

FCC Radio Test Report

FCC ID: TE7WA850REV7

This report concerns: Original Grant

Project No. : 1911C110
Equipment : 300Mbps Wi-Fi Range Extender
Brand Name : tp-link
Test Model : TL-WA850RE
Series Model : N/A
Applicant : TP-Link Technologies Co., Ltd.
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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 Receipt : Nov. 25, 2019
Date of Test : Nov. 25, 2019 ~ Jan. 13, 2020
Issued Date : Feb. 25, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG2019112223 for radiated, DG2019112218 for conducted
Standard(s) : FCC Part15, Subpart C (15.247)
ANSI C63.10-2013
KDB 558074 D01 15.247 Meas Guidance v05r02

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



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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.	Feb. 25, 2020

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.247)				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	N/A	-----
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.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

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

The BTL measurement uncertainty as below table:

A. Radiated emissions test:

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

B. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 kHz ~ 30 MHz	2.32

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	53°C	25%	AC 120V/60Hz	Jonas Chen
Radiated Emissions-9K-30MHz	25°C	60%	AC 120V/60Hz	Laughing Zhang
Radiated Emissions-30 MHz to 1GHz	24°C	68%	AC 120V/60Hz	Sheldon Ou
Radiated Emissions-Above 1000 MHz	26°C	65%	AC 120V/60Hz	Sheldon Ou
Bandwidth	27°C	50%	AC 120V/60Hz	Jonas Chen
Maximum Average output power	27°C	50%	AC 120V/60Hz	Jonas Chen
Conducted Spurious Emissions	27°C	50%	AC 120V/60Hz	Jonas Chen
Power Spectral Density	27°C	50%	AC 120V/60Hz	Jonas Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT



Equipment	300Mbps Wi-Fi Range Extender
Brand Name	tp-link
Test Model	TL-WA850RE
Series Model	N/A
Model Difference(s)	N/A
Software Version	1.0.0 Build 191104 Rel.70403n
Hardware Version	1908252850-7.0 Rev1.0sp6
Power Source	AC Mains.
Power Rating	100-240V~ 50/60Hz 0.1A
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: 25.82 dBm (0.3820 W) IEEE 802.11g: 23.41 dBm (0.2193 W) IEEE 802.11n (HT20): 23.30 dBm (0.2137 W) IEEE 802.11n (HT40): 19.30 dBm (0.0851 W)

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- Channel List:

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

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1		N/A	Printed	N/A	2.00
2		N/A	Printed	N/A	1.98

Note: This EUT supports CDD, and antenna gains are not equal, so Directional gain=
 $10\log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N] \text{dBi}$,
 that is Directional gain= $10\log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N] \text{dBi} = 5.00$

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)

2.2 DESCRIPTION OF TEST MODES

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

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

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

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

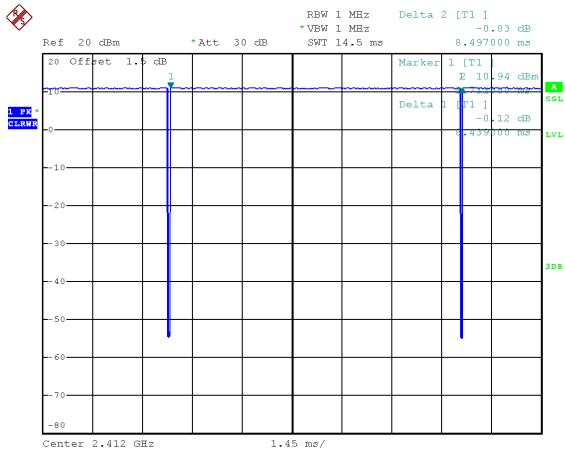
2.3 PARAMETERS OF TEST SOFTWARE

Test Software	QATool_Dbg.exe		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	1E	24	1E
IEEE 802.11g	17	1F	1B
IEEE 802.11n (HT20)	16	22	13
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	12	16	0F

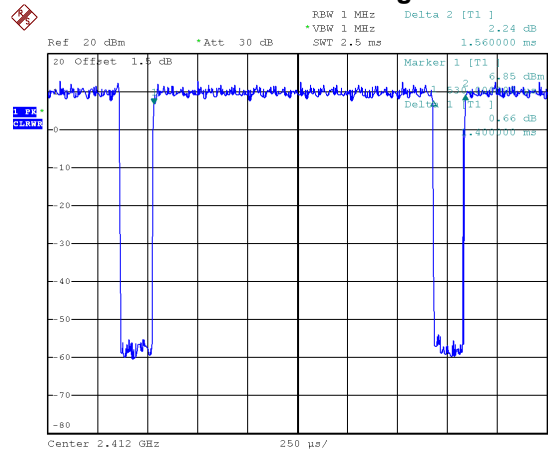
2.4 DUTY CYCLE

If duty cycle is $\geq 98\%$, 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



IEEE 802.11g

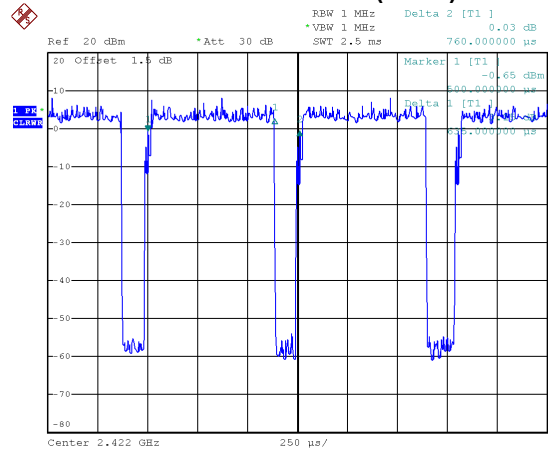
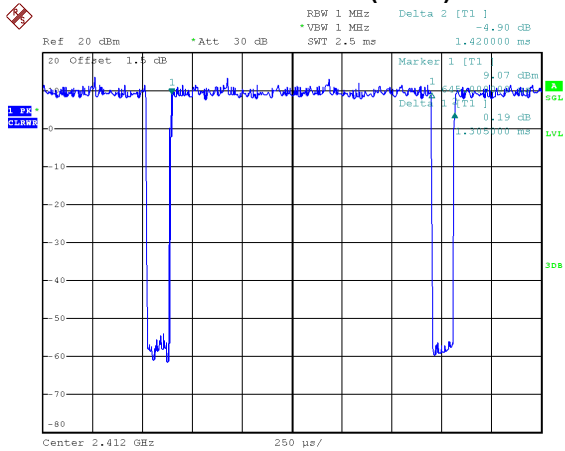


Date: 27.NOV.2019 10:23:10

Duty cycle = $8.439 \text{ ms} / 8.497 \text{ ms} = 99.32\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$
IEEE 802.11n (HT20)

Date: 27.NOV.2019 10:23:39

Duty cycle = $1.400 \text{ ms} / 1.560 \text{ ms} = 89.74\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.47$
IEEE 802.11n (HT40)



Date: 27.NOV.2019 10:24:16

Duty cycle = $1.305 \text{ ms} / 1.420 \text{ ms} = 91.90\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.37$

Date: 27.NOV.2019 10:25:57

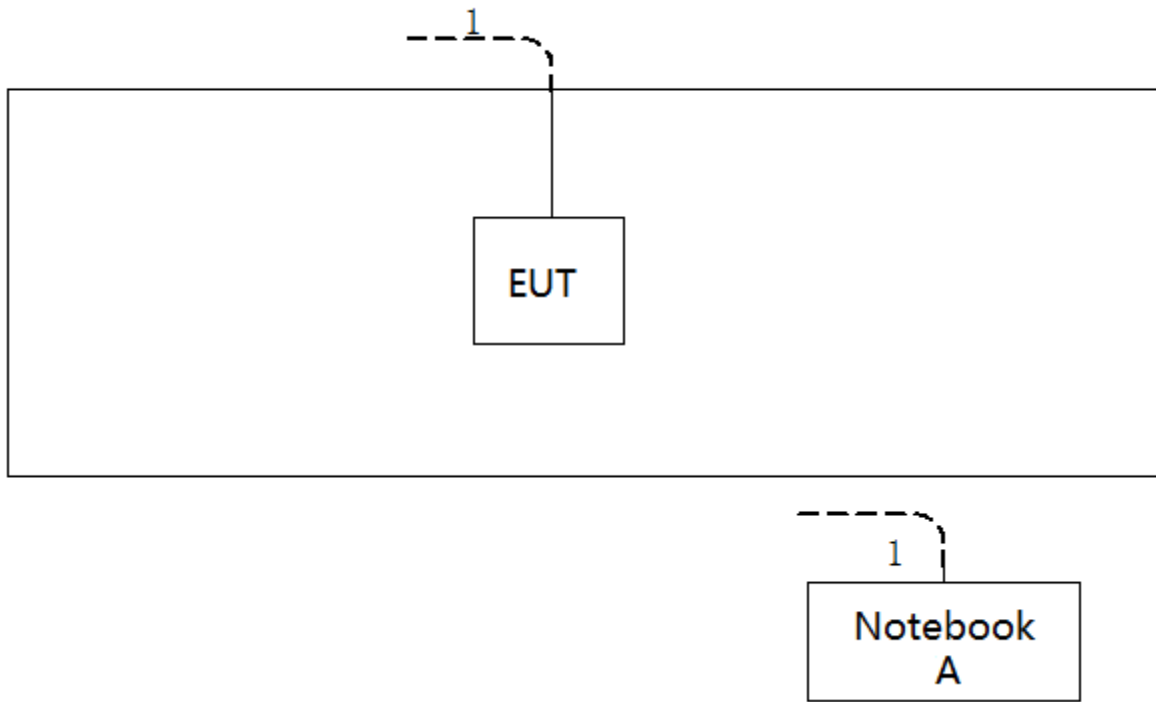
Duty cycle = $0.635 \text{ ms} / 0.760 \text{ ms} = 83.55\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.78$

NOTE:

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

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

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	Dell	Inspiron 15-7559	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	RJ45 Cable	NO	NO	10m

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

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

NOTE:

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

The following table is the setting of the receiver

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

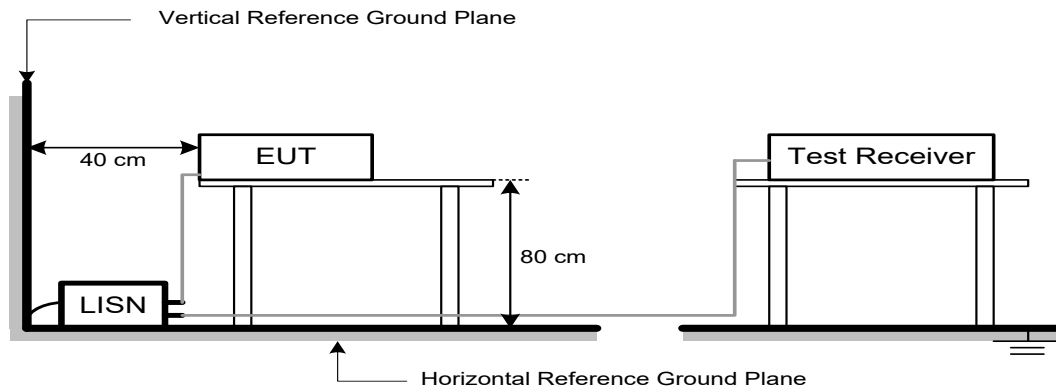
3.2 TEST PROCEDURE

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

3.3 DEVIATION FROM TEST STANDARD

No deviation

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS TEST

4.1 LIMIT

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

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

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

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

NOTE:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

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

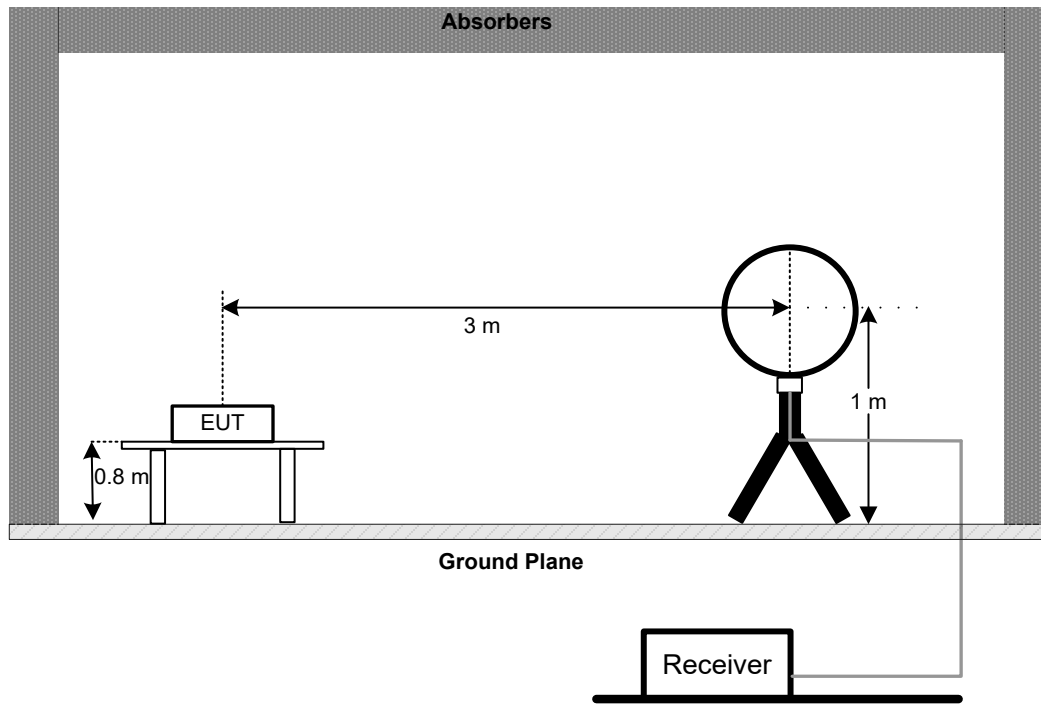
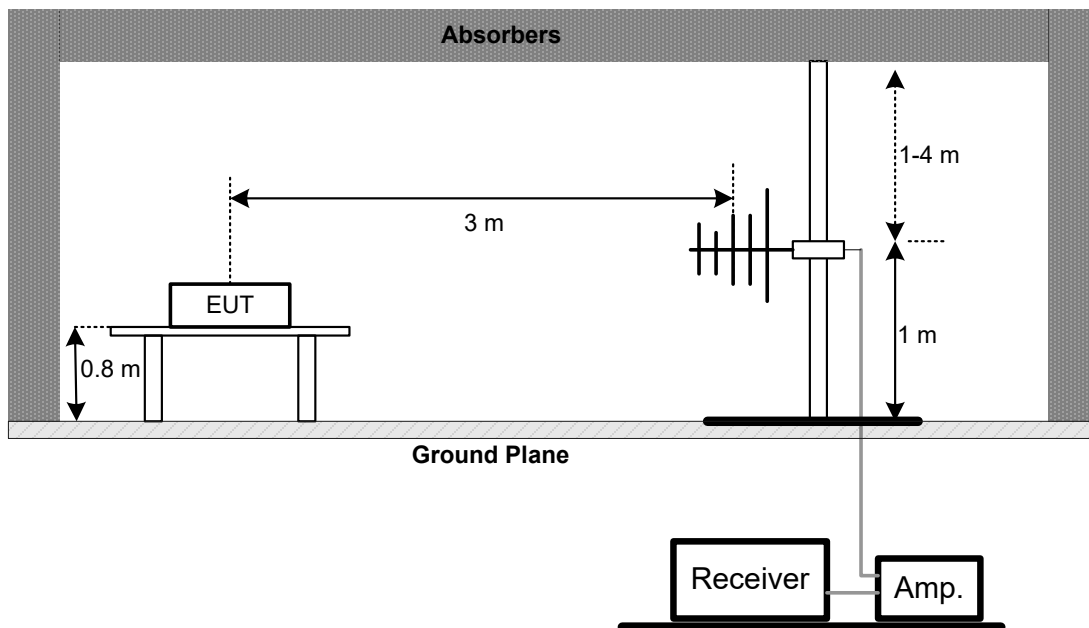
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000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

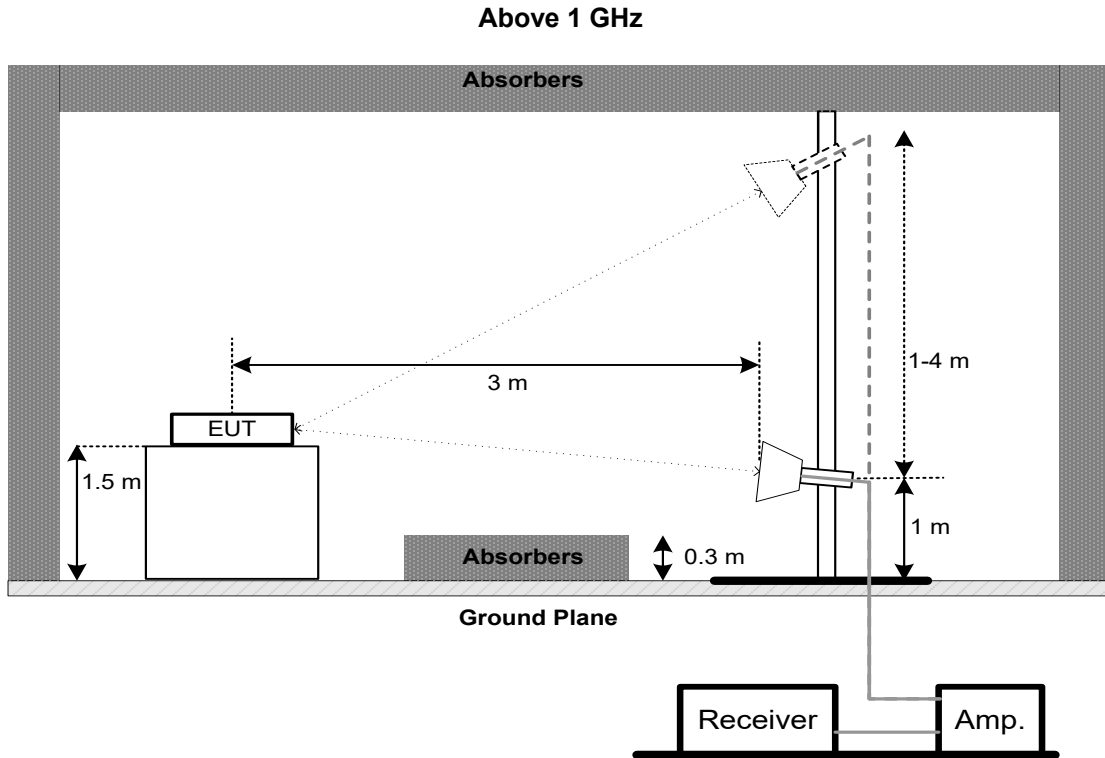
4.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
(below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item -EUT Test Photos.

4.3 DEVIATION FROM TEST STANDARD

No deviation

4.4 TEST SETUP**9 kHz-30 MHz****30 MHz to 1 GHz**



4.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B

Remark:

- (1) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

4.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

- (1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

5. BANDWIDTH TEST**5.1 LIMIT**

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

5.2 TEST PROCEDURE

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

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP**5.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM AVERAGE OUTPUT POWER TEST

6.1 LIMIT

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

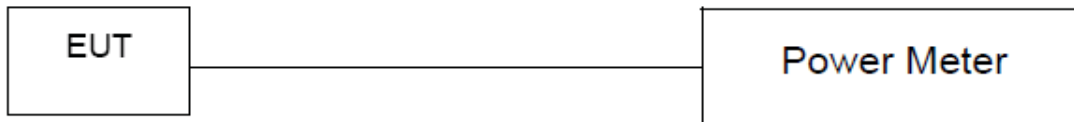
6.2 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below.
- 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.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.6 TEST RESULTS

Please refer to the APPENDIX F.

7. CONDUCTED SPURIOUS EMISSIONS

7.1 LIMIT

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

7.2 TEST PROCEDURE

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

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. POWER SPECTRAL DENSITY TEST

8.1 LIMIT

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

8.2 TEST PROCEDURE

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

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 10, 2020
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	May 19, 2020
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 10, 2020
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	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, 2021
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
4	Cable	emci	LMR-400(30MHz-1 GHz)(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. 23, 2020
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. 03, 2020
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Bandwidth & Antenna Conducted Spurious Emissions & Power Spectral Density					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 03, 2020

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

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

"**" calibration period of equipment list is three year.

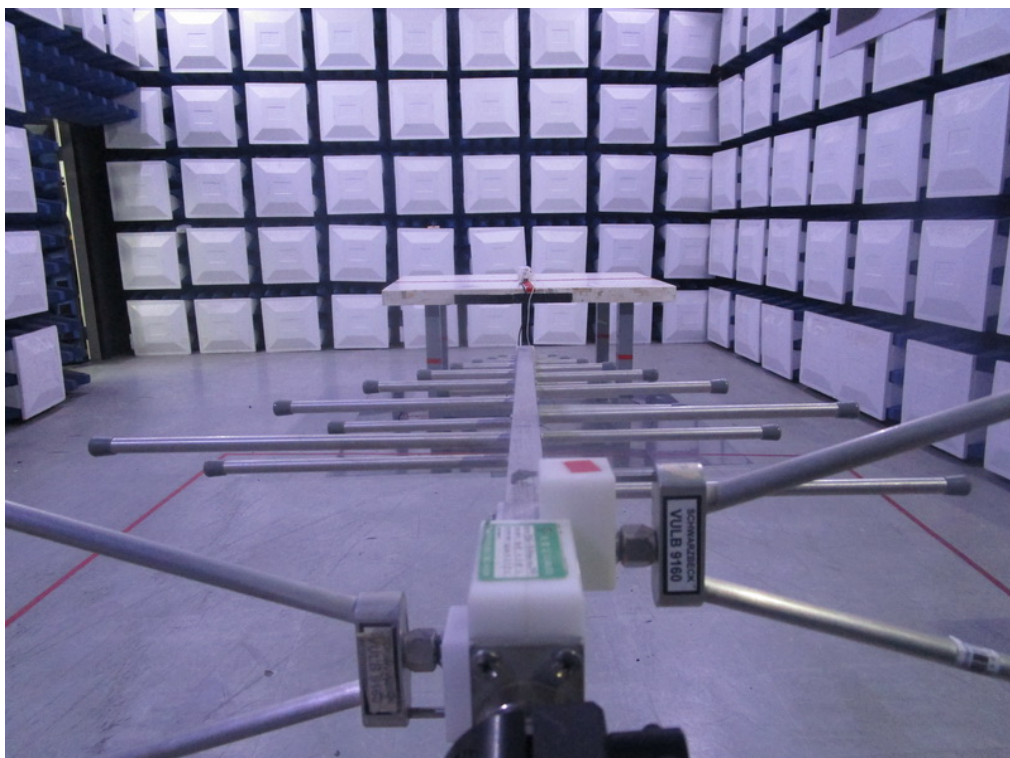
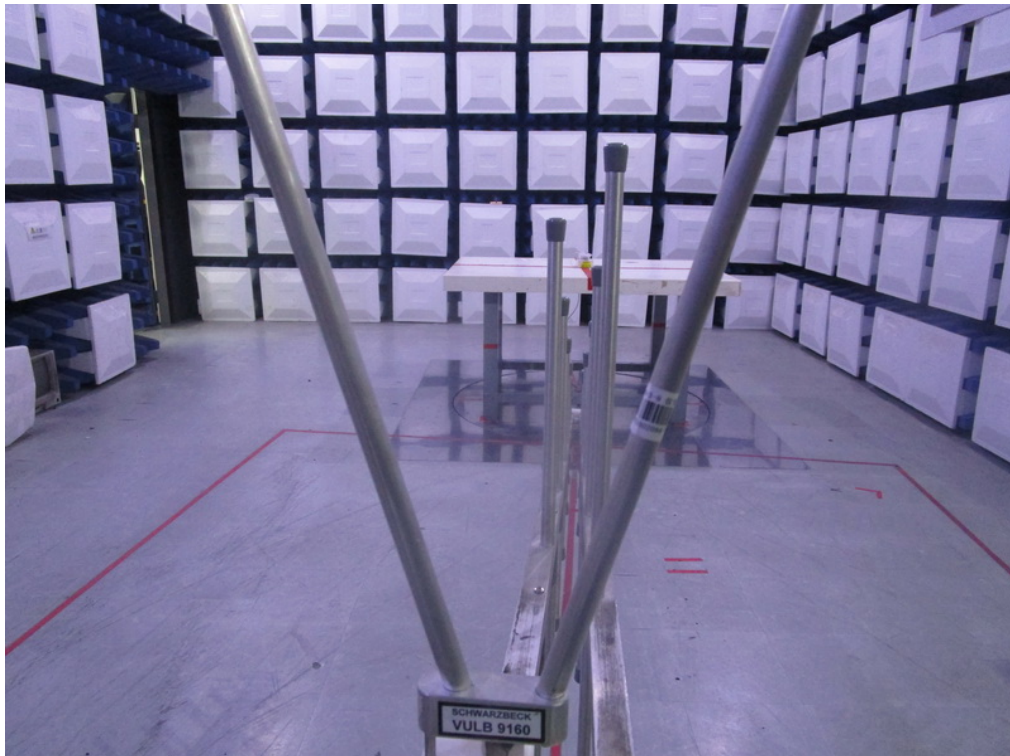
Except * item, all calibration period of equipment list is one year.

10. EUT TEST PHOTO**AC Power Line Conducted Emissions Test Photos**

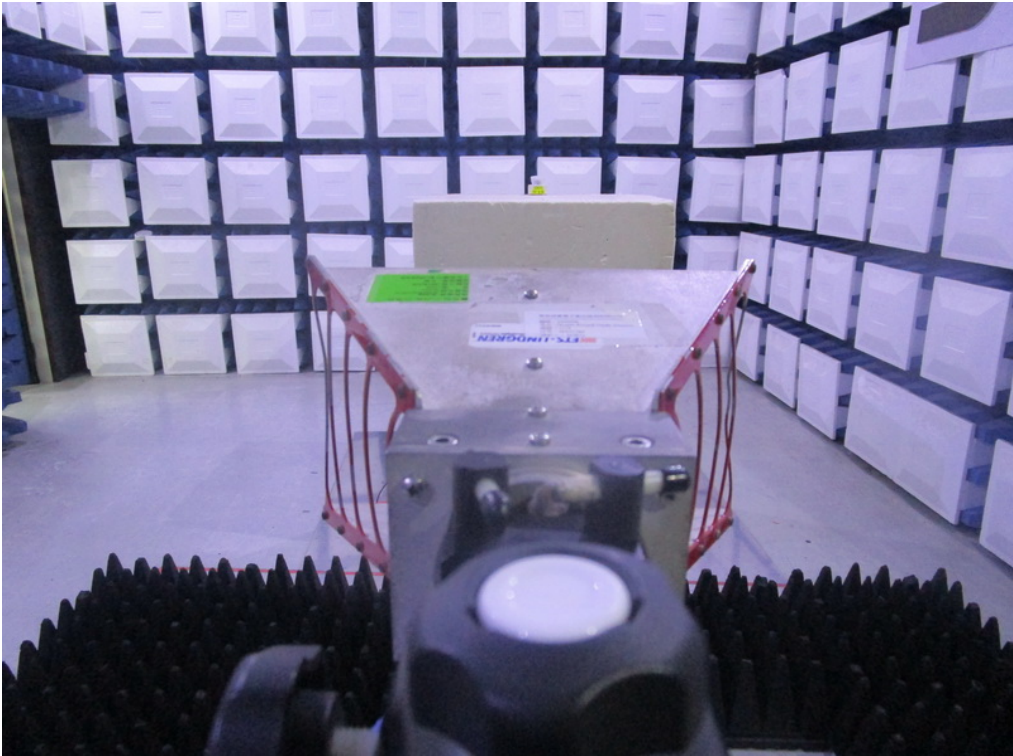
Radiated Emissions Test Photos**9 kHz to 30 MHz**

Radiated Emissions Test Photos

30 MHz to 1 GHz



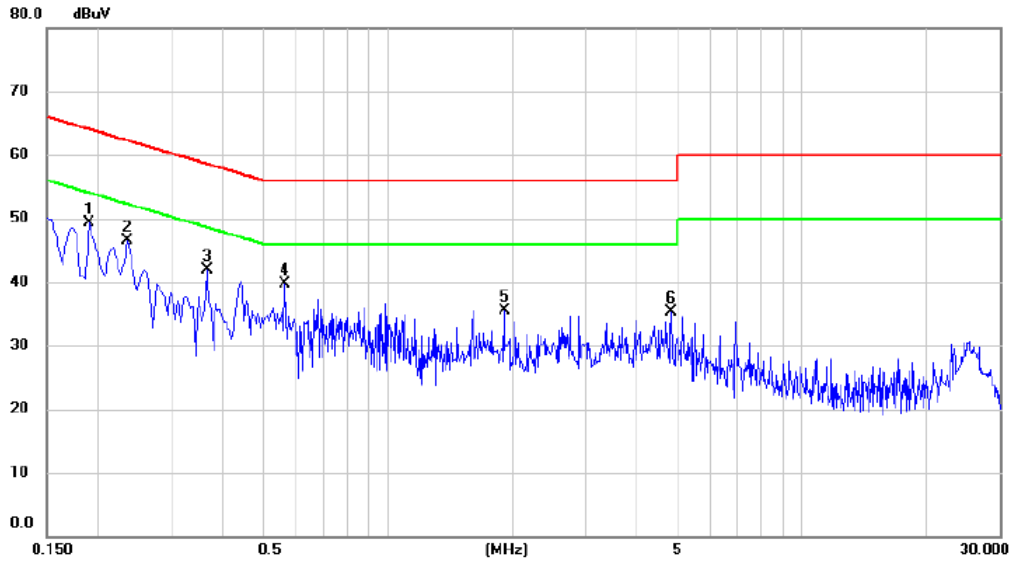
Radiated Emissions Test Photos
Above 1 GHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX B Mode Channel 06

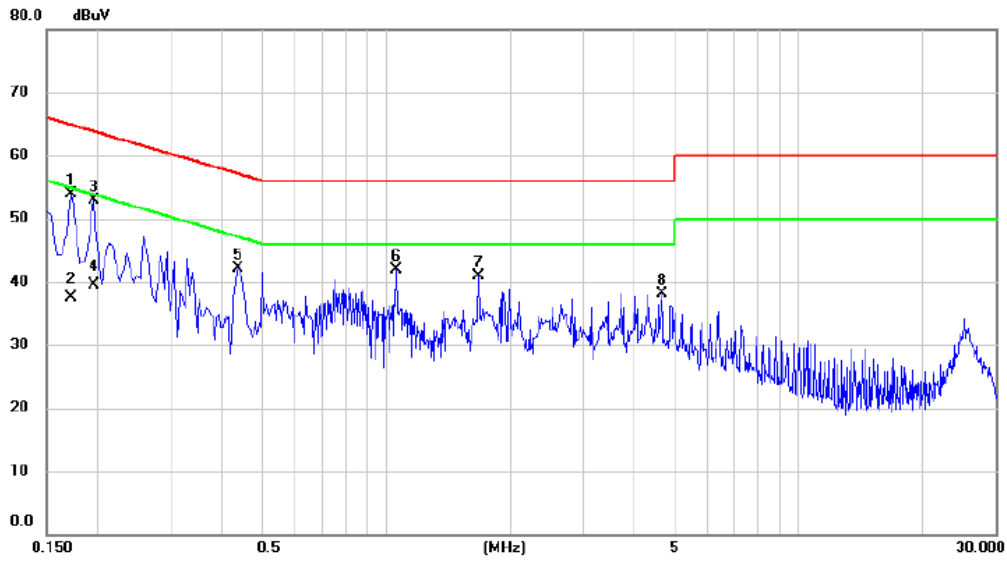
Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1905	39.45	9.81	49.26	64.01	-14.75	peak	
2		0.2355	36.64	9.82	46.46	62.25	-15.79	peak	
3		0.3660	31.98	9.85	41.83	58.59	-16.76	peak	
4		0.5640	29.76	9.89	39.65	56.00	-16.35	peak	
5		1.9095	25.59	9.99	35.58	56.00	-20.42	peak	
6		4.8480	25.15	10.18	35.33	56.00	-20.67	peak	

Test Mode: TX B Mode Channel 06

Neutral

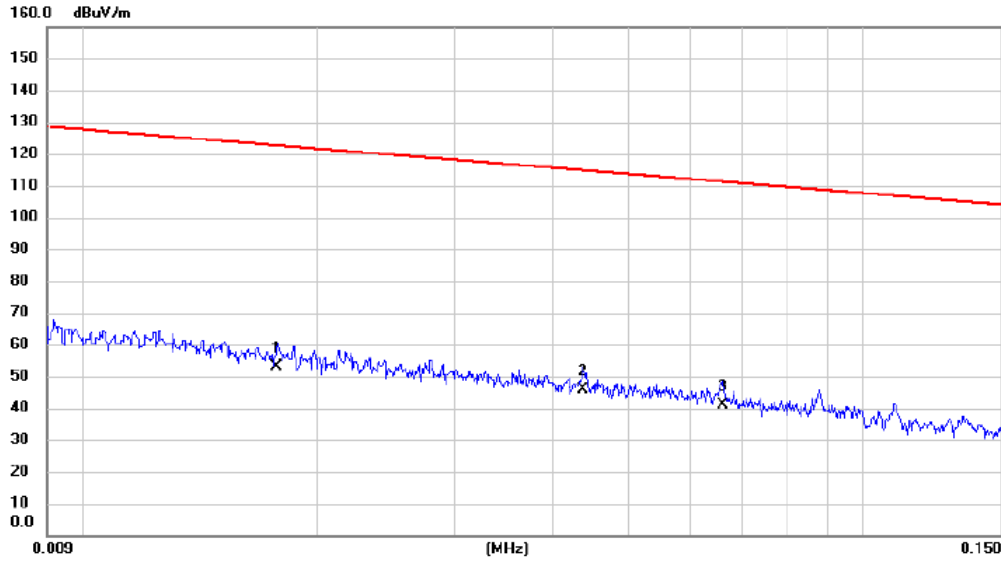


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1725	44.00	9.91	53.91	64.84	-10.93	peak	
2		0.1725	27.65	9.91	37.56	54.84	-17.28	AVG	
3		0.1950	42.99	9.90	52.89	63.82	-10.93	peak	
4		0.1950	29.65	9.90	39.55	53.82	-14.27	AVG	
5		0.4380	32.18	10.01	42.19	57.10	-14.91	peak	
6		1.0590	31.75	10.12	41.87	56.00	-14.13	peak	
7		1.6755	30.79	10.17	40.96	56.00	-15.04	peak	
8		4.6545	27.71	10.38	38.09	56.00	-17.91	peak	

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX B Mode Channel 06

Ant 0°



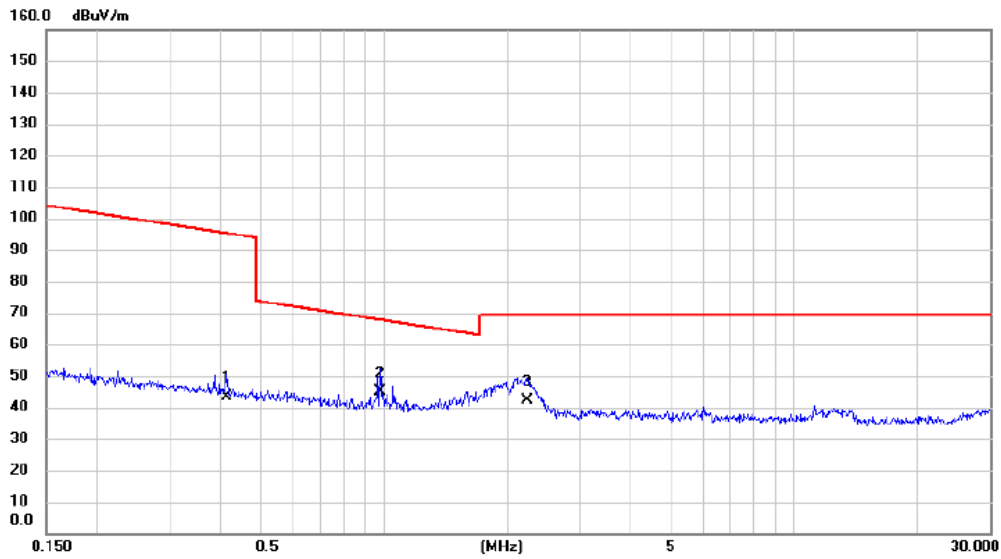
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.0177	38.49	14.51	53.00	122.65	-69.65	AVG	
2	*	0.0437	31.91	13.91	45.82	114.80	-68.98	AVG	
3		0.0660	27.48	13.67	41.15	111.21	-70.06	AVG	

REMARKS:

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

Test Mode: TX B Mode Channel 06

Ant 0°



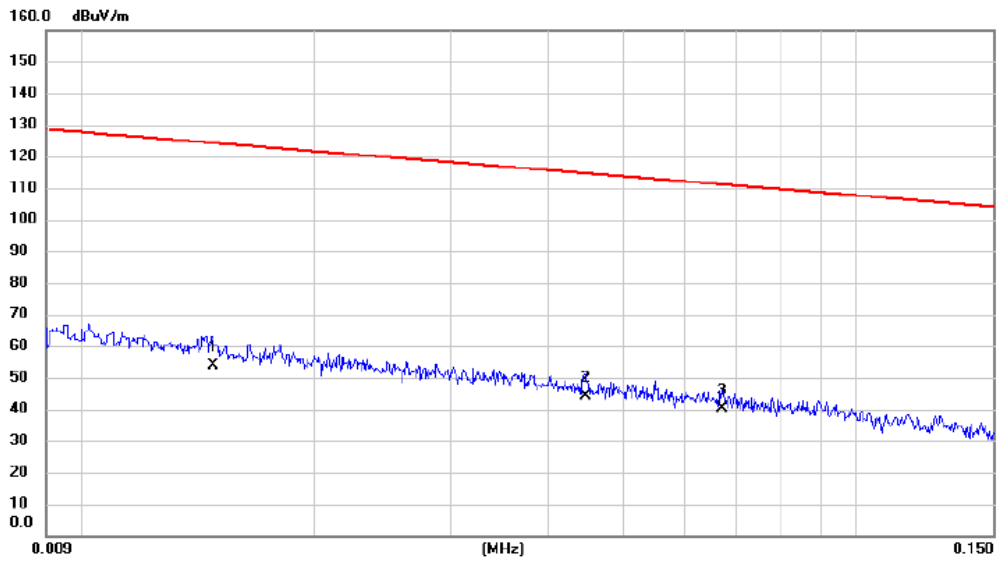
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.4127	30.25	13.27	43.52	95.29	-51.77	AVG	
2	*	0.9787	32.46	12.51	44.97	67.79	-22.82	QP	
3		2.2367	30.33	11.68	42.01	69.54	-27.53	QP	

REMARKS:

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

Test Mode: TX B Mode Channel 06

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	0.0148	38.46	15.38	53.84	124.20	-70.36	AVG	
2		0.0447	30.25	13.91	44.16	114.60	-70.44	AVG	
3		0.0670	26.45	13.66	40.11	111.08	-70.97	AVG	

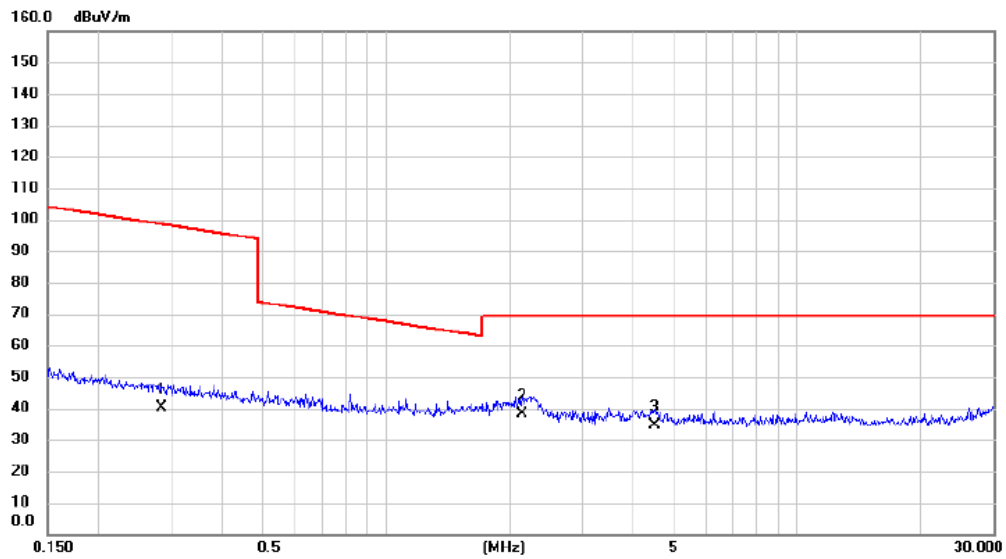
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX B Mode Channel 06

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.2833	26.58	13.58	40.16	98.56	-58.40	AVG	
2	*	2.1440	26.45	11.73	38.18	69.54	-31.36	QP	
3		4.5015	23.73	10.90	34.63	69.54	-34.91	QP	

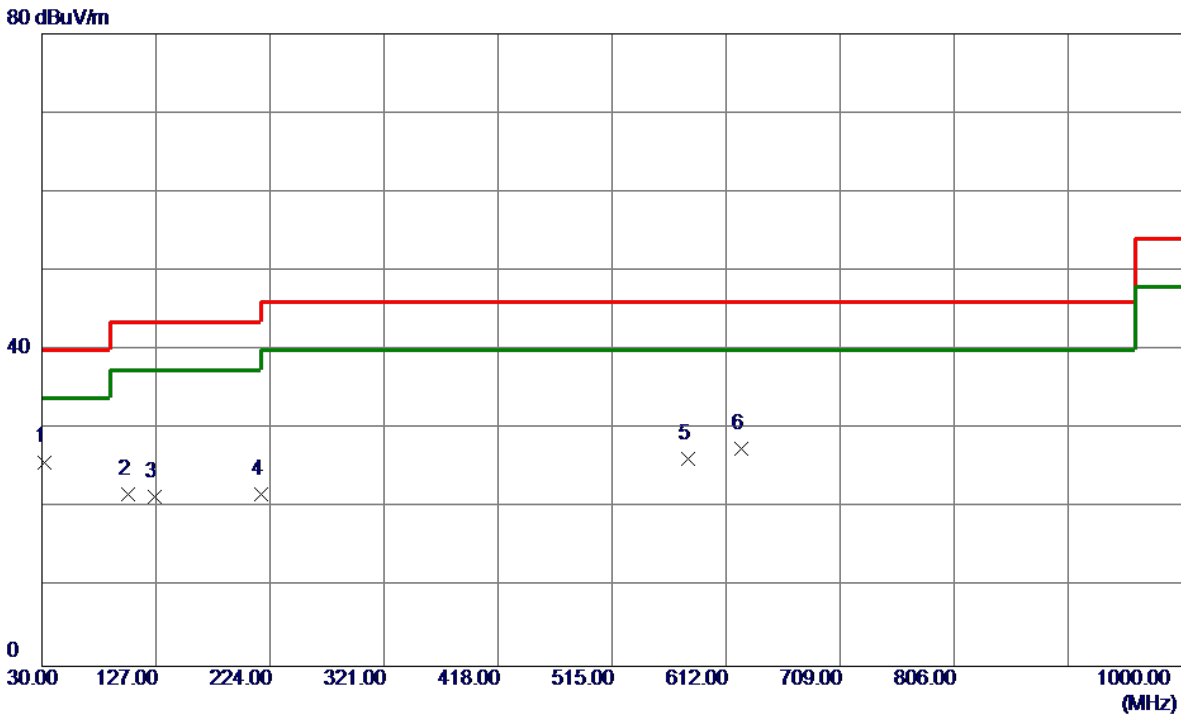
REMARKS:

- (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 06

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	31.9400	40.64	-14.80	25.84	40.00	-14.16	Peak	
2	103.7200	36.71	-15.01	21.70	43.50	-21.80	Peak	
3	126.0300	34.57	-13.11	21.46	43.50	-22.04	Peak	
4	216.2400	36.82	-15.07	21.75	46.00	-24.25	Peak	
5	579.9900	32.65	-6.39	26.26	46.00	-19.74	Peak	
6	624.6100	32.84	-5.27	27.57	46.00	-18.43	Peak	

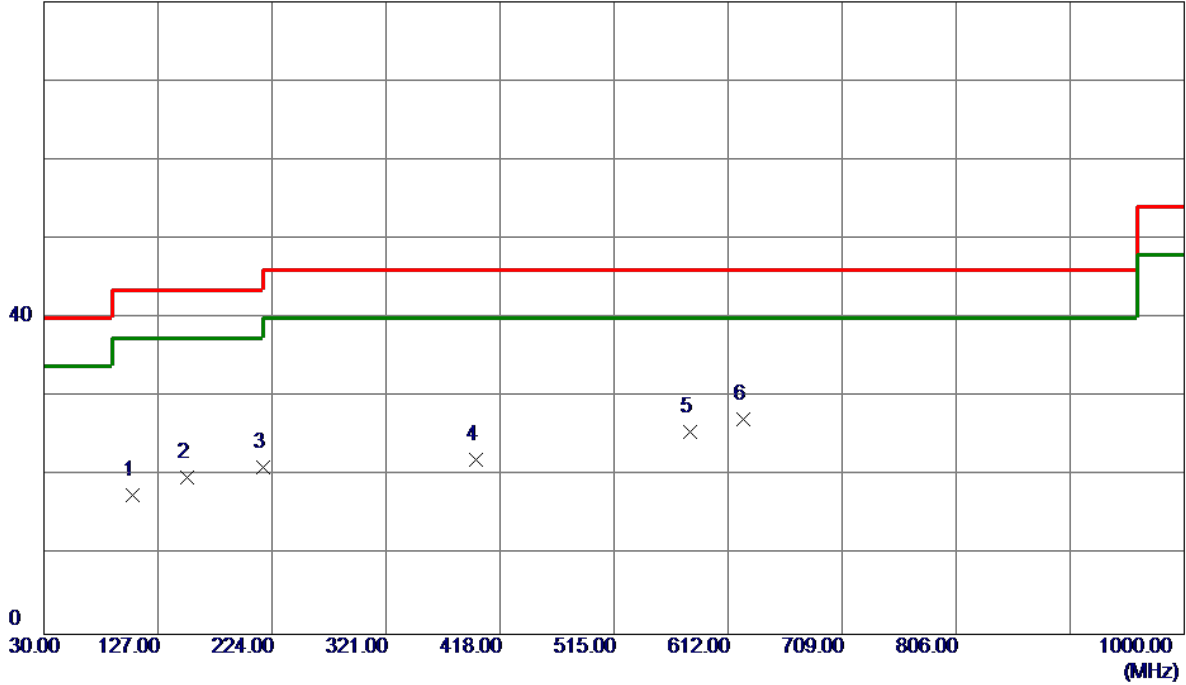
REMARKS:

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

Test Mode: TX B Mode Channel 06

Horizontal

80 dBuV/m



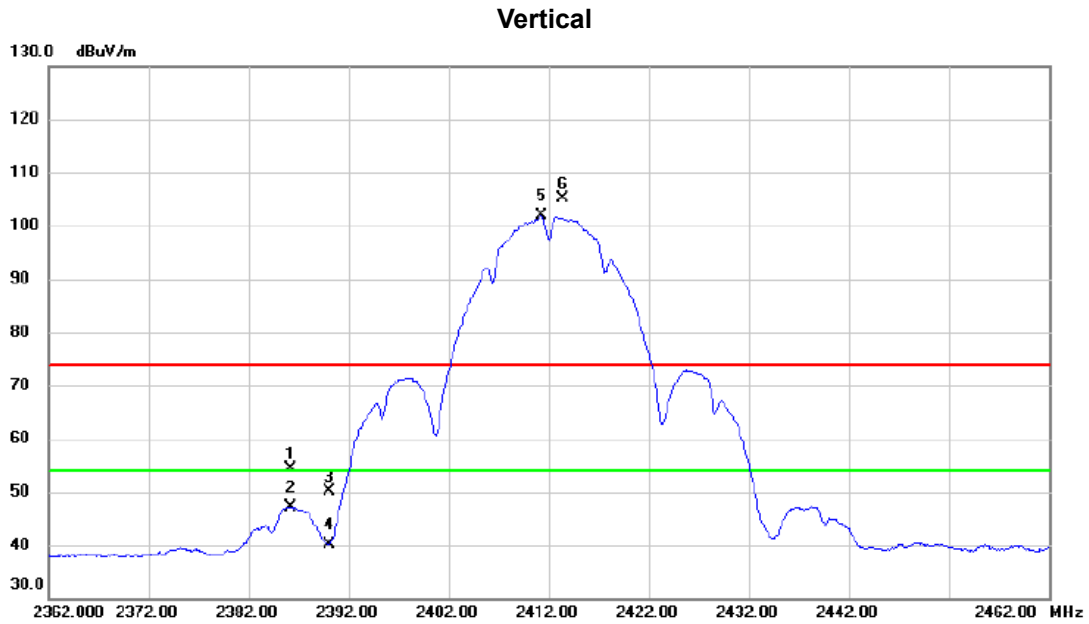
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	105.6600	32.53	-14.87	17.66	43.50	-25.84	Peak	
2	152.2200	31.88	-12.07	19.81	43.50	-23.69	Peak	
3	216.2400	36.20	-15.07	21.13	46.00	-24.87	Peak	
4	397.6300	31.71	-9.59	22.12	46.00	-23.88	Peak	
5	579.9900	31.97	-6.39	25.58	46.00	-20.42	Peak	
6 *	624.6100	32.52	-5.27	27.25	46.00	-18.75	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

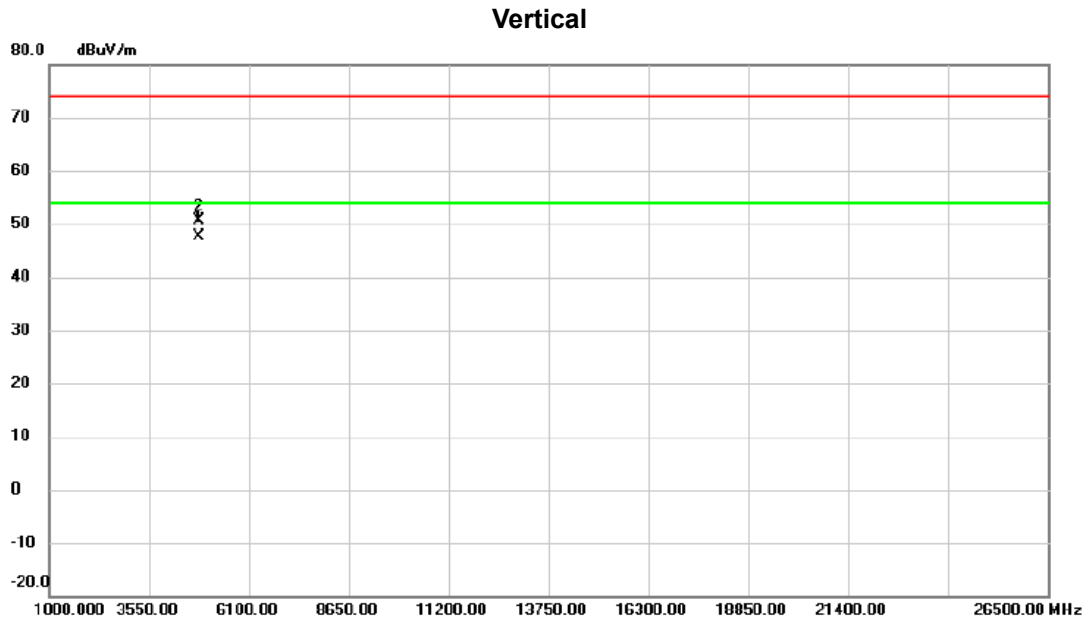


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2386.150	44.37	9.93	54.30	74.00	-19.70	peak	
2		2386.150	37.28	9.93	47.21	54.00	-6.79	AVG	
3		2390.000	40.18	9.95	50.13	74.00	-23.87	peak	
4		2390.000	30.20	9.95	40.15	54.00	-13.85	AVG	
5	*	2411.250	91.76	10.02	101.78	54.00	47.78	AVG	No Limit
6	X	2413.350	95.07	10.04	105.11	74.00	31.11	peak	No Limit

REMARKS:

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

Test Mode: TX B Mode 2412 MHz



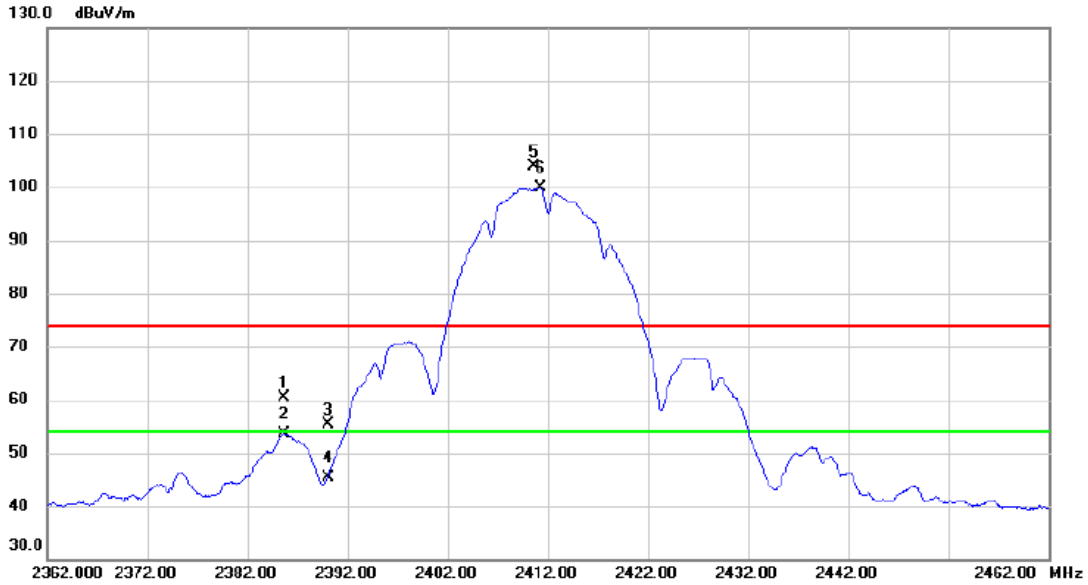
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	4824.015	39.87	7.69	47.56	54.00	-6.44	AVG	
2		4824.042	42.89	7.69	50.58	74.00	-23.42	peak	

REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Horizontal

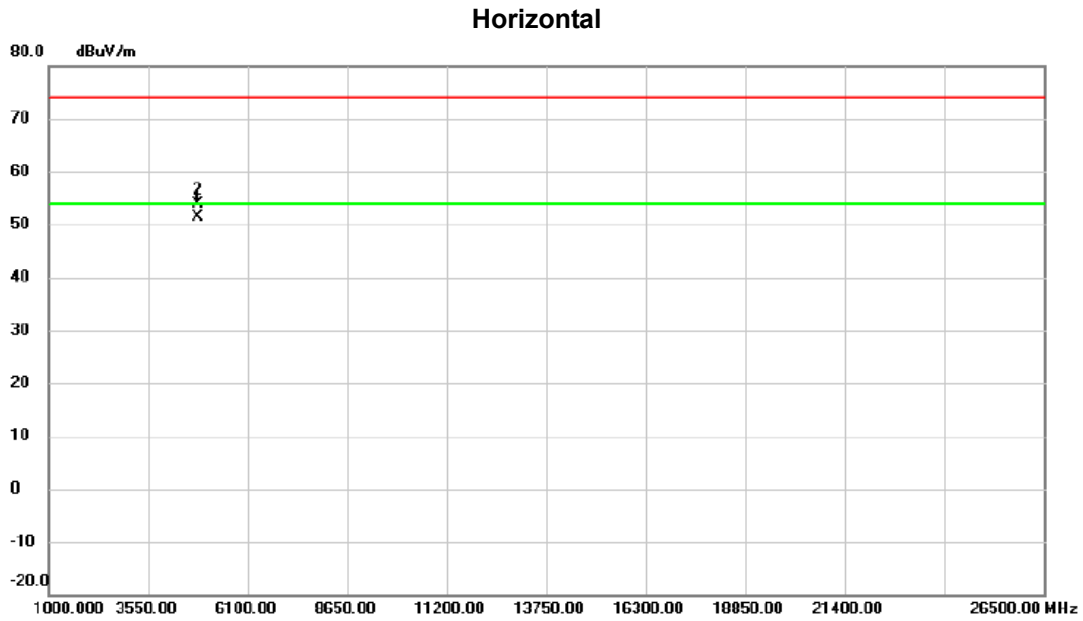


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2385.650	50.40	9.93	60.33	74.00	-13.67	peak	
2		2385.650	43.62	9.93	53.55	54.00	-0.45	AVG	
3		2390.000	45.38	9.95	55.33	74.00	-18.67	peak	
4		2390.000	35.43	9.95	45.38	54.00	-8.62	AVG	
5	X	2410.600	93.86	10.02	103.88	74.00	29.88	peak	No Limit
6	*	2411.250	89.84	10.02	99.86	54.00	45.86	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

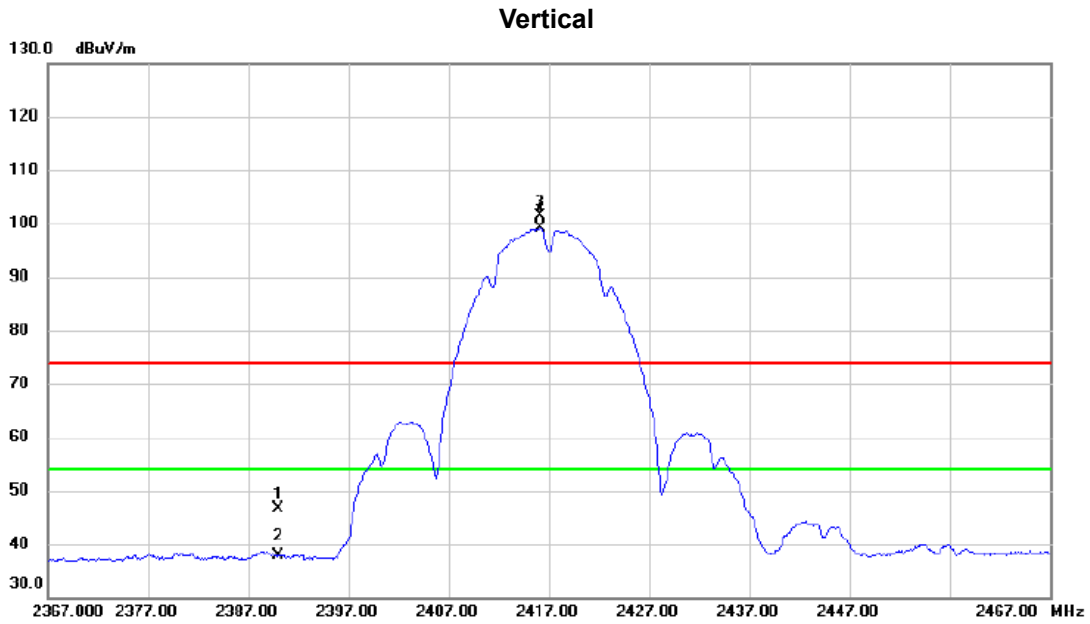


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4824.014	43.59	7.69	51.28	54.00	-2.72	AVG	
2		4824.029	46.31	7.69	54.00	74.00	-20.00	peak	

REMARKS:

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

Test Mode: TX B Mode 2417 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	36.57	9.95	46.52	74.00	-27.48	peak	
2		2390.000	27.90	9.95	37.85	54.00	-16.15	AVG	
3	X	2416.150	91.36	10.05	101.41	74.00	27.41	peak	No Limit
4	*	2416.200	89.04	10.05	99.09	54.00	45.09	AVG	No Limit

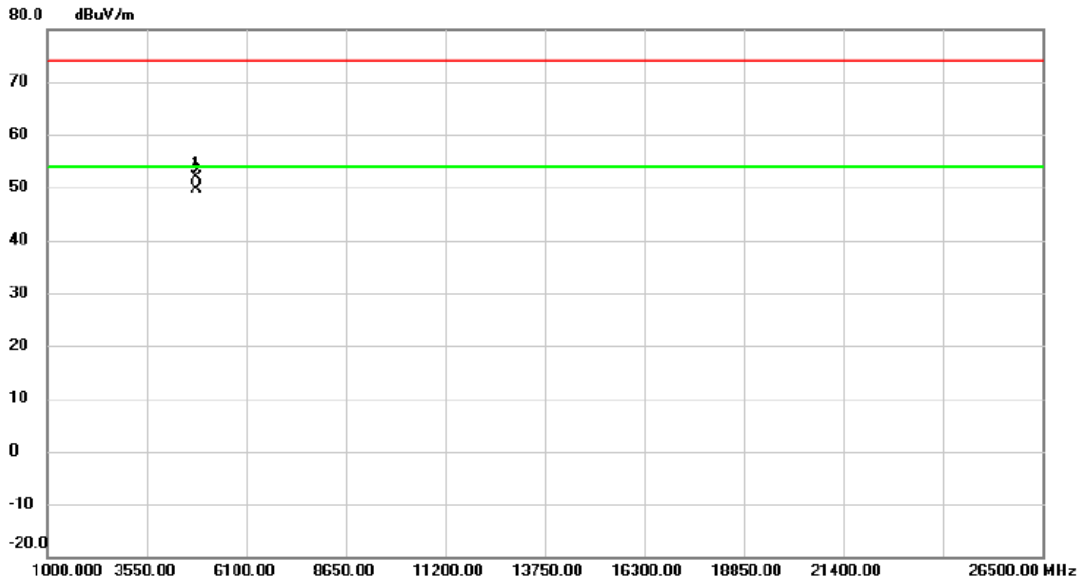
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX B Mode 2417 MHz

Vertical



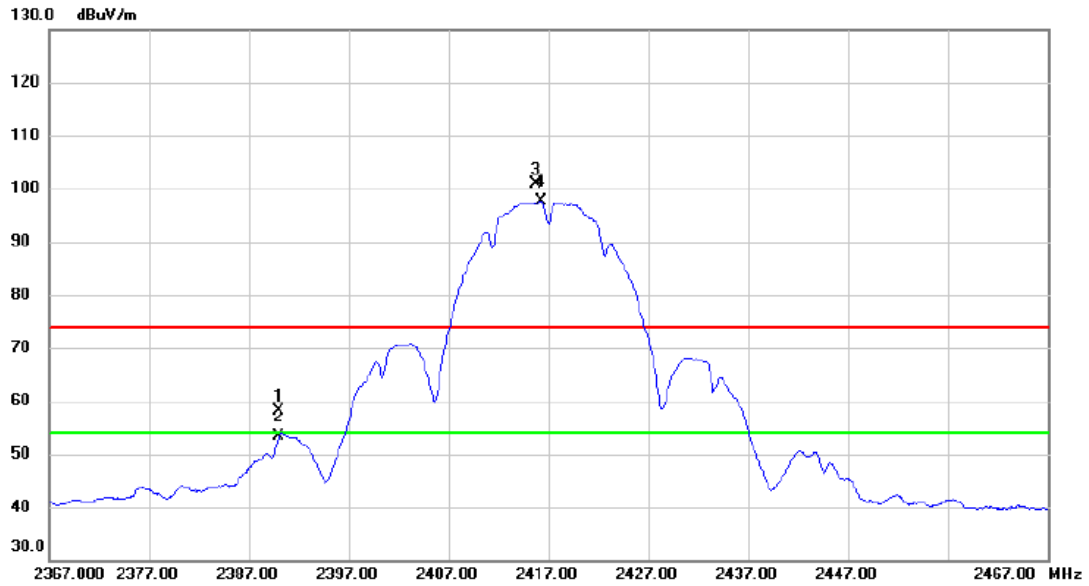
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4833.955	44.24	7.72	51.96	74.00	-22.04	peak	
2	*	4834.033	41.91	7.72	49.63	54.00	-4.37	AVG	

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Horizontal

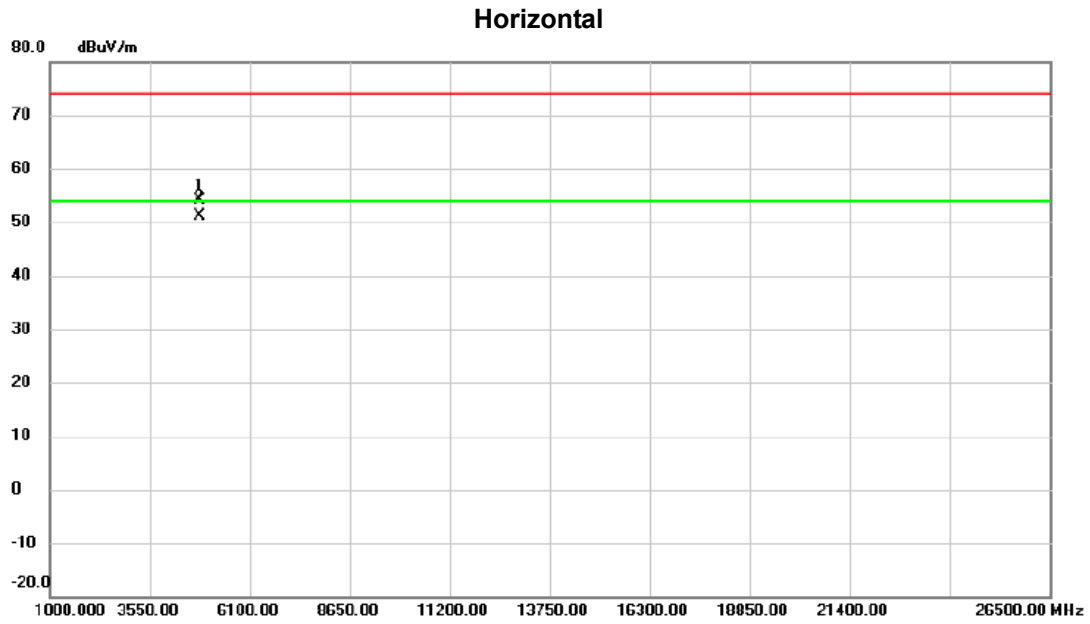


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	48.24	9.95	58.19	74.00	-15.81	peak	
2		2390.000	43.44	9.95	53.39	54.00	-0.61	AVG	
3	X	2415.700	90.95	10.04	100.99	74.00	26.99	peak	No Limit
4	*	2416.250	87.70	10.05	97.75	54.00	43.75	AVG	No Limit

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

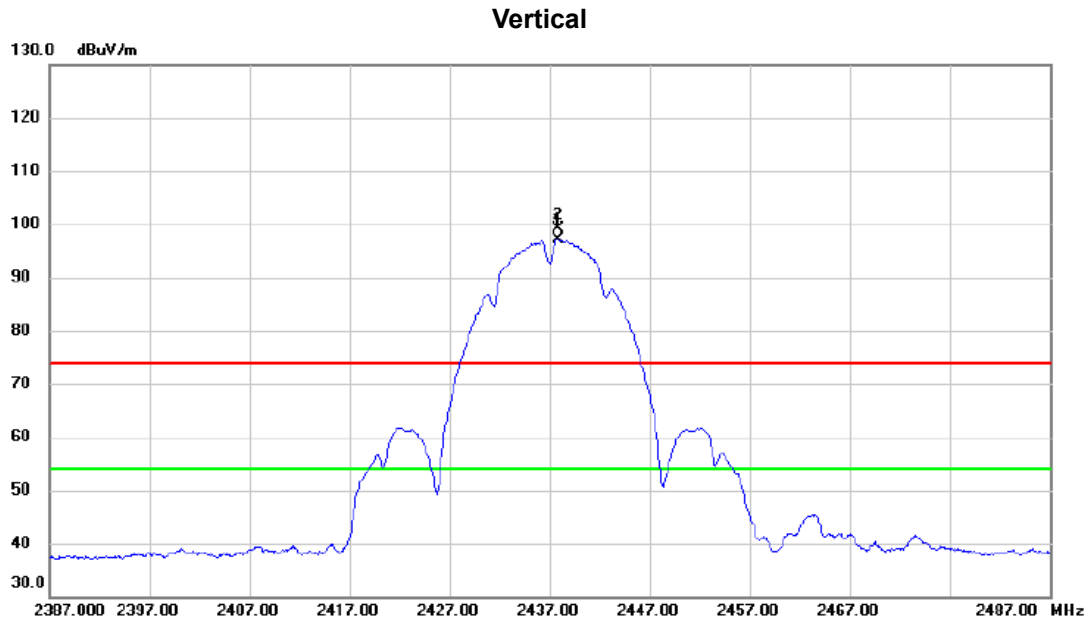


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4833.984	46.33	7.72	54.05	74.00	-19.95	peak	
2	*	4834.059	43.48	7.72	51.20	54.00	-2.80	AVG	

REMARKS:

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

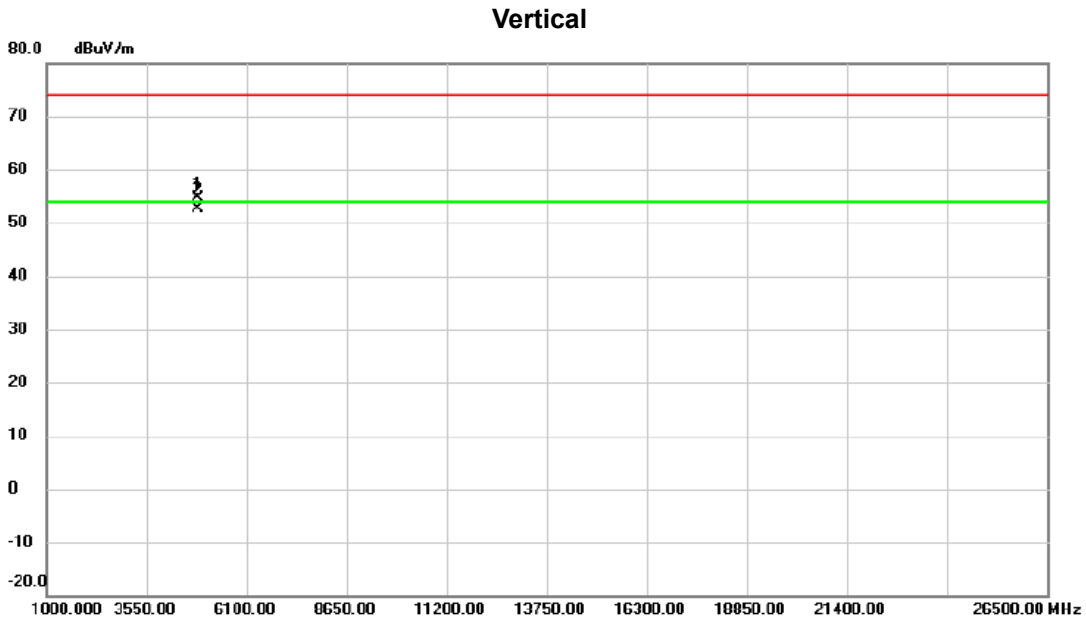
Test Mode: TX B Mode 2437 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2437.800	86.93	10.13	97.06	54.00	43.06	AVG	No Limit
2	X	2437.900	89.00	10.13	99.13	74.00	25.13	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

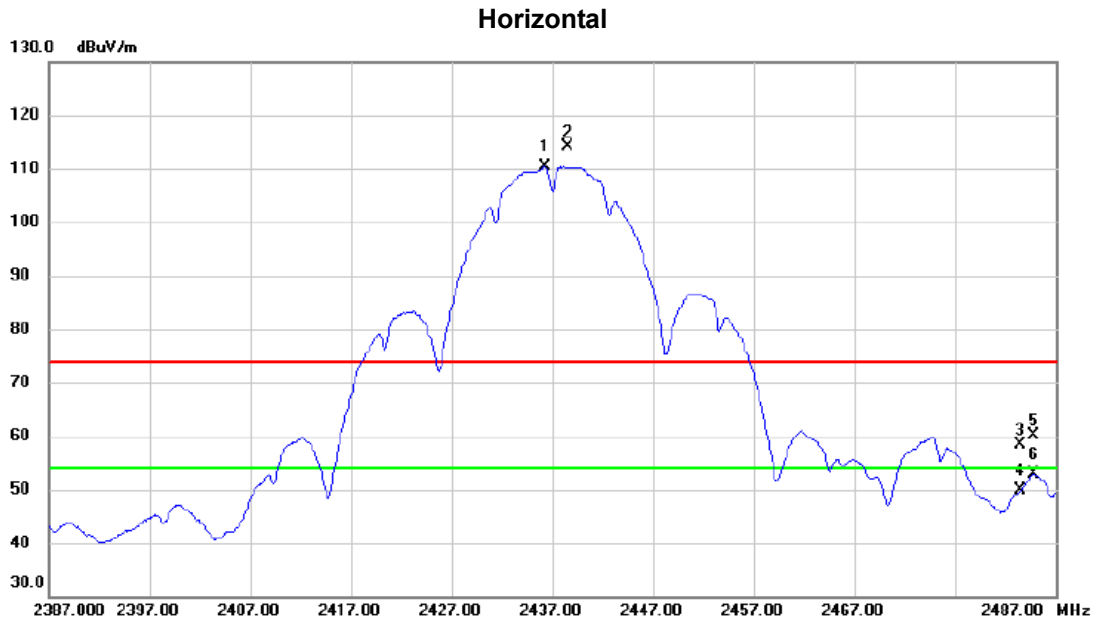


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4874.015	46.67	7.90	54.57	74.00	-19.43	peak	
2	*	4874.017	44.64	7.90	52.54	54.00	-1.46	AVG	

REMARKS:

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

Test Mode: TX B Mode 2437 MHz

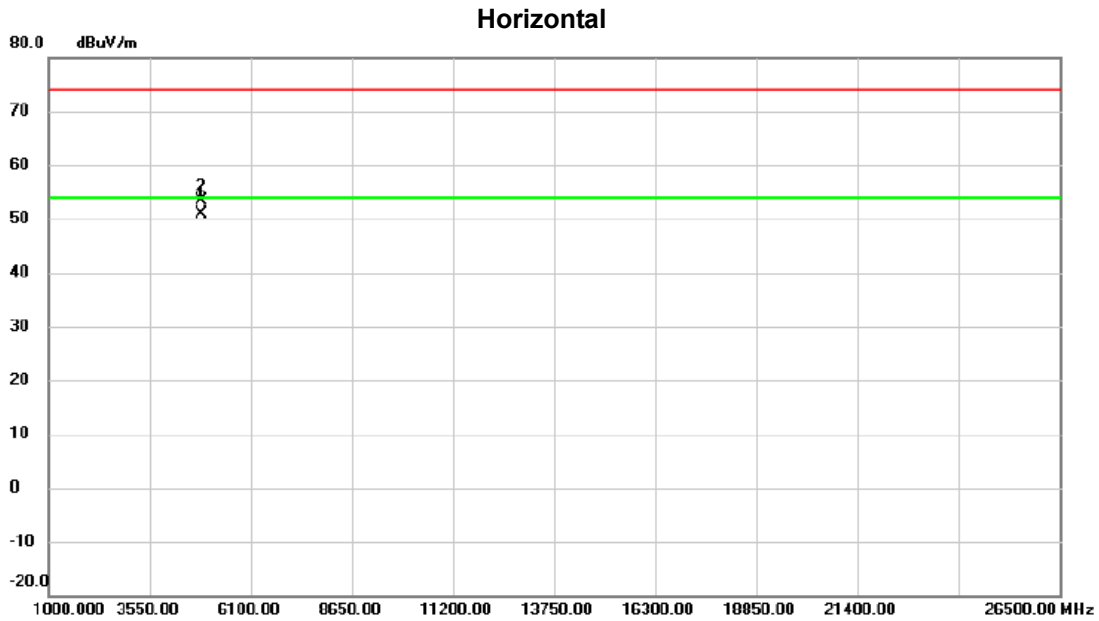


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2436.300	100.18	10.12	110.30	54.00	56.30	AVG	No Limit
2	X	2438.600	103.97	10.13	114.10	74.00	40.10	peak	No Limit
3		2483.500	47.98	10.29	58.27	74.00	-15.73	peak	
4		2483.500	39.56	10.29	49.85	54.00	-4.15	AVG	
5		2484.800	49.91	10.30	60.21	74.00	-13.79	peak	
6		2484.800	42.56	10.30	52.86	54.00	-1.14	AVG	

REMARKS:

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

Test Mode: TX B Mode 2437 MHz

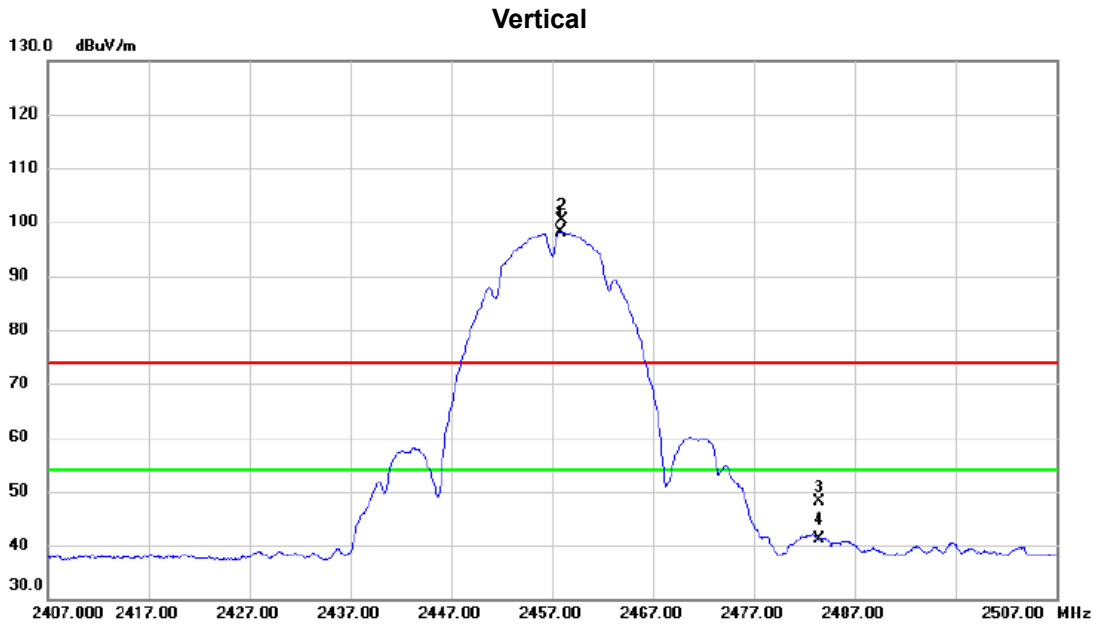


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4874.024	42.89	7.90	50.79	54.00	-3.21	AVG	
2		4874.106	45.58	7.90	53.48	74.00	-20.52	peak	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

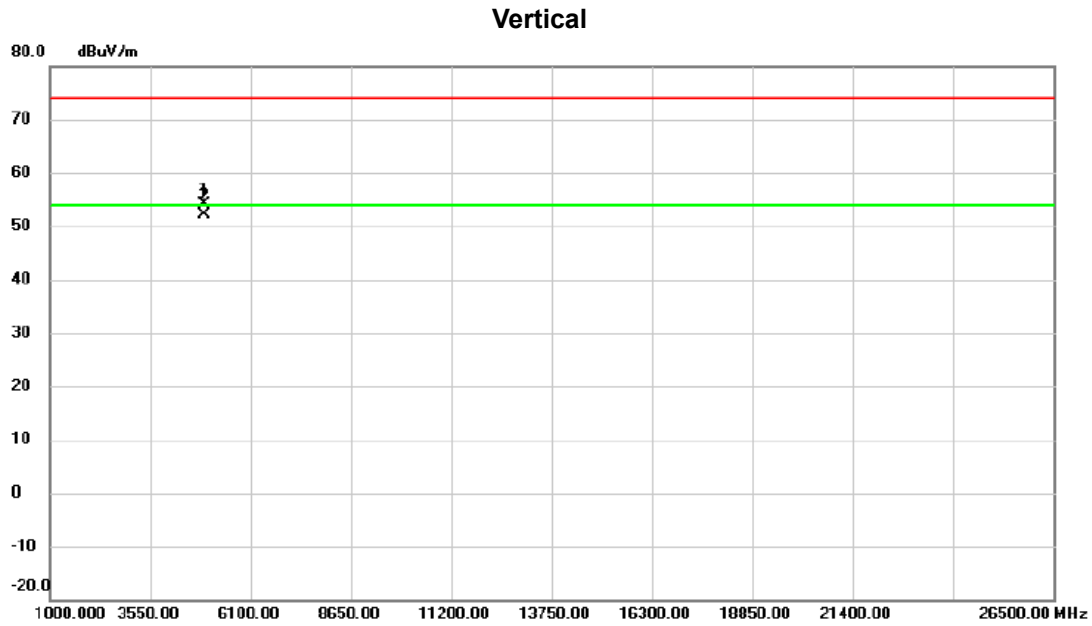


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2457.850	88.03	10.20	98.23	54.00	44.23	AVG	No Limit
2	X	2457.950	90.10	10.20	100.30	74.00	26.30	peak	No Limit
3		2483.500	37.84	10.29	48.13	74.00	-25.87	peak	
4		2483.500	30.78	10.29	41.07	54.00	-12.93	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

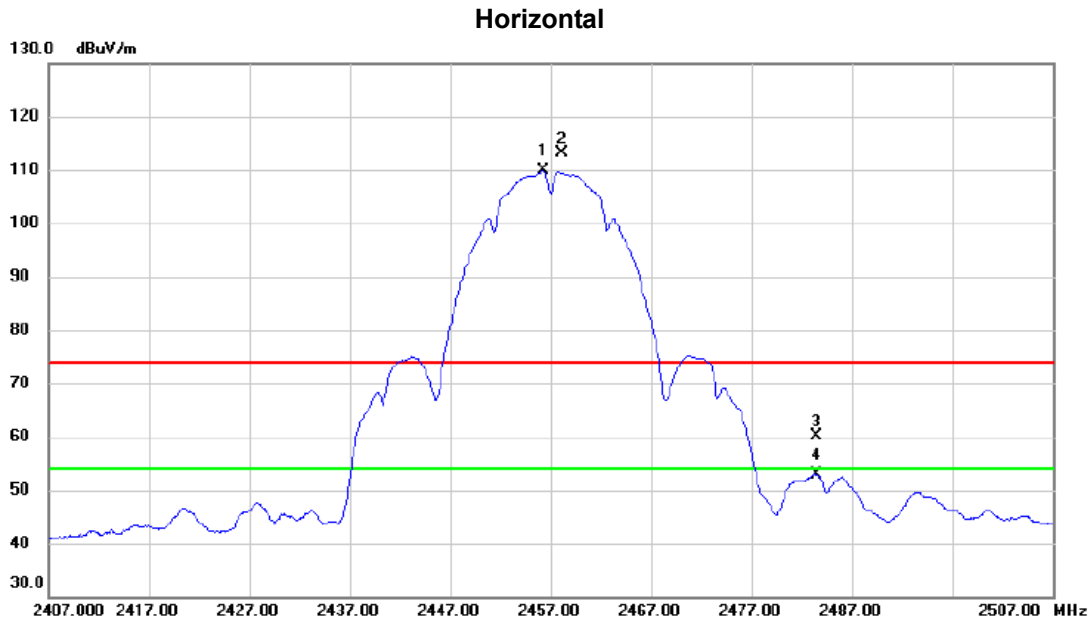


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4913.998	46.13	8.05	54.18	74.00	-19.82	peak	
2 *	4914.023	44.03	8.05	52.08	54.00	-1.92	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

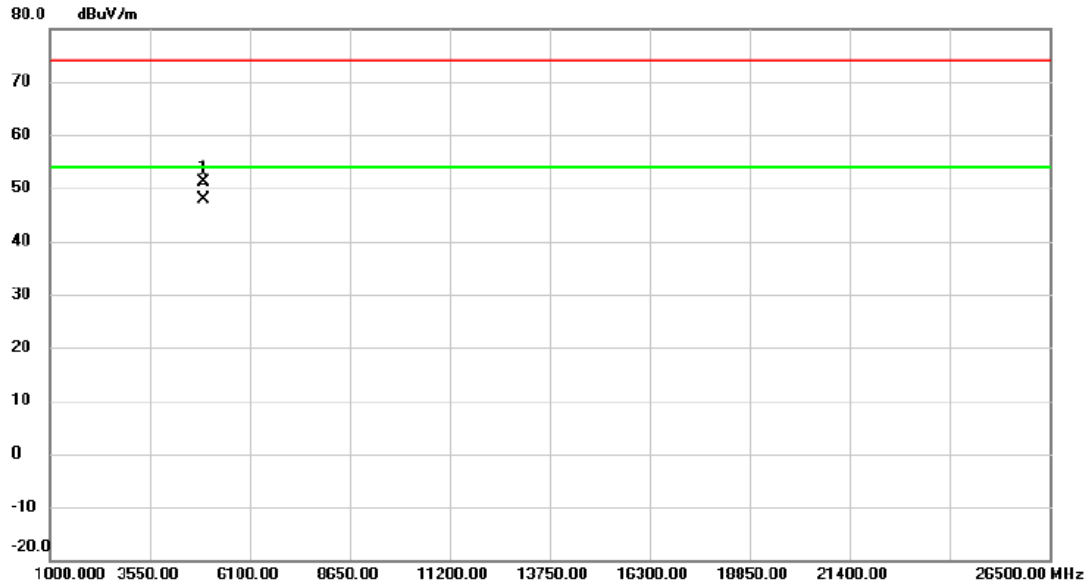


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.250	99.65	10.19	109.84	54.00	55.84	AVG	No Limit
2	X	2458.150	102.97	10.20	113.17	74.00	39.17	peak	No Limit
3		2483.500	49.91	10.29	60.20	74.00	-13.80	peak	
4		2483.500	42.53	10.29	52.82	54.00	-1.18	AVG	

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

Test Mode: TX B Mode 2457 MHz

Horizontal

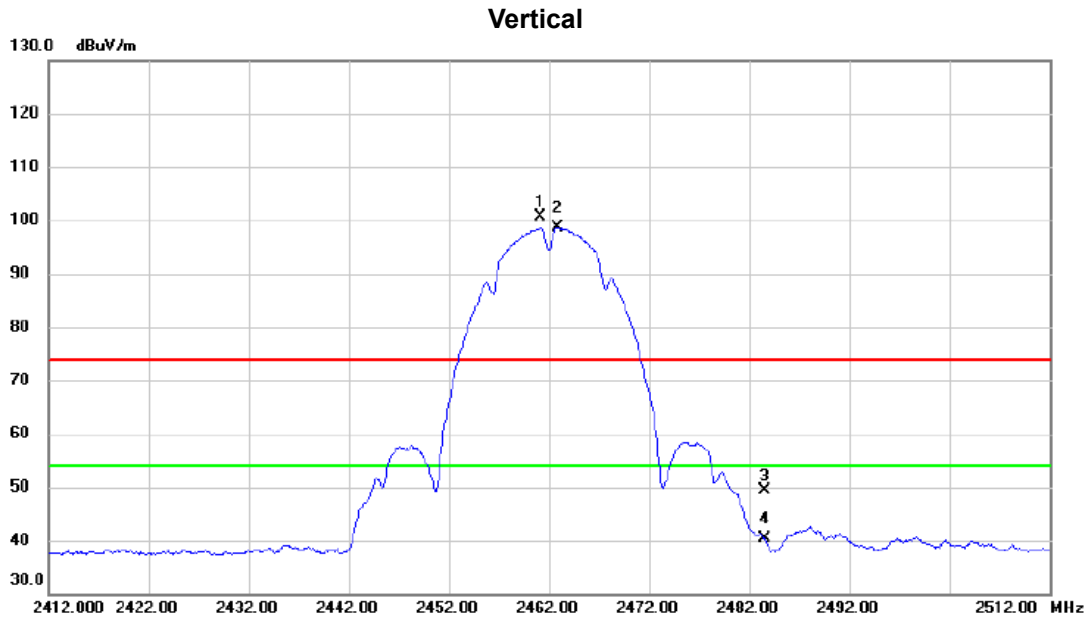


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4913.951	43.03	8.05	51.08	74.00	-22.92	peak	
2	*	4914.005	39.81	8.05	47.86	54.00	-6.14	AVG	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

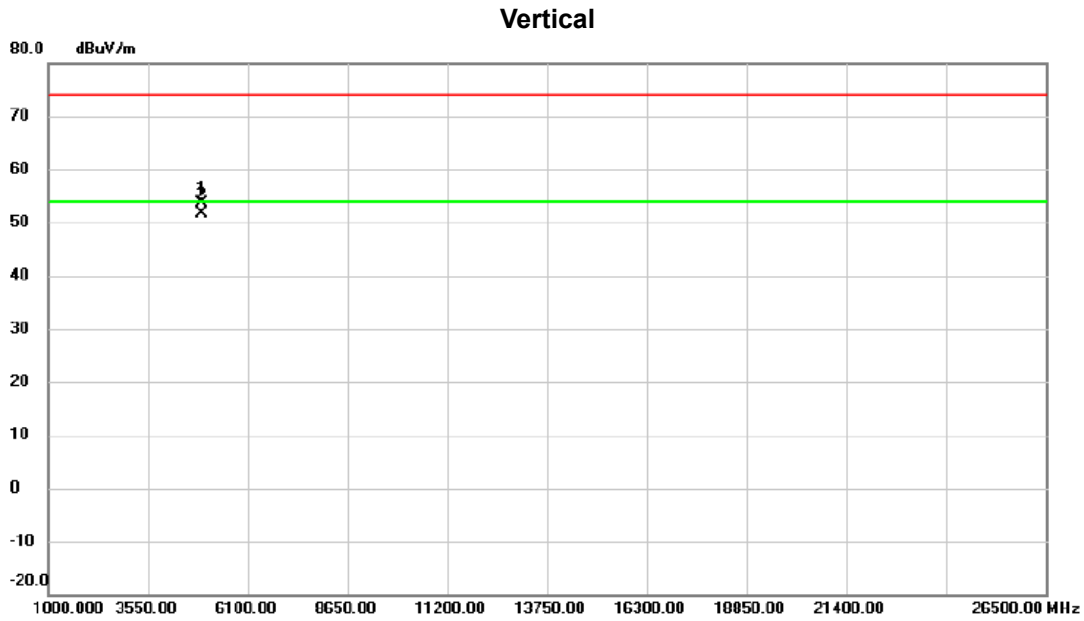


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2461.150	90.52	10.20	100.72	74.00	26.72	peak	No Limit
2	*	2462.800	88.49	10.23	98.72	54.00	44.72	AVG	No Limit
3		2483.500	39.05	10.29	49.34	74.00	-24.66	peak	
4		2483.500	30.10	10.29	40.39	54.00	-13.61	AVG	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

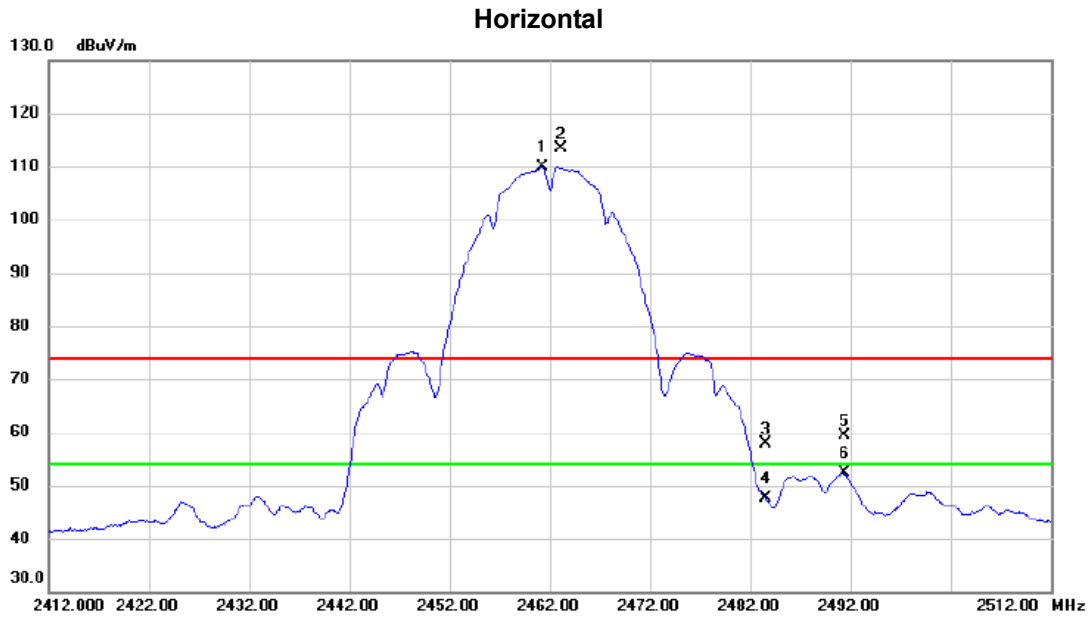


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4923.990	45.62	8.10	53.72	74.00	-20.28	peak	
2	*	4924.002	43.55	8.10	51.65	54.00	-2.35	AVG	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

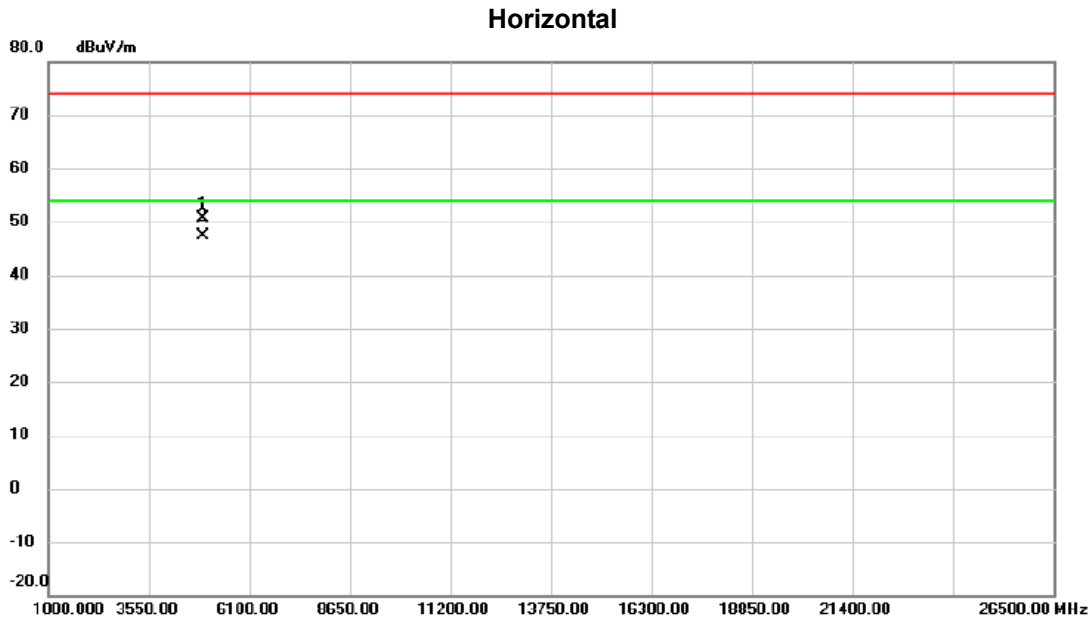


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2461.300	99.73	10.21	109.94	54.00	55.94	AVG	No Limit
2	X	2463.200	103.09	10.23	113.32	74.00	39.32	peak	No Limit
3		2483.500	47.62	10.29	57.91	74.00	-16.09	peak	
4		2483.500	37.37	10.29	47.66	54.00	-6.34	AVG	
5		2491.350	49.10	10.33	59.43	74.00	-14.57	peak	
6		2491.350	42.11	10.33	52.44	54.00	-1.56	AVG	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

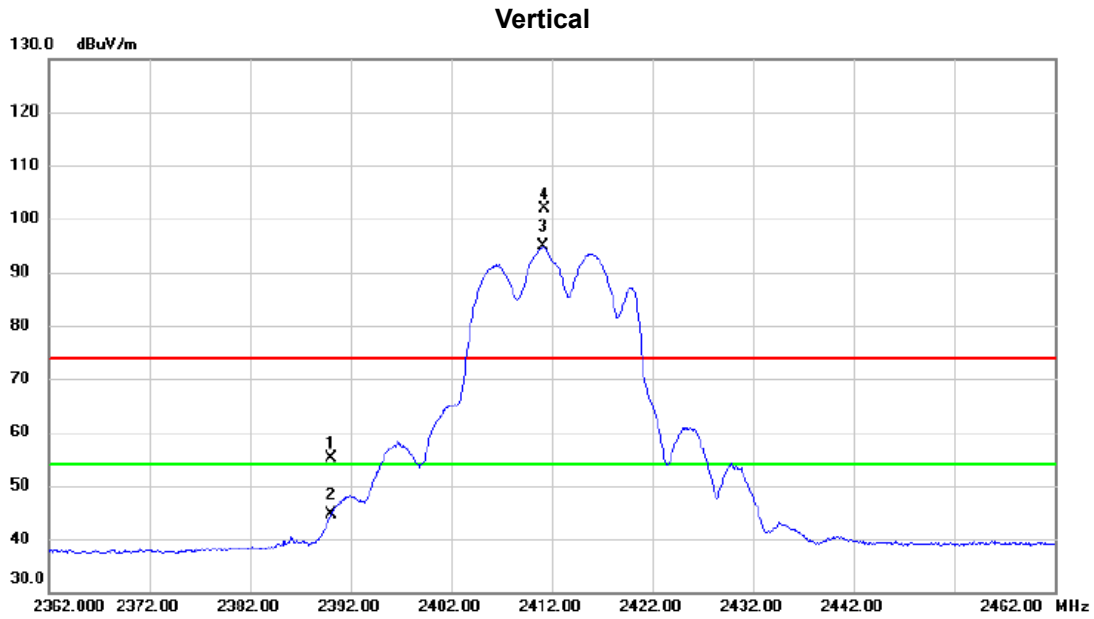


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4923.940	42.52	8.10	50.62	74.00	-23.38	peak	
2	*	4924.082	39.31	8.10	47.41	54.00	-6.59	AVG	

REMARKS:

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

Test Mode: TX G Mode 2412 MHz

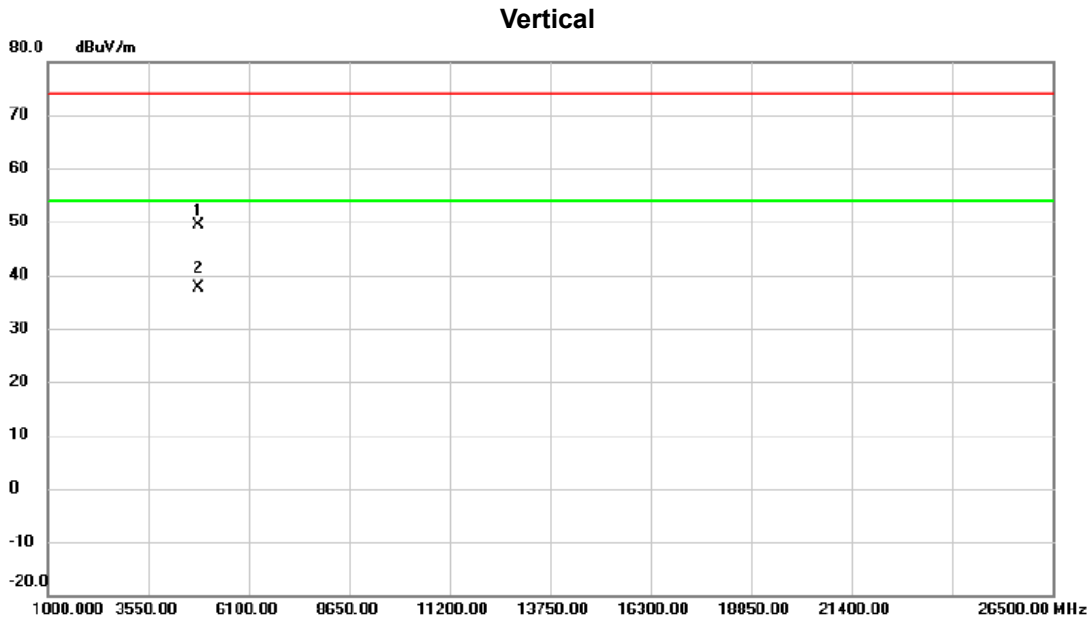


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	45.15	9.95	55.10	74.00	-18.90	peak	
2		2390.000	34.62	9.95	44.57	54.00	-9.43	AVG	
3	*	2411.100	84.85	10.02	94.87	54.00	40.87	AVG	No Limit
4	X	2411.300	91.97	10.02	101.99	74.00	27.99	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

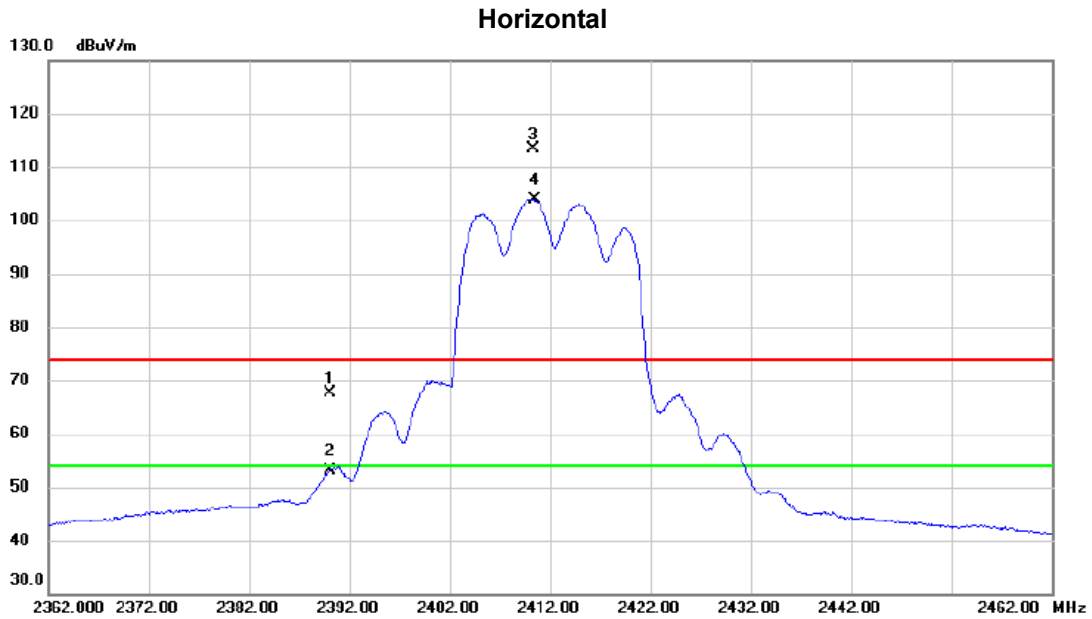


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4824.063	41.72	7.69	49.41	74.00	-24.59	peak	
2	*	4824.080	29.97	7.69	37.66	54.00	-16.34	AVG	

REMARKS:

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

Test Mode: TX G Mode 2412 MHz

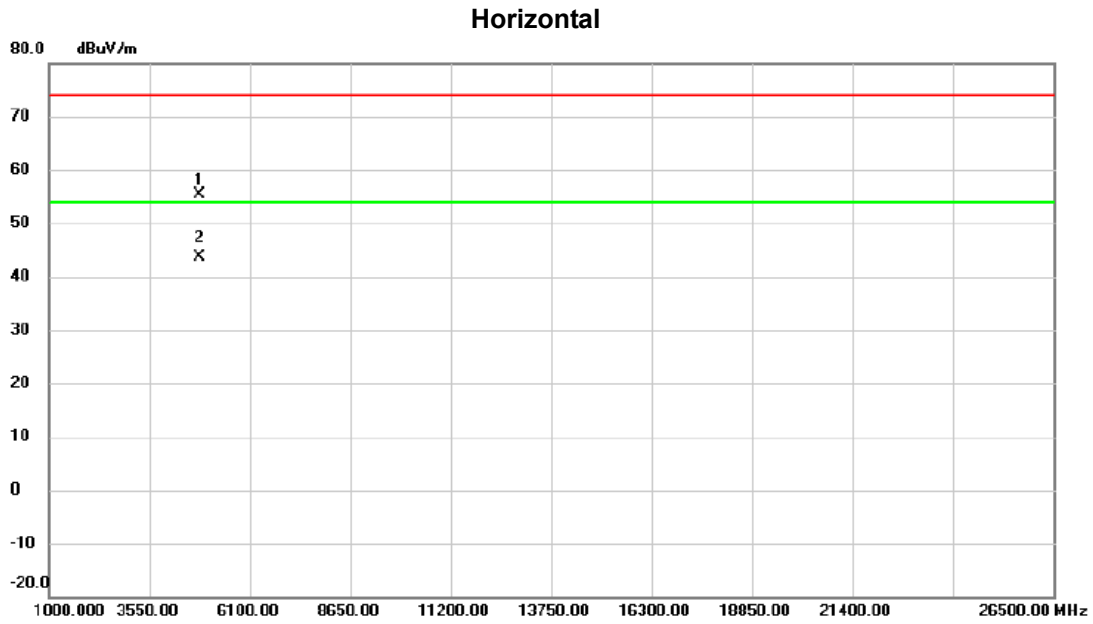


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	57.71	9.95	67.66	74.00	-6.34	peak	
2		2390.000	43.25	9.95	53.20	54.00	-0.80	AVG	
3	X	2410.350	103.24	10.02	113.26	74.00	39.26	peak	No Limit
4	*	2410.450	93.88	10.02	103.90	54.00	49.90	AVG	No Limit

REMARKS:

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

Test Mode: TX G Mode 2412 MHz



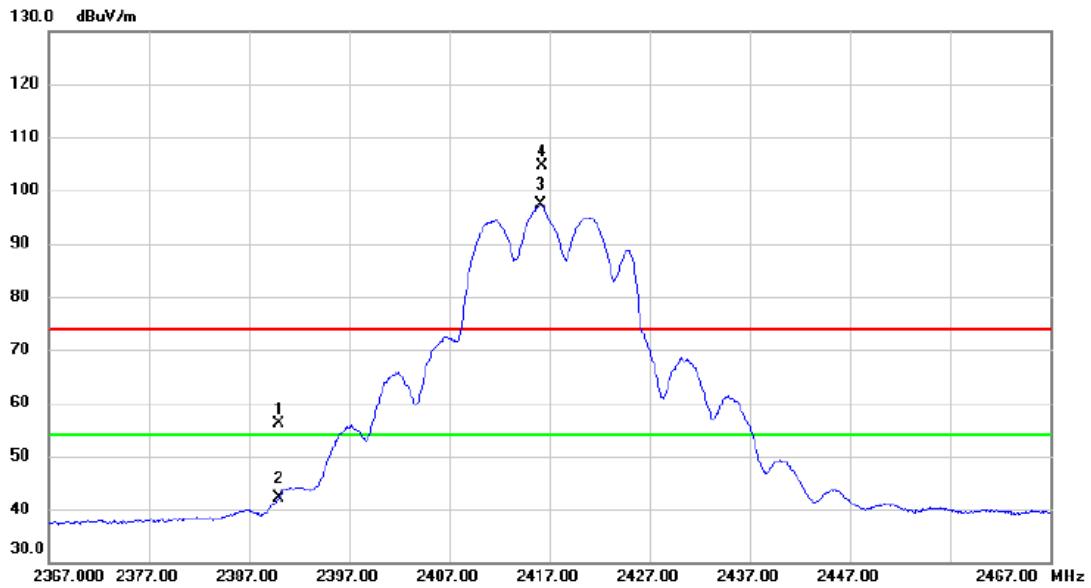
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4820.350	47.71	7.66	55.37	74.00	-18.63	peak	
2	*	4825.470	35.94	7.69	43.63	54.00	-10.37	AVG	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Vertical

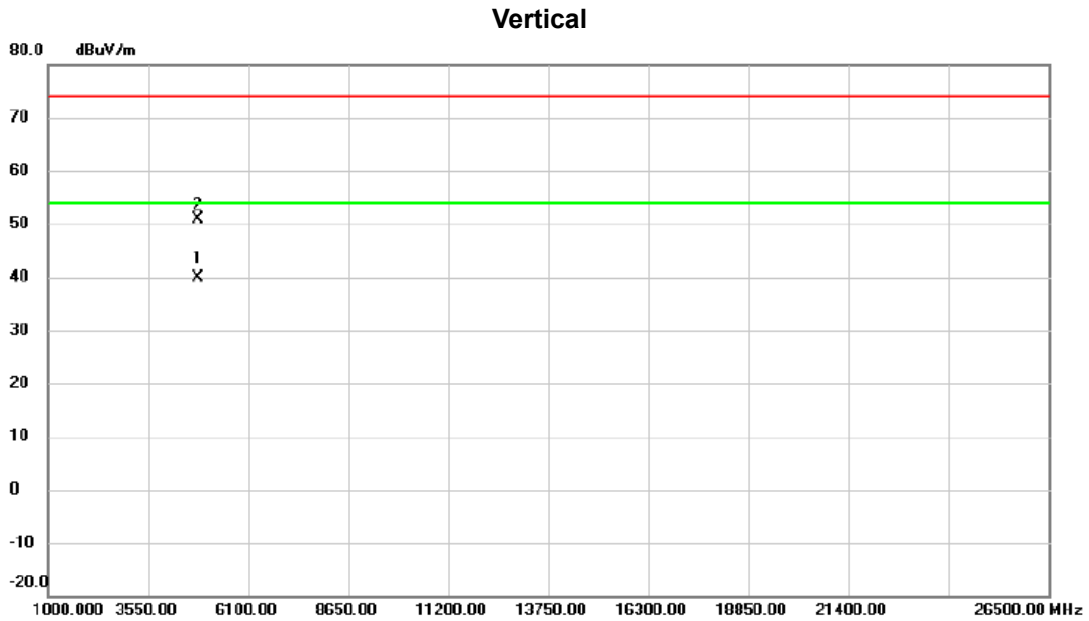


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	46.20	9.95	56.15	74.00	-17.85	peak	
2		2390.000	32.16	9.95	42.11	54.00	-11.89	AVG	
3	*	2416.100	87.21	10.05	97.26	54.00	43.26	AVG	No Limit
4	X	2416.300	94.59	10.05	104.64	74.00	30.64	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



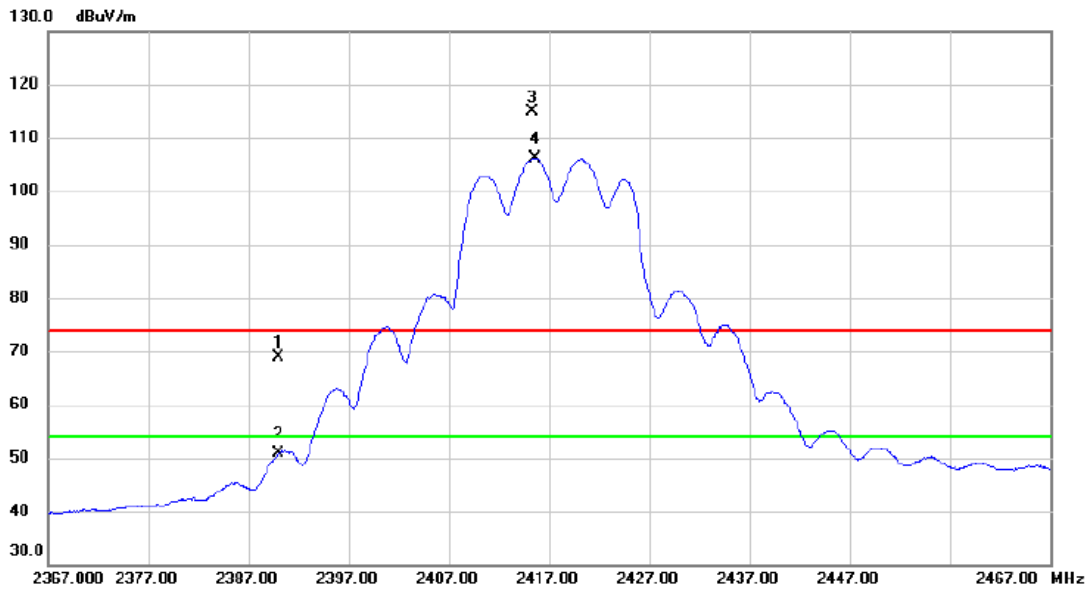
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4834.055	32.26	7.72	39.98	54.00	-14.02	AVG	
2		4834.137	43.21	7.72	50.93	74.00	-23.07	peak	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Horizontal

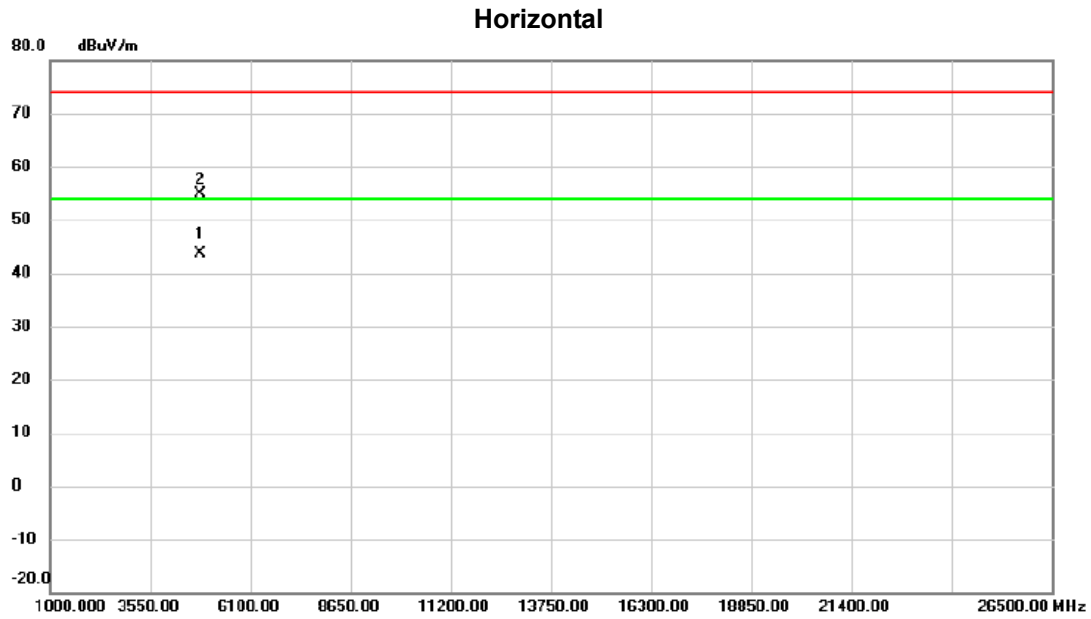


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	58.87	9.95	68.82	74.00	-5.18	peak	
2		2390.000	40.95	9.95	50.90	54.00	-3.10	AVG	
3	X	2415.300	104.96	10.04	115.00	74.00	41.00	peak	No Limit
4	*	2415.550	96.18	10.04	106.22	54.00	52.22	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

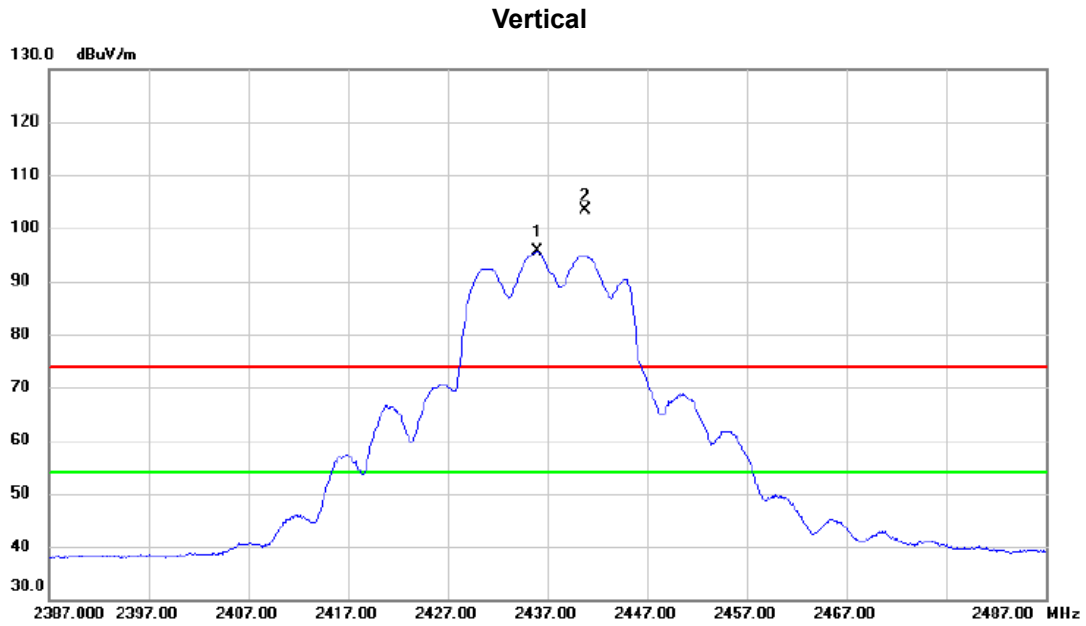


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4835.405	35.97	7.74	43.71	54.00	-10.29	AVG	
2		4835.895	47.11	7.74	54.85	74.00	-19.15	peak	

REMARKS:

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

Test Mode: TX G Mode 2437 MHz

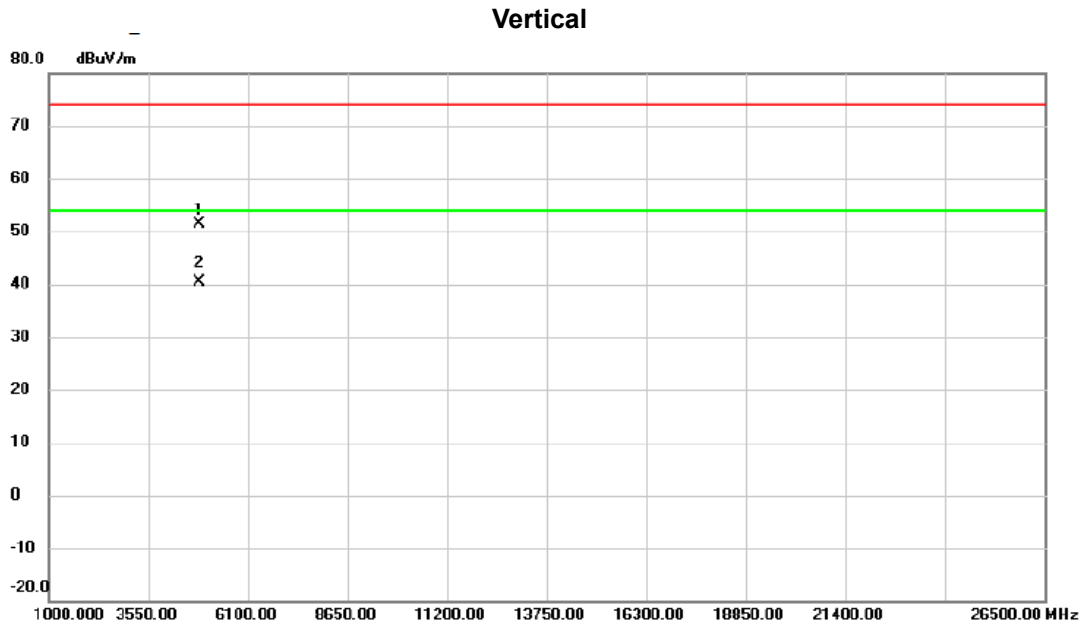


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.050	85.52	10.12	95.64	54.00	41.64	AVG	No Limit
2 X	2440.750	93.13	10.14	103.27	74.00	29.27	peak	No Limit

REMARKS:

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

Test Mode: TX G Mode 2437 MHz



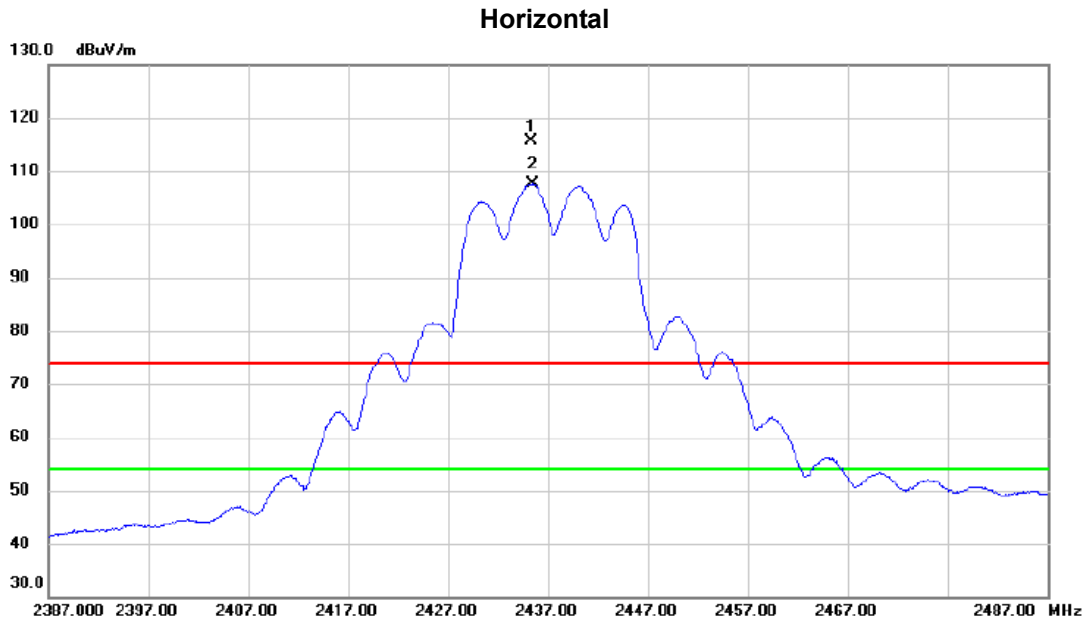
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4872.313	43.38	7.89	51.27	74.00	-22.73	peak	
2	*	4873.805	32.51	7.90	40.41	54.00	-13.59	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX G Mode 2437 MHz

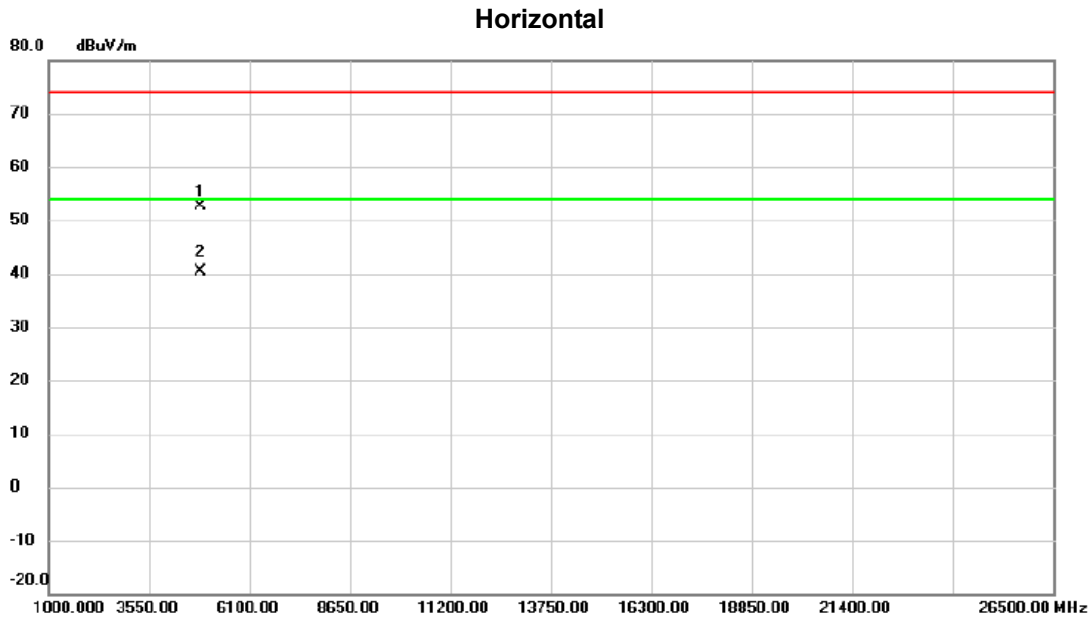


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2435.300	105.63	10.11	115.74	74.00	41.74	peak	No Limit
2	*	2435.500	97.41	10.12	107.53	54.00	53.53	AVG	No Limit

REMARKS:

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

Test Mode: TX G Mode 2437 MHz

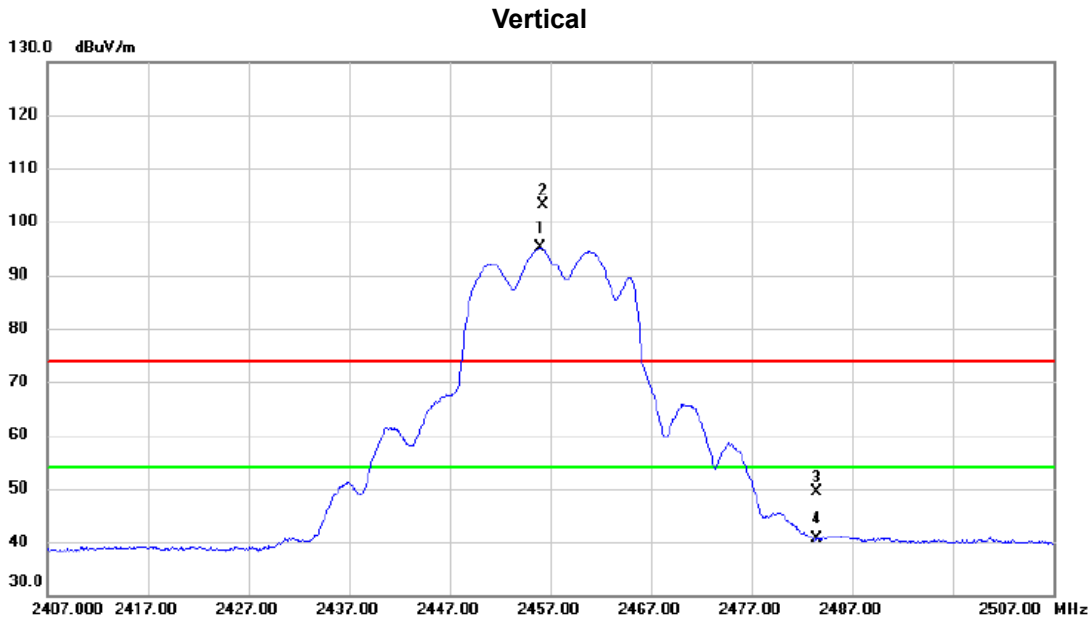


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4870.595	44.70	7.87	52.57	74.00	-21.43	peak	
2	*	4875.310	32.56	7.90	40.46	54.00	-13.54	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz



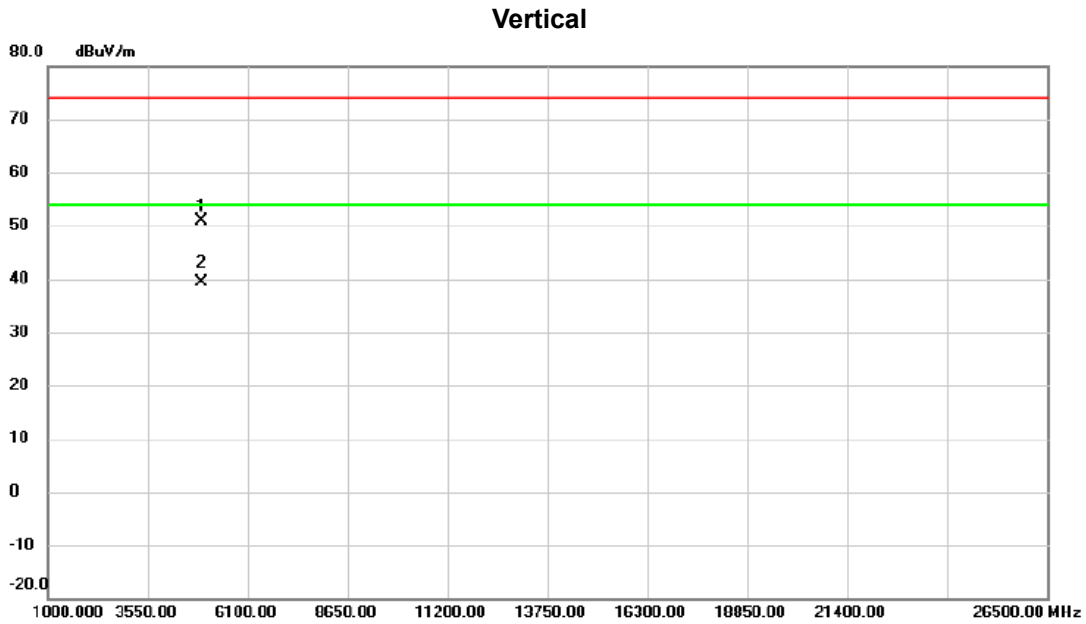
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.000	85.01	10.19	95.20	54.00	41.20	AVG	No Limit
2	X	2456.300	93.06	10.19	103.25	74.00	29.25	peak	No Limit
3		2483.500	39.08	10.29	49.37	74.00	-24.63	peak	
4		2483.500	30.45	10.29	40.74	54.00	-13.26	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX G Mode 2457 MHz

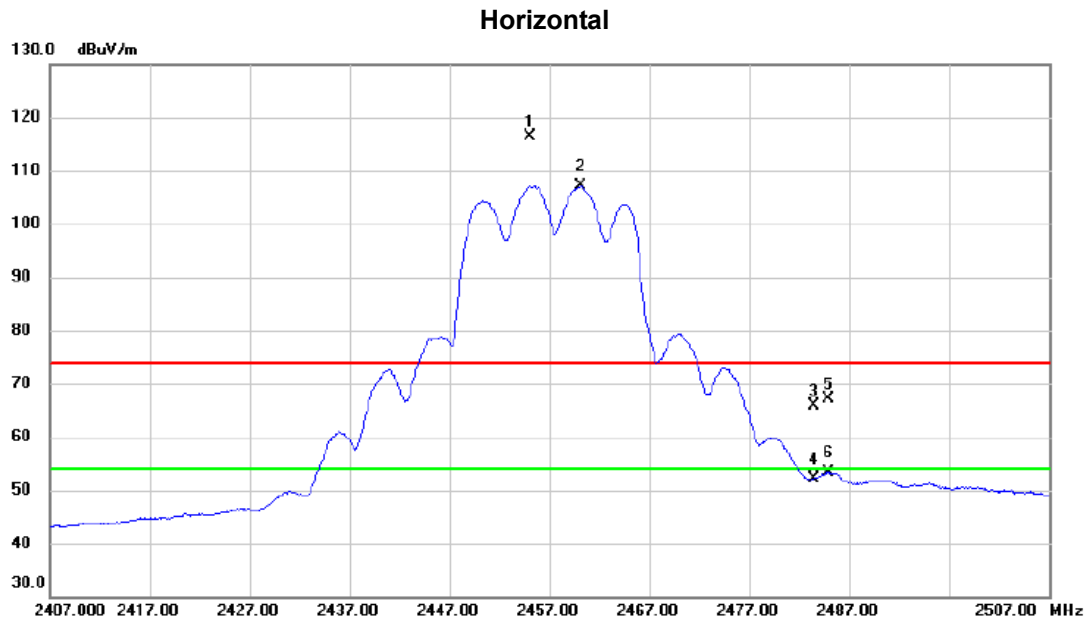


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4912.413	42.78	8.05	50.83	74.00	-23.17	peak	
2	*	4913.790	31.38	8.05	39.43	54.00	-14.57	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

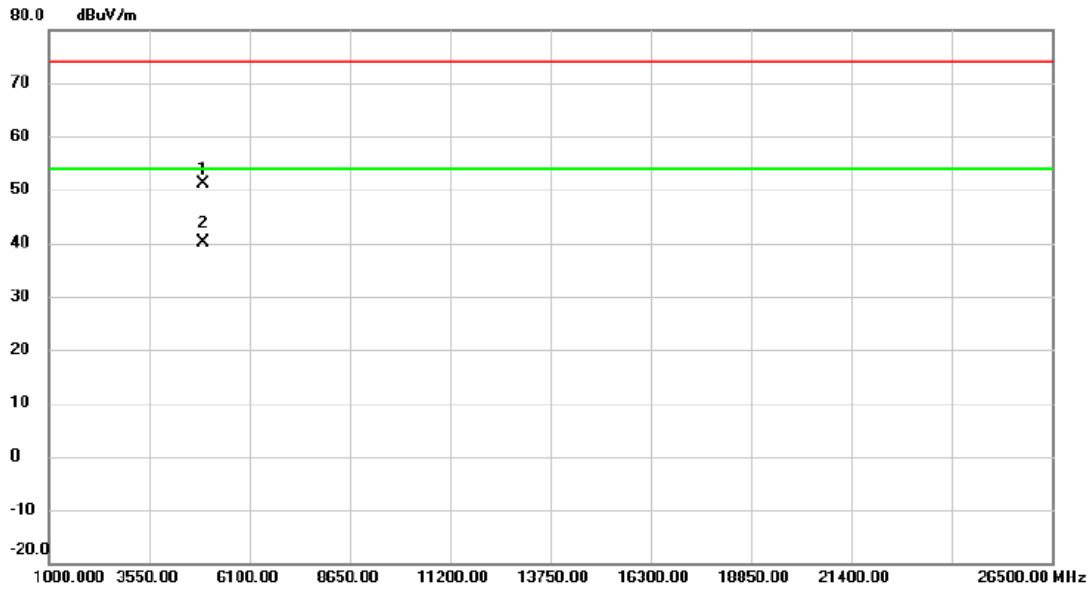


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2455.000	106.12	10.19	116.31	74.00	42.31	peak	No Limit
2	*	2460.150	96.89	10.20	107.09	54.00	53.09	AVG	No Limit
3		2483.500	55.65	10.29	65.94	74.00	-8.06	peak	
4		2483.500	41.92	10.29	52.21	54.00	-1.79	AVG	
5		2484.900	56.80	10.30	67.10	74.00	-6.90	peak	
6		2484.900	43.08	10.30	53.38	54.00	-0.62	AVG	

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

Test Mode: TX G Mode 2457 MHz

Horizontal

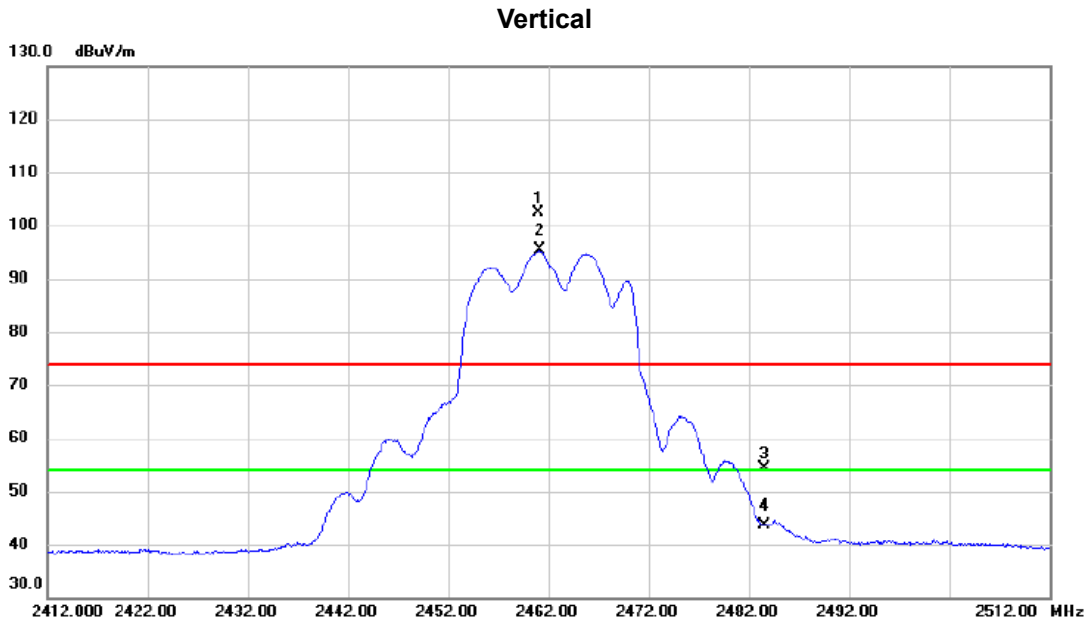


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4910.340	43.16	8.05	51.21	74.00	-22.79	peak	
2	*	4915.040	31.96	8.06	40.02	54.00	-13.98	AVG	

REMARKS:

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

Test Mode: TX G Mode 2462 MHz

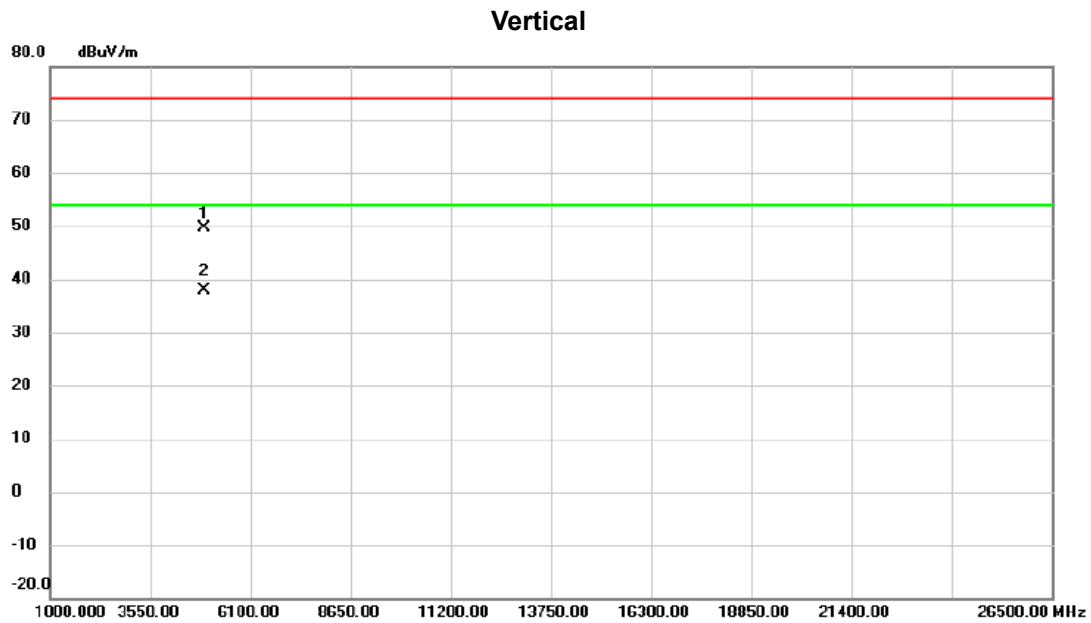


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2461.050	92.11	10.20	102.31	74.00	28.31	peak	No Limit
2	*	2461.150	85.10	10.20	95.30	54.00	41.30	AVG	No Limit
3		2483.500	44.15	10.29	54.44	74.00	-19.56	peak	
4		2483.500	33.40	10.29	43.69	54.00	-10.31	AVG	

REMARKS:

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

Test Mode: TX G Mode 2462 MHz

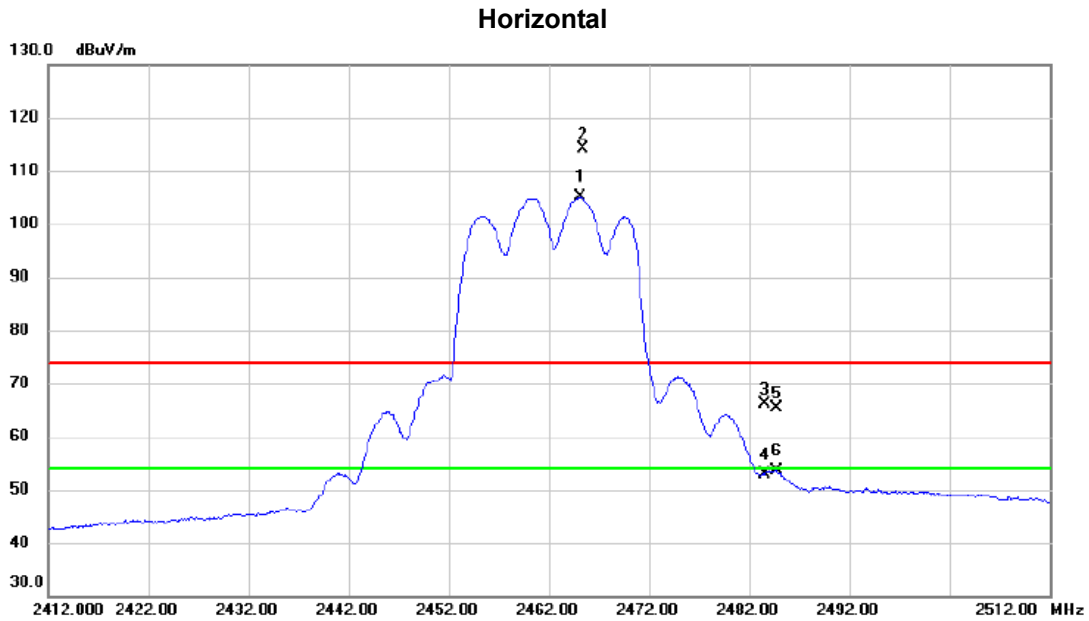


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4922.580	41.56	8.10	49.66	74.00	-24.34	peak	
2	*	4923.023	29.90	8.10	38.00	54.00	-16.00	AVG	

REMARKS:

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

Test Mode: TX G Mode 2462 MHz

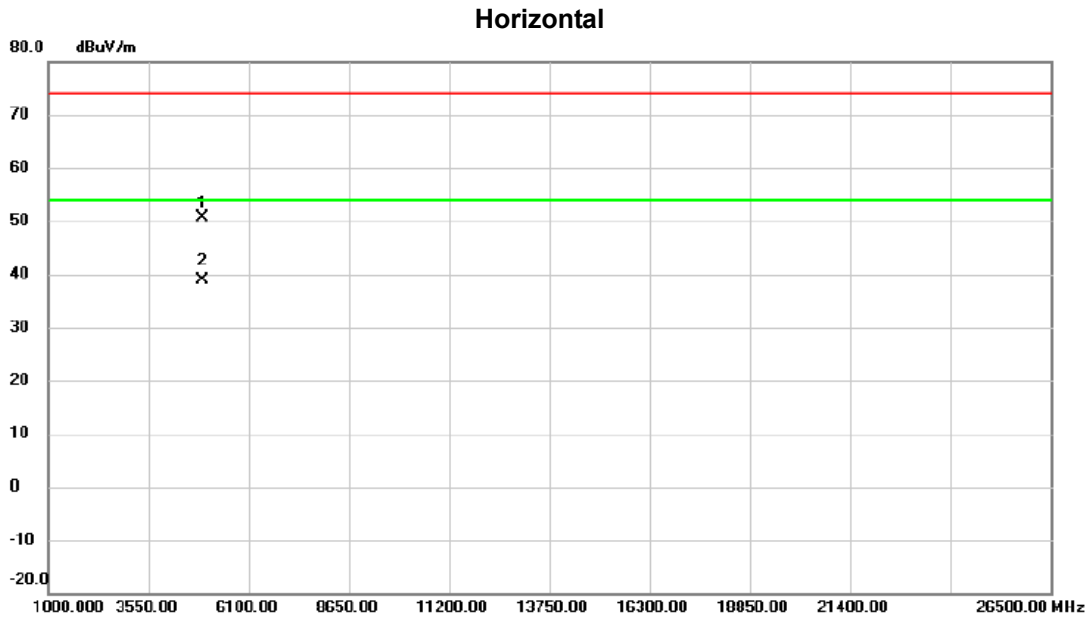


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2465.150	94.80	10.23	105.03	54.00	51.03	AVG	No Limit
2	X	2465.350	103.85	10.23	114.08	74.00	40.08	peak	No Limit
3		2483.500	55.78	10.29	66.07	74.00	-7.93	peak	
4		2483.500	42.54	10.29	52.83	54.00	-1.17	AVG	
5		2484.750	55.13	10.30	65.43	74.00	-8.57	peak	
6		2484.750	43.29	10.30	53.59	54.00	-0.41	AVG	

REMARKS:

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

Test Mode: TX G Mode 2462 MHz



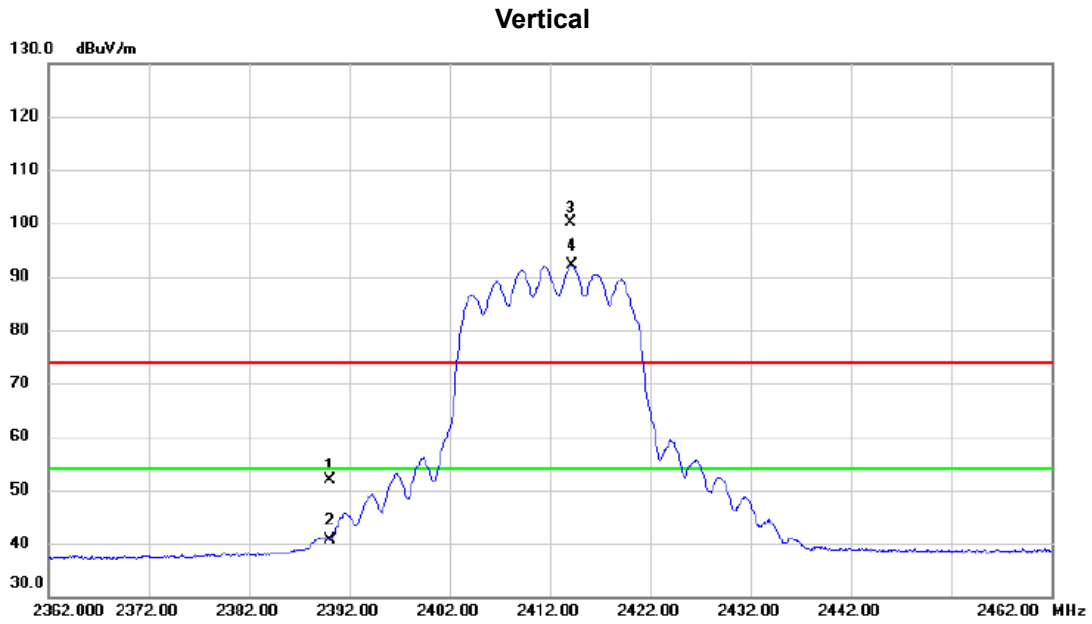
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4925.370	42.63	8.10	50.73	74.00	-23.27	peak	
2	*	4925.620	30.77	8.10	38.87	54.00	-15.13	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-20M Mode 2412 MHz

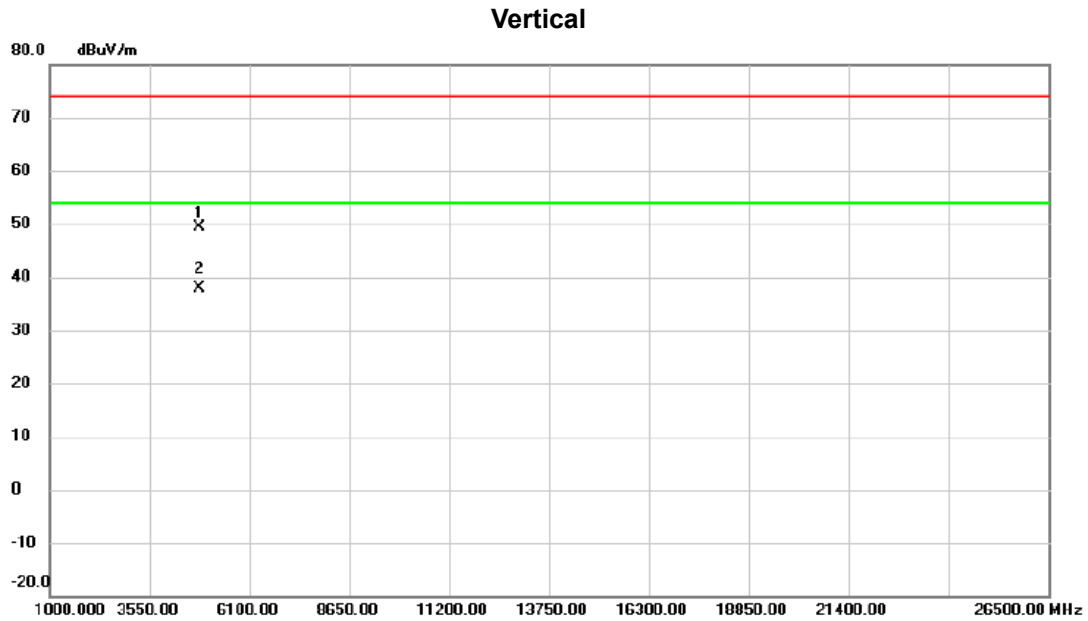


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	41.93	9.95	51.88	74.00	-22.12	peak	
2		2390.000	30.75	9.95	40.70	54.00	-13.30	AVG	
3	X	2414.000	90.21	10.04	100.25	74.00	26.25	peak	No Limit
4	*	2414.150	82.04	10.04	92.08	54.00	38.08	AVG	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

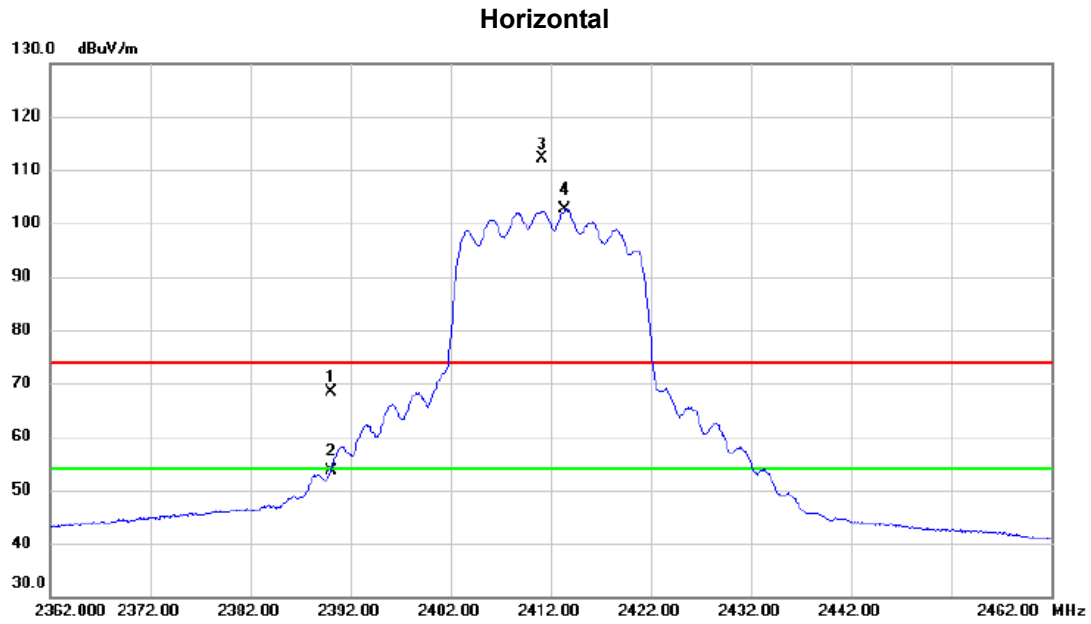


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4824.752	41.61	7.69	49.30	74.00	-24.70	peak	
2	*	4826.500	30.29	7.70	37.99	54.00	-16.01	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz



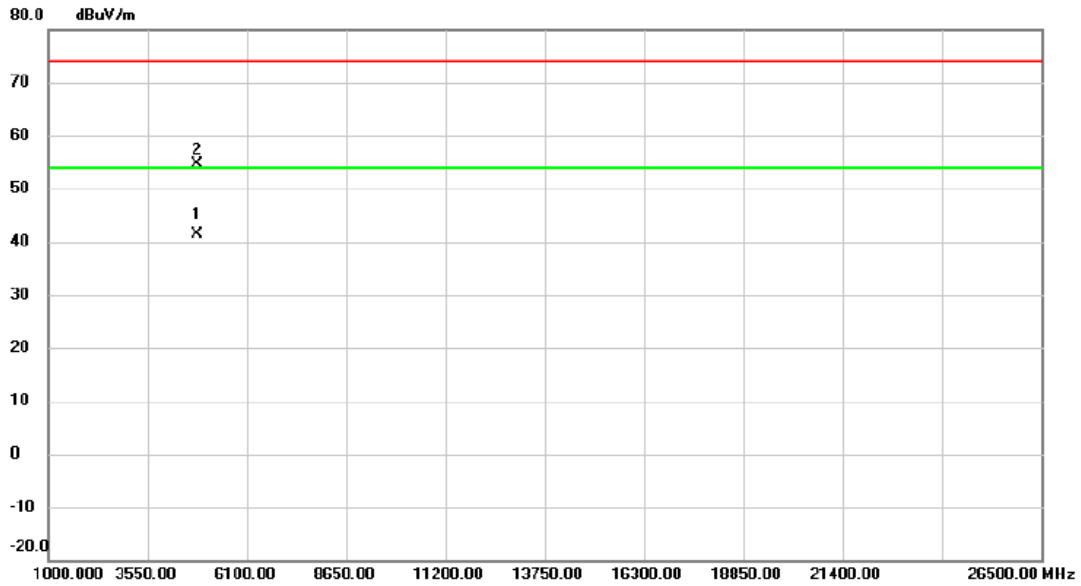
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	58.33	9.95	68.28	74.00	-5.72	peak	
2		2390.000	43.66	9.95	53.61	54.00	-0.39	AVG	
3	X	2411.100	102.04	10.02	112.06	74.00	38.06	peak	No Limit
4	*	2413.450	92.47	10.04	102.51	54.00	48.51	AVG	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Horizontal

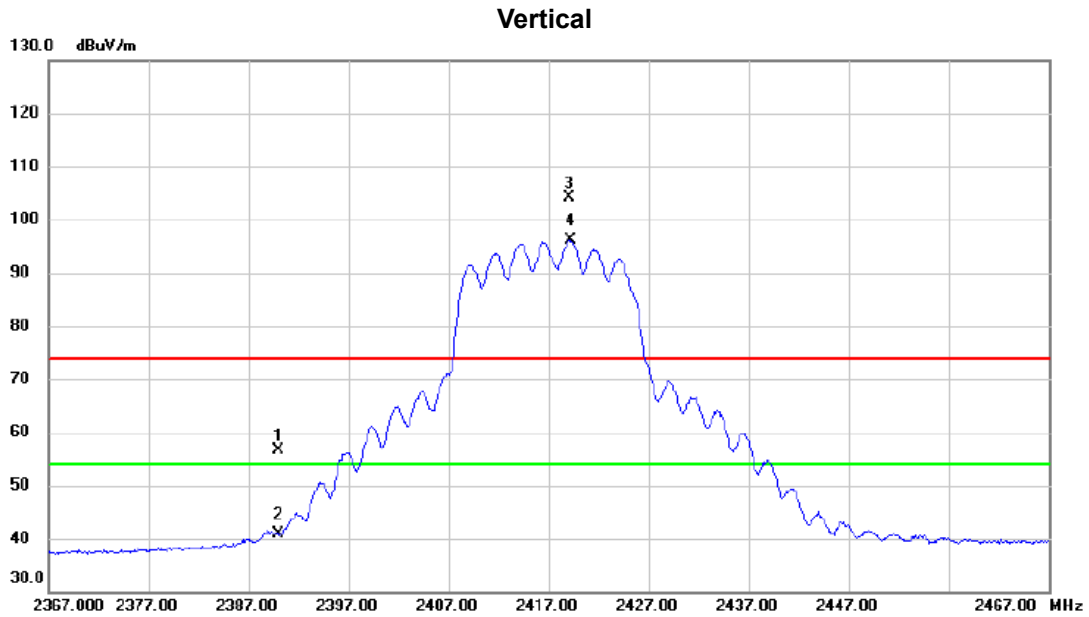


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4824.505	33.69	7.69	41.38	54.00	-12.62	AVG	
2		4824.610	46.83	7.69	54.52	74.00	-19.48	peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

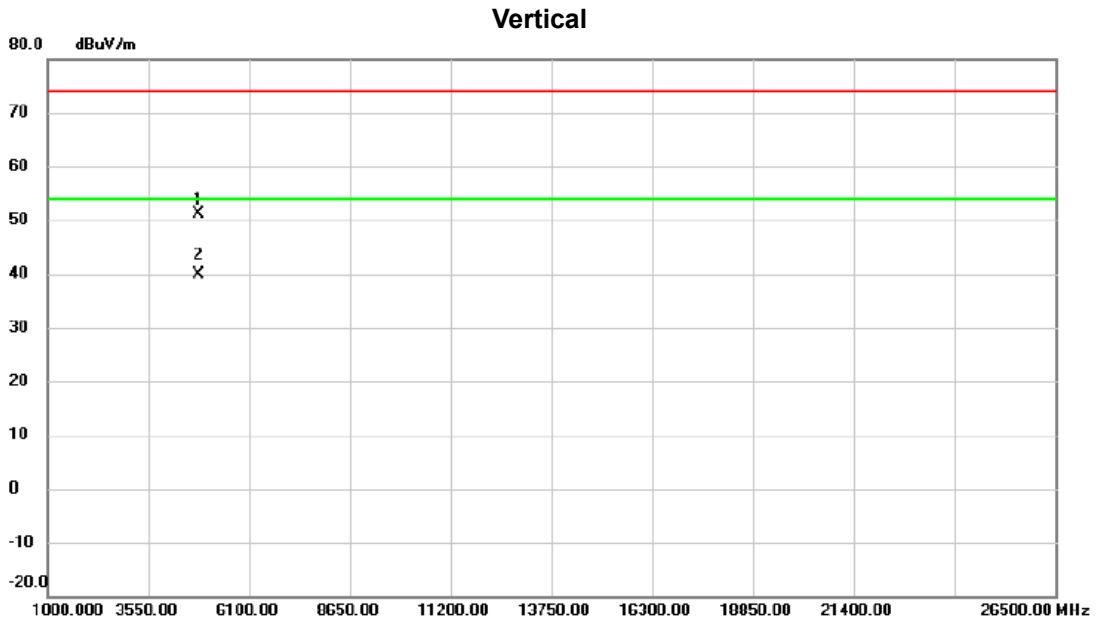


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	46.62	9.95	56.57	74.00	-17.43	peak	
2		2390.000	30.87	9.95	40.82	54.00	-13.18	AVG	
3	X	2419.050	93.96	10.06	104.02	74.00	30.02	peak	No Limit
4	*	2419.150	85.97	10.06	96.03	54.00	42.03	AVG	No Limit

REMARKS:

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

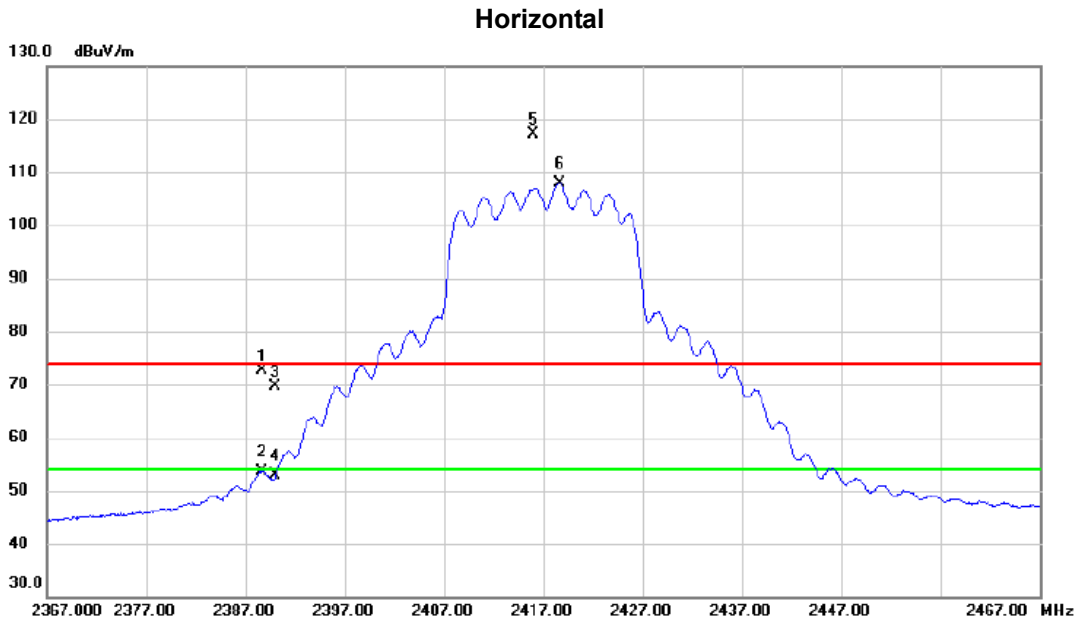
Test Mode: TX N-20M Mode 2417 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4834.637	43.30	7.73	51.03	74.00	-22.97	peak	
2	*	4836.458	32.14	7.74	39.88	54.00	-14.12	AVG	

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

Test Mode: TX N-20M Mode 2417 MHz



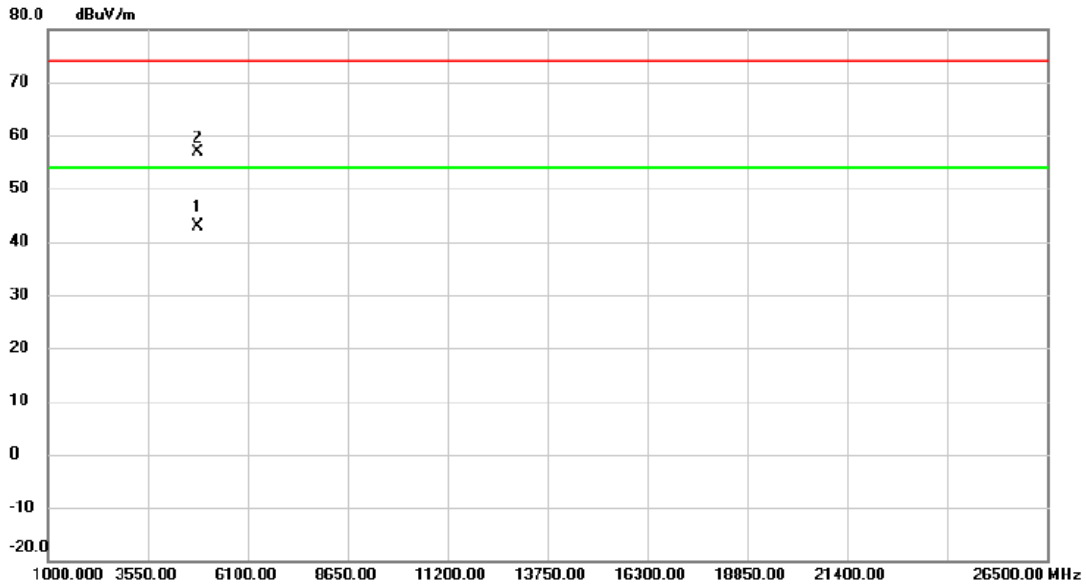
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2388.700	62.61	9.95	72.56	74.00	-1.44	peak	
2		2388.700	43.75	9.95	53.70	54.00	-0.30	AVG	
3		2390.000	59.79	9.95	69.74	74.00	-4.26	peak	
4		2390.000	42.95	9.95	52.90	54.00	-1.10	AVG	
5	X	2415.950	107.08	10.05	117.13	74.00	43.13	peak	No Limit
6	*	2418.650	97.91	10.06	107.97	54.00	53.97	AVG	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

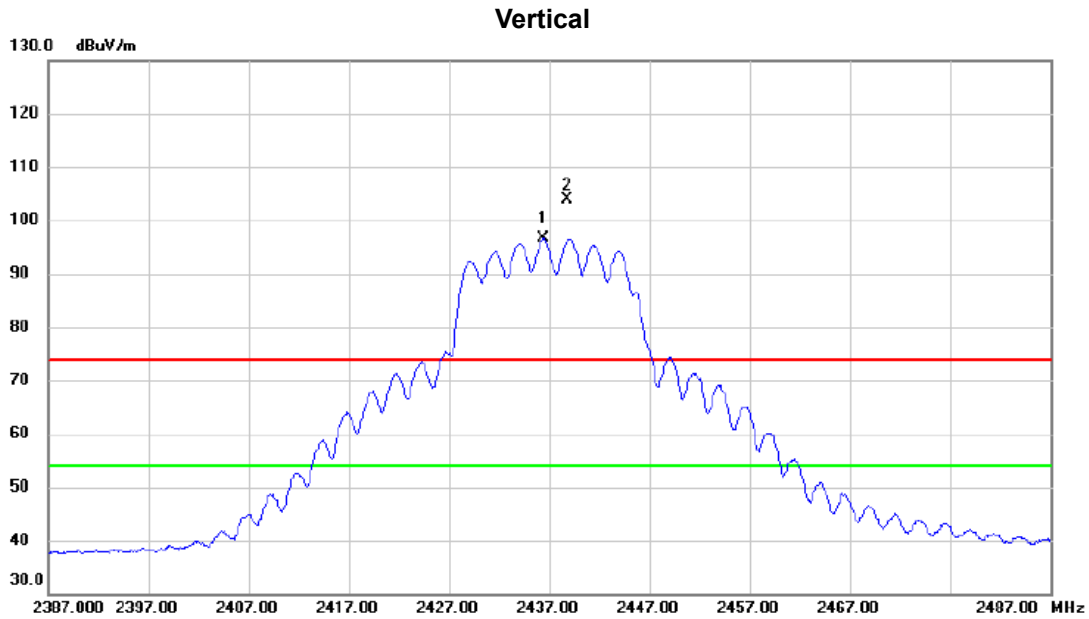


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4832.280	35.22	7.71	42.93	54.00	-11.07	AVG	
2		4834.695	49.03	7.73	56.76	74.00	-17.24	peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz



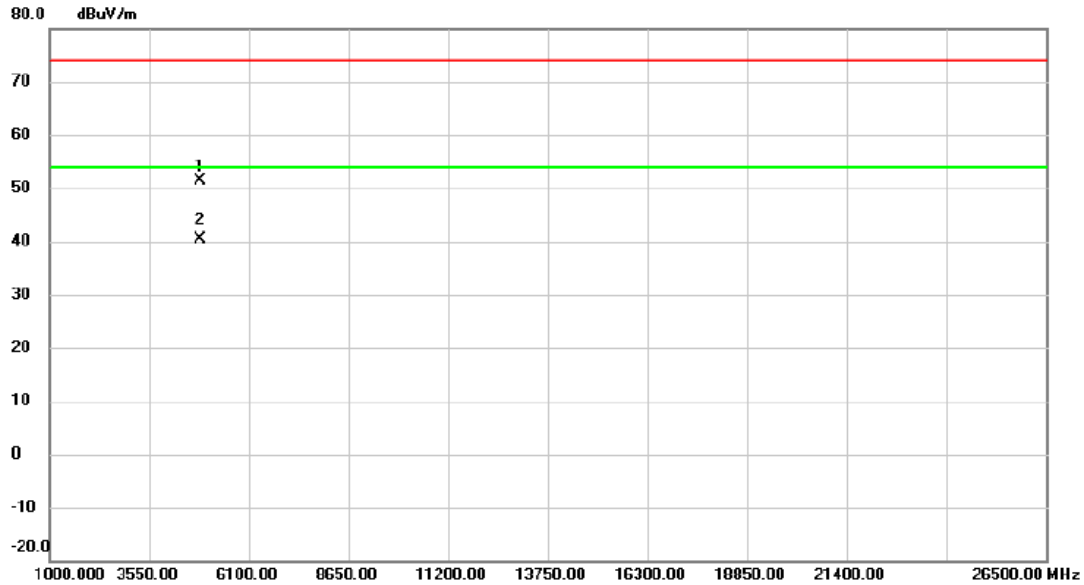
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2436.450	86.45	10.12	96.57	54.00	42.57	AVG	No Limit
2	X	2438.850	93.75	10.14	103.89	74.00	29.89	peak	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical

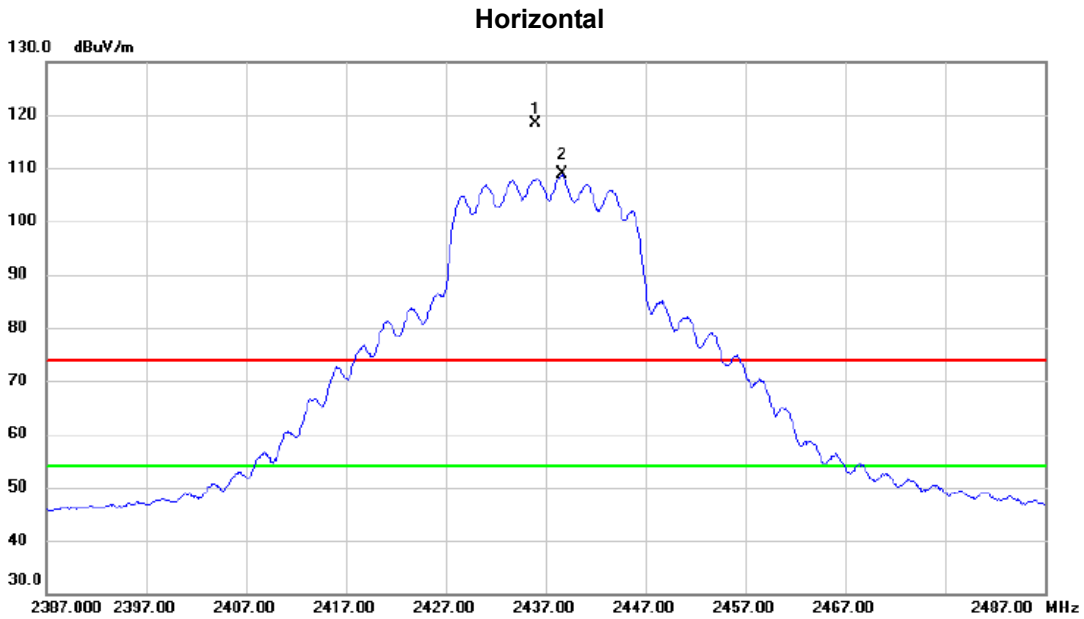


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4871.892	43.41	7.88	51.29	74.00	-22.71	peak	
2	*	4873.920	32.56	7.90	40.46	54.00	-13.54	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz



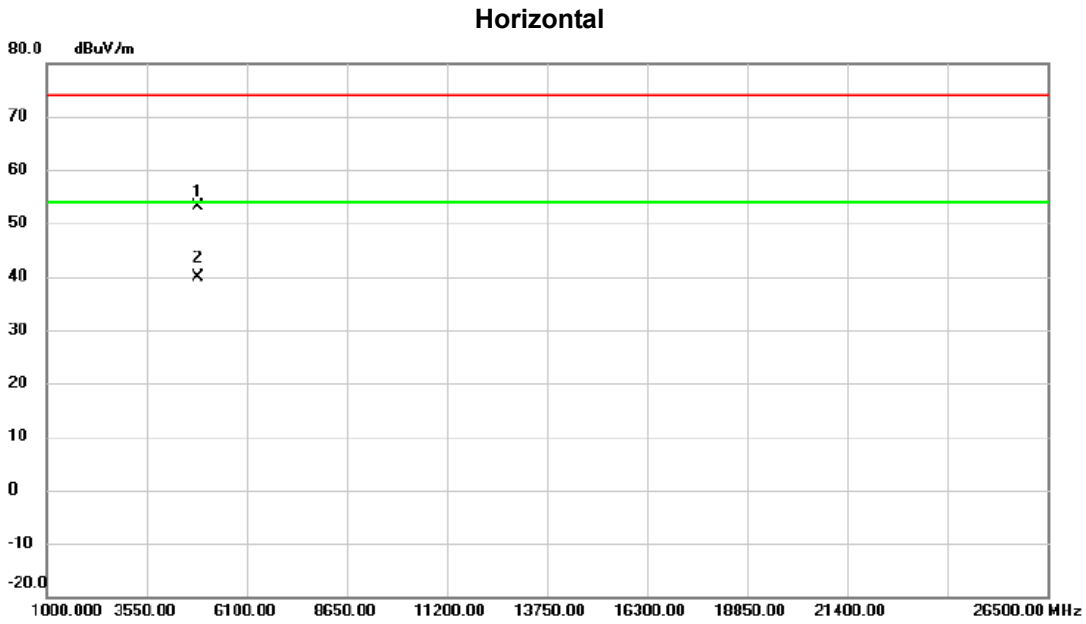
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2435.950	108.27	10.12	118.39	74.00	44.39	peak	No Limit
2	*	2438.650	98.68	10.14	108.82	54.00	54.82	AVG	No Limit

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-20M Mode 2437 MHz

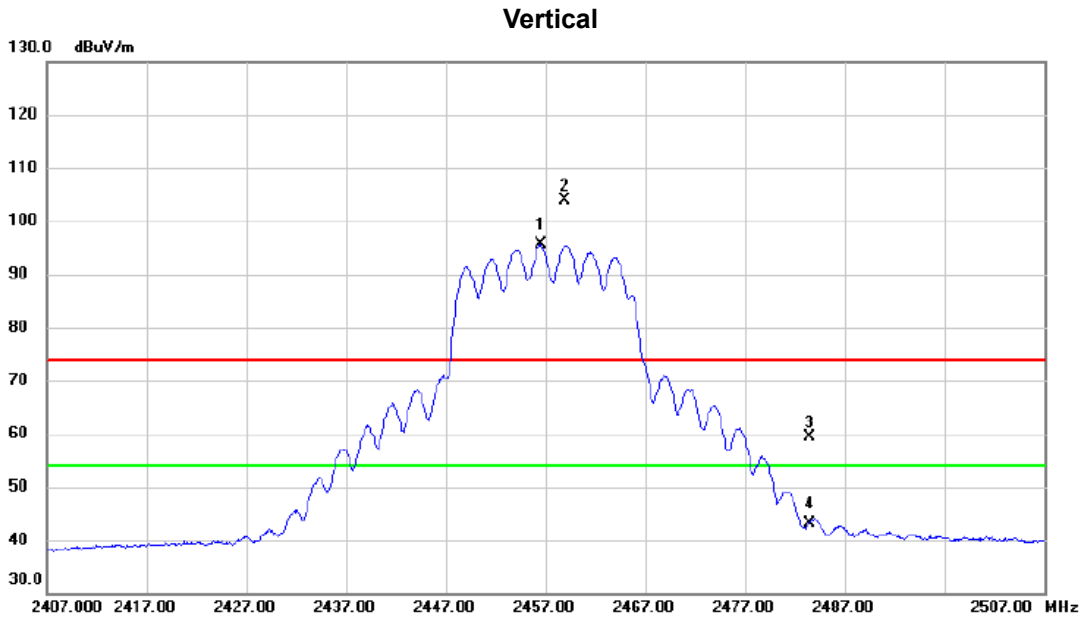


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4871.955	45.16	7.89	53.05	74.00	-20.95	peak	
2	*	4872.120	31.89	7.89	39.78	54.00	-14.22	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

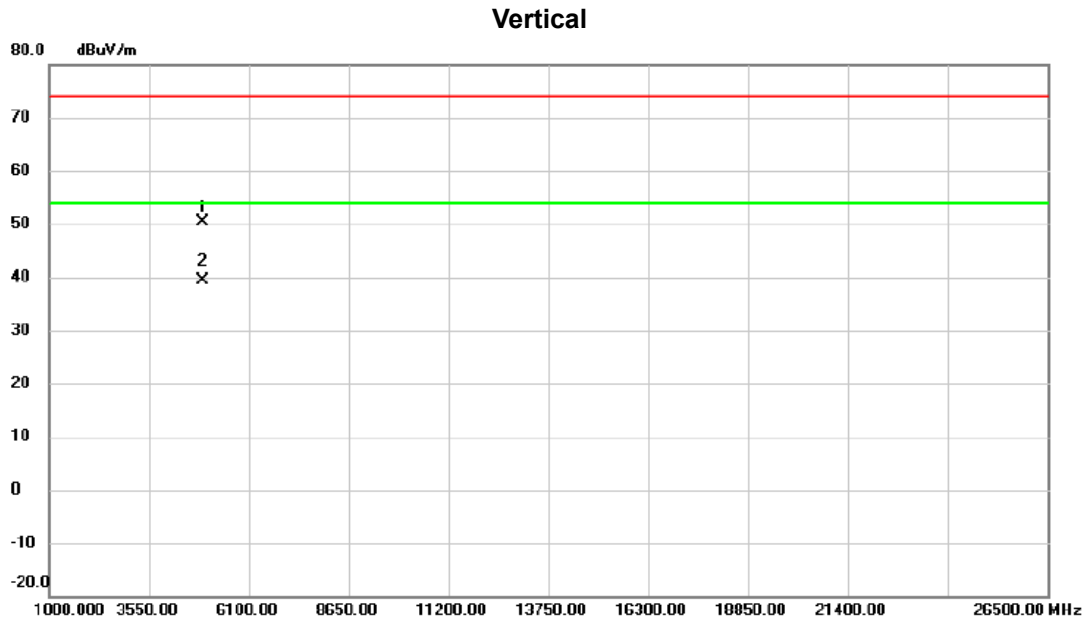


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.500	85.40	10.19	95.59	54.00	41.59	AVG	No Limit
2	X	2458.950	93.56	10.20	103.76	74.00	29.76	peak	No Limit
3		2483.500	49.08	10.29	59.37	74.00	-14.63	peak	
4		2483.500	32.95	10.29	43.24	54.00	-10.76	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

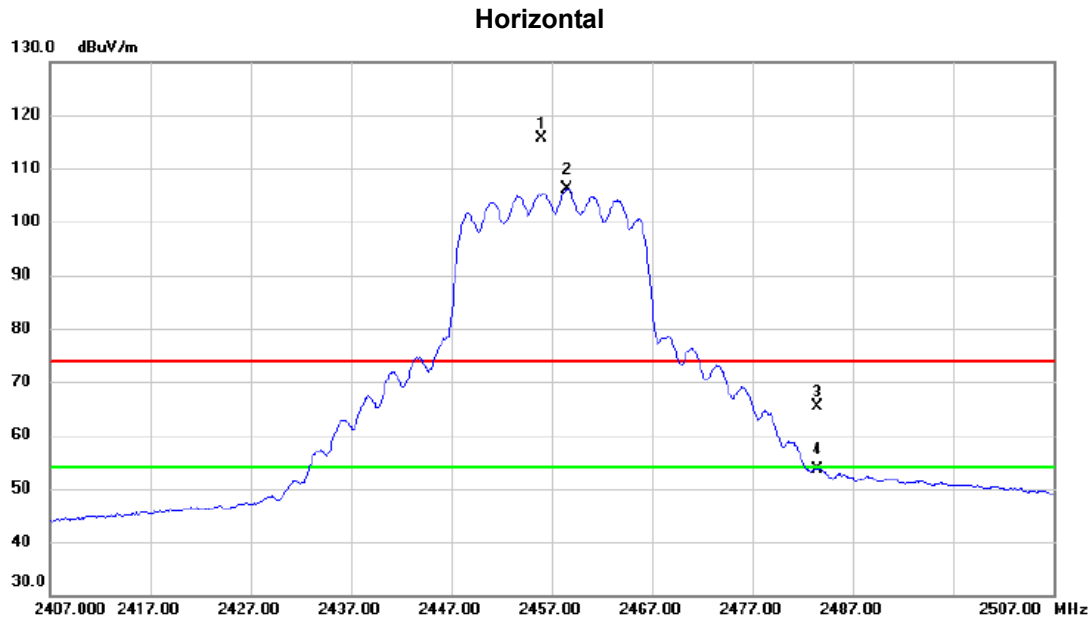


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	4913.568	42.29	8.05	50.34	74.00	-23.66	peak	
2 *	4916.220	31.34	8.07	39.41	54.00	-14.59	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

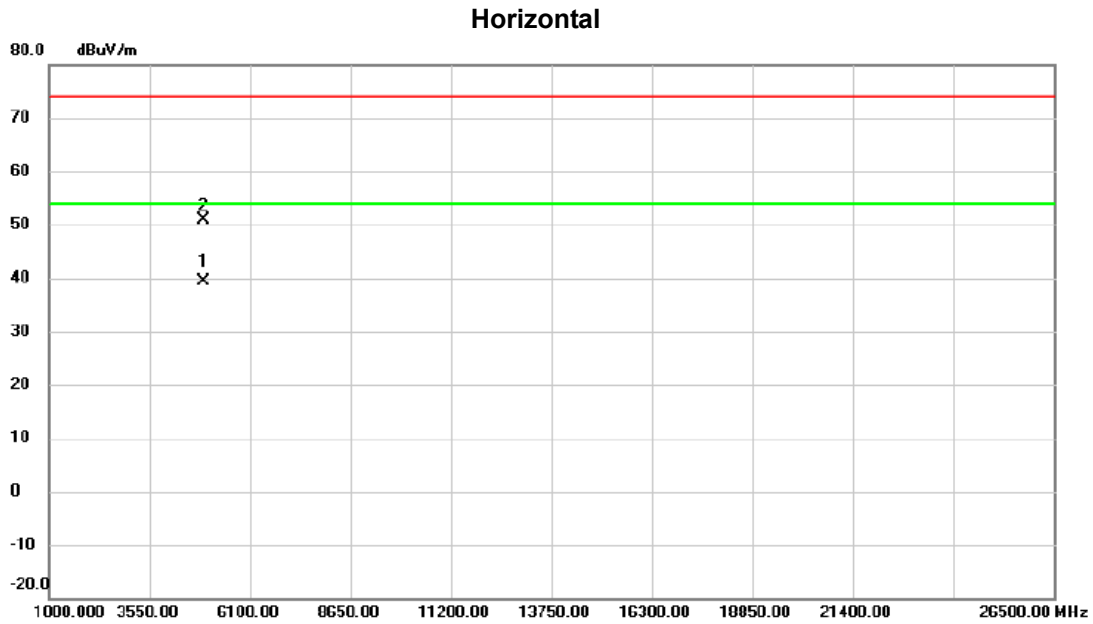


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	X	2456.000	105.41	10.19	115.60	74.00	41.60	peak	No Limit
2	*	2458.500	96.02	10.20	106.22	54.00	52.22	AVG	No Limit
3		2483.500	54.98	10.29	65.27	74.00	-8.73	peak	
4		2483.500	43.26	10.29	53.55	54.00	-0.45	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

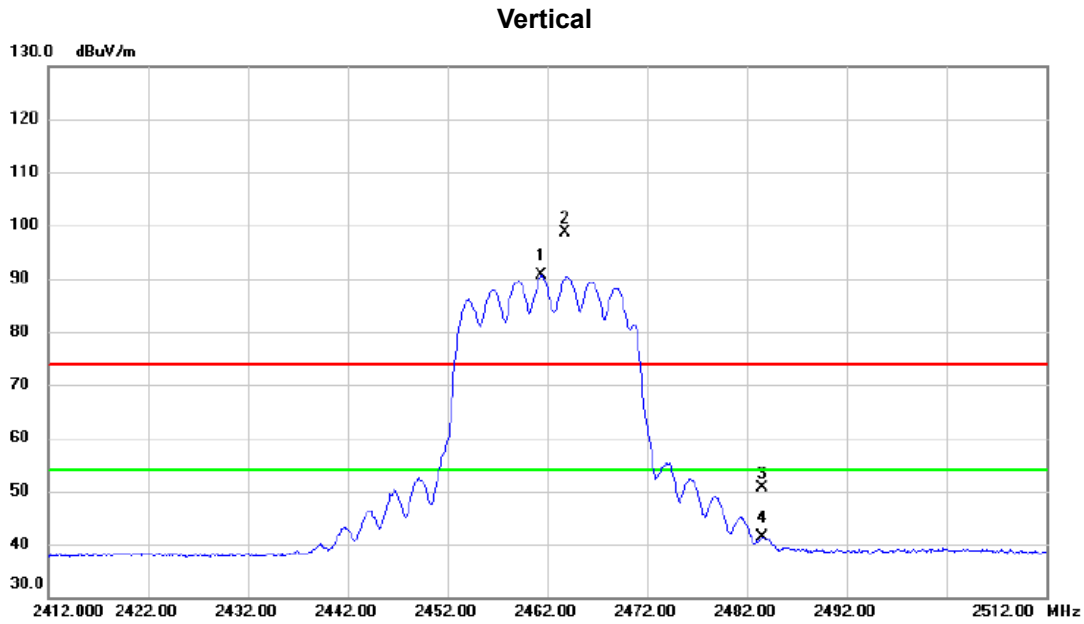


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4912.360	31.26	8.05	39.31	54.00	-14.69	AVG	
2		4914.675	42.90	8.05	50.95	74.00	-23.05	peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2461.400	80.35	10.22	90.57	54.00	36.57	AVG	No Limit
2	X	2463.850	88.38	10.23	98.61	74.00	24.61	peak	No Limit
3		2483.500	40.34	10.29	50.63	74.00	-23.37	peak	
4		2483.500	31.02	10.29	41.31	54.00	-12.69	AVG	

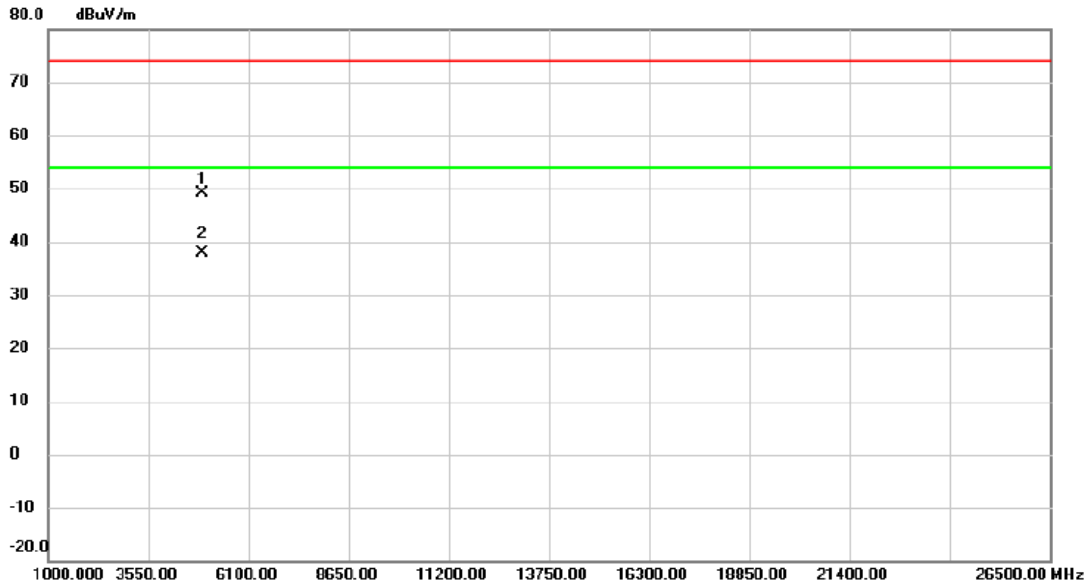
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-20M Mode 2462 MHz

Vertical

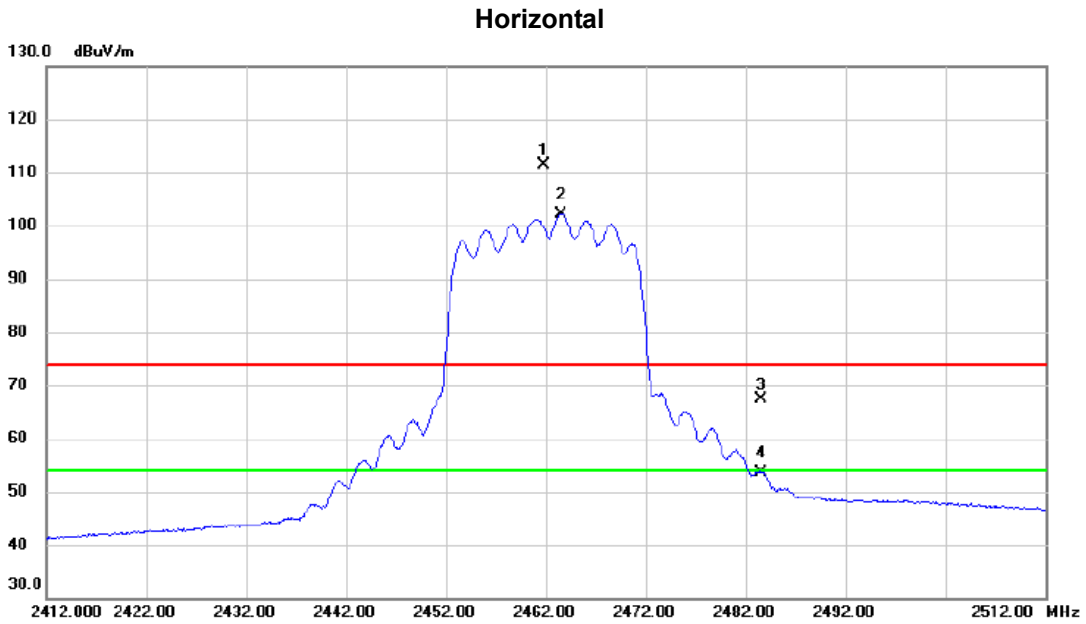


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4923.347	41.02	8.10	49.12	74.00	-24.88	peak	
2	*	4926.185	29.75	8.10	37.85	54.00	-16.15	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

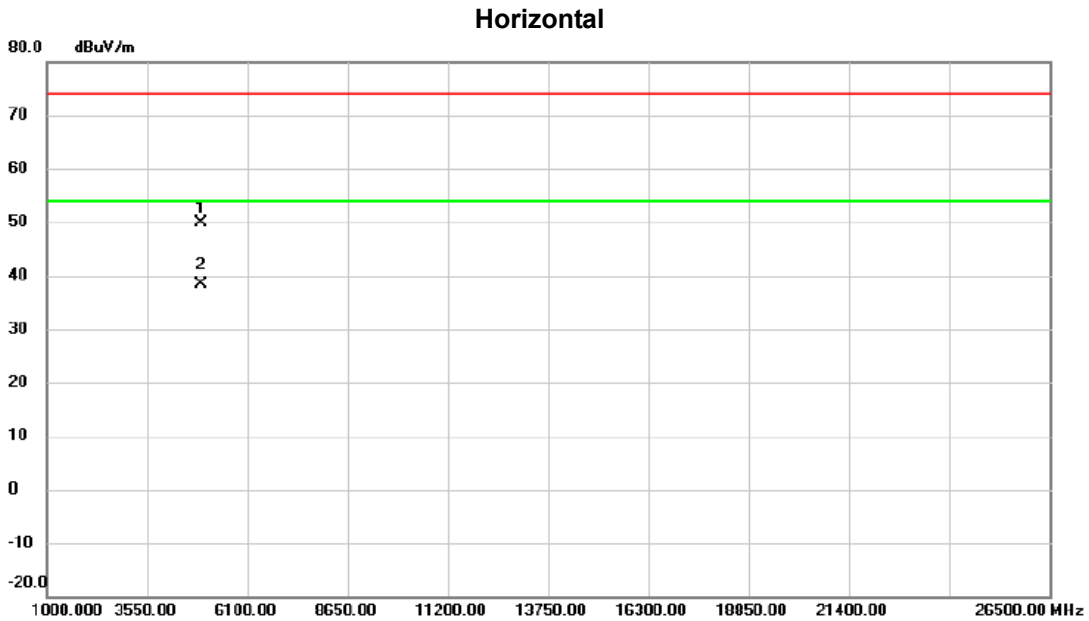


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2461.750	101.21	10.22	111.43	74.00	37.43	peak	No Limit
2	*	2463.550	91.97	10.23	102.20	54.00	48.20	AVG	No Limit
3		2483.500	57.09	10.29	67.38	74.00	-6.62	peak	
4		2483.500	43.37	10.29	53.66	54.00	-0.34	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

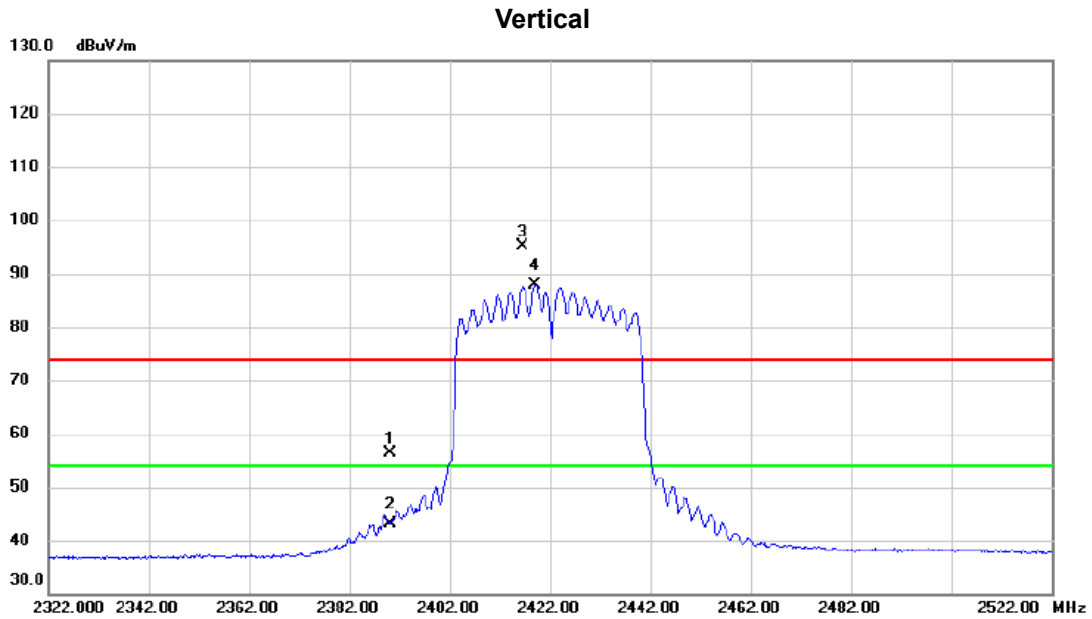


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4924.665	41.87	8.10	49.97	74.00	-24.03	peak	
2	*	4924.770	30.32	8.10	38.42	54.00	-15.58	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz



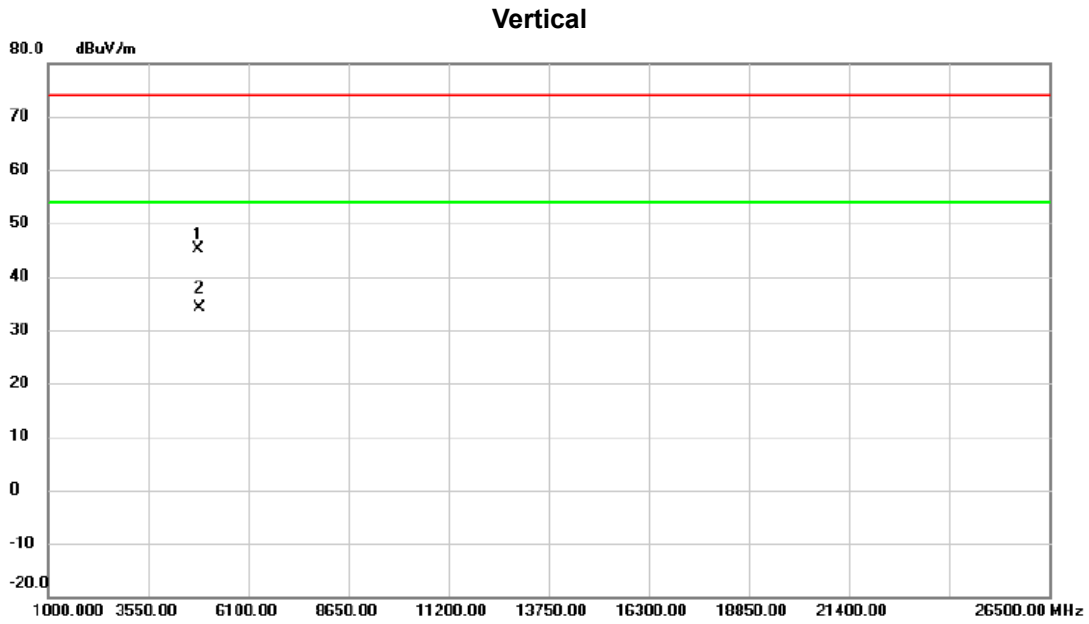
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	46.49	9.95	56.44	74.00	-17.56	peak	
2		2390.000	33.25	9.95	43.20	54.00	-10.80	AVG	
3	X	2416.600	85.12	10.05	95.17	74.00	21.17	peak	No Limit
4	*	2418.900	77.82	10.06	87.88	54.00	33.88	AVG	No Limit

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-40M Mode 2422MHz

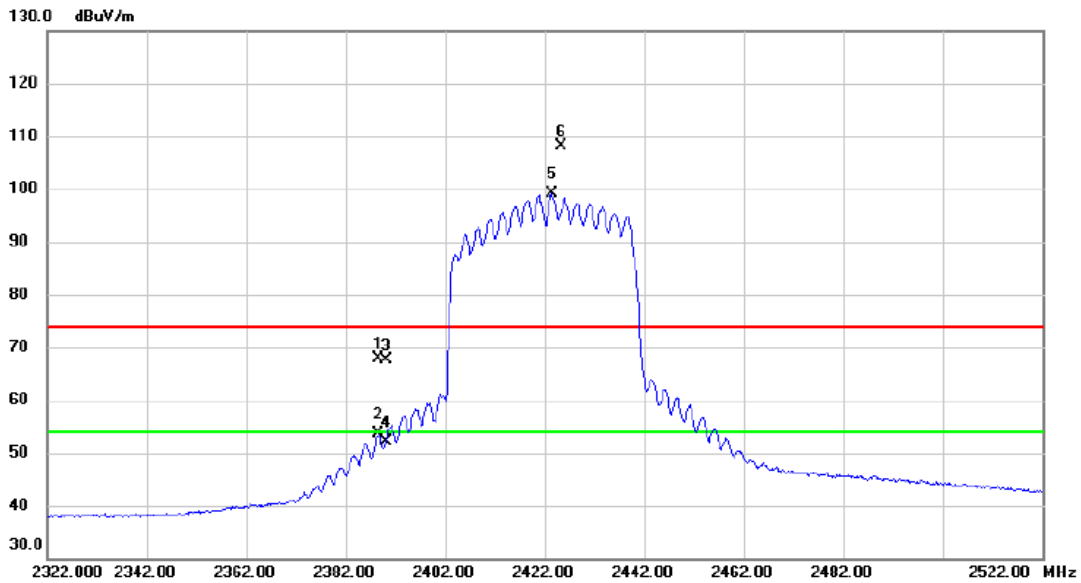


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4841.350	37.42	7.76	45.18	74.00	-28.82	peak	
2	*	4844.360	26.37	7.77	34.14	54.00	-19.86	AVG	

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

Test Mode: TX N-40M Mode 2422MHz

Horizontal

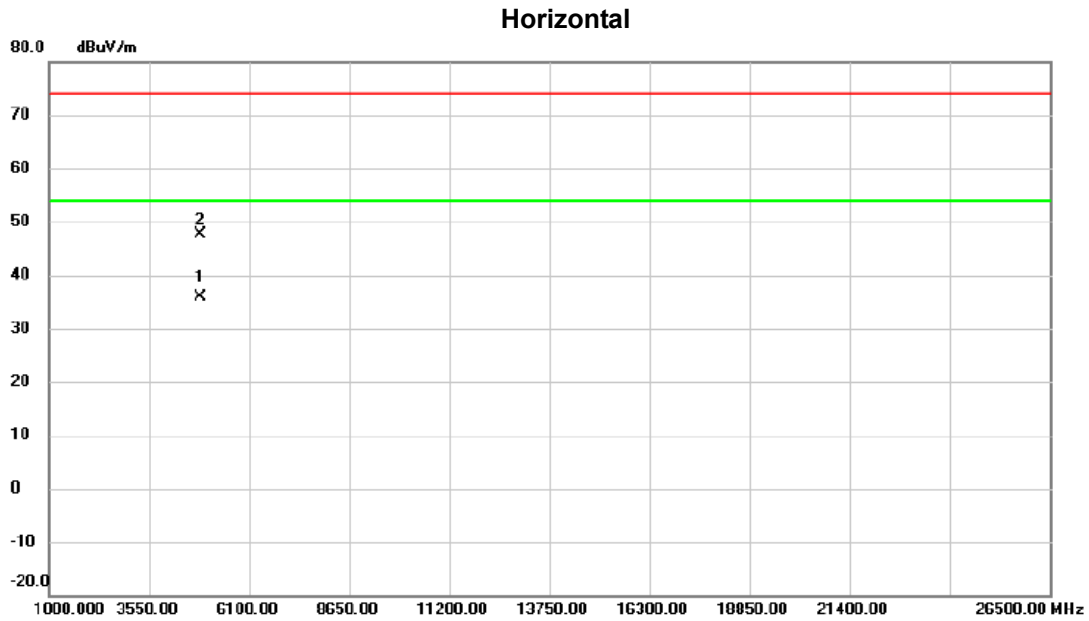


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2388.600	57.99	9.94	67.93	74.00	-6.07	peak	
2		2388.600	43.66	9.94	53.60	54.00	-0.40	AVG	
3		2390.000	57.64	9.95	67.59	74.00	-6.41	peak	
4		2390.000	42.06	9.95	52.01	54.00	-1.99	AVG	
5	*	2423.500	89.08	10.07	99.15	54.00	45.15	AVG	No Limit
6	X	2425.300	98.08	10.08	108.16	74.00	34.16	peak	No Limit

REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz



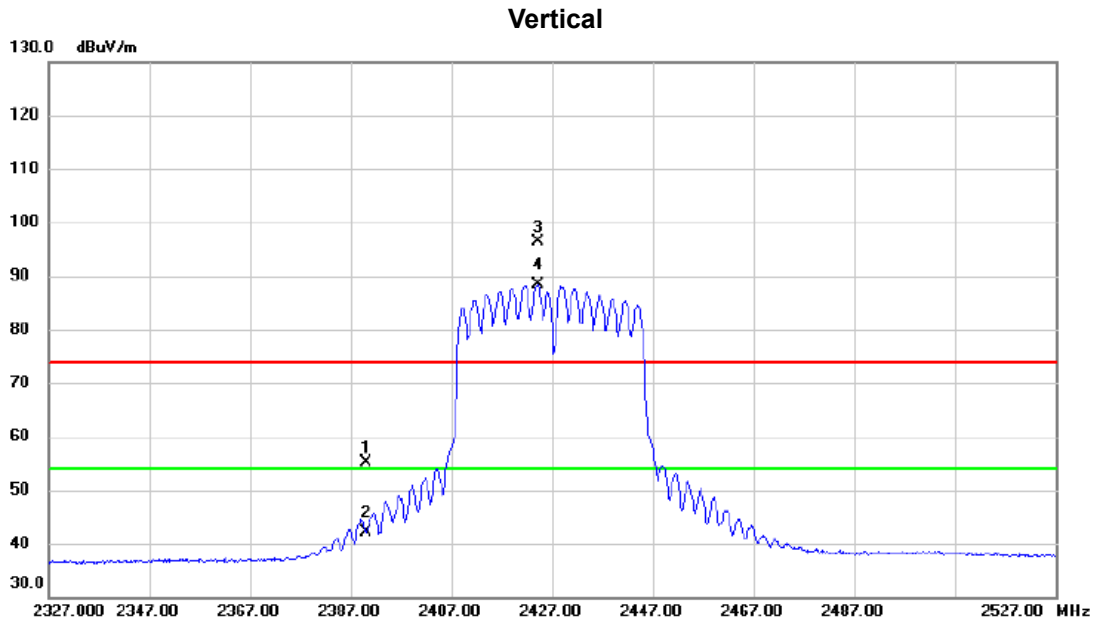
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4844.800	28.03	7.77	35.80	54.00	-18.20	AVG	
2		4844.950	39.88	7.77	47.65	74.00	-26.35	peak	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-40M Mode 2427 MHz



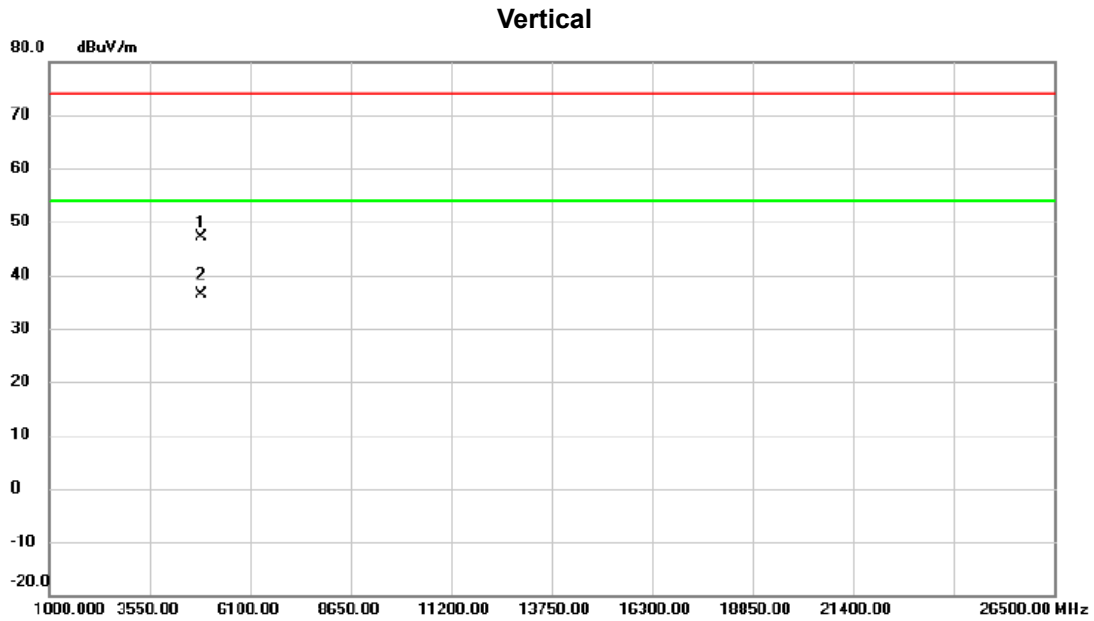
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	45.17	9.95	55.12	74.00	-18.88	peak	
2		2390.000	32.19	9.95	42.14	54.00	-11.86	AVG	
3	X	2424.100	86.24	10.07	96.31	74.00	22.31	peak	No Limit
4	*	2424.100	78.41	10.07	88.48	54.00	34.48	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



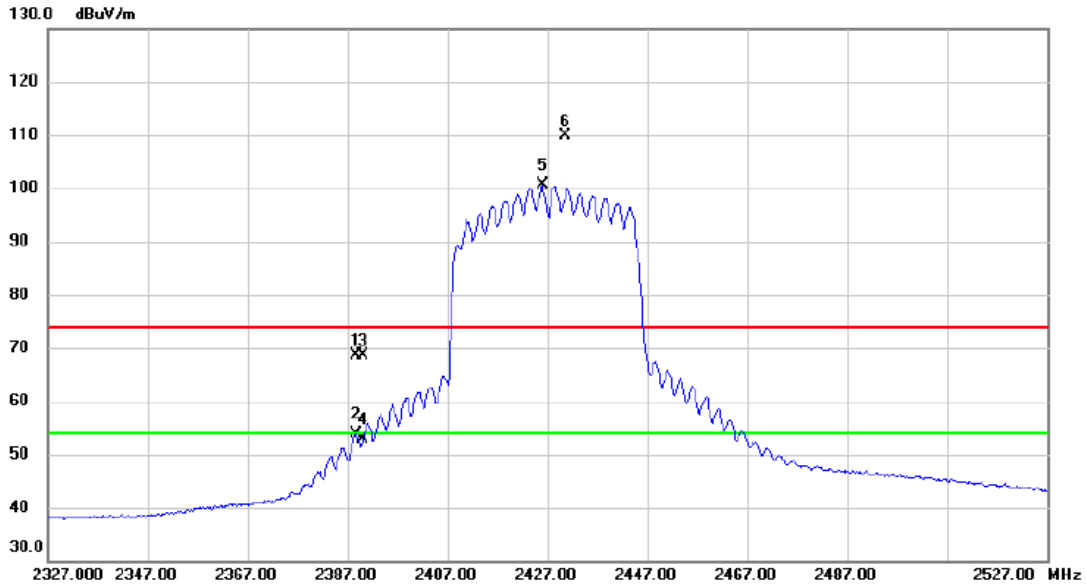
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4853.677	39.43	7.81	47.24	74.00	-26.76	peak	
2	*	4853.847	28.58	7.81	36.39	54.00	-17.61	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2427 MHz

Horizontal

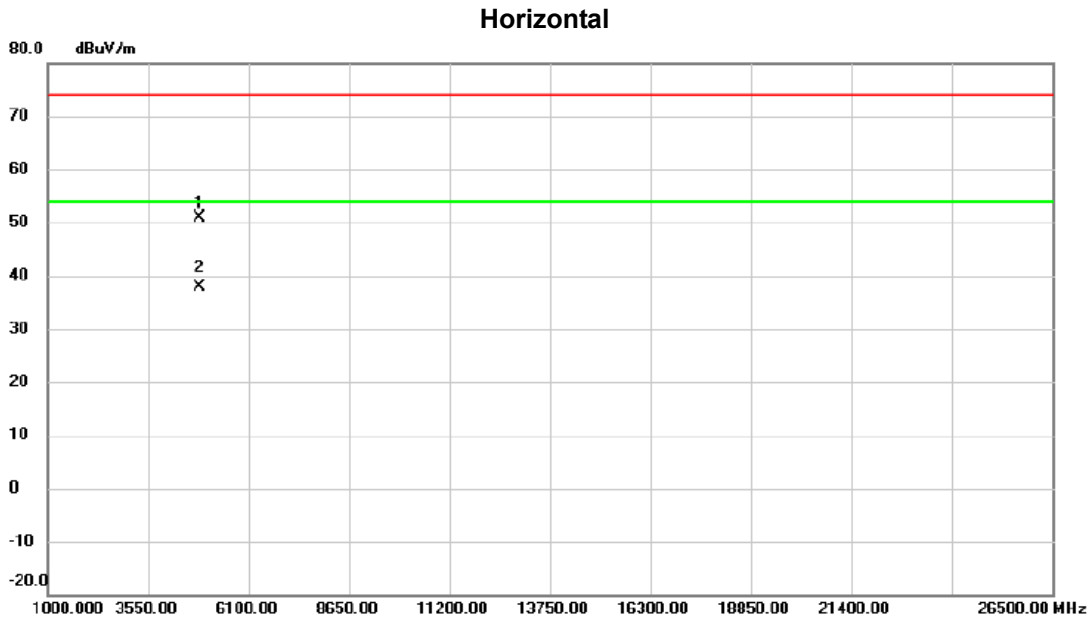


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2388.700	58.77	9.95	68.72	74.00	-5.28	peak	
2		2388.700	43.82	9.95	53.77	54.00	-0.23	AVG	
3		2390.000	58.80	9.95	68.75	74.00	-5.25	peak	
4		2390.000	42.82	9.95	52.77	54.00	-1.23	AVG	
5	*	2426.000	90.59	10.08	100.67	54.00	46.67	AVG	No Limit
6	X	2430.600	99.84	10.10	109.94	74.00	35.94	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



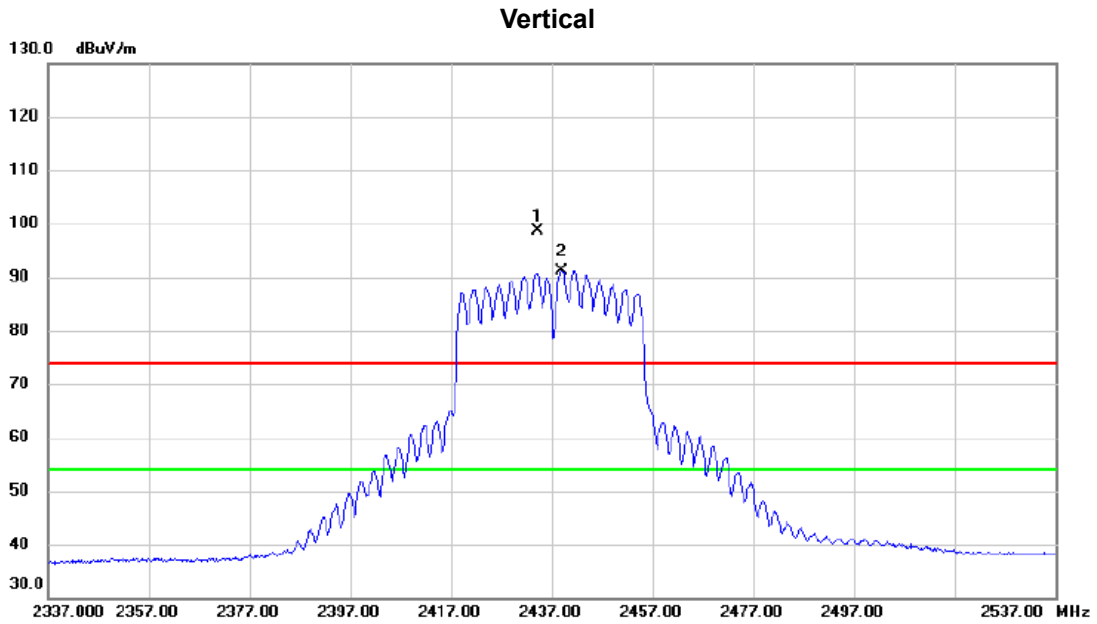
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4854.770	43.10	7.81	50.91	74.00	-23.09	peak	
2	*	4854.850	30.15	7.81	37.96	54.00	-16.04	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-40M Mode 2437 MHz



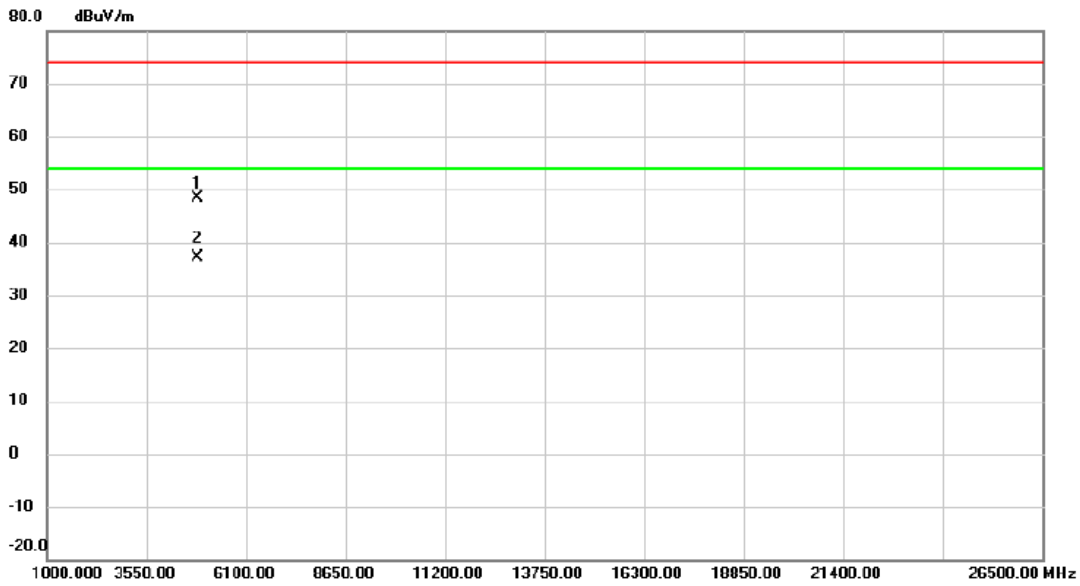
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2434.100	88.62	10.11	98.73	74.00	24.73	peak	No Limit
2	*	2439.100	81.02	10.14	91.16	54.00	37.16	AVG	No Limit

REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical

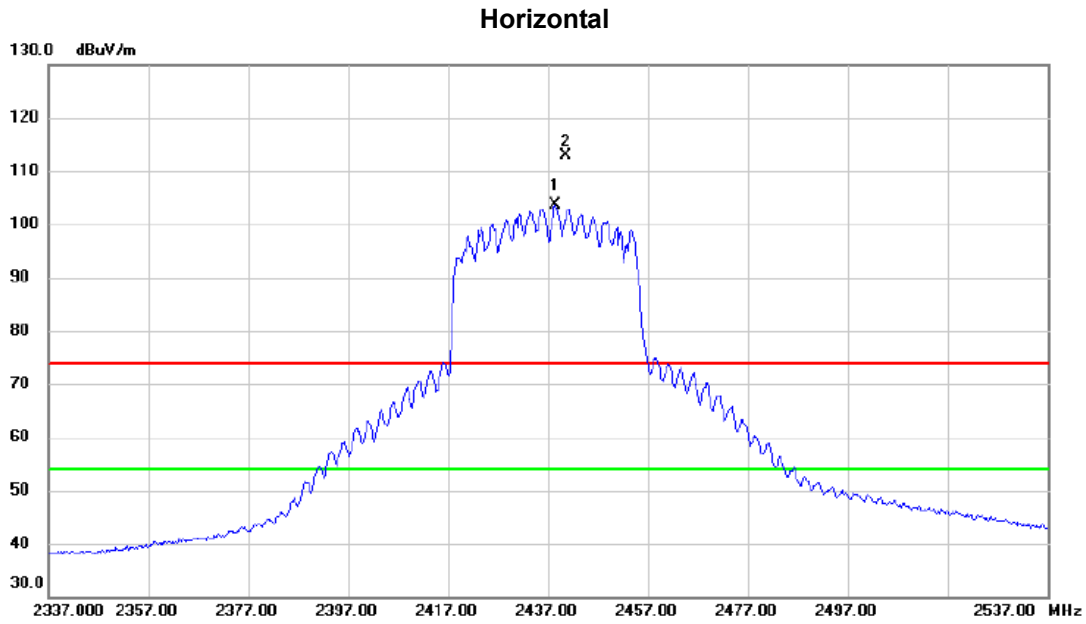


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4873.645	40.40	7.90	48.30	74.00	-25.70	peak	
2	*	4873.783	29.31	7.90	37.21	54.00	-16.79	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz



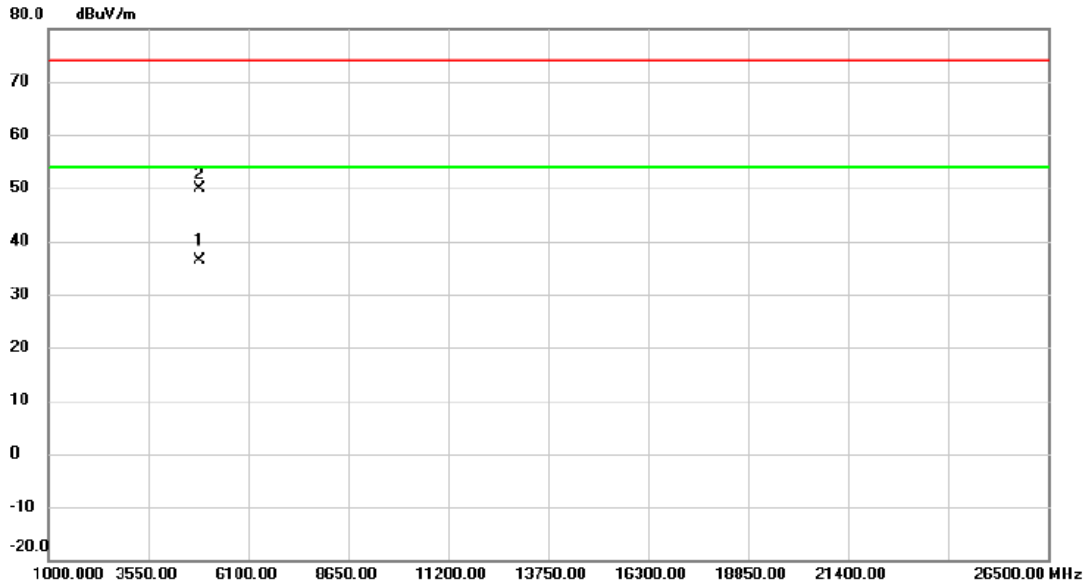
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2438.600	93.43	10.13	103.56	54.00	49.56	AVG	No Limit
2	X	2440.600	102.63	10.14	112.77	74.00	38.77	peak	No Limit

REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal



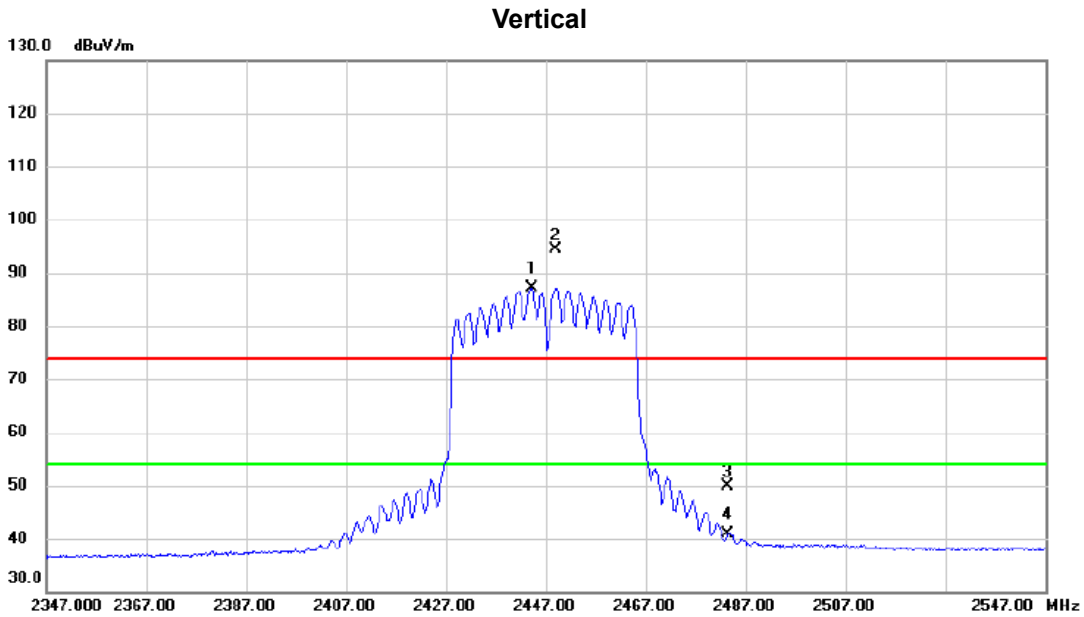
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4869.730	28.50	7.87	36.37	54.00	-17.63	AVG	
2		4874.515	41.90	7.90	49.80	74.00	-24.20	peak	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-40M Mode 2447 MHz



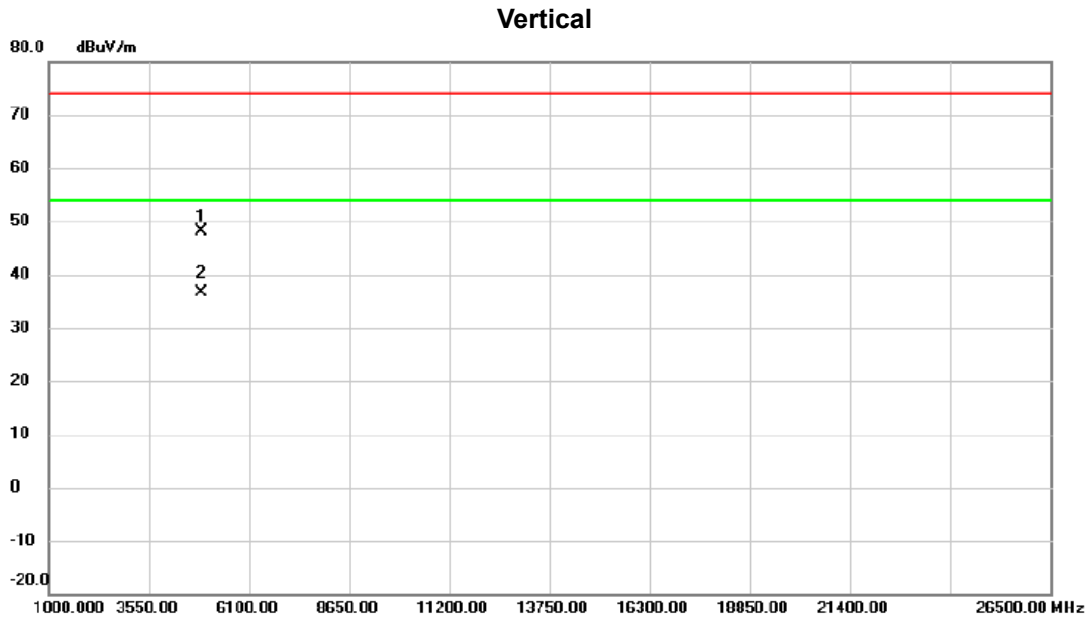
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2444.100	76.95	10.16	87.11	54.00	33.11	AVG	No Limit
2	X	2448.900	84.22	10.17	94.39	74.00	20.39	peak	No Limit
3		2483.500	39.61	10.29	49.90	74.00	-24.10	peak	
4		2483.500	30.47	10.29	40.76	54.00	-13.24	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-40M Mode 2447 MHz

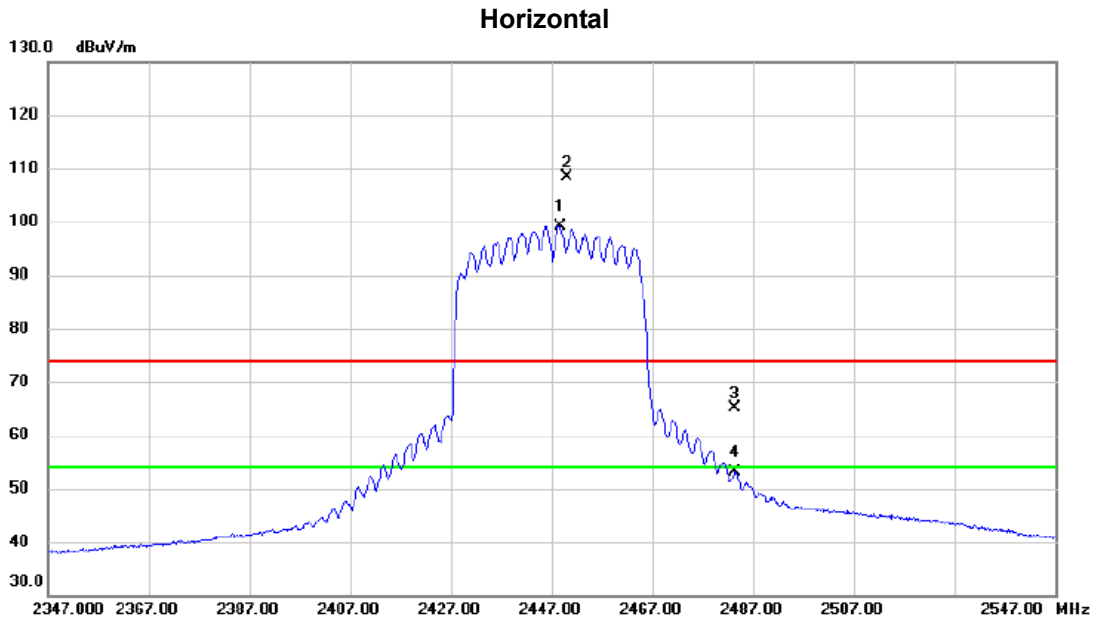


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4893.642	40.16	7.97	48.13	74.00	-25.87	peak	
2	*	4893.915	28.70	7.97	36.67	54.00	-17.33	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2447 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2448.800	89.05	10.17	99.22	54.00	45.22	AVG	No Limit
2	X	2450.100	98.33	10.17	108.50	74.00	34.50	peak	No Limit
3		2483.500	54.87	10.29	65.16	74.00	-8.84	peak	
4		2483.500	42.76	10.29	53.05	54.00	-0.95	AVG	

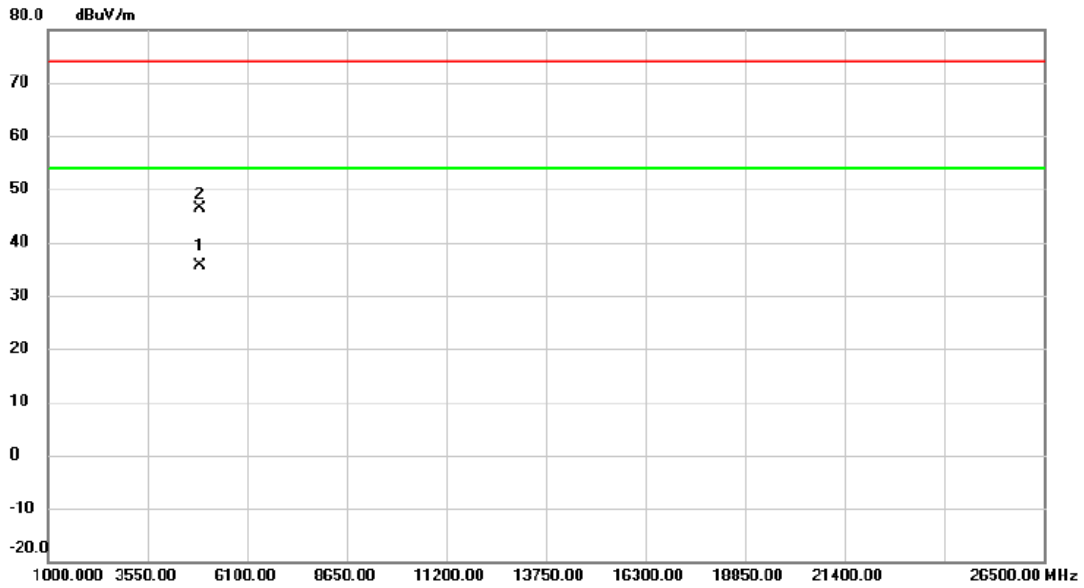
REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

Test Mode: TX N-40M Mode 2447 MHz

Horizontal

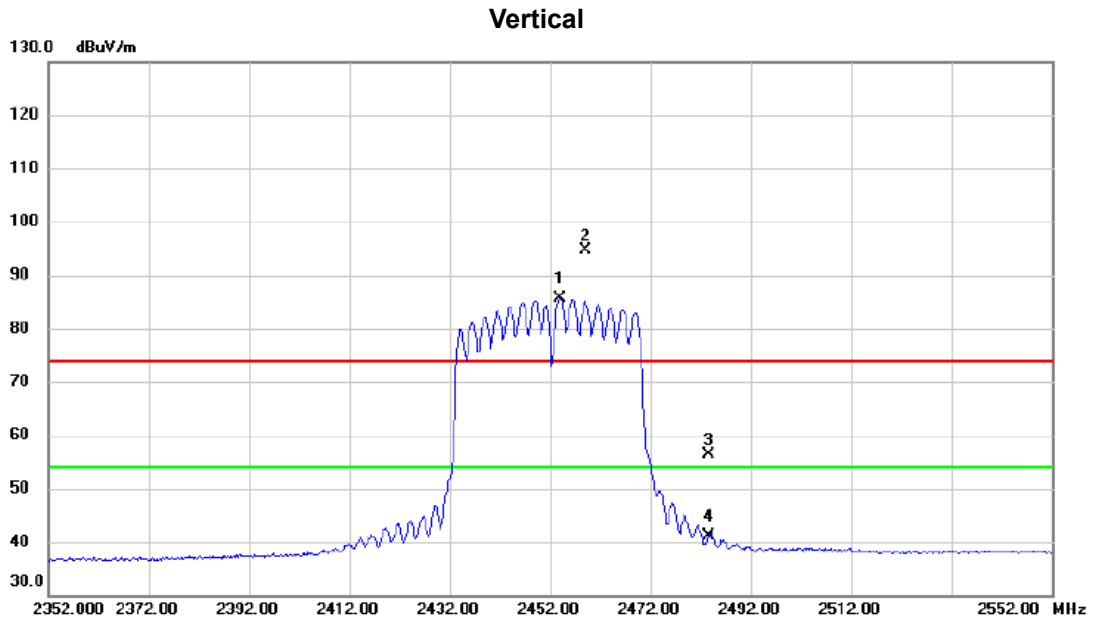


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4894.915	27.69	7.97	35.66	54.00	-18.34	AVG	
2		4895.560	38.31	7.97	46.28	74.00	-27.72	peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz



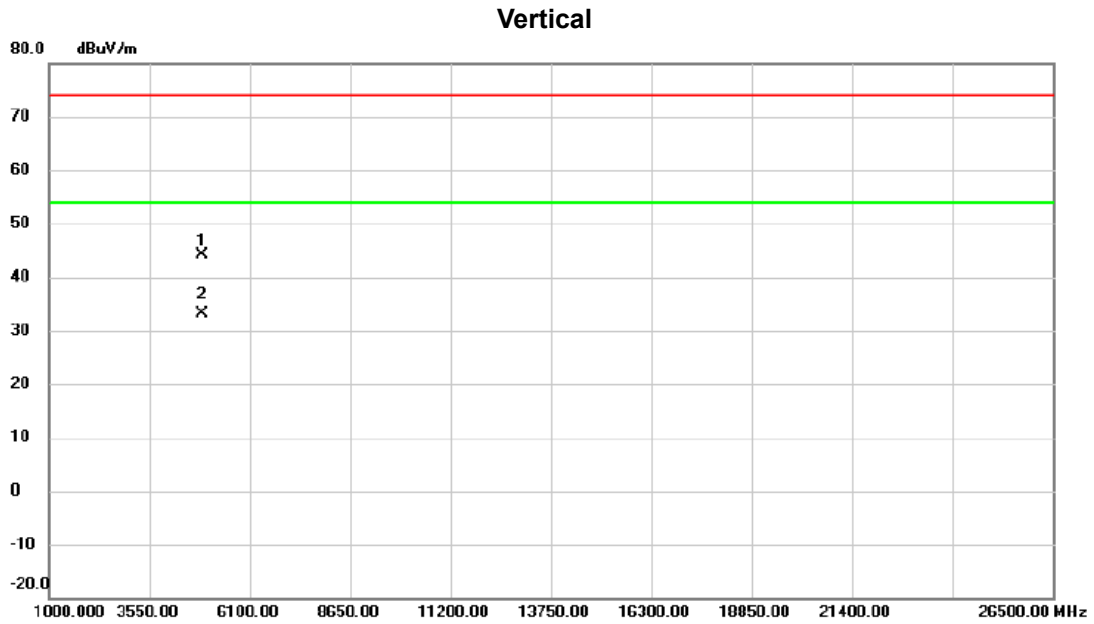
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2454.000	75.48	10.19	85.67	54.00	31.67	AVG	No Limit
2	X	2459.000	84.51	10.20	94.71	74.00	20.71	peak	No Limit
3		2483.500	46.11	10.29	56.40	74.00	-17.60	peak	
4		2483.500	30.86	10.29	41.15	54.00	-12.85	AVG	

REMARKS:

(1) Measurement Value = Reading Level + Correct Factor.

(2) Margin Level = Measurement Value - Limit Value.

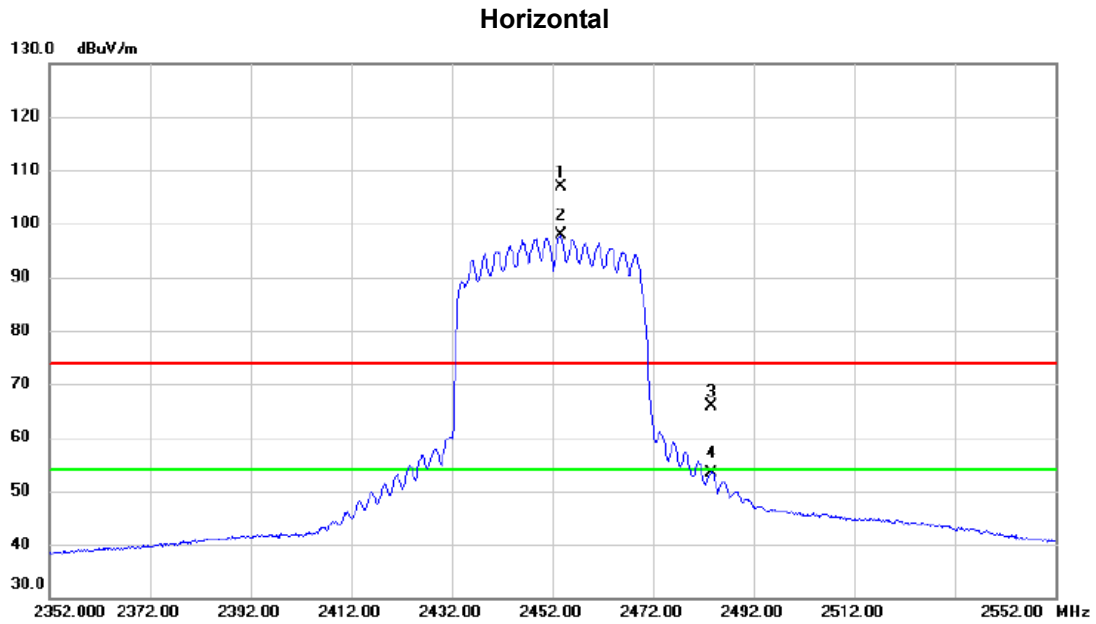
Test Mode: TX N-40M Mode 2452 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		4902.130	36.18	8.00	44.18	74.00	-29.82	peak	
2	*	4903.790	25.21	8.02	33.23	54.00	-20.77	AVG	

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

Test Mode: TX N-40M Mode 2452 MHz

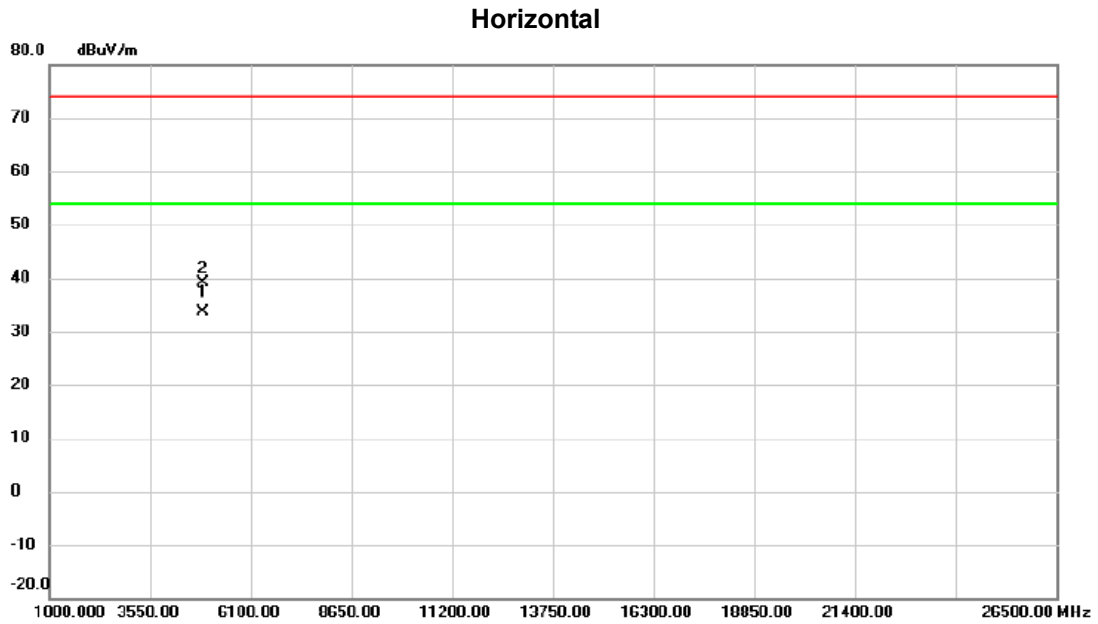


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2453.700	96.76	10.19	106.95	74.00	32.95	peak	No Limit
2	*	2453.800	87.67	10.19	97.86	54.00	43.86	AVG	No Limit
3		2483.500	55.62	10.29	65.91	74.00	-8.09	peak	
4		2483.500	43.02	10.29	53.31	54.00	-0.69	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	4904.645	25.65	8.02	33.67	54.00	-20.33	AVG	
2		4905.275	31.16	8.02	39.18	74.00	-34.82	peak	

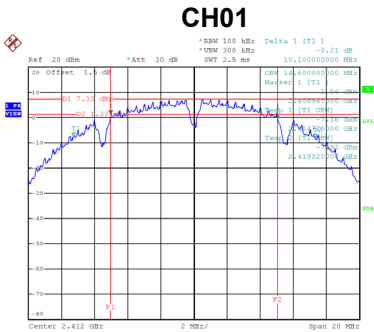
REMARKS:

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

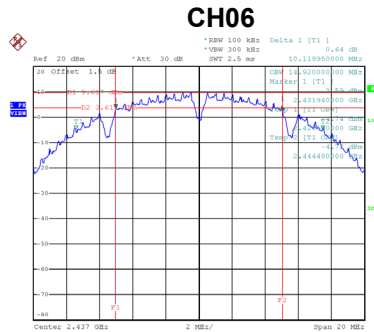
APPENDIX E - BANDWIDTH

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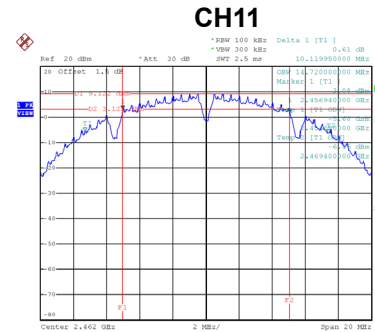
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	10.10	500	Complies
06	2437	10.12	500	Complies
11	2462	10.12	500	Complies



Date: 27_NOV,2019 10:34:18

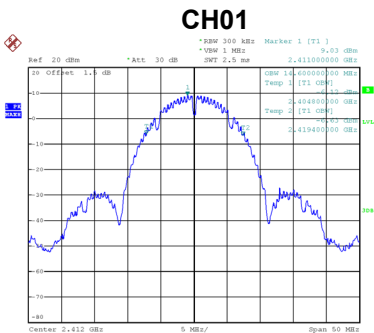


Date: 27_NOV,2019 10:43:23

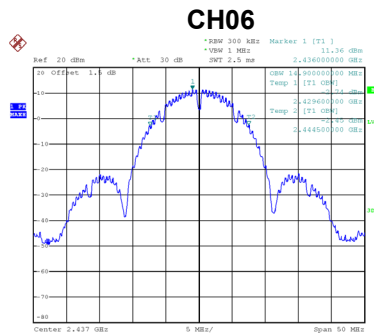


Date: 27_NOV,2019 10:46:15

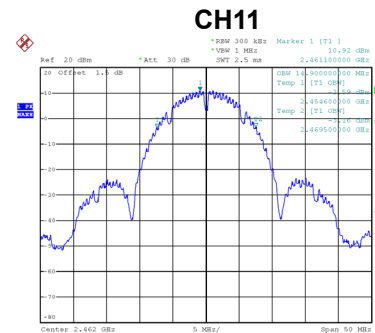
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	14.60	Complies
06	2437	14.90	Complies
11	2462	14.90	Complies



Date: 27_NOV,2019 11:50:32



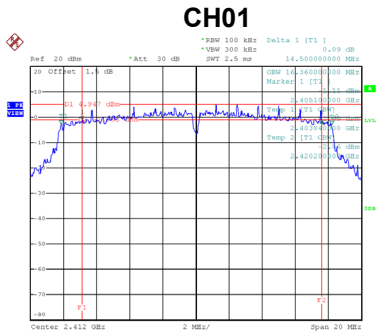
Date: 27_NOV,2019 11:51:11



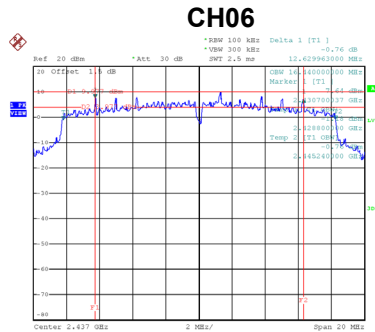
Date: 27_NOV,2019 11:51:51

Test Mode	TX G Mode
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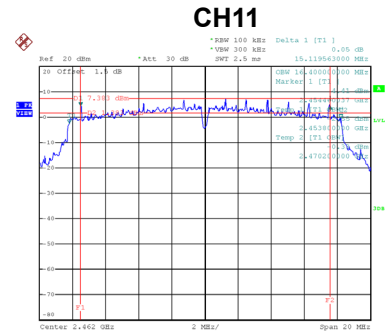
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	14.50	500	Complies
06	2437	12.63	500	Complies
11	2462	15.12	500	Complies



Date: 27_NOV_2019 11:47:35

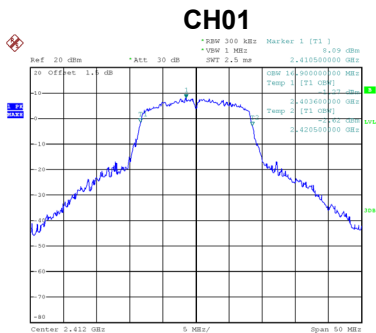


Date: 27_NOV_2019 10:52:46

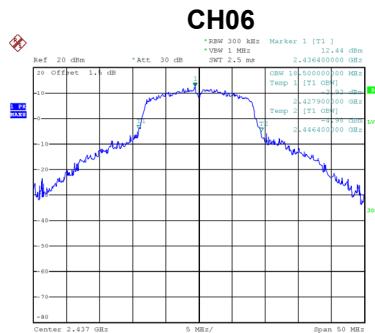


Date: 27_NOV_2019 10:54:07

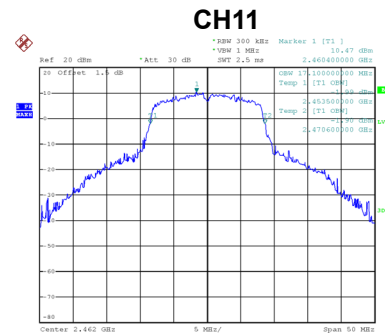
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.90	Complies
06	2437	18.50	Complies
11	2462	17.10	Complies



Date: 27_NOV_2019 11:52:13



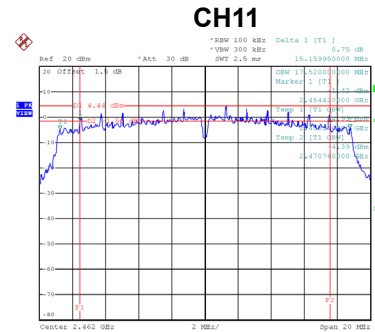
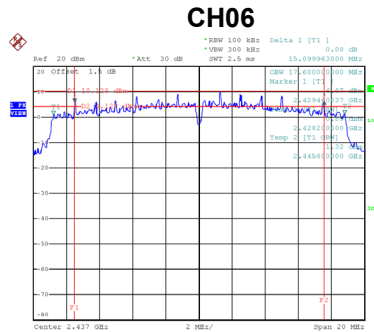
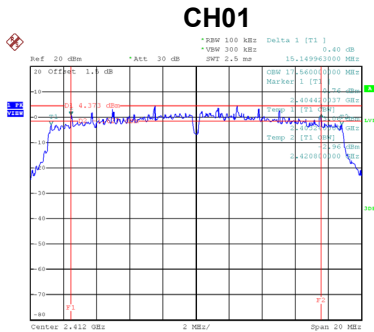
Date: 27_NOV_2019 11:52:35



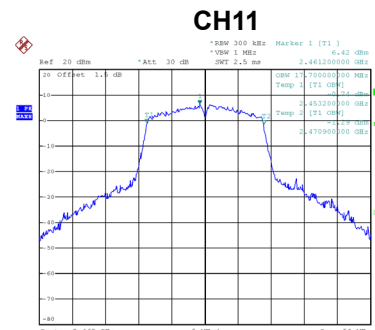
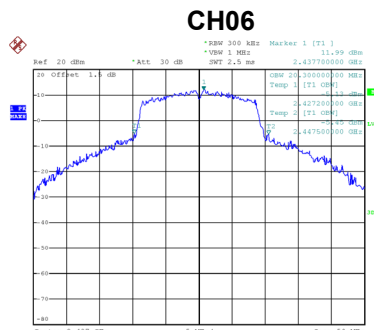
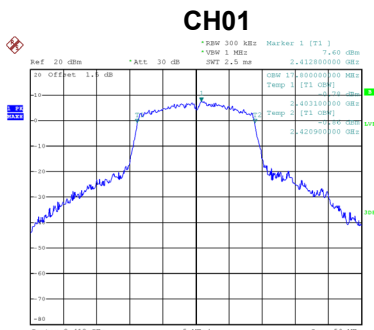
Date: 27_NOV_2019 11:52:53

Test Mode	TX N-20M Mode
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Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.15	500	Complies
06	2437	15.10	500	Complies
11	2462	15.16	500	Complies

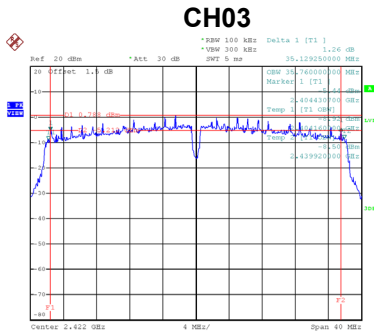


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.80	Complies
06	2437	20.30	Complies
11	2462	17.70	Complies

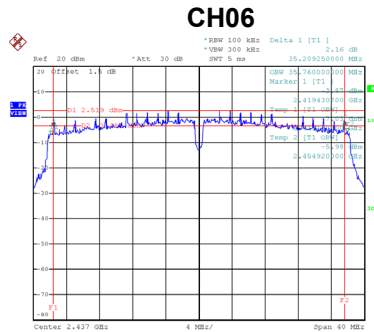


Test Mode	TX N-40M Mode
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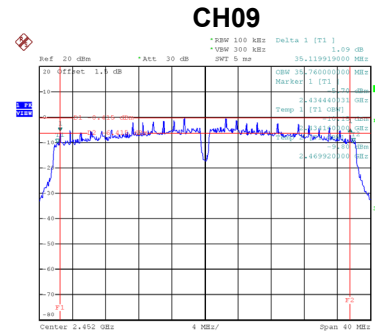
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	35.13	500	Complies
06	2437	35.21	500	Complies
09	2452	35.12	500	Complies



Date: 27_NOV.2019 11:01:27

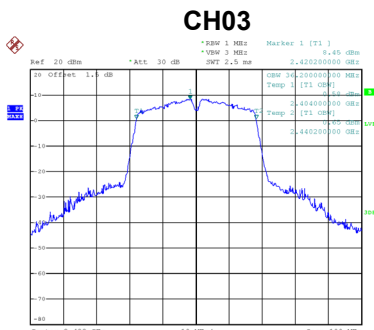


Date: 27_NOV.2019 11:12:21

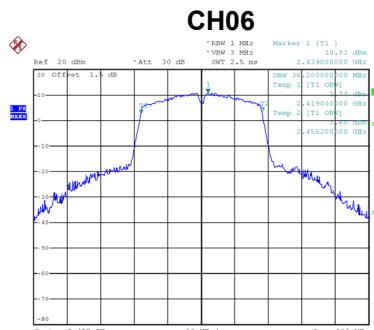


Date: 27_NOV.2019 11:13:40

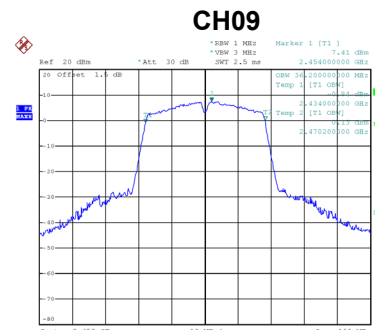
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	36.20	Complies
06	2437	36.20	Complies
09	2452	36.20	Complies



Date: 27_NOV.2019 11:55:15



Date: 27_NOV.2019 11:55:49



Date: 27_NOV.2019 11:56:33

APPENDIX F - MAXIMUM AVERAGE OUTPUT POWER

Test Mode	TX B Mode_Ant. 1
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.55	0.00	19.55	30.00	1.0000	Complies
06	2437	22.79	0.00	22.79	30.00	1.0000	Complies
11	2462	19.82	0.00	19.82	30.00	1.0000	Complies

Test Mode	TX B Mode_Ant. 2
-----------	------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.83	0.00	19.83	30.00	1.0000	Complies
06	2437	22.83	0.00	22.83	30.00	1.0000	Complies
11	2462	20.31	0.00	20.31	30.00	1.0000	Complies

Test Mode	TX B Mode_Total
-----------	-----------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.70	30.00	1.0000	Complies
06	2437	25.82	30.00	1.0000	Complies
11	2462	23.08	30.00	1.0000	Complies

Test Mode	TX G Mode_Ant. 1
-----------	------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.03	0.47	16.50	30.00	1.0000	Complies
06	2437	19.97	0.47	20.44	30.00	1.0000	Complies
11	2462	18.02	0.47	18.49	30.00	1.0000	Complies

Test Mode	TX G Mode_Ant. 2
-----------	------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.36	0.47	16.83	30.00	1.0000	Complies
06	2437	19.89	0.47	20.36	30.00	1.0000	Complies
11	2462	17.89	0.47	18.36	30.00	1.0000	Complies

Test Mode	TX G Mode_Total
-----------	-----------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.68	30.00	1.0000	Complies
06	2437	23.41	30.00	1.0000	Complies
11	2462	21.44	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 1
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.29	0.37	15.66	30.00	1.0000	Complies
06	2437	19.99	0.37	20.36	30.00	1.0000	Complies
11	2462	14.16	0.37	14.53	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 2
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.72	0.37	16.09	30.00	1.0000	Complies
06	2437	19.85	0.37	20.22	30.00	1.0000	Complies
11	2462	14.19	0.37	14.56	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Total
-----------	---------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.89	30.00	1.0000	Complies
06	2437	23.30	30.00	1.0000	Complies
11	2462	17.55	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 1
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.18	0.78	13.96	30.00	1.0000	Complies
06	2437	15.63	0.78	16.41	30.00	1.0000	Complies
09	2452	11.93	0.78	12.71	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 2
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Channel	Frequency (MHz)	Avg Output Power (dBm)	Duty Factor	Avg Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.34	0.78	14.12	30.00	1.0000	Complies
06	2437	15.38	0.78	16.16	30.00	1.0000	Complies
09	2452	11.89	0.78	12.67	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Total
-----------	---------------------

Channel	Frequency (MHz)	Avg Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	17.05	30.00	1.0000	Complies
06	2437	19.30	30.00	1.0000	Complies
09	2452	15.70	30.00	1.0000	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS