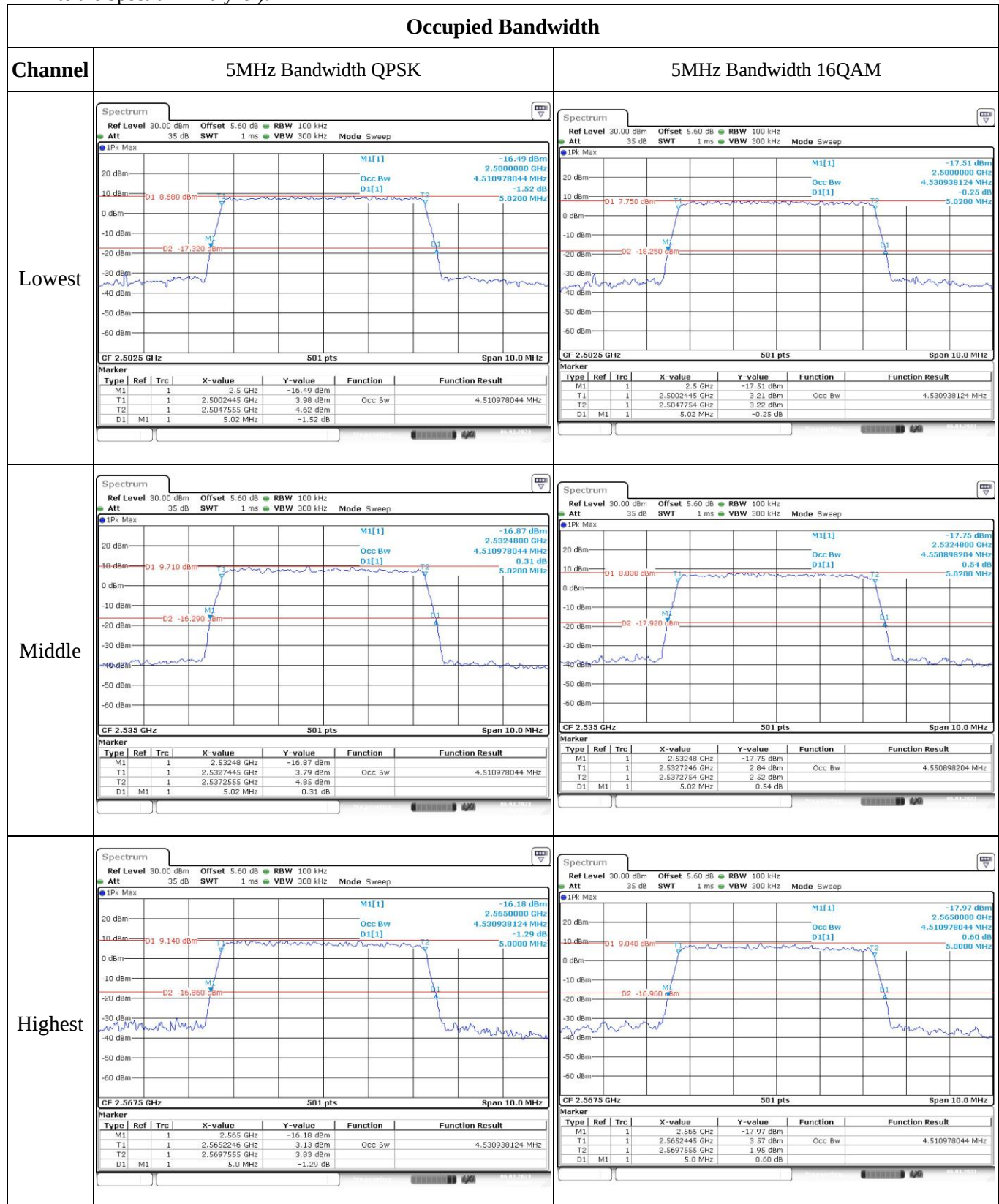


Test Plots(Note: The 5.6dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):



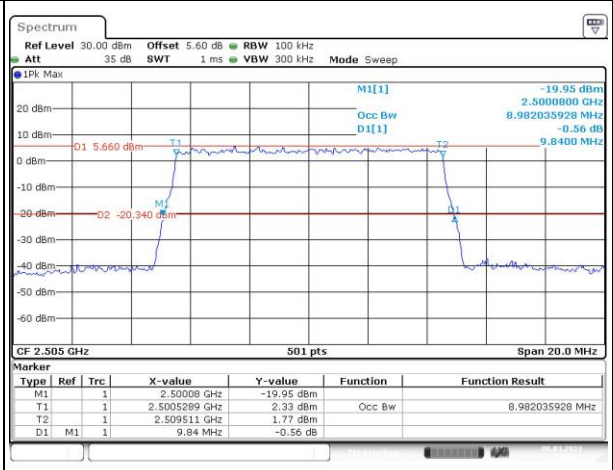
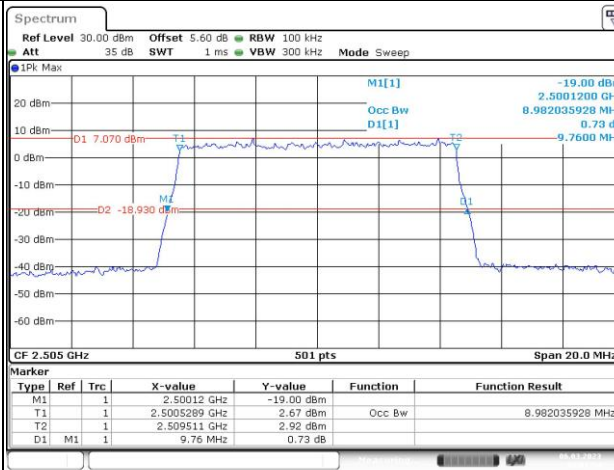
Occupied Bandwidth

Channel

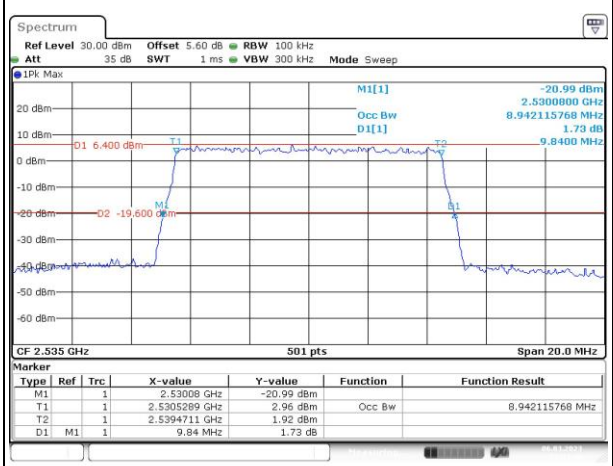
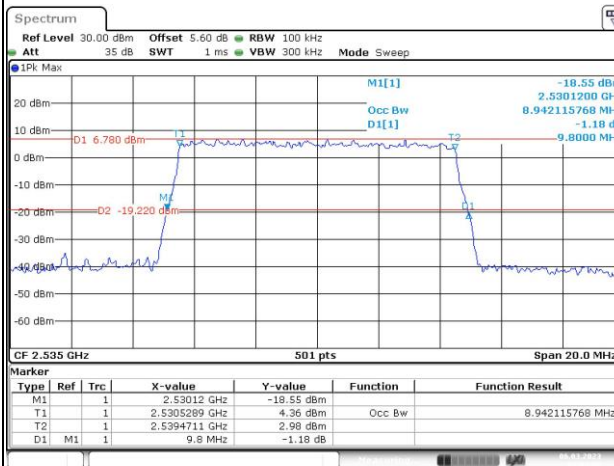
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

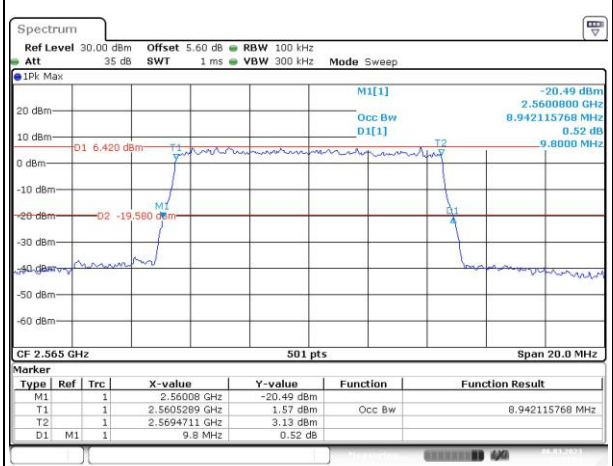
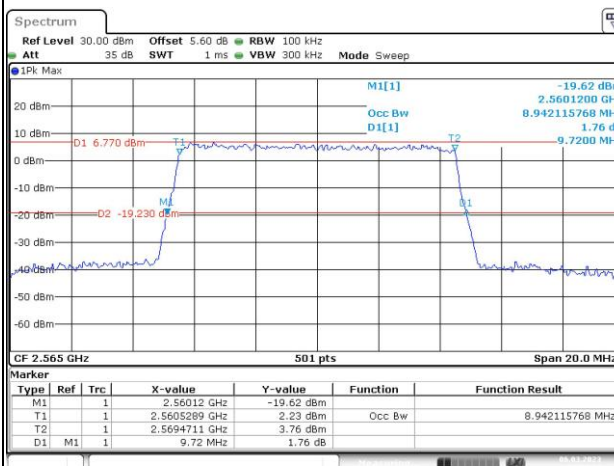
Lowest



Middle



Highest



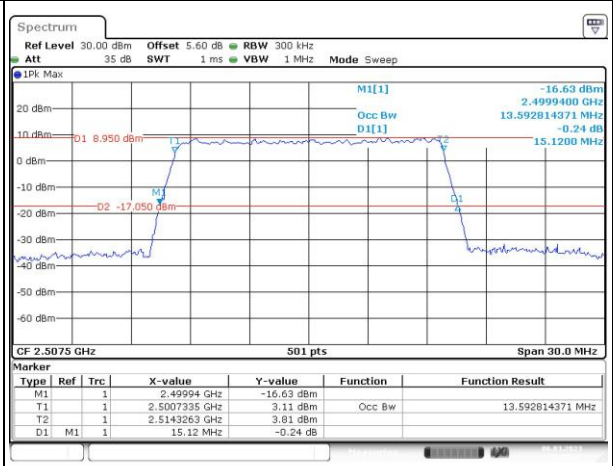
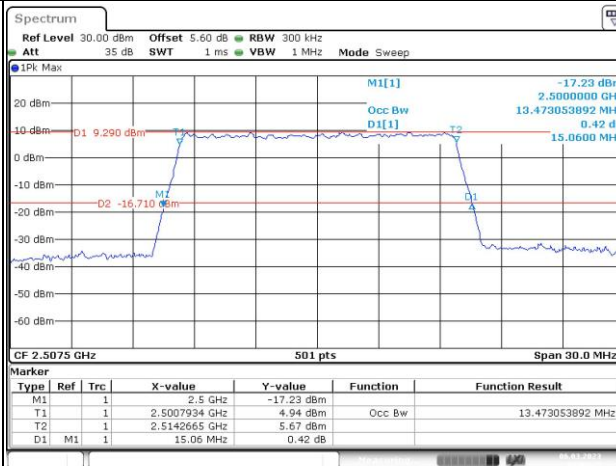
Occupied Bandwidth

Channel

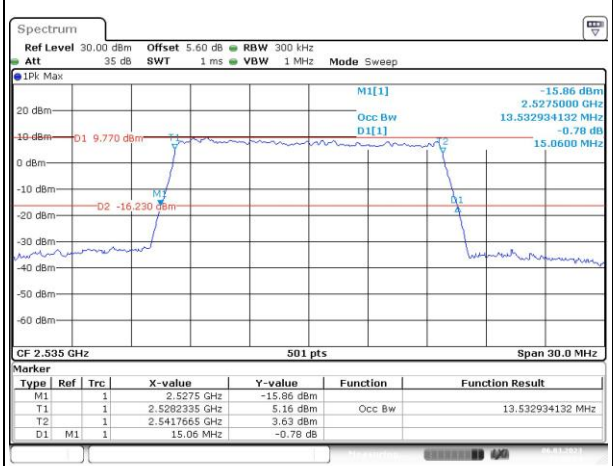
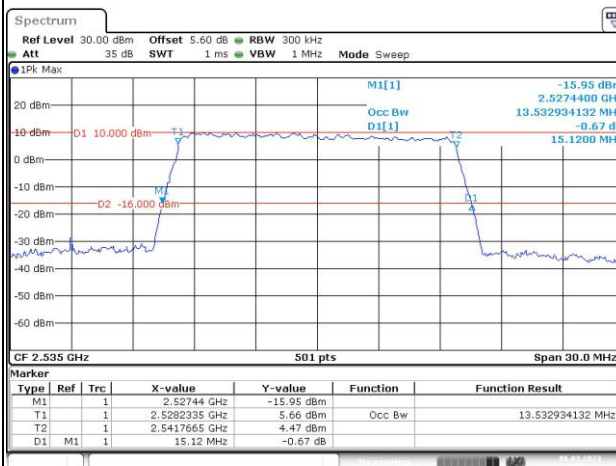
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

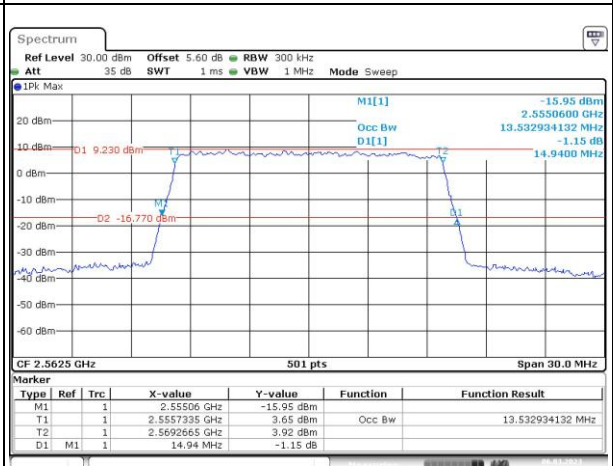
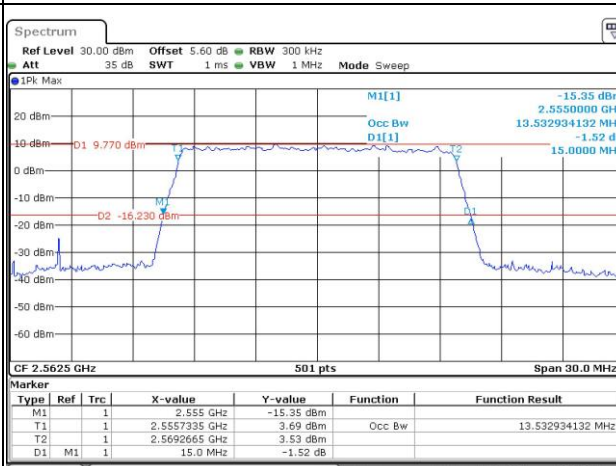
Lowest



Middle



Highest



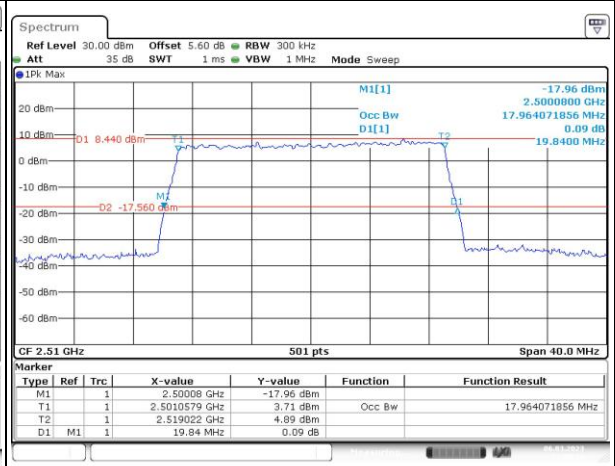
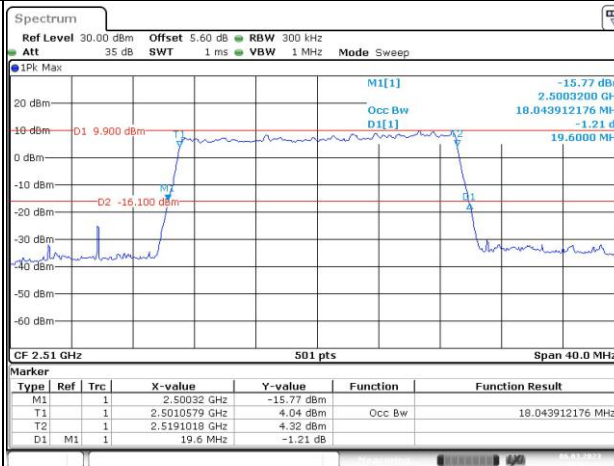
Occupied Bandwidth

Channel

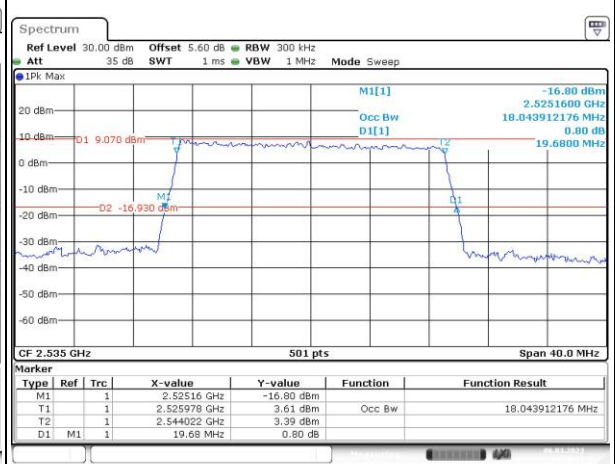
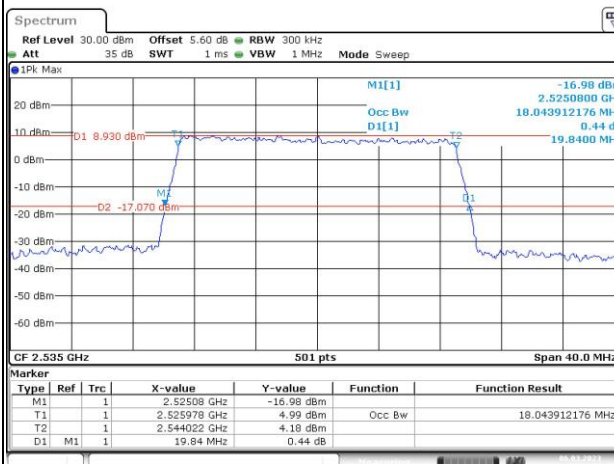
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

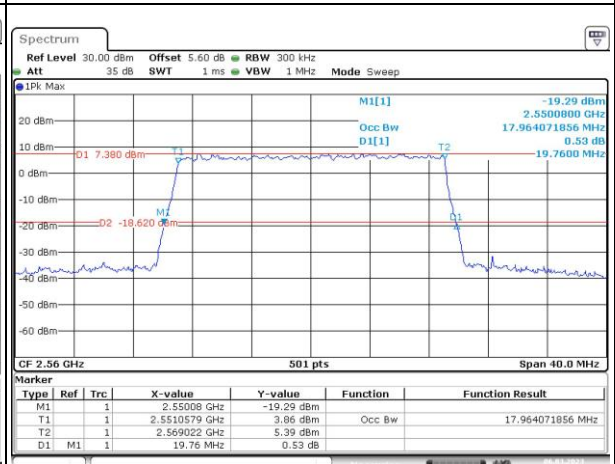
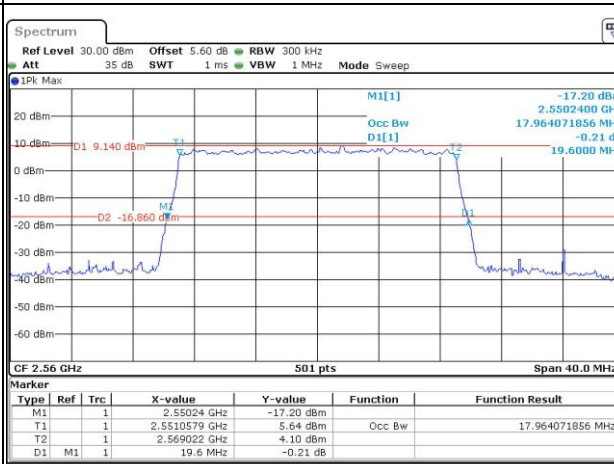
Lowest



Middle



Highest

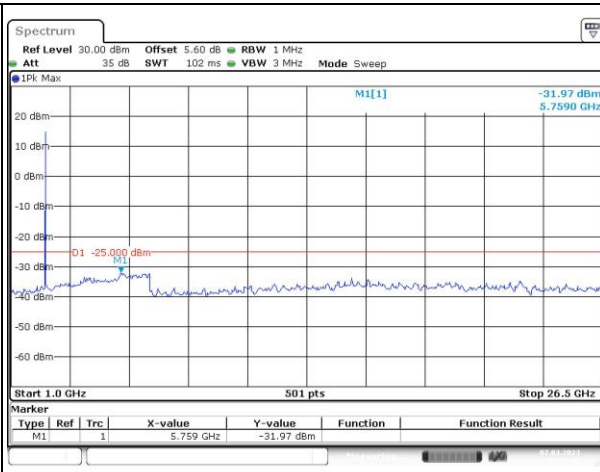
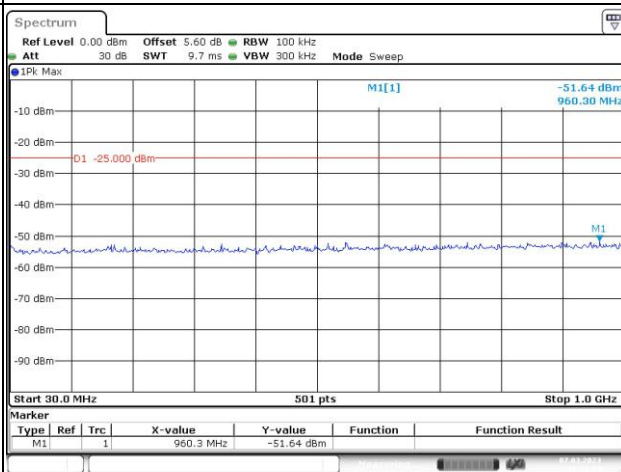


Spurious Emissions at Antenna Terminal

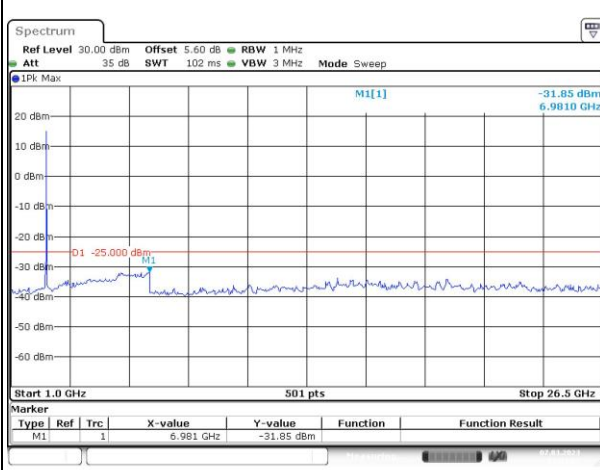
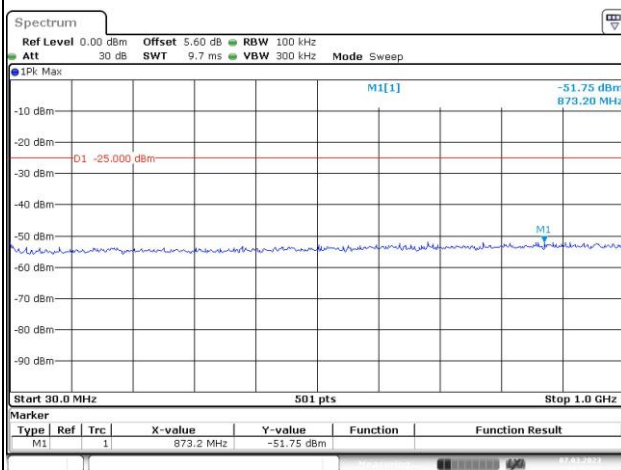
Channel

5MHz Bandwidth QPSK

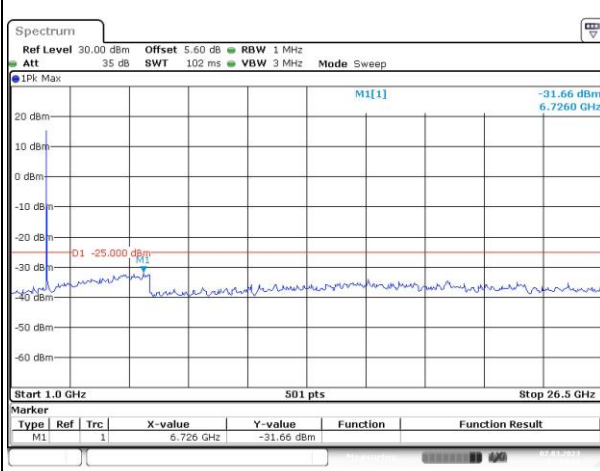
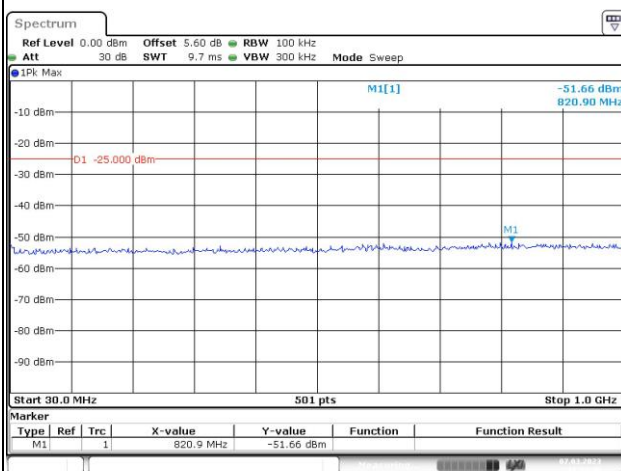
Lowest



Middle



Highest

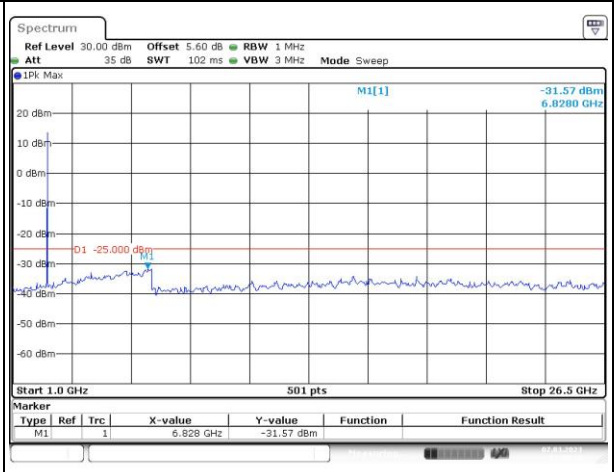
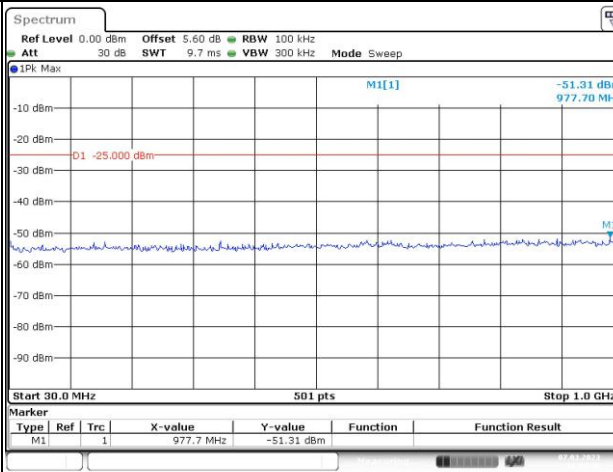


Spurious Emissions at Antenna Terminal

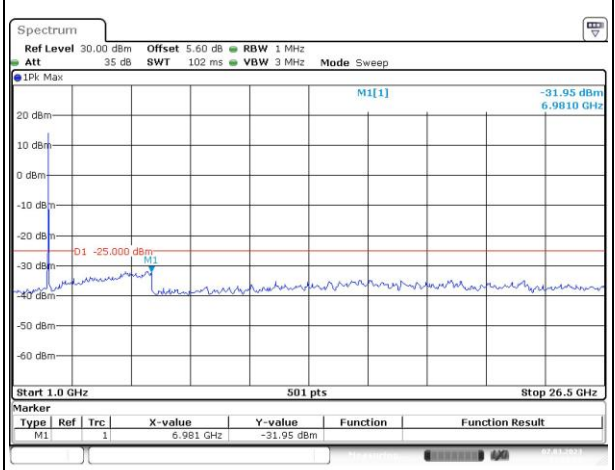
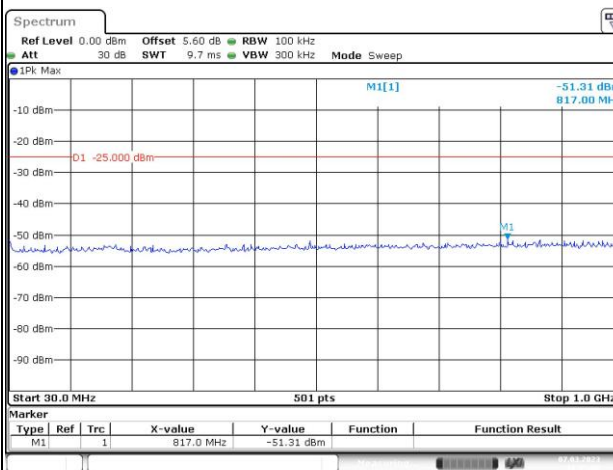
Channel

10MHz Bandwidth QPSK

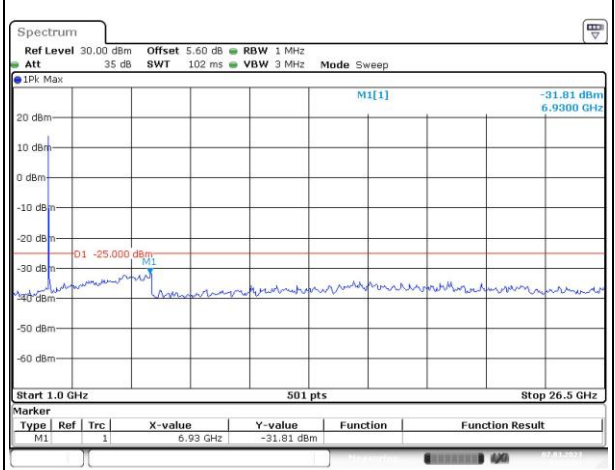
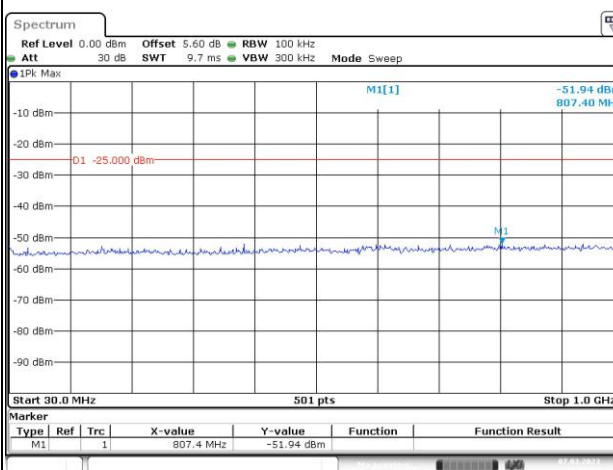
Lowest



Middle



Highest

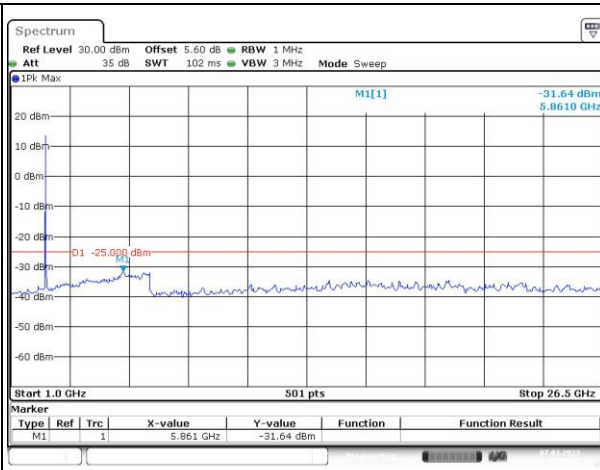
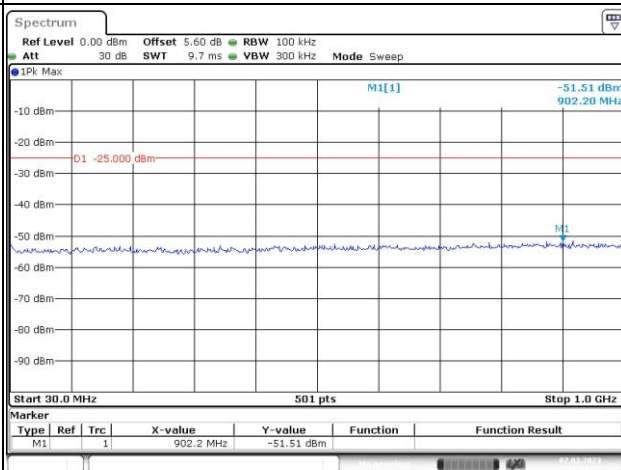


Spurious Emissions at Antenna Terminal

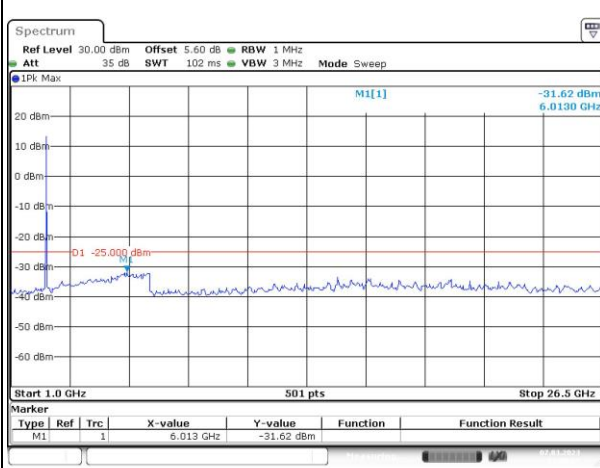
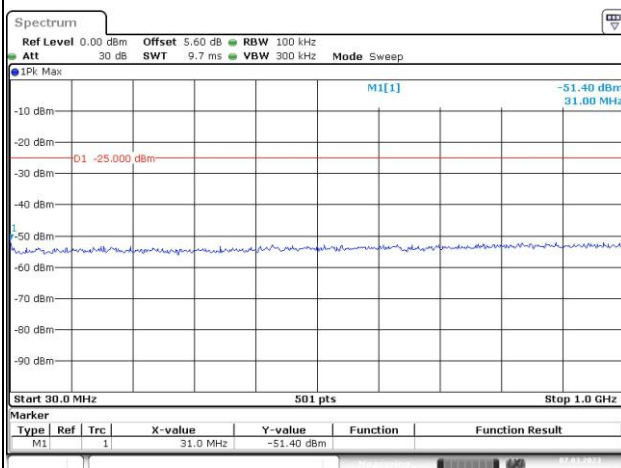
Channel

15MHz Bandwidth QPSK

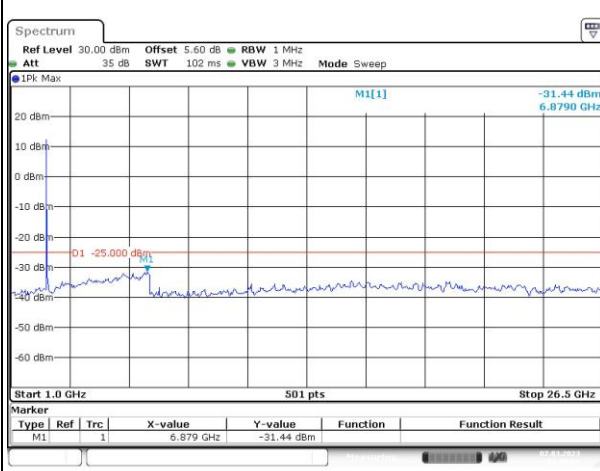
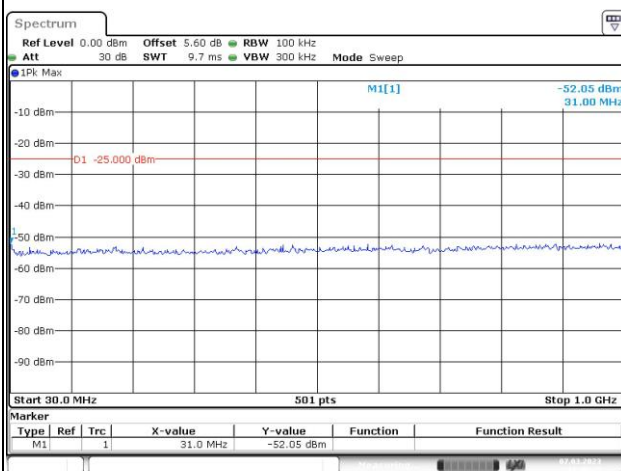
Lowest



Middle



Highest

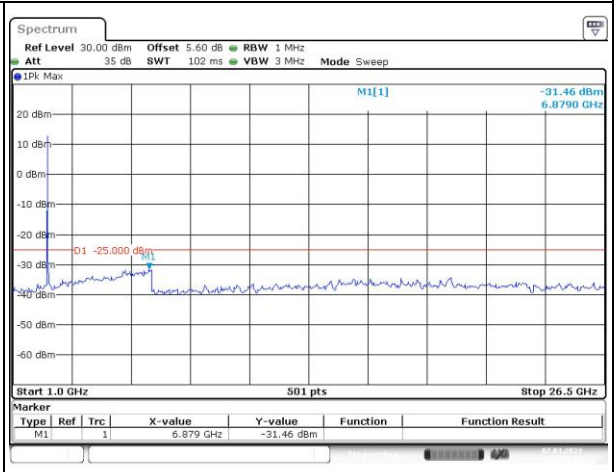
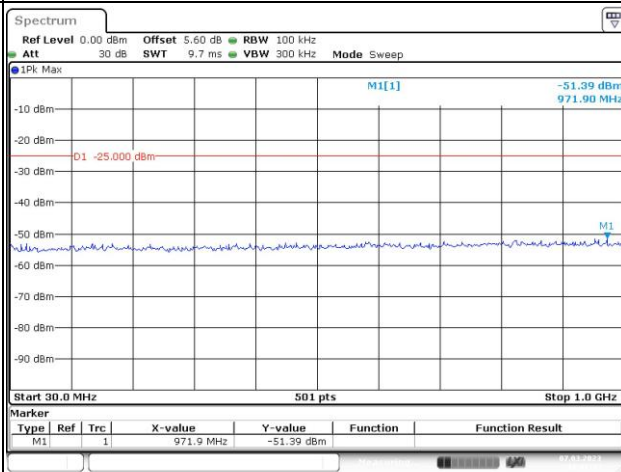


Spurious Emissions at Antenna Terminal

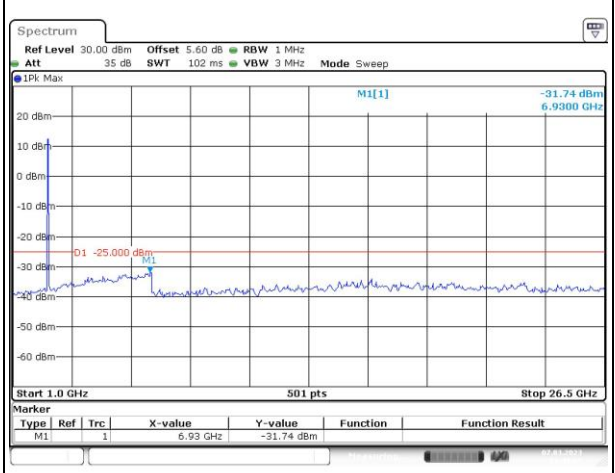
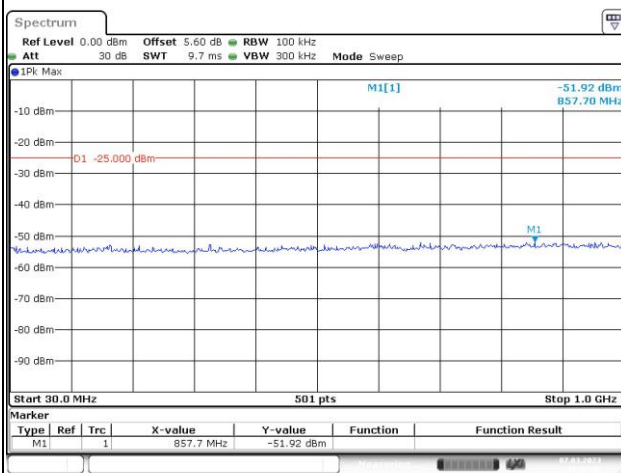
Channel

20MHz Bandwidth QPSK

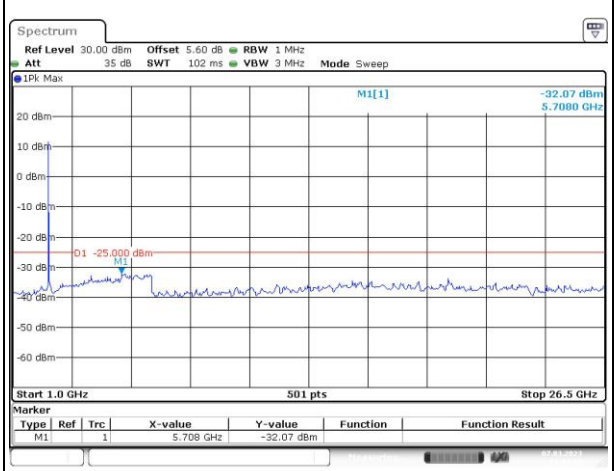
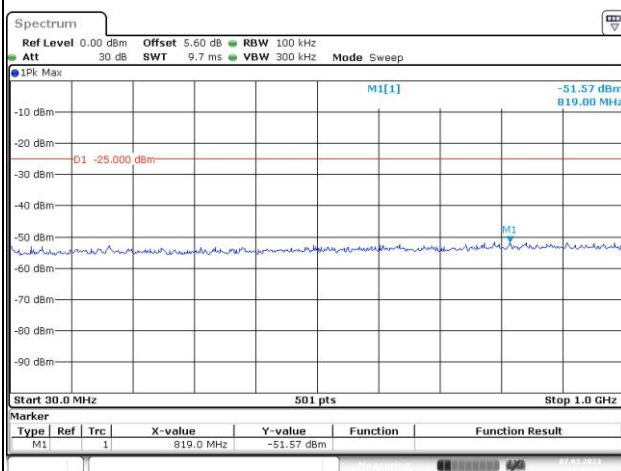
Lowest



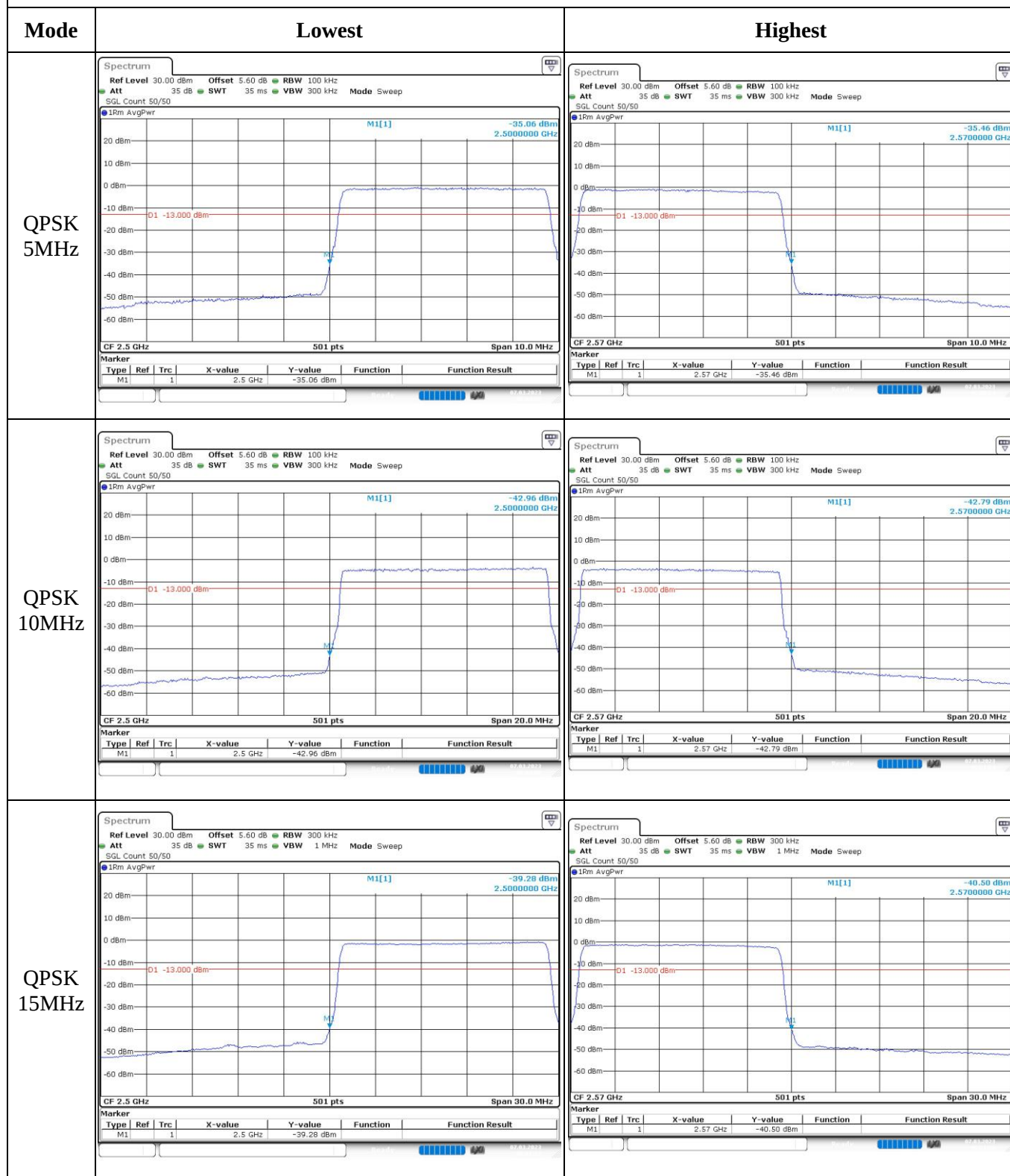
Middle



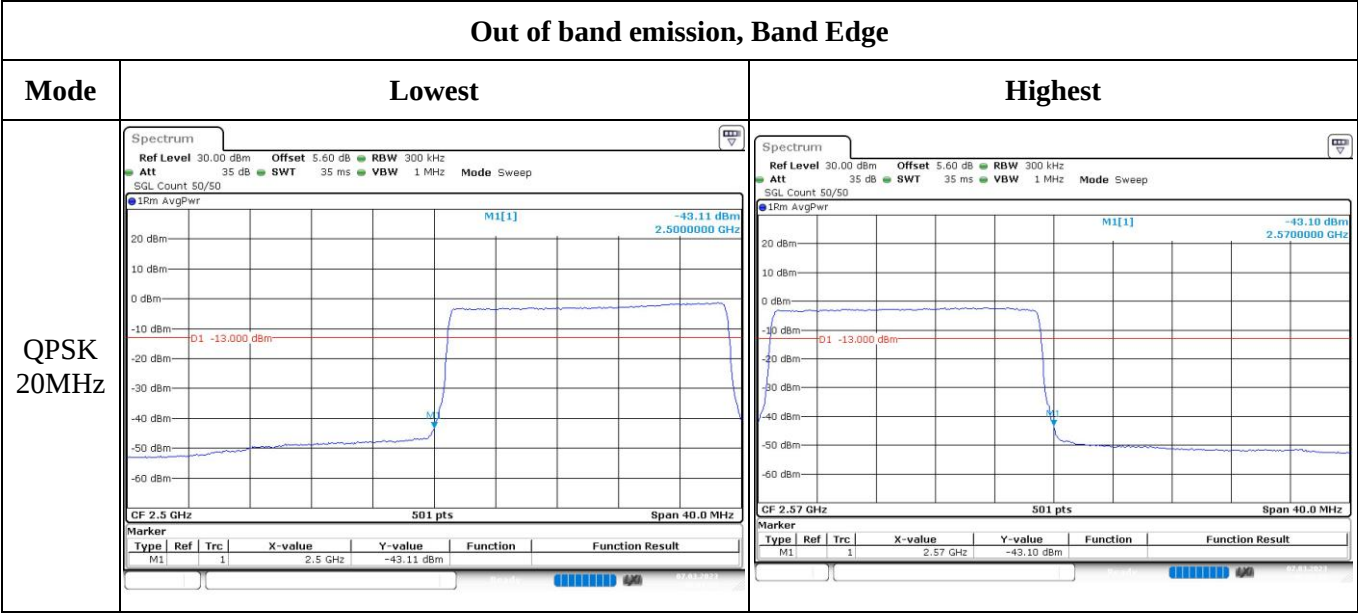
Highest



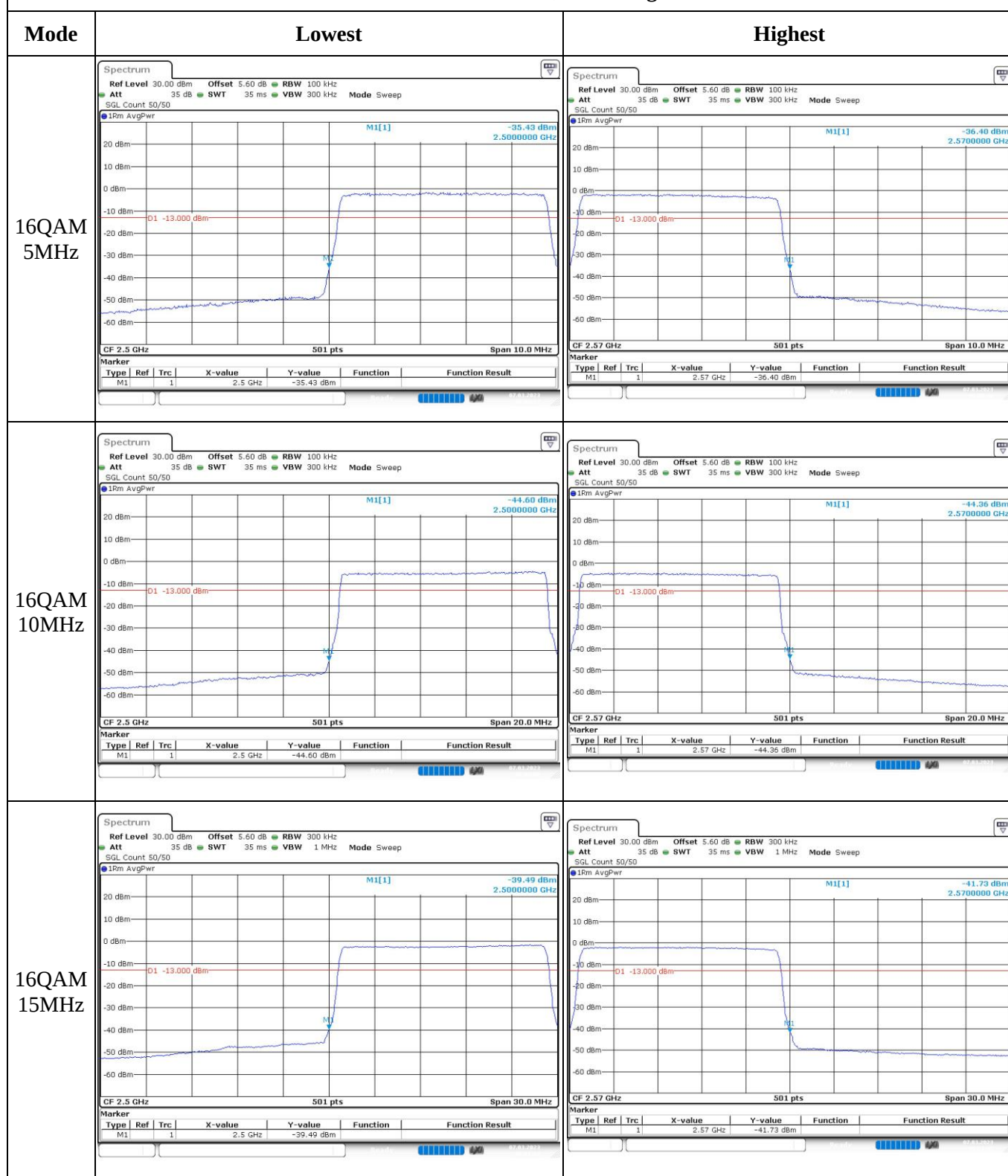
Out of band emission, Band Edge



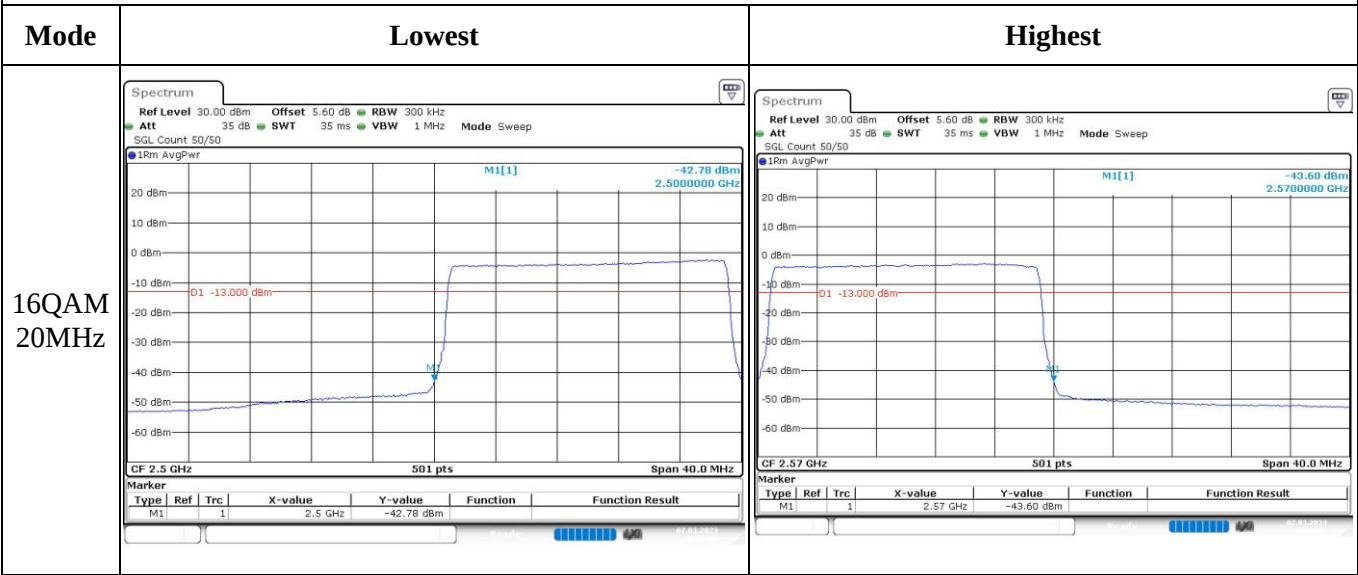
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.10 Antenna Port Test Data and Results for LTE Band 38

Serial Number:	22HX	Test Date:	2023/3/8~2023/3/20
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jou Zhou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	23.4~25.1	Relative Humidity: (%)	43~47	ATM Pressure: (kPa)	100.6~102
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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	SJ0100004	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554404	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Weinschel	Power splitter	1515	RA915	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2022-07-15	2023-07-14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022-04-06	2023-04-05
UNI-T	Multimeter	UT39A+	C210582554	2022-09-29	2023-09-28
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	2572.5	2595	2617.5
10MHz	2575	2595	2615
15MHz	2577.5	2595	2612.5
20MHz	2580	2595	2610

Test Data:**FCC §2.1046; § 27.50(h)(2)****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	18.03	17.72	17.98	17.85	33
	RB1#13	17.89	17.64	17.93		
	RB1#24	17.95	17.63	17.94		
	RB15#0	16.75	16.79	16.82		
	RB15#10	16.82	16.81	16.8		
	RB25#0	16.75	16.7	16.79		
5MHz 16QAM	RB1#0	17.21	16.67	17.04	17.03	33
	RB1#13	17.19	16.57	16.96		
	RB1#24	17.14	16.87	17.21		
	RB15#0	16.06	16.01	15.99		
	RB15#10	16.06	16.02	15.97		
	RB25#0	16.14	15.76	16.04		
10MHz QPSK	RB1#0	17.98	17.78	17.7	17.89	33
	RB1#25	17.89	17.77	17.88		
	RB1#49	17.96	17.85	18.07		
	RB25#0	16.78	16.85	16.78		
	RB25#25	16.78	16.84	16.77		
	RB50#0	16.85	16.79	16.86		
10MHz 16QAM	RB1#0	17.18	17.02	16.94	17.22	33
	RB1#25	17.34	17.03	17		
	RB1#49	17.4	17.01	17.01		
	RB25#0	16.05	15.99	15.8		
	RB25#25	16.01	16.09	15.9		
	RB50#0	15.95	15.92	15.87		
15MHz QPSK	RB1#0	17.96	17.61	17.78	17.78	33
	RB1#38	17.95	17.59	17.76		
	RB1#74	17.87	17.6	17.72		
	RB36#0	16.86	16.81	16.78		
	RB36#39	16.78	16.73	16.83		
	RB75#0	16.85	16.7	16.8		
15MHz 16QAM	RB1#0	17.15	16.91	16.72	17.14	33
	RB1#38	17.09	17.09	16.68		
	RB1#74	17.32	16.98	16.71		
	RB36#0	16.04	15.83	15.89		
	RB36#39	15.95	15.89	15.82		
	RB75#0	15.94	15.85	15.91		
20MHz QPSK	RB1#0	17.92	17.99	17.85	17.81	33
	RB1#50	17.78	17.95	17.9		
	RB1#99	17.73	17.98	17.97		

	RB50#0	16.91	16.87	16.73		
	RB50#50	16.75	16.78	16.77		
	RB100#0	16.91	16.78	16.83		
20MHz 16QAM	RB1#0	16.71	17.62	17.06	17.44	33
	RB1#50	16.55	17.5	17.14		
	RB1#99	16.63	17.53	17.17		
	RB50#0	16.04	15.85	16.05		
	RB50#50	16.01	15.97	16		
	RB100#0	15.99	15.96	16.01		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + G _T (dBi)						
					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	8.64	8.58	9.04	13
	RB100#0	8.17	8.26	8.43	13
20MHz 16QAM	RB1#0	9.22	9.48	9.59	13
	RB100#0	9.71	9.71	9.86	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	4.511	4.511	4.531	5.16	5.12	5.22
5MHz 16QAM	4.511	4.531	4.511	5.08	5	5.04
10MHz QPSK	8.942	8.942	8.982	9.76	9.76	9.8
10MHz 16QAM	8.942	8.942	8.942	9.8	10.2	9.76
15MHz QPSK	13.533	13.533	13.593	15.66	15.84	16.02
15MHz 16QAM	13.533	13.533	13.533	15.96	15.84	15.9
20MHz QPSK	17.964	18.044	18.044	20.4	19.92	19.68
20MHz 16QAM	17.964	17.964	18.044	20.56	19.68	20.08
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.
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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.
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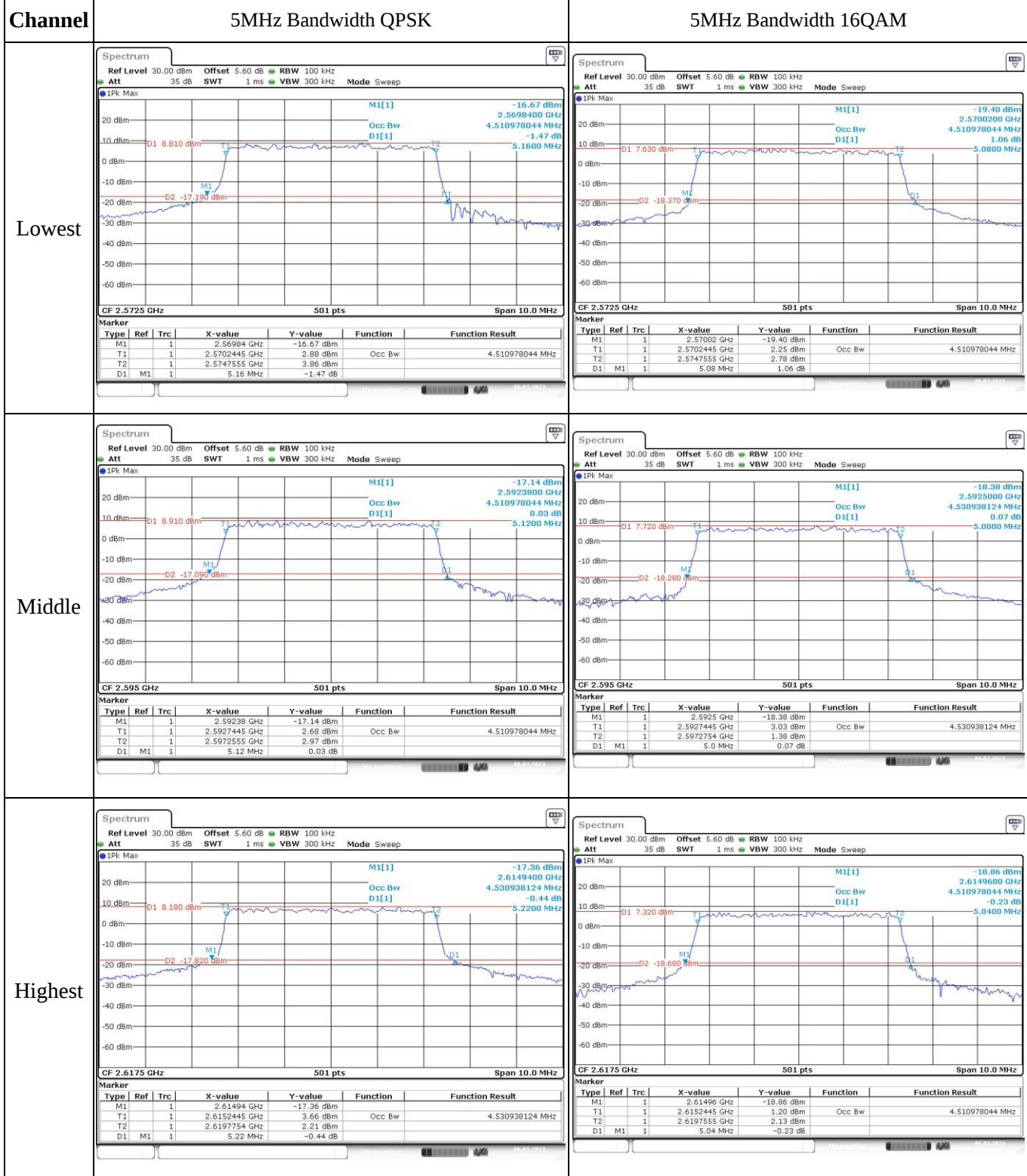
FCC §2.1055, §27.54: Frequency Stability

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	3.7	2571.045	2570.00	2619.161	2620
	-20	3.7	2571.016	2570.00	2619.157	2620
	-10	3.7	2571.001	2570.00	2619.122	2620
	0	3.7	2571.081	2570.00	2619.090	2620
	10	3.7	2571.084	2570.00	2619.041	2620
	20	3.7	2571.058	2570.00	2619.022	2620
	30	3.7	2571.077	2570.00	2619.000	2620
	40	3.7	2571.081	2570.00	2618.990	2620
	50	3.7	2571.004	2570.00	2618.925	2620
Frequency Stability vs. Voltage	20	3.5	2571.098	2570.00	2619.052	2620
	20	4.2	2571.058	2570.00	2618.956	2620
					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	3.7	2571.145	2570.00	2619.141	2620
	-20	3.7	2571.109	2570.00	2619.126	2620
	-10	3.7	2571.093	2570.00	2619.114	2620
	0	3.7	2571.052	2570.00	2619.067	2620
	10	3.7	2571.008	2570.00	2619.066	2620
	20	3.7	2570.990	2570.00	2619.022	2620
	30	3.7	2570.977	2570.00	2618.998	2620
	40	3.7	2570.908	2570.00	2618.984	2620
	50	3.7	2570.860	2570.00	2618.914	2620
Frequency Stability vs. Voltage	20	3.5	2571.000	2570.00	2619.051	2620
	20	4.2	2570.932	2570.00	2618.953	2620
					Result:	Pass

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



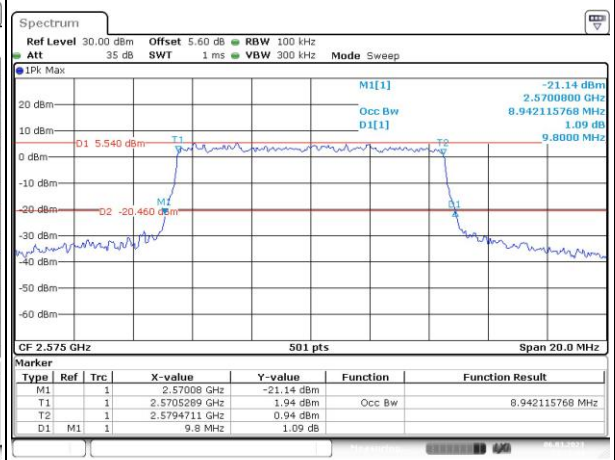
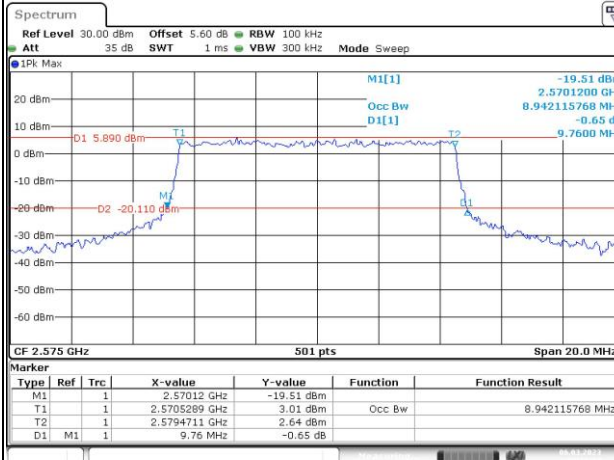
Occupied Bandwidth

Channel

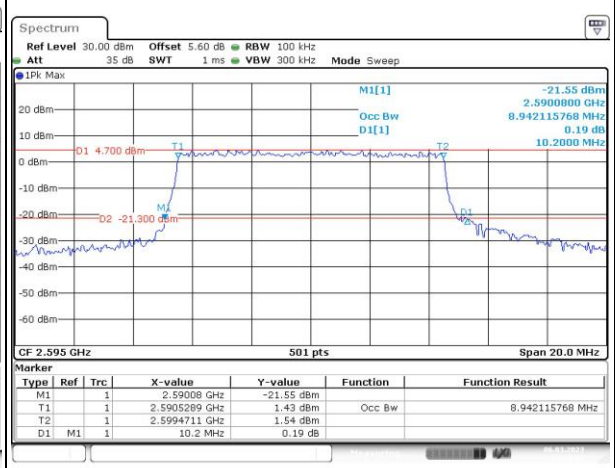
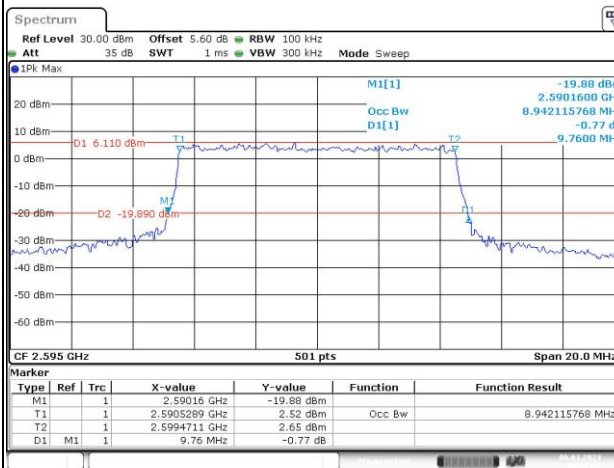
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

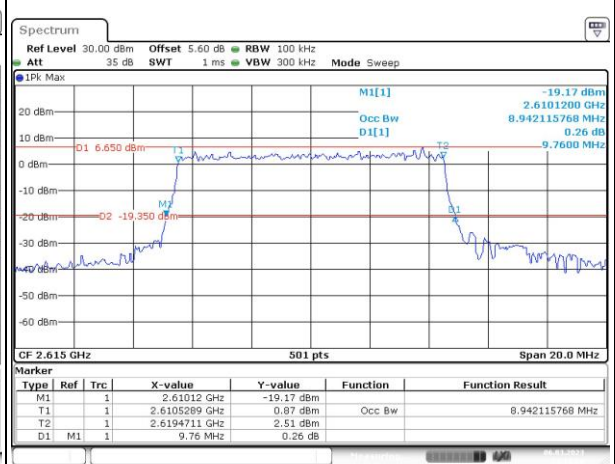
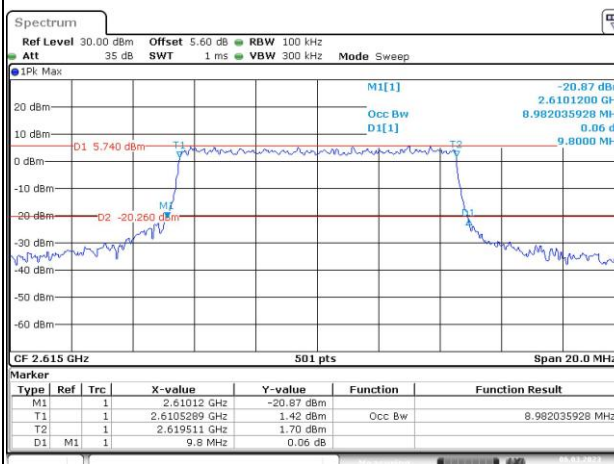
Lowest



Middle



Highest



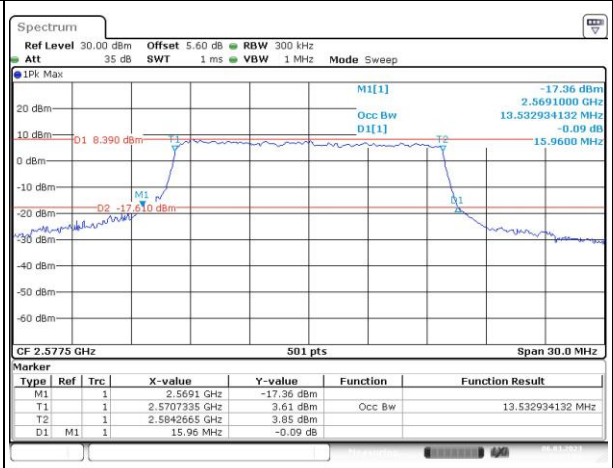
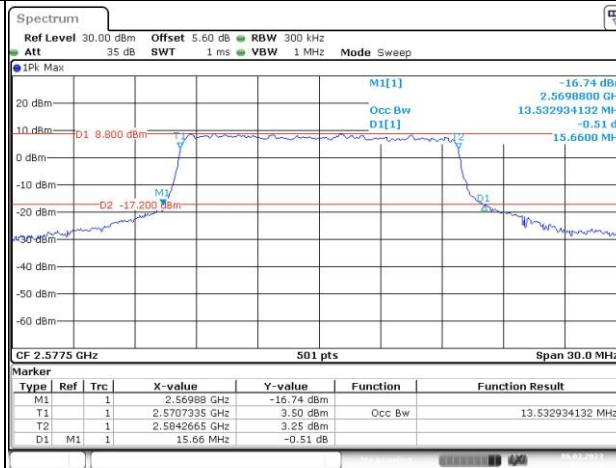
Occupied Bandwidth

Channel

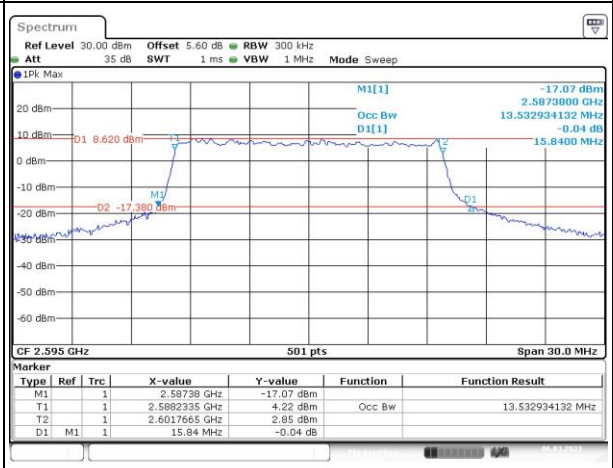
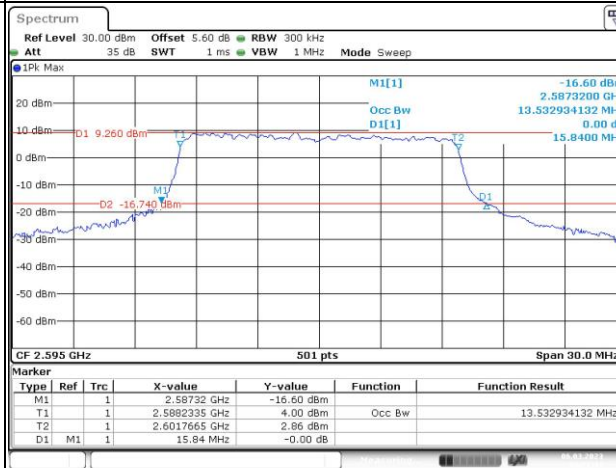
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

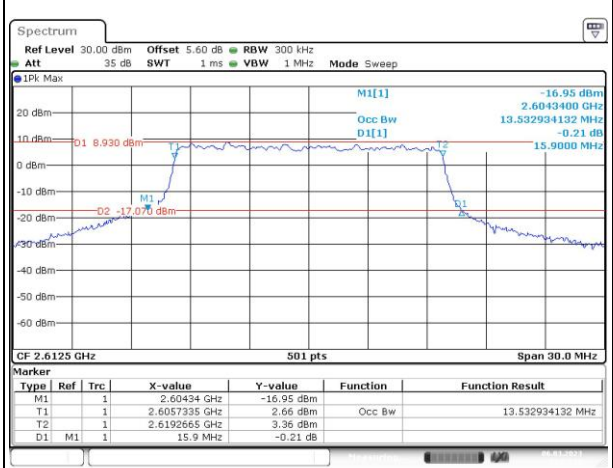
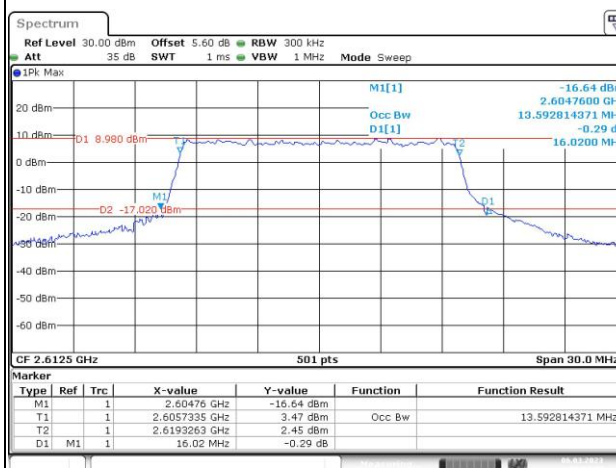
Lowest



Middle



Highest



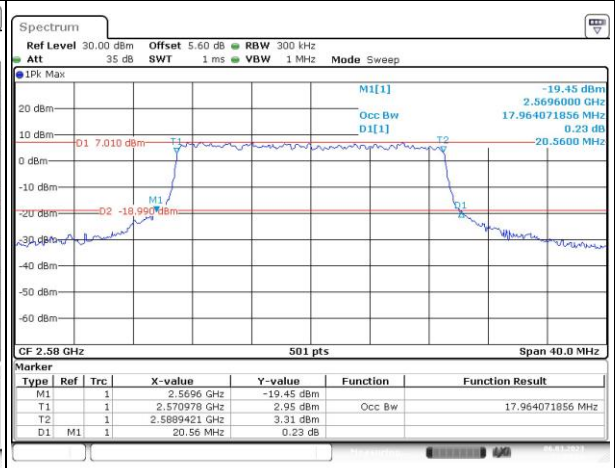
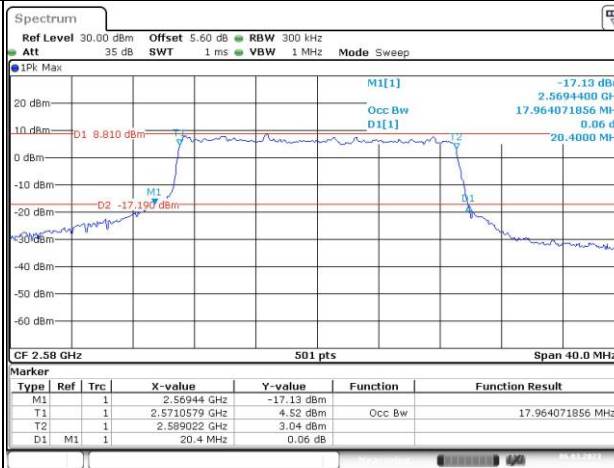
Occupied Bandwidth

Channel

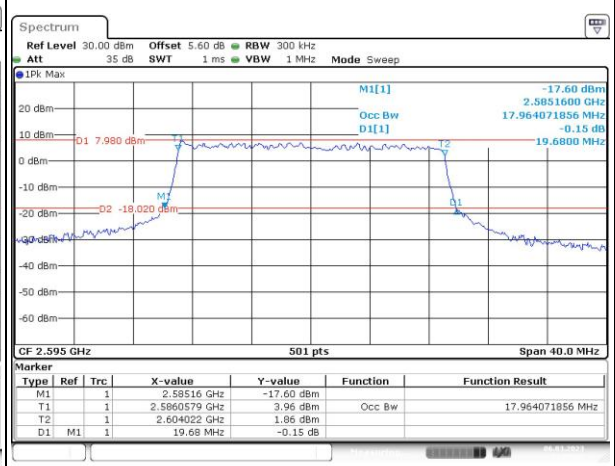
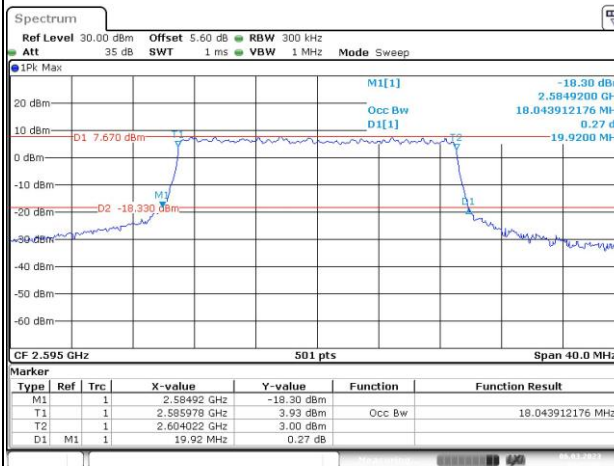
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

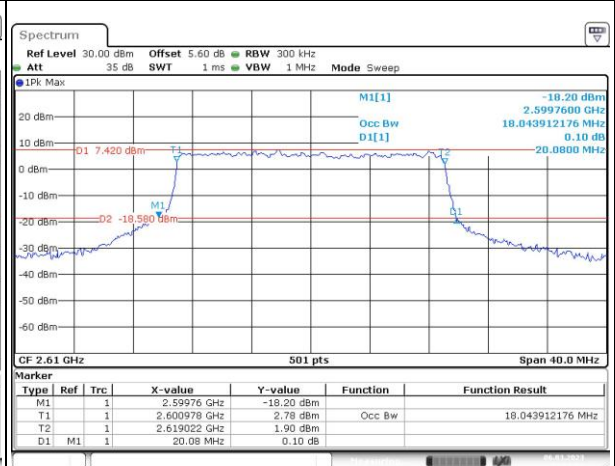
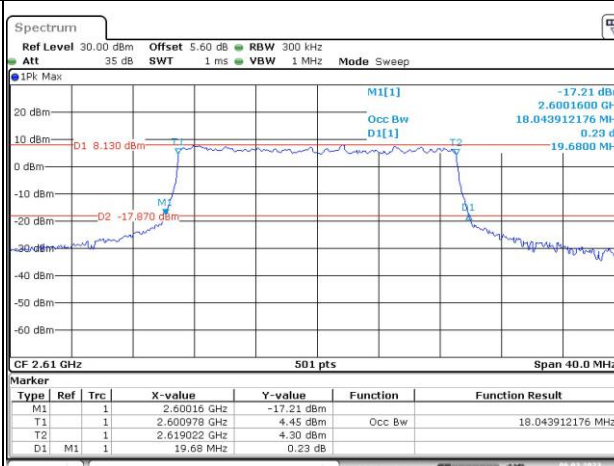
Lowest



Middle



Highest

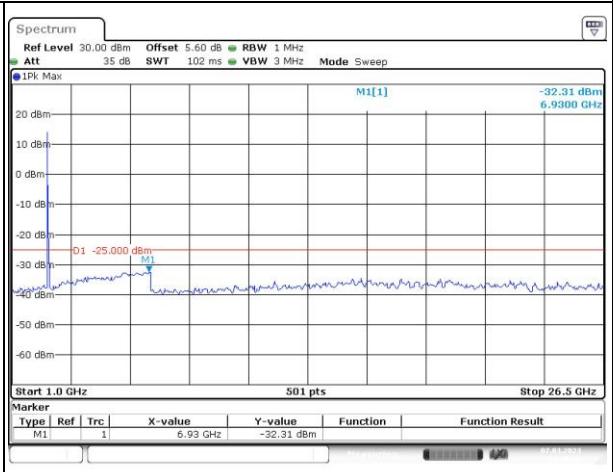
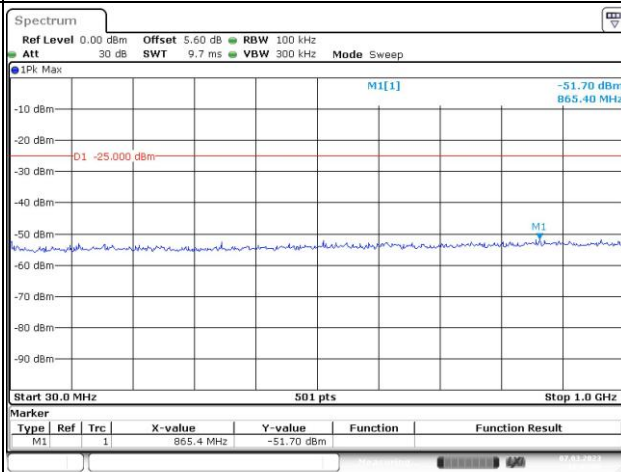


Spurious Emissions at Antenna Terminal

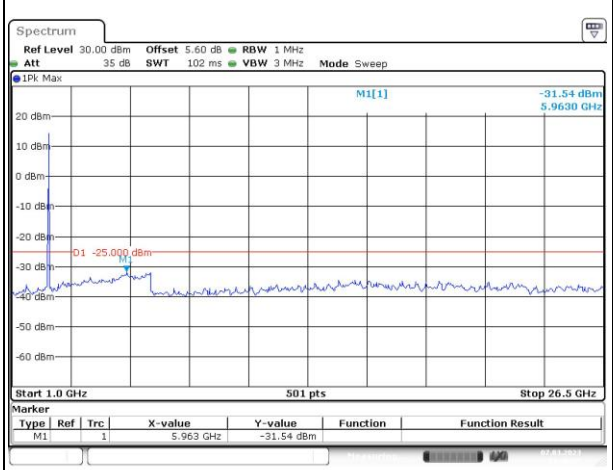
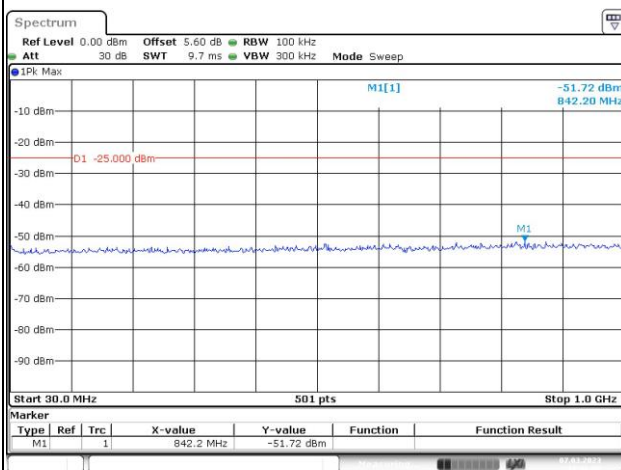
Channel

5MHz Bandwidth QPSK

Lowest



Middle



Highest

