

FCC Radio Test Report

FCC ID: TE7T3UPLUS

This report concerns: Original Grant

Project No. : 1912C088
Equipment : AC1300 High Gain Wireless Dual Band USB Adapter
Brand Name : tp-link
Test Model : Archer T3U Plus
Series Model : N/A
Applicant : TP-Link Technologies Co., Ltd.
Address : Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
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 : Dec. 12, 2019
Date of Test : Jan. 06, 2020 ~ Mar. 18, 2020
Issued Date : Mar. 30, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG20200106104 for conducted, DG20200106105 for radiated.
Standard(s) : FCC Part15, Subpart C (15.247)
ANSI C63.10-2013
FCC KDB 558074 D01 15.247 Meas Guidance v05r02

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

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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.	Mar. 30, 2020

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.247)				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	-----
15.247(b)(3)	Maximum 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. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

B. Radiated emissions test:

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

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

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
AC Power Line Conducted Emissions	25°C	53%	AC 120V/60Hz	Sheldon Ou
Radiated Emissions-9K-30MHz	25°C	60%	DC 5V	Sheldon Ou
Radiated Emissions-30 MHz to 1GHz	25°C	60%	DC 5V	Sheldon Ou
Radiated Emissions-Above 1000 MHz	25°C	60%	DC 5V	Sheldon Ou
Bandwidth	24°C	52%	DC 5V	Hayden Chen
Maximum Average Output Power	24°C	52%	DC 5V	Laughing Zhang
Conducted Spurious Emissions	24°C	52%	DC 5V	Hayden Chen
Power Spectral Density	24°C	52%	DC 5V	Hayden Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC1300 High Gain Wireless Dual Band USB Adapter
Brand Name	tp-link
Test Model	Archer T3U Plus
Series Model	N/A
Model Difference(s)	N/A
Power Source	Supplied from USB port.
Power Rating	DC 5V
Operation Frequency	2412 MHz ~ 2462 MHz
Modulation Type	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: OFDM
Bit Rate of Transmitter	IEEE 802.11b: 11/5.5/2/1 Mbps IEEE 802.11g: 54/48/36/24/18/12/9/6 Mbps IEEE 802.11n: up to 300 Mbps
Maximum Average Output Power	IEEE 802.11b: 15.98 dBm (0.0396 W) IEEE 802.11g: 15.63 dBm (0.0366 W) IEEE 802.11n (HT20): 16.64 dBm (0.0461 W) IEEE 802.11n (HT40): 16.83 dBm (0.0482 W)



Note:

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

2. Channel List:

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

3. Antenna Specification:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1		3101502885	Dipole	N/A	1.25
2		3101502885	Dipole	N/A	2.00

Note:

This EUT supports CDD, and antenna gains are not equal, so Directional gain = $10\log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N]$ dBi, that is directional gain = $10\log[(10^{1.25/20} + 10^{2.00/20})^2 / 2]$ dBi = 4.64.

4. Table for Antenna Configuration:

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

2.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09
Mode 5	TX N-40 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) was (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test	
Final Test Mode:	Description
Mode 5	TX N-40 Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode:	Description
Mode 5	TX N-40 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 TX N-40 MHz 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	MP_Kit_RTL11ac_8822BU_USB_v5.05		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	40	39	40
IEEE 802.11g	45	45	45
IEEE 802.11n (HT20)	42	42	43
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	49	42	37

2.4 DUTY CYCLE

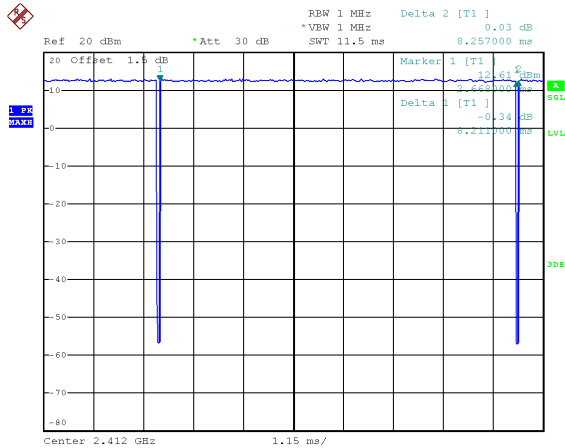
If duty cycle is $\geq 98\%$, duty factor is not required.

If duty cycle is $< 98\%$, duty factor shall be considered.

The output power = measured power + duty factor.

The power spectral density = measured power spectral density + duty factor.

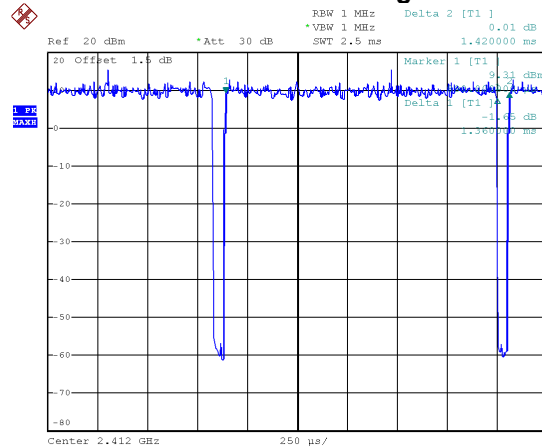
IEEE 802.11b



Date: 9.JAN.2020 20:58:10

Duty cycle = 8.211 ms / 8.257 ms = 99.44%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$

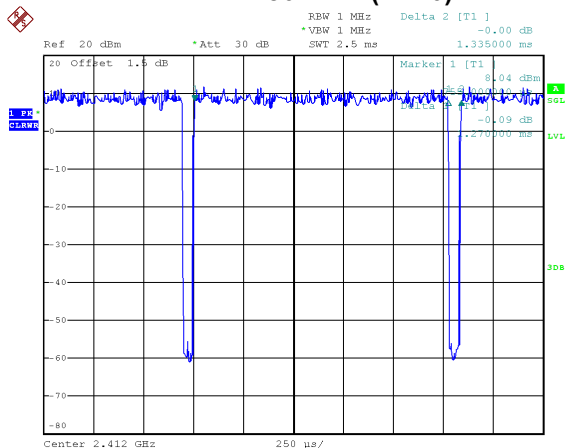
IEEE 802.11g



Date: 9.JAN.2020 20:58:27

Duty cycle = 1.360 ms / 1.420 ms = 95.77%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.19$

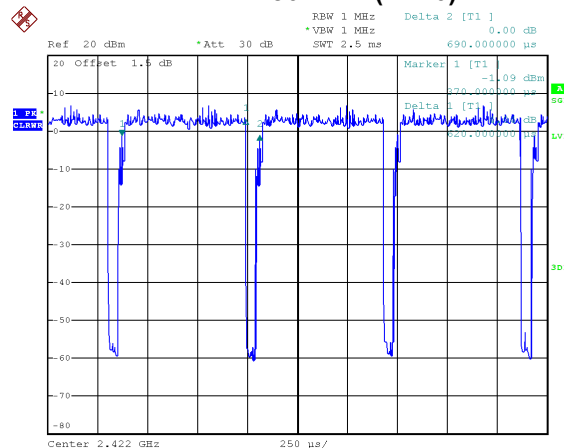
IEEE 802.11n (HT20)



Date: 9.JAN.2020 20:58:43

Duty cycle = 1.270 ms / 1.335 ms = 95.13%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.22$

IEEE 802.11n (HT40)



Date: 9.JAN.2020 20:58:55

Duty cycle = 0.620 ms / 0.690 ms = 89.86%
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.46$

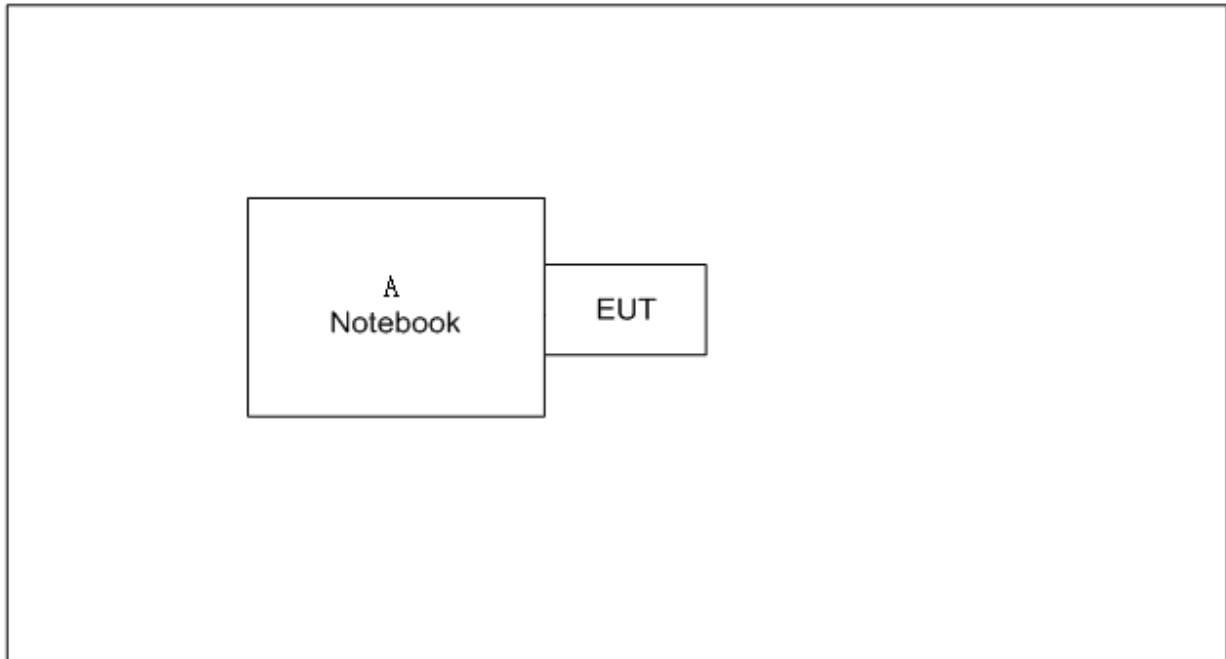
NOTE:

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	Lenovo	G410	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
-	-	-	-	-

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

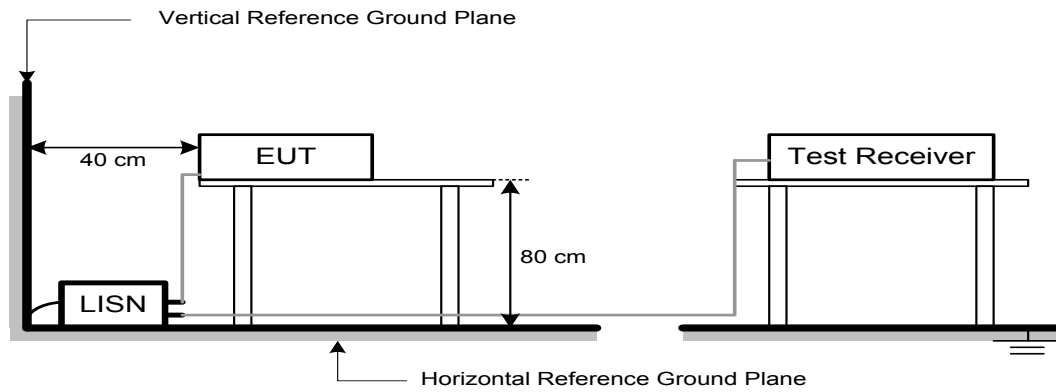
3.2 TEST PROCEDURE

- 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

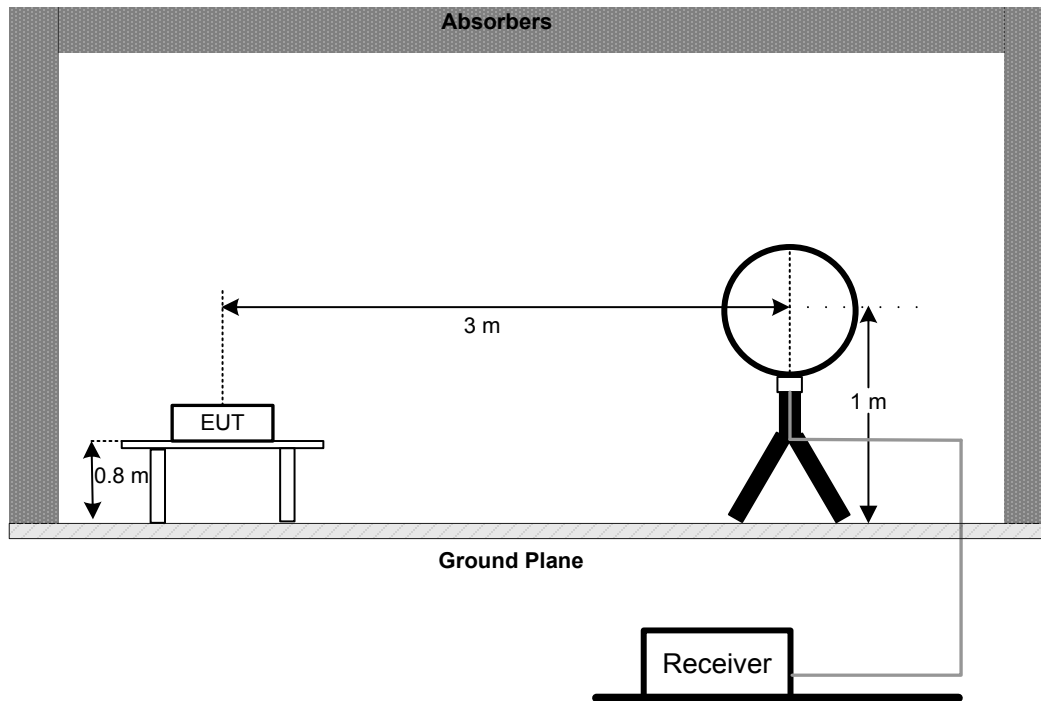
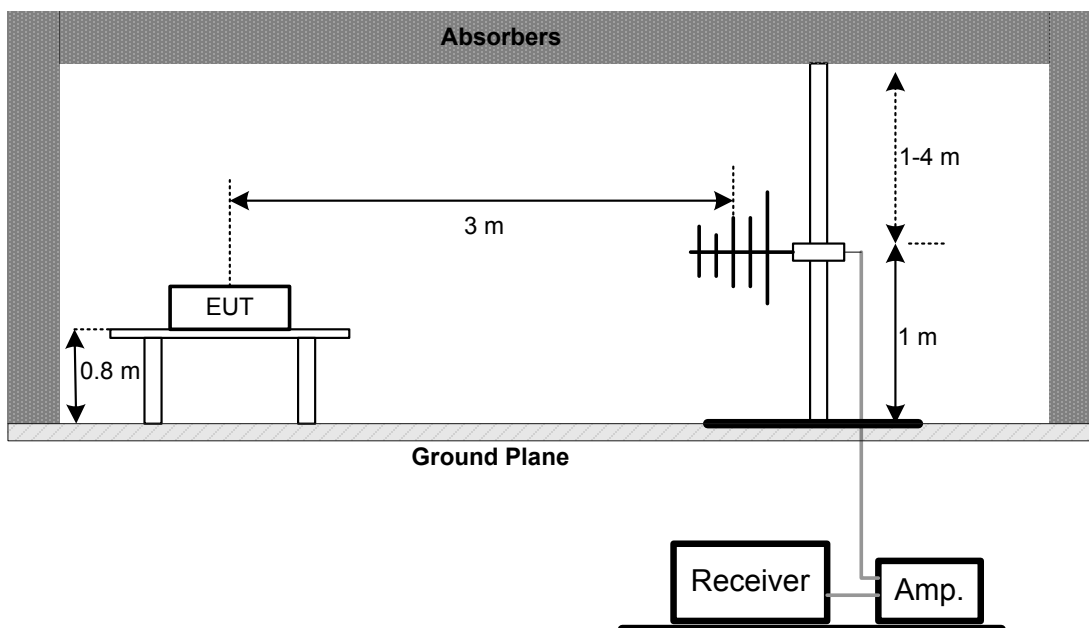
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000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

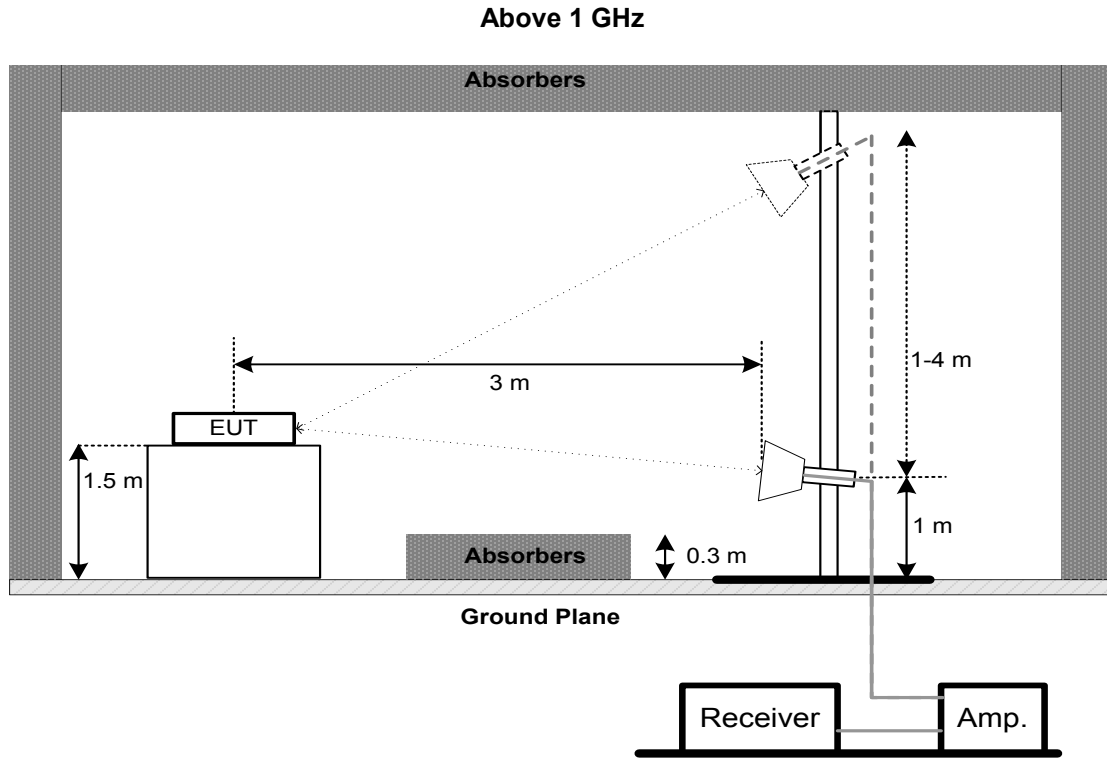
4.2 TEST PROCEDURE

- 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	-

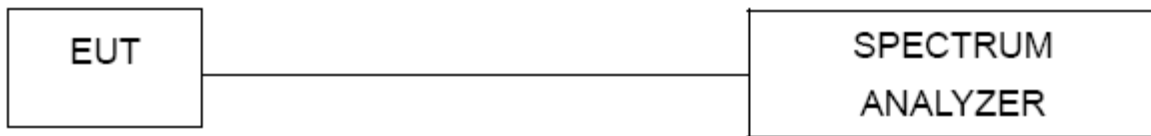
5.2 TEST PROCEDURE

- 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.

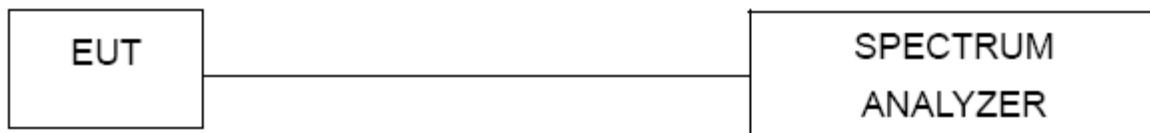
7.2 TEST PROCEDURE

- 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 APPENDIXG.

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)

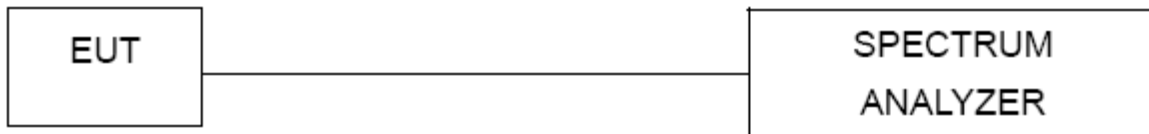
8.2 TEST PROCEDURE

- 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	Feb. 28, 2021
2	LISN	EMCO	3816/2	52765	Mar. 01, 2021
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	May 19, 2020
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 01, 2021
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 10, 2021

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1*	Loop Antenna	EM	EM-6876-1	230	Jan. 15, 2022
2	Cable	N/A	RG 213/U	C-102	May 31, 2020
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 28, 2021
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3231	Apr. 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	75846	Apr. 09, 2020
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020
4	Microwave Pre-amplifier 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

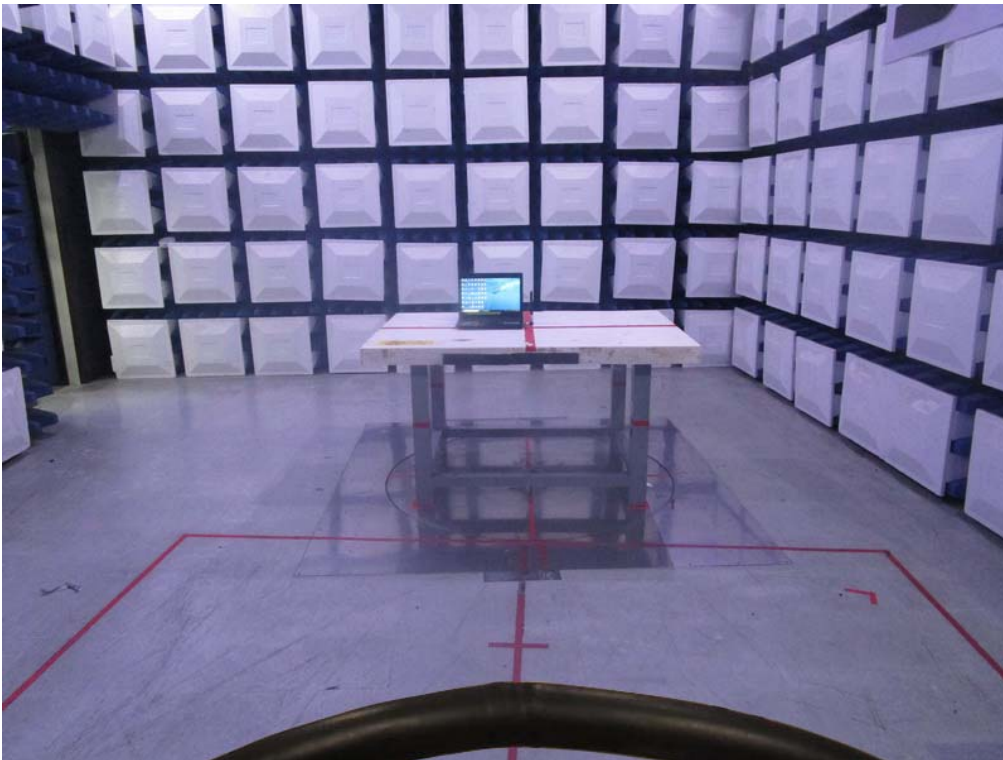
Maximum Average Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 03, 2020
2	Wideband power sensor	Keysight	N1923A	MY58310004	Aug. 03, 2020

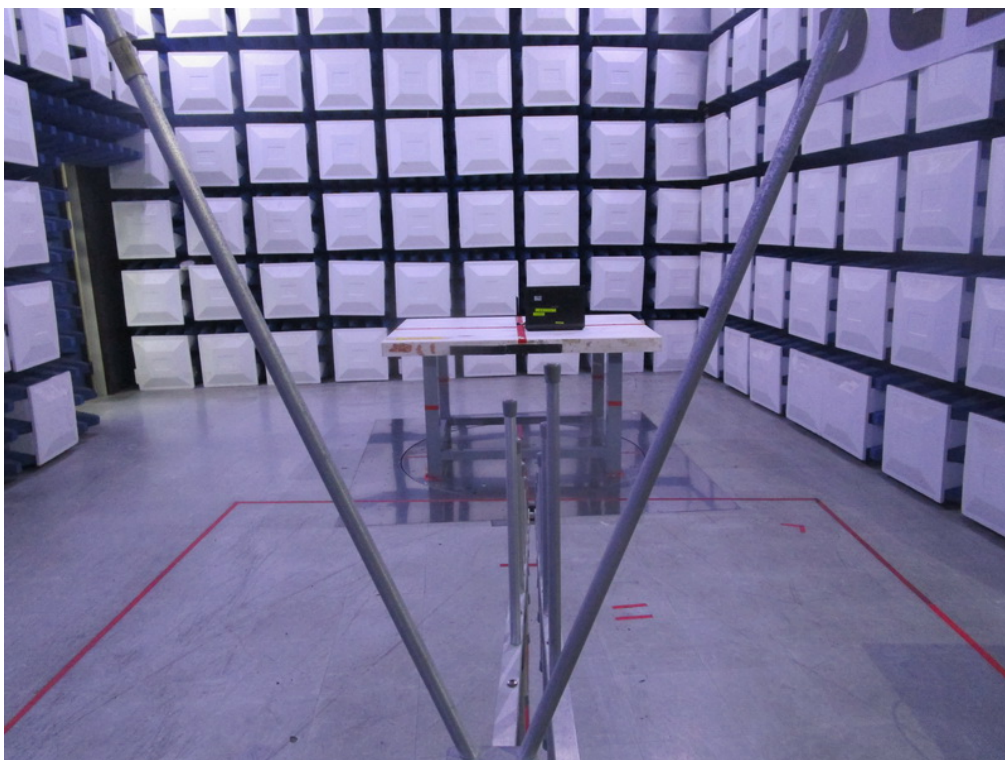
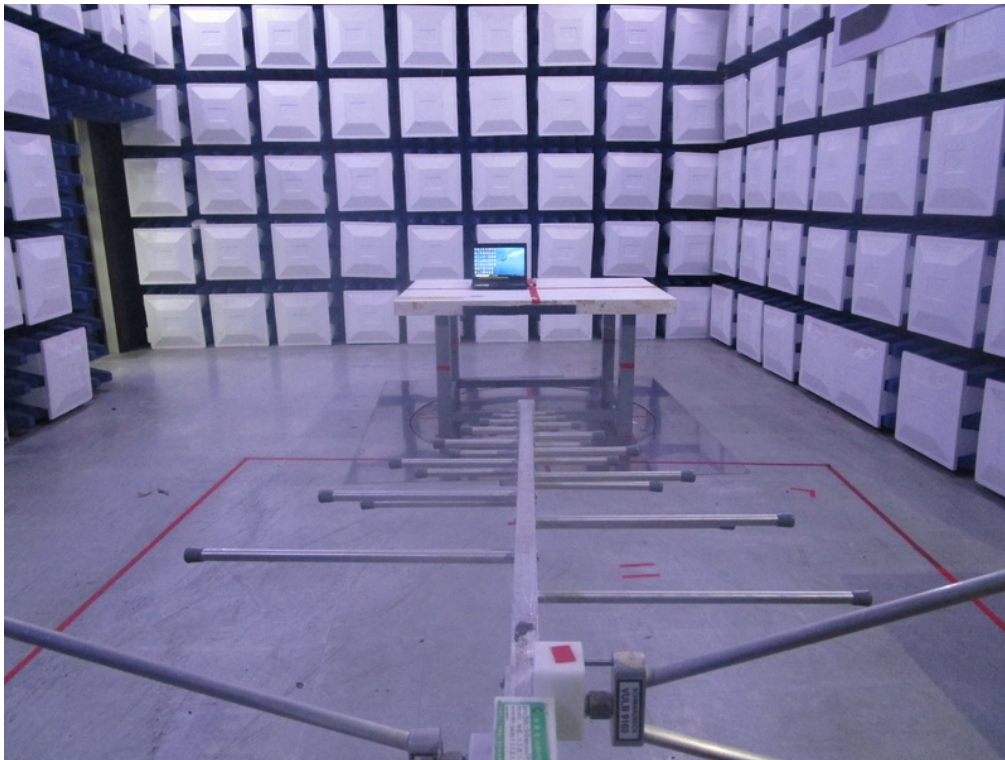
Remark: "N/A" denotes no model name, serial no. or calibration specified.

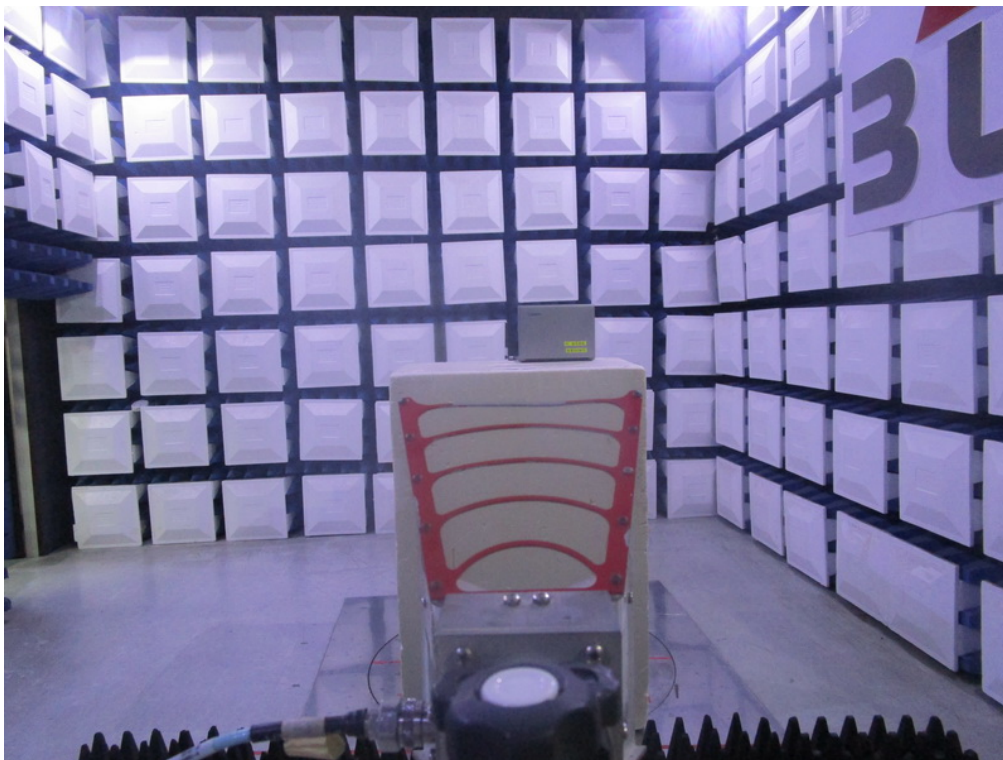
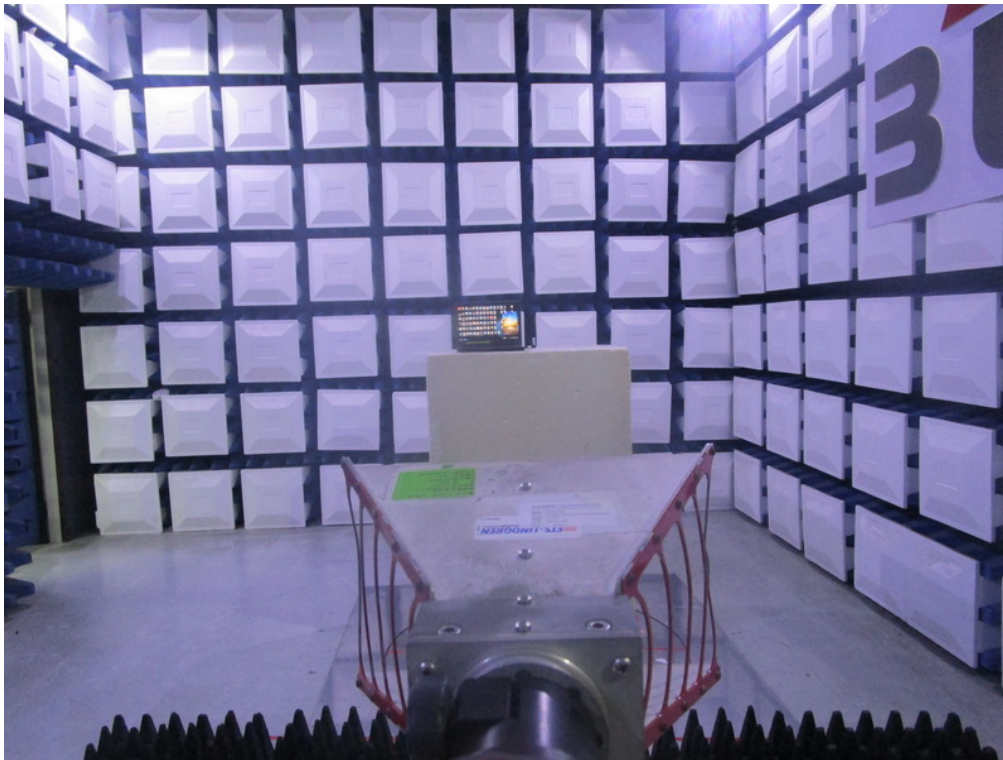
"**" calibration period of equipment list is three year.

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**

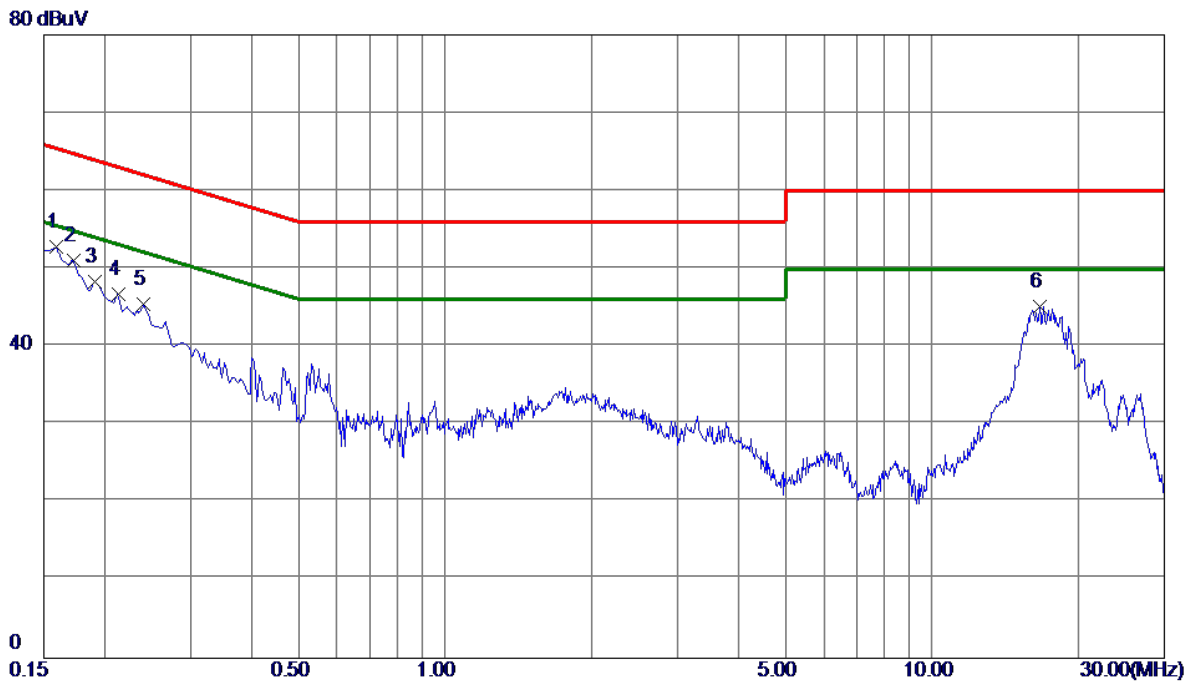
Radiated Emissions Test Photos**30 MHz to 1 GHz**

Radiated Emissions Test Photos**Above 1 GHz**

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode: TX N-40M Mode Channel 06

Line



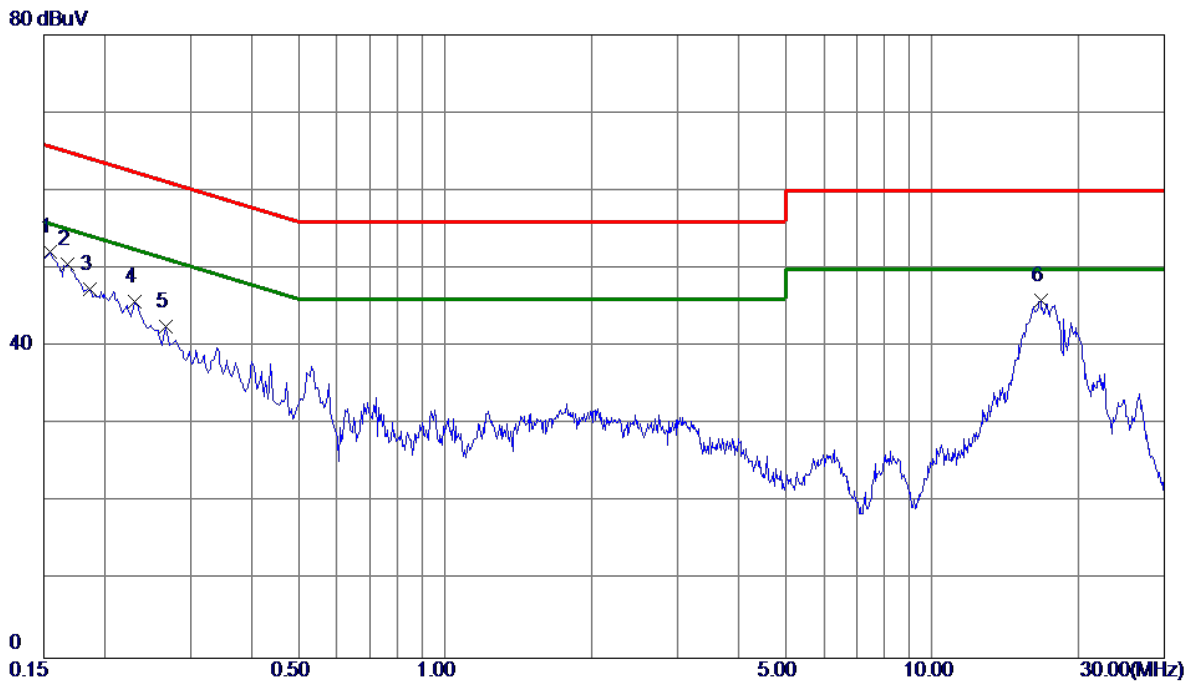
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1590	42.98	9.82	52.80	65.52	-12.72	Peak	
2	0.1725	41.30	9.82	51.12	64.84	-13.72	Peak	
3	0.1905	38.58	9.81	48.39	64.01	-15.62	Peak	
4	0.2130	36.87	9.81	46.68	63.09	-16.41	Peak	
5	0.2404	35.65	9.82	45.47	62.08	-16.61	Peak	
6	16.6380	34.28	10.89	45.17	60.00	-14.83	Peak	

REMARKS:

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

Test Mode: TX N-40M Mode Channel 06

Neutral



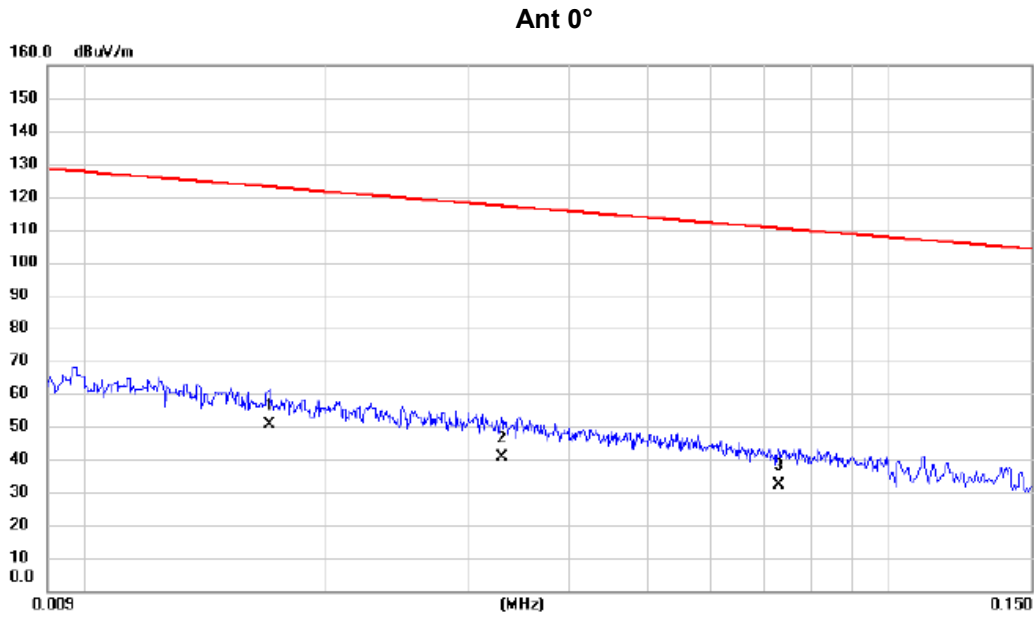
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1544	42.26	9.91	52.17	65.76	-13.59	Peak	
2	0.1680	40.70	9.91	50.61	65.06	-14.45	Peak	
3	0.1862	37.42	9.90	47.32	64.20	-16.88	Peak	
4	0.2310	35.88	9.92	45.80	62.41	-16.61	Peak	
5	0.2670	32.60	9.94	42.54	61.21	-18.67	Peak	
6	16.7235	34.72	11.22	45.94	60.00	-14.06	Peak	

REMARKS:

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX N-40M Mode Channel 06



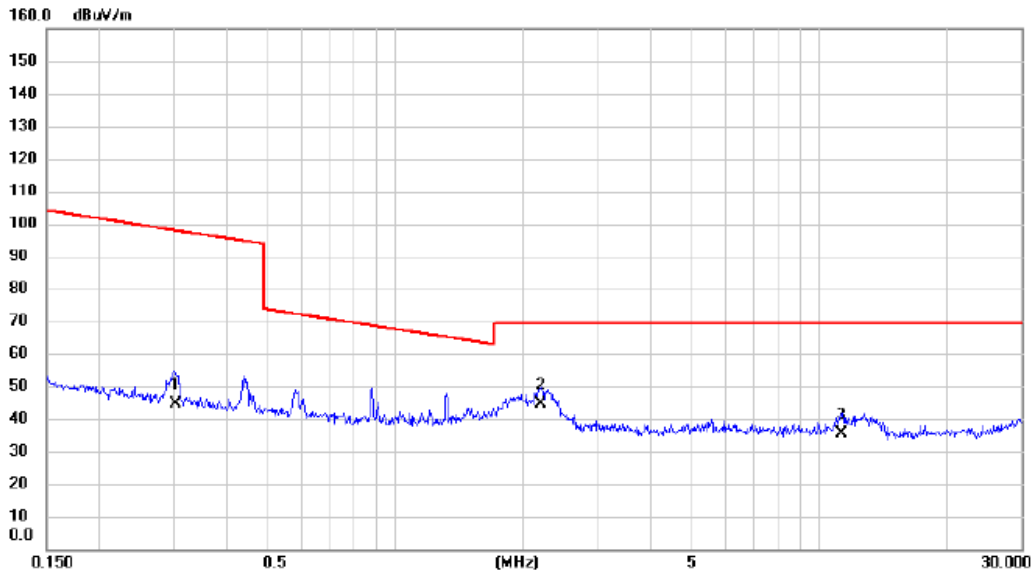
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	0.0170	35.73	14.72	50.45	123.00	-72.55	AVG	
2		0.0330	26.90	13.87	40.77	117.23	-76.46	AVG	
3		0.0728	18.50	13.57	32.07	110.36	-78.29	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode Channel 06

Ant 0°

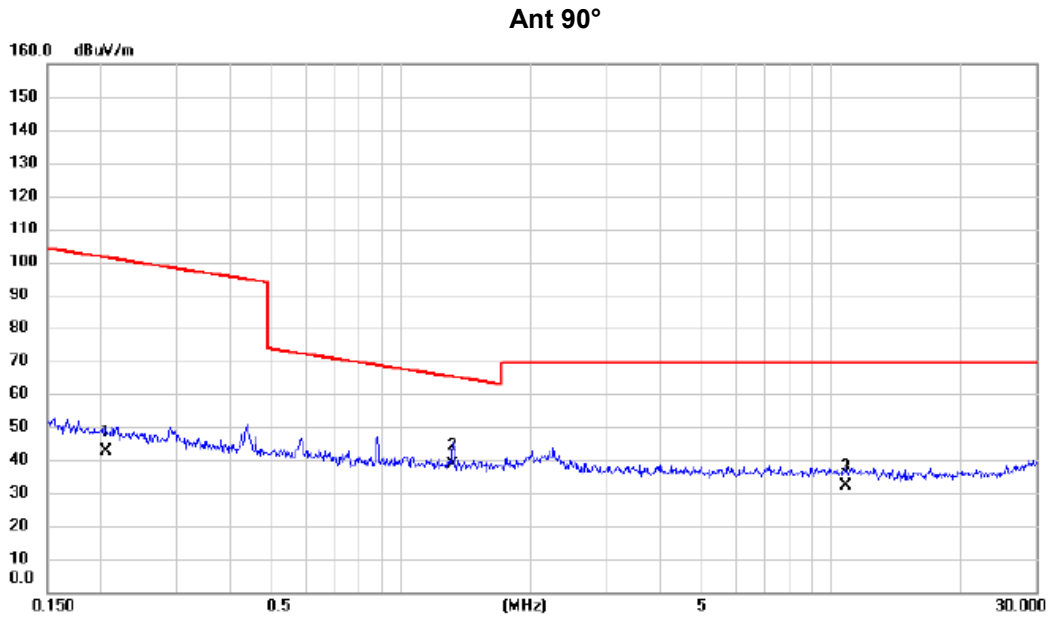


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.3020	30.90	13.54	44.44	98.01	-53.57	AVG	
2 *	2.2015	33.10	11.70	44.80	69.54	-24.74	QP	
3	11.3170	23.80	11.61	35.41	69.54	-34.13	QP	

REMARKS:

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

Test Mode: TX N-40M Mode Channel 06



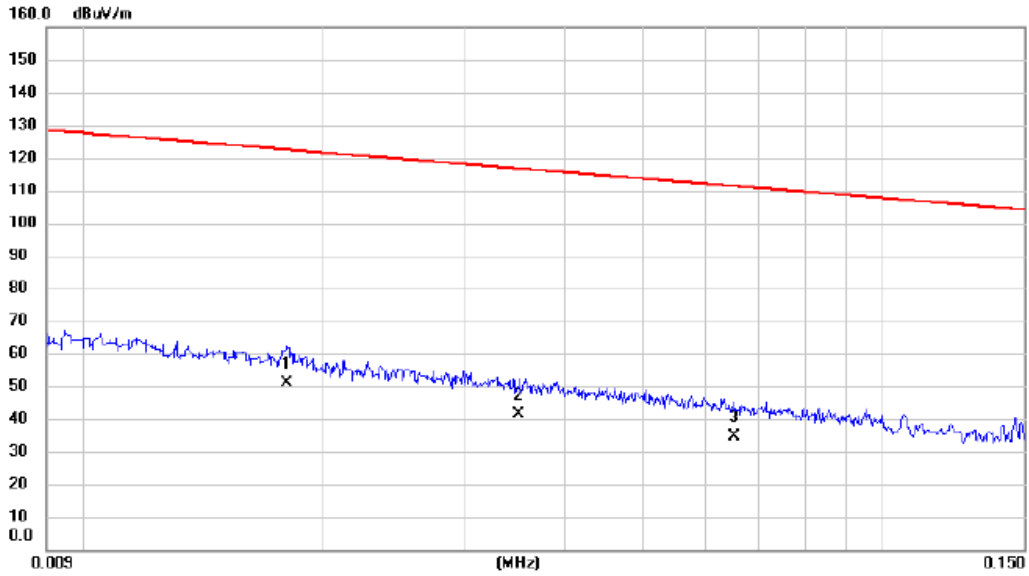
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.2061	29.10	13.62	42.72	101.32	-58.60	AVG	
2 *	1.3168	26.40	12.28	38.68	65.21	-26.53	QP	
3	10.7900	20.70	11.62	32.32	69.54	-37.22	QP	

REMARKS:

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

Test Mode: TX N-40M Mode Channel 06

Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	0.0180	36.50	14.42	50.92	122.50	-71.58	AVG	
2		0.0350	27.70	13.88	41.58	116.72	-75.14	AVG	
3		0.0652	20.80	13.69	34.49	111.32	-76.83	AVG	

REMARKS:

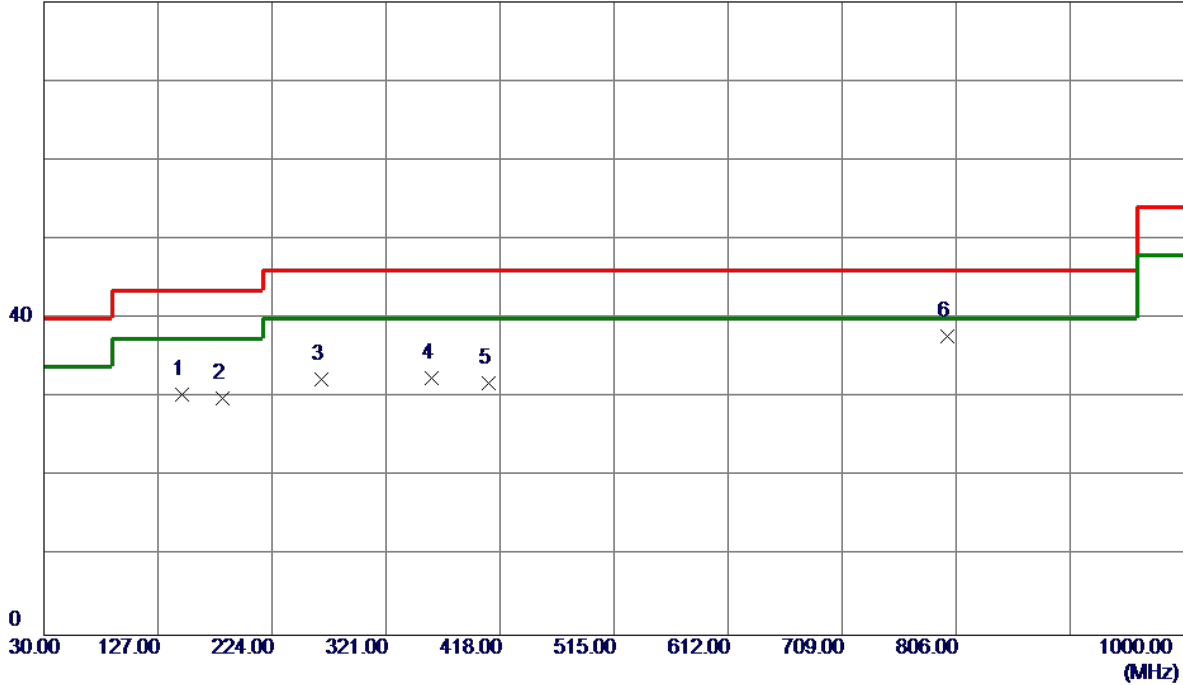
- (1) Measurement Value = Reading Level + Correct Factor.
- (2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: TX N-40M Mode Channel 06

Vertical

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	147.3700	35.90	-5.56	30.34	43.50	-13.16	Peak	
2	181.8049	37.15	-7.22	29.93	43.50	-13.57	Peak	
3	265.7100	37.99	-5.73	32.26	46.00	-13.74	Peak	
4	359.8000	35.45	-2.99	32.46	46.00	-13.54	Peak	
5	407.8150	33.46	-1.56	31.90	46.00	-14.10	Peak	
6 *	798.7250	31.99	5.79	37.78	46.00	-8.22	Peak	

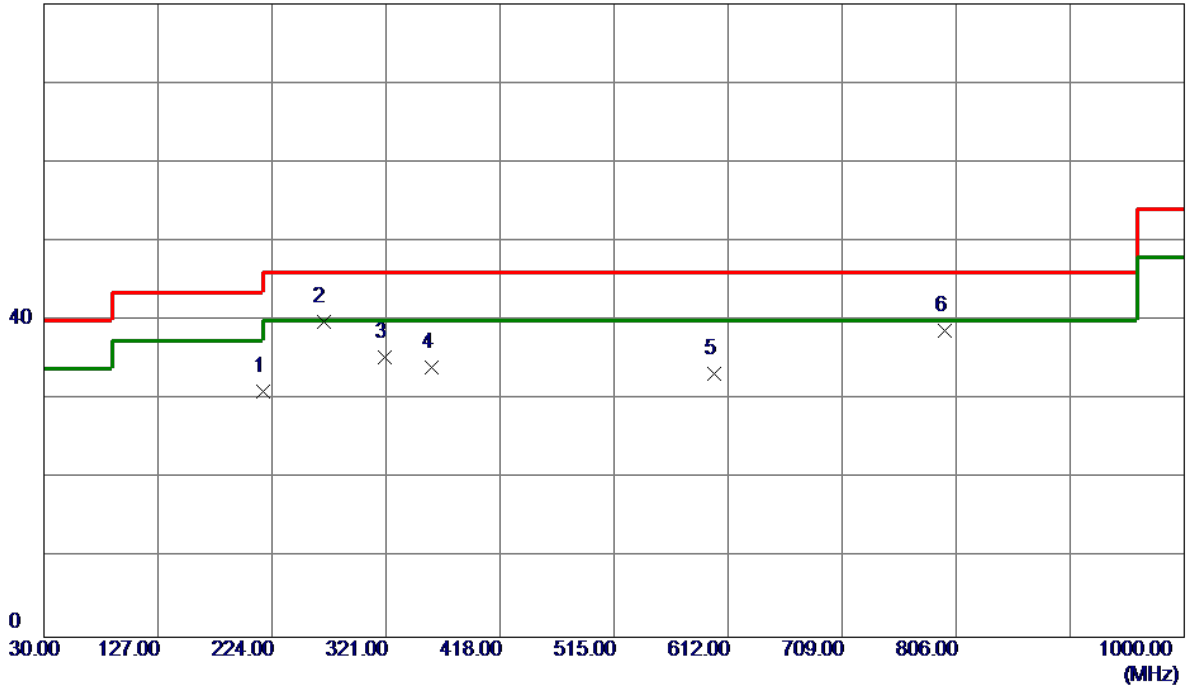
REMARKS:

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

Test Mode: TX N-40M 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	216.2400	38.79	-7.71	31.08	46.00	-14.92	Peak	
2 *	267.6500	45.44	-5.64	39.80	46.00	-6.20	Peak	
3	320.0300	39.42	-4.03	35.39	46.00	-10.61	Peak	
4	359.8000	37.01	-2.99	34.02	46.00	-11.98	Peak	
5	599.8750	30.55	2.70	33.25	46.00	-12.75	Peak	
6	796.3000	32.97	5.77	38.74	46.00	-7.26	Peak	

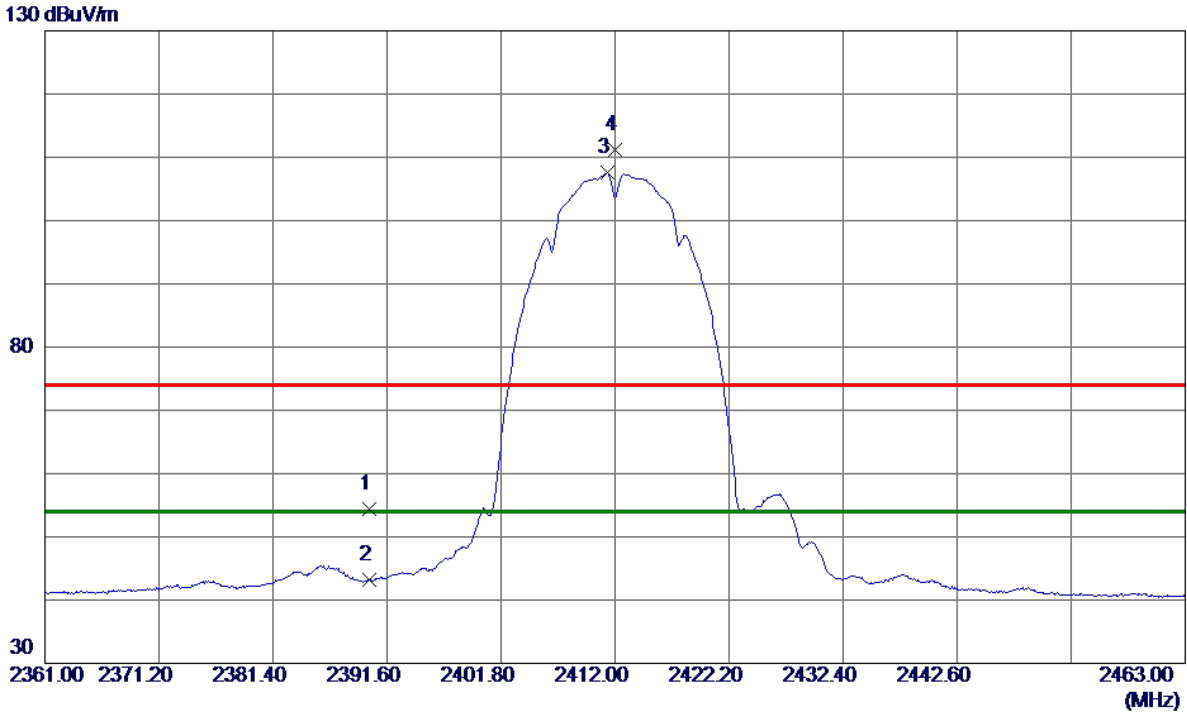
REMARKS:

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

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Test Mode: TX B Mode 2412 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	44.47	9.95	54.42	74.00	-19.58	Peak	
2	2390.0000	33.23	9.95	43.18	54.00	-10.82	AVG	
3 *	2411.2860	97.49	10.03	107.52	54.00	53.52	AVG	No Limit
4	2412.0000	101.21	10.03	111.24	74.00	37.24	Peak	No Limit

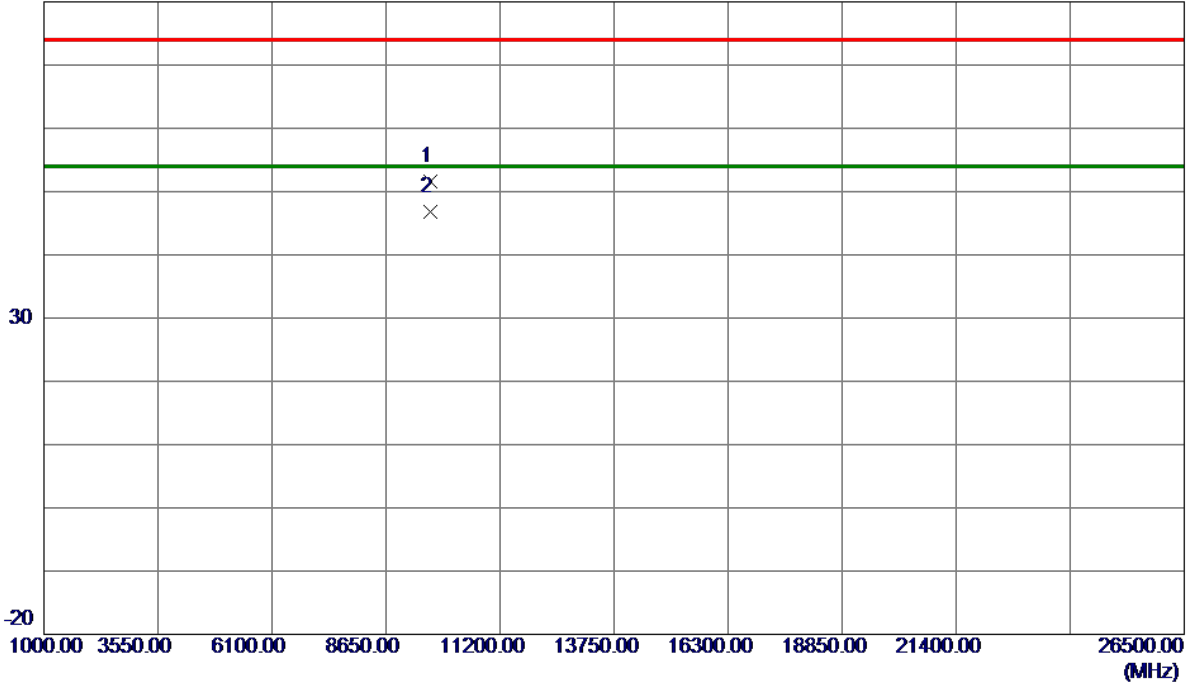
REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Vertical

80 dBuV/m



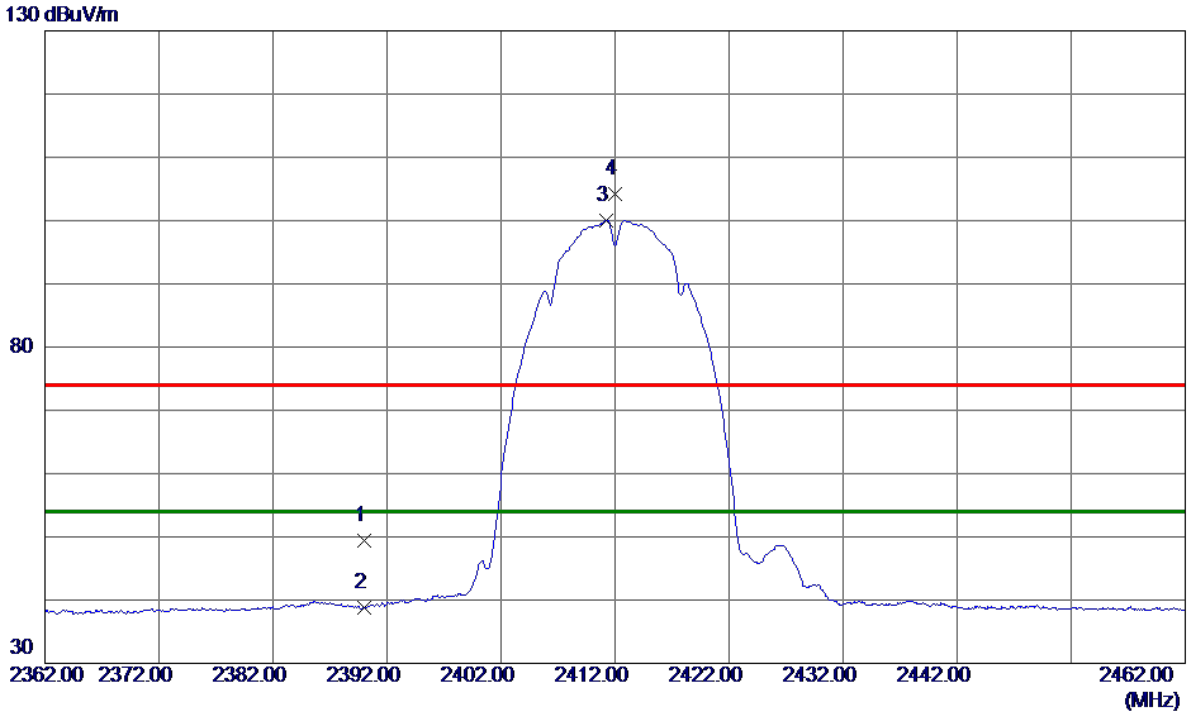
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9648.0850	38.49	13.02	51.51	74.00	-22.49	Peak	
2 *	9648.1010	33.81	13.02	46.83	54.00	-7.17	AVG	

REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	39.47	9.95	49.42	74.00	-24.58	Peak	
2	2390.0000	28.92	9.95	38.87	54.00	-15.13	AVG	
3 *	2411.2500	90.06	10.03	100.09	54.00	46.09	AVG	No Limit
4	2412.0500	94.16	10.03	104.19	74.00	30.19	Peak	No Limit

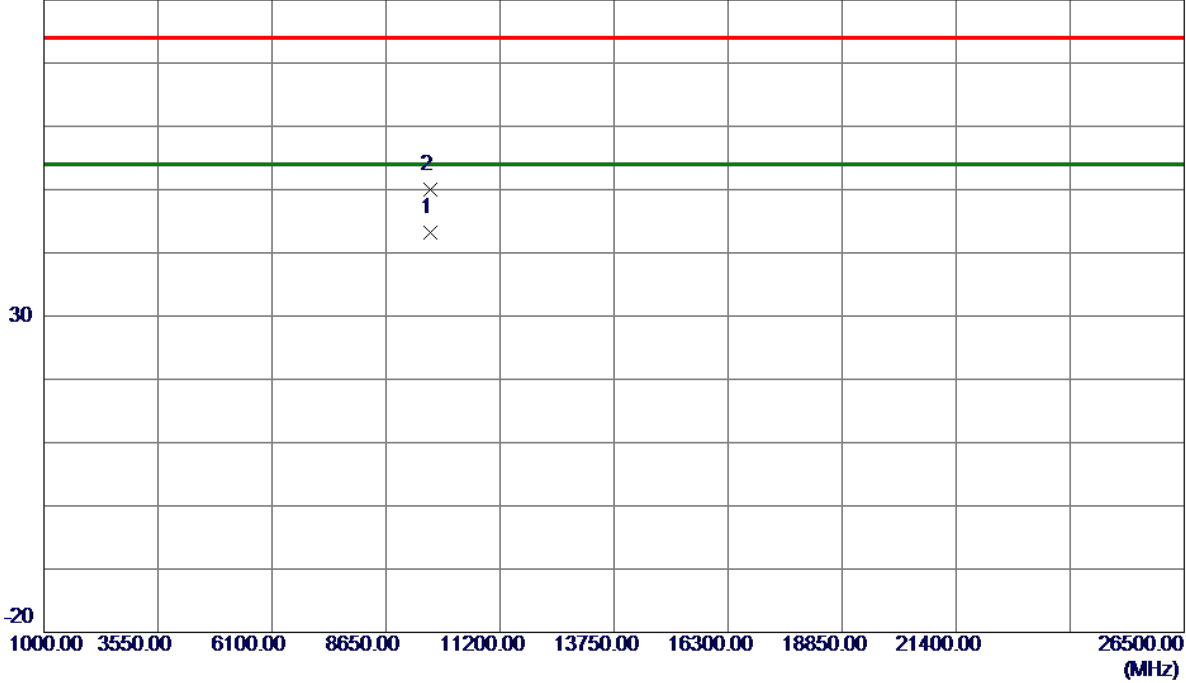
REMARKS:

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

Test Mode: TX B Mode 2412 MHz

Horizontal

80 dBuV/m



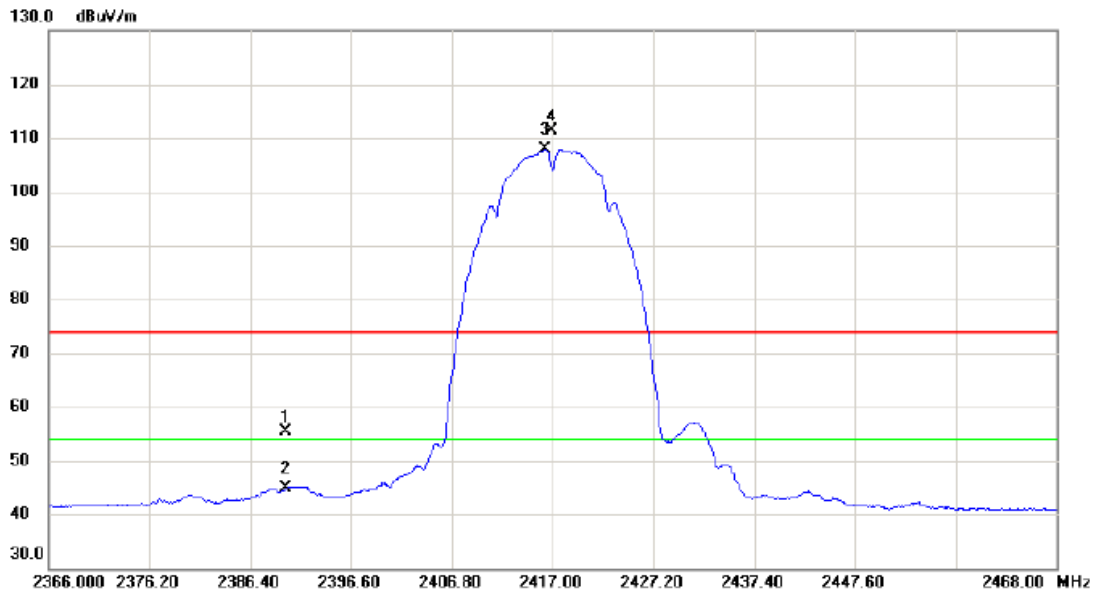
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9648.0870	30.20	13.02	43.22	54.00	-10.78	AVG	
2	9648.2900	37.04	13.02	50.06	74.00	-23.94	Peak	

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Vertical



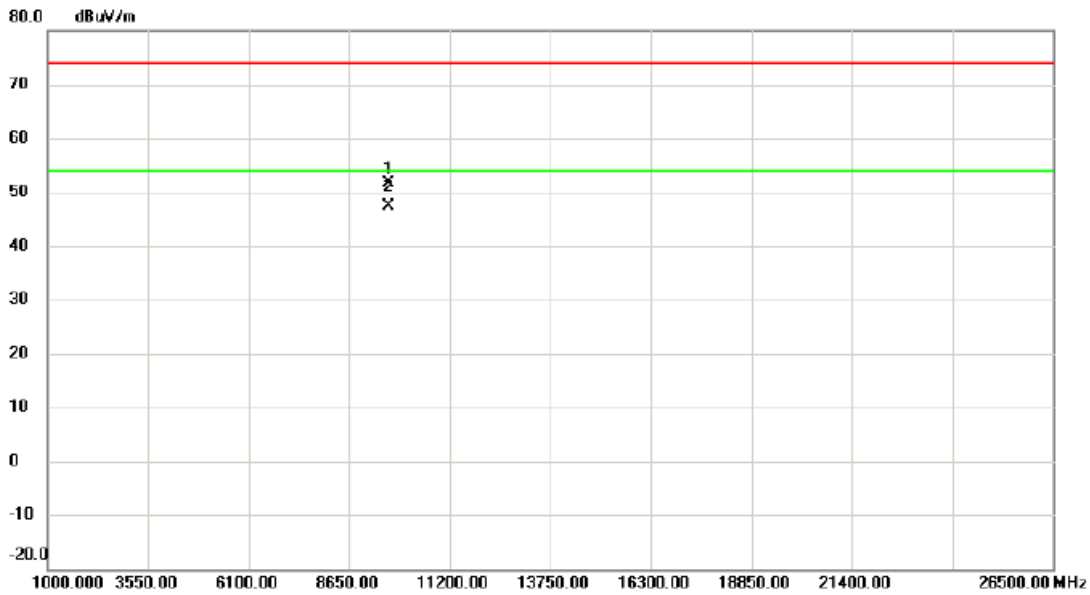
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	45.47	9.95	55.42	74.00	-18.58	peak	
2		2390.000	34.87	9.95	44.82	54.00	-9.18	AVG	
3	*	2416.235	97.85	10.05	107.90	54.00	53.90	AVG	No Limit
4	X	2416.898	101.35	10.05	111.40	74.00	37.40	peak	No Limit

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Vertical



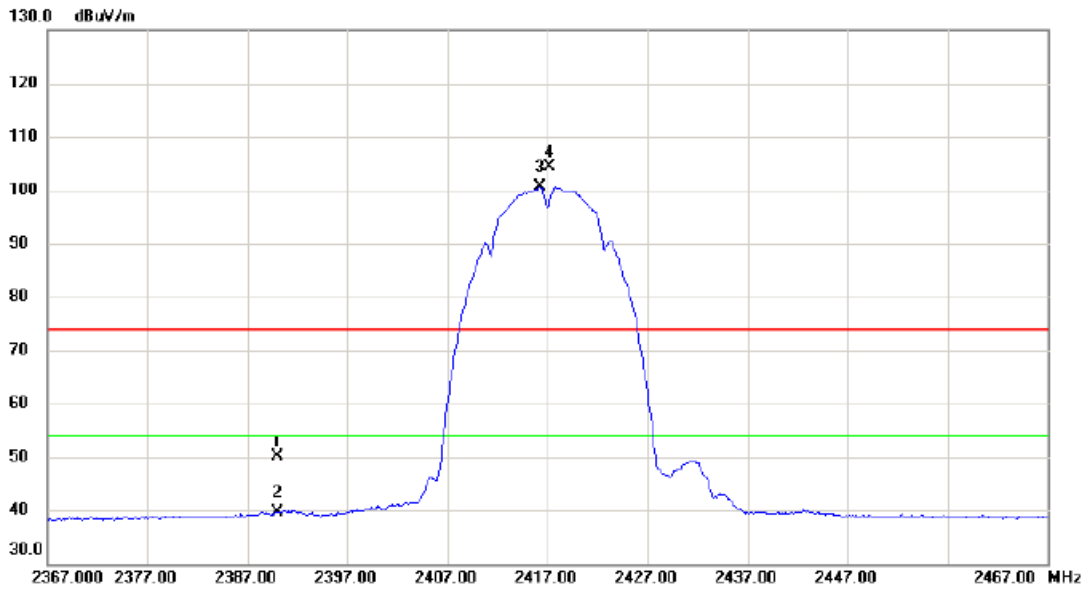
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		9667.752	38.72	13.02	51.74	74.00	-22.26	peak	
2	*	9668.077	34.28	13.02	47.30	54.00	-6.70	AVG	

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Horizontal



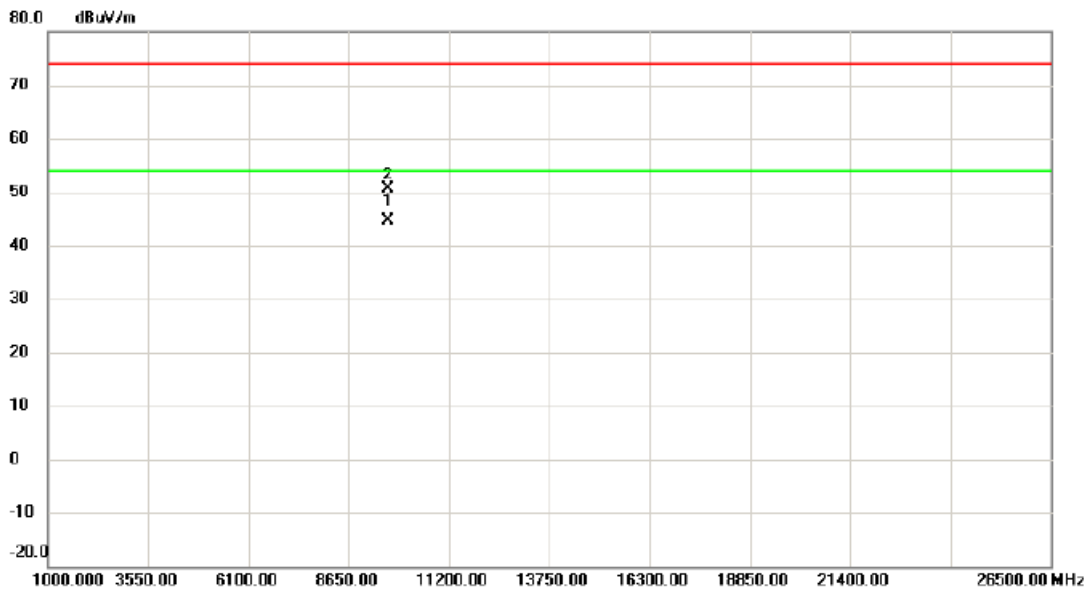
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	40.07	9.95	50.02	74.00	-23.98	peak	
2		2390.000	29.56	9.95	39.51	54.00	-14.49	AVG	
3	*	2416.250	90.58	10.05	100.63	54.00	46.63	AVG	No Limit
4	X	2417.150	94.31	10.05	104.36	74.00	30.36	peak	No Limit

REMARKS:

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

Test Mode: TX B Mode 2417 MHz

Horizontal



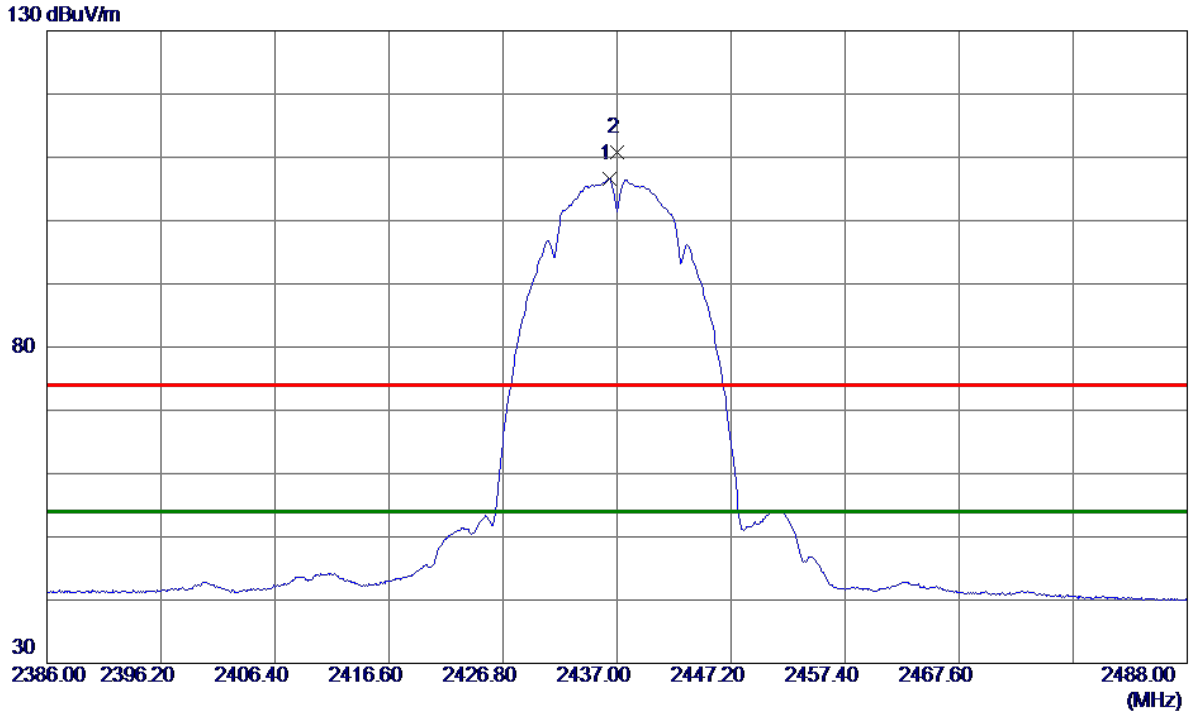
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9668.114	31.61	13.02	44.63	54.00	-9.37	AVG	
2		9668.133	37.68	13.02	50.70	74.00	-23.30	peak	

REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.2860	96.49	10.12	106.61	54.00	52.61	AVG	No Limit
2	2436.9490	100.63	10.12	110.75	74.00	36.75	Peak	No Limit

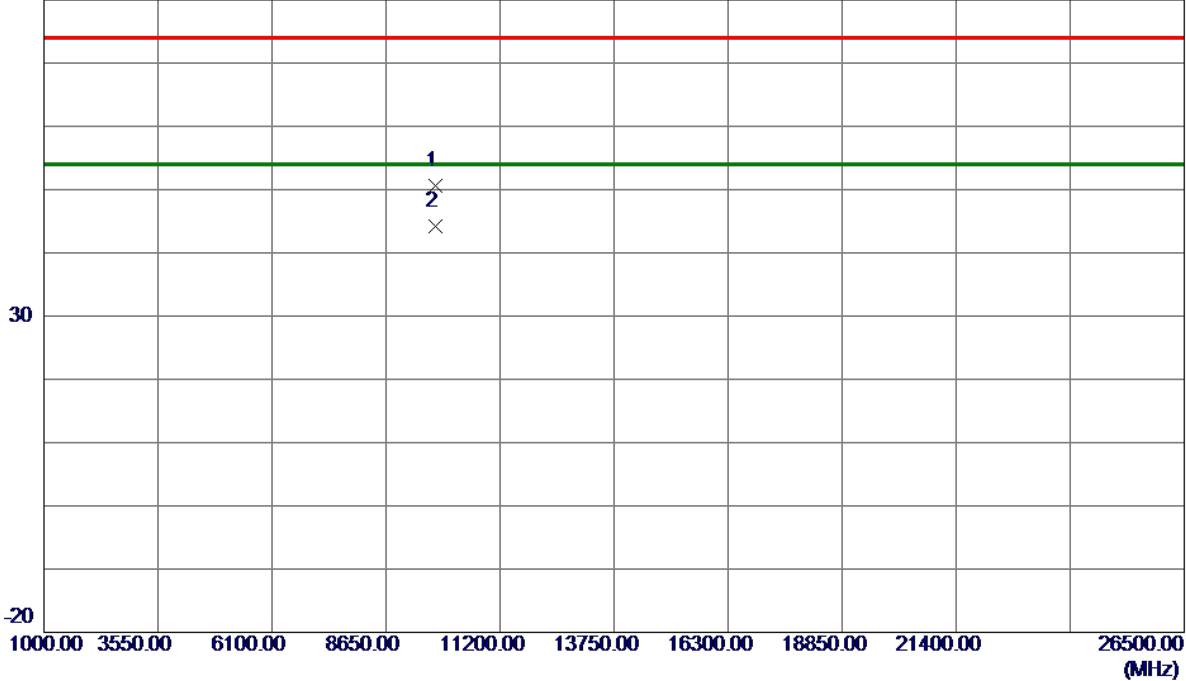
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Vertical

80 dBuV/m



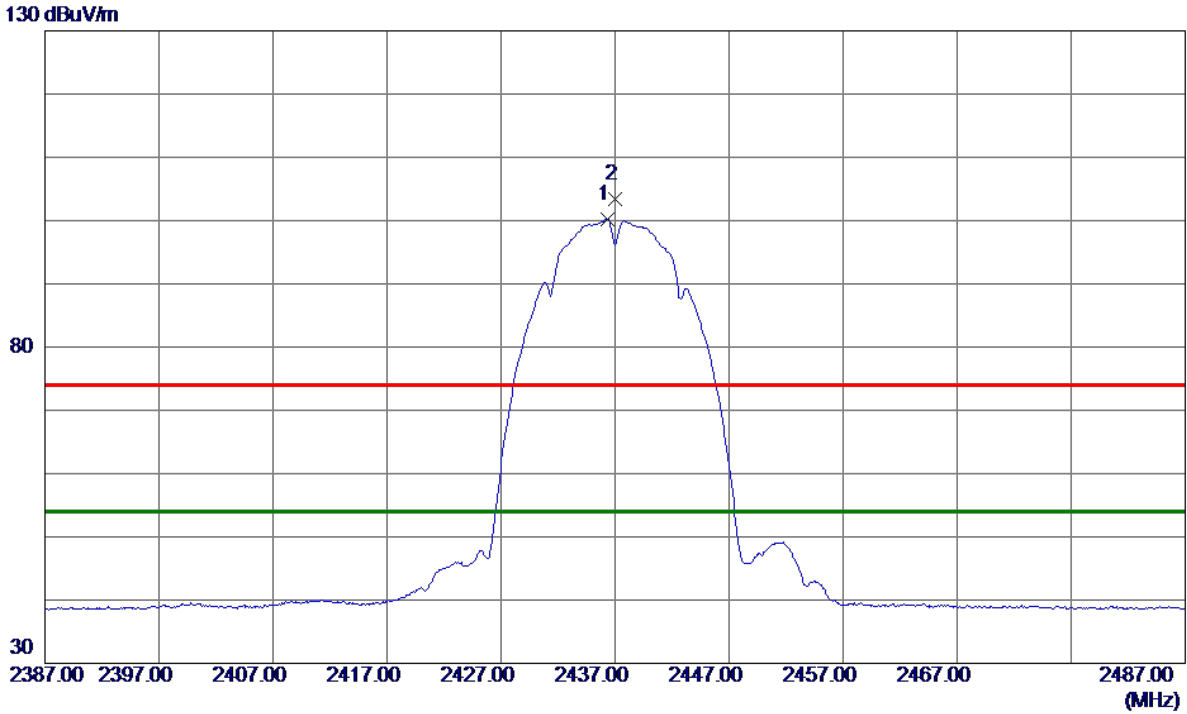
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9748.0560	37.62	13.02	50.64	74.00	-23.36	Peak	
2 *	9748.0800	31.18	13.02	44.20	54.00	-9.80	AVG	

REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.3000	90.17	10.12	100.29	54.00	46.29	AVG	No Limit
2	2436.9500	93.33	10.12	103.45	74.00	29.45	Peak	No Limit

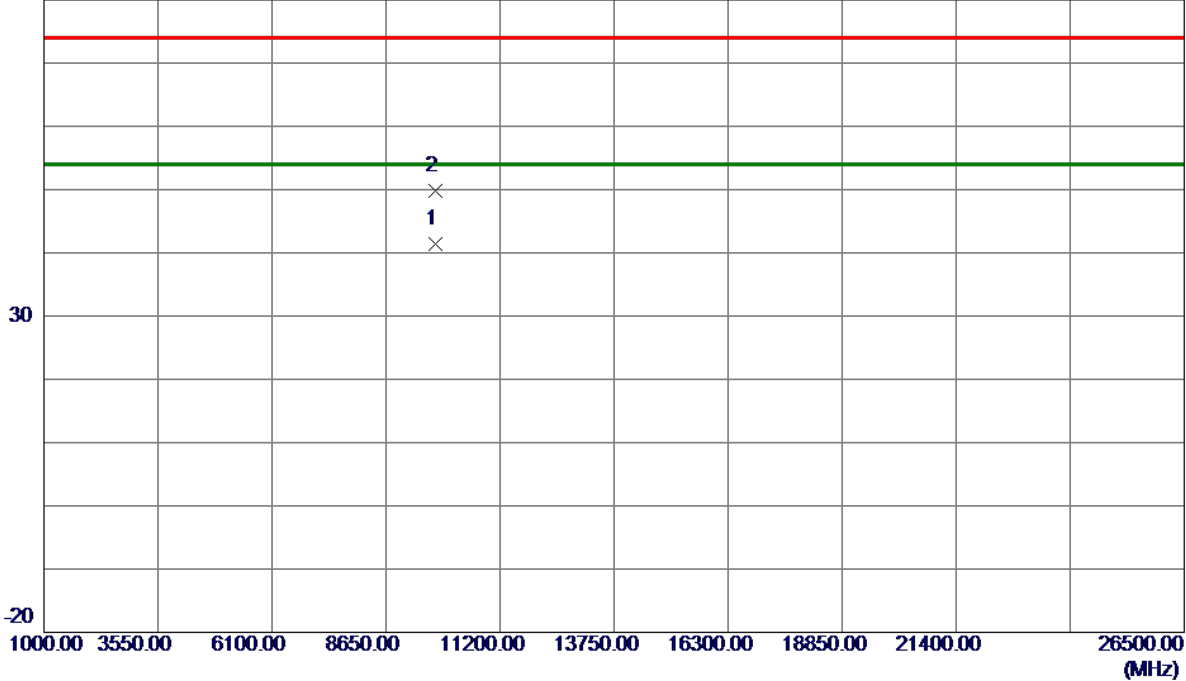
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal

80 dBuV/m



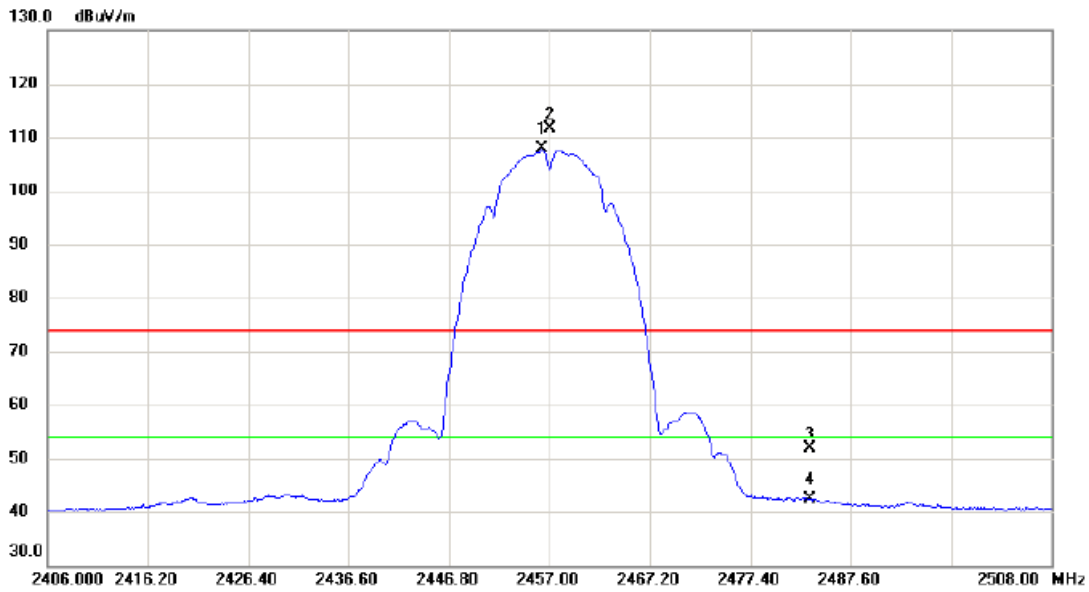
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9748.0910	28.36	13.02	41.38	54.00	-12.62	AVG	
2	9748.1630	36.84	13.02	49.86	74.00	-24.14	Peak	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Vertical



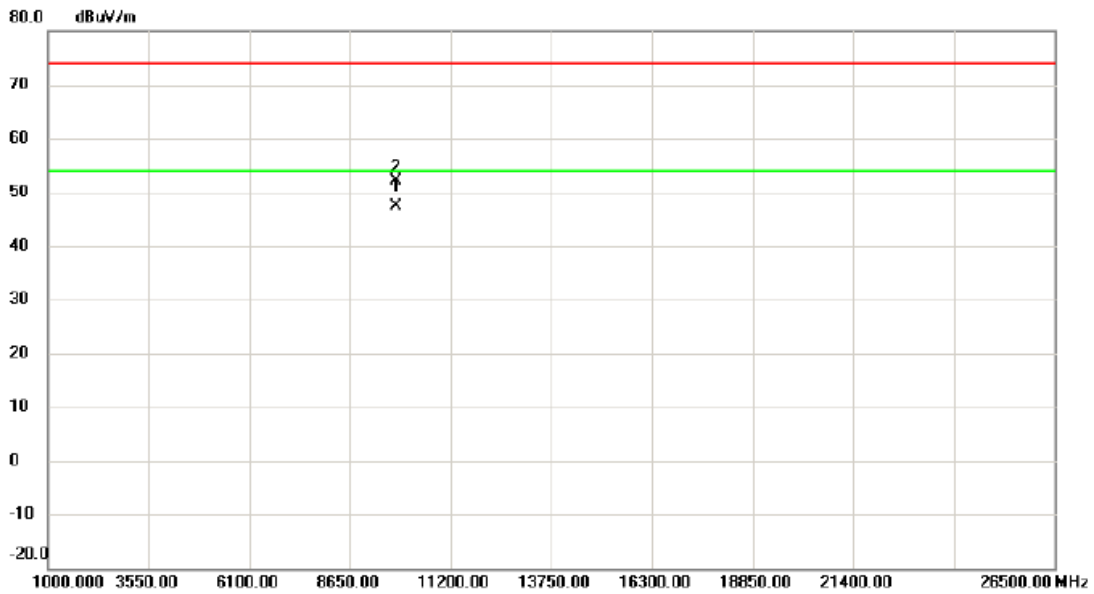
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2456.286	97.58	10.19	107.77	54.00	53.77	AVG	No Limit
2	X	2457.051	101.31	10.20	111.51	74.00	37.51	peak	No Limit
3		2483.500	41.68	10.29	51.97	74.00	-22.03	peak	
4		2483.500	31.97	10.29	42.26	54.00	-11.74	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Vertical



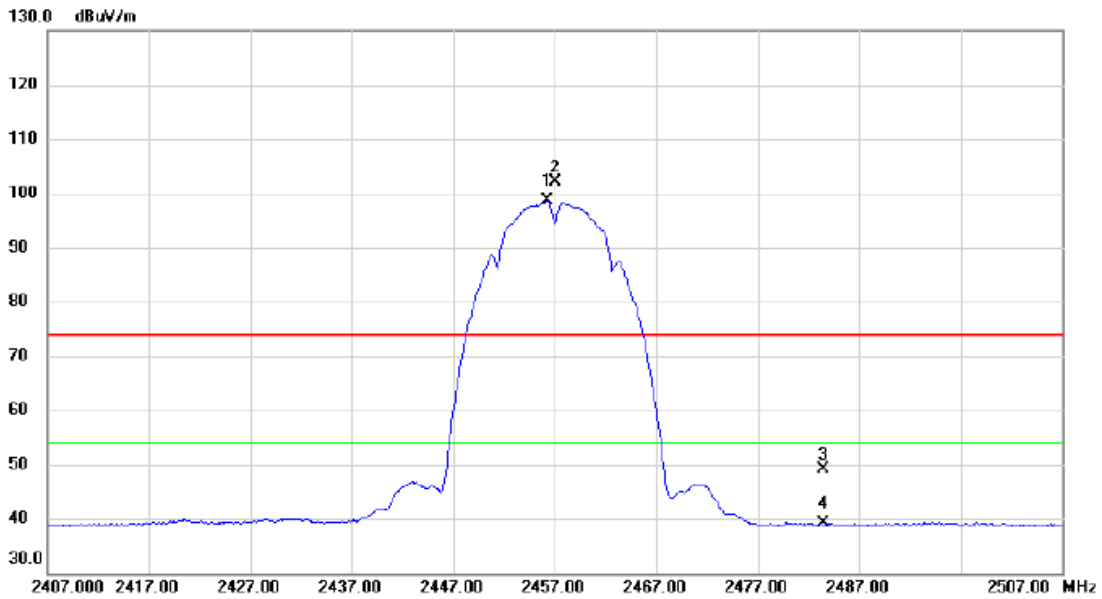
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9828.024	34.45	13.02	47.47	54.00	-6.53	AVG	
2		9828.272	39.07	13.02	52.09	74.00	-21.91	peak	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Horizontal



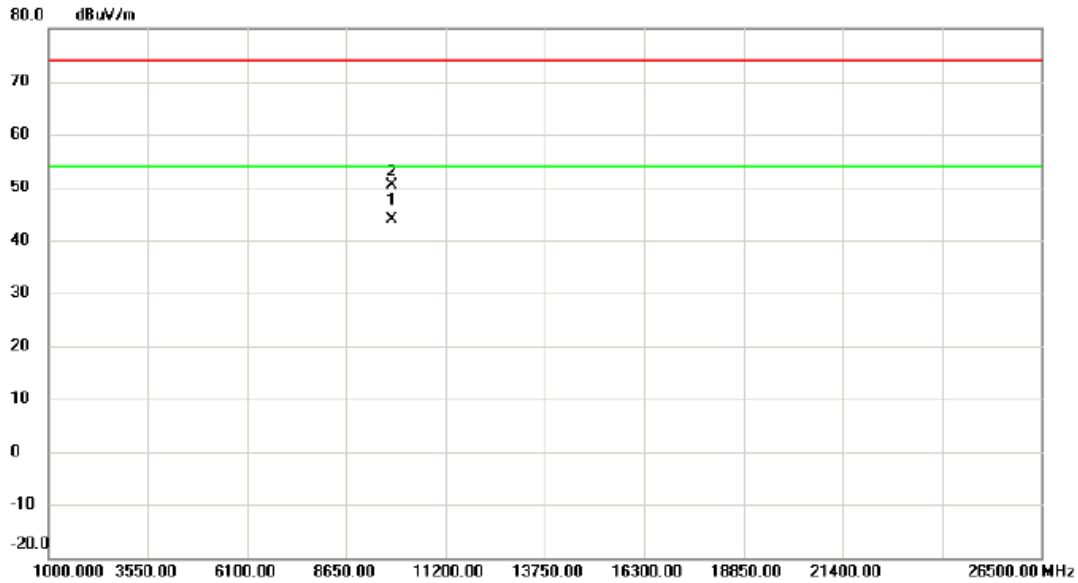
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2456.250	88.40	10.19	98.59	54.00	44.59	AVG	No Limit
2	X	2457.050	91.84	10.20	102.04	74.00	28.04	peak	No Limit
3		2483.500	38.83	10.29	49.12	74.00	-24.88	peak	
4		2483.500	28.72	10.29	39.01	54.00	-14.99	AVG	

REMARKS:

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

Test Mode: TX B Mode 2457 MHz

Horizontal



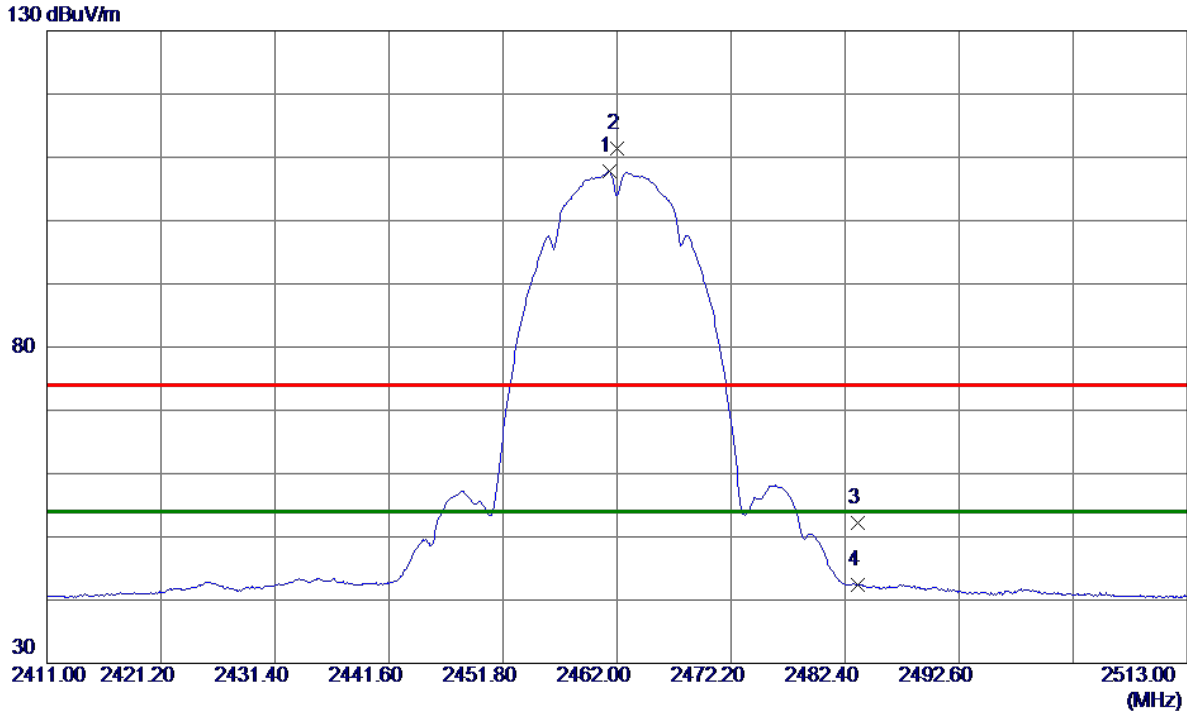
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9828.143	30.87	13.02	43.89	54.00	-10.11	AVG	
2		9828.150	37.38	13.02	50.40	74.00	-23.60	peak	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Vertical



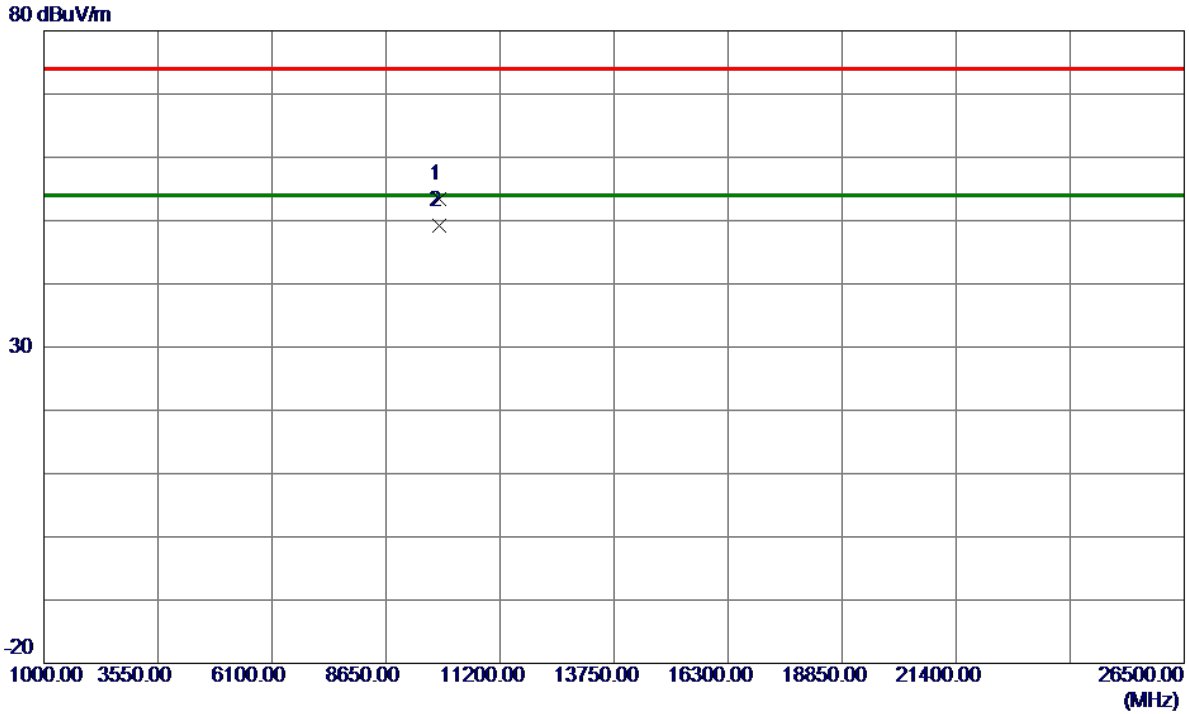
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.2860	97.58	10.21	107.79	54.00	53.79	AVG	No Limit
2	2462.0510	101.17	10.22	111.39	74.00	37.39	Peak	No Limit
3	2483.5000	41.82	10.30	52.12	74.00	-21.88	Peak	
4	2483.5000	32.06	10.30	42.36	54.00	-11.64	AVG	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Vertical



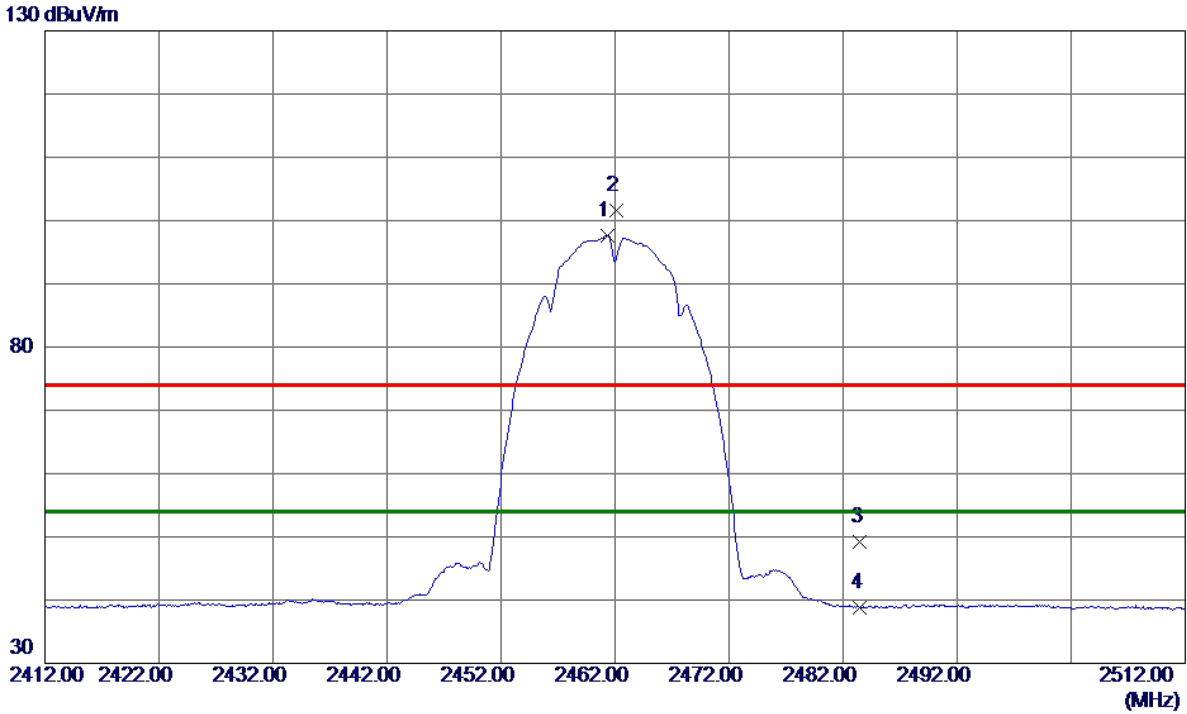
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9848.0530	40.46	13.02	53.48	74.00	-20.52	Peak	
2 *	9848.1120	36.09	13.02	49.11	54.00	-4.89	AVG	

REMARKS:

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

Test Mode: TX B Mode 2462 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2461.3000	87.46	10.21	97.67	54.00	43.67	AVG	No Limit
2	2462.1500	91.33	10.22	101.55	74.00	27.55	Peak	No Limit
3	2483.5000	38.86	10.30	49.16	74.00	-24.84	Peak	
4	2483.5000	28.52	10.30	38.82	54.00	-15.18	AVG	

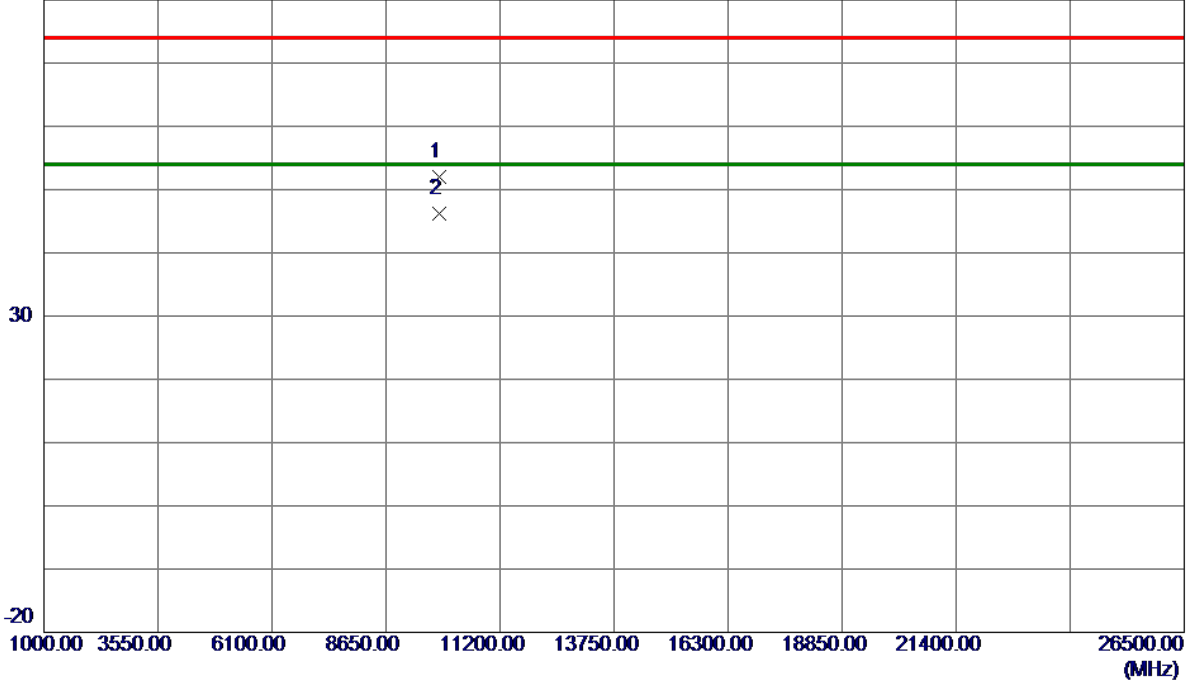
REMARKS:

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

Test Mode: TX B Mode 2462 MHz

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	9848.0700	38.99	13.02	52.01	74.00	-21.99	Peak	
2 *	9848.1310	33.18	13.02	46.20	54.00	-7.80	AVG	

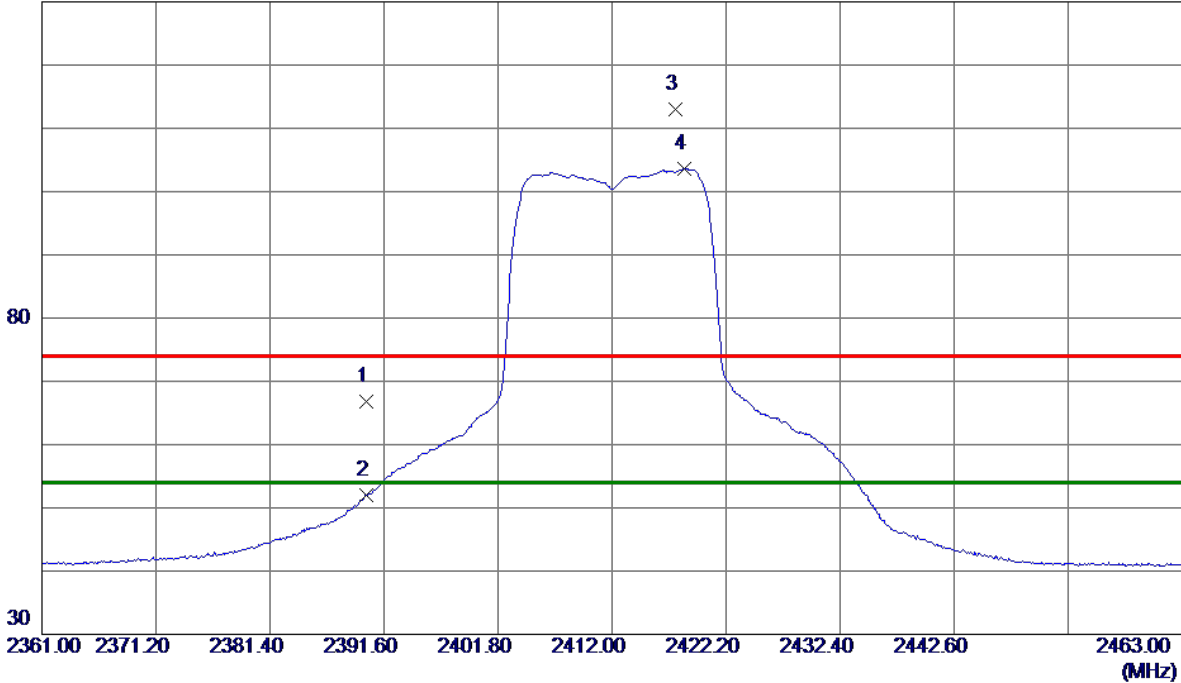
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	56.78	9.95	66.73	74.00	-7.27	Peak	
2	2390.0000	42.06	9.95	52.01	54.00	-1.99	AVG	
3	2417.6610	102.89	10.05	112.94	74.00	38.94	Peak	No Limit
4 *	2418.4260	93.57	10.05	103.62	54.00	49.62	AVG	No Limit

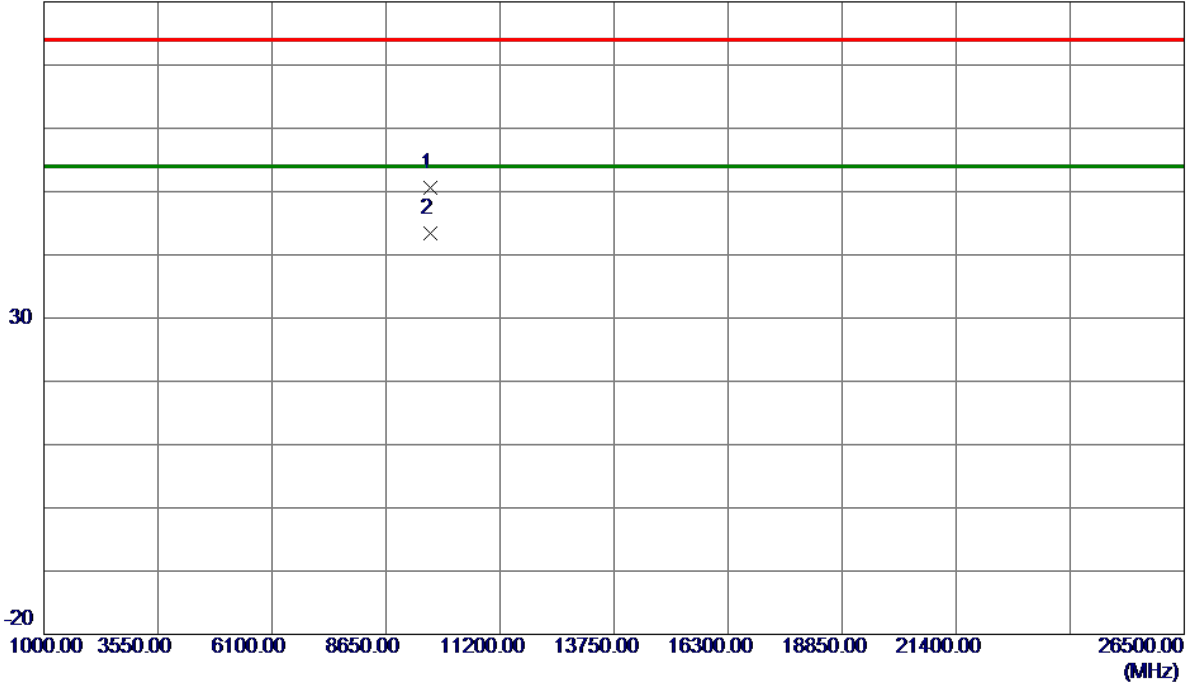
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Vertical

80 dBuV/m



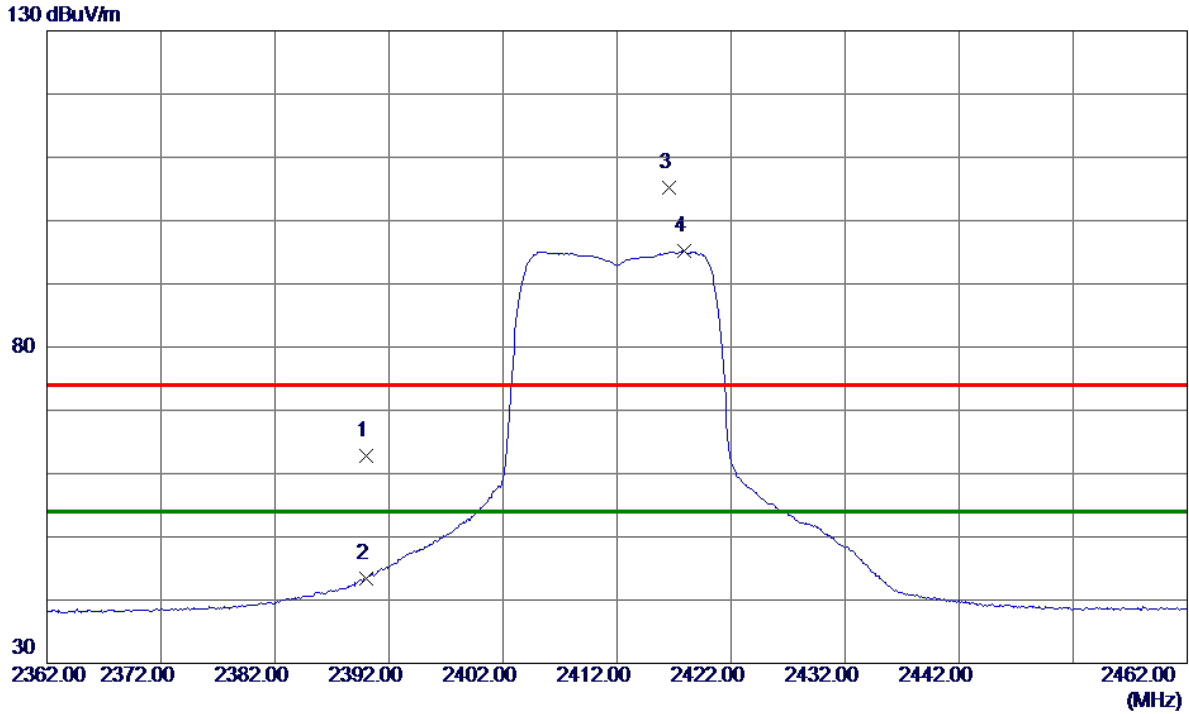
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9648.2030	37.51	13.02	50.53	74.00	-23.47	Peak	
2 *	9648.2400	30.39	13.02	43.41	54.00	-10.59	AVG	

REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	52.84	9.95	62.79	74.00	-11.21	Peak	
2	2390.0000	33.40	9.95	43.35	54.00	-10.65	AVG	
3	2416.6000	95.23	10.05	105.28	74.00	31.28	Peak	No Limit
4 *	2417.8500	85.12	10.05	95.17	54.00	41.17	AVG	No Limit

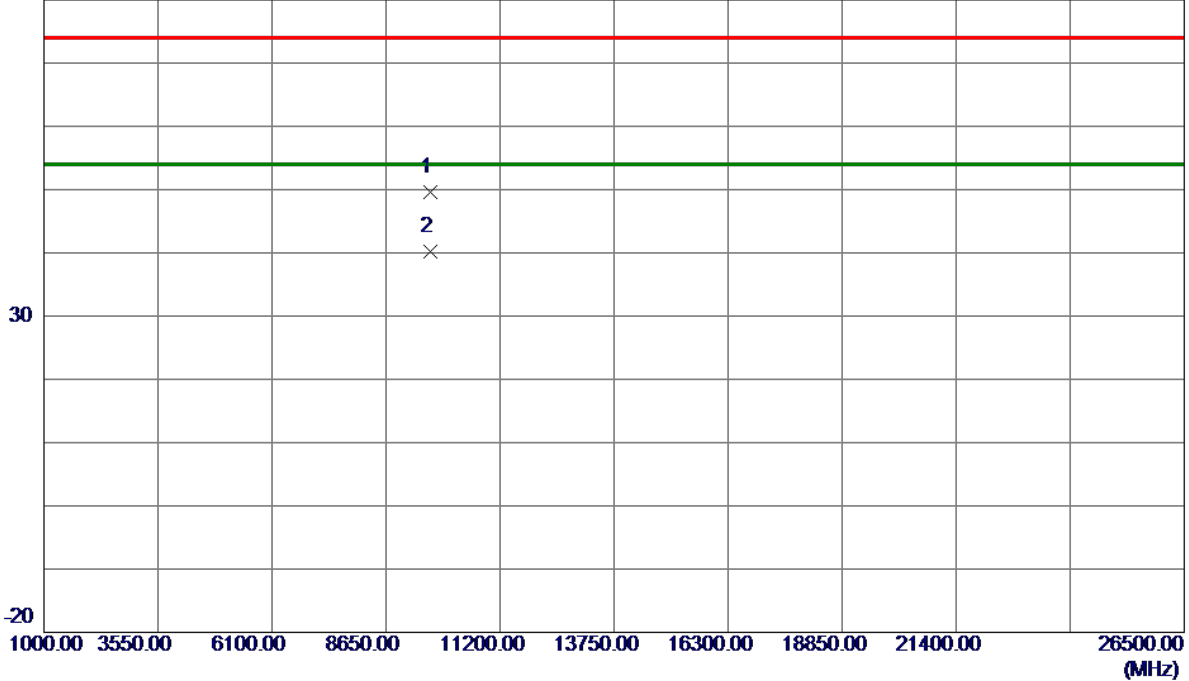
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Horizontal

80 dBuV/m



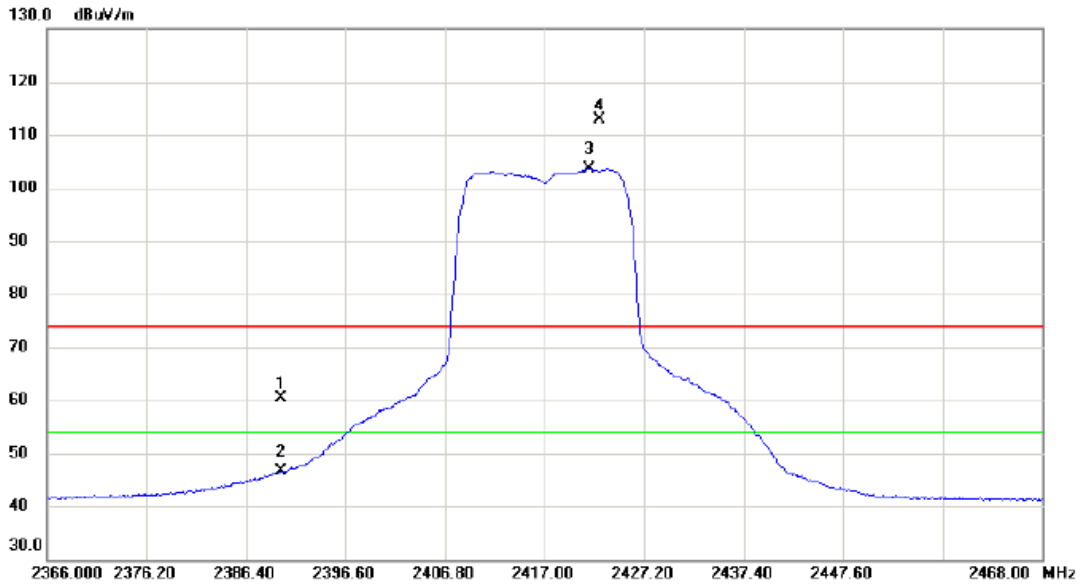
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9648.0510	36.56	13.02	49.58	74.00	-24.42	Peak	
2 *	9648.1500	27.19	13.02	40.21	54.00	-13.79	AVG	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Vertical



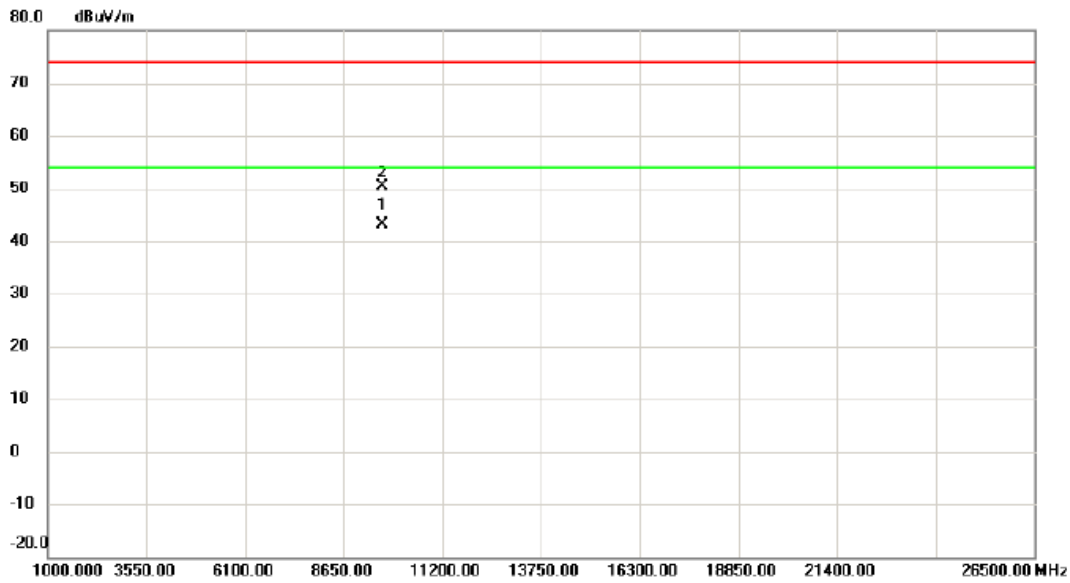
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	50.46	9.95	60.41	74.00	-13.59	peak	
2		2390.000	36.61	9.95	46.56	54.00	-7.44	AVG	
3	*	2421.590	93.61	10.07	103.68	54.00	49.68	AVG	No Limit
4	X	2422.712	102.84	10.07	112.91	74.00	38.91	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

Vertical

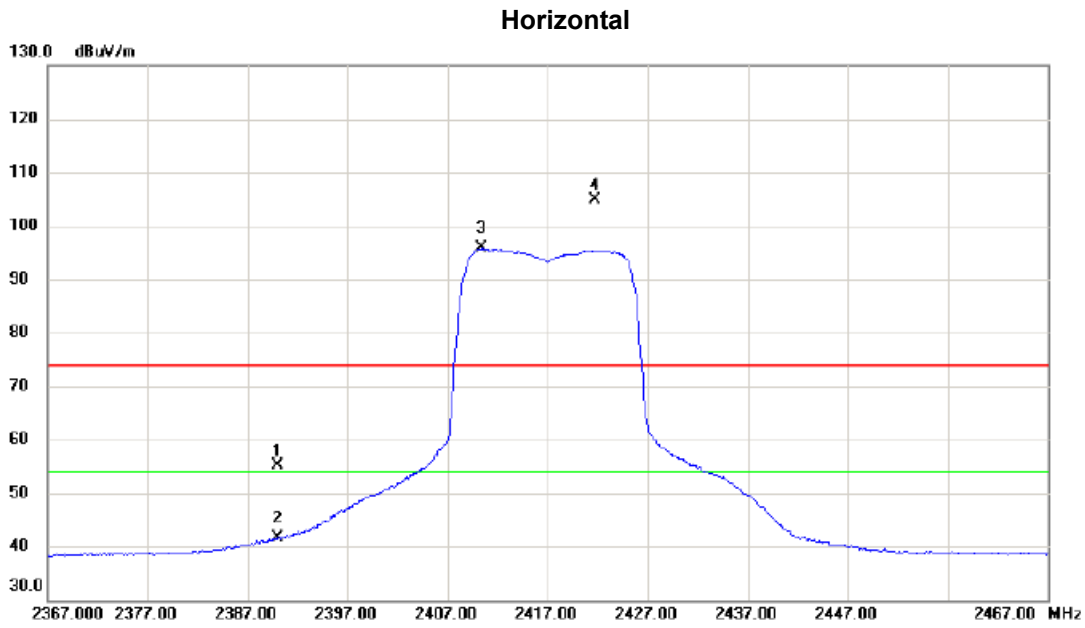


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9668.074	30.04	13.02	43.06	54.00	-10.94	AVG	
2		9668.444	37.48	13.02	50.50	74.00	-23.50	peak	

REMARKS:

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

Test Mode: TX G Mode 2417 MHz



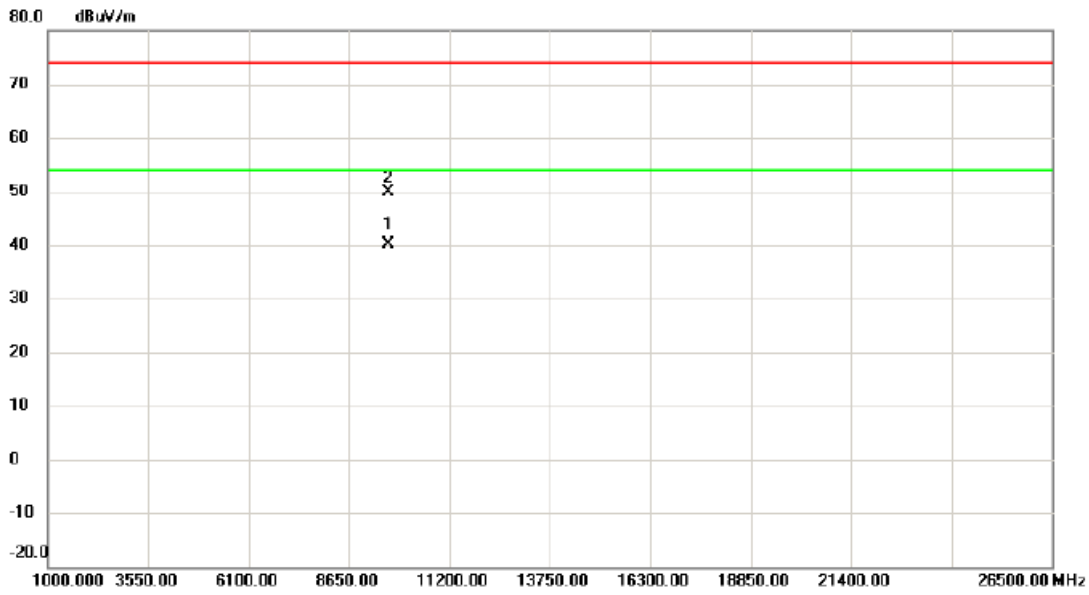
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	45.13	9.95	55.08	74.00	-18.92	peak	
2		2390.000	31.59	9.95	41.54	54.00	-12.46	AVG	
3	*	2410.400	85.75	10.02	95.77	54.00	41.77	AVG	No Limit
4	X	2421.700	94.81	10.07	104.88	74.00	30.88	peak	No Limit

REMARKS:

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

Test Mode: TX G Mode 2417 MHz

Horizontal

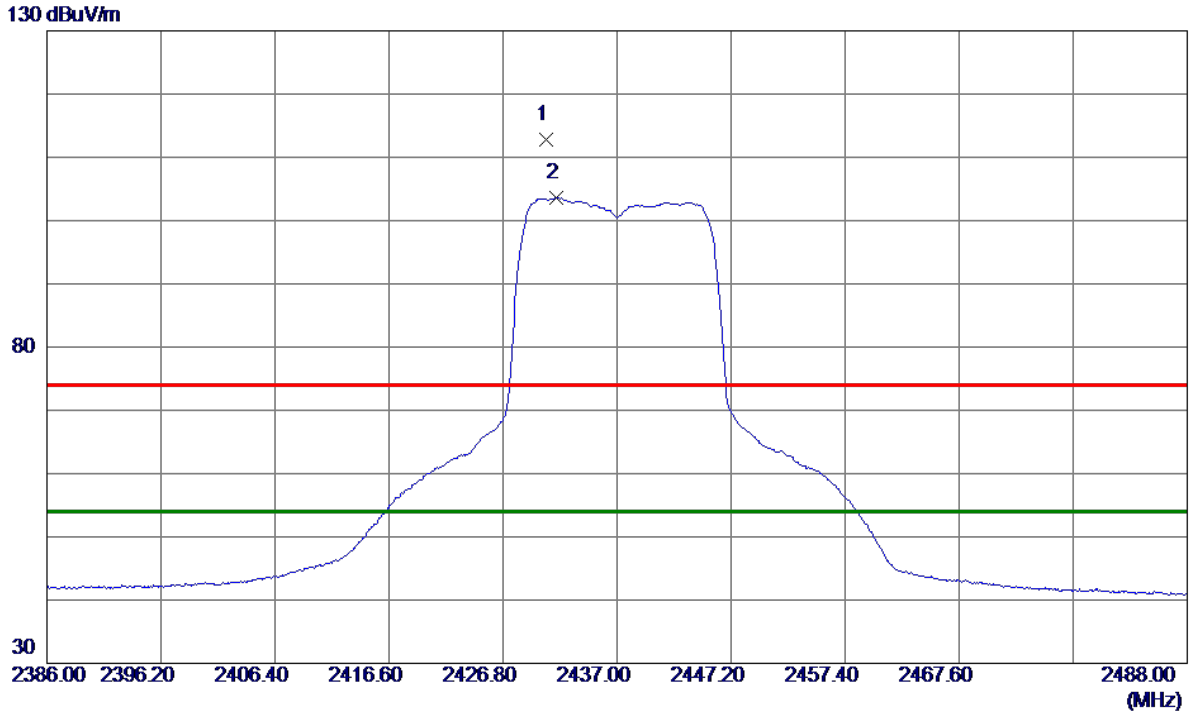


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9668.171	27.23	13.02	40.25	54.00	-13.75	AVG	
2		9668.234	36.90	13.02	49.92	74.00	-24.08	peak	

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

Test Mode: TX G Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2430.6250	102.66	10.10	112.76	74.00	38.76	Peak	No Limit
2 *	2431.5940	93.55	10.10	103.65	54.00	49.65	AVG	No Limit

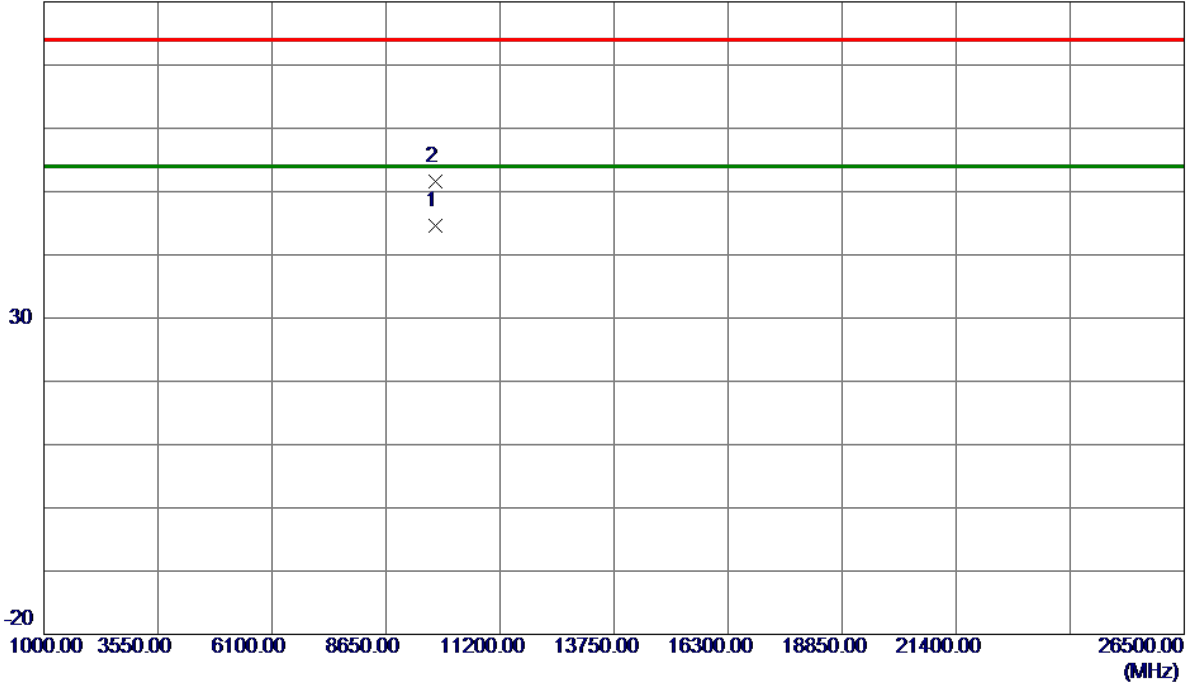
REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Vertical

80 dBuV/m



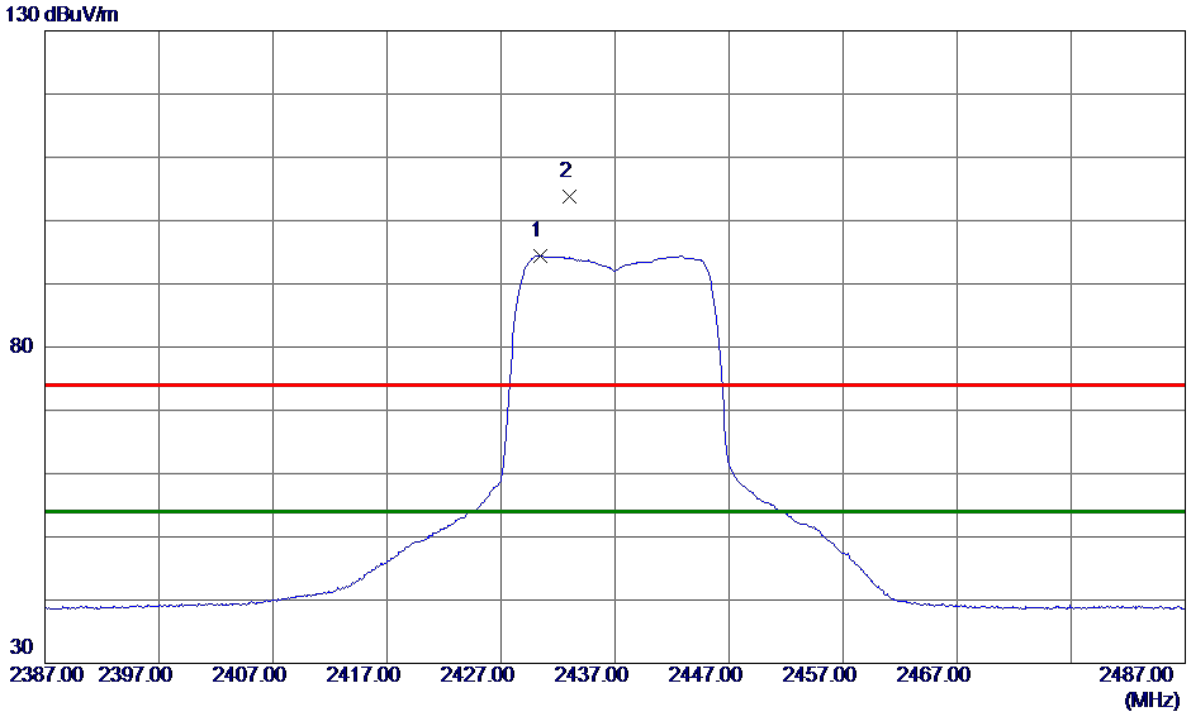
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9748.1020	31.56	13.02	44.58	54.00	-9.42	AVG	
2	9748.3000	38.54	13.02	51.56	74.00	-22.44	Peak	

REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2430.4000	84.34	10.10	94.44	54.00	40.44	AVG	No Limit
2	2433.0500	93.69	10.11	103.80	74.00	29.80	Peak	No Limit

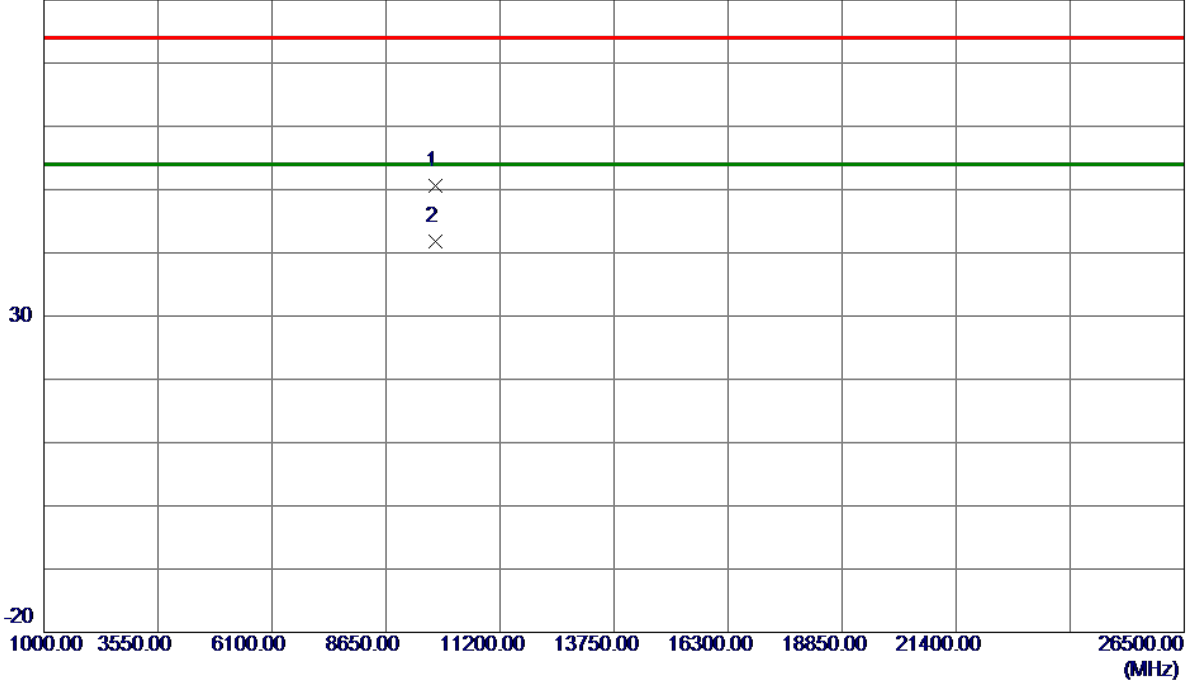
REMARKS:

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

Test Mode: TX G Mode 2437 MHz

Horizontal

80 dBuV/m



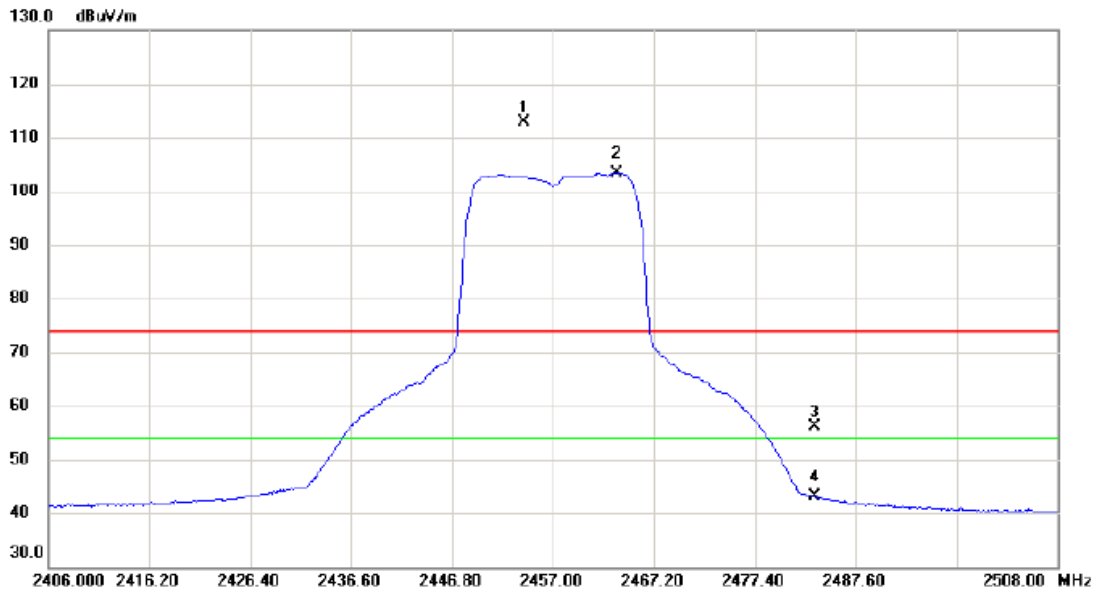
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9747.6190	37.51	13.02	50.53	74.00	-23.47	Peak	
2 *	9748.1210	28.75	13.02	41.77	54.00	-12.23	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Vertical



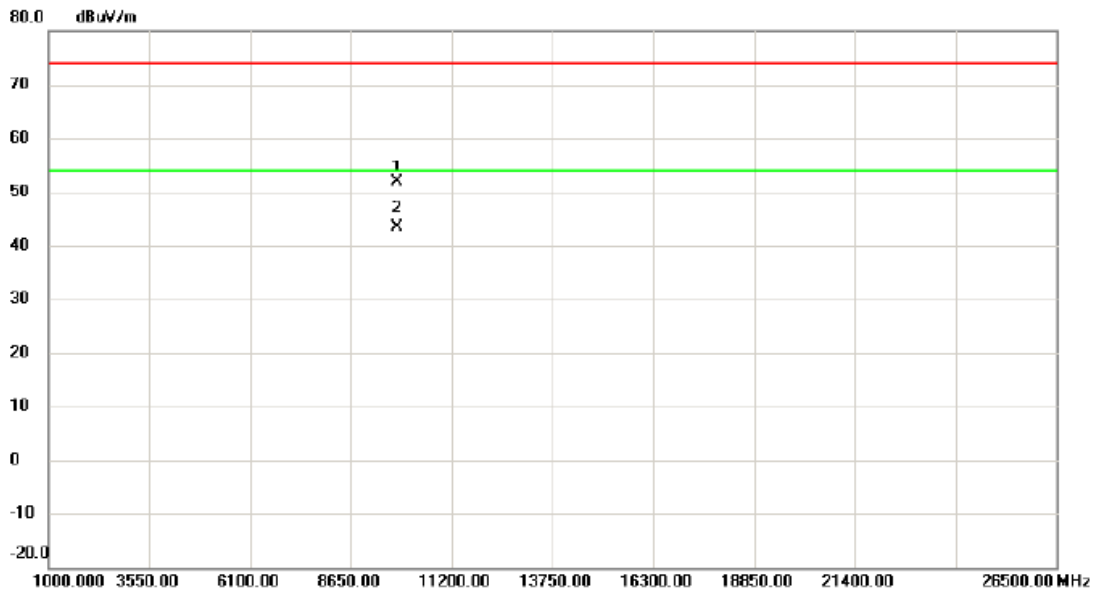
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2454.093	102.66	10.19	112.85	74.00	38.85	peak	No Limit
2	*	2463.477	93.22	10.23	103.45	54.00	49.45	AVG	No Limit
3		2483.500	45.79	10.29	56.08	74.00	-17.92	peak	
4		2483.500	32.80	10.29	43.09	54.00	-10.91	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Vertical



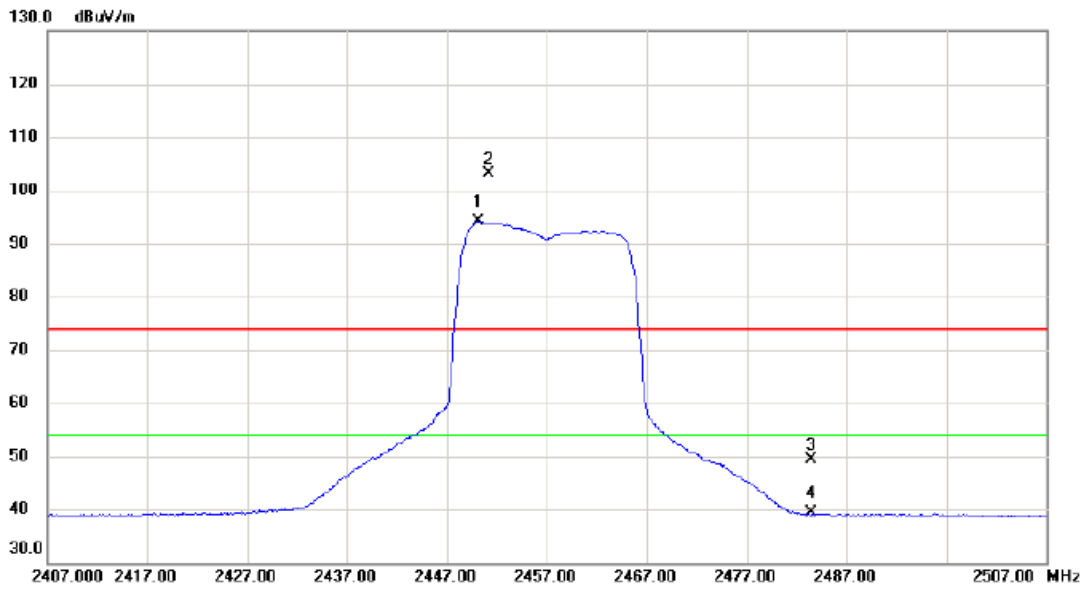
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		9827.925	38.78	13.02	51.80	74.00	-22.20	peak	
2	*	9828.119	30.47	13.02	43.49	54.00	-10.51	AVG	

REMARKS:

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

Test Mode: TX G Mode 2457 MHz

Horizontal



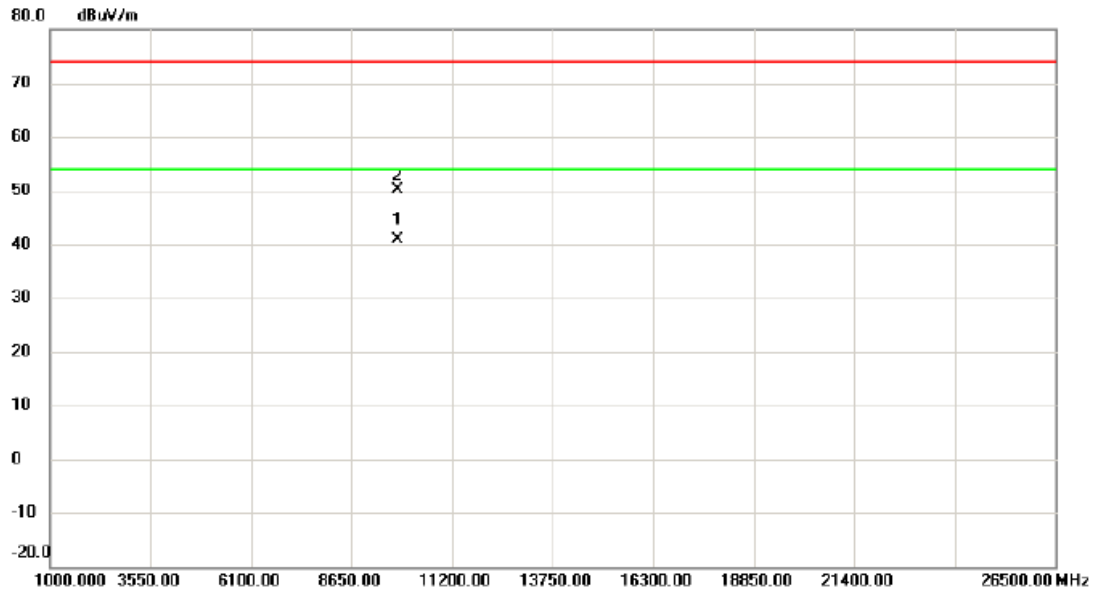
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2450.200	83.96	10.17	94.13	54.00	40.13	AVG	No Limit
2	X	2451.200	92.99	10.17	103.16	74.00	29.16	peak	No Limit
3		2483.500	39.16	10.29	49.45	74.00	-24.55	peak	
4		2483.500	29.00	10.29	39.29	54.00	-14.71	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. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9828.134	27.78	13.02	40.80	54.00	-13.20	AVG	
2		9828.433	37.03	13.02	50.05	74.00	-23.95	peak	

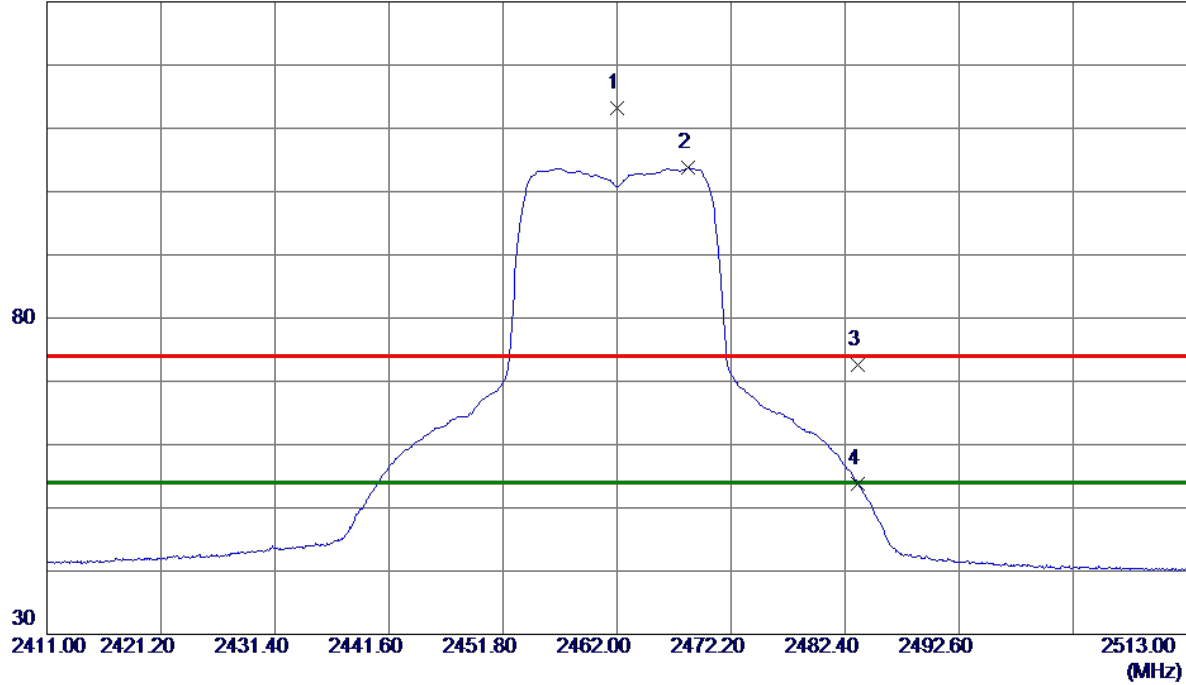
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2461.9490	102.93	10.22	113.15	74.00	39.15	Peak	No Limit
2 *	2468.3750	93.49	10.24	103.73	54.00	49.73	AVG	No Limit
3	2483.5000	62.23	10.30	72.53	74.00	-1.47	Peak	
4	2483.5000	43.50	10.30	53.80	54.00	-0.20	AVG	

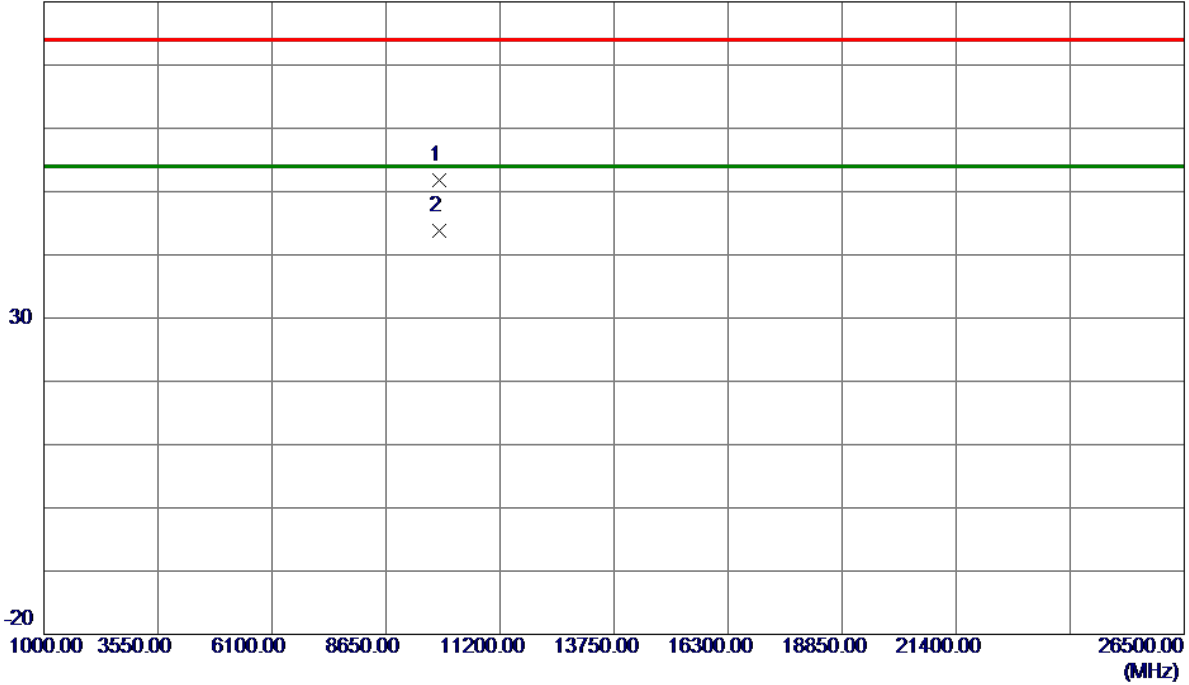
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Vertical

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	9847.9640	38.86	13.02	51.88	74.00	-22.12	Peak	
2 *	9848.0679	30.78	13.02	43.80	54.00	-10.20	AVG	

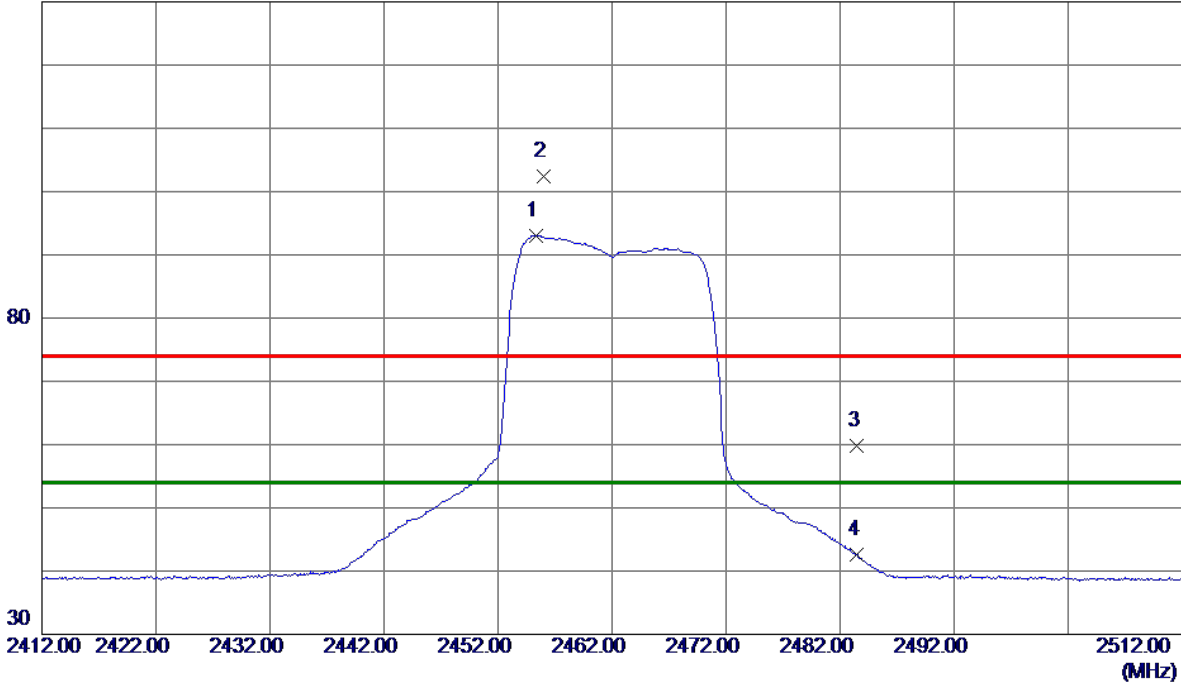
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2455.3000	82.91	10.19	93.10	54.00	39.10	AVG	No Limit
2	2456.0500	92.30	10.19	102.49	74.00	28.49	Peak	No Limit
3	2483.5000	49.48	10.30	59.78	74.00	-14.22	Peak	
4	2483.5000	32.31	10.30	42.61	54.00	-11.39	AVG	

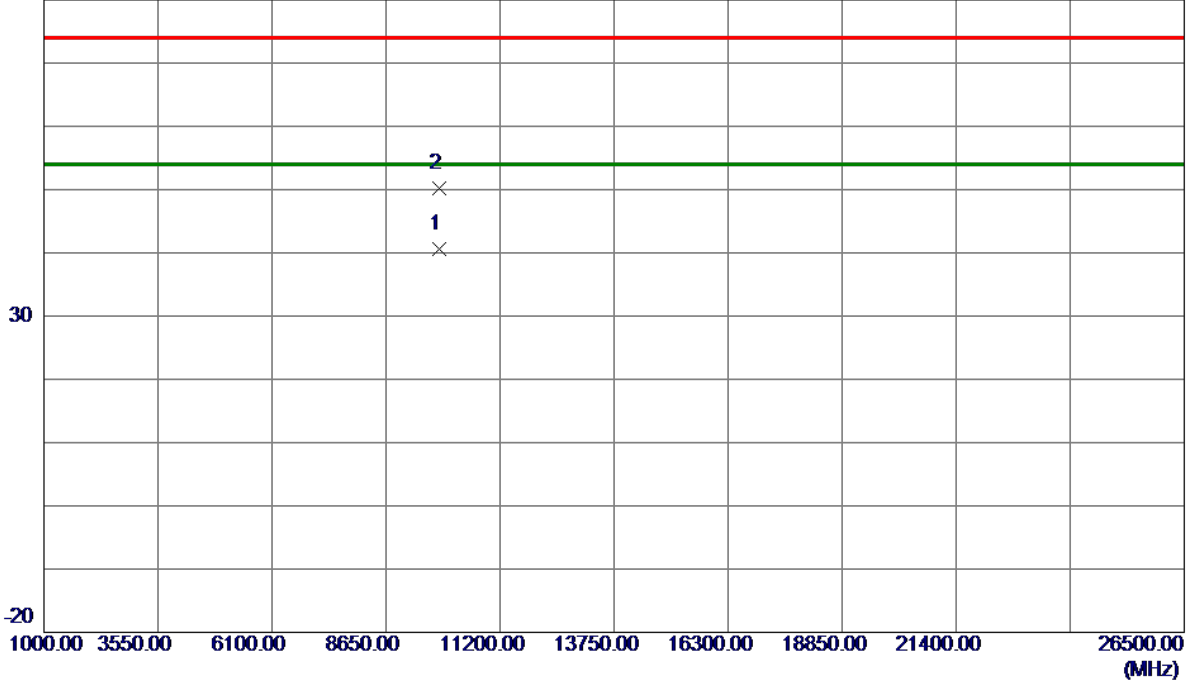
REMARKS:

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

Test Mode: TX G Mode 2462 MHz

Horizontal

80 dBuV/m



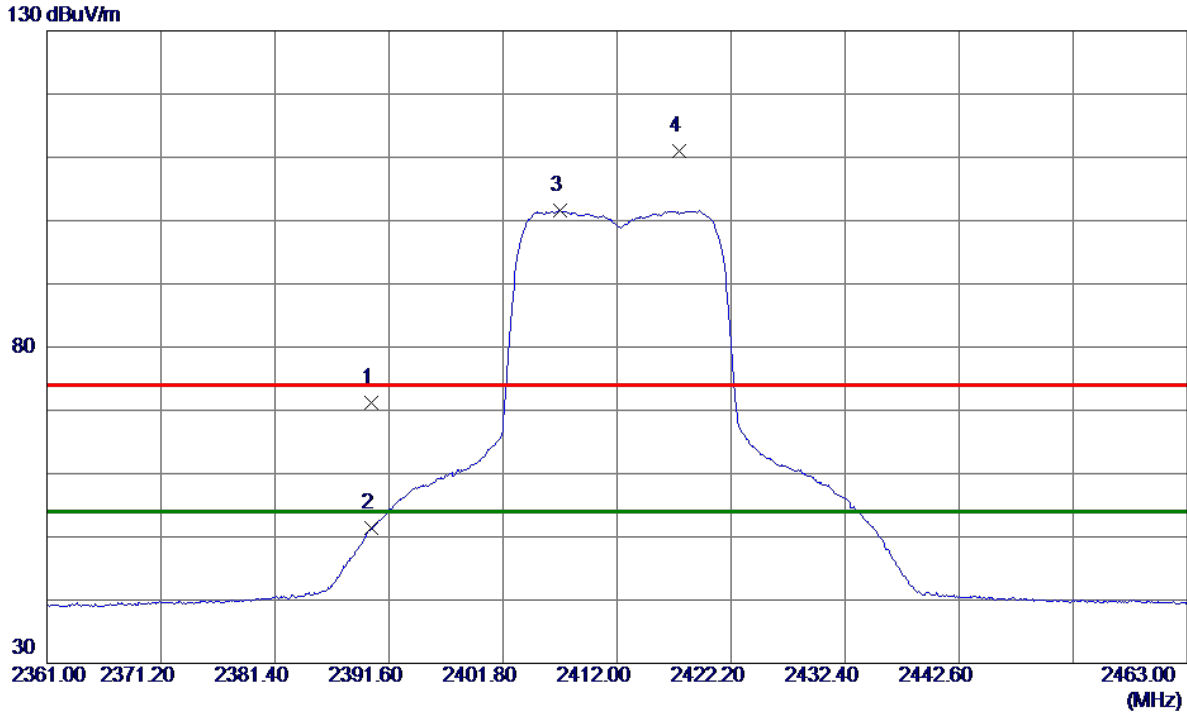
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9848.1940	27.56	13.02	40.58	54.00	-13.42	AVG	
2	9848.2560	37.14	13.02	50.16	74.00	-23.84	Peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	61.28	9.95	71.23	74.00	-2.77	Peak	
2	2390.0000	41.37	9.95	51.32	54.00	-2.68	AVG	
3 *	2406.9000	91.56	10.01	101.57	54.00	47.57	AVG	No Limit
4	2417.5590	100.85	10.05	110.90	74.00	36.90	Peak	No Limit

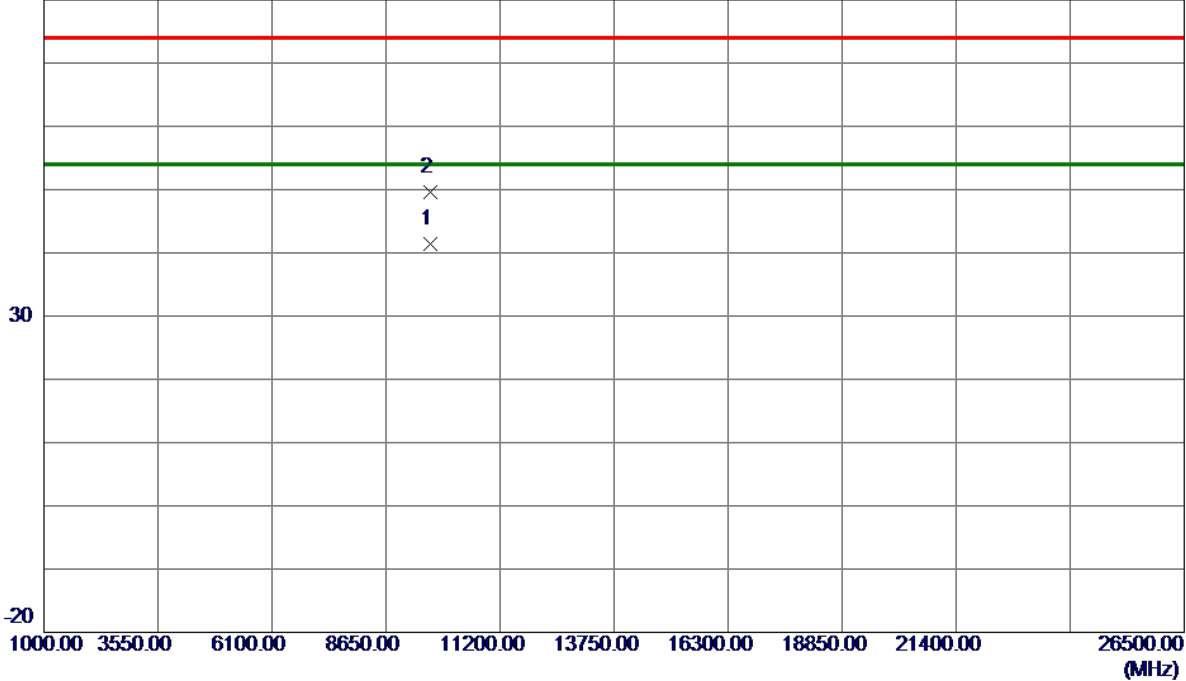
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Vertical

80 dBuV/m



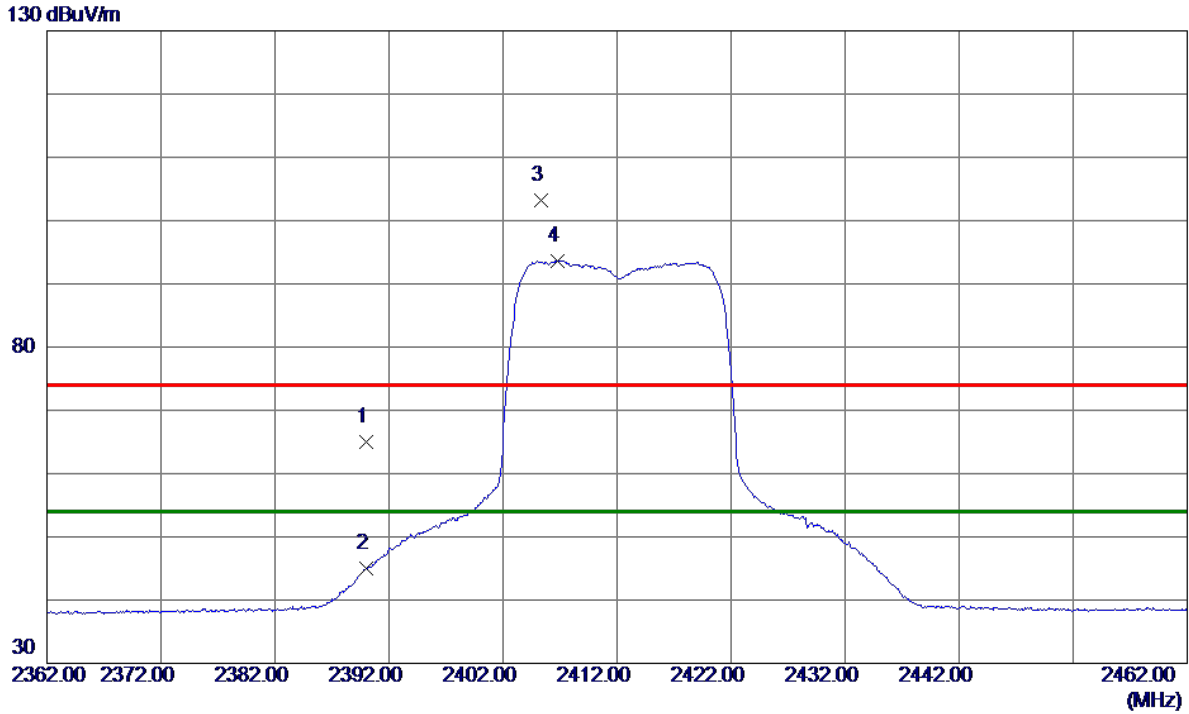
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9648.6000	28.40	13.02	41.42	54.00	-12.58	AVG	
2	9648.7460	36.56	13.02	49.58	74.00	-24.42	Peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	55.03	9.95	64.98	74.00	-9.02	Peak	
2	2390.0000	35.09	9.95	45.04	54.00	-8.96	AVG	
3	2405.3000	93.21	10.00	103.21	74.00	29.21	Peak	No Limit
4 *	2406.8000	83.66	10.01	93.67	54.00	39.67	AVG	No Limit

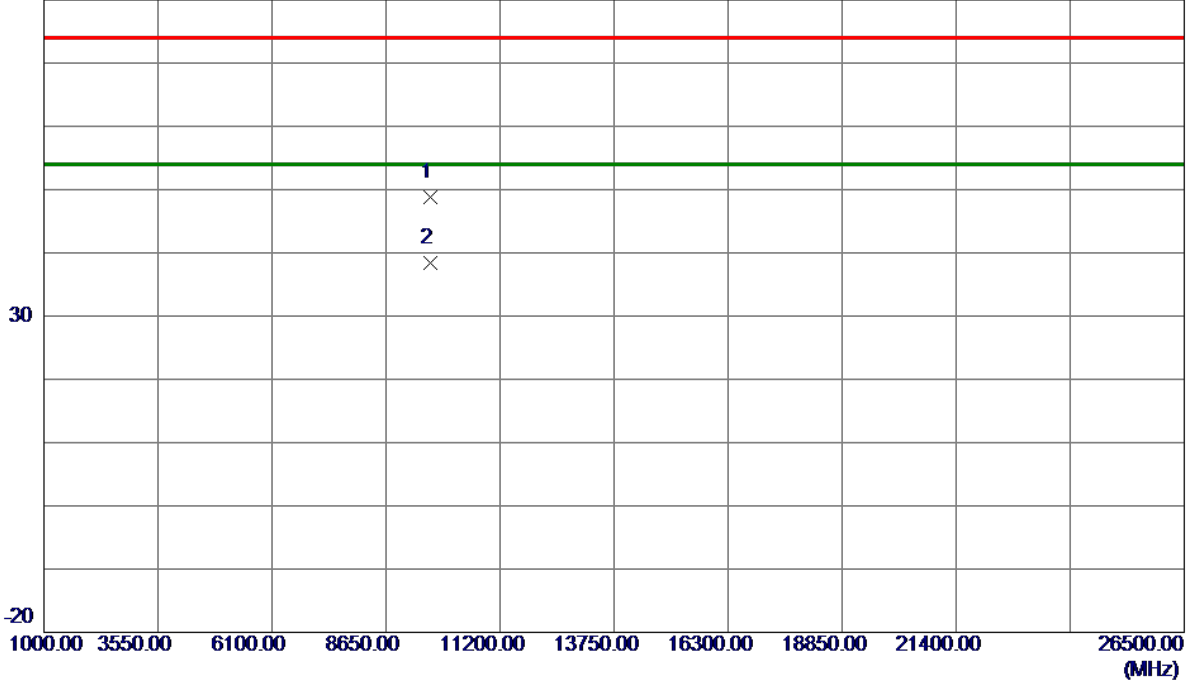
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Horizontal

80 dBuV/m



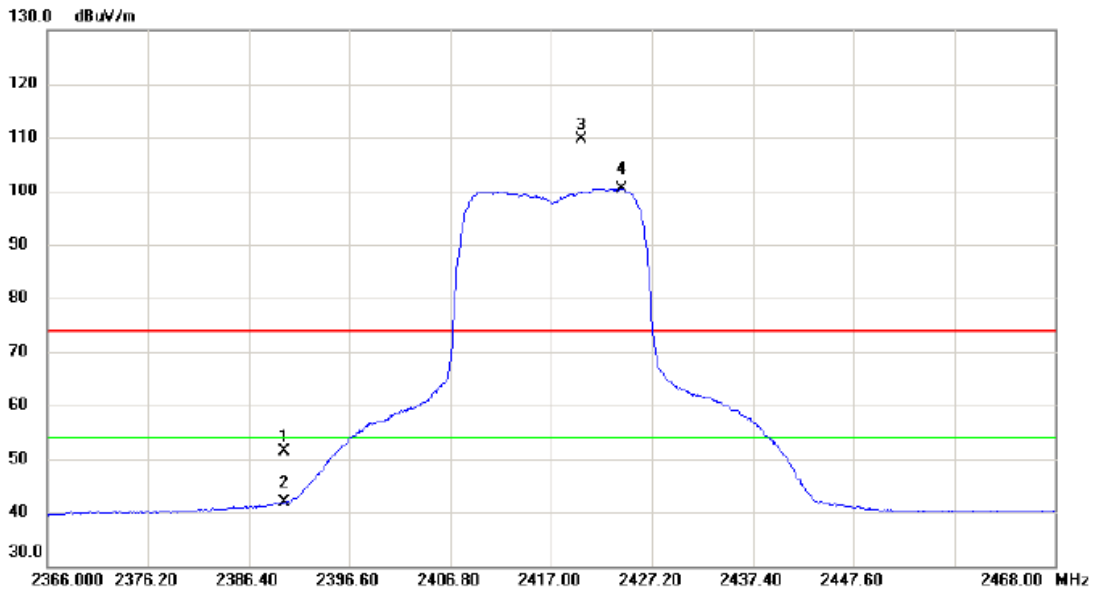
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9648.4690	35.72	13.02	48.74	74.00	-25.26	Peak	
2 *	9648.7370	25.44	13.02	38.46	54.00	-15.54	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Vertical



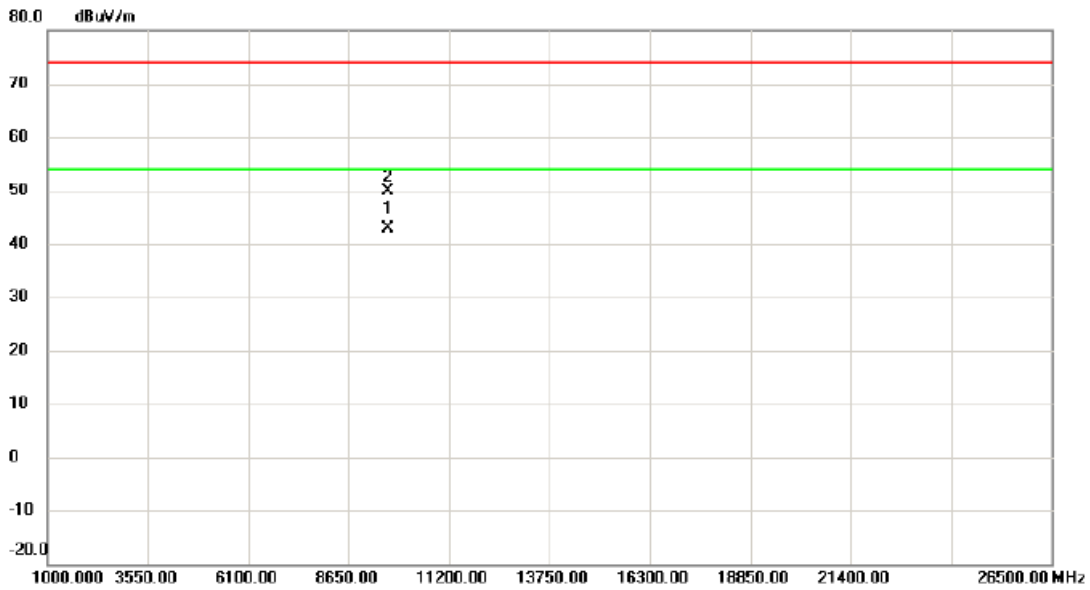
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	41.43	9.95	51.38	74.00	-22.62	peak	
2		2390.000	31.96	9.95	41.91	54.00	-12.09	AVG	
3	X	2420.009	99.67	10.06	109.73	74.00	35.73	peak	No Limit
4	*	2424.140	90.41	10.07	100.48	54.00	46.48	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

Vertical



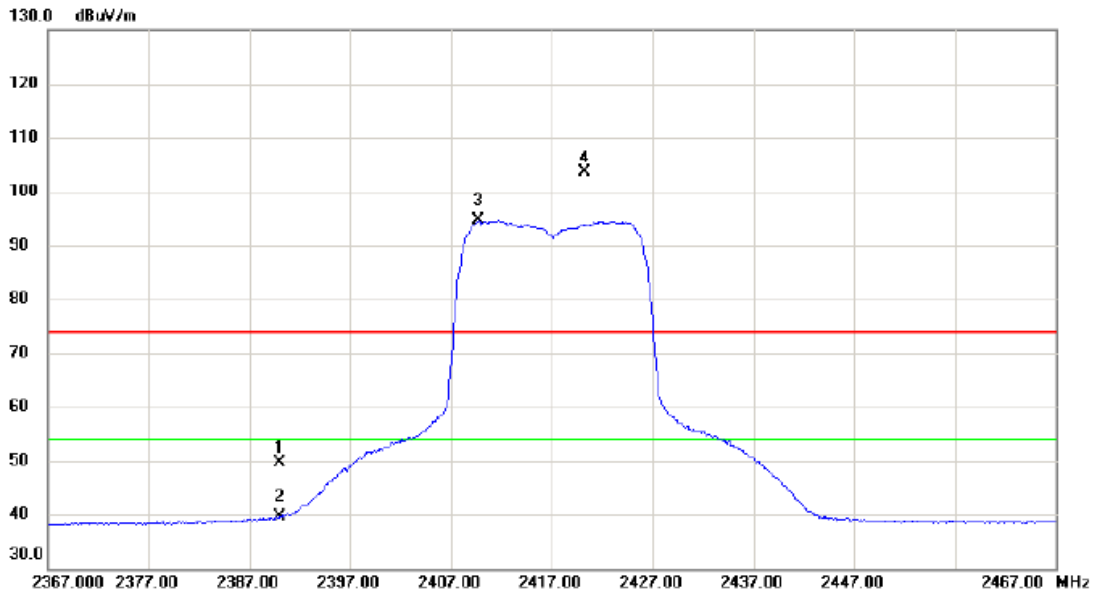
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9668.711	29.87	13.02	42.89	54.00	-11.11	AVG	
2		9668.925	36.97	13.02	49.99	74.00	-24.01	peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Horizontal



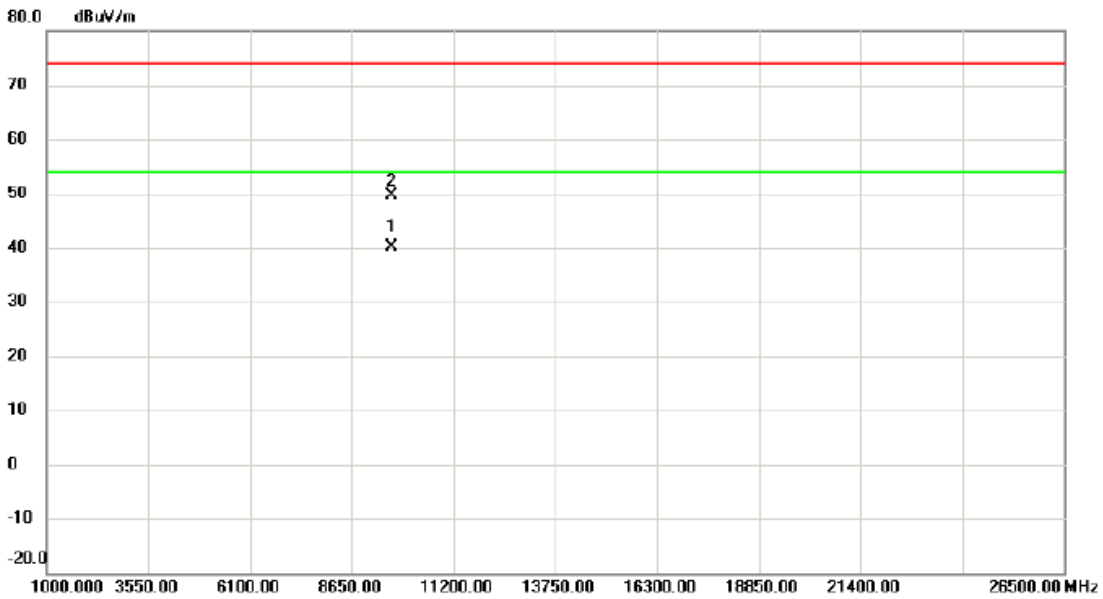
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	39.78	9.95	49.73	74.00	-24.27	peak	
2		2390.000	29.74	9.95	39.69	54.00	-14.31	AVG	
3	*	2409.750	84.60	10.02	94.62	54.00	40.62	AVG	No Limit
4	X	2420.250	93.68	10.06	103.74	74.00	29.74	peak	No Limit

REMARKS:

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

Test Mode: TX N-20M Mode 2417 MHz

Horizontal



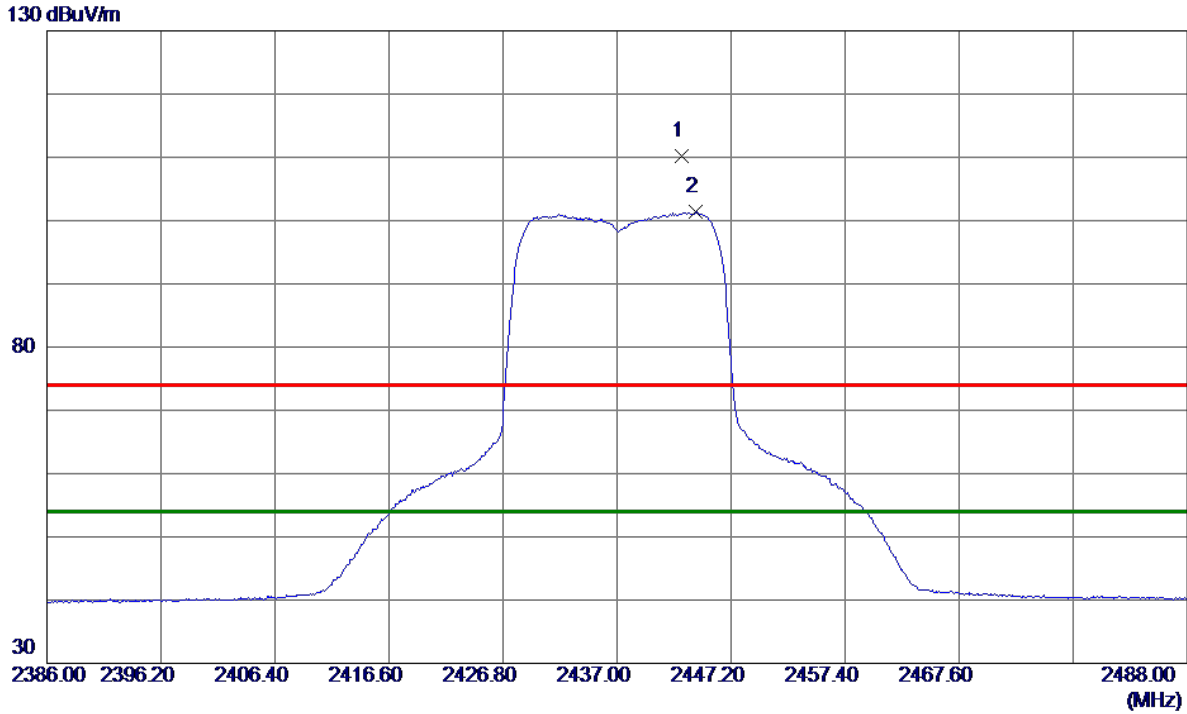
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	9668.789	27.15	13.02	40.17	54.00	-13.83	AVG	
2		9668.919	36.57	13.02	49.59	74.00	-24.41	peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2442.8140	100.07	10.14	110.21	74.00	36.21	Peak	No Limit
2 *	2444.0380	91.21	10.15	101.36	54.00	47.36	AVG	No Limit

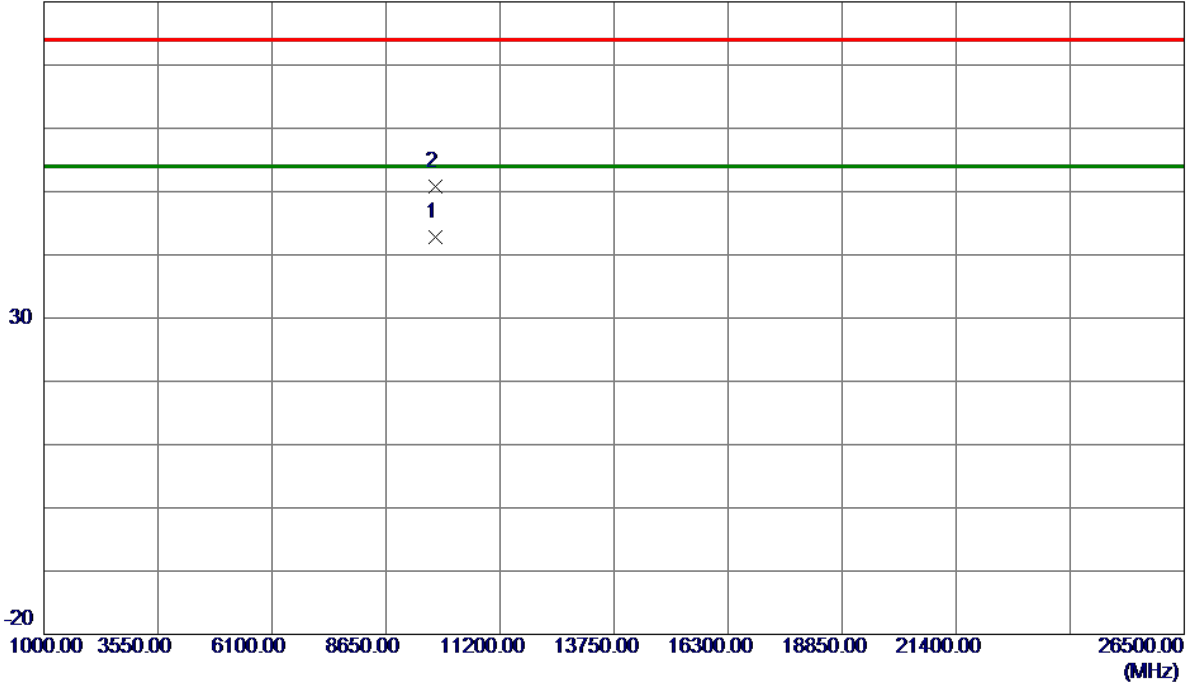
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical

80 dBuV/m



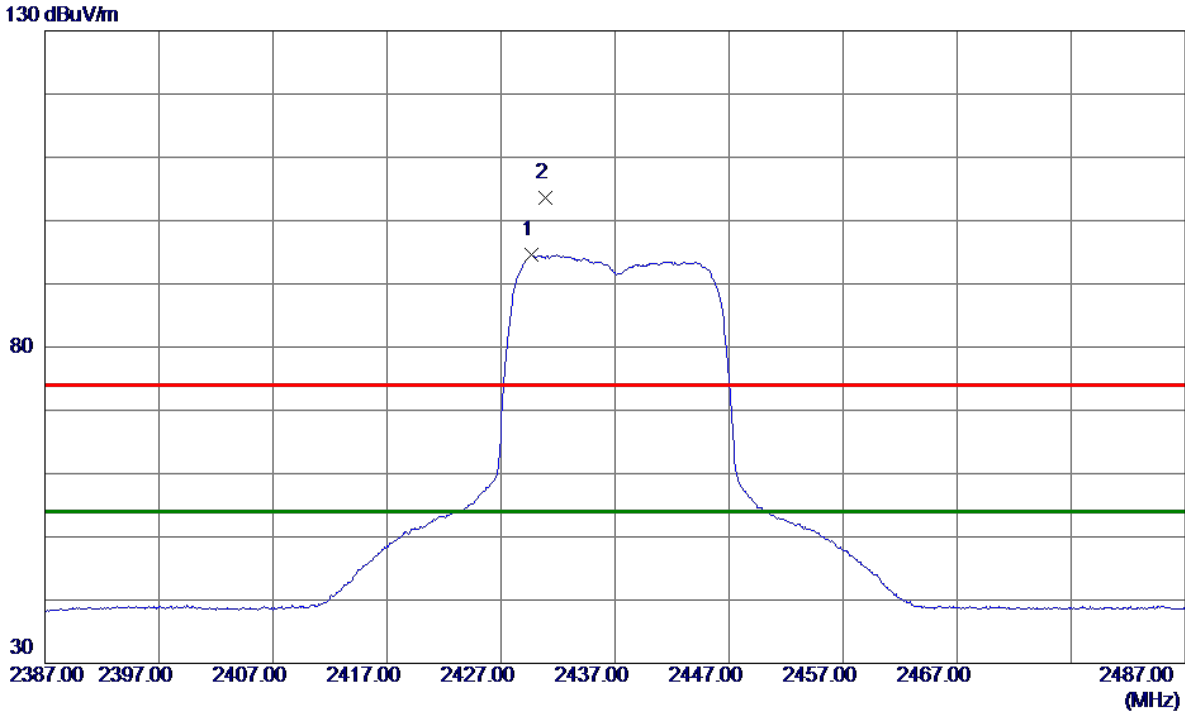
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9748.9020	29.77	13.02	42.79	54.00	-11.21	AVG	
2	9748.9300	37.85	13.02	50.87	74.00	-23.13	Peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2429.7000	84.47	10.10	94.57	54.00	40.57	AVG	No Limit
2	2430.8500	93.57	10.10	103.67	74.00	29.67	Peak	No Limit

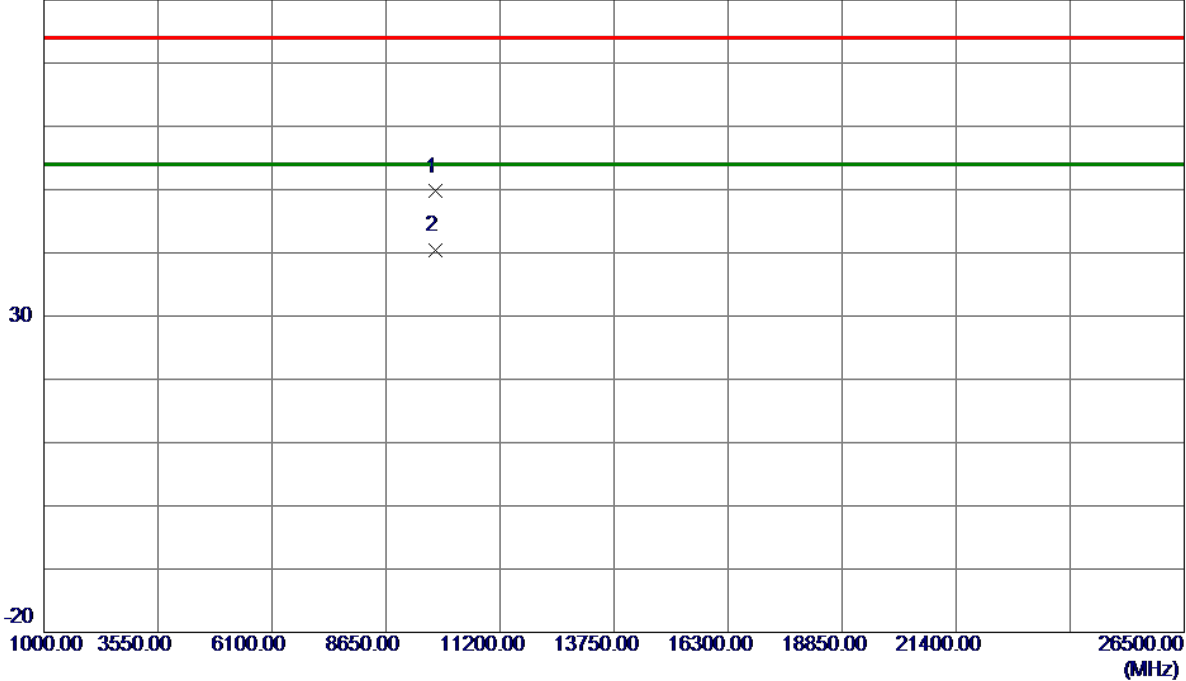
REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Horizontal

80 dBuV/m



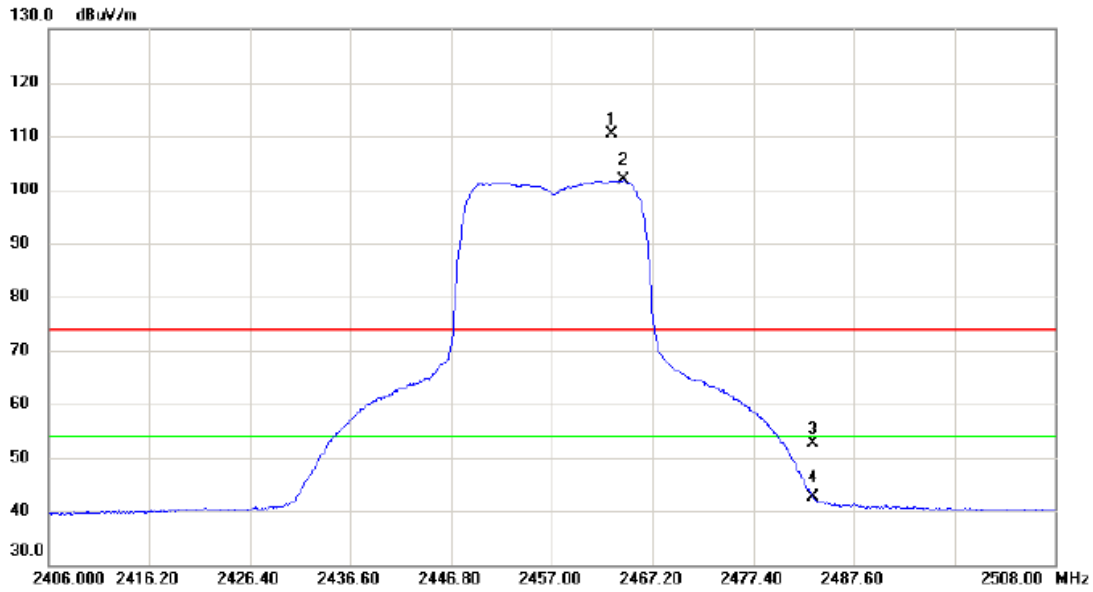
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9748.7990	36.68	13.02	49.70	74.00	-24.30	Peak	
2 *	9748.8550	27.44	13.02	40.46	54.00	-13.54	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

Vertical



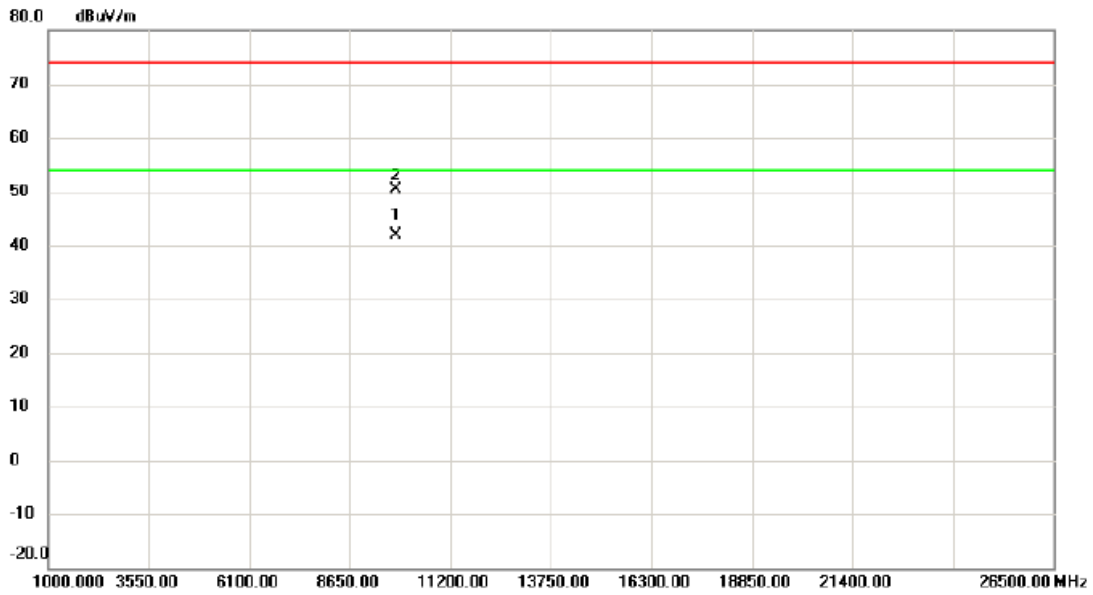
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2463.120	100.10	10.23	110.33	74.00	36.33	peak	No Limit
2	*	2464.293	91.55	10.23	101.78	54.00	47.78	AVG	No Limit
3		2483.500	42.25	10.29	52.54	74.00	-21.46	peak	
4		2483.500	32.28	10.29	42.57	54.00	-11.43	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

Vertical



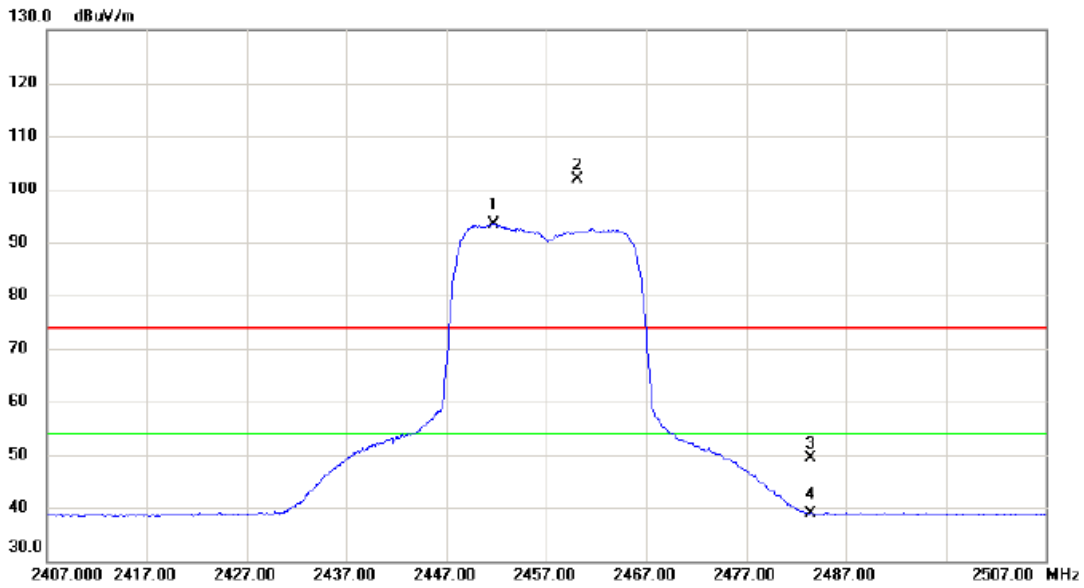
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9828.964	28.96	13.02	41.98	54.00	-12.02	AVG	
2		9829.061	37.32	13.02	50.34	74.00	-23.66	peak	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

Horizontal



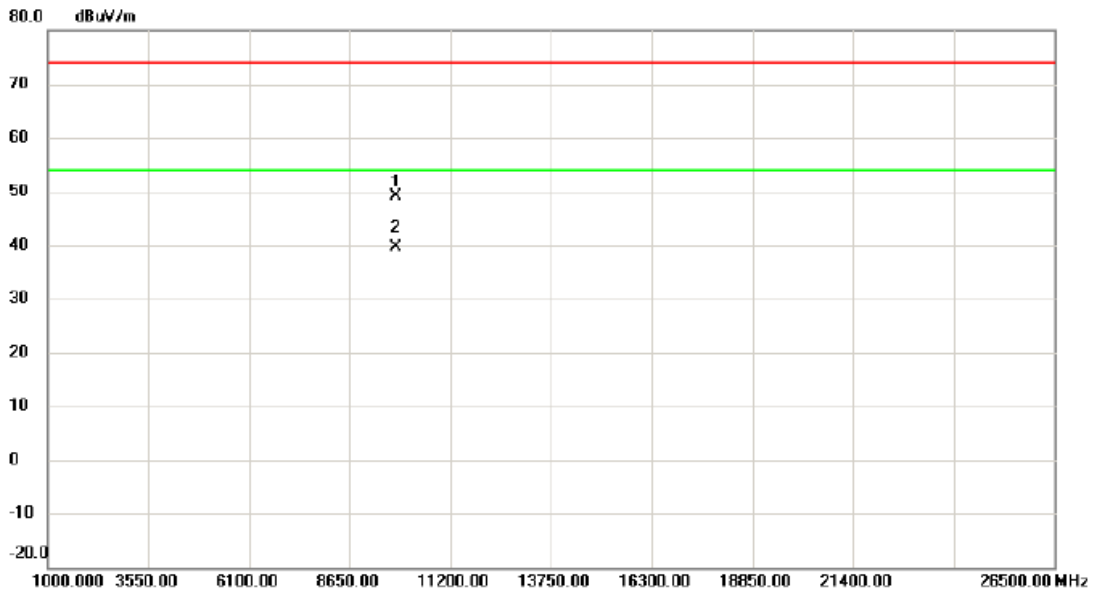
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2451.700	83.19	10.17	93.36	54.00	39.36	AVG	No Limit
2	X	2460.150	91.74	10.20	101.94	74.00	27.94	peak	No Limit
3		2483.500	39.14	10.29	49.43	74.00	-24.57	peak	
4		2483.500	28.69	10.29	38.98	54.00	-15.02	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2457 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		9828.973	36.07	13.02	49.09	74.00	-24.91	peak	
2	*	9829.169	26.56	13.02	39.58	54.00	-14.42	AVG	

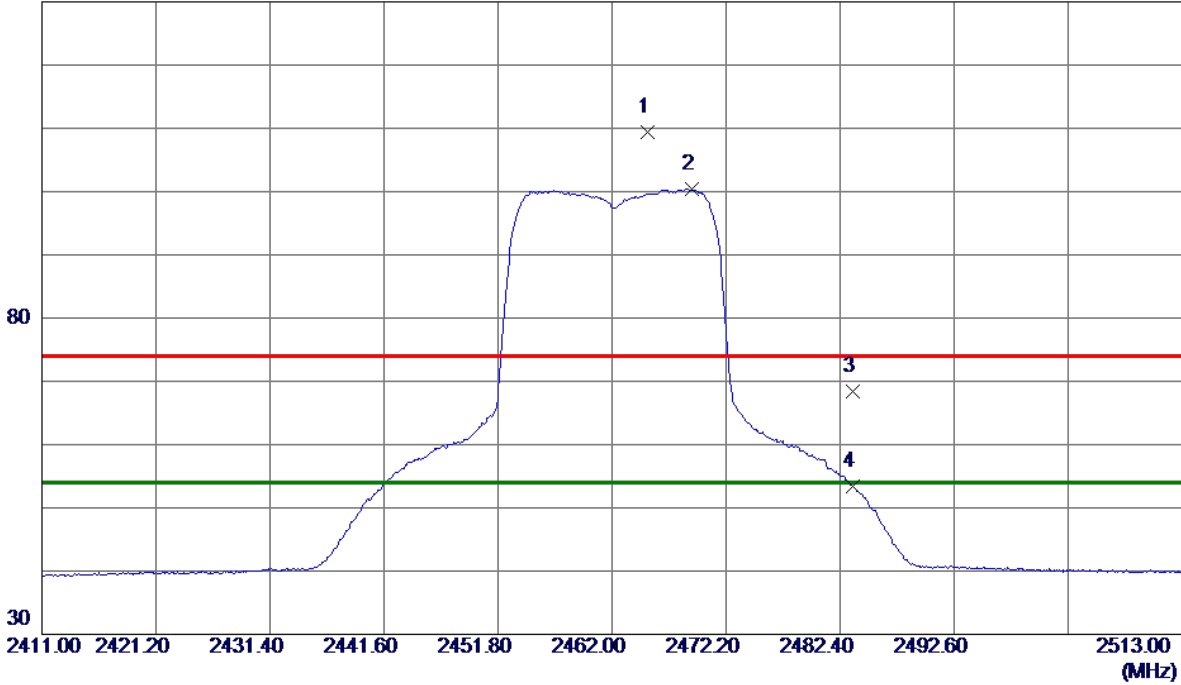
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2465.1620	99.25	10.23	109.48	74.00	35.48	Peak	No Limit
2 *	2469.0890	90.14	10.24	100.38	54.00	46.38	AVG	No Limit
3	2483.5000	58.12	10.30	68.42	74.00	-5.58	Peak	
4	2483.5000	43.18	10.30	53.48	54.00	-0.52	AVG	

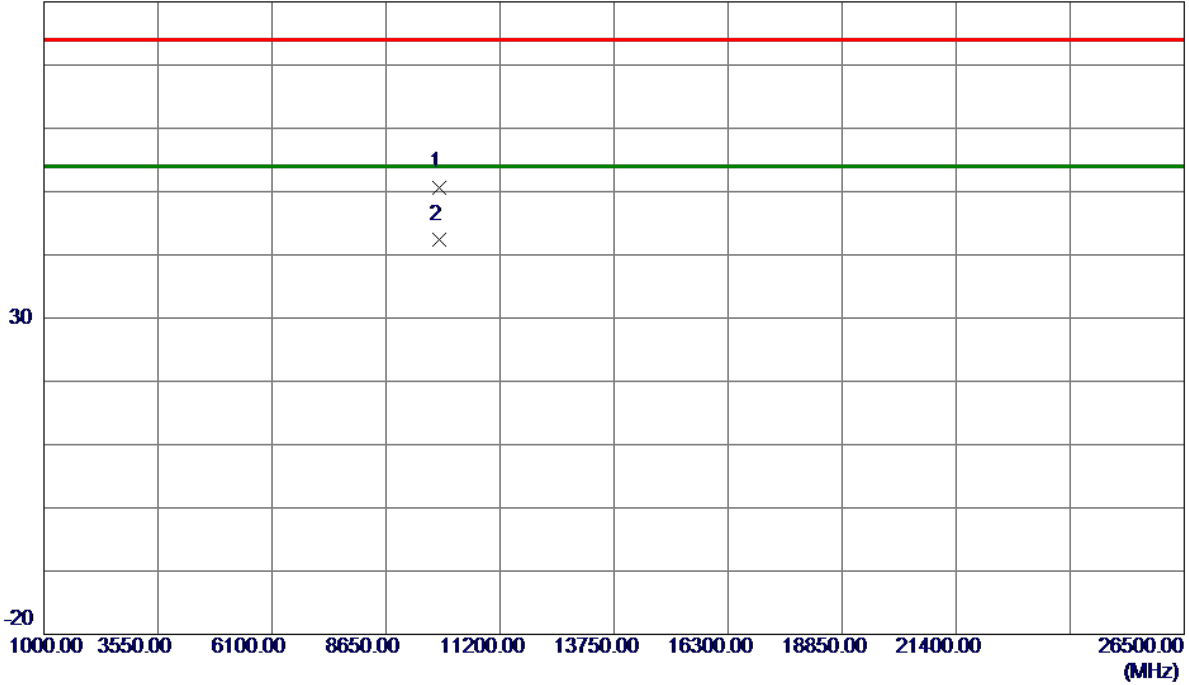
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Vertical

80 dBuV/m



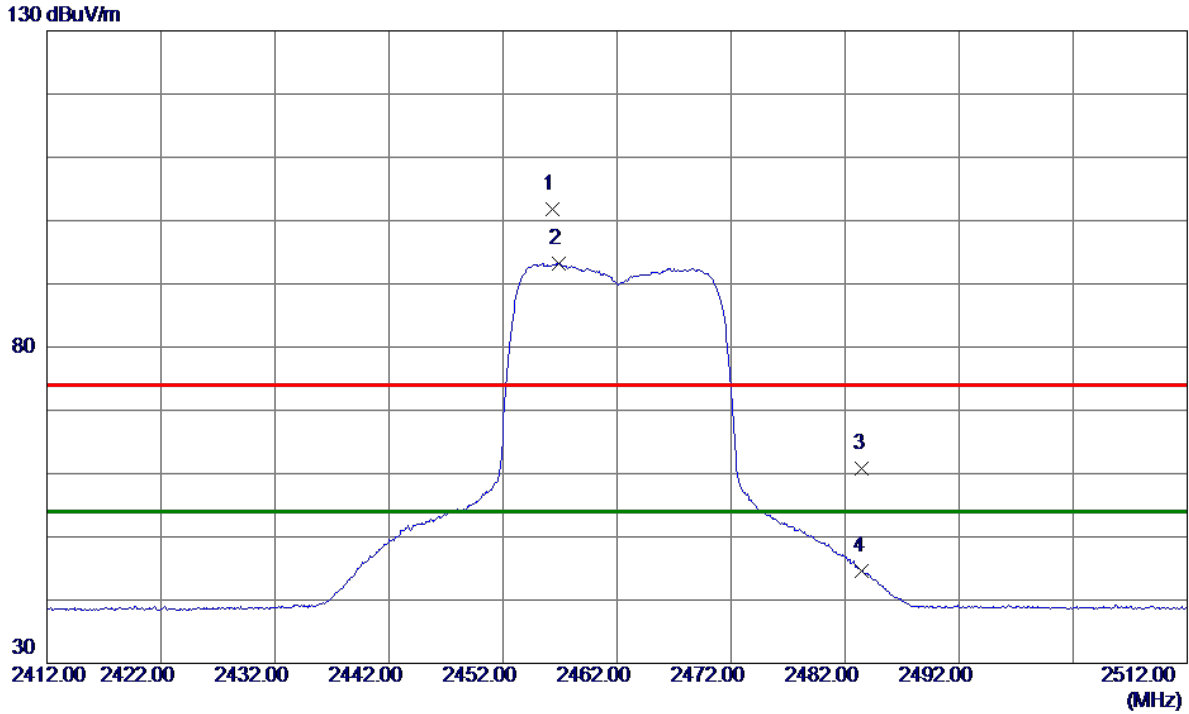
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9848.8700	37.68	13.02	50.70	74.00	-23.30	Peak	
2 *	9848.9920	29.34	13.02	42.36	54.00	-11.64	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2456.3500	91.66	10.20	101.86	74.00	27.86	Peak	No Limit
2 *	2456.9000	83.07	10.20	93.27	54.00	39.27	AVG	No Limit
3	2483.5000	50.41	10.30	60.71	74.00	-13.29	Peak	
4	2483.5000	34.34	10.30	44.64	54.00	-9.36	AVG	

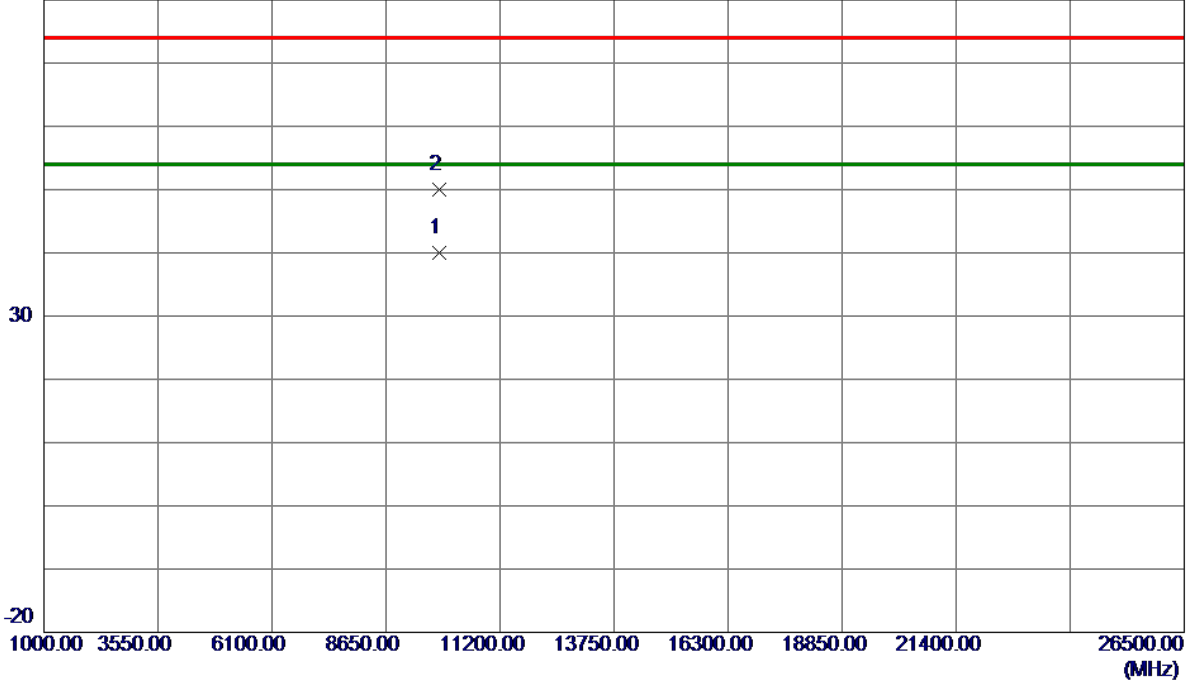
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Horizontal

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 *	9848.7590	26.99	13.02	40.01	54.00	-13.99	AVG	
2	9848.9109	37.04	13.02	50.06	74.00	-23.94	Peak	

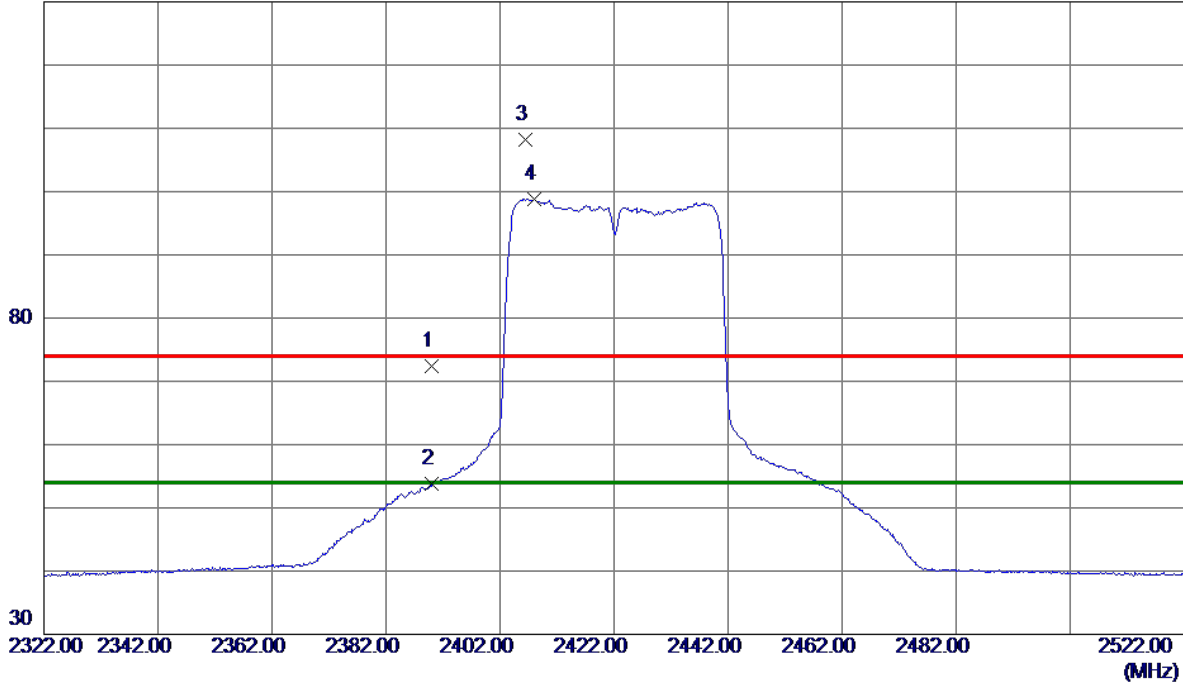
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Vertical

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	62.38	9.95	72.33	74.00	-1.67	Peak	
2	2390.0000	43.84	9.95	53.79	54.00	-0.21	AVG	
3	2406.4000	98.24	10.01	108.25	74.00	34.25	Peak	No Limit
4 *	2408.0000	88.77	10.01	98.78	54.00	44.78	AVG	No Limit

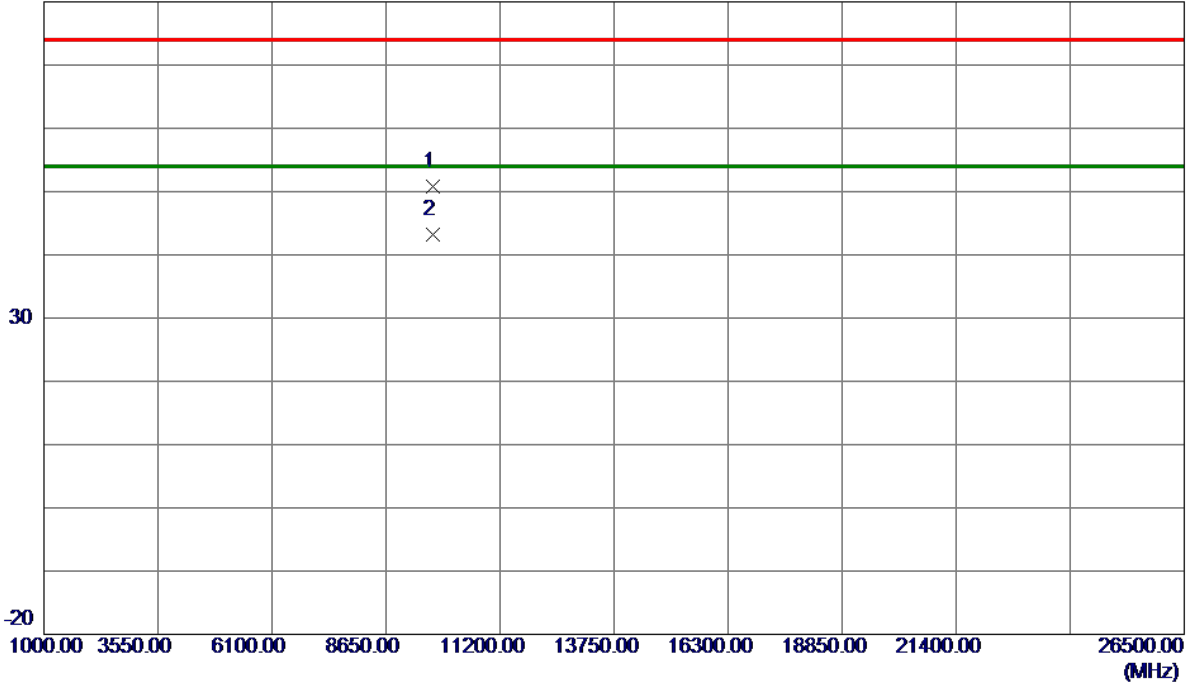
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Vertical

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	9688.6689	37.78	13.02	50.80	74.00	-23.20	Peak	
2 *	9688.8550	30.25	13.02	43.27	54.00	-10.73	AVG	

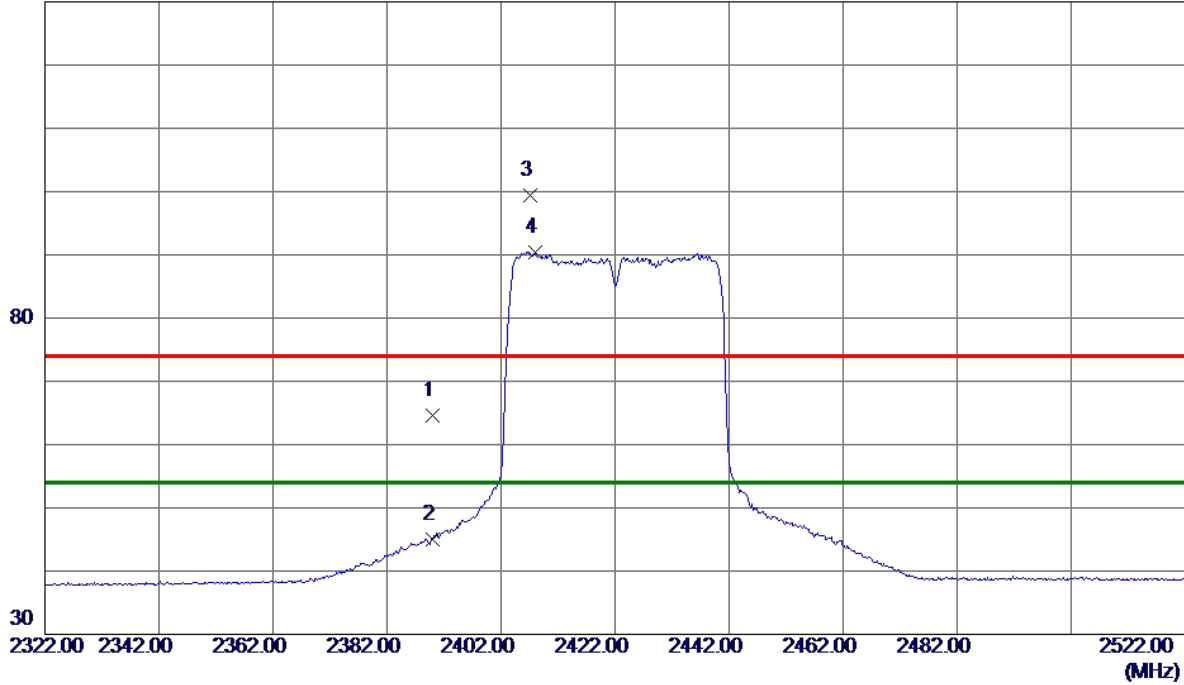
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	54.73	9.95	64.68	74.00	-9.32	Peak	
2	2390.0000	35.01	9.95	44.96	54.00	-9.04	AVG	
3	2407.1000	89.41	10.01	99.42	74.00	25.42	Peak	No Limit
4 *	2407.9000	80.41	10.01	90.42	54.00	36.42	AVG	No Limit

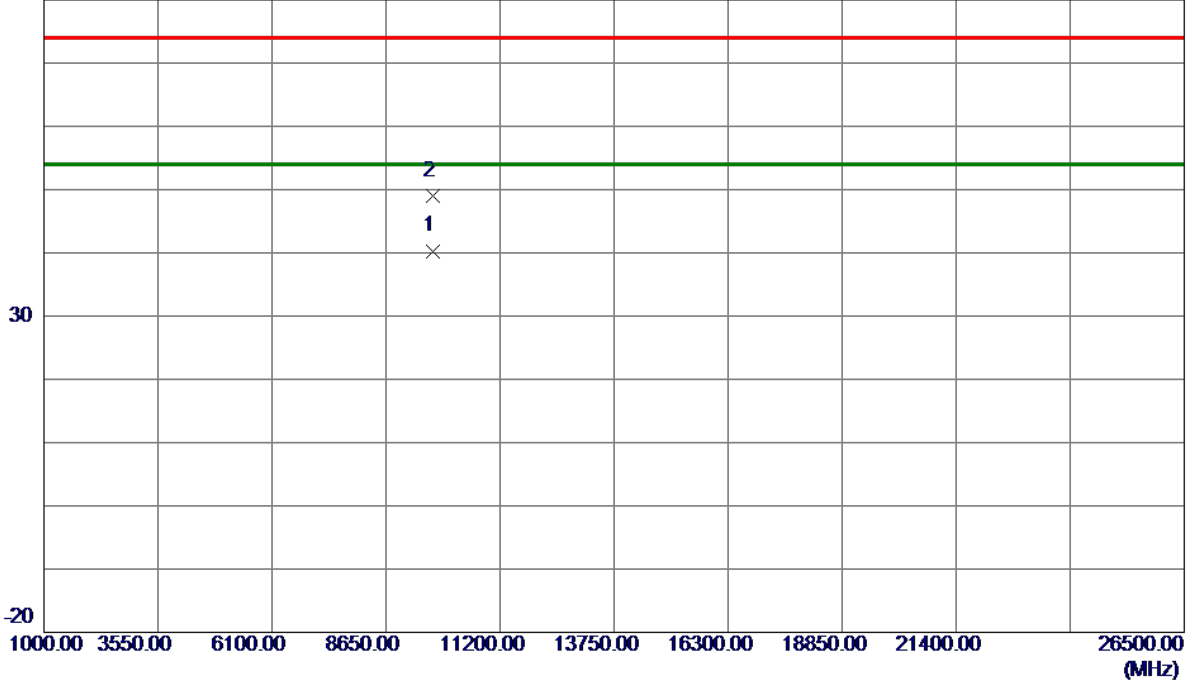
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Horizontal

80 dBuV/m



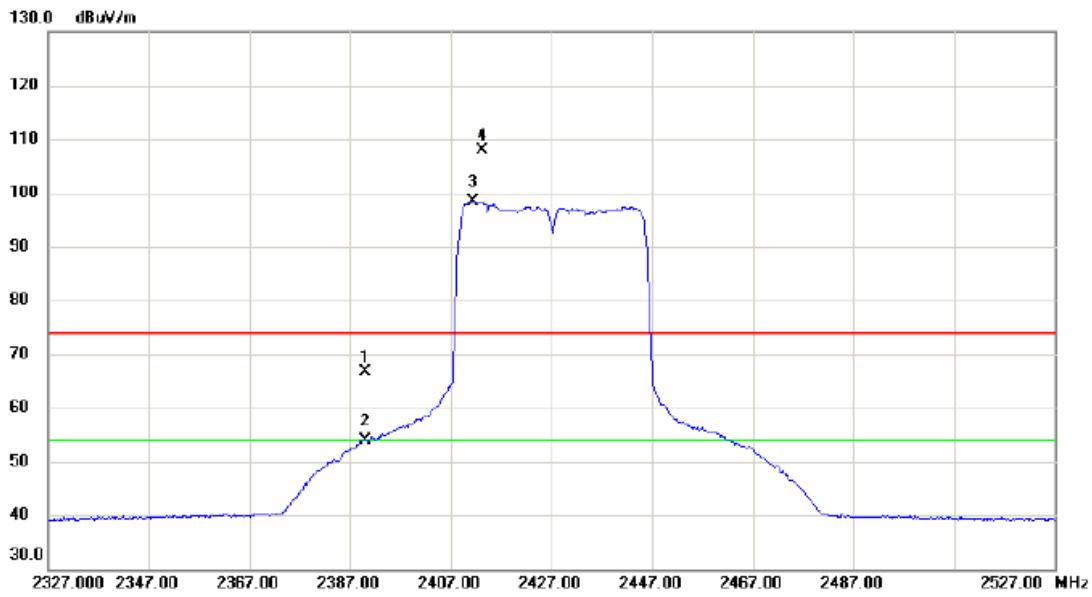
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9688.9150	27.28	13.02	40.30	54.00	-13.70	AVG	
2	9689.1060	36.02	13.02	49.04	74.00	-24.96	Peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2427 MHz

Vertical



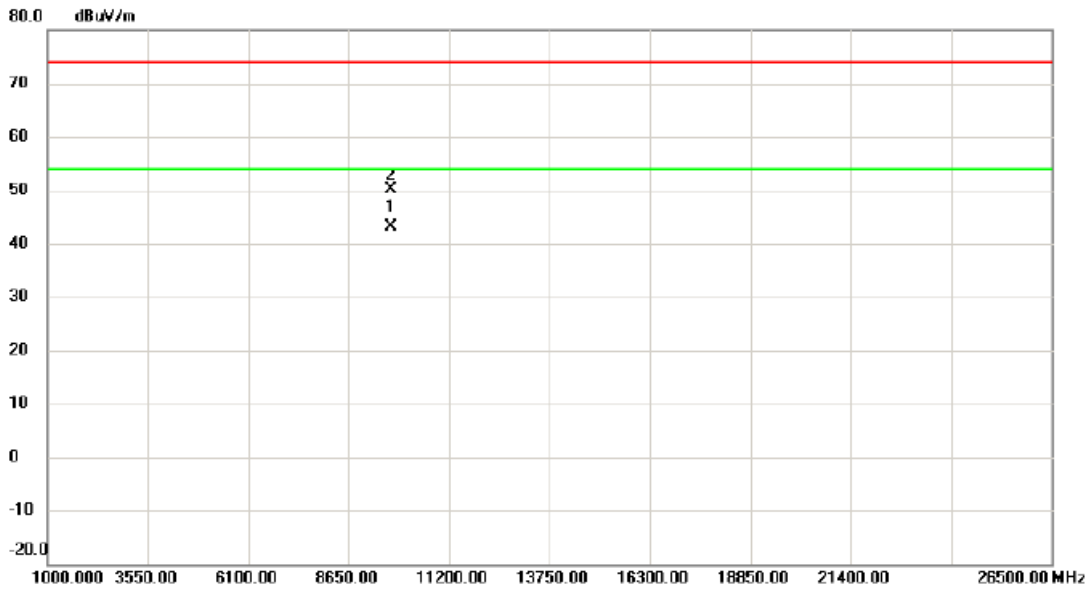
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	56.63	9.95	66.58	74.00	-7.42	peak	
2		2390.000	43.87	9.95	53.82	54.00	-0.18	AVG	
3	*	2411.500	88.44	10.03	98.47	54.00	44.47	AVG	No Limit
4	X	2413.300	97.96	10.04	108.00	74.00	34.00	peak	No Limit

REMARKS:

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

Test Mode: TX N-40M Mode 2427 MHz

Vertical



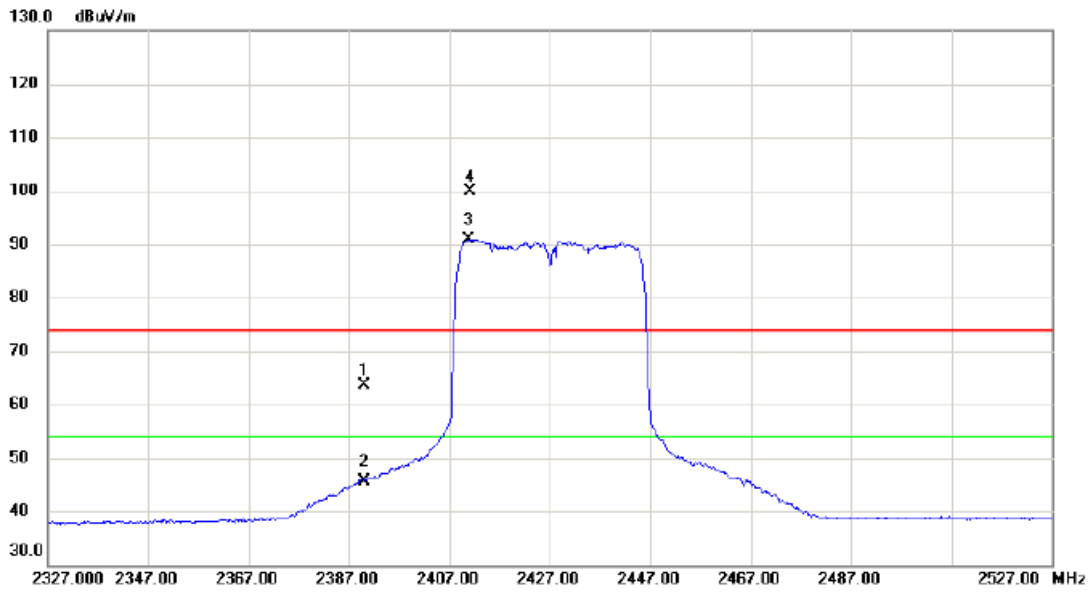
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9708.668	30.01	13.02	43.03	54.00	-10.97	AVG	
2		9709.069	37.18	13.02	50.20	74.00	-23.80	peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2427 MHz

Horizontal



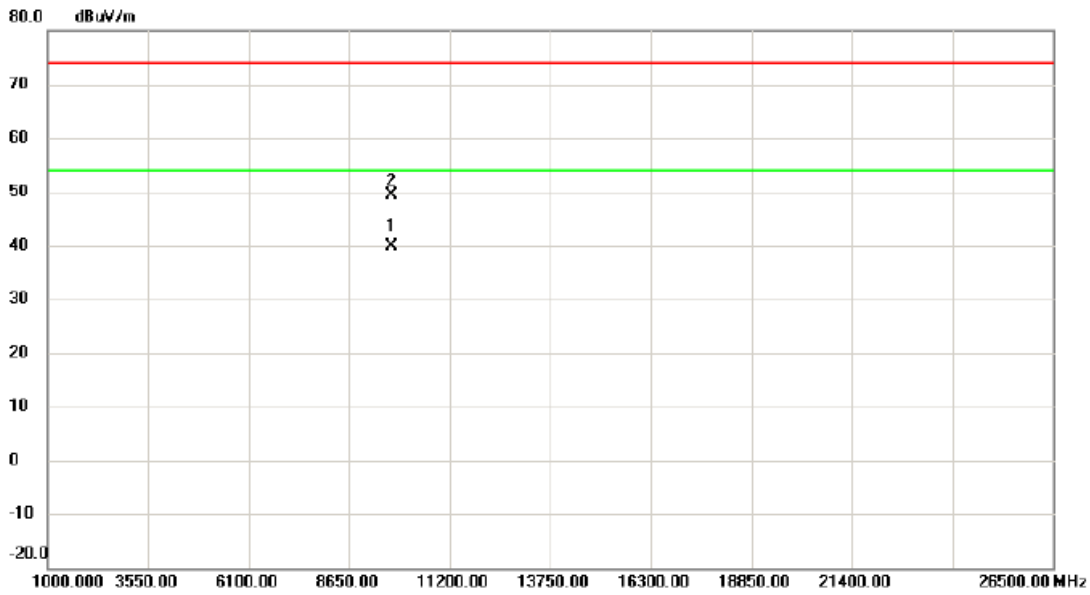
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2390.000	53.72	9.95	63.67	74.00	-10.33	peak	
2		2390.000	35.78	9.95	45.73	54.00	-8.27	AVG	
3	*	2410.800	80.90	10.02	90.92	54.00	36.92	AVG	No Limit
4	X	2411.100	89.87	10.02	99.89	74.00	25.89	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

Horizontal



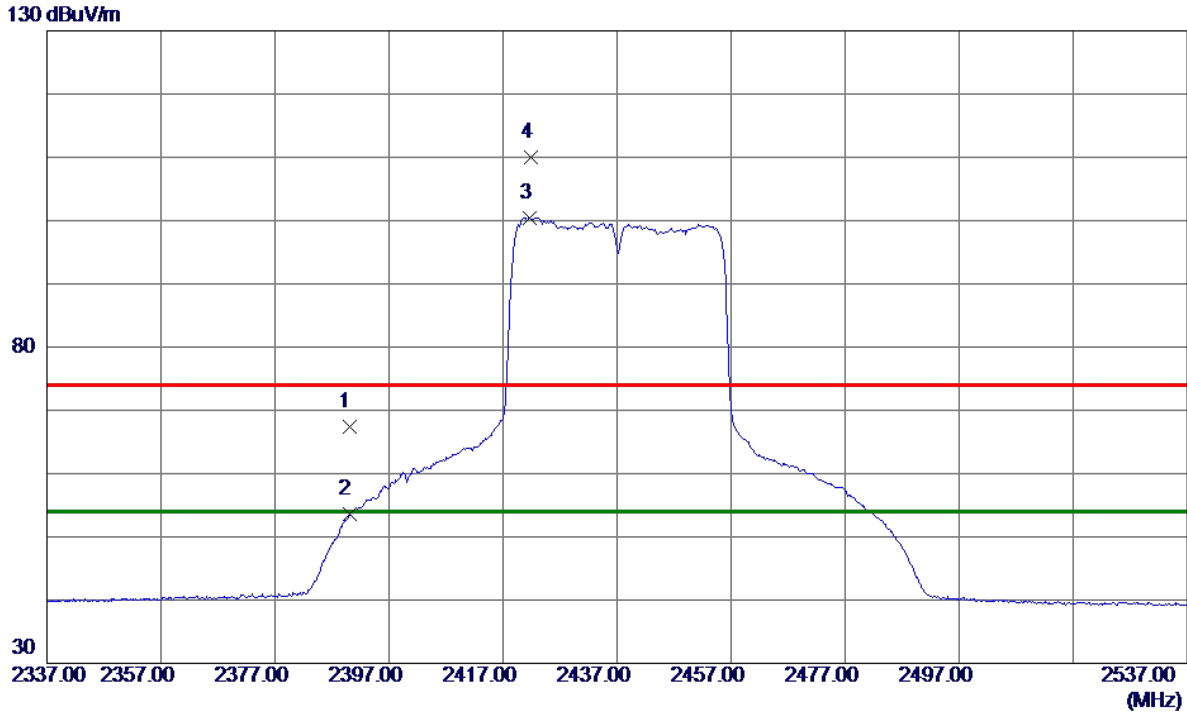
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	9708.610	26.85	13.02	39.87	54.00	-14.13	AVG	
2		9708.847	36.36	13.02	49.38	74.00	-24.62	peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2390.0000	57.42	9.95	67.37	74.00	-6.63	Peak	
2	2390.0000	43.68	9.95	53.63	54.00	-0.37	AVG	
3 *	2421.7000	90.37	10.07	100.44	54.00	46.44	AVG	No Limit
4	2421.8000	100.00	10.07	110.07	74.00	36.07	Peak	No Limit

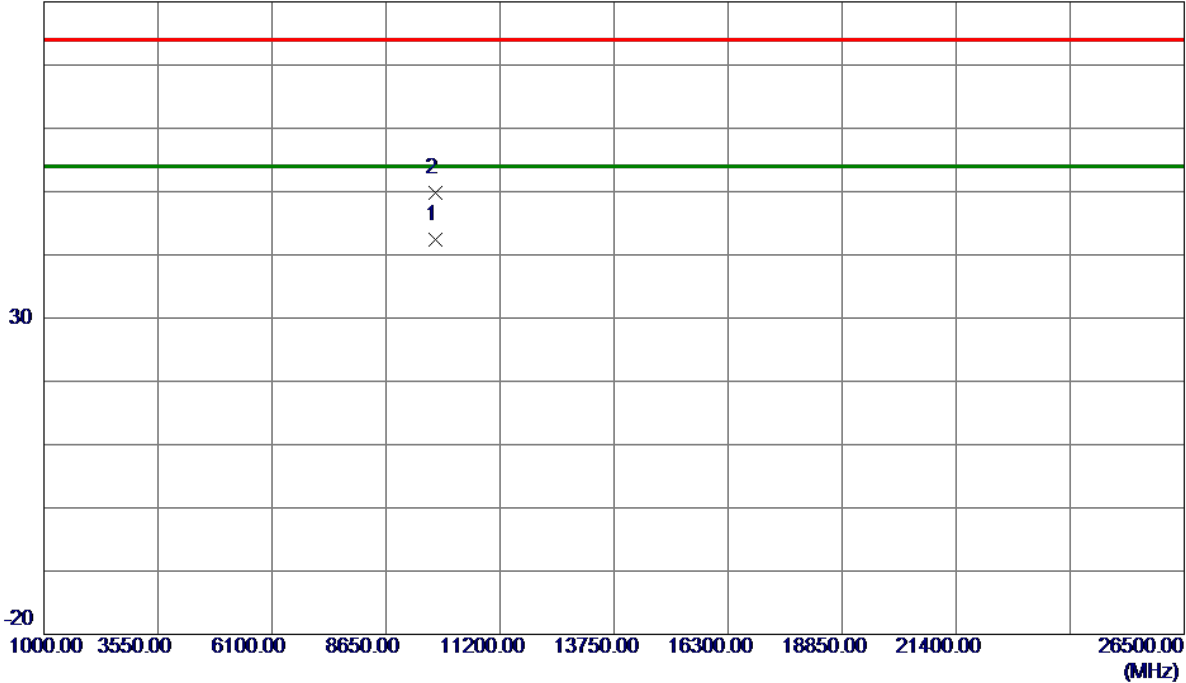
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical

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 *	9748.4860	29.45	13.02	42.47	54.00	-11.53	AVG	
2	9748.7590	36.81	13.02	49.83	74.00	-24.17	Peak	

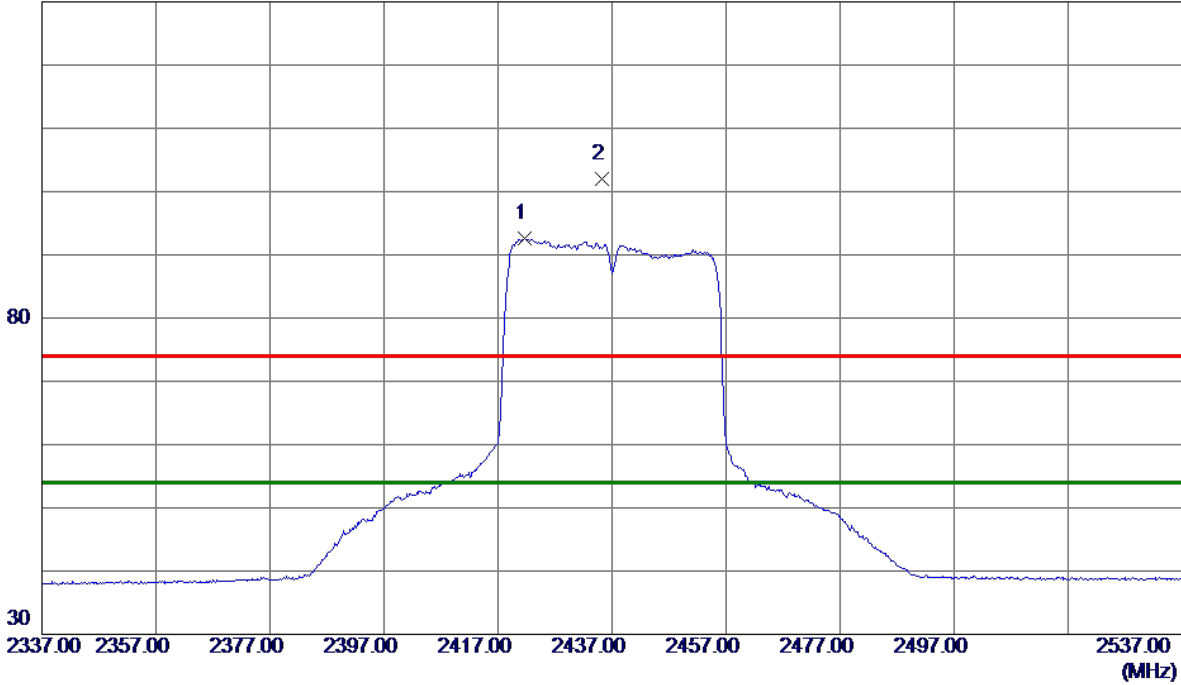
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2421.7000	82.49	10.07	92.56	54.00	38.56	AVG	No Limit
2	2435.3000	91.80	10.12	101.92	74.00	27.92	Peak	No Limit

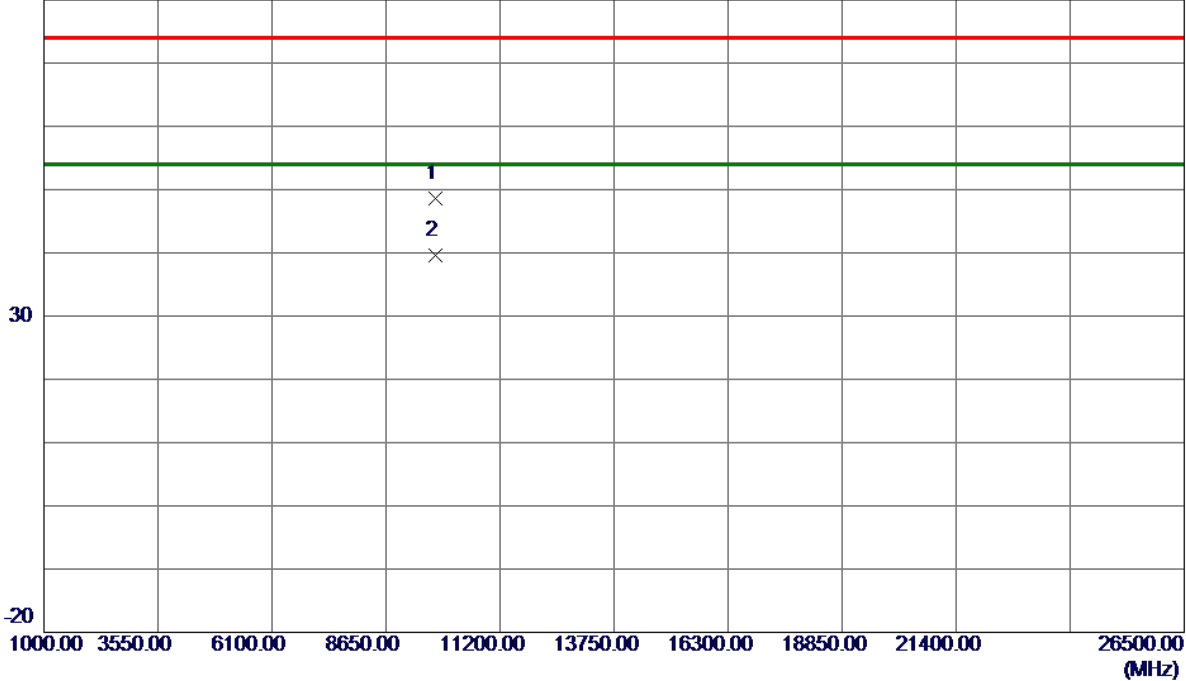
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal

80 dBuV/m



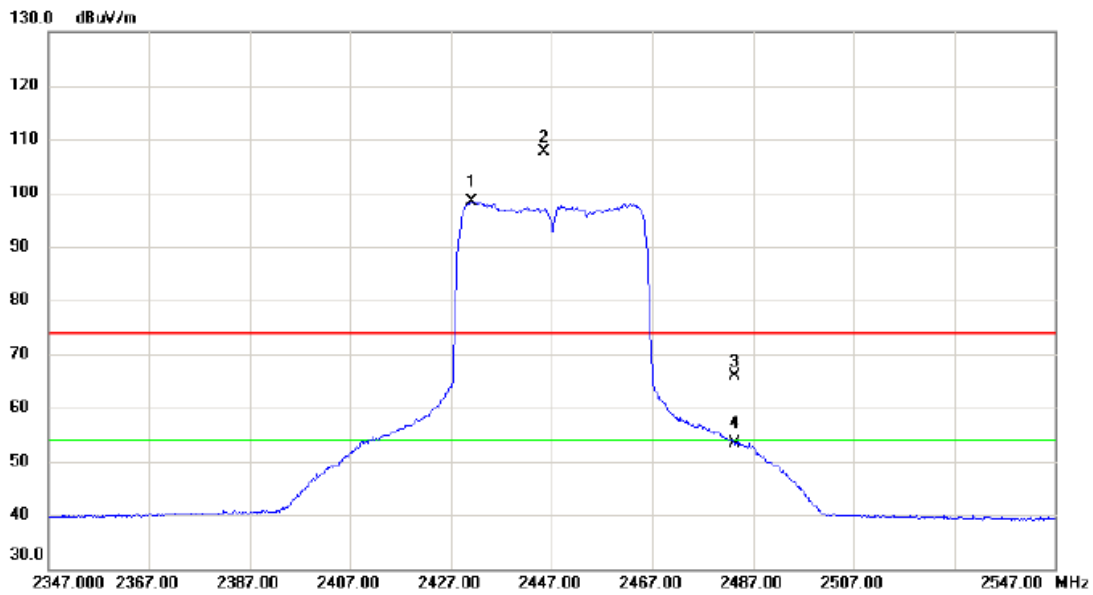
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9748.2650	35.63	13.02	48.65	74.00	-25.35	Peak	
2 *	9748.6580	26.60	13.02	39.62	54.00	-14.38	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2447 MHz

Vertical



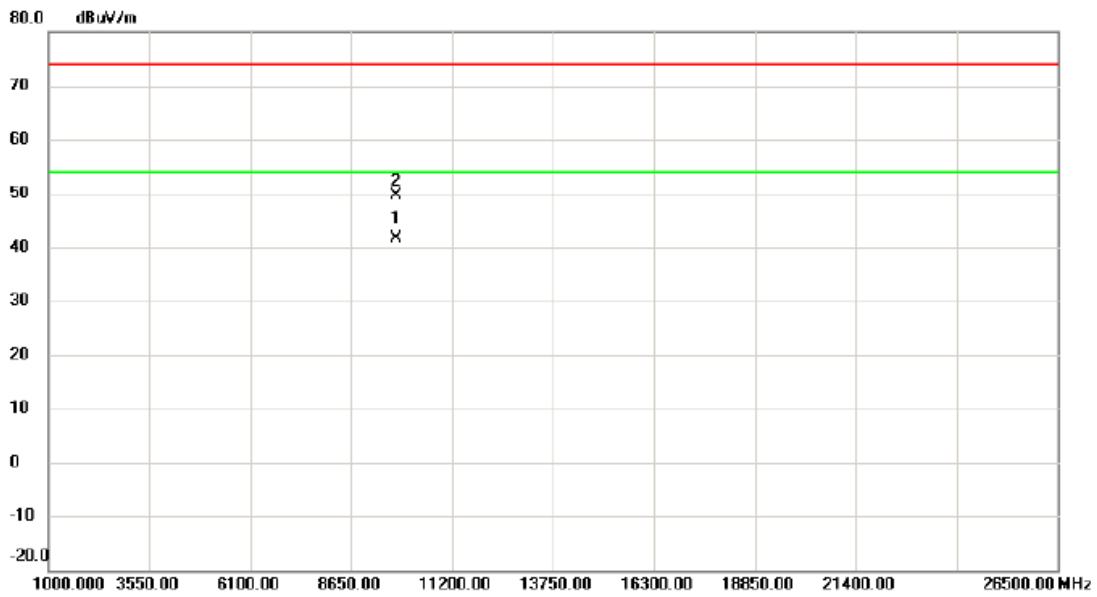
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	*	2431.000	88.19	10.10	98.29	54.00	44.29	AVG	No Limit
2	X	2445.400	97.46	10.16	107.62	74.00	33.62	peak	No Limit
3		2483.500	55.48	10.29	65.77	74.00	-8.23	peak	
4		2483.500	42.99	10.29	53.28	54.00	-0.72	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2447 MHz

Vertical



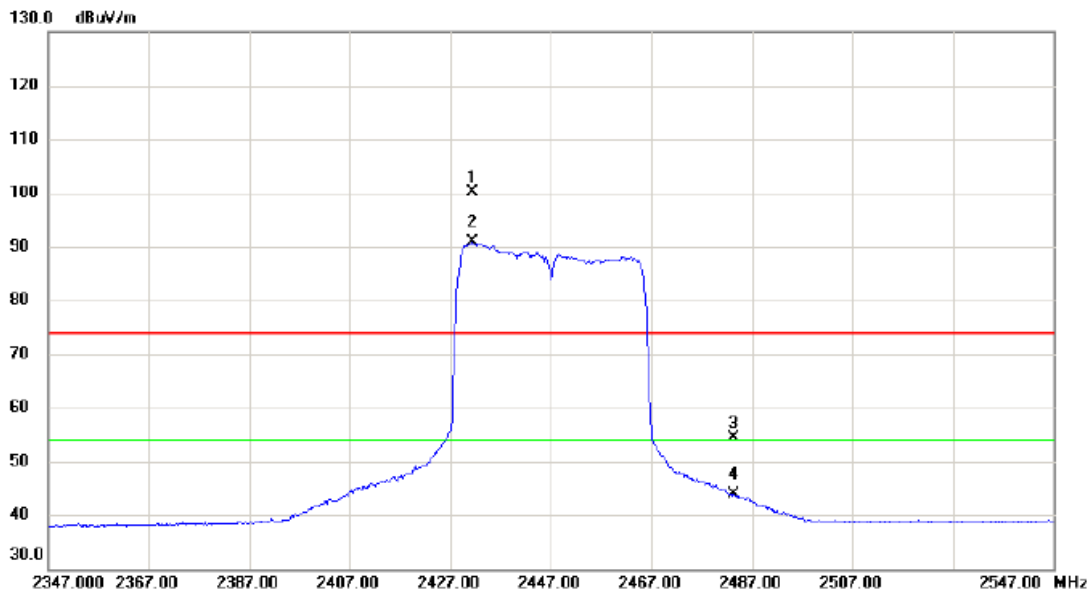
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	9788.712	28.60	13.02	41.62	54.00	-12.38	AVG	
2		9788.908	36.57	13.02	49.59	74.00	-24.41	peak	

REMARKS:

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

Test Mode: TX N-40M Mode 2447 MHz

Horizontal



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	X	2431.300	90.03	10.10	100.13	74.00	26.13	peak	No Limit
2	*	2431.500	80.66	10.10	90.76	54.00	36.76	AVG	No Limit
3		2483.500	44.09	10.29	54.38	74.00	-19.62	peak	
4		2483.500	33.65	10.29	43.94	54.00	-10.06	AVG	

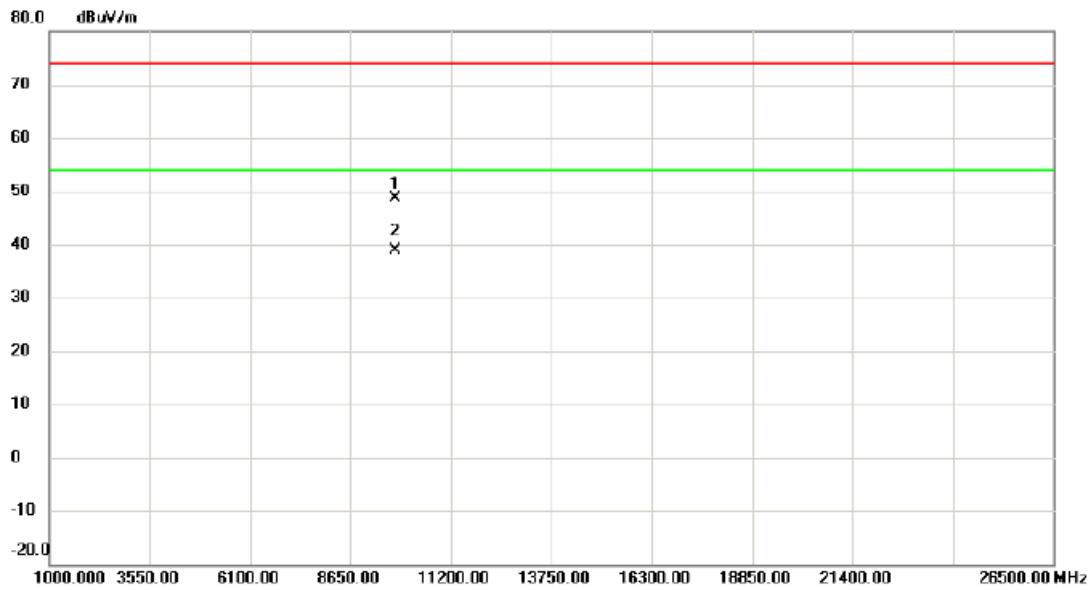
REMARKS:

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

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

Test Mode: TX N-40M Mode 2447 MHz

Horizontal



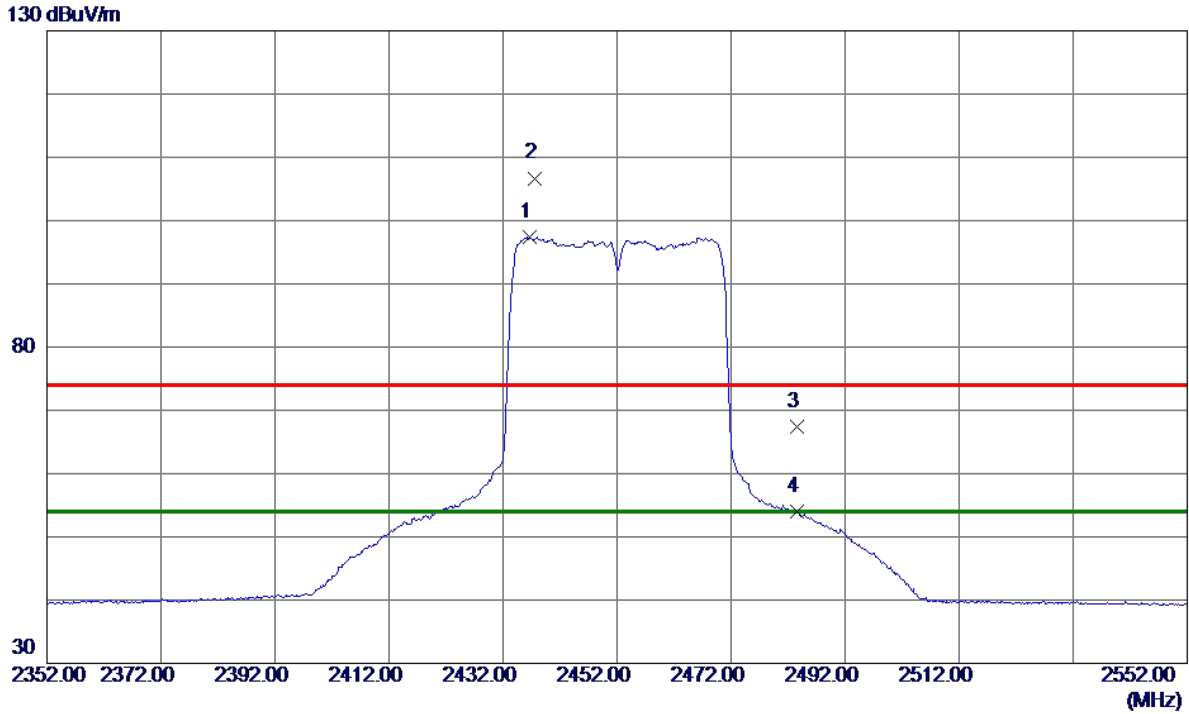
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		9788.631	35.70	13.02	48.72	74.00	-25.28	peak	
2	*	9788.749	25.89	13.02	38.91	54.00	-15.09	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2436.7000	87.30	10.12	97.42	54.00	43.42	AVG	No Limit
2	2437.5000	96.58	10.12	106.70	74.00	32.70	Peak	No Limit
3	2483.5000	57.16	10.30	67.46	74.00	-6.54	Peak	
4	2483.5000	43.61	10.30	53.91	54.00	-0.09	AVG	

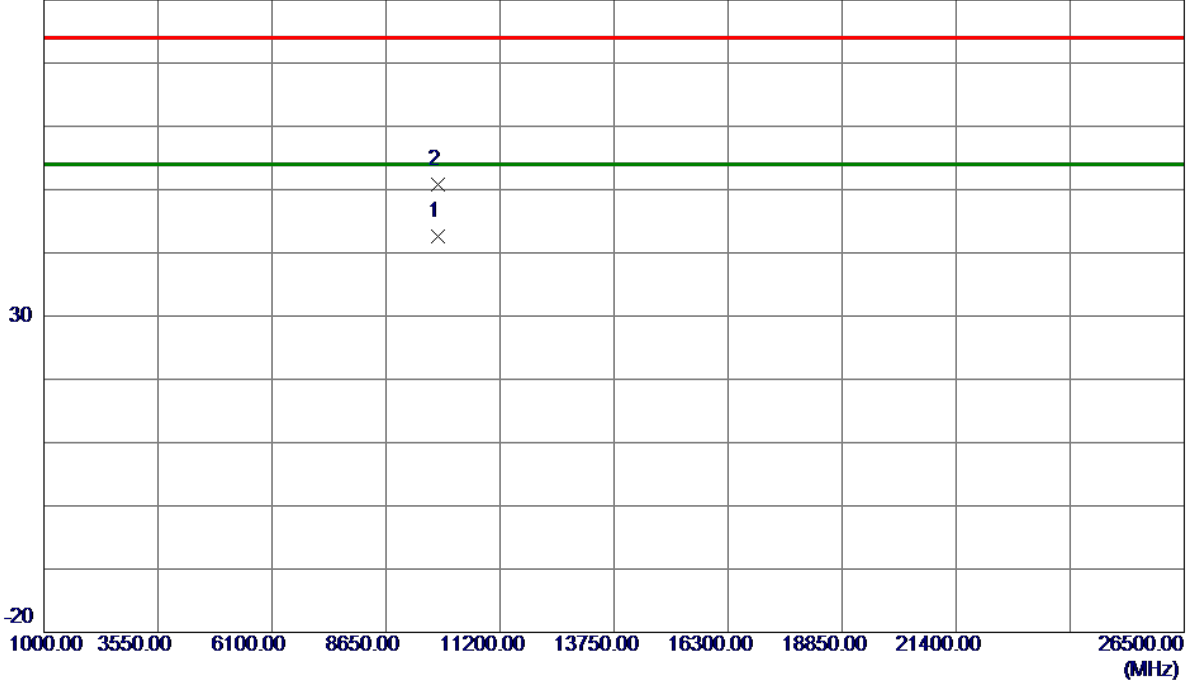
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Vertical

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 *	9808.7490	29.66	13.02	42.68	54.00	-11.32	AVG	
2	9808.8660	37.79	13.02	50.81	74.00	-23.19	Peak	

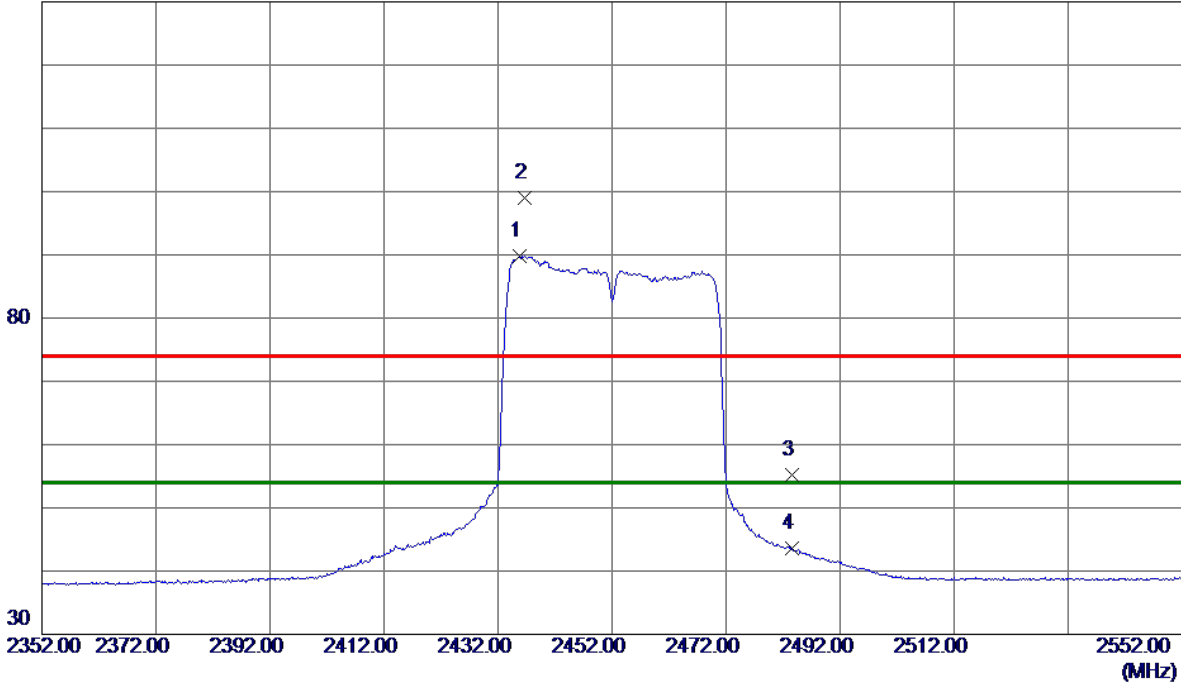
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Horizontal

130 dBuV/m



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2435.8000	79.72	10.12	89.84	54.00	35.84	AVG	No Limit
2	2436.6000	88.89	10.12	99.01	74.00	25.01	Peak	No Limit
3	2483.5000	44.83	10.30	55.13	74.00	-18.87	Peak	
4	2483.5000	33.21	10.30	43.51	54.00	-10.49	AVG	

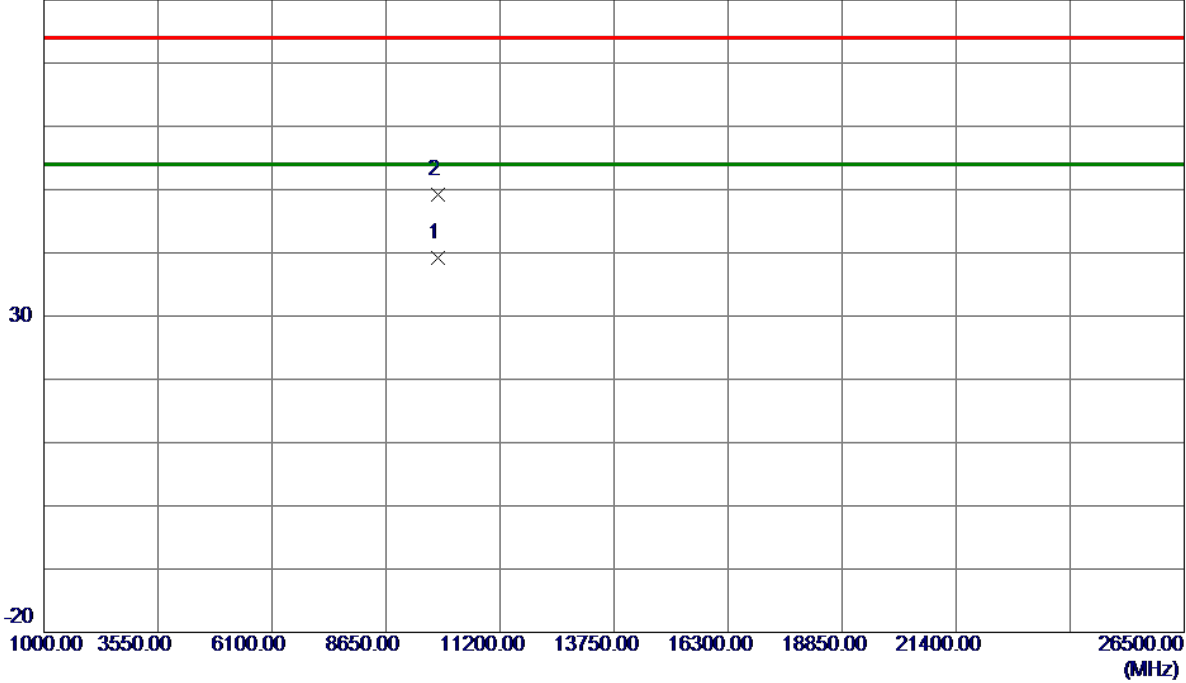
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Horizontal

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 *	9808.7800	26.15	13.02	39.17	54.00	-14.83	AVG	
2	9808.9090	36.16	13.02	49.18	74.00	-24.82	Peak	

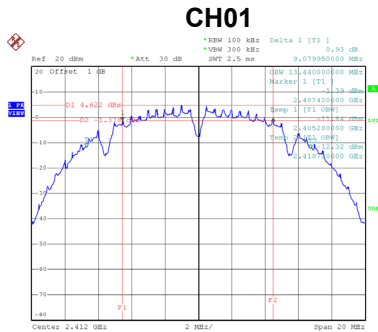
REMARKS:

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

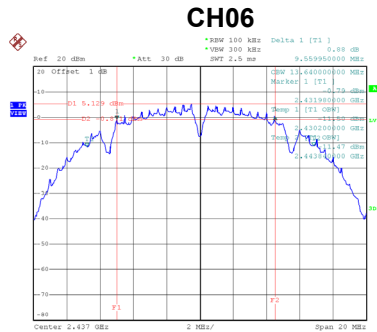
APPENDIX E - BANDWIDTH

Test Mode	TX B Mode
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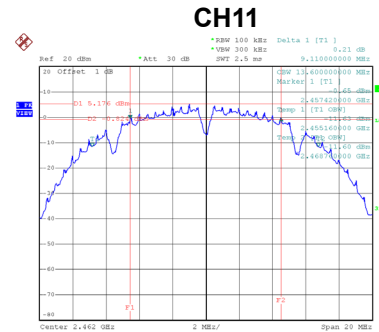
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	9.08	500	Complies
06	2437	9.56	500	Complies
11	2462	9.11	500	Complies



Date: 14.FEB.2020 10:38:39

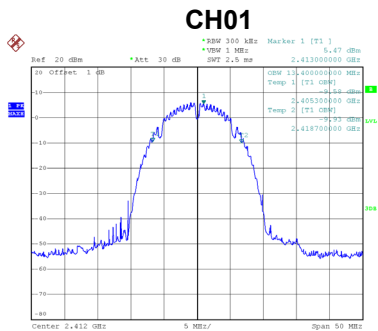


Date: 14.FEB.2020 10:42:34

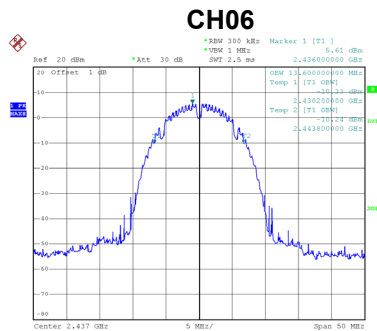


Date: 14.FEB.2020 10:44:39

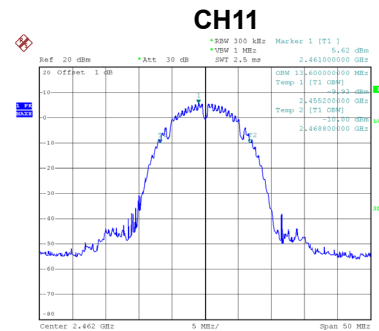
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	13.40	Complies
06	2437	13.60	Complies
11	2462	13.60	Complies



Date: 14.FEB.2020 10:40:49



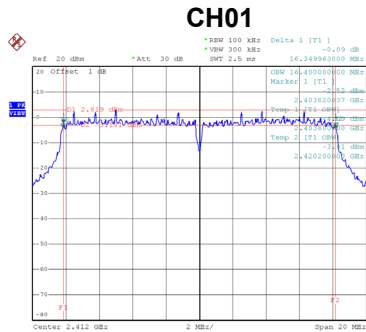
Date: 14.FEB.2020 10:41:14



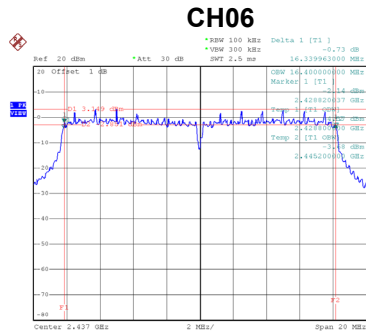
Date: 14.FEB.2020 10:45:45

Test Mode	TX G Mode
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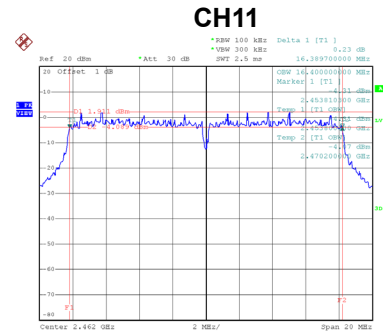
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.35	500	Complies
06	2437	16.34	500	Complies
11	2462	16.39	500	Complies



Date: 14.FEB.2020 10:47:11

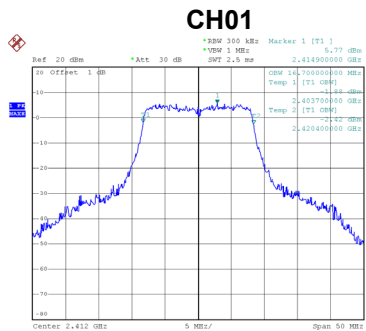


Date: 14.FEB.2020 10:48:46

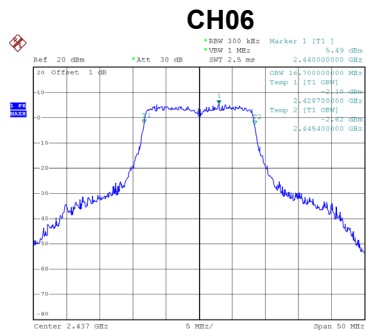


Date: 14.FEB.2020 10:50:39

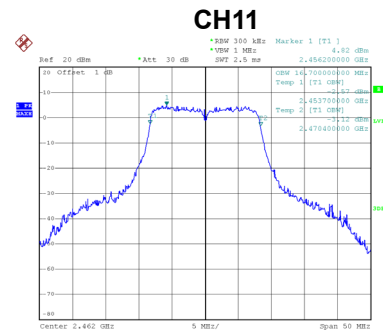
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.70	Complies
06	2437	16.70	Complies
11	2462	16.70	Complies



Date: 14.FEB.2020 10:46:15



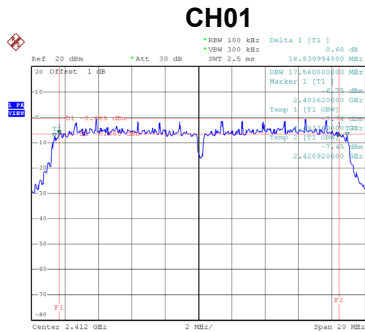
Date: 14.FEB.2020 10:49:52



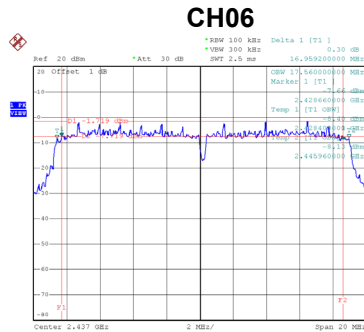
Date: 14.FEB.2020 10:50:09

Test Mode	TX N-20M Mode
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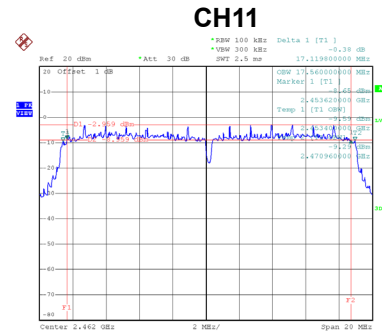
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.84	500	Complies
06	2437	16.96	500	Complies
11	2462	17.12	500	Complies



Date: 14.FEB.2020 10:55:14

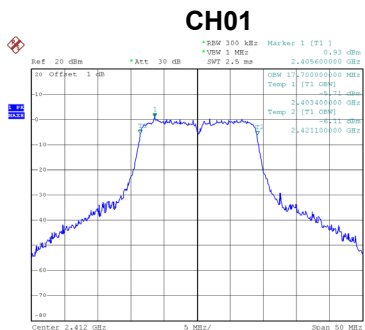


Date: 14.FEB.2020 10:57:33

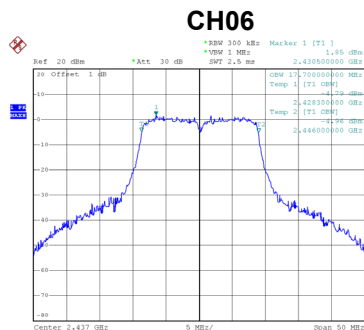


Date: 14.FEB.2020 10:59:05

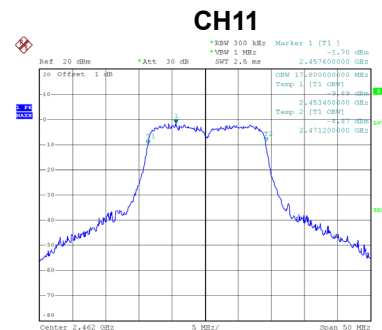
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.70	Complies
06	2437	17.70	Complies
11	2462	17.80	Complies



Date: 14.FEB.2020 10:56:40



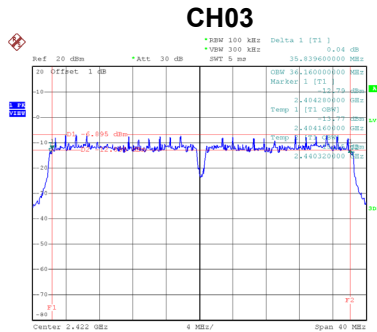
Date: 14.FEB.2020 10:57:01



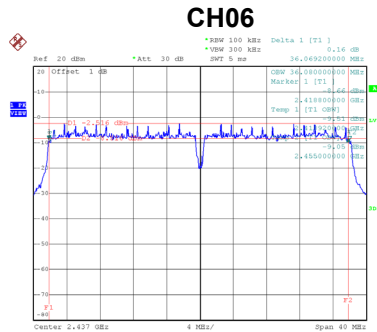
Date: 14.FEB.2020 11:00:25

Test Mode	TX N-40M Mode
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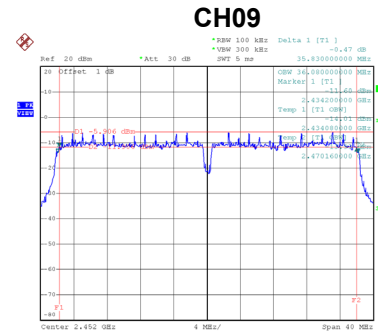
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	35.84	500	Complies
06	2437	36.07	500	Complies
09	2452	35.83	500	Complies



Date: 14.FEB.2020 11:01:32

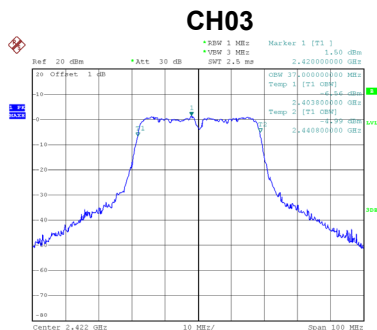


Date: 14.FEB.2020 12:13:26

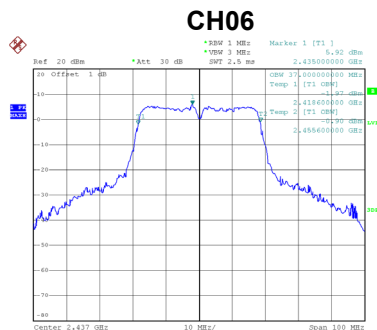


Date: 14.FEB.2020 12:41:46

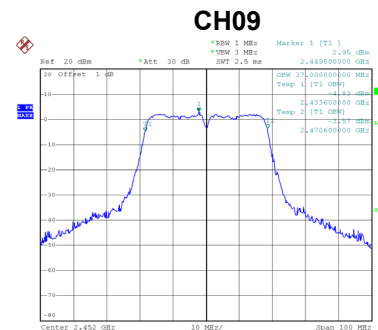
Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	37.00	Complies
06	2437	37.00	Complies
09	2452	37.00	Complies



Date: 14.FEB.2020 11:01:05



Date: 14.FEB.2020 12:40:39



Date: 14.FEB.2020 12:41:06

APPENDIX F - MAXIMUM AVERAGE OUTPUT POWER

Test Mode	TX B Mode _Ant. 1
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Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.92	0.00	15.92	30.00	1.0000	Complies
06	2437	15.56	0.00	15.56	30.00	1.0000	Complies
11	2462	15.98	0.00	15.98	30.00	1.0000	Complies

Test Mode	TX G Mode _Ant. 1
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Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.38	0.19	15.57	30.00	1.0000	Complies
06	2437	15.44	0.19	15.63	30.00	1.0000	Complies
11	2462	15.34	0.19	15.53	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 1
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Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	13.39	0.22	13.61	30.00	1.0000	Complies
06	2437	13.37	0.22	13.59	30.00	1.0000	Complies
11	2462	13.46	0.22	13.68	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 2
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Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	13.31	0.22	13.53	30.00	1.0000	Complies
06	2437	13.44	0.22	13.66	30.00	1.0000	Complies
11	2462	13.37	0.22	13.59	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Total
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Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.58	30.00	1.0000	Complies
06	2437	16.63	30.00	1.0000	Complies
11	2462	16.64	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 1
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Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.11	0.46	13.57	30.00	1.0000	Complies
06	2437	13.32	0.46	13.78	30.00	1.0000	Complies
09	2452	13.11	0.46	13.57	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 2
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Channel	Frequency (MHz)	Average Output Power (dBm)	Duty Factor	Average Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.56	0.46	14.02	30.00	1.0000	Complies
06	2437	13.39	0.46	13.85	30.00	1.0000	Complies
09	2452	13.49	0.46	13.95	30.00	1.0000	Complies

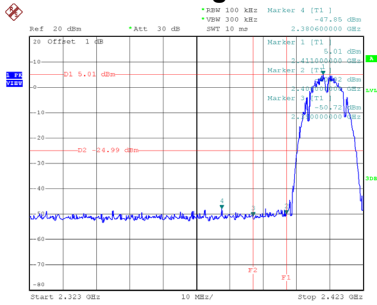
Test Mode	TX N-40M Mode_Total
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Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.82	30.00	1.0000	Complies
06	2437	16.83	30.00	1.0000	Complies
09	2452	16.78	30.00	1.0000	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

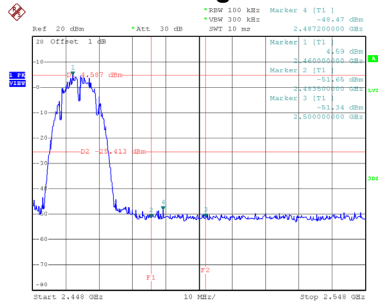
Test Mode TX B Mode _Ant. 1

Bandedge-CH01



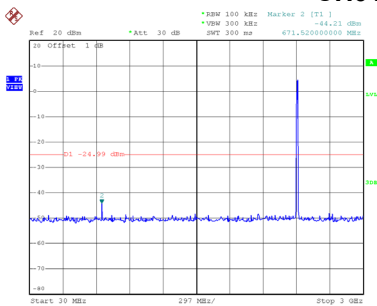
Date: 14.FEB.2020 10:39:32

Bandedge-CH11

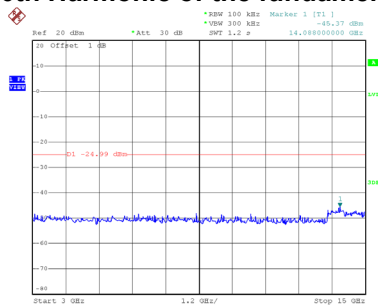


Date: 14.FEB.2020 10:44:49

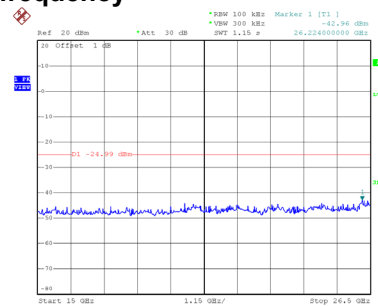
CH01 – 10th Harmonic of the fundamental frequency



Date: 14.FEB.2020 10:39:46

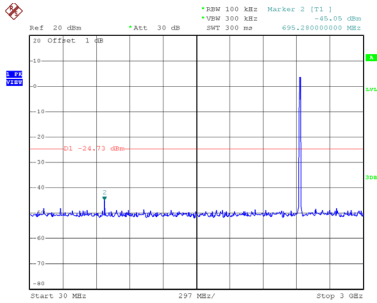


Date: 14.FEB.2020 10:39:55

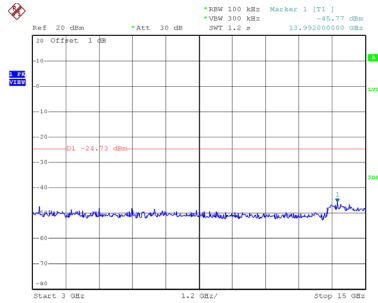


Date: 14.FEB.2020 10:40:03

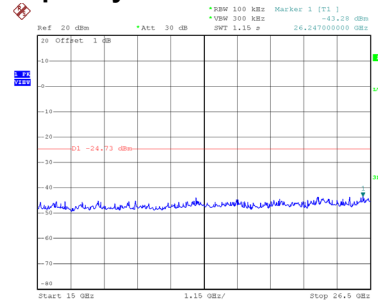
CH06 – 10th Harmonic of the fundamental frequency



Date: 14.FEB.2020 10:42:58

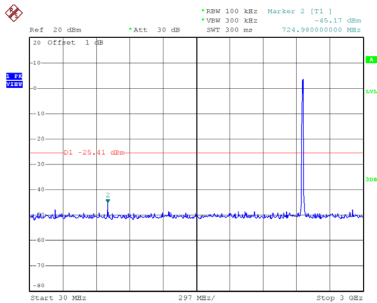


Date: 14.FEB.2020 10:43:07

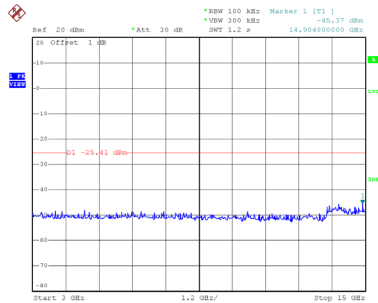


Date: 14.FEB.2020 10:43:16

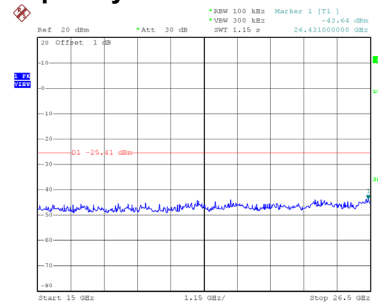
CH11 – 10th Harmonic of the fundamental frequency



Date: 14.FEB.2020 10:45:04



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Date: 14.FEB.2020 10:45:22