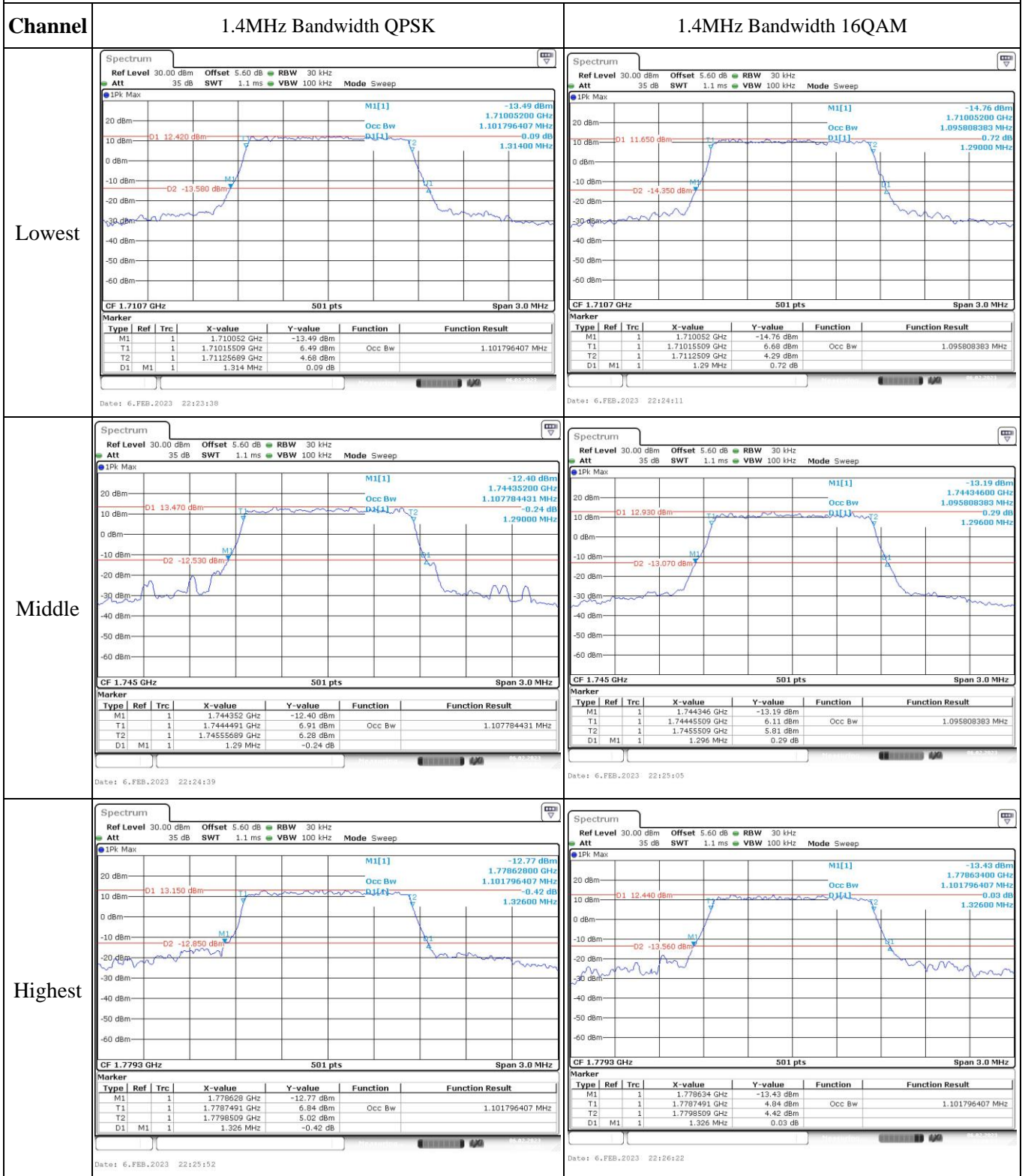
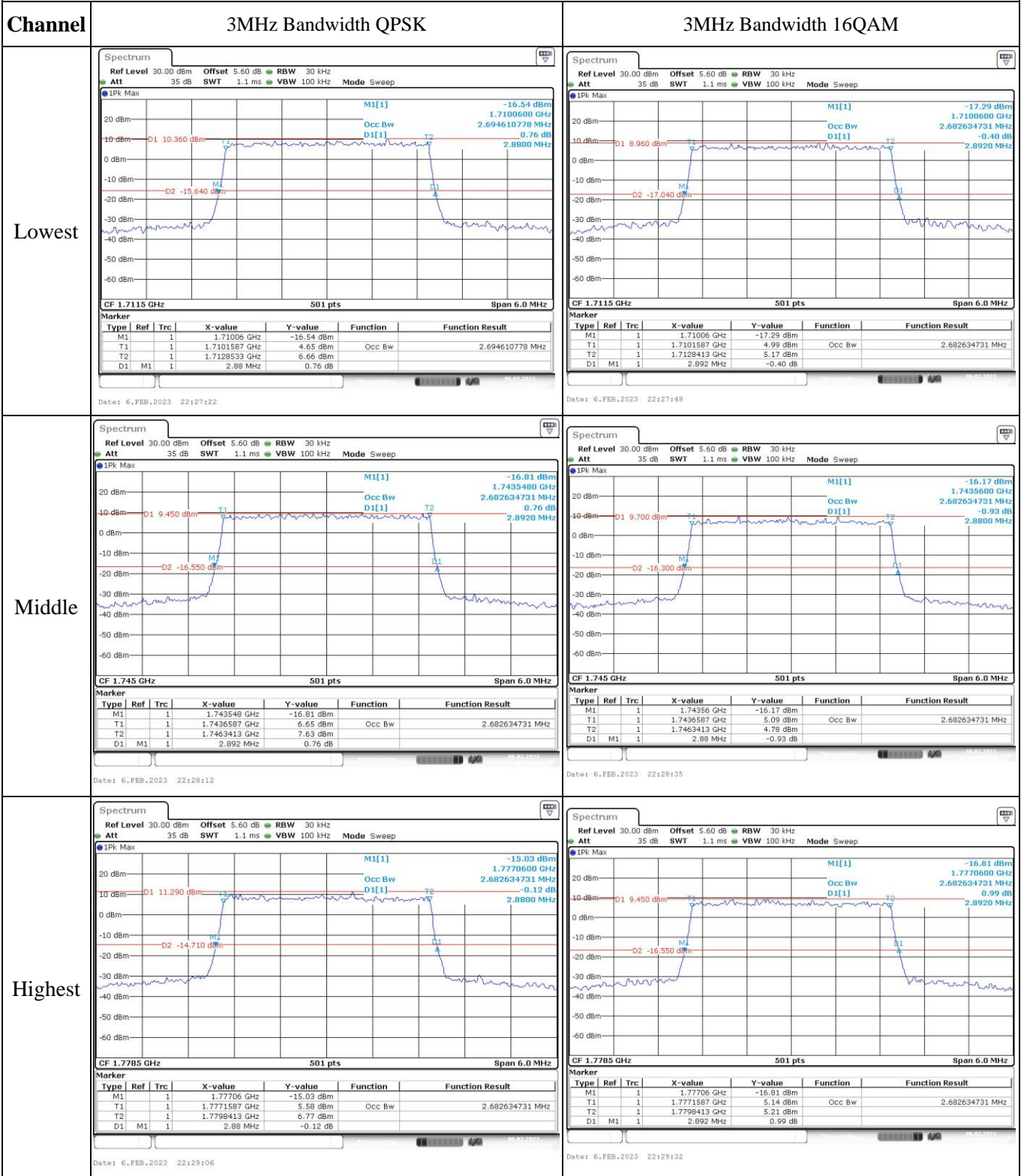


Test Plots(Note: The 5.6dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

Occupied Bandwidth



Occupied Bandwidth



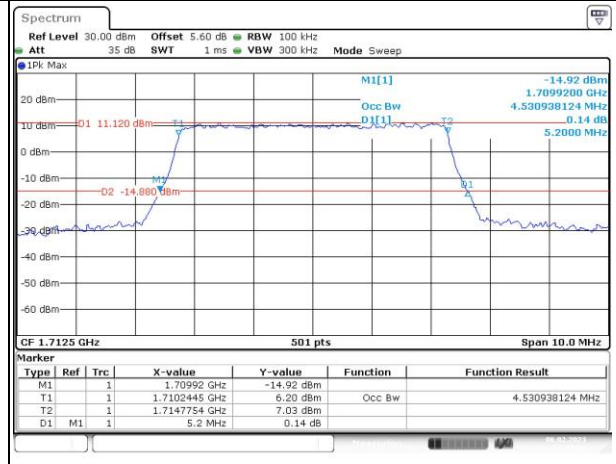
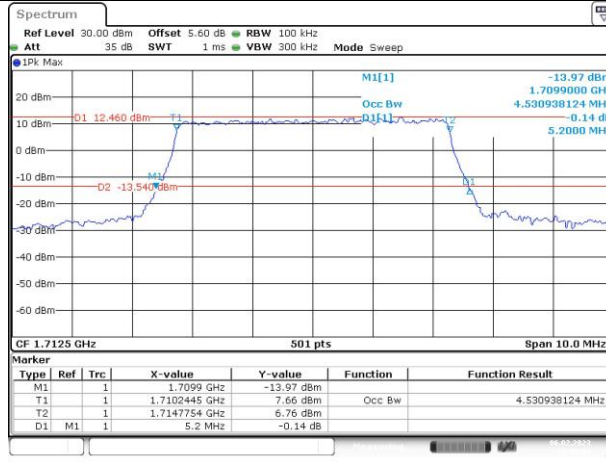
Occupied Bandwidth

Channel

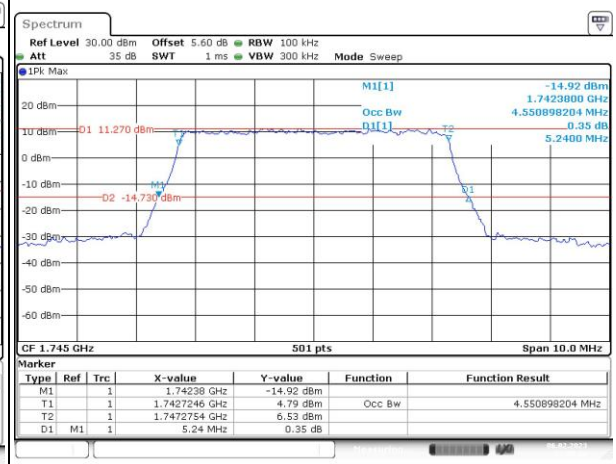
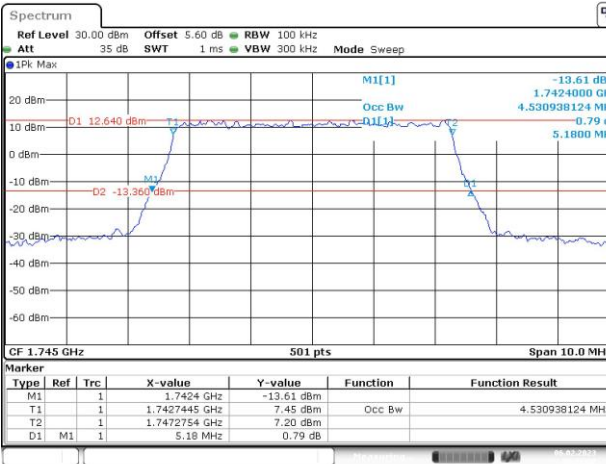
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

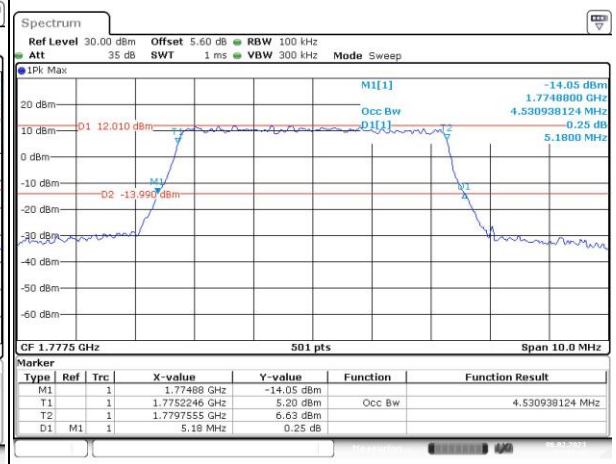
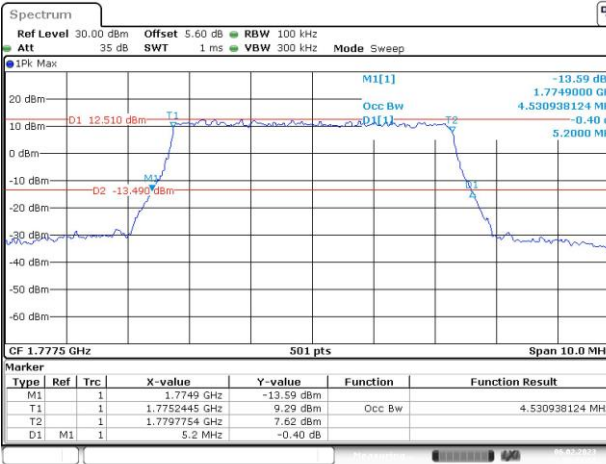
Lowest



Middle



Highest



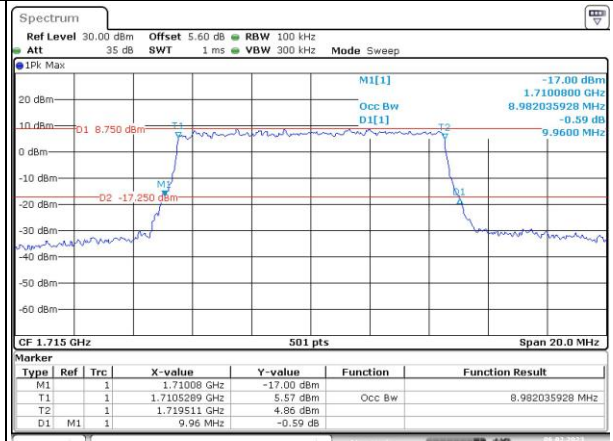
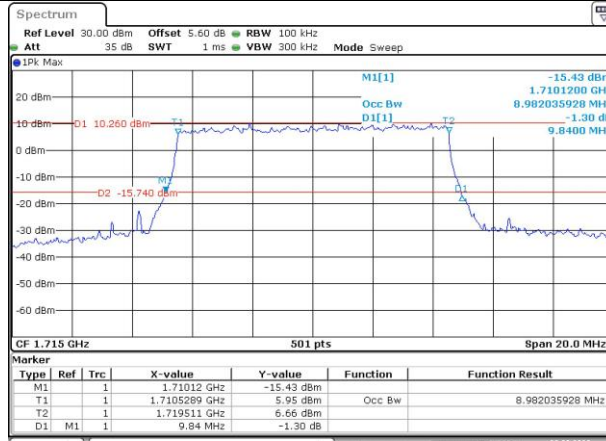
Occupied Bandwidth

Channel

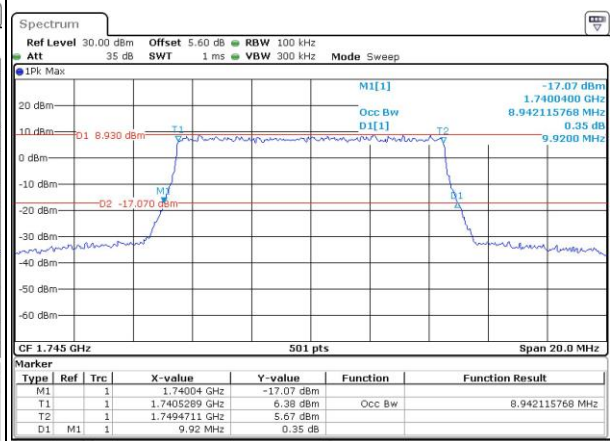
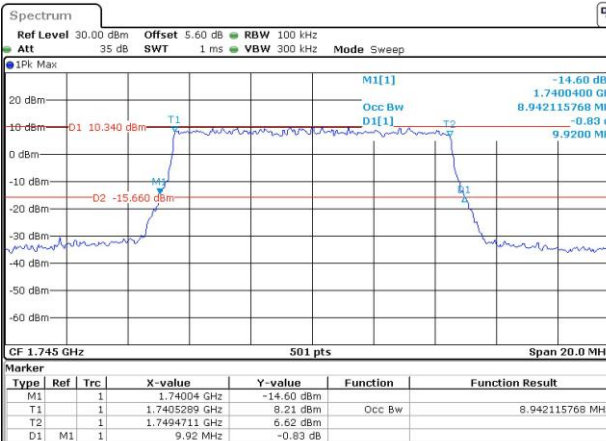
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

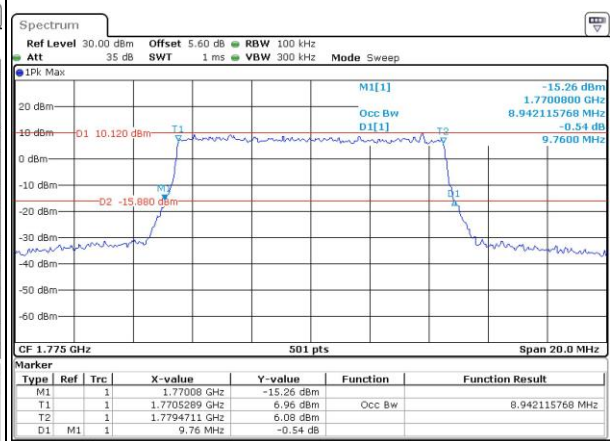
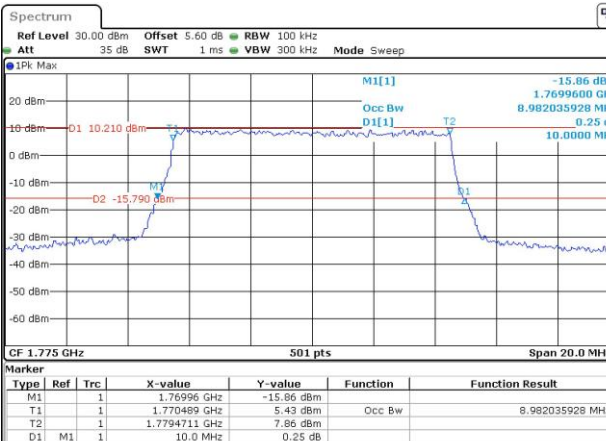
Lowest



Middle



Highest



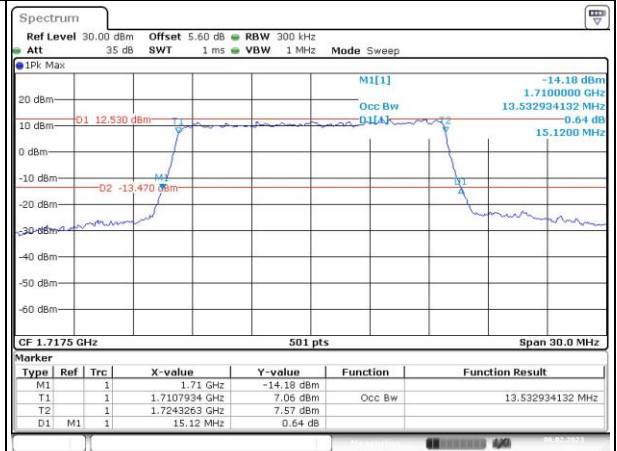
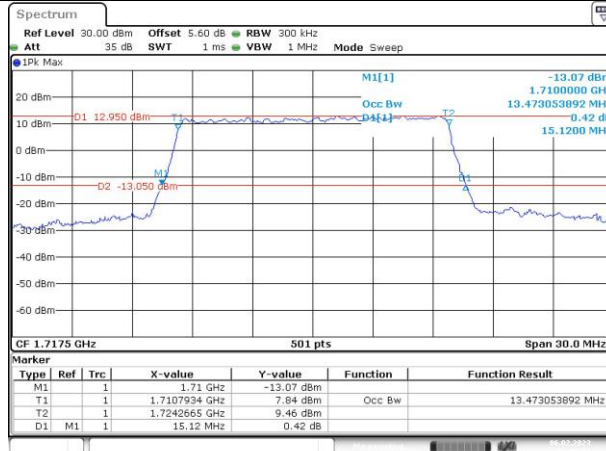
Occupied Bandwidth

Channel

15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

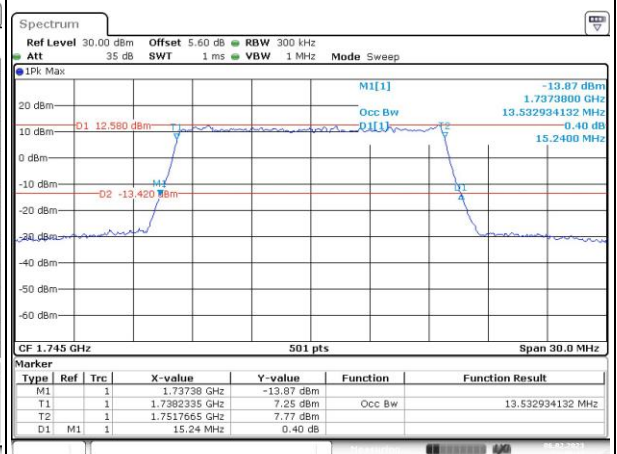
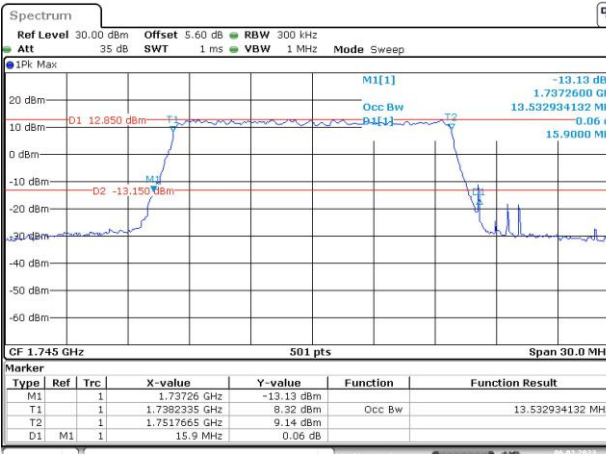
Lowest



Date: 6.FEB.2023 22:39:02

Date: 6.FEB.2023 22:39:39

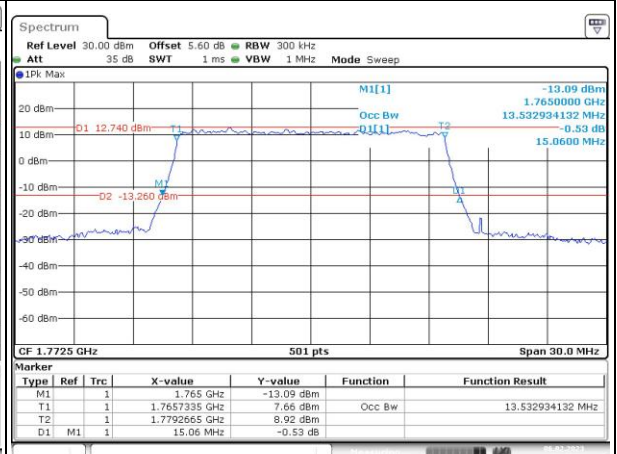
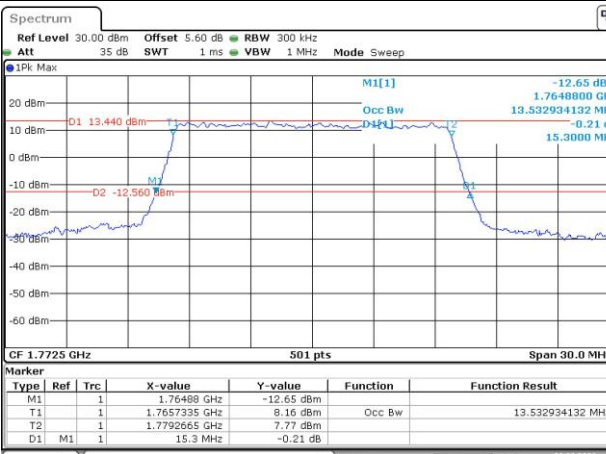
Middle



Date: 6.FEB.2023 22:40:11

Date: 6.FEB.2023 22:40:41

Highest



Date: 6.FEB.2023 22:41:13

Date: 6.FEB.2023 22:41:51

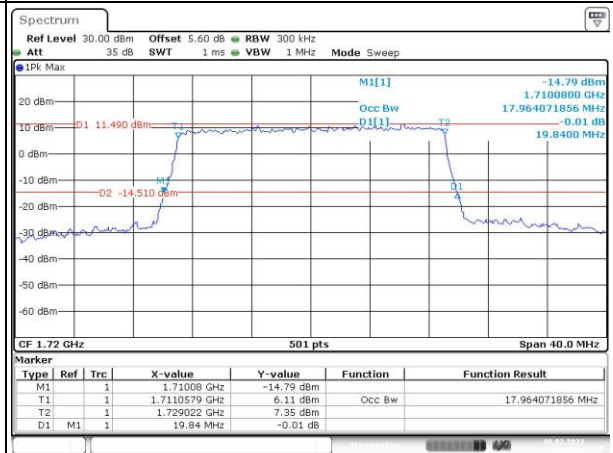
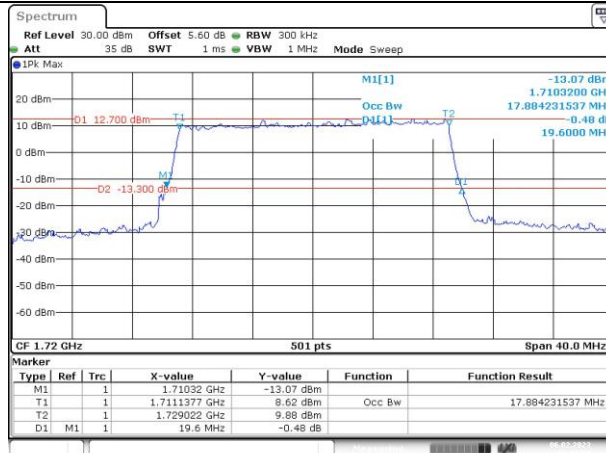
Occupied Bandwidth

Channel

20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

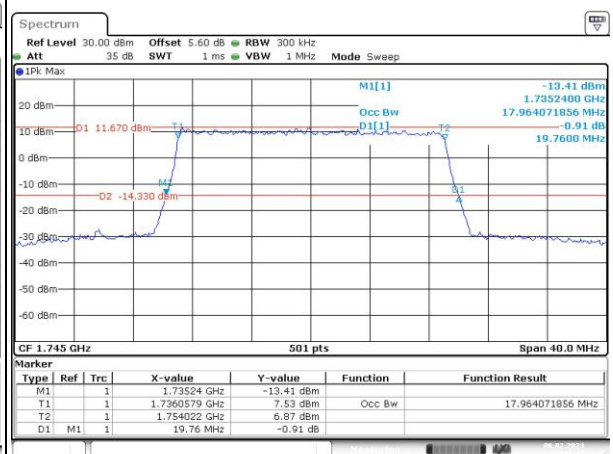
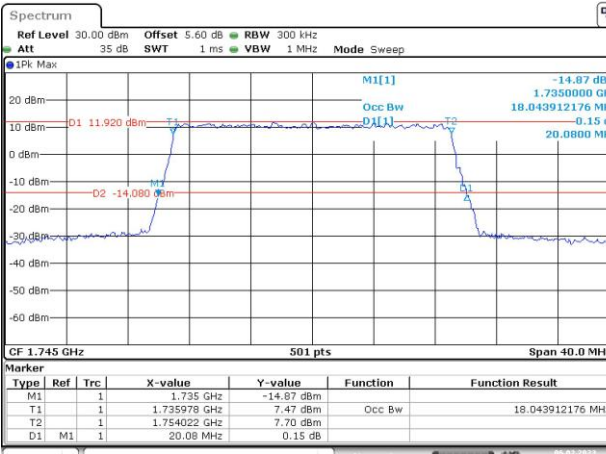
Lowest



Date: 6.FEB.2023 22:43:01

Date: 6.FEB.2023 22:43:35

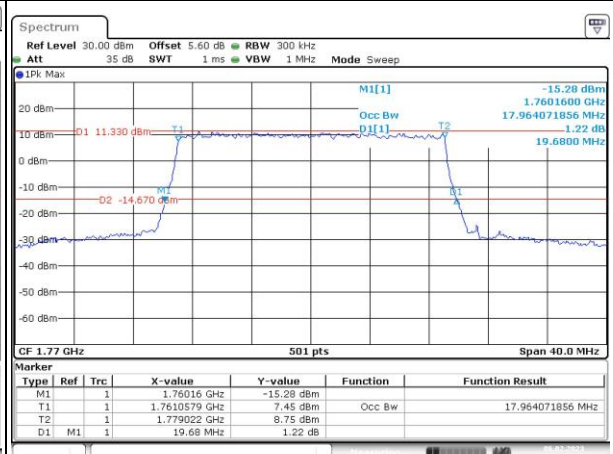
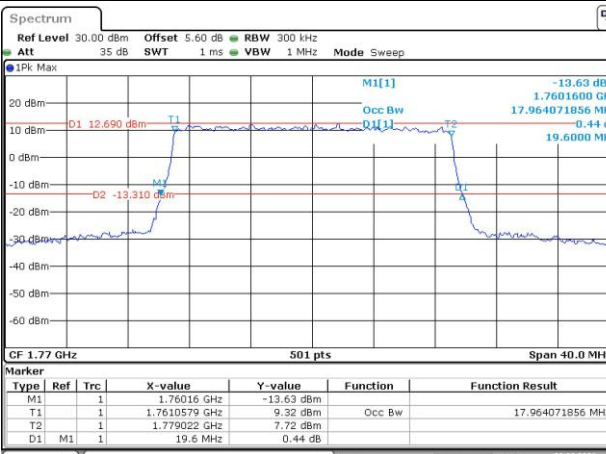
Middle



Date: 6.FEB.2023 22:44:07

Date: 6.FEB.2023 22:44:41

Highest



Date: 6.FEB.2023 22:45:17

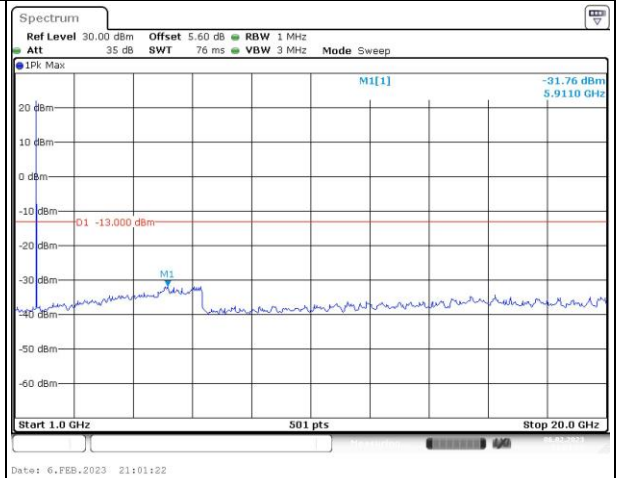
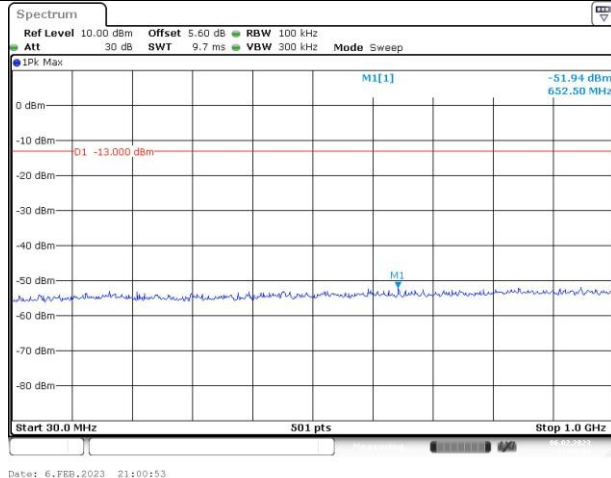
Date: 6.FEB.2023 22:45:48

Spurious Emissions at Antenna Terminal

Channel

1.4MHz Bandwidth QPSK

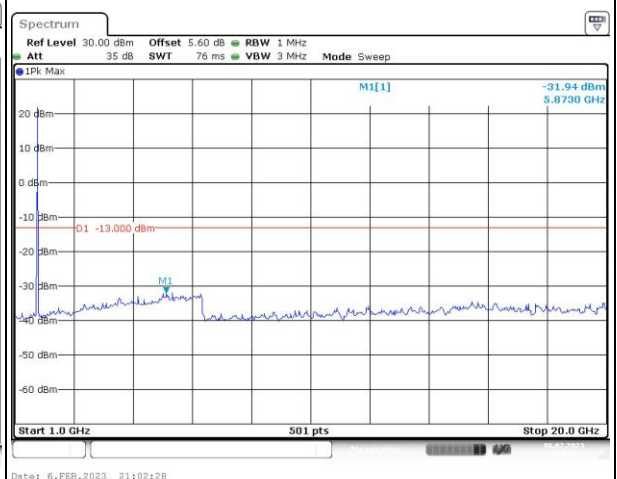
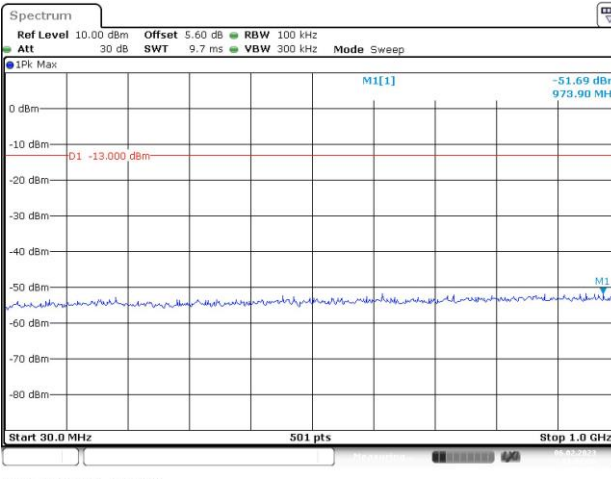
Lowest



Date: 6.FEB.2023 21:00:53

Date: 6.FEB.2023 21:01:22

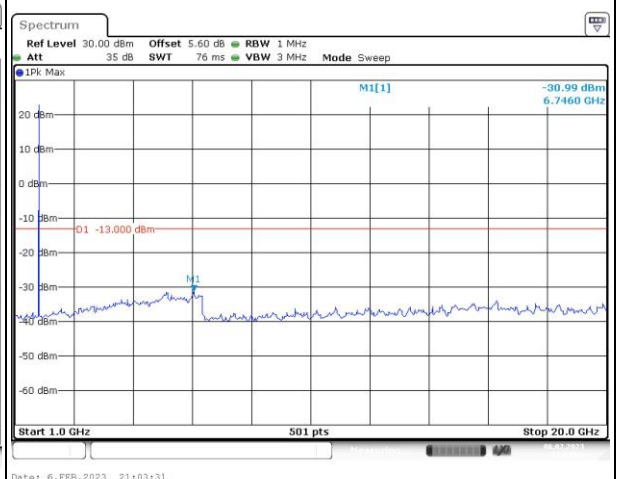
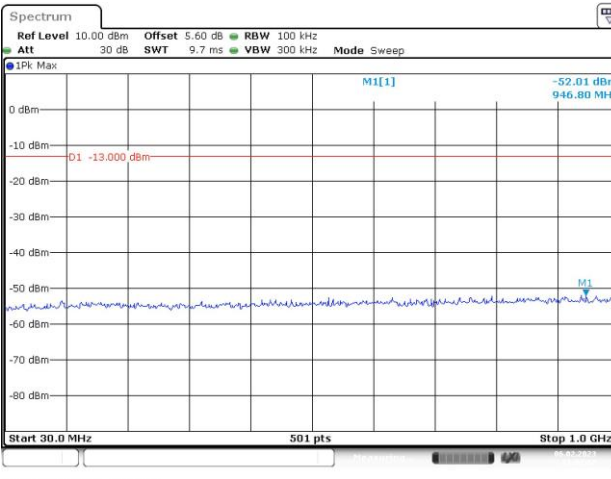
Middle



Date: 6.FEB.2023 21:02:06

Date: 6.FEB.2023 21:02:20

Highest



Date: 6.FEB.2023 21:02:57

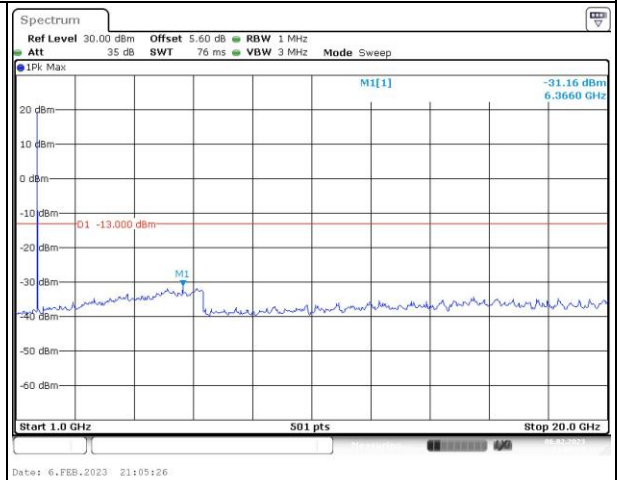
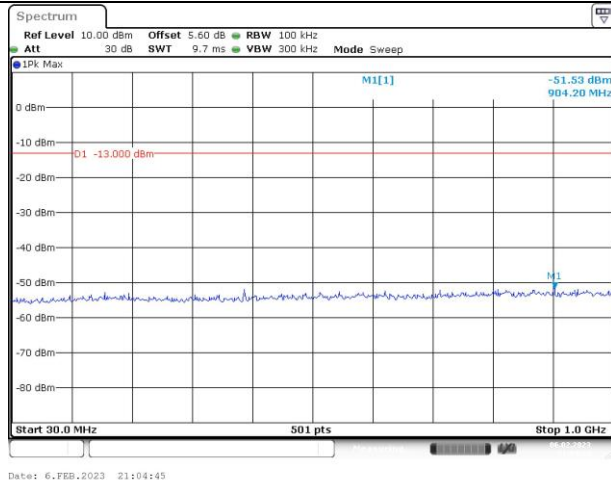
Date: 6.FEB.2023 21:03:31

Spurious Emissions at Antenna Terminal

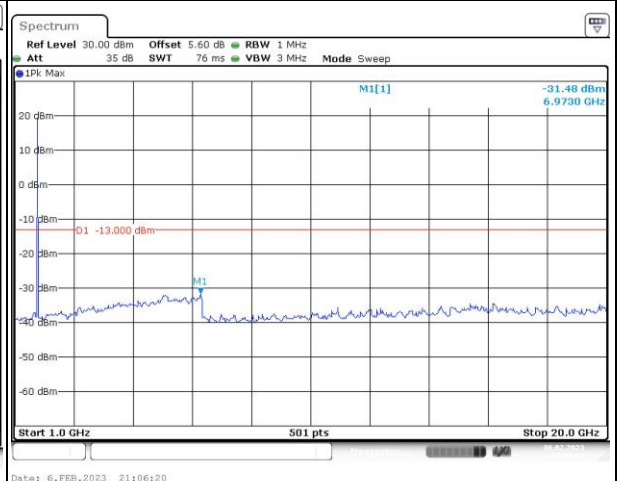
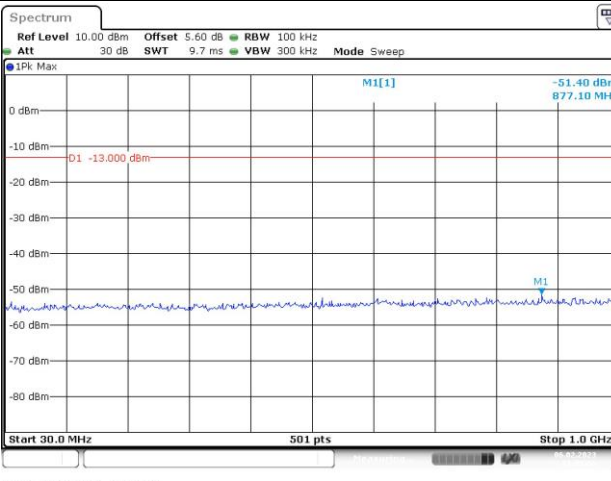
Channel

3MHz Bandwidth QPSK

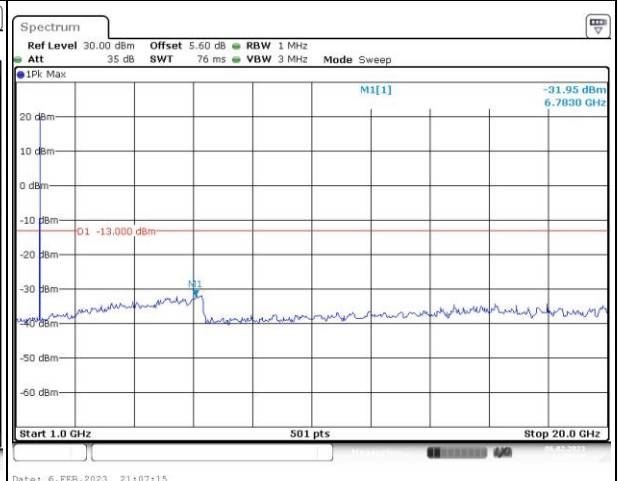
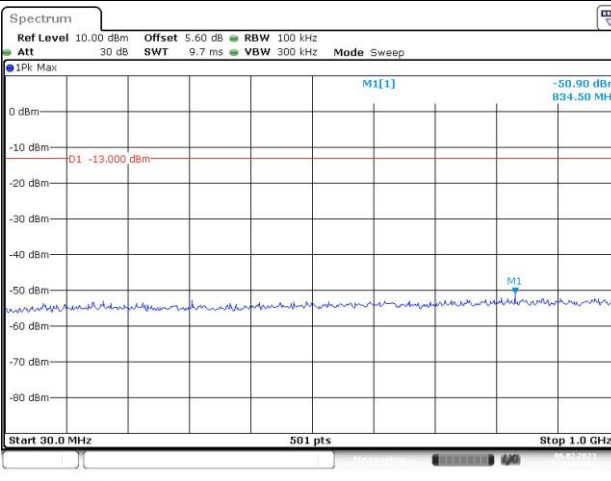
Lowest



Middle



Highest

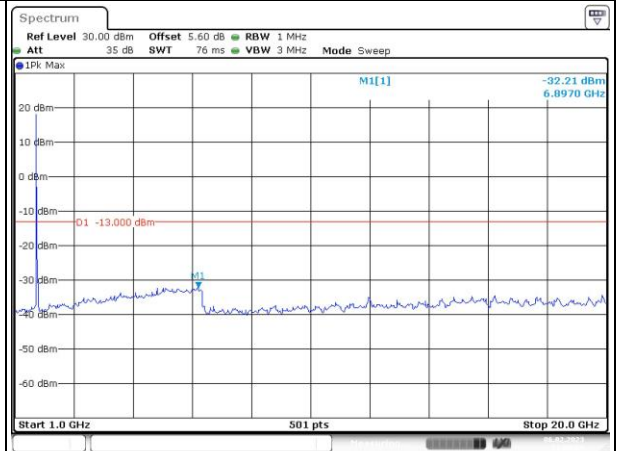
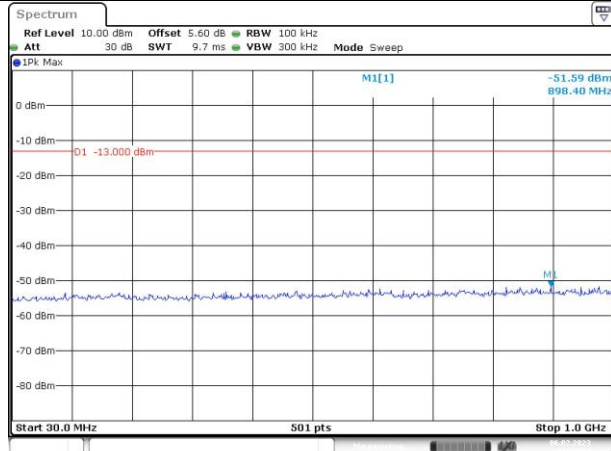


Spurious Emissions at Antenna Terminal

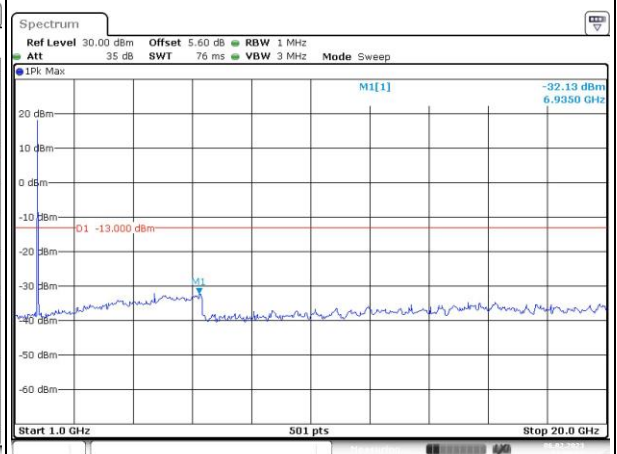
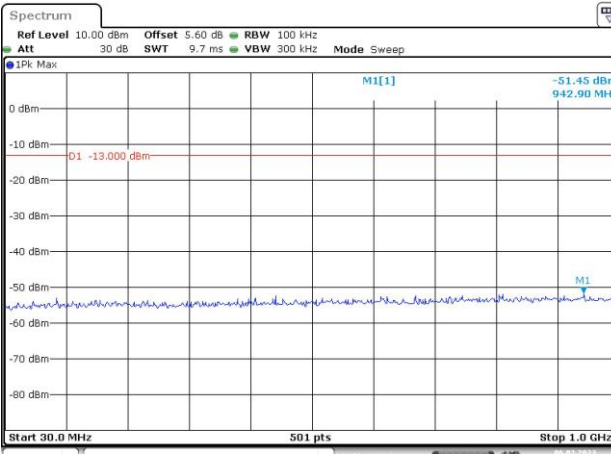
Channel

5MHz Bandwidth QPSK

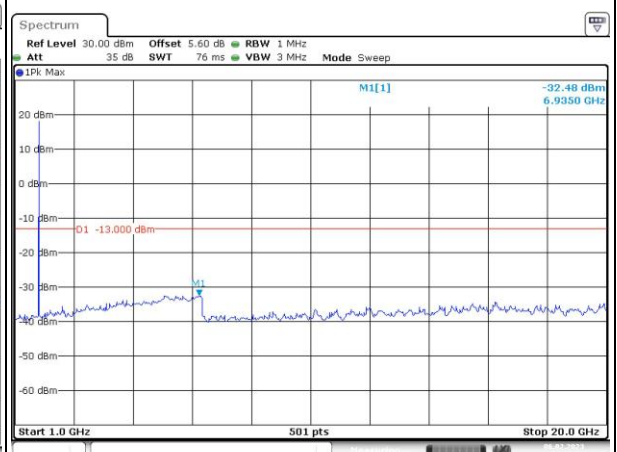
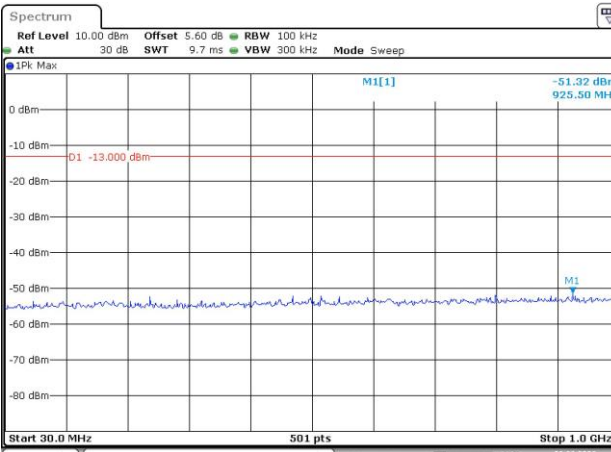
Lowest



Middle



Highest

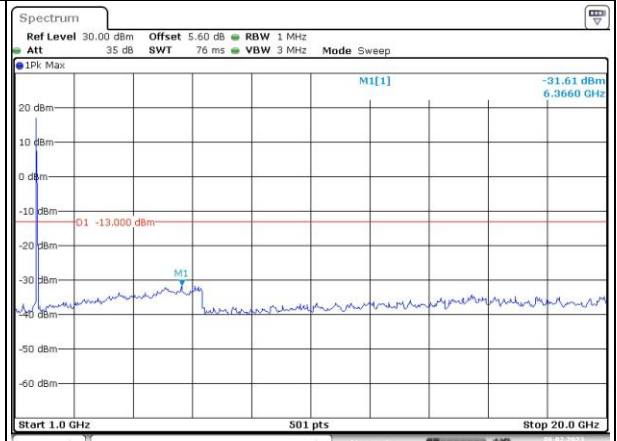
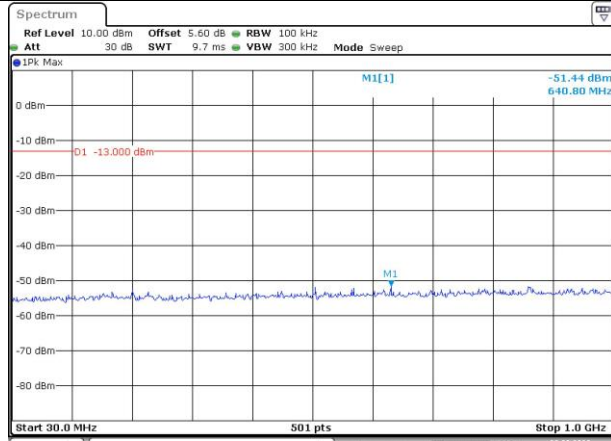


Spurious Emissions at Antenna Terminal

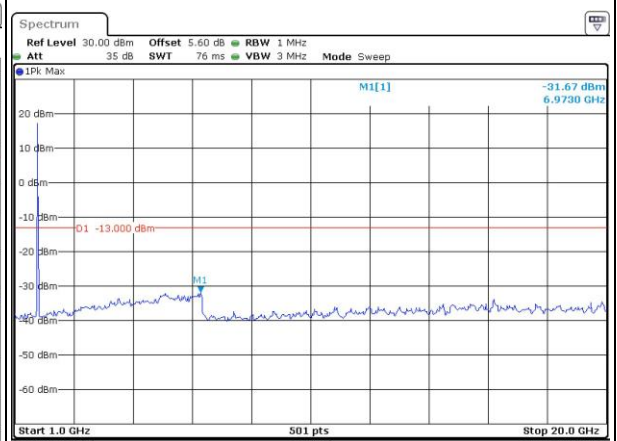
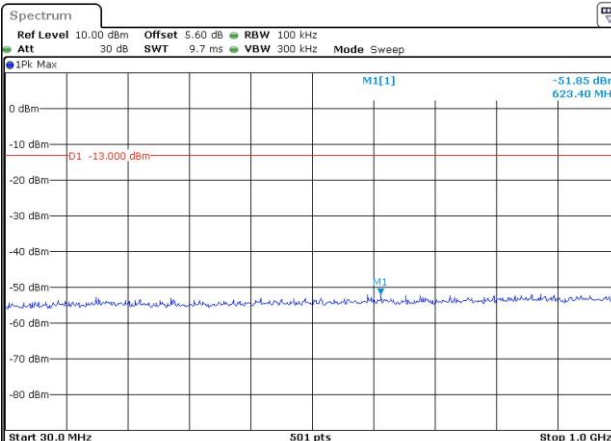
Channel

10MHz Bandwidth QPSK

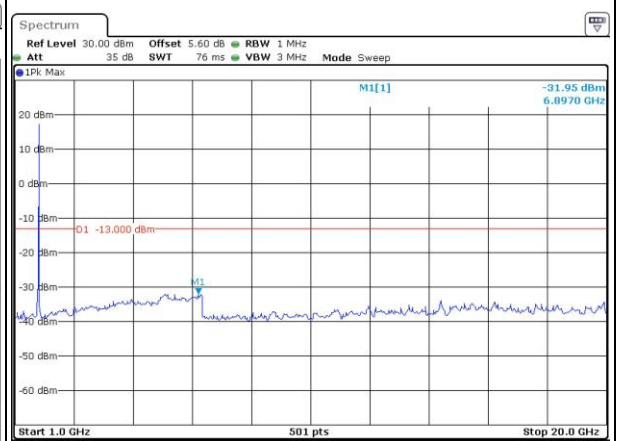
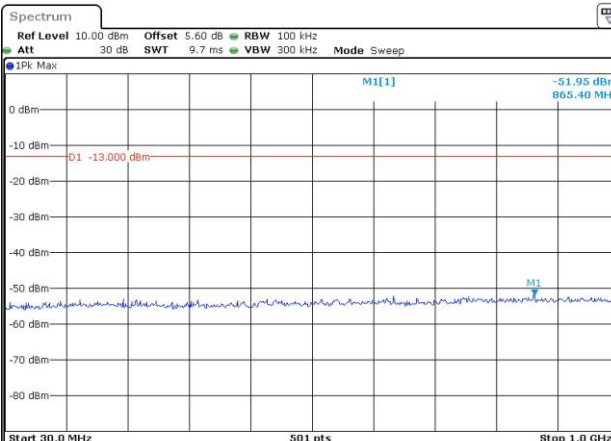
Lowest



Middle



Highest

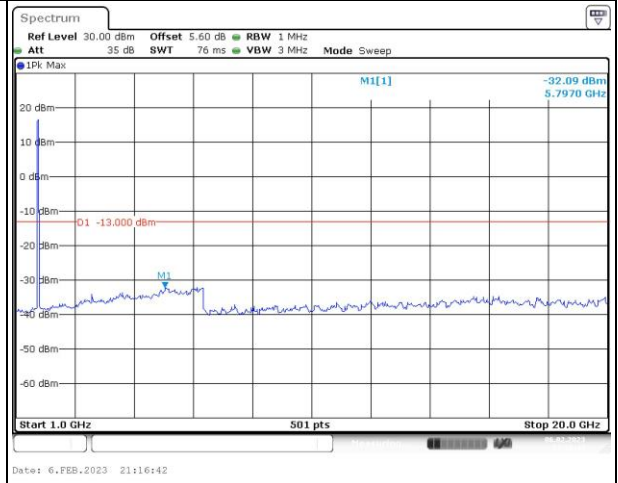
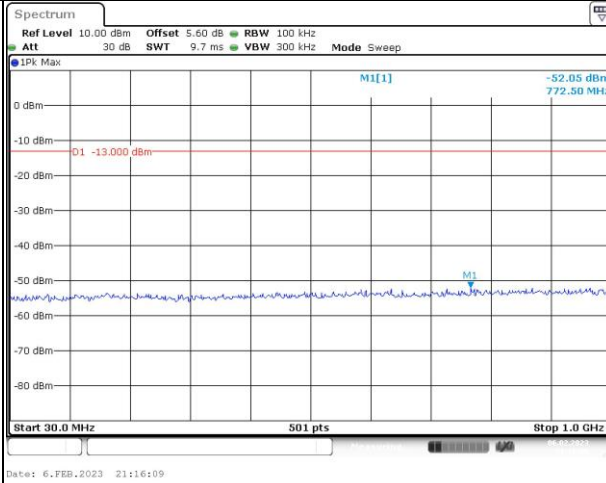


Spurious Emissions at Antenna Terminal

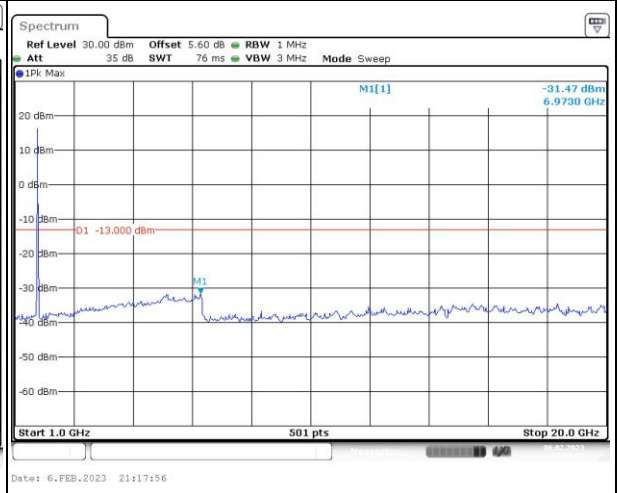
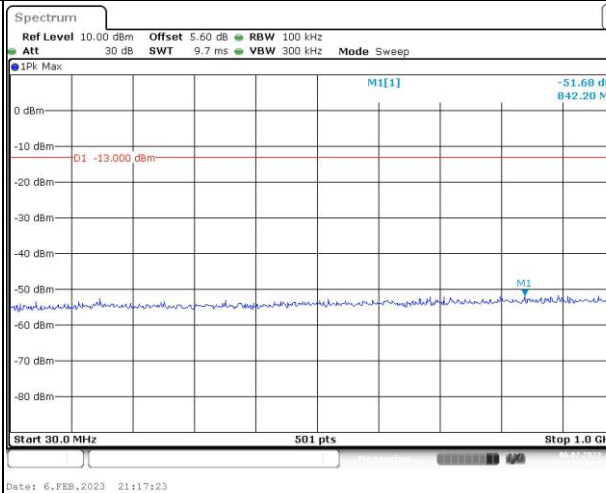
Channel

15MHz Bandwidth QPSK

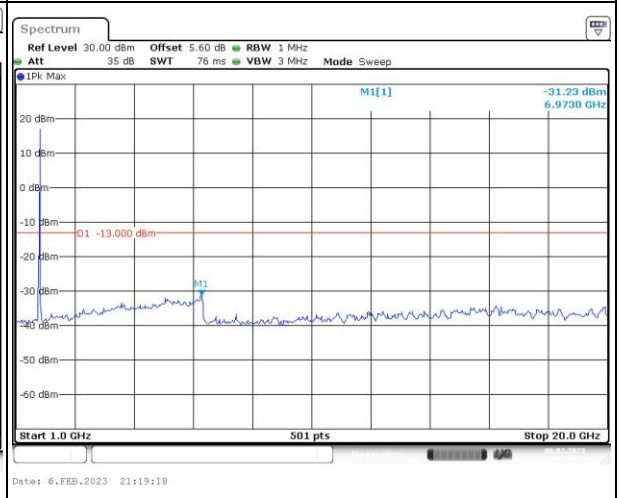
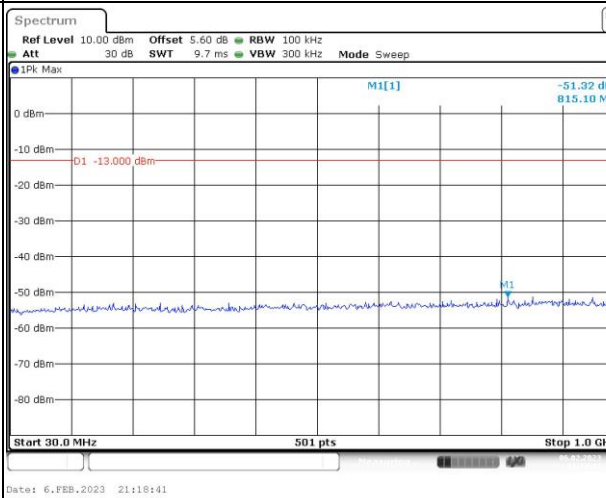
Lowest



Middle



Highest

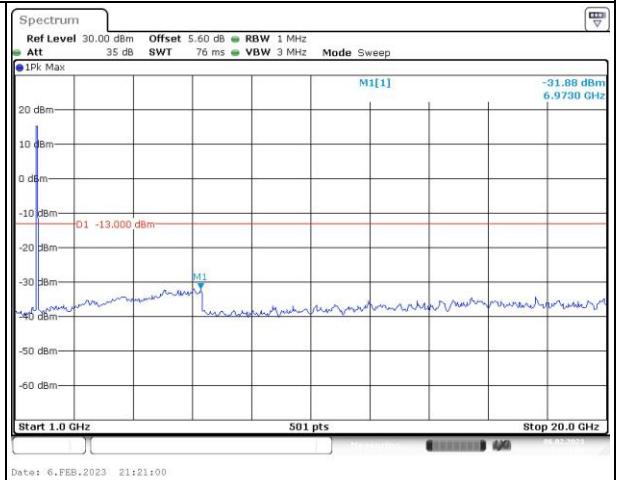
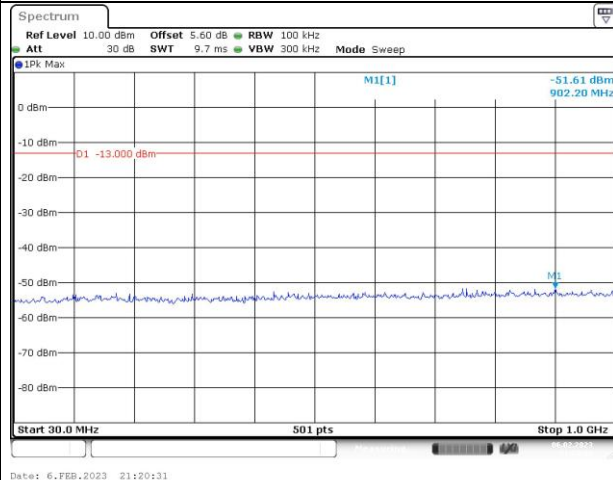


Spurious Emissions at Antenna Terminal

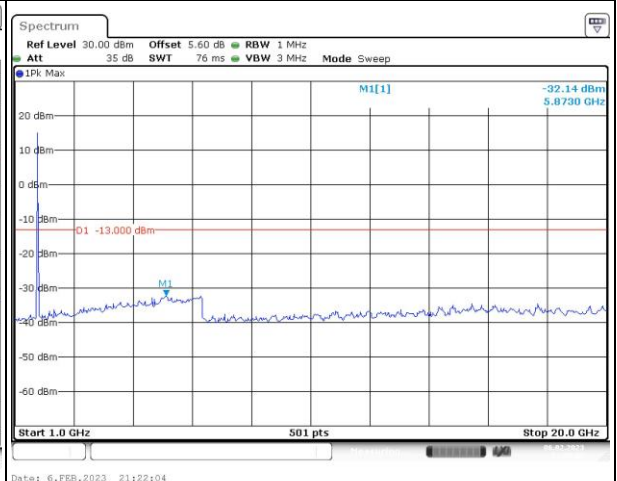
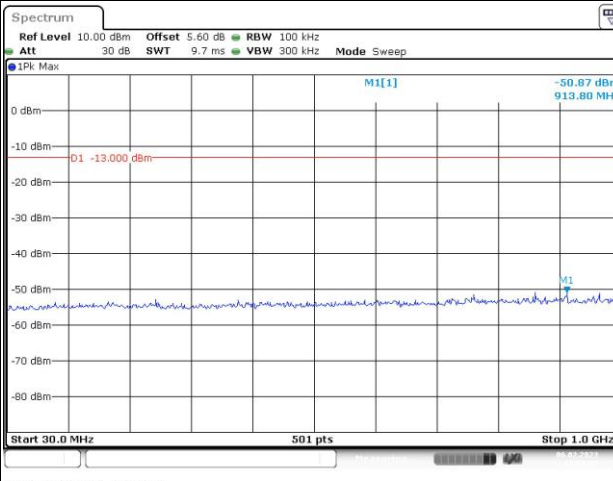
Channel

20MHz Bandwidth QPSK

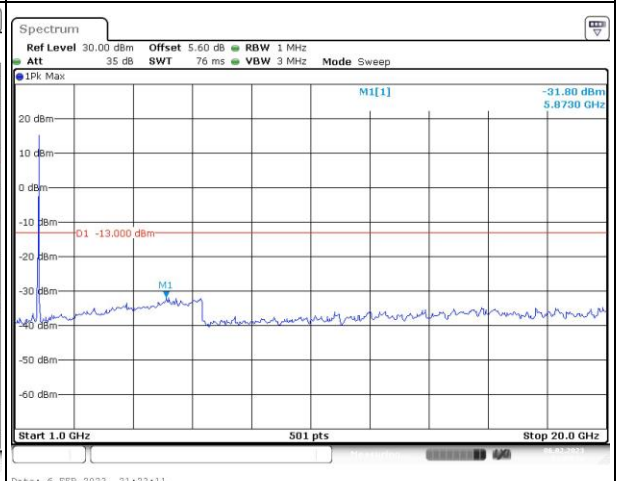
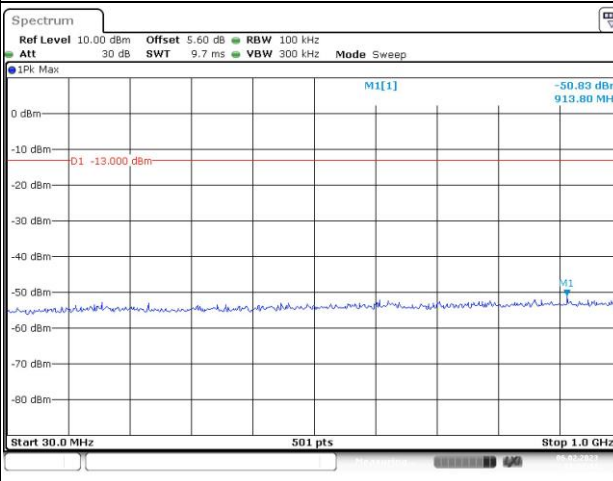
Lowest



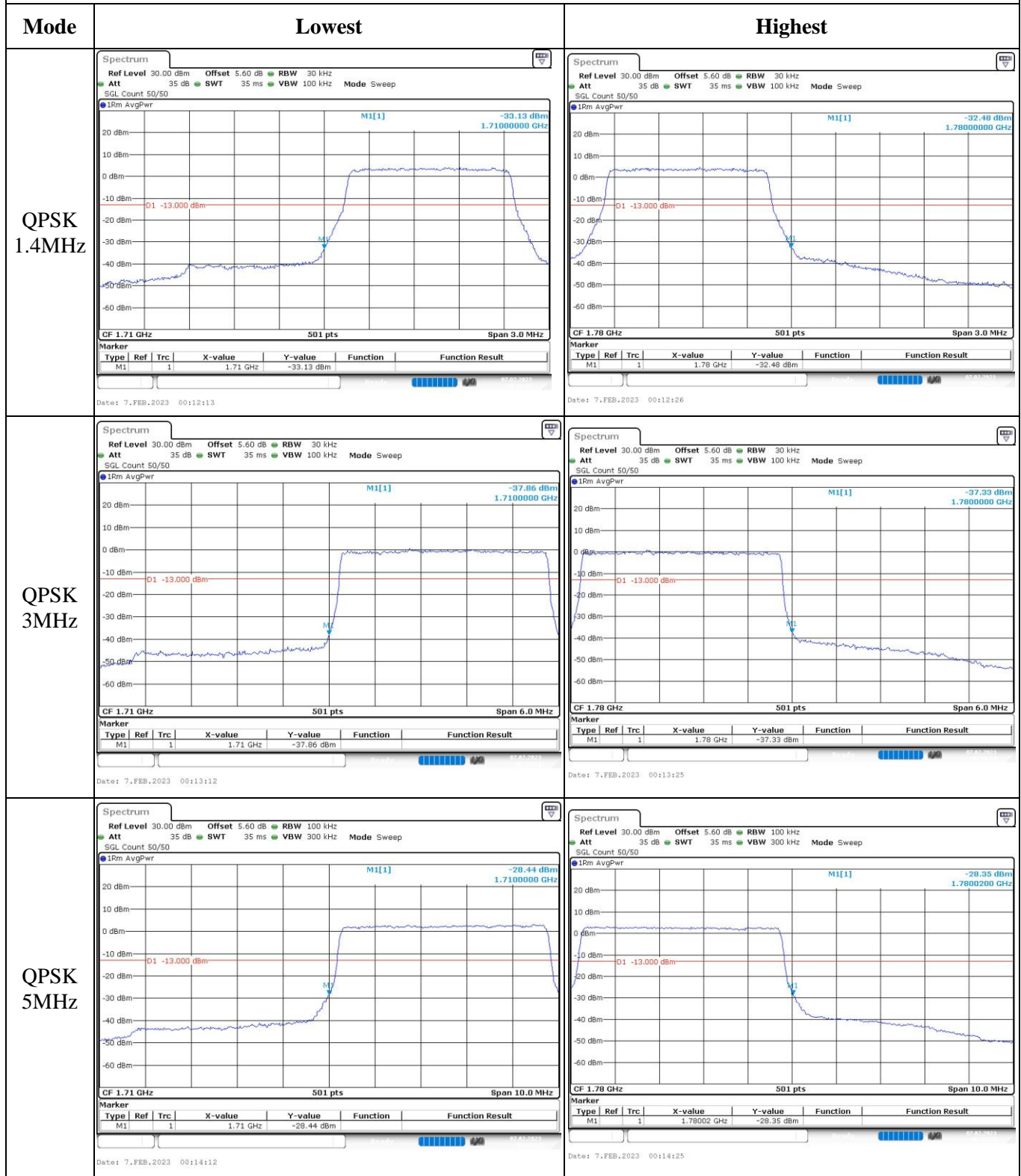
Middle



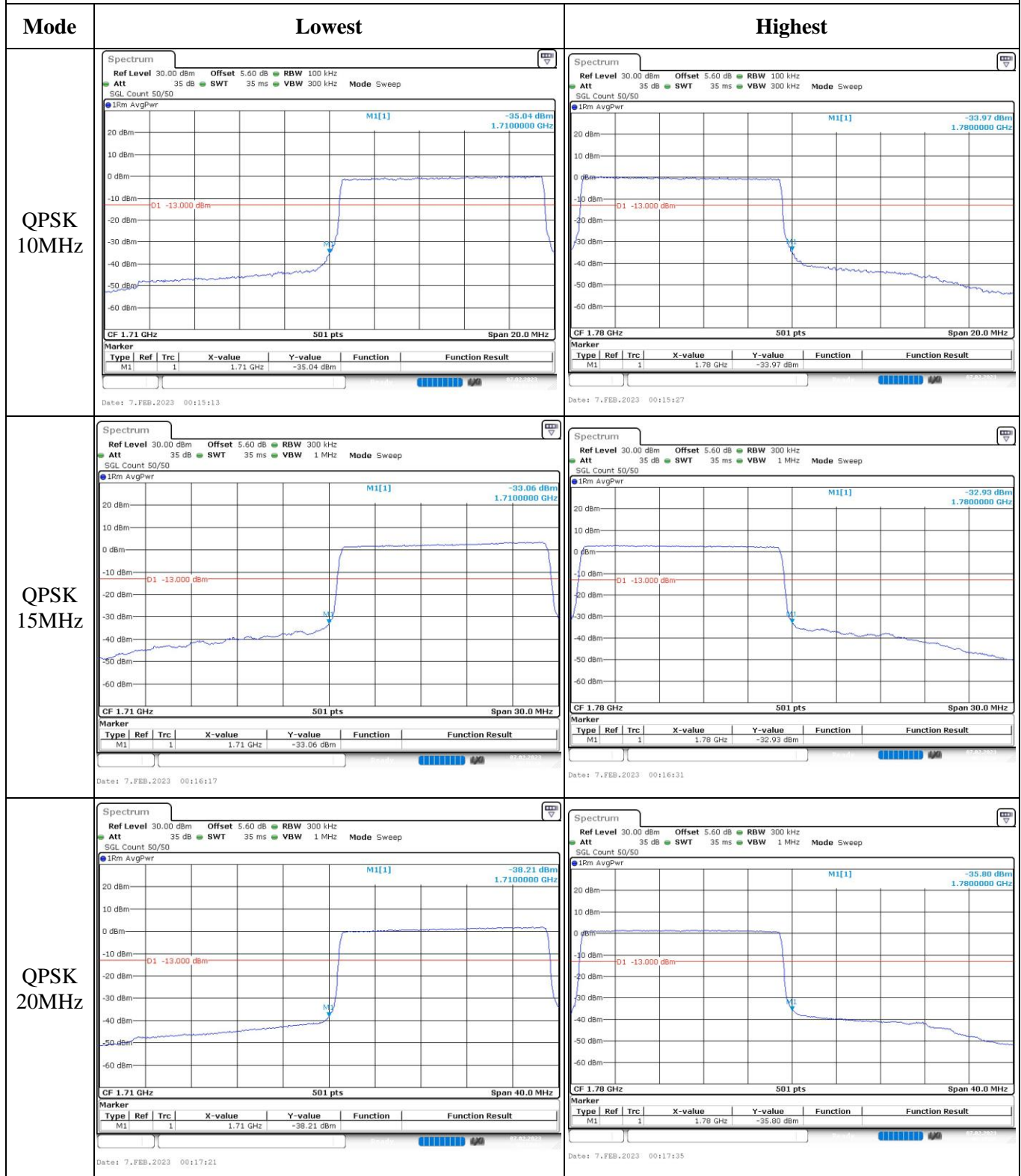
Highest



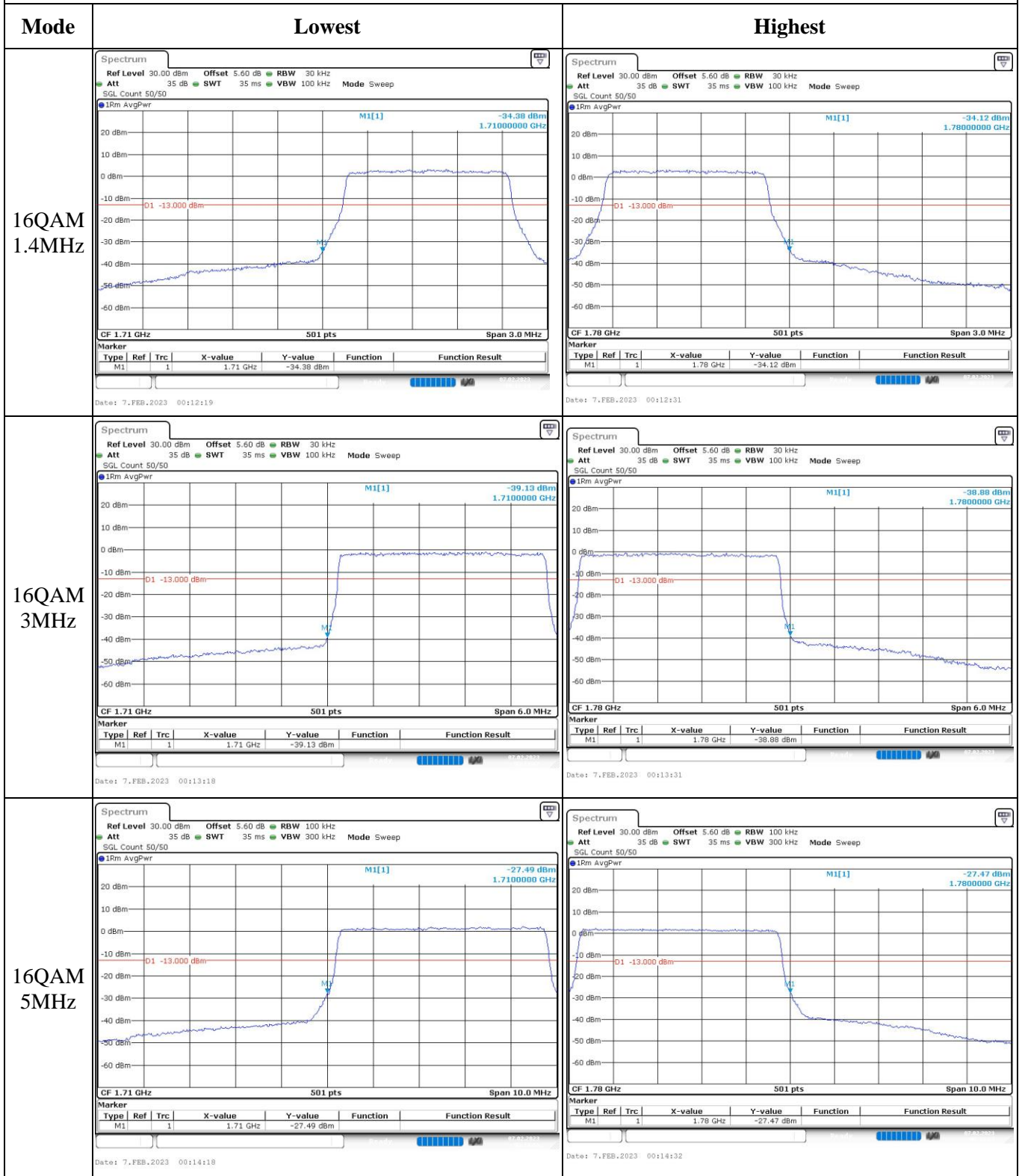
Out of band emission, Band Edge



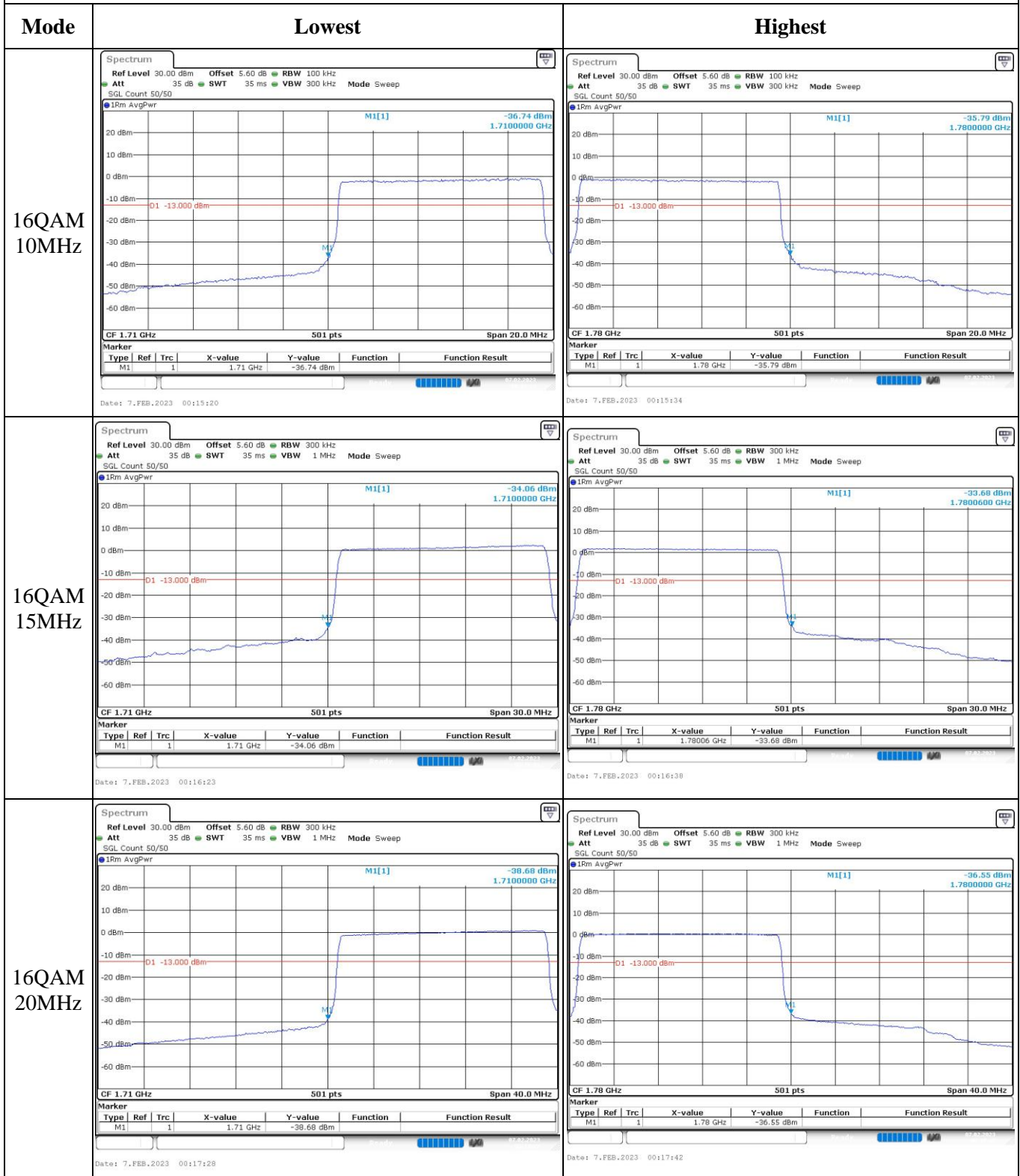
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.10 Antenna Port Test Data and Results for LTE Band 71

Serial Number:	1ZWQ	Test Date:	2023/2/6~2023/2/11
Test Site:	RF	Test Mode:	Transmitting
Tester:	George Chen	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	21.3~24.8	Relative Humidity: (%)	41~56	ATM Pressure: (kPa)	100.8~102.1
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2022-07-15	2023-07-14
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2022-04-06	2023-04-05
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022-09-29	2023-09-28
UNI-T	Multimeter	UT39A+	C210582554	2022-07-15	2023-07-14
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	665.5	680.5	695.5
10MHz	668	680.5	693
15MHz	670.5	680.5	690.5
20MHz	673	680.5	688

Test Data:**FCC §2.1046; § 27.50(c) (10)****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	21.7	21.68	21.62	16.22	34.77
	RB1#13	21.82	21.76	21.75		
	RB1#24	21.79	21.7	21.7		
	RB15#0	20.69	20.63	20.72		
	RB15#10	20.81	20.77	20.81		
	RB25#0	20.76	20.7	20.76		
5MHz 16QAM	RB1#0	20.61	20.54	20.68	15.23	34.77
	RB1#13	20.72	20.58	20.83		
	RB1#24	20.69	20.54	20.76		
	RB15#0	19.75	19.73	19.75		
	RB15#10	19.9	19.83	19.85		
	RB25#0	19.81	19.76	19.81		
10MHz QPSK	RB1#0	21.75	21.66	21.67	16.3	34.77
	RB1#25	21.89	21.9	21.89		
	RB1#49	21.84	21.79	21.86		
	RB25#0	20.76	20.62	20.8		
	RB25#25	20.76	20.86	20.89		
	RB50#0	20.79	20.73	20.87		
10MHz 16QAM	RB1#0	20.89	20.68	20.79	15.49	34.77
	RB1#25	21.09	20.87	21		
	RB1#49	20.95	20.77	20.92		
	RB25#0	19.78	19.75	19.84		
	RB25#25	19.83	19.99	19.97		
	RB50#0	19.81	19.78	19.89		
15MHz QPSK	RB1#0	21.68	21.65	21.53	16.3	34.77
	RB1#38	21.9	21.78	21.71		
	RB1#74	21.83	21.77	21.72		
	RB36#0	20.82	20.62	20.74		
	RB36#39	20.88	20.78	20.89		
	RB75#0	20.87	20.73	20.84		
15MHz 16QAM	RB1#0	20.83	20.73	21.13	15.77	34.77
	RB1#38	20.97	20.88	21.35		
	RB1#74	20.89	20.84	21.37		
	RB36#0	19.89	19.71	19.87		
	RB36#39	19.94	19.9	19.89		
	RB75#0	19.92	19.8	19.89		
20MHz QPSK	RB1#0	21.48	21.38	21.37	16.38	34.77
	RB1#50	21.98	21.85	21.8		
	RB1#99	21.63	21.6	21.62		

	RB50#0	20.88	20.51	20.65		
	RB50#50	21.08	20.81	20.9		
	RB100#0	20.96	20.63	20.78		
20MHz 16QAM	RB1#0	20.81	21.02	20.98	15.83	34.77
	RB1#50	21.23	21.42	21.43		
	RB1#99	20.95	21.21	21.21		
	RB50#0	19.95	19.52	19.69		
	RB50#50	20.1	19.85	19.92		
	RB100#0	20.01	19.68	19.78		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd)

Result:**Pass****Peak-to-average Ratio(PAR)**

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	5.65	6.06	6	13
	RB100#0	4.72	4.35	4.43	13
20MHz 16QAM	RB1#0	6.06	7.19	6.61	13
	RB100#0	6.12	6	6	13
Result:					Pass

FCC §2.1049, §27.53:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.531	4.531	4.531	5.16	6.06	5.16
5MHz 16QAM	4.511	4.531	4.531	5.12	5.18	5.2
10MHz QPSK	8.942	8.982	8.982	9.8	10.04	9.84
10MHz 16QAM	8.942	8.982	8.942	9.84	9.84	9.96
15MHz QPSK	13.473	13.533	13.593	15.06	15.78	15.48
15MHz 16QAM	13.533	13.533	13.593	15.06	15.12	15.18
20MHz QPSK	17.964	17.964	17.964	19.6	19.92	21.76
20MHz 16QAM	17.964	17.884	18.044	19.84	19.6	19.68

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal**Result:** Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**FCC §2.1051, §27.53:Out of band emission, Band Edge****Result:** Pass, Please refer to the test plots of Out of band emission, Band Edge.

FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	664.062	663.00	697.068	698.00
	-20	3.8	664.077	663.00	697.004	698.00
	-10	3.8	664.063	663.00	697.094	698.00
	0	3.8	664.087	663.00	697.053	698.00
	10	3.8	664.098	663.00	697.026	698.00
	20	3.8	664.058	663.00	697.022	698.00
	30	3.8	664.015	663.00	697.068	698.00
	40	3.8	664.004	663.00	697.044	698.00
Frequency Stability vs. Voltage	20	3.45	664.065	663.00	697.006	698.00
	20	4.4	664.089	663.00	697.089	698.00
					Result:	Pass

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	664.098	663.00	697.122	698.00
	-20	3.8	664.022	663.00	697.060	698.00
	-10	3.8	664.001	663.00	697.117	698.00
	0	3.8	664.020	663.00	697.063	698.00
	10	3.8	664.029	663.00	697.063	698.00
	20	3.8	664.058	663.00	697.102	698.00
	30	3.8	664.043	663.00	697.108	698.00
	40	3.8	664.026	663.00	697.122	698.00
Frequency Stability vs. Voltage	20	3.45	664.015	663.00	697.101	698.00
	20	4.4	664.047	663.00	697.101	698.00
					Result:	Pass