FCC Radio Test Report

FCC ID: RWO-RC810387

This report concerns: Original Grant

Project No.	:	2105C075
Equipment	:	Smart Mask
Brand Name	:	RAZER
Test Model	:	RC81-0387
Series Model	:	RC81-0387XXXX-XXXX(X can be 0-9 or A-Z)
Applicant	:	Razer Inc.
Address	:	9 Pasteur, Suite 100, Irvine, CA92618, USA
Manufacturer	:	Razer (Asia-Pacific) Pte.,Ltd.
Address	:	514 Chai Chee Lane, #07-01-06,Singapore 469029
Factory	:	RAZER TECHNOLOGY AND DEVELOPMENT (SHENZHEN) CO., LTD
Address	:	East Wing, 3rd Floor, Block 2, Phase 1 of Vision Shenzhen Business Park Keji South Road, Hi-Tech Industrial Park, Shenzhen 518057, China
Date of Receipt	:	May 13, 2021
Date of Test	:	May 14, 2021 ~ Jun. 01, 2021
Issued Date	:	Jul. 20, 2021
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG2021051369 for conducted, DG2021051370 for radiated.
Standard(s)	:	FCC CFR Title 47, Part 15, Subpart C FCC KDB 558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10-2013

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

Vincent. Tan

Prepared by : Vincent Tan

Ethan Ma

Approved by : Ethan Ma

ACCREDITED

TESTING CERT #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 5

1 . SUMMARY OF TEST RESULTS 6

1.1 TEST FACILITY 7

1.2 MEASUREMENT UNCERTAINTY 7

1.3 TEST ENVIRONMENT CONDITIONS 7

2 . GENERAL INFORMATION 8

2.1 GENERAL DESCRIPTION OF EUT 8

2.2 DESCRIPTION OF TEST MODES 9

2.3 PARAMETERS OF TEST SOFTWARE 9

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED 10

2.5 SUPPORT UNITS 11

3 . AC POWER LINE CONDUCTED EMISSIONS 12

3.1 LIMIT 12

3.2 TEST PROCEDURE 12

3.3 DEVIATION FROM TEST STANDARD 12

3.4 TEST SETUP 13

3.5 EUT OPERATING CONDITIONS 13

3.6 TEST RESULTS 13

4 . RADIATED EMISSIONS 14

4.1 LIMIT 14

4.2 TEST PROCEDURE 15

4.3 DEVIATION FROM TEST STANDARD 16

4.4 TEST SETUP 16

4.5 EUT OPERATING CONDITIONS 17

4.6 TEST RESULT - 9 KHZ TO 30 MHZ 17

4.7 TEST RESULT - 30 MHZ TO 1000 MHZ 17

4.8 TEST RESULT - ABOVE 1000 MHZ 17

5 . BANDWIDTH 18

5.1 LIMIT 18

5.2 TEST PROCEDURE 18

5.3 DEVIATION FROM STANDARD 18

5.4 TEST SETUP 18

5.5 EUT OPERATION CONDITIONS 18

Table of Contents Page

5.6 TEST RESULTS 18

6 . MAXIMUM OUTPUT POWER 19

6.1 LIMIT 19

6.2 TEST PROCEDURE 19

6.3 DEVIATION FROM STANDARD 19

6.4 TEST SETUP 19

6.5 EUT OPERATION CONDITIONS 19

6.6 TEST RESULTS 19

7 . CONDUCTED SPURIOUS EMISSION 20

7.1 LIMIT 20

7.2 TEST PROCEDURE 20

7.3 DEVIATION FROM STANDARD 20

7.4 TEST SETUP 20

7.5 EUT OPERATION CONDITIONS 20

7.6 TEST RESULTS 20

8 . POWER SPECTRAL DENSITY 21

8.1 LIMIT 21

8.2 TEST PROCEDURE 21

8.3 DEVIATION FROM STANDARD 21

8.4 TEST SETUP 21

8.5 EUT OPERATION CONDITIONS 21

8.6 TEST RESULTS 21

9 . MEASUREMENT INSTRUMENTS LIST 22

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS 24

APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ 27

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ 32

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ 35

APPENDIX E - BANDWIDTH 60

APPENDIX F - MAXIMUM OUTPUT POWER 63

APPENDIX G - CONDUCTED SPURIOUS EMISSION 65

APPENDIX H - POWER SPECTRAL DENSITY 68

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Jul. 20, 2021

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC CFR Title 47, Part 15, Subpart C				
Standard(s) Section	**Test Item**	**Test Result**	**Judgment**	**Remark**
15.207	AC Power Line Conducted Emissions	APPENDIX A	PASS	------
15.247(d) 15.205(a) 15.209(a)	Radiated Emissions	APPENDIX B APPENDIX C APPENDIX D	PASS	------
15.247(a)(2)	Bandwidth	APPENDIX E	PASS	------
15.247(b)(3)	Maximum Output Power	APPENDIX F	PASS	------
15.247(d)	Conducted Spurious Emission	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 to this device.

(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 Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.68

B. Radiated emissions Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
DG-CB03	CISPR	9kHz ~ 30MHz	-	3.02
		30MHz ~ 200MHz	V	4.26
		30MHz ~ 200MHz	H	3.38
		200MHz ~ 1,000MHz	V	3.98
		200MHz ~ 1,000MHz	H	3.94
		1GHz ~ 6GHz	-	3.96
		6GHz ~ 18GHz	-	5.24
		18GHz ~ 26.5GHz	-	3.62
		26.5GHz ~ 40GHz	-	4.00

C. Other Measurement:

Test Item	Uncertainty
Bandwidth	±3.8 %
Maximum Output Power	±0.95 dB
Conducted Spurious Emission	±2.71 dB
Power Spectral Density	±0.86 dB
Temperature	±0.08 °C
Humidity	±1.5%

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	68%	AC 120V/60Hz	Hand Huang
Radiated Emissions-9 kHz to 30 MHz	25°C	60%	DC 5V	Hayden Chen
Radiated Emissions-30 MHz to 1000 MHz	26°C	52%	DC 5V	Hayden Chen
Radiated Emissions-Above 1000 MHz	26°C	52%	DC 5V	Hayden Chen
Bandwidth	24°C	52%	DC 5V	Jesse Wang
Maximum Output Power	24°C	52%	DC 5V	Hand Huang
Conducted Spurious Emission	24°C	52%	DC 5V	Jesse Wang
Power Spectral Density	24°C	52%	DC 5V	Jesse Wang

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Smart Mask
Brand Name	RAZER
Test Model	RC81-0387
Series Model	RC81-0387XXXX-XXXX(X can be 0-9 or A-Z)
Model Difference(s)	It is the same as the basic model and X is used to define which country it is for under the same family series.
Power Source	1# Supplied from USB port. 2# Supplied from battery. Model: 753232
Power Rating	1# 5V⎓500mA 2# DC 3.7V 1000mAh
Operation Frequency	2402 MHz ~ 2480 MHz
Modulation Type	GFSK
Bit Rate of Transmitter	1Mbps, 2Mbps
Max. Output Power	2Mbps: 5.52 dBm (0.0036 W)

Note:

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

2. Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	20	2442
01	2404	21	2444
02	2406	22	2446
03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

3. Table for Filed Antenna:

Ant.	Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)
1	INPAQ TECHNOLOGY CO., LTD.	ACA-5036-A2-CC-S	Chip	N/A	3

Note:
The antenna gain is provided by the manufacturer.

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 Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_2Mbps Channel 00/19/39
Mode 3	TX Mode_2Mbps Channel 00

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

AC power line conducted emissions test	
Final Test Mode	Description
Mode 3	TX Mode_2Mbps Channel 00

Radiated emissions test - Below 1GHz	
Final Test Mode	Description
Mode 3	TX Mode_2Mbps Channel 00

Radiated emissions test - Above 1GHz	
Final Test Mode	Description
Mode 1	TX Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_2Mbps Channel 00/19/39

Conducted test	
Final Test Mode	Description
Mode 1	TX Mode_1Mbps Channel 00/19/39
Mode 2	TX Mode_2Mbps Channel 00/19/39

Note:

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

(2) For AC power line conducted emissions and radiated emissions below 1 GHz test, the 2Mbps Channel 00 is found to be the worst case and recorded.

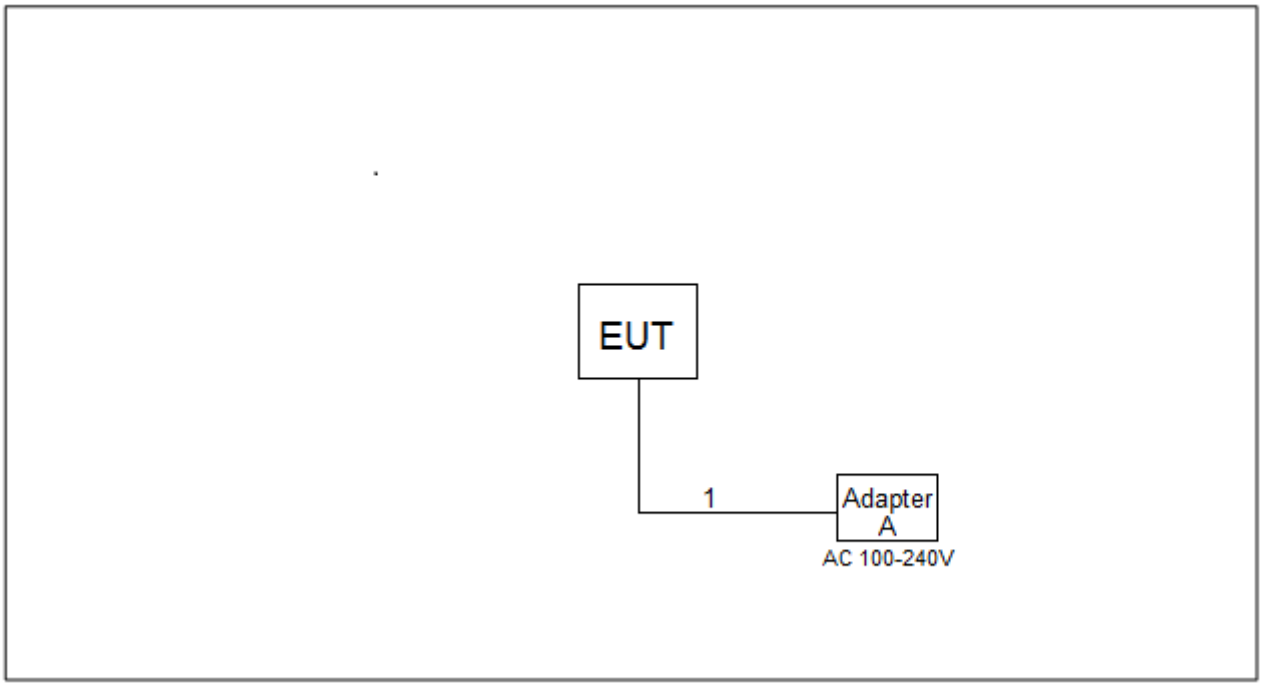
2.3 PARAMETERS OF TEST SOFTWARE

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

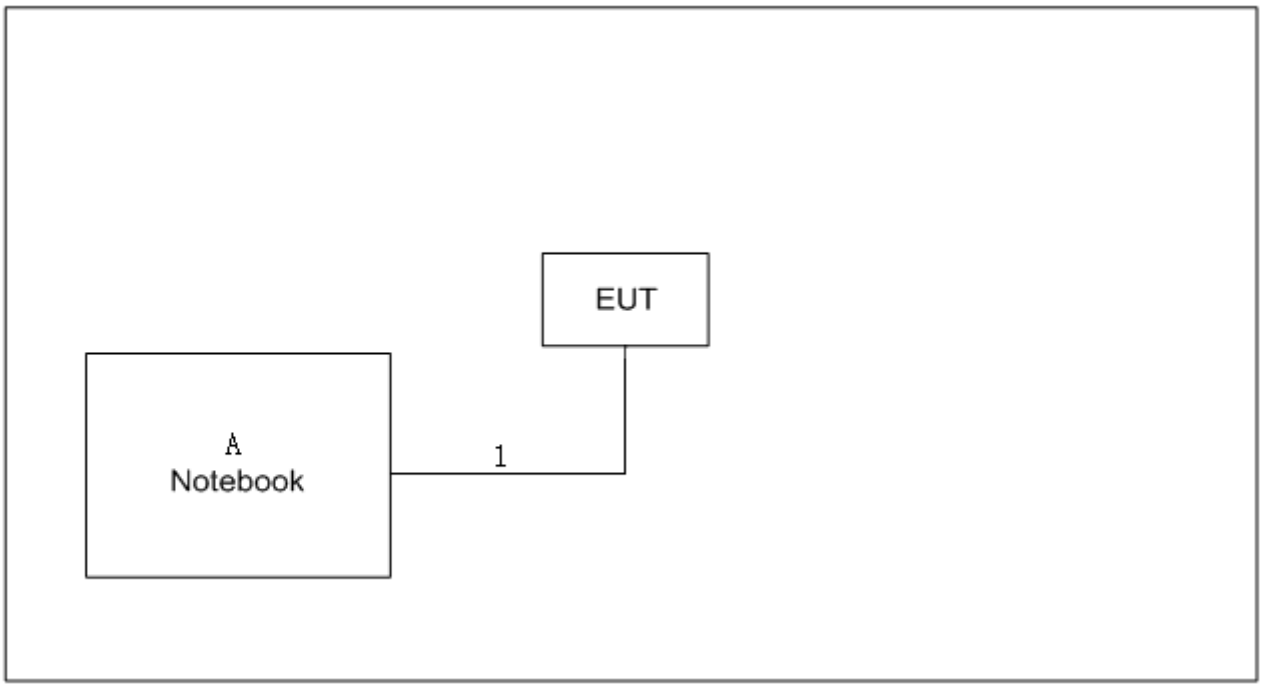
Test Software Version	N/A		
Frequency (MHz)	2402	2440	2480
1Mbps	N/A	N/A	N/A
2Mbps	N/A	N/A	N/A

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

For AC power line conducted emissions test



For Radiated emissions test



2.5 SUPPORT UNITS

For AC power line conducted emissions test

Item	Equipment	Brand	Model No.	Series No.
A	Adapter	huawei	N/A	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	DC Cable	NO	NO	0.5m

For Radiated emissions test

Item	Equipment	Brand	Model No.	Series No.
A	Notebook	HONOR	NBLK-WAX9X	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	NO	NO	0.5m

3. AC POWER LINE CONDUCTED EMISSIONS

3.1 LIMIT

Frequency of Emission (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 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.

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.

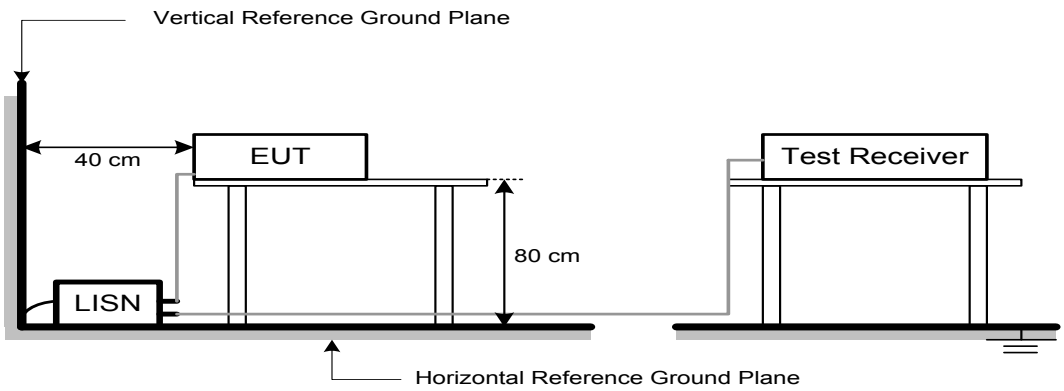
The following table is the setting of the receiver:

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

3.3 DEVIATION FROM TEST STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.6 TEST RESULTS

Please refer to the APPENDIX A.

Remark:

(1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform.In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.

(2) Measuring frequency range from 150 kHz to 30 MHz.

4. RADIATED EMISSIONS

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 CFR Title 47, Part 15, Subpart C.

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

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

4.2 TEST PROCEDURE

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

The following table is the setting of the receiver:

Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~150 kHz for RBW 200 Hz
Start ~ Stop Frequency	0.15 MHz~30 MHz for RBW 9 kHz
Start ~ Stop Frequency	30 MHz~1000 MHz for RBW 100 kHz

Spectrum Parameters	Setting
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for PK value 1 MHz / 1/T Hz for AVG value

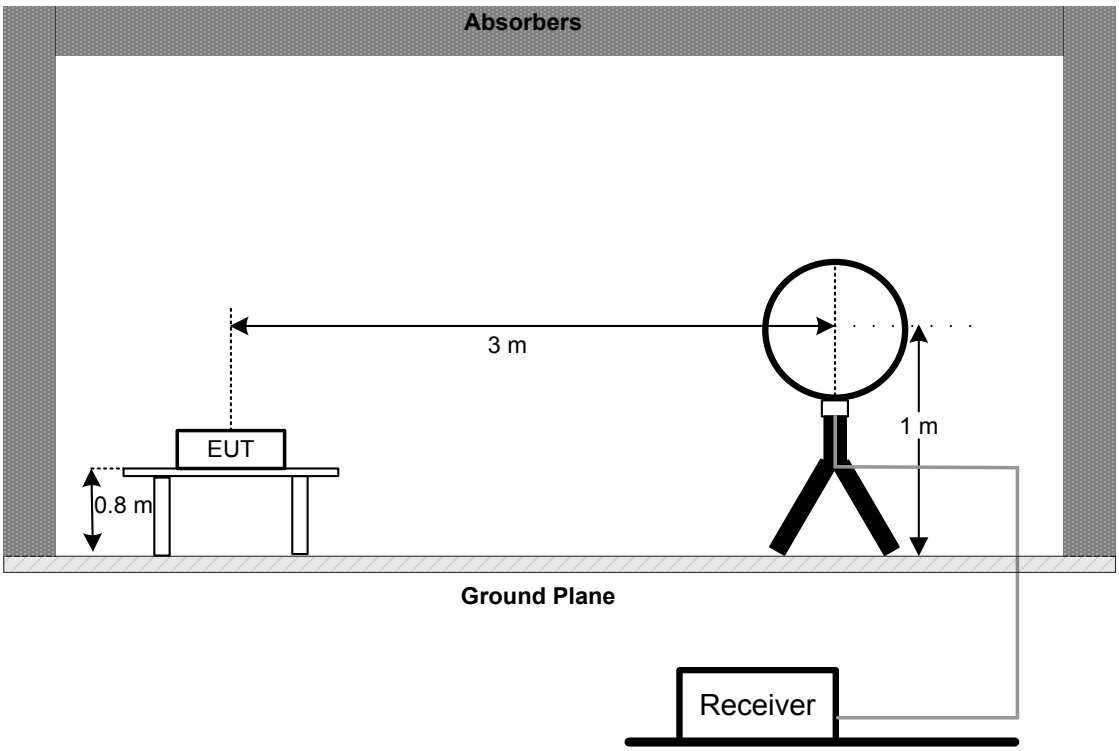
Spectrum Parameters	Setting
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector
Start ~ Stop Frequency	1 GHz~26.5 GHz for PK/AVG detector

4.3 DEVIATION FROM TEST STANDARD

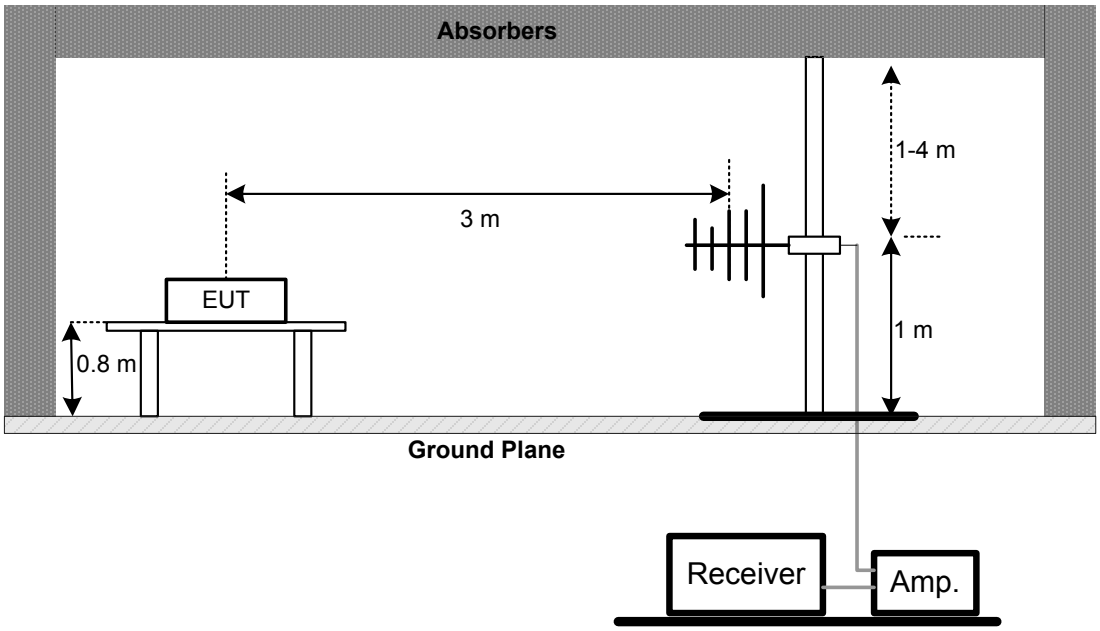
No deviation.

4.4 TEST SETUP

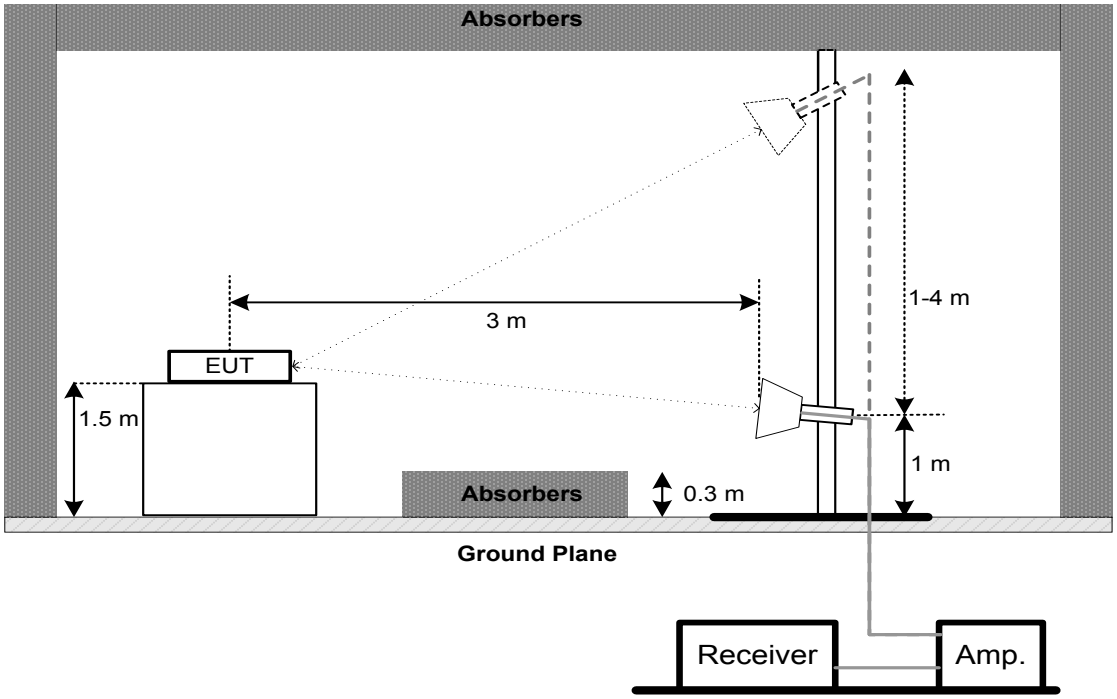
9 kHz to 30 MHz



30 MHz to 1 GHz



Above 1 GHz



4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.6 TEST RESULT - 9 kHz TO 30 MHz

Please refer to the APPENDIX B.

Remark:

(1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
(2) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.7 TEST RESULT - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

4.8 TEST RESULT - 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

5.1 LIMIT

Section	Test Item	Limit
FCC 15.247(a)(2)	6 dB Bandwidth	>= 500 kHz
	99% Emission Bandwidth	-

5.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

b. The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

Spectrum Parameters	Setting
Span Frequency	> Measurement Bandwidth
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

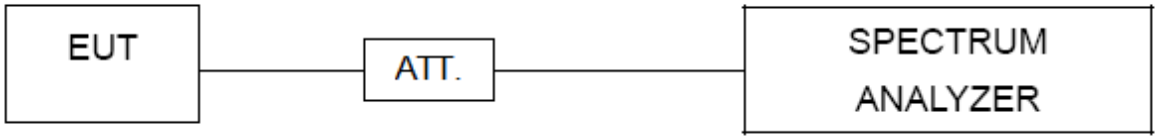
For 99% Emission Bandwidth:

Spectrum Parameters	Setting
Span Frequency	Between 1.5 times and 5.0 times the OBW
RBW	30 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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

6.1 LIMIT

Section	Test Item	Limit
FCC 15.247(b)(3)	Maximum Output Power	1.0000 watt or 30.00 dBm

6.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

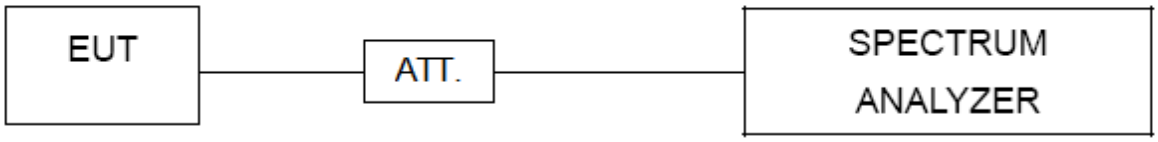
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	⩾ 3×RBW
RBW	3 MHz
VBW	3 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

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 EMISSION

7.1 LIMIT

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

7.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Start Frequency	30 MHz
Stop Frequency	26.5 GHz
RBW	100 kHz
VBW	300 kHz
Detector	Peak
Trace	Max Hold
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

8.1 LIMIT

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

8.2 TEST PROCEDURE

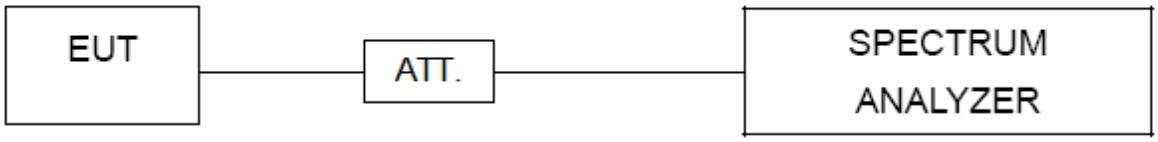
a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

Spectrum Parameters	Setting
Span Frequency	2 MHz (1 Mbps) / 4 MHz (2 Mbps)
RBW	3 kHz
VBW	10 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.6 TEST RESULTS

Please refer to the APPENDIX H.

9. MEASUREMENT INSTRUMENTS LIST

AC Power Line Conducted Emissions					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Feb. 28, 2022
2	LISN	EMCO	3816/2	52765	Feb. 27, 2022
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 27, 2022
4	50Ω Terminator	SHX	TF5-3	15041305	Feb. 27, 2022
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	Cable	N/A	RG223	12m	Mar. 09, 2022
7	643 Shield Room	ETS	6*4*3m	N/A	N/A

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Apr. 28, 2022
2	Cable	N/A	RG 213/U	N/A	May 28, 2022
3	EMI Test Receiver	R&S	ESCI	100895	Feb. 27, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

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. 15, 2022
2	Amplifier	HP	8447D	2944A08742	Feb. 28, 2022
3	Receiver	Agilent	N9038A	MY52130039	Jul. 25, 2021
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 21, 2022
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
8	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

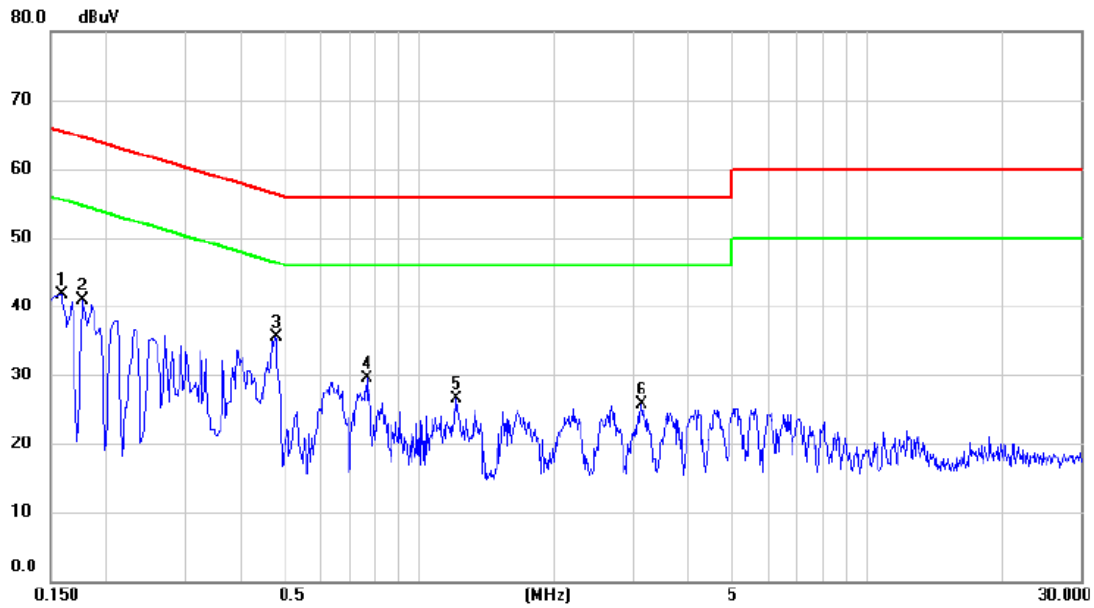
Radiated Emissions - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Double Ridged Guide Antenna	ETS	3115	75789	May 10, 2022
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jul. 07, 2021
3	Amplifier	Agilent	8449B	3008A02584	Jul. 25, 2021
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 28, 2022
5	Receiver	Agilent	N9038A	MY52130039	Jul. 25, 2021
6	Controller	CT	SC100	N/A	N/A
7	Controller	MF	MF-7802	MF780208416	N/A
8	Cable	N/A	EMC104-SM-SM-6 000	N/A	Oct. 16, 2021
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Filter	STI	STI15-9912	N/A	Jul. 25, 2021
11	966 Chambe Room	RM	9*6*6m	N/A	Jul. 25, 2021

Bandwidth & Maximum Output Power & Power Spectral Density & Conducted Spurious Emission					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Jul. 25, 2021
2	Attenuator	WOKEN	6SM3502	VAS1214NL	Feb. 07, 2022
3	RF Cable	Tongkaichuan	N/A	N/A	N/A
4	DC Block	Mini	N/A	N/A	N/A

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

APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

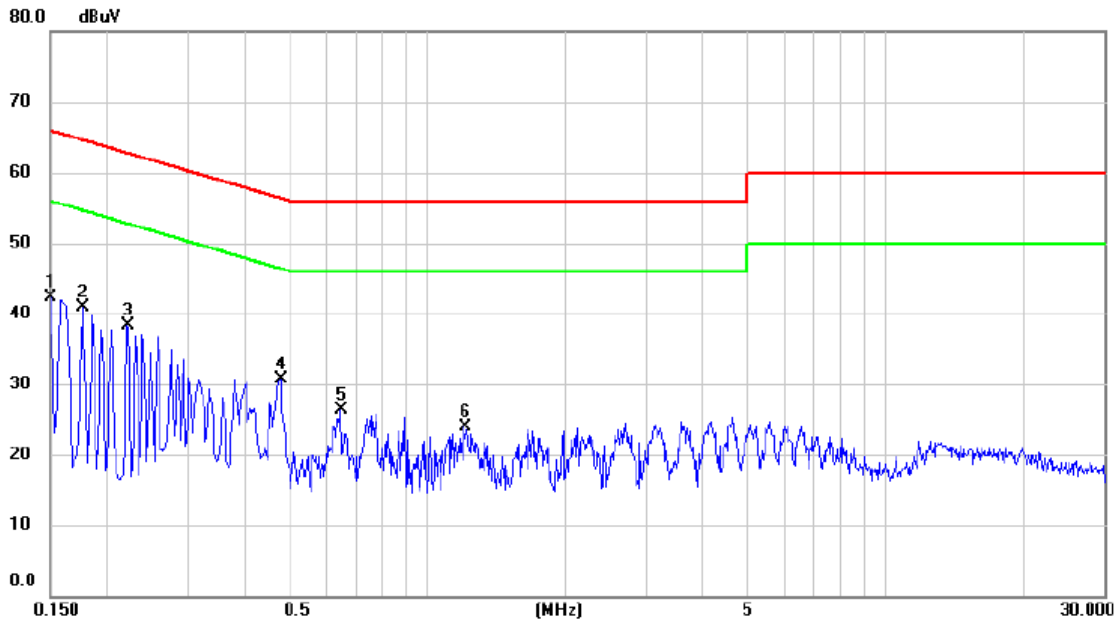
Test Mode	TX Mode_2Mbps Channel 00	Phase	Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.159	32.09	9.65	41.74	65.52	-23.78	peak	
2		0.177	31.27	9.64	40.91	64.63	-23.72	peak	
3	*	0.478	25.78	9.63	35.41	56.37	-20.96	peak	
4		0.766	19.90	9.64	29.54	56.00	-26.46	peak	
5		1.212	16.77	9.65	26.42	56.00	-29.58	peak	
6		3.138	16.10	9.70	25.80	56.00	-30.20	peak	

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

Test Mode	TX Mode_2Mbps Channel 00	Phase	Neutral

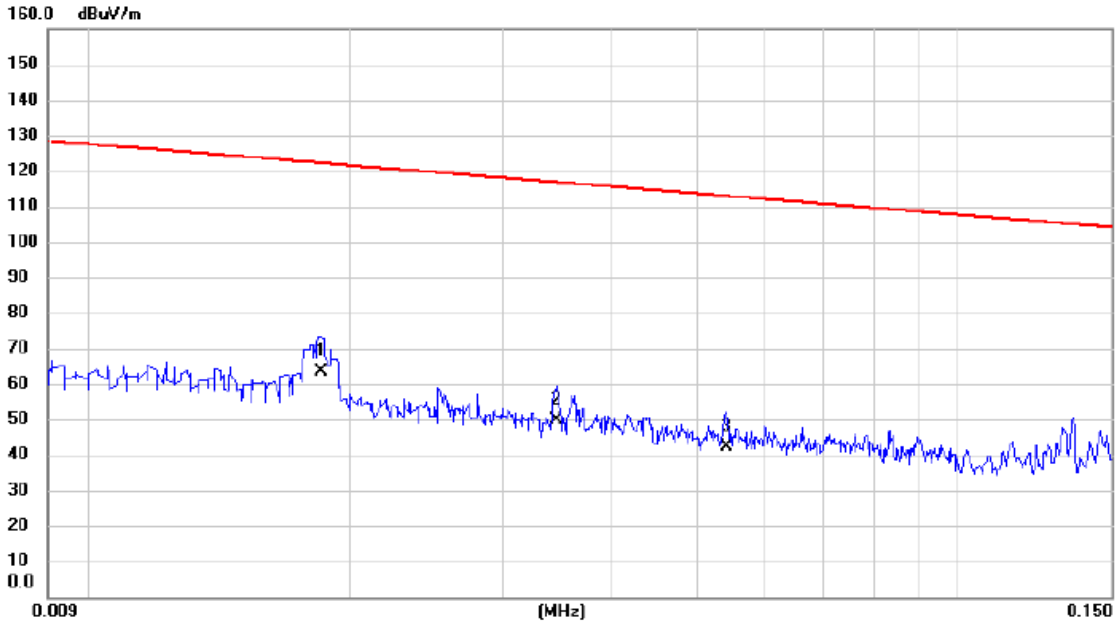


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.150	32.60	9.66	42.26	66.00	-23.74	peak	
2		0.177	31.23	9.64	40.87	64.63	-23.76	peak	
3		0.222	28.59	9.64	38.23	62.74	-24.51	peak	
4		0.478	21.14	9.63	30.77	56.37	-25.60	peak	
5		0.649	16.74	9.64	26.38	56.00	-29.62	peak	
6		1.207	14.17	9.65	23.82	56.00	-32.18	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

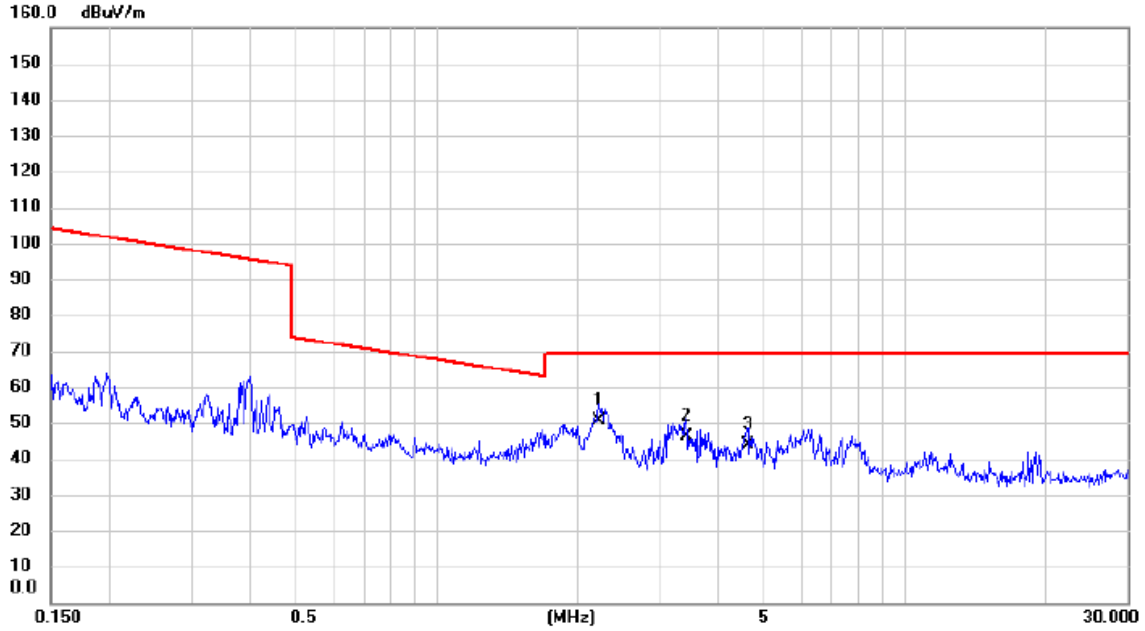
Test Mode	TX Mode_2Mbps Channel 00	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	0.0185	48.50	14.88	63.38	122.26	-58.88	AVG			
2		0.0345	35.60	14.08	49.68	116.85	-67.17	AVG			
3		0.0541	28.40	13.72	42.12	112.94	-70.82	AVG			

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

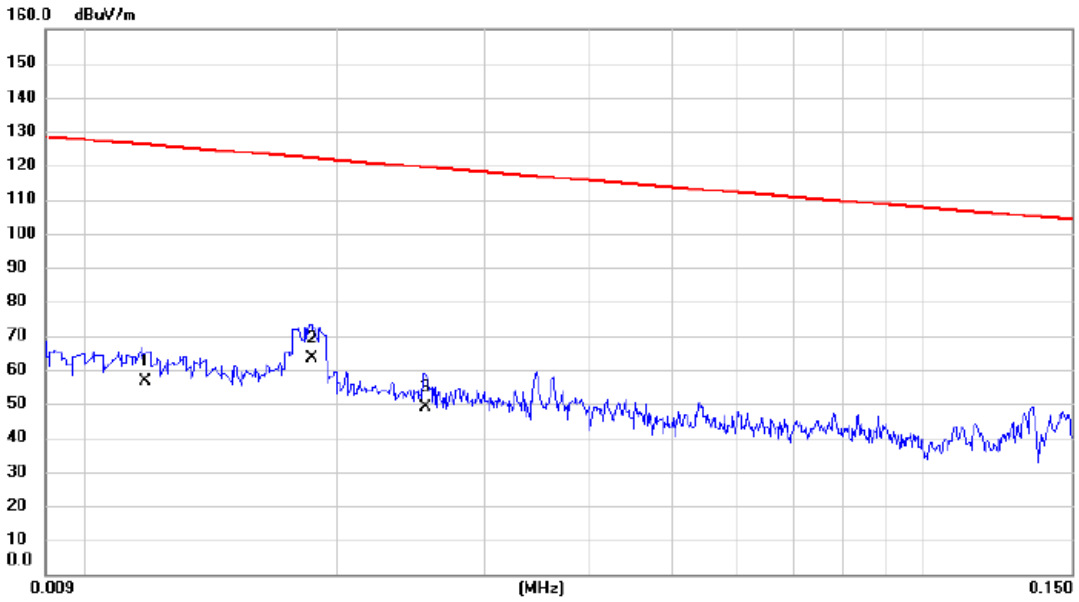
Test Mode	TX Mode_2Mbps Channel 00	Polarization	Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2.2250	38.50	12.18	50.68	69.54	-18.86	QP			
2		3.4174	34.40	11.99	46.39	69.54	-23.15	QP			
3		4.6223	31.60	12.08	43.68	69.54	-25.86	QP			

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

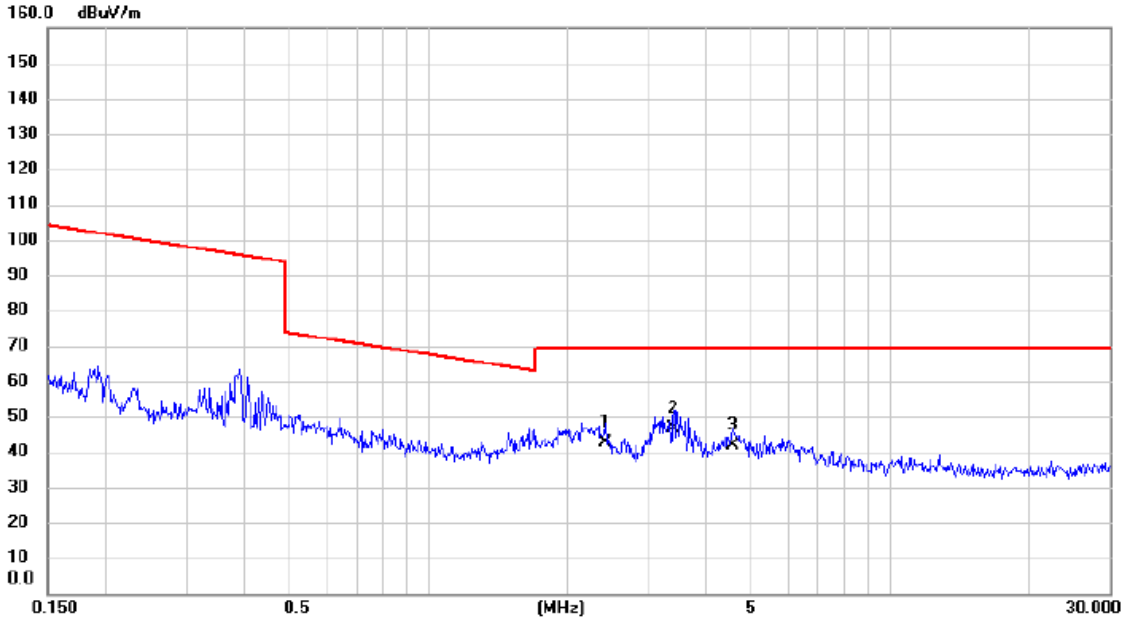
Test Mode	TX Mode_2Mbps Channel 00	Polarization	Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		0.0118	39.60	16.99	56.59	126.17	-69.58	AVG			
2	*	0.0187	48.40	14.82	63.22	122.17	-58.95	AVG			
3		0.0255	34.70	14.28	48.98	119.47	-70.49	AVG			

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

Test Mode	TX Mode_2Mbps Channel 00	Polarization	Ant 90°

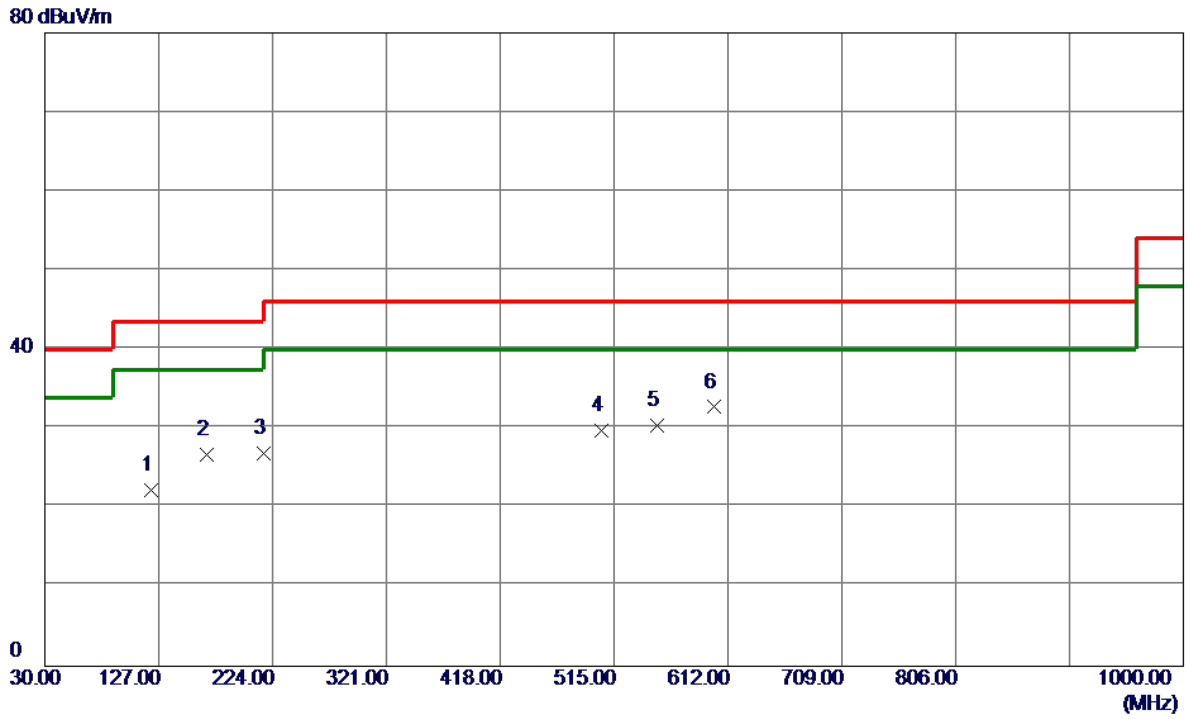


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2.4218	30.50	12.13	42.63	69.54	-26.91	QP			
2	*	3.3994	34.70	11.99	46.69	69.54	-22.85	QP			
3		4.5736	29.60	12.08	41.68	69.54	-27.86	QP			

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

APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

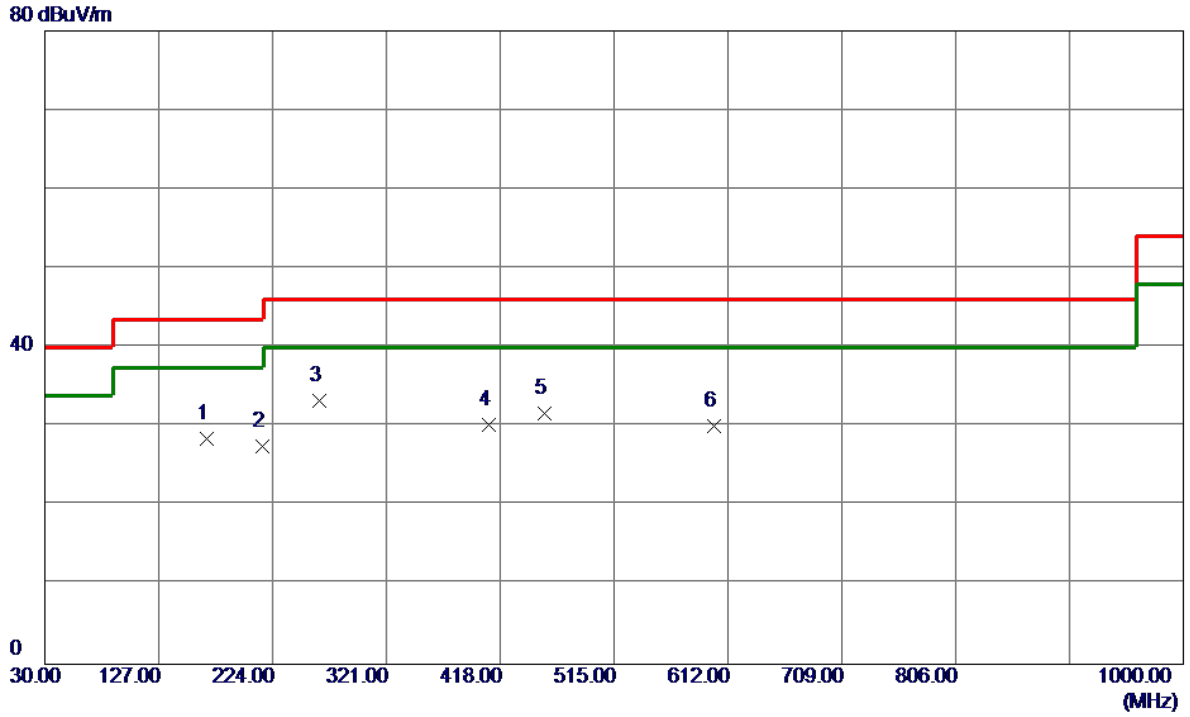
Test Mode	TX Mode_2Mbps Channel 00	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	120.2100	36.45	-14.14	22.31	43.50	-21.19	Peak	
2	168.2250	39.20	-12.54	26.66	43.50	-16.84	Peak	
3	216.2400	41.87	-14.97	26.90	46.00	-19.10	Peak	
4	503.8450	36.18	-6.49	29.69	46.00	-16.31	Peak	
5	551.8600	36.20	-5.85	30.35	46.00	-15.65	Peak	
6 *	599.8750	37.27	-4.55	32.72	46.00	-13.28	Peak	

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

Test Mode	TX Mode_2Mbps Channel 00	Polarization	Horizontal

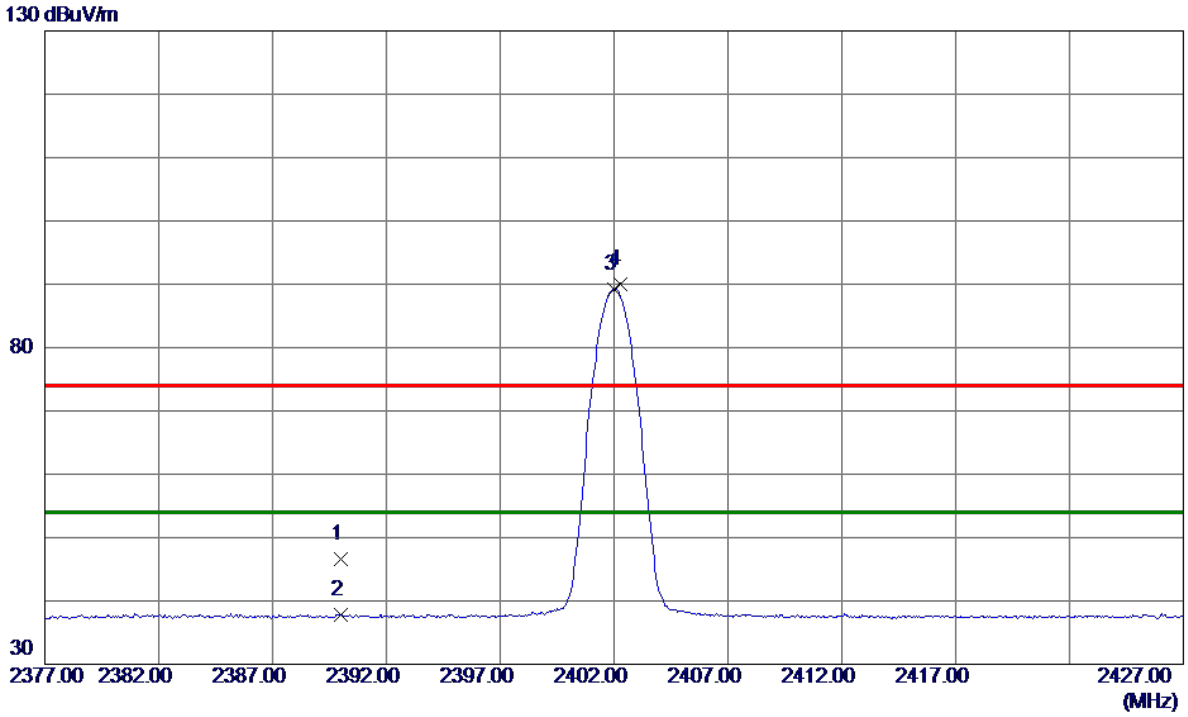


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	168.2250	41.02	-12.54	28.48	43.50	-15.02	Peak	
2	215.7550	42.57	-14.99	27.58	43.50	-15.92	Peak	
3 *	263.7700	45.64	-12.41	33.23	46.00	-12.77	Peak	
4	407.8150	38.85	-8.56	30.29	46.00	-15.71	Peak	
5	455.8300	39.02	-7.30	31.72	46.00	-14.28	Peak	
6	599.8750	34.70	-4.55	30.15	46.00	-15.85	Peak	

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

APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

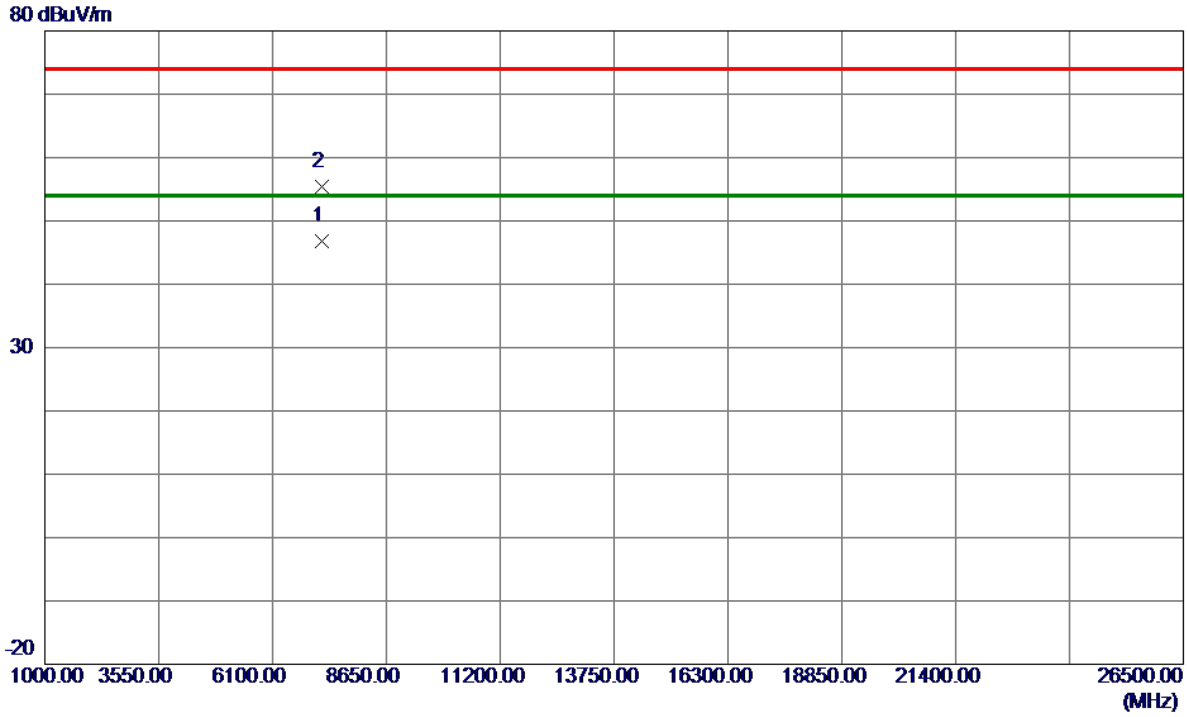
Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	39.43	7.26	46.69	74.00	-27.31	Peak	
2	2390.0000	30.60	7.26	37.86	54.00	-16.14	AVG	
3 *	2402.0000	81.95	7.26	89.21	54.00	35.21	AVG	No Limit
4	2402.2500	82.81	7.26	90.07	74.00	16.07	Peak	No Limit

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

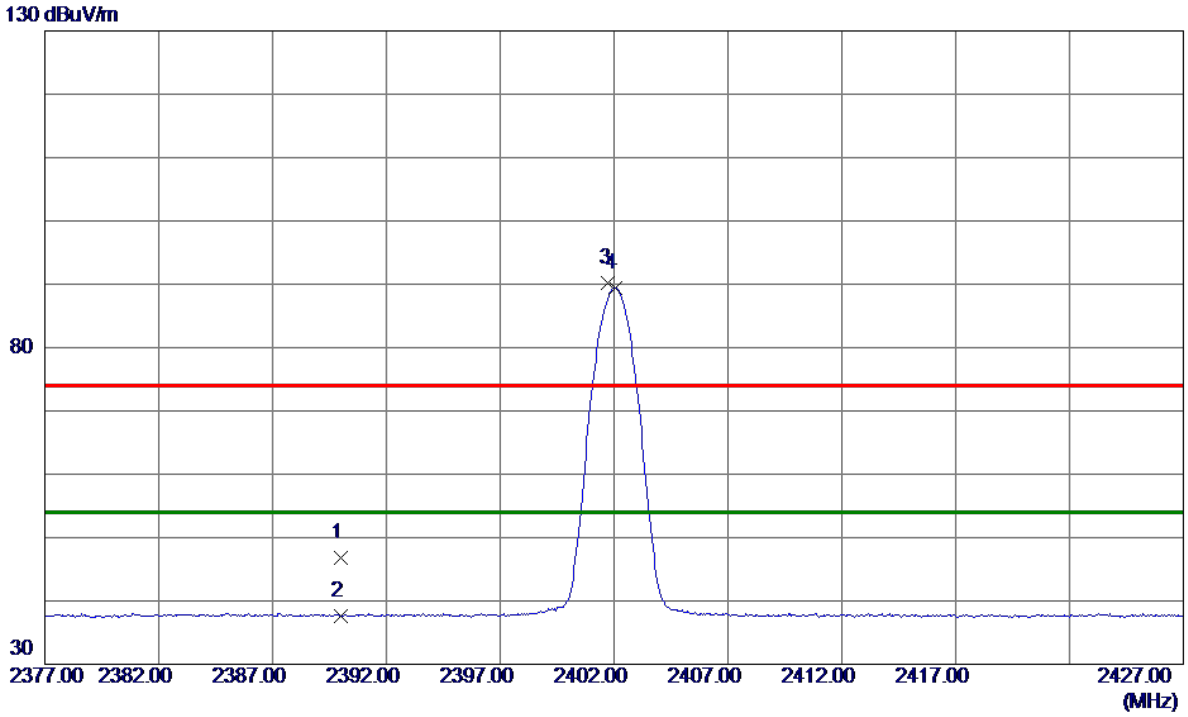
Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7205.4220	36.65	10.14	46.79	54.00	-7.21	AVG	
2	7205.8950	45.28	10.14	55.42	74.00	-18.58	Peak	

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

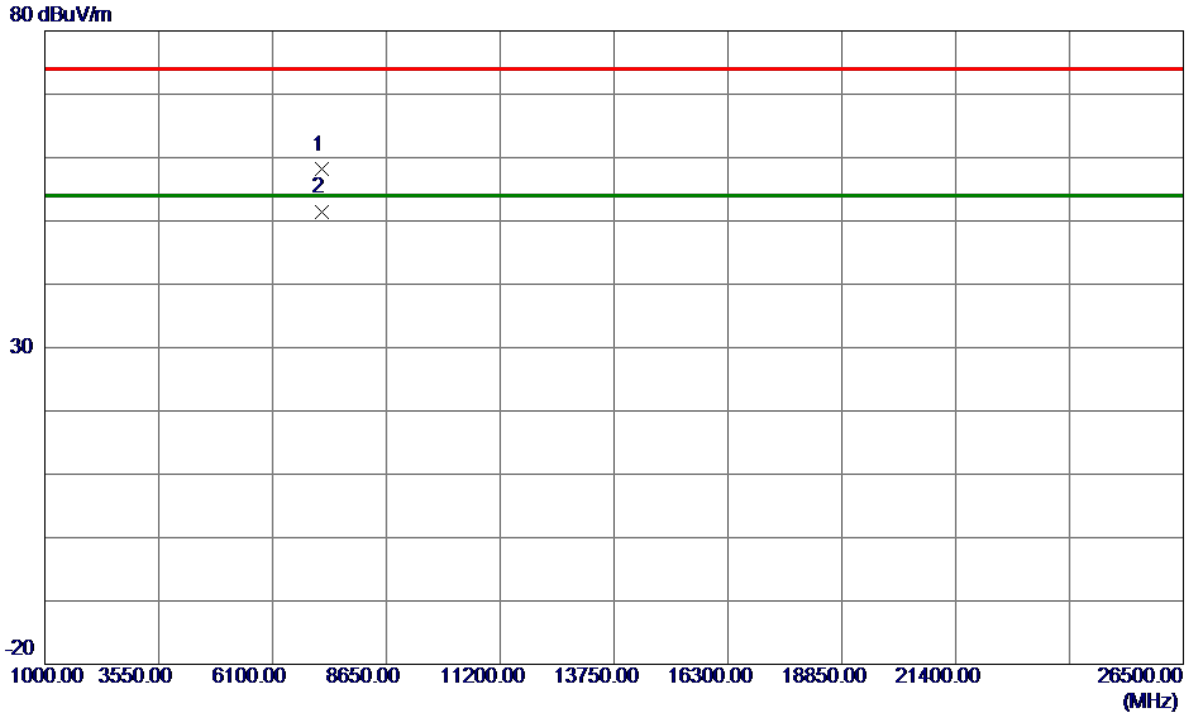
Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	39.56	7.26	46.82	74.00	-27.18	Peak	
2	2390.0000	30.37	7.26	37.63	54.00	-16.37	AVG	
3	2401.7500	82.97	7.26	90.23	74.00	16.23	Peak	No Limit
4 *	2402.0500	82.17	7.26	89.43	54.00	35.43	AVG	No Limit

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

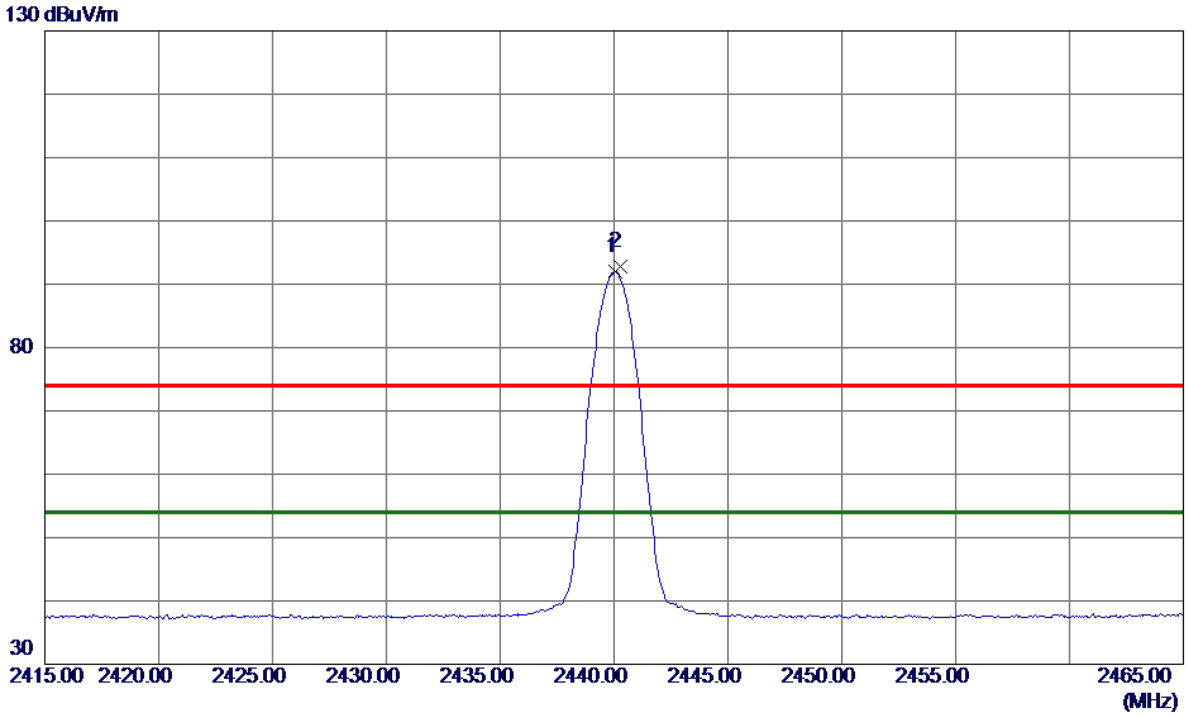
Test Mode	TX 2402 MHz _CH00_1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7205.3180	47.96	10.14	58.10	74.00	-15.90	Peak	
2 *	7206.5830	41.27	10.14	51.41	54.00	-2.59	AVG	

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

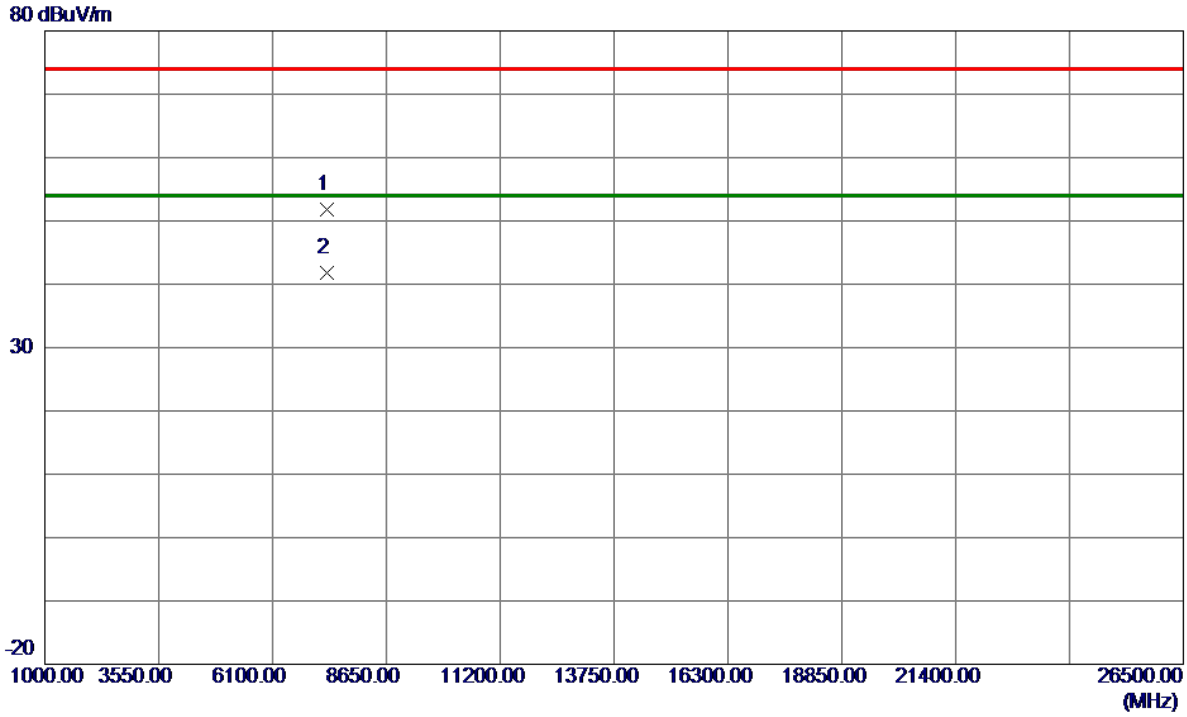
Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440.0500	84.79	7.25	92.04	54.00	38.04	AVG	No Limit
2	2440.2500	85.57	7.25	92.82	74.00	18.82	Peak	No Limit

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

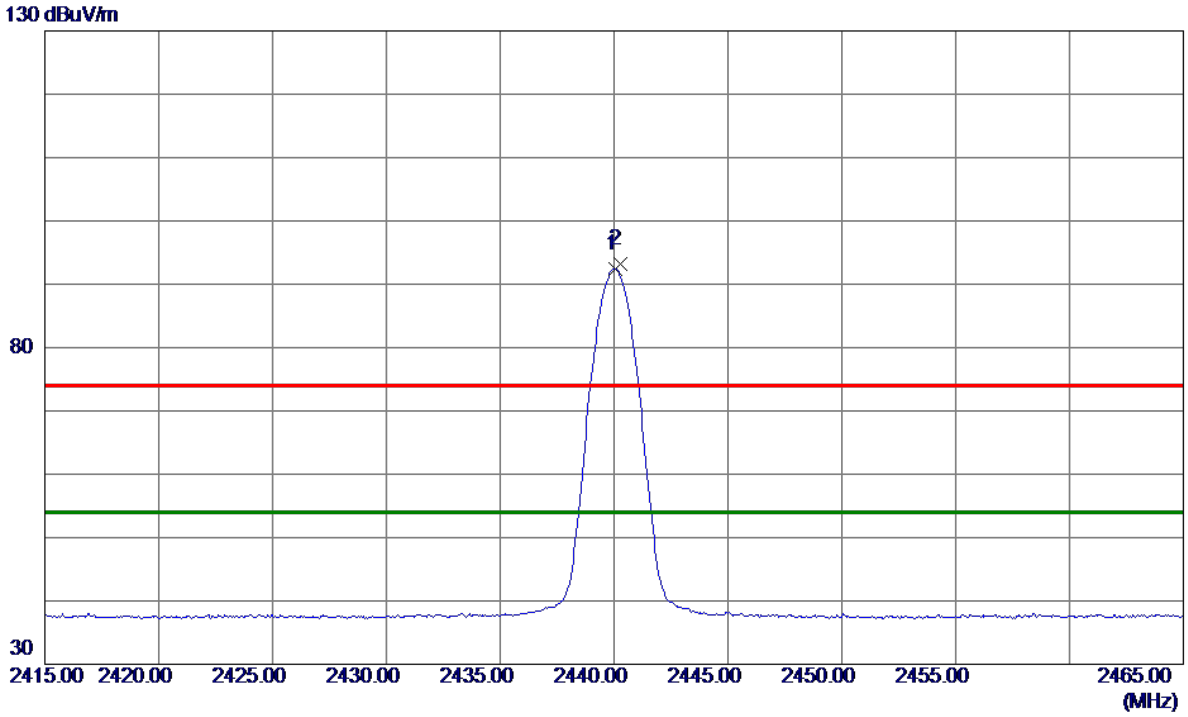
Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7319.1320	41.50	10.33	51.83	74.00	-22.17	Peak	
2 *	7319.4130	31.46	10.33	41.79	54.00	-12.21	AVG	

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

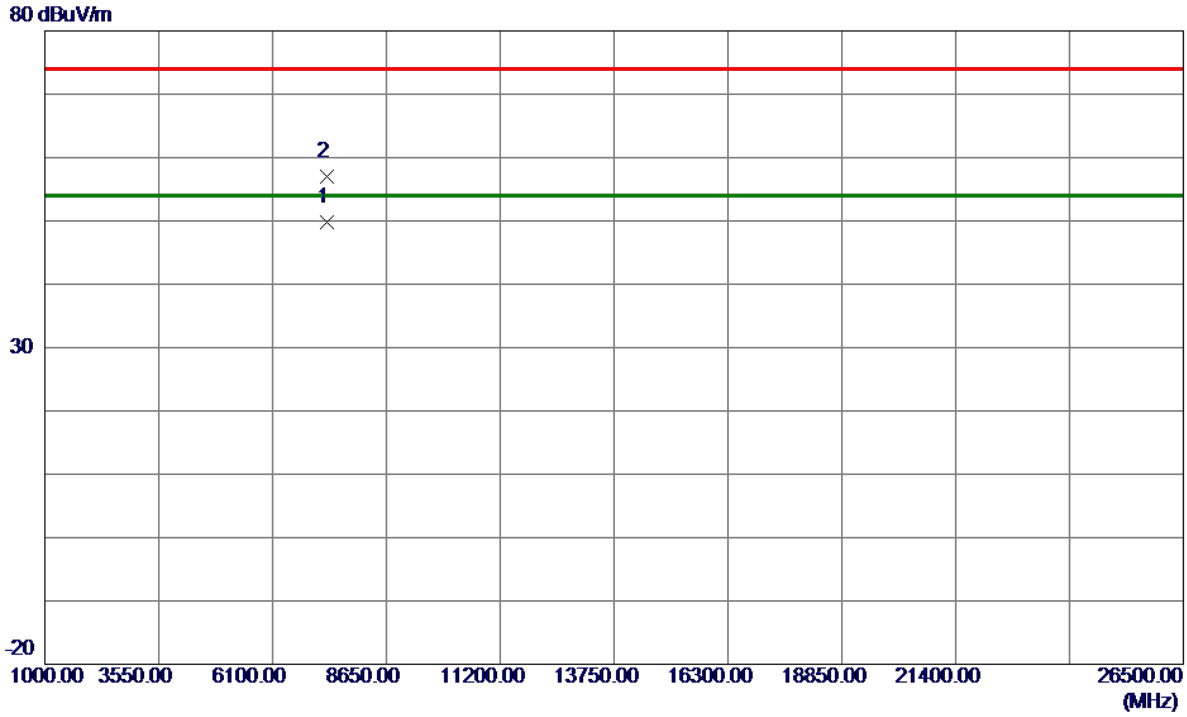
Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440.0500	85.15	7.25	92.40	54.00	38.40	AVG	No Limit
2	2440.2500	85.98	7.25	93.23	74.00	19.23	Peak	No Limit

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

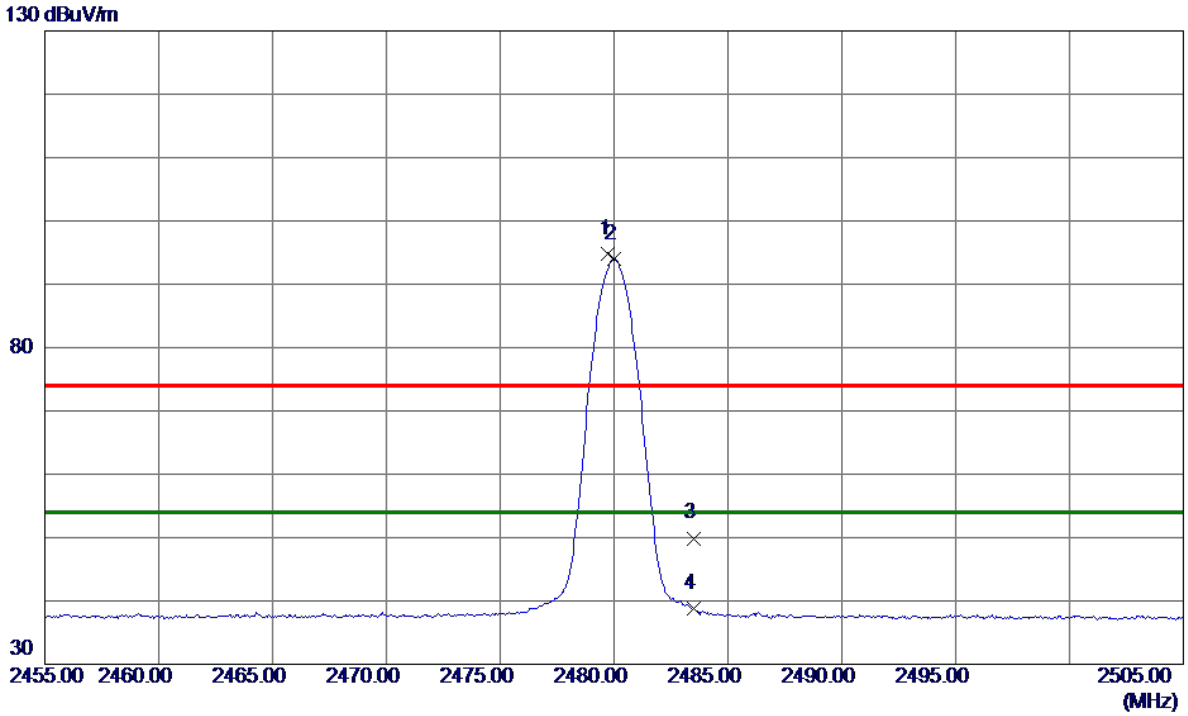
Test Mode	TX 2440 MHz _CH19_1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7320.6100	39.47	10.34	49.81	54.00	-4.19	AVG	
2	7320.8150	46.71	10.34	57.05	74.00	-16.95	Peak	

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

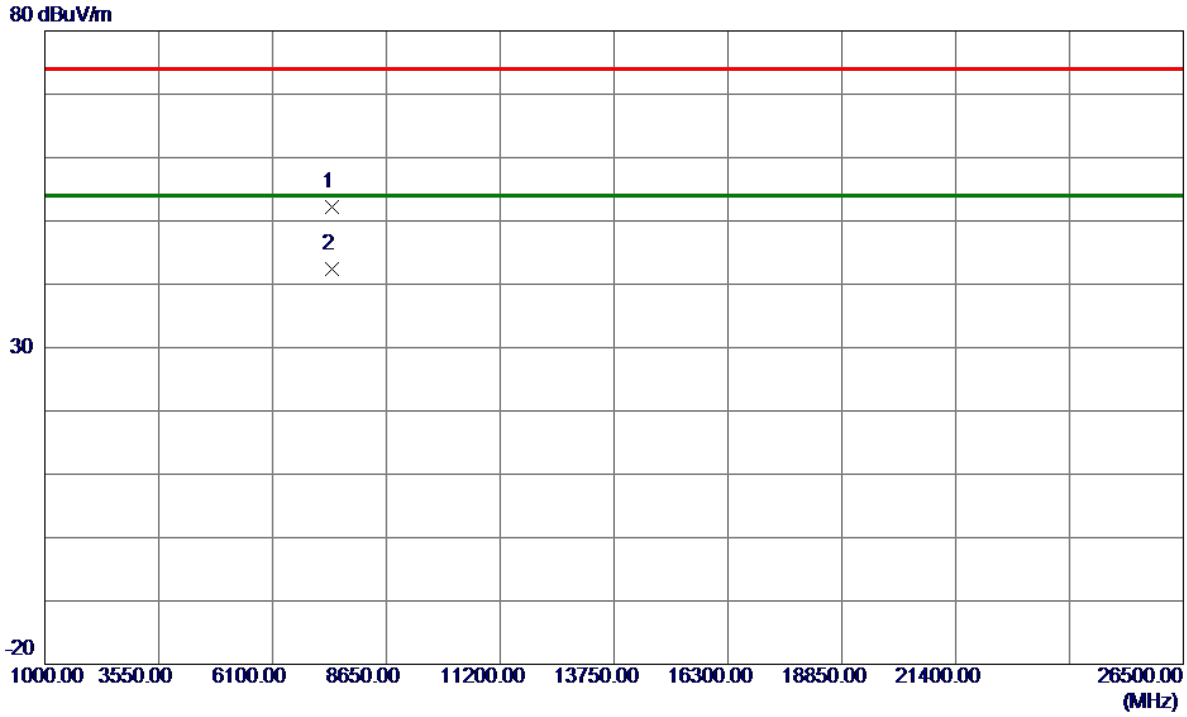
Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.7500	87.49	7.25	94.74	74.00	20.74	Peak	No Limit
2 *	2480.0000	86.71	7.25	93.96	54.00	39.96	AVG	No Limit
3	2483.5000	42.65	7.25	49.90	74.00	-24.10	Peak	
4	2483.5000	31.53	7.25	38.78	54.00	-15.22	AVG	

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

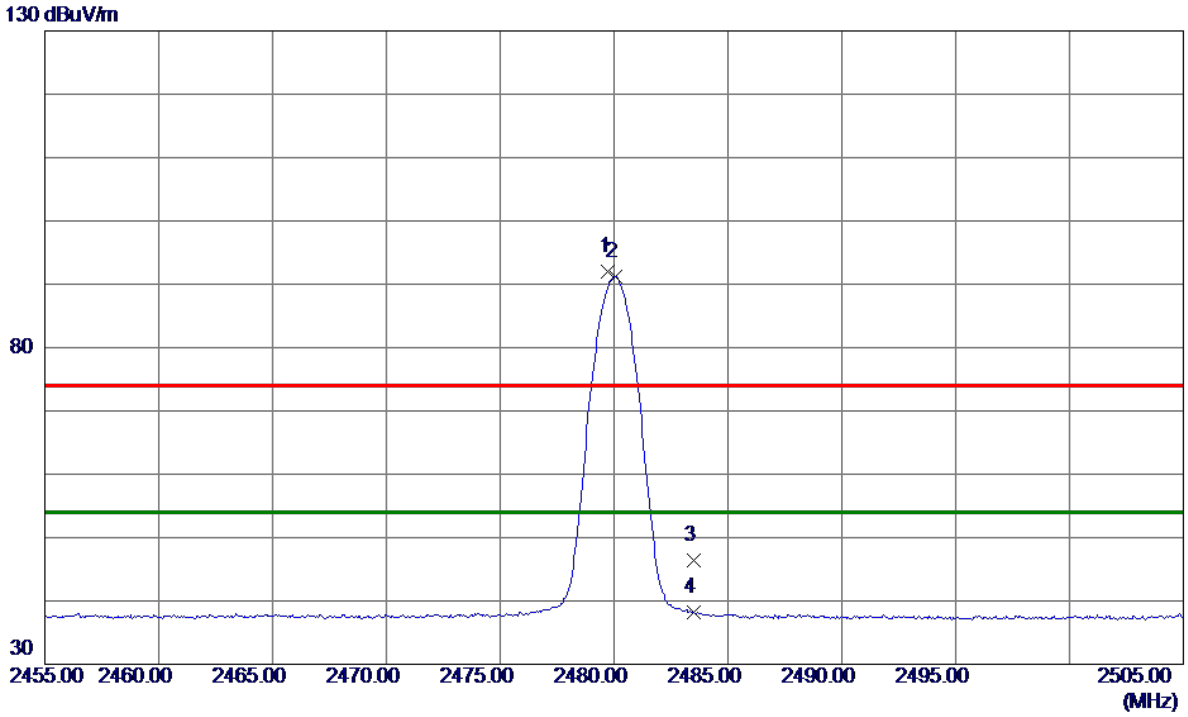
Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7439.0280	41.57	10.54	52.11	74.00	-21.89	Peak	
2 *	7440.6720	31.89	10.54	42.43	54.00	-11.57	AVG	

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

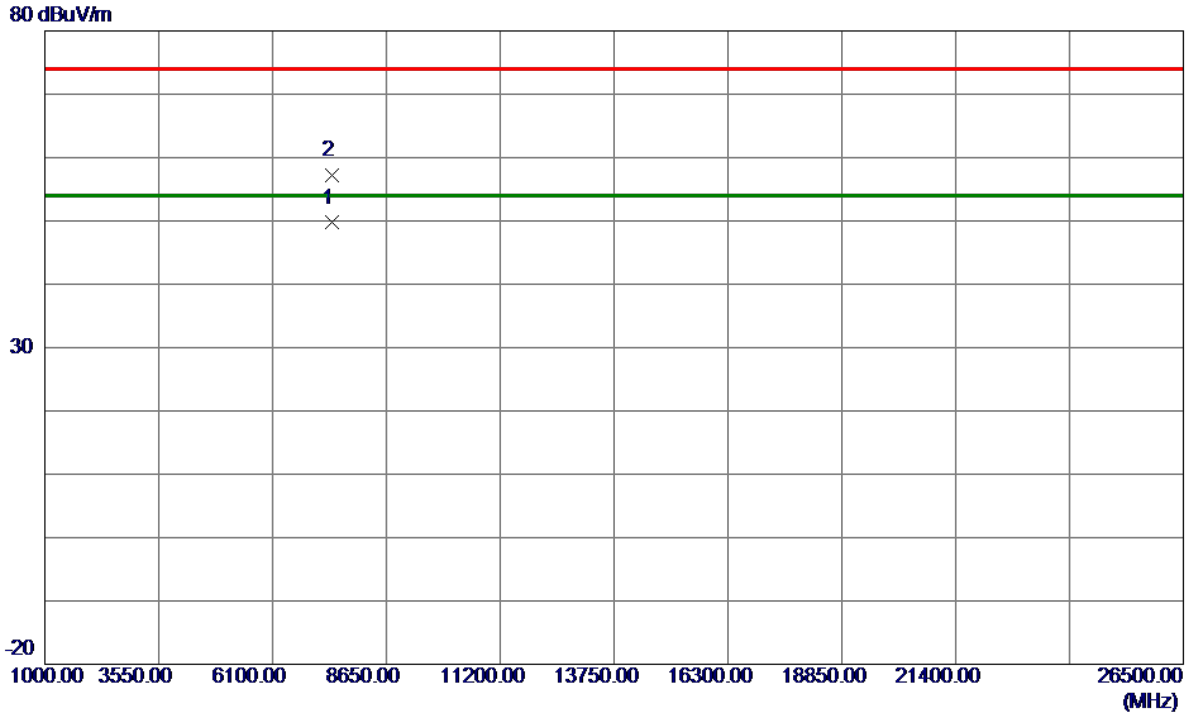
Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.7500	84.74	7.25	91.99	74.00	17.99	Peak	No Limit
2 *	2480.0500	83.90	7.25	91.15	54.00	37.15	AVG	No Limit
3	2483.5000	39.21	7.25	46.46	74.00	-27.54	Peak	
4	2483.5000	30.87	7.25	38.12	54.00	-15.88	AVG	

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

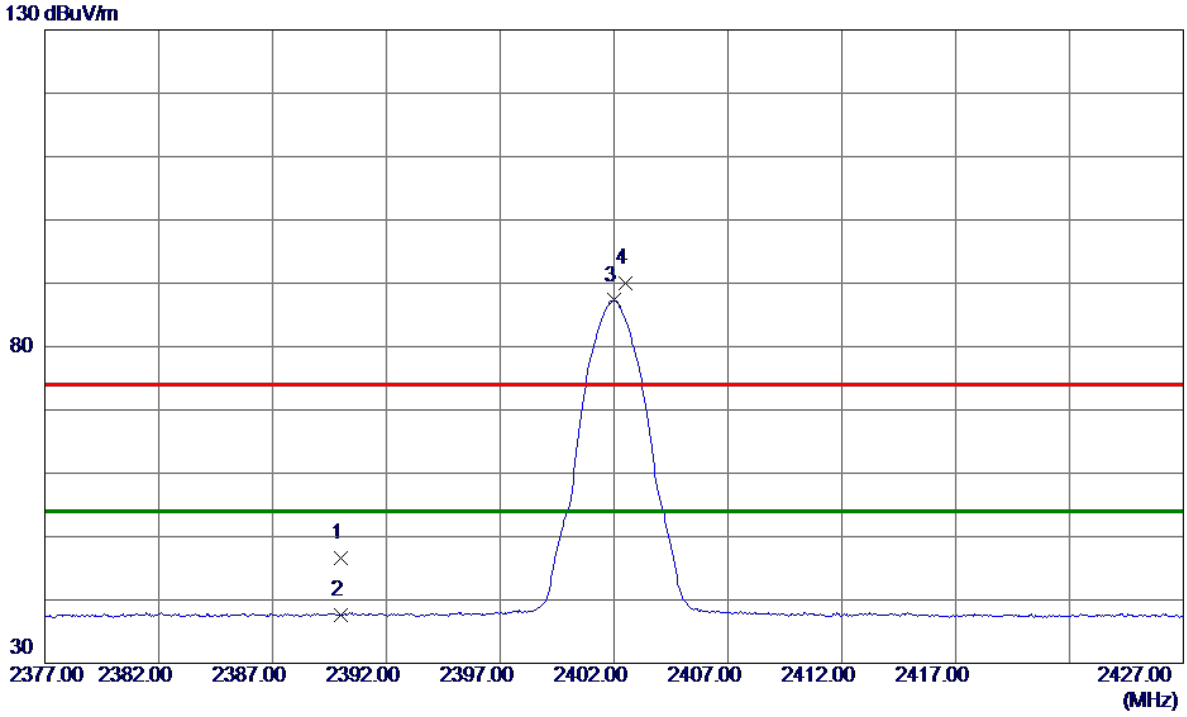
Test Mode	TX 2480 MHz _CH39_1Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	7439.3550	39.16	10.54	49.70	54.00	-4.30	AVG	
2	7440.8450	46.61	10.54	57.15	74.00	-16.85	Peak	

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

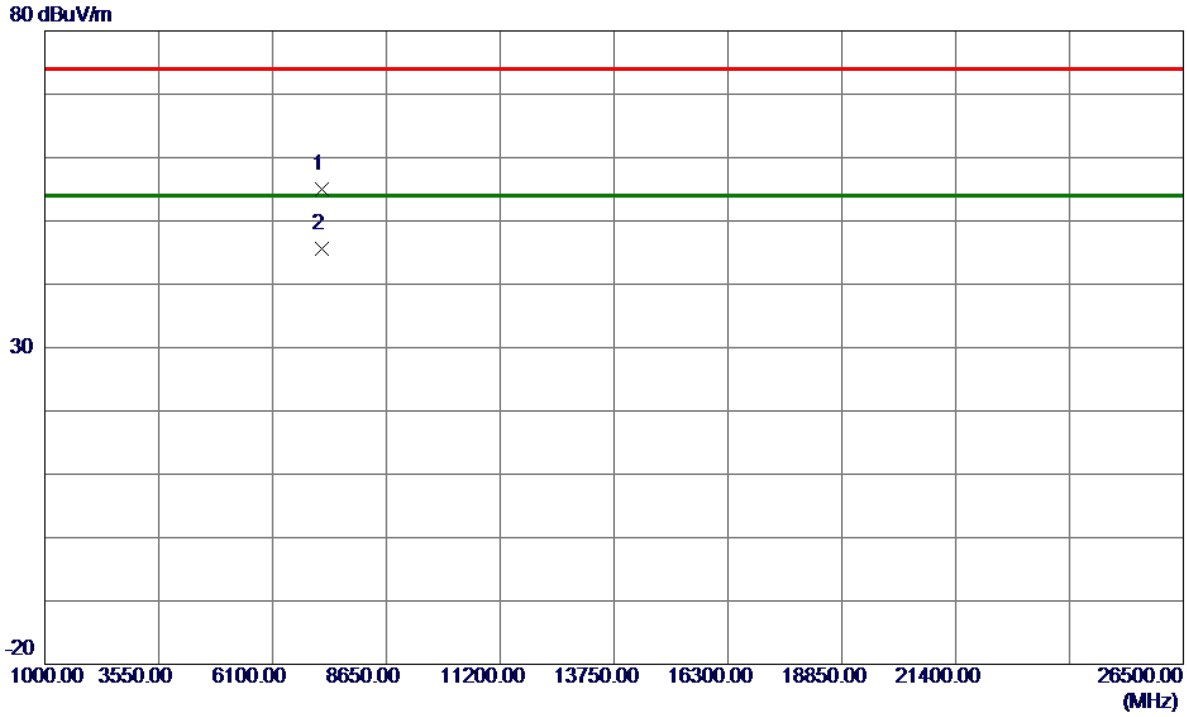
Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	39.36	7.26	46.62	74.00	-27.38	Peak	
2	2390.0000	30.29	7.26	37.55	54.00	-16.45	AVG	
3 *	2402.0000	80.04	7.26	87.30	54.00	33.30	AVG	No Limit
4	2402.5000	82.76	7.26	90.02	74.00	16.02	Peak	No Limit

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

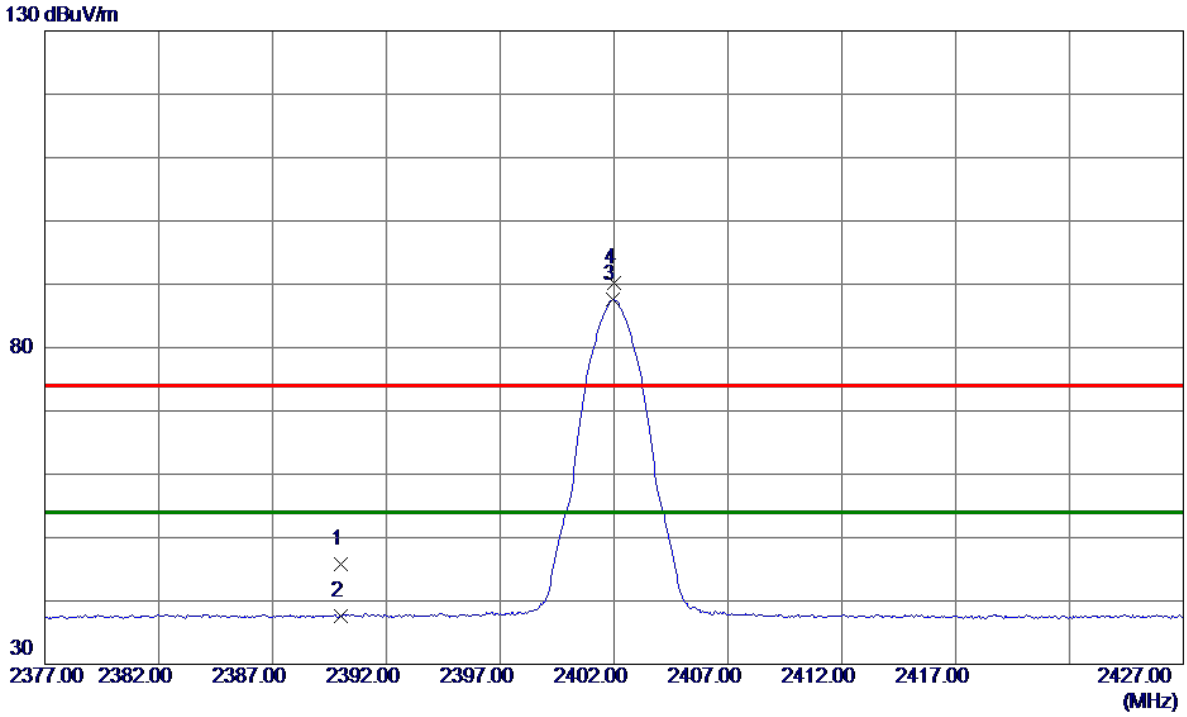
Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7204.5450	44.91	10.14	55.05	74.00	-18.95	Peak	
2 *	7204.7150	35.43	10.14	45.57	54.00	-8.43	AVG	

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

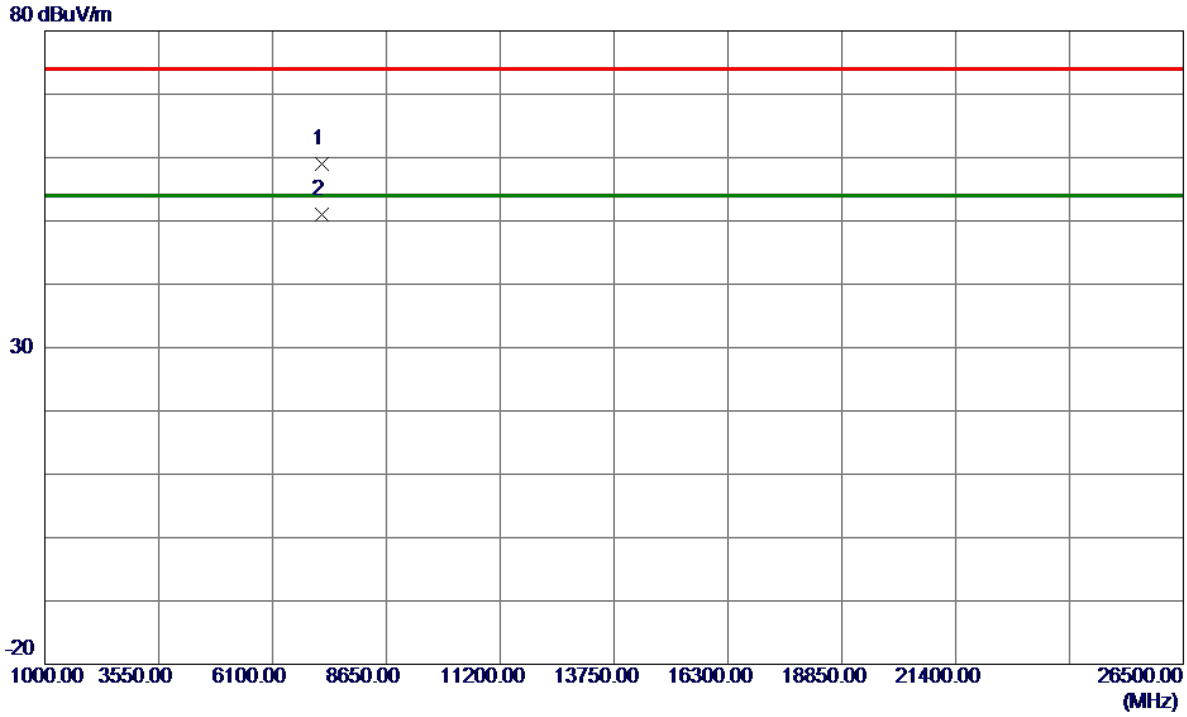
Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	38.49	7.26	45.75	74.00	-28.25	Peak	
2	2390.0000	30.34	7.26	37.60	54.00	-16.40	AVG	
3 *	2401.9500	80.28	7.26	87.54	54.00	33.54	AVG	No Limit
4	2402.0000	82.90	7.26	90.16	74.00	16.16	Peak	No Limit

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

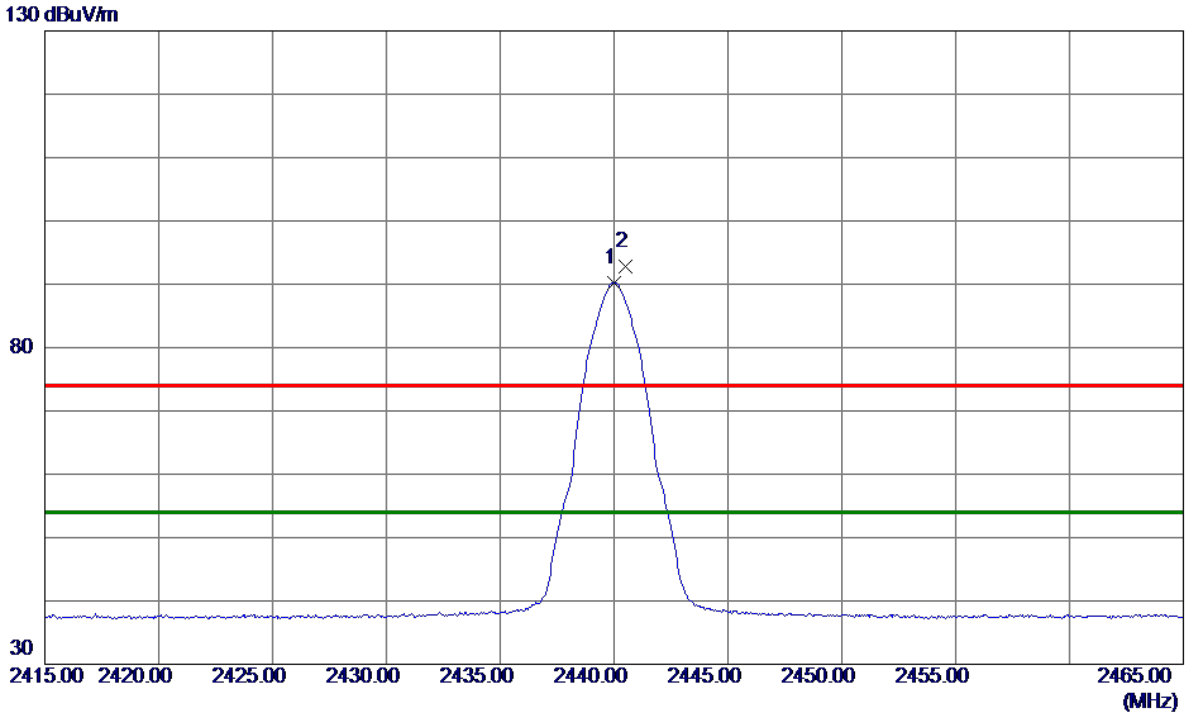
Test Mode	TX 2402 MHz _CH00_2Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7206.1250	48.93	10.14	59.07	74.00	-14.93	Peak	
2 *	7207.1930	40.90	10.14	51.04	54.00	-2.96	AVG	

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

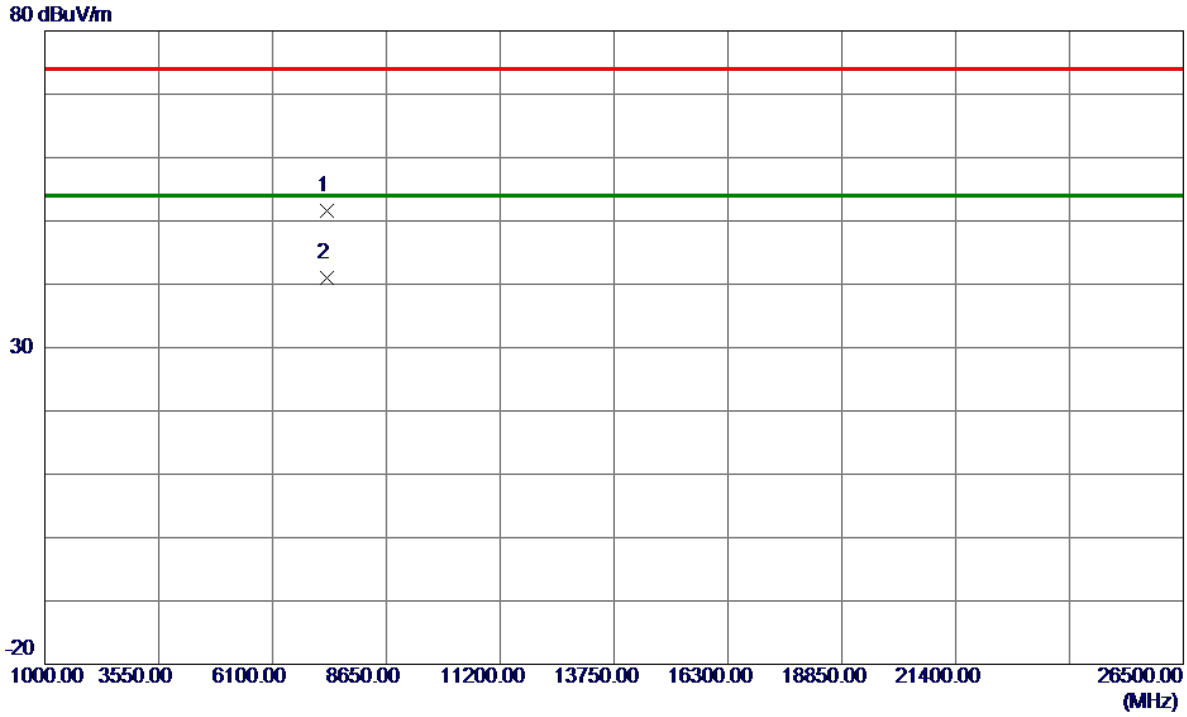
Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440.0000	82.94	7.25	90.19	54.00	36.19	AVG	No Limit
2	2440.5000	85.54	7.25	92.79	74.00	18.79	Peak	No Limit

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

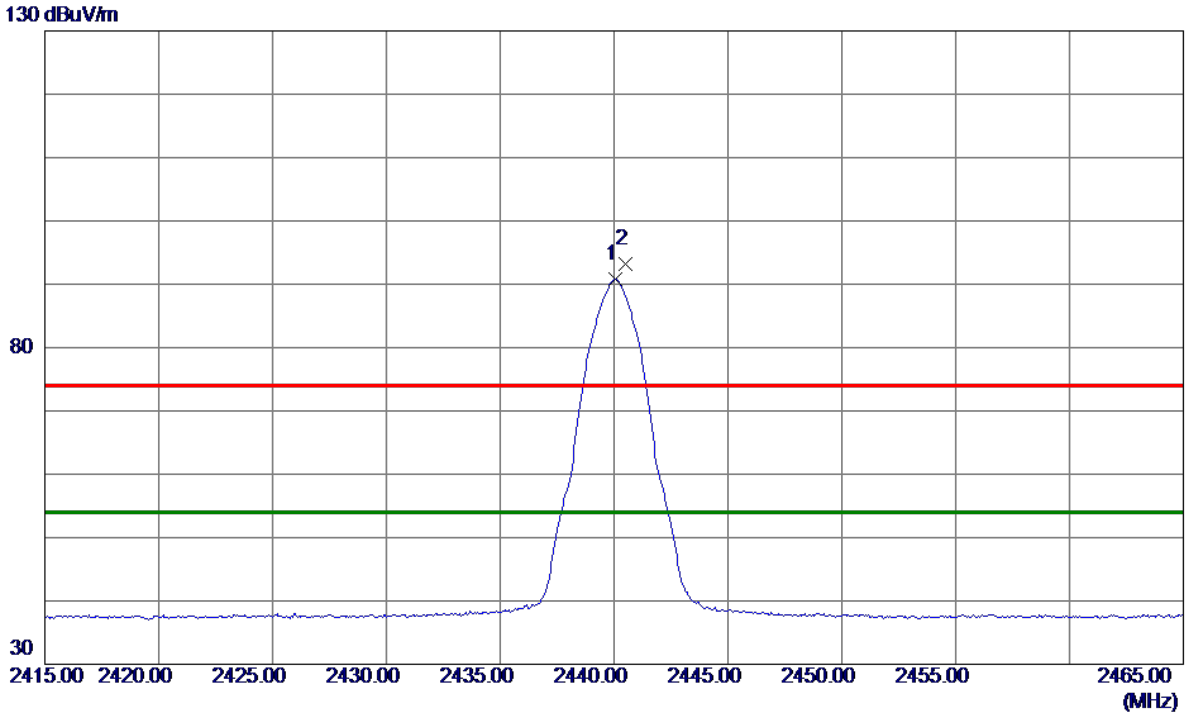
Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7318.4620	41.23	10.33	51.56	74.00	-22.44	Peak	
2 *	7318.6100	30.62	10.33	40.95	54.00	-13.05	AVG	

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

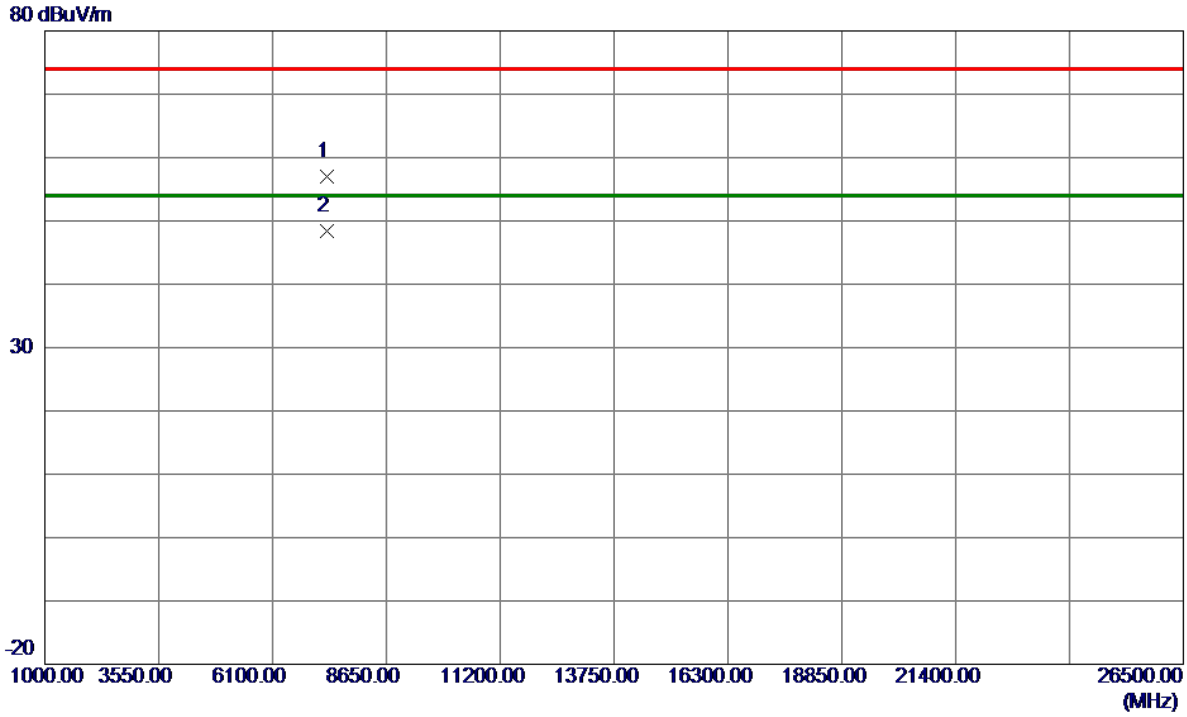
Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440.0500	83.49	7.25	90.74	54.00	36.74	AVG	No Limit
2	2440.5000	85.98	7.25	93.23	74.00	19.23	Peak	No Limit

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

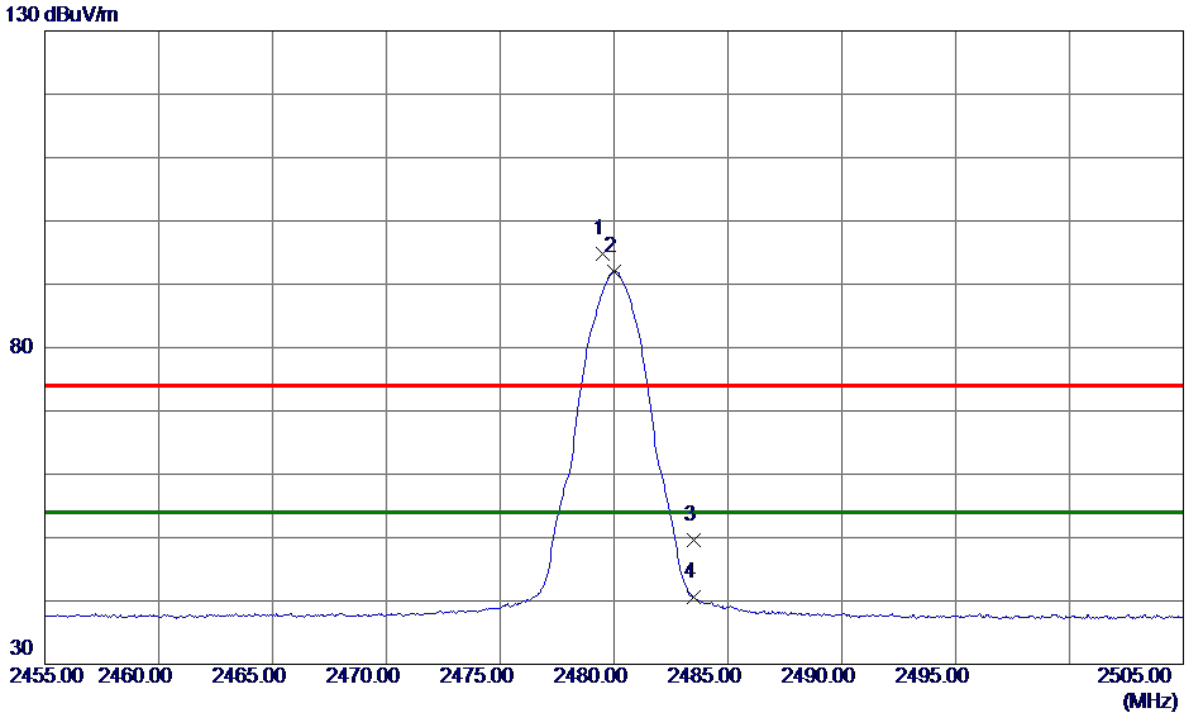
Test Mode	TX 2440 MHz _CH19_2Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7318.5750	46.59	10.33	56.92	74.00	-17.08	Peak	
2 *	7318.6950	38.01	10.33	48.34	54.00	-5.66	AVG	

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

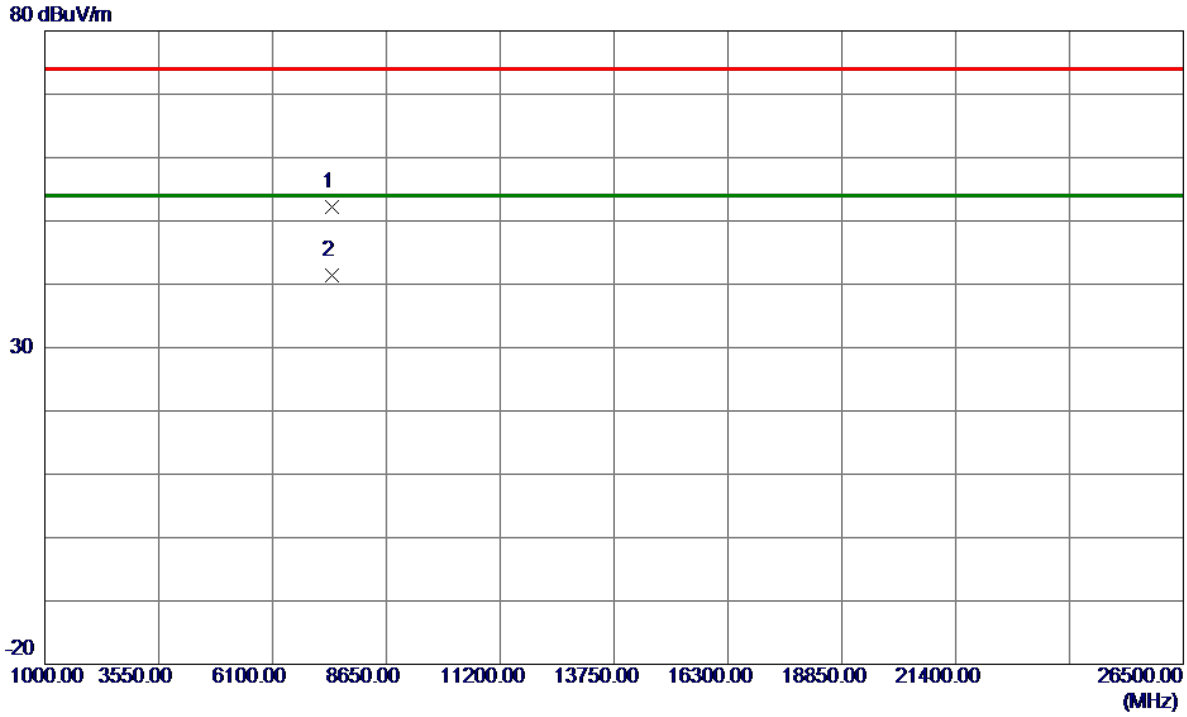
Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.5000	87.48	7.25	94.73	74.00	20.73	Peak	No Limit
2 *	2480.0000	84.77	7.25	92.02	54.00	38.02	AVG	No Limit
3	2483.5000	42.42	7.25	49.67	74.00	-24.33	Peak	
4	2483.5000	33.28	7.25	40.53	54.00	-13.47	AVG	

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

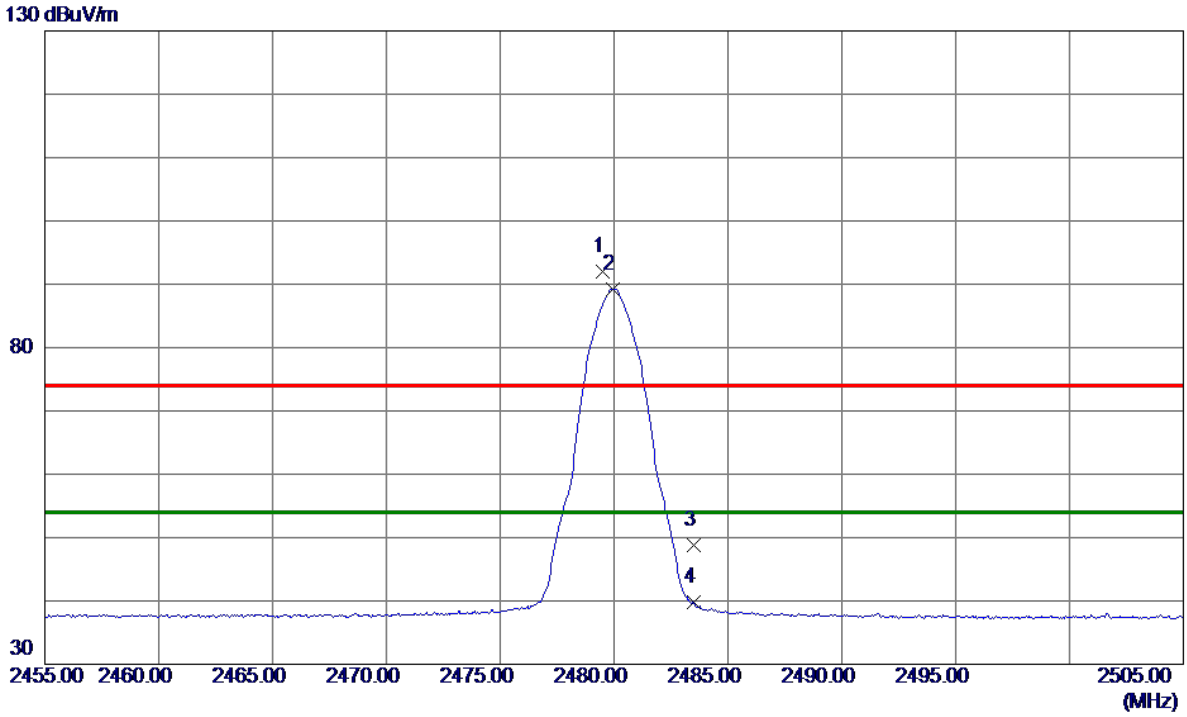
Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7441.3020	41.59	10.54	52.13	74.00	-21.87	Peak	
2 *	7441.3070	30.91	10.54	41.45	54.00	-12.55	AVG	

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

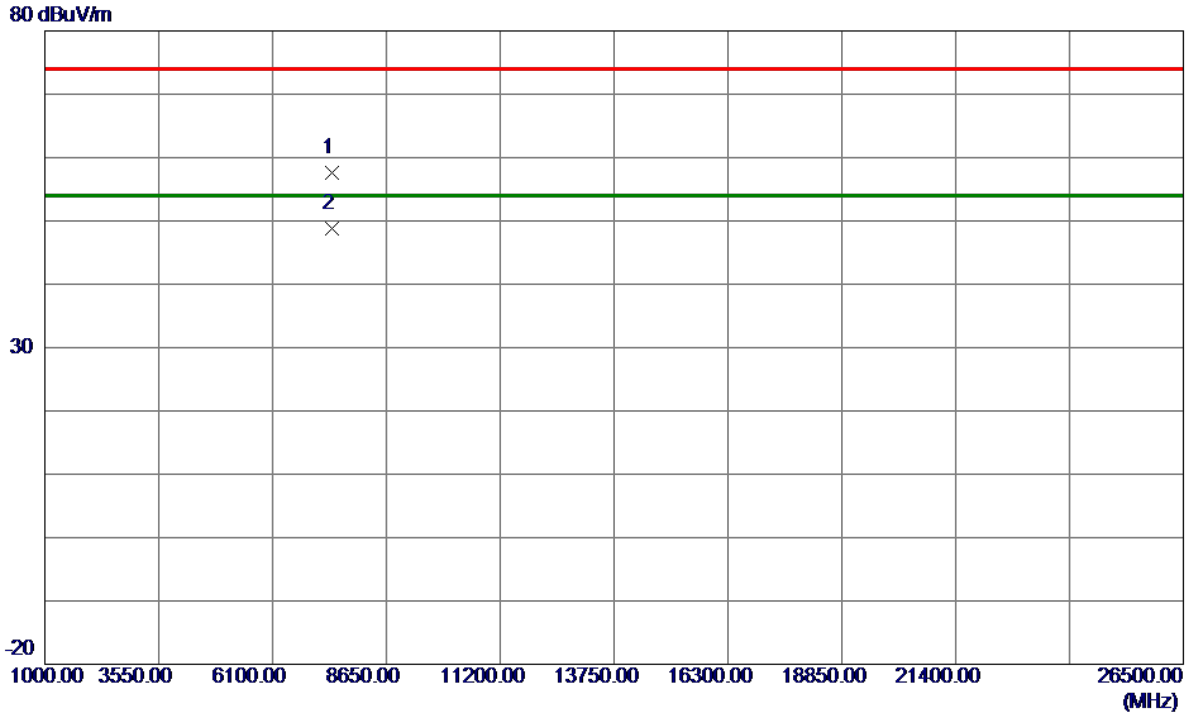
Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.5000	84.71	7.25	91.96	74.00	17.96	Peak	No Limit
2 *	2479.9500	82.04	7.25	89.29	54.00	35.29	AVG	No Limit
3	2483.5000	41.56	7.25	48.81	74.00	-25.19	Peak	
4	2483.5000	32.52	7.25	39.77	54.00	-14.23	AVG	

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

Test Mode	TX 2480 MHz _CH39_2Mbps	Polarization	Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	7438.4800	47.05	10.54	57.59	74.00	-16.41	Peak	
2 *	7441.2120	38.22	10.54	48.76	54.00	-5.24	AVG	

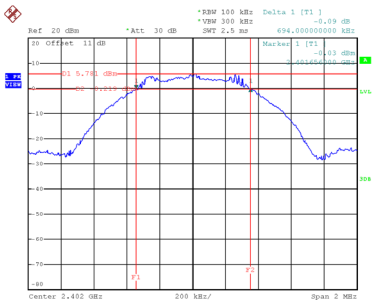
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

APPENDIX E - BANDWIDTH

Test Mode	TX Mode _1Mbps

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Test Result
00	2402	0.694	1.048	0.5	Pass
19	2440	0.683	1.052	0.5	Pass
39	2480	0.692	1.056	0.5	Pass

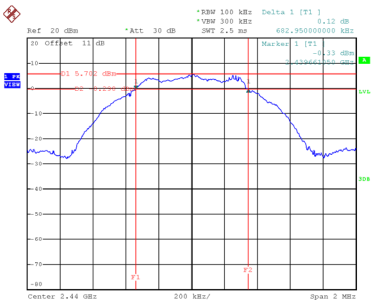
CH00



Date: 28.MAY.2021 11:20:28

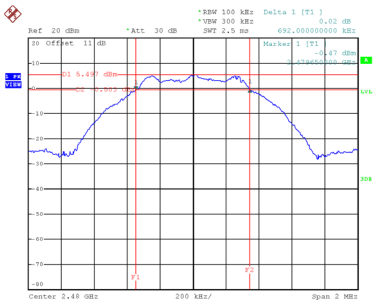
CH19

6 dB Bandwidth



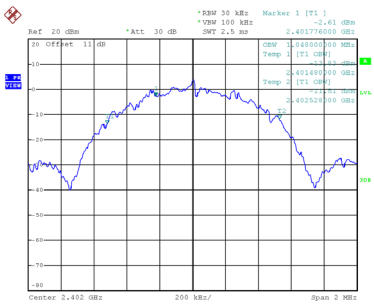
Date: 28.MAY.2021 11:22:03

CH39

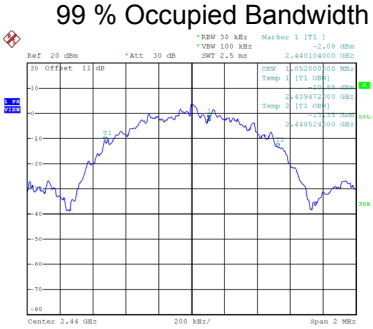


Date: 28.MAY.2021 11:23:29

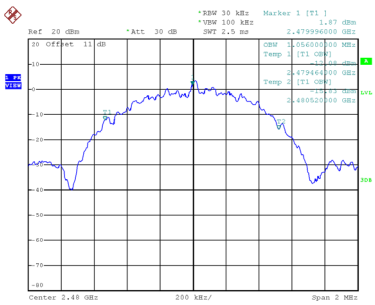
99 % Occupied Bandwidth



Date: 28.MAY.2021 11:20:03



Date: 28.MAY.2021 11:22:09

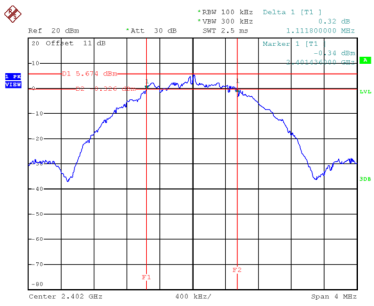


Date: 28.MAY.2021 11:23:35

Test Mode	TX Mode _2Mbps

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	99 % Occupied Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Test Result
00	2402	1.112	2.024	0.5	Pass
19	2440	1.096	2.016	0.5	Pass
39	2480	1.108	2.040	0.5	Pass

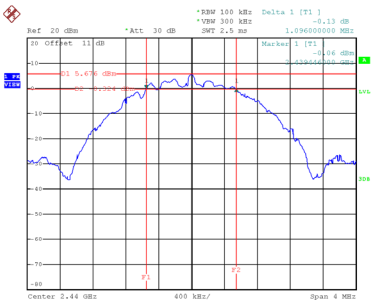
CH00



Date: 28.MAY.2021 11:25:29

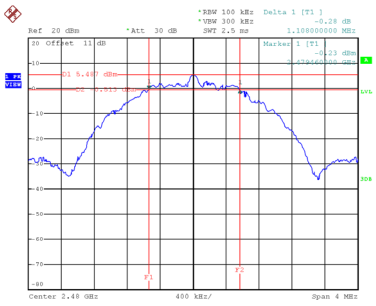
CH19

6 dB Bandwidth



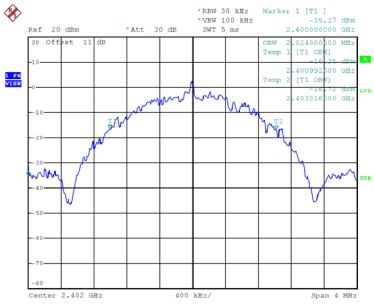
Date: 28.MAY.2021 11:27:09

CH39

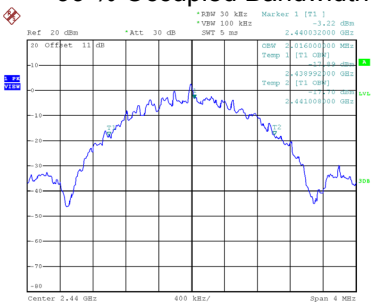


Date: 28.MAY.2021 11:28:41

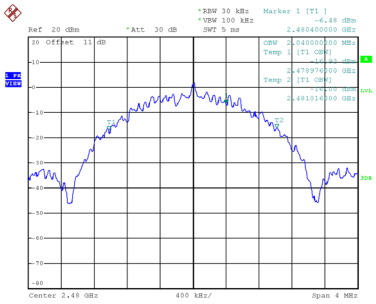
99 % Occupied Bandwidth



Date: 28.MAY.2021 11:25:01



Date: 28.MAY.2021 11:27:16



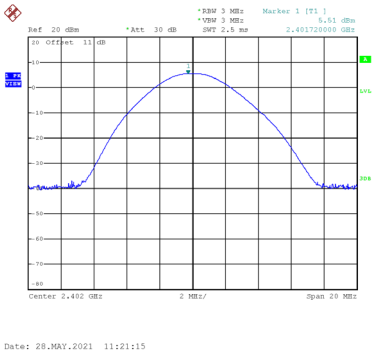
Date: 28.MAY.2021 11:28:47

APPENDIX F - MAXIMUM OUTPUT POWER

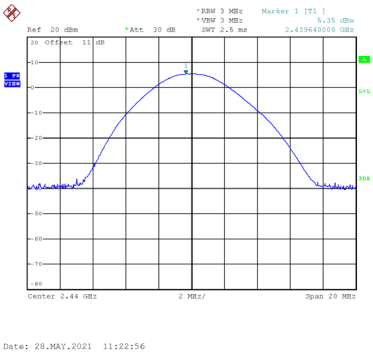
Test Mode	TX Mode _1Mbps

Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	5.51	0.0036	30.00	1.0000	Pass
2440	5.35	0.0034	30.00	1.0000	Pass
2480	5.18	0.0033	30.00	1.0000	Pass

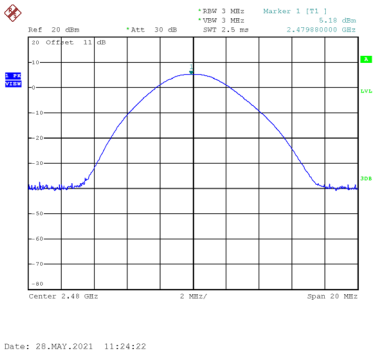
CH00



CH19



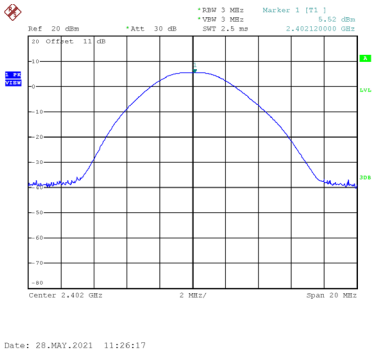
CH39



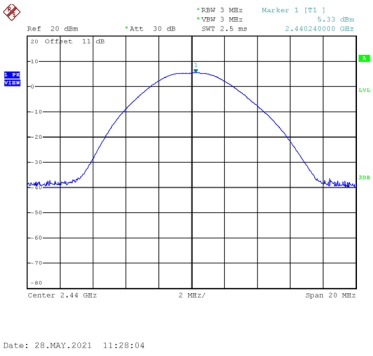
Test Mode	TX Mode _2Mbps

Frequency (MHz)	Output Power (dBm)	Output Power (W)	Max. Limit (dBm)	Max. Limit (W)	Test Result
2402	5.52	0.0036	30.00	1.0000	Pass
2440	5.33	0.0034	30.00	1.0000	Pass
2480	5.18	0.0033	30.00	1.0000	Pass

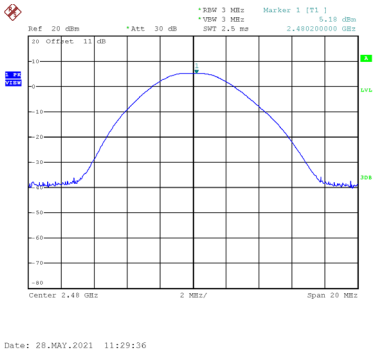
CH00



CH19



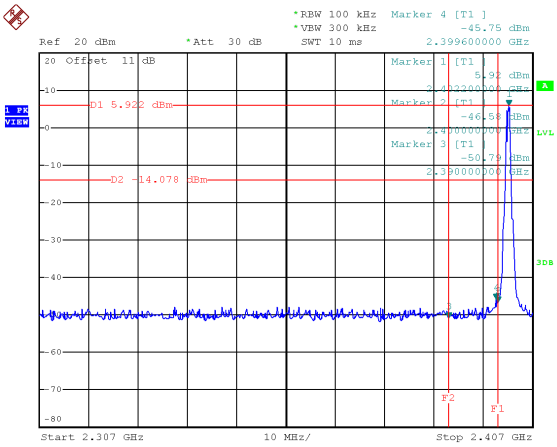
CH39



APPENDIX G - CONDUCTED SPURIOUS EMISSION

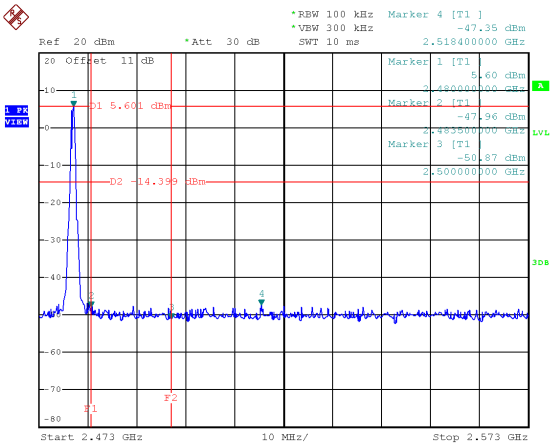
Test Mode	TX Mode _1Mbps

Bandedge CH00 (Lower)



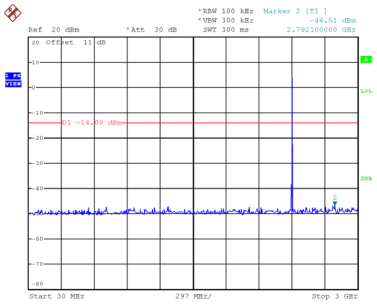
Date: 28.MAY.2021 11:20:35

Bandedge CH39 (Upper)

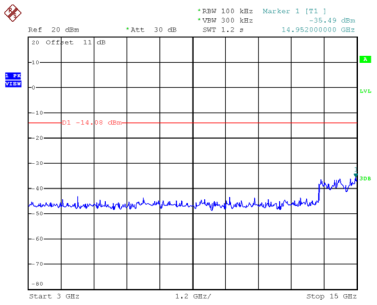


Date: 28.MAY.2021 11:23:42

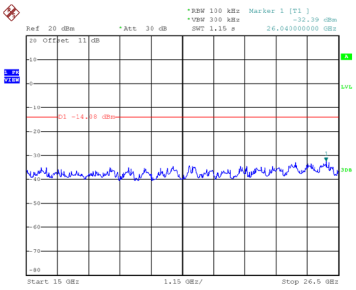
CH00 – 10th Harmonic of the fundamental frequency



Date: 28.MAY.2021 11:20:48

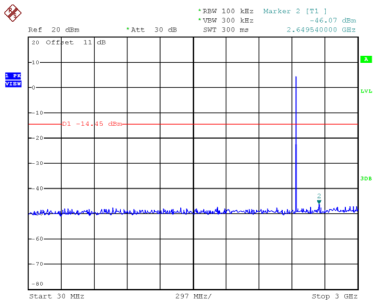


Date: 28.MAY.2021 11:20:56

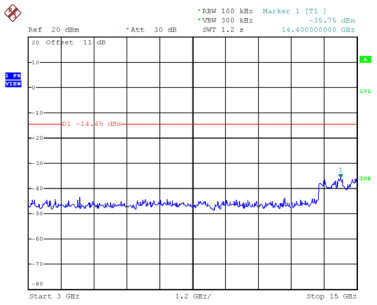


Date: 28.MAY.2021 11:21:03

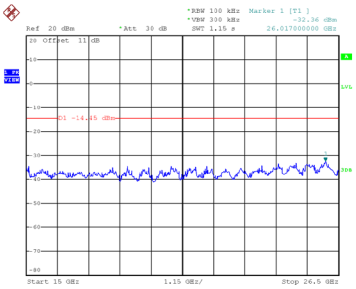
CH19 – 10th Harmonic of the fundamental frequency



Date: 28.MAY.2021 11:22:29

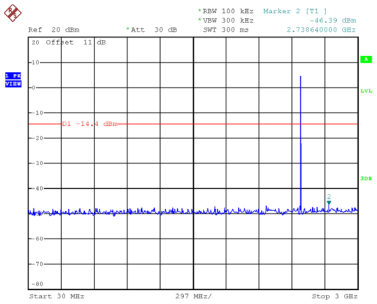


Date: 28.MAY.2021 11:22:37

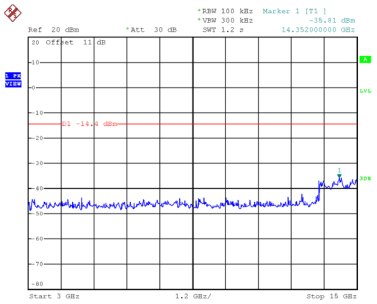


Date: 28.MAY.2021 11:22:44

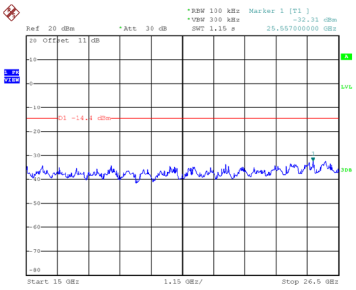
CH39 – 10th Harmonic of the fundamental frequency



Date: 28.MAY.2021 11:23:55



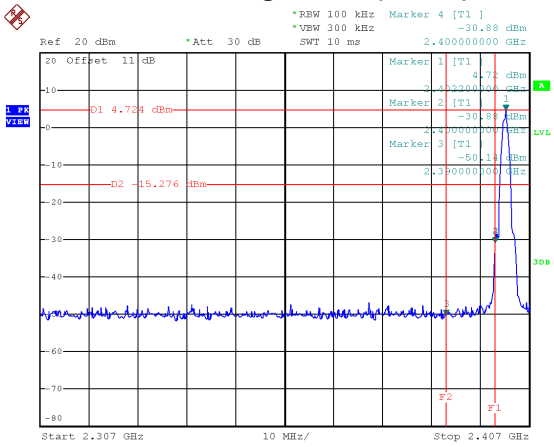
Date: 28.MAY.2021 11:24:03



Date: 28.MAY.2021 11:24:10

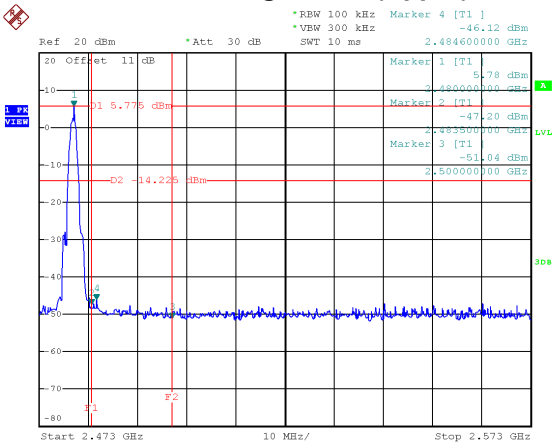
Test Mode	TX Mode _2Mbps

Bandedge CH00 (Lower)



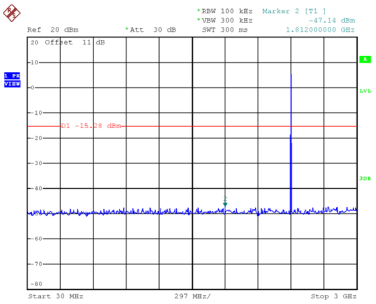
Date: 28.MAY.2021 11:25:37

Bandedge CH39 (Upper)

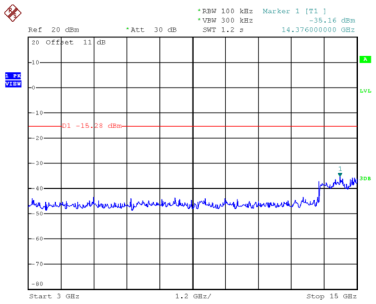


Date: 28.MAY.2021 11:28:55

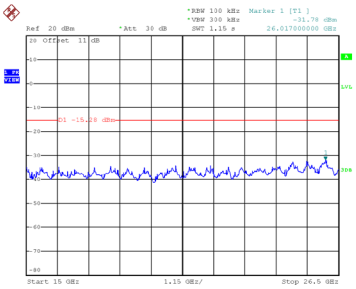
CH00 – 10th Harmonic of the fundamental frequency



Date: 28.MAY.2021 11:25:50

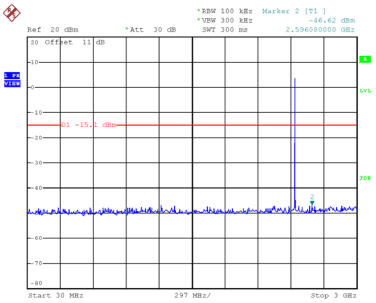


Date: 28.MAY.2021 11:25:58

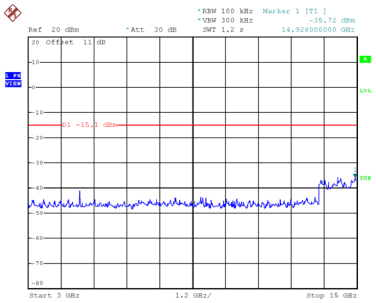


Date: 28.MAY.2021 11:26:05

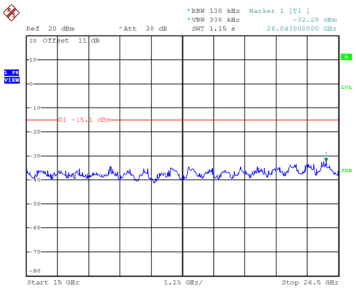
CH19 – 10th Harmonic of the fundamental frequency



Date: 28.MAY.2021 11:27:37

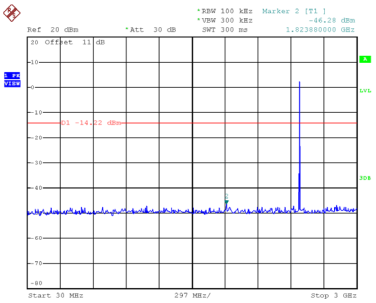


Date: 28.MAY.2021 11:27:44

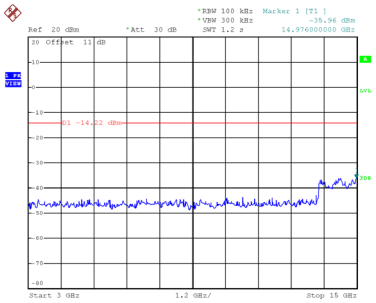


Date: 28.MAY.2021 11:27:52

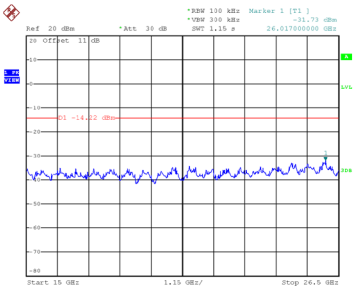
CH39 – 10th Harmonic of the fundamental frequency



Date: 28.MAY.2021 11:29:08



Date: 28.MAY.2021 11:29:16



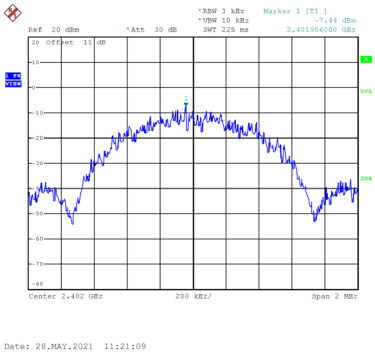
Date: 28.MAY.2021 11:29:24

APPENDIX H - POWER SPECTRAL DENSITY

Test Mode	TX Mode _1Mbps

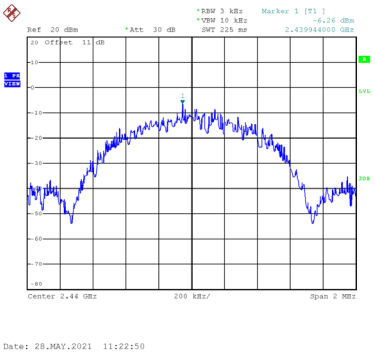
Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Max. Limit (dBm/3 kHz)	Test Result
00	2402	-7.44	8.00	Pass
19	2440	-6.26	8.00	Pass
39	2480	-8.07	8.00	Pass

CH00



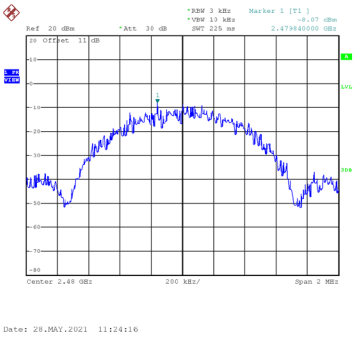
Date: 28.MAY.2021 11:21:09

CH19



Date: 28.MAY.2021 11:22:50

CH39

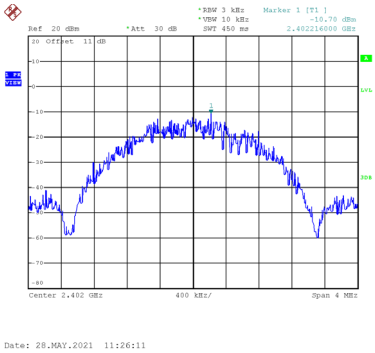


Date: 28.MAY.2021 11:24:16

Test Mode	TX Mode _2Mbps

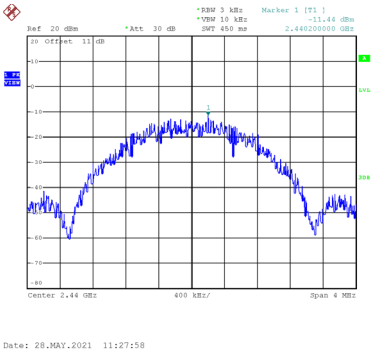
Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Max. Limit (dBm/3 kHz)	Test Result
00	2402	-10.70	8.00	Pass
19	2440	-11.44	8.00	Pass
39	2480	-12.16	8.00	Pass

CH00



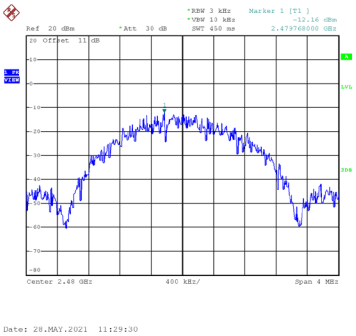
Date: 28.MAY.2021 11:26:11

CH19



Date: 28.MAY.2021 11:27:58

CH39



Date: 28.MAY.2021 11:29:30

End of Test Report