268	43.21	12.45	55.66	97.32	-41.66	AVG	
2	*	0.5551	45.88	11.99	57.87	72.72	-14.85	AVG	
3		1.1114	37.55	11.74	49.29	66.69	-17.40	QP	

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

Test Mode:	TX G Mode Channel 06

Ant 90°

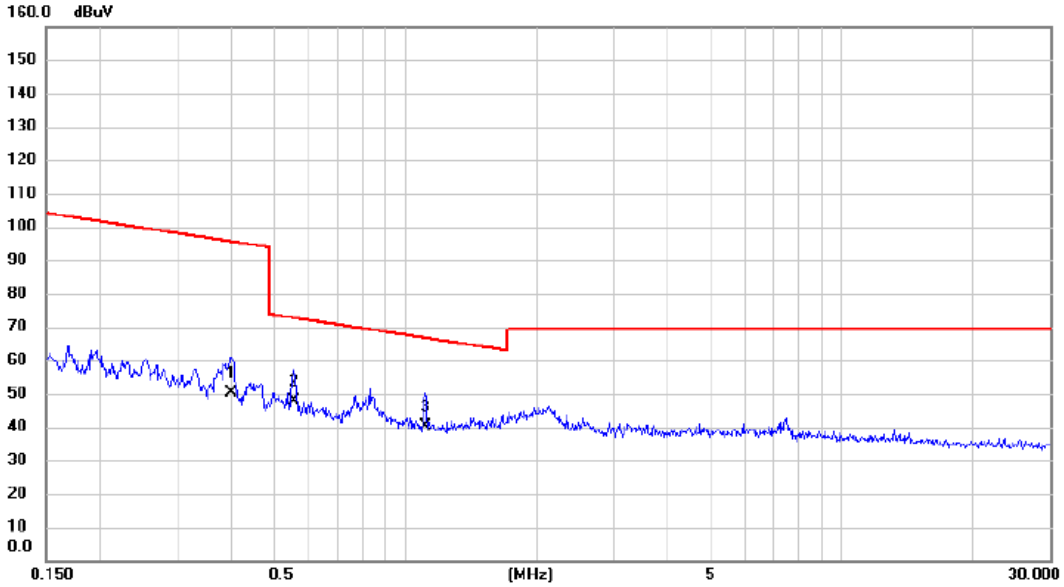


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.0180	68.09	13.84	81.93	122.50	-40.57	AVG	
2		0.0360	53.66	12.79	66.45	116.48	-50.03	AVG	
3		0.0878	50.51	12.65	63.16	108.73	-45.57	AVG	

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

Test Mode:	TX G Mode Channel 06

Ant 90°



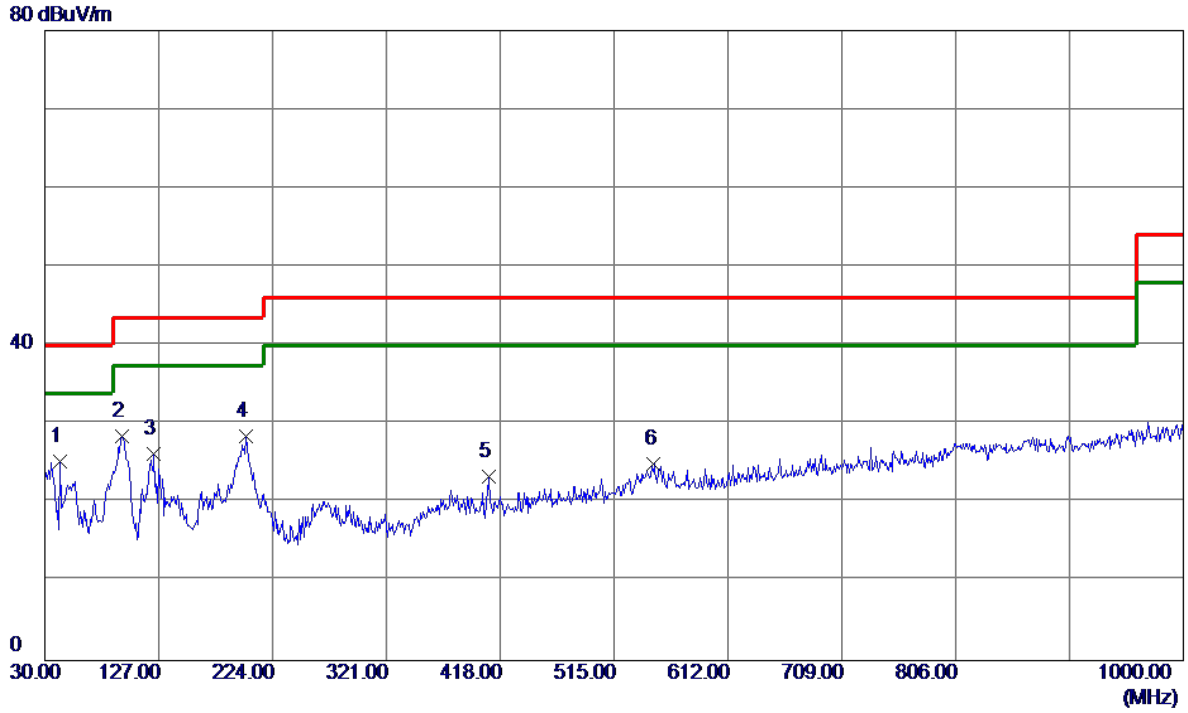
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.3997	38.11	12.26	50.37	95.57	-45.20	AVG	
2	*	0.5581	35.69	11.99	47.68	72.67	-24.99	QP	
3		1.1114	28.33	11.74	40.07	66.69	-26.62	QP	

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode:	TX G Mode Channel 06

Vertical

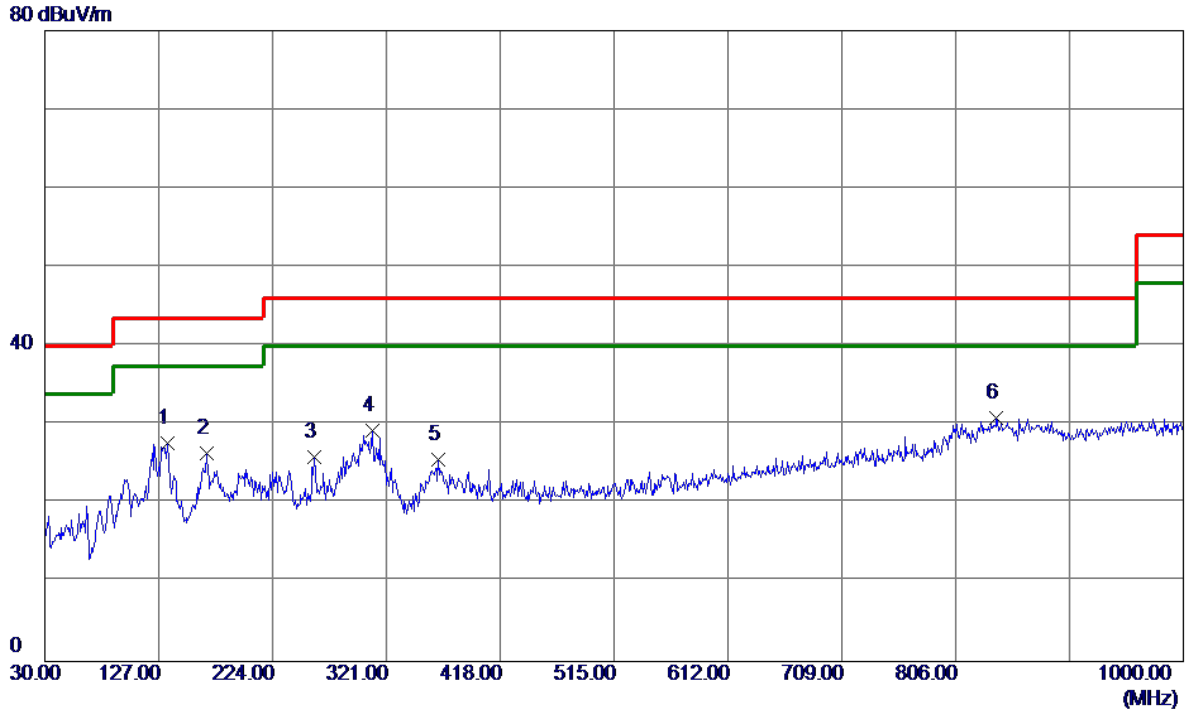


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	42.6100	39.50	-14.18	25.32	40.00	-14.68	Peak	
2	95.9600	43.63	-15.20	28.43	43.50	-15.07	Peak	
3	123.1200	38.95	-12.74	26.21	43.50	-17.29	Peak	
4	201.6900	43.42	-14.88	28.54	43.50	-14.96	Peak	
5	408.3000	32.12	-8.78	23.34	46.00	-22.66	Peak	
6	548.9500	31.71	-6.82	24.89	46.00	-21.11	Peak	

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

Test Mode:	TX G Mode Channel 06

Horizontal



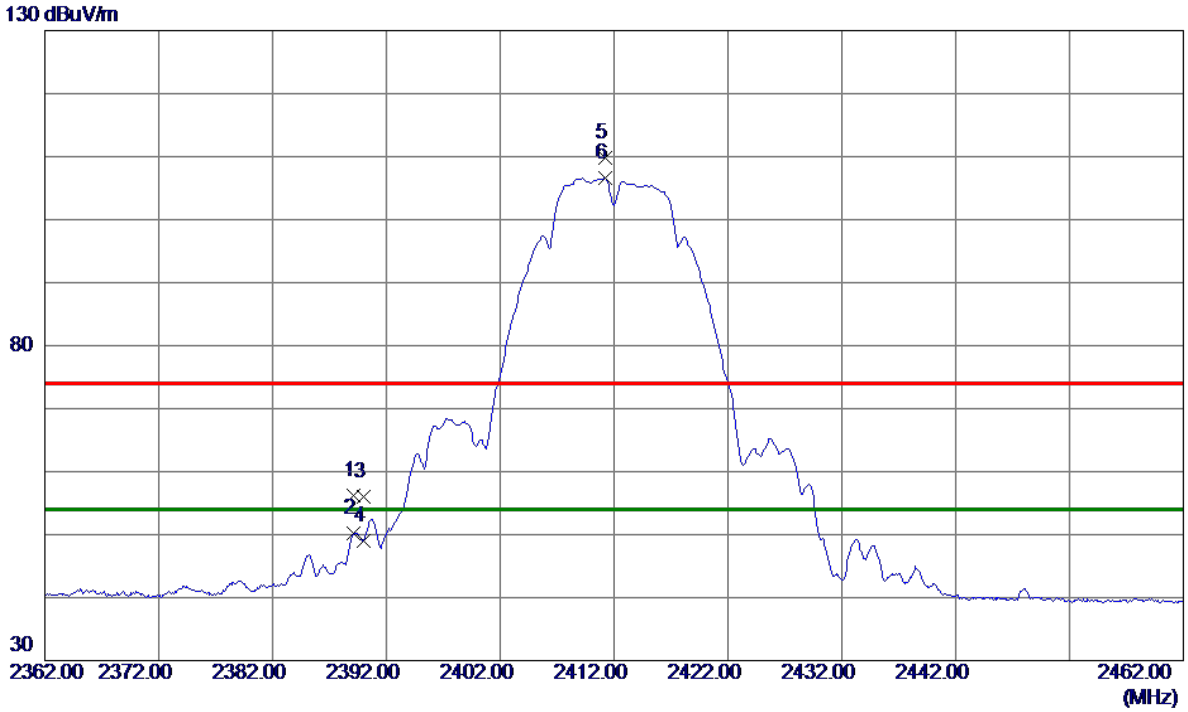
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	134.7600	40.33	-12.65	27.68	43.50	-15.82	Peak	
2	167.7400	38.13	-11.76	26.37	43.50	-17.13	Peak	
3	259.8900	38.10	-12.23	25.87	46.00	-20.13	Peak	
4	309.3599	40.16	-10.85	29.31	46.00	-16.69	Peak	
5	365.6200	35.43	-9.83	25.60	46.00	-20.40	Peak	
6 *	840.9200	32.83	-1.89	30.94	46.00	-15.06	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

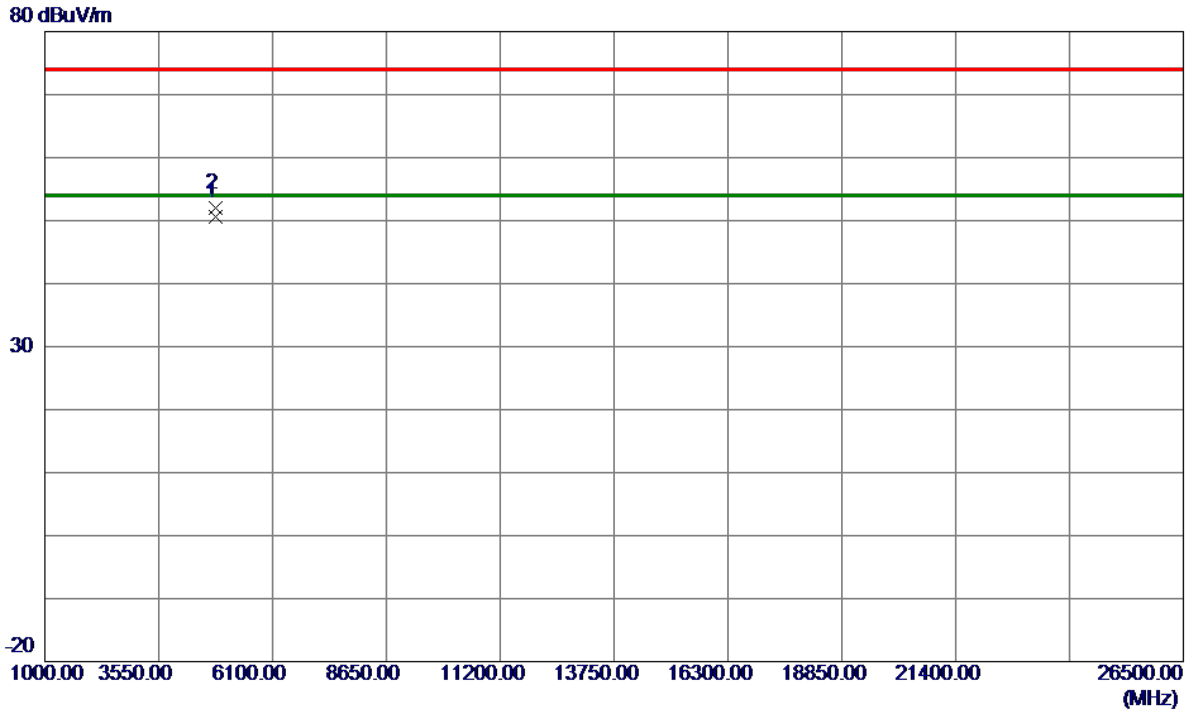


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.1000	47.84	8.29	56.13	74.00	-17.87	Peak	
2	2389.1000	41.98	8.29	50.27	54.00	-3.73	AVG	
3	2390.0000	47.79	8.29	56.08	74.00	-17.92	Peak	
4	2390.0000	40.78	8.29	49.07	54.00	-4.93	AVG	
5	2411.2000	101.40	8.31	109.71	74.00	35.71	Peak	No Limit
6 *	2411.2000	98.29	8.31	106.60	54.00	52.60	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

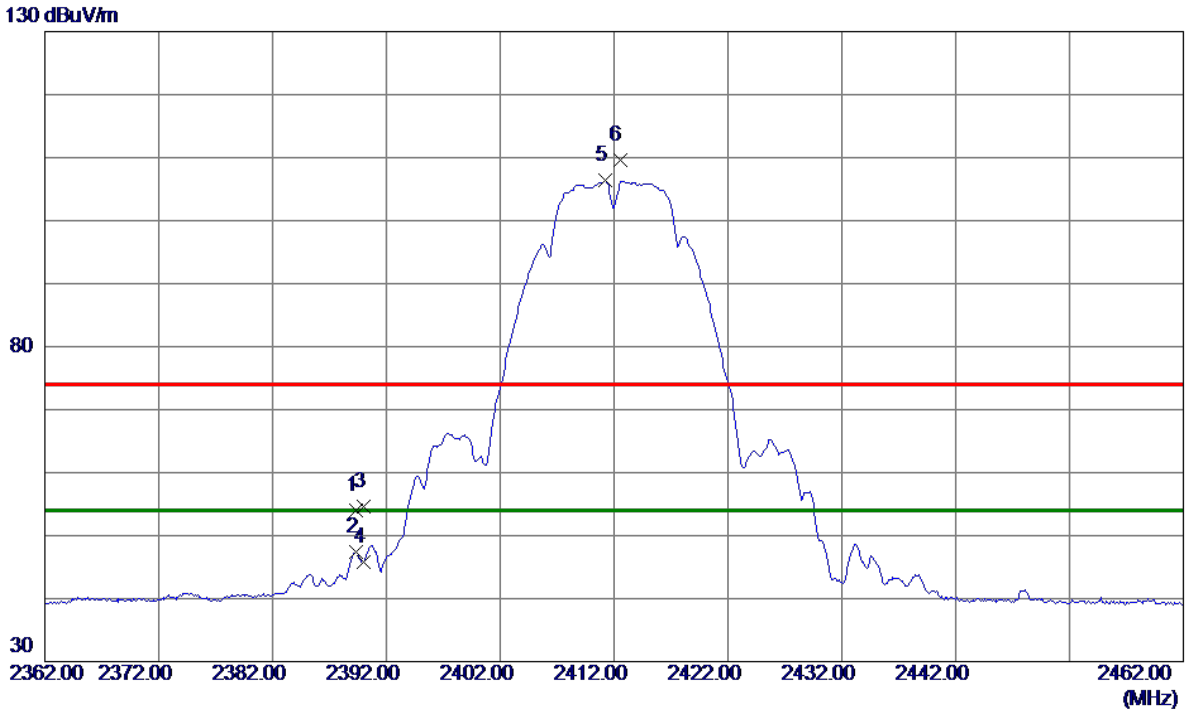


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.8520	45.23	5.32	50.55	54.00	-3.45	AVG	
2	4823.9040	46.60	5.32	51.92	74.00	-22.08	Peak	

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

Test Mode:	TX B Mode 2412 MHz

Horizontal

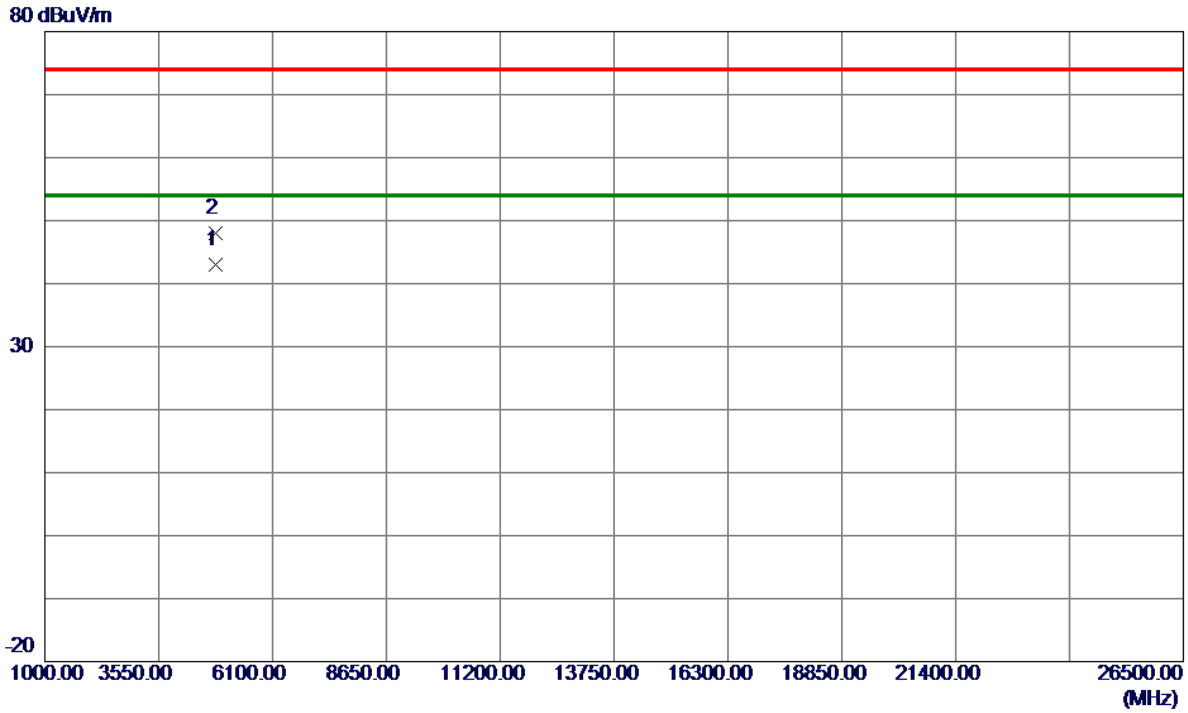


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2389.3000	45.67	8.29	53.96	74.00	-20.04	Peak	
2	2389.3000	39.02	8.29	47.31	54.00	-6.69	AVG	
3	2390.0000	46.39	8.29	54.68	74.00	-19.32	Peak	
4	2390.0000	37.56	8.29	45.85	54.00	-8.15	AVG	
5 *	2411.2000	98.00	8.31	106.31	54.00	52.31	AVG	No Limit
6	2412.5000	101.35	8.31	109.66	74.00	35.66	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

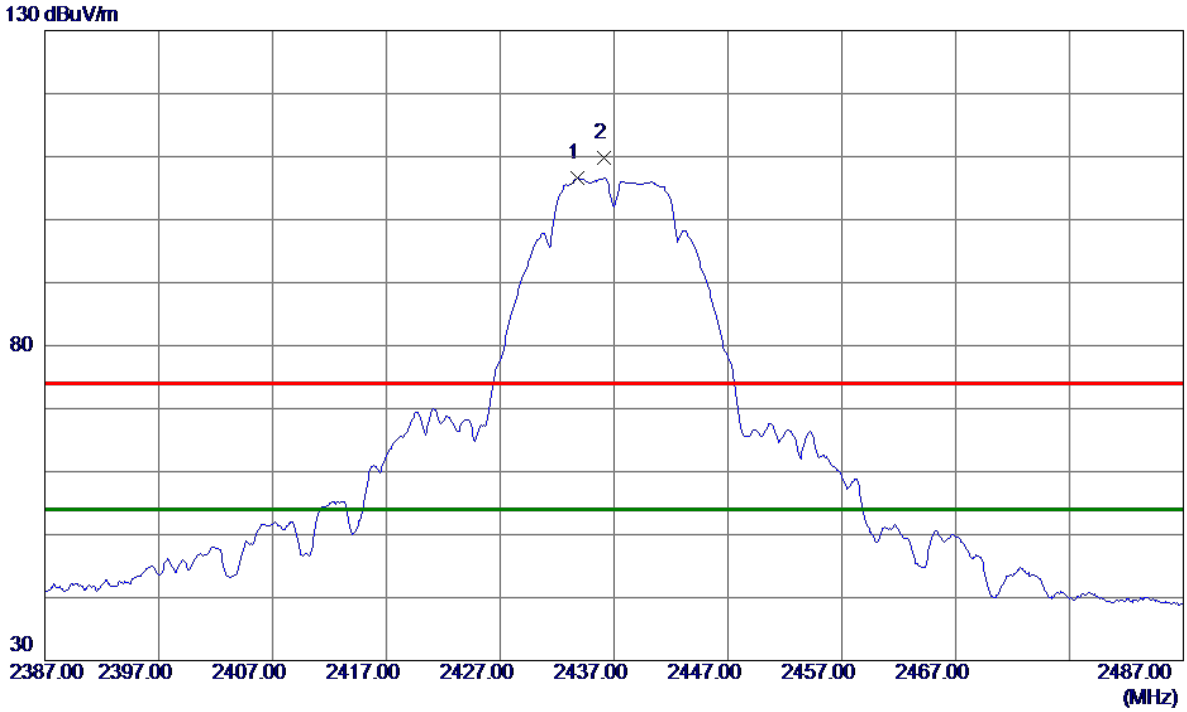


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.9400	37.76	5.32	43.08	54.00	-10.92	AVG	
2	4823.9440	42.70	5.32	48.02	74.00	-25.98	Peak	

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

Test Mode:	TX B Mode 2437 MHz

Vertical

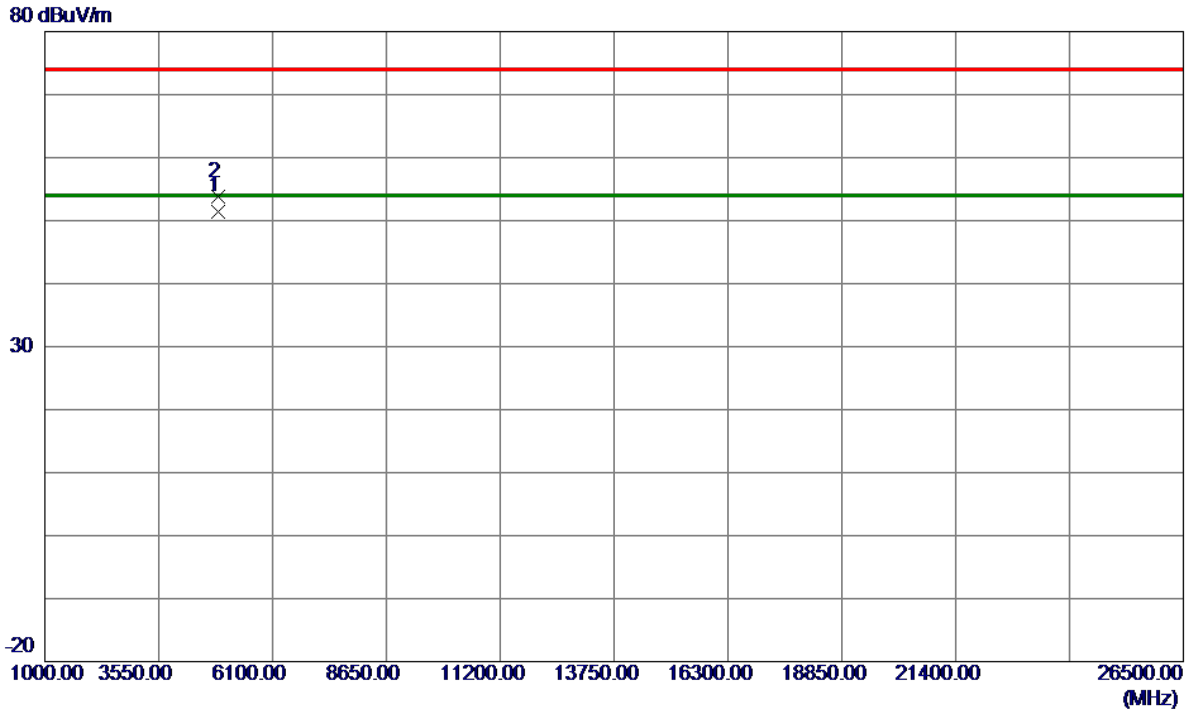


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2433.8000	98.23	8.33	106.56	54.00	52.56	AVG	No Limit
2	2436.1000	101.43	8.34	109.77	74.00	35.77	Peak	No Limit

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

Test Mode:	TX B Mode 2437 MHz

Vertical

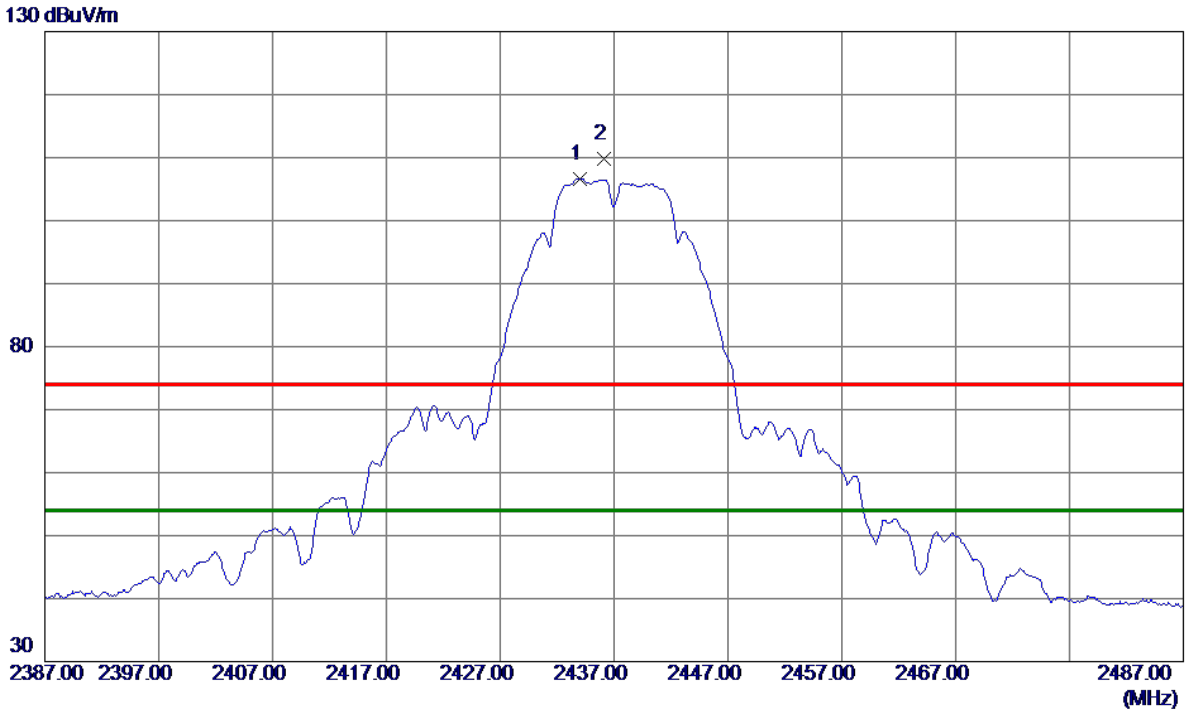


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873.9100	46.04	5.46	51.50	54.00	-2.50	AVG	
2	4874.0500	48.40	5.46	53.86	74.00	-20.14	Peak	

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

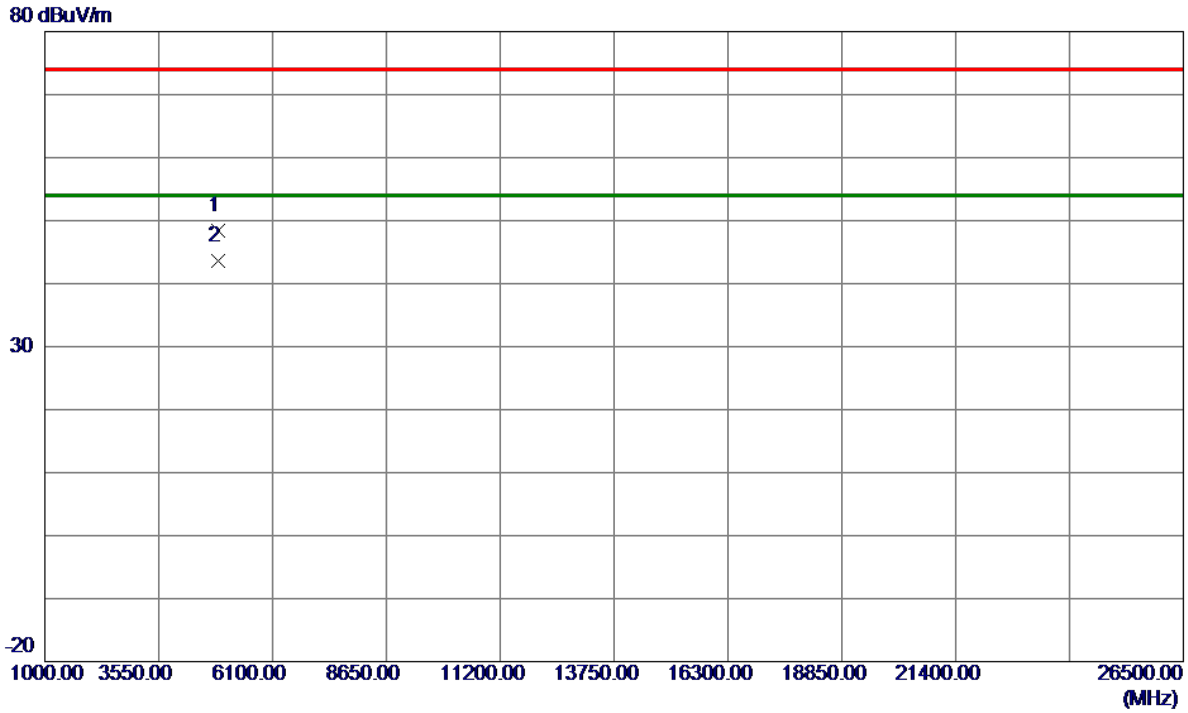


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2434.0000	98.34	8.33	106.67	54.00	52.67	AVG	No Limit
2	2436.1000	101.44	8.34	109.78	74.00	35.78	Peak	No Limit

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

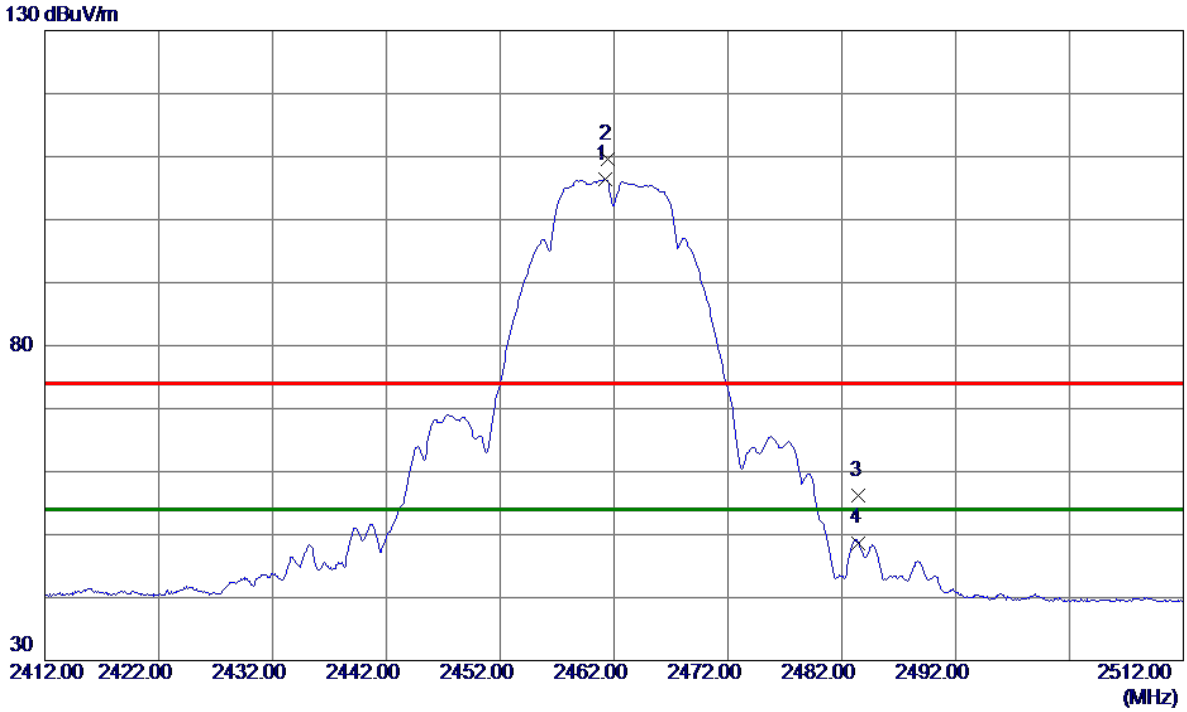


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.8340	42.97	5.46	48.43	74.00	-25.57	Peak	
2 *	4873.8900	38.20	5.46	43.66	54.00	-10.34	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

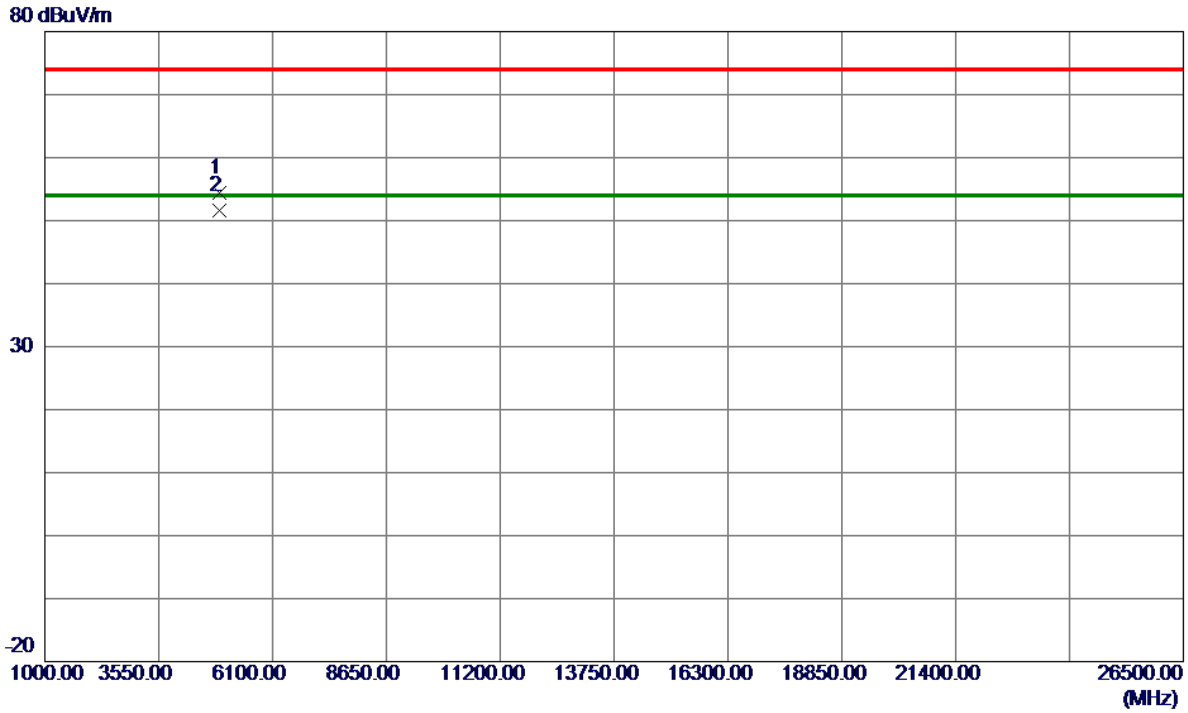


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461.2000	98.09	8.36	106.45	54.00	52.45	AVG	No Limit
2	2461.5000	101.20	8.36	109.56	74.00	35.56	Peak	No Limit
3	2483.5000	47.74	8.39	56.13	74.00	-17.87	Peak	
4	2483.5000	40.31	8.39	48.70	54.00	-5.30	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

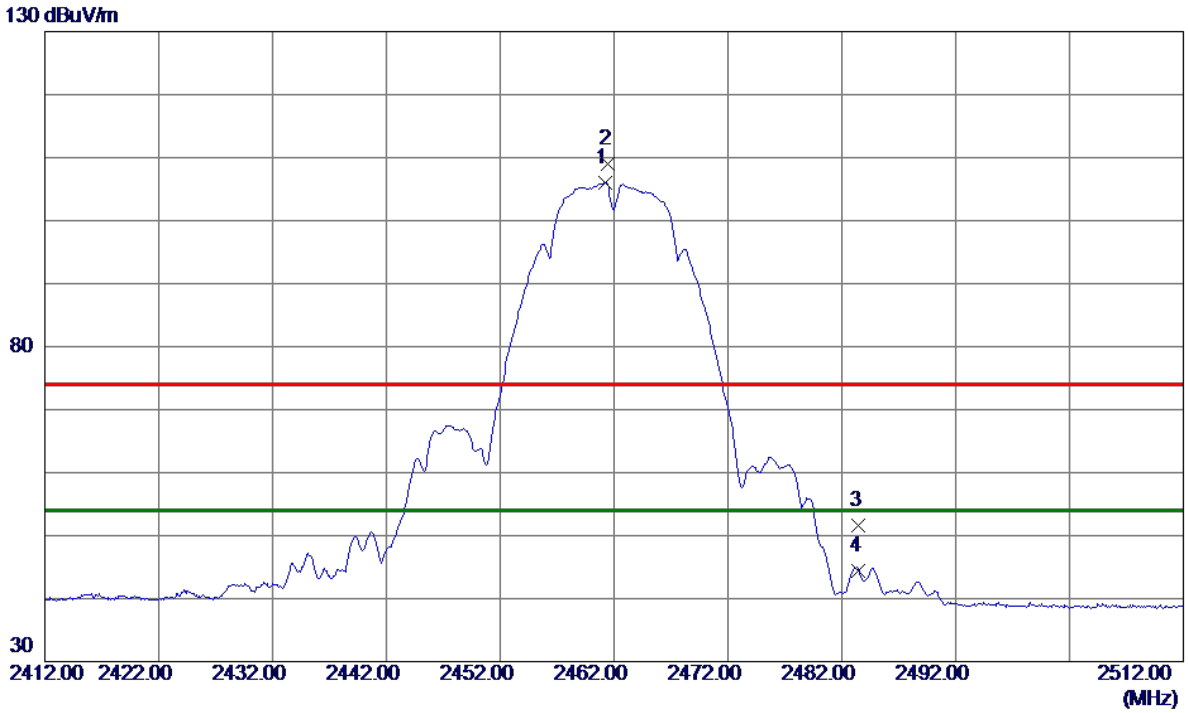


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.8240	48.79	5.59	54.38	74.00	-19.62	Peak	
2 *	4923.9640	46.09	5.59	51.68	54.00	-2.32	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

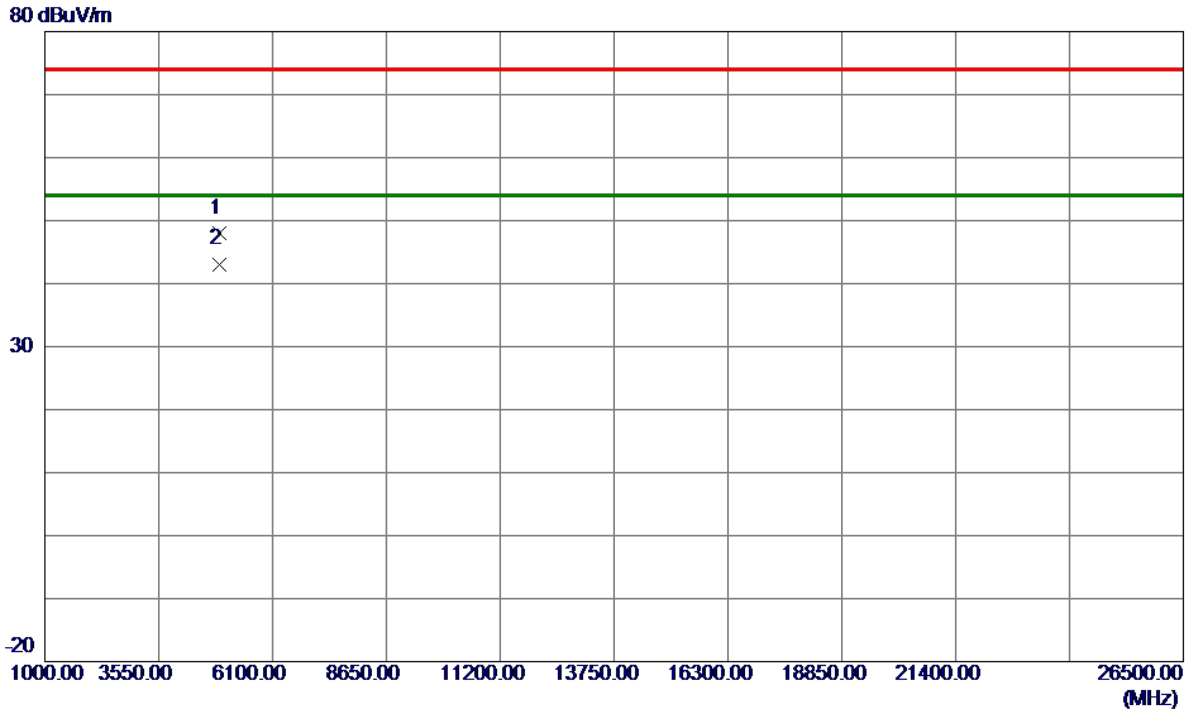


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2461.2000	97.67	8.36	106.03	54.00	52.03	AVG	No Limit
2	2461.5000	100.66	8.36	109.02	74.00	35.02	Peak	No Limit
3	2483.5000	43.29	8.39	51.68	74.00	-22.32	Peak	
4	2483.5000	36.04	8.39	44.43	54.00	-9.57	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

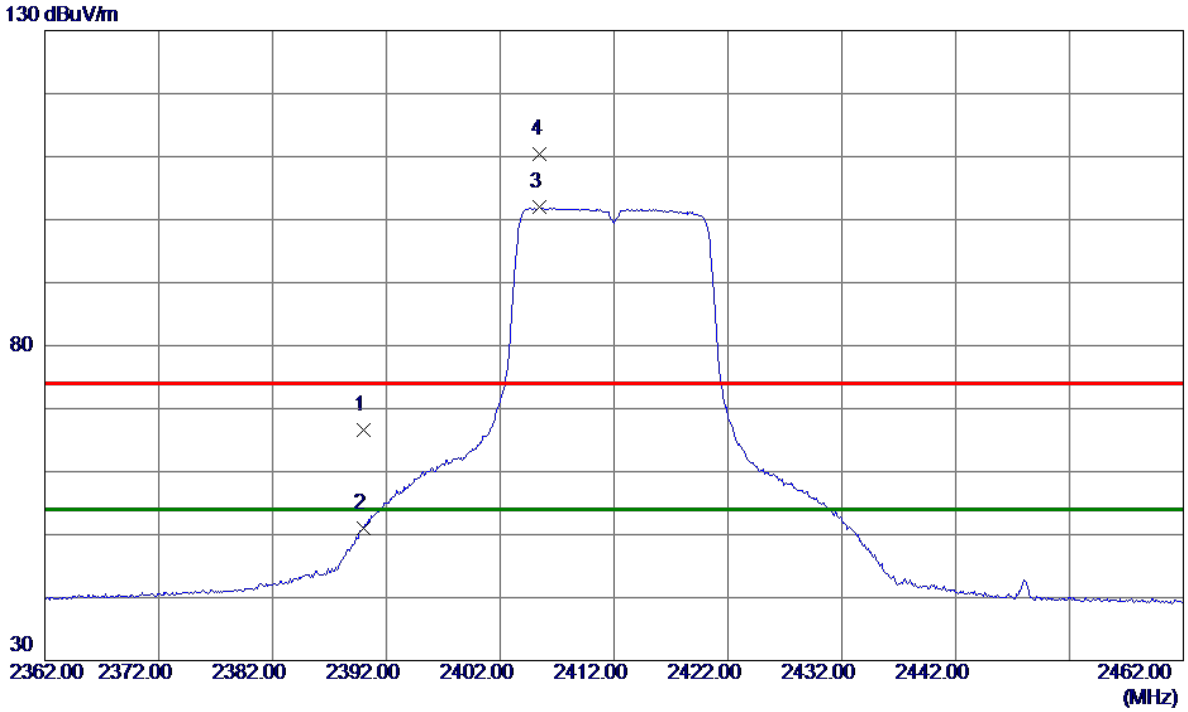


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.8860	42.39	5.59	47.98	74.00	-26.02	Peak	
2 *	4923.9000	37.51	5.59	43.10	54.00	-10.90	AVG	

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

Test Mode:	TX G Mode 2412 MHz

Vertical

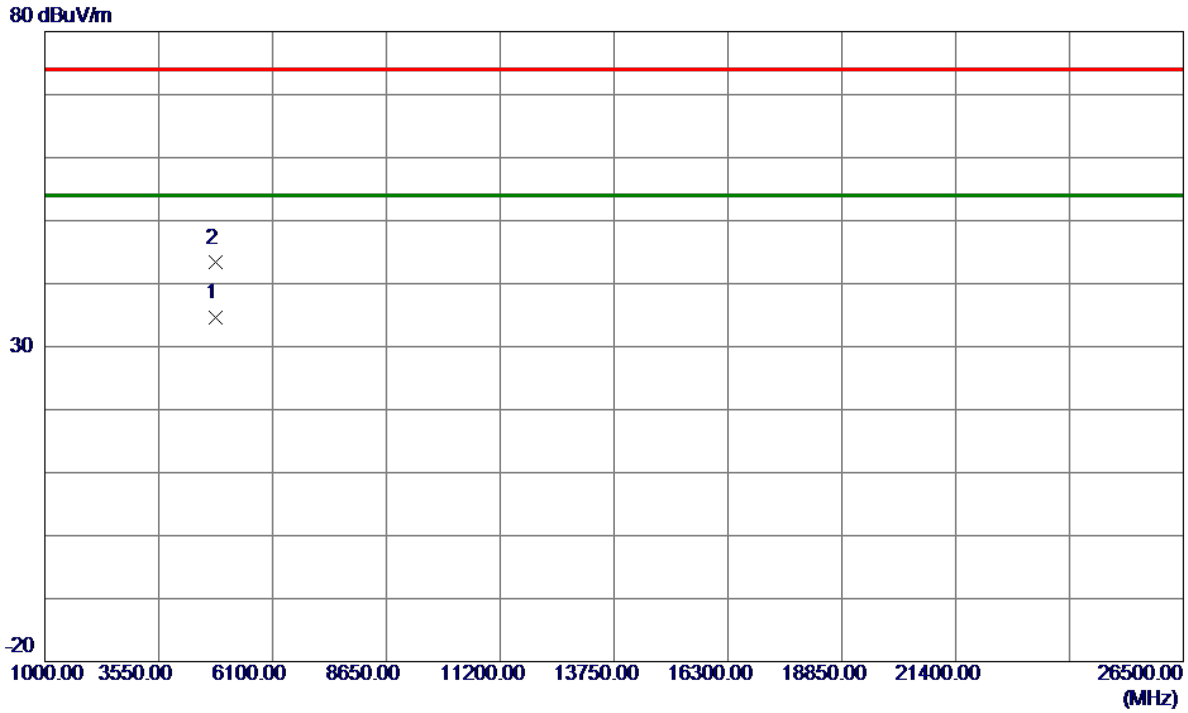


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	58.37	8.29	66.66	74.00	-7.34	Peak	
2	2390.0000	42.67	8.29	50.96	54.00	-3.04	AVG	
3 *	2405.4000	93.62	8.30	101.92	54.00	47.92	AVG	No Limit
4	2405.5000	102.07	8.30	110.37	74.00	36.37	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

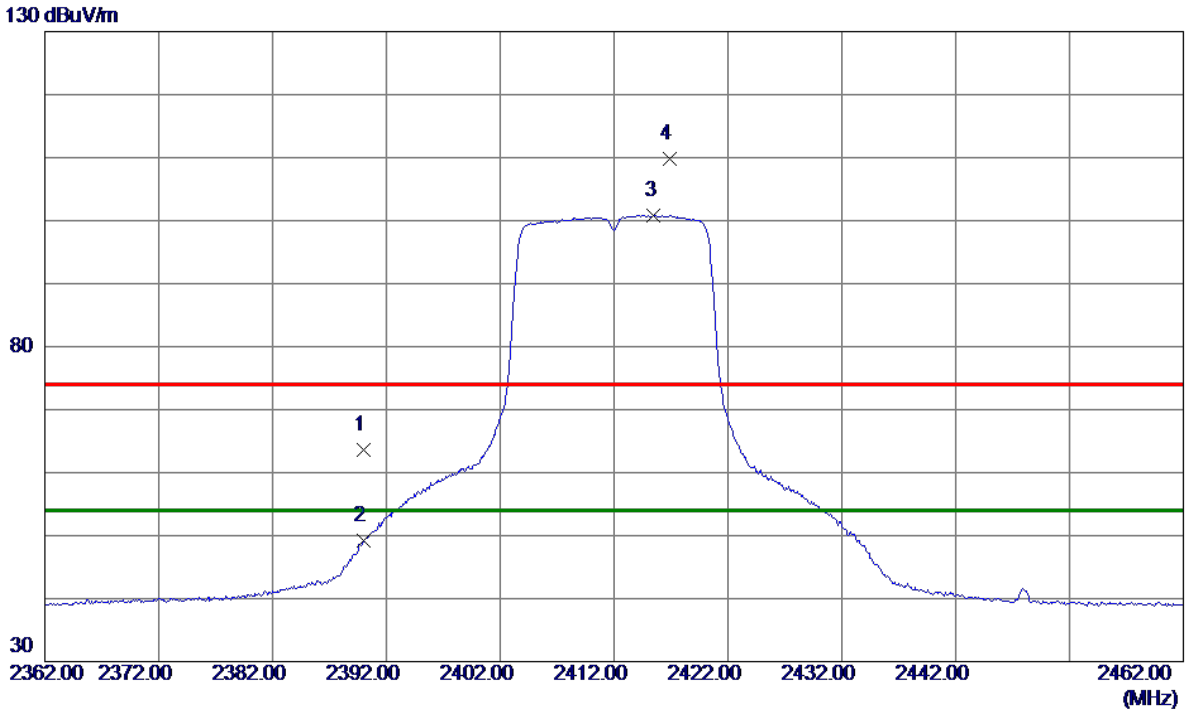


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4824.8260	29.26	5.33	34.59	54.00	-19.41	AVG	
2	4824.8440	37.97	5.33	43.30	74.00	-30.70	Peak	

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

Test Mode:	TX G Mode 2412 MHz

Horizontal

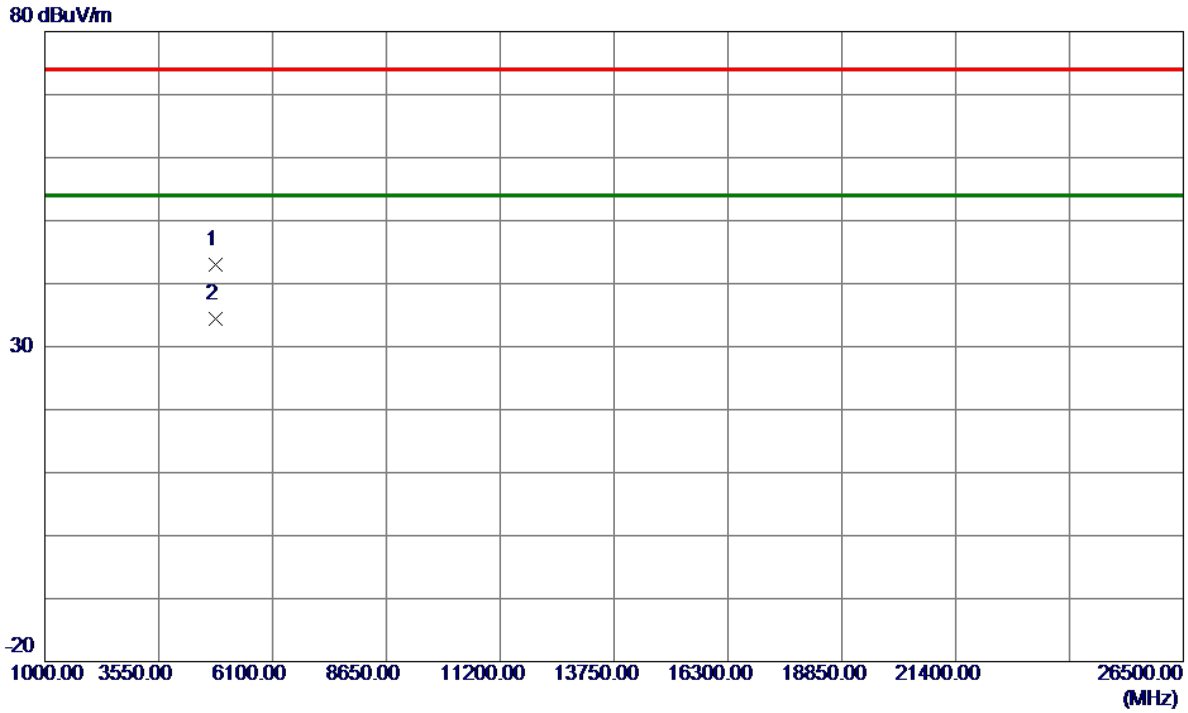


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	55.34	8.29	63.63	74.00	-10.37	Peak	
2	2390.0000	40.82	8.29	49.11	54.00	-4.89	AVG	
3 *	2415.5000	92.48	8.31	100.79	54.00	46.79	AVG	No Limit
4	2416.9000	101.57	8.32	109.89	74.00	35.89	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

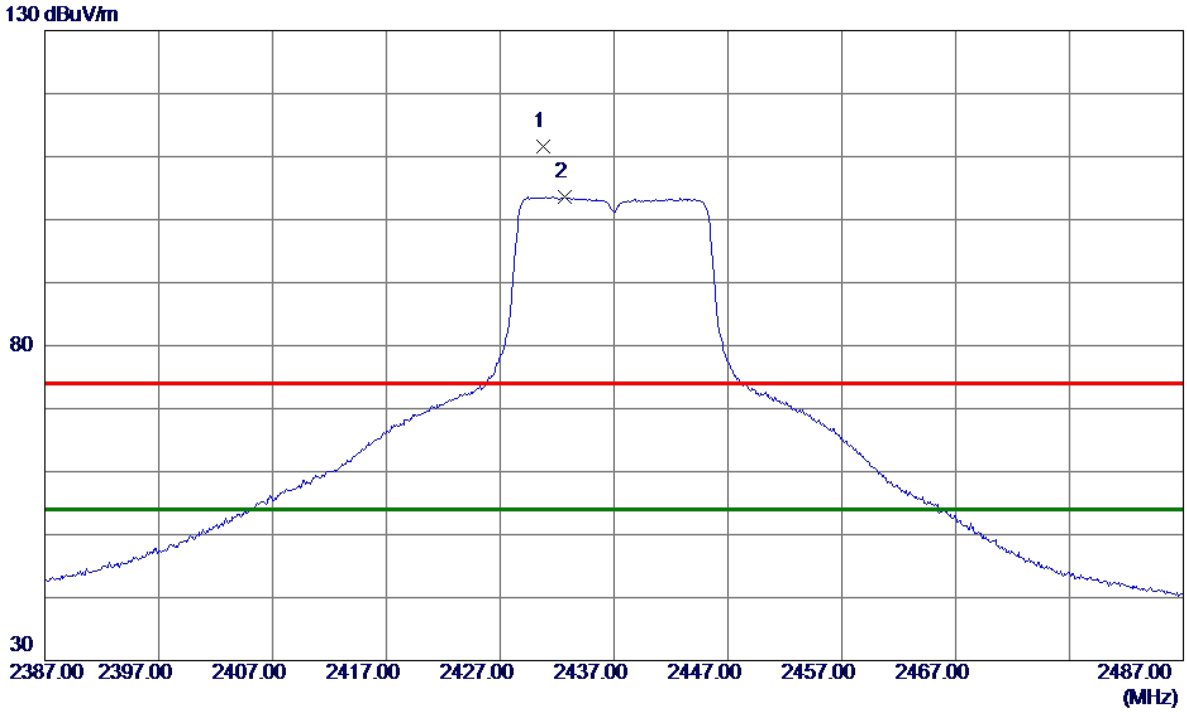


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4823.0680	37.65	5.32	42.97	74.00	-31.03	Peak	
2 *	4823.3240	29.11	5.32	34.43	54.00	-19.57	AVG	

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

Test Mode:	TX G Mode 2437 MHz

Vertical

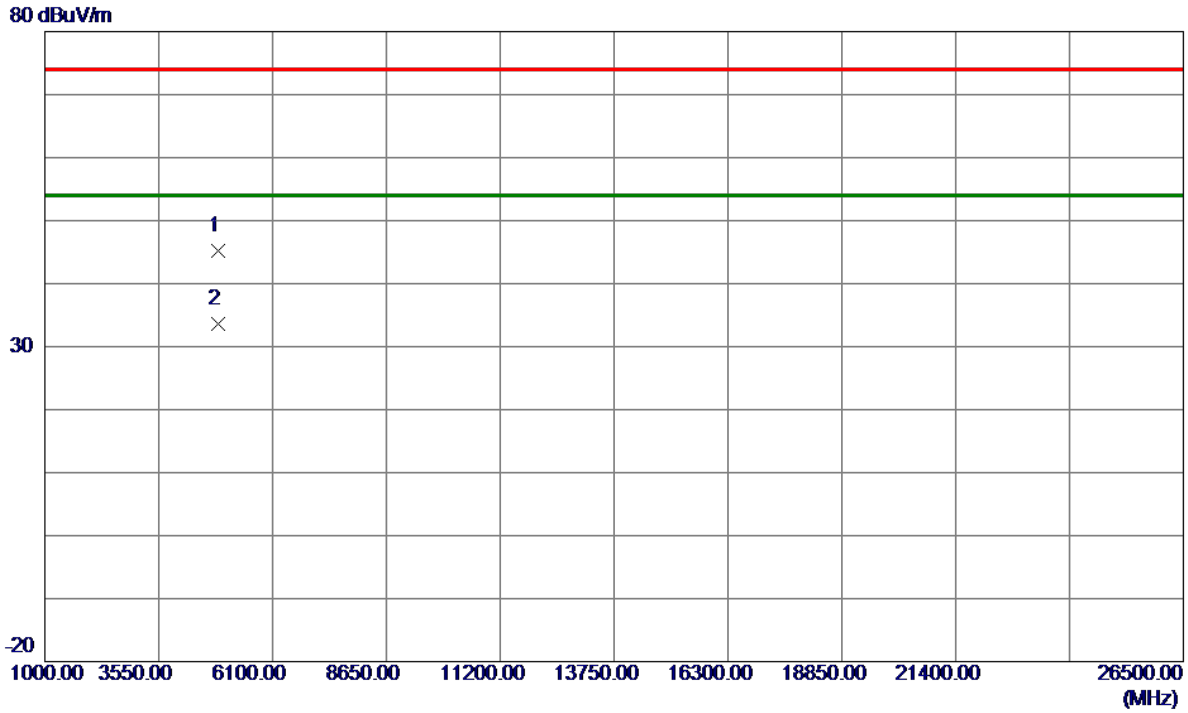


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2430.8000	103.30	8.33	111.63	74.00	37.63	Peak	No Limit
2 *	2432.7000	95.29	8.33	103.62	54.00	49.62	AVG	No Limit

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

Test Mode:	TX G Mode 2437 MHz

Vertical

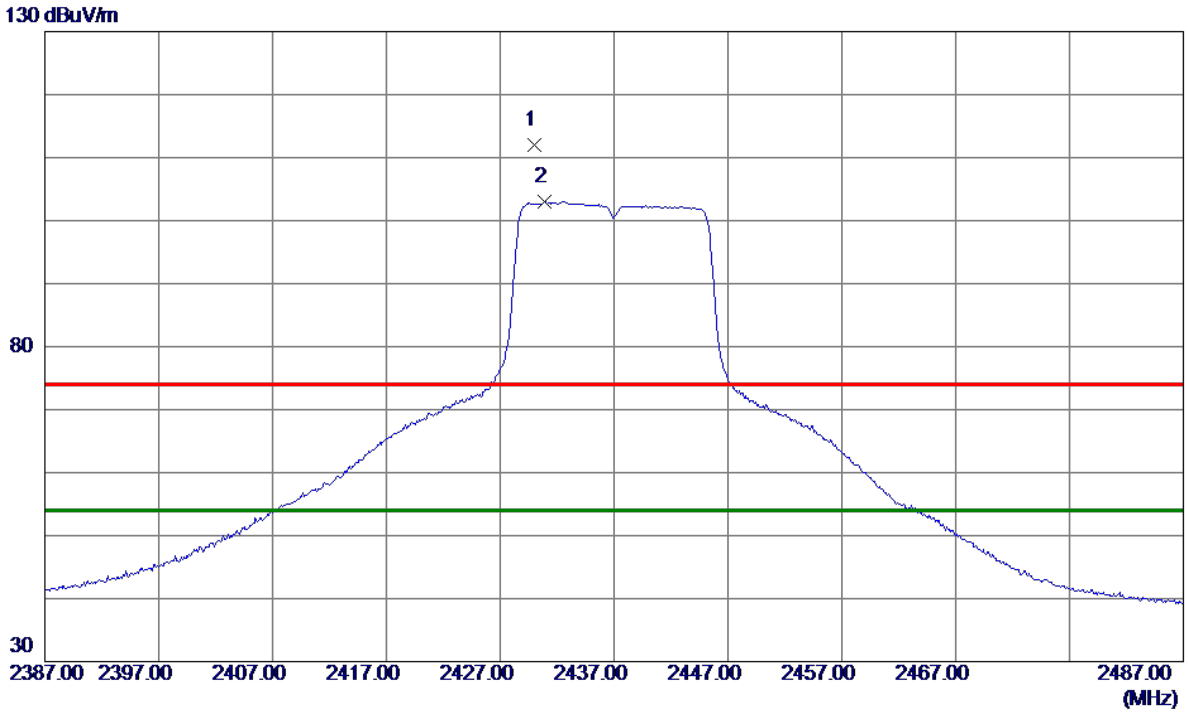


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.3540	39.68	5.46	45.14	74.00	-28.86	Peak	
2 *	4874.2860	28.06	5.46	33.52	54.00	-20.48	AVG	

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

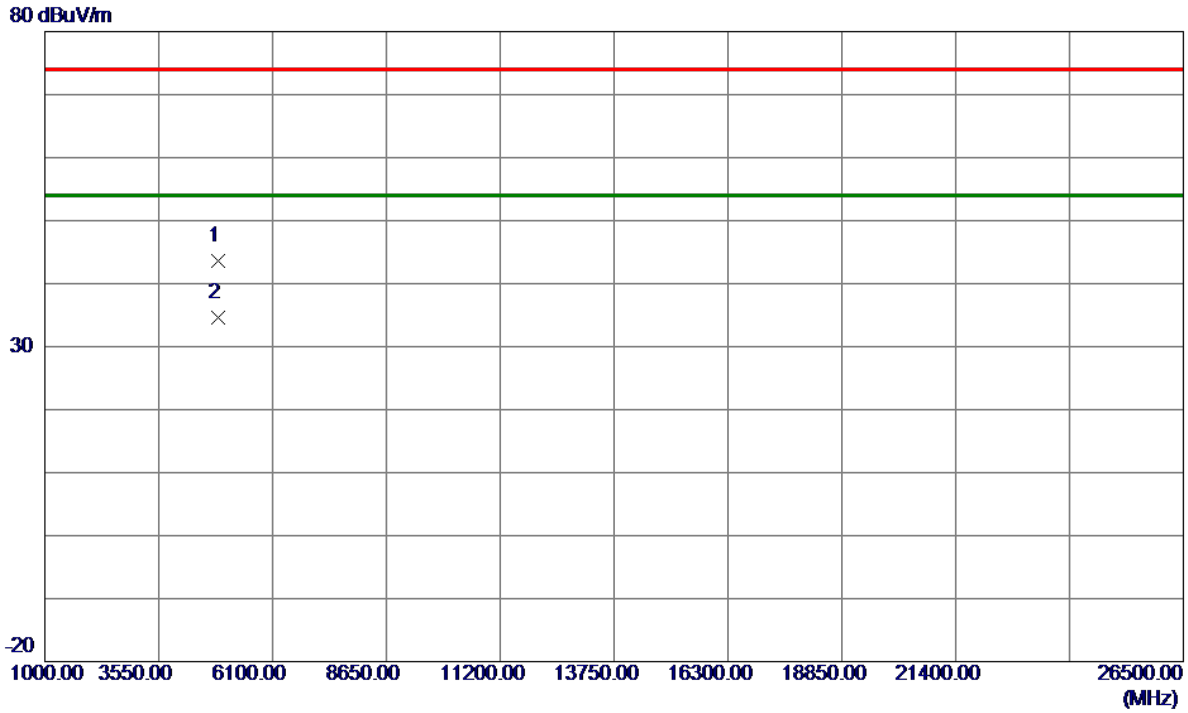


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2430.0000	103.69	8.33	112.02	74.00	38.02	Peak	No Limit
2 *	2430.9000	94.63	8.33	102.96	54.00	48.96	AVG	No Limit

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

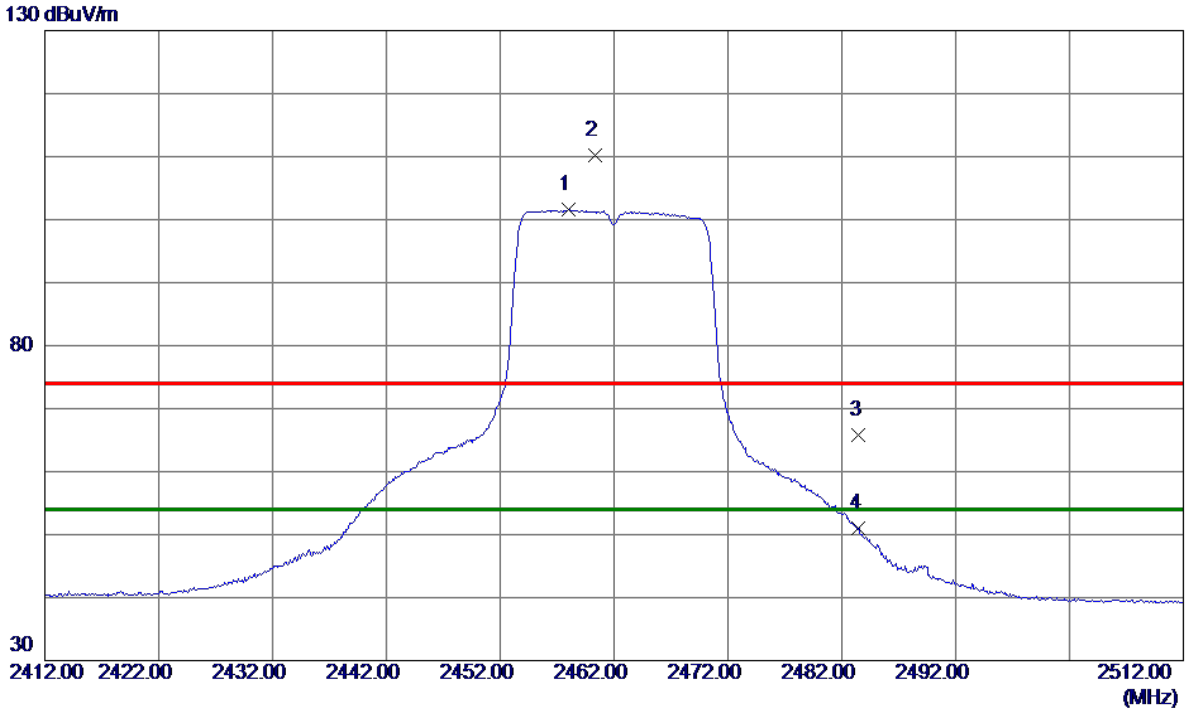


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.5179	38.13	5.46	43.59	74.00	-30.41	Peak	
2 *	4874.1720	29.13	5.46	34.59	54.00	-19.41	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

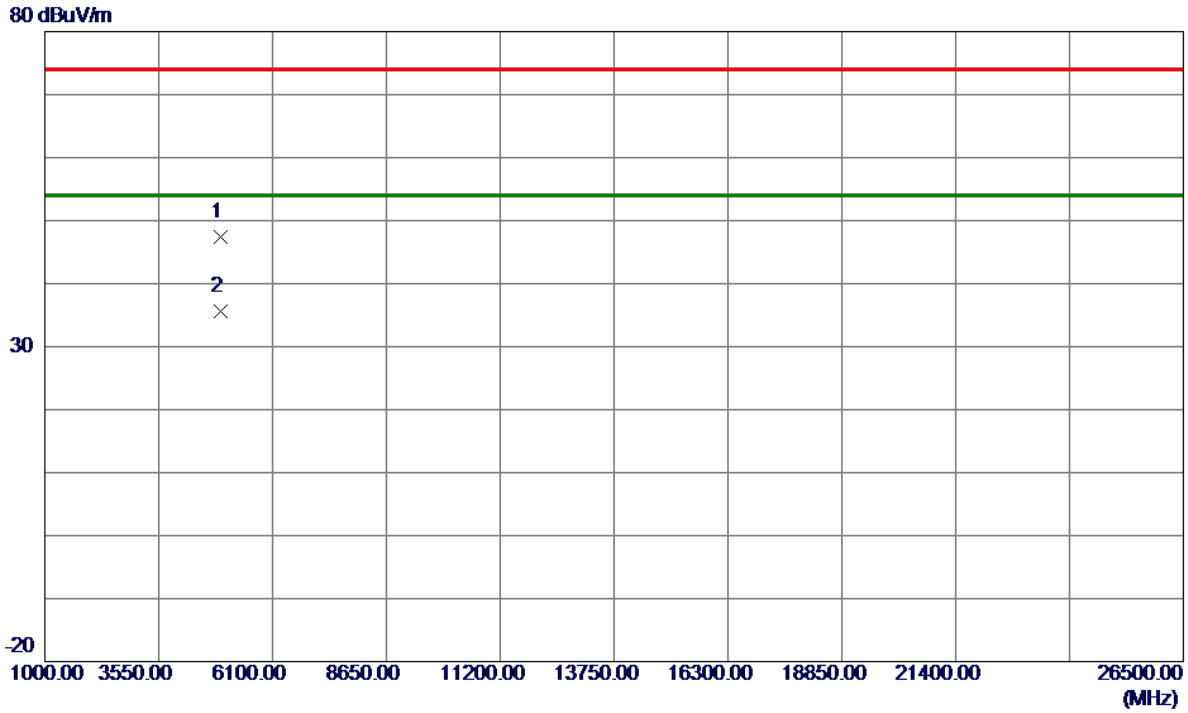


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2458.0000	93.17	8.36	101.53	54.00	47.53	AVG	No Limit
2	2460.3000	101.89	8.36	110.25	74.00	36.25	Peak	No Limit
3	2483.5000	57.40	8.39	65.79	74.00	-8.21	Peak	
4	2483.5000	42.64	8.39	51.03	54.00	-2.97	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

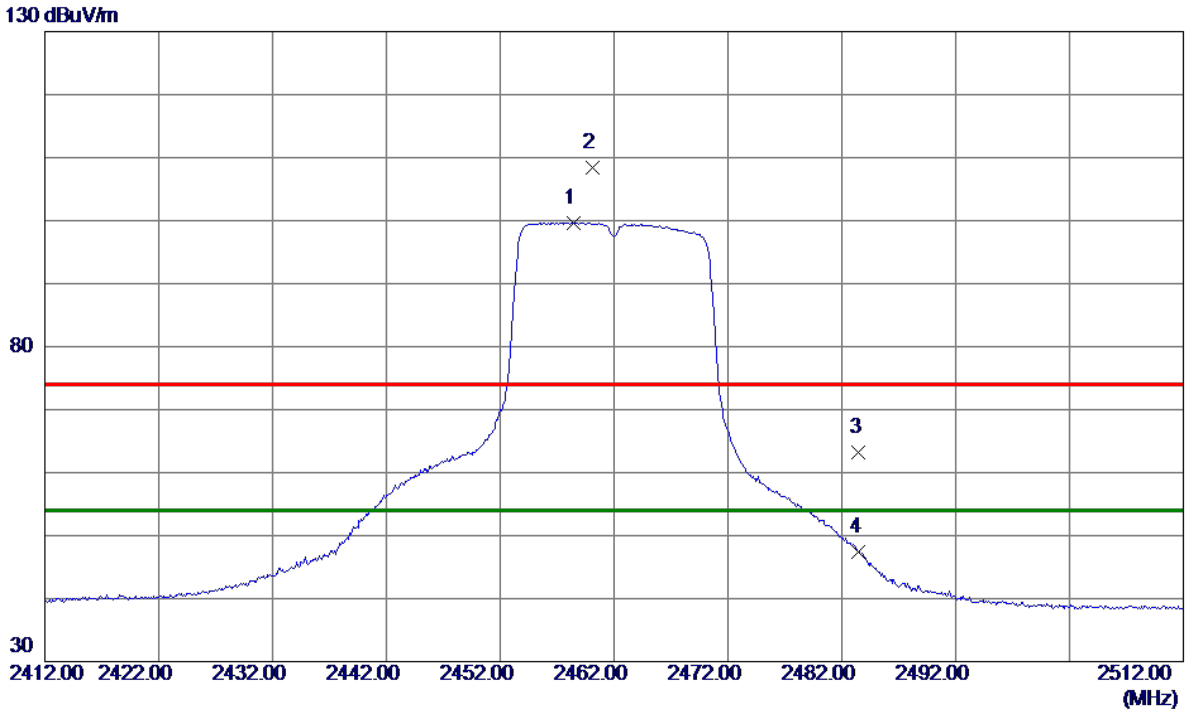


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.8700	41.85	5.60	47.45	74.00	-26.55	Peak	
2 *	4925.0650	29.94	5.60	35.54	54.00	-18.46	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

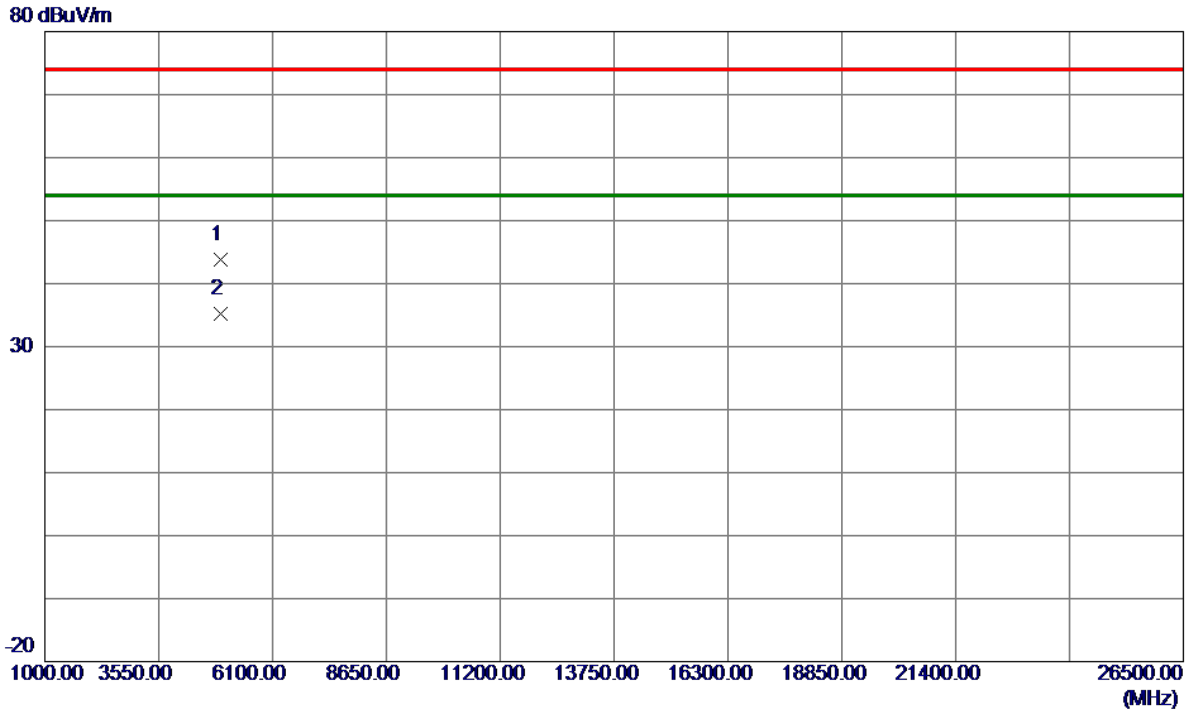


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2458.4000	91.30	8.36	99.66	54.00	45.66	AVG	No Limit
2	2460.1000	100.08	8.36	108.44	74.00	34.44	Peak	No Limit
3	2483.5000	54.80	8.39	63.19	74.00	-10.81	Peak	
4	2483.5000	38.95	8.39	47.34	54.00	-6.66	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

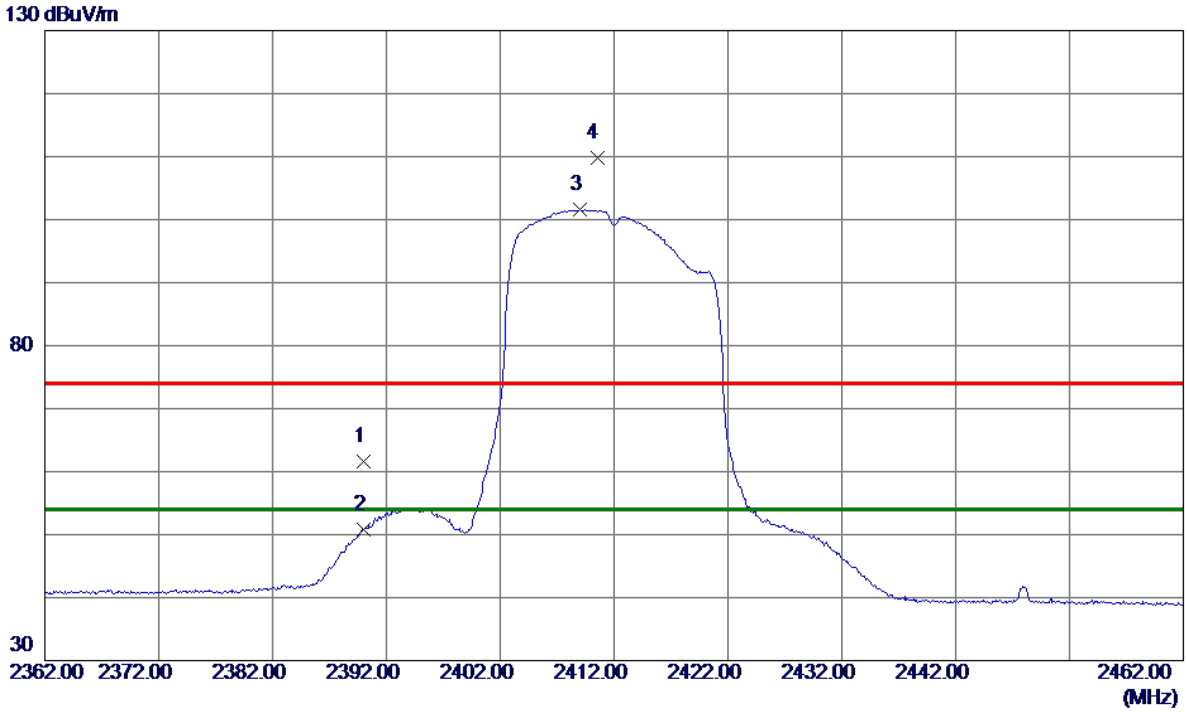


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4924.1720	38.23	5.59	43.82	74.00	-30.18	Peak	
2 *	4924.8480	29.60	5.60	35.20	54.00	-18.80	AVG	

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

Test Mode:	TX N-20M Mode 2412 MHz

Vertical

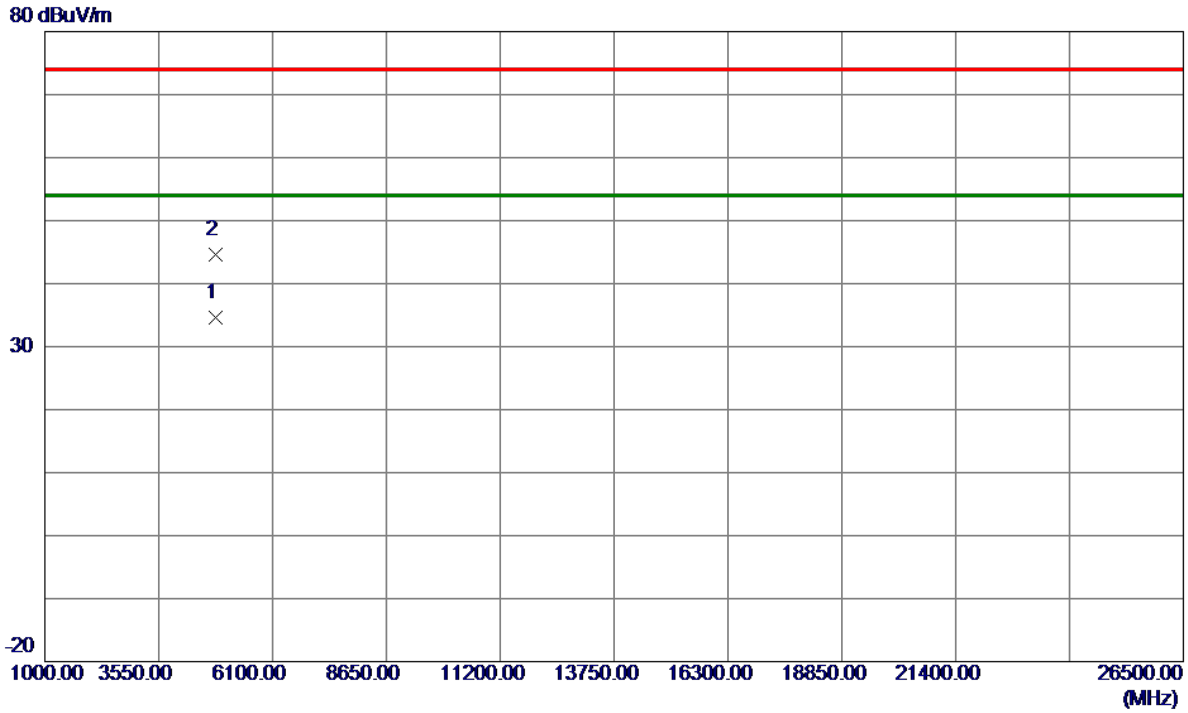


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	53.23	8.29	61.52	74.00	-12.48	Peak	
2	2390.0000	42.52	8.29	50.81	54.00	-3.19	AVG	
3 *	2409.0000	93.25	8.31	101.56	54.00	47.56	AVG	No Limit
4	2410.5000	101.42	8.31	109.73	74.00	35.73	Peak	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

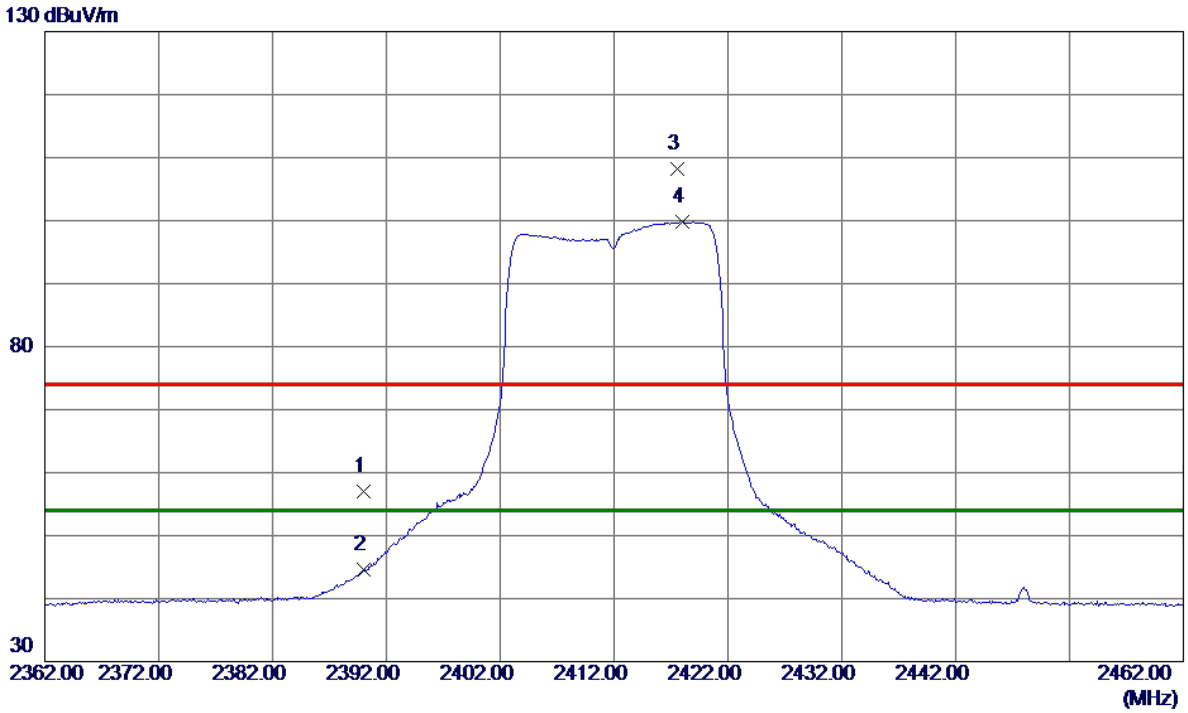


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.1160	29.25	5.32	34.57	54.00	-19.43	AVG	
2	4824.3660	39.37	5.32	44.69	74.00	-29.31	Peak	

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

Test Mode:	TX N-20M Mode 2412 MHz

Horizontal

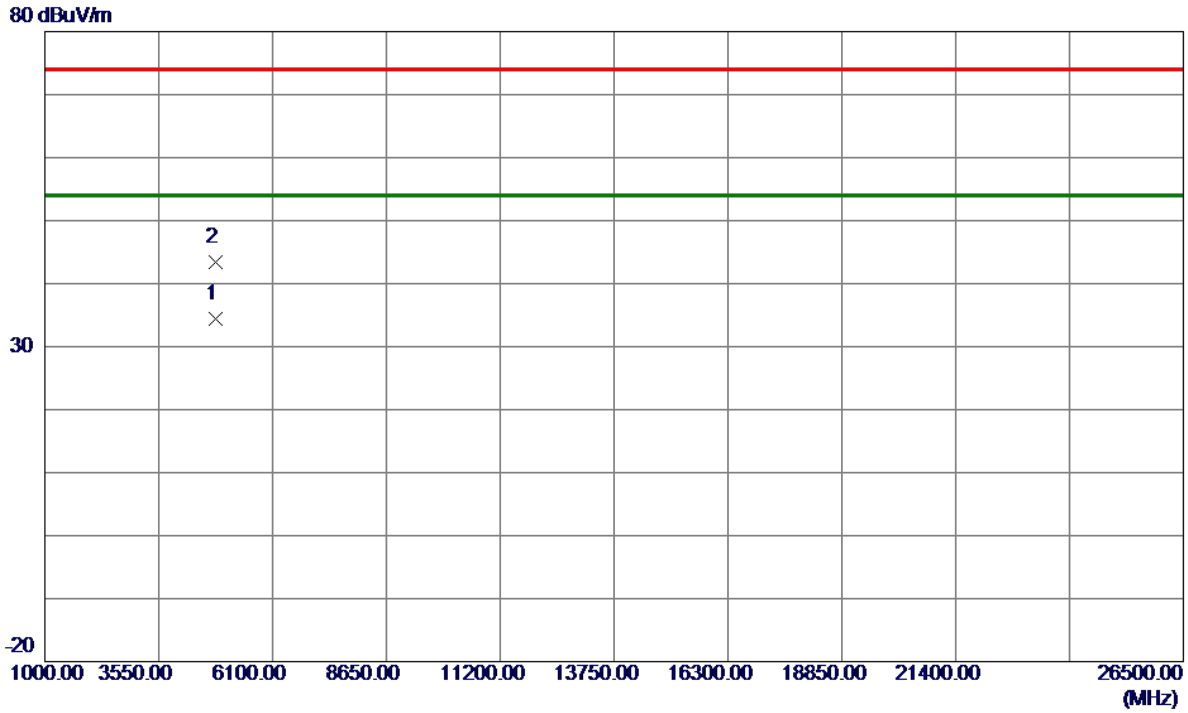


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	48.67	8.29	56.96	74.00	-17.04	Peak	
2	2390.0000	36.24	8.29	44.53	54.00	-9.47	AVG	
3	2417.6000	99.84	8.32	108.16	74.00	34.16	Peak	No Limit
4 *	2418.0000	91.46	8.32	99.78	54.00	45.78	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

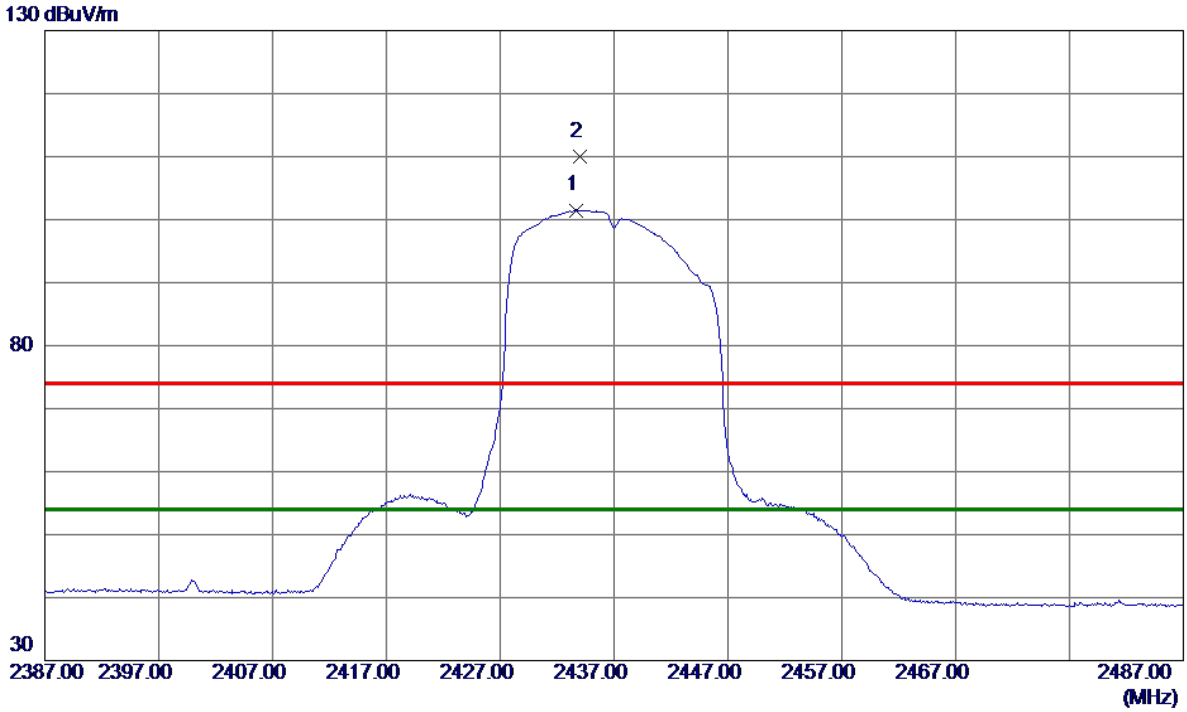


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.7040	29.14	5.32	34.46	54.00	-19.54	AVG	
2	4824.0880	38.04	5.32	43.36	74.00	-30.64	Peak	

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

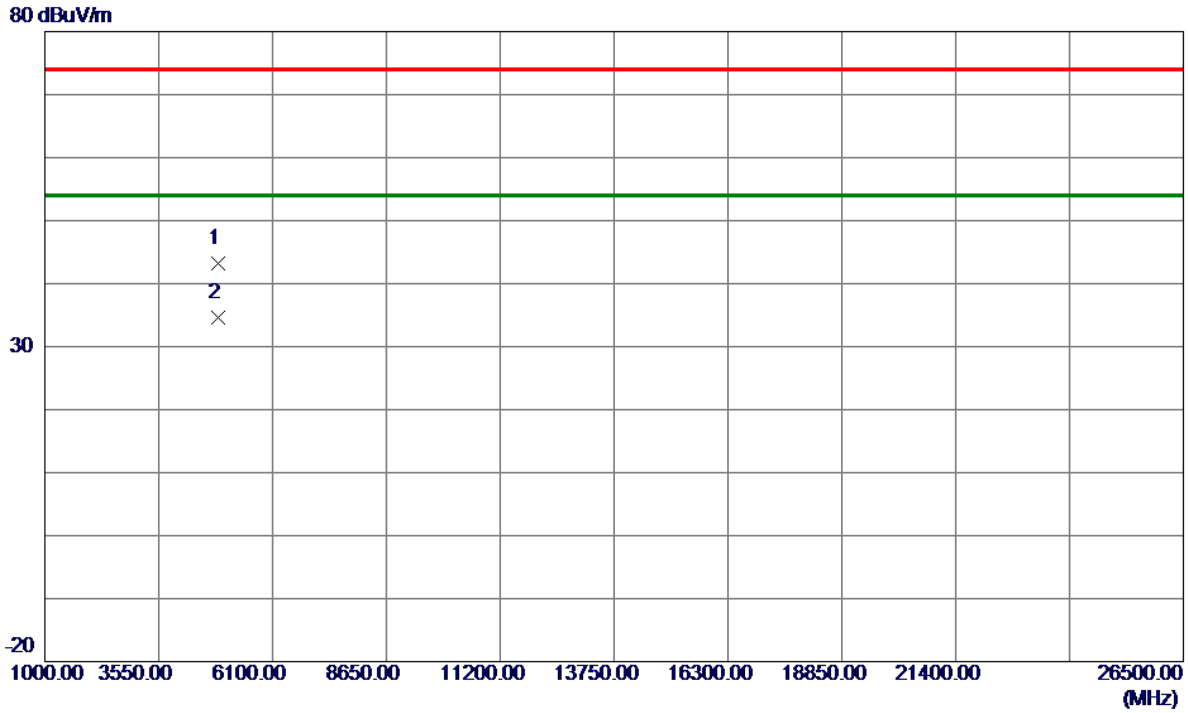


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2433.7000	93.17	8.33	101.50	54.00	47.50	AVG	No Limit
2	2434.0000	101.66	8.33	109.99	74.00	35.99	Peak	No Limit

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

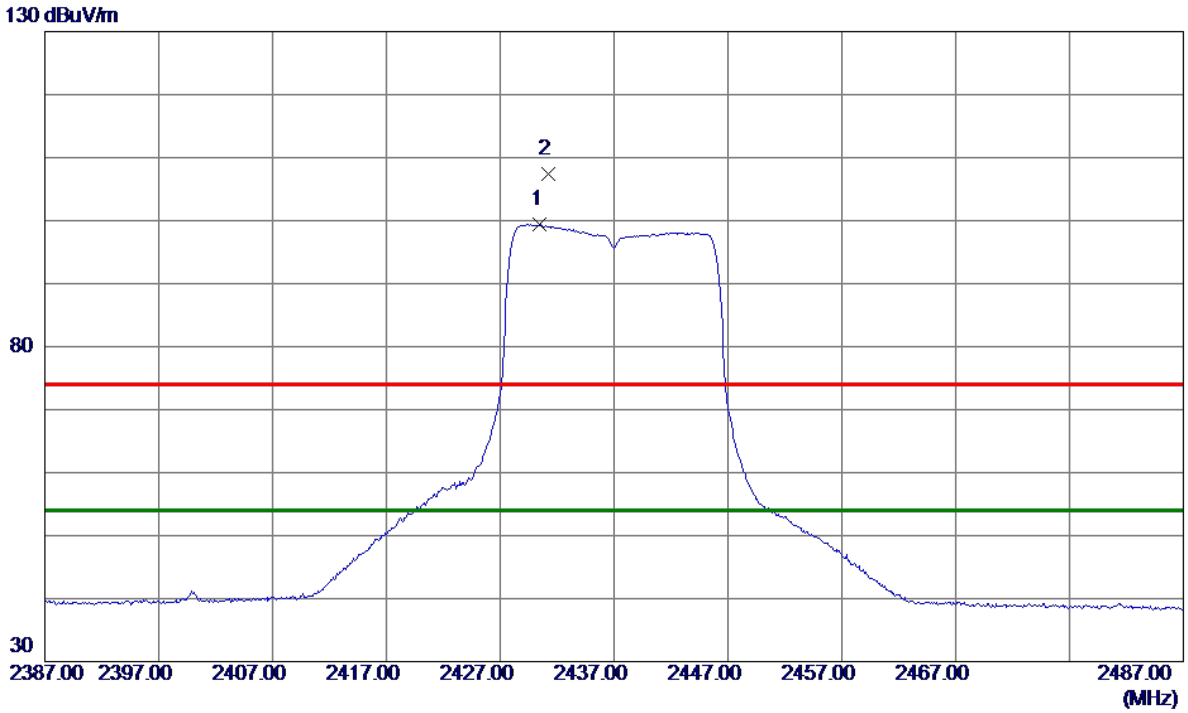


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.5280	37.80	5.46	43.26	74.00	-30.74	Peak	
2 *	4874.2160	29.15	5.46	34.61	54.00	-19.39	AVG	

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

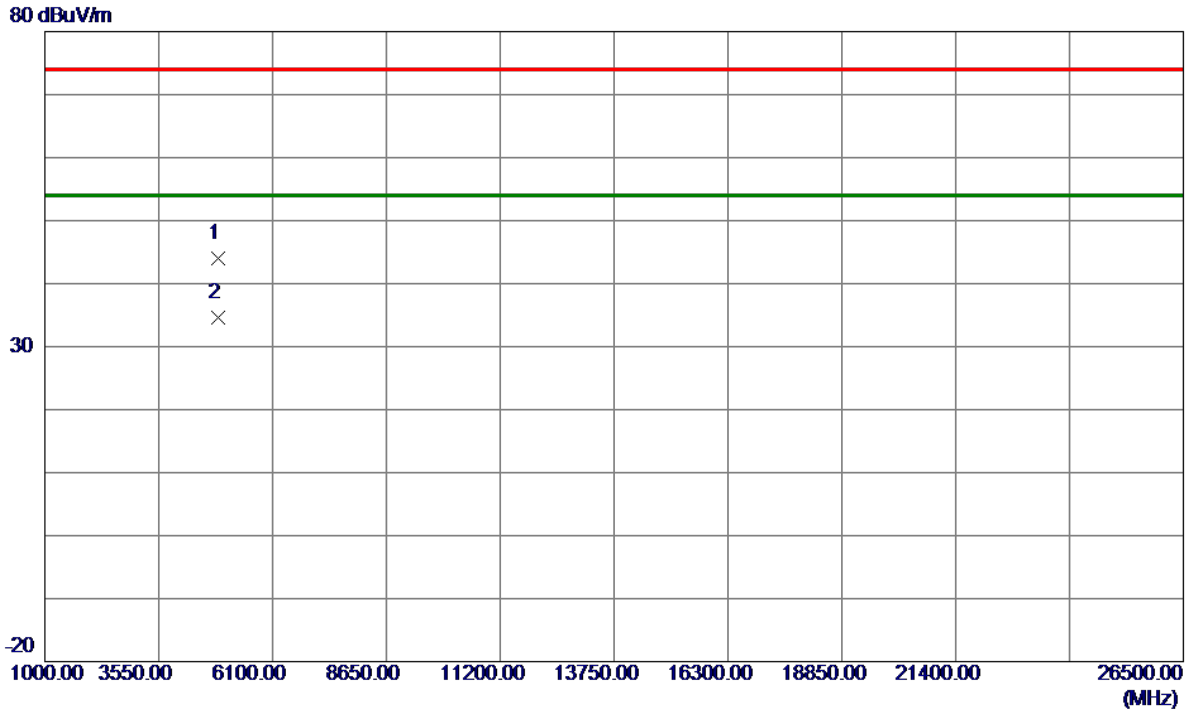


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2430.5000	91.08	8.33	99.41	54.00	45.41	AVG	No Limit
2	2431.2000	98.99	8.33	107.32	74.00	33.32	Peak	No Limit

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

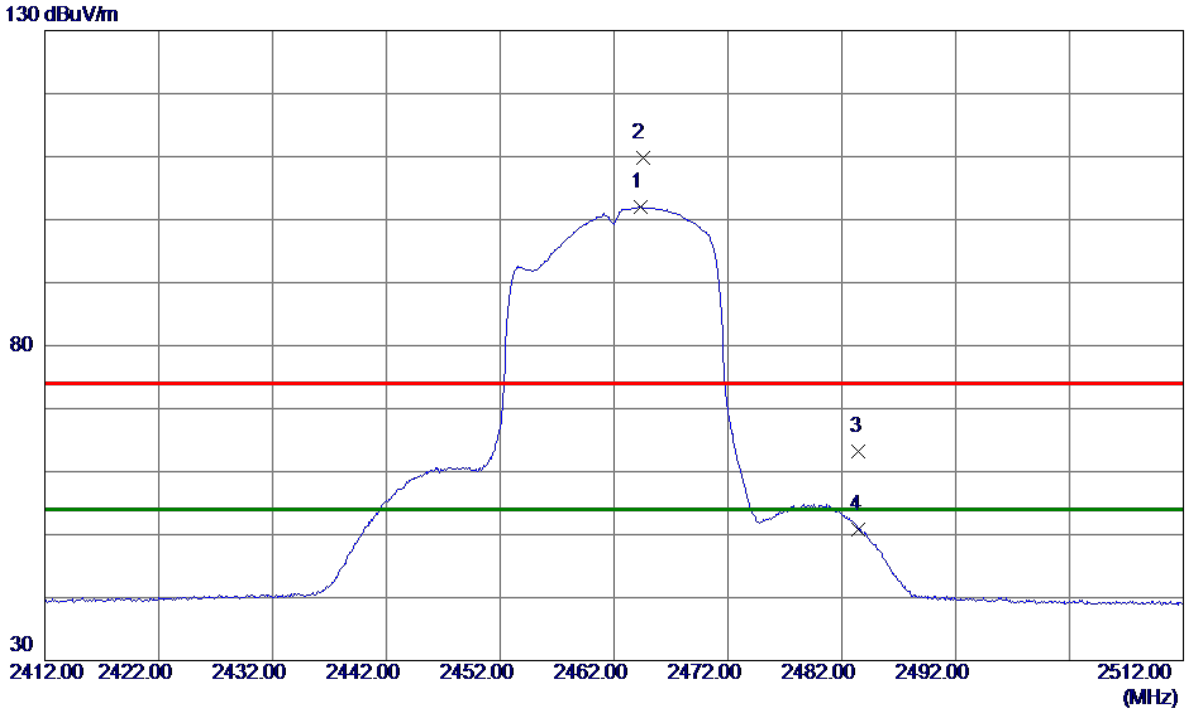


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.1040	38.50	5.46	43.96	74.00	-30.04	Peak	
2 *	4873.8340	29.12	5.46	34.58	54.00	-19.42	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Vertical

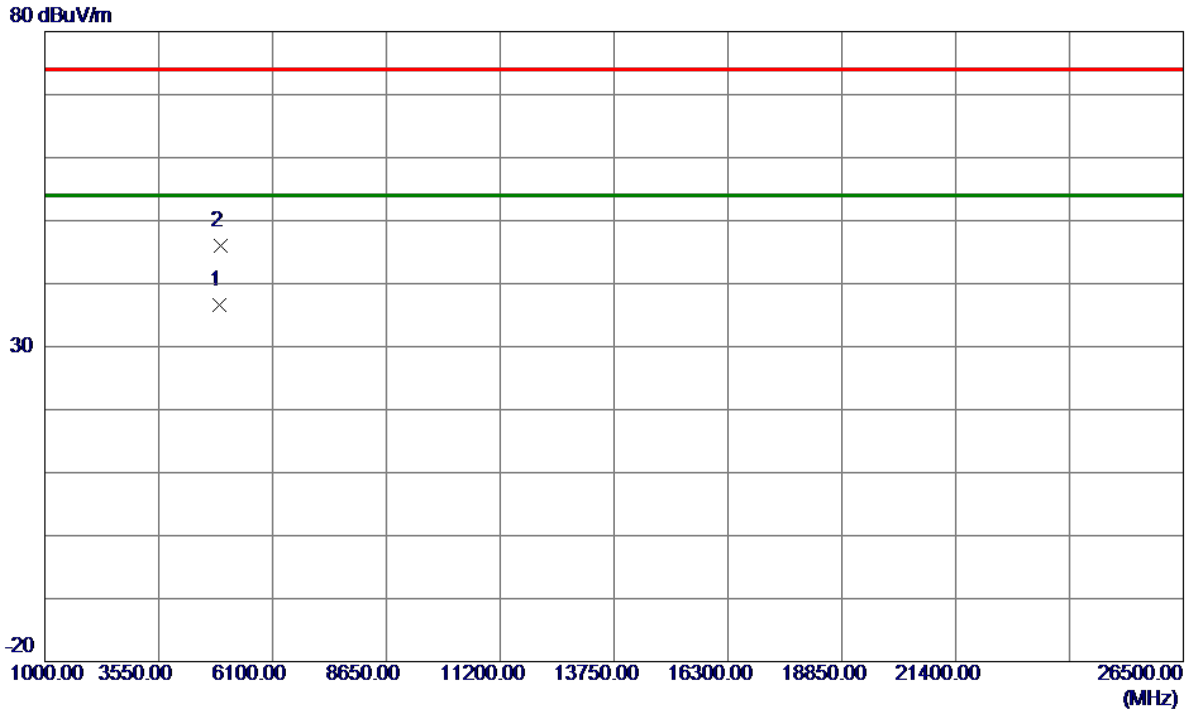


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2464.3000	93.63	8.37	102.00	54.00	48.00	AVG	No Limit
2	2464.5000	101.51	8.37	109.88	74.00	35.88	Peak	No Limit
3	2483.5000	54.78	8.39	63.17	74.00	-10.83	Peak	
4	2483.5000	42.48	8.39	50.87	54.00	-3.13	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

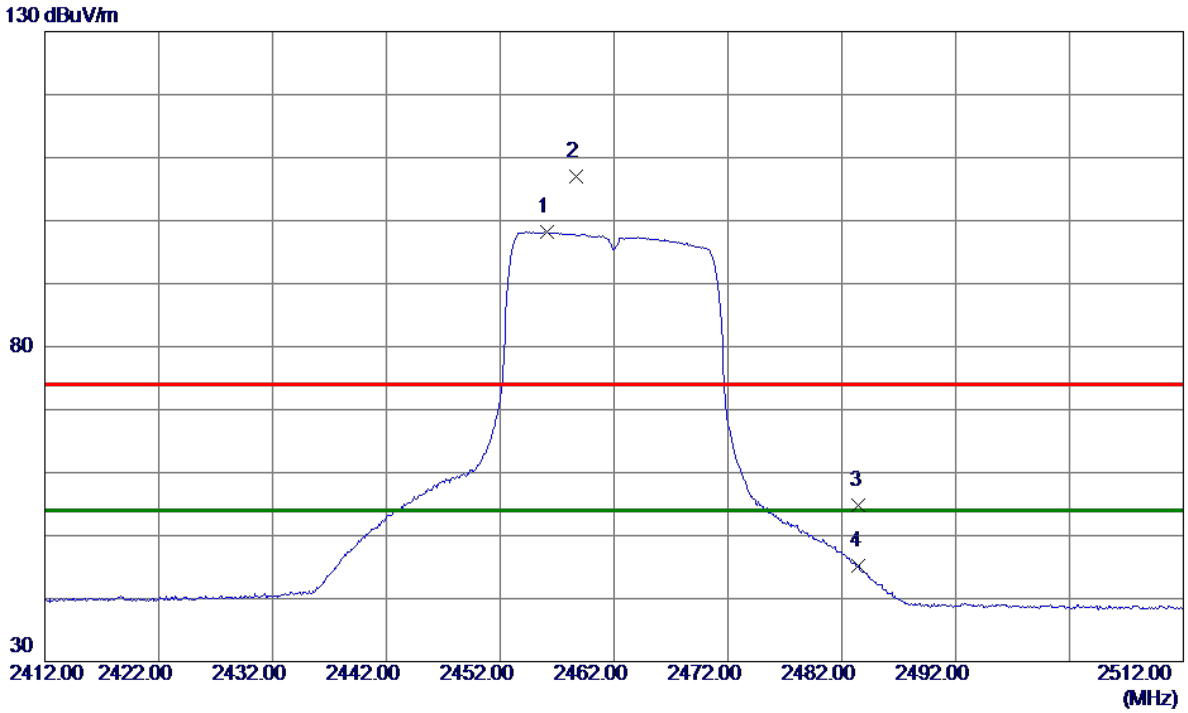


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923.8400	30.98	5.59	36.57	54.00	-17.43	AVG	
2	4924.4740	40.40	5.60	46.00	74.00	-28.00	Peak	

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

Test Mode:	TX N-20M Mode 2462 MHz

Horizontal

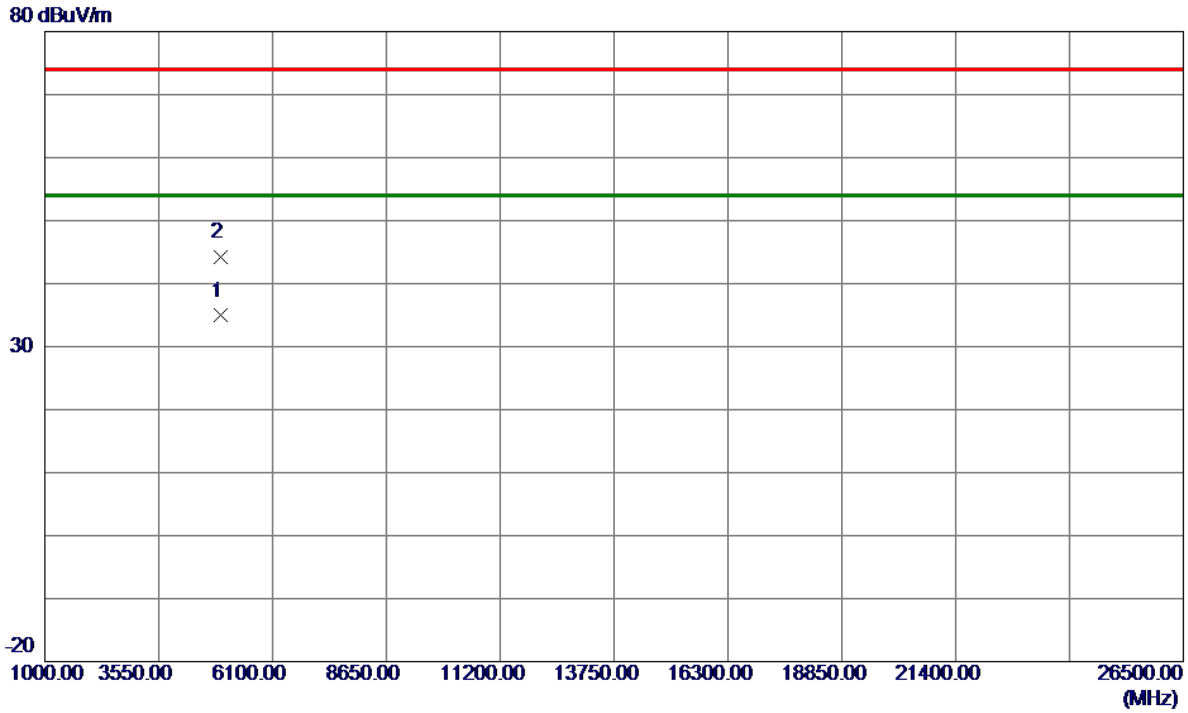


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2456.1000	89.86	8.36	98.22	54.00	44.22	AVG	No Limit
2	2458.7000	98.54	8.36	106.90	74.00	32.90	Peak	No Limit
3	2483.5000	46.46	8.39	54.85	74.00	-19.15	Peak	
4	2483.5000	36.74	8.39	45.13	54.00	-8.87	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

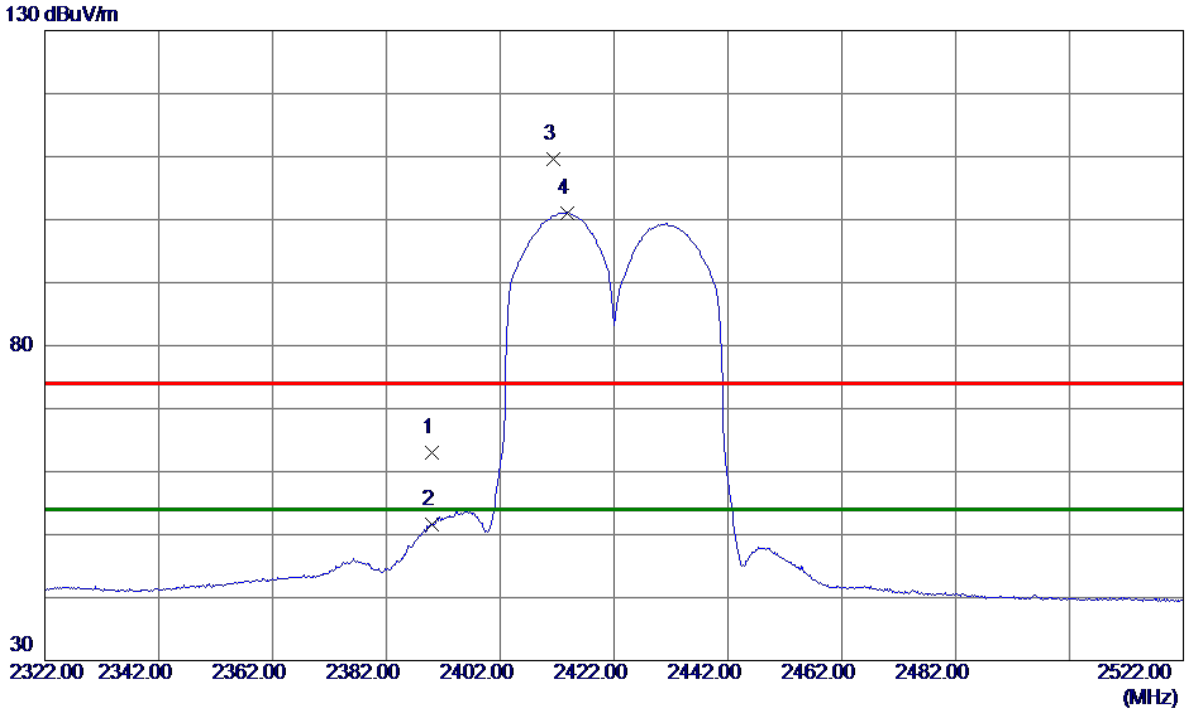


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4924.7140	29.30	5.60	34.90	54.00	-19.10	AVG	
2	4924.7300	38.56	5.60	44.16	74.00	-29.84	Peak	

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

Test Mode:	TX N-40M Mode 2422 MHz

Vertical

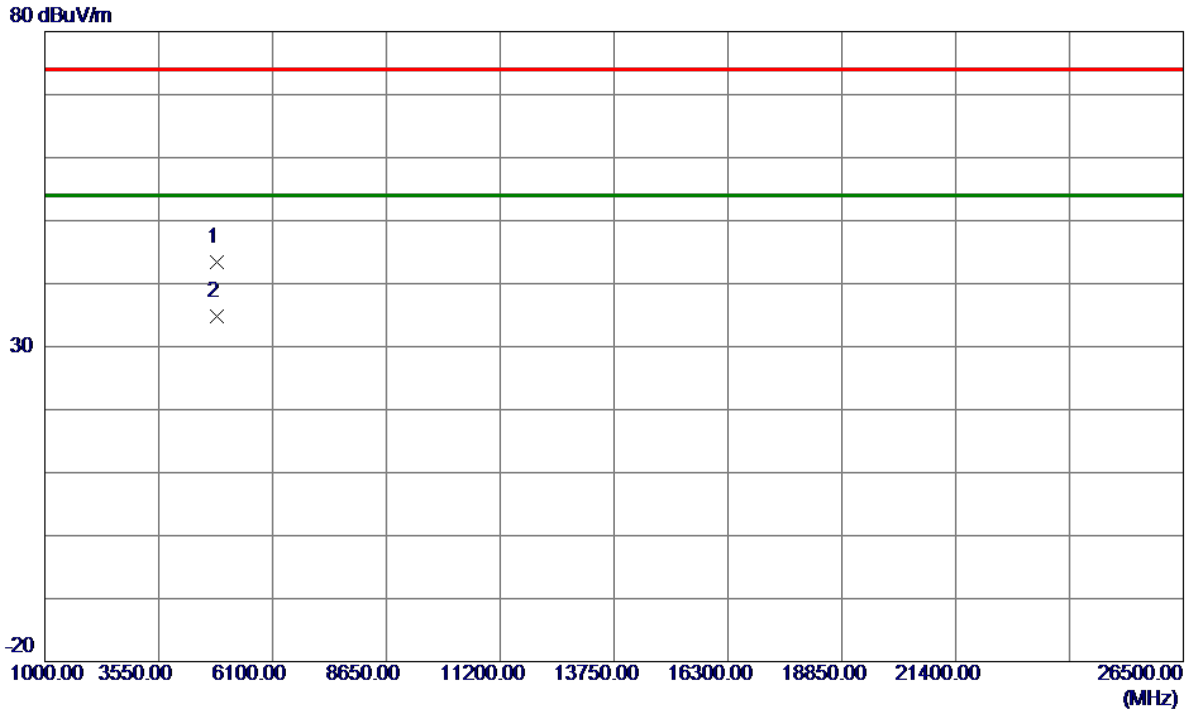


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	54.65	8.29	62.94	74.00	-11.06	Peak	
2	2390.0000	43.29	8.29	51.58	54.00	-2.42	AVG	
3	2411.4000	101.29	8.31	109.60	74.00	35.60	Peak	No Limit
4 *	2413.8000	92.79	8.31	101.10	54.00	47.10	AVG	No Limit

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

Test Mode:	TX N-40M Mode 2422 MHz

Vertical

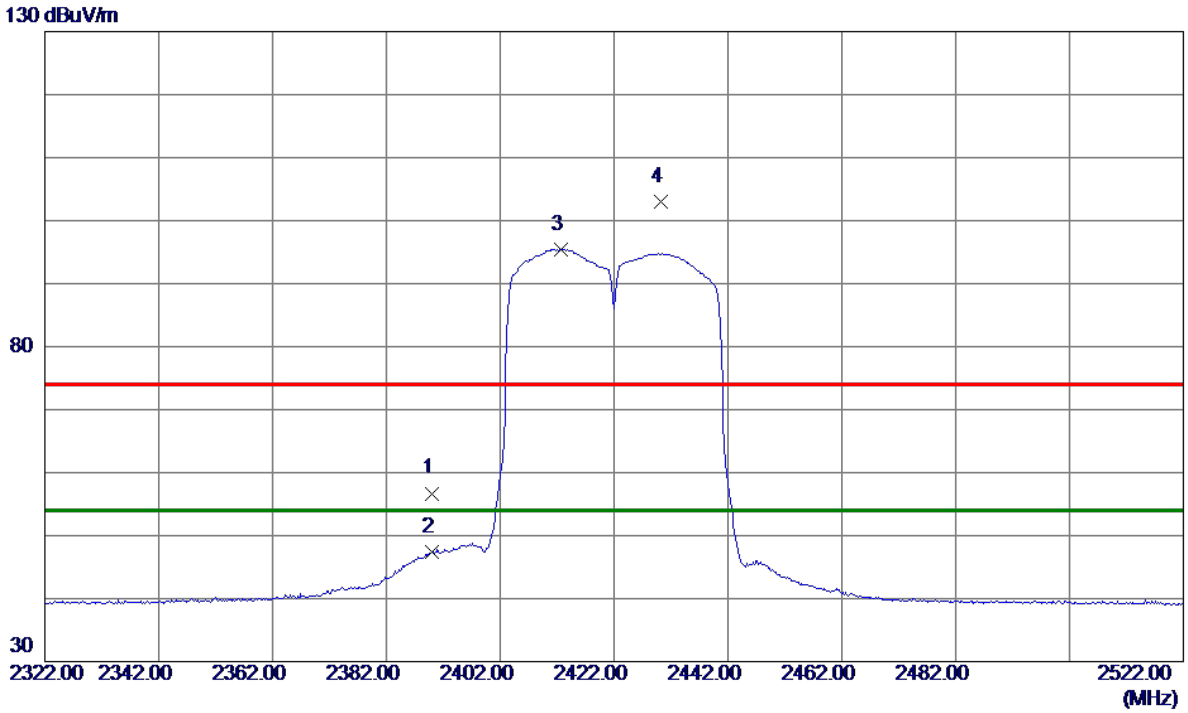


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4843.8520	38.06	5.38	43.44	74.00	-30.56	Peak	
2 *	4843.9540	29.36	5.38	34.74	54.00	-19.26	AVG	

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

Test Mode:	TX N-40M Mode 2422 MHz

Horizontal

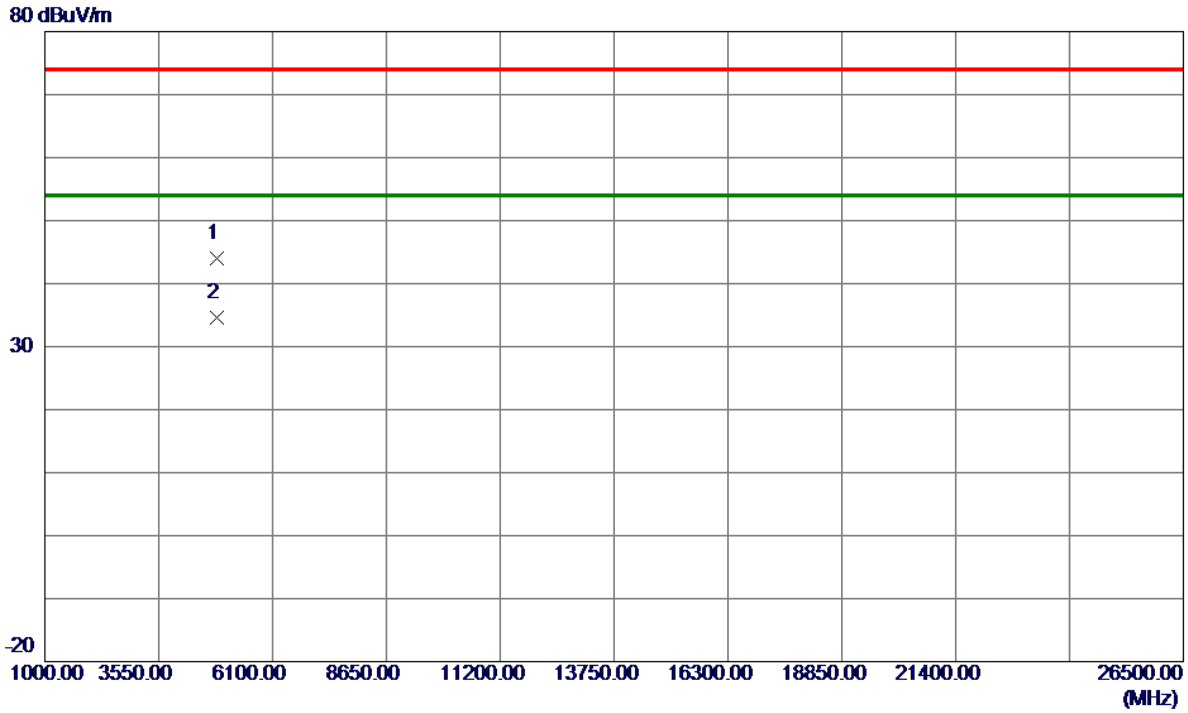


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	48.41	8.29	56.70	74.00	-17.30	Peak	
2	2390.0000	39.19	8.29	47.48	54.00	-6.52	AVG	
3 *	2412.6000	87.17	8.31	95.48	54.00	41.48	AVG	No Limit
4	2430.2000	94.73	8.33	103.06	74.00	29.06	Peak	No Limit

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

Test Mode:	TX N-40M Mode 2422 MHz

Horizontal

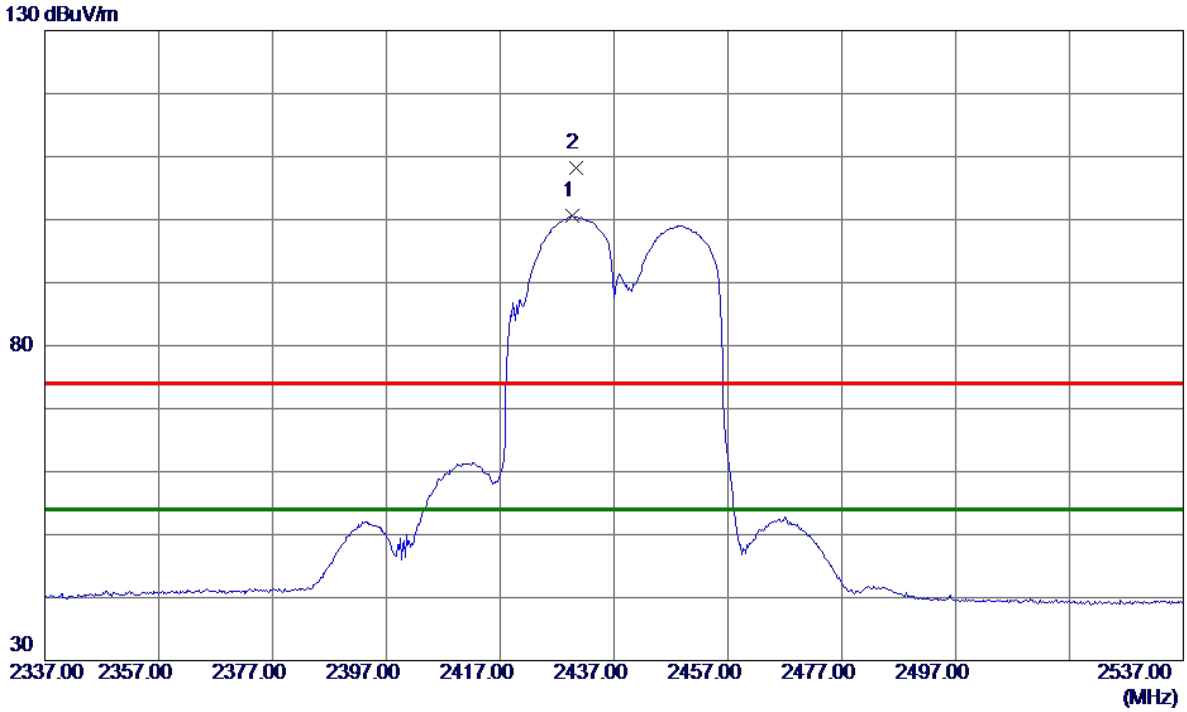


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4843.1100	38.58	5.37	43.95	74.00	-30.05	Peak	
2 *	4844.0099	29.17	5.38	34.55	54.00	-19.45	AVG	

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

Test Mode:	TX N-40M Mode 2437 MHz

Vertical

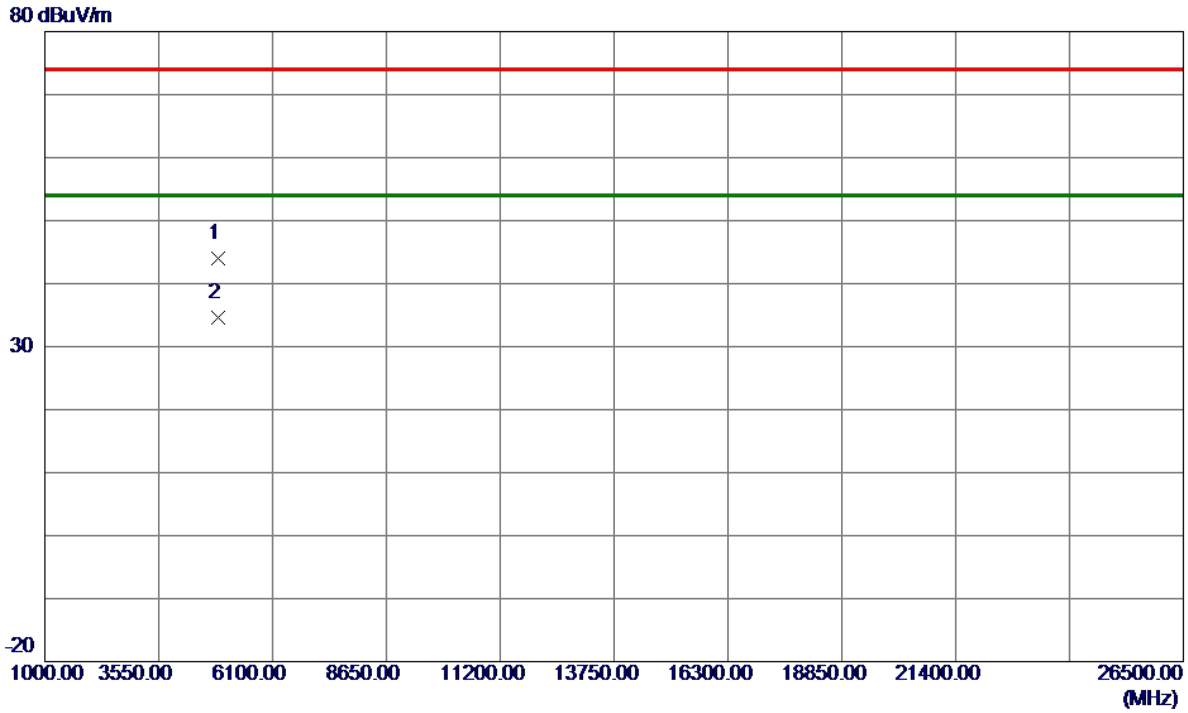


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2429.6000	92.27	8.33	100.60	54.00	46.60	AVG	No Limit
2	2430.4000	99.78	8.33	108.11	74.00	34.11	Peak	No Limit

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

Test Mode:	TX N-40M Mode 2437 MHz

Vertical

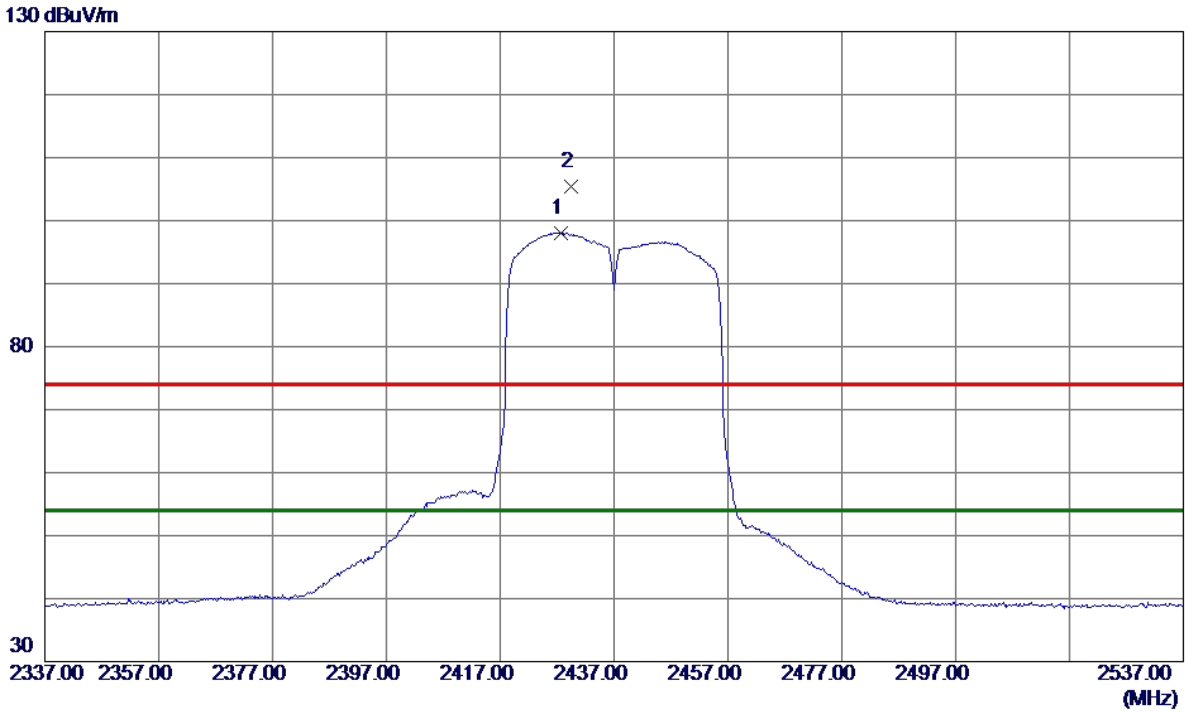


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.9020	38.63	5.46	44.09	74.00	-29.91	Peak	
2 *	4874.4140	29.16	5.46	34.62	54.00	-19.38	AVG	

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

Test Mode:	TX N-40M Mode 2437 MHz

Horizontal

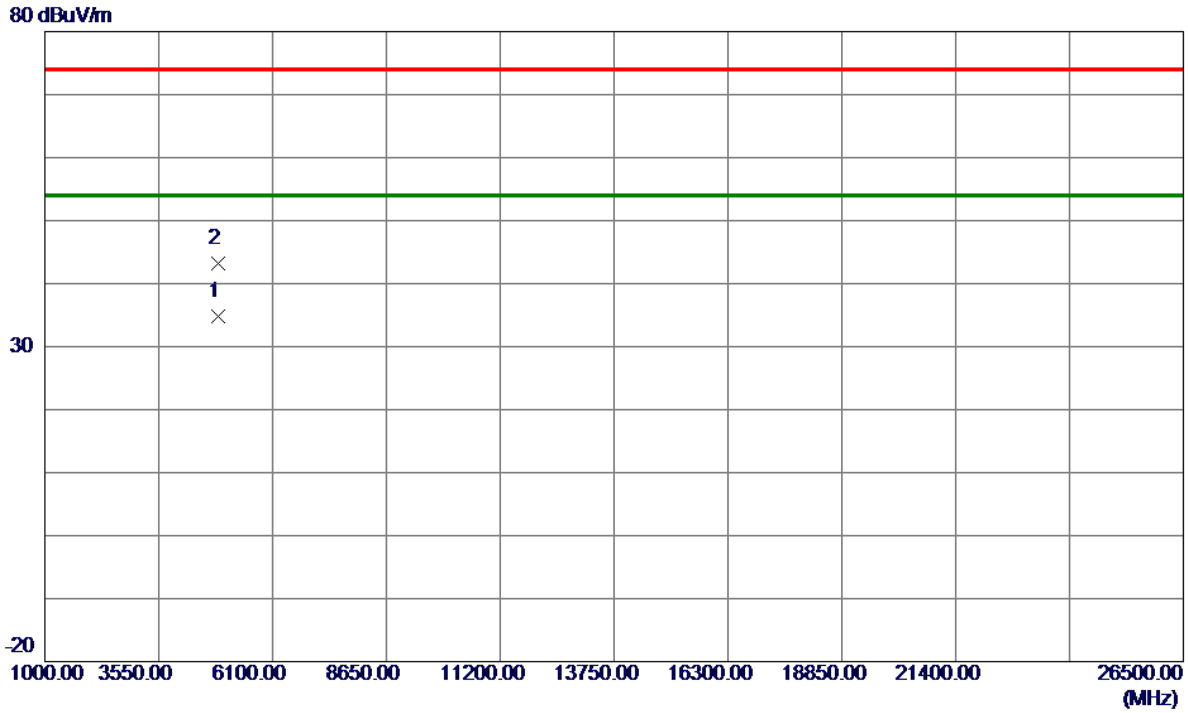


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2427.6000	89.67	8.33	98.00	54.00	44.00	AVG	No Limit
2	2429.4000	97.07	8.33	105.40	74.00	31.40	Peak	No Limit

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

Test Mode:	TX N-40M Mode 2437 MHz

Horizontal

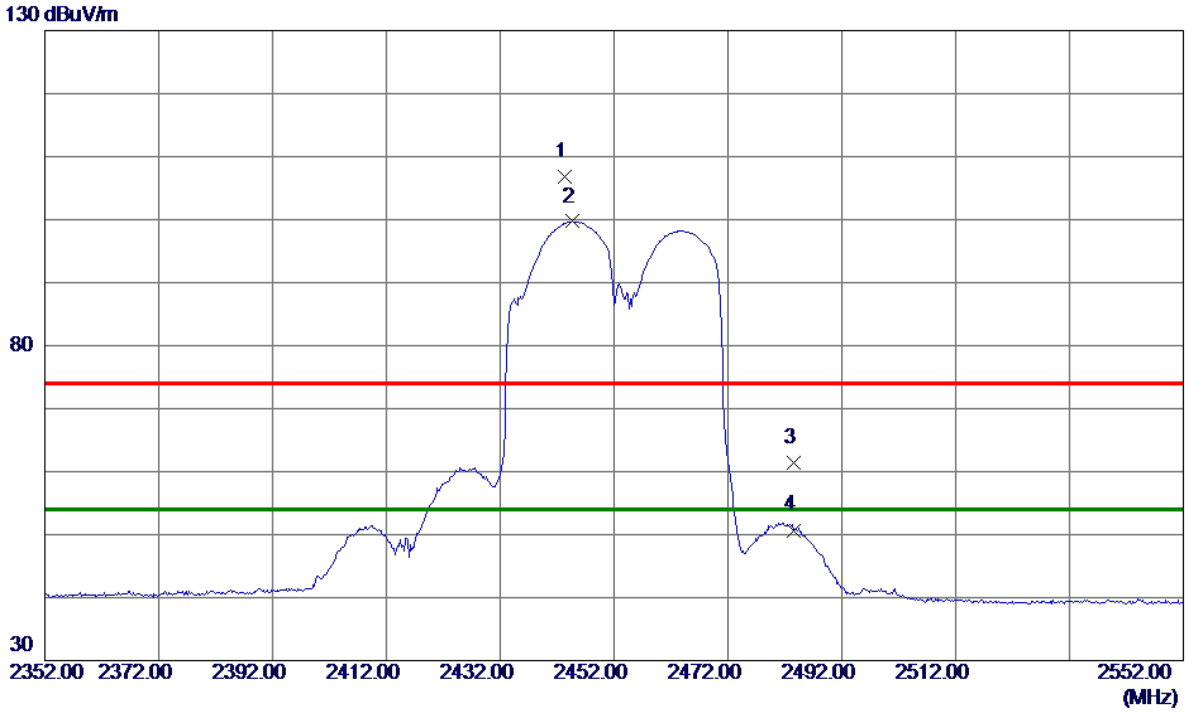


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873.1240	29.26	5.46	34.72	54.00	-19.28	AVG	
2	4873.6120	37.80	5.46	43.26	74.00	-30.74	Peak	

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

Test Mode:	TX N-40M Mode 2452 MHz

Vertical

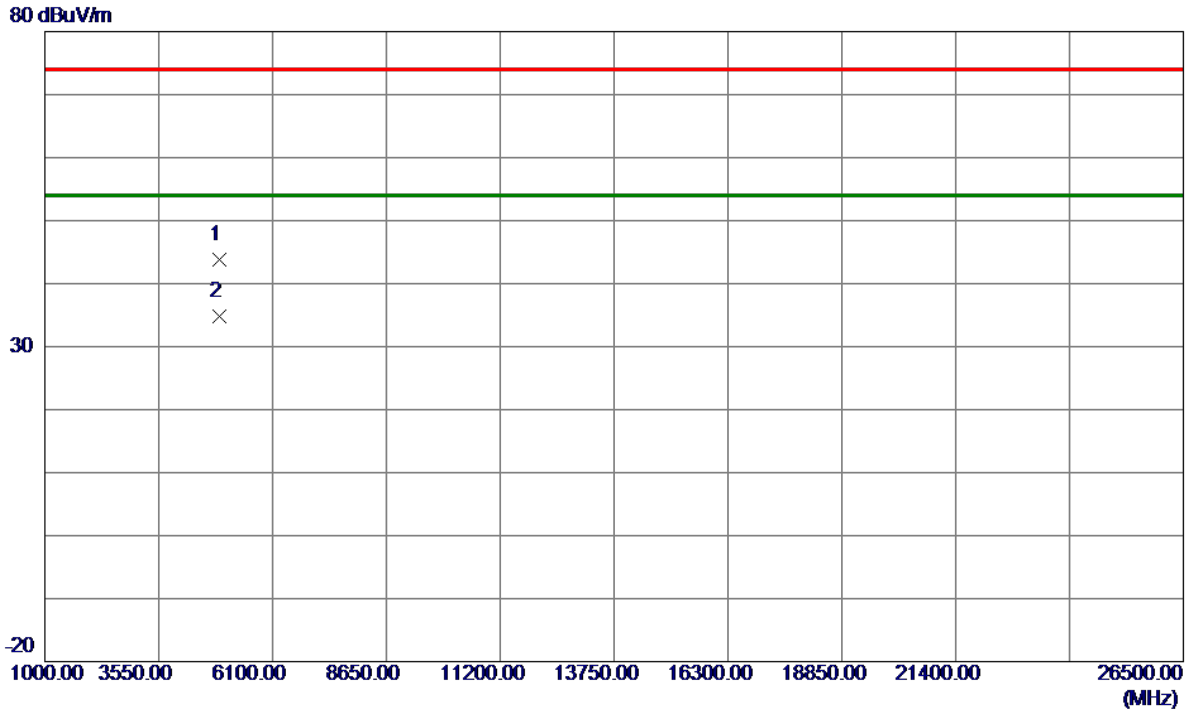


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2443.4000	98.51	8.34	106.85	74.00	32.85	Peak	No Limit
2 *	2444.6000	91.35	8.35	99.70	54.00	45.70	AVG	No Limit
3	2483.5000	52.94	8.39	61.33	74.00	-12.67	Peak	
4	2483.5000	42.31	8.39	50.70	54.00	-3.30	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

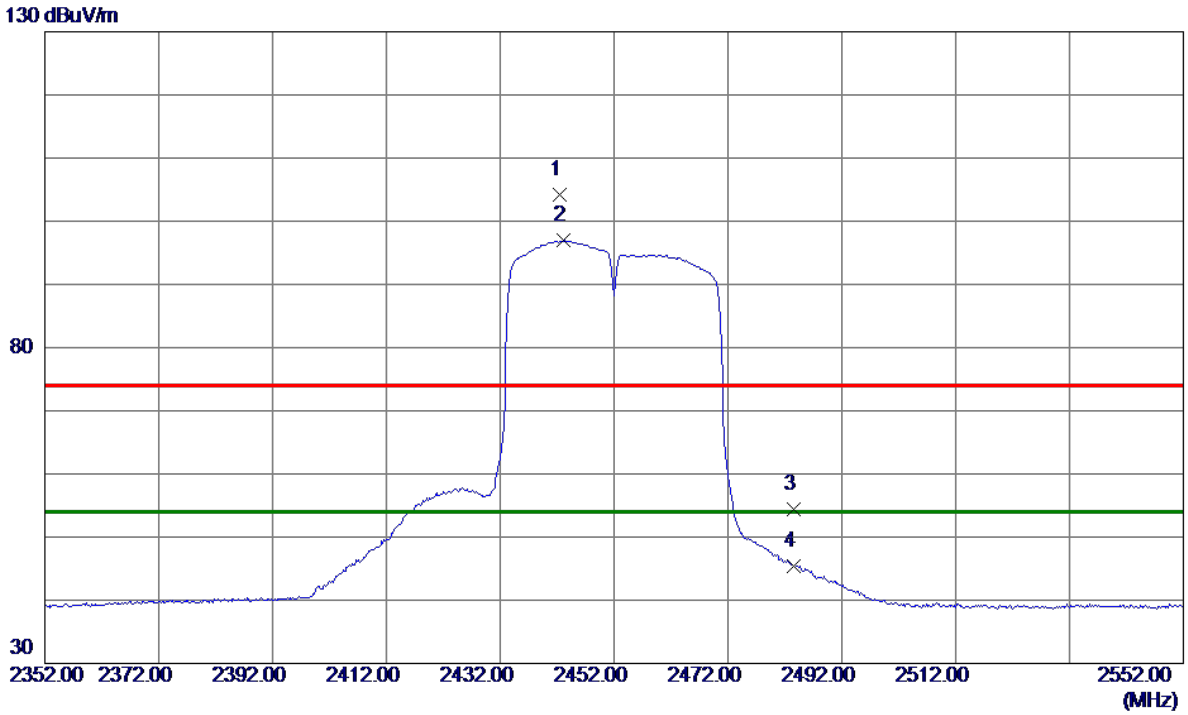


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4903.1380	38.35	5.54	43.89	74.00	-30.11	Peak	
2 *	4903.3340	29.33	5.54	34.87	54.00	-19.13	AVG	

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	2442.4000	95.80	8.34	104.14	74.00	30.14	Peak	No Limit
2 *	2443.2000	88.68	8.34	97.02	54.00	43.02	AVG	No Limit
3	2483.5000	46.00	8.39	54.39	74.00	-19.61	Peak	
4	2483.5000	36.97	8.39	45.36	54.00	-8.64	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

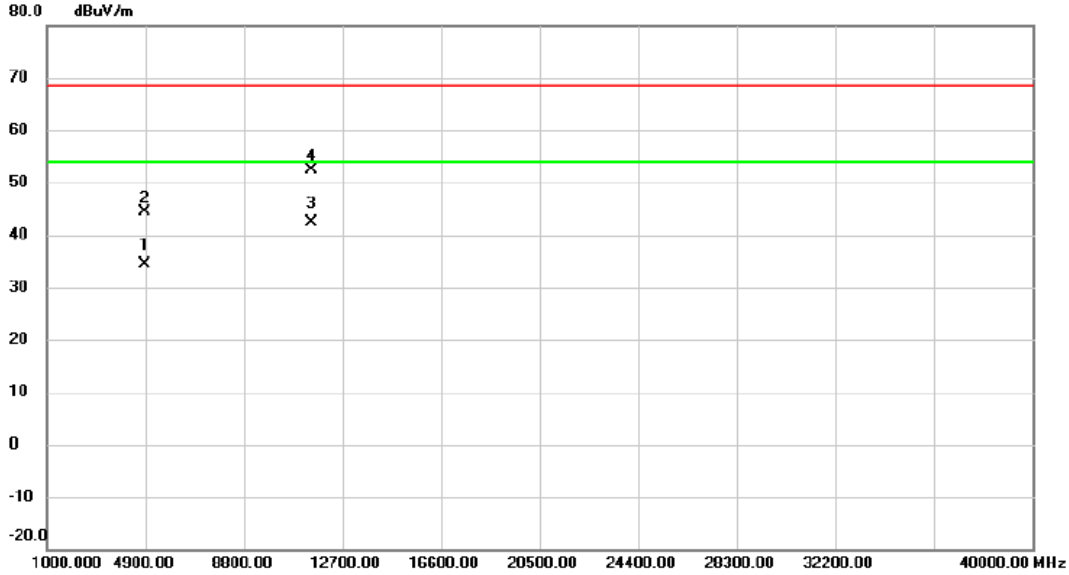
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4903.9160	37.99	5.54	43.53	74.00	-30.47	Peak	
2 *	4904.4140	29.04	5.54	34.58	54.00	-19.42	AVG	

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 2.4GHz G Mode 2437MHz+WLAN 5GHz A Mode 5745Mz

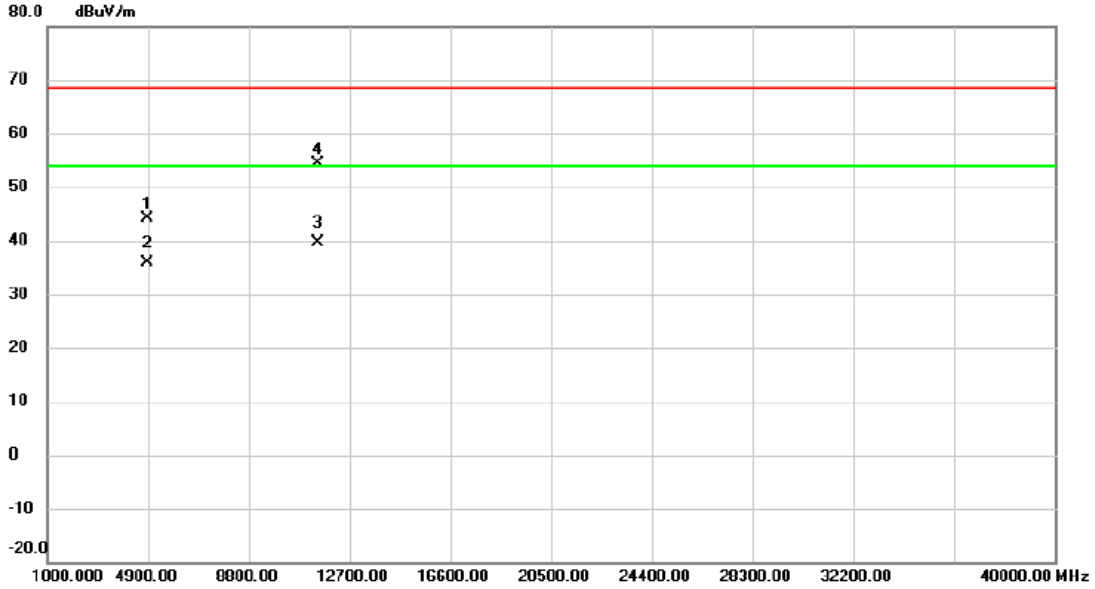
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4872.861	28.82	5.46	34.28	54.00	-19.72	AVG	
2		4874.330	38.93	5.46	44.39	68.30	-23.91	peak	
3	*	11490.349	27.84	14.54	42.38	54.00	-11.62	AVG	
4		11491.483	37.94	14.55	52.49	68.30	-15.81	peak	

Test Mode:	TX WLAN 2.4GHz G Mode 2437MHz+WLAN 5GHz A Mode 5745Mz

Horizontal



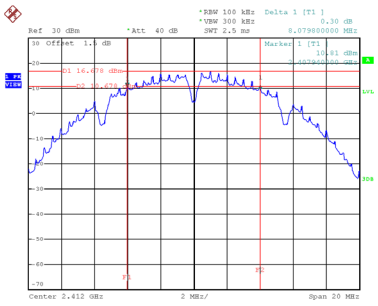
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4873.463	38.64	5.46	44.10	68.30	-24.20	peak	
2		4875.166	30.34	5.47	35.81	54.00	-18.19	AVG	
3		11489.674	25.19	14.54	39.73	54.00	-14.27	AVG	
4	*	11492.163	39.76	14.56	54.32	68.30	-13.98	peak	

APPENDIX E - BANDWIDTH

Test Mode	TX B Mode

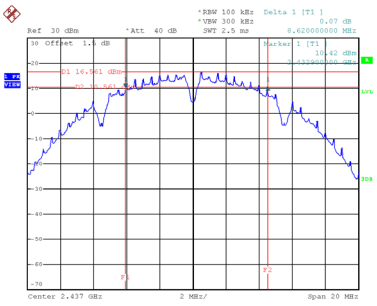
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	8.08	500	Complies
06	2437	8.62	500	Complies
11	2462	7.67	500	Complies

CH01



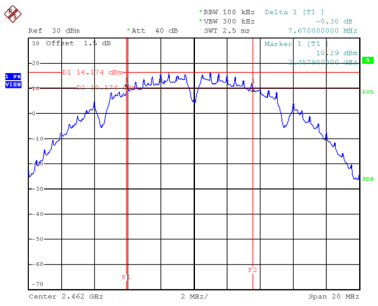
Date: 1.AUG.2020 13:53:33

CH06



Date: 1.AUG.2020 13:55:50

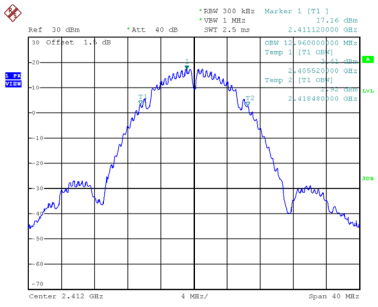
CH11



Date: 1.AUG.2020 13:57:32

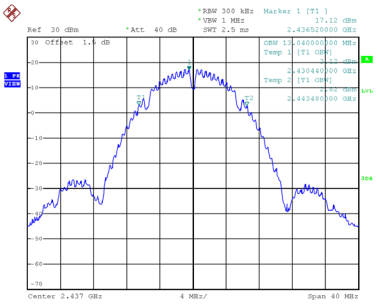
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	12.96	Complies
06	2437	13.04	Complies
11	2462	12.96	Complies

CH01



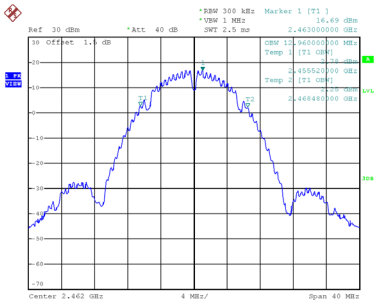
Date: 1.AUG.2020 13:53:39

CH06



Date: 1.AUG.2020 13:55:57

CH11

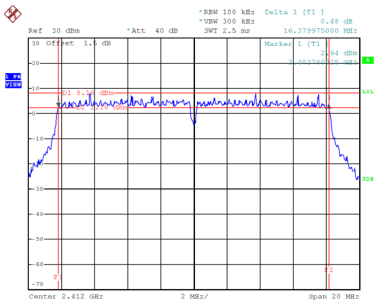


Date: 1.AUG.2020 13:57:39

Test Mode	TX G Mode

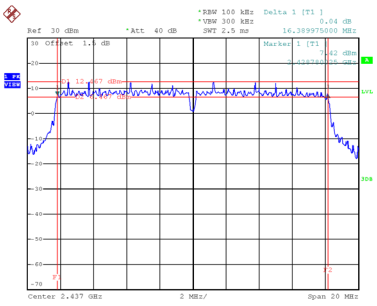
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.38	500	Complies
06	2437	16.39	500	Complies
11	2462	16.42	500	Complies

CH01



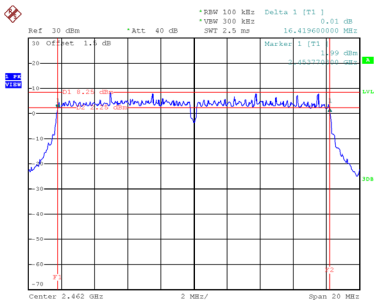
Date: 1.AUG.2020 14:00:23

CH06



Date: 1.AUG.2020 14:01:46

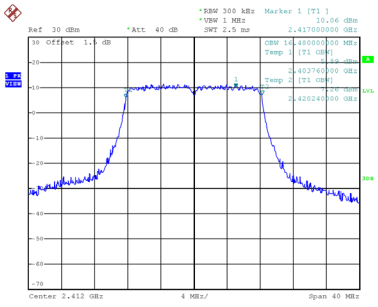
CH11



Date: 1.AUG.2020 14:03:14

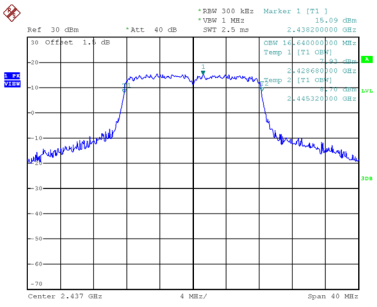
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.48	Complies
06	2437	16.64	Complies
11	2462	16.48	Complies

CH01



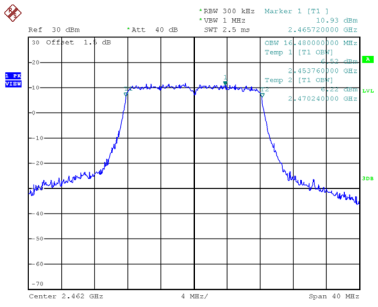
Date: 1.AUG.2020 14:00:30

CH06



Date: 1.AUG.2020 14:01:53

CH11

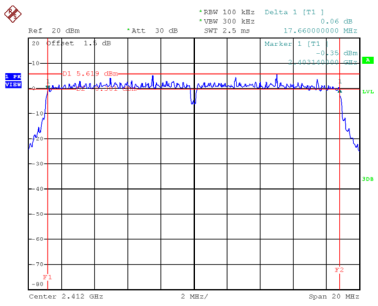


Date: 1.AUG.2020 14:03:21

Test Mode	TX N-20M Mode

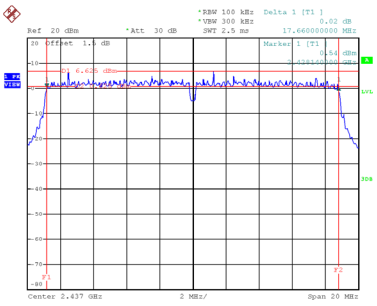
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	17.66	500	Complies
06	2437	17.66	500	Complies
11	2462	17.66	500	Complies

CH01



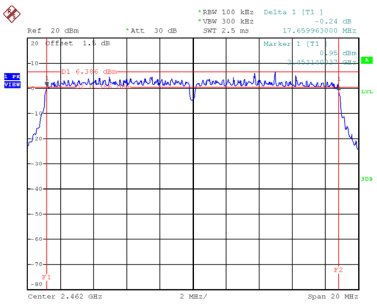
Date: 1.AUG.2020 14:05:04

CH06



Date: 1.AUG.2020 14:06:51

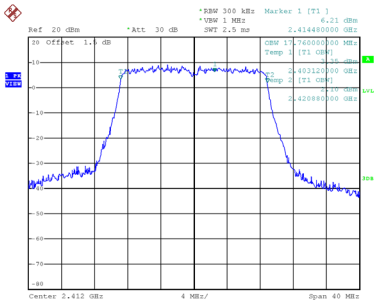
CH11



Date: 1.AUG.2020 14:08:22

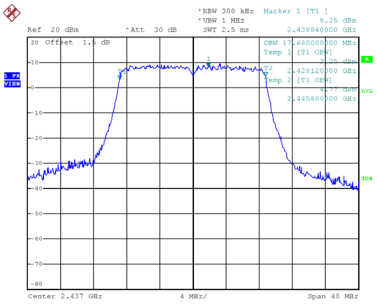
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.76	Complies
06	2437	17.68	Complies
11	2462	17.76	Complies

CH01



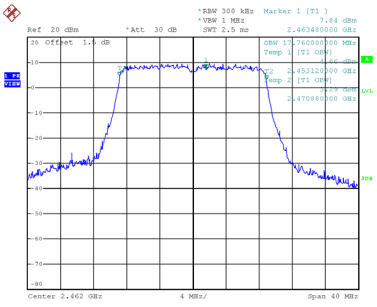
Date: 1.AUG.2020 14:05:11

CH06



Date: 1.AUG.2020 14:06:57

CH11

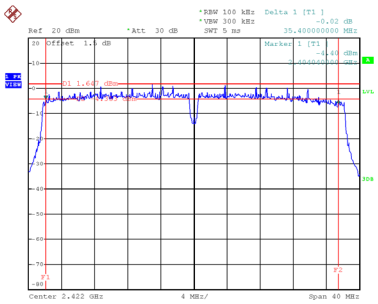


Date: 1.AUG.2020 14:08:28

Test Mode	TX N-40M Mode

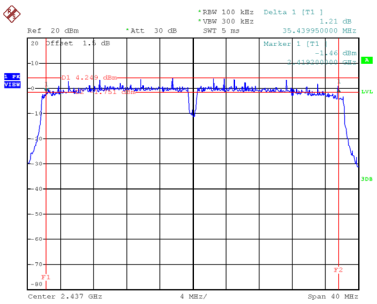
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	35.40	500	Complies
06	2437	35.44	500	Complies
09	2452	35.16	500	Complies

CH03



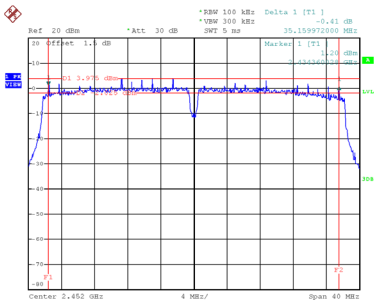
Date: 1.AUG.2020 14:09:58

CH06



Date: 1.AUG.2020 14:11:31

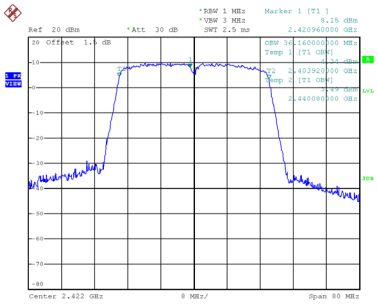
CH09



Date: 1.AUG.2020 14:12:53

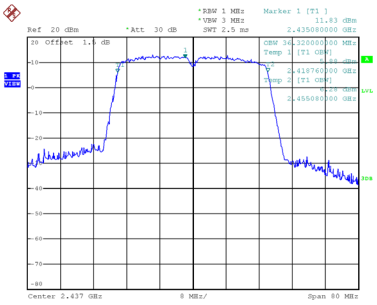
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	36.16	Complies
06	2437	36.32	Complies
09	2452	36.16	Complies

CH03



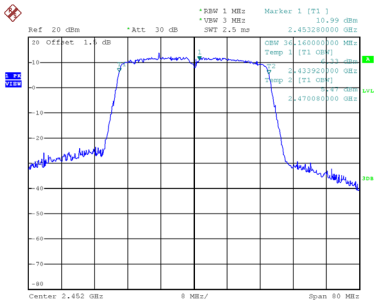
Date: 1.AUG.2020 14:10:05

CH06



Date: 1.AUG.2020 14:11:38

CH09



Date: 1.AUG.2020 14:12:59

APPENDIX F - MAXIMUM OUTPUT POWER

Non Beamforming

Test Mode	TX B Mode_Ant. 1

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.37	30.00	1.0000	Complies
06	2437	28.42	30.00	1.0000	Complies
11	2462	28.13	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.73	0.00	25.73	30.00	1.0000	Complies
06	2437	25.12	0.00	25.12	30.00	1.0000	Complies
11	2462	24.11	0.00	24.11	30.00	1.0000	Complies

Test Mode	TX G Mode_Ant. 1

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.66	30.00	1.0000	Complies
06	2437	29.86	30.00	1.0000	Complies
11	2462	26.25	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.94	0.18	19.12	30.00	1.0000	Complies
06	2437	23.52	0.18	23.70	30.00	1.0000	Complies
11	2462	18.78	0.18	18.96	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	26.19	30.00	1.0000	Complies
06	2437	26.28	30.00	1.0000	Complies
11	2462	26.31	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.13	0.00	17.13	30.00	1.0000	Complies
06	2437	17.34	0.00	17.34	30.00	1.0000	Complies
11	2462	17.72	0.00	17.72	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	26.68	30.00	1.0000	Complies
06	2437	26.61	30.00	1.0000	Complies
11	2462	26.47	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.94	0.00	17.94	30.00	1.0000	Complies
06	2437	17.54	0.00	17.54	30.00	1.0000	Complies
11	2462	17.95	0.00	17.95	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	29.45	29.48	0.8872	Complies
06	2437	29.46	29.48	0.8872	Complies
11	2462	29.40	29.48	0.8872	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.56	29.48	0.8872	Complies
06	2437	20.45	29.48	0.8872	Complies
11	2462	20.85	29.48	0.8872	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	25.08	30.00	1.0000	Complies
06	2437	26.19	30.00	1.0000	Complies
09	2452	26.22	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.83	0.16	15.99	30.00	1.0000	Complies
06	2437	17.31	0.16	17.47	30.00	1.0000	Complies
09	2452	17.64	0.16	17.80	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	25.12	30.00	1.0000	Complies
06	2437	26.71	30.00	1.0000	Complies
09	2452	26.39	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.32	0.16	16.48	30.00	1.0000	Complies
06	2437	17.87	0.16	18.03	30.00	1.0000	Complies
09	2452	17.88	0.16	18.04	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	28.11	29.48	0.8872	Complies
06	2437	29.47	29.48	0.8872	Complies
09	2452	29.32	29.48	0.8872	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	19.25	29.48	0.8872	Complies
06	2437	20.76	29.48	0.8872	Complies
09	2452	20.93	29.48	0.8872	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	25.87	30.00	1.0000	Complies
06	2437	25.98	30.00	1.0000	Complies
11	2462	25.86	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.01	0.00	16.01	30.00	1.0000	Complies
06	2437	16.34	0.00	16.34	30.00	1.0000	Complies
11	2462	15.98	0.00	15.98	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	26.07	30.00	1.0000	Complies
06	2437	25.86	30.00	1.0000	Complies
11	2462	25.76	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.43	0.00	16.43	30.00	1.0000	Complies
06	2437	16.94	0.00	16.94	30.00	1.0000	Complies
11	2462	16.18	0.00	16.18	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	28.98	29.00	0.7943	Complies
06	2437	28.93	29.00	0.7943	Complies
11	2462	28.82	29.00	0.7943	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.24	29.00	0.7943	Complies
06	2437	19.66	29.00	0.7943	Complies
11	2462	19.09	29.00	0.7943	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	24.37	30.00	1.0000	Complies
06	2437	25.78	30.00	1.0000	Complies
09	2452	25.96	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.62	0.16	15.78	30.00	1.0000	Complies
06	2437	16.72	0.16	16.88	30.00	1.0000	Complies
09	2452	17.38	0.16	17.54	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	24.98	30.00	1.0000	Complies
06	2437	25.94	30.00	1.0000	Complies
09	2452	26.01	30.00	1.0000	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.97	0.16	16.13	30.00	1.0000	Complies
06	2437	17.05	0.16	17.21	30.00	1.0000	Complies
09	2452	17.64	0.16	17.80	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Total

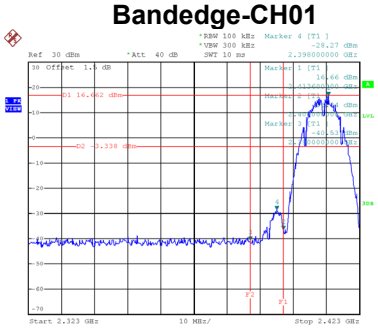
Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	27.70	29.00	0.7943	Complies
06	2437	28.87	29.00	0.7943	Complies
09	2452	29.00	29.00	0.7943	Complies

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	18.96	29.00	0.7943	Complies
06	2437	20.05	29.00	0.7943	Complies
09	2452	20.68	29.00	0.7943	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

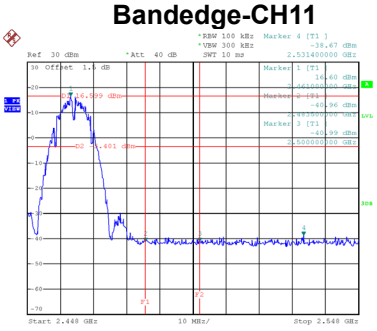
Test Mode	TX B Mode_Ant. 1

Bandedge-CH01



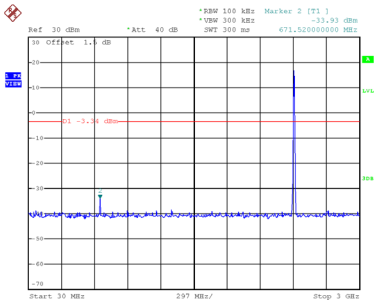
Date: 1.AUG.2020 13:53:46

Bandedge-CH11

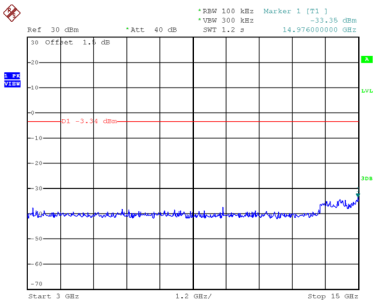


Date: 1.AUG.2020 13:57:46

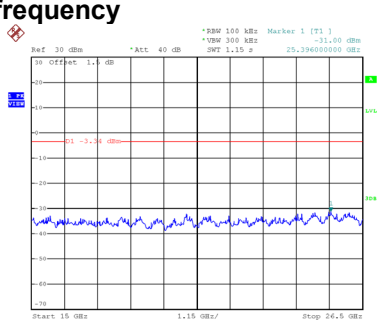
CH01 – 10th Harmonic of the fundamental frequency



Date: 1.AUG.2020 13:53:59

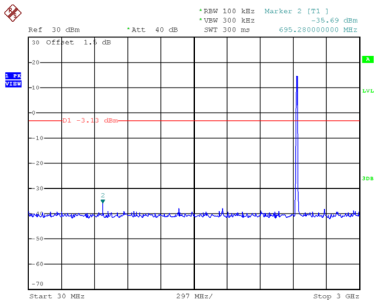


Date: 1.AUG.2020 13:54:05

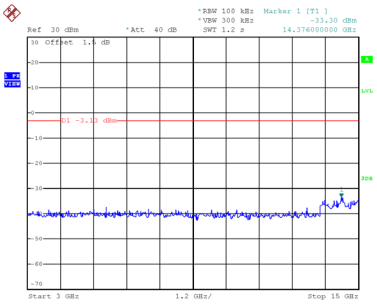


Date: 1.AUG.2020 13:54:12

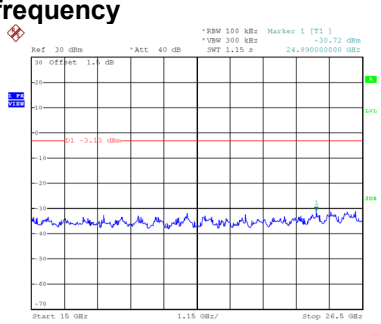
CH06 – 10th Harmonic of the fundamental frequency



Date: 1.AUG.2020 13:56:16

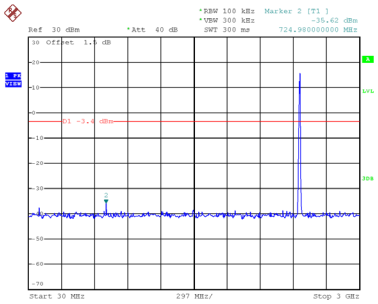


Date: 1.AUG.2020 13:56:23

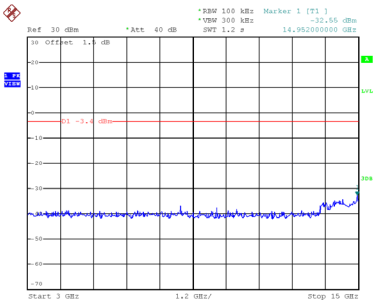


Date: 1.AUG.2020 13:56:30

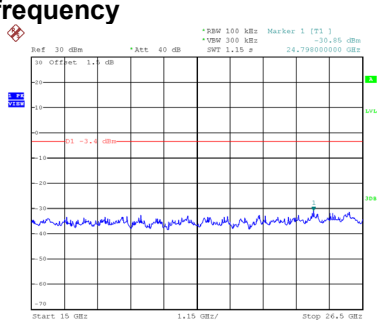
CH11 – 10th Harmonic of the fundamental frequency



Date: 1.AUG.2020 13:57:58



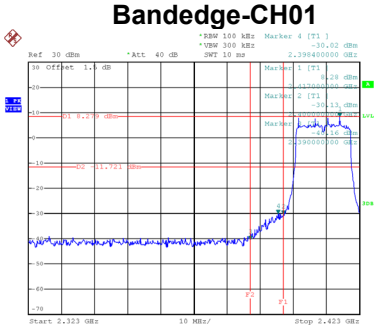
Date: 1.AUG.2020 13:58:05



Date: 1.AUG.2020 13:58:11

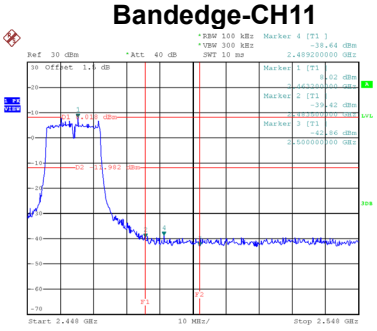
Test Mode	TX G Mode_Ant. 1

Bandedge-CH01



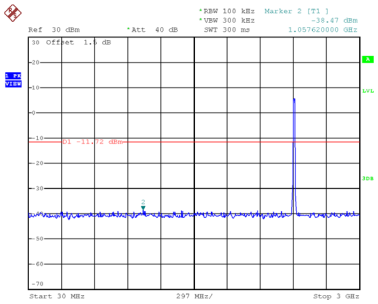
Date: 1.AUG.2020 14:00:37

Bandedge-CH11



Date: 1.AUG.2020 14:03:27

CH01 – 10th Harmonic of the fundamental frequency



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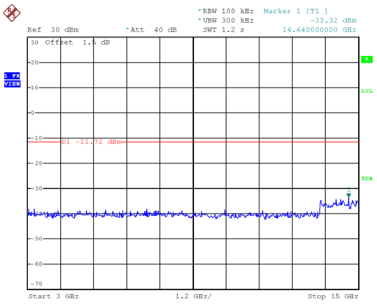

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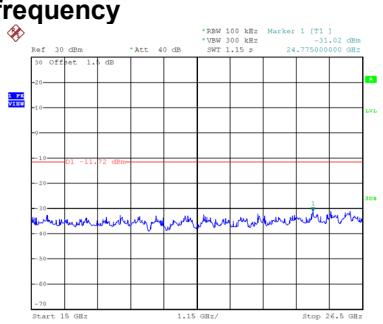

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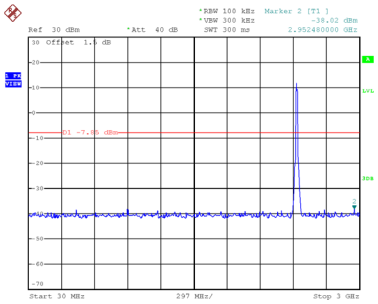
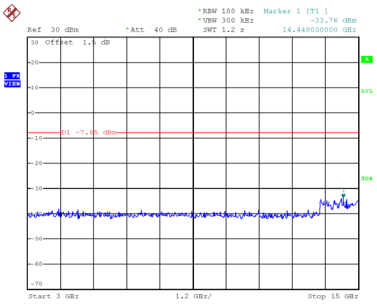
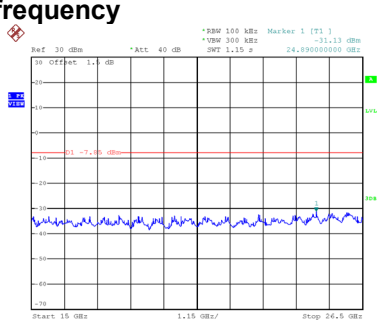
CH06 – 10th Harmonic of the fundamental frequency



Date: 1.AUG.2020 14:02:12

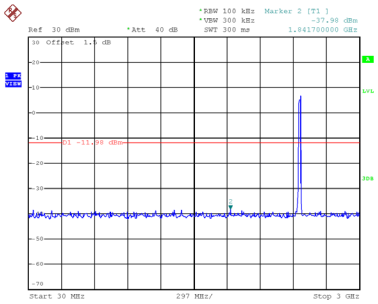


Date: 1.AUG.2020 14:02:19



Date: 1.AUG.2020 14:02:25

CH11 – 10th Harmonic of the fundamental frequency



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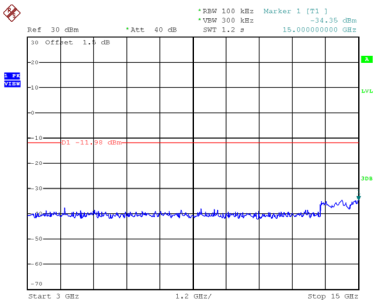

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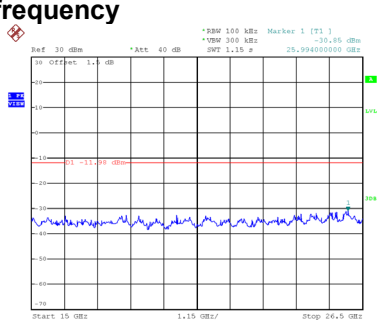

Date: 1.AUG.2020 14:03:53