FCC Radio Test Report

FCC ID: TE7KH310

This report concerns: Original Grant

Project No.	:	1905C145
Equipment	:	Kasa Spot Camera Hub
Test Model	:	KH310
Series Model	:	N/A
Applicant	:	TP-Link Technologies Co., Ltd.
Address	:	Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Receipt	:	May 29, 2019
Date of Test	:	May 30, 2019 ~ Jun. 22, 2019
Issued Date	:	Aug. 06, 2019
Tested by	:	BTL Inc.

Testing Engineer : Vincent. Tan
(Vincent Tan)

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Certificate #5123.02

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.	Aug. 06, 2019

1. GENERAL SUMMARY

Equipment	:	Kasa Spot Camera Hub
Brand Name	:	tp-link
Test Model	:	KH310
Series Model	:	N/A
Applicant	:	TP-Link Technologies Co., Ltd.
Manufacturer	:	TP-Link Technologies Co., Ltd.
Address	:	Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Date of Test	:	May 30, 2019 ~ Jun. 22, 2019
Test Sample	:	Engineering Sample No.: DG19053032 for conducted, DG19053033 for radiated.
Standard(s)	:	FCC Part15, Subpart C (15.247) ANSI C63.10-2013 FCC KDB 558074 D01 DTS Meas Guidance v05r02 FCC KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1905C145) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

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

Note:

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

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

2.1 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

2.2 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	150 kHz ~ 30 MHz	2.32

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 ~ 26.5 GHz	-	3.80
		26.5GHz ~ 40 GHz	-	4.30

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Kasa Spot Camera Hub
Brand Name	tp-link
Test Model	KH310
Series Model	N/A
Model Difference(s)	N/A
Power Source	DC voltage supplied from AC/DC adapter. Model: AMS195-0900600FU
Power Rating	I/P: 100-240V~ 50/60Hz 0.3A O/P: 9V ⎓ 0.6A
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 Average Output Power	IEEE 802.11b: 25.86 dBm (0.3855 W) IEEE 802.11g: 24.63 dBm (0.2904 W) IEEE 802.11n (HT20): 24.68 dBm (0.2938 W) IEEE 802.11n (HT40): 22.52 dBm (0.1786 W)

Note:

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

2. Channel List:

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

3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	TP-LINK	3101502555	PCB	I-PEX	3.20
2	TP-LINK	3101502556	PCB	I-PEX	3.54

Note:

This EUT supports CDD, and antenna gains are not equal, so Directional gain= $10\log[(10^{G1/20}+10^{G2/20}+...10^{GN/20})^2/N]$dBi, that is Directional gain=$10\log[(10^{3.20/20}+10^{3.54/20})^2/2]$dBi =6.38. So, the average output power limit is 30-(6.38-6)=29.62, the power spectral density limit is 8-(6.38-6)=7.62.

4. Table for Antenna Configuration:

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

3.2 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 B Mode Channel 01
Mode 6	TX B Mode Channel 01/02/06/10/11
Mode 7	TX G Mode Channel 01/02/06/10/11
Mode 8	TX N-20 MHz Mode Channel 01/02/06/10/11
Mode 9	TX N-40 MHz Mode Channel 03/04/06/08/09

Following mode(s) as (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 B Mode Channel 01

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

Radiated emissions test- Above 1GHz	
Final Test Mode	Description
Mode 6	TX B Mode Channel 01/02/06/10/11
Mode 7	TX G Mode Channel 01/02/06/10/11
Mode 8	TX N-20 MHz Mode Channel 01/02/06/10/11
Mode 9	TX N-40 MHz Mode Channel 03/04/06/08/09

Conducted test	
Final Test Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-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 802.11b channel 01 is found to be the worst case and recorded.

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

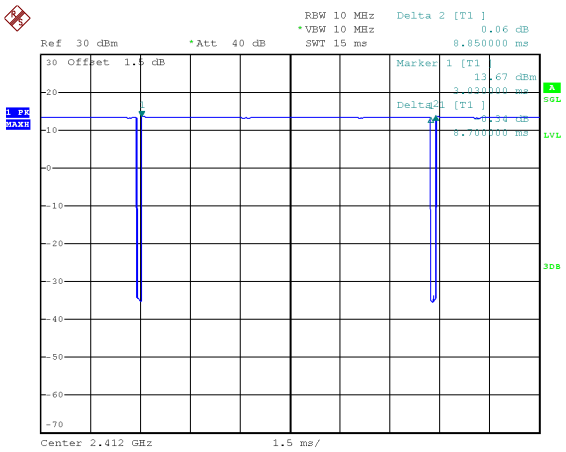
3.3 PARAMETERS OF TEST SOFTWARE

Test Software	N/A		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	30	29	29
IEEE 802.11g	22	27	21
IEEE 802.11n (HT20)	21	27	21
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	18	24	18

3.4 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.

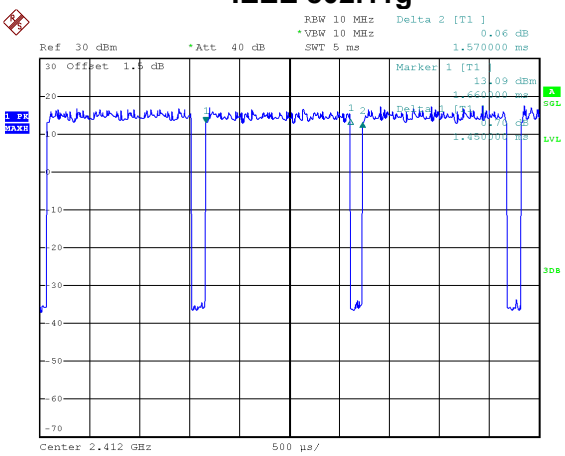
IEEE 802.11b



Date: 17.JUN.2019 15:34:36

Duty cycle = 8.70 ms / 8.85 ms = 98.31%
Duty Factor = 10 log(1/Duty cycle) = 0.00

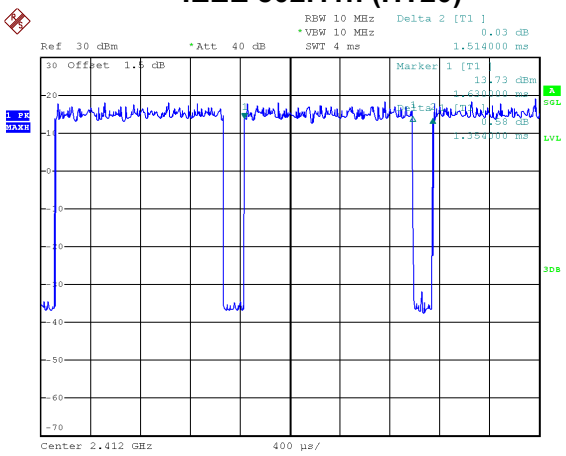
IEEE 802.11g



Date: 17.JUN.2019 15:32:17

Duty cycle = 1.45 ms / 1.57 ms = 92.36%
Duty Factor = 10 log(1/Duty cycle) = 0.35

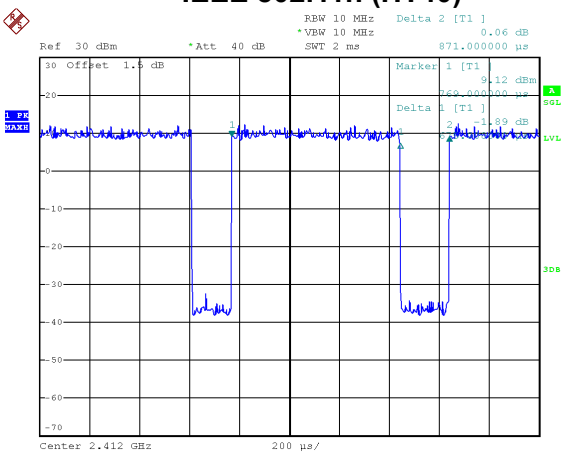
IEEE 802.11n (HT20)



Date: 17.JUN.2019 15:35:29

Duty cycle = 1.354 ms / 1.514 ms = 89.43%
Duty Factor = 10 log(1/Duty cycle) = 0.49

IEEE 802.11n (HT40)



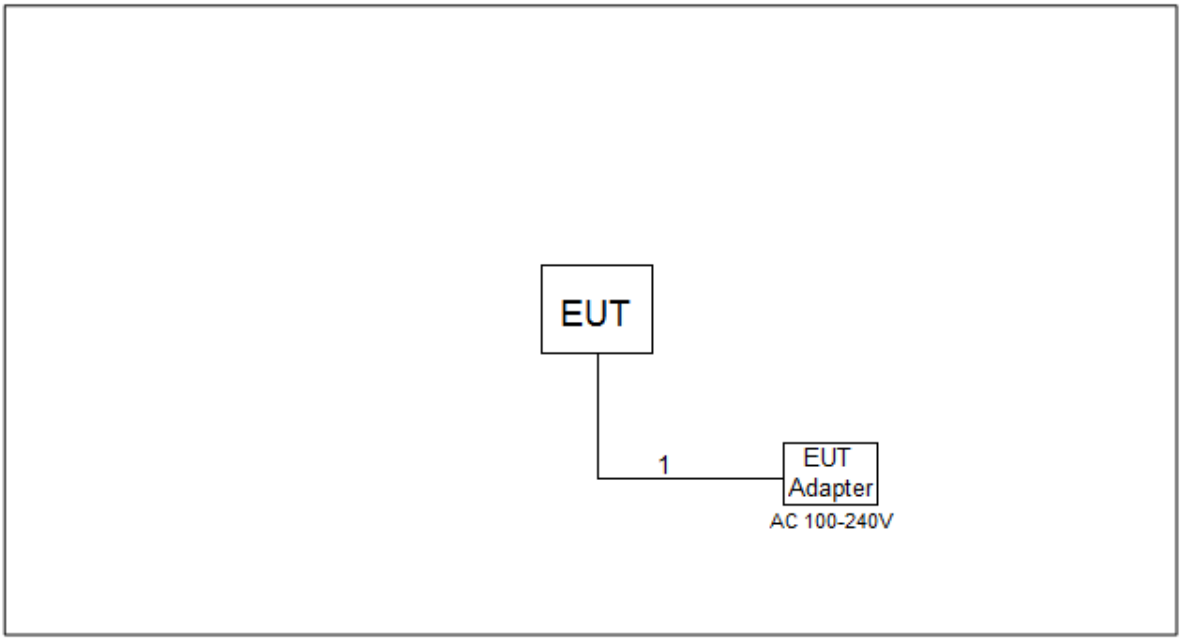
Date: 17.JUN.2019 15:36:54

Duty cycle = 0.675 ms / 0.871 ms = 77.50%
Duty Factor = 10 log(1/Duty cycle) = 1.11

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

For IEEE 802.11n (HT40):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 2 kHz (Duty cycle < 98%).

3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.5m

4. AC POWER LINE CONDUCTED EMISSIONS TEST

4.1 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

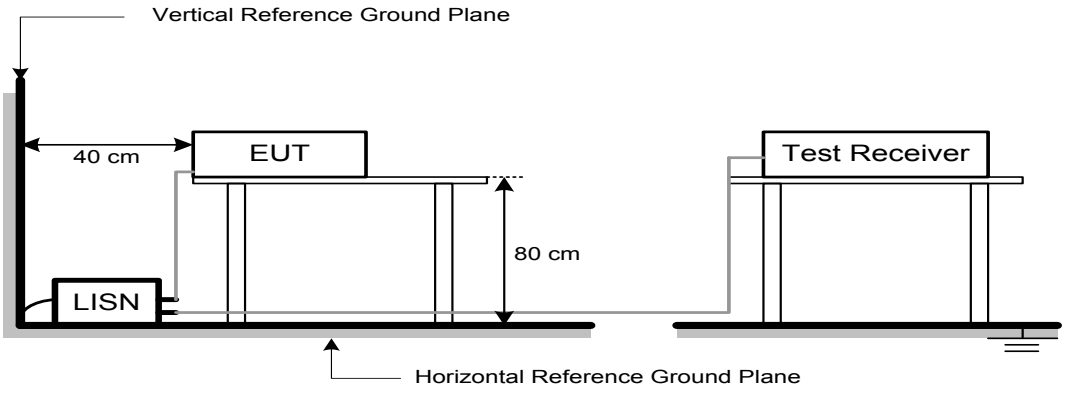
4.2 TEST PROCEDURE

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.

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP



4.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

4.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 53% Test Voltage: AC 120V/60Hz

4.7 TEST RESULTS

Please refer to the APPENDIX A.

5. RADIATED EMISSIONS TEST

5.1 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

5.2 TEST PROCEDURE

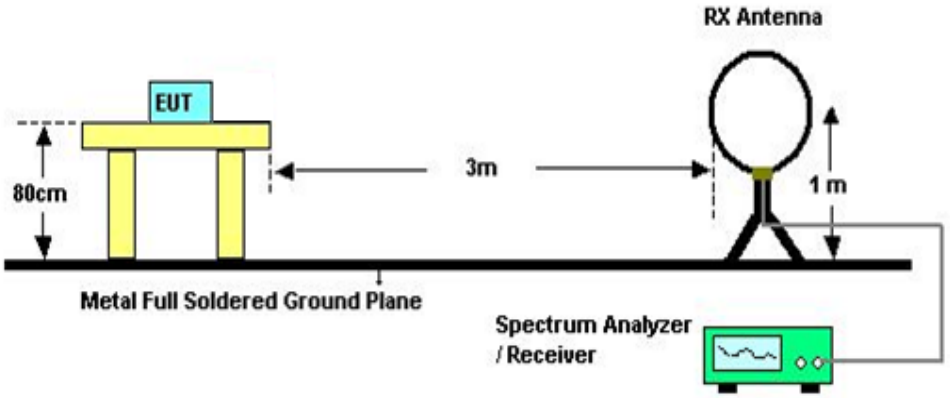
a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance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

5.3 DEVIATION FROM TEST STANDARD

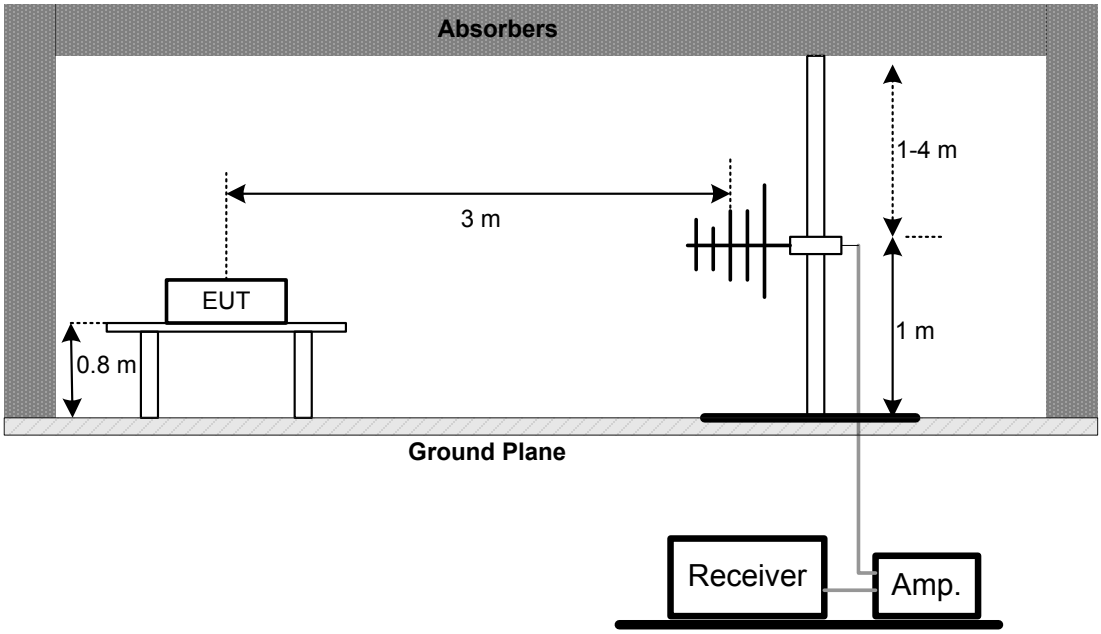
No deviation

5.4 TEST SETUP

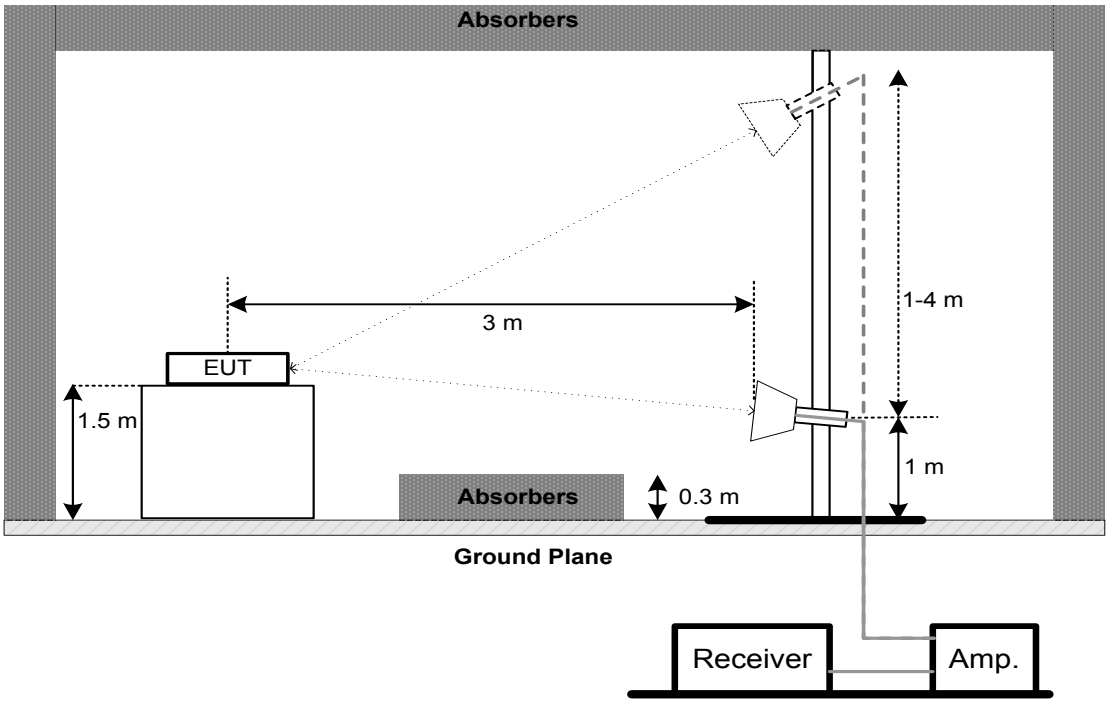
9 kHz-30 MHz



30 MHz to 1 GHz



Above 1 GHz



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 60% Test Voltage: AC 120V/60Hz

5.7 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.

5.8 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

5.9 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.

6. BANDWIDTH TEST

6.1 LIMIT

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

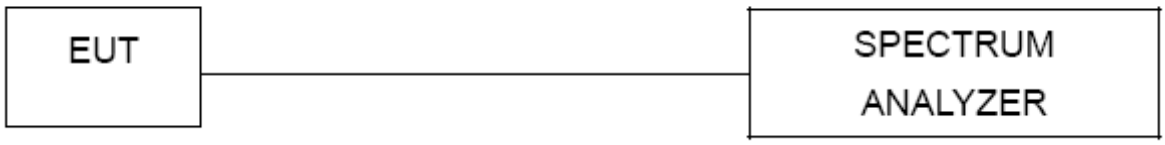
6.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. For 6dB Bandwidth Spectrum setting: RBW= 100KHz, VBW=300KHz, Sweep time = 2.5 ms. For 99% OBW Spectrum Setting: For B,G,N20 mode: RBW= 300KHz, VBW=1MHz,For N40 mode: RBW= 1MHz, VBW=3MHz, Sweep time = 2.5 ms.
c. The bandwidth was performed in accordance with method 11.8.1 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 EUT TEST CONDITIONS

Temperature: 25.4°C Relative Humidity: 68.3% Test Voltage: AC 120V/60Hz

6.7 TEST RESULTS

Please refer to the APPENDIX E.

7. MAXIMUM AVERAGE OUTPUT POWER TEST

7.1 LIMIT

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

7.2 TEST PROCEDURE

a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
b. The maximum conducted output power was performed in accordance with method 11.9.2.3.1 of ANSI C63.10-2013 and FCC KDB 662911 D01 v02r01 Multiple Transmitter Output.

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 EUT TEST CONDITIONS

Temperature: 25.4°C Relative Humidity: 68.3% Test Voltage: AC 120V/60Hz

7.7 TEST RESULTS

Please refer to the APPENDIX F.

8. CONDUCTED SPURIOUS EMISSIONS

8.1 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.

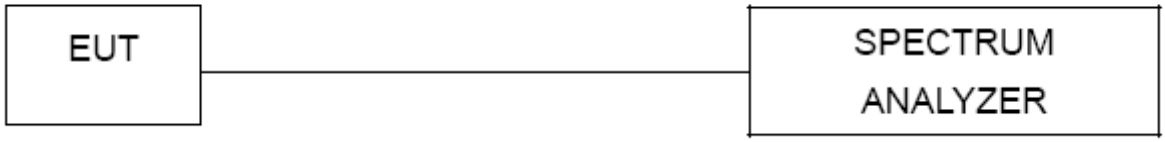
8.2 TEST PROCEDURE

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= 100 kHz, VBW=300 kHz, Sweep time = Auto.

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 EUT TEST CONDITIONS

Temperature: 25.4°C Relative Humidity: 68.3% Test Voltage: AC 120V/60Hz

8.7 TEST RESULTS

Please refer to the APPENDIX G.

9. POWER SPECTRAL DENSITY TEST

9.1 LIMIT

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

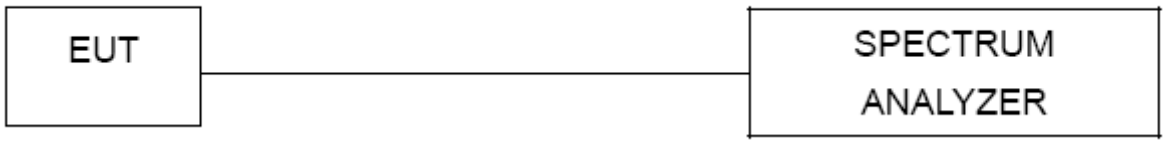
9.2 TEST PROCEDURE

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.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

9.6 EUT TEST CONDITIONS

Temperature: 25.4°C Relative Humidity: 68.3% Test Voltage: AC 120V/60Hz

9.7 TEST RESULTS

Please refer to the APPENDIX H.

10. 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	Mar. 10, 2020
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020
3	50ohm Terminator	SHX	TF5-3	15041305	Mar. 10, 2020
4	Artificial-Mains Network	SCHWARZBECK	NSLK 8127	8127685	Mar. 10, 2020
5	TRANSIENT LIMITER	EM	EM-7600	772	Mar. 10, 2020
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
7	Cable	N/A	RG223	12m	Mar. 12, 2020

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	Jan. 15, 2020
2	Cable	N/A	RG 213/U	C-102	May 31, 2020
3	EMI Test Receiver	R&S	ESCI	100895	Mar. 10, 2020
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, 2020
2	Amplifier	HP	8447D	2944A09673	Aug. 11, 2019
3	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019
4	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	May 24, 2020
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 09, 2020
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2019
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020
5	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jul. 30, 2019
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Bandwidth & Antenna Conducted Spurious Emissions & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

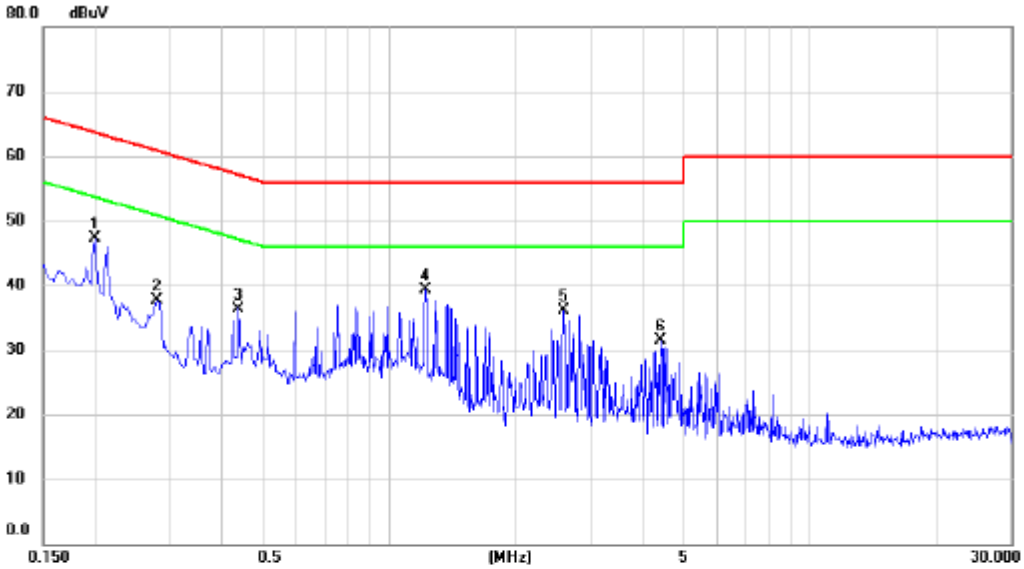
Maximum Average Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	P-series power meter	Agilent	N1911A	MY45100473	Aug. 11, 2019
2	wideband power sensor	Agilent	N1921A	MY51100041	Aug. 11, 2019

Remark: ”N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode:	TX B Mode Channel 01

Line

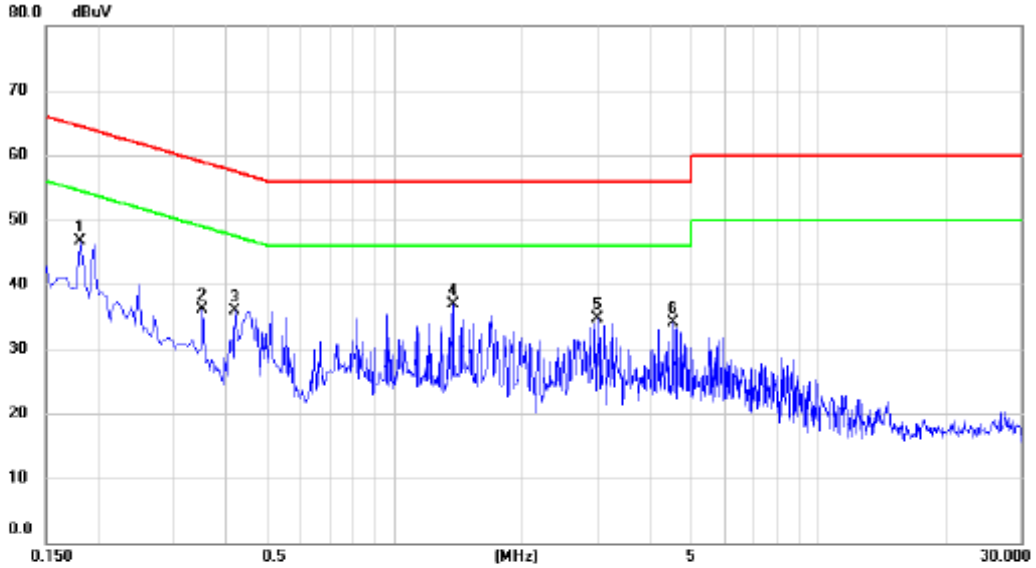


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1995	37.58	9.81	47.39	63.63	-16.24	peak	
2		0.2805	27.83	9.84	37.67	60.80	-23.13	peak	
3		0.4380	26.53	9.87	36.40	57.10	-20.70	peak	
4		1.2210	29.46	9.94	39.40	56.00	-16.60	peak	
5		2.5935	26.13	10.03	36.16	56.00	-19.84	peak	
6		4.4205	21.37	10.16	31.53	56.00	-24.47	peak	

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

Test Mode:	TX B Mode Channel 01

Neutral



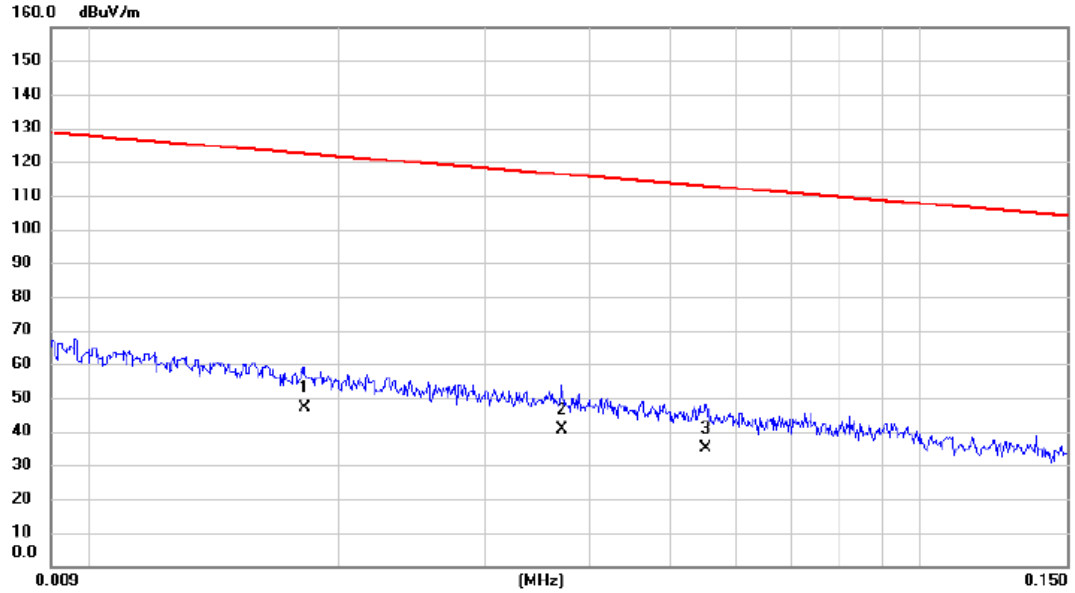
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1815	36.81	9.91	46.72	64.42	-17.70	peak	
2		0.3525	26.13	9.99	36.12	58.90	-22.78	peak	
3		0.4200	25.92	10.01	35.93	57.45	-21.52	peak	
4		1.3695	26.82	10.15	36.97	56.00	-19.03	peak	
5		3.0120	24.49	10.25	34.74	56.00	-21.26	peak	
6		4.5195	23.81	10.36	34.17	56.00	-21.83	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 B Mode Channel 01

Ant 0°

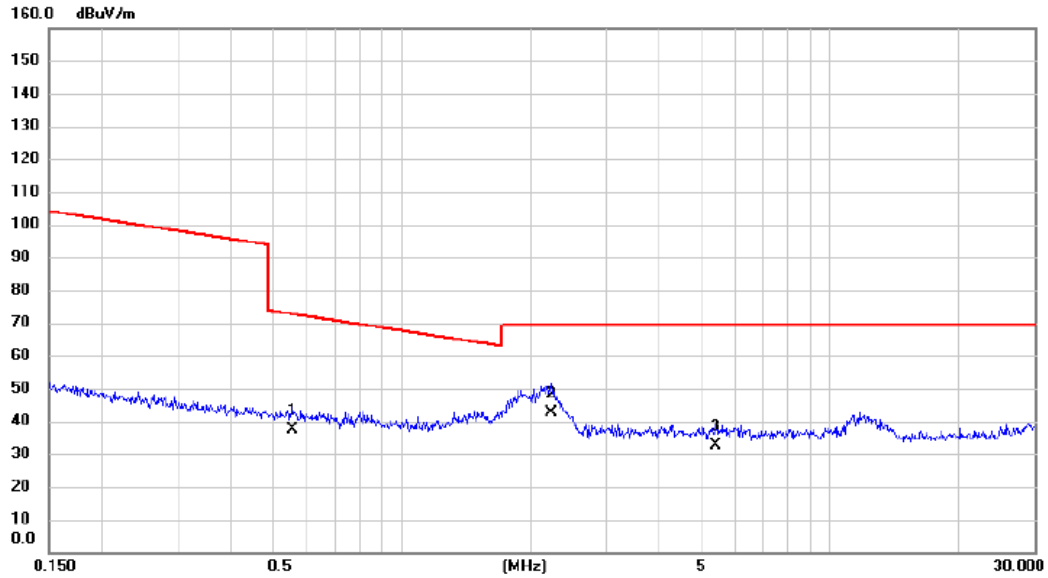


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0182	32.80	14.36	47.16	122.40	-75.24	AVG	
2		0.0371	26.80	13.89	40.69	116.22	-75.53	AVG	
3		0.0551	21.30	13.85	35.15	112.78	-77.63	AVG	

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

Test Mode:	TX B Mode Channel 01

Ant 0°

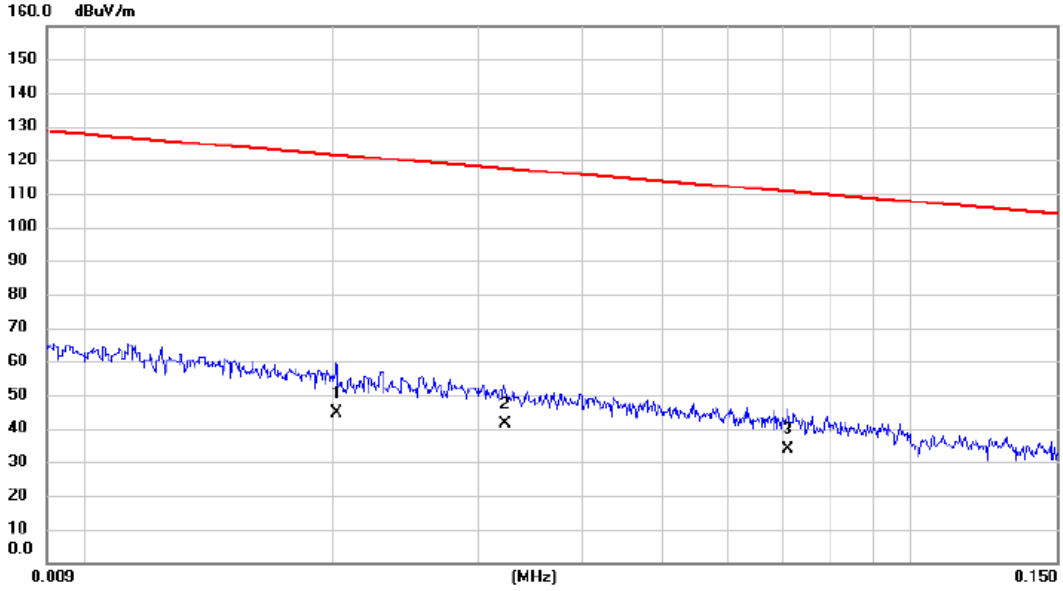


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.5581	24.30	12.94	37.24	72.67	-35.43	QP	
2	*	2.2367	30.80	11.68	42.48	69.54	-27.06	QP	
3		5.3900	21.50	10.92	32.42	69.54	-37.12	QP	

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

Test Mode:	TX B Mode Channel 01

Ant 90°

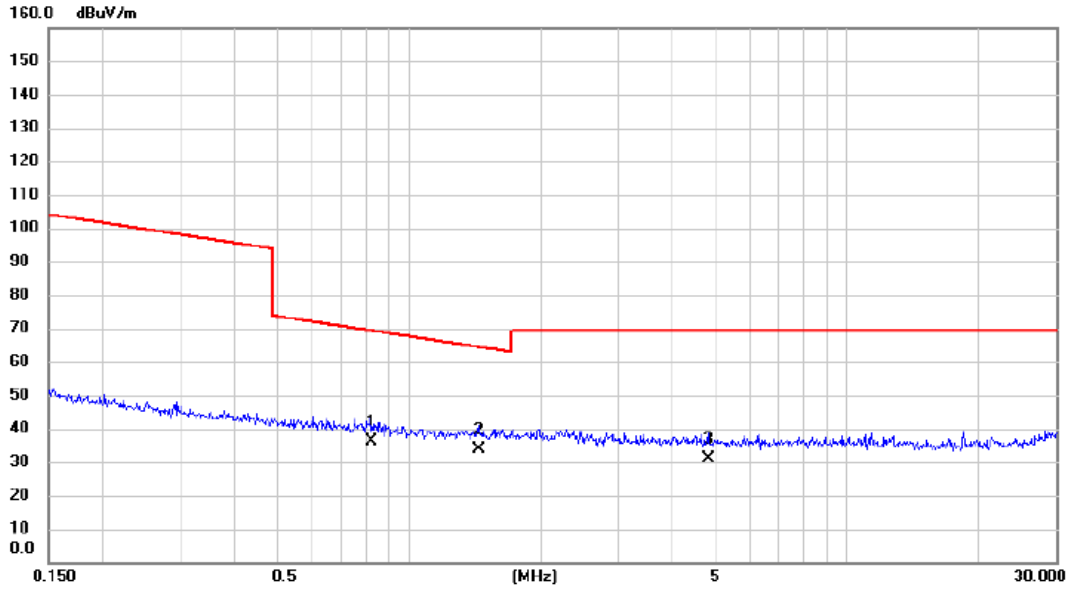


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.0202	30.80	13.82	44.62	121.50	-76.88	AVG	
2	*	0.0323	27.60	13.87	41.47	117.42	-75.95	AVG	
3		0.0711	20.30	13.59	33.89	110.57	-76.68	AVG	

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

Test Mode:	TX B Mode Channel 01

Ant 90°



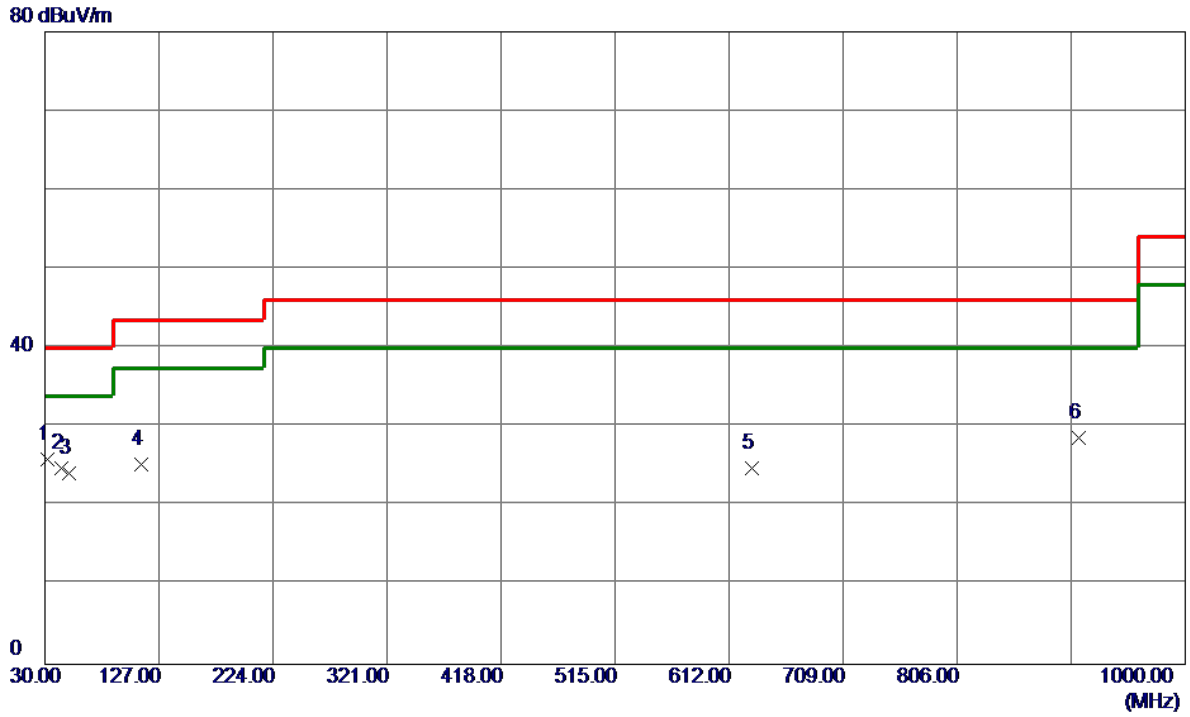
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		0.8174	23.60	12.56	36.16	69.36	-33.20	QP	
2	*	1.4410	21.80	12.20	34.00	64.43	-30.43	QP	
3		4.8224	20.10	10.88	30.98	69.54	-38.56	QP	

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 B Mode Channel 01

Vertical

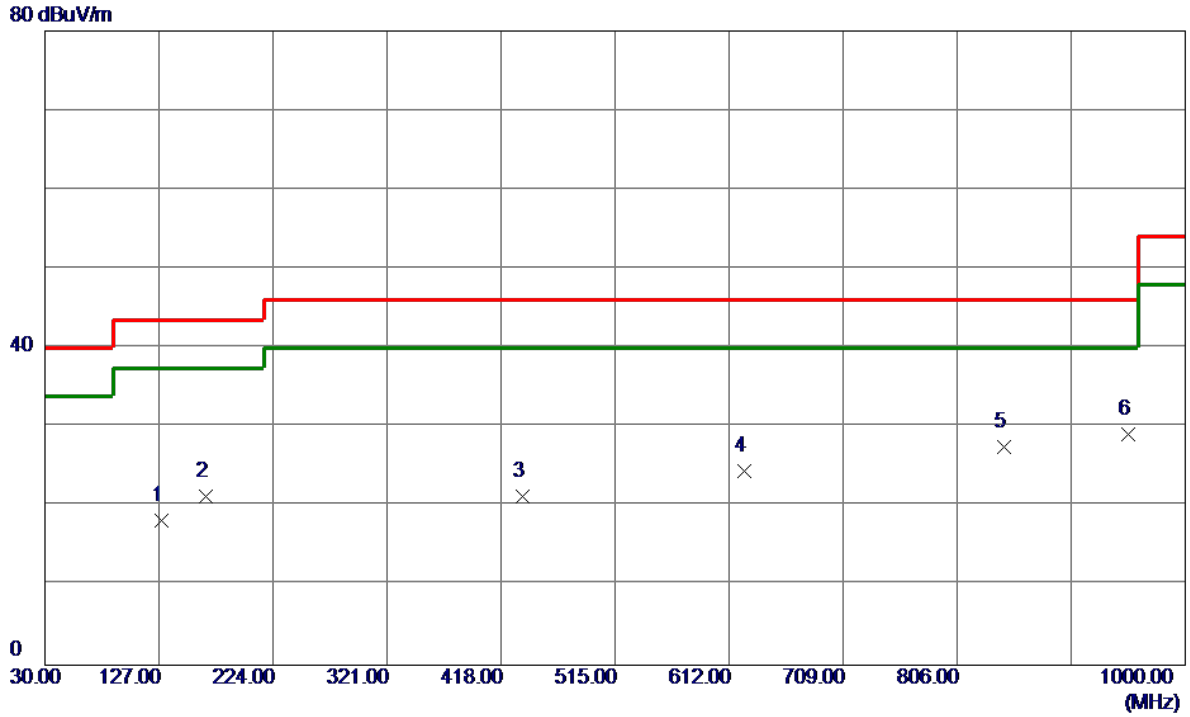


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	31.9400	40.78	-14.80	25.98	40.00	-14.02	Peak	
2	44.0650	39.40	-14.62	24.78	40.00	-15.22	Peak	
3	50.8550	38.06	-13.93	24.13	40.00	-15.87	Peak	
4	111.4800	39.65	-14.36	25.29	43.50	-18.21	Peak	
5	630.9150	29.88	-5.13	24.75	46.00	-21.25	Peak	
6	909.7900	30.29	-1.64	28.65	46.00	-17.35	Peak	

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

Test Mode:	TX B Mode Channel 01

Horizontal



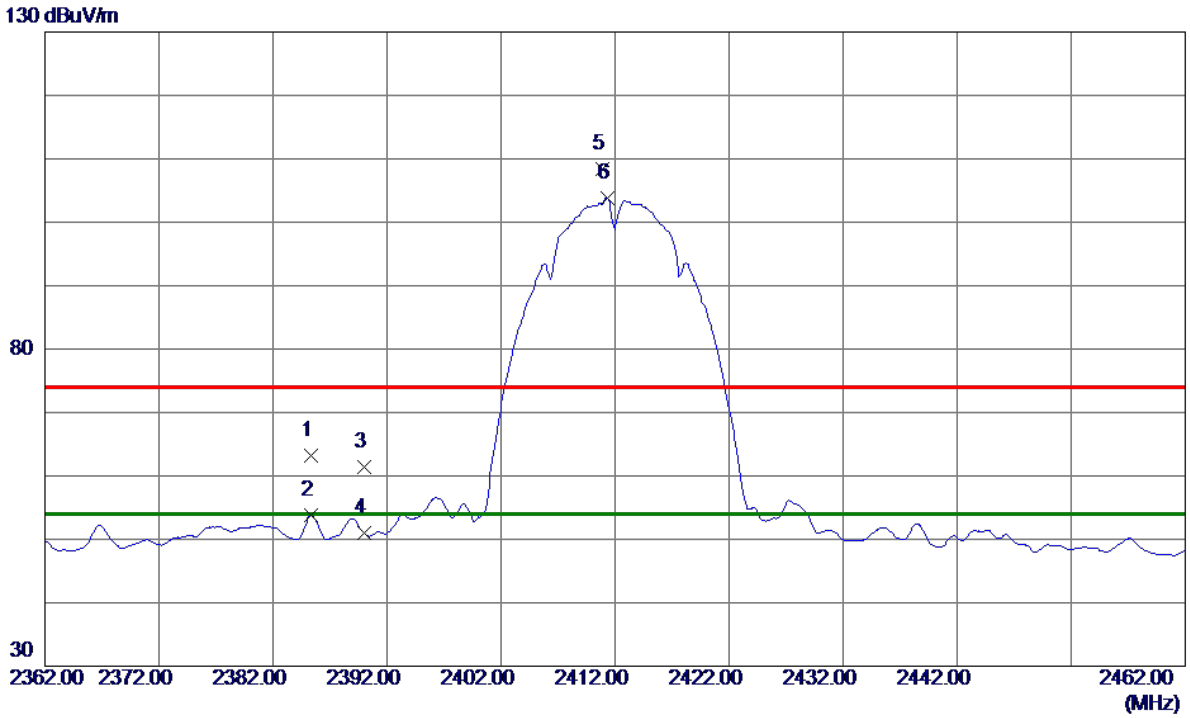
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	128.9400	31.28	-13.11	18.17	43.50	-25.33	Peak	
2	167.2550	33.42	-12.10	21.32	43.50	-22.18	Peak	
3	435.9450	29.81	-8.54	21.27	46.00	-24.73	Peak	
4	625.0949	29.68	-5.26	24.42	46.00	-21.58	Peak	
5	846.2550	29.96	-2.39	27.57	46.00	-18.43	Peak	
6 *	951.9850	29.78	-0.68	29.10	46.00	-16.90	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	2385.3500	55.56	7.55	63.11	74.00	-10.89	Peak	
2	2385.3500	46.27	7.55	53.82	54.00	-0.18	AVG	
3	2390.0000	53.83	7.56	61.39	74.00	-12.61	Peak	
4	2390.0000	43.36	7.56	50.92	54.00	-3.08	AVG	
5	2410.8500	100.68	7.63	108.31	74.00	34.31	Peak	No Limit
6 *	2411.3000	96.17	7.64	103.81	54.00	49.81	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

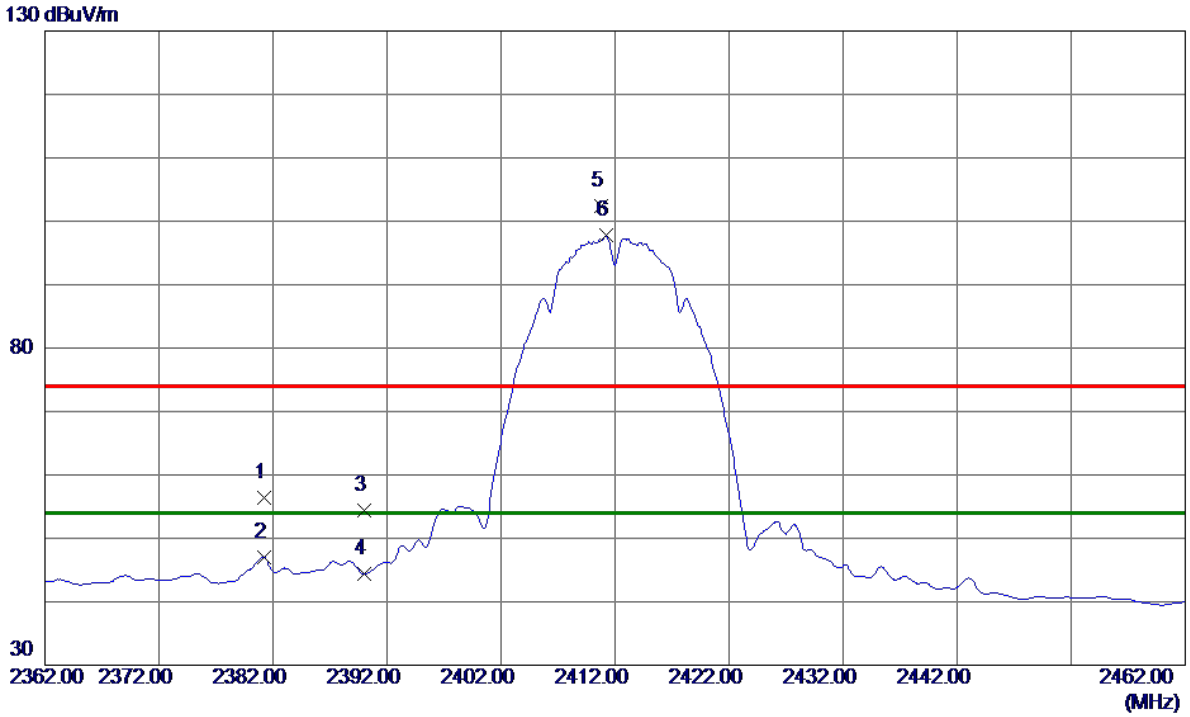
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4824.0330	44.49	4.26	48.75	74.00	-25.25	Peak	
2 *	4824.0640	40.17	4.26	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 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	2381.2000	48.78	7.54	56.32	74.00	-17.68	Peak	
2	2381.2000	39.52	7.54	47.06	54.00	-6.94	AVG	
3	2390.0000	46.83	7.56	54.39	74.00	-19.61	Peak	
4	2390.0000	36.80	7.56	44.36	54.00	-9.64	AVG	
5	2410.7500	94.86	7.63	102.49	74.00	28.49	Peak	No Limit
6 *	2411.2500	90.08	7.64	97.72	54.00	43.72	AVG	No Limit

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

Test Mode:	TX B Mode 2412 MHz

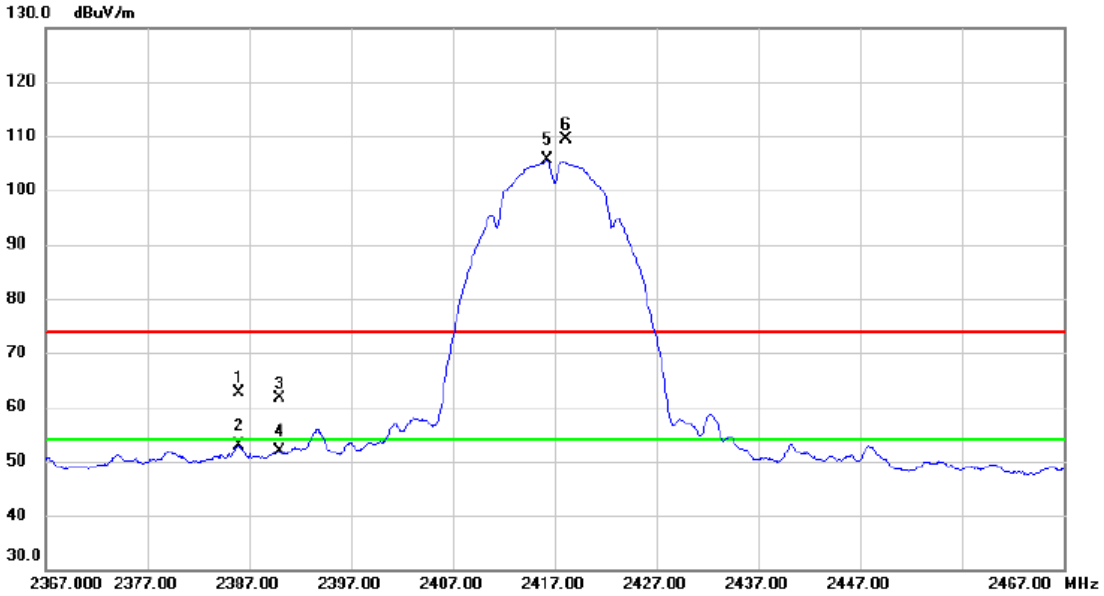
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.9500	30.78	4.26	35.04	54.00	-18.96	AVG	
2	4823.9880	40.09	4.26	44.35	74.00	-29.65	Peak	

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

Test Mode:	TX B Mode 2417 MHz

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2386.000	55.12	7.55	62.67	74.00	-11.33	peak	
2		2386.000	45.37	7.55	52.92	54.00	-1.08	AVG	
3		2390.000	54.13	7.57	61.70	74.00	-12.30	peak	
4		2390.000	44.20	7.57	51.77	54.00	-2.23	AVG	
5	*	2416.250	97.89	7.66	105.55	54.00	51.55	AVG	No Limit
6	X	2418.150	101.72	7.66	109.38	74.00	35.38	peak	No Limit

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

Test Mode:	TX B Mode 2417 MHz

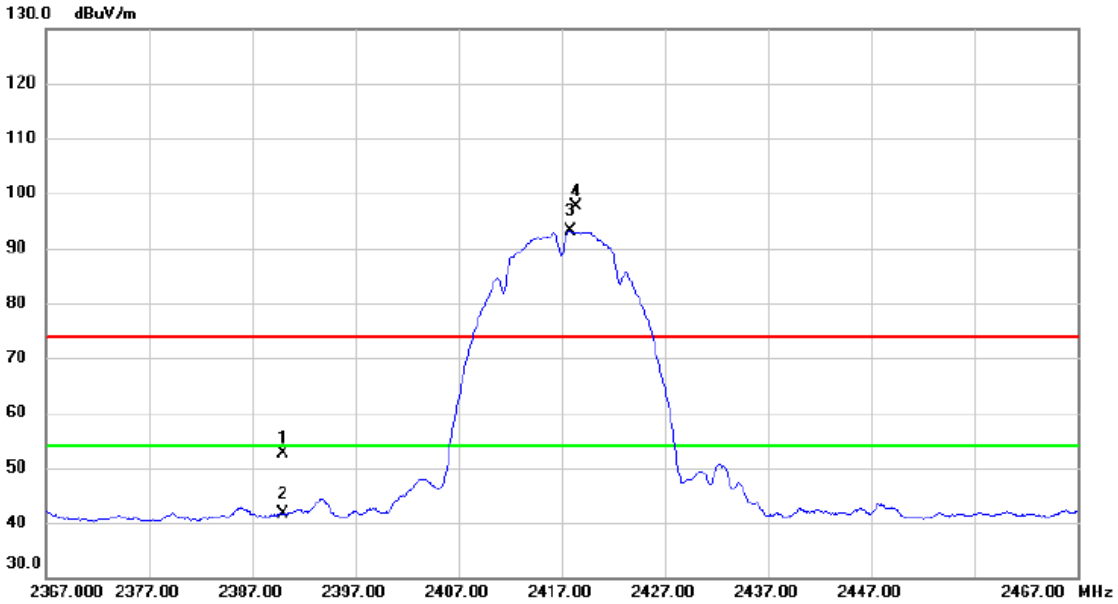
Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4834.031	40.23	4.29	44.52	54.00	-9.48	AVG	
2		4834.120	45.39	4.29	49.68	74.00	-24.32	peak	

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

Test Mode:	TX B Mode 2417 MHz

Horizontal

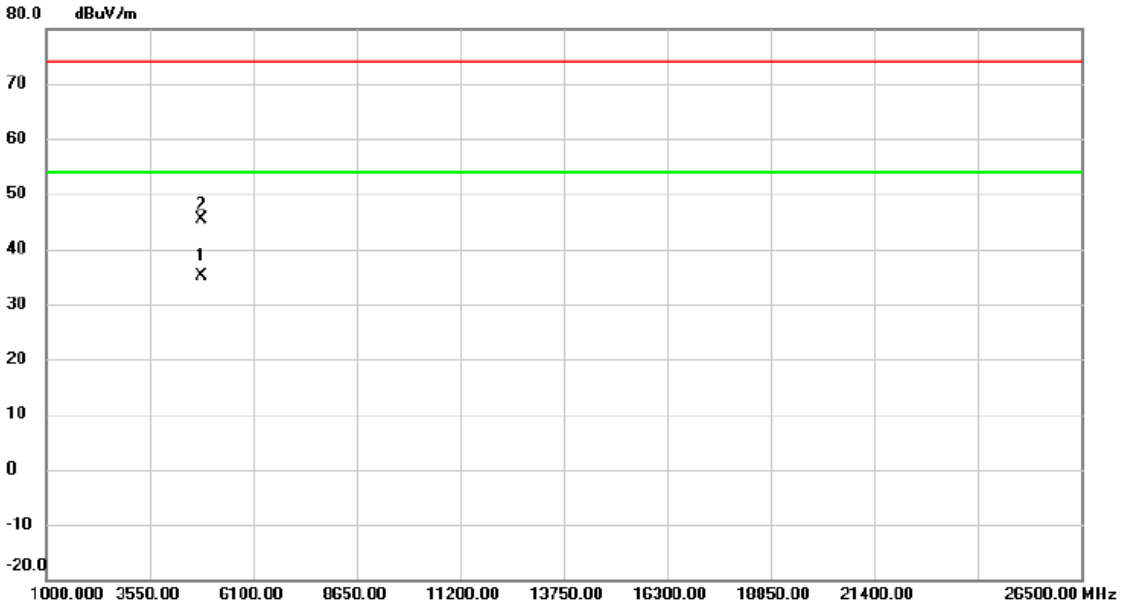


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	45.04	7.57	52.61	74.00	-21.39	peak	
2		2390.000	34.13	7.57	41.70	54.00	-12.30	AVG	
3	*	2417.800	85.42	7.66	93.08	54.00	39.08	AVG	No Limit
4	X	2418.450	89.91	7.66	97.57	74.00	23.57	peak	No Limit

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

Test Mode:	TX B Mode 2417 MHz

Horizontal

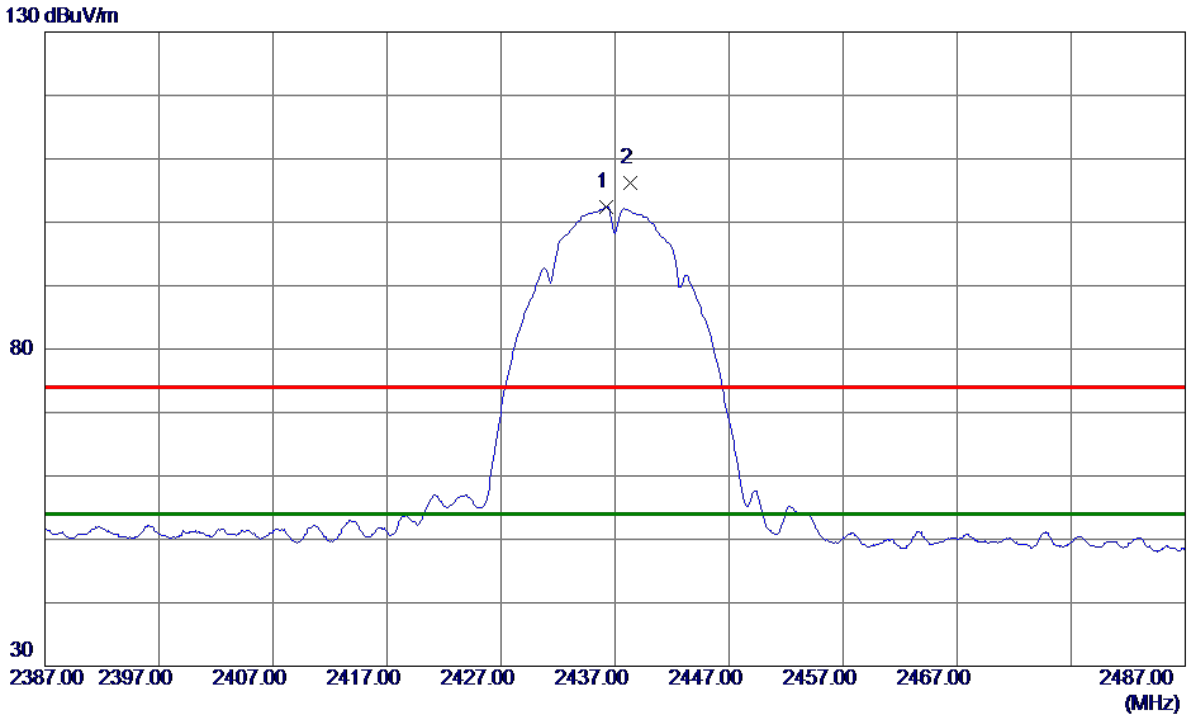


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4833.981	30.79	4.29	35.08	54.00	-18.92	AVG	
2		4834.100	41.15	4.29	45.44	74.00	-28.56	peak	

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 *	2436.2500	94.77	7.72	102.49	54.00	48.49	AVG	No Limit
2	2438.3500	98.47	7.73	106.20	74.00	32.20	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

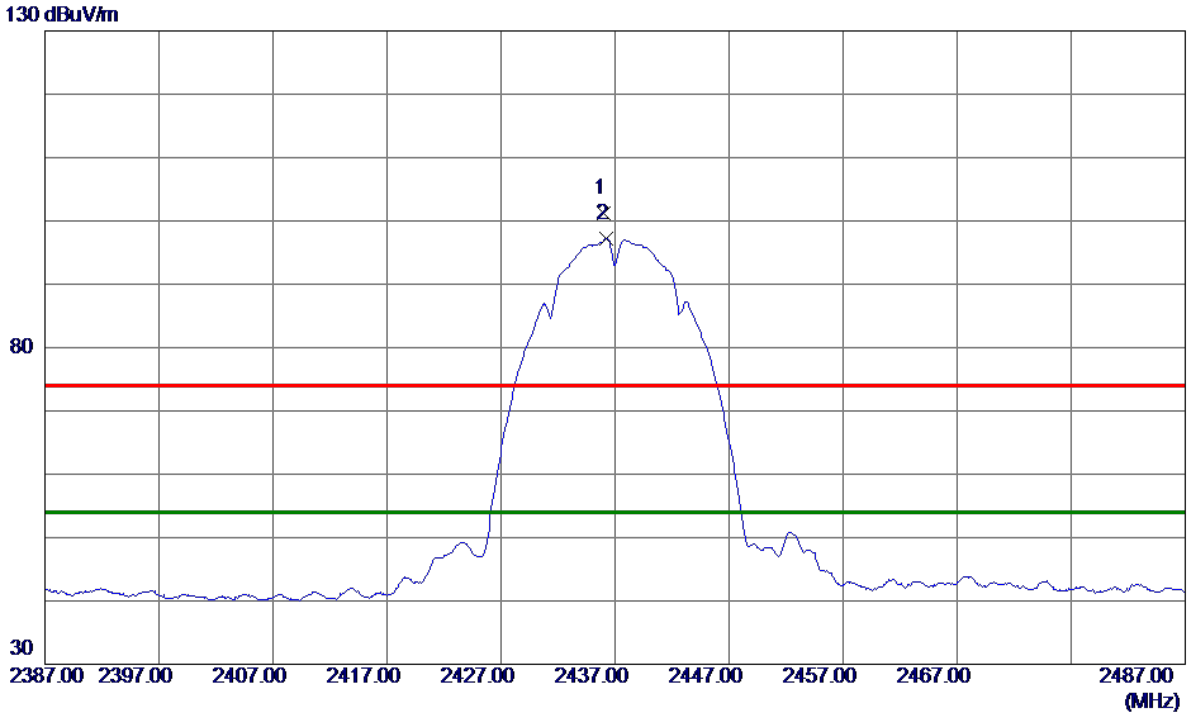
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.9310	43.44	4.44	47.88	74.00	-26.12	Peak	
2 *	4874.0400	37.49	4.44	41.93	54.00	-12.07	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	2436.0000	93.45	7.72	101.17	74.00	27.17	Peak	No Limit
2 *	2436.2500	89.53	7.72	97.25	54.00	43.25	AVG	No Limit

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

Test Mode:	TX B Mode 2437 MHz

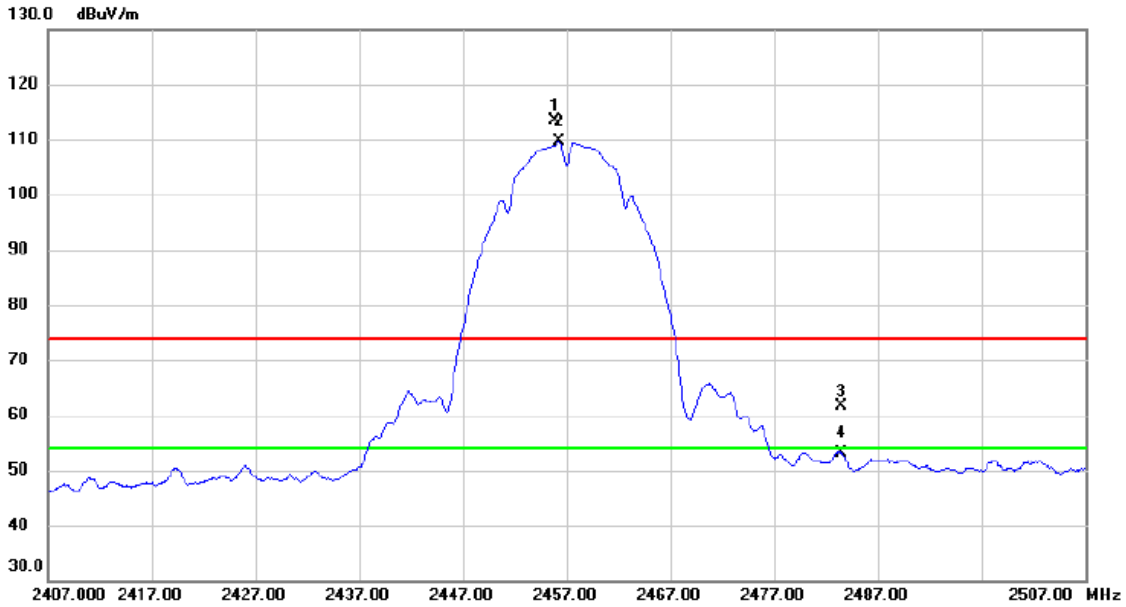
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873.8340	28.90	4.44	33.34	54.00	-20.66	AVG	
2	4873.8690	38.10	4.44	42.54	74.00	-31.46	Peak	

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

Test Mode:	TX B Mode 2457 MHz

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2455.800	105.61	7.78	113.39	74.00	39.39	peak	No Limit
2	*	2456.250	101.79	7.78	109.57	54.00	55.57	AVG	No Limit
3		2483.500	53.76	7.87	61.63	74.00	-12.37	peak	
4		2483.500	45.34	7.87	53.21	54.00	-0.79	AVG	

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

Test Mode:	TX B Mode 2457 MHz

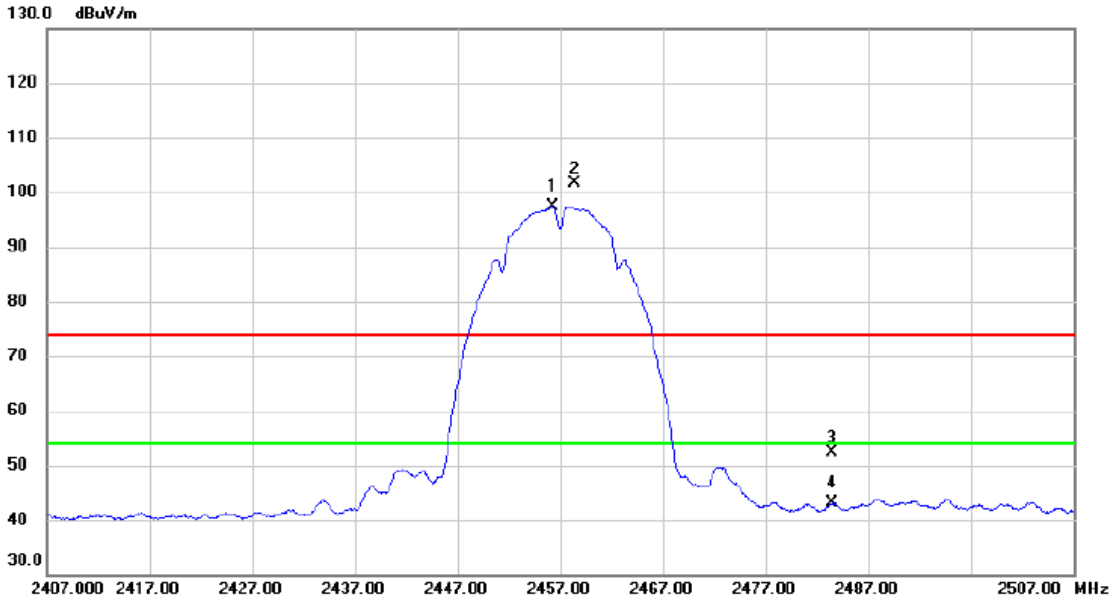
Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4914.066	36.35	4.58	40.93	54.00	-13.07	AVG	
2		4914.098	43.11	4.58	47.69	74.00	-26.31	peak	

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

Test Mode:	TX B Mode 2457 MHz

Horizontal

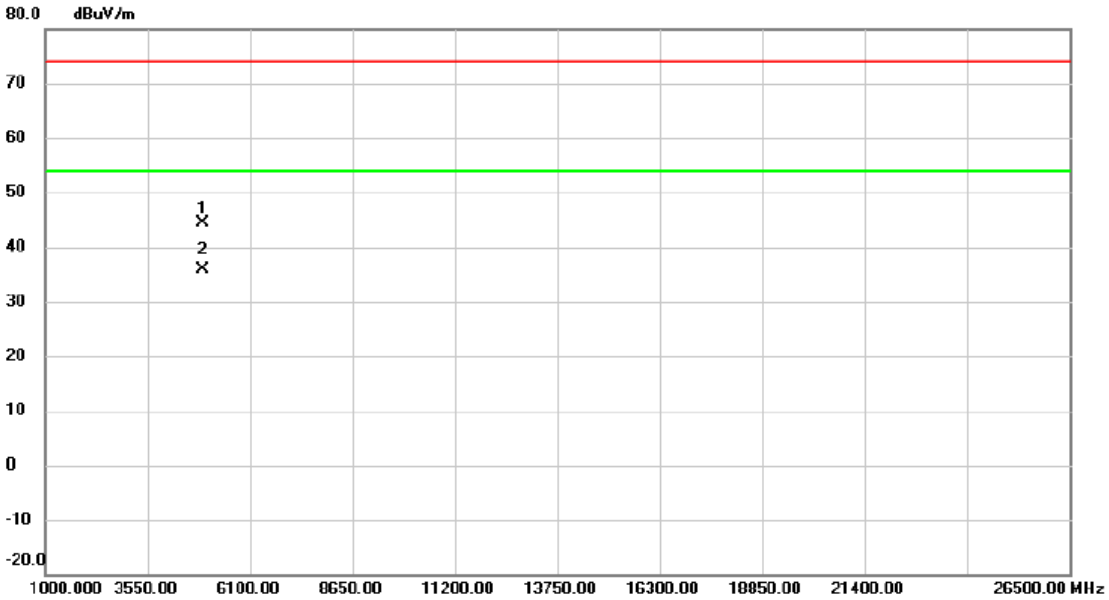


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2456.250	89.72	7.78	97.50	54.00	43.50	AVG	No Limit
2	X	2458.450	93.78	7.79	101.57	74.00	27.57	peak	No Limit
3		2483.500	44.46	7.87	52.33	74.00	-21.67	peak	
4		2483.500	35.15	7.87	43.02	54.00	-10.98	AVG	

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

Test Mode:	TX B Mode 2457 MHz

Horizontal

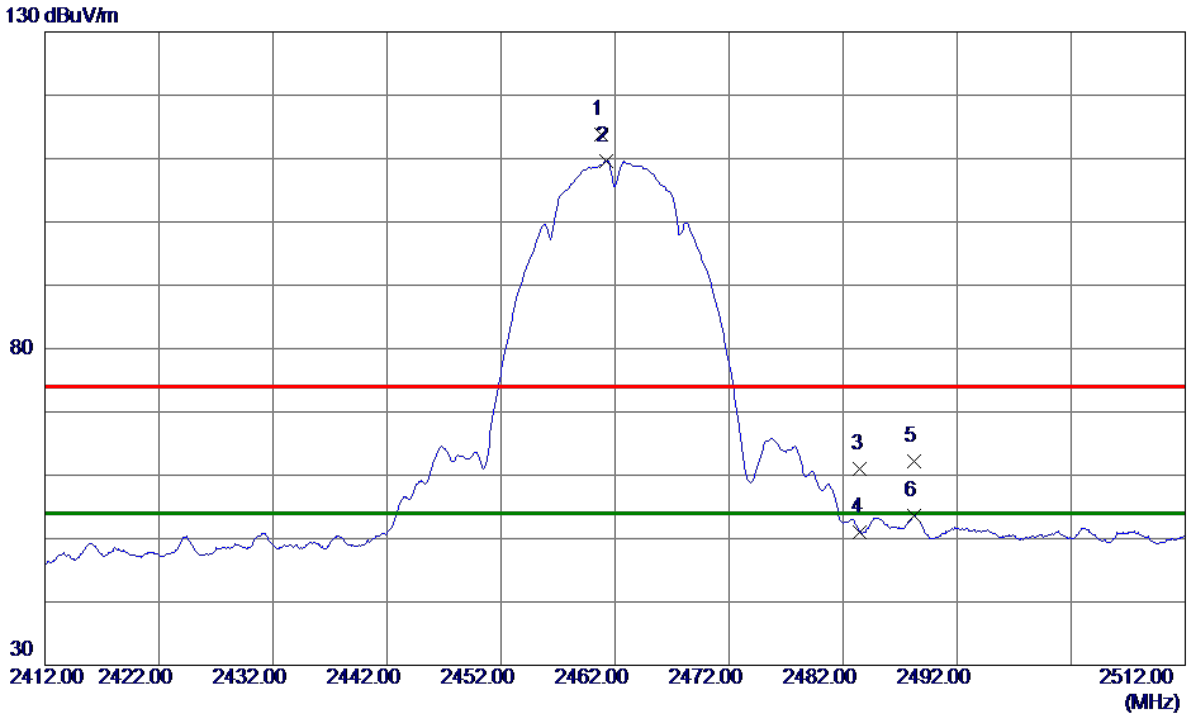


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4913.606	39.75	4.58	44.33	74.00	-29.67	peak	
2	*	4913.975	31.25	4.58	35.83	54.00	-18.17	AVG	

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	106.08	7.80	113.88	74.00	39.88	Peak	No Limit
2 *	2461.2500	101.86	7.80	109.66	54.00	55.66	AVG	No Limit
3	2483.5000	53.09	7.88	60.97	74.00	-13.03	Peak	
4	2483.5000	43.14	7.88	51.02	54.00	-2.98	AVG	
5	2488.2000	54.35	7.89	62.24	74.00	-11.76	Peak	
6	2488.2000	45.74	7.89	53.63	54.00	-0.37	AVG	

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

Test Mode:	TX B Mode 2462 MHz

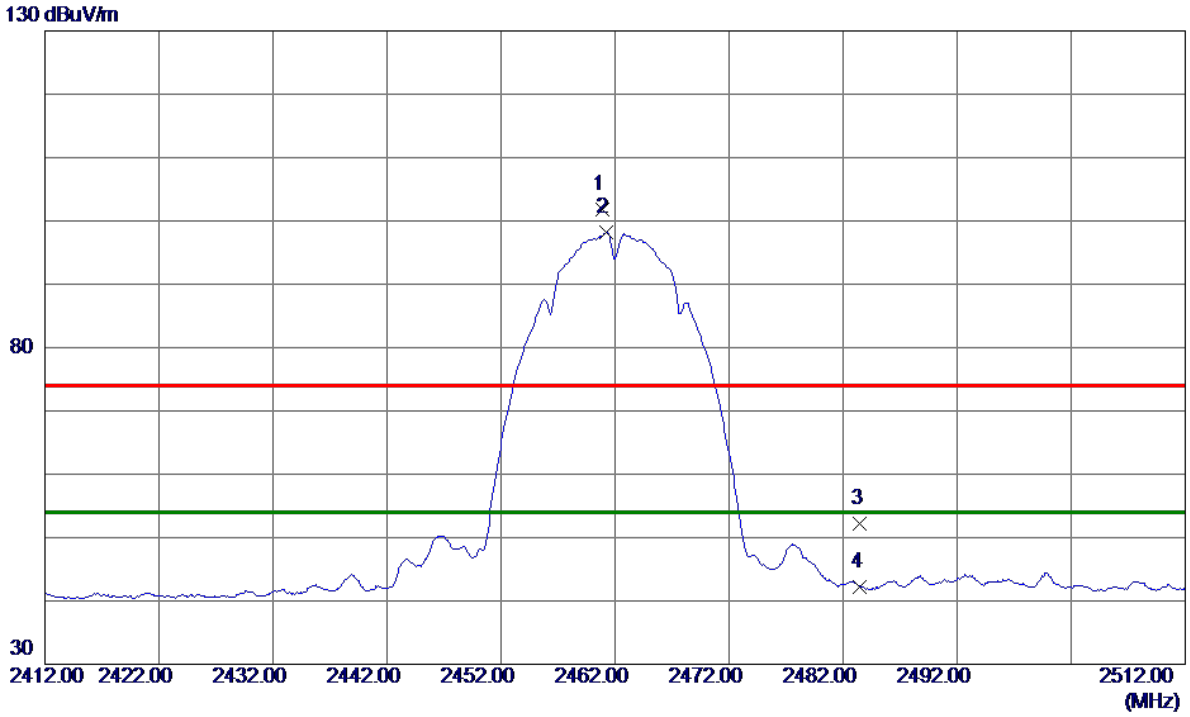
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4923.8610	42.33	4.63	46.96	74.00	-27.04	Peak	
2 *	4924.0000	36.03	4.63	40.66	54.00	-13.34	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	2460.8500	94.04	7.80	101.84	74.00	27.84	Peak	No Limit
2 *	2461.2500	90.32	7.80	98.12	54.00	44.12	AVG	No Limit
3	2483.5000	44.37	7.88	52.25	74.00	-21.75	Peak	
4	2483.5000	34.36	7.88	42.24	54.00	-11.76	AVG	

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

Test Mode:	TX B Mode 2462 MHz

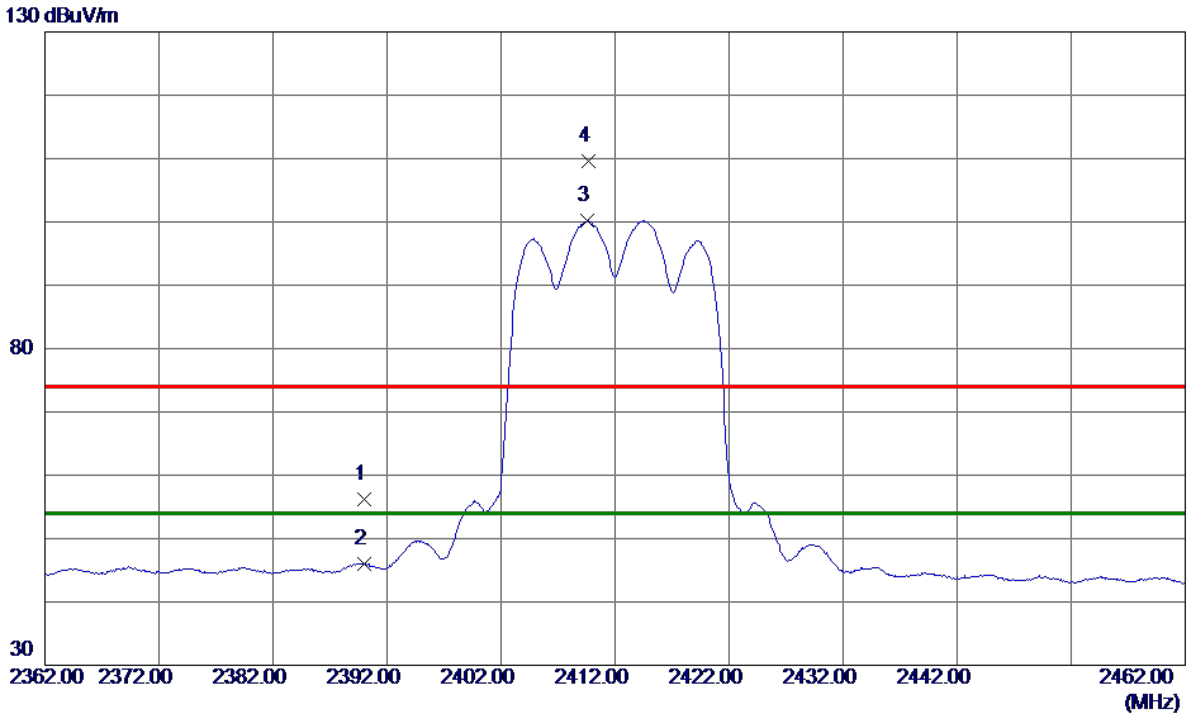
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923.9360	28.27	4.63	32.90	54.00	-21.10	AVG	
2	4924.0050	37.65	4.63	42.28	74.00	-31.72	Peak	

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	48.64	7.56	56.20	74.00	-17.80	Peak	
2	2390.0000	38.51	7.56	46.07	54.00	-7.93	AVG	
3 *	2409.6000	92.62	7.63	100.25	54.00	46.25	AVG	No Limit
4	2409.6500	101.89	7.63	109.52	74.00	35.52	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

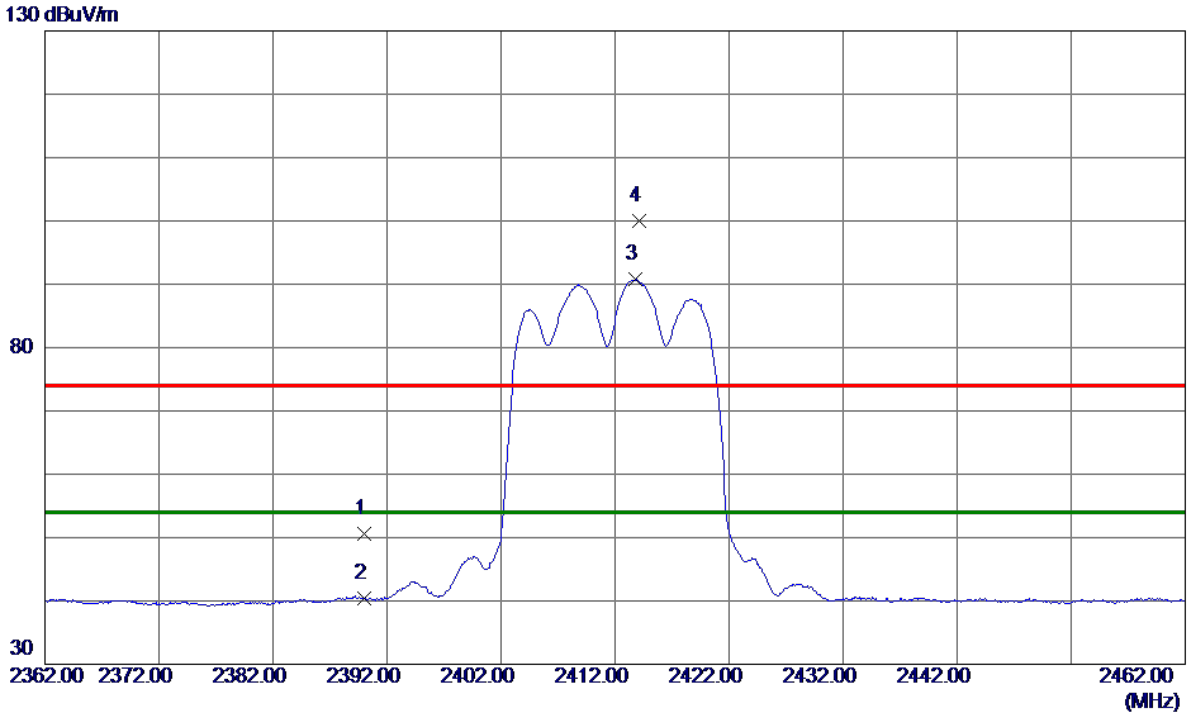
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4824.2160	25.40	4.26	29.66	54.00	-24.34	AVG	
2	4824.4500	38.65	4.26	42.91	74.00	-31.09	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	43.10	7.56	50.66	74.00	-23.34	Peak	
2	2390.0000	32.87	7.56	40.43	54.00	-13.57	AVG	
3 *	2413.8000	83.07	7.64	90.71	54.00	36.71	AVG	No Limit
4	2414.1000	92.31	7.64	99.95	74.00	25.95	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

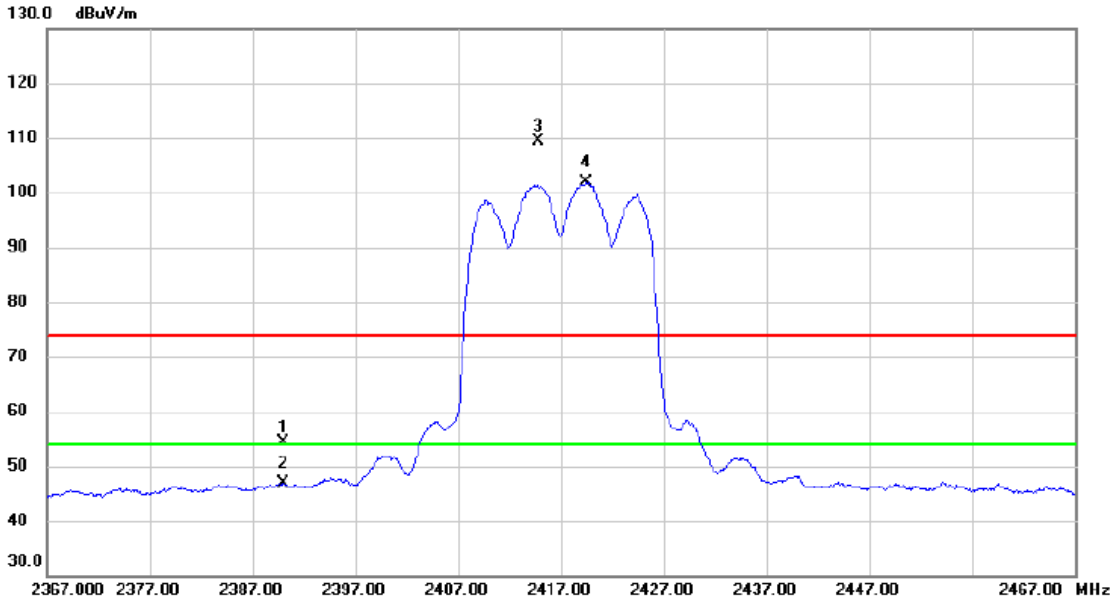
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.0019	25.10	4.25	29.35	54.00	-24.65	AVG	
2	4824.0600	38.48	4.26	42.74	74.00	-31.26	Peak	

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

Test Mode:	TX G Mode 2417 MHz

Vertical

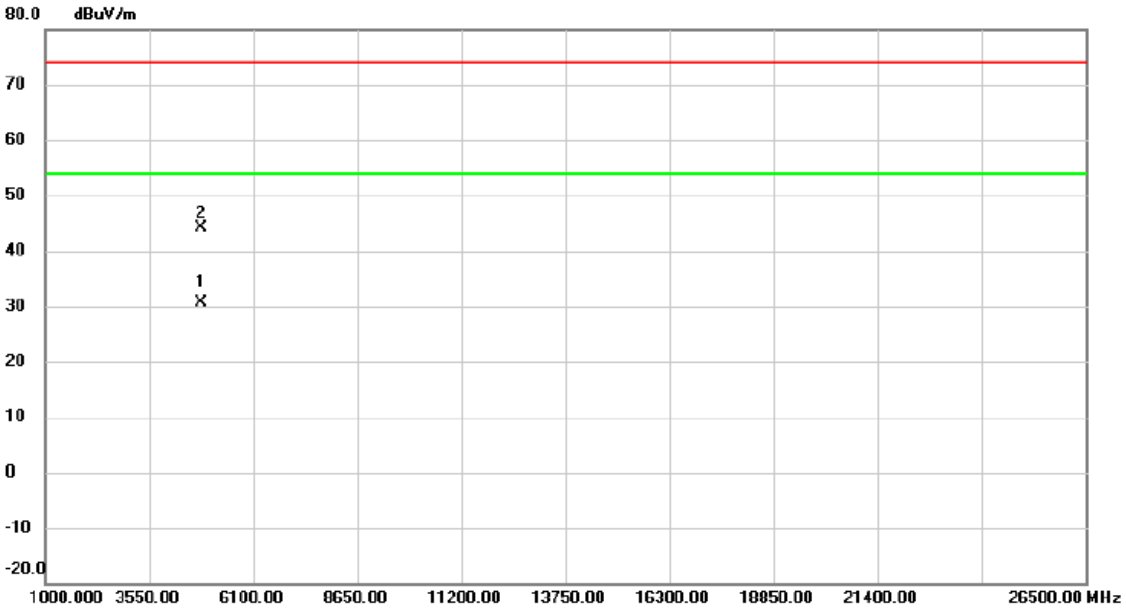


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	46.69	7.57	54.26	74.00	-19.74	peak	
2		2390.000	39.19	7.57	46.76	54.00	-7.24	AVG	
3	X	2414.750	101.72	7.65	109.37	74.00	35.37	peak	No Limit
4	*	2419.500	94.24	7.66	101.90	54.00	47.90	AVG	No Limit

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

Test Mode:	TX G Mode 2417 MHz

Vertical

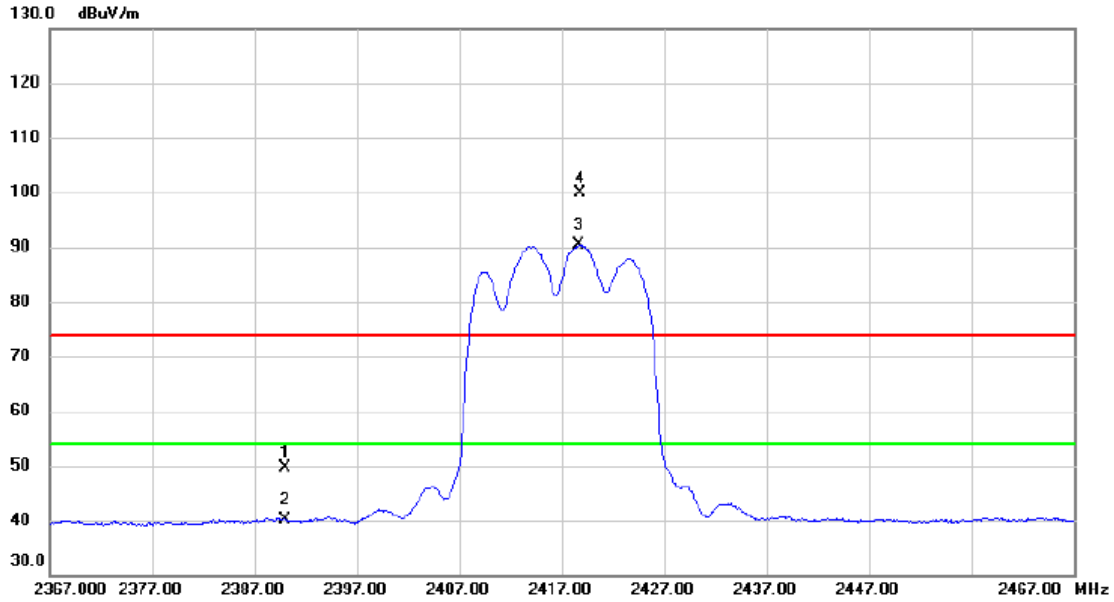


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4833.128	26.40	4.29	30.69	54.00	-23.31	AVG	
2		4833.377	39.96	4.29	44.25	74.00	-29.75	peak	

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

Test Mode:	TX G Mode 2417 MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	42.12	7.57	49.69	74.00	-24.31	peak	
2		2390.000	32.56	7.57	40.13	54.00	-13.87	AVG	
3	*	2418.700	82.68	7.66	90.34	54.00	36.34	AVG	No Limit
4	X	2418.750	92.13	7.66	99.79	74.00	25.79	peak	No Limit

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

Test Mode:	TX G Mode 2417 MHz

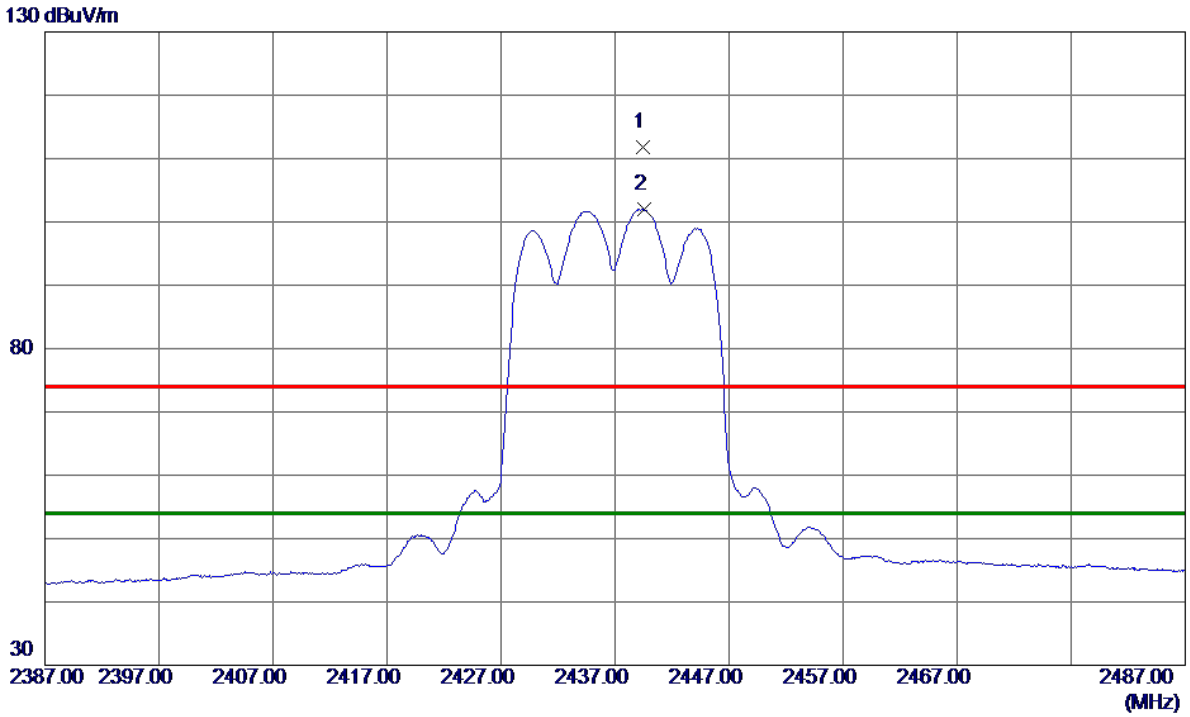
Horizontal

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4833.255	26.14	4.29	30.43	54.00	-23.57	AVG	
2		4833.615	39.25	4.29	43.54	74.00	-30.46	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	2439.4000	104.02	7.73	111.75	74.00	37.75	Peak	No Limit
2 *	2439.5500	94.27	7.73	102.00	54.00	48.00	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

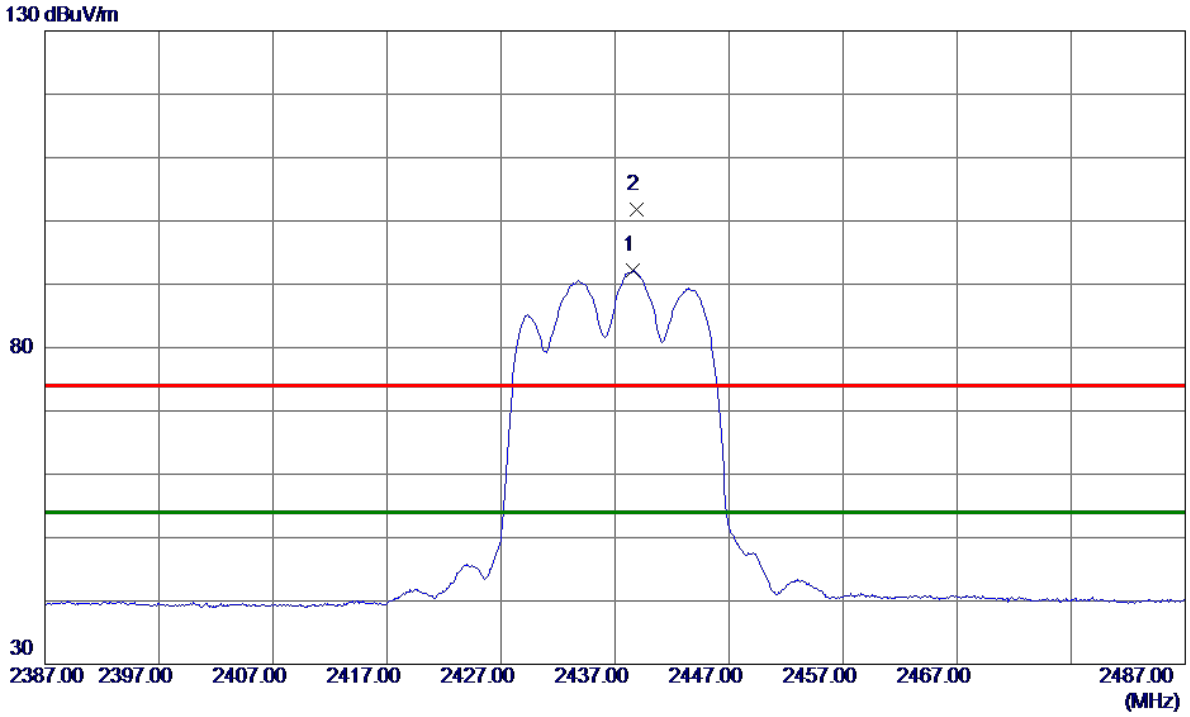
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4874.1710	24.95	4.44	29.39	54.00	-24.61	AVG	
2	4874.4800	38.54	4.44	42.98	74.00	-31.02	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 *	2438.6000	84.40	7.73	92.13	54.00	38.13	AVG	No Limit
2	2438.8500	94.03	7.73	101.76	74.00	27.76	Peak	No Limit

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

Test Mode:	TX G Mode 2437 MHz

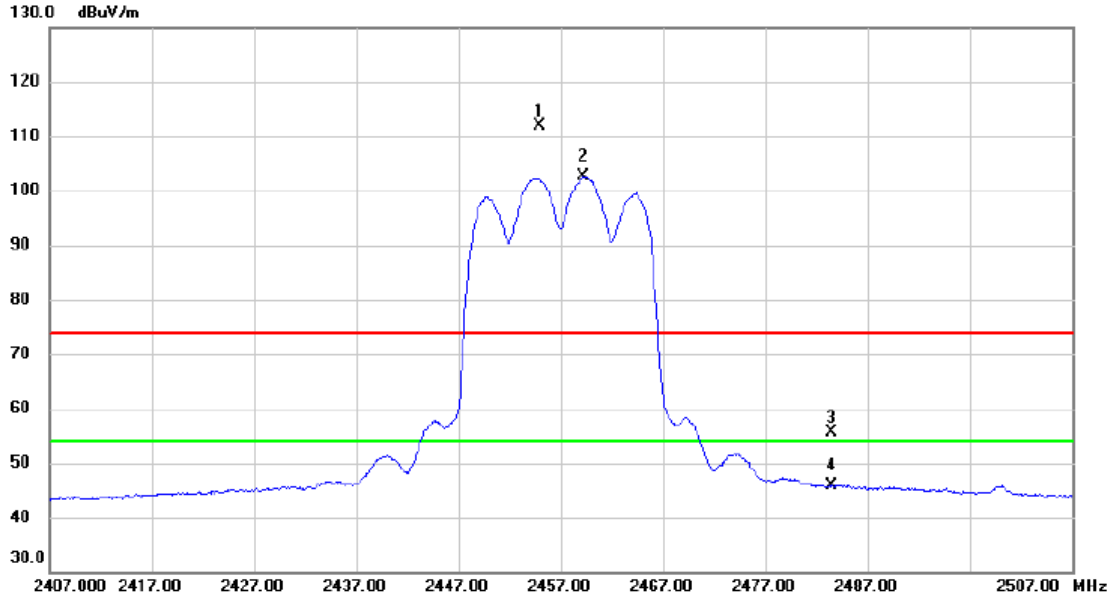
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.1669	37.35	4.44	41.79	74.00	-32.21	Peak	
2 *	4873.4850	24.95	4.44	29.39	54.00	-24.61	AVG	

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

Test Mode:	TX G Mode 2457 MHz

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2454.900	104.08	7.78	111.86	74.00	37.86	peak	No Limit
2	*	2459.200	94.74	7.79	102.53	54.00	48.53	AVG	No Limit
3		2483.500	47.65	7.87	55.52	74.00	-18.48	peak	
4		2483.500	38.06	7.87	45.93	54.00	-8.07	AVG	

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

Test Mode:	TX G Mode 2457 MHz

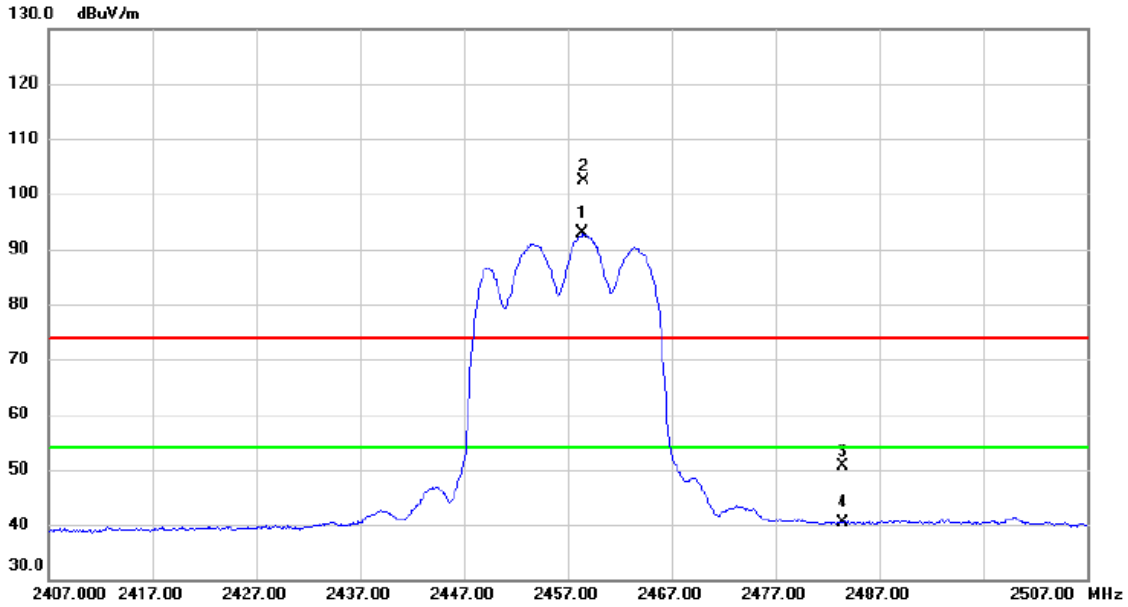
Vertical

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4913.421	25.91	4.58	30.49	54.00	-23.51	AVG	
2		4914.106	38.53	4.58	43.11	74.00	-30.89	peak	

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

Test Mode:	TX G Mode 2457 MHz

Horizontal

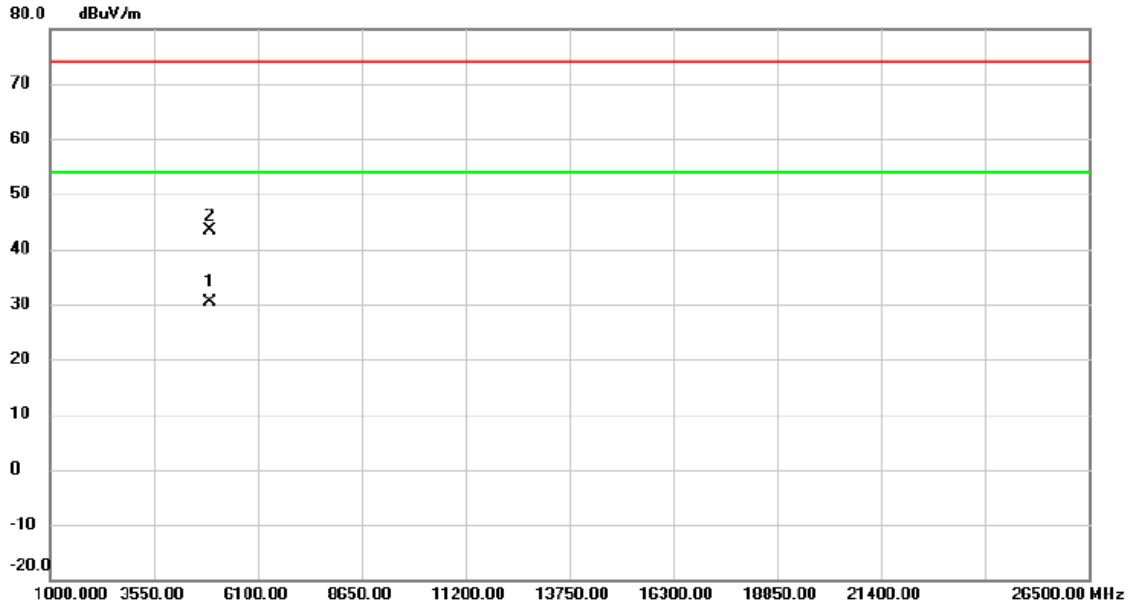


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2458.450	85.03	7.79	92.82	54.00	38.82	AVG	No Limit
2	X	2458.550	94.49	7.79	102.28	74.00	28.28	peak	No Limit
3		2483.500	42.74	7.87	50.61	74.00	-23.39	peak	
4		2483.500	32.61	7.87	40.48	54.00	-13.52	AVG	

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

Test Mode:	TX G Mode 2457 MHz

Horizontal

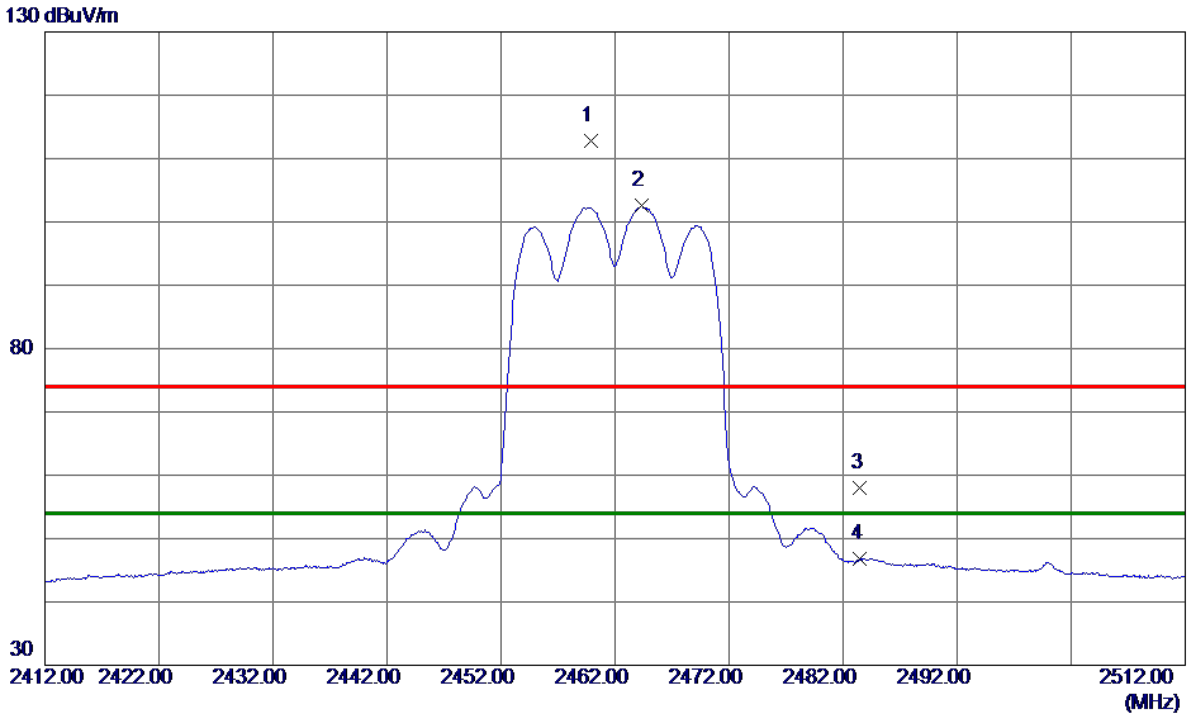


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4913.264	25.83	4.58	30.41	54.00	-23.59	AVG	
2		4914.278	38.86	4.58	43.44	74.00	-30.56	peak	

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	2459.9000	104.95	7.80	112.75	74.00	38.75	Peak	No Limit
2 *	2464.3000	94.72	7.81	102.53	54.00	48.53	AVG	No Limit
3	2483.5000	50.13	7.88	58.01	74.00	-15.99	Peak	
4	2483.5000	38.83	7.88	46.71	54.00	-7.29	AVG	

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

Test Mode:	TX G Mode 2462 MHz

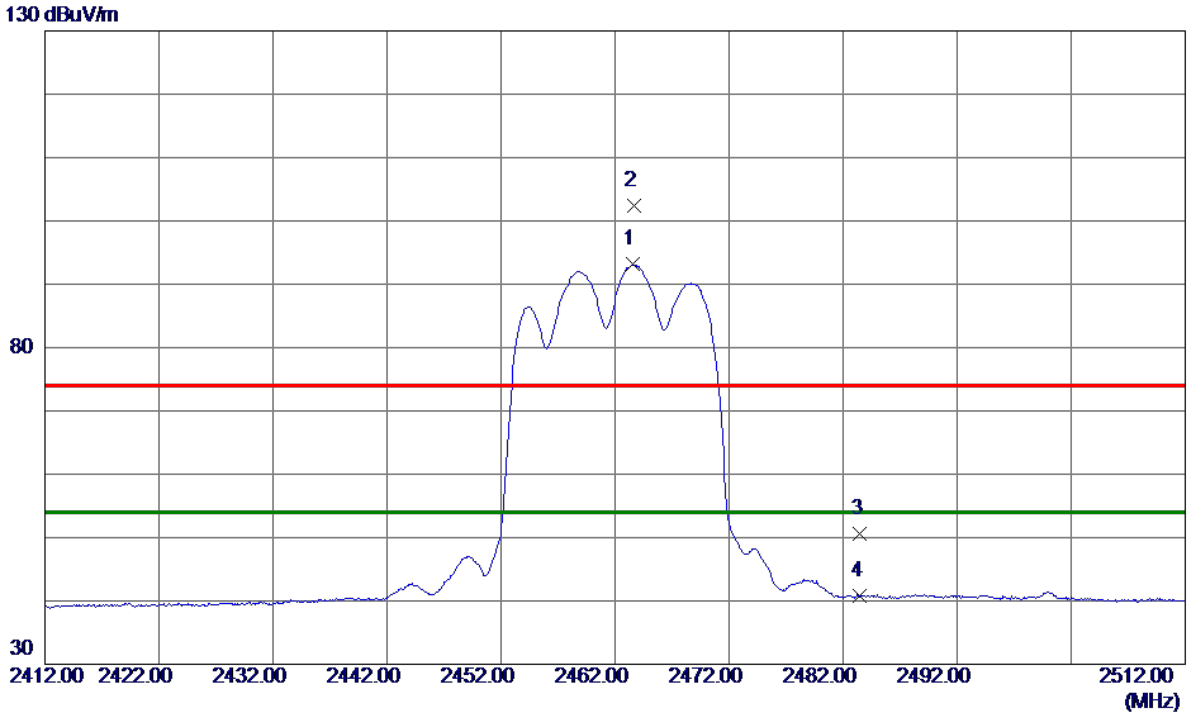
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923.8640	26.70	4.63	31.33	54.00	-22.67	AVG	
2	4923.9860	39.63	4.63	44.26	74.00	-29.74	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 *	2463.5500	85.31	7.81	93.12	54.00	39.12	AVG	No Limit
2	2463.7000	94.53	7.81	102.34	74.00	28.34	Peak	No Limit
3	2483.5000	42.77	7.88	50.65	74.00	-23.35	Peak	
4	2483.5000	32.94	7.88	40.82	54.00	-13.18	AVG	

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

Test Mode:	TX G Mode 2462 MHz

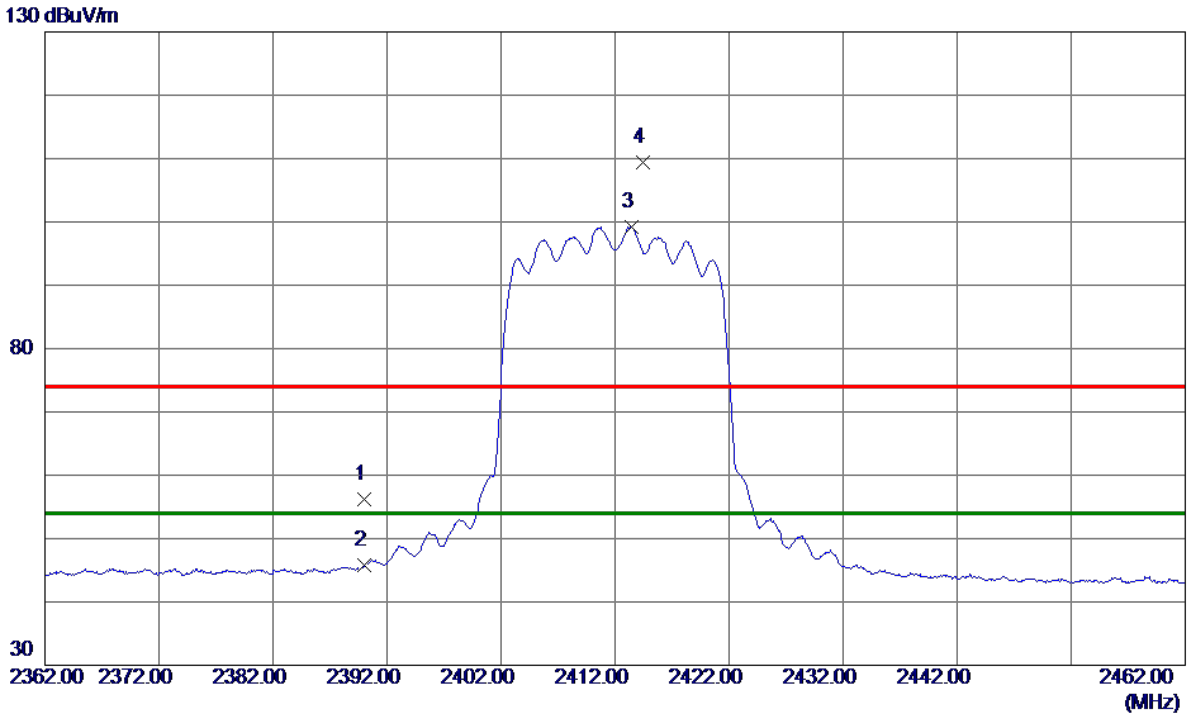
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923.0219	26.00	4.62	30.62	54.00	-23.38	AVG	
2	4923.0230	39.36	4.62	43.98	74.00	-30.02	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	48.68	7.56	56.24	74.00	-17.76	Peak	
2	2390.0000	38.31	7.56	45.87	54.00	-8.13	AVG	
3 *	2413.4000	91.59	7.64	99.23	54.00	45.23	AVG	No Limit
4	2414.4000	101.74	7.65	109.39	74.00	35.39	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

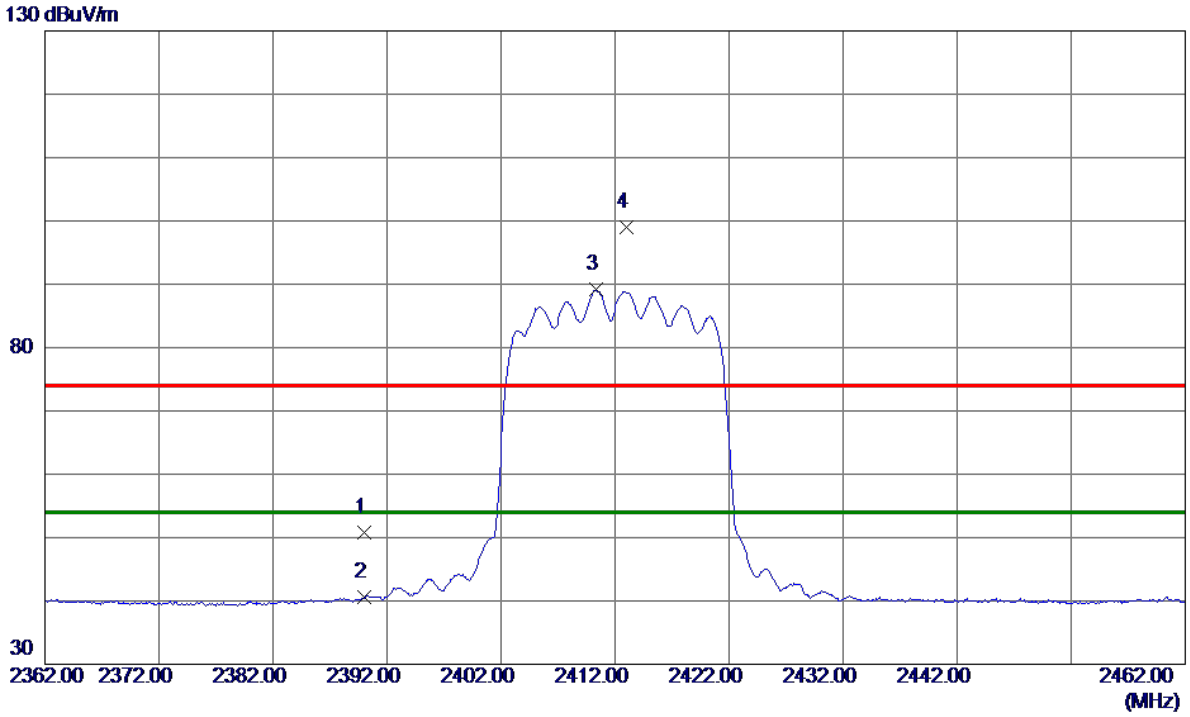
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.0379	25.40	4.25	29.65	54.00	-24.35	AVG	
2	4824.3800	38.03	4.26	42.29	74.00	-31.71	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	43.24	7.56	50.80	74.00	-23.20	Peak	
2	2390.0000	33.00	7.56	40.56	54.00	-13.44	AVG	
3 *	2410.3500	81.51	7.63	89.14	54.00	35.14	AVG	No Limit
4	2412.9500	91.35	7.64	98.99	74.00	24.99	Peak	No Limit

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

Test Mode:	TX N-20M Mode 2412 MHz

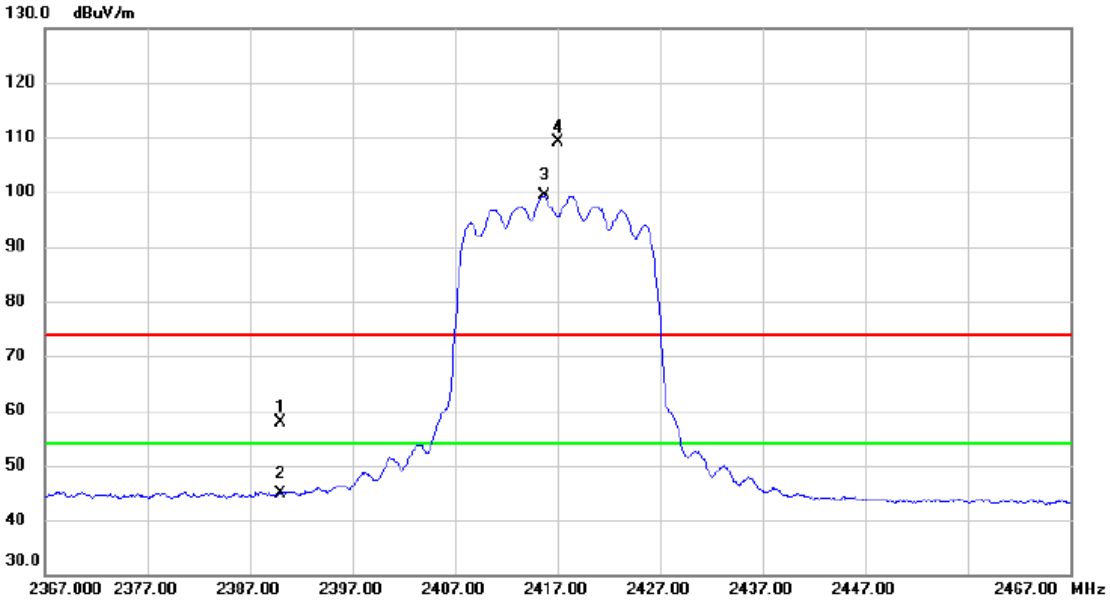
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4823.9169	25.37	4.25	29.62	54.00	-24.38	AVG	
2	4824.8390	38.18	4.26	42.44	74.00	-31.56	Peak	

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

Test Mode:	TX N-20M Mode 2417 MHz

Vertical

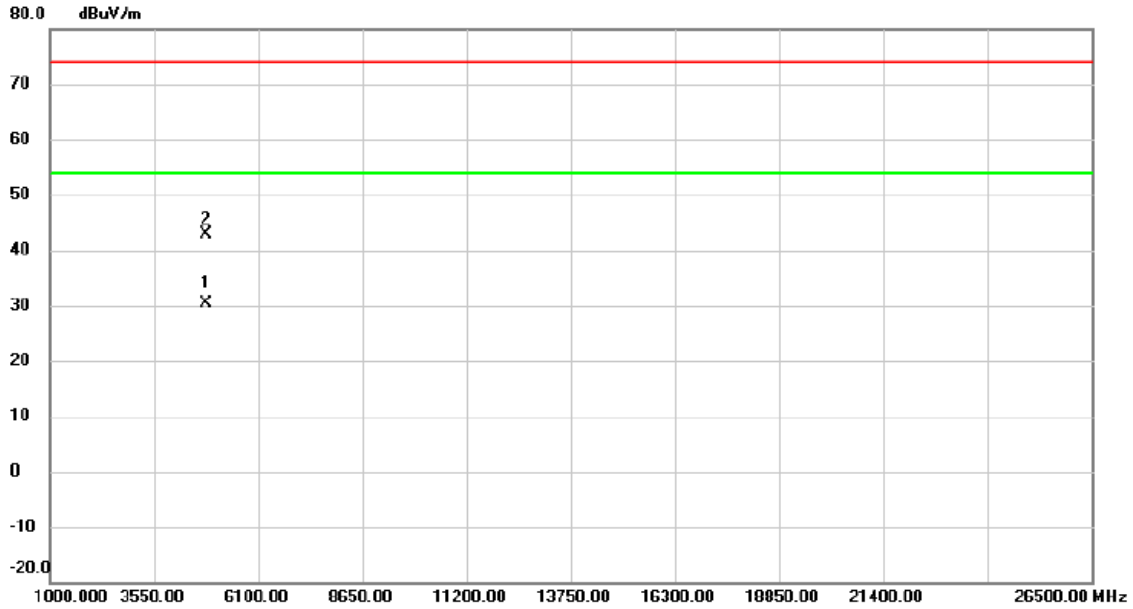


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	50.34	7.57	57.91	74.00	-16.09	peak	
2		2390.000	37.26	7.57	44.83	54.00	-9.17	AVG	
3	*	2415.750	91.74	7.65	99.39	54.00	45.39	AVG	No Limit
4	X	2417.000	101.50	7.66	109.16	74.00	35.16	peak	No Limit

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

Test Mode:	TX N-20M Mode 2417 MHz

Vertical

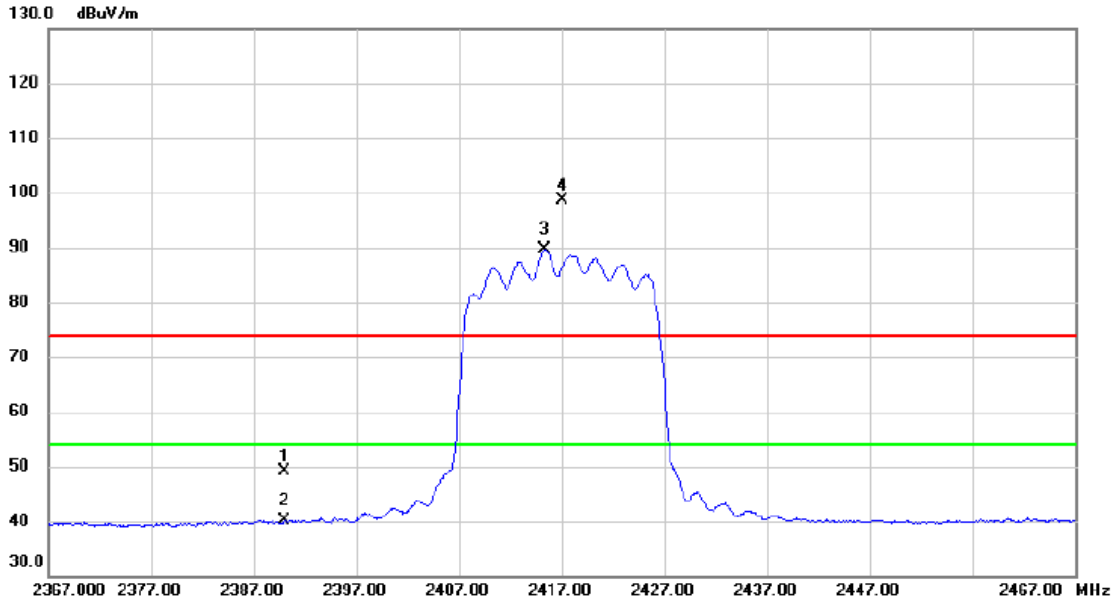


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4833.202	25.98	4.29	30.27	54.00	-23.73	AVG	
2		4833.610	38.49	4.29	42.78	74.00	-31.22	peak	

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

Test Mode:	TX N-20M Mode 2417 MHz

Horizontal

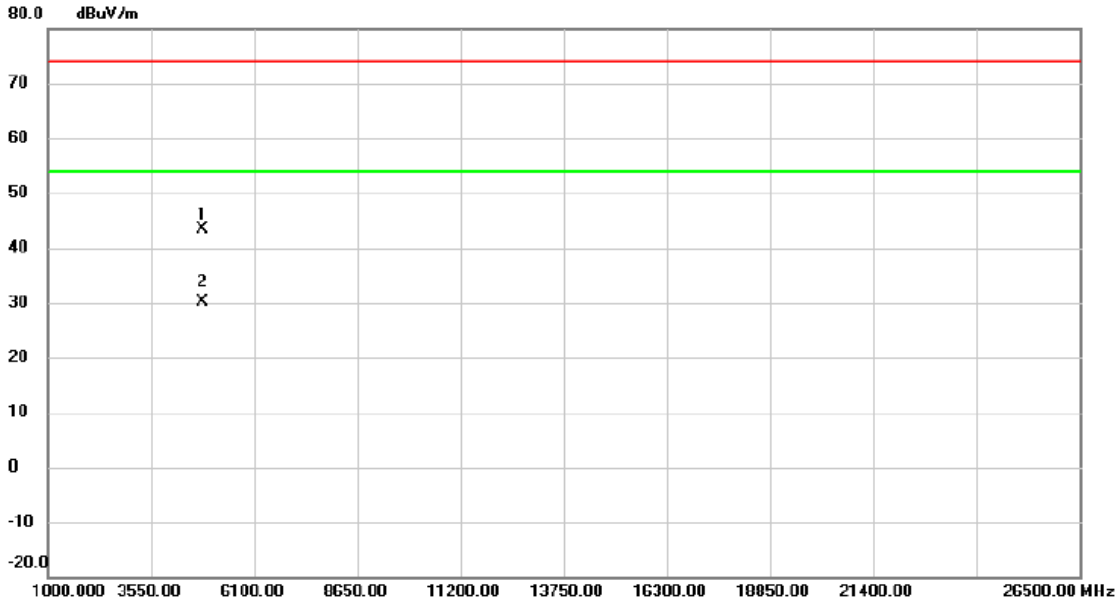


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	41.62	7.57	49.19	74.00	-24.81	peak	
2		2390.000	32.65	7.57	40.22	54.00	-13.78	AVG	
3	*	2415.350	81.97	7.65	89.62	54.00	35.62	AVG	No Limit
4	X	2417.100	91.07	7.66	98.73	74.00	24.73	peak	No Limit

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

Test Mode:	TX N-20M Mode 2417 MHz

Horizontal

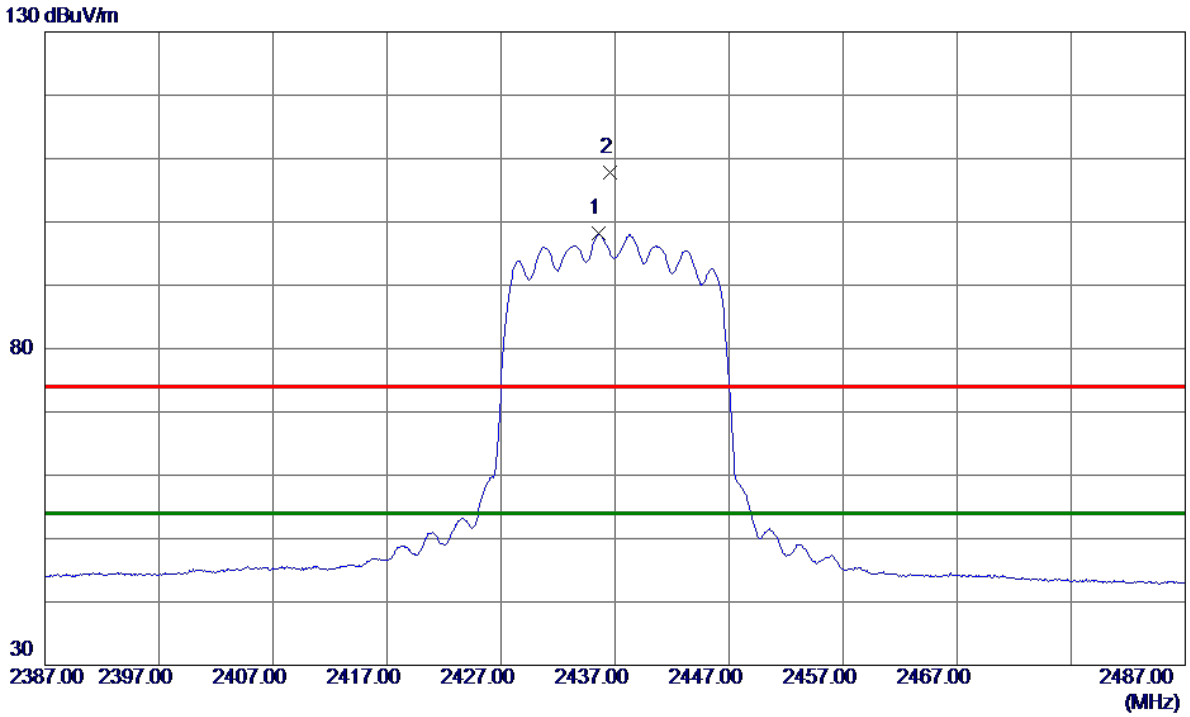


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4833.009	38.99	4.29	43.28	74.00	-30.72	peak	
2	*	4833.084	25.87	4.29	30.16	54.00	-23.84	AVG	

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

Test Mode:	TX N-20M Mode 2437 MHz

Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2435.6000	90.52	7.72	98.24	54.00	44.24	AVG	No Limit
2	2436.5500	100.09	7.72	107.81	74.00	33.81	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

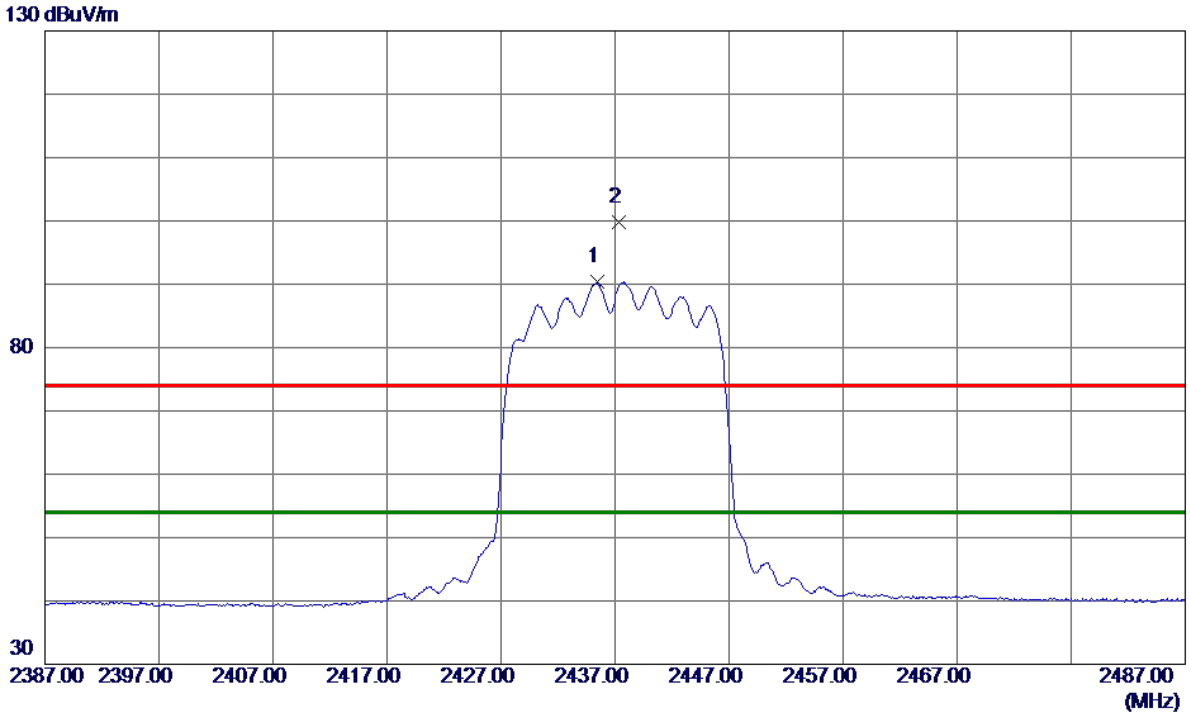
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873.5650	24.71	4.44	29.15	54.00	-24.85	AVG	
2	4874.9410	38.15	4.44	42.59	74.00	-31.41	Peak	

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

Test Mode:	TX N-20M Mode 2437 MHz

Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2435.4500	82.77	7.72	90.49	54.00	36.49	AVG	No Limit
2	2437.3500	92.14	7.72	99.86	74.00	25.86	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

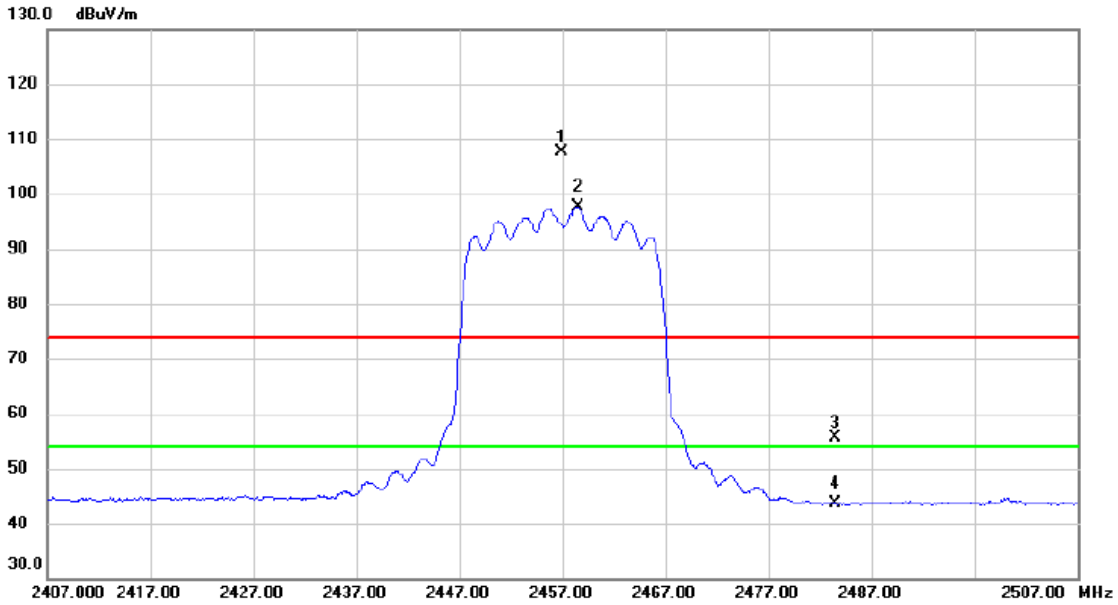
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4873.1090	24.82	4.44	29.26	54.00	-24.74	AVG	
2	4873.7430	37.90	4.44	42.34	74.00	-31.66	Peak	

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

Test Mode:	TX N-20M Mode 2457 MHz

Vertical

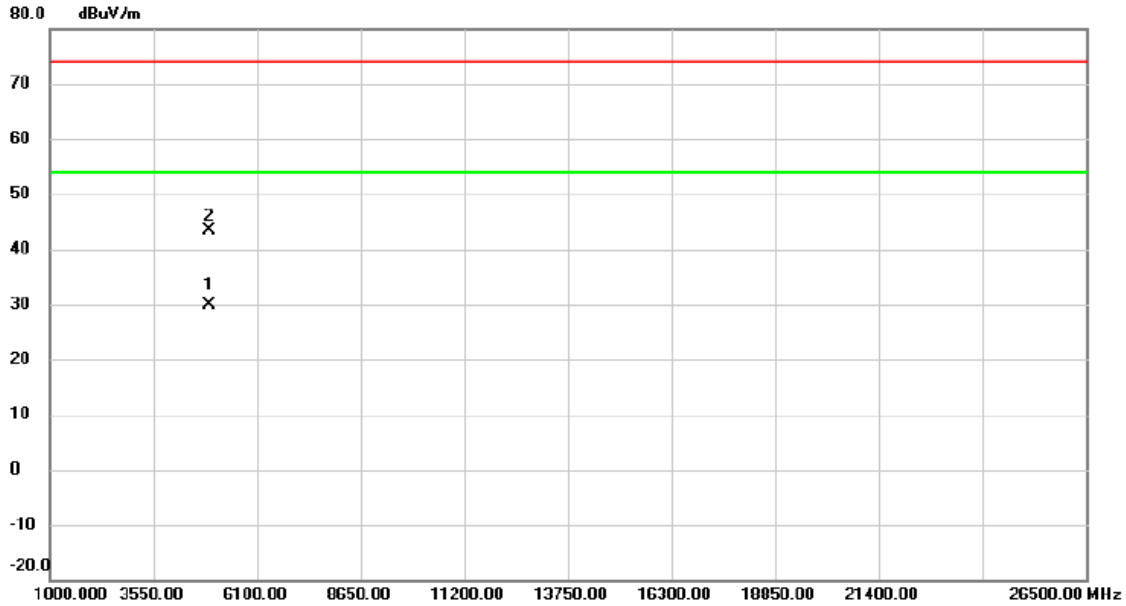


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2456.900	99.84	7.79	107.63	74.00	33.63	peak	No Limit
2	*	2458.550	89.91	7.79	97.70	54.00	43.70	AVG	No Limit
3		2483.500	47.82	7.87	55.69	74.00	-18.31	peak	
4		2483.500	35.73	7.87	43.60	54.00	-10.40	AVG	

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

Test Mode:	TX N-20M Mode 2457 MHz

Vertical

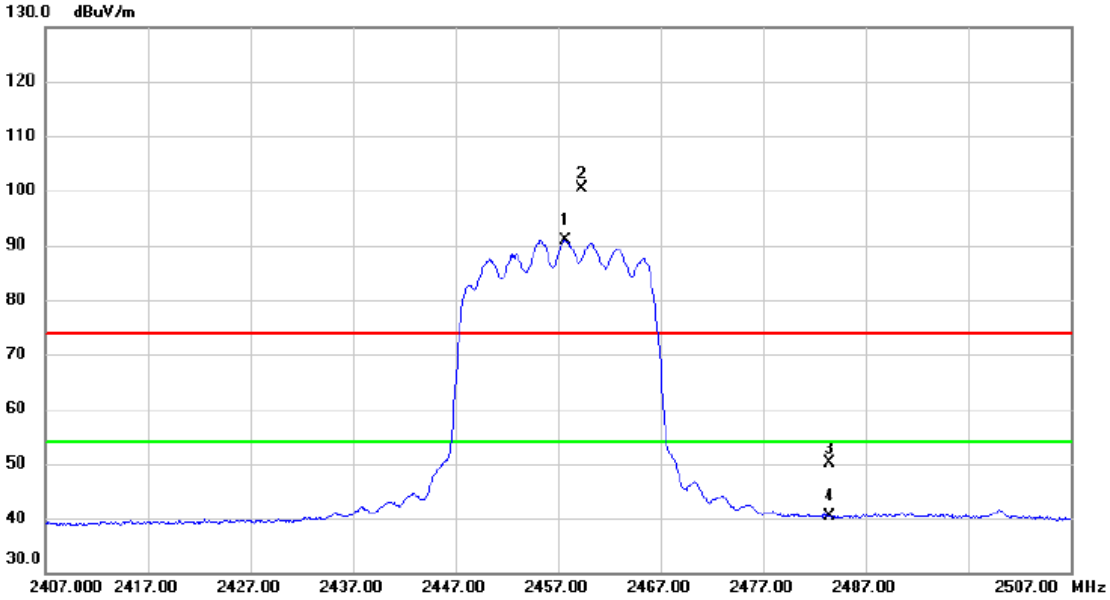


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4913.020	25.41	4.58	29.99	54.00	-24.01	AVG	
2		4913.559	38.69	4.58	43.27	74.00	-30.73	peak	

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

Test Mode:	TX N-20M Mode 2457 MHz

Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2457.700	83.01	7.79	90.80	54.00	36.80	AVG	No Limit
2	X	2459.300	92.61	7.79	100.40	74.00	26.40	peak	No Limit
3		2483.500	42.34	7.87	50.21	74.00	-23.79	peak	
4		2483.500	32.53	7.87	40.40	54.00	-13.60	AVG	

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

Test Mode:	TX N-20M Mode 2457 MHz

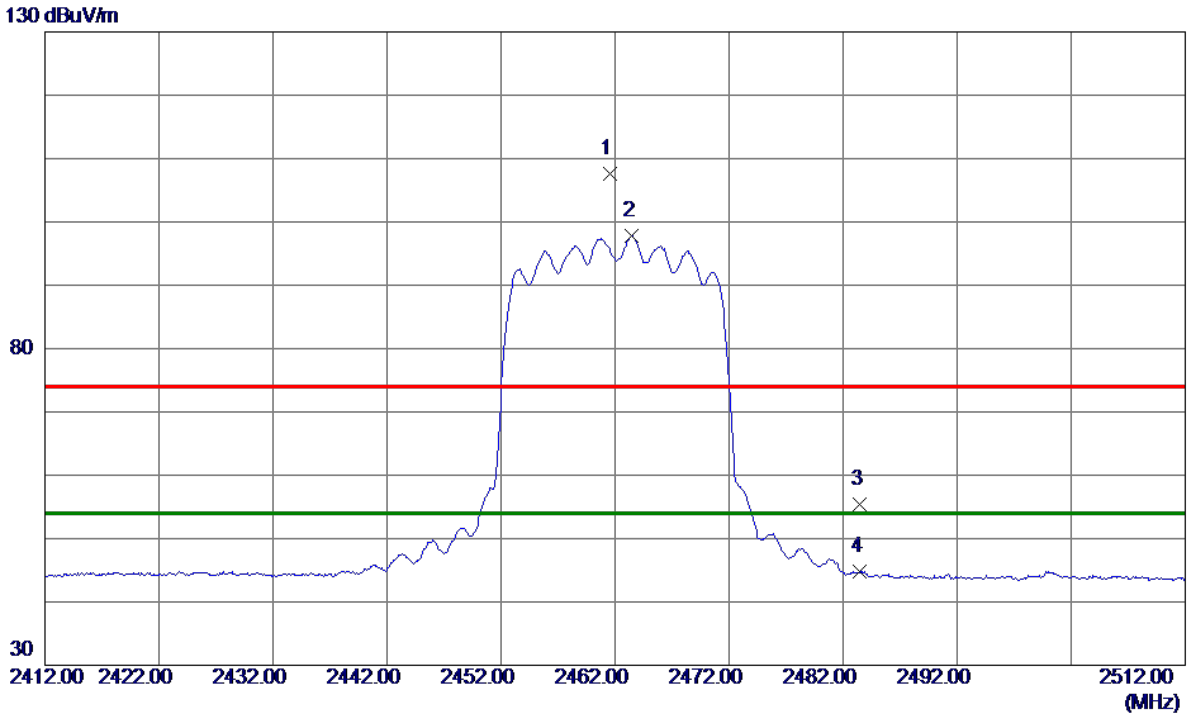
Horizontal

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4913.294	38.41	4.58	42.99	74.00	-31.01	peak	
2	*	4913.436	25.49	4.58	30.07	54.00	-23.93	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	2461.5500	99.86	7.80	107.66	74.00	33.66	Peak	No Limit
2 *	2463.5000	90.03	7.81	97.84	54.00	43.84	AVG	No Limit
3	2483.5000	47.44	7.88	55.32	74.00	-18.68	Peak	
4	2483.5000	36.83	7.88	44.71	54.00	-9.29	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

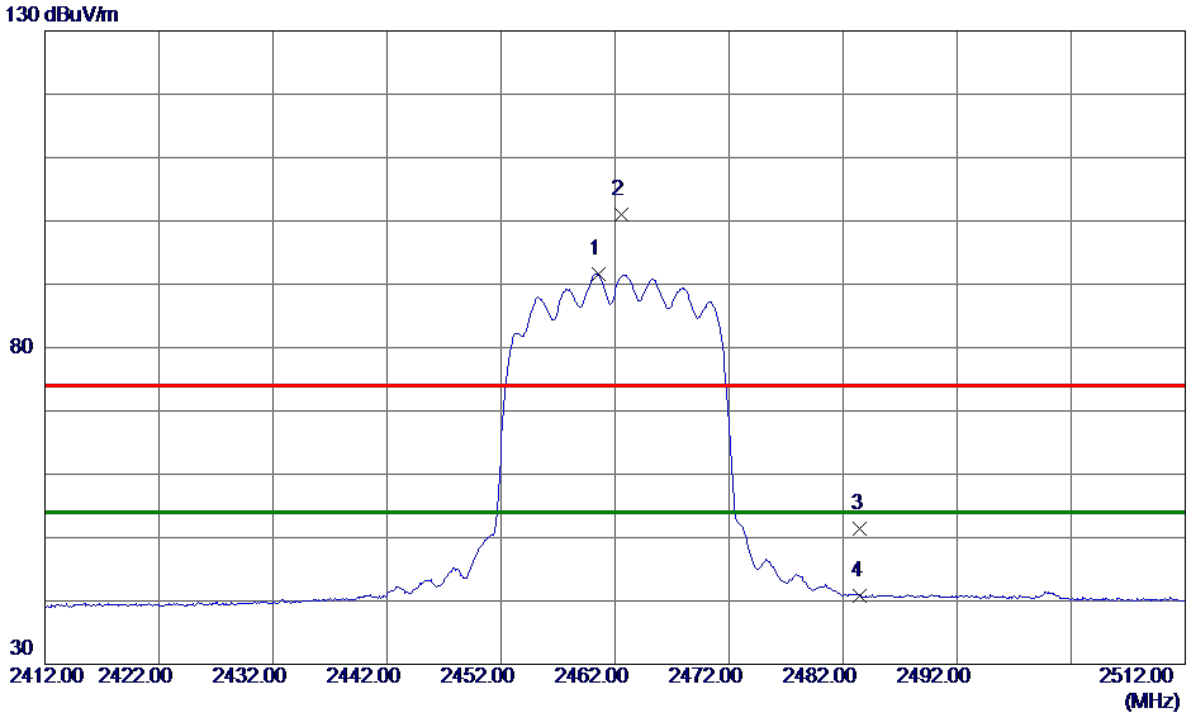
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923.4380	25.62	4.63	30.25	54.00	-23.75	AVG	
2	4923.5490	38.82	4.63	43.45	74.00	-30.55	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 *	2460.5500	83.84	7.80	91.64	54.00	37.64	AVG	No Limit
2	2462.6000	93.19	7.81	101.00	74.00	27.00	Peak	No Limit
3	2483.5000	43.59	7.88	51.47	74.00	-22.53	Peak	
4	2483.5000	32.93	7.88	40.81	54.00	-13.19	AVG	

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

Test Mode:	TX N-20M Mode 2462 MHz

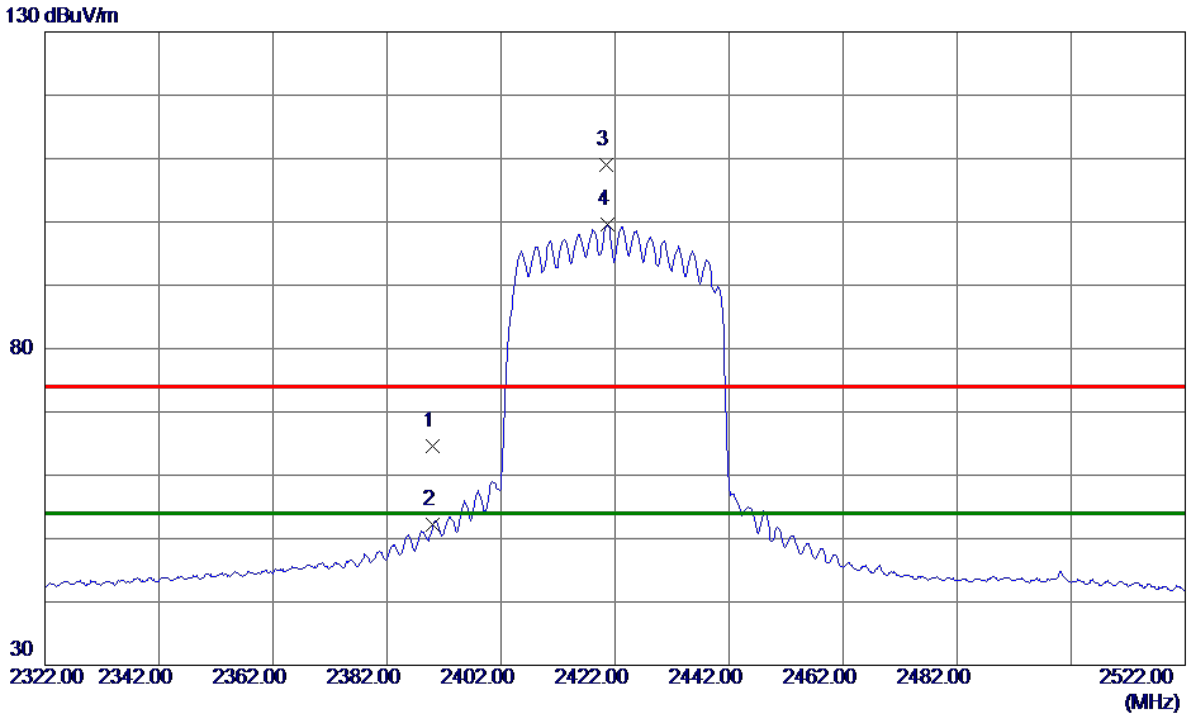
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4923.2750	25.63	4.62	30.25	54.00	-23.75	AVG	
2	4923.9780	38.20	4.63	42.83	74.00	-31.17	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	56.98	7.56	64.54	74.00	-9.46	Peak	
2	2390.0000	44.73	7.56	52.29	54.00	-1.71	AVG	
3	2420.4000	101.24	7.67	108.91	74.00	34.91	Peak	No Limit
4 *	2420.6000	91.84	7.67	99.51	54.00	45.51	AVG	No Limit

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

Test Mode:	TX N-40M Mode 2422 MHz

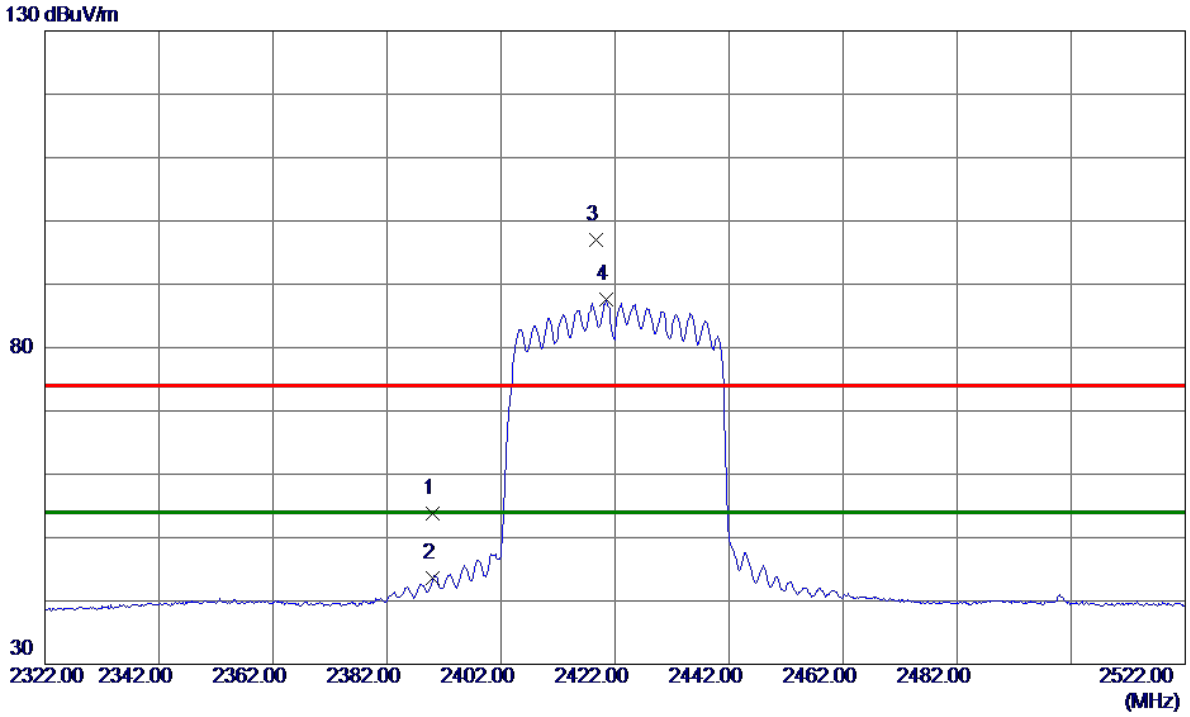
Vertical

No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4843.0990	39.08	4.33	43.41	74.00	-30.59	Peak	
2 *	4843.4190	25.70	4.33	30.03	54.00	-23.97	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	46.22	7.56	53.78	74.00	-20.22	Peak	
2	2390.0000	36.08	7.56	43.64	54.00	-10.36	AVG	
3	2418.7000	89.36	7.66	97.02	74.00	23.02	Peak	No Limit
4 *	2420.5000	79.84	7.67	87.51	54.00	33.51	AVG	No Limit

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

Test Mode:	TX N-40M Mode 2422 MHz

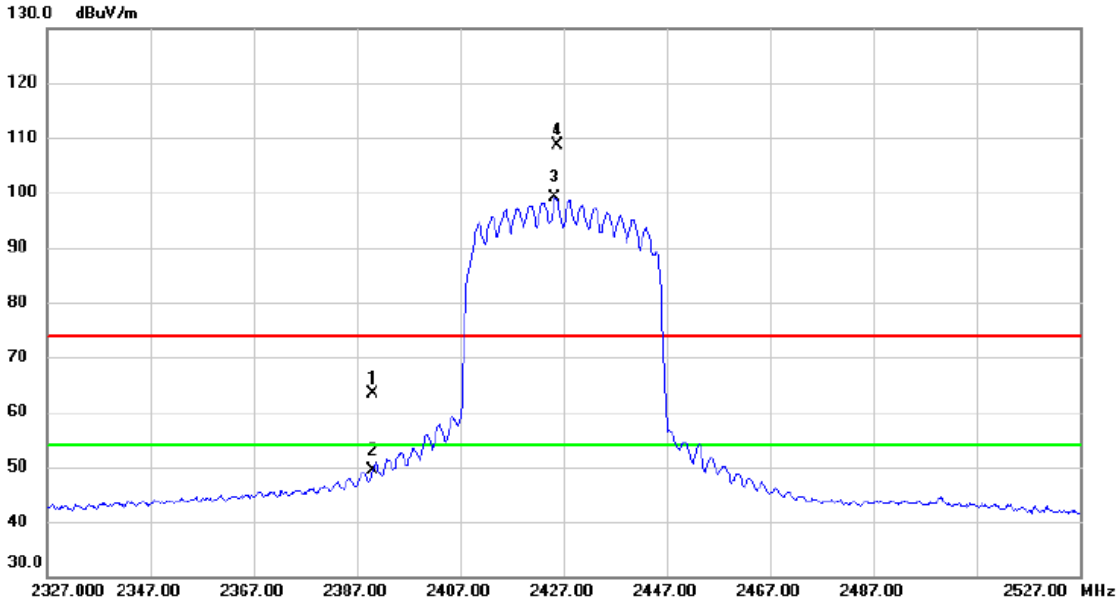
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4843.6309	25.75	4.33	30.08	54.00	-23.92	AVG	
2	4844.4400	38.65	4.33	42.98	74.00	-31.02	Peak	

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

Test Mode:	TX N-40M Mode 2427 MHz

Vertical

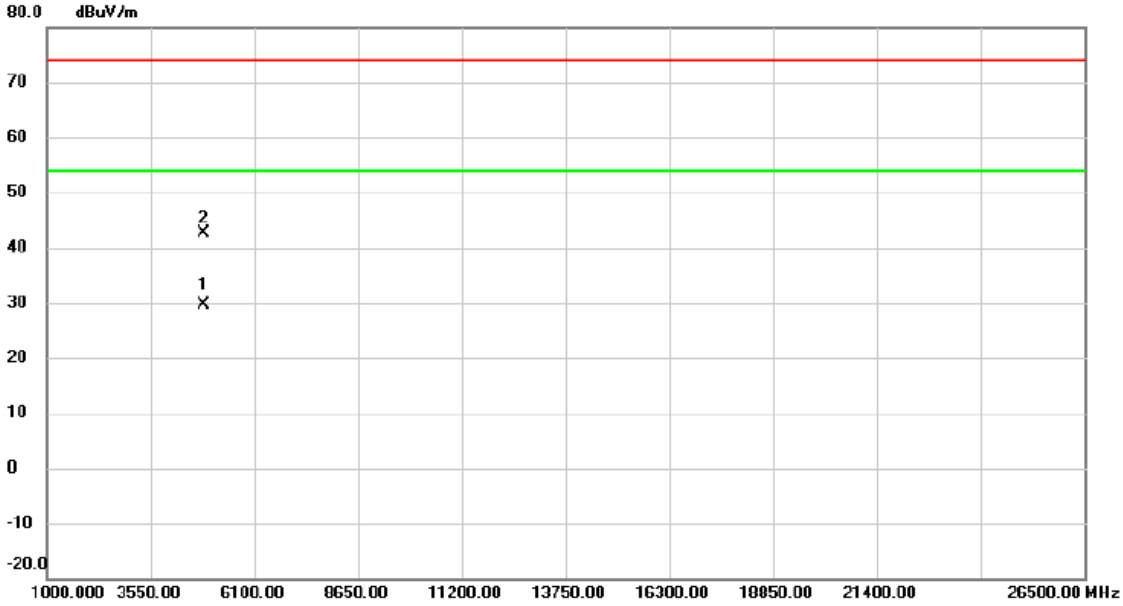


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	55.88	7.57	63.45	74.00	-10.55	peak	
2		2390.000	41.90	7.57	49.47	54.00	-4.53	AVG	
3	*	2425.300	91.34	7.69	99.03	54.00	45.03	AVG	No Limit
4	X	2425.700	100.82	7.69	108.51	74.00	34.51	peak	No Limit

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

Test Mode:	TX N-40M Mode 2427 MHz

Vertical

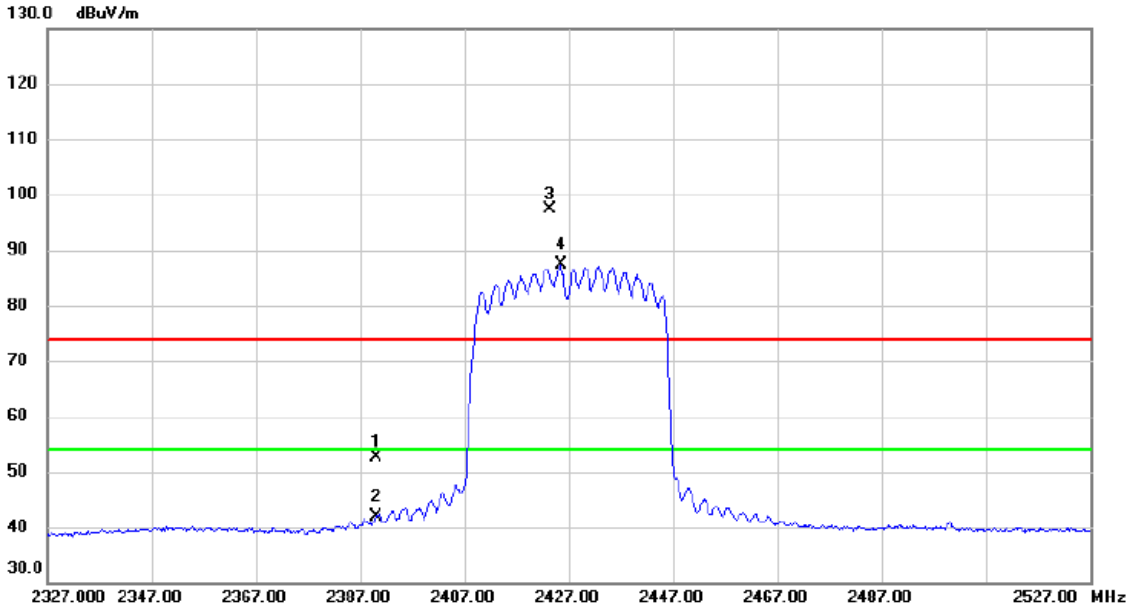


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4854.527	25.36	4.37	29.73	54.00	-24.27	AVG	
2		4854.764	38.16	4.37	42.53	74.00	-31.47	peak	

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

Test Mode:	TX N-40M Mode 2427 MHz

Horizontal

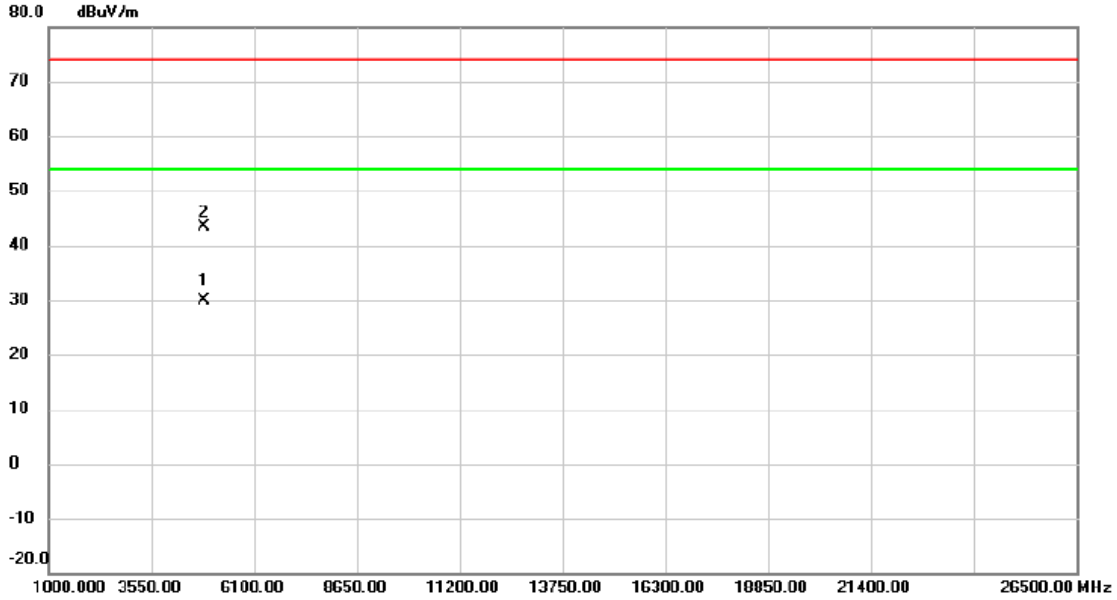


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	45.03	7.57	52.60	74.00	-21.40	peak	
2		2390.000	34.21	7.57	41.78	54.00	-12.22	AVG	
3	X	2423.400	89.73	7.67	97.40	74.00	23.40	peak	No Limit
4	*	2425.400	79.62	7.69	87.31	54.00	33.31	AVG	No Limit

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

Test Mode:	TX N-40M Mode 2427 MHz

Horizontal

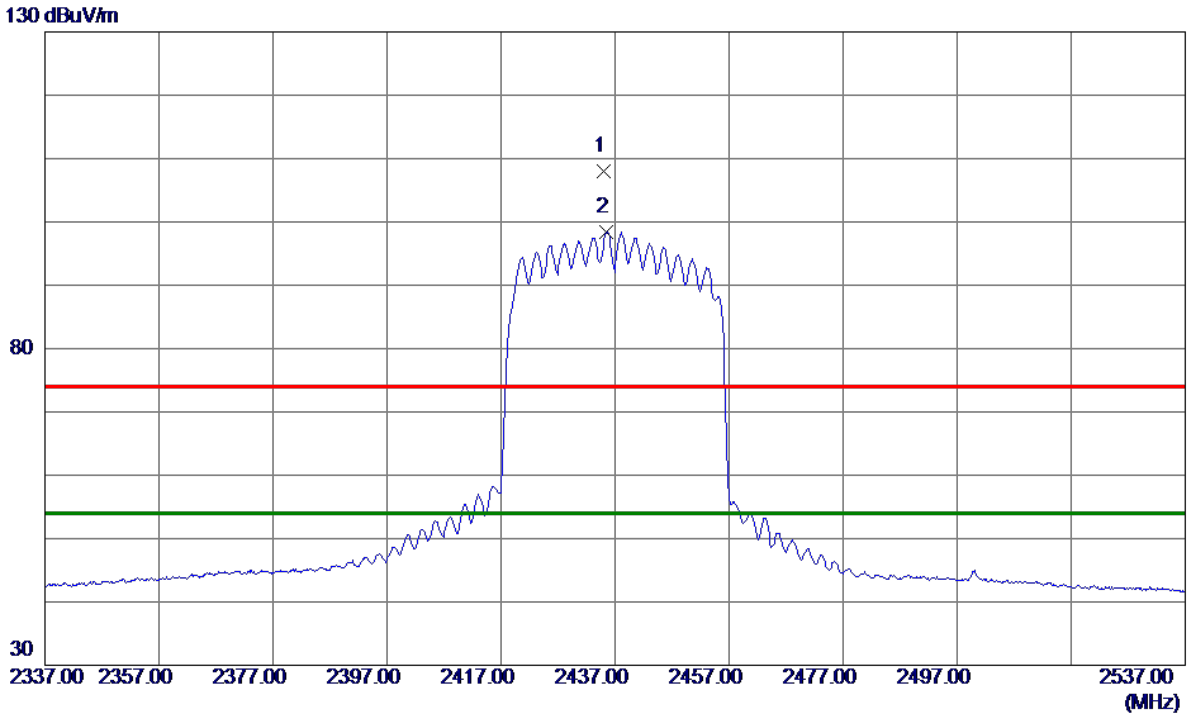


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4853.443	25.62	4.37	29.99	54.00	-24.01	AVG	
2		4854.343	39.02	4.37	43.39	74.00	-30.61	peak	

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

Test Mode:	TX N-40M Mode 2437 MHz

Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2435.0000	100.28	7.71	107.99	74.00	33.99	Peak	No Limit
2 *	2435.5000	90.68	7.72	98.40	54.00	44.40	AVG	No Limit

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

Test Mode:	TX N-40M Mode 2437 MHz

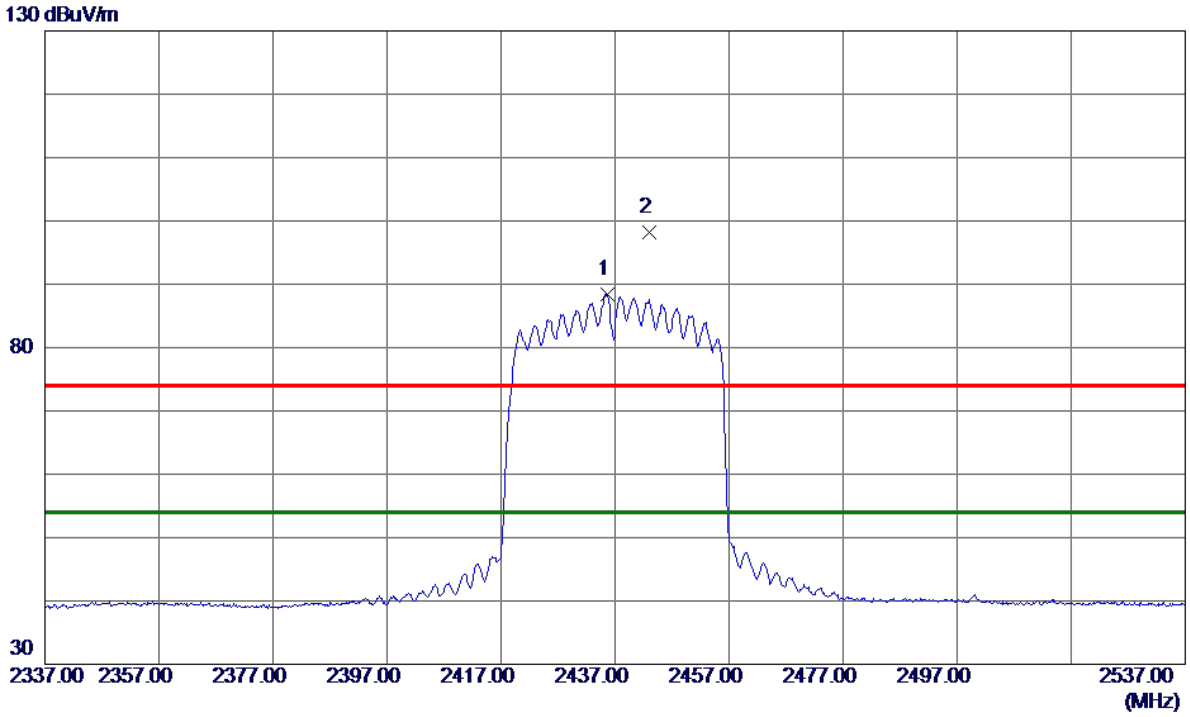
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.1070	37.00	4.44	41.44	74.00	-32.56	Peak	
2 *	4874.4990	24.72	4.44	29.16	54.00	-24.84	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 *	2435.6000	80.71	7.72	88.43	54.00	34.43	AVG	No Limit
2	2443.1000	90.48	7.74	98.22	74.00	24.22	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

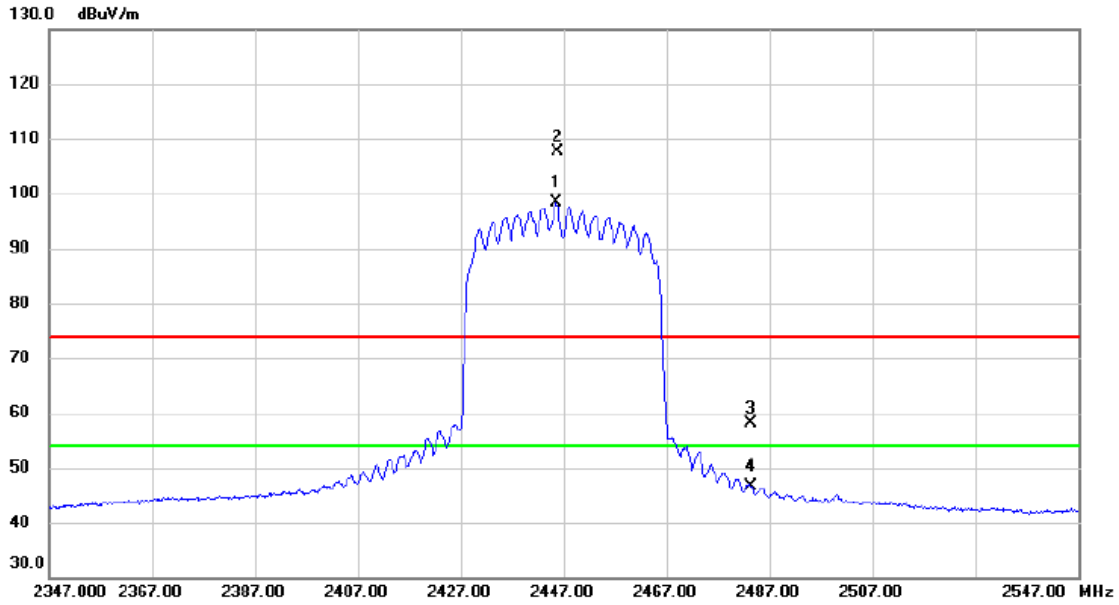
Horizontal

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4874.0650	37.91	4.44	42.35	74.00	-31.65	Peak	
2 *	4874.1210	24.77	4.44	29.21	54.00	-24.79	AVG	

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

Test Mode:	TX N-40M Mode 2447 MHz

Vertical

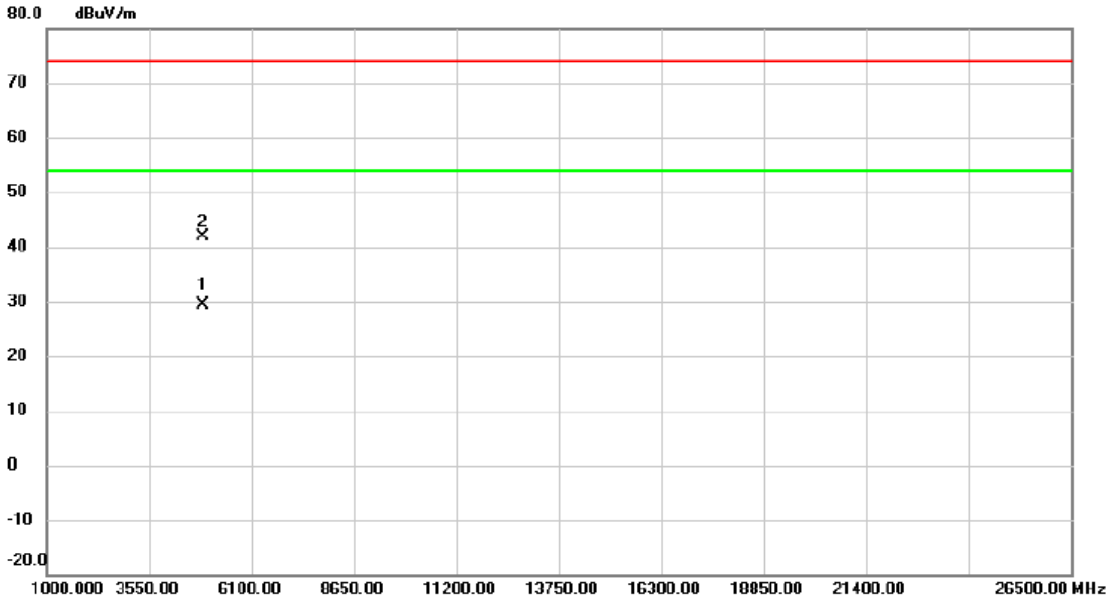


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2445.600	90.51	7.75	98.26	54.00	44.26	AVG	No Limit
2	X	2445.700	99.79	7.75	107.54	74.00	33.54	peak	No Limit
3		2483.500	50.17	7.87	58.04	74.00	-15.96	peak	
4		2483.500	38.73	7.87	46.60	54.00	-7.40	AVG	

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

Test Mode:	TX N-40M Mode 2447 MHz

Vertical

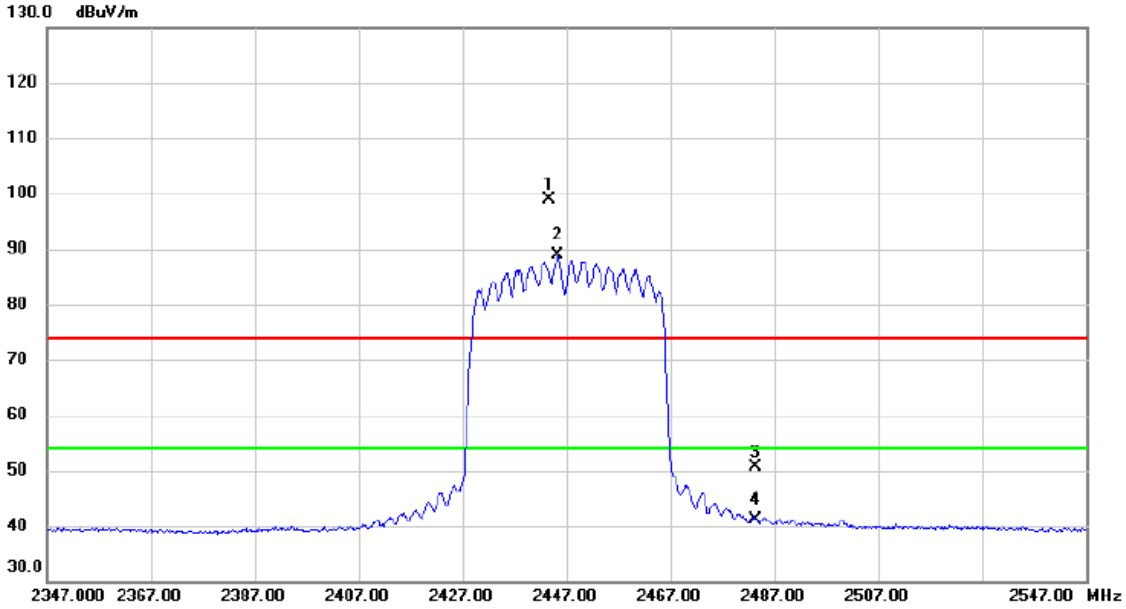


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	4894.322	24.81	4.52	29.33	54.00	-24.67	AVG	
2		4894.561	37.42	4.52	41.94	74.00	-32.06	peak	

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

Test Mode:	TX N-40M Mode 2447 MHz

Horizontal

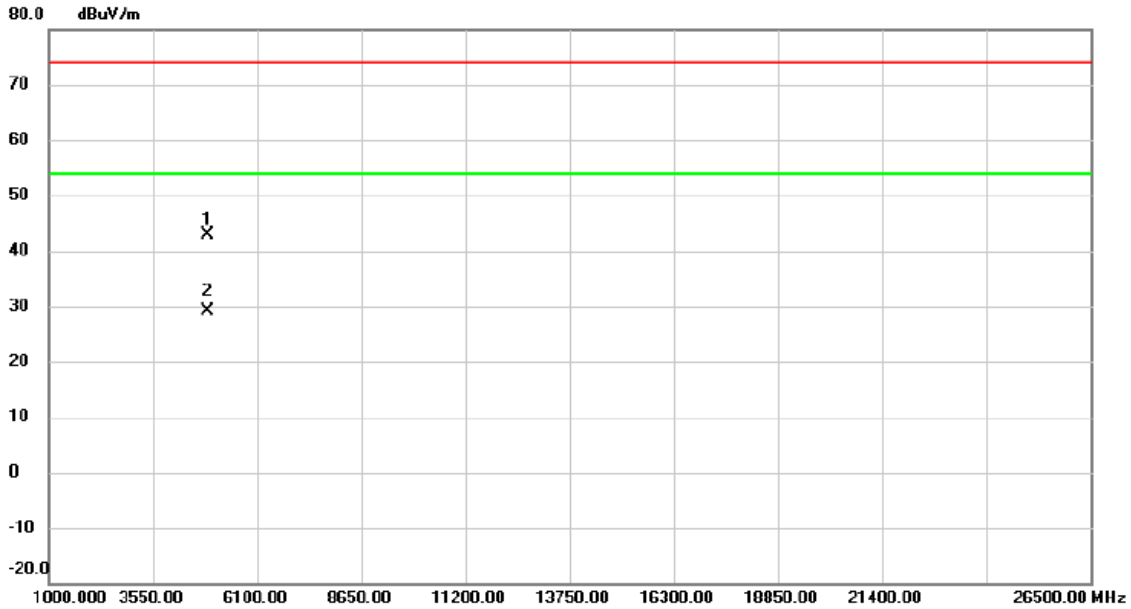


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2443.600	91.05	7.75	98.80	74.00	24.80	peak	No Limit
2	*	2445.300	81.09	7.75	88.84	54.00	34.84	AVG	No Limit
3		2483.500	42.65	7.87	50.52	74.00	-23.48	peak	
4		2483.500	33.24	7.87	41.11	54.00	-12.89	AVG	

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

Test Mode:	TX N-40M Mode 2447 MHz

Horizontal

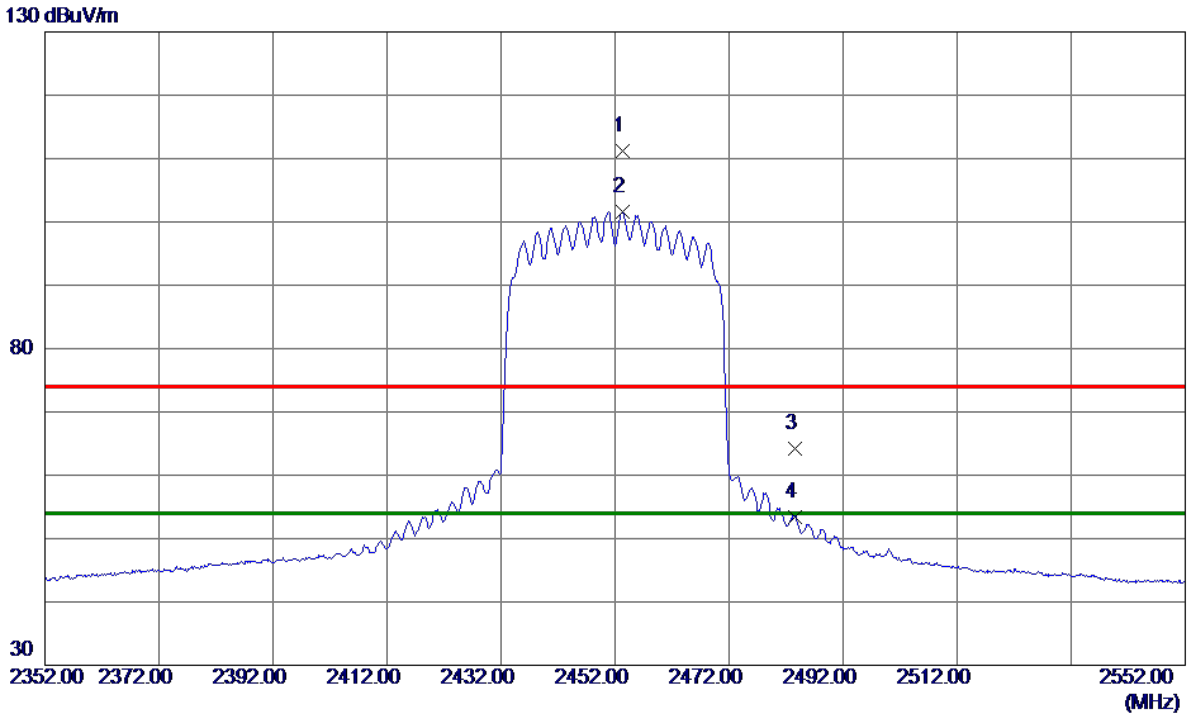


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4893.686	38.45	4.52	42.97	74.00	-31.03	peak	
2	*	4894.607	24.67	4.52	29.19	54.00	-24.81	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2453.3000	103.51	7.77	111.28	74.00	37.28	Peak	No Limit
2 *	2453.3000	93.92	7.77	101.69	54.00	47.69	AVG	No Limit
3	2483.5000	56.27	7.88	64.15	74.00	-9.85	Peak	
4	2483.5000	45.51	7.88	53.39	54.00	-0.61	AVG	

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

Test Mode:	TX N-40M Mode 2452 MHz

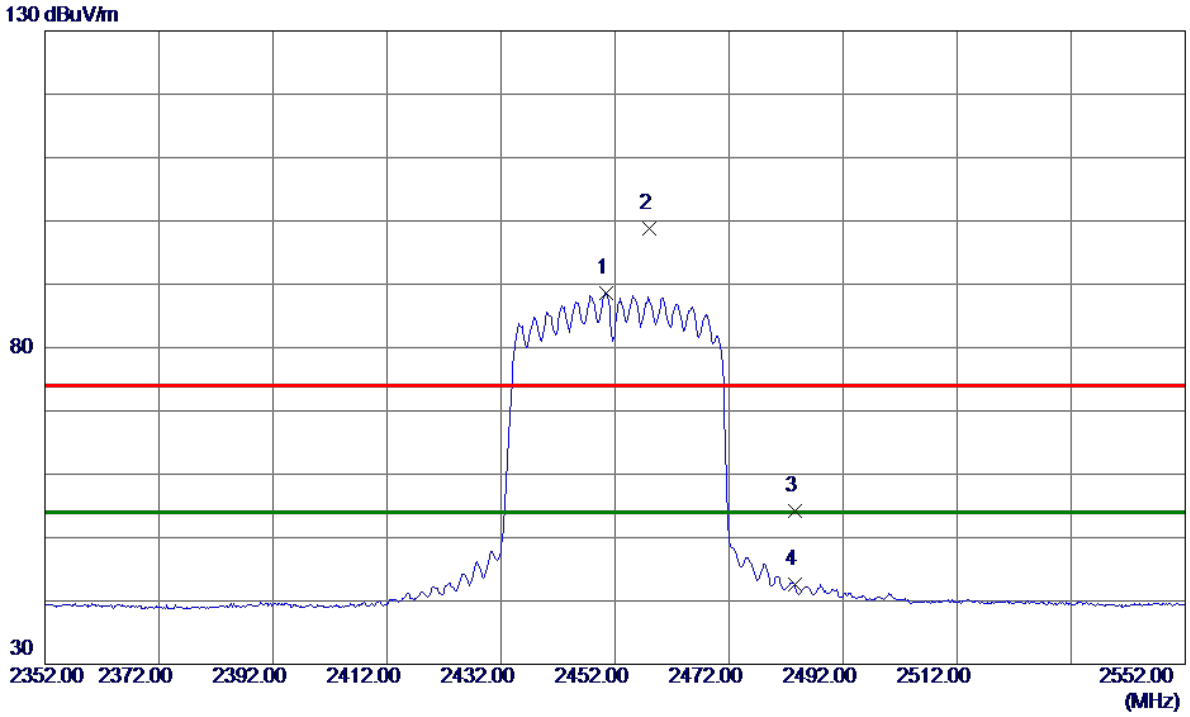
Vertical

No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4903.8300	25.13	4.55	29.68	54.00	-24.32	AVG	
2	4904.8050	39.35	4.56	43.91	74.00	-30.09	Peak	

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

Test Mode:	TX N-40M Mode 2452 MHz

Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2450.4000	80.90	7.77	88.67	54.00	34.67	AVG	No Limit
2	2458.0000	91.06	7.79	98.85	74.00	24.85	Peak	No Limit
3	2483.5000	46.25	7.88	54.13	74.00	-19.87	Peak	
4	2483.5000	34.73	7.88	42.61	54.00	-11.39	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	4903.3860	38.63	4.55	43.18	74.00	-30.82	Peak	
2 *	4904.8440	25.10	4.56	29.66	54.00	-24.34	AVG	

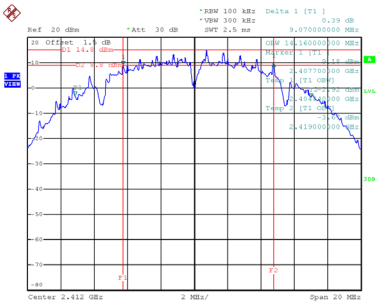
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

Test Mode	TX B Mode

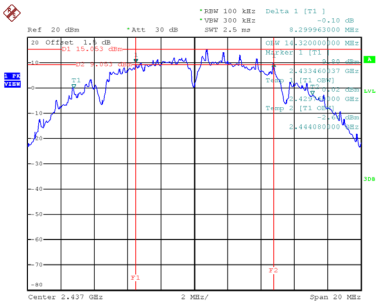
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.07	500	Complies
06	2437	8.30	500	Complies
11	2462	8.40	500	Complies

CH01



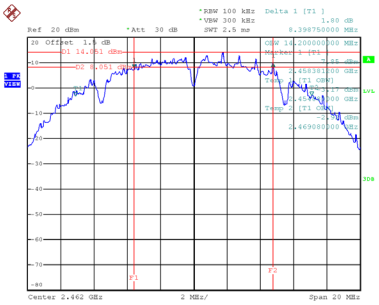
Date: 11.JUN.2019 20:54:05

CH06



Date: 11.JUN.2019 20:56:20

CH11

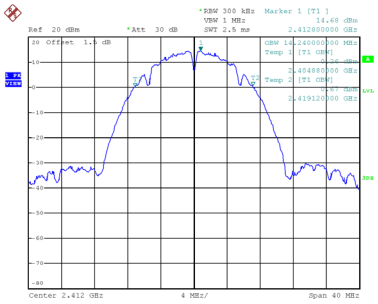


Date: 11.JUN.2019 20:57:35

Test Mode	TX B Mode

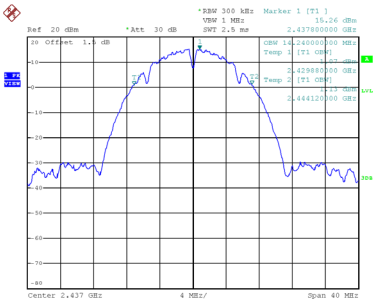
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	14.24	Complies
06	2437	14.24	Complies
11	2462	14.24	Complies

CH01



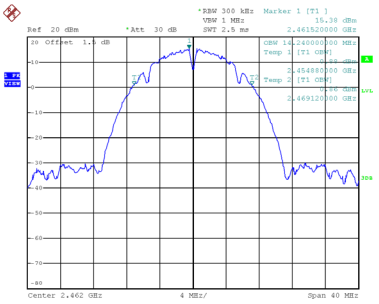
Date: 11.JUN.2019 21:45:50

CH06



Date: 11.JUN.2019 21:47:15

CH11

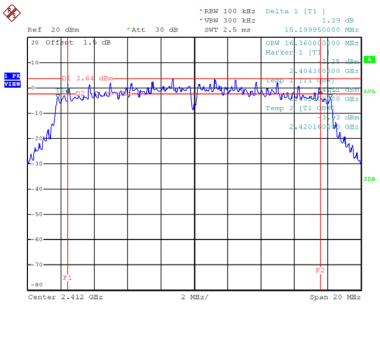


Date: 11.JUN.2019 21:48:14

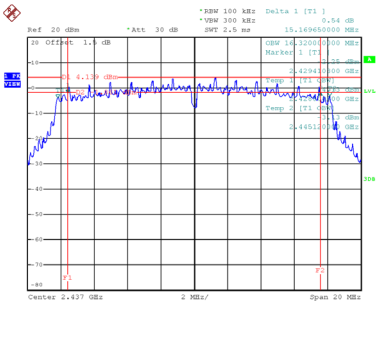
Test Mode	TX G Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.20	500	Complies
06	2437	15.17	500	Complies
11	2462	15.18	500	Complies

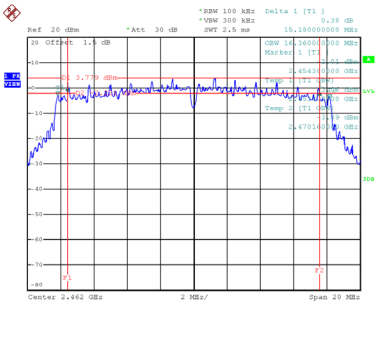
CH01



CH06



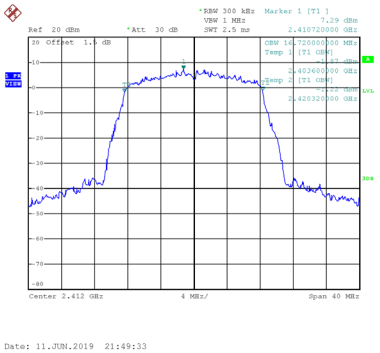
CH11



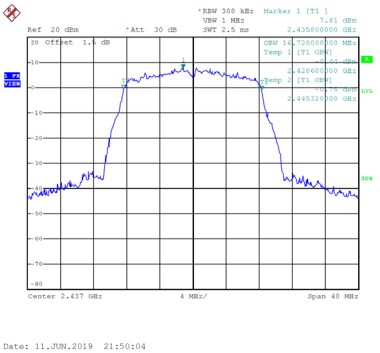
Test Mode	TX G Mode

Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.72	Complies
06	2437	16.72	Complies
11	2462	16.72	Complies

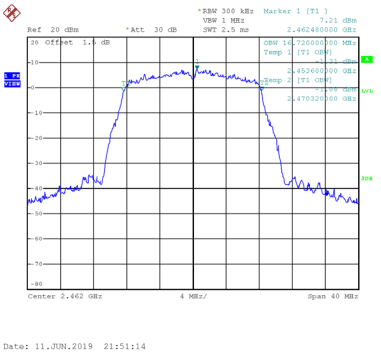
CH01



CH06



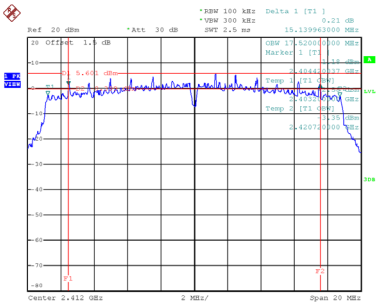
CH11



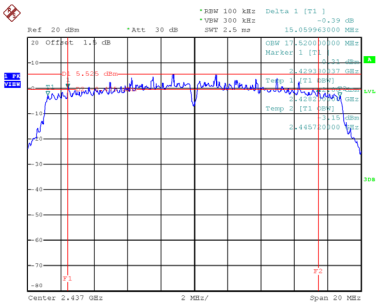
Test Mode	TX N-20M Mode

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.14	500	Complies
06	2437	15.06	500	Complies
11	2462	13.95	500	Complies

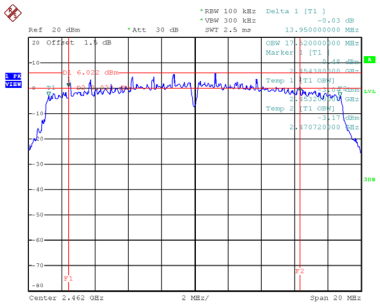
CH01



CH06



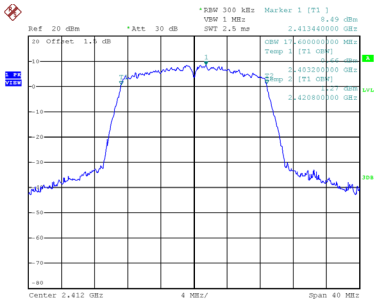
CH11



Test Mode	TX N-20M Mode

Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.60	Complies
06	2437	17.68	Complies
11	2462	17.60	Complies

CH01



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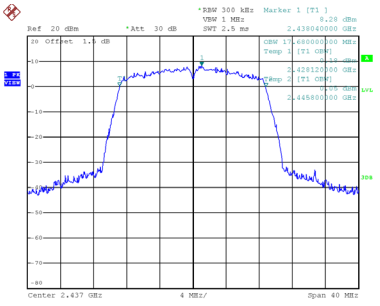
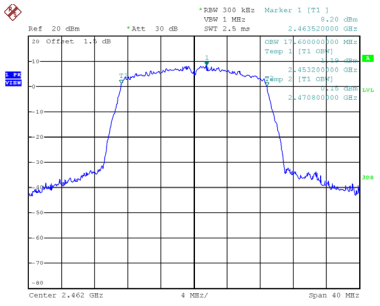


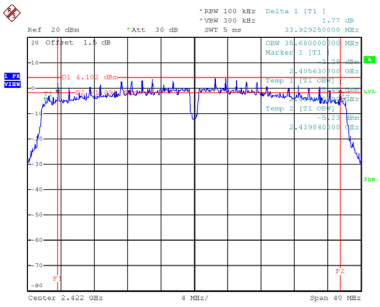
CH11



Test Mode	TX N-40M Mode

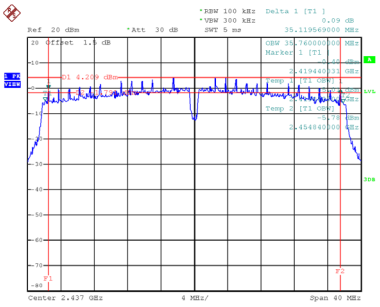
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	33.93	500	Complies
06	2437	35.12	500	Complies
09	2452	35.24	500	Complies

CH03



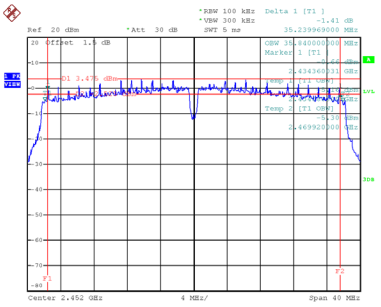
Date: 11.JUN.2019 21:08:37

CH06



Date: 11.JUN.2019 21:09:46

CH09

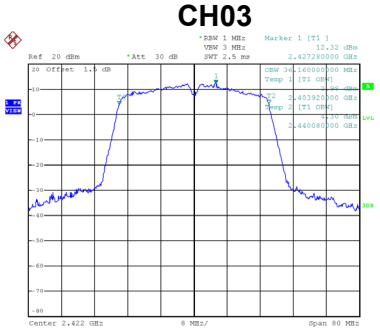


Date: 11.JUN.2019 21:10:48

Test Mode	TX N-40M Mode

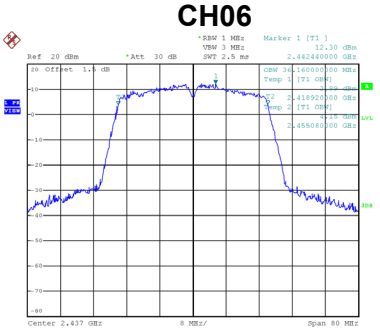
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	36.16	Complies
06	2437	36.16	Complies
09	2452	36.16	Complies

CH03



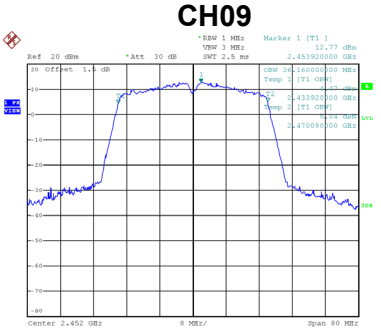
Date: 11.JUN.2019 22:01:14

CH06



Date: 11.JUN.2019 22:02:05

CH09



Date: 11.JUN.2019 22:03:00

APPENDIX F - MAXIMUM AVERAGE OUTPUT POWER

Test Mode	TX B Mode_Ant. 1

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.84	0.00	22.84	29.62	0.9162	Complies
06	2437	22.72	0.00	22.72	29.62	0.9162	Complies
11	2462	22.72	0.00	22.72	29.62	0.9162	Complies

Test Mode	TX B Mode_Ant. 2

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.86	0.00	22.86	29.62	0.9162	Complies
06	2437	22.29	0.00	22.29	29.62	0.9162	Complies
11	2462	22.27	0.00	22.27	29.62	0.9162	Complies

Test Mode	TX B Mode_Total

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.86	29.62	0.9162	Complies
06	2437	25.52	29.62	0.9162	Complies
11	2462	25.51	29.62	0.9162	Complies

Test Mode	TX G Mode_Ant. 1

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.52	0.35	18.87	29.62	0.9162	Complies
06	2437	21.56	0.35	21.91	29.62	0.9162	Complies
11	2462	18.47	0.35	18.82	29.62	0.9162	Complies

Test Mode	TX G Mode_Ant. 2

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.69	0.35	19.04	29.62	0.9162	Complies
06	2437	20.96	0.35	21.31	29.62	0.9162	Complies
11	2462	18.34	0.35	18.69	29.62	0.9162	Complies

Test Mode	TX G Mode_Total

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.96	29.62	0.9162	Complies
06	2437	24.63	29.62	0.9162	Complies
11	2462	21.76	29.62	0.9162	Complies

Test Mode	TX N-20M Mode_Ant. 1

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.88	0.49	18.37	29.62	0.9162	Complies
06	2437	21.34	0.49	21.83	29.62	0.9162	Complies
11	2462	18.31	0.49	18.80	29.62	0.9162	Complies

Test Mode	TX N-20M Mode_Ant. 2

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.35	0.49	18.84	29.62	0.9162	Complies
06	2437	21.03	0.49	21.52	29.62	0.9162	Complies
11	2462	18.86	0.49	19.35	29.62	0.9162	Complies

Test Mode	TX N-20M Mode_Total

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	21.62	29.62	0.9162	Complies
06	2437	24.68	29.62	0.9162	Complies
11	2462	22.09	29.62	0.9162	Complies

Test Mode	TX N-40M Mode_Ant. 1

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.21	1.11	16.32	29.62	0.9162	Complies
06	2437	18.67	1.11	19.78	29.62	0.9162	Complies
09	2452	15.73	1.11	16.84	29.62	0.9162	Complies

Test Mode	TX N-40M Mode_Ant. 2

Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	15.56	1.11	16.67	29.62	0.9162	Complies
06	2437	18.12	1.11	19.23	29.62	0.9162	Complies
09	2452	15.46	1.11	16.57	29.62	0.9162	Complies

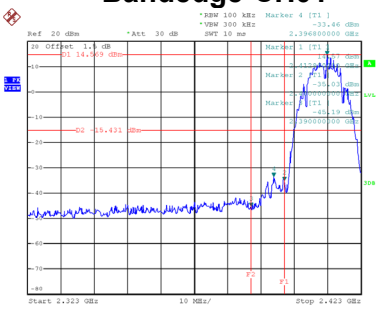
Test Mode	TX N-40M Mode_Total

Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	19.51	29.62	0.9162	Complies
06	2437	22.52	29.62	0.9162	Complies
09	2452	19.71	29.62	0.9162	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

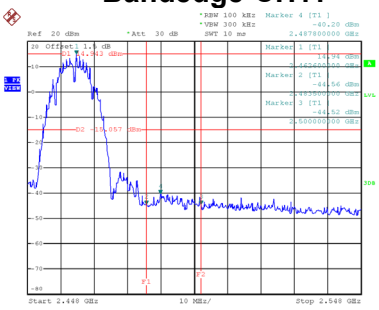
Test Mode	TX B Mode_Ant. 1

Bandedge-CH01



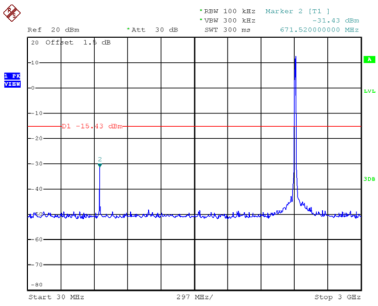
Date: 11.JUN.2019 20:54:12

Bandedge-CH11



Date: 11.JUN.2019 20:57:42

CH01 – 10th Harmonic of the fundamental frequency



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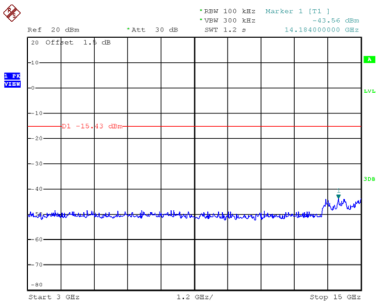

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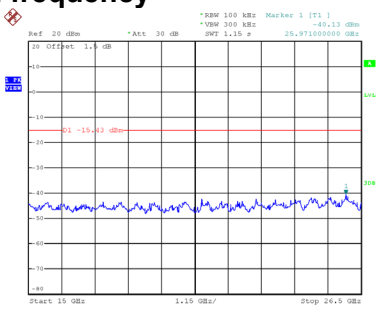
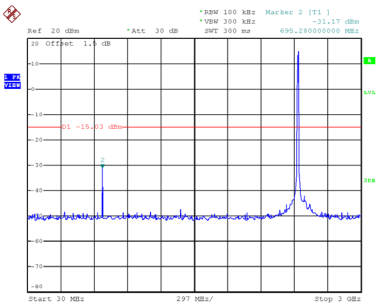
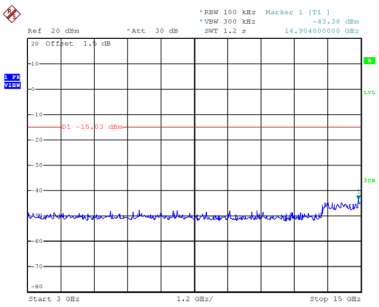


Date: 11.JUN.2019 20:54:38

CH06 – 10th Harmonic of the fundamental frequency



Date: 11.JUN.2019 20:56:40



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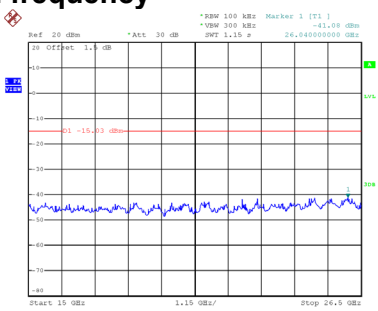
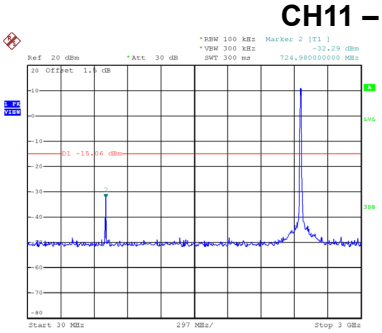


Date: 11.JUN.2019 20:56:54

CH11 – 10th Harmonic of the fundamental frequency



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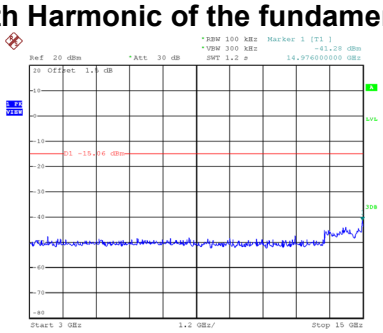
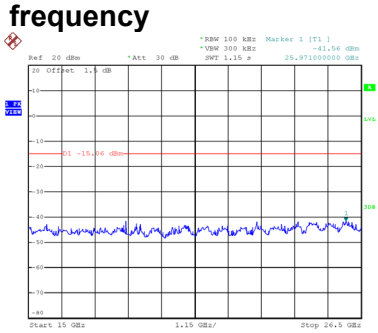


Date: 11.JUN.2019 20:58:02



Date: 11.JUN.2019 20:58:09