

FCC Radio Test Report

FCC ID: M82-EKI1362BE

This report concerns (check one): ☒ Original Grant ☐ Class I Change ☐ Class II Change

Project No. : 1711188A
Equipment : Ethernet Device
Test Model : EKI-1361-BE
Series Model : EKI-1362-BE, EKI-1361-MB-BE, EKI-1362-MB-BE,
 EKI-6333AC-A, EKI-1361XXXXXXXXXXXXXXXXXX,
 EKI-1362XXXXXXXXXXXXXXXXXX,
 EKI1361XXXXXXXXXXXXXXXXXX,
 EKI1362XXXXXXXXXXXXXXXXXX,
 EKI-6333ACXXXXXXXXXXXXXXXXXX,
 EKI6333ACXXXXXXXXXXXXXXXXXX
 (where "X" may be any alphanumeric character, blank
 or "-" .)
Applicant : Advantech Co., Ltd.
Address : No.1, Alley 20, Lane 26, Rueiguang Road, Neihu
 District, Taipei 11491, Taiwan, R.O.C.
Date of Receipt : May 02, 2018
Date of Test : May 02, 2018 ~ May 31, 2018
Issued Date : Aug. 14, 2018
Tested by : BTL Inc.

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B T L I N C .

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Declaration

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

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

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BTL's laboratory quality assurance procedures are in compliance with the **ISO Guide 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, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements 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.

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REPORT ISSUED HISTORY

Issued No.	Description	Issued Date
BTL-FCCP-1-1711188A	Original Issue.	Jun. 01, 2018
MTP1808050	Revised model name, series model and FCC ID.	Aug. 14, 2018

1. CERTIFICATION

Equipment : Ethernet Device
Brand Name : ADVANTECH
Test Model : EKI-1361-BE
Series Model : EKI-1362-BE, EKI-1361-MB-BE, EKI-1362-MB-BE, EKI-6333AC-A,
EKI-1361XXXXXXXXXXXXXXXXXX, EKI-1362XXXXXXXXXXXXXXXXXX,
EKI1361XXXXXXXXXXXXXXXXXX, EKI1362XXXXXXXXXXXXXXXXXX,
EKI-6333ACXXXXXXXXXXXXXXXXXX, EKI6333ACXXXXXXXXXXXXXXXXXX
(where "X" may be any alphanumeric character, blank or "-")
Applicant : Advantech Co., Ltd.
Manufacturer : Advantech Co., Ltd.
Address : No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 11491, Taiwan,
R.O.C.
Date of Test : May 02, 2018 ~ May 31, 2018
Test Sample : Production Unit
Standard(s) : FCC Part15, Subpart C:(15.247) / ANSI C63.10-2013

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

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1711188A) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

Test results included in this report is only for the WIFI 2.4GHz part.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15 (15.247) , Subpart C			
Standard(s) Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247(d)	Antenna conducted Spurious Emission	PASS	
15.247(a)(2)	6dB Bandwidth	PASS	
15.247(b)(3)	Peak Output Power	PASS	
15.247(e)	Power Spectral Density	PASS	
15.203	Antenna Requirement	PASS	
15.247(d)/ 15.205/ 15.209	Transmitter Radiated Emissions	PASS	

NOTE:

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

2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

Radiated emission Test (Below 1 GHz):

CB15: (VCCI RN: R-20020; FCC RN:674415; FCC DN:TW0659; ISED Assigned Code:20088-5)

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)

Radiated emission Test (Above 1 GHz):

CB15: (VCCI RN: G-20031; FCC RN:674415; FCC DN:TW0659; ISED Assigned Code:20088-5)

No. 68-1, Ln. 169, Sec. 2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan (R.O.C.)

2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{CISPR} requirement.

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

A. Radiated emission test:

Test Site	Method	Measurement Frequency Range	U , (dB)
CB15 (3m)	CISPR	9kHz ~ 150kHz	2.82
		150kHz ~ 30MHz	2.58

Test Site	Method	Measurement Frequency Range	Ant.	U , (dB)
CB15 (3m)	CISPR	30MHz ~ 200MHz	V	4.20
		30MHz ~ 200MHz	H	3.64
		200MHz ~ 1,000MHz	V	4.56
		200MHz ~ 1,000MHz	H	3.90

Test Site	Method	Measurement Frequency Range	Ant.	U , (dB)
CB15 (3m)	CISPR	1GHz ~ 6GHz	V	4.46
		1GHz ~ 6GHz	H	4.40
		6GHz ~ 18GHz	V	3.88
		6GHz ~ 18GHz	H	4.00

Test Site	Method	Measurement Frequency Range	U , (dB)
CB15 (1m)	CISPR	18 ~ 26.5 GHz	4.62
		26.5 ~ 40 GHz	5.12

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above.

These are our U_{lab} values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called U_{CISPR} , as follows:

Conducted Disturbance (mains port) – 150 kHz – 30 MHz: 3.6 dB

Radiated Disturbance (electric field strength on an open area test site or alternative test site) – 30 MHz – 1000 MHz: 5.2 dB

It can be seen that our U_{lab} values are smaller than U_{CISPR} .

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Ethernet Device		
Brand Name	ADVANTECH		
Test Model	EKI-1361-BE		
Series Model	EKI-1362-BE, EKI-1361-MB-BE, EKI-1362-MB-BE, EKI-6333AC-A, EKI-1361XXXXXXXXXXXXXXXXXX, EKI-1362XXXXXXXXXXXXXXXXXX, EKI1361XXXXXXXXXXXXXXXXXX, EKI1362XXXXXXXXXXXXXXXXXX, EKI-6333ACXXXXXXXXXXXXXXXXXX, EKI6333ACXXXXXXXXXXXXXXXXXX (where "X" may be any alphanumeric character, blank or "-".)		
Model Difference	Different model distribute to different area. Nameplate is different.		
	Model Name	EKI-1361-BE	EKI-1362-BE
	Port	1	No Port
Power Source	Supplied from battery		
Power Rating	DC 12~48V		
Products Covered	Radio module: ADVANTECH / EWM-W163M201E		
Operation Frequency	2412~2462 MHz		
Modulation Technology	802.11b:DSSS 802.11g:OFDM 802.11n:OFDM		
Bit Rate of Transmitter	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n up to 300 Mbps		
Output Power (Max.)	802.11b: 18.11dBm 802.11g: 22.51dBm 802.11n(20MHz): 21.82dBm 802.11n(40MHz): 21.56dBm		

Note:

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

CH01 – CH11 for 802.11b, 802.11g, 802.11n(20MHz) CH03 - CH09 for 802.11n(40MHz)							
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. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Invax	AN2450-92K01BRS	Dipole	R-SMA	5.03
2	Invax	AN2450-92K01BRS	Dipole	R-SMA	5.03

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R) and employs Cyclic Delay Diversity (CDD).

In CDD mode,

For power spectral density:

Direction gain (dBi) =

$$10 \cdot \log\{[10^{(G1/20)} + 10^{(G2/20)} + \dots + 10^{(Gn/20)}]^2 / N_{ANT}\} = 8.04 \text{ dBi} > 6 \text{ dBi}.$$

The reduced power spectral density limits (dBm/MHz) = 8 - (8.04 - 6) = 5.96

For conducted power:

For $N_{ANT} = 2 < 5$,

$$\text{Direction gain (dBi)} = G_{ANT} + 0 = 5.03 + 0 = 5.03$$

The Direction gain is less than 6, so conducted power limits will not be reduced.

Operating Mode / TX Mode	2TX
802.11b	V (ANT 1+ANT 2)
802.11g	V (ANT 1+ANT 2)
802.11n(20MHz)	V (ANT 1+ANT 2)
802.11n(40MHz)	V (ANT 1+ANT 2)

3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09
Mode 5	TX N-40M MODE CHANNEL 06

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

For Conducted Test	
Final Test Mode	Description
Mode 5	TX N-40M MODE CHANNEL 06

For Radiated 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-20MHZ MODE CHANNEL 01/06/11
Mode 4	TX N-40MHZ MODE CHANNEL 03/06/09

Note:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) 802.11b mode: DBPSK (1Mbps)
802.11g mode: OFDM (6Mbps)
802.11n HT20 mode : BPSK (13Mbps)
For radiated emission tests, the highest output powers were set for final test.
- (3) For radiated below 1G test, the 802.11 N-40M MODE 2452MHz is found to be the worst case and recorded.

3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN

Test software version	Putty		
Frequency (MHz)	2412	2437	2462
802.11b	11	11	11
802.11g	12	12	12
802.11n (20MHz)	12	12	12
Frequency	2422	2437	2452
802.11n (40MHz)	12	12	11

3.4 DUTY CYCLE

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

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

IEEE 802.11b Ref 20 dBm *Att 30 dB RBW 1 MHz Delta 2 [T1] -0.11 dB *VBW 1 MHz Delta 2 [T1] 13.020000 ms SWT 20 ms Marker 1 [T1] 6.25 dBm Delta 2 [T1] 1.920000 ms Delta 3 [T1] 0.00 dB Delta 4 [T1] 12.540000 ms Center 2.412 GHz 2 ms/ Date: 30.MAY.2018 14:21:08 Duty cycle = 12.540 ms / 13.020 ms = 96.31 % Duty Factor = $10 * \log(1 / 0.9631) = 0.16$	IEEE 802.11g Ref 20 dBm *Att 30 dB RBW 1 MHz Delta 2 [T1] 0.06 dB *VBW 1 MHz Delta 2 [T1] 2.260000 ms SWT 5 ms Marker 1 [T1] 4.70 dBm Delta 2 [T1] 1.600000 ms Delta 3 [T1] 0.00 dB Delta 4 [T1] 2.070000 ms Center 2.412 GHz 500 μs/ Date: 30.MAY.2018 14:44:34 Duty cycle = 2.070 ms / 2.260 ms = 91.59 % Duty Factor = $10 * \log(1 / 0.9159) = 0.38$
IEEE 802.11n (20 MHz) Ref 20 dBm *Att 30 dB RBW 1 MHz Delta 2 [T1] -1.21 dB *VBW 1 MHz Delta 2 [T1] 4.780000 ms SWT 10 ms Marker 1 [T1] 5.41 dBm Delta 2 [T1] 3.820000 ms Delta 3 [T1] 0.00 dB Delta 4 [T1] 4.780000 ms Center 2.412 GHz 1 ms/ Date: 30.MAY.2018 15:31:47 Duty cycle = 3.820 ms / 4.780 ms = 79.92 % Duty Factor = $10 * \log(1 / 0.7992) = 0.97$	IEEE 802.11n (40 MHz) Ref 20 dBm *Att 30 dB RBW 1 MHz Delta 2 [T1] 1.24 dB *VBW 1 MHz Delta 2 [T1] 4.840000 ms SWT 10 ms Marker 1 [T1] -1.70 dBm Delta 2 [T1] 1.700000 ms Delta 3 [T1] 0.00 dB Delta 4 [T1] 3.680000 ms Center 2.422 GHz 1 ms/ Date: 30.MAY.2018 16:50:20 Duty cycle = 3.680 ms / 4.840 ms = 76.03 % Duty Factor = $10 * \log(1 / 0.7603) = 1.19$

Note:

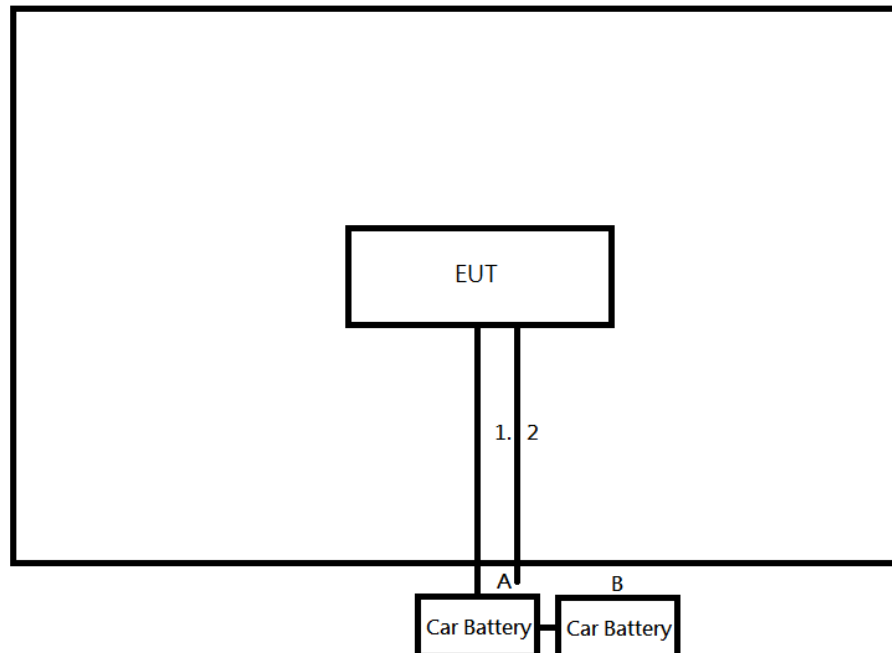
For IEEE 802.11b, IEEE 802.11g and IEEE 802.11n (20 MHz):

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 (40 MHz):

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

3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.6 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
A	Car Battery	Panasonic	46B24L	N/A	N/A
B	Car Battery	YUASA	55B24L(S)-SMF	N/A	N/A

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	1.5m	Car Battery Power Cable
2	NO	NO	5.0m	RJ45 Cable

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150KHz-30MHz)

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 -0.50	66 to 56*	56 to 46*
0. 0 -5.0	56	46
5.0 -30.0	60	50

Note:

- (1) The limit of " * " decreases with the logarithm of the frequency
- (2) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
 Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

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

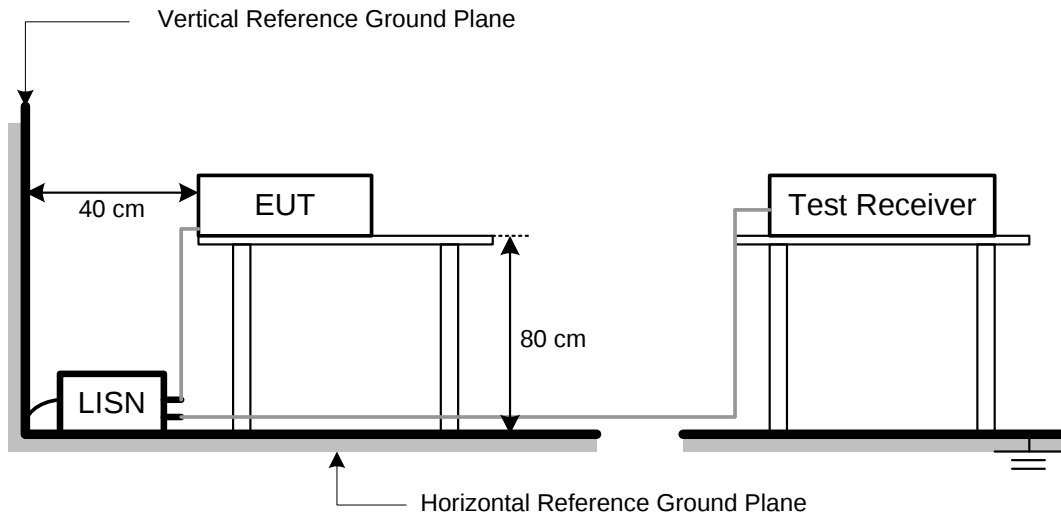
4.1.2 TEST PROCEDURE

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

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP



4.1.5 EUT OPERATING CONDITIONS

The EUT was placed on the test table and programmed in normal function.

4.1.6 EUT TEST CONDITIONS

Temperature: 24°C Relative Humidity: 50% Test Voltage: DC 24V

4.1.7 TEST RESULTS

Please refer to the Appendix A.

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

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 (9KHz-1000MHz)

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
960~1000	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (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)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average

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

4.2.2 TEST PROCEDURE

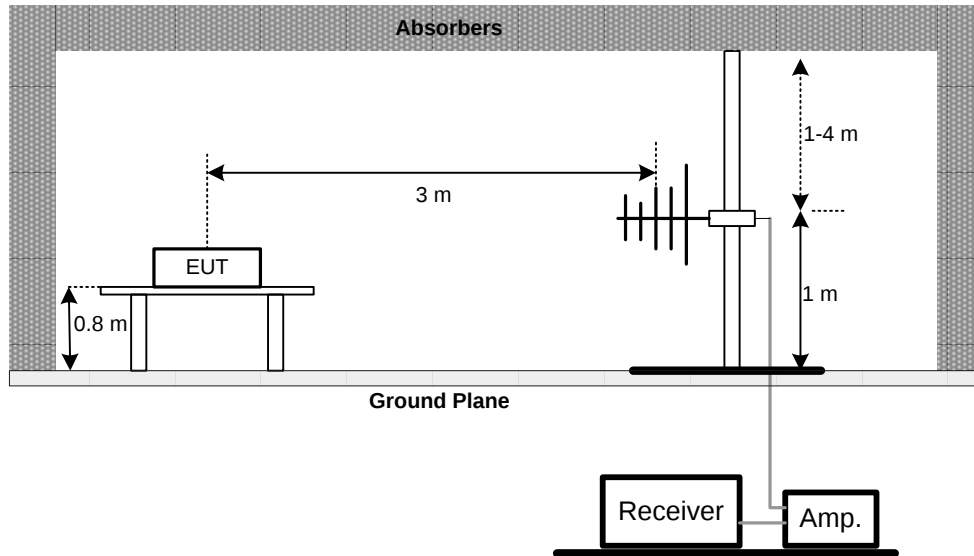
- The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)
- The measuring distance of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

4.2.3 DEVIATION FROM TEST STANDARD

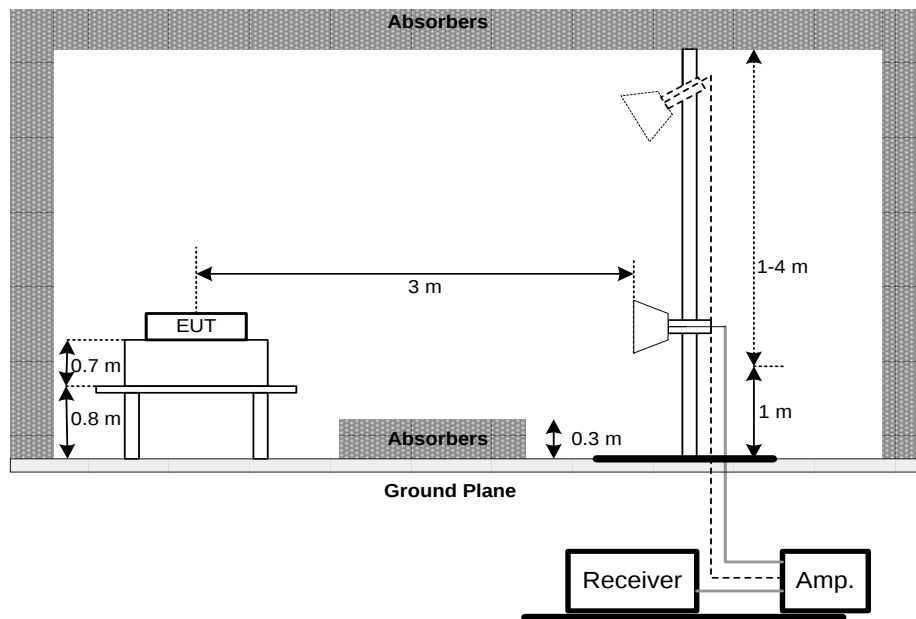
No deviation

4.2.4 TEST SETUP

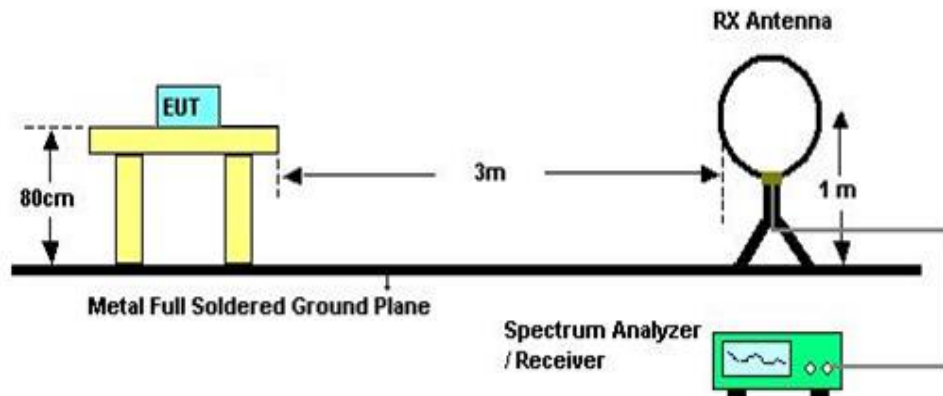
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz Band edge



(C) For Radiated Emissions Below 30MHz



4.2.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

4.2.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 24V

4.2.7 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the Appendix B

Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB).
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

4.2.8 TEST RESULTS (30MHZ TO 1000 MHZ)

Please refer to the Appendix C.

4.2.9 TEST RESULTS (ABOVE 1000 MHZ)

Please refer to the Appendix D.

Remark:

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

5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES

FCC Part15 (15.247) , Subpart C			
Section	Test Item	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	2400-2483.5	PASS

5.1.1 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= 100KHz, VBW=300KHz, Sweep time = 2.5 ms.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

5.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 24V

5.1.6 TEST RESULTS

Please refer to the Appendix E.

6. MAXIMUM PEAK CONDUCTED OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Maximum Output Power	1 Watt or 30dBm	2400-2483.5	PASS

6.1.1 TEST PROCEDURE

- The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,
- The maximum peak conducted output power was performed in accordance with method 9.1.2 of FCC KDB 558074 D01 DTS Meas Guidance.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

6.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 24V

6.1.6 TEST RESULTS

Please refer to the Appendix F.

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits.

7.1.1 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= 100KHz, VBW=300KHz, Sweep time = Auto.
- Offset=antenna gain+cable loss

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP



7.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

7.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 24V

7.1.6 TEST RESULTS

Please refer to the Appendix G.

8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e)	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

8.1.1 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=3KHz, VBW=10KHz, Sweep time = Auto.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP



8.1.4 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

8.1.5 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 55% Test Voltage: DC 24V

8.1.6 TEST RESULTS

Please refer to the Appendix H.

9. MEASUREMENT INSTRUMENTS LIST

Conducted Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	TWO-LINE V-NETWORK	R&S	ENV216	101050	Mar. 08, 2019
2	Test Cable	EMCI	EMCCFD300-B M-BMR-6000	170715	Aug. 08, 2018
3	EMI Test Receiver	R&S	ESR7	101433	Dec. 10, 2018
4	Measurement Software	EZ	EZ_EMC(Version NB-03A)	N/A	N/A

Radiated Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Preamplifier	EMCI	012645B	980267	Feb. 27, 2019
2	Preamplifier	EMCI	EMC02325	980217	Dec. 27, 2019
3	Preamplifier	EMCI	EMC2654045	980030	Feb. 13, 2019
4	Test Cable	EMCI	EMC104-SM-S M-8000	8m	Jan. 03, 2019
5	Test Cable	EMCI	EMC104-SM-S M-800	150207	Jan. 03, 2019
6	Test Cable	EMCI	EEMC104-SM-S M-3000	151205	Jan. 03, 2019
7	MXE EMI Receiver	Agilent	N9038A	MY55420127	Jan. 08, 2019
8	Signal Analyzer	Agilent	N9010A	MY52220990	Feb. 21, 2019
9	Loop Ant	EMCI	LPA600	274	May 03, 2019
10	Horn Ant	SCHWARZBECK	BBHA 9120D	9120D-1342	Feb. 27, 2019
11	Horn Ant	Schwarzbeck	BBHA 9170	187	Dec. 05, 2018
12	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-548	Jan. 15, 2019
13	5dB Attenuator	EMCI	EMCI-N-6-05	AT-N0623	Jan. 15, 2019

6dB Bandwidth Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	R&S/FSP30	100854	May 24, 2019

Peak Output Power Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Anritsu	ML2495A	1128008	Aug. 16, 2018
2	Power Sensor	Anritsu	MA2411B	1126001	Aug. 16, 2018

Antenna Conducted Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	R&S/FSP30	100854	May 24, 2019

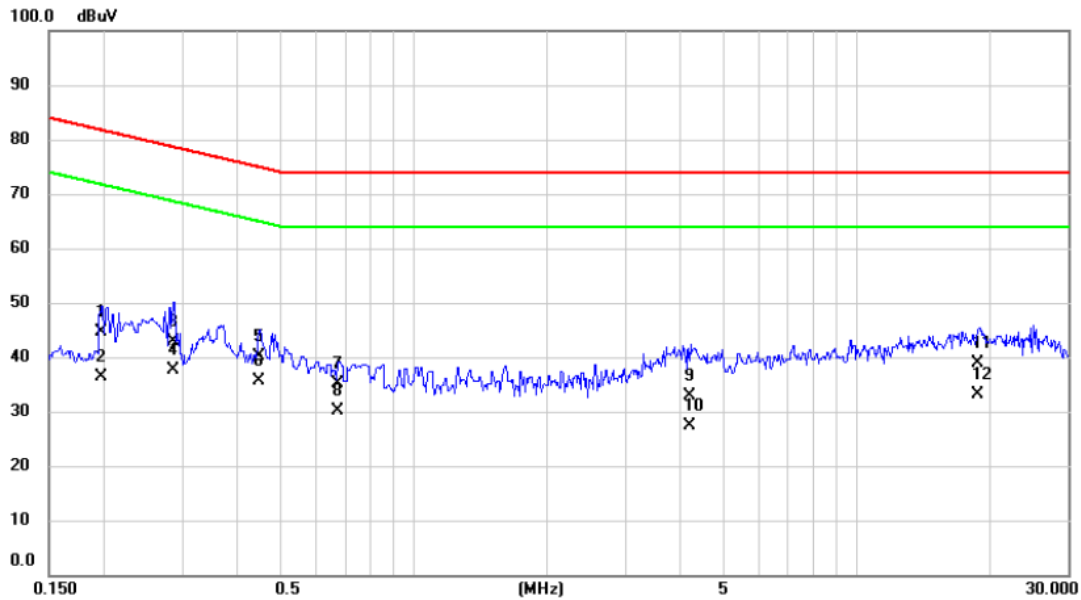
Power Spectral Density Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	R&S/FSP30	100854	May 24, 2019

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

APPENDIX A - CONDUCTED EMISSION

Test Mode: TX N-40M MODE 2437MHz

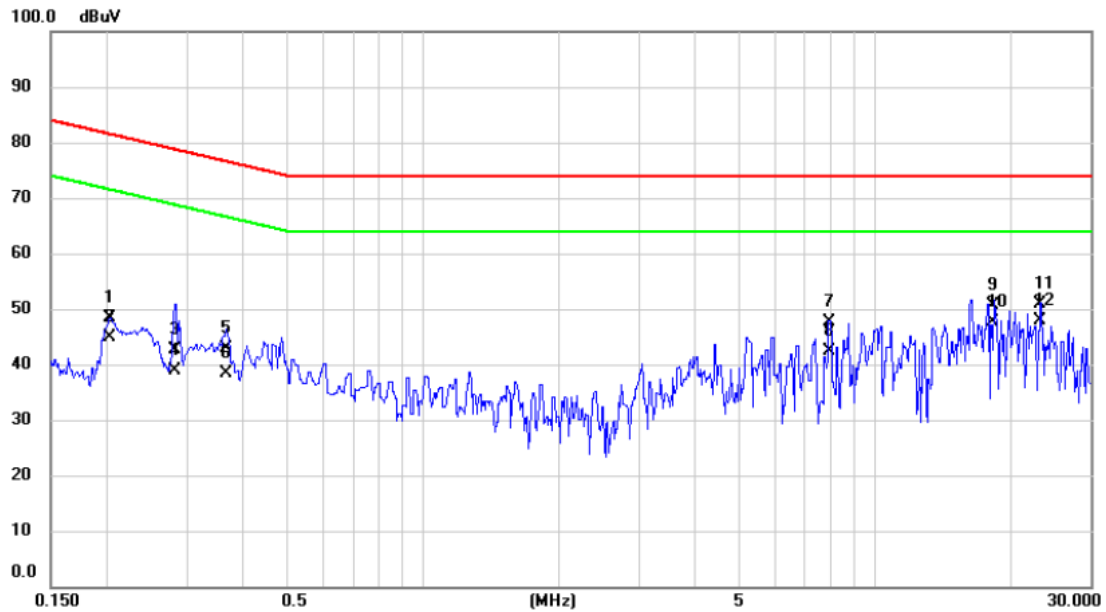
Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1974	34.60	9.93	44.53	81.72	-37.19	QP	
2		0.1974	26.40	9.93	36.33	71.72	-35.39	AVG	
3		0.2863	32.80	10.00	42.80	78.63	-35.83	QP	
4		0.2863	27.60	10.00	37.60	68.63	-31.03	AVG	
5		0.4481	30.20	9.90	40.10	74.91	-34.81	QP	
6	*	0.4481	25.70	9.90	35.60	64.91	-29.31	AVG	
7		0.6730	25.08	9.93	35.01	74.00	-38.99	QP	
8		0.6730	20.11	9.93	30.04	64.00	-33.96	AVG	
9		4.1890	22.80	9.99	32.79	74.00	-41.21	QP	
10		4.1898	17.50	9.99	27.49	64.00	-36.51	AVG	
11		18.8000	28.50	10.34	38.84	74.00	-35.16	QP	
12		18.8000	22.70	10.34	33.04	64.00	-30.96	AVG	

Test Mode: TX N-40M MODE 2437MHz

Neutral

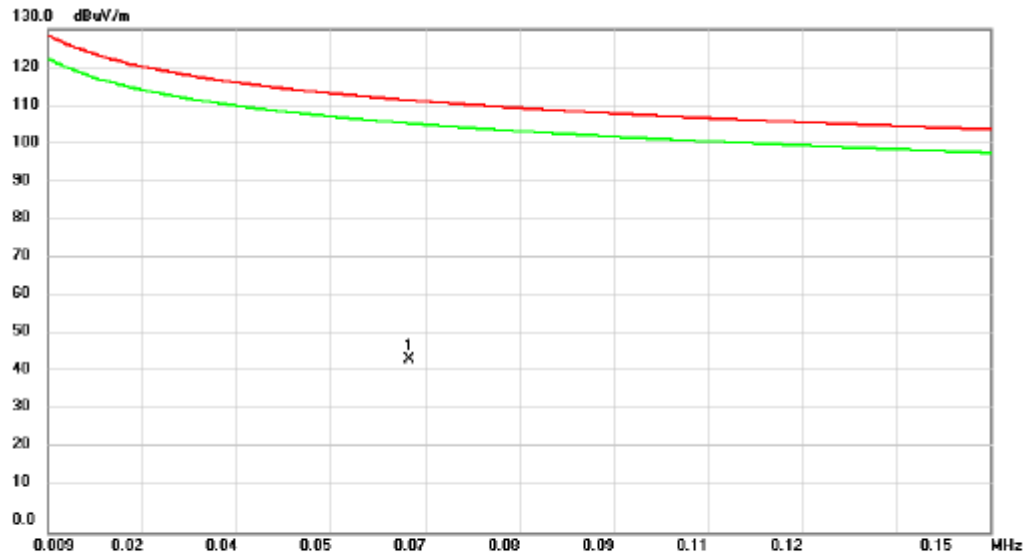


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2020	38.40	9.93	48.33	81.53	-33.20	QP	
2		0.2020	34.90	9.93	44.83	71.53	-26.70	AVG	
3		0.2830	32.70	10.00	42.70	78.73	-36.03	QP	
4		0.2830	28.90	10.00	38.90	68.73	-29.83	AVG	
5		0.3657	32.90	9.94	42.84	76.60	-33.76	QP	
6		0.3657	28.40	9.94	38.34	66.60	-28.26	AVG	
7		7.9200	37.60	9.99	47.59	74.00	-26.41	QP	
8		7.9200	32.40	9.99	42.39	64.00	-21.61	AVG	
9		18.2600	40.40	10.33	50.73	74.00	-23.27	QP	
10		18.2600	37.30	10.33	47.63	64.00	-16.37	AVG	
11		23.1900	40.50	10.42	50.92	74.00	-23.08	QP	
12	*	23.1900	37.50	10.42	47.92	64.00	-16.08	AVG	

APPENDIX B - RADIATED EMISSION (9KHZ TO 30MHZ)

Test Mode: TX Mode

Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	0.0630	24.36	20.41	44.77	111.62	-66.85	peak	

Test Mode: TX Mode

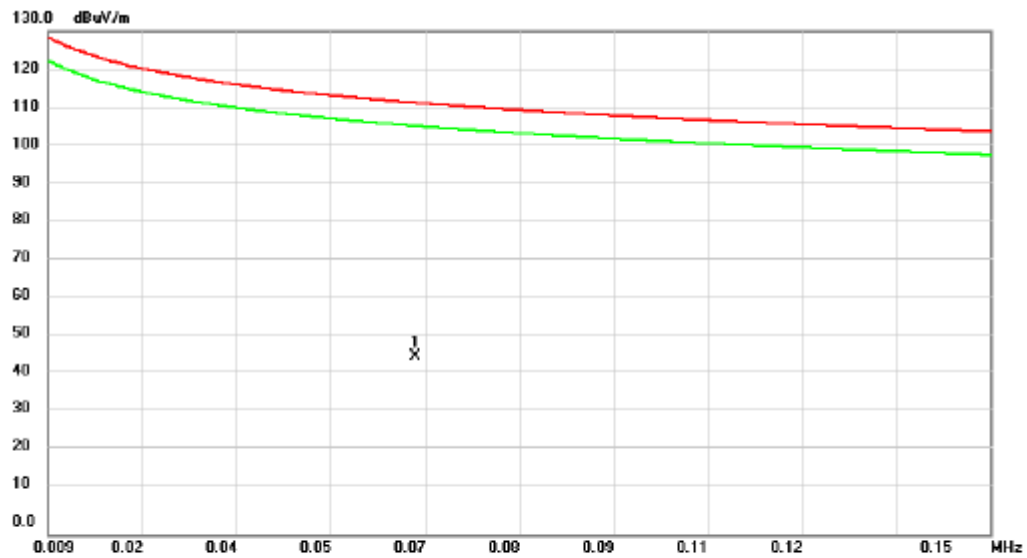
Ant 0°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		0.2096	29.95	10.03	39.98	101.18	-61.20	peak	
2	*	2.5977	30.70	-3.37	27.33	69.54	-42.21	peak	
3		5.4633	30.50	-3.97	26.53	69.54	-43.01	peak	
4		8.4481	30.56	-4.49	26.07	69.54	-43.47	peak	
5		11.4032	30.50	-4.81	25.69	69.54	-43.85	peak	Band Edge
6		13.7614	30.59	-4.82	25.77	69.54	-43.77	peak	

Test Mode: TX Mode

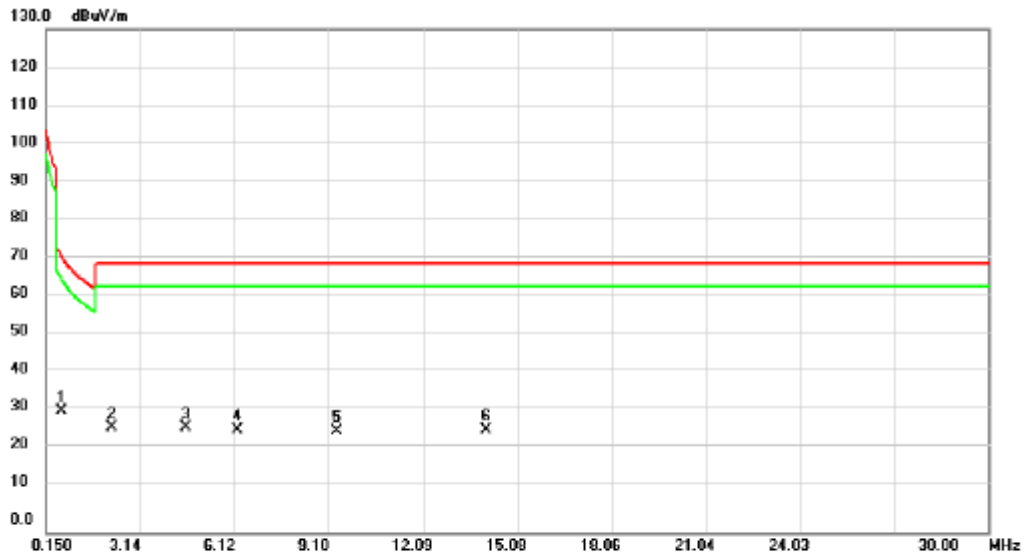
Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0640	25.77	20.25	46.02	111.48	-65.46	peak	

Test Mode: TX Mode

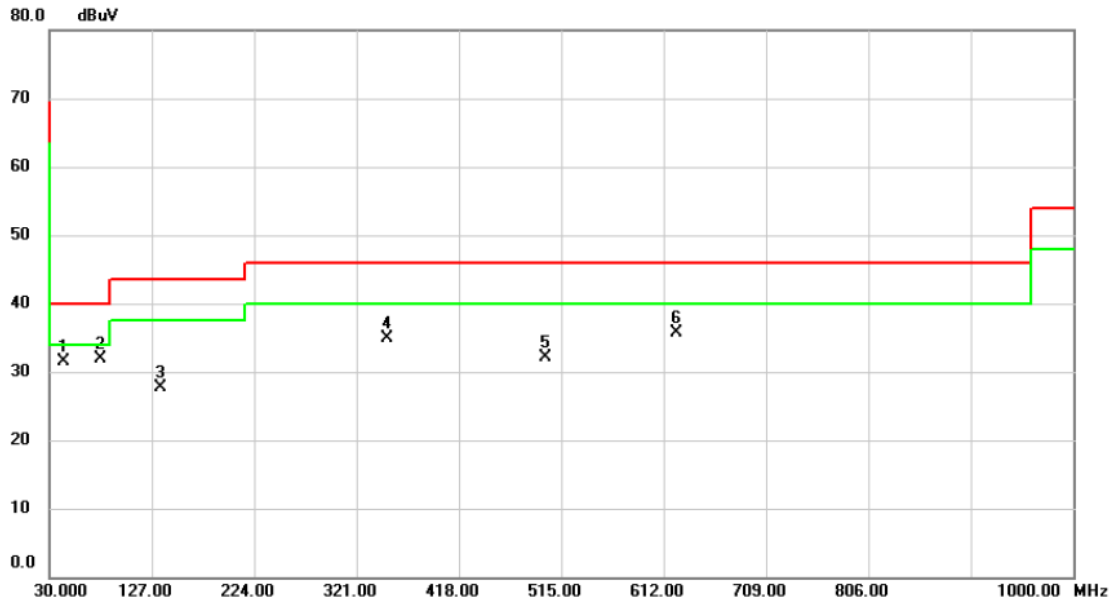
Ant 90°



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	0.6572	29.47	1.88	31.35	71.25	-39.90	peak	
2		2.2395	30.36	-3.11	27.25	69.54	-42.29	peak	
3		4.5975	30.96	-3.88	27.08	69.54	-42.46	peak	
4		6.2393	30.54	-4.05	26.49	69.54	-43.05	peak	
5		9.3734	30.95	-4.71	26.24	69.54	-43.30	peak	
6		14.0900	31.32	-4.84	26.48	69.54	-43.06	peak	

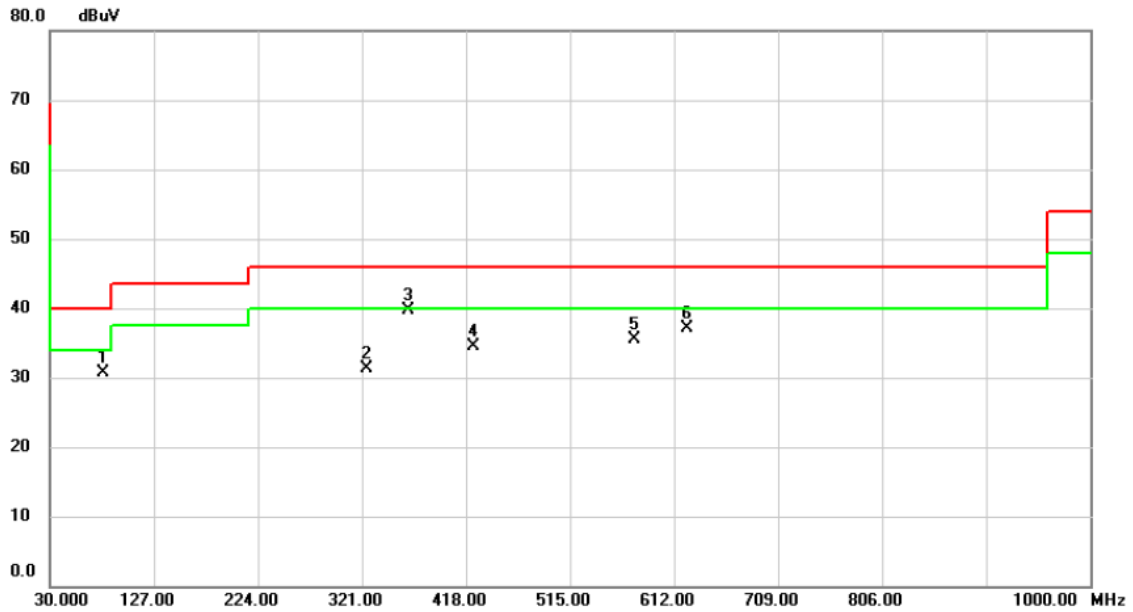
APPENDIX C - RADIATED EMISSION (30MHZ TO 1000MHZ)

Test Mode	TX N-40M MODE 2452MHz	Polarization	Vertical
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		43.5800	39.82	-8.32	31.50	40.00	-8.50	peak	
2	*	78.5000	44.13	-12.25	31.88	40.00	-8.12	peak	
3		134.7600	37.15	-9.40	27.75	43.50	-15.75	peak	
4		350.1000	41.19	-6.20	34.99	46.00	-11.01	peak	
5		499.4800	35.13	-2.93	32.20	46.00	-13.80	peak	
6		624.6100	35.77	-0.11	35.66	46.00	-10.34	peak	

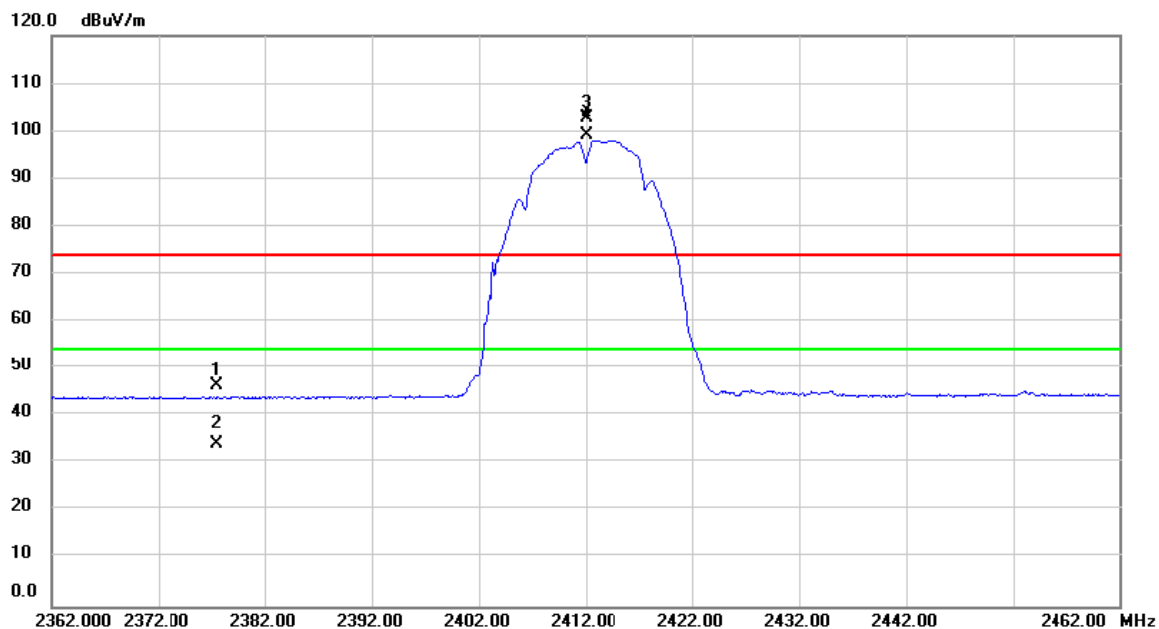
Test Mode	TX N-40M MODE 2452MHz	Polarization	Horizontal
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		79.4700	43.15	-12.42	30.73	40.00	-9.27	peak	
2		324.8800	38.18	-6.86	31.32	46.00	-14.68	peak	
3	*	363.6800	45.53	-5.89	39.64	46.00	-6.36	peak	
4		424.7900	38.93	-4.44	34.49	46.00	-11.51	peak	
5		575.1400	36.73	-1.21	35.52	46.00	-10.48	peak	
6		624.6100	37.26	-0.11	37.15	46.00	-8.85	peak	

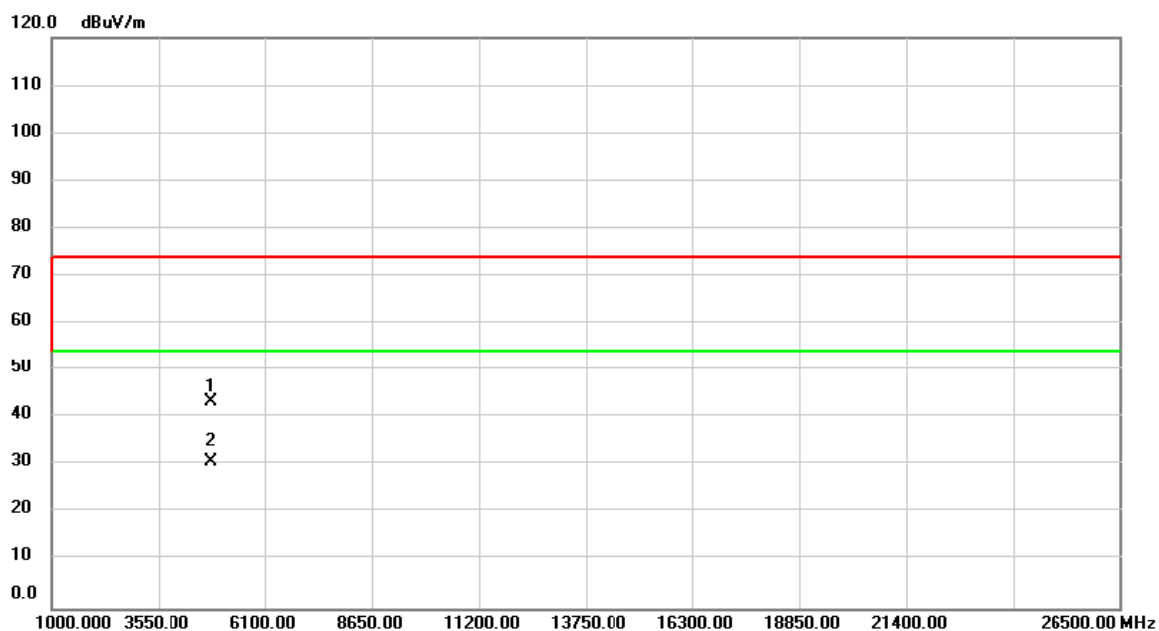
APPENDIX D - RADIATED EMISSION (ABOVE 1000MHZ)

Test Mode	TX B MODE _2412 MHz	Polarization	Vertical
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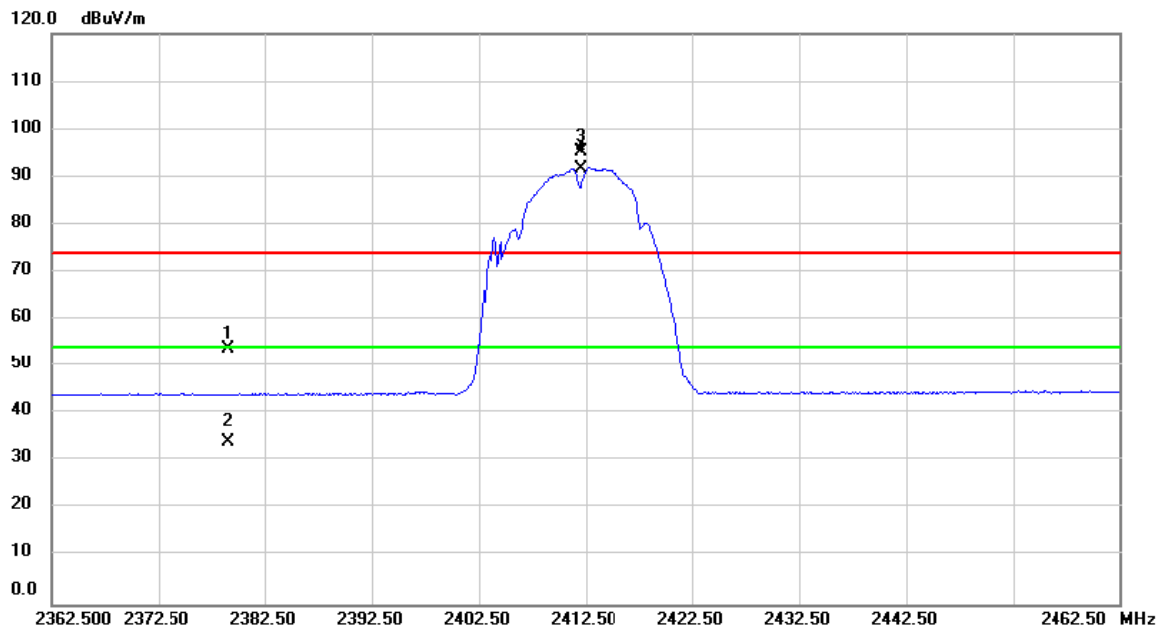
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2377.596	15.30	30.92	46.22	74.00	-27.78	peak	
2		2377.596	3.21	30.92	34.13	54.00	-19.87	AVG	
3	X	2412.000	71.77	31.07	102.84	74.00	28.84	peak	No Limit
4	*	2412.000	68.01	31.07	99.08	54.00	45.08	AVG	No Limit

Test Mode	TX B MODE _2412 MHz	Polarization	Vertical
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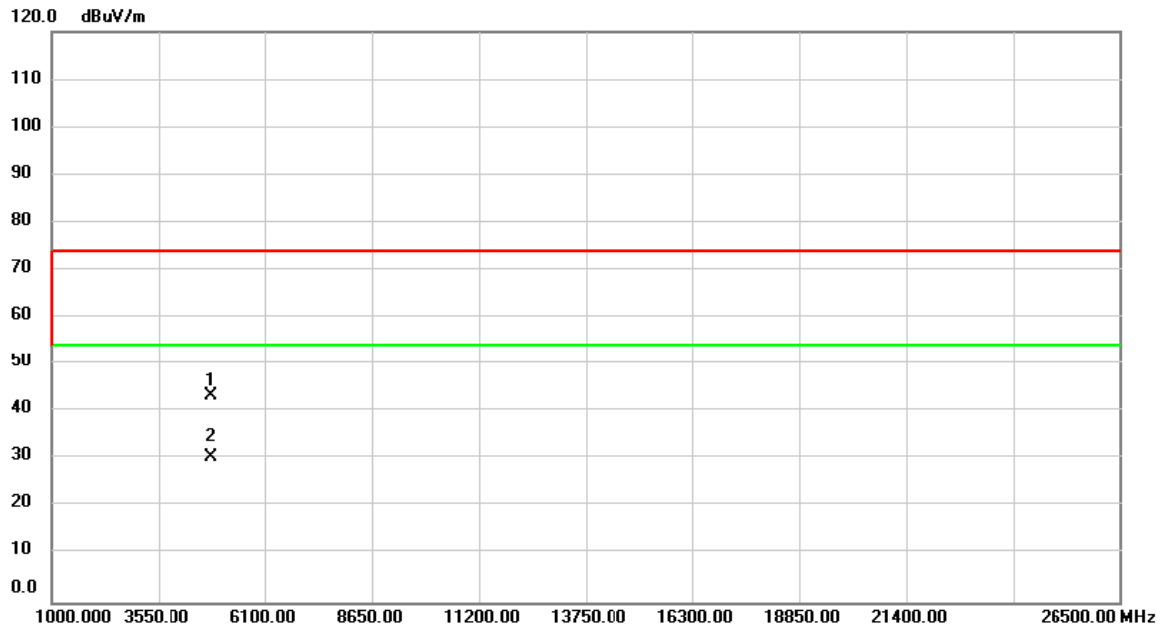
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	54.66	-11.45	43.21	74.00	-30.79	peak	
2	*	4824.000	42.11	-11.45	30.66	54.00	-23.34	AVG	

Test Mode	TX B MODE _2412 MHz	Polarization	Horizontal
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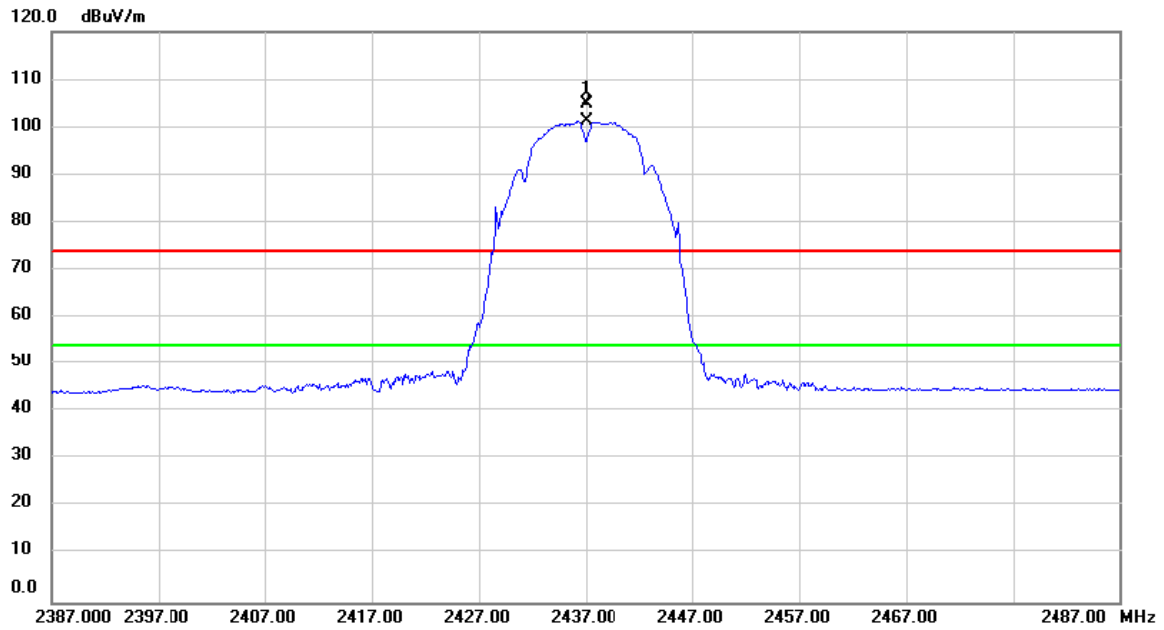
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2379.055	22.96	30.94	53.90	74.00	-20.10	peak	
2		2379.055	3.16	30.94	34.10	54.00	-19.90	AVG	
3	X	2412.000	64.26	31.07	95.33	74.00	21.33	peak	No Limit
4	*	2412.000	60.72	31.07	91.79	54.00	37.79	AVG	No Limit

Test Mode	TX B MODE _2412 MHz	Polarization	Horizontal
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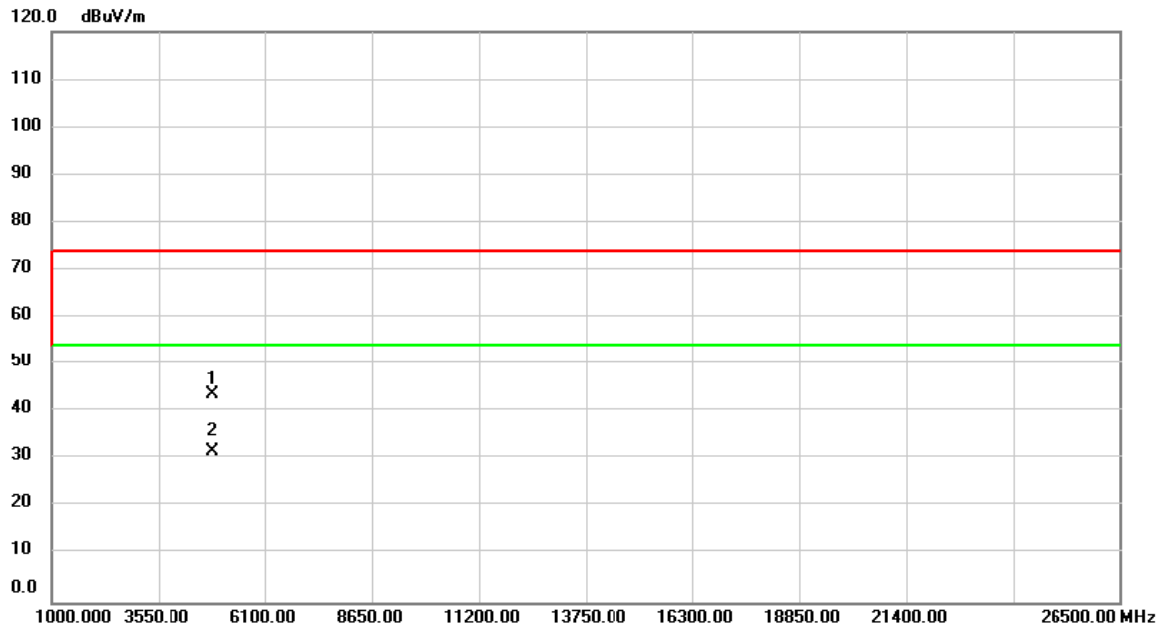
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	54.84	-11.45	43.39	74.00	-30.61	peak	
2	*	4824.000	42.02	-11.45	30.57	54.00	-23.43	AVG	

Test Mode	TX B MODE _2437 MHz	Polarization	Vertical
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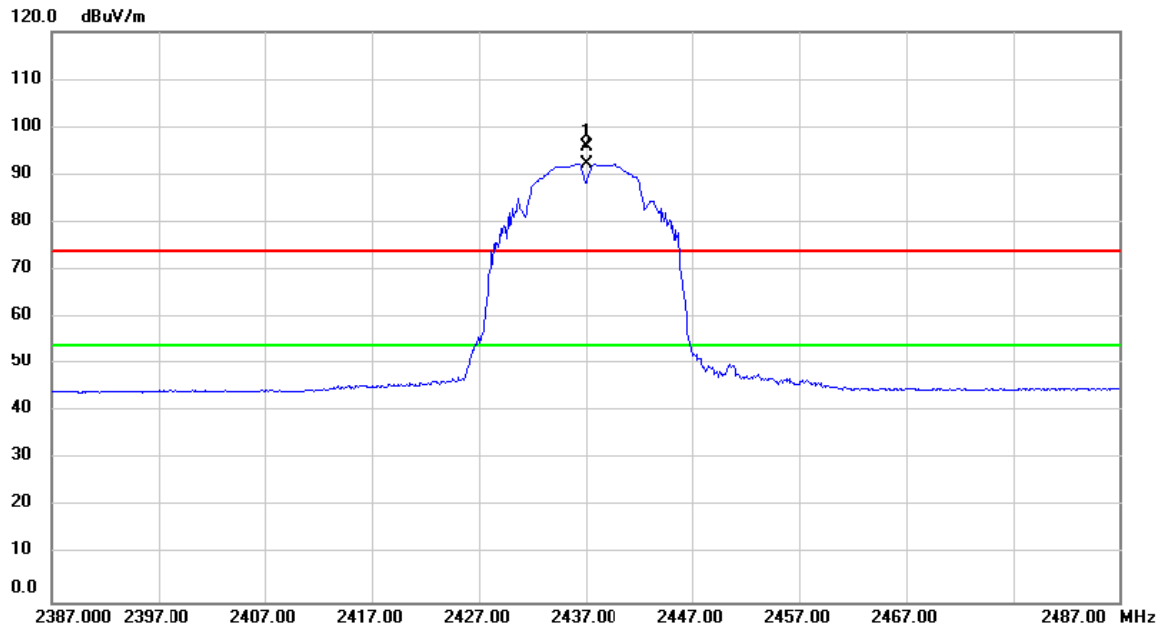
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2437.000	73.60	31.18	104.78	74.00	30.78	peak	No Limit
2	*	2437.000	69.99	31.18	101.17	54.00	47.17	AVG	No Limit

Test Mode	TX B MODE _2437 MHz	Polarization	Vertical
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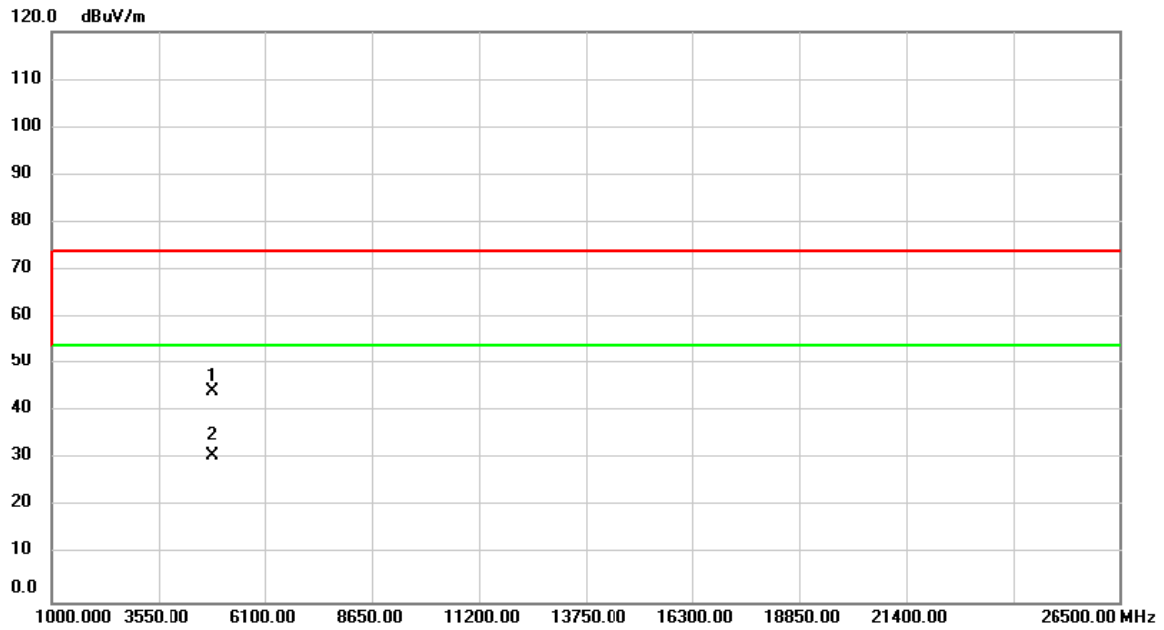
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	55.17	-11.37	43.80	74.00	-30.20	peak	
2	*	4874.000	43.05	-11.37	31.68	54.00	-22.32	AVG	

Test Mode	TX B MODE _2437 MHz	Polarization	Horizontal
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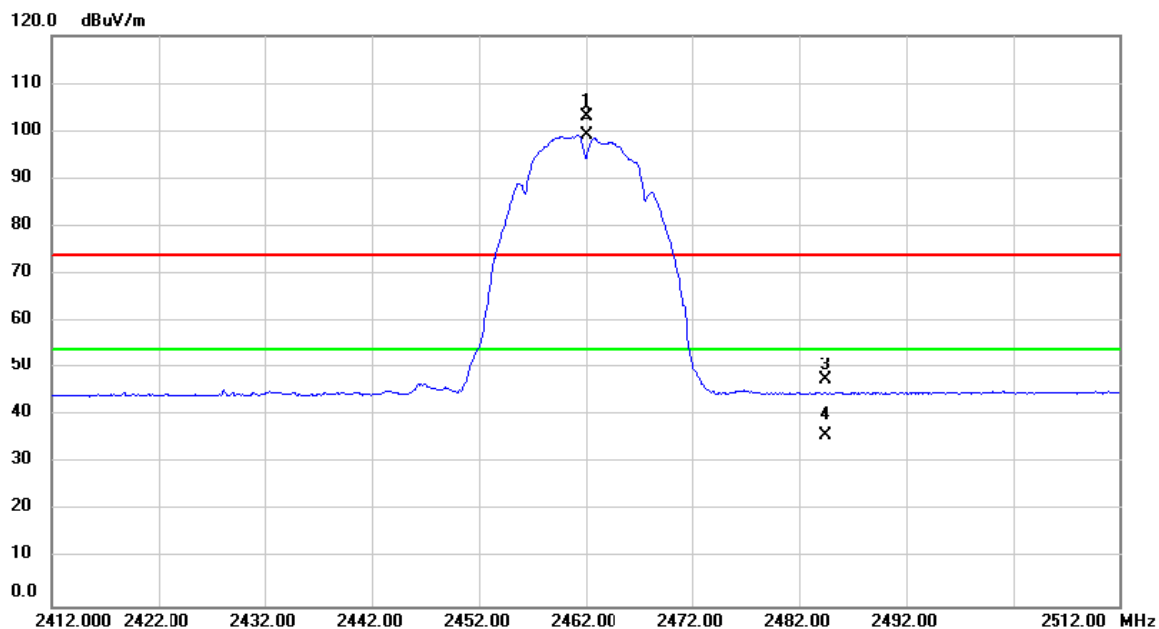
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2437.000	64.55	31.18	95.73	74.00	21.73	peak	No Limit
2	*	2437.000	61.21	31.18	92.39	54.00	38.39	AVG	No Limit

Test Mode	TX B MODE _2437 MHz	Polarization	Horizontal
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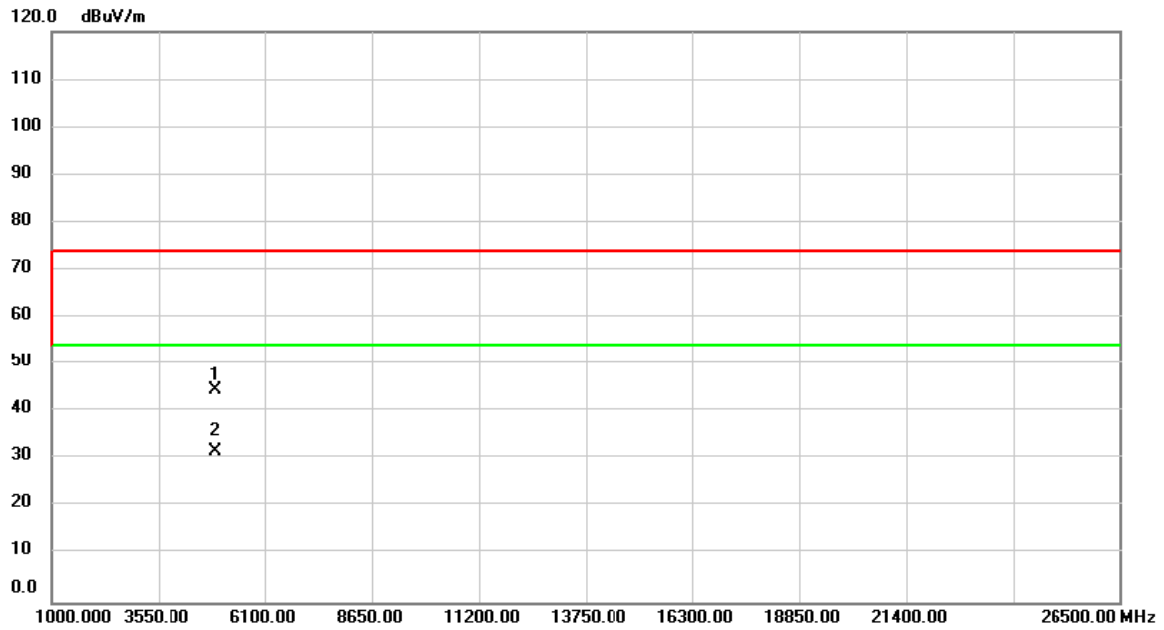
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	55.62	-11.37	44.25	74.00	-29.75	peak	
2	*	4874.000	42.22	-11.37	30.85	54.00	-23.15	AVG	

Test Mode	TX B MODE _2462 MHz	Polarization	Vertical
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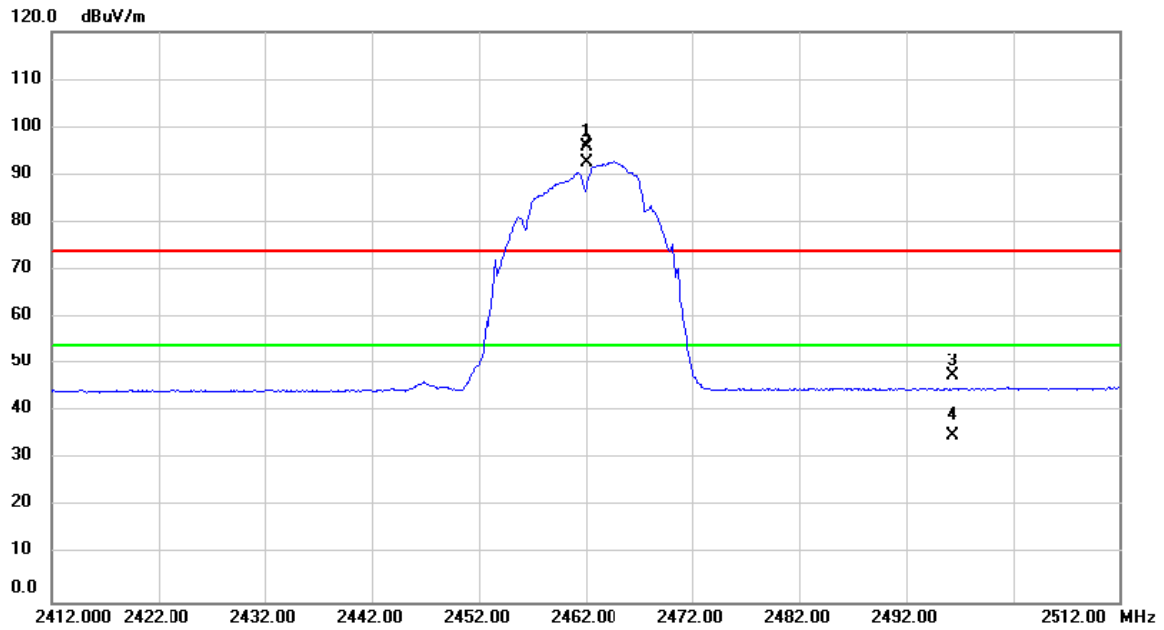
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.000	71.78	31.27	103.05	74.00	29.05	peak	No Limit
2	*	2462.000	68.02	31.27	99.29	54.00	45.29	AVG	No Limit
3		2484.445	16.23	31.37	47.60	74.00	-26.40	peak	
4		2484.445	4.55	31.37	35.92	54.00	-18.08	AVG	

Test Mode	TX B MODE _2462 MHz	Polarization	Vertical
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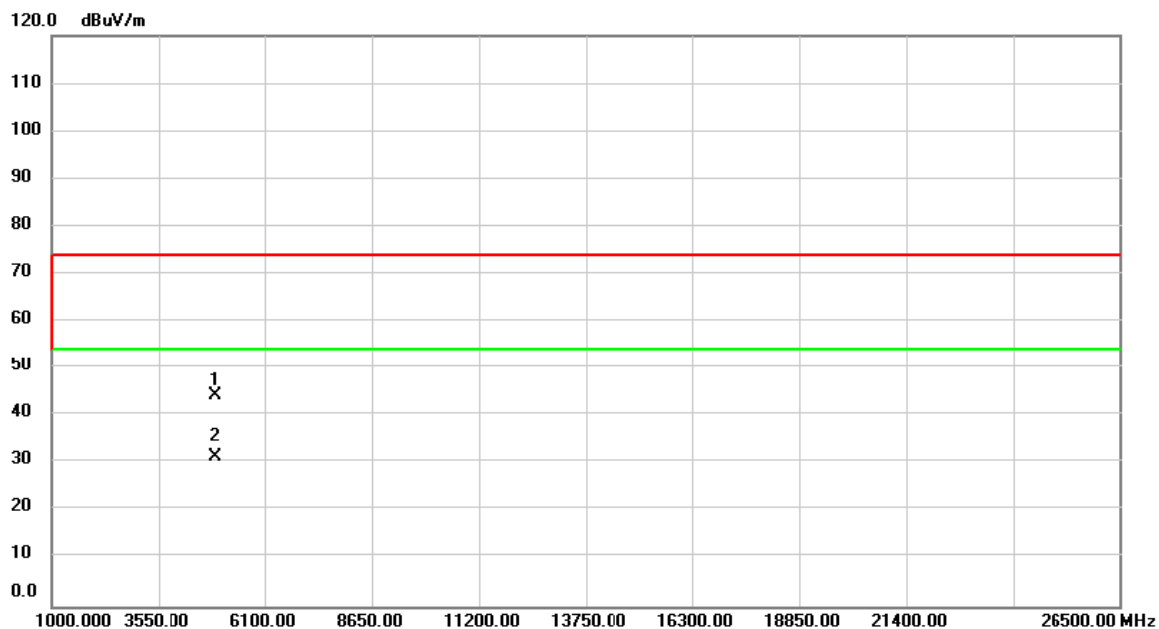
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	55.89	-11.30	44.59	74.00	-29.41	peak	
2	*	4924.000	42.93	-11.30	31.63	54.00	-22.37	AVG	

Test Mode	TX B MODE _2462 MHz	Polarization	Horizontal
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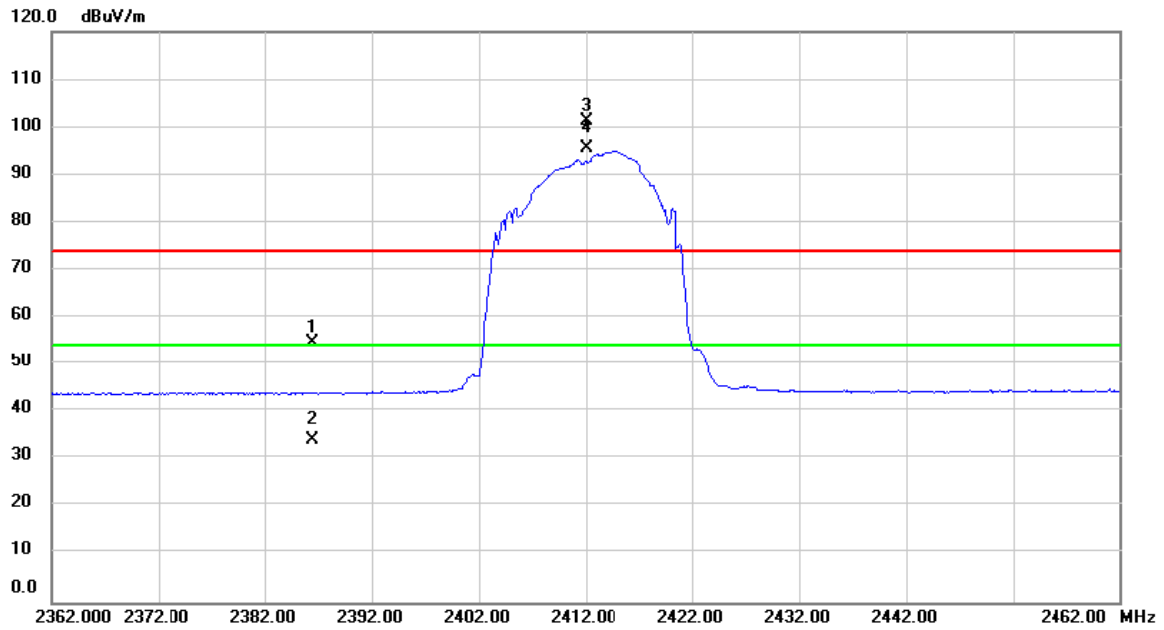
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.000	64.63	31.27	95.90	74.00	21.90	peak	No Limit
2	*	2462.000	61.43	31.27	92.70	54.00	38.70	AVG	No Limit
3		2496.354	16.01	31.42	47.43	74.00	-26.57	peak	
4		2496.354	3.41	31.42	34.83	54.00	-19.17	AVG	

Test Mode	TX B MODE _2462 MHz	Polarization	Horizontal
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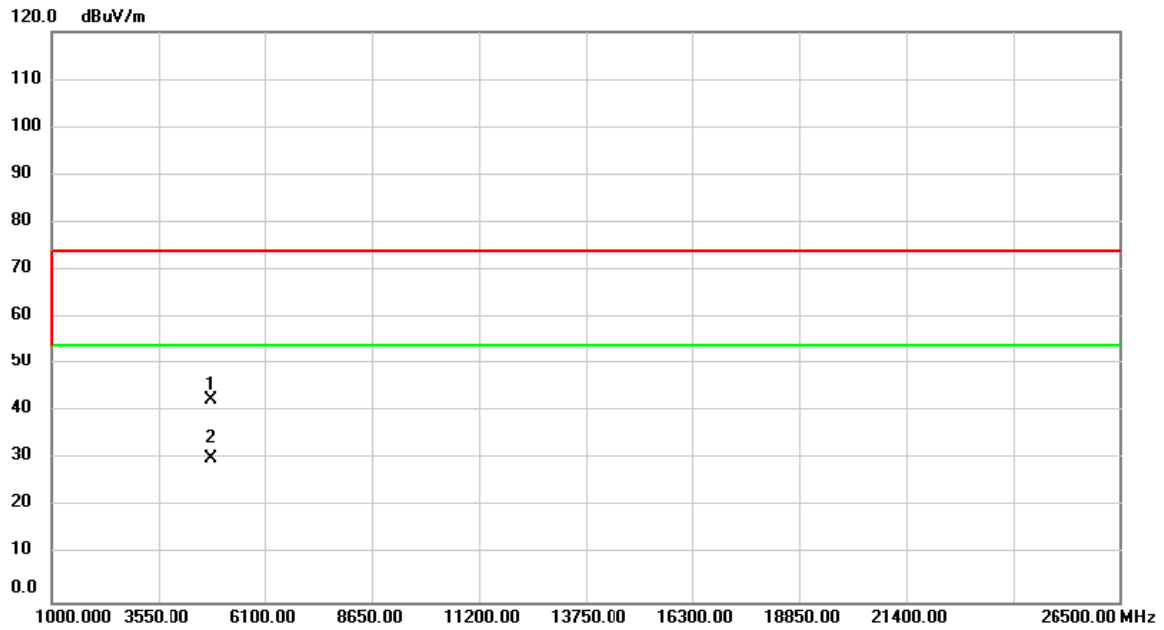
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	55.67	-11.30	44.37	74.00	-29.63	peak	
2	*	4924.000	42.76	-11.30	31.46	54.00	-22.54	AVG	

Test Mode	TX G MODE _2412 MHz	Polarization	Vertical
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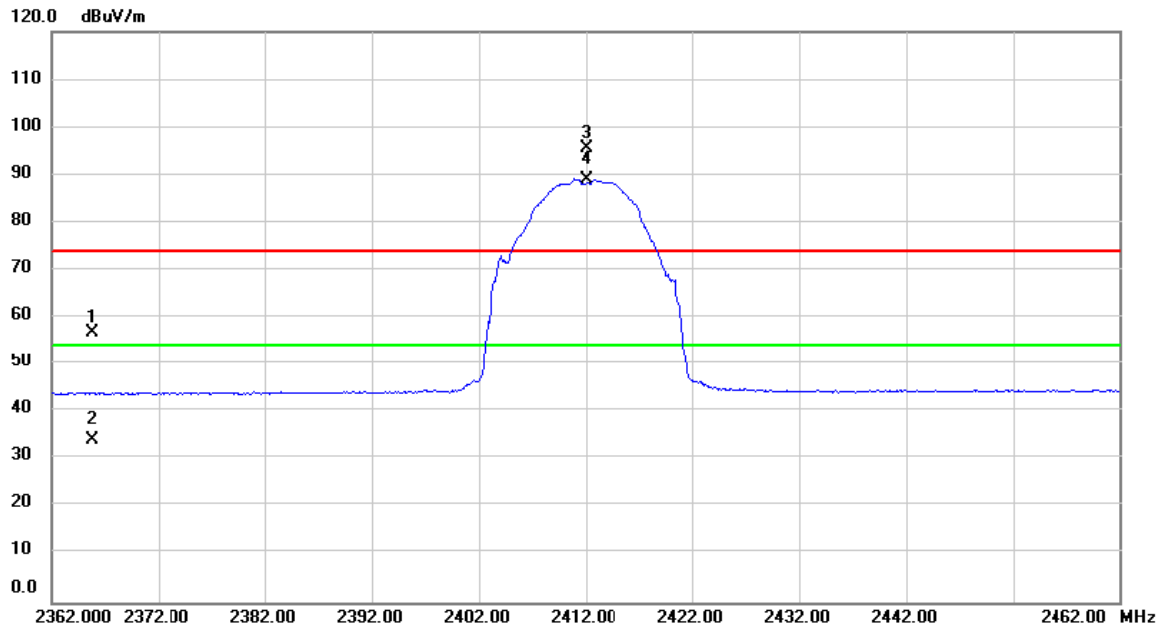
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2386.528	23.82	30.96	54.78	74.00	-19.22	peak	
2		2386.528	3.00	30.96	33.96	54.00	-20.04	AVG	
3	X	2412.000	70.18	31.07	101.25	74.00	27.25	peak	No Limit
4	*	2412.000	64.55	31.07	95.62	54.00	41.62	AVG	No Limit

Test Mode	TX G MODE _2412 MHz	Polarization	Vertical
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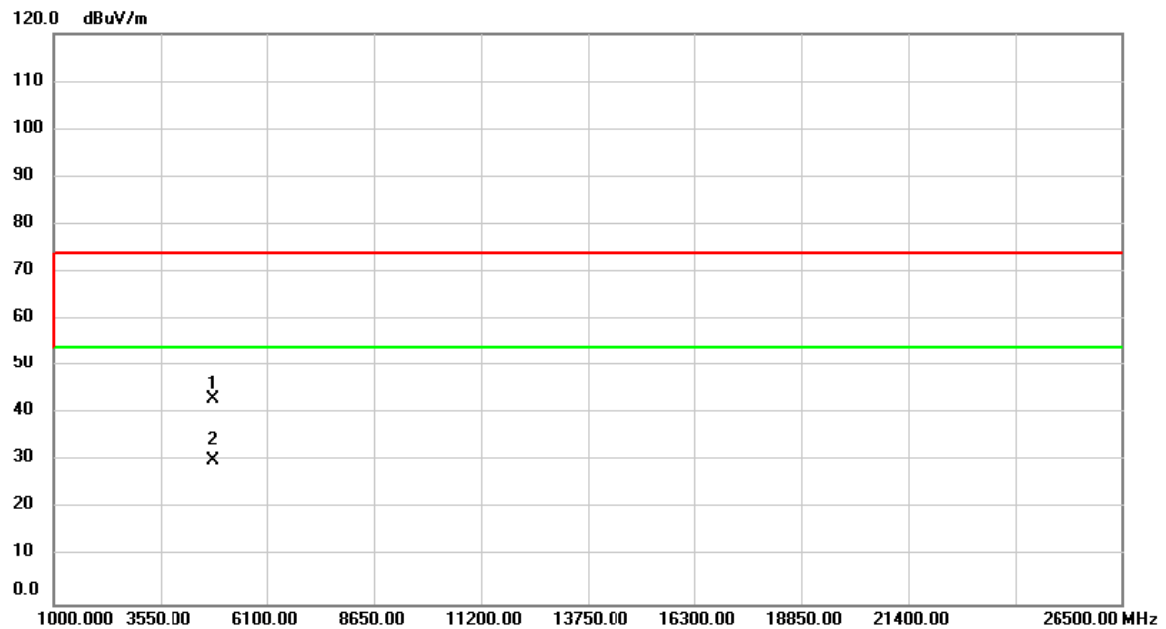
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	53.97	-11.45	42.52	74.00	-31.48	peak	
2	*	4824.000	41.60	-11.45	30.15	54.00	-23.85	AVG	

Test Mode	TX G MODE _2412 MHz	Polarization	Horizontal
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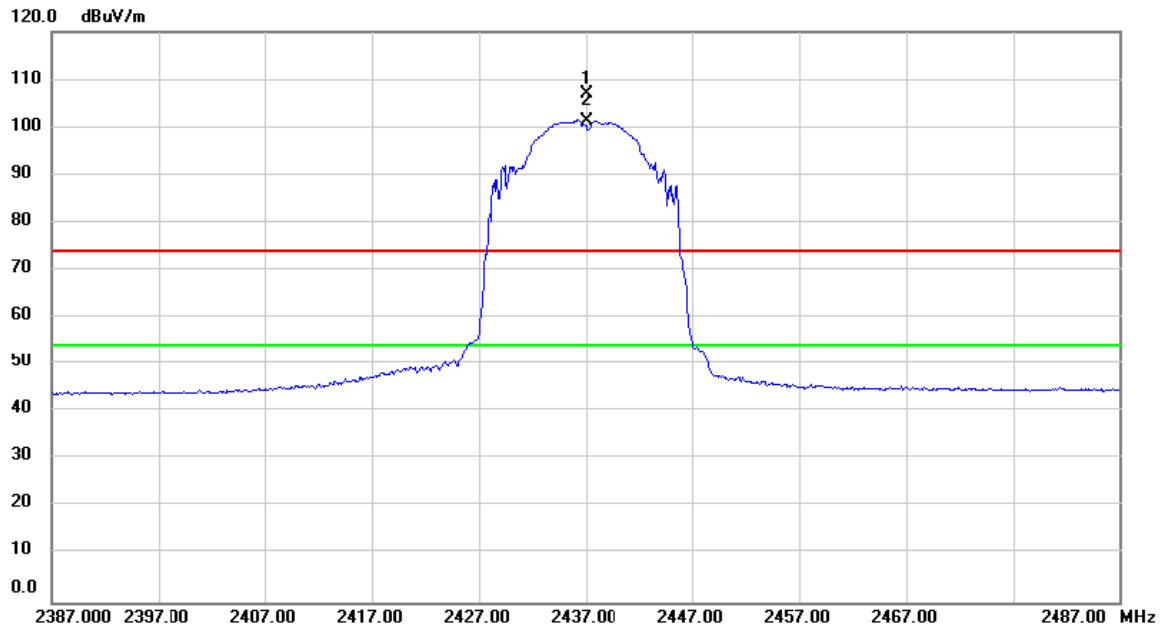
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2365.836	25.82	30.88	56.70	74.00	-17.30	peak	
2		2365.836	3.04	30.88	33.92	54.00	-20.08	AVG	
3	X	2412.000	64.35	31.07	95.42	74.00	21.42	peak	No Limit
4	*	2412.000	57.87	31.07	88.94	54.00	34.94	AVG	No Limit

Test Mode	TX G MODE _2412 MHz	Polarization	Horizontal
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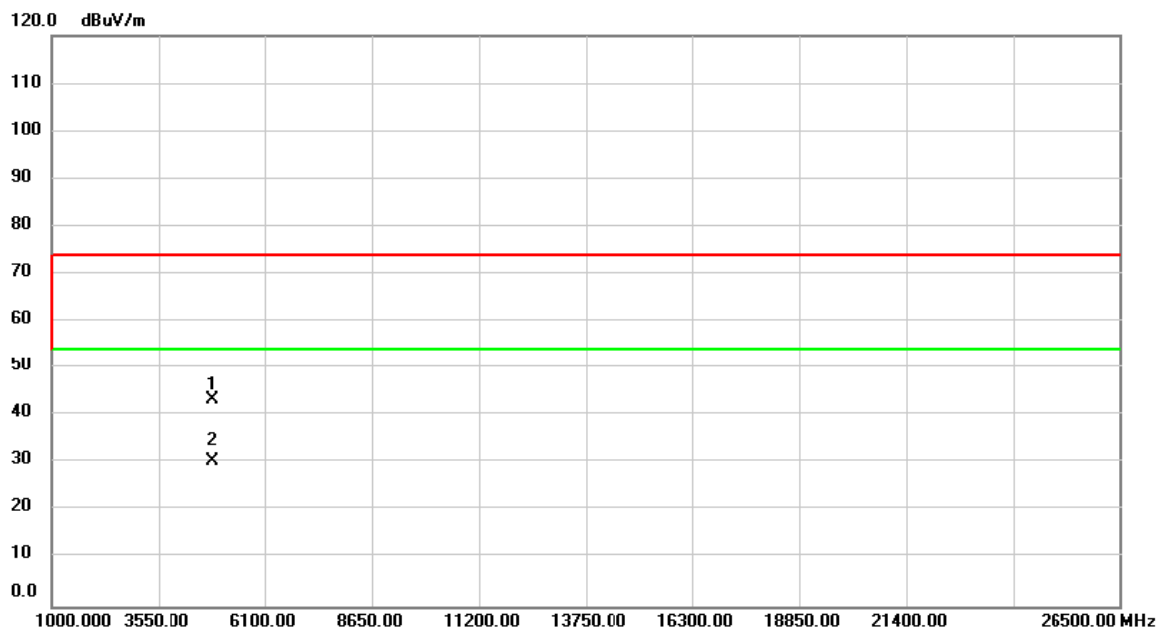
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	54.44	-11.45	42.99	74.00	-31.01	peak	
2	*	4824.000	41.58	-11.45	30.13	54.00	-23.87	AVG	

Test Mode	TX G MODE _2437 MHz	Polarization	Vertical
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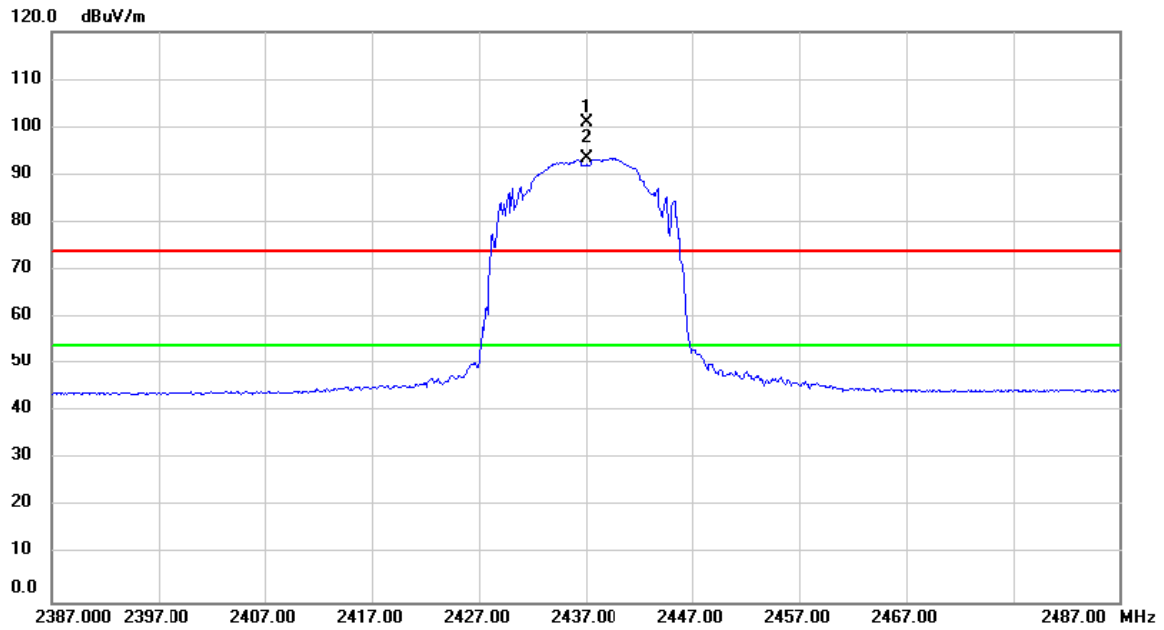
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2437.000	75.85	31.18	107.03	74.00	33.03	peak	No Limit
2	*	2437.000	70.21	31.18	101.39	54.00	47.39	AVG	No Limit

Test Mode	TX G MODE _2437 MHz	Polarization	Vertical
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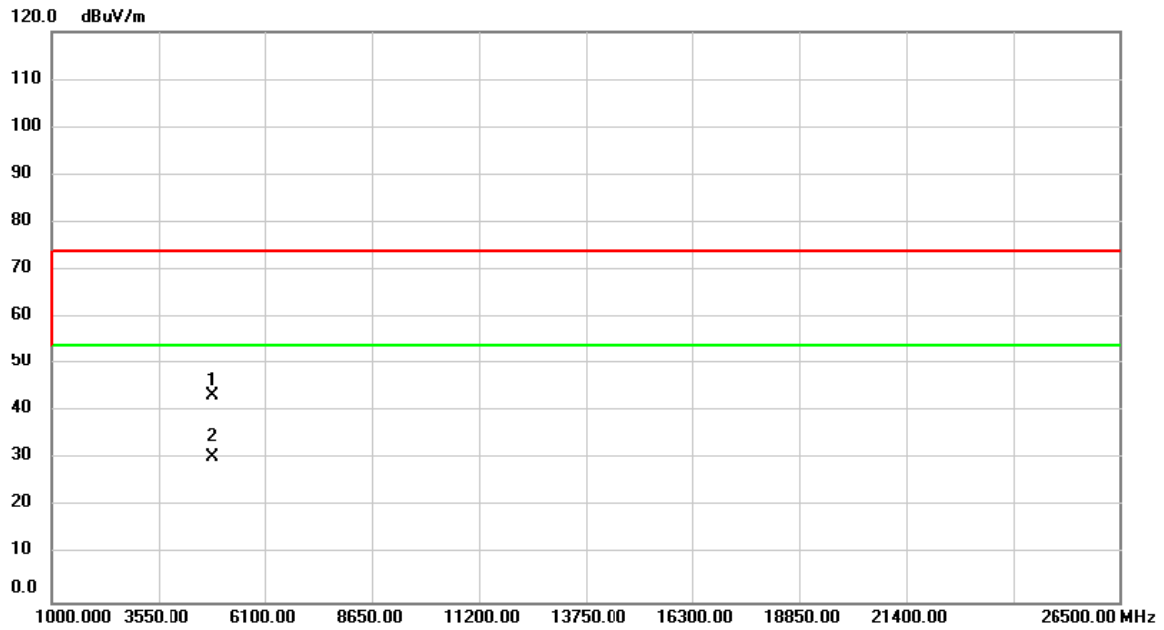
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	54.62	-11.37	43.25	74.00	-30.75	peak	
2	*	4874.000	41.83	-11.37	30.46	54.00	-23.54	AVG	

Test Mode	TX G MODE _2437 MHz	Polarization	Horizontal
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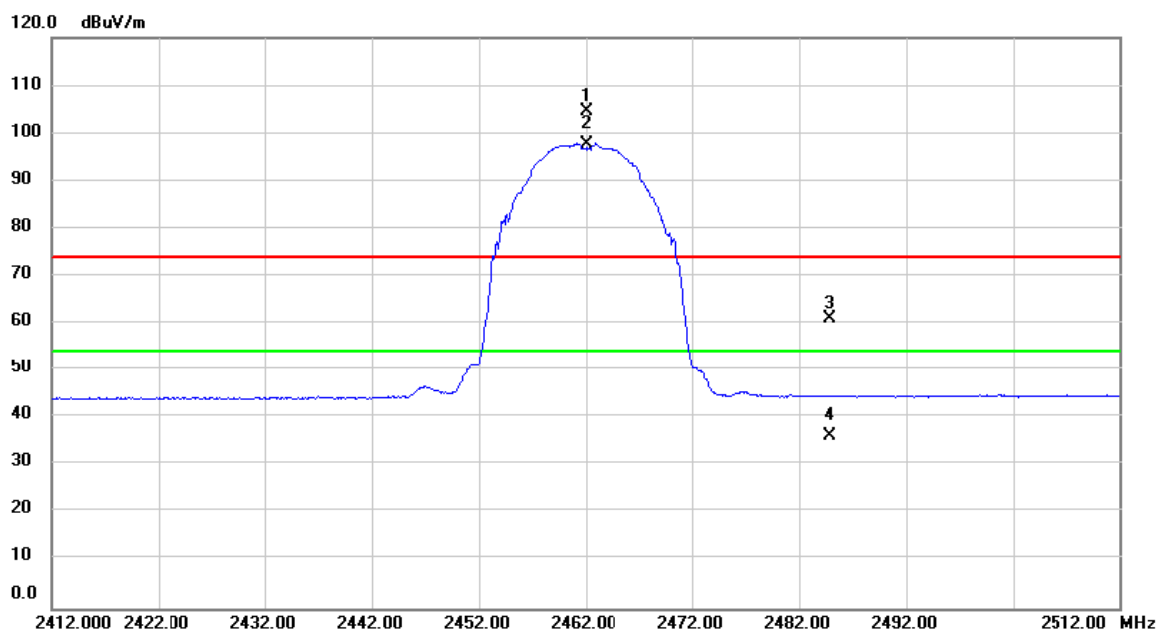
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2437.000	69.77	31.18	100.95	74.00	26.95	peak	No Limit
2	*	2437.000	62.21	31.18	93.39	54.00	39.39	AVG	No Limit

Test Mode	TX G MODE _2437 MHz	Polarization	Horizontal
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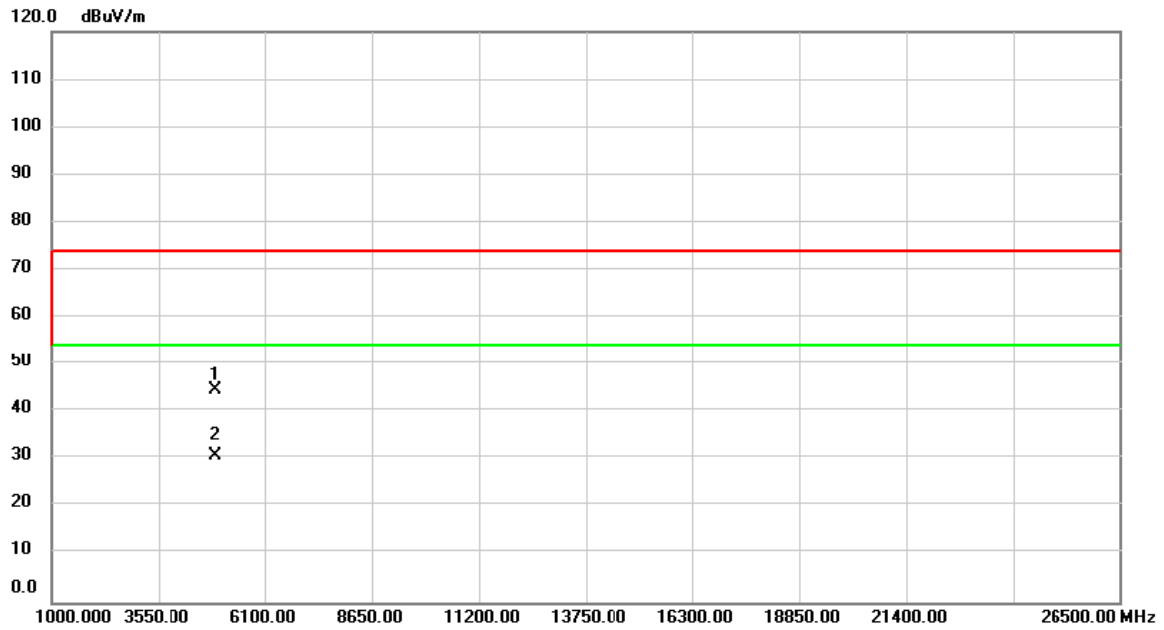
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	54.67	-11.37	43.30	74.00	-30.70	peak	
2	*	4874.000	41.84	-11.37	30.47	54.00	-23.53	AVG	

Test Mode	TX G MODE _2462 MHz	Polarization	Vertical
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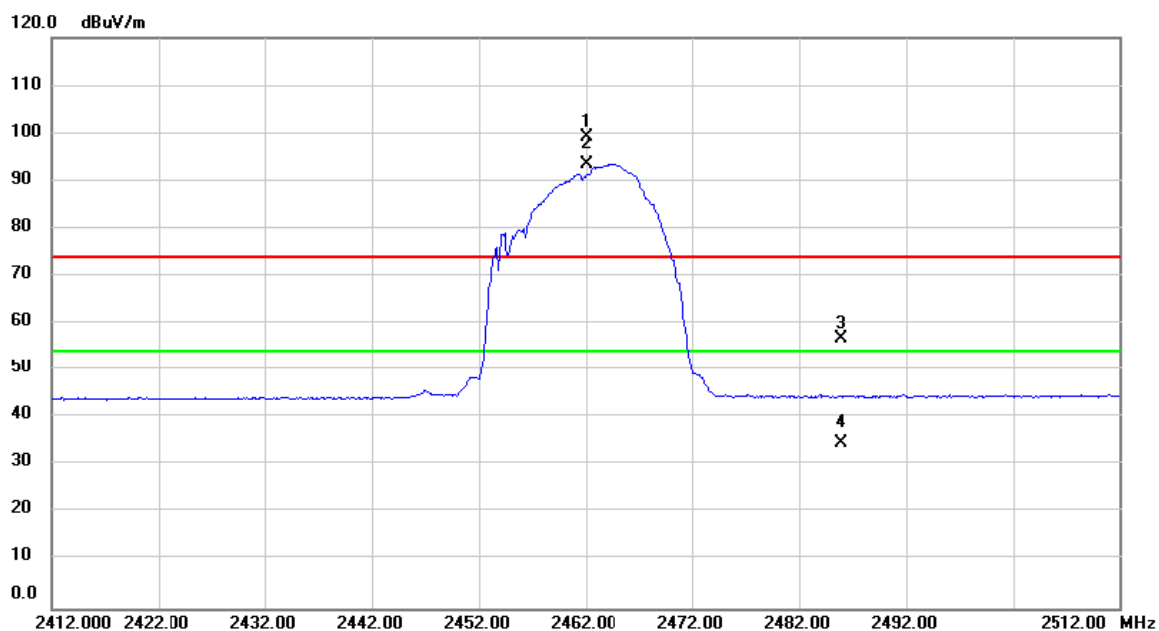
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.000	73.35	31.27	104.62	74.00	30.62	peak	No Limit
2	*	2462.000	66.50	31.27	97.77	54.00	43.77	AVG	No Limit
3		2484.925	29.82	31.37	61.19	74.00	-12.81	peak	
4		2484.925	4.67	31.37	36.04	54.00	-17.96	AVG	

Test Mode	TX G MODE _2462 MHz	Polarization	Vertical
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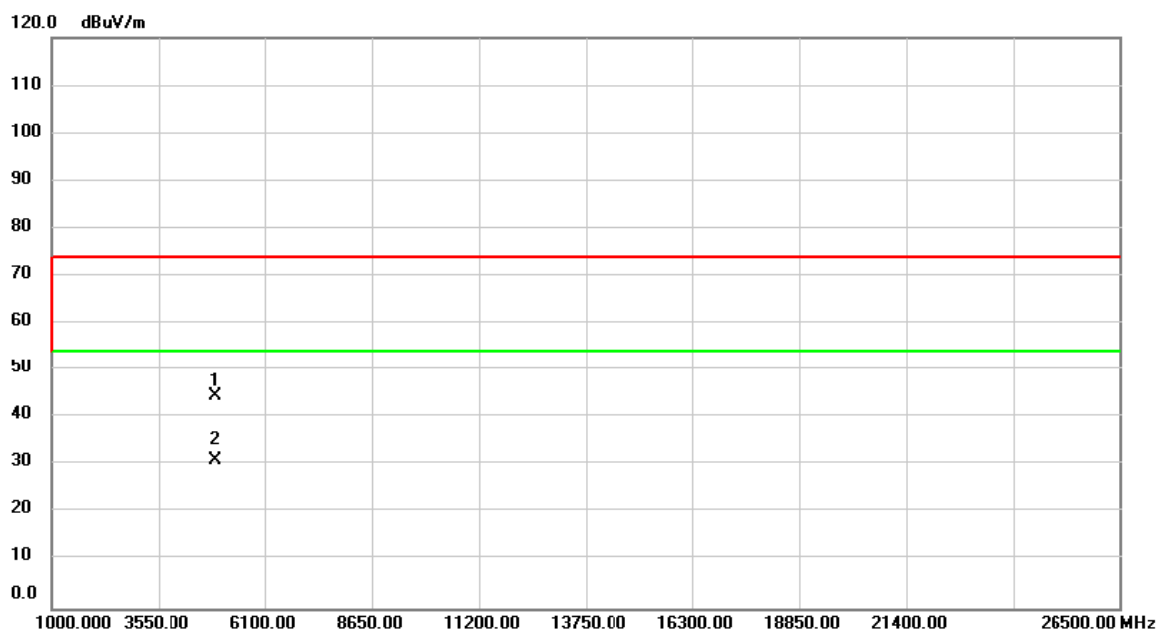
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	55.80	-11.30	44.50	74.00	-29.50	peak	
2	*	4924.000	42.20	-11.30	30.90	54.00	-23.10	AVG	

Test Mode	TX G MODE _2462 MHz	Polarization	Horizontal
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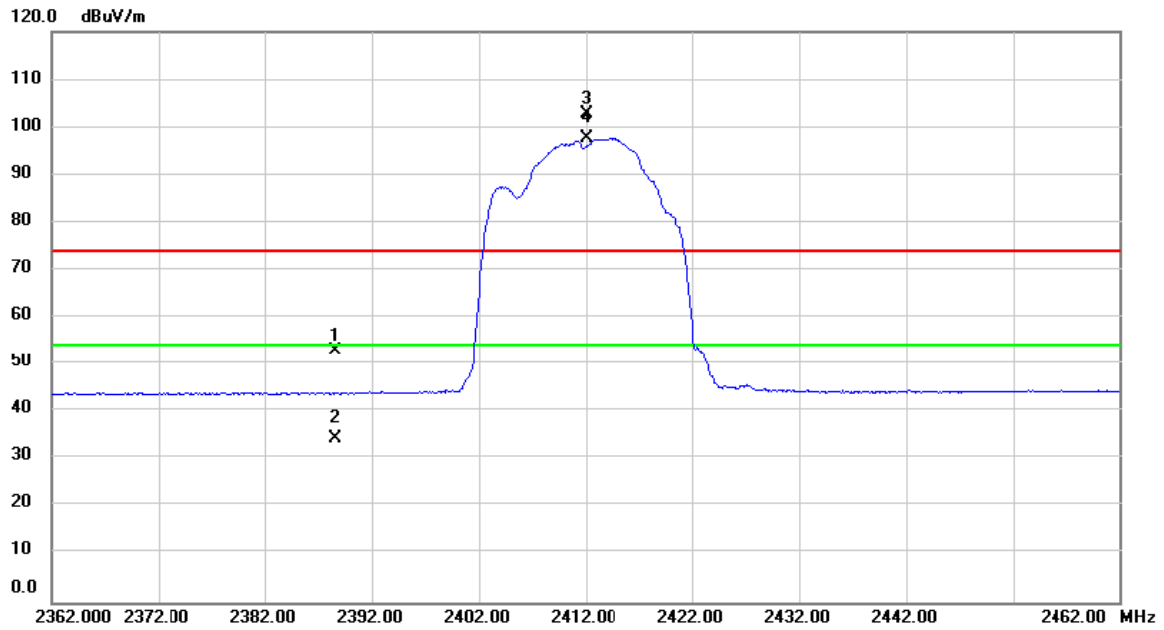
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.000	67.96	31.27	99.23	74.00	25.23	peak	No Limit
2	*	2462.000	62.22	31.27	93.49	54.00	39.49	AVG	No Limit
3		2485.951	25.61	31.37	56.98	74.00	-17.02	peak	
4		2485.951	3.23	31.37	34.60	54.00	-19.40	AVG	

Test Mode	TX G MODE _2462 MHz	Polarization	Horizontal
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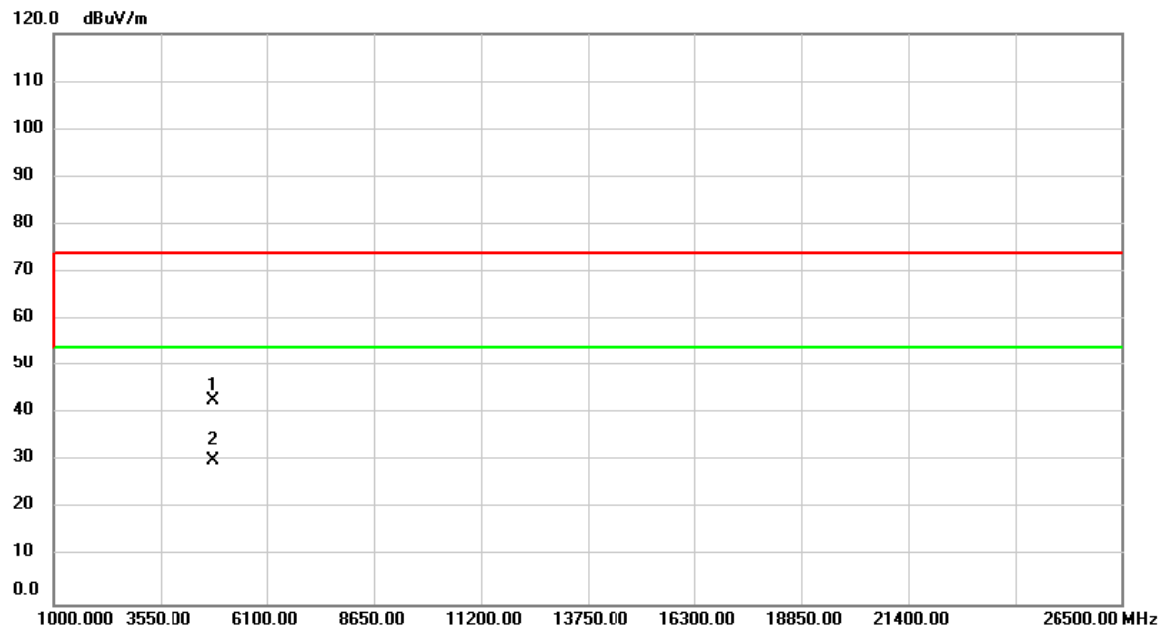
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	55.74	-11.30	44.44	74.00	-29.56	peak	
2	*	4924.000	42.33	-11.30	31.03	54.00	-22.97	AVG	

Test Mode	TX N-20M MODE 2412MHz	Polarization	Vertical
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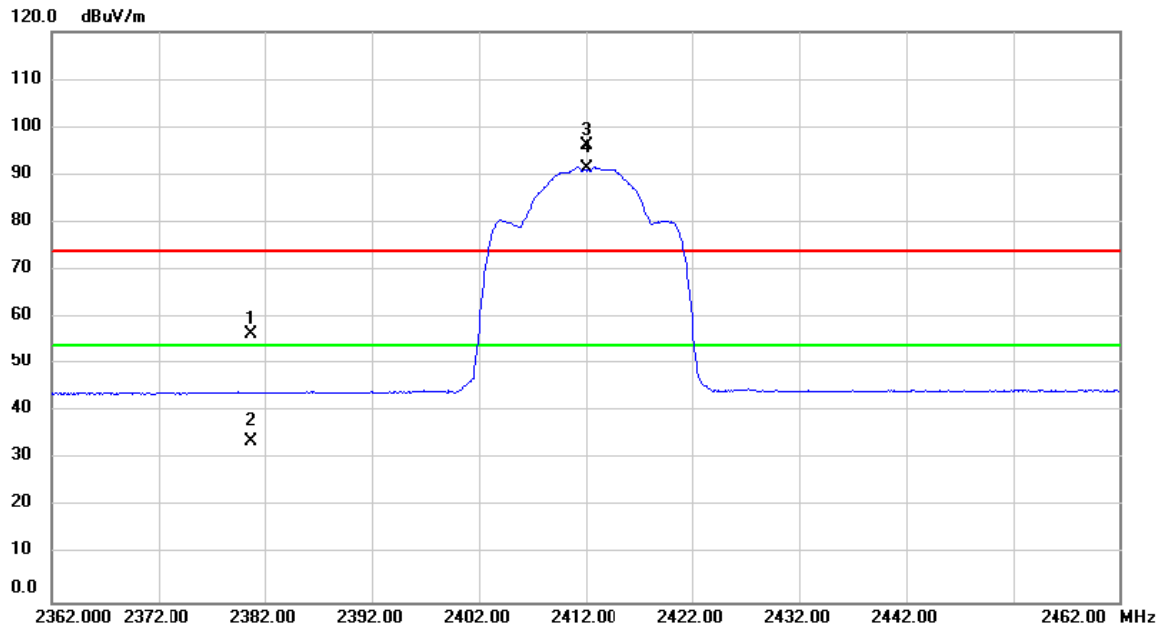
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2388.656	21.94	30.97	52.91	74.00	-21.09	peak	
2		2388.656	3.25	30.97	34.22	54.00	-19.78	AVG	
3	X	2412.000	71.66	31.07	102.73	74.00	28.73	peak	No Limit
4	*	2412.000	66.54	31.07	97.61	54.00	43.61	AVG	No Limit

Test Mode	TX N-20M MODE 2412MHz	Polarization	Vertical
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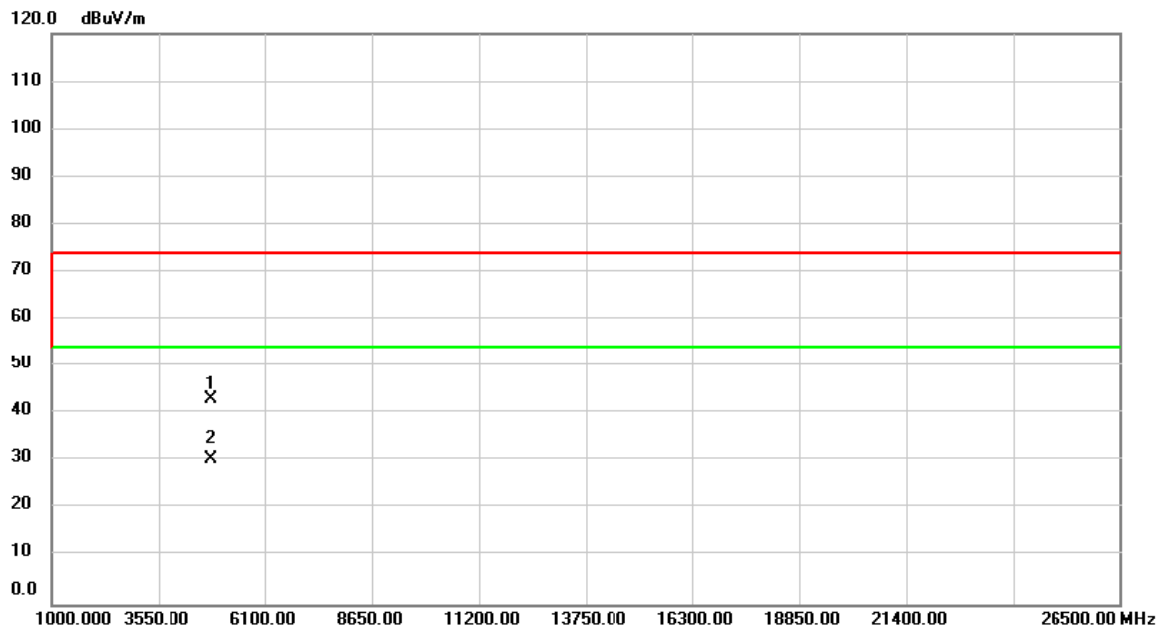
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	54.15	-11.45	42.70	74.00	-31.30	peak	
2	*	4824.000	41.60	-11.45	30.15	54.00	-23.85	AVG	

Test Mode	TX N-20M MODE 2412MHz	Polarization	Horizontal
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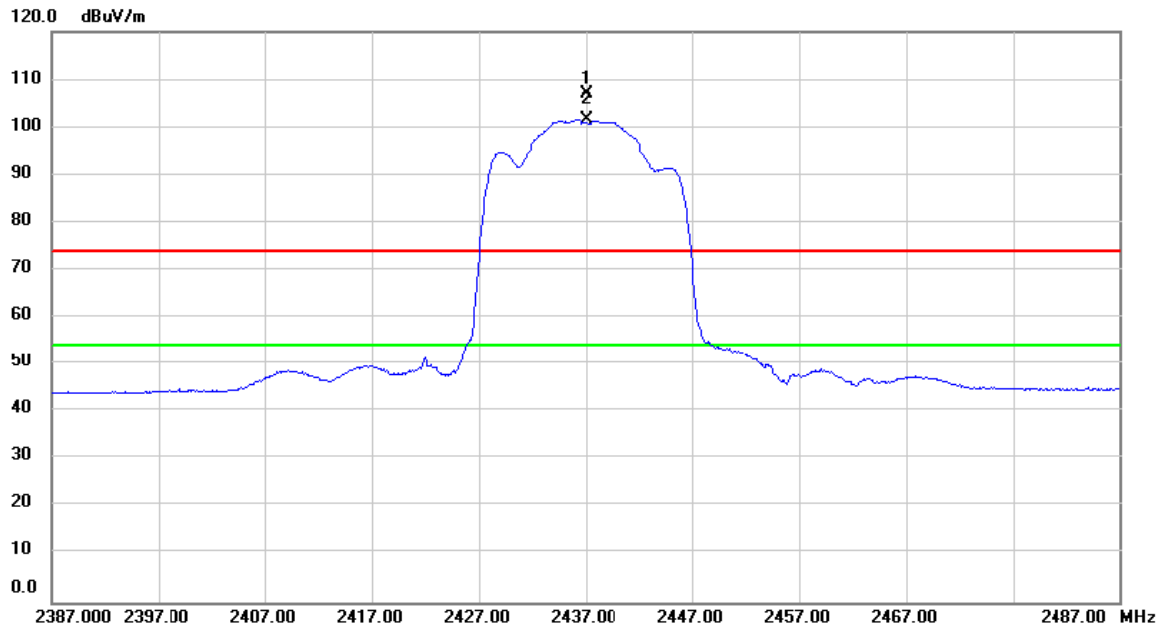
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2380.760	25.53	30.94	56.47	74.00	-17.53	peak	
2		2380.760	2.89	30.94	33.83	54.00	-20.17	AVG	
3	X	2412.000	65.10	31.07	96.17	74.00	22.17	peak	No Limit
4	*	2412.000	60.27	31.07	91.34	54.00	37.34	AVG	No Limit

Test Mode	TX N-20M MODE 2412MHz	Polarization	Horizontal
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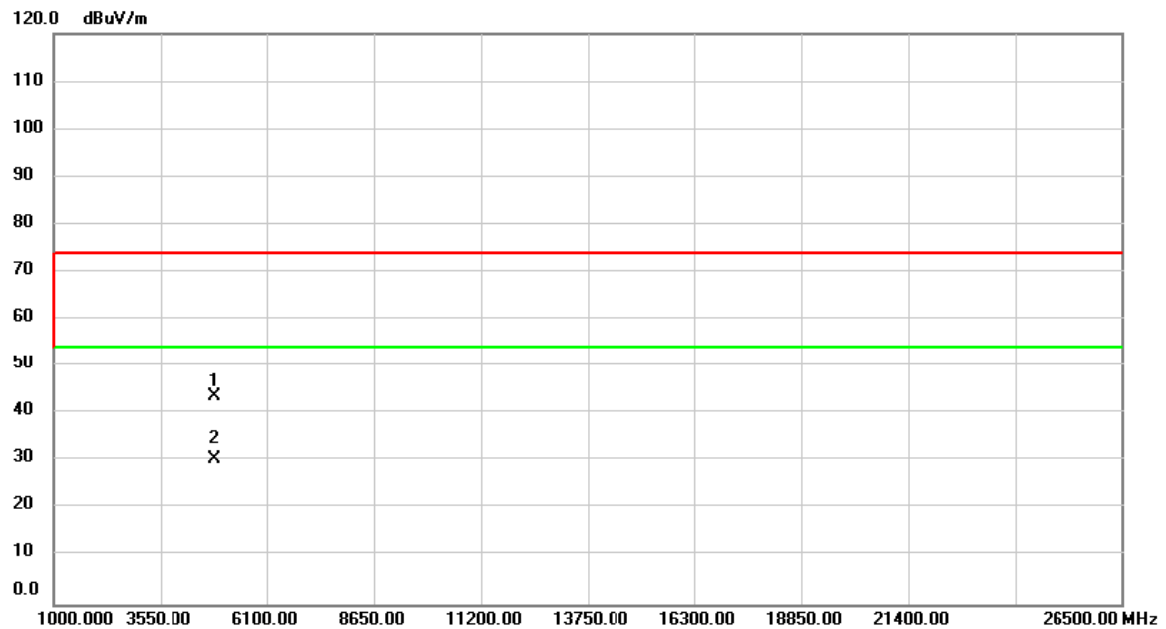
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4824.000	54.54	-11.45	43.09	74.00	-30.91	peak	
2	*	4824.000	41.76	-11.45	30.31	54.00	-23.69	AVG	

Test Mode	TX N-20M MODE 2437MHz	Polarization	Vertical
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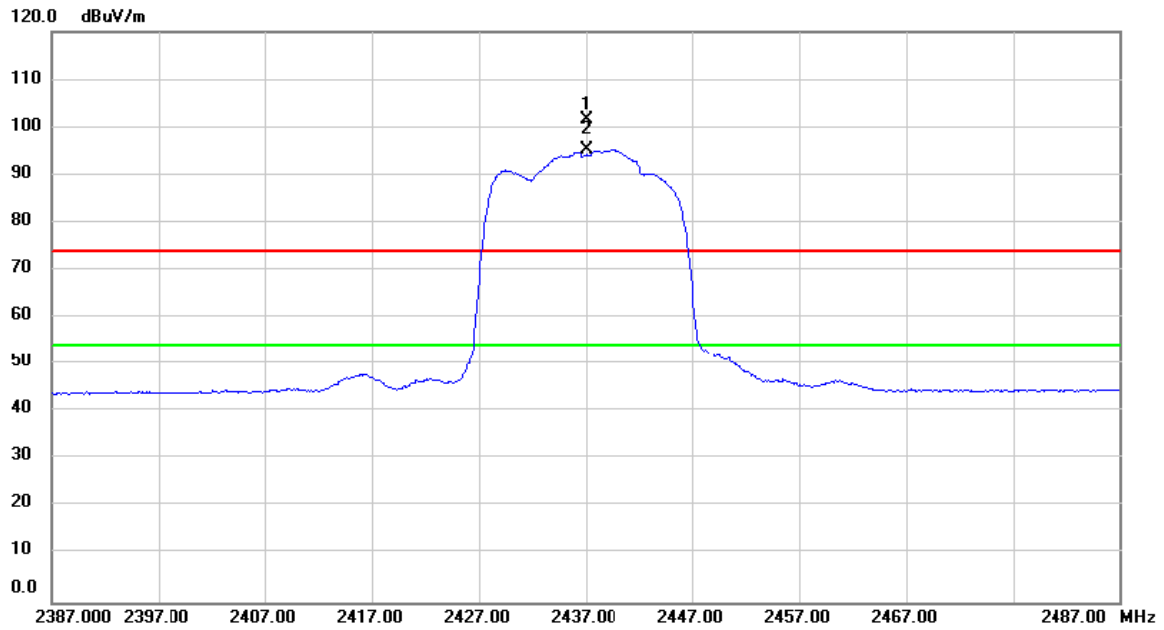
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2437.000	75.71	31.18	106.89	74.00	32.89	peak	No Limit
2	*	2437.000	70.37	31.18	101.55	54.00	47.55	AVG	No Limit

Test Mode	TX N-20M MODE 2437MHz	Polarization	Vertical
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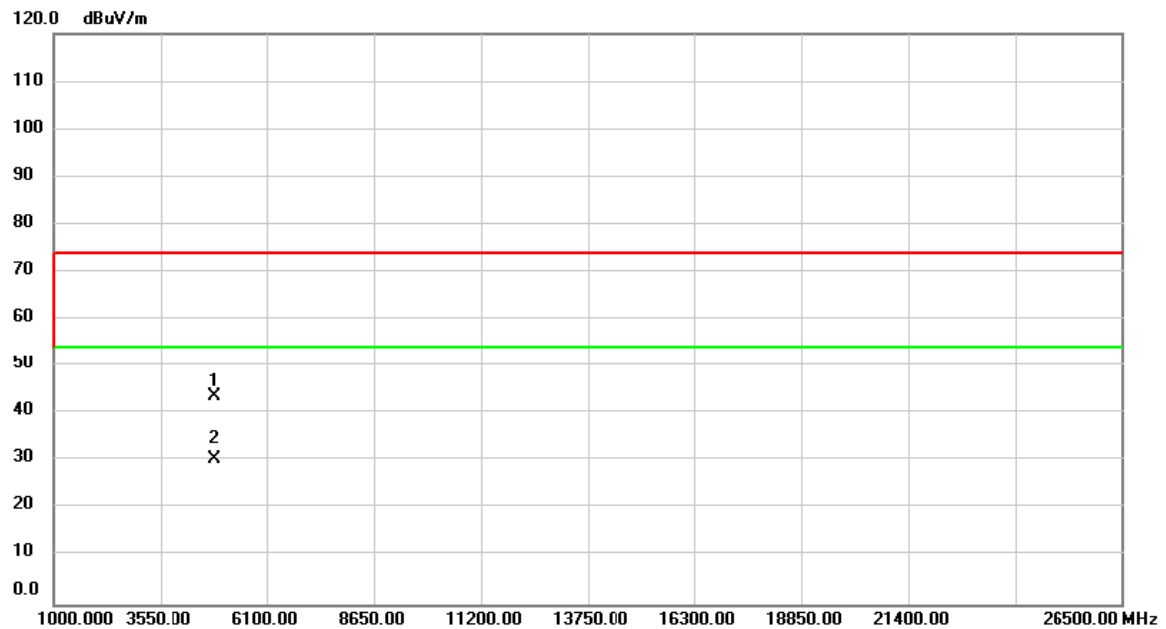
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	55.12	-11.37	43.75	74.00	-30.25	peak	
2	*	4874.000	41.86	-11.37	30.49	54.00	-23.51	AVG	

Test Mode	TX N-20M MODE 2437MHz	Polarization	Horizontal
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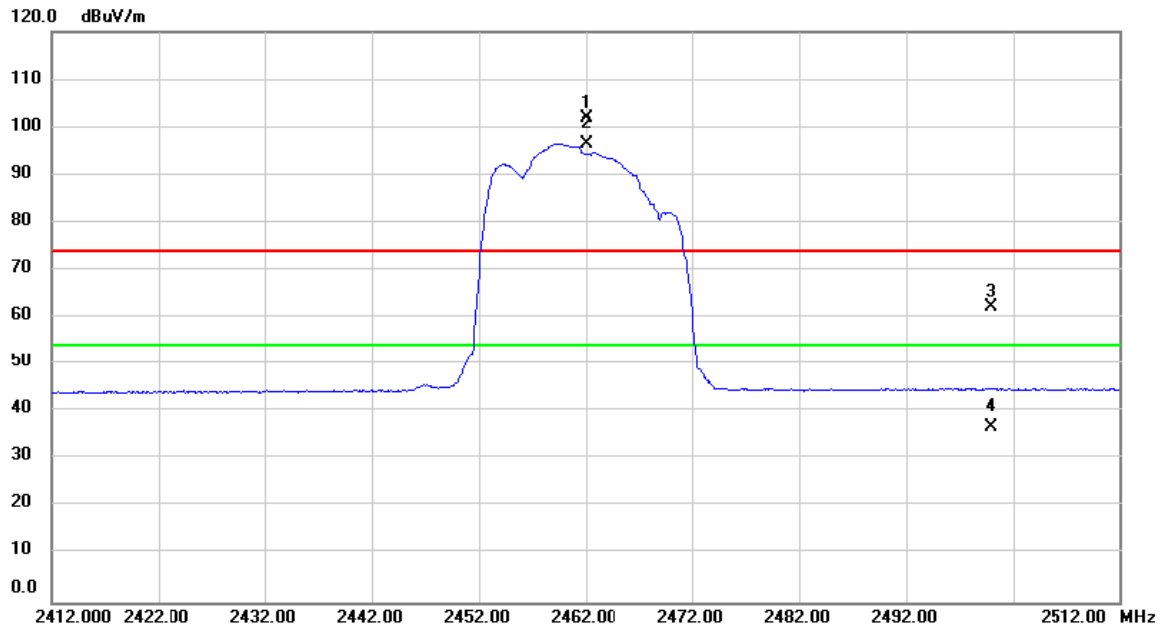
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2437.000	70.23	31.18	101.41	74.00	27.41	peak	No Limit
2	*	2437.000	64.20	31.18	95.38	54.00	41.38	AVG	No Limit

Test Mode	TX N-20M MODE 2437MHz	Polarization	Horizontal
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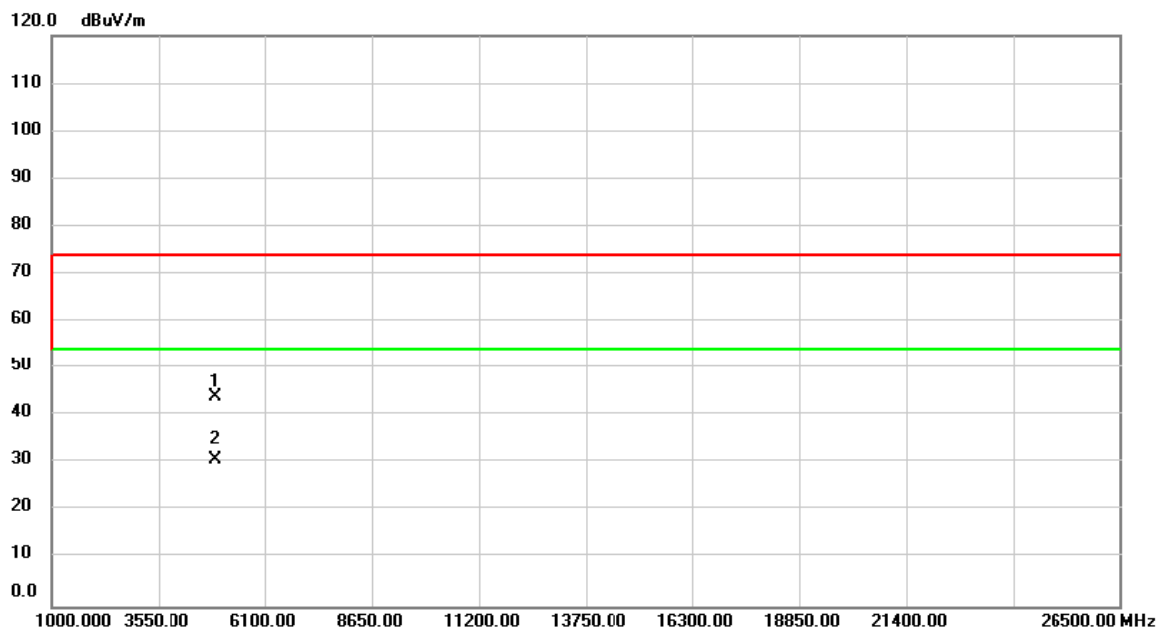
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4874.000	55.11	-11.37	43.74	74.00	-30.26	peak	
2	*	4874.000	41.78	-11.37	30.41	54.00	-23.59	AVG	

Test Mode	TX N-20M MODE 2462MHz	Polarization	Vertical
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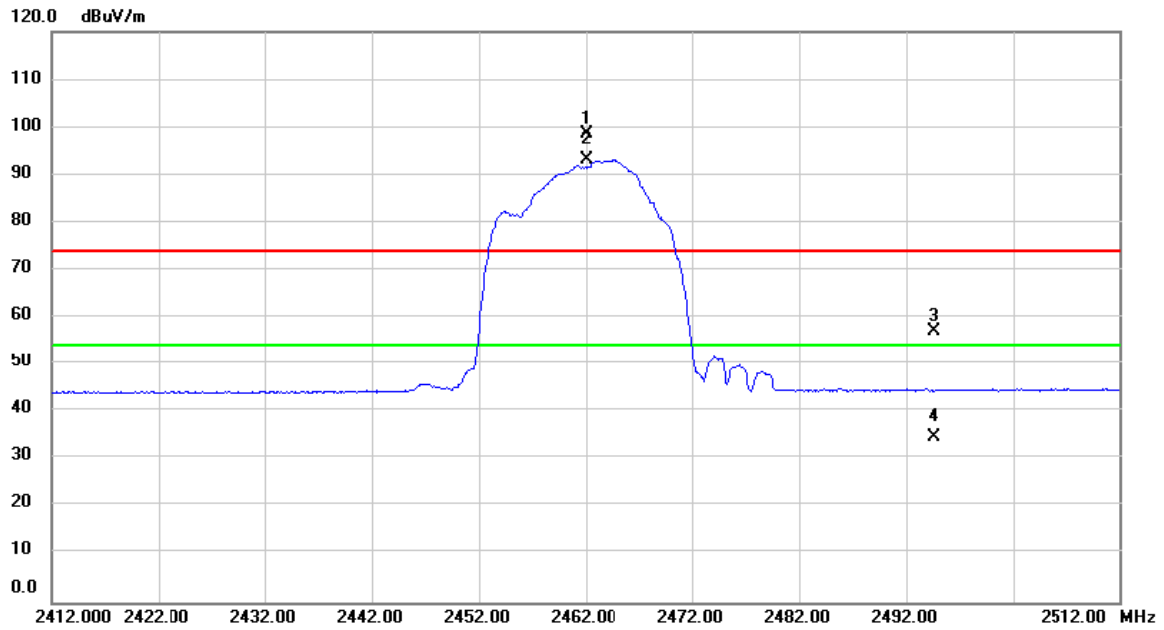
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.000	70.64	31.27	101.91	74.00	27.91	peak	No Limit
2	*	2462.000	65.24	31.27	96.51	54.00	42.51	AVG	No Limit
3		2499.916	30.69	31.43	62.12	74.00	-11.88	peak	
4		2499.916	5.17	31.43	36.60	54.00	-17.40	AVG	

Test Mode	TX N-20M MODE 2462MHz	Polarization	Vertical
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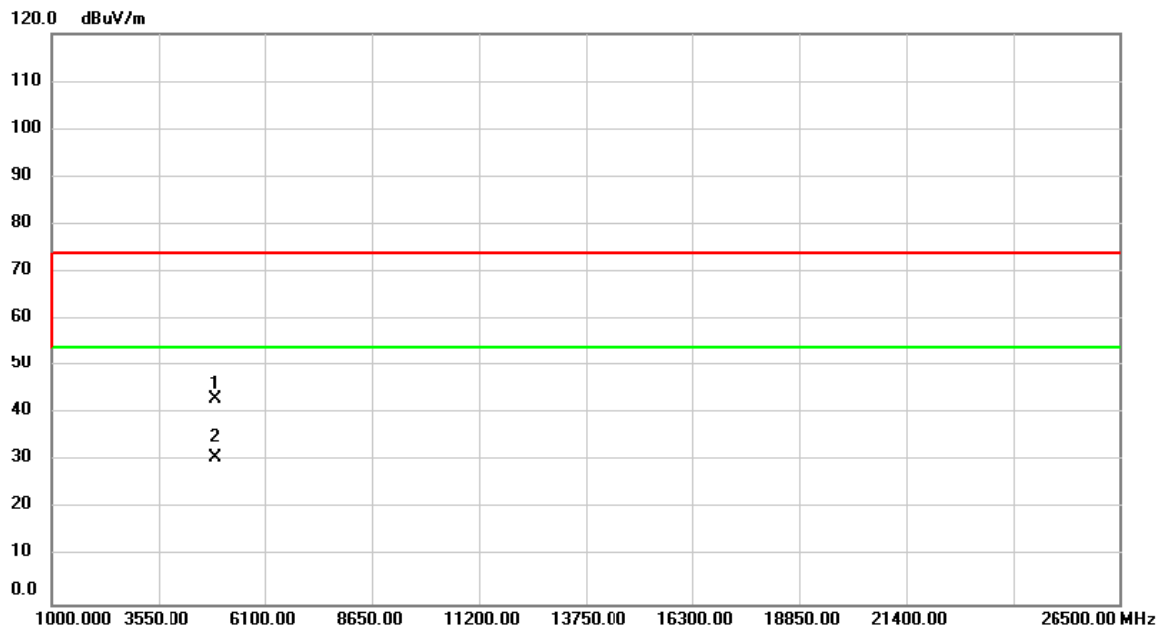
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	55.23	-11.30	43.93	74.00	-30.07	peak	
2	*	4924.000	42.19	-11.30	30.89	54.00	-23.11	AVG	

Test Mode	TX N-20M MODE 2462MHz	Polarization	Horizontal
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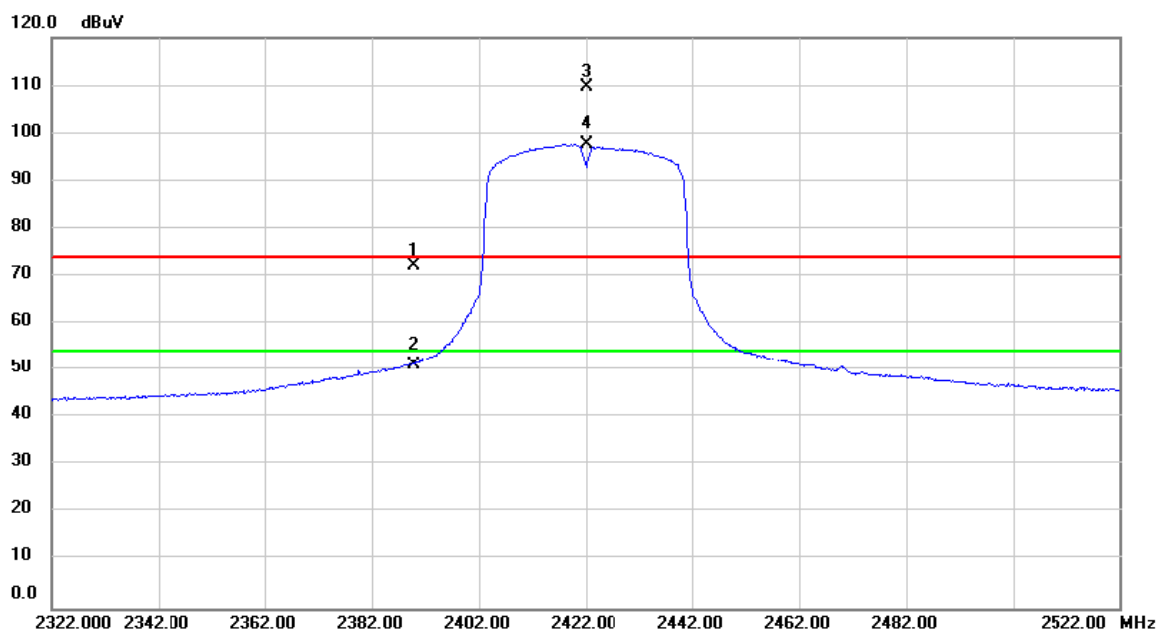
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	X	2462.000	67.35	31.27	98.62	74.00	24.62	peak	No Limit
2	*	2462.000	61.85	31.27	93.12	54.00	39.12	AVG	No Limit
3		2494.586	25.74	31.41	57.15	74.00	-16.85	peak	
4		2494.586	3.25	31.41	34.66	54.00	-19.34	AVG	

Test Mode	TX N-20M MODE 2462MHz	Polarization	Horizontal
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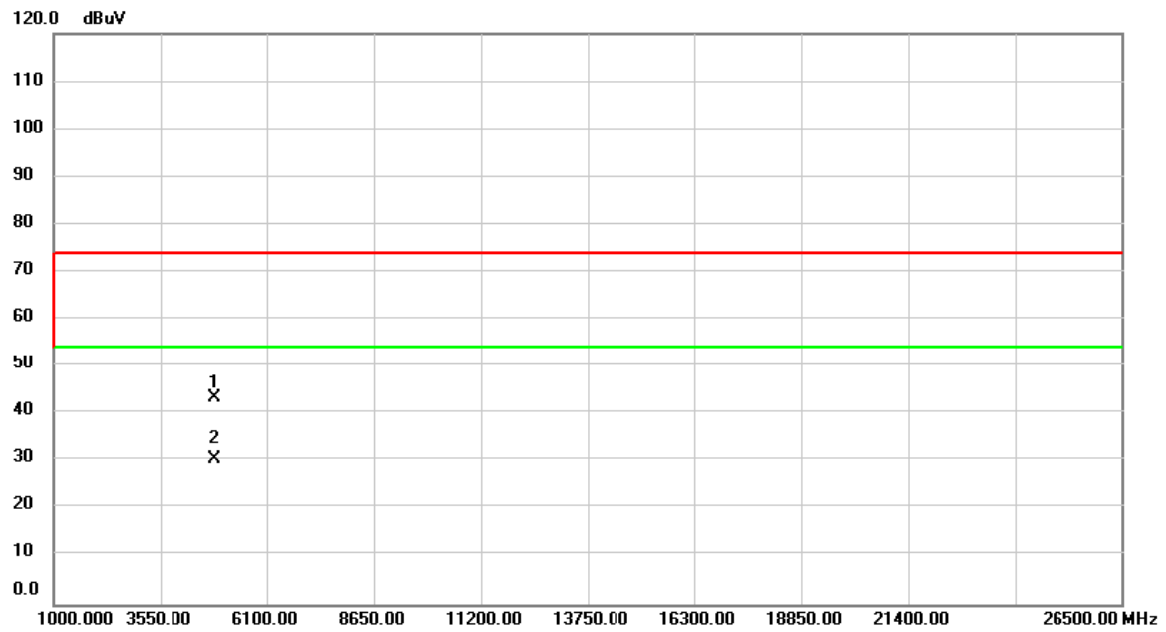
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		4924.000	54.46	-11.30	43.16	74.00	-30.84	peak	
2	*	4924.000	42.19	-11.30	30.89	54.00	-23.11	AVG	

Test Mode	TX N-40M MODE 2422MHz	Polarization	Vertical
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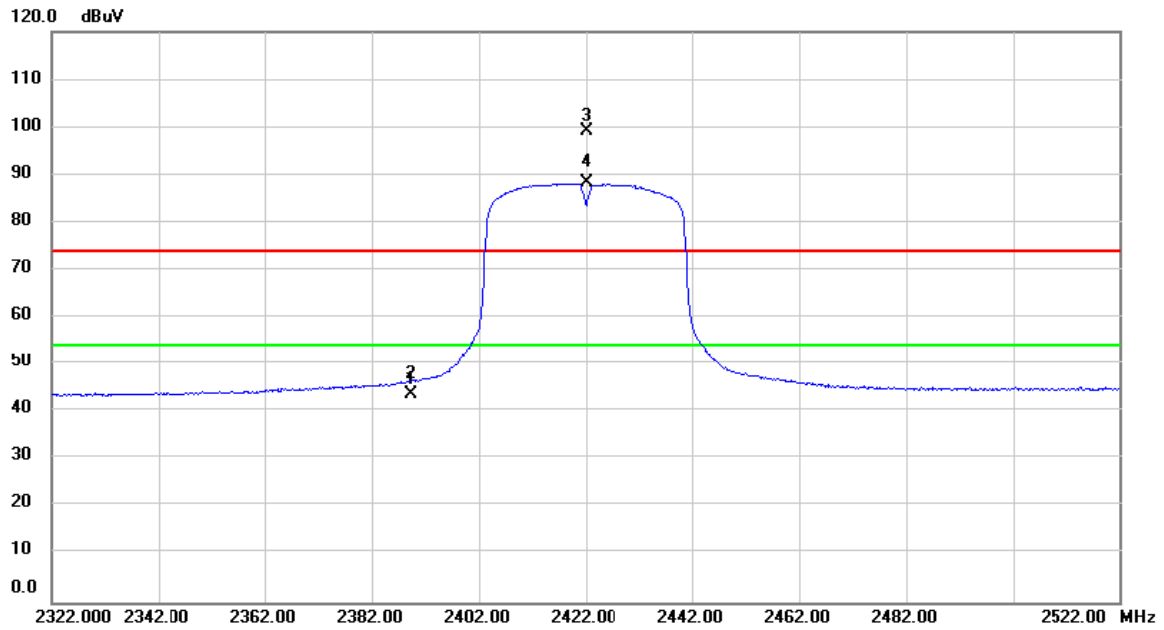
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2389.796	41.04	30.98	72.02	74.00	-1.98	peak	
2		2389.796	20.22	30.98	51.20	54.00	-2.80	AVG	
3	X	2422.000	78.57	31.11	109.68	74.00	35.68	peak	No Limit
4	*	2422.000	66.46	31.11	97.57	54.00	43.57	AVG	No Limit

Test Mode	TX N-40M MODE 2422MHz	Polarization	Vertical
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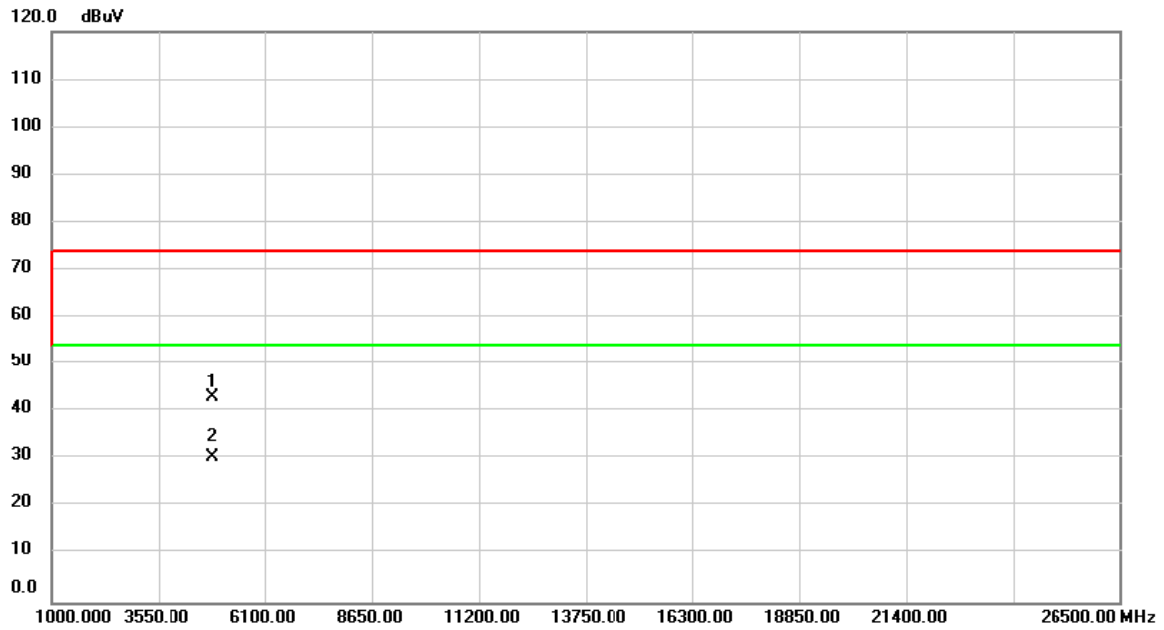
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		4844.000	54.92	-11.42	43.50	74.00	-30.50	peak	
2	*	4844.000	41.92	-11.42	30.50	54.00	-23.50	AVG	

Test Mode	TX N-40M MODE 2422MHz	Polarization	Horizontal
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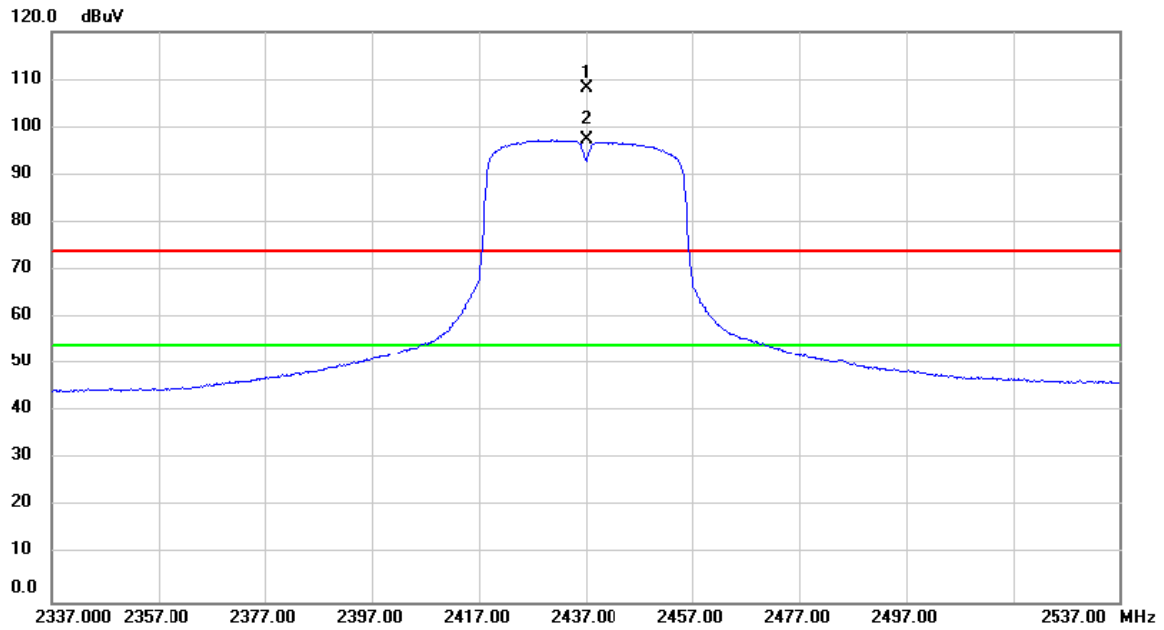
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		2389.456	12.76	30.97	43.73	74.00	-30.27	peak	
2		2389.456	12.80	30.97	43.77	54.00	-10.23	AVG	
3	X	2422.000	68.06	31.11	99.17	74.00	25.17	peak	No Limit
4	*	2422.000	57.29	31.11	88.40	54.00	34.40	AVG	No Limit

Test Mode	TX N-40M MODE 2422MHz	Polarization	Horizontal
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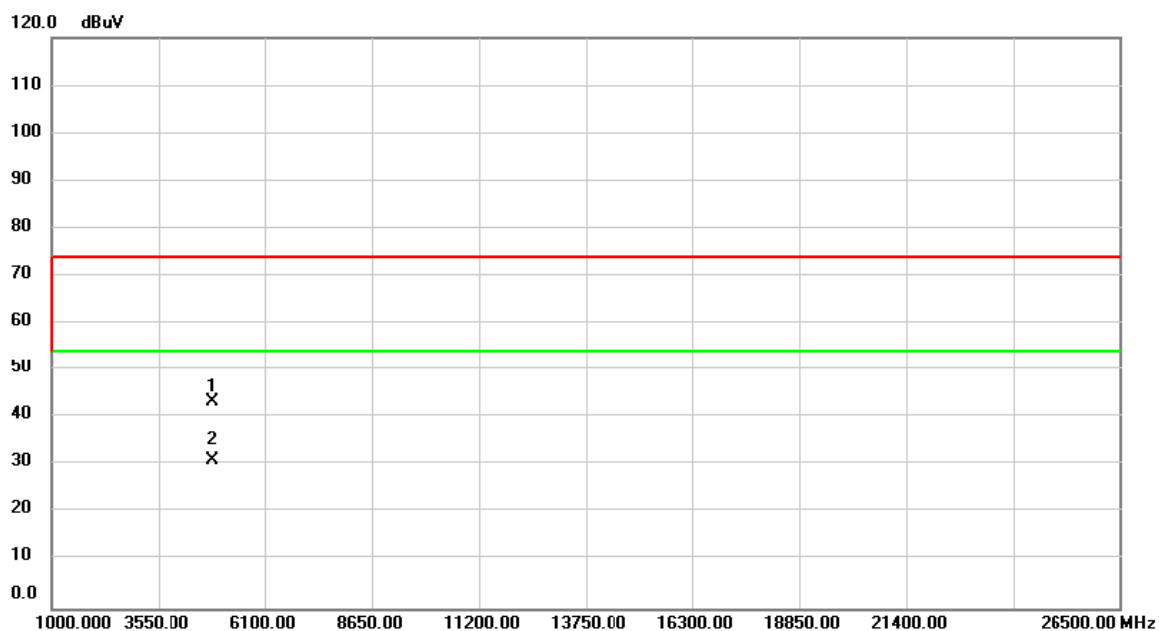
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		4844.000	54.57	-11.42	43.15	74.00	-30.85	peak	
2	*	4844.000	41.99	-11.42	30.57	54.00	-23.43	AVG	

Test Mode	TX N-40M MODE 2437MHz	Polarization	Vertical
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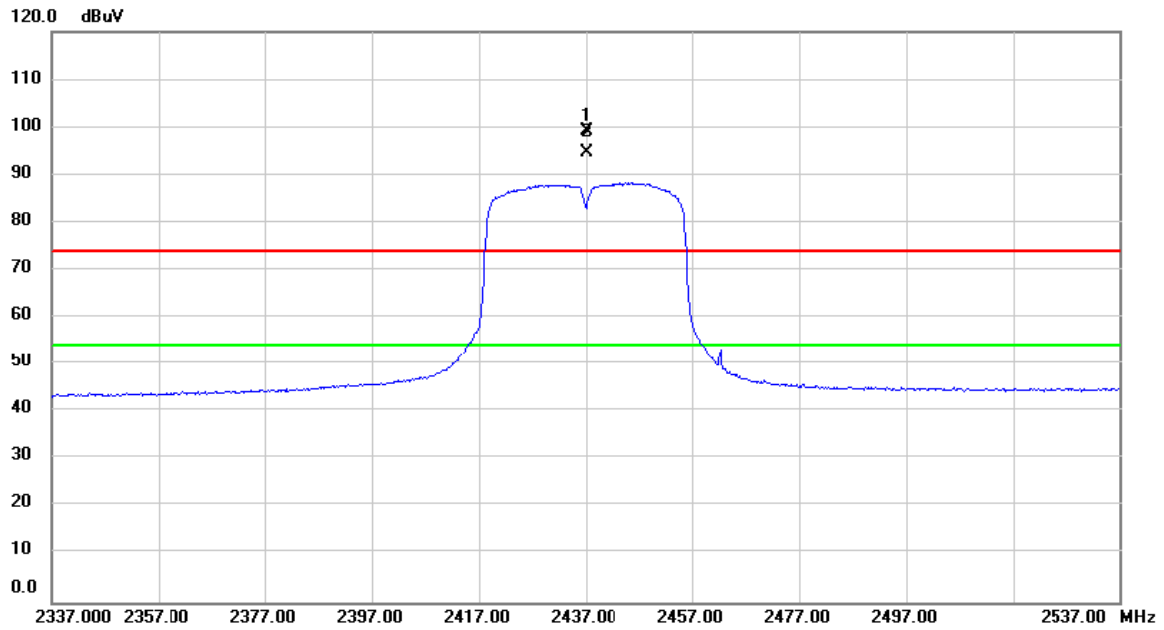
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	X	2437.000	77.00	31.18	108.18	74.00	34.18	peak	No Limit
2	*	2437.000	66.15	31.18	97.33	54.00	43.33	AVG	No Limit

Test Mode	TX N-40M MODE 2437MHz	Polarization	Vertical
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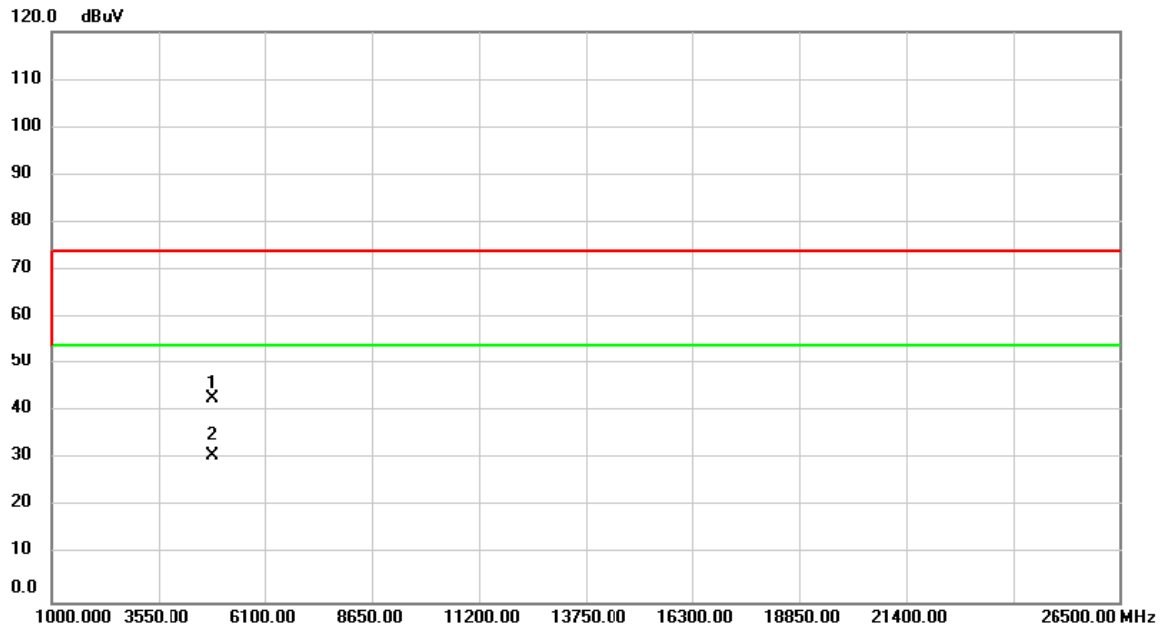
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		4874.000	54.64	-11.37	43.27	74.00	-30.73	peak	
2	*	4874.000	42.33	-11.37	30.96	54.00	-23.04	AVG	

Test Mode	TX N-40M MODE 2437MHz	Polarization	Horizontal
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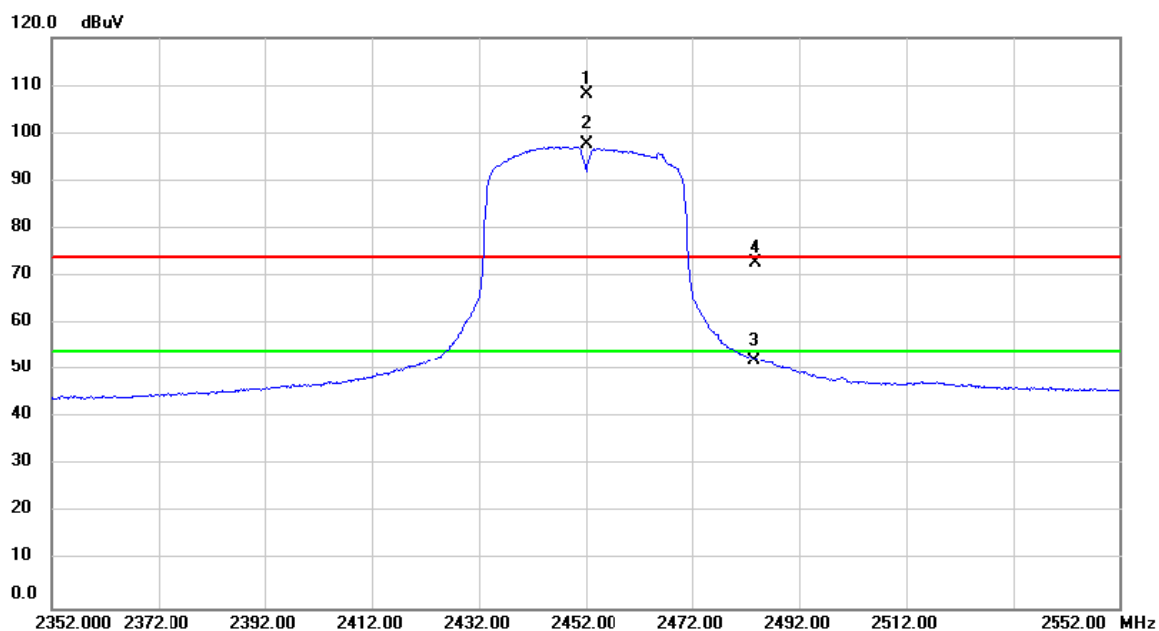
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	X	2437.000	67.88	31.18	99.06	74.00	25.06	peak	No Limit
2	*	2437.000	63.43	31.18	94.61	54.00	40.61	AVG	No Limit

Test Mode	TX N-40M MODE 2437MHz	Polarization	Horizontal
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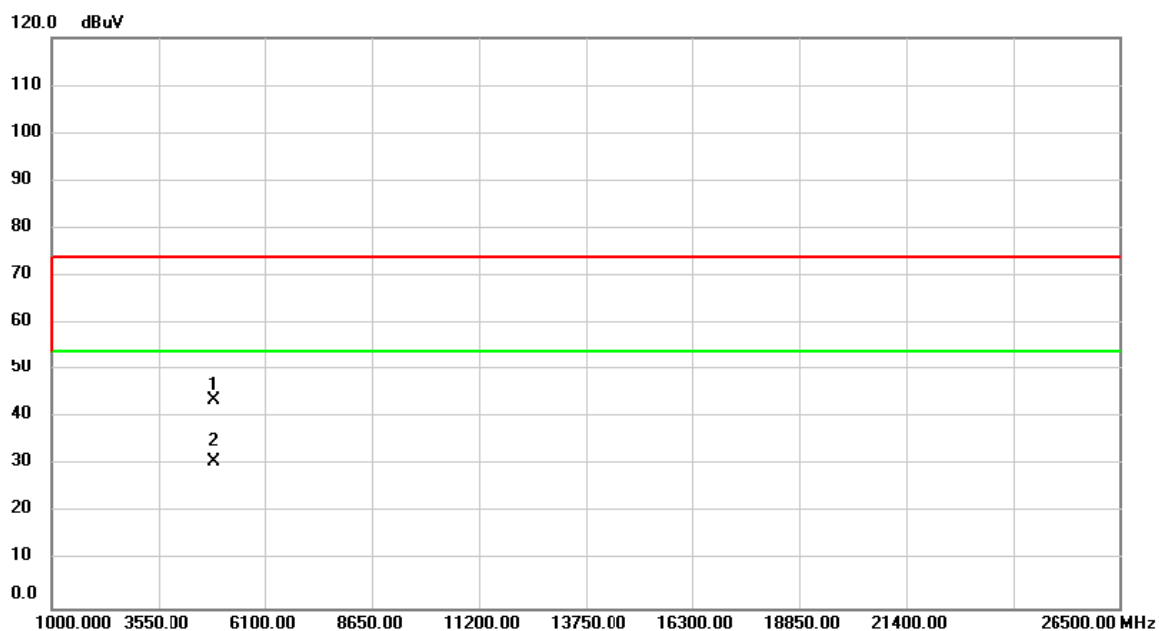
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		4874.000	54.26	-11.37	42.89	74.00	-31.11	peak	
2	*	4874.000	42.24	-11.37	30.87	54.00	-23.13	AVG	

Test Mode	TX N-40M MODE 2452MHz	Polarization	Vertical
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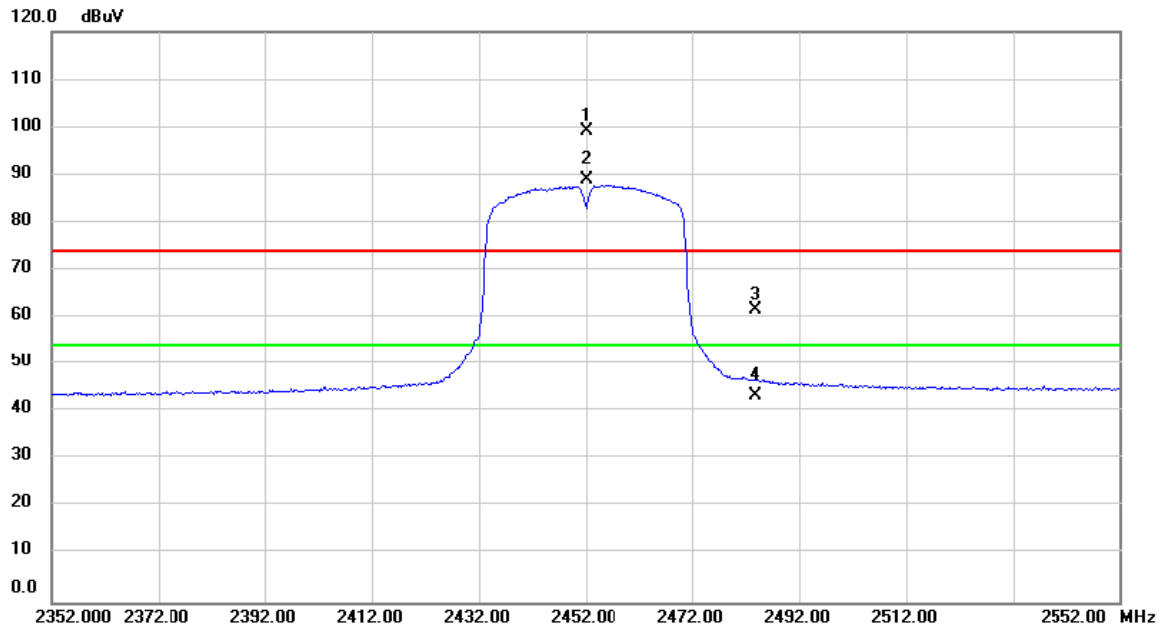
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	X	2452.000	76.82	31.24	108.06	74.00	34.06	peak	No Limit
2	*	2452.000	66.44	31.24	97.68	54.00	43.68	AVG	No Limit
3		2483.706	20.63	31.36	51.99	54.00	-2.01	AVG	
4		2483.911	41.25	31.37	72.62	74.00	-1.38	peak	

Test Mode	TX N-40M MODE 2452MHz	Polarization	Vertical
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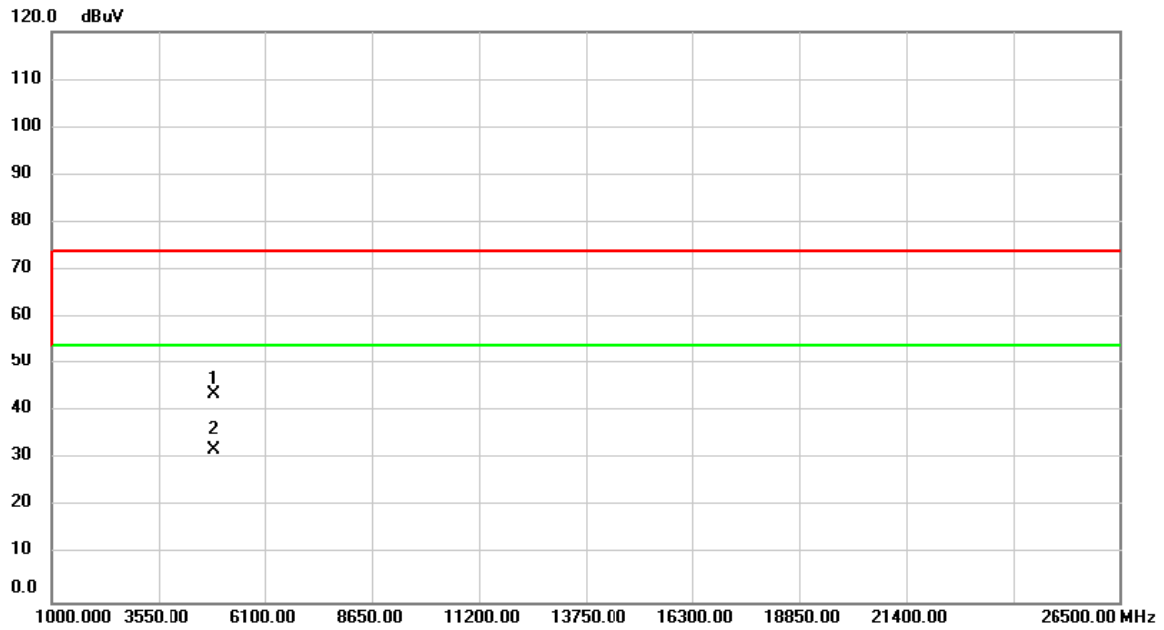
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		4904.000	54.86	-11.33	43.53	74.00	-30.47	peak	
2	*	4904.000	42.09	-11.33	30.76	54.00	-23.24	AVG	

Test Mode	TX N-40M MODE 2452MHz	Polarization	Horizontal
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No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	X	2452.000	68.02	31.24	99.26	74.00	25.26	peak	No Limit
2	*	2452.000	57.76	31.24	89.00	54.00	35.00	AVG	No Limit
3		2483.774	30.21	31.36	61.57	74.00	-12.43	peak	
4		2483.774	12.14	31.36	43.50	54.00	-10.50	AVG	

Test Mode	TX N-40M MODE 2452MHz	Polarization	Horizontal
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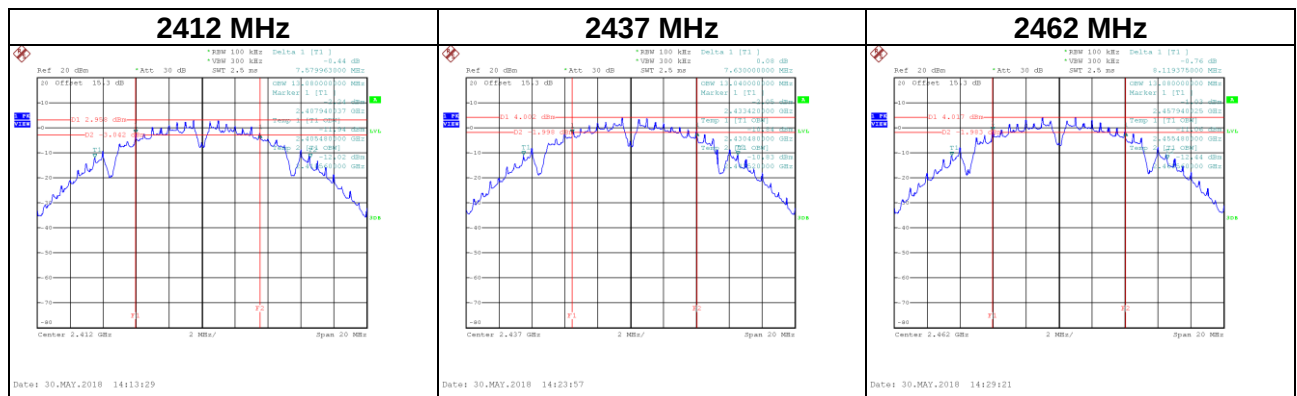


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		4904.000	55.01	-11.33	43.68	74.00	-30.32	peak	
2	*	4904.000	43.25	-11.33	31.92	54.00	-22.08	AVG	

APPENDIX E - BANDWIDTH

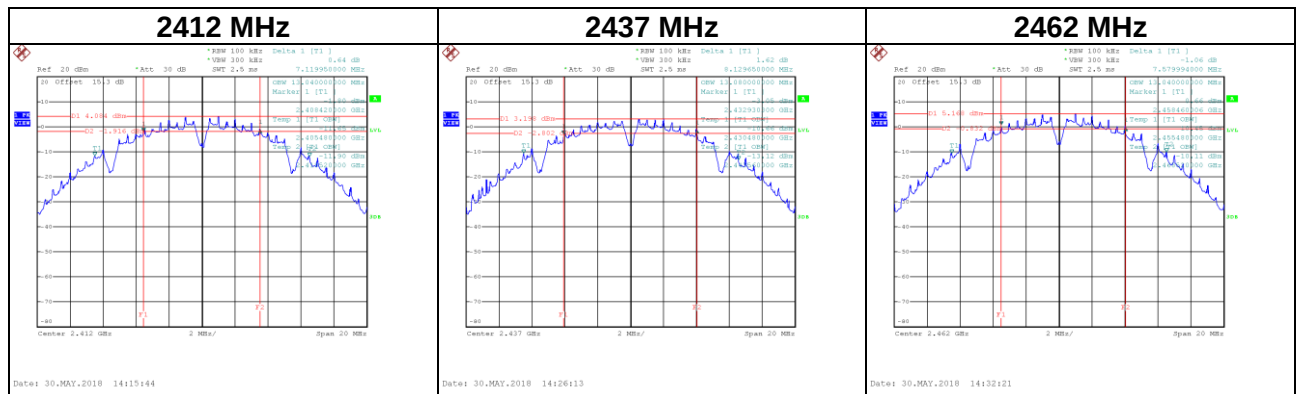
Test Mode : TX B Mode_CH01/06/11_ANT 1

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	7.58	13.08	500	Complies
2437	7.63	13.04	500	Complies
2462	8.12	13.08	500	Complies



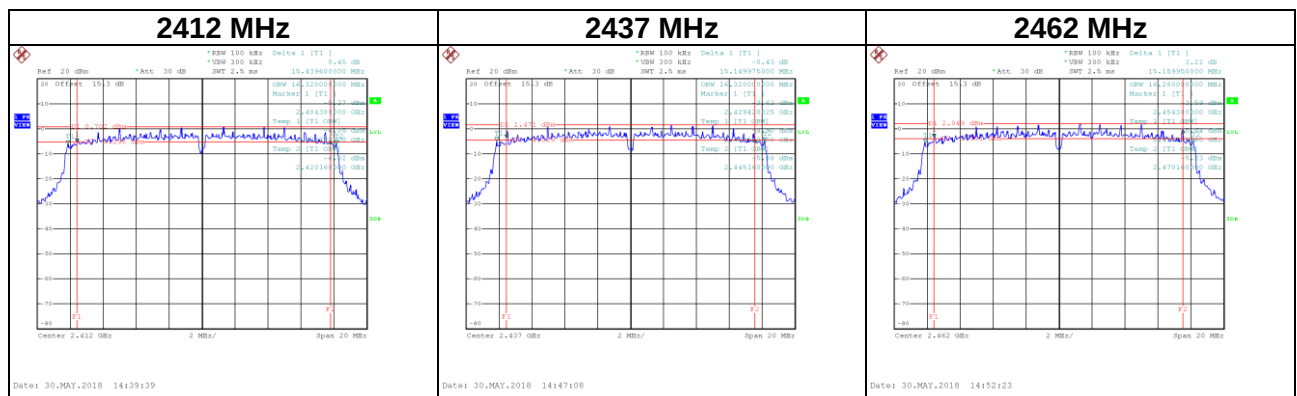
Test Mode : TX B Mode_CH01/06/11_ANT 2

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	7.12	13.04	500	Complies
2437	8.13	13.08	500	Complies
2462	7.58	13.04	500	Complies



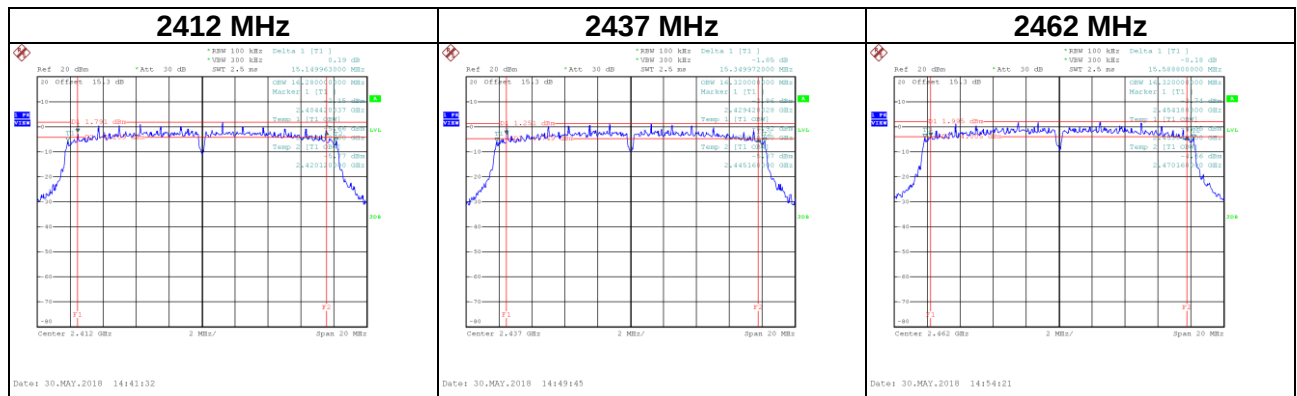
Test Mode: TX G Mode_CH01/06/11_ANT 1

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	15.44	16.32	500	Complies
2437	15.15	16.32	500	Complies
2462	15.16	16.28	500	Complies



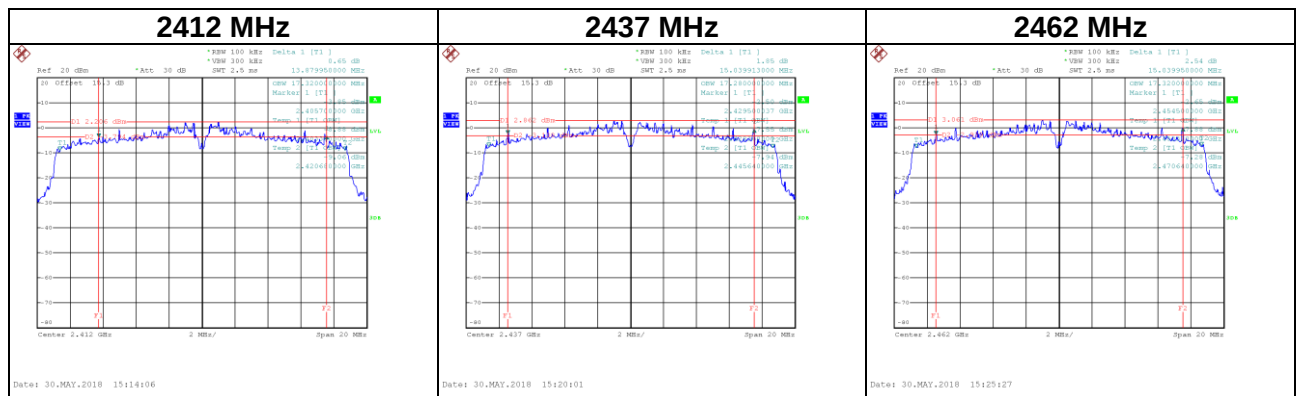
Test Mode: TX G Mode_CH01/06/11_ANT 2

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	15.15	16.28	500	Complies
2437	15.35	16.32	500	Complies
2462	15.59	16.32	500	Complies



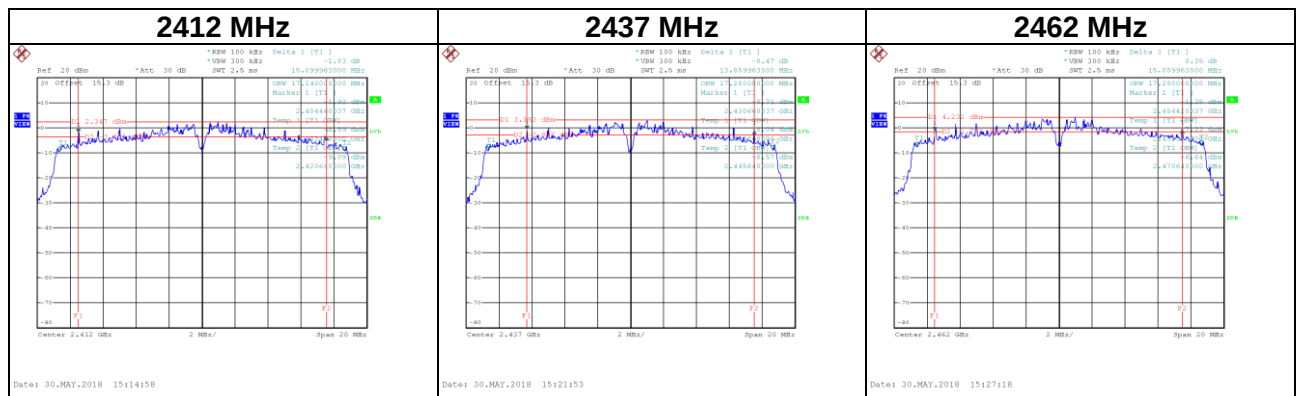
Test Mode : TX N-20MHz Mode_CH01/06/11_ANT 1

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	13.88	17.32	500	Complies
2437	15.04	17.28	500	Complies
2462	15.04	17.32	500	Complies



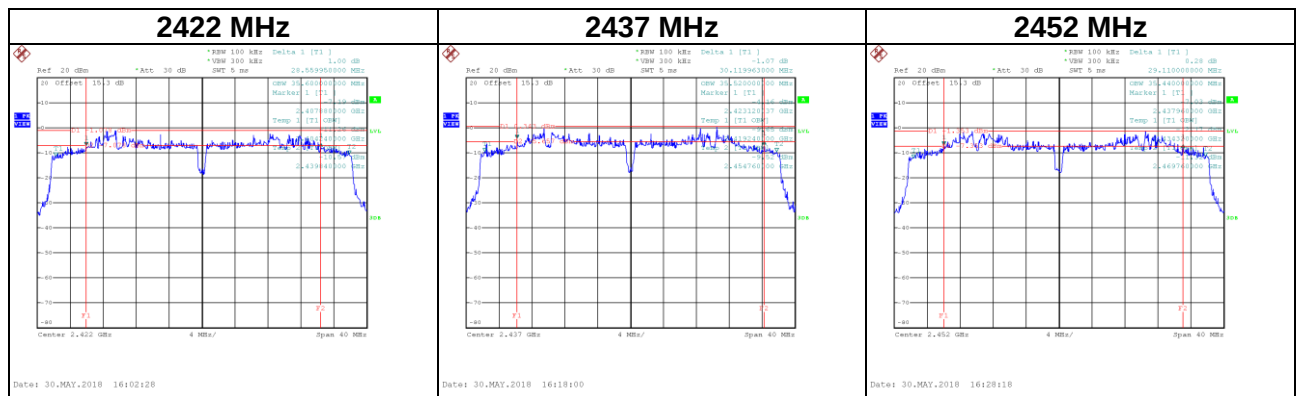
Test Mode : TX N-20MHz Mode_CH01/06/11_ANT 2

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2412	15.10	17.24	500	Complies
2437	13.86	17.28	500	Complies
2462	15.06	17.28	500	Complies



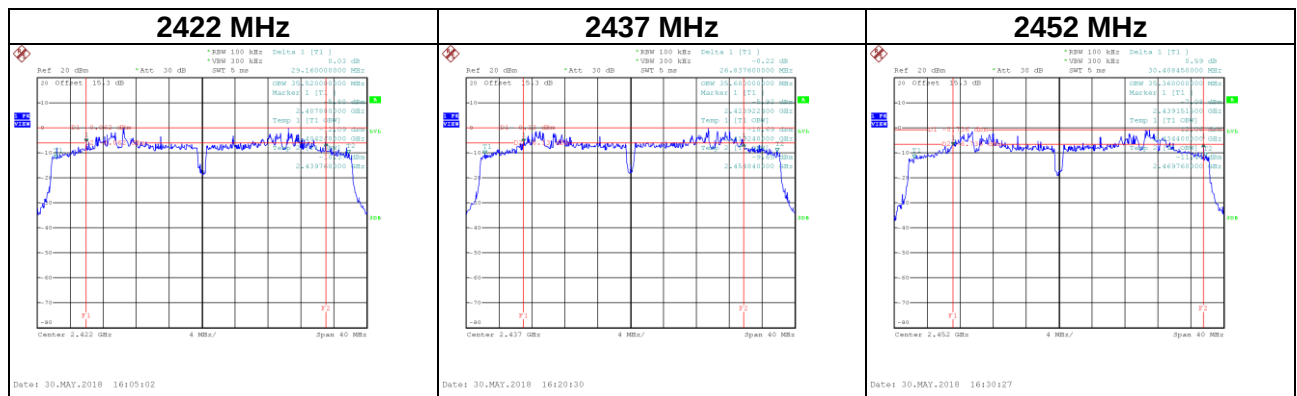
Test Mode : TX N-40MHz Mode_CH03/06/09_ANT 1

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	28.56	35.60	500	Complies
2437	30.12	35.52	500	Complies
2452	29.11	35.44	500	Complies



Test Mode : TX N-40MHz Mode_CH03/06/09_ANT 2

Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied BW (MHz)	Min. Limit (kHz)	Test Result
2422	29.16	35.52	500	Complies
2437	26.84	35.60	500	Complies
2452	30.41	35.36	500	Complies



APPENDIX F - MAXIMUM PEAK CONDUCTED OUTPUT POWER

Test Mode :TX B Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	14.11	0.0258	30.00	1.00	Complies
2437	14.45	0.0279	30.00	1.00	Complies
2462	14.57	0.0286	30.00	1.00	Complies

Test Mode :TX B Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	14.67	0.0293	30.00	1.00	Complies
2437	14.76	0.0299	30.00	1.00	Complies
2462	15.57	0.0361	30.00	1.00	Complies

Test Mode :TX B Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	17.41	0.0551	30.00	1.00	Complies
2437	17.62	0.0578	30.00	1.00	Complies
2462	18.11	0.0647	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	18.24	0.0667	30.00	1.00	Complies
2437	18.78	0.0755	30.00	1.00	Complies
2462	19.12	0.0817	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	19.12	0.0817	30.00	1.00	Complies
2437	18.30	0.0676	30.00	1.00	Complies
2462	19.85	0.0966	30.00	1.00	Complies

Test Mode :TX G Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	21.71	0.1483	30.00	1.00	Complies
2437	21.56	0.1431	30.00	1.00	Complies
2462	22.51	0.1783	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	17.76	0.0597	30.00	1.00	Complies
2437	18.32	0.0679	30.00	1.00	Complies
2462	18.54	0.0714	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	18.16	0.0655	30.00	1.00	Complies
2437	18.58	0.0721	30.00	1.00	Complies
2462	19.07	0.0807	30.00	1.00	Complies

Test Mode :TX N20 Mode_CH01/06/11_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2412	20.97	0.1252	30.00	1.00	Complies
2437	21.46	0.1400	30.00	1.00	Complies
2462	21.82	0.1522	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_ANT 1					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	17.75	0.0596	30.00	1.00	Complies
2437	18.42	0.0695	30.00	1.00	Complies
2452	17.38	0.0547	30.00	1.00	Complies

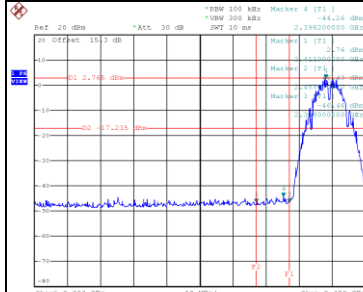
Test Mode :TX N40 Mode_CH03/06/09_ANT 2					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	18.23	0.0665	30.00	1.00	Complies
2437	18.67	0.0736	30.00	1.00	Complies
2452	17.74	0.0594	30.00	1.00	Complies

Test Mode :TX N40 Mode_CH03/06/09_Total					
Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Max. Limit (dBm)	Max. Limit (W)	Result
2422	21.01	0.1261	30.00	1.00	Complies
2437	21.56	0.1431	30.00	1.00	Complies
2452	20.57	0.1141	30.00	1.00	Complies

APPENDIX G - ANTENNA CONDUCTED SPURIOUS EMISSION

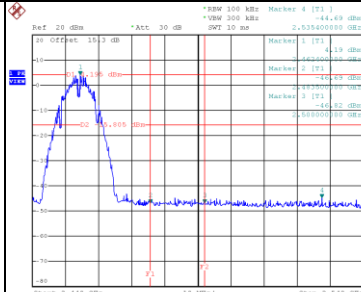
Test Mode :TX B Mode_CH01/06/11_ANT 1

Bandedge-2412 MHz



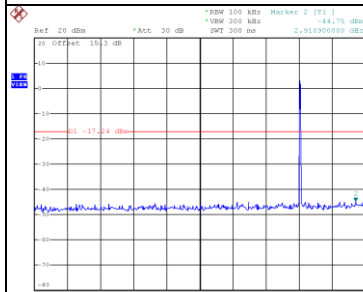
Date: 30.MAY.2018 14:13:41

Bandedge-2462 MHz

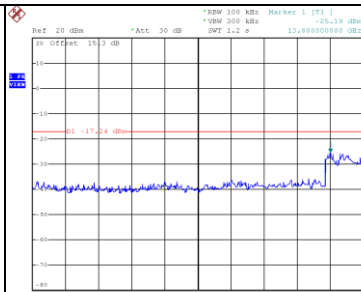


Date: 30.MAY.2018 14:29:31

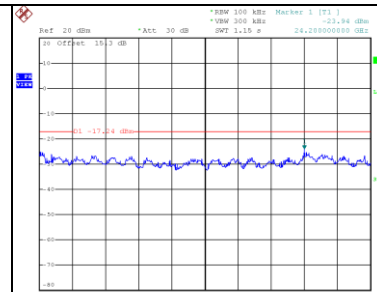
2412 MHz – 10 Harmonics



Date: 30.MAY.2018 14:13:57

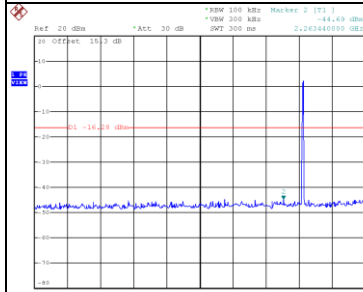


Date: 30.MAY.2018 14:14:07

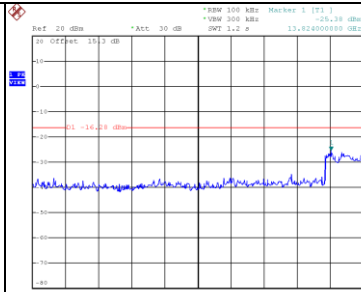


Date: 30.MAY.2018 14:14:17

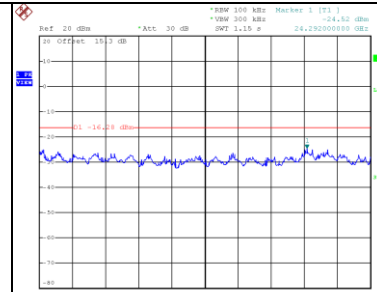
2437 MHz – 10 Harmonics



Date: 30.MAY.2018 14:24:23

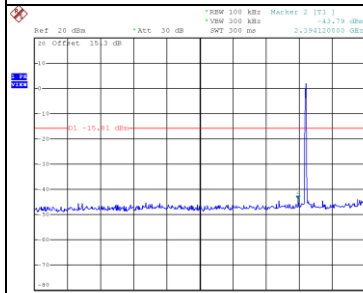


Date: 30.MAY.2018 14:24:33

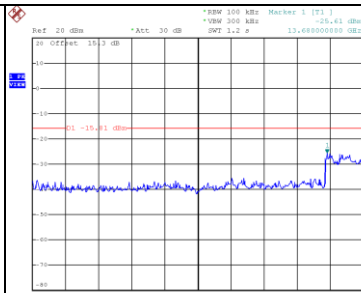


Date: 30.MAY.2018 14:24:43

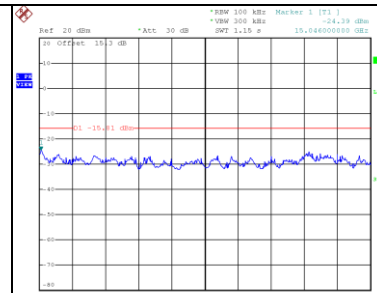
2462 MHz – 10 Harmonics



Date: 30.MAY.2018 14:29:47



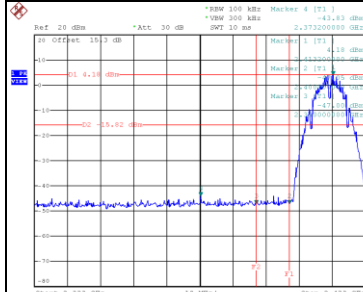
Date: 30.MAY.2018 14:29:58



Date: 30.MAY.2018 14:30:08

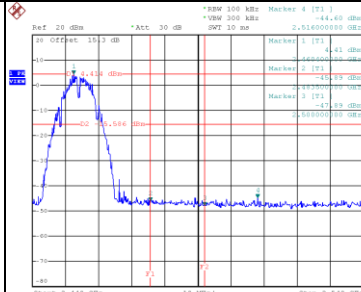
Test Mode :TX B Mode_CH01/06/11_ANT 2

Bandedge-2412 MHz



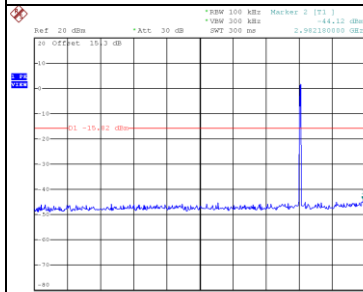
Date: 30.MAY.2018 14:15:54

Bandedge-2462 MHz

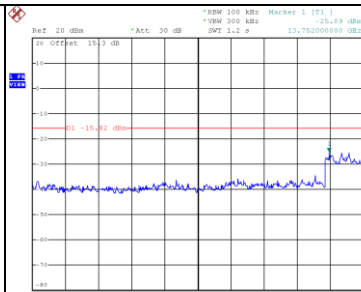


Date: 30.MAY.2018 14:13:02

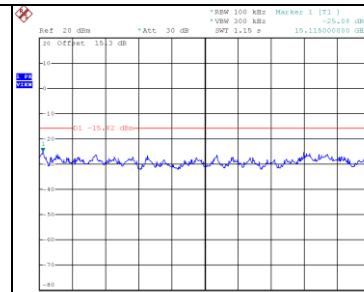
2412 MHz – 10 Harmonics



Date: 30.MAY.2018 14:16:10

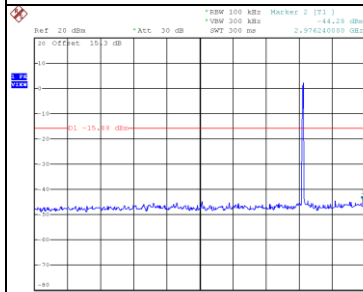


Date: 30.MAY.2018 14:16:20

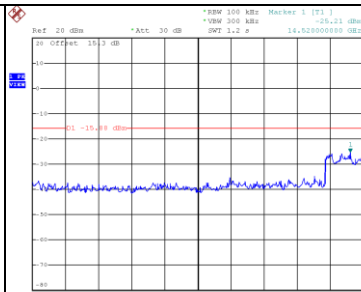


Date: 30.MAY.2018 14:16:30

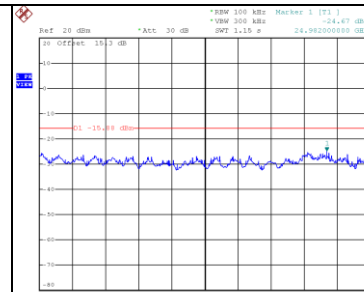
2437 MHz – 10 Harmonics



Date: 30.MAY.2018 14:16:40

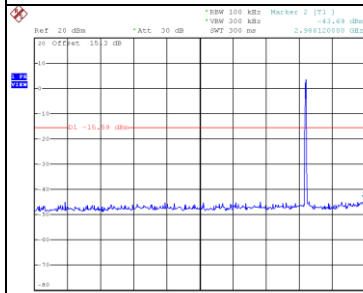


Date: 30.MAY.2018 14:16:50

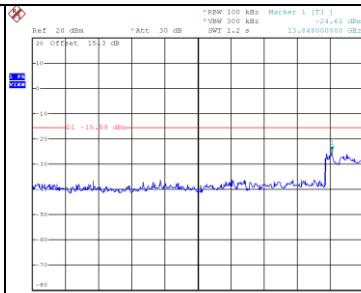


Date: 30.MAY.2018 14:17:00

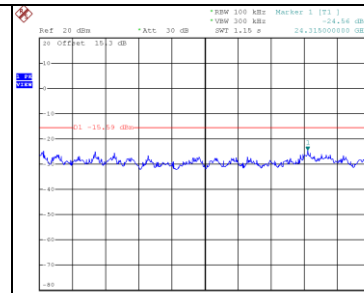
2462 MHz – 10 Harmonics



Date: 30.MAY.2018 14:13:18



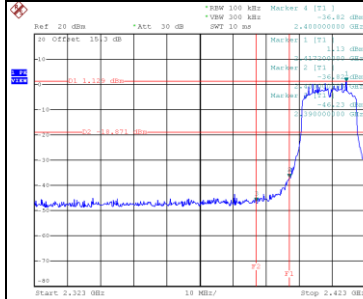
Date: 30.MAY.2018 14:13:28



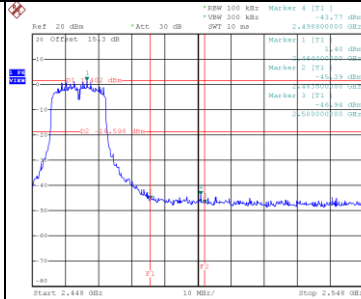
Date: 30.MAY.2018 14:13:38

Test Mode :TX G Mode_CH01/06/11_ANT 1

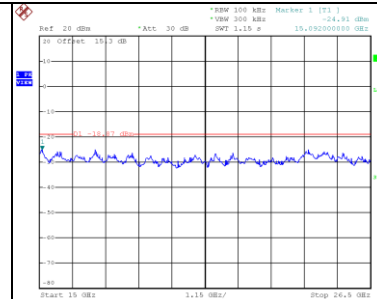
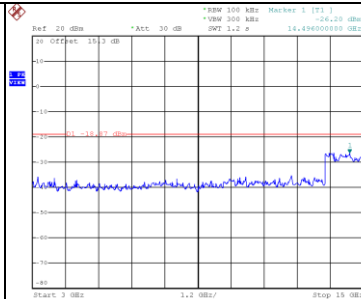
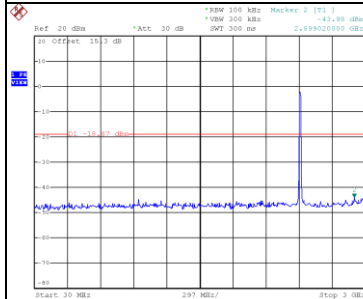
Bandedge-2412 MHz



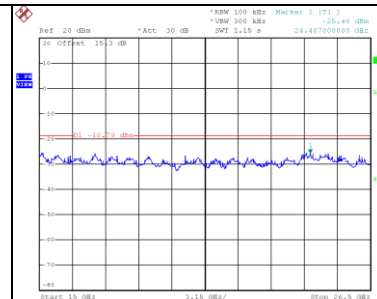
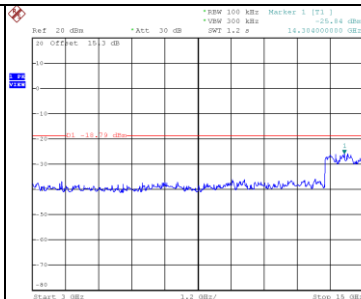
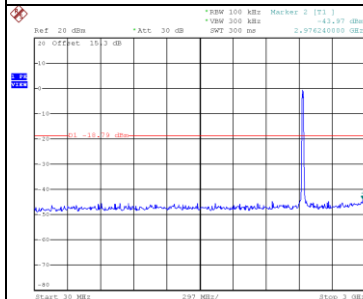
Bandedge-2462 MHz



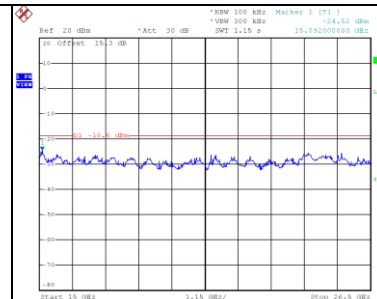
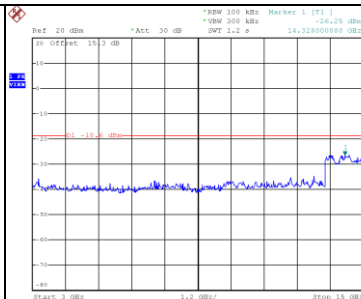
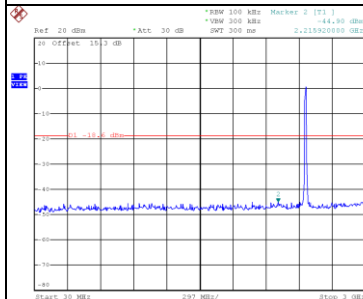
2412 MHz – 10 Harmonics



2437 MHz – 10 Harmonics

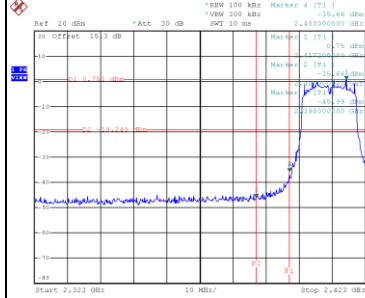


2462 MHz – 10 Harmonics



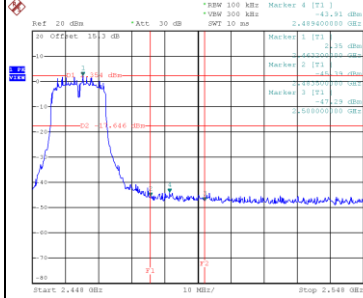
Test Mode :TX G Mode_CH01/06/11_ANT 2

Bandedge-2412 MHz



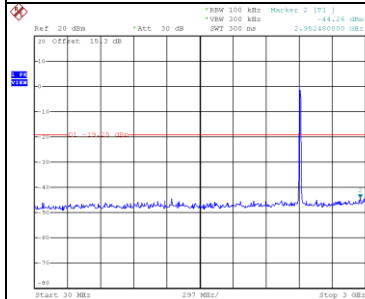
Date: 30.MAY.2018 14:41:42

Bandedge-2462 MHz

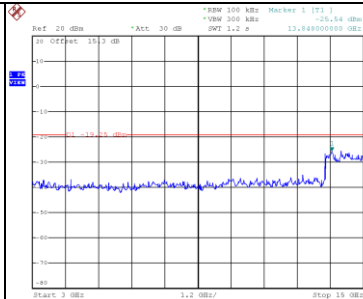


Date: 30.MAY.2018 14:54:31

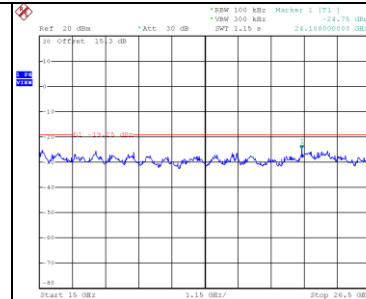
2412 MHz – 10 Harmonics



Date: 30.MAY.2018 14:41:58

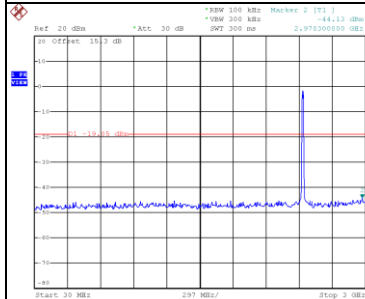


Date: 30.MAY.2018 14:42:09

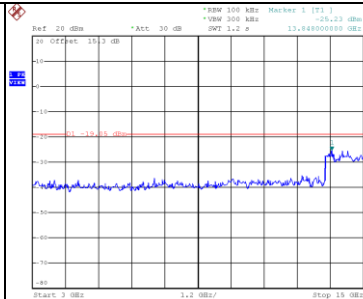


Date: 30.MAY.2018 14:42:19

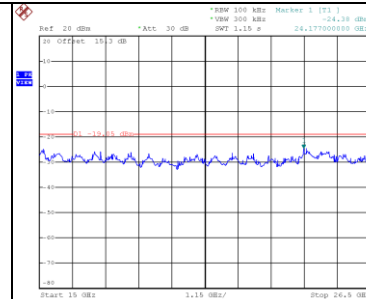
2437 MHz – 10 Harmonics



Date: 30.MAY.2018 14:50:11

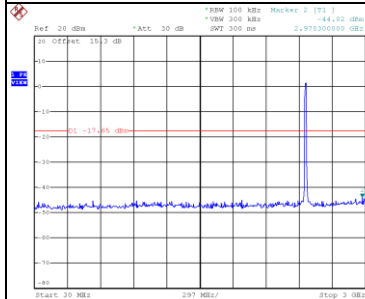


Date: 30.MAY.2018 14:50:21

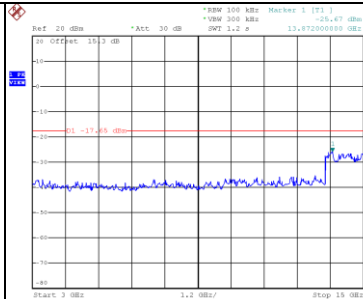


Date: 30.MAY.2018 14:50:31

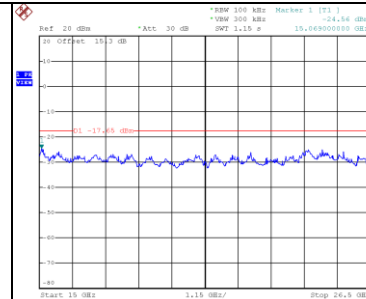
2462 MHz – 10 Harmonics



Date: 30.MAY.2018 14:54:47

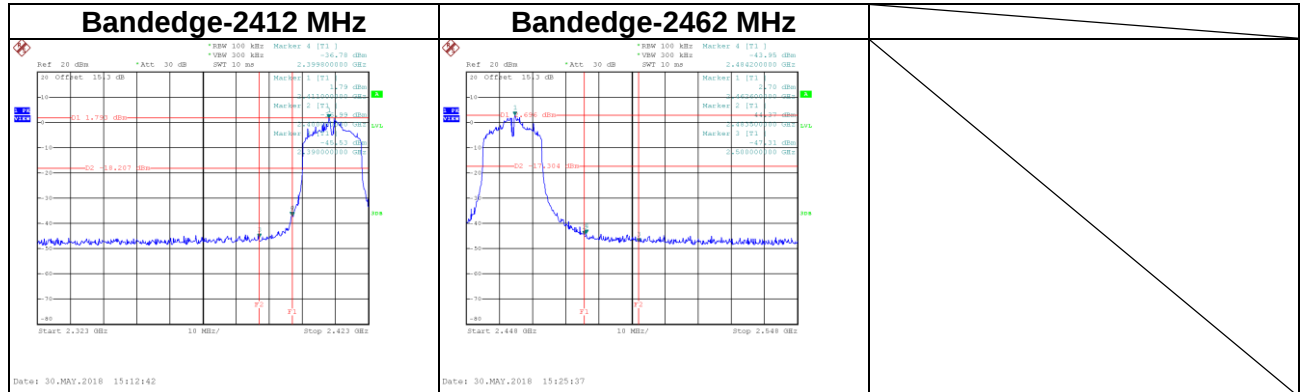


Date: 30.MAY.2018 14:54:57

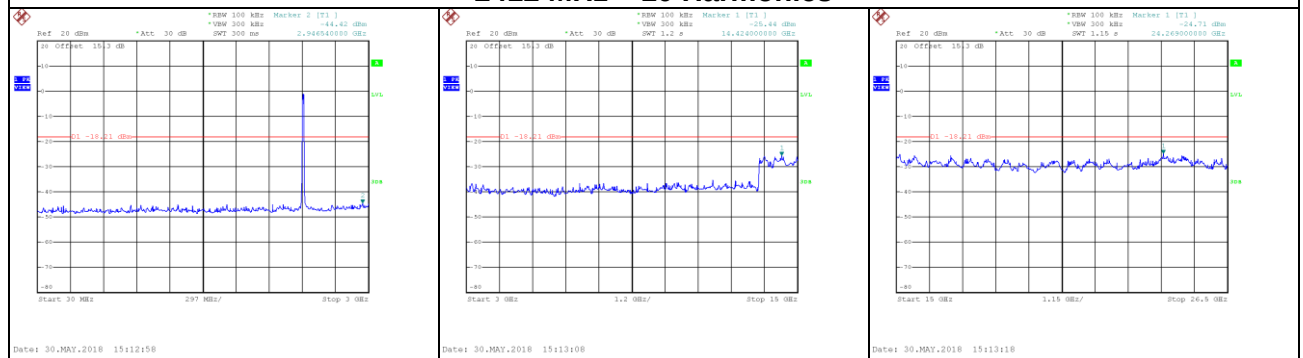


Date: 30.MAY.2018 14:55:07

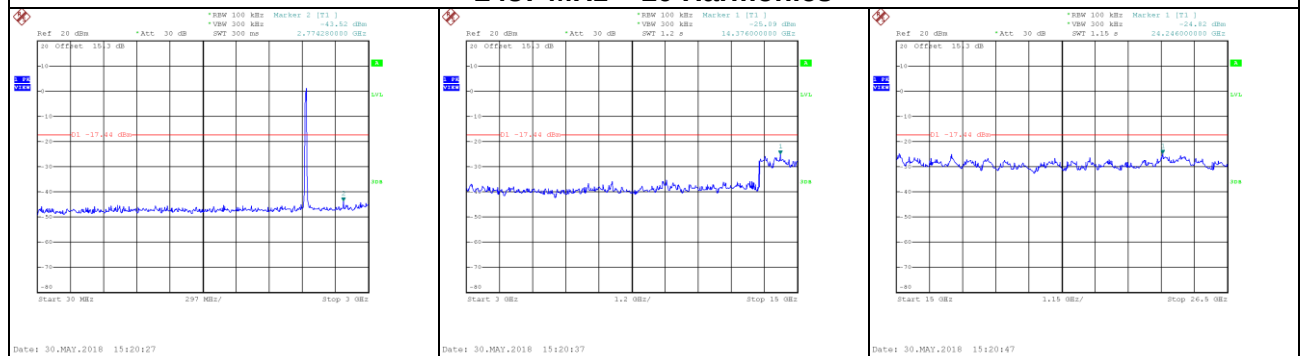
Test Mode :TX N-20M Mode_CH01/06/11_ANT 1



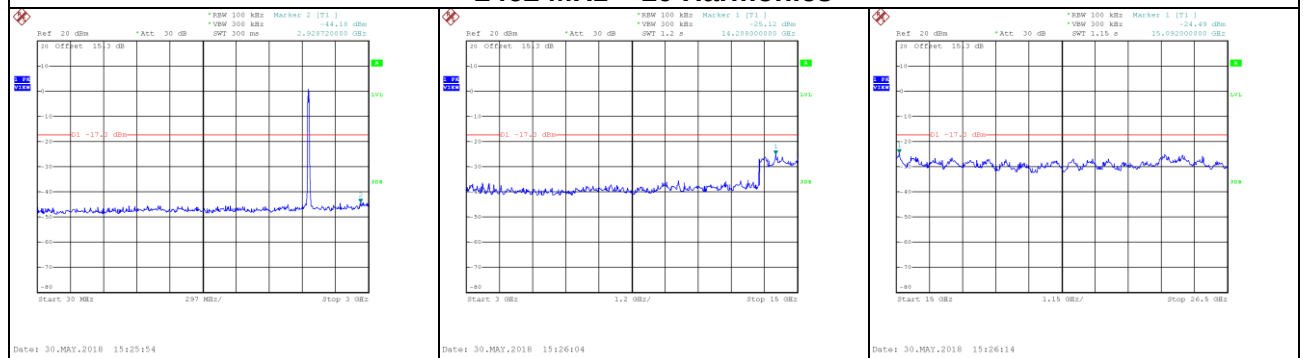
2412 MHz – 10 Harmonics



2437 MHz – 10 Harmonics

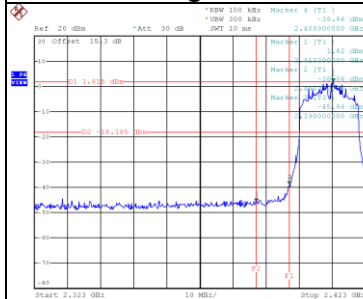


2462 MHz – 10 Harmonics



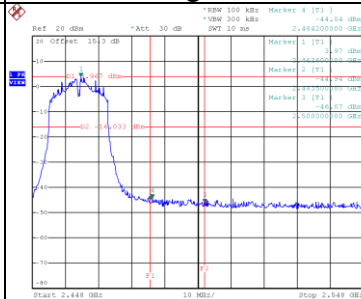
Test Mode :TX N-20M Mode_CH01/06/11_ANT 2

Bandedge-2412 MHz



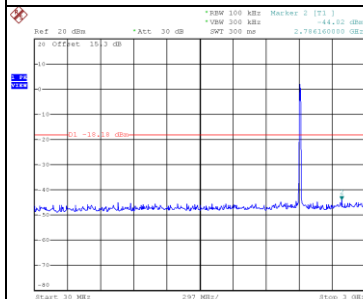
Date: 30.MAY.2018 15:15:08

Bandedge-2462 MHz

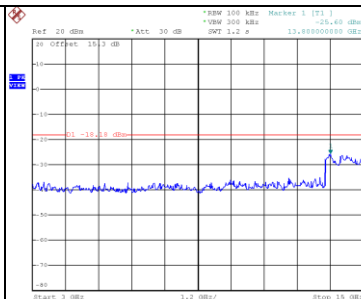


Date: 30.MAY.2018 15:27:28

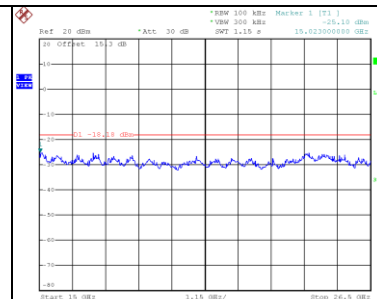
2412 MHz – 10 Harmonics



Date: 30.MAY.2018 15:15:25

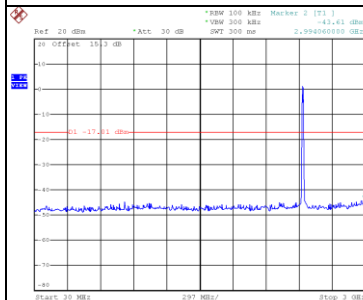


Date: 30.MAY.2018 15:15:35

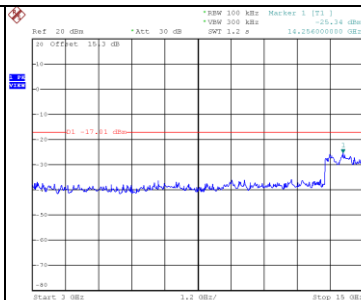


Date: 30.MAY.2018 15:15:45

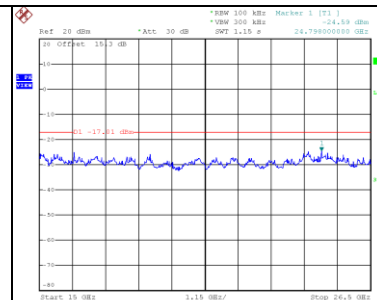
2437 MHz – 10 Harmonics



Date: 30.MAY.2018 15:22:19

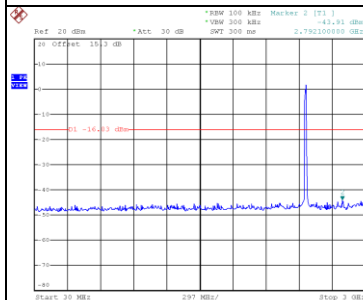


Date: 30.MAY.2018 15:22:30

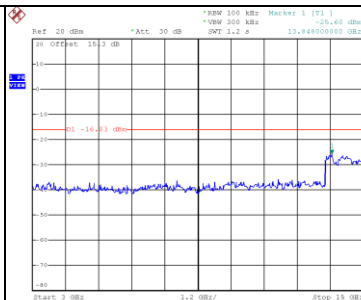


Date: 30.MAY.2018 15:22:40

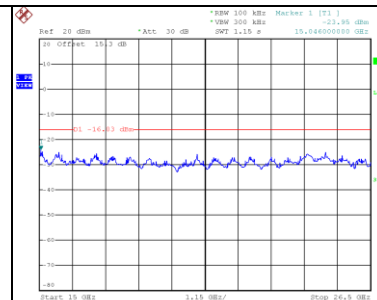
2462 MHz – 10 Harmonics



Date: 30.MAY.2018 15:27:44

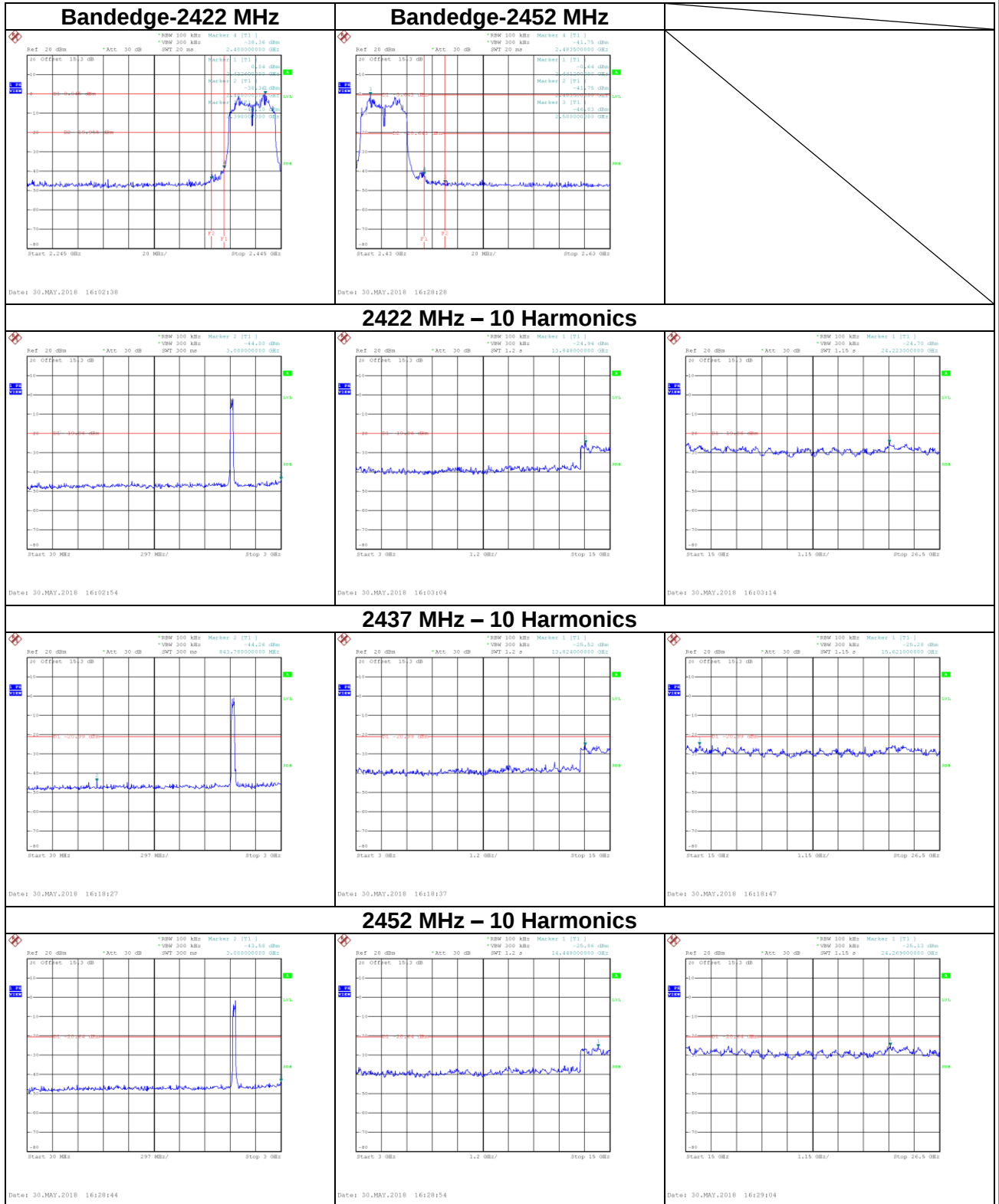


Date: 30.MAY.2018 15:27:54



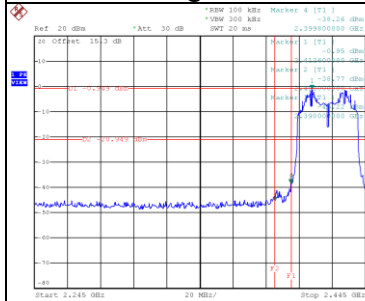
Date: 30.MAY.2018 15:28:04

Test Mode :TX N-40M Mode_CH03/06/09_ANT 1



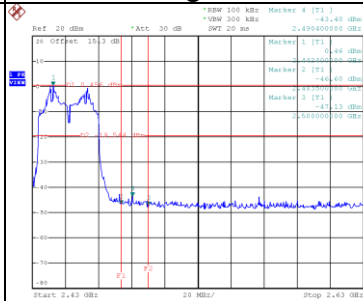
Test Mode :TX N-40M Mode_CH03/06/09_ANT 2

Bandedge-2422 MHz



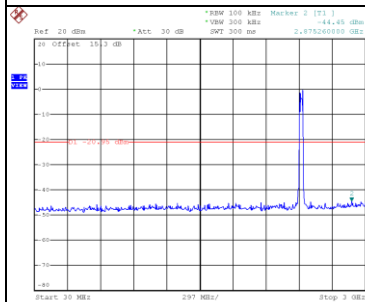
Date: 30.MAY.2018 16:05:13

Bandedge-2452 MHz

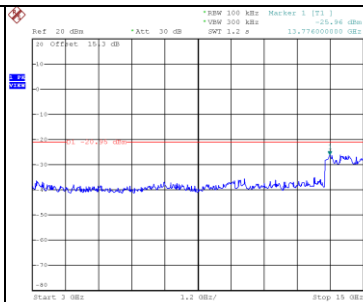


Date: 30.MAY.2018 16:30:17

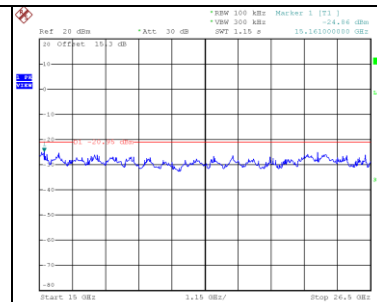
2422 MHz – 10 Harmonics



Date: 30.MAY.2018 16:05:29

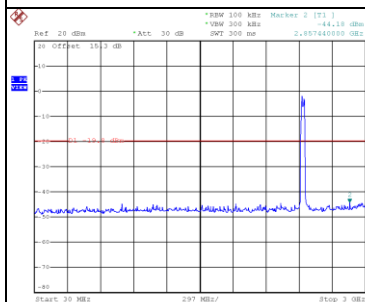


Date: 30.MAY.2018 16:05:39

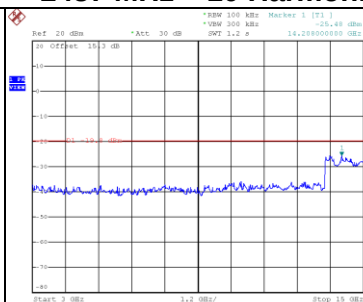


Date: 30.MAY.2018 16:05:49

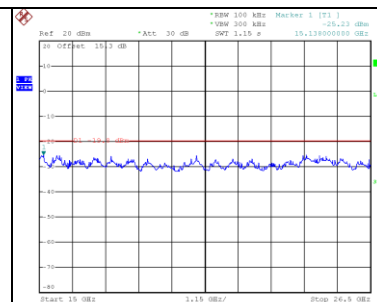
2437 MHz – 10 Harmonics



Date: 30.MAY.2018 16:20:56

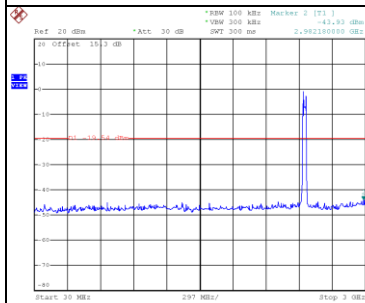


Date: 30.MAY.2018 16:21:06

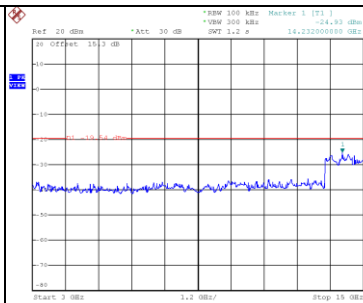


Date: 30.MAY.2018 16:21:17

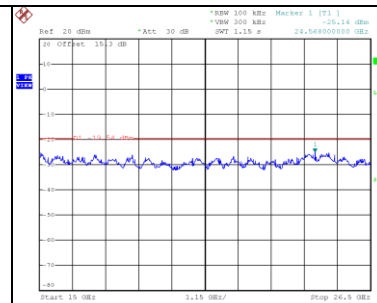
2452 MHz – 10 Harmonics



Date: 30.MAY.2018 16:30:53



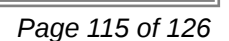
Date: 30.MAY.2018 16:31:04



Date: 30.MAY.2018 16:31:14

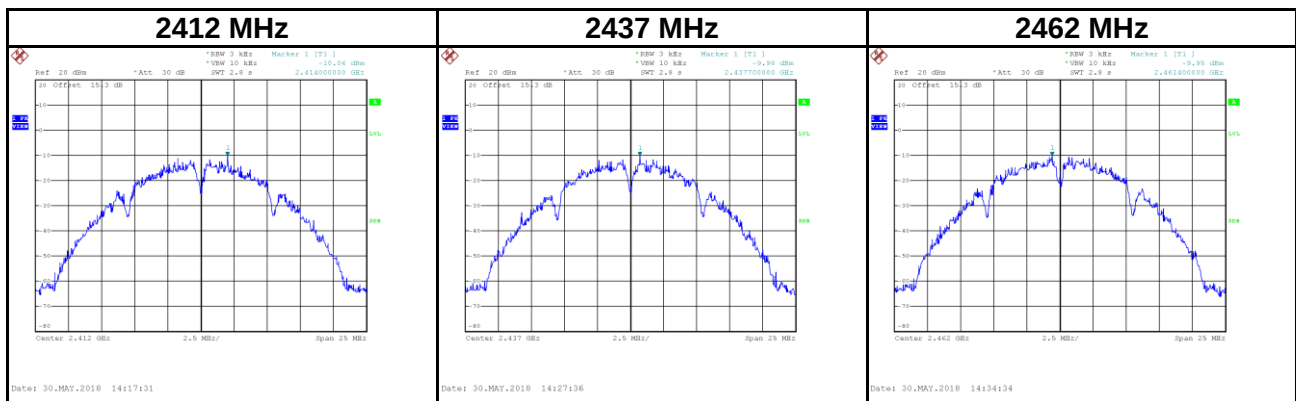
APPENDIX H - POWER SPECTRAL DENSITY

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-12.95	0.05	5.96	Complies
2437	-10.51	0.09	5.96	Complies
2462	-10.93	0.08	5.96	Complies



Test Mode :TX B Mode_CH01/06/11_ANT 2

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.06	0.10	5.96	Complies
2437	-9.98	0.10	5.96	Complies
2462	-9.95	0.10	5.96	Complies

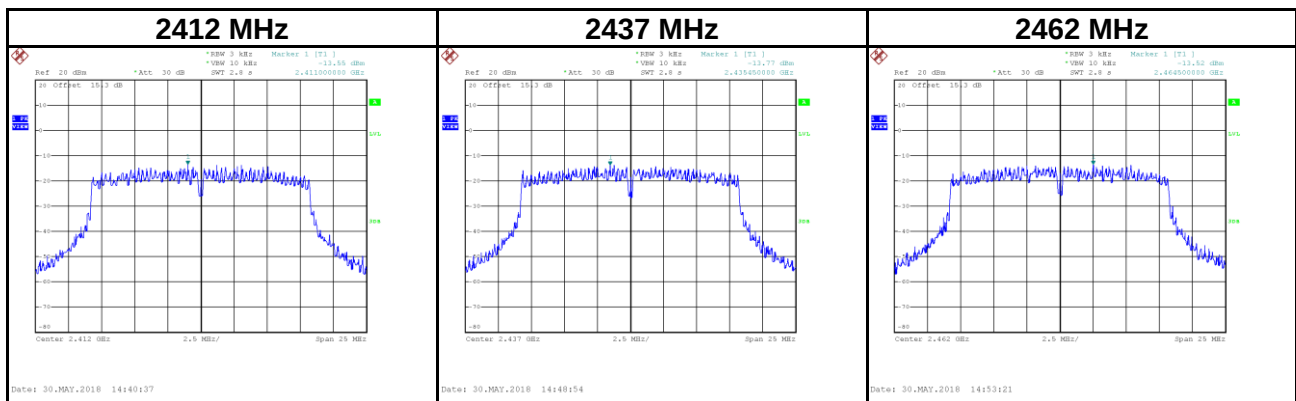


Test Mode :TX B Mode_CH01/06/11_Total

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-8.26	0.15	5.96	Complies
2437	-7.23	0.19	5.96	Complies
2462	-7.40	0.18	5.96	Complies

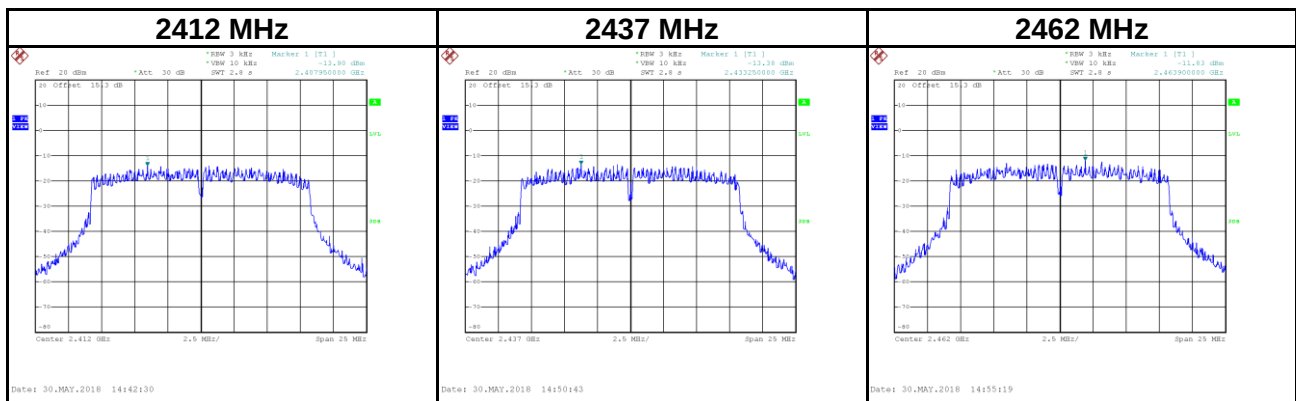
Test Mode :TX G Mode_CH01/06/11_ANT 1

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-13.55	0.04	5.96	Complies
2437	-13.77	0.04	5.96	Complies
2462	-13.52	0.04	5.96	Complies



Test Mode :TX G Mode_CH01/06/11_ANT 2

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-13.90	0.04	5.96	Complies
2437	-13.38	0.05	5.96	Complies
2462	-11.83	0.07	5.96	Complies

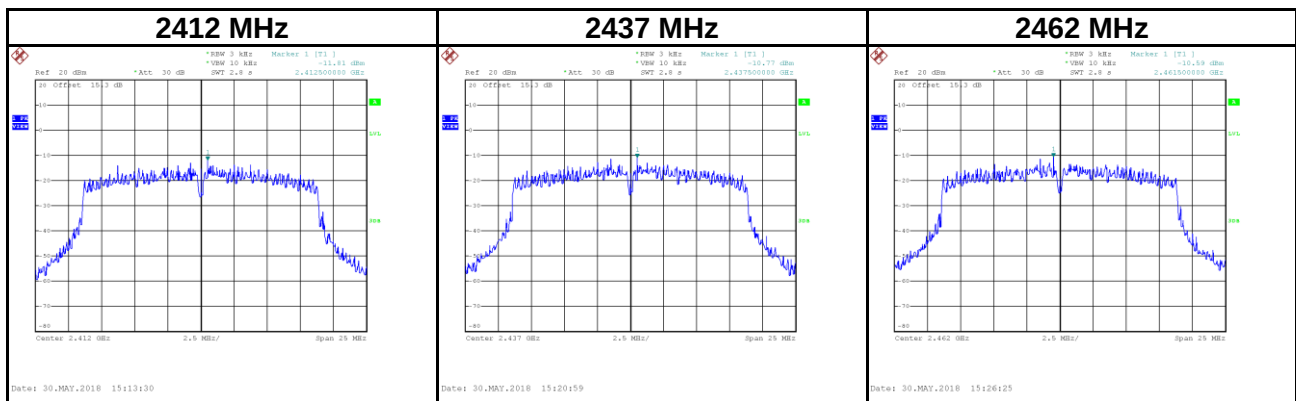


Test Mode :TX G Mode_CH01/06/11_Total

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.71	0.08	5.96	Complies
2437	-10.56	0.09	5.96	Complies
2462	-9.58	0.11	5.96	Complies

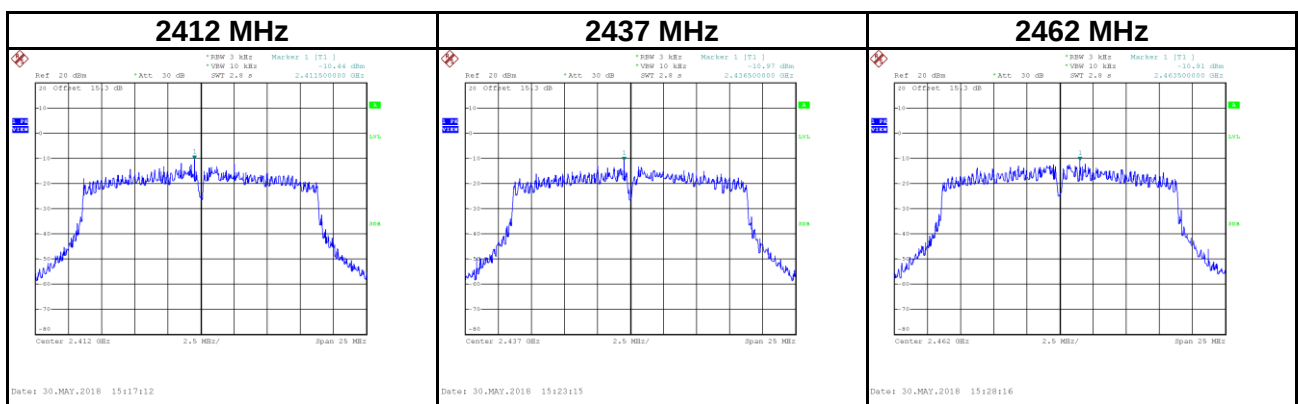
Test Mode : TX N-20M Mode_CH01/06/11_ANT 1

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-11.81	0.07	5.96	Complies
2437	-10.77	0.08	5.96	Complies
2462	-10.59	0.09	5.96	Complies



Test Mode : TX N-20M Mode_CH01/06/11_ANT 2

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-10.44	0.09	5.96	Complies
2437	-10.97	0.08	5.96	Complies
2462	-10.91	0.08	5.96	Complies

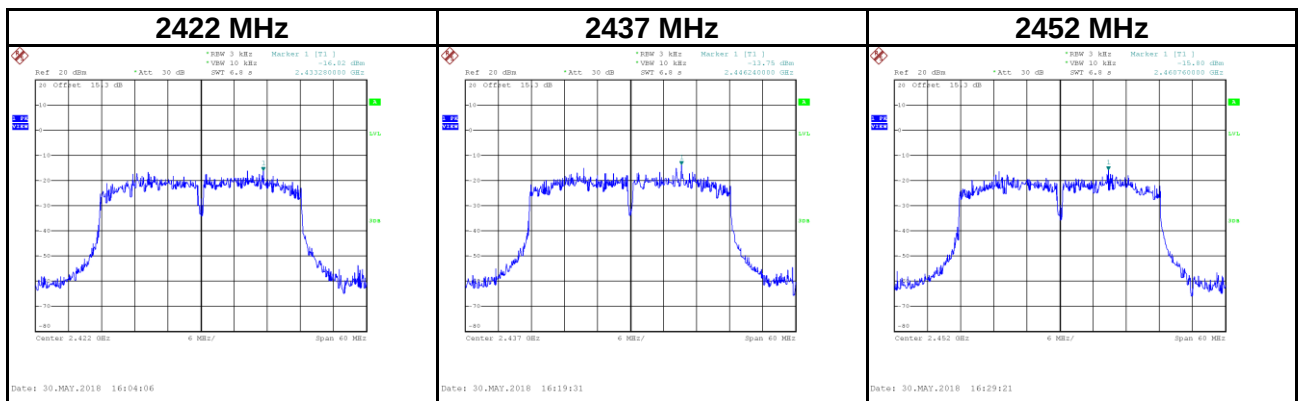


Test Mode : TX N-20M Mode_CH01/06/11_Total

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2412	-8.06	0.16	5.96	Complies
2437	-7.86	0.16	5.96	Complies
2462	-7.74	0.17	5.96	Complies

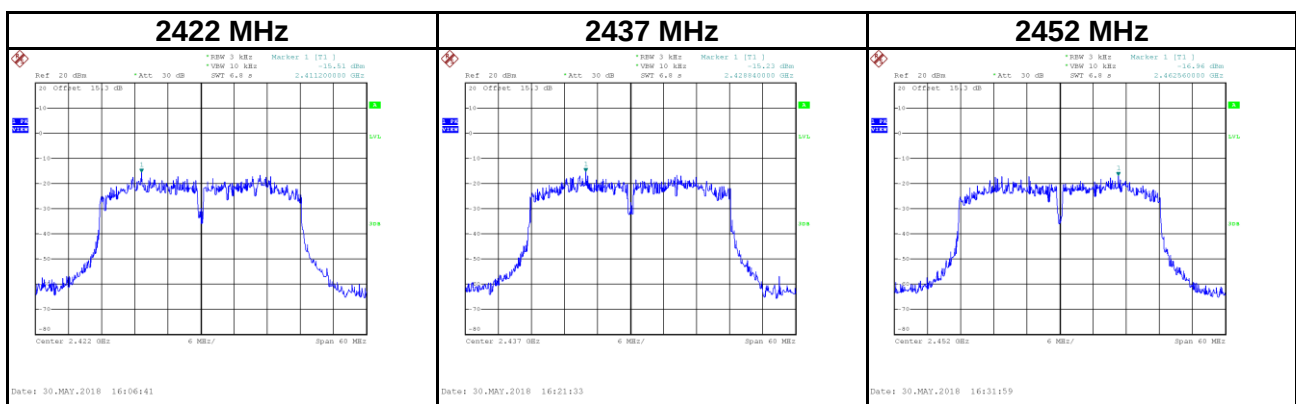
Test Mode : TX N-40M Mode_CH03/06/09_ANT 1

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-16.02	0.03	5.96	Complies
2437	-13.75	0.04	5.96	Complies
2452	-15.80	0.03	5.96	Complies



Test Mode : TX N-40M Mode_CH03/06/09_ANT 2

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-15.51	0.03	5.96	Complies
2437	-15.23	0.03	5.96	Complies
2452	-16.96	0.02	5.96	Complies



Test Mode : TX N-40M Mode_CH03/06/09_Total

Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	Max. Limit (dBm/3kHz)	Result
2422	-12.75	0.05	5.96	Complies
2437	-11.42	0.07	5.96	Complies
2452	-13.33	0.05	5.96	Complies