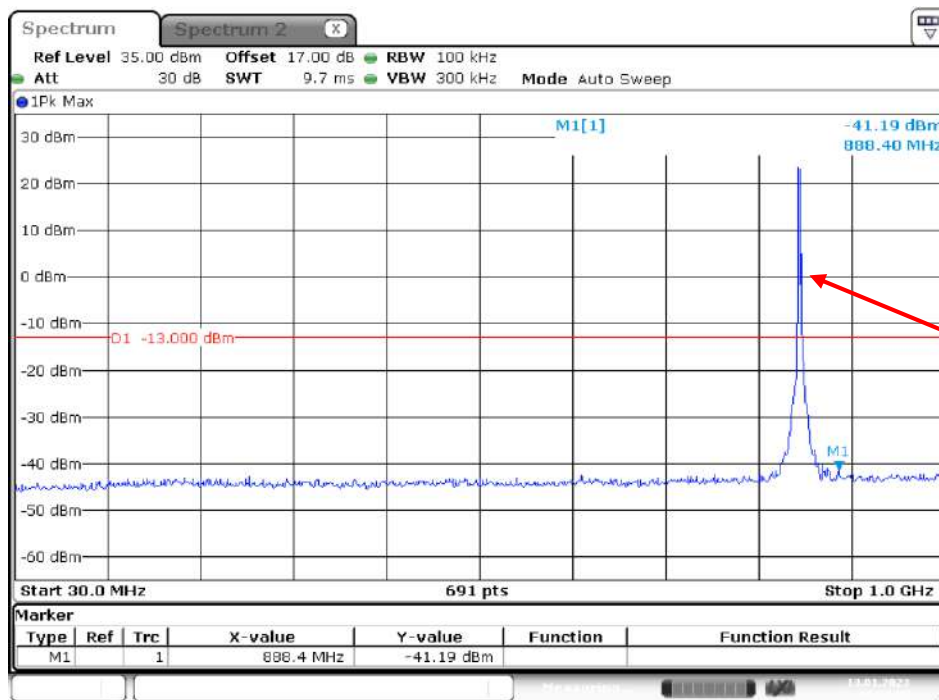
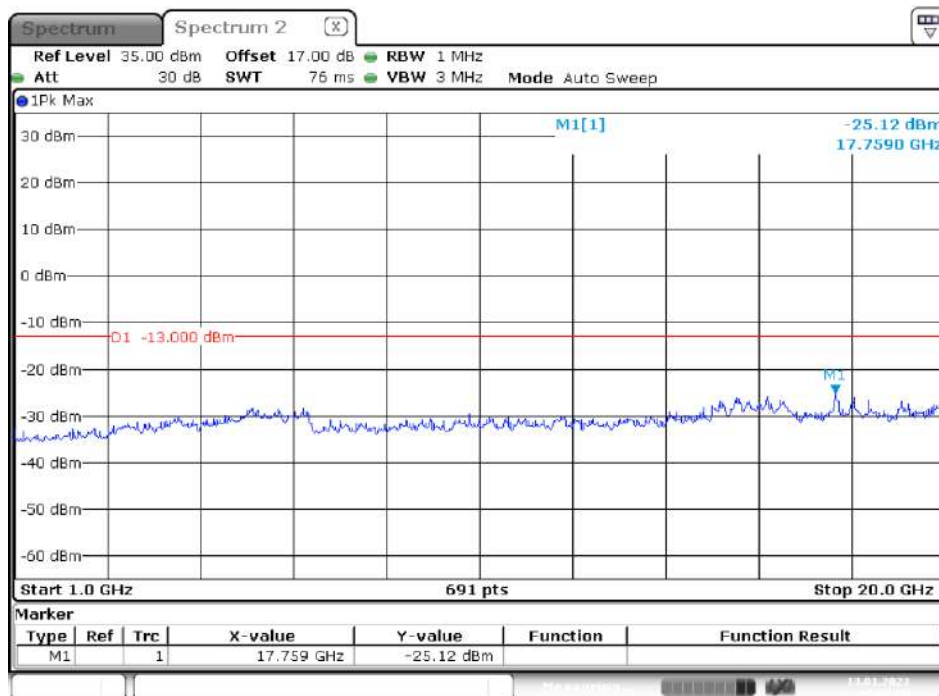
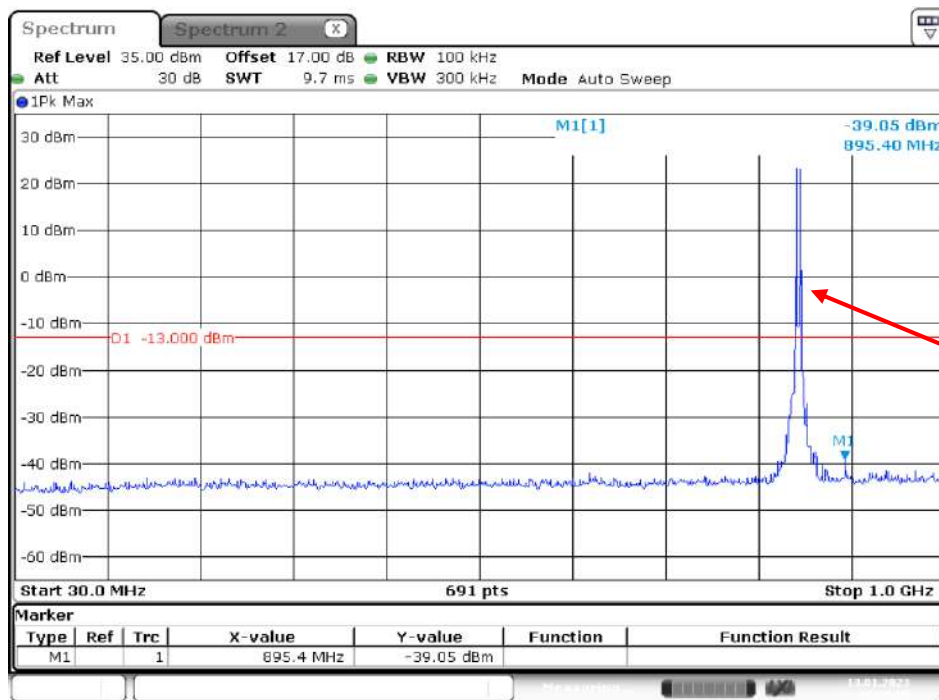


30 MHz – 1 GHz (QPSK, 3.0 MHz, High Channel)

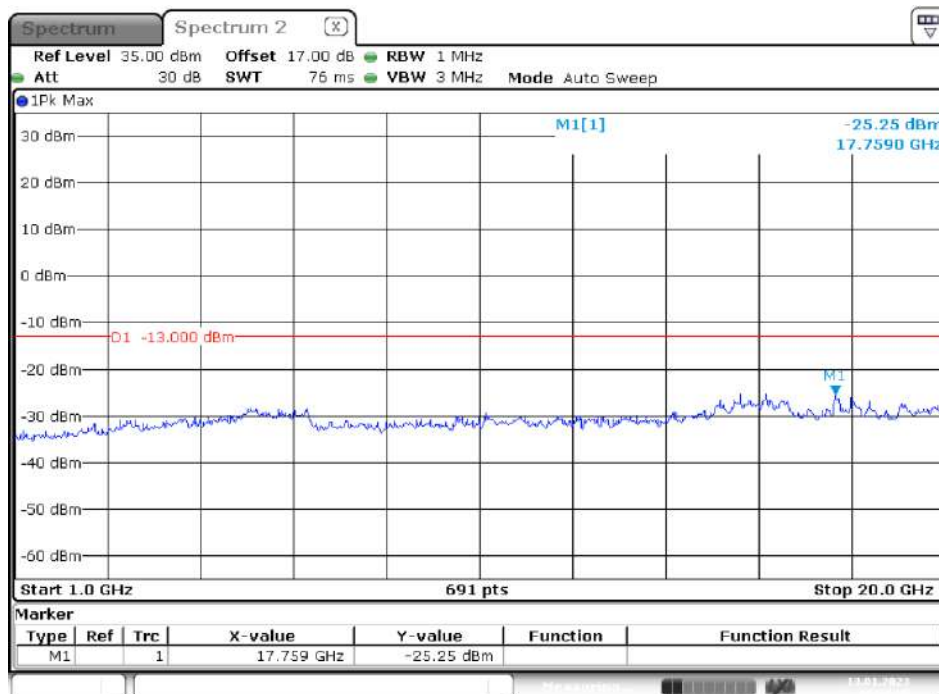
Date: 13.JAN.2023 10:32:27

1 GHz – 20 GHz (QPSK, 3.0 MHz, High Channel)

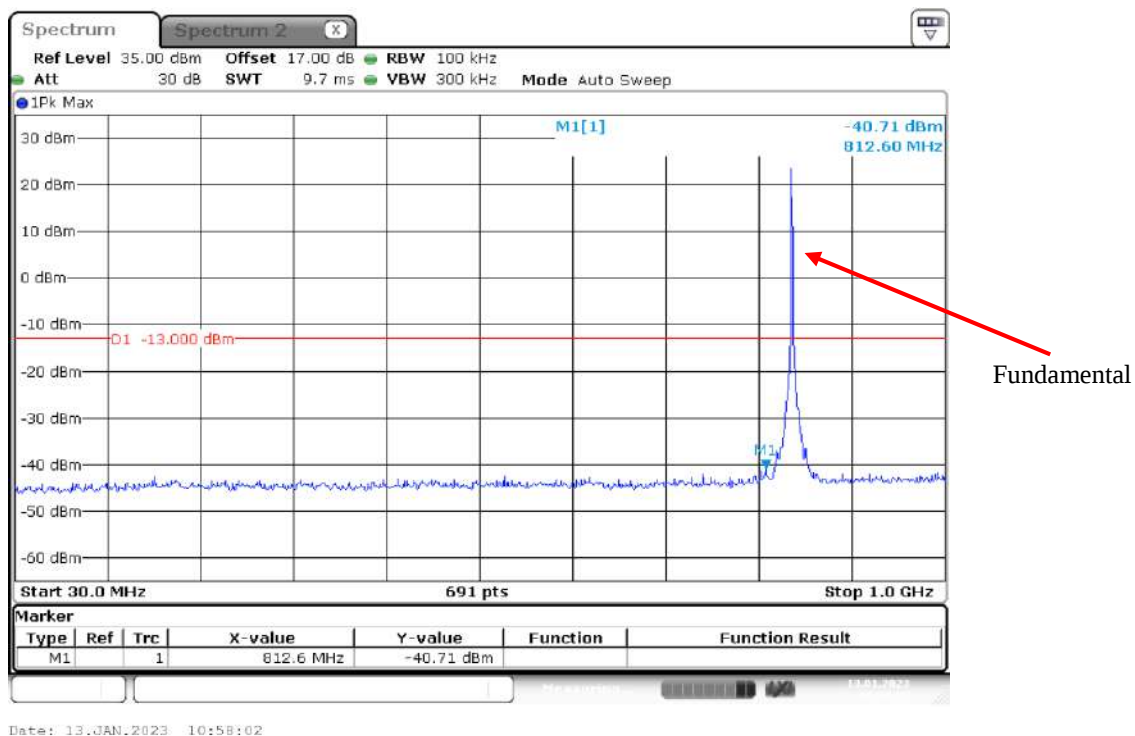
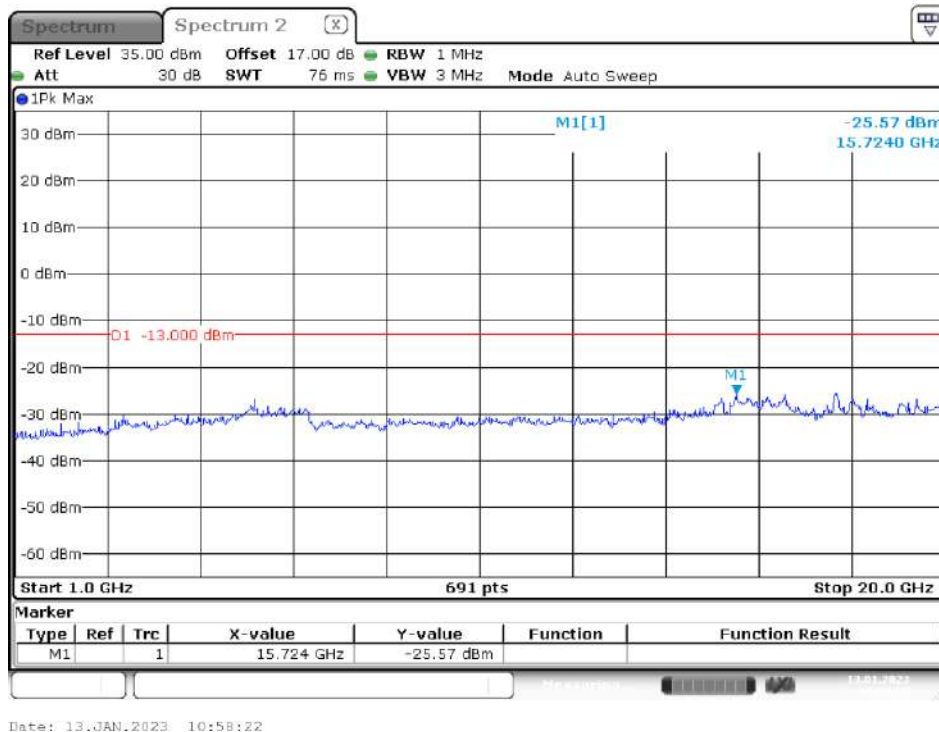
Date: 13.JAN.2023 10:31:02

30 MHz – 1 GHz (QPSK, 5.0 MHz, High Channel)

Date: 13.JAN.2023 10:43:50

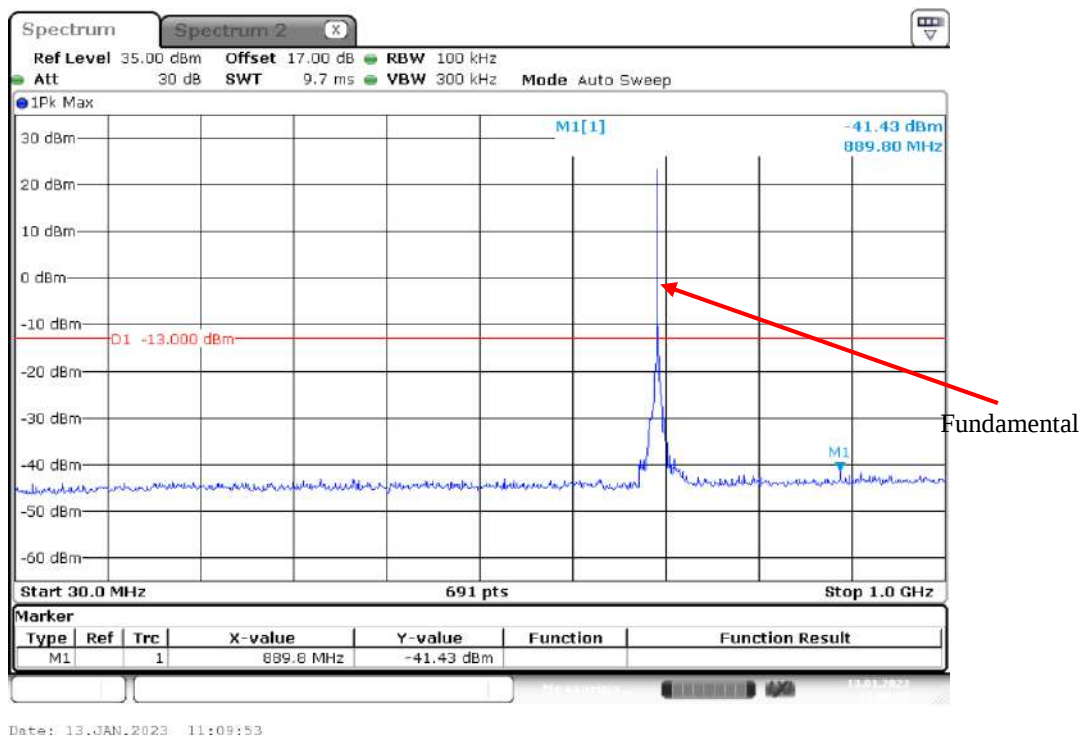
1 GHz – 20 GHz (QPSK, 5.0MHz, High Channel)

Date: 13.JAN.2023 10:44:10

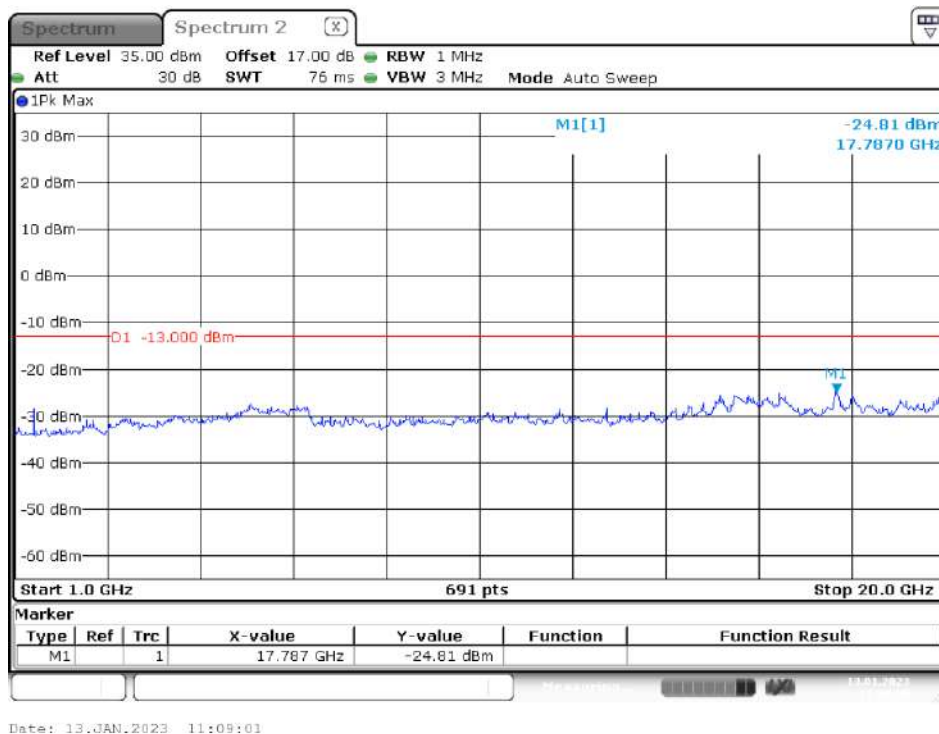
30 MHz – 1 GHz (QPSK, 10.0 MHz, High Channel)**1 GHz – 20 GHz (QPSK, 10.0 MHz, High Channel)**

LTE Band 12

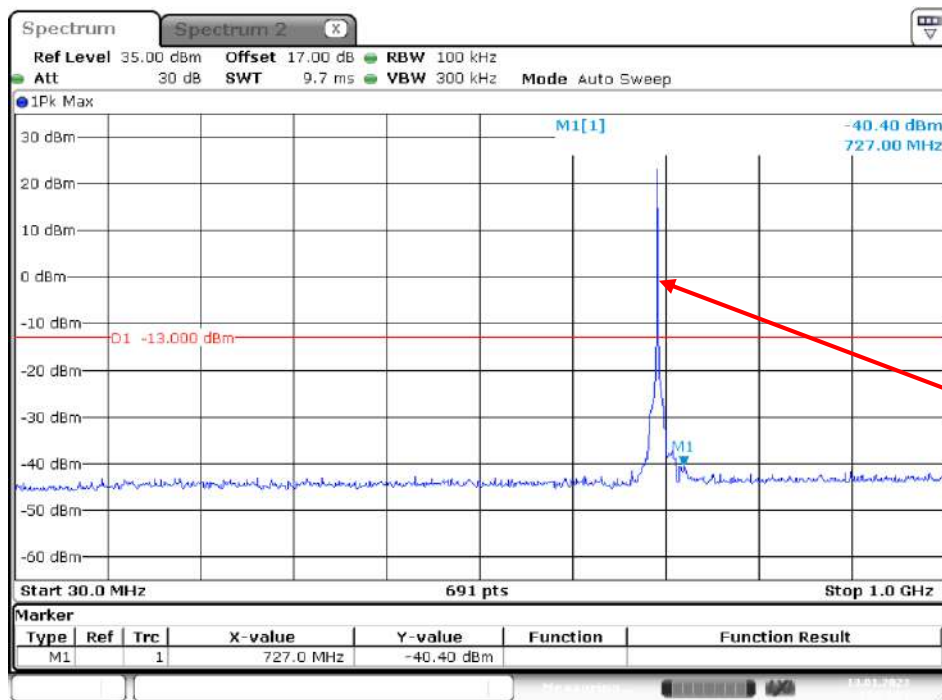
30 MHz – 1 GHz (QPSK, 1.4 MHz, Low Channel)



1 GHz – 20 GHz (QPSK, 1.4 MHz, Low Channel)

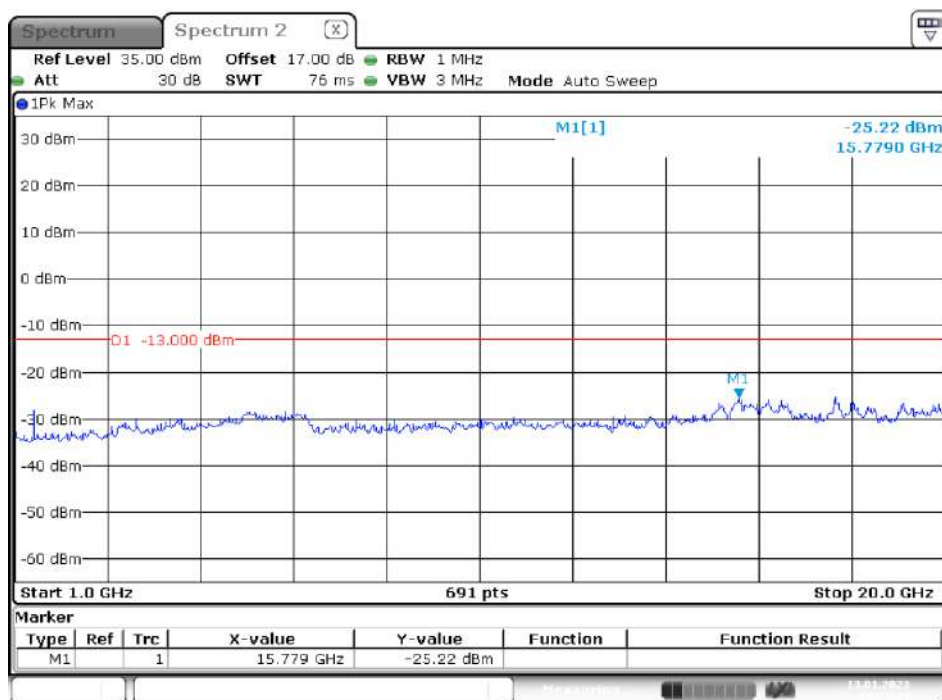


30 MHz – 1 GHz (QPSK, 3.0 MHz, Low Channel)



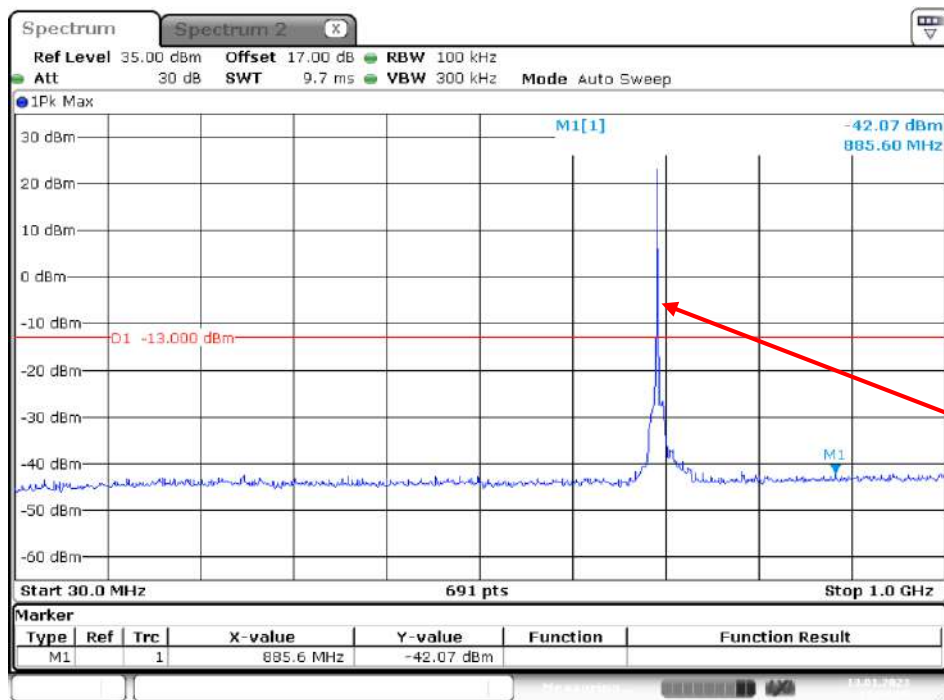
Date: 13.JAN.2023 11:23:21

1 GHz – 20 GHz (QPSK, 3.0 MHz, Low Channel)



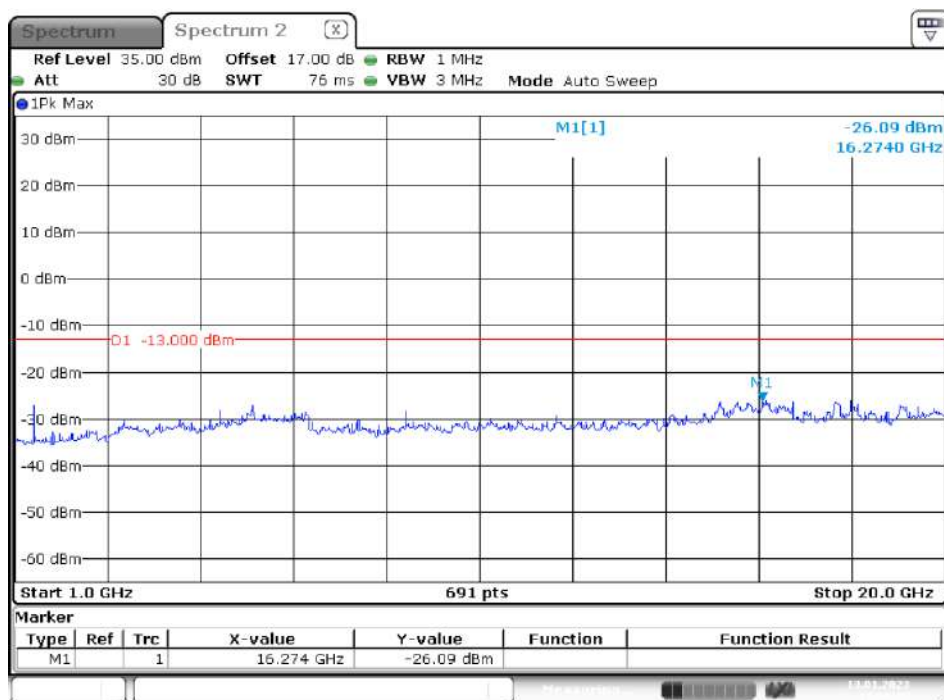
Date: 13.JAN.2023 11:23:42

30 MHz – 1 GHz (QPSK, 5.0 MHz, Low Channel)

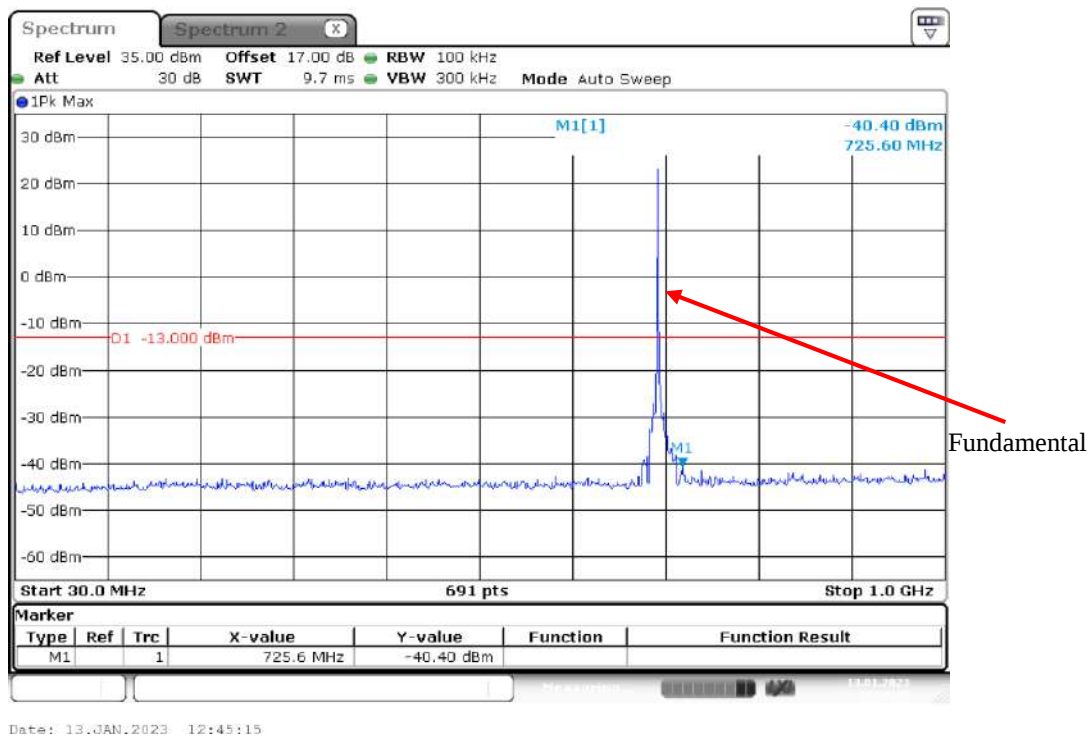
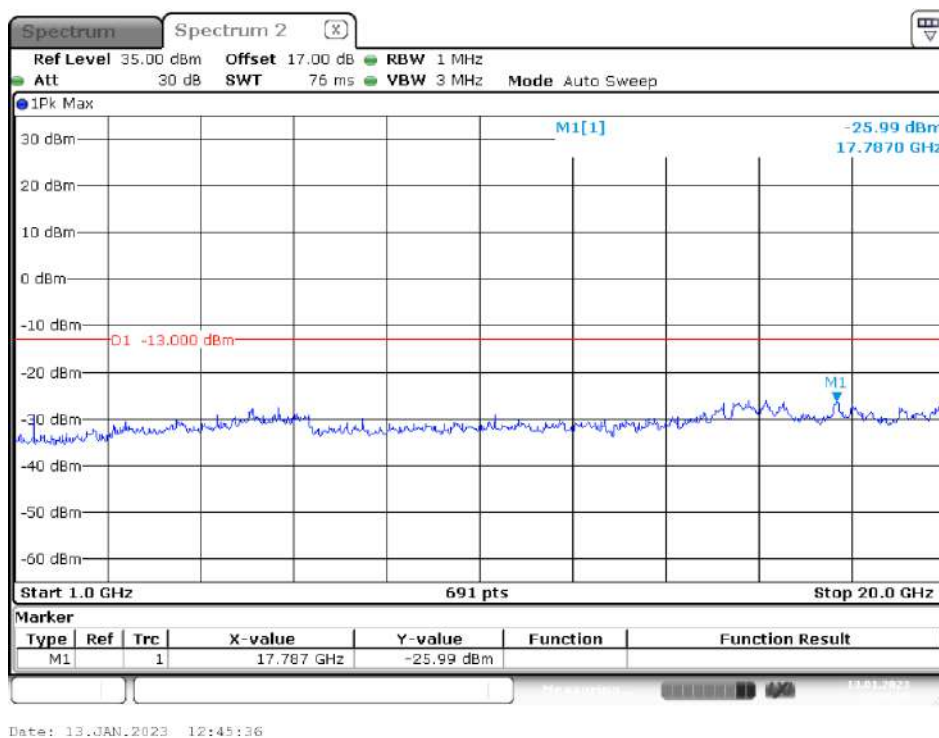


Date: 13.JAN.2023 11:34:59

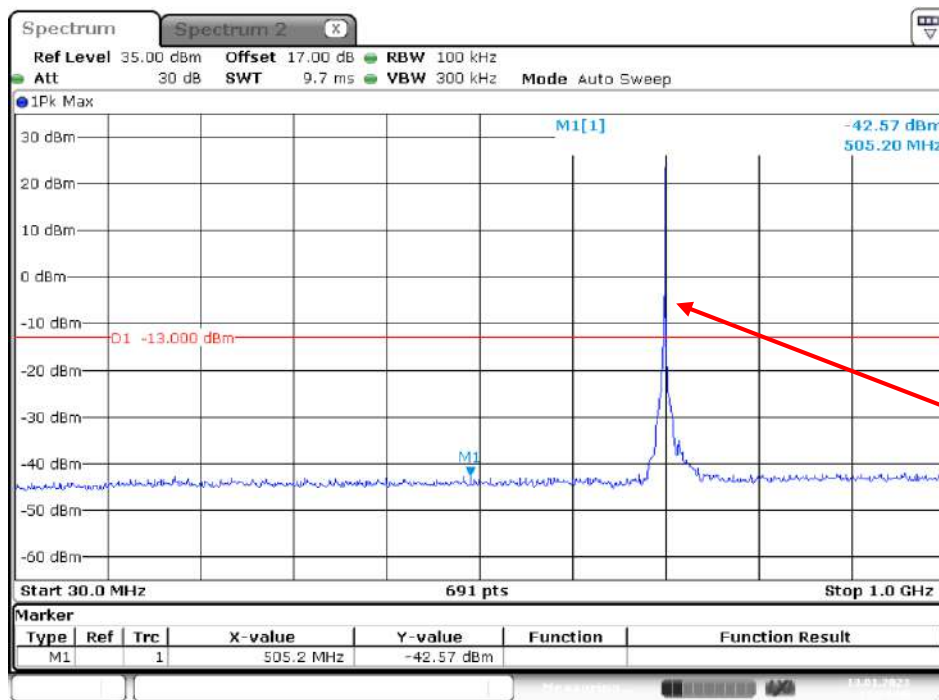
1 GHz – 20 GHz (QPSK, 5.0MHz, Low Channel)



Date: 13.JAN.2023 11:35:18

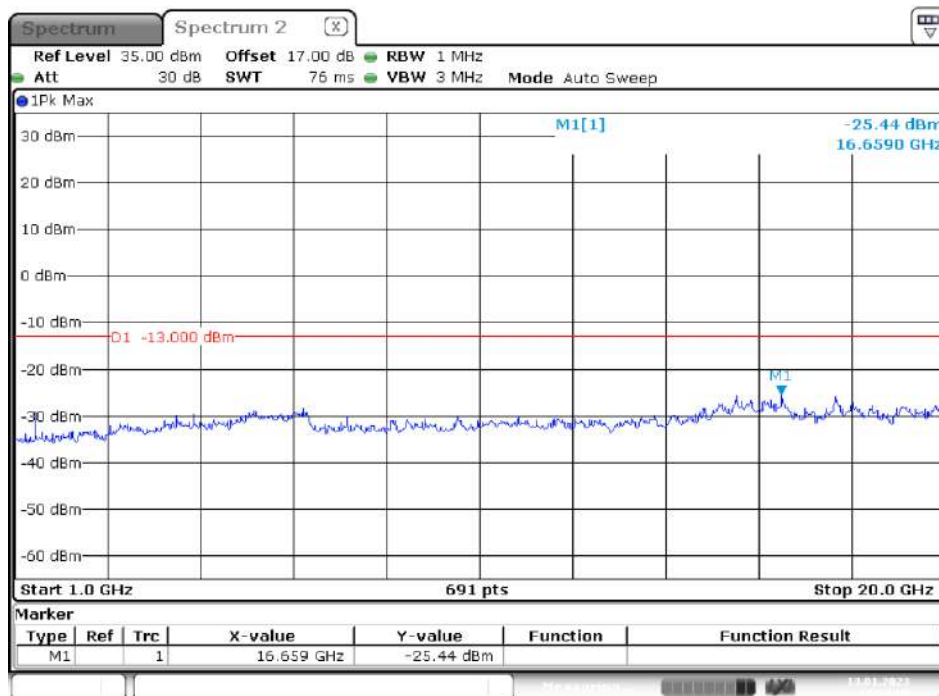
30 MHz – 1 GHz (QPSK, 10.0 MHz, Low Channel)**1 GHz – 10 GHz (QPSK, 10.0 MHz, Low Channel)**

30 MHz – 1 GHz (QPSK, 1.4 MHz, Middle Channel)

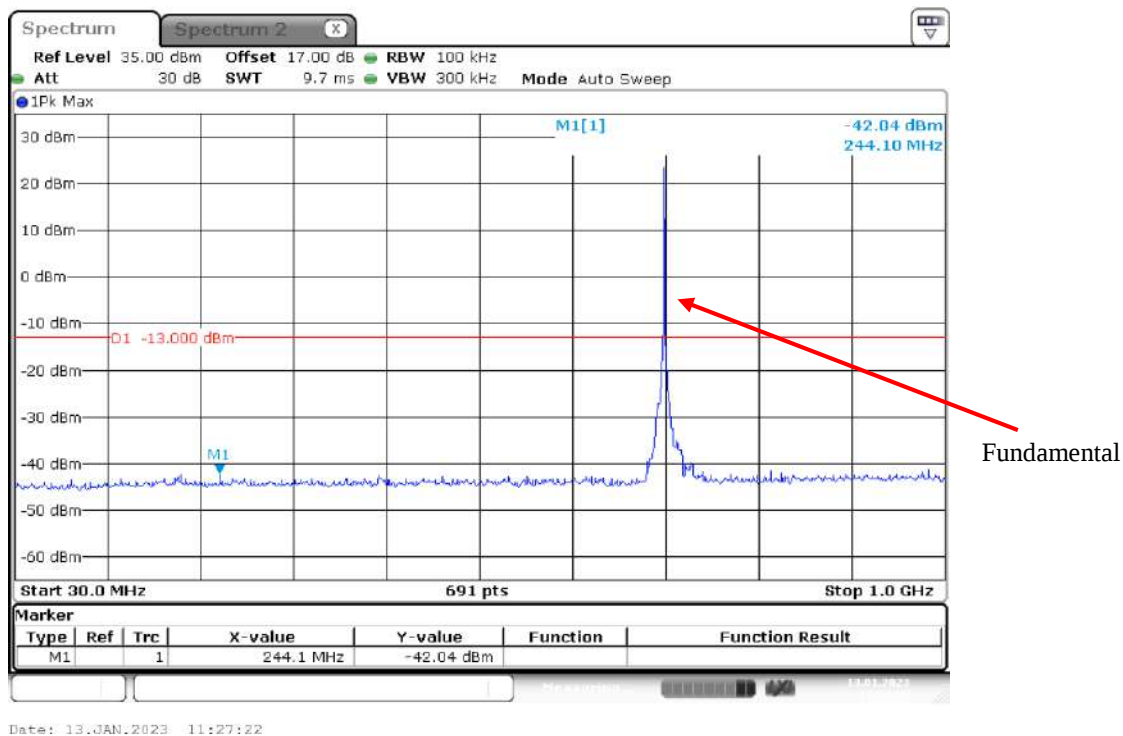
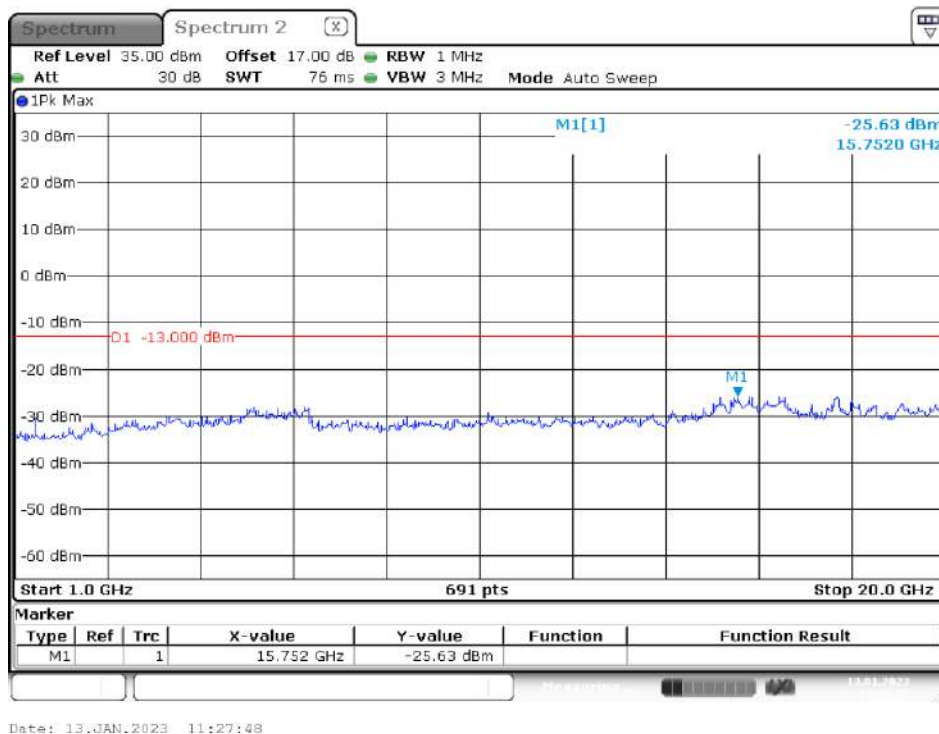


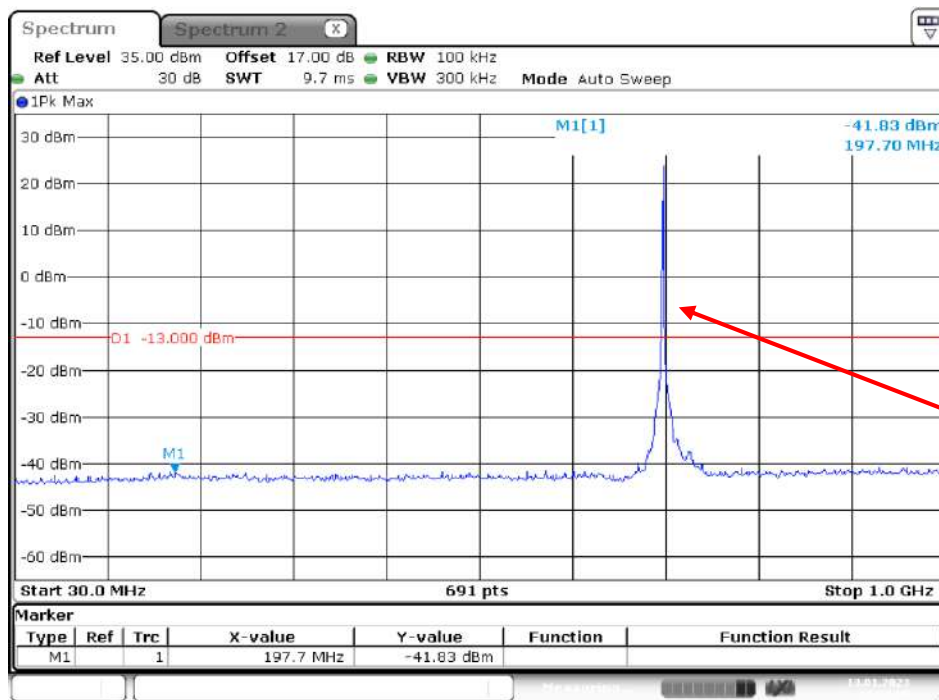
Date: 13.JAN.2023 11:14:00

1 GHz – 20 GHz (QPSK, 1.4 MHz, Middle Channel)



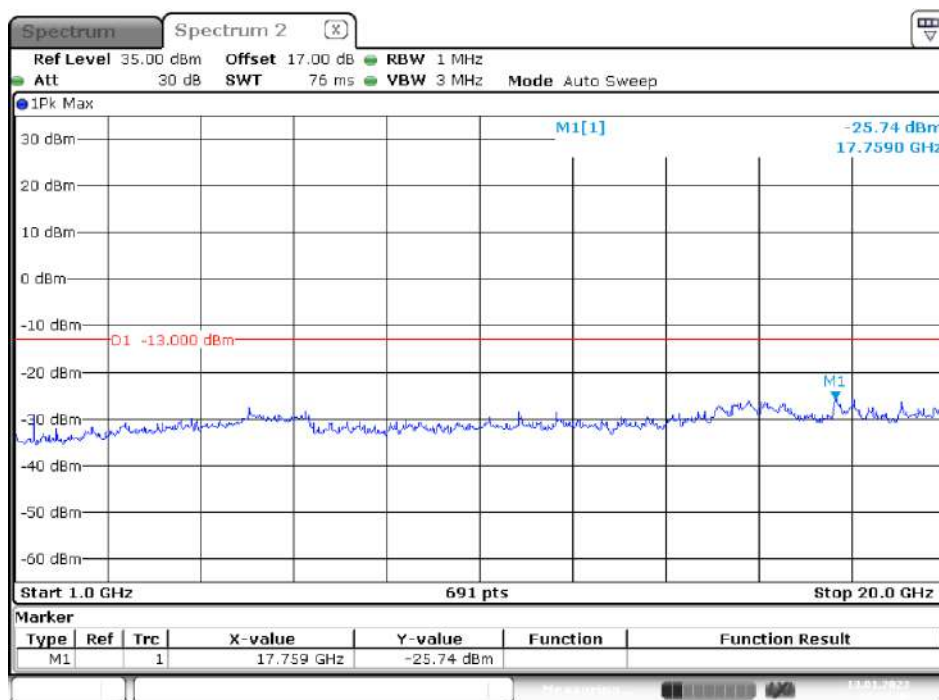
Date: 13.JAN.2023 11:14:20

30 MHz – 1 GHz (QPSK, 3.0 MHz, Middle Channel)**1 GHz – 20 GHz (QPSK, 3.0 MHz, Middle Channel)**

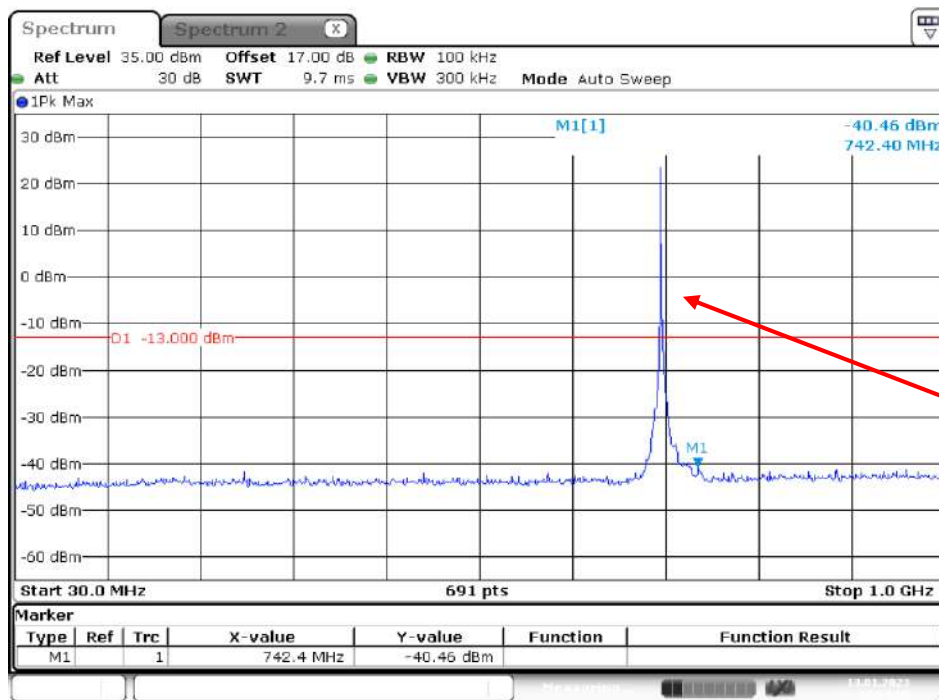
30 MHz – 1 GHz (QPSK, 5.0 MHz, Middle Channel)

Date: 13.JAN.2023 12:37:30

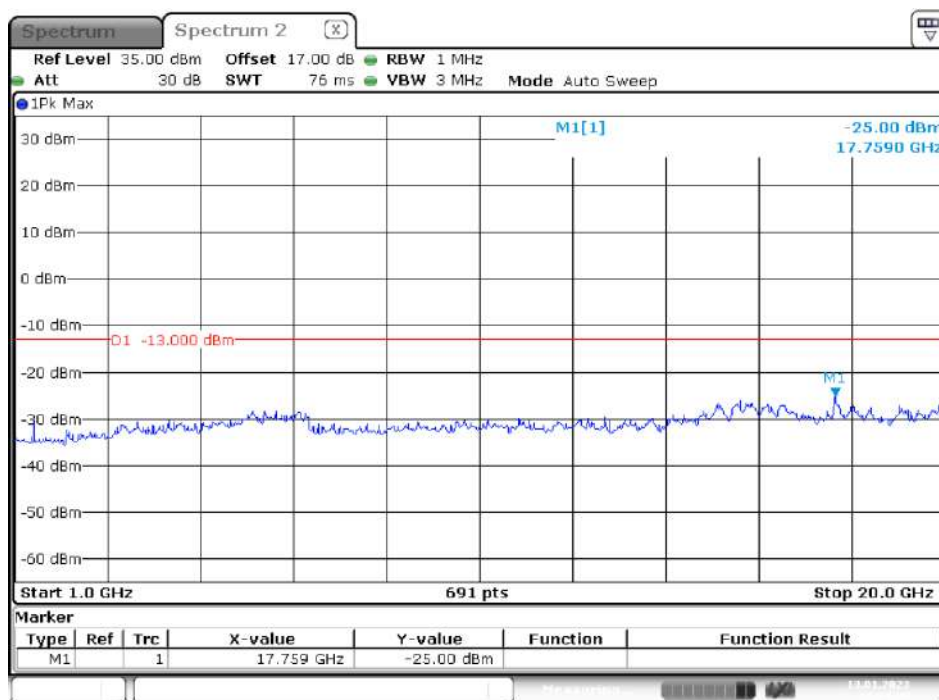
Fundamental

1 GHz – 20 GHz (QPSK, 5.0MHz, Middle Channel)

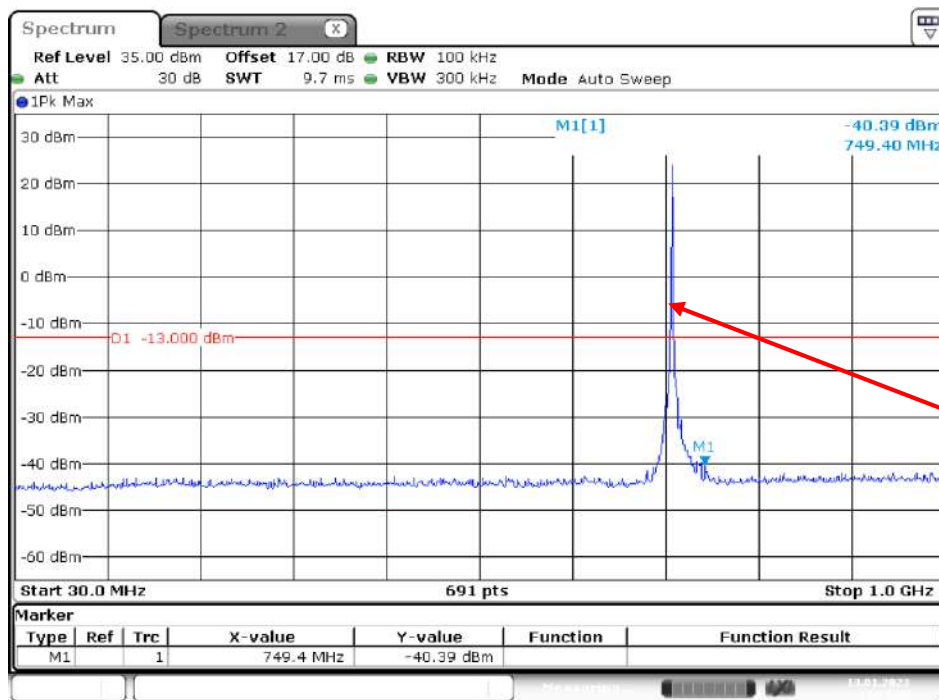
Date: 13.JAN.2023 12:37:45

30 MHz – 1 GHz (QPSK, 10.0 MHz, Middle Channel)

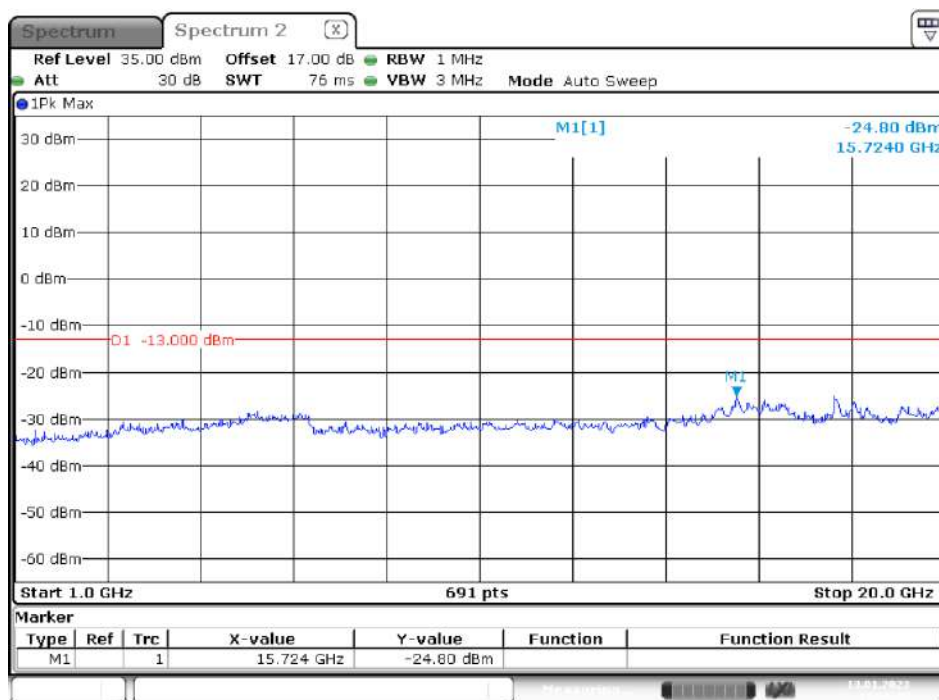
Date: 13.JAN.2023 12:54:24

1 GHz – 20 GHz (QPSK, 10.0 MHz, Middle Channel)

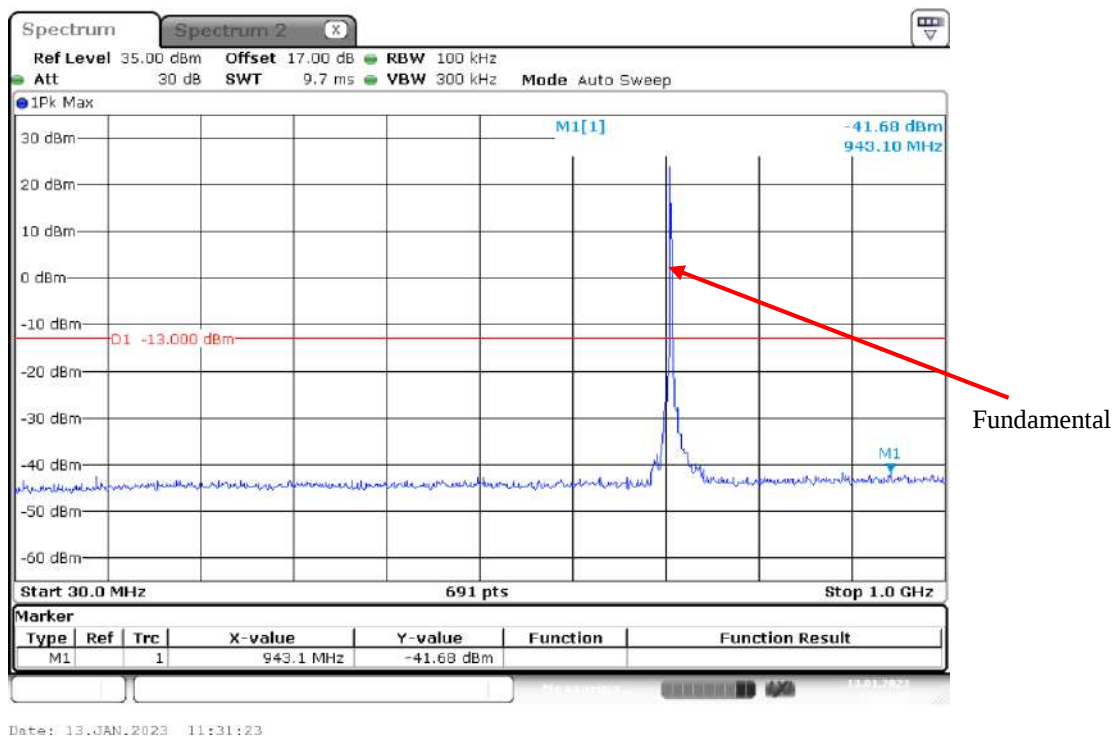
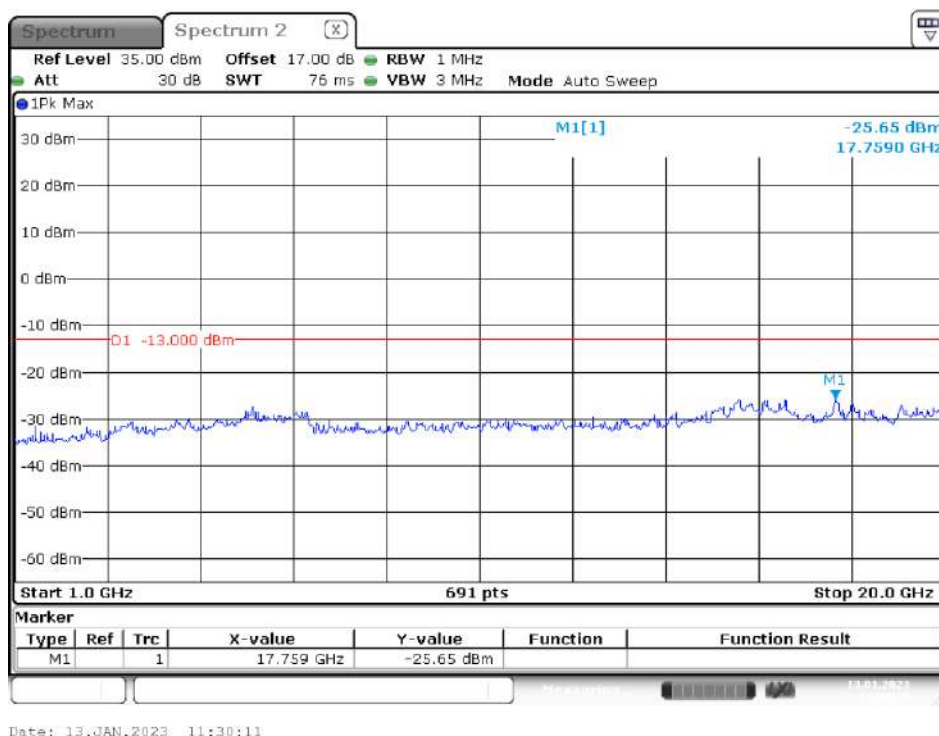
Date: 13.JAN.2023 12:54:44

30 MHz – 1 GHz (QPSK, 1.4 MHz, High Channel)

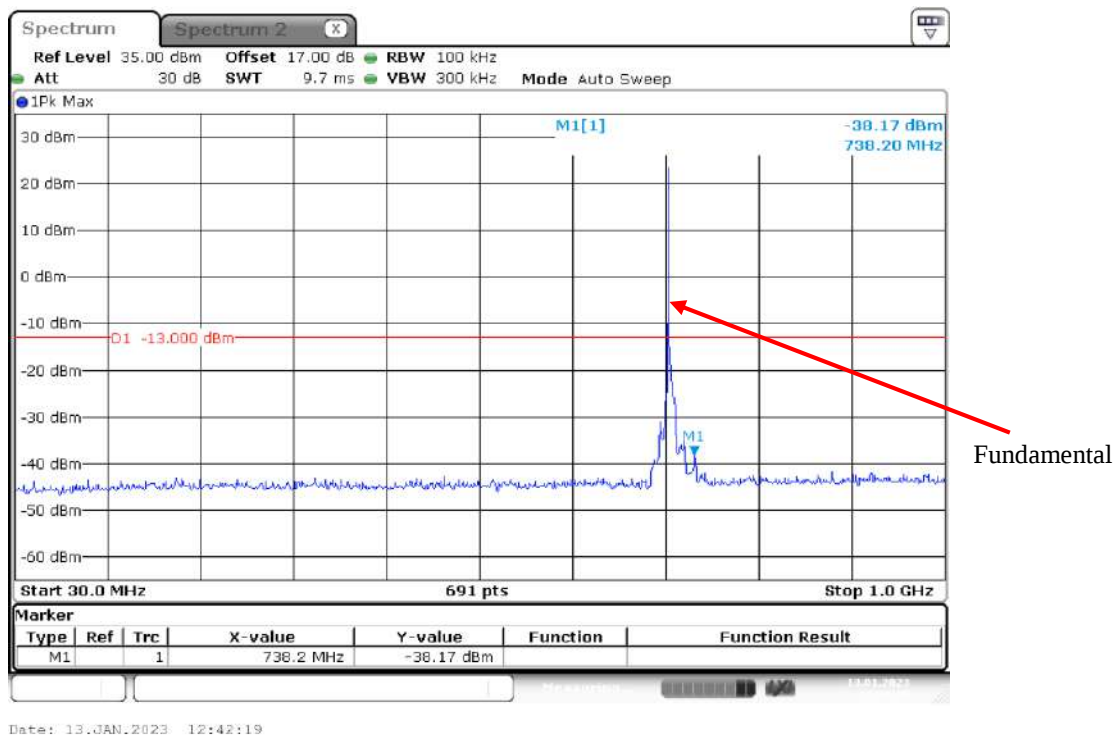
Date: 13.JAN.2023 11:17:45

1 GHz – 20 GHz (QPSK, 1.4 MHz, High Channel)

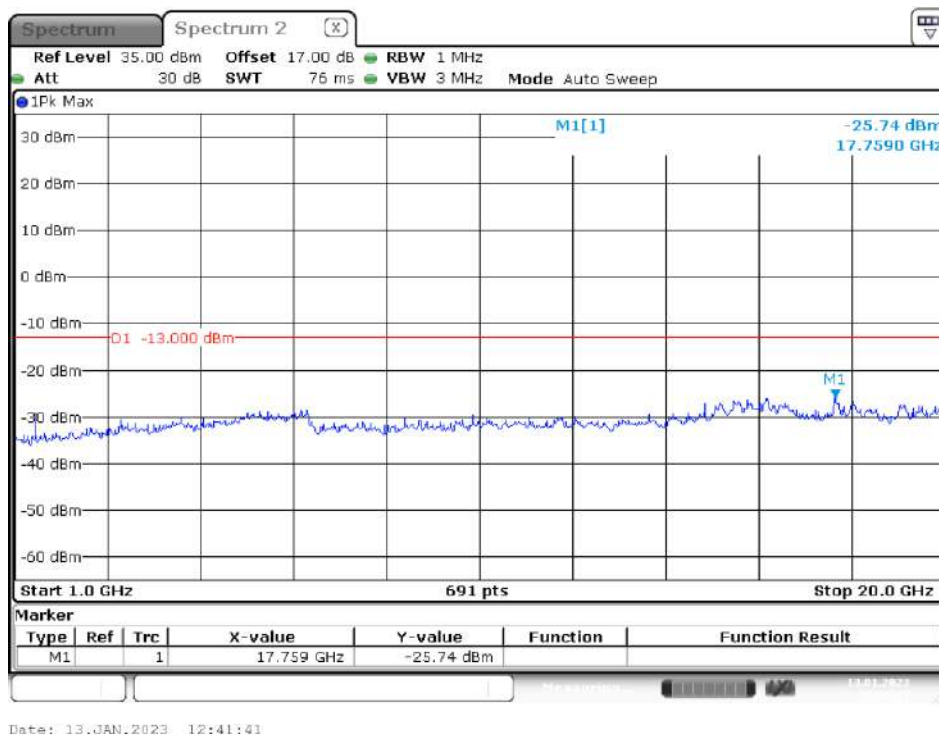
Date: 13.JAN.2023 11:16:17

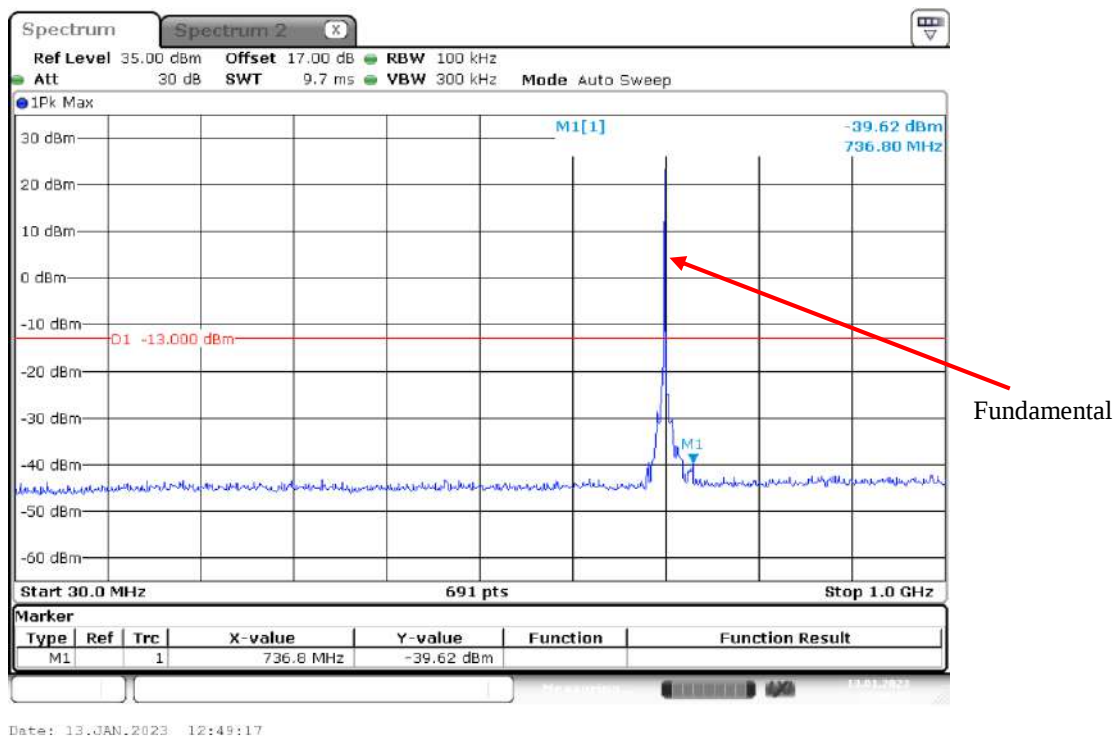
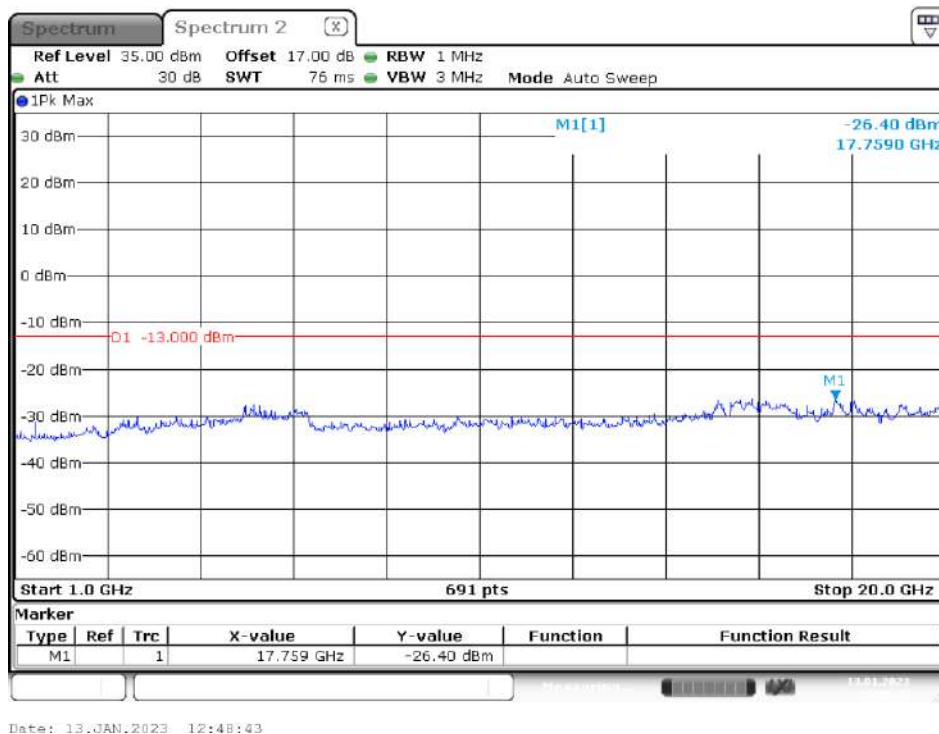
30 MHz – 1 GHz (QPSK, 3.0 MHz, High Channel)**1 GHz – 20 GHz (QPSK, 3.0 MHz, High Channel)**

30 MHz – 1 GHz (QPSK, 5.0 MHz, High Channel)



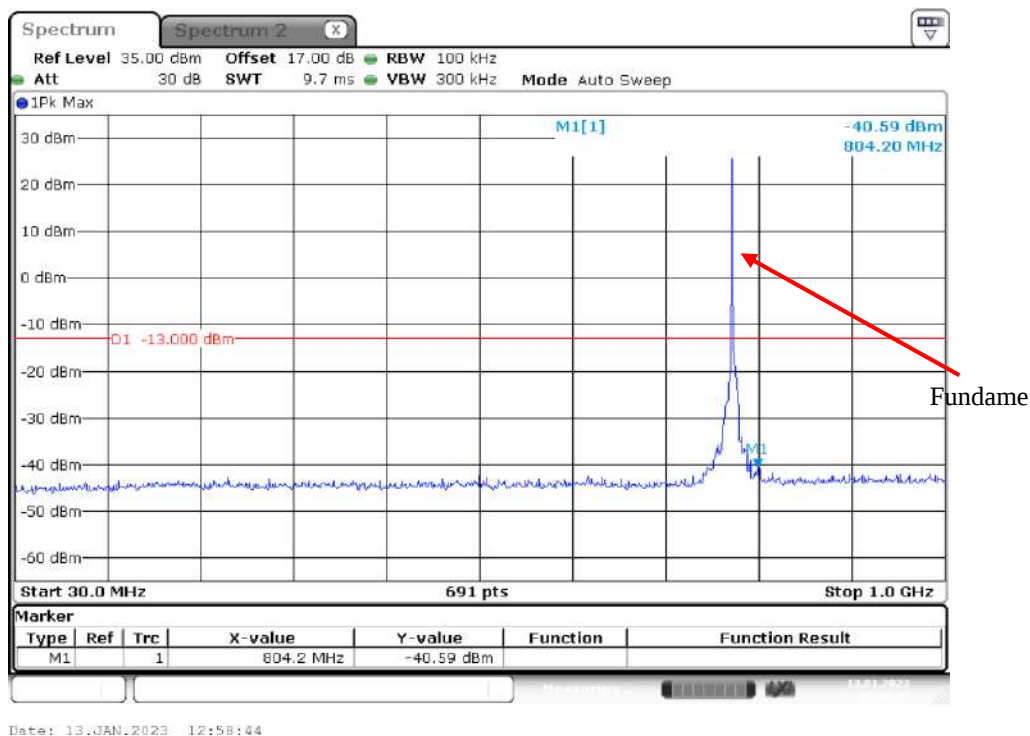
1 GHz – 20 GHz (QPSK, 5.0MHz, High Channel)



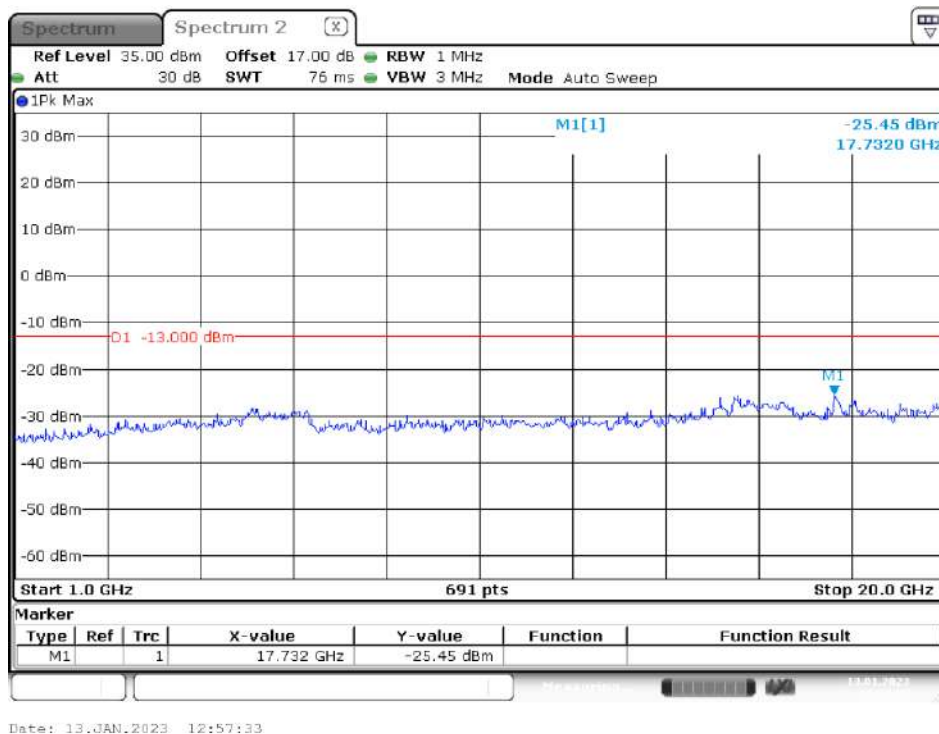
30 MHz – 1 GHz (QPSK, 10.0 MHz, High Channel)**1 GHz – 20 GHz (QPSK, 10.0 MHz, High Channel)**

LTE Band 13

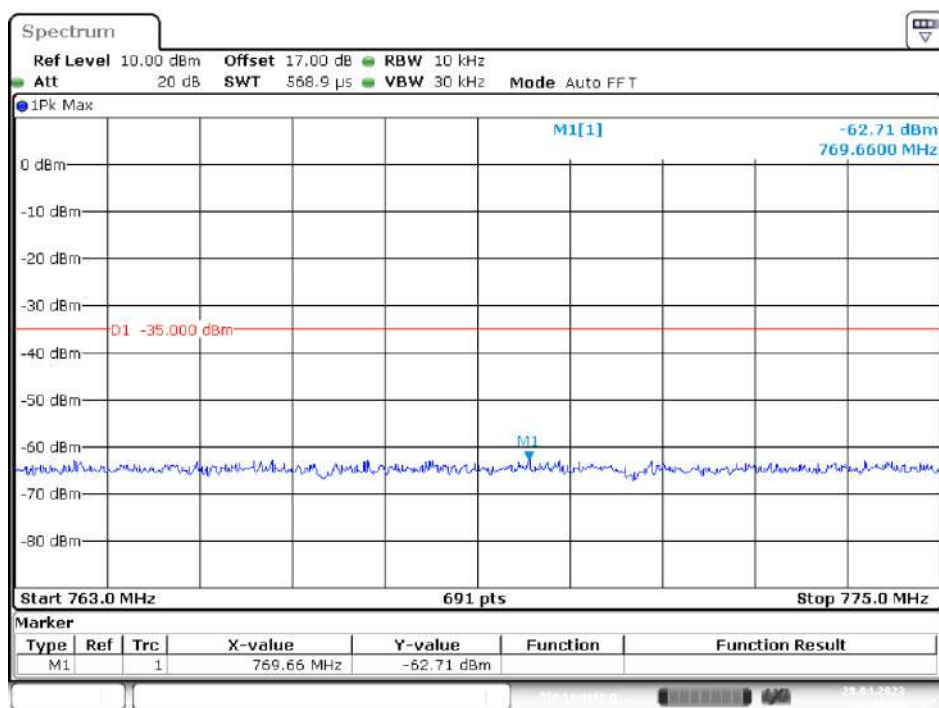
30 MHz – 1 GHz (QPSK, 5.0 MHz, Low Channel)



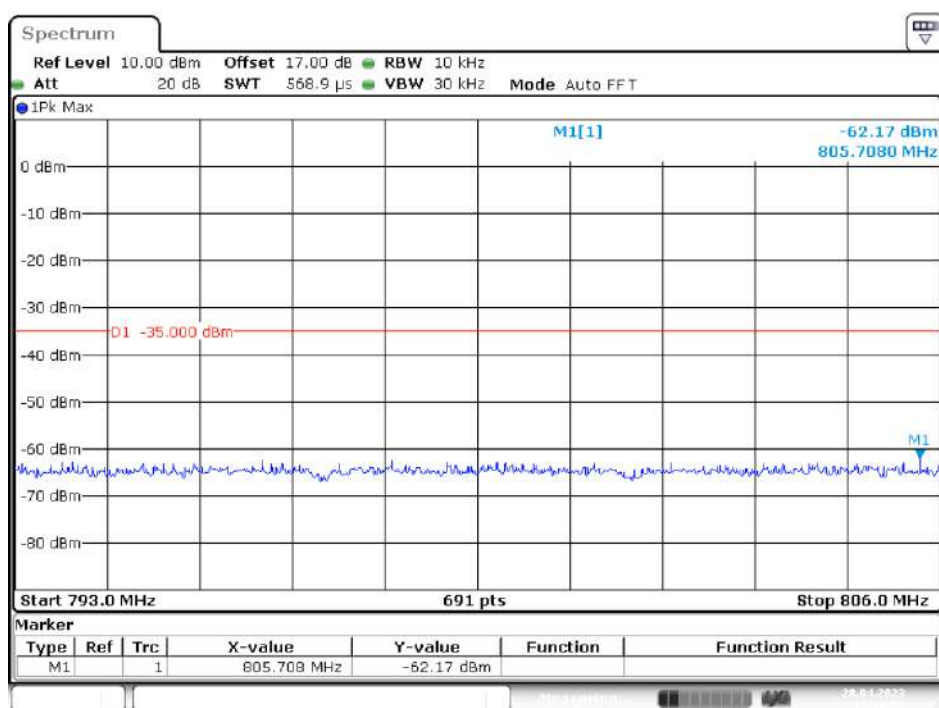
1 GHz – 20 GHz (QPSK, 5.0MHz, Low Channel)



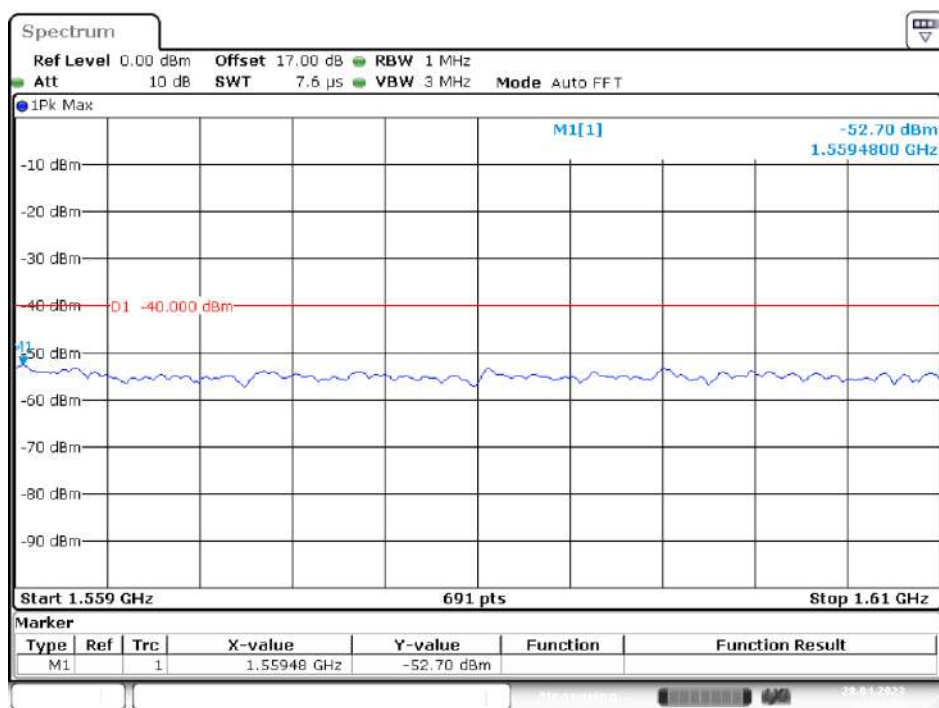
763 MHz – 775 MHz (QPSK, 5.0MHz, Low Channel)



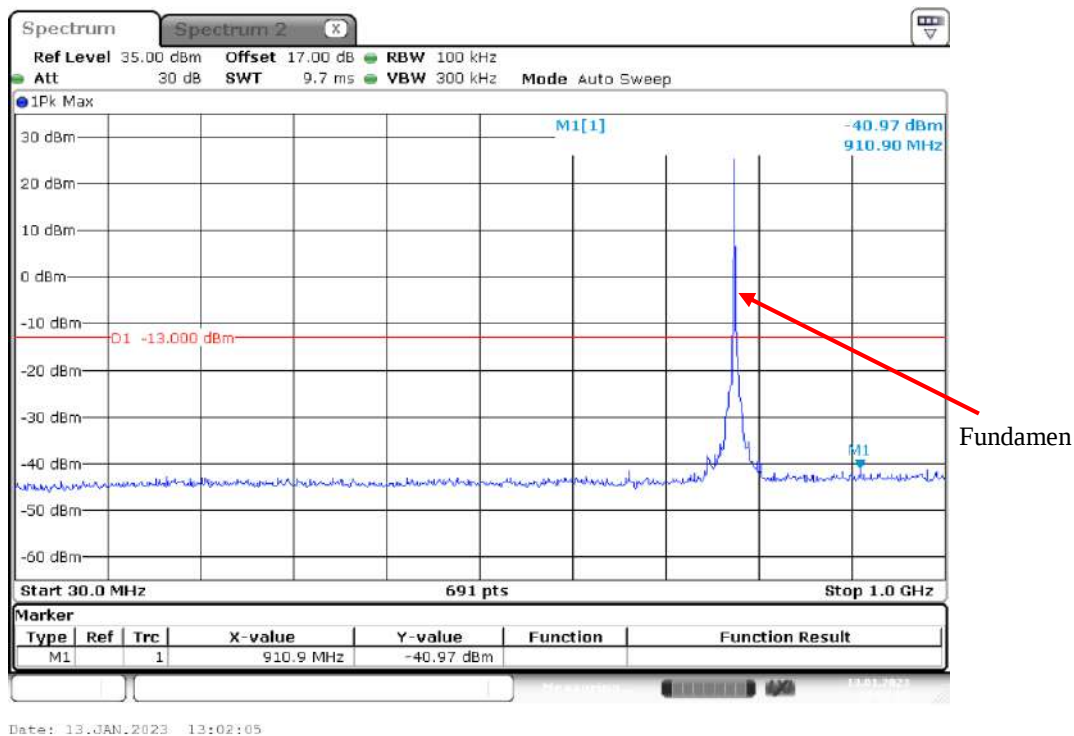
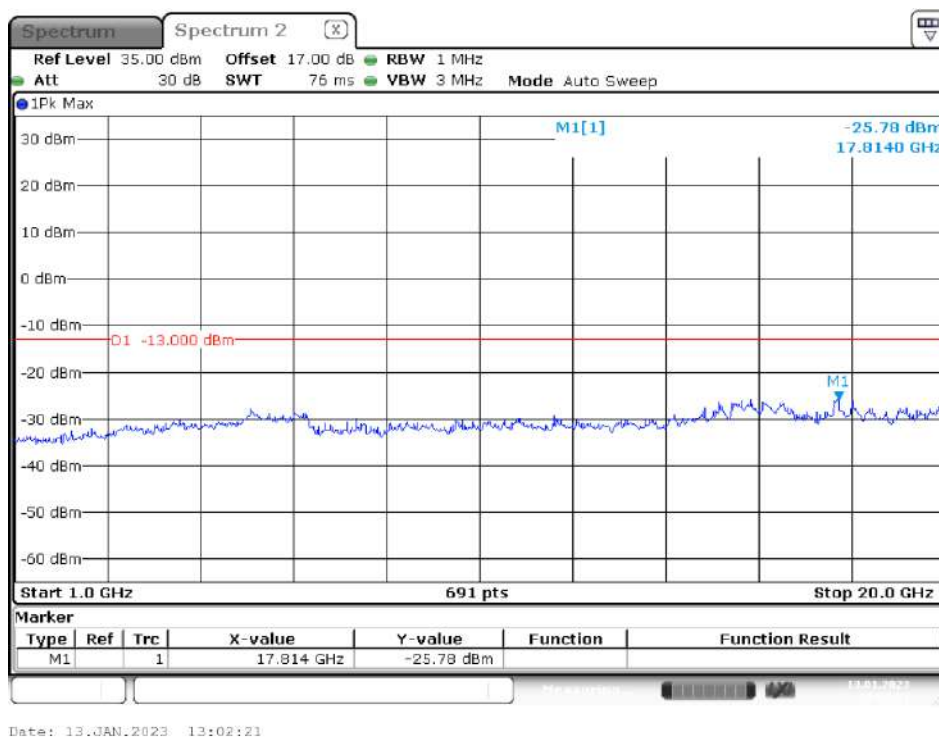
793 MHz – 806 MHz (QPSK, 5.0MHz, Low Channel)



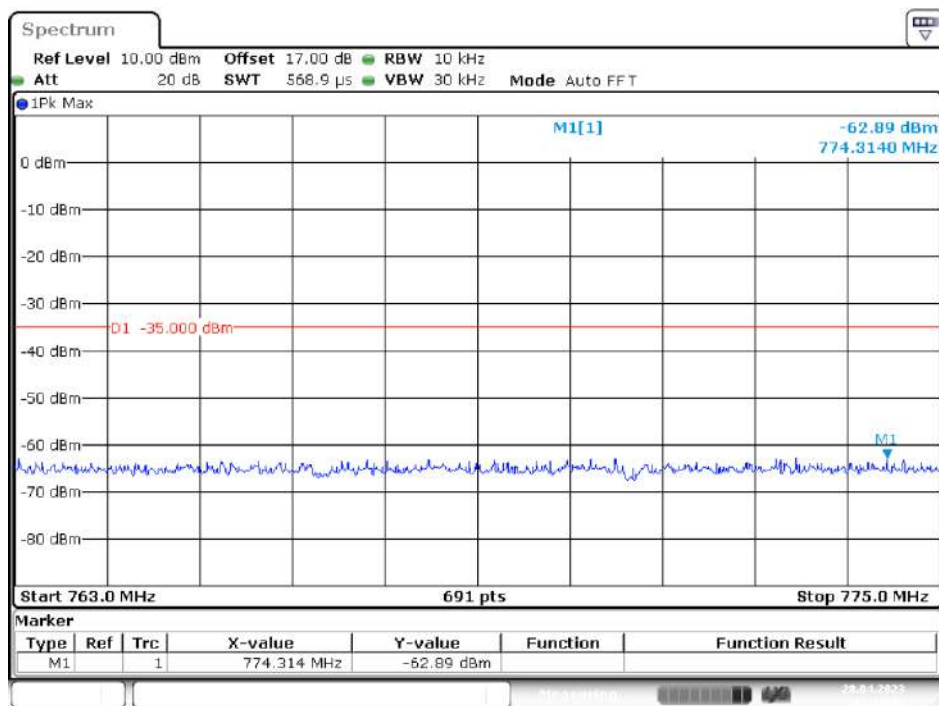
1559 MHz – 1610 MHz (QPSK, 5.0MHz, Low Channel)



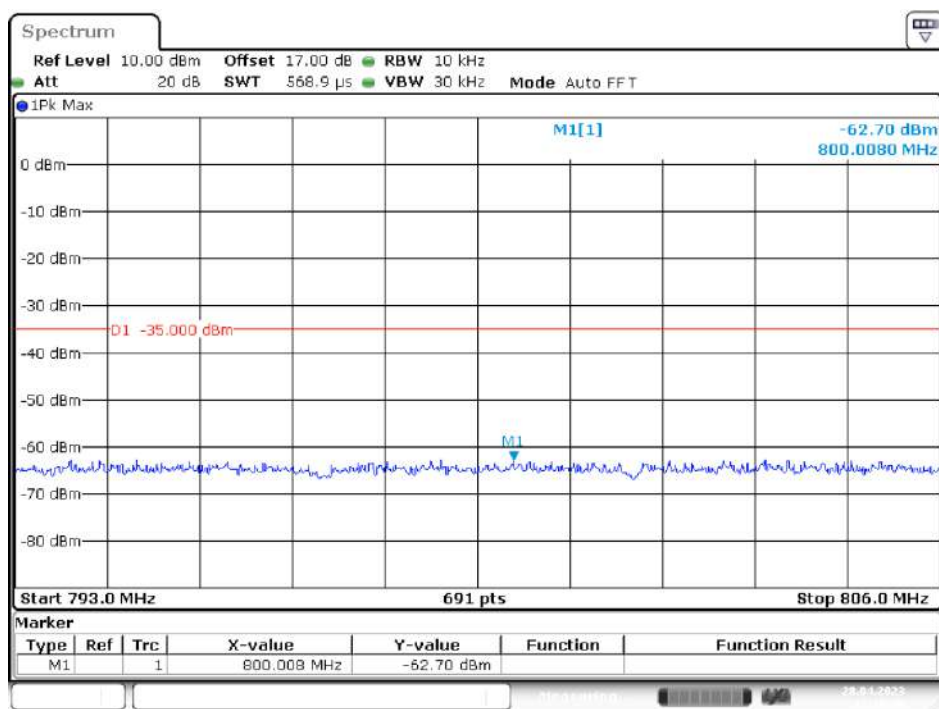
Date: 28.APR.2023 11:21:37

30 MHz – 1 GHz (QPSK, 5.0 MHz, Middle Channel)**1 GHz – 20 GHz (QPSK, 5.0MHz, Middle Channel)**

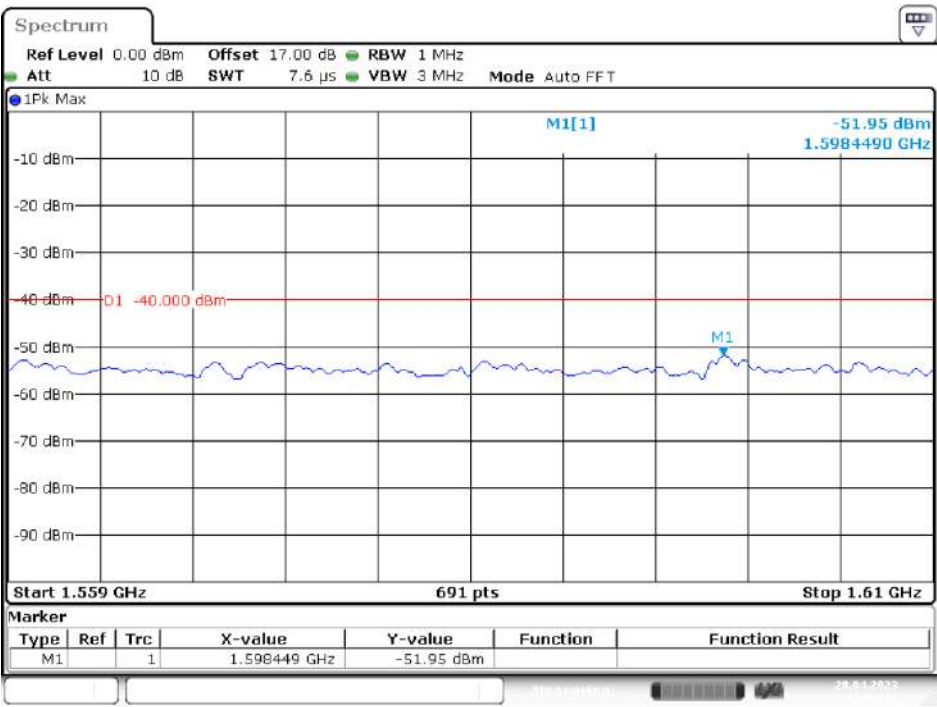
763 MHz – 775 MHz (QPSK, 5.0MHz, Middle Channel)



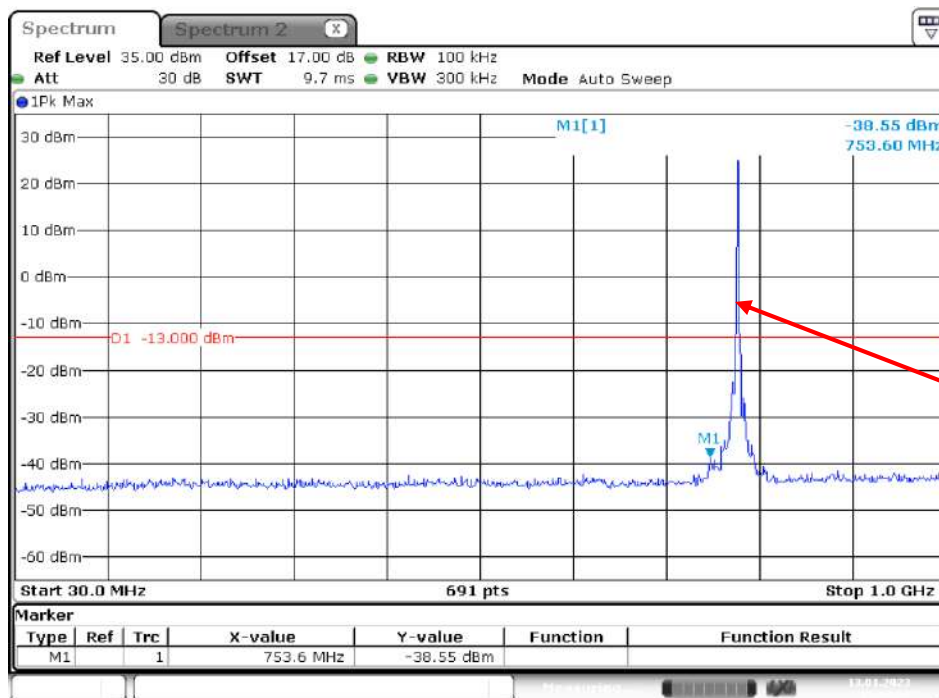
793 MHz – 806 MHz (QPSK, 5.0MHz, Middle Channel)



1559 MHz – 1610 MHz (QPSK, 5.0MHz, Middle Channel)

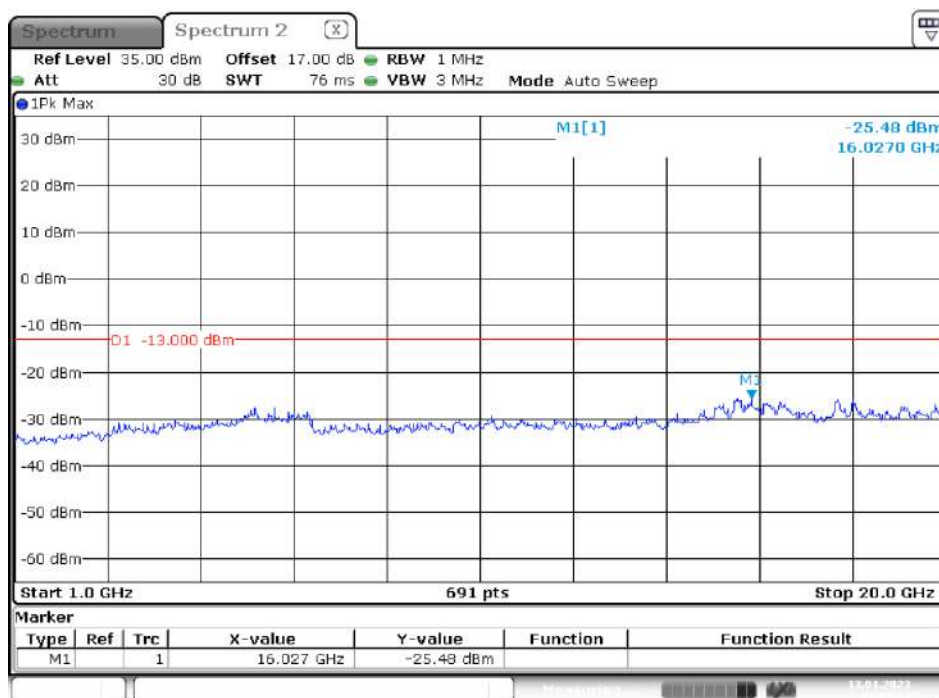


Date: 28.APR.2023 11:21:21

30 MHz – 1 GHz (QPSK, 5.0 MHz, High Channel)

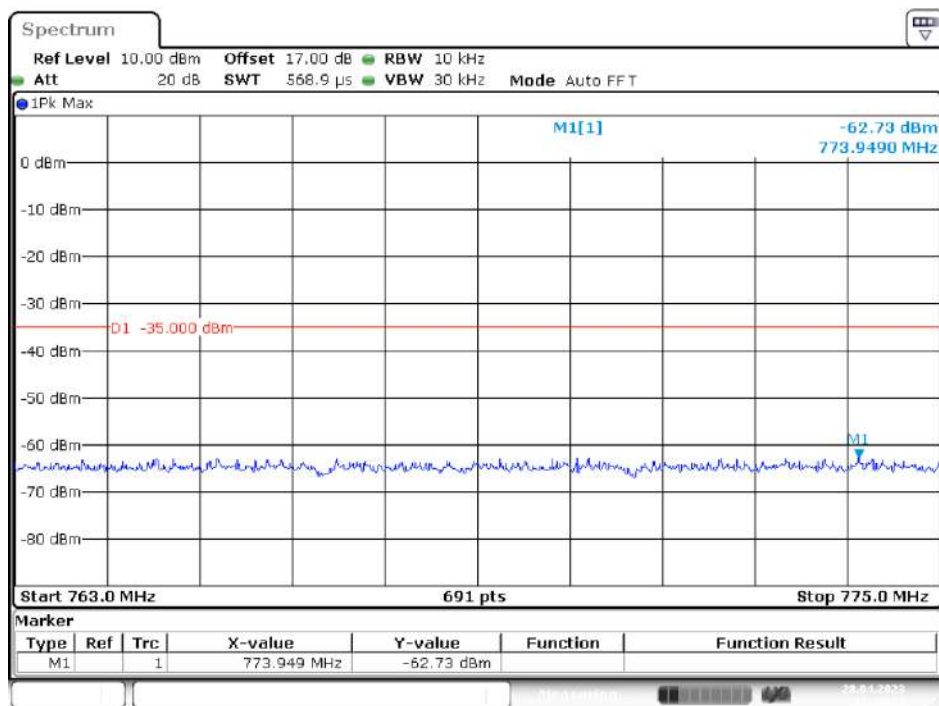
Date: 13.JAN.2023 13:04:45

Fundamental

1 GHz – 20 GHz (QPSK, 5.0MHz, High Channel)

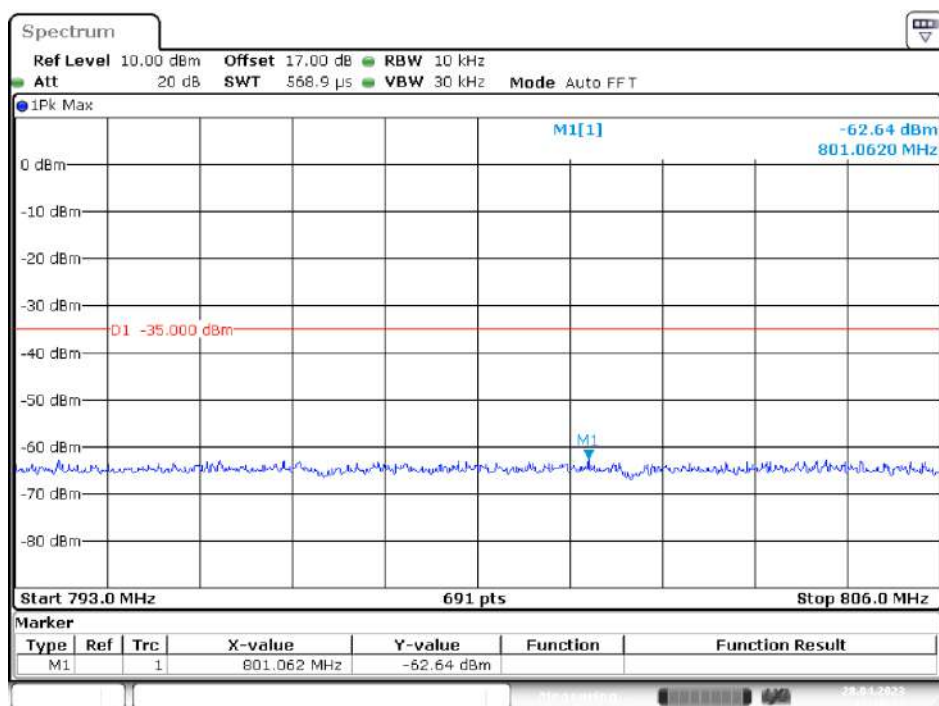
Date: 13.JAN.2023 13:03:43

763 MHz – 775 MHz (QPSK, 5.0MHz, High Channel)



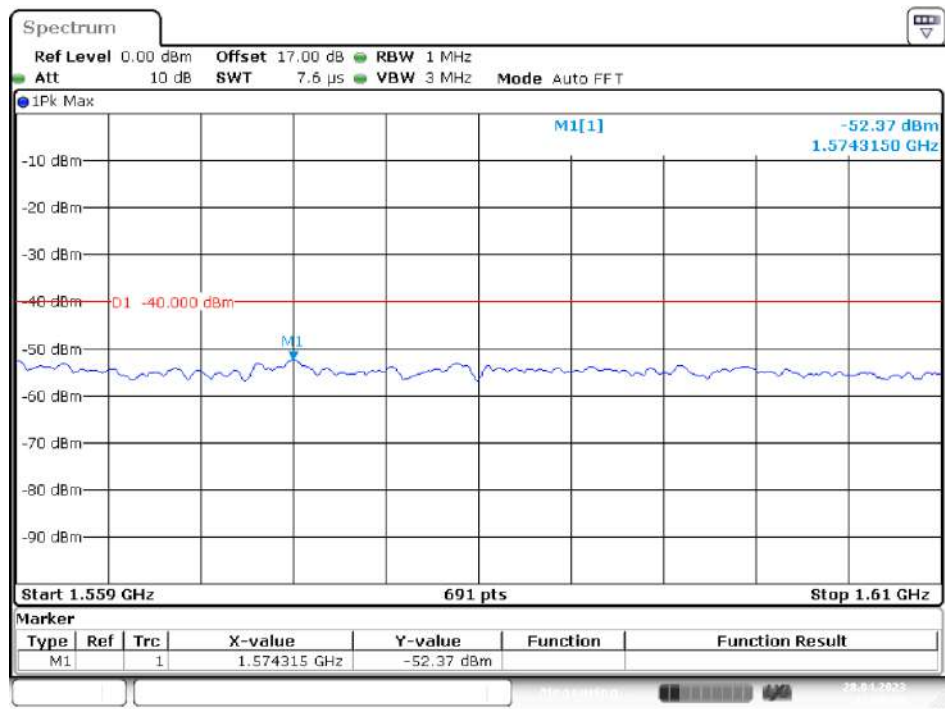
Date: 28.APR.2023 11:17:11

793 MHz – 806 MHz (QPSK, 5.0MHz, High Channel)

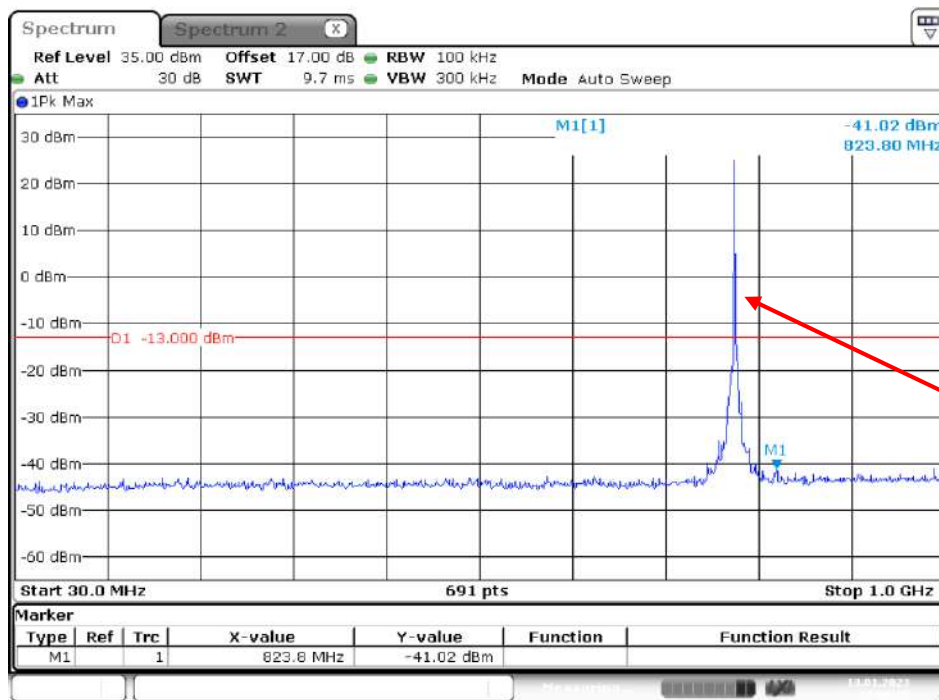


Date: 28.APR.2023 11:18:18

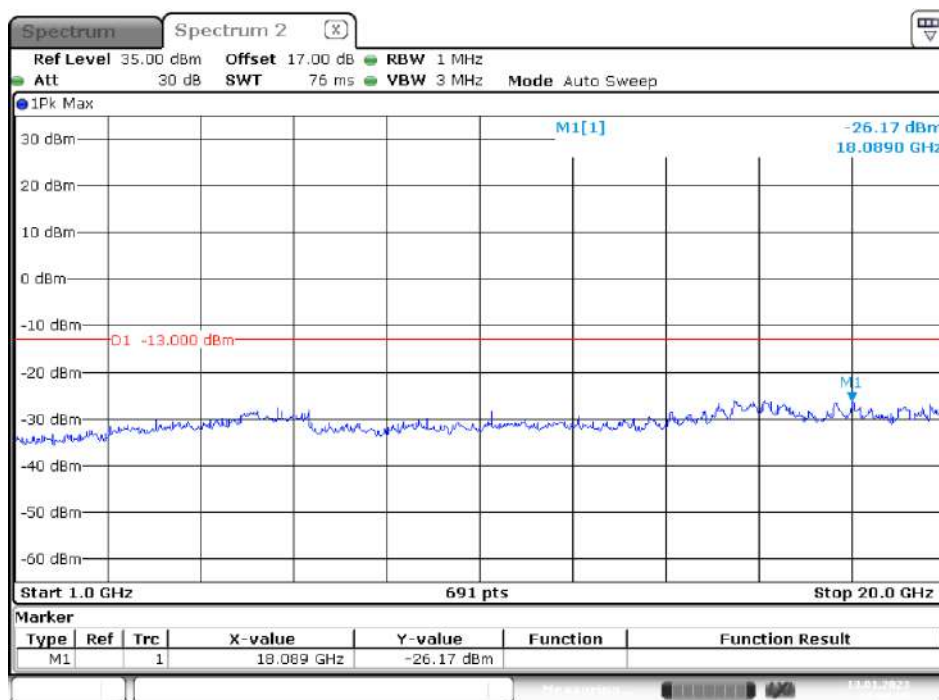
1559 MHz – 1610 MHz (QPSK, 5.0MHz, High Channel)



Date: 28.APR.2023 11:20:00

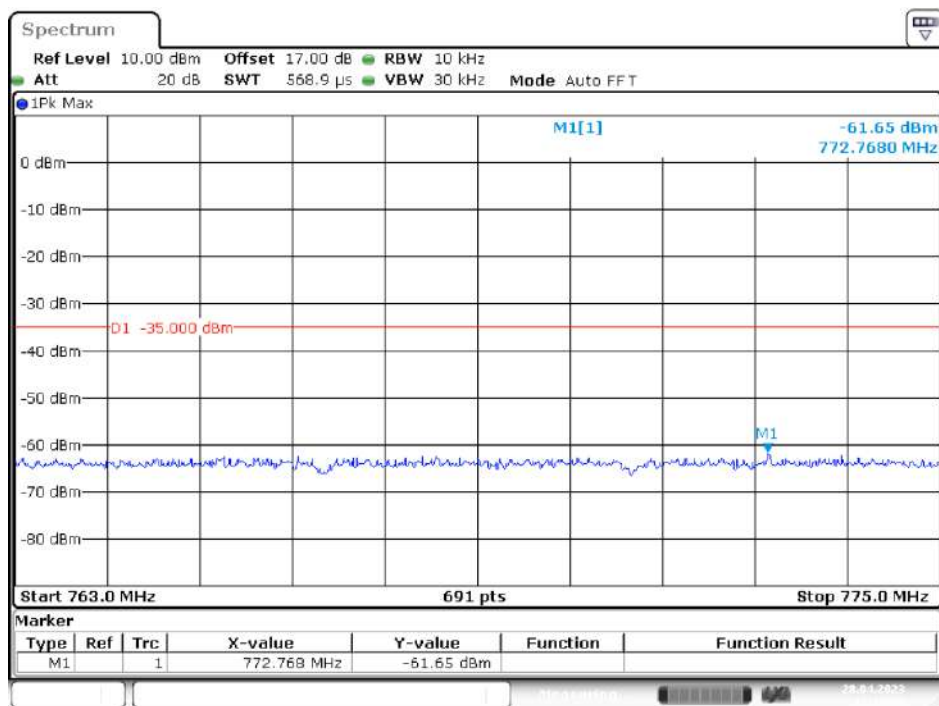
30 MHz – 1 GHz (QPSK, 10.0 MHz, Middle Channel)

Date: 13.JAN.2023 13:09:13

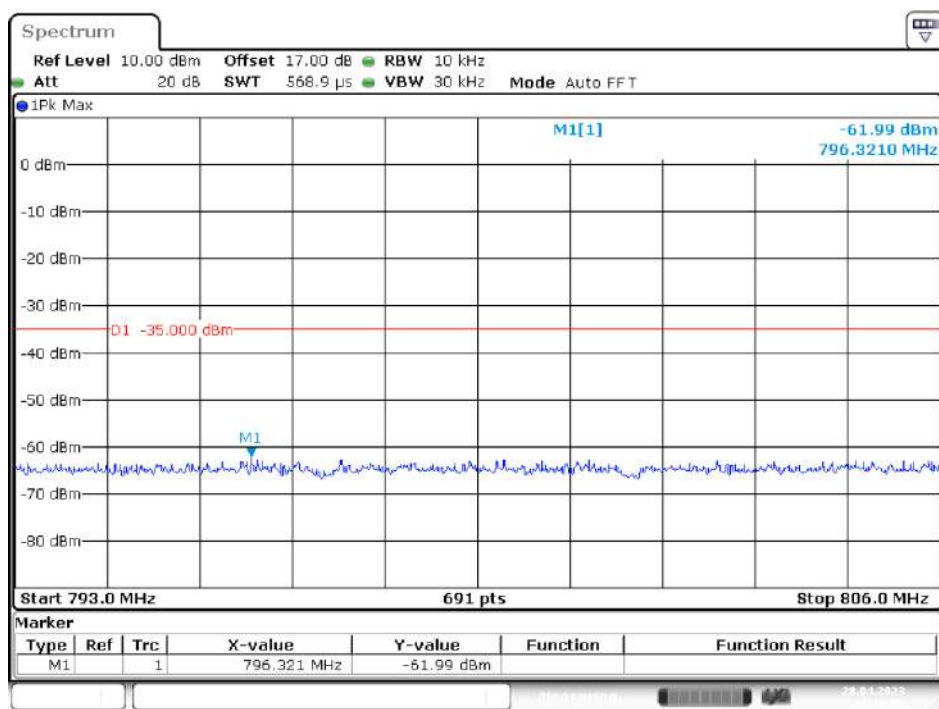
1 GHz – 10 GHz (QPSK, 10.0 MHz, Middle Channel)

Date: 13.JAN.2023 13:09:29

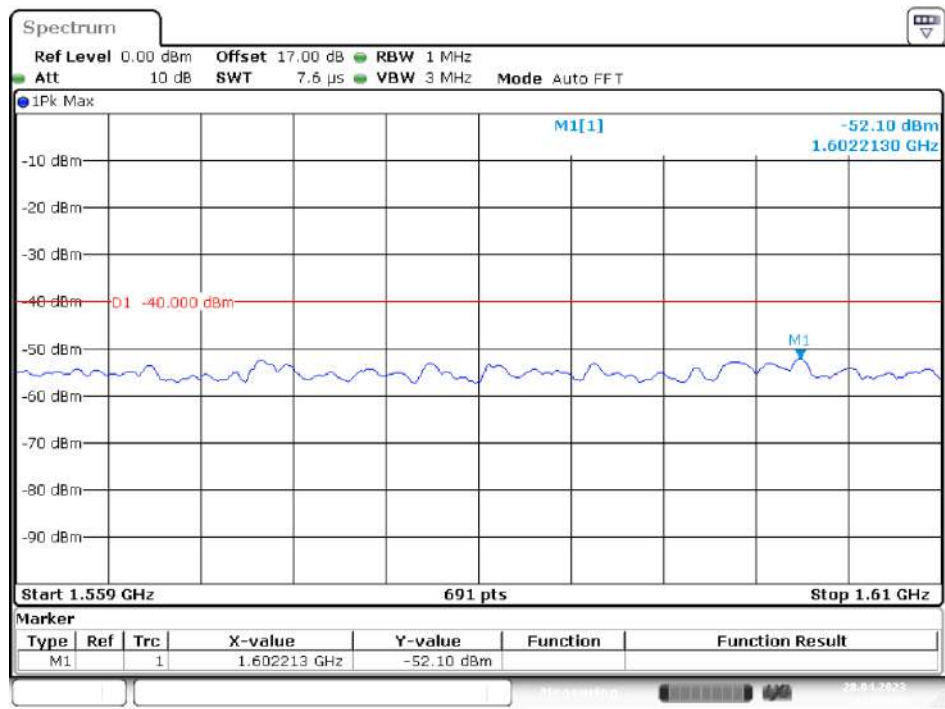
763 MHz – 775 MHz (QPSK, 10.0MHz, Middle Channel)



793 MHz – 806 MHz (QPSK, 10.0MHz, Middle Channel)



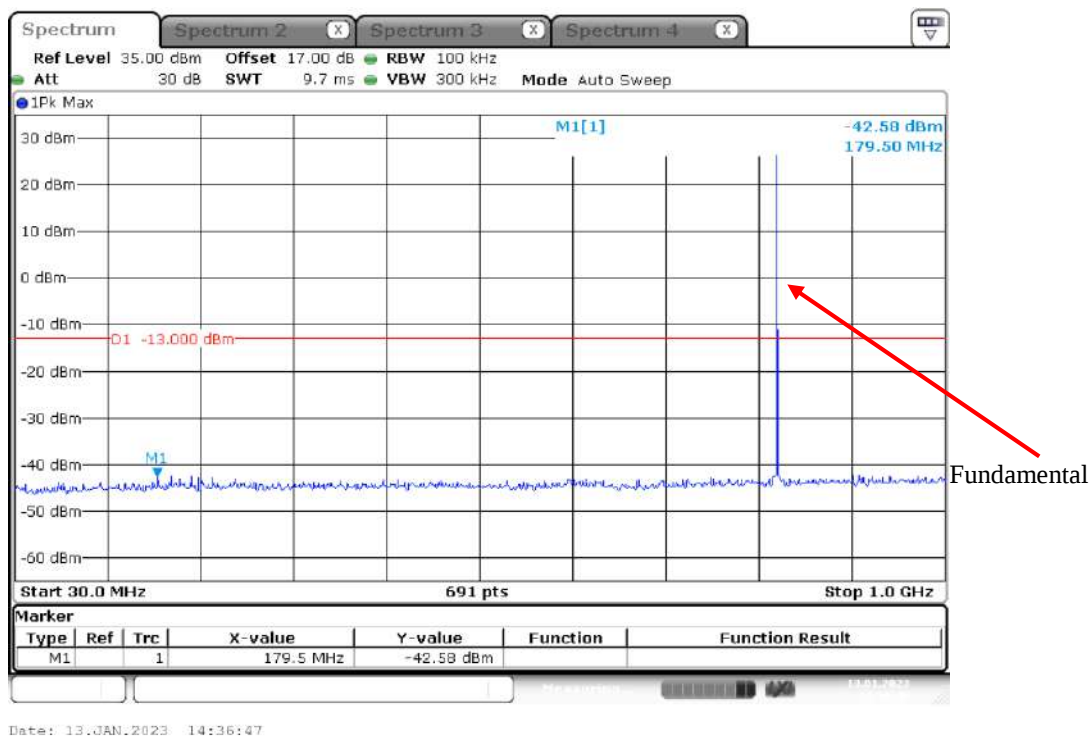
1559 MHz – 1610 MHz (QPSK, 10.0MHz, Middle Channel)



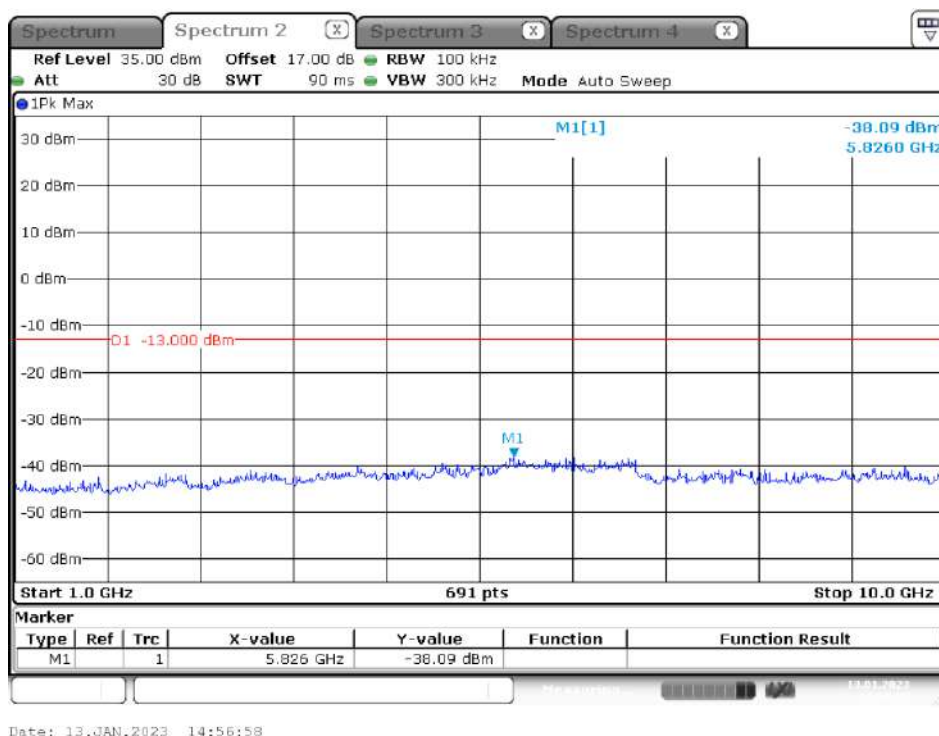
Date: 28.APR.2023 11:22:36

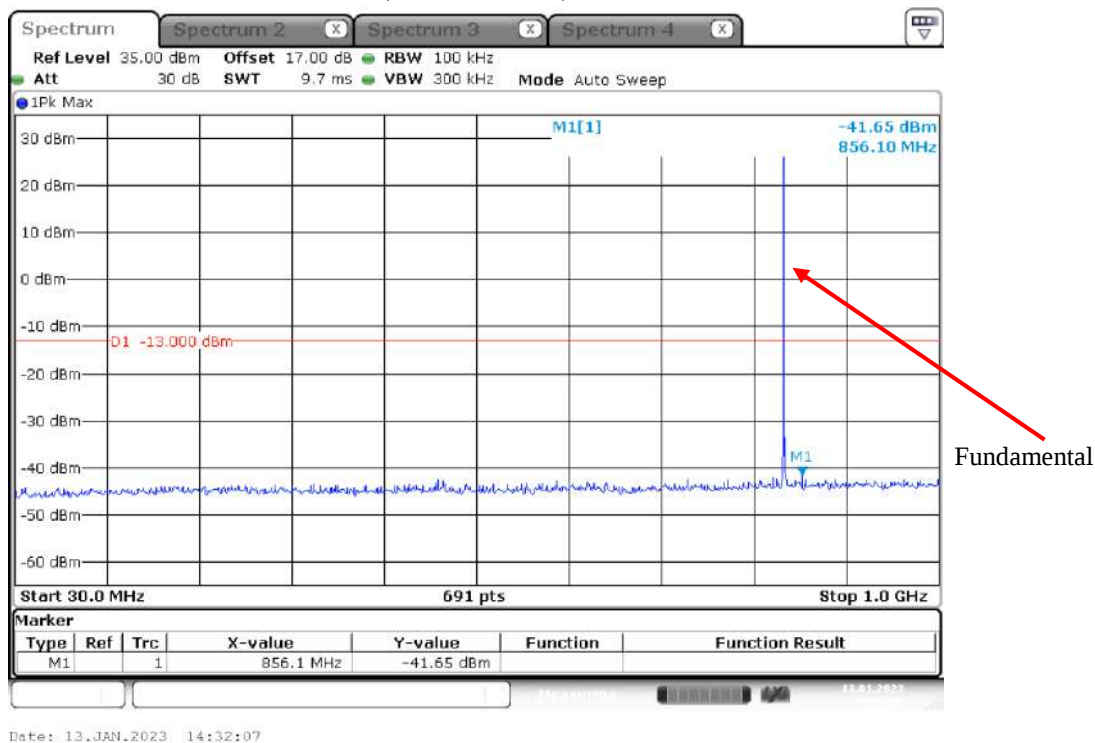
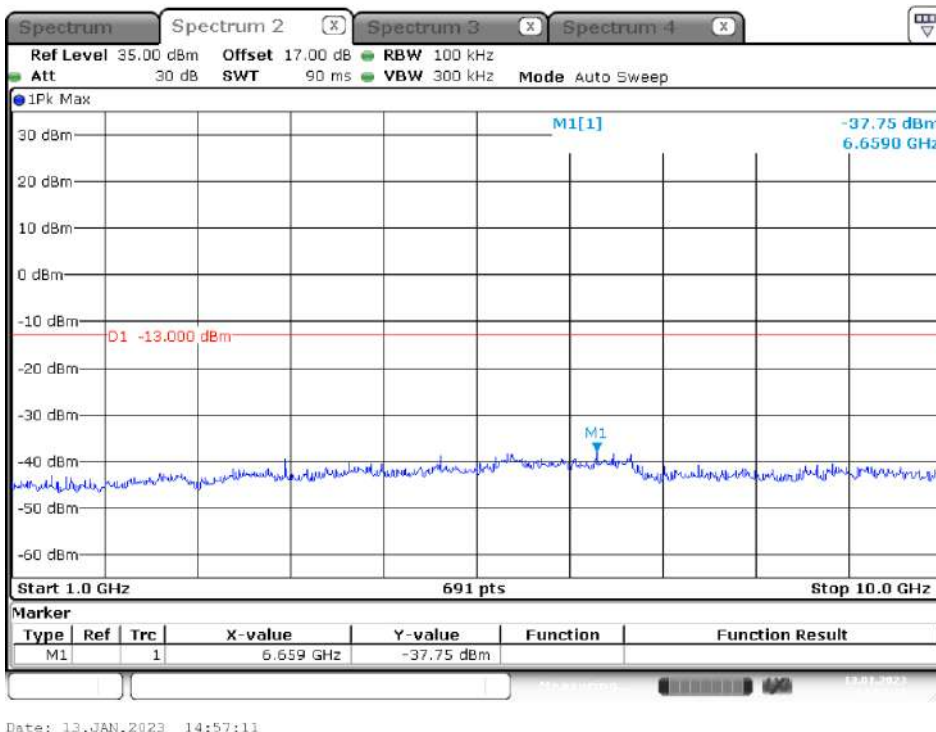
Cellular Band (Part 22H)

30 MHz – 1GHz (GPRS Mode) Low Channel

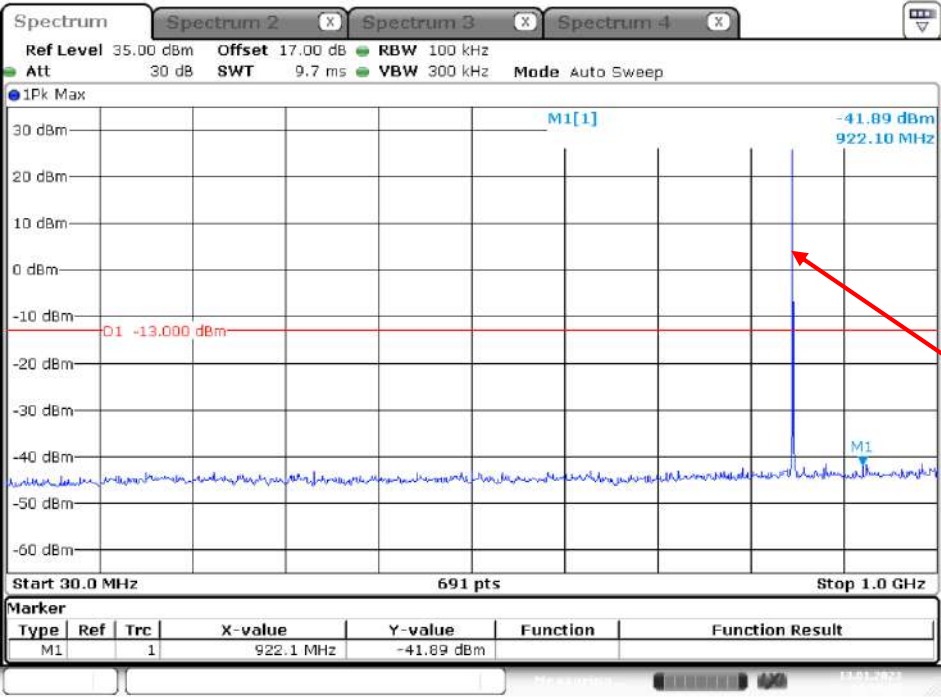


1 GHz – 10 GHz(GPRS Mode) Low Channel



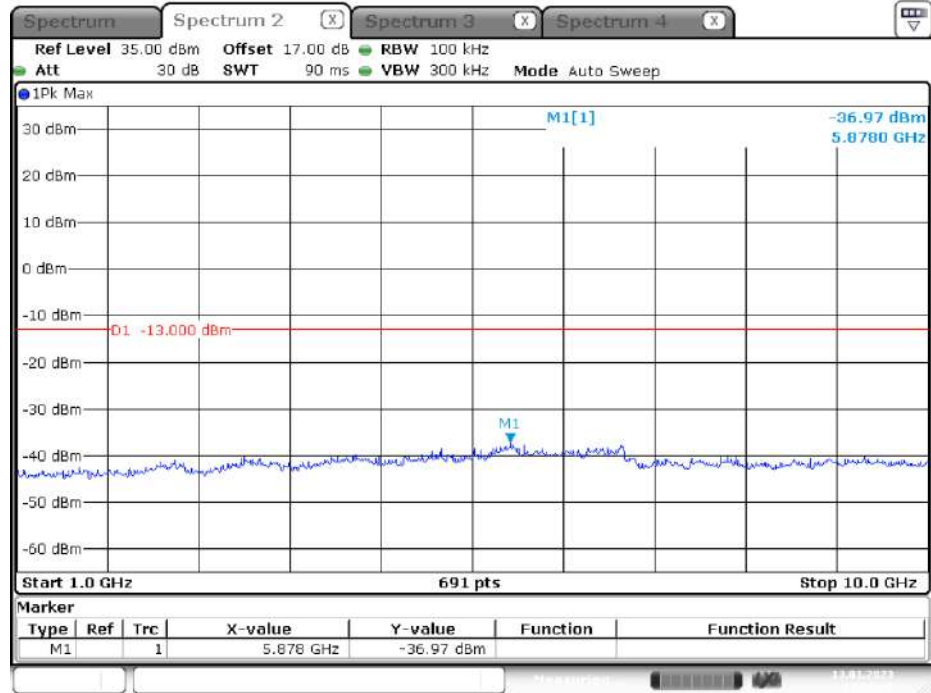
30 MHz – 1GHz (GPRS Mode) Middle Channel**1 GHz – 10 GHz(GPRS Mode) Middle Channel**

30 MHz – 1GHz (GPRS Mode) High Channel



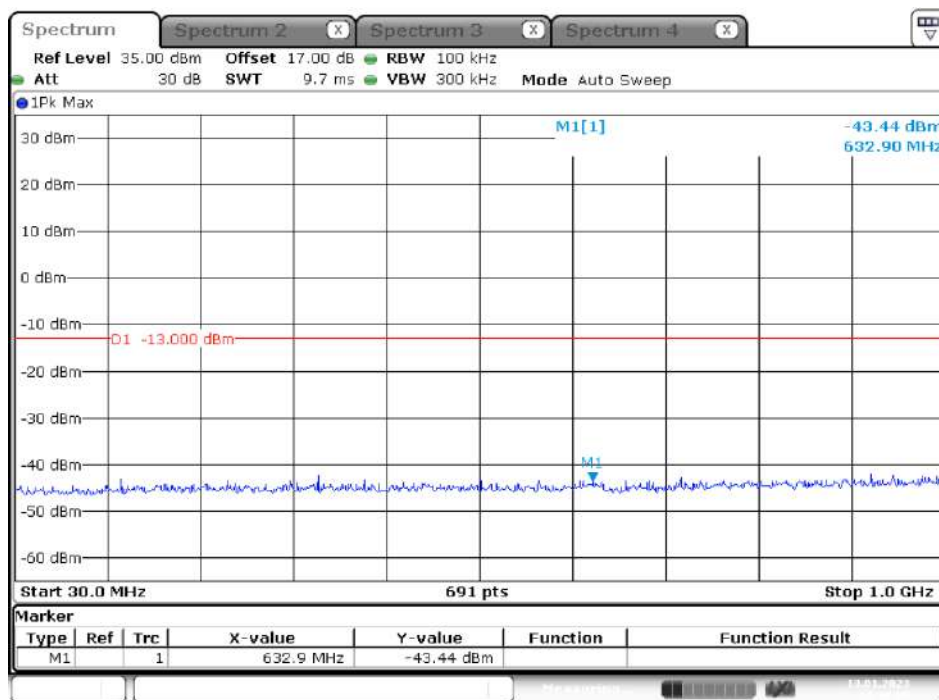
Date: 13.JAN.2023 14:35:24

1 GHz – 10 GHz(GPRS Mode) High Channel



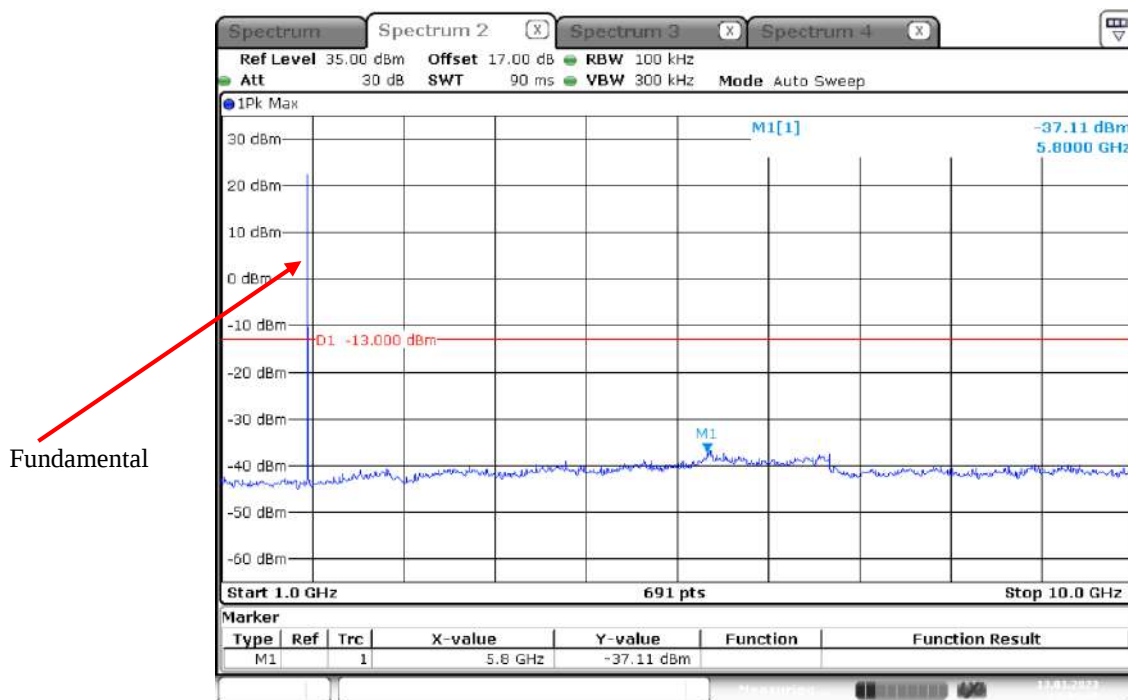
Date: 13.JAN.2023 14:56:43

PCS Band (Part 24E)
30 MHz – 1GHz (GPRS Mode) Low Channel

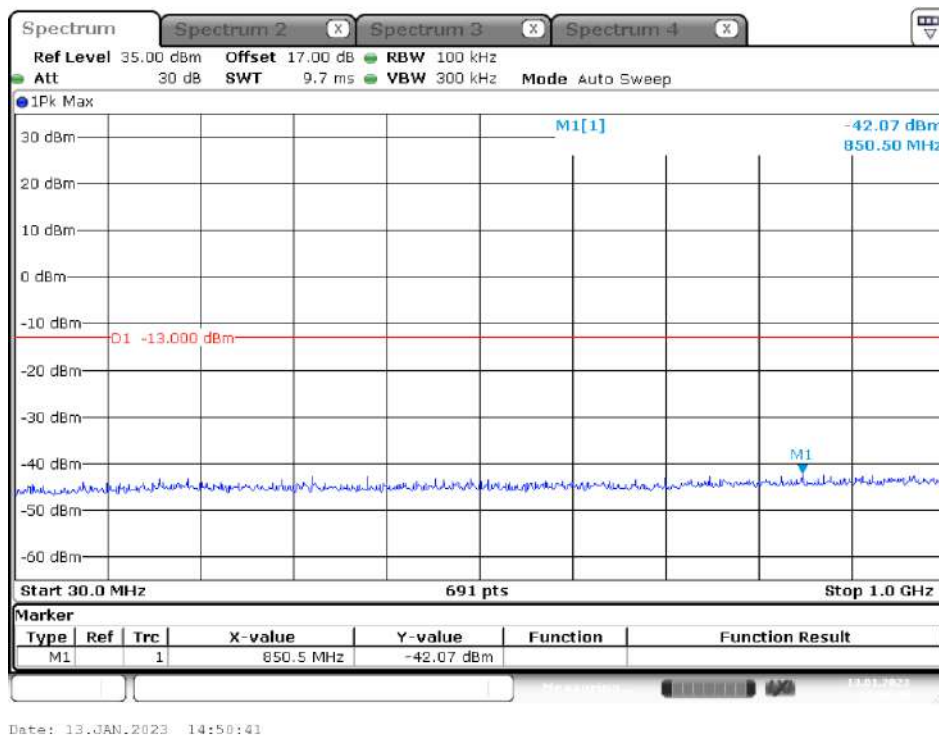
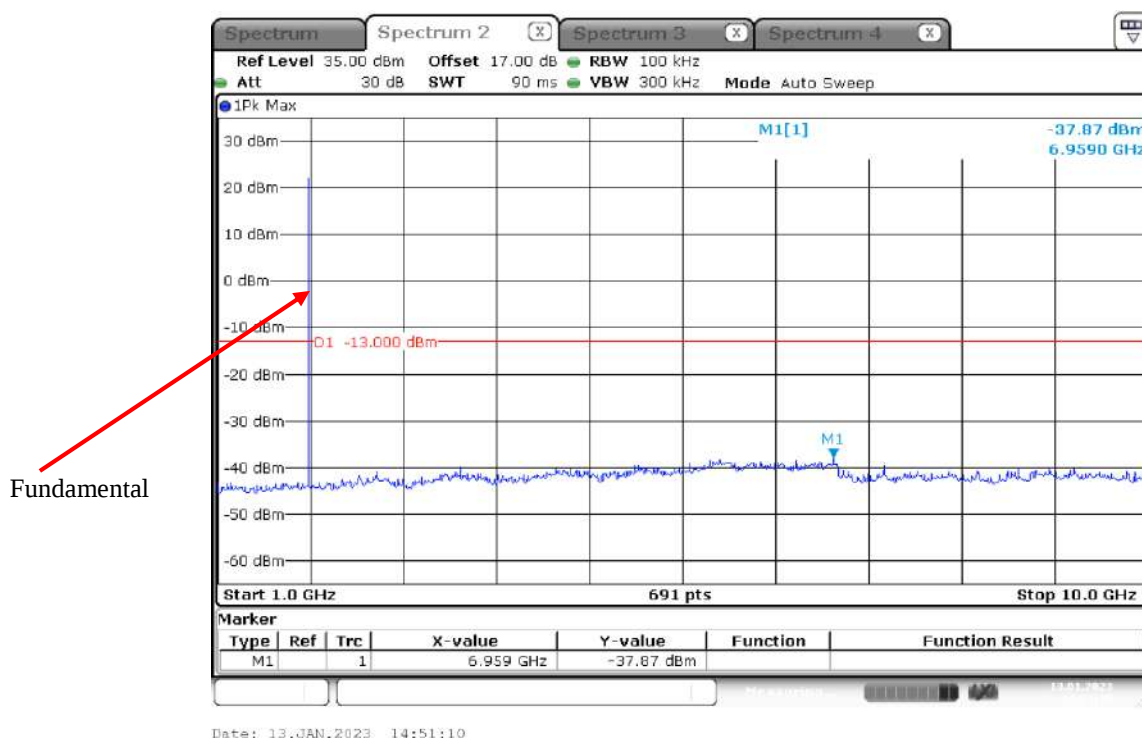


Date: 13.JAN.2023 14:46:10

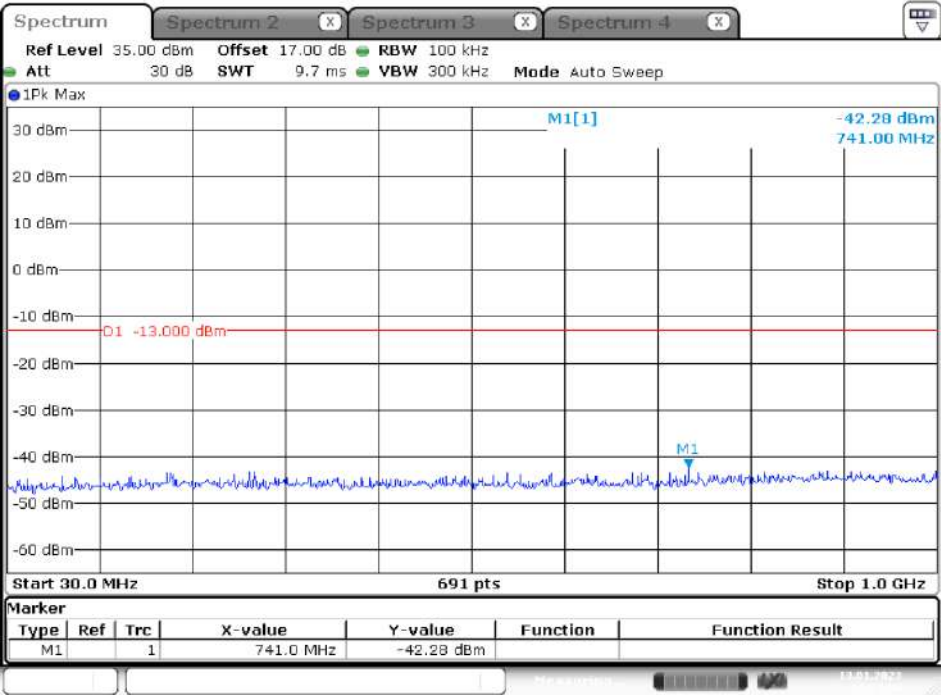
1 GHz – 20 GHz (GPRS Mode) Low Channel



Date: 13.JAN.2023 14:45:49

30 MHz – 1GHz (GPRS Mode) Middle Channel**1 GHz – 20 GHz (GPRS Mode) Middle Channel**

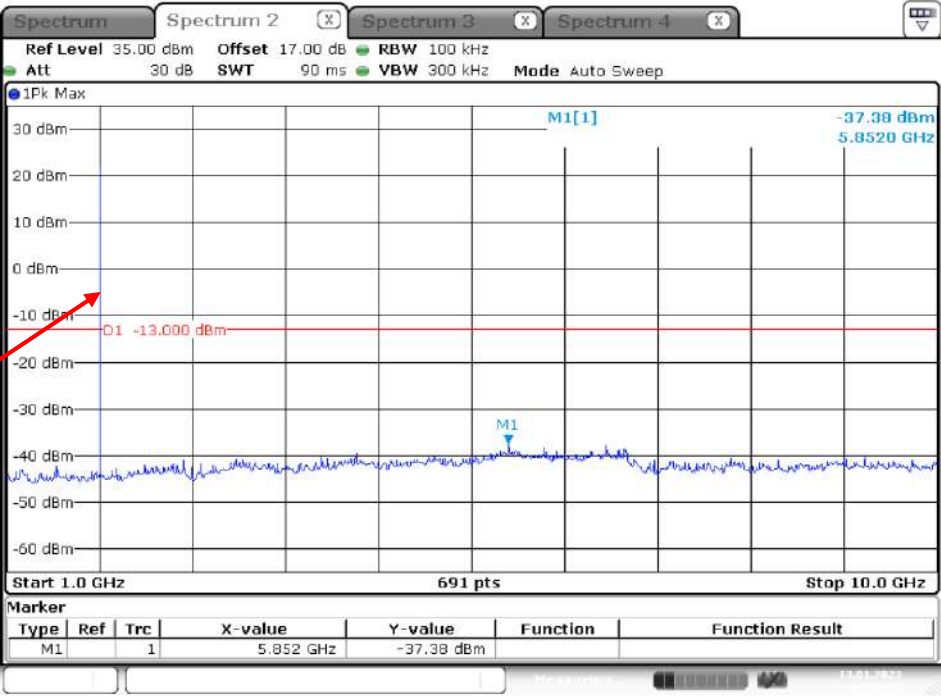
30 MHz – 1GHz (GPRS Mode) High Channel



Date: 13.JAN.2023 14:51:55

1 GHz – 20 GHz (GPRS Mode) High Channel

Fundamental



Date: 13.JAN.2023 14:51:42

13.FCC§2.1053, §22.917 & §24.238 & §27.53 – Spurious Radiated Emissions**13.1 Applicable Standard**

FCC § 2.1053, §22.917, § 24.238 and § 27.53

IC RSS-130 Issue 2 clause 4.7 RSS-132 Issue 3 clause 5.5 RSS-133 Issue 6 clause 6.5 RSS-139 Issue 3 clause 6.6

13.2 Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to tenth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

ANSI C63.26-2015 the defined surrogate measurement reproduces the EUT's emission in a two-stage measurement using a well-characterized transmission path. The EUT's transmissions are replicated using alternate antenna settings and the transmit power is calculated using the known characteristics of each transmit's transmit path.

This alternative method uses the same well-characterized transmit path to establish a reference radiated power chosen by the tester to characterize the path loss from the transmit antenna to the measurement receiver. This allows calculation of correction factors that can be used to directly determine EUT emissions without having to perform two-stage measurements for each emissions.

EUT emissions correction = S.G.

S.G = Result + Cable loss - Antenna gain

Spurious emissions in dB = 10 lg (TX pwr in Watts/0.001) – the absolute level

Spurious attenuation limit in dB = 43 + 10 Log10 (power out in Watts)

Test Mode: Transmitting

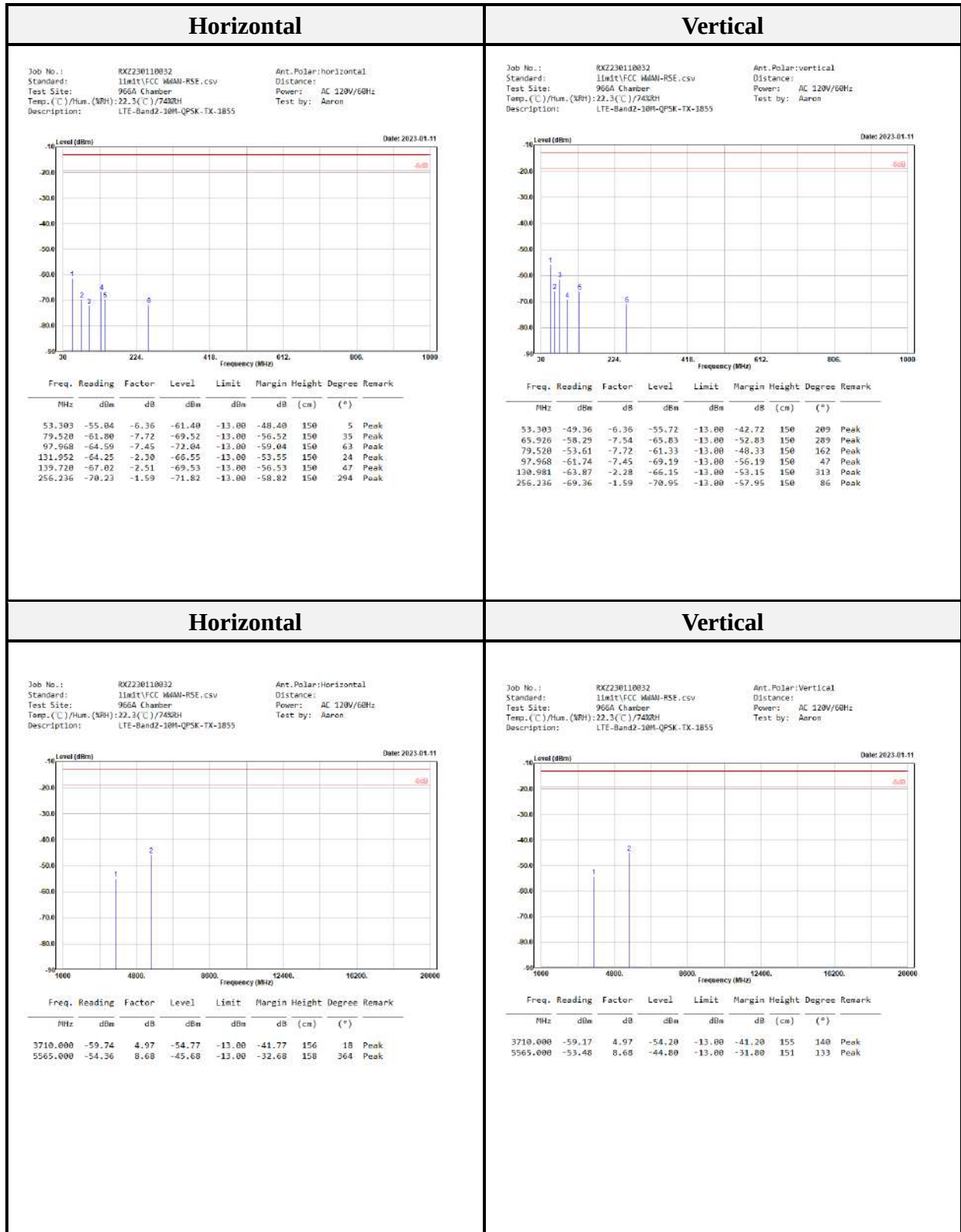
(Worst case is Resource Block & RB offset : RB1#0)

Pre-scan with all the bandwidth, worse case as below:

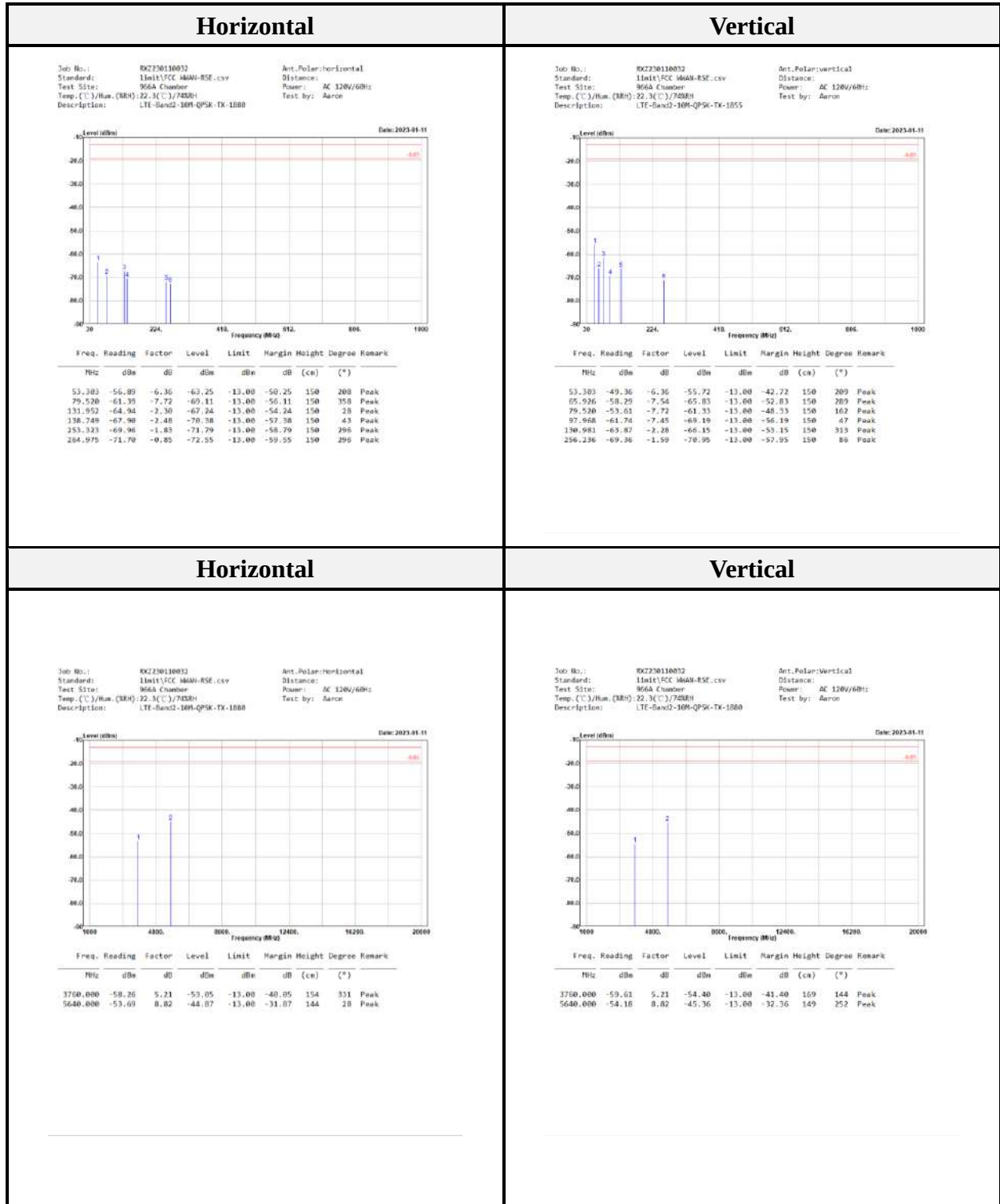
Pre-scan with all the bandwidth, worse case as below:

LTE Band 2

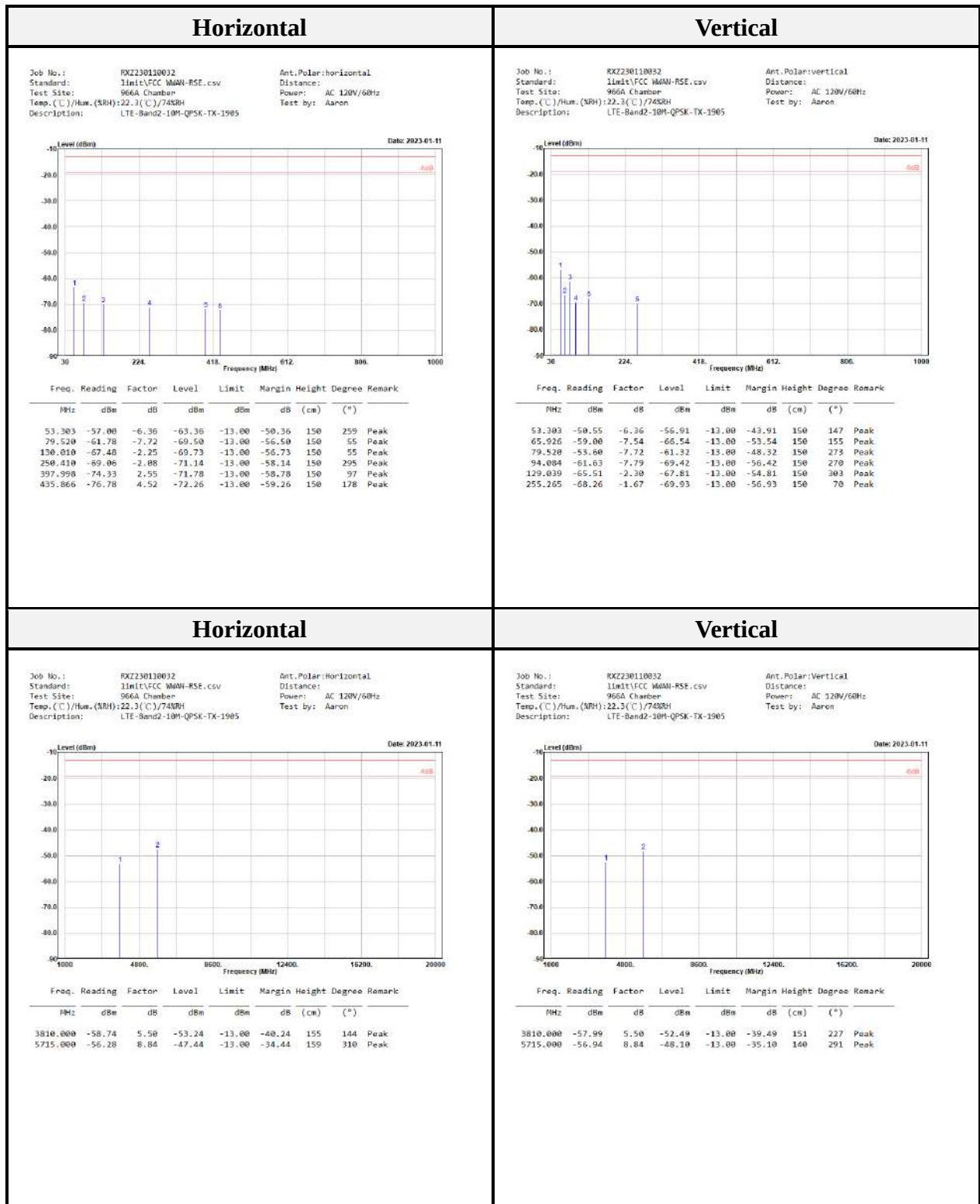
20M-QPSK-LOW CHANNEL



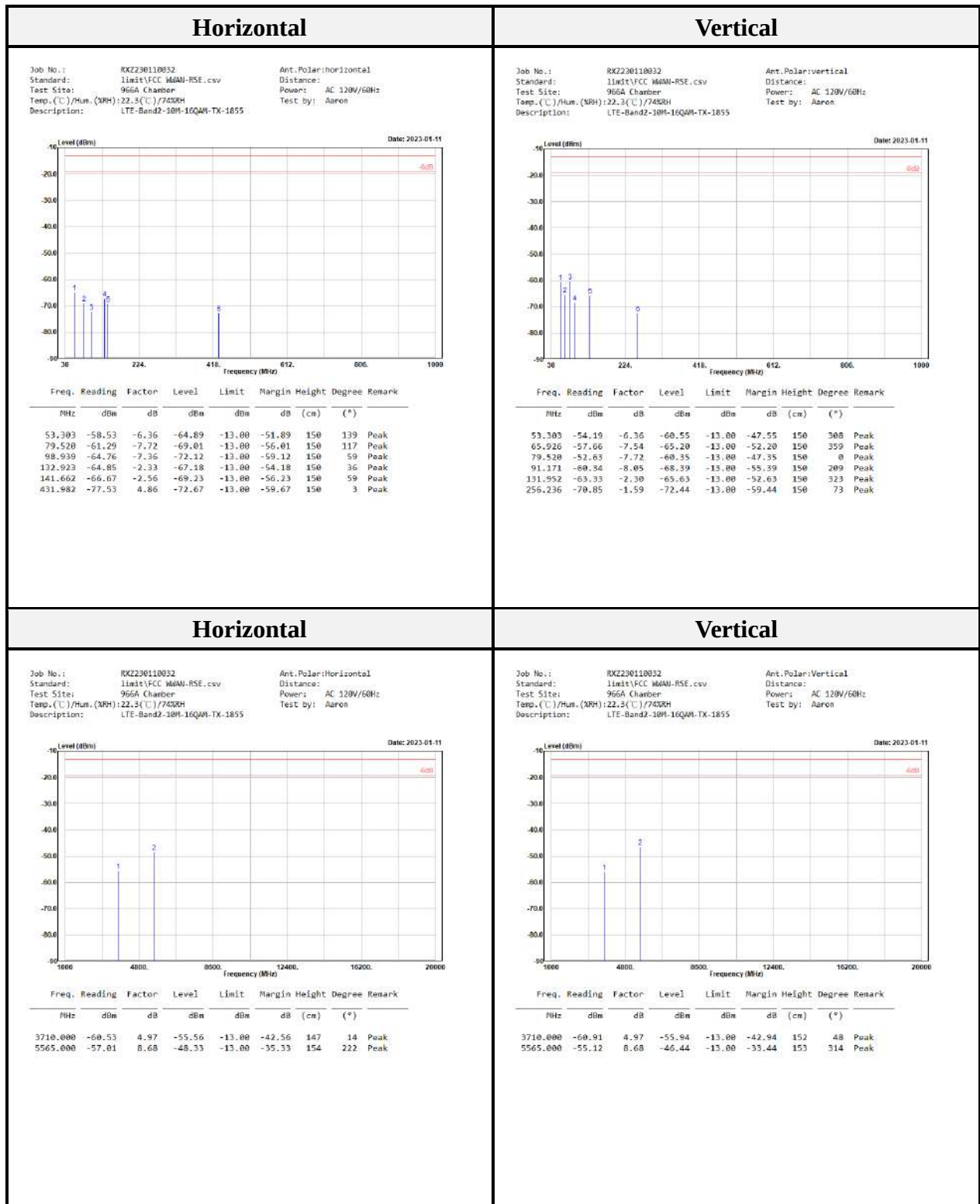
20M-QPSK-MIDLE CHANNEL



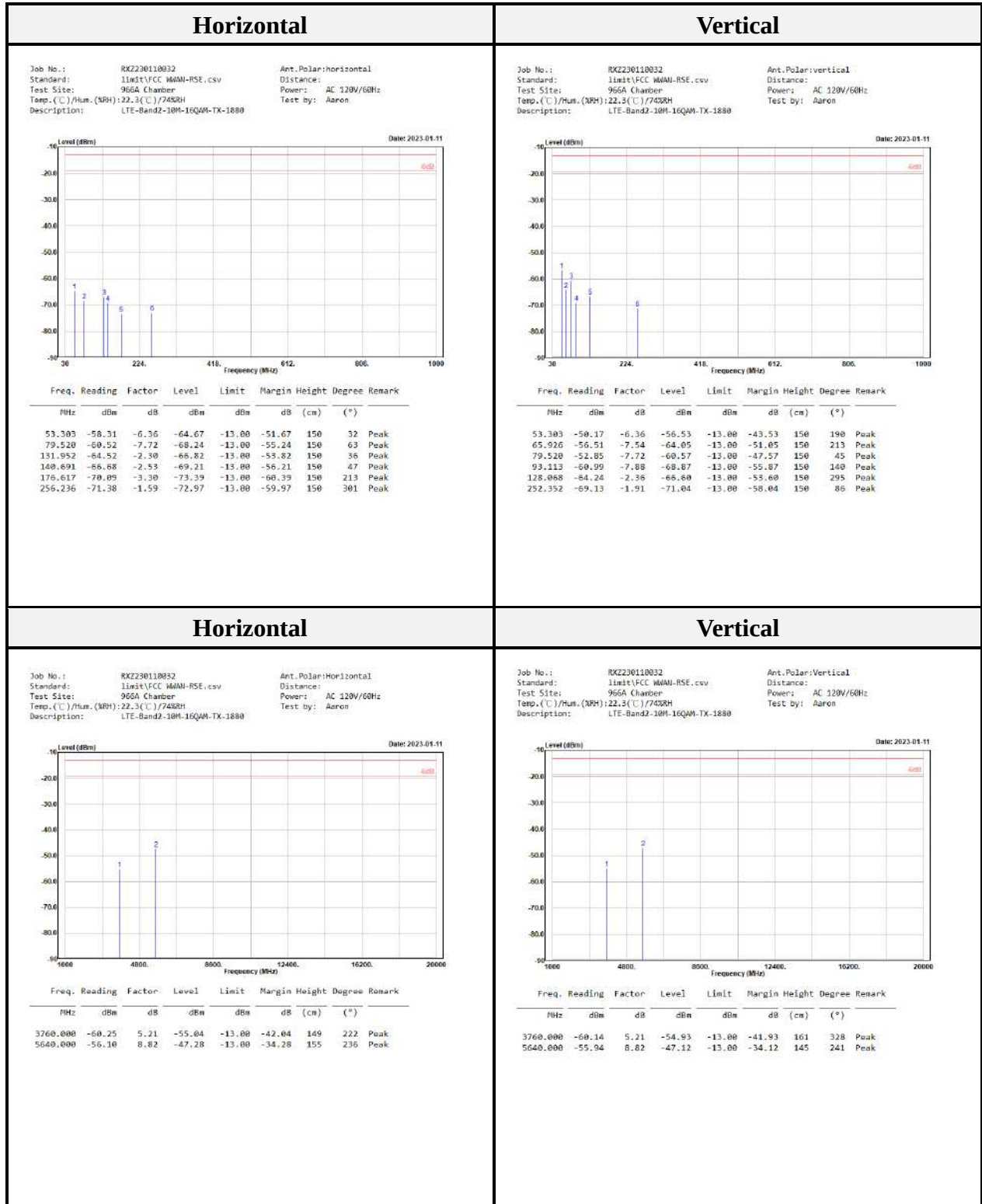
20M-QPSK-HIGH CHANNEL



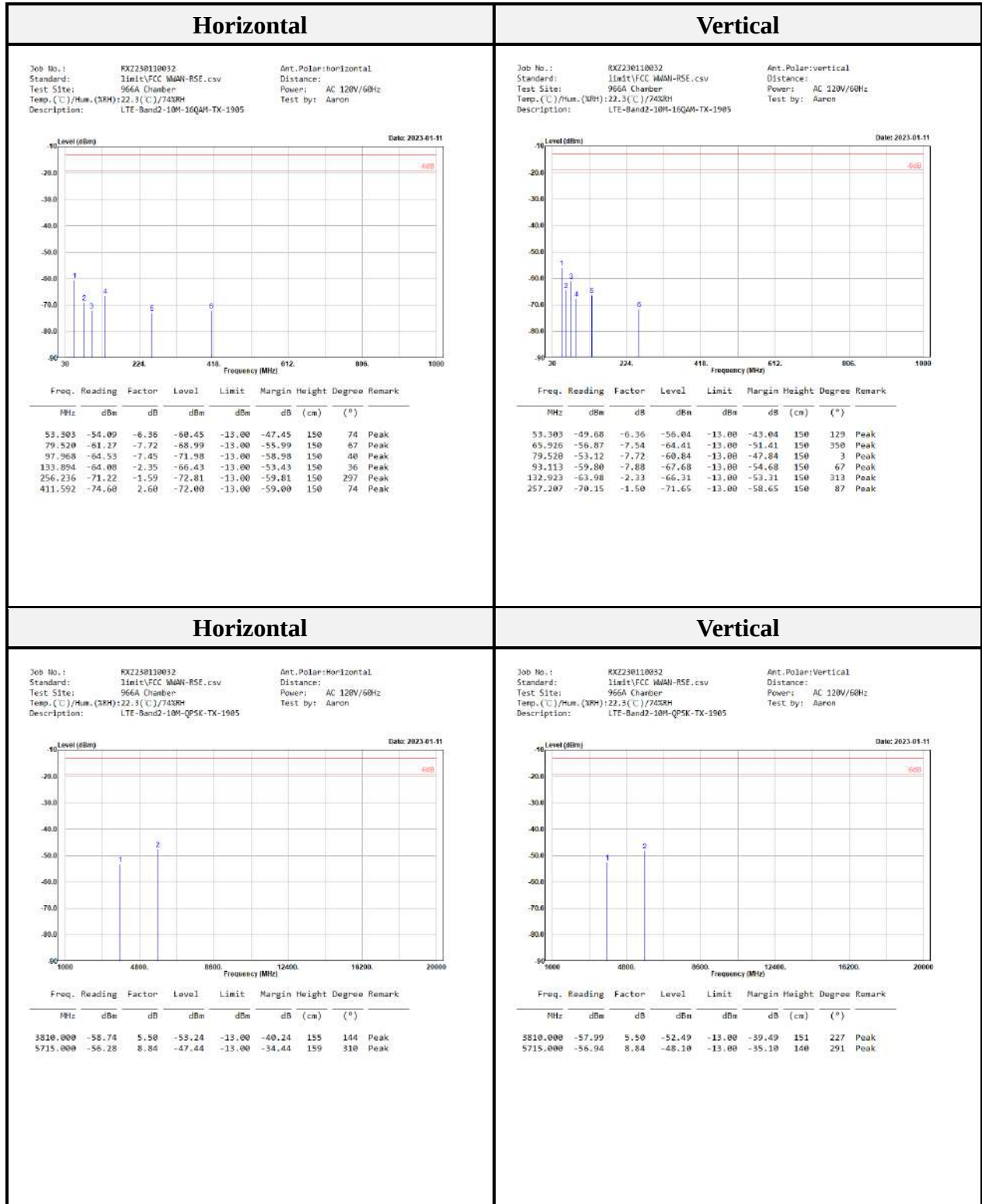
20M-16QAM-LOW CHANNEL



20M-16QAM-MIDLE CHANNEL

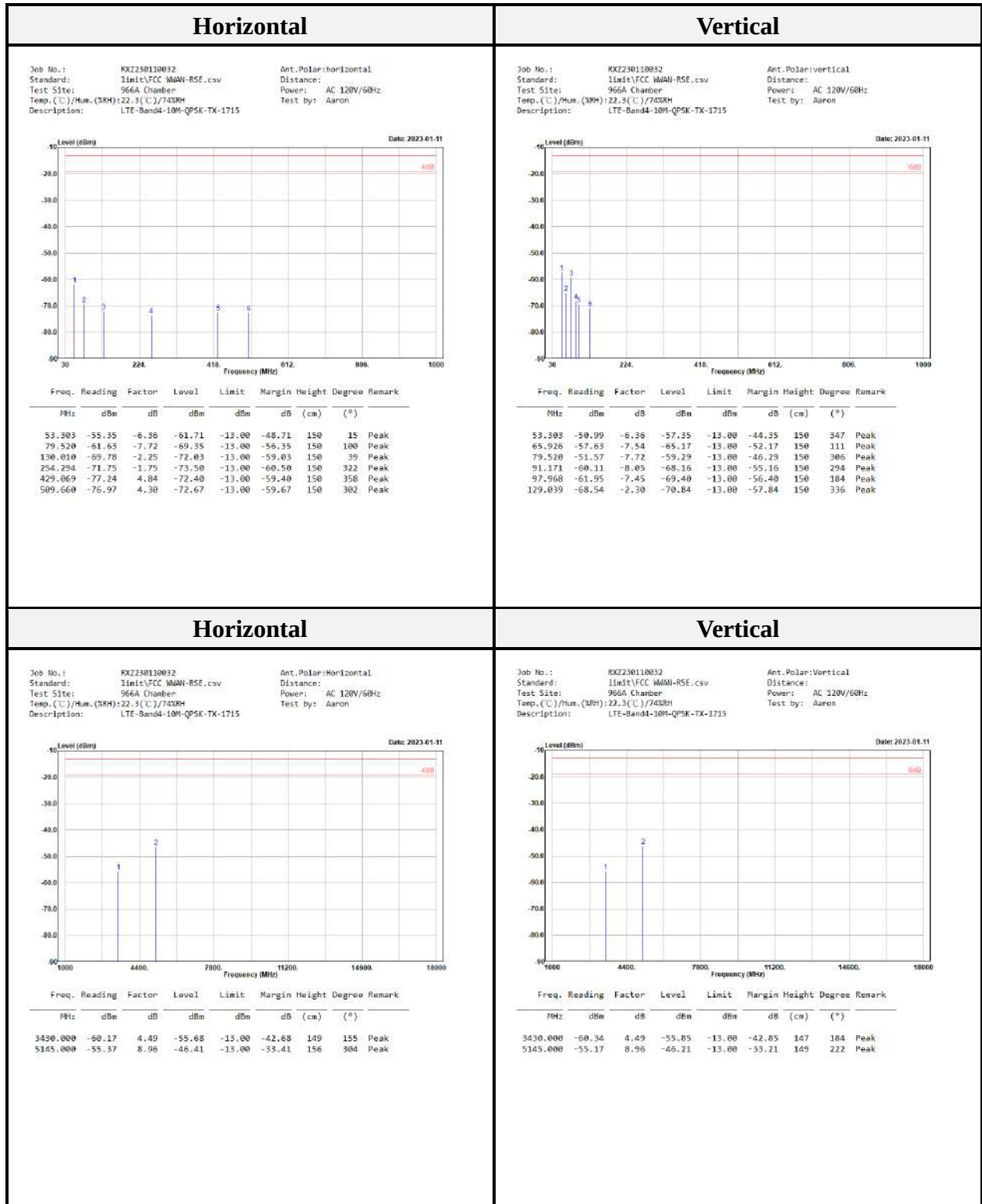


20M-16QAM-HIGH CHANNEL

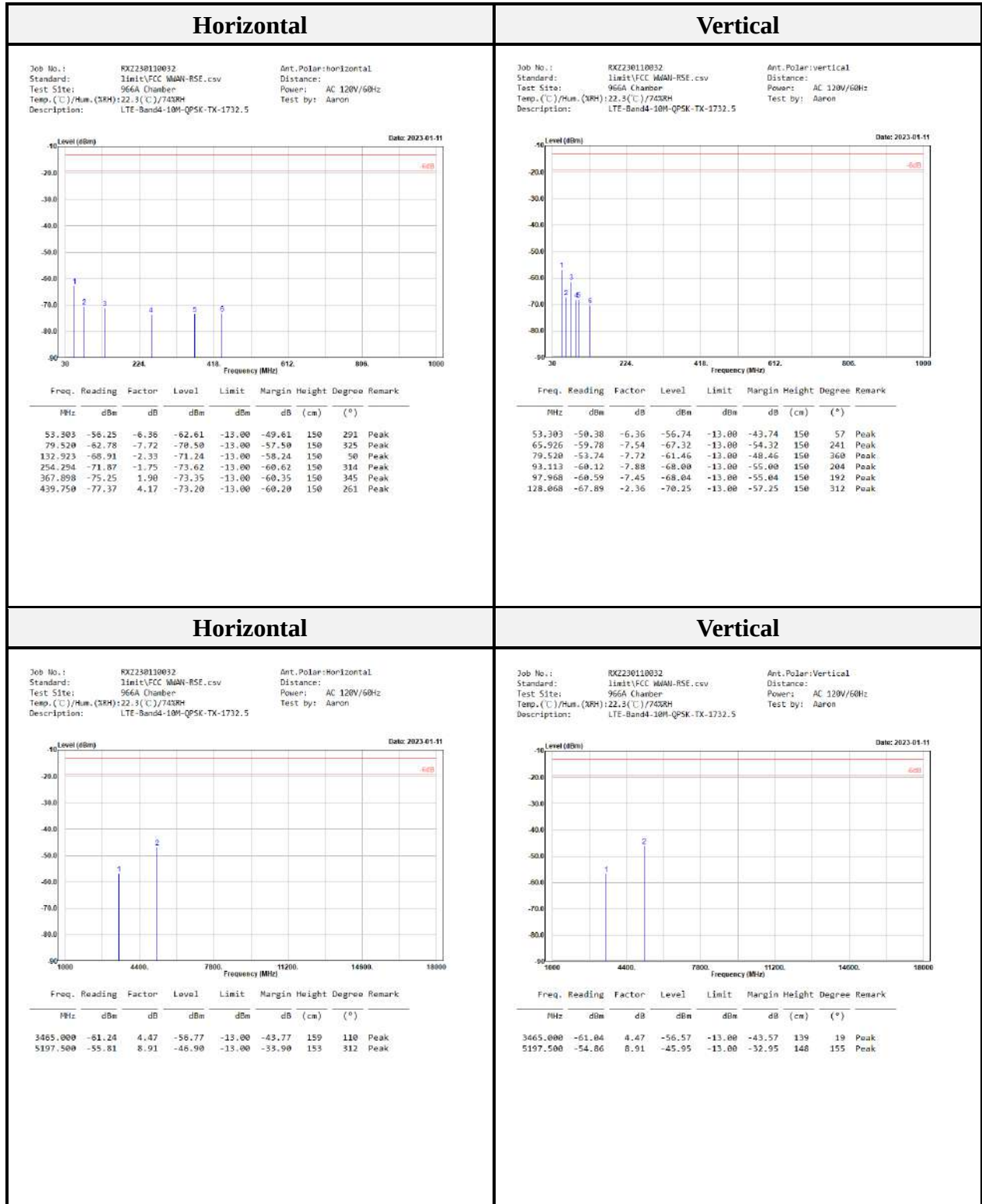


LTE Band 4

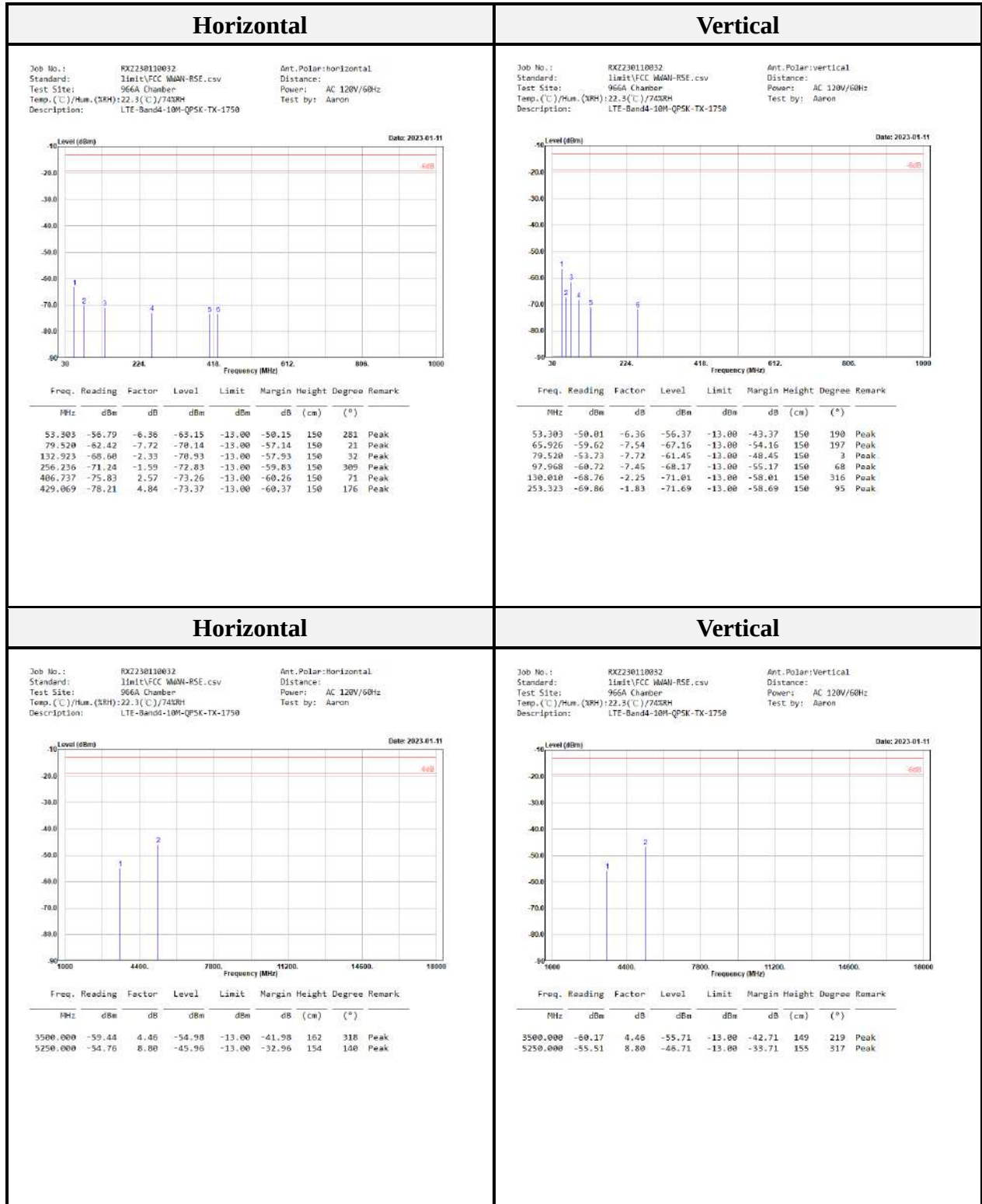
20M-QPSK-LOW CHANNEL



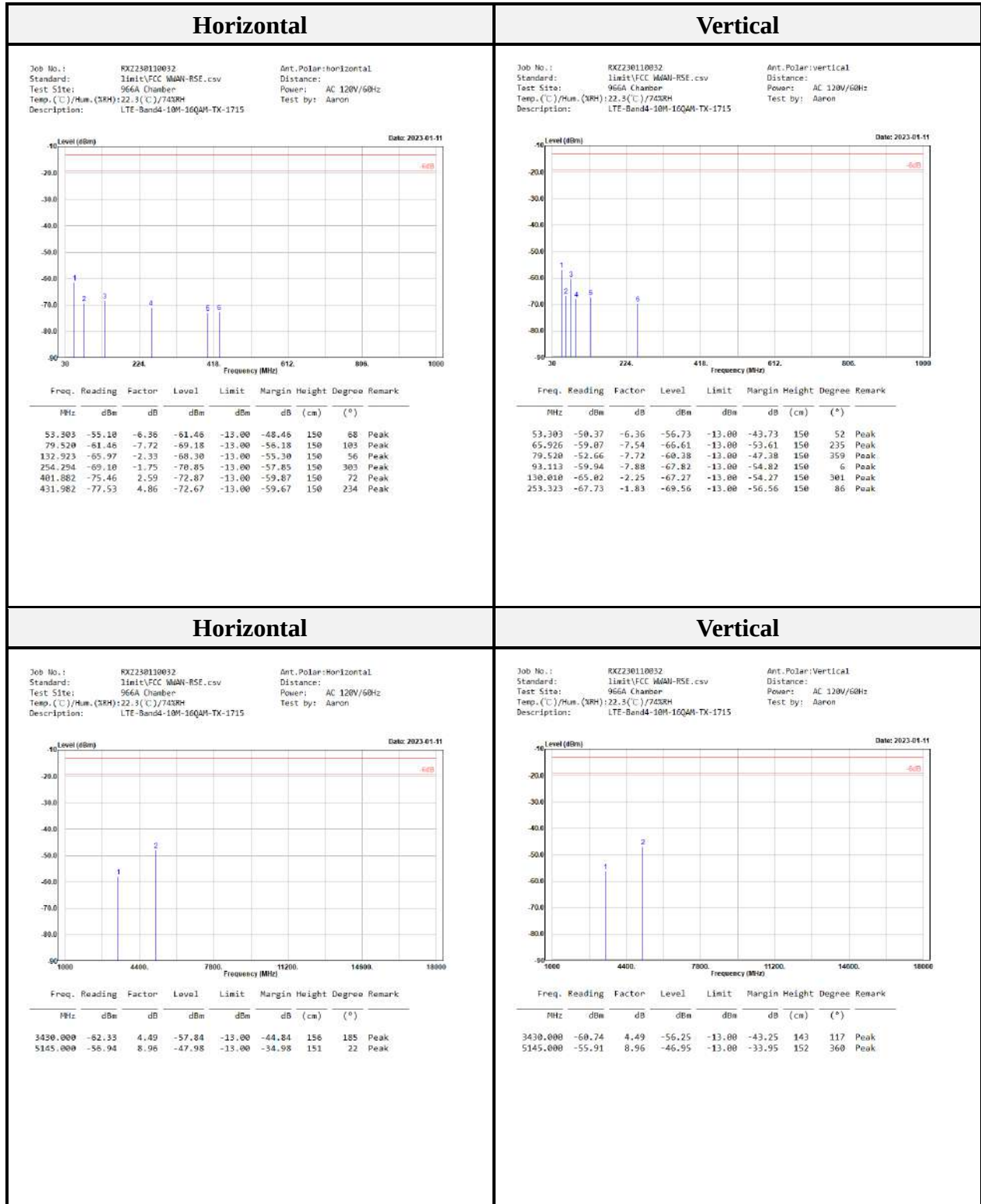
20M-QPSK- MIDDLE CHANNEL



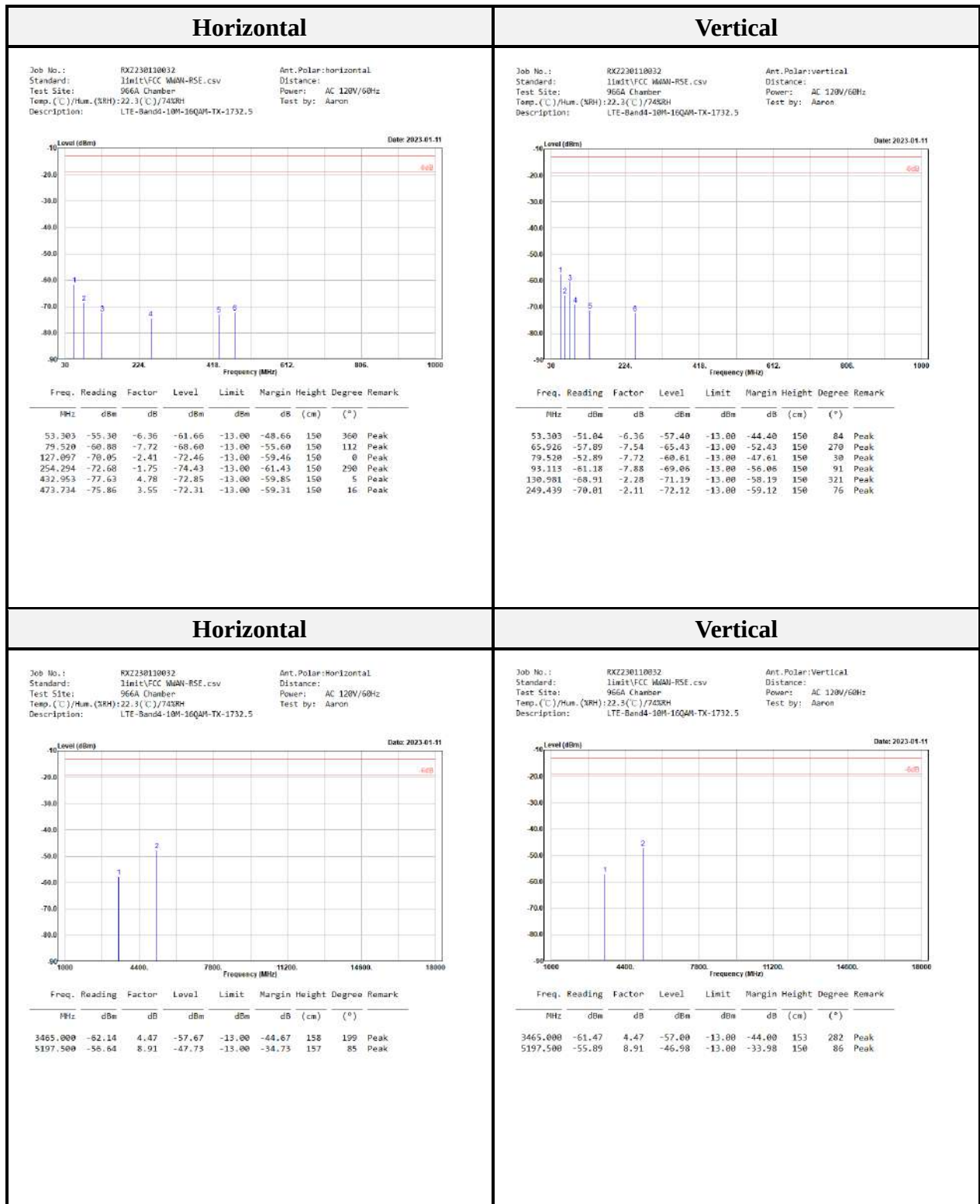
20M-QPSK- HIGH CHANNEL



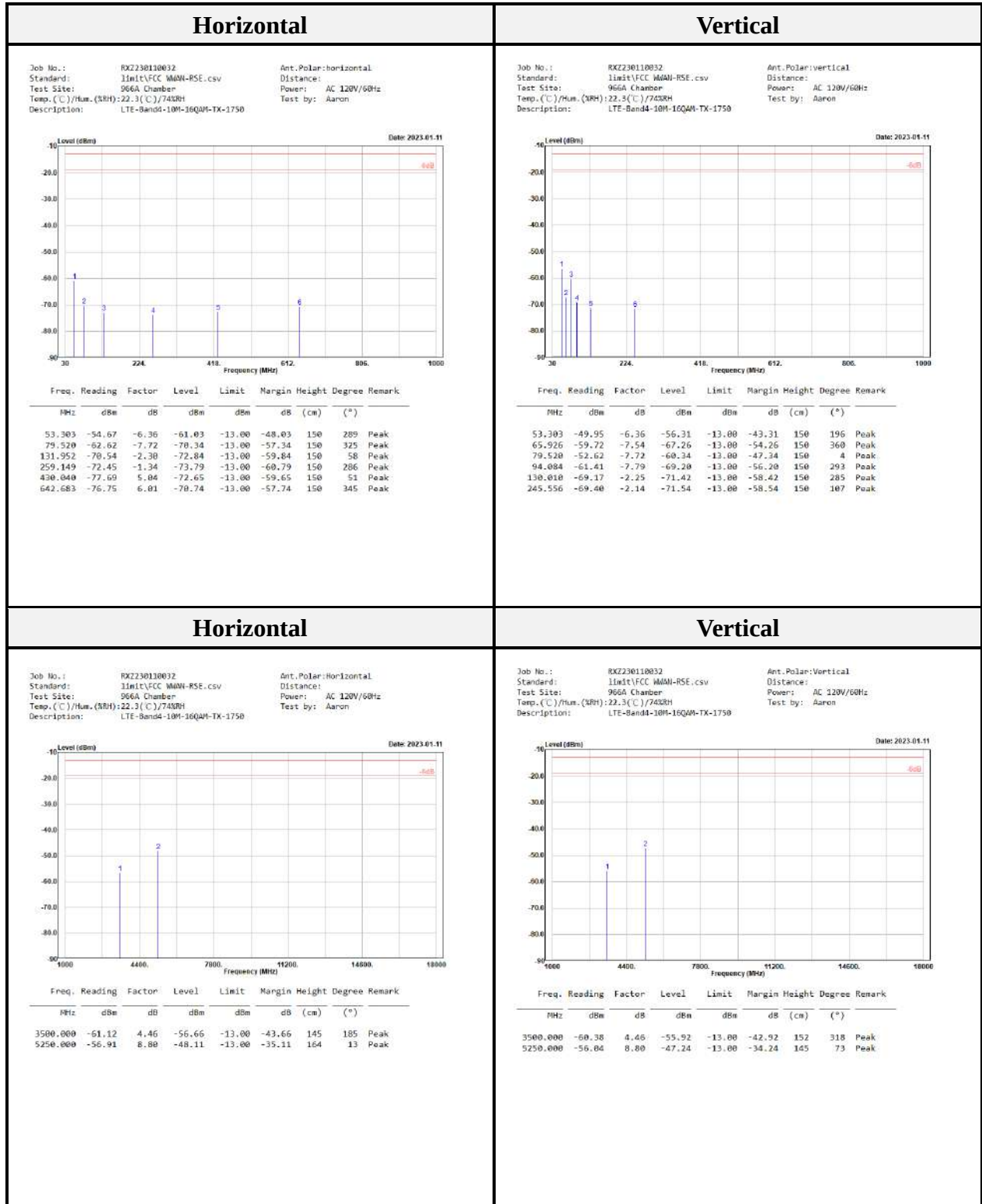
20M-16QAM-LOW CHANNEL



20M-16QAM- MIDDLE CHANNEL

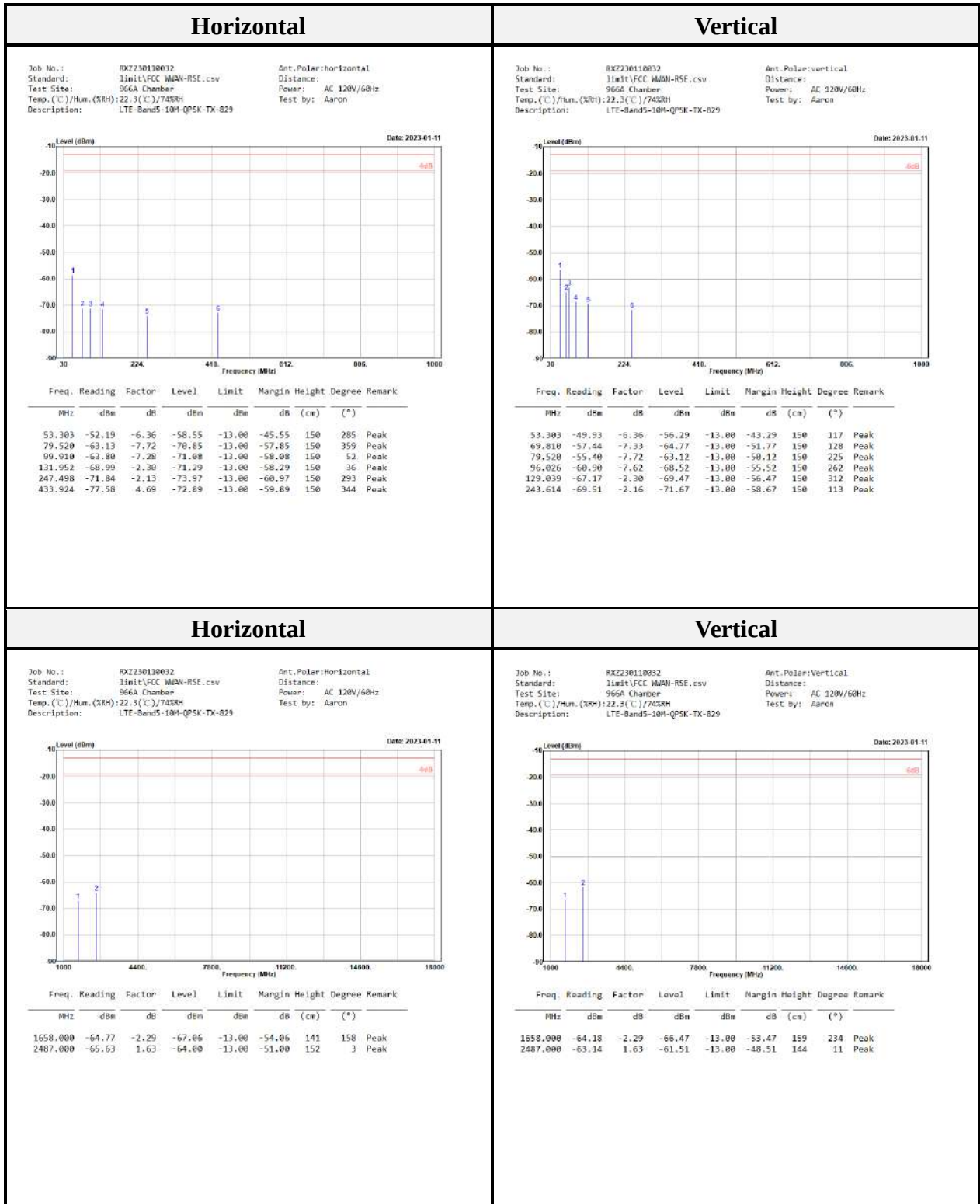


20M-16QAM- HIGH CHANNEL

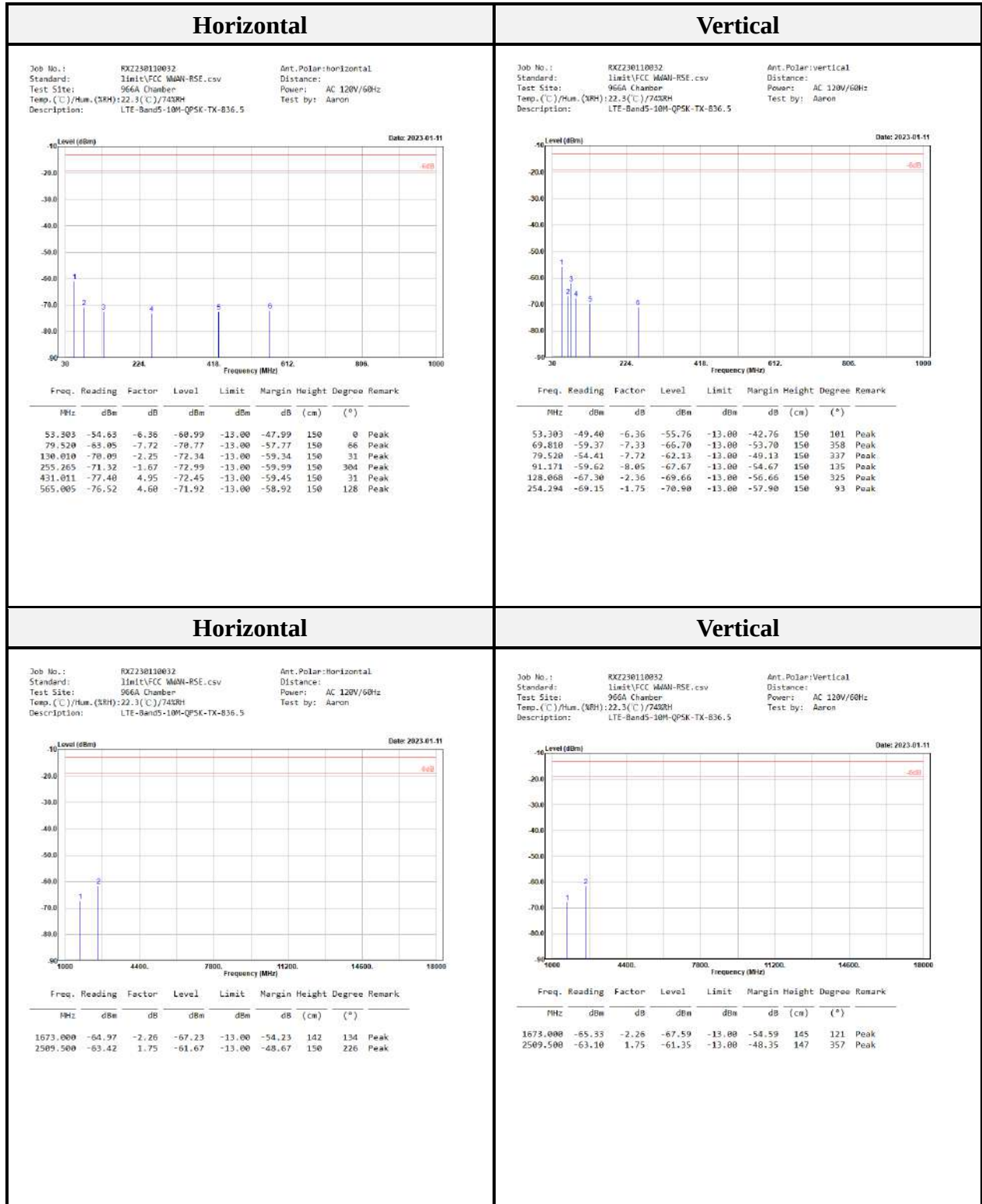


LTE Band 5

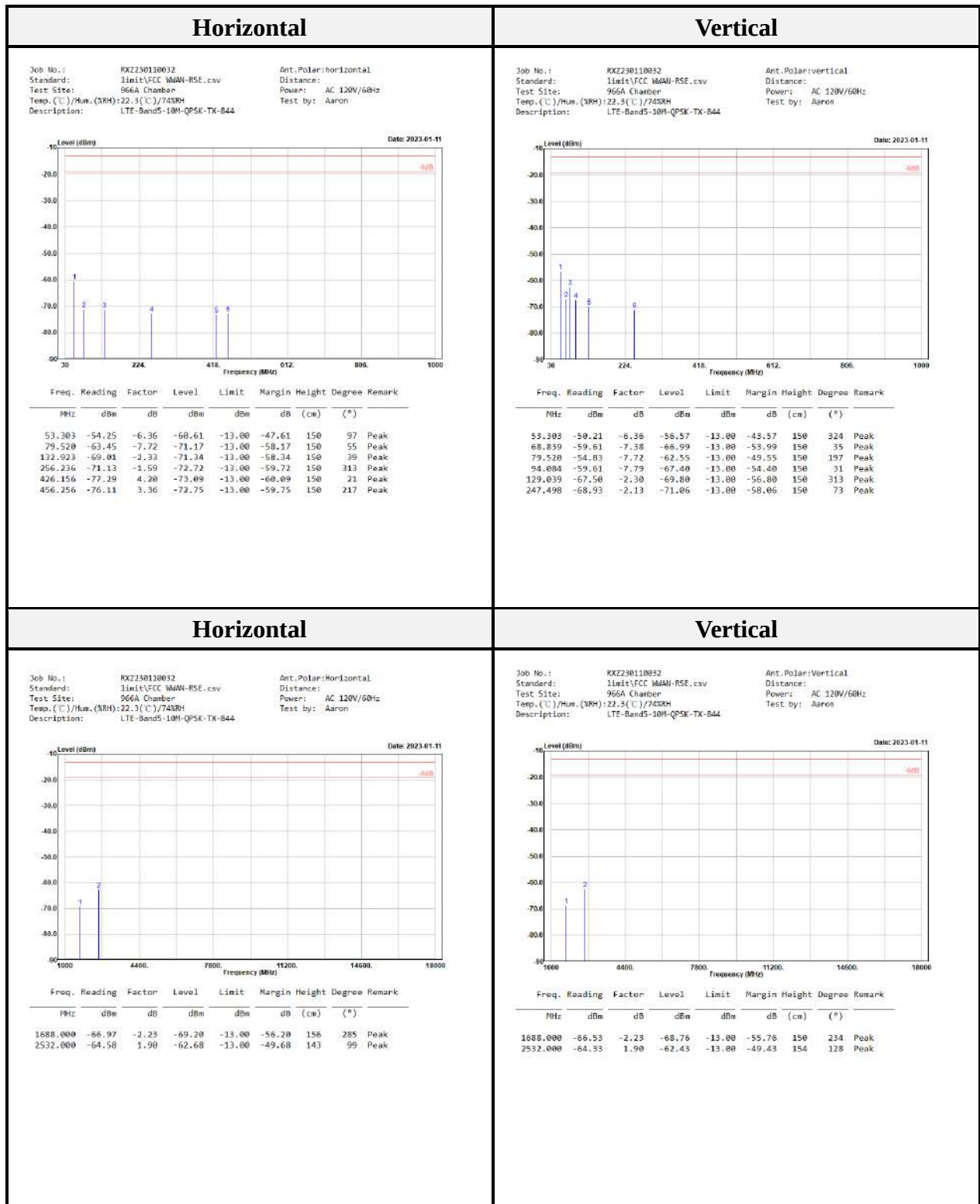
10M-QPSK-LOW CHANNEL



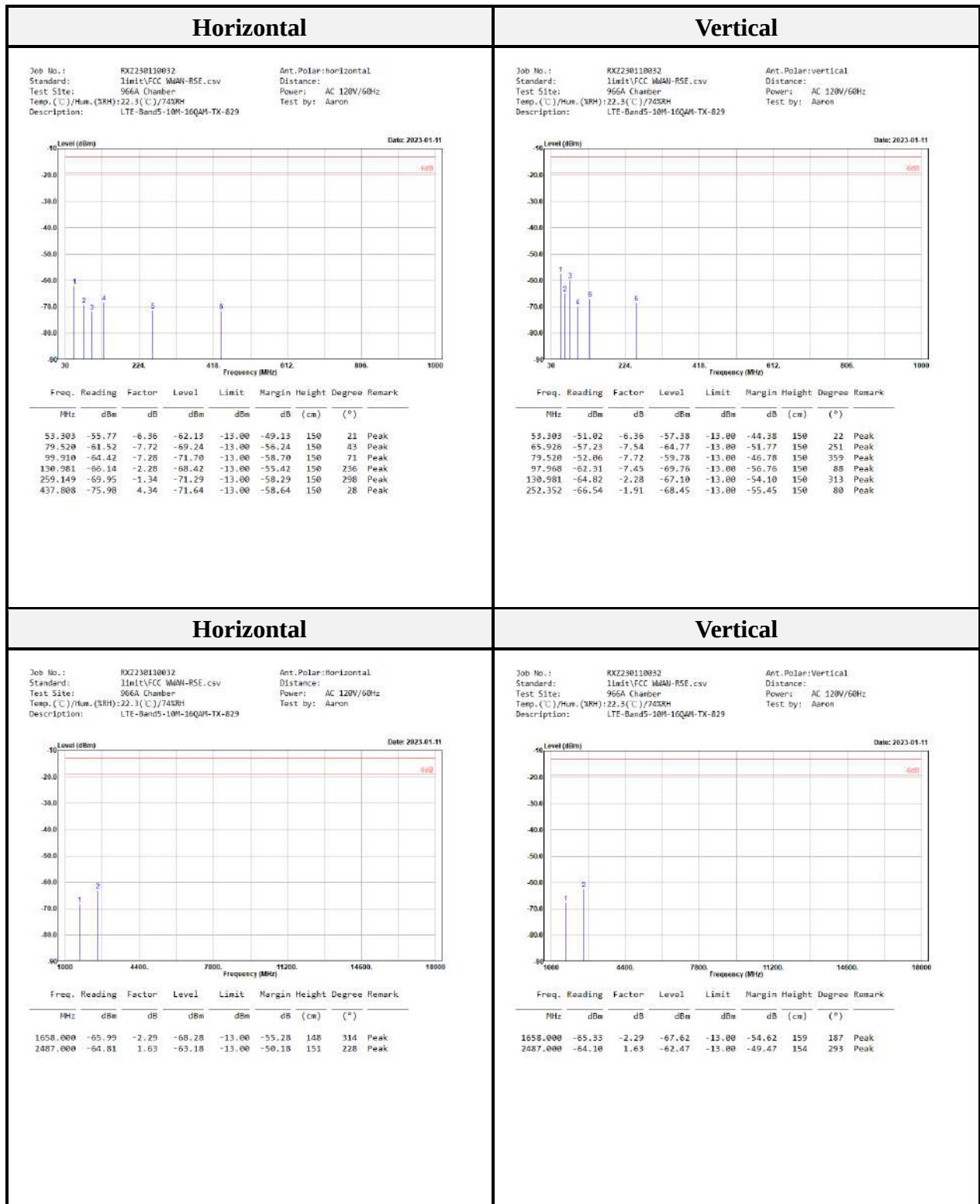
10M-QPSK- MIDDLE CHANNEL



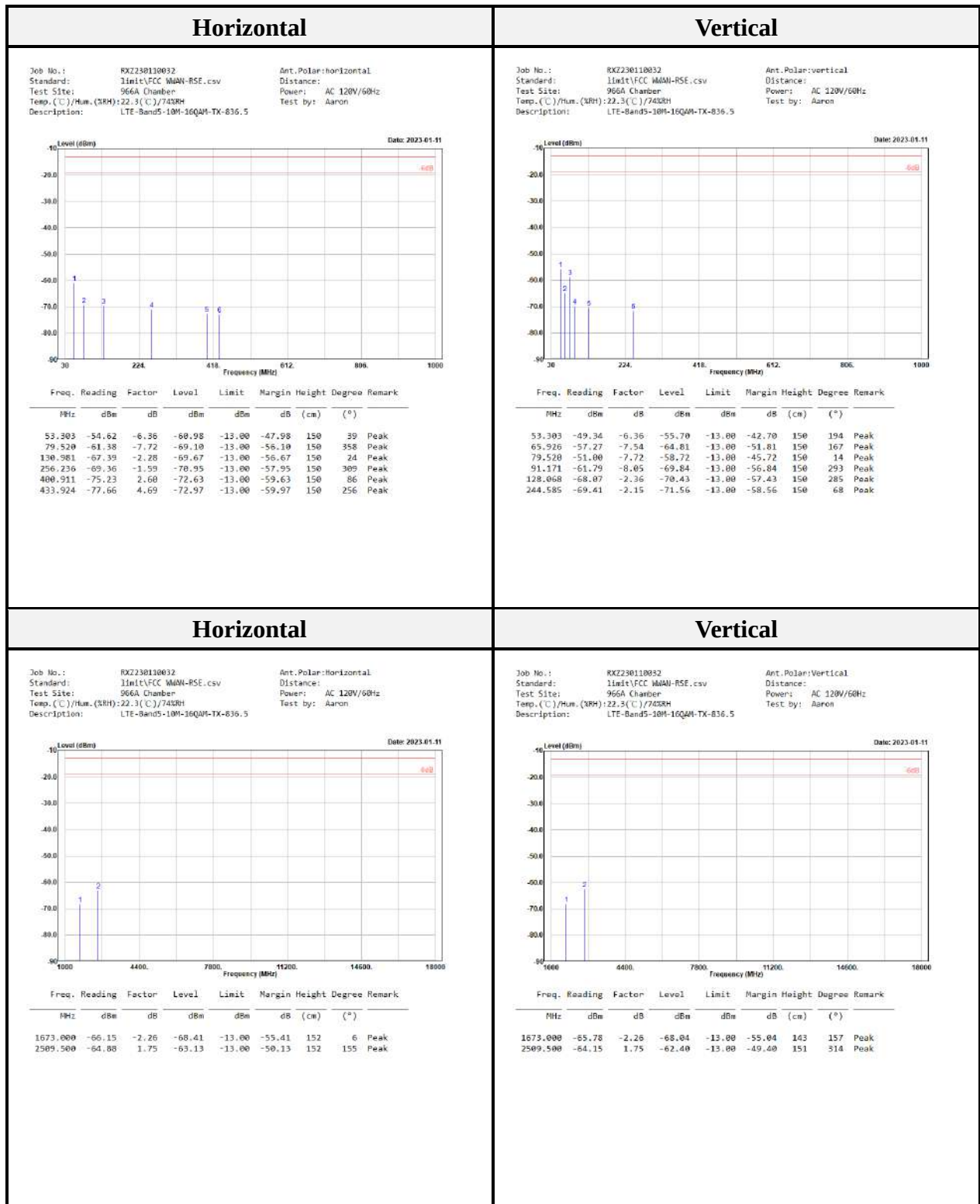
10M-QPSK-HIGH CHANNEL



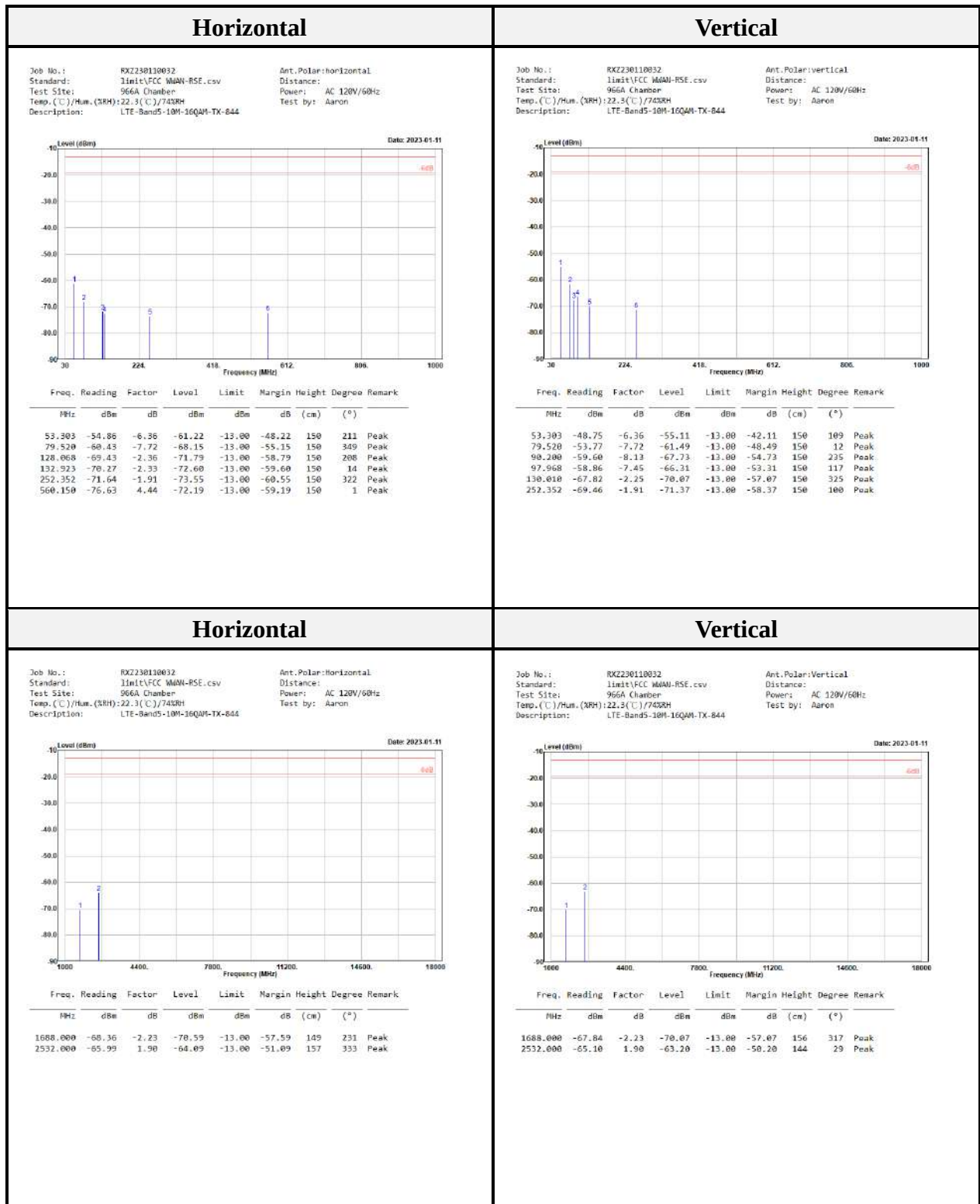
10M-16QAM-LOW CHANNEL



10M-16QAM- MIDDLE CHANNEL

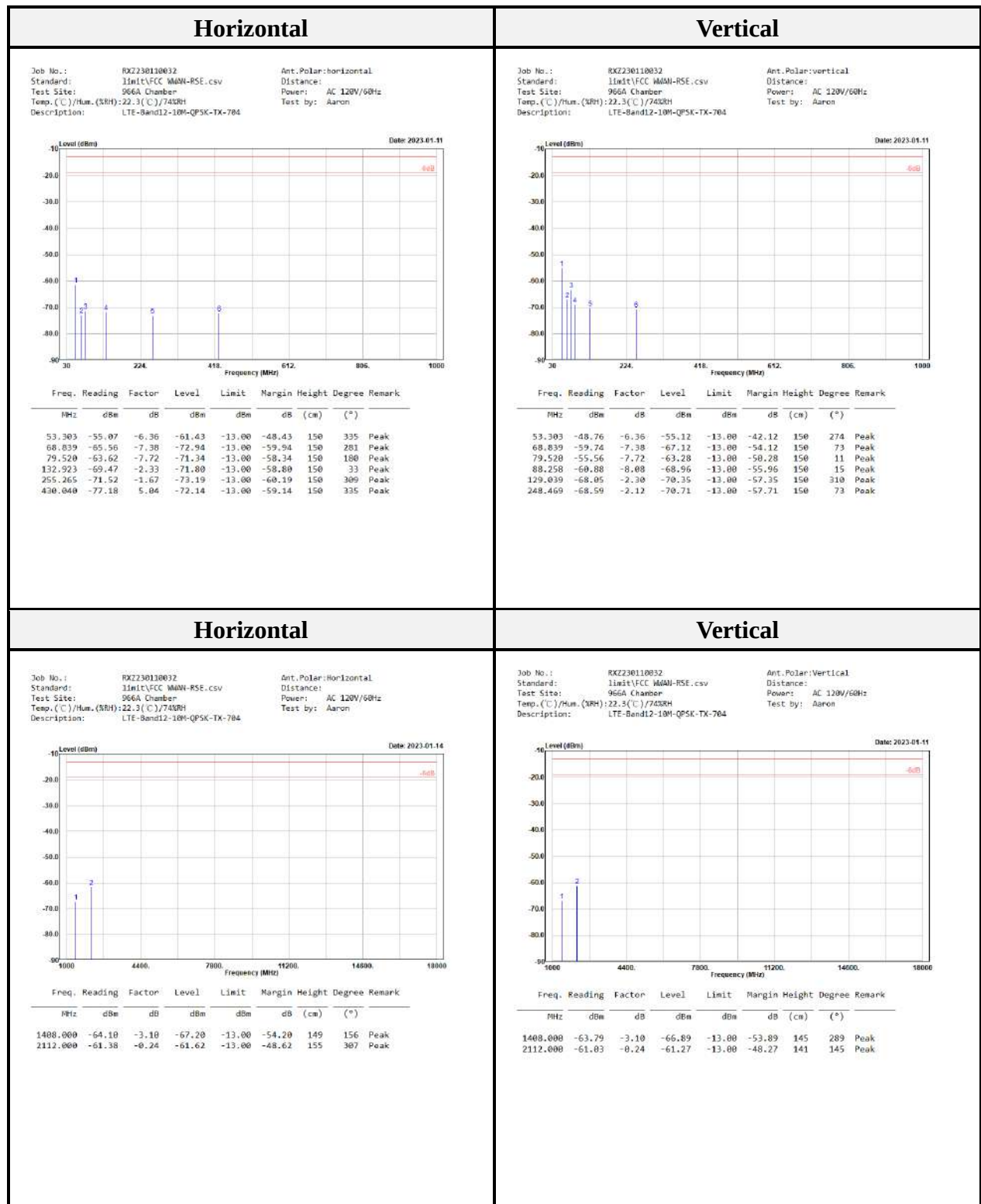


10M-16QAM-HIGH CHANNEL

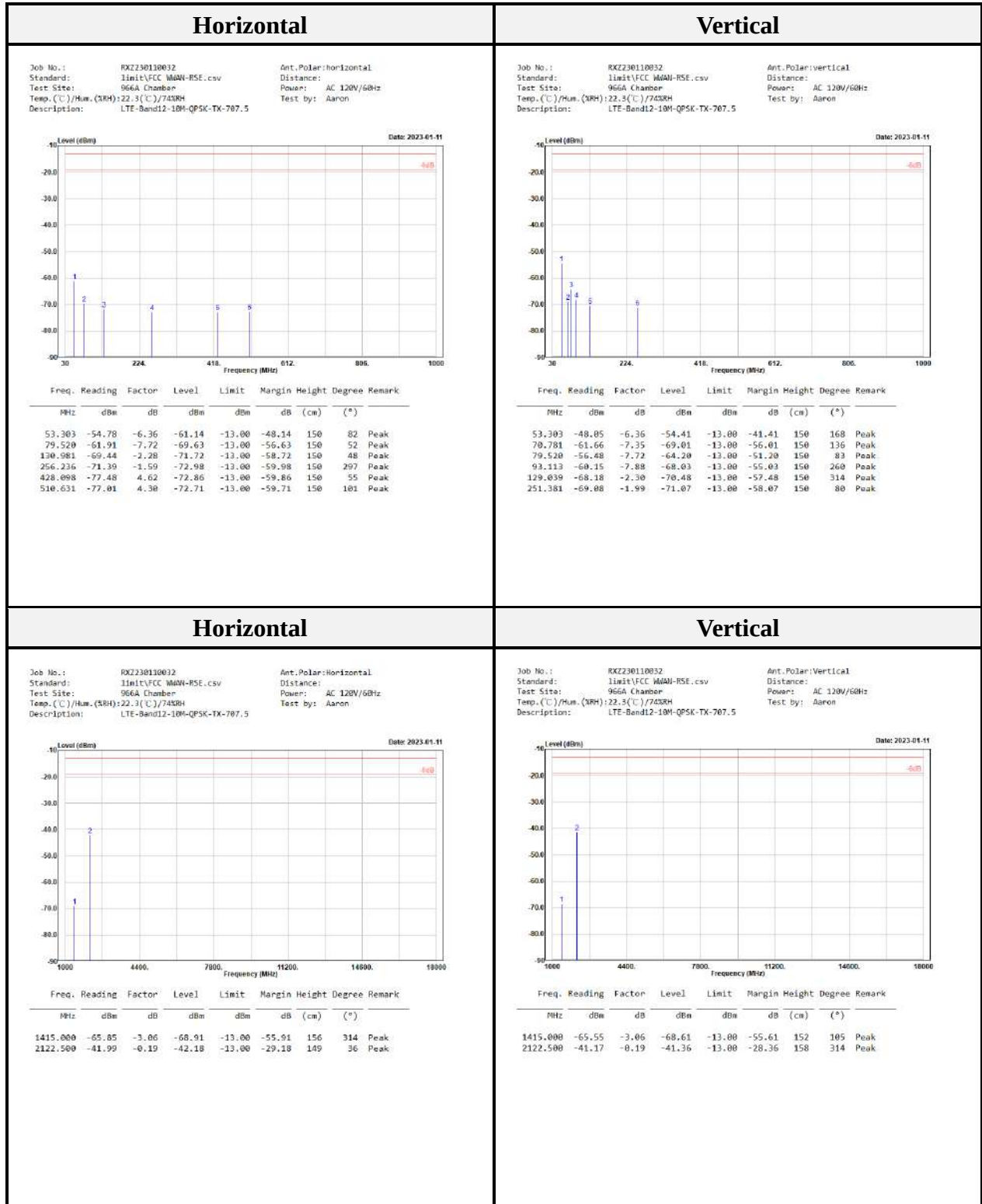


LTE Band 12

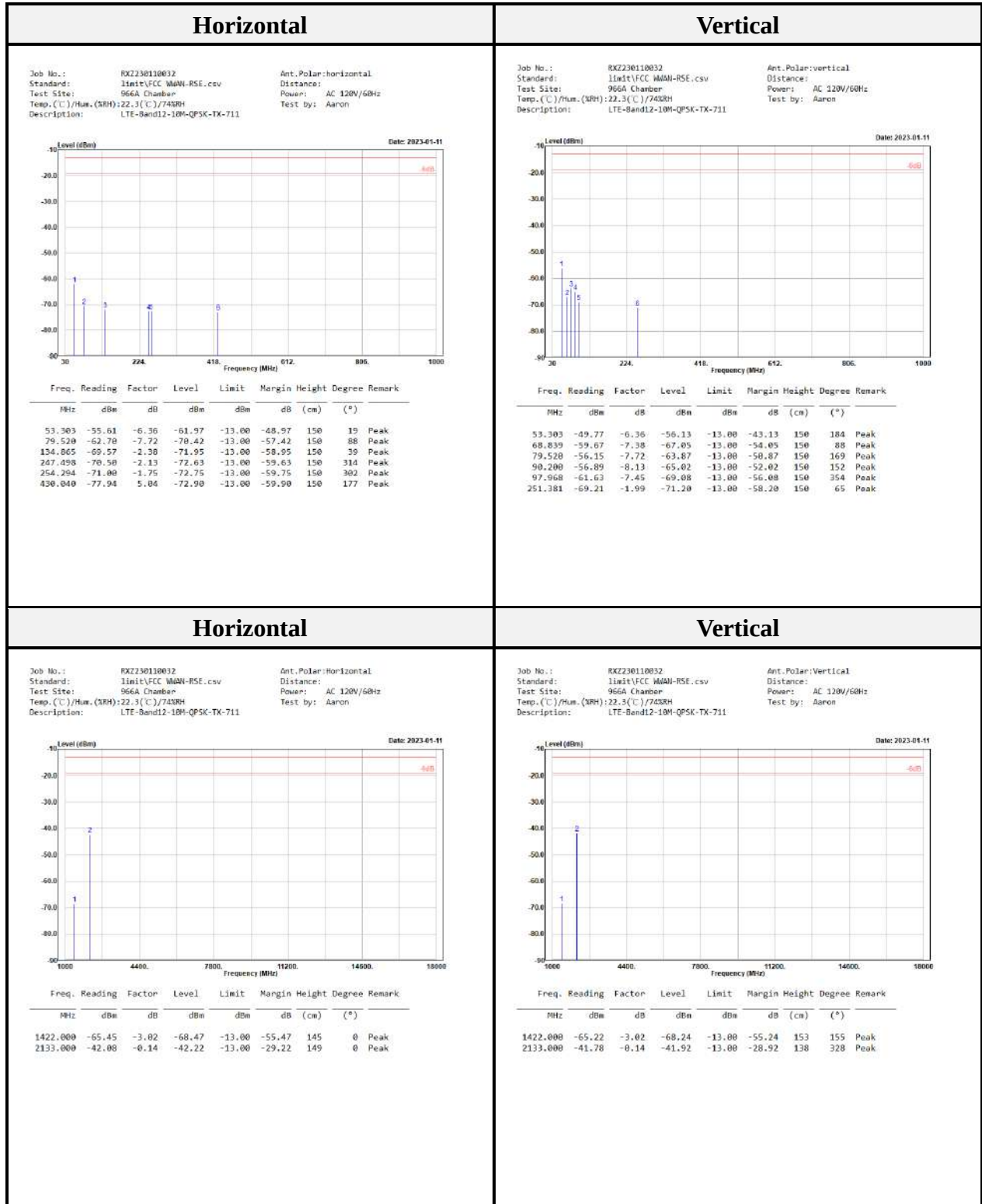
10M-QPSK-LOW CHANNEL



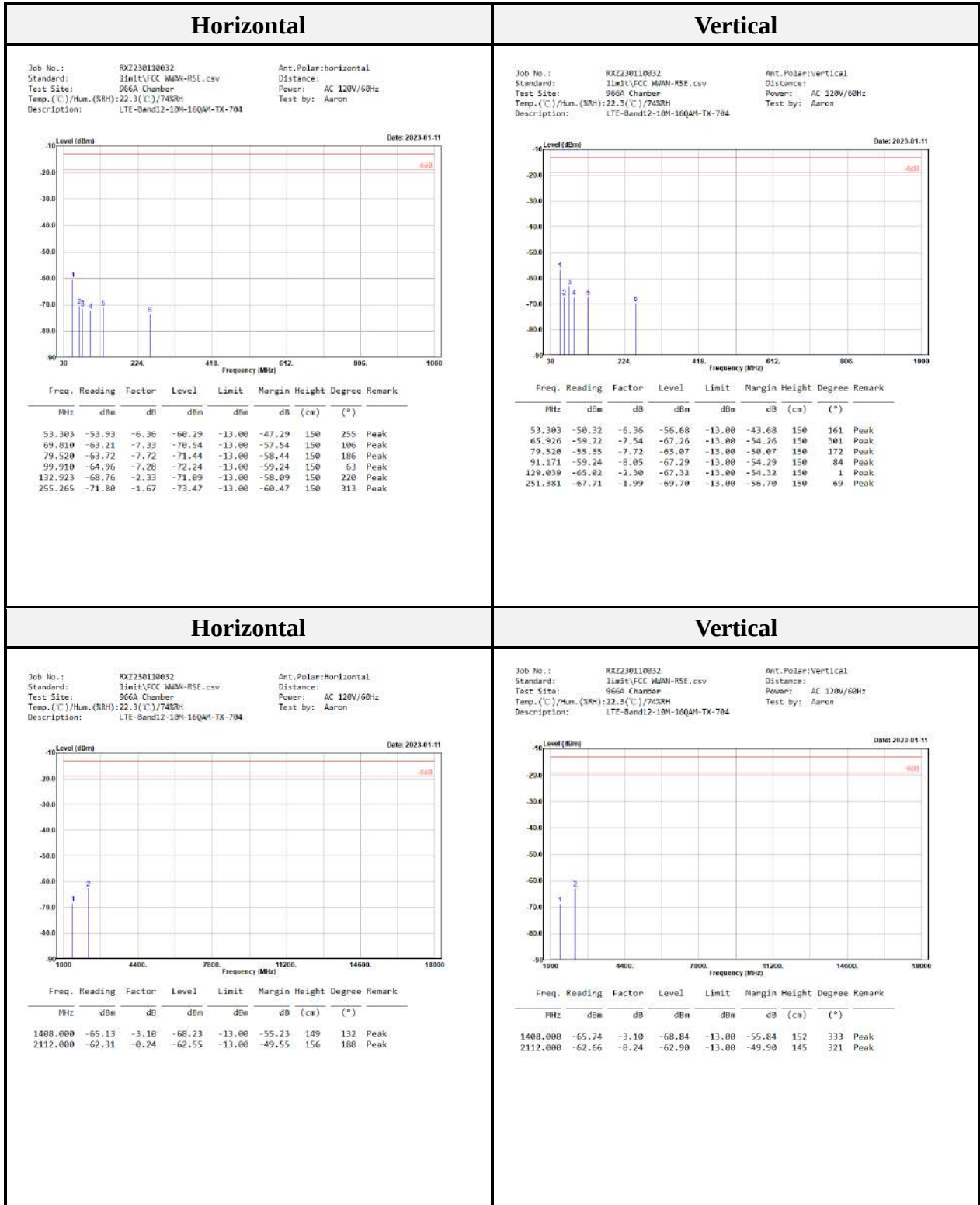
10M-QPSK- MIDDLE CHANNEL



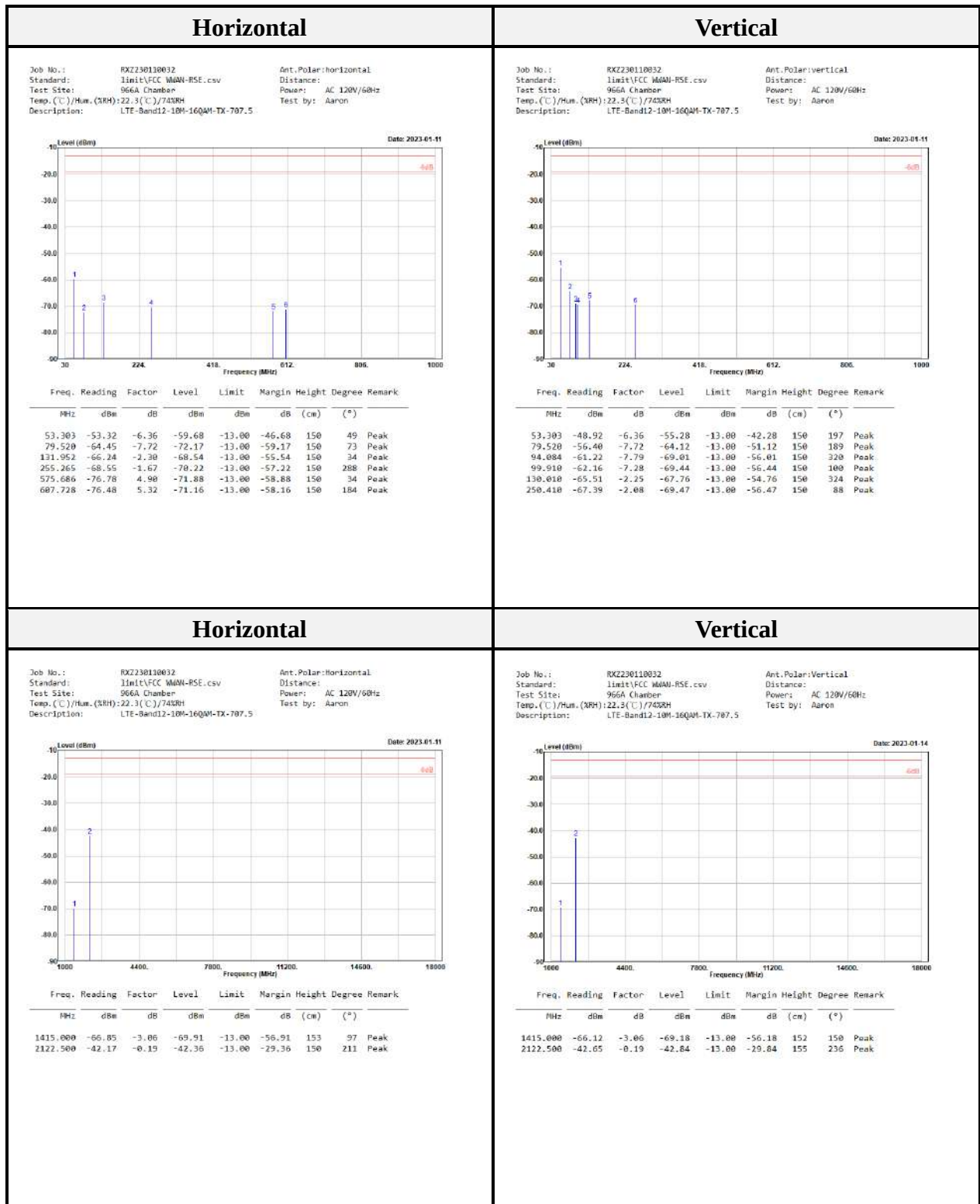
10M-QPSK- HIGH CHANNEL



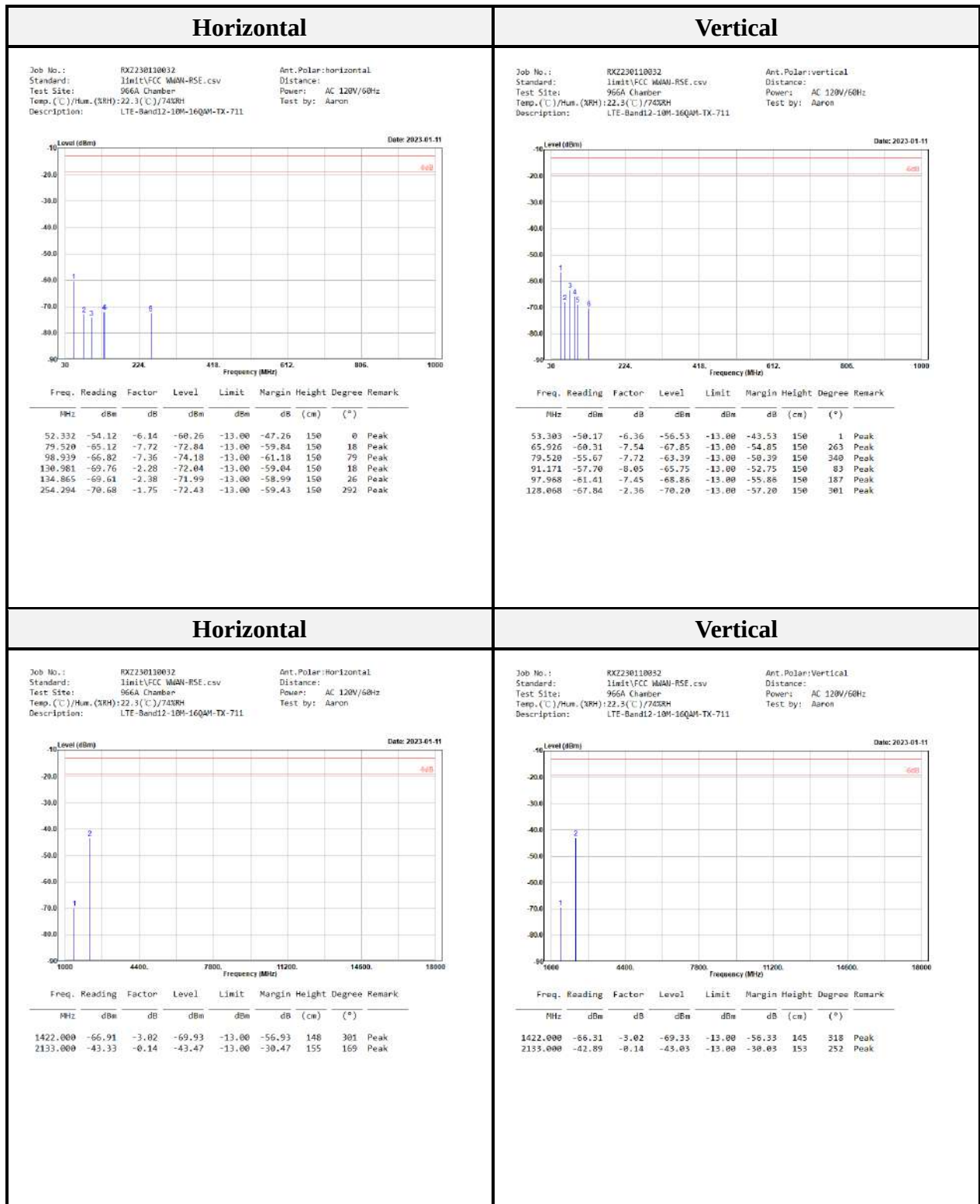
10M-16QAM-LOW CHANNEL



10M-16QAM- MIDDLE CHANNEL

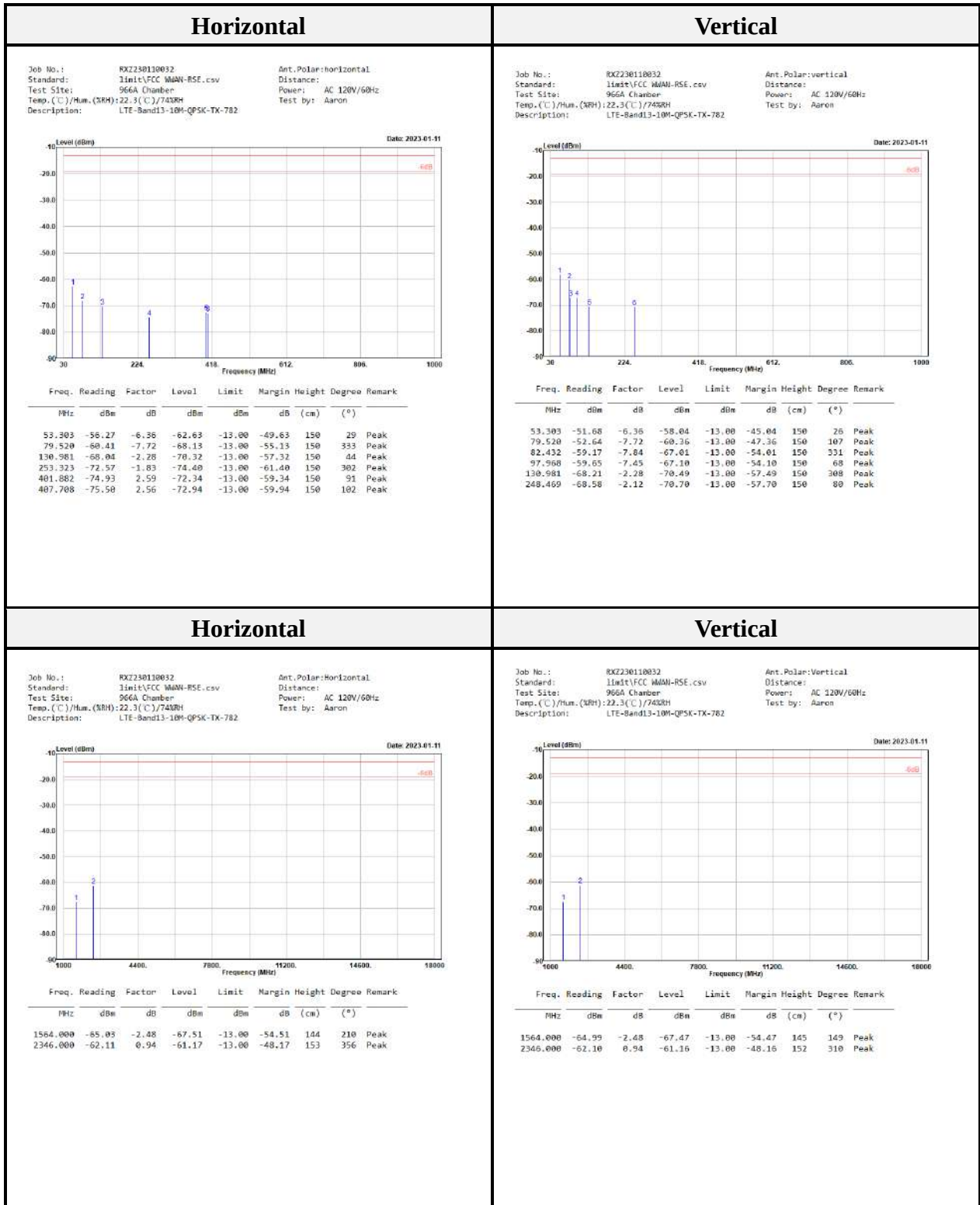


10M-16QAM- HIGH CHANNEL

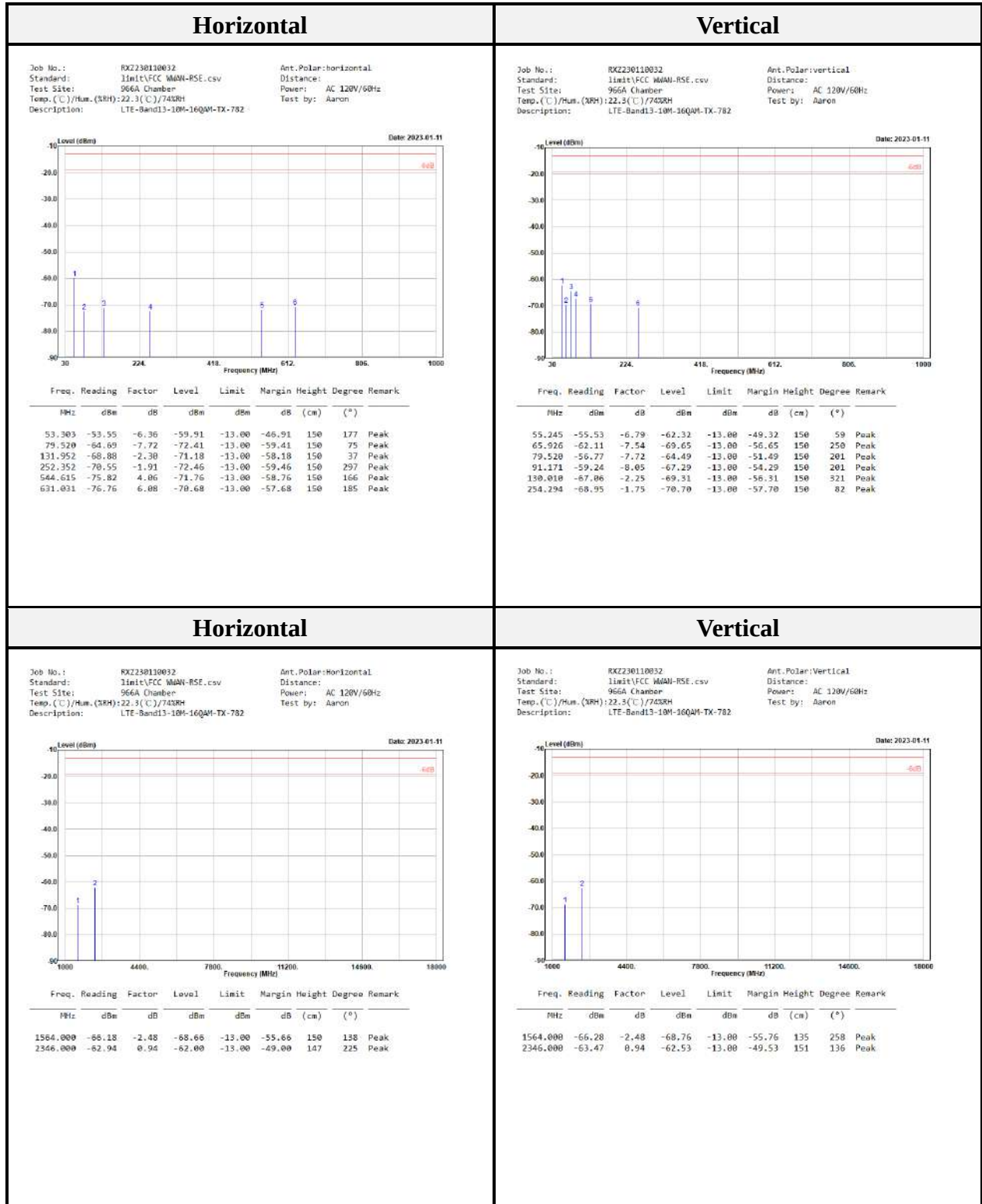


LTE Band 13

10M-QPSK- MIDLE CHANNEL



10M-16QAM-MIDLE CHANNEL



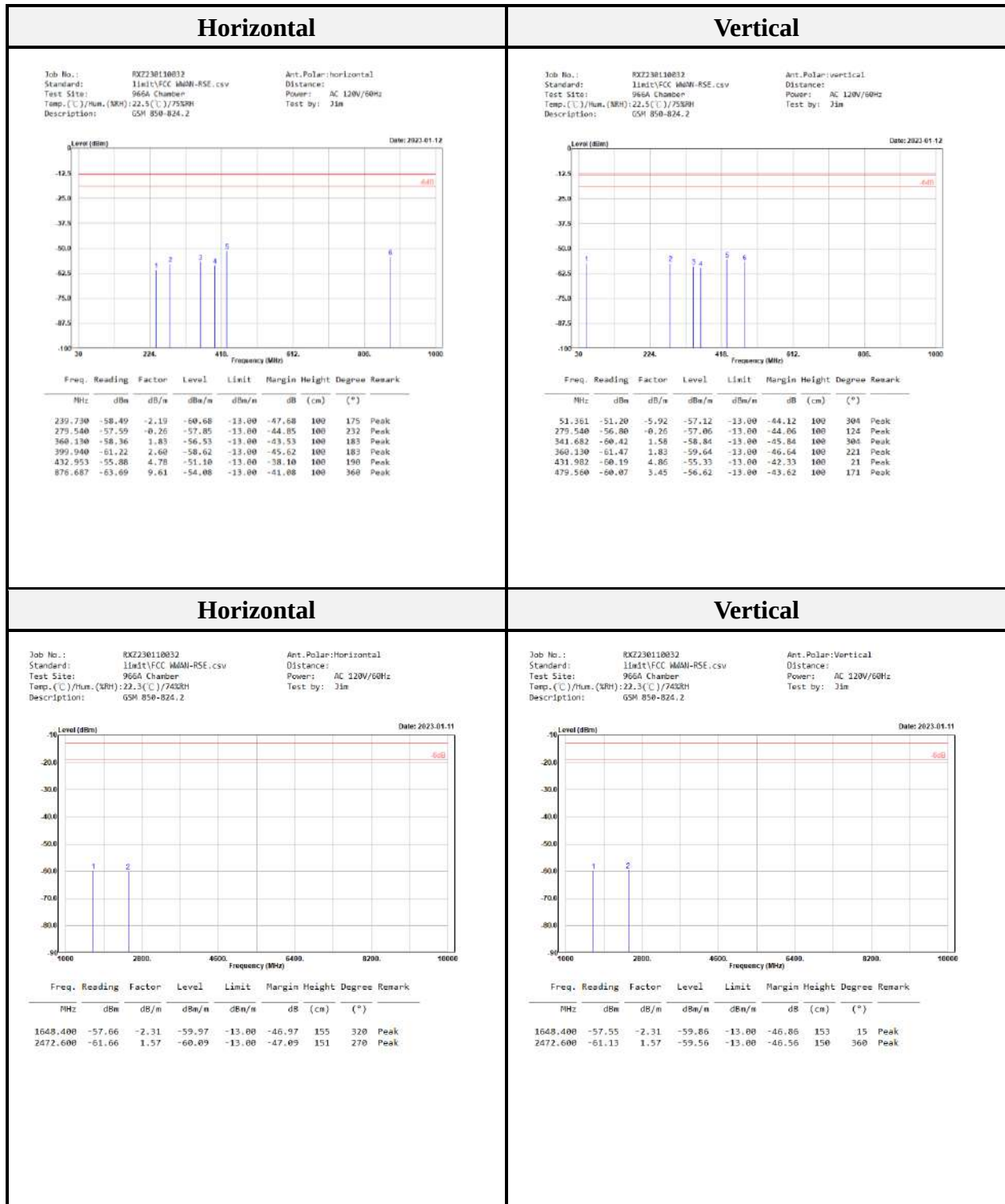
EUT emissions correction = Reading

Level = Level + Factor (Antenna Factor + Cable Loss – Amplifier Gain.)

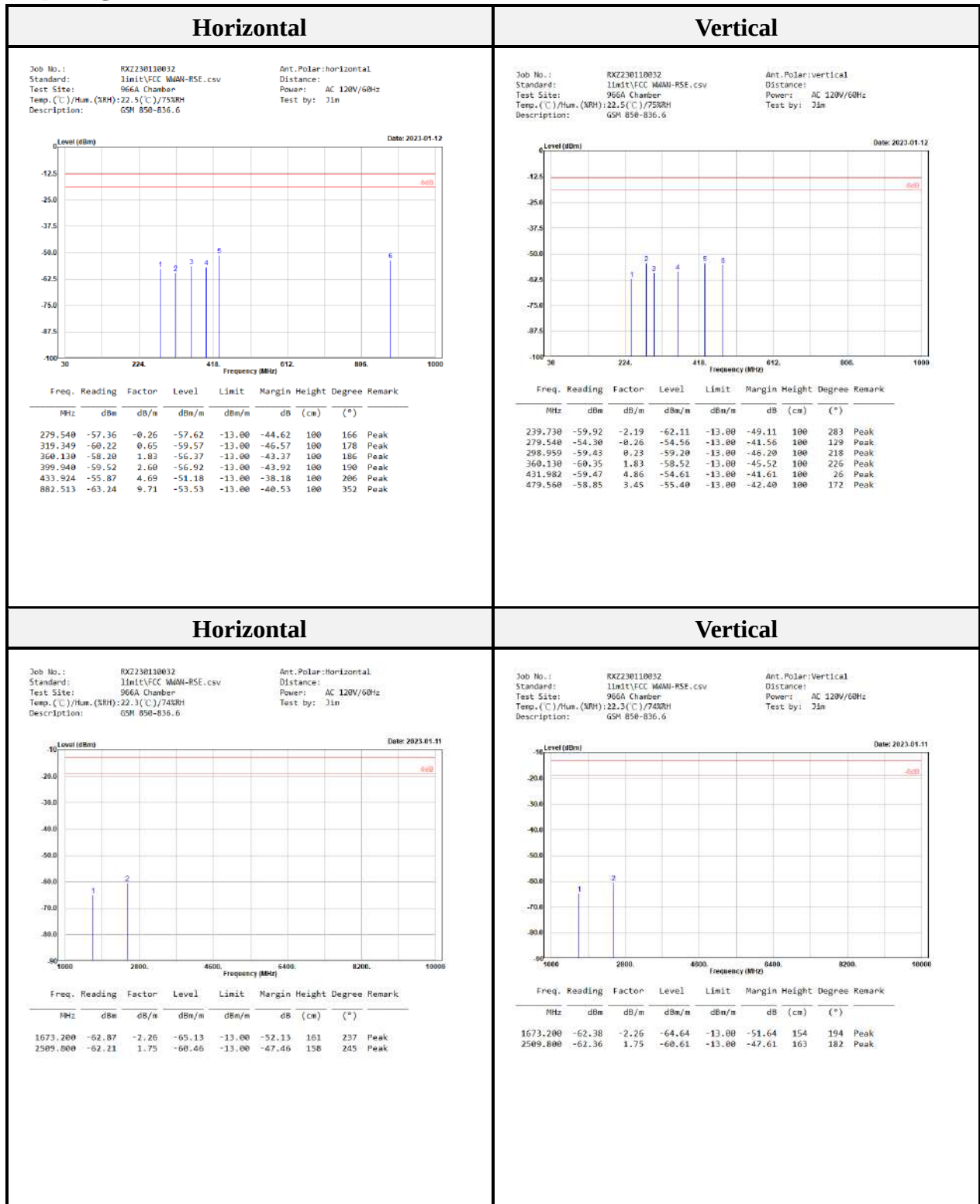
Margin = Level – Limit.

Cellular Band

LOW CHANNEL



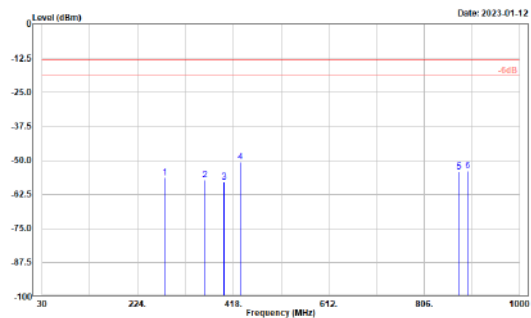
MIDLE CHANNEL



HIGH CHANNEL**Horizontal**

Job No.: RXZ230110032
 Standard: Limit\FCC MNN-RSE.csv
 Test Site: 966A Chamber
 Temp.(°C)/Hum.(%RH): 22.5(°C)/75.0RH
 Description: GSM 850-848.8

Ant.Polar:horizontal
 Distance: AC 120V/60Hz
 Test by: Jim

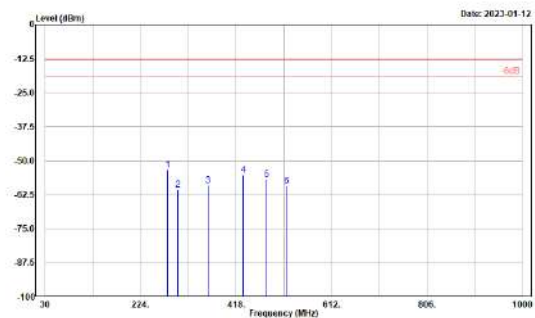


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBm	dB/m	dBm/m	dBm/m	dB	(cm)	(°)	
279.549	-56.08	-0.26	-56.34	-13.00	-43.34	100	167	Peak
360.130	-58.93	1.83	-57.10	-13.00	-44.10	100	193	Peak
399.940	-60.55	2.60	-57.95	-13.00	-44.95	100	189	Peak
431.982	-55.57	4.86	-50.71	-13.00	-37.71	100	182	Peak
876.687	-63.84	9.61	-54.23	-13.00	-41.23	100	320	Peak
894.164	-64.08	10.06	-54.02	-13.00	-41.02	100	357	Peak

Vertical

Job No.: RXZ230110032
 Standard: Limit\FCC MNN-RSE.csv
 Test Site: 966A Chamber
 Temp.(°C)/Hum.(%RH): 22.5(°C)/75.0RH
 Description: GSM 850-848.8

Ant.Polar:vertical
 Distance: AC 120V/60Hz
 Test by: Jim

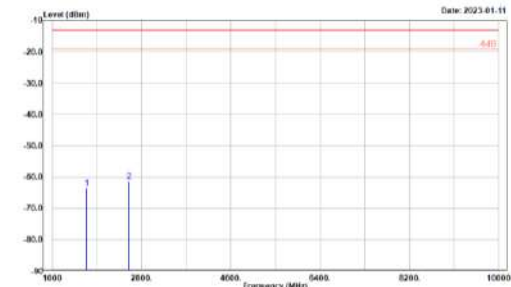


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBm	dB/m	dBm/m	dBm/m	dB	(cm)	(°)	
279.549	-53.01	-0.26	-53.27	-13.00	-40.27	100	131	Peak
299.939	-60.88	0.27	-60.61	-13.00	-47.61	100	200	Peak
360.130	-61.00	1.83	-59.17	-13.00	-46.17	100	239	Peak
431.982	-60.23	4.86	-55.37	-13.00	-42.37	100	51	Peak
479.560	-60.24	3.45	-56.79	-13.00	-43.79	100	173	Peak
520.340	-63.40	3.95	-59.45	-13.00	-46.45	100	161	Peak

Horizontal

Job No.: RXZ230110032
 Standard: Limit\FCC MNN-RSE.csv
 Test Site: 966A Chamber
 Temp.(°C)/Hum.(%RH): 22.3(°C)/74.0RH
 Description: GSM 850-848.8

Ant.Polar:Horizontal
 Distance: AC 120V/60Hz
 Test by: Jim

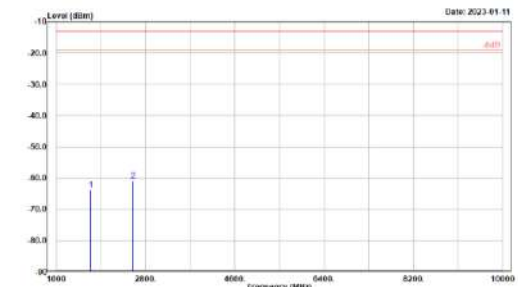


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBm	dB/m	dBm/m	dBm/m	dB	(cm)	(°)	
1697.600	-61.24	-2.21	-63.45	-13.00	-50.45	150	342	Peak
2546.400	-63.33	2.00	-61.33	-13.00	-48.33	150	2	Peak

Vertical

Job No.: RXZ230110032
 Standard: Limit\FCC MNN-RSE.csv
 Test Site: 966A Chamber
 Temp.(°C)/Hum.(%RH): 22.3(°C)/74.0RH
 Description: GSM 850-848.8

Ant.Polar:Vertical
 Distance: AC 120V/60Hz
 Test by: Jim



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBm	dB/m	dBm/m	dBm/m	dB	(cm)	(°)	
1697.600	-61.50	-2.21	-63.71	-13.00	-50.71	150	103	Peak
2546.400	-62.99	2.00	-60.99	-13.00	-47.99	150	358	Peak