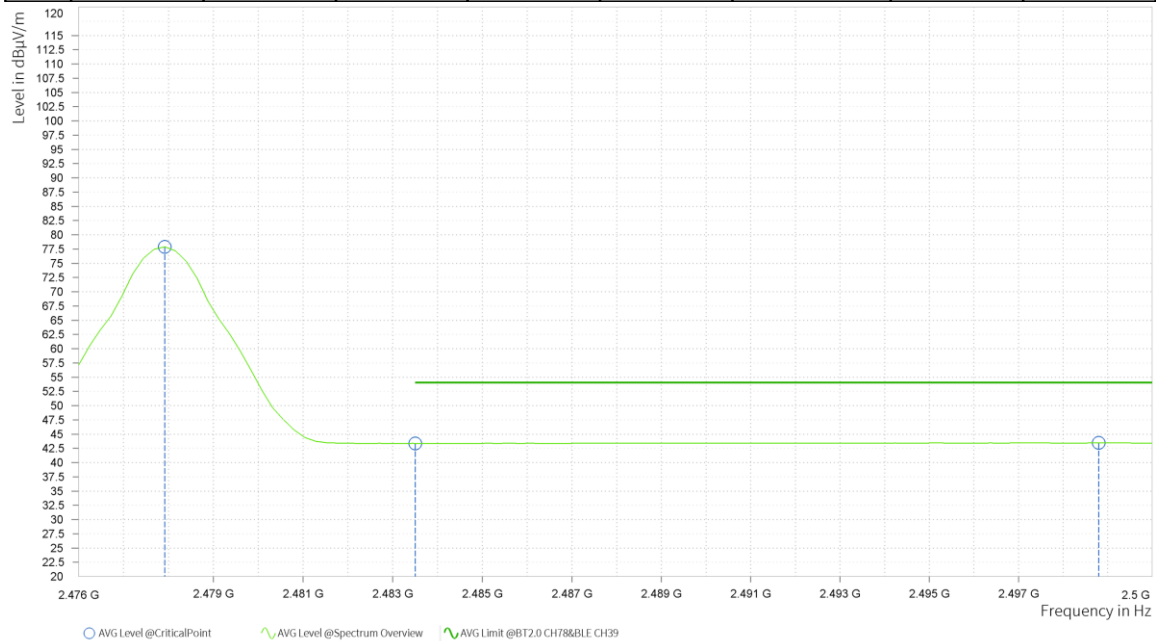




ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

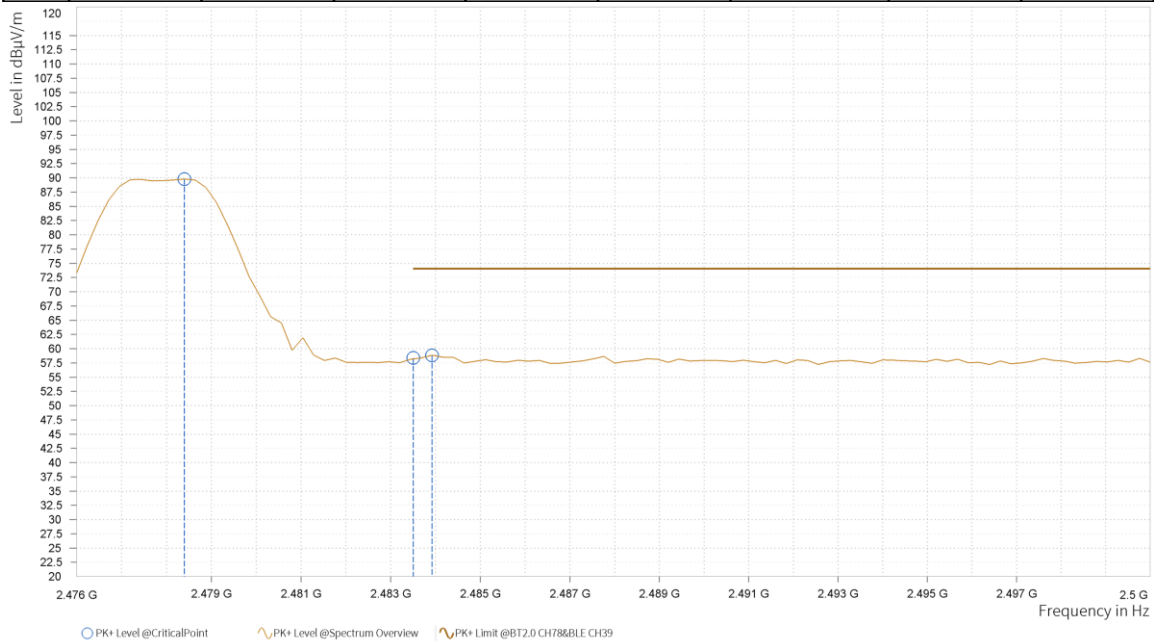
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,477.920	77.89			37.87	H	5.1	1.00
6	2,483.500	43.34	54.00	10.66	37.88	H	358.2	1.00
6	2,498.800	43.46	54.00	10.54	37.91	H	1	1.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

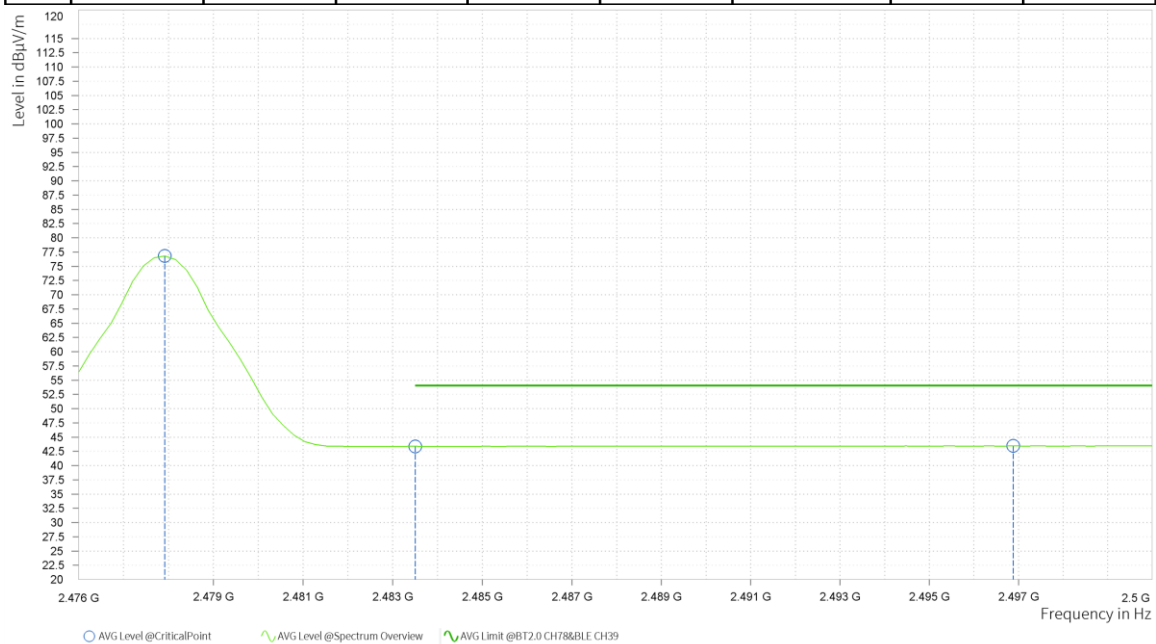
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,478.400	89.79			37.87	V	174.1	1.00
6	2,483.500	58.38	74.00	15.62	37.88	V	359	2.00
6	2,483.920	58.85	74.00	15.15	37.88	V	359	1.00





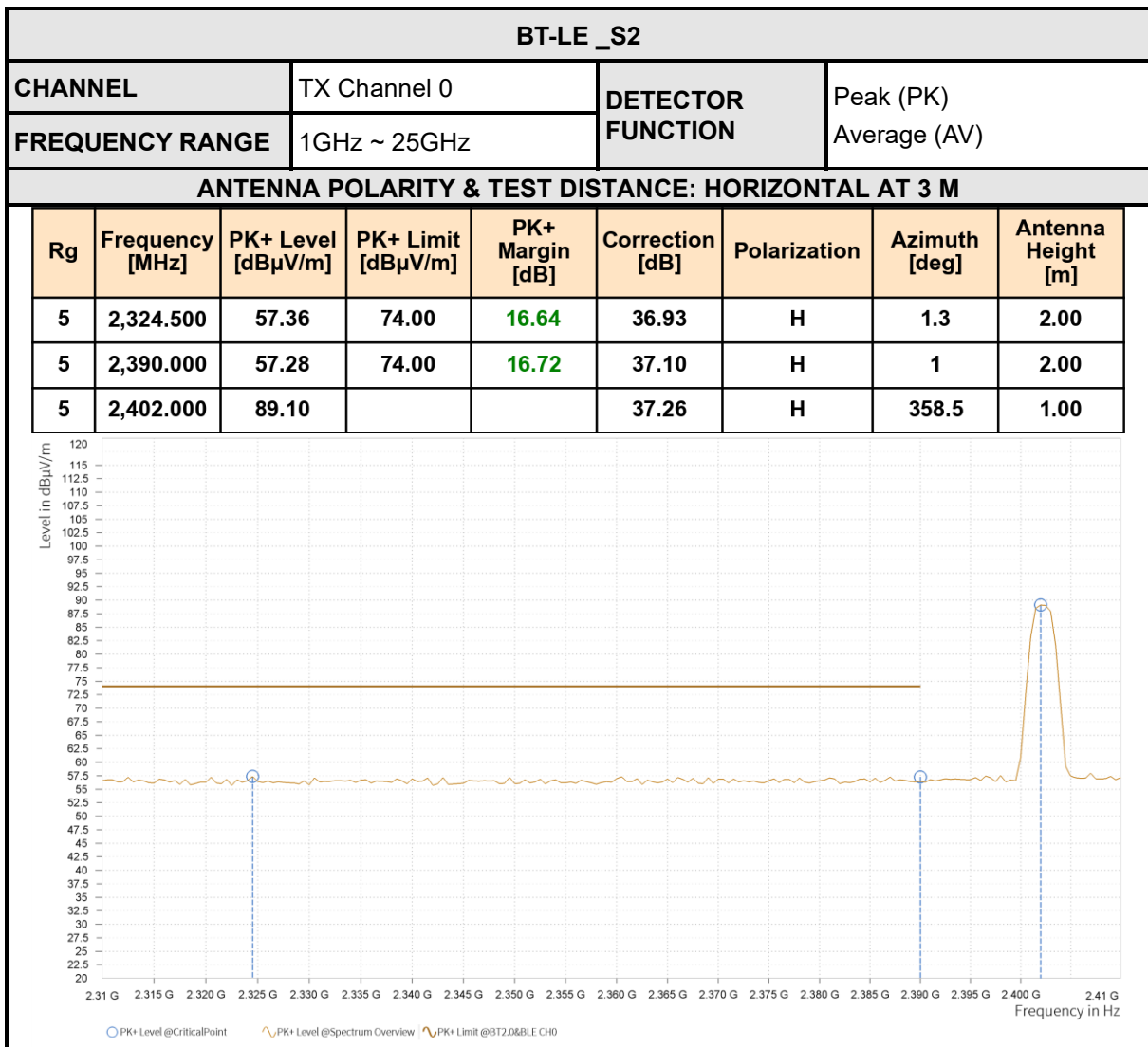
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,477.920	76.81			37.87	V	172.9	1.00
6	2,483.500	43.36	54.00	10.64	37.88	V	215.8	1.00
6	2,496.880	43.47	54.00	10.53	37.91	V	1	1.00



REMARKS:

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





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

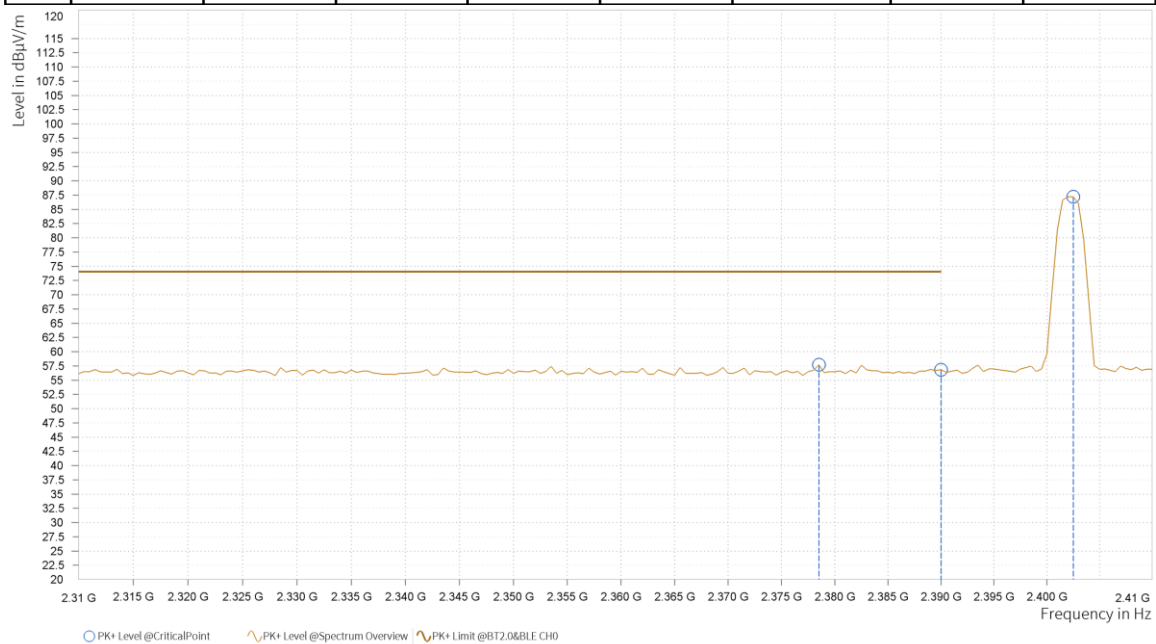
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,389.000	42.50	54.00	11.50	37.08	H	1	1.00
5	2,390.000	42.46	54.00	11.54	37.10	H	133.4	1.00
5	2,402.000	86.53			37.26	H	359.1	1.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

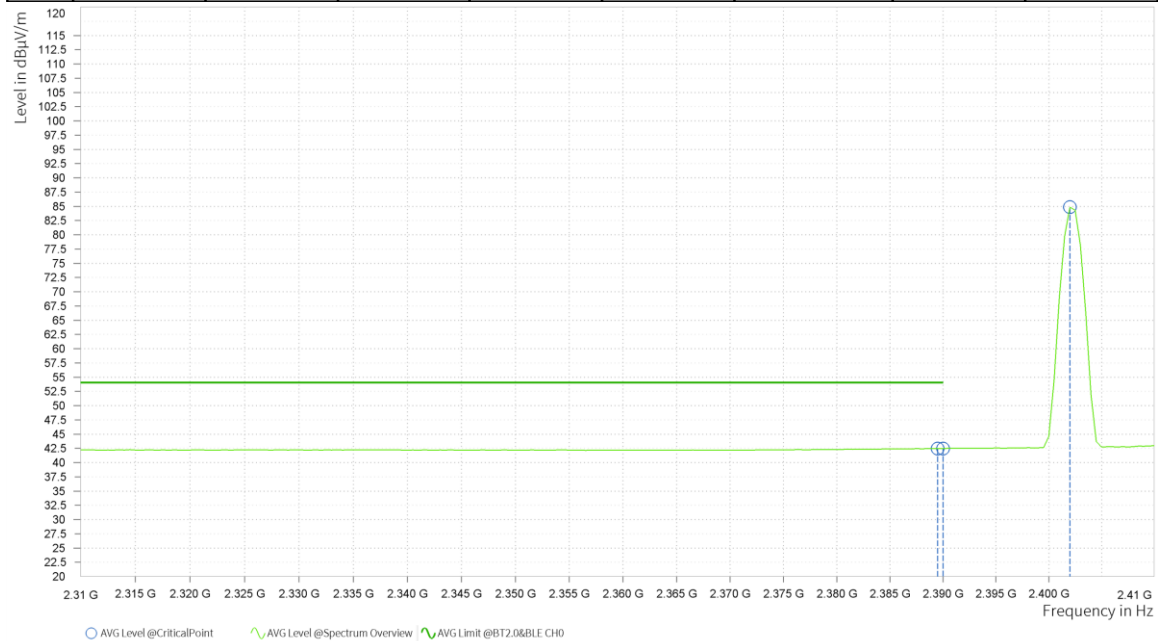
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,378.500	57.72	74.00	16.28	36.94	V	178.9	1.00
5	2,390.000	56.83	74.00	17.17	37.10	V	318.7	2.00
5	2,402.500	87.21			37.27	V	178.9	1.00





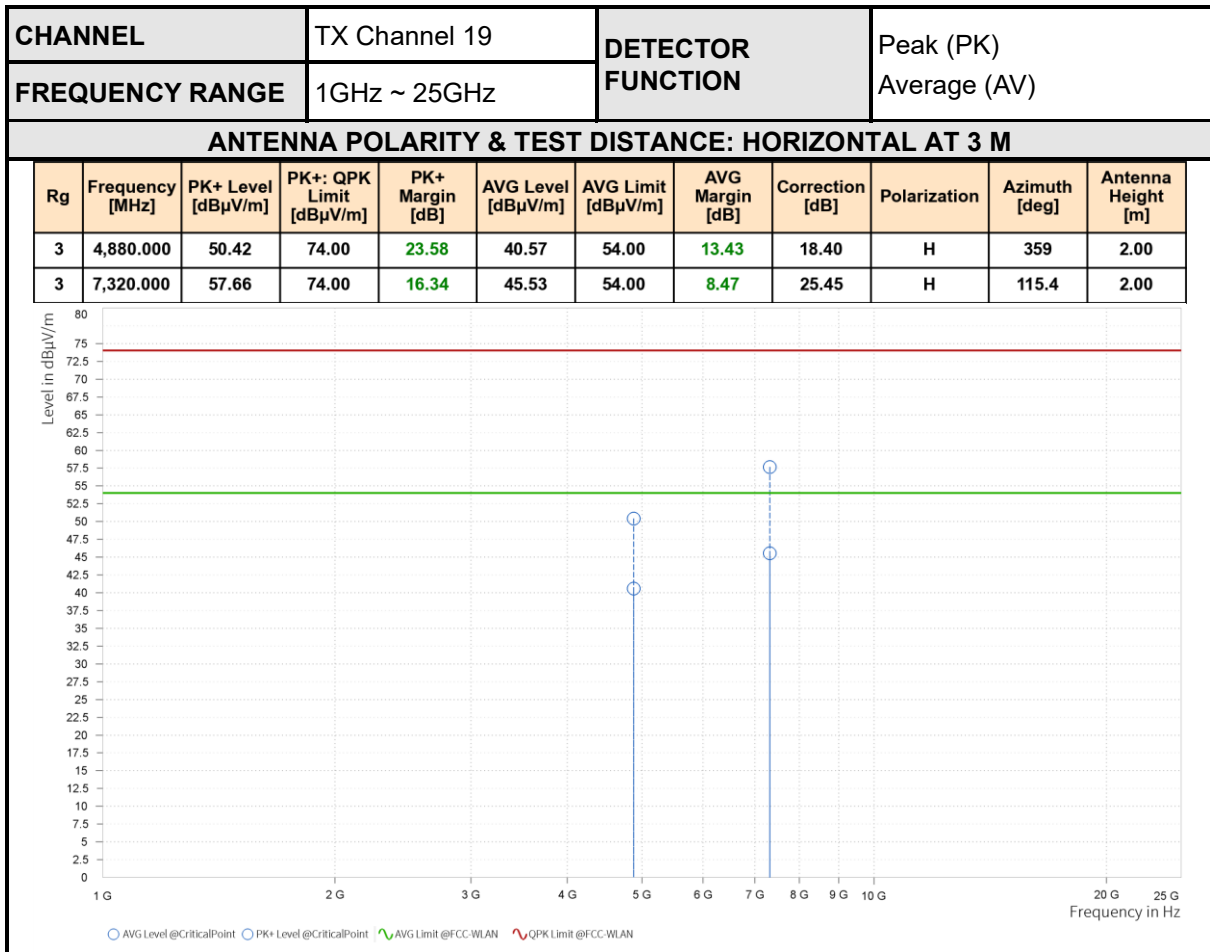
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,389.500	42.46	54.00	11.54	37.09	V	47.3	2.00
5	2,390.000	42.47	54.00	11.53	37.10	V	359	1.00
5	2,402.000	84.86			37.26	V	177.7	1.00



REMARKS:

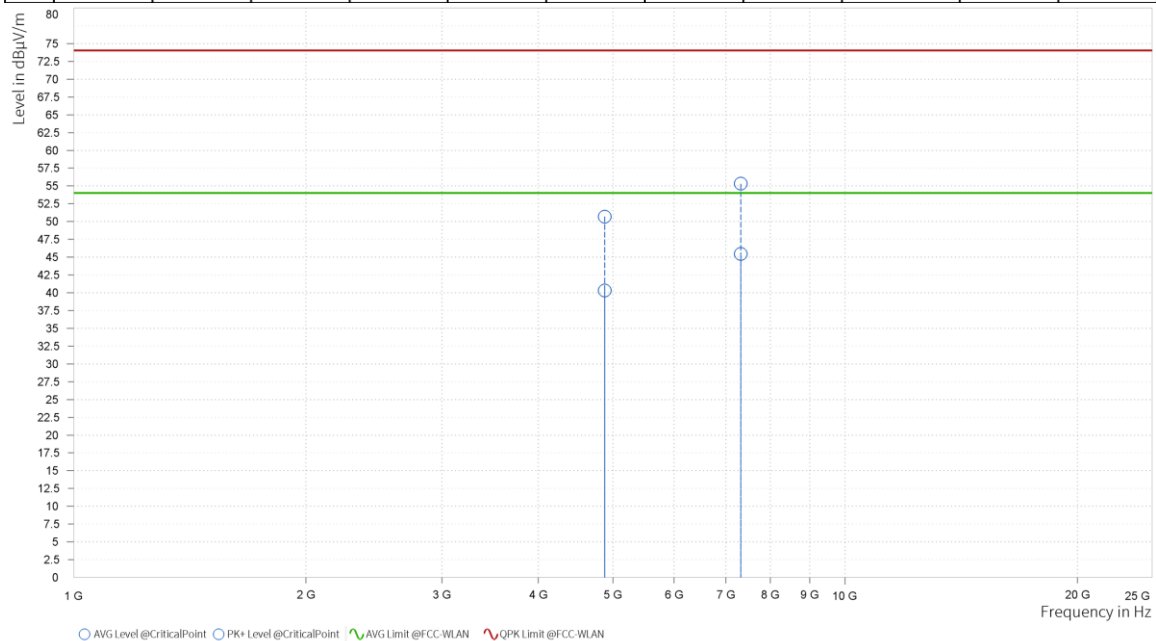
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2402MHz: Fundamental frequency.





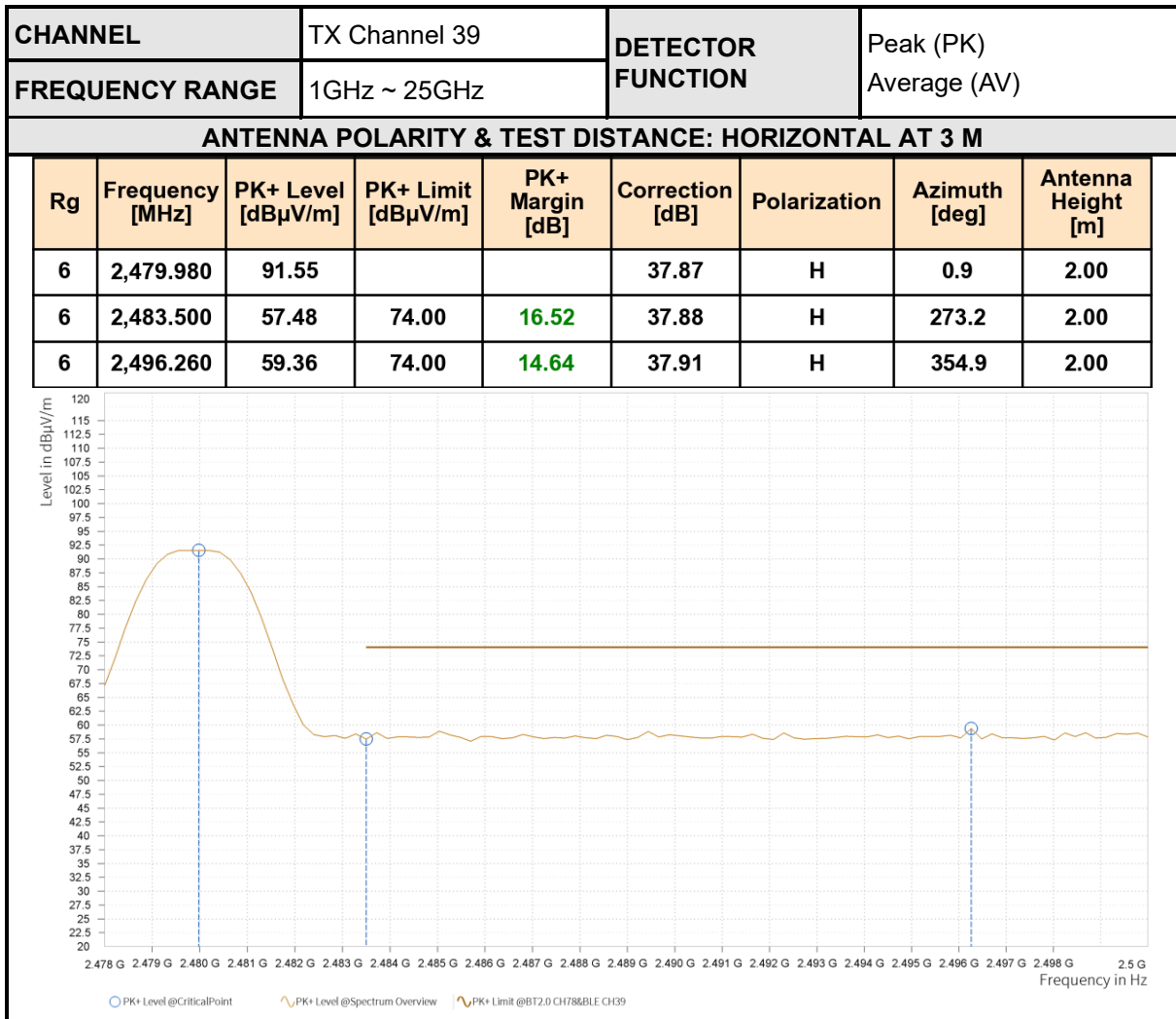
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	50.69	74.00	23.31	40.30	54.00	13.70	18.40	V	0.9	2.00
3	7,320.000	55.31	74.00	18.69	45.44	54.00	8.56	25.45	V	1	1.00



REMARKS:

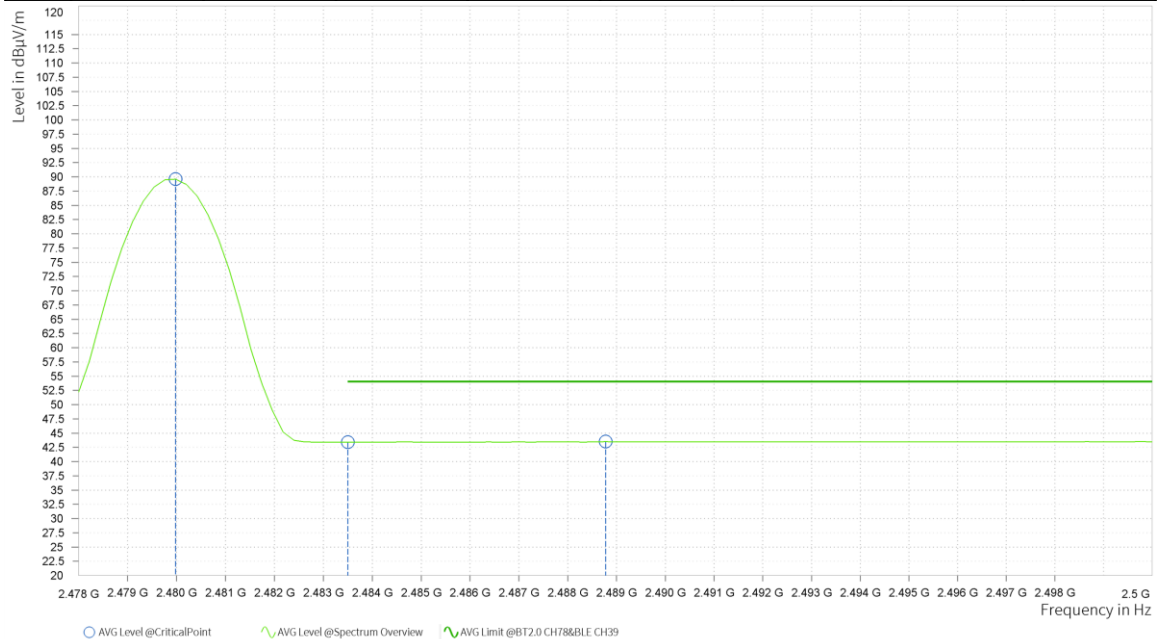
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2440MHz: Fundamental frequency.





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

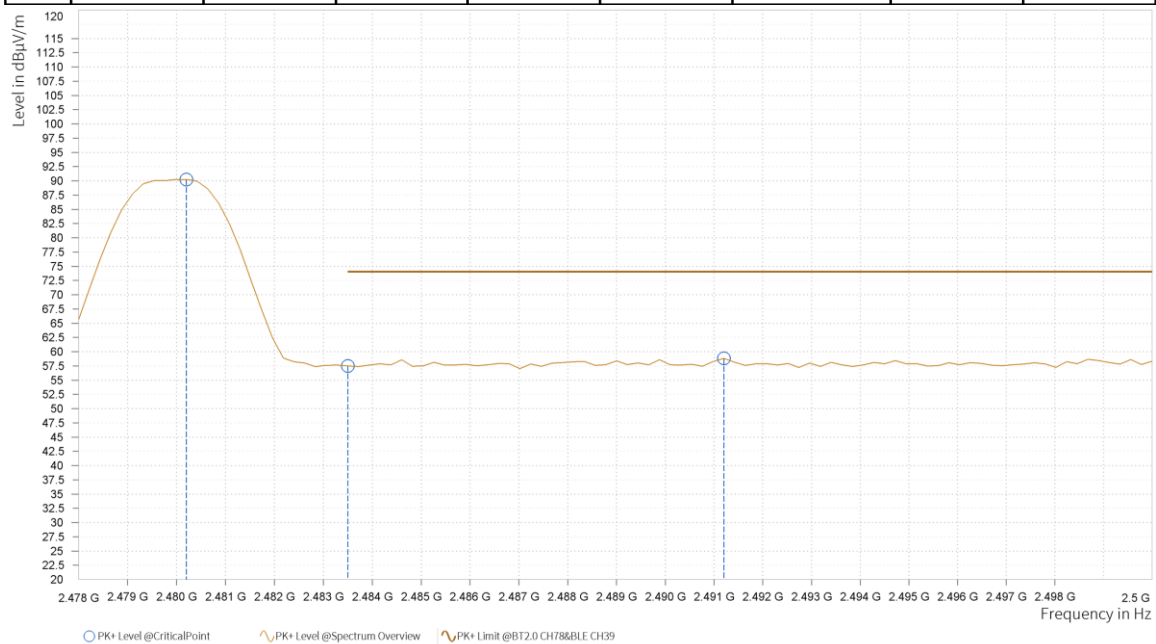
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.980	89.59			37.87	H	2.2	2.00
6	2,483.500	43.42	54.00	10.58	37.88	H	355.6	2.00
6	2,488.780	43.50	54.00	10.50	37.89	H	1	1.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

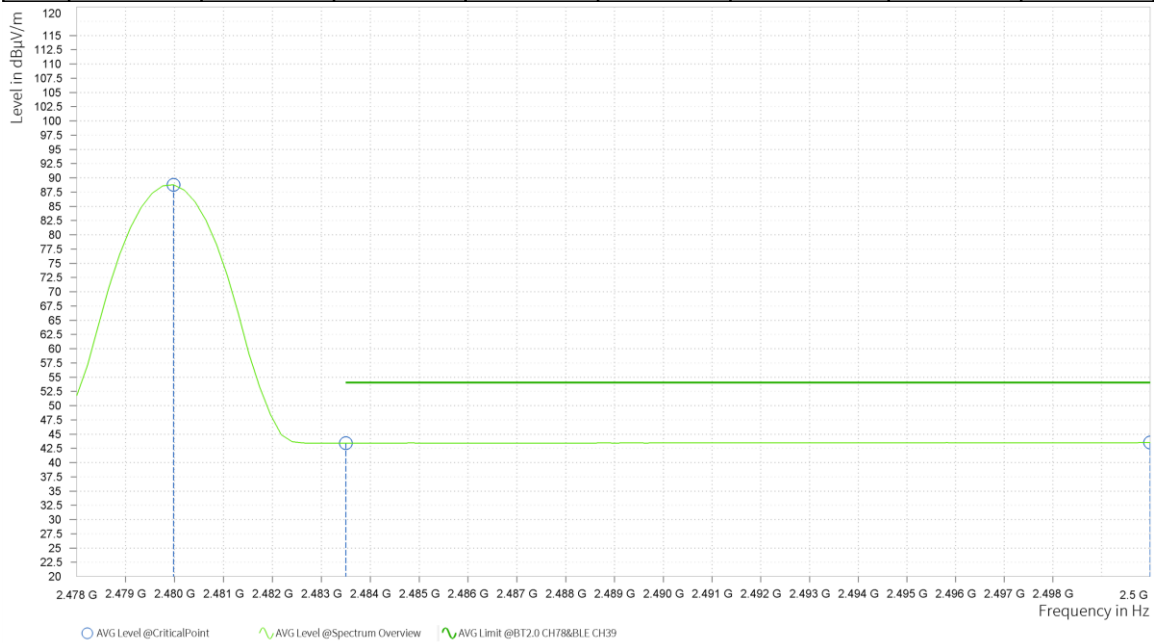
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,480.200	90.25			37.87	V	175.2	1.00
6	2,483.500	57.49	74.00	16.51	37.88	V	359.1	1.00
6	2,491.200	58.83	74.00	15.17	37.90	V	263.6	1.00





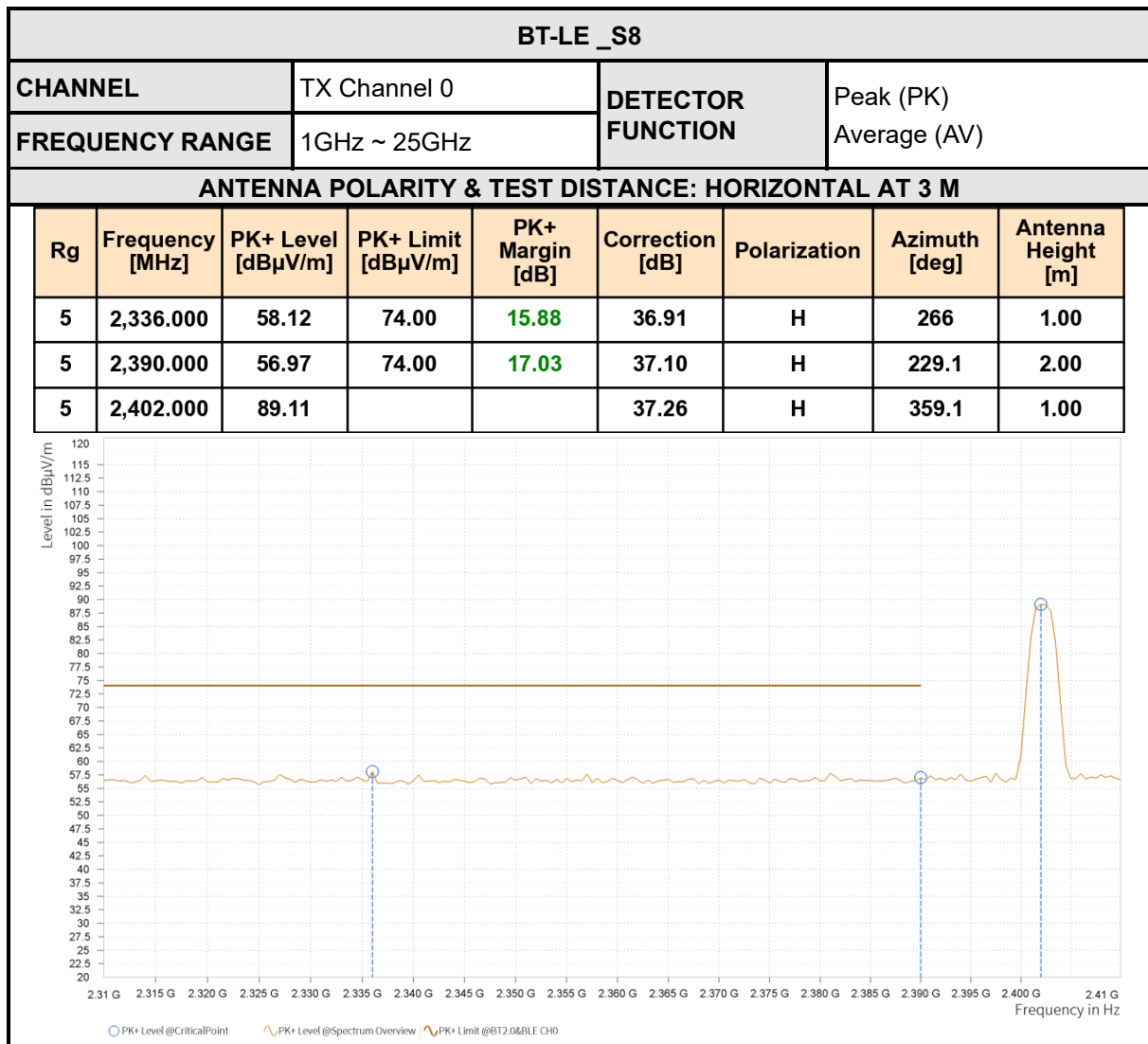
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	88.79			37.87	V	175.3	1.00
6	2,483.500	43.41	54.00	10.59	37.88	V	1.4	2.00
6	2,500.000	43.52	54.00	10.48	37.91	V	359	2.00



REMARKS:

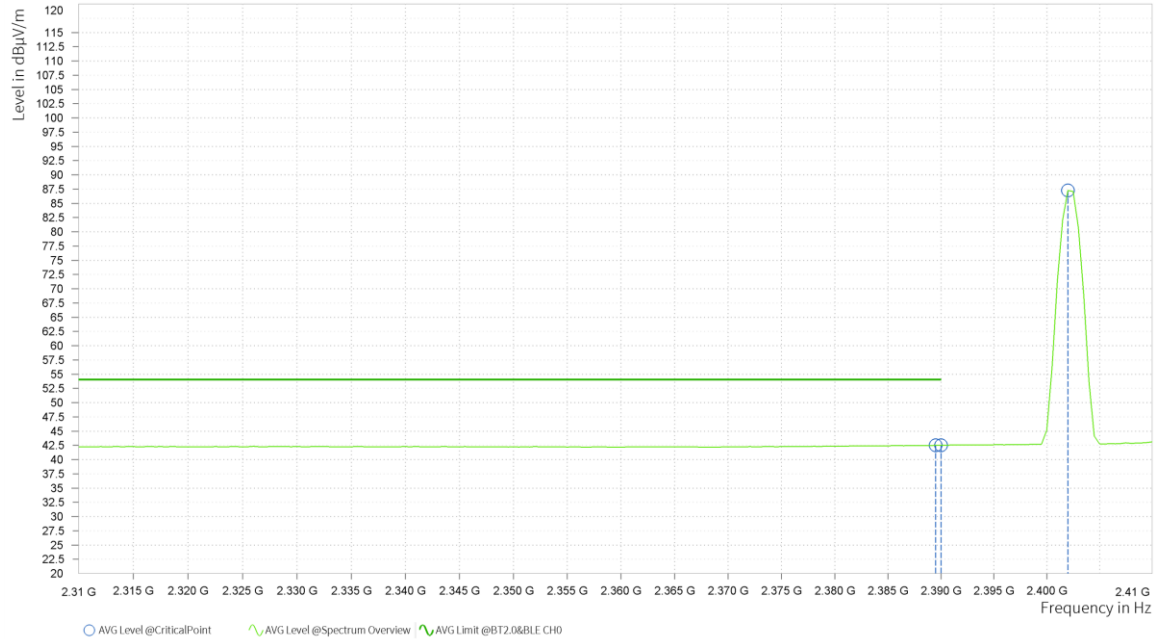
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2480MHz: Fundamental frequency.





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

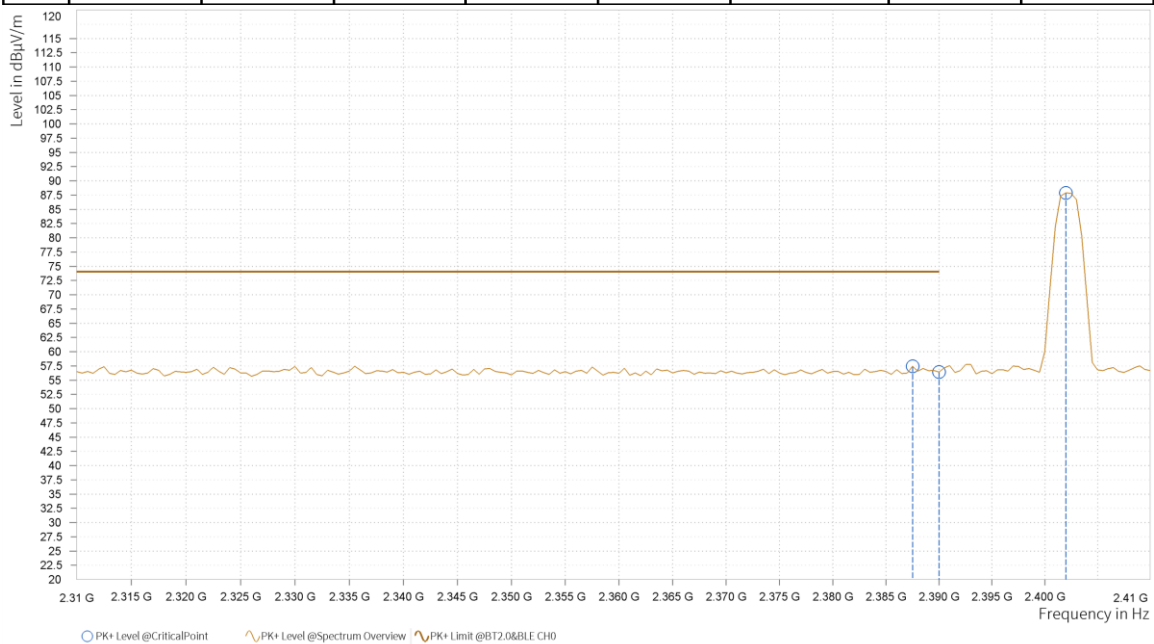
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,389.500	42.50	54.00	11.50	37.09	H	177.7	1.00
5	2,390.000	42.50	54.00	11.50	37.10	H	1	2.00
5	2,402.000	87.27			37.26	H	1	1.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

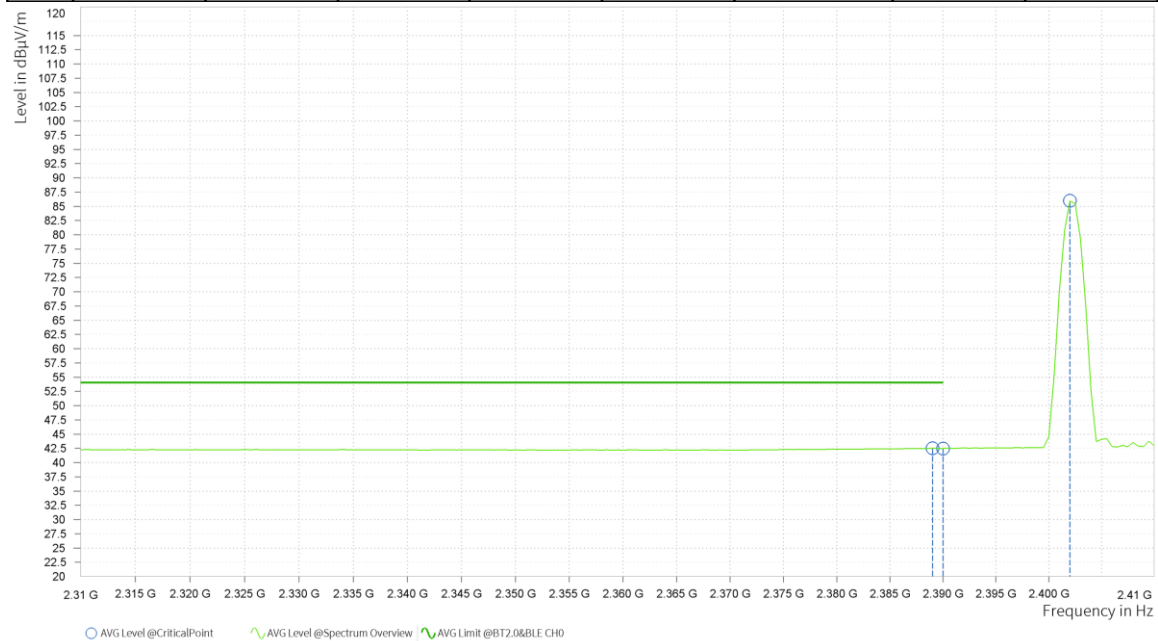
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,387.500	57.45	74.00	16.55	37.06	V	223	1.00
5	2,390.000	56.43	74.00	17.57	37.10	V	184.8	2.00
5	2,402.000	87.89			37.26	V	177.7	1.00





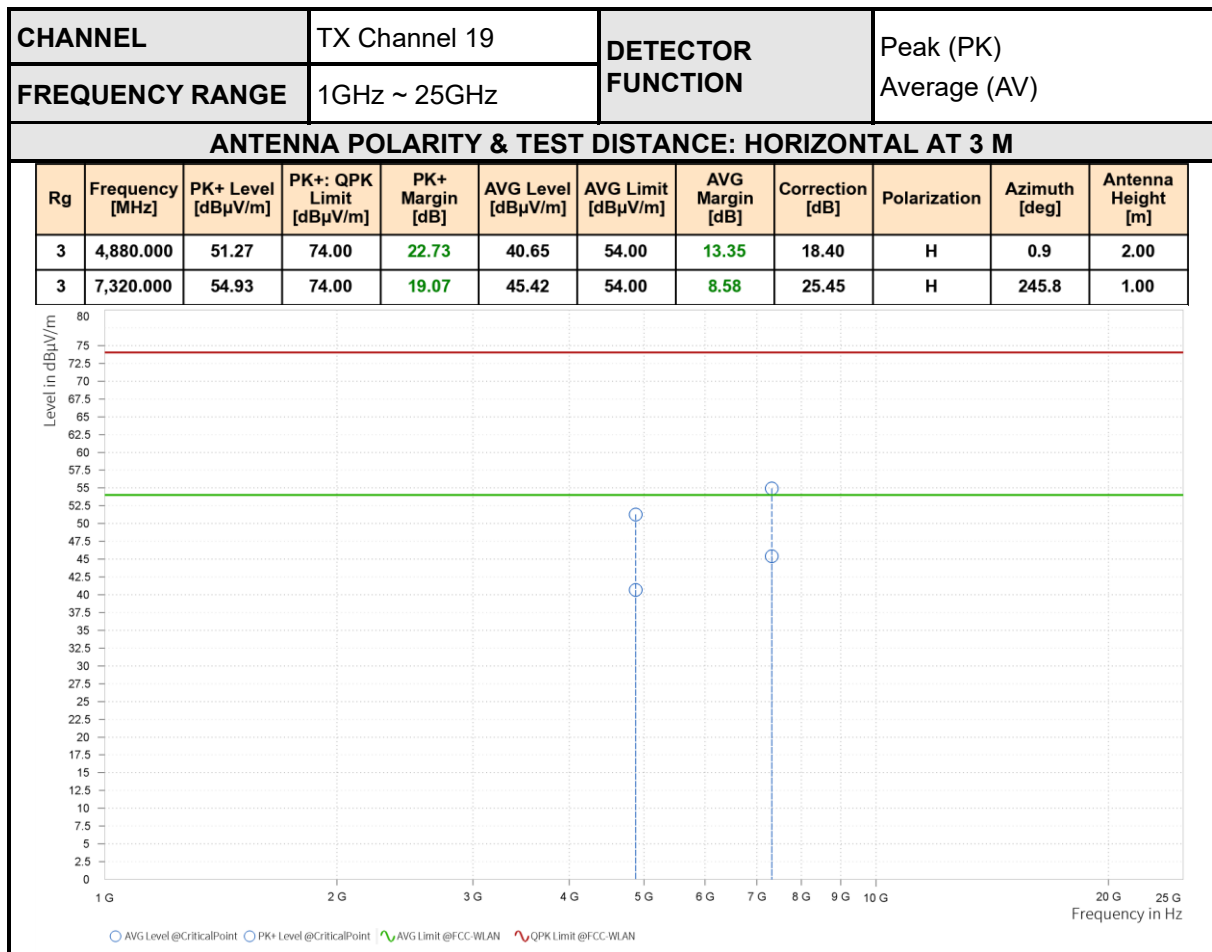
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	2,389.000	42.51	54.00	11.49	37.08	V	350	1.00
5	2,390.000	42.48	54.00	11.52	37.10	V	354.9	2.00
5	2,402.000	85.95			37.26	V	176.4	1.00



REMARKS:

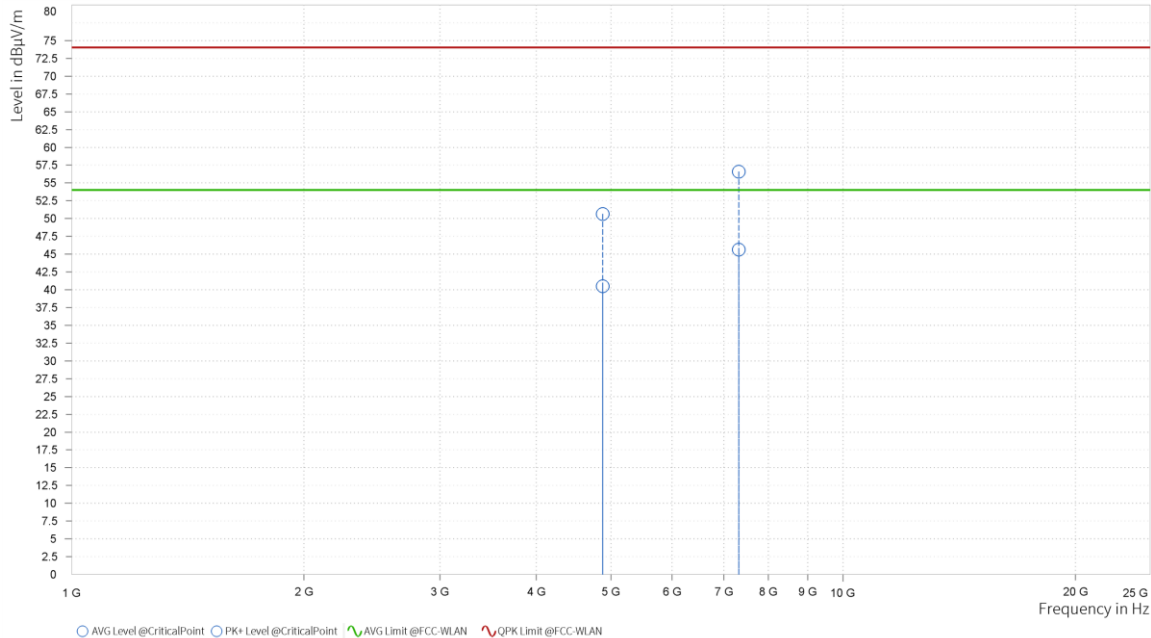
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor.
2. Margin value = Limit value–Emission level.
3. 2402MHz: Fundamental frequency.





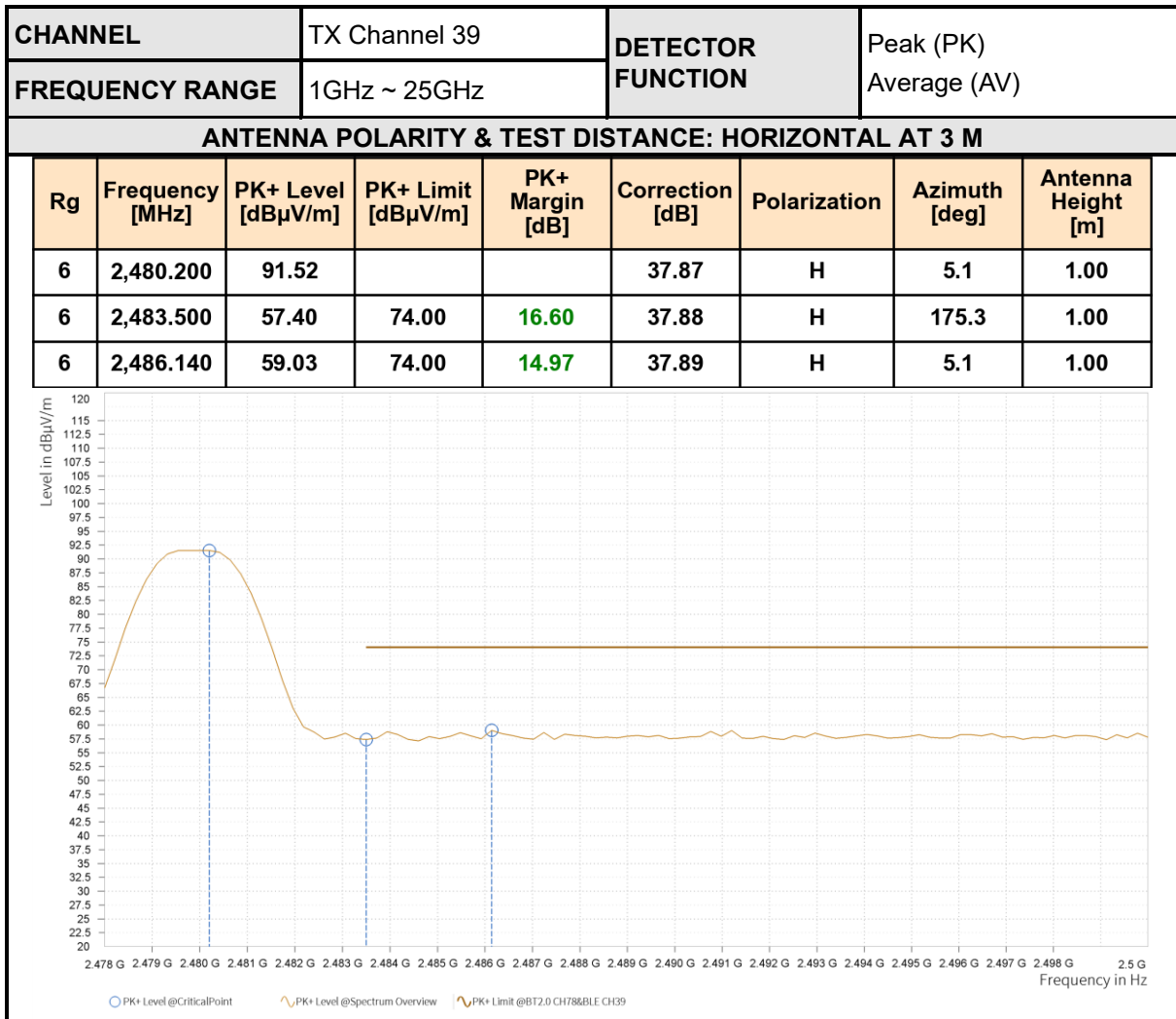
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

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	50.64	74.00	23.36	40.49	54.00	13.51	18.40	V	359.1	1.00
3	7,320.000	56.59	74.00	17.41	45.64	54.00	8.36	25.45	V	359.1	1.00



REMARKS:

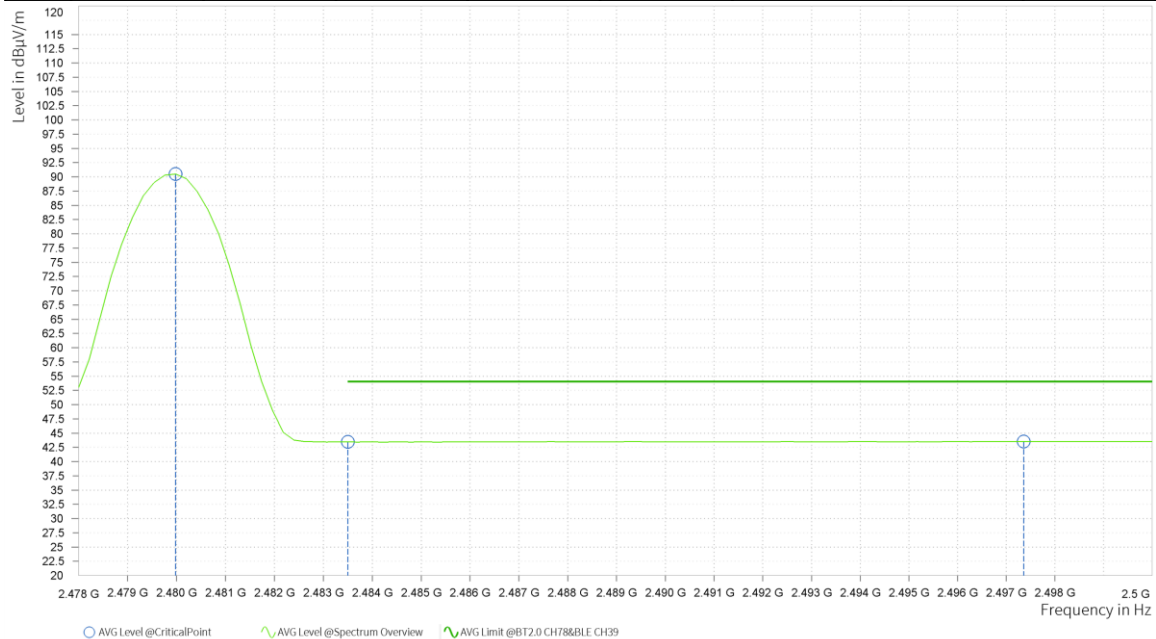
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value–Emission level.
3. 2440MHz: Fundamental frequency.





ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

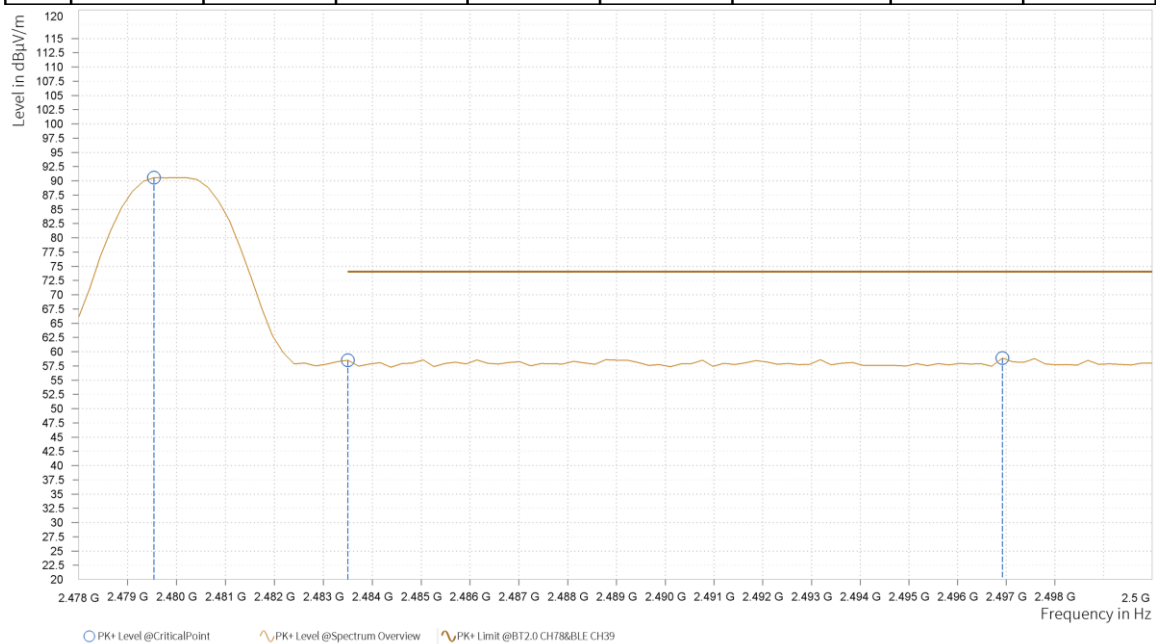
Rg	Frequency [MHz]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.980	90.49			37.87	H	5.8	1.00
6	2,483.500	43.44	54.00	10.56	37.88	H	1	1.00
6	2,497.360	43.54	54.00	10.46	37.91	H	5.8	1.00





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

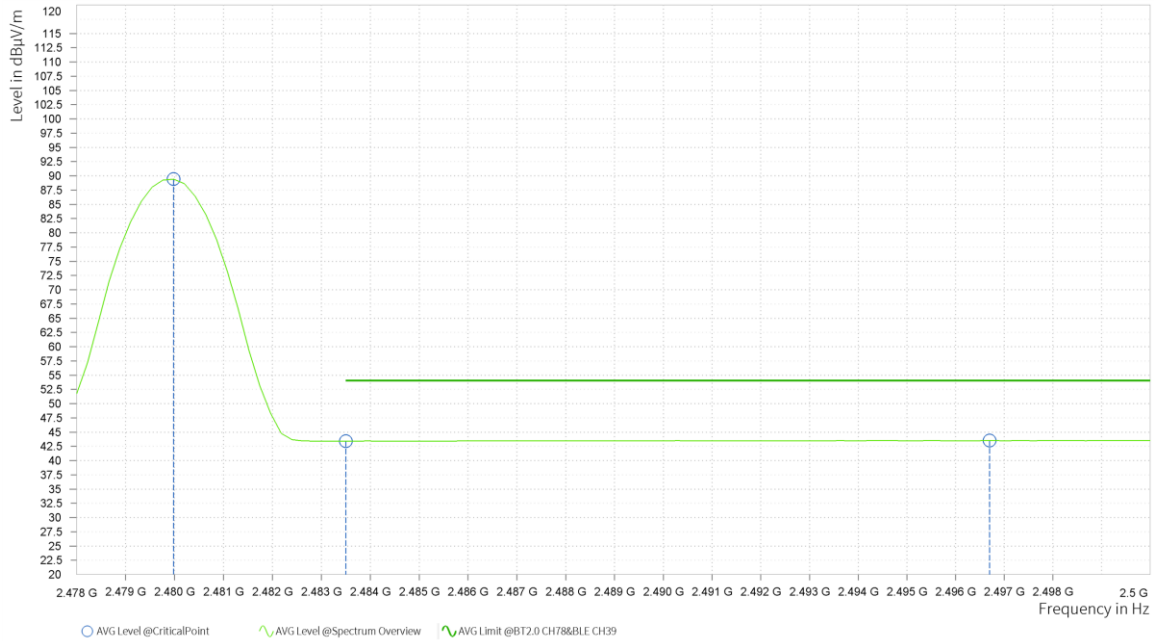
Rg	Frequency [MHz]	PK+ Level [dB μ V/m]	PK+ Limit [dB μ V/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
6	2,479.540	90.57			37.87	V	187.1	1.00
6	2,483.500	58.50	74.00	15.50	37.88	V	141.7	1.00
6	2,496.920	58.88	74.00	15.12	37.91	V	9	1.00





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	89.42			37.87	V	195.5	1.00
6	2,483.500	43.41	54.00	10.59	37.88	V	11.4	2.00
6	2,496.700	43.53	54.00	10.47	37.91	V	140.6	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.



3.2 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-03-20-069	Apr.26,25	Apr.25,26
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.26,25	Apr.25,26
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

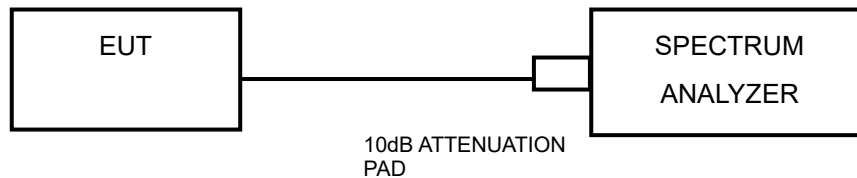
1. Set RBW = shall be in the range of 1% to 5% of the 0BW but not less than 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the 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 A/B Of this test report..

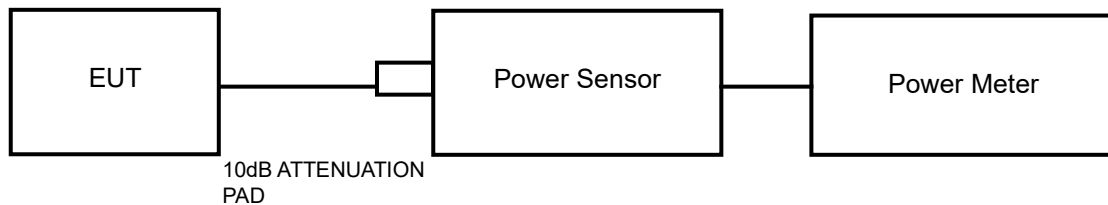


3.3 CONDUCTED OUTPUT POWER

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 A/B Of this test report..



Test Report No.: PSU-QSU2503210311RF06

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 A/B Of this test report..

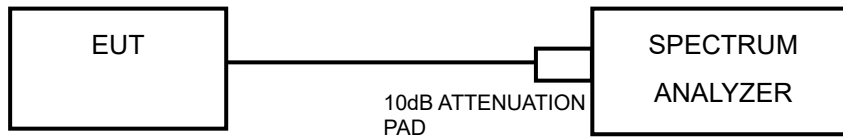


3.4 POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

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

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 PROCEDURE

1. Set the span to 1.5 times the DTS bandwidth
2. Set the RBW = 3 kHz, VBW $\geq 3 \times$ 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.

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITION

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



Please Refer to Appendix A/B Of this test report..

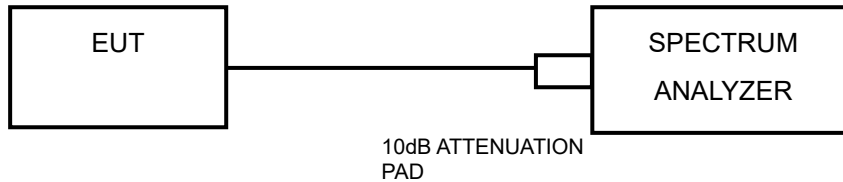


3.5 OUT OF BAND EMISSION MEASUREMENT

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 \geq 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 OOB

1. Set RBW = 100 kHz.
2. Set VBW \geq 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 A/B Of this test report.



3.6 ANTENNA REQUIREMENTS

3.6.1 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.

3.6.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.

3.6.3 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).



Test Report No.: PSU-QSU2503210311RF06

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.

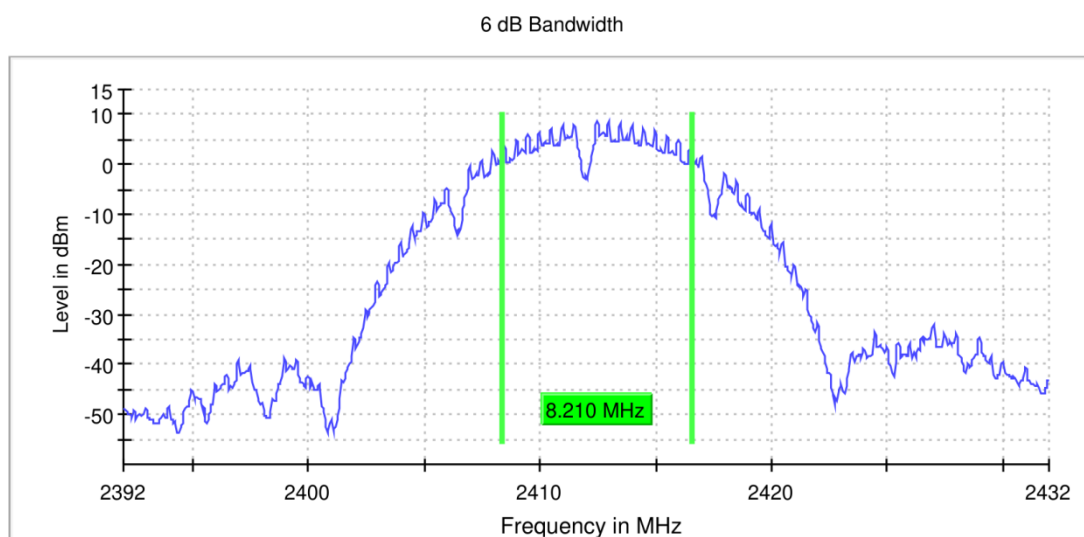
**6 APPENDIX A:WIFI****DTS BANDWIDTH****TEST RESULT**

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	ANT1	2412	8.210	2408.370	2416.581	0.5	PASS
	ANT1	2437	8.210	2432.369	2440.579	0.5	PASS
	ANT1	2462	8.661	2457.419	2466.080	0.5	PASS
11G	ANT1	2412	15.820	2404.365	2420.185	0.5	PASS
	ANT1	2437	15.519	2429.015	2444.534	0.5	PASS
	ANT1	2462	15.920	2454.015	2469.935	0.5	PASS
11N20	ANT1	2412	16.471	2404.365	2420.836	0.5	PASS
	ANT1	2437	16.020	2428.514	2444.534	0.5	PASS
	ANT1	2462	16.521	2454.015	2470.536	0.5	PASS
11N40	ANT1	2422	25.166	2414.420	2439.586	0.5	PASS
	ANT1	2437	25.166	2420.665	2445.831	0.5	PASS
	ANT1	2452	35.822	2433.764	2469.586	0.5	PASS

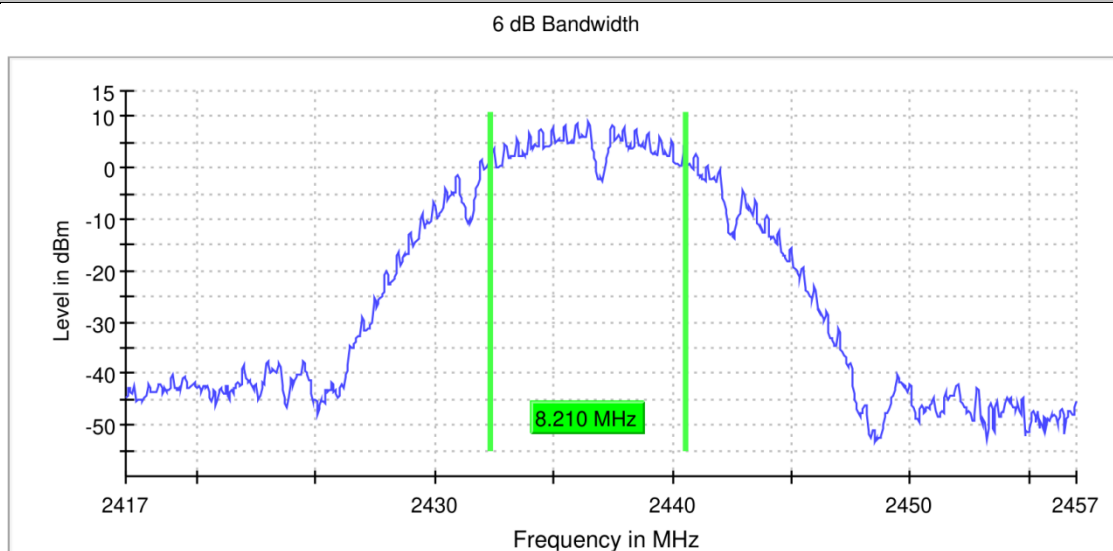


TEST GRAPHS

11B_ANT1_2412



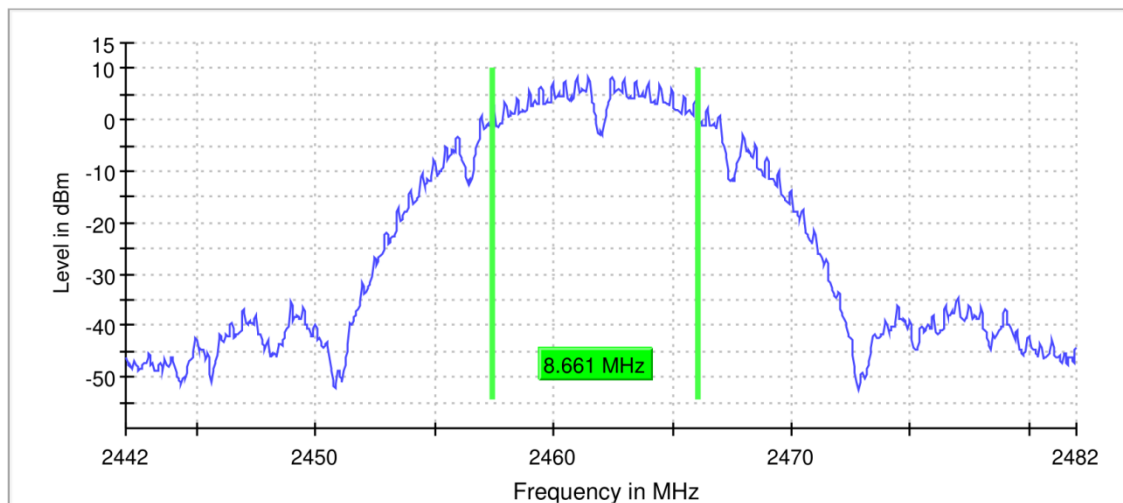
11B_ANT1_2437



11B_ANT1_2462

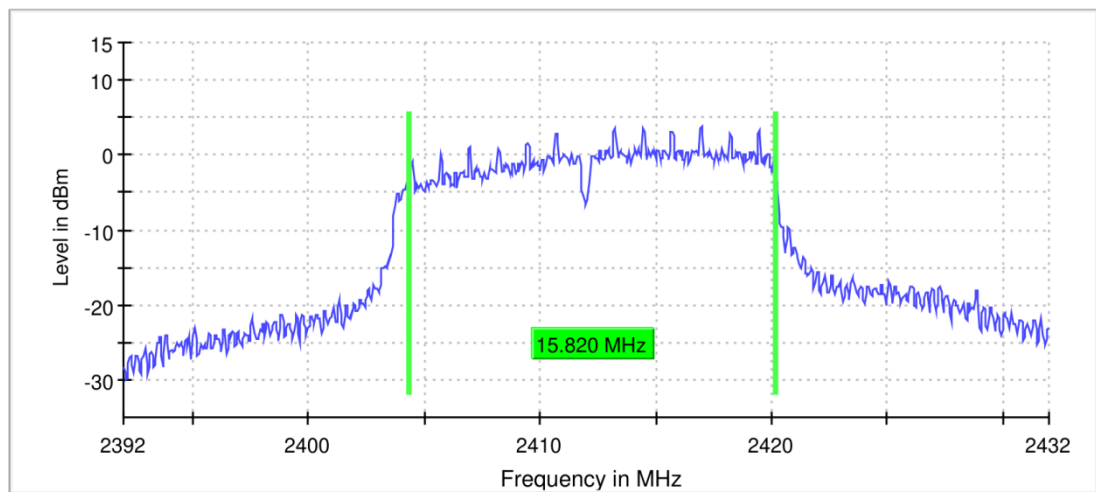


6 dB Bandwidth



11G_ANT1_2412

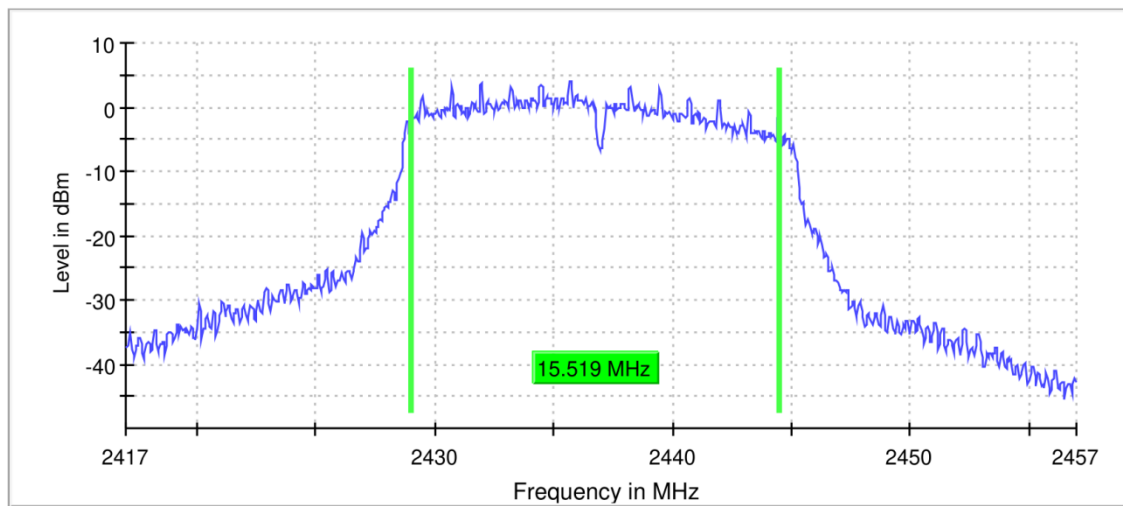
6 dB Bandwidth



11G_ANT1_2437

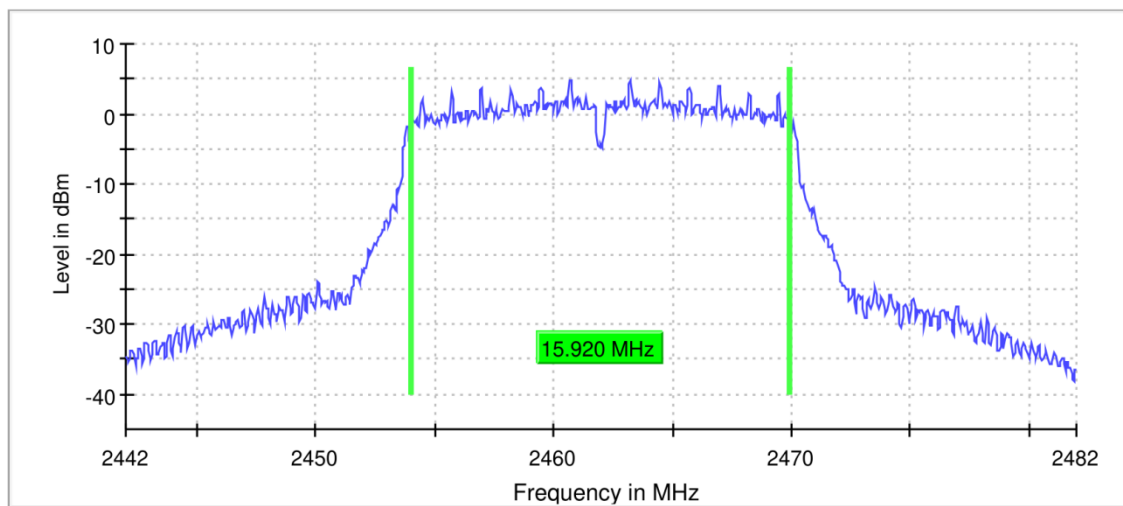


6 dB Bandwidth



11G_ANT1_2462

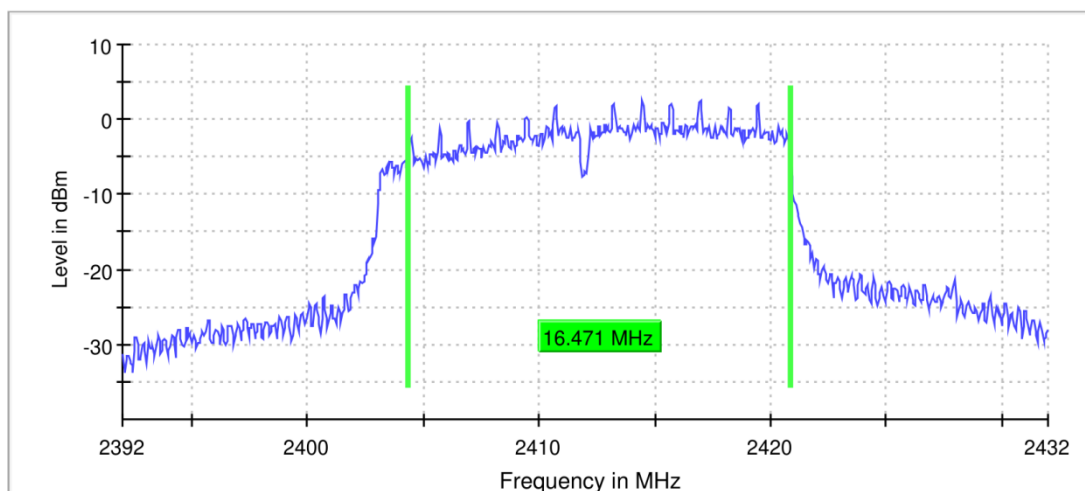
6 dB Bandwidth



11N20_ANT1_2412

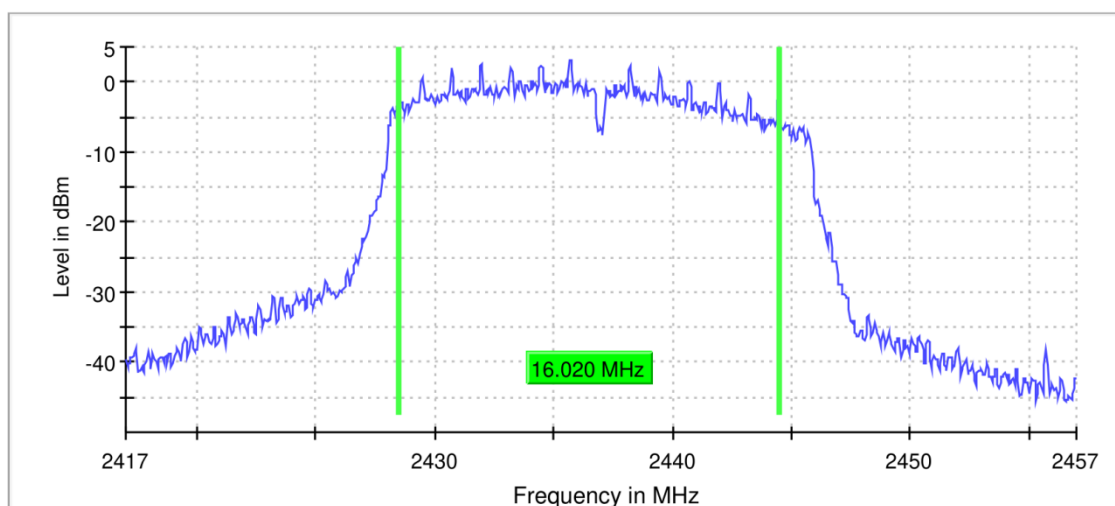


6 dB Bandwidth



11N20_ANT1_2437

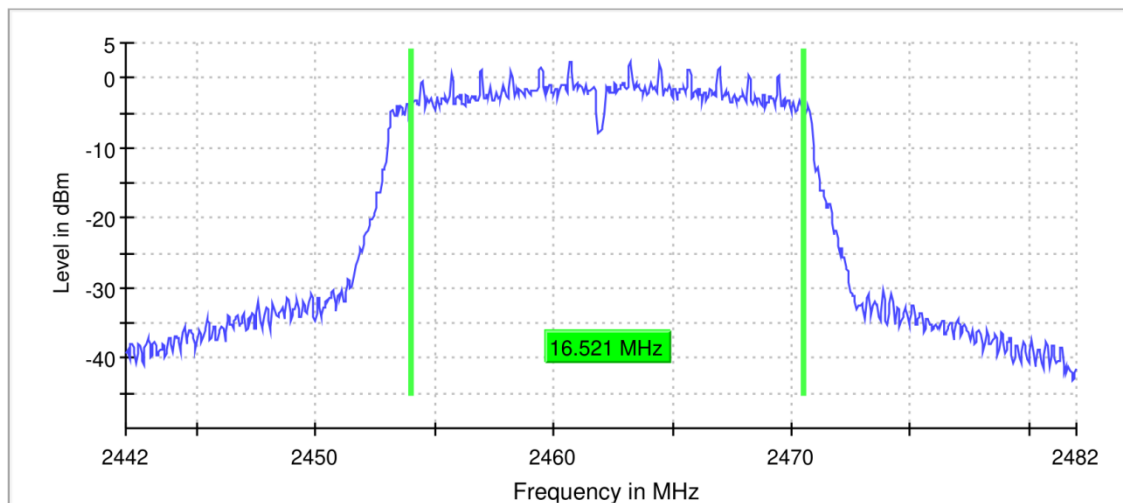
6 dB Bandwidth



11N20_ANT1_2462

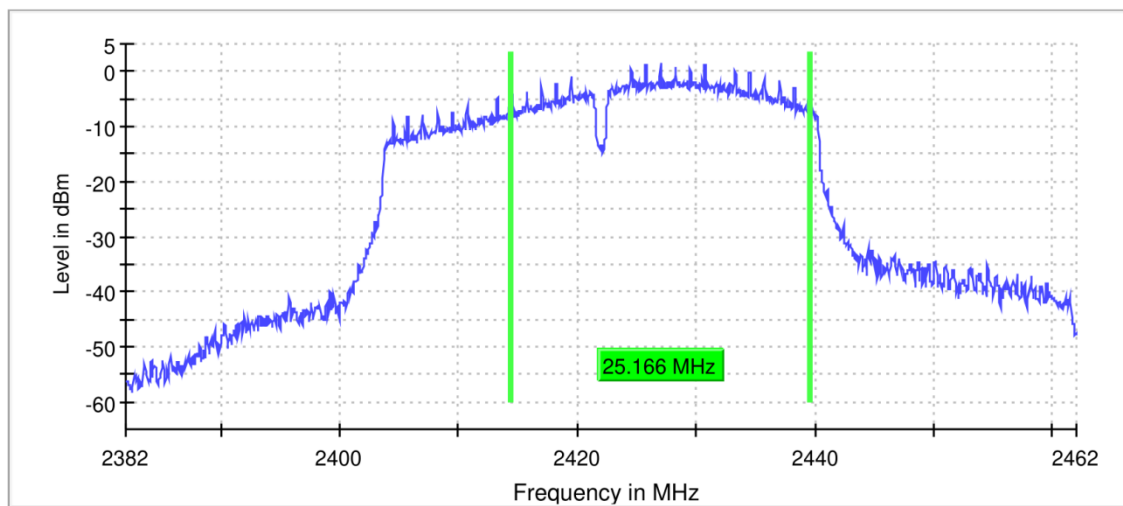


6 dB Bandwidth



11N40_ANT1_2422

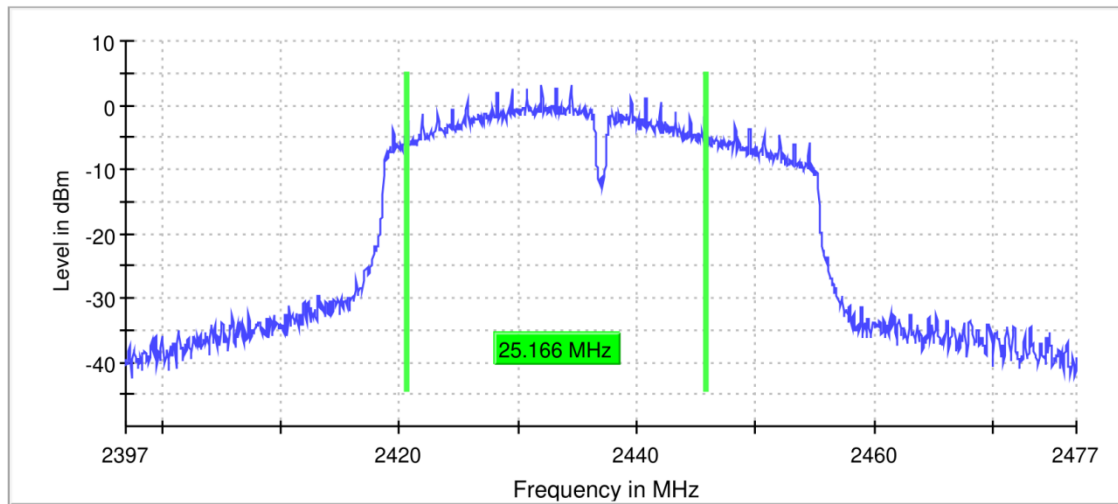
6 dB Bandwidth



11N40_ANT1_2437

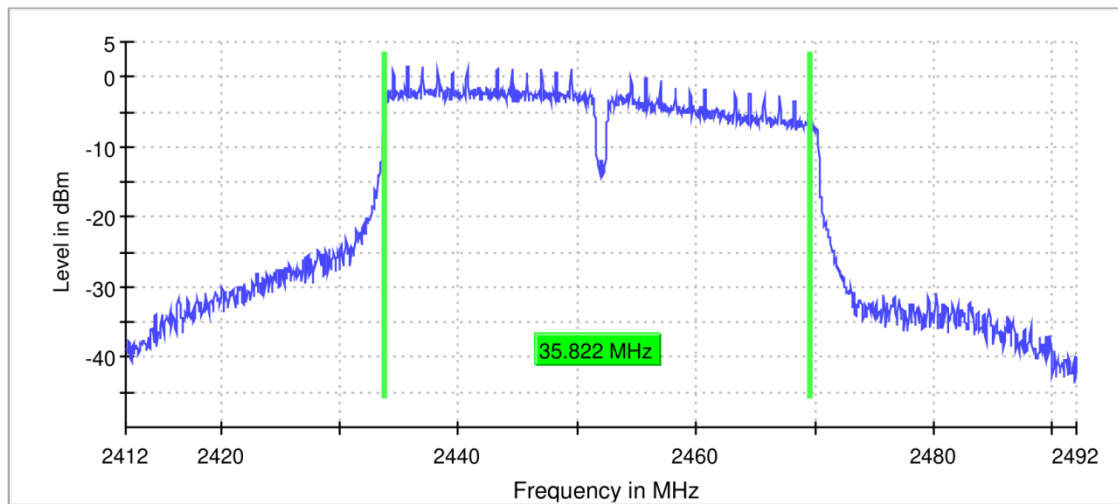


6 dB Bandwidth



11N40_ANT1_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

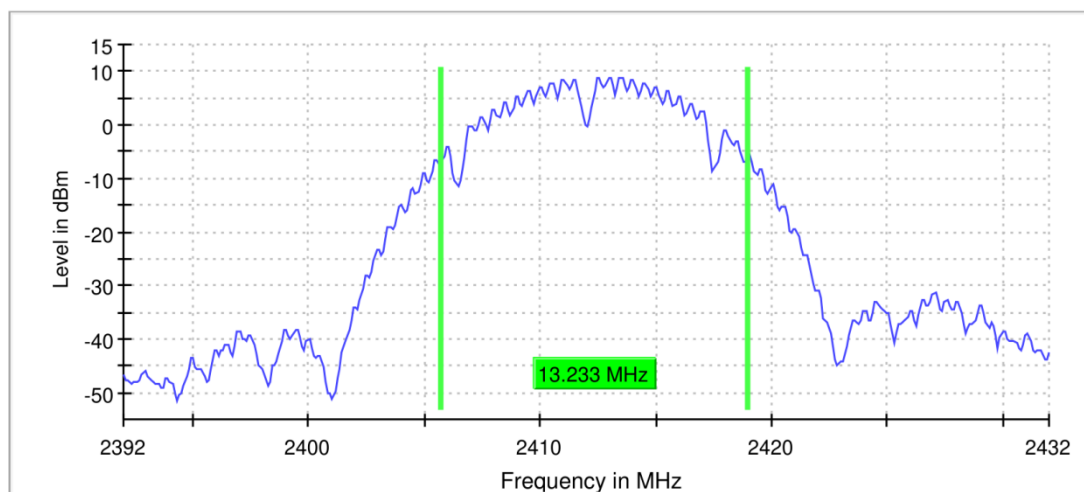
TestMode	Antenna	Frequency[MHz]	OBW BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	ANT1	2412	13.233	2405.734	2418.967	---	PASS
	ANT1	2437	13.033	2430.233	2443.266	---	PASS
	ANT1	2462	13.133	2455.434	2468.566	---	PASS
11G	ANT1	2412	21.654	2403.429	2425.083	---	PASS
	ANT1	2437	16.441	2428.629	2445.070	---	PASS
	ANT1	2462	16.742	2453.629	2470.371	---	PASS
11N20	ANT1	2412	18.747	2403.128	2421.875	---	PASS
	ANT1	2437	17.544	2428.128	2445.672	---	PASS
	ANT1	2462	17.744	2453.128	2470.872	---	PASS
11N40	ANT1	2422	35.611	2404.571	2440.182	---	PASS
	ANT1	2437	35.862	2418.818	2454.680	---	PASS
	ANT1	2452	37.116	2433.066	2470.182	---	PASS



TEST GRAPHS

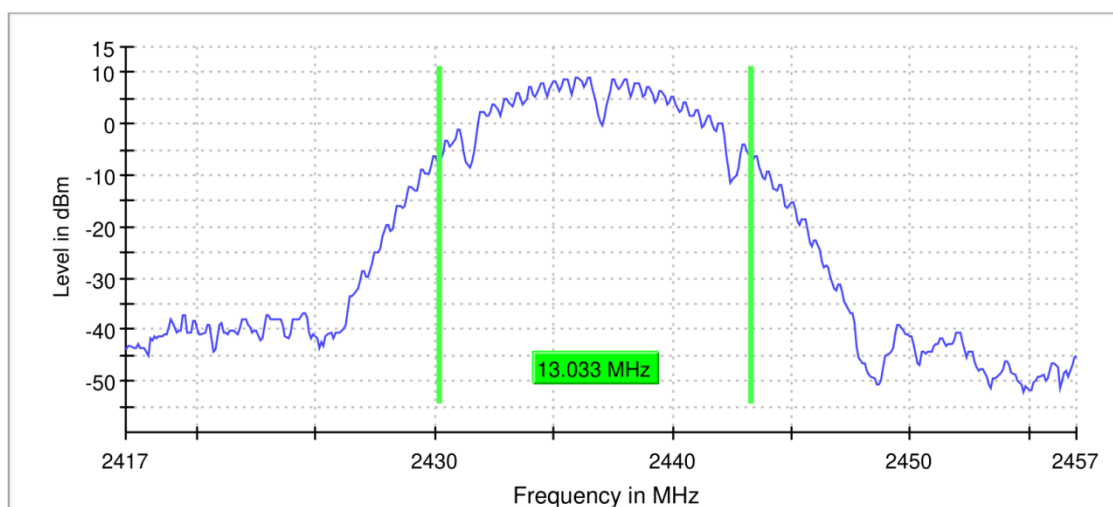
11B_ANT1_2412

99 % Bandwidth



11B_ANT1_2437

99 % Bandwidth



11B_ANT1_2462