ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,386.000	30.78	54.00	23.22	6.32	V	215.8	2.00
5	2,390.000	30.84	54.00	23.16	6.39	V	215.8	2.00
5	2,404.000	60.23			6.63	V	64	2.00

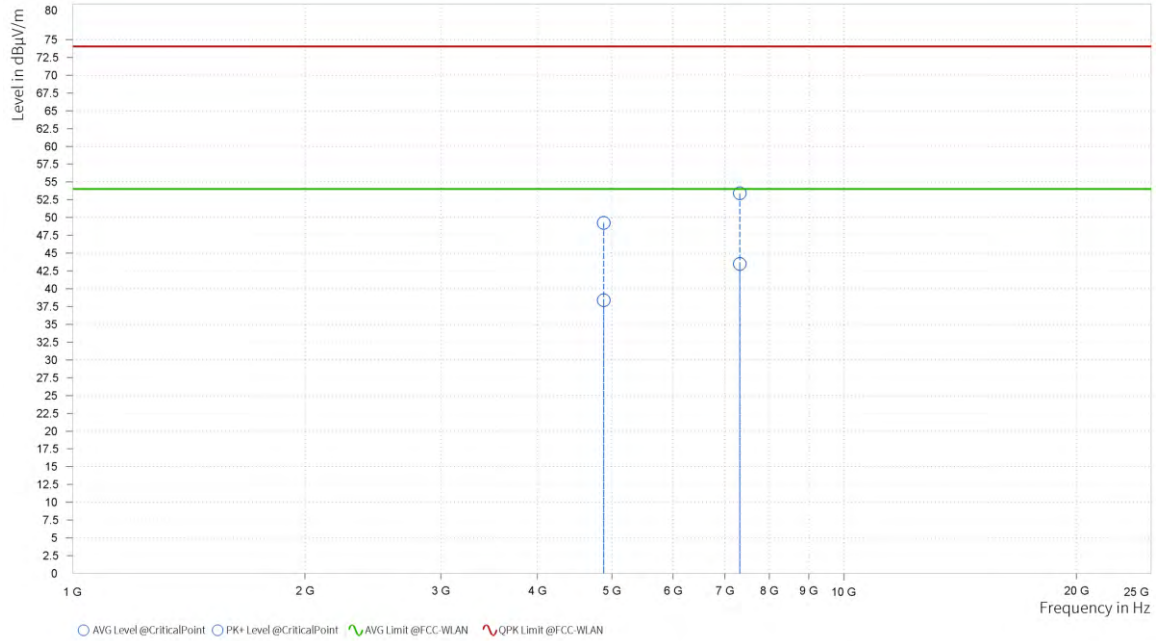
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2404MHz: Fundamental frequency.

CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

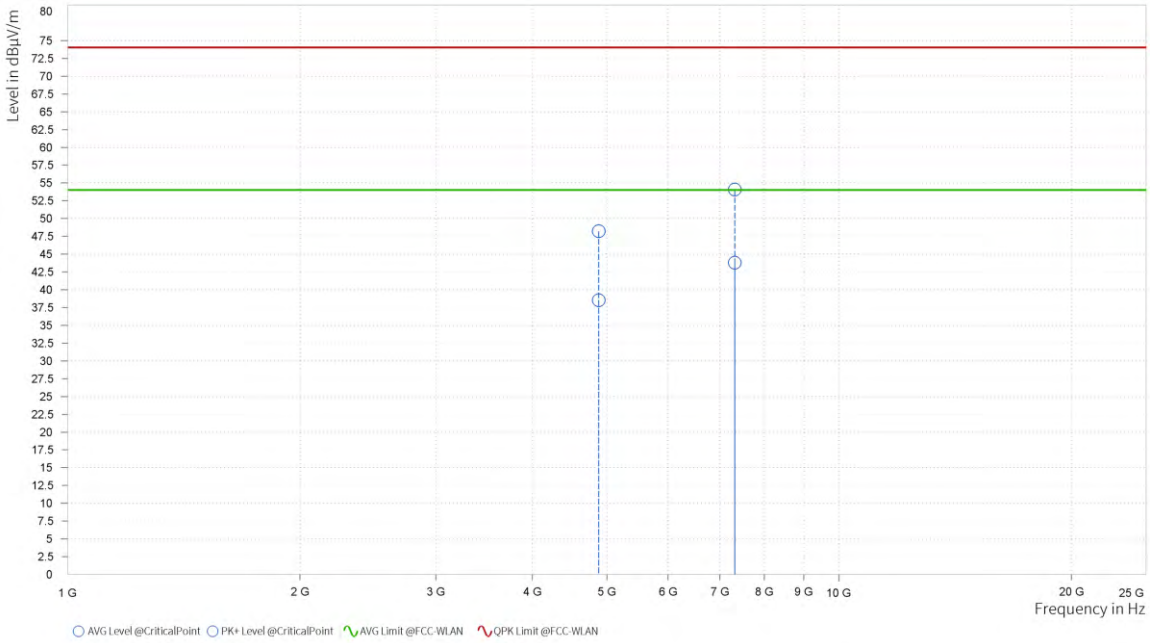
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+: QPK Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	4,880.000	49.26	74.00	24.74	38.38	54.00	15.62	13.81	H	128.6	2.00
3	7,320.000	53.40	74.00	20.60	43.49	54.00	10.51	19.47	H	0.9	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+: QPK Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	4,880.000	48.21	74.00	25.79	38.51	54.00	15.49	13.81	V	95.2	2.00
3	7,320.000	54.06	74.00	19.94	43.78	54.00	10.22	19.47	V	359	1.00



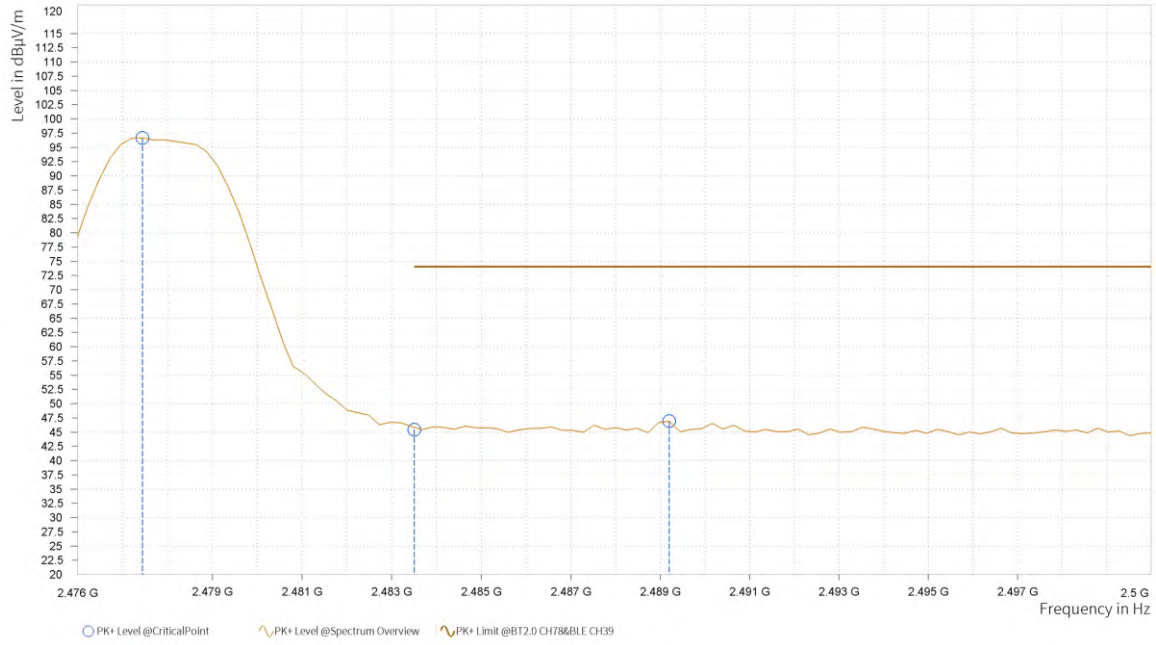
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor.
2. Margin value = Limit value–Emission level.
3. 2440MHz: Fundamental frequency.

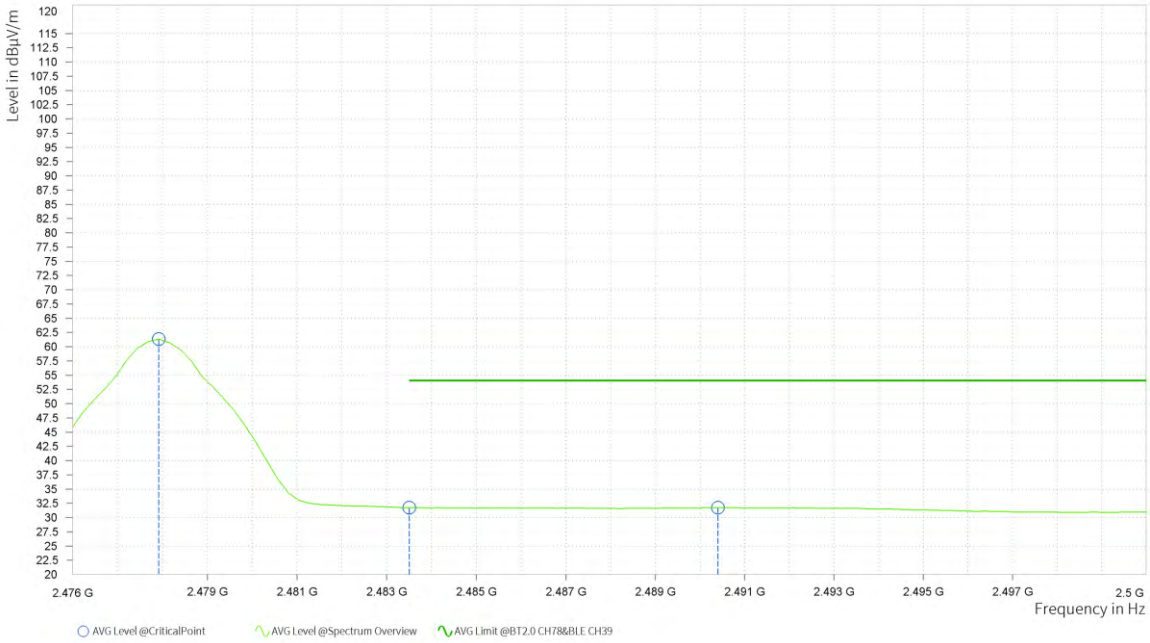
CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

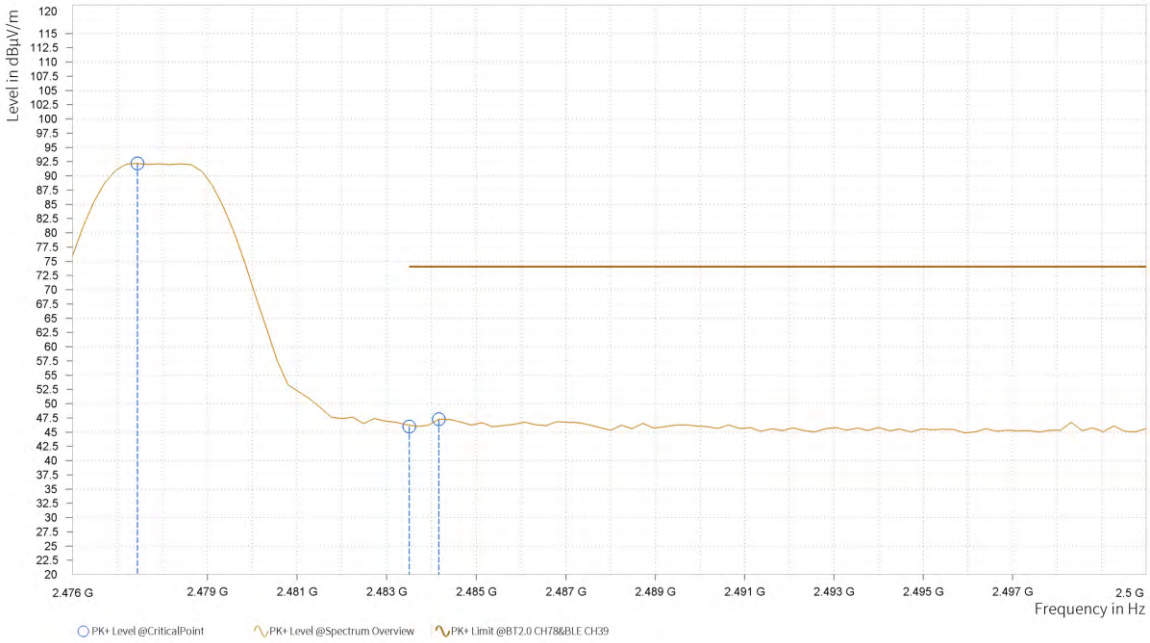
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,477.440	96.67			7.27	H	187.2	1.00
6	2,483.500	45.43	74.00	28.57	7.17	H	187.2	1.00
6	2,489.200	46.92	74.00	27.08	7.09	H	266.1	2.00



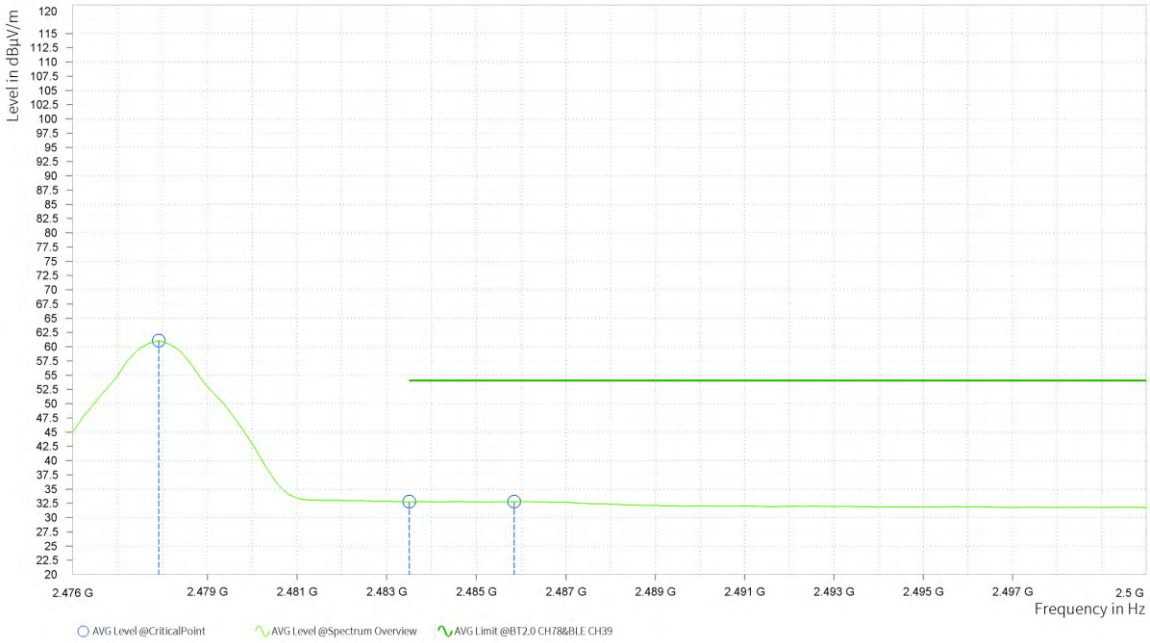
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,477.920	61.34			7.26	H	44.9	1.00
6	2,483.500	31.72	54.00	22.28	7.17	H	94	1.00
6	2,490.400	31.75	54.00	22.25	7.07	H	167	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,477.440	92.18			7.27	V	152.5	1.00
6	2,483.500	46.00	74.00	28.00	7.17	V	217	2.00
6	2,484.160	47.25	74.00	26.75	7.17	V	116.6	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,477.920	61.07			7.26	V	107.2	2.00
6	2,483.500	32.77	54.00	21.23	7.17	V	213.5	2.00
6	2,485.840	32.79	54.00	21.21	7.14	V	213.5	2.00



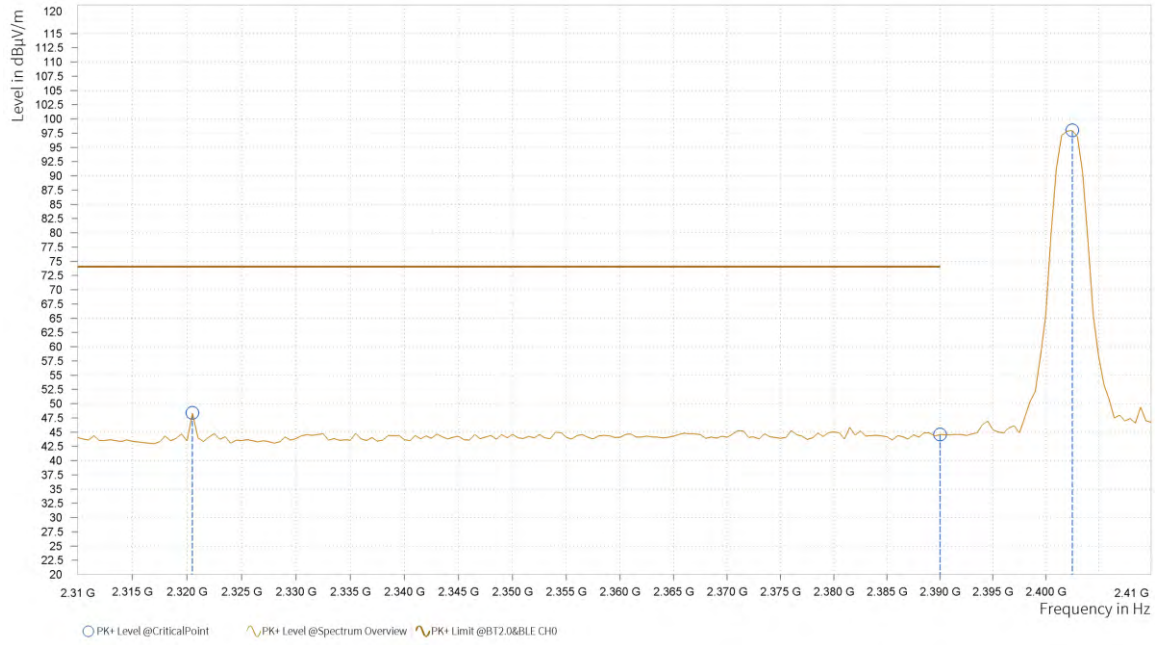
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2478MHz: Fundamental frequency.

BT-LE _S2			
CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

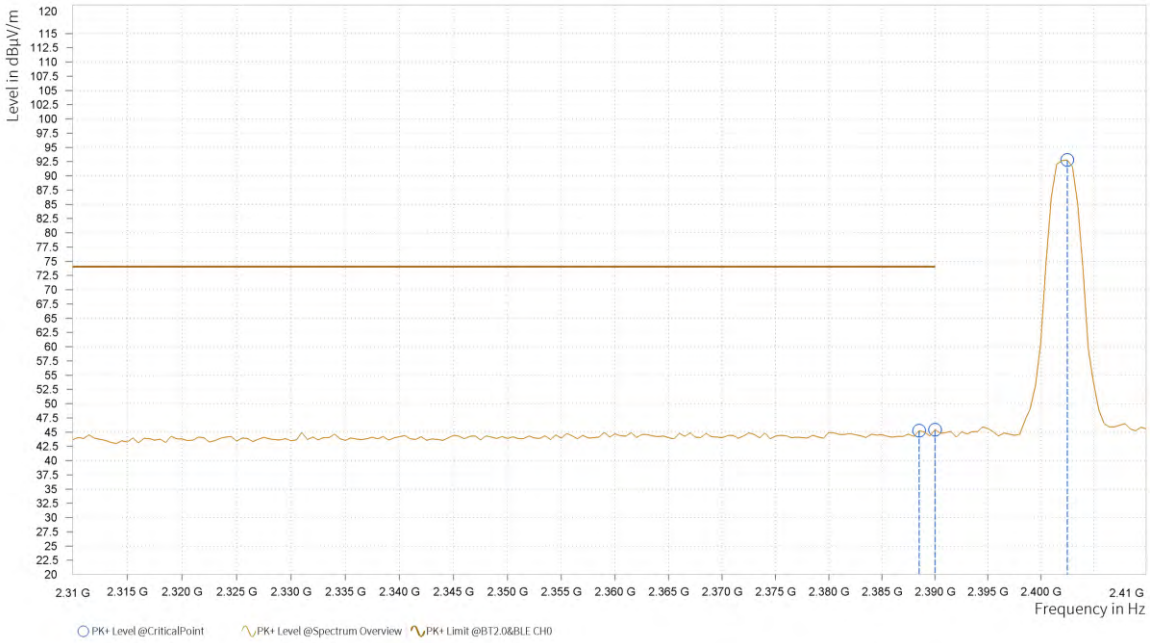
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,320.500	48.36	74.00	25.64	5.76	H	1	1.00
5	2,390.000	44.57	74.00	29.43	6.39	H	359.1	1.00
5	2,402.500	97.96			6.60	H	145.4	1.00



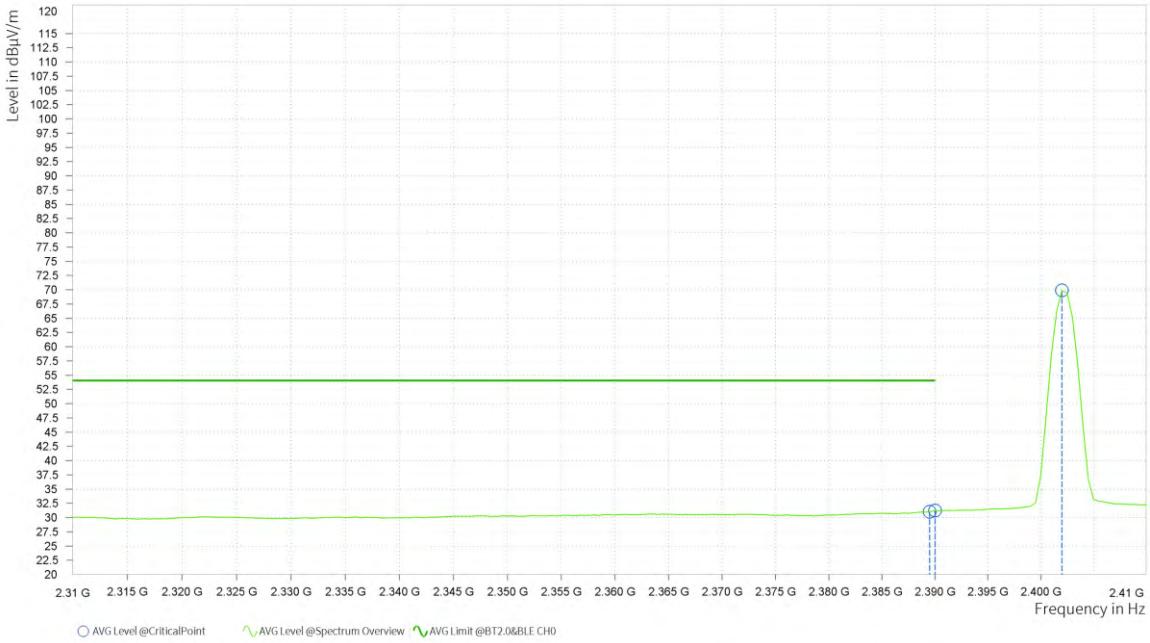
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,371.500	30.88	54.00	23.12	6.07	H	164.6	2.00
5	2,390.000	30.93	54.00	23.07	6.39	H	164.6	2.00
5	2,402.000	73.42			6.59	H	5.1	1.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,388.500	45.25	74.00	28.75	6.36	V	164.6	2.00
5	2,390.000	45.41	74.00	28.59	6.39	V	15.6	2.00
5	2,402.500	92.78			6.60	V	62.9	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,389.500	31.02	54.00	22.98	6.38	V	163.4	2.00
5	2,390.000	31.20	54.00	22.80	6.39	V	163.4	2.00
5	2,402.000	69.89			6.59	V	62.8	2.00



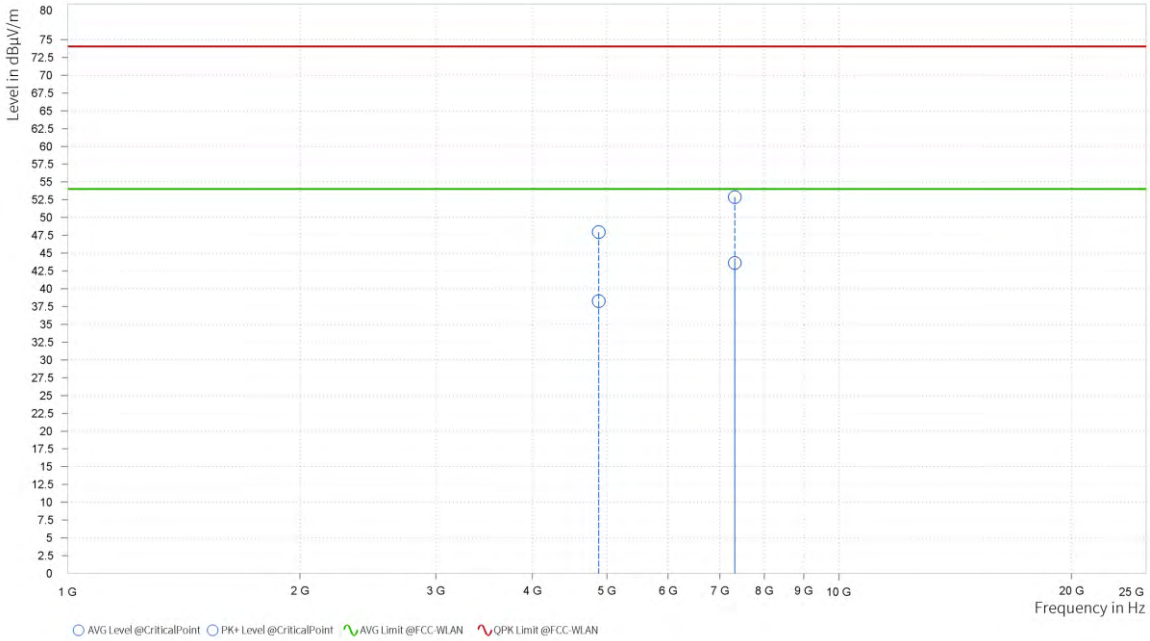
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2402MHz: Fundamental frequency.

CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

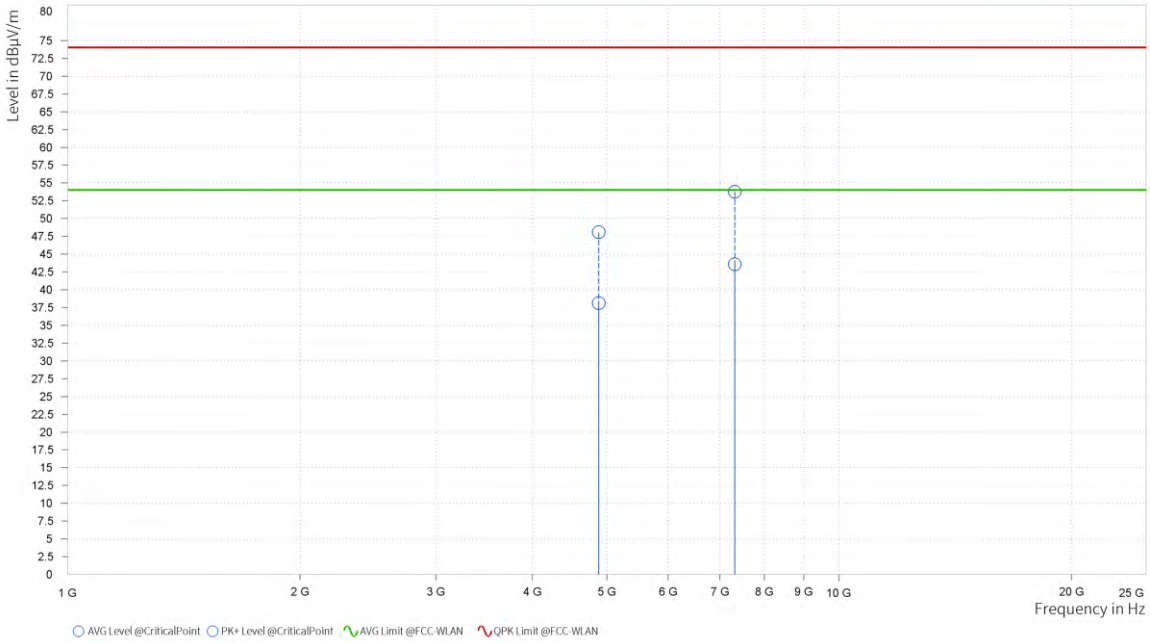
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	4,880.000	47.94	74.00	26.06	38.25	54.00	15.75	13.81	H	359	2.00
3	7,320.000	52.86	74.00	21.14	43.63	54.00	10.37	19.47	H	126.2	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+: QPK Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	4,880.000	48.09	74.00	25.91	38.14	54.00	15.86	13.81	V	0.9	2.00
3	7,320.000	53.78	74.00	20.22	43.58	54.00	10.42	19.47	V	0.9	2.00



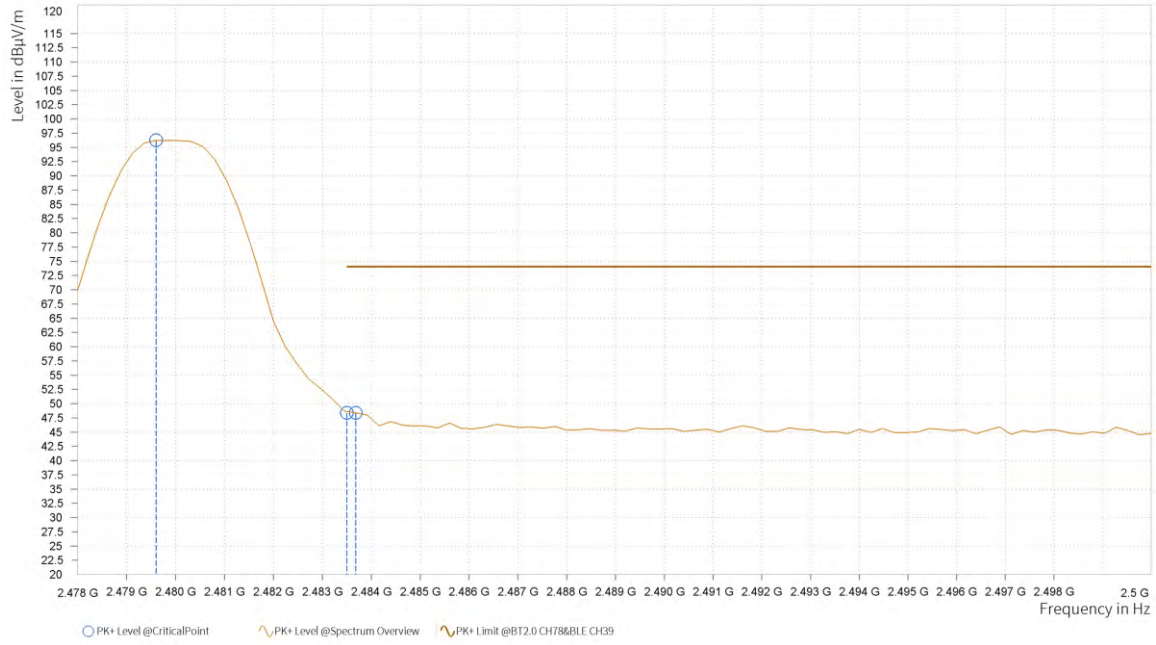
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2440MHz: Fundamental frequency.

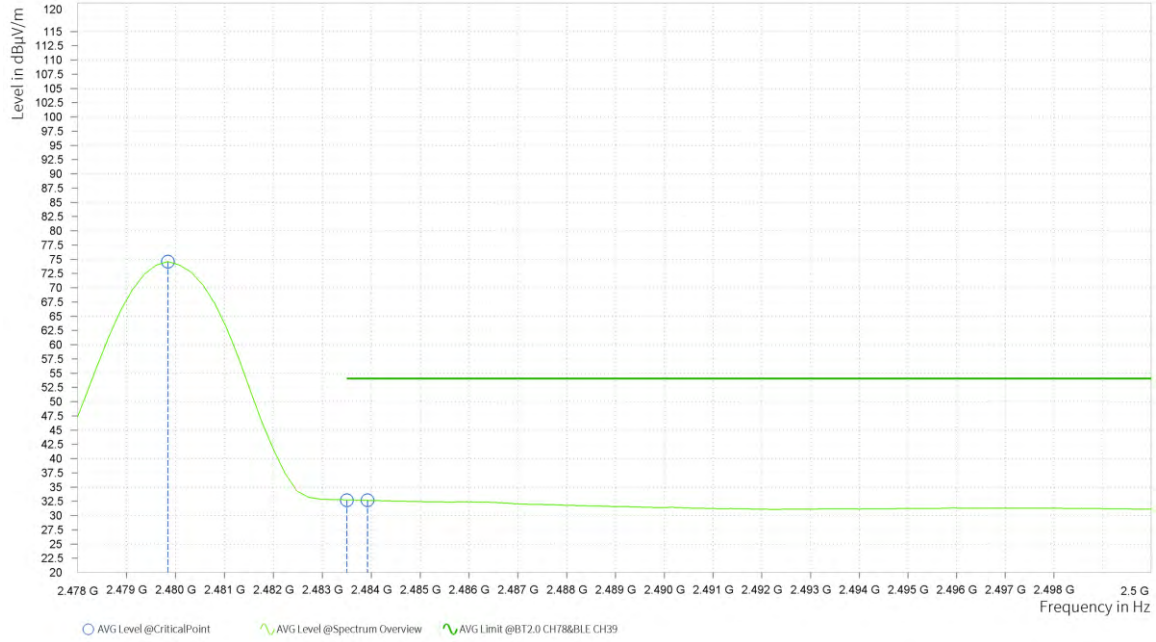
CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

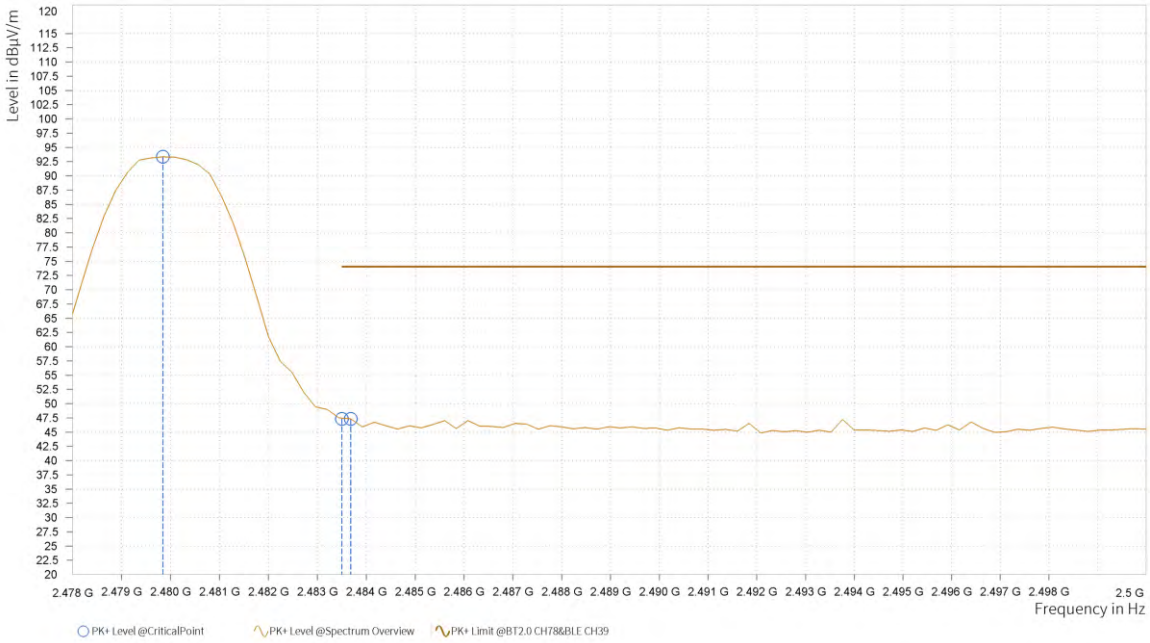
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.600	96.23			7.24	H	47.2	1.00
6	2,483.500	48.38	74.00	25.62	7.17	H	98.7	1.00
6	2,483.680	48.38	74.00	25.62	7.17	H	98.7	1.00



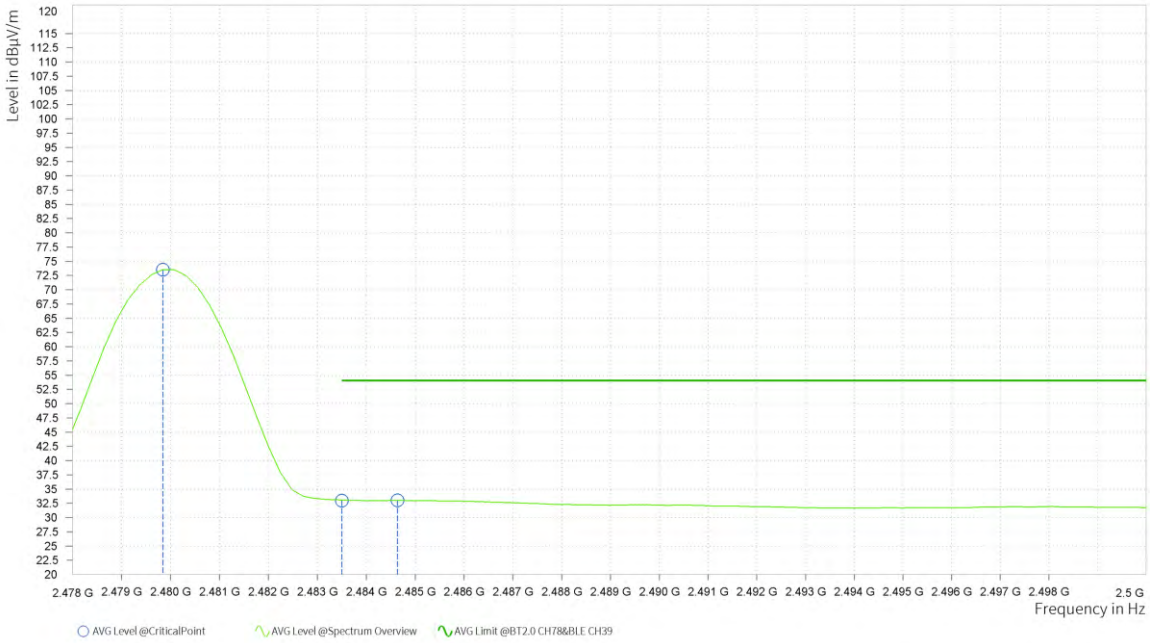
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.840	74.59			7.23	H	212.3	2.00
6	2,483.500	32.71	54.00	21.29	7.17	H	263.7	2.00
6	2,483.920	32.66	54.00	21.34	7.17	H	263.7	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.840	93.34			7.23	V	148.9	1.00
6	2,483.500	47.33	74.00	26.67	7.17	V	54.5	2.00
6	2,483.680	47.33	74.00	26.67	7.17	V	54.5	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.840	73.53			7.23	V	154.9	1.00
6	2,483.500	32.99	54.00	21.01	7.17	V	211.1	2.00
6	2,484.640	33.03	54.00	20.97	7.16	V	211.1	2.00



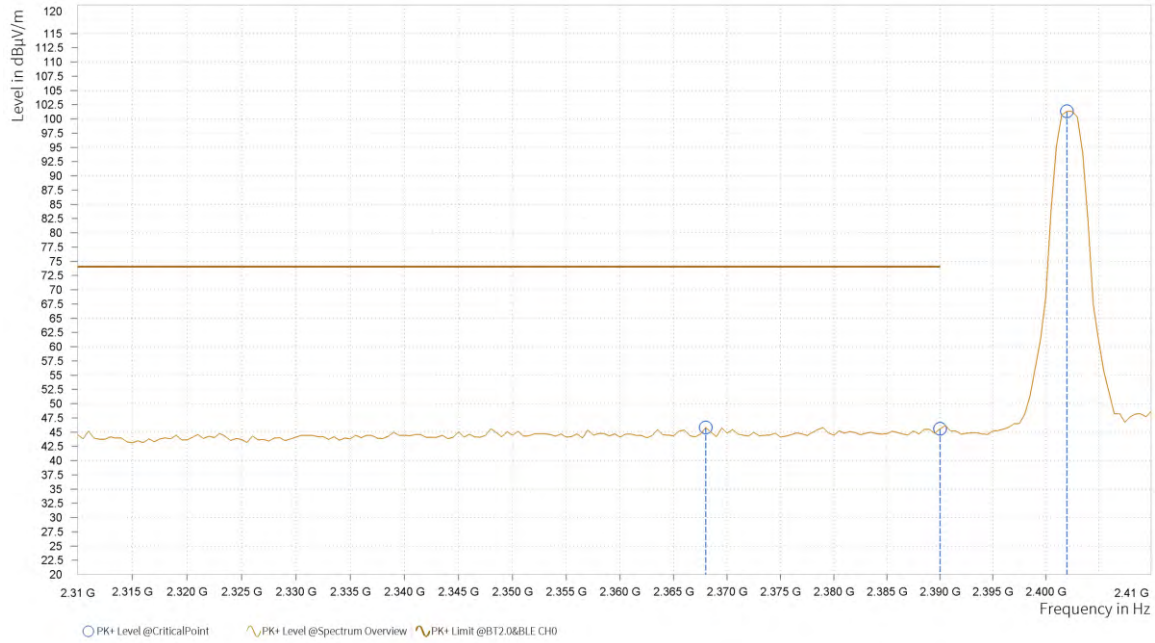
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2480MHz: Fundamental frequency.

BT-LE _S8			
CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

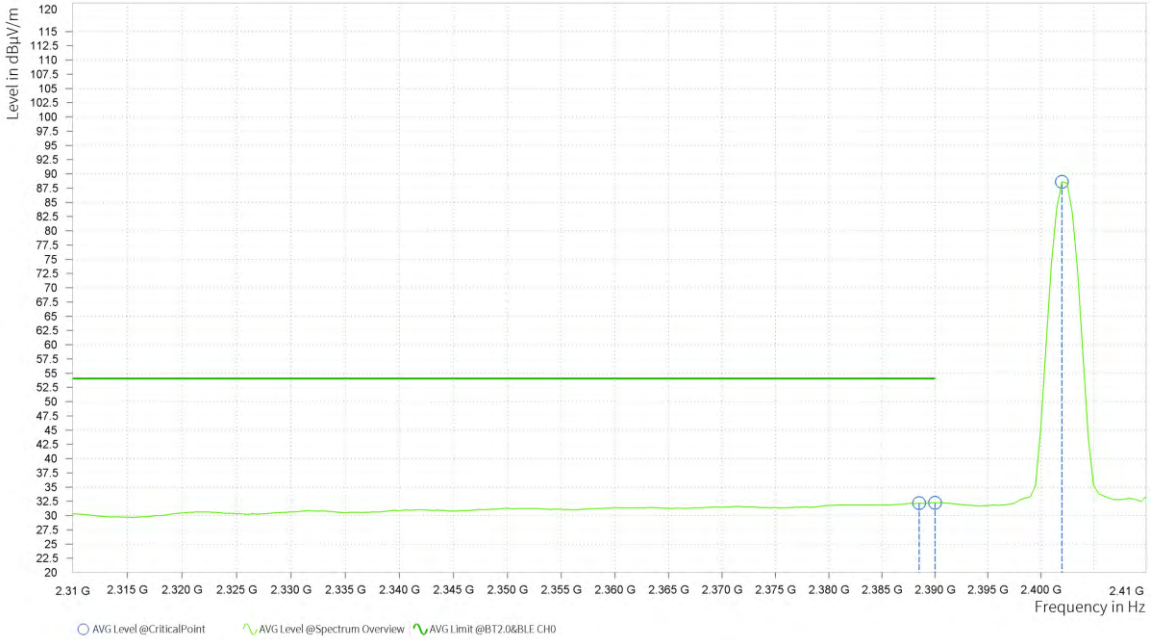
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,368.000	45.81	74.00	28.19	6.03	H	169.4	2.00
5	2,390.000	45.58	74.00	28.42	6.39	H	169.4	2.00
5	2,402.000	101.32			6.59	H	5.1	1.00

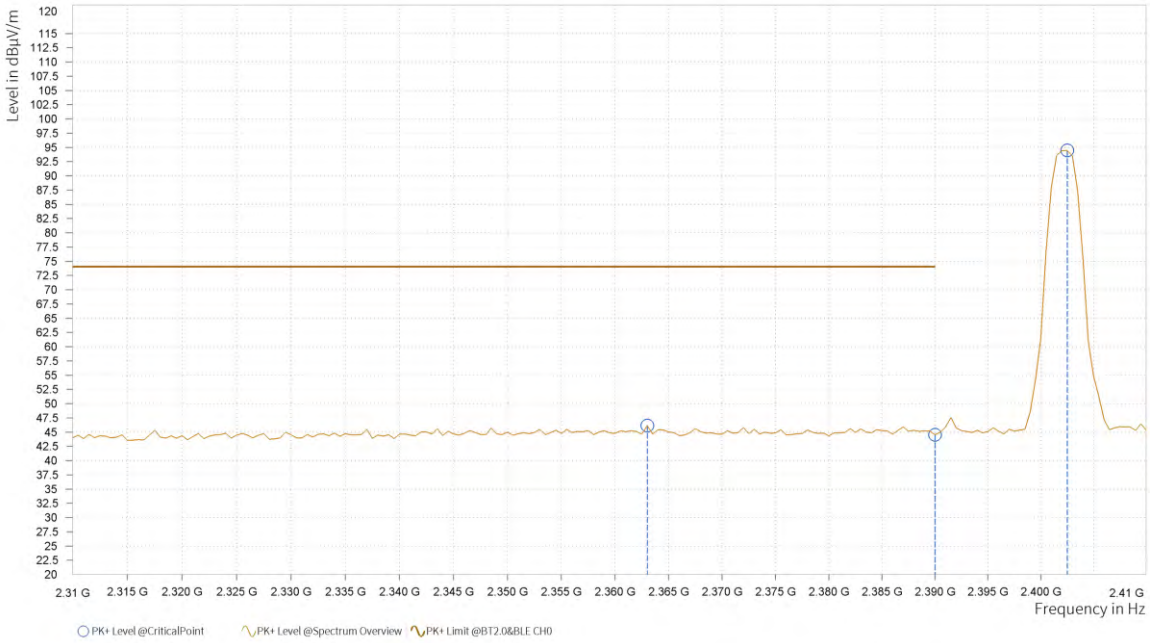


ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

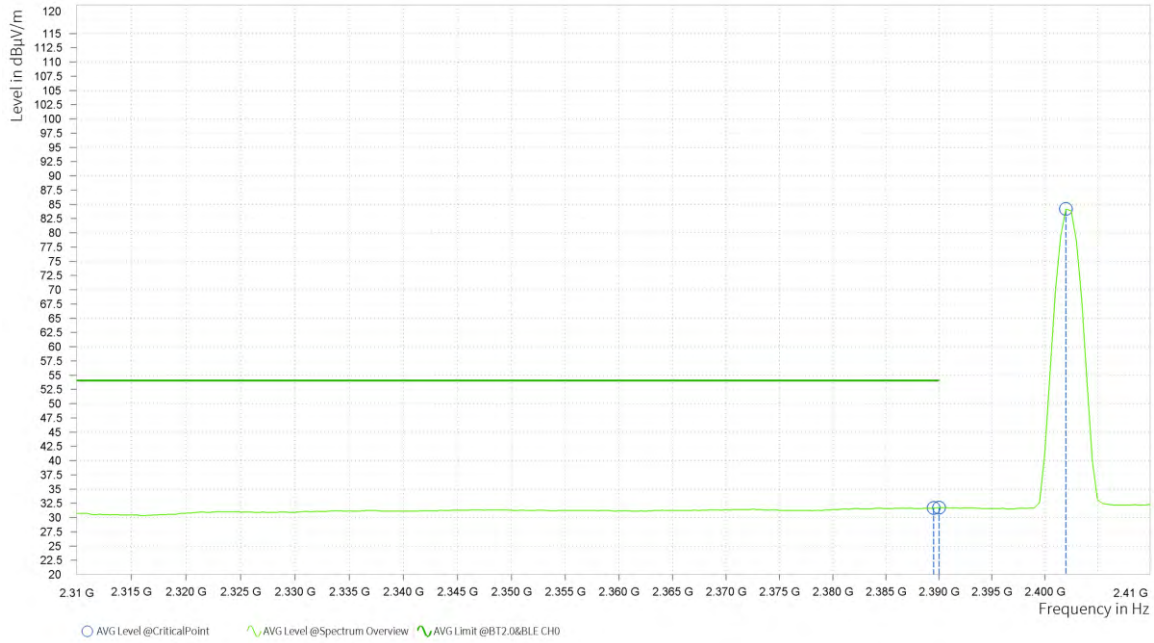
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,388.500	32.16	54.00	21.84	6.36	H	162.2	2.00
5	2,390.000	32.26	54.00	21.74	6.39	H	162.2	2.00
5	2,402.000	88.62			6.59	H	149	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,363.000	46.15	74.00	27.85	6.00	V	43.7	1.00
5	2,390.000	44.55	74.00	29.45	6.39	V	142.9	1.00
5	2,402.500	94.46			6.60	V	68.9	2.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,389.500	31.65	54.00	22.35	6.38	V	165.8	2.00
5	2,390.000	31.74	54.00	22.26	6.39	V	165.8	2.00
5	2,402.000	84.17			6.59	V	66.5	2.00



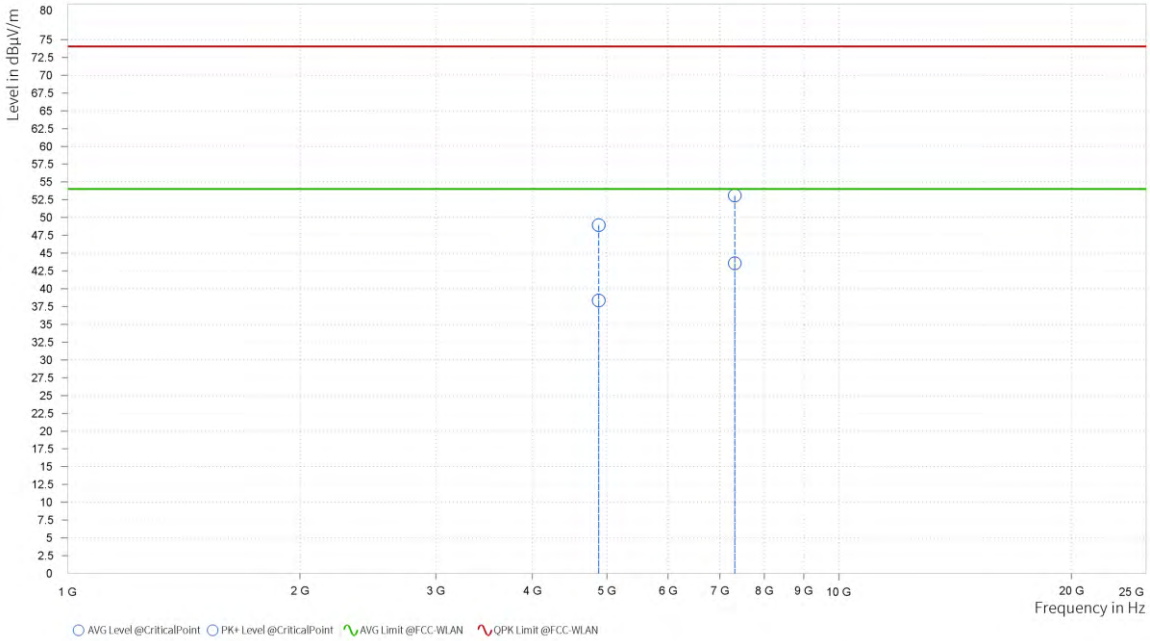
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor.
2. Margin value = Limit value–Emission level.
3. 2402MHz: Fundamental frequency.

CHANNEL	TX Channel 19	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

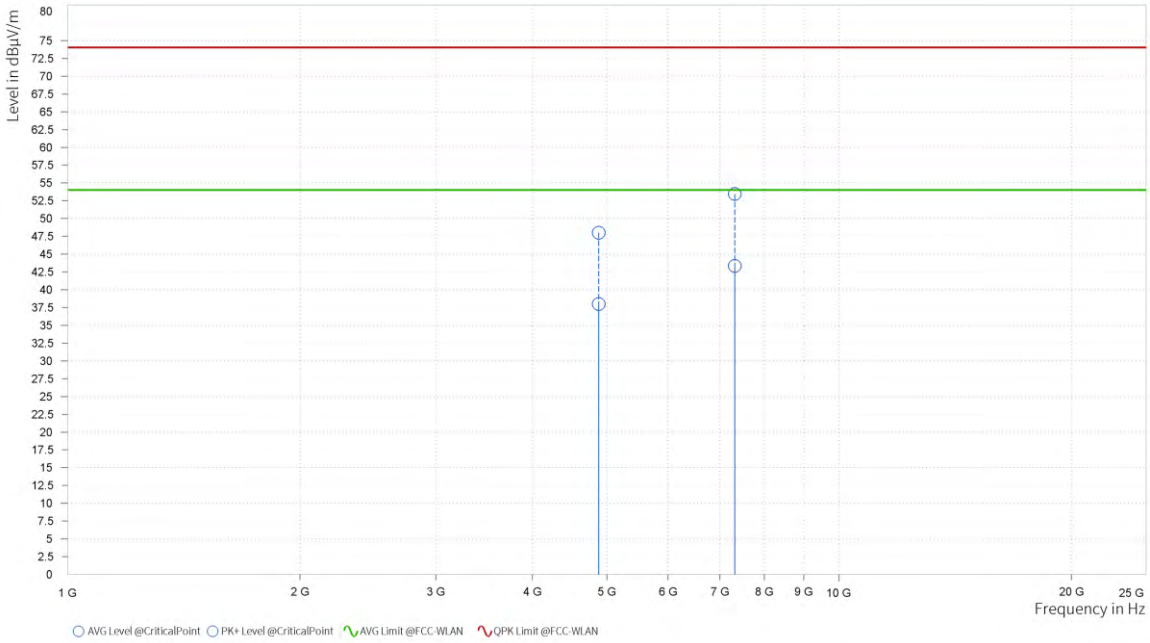
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+: QPK Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	4,880.000	48.96	74.00	25.04	38.37	54.00	15.63	13.81	H	1	1.00
3	7,320.000	53.09	74.00	20.91	43.57	54.00	10.43	19.47	H	1	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+: QPK Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
3	4,880.000	48.02	74.00	25.98	37.98	54.00	16.02	13.81	V	0.9	2.00
3	7,320.000	53.45	74.00	20.55	43.33	54.00	10.67	19.47	V	0.9	2.00



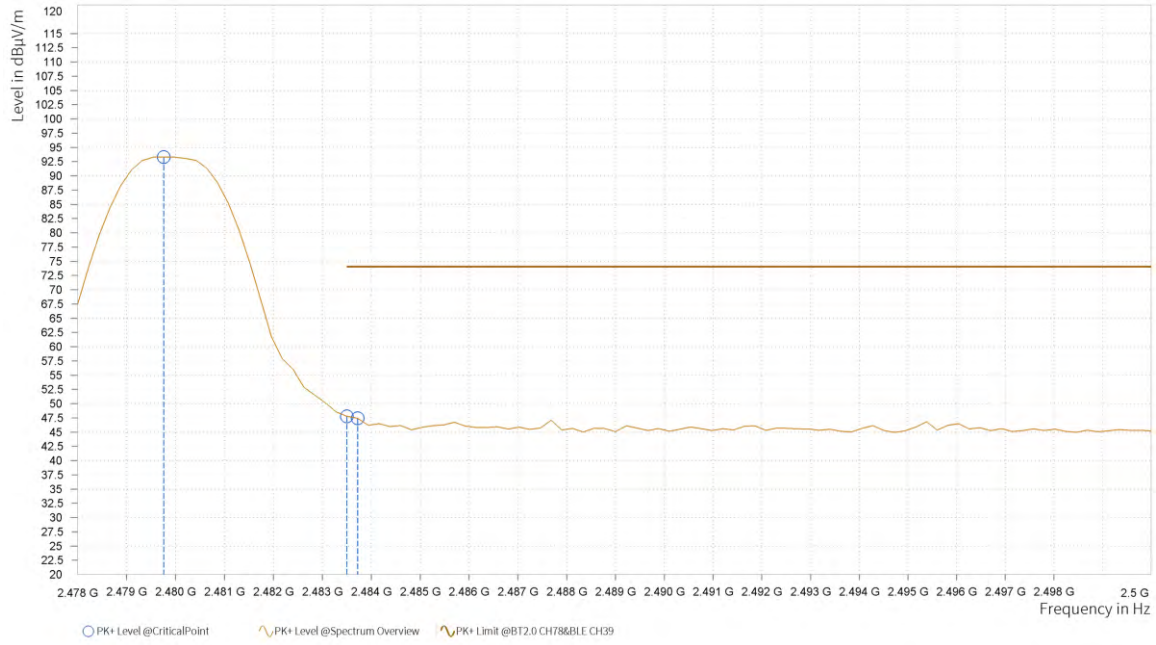
REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2440MHz: Fundamental frequency.

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

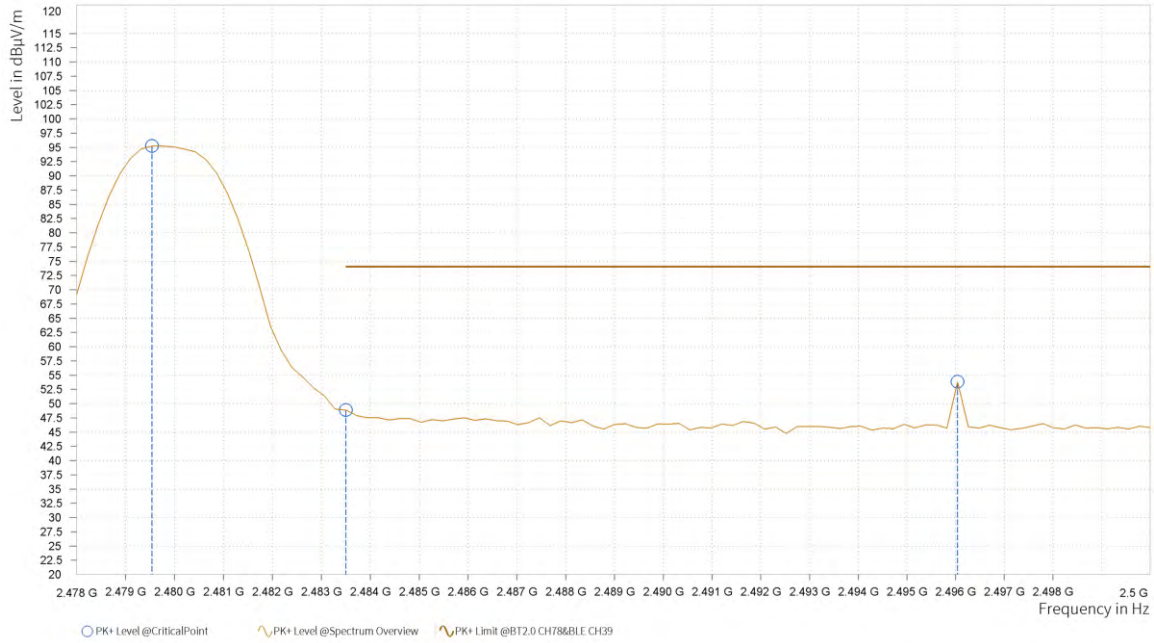
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.760	93.28			7.24	H	193.1	1.00
6	2,483.500	47.78	74.00	26.22	7.18	H	230.3	2.00
6	2,483.720	47.42	74.00	26.58	7.17	H	230.3	2.00

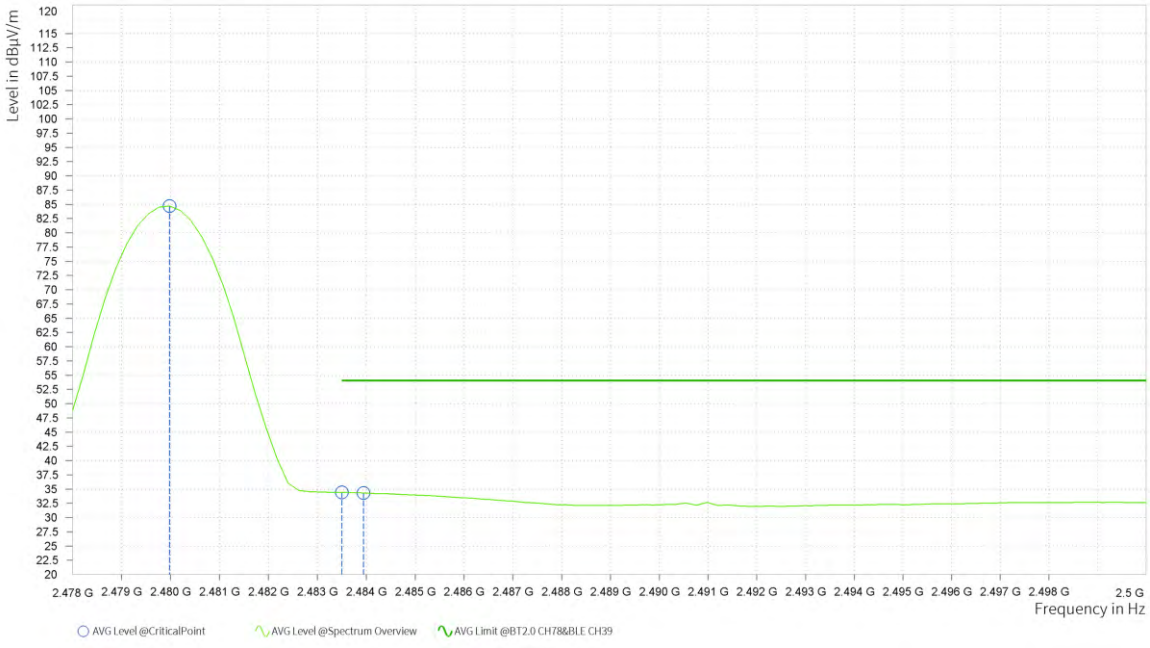


ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.980	85.31			7.23	H	211	2.00
6	2,483.500	32.65	54.00	21.35	7.18	H	211	2.00
6	2,483.720	32.56	54.00	21.44	7.17	H	211	2.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.540	95.23			7.24	V	163.4	2.00
6	2,483.500	48.87	74.00	25.13	7.18	V	314	2.00
6	2,496.040	53.83	74.00	20.17	6.98	V	44.9	1.00



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.980	84.70			7.23	V	312.8	2.00
6	2,483.500	34.42	54.00	19.58	7.18	V	108.4	2.00
6	2,483.940	34.32	54.00	19.68	7.17	V	108.4	2.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2480MHz: Fundamental frequency.

3.3 6 dB BANDWIDTH MEASUREMENT

3.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum 6dB Bandwidth Measurement is 0.5 MHz.

3.3.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	R&S	ESW 44	101973	Mar.28,24	Mar.27,26
Open Switch and Control Unit	R&S	OSP-B157W8	100836	N/A	N/A
Vector Signal Generator	R&S	SMBV100B	102176	Mar.29,24	Mar.28,26
Signal Generator	R&S	SMB100A03	182185	Mar.29,24	Mar.28,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.19,24	Jun.18,26
Hygrothermograph	DELI	20210528	SZ015	Sep.06,23	Sep.05,25
PC	LENOVO	E14	HRSW0024	N/A	N/A
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25
Test Software	EMC32	EMC32	N/A	N/A	N/A
Temperature Chamber	votsch	VT4002	58566078100050	May.30,24	May.29,26
Power Meter	R&S	NRX	102380	Mar.28,24	Mar.27,26
Power Meter probe	R&S	NRP6A	102942	Mar.28,24	Mar.27,26

NOTE:

1. The calibration interval of the above test instruments is 12/ 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

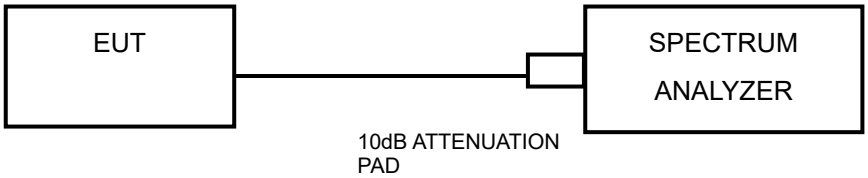
3.3.3 TEST PROCEDURE

1. Set RBW = shall be in the·range·of 1%·to·5%of the·0BW·but not less than·100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.4 DEVIATION FROM TEST STANDARD

No deviation.

3.3.5 TEST SETUP



3.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest CHannel frequencies individually.

3.3.7 TEST RESULTS

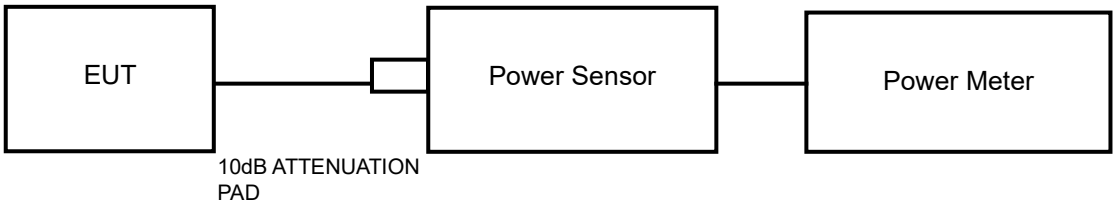
Please Refer to Appendix Of this test report..

3.4 CONDUCTED OUTPUT POWER

3.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

For systems using digital modulation in the 2400–2483.5 MHz band: 1 Watt (30dBm)

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.4.4 TEST PROCEDURES

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest CHannel frequencies individually.

3.4.7 TEST RESULTS

3.4.7.1 MAXIMUM PEAK OUTPUT POWER

Please Refer to Appendix Of this test report..

3.4.7.2 AVERAGE OUTPUT POWER (FOR REFERENCE)

The average power sensor was used on the output port of the EUT. A power meter was used to read the response of the power sensor. Record the power level.

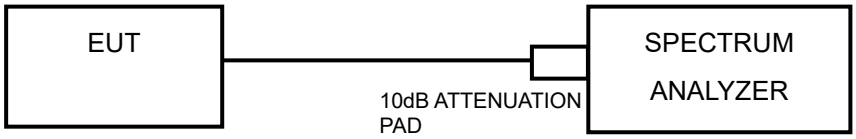
Please Refer to Appendix Of this test report..

3.5 POWER SPECTRAL DENSITY MEASUREMENT

3.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

3.5.2 TEST SETUP



3.5.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.5.4 TEST PROCEDURE

1. Set the span to 1.5 times the DTS bandwidth
2. Set the RBW = 3 kHz, VBW ≥ 3 x RBW, Detector = peak.
3. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

3.5.5 DEVIATION FROM TEST STANDARD

No deviation.

3.5.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest CHannel frequencies individually.

3.5.7 TEST RESULTS

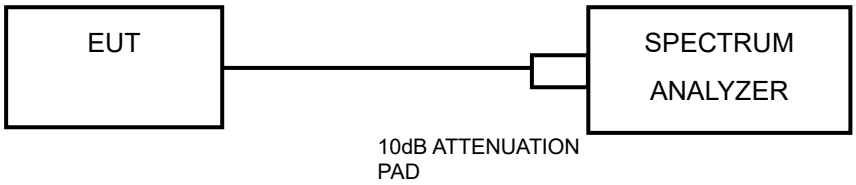
Please Refer to Appendix Of this test report..

3.6 OUT OF BAND EMISSION MEASUREMENT

3.6.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

3.6.2 TEST SETUP



3.6.3 TEST INSTRUMENTS

Refer to section 3.3.2 to get information of above instrument.

3.6.4 TEST PROCEDURE

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Set span to encompass the spectrum to be examined
4. Detector = peak.
5. Trace Mode = max hold.
6. Sweep = auto couple.

3.6.5 DEVIATION FROM TEST STANDARD

No deviation.

3.6.6 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest CHannel frequencies individually.

3.6.7 TEST RESULTS

The spectrum plots are attaCHed on the following images. D1 line indicates the highest level. D2 line indicates the 20dB offset below D1. It shows compliance to the requirement.

Please Refer to Appendix Of this test report..

3.7 ANTENNA REQUIREMENTS

3.7.1 STANDARD APPLICABLE

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.7.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.

3.7.3 ANTENNA GAIN

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit and PSD limit.

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attaCHed file (Test Setup Photo).

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

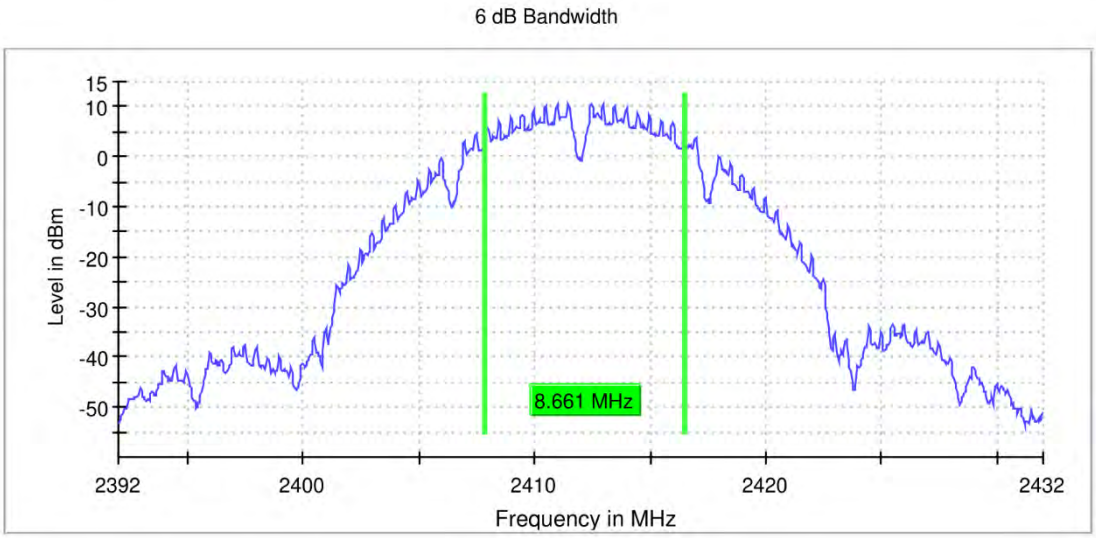
6 APPENDIX A:WIFI

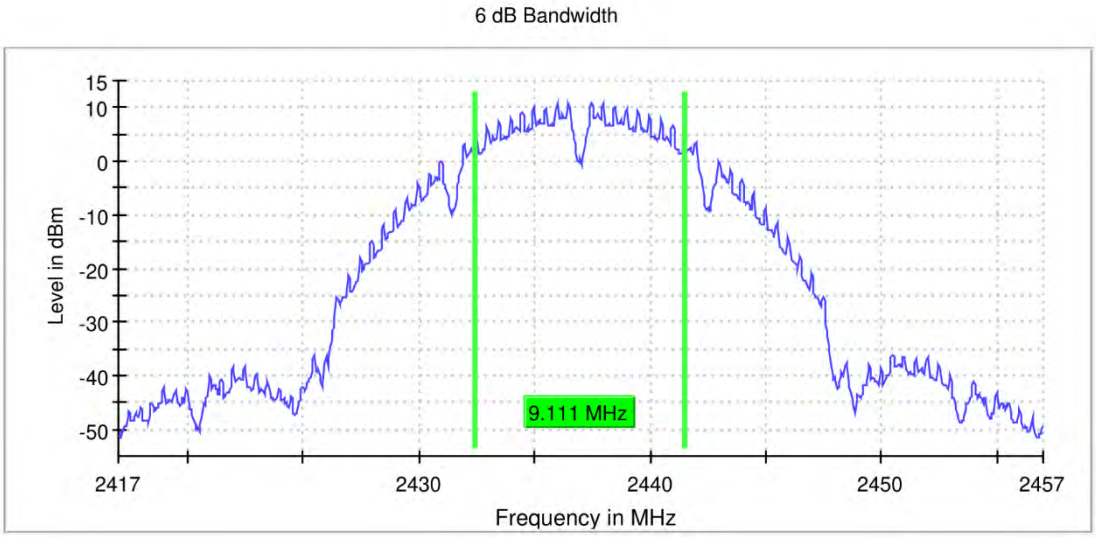
DTS BANDWIDTH

TEST RESULT

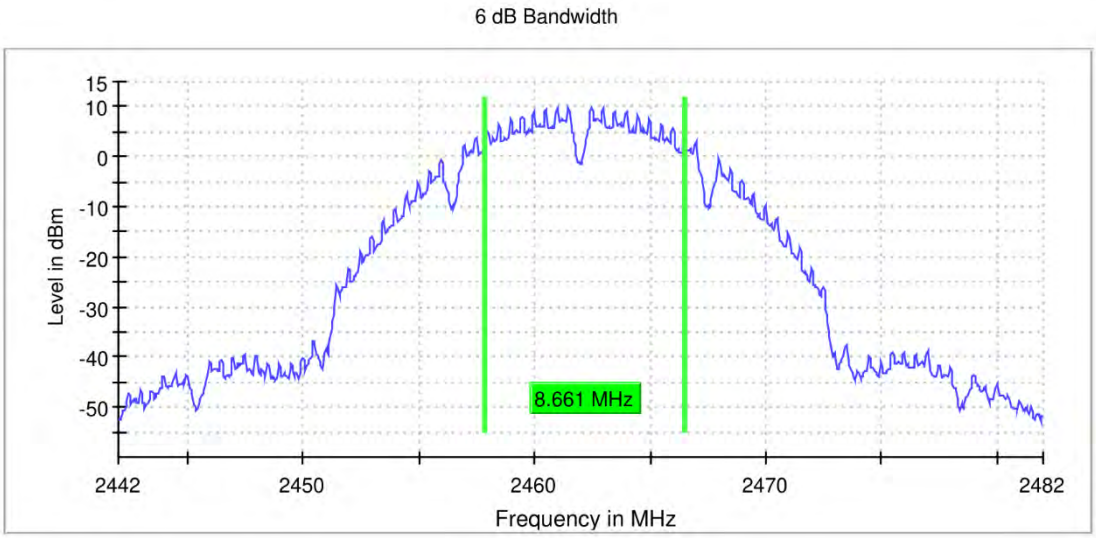
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	ANT7	2412	8.661	2407.870	2416.531	0.5	PASS
	ANT7	2437	9.111	2432.419	2441.530	0.5	PASS
	ANT7	2462	8.661	2457.870	2466.531	0.5	PASS
11G	ANT7	2412	15.820	2404.365	2420.185	0.5	PASS
	ANT7	2437	16.020	2428.765	2444.785	0.5	PASS
	ANT7	2462	16.170	2453.765	2469.935	0.5	PASS
11N20-SISO	ANT7	2412	16.421	2404.365	2420.786	0.5	PASS
	ANT7	2437	16.020	2429.165	2445.185	0.5	PASS
	ANT7	2462	16.771	2453.765	2470.536	0.5	PASS
11N40-SISO	ANT7	2422	35.822	2404.414	2440.236	0.5	PASS
	ANT7	2437	35.422	2419.414	2454.836	0.5	PASS
	ANT7	2452	36.423	2433.814	2470.237	0.5	PASS

TEST GRAPHS

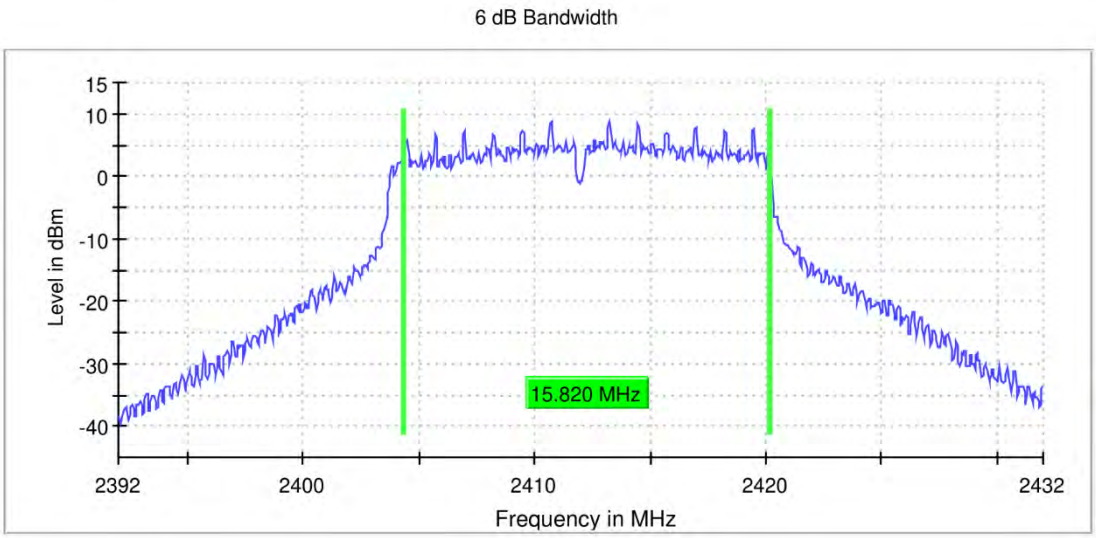
11B_ANT7_2412


11B_ANT7_2437


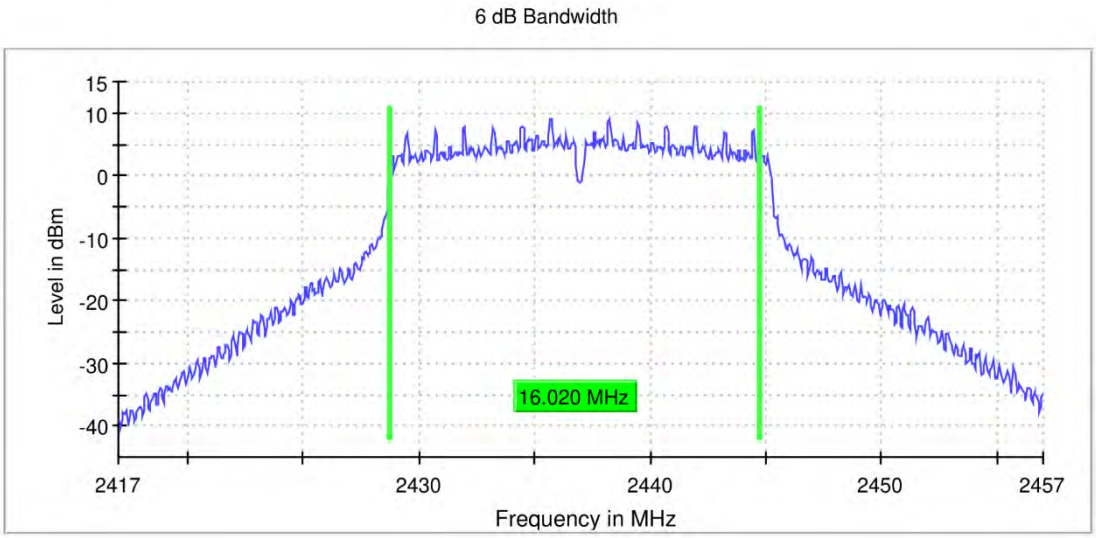
11B_ANT7_2462



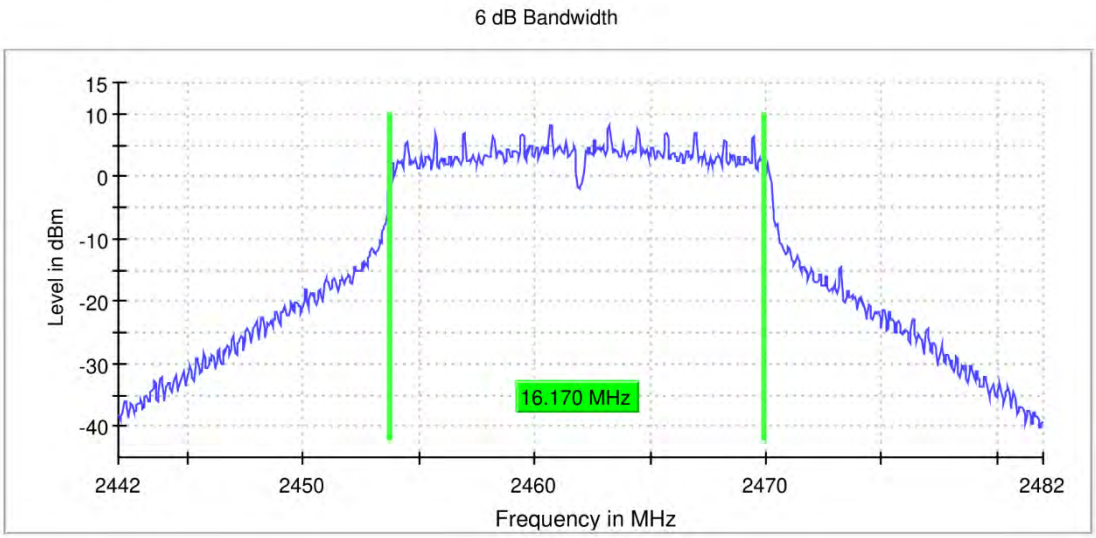
11G_ANT7_2412



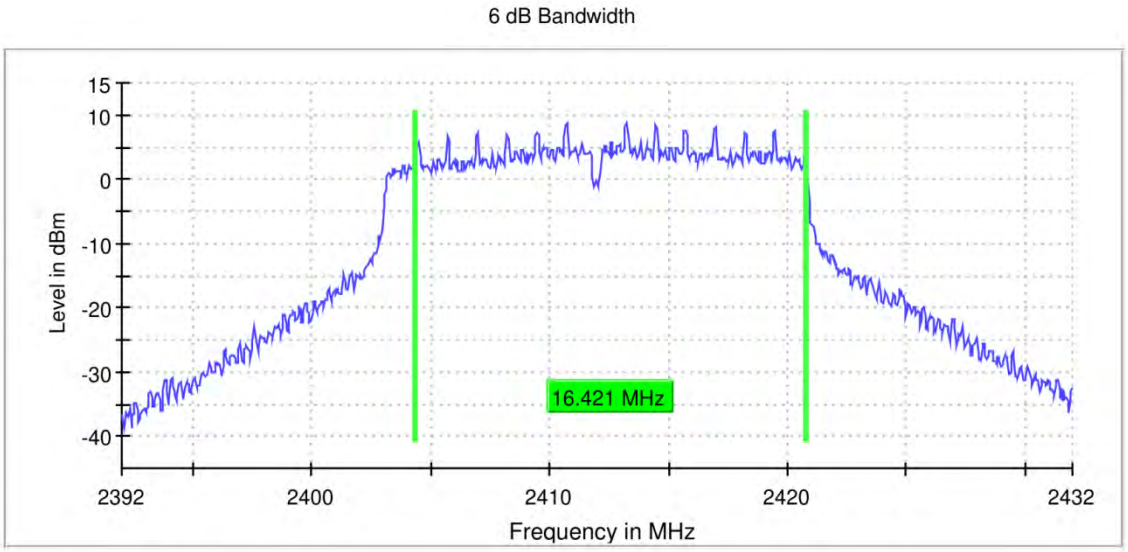
11G_ANT7_2437



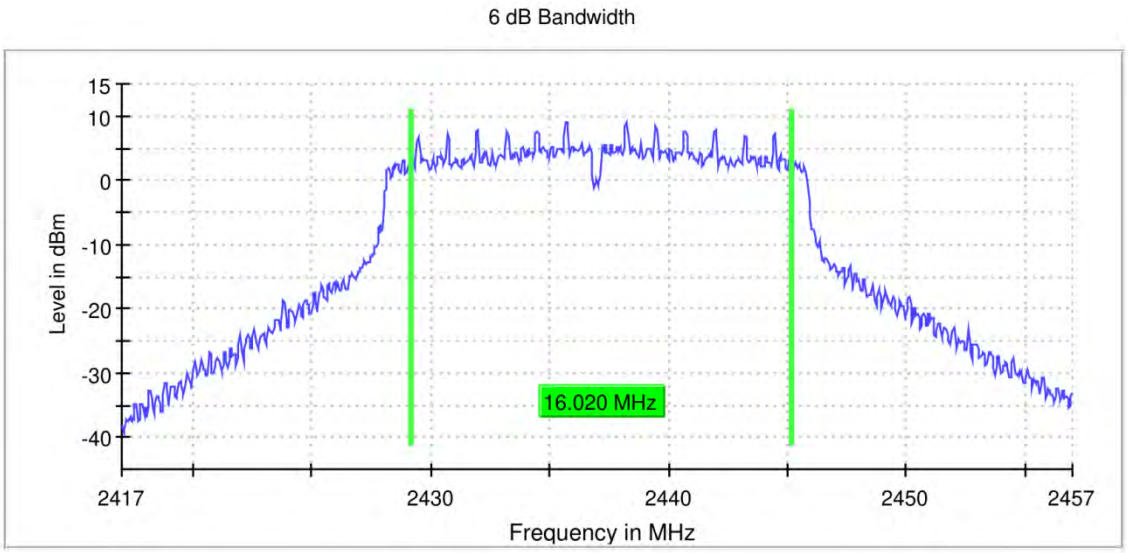
11G_ANT7_2462



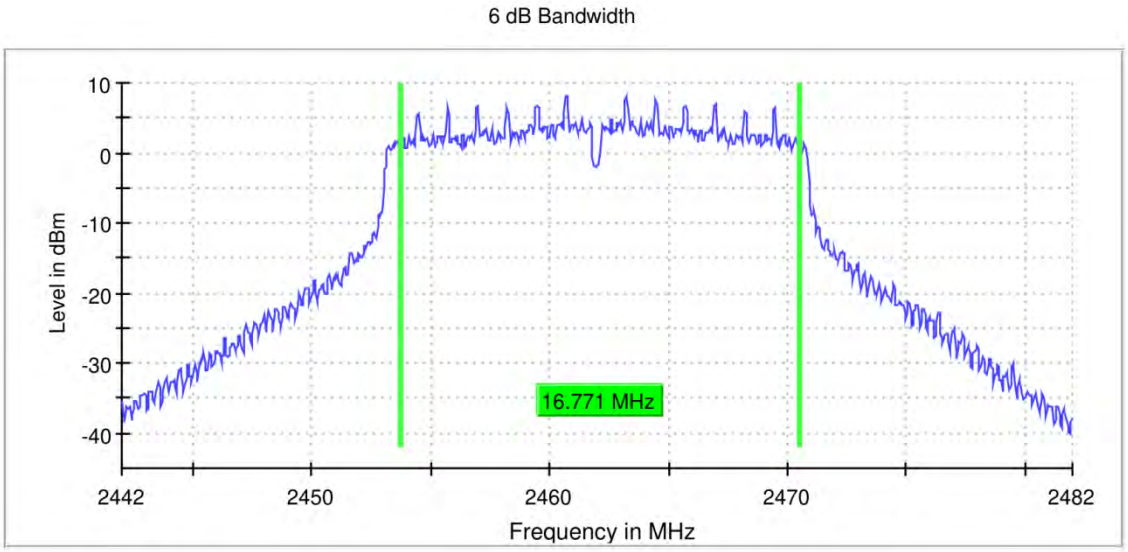
11N20_ANT7_2412



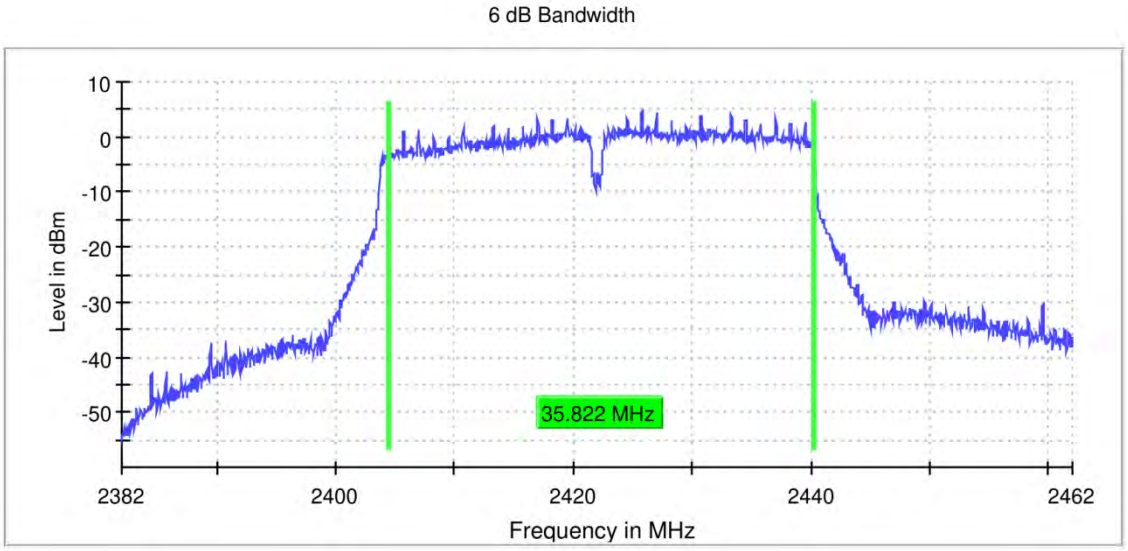
11N20_ANT7_2437



11N20_ANT7_2462

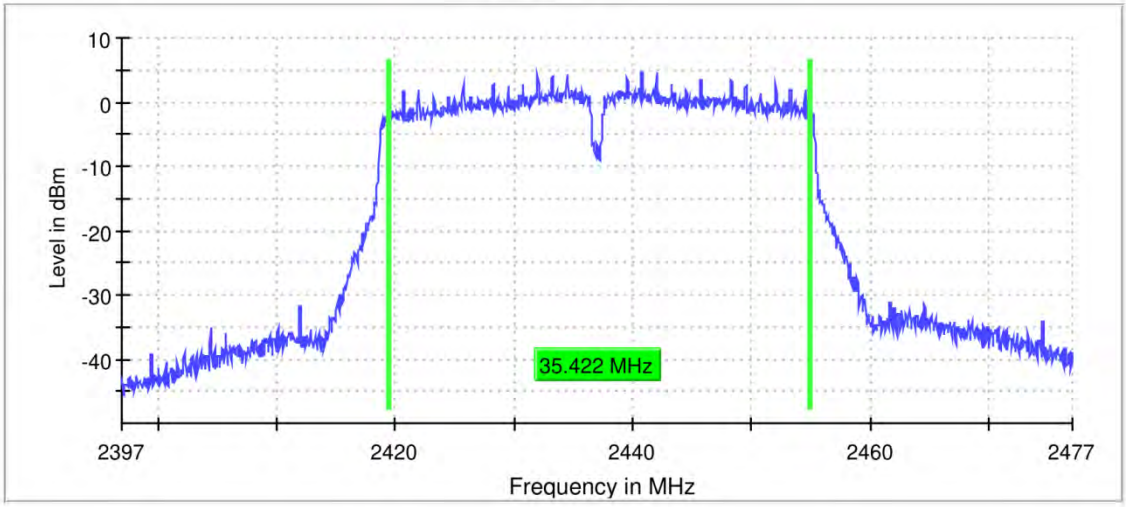


11N40_ANT7_2422



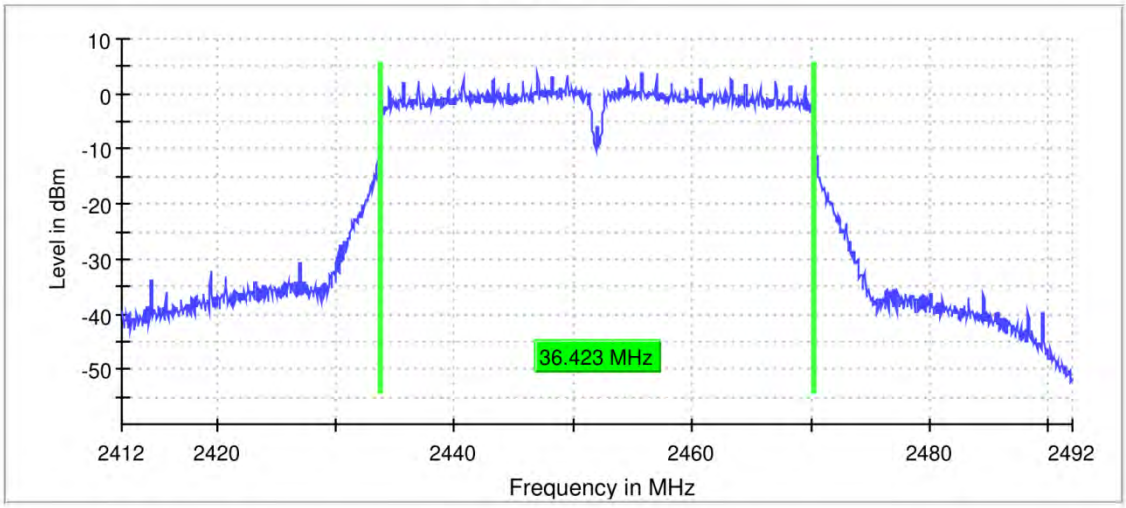
11N40_ANT7_2437

6 dB Bandwidth



11N40_ANT7_2452

6 dB Bandwidth



20M

RBW 200.000 kHz

VBW 1.000 MHz

40M

RBW 500.000 kHz

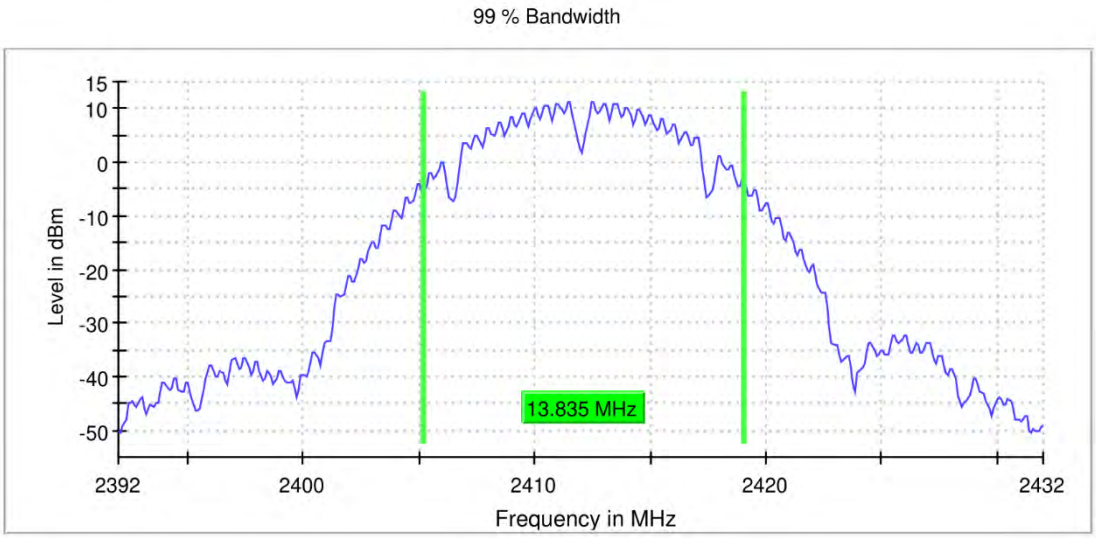
VBW 2.000 MHz

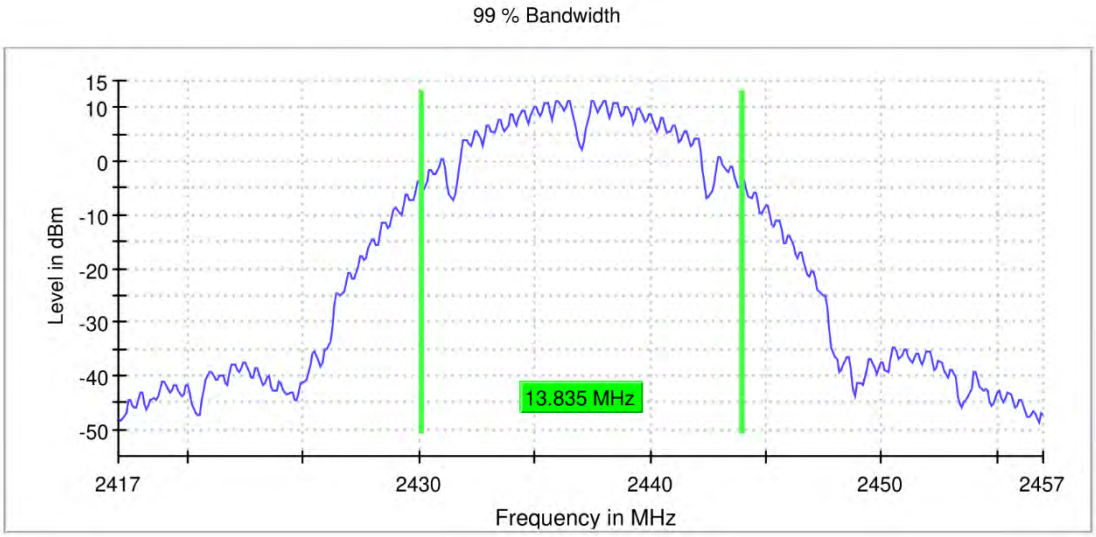
OBW BANDWIDTH

TEST RESULT

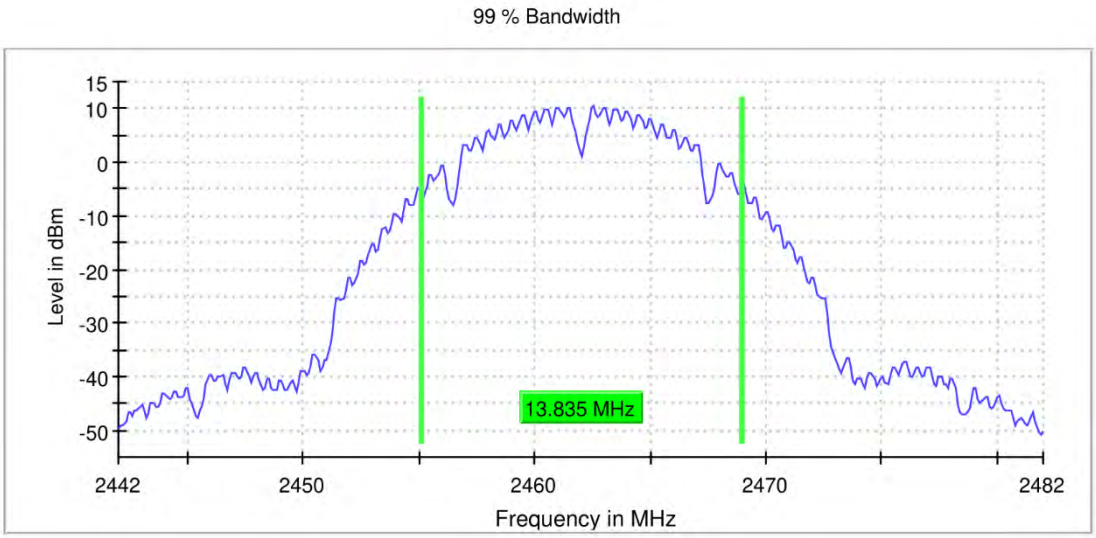
TestMode	Antenna	Frequency[MHz]	OBW BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	ANT7	2412	13.835	2405.233	2419.068	---	PASS
	ANT7	2437	13.835	2430.133	2443.968	---	PASS
	ANT7	2462	13.835	2455.133	2468.968	---	PASS
11G	ANT7	2412	16.742	2403.729	2420.471	---	PASS
	ANT7	2437	16.742	2428.629	2445.371	---	PASS
	ANT7	2462	16.742	2453.629	2470.371	---	PASS
11N20	ANT7	2412	17.945	2403.128	2421.073	---	PASS
	ANT7	2437	17.845	2428.128	2445.973	---	PASS
	ANT7	2462	17.845	2453.128	2470.973	---	PASS
11N40	ANT7	2422	36.614	2403.818	2440.432	---	PASS
	ANT7	2437	36.364	2418.818	2455.182	---	PASS
	ANT7	2452	36.614	2433.818	2470.432	---	PASS

TEST GRAPHS

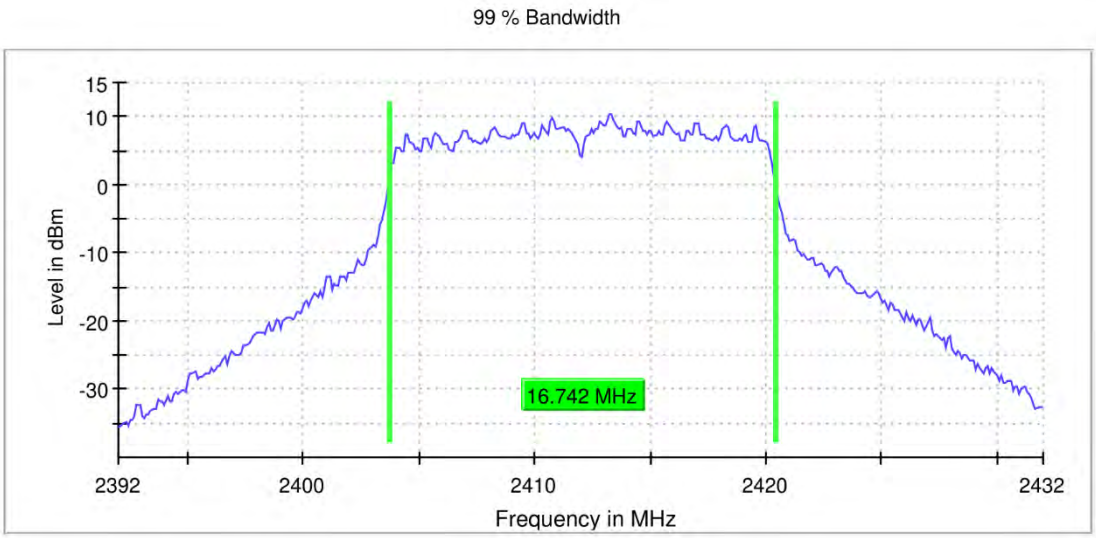
11B_ANT7_2412


11B_ANT7_2437


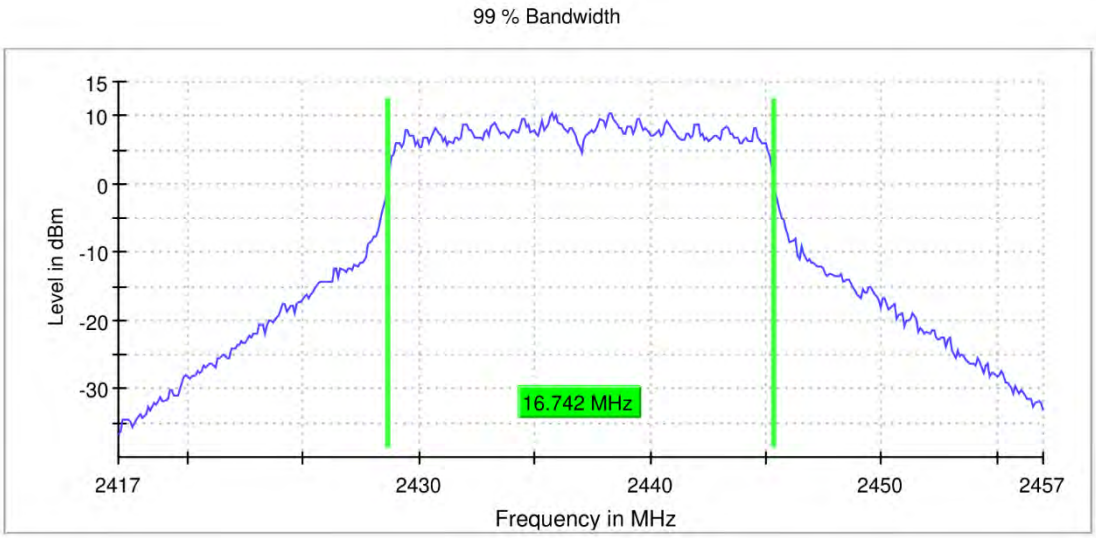
11B_ANT7_2462



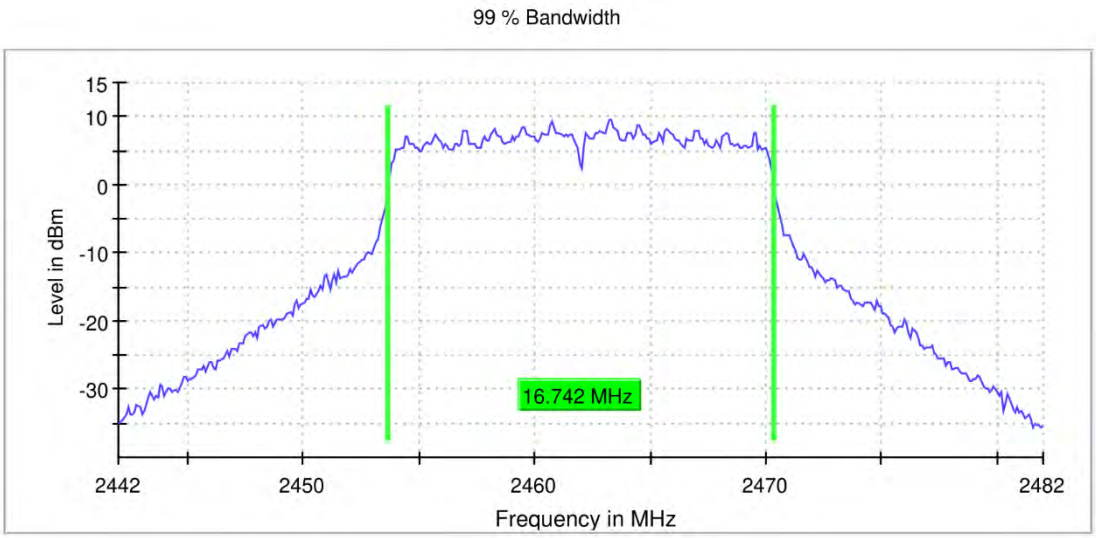
11G_ANT7_2412



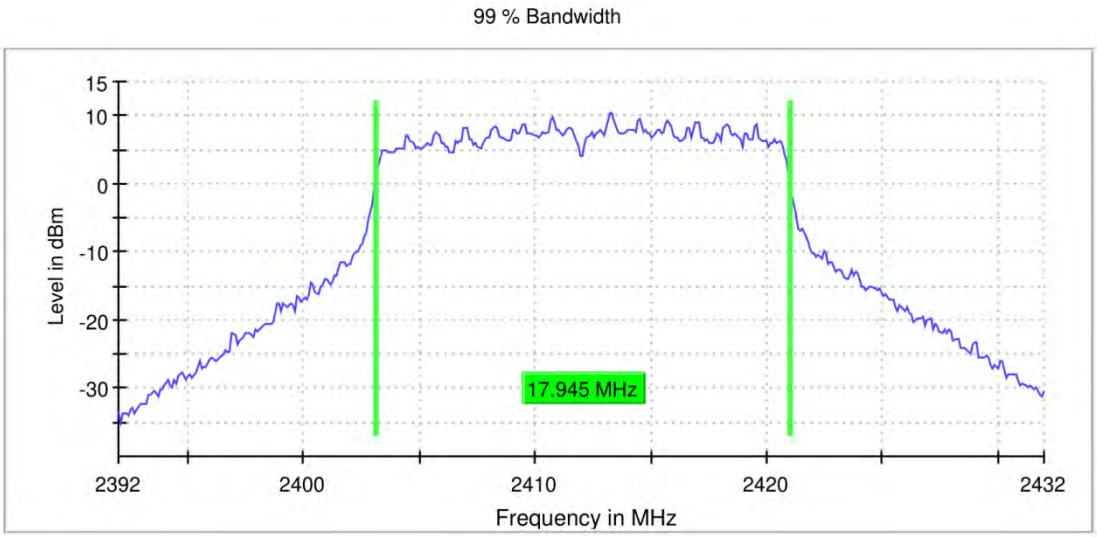
11G_ANT7_2437



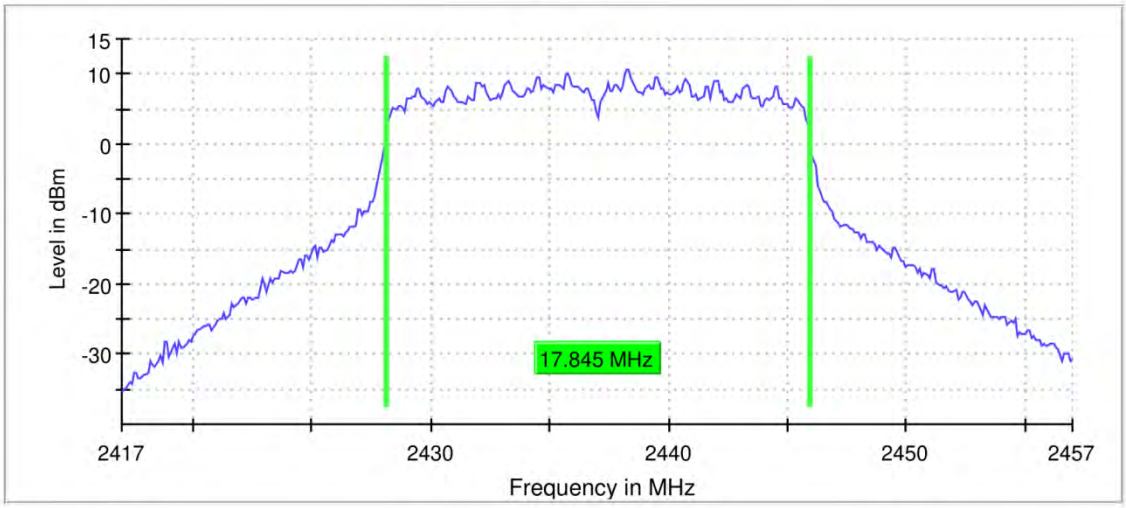
11G_ANT7_2462



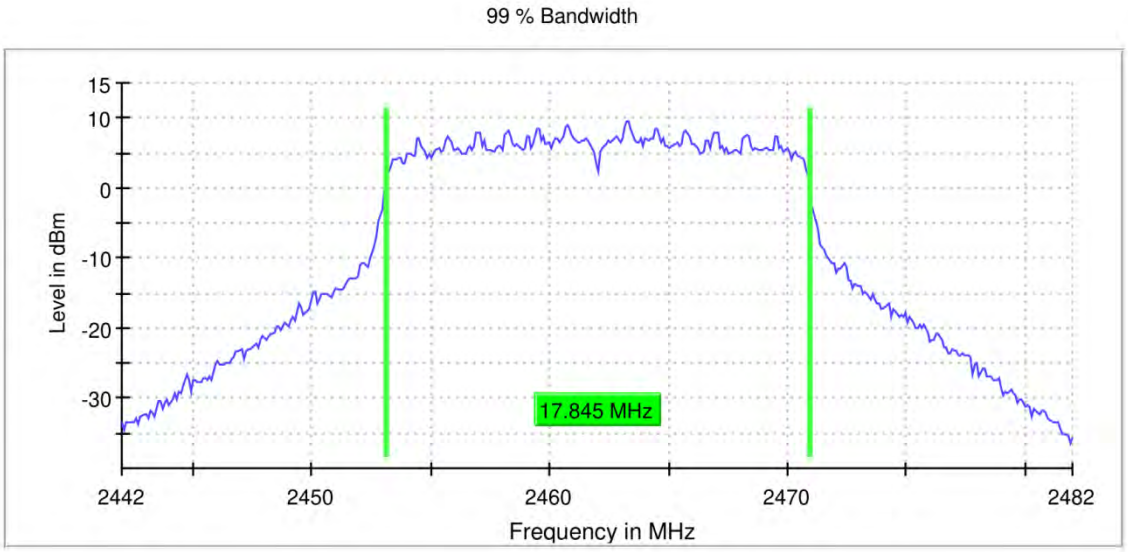
11N20_ANT7_2412



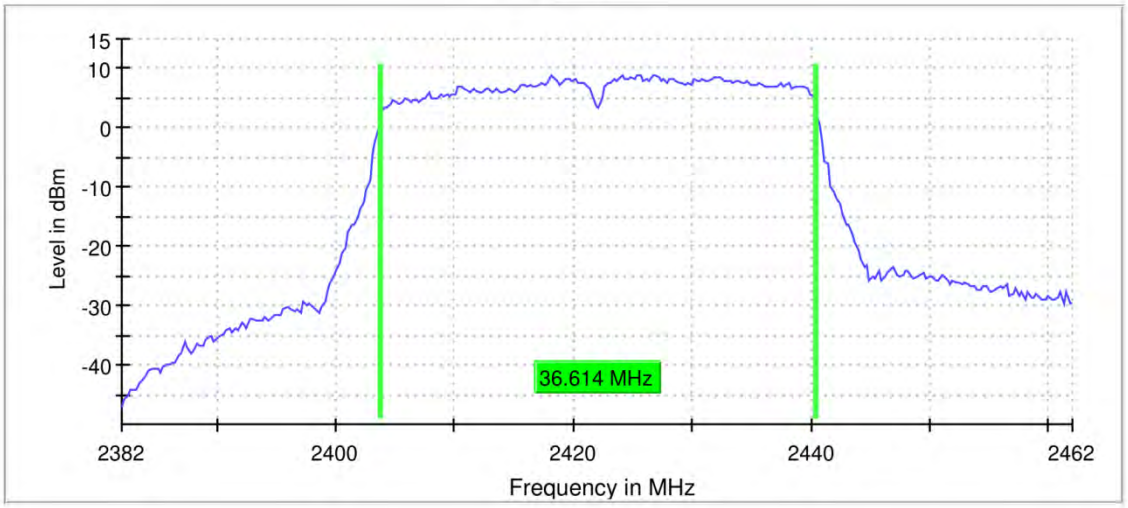
11N20_ANT7_2437



11N20_ANT7_2462

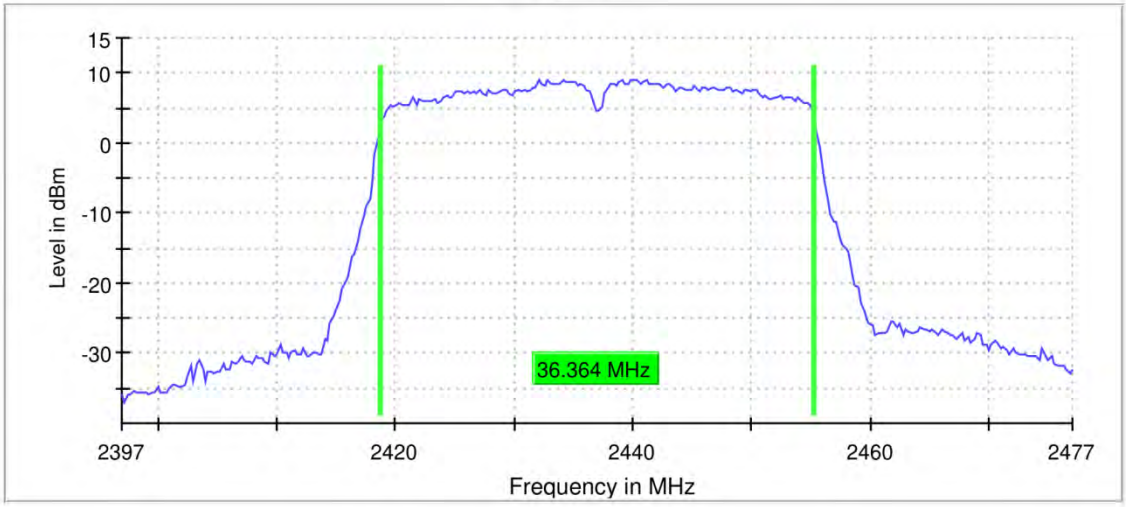


11N40_ANT7_2422



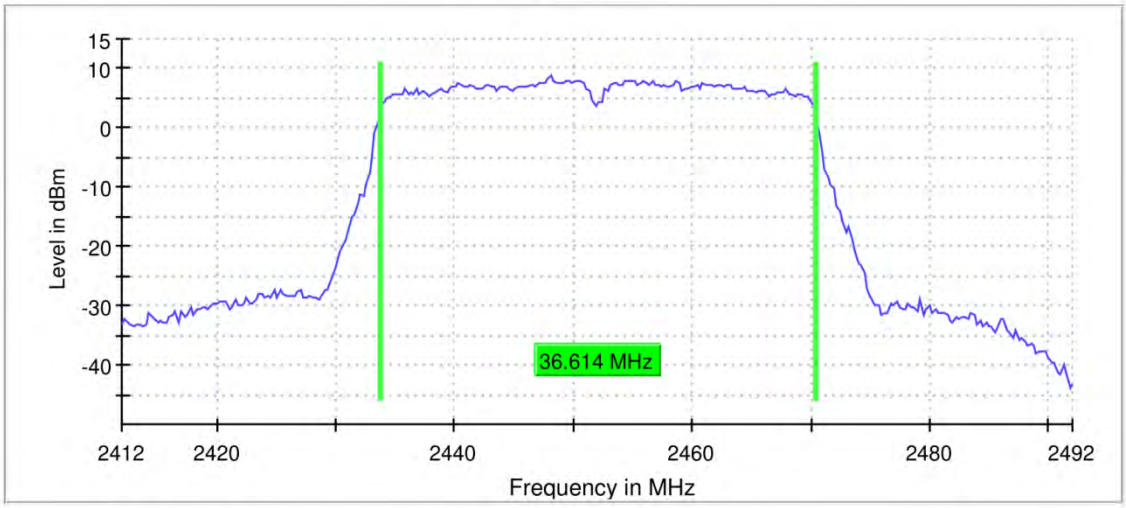
11N40_ANT7_2437

99 % Bandwidth



11N40_ANT7_2452

99 % Bandwidth



20M

RBW 200.000 kHz

VBW 1.000 MHz

40M

RBW 500.000 kHz

VBW 2.000 MHz

MAXIMUM CONDUCTED OUTPUT POWER

TEST RESULT

TestMode	TX Mod.	Frequency [MHz]	Peak power [dBm] ANT7	MAX Peak power [mw]	Limit [dBm]	Verdict	Power Setting
11B	SISO	2412	21.782	150.73	≤30.00	PASS	18
		2437	22.044	160.10	≤30.00	PASS	18
		2462	21.203	131.92	≤30.00	PASS	18
11G	SISO	2412	24.093	256.63	≤30.00	PASS	18
		2437	23.558	226.88	≤30.00	PASS	18
		2462	22.653	184.20	≤30.00	PASS	18
11N20	SISO	2412	23.391	218.32	≤30.00	PASS	18
		2437	23.494	223.56	≤30.00	PASS	18
		2462	22.694	185.95	≤30.00	PASS	18
11N40	SISO	2422	23.833	241.71	≤30.00	PASS	16.5
		2437	24.117	258.05	≤30.00	PASS	16.5
		2452	23.392	218.37	≤30.00	PASS	16.5

TestMode	TX Mod.	Freq. [MHz]	Avg.power [dBm]	Power Setting
			ANT7	
11B	SISO	2412	19.134	18
		2437	19.165	18
		2462	18.378	18
11G	SISO	2412	18.577	18
		2437	18.656	18
		2462	17.273	18
11N20	SISO	2412	18.264	18
		2437	18.491	18
		2462	17.464	18
11N40	SISO	2422	17.107	16.5
		2437	17.438	16.5
		2452	16.774	16.5

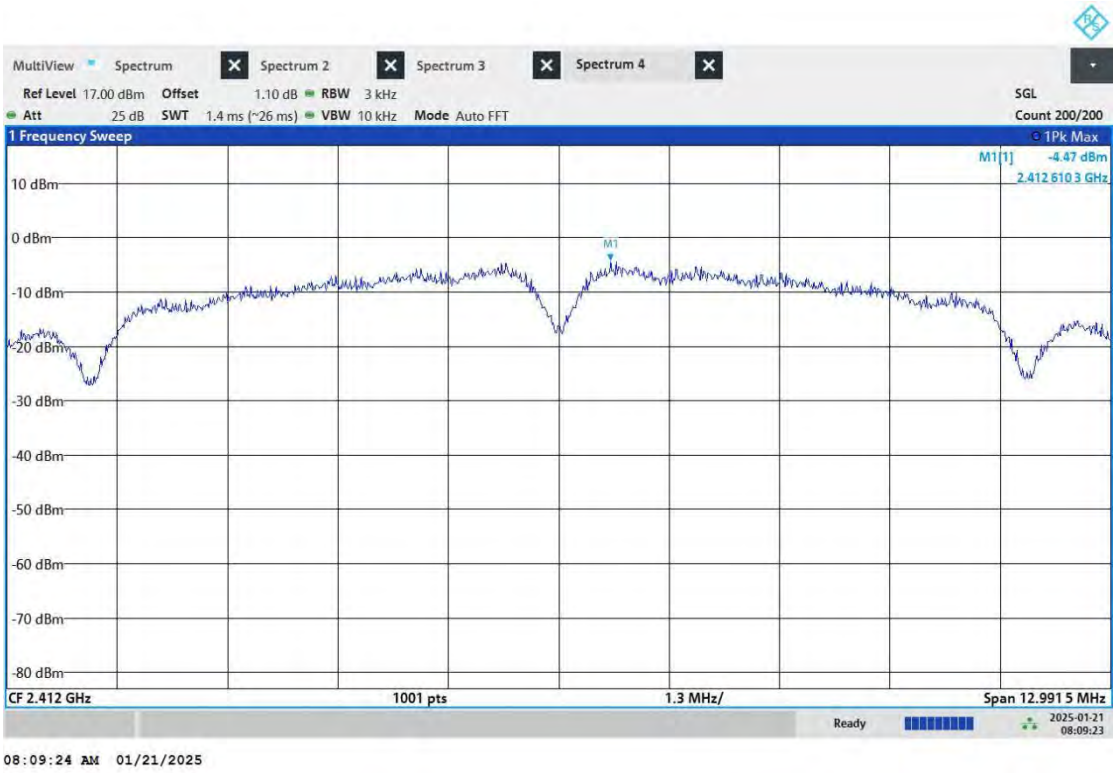
MAXIMUM POWER SPECTRAL DENSITY

TEST RESULT

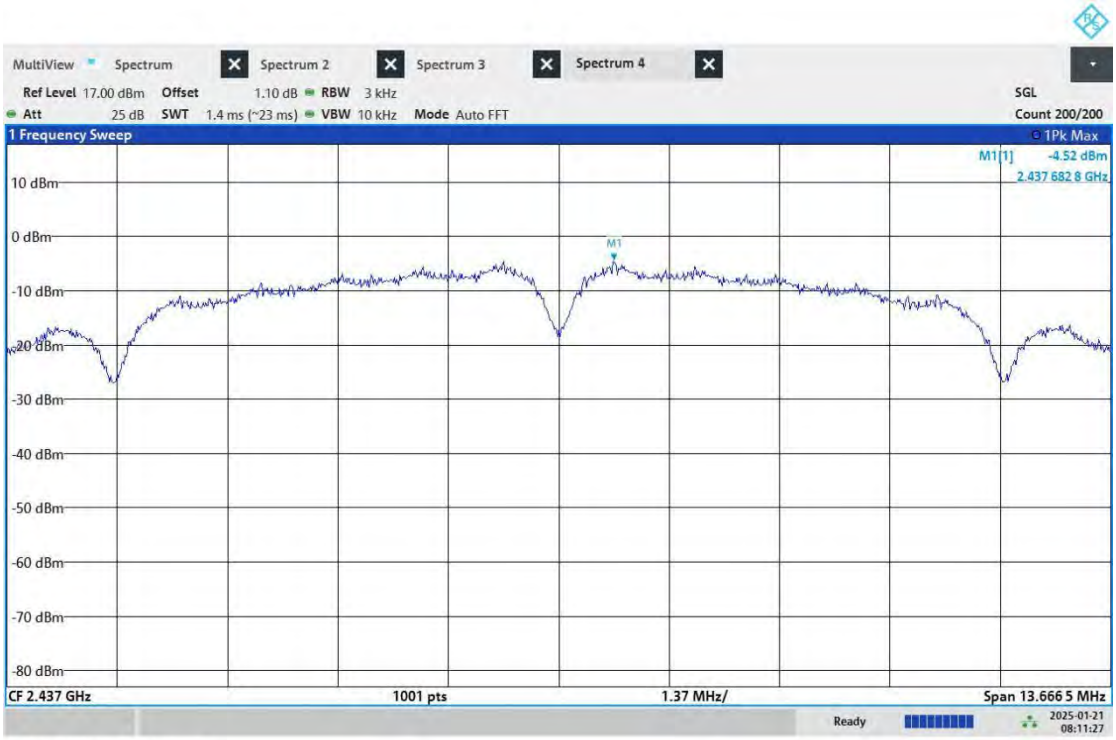
TestMode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	ANT7	2412	4.47	≤8.00	PASS
	ANT7	2437	4.52	≤8.00	PASS
	ANT7	2462	5.19	≤8.00	PASS
11G	ANT7	2412	7.74	≤8.00	PASS
	ANT7	2437	7.48	≤8.00	PASS
	ANT7	2462	8.26	≤8.00	PASS
11N20	ANT7	2412	7.37	≤8.00	PASS
	ANT7	2437	7.12	≤8.00	PASS
	ANT7	2462	7.67	≤8.00	PASS
11N40	ANT7	2422	11.41	≤8.00	PASS
	ANT7	2437	10.79	≤8.00	PASS
	ANT7	2452	12.03	≤8.00	PASS

TEST GRAPHS

11B_ANT7_2412



11B_ANT7_2437



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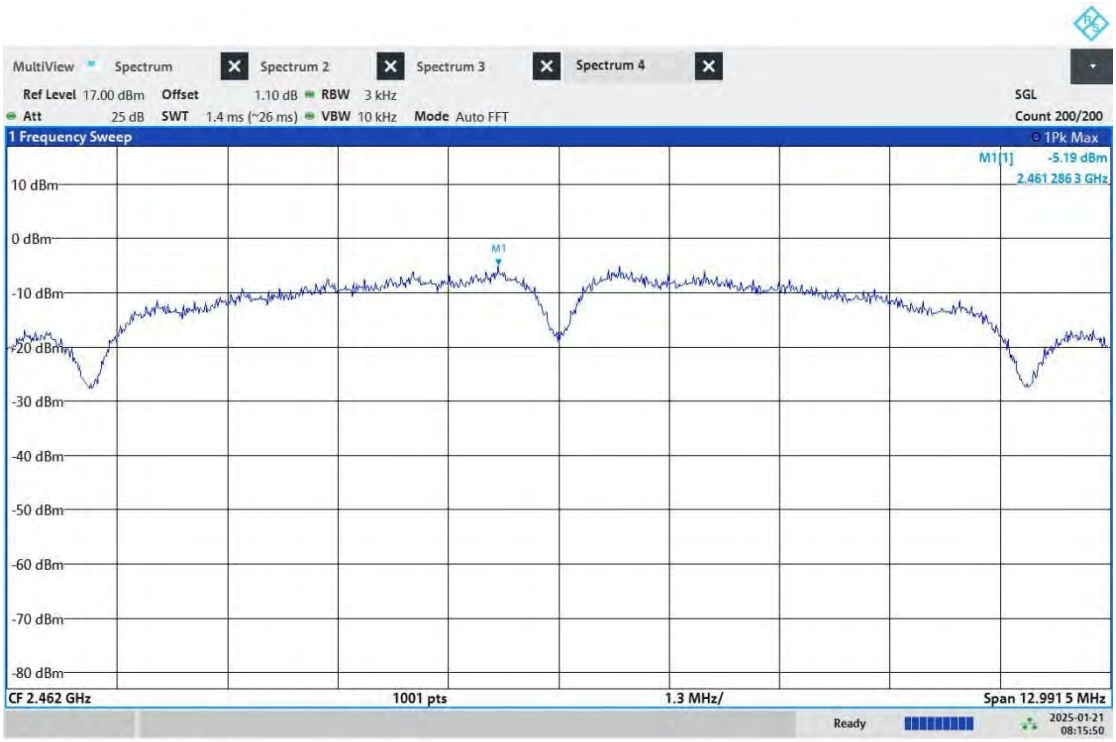
11B_ANT7_2462



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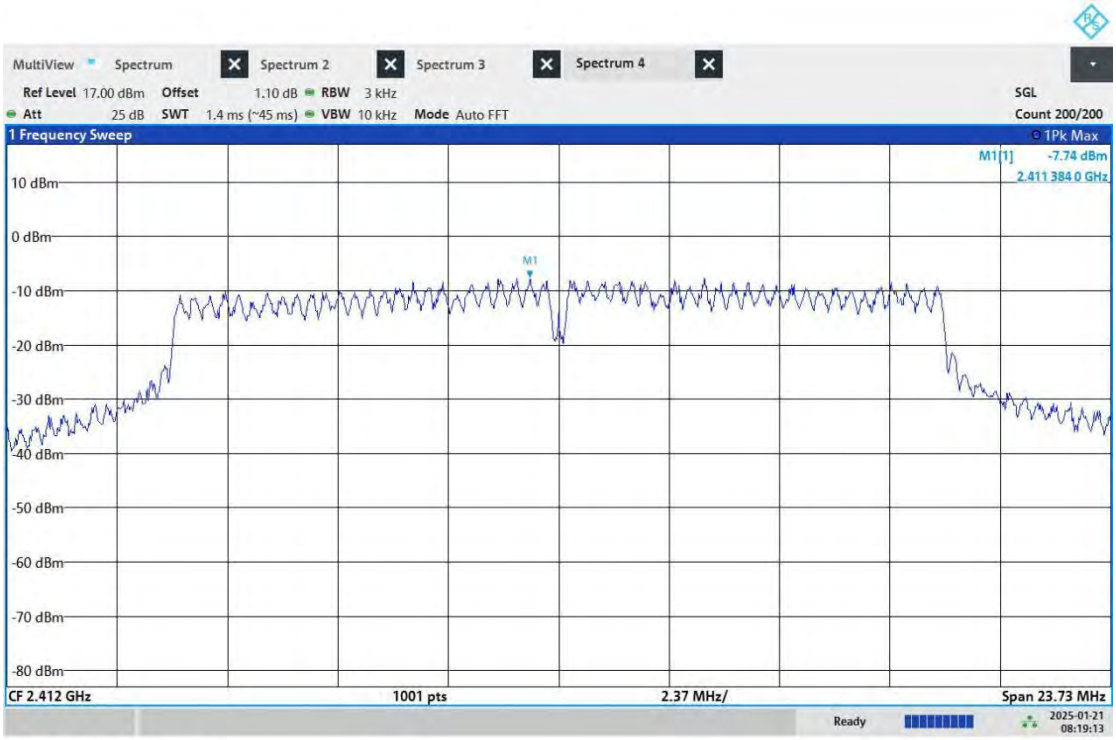
11G_ANT7_2412



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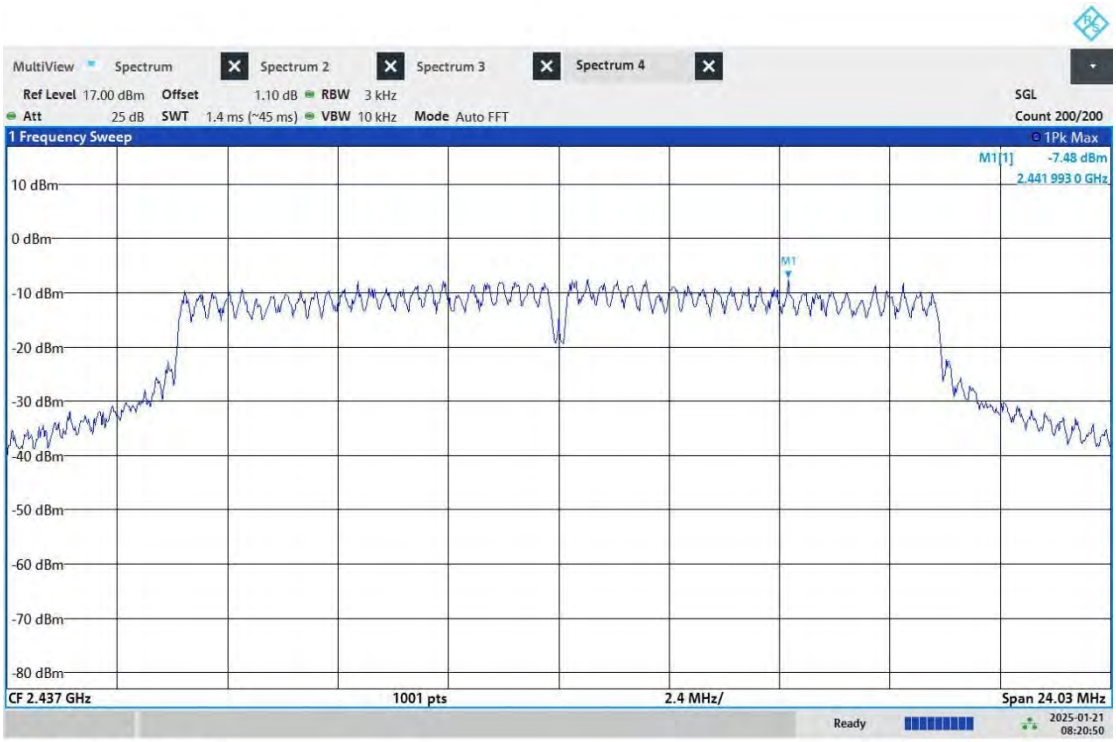
11G_ANT7_2437



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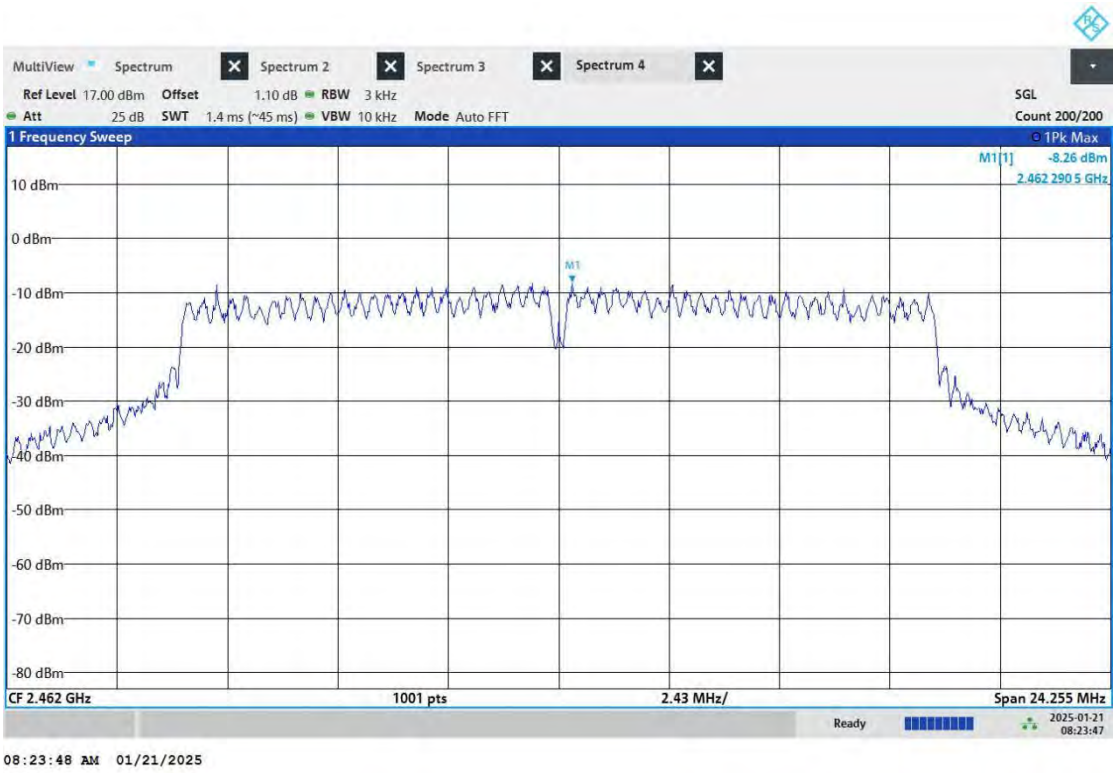
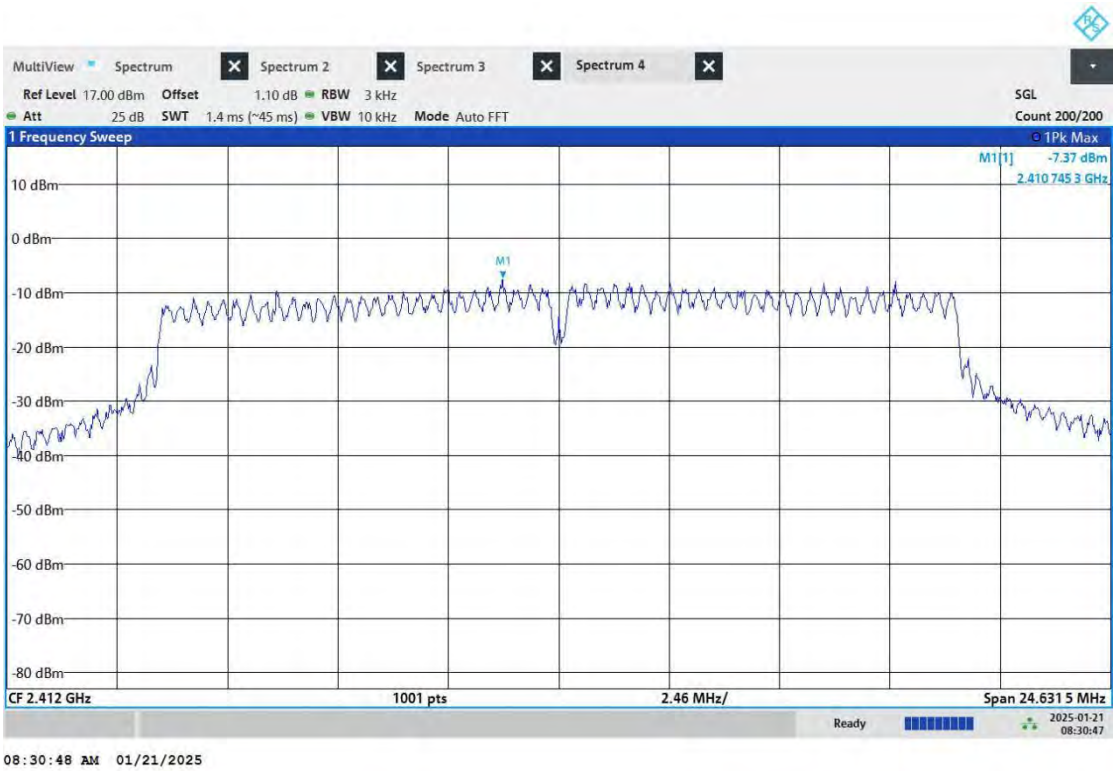
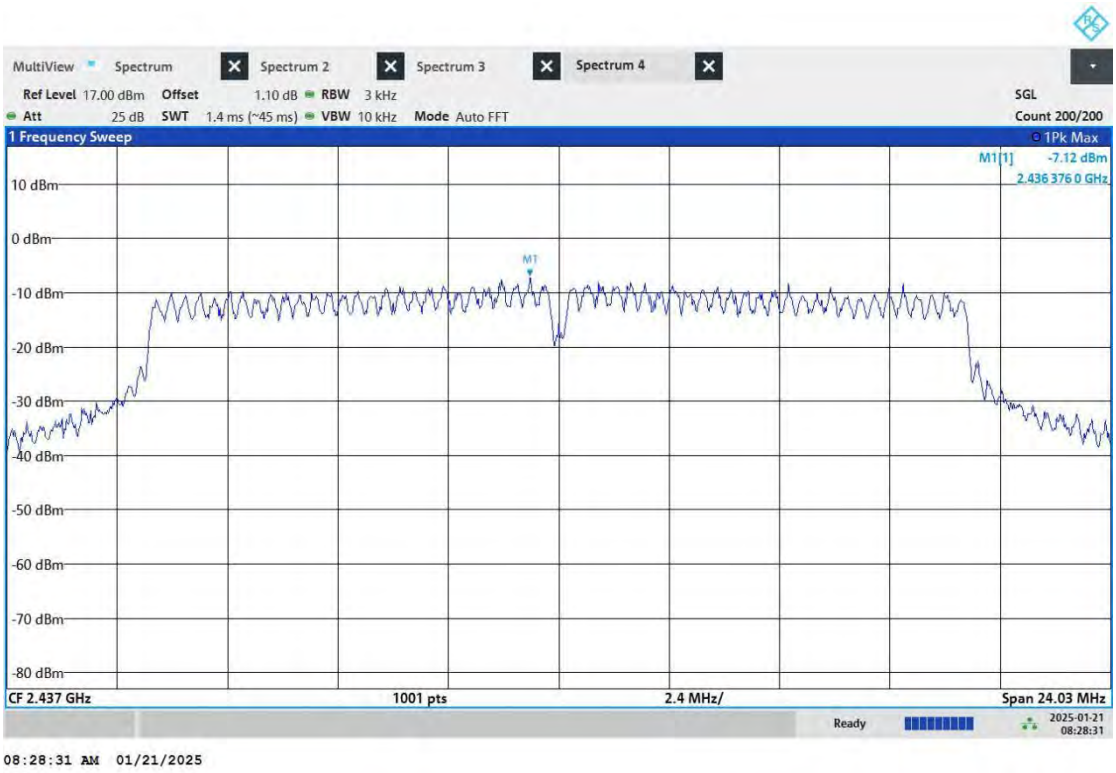
11G_ANT7_2462



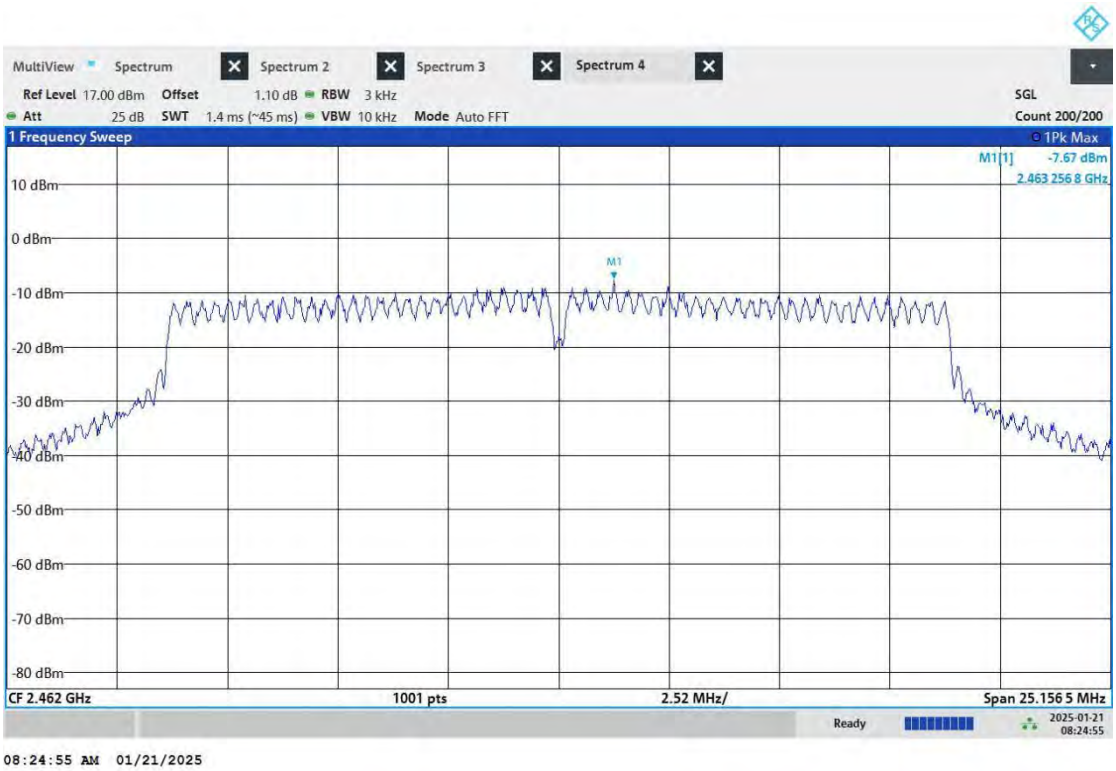
11N20_ANT7_2412



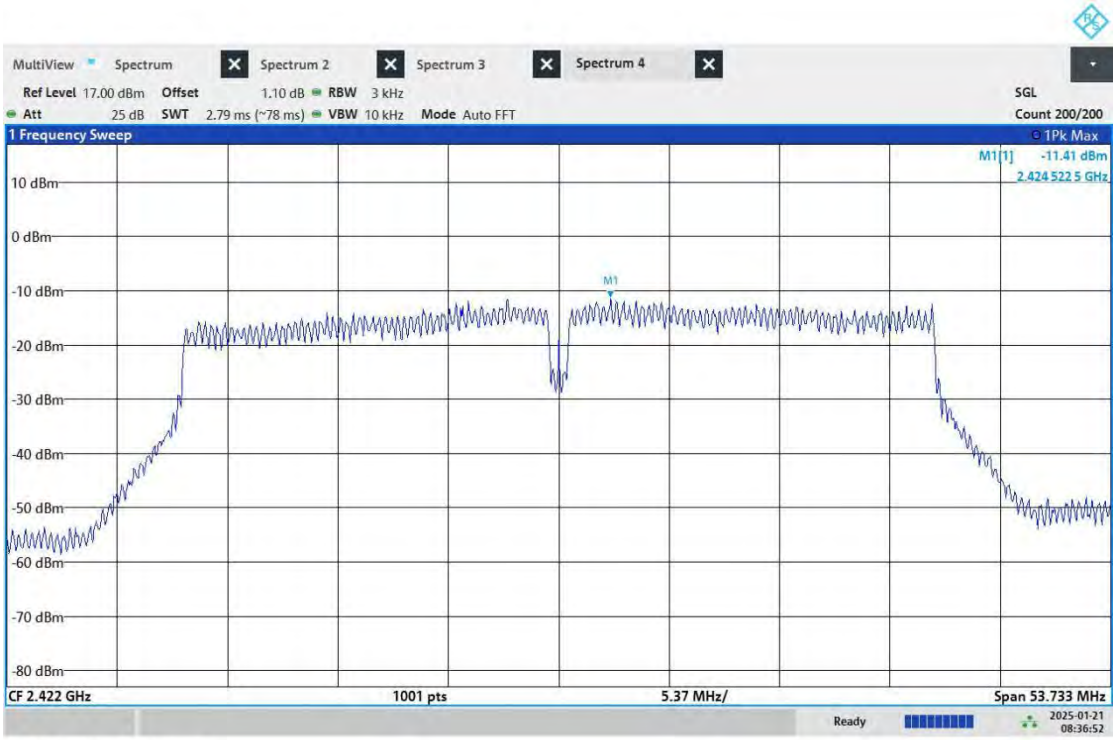
11N20_ANT7_2437



11N20_ANT7_2462



11N40_ANT7_2422



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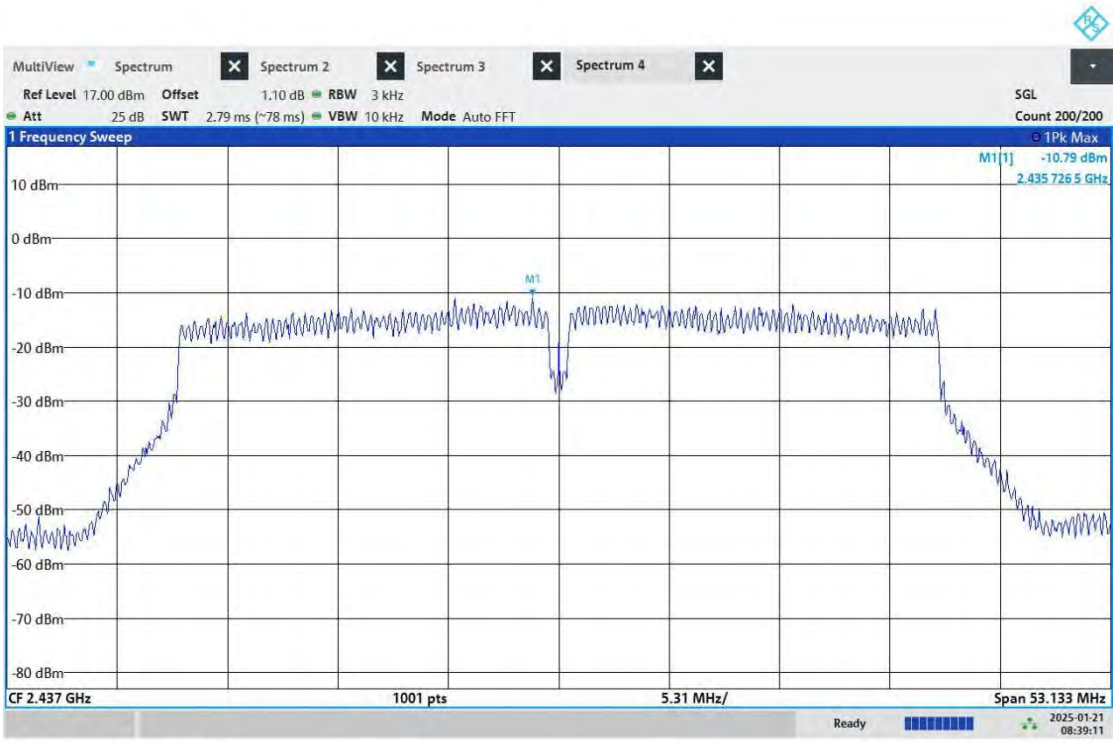
11N40_ANT7_2438



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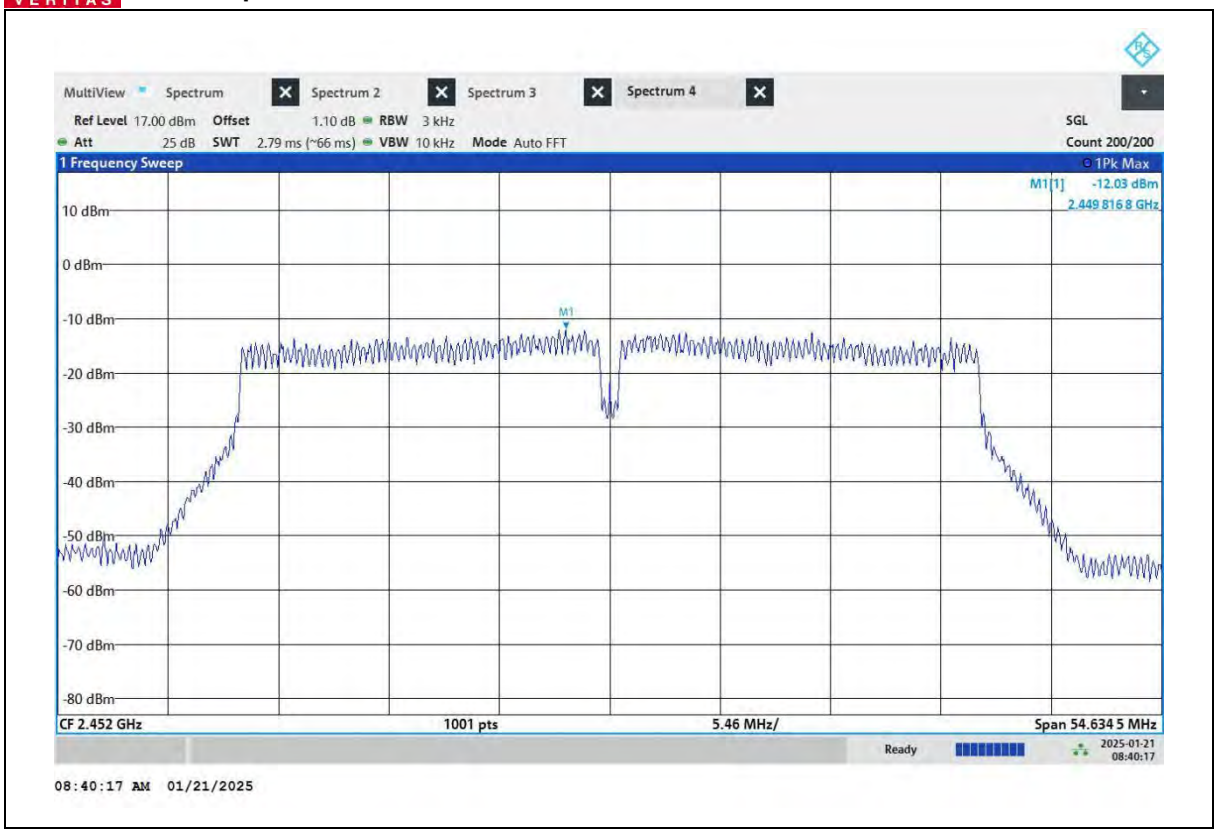
11N40_ANT7_2452


MultiView
Spectrum
Spectrum 2
Spectrum 3
Spectrum 4
Ref Level 17.00 dBm Offset 1.10 dB RBW 3 kHz
Att 25 dB SWT 2.79 ms (~66 ms) VBW 10 kHz Mode Auto FFT
SGL
Count 200/200
1 Frequency Sweep
1Pk Max
M1[1] -12.03 dBm
2.449 816 8 GHz
M1
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
-80 dBm
CF 2.452 GHz
1001 pts
5.46 MHz/
Span 54.634 5 MHz
Ready
2025-01-21
08:40:17
08:40:17 AM 01/21/2025

BAND EDGE MEASUREMENTS

TEST RESULT

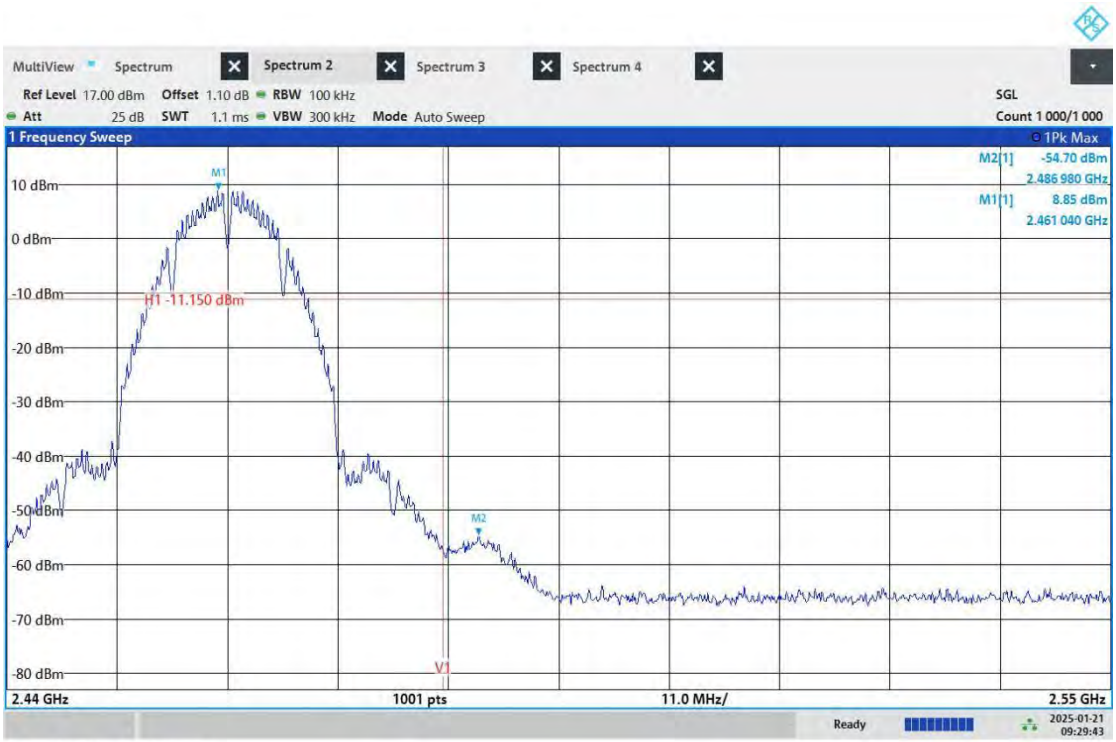
TestMode	Antenna	ChName	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	ANT7	Low	2412	See test graph	See test graph	PASS
	ANT7	High	2462	See test graph	See test graph	PASS
11G	ANT7	Low	2412	See test graph	See test graph	PASS
	ANT7	High	2462	See test graph	See test graph	PASS
11N20	ANT7	Low	2412	See test graph	See test graph	PASS
	ANT7	High	2462	See test graph	See test graph	PASS
11N40	ANT7	Low	2422	See test graph	See test graph	PASS
	ANT7	High	2452	See test graph	See test graph	PASS

TEST GRAPHS

11B_ANT7_Low_2412

08:12:53 AM 01/21/2025

11B_ANT7_High_2462



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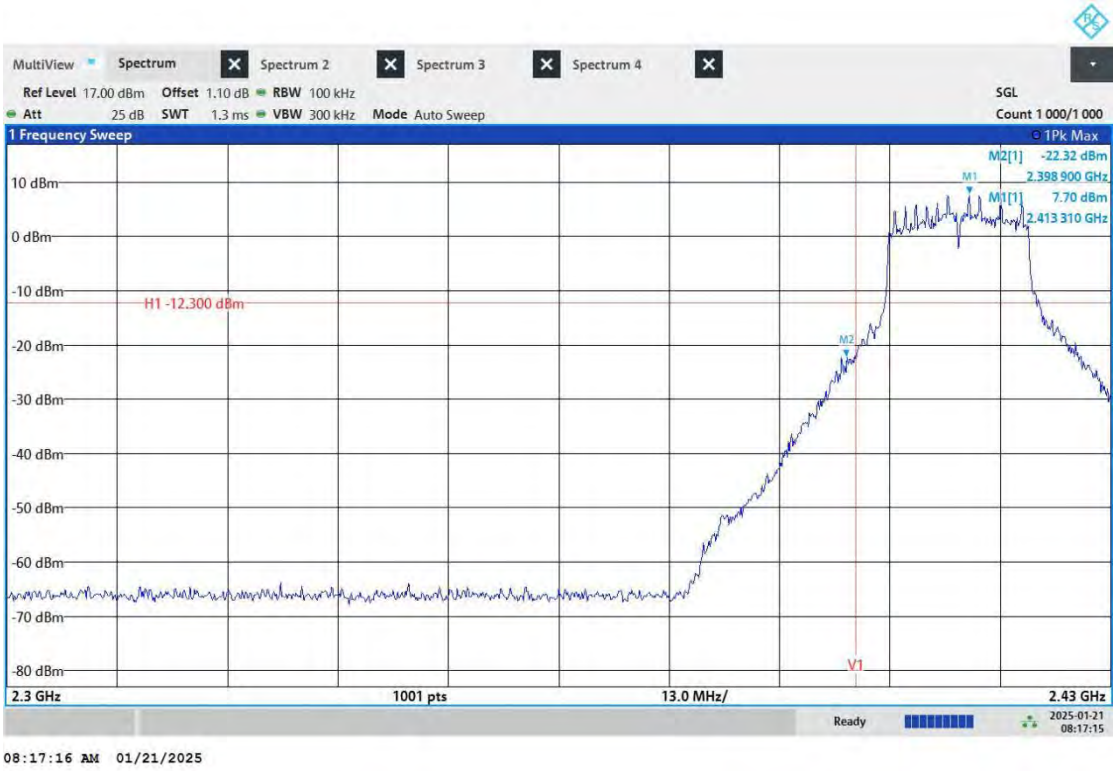
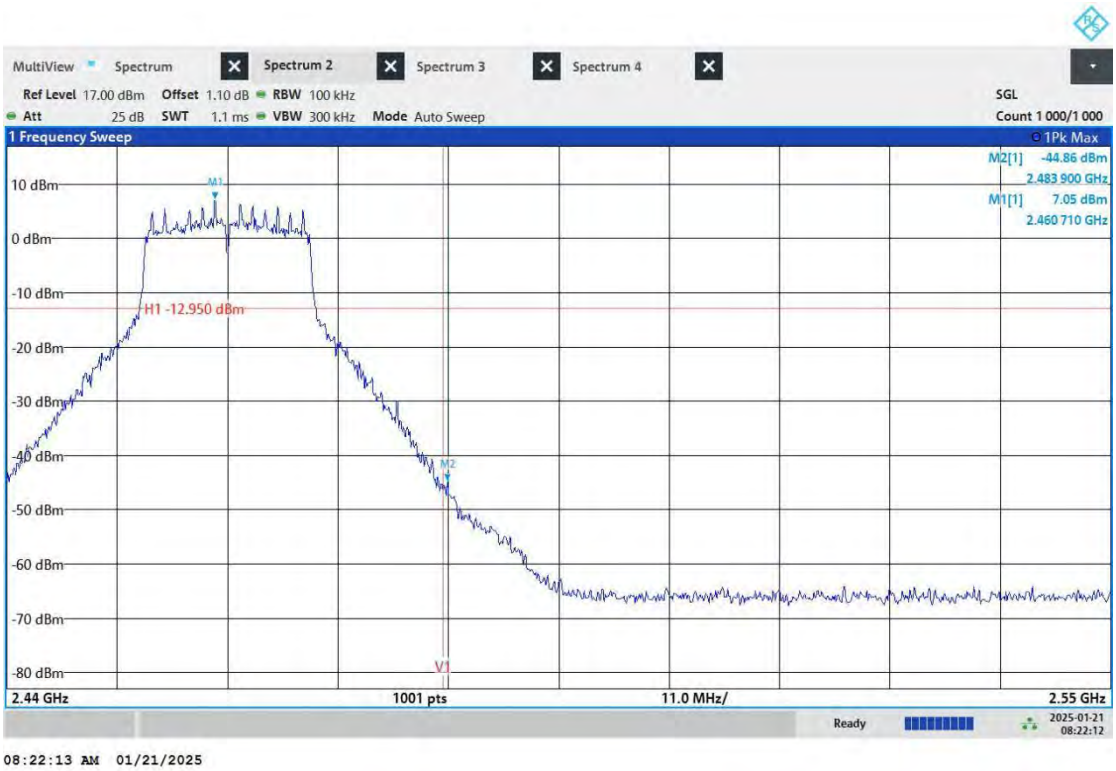
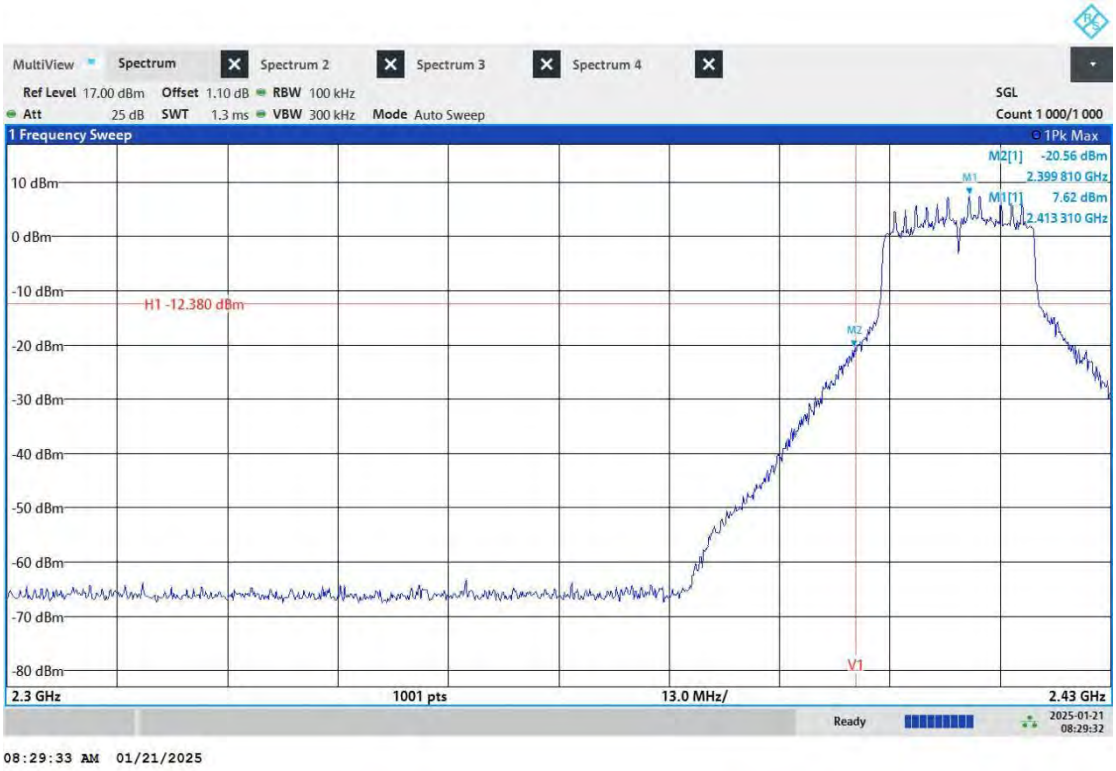
11G_ANT7_Low_2412



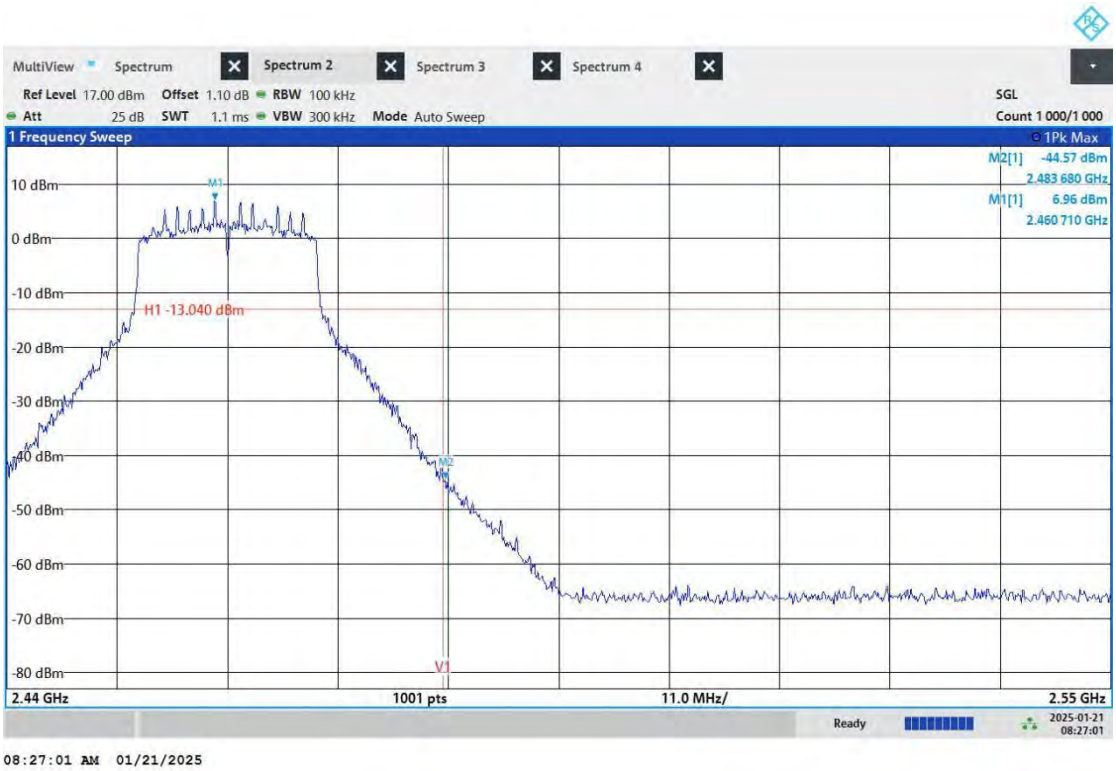
11G_ANT7_High_2462



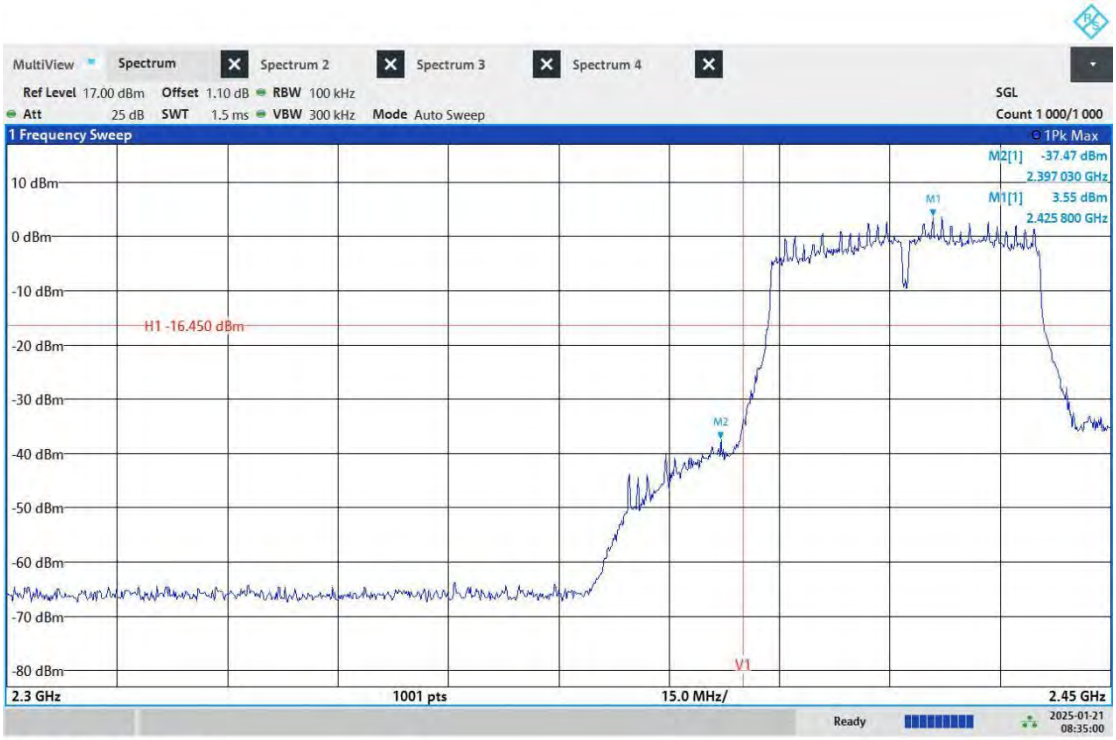
11N20_ANT7_Low_2412



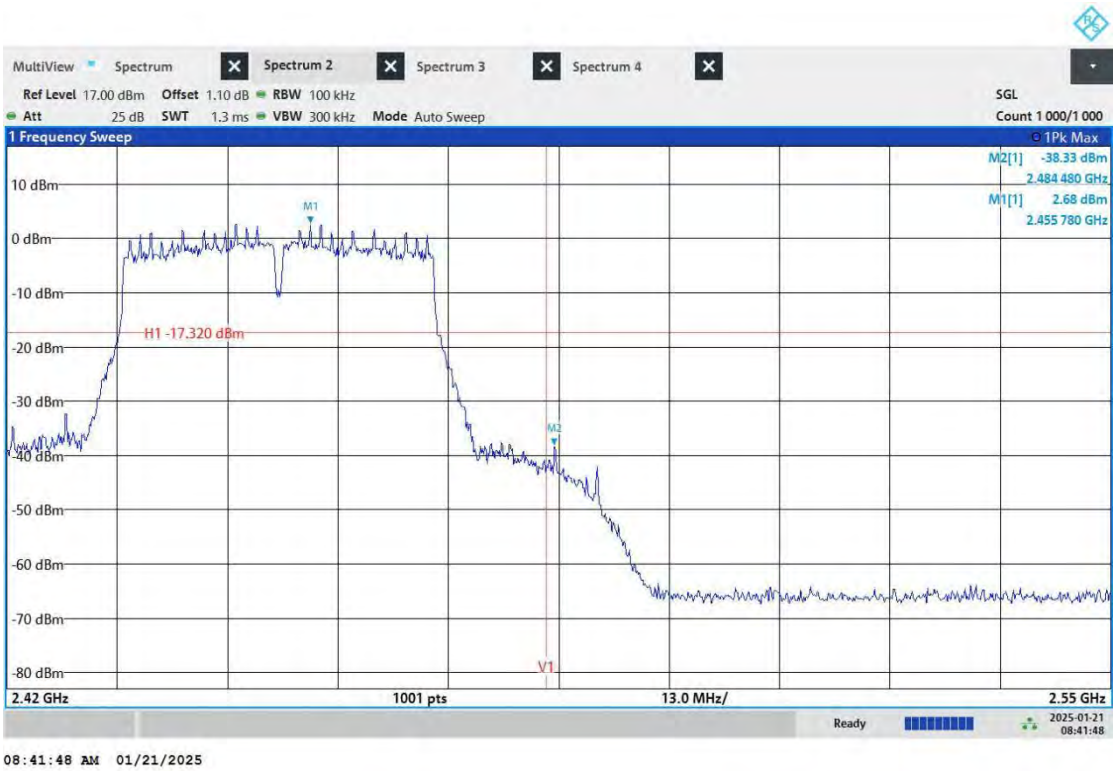
11N20_ANT7_High_2462



11N40_ANT7_Low_2422



11N40_ANT7_High_2452



CONDUCTED SPURIOUS EMISSION

TEST RESULT

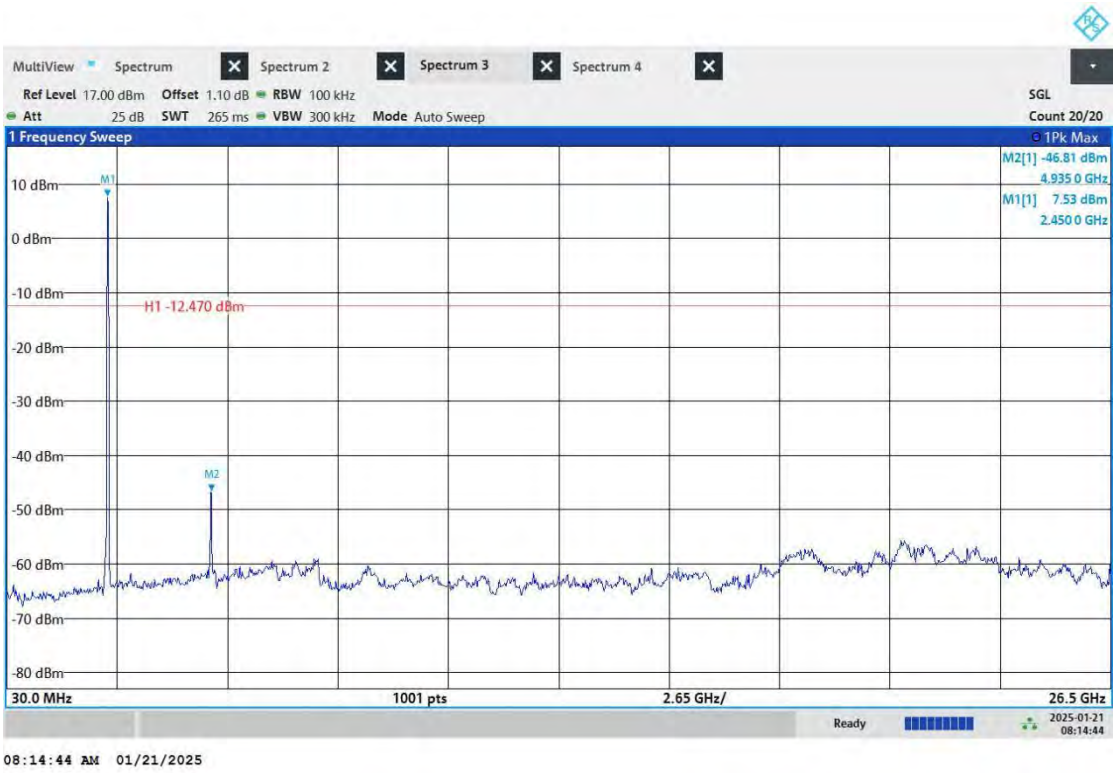
TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	Result [dBm]	Limit [dBm]	Verdict
11B	ANT7	2412	30~260000	See test graph	See test graph	PASS
	ANT7	2437	30~260000	See test graph	See test graph	PASS
	ANT7	2462	30~260000	See test graph	See test graph	PASS
11G	ANT7	2412	30~260000	See test graph	See test graph	PASS
	ANT7	2437	30~260000	See test graph	See test graph	PASS
	ANT7	2462	30~260000	See test graph	See test graph	PASS
11N20	ANT7	2412	30~260000	See test graph	See test graph	PASS
	ANT7	2437	30~260000	See test graph	See test graph	PASS
	ANT7	2462	30~260000	See test graph	See test graph	PASS
11N40	ANT7	2422	30~260000	See test graph	See test graph	PASS
	ANT7	2437	30~260000	See test graph	See test graph	PASS
	ANT7	2452	30~260000	See test graph	See test graph	PASS

TEST GRAPHS

11B _ANT7_2412_30~260000

11B_ANT7_2437_30~260000

11B_ANT7_2462_30~260000



11G_ANT7_2412_30~260000

11G_ANT7_2437_30~260000

11G_ANT7_2462_30~260000

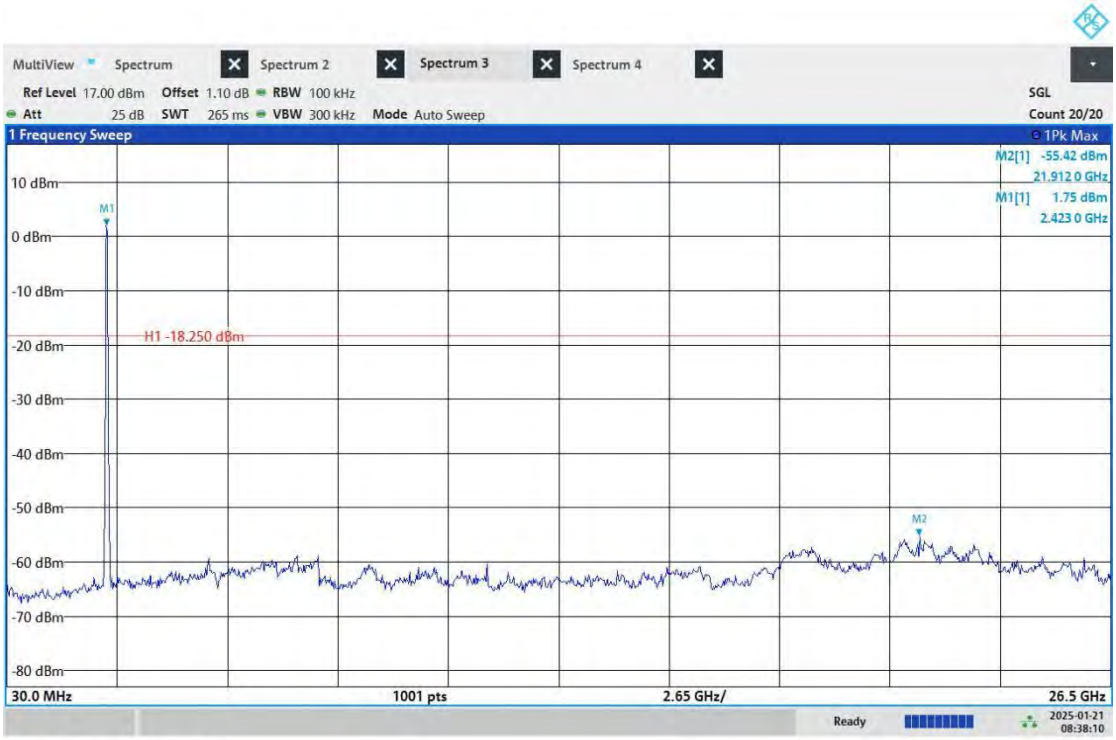
11N20_ANT7_2412_30~260000

11N20_ANT7_2437_30~260000

11N20_ANT7_2462_30~260000

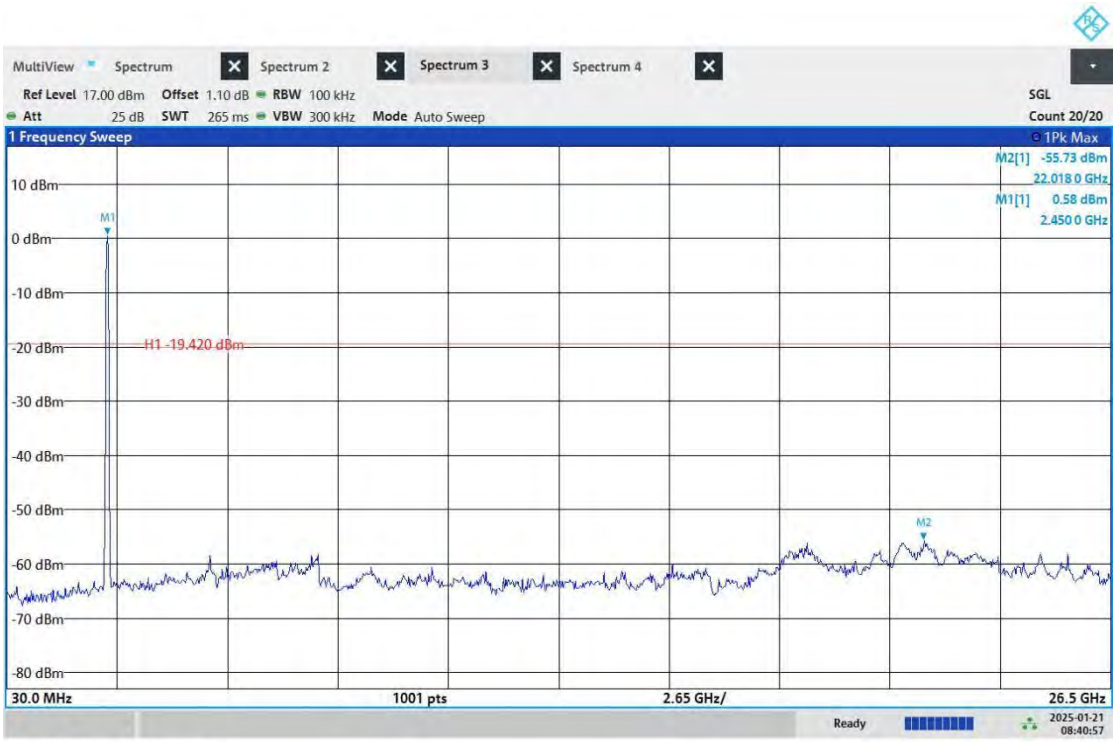
11N40_ANT7_2422_30~260000

11N40_ANT7_2437_30~260000



08:38:10 AM 01/21/2025

11N40_ANT7_2452_30~260000



08:40:57 AM 01/21/2025

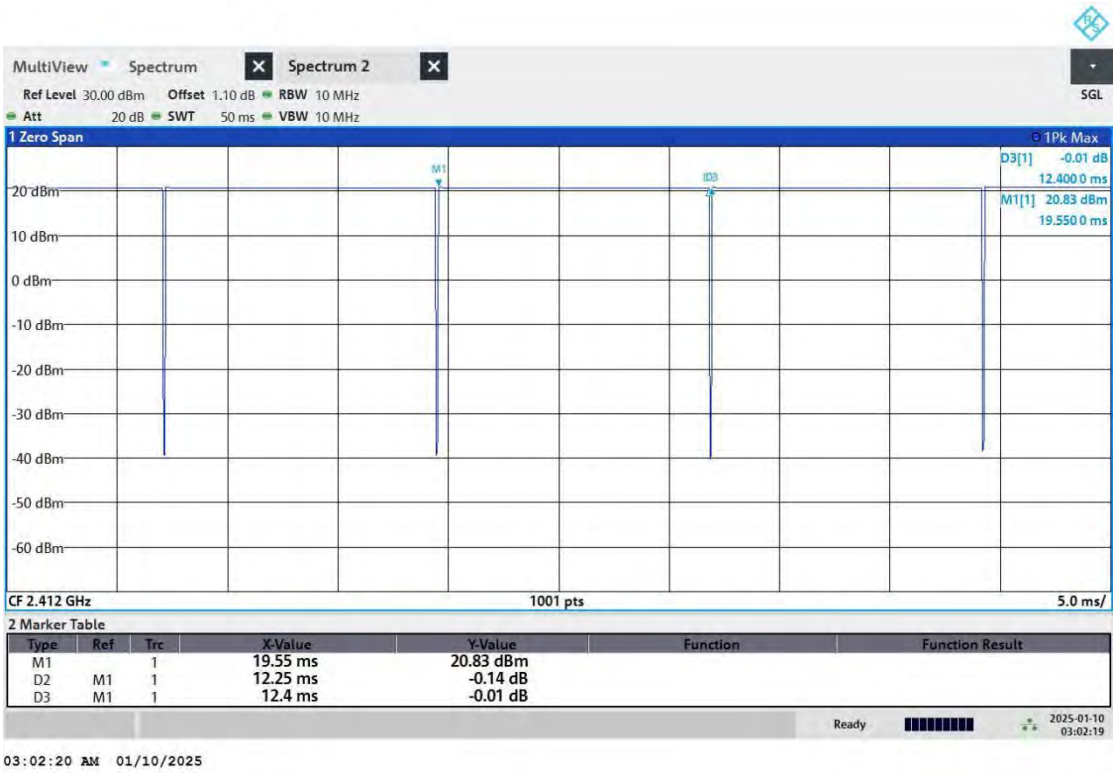
DUTY CYCLE

TEST RESULT

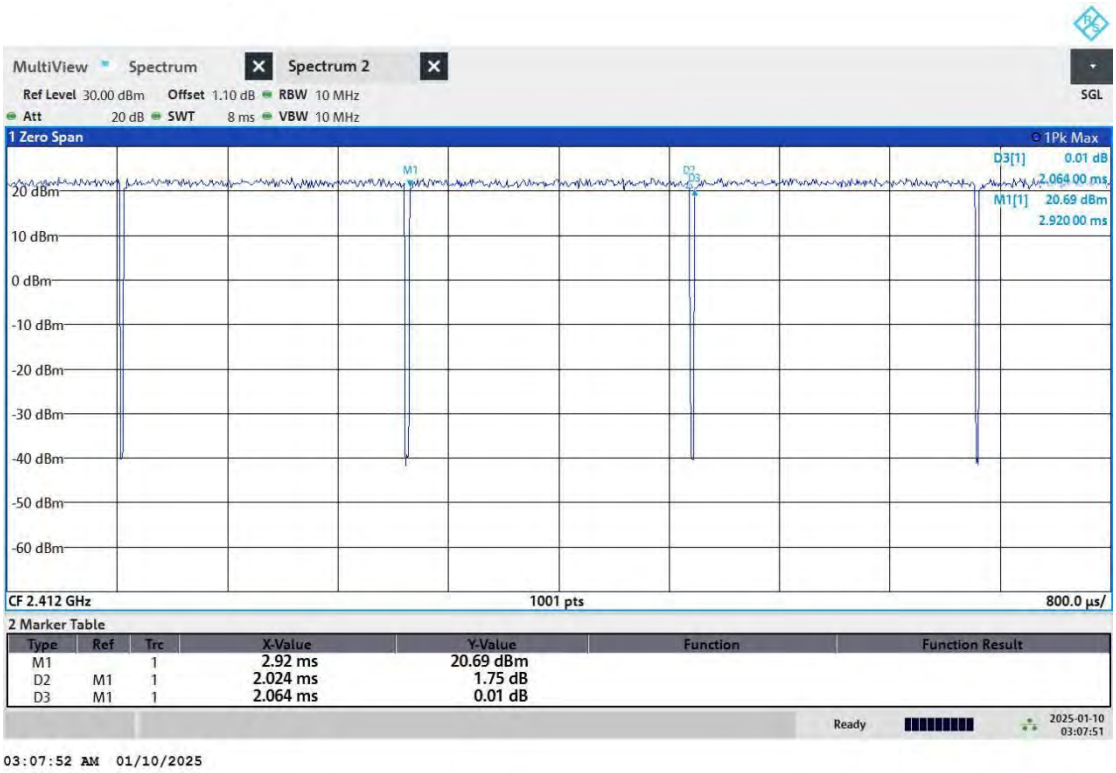
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	dutycycle factor
11B	ANT7	2412	12.25	12.40	98.79	0.05
11G	ANT7	2412	2.024	2.064	98.06	0.09
11N20	ANT7	2412	1.888	1.928	97.93	0.09
11N40	ANT7	2422	0.928	0.980	94.69	0.24

TEST GRAPHS

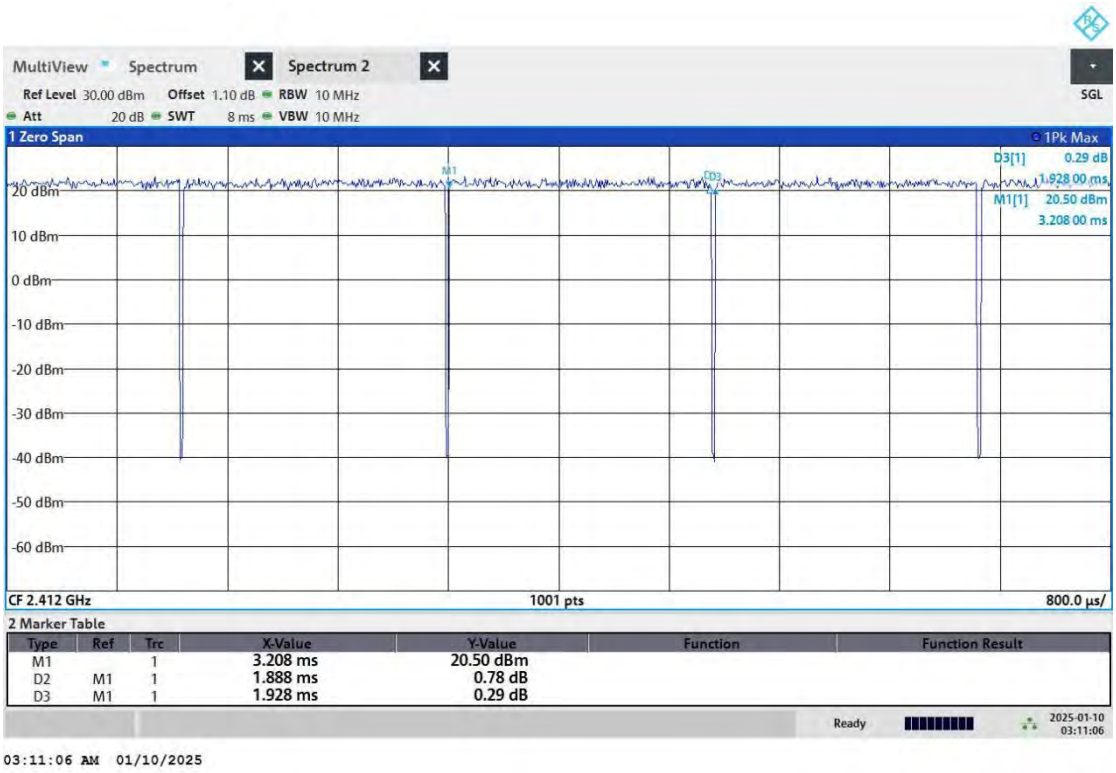
11B_ANT7_2412



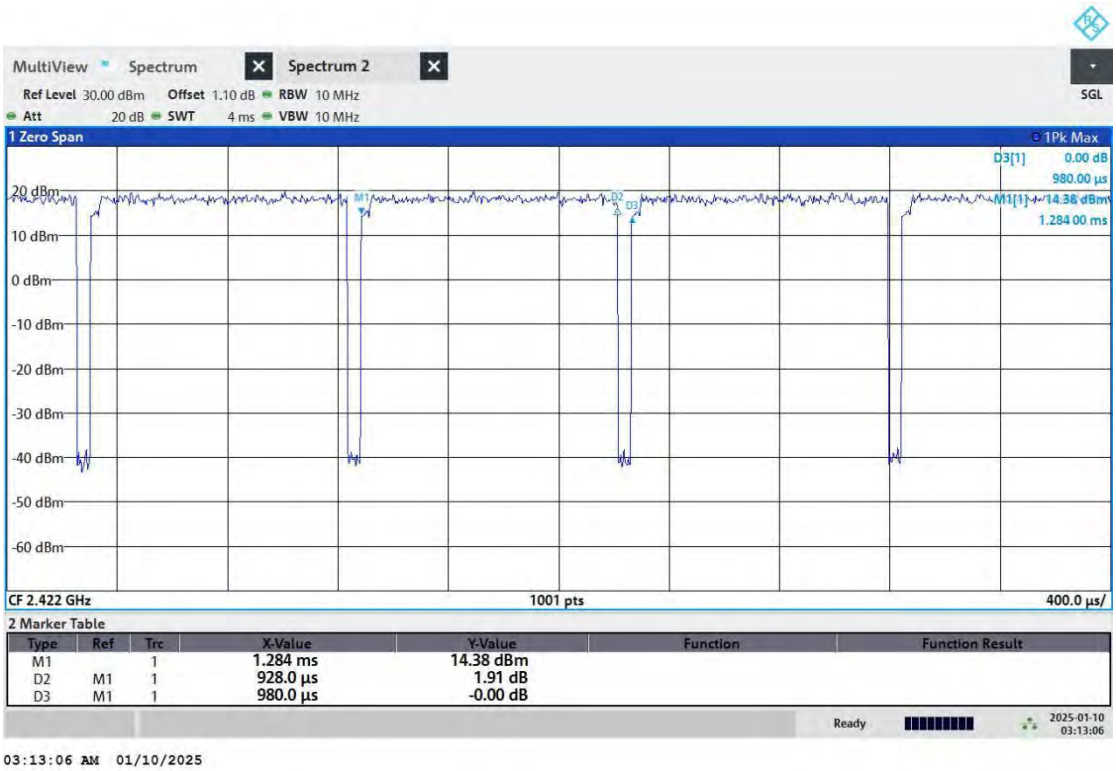
11G_ANT7_2412



11N20_ANT7_2412



11N40_ANT7_2422



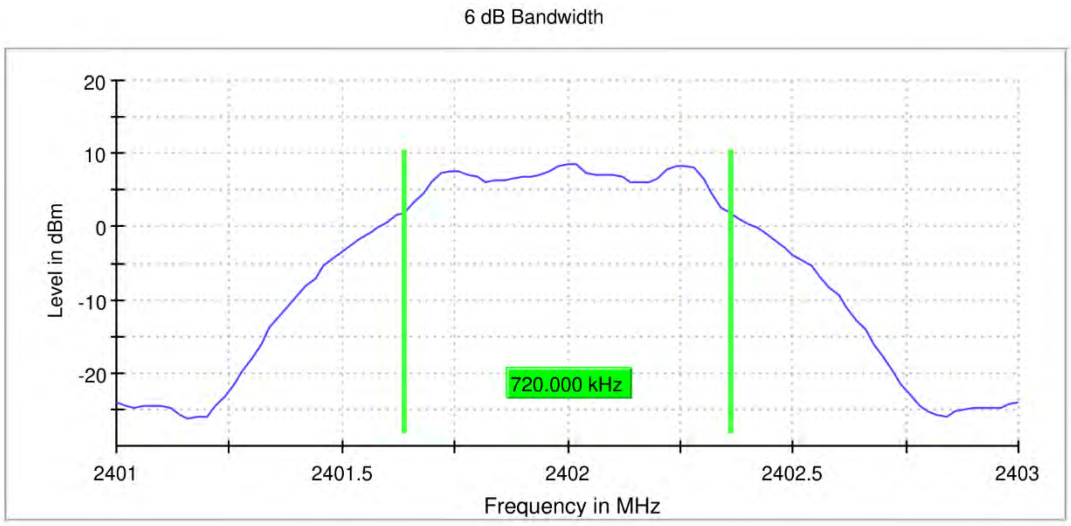
7 APPENDIX B:BLE

DTS BANDWIDTH

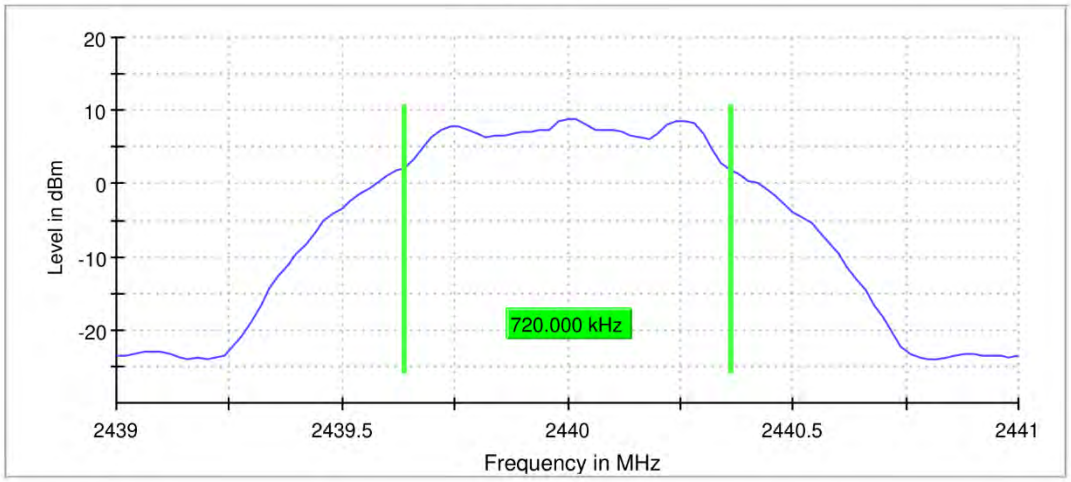
TEST RESULT

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	ANT7	2402	0.720	2401.640	2402.360	0.5	PASS
		2440	0.720	2439.640	2440.360	0.5	PASS
		2480	0.720	2479.640	2480.360	0.5	PASS
BLE_2M	ANT7	2404	1.240	2403.400	2404.640	0.5	PASS
		2440	1.240	2439.400	2440.640	0.5	PASS
		2478	1.240	2477.400	2478.640	0.5	PASS
BLE-S2	ANT7	2402	0.700	2401.660	2402.360	0.5	PASS
		2440	0.720	2439.640	2440.360	0.5	PASS
		2480	0.720	2479.640	2480.360	0.5	PASS
BLE_S8	ANT7	2402	0.640	2401.680	2402.320	0.5	PASS
		2440	0.680	2439.660	2440.340	0.5	PASS
		2480	0.640	2479.680	2480.320	0.5	PASS

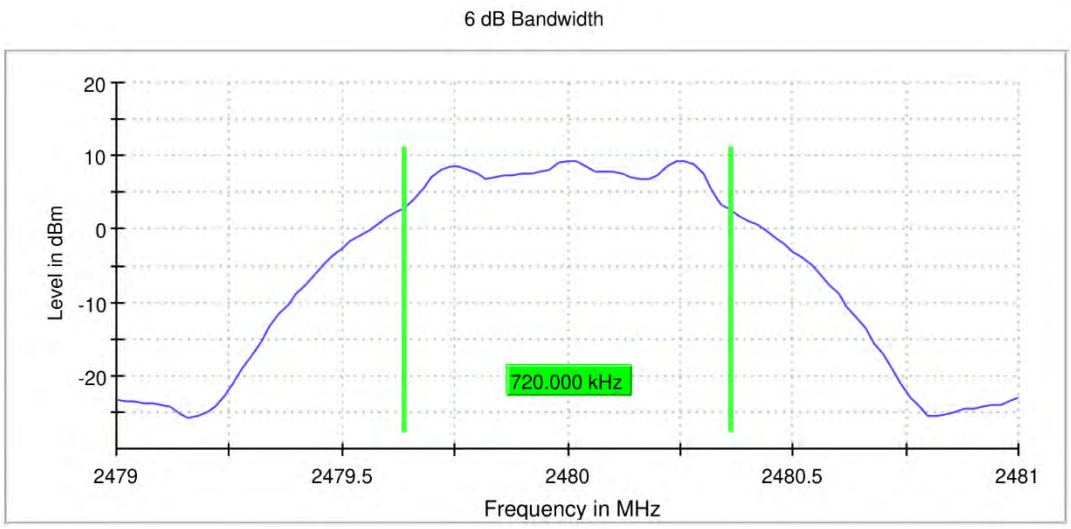
TEST GRAPHS



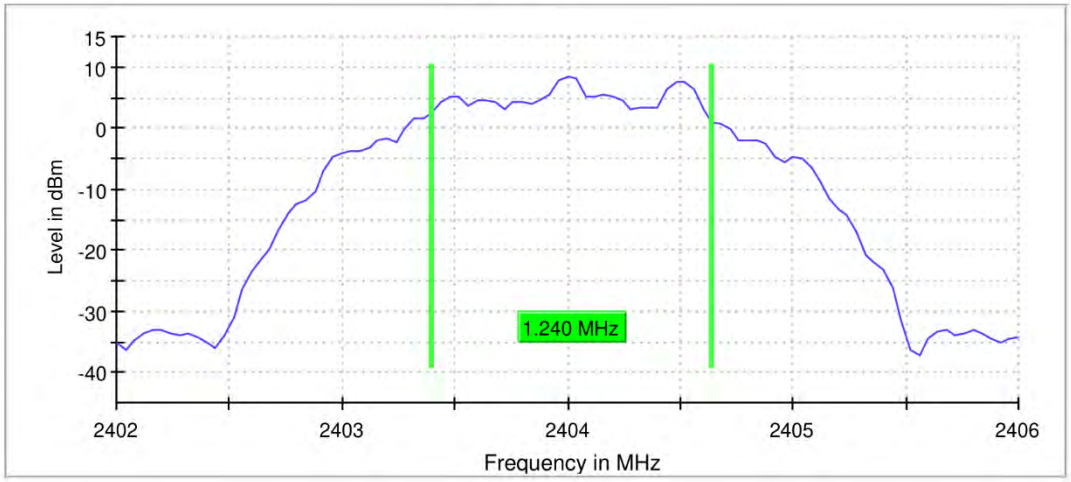
BLE_1M_ANT7_2402



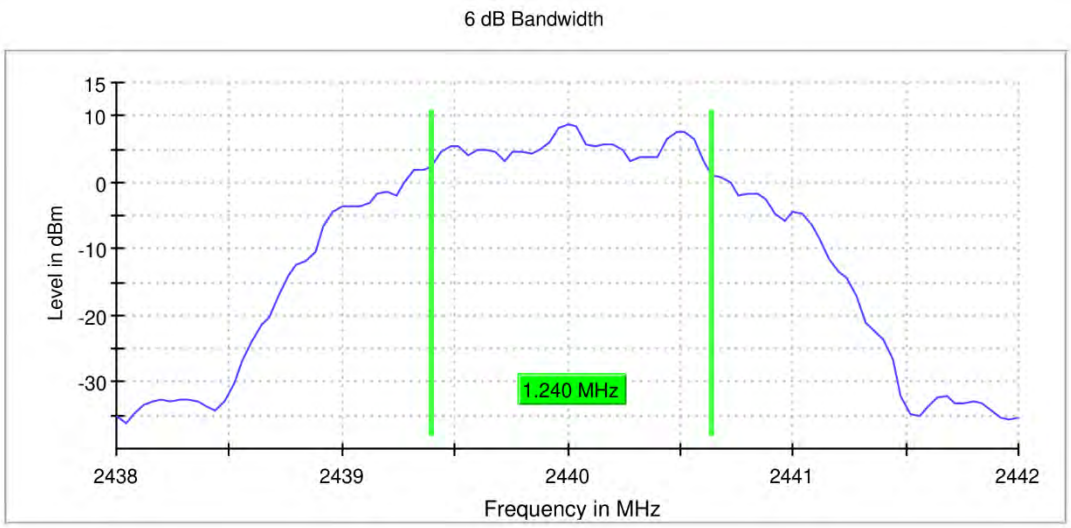
BLE_1M_ANT7_2440



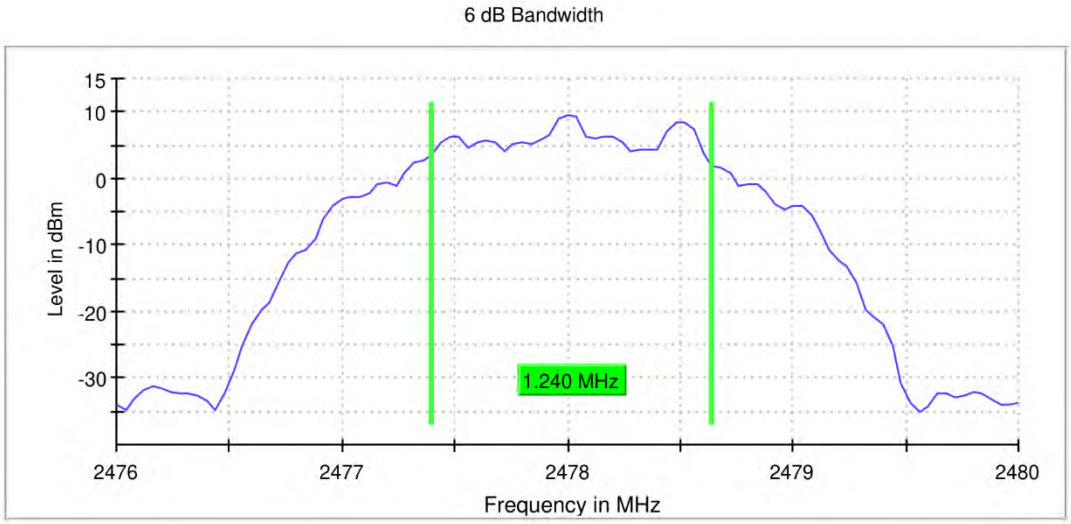
BLE_1M_ANT7_2480



BLE_2M_ANT7_2404



BLE_2M_ANT7_2440



BLE_2M_ANT7_2478