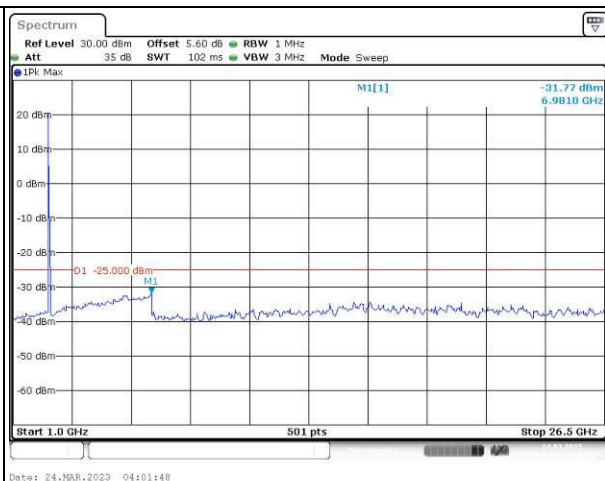
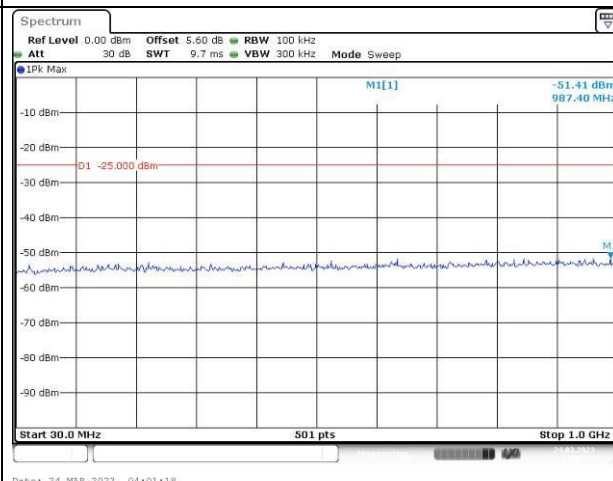


Spurious Emissions at Antenna Terminal

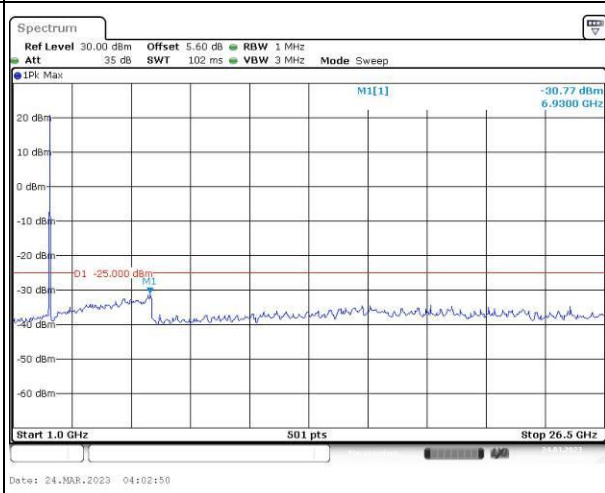
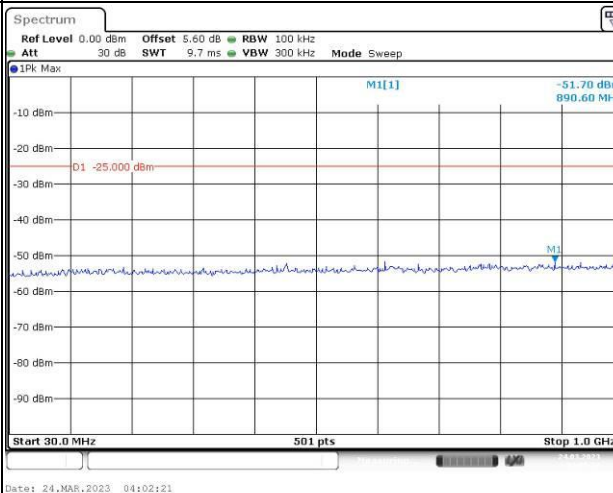
Channel

5MHz Bandwidth QPSK

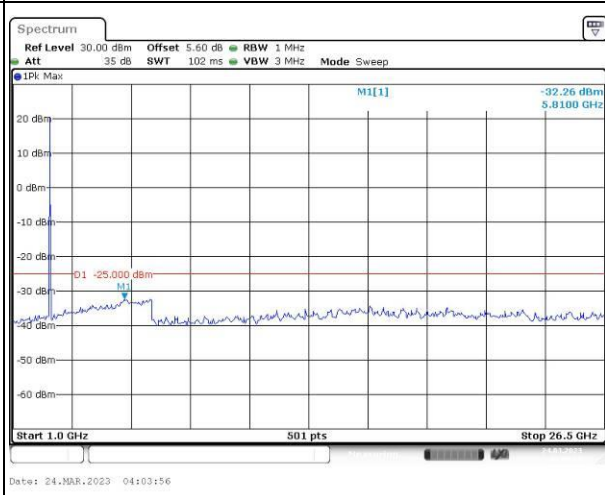
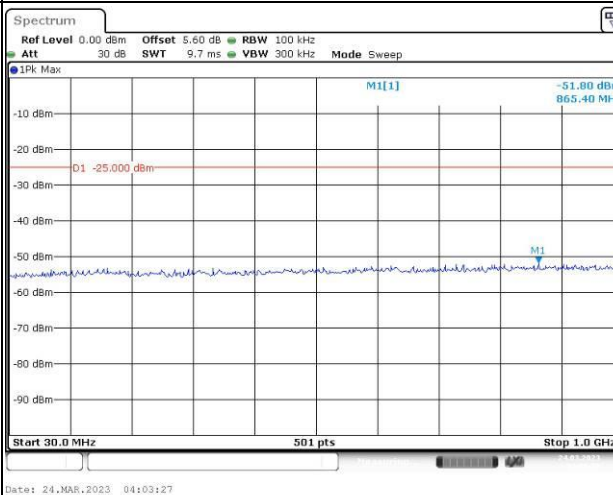
Lowest



Middle



Highest

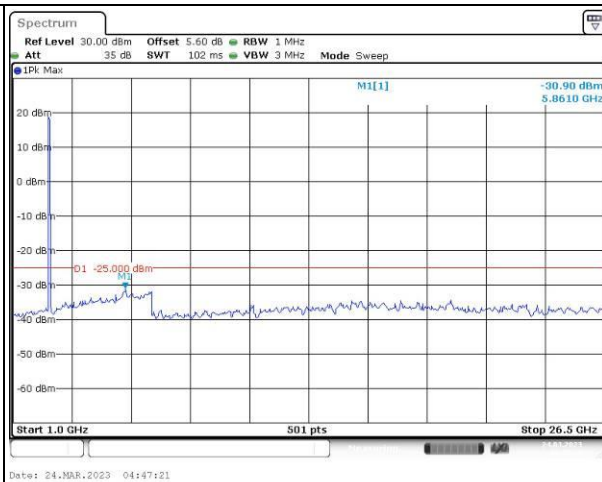
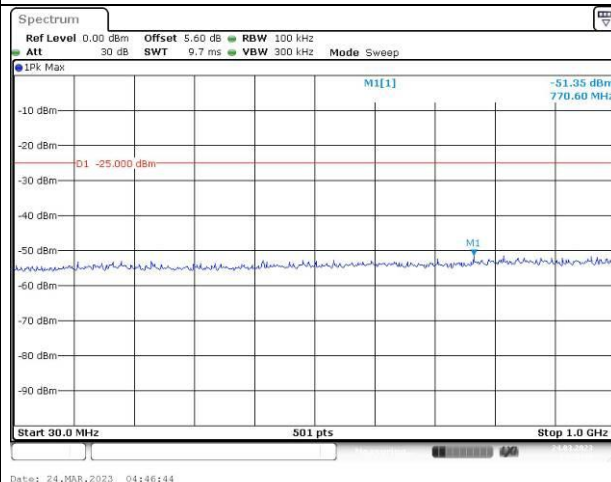


Spurious Emissions at Antenna Terminal

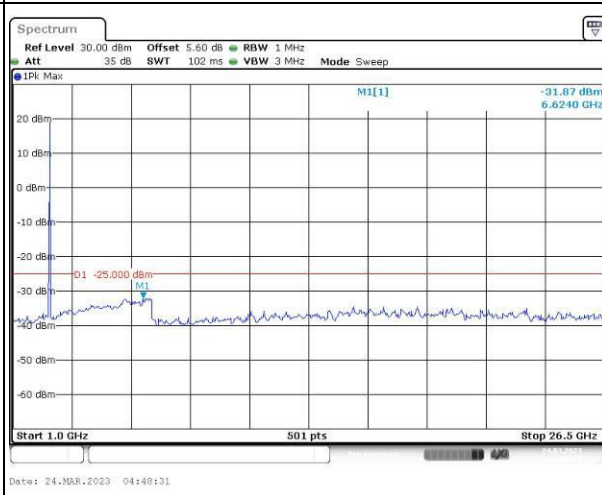
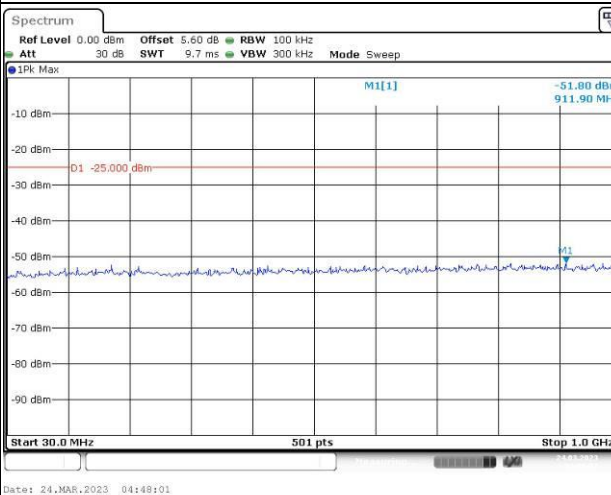
Channel

10MHz Bandwidth QPSK

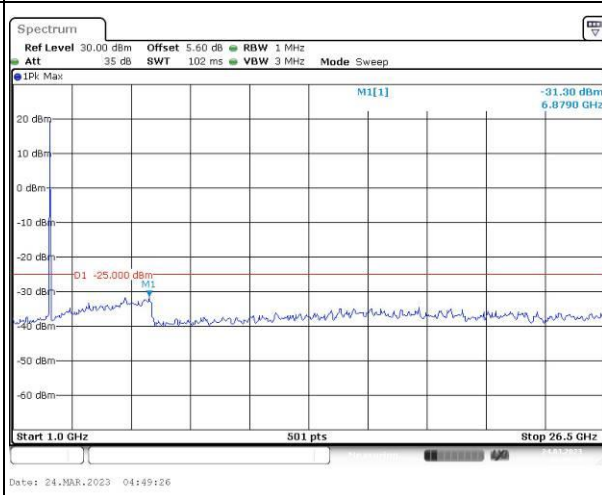
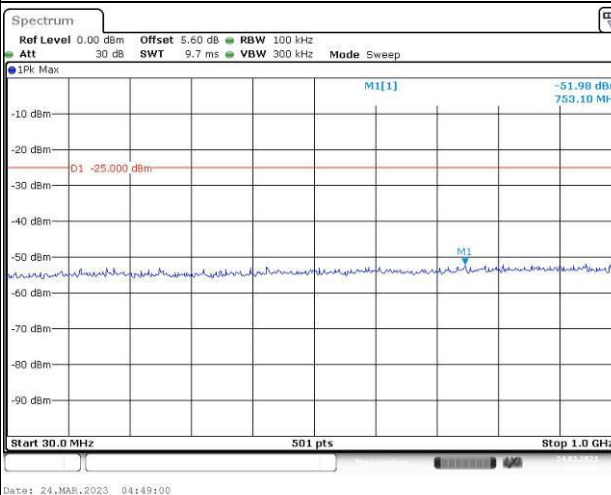
Lowest



Middle



Highest

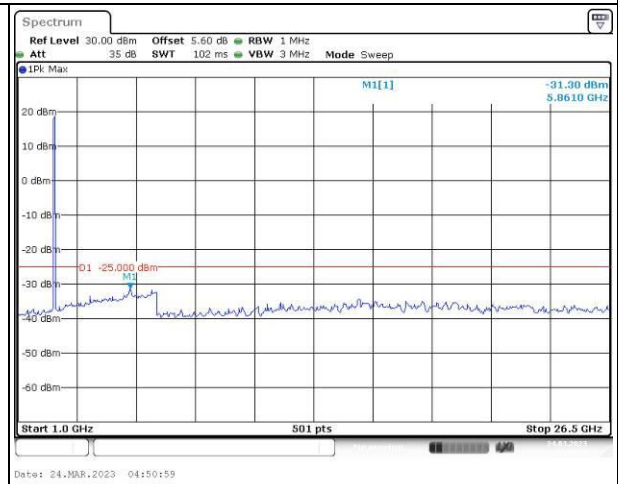
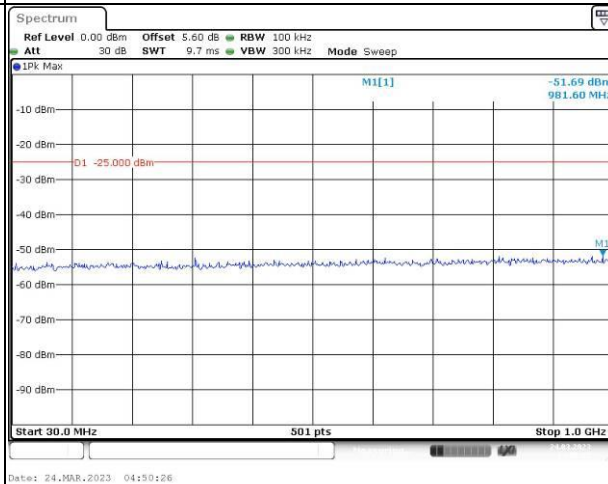


Spurious Emissions at Antenna Terminal

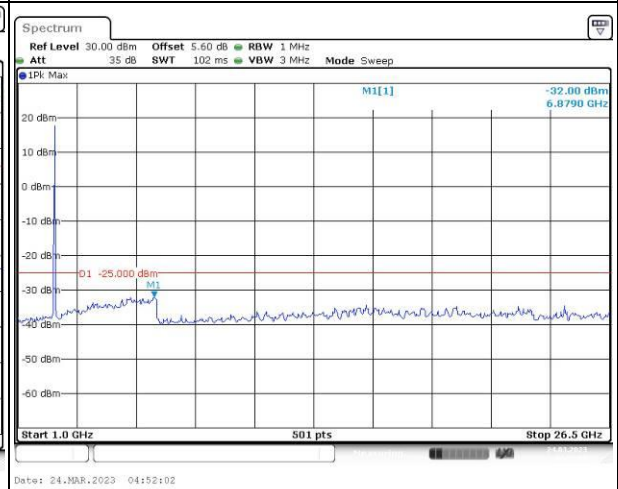
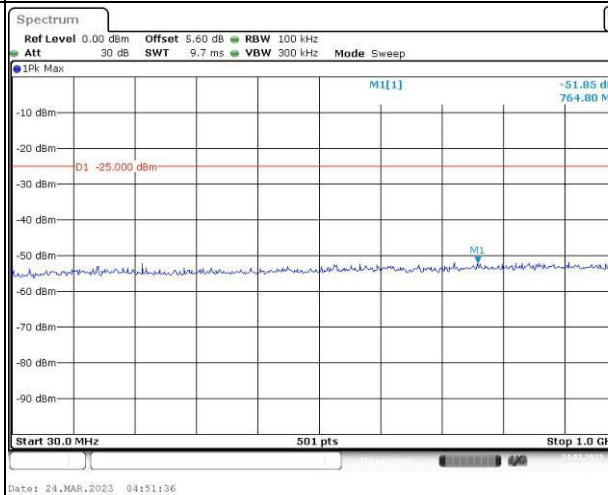
Channel

15MHz Bandwidth QPSK

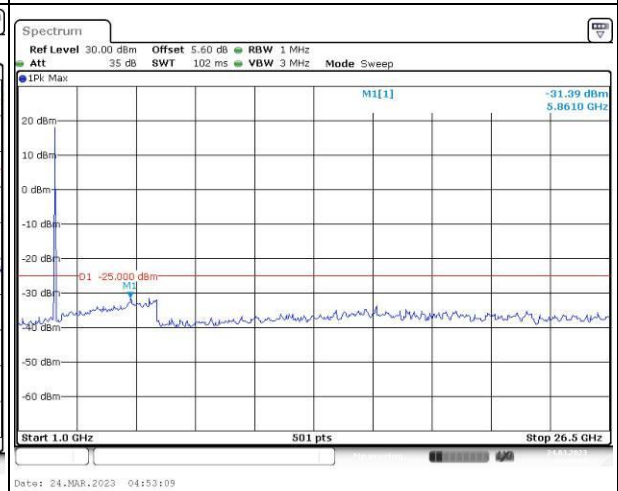
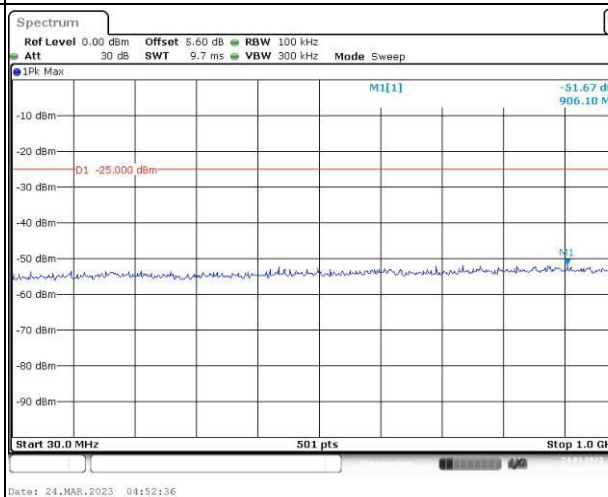
Lowest



Middle



Highest

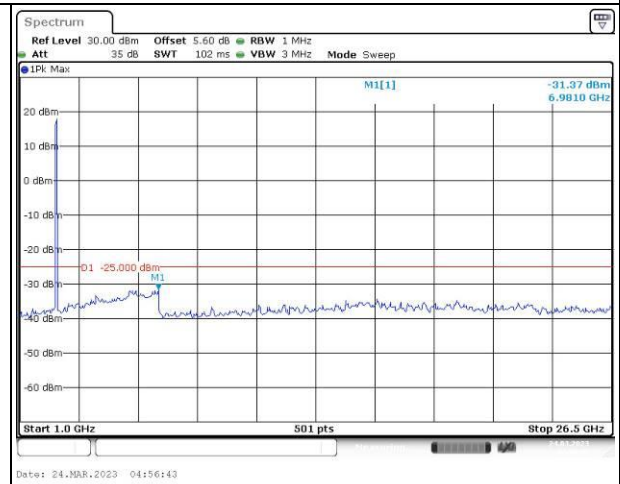
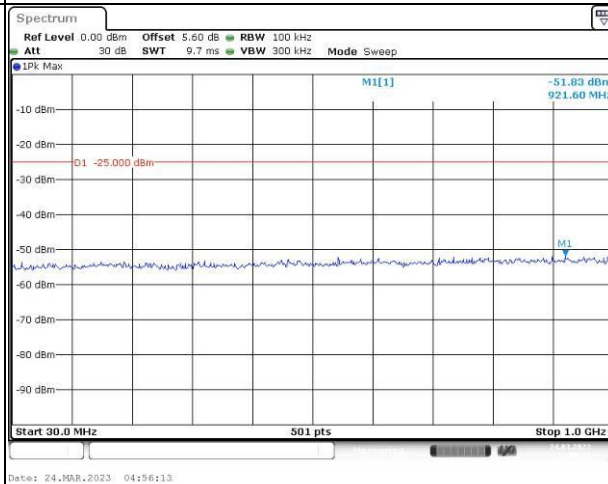


Spurious Emissions at Antenna Terminal

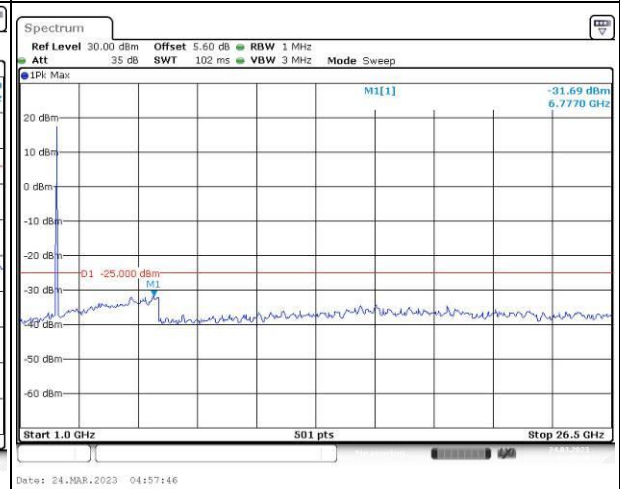
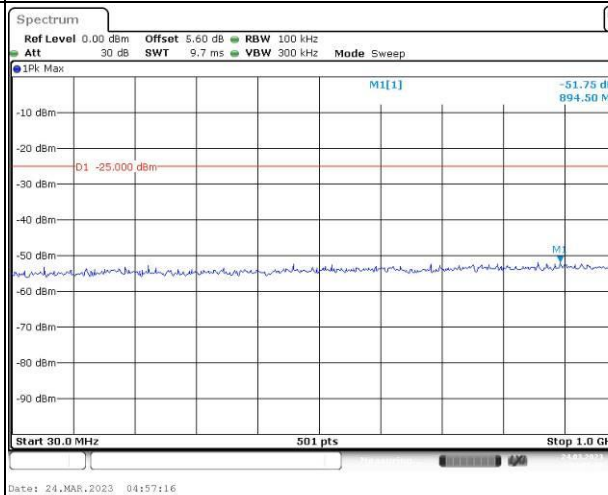
Channel

20MHz Bandwidth QPSK

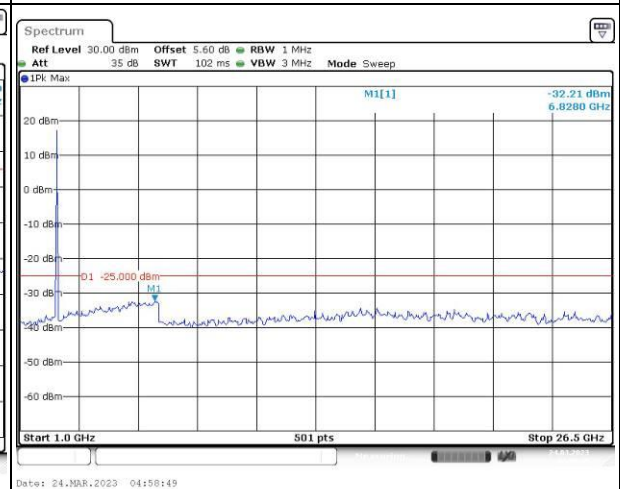
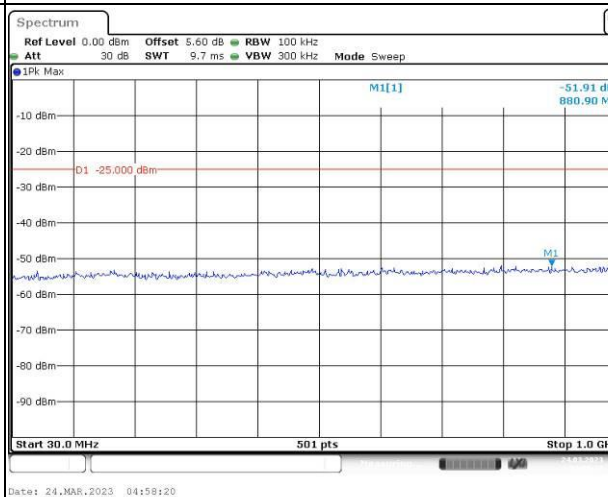
Lowest



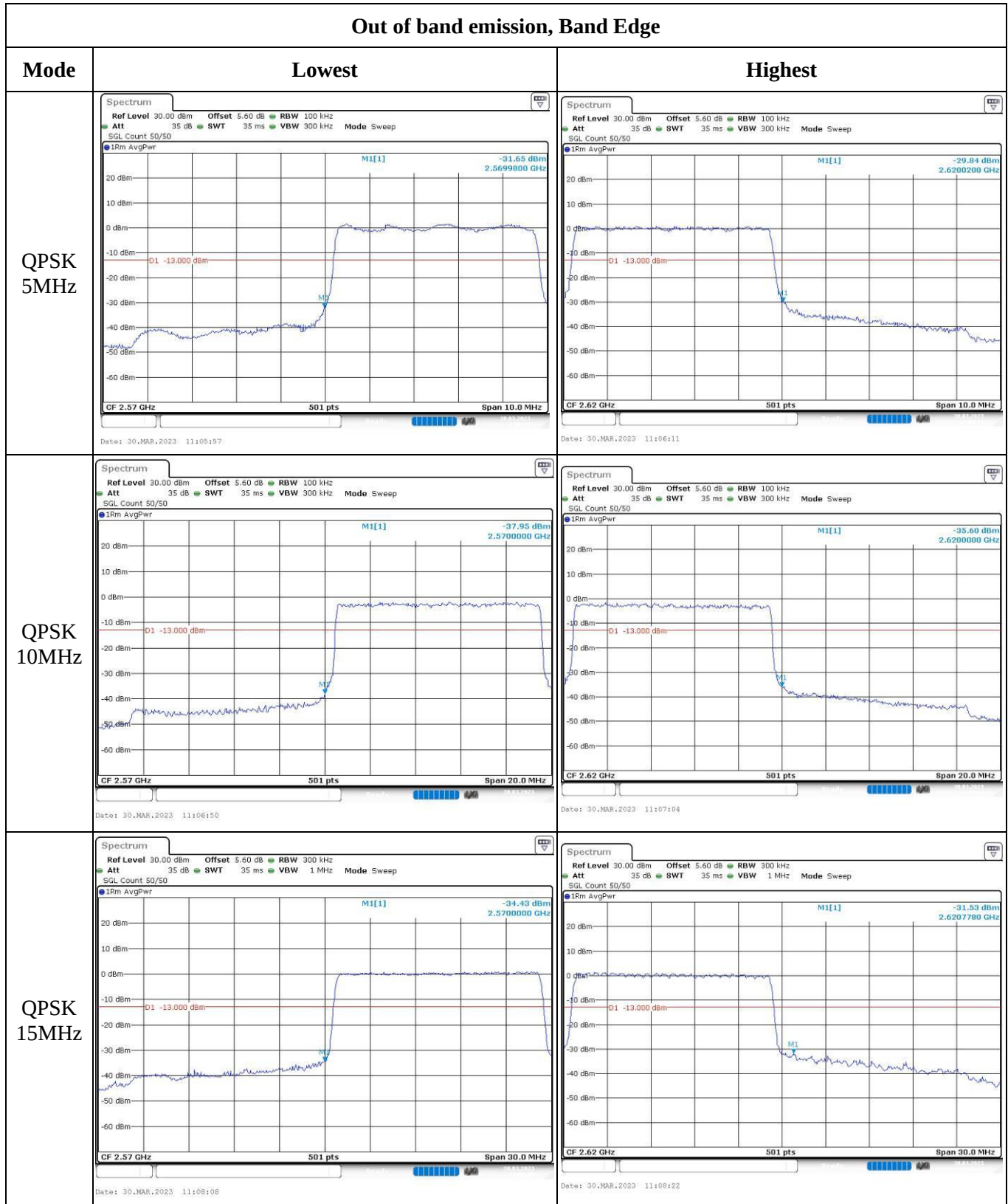
Middle



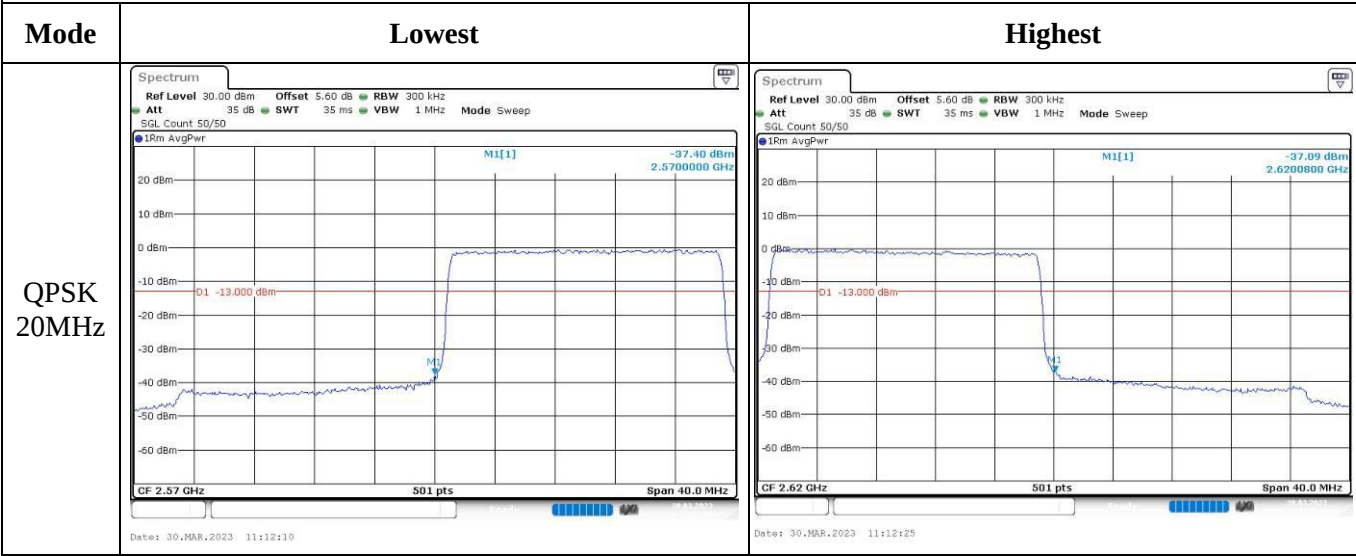
Highest



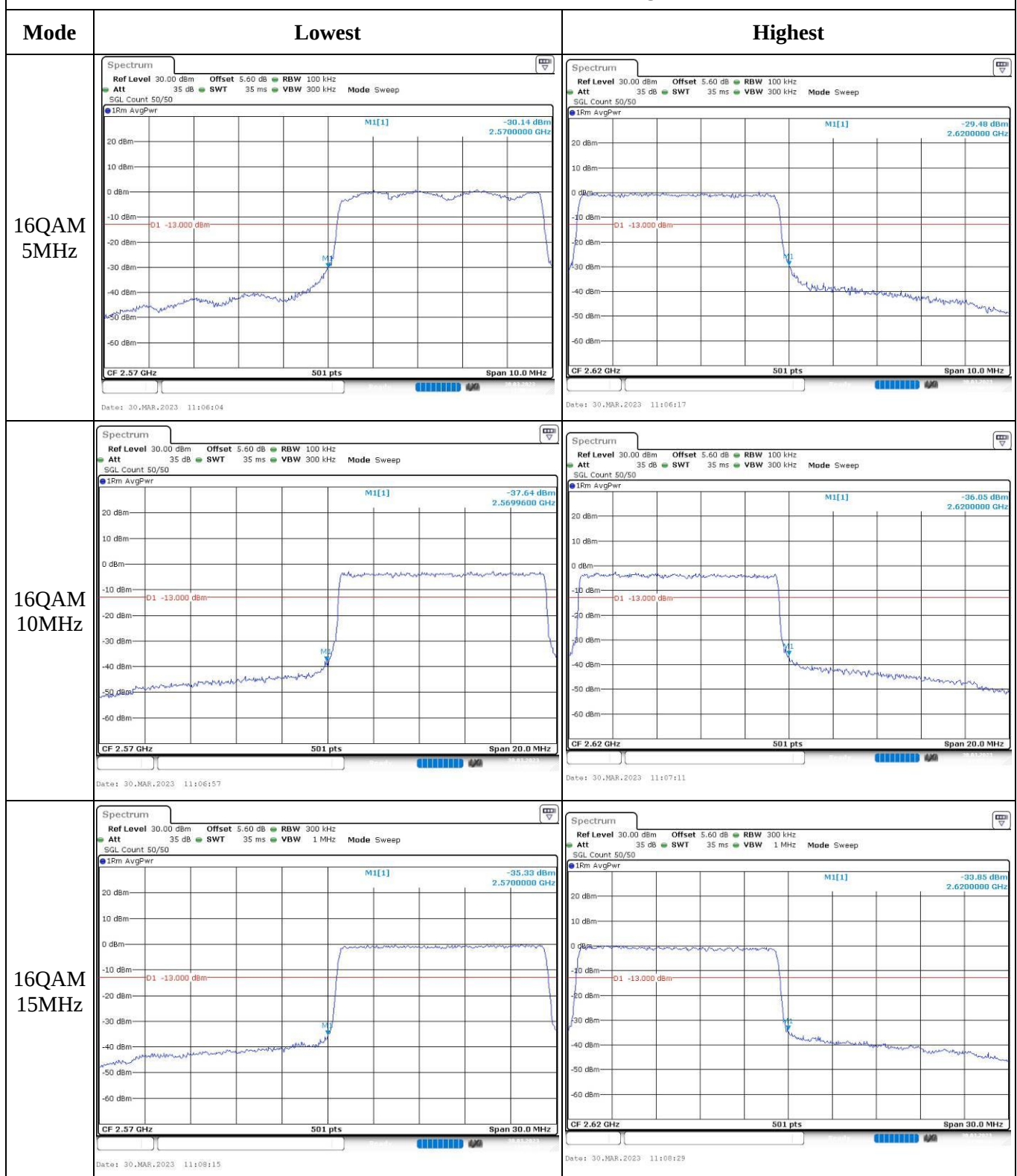
Out of band emission, Band Edge



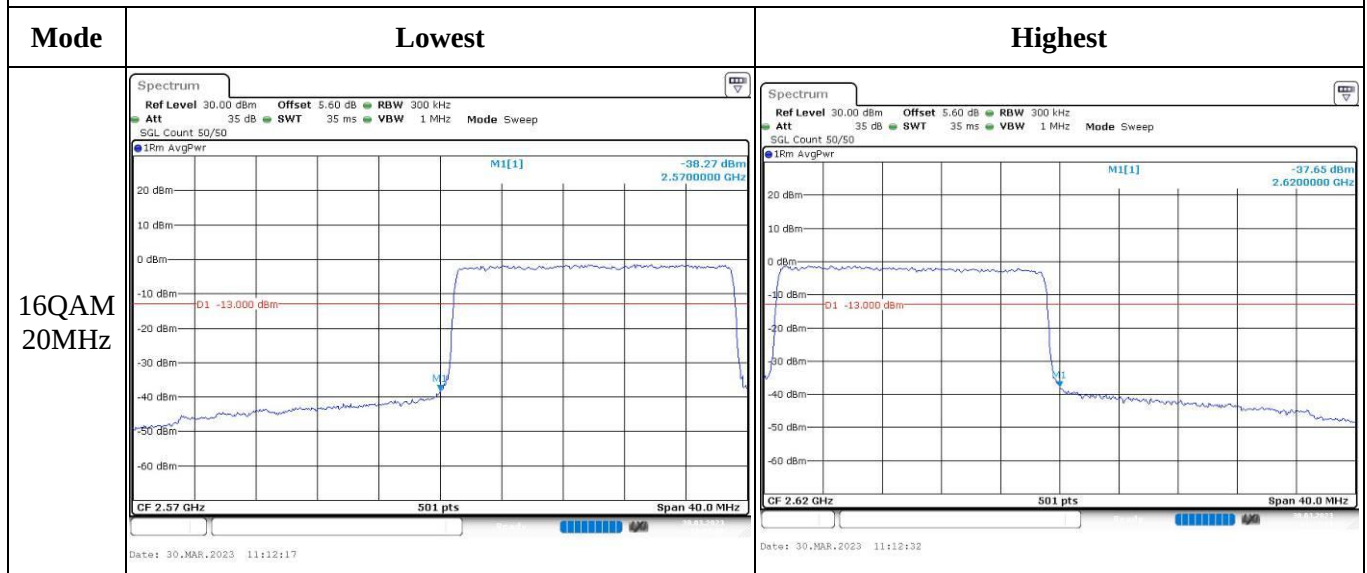
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.15 Antenna Port Test Data and Results for LTE Band 41

Serial Number:	22O5	Test Date:	2023/3/23~2023/4/14
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jou Zhou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.1~25.3	Relative Humidity: (%)	41~56	ATM Pressure: (kPa)	100.1~101.6
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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	2022/7/15	2023/7/14
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	2022/7/15	2023/7/14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022/4/6	2023/4/5
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
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	2537.5	2595	2652.5
10MHz	2540	2595	2650
15MHz	2542.5	2595	2647.5
20MHz	2545	2595	2645

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	23.18	22.67	22.83	26.32	33
	RB1#13	23.26	22.79	22.95		
	RB1#24	23.14	22.66	22.86		
	RB15#0	22.15	21.74	21.87		
	RB15#10	22.19	21.68	21.87		
	RB25#0	22.21	21.72	21.88		
5MHz 16QAM	RB1#0	22.19	21.86	21.6	25.35	33
	RB1#13	22.29	21.97	21.74		
	RB1#24	22.16	21.85	21.62		
	RB15#0	21.19	20.76	20.8		
	RB15#10	21.22	20.7	20.82		
	RB25#0	21.16	20.68	20.82		
10MHz QPSK	RB1#0	23.25	22.79	22.81	26.45	33
	RB1#25	23.39	23.05	23.06		
	RB1#49	23.18	22.78	22.86		
	RB25#0	22.17	21.82	21.9		
	RB25#25	22.23	21.73	21.9		
	RB50#0	22.18	21.75	21.92		
10MHz 16QAM	RB1#0	22.19	21.65	21.95	25.44	33
	RB1#25	22.38	21.87	22.16		
	RB1#49	22.14	21.66	21.97		
	RB25#0	21.19	20.76	20.96		
	RB25#25	21.21	20.7	20.98		
	RB50#0	21.15	20.75	20.86		
15MHz QPSK	RB1#0	23.17	22.79	22.78	26.29	33
	RB1#38	23.23	22.87	22.9		
	RB1#74	23.06	22.81	22.84		
	RB36#0	22.17	21.89	21.92		
	RB36#39	22.22	21.85	21.96		
	RB75#0	22.19	21.94	21.95		
15MHz 16QAM	RB1#0	22.13	21.67	21.92	25.27	33
	RB1#38	22.21	21.76	22.02		
	RB1#74	22.05	21.69	21.93		
	RB36#0	21.12	20.89	20.91		
	RB36#39	21.16	20.82	20.93		
	RB75#0	21.12	20.85	20.86		
20MHz QPSK	RB1#0	22.96	22.6	22.71	26.39	33
	RB1#50	23.33	22.99	23.1		
	RB1#99	22.86	22.59	22.74		

20MHz 16QAM	RB50#0	22.05	21.78	21.88	25.58	33
	RB50#50	22.2	21.67	21.89		
	RB100#0	22.16	21.72	21.9		
	RB1#0	22.14	21.92	21.77		
	RB1#50	22.52	22.25	22.16		
	RB1#99	22.06	21.9	21.8		
	RB50#0	21.07	20.84	20.82		
	RB50#50	21.23	20.67	20.87		
	RB100#0	21.1	20.73	20.78		

Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(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	9.8	9.28	9.19	13
	RB100#0	8.87	9.57	9.65	13
20MHz 16QAM	RB1#0	10.67	10.14	10.03	13
	RB100#0	11.25	10.52	11.19	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	4.531	4.551	5.1	5.3	5.22
5MHz 16QAM	4.551	4.531	4.511	5.22	5.14	5.14
10MHz QPSK	8.982	8.942	8.982	9.72	9.88	9.88
10MHz 16QAM	8.982	8.982	8.982	9.8	9.92	9.68
15MHz QPSK	13.593	13.533	13.533	16.44	15.3	15.48
15MHz 16QAM	13.533	13.533	13.473	15	15.78	15.18
20MHz QPSK	17.964	17.964	17.964	19.36	19.92	19.52
20MHz 16QAM	17.964	17.964	17.964	19.92	19.68	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.
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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	3.8	2536.218	2535.00	2654.207	2655
	-20	3.8	2536.155	2535.00	2654.169	2655
	-10	3.8	2536.154	2535.00	2654.107	2655
	0	3.8	2536.090	2535.00	2654.038	2655
	10	3.8	2536.089	2535.00	2654.023	2655
	20	3.8	2536.058	2535.00	2654.022	2655
	30	3.8	2536.022	2535.00	2654.009	2655
	40	3.8	2535.994	2535.00	2653.978	2655
Frequency Stability vs. Voltage	50	3.8	2535.959	2535.00	2653.962	2655
	20	3.3	2536.029	2535.00	2654.059	2655
	20	4.3	2536.024	2535.00	2654.016	2655
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	2536.261	2535.00	2654.151	2655
	-20	3.8	2536.236	2535.00	2654.108	2655
	-10	3.8	2536.236	2535.00	2654.101	2655
	0	3.8	2536.174	2535.00	2654.051	2655
	10	3.8	2536.112	2535.00	2654.025	2655
	20	3.8	2536.058	2535.00	2654.022	2655
	30	3.8	2536.040	2535.00	2654.017	2655
	40	3.8	2536.040	2535.00	2654.007	2655
Frequency Stability vs. Voltage	50	3.8	2536.007	2535.00	2654.003	2655
	20	3.3	2536.102	2535.00	2654.052	2655
	20	4.3	2536.043	2535.00	2654.002	2655
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):

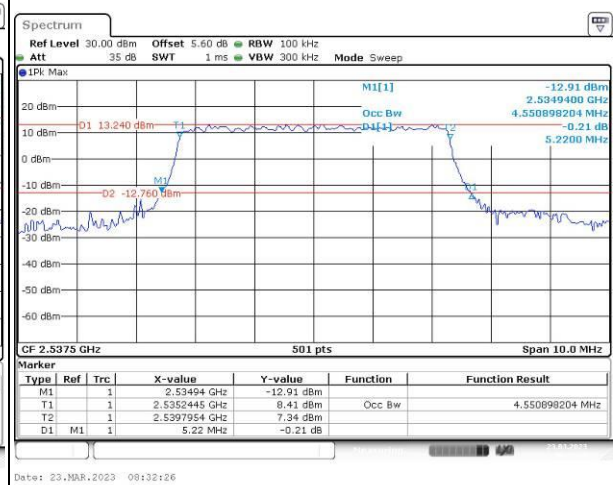
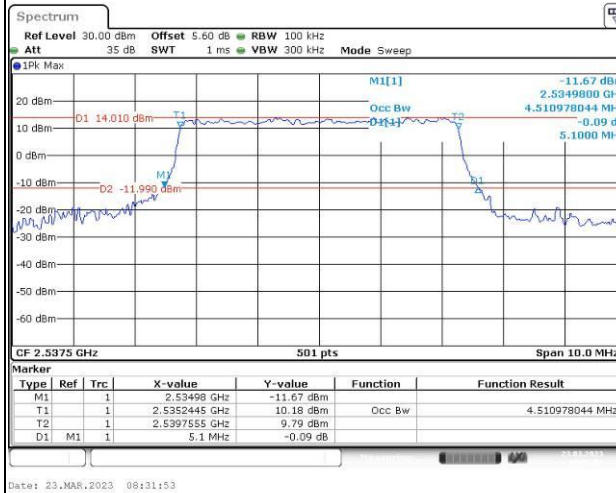
Occupied Bandwidth

Channel

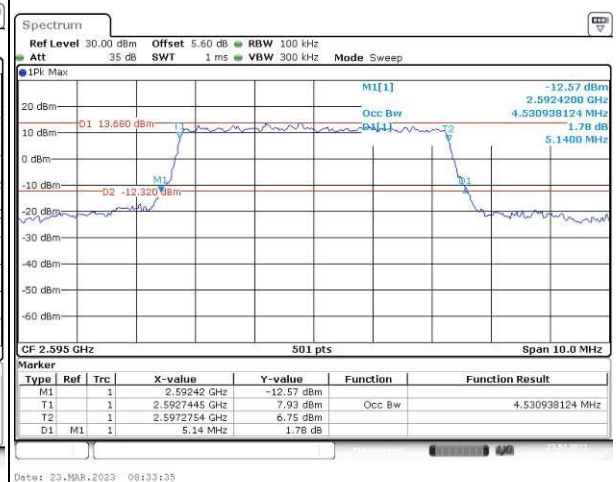
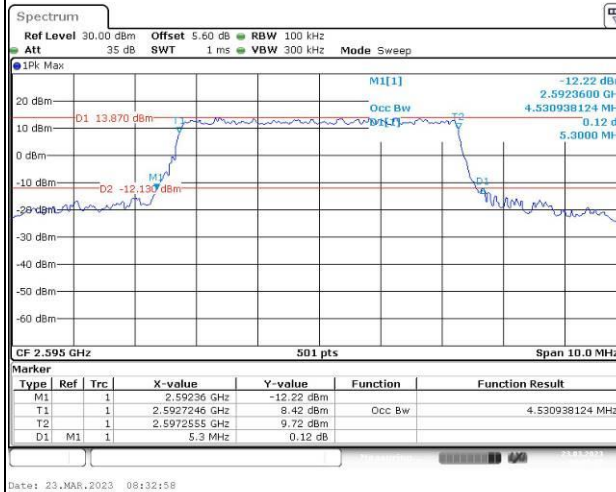
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

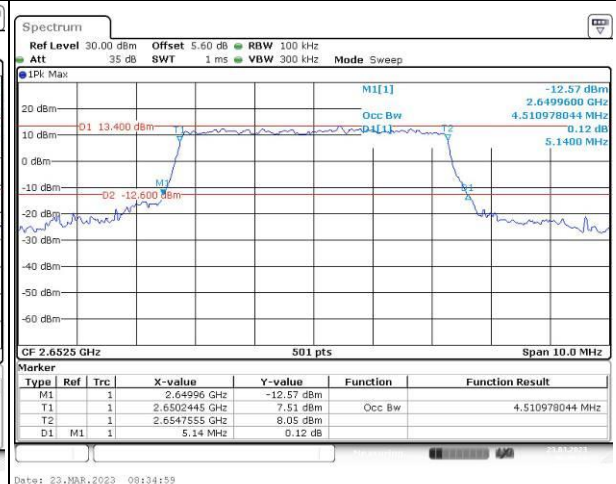
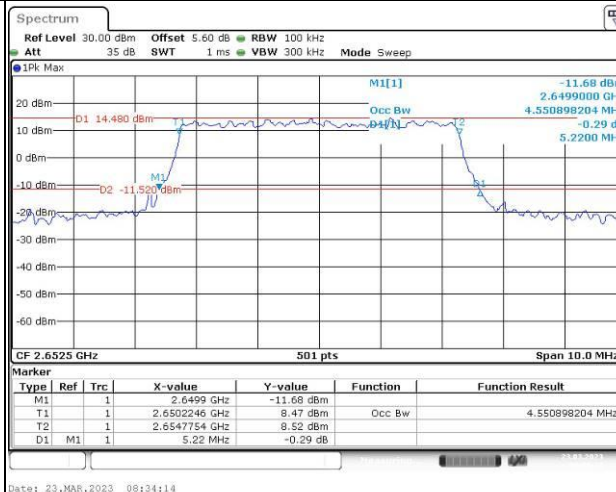
Lowest



Middle



Highest



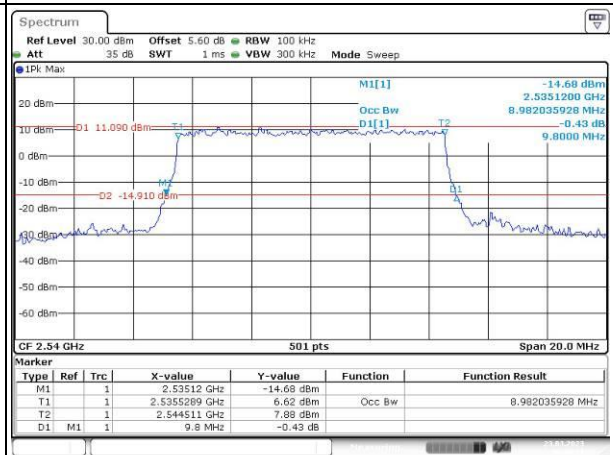
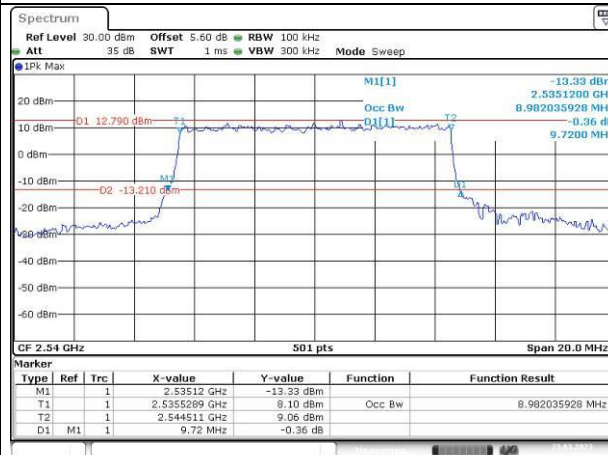
Occupied Bandwidth

Channel

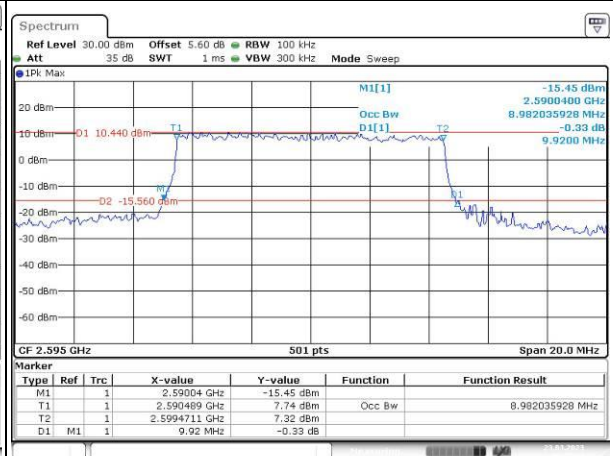
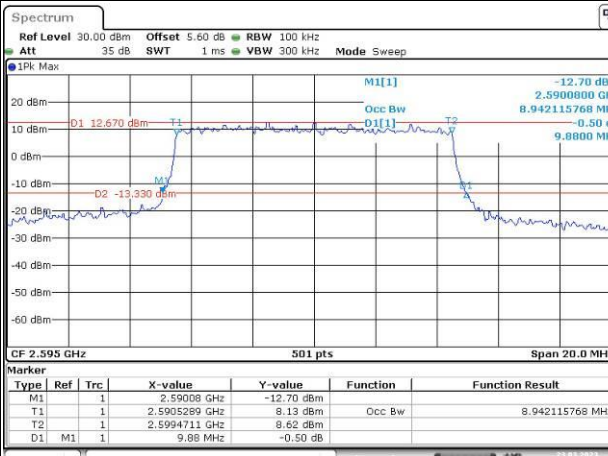
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

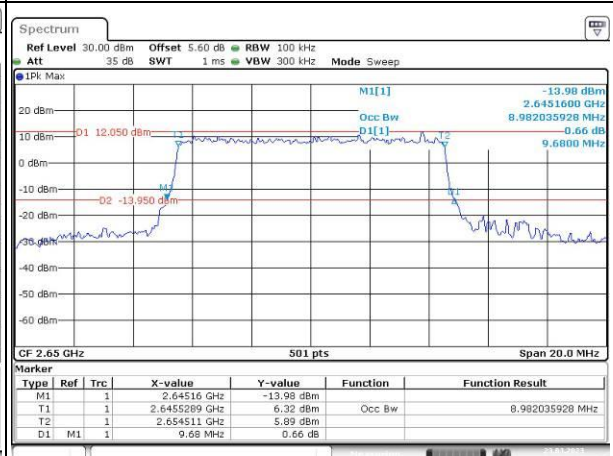
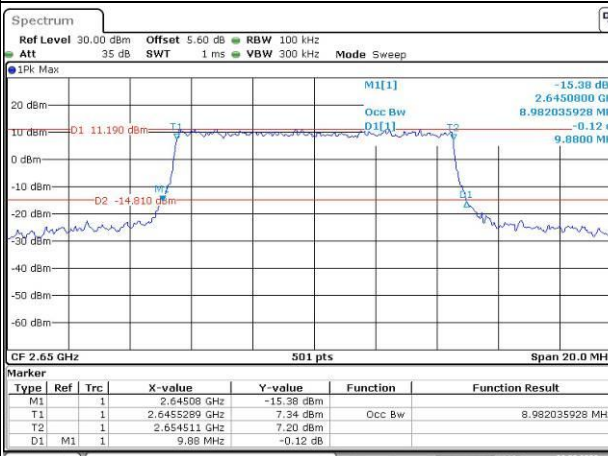
Lowest



Middle



Highest



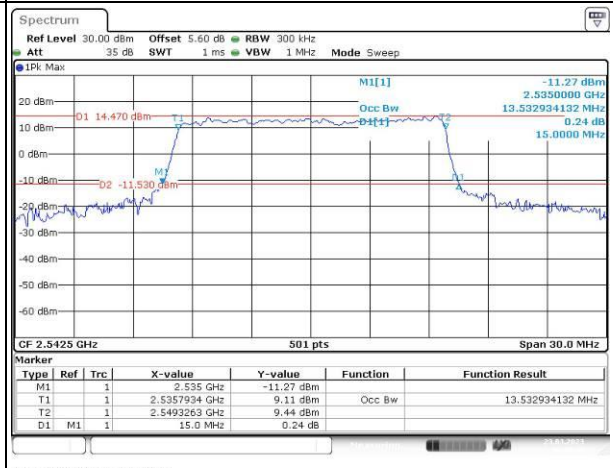
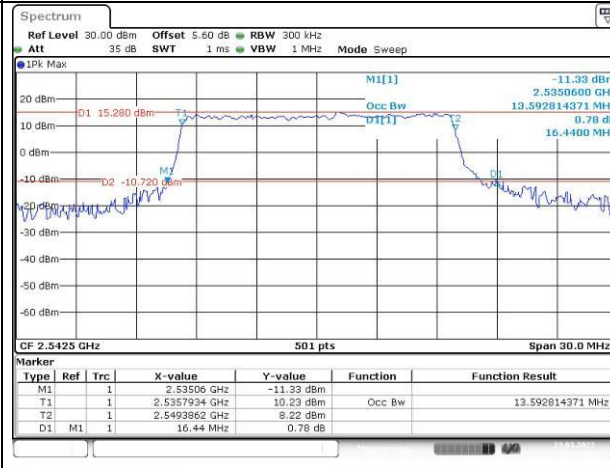
Occupied Bandwidth

Channel

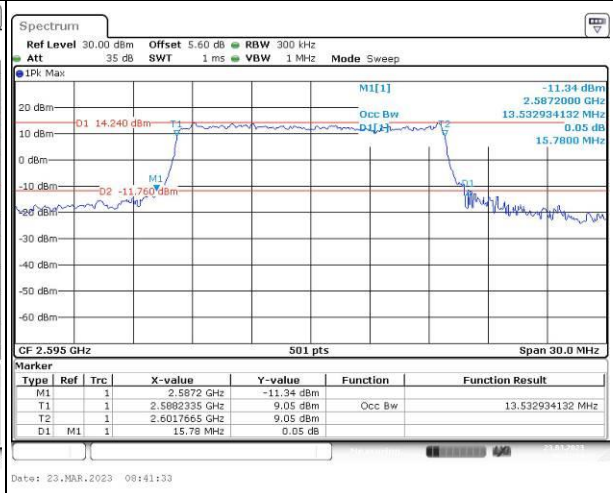
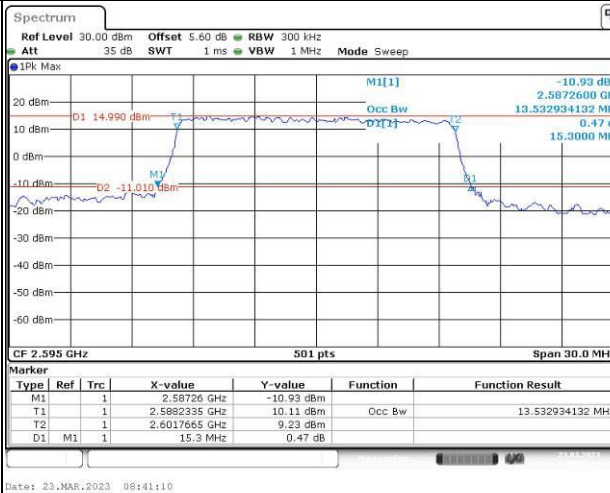
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

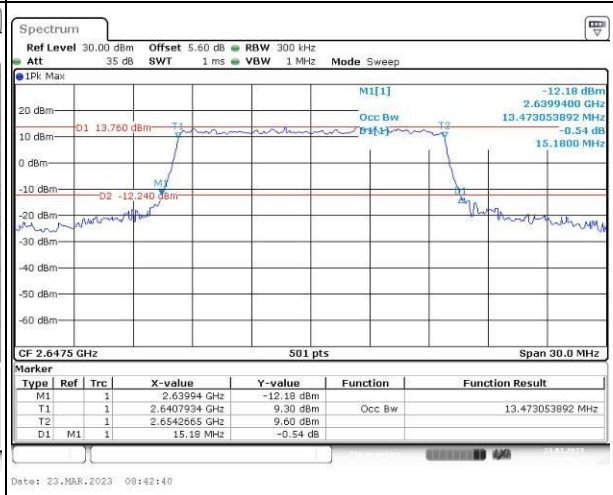
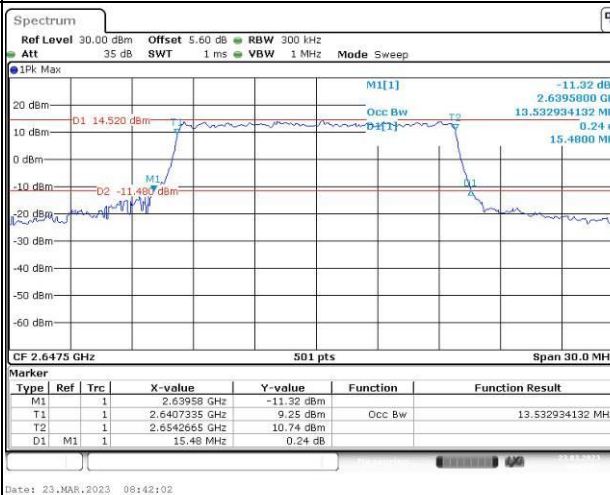
Lowest



Middle



Highest



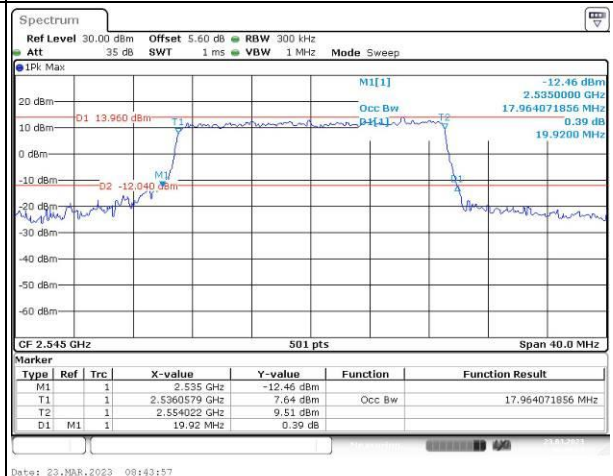
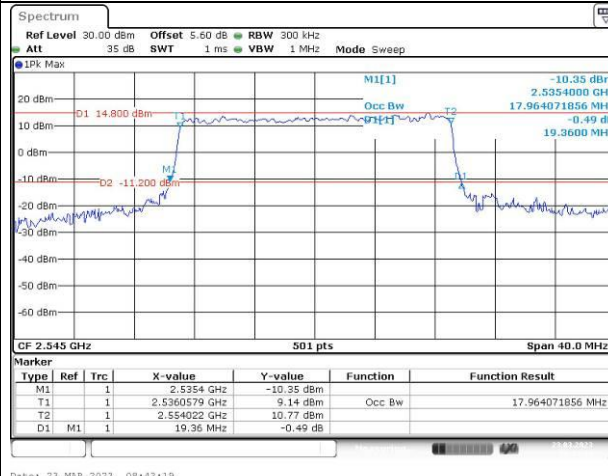
Occupied Bandwidth

Channel

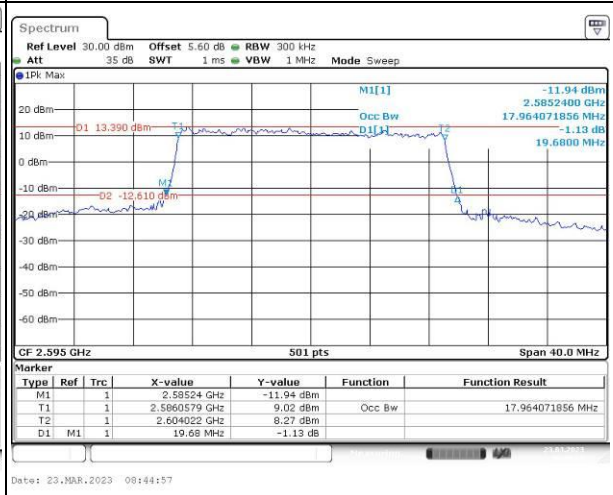
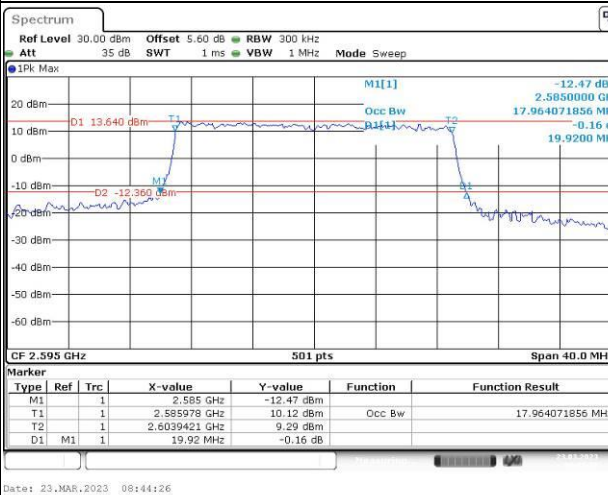
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

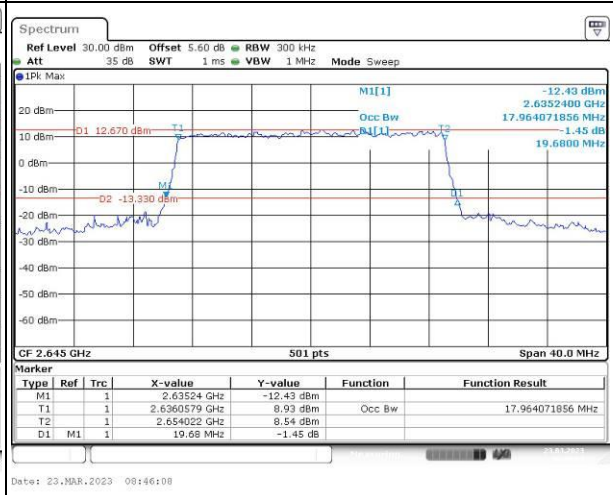
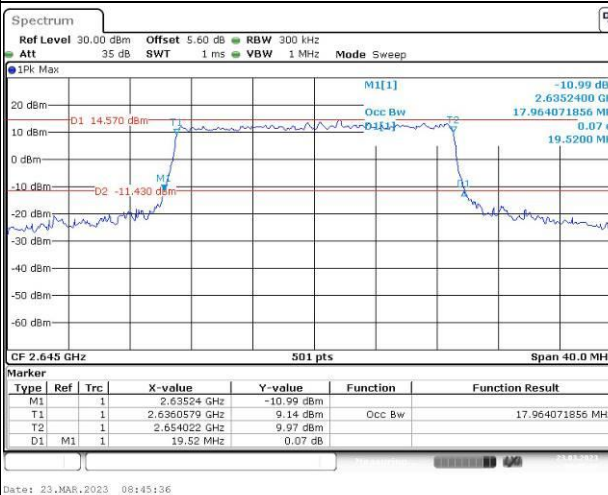
Lowest



Middle



Highest

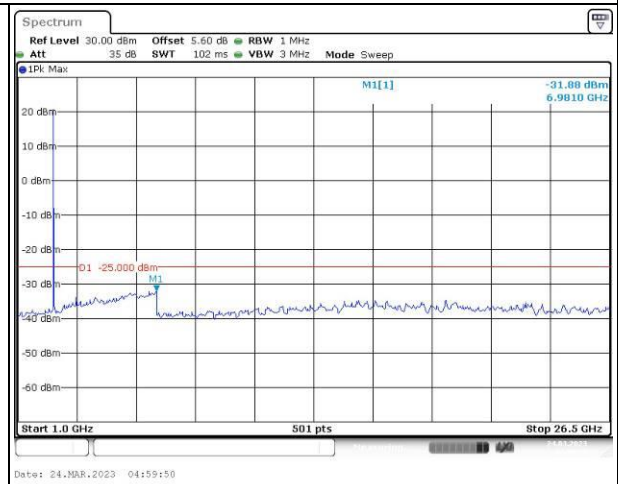
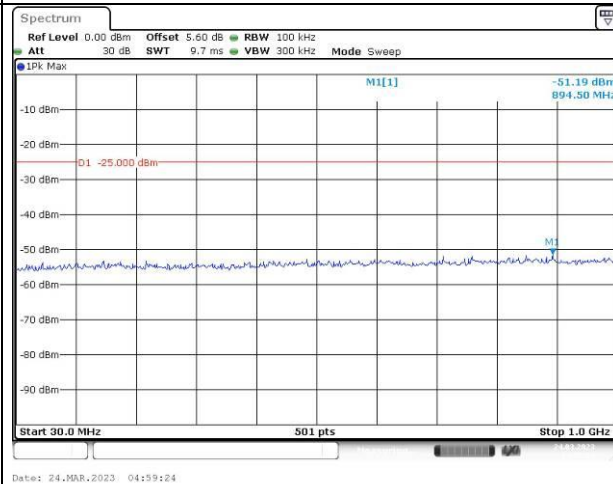


Spurious Emissions at Antenna Terminal

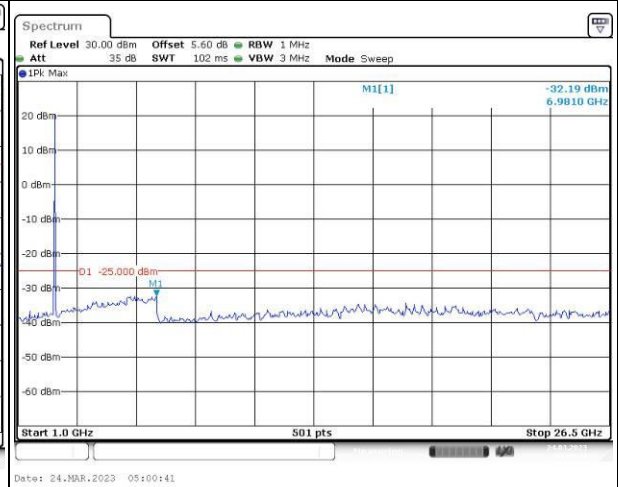
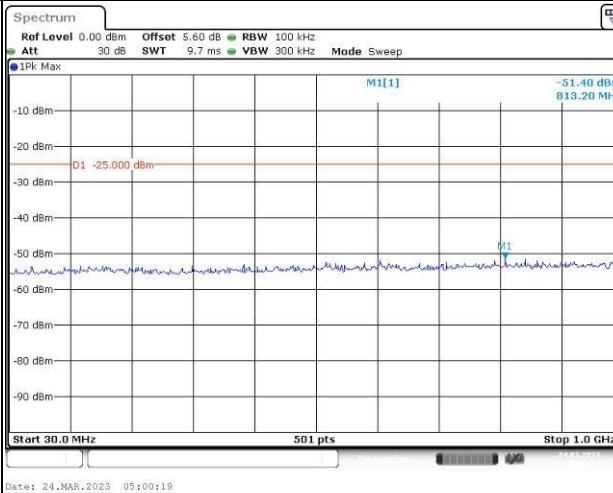
Channel

5MHz Bandwidth QPSK

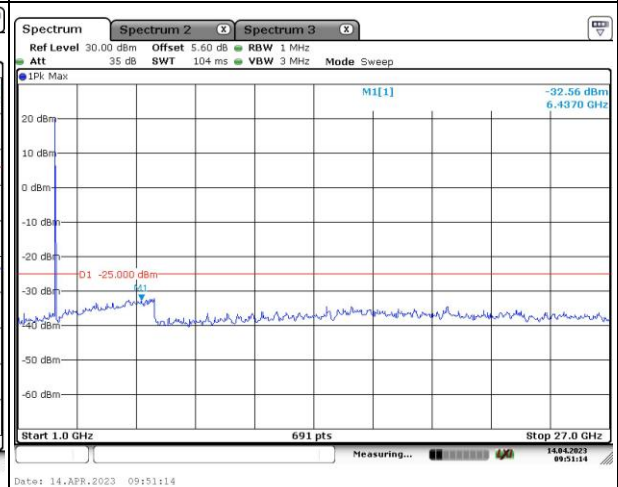
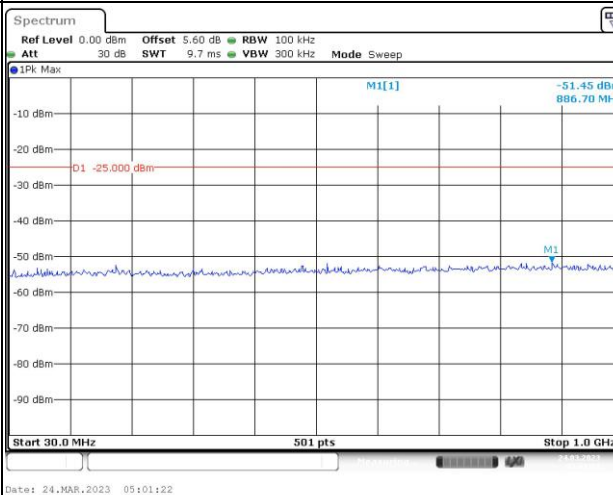
Lowest



Middle



Highest

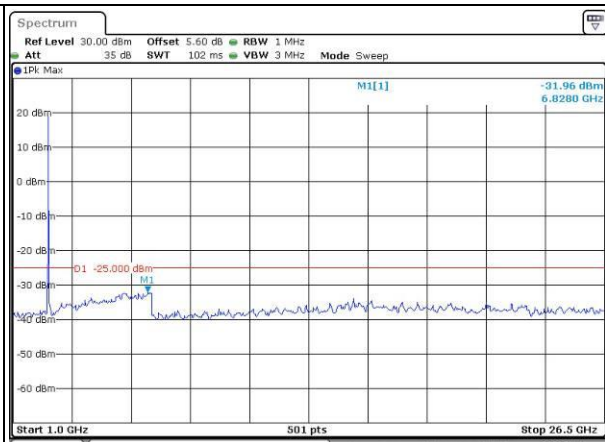
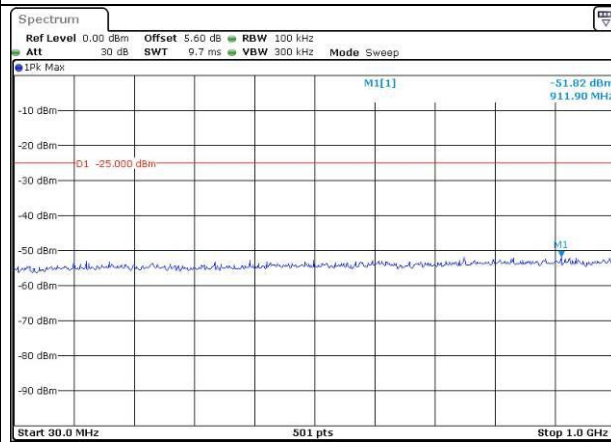


Spurious Emissions at Antenna Terminal

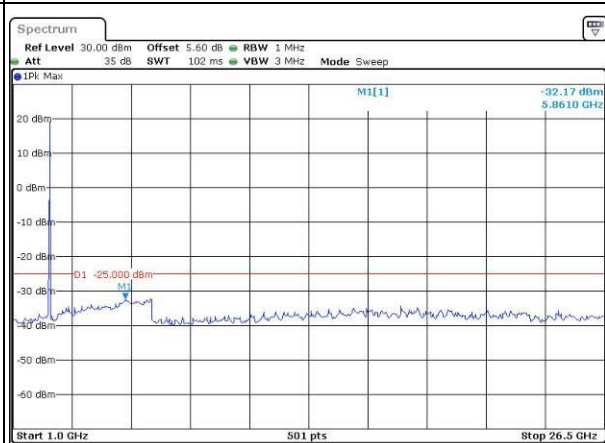
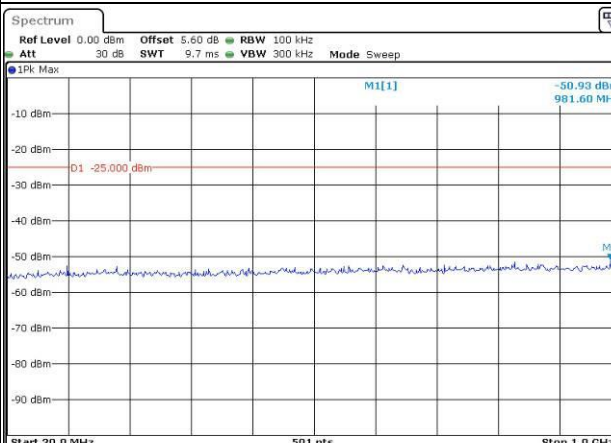
Channel

10MHz Bandwidth QPSK

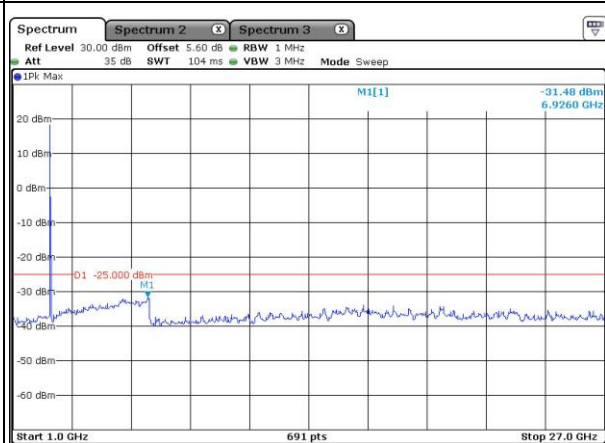
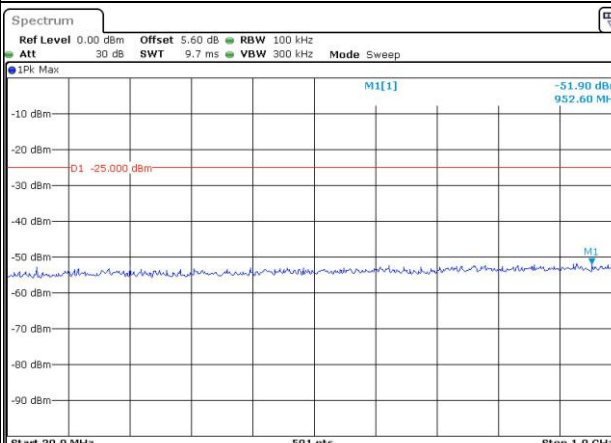
Lowest



Middle



Highest

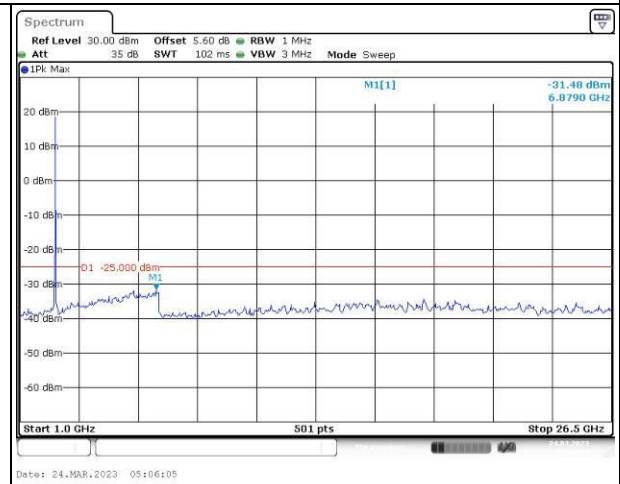
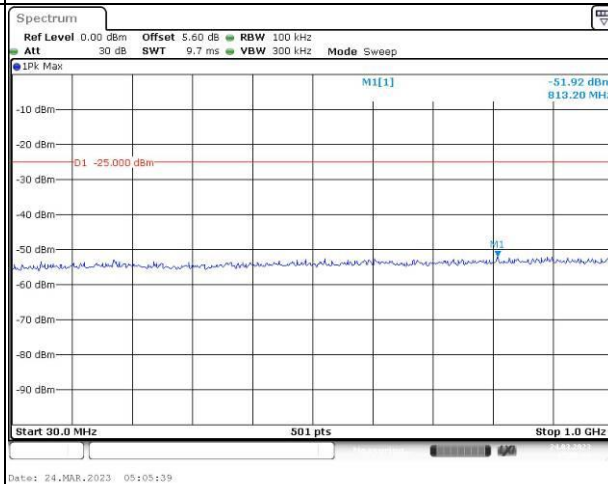


Spurious Emissions at Antenna Terminal

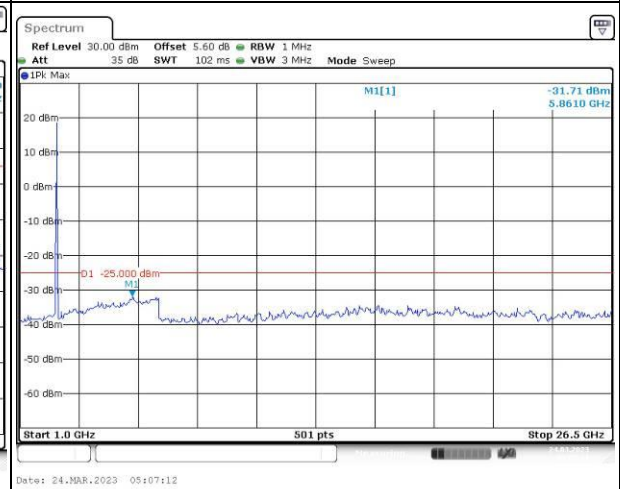
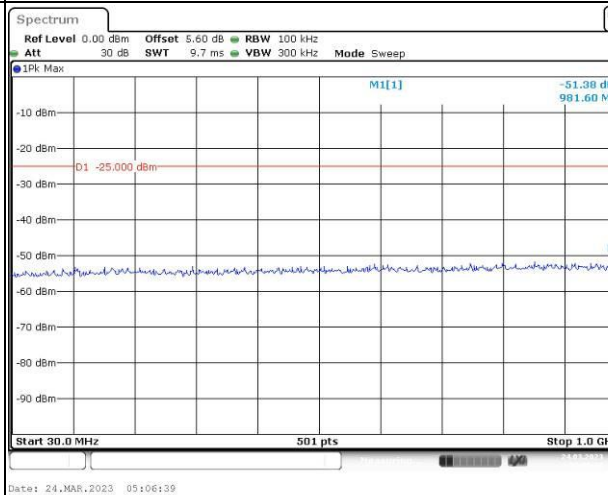
Channel

15MHz Bandwidth QPSK

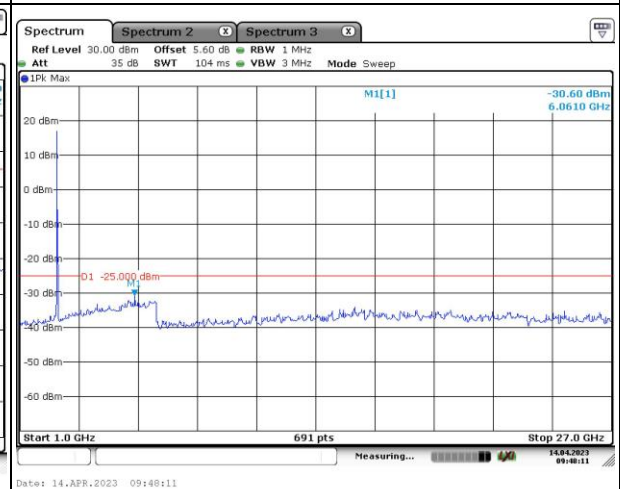
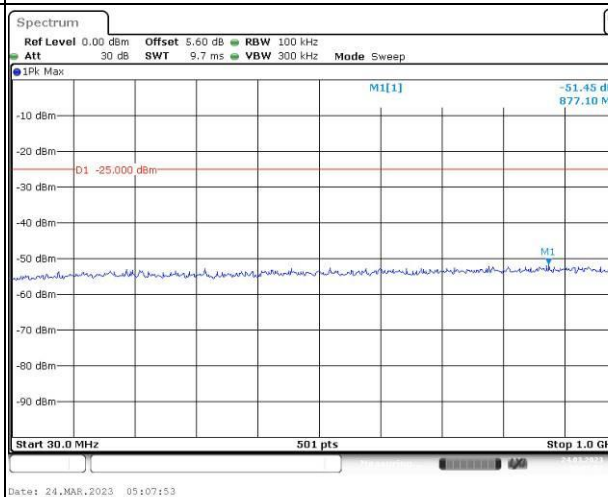
Lowest



Middle



Highest

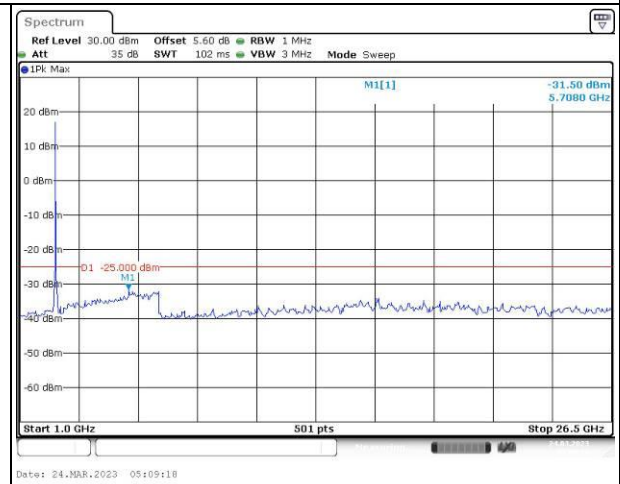
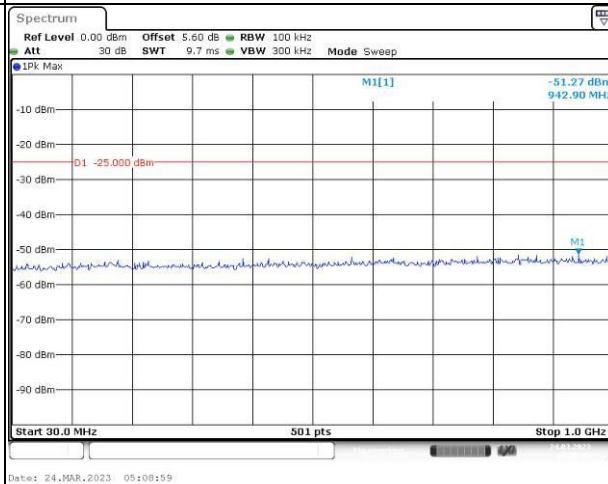


Spurious Emissions at Antenna Terminal

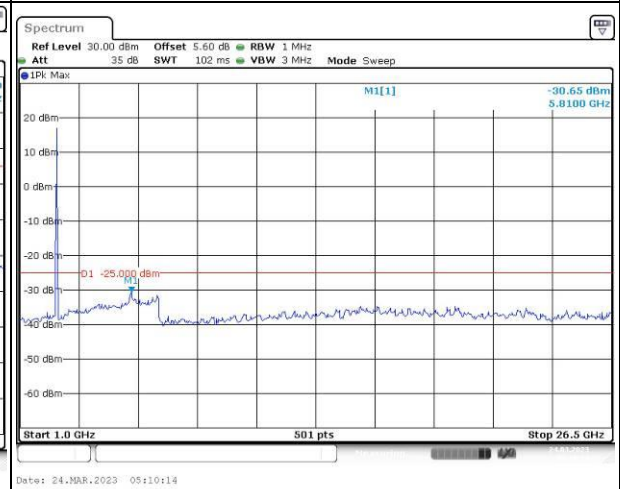
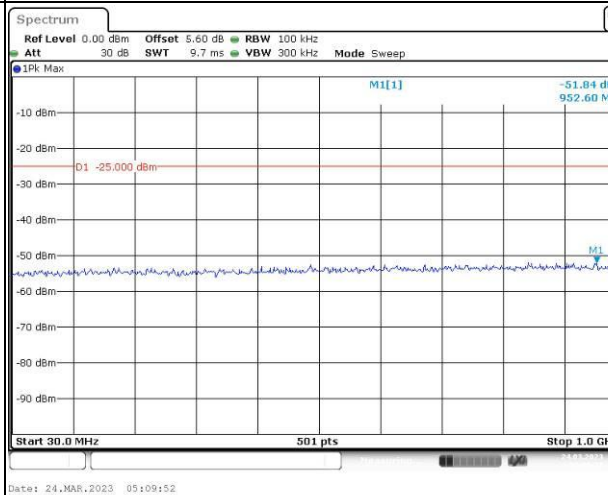
Channel

20MHz Bandwidth QPSK

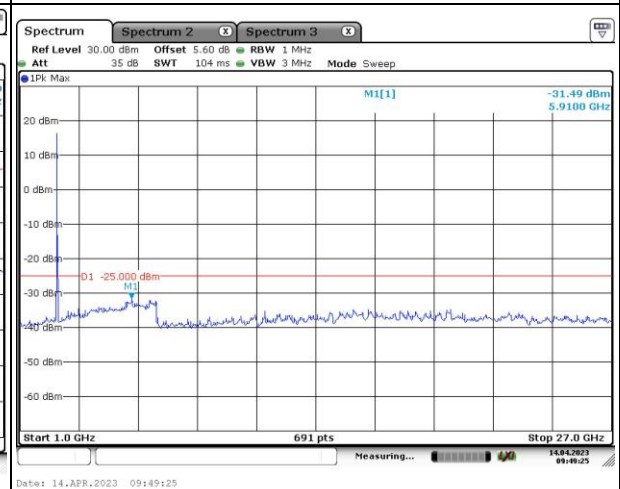
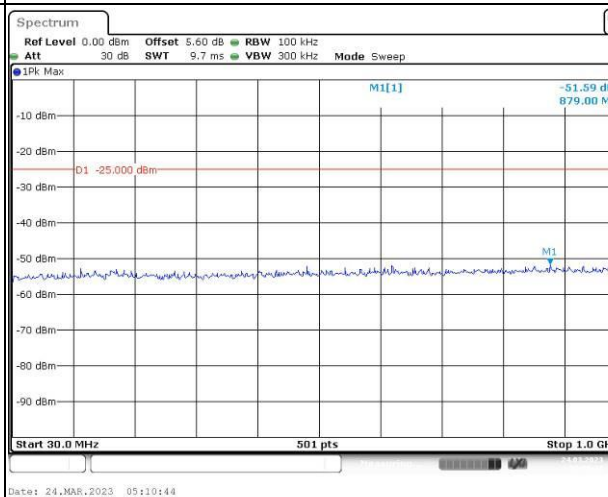
Lowest



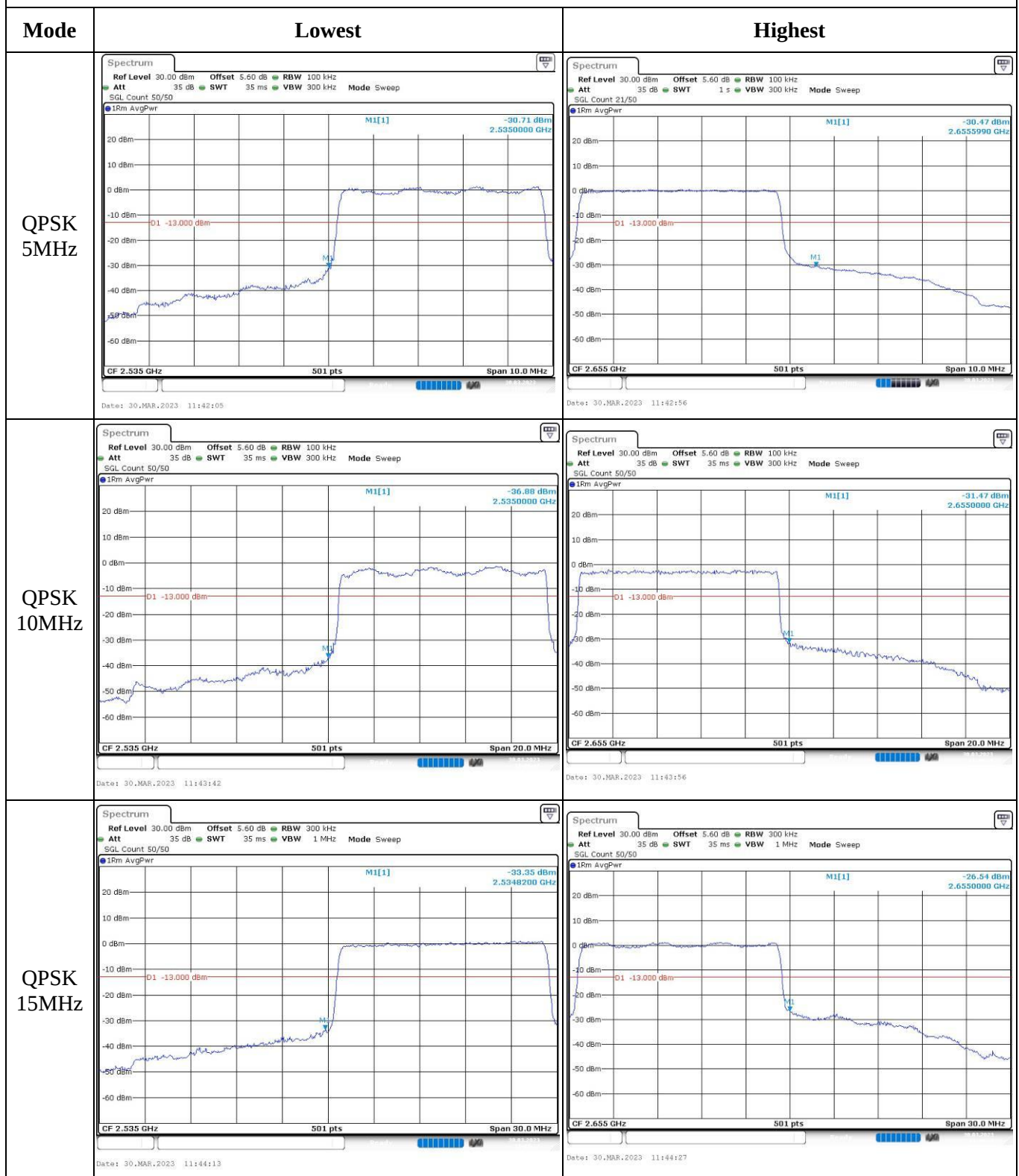
Middle

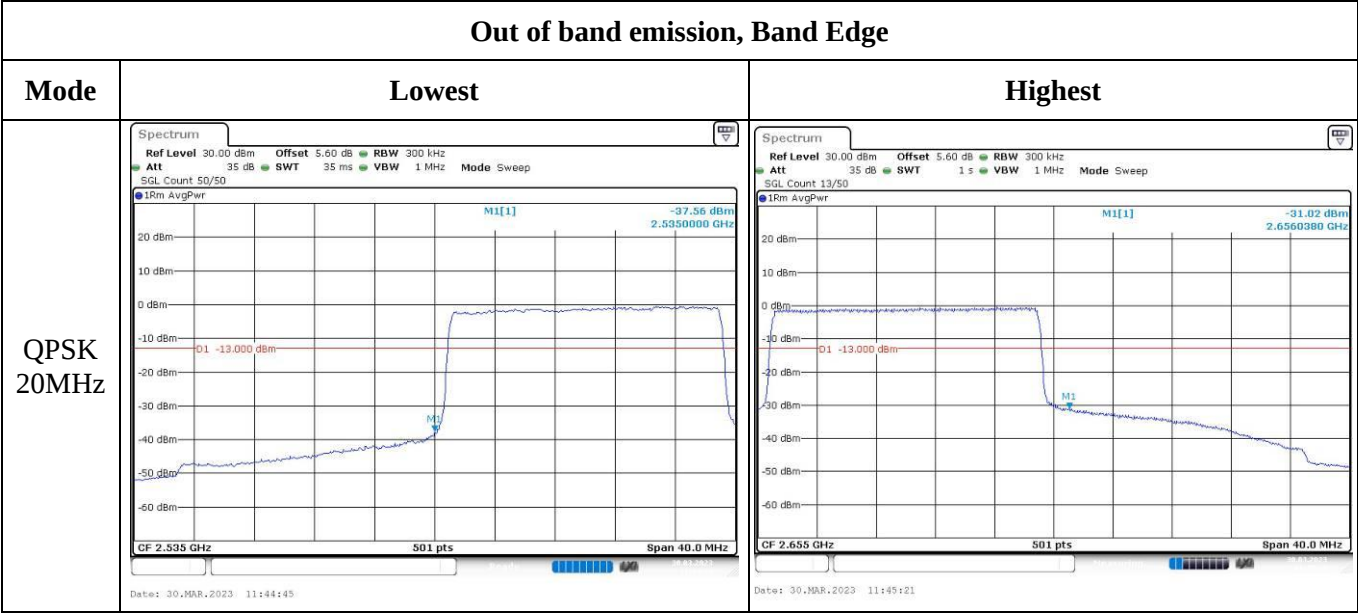


Highest

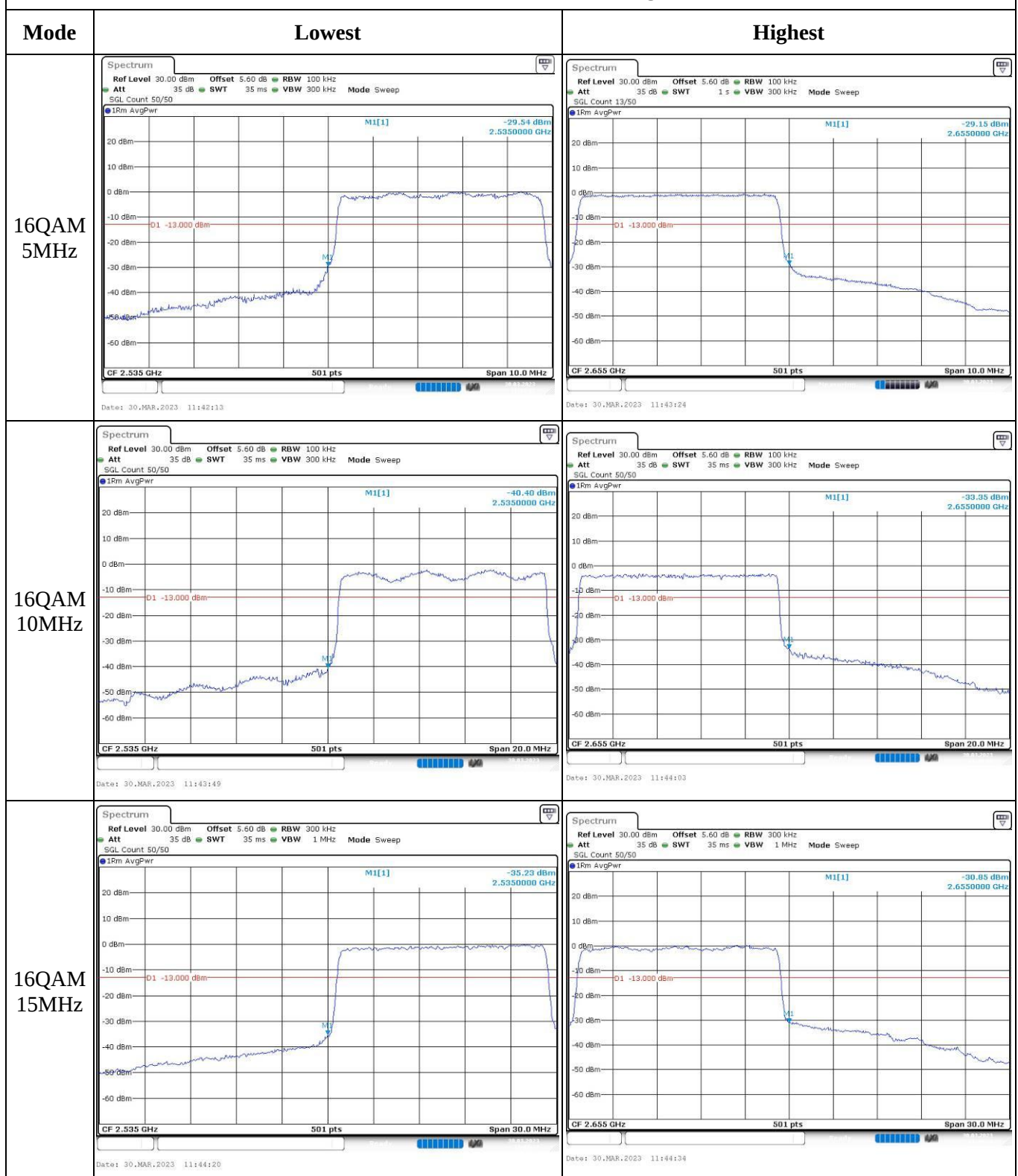


Out of band emission, Band Edge

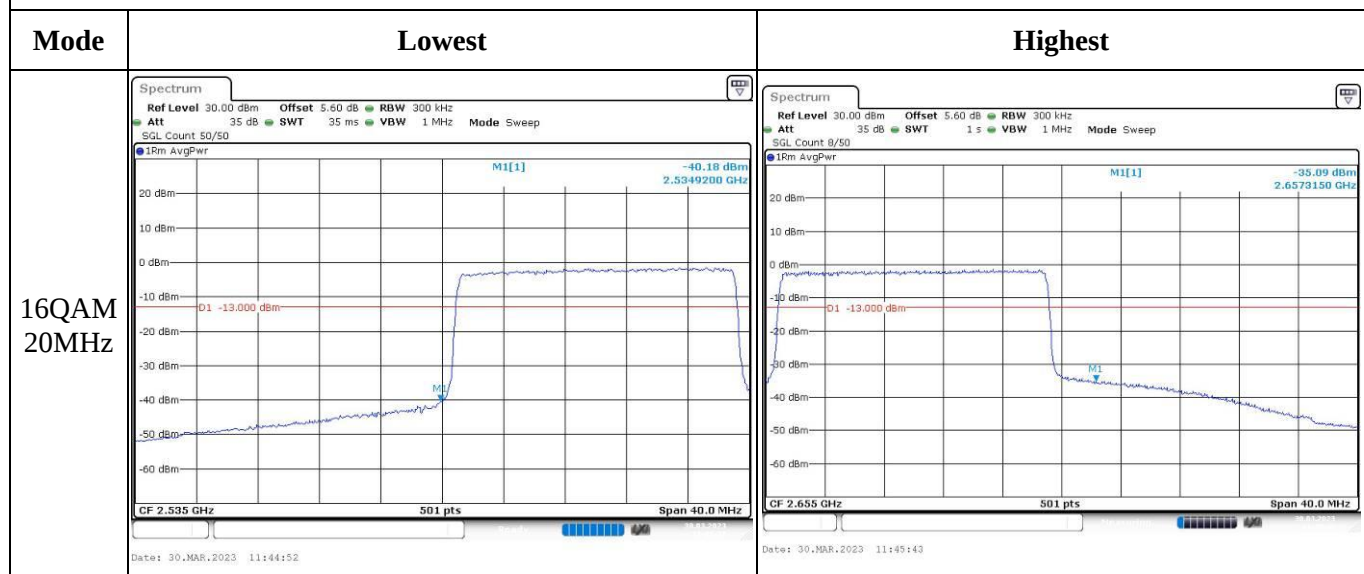




Out of band emission, Band Edge



Out of band emission, Band Edge



4.16 Antenna Port Test Data and Results for LTE Band 66

Serial Number:	2205	Test Date:	2023/3/22~2023/3/30
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jou Zhou	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.1~25.3	Relative Humidity: (%)	41~56	ATM Pressure: (kPa)	100.1~101.6
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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	2022/7/15	2023/7/14
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	2022/7/15	2023/7/14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022/4/6	2023/4/5
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
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)
1.4MHz	1710.7	1745	1779.3
3MHz	1711.5	1745	1778.5
5MHz	1712.5	1745	1777.5
10MHz	1715	1745	1775
15MHz	1717.5	1745	1772.5
20MHz	1720	1745	1770