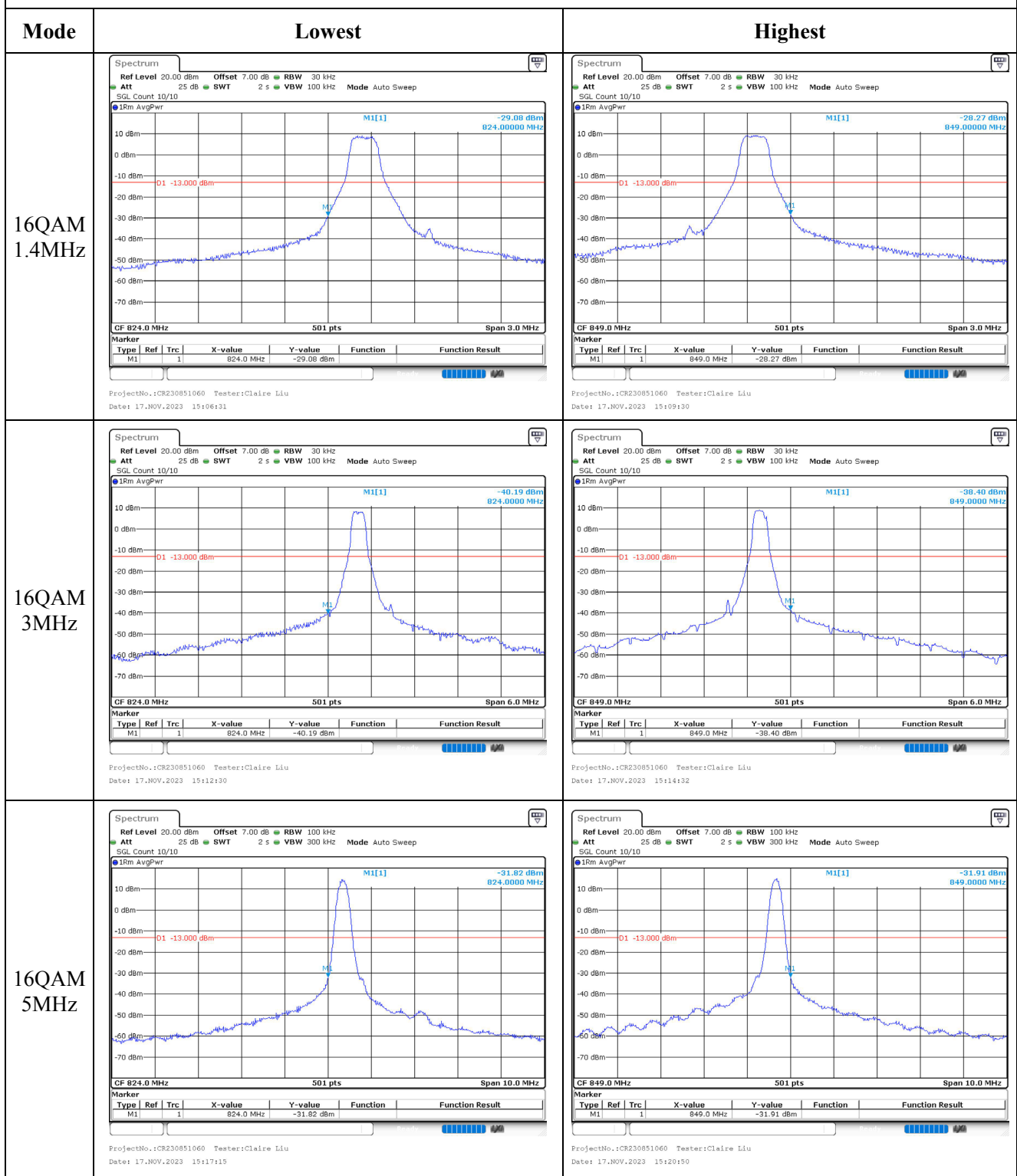
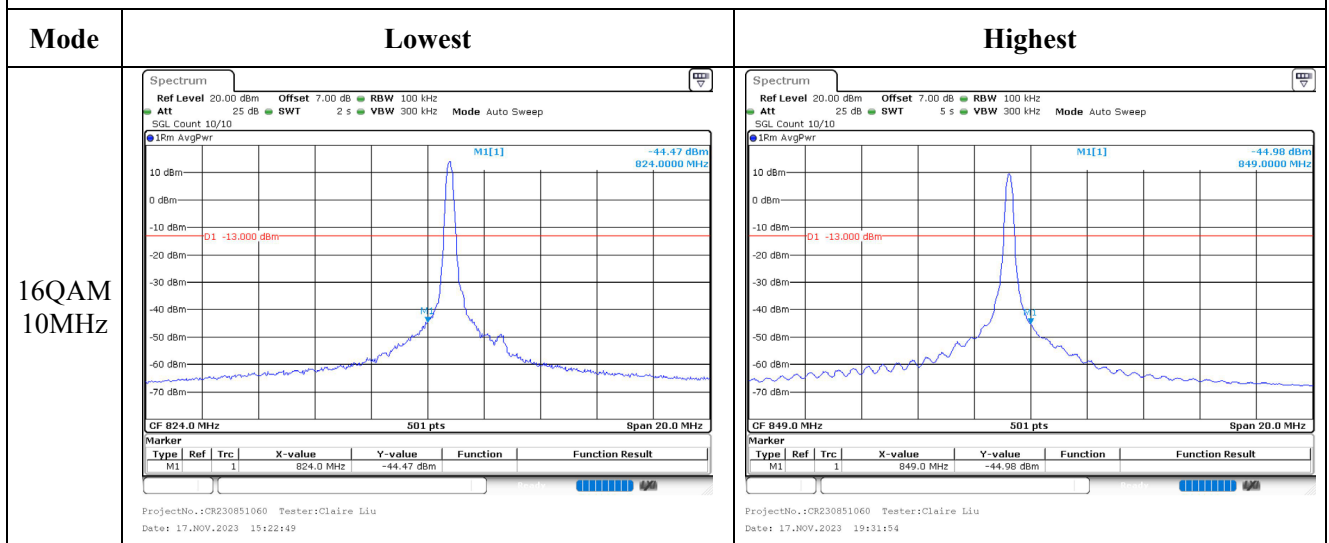


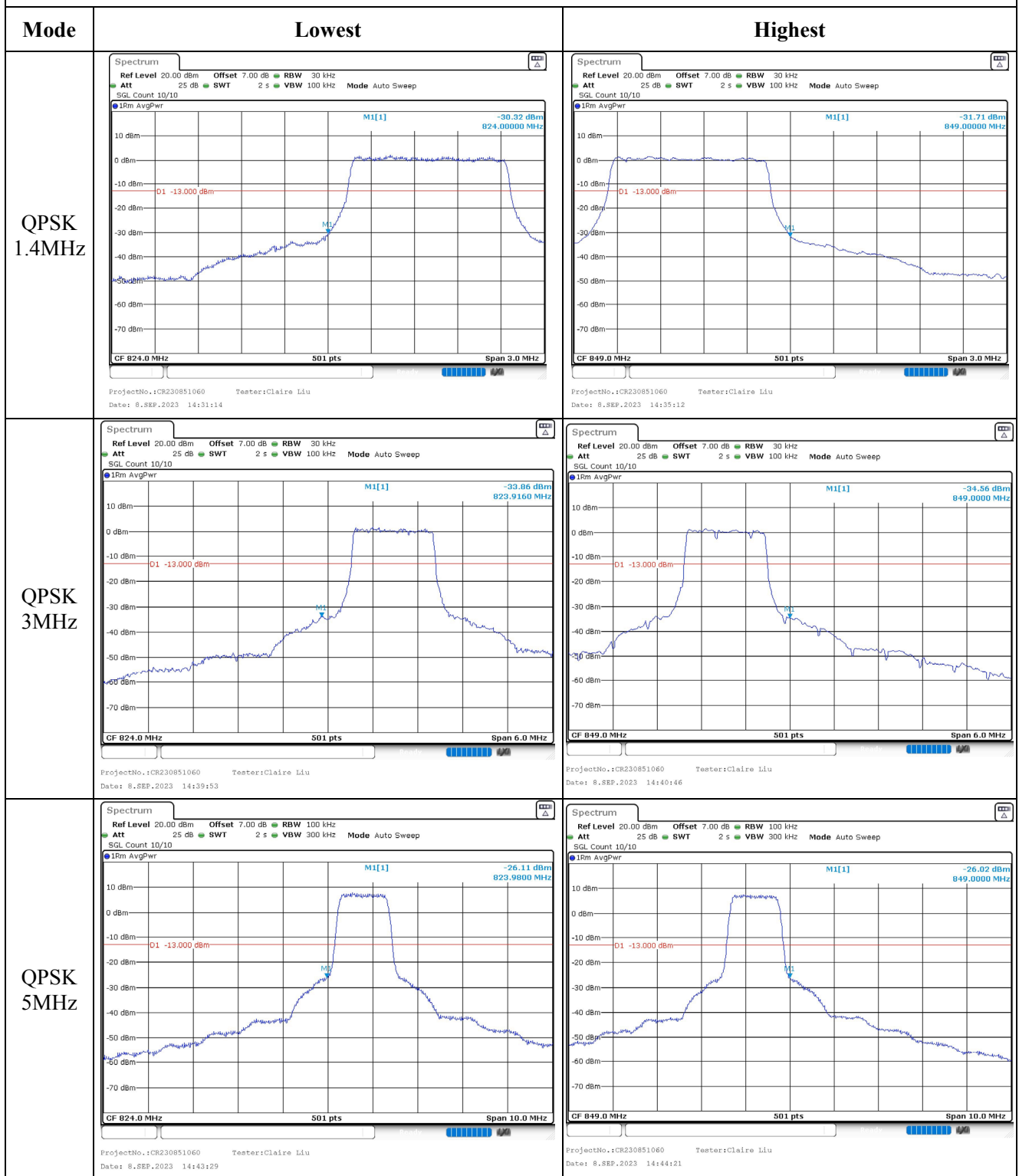
RB1 Out of band emission, Band Edge

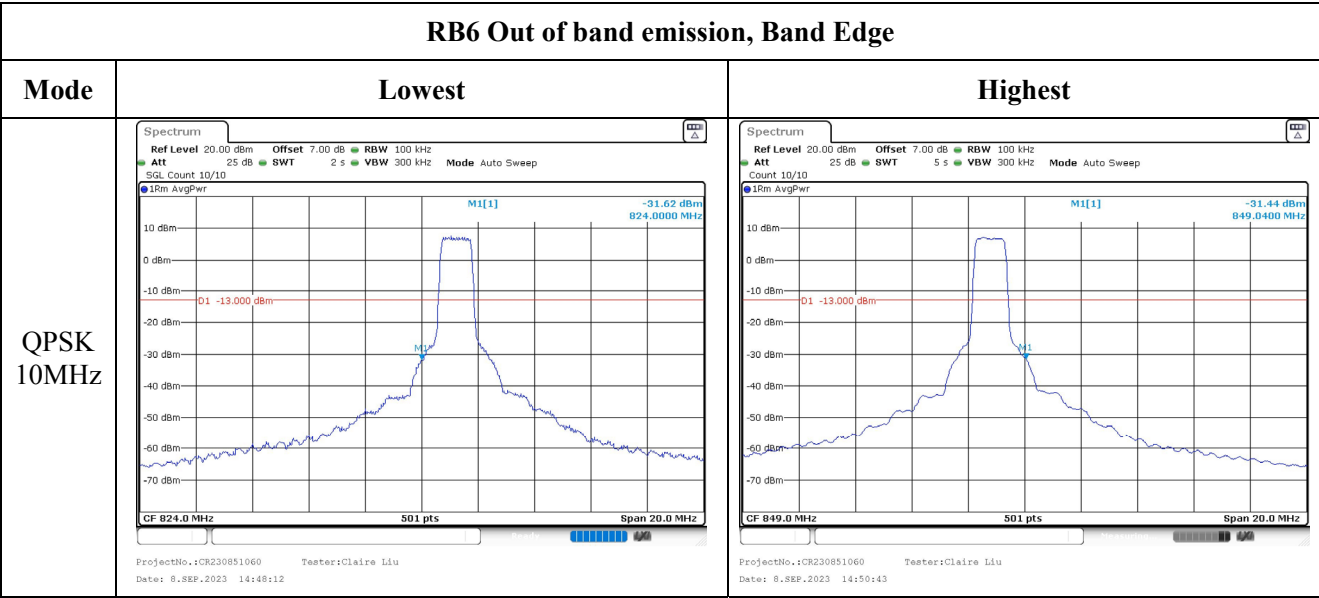


RB5 Out of band emission, Band Edge

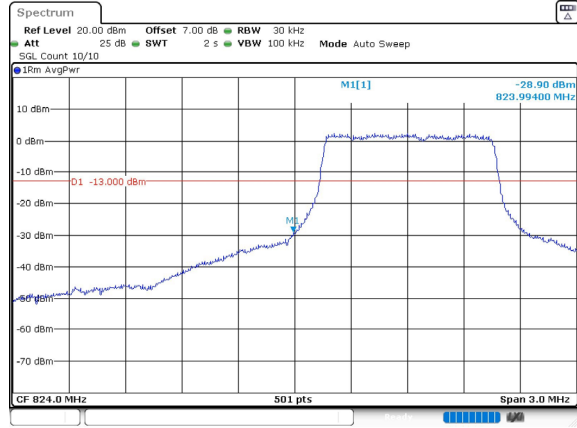
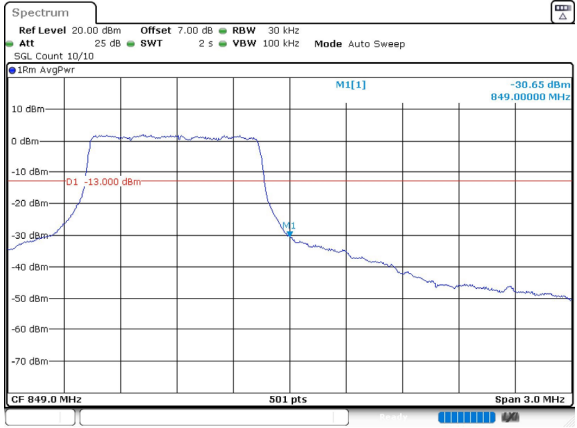
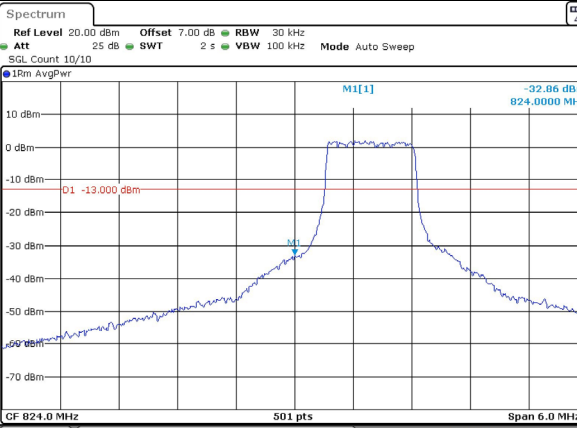
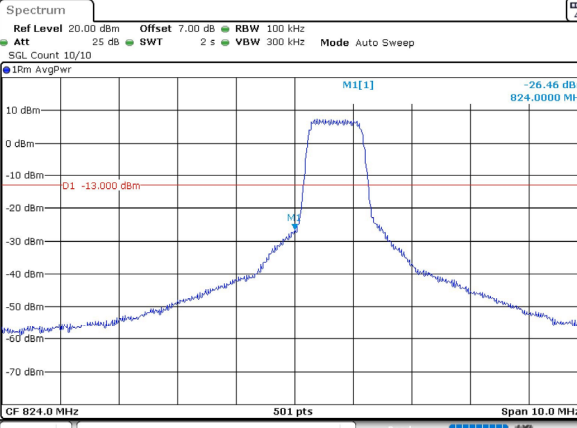
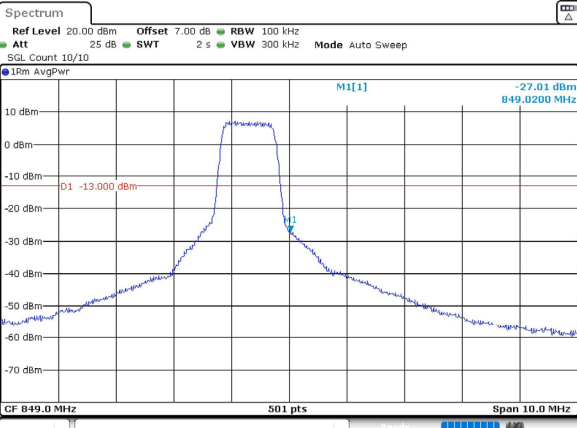


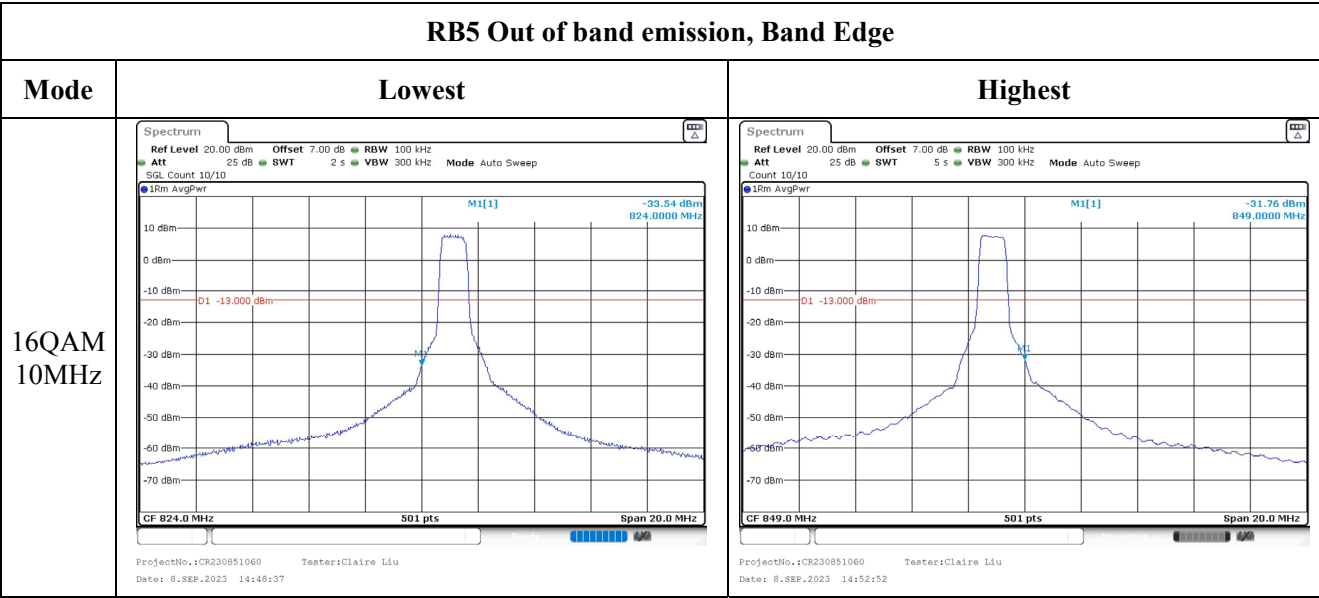
RB6 Out of band emission, Band Edge





RB5 Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 8.SEP.2023 14:31:39	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 8.SEP.2023 14:35:37
16QAM 3MHz	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 8.SEP.2023 14:40:19	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 8.SEP.2023 14:41:11
16QAM 5MHz	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 8.SEP.2023 14:43:54	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 8.SEP.2023 14:44:47



4.4 Antenna Port Test Data and Results for LTE Band 12

Serial Number:	2AQ1-8	Test Date:	2023/9/8~2023/11/17
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.5~26.3	Relative Humidity: (%)	52~56	ATM Pressure: (kPa)	100.2~101
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101590	2022/11/25	2023/11/24
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554404	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
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	699.7	707.5	715.3
3MHz	700.5	707.5	714.5
5MHz	701.5	707.5	713.5
10MHz	704	707.5	711

Test Data:**FCC§2.1046;§ 27.50(c) (9)****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		
1.4MHz QPSK	RB1#0	21.84	21.6	21.65	23.73	44.77
	RB1#3	21.56	21.4	21.37		
	RB1#5	21.59	21.42	21.45		
	RB3#0	20.51	20.8	20.39		
	RB3#3	20.5	20.75	20.33		
	RB6#0	19.48	19.77	19.43		
1.4MHz 16QAM	RB1#0	20.55	20.91	20.37	23.03	44.77
	RB1#3	20.5	21.14	20.28		
	RB1#5	20.45	21.03	20.19		
	RB3#0	19.26	19.91	19.5		
	RB3#3	19.1	19.74	19.42		
	RB5#0	19.44	19.85	19.17		
3MHz QPSK	RB1#1	21.81	21.92	21.31	23.81	44.77
	RB1#4	21.6	21.71	21.12		
	RB1#6	21.55	21.74	21.23		
	RB3#1	20.55	20.79	20.39		
	RB3#4	20.55	20.78	20.31		
	RB6#1	19.52	19.8	19.46		
3MHz 16QAM	RB1#1	20.46	20.77	20.69	22.66	44.77
	RB1#4	20.51	20.73	20.74		
	RB1#6	20.42	20.7	20.65		
	RB3#1	19.19	19.5	19.49		
	RB3#4	19.13	19.33	19.41		
	RB5#1	19.48	19.83	19.5		
5MHz QPSK	RB1#0	21.71	21.78	21.65	23.67	44.77
	RB1#3	21.76	21.7	21.44		
	RB1#5	21.74	21.72	21.46		
	RB3#0	20.58	20.78	20.49		
	RB3#3	20.56	20.63	20.44		
	RB6#0	20.63	20.84	20.52		
5MHz 16QAM	RB1#0	21.6	21.76	21.48	23.65	44.77
	RB1#3	21.43	21.51	21.35		
	RB1#5	21.39	21.47	21.23		
	RB3#0	20.52	20.61	20.5		
	RB3#3	20.45	20.63	20.53		
	RB5#0	19.57	19.67	19.42		
10MHz QPSK	RB1#1	21.68	21.9	21.87	23.79	44.77
	RB1#4	21.48	21.8	21.58		
	RB1#6	21.59	21.83	21.68		

10MHz 16QAM	RB3#1	21.56	21.7	21.67	23.65	44.77
	RB3#4	21.72	21.77	21.57		
	RB6#1	20.75	20.89	20.55		
	RB1#1	21.64	21.67	21.76		
	RB1#4	21.67	21.71	21.46		
	RB1#6	21.69	21.6	21.43		
	RB3#1	21.74	21.59	21.74		
	RB3#4	21.58	21.71	21.49		
	RB5#1	20.65	20.9	20.48		

Note:

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

Gr(dBd)=Gr(dBi)-2.15

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	
10MHz QPSK	RB1#1	11.51	11.42	11.54	13
	RB6#1	11.71	11.8	11.71	13
10MHz 16QAM	RB1#1	11.57	12.26	12.35	13
	RB5#1	12.38	12.35	11.71	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
1.4MHz QPSK	1.096	1.102	1.09	1.284	1.302	1.266
1.4MHz 16QAM	0.928	0.928	0.928	1.134	1.134	1.2
3MHz QPSK	1.102	1.102	1.09	1.296	1.308	1.284
3MHz 16QAM	0.934	0.934	0.934	1.14	1.14	1.2
5MHz QPSK	1.118	1.118	1.098	1.32	1.32	1.3
5MHz 16QAM	0.938	0.958	0.938	1.14	1.16	1.16
10MHz QPSK	1.118	1.118	1.118	1.32	1.118	1.32
10MHz 16QAM	0.958	0.958	0.958	1.16	1.16	1.12

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

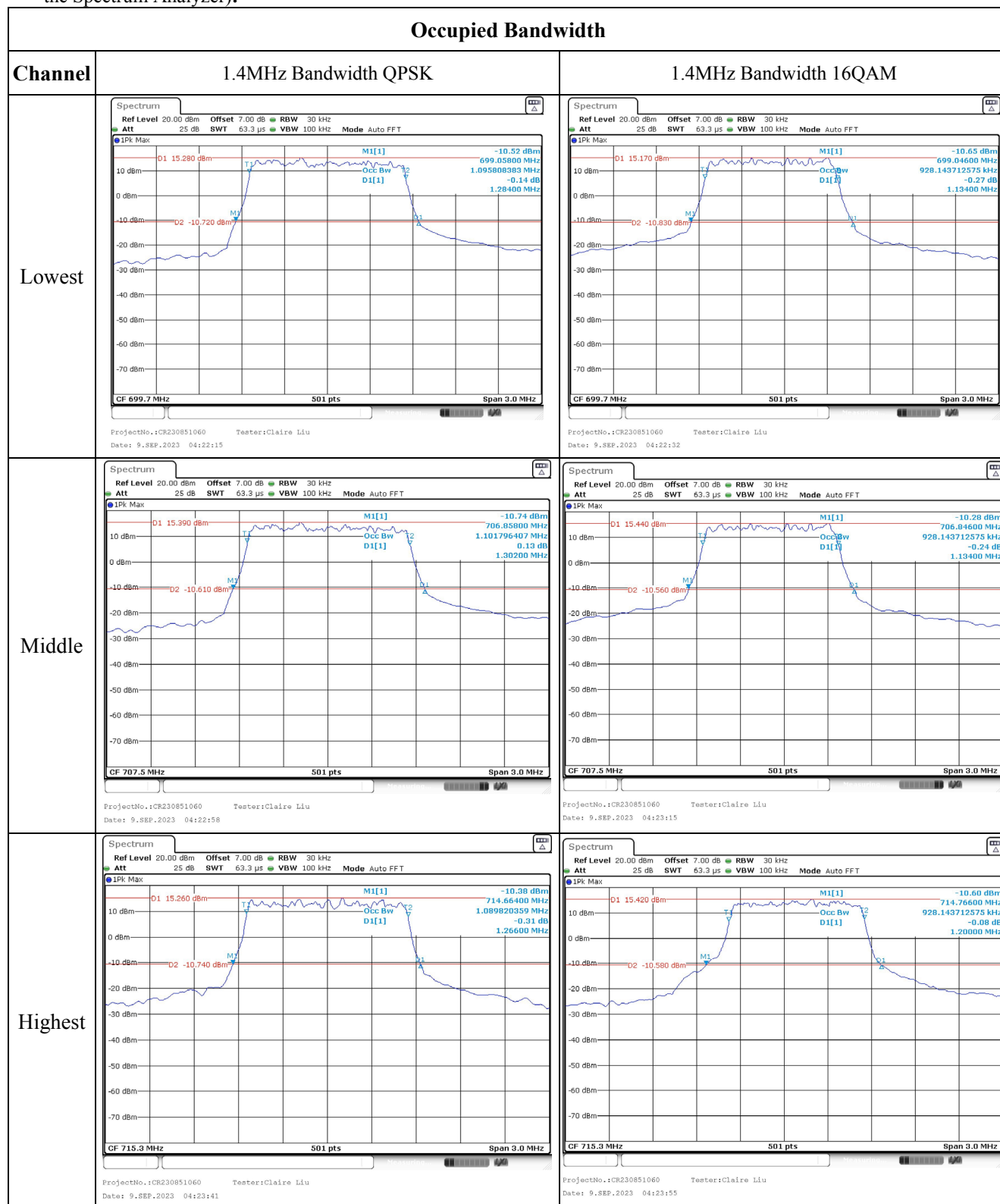
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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FCC §2.1055, §27.54: Frequency Stability

Test Mode:	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	12	699.116	699.00	715.881	716.00
	-20	12	699.122	699.00	715.884	716.00
	-10	12	699.179	699.00	715.876	716.00
	0	12	699.236	699.00	715.87	716.00
	10	12	699.276	699.00	715.846	716.00
	20	12	699.058	699.00	715.93	716.00
	30	12	699.059	699.00	715.925	716.00
	40	12	699.097	699.00	715.836	716.00
	50	12	699.194	699.00	715.911	716.00
Frequency Stability vs. Voltage	20	9	699.228	699.00	715.93	716.00
	20	14	699.301	699.00	715.856	716.00
					Result:	Pass

Test Mode:	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	12	699.132	699.00	715.962	716.00
	-20	12	699.093	699.00	715.909	716.00
	-10	12	699.128	699.00	715.911	716.00
	0	12	699.18	699.00	715.921	716.00
	10	12	699.203	699.00	715.953	716.00
	20	12	699.046	699.00	715.966	716.00
	30	12	699.064	699.00	715.956	716.00
	40	12	699.083	699.00	715.904	716.00
	50	12	699.091	699.00	715.966	716.00
Frequency Stability vs. Voltage	20	9	699.186	699.00	715.898	716.00
	20	14	699.227	699.00	715.948	716.00
					Result:	Pass

Test Plots(Note: The 7dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):



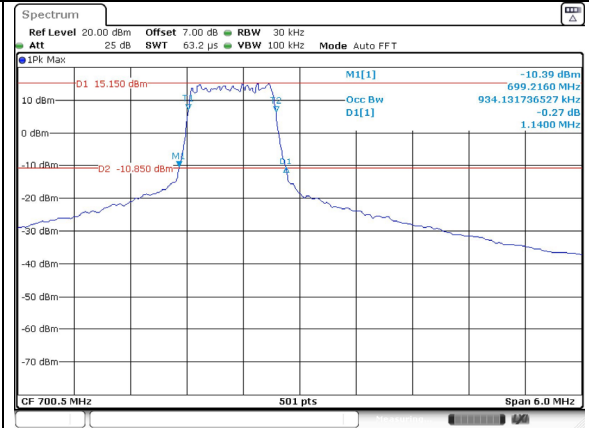
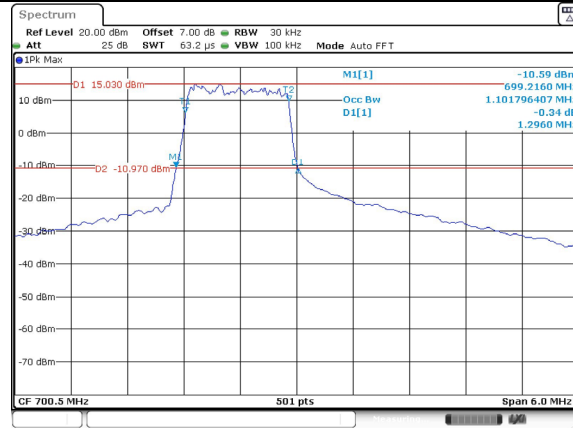
Occupied Bandwidth

Channel

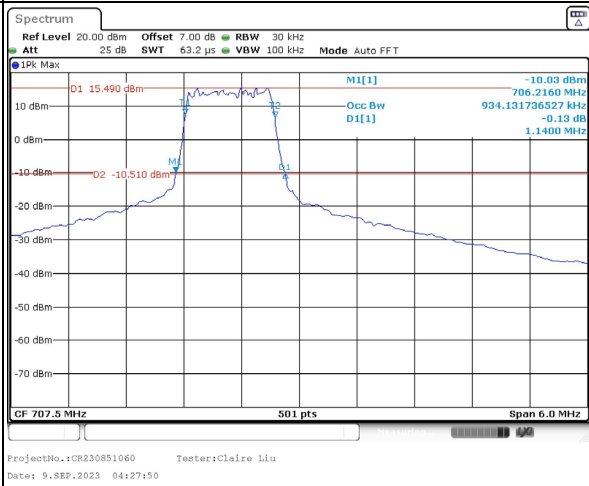
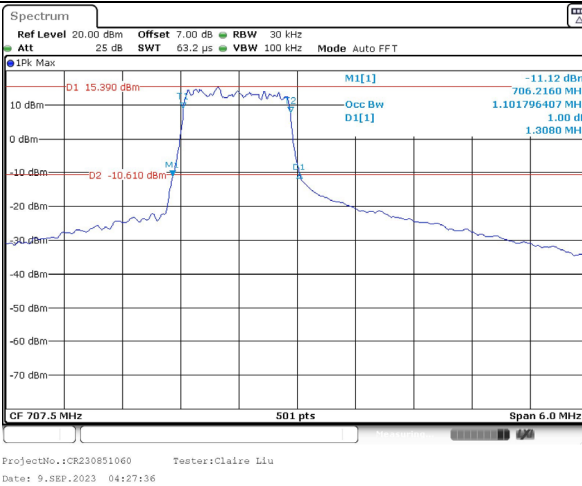
3MHz Bandwidth QPSK

3MHz Bandwidth 16QAM

Lowest



Middle



Highest

