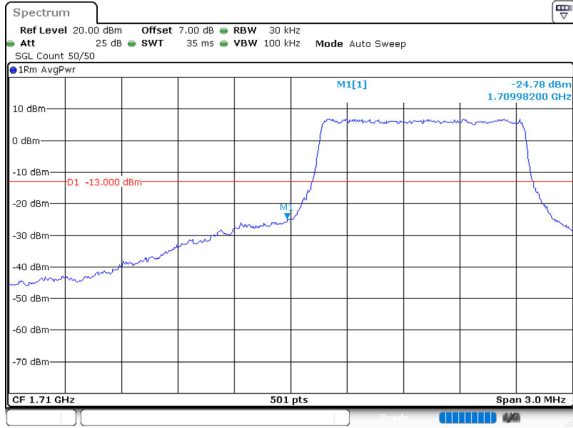
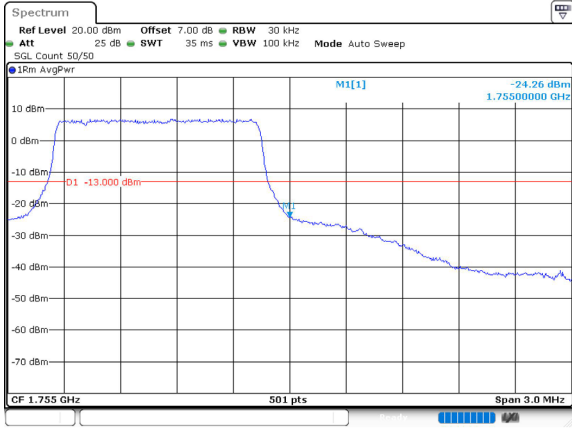
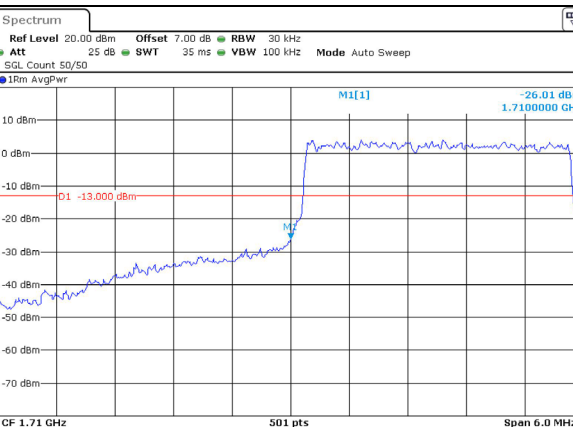
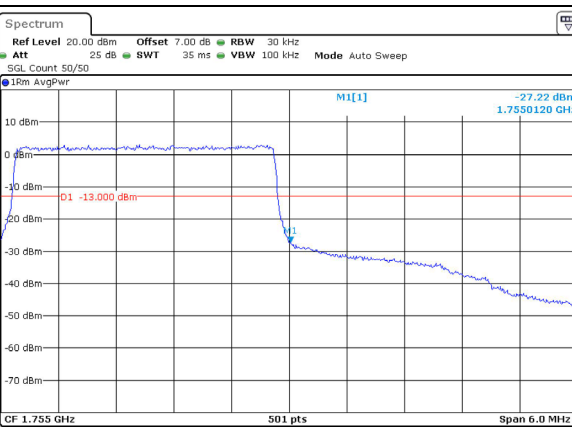
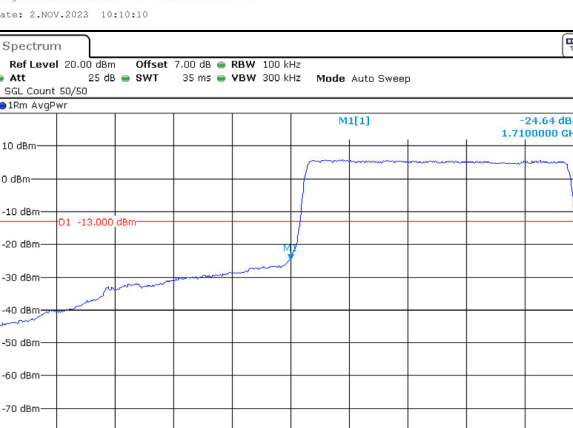
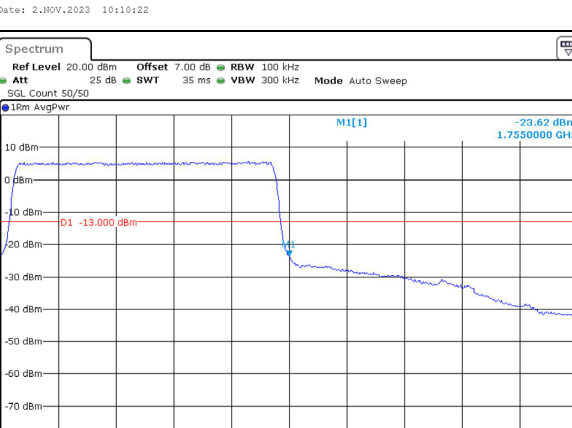
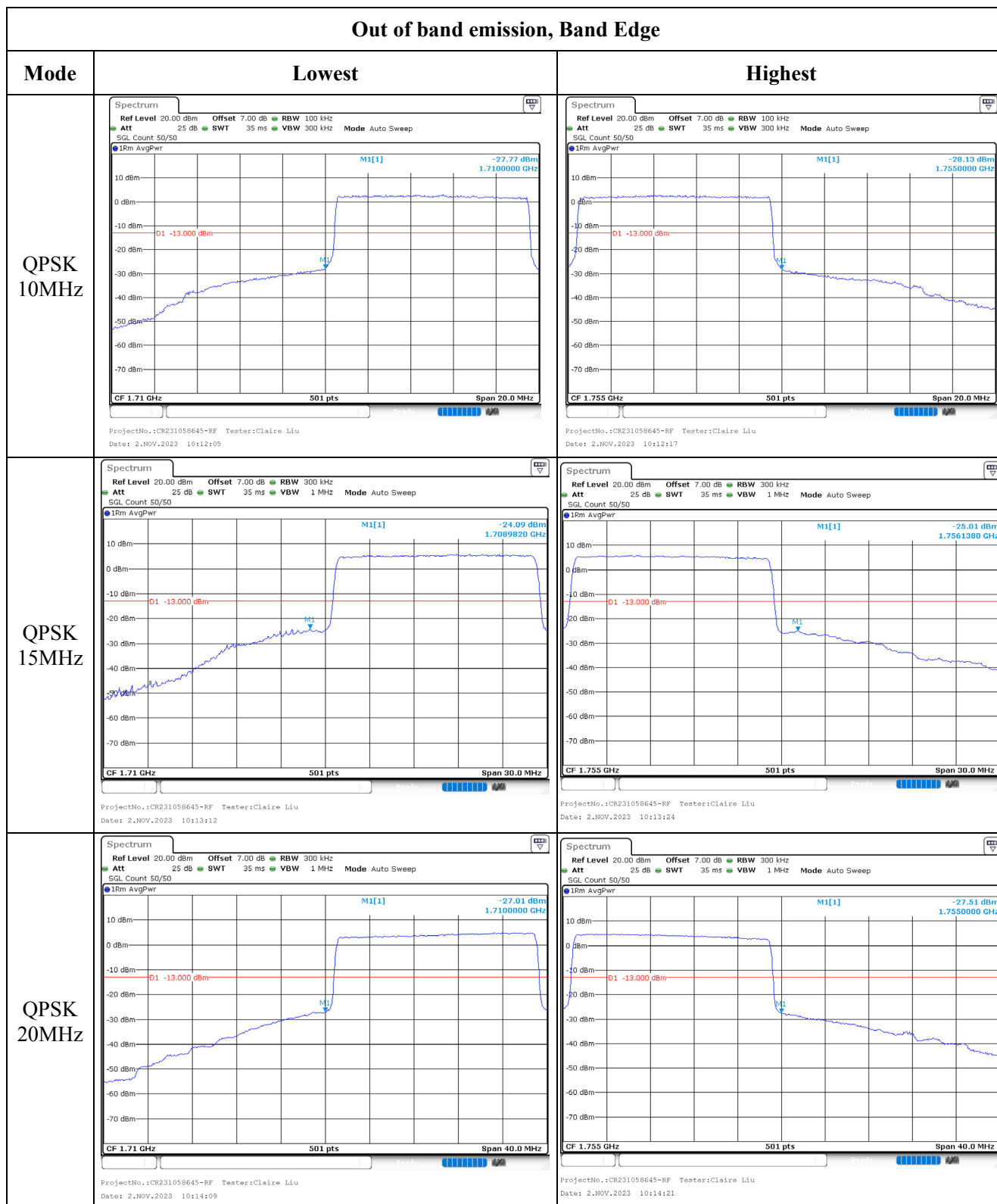


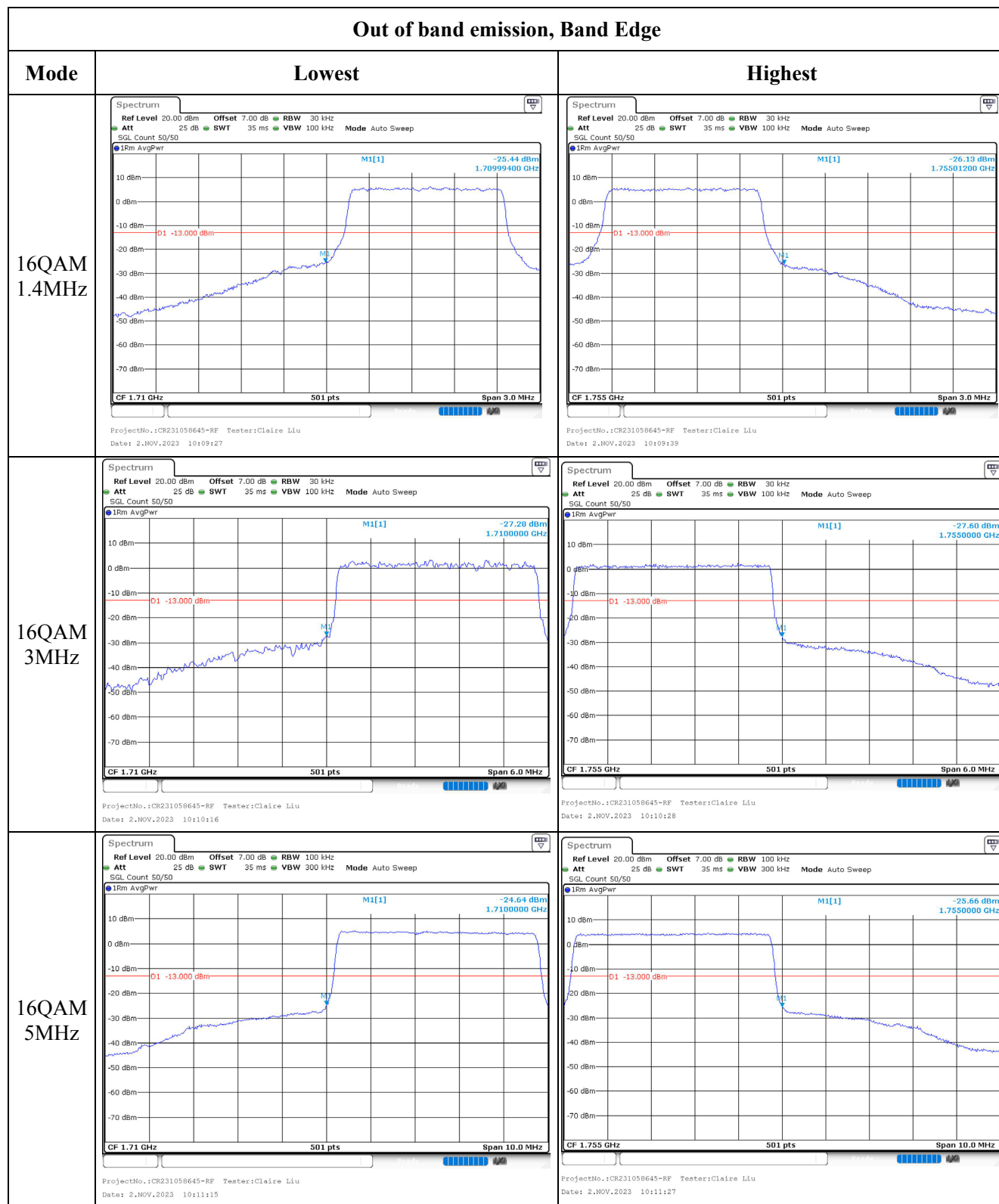
Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz	 Ref Level 20.00 dBm Offset 7.00 dB RBW 30 kHz Att 25 dB SWT 35 ms VBW 100 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr M1[1] -24.79 dBm 1.70998200 GHz CF 1.71 GHz 501 pts Span 3.0 MHz Date: 2.NOV.2023 10:09:22	 Ref Level 20.00 dBm Offset 7.00 dB RBW 30 kHz Att 25 dB SWT 35 ms VBW 100 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr M1[1] -24.26 dBm 1.75500000 GHz CF 1.755 GHz 501 pts Span 3.0 MHz ProjectNo.:CR231058645-RF Tester:Claire Liu Date: 2.NOV.2023 10:09:34
QPSK 3MHz	 Ref Level 20.00 dBm Offset 7.00 dB RBW 30 kHz Att 25 dB SWT 35 ms VBW 100 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr M1[1] -26.01 dBm 1.71000000 GHz CF 1.71 GHz 501 pts Span 6.0 MHz ProjectNo.:CR231058645-RF Tester:Claire Liu Date: 2.NOV.2023 10:10:10	 Ref Level 20.00 dBm Offset 7.00 dB RBW 30 kHz Att 25 dB SWT 35 ms VBW 100 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr M1[1] -27.22 dBm 1.7550120 GHz CF 1.755 GHz 501 pts Span 6.0 MHz ProjectNo.:CR231058645-RF Tester:Claire Liu Date: 2.NOV.2023 10:10:22
QPSK 5MHz	 Ref Level 20.00 dBm Offset 7.00 dB RBW 100 kHz Att 25 dB SWT 35 ms VBW 300 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr M1[1] -24.64 dBm 1.71000000 GHz CF 1.71 GHz 501 pts Span 10.0 MHz ProjectNo.:CR231058645-RF Tester:Claire Liu Date: 2.NOV.2023 10:11:10	 Ref Level 20.00 dBm Offset 7.00 dB RBW 100 kHz Att 25 dB SWT 35 ms VBW 300 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr M1[1] -23.62 dBm 1.7550000 GHz CF 1.755 GHz 501 pts Span 10.0 MHz ProjectNo.:CR231058645-RF Tester:Claire Liu Date: 2.NOV.2023 10:11:22

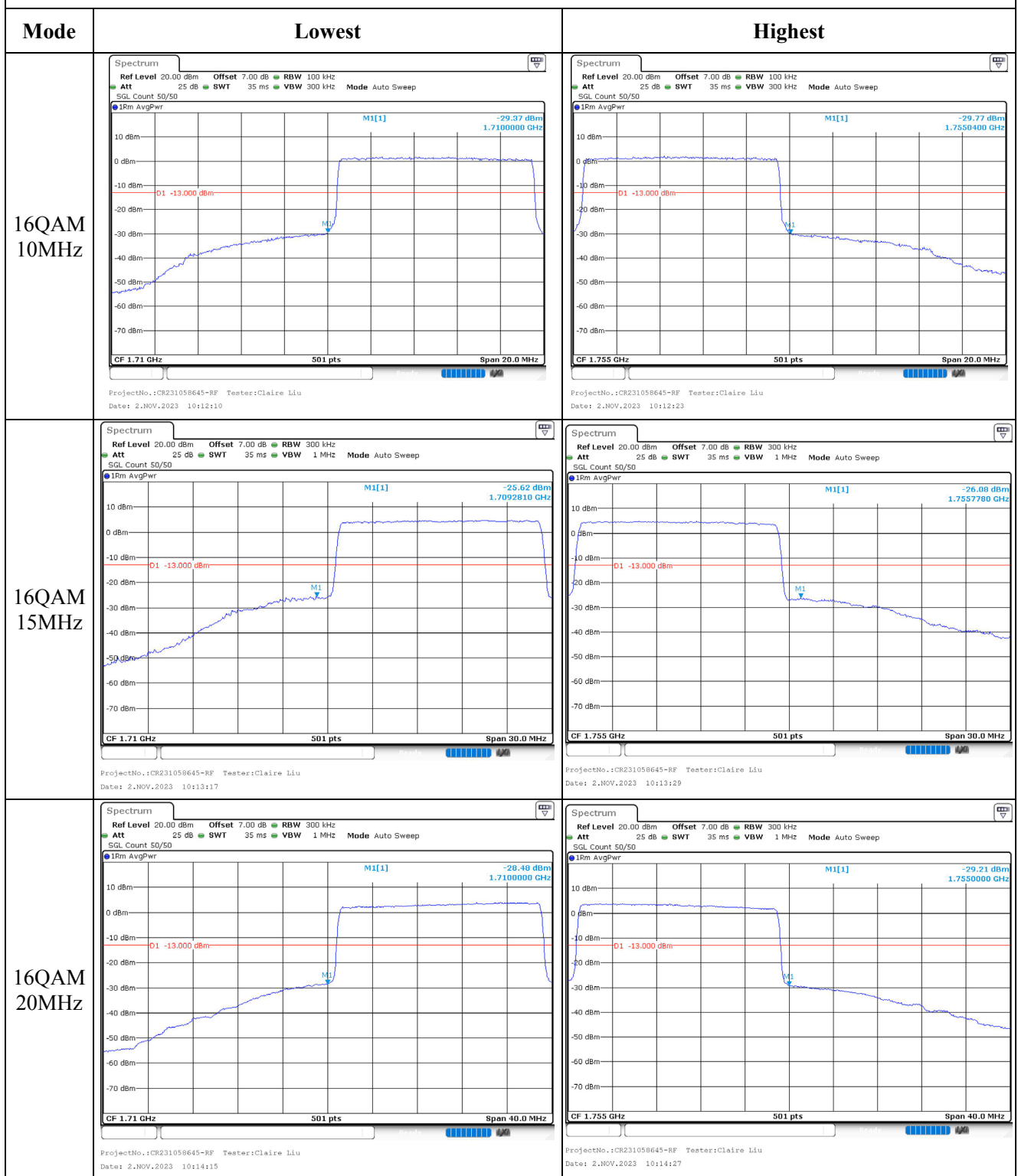
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.7 Antenna Port Test Data and Results for LTE Band 5

Serial Number:	2C04-3	Test Date:	2023/10/29-2023/11/2
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.3-25.6	Relative Humidity: (%)	45-58	ATM Pressure: (kPa)	101-101.54
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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	2022/11/23	2023/11/24
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Unknown	Coaxial tee connector	Unknown	2204004	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	2023/9/28	2024/9/27
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:

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	23.53	23.04	23.14	21.09	38.45
	RB1#3	23.71	23.11	23.51		
	RB1#5	23.51	22.98	23.25		
	RB3#0	23.22	23.29	23.2		
	RB3#3	23.21	23.16	23.53		
	RB6#0	22.21	22.22	22.31		
1.4MHz 16QAM	RB1#0	22.08	22.53	22.21	20.54	38.45
	RB1#3	22.83	22.86	22.27		
	RB1#5	22.28	23.16	22.28		
	RB3#0	22.35	22.4	22.34		
	RB3#3	22.32	22.47	22.17		
	RB6#0	21.45	21.2	21.06		
3MHz QPSK	RB1#0	23.33	23.35	23.27	20.83	38.45
	RB1#8	23.18	23.1	23.2		
	RB1#14	23.38	23.45	23.15		
	RB6#0	22.3	22.14	22.19		
	RB6#9	22.14	22.2	22.11		
	RB15#0	22.3	22.11	22.21		
3MHz 16QAM	RB1#0	22.54	22.58	21.99	19.96	38.45
	RB1#8	22.42	22.35	21.82		
	RB1#14	22.06	22.42	22.19		
	RB6#0	21.26	20.86	21.27		
	RB6#9	21.21	21.26	20.96		
	RB15#0	21.27	20.97	21.1		
5MHz QPSK	RB1#0	23.4	22.94	22.98	20.78	38.45
	RB1#13	23.22	22.95	23.23		
	RB1#24	23.08	23.2	23.2		
	RB15#0	22.25	22.17	22.22		
	RB15#10	22.13	22.12	22.12		
	RB25#0	22.24	22.01	22.31		
5MHz 16QAM	RB1#0	21.78	22.44	22.07	19.87	38.45
	RB1#13	21.45	22.49	21.66		
	RB1#24	21.68	21.91	22.09		
	RB15#0	21.29	21.05	21.26		
	RB15#10	21.07	20.92	21.25		
	RB25#0	21.41	20.98	21.2		
10MHz QPSK	RB1#0	23.58	23.06	22.98	20.96	38.45
	RB1#25	23.25	23.42	23.17		
	RB1#49	23.43	23.37	23.01		
	RB25#0	22.24	22.24	22.01		

	RB25#25	22.24	22.29	22.2		
	RB50#0	22.3	22.19	22.03		
10MHz 16QAM	RB1#0	22.28	22.42	22.33	20.28	38.45
	RB1#25	22.04	22.58	22.9		
	RB1#49	22.23	22.5	22.33		
	RB25#0	21.21	21.11	21.1		
	RB25#25	21.41	21.26	21.22		
	RB50#0	21.3	21.04	20.98		

Note:

ERP= Conducted Power(dBm) - L_c(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#0	4.26	3.62	4.09	13
	RB50#0	4.58	4.52	4.58	13
10MHz 16QAM	RB1#0	5.25	4.67	4.87	13
	RB50#0	5.71	5.59	5.65	13
				Result:	Pass

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	1.102	1.302	1.314	1.314
1.4MHz 16QAM	1.102	1.096	1.102	1.314	1.296	1.308
3MHz QPSK	2.695	2.695	2.683	2.94	2.94	2.964
3MHz 16QAM	2.695	2.683	2.683	2.964	2.952	2.964
5MHz QPSK	4.531	4.511	4.511	5.06	5.04	5.02
5MHz 16QAM	4.511	4.531	4.531	4.98	5.04	5.06
10MHz QPSK	8.942	8.942	8.902	9.72	9.72	9.72
10MHz 16QAM	8.942	8.942	8.902	9.6	9.72	9.64

Note: The test plots please refer to the Plots of Occupied Bandwidth

Spurious Emissions at Antenna Terminal

Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.
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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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Frequency Stability					
Test Modulation:	10 MHz QPSK		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	7.6	-2.64	-0.003	2.5
	-20	7.6	0.64	0.001	2.5
	-10	7.6	-2.9	-0.003	2.5
	0	7.6	-2.52	-0.003	2.5
	10	7.6	-1.01	-0.001	2.5
	20	7.6	-1.24	-0.001	2.5
	30	7.6	-0.84	-0.001	2.5
	40	7.6	0.59	0.001	2.5
	50	7.6	-3.33	-0.004	2.5
Frequency Stability vs. Voltage	20	6.8	-2.9	-0.003	2.5
	20	8.7	-2.58	-0.003	2.5
				Result:	Pass

Test Modulation:	10 MHz 16QAM		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	7.6	-3.35	-0.004	2.5
	-20	7.6	0.46	0.001	2.5
	-10	7.6	-0.08	0.000	2.5
	0	7.6	-2.88	-0.003	2.5
	10	7.6	-1.79	-0.002	2.5
	20	7.6	-1.04	-0.001	2.5
	30	7.6	-1.22	-0.001	2.5
	40	7.6	-2	-0.002	2.5
	50	7.6	-2.51	-0.003	2.5
Frequency Stability vs. Voltage	20	6.8	-1.05	-0.001	2.5
	20	8.7	-1.73	-0.002	2.5
				Result:	Pass

Occupied Bandwidth

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Occupied Bandwidth

