

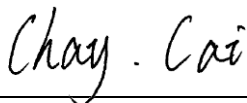
FCC Radio Test Report

FCC ID: V7TAC19

This report concerns: Original Grant

Project No. : 1912C171
Equipment : AC2100 Dual Band Gigabit WiFi Router
Brand Name : Tenda
Test Model : AC19
Series Model : N/A
Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Manufacturer : SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052
Date of Receipt : Dec. 25, 2019
Date of Test : Dec. 27, 2019 ~ Feb. 21, 2020
Issued Date : Mar. 06, 2020
Report Version : R00
Test Sample : Engineering Sample No.: DG2019122549 for conducted, DG2020010715 for radiated.
Standard(s) : FCC Part15, Subpart C (15.247)
 ANSI C63.10-2013
 KDB 558074 D01 15.247 Meas Guidance v05r02

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



Prepared by : Chay Cai



Approved by : Ethan Ma



Certificate #5123.02

Add: No.3, Jinshagang 1st Road, Shixia, Dalang Town,Dongguan, Guangdong, China.

Tel: +86-769-8318-3000

Web: www.newbtl.com

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

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

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA, or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

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

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

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

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

Table of Contents	Page
REPORT ISSUED HISTORY	6
1 . SUMMARY OF TEST RESULTS	7
1.1 TEST FACILITY	8
1.2 MEASUREMENT UNCERTAINTY	8
1.3 TEST ENVIRONMENT CONDITIONS	8
2 . GENERAL INFORMATION	9
2.1 GENERAL DESCRIPTION OF EUT	9
2.2 DESCRIPTION OF TEST MODES	11
2.3 PARAMETERS OF TEST SOFTWARE	13
2.4 DUTY CYCLE	14
2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	15
2.6 SUPPORT UNITS	15
3 . AC POWER LINE CONDUCTED EMISSIONS TEST	16
3.1 LIMIT	16
3.2 TEST PROCEDURE	16
3.3 DEVIATION FROM TEST STANDARD	16
3.4 TEST SETUP	17
3.5 EUT OPERATION CONDITIONS	17
3.6 TEST RESULTS	17
4 . RADIATED EMISSIONS TEST	18
4.1 LIMIT	18
4.2 TEST PROCEDURE	19
4.3 DEVIATION FROM TEST STANDARD	19
4.4 TEST SETUP	20
4.5 EUT OPERATION CONDITIONS	21
4.6 TEST RESULTS - 9 KHZ TO 30 MHZ	21
4.7 TEST RESULTS - 30 MHZ TO 1000 MHZ	21
4.8 TEST RESULTS - ABOVE 1000 MHZ	21
5 . BANDWIDTH TEST	22
5.1 LIMIT	22
5.2 TEST PROCEDURE	22
5.3 DEVIATION FROM STANDARD	22
5.4 TEST SETUP	22

Table of Contents	Page
5.5 EUT OPERATION CONDITIONS	22
5.6 TEST RESULTS	22
6 . MAXIMUM OUTPUT POWER & AVG OUTPUT POWER TEST	23
6.1 LIMIT	23
6.2 TEST PROCEDURE	23
6.3 DEVIATION FROM STANDARD	23
6.4 TEST SETUP	23
6.5 EUT OPERATION CONDITIONS	23
6.6 TEST RESULTS	23
7 . CONDUCTED SPURIOUS EMISSIONS	24
7.1 LIMIT	24
7.2 TEST PROCEDURE	24
7.3 DEVIATION FROM STANDARD	24
7.4 TEST SETUP	24
7.5 EUT OPERATION CONDITIONS	24
7.6 TEST RESULTS	24
8 . POWER SPECTRAL DENSITY TEST	25
8.1 LIMIT	25
8.2 TEST PROCEDURE	25
8.3 DEVIATION FROM STANDARD	25
8.4 TEST SETUP	25
8.5 EUT OPERATION CONDITIONS	25
8.6 TEST RESULTS	25
9 . MEASUREMENT INSTRUMENTS LIST	26
10 . EUT TEST PHOTO	28
APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS	32
APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ	37
APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ	42
APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ	45
APPENDIX E - BANDWIDTH	96
APPENDIX F - MAXIMUM OUTPUT POWER & AVG OUTPOU POWER	101 101

Table of Contents**Page****APPENDIX G - CONDUCTED SPURIOUS EMISSIONS****107****APPENDIX H - POWER SPECTRAL DENSITY****114**

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Mar. 06, 2020

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part15, Subpart C (15.247)				
Standard(s) Section	Test Item	Test Result	Judgment	Remark
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	-----
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	-----
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	-----
15.247(b)(3)	Maximum Output Power & AVG 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 AC 240V/60Hz	Laughing Zhang
Radiated Emissions-9 KHz to 30 MHz	25°C	60%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-30 MHz to 1GHz	24°C	68%	AC 120V/60Hz	Kwok Guo
Radiated Emissions-Above 1000 MHz	24°C	68%	AC 120V/60Hz	Kwok Guo
Bandwidth	24°C	51%	DC 12V	Hayden Chen
Maximum output power & AVG output power	24°C	51%	DC 12V	Hayden Chen
Conducted Spurious Emissions	24°C	51%	DC 12V	Hayden Chen
Power Spectral Density	24°C	51%	DC 12V	Hayden Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	AC2100 Dual Band Gigabit WiFi Router
Brand Name	Tenda
Test Model	AC19
Series Model	N/A
Model Difference(s)	N/A
Power Source	DC Voltage supplied from AC/DC adapter. Model: BN058-A24012U
Power Rating	I/P: 100-240V~ 50/60Hz 0.7A O/P: 12V  2A
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 Output Power Non-Beamforming	IEEE 802.11b: 26.12 dBm (0.4093 W) IEEE 802.11g: 27.65 dBm (0.5821 W) IEEE 802.11n (HT20): 29.80 dBm (0.9550 W) IEEE 802.11n (HT40): 28.39 dBm (0.6902 W)
Maximum Output Power Beamforming	IEEE 802.11n (HT20): 28.93 dBm (0.7816 W) IEEE 802.11n (HT40): 28.10 dBm (0.6457 W)
Maximum AVG Output Power Non-Beamforming	IEEE 802.11b: 22.74 dBm (0.1879 W) IEEE 802.11g: 21.39 dBm (0.1377 W) IEEE 802.11n (HT20): 19.84 dBm (0.0964 W) IEEE 802.11n (HT40): 18.19 dBm (0.0659 W)
Maximum AVG Output Power Beamforming	IEEE 802.11n (HT20): 18.93 dBm (0.0782 W) IEEE 802.11n (HT40): 17.86 dBm (0.0611 W)

Note:

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

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

3. Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	4
2	N/A	N/A	Dipole	N/A	4

Note:

This EUT supports CDD, and all antennas have the same gain,

(1) For Non-Beamforming function, Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows:

For power spectral density measurements, $N_{ANT} = 2$, $N_{SS} = 1$.

So Directional gain = $G_{ANT} + \text{Array Gain} = G_{ANT} + 10 \log (N_{ANT} / N_{SS}) \text{ dB} = 4 + 10 \log (2/1) \text{ dBi} = 7.01$.

Then, the power density limit is $8 - (7.01 - 6) = 6.99$.

For power measurements, Array Gain = 0 dB ($N_{ANT} \leq 4$), so the Directional gain = 4.

(2) For Beamforming function, Beamforming Gain: 3 dB

So Directional gain = $3 + 4 = 7$. Then, the output power limit is $30 - (7 - 6) = 29$.

4. Table for Antenna Configuration:

For Non Beamforming:

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

For Beamforming:

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

2.2 DESCRIPTION OF TEST MODES

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

Pretest Mode	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09
Mode 5	TX N20 Mode Channel 06

Following mode(s) as (were) found to be the worst case(s) and selected for the final test.

AC power line conducted emissions test	
Final Test Mode:	Description
Mode 5	TX N20 Mode Channel 06

Radiated emissions test - Below 1GHz	
Final Test Mode:	Description
Mode 5	TX N20 Mode Channel 06

Radiated emissions test- Above 1GHz	
Final Test Mode:	Description
Mode 1	TX B Mode Channel 01/06/11
Mode 2	TX G Mode Channel 01/06/11
Mode 3	TX N-20 MHz Mode Channel 01/06/11
Mode 4	TX N-40 MHz Mode Channel 03/06/09

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) 802.11b mode: CCK (1 Mbps)
802.11g mode: OFDM (6 Mbps)
802.11n HT20 mode : BPSK (6.5 Mbps)
802.11n HT40 mode : BPSK (13.5 Mbps)
For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated emission below 1 GHz test, the IEEE 802.11n20 Channel 06 is found to be the worst case and recorded.
- (4) For radiated emission above 1 GHz test, 1GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
- (5) The measurements for Power were tested, the worst case were non beamforming, only worst case were documented for other test items.
- (6) For radiated emissions, the TX B Mode 2437+AC 20 Mode 5825MHz was found the worst case of simultaneous transmission and recorded.

2.3 PARAMETERS OF TEST SOFTWARE

Non-Beamforming

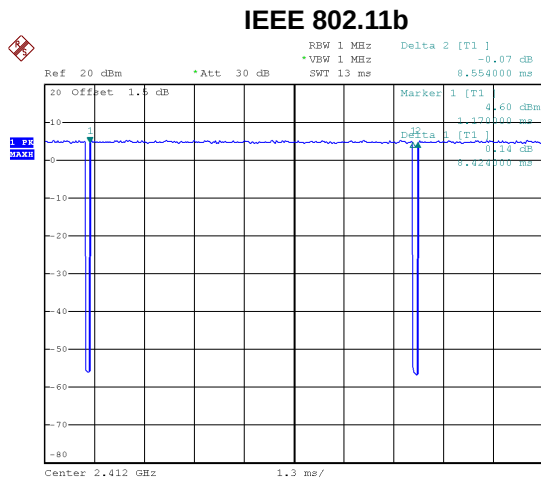
Test Software	MP_TEST v1.3.8.0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11b	110	99	98
IEEE 802.11g	98	123	89
IEEE 802.11n (HT20)	94/95	92/92	88/88
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	86/86	91/90	80/82

Beamforming

Test Software	MP_TEST v1.3.8.0		
Frequency (MHz)	2412	2437	2462
IEEE 802.11n (HT20)	90/91	90/90	87/87
Frequency (MHz)	2422	2437	2452
IEEE 802.11n (HT40)	85/85	90/89	79/81

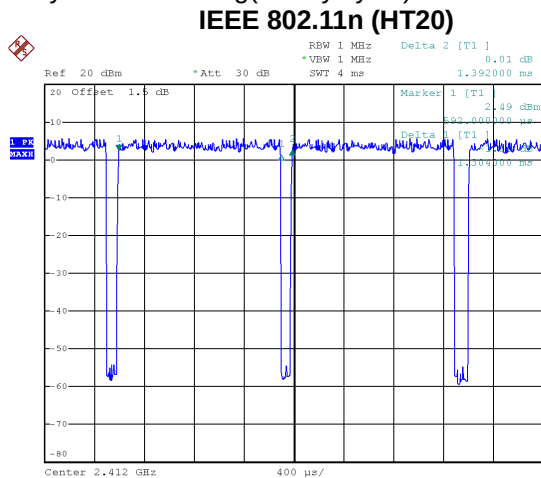
2.4 DUTY CYCLE

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.



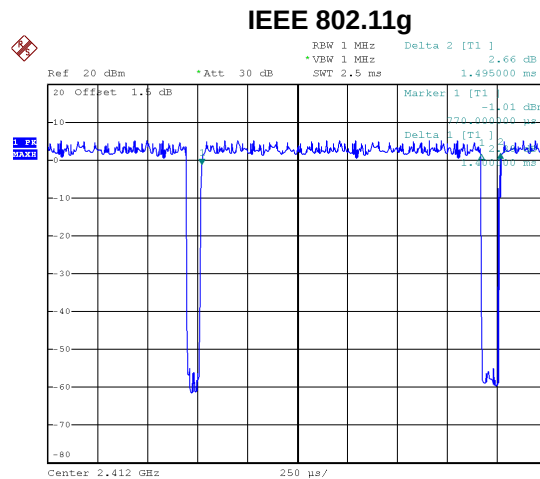
Date: 6.JAN.2020 11:57:20

Duty cycle = $8.424 \text{ ms} / 8.554 \text{ ms} = 98.48\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.00$



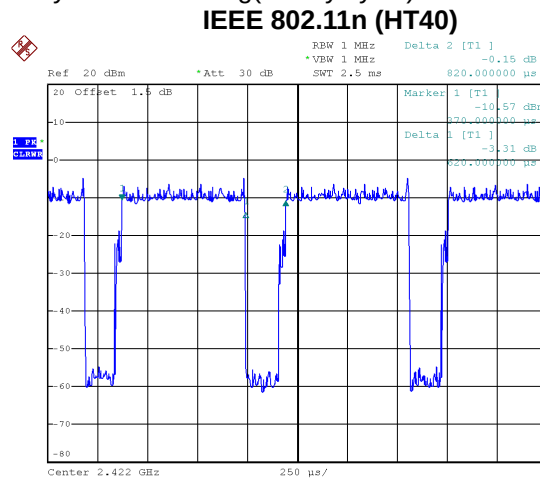
Date: 6.JAN.2020 11:58:22

Duty cycle = $1.304 \text{ ms} / 1.392 \text{ ms} = 93.68\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.28$



Date: 6.JAN.2020 11:57:49

Duty cycle = $1.400 \text{ ms} / 1.495 \text{ ms} = 93.65\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 0.29$



Date: 1.JAN.2003 01:17:58

Duty cycle = $0.620 \text{ ms} / 0.820 \text{ ms} = 75.61\%$
 Duty Factor = $10 \log(1/\text{Duty cycle}) = 1.21$

NOTE:

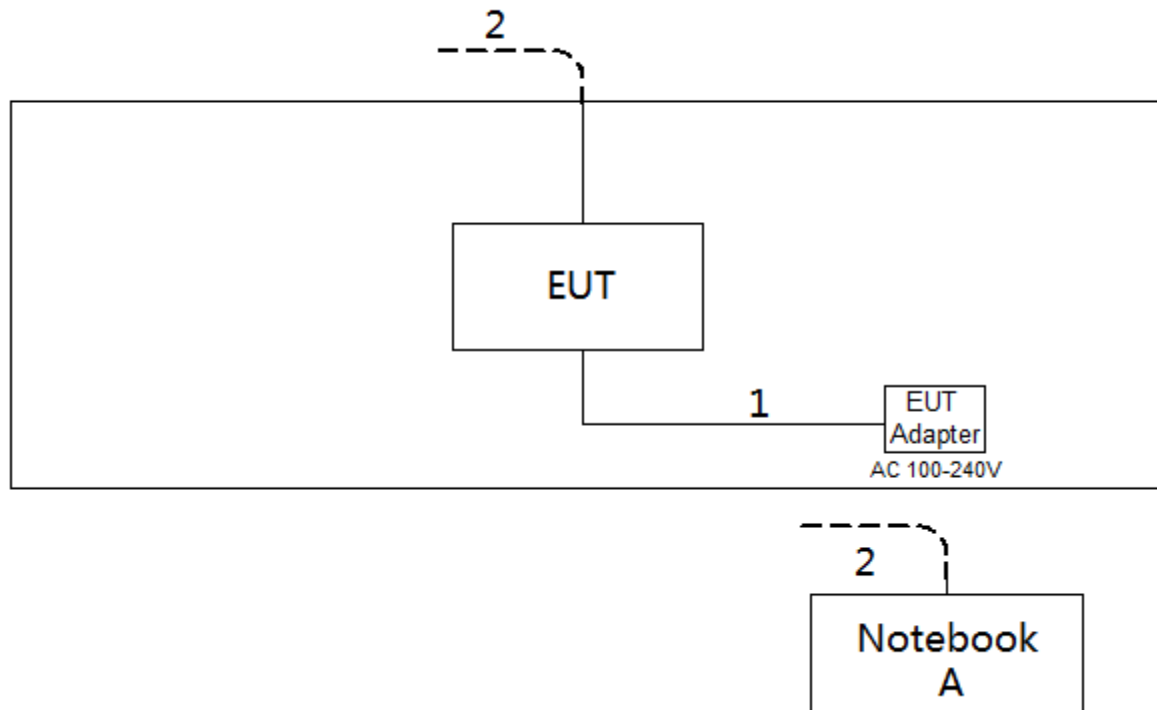
For IEEE 802.11g and IEEE 802.11n (HT20):

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

For IEEE 802.11n (HT40):

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

2.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.6 SUPPORT UNITS

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

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	1.2m
2	RJ45 Cable	NO	NO	10m

3. AC POWER LINE CONDUCTED EMISSIONS TEST

3.1 LIMIT

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

NOTE:

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

The following table is the setting of the receiver

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

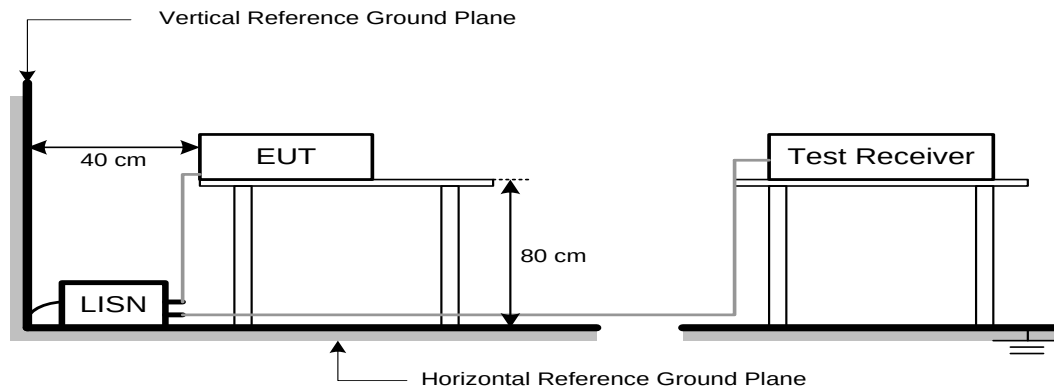
3.2 TEST PROCEDURE

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

3.3 DEVIATION FROM TEST STANDARD

No deviation

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

EUT was programmed to be in continuously transmitting mode.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

4. RADIATED EMISSIONS TEST

4.1 LIMIT

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

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

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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

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

NOTE:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
 Margin Level = Measurement Value - Limit Value

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

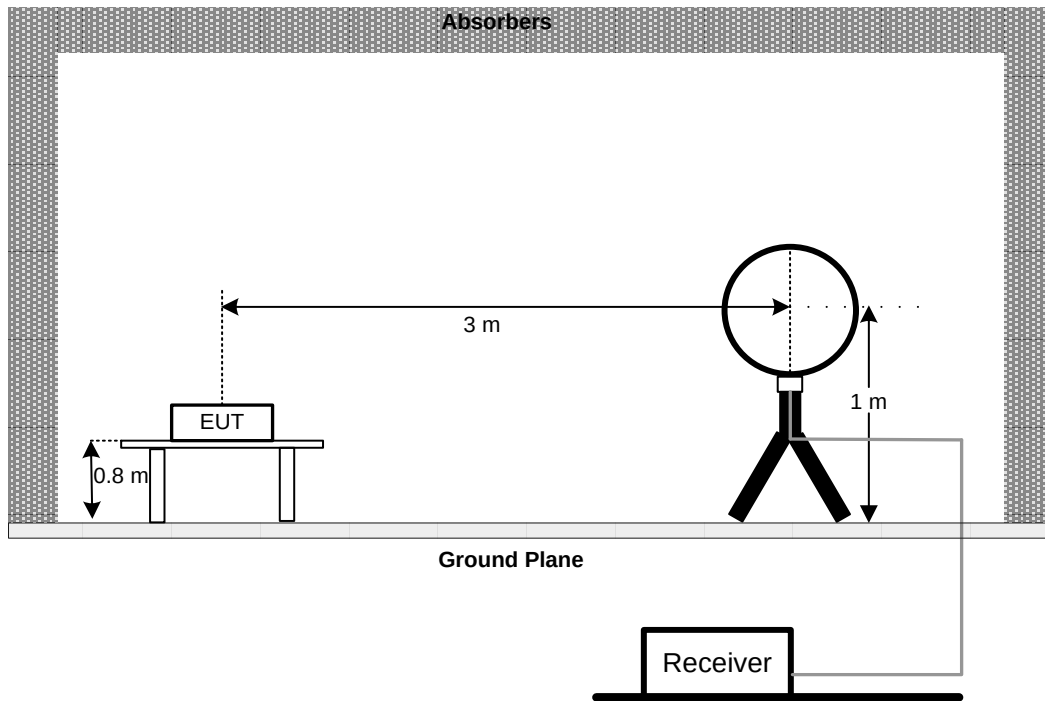
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- The measuring distance 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)
- 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.
- 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).
- 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.
- 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.
- 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)
- 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)
- For the actual test configuration, please refer to the related Item -EUT Test Photos.

4.3 DEVIATION FROM TEST STANDARD

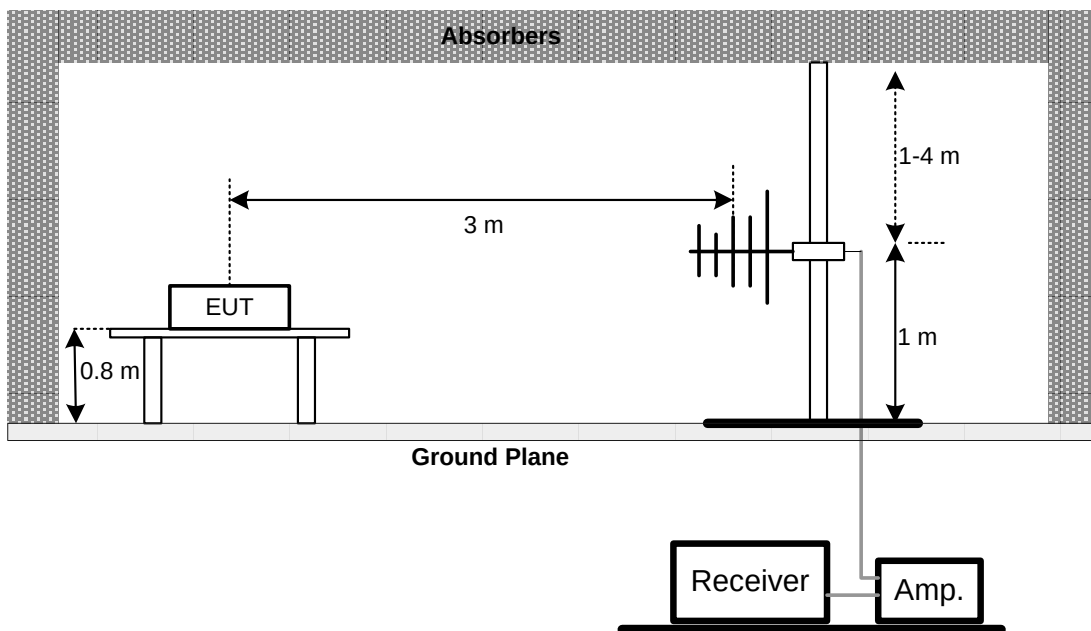
No deviation

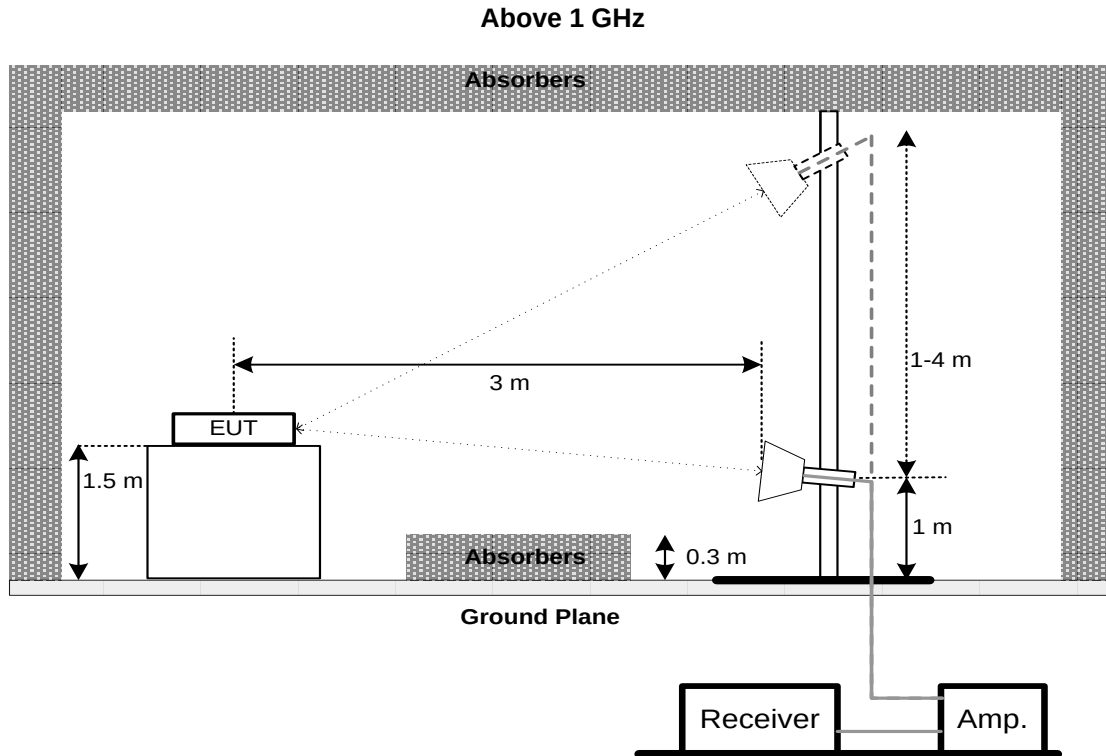
4.4 TEST SETUP

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

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- 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.
- The bandwidth was performed in accordance with method 11.8.1 of ANSI C63.10-2013.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.6 TEST RESULTS

Please refer to the APPENDIX E.

6. MAXIMUM OUTPUT POWER & AVG OUTPUT POWER TEST

6.1 LIMIT

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

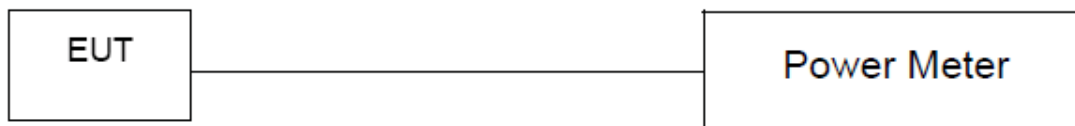
6.2 TEST PROCEDURE

- 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 11.9.1.3 and 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

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

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.6 TEST RESULTS

Please refer to the APPENDIX G.

8. POWER SPECTRAL DENSITY TEST

8.1 LIMIT

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

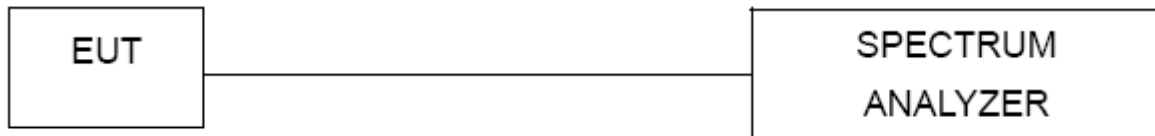
8.2 TEST PROCEDURE

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

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 10, 2020
2	LISN	EMCO	3816/2	52765	Mar. 10, 2020
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	May. 19, 2020
4	50Ω Terminator	SHX	TF5-3	15041305	Mar. 10, 2020
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 12, 2020

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	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	Mar. 10, 2020
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - 30 MHz to 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2020
2*	Amplifier*	HP	8447D	2944A09673	Aug. 11, 2021
3	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 24, 2020
5	Controller	CT	SC100	N/A	N/A
6	Controller	MF	MF-7802	MF780208416	N/A
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 09, 2020
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020
3	Amplifier	Agilent	8449B	3008A02333	Mar. 10, 2020
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 10, 2020
5	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

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

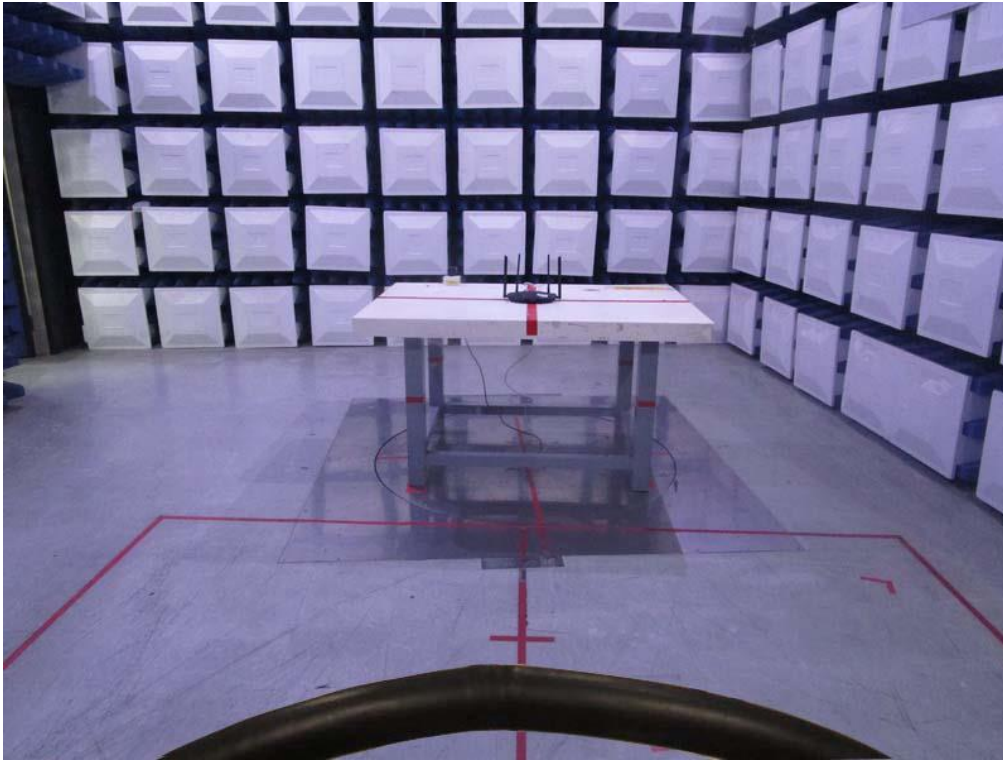
Maximum Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Peak Power Analyzer	Keysight	8990B	MY51000506	Aug. 03, 2020
2	Wideband power sensor	Keysight	N1923A	MY58310004	Aug. 03, 2020

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

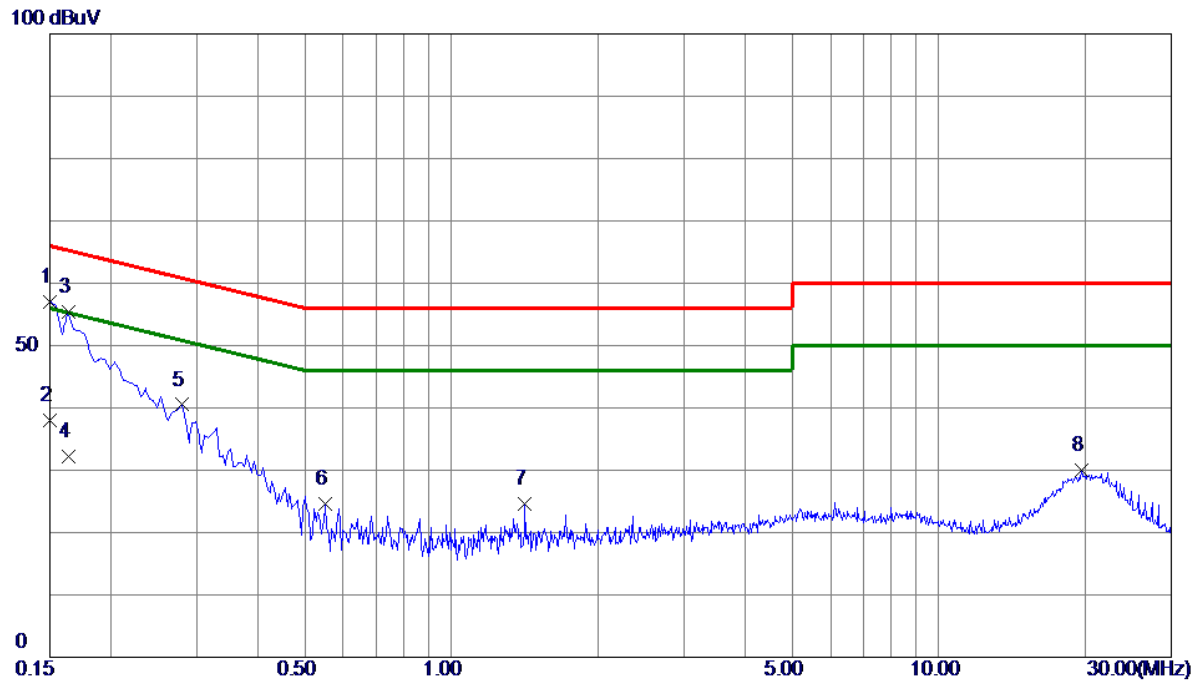
Above 1 GHz



APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

Test Mode:	TX N20 Mode Channel 06
Test Voltage:	AC 120V 60Hz

Line



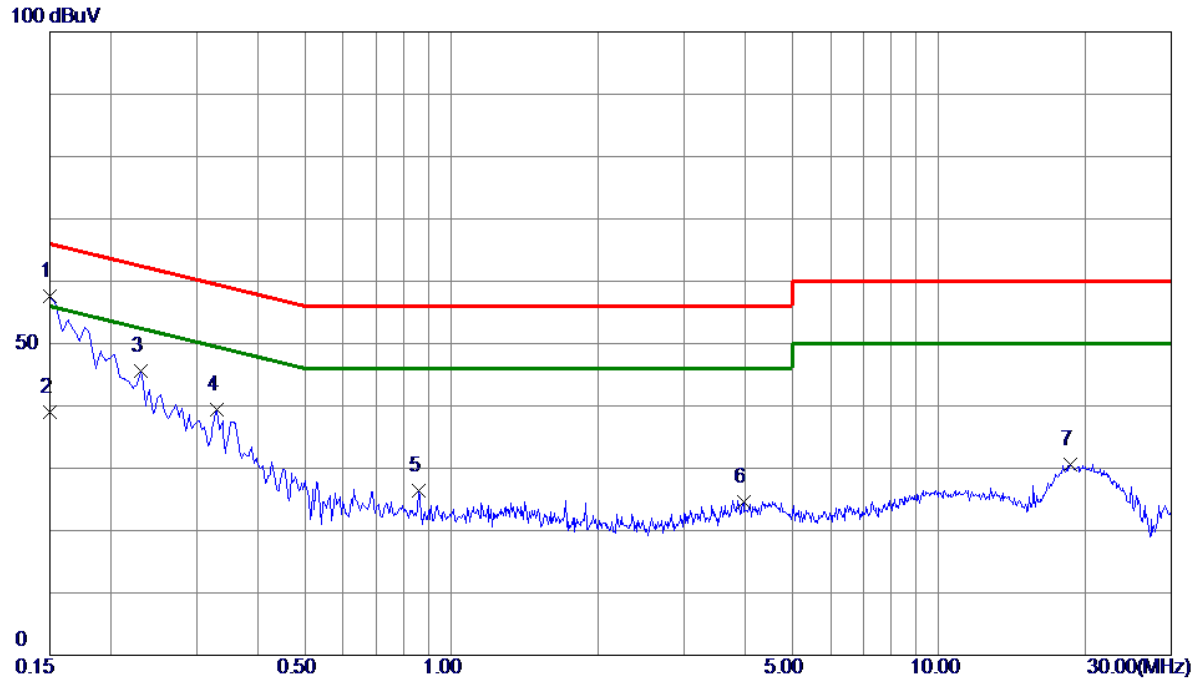
No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1500	47.23	9.82	57.05	66.00	-8.95	Peak	
2	0.1500	28.25	9.82	38.07	56.00	-17.93	AVG	
3	0.1635	45.54	9.82	55.36	65.28	-9.92	Peak	
4	0.1635	22.36	9.82	32.18	55.28	-23.10	AVG	
5	0.2805	30.66	9.84	40.50	60.80	-20.30	Peak	
6	0.5505	14.63	9.88	24.51	56.00	-31.49	Peak	
7	1.4144	14.73	9.95	24.68	56.00	-31.32	Peak	
8	19.6395	18.76	11.16	29.92	60.00	-30.08	Peak	

REMARKS:

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

Test Mode:	TX N20 Mode Channel 06
Test Voltage:	AC 120V 60Hz

Neutral

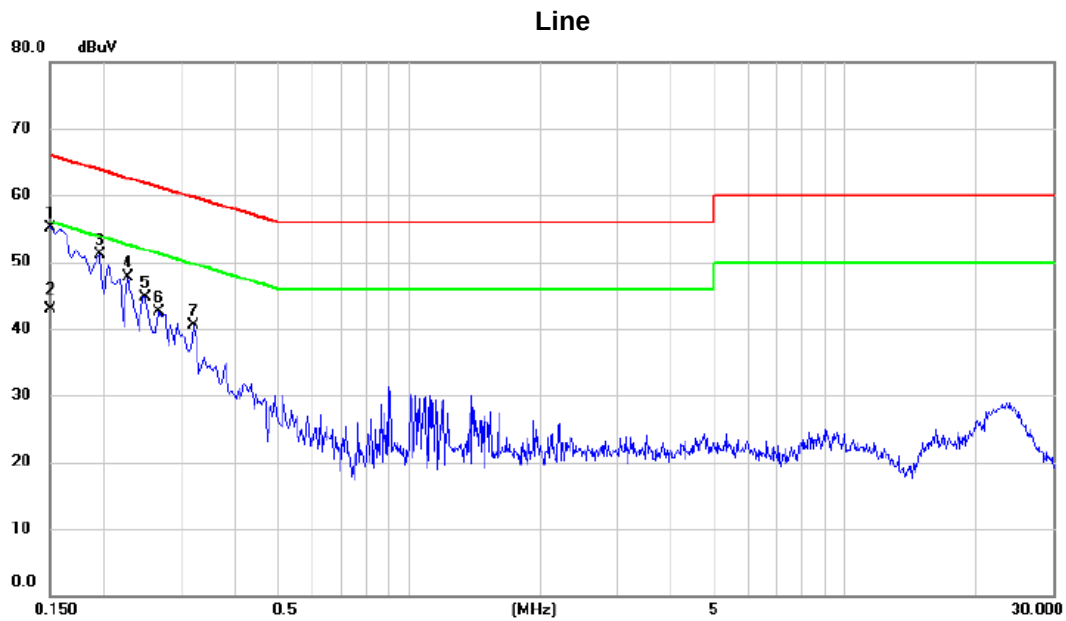


No.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1 *	0.1500	47.70	9.91	57.61	66.00	-8.39	Peak	
2	0.1500	29.05	9.91	38.96	56.00	-17.04	AVG	
3	0.2310	35.71	9.92	45.63	62.41	-16.78	Peak	
4	0.3300	29.39	9.98	39.37	59.45	-20.08	Peak	
5	0.8565	16.22	10.09	26.31	56.00	-29.69	Peak	
6	3.9795	14.36	10.32	24.68	56.00	-31.32	Peak	
7	18.6675	19.17	11.37	30.54	60.00	-29.46	Peak	

REMARKS:

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

Test Mode:	TX N20 Mode Channel 06
Test Voltage:	AC 240V 60Hz



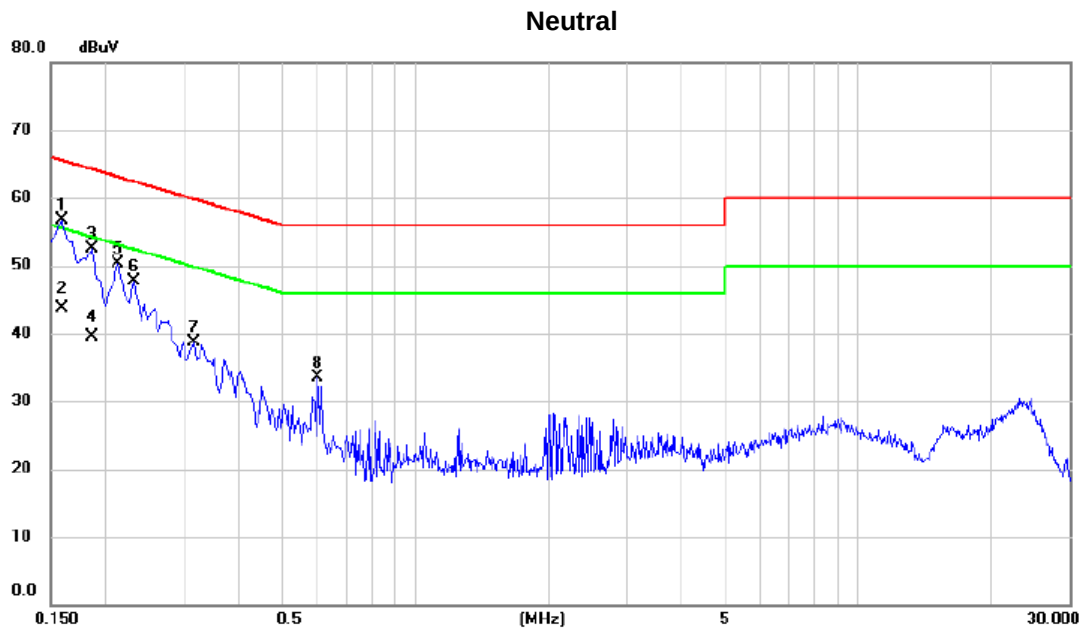
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1508	45.40	9.79	55.19	65.96	-10.77	peak	
2		0.1508	33.20	9.79	42.99	55.96	-12.97	AVG	
3		0.1950	41.37	9.78	51.15	63.82	-12.67	peak	
4		0.2265	37.98	9.79	47.77	62.58	-14.81	peak	
5		0.2490	34.88	9.79	44.67	61.79	-17.12	peak	
6		0.2670	32.79	9.80	42.59	61.21	-18.62	peak	
7		0.3210	30.64	9.81	40.45	59.68	-19.23	peak	

REMARKS:

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

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

Test Mode:	TX N20 Mode Channel 06
Test Voltage:	AC 240V 60Hz



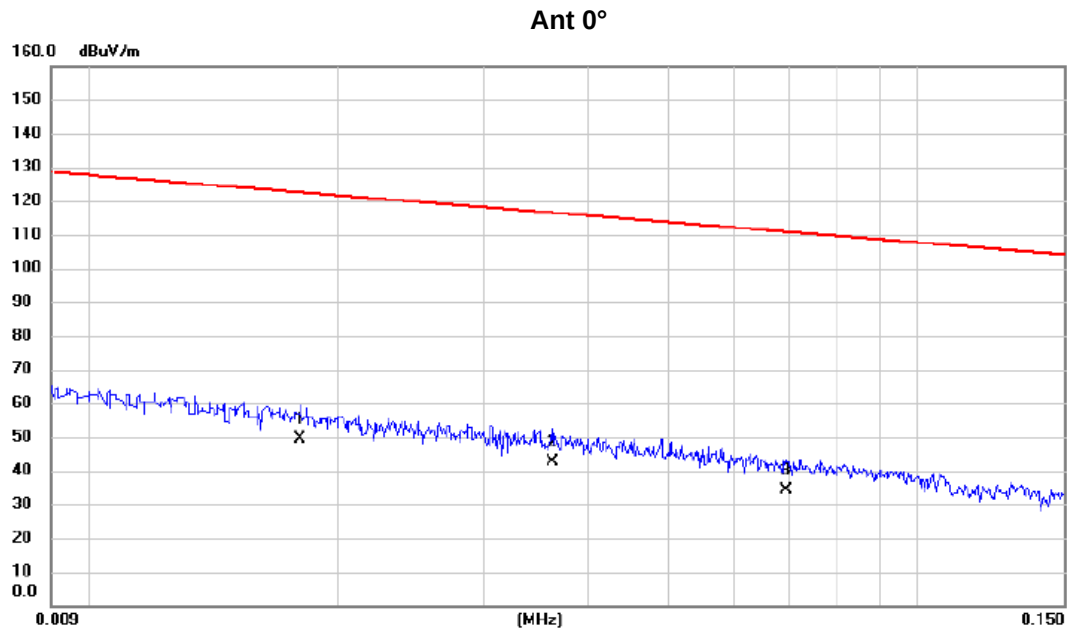
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1590	46.73	9.88	56.61	65.52	-8.91	peak	
2		0.1590	33.80	9.88	43.68	55.52	-11.84	AVG	
3		0.1860	42.56	9.87	52.43	64.21	-11.78	peak	
4		0.1860	29.60	9.87	39.47	54.21	-14.74	AVG	
5		0.2130	40.42	9.88	50.30	63.09	-12.79	peak	
6		0.2310	37.75	9.88	47.63	62.41	-14.78	peak	
7		0.3165	28.68	9.93	38.61	59.80	-21.19	peak	
8		0.6000	23.58	9.98	33.56	56.00	-22.44	peak	

REMARKS:

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

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

Test Mode: TX N20 Mode Channel 06



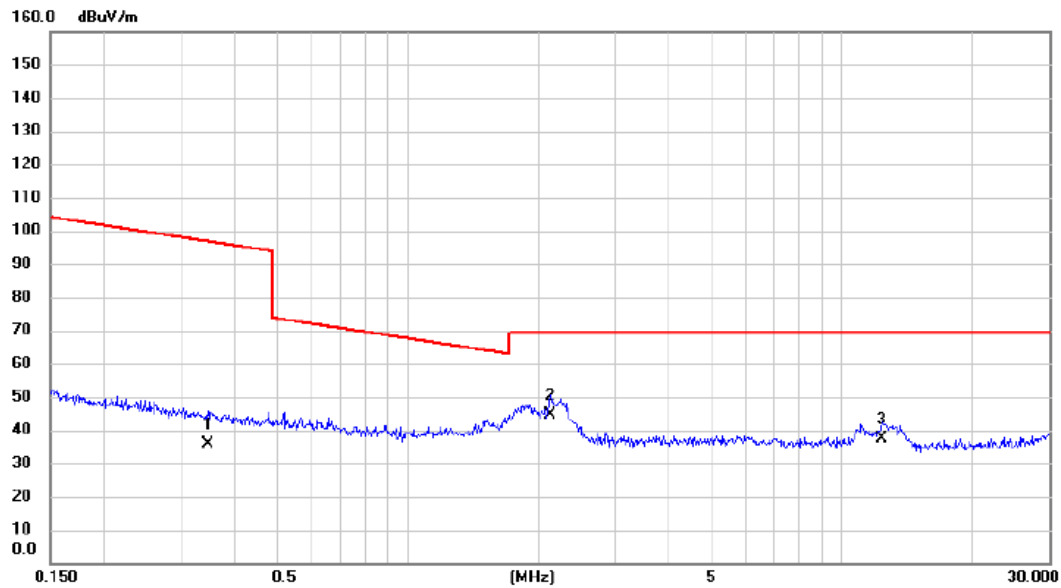
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0180	35.08	14.42	49.50	122.50	-73.00	AVG	
2		0.0362	28.61	13.88	42.49	116.43	-73.94	AVG	
3		0.0694	20.51	13.62	34.13	110.78	-76.65	AVG	

REMARKS:

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

Test Mode: TX N20 Mode Channel 06

Ant 0°



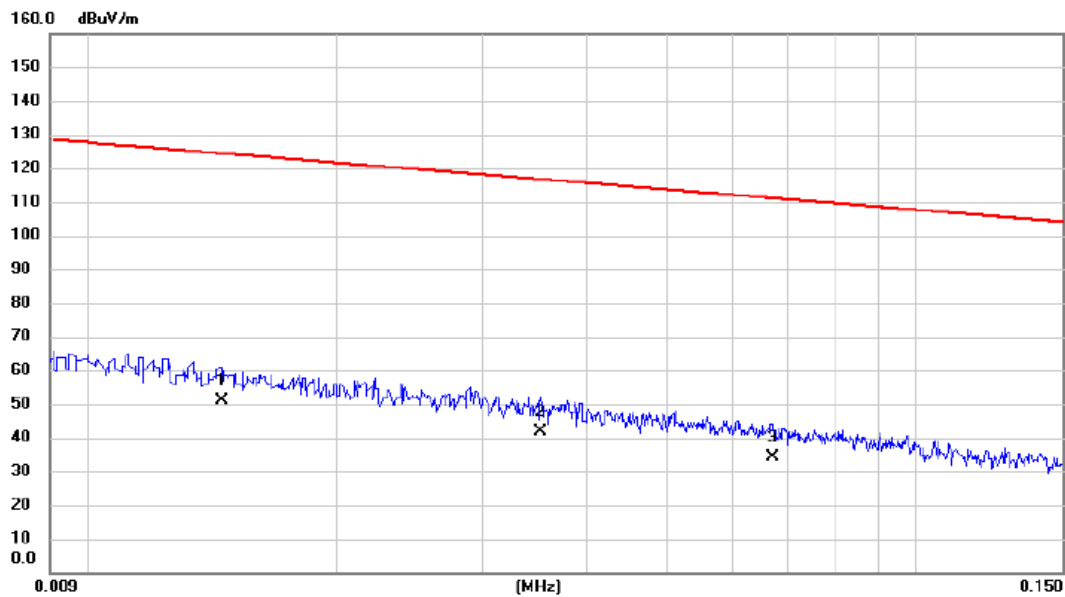
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	0.3465	22.42	13.43	35.85	96.81	-60.96	AVG	
2 *	2.1326	32.74	11.74	44.48	69.54	-25.06	QP	
3	12.3837	25.71	11.60	37.31	69.54	-32.23	QP	

REMARKS:

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

Test Mode: TX N20 Mode Channel 06

Ant 90°



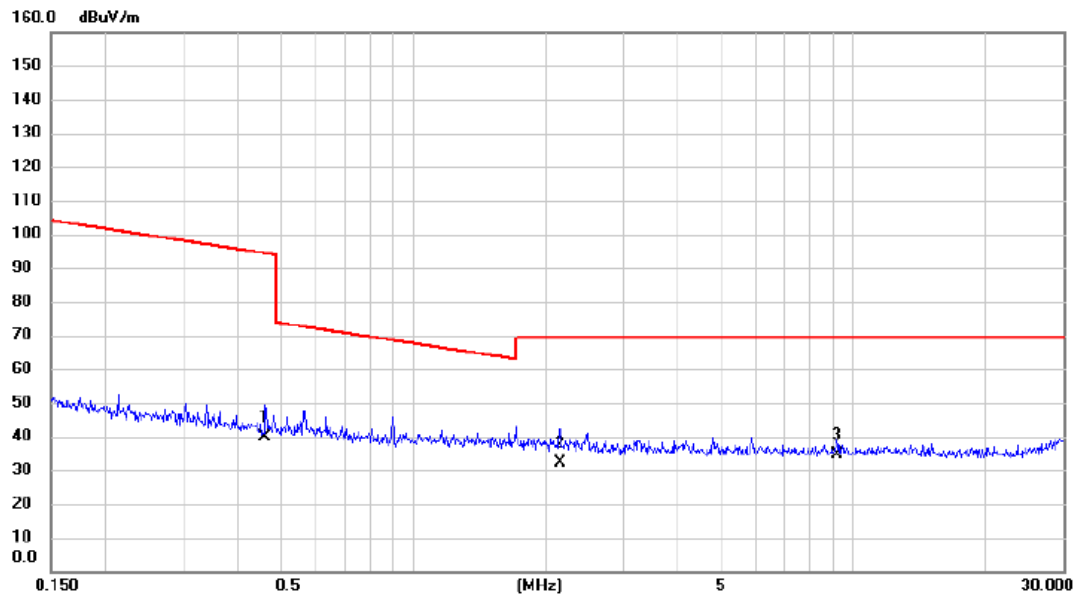
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0145	35.58	15.47	51.05	124.38	-73.33	AVG	
2		0.0352	27.92	13.88	41.80	116.67	-74.87	AVG	
3		0.0670	20.54	13.66	34.20	111.08	-76.88	AVG	

REMARKS:

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

Test Mode: TX N20 Mode Channel 06

Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		0.4612	26.49	13.15	39.64	94.33	-54.69	AVG	
2		2.1552	20.47	11.73	32.20	69.54	-37.34	QP	
3	*	9.2043	23.06	11.51	34.57	69.54	-34.97	QP	

REMARKS:

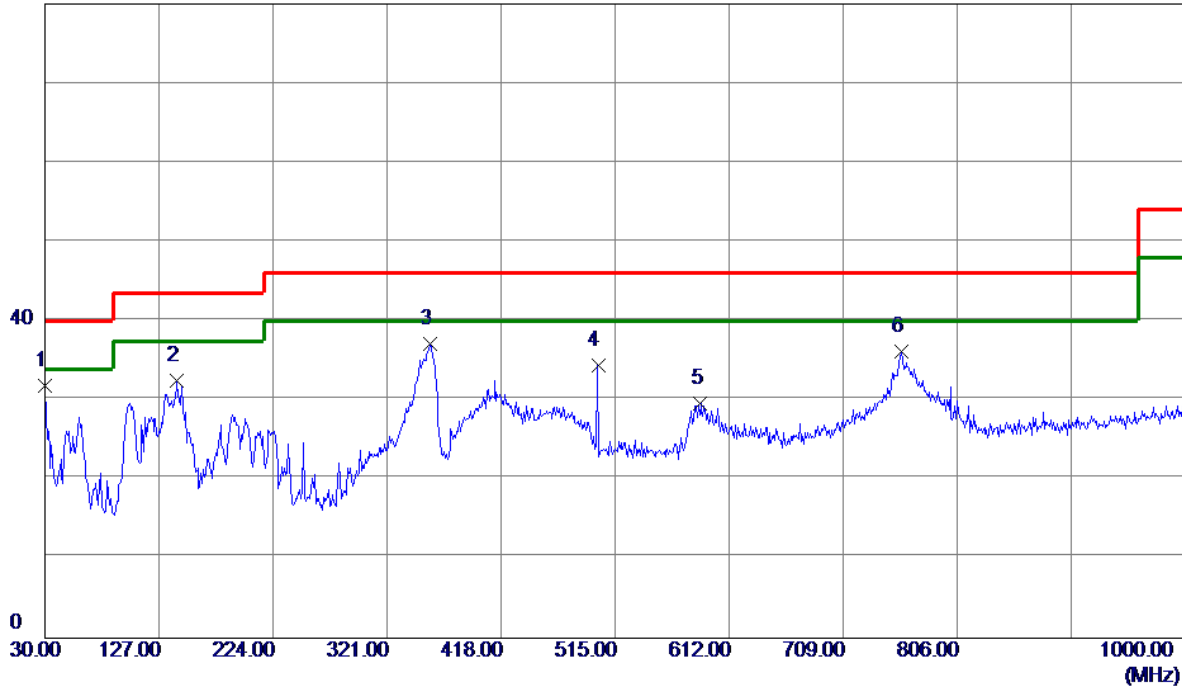
- (1) Measurement Value = Reading Level + Correct Factor.
 (2) Margin Level = Measurement Value - Limit Value.

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

Test Mode: TX N20 Mode Channel 06

Vertical

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 *	30.0000	46.92	-15.02	31.90	40.00	-8.10	Peak	
2	142.5200	45.25	-12.79	32.46	43.50	-11.04	Peak	
3	357.8599	47.65	-10.55	37.10	46.00	-8.90	Peak	
4	500.4500	42.20	-7.75	34.45	46.00	-11.55	Peak	
5	587.7500	35.79	-6.16	29.63	46.00	-16.37	Peak	
6	758.4699	39.67	-3.56	36.11	46.00	-9.89	Peak	

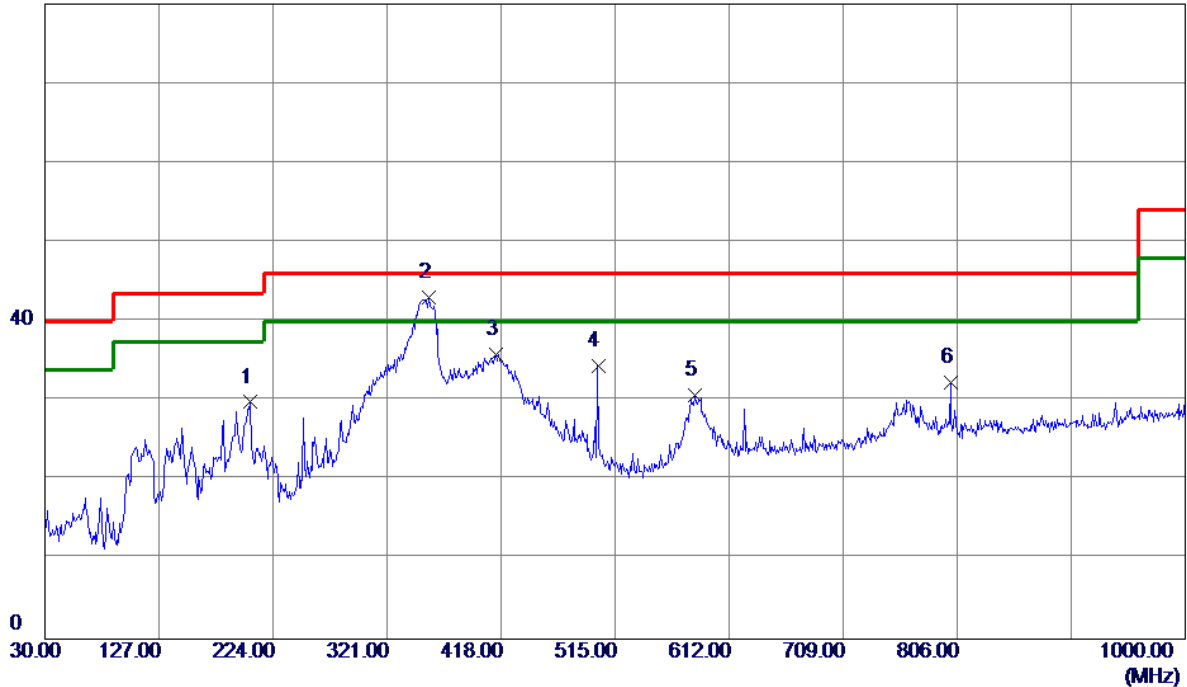
REMARKS:

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

Test Mode: TX N20 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	204.6000	45.28	-15.44	29.84	43.50	-13.66	Peak	
2 *	356.8900	53.60	-10.58	43.02	46.00	-2.98	Peak	
3	414.1200	45.06	-9.14	35.92	46.00	-10.08	Peak	
4	500.4500	42.09	-7.75	34.34	46.00	-11.66	Peak	
5	582.9000	37.02	-6.31	30.71	46.00	-15.29	Peak	
6	800.1800	35.40	-3.01	32.39	46.00	-13.61	Peak	

REMARKS:

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

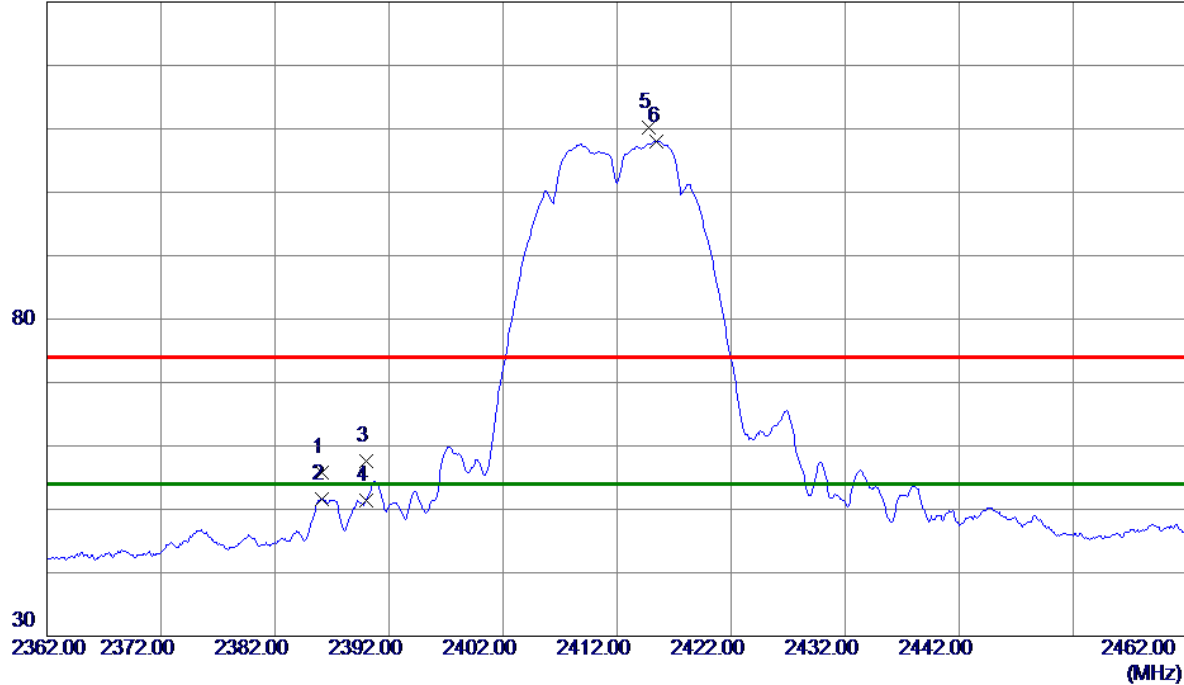
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX D - RADIATED EMISSION- ABOVE 1000 MHZ

Test Mode: TX B Mode 2412 MHz

Vertical

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	2386.1000	46.77	9.07	55.84	74.00	-18.16	Peak	
2	2386.1000	42.61	9.07	51.68	54.00	-2.32	AVG	
3	2390.0000	48.52	9.07	57.59	74.00	-16.41	Peak	
4	2390.0000	42.40	9.07	51.47	54.00	-2.53	AVG	
5	2414.8000	101.22	9.06	110.28	74.00	36.28	Peak	No Limit
6 *	2415.5000	99.00	9.05	108.05	54.00	54.05	AVG	No Limit

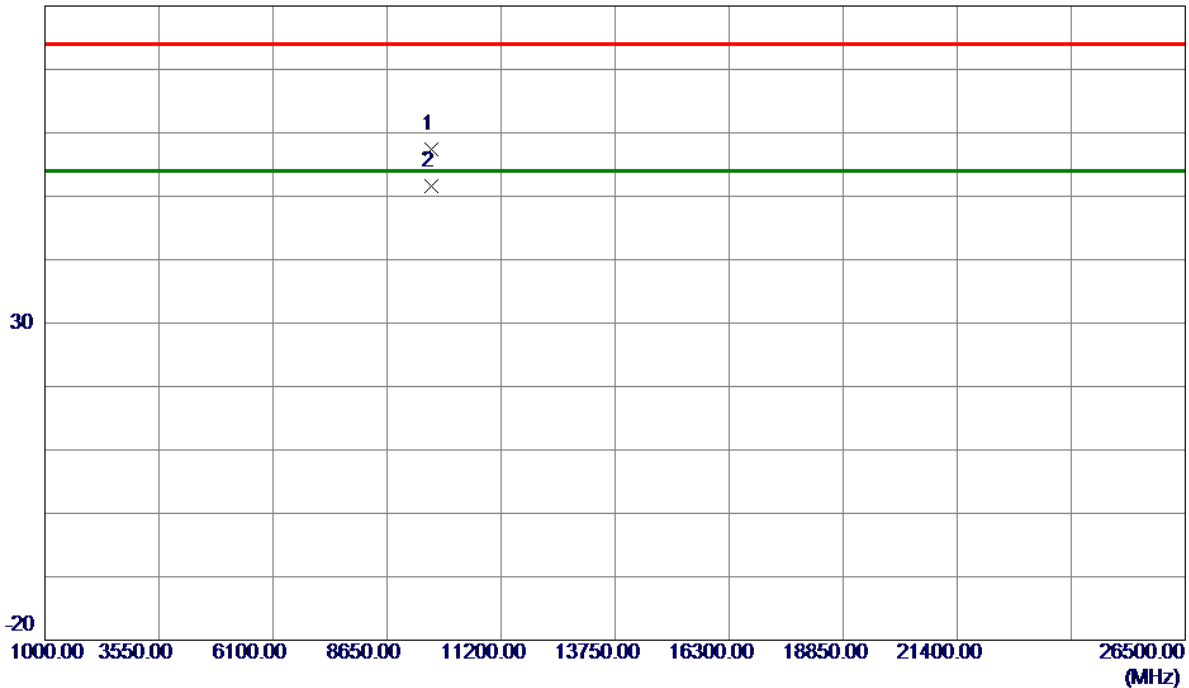
REMARKS:

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

Test Mode:	TX B Mode 2412 MHz
------------	--------------------

Vertical

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	9647.9480	38.57	18.79	57.36	74.00	-16.64	Peak	
2 *	9648.0460	32.85	18.79	51.64	54.00	-2.36	AVG	

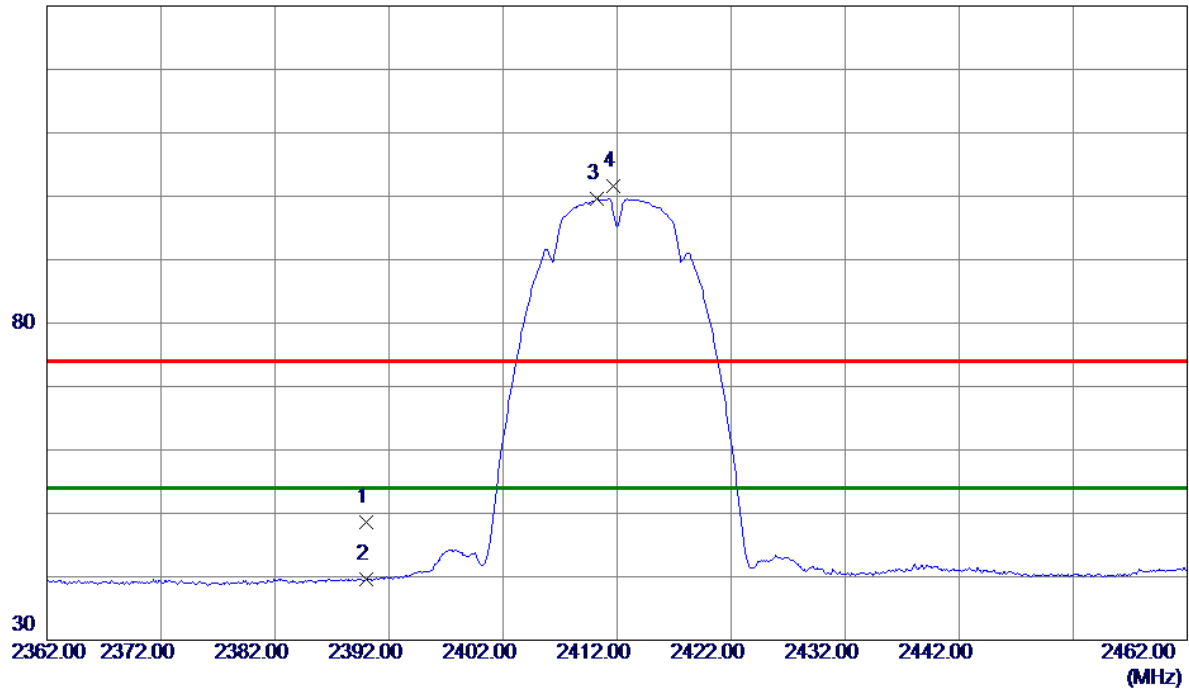
REMARKS:

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

Test Mode: TX B Mode 2412 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	2390.0000	39.48	9.07	48.55	74.00	-25.45	Peak	
2	2390.0000	30.46	9.07	39.53	54.00	-14.47	AVG	
3 *	2410.2000	90.47	9.06	99.53	54.00	45.53	AVG	No Limit
4	2411.7000	92.56	9.06	101.62	74.00	27.62	Peak	No Limit

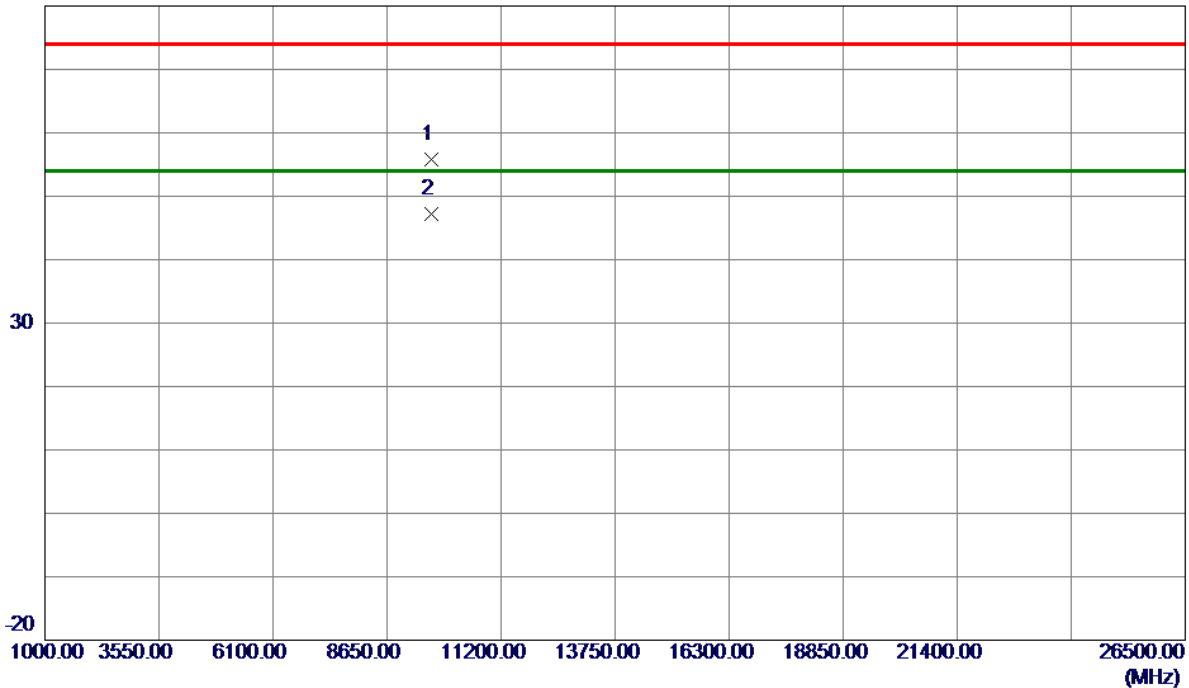
REMARKS:

- (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	9647.9780	37.03	18.79	55.82	74.00	-18.18	Peak	
2 *	9647.9920	28.32	18.79	47.11	54.00	-6.89	AVG	

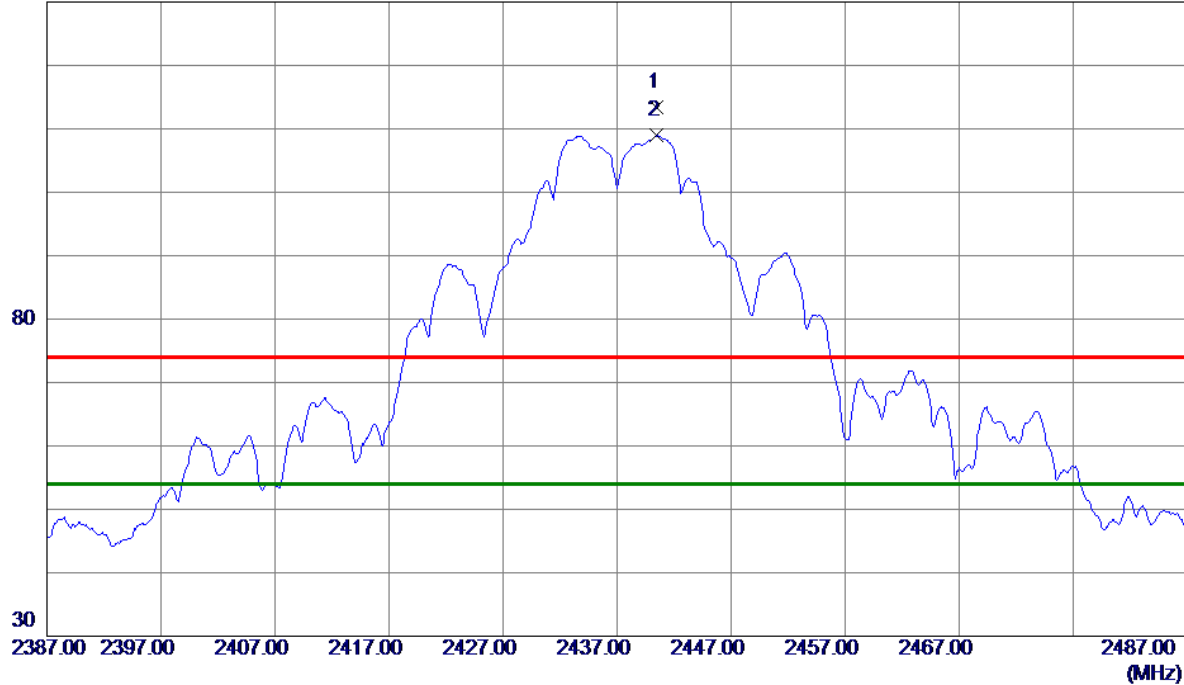
REMARKS:

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

Test Mode: TX B Mode 2437 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	2440.5000	104.29	9.04	113.33	74.00	39.33	Peak	No Limit
2 *	2440.5000	99.90	9.04	108.94	54.00	54.94	AVG	No Limit

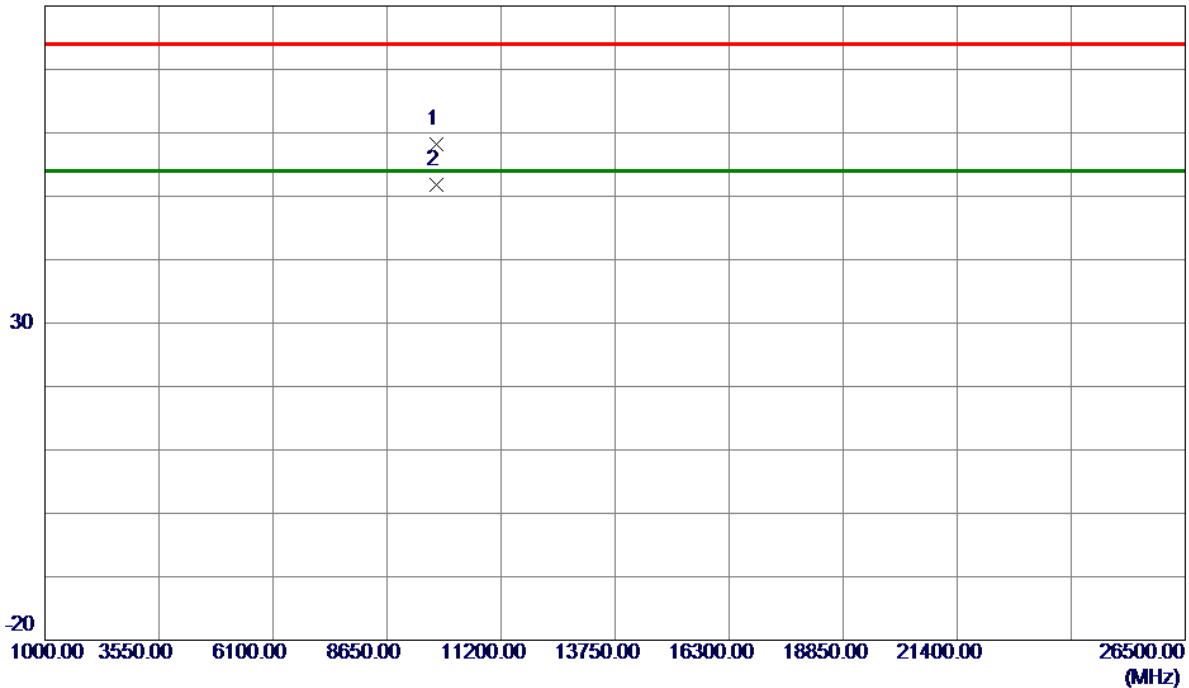
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Vertical

80 dBuV/m



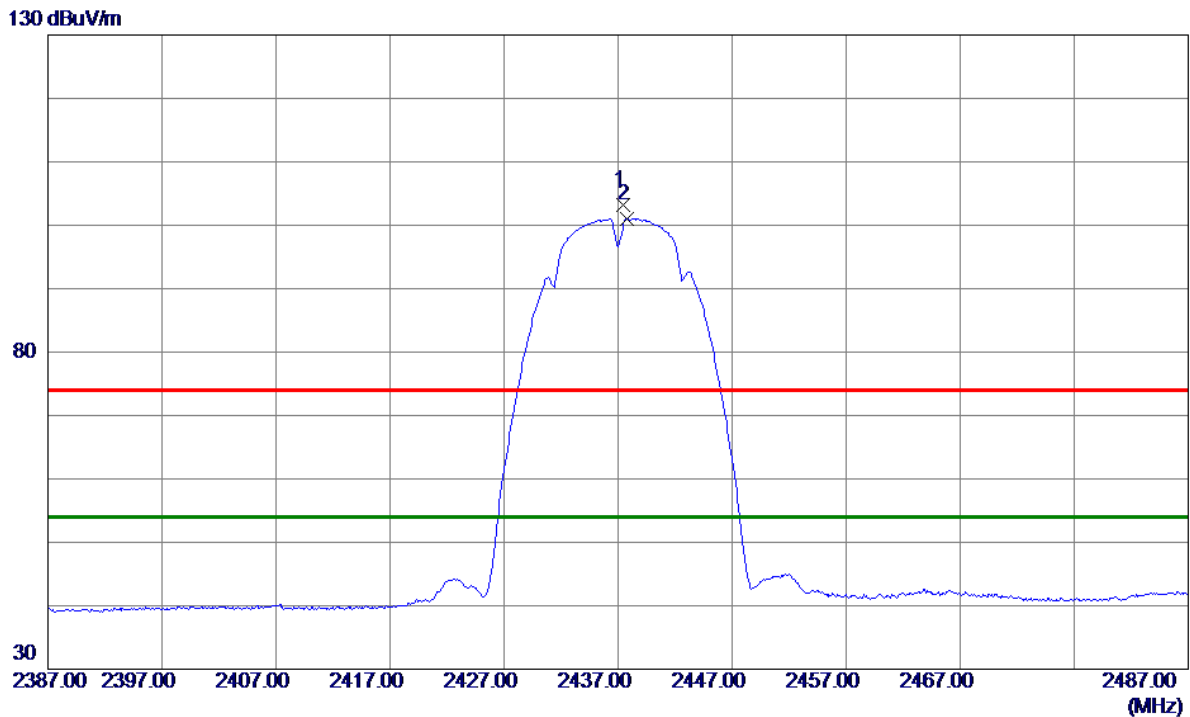
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9747.8740	39.46	18.82	58.28	74.00	-15.72	Peak	
2 *	9748.0599	33.04	18.82	51.86	54.00	-2.14	AVG	

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	2437.4000	94.15	9.04	103.19	74.00	29.19	Peak	No Limit
2 *	2437.8000	92.02	9.04	101.06	54.00	47.06	AVG	No Limit

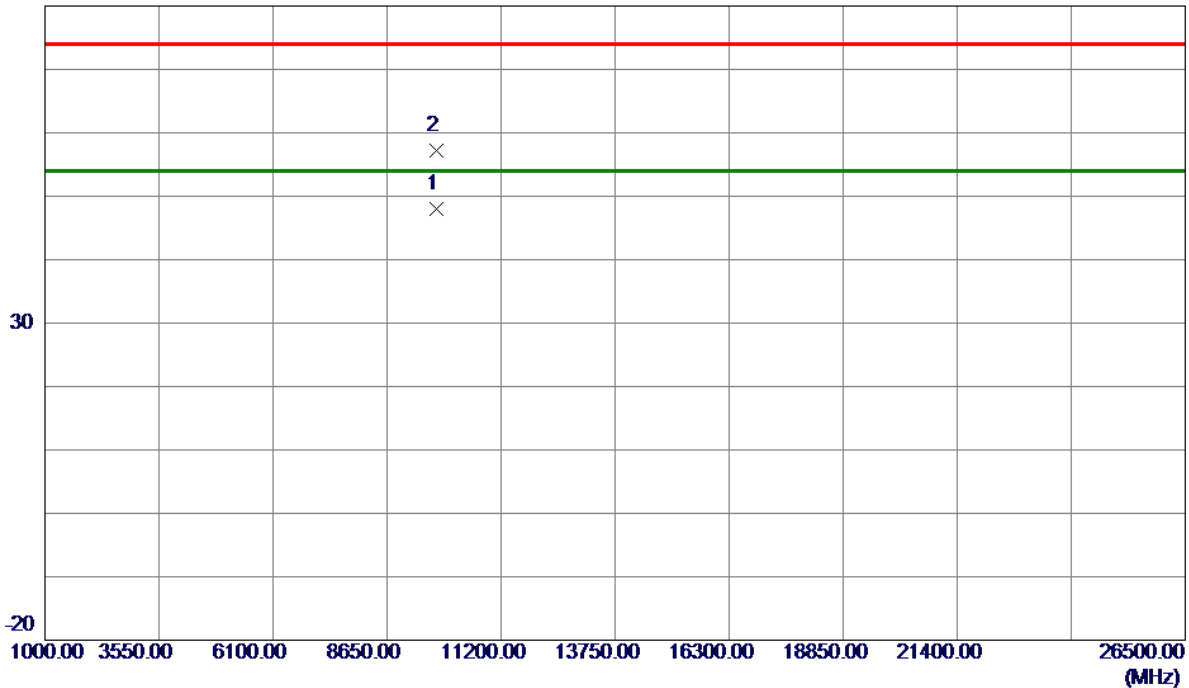
REMARKS:

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

Test Mode: TX B Mode 2437 MHz

Horizontal

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 *	9748.0519	29.16	18.82	47.98	54.00	-6.02	AVG	
2	9748.2440	38.36	18.82	57.18	74.00	-16.82	Peak	

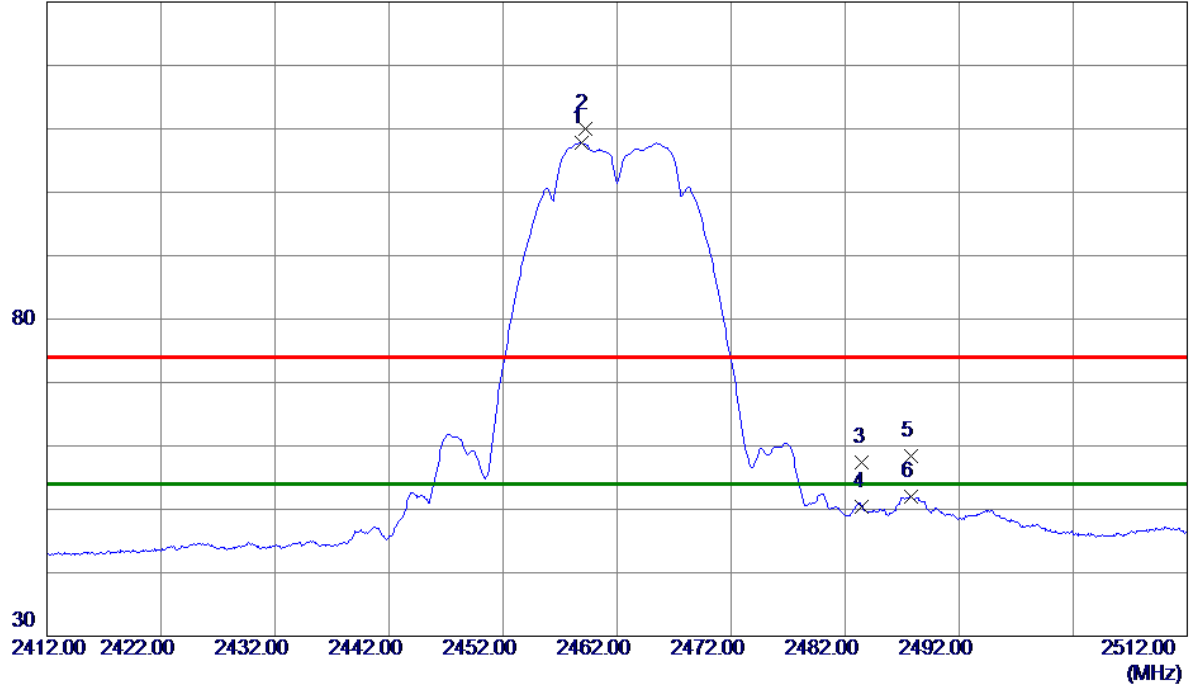
REMARKS:

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

Test Mode: TX B 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 *	2458.9000	98.81	9.03	107.84	54.00	53.84	AVG	No Limit
2	2459.2000	101.05	9.03	110.08	74.00	36.08	Peak	No Limit
3	2483.5000	48.46	9.01	57.47	74.00	-16.53	Peak	
4	2483.5000	41.44	9.01	50.45	54.00	-3.55	AVG	
5	2487.8000	49.30	9.01	58.31	74.00	-15.69	Peak	
6	2487.8000	42.94	9.01	51.95	54.00	-2.05	AVG	

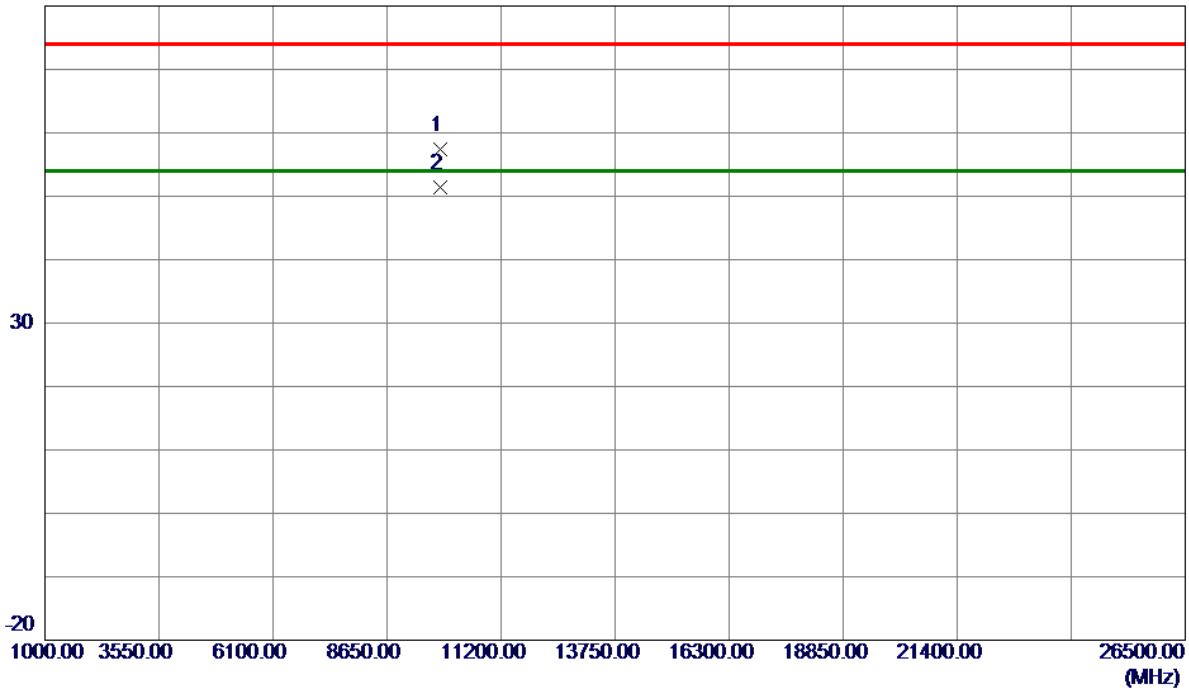
REMARKS:

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

Test Mode:	TX B 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	9848.0250	38.45	18.85	57.30	74.00	-16.70	Peak	
2 *	9848.0750	32.45	18.85	51.30	54.00	-2.70	AVG	

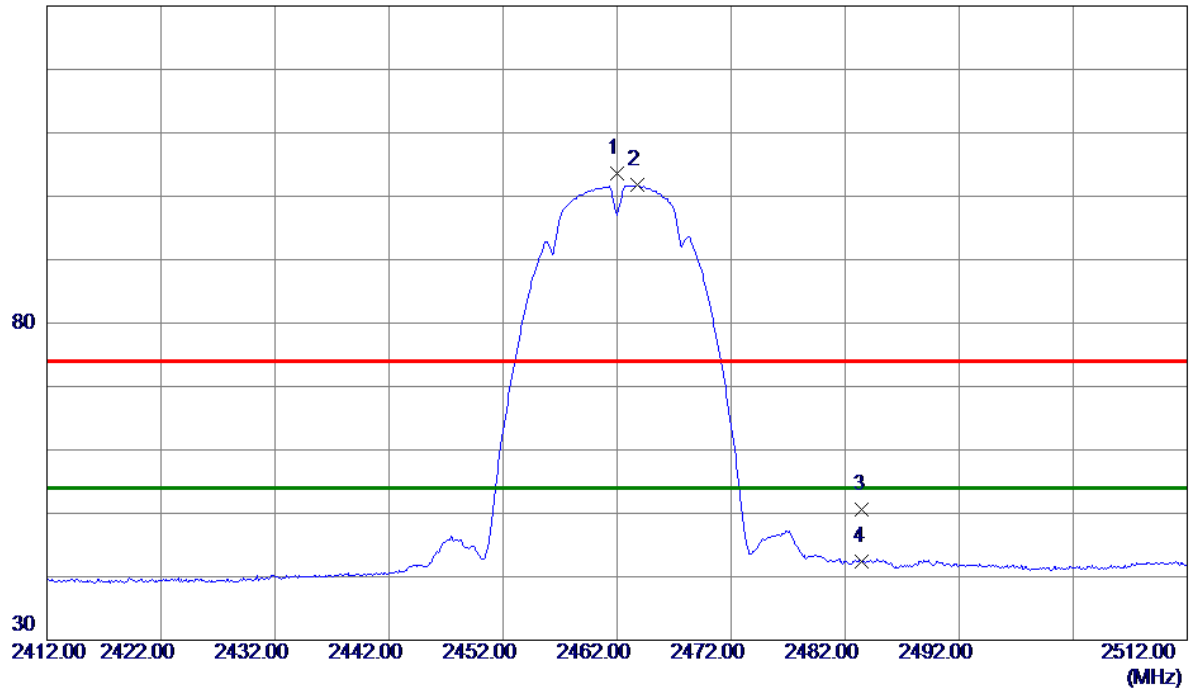
REMARKS:

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

Test Mode: TX B 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	2462.0000	94.63	9.03	103.66	74.00	29.66	Peak	No Limit
2 *	2463.8000	92.69	9.03	101.72	54.00	47.72	AVG	No Limit
3	2483.5000	41.53	9.01	50.54	74.00	-23.46	Peak	
4	2483.5000	33.36	9.01	42.37	54.00	-11.63	AVG	

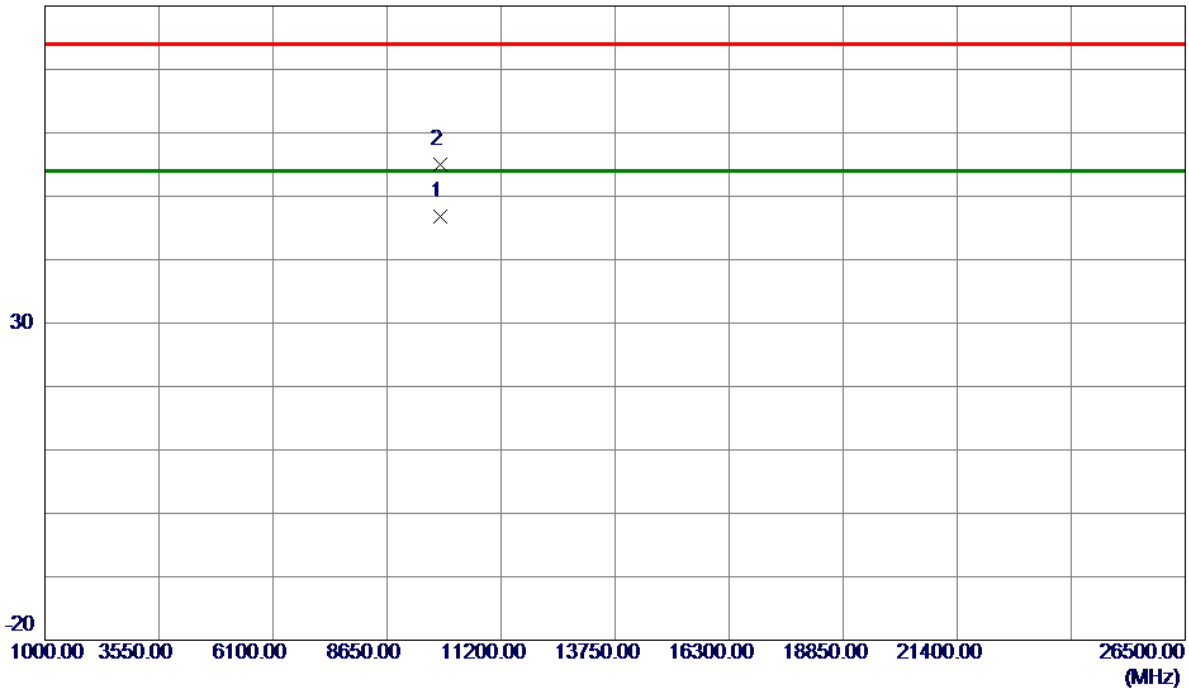
REMARKS:

- (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 *	9848.1200	27.88	18.85	46.73	54.00	-7.27	AVG	
2	9848.1400	36.22	18.85	55.07	74.00	-18.93	Peak	

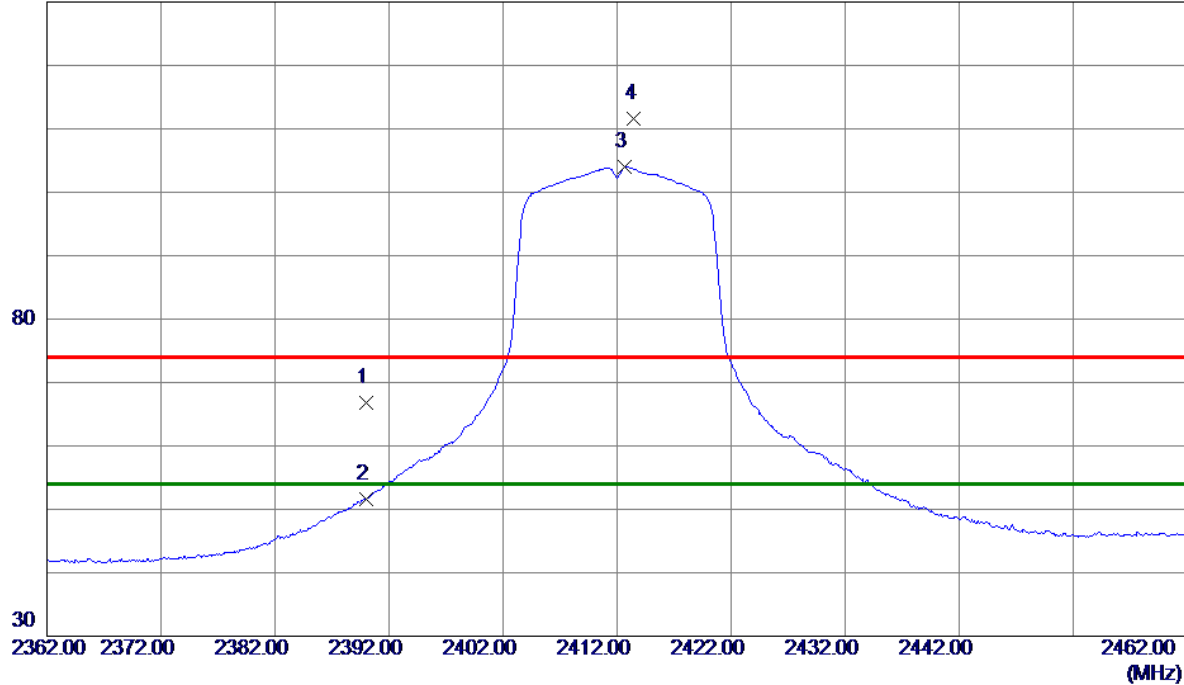
REMARKS:

- (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	57.82	9.07	66.89	74.00	-7.11	Peak	
2	2390.0000	42.52	9.07	51.59	54.00	-2.41	AVG	
3 *	2412.7000	94.85	9.06	103.91	54.00	49.91	AVG	No Limit
4	2413.5000	102.55	9.06	111.61	74.00	37.61	Peak	No Limit

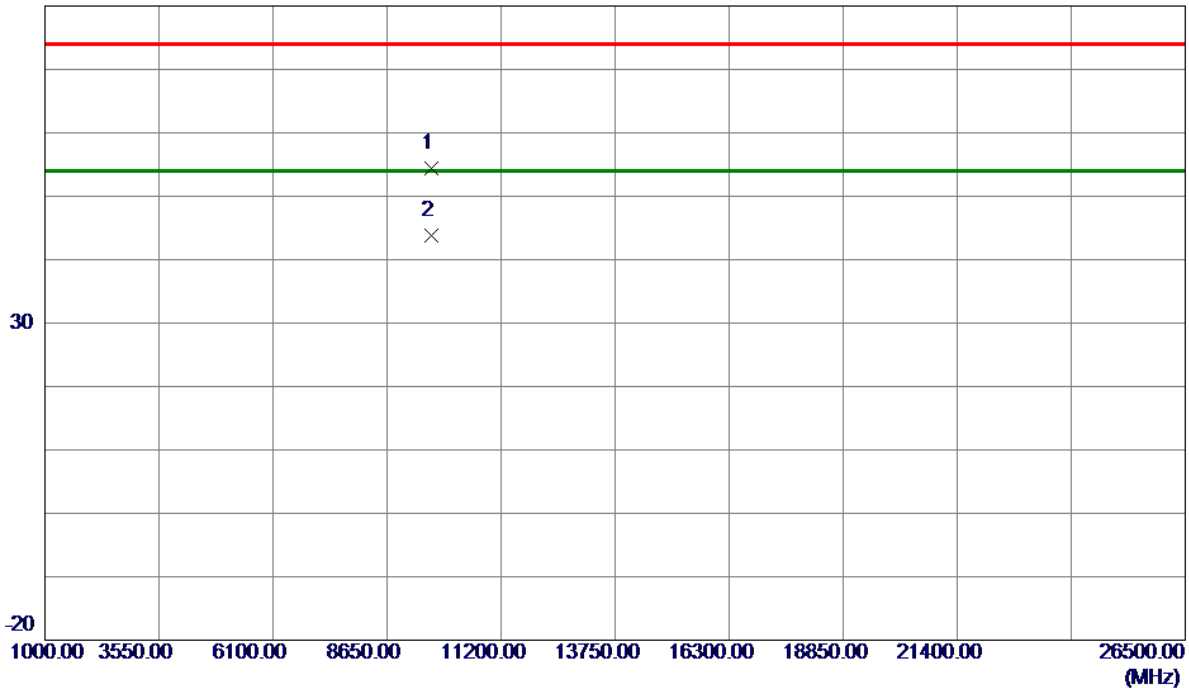
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Vertical

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	9647.9460	35.62	18.79	54.41	74.00	-19.59	Peak	
2 *	9648.0660	25.07	18.79	43.86	54.00	-10.14	AVG	

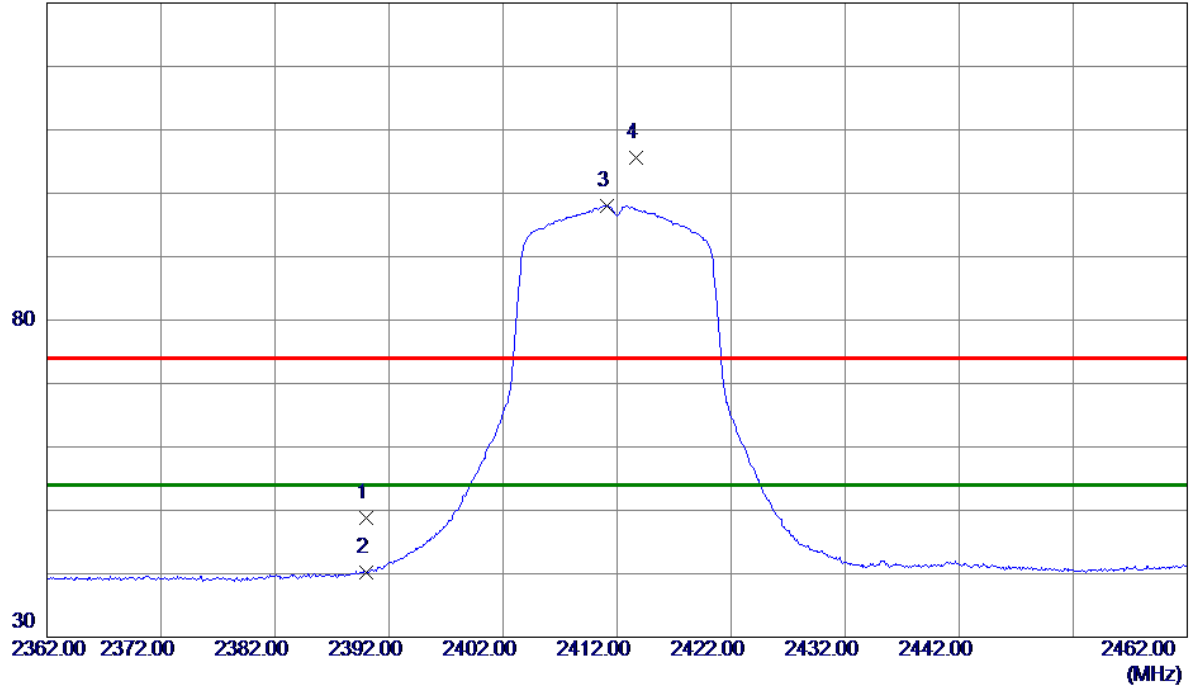
REMARKS:

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

Test Mode: TX G Mode 2412 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	2390.0000	39.69	9.07	48.76	74.00	-25.24	Peak	
2	2390.0000	31.14	9.07	40.21	54.00	-13.79	AVG	
3 *	2411.1000	88.95	9.06	98.01	54.00	44.01	AVG	No Limit
4	2413.7000	96.49	9.06	105.55	74.00	31.55	Peak	No Limit

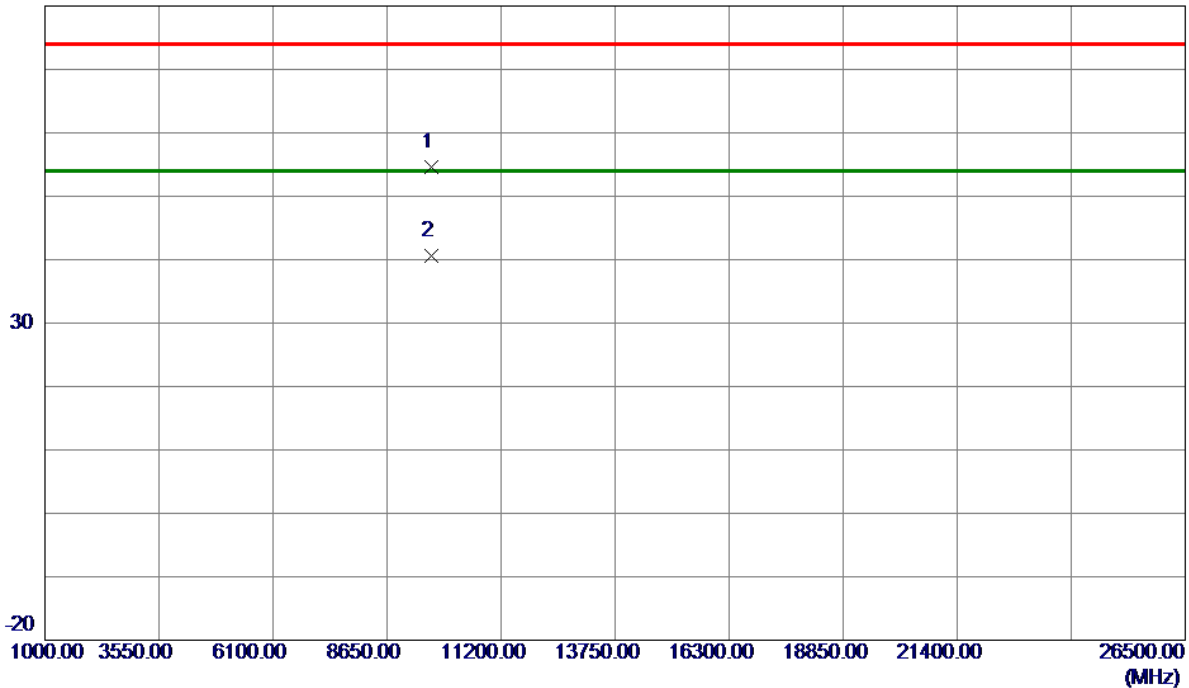
REMARKS:

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

Test Mode: TX G Mode 2412 MHz

Horizontal

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	9649.0350	35.77	18.79	54.56	74.00	-19.44	Peak	
2 *	9650.2350	21.74	18.79	40.53	54.00	-13.47	AVG	

REMARKS:

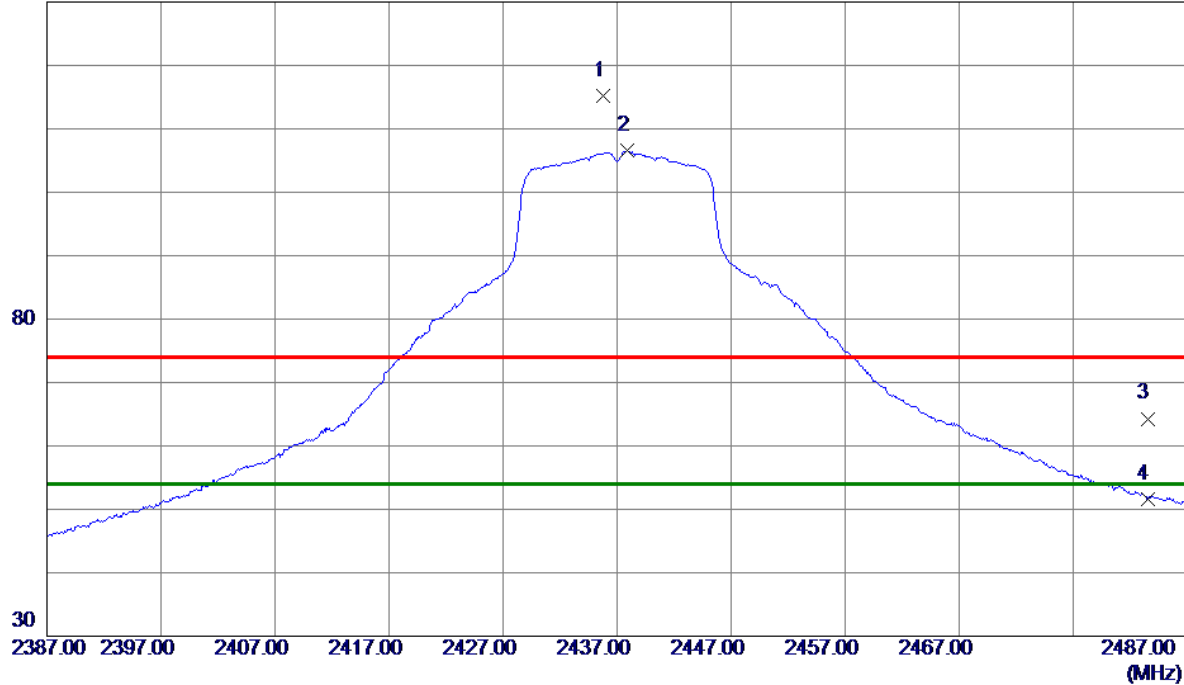
(1) Measurement Value = Reading Level + Correct Factor.

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

Test Mode: TX G Mode 2437 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	2435.8000	106.17	9.04	115.21	74.00	41.21	Peak	No Limit
2 *	2437.9000	97.54	9.04	106.58	54.00	52.58	AVG	No Limit
3	2483.5000	55.29	9.01	64.30	74.00	-9.70	Peak	
4	2483.5000	42.60	9.01	51.61	54.00	-2.39	AVG	

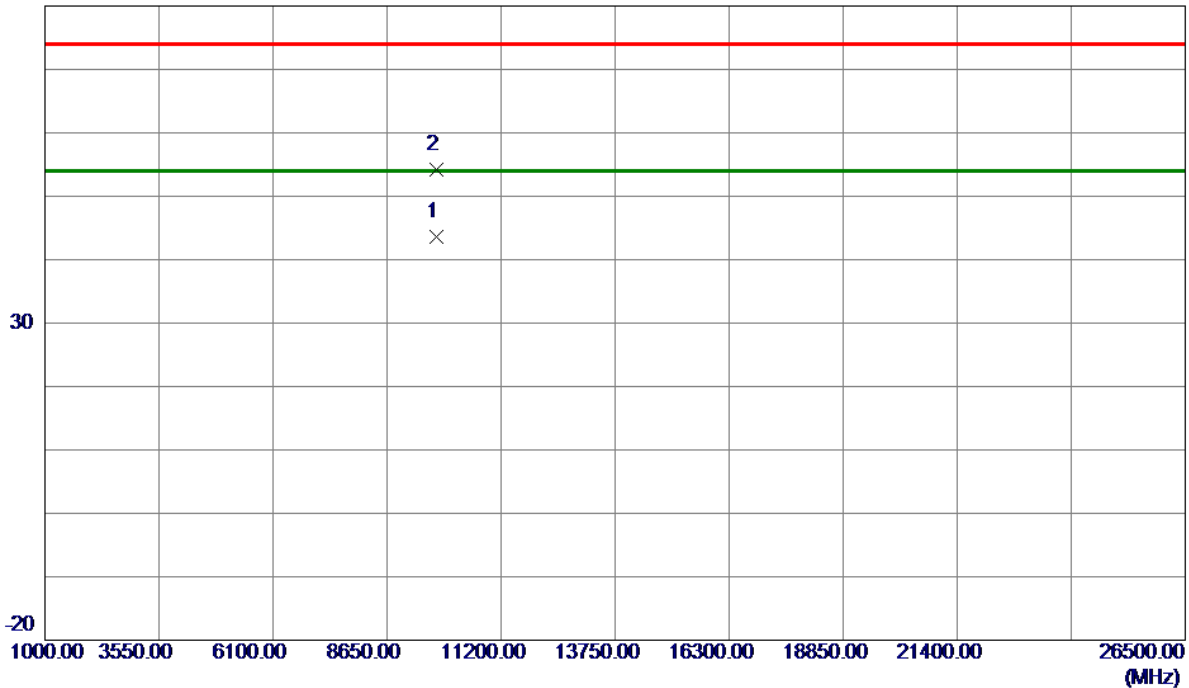
REMARKS:

- (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



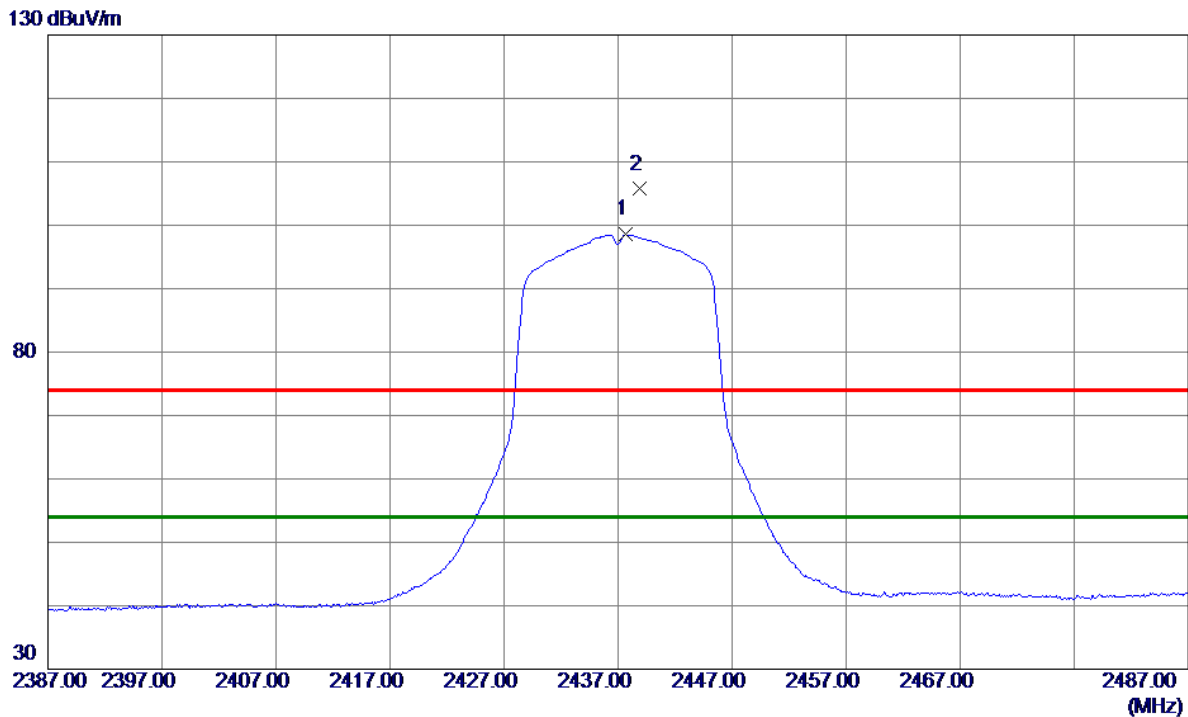
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9748.6600	24.87	18.82	43.69	54.00	-10.31	AVG	
2	9749.1100	35.45	18.82	54.27	74.00	-19.73	Peak	

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 *	2437.7000	89.47	9.04	98.51	54.00	44.51	AVG	No Limit
2	2438.9000	96.66	9.04	105.70	74.00	31.70	Peak	No Limit

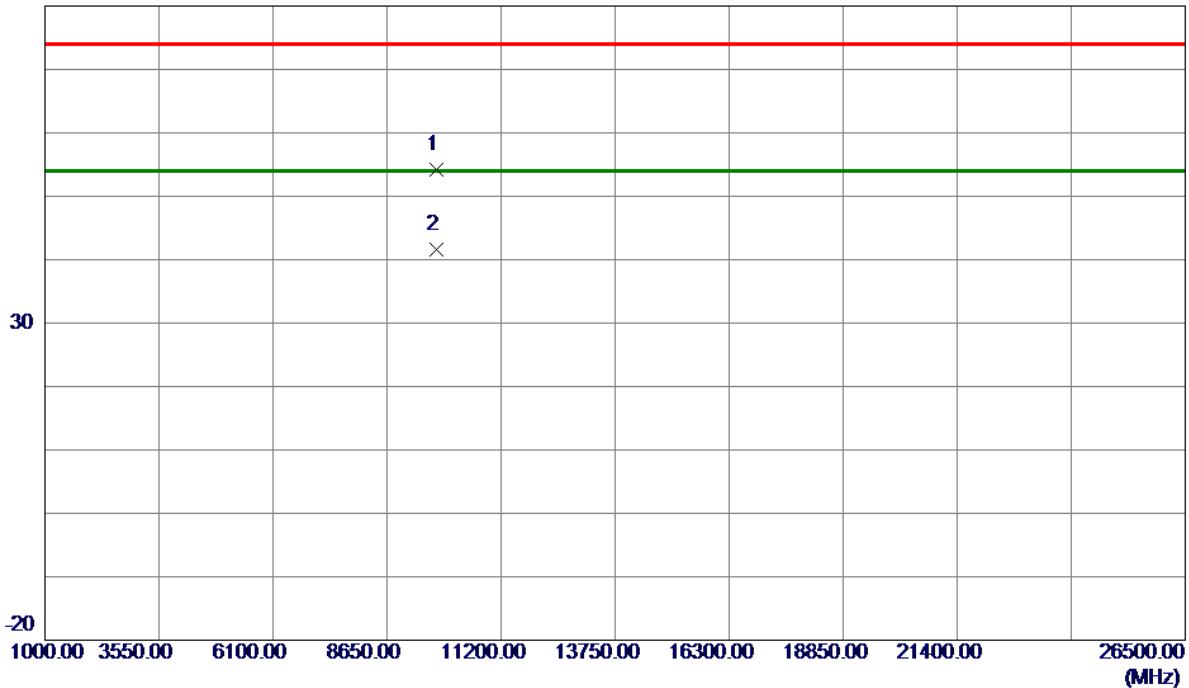
REMARKS:

- (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	9748.6300	35.39	18.82	54.21	74.00	-19.79	Peak	
2 *	9748.9300	22.73	18.82	41.55	54.00	-12.45	AVG	

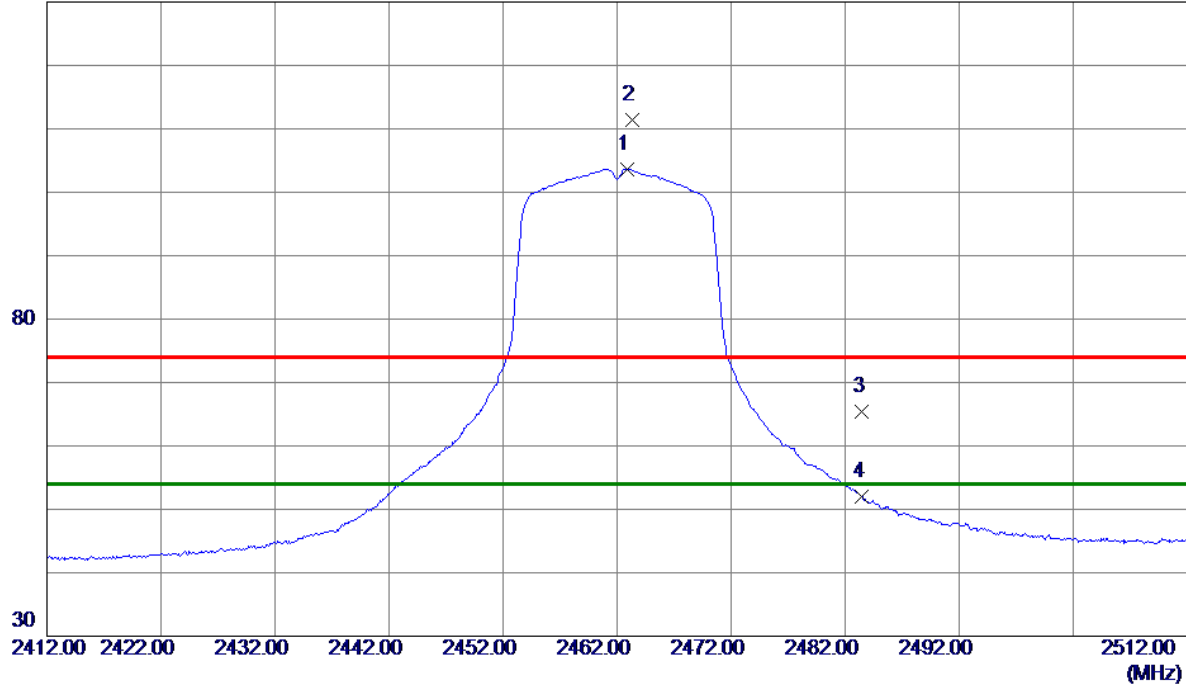
REMARKS:

- (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 *	2462.9000	94.60	9.03	103.63	54.00	49.63	AVG	No Limit
2	2463.3000	102.33	9.03	111.36	74.00	37.36	Peak	No Limit
3	2483.5000	56.44	9.01	65.45	74.00	-8.55	Peak	
4	2483.5000	42.91	9.01	51.92	54.00	-2.08	AVG	

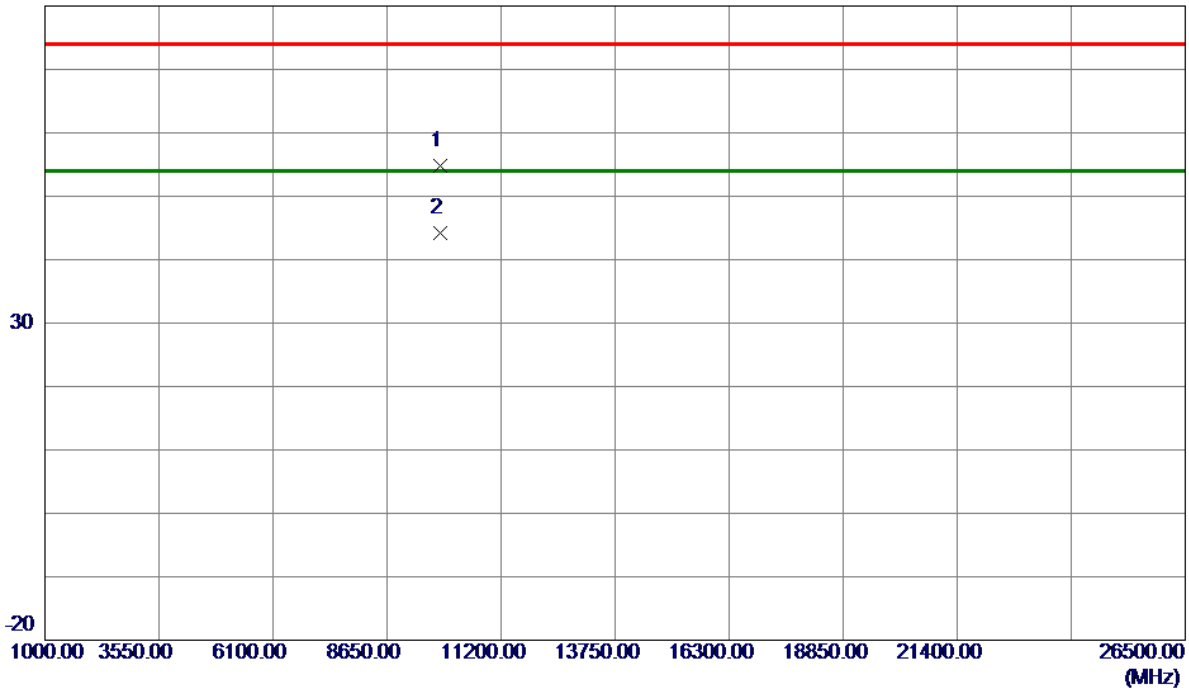
REMARKS:

- (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	9848.7100	35.98	18.85	54.83	74.00	-19.17	Peak	
2 *	9849.4150	25.35	18.85	44.20	54.00	-9.80	AVG	

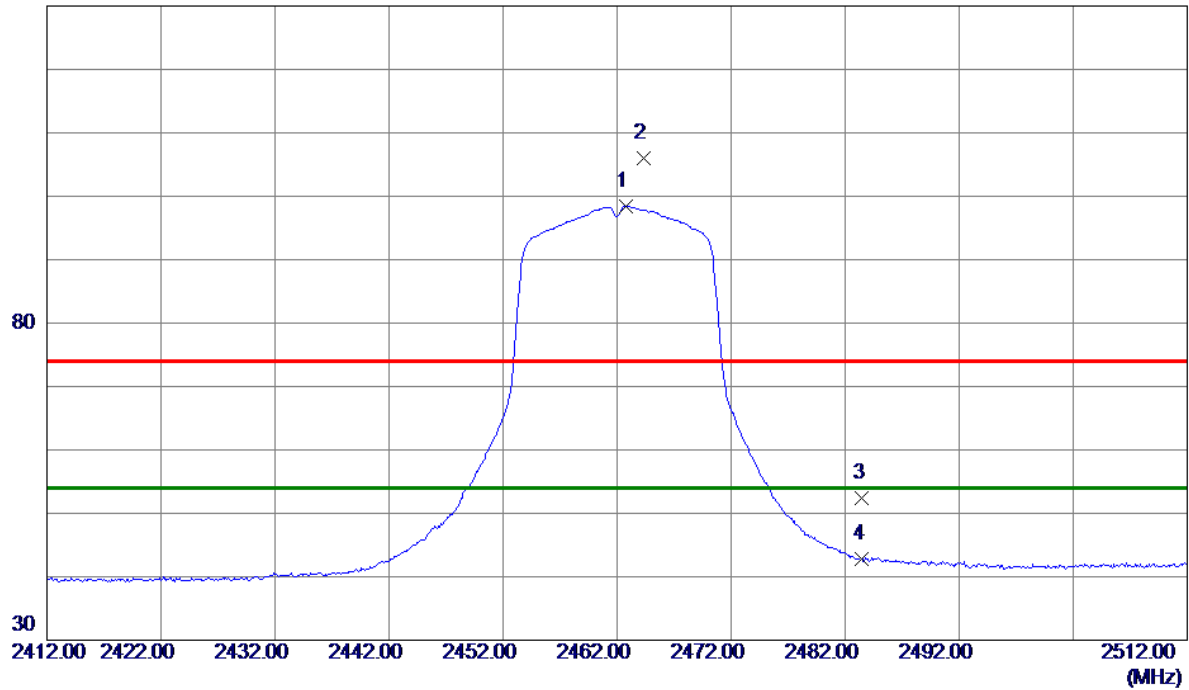
REMARKS:

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

Test Mode: TX 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 *	2462.8000	89.37	9.03	98.40	54.00	44.40	AVG	No Limit
2	2464.3000	96.97	9.03	106.00	74.00	32.00	Peak	No Limit
3	2483.5000	43.34	9.01	52.35	74.00	-21.65	Peak	
4	2483.5000	33.75	9.01	42.76	54.00	-11.24	AVG	

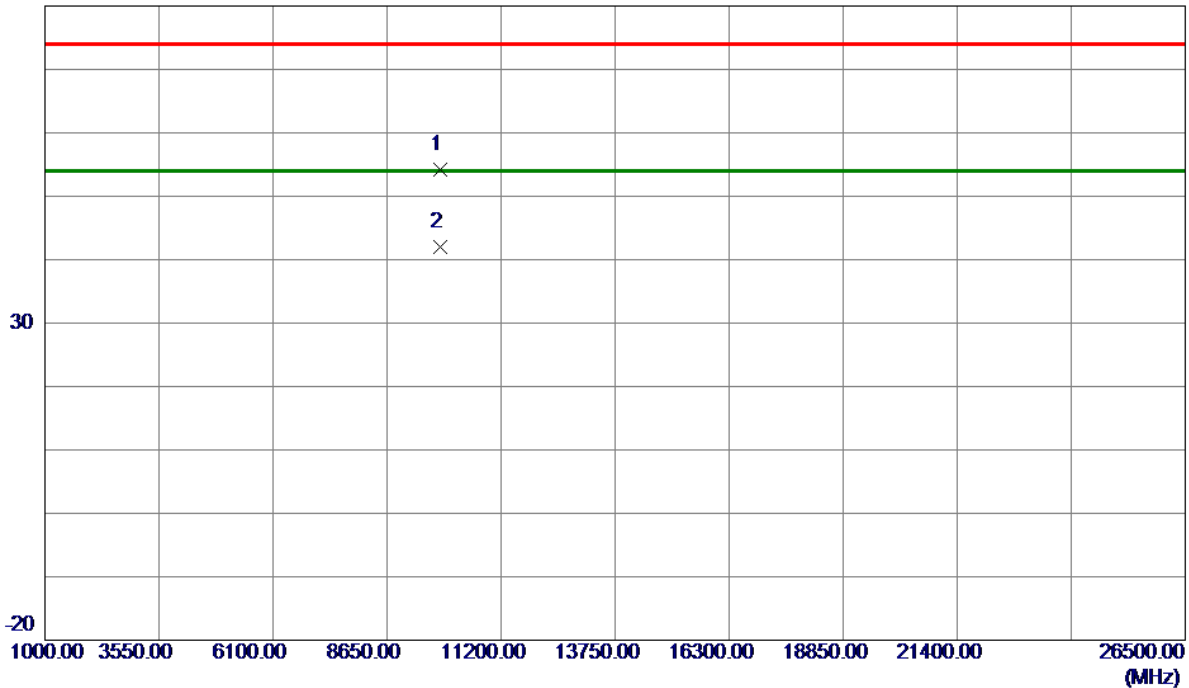
REMARKS:

- (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	9848.2699	35.30	18.85	54.15	74.00	-19.85	Peak	
2 *	9848.9750	23.08	18.85	41.93	54.00	-12.07	AVG	

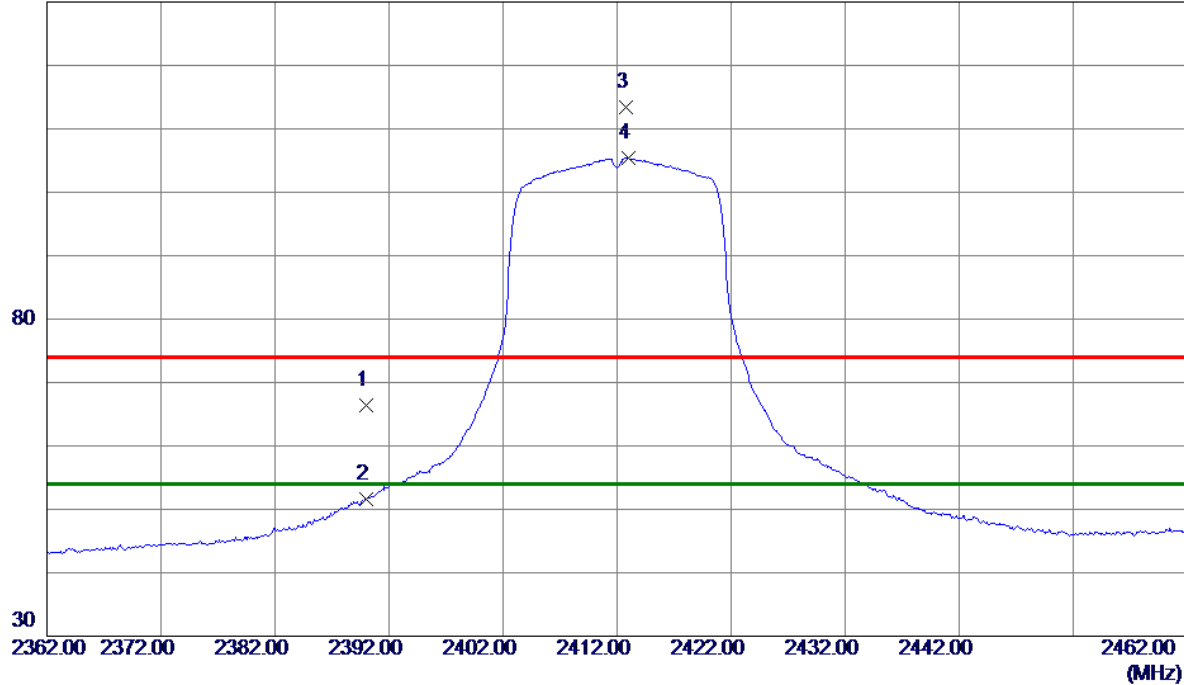
REMARKS:

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

Test Mode: TX N-20M 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	57.27	9.07	66.34	74.00	-7.66	Peak	
2	2390.0000	42.49	9.07	51.56	54.00	-2.44	AVG	
3	2412.8000	104.31	9.06	113.37	74.00	39.37	Peak	No Limit
4 *	2413.0000	96.35	9.06	105.41	54.00	51.41	AVG	No Limit

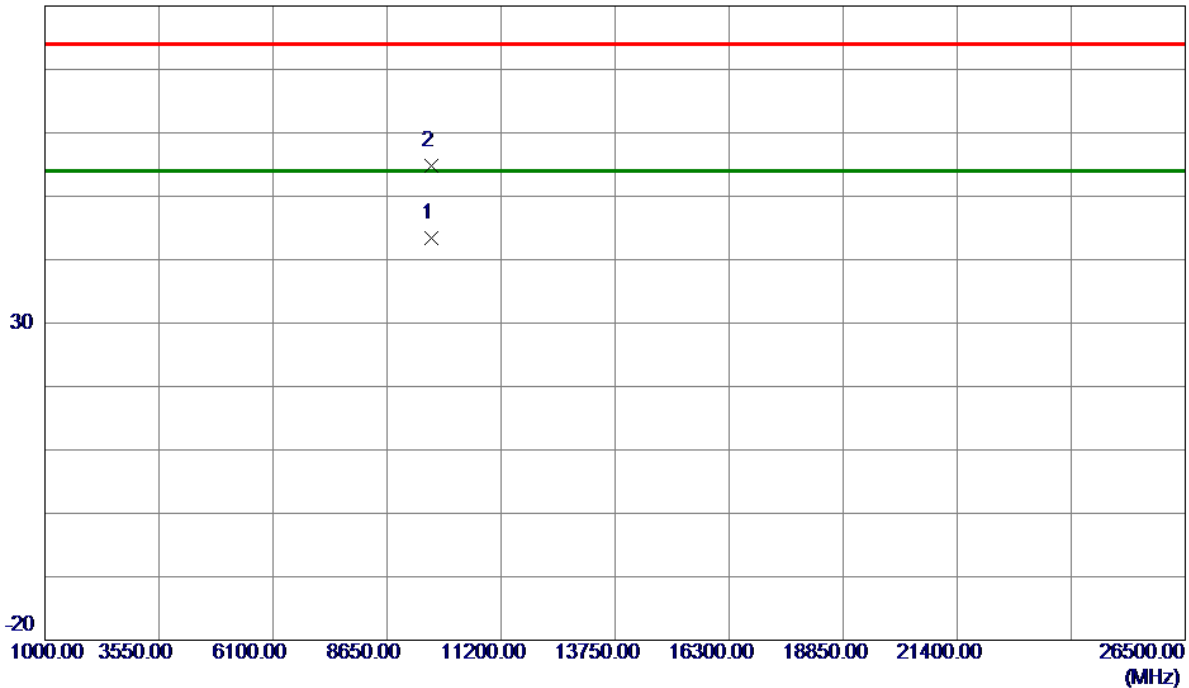
REMARKS:

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

Test Mode:	TX N-20M Mode 2412 MHz
------------	------------------------

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 *	9648.5000	24.63	18.79	43.42	54.00	-10.58	AVG	
2	9649.4050	36.07	18.79	54.86	74.00	-19.14	Peak	

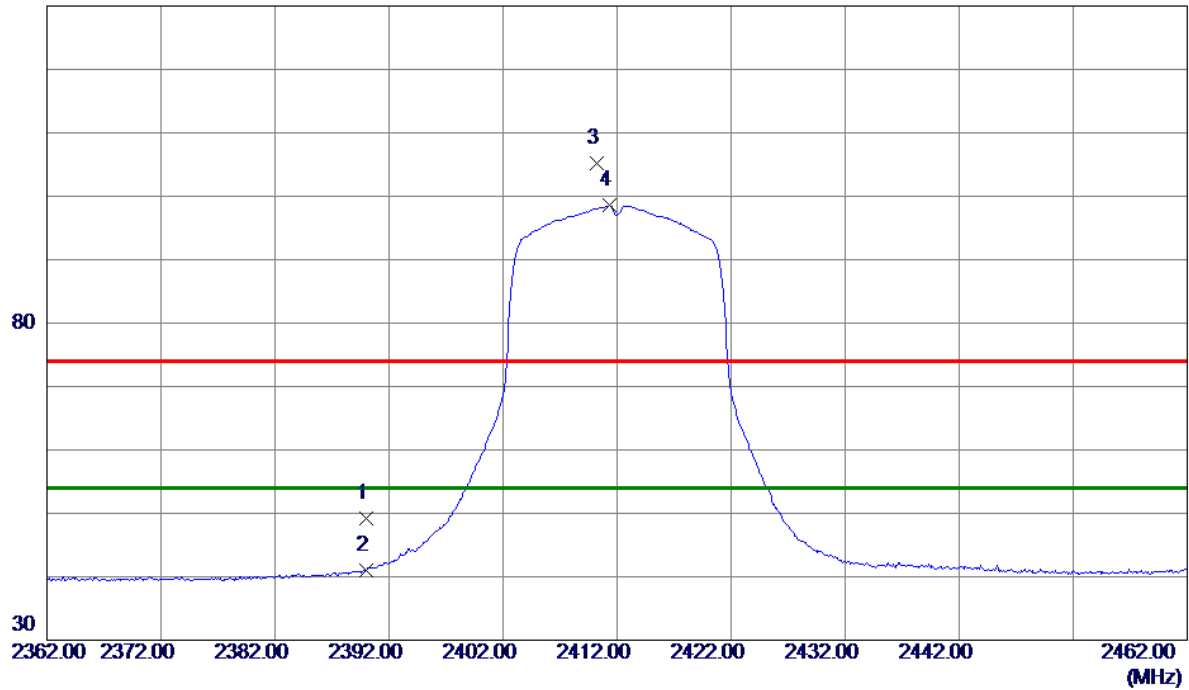
REMARKS:

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

Test Mode: TX N-20M Mode 2412 MHz

Horizontal

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	40.18	9.07	49.25	74.00	-24.75	Peak	
2	2390.0000	31.89	9.07	40.96	54.00	-13.04	AVG	
3	2410.2000	96.10	9.06	105.16	74.00	31.16	Peak	No Limit
4 *	2411.3000	89.45	9.06	98.51	54.00	44.51	AVG	No Limit

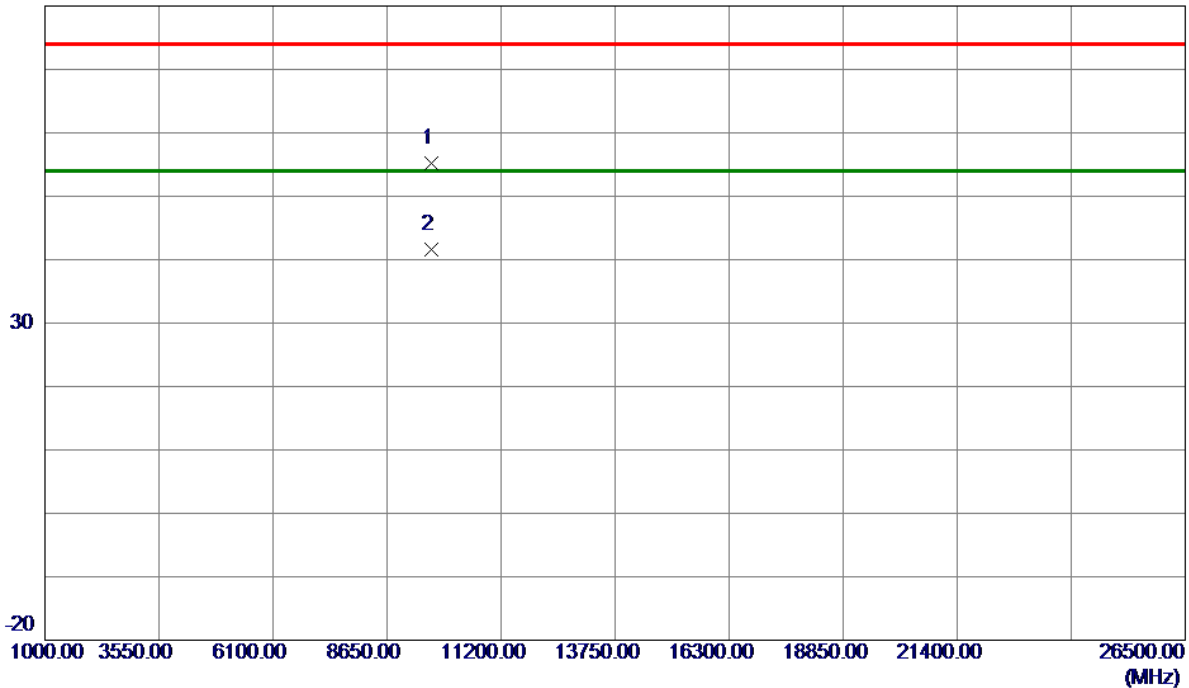
REMARKS:

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

Test Mode:	TX N-20M Mode 2412 MHz
------------	------------------------

Horizontal

80 dBuV/m



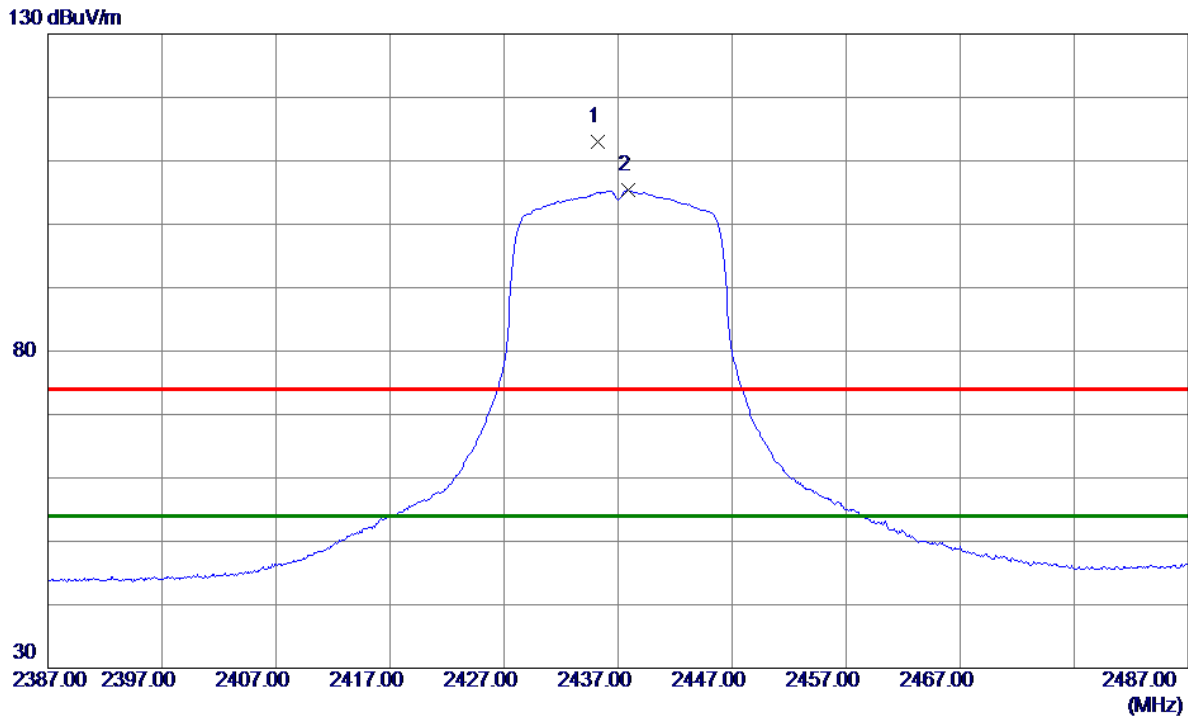
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9649.2650	36.39	18.79	55.18	74.00	-18.82	Peak	
2 *	9650.5950	22.88	18.79	41.67	54.00	-12.33	AVG	

REMARKS:

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

Test Mode: TX N-20M Mode 2437 MHz

Vertical



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	2435.2000	103.89	9.04	112.93	74.00	38.93	Peak	No Limit
2 *	2437.9000	96.30	9.04	105.34	54.00	51.34	AVG	No Limit

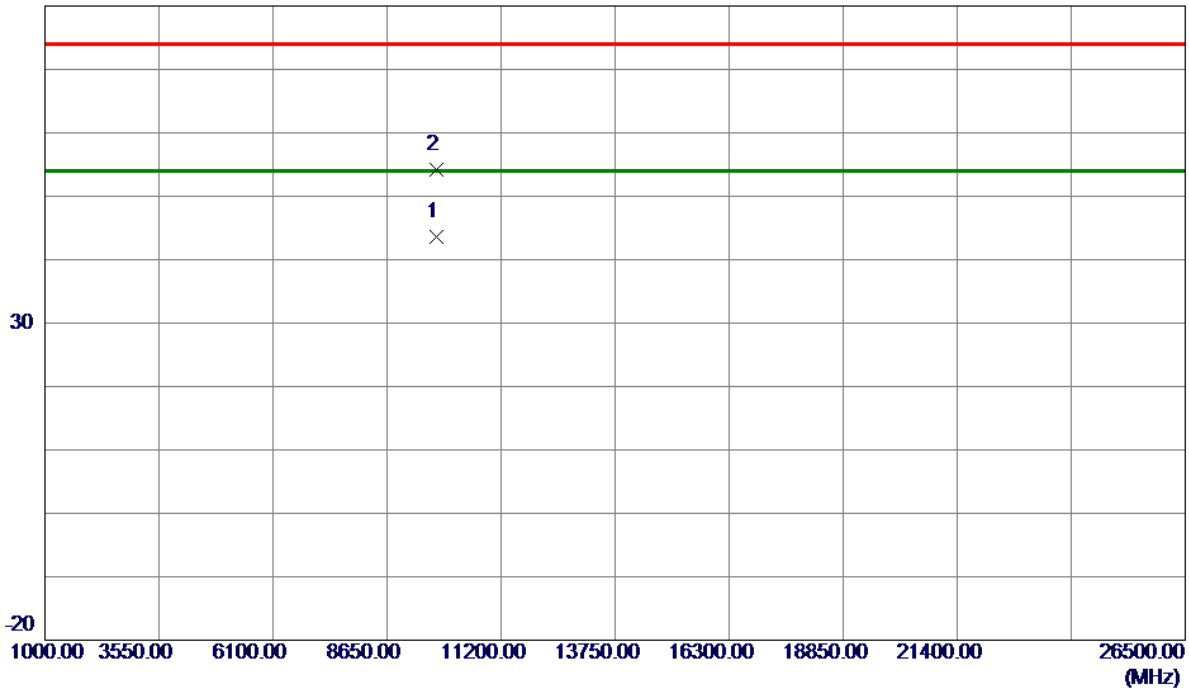
REMARKS:

- (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



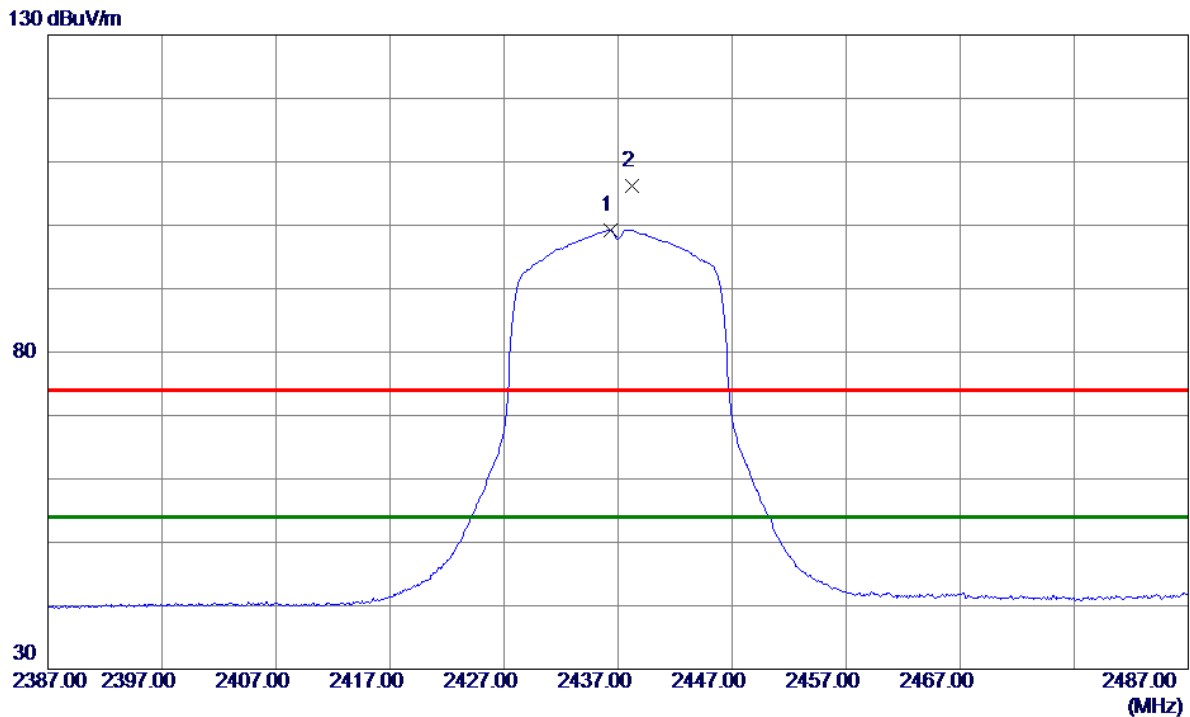
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	9747.7300	24.80	18.82	43.62	54.00	-10.38	AVG	
2	9748.3900	35.34	18.82	54.16	74.00	-19.84	Peak	

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 *	2436.3000	90.25	9.04	99.29	54.00	45.29	AVG	No Limit
2	2438.2000	97.13	9.04	106.17	74.00	32.17	Peak	No Limit

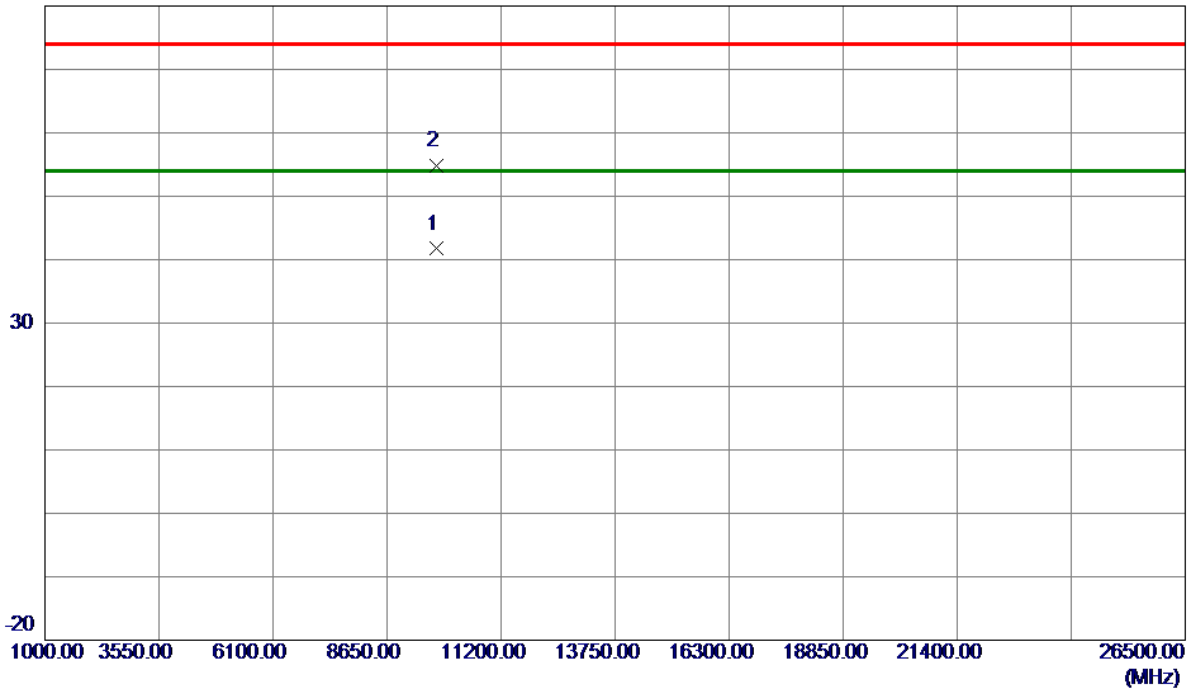
REMARKS:

- (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 *	9749.7750	22.88	18.82	41.70	54.00	-12.30	AVG	
2	9750.4750	35.92	18.82	54.74	74.00	-19.26	Peak	

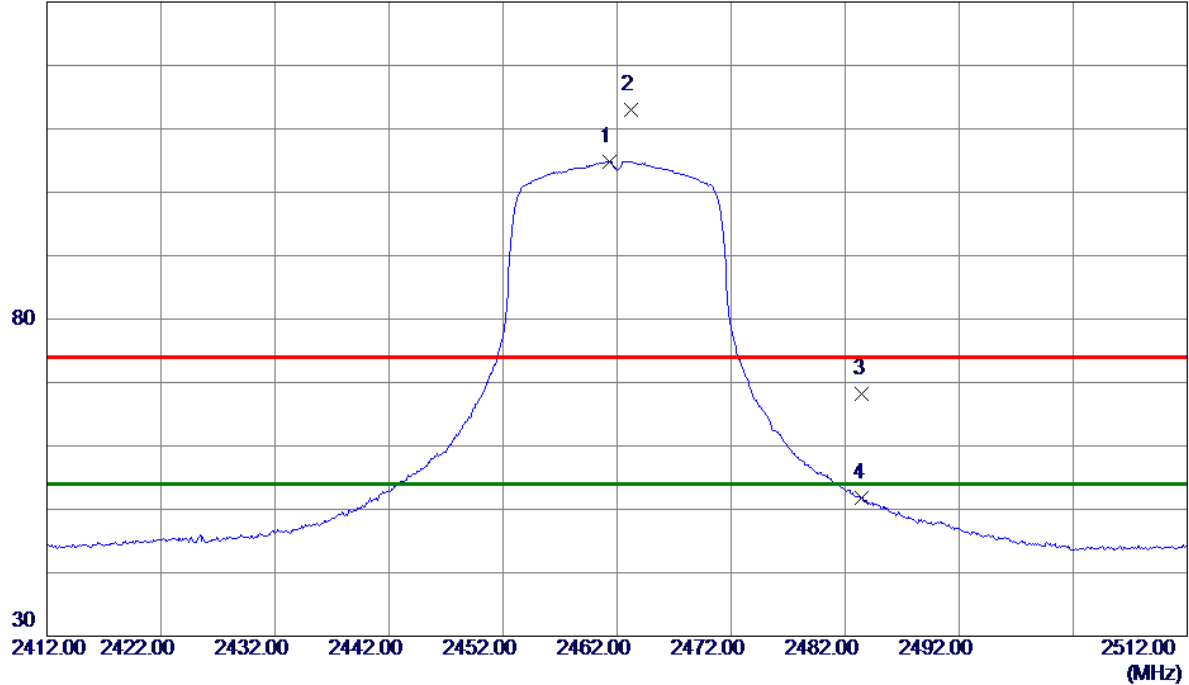
REMARKS:

- (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 *	2461.3000	95.86	9.03	104.89	54.00	50.89	AVG	No Limit
2	2463.2000	103.94	9.03	112.97	74.00	38.97	Peak	No Limit
3	2483.5000	59.22	9.01	68.23	74.00	-5.77	Peak	
4	2483.5000	42.75	9.01	51.76	54.00	-2.24	AVG	

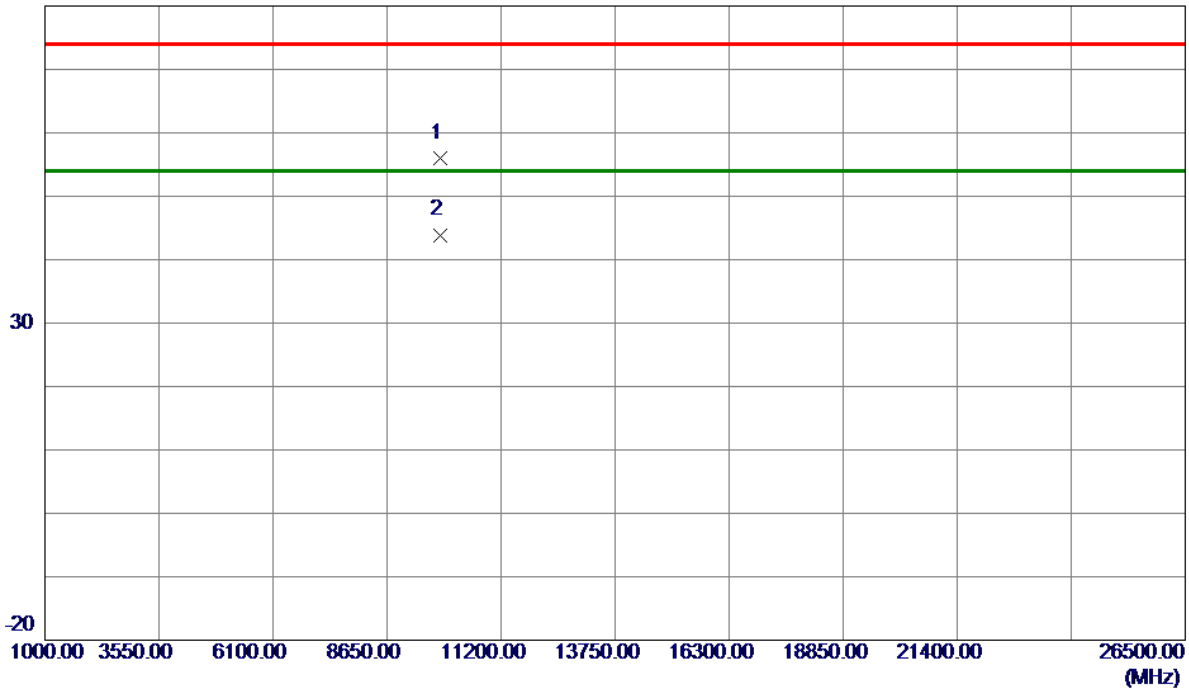
REMARKS:

- (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	9847.8900	37.16	18.85	56.01	74.00	-17.99	Peak	
2 *	9848.0900	25.05	18.85	43.90	54.00	-10.10	AVG	

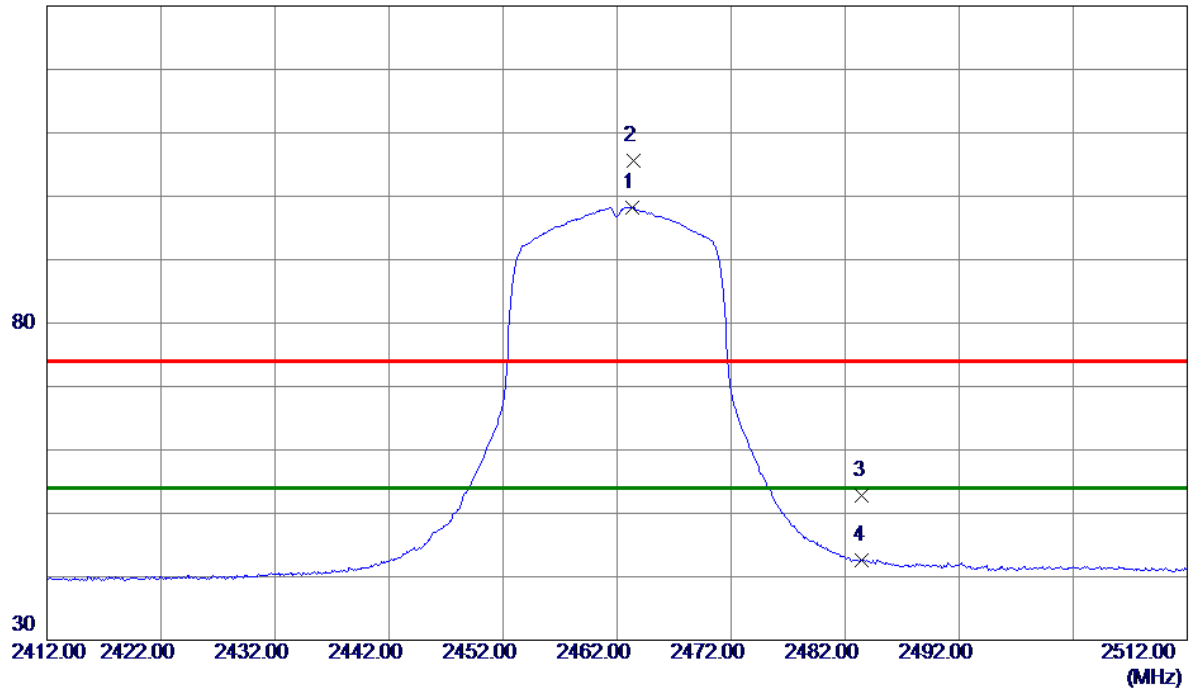
REMARKS:

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

Test Mode: TX N-20M Mode 2462 MHz

Horizontal

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 *	2463.3000	89.25	9.03	98.28	54.00	44.28	AVG	No Limit
2	2463.4000	96.50	9.03	105.53	74.00	31.53	Peak	No Limit
3	2483.5000	43.84	9.01	52.85	74.00	-21.15	Peak	
4	2483.5000	33.60	9.01	42.61	54.00	-11.39	AVG	

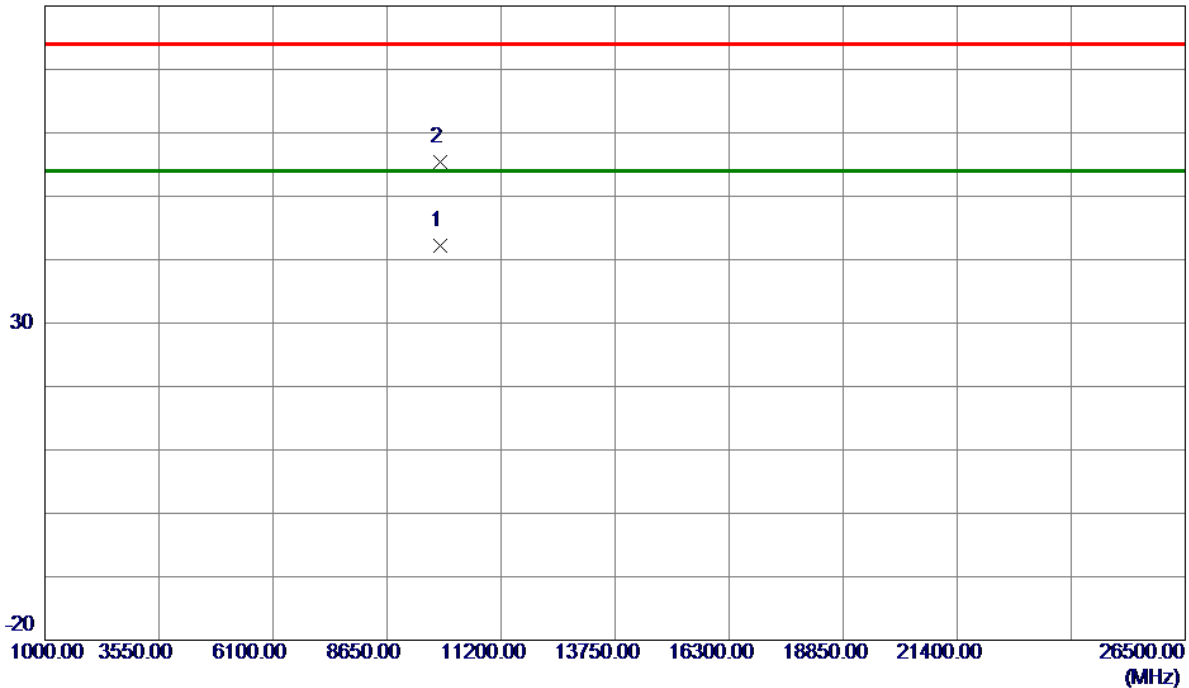
REMARKS:

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

Test Mode:	TX N-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 *	9850.6800	23.28	18.85	42.13	54.00	-11.87	AVG	
2	9852.3450	36.63	18.85	55.48	74.00	-18.52	Peak	

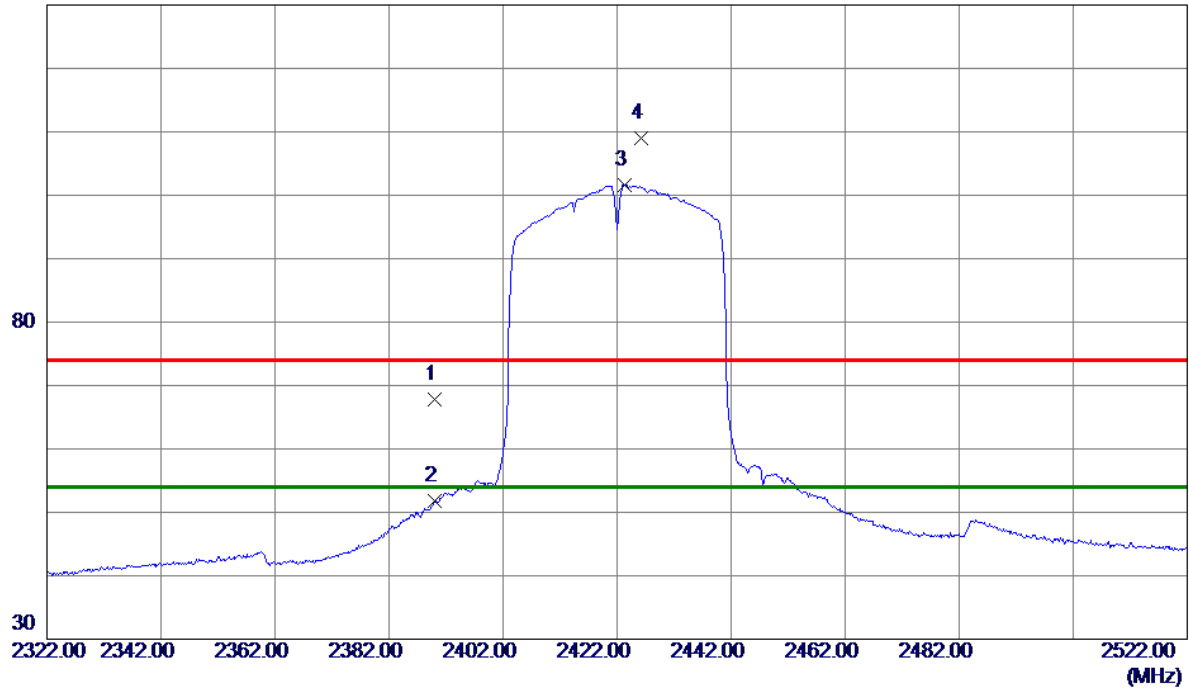
REMARKS:

- (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	58.64	9.07	67.71	74.00	-6.29	Peak	
2	2390.0000	42.73	9.07	51.80	54.00	-2.20	AVG	
3 *	2423.4000	92.60	9.05	101.65	54.00	47.65	AVG	No Limit
4	2426.2000	99.90	9.05	108.95	74.00	34.95	Peak	No Limit

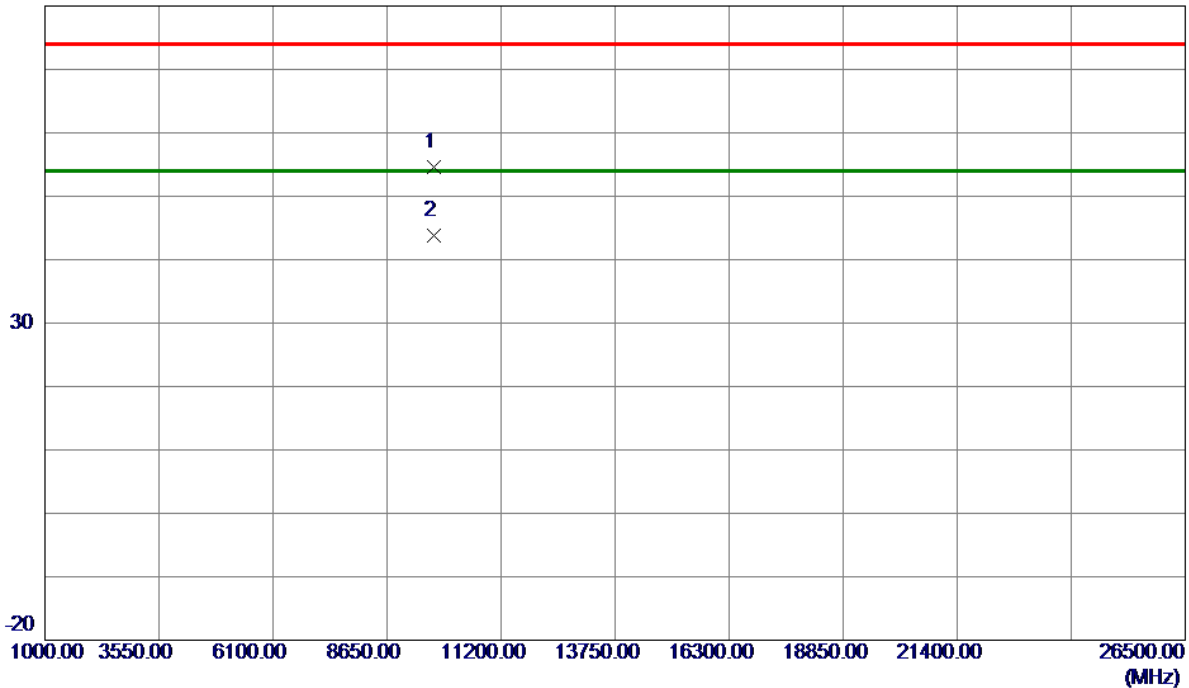
REMARKS:

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

Test Mode: TX N-40M Mode 2422MHz

Vertical

80 dBuV/m



No.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	9687.4300	35.81	18.80	54.61	74.00	-19.39	Peak	
2 *	9689.2100	25.06	18.80	43.86	54.00	-10.14	AVG	

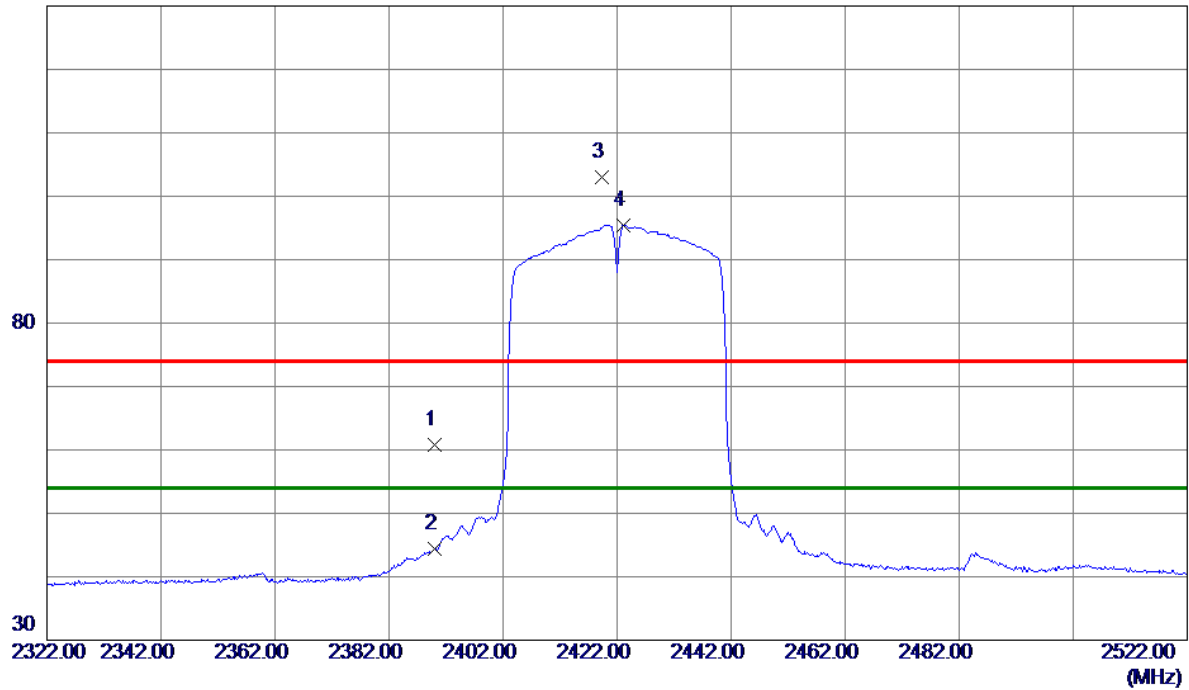
REMARKS:

- (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	51.73	9.07	60.80	74.00	-13.20	Peak	
2	2390.0000	35.24	9.07	44.31	54.00	-9.69	AVG	
3	2419.4000	93.98	9.05	103.03	74.00	29.03	Peak	No Limit
4 *	2423.2000	86.41	9.05	95.46	54.00	41.46	AVG	No Limit

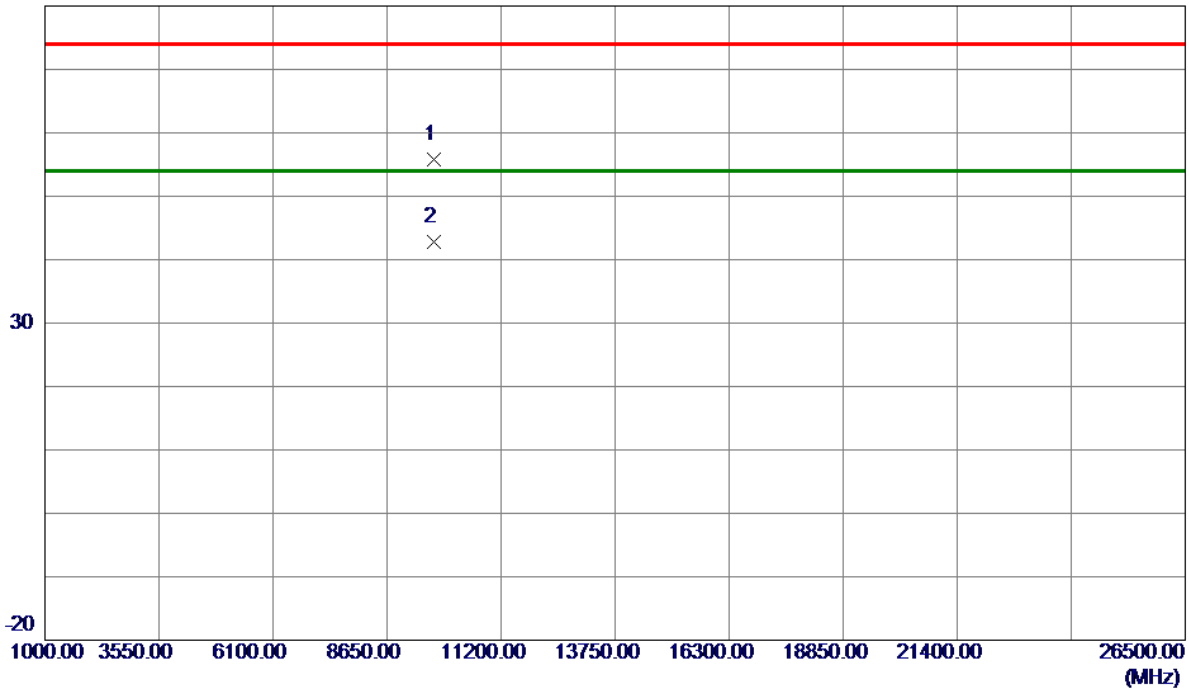
REMARKS:

- (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	9689.8250	36.95	18.80	55.75	74.00	-18.25	Peak	
2 *	9690.6900	23.93	18.80	42.73	54.00	-11.27	AVG	

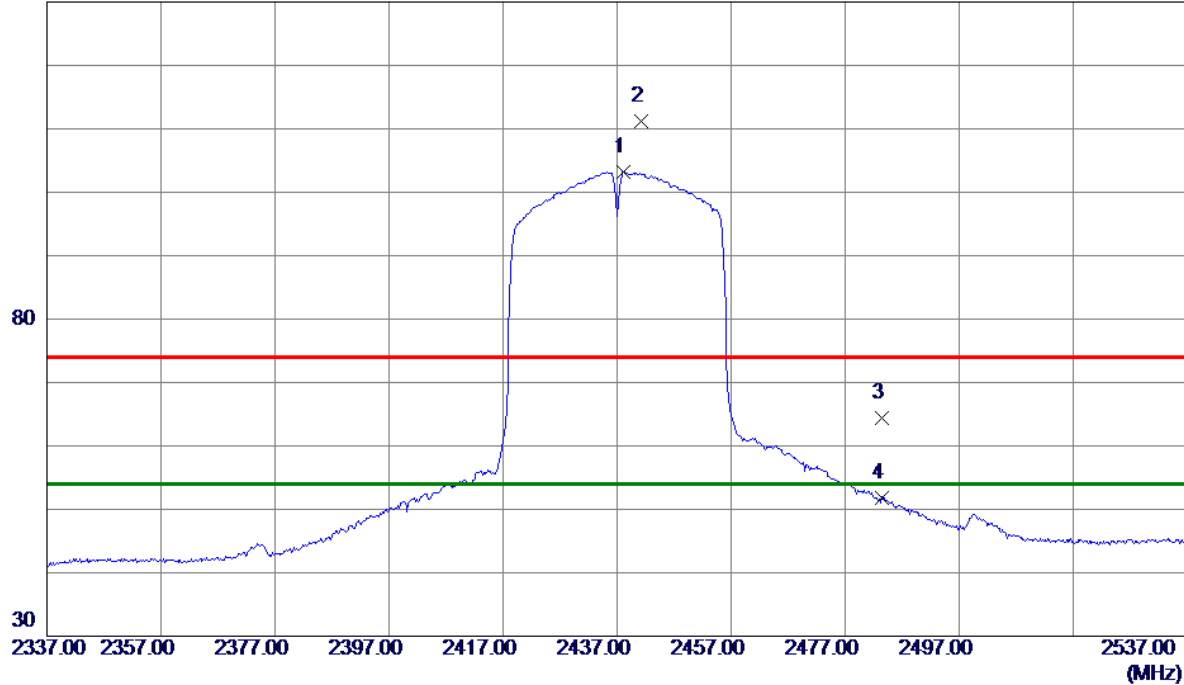
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical

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 *	2438.2000	94.17	9.04	103.21	54.00	49.21	AVG	No Limit
2	2441.2000	102.15	9.04	111.19	74.00	37.19	Peak	No Limit
3	2483.5000	55.40	9.01	64.41	74.00	-9.59	Peak	
4	2483.5000	42.75	9.01	51.76	54.00	-2.24	AVG	

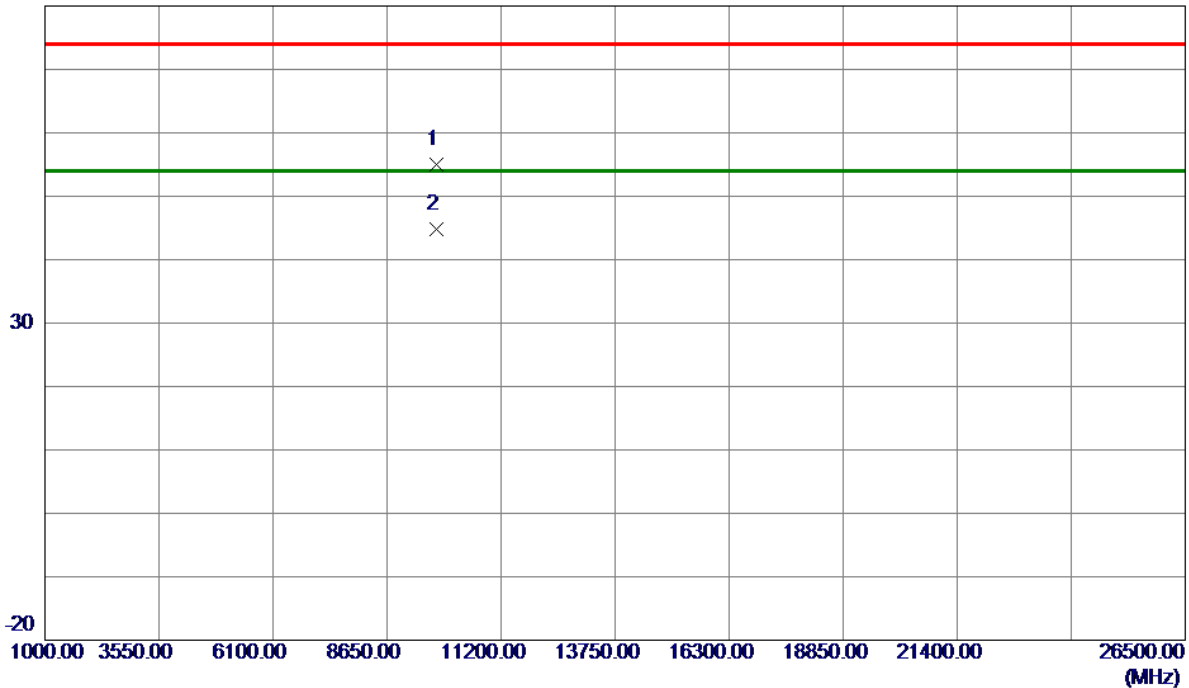
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Vertical

80 dBuV/m



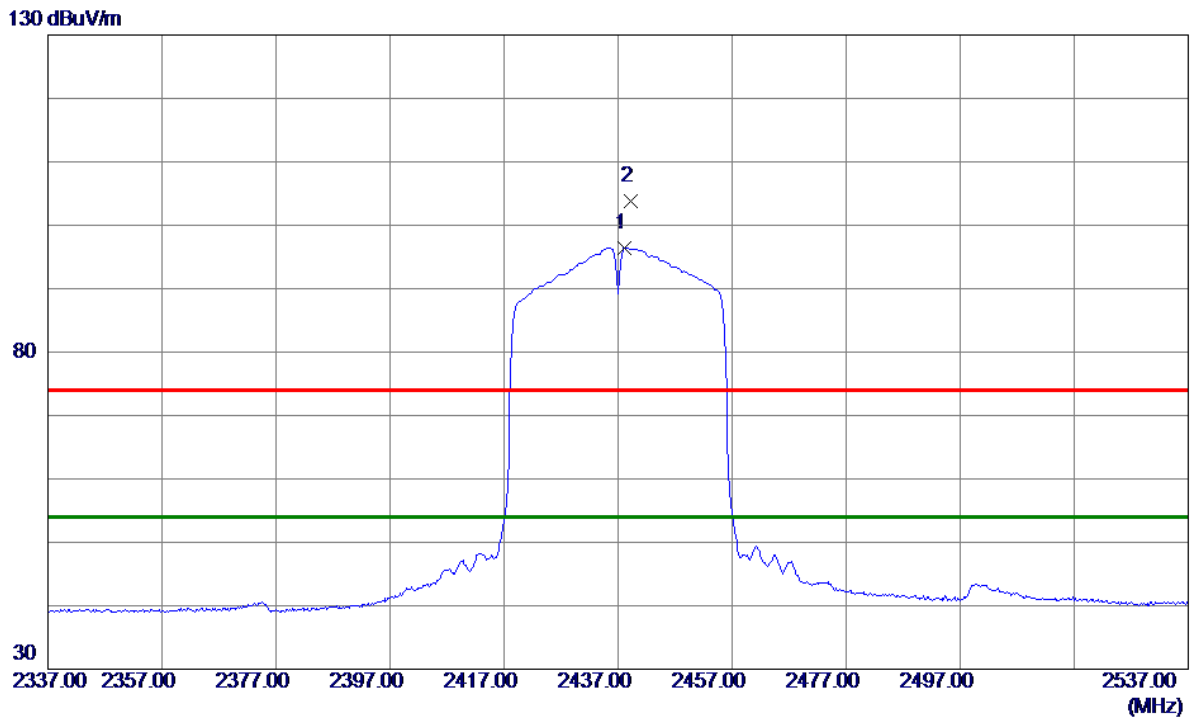
No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	9748.8400	36.10	18.82	54.92	74.00	-19.08	Peak	
2 *	9749.0300	25.96	18.82	44.78	54.00	-9.22	AVG	

REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal



No.	Freq. MHz	Reading Level dBuV/m	Correct Factor dB	Measure ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	2438.2000	87.43	9.04	96.47	54.00	42.47	AVG	No Limit
2	2439.2000	94.73	9.04	103.77	74.00	29.77	Peak	No Limit

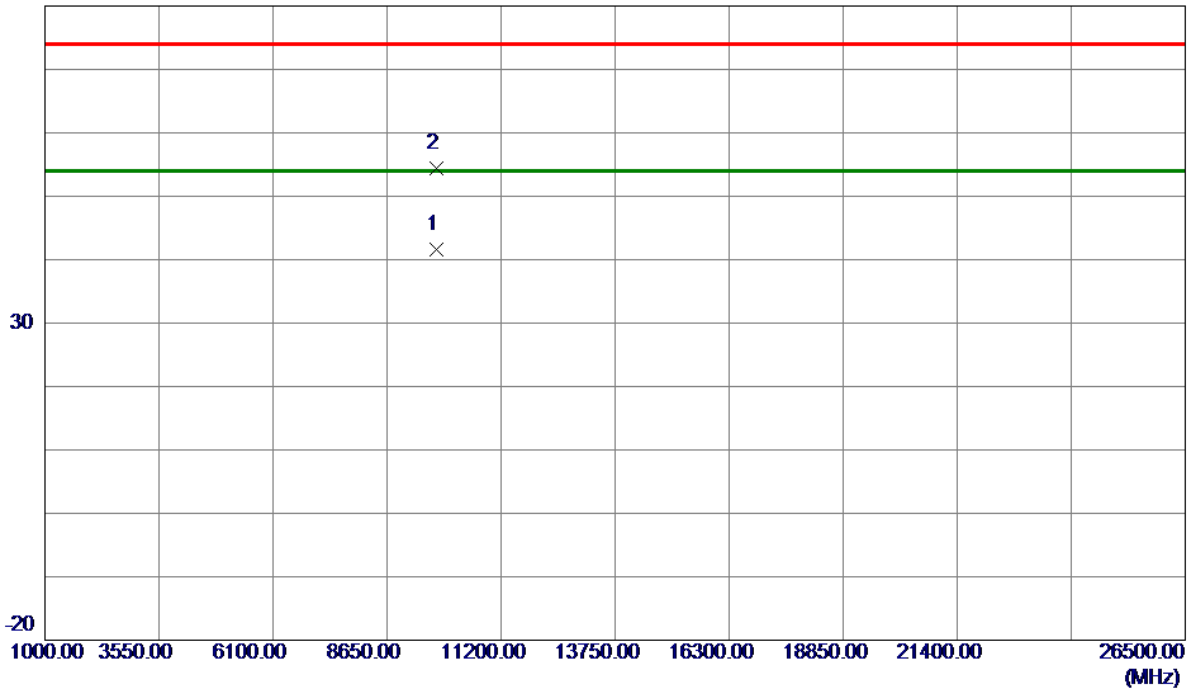
REMARKS:

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

Test Mode: TX N-40M Mode 2437 MHz

Horizontal

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 *	9749.1350	22.80	18.82	41.62	54.00	-12.38	AVG	
2	9750.2300	35.67	18.82	54.49	74.00	-19.51	Peak	

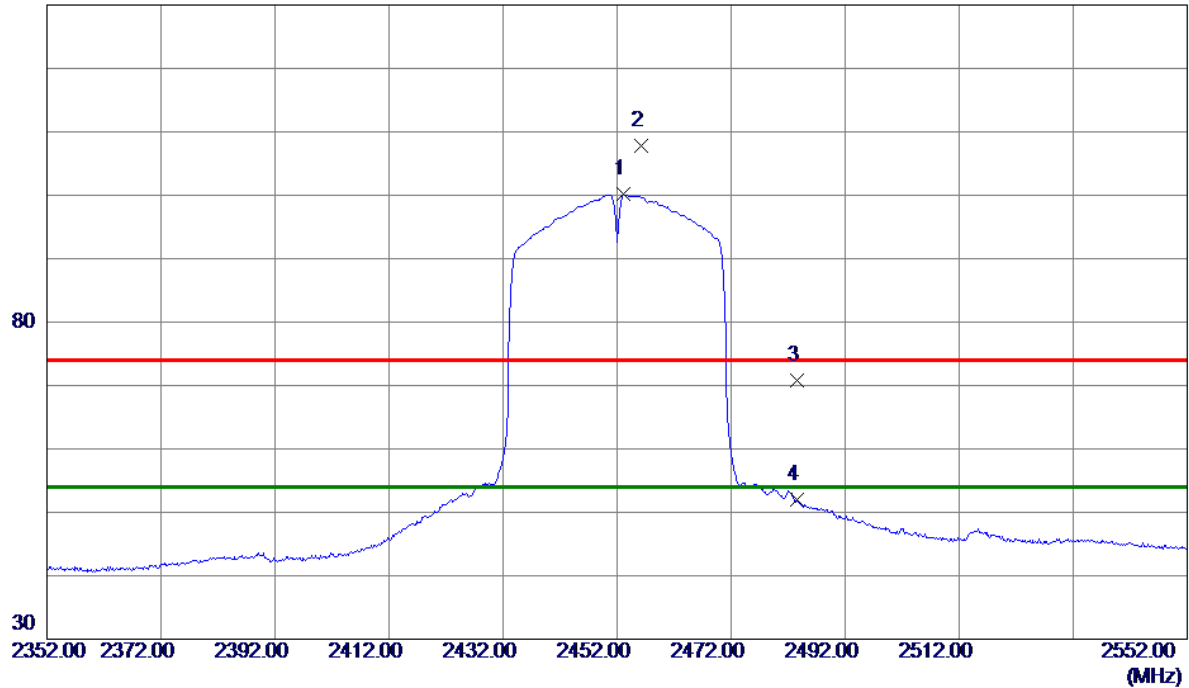
REMARKS:

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

Test Mode: TX N-40M Mode 2452 MHz

Vertical

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 *	2453.2000	91.09	9.03	100.12	54.00	46.12	AVG	No Limit
2	2456.2000	98.72	9.03	107.75	74.00	33.75	Peak	No Limit
3	2483.5000	61.73	9.01	70.74	74.00	-3.26	Peak	
4	2483.5000	42.91	9.01	51.92	54.00	-2.08	AVG	

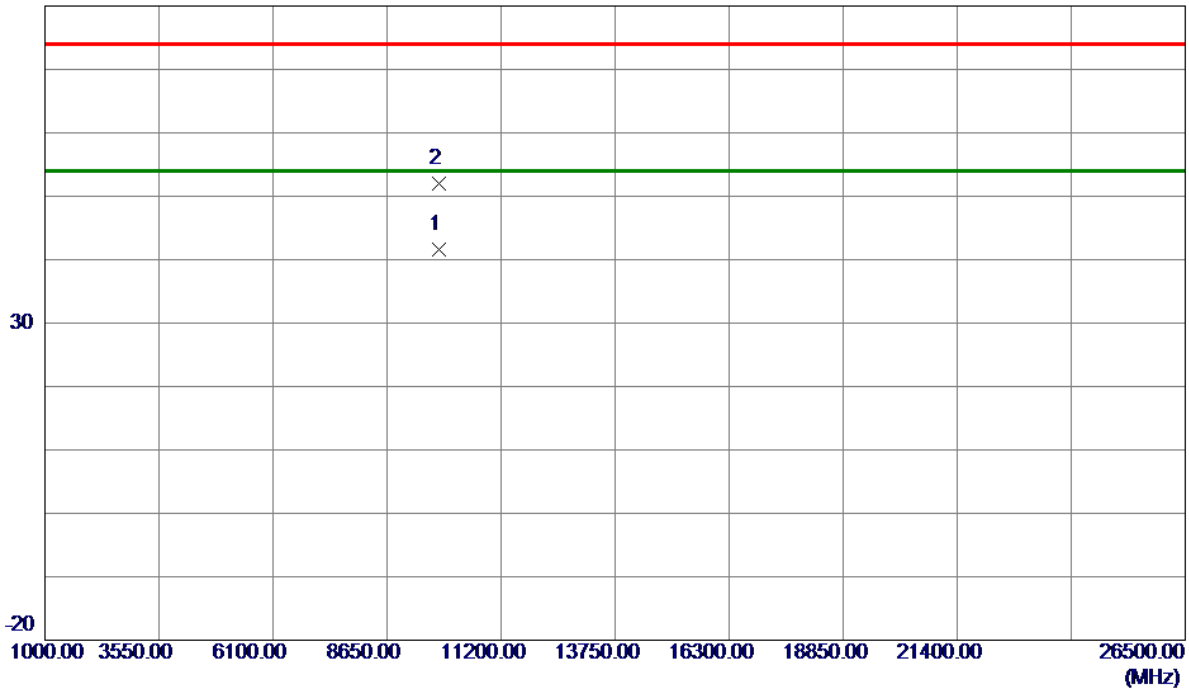
REMARKS:

- (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 *	9808.5000	22.72	18.83	41.55	54.00	-12.45	AVG	
2	9810.5250	33.24	18.84	52.08	74.00	-21.92	Peak	

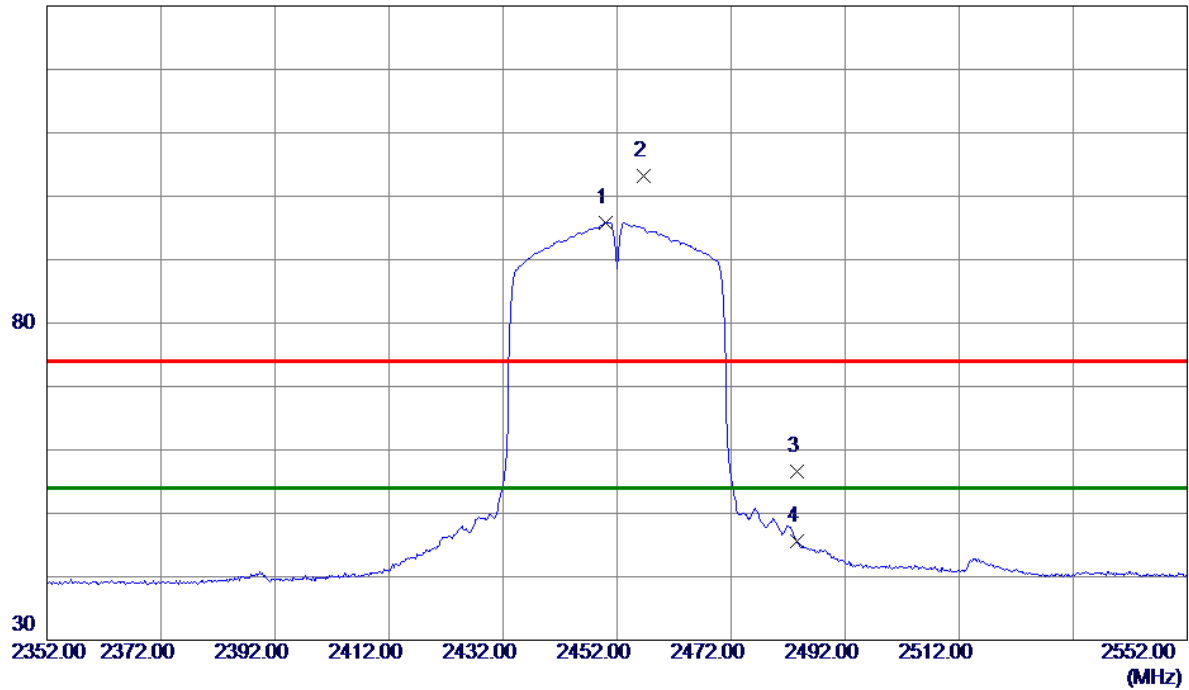
REMARKS:

- (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 *	2450.0000	86.83	9.03	95.86	54.00	41.86	AVG	No Limit
2	2456.6000	94.18	9.03	103.21	74.00	29.21	Peak	No Limit
3	2483.5000	47.52	9.01	56.53	74.00	-17.47	Peak	
4	2483.5000	36.60	9.01	45.61	54.00	-8.39	AVG	

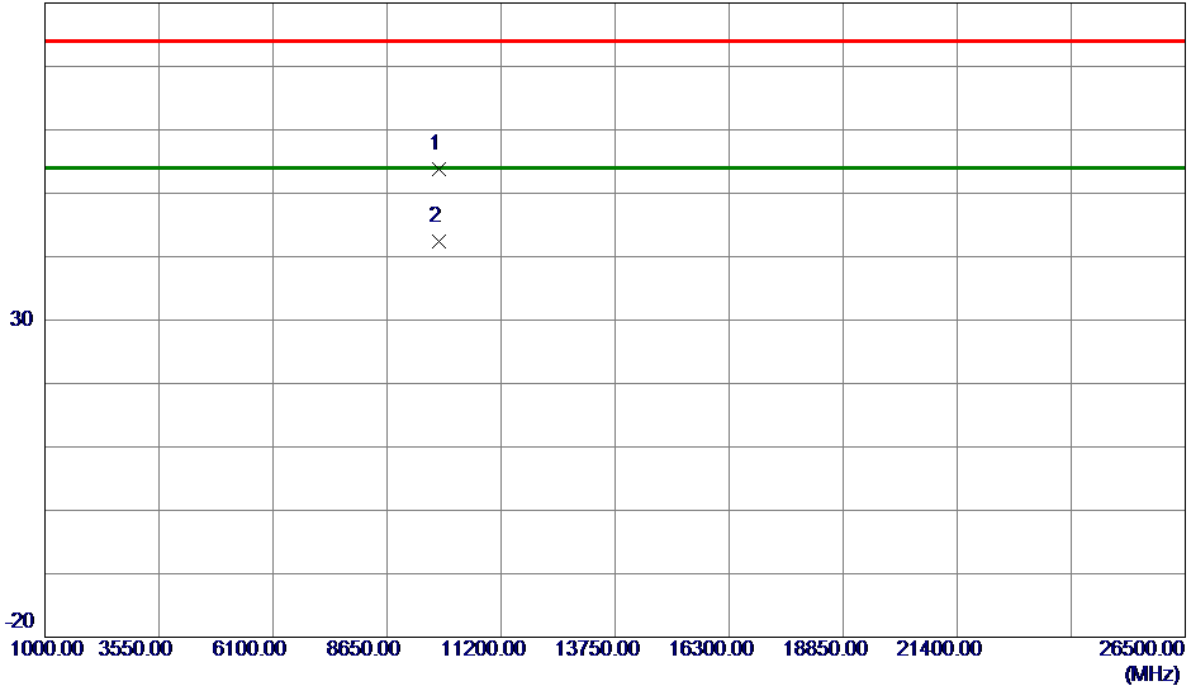
REMARKS:

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

Test Mode:	TX N-40M Mode 2452 MHz
------------	------------------------

Horizontal

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	9808.9950	34.92	18.83	53.75	74.00	-20.25	Peak	
2 *	9811.2699	23.56	18.84	42.40	54.00	-11.60	AVG	

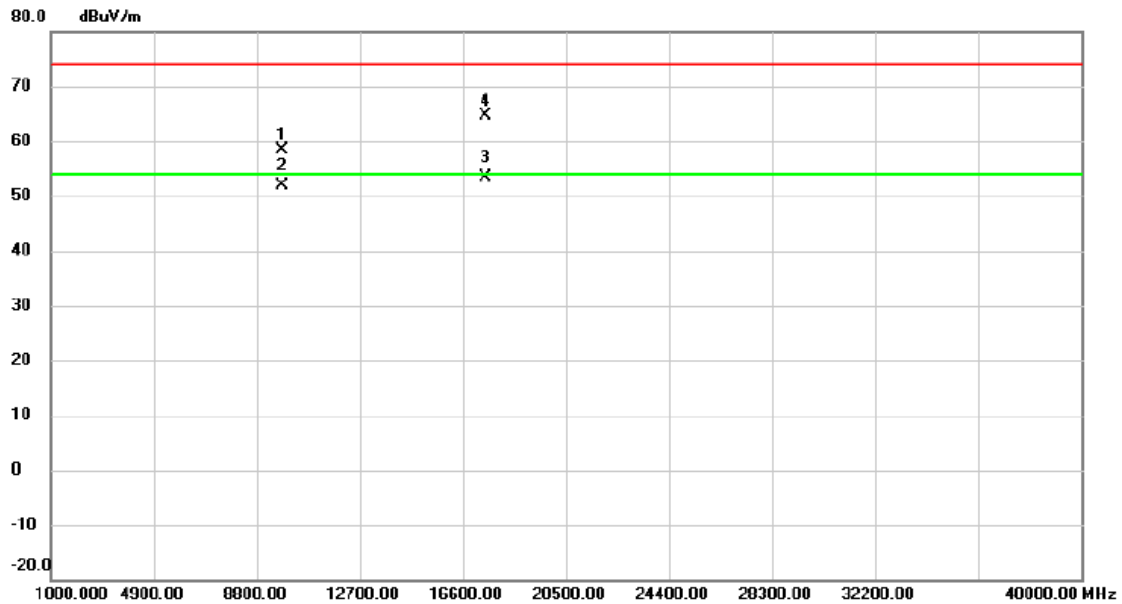
REMARKS:

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

The worst case of simultaneous transmission:

Test Mode: TX B Mode 2437+AC 20 Mode 5825MHz

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		9747.980	39.56	18.81	58.37	74.00	-15.63	peak	
2		9748.360	33.17	18.81	51.98	54.00	-2.02	AVG	
3	*	17465.280	27.04	26.35	53.39	54.00	-0.61	AVG	
4		17466.410	38.23	26.36	64.59	74.00	-9.41	peak	

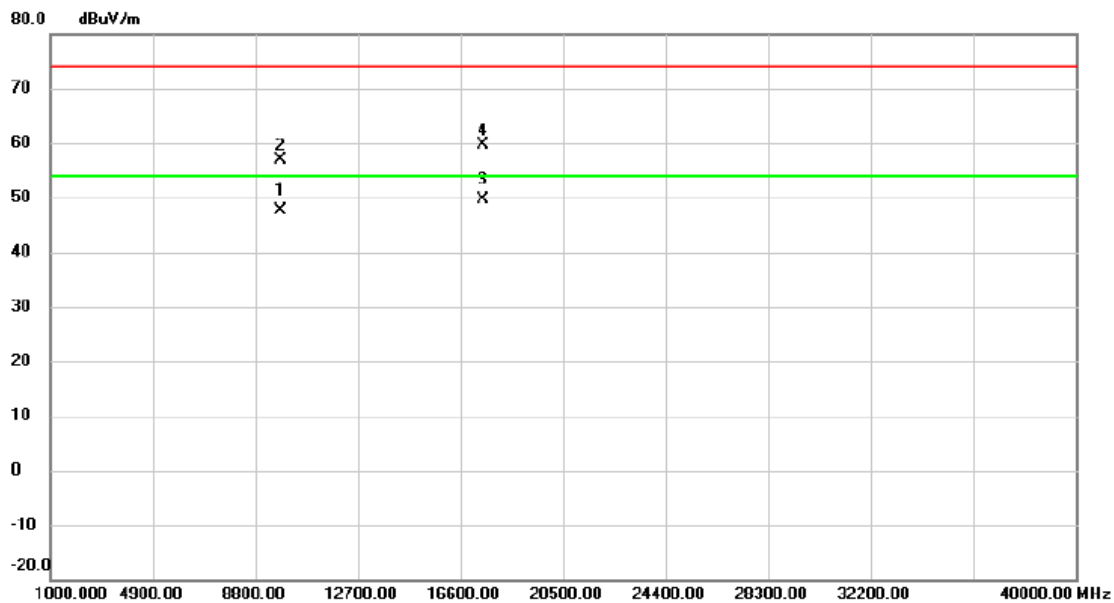
REMARKS:

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

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

Test Mode: TX B Mode 2437+AC 20 Mode 5825MHz

Horizontal



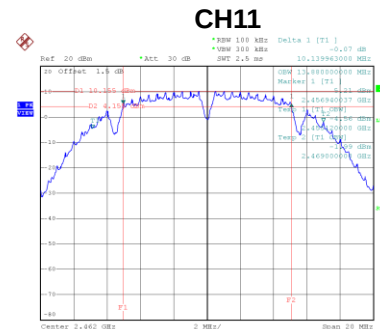
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		9747.880	28.89	18.81	47.70	54.00	-6.30	AVG	
2		9748.480	38.14	18.81	56.95	74.00	-17.05	peak	
3	*	17463.430	23.40	26.35	49.75	54.00	-4.25	AVG	
4		17467.850	33.24	26.36	59.60	74.00	-14.40	peak	

REMARKS:

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

APPENDIX E - BANDWIDTH

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	10.16	500	Complies
06	2437	10.14	500	Complies
11	2462	10.14	500	Complies



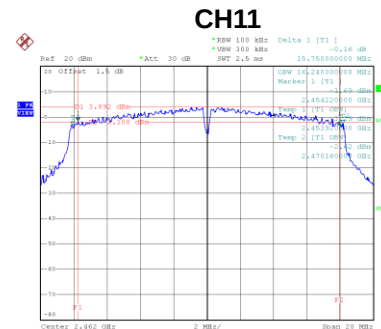
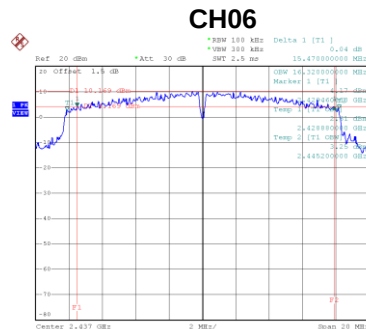
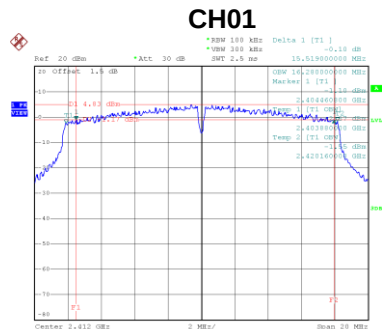
Date: 12.FEB.2020 08:46:40

[illegible]

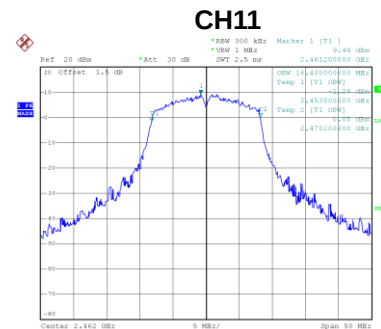
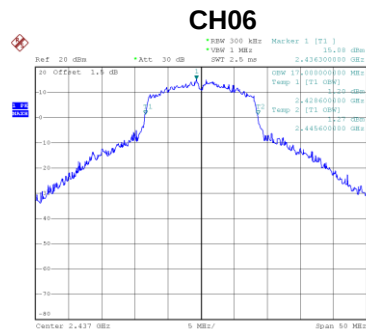
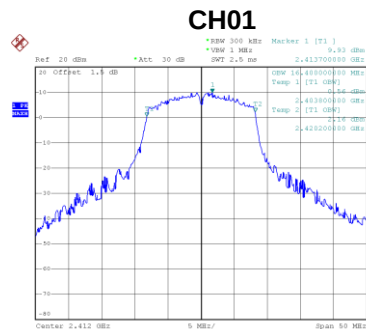
Date: 12.FEB.2020 08:47:52

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

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	15.52	500	Complies
06	2437	15.47	500	Complies
11	2462	15.75	500	Complies

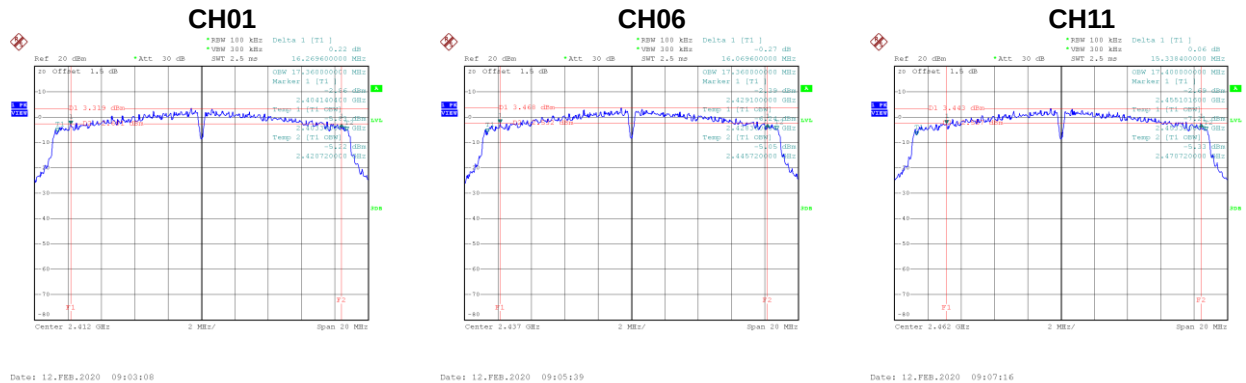


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	16.40	Complies
06	2437	17.00	Complies
11	2462	16.40	Complies

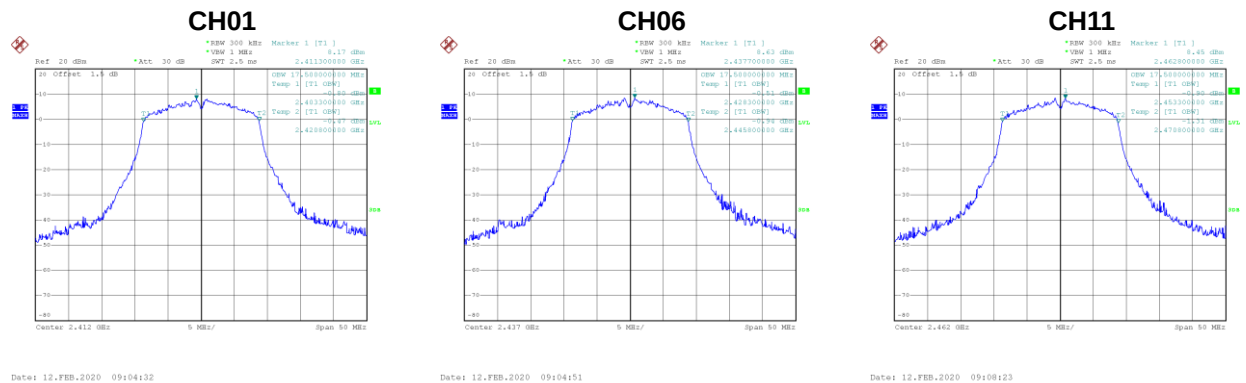


Test Mode	TX N-20M Mode_Ant.1
-----------	---------------------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
01	2412	16.27	500	Complies
06	2437	16.07	500	Complies
11	2462	15.34	500	Complies

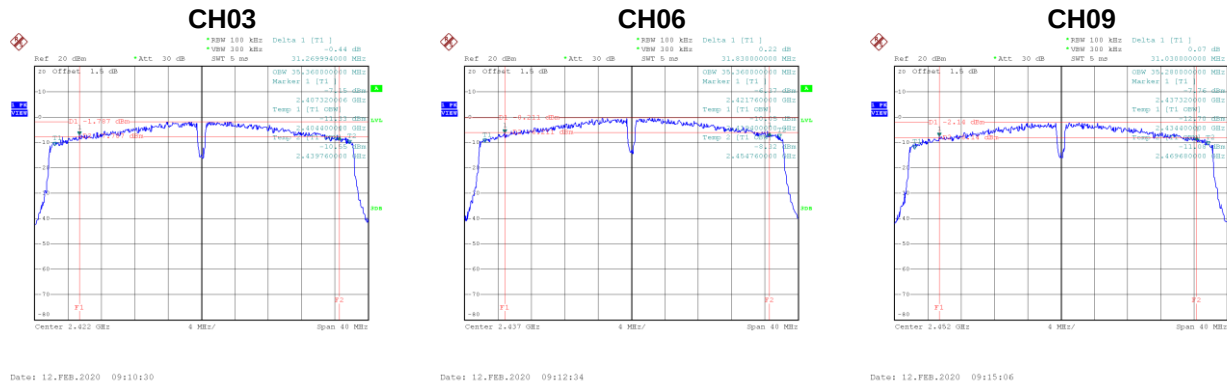


Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
01	2412	17.50	Complies
06	2437	17.50	Complies
11	2462	17.50	Complies

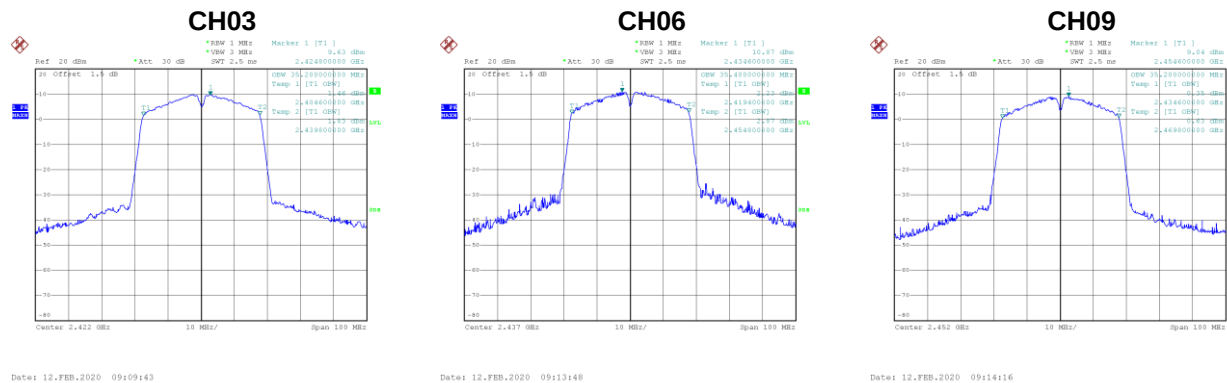


Test Mode	TX N-40M Mode_Ant.1
-----------	---------------------

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (kHz)	Result
03	2422	31.27	500	Complies
06	2437	31.83	500	Complies
09	2452	31.03	500	Complies



Channel	Frequency (MHz)	99 % Emission Bandwidth (MHz)	Result
03	2422	35.20	Complies
06	2437	35.40	Complies
09	2452	35.20	Complies



APPENDIX F - MAXIMUM OUTPUT POWER & AVG OUTPOU POWER

Non-Beamforming

Test Mode	TX B Mode_ Ant. 1
-----------	-------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.12	30.00	1.0000	Complies
06	2437	24.37	30.00	1.0000	Complies
11	2462	25.13	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	22.74	30.00	1.0000	Complies
06	2437	20.63	30.00	1.0000	Complies
11	2462	21.84	30.00	1.0000	Complies

Test Mode	TX G Mode_ Ant. 1
-----------	-------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.02	30.00	1.0000	Complies
06	2437	27.65	30.00	1.0000	Complies
11	2462	26.90	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.29	30.00	1.0000	Complies
06	2437	21.39	30.00	1.0000	Complies
11	2462	20.90	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 1
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.76	30.00	1.0000	Complies
06	2437	26.88	30.00	1.0000	Complies
11	2462	25.97	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	17.05	30.00	1.0000	Complies
06	2437	16.11	30.00	1.0000	Complies
11	2462	15.73	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 2
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.58	30.00	1.0000	Complies
06	2437	26.69	30.00	1.0000	Complies
11	2462	25.55	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.59	30.00	1.0000	Complies
06	2437	15.75	30.00	1.0000	Complies
11	2462	14.80	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	29.68	30.00	1.0000	Complies
06	2437	29.80	30.00	1.0000	Complies
11	2462	28.78	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	19.84	30.00	1.0000	Complies
06	2437	18.95	30.00	1.0000	Complies
11	2462	18.30	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 1
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	24.95	30.00	1.0000	Complies
06	2437	25.35	30.00	1.0000	Complies
09	2452	24.14	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.67	30.00	1.0000	Complies
06	2437	15.30	30.00	1.0000	Complies
09	2452	14.33	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 2
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	25.01	30.00	1.0000	Complies
06	2437	25.41	30.00	1.0000	Complies
09	2452	24.03	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.50	30.00	1.0000	Complies
06	2437	15.04	30.00	1.0000	Complies
09	2452	13.90	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	27.99	30.00	1.0000	Complies
06	2437	28.39	30.00	1.0000	Complies
09	2452	27.10	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	17.60	30.00	1.0000	Complies
06	2437	18.19	30.00	1.0000	Complies
09	2452	17.13	30.00	1.0000	Complies

Beamforming

Test Mode	TX N-20M Mode_Ant. 1
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	25.48	30.00	1.0000	Complies
06	2437	25.44	30.00	1.0000	Complies
11	2462	25.45	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	15.73	30.00	1.0000	Complies
06	2437	14.62	30.00	1.0000	Complies
11	2462	15.18	30.00	1.0000	Complies

Test Mode	TX N-20M Mode_Ant. 2
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	26.11	30.00	1.0000	Complies
06	2437	26.35	30.00	1.0000	Complies
11	2462	25.12	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	16.10	30.00	1.0000	Complies
06	2437	15.39	30.00	1.0000	Complies
11	2462	14.34	30.00	1.0000	Complies

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

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	28.82	29.00	0.7900	Complies
06	2437	28.93	29.00	0.7900	Complies
11	2462	28.30	29.00	0.7900	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
01	2412	18.93	29.00	0.7900	Complies
06	2437	18.04	29.00	0.7900	Complies
11	2462	17.79	29.00	0.7900	Complies

Test Mode	TX N-40M Mode_Ant. 1
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	24.33	30.00	1.0000	Complies
06	2437	25.15	30.00	1.0000	Complies
09	2452	23.71	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	14.02	30.00	1.0000	Complies
06	2437	15.06	30.00	1.0000	Complies
09	2452	13.85	30.00	1.0000	Complies

Test Mode	TX N-40M Mode_Ant. 2
-----------	----------------------

Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	24.47	30.00	1.0000	Complies
06	2437	25.02	30.00	1.0000	Complies
09	2452	23.85	30.00	1.0000	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	13.94	30.00	1.0000	Complies
06	2437	14.62	30.00	1.0000	Complies
09	2452	13.71	30.00	1.0000	Complies

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

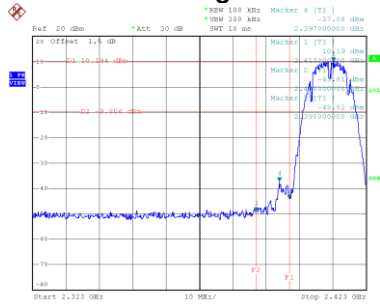
Channel	Frequency (MHz)	Output Power (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	27.41	29.00	0.7900	Complies
06	2437	28.10	29.00	0.7900	Complies
09	2452	26.79	29.00	0.7900	Complies

Channel	Frequency (MHz)	AVG Output Power + Duty Factor (dBm)	Max. Limit (dBm)	Max. Limit (W)	Result
03	2422	16.99	29.00	0.7900	Complies
06	2437	17.86	29.00	0.7900	Complies
09	2452	16.80	29.00	0.7900	Complies

APPENDIX G - CONDUCTED SPURIOUS EMISSIONS

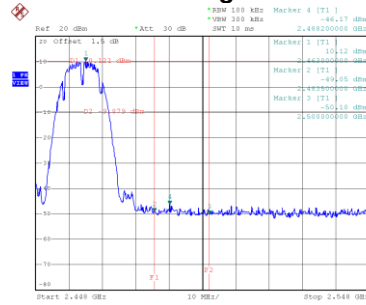
Test Mode TX B Mode_ Ant. 1

Bandedge-CH01



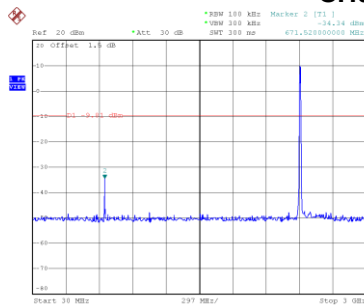
Date: 12.FEB.2020 08:41:15

Bandedge-CH11

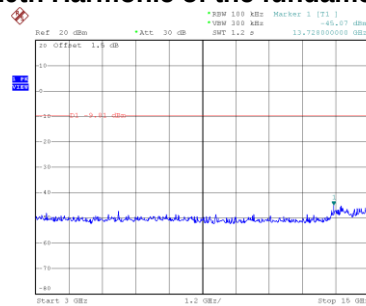


Date: 12.FEB.2020 08:46:50

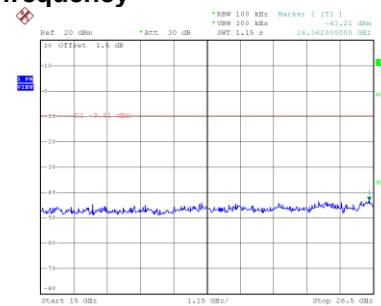
CH01 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 08:41:30

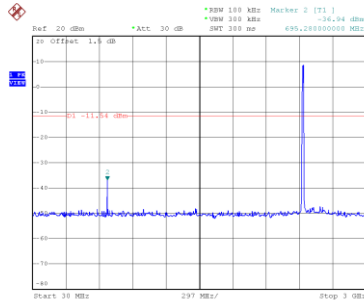


Date: 12.FEB.2020 08:41:39

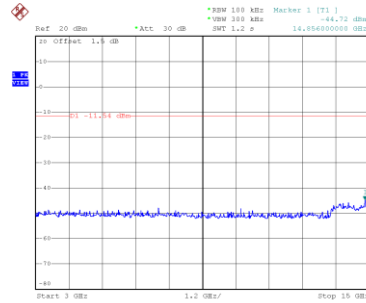


Date: 12.FEB.2020 08:41:48

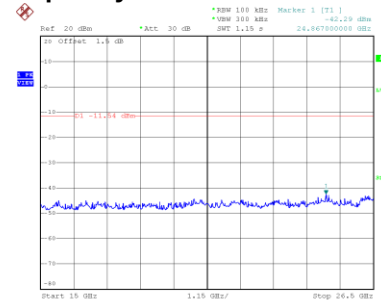
CH06 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 08:45:00

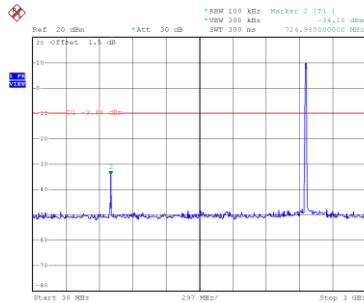


Date: 12.FEB.2020 08:45:09

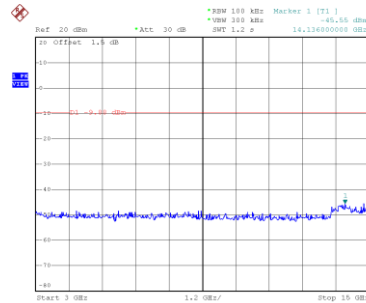


Date: 12.FEB.2020 08:45:18

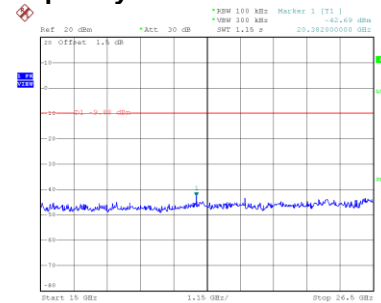
CH11 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 08:47:04



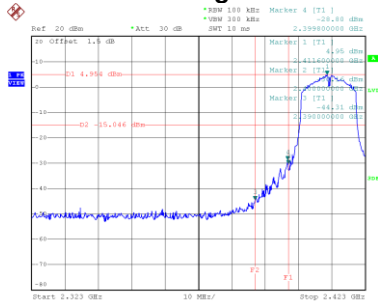
Date: 12.FEB.2020 08:47:14



Date: 12.FEB.2020 08:47:23

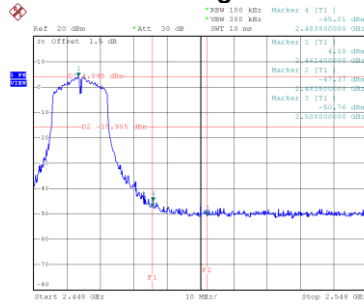
Test Mode TX G Mode_ Ant. 1

Bandedge-CH01



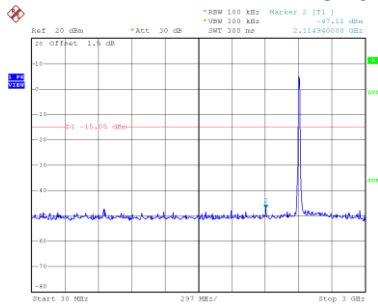
Date: 12.FEB.2020 08:48:56

Bandedge-CH11

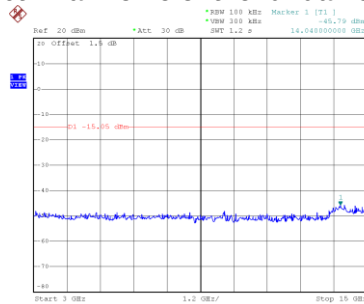


Date: 12.FEB.2020 08:54:05

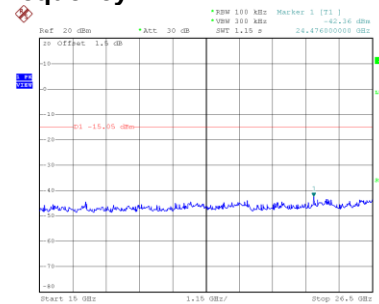
CH01 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 08:49:10

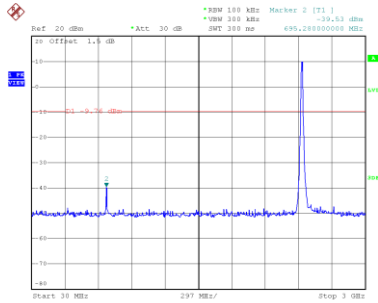


Date: 12.FEB.2020 08:49:20

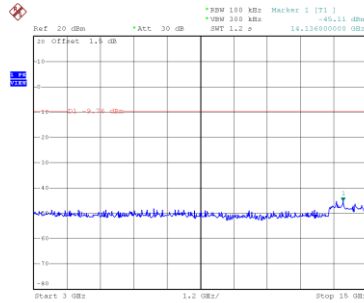


Date: 12.FEB.2020 08:49:29

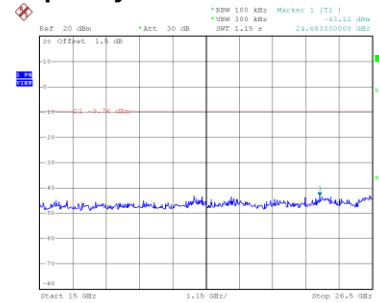
CH06 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 08:50:47

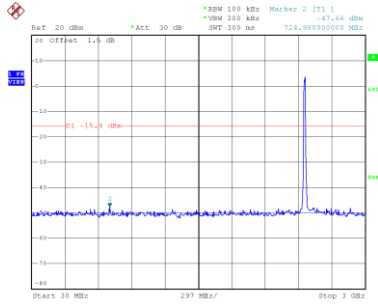


Date: 12.FEB.2020 08:50:56

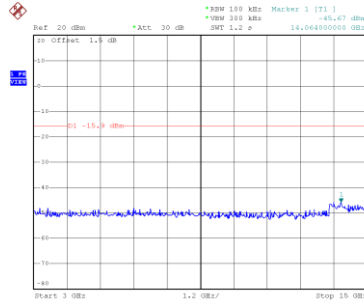


Date: 12.FEB.2020 08:51:05

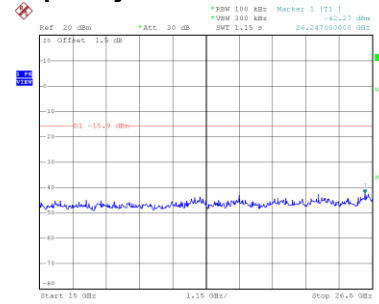
CH11 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 08:54:19



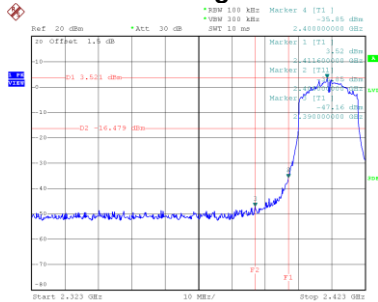
Date: 12.FEB.2020 08:54:28



Date: 12.FEB.2020 08:54:37

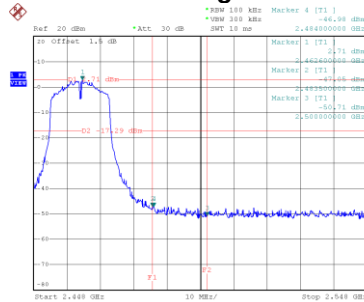
Test Mode TX N-20M Mode_Ant. 1

Bandedge-CH01



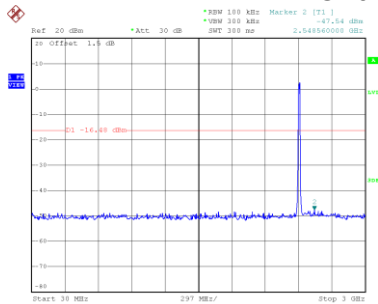
Date: 12.FEB.2020 09:03:34

Bandedge-CH11

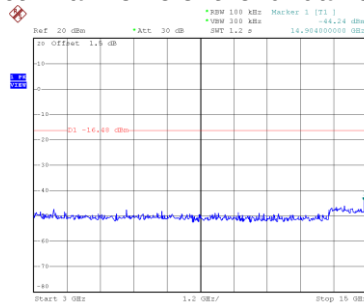


Date: 12.FEB.2020 09:07:25

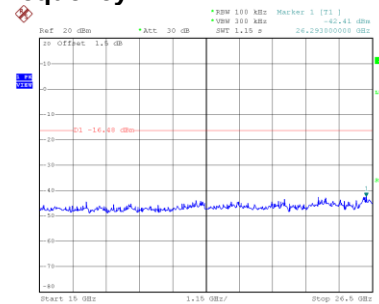
CH01 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:03:49

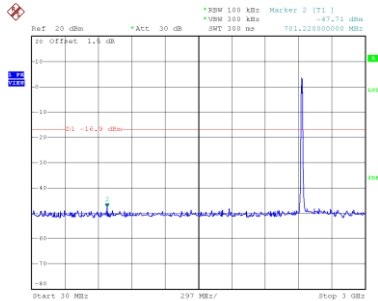


Date: 12.FEB.2020 09:03:58

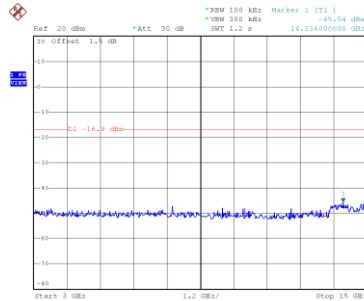


Date: 12.FEB.2020 09:04:07

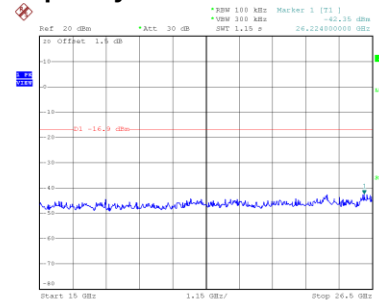
CH06 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:06:03

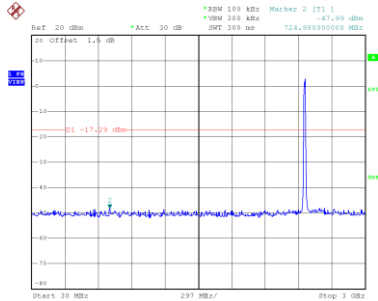


Date: 12.FEB.2020 09:06:12

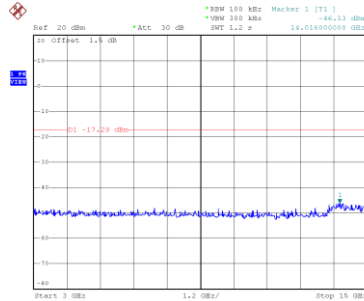


Date: 12.FEB.2020 09:06:21

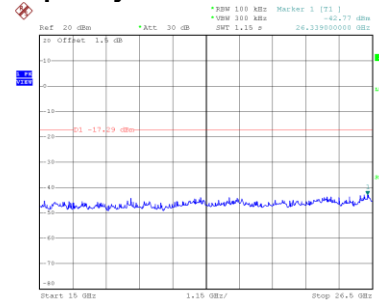
CH11 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:07:39



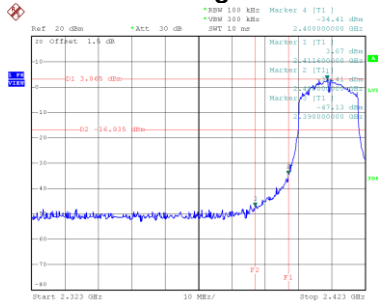
Date: 12.FEB.2020 09:07:49



Date: 12.FEB.2020 09:07:58

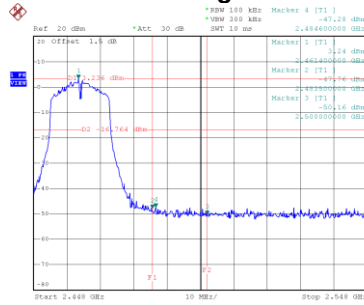
Test Mode TX N-20M Mode_Ant. 2

Bandedge-CH01



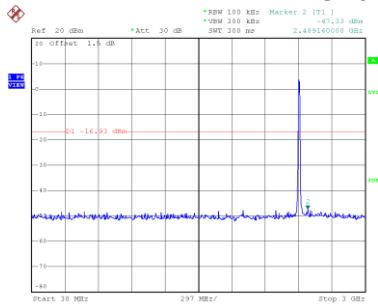
Date: 12.FEB.2020 09:18:06

Bandedge-CH11

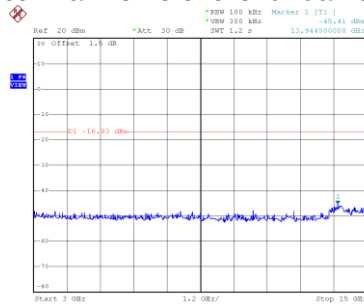


Date: 12.FEB.2020 09:21:18

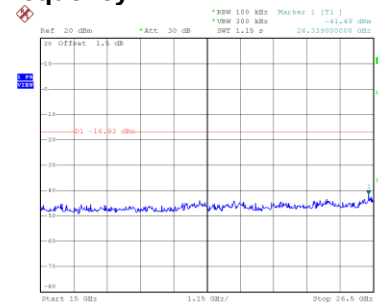
CH01 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:18:21

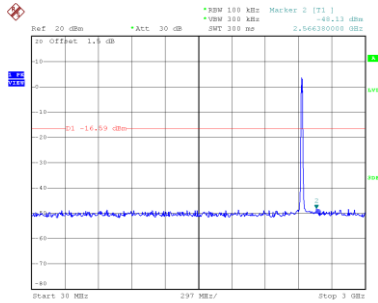


Date: 12.FEB.2020 09:18:30

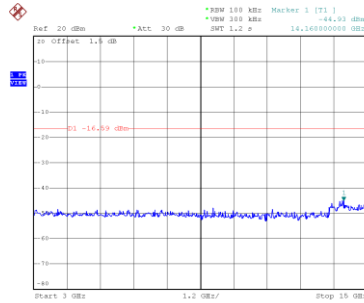


Date: 12.FEB.2020 09:18:39

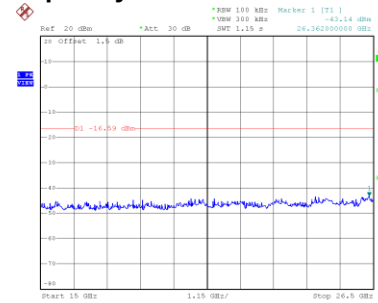
CH06 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:19:56

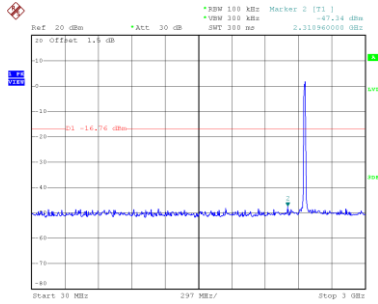


Date: 12.FEB.2020 09:20:05

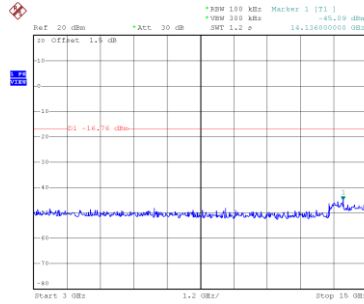


Date: 12.FEB.2020 09:20:14

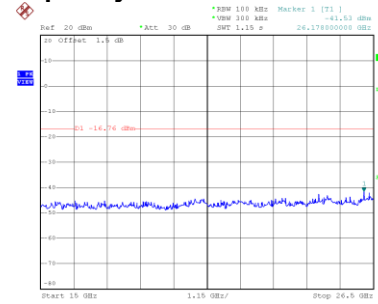
CH11 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:21:33



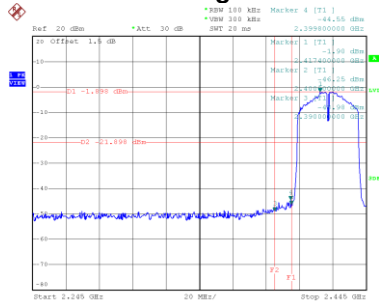
Date: 12.FEB.2020 09:21:42



Date: 12.FEB.2020 09:21:51

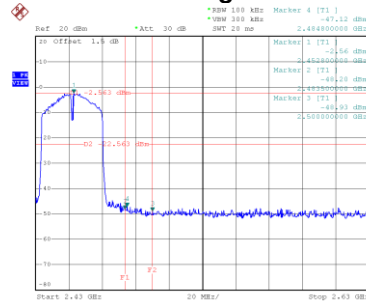
Test Mode TX N-40M Mode_Ant. 1

Bandedge-CH03



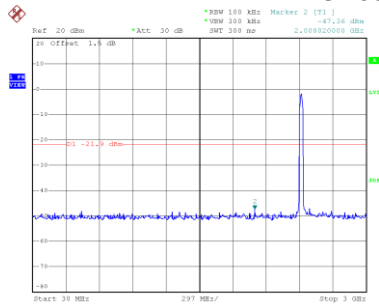
Date: 12.FEB.2020 09:10:56

Bandedge-CH09

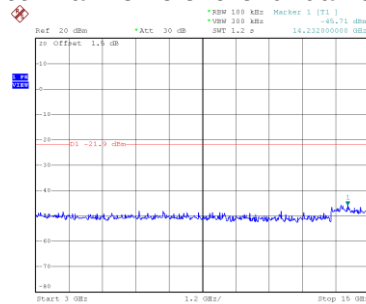


Date: 12.FEB.2020 09:15:15

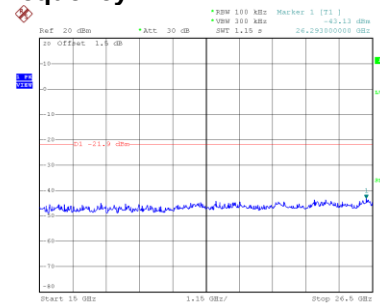
CH03 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:11:11

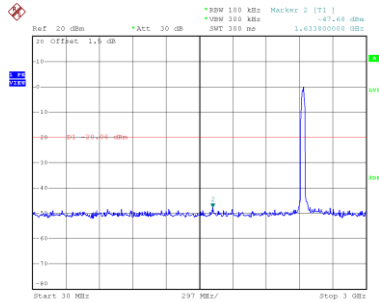


Date: 12.FEB.2020 09:11:20

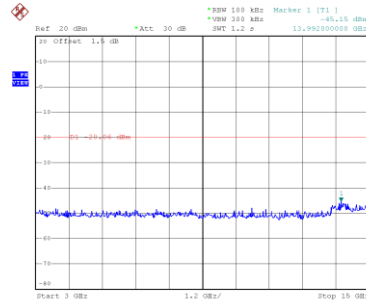


Date: 12.FEB.2020 09:11:29

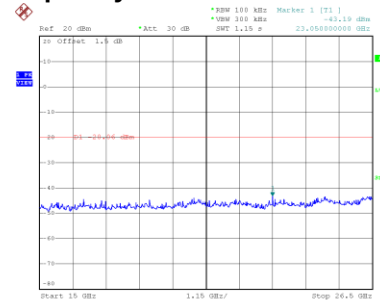
CH06 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:12:58

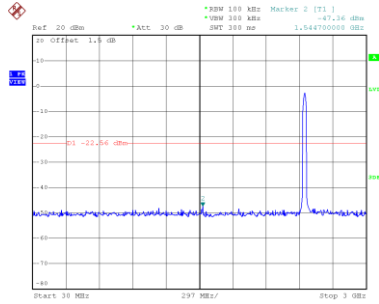


Date: 12.FEB.2020 09:13:08

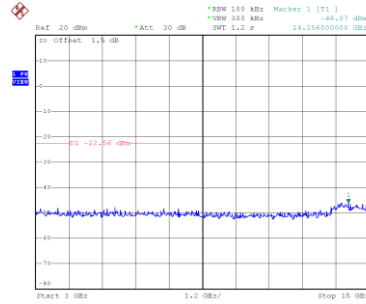


Date: 12.FEB.2020 09:13:17

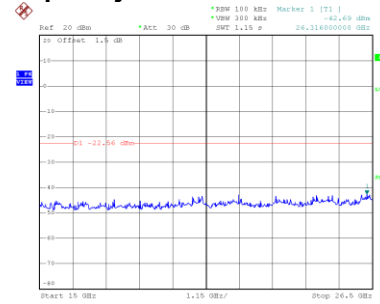
CH09 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:15:30



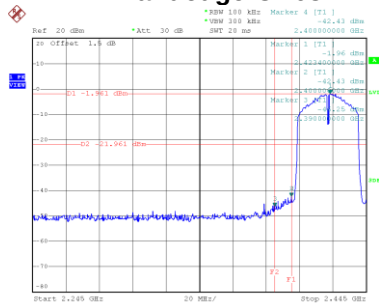
Date: 12.FEB.2020 09:15:39



Date: 12.FEB.2020 09:15:48

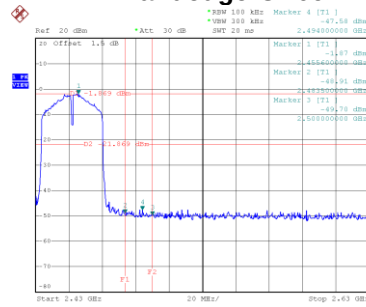
Test Mode TX N-40M Mode_Ant. 2

Bandedge-CH03



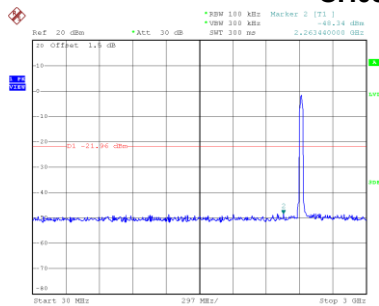
Date: 12.FEB.2020 09:23:12

Bandedge-CH09

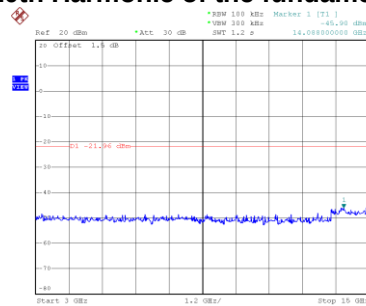


Date: 12.FEB.2020 09:27:07

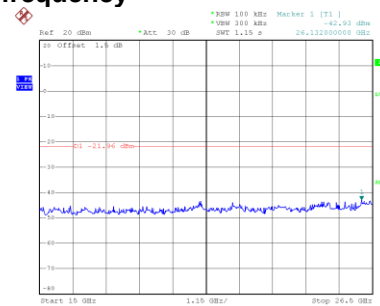
CH03 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:23:26

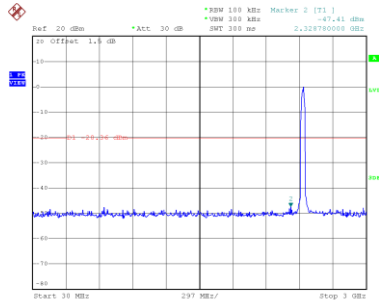


Date: 12.FEB.2020 09:23:36

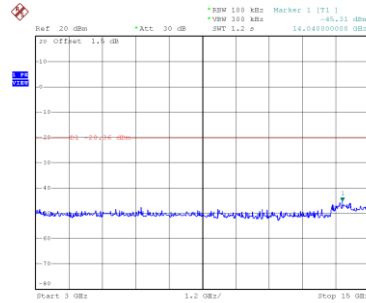


Date: 12.FEB.2020 09:23:45

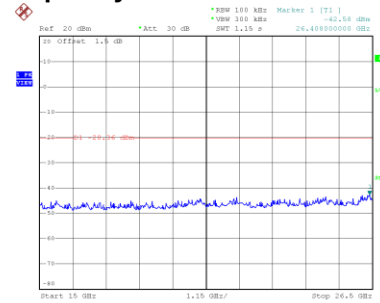
CH06 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:25:28

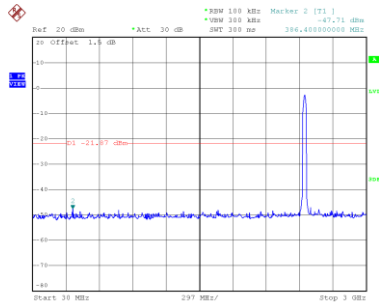


Date: 12.FEB.2020 09:25:37

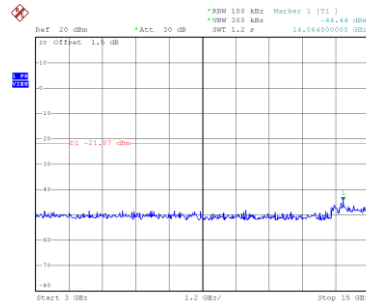


Date: 12.FEB.2020 09:25:46

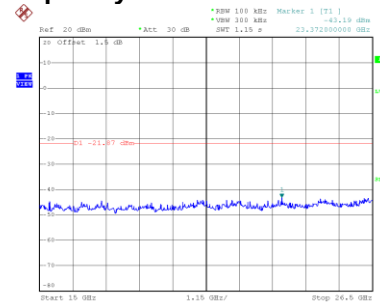
CH09 – 10th Harmonic of the fundamental frequency



Date: 12.FEB.2020 09:27:22



Date: 12.FEB.2020 09:27:31

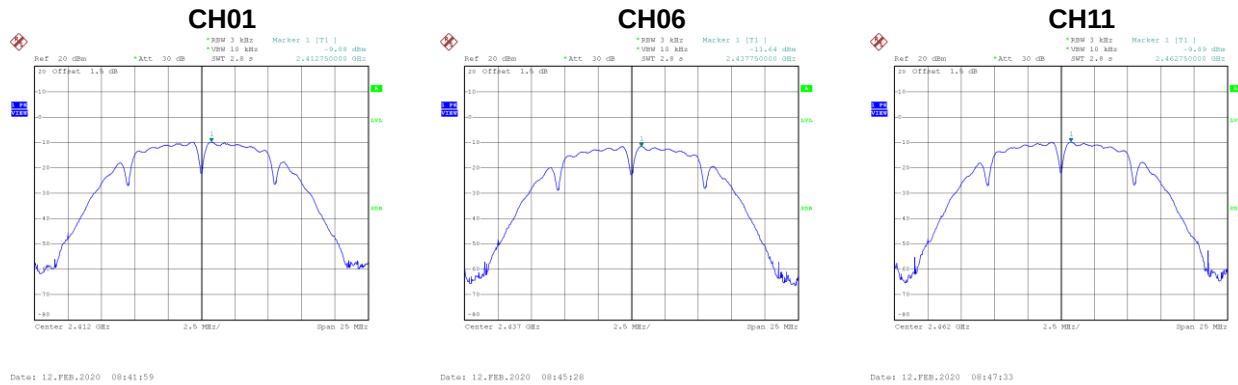


Date: 12.FEB.2020 09:27:40

APPENDIX H - POWER SPECTRAL DENSITY

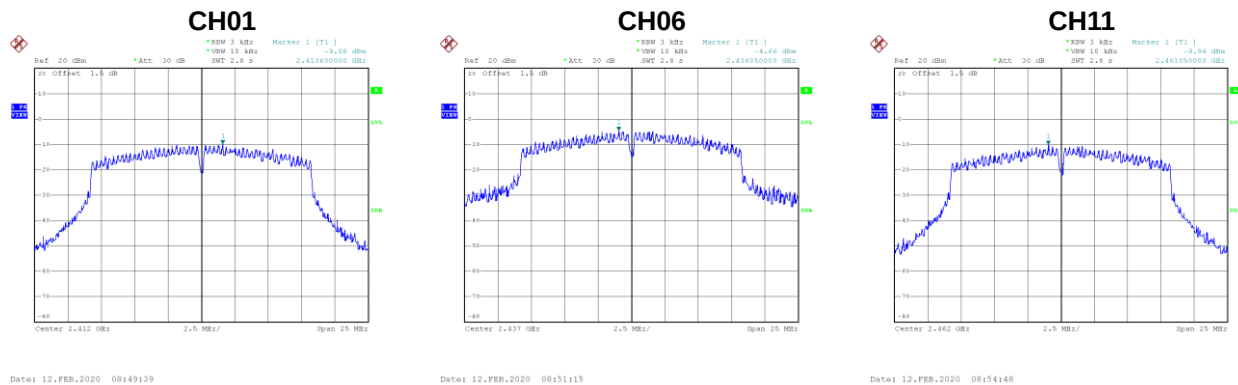
Test Mode	TX B Mode_ Ant. 1
-----------	-------------------

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-9.88	8	Complies
06	2437	-11.64	8	Complies
11	2462	-9.89	8	Complies



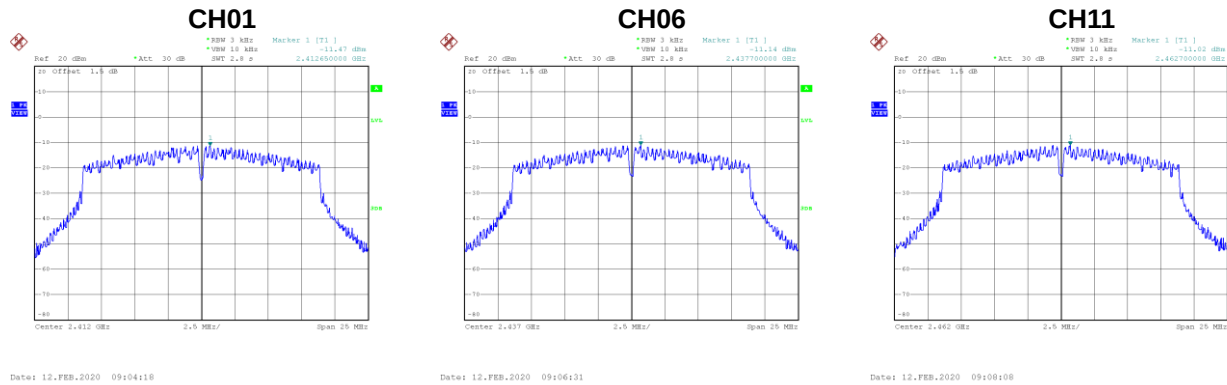
Test Mode	TX G Mode_ Ant. 1
-----------	-------------------

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-9.86	8	Complies
06	2437	-4.66	8	Complies
11	2462	-9.94	8	Complies



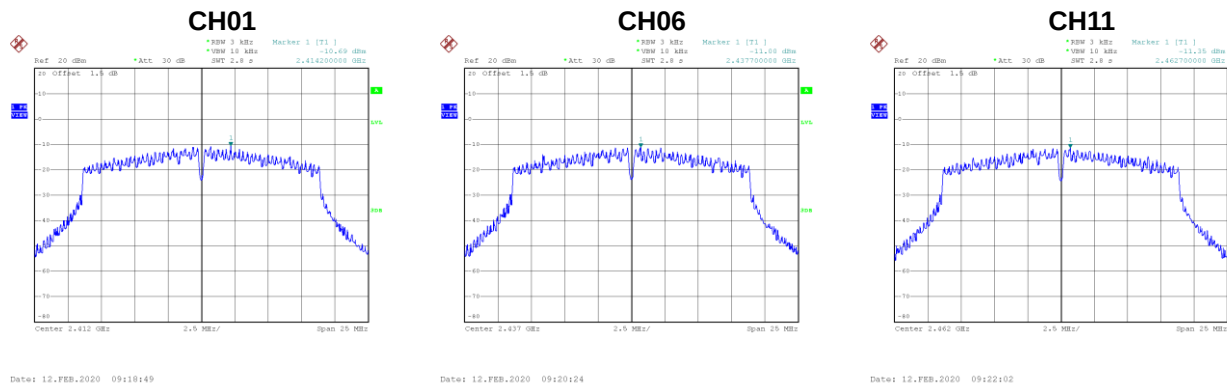
Test Mode	TX N-20M Mode_Ant. 1
-----------	----------------------

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-11.47	8	Complies
06	2437	-11.14	8	Complies
11	2462	-11.02	8	Complies



Test Mode	TX N-20M Mode_Ant. 2
-----------	----------------------

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-10.69	8	Complies
06	2437	-11.00	8	Complies
11	2462	-11.35	8	Complies

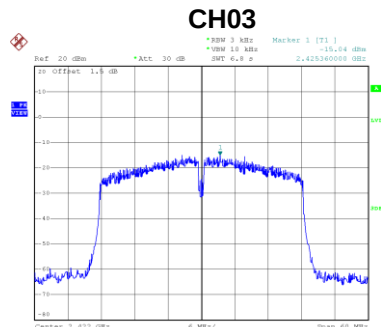


Test Mode	TX N-20M Mode_Total
-----------	---------------------

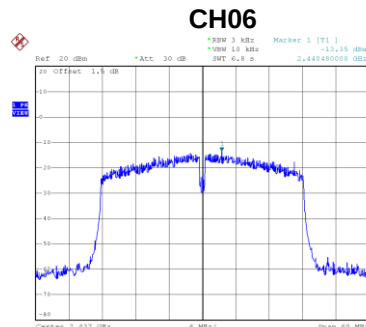
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
01	2412	-8.05	6.99	Complies
06	2437	-8.06	6.99	Complies
11	2462	-8.17	6.99	Complies

Test Mode	TX N-40M Mode_Ant. 1
-----------	----------------------

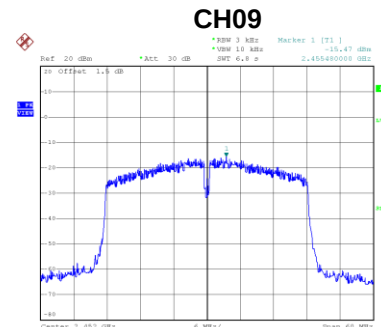
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-15.04	8	Complies
06	2437	-13.35	8	Complies
09	2452	-15.47	8	Complies



Date: 12.FEB.2020 09:11:42



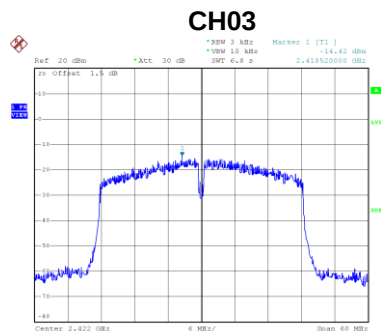
Date: 12.FEB.2020 09:13:30



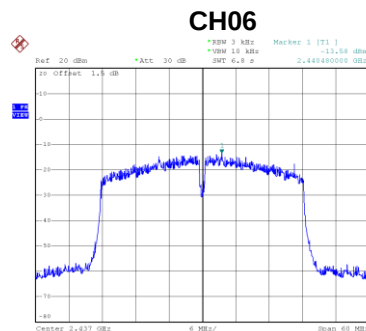
Date: 12.FEB.2020 09:13:54

Test Mode	TX N-40M Mode_Ant. 2
-----------	----------------------

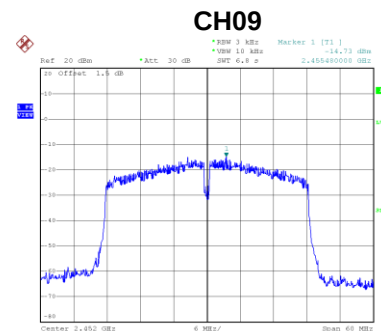
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-14.42	8	Complies
06	2437	-13.58	8	Complies
09	2452	-14.73	8	Complies



Date: 12.FEB.2020 09:23:58



Date: 12.FEB.2020 09:25:59



Date: 12.FEB.2020 09:29:40

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

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
03	2422	-11.71	6.99	Complies
06	2437	-10.45	6.99	Complies
09	2452	-12.07	6.99	Complies

End of Test Report