FCC Radio Test Report

FCC ID: R9C-CPH2127

This report concerns: Original Grant

Project No.	:	2006C121
Equipment	:	Mobile Phone
Brand Name	:	OPPO
Test Model	:	CPH2127
Series Model	:	N/A
Applicant	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO.18 HaiBin Road, Wusha Village, Chang An Town, DongGuan City, GuangDong,China
Manufacturer	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO.18 HaiBin Road, Wusha Village, Chang An Town, DongGuan City, GuangDong,China
Factory	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO.18 HaiBin Road, Wusha Village, Chang An Town, DongGuan City, GuangDong,China
Date of Receipt	:	Jun. 10, 2020
Date of Test	:	Jun. 10, 2020 ~ Jul. 01, 2020
Issued Date	:	Jul. 30, 2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG20200609227 for conducted, DG2020061225 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.

Treey Chen

Prepared by : Treey Chen

Steven Lu

Approved by : Steven Lu

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).

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

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

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

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

Limitation

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

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Jul. 30, 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	Hayden Chen
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-30 MHz to 1GHz	22°C	54%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-Above 1000 MHz	24°C	60%	AC 120V/60Hz	Kwok Guo
Bandwidth	22.3°C	45%	DC 3.87V	Hayden Chen
Maximum Peak output power	22.3°C	45%	DC 3.87V	Laughing Zhang
Conducted Spurious Emissions	22.3°C	45%	DC 3.87V	Hayden Chen
Power Spectral Density	22.3°C	45%	DC 3.87V	Hayden Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile Phone
Brand Name	OPPO
Test Model	CPH2127
Series Model	N/A
Model Difference(s)	N/A
Software Version	ColorOS V7.2
Hardware Version	11
Power Source	1. DC Voltage supplied from AC/DC adapter. 1# Model: OP92KAUH 2# Model: OP92JAUH 2. Supplied from battery. Model: BLP805 3. Supplied from USB port.
Power Rating	1. I/P:100-240V~ 50/60Hz 0.5A O/P:5V⎓2A or 9V⎓2A 2. 3.87Vdc, 4890mAh/18.92Wh 3. DC 5V
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 72.2 Mbps
Maximum Peak Output Power	IEEE 802.11b: 21.42 dBm (0.1387 W) IEEE 802.11g: 22.06 dBm (0.1607 W) IEEE 802.11n (HT20): 22.11 dBm (0.1626 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)							
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

2.2 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 N20 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 4	TX N20 Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode:	Description
Mode 4	TX N20 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

Conducted test	
Final Test Mode:	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11

NOTE:

(1) The measurements are performed at the high, middle, low available channels.

(3) For radiated emission below 1 GHz test, the IEEE 802.11n20 Channel 06 is found to be the worst case and recorded.

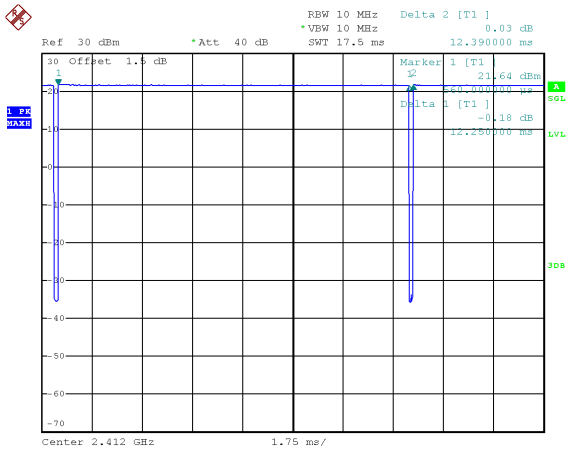
(4) For radiated emission above 1 GHz test, 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.

2.3 PARAMETERS OF TEST SOFTWARE

Test Software	QRCT3		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	18	18	18
IEEE 802.11g	16	17	16
IEEE 802.11n (HT20)	16	17	16

2.4 DUTY CYCLE

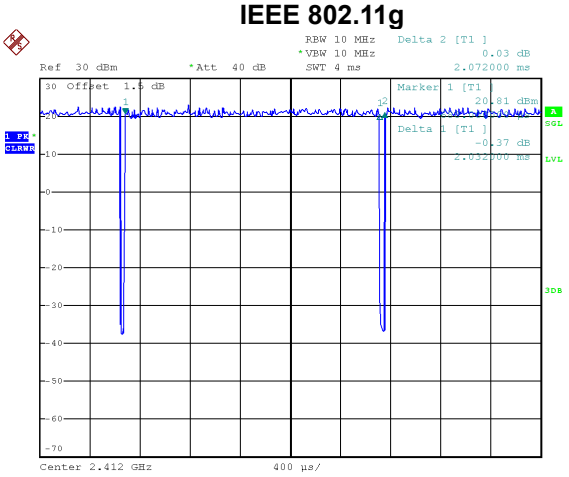
IEEE 802.11b



Date: 28.JUN.2020 10:39:04

Duty cycle = 12.250 ms / 12.390 ms = 98.87%
Duty Factor = 10 log(1/Duty cycle) = 0.00

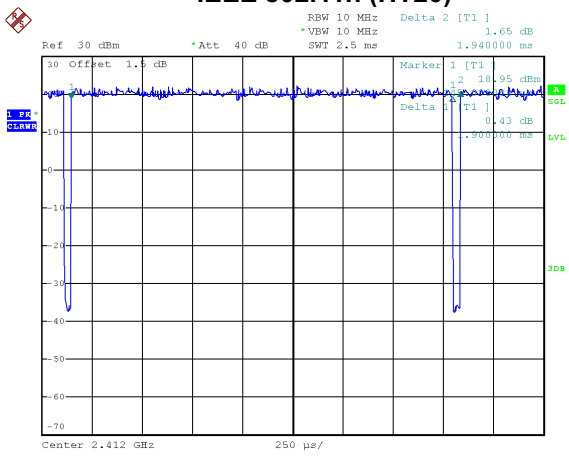
IEEE 802.11g



Date: 28.JUN.2020 10:39:40

Duty cycle = 2.032 ms / 2.072 ms = 98.07%
Duty Factor = 10 log(1/Duty cycle) = 0.00

IEEE 802.11n (HT20)

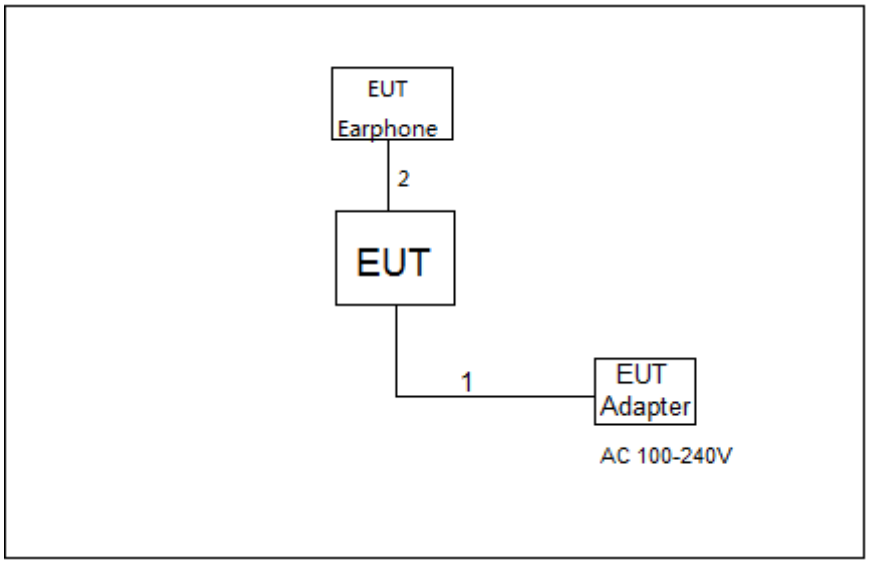


Date: 28.JUN.2020 10:39:55

Duty cycle = 1.900 ms / 1.940 ms = 97.94%
Duty Factor = 10 log(1/Duty cycle) = 0.09

NOTE:
For IEEE 802.11g and IEEE 802.11n (HT20):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1 kHz (Duty cycle < 98%).

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	YES	NO	1m
2	Audio Cable	NO	NO	1m

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56*	56 to 46*
0.50 - 5.0	56	46
5.0 - 30.0	60	50

NOTE:

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

The following table is the setting of the receiver

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

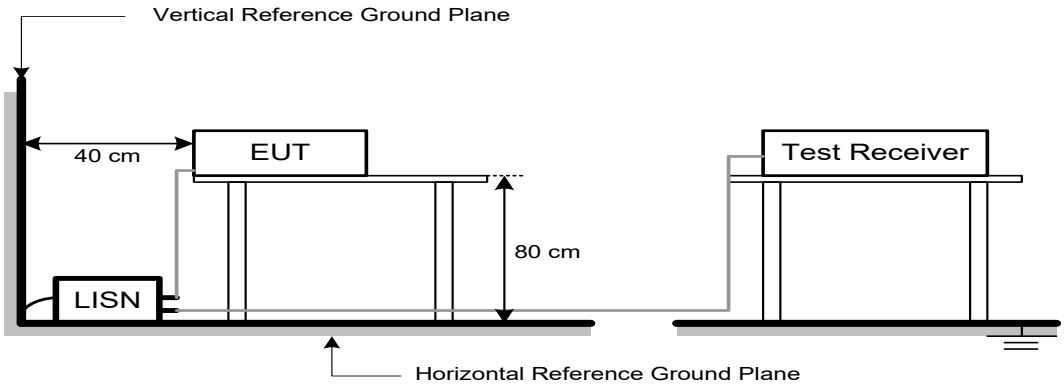
3.2 TEST PROCEDURE

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

3.3 DEVIATION FROM TEST STANDARD

No deviation

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS TEST

4.1 LIMIT

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

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

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

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

NOTE:

(1) The limit for radiated test was performed according to FCC PART 15C.

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

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

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

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector

4.2 TEST PROCEDURE

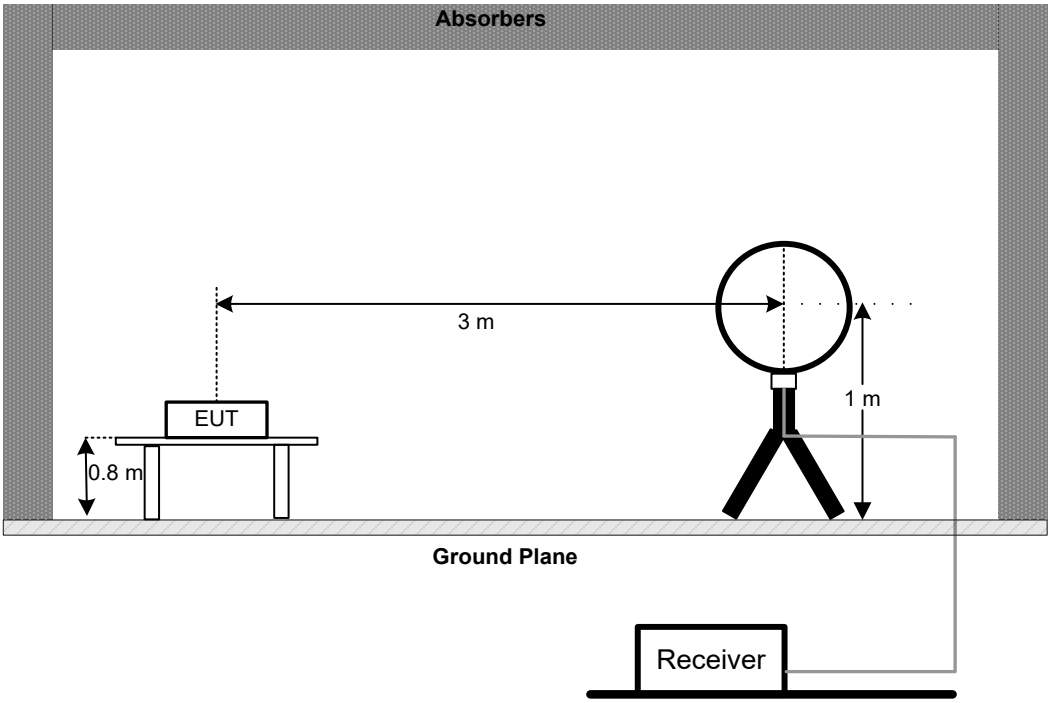
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance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

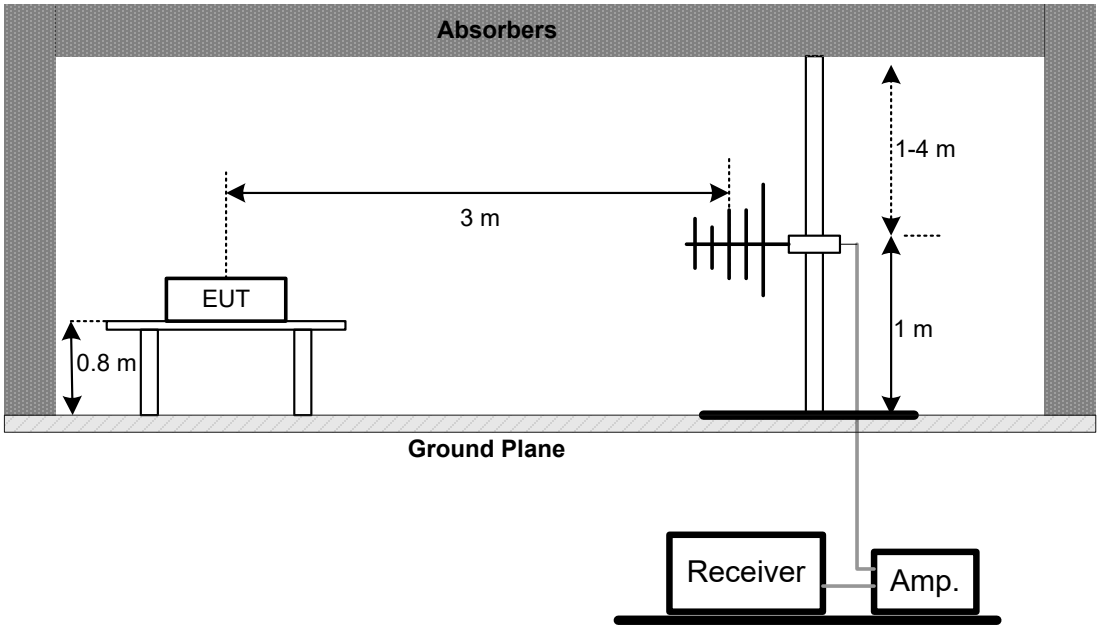
No deviation

4.4 TEST SETUP

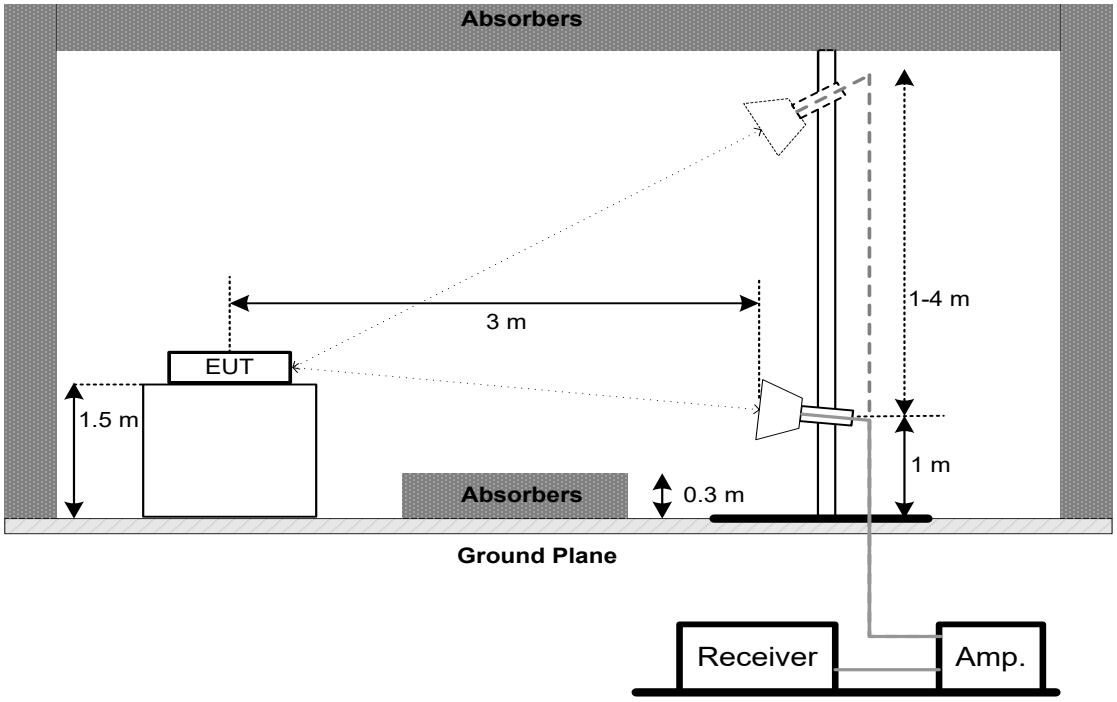
9 kHz-30 MHz



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	-

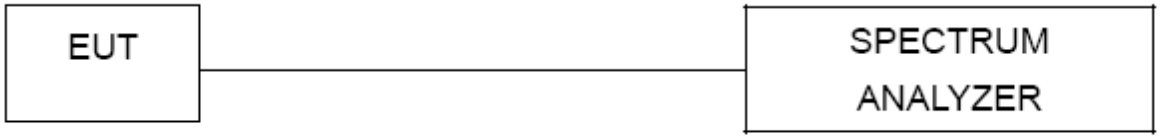
5.2 TEST PROCEDURE

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.
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 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.

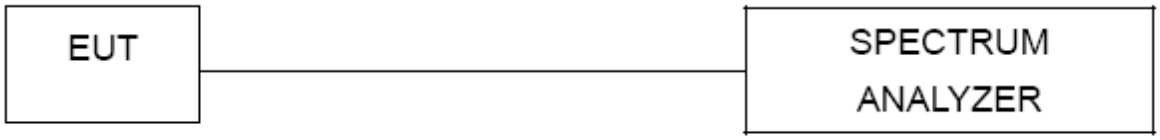
7.2 TEST PROCEDURE

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)

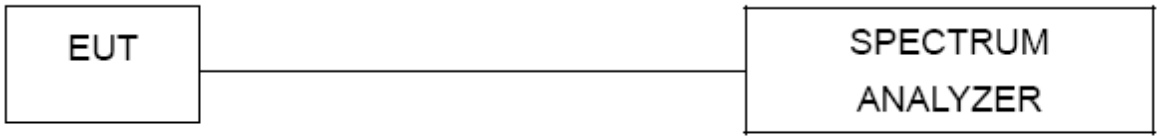
8.2 TEST PROCEDURE

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	Loop Antenna	EM	EM-6876-1	230	Apr. 16, 2021
2	Cable	N/A	RG 213/U	C-102	May. 30, 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	2944A08742	Mar. 01, 2021
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 23, 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	Horn Antenna	EMCO	3115	9605-4803	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	Cable	mitron	B10-01-01-12M	18072744	Jun. 28, 2021
8	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 Peak 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.

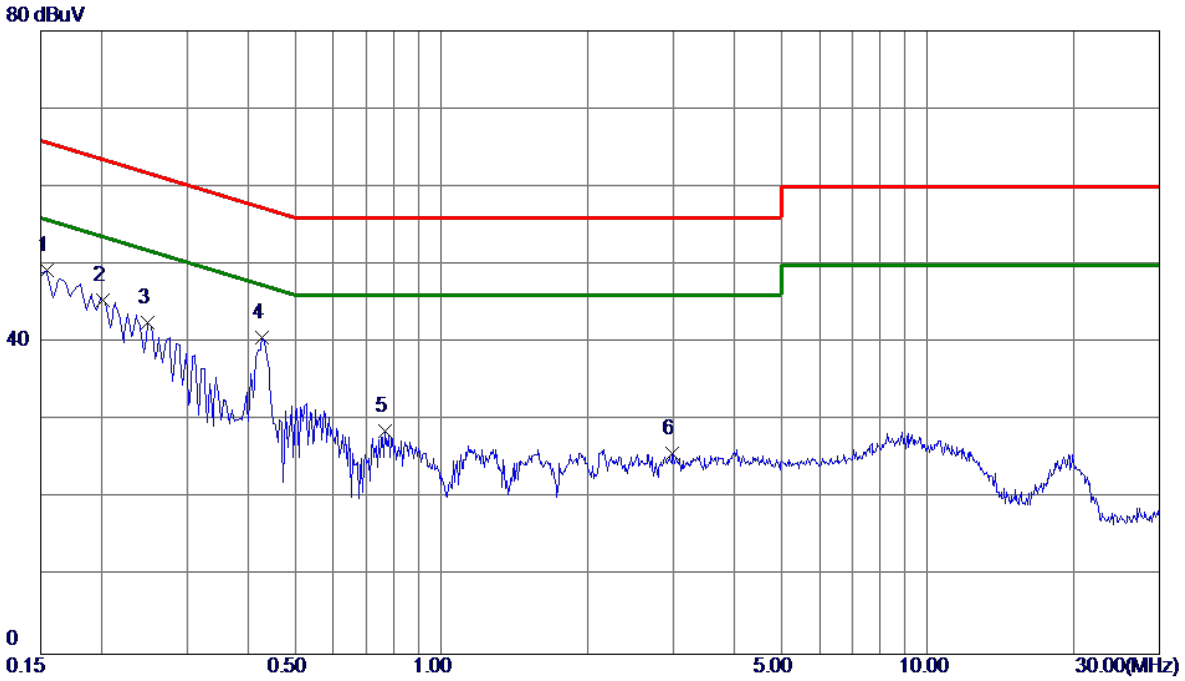
“*” calibration period of equipment list is three year.

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

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode:	TX N20 Mode Channel 06

Line

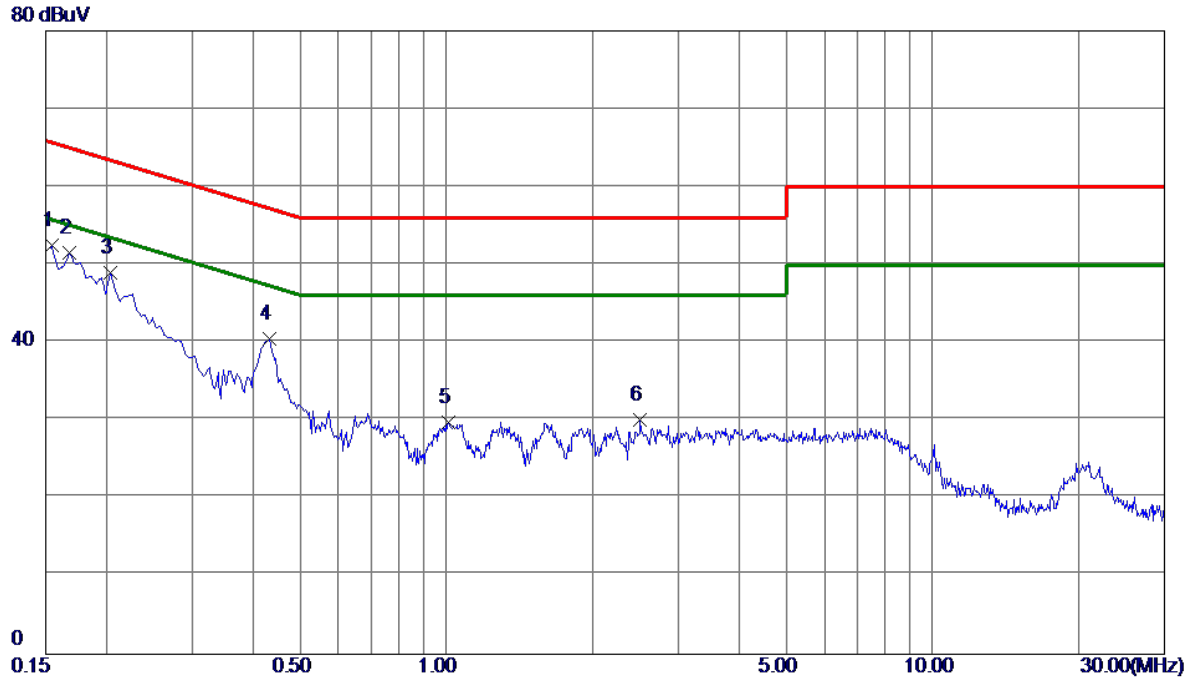


No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1545	39.52	9.70	49.22	65.75	-16.53	Peak	
2	0.2017	35.57	9.91	45.48	63.54	-18.06	Peak	
3	0.2495	32.70	9.88	42.58	61.77	-19.19	Peak	
4	0.4290	30.67	9.93	40.60	57.27	-16.67	Peak	
5	0.7665	18.67	9.94	28.61	56.00	-27.39	Peak	
6	2.9805	15.61	10.18	25.79	56.00	-30.21	Peak	

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

Test Mode:	TX N20 Mode Channel 06

Neutral



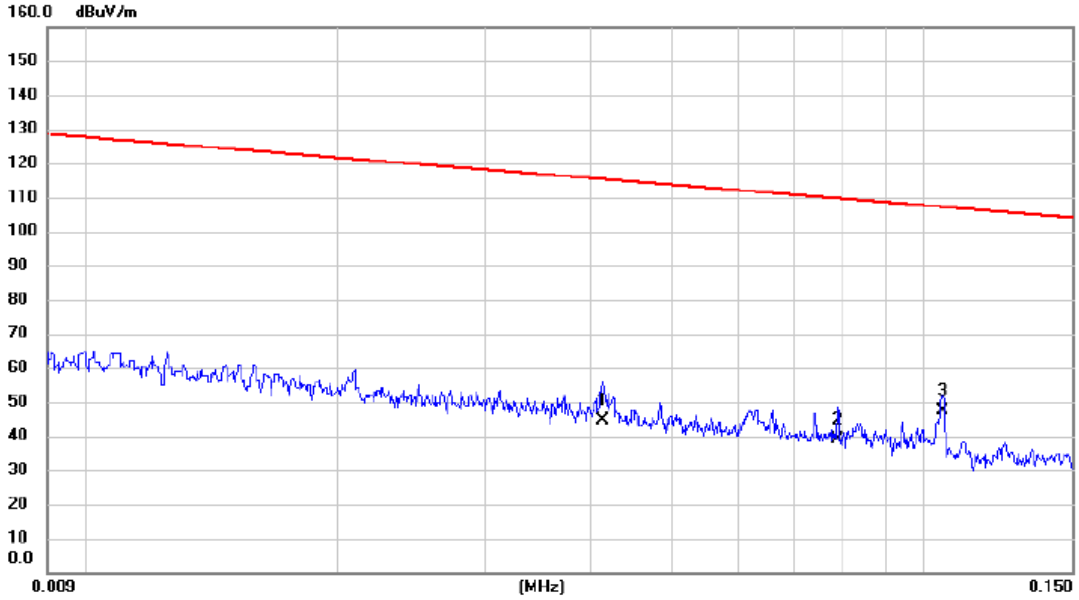
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.1545	42.66	9.78	52.44	65.75	-13.31	Peak	
2	0.1680	41.69	9.88	51.57	65.06	-13.49	Peak	
3	0.2040	38.93	10.01	48.94	63.45	-14.51	Peak	
4	0.4335	30.36	10.11	40.47	57.19	-16.72	Peak	
5	1.0095	19.47	10.30	29.77	56.00	-26.23	Peak	
6	2.5035	19.54	10.47	30.01	56.00	-25.99	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 N20 Mode Channel 06

Ant 0°

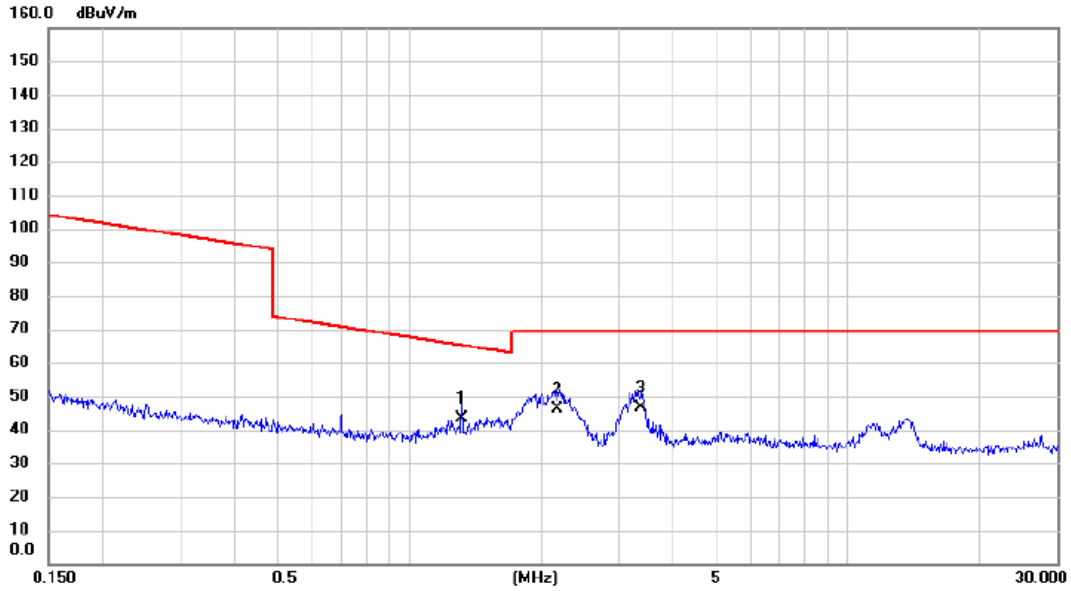


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0413	31.97	12.57	44.54	115.29	-70.75	AVG	
2		0.0788	26.35	12.52	38.87	109.67	-70.80	AVG	
3	*	0.1052	34.92	12.65	47.57	107.17	-59.60	QP	

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

Test Mode:	TX N20 Mode Channel 06

Ant 0°

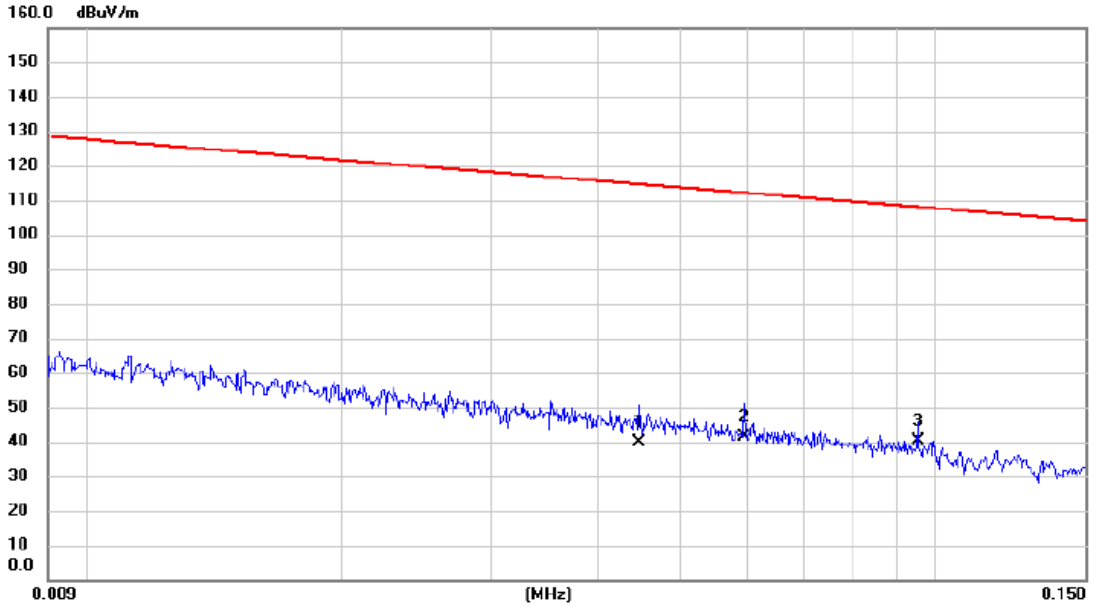


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	1.3168	31.95	11.46	43.41	65.21	-21.80	QP	
2		2.1668	35.30	10.99	46.29	69.54	-23.25	QP	
3		3.3814	36.24	10.56	46.80	69.54	-22.74	QP	

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

Test Mode:	TX N20 Mode Channel 06

Ant 90°

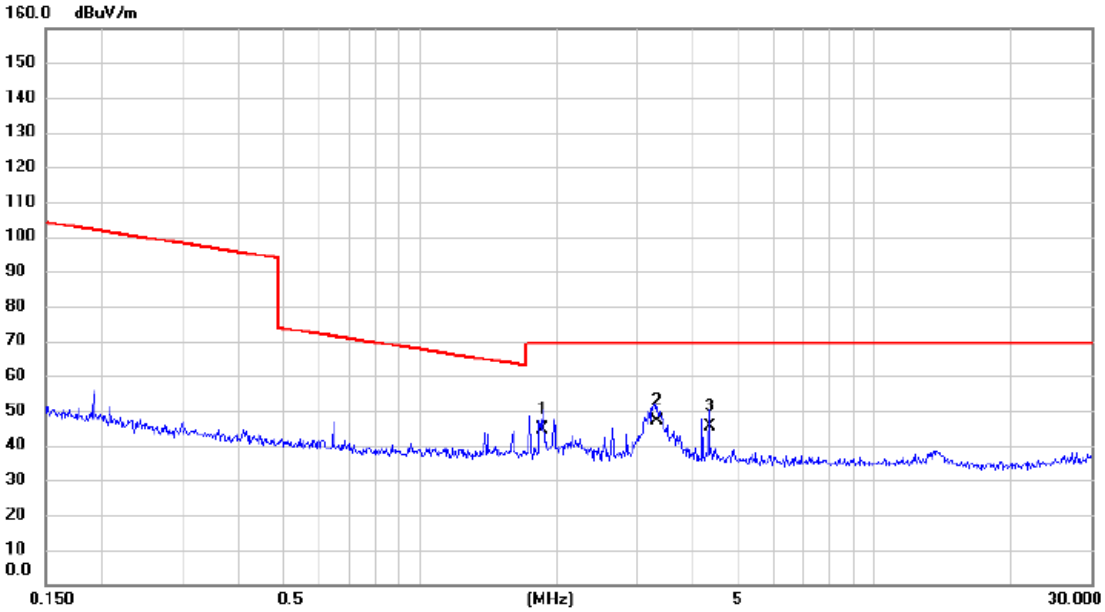


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0447	27.35	12.48	39.83	114.60	-74.77	AVG	
2		0.0594	28.95	12.40	41.35	112.13	-70.78	AVG	
3	*	0.0954	27.46	12.62	40.08	108.01	-67.93	QP	

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

Test Mode:	TX N20 Mode Channel 06

Ant 90°



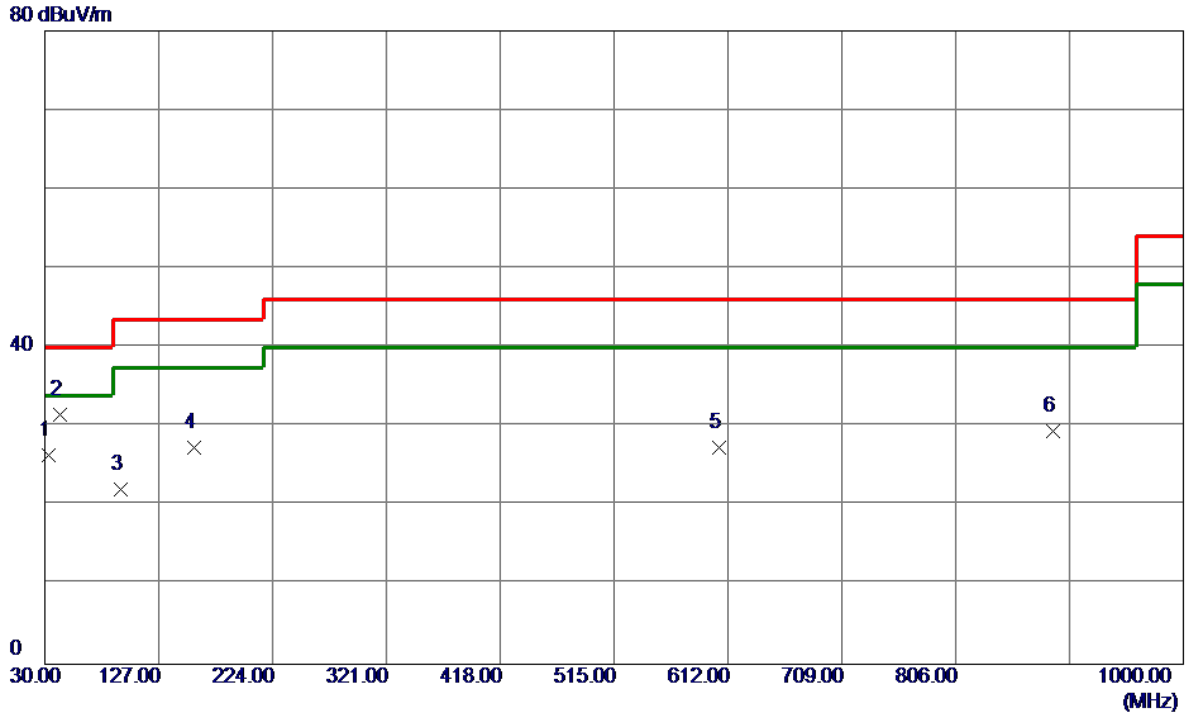
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		1.8581	33.62	11.17	44.79	69.54	-24.75	QP	
2	*	3.3105	36.42	10.55	46.97	69.54	-22.57	QP	
3		4.3376	34.64	10.64	45.28	69.54	-24.26	QP	

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 06

Vertical

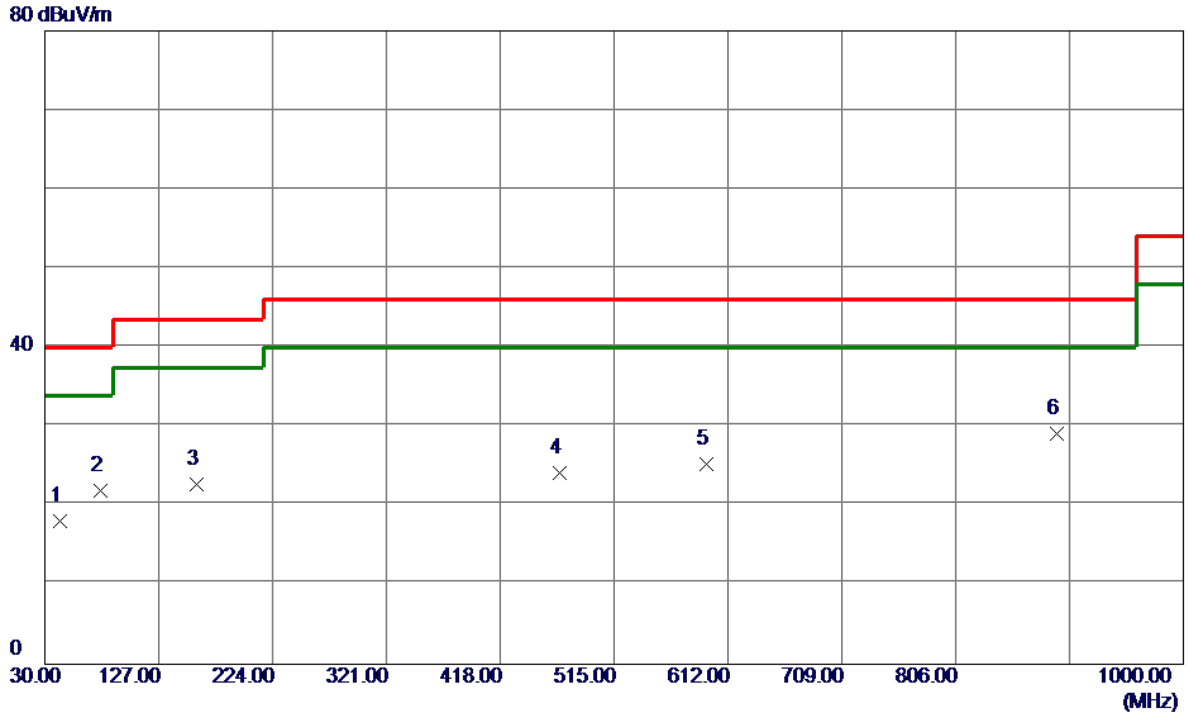


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	32.9100	41.02	-14.61	26.41	40.00	-13.59	Peak	
2 *	42.6100	45.67	-14.18	31.49	40.00	-8.51	Peak	
3	94.9900	37.39	-15.27	22.12	43.50	-21.38	Peak	
4	157.0700	38.39	-11.05	27.34	43.50	-16.16	Peak	
5	604.2400	32.63	-5.26	27.37	46.00	-18.63	Peak	
6	888.4500	30.76	-1.29	29.47	46.00	-16.53	Peak	

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

Test Mode:	TX N20 Mode Channel 06

Horizontal



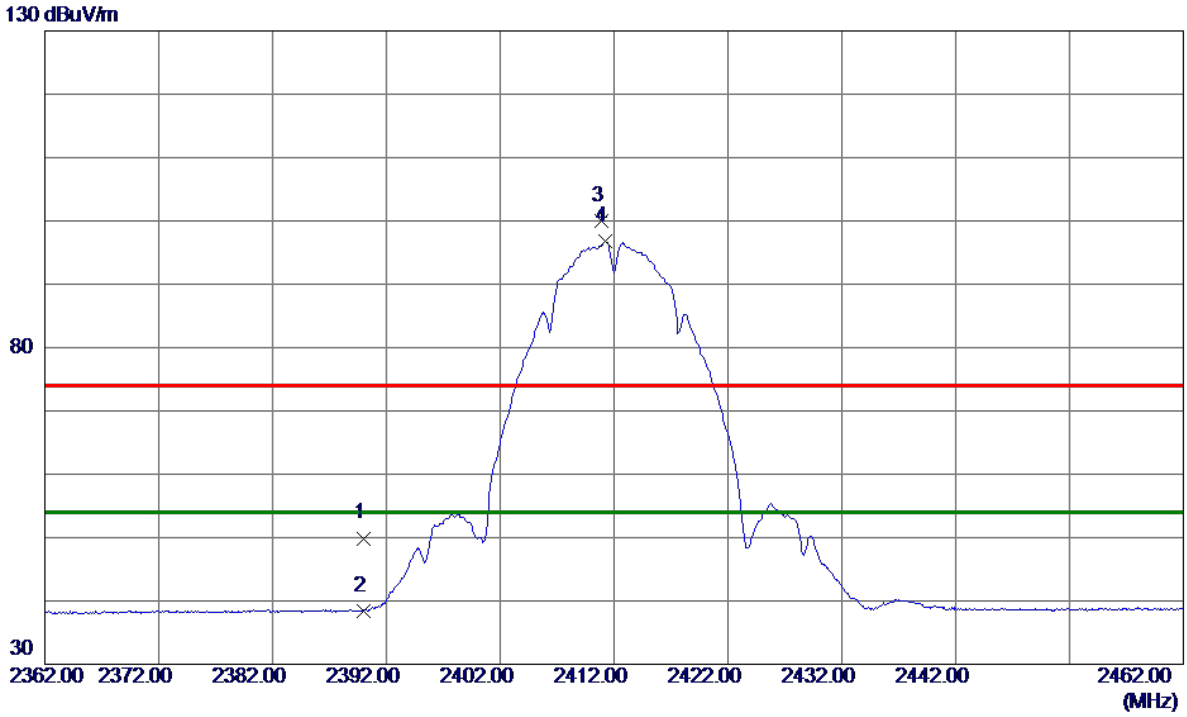
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	42.6100	32.28	-14.18	18.10	40.00	-21.90	Peak	
2	77.5300	39.21	-17.28	21.93	40.00	-18.07	Peak	
3	159.0100	33.57	-10.80	22.77	43.50	-20.73	Peak	
4	468.4400	31.70	-7.50	24.20	46.00	-21.80	Peak	
5	593.5700	30.84	-5.54	25.30	46.00	-20.70	Peak	
6 *	892.3300	30.30	-1.25	29.05	46.00	-16.95	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

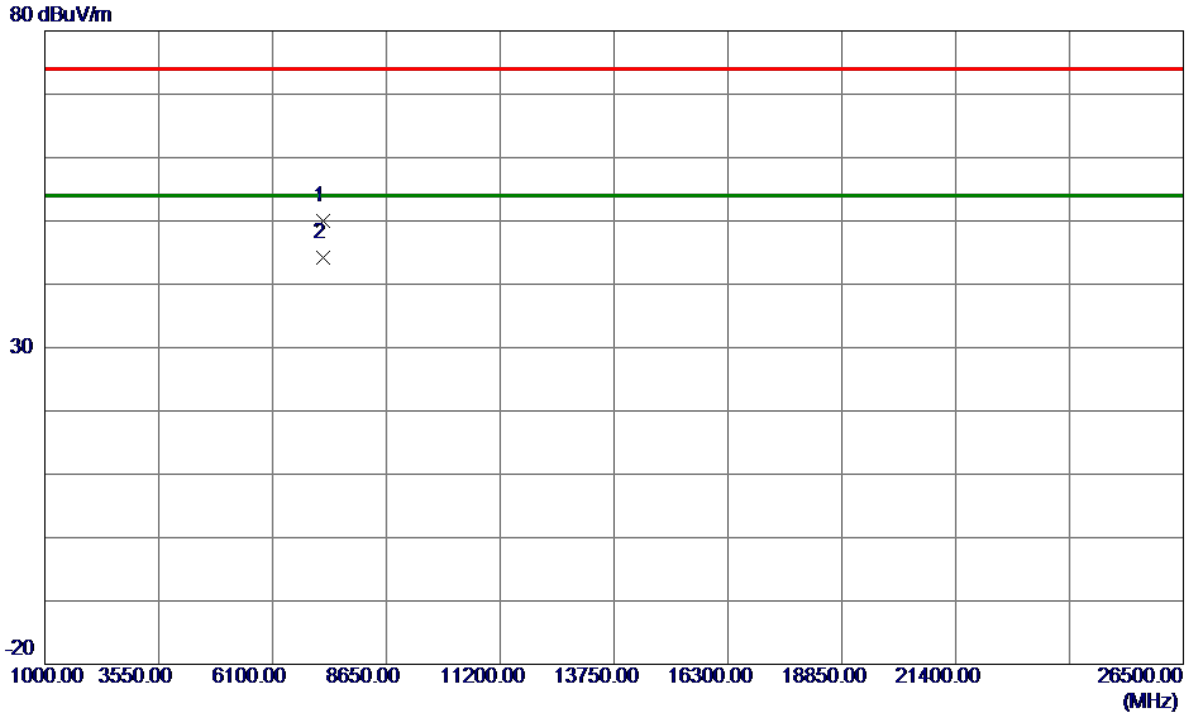


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	39.40	10.50	49.90	74.00	-24.10	Peak	
2	2390.0000	27.97	10.50	38.47	54.00	-15.53	AVG	
3	2410.9000	89.38	10.56	99.94	74.00	25.94	Peak	
4 *	2411.2500	86.17	10.56	96.73	54.00	42.73	AVG	

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

Test Mode:	TX B Mode 2412 MHz

Vertical

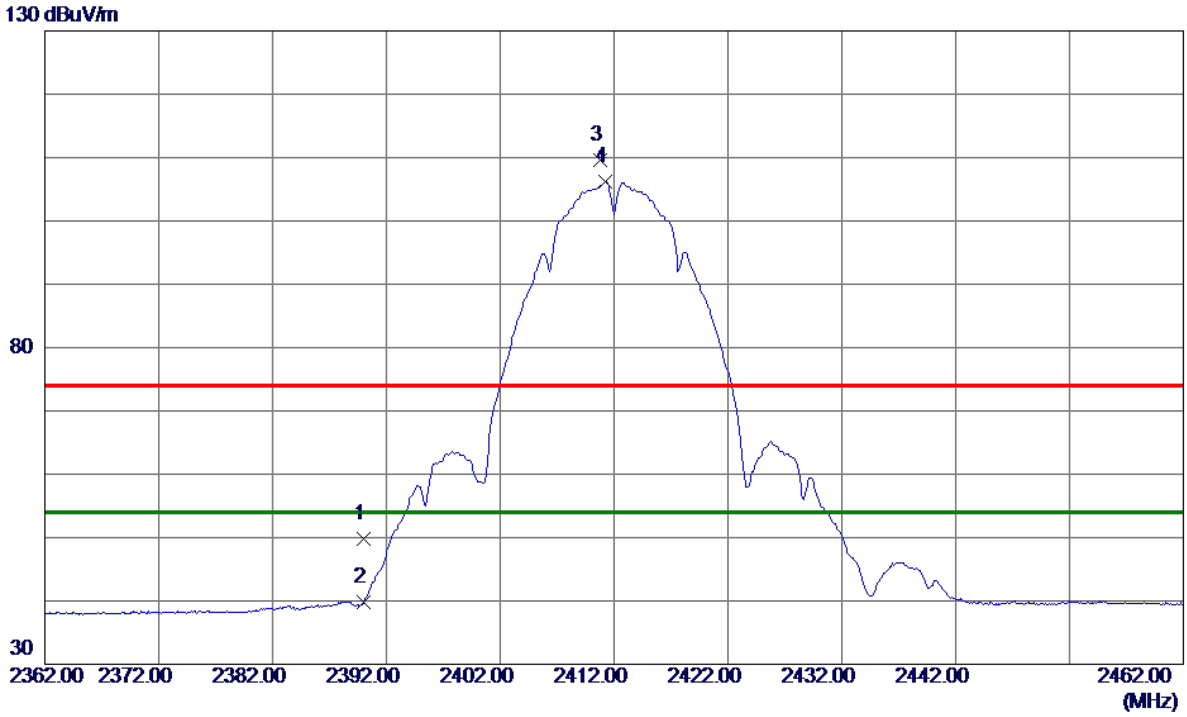


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7235.0400	38.08	11.95	50.03	74.00	-23.97	Peak	
2 *	7235.2200	32.23	11.96	44.19	54.00	-9.81	AVG	

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

Test Mode:	TX B Mode 2412 MHz

Horizontal

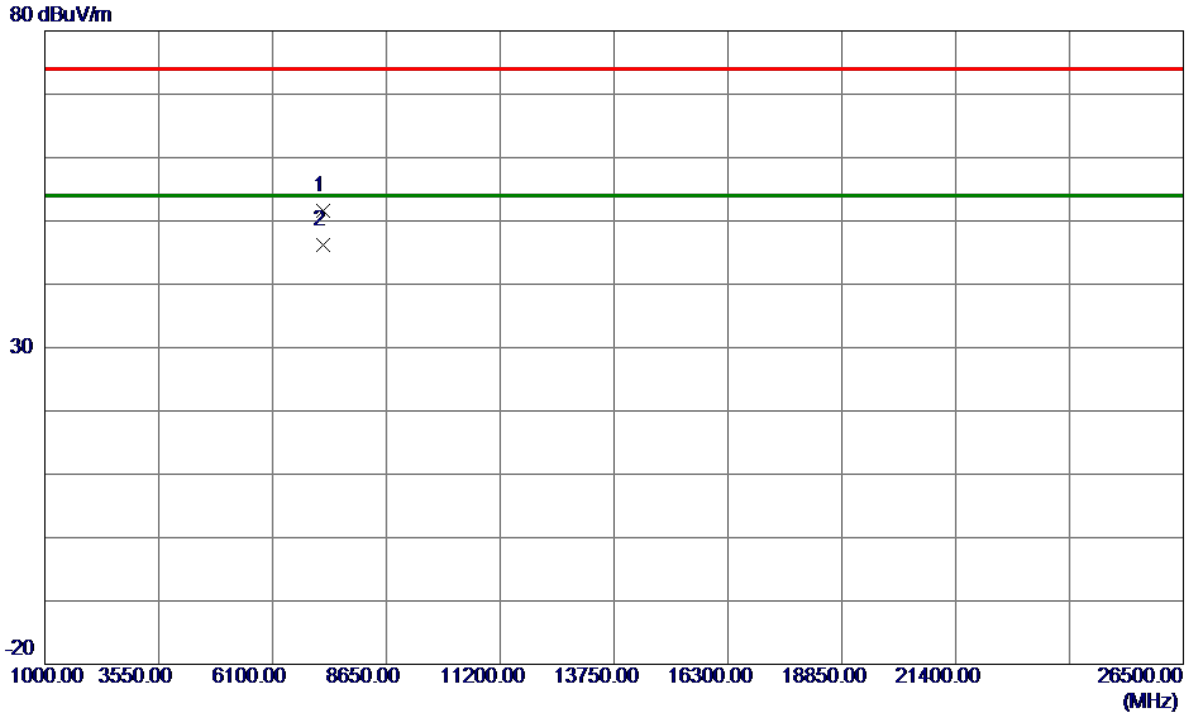


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	39.28	10.50	49.78	74.00	-24.22	Peak	
2	2390.0000	29.38	10.50	39.88	54.00	-14.12	AVG	
3	2410.8000	98.96	10.55	109.51	74.00	35.51	Peak	
4 *	2411.2500	95.56	10.56	106.12	54.00	52.12	AVG	

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

Test Mode:	TX B Mode 2412 MHz

Horizontal

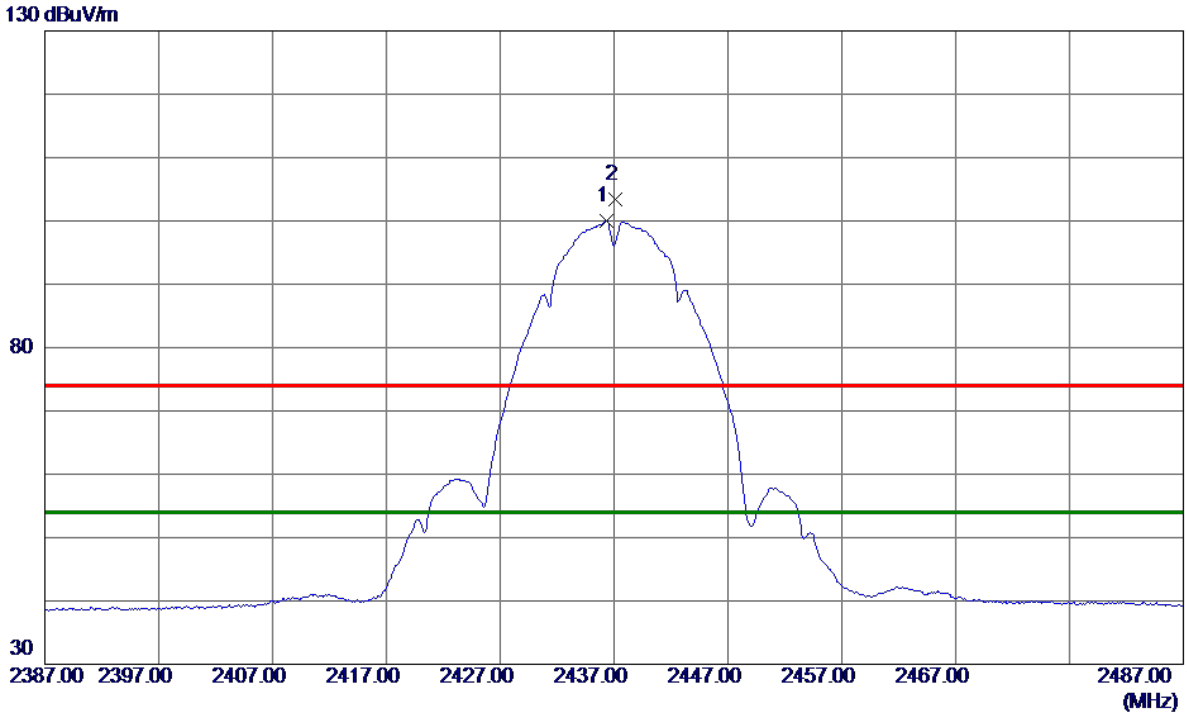


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7234.7400	39.66	11.95	51.61	74.00	-22.39	Peak	
2 *	7235.2200	34.20	11.96	46.16	54.00	-7.84	AVG	

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

Test Mode:	TX B Mode 2437 MHz

Vertical

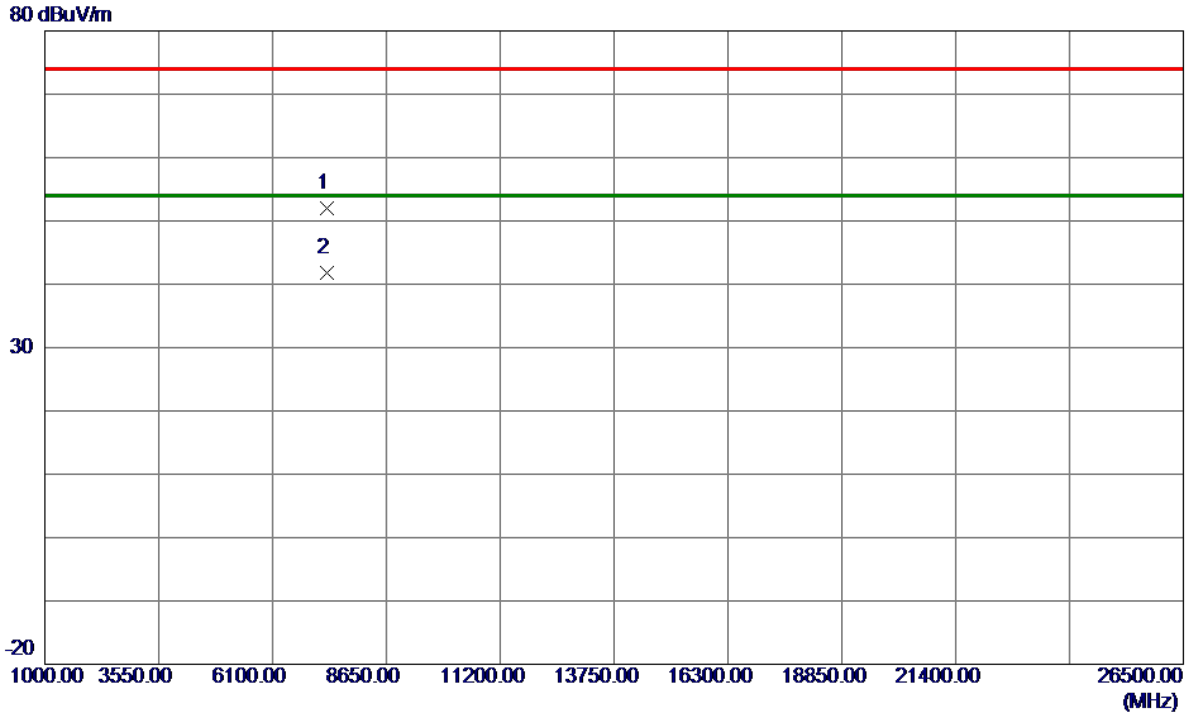


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436.3000	89.39	10.63	100.02	54.00	46.02	AVG	
2	2437.1000	92.69	10.63	103.32	74.00	29.32	Peak	

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

Test Mode:	TX B Mode 2437 MHz

Vertical

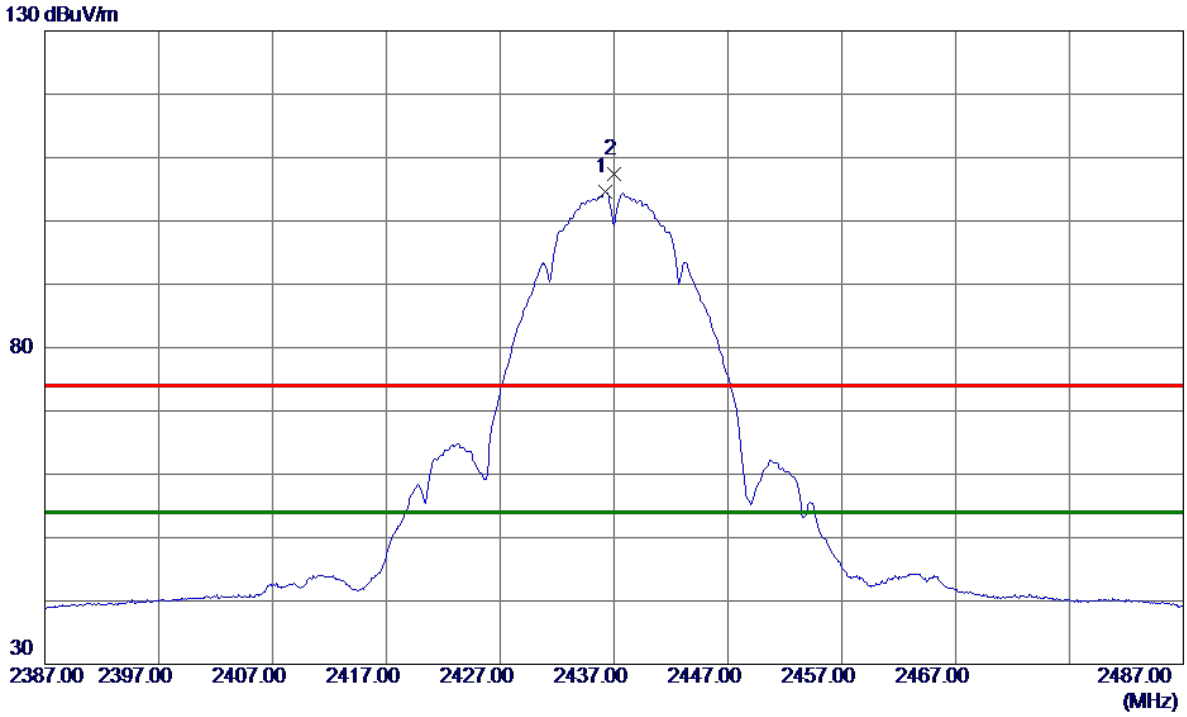


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7310.1960	39.85	12.08	51.93	74.00	-22.07	Peak	
2 *	7311.1760	29.77	12.08	41.85	54.00	-12.15	AVG	

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

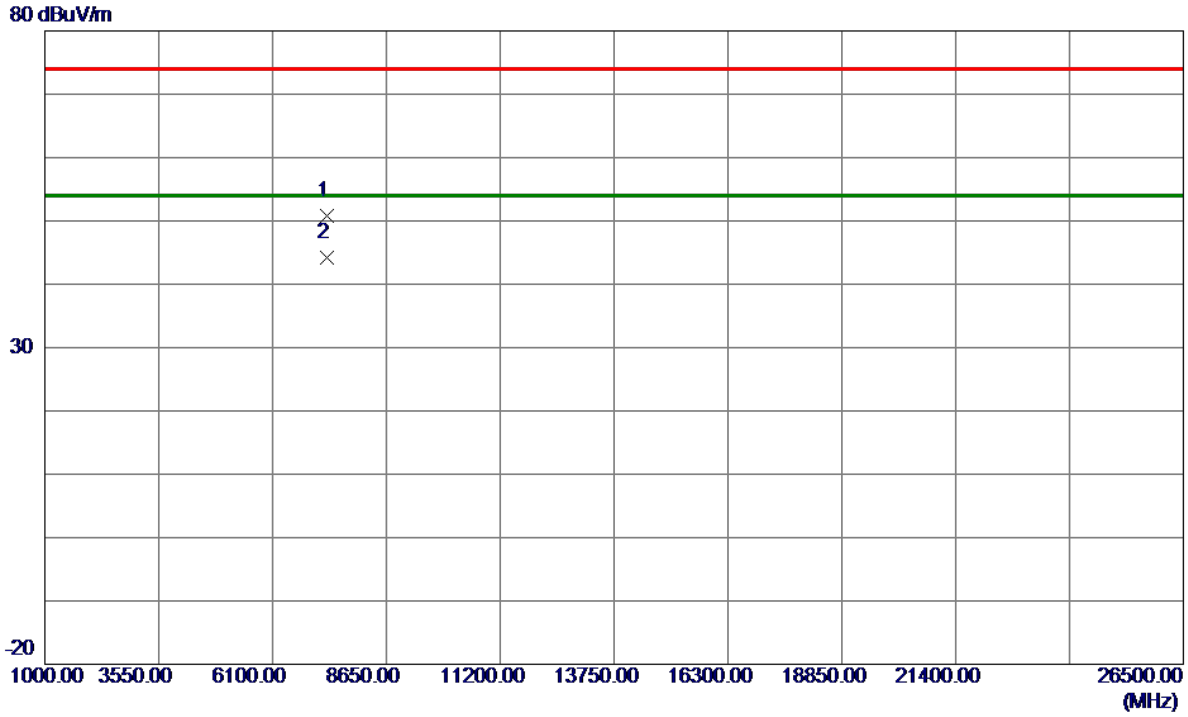


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436.2500	93.88	10.63	104.51	54.00	50.51	AVG	
2	2436.9500	96.72	10.63	107.35	74.00	33.35	Peak	

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

Test Mode:	TX B Mode 2437 MHz

Horizontal

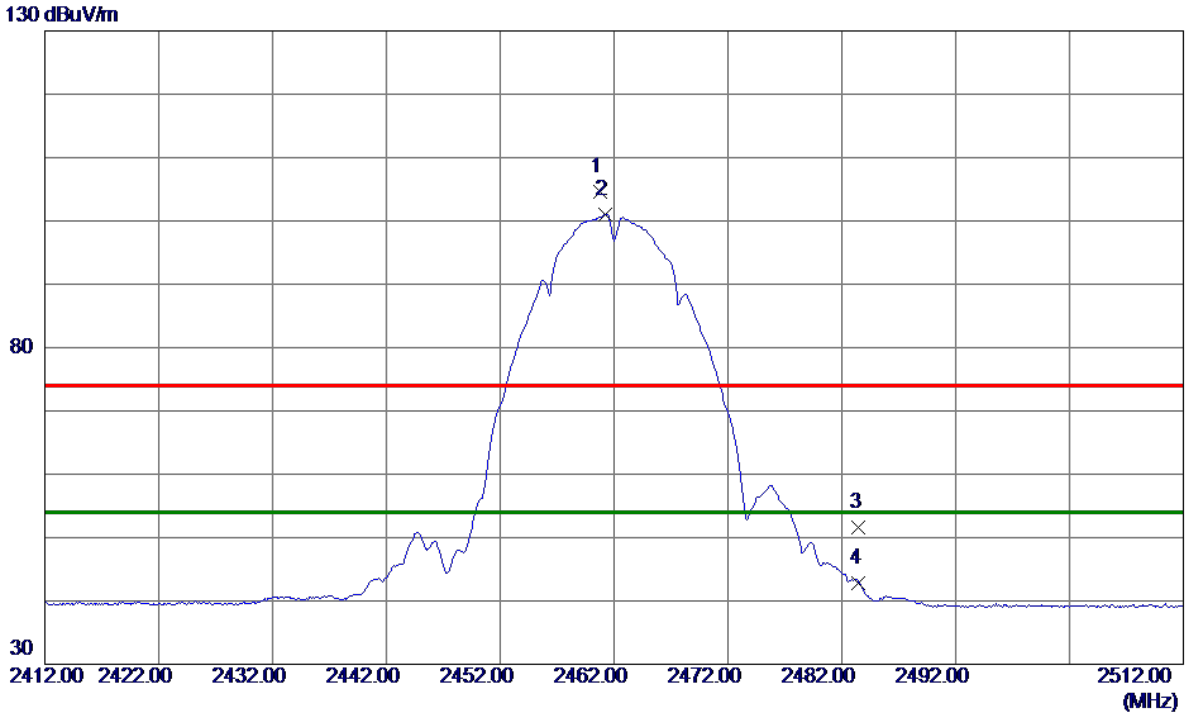


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7311.3200	38.80	12.08	50.88	74.00	-23.12	Peak	
2 *	7311.8600	32.04	12.08	44.12	54.00	-9.88	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

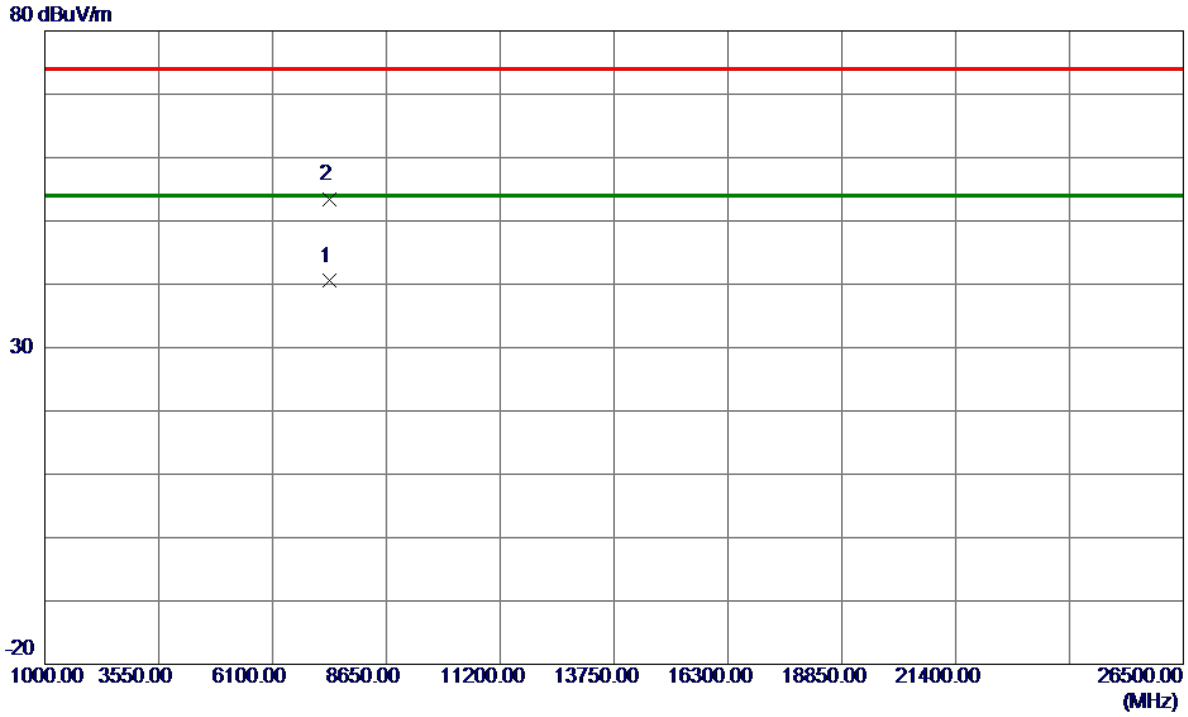


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2460.8000	93.93	10.70	104.63	74.00	30.63	Peak	
2 *	2461.2000	90.39	10.70	101.09	54.00	47.09	AVG	
3	2483.5000	40.86	10.76	51.62	74.00	-22.38	Peak	
4	2483.5000	31.98	10.76	42.74	54.00	-11.26	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Vertical

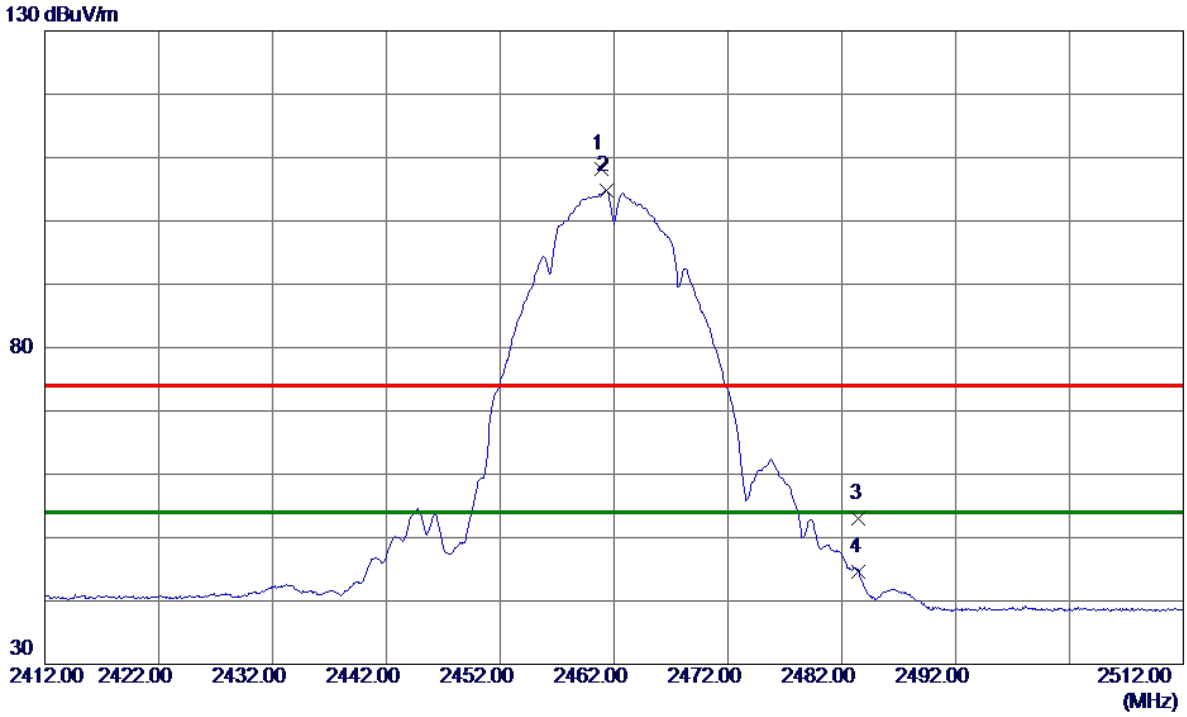


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7385.8480	28.29	12.21	40.50	54.00	-13.50	AVG	
2	7385.8980	41.26	12.21	53.47	74.00	-20.53	Peak	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

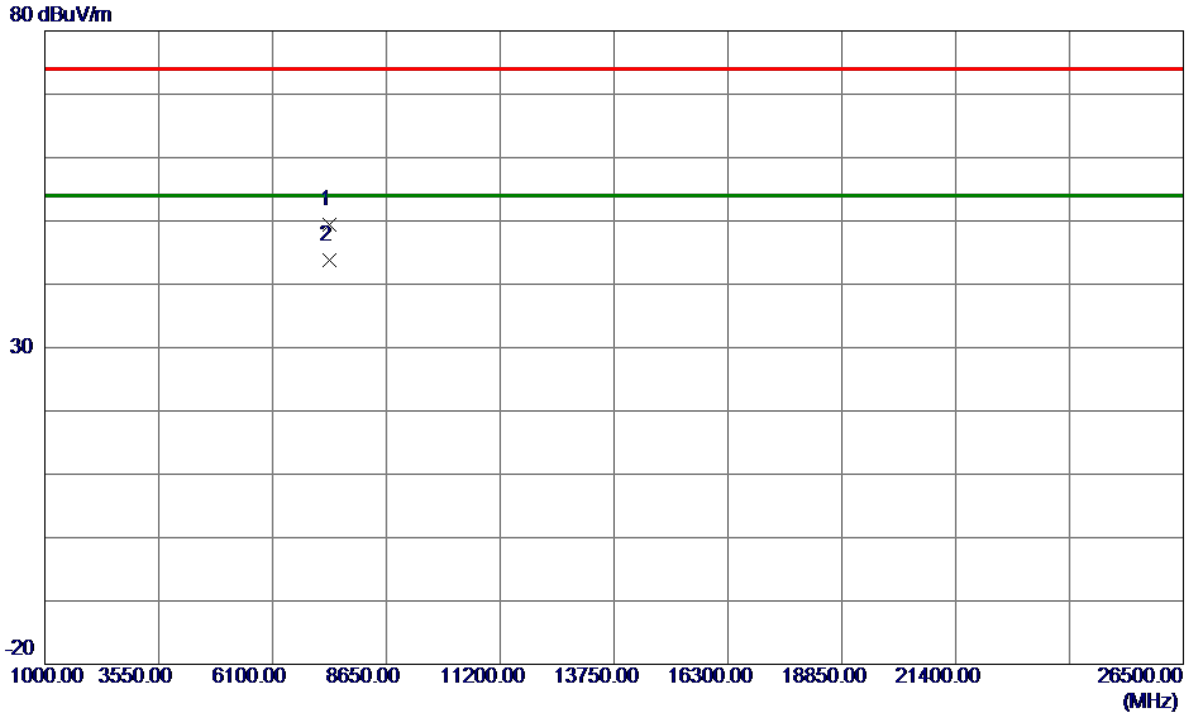


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2460.9000	97.50	10.70	108.20	74.00	34.20	Peak	
2 *	2461.3000	94.06	10.70	104.76	54.00	50.76	AVG	
3	2483.5000	42.30	10.76	53.06	74.00	-20.94	Peak	
4	2483.5000	33.83	10.76	44.59	54.00	-9.41	AVG	

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

Test Mode:	TX B Mode 2462 MHz

Horizontal

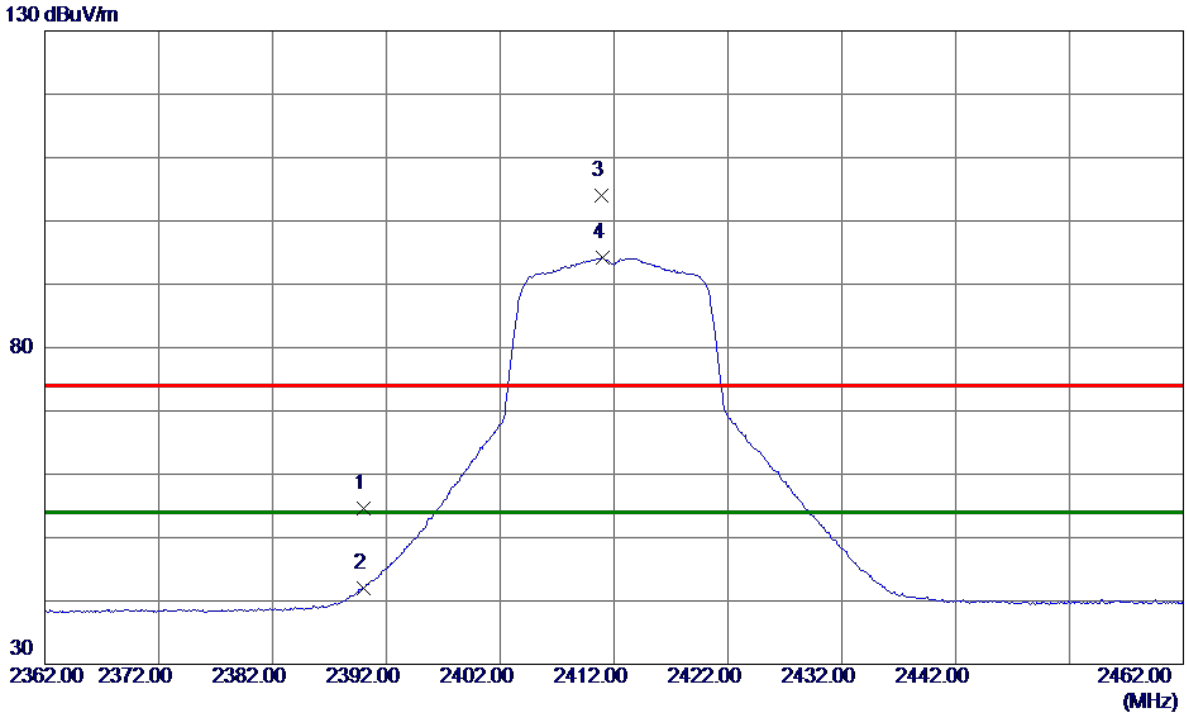


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7384.3000	37.15	12.21	49.36	74.00	-24.64	Peak	
2 *	7385.1600	31.64	12.21	43.85	54.00	-10.15	AVG	

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

Test Mode:	TX G Mode 2412 MHz

Vertical

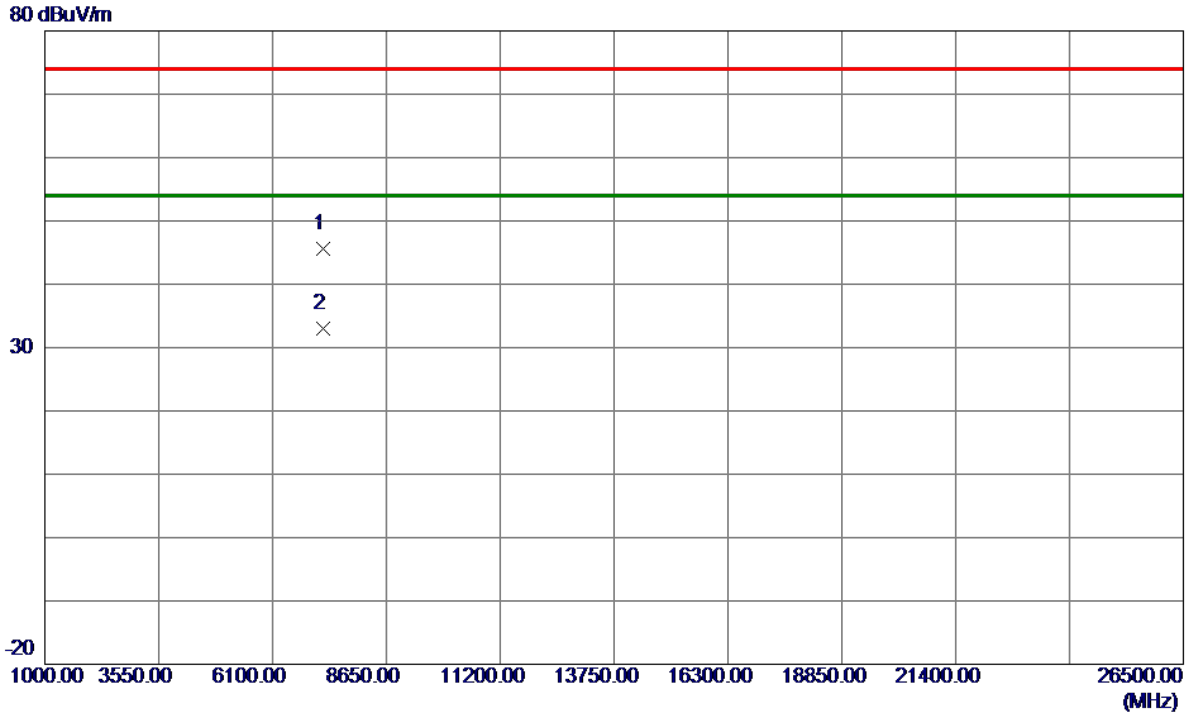


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	44.12	10.50	54.62	74.00	-19.38	Peak	
2	2390.0000	31.55	10.50	42.05	54.00	-11.95	AVG	
3	2410.9000	93.38	10.56	103.94	74.00	29.94	Peak	
4 *	2411.0000	83.56	10.56	94.12	54.00	40.12	AVG	

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

Test Mode:	TX G Mode 2412 MHz

Vertical

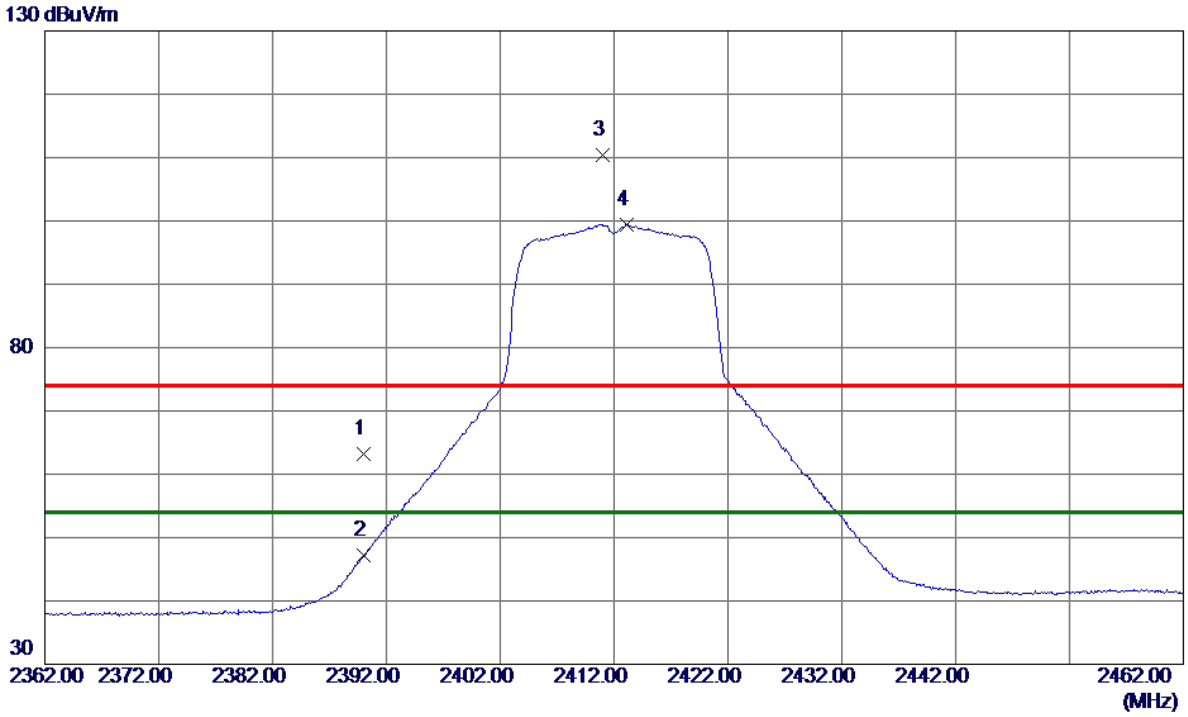


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7235.9180	33.59	11.96	45.55	74.00	-28.45	Peak	
2	7236.9980	20.98	11.96	32.94	74.00	-41.06	Peak	

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

Test Mode:	TX G Mode 2412 MHz

Horizontal

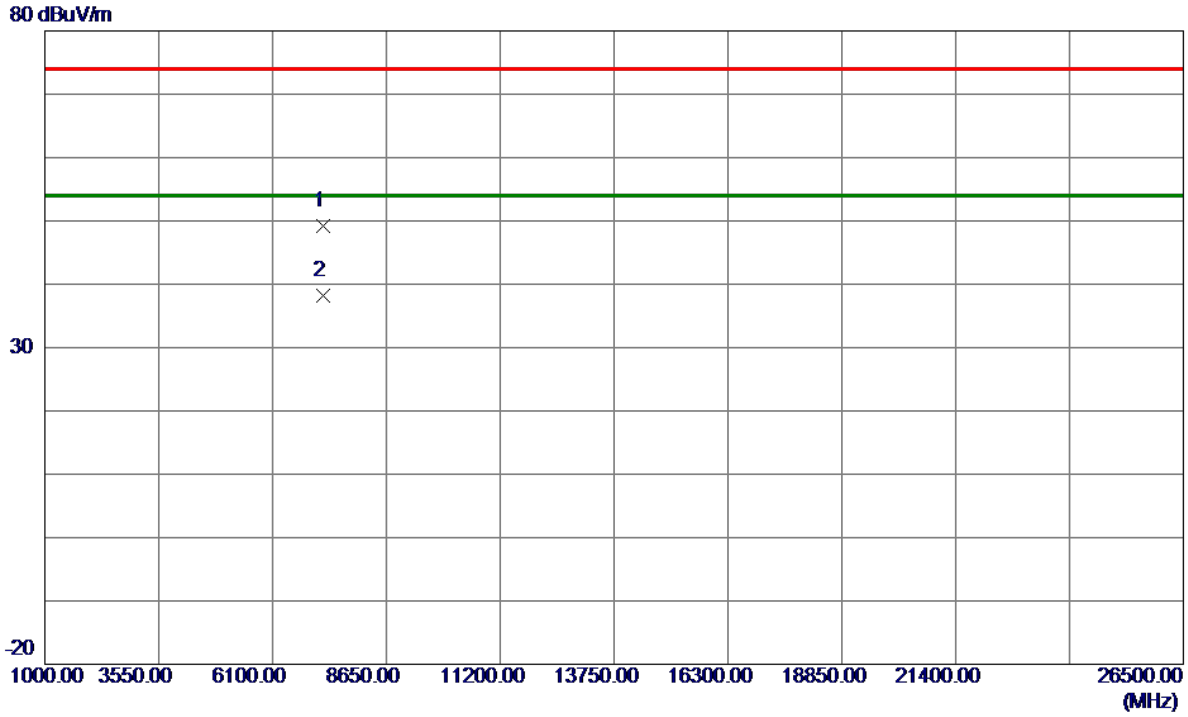


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	52.63	10.50	63.13	74.00	-10.87	Peak	
2	2390.0000	36.64	10.50	47.14	54.00	-6.86	AVG	
3	2410.9500	99.83	10.56	110.39	74.00	36.39	Peak	
4 *	2413.1500	88.91	10.56	99.47	54.00	45.47	AVG	

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

Test Mode:	TX G Mode 2412 MHz

Horizontal

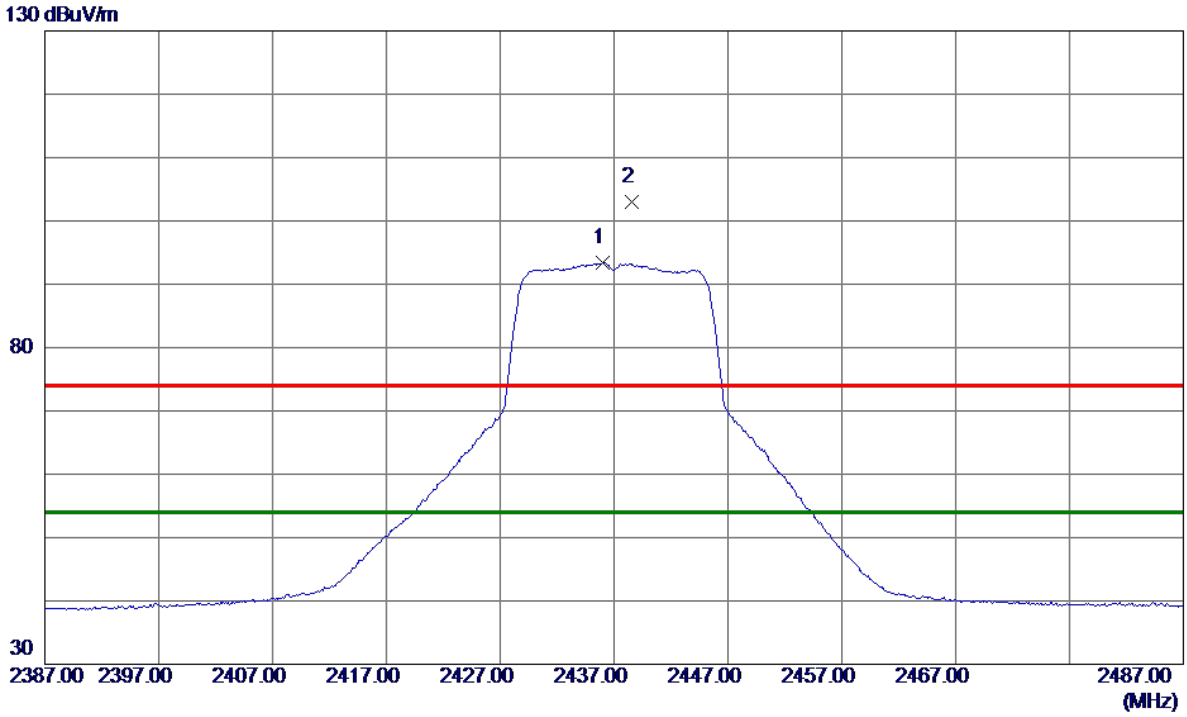


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7231.7500	37.30	11.95	49.25	74.00	-24.75	Peak	
2 *	7237.3500	26.18	11.96	38.14	54.00	-15.86	AVG	

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

Test Mode:	TX G Mode 2437 MHz

Vertical

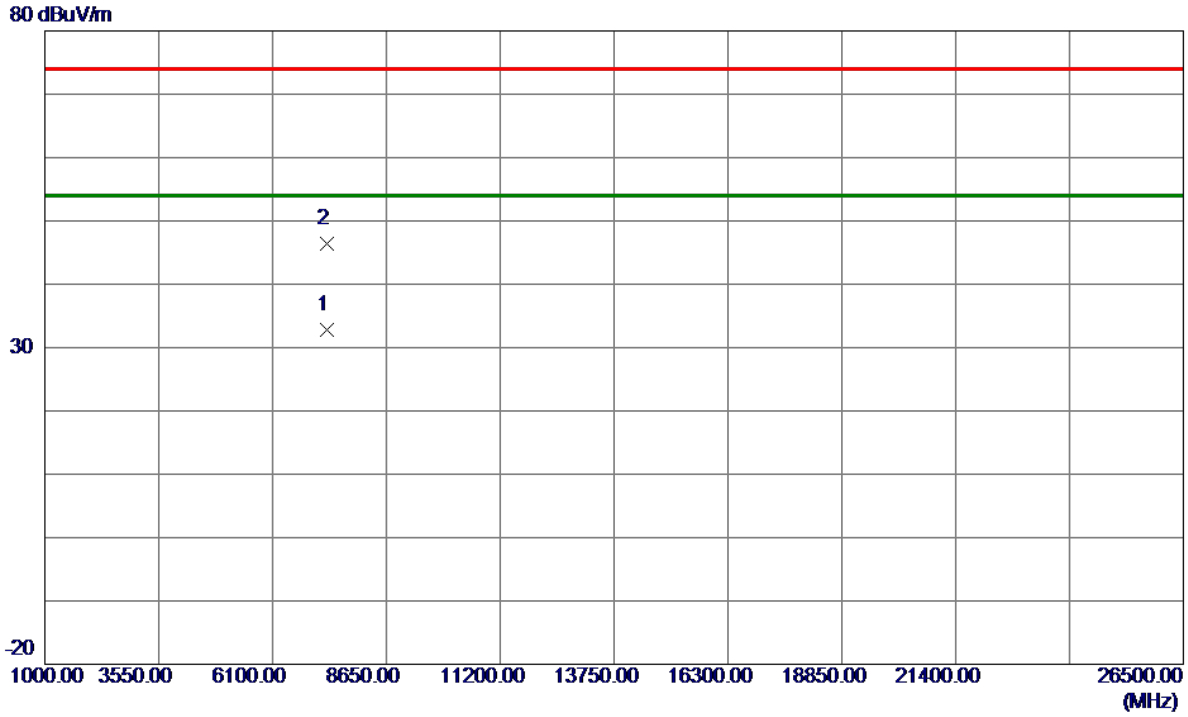


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2436.0000	82.80	10.63	93.43	54.00	39.43	AVG	
2	2438.6000	92.40	10.63	103.03	74.00	29.03	Peak	

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

Test Mode:	TX G Mode 2437 MHz

Vertical

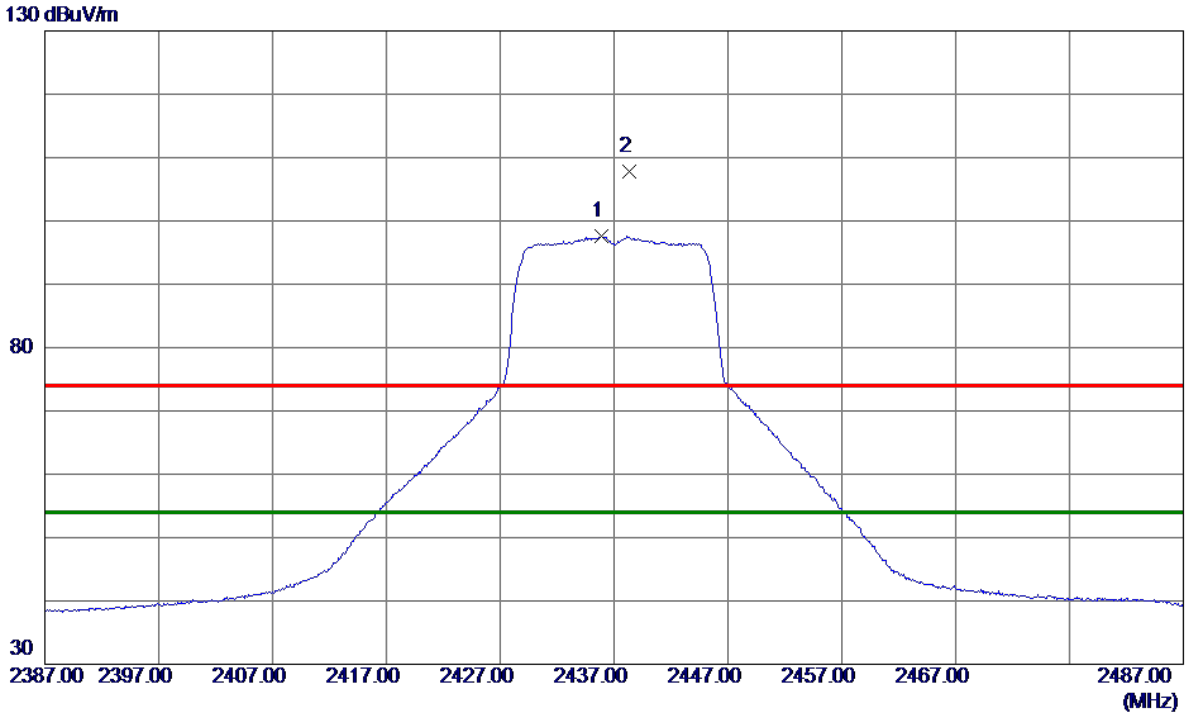


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7310.2400	20.64	12.08	32.72	54.00	-21.28	AVG	
2	7310.9680	34.29	12.08	46.37	74.00	-27.63	Peak	

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

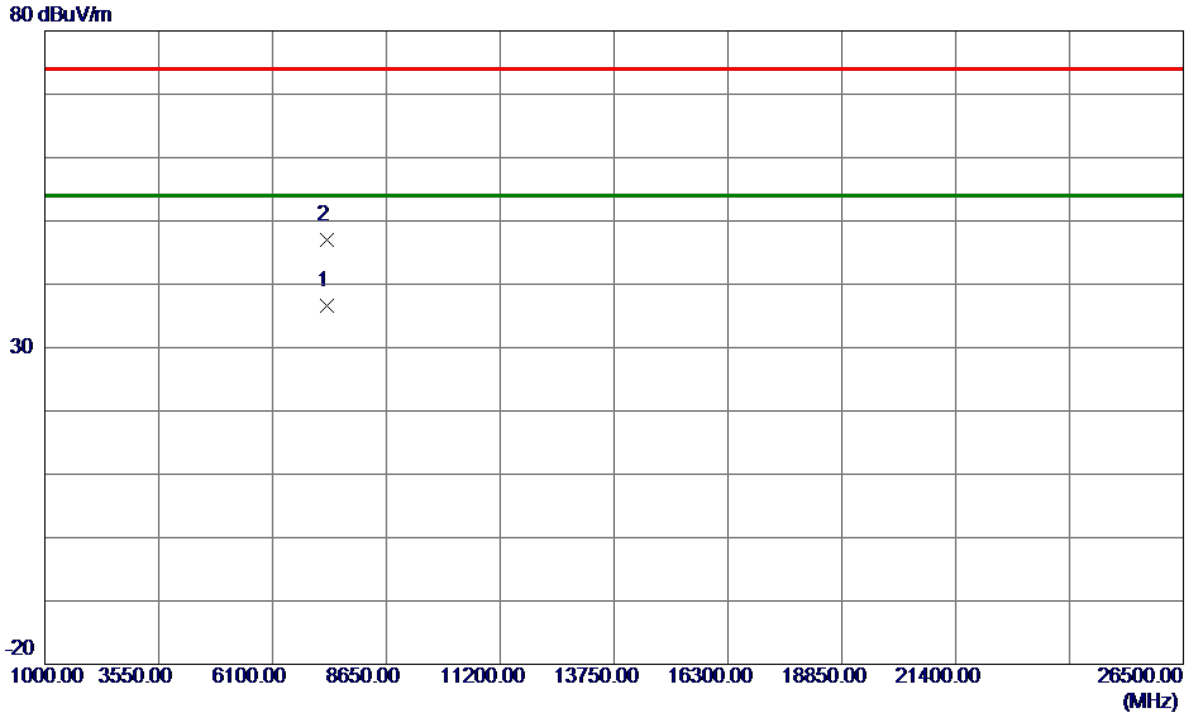


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2435.8500	86.98	10.63	97.61	54.00	43.61	AVG	
2	2438.3000	97.21	10.63	107.84	74.00	33.84	Peak	

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

Test Mode:	TX G Mode 2437 MHz

Horizontal

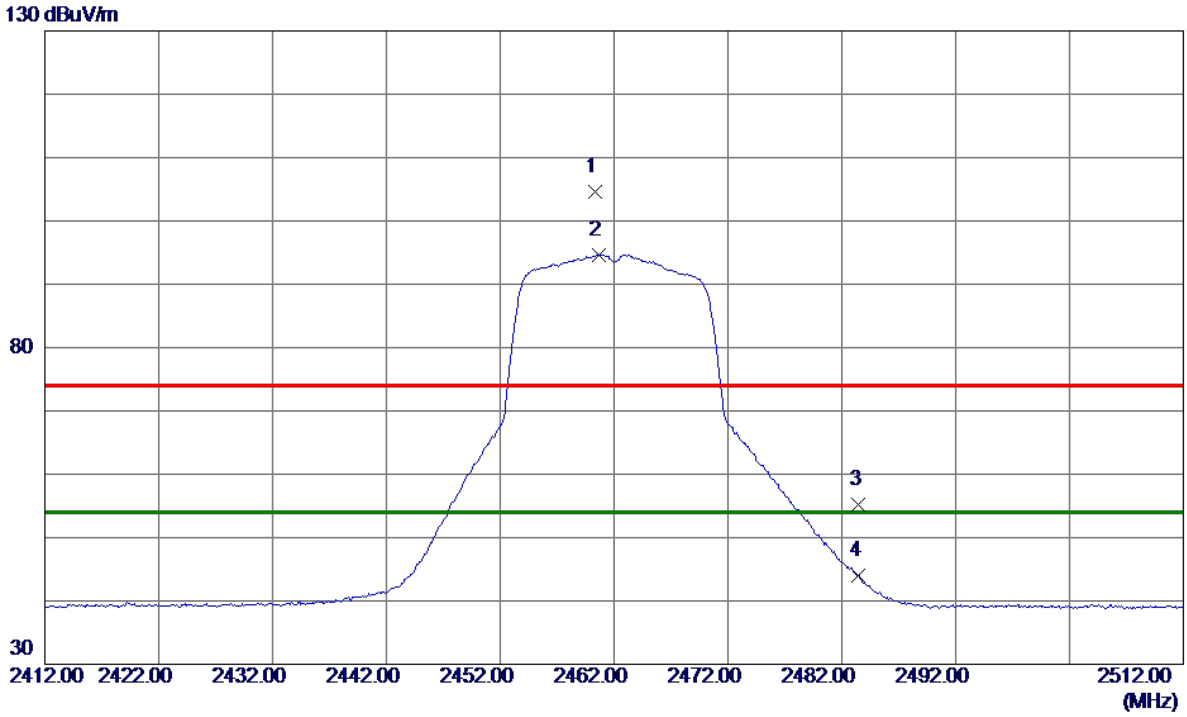


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7310.7000	24.57	12.08	36.65	54.00	-17.35	AVG	
2	7314.2500	34.99	12.09	47.08	74.00	-26.92	Peak	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

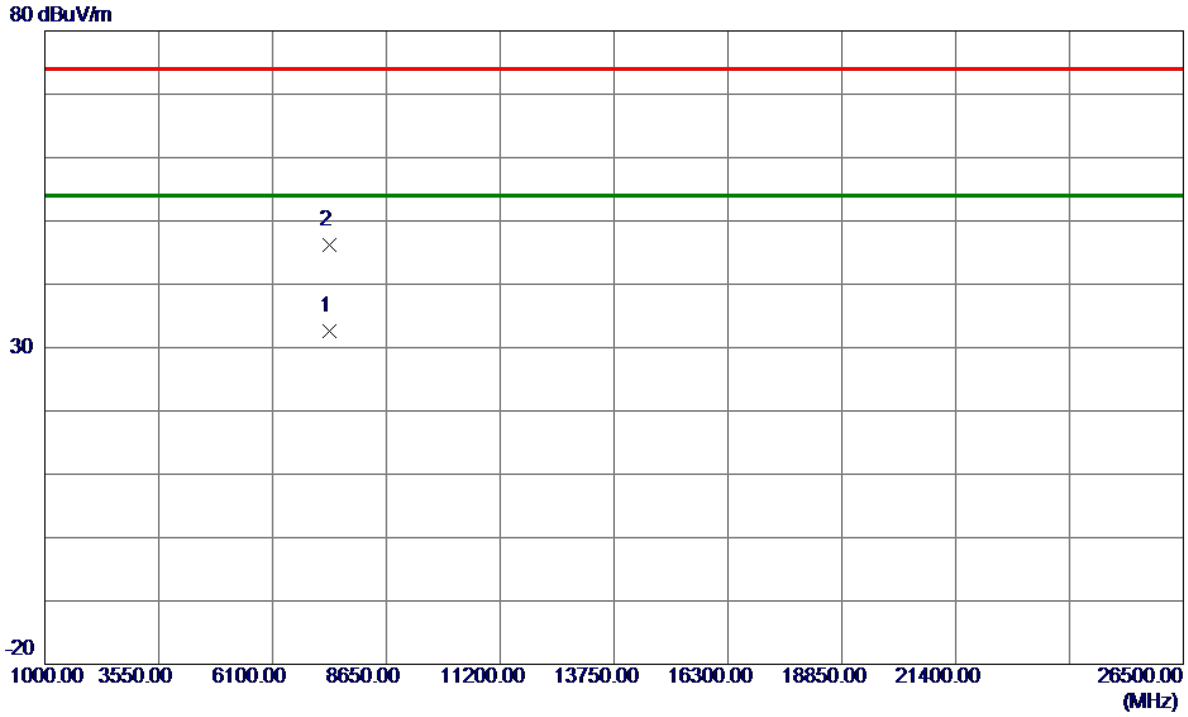


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2460.3000	93.89	10.70	104.59	74.00	30.59	Peak	
2 *	2460.7000	83.97	10.70	94.67	54.00	40.67	AVG	
3	2483.5000	44.40	10.76	55.16	74.00	-18.84	Peak	
4	2483.5000	33.23	10.76	43.99	54.00	-10.01	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Vertical

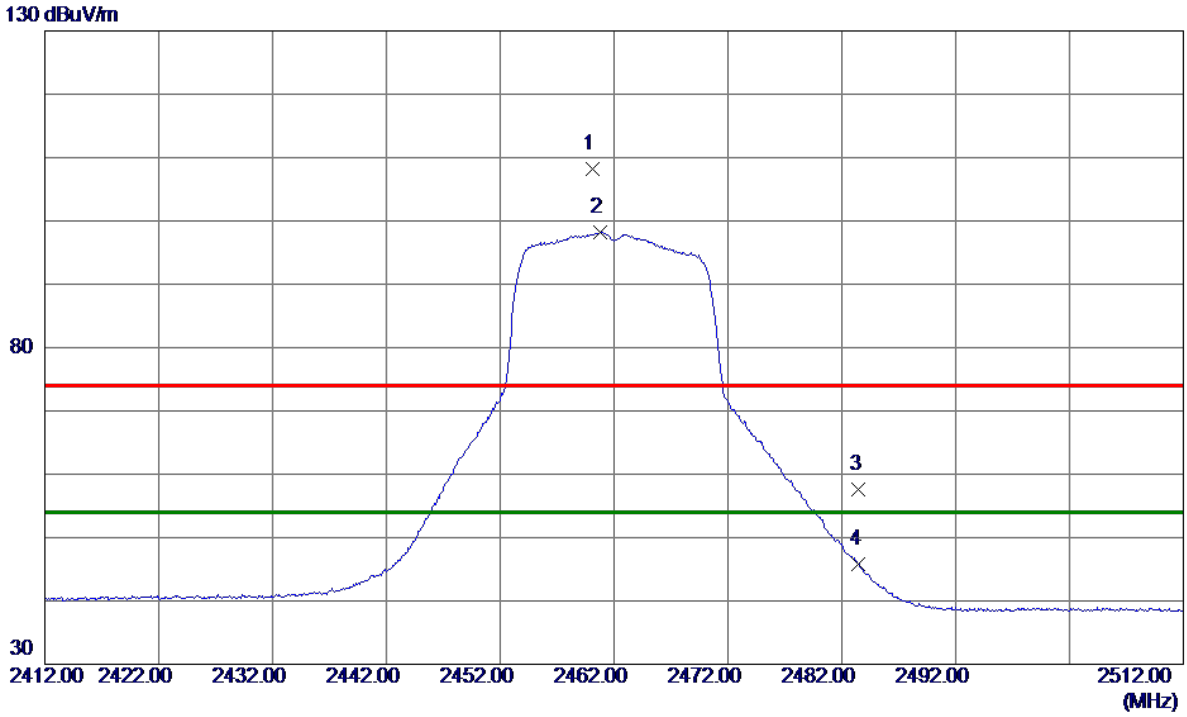


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7386.1220	20.38	12.21	32.59	54.00	-21.41	AVG	
2	7386.2240	33.91	12.21	46.12	74.00	-27.88	Peak	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

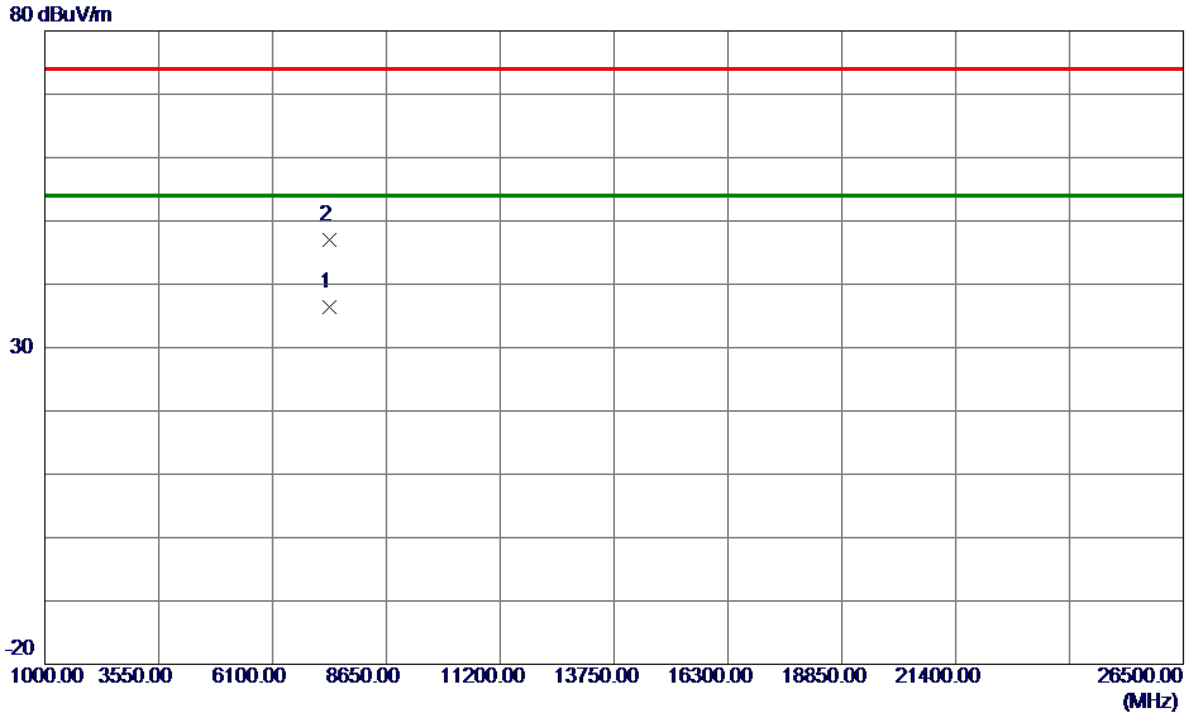


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2460.1000	97.42	10.70	108.12	74.00	34.12	Peak	
2 *	2460.8000	87.49	10.70	98.19	54.00	44.19	AVG	
3	2483.5000	46.90	10.76	57.66	74.00	-16.34	Peak	
4	2483.5000	34.99	10.76	45.75	54.00	-8.25	AVG	

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

Test Mode:	TX G Mode 2462 MHz

Horizontal

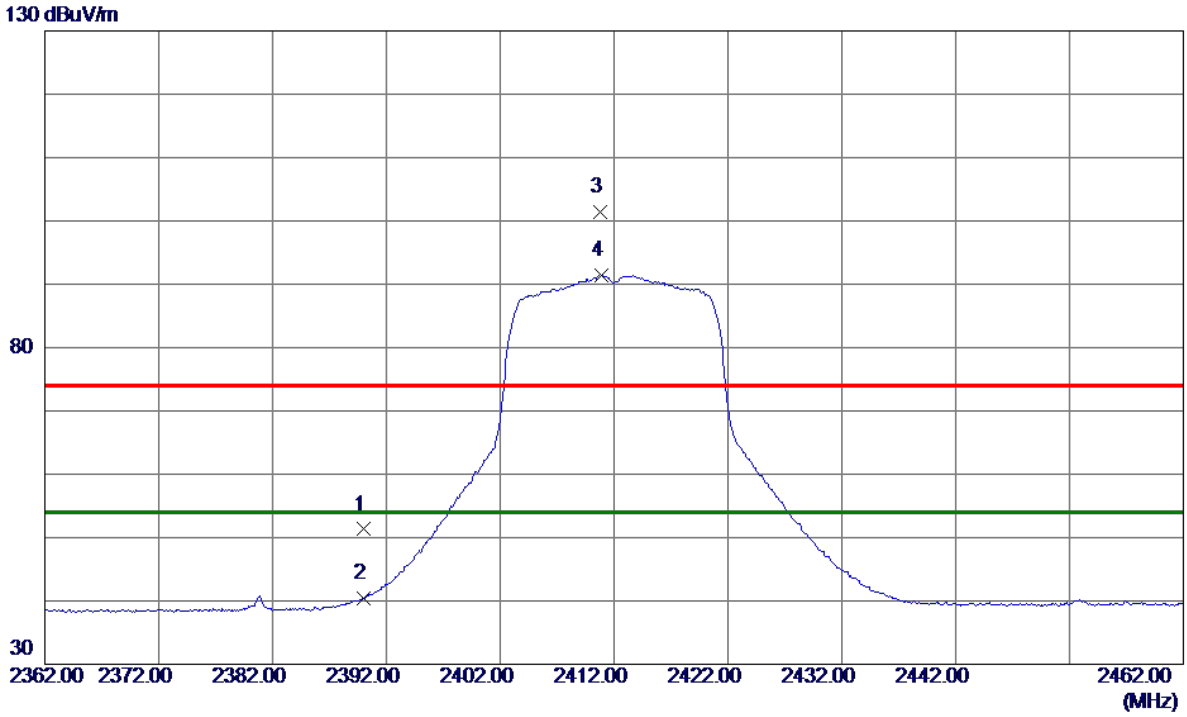


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7379.7500	24.11	12.20	36.31	54.00	-17.69	AVG	
2	7382.9500	34.74	12.20	46.94	74.00	-27.06	Peak	

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

Test Mode:	TX N-20M Mode 2412 MHz

Vertical

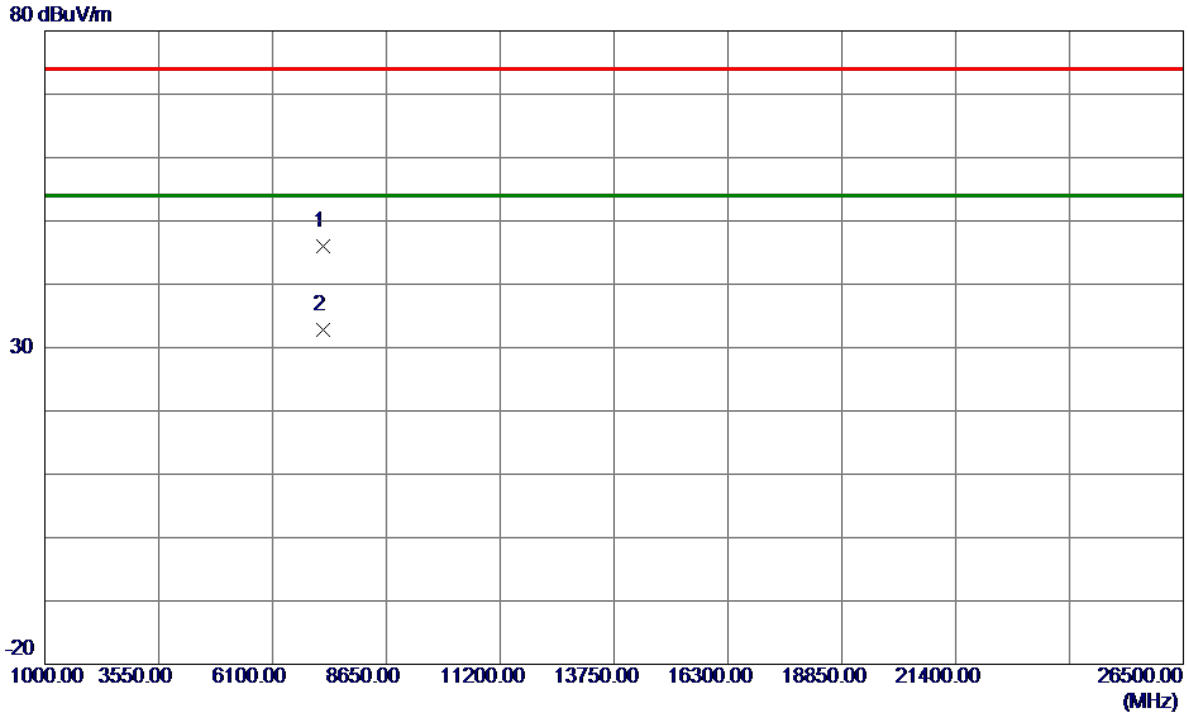


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	40.80	10.50	51.30	74.00	-22.70	Peak	
2	2390.0000	29.88	10.50	40.38	54.00	-13.62	AVG	
3	2410.8000	90.78	10.55	101.33	74.00	27.33	Peak	
4 *	2410.9000	80.80	10.56	91.36	54.00	37.36	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

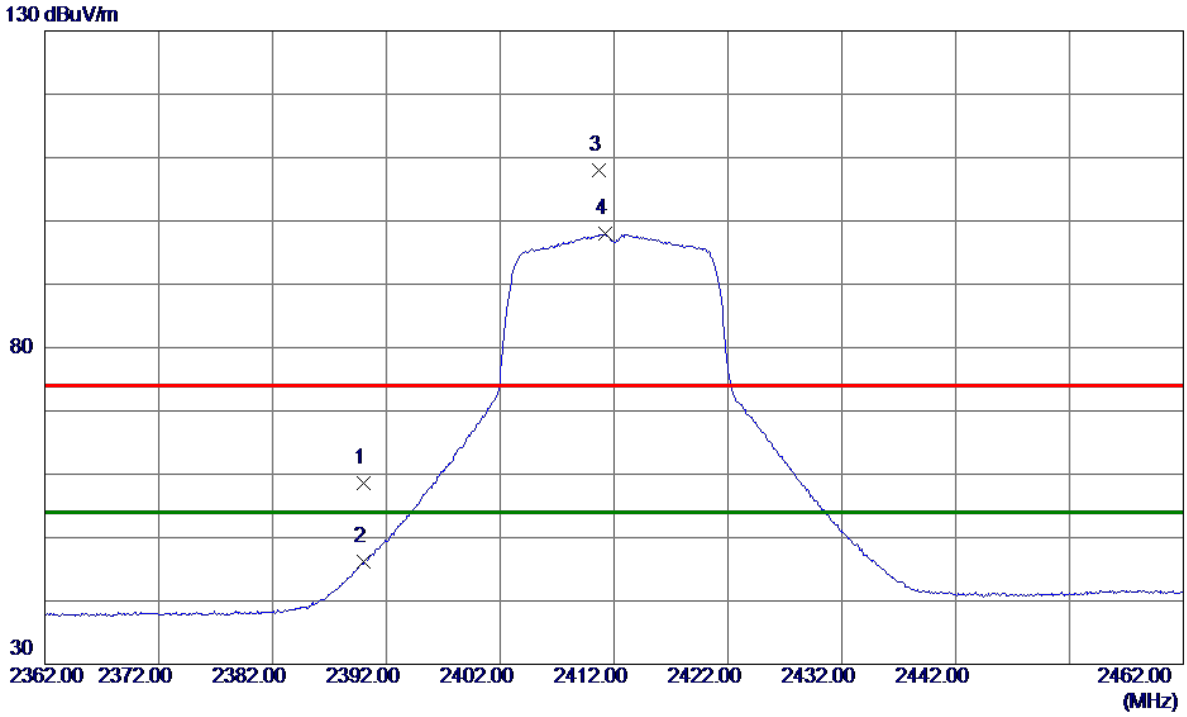


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7235.5240	33.95	11.96	45.91	74.00	-28.09	Peak	
2 *	7236.7840	20.91	11.96	32.87	54.00	-21.13	AVG	

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

Test Mode:	TX N-20M Mode 2412 MHz

Horizontal

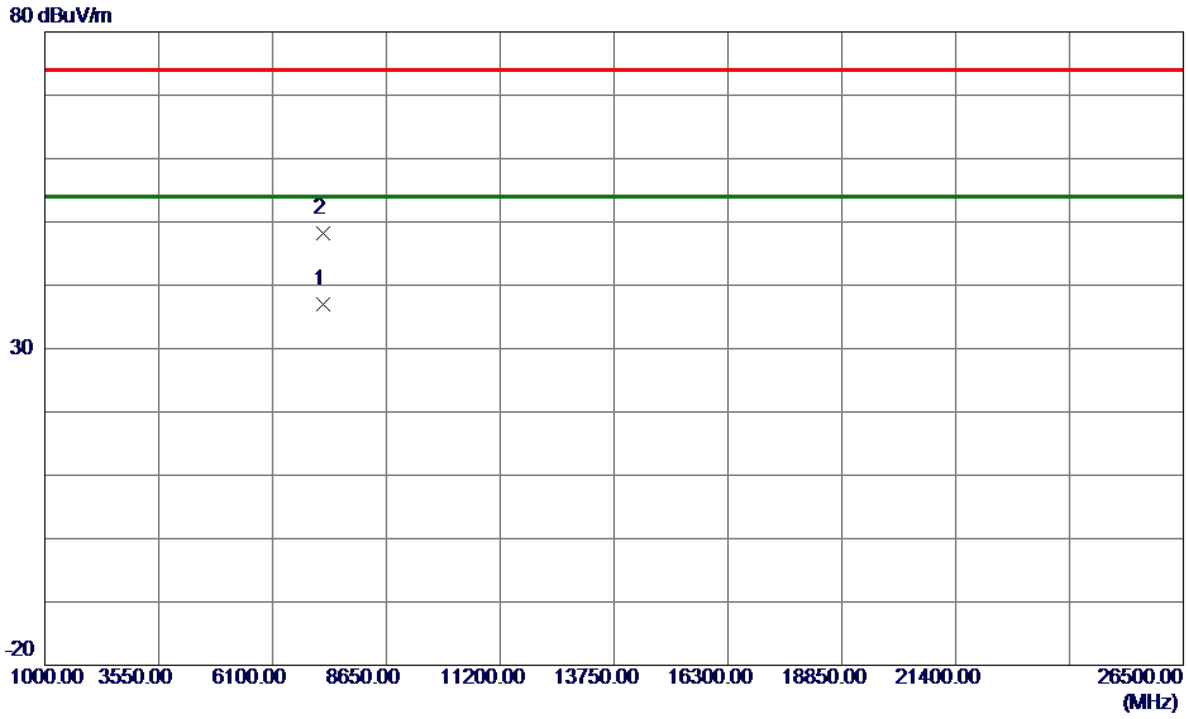


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	48.09	10.50	58.59	74.00	-15.41	Peak	
2	2390.0000	35.65	10.50	46.15	54.00	-7.85	AVG	
3	2410.7000	97.40	10.55	107.95	74.00	33.95	Peak	
4 *	2411.2000	87.35	10.56	97.91	54.00	43.91	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

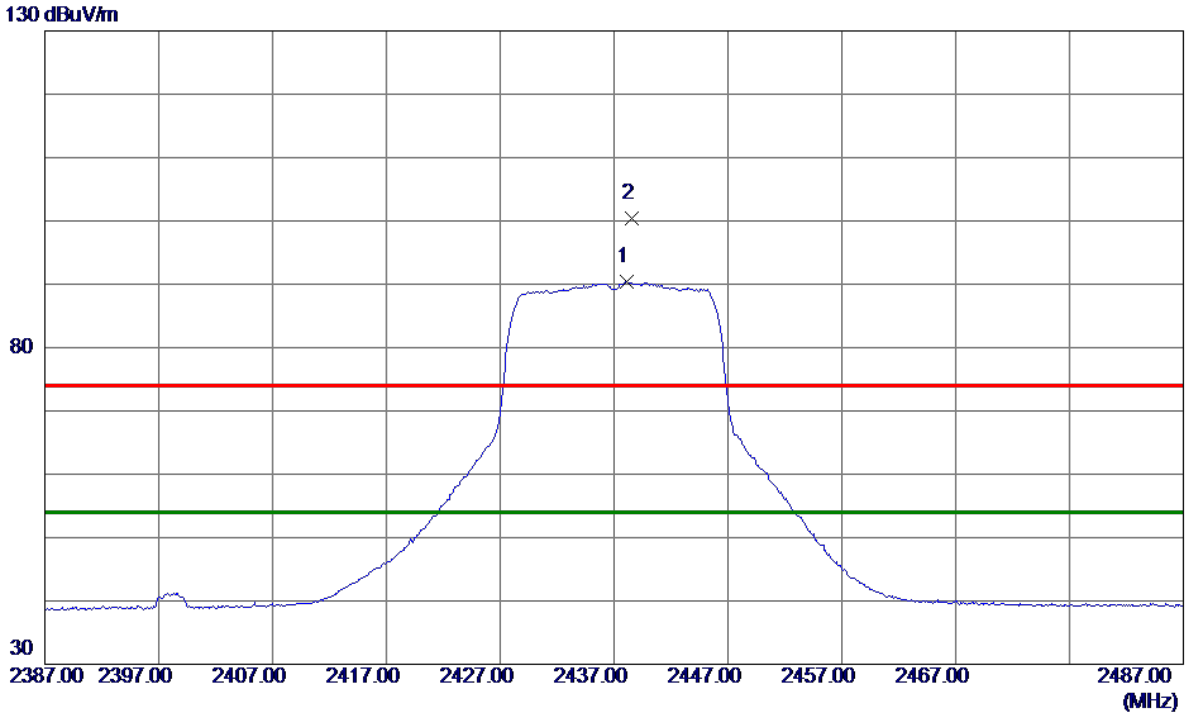


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7235.5000	25.09	11.96	37.05	54.00	-16.95	AVG	
2	7236.0000	36.19	11.96	48.15	74.00	-25.85	Peak	

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

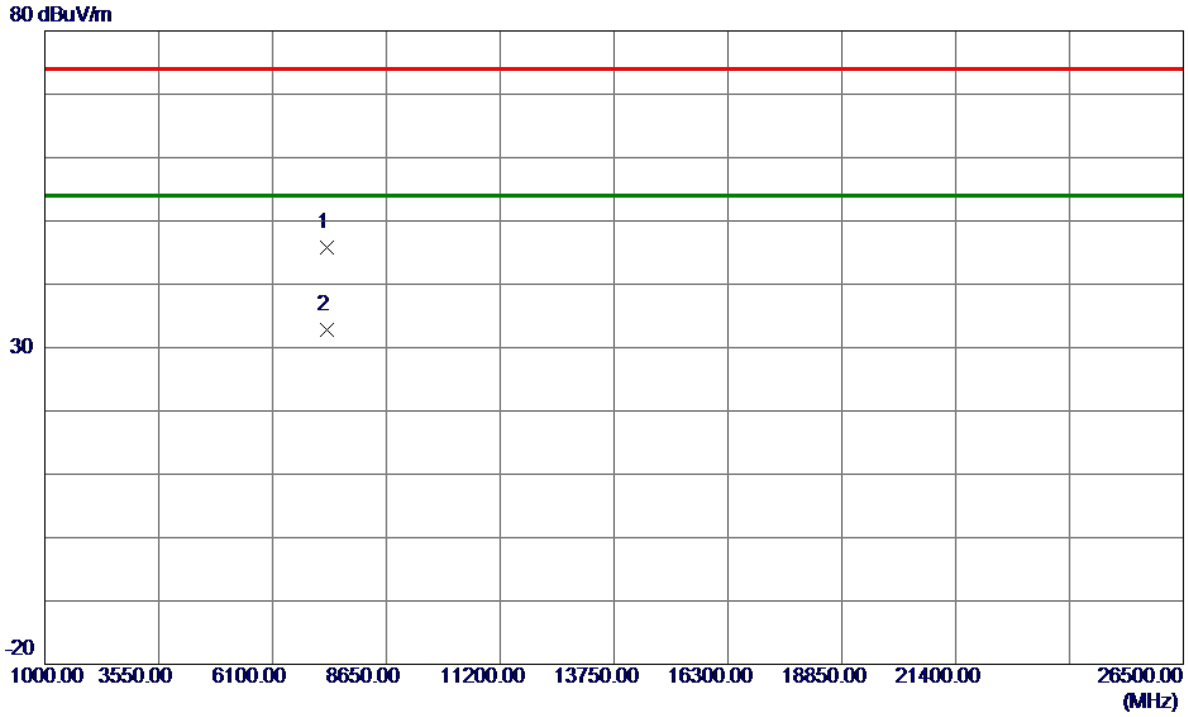


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2438.1000	79.74	10.63	90.37	54.00	36.37	AVG	
2	2438.6000	89.81	10.63	100.44	74.00	26.44	Peak	

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical

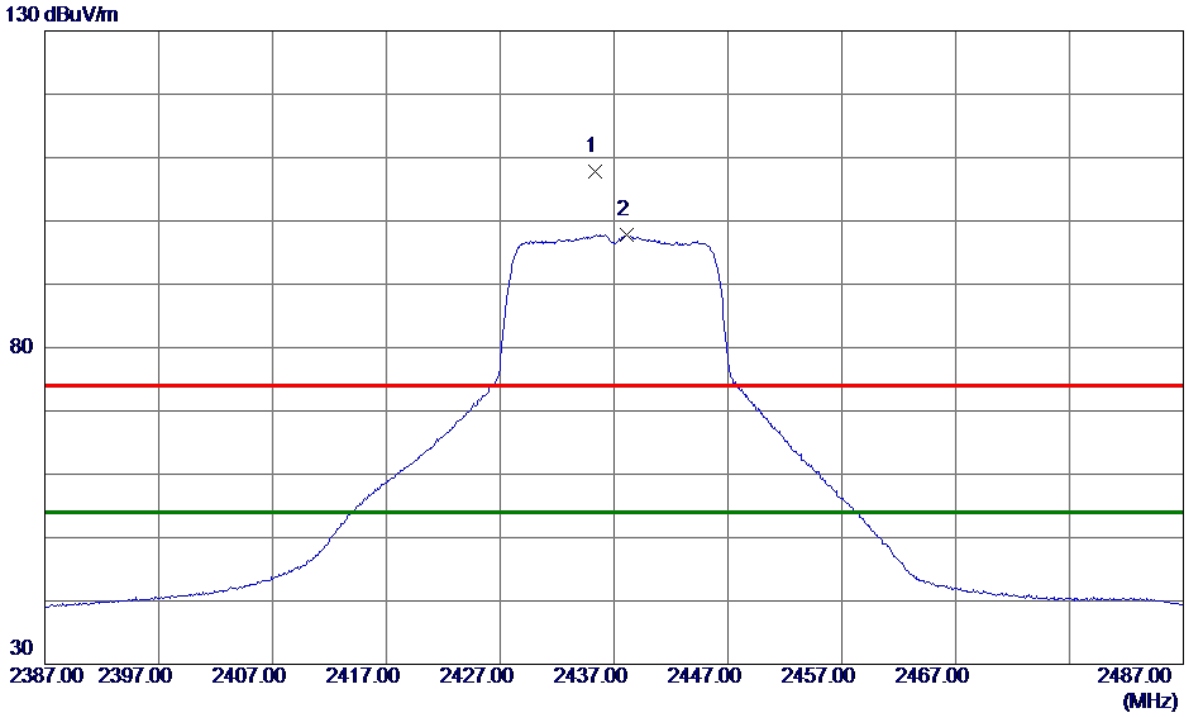


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7310.7960	33.68	12.08	45.76	74.00	-28.24	Peak	
2 *	7311.1220	20.72	12.08	32.80	54.00	-21.20	AVG	

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

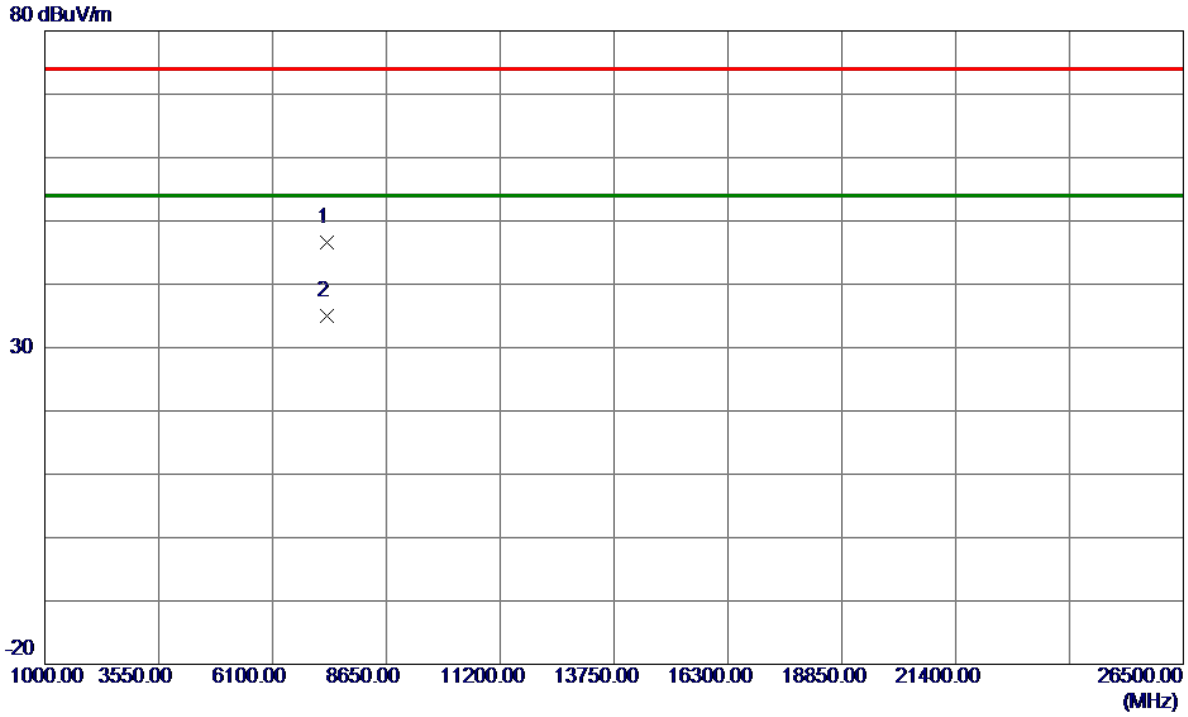


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2435.3500	97.19	10.63	107.82	74.00	33.82	Peak	
2 *	2438.1500	87.19	10.63	97.82	54.00	43.82	AVG	

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal

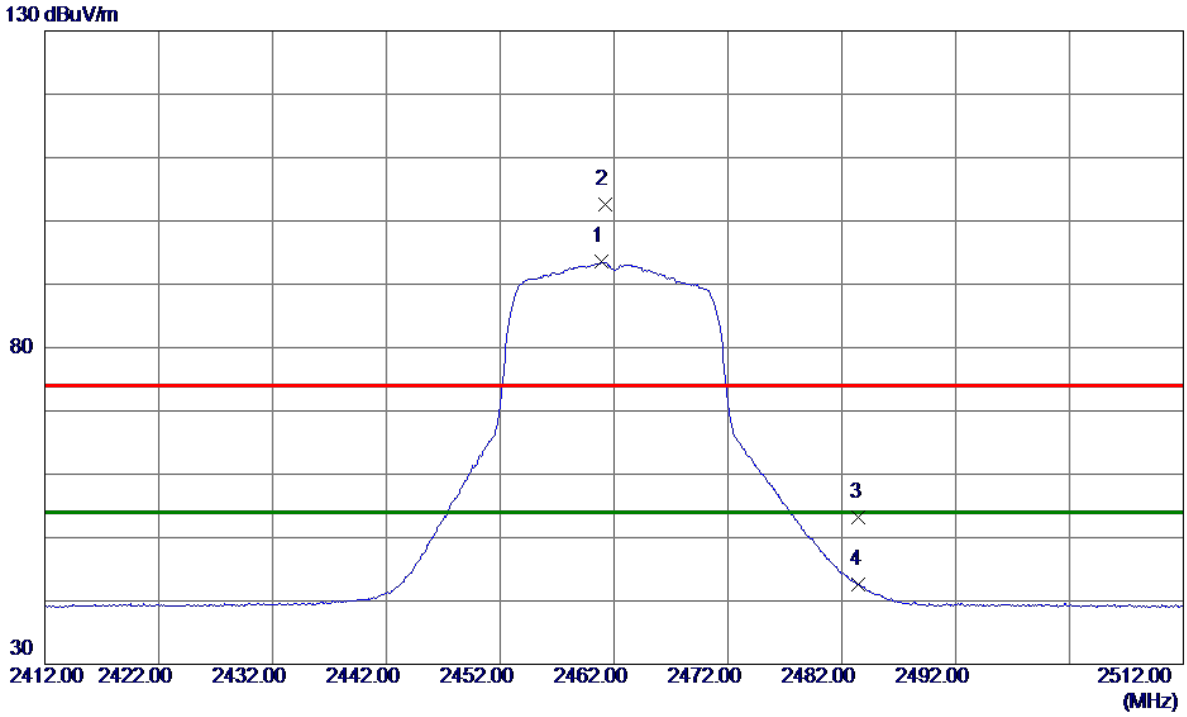


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7309.2000	34.54	12.08	46.62	74.00	-27.38	Peak	
2 *	7311.2500	22.85	12.08	34.93	54.00	-19.07	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Vertical

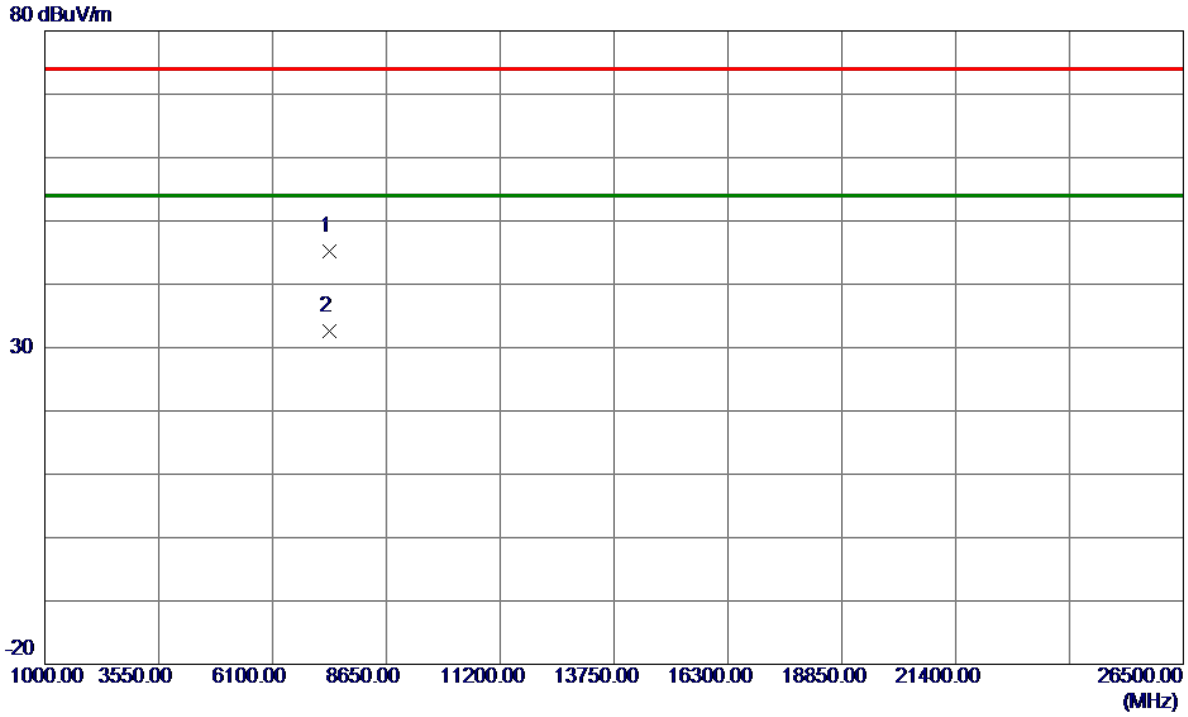


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2460.9000	82.83	10.70	93.53	54.00	39.53	AVG	
2	2461.2000	91.81	10.70	102.51	74.00	28.51	Peak	
3	2483.5000	42.41	10.76	53.17	74.00	-20.83	Peak	
4	2483.5000	31.76	10.76	42.52	54.00	-11.48	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

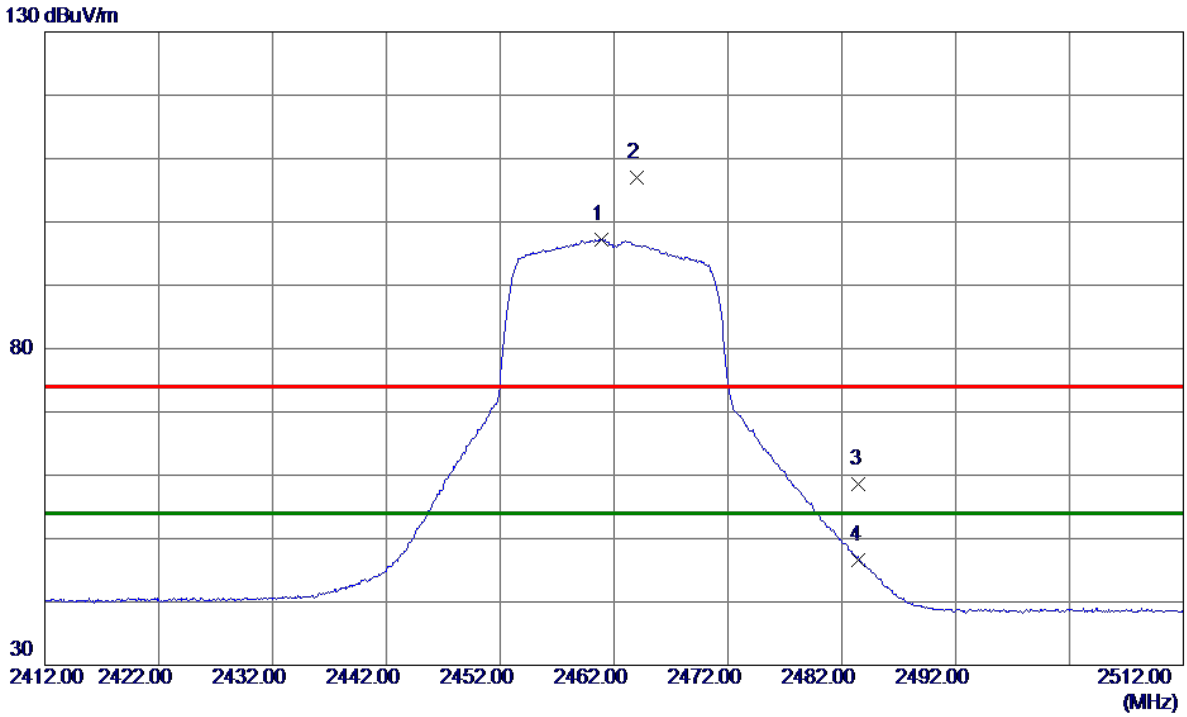


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7385.8720	33.02	12.21	45.23	74.00	-28.77	Peak	
2 *	7386.6820	20.39	12.21	32.60	54.00	-21.40	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

Horizontal

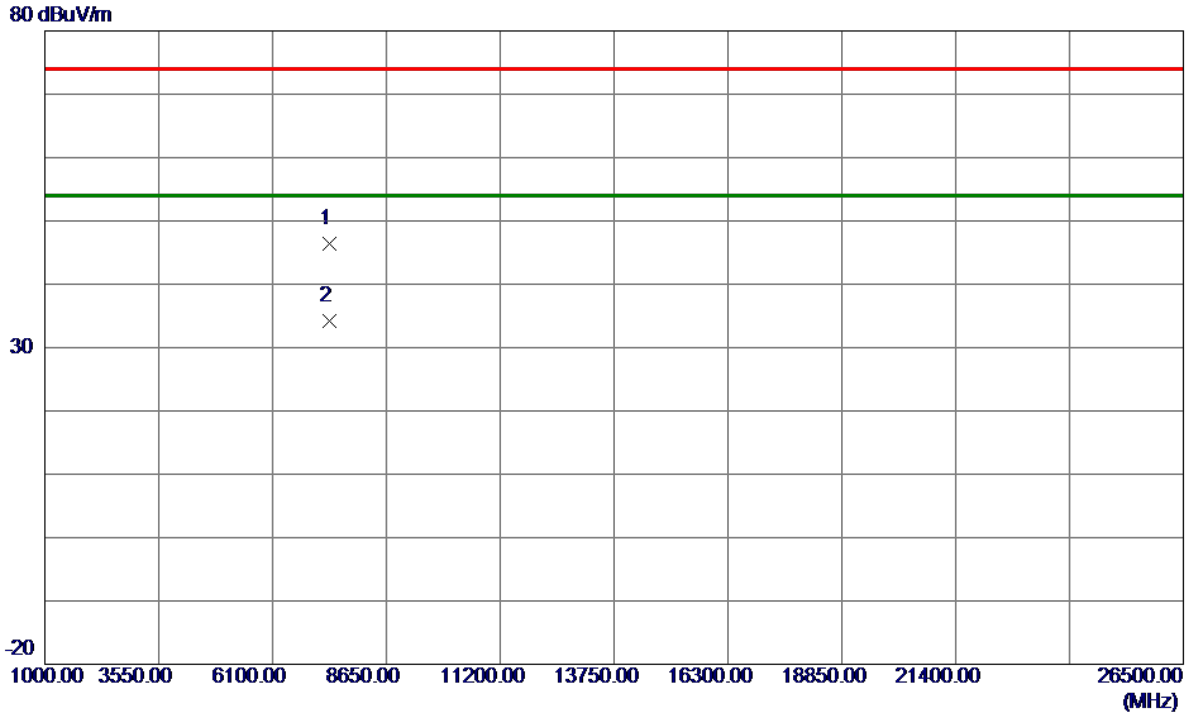


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2460.9000	86.59	10.70	97.29	54.00	43.29	AVG	
2	2464.0000	96.31	10.71	107.02	74.00	33.02	Peak	
3	2483.5000	47.90	10.76	58.66	74.00	-15.34	Peak	
4	2483.5000	35.88	10.76	46.64	54.00	-7.36	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	7377.4000	34.14	12.19	46.33	74.00	-27.67	Peak	
2 *	7379.7000	22.02	12.20	34.22	54.00	-19.78	AVG	

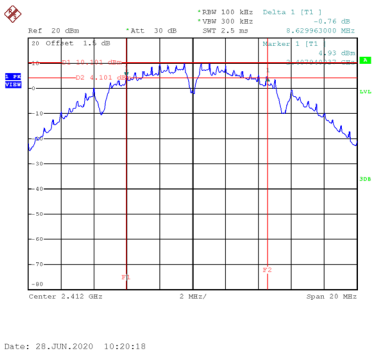
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

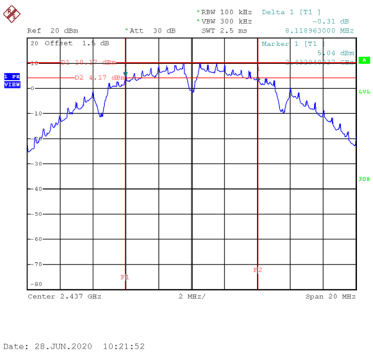
Test Mode	TX B Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	8.63	500	Complies
06	2437	8.12	500	Complies
11	2462	8.12	500	Complies

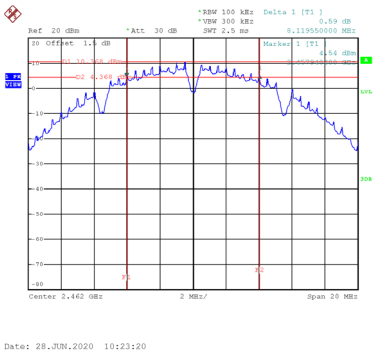
CH01



CH06

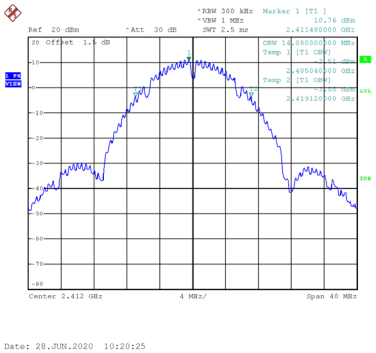


CH11

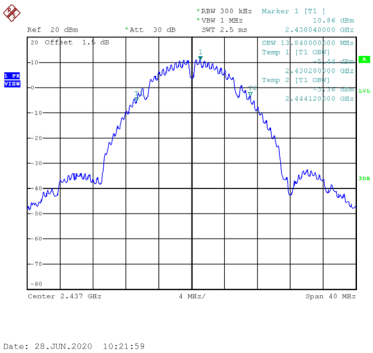


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	14.08	Complies
06	2437	13.84	Complies
11	2462	13.92	Complies

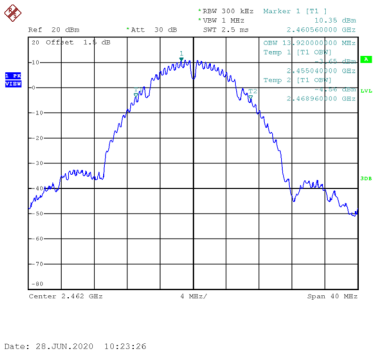
CH01



CH06



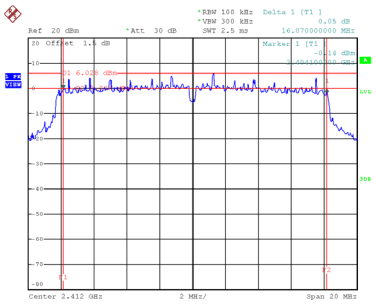
CH11



Test Mode	TX G Mode

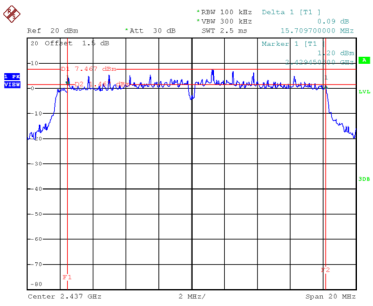
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.07	500	Complies
06	2437	15.71	500	Complies
11	2462	15.36	500	Complies

CH01



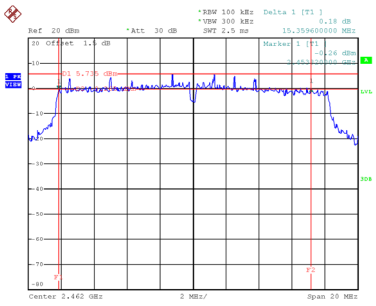
Date: 28.JUN.2020 10:24:37

CH06



Date: 28.JUN.2020 10:25:51

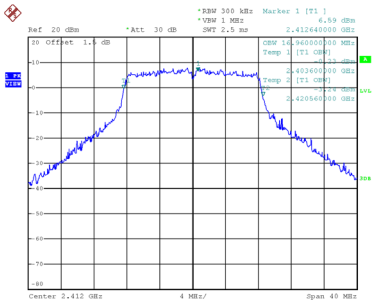
CH11



Date: 28.JUN.2020 10:27:10

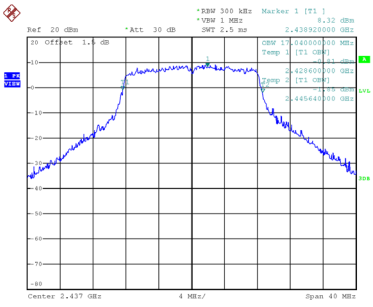
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.96	Complies
06	2437	17.04	Complies
11	2462	16.88	Complies

CH01



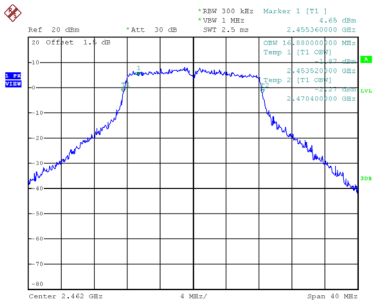
Date: 28.JUN.2020 10:24:44

CH06



Date: 28.JUN.2020 10:25:58

CH11

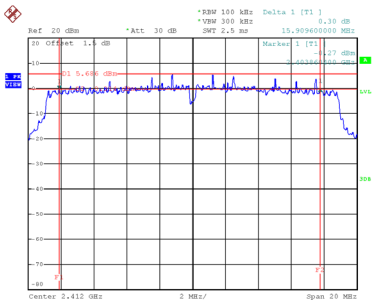


Date: 28.JUN.2020 10:27:17

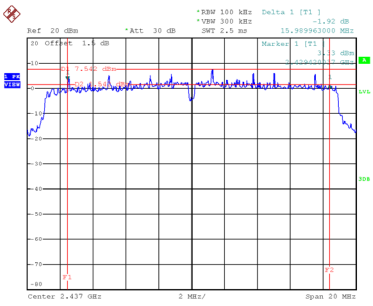
Test Mode	TX N-20M Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.91	500	Complies
06	2437	15.99	500	Complies
11	2462	15.16	500	Complies

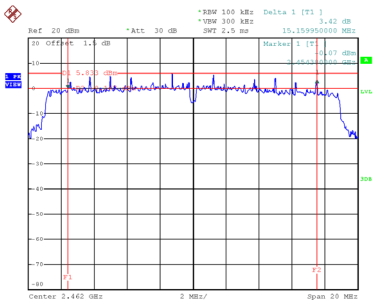
CH01



CH06

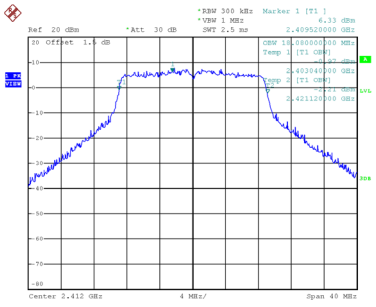


CH11

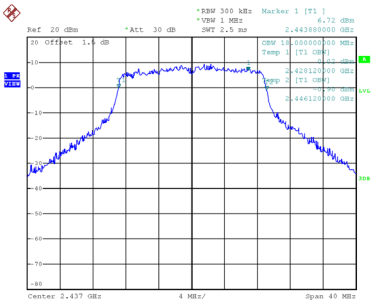


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	18.08	Complies
06	2437	18.00	Complies
11	2462	18.00	Complies

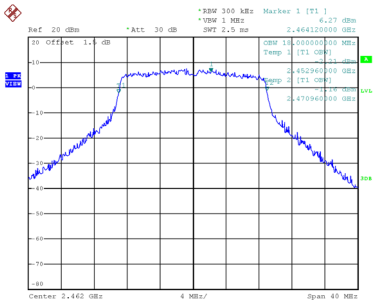
CH01



CH06



CH11



APPENDIX F - MAXIMUM PEAK OUTPUT POWER

Test Mode	TX B Mode

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.98	30.00	1.0000	Complies
06	2437	21.42	30.00	1.0000	Complies
11	2462	20.94	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	20.36	30.00	1.0000	Complies
06	2437	22.06	30.00	1.0000	Complies
11	2462	20.40	30.00	1.0000	Complies

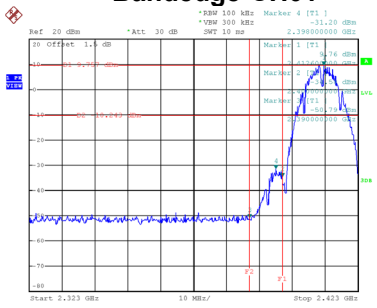
Test Mode	TX N-20M Mode

Channel	Frequency (MHz)	Peak Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	20.33	30.00	1.0000	Complies
06	2437	22.11	30.00	1.0000	Complies
11	2462	21.65	30.00	1.0000	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

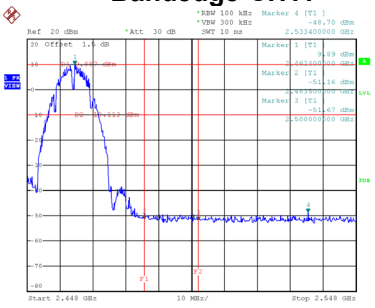
Test Mode	TX B Mode

Bandedge-CH01



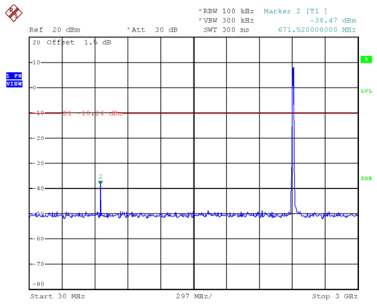
Date: 28.JUN.2020 10:20:32

Bandedge-CH11

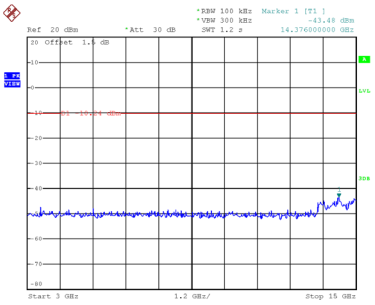


Date: 28.JUN.2020 10:23:33

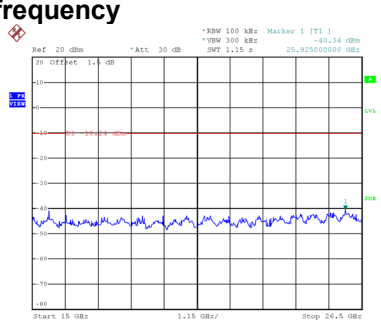
CH01 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:20:45

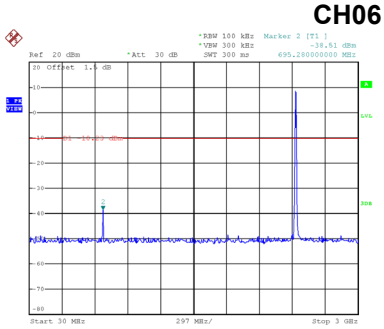


Date: 28.JUN.2020 10:20:52

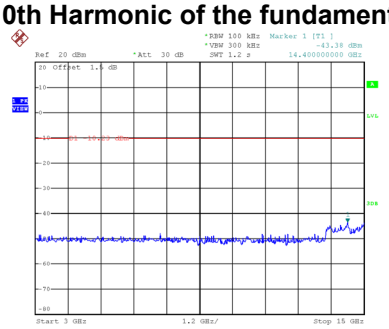


Date: 28.JUN.2020 10:20:58

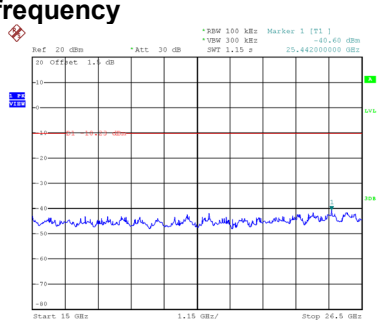
CH06 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:22:18

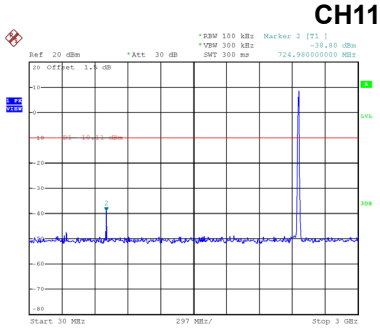


Date: 28.JUN.2020 10:22:25

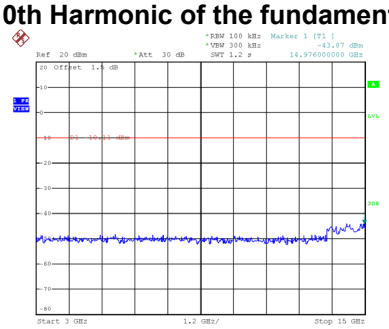


Date: 28.JUN.2020 10:22:32

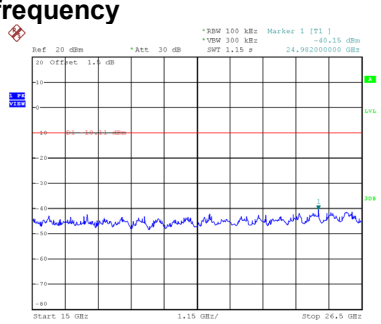
CH11 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:23:46



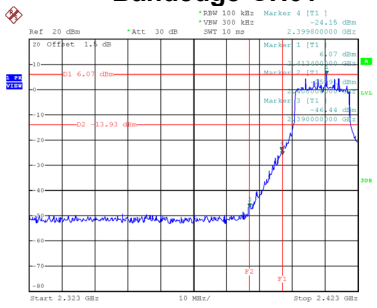
Date: 28.JUN.2020 10:23:53



Date: 28.JUN.2020 10:24:00

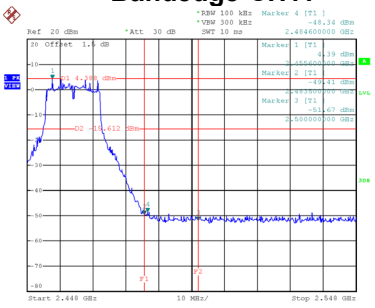
Test Mode	TX G Mode

Bandedge-CH01



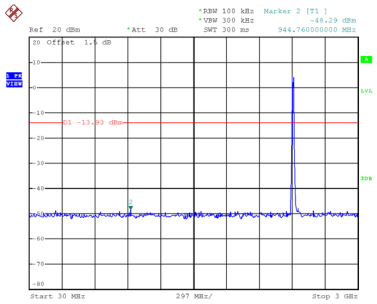
Date: 28.JUN.2020 10:24:50

Bandedge-CH11

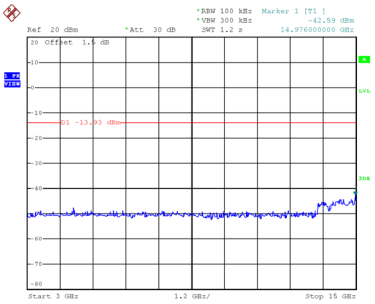


Date: 28.JUN.2020 10:27:24

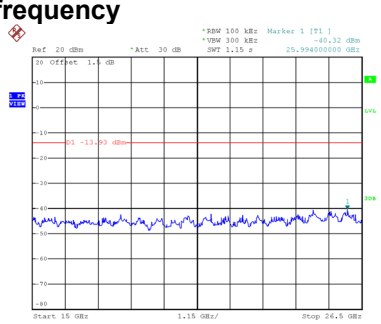
CH01 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:25:03

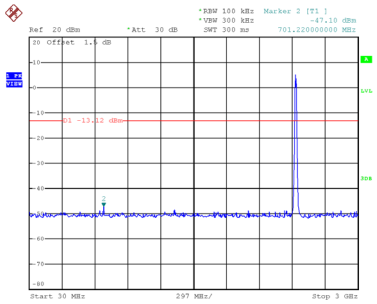


Date: 28.JUN.2020 10:25:10

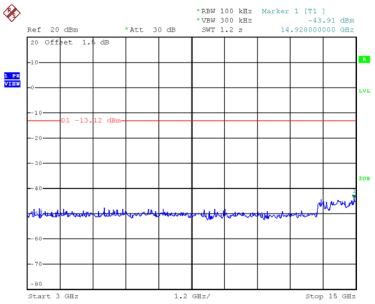


Date: 28.JUN.2020 10:25:17

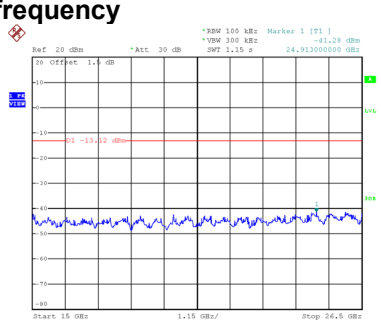
CH06 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:26:18

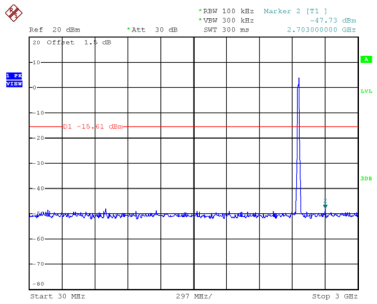


Date: 28.JUN.2020 10:26:25

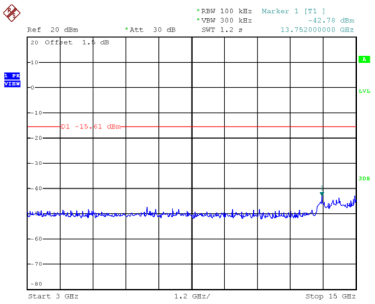


Date: 28.JUN.2020 10:26:32

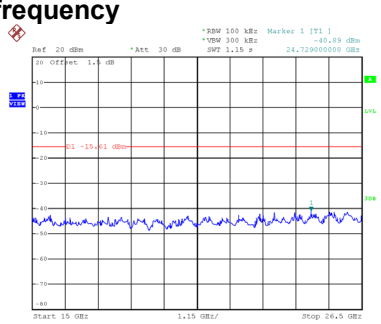
CH11 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:27:37



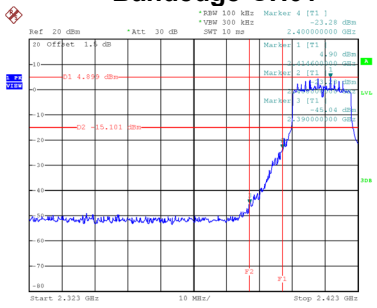
Date: 28.JUN.2020 10:27:43



Date: 28.JUN.2020 10:27:50

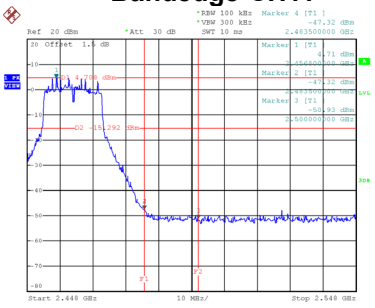
Test Mode	TX N-20M Mode

Bandedge-CH01



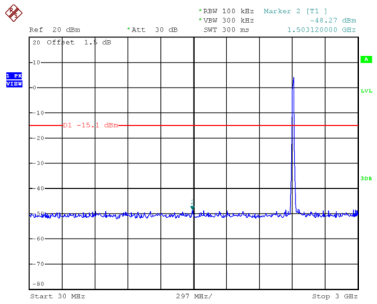
Date: 28.JUN.2020 10:30:59

Bandedge-CH11

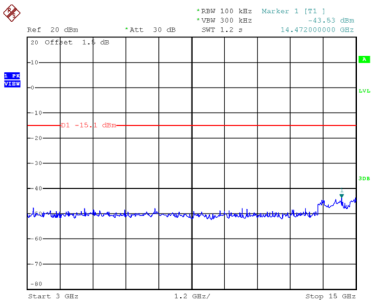


Date: 28.JUN.2020 10:34:40

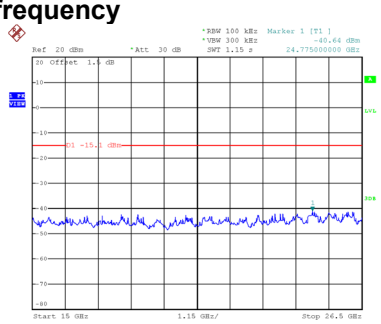
CH01 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:31:12

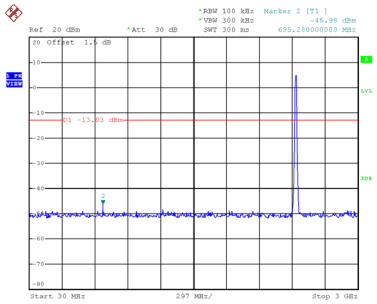


Date: 28.JUN.2020 10:31:19

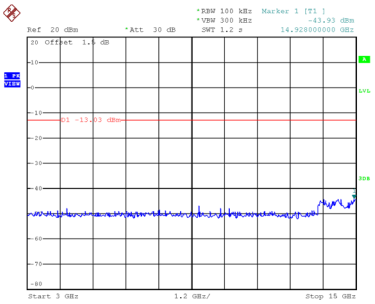


Date: 28.JUN.2020 10:31:25

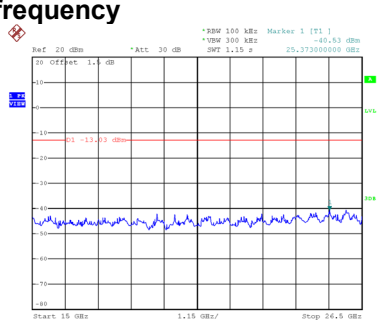
CH06 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:33:12

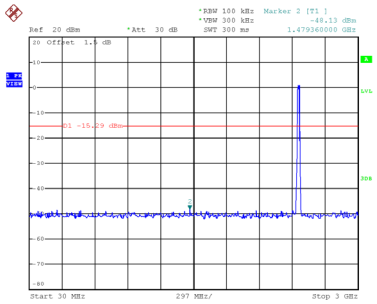


Date: 28.JUN.2020 10:33:19

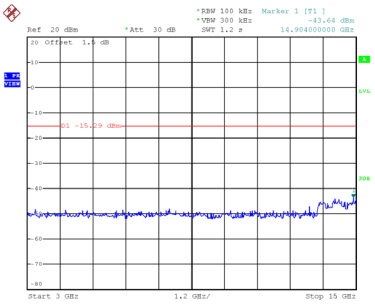


Date: 28.JUN.2020 10:33:26

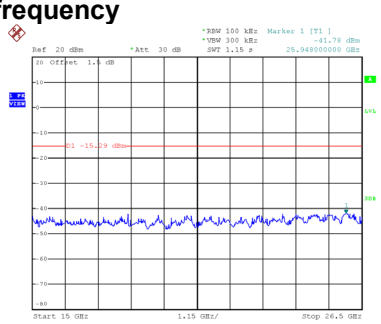
CH11 – 10th Harmonic of the fundamental frequency



Date: 28.JUN.2020 10:34:52



Date: 28.JUN.2020 10:35:00



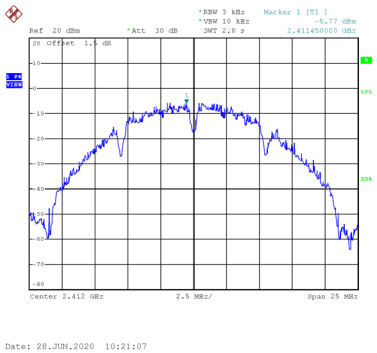
Date: 28.JUN.2020 10:35:06

APPENDIX H - POWER SPECTRAL DENSITY

Test Mode	TX B Mode

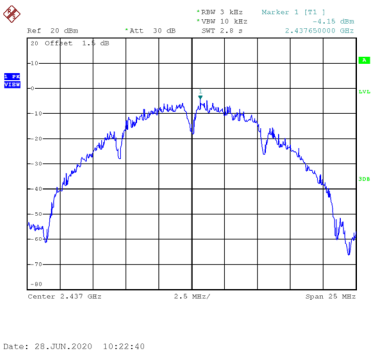
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-5.77	8	Complies
06	2437	-4.15	8	Complies
11	2462	-5.40	8	Complies

CH01



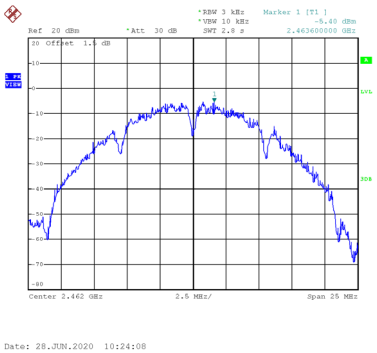
Date: 28.JUN.2020 10:21:07

CH06



Date: 28.JUN.2020 10:22:40

CH11

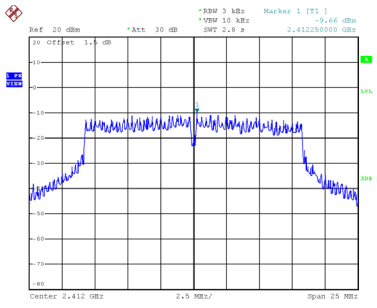


Date: 28.JUN.2020 10:24:08

Test Mode	TX G Mode

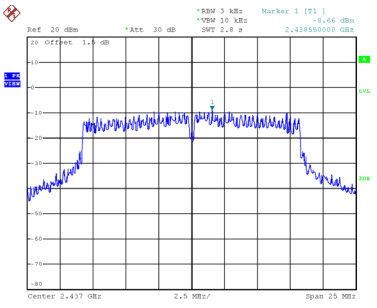
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-9.66	8	Complies
06	2437	-8.66	8	Complies
11	2462	-9.52	8	Complies

CH01



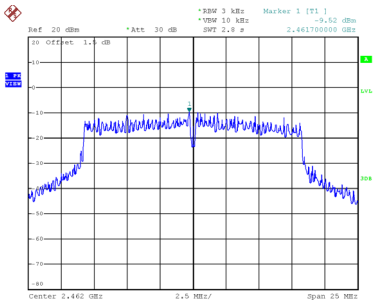
Date: 28.JUN.2020 10:25:25

CH06



Date: 28.JUN.2020 10:26:40

CH11

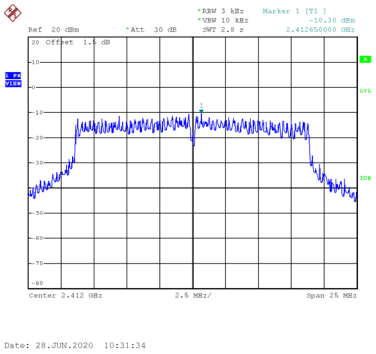


Date: 28.JUN.2020 10:27:59

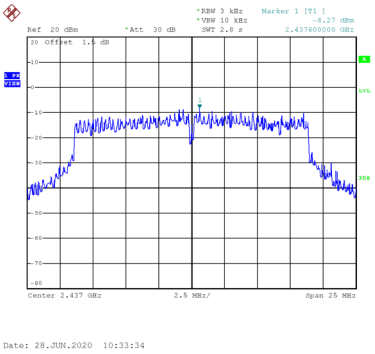
Test Mode	TX N-20M Mode

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-10.30	8	Complies
06	2437	-8.27	8	Complies
11	2462	-9.63	8	Complies

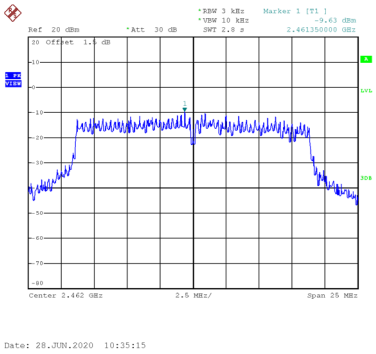
CH01



CH06



CH11



End of Test Report