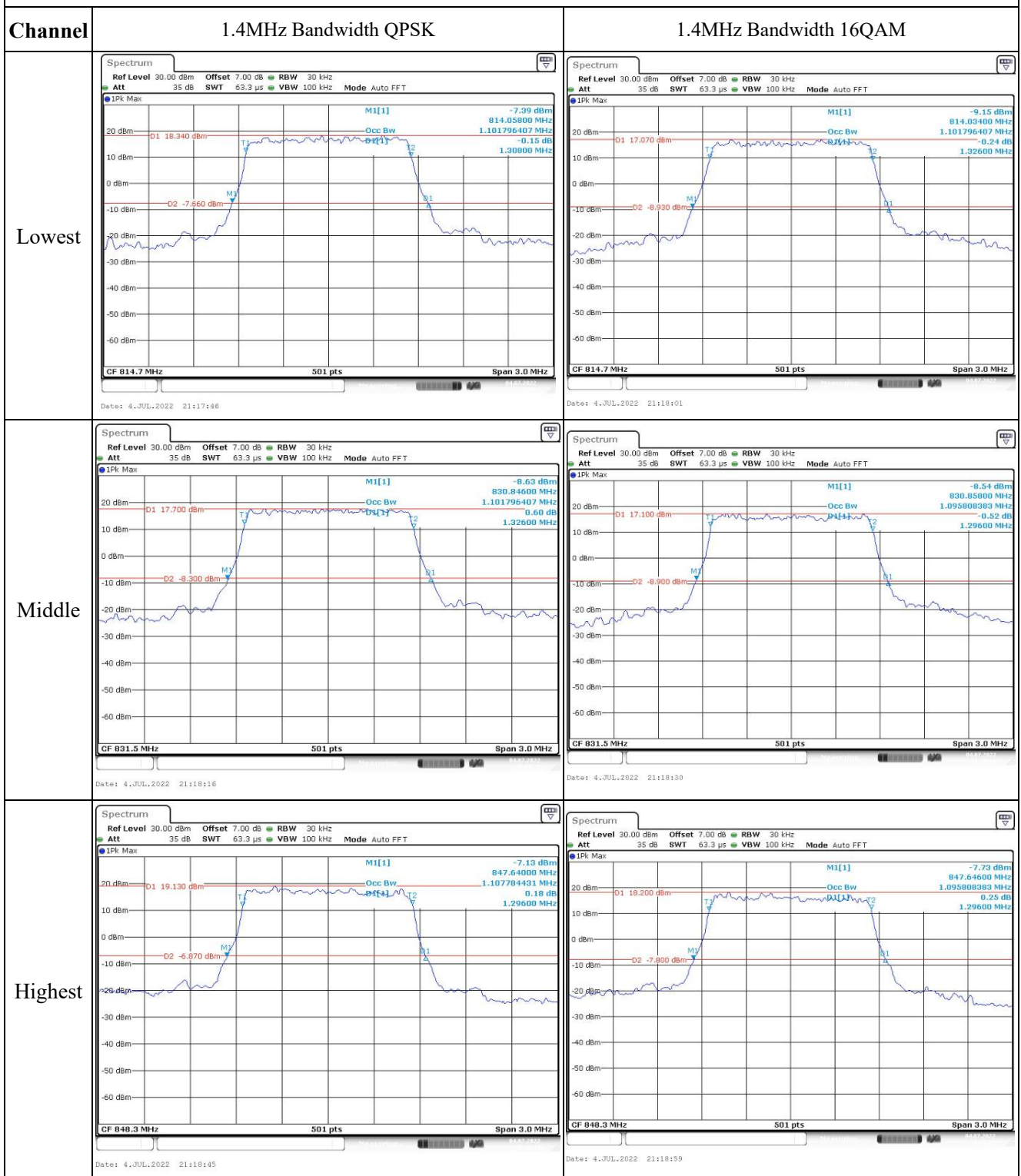


Test Plots:

Occupied Bandwidth



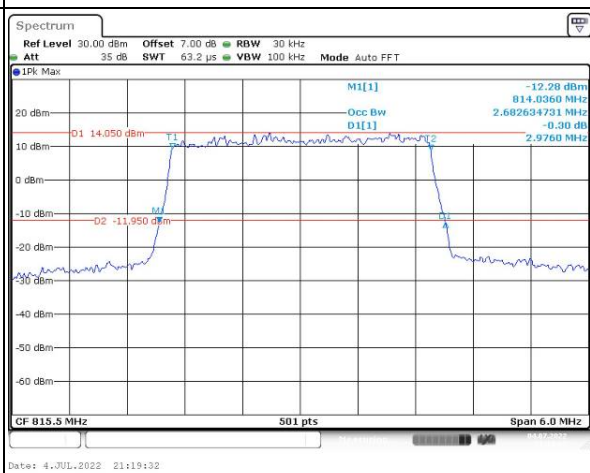
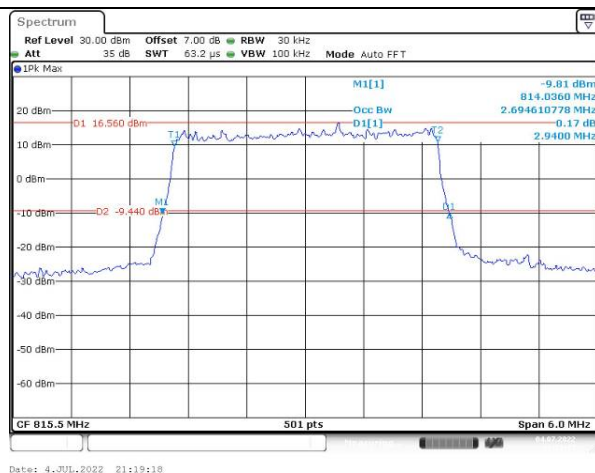
Occupied Bandwidth

Channel

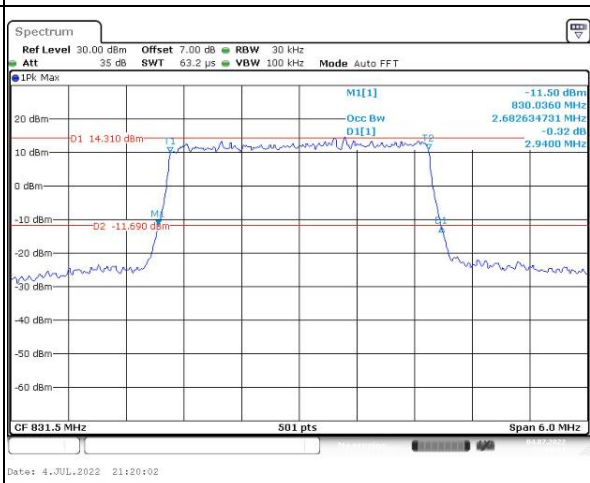
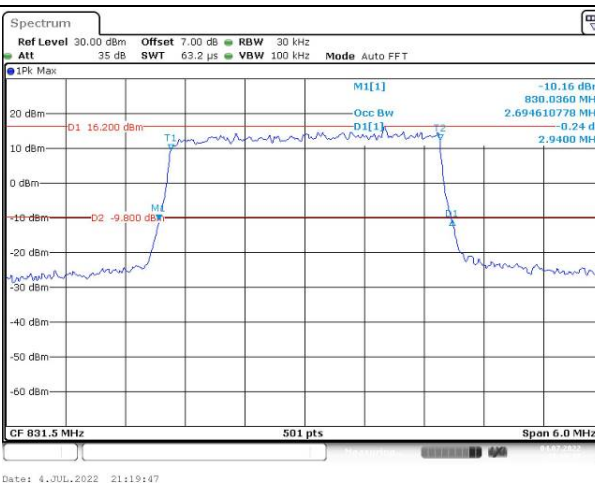
3MHz Bandwidth QPSK

3MHz Bandwidth 16QAM

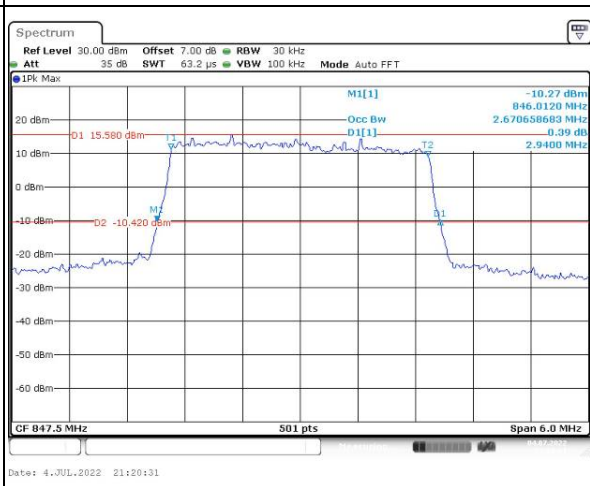
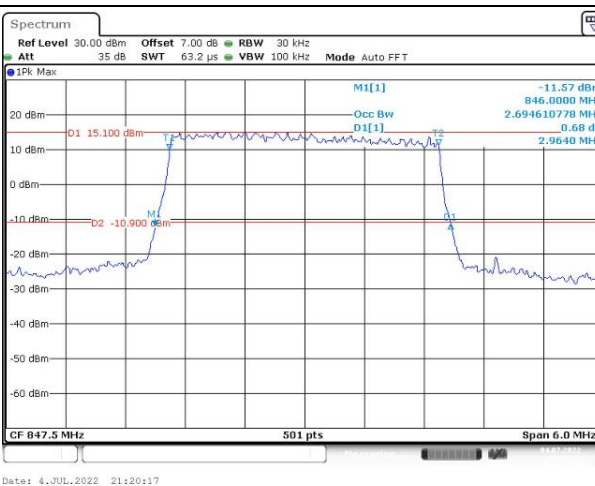
Lowest



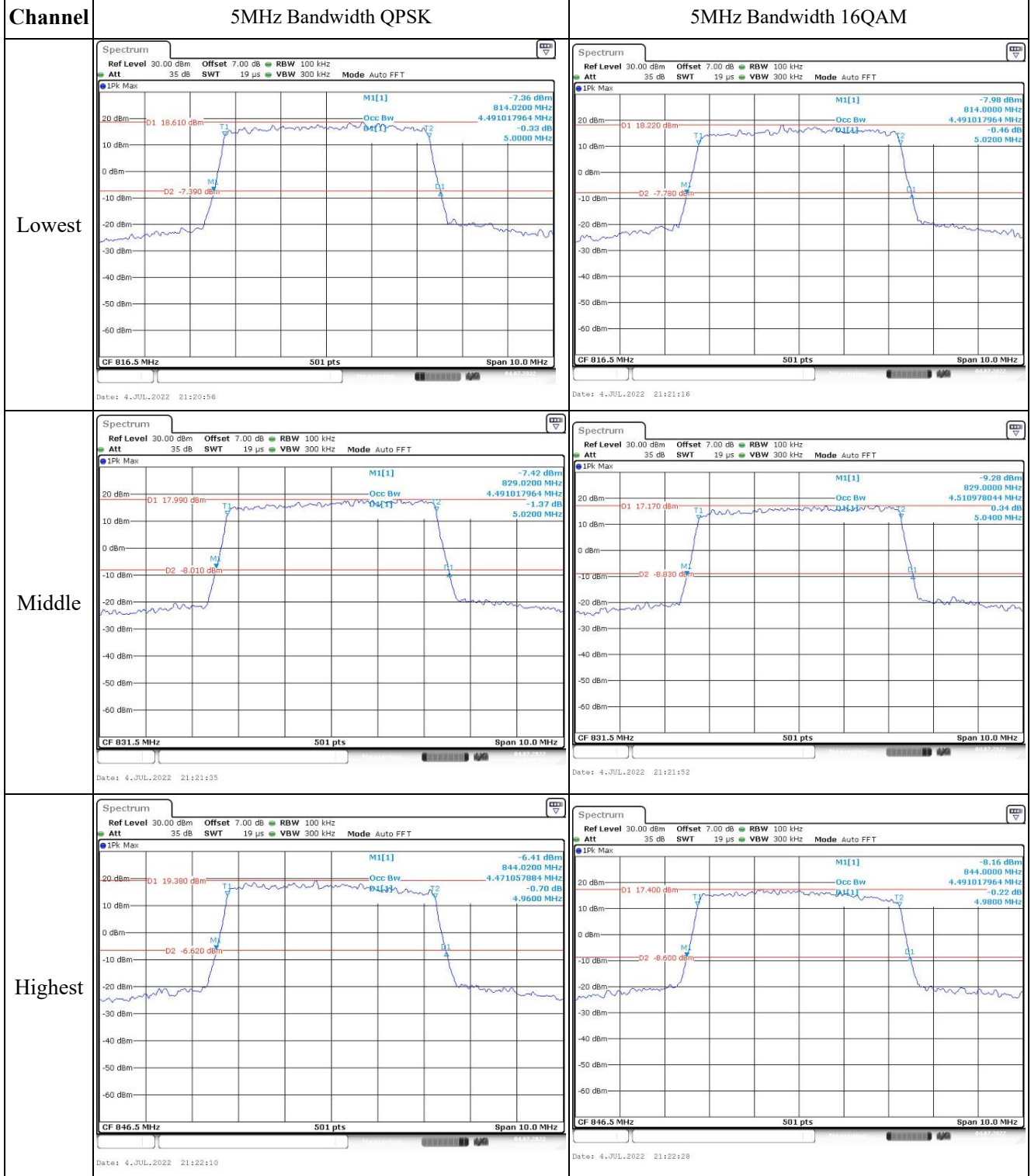
Middle



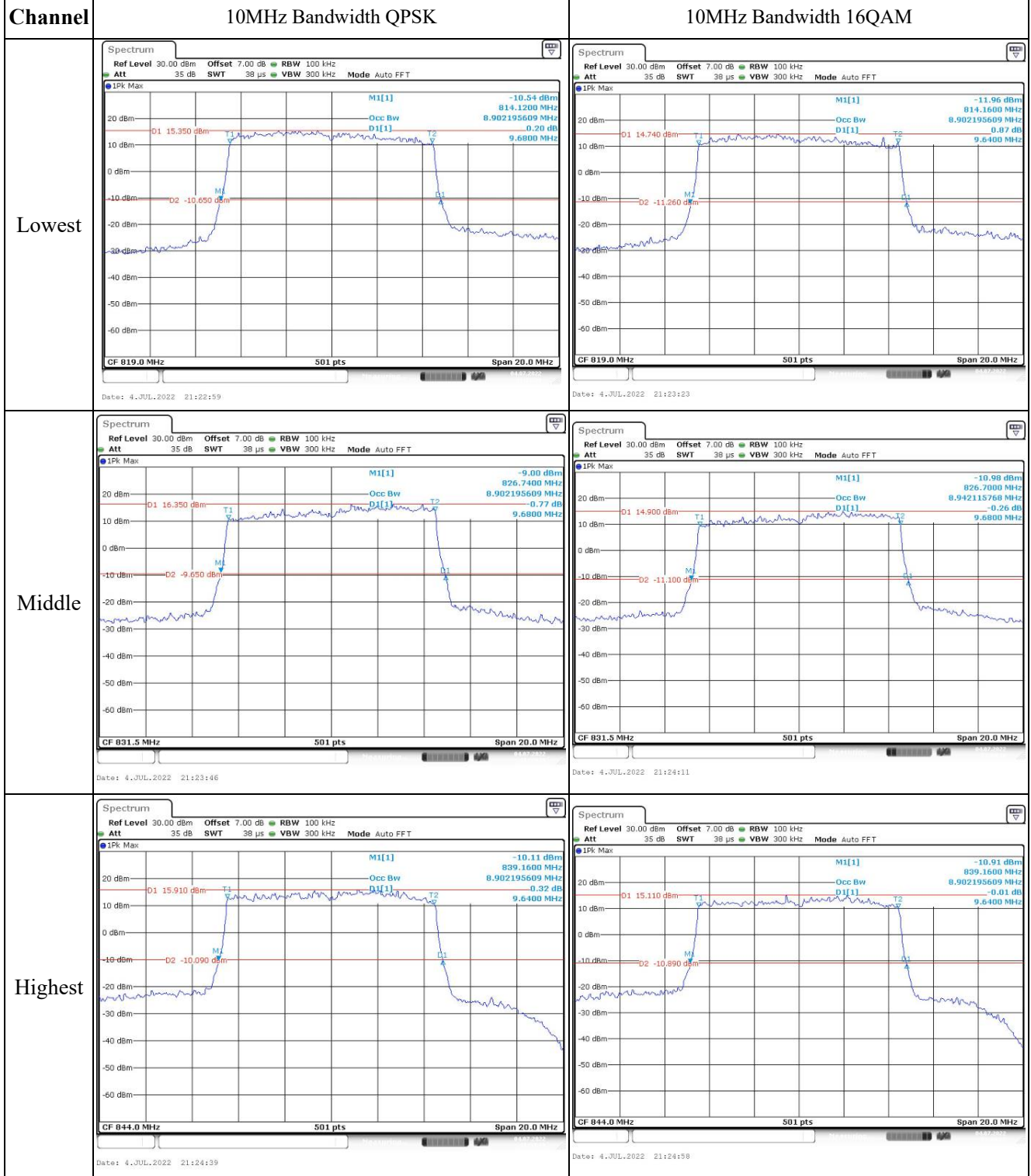
Highest



Occupied Bandwidth



Occupied Bandwidth



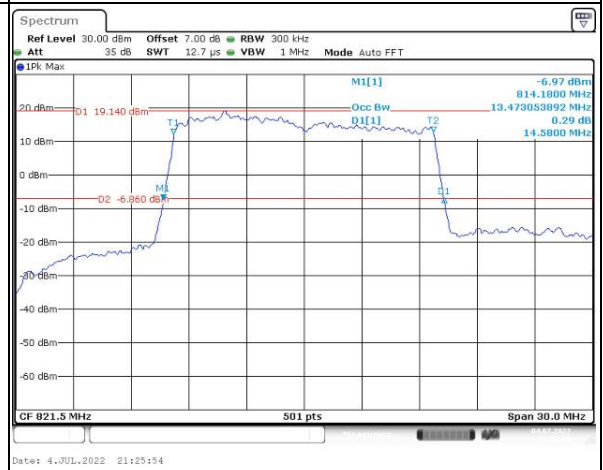
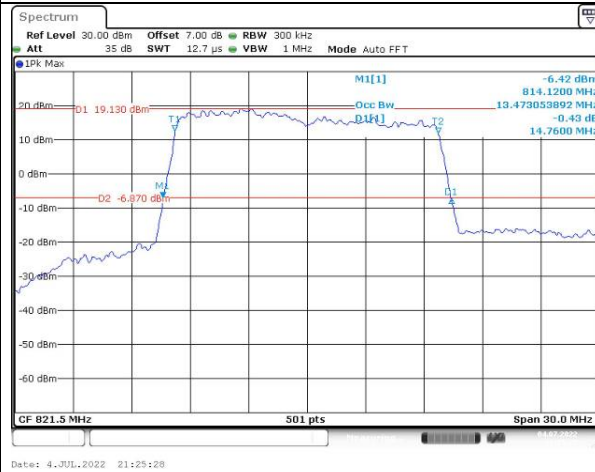
Occupied Bandwidth

Channel

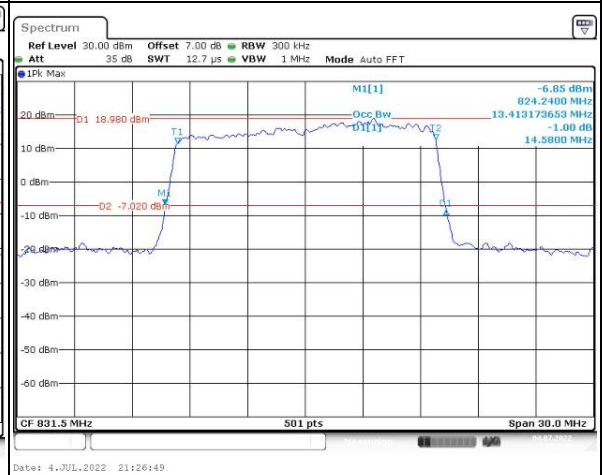
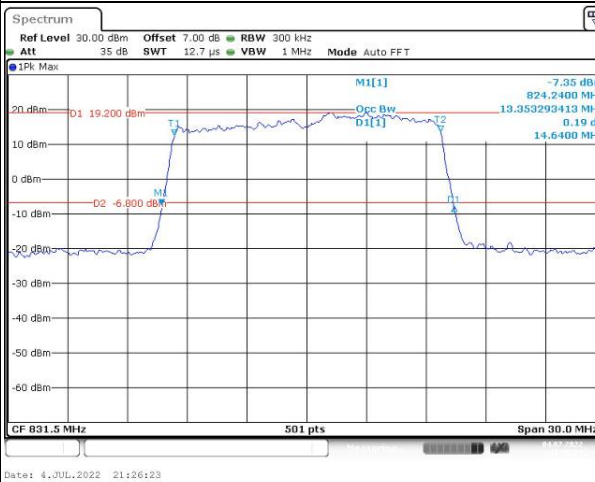
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

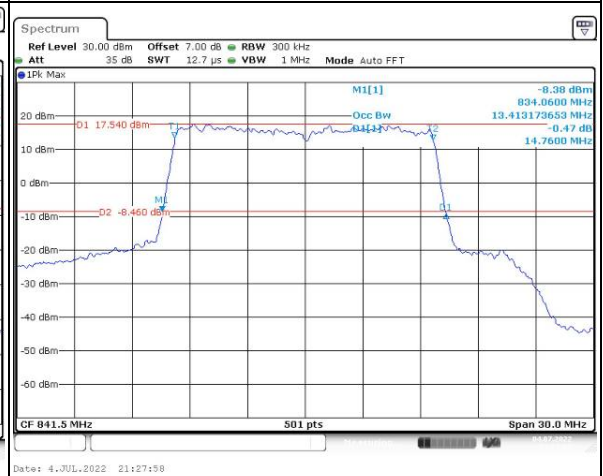
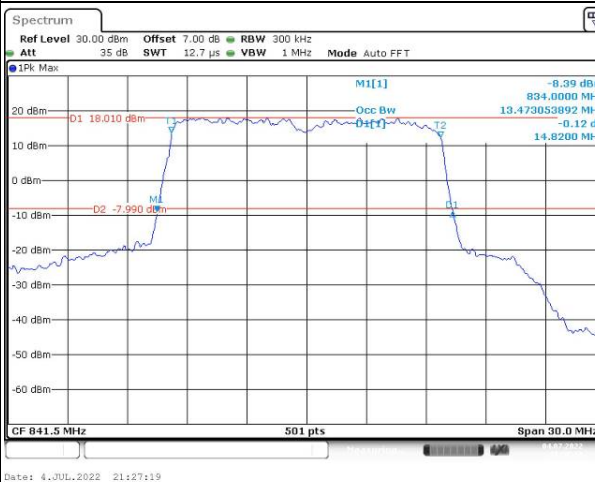
Lowest



Middle



Highest

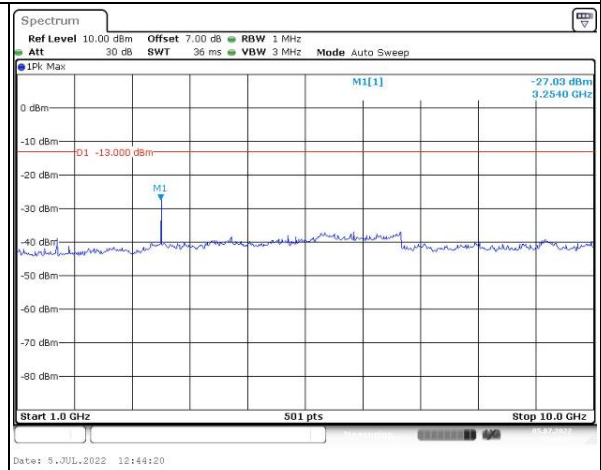
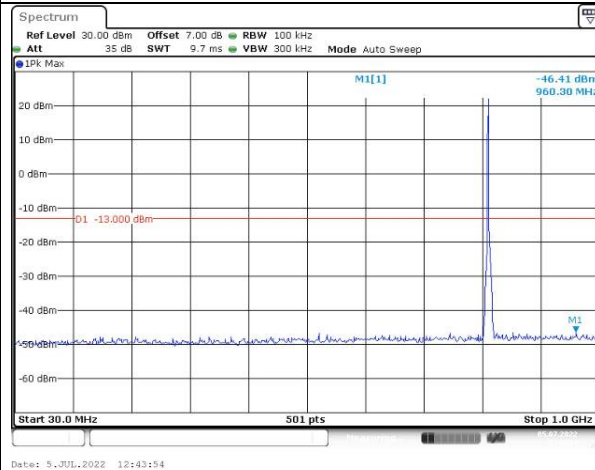


Spurious Emissions at Antenna Terminal

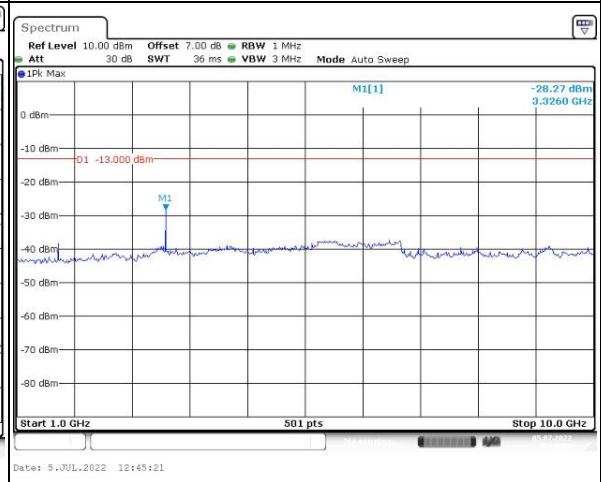
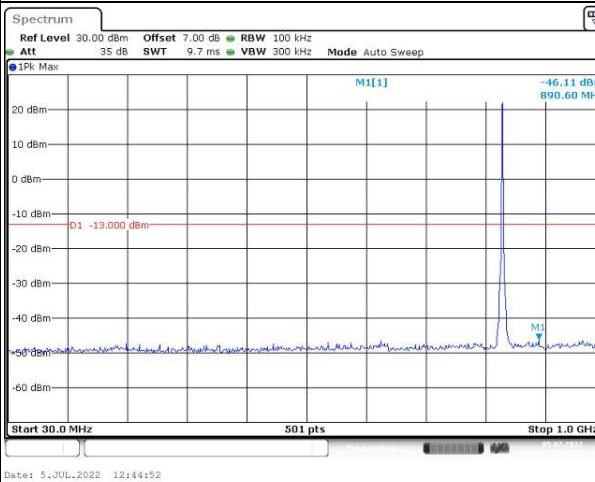
Channel

1.4MHz Bandwidth QPSK

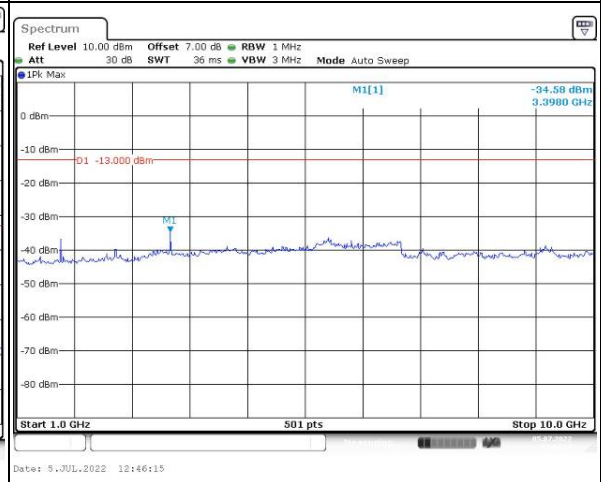
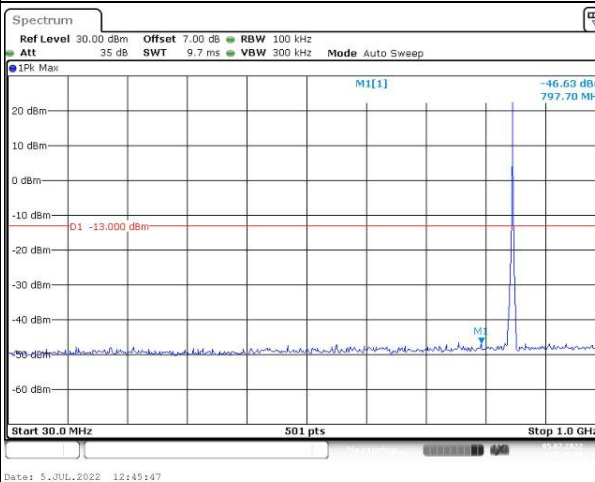
Lowest



Middle



Highest

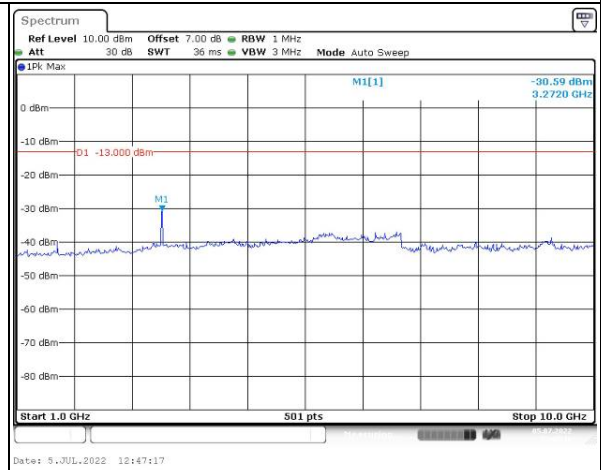
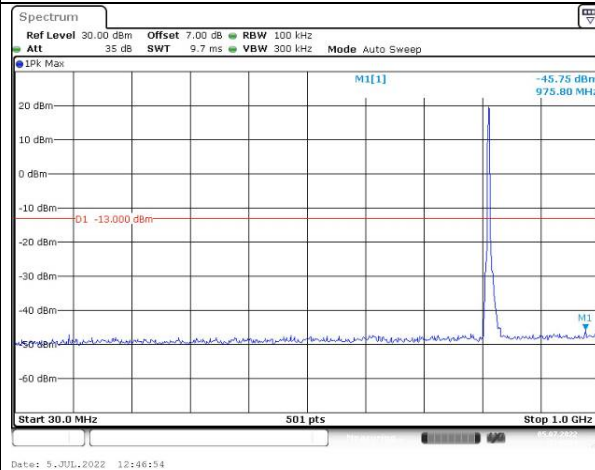


Spurious Emissions at Antenna Terminal

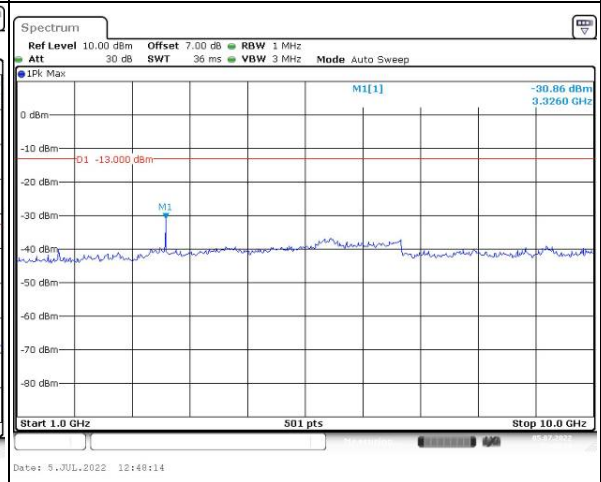
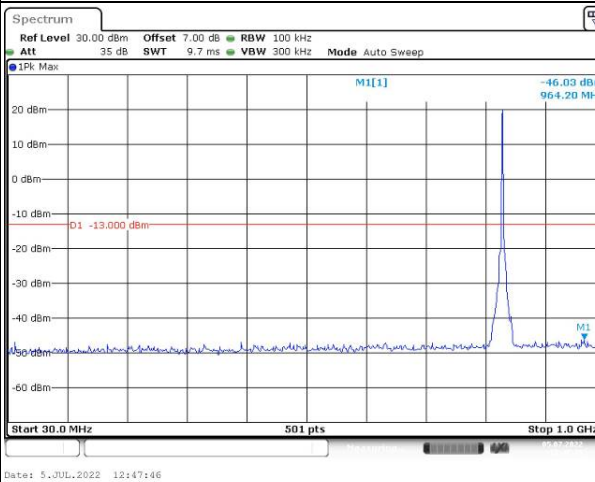
Channel

3MHz Bandwidth QPSK

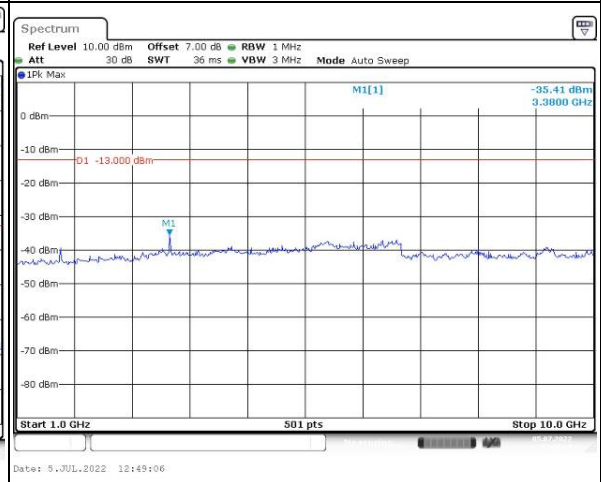
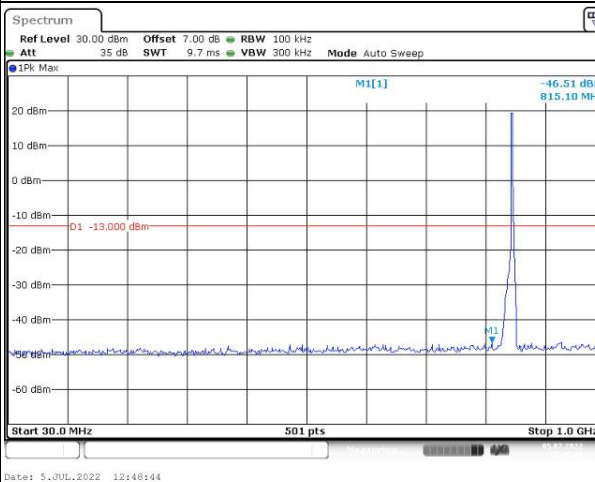
Lowest



Middle



Highest

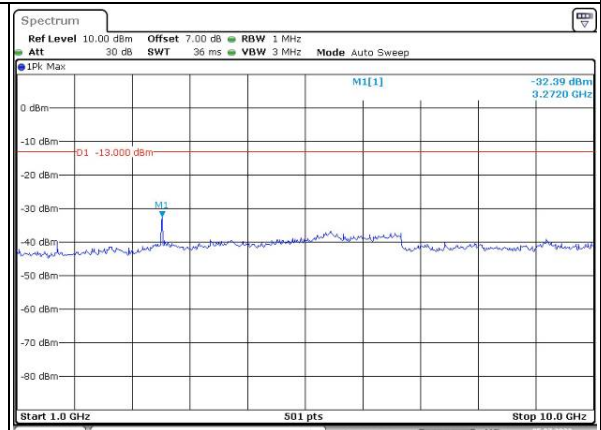
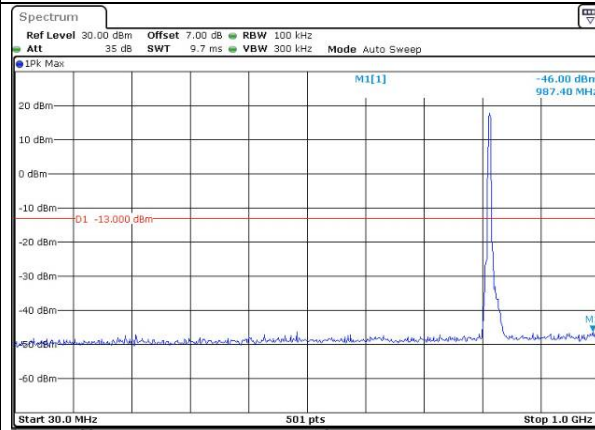


Spurious Emissions at Antenna Terminal

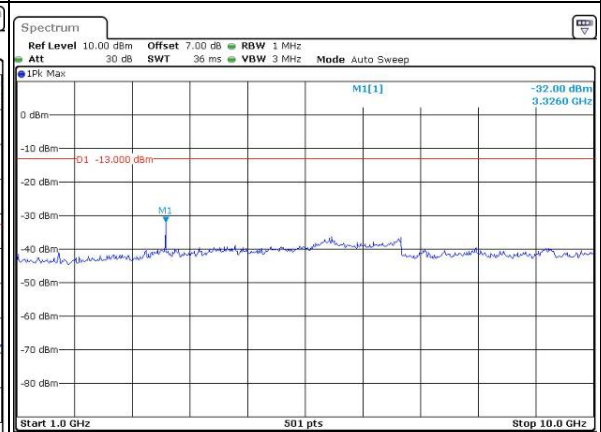
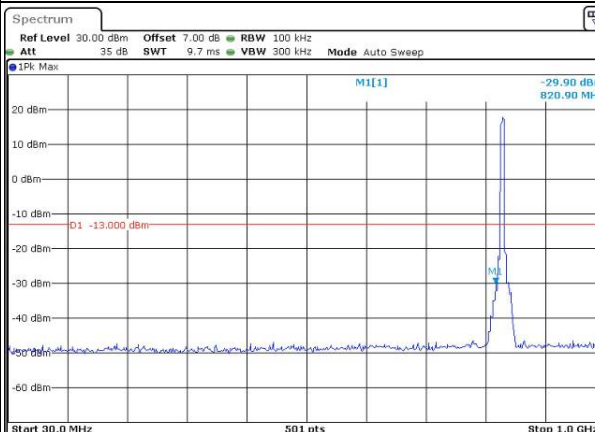
Channel

5MHz Bandwidth QPSK

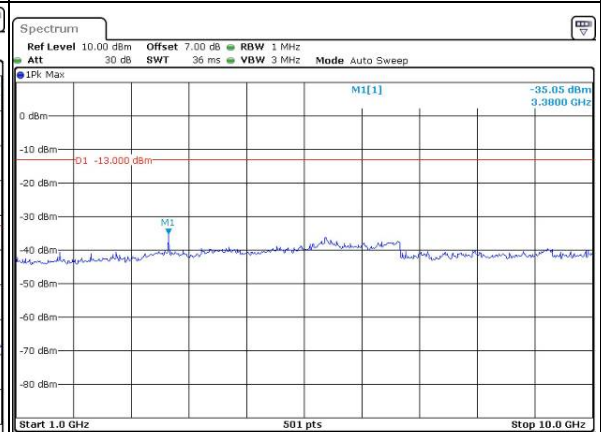
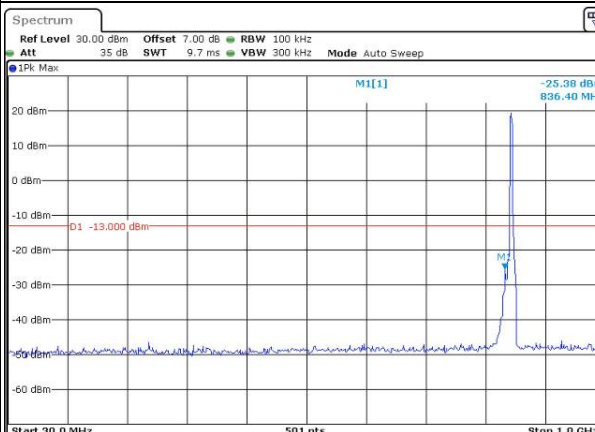
Lowest



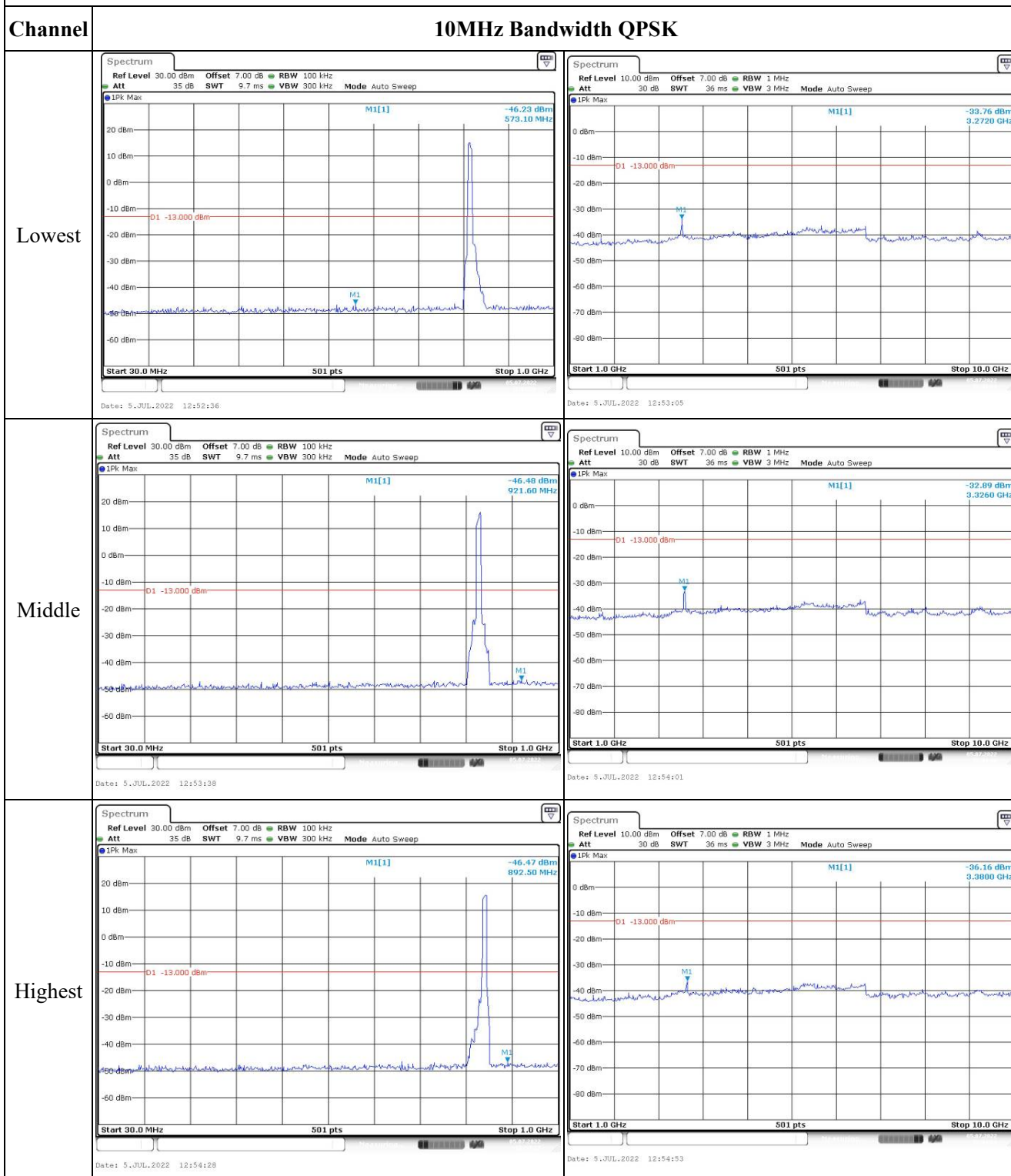
Middle



Highest



Spurious Emissions at Antenna Terminal

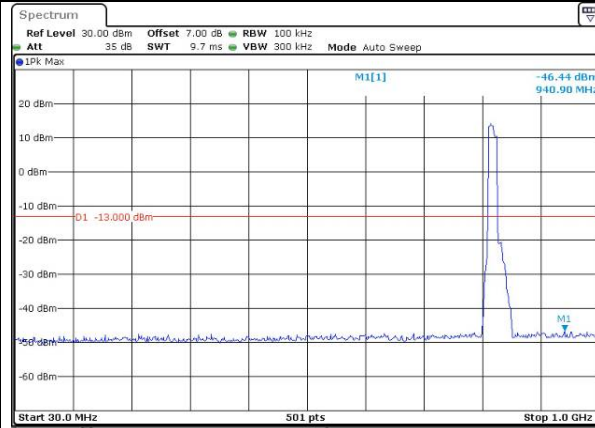


Spurious Emissions at Antenna Terminal

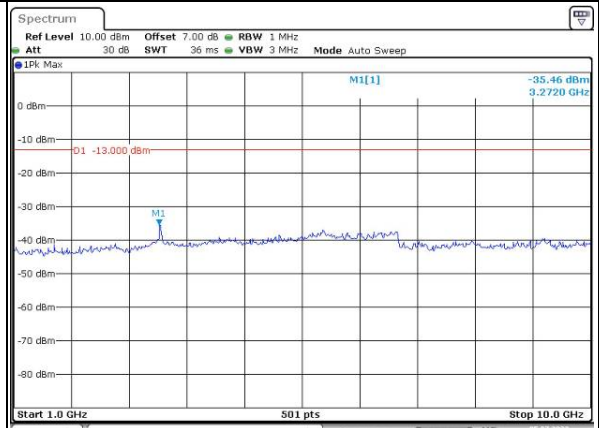
Channel

15MHz Bandwidth QPSK

Lowest

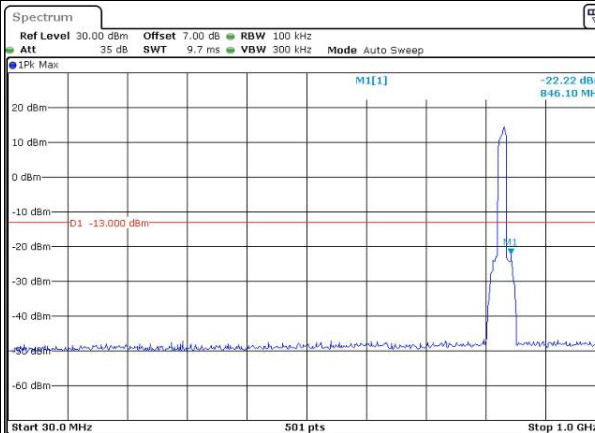


Date: 5.JUL.2022 12:55:31

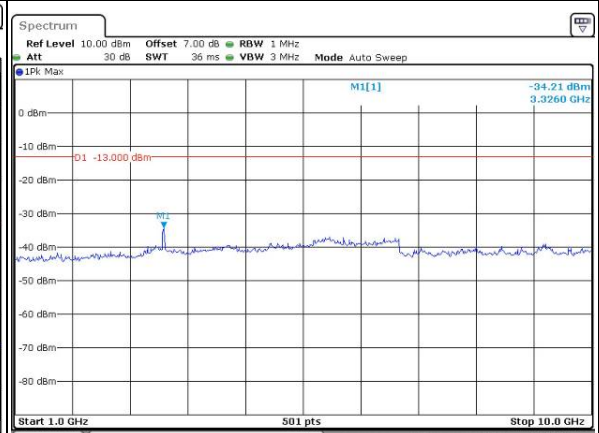


Date: 5.JUL.2022 12:55:54

Middle

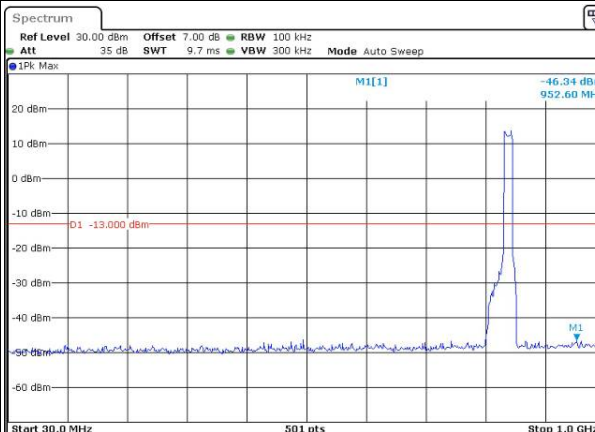


Date: 5.JUL.2022 12:56:28

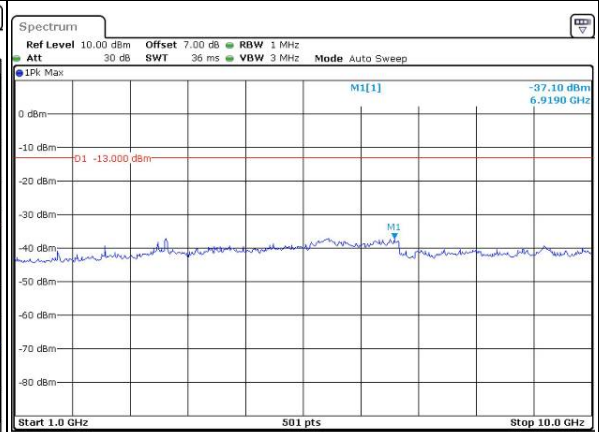


Date: 5.JUL.2022 12:56:50

Highest

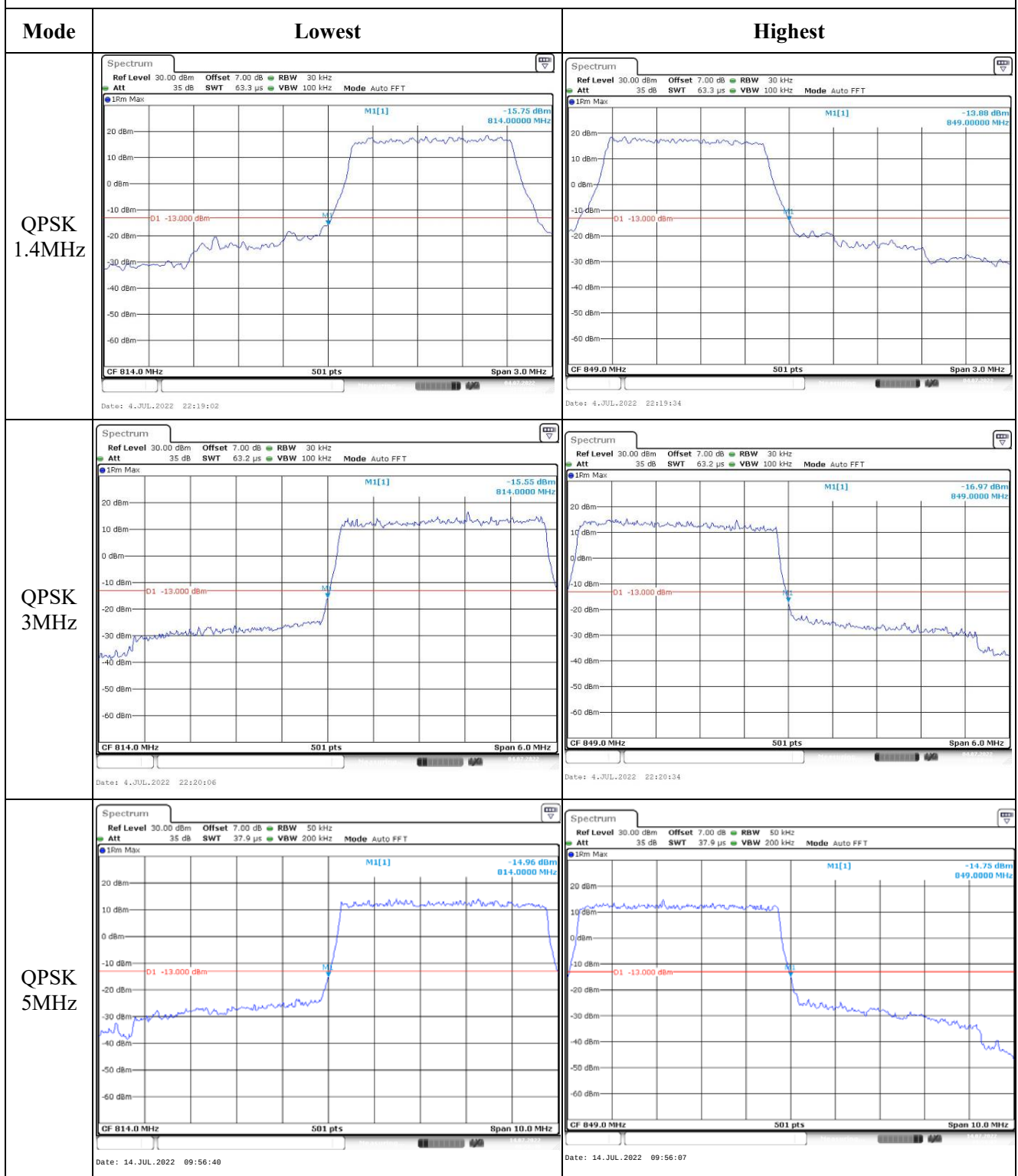


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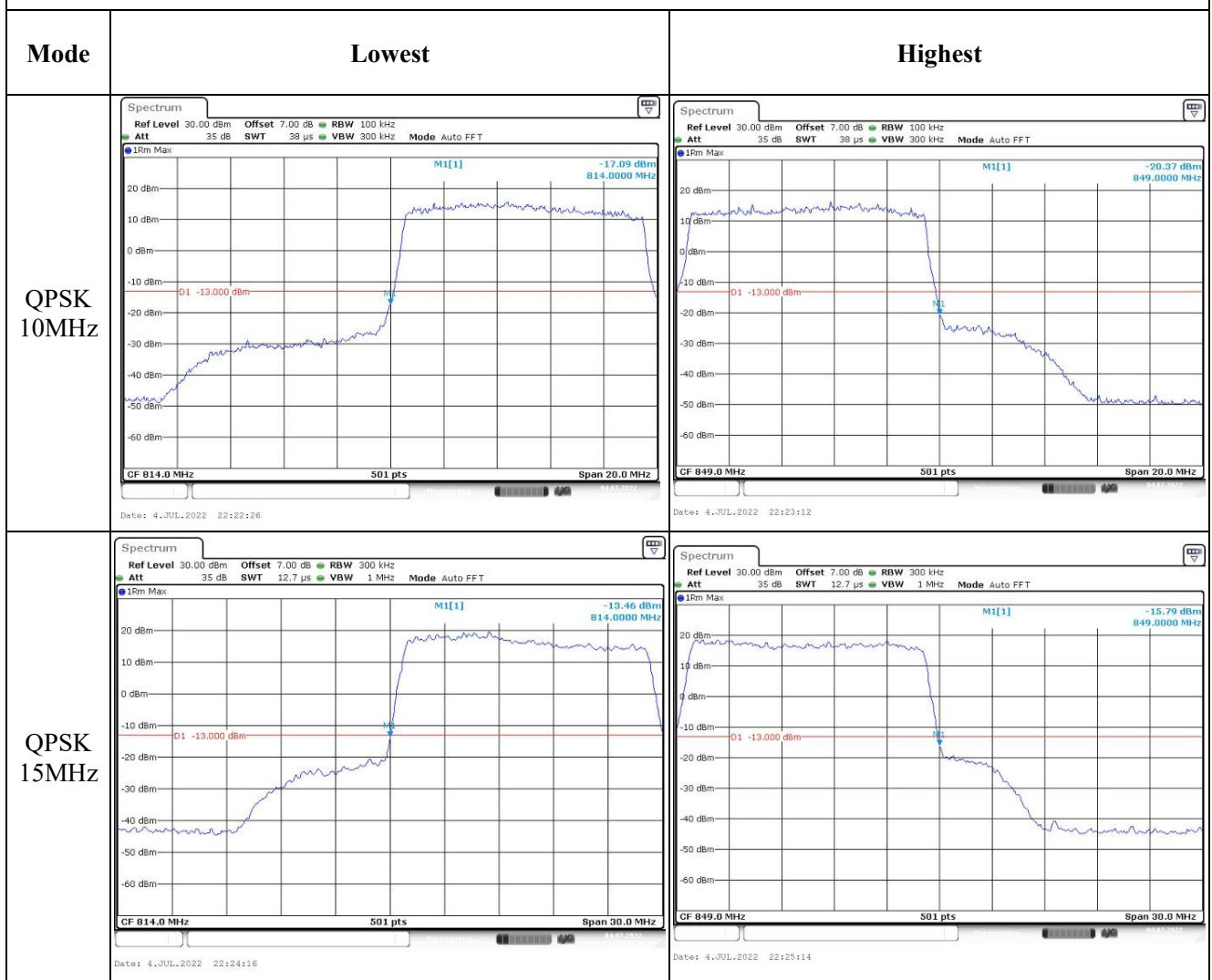


Date: 5.JUL.2022 12:57:41

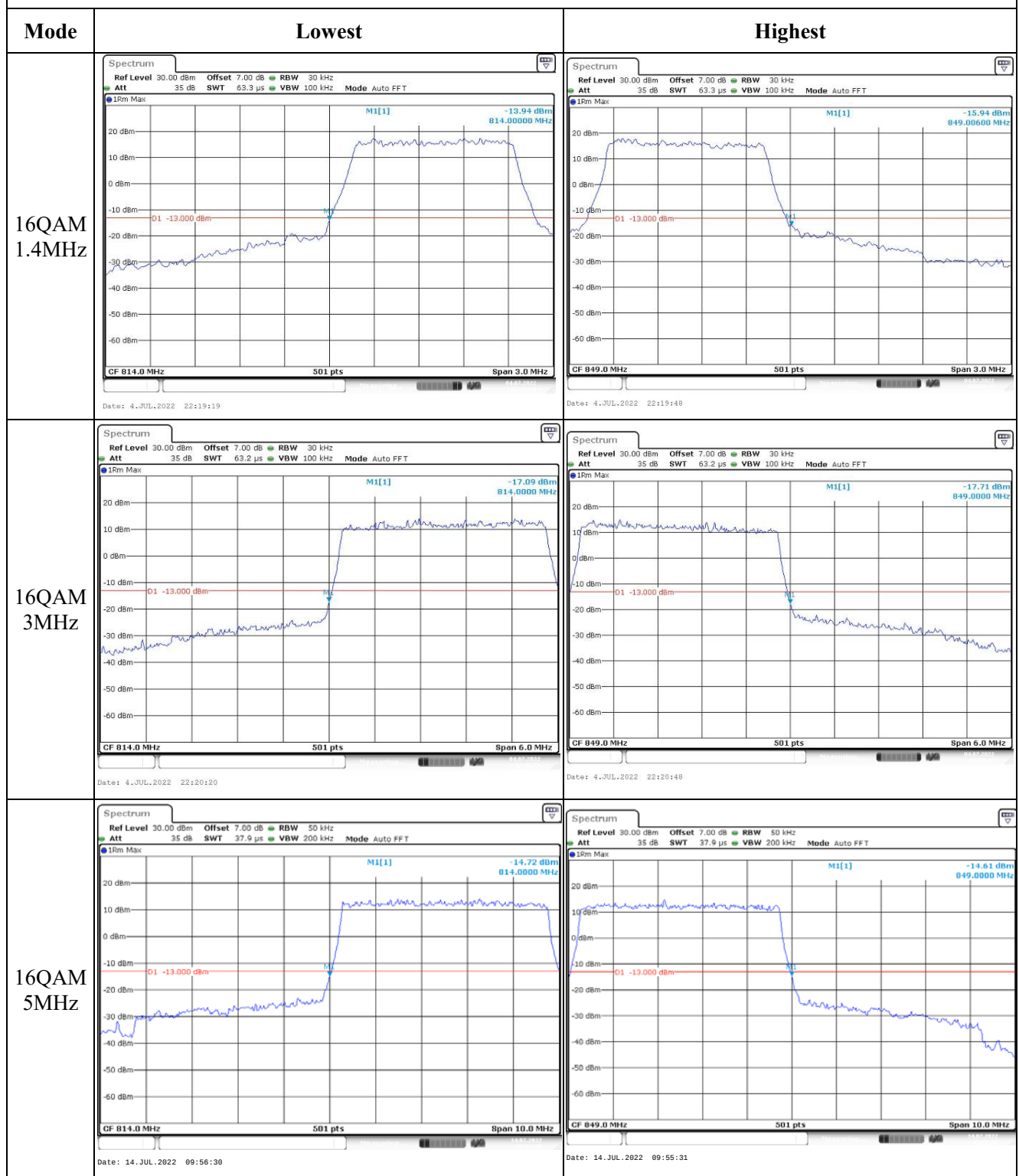
Out of band emission, Band Edge



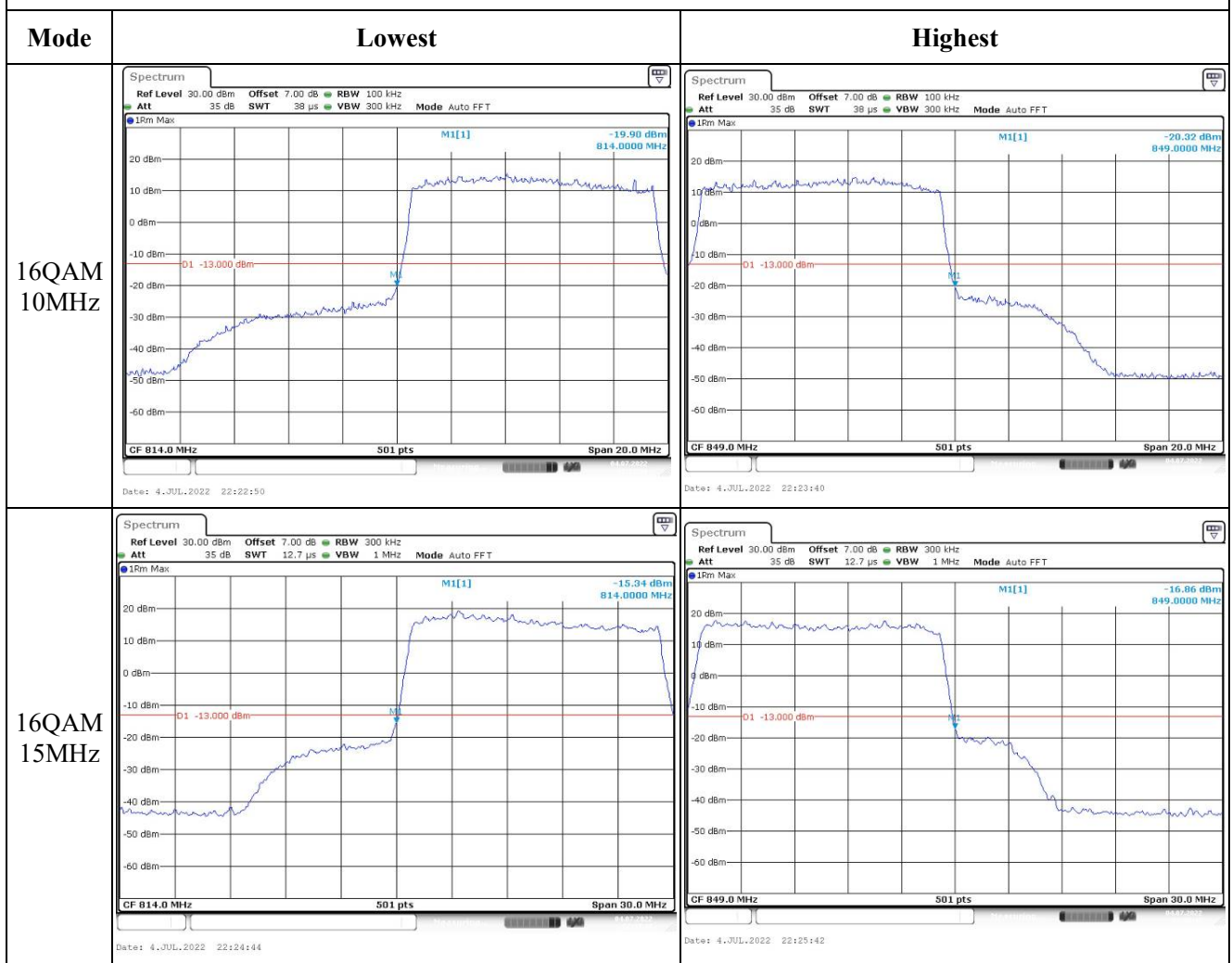
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.14 Antenna Port Test Data and Results for LTE Band 41

Serial Number:	CR22050078-RF-S1	Test Date:	2022/7/5
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ted Min	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.3	Relative Humidity: (%)	53	ATM Pressure: (kPa)	100.2
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2021-10-10	2022-10-09
R&S	Wideband Radio Communication Tester	CMW500	149218	2021-07-21	2022-07-20
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022-04-06	2023-04-05
UNI-T	Multimeter	UT39A+	C210582554	2021-09-30	2022-09-29
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
E-Microwave	Two-way Splitter	ODP-1-6	OE0120176	Each time	N/A
HuiXunDa	DC Block	SMA-JK 18G	DCB181108042	Each time	N/A
Weinschel	Coaxial Attenuators	53-20-34	LN751	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	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).

EUT Information@LTE Band 41▲:

Antenna Gain (dBi):	0.57	Path Loss L_c (dB):	0
Operation Voltage(V_{DC}):			
Lowest:	3.47	Normal:	3.85
		Highest:	4.24

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2498.5	2593	2687.5
10MHz	2501	2593	2685
15MHz	2503.5	2593	2682.5
20MHz	2506	2593	2680

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	21.95	21.86	21.81	22.54	33
	RB1#13	21.9	21.82	21.93		
	RB1#24	21.96	21.94	21.97		
	RB15#0	21.83	21.85	21.78		
	RB15#10	21.8	21.74	21.87		
	RB25#0	21.55	21.42	21.56		
5MHz 16QAM	RB1#0	21.38	21.35	21.4	22.17	33
	RB1#13	21.5	21.31	21.51		
	RB1#24	21.5	21.37	21.6		
	RB15#0	21.45	21.36	21.53		
	RB15#10	21.44	21.4	21.45		
	RB25#0	21.16	21.09	21.19		
10MHz QPSK	RB1#0	21.86	21.94	21.89	22.61	33
	RB1#25	21.93	21.96	22.03		
	RB1#49	21.92	22.04	22		
	RB25#0	21.89	21.85	21.88		
	RB25#25	21.94	21.88	21.87		
	RB50#0	21.62	21.64	21.66		
10MHz 16QAM	RB1#0	21.62	21.59	21.51	22.43	33
	RB1#25	21.77	21.64	21.63		
	RB1#49	21.86	21.61	21.74		
	RB25#0	21.75	21.71	21.74		
	RB25#25	21.75	21.66	21.76		
	RB50#0	21.37	21.32	21.41		
15MHz QPSK	RB1#0	21.93	21.86	21.9	22.6	33
	RB1#38	22.01	21.96	22.03		
	RB1#74	22.02	22	22.01		
	RB36#0	21.91	21.84	21.82		
	RB36#39	21.86	21.8	21.8		
	RB75#0	21.71	21.68	21.59		
15MHz 16QAM	RB1#0	21.51	21.48	21.46	22.43	33
	RB1#38	21.64	21.59	21.53		
	RB1#74	21.86	21.76	21.81		
	RB36#0	21.78	21.64	21.75		
	RB36#39	21.64	21.6	21.59		
	RB75#0	21.41	21.42	21.44		
20MHz QPSK	RB1#0	21.87	21.96	21.91	22.61	33
	RB1#50	21.94	21.94	21.9		

	RB1#99	21.95	22.04	22.01		
	RB50#0	21.84	21.88	21.83		
	RB50#50	21.88	21.89	21.86		
	RB100#0	21.48	21.56	21.58		
20MHz 16QAM	RB1#0	21.44	21.57	21.55	22.23	33
	RB1#50	21.52	21.59	21.58		
	RB1#99	21.49	21.65	21.66		
	RB50#0	21.46	21.53	21.56		
	RB50#50	21.55	21.52	21.52		
	RB100#0	21.08	21.18	21.29		
Note: EIRP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(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	3.16	3.18	3.14	13
	RB100#0	5.27	5.19	5.17	13
20MHz 16QAM	RB1#0	4.15	4.22	4.17	13
	RB100#0	6.31	6.28	6.24	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	4.511	5.7	5.2	4.98
5MHz 16QAM	4.511	4.511	4.491	5.22	5.02	4.98
10MHz QPSK	8.942	8.942	8.942	9.76	9.84	9.64
10MHz 16QAM	8.942	8.942	8.942	9.6	9.64	9.76
15MHz QPSK	13.473	13.413	13.473	14.7	14.64	15.96
15MHz 16QAM	13.533	13.473	13.473	15	15.12	14.76
20MHz QPSK	17.964	17.884	17.884	19.84	19.44	19.36
20MHz 16QAM	17.884	17.884	17.884	19.44	19.2	19.92
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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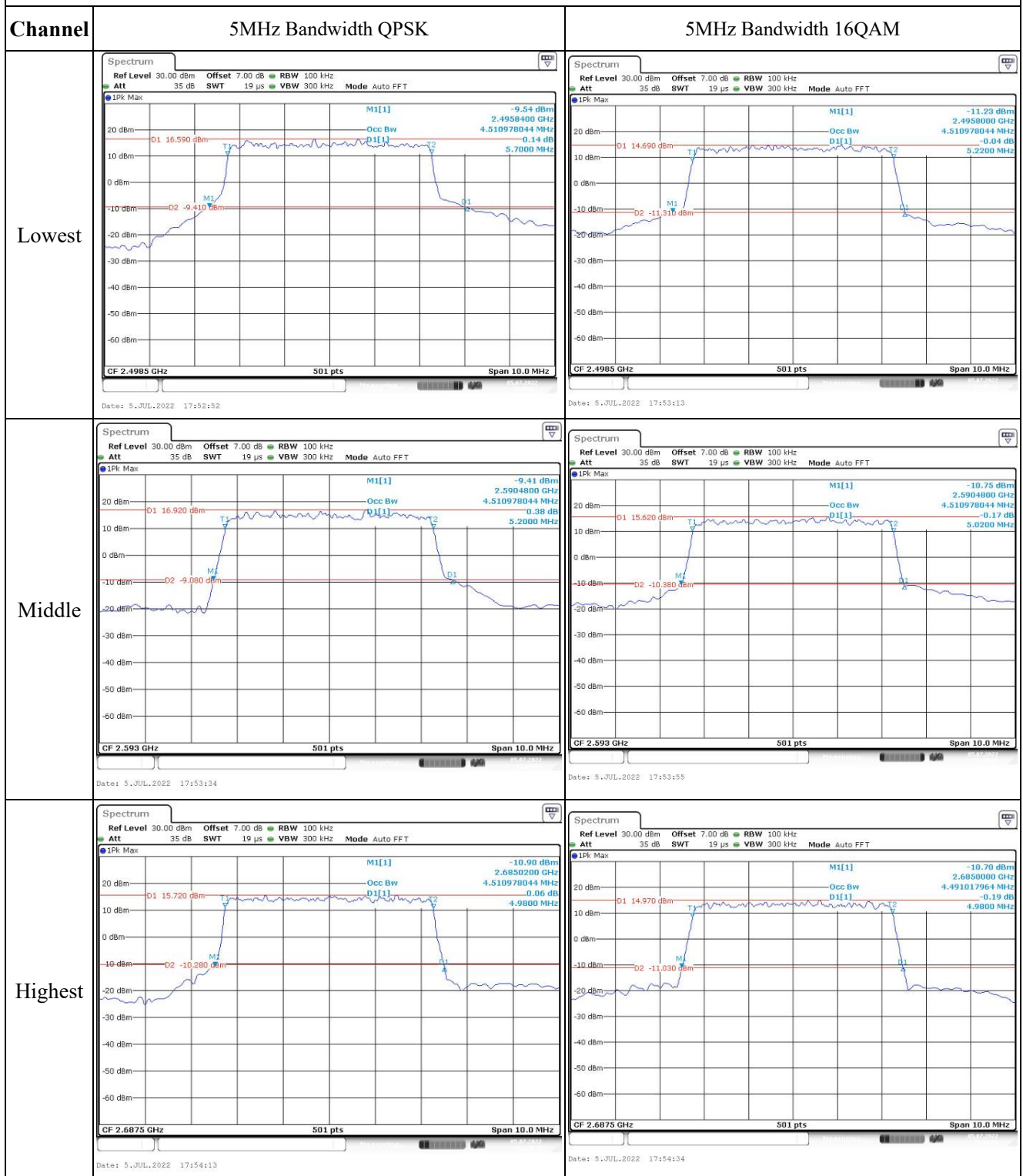
FCC §2.1055, §27.54: Frequency Stability

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	3.85	2496.100	2496.00	2689.818	2690
	-20	3.85	2496.075	2496.00	2689.808	2690
	-10	3.85	2496.098	2496.00	2689.760	2690
	0	3.85	2496.095	2496.00	2689.798	2690
	10	3.85	2496.041	2496.00	2689.710	2690
	20	3.85	2496.205	2496.00	2689.673	2690
	30	3.85	2496.197	2496.00	2689.754	2690
	40	3.85	2496.205	2496.00	2689.811	2690
	50	3.85	2496.126	2496.00	2689.673	2690
Frequency Stability vs. Voltage	20	3.47	2496.035	2496.00	2689.792	2690
	20	4.24	2496.066	2496.00	2689.658	2690
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	3.85	2496.155	2496.00	2689.685	2690
	-20	3.85	2496.156	2496.00	2689.760	2690
	-10	3.85	2496.206	2496.00	2689.640	2690
	0	3.85	2496.321	2496.00	2689.647	2690
	10	3.85	2496.146	2496.00	2689.650	2690
	20	3.85	2496.243	2496.00	2689.802	2690
	30	3.85	2496.160	2496.00	2689.645	2690
	40	3.85	2496.281	2496.00	2689.637	2690
	50	3.85	2496.291	2496.00	2689.665	2690
Frequency Stability vs. Voltage	20	3.47	2496.225	2496.00	2689.738	2690
	20	4.24	2496.147	2496.00	2689.751	2690
Result:					Pass	

Test Plots:

Occupied Bandwidth



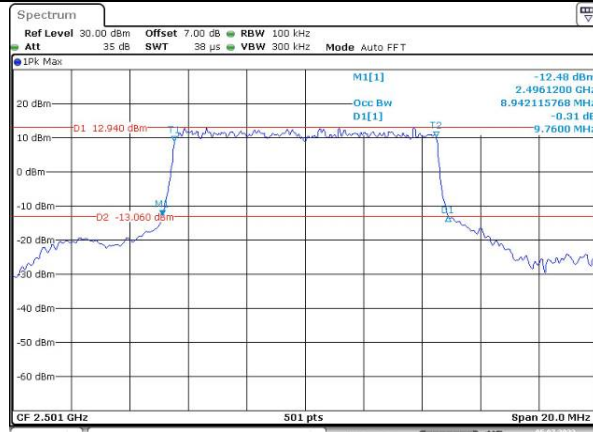
Occupied Bandwidth

Channel

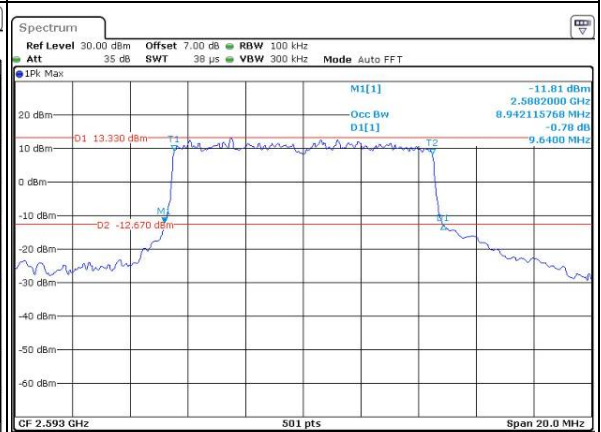
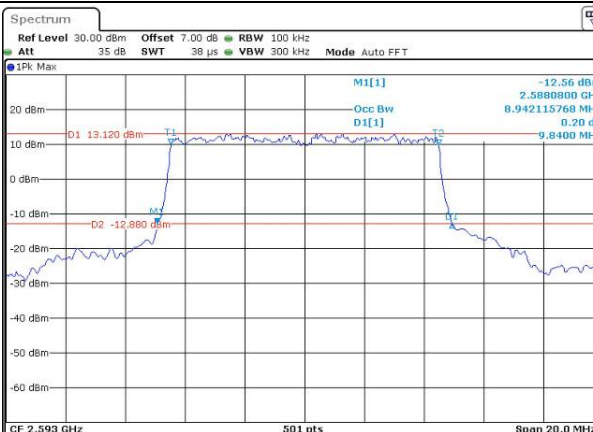
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

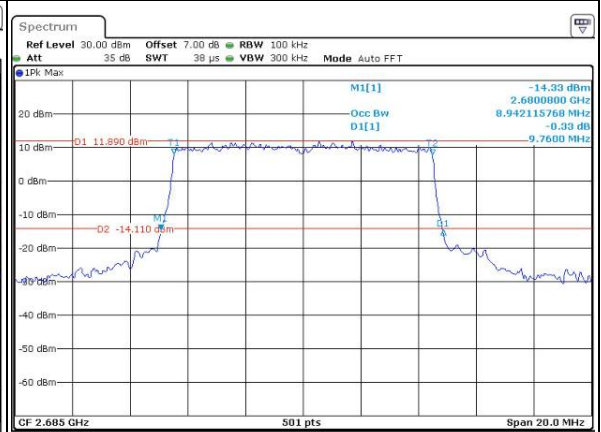
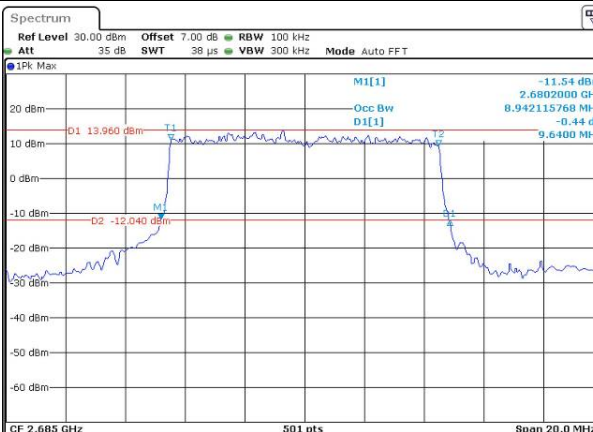
Lowest



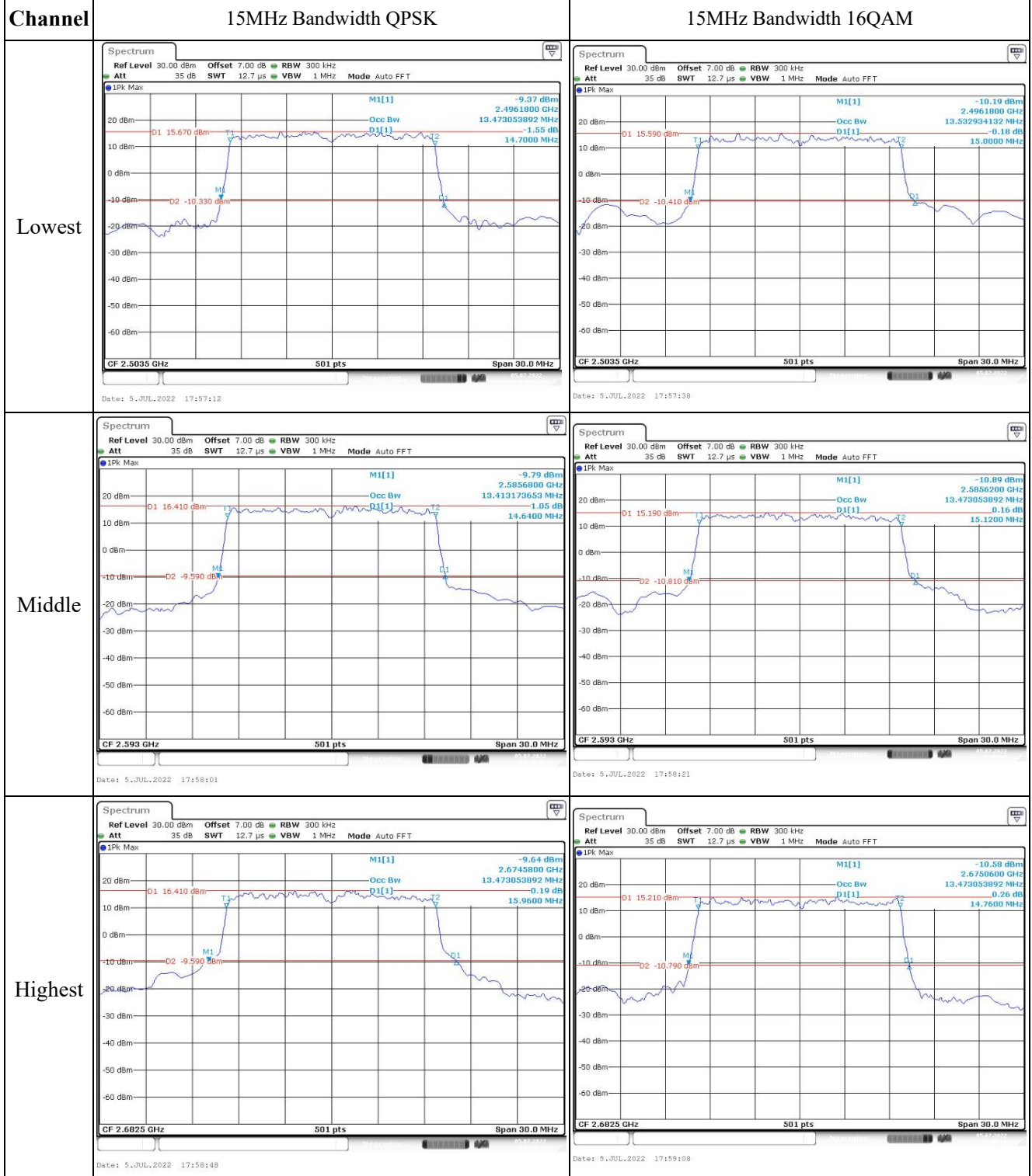
Middle



Highest



Occupied Bandwidth



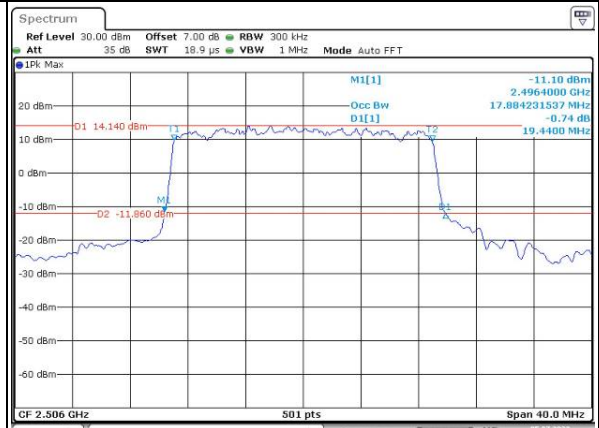
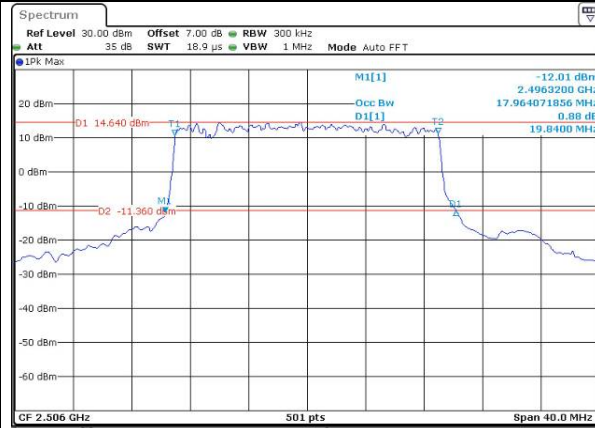
Occupied Bandwidth

Channel

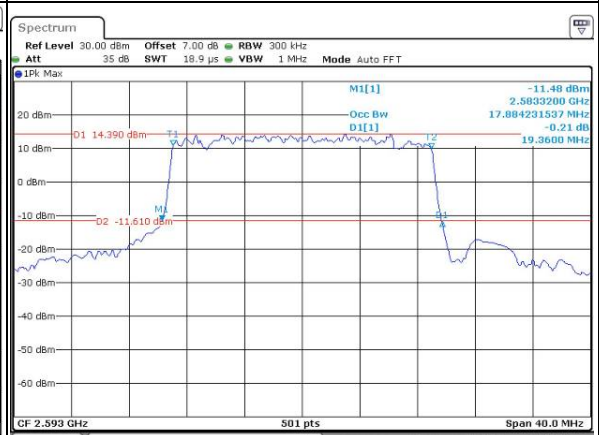
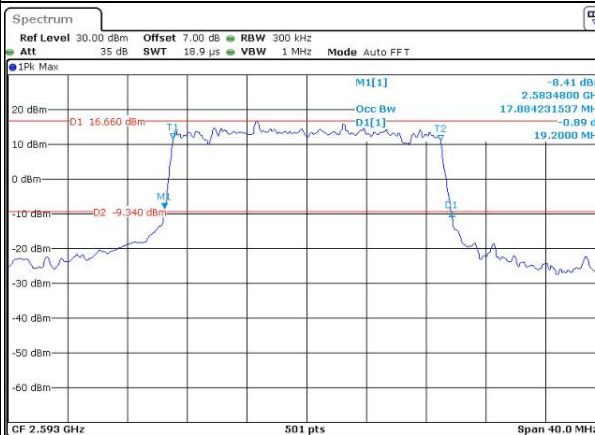
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

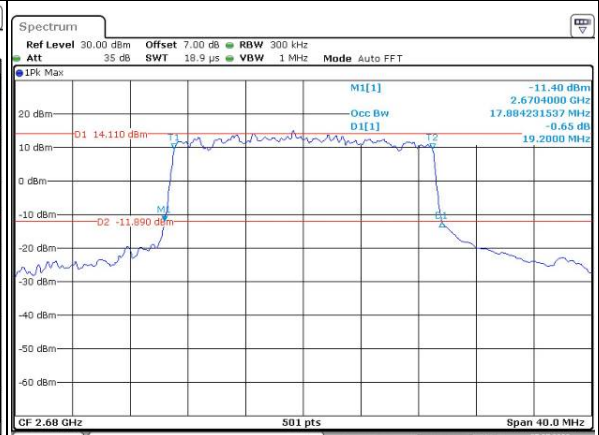
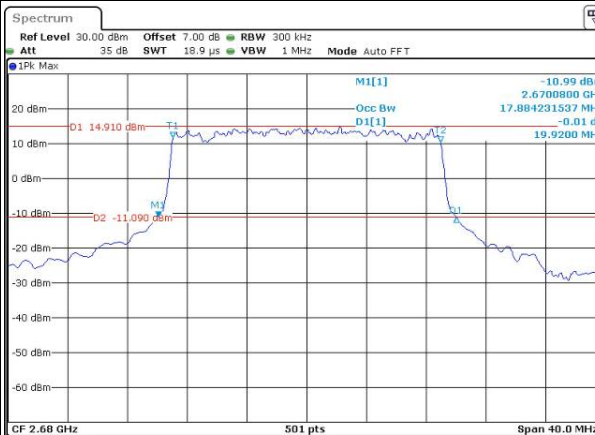
Lowest



Middle



Highest

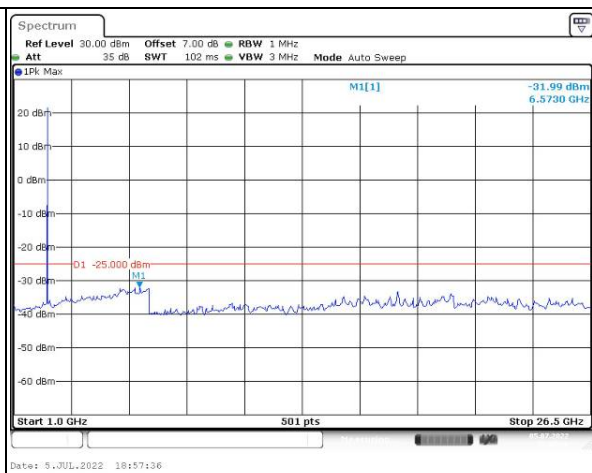
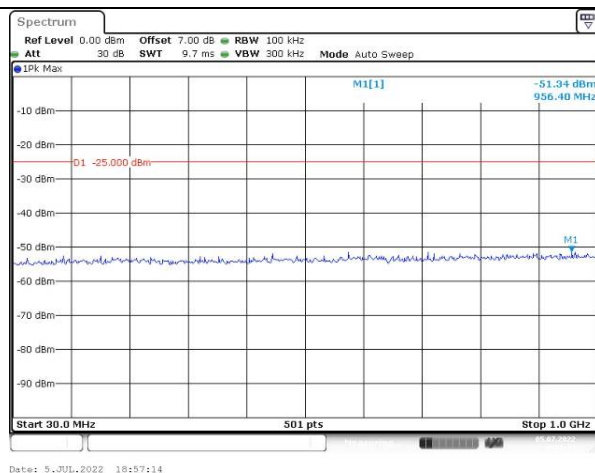


Spurious Emissions at Antenna Terminal

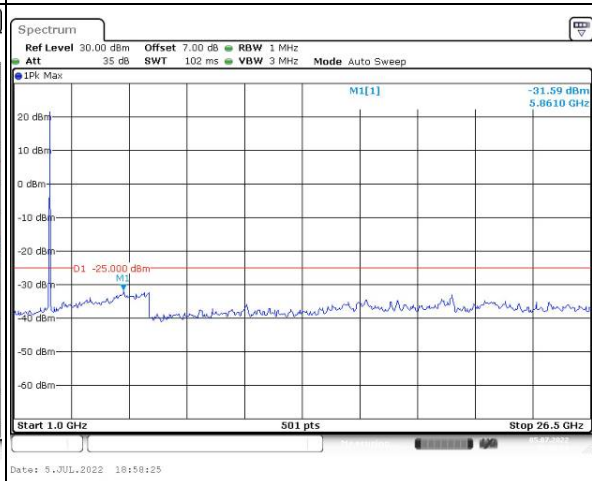
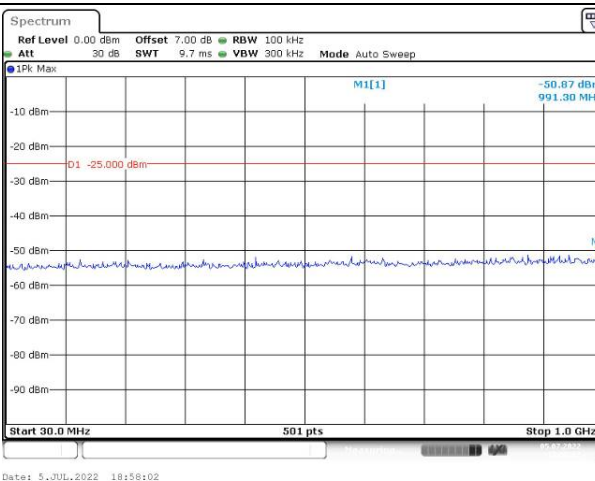
Channel

5MHz Bandwidth QPSK

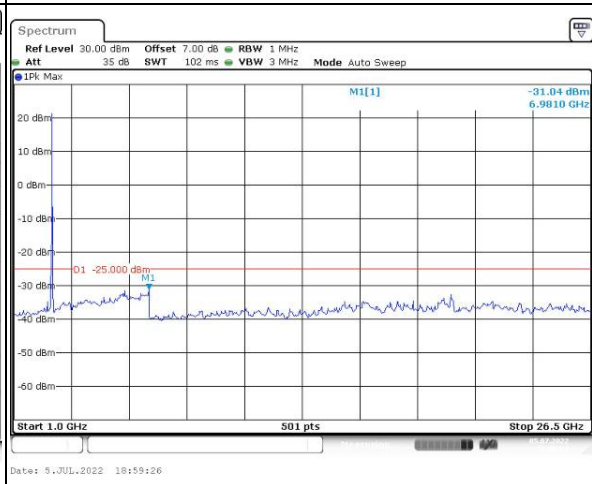
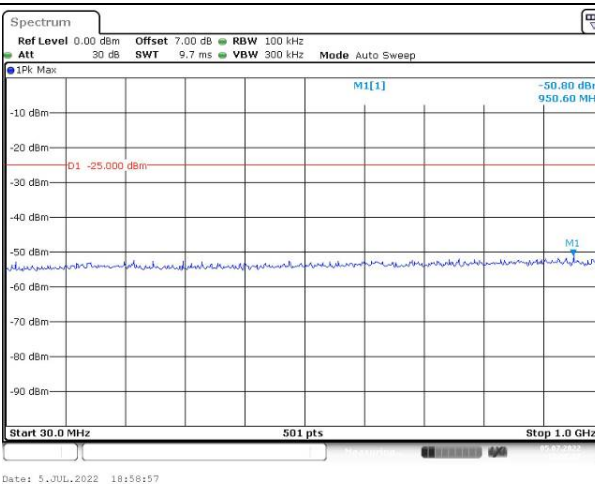
Lowest



Middle



Highest

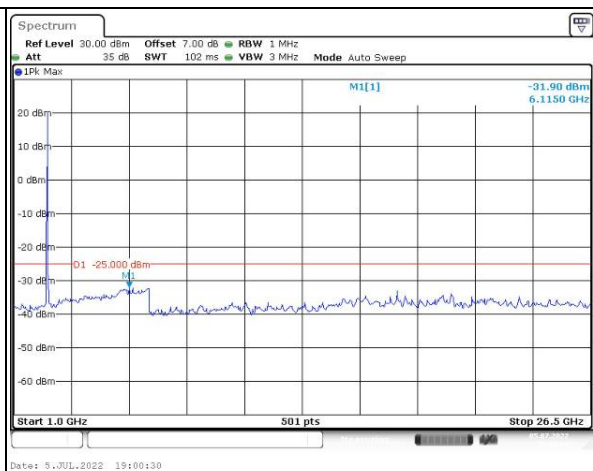
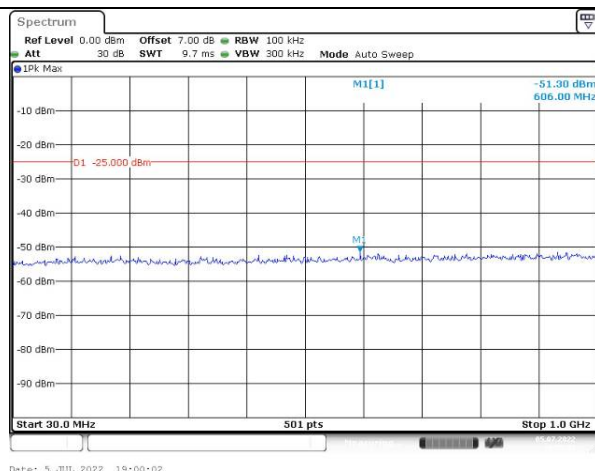


Spurious Emissions at Antenna Terminal

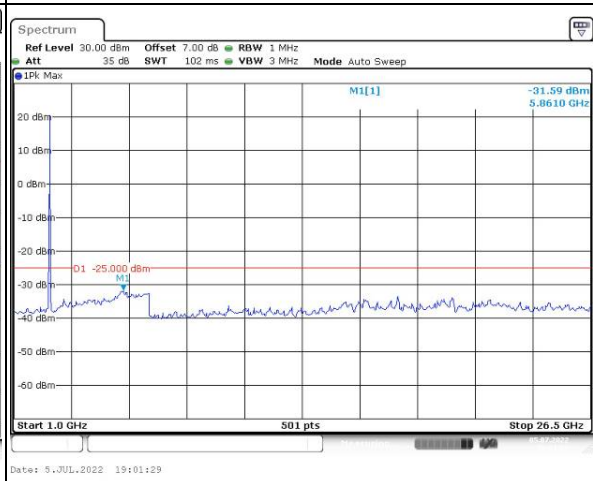
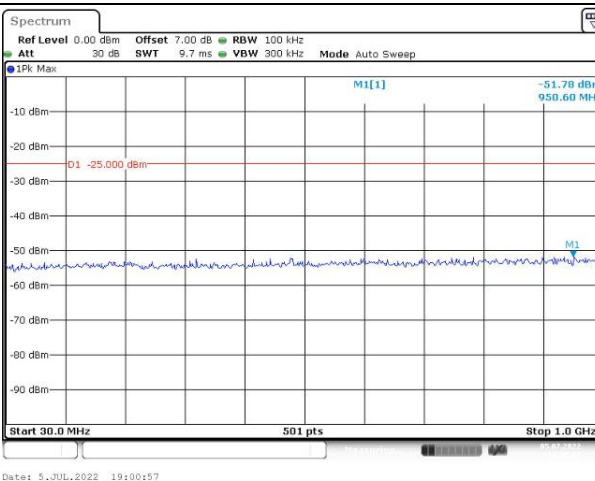
Channel

10MHz Bandwidth QPSK

Lowest



Middle



Highest

