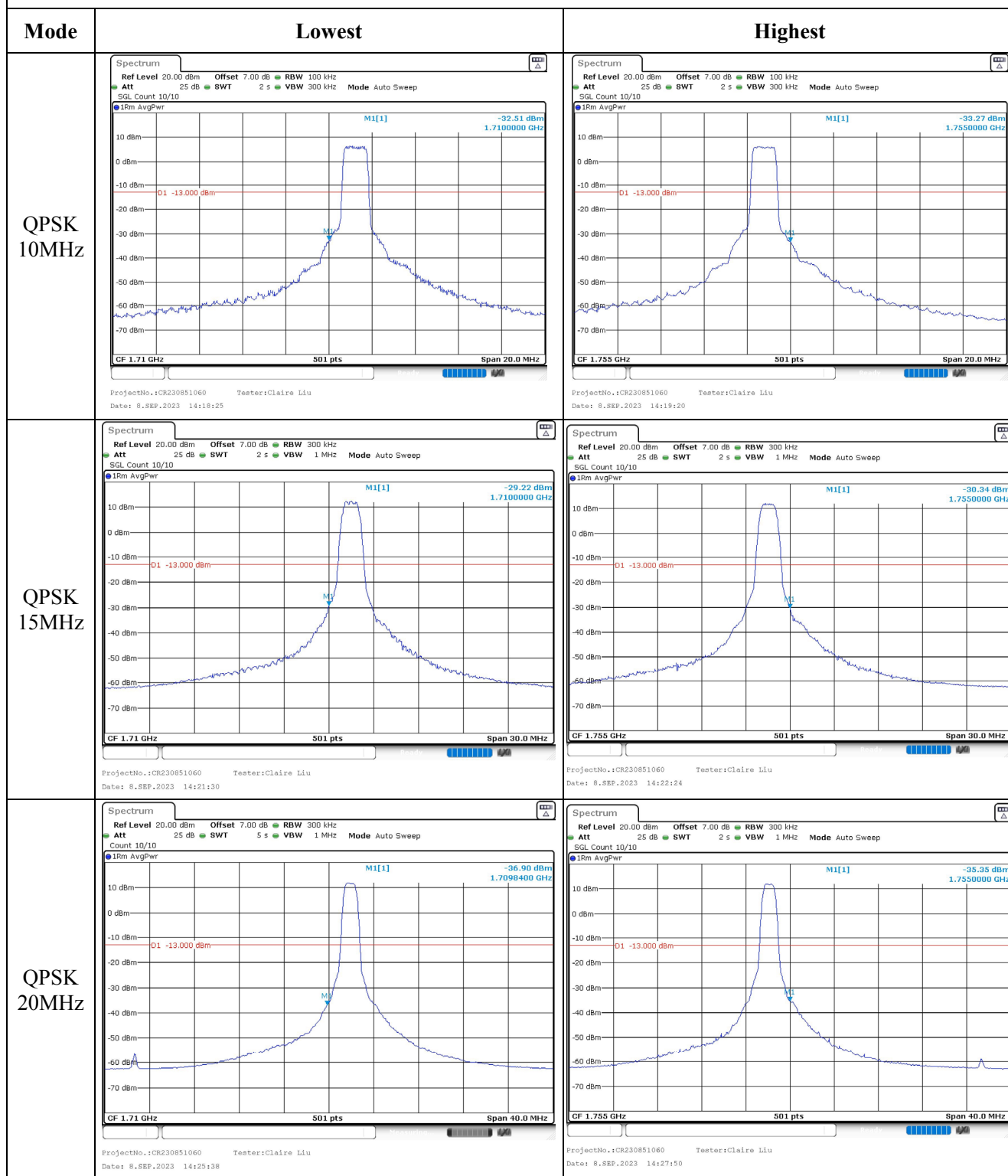
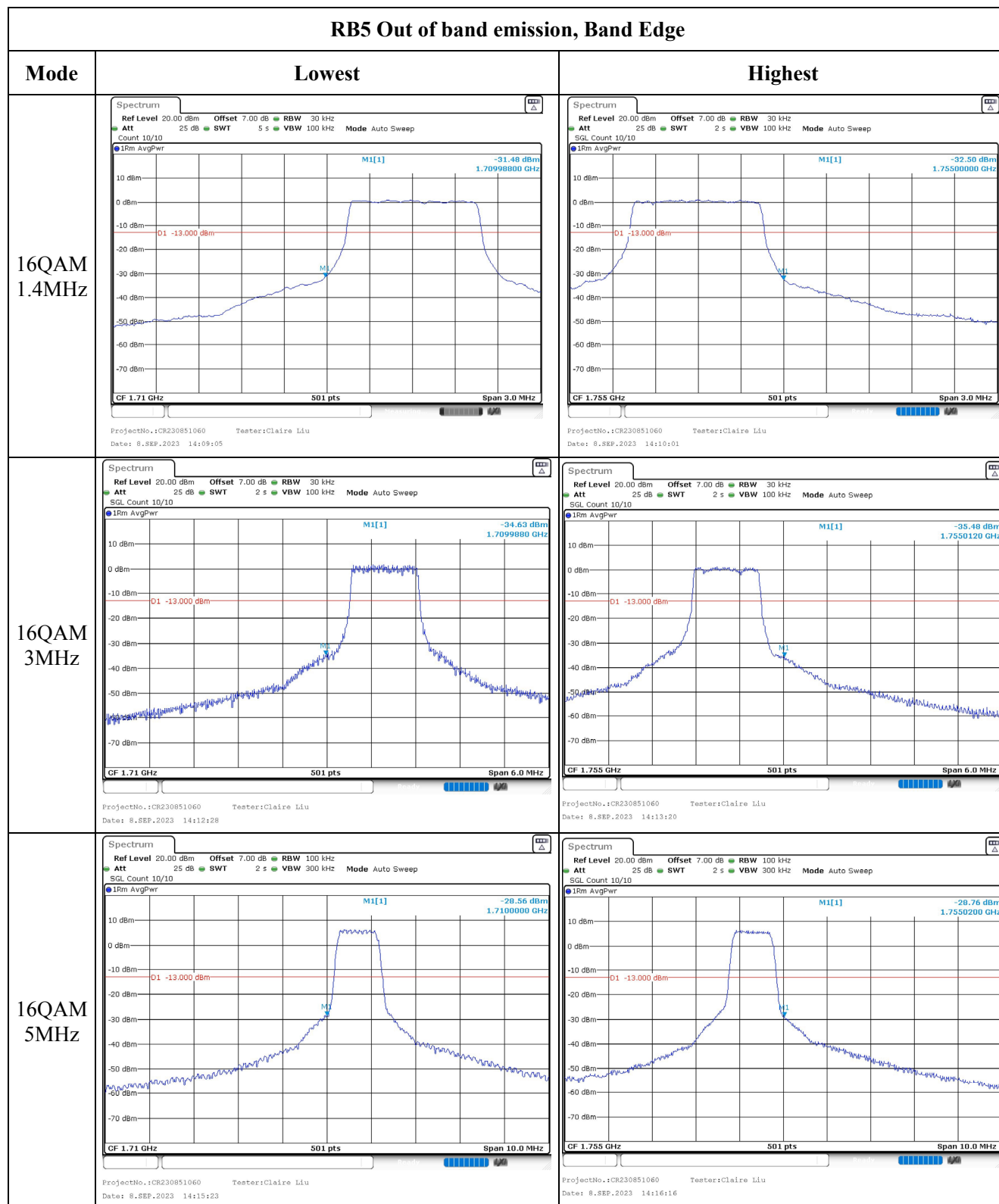


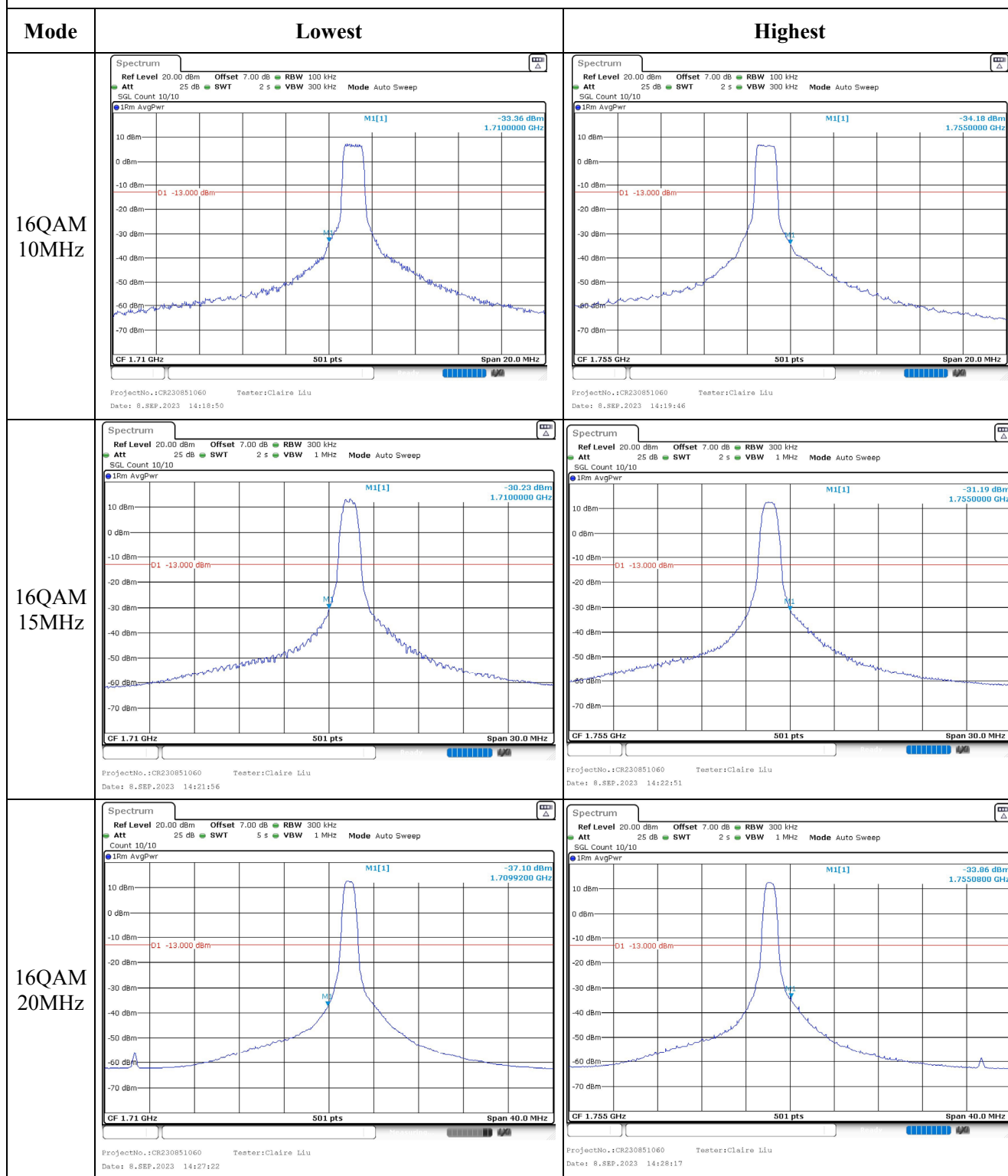
RB6 Out of band emission, Band Edge



RB5 Out of band emission, Band Edge



RB5 Out of band emission, Band Edge



4.3 Antenna Port Test Data and Results for LTE Band 5

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	824.7	836.5	848.3
3MHz	825.5	836.5	847.5
5MHz	826.5	836.5	846.5
10MHz	829	836.5	844

Test Data:**FCC§2.1046;§ 22.913 (a)****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	22.39	22.51	22.46	22.65	38.45
	RB1#3	22.12	22.25	22.2		
	RB1#5	22.04	22.16	22.18		
	RB3#0	21.35	21.47	21.41		
	RB3#3	21.28	21.44	21.38		
	RB6#0	20.41	20.51	20.48		
1.4MHz 16QAM	RB1#0	21.15	21.28	21.3	21.44	38.45
	RB1#3	21.09	21.02	21.16		
	RB1#5	21.03	20.98	21.13		
	RB3#0	20.42	20.37	20.22		
	RB3#3	20.25	20.28	20.22		
	RB5#0	20.38	20.53	20.36		
3MHz QPSK	RB1#1	22.34	22.51	22.35	22.65	38.45
	RB1#4	22.18	22.23	22.25		
	RB1#6	22.09	22.25	22.19		
	RB3#1	21.44	21.49	21.47		
	RB3#4	21.43	21.47	21.29		
	RB6#1	20.4	20.53	20.43		
3MHz 16QAM	RB1#1	21.22	21.27	21.35	21.53	38.45
	RB1#4	21.21	21.21	21.39		
	RB1#6	21.27	21.31	21.24		
	RB3#1	20.42	20.46	20.33		
	RB3#4	20.37	20.29	20.13		
	RB5#1	20.42	20.47	20.42		
5MHz QPSK	RB1#0	22.13	22.26	22.47	22.61	38.45
	RB1#3	22.05	22.14	22.17		
	RB1#5	22.04	22.12	22.18		
	RB3#0	21.49	21.54	21.44		
	RB3#3	21.33	21.47	21.49		
	RB6#0	21.54	21.55	21.49		
5MHz 16QAM	RB1#0	22.02	22.12	22.14	22.28	38.45
	RB1#3	21.77	21.87	22.09		
	RB1#5	21.65	21.74	21.89		
	RB3#0	21.55	21.48	21.22		
	RB3#3	21.41	21.5	21.14		
	RB5#0	20.52	20.44	20.4		
10MHz QPSK	RB1#1	22.27	22.35	22.37	22.62	38.45
	RB1#4	21.98	22.15	22.28		
	RB1#6	21.99	22.06	22.4		

10MHz 16QAM	RB3#1	22.33	22.42	22.42	22.58	38.45
	RB3#4	22.29	22.48	22.42		
	RB6#1	21.54	21.54	21.53		
	RB1#1	21.96	22.03	22.3		
	RB1#4	21.79	21.88	22.1		
	RB1#6	21.7	21.78	22.06		
	RB3#1	22.35	22.41	22.36		
	RB3#4	22.39	22.44	22.12		
	RB5#1	21.47	21.47	21.19		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G_T(dBd)G_T(dBd)=G_T(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	11.19	11.13	11.07	13
	RB6#1	11.39	11.36	11.39	13
10MHz 16QAM	RB1#1	11.88	11.83	11.48	13
	RB5#1	12.03	12.03	12	13
				Result:	Pass

FCC §2.1049, §22.905: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	1.102	1.102	1.09	1.296	1.314	1.272
1.4MHz 16QAM	0.928	0.928	0.928	1.134	1.134	1.194
3MHz QPSK	1.09	1.09	1.09	1.296	1.296	1.272
3MHz 16QAM	0.934	0.934	0.934	1.14	1.14	1.2
5MHz QPSK	1.118	1.118	1.098	1.34	1.34	1.32
5MHz 16QAM	0.958	0.958	0.938	1.16	1.16	1.16
10MHz QPSK	1.118	1.118	1.118	1.32	1.32	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, §22.917(a):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, §22.917(a):Out of band emission, Band Edge

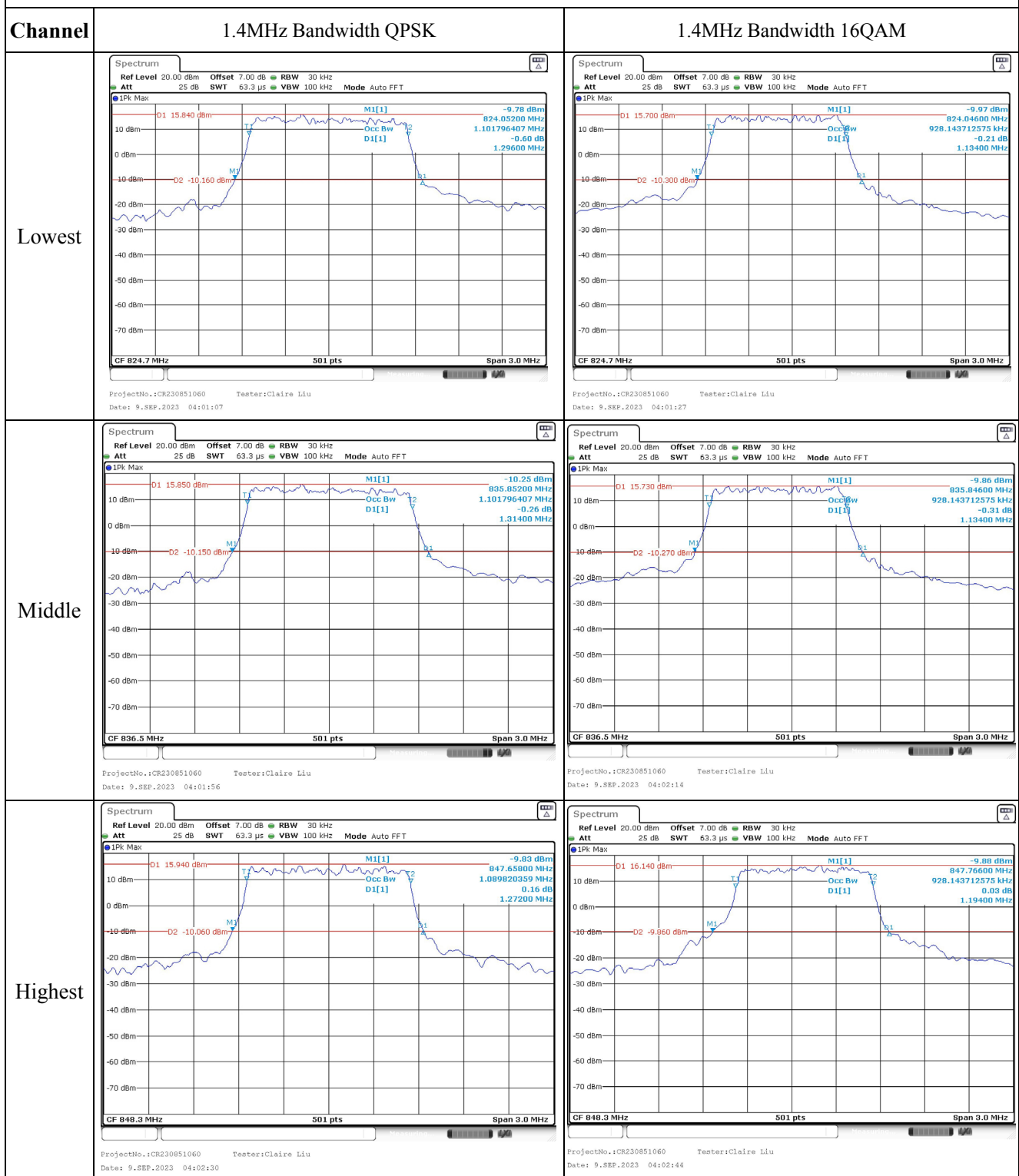
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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FCC §2.1055, §22.355: Frequency Stability					
Test Modulation:	QPSK		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	12	5.69	0.007	2.5
	-20	12	5.46	0.007	2.5
	-10	12	5.78	0.007	2.5
	0	12	5.65	0.007	2.5
	10	12	6.01	0.007	2.5
	20	12	5.72	0.007	2.5
	30	12	5.43	0.006	2.5
	40	12	5.84	0.007	2.5
	50	12	6.01	0.007	2.5
Frequency Stability vs. Voltage	20	9	5.55	0.007	2.5
	20	14	5.44	0.007	2.5
				Result:	Pass

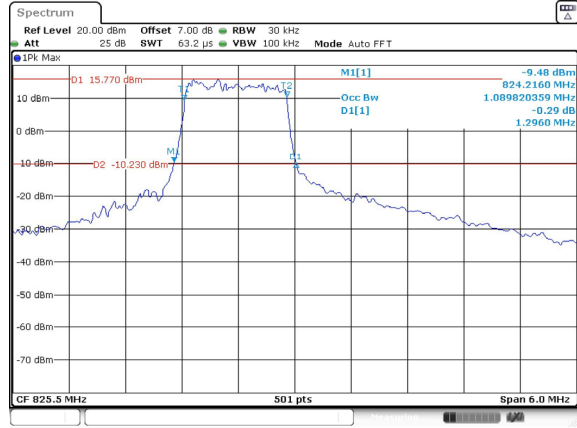
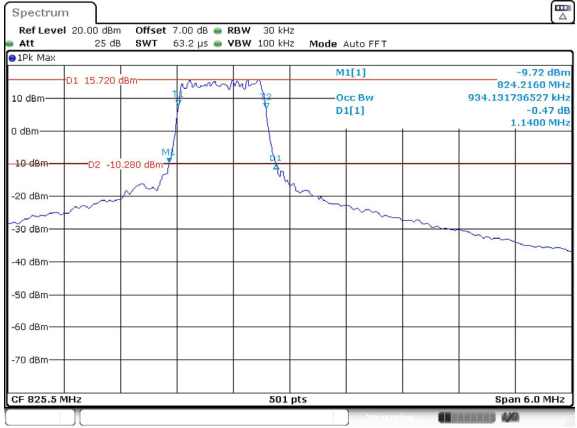
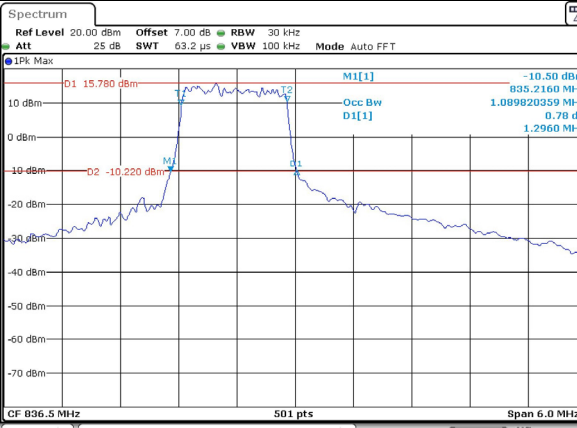
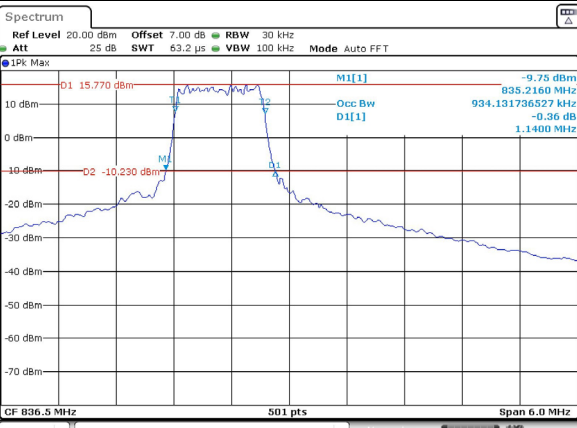
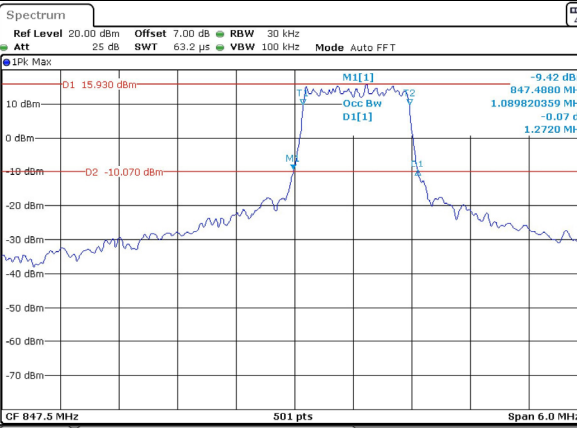
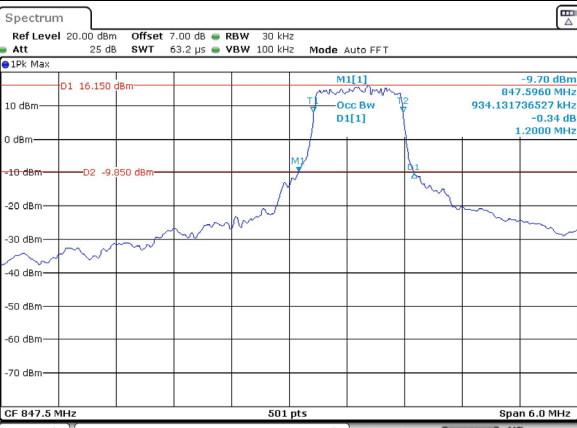
Test Modulation:	16QAM		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	12	5.55	0.007	2.5
	-20	12	5.73	0.007	2.5
	-10	12	6.04	0.007	2.5
	0	12	5.63	0.007	2.5
	10	12	5.66	0.007	2.5
	20	12	5.71	0.007	2.5
	30	12	5.33	0.006	2.5
	40	12	4.96	0.006	2.5
	50	12	4.71	0.006	2.5
Frequency Stability vs. Voltage	20	9	4.89	0.006	2.5
	20	14	5.04	0.006	2.5
				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



Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 9.SEP.2023 04:03:45	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 9.SEP.2023 04:04:00
Middle	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 9.SEP.2023 04:04:22	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 9.SEP.2023 04:04:42
Highest	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 9.SEP.2023 04:05:01	 ProjectNo.:CR230851060 Testerr: Claire Liu Date: 9.SEP.2023 04:05:15

Occupied Bandwidth

