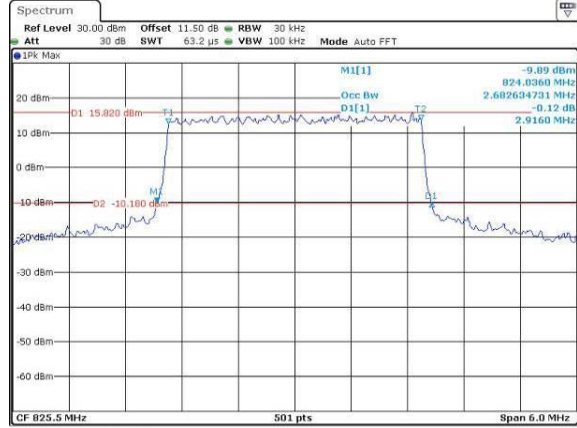
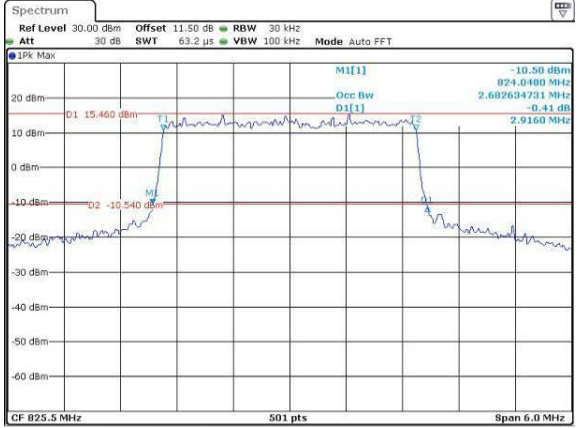
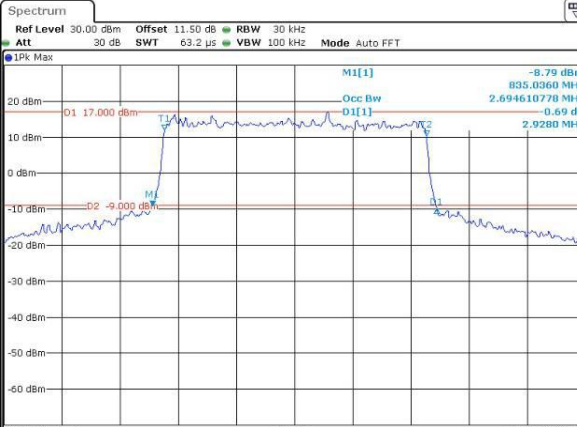
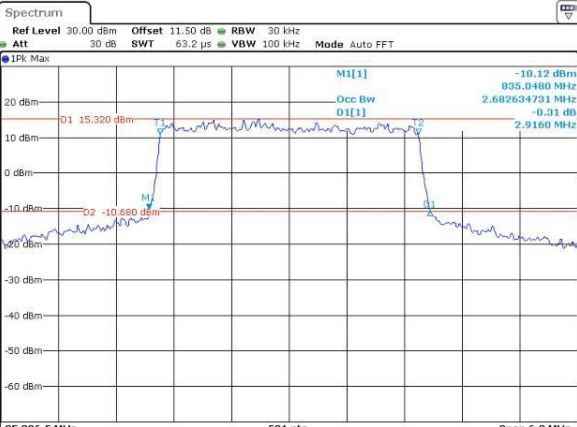
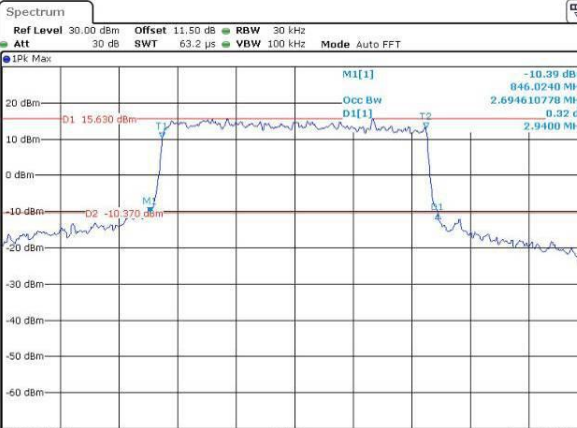
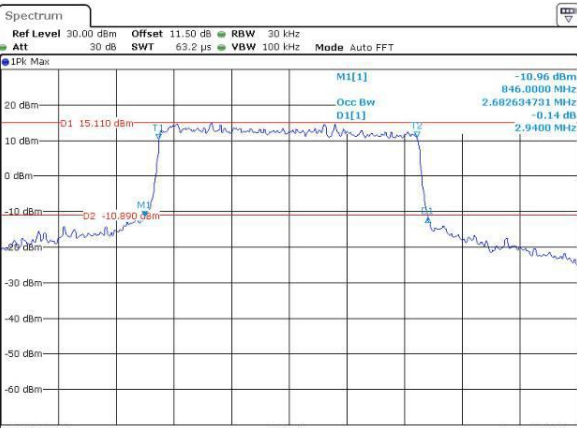


Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	 Ref Level 30.00 dBm Offset 11.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -9.09 dBm Occ Bw 824.0360 MHz D1[1] -0.12 dBm CF 825.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230745209 Tester:Ken Tang Date: 23.SEP.2023 00:38:35	 Ref Level 30.00 dBm Offset 11.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -10.50 dBm Occ Bw 824.0480 MHz D1[1] -0.41 dBm CF 825.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230745209 Tester:Ken Tang Date: 23.SEP.2023 00:38:56
Middle	 Ref Level 30.00 dBm Offset 11.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -8.79 dBm Occ Bw 835.0560 MHz D1[1] -0.69 dBm CF 836.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230745209 Tester:Ken Tang Date: 23.SEP.2023 00:39:21	 Ref Level 30.00 dBm Offset 11.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -10.12 dBm Occ Bw 835.0480 MHz D1[1] -0.31 dBm CF 836.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230745209 Tester:Ken Tang Date: 23.SEP.2023 00:39:51
Highest	 Ref Level 30.00 dBm Offset 11.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -10.39 dBm Occ Bw 846.0240 MHz D1[1] -0.32 dBm CF 847.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230745209 Tester:Ken Tang Date: 23.SEP.2023 00:40:12	 Ref Level 30.00 dBm Offset 11.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -10.96 dBm Occ Bw 846.0000 MHz D1[1] -0.14 dBm CF 847.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230745209 Tester:Ken Tang Date: 23.SEP.2023 00:40:30

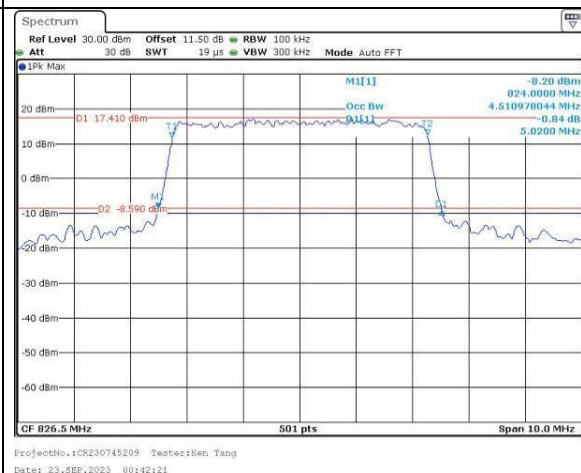
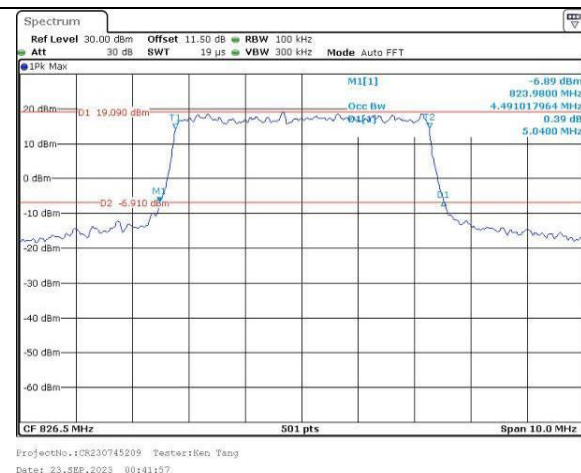
Occupied Bandwidth

Channel

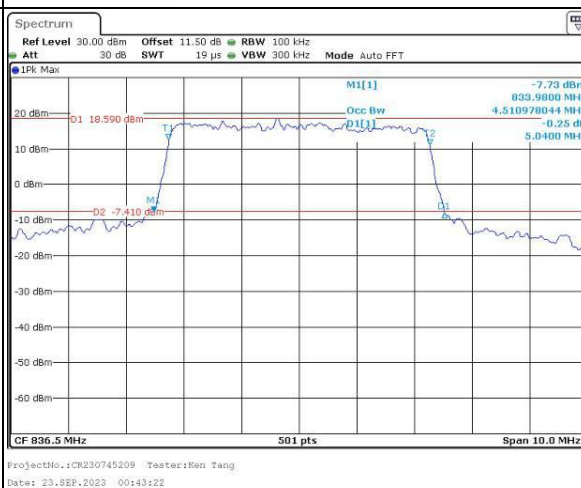
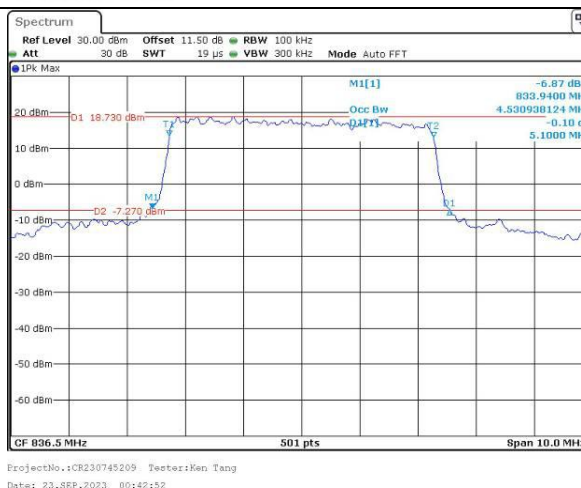
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

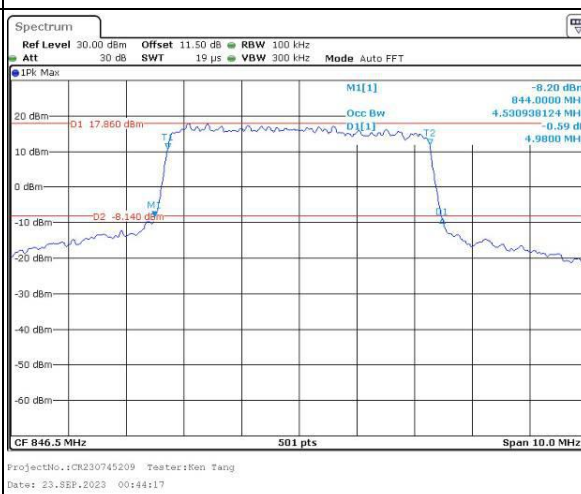
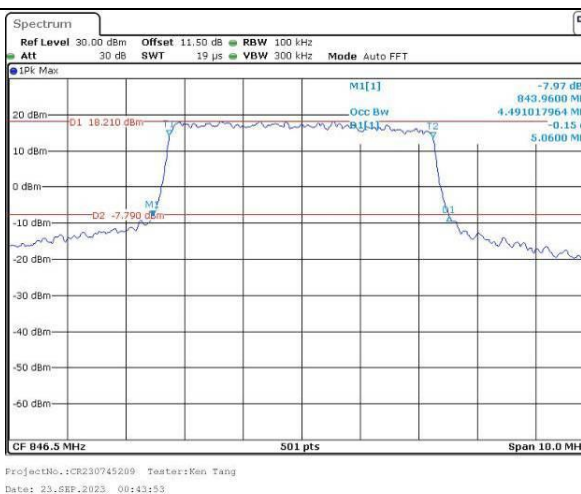
Lowest



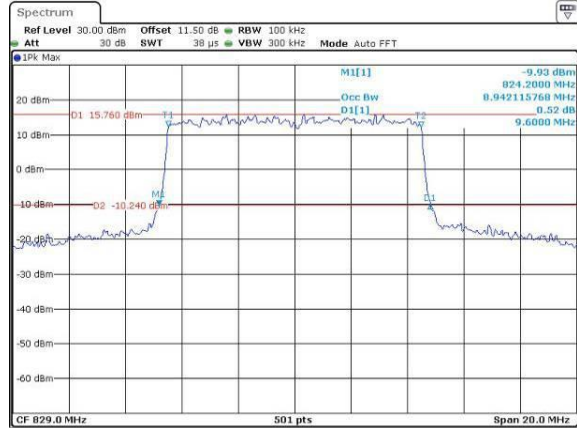
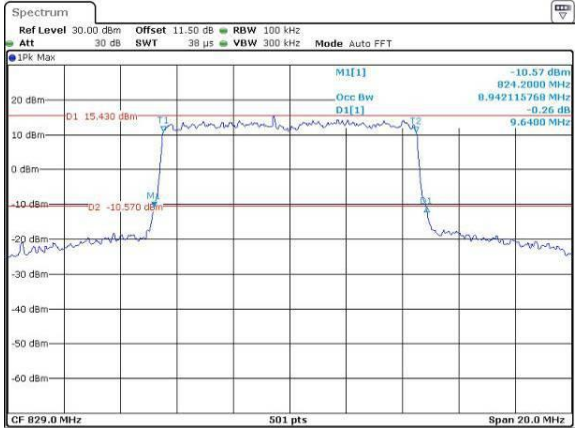
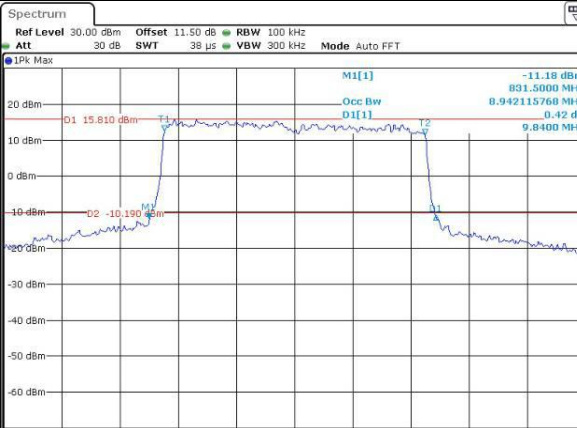
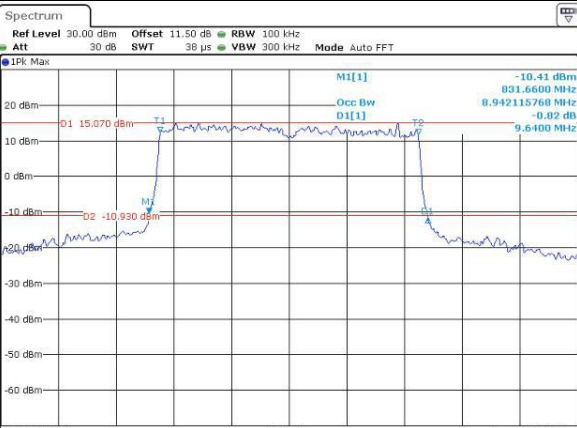
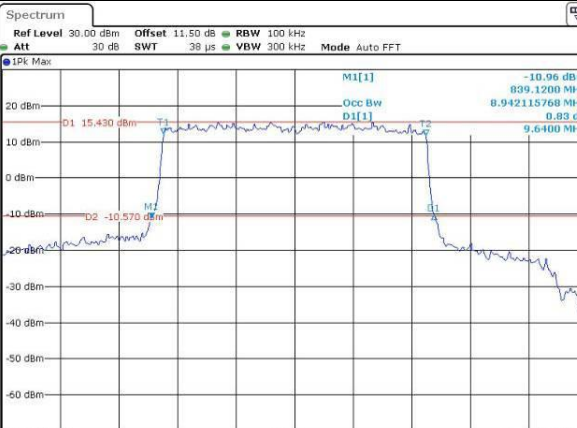
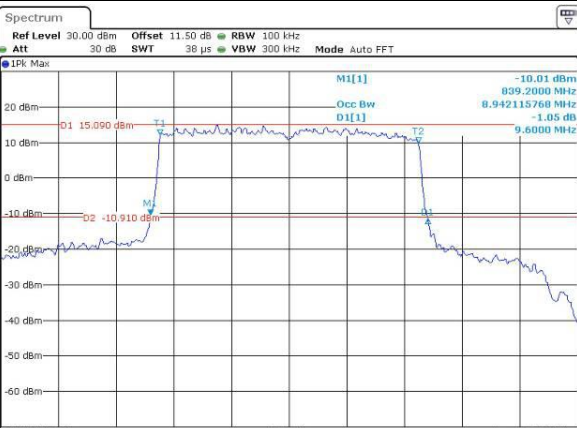
Middle



Highest



Occupied Bandwidth

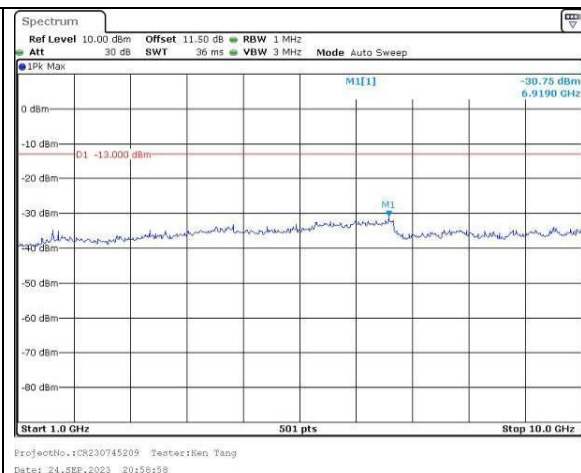
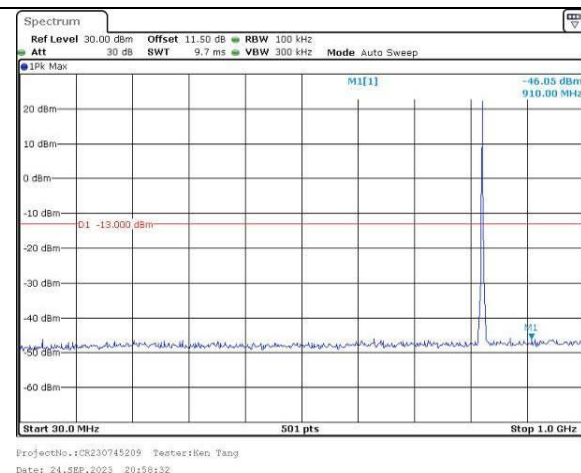
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 23.SEP.2023 00:45:38	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 23.SEP.2023 00:46:05
Middle	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 23.SEP.2023 00:46:42	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 23.SEP.2023 00:47:25
Highest	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 23.SEP.2023 00:48:08	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 23.SEP.2023 00:48:51

Spurious Emissions at Antenna Terminal

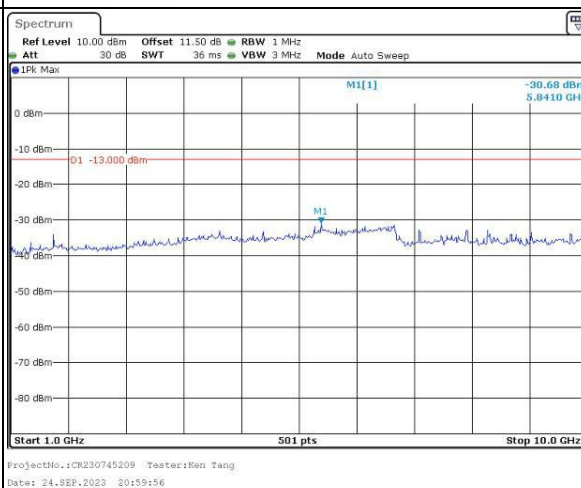
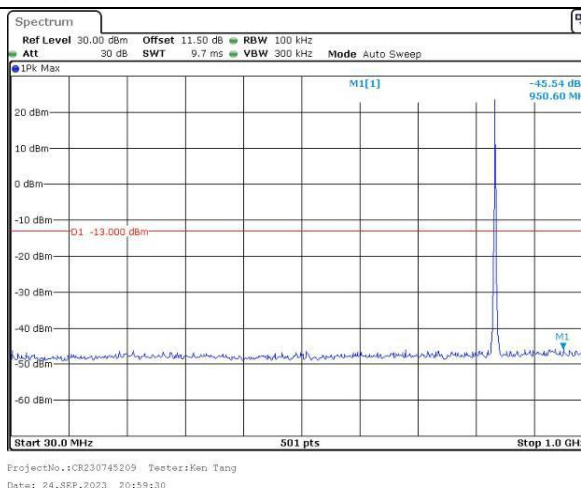
Channel

1.4MHz Bandwidth QPSK

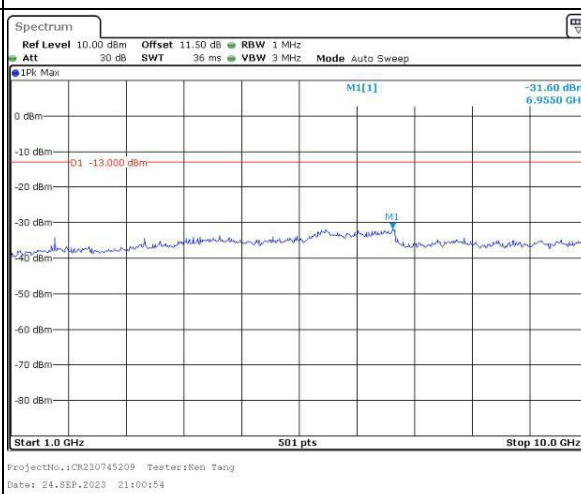
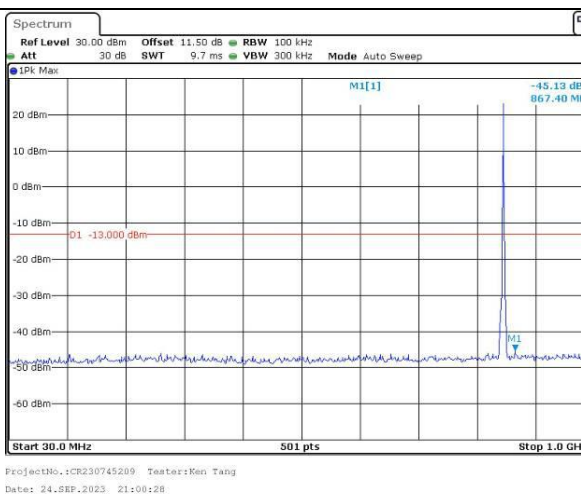
Lowest



Middle



Highest

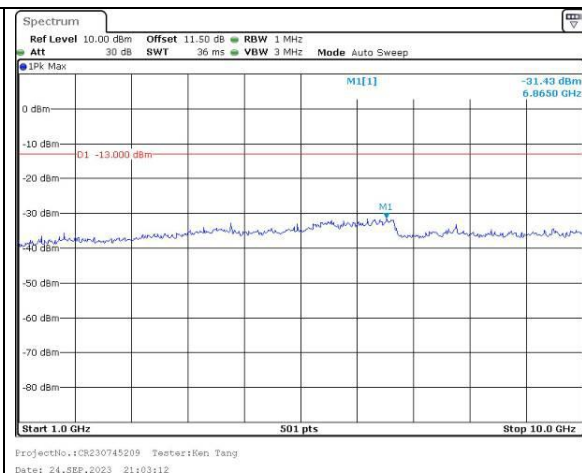
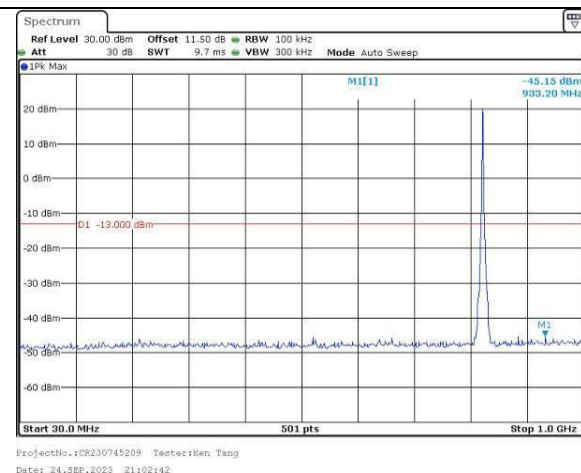


Spurious Emissions at Antenna Terminal

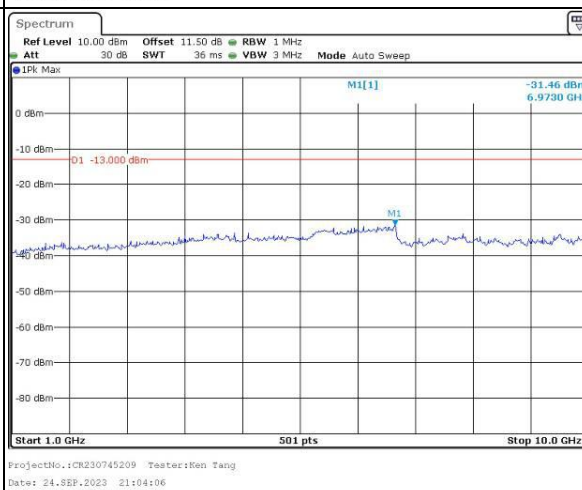
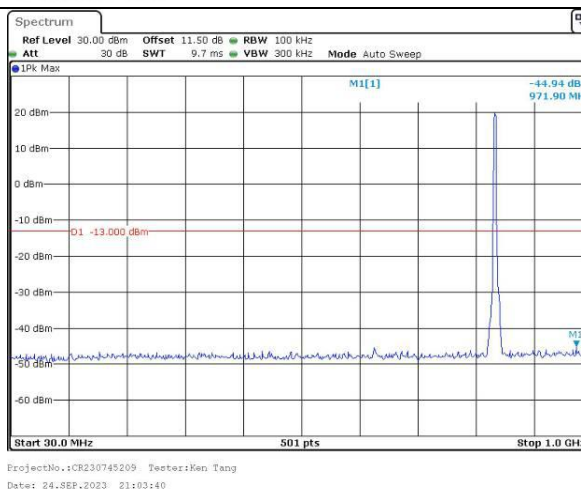
Channel

3MHz Bandwidth QPSK

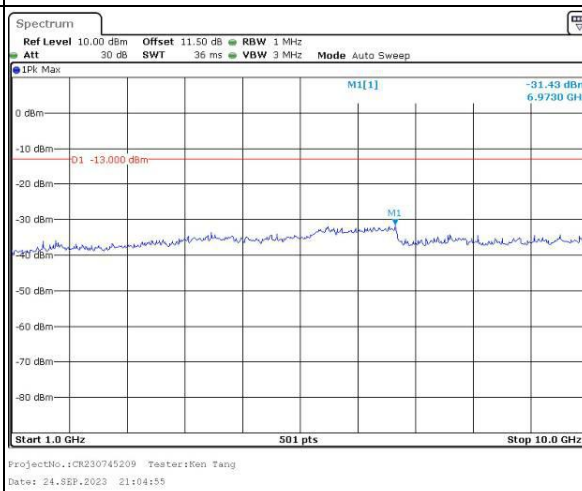
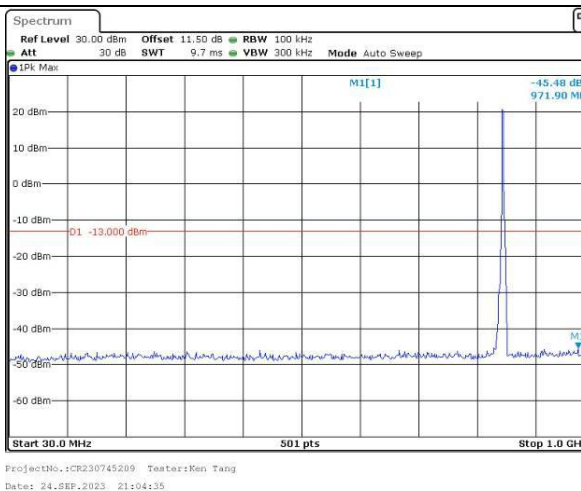
Lowest



Middle



Highest

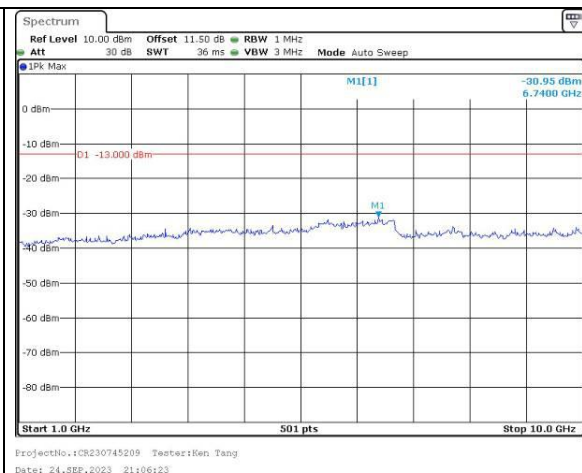
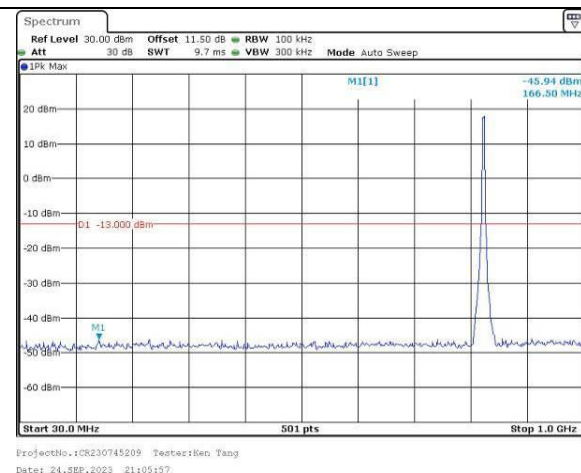


Spurious Emissions at Antenna Terminal

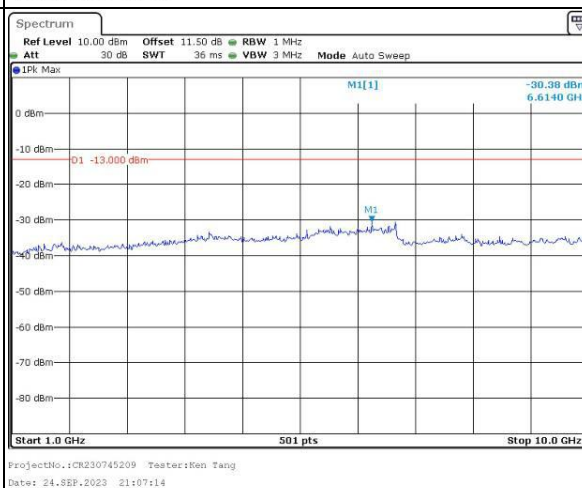
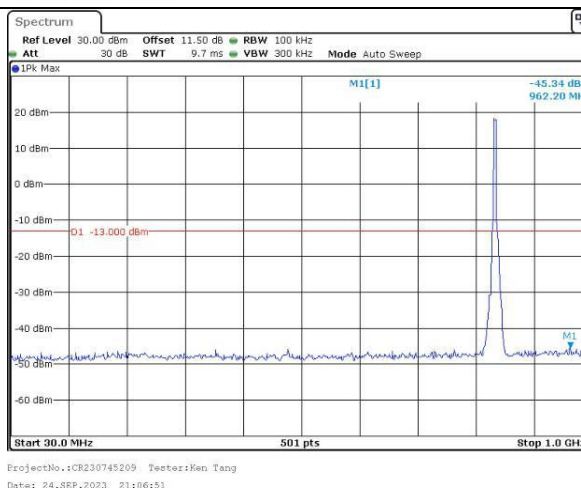
Channel

5MHz Bandwidth QPSK

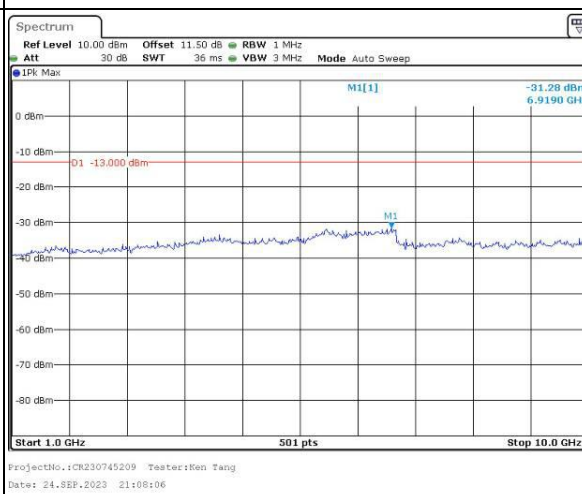
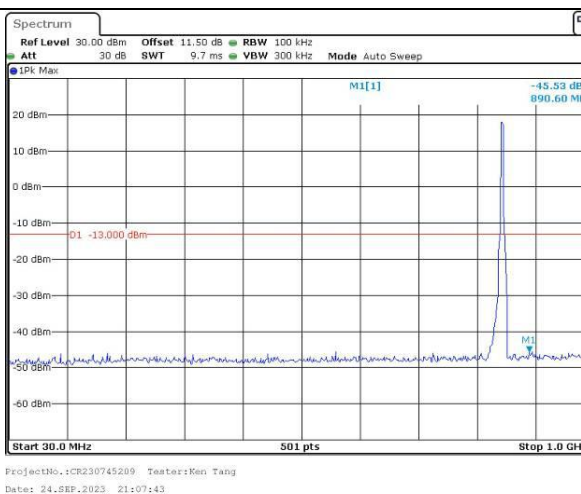
Lowest



Middle



Highest

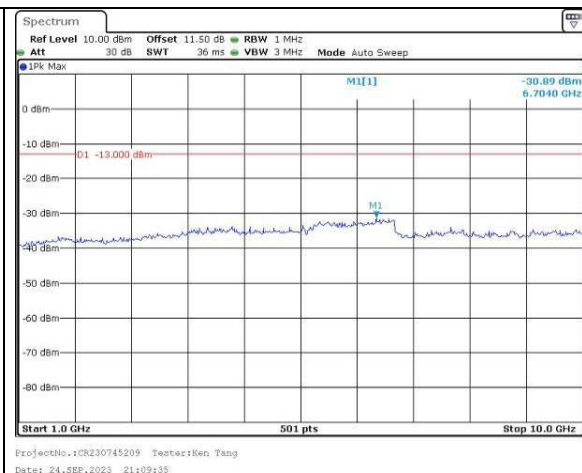
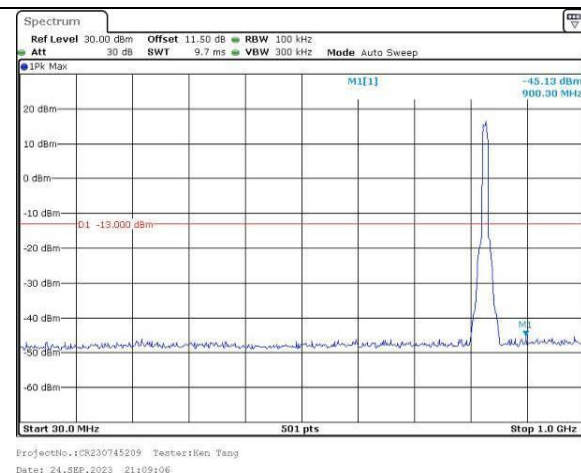


Spurious Emissions at Antenna Terminal

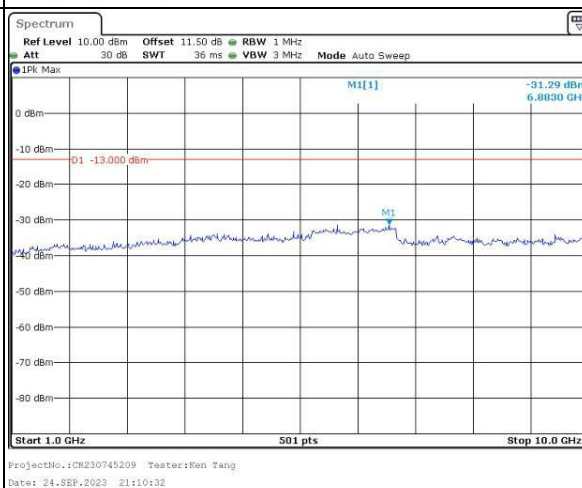
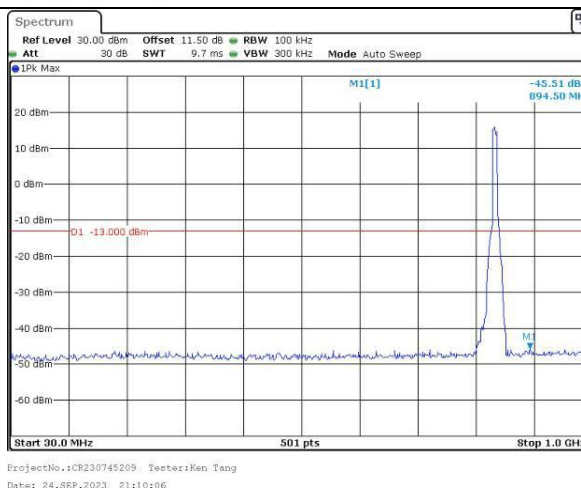
Channel

10MHz Bandwidth QPSK

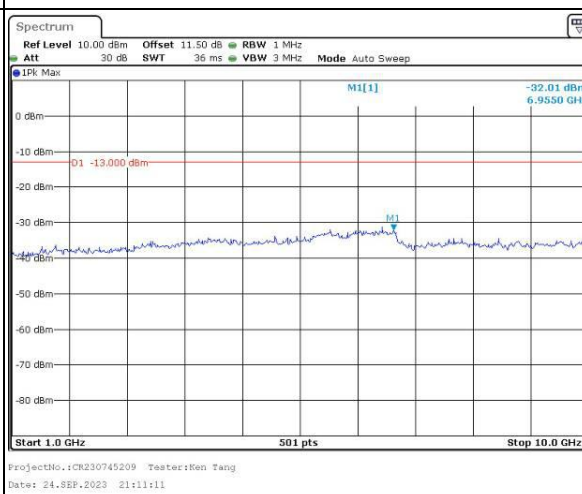
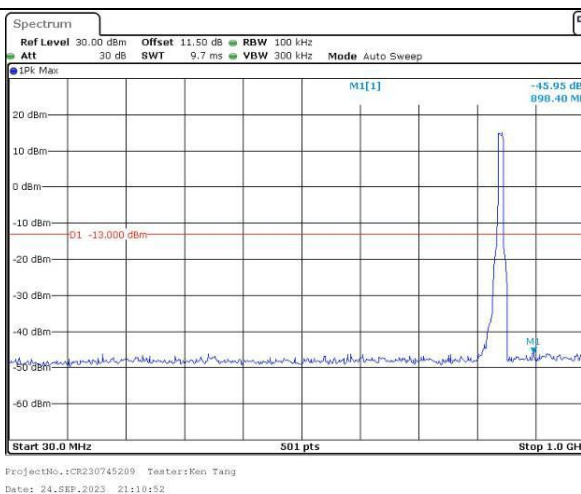
Lowest



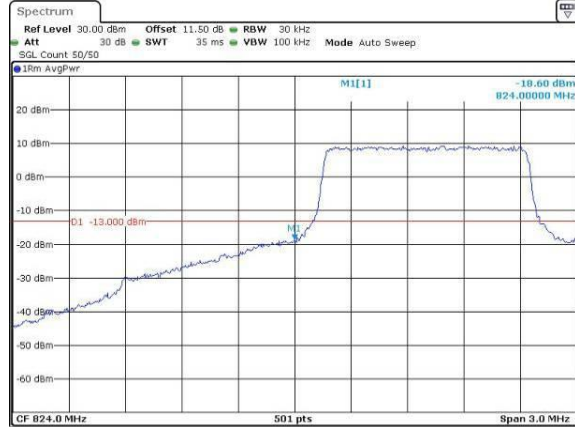
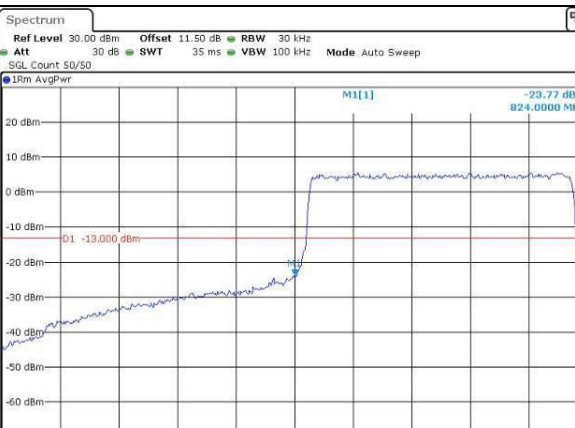
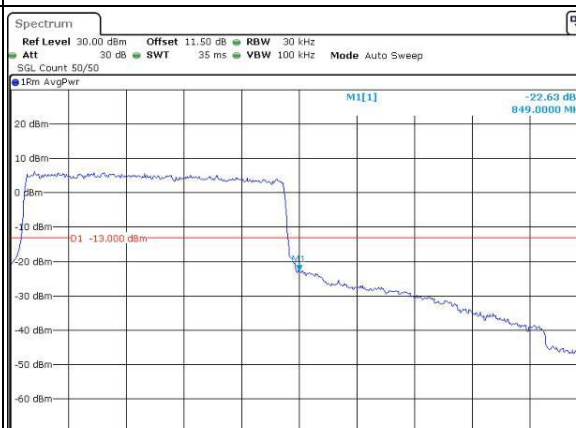
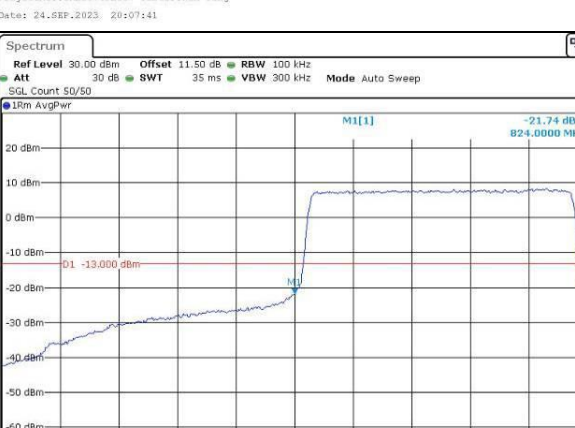
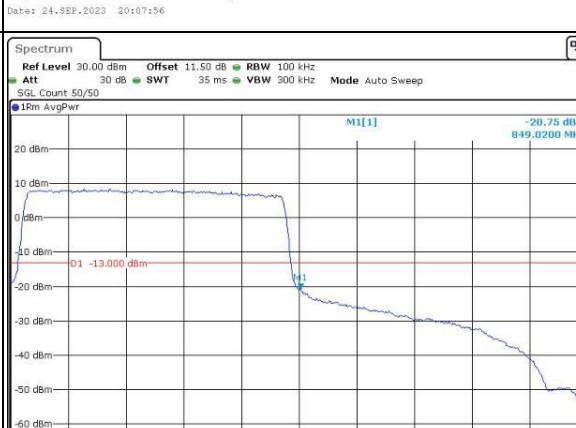
Middle



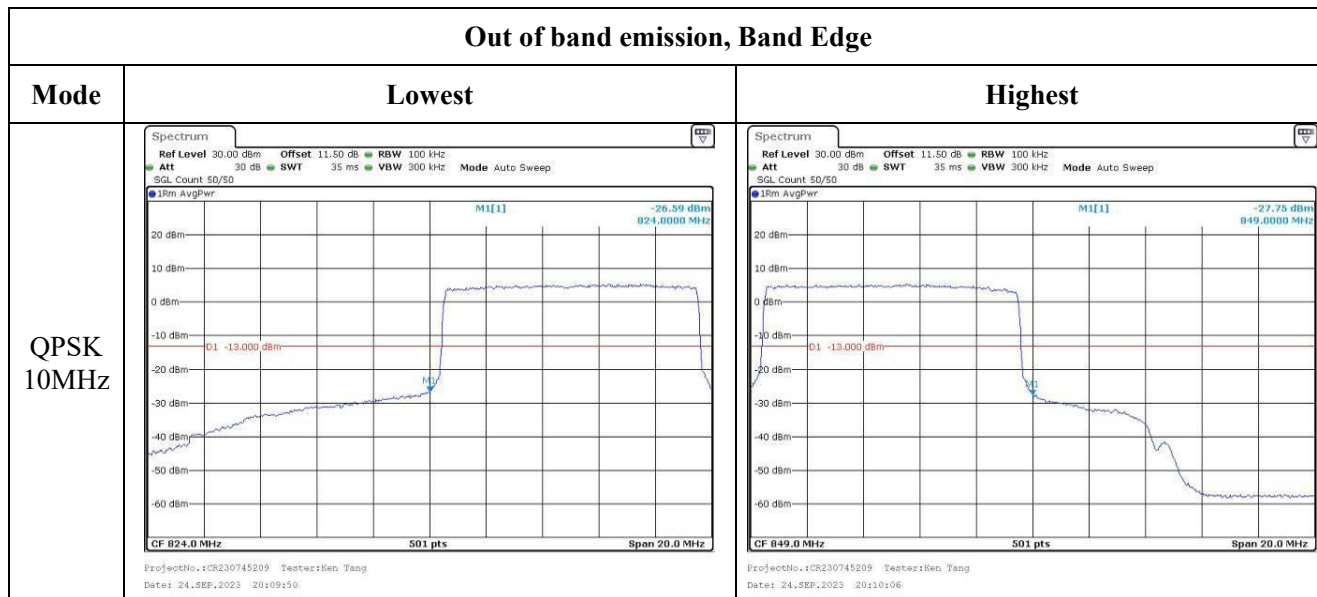
Highest



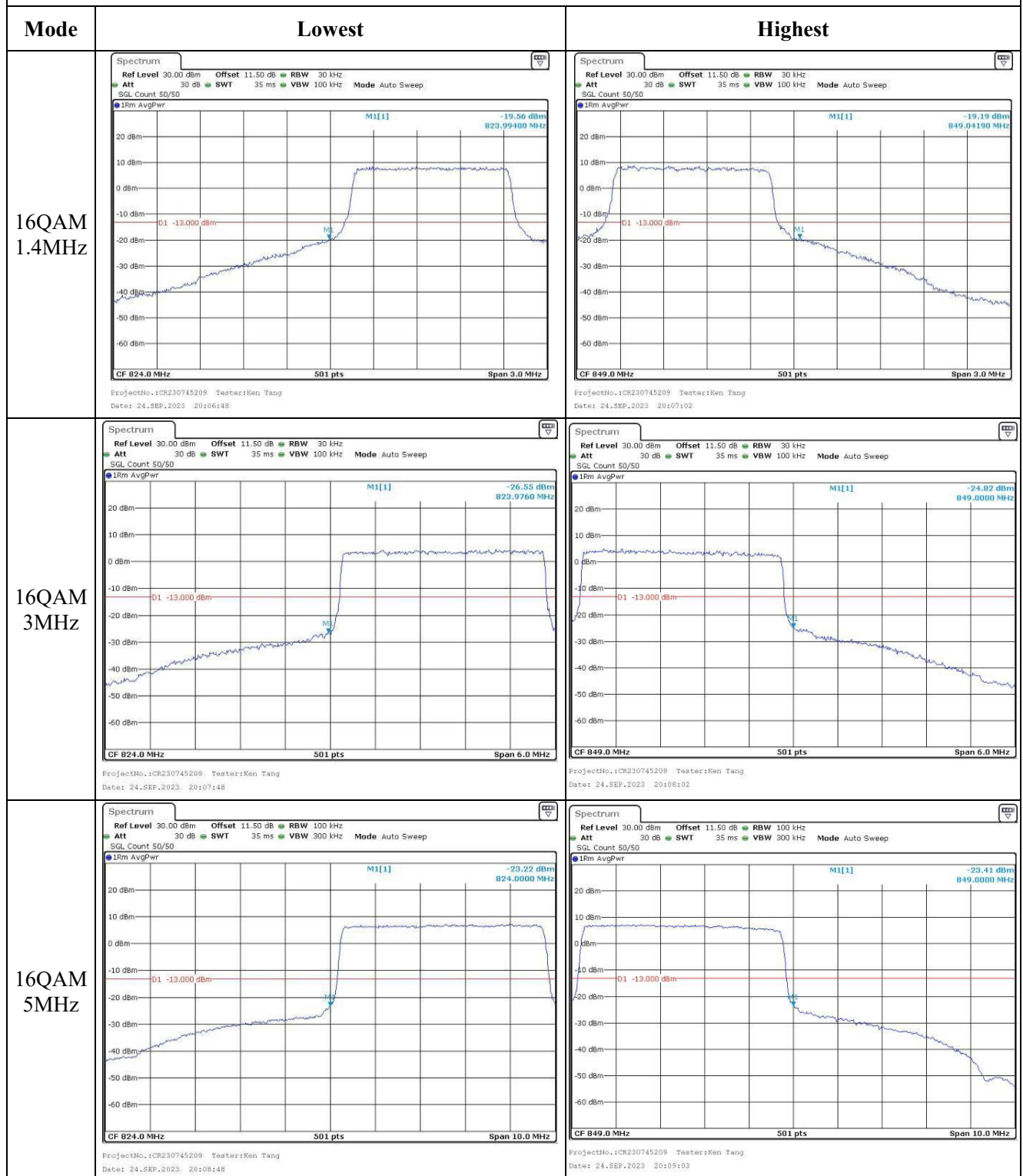
Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 20:06:41	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 20:06:55
QPSK 3MHz	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 20:07:41	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 20:07:56
QPSK 5MHz	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 20:08:41	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 20:08:56

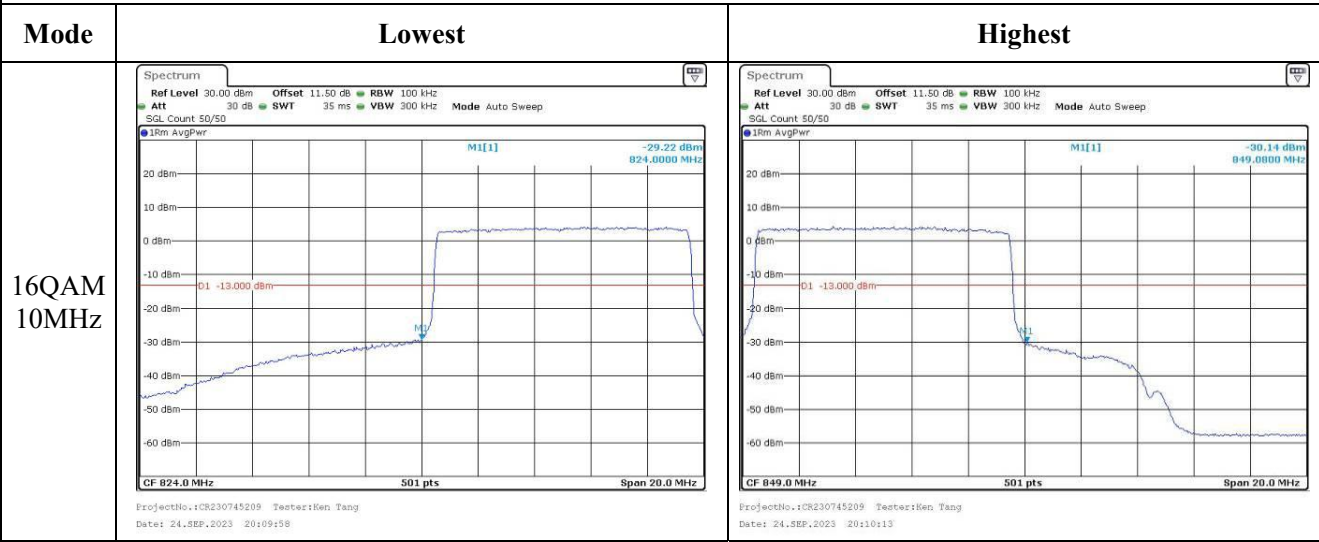
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.7 Antenna Port Test Data and Results for LTE Band 12

Serial Number:	2BCU-1	Test Date:	2023/9/22~2023/9/29
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.5-25.4	Relative Humidity: (%)	57-49	ATM Pressure: (kPa)	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	102259	2023/4/18	2024/4/17
R&S	Wideband Radio	CMW500	143458	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
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
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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).*

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:**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	23.49	24.43	24.4	15.38	34.77
	RB1#3	24.43	24.41	24.42		
	RB1#5	24.46	24.42	24.44		
	RB3#0	24.5	24.56	24.51		
	RB3#3	24.56	24.54	24.5		
	RB6#0	23.48	23.51	23.59		
1.4MHz 16QAM	RB1#0	23.53	23.55	23.67	14.57	34.77
	RB1#3	23.55	23.55	23.67		
	RB1#5	23.56	23.58	23.67		
	RB3#0	23.51	23.7	23.44		
	RB3#3	23.53	23.75	23.45		
	RB6#0	22.43	22.56	22.66		
3MHz QPSK	RB1#0	24.46	24.61	24.42	15.43	34.77
	RB1#8	24.46	24.54	24.42		
	RB1#14	24.46	24.54	24.46		
	RB6#0	23.53	23.54	23.62		
	RB6#9	23.54	23.47	23.57		
	RB15#0	23.54	23.51	23.53		
3MHz 16QAM	RB1#0	23.57	24.1	23.72	14.92	34.77
	RB1#8	23.56	24.05	23.65		
	RB1#14	23.57	24	23.66		
	RB6#0	22.47	22.64	22.63		
	RB6#9	22.48	22.6	22.59		
	RB15#0	22.57	22.58	22.44		
5MHz QPSK	RB1#0	24.57	24.8	24.48	15.62	34.77
	RB1#13	24.55	24.73	24.45		
	RB1#24	24.65	24.75	24.54		
	RB15#0	23.59	23.56	23.6		
	RB15#10	23.52	23.54	23.43		
	RB25#0	23.54	23.53	23.52		
5MHz 16QAM	RB1#0	23.65	23.52	23.82	14.67	34.77
	RB1#13	23.58	23.45	23.78		
	RB1#24	23.7	23.49	23.85		
	RB15#0	22.61	22.61	22.58		
	RB15#10	22.55	22.62	22.43		
	RB25#0	22.57	22.6	22.54		
10MHz QPSK	RB1#0	24.54	24.63	24.56	15.46	34.77
	RB1#25	24.53	24.64	24.52		
	RB1#49	24.51	24.59	24.52		

10MHz 16QAM	RB25#0	23.49	23.56	23.48	14.95	34.77
	RB25#25	23.49	23.48	23.4		
	RB50#0	23.52	23.56	23.47		
	RB1#0	23.63	24.13	23.74		
	RB1#25	23.58	24.11	23.7		
	RB1#49	23.56	24.01	23.69		
	RB25#0	22.59	22.64	22.55		
	RB25#25	22.61	22.53	22.42		
	RB50#0	22.51	22.52	22.47		

Note:

ERP= Conducted Power(dBm) - LC(dB) + GT(dBd)

GT(dBd)=GT(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	9.44	9.70	9.22	13
	RB50#0	9.94	9.93	6.30	13
10MHz 16QAM	RB1#0	6.17	9.76	8.18	13
	RB50#0	7.54	9.87	9.10	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	1.096	1.102	1.102	1.290	1.326	1.290
1.4MHz 16QAM	1.108	1.096	1.096	1.320	1.284	1.302
3MHz QPSK	2.683	2.683	2.683	2.904	2.892	2.892
3MHz 16QAM	2.683	2.683	2.683	2.904	2.916	2.904
5MHz QPSK	4.491	4.511	4.491	4.960	5.040	5.020
5MHz 16QAM	4.511	4.491	4.531	5.020	4.960	4.980
10MHz QPSK	8.942	8.942	8.942	9.640	9.680	9.600
10MHz 16QAM	8.982	8.942	8.942	9.680	9.600	9.640

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

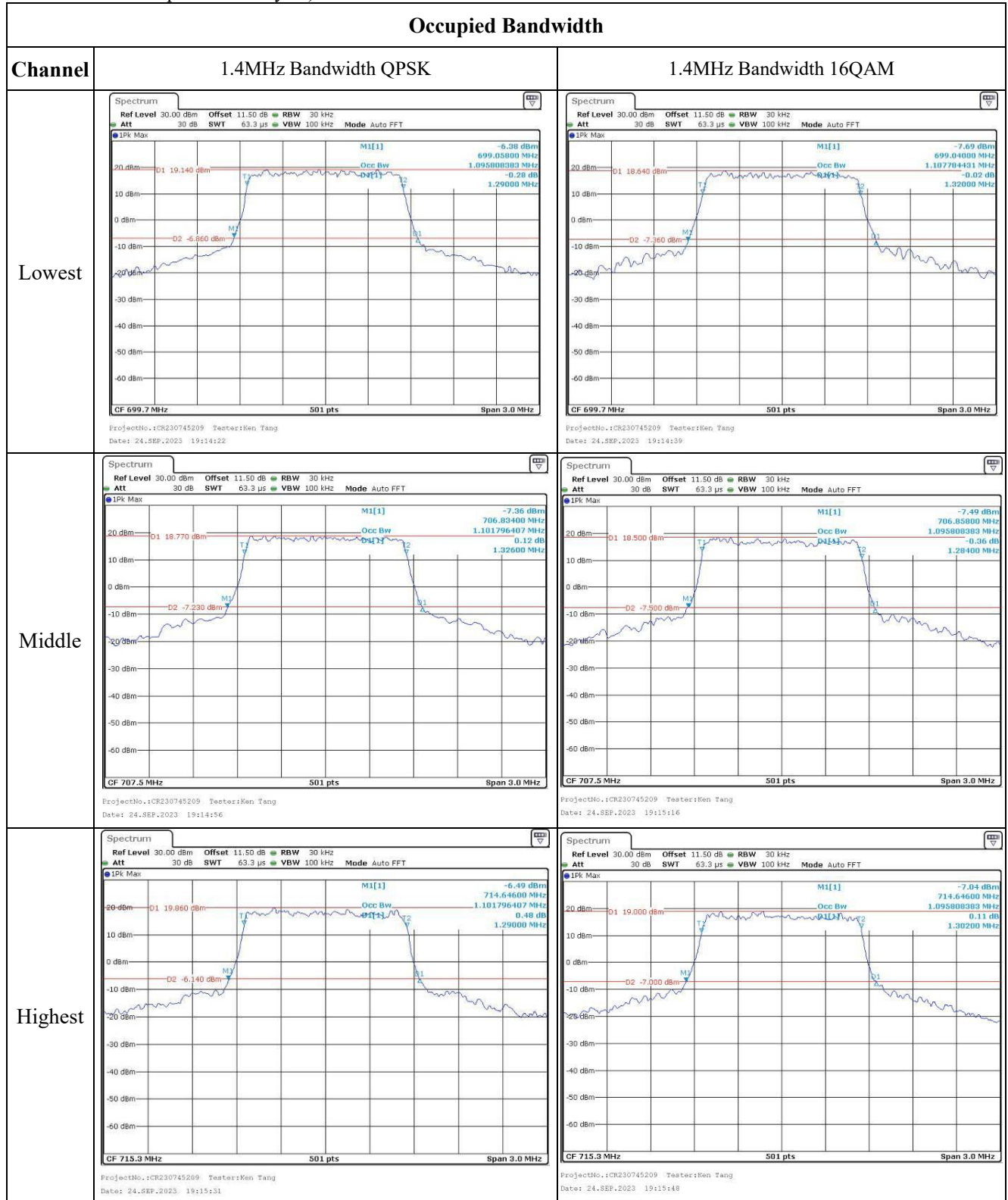
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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Frequency Stability

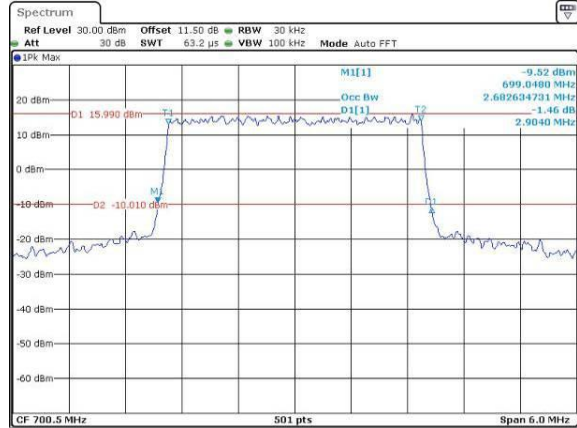
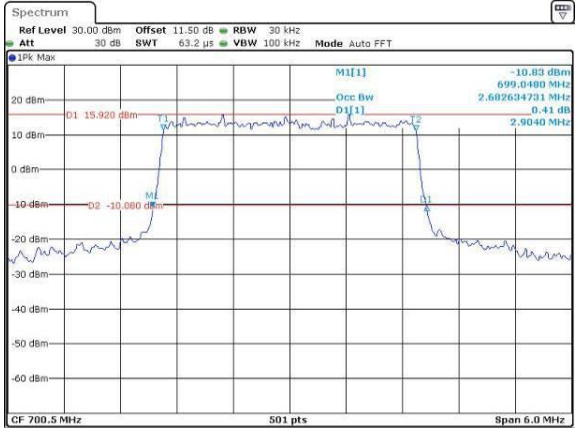
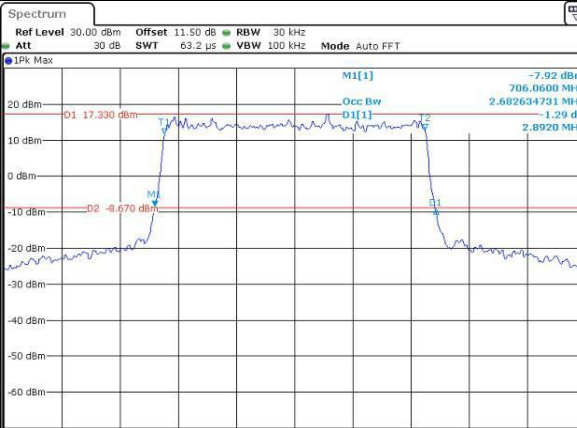
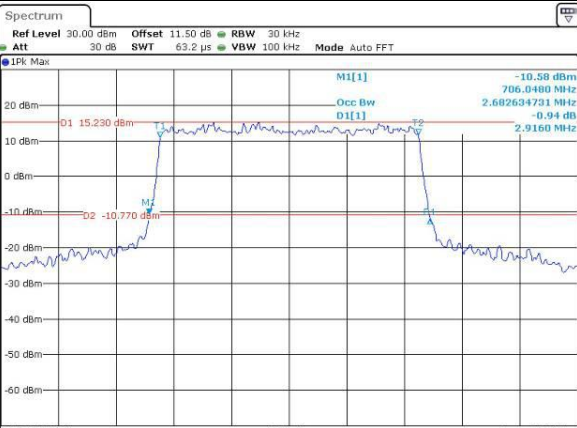
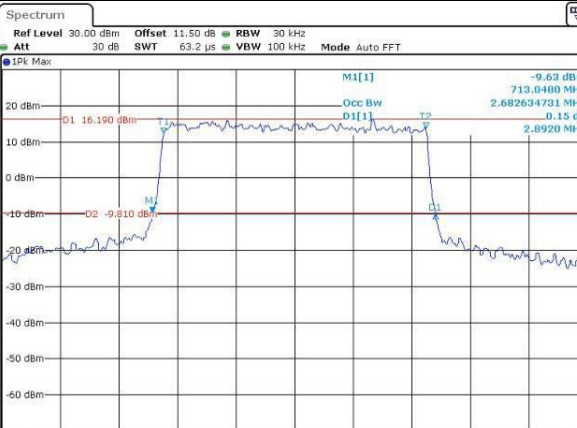
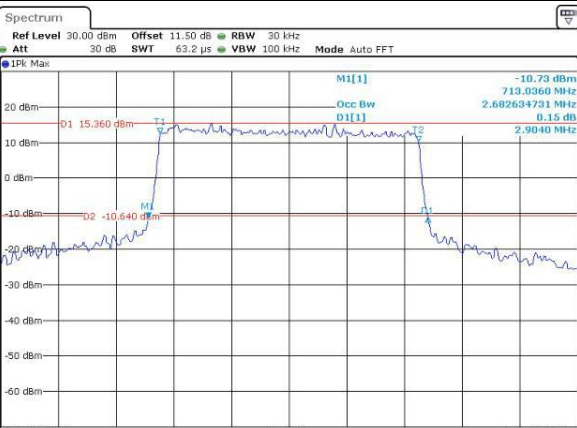
Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	699.028	699.00	715.991	716.00
	-20	3.87	699.017	699.00	715.993	716.00
	-10	3.87	699.011	699.00	715.976	716.00
	0	3.87	699.001	699.00	715.990	716.00
	10	3.87	699.004	699.00	715.986	716.00
	20	3.87	699.011	699.00	715.974	716.00
	30	3.87	699.029	699.00	715.992	716.00
	40	3.87	699.012	699.00	715.992	716.00
	50	3.87	699.003	699.00	715.989	716.00
Frequency Stability vs. Voltage	20	3.35	699.003	699.00	715.985	716.00
	20	4.43	699.024	699.00	715.980	716.00
Result:					Pass	

Test Mode:	10M 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	3.87	699.009	699.00	715.979	716.00
	-20	3.87	699.024	699.00	715.978	716.00
	-10	3.87	699.004	699.00	715.990	716.00
	0	3.87	699.026	699.00	715.995	716.00
	10	3.87	699.012	699.00	715.975	716.00
	20	3.87	699.027	699.00	715.986	716.00
	30	3.87	699.023	699.00	715.975	716.00
	40	3.87	699.021	699.00	715.980	716.00
	50	3.87	699.006	699.00	715.990	716.00
Frequency Stability vs. Voltage	20	3.35	699.017	699.00	715.995	716.00
	20	4.43	699.004	699.00	715.988	716.00
Result:					Pass	

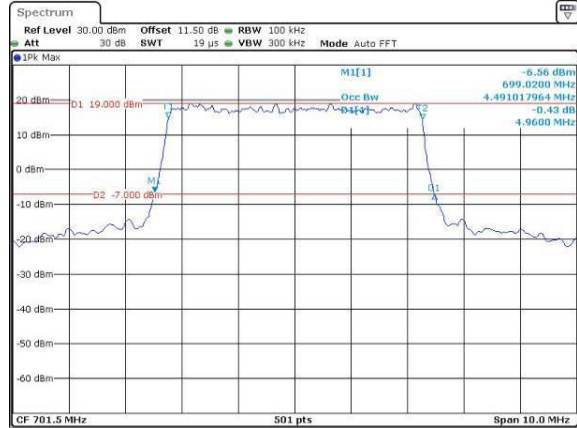
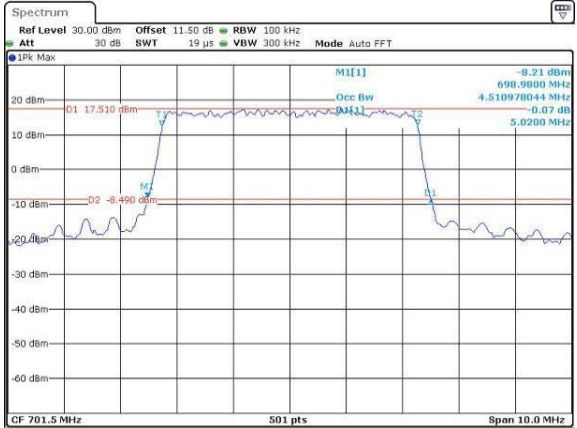
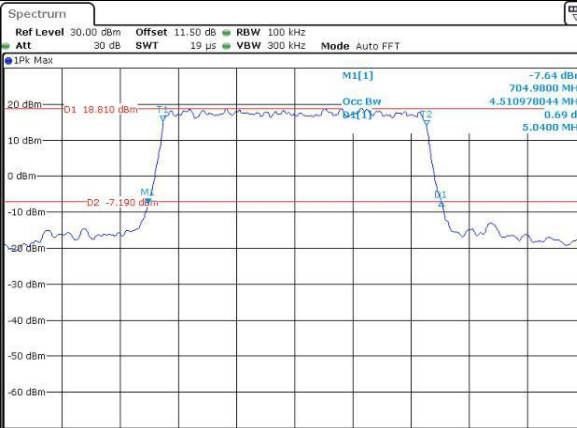
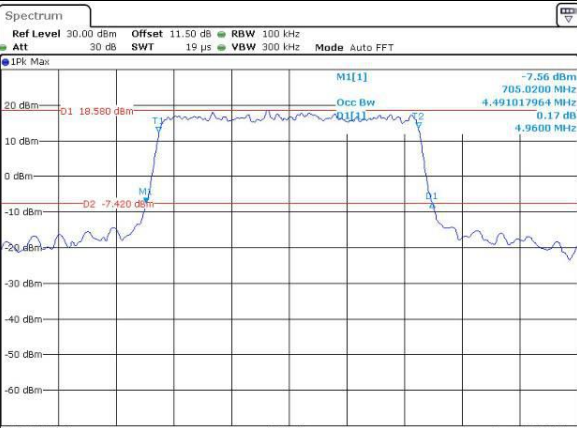
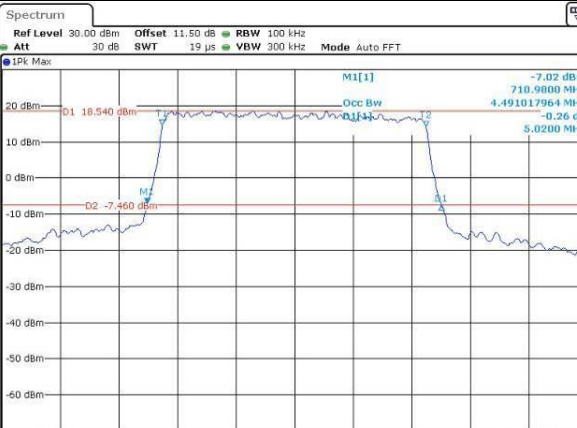
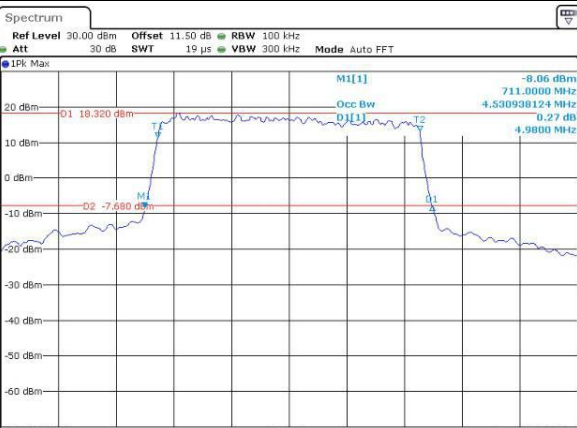
Test Plots(Note: The 11.5dB is the Insertion loss of the RF cable, Coaxial tee connector and Attenuator, which was offset into the Spectrum Analyzer):



Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:16:33	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:16:50
Middle	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:17:14	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:17:31
Highest	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:17:52	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:18:12

Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:19:00	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:19:17
Middle	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:19:44	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:20:05
Highest	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:20:32	 ProjectNo.:CR230745209 Testter:Ken Tang Date: 24.SEP.2023 19:20:49

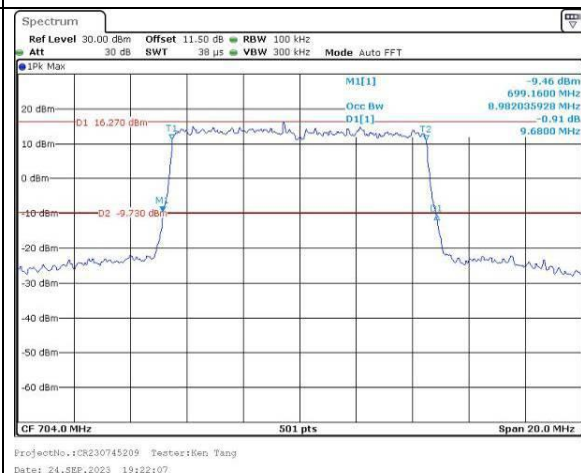
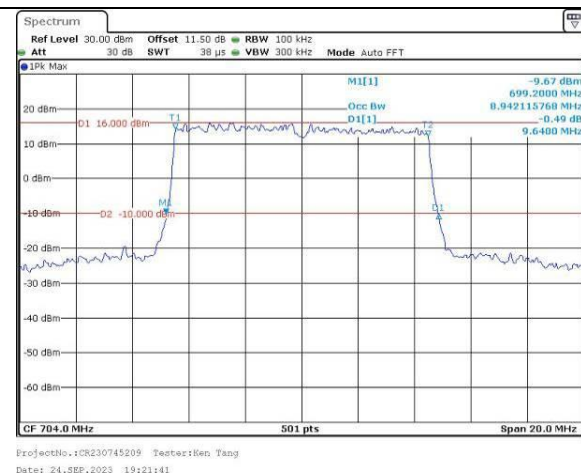
Occupied Bandwidth

Channel

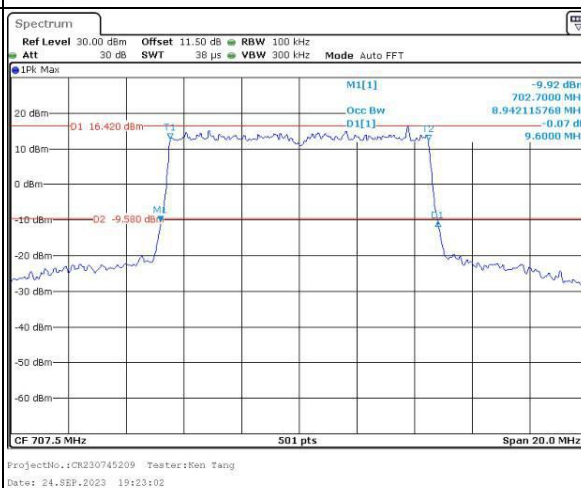
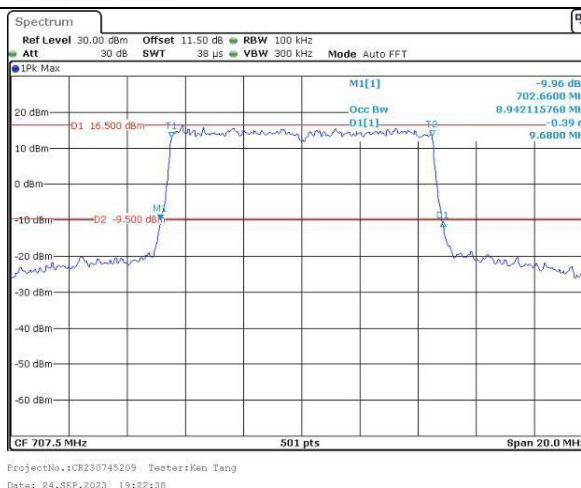
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

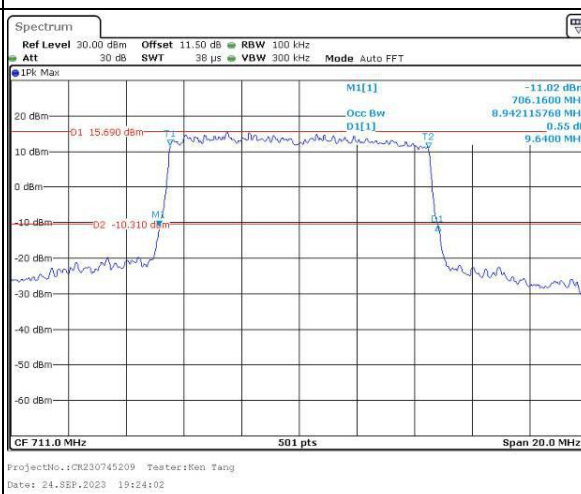
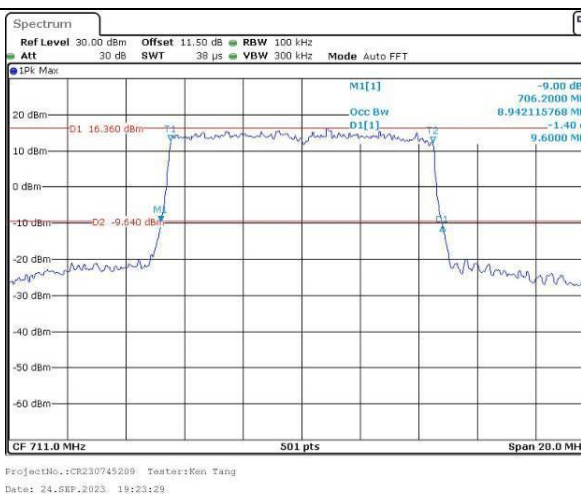
Lowest



Middle



Highest

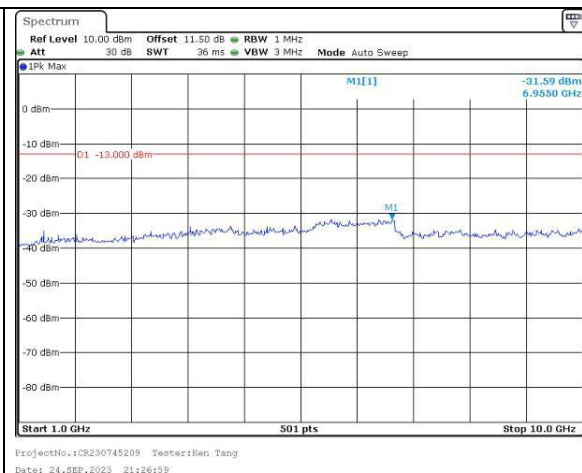
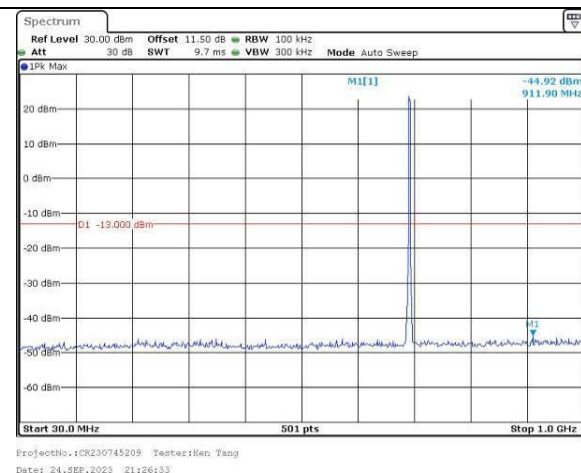


Spurious Emissions at Antenna Terminal

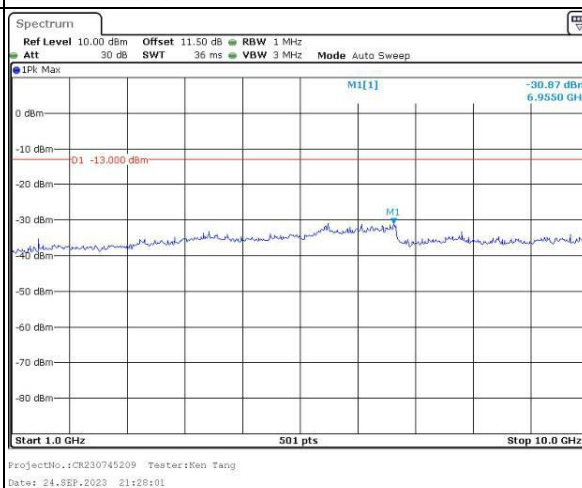
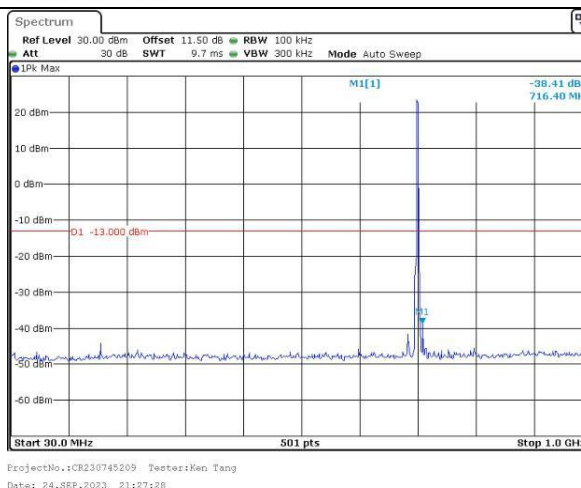
Channel

1.4MHz Bandwidth QPSK

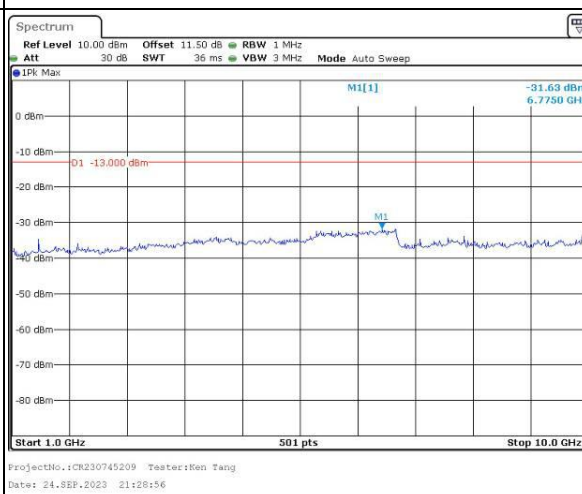
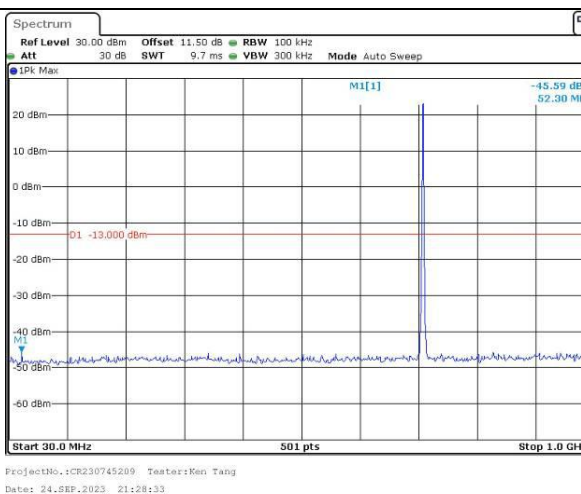
Lowest



Middle



Highest



Spurious Emissions at Antenna Terminal

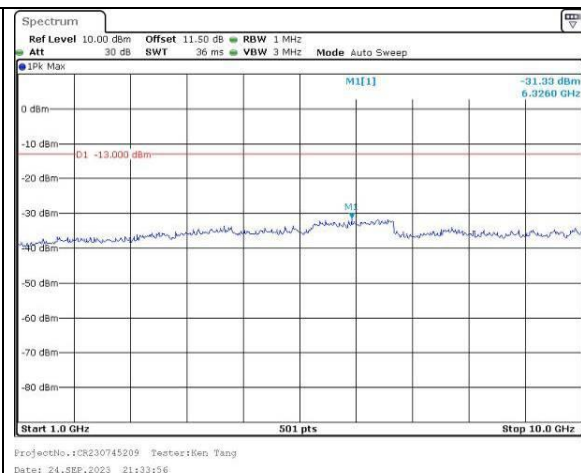
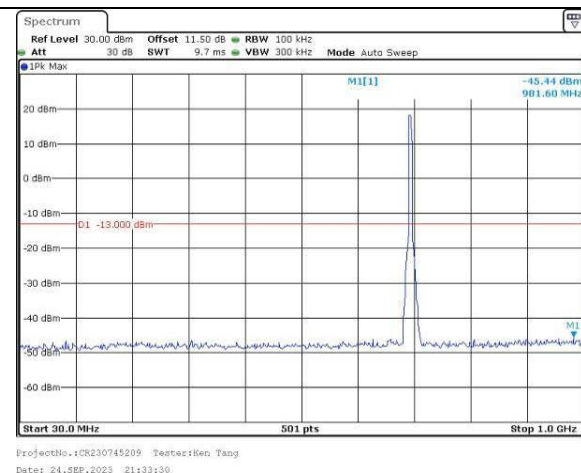
Channel	3MHz Bandwidth QPSK	
Lowest	ProjectNo.:CR230745209 Tester:Ken Tang Date: 24.SEP.2023 21:30:07	ProjectNo.:CR230745209 Tester:Ken Tang Date: 24.SEP.2023 21:30:33
	ProjectNo.:CR230745209 Tester:Ken Tang Date: 24.SEP.2023 21:31:02	ProjectNo.:CR230745209 Tester:Ken Tang Date: 24.SEP.2023 21:31:32
Highest	ProjectNo.:CR230745209 Tester:Ken Tang Date: 24.SEP.2023 21:32:04	ProjectNo.:CR230745209 Tester:Ken Tang Date: 24.SEP.2023 21:32:33

Spurious Emissions at Antenna Terminal

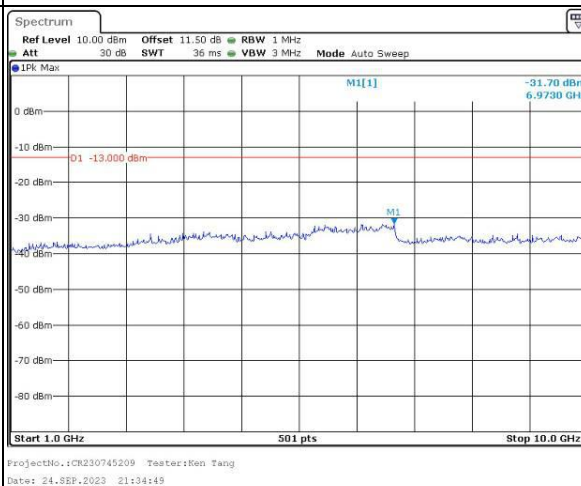
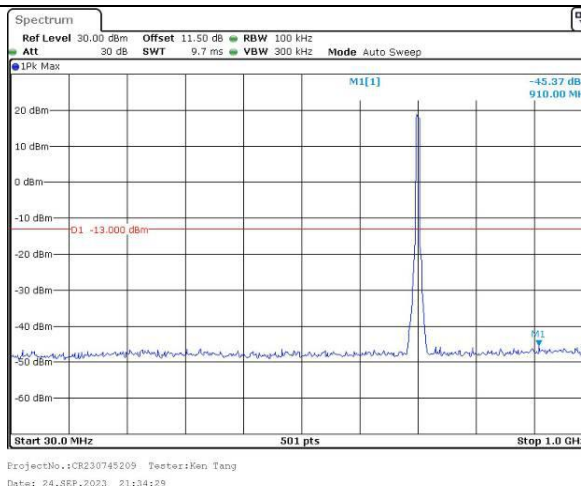
Channel

5MHz Bandwidth QPSK

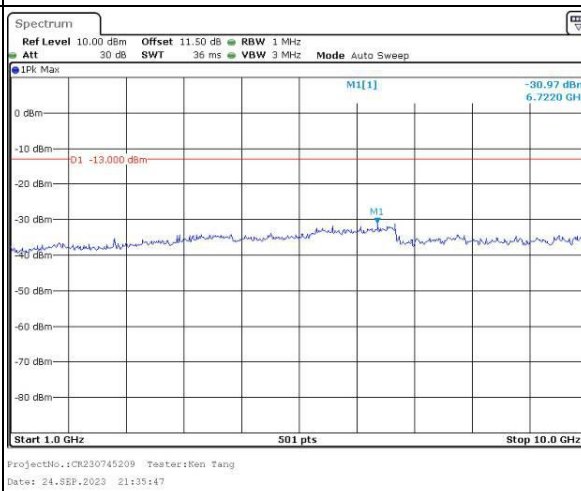
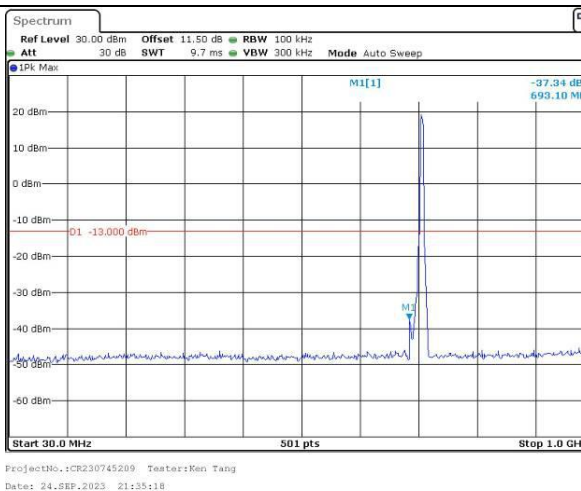
Lowest



Middle



Highest

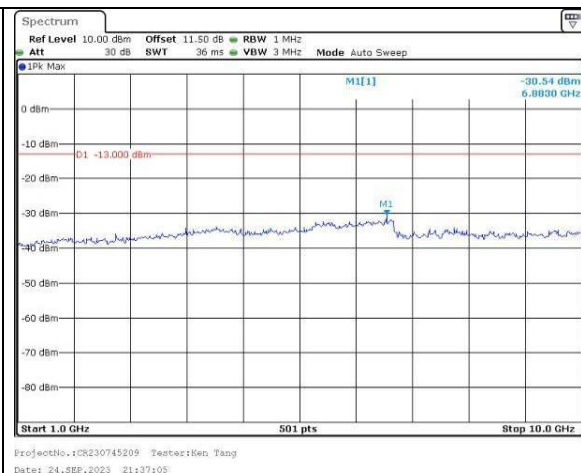
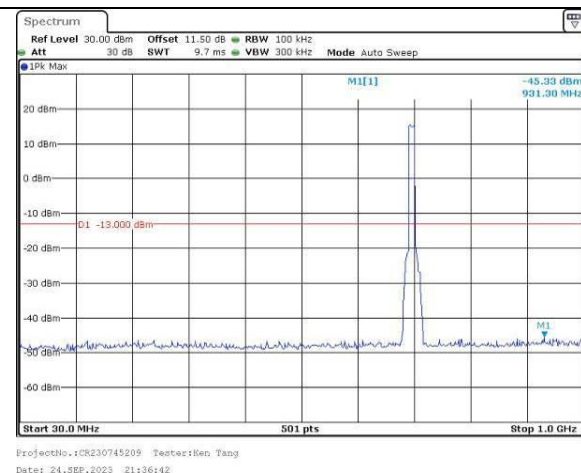


Spurious Emissions at Antenna Terminal

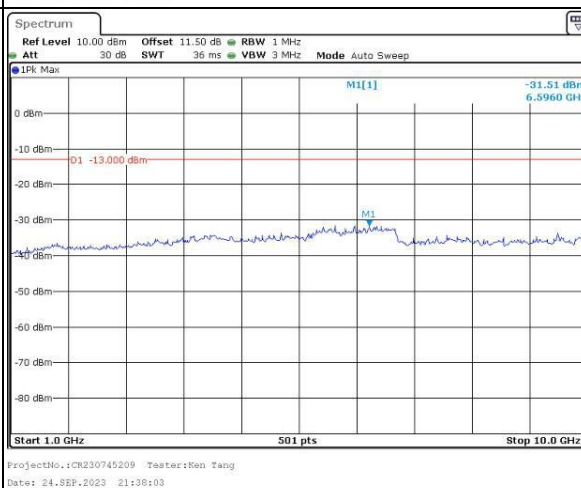
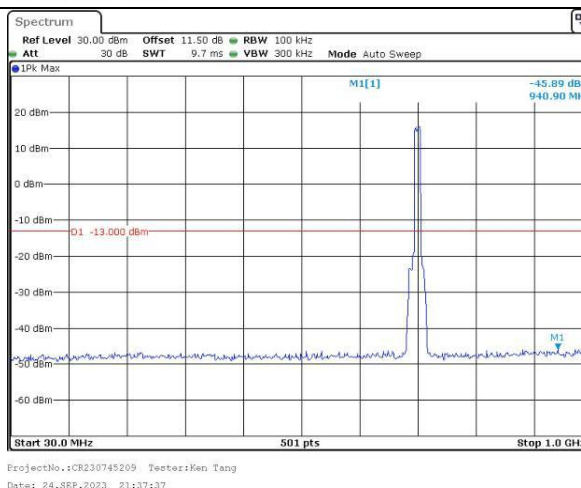
Channel

10MHz Bandwidth QPSK

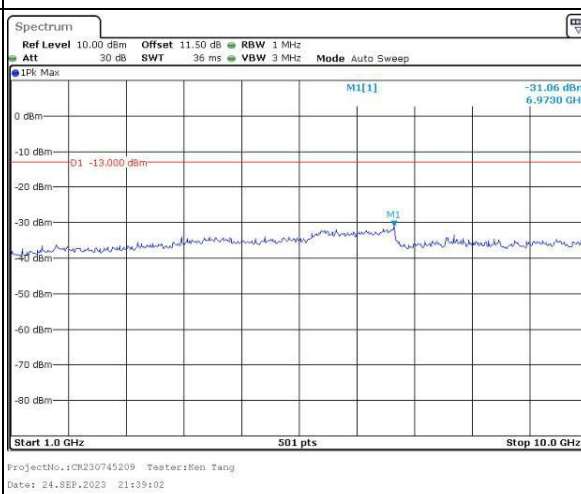
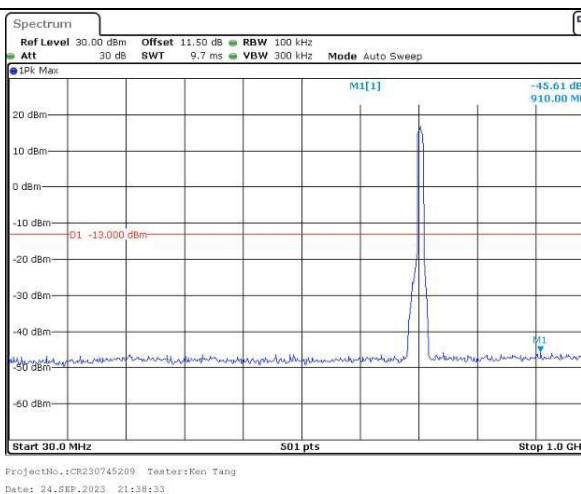
Lowest



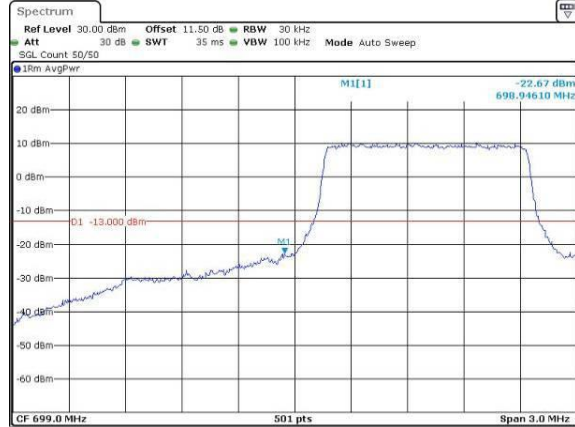
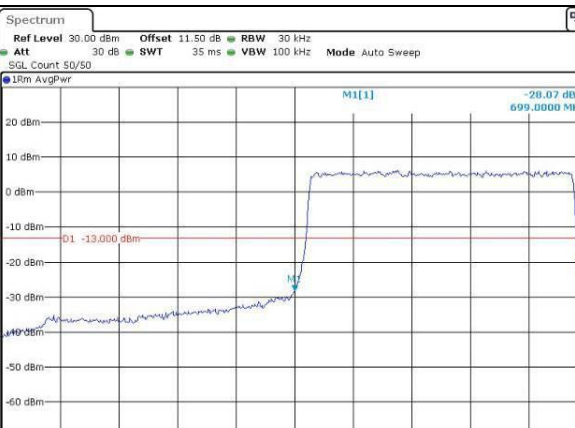
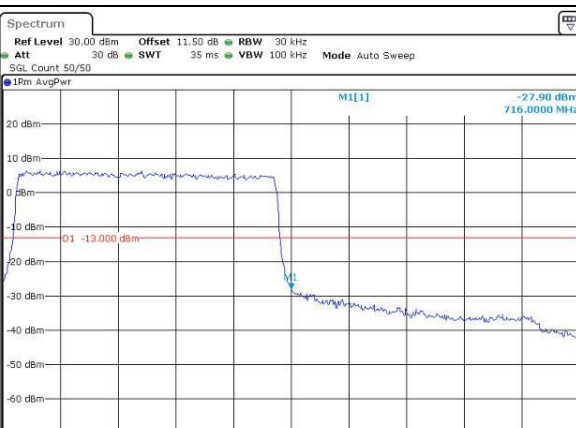
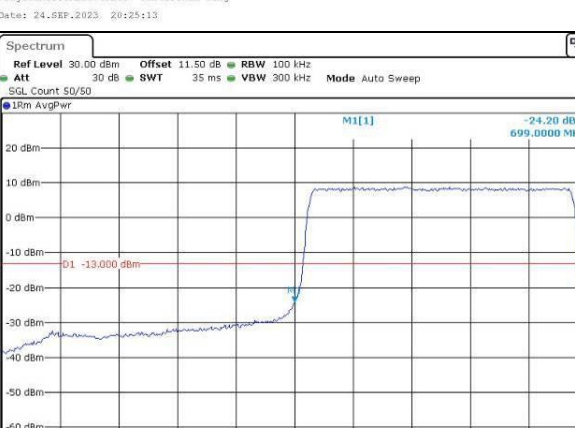
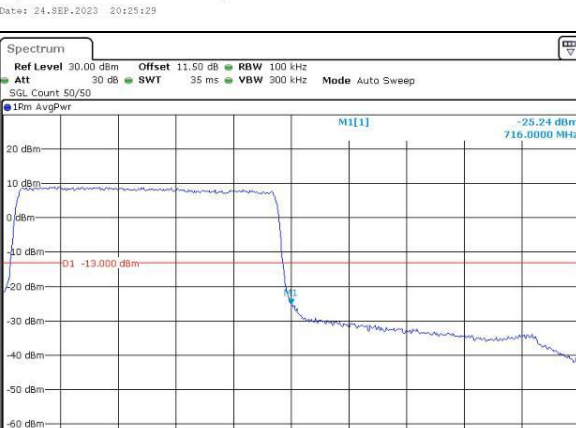
Middle



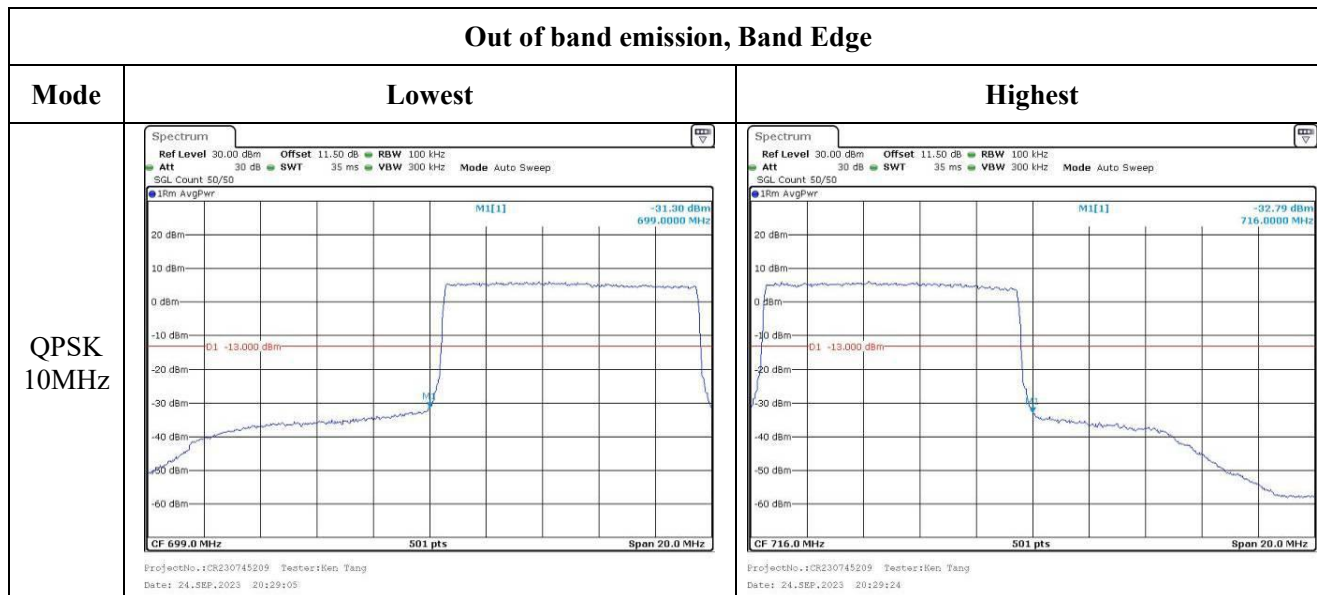
Highest



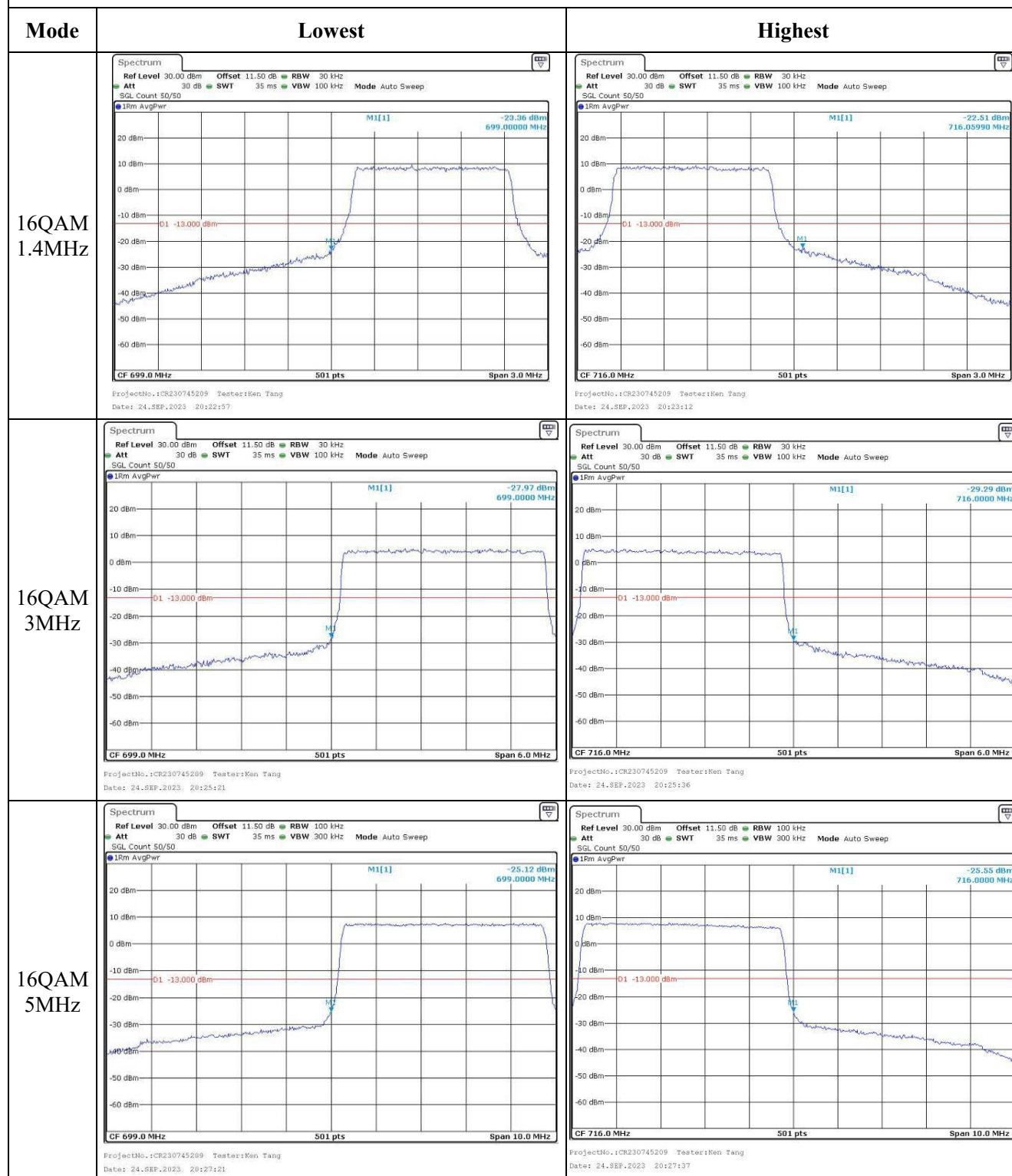
Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 24.SEP.2023 20:22:59	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 24.SEP.2023 20:23:05
QPSK 3MHz	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 24.SEP.2023 20:25:13	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 24.SEP.2023 20:25:29
QPSK 5MHz	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 24.SEP.2023 20:27:13	 ProjectNo.: CR230745209 Tester: Ken Tang Date: 24.SEP.2023 20:27:30

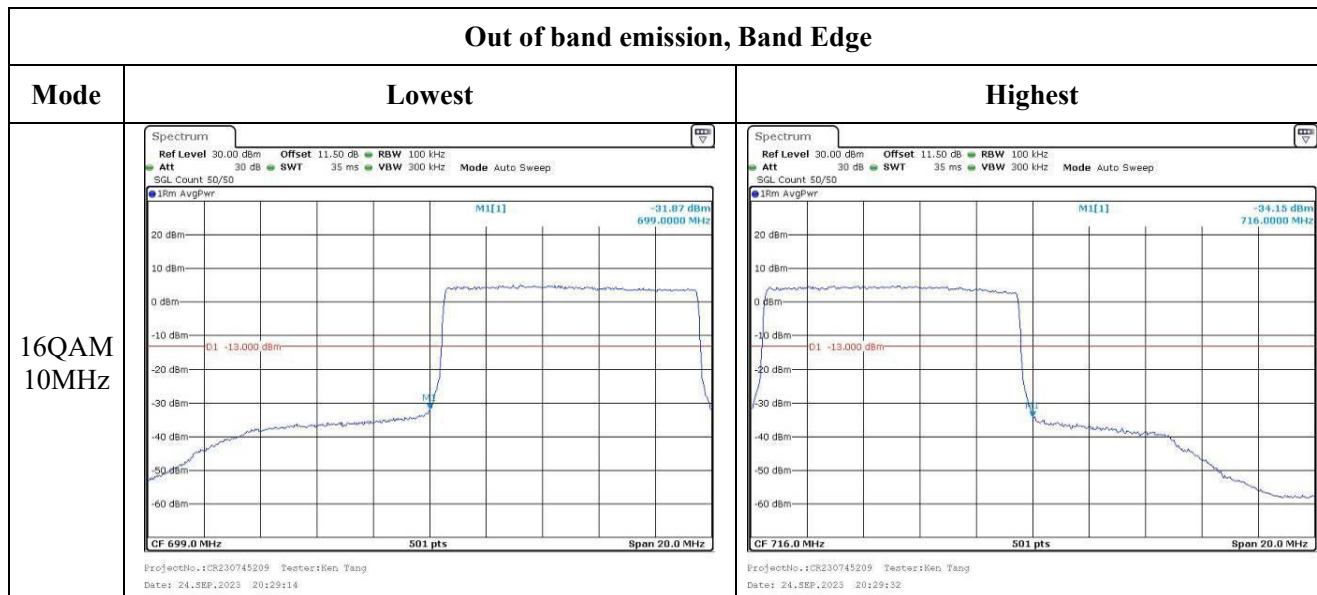
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.8 Antenna Port Test Data and Results for LTE Band 13

Serial Number:	2BCU-1	Test Date:	2023/9/22~2023/9/29
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.5-25.4	Relative Humidity: (%)	57-49	ATM Pressure: (kPa)	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	102259	2023/4/18	2024/4/17
R&S	Wideband Radio	CMW500	143458	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
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
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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).*

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	779.5	/	784.5
10MHz	/	782	/

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		
5MHz QPSK	RB1#0	24.07	/	24.03	16.47	34.77
	RB1#13	24.09	/	24.01		
	RB1#24	24.07	/	24.01		
	RB15#0	23.08	/	23.11		
	RB15#10	23.02	/	23.03		
	RB25#0	23.02	/	23.06		
5MHz 16QAM	RB1#0	23.13	/	23.33	15.71	34.77
	RB1#13	23.11	/	23.33		
	RB1#24	23.09	/	23.29		
	RB15#0	22.09	/	22.08		
	RB15#10	22.04	/	22.00		
	RB25#0	22.07	/	22.09		
10MHz QPSK	RB1#0	/	24.26	/	16.64	34.77
	RB1#25	/	24.22	/		
	RB1#49	/	24.21	/		
	RB25#0	/	23.07	/		
	RB25#25	/	23.00	/		
	RB50#0	/	23.03	/		
10MHz 16QAM	RB1#0	/	22.99	/	15.37	34.77
	RB1#25	/	22.90	/		
	RB1#49	/	22.94	/		
	RB25#0	/	22.13	/		
	RB25#25	/	22.03	/		
	RB50#0	/	22.08	/		

Note:

ERP= Conducted Power(dBm) - LC(dB) + GT(dBd)

GT(dBd)=GT(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	/	7.63	/	13
	RB50#0	/	6.08	/	13
10MHz 16QAM	RB1#0	/	7.61	/	13
	RB50#0	/	9.15	/	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
5MHz QPSK	4.511	/	4.511	5.04	/	5.04
5MHz 16QAM	4.511	/	4.511	5.02	/	5.02
10MHz QPSK	/	8.982	/	/	9.64	/
10MHz 16QAM	/	8.982	/	/	9.6	/

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

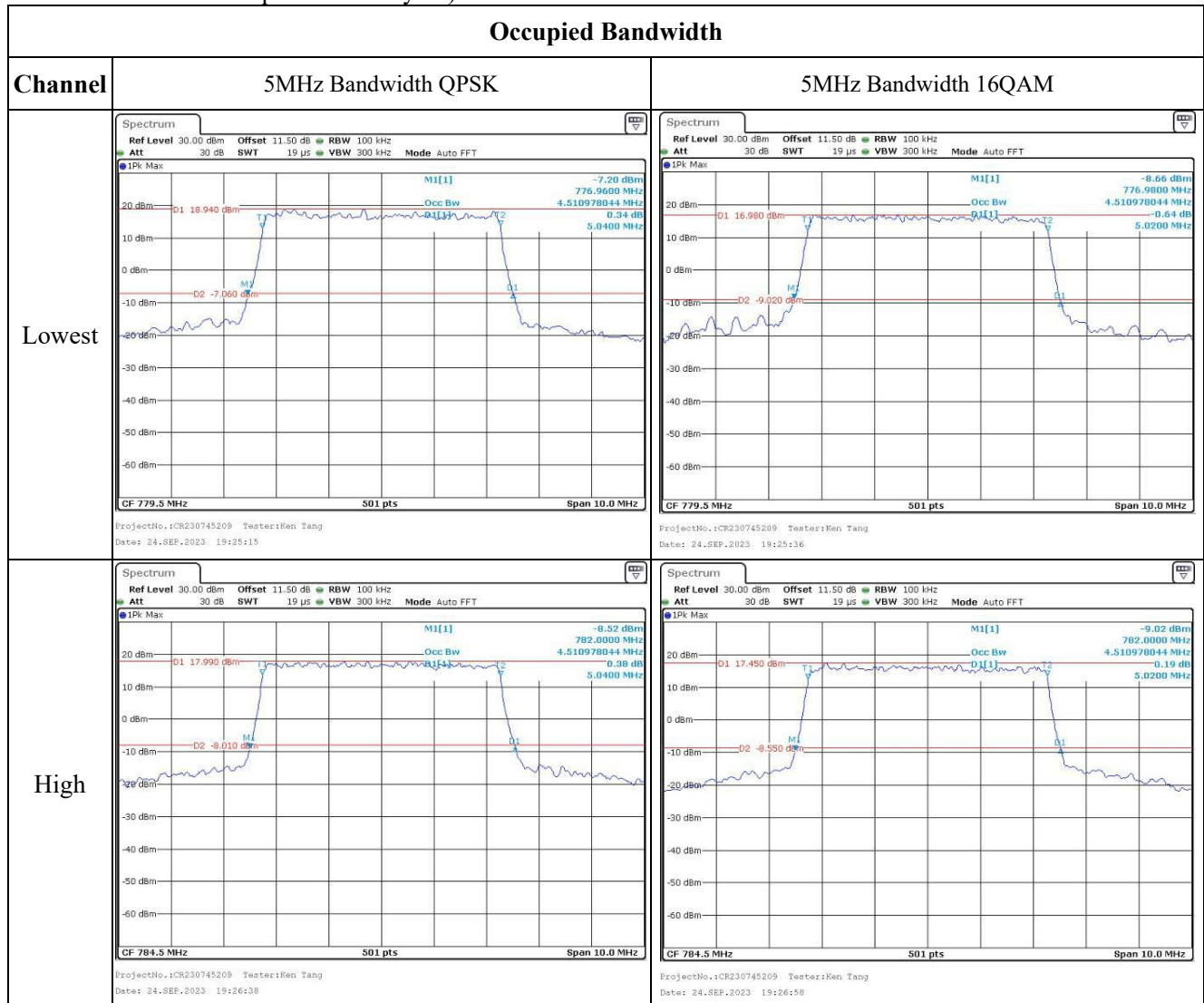
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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Frequency Stability

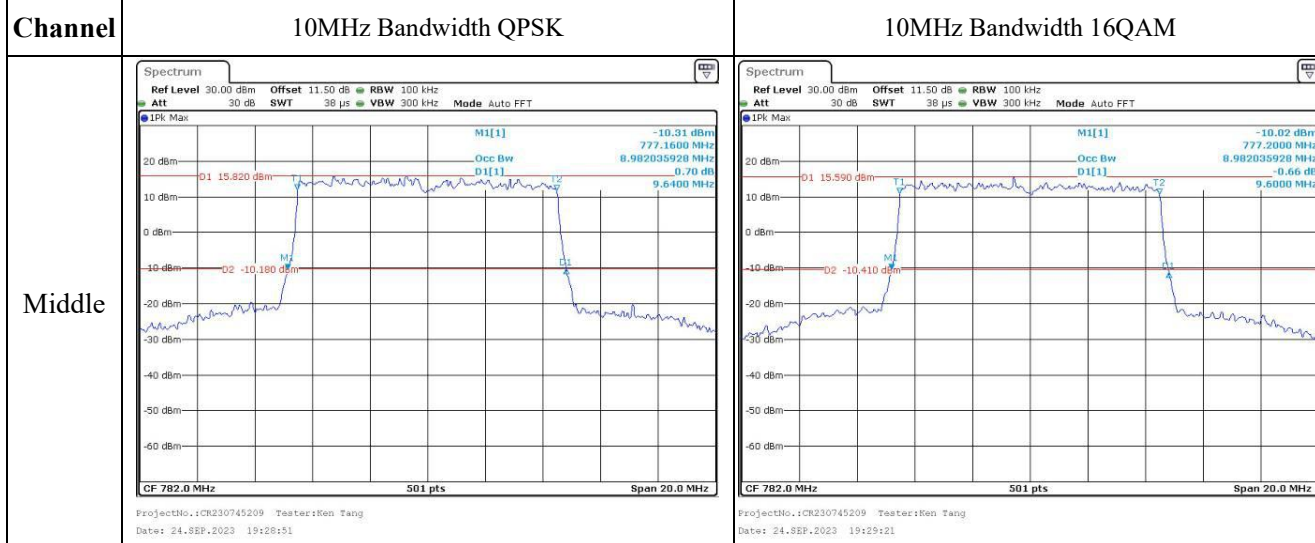
Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	777.023	777.00	786.998	787.00
	-20	3.87	777.011	777.00	786.985	787.00
	-10	3.87	777.015	777.00	786.992	787.00
	0	3.87	777.017	777.00	786.990	787.00
	10	3.87	777.017	777.00	786.983	787.00
	20	3.87	777.010	777.00	786.993	787.00
	30	3.87	777.012	777.00	786.974	787.00
	40	3.87	777.028	777.00	786.970	787.00
	50	3.87	777.007	777.00	786.990	787.00
Frequency Stability vs. Voltage	20	3.35	777.001	777.00	786.981	787.00
	20	4.43	777.016	777.00	786.987	787.00
Result:					Pass	

Test Mode:	10M 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	3.87	777.012	777.00	786.988	787.00
	-20	3.87	777.011	777.00	786.995	787.00
	-10	3.87	777.019	777.00	786.973	787.00
	0	3.87	777.014	777.00	786.973	787.00
	10	3.87	777.026	777.00	786.994	787.00
	20	3.87	777.021	777.00	786.970	787.00
	30	3.87	777.006	777.00	786.995	787.00
	40	3.87	777.021	777.00	786.989	787.00
	50	3.87	777.013	777.00	786.986	787.00
Frequency Stability vs. Voltage	20	3.35	777.015	777.00	786.973	787.00
	20	4.43	777.005	777.00	786.973	787.00
					Result:	Pass

Test Plots(Note: The 11.5 dB is the Insertion loss of the RF cable, Power splitter and Attenuator, which was offset into the Spectrum Analyzer):



Occupied Bandwidth

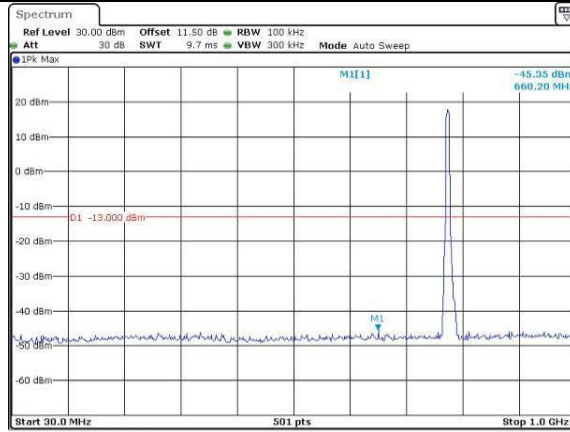


Spurious Emissions at Antenna Terminal

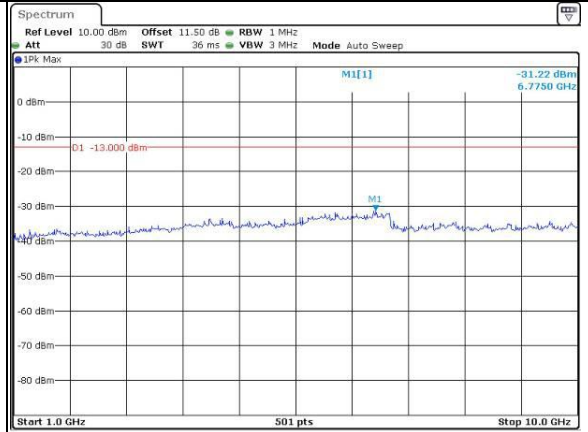
Channel

5MHz Bandwidth QPSK

Low

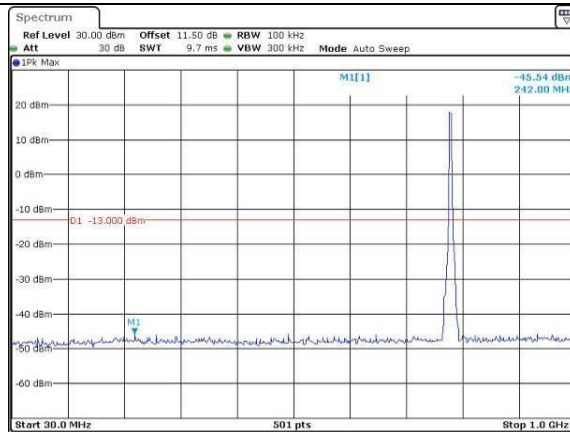


ProjectNo.:CR230745209 Tester:Ken Tang
Date: 24,SEP,2023 21:39:34

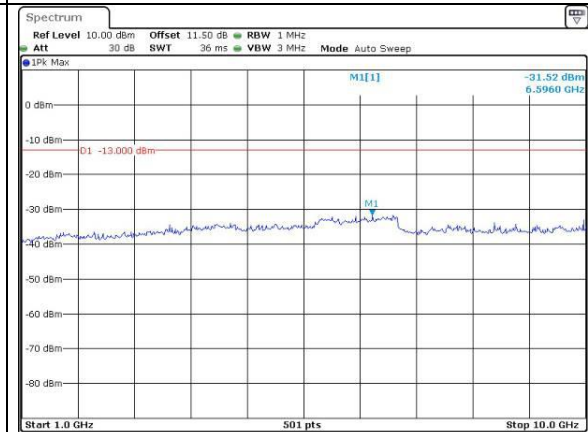


ProjectNo.:CR230745209 Tester:Ken Tang
Date: 24,SEP,2023 21:39:57

High



ProjectNo.:CR230745209 Tester:Ken Tang
Date: 24,SEP,2023 21:44:17



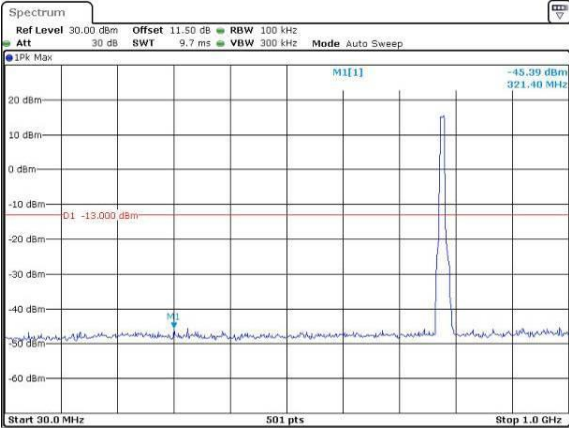
ProjectNo.:CR230745209 Tester:Ken Tang
Date: 24,SEP,2023 21:44:43

Spurious Emissions at Antenna Terminal

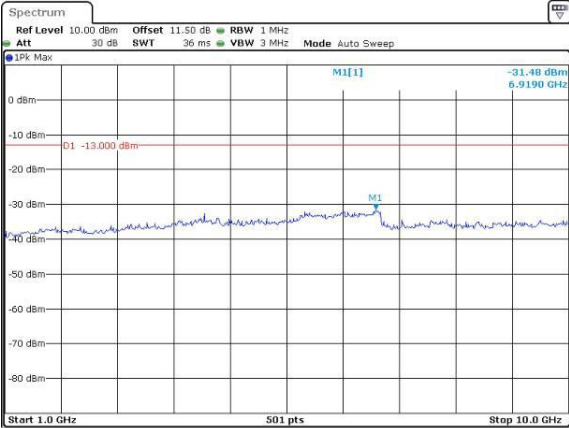
Channel

10MHz Bandwidth QPSK

Middle

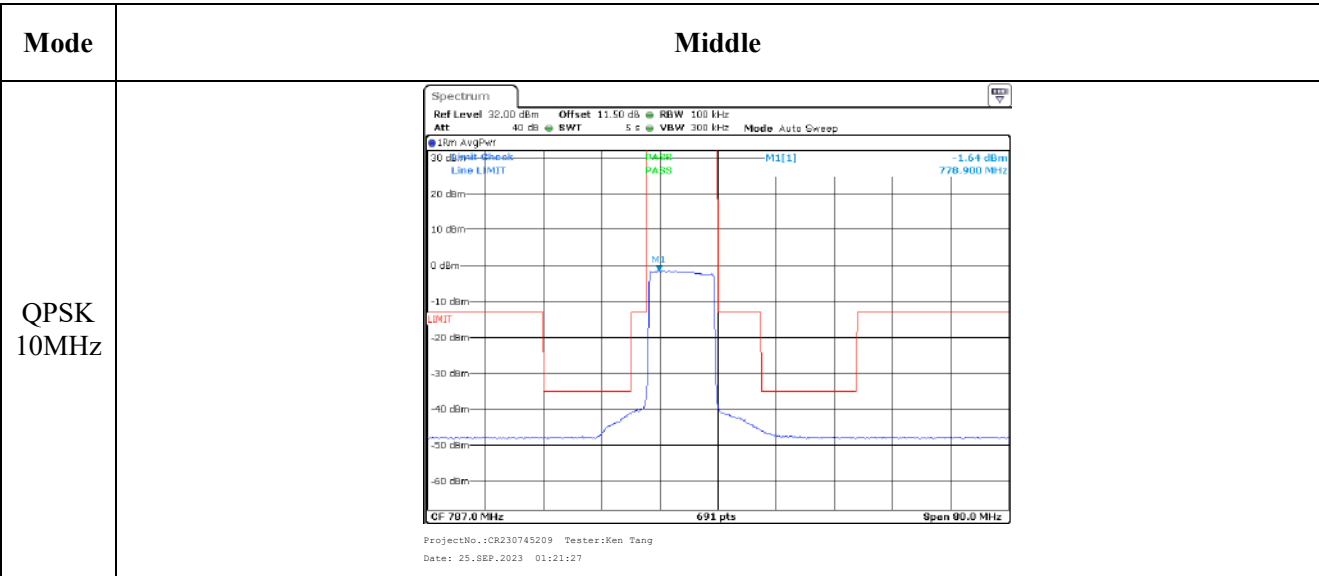
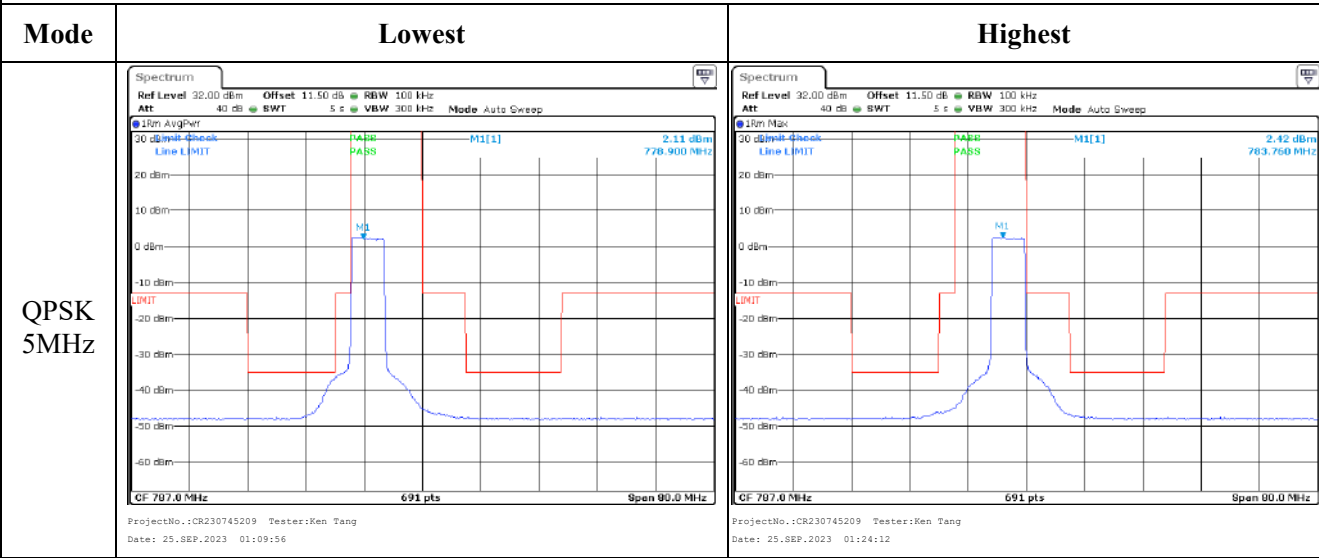


ProjectNo.:CR230745209 Tester:Ken Tang
Date: 24,SEP,2023 21:47:11

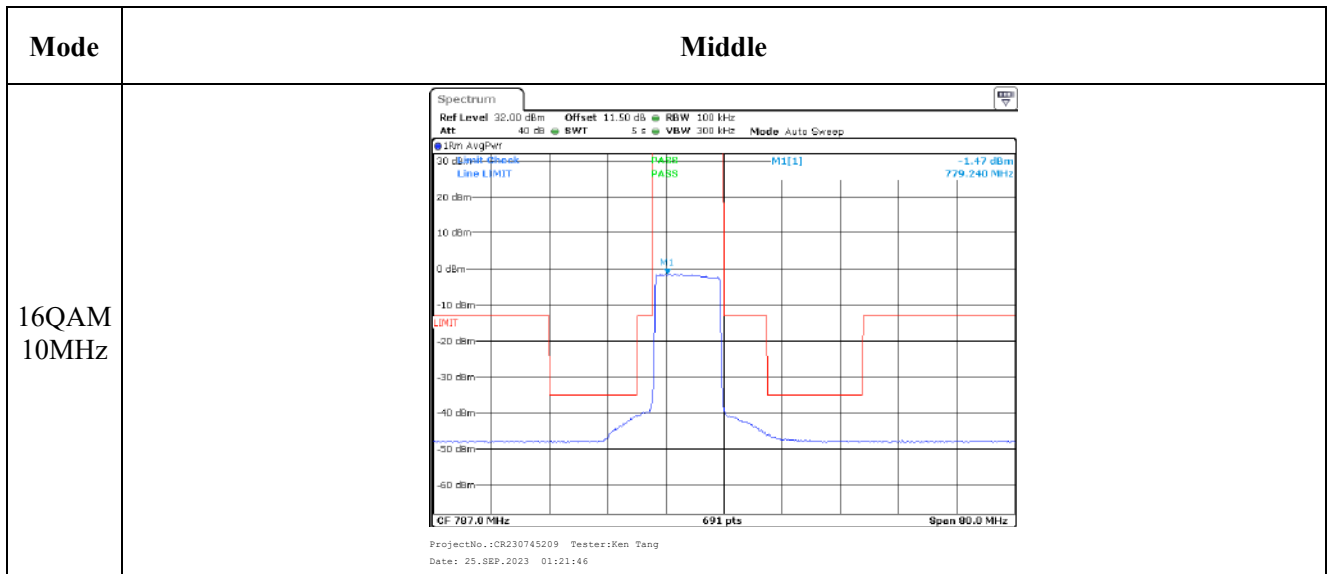
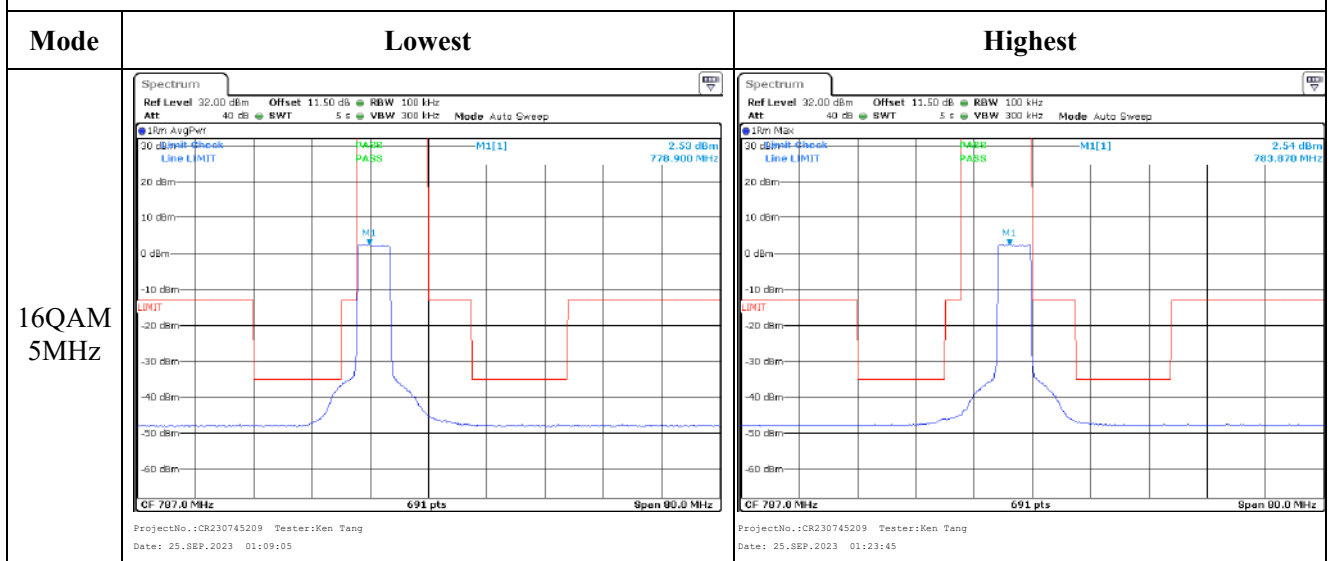


ProjectNo.:CR230745209 Tester:Ken Tang
Date: 24,SEP,2023 21:47:40

Out of band emission, Band Edge



Out of band emission, Band Edge



4.9 Antenna Port Test Data and Results for LTE Band 41

Serial Number:	2BCU-1	Test Date:	2023/9/22-2023/12/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang, Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.5~26.8	Relative Humidity: (%)	57~51	ATM Pressure: (kPa)	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	102259	2023/4/18	2024/4/17
R&S	Wideband Radio	CMW500	143458	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
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
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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).*

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:**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	25	24.95	24.9	25.02	33
	RB1#13	24.96	24.92	24.88		
	RB1#24	24.99	24.93	24.89		
	RB15#0	24.8	24.99	24.91		
	RB15#10	24.81	24.92	24.95		
	RB25#0	24.83	24.93	24.88		
5MHz 16QAM	RB1#0	24.84	24.93	25.09	25.11	33
	RB1#13	24.81	24.91	25.04		
	RB1#24	24.78	24.91	24.99		
	RB15#0	24.82	25.04	24.92		
	RB15#10	24.79	24.96	24.99		
	RB25#0	24.87	25.01	24.96		
10MHz QPSK	RB1#0	24.74	25	24.79	25.07	33
	RB1#25	24.77	25.05	24.83		
	RB1#49	24.7	25	24.79		
	RB25#0	24.77	25.02	24.84		
	RB25#25	24.79	24.9	24.85		
	RB50#0	24.8	24.98	24.89		
10MHz 16QAM	RB1#0	24.97	25.12	24.75	25.16	33
	RB1#25	24.97	25.14	24.79		
	RB1#49	24.92	25.11	24.74		
	RB25#0	24.85	25.02	24.95		
	RB25#25	24.86	24.94	24.92		
	RB50#0	24.82	24.99	24.92		
15MHz QPSK	RB1#0	24.63	24.97	24.76	25.08	33
	RB1#38	24.67	25.06	24.89		
	RB1#74	24.6	24.98	24.82		
	RB36#0	24.71	24.94	24.81		
	RB36#39	24.69	24.85	24.79		
	RB75#0	24.75	24.87	24.85		
15MHz 16QAM	RB1#0	24.7	25.07	24.86	25.16	33
	RB1#38	24.69	25.14	24.99		
	RB1#74	24.6	25.1	24.92		
	RB36#0	24.77	25.03	24.86		
	RB36#39	24.72	24.95	24.86		
	RB75#0	24.76	24.93	24.83		
20MHz QPSK	RB1#0	24.69	24.79	24.59	25.04	33
	RB1#50	24.75	24.9	24.76		
	RB1#99	24.6	24.76	24.67		

	RB50#0	24.79	25.02	24.92			
	RB50#50	24.72	24.83	24.83			
	RB100#0	24.76	24.9	24.89			
20MHz 16QAM	RB1#0	25.17	24.85	24.68	25.2	33	
	RB1#50	25.18	24.93	24.81			
	RB1#99	25.07	24.8	24.72			
	RB50#0	24.84	25.02	25			
	RB50#50	24.77	24.84	24.95			
	RB100#0	24.78	24.91	24.92			
		Note: EIRP=Conducted Power(dBm) - LC(dB) + GT(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	6.28	7.35	8.18	13
	RB100#0	8.58	7.31	6.97	13
20MHz 16QAM	RB1#0	7.20	7.42	9.06	13
	RB100#0	7.81	9.61	9.31	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
5MHz QPSK	4.511	4.511	4.511	5.360	5.240	5.440
5MHz 16QAM	4.551	4.551	4.631	8.084	8.443	9.561
10MHz QPSK	8.942	8.942	8.942	9.560	9.720	12.360
10MHz 16QAM	8.942	8.982	9.022	10.720	9.960	14.371
15MHz QPSK	13.473	13.533	13.533	14.880	15.060	14.760
15MHz 16QAM	13.533	13.533	13.653	17.160	16.860	27.485
20MHz QPSK	17.884	17.964	17.964	19.280	19.280	19.200
20MHz 16QAM	17.884	17.964	17.964	19.680	24.720	19.880
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 for FCC

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (VDC)	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2496.029	2496.00	2689.977	2690
	-20	3.87	2496.025	2496.00	2689.972	2690
	-10	3.87	2496.018	2496.00	2689.978	2690
	0	3.87	2496.015	2496.00	2689.993	2690
	10	3.87	2496.366	2496.00	2689.994	2690
	20	3.87	2496.013	2496.00	2689.975	2690
	30	3.87	2496.027	2496.00	2689.974	2690
	40	3.87	2496.014	2496.00	2689.982	2690
	50	3.87	2496.011	2496.00	2689.972	2690
Frequency Stability vs. Voltage	20	3.35	2496.017	2496.00	2689.989	2690
	20	4.43	2496.005	2496.00	2689.989	2690
Result:					Pass	

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (VDC)	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.87	2496.010	2496.00	2689.980	2690
	-20	3.87	2496.018	2496.00	2689.976	2690
	-10	3.87	2496.001	2496.00	2689.997	2690
	0	3.87	2496.017	2496.00	2689.994	2690
	10	3.87	2496.014	2496.00	2689.995	2690
	20	3.87	2496.012	2496.00	2689.978	2690
	30	3.87	2496.027	2496.00	2689.971	2690
	40	3.87	2496.002	2496.00	2689.975	2690
	50	3.87	2496.026	2496.00	2689.975	2690
Frequency Stability vs. Voltage	20	3.35	2496.018	2496.00	2689.860	2690
	20	4.43	2496.026	2496.00	2689.984	2690
Result:					Pass	

Test Plots(Note: The 11.5dB is the Insertion loss of the RF cable, Coaxial tee connector and Attenuator, which was offset into the Spectrum Analyzer):

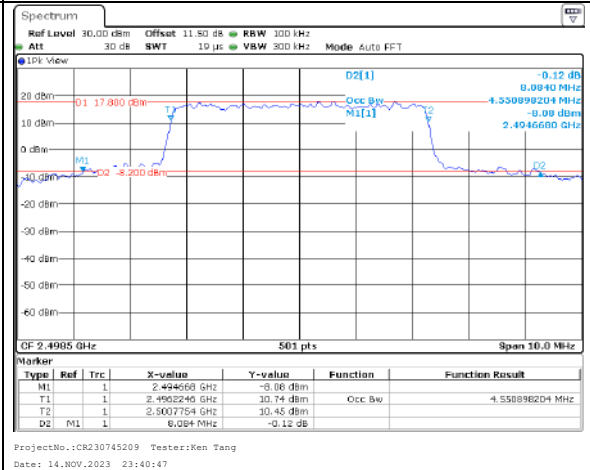
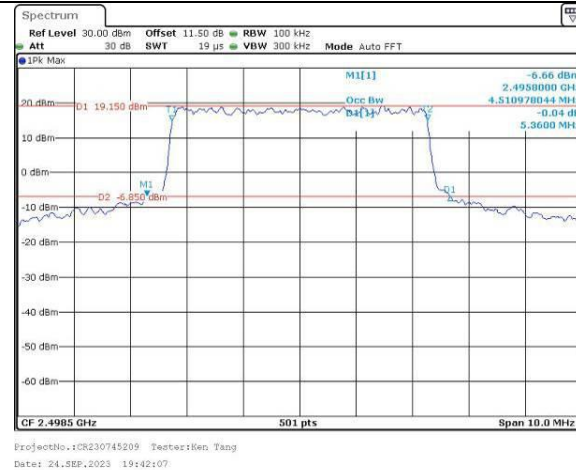
Occupied Bandwidth

Channel

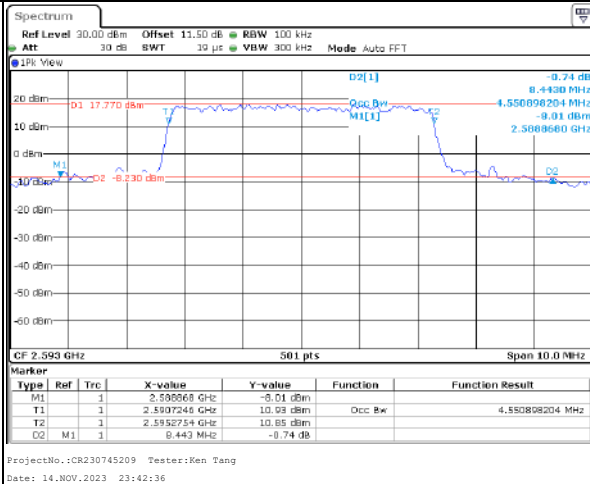
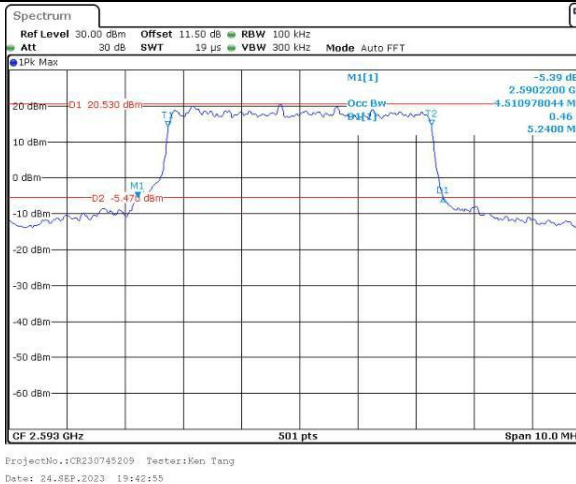
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

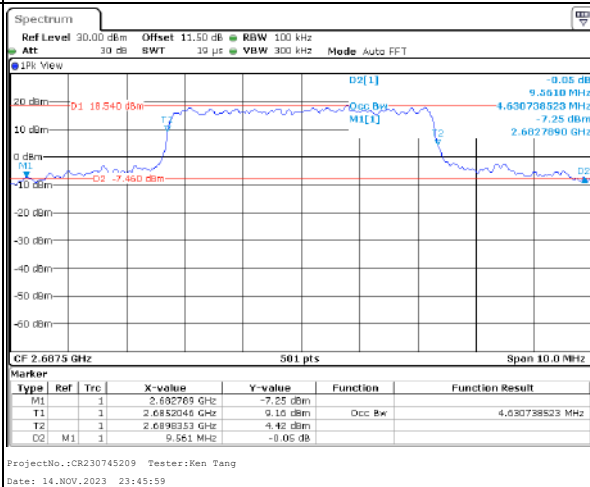
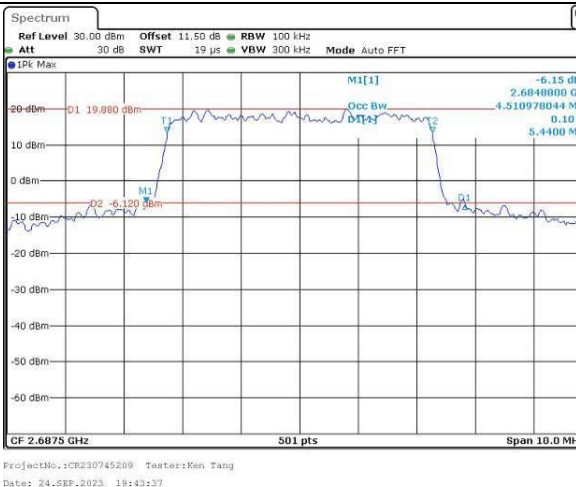
Lowest



Middle



Highest



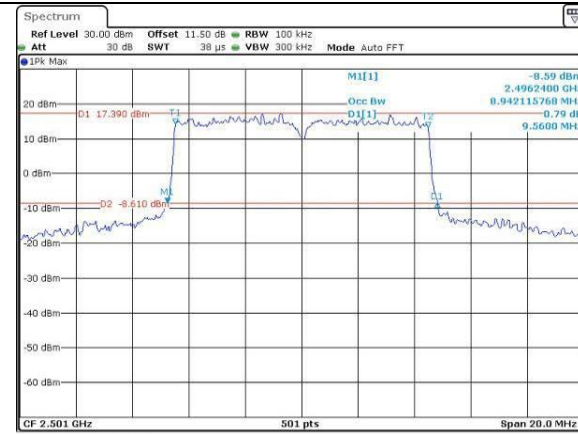
Occupied Bandwidth

Channel

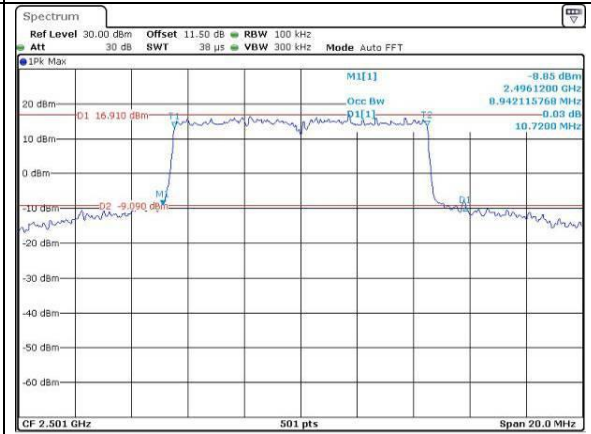
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

Lowest

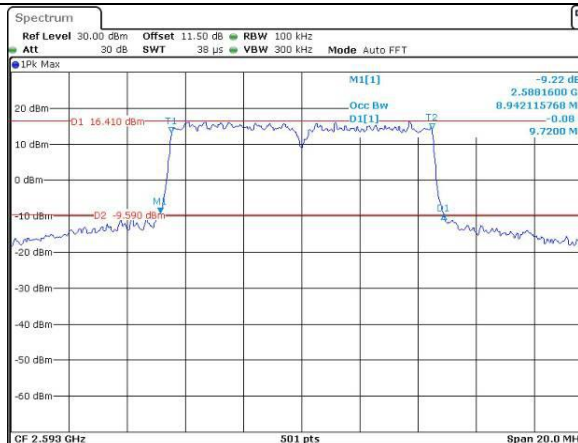


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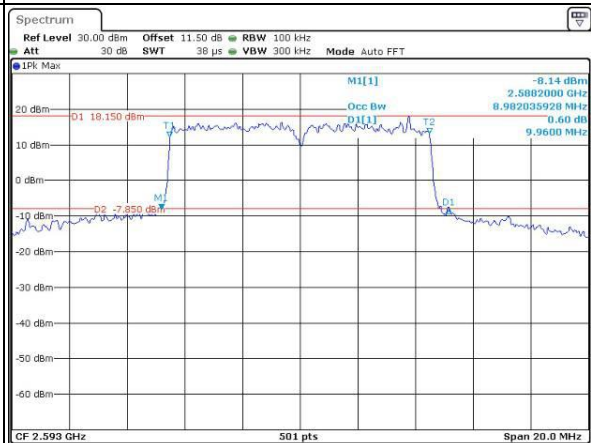


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Middle

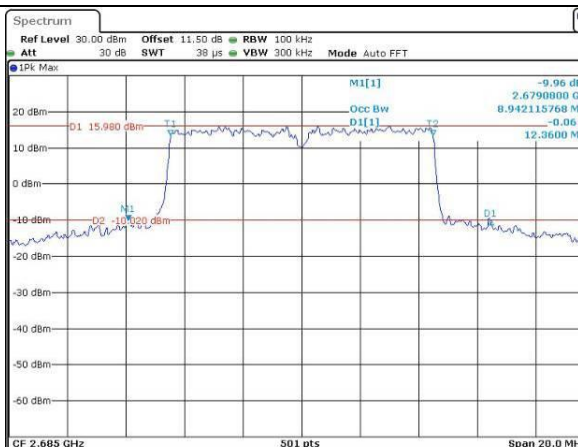


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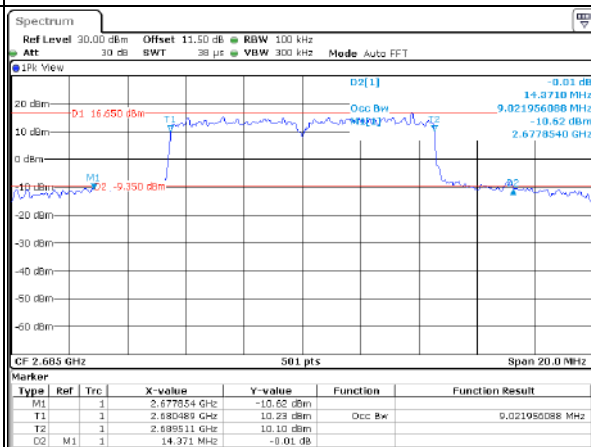


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Date: 24.SEP.2023 19:46:45

Highest



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Date: 24.SEP.2023 19:47:19



ProjectNo.:CR230745209 Testter:Ken Tang
Date: 14.NOV.2023 23:50:55

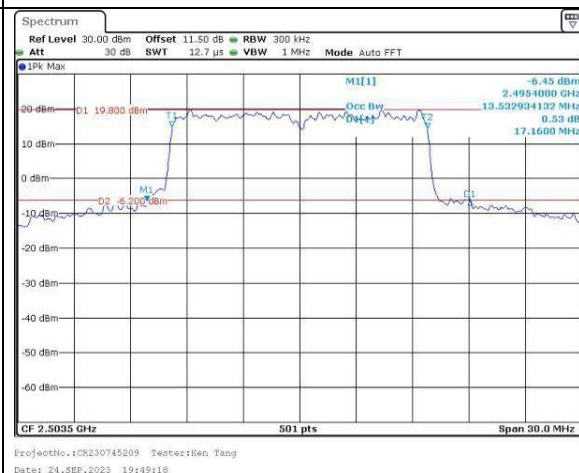
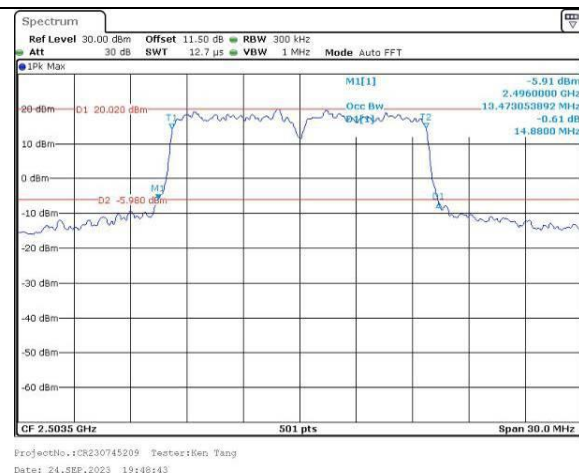
Occupied Bandwidth

Channel

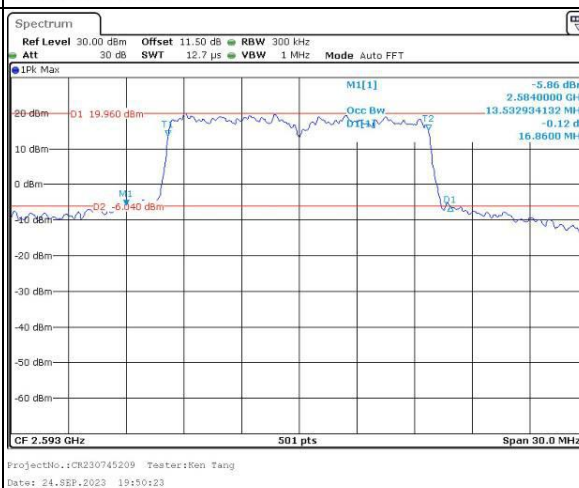
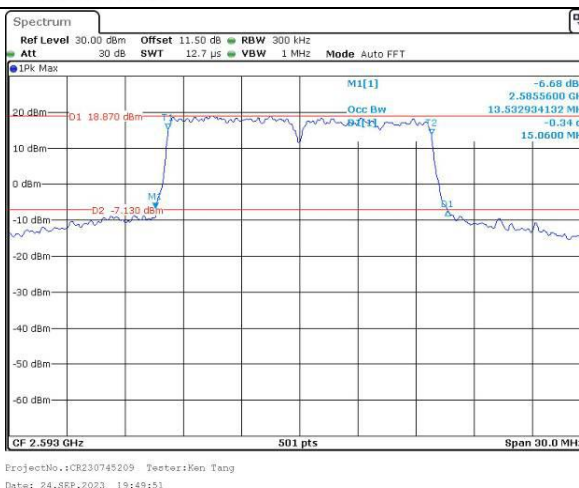
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

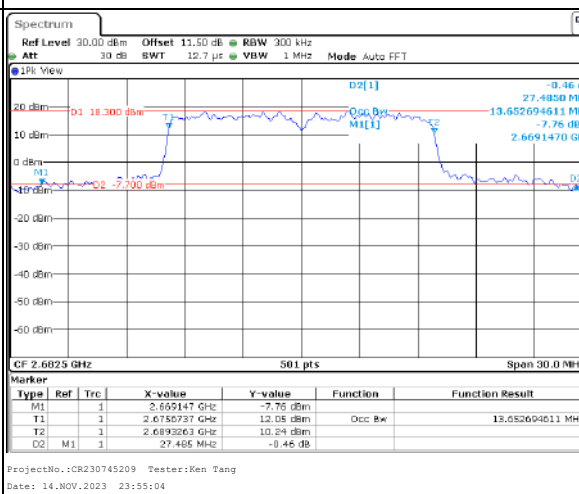
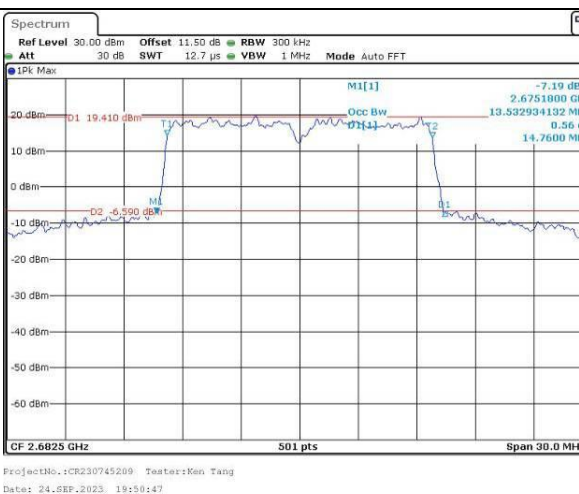
Lowest



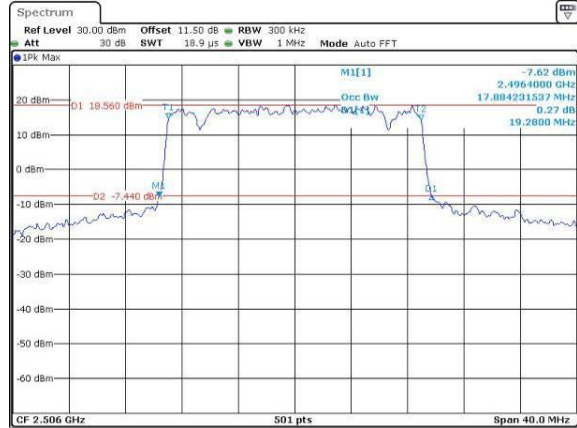
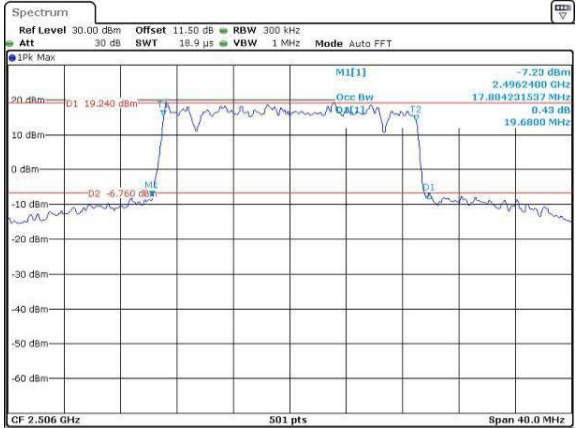
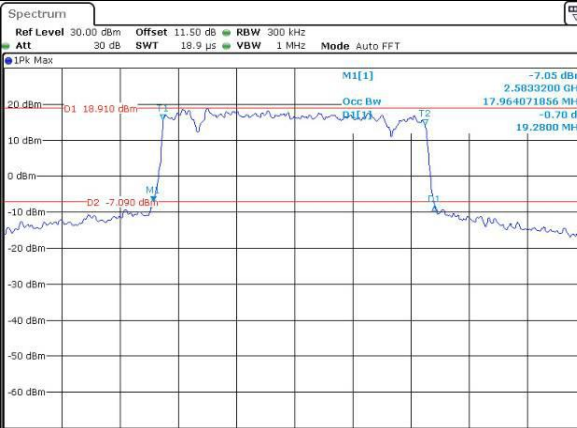
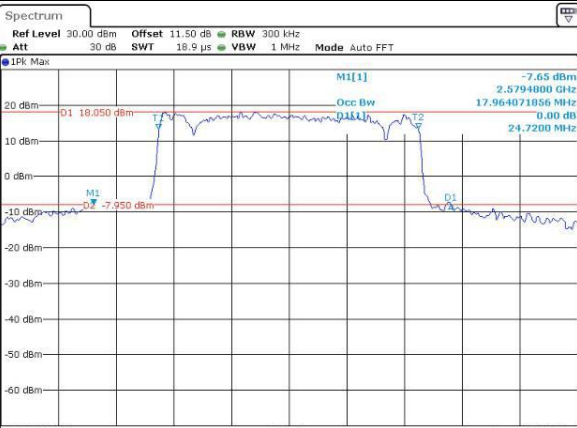
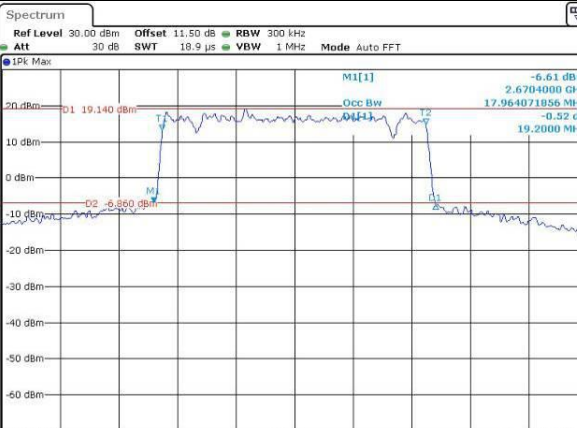
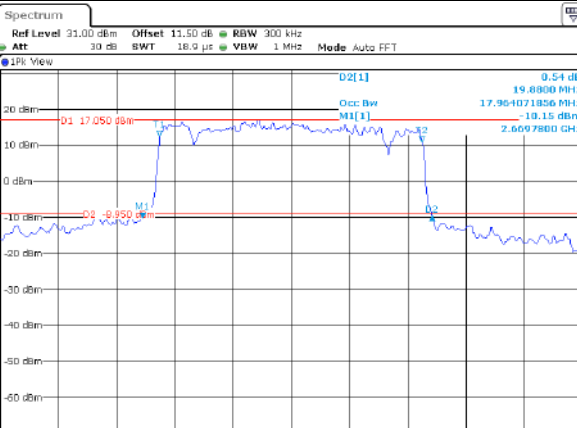
Middle



Highest



Occupied Bandwidth

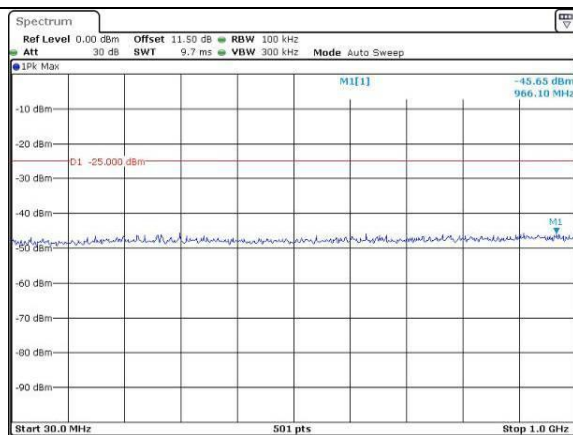
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Lowest	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 19:52:58	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 19:53:30
Middle	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 19:54:31	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 19:55:00
Highest	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 24.SEP.2023 19:55:36	 ProjectNo.:CR230745209 Testers:Ken Tang Date: 12.DEC.2023 18:13:40

Spurious Emissions at Antenna Terminal

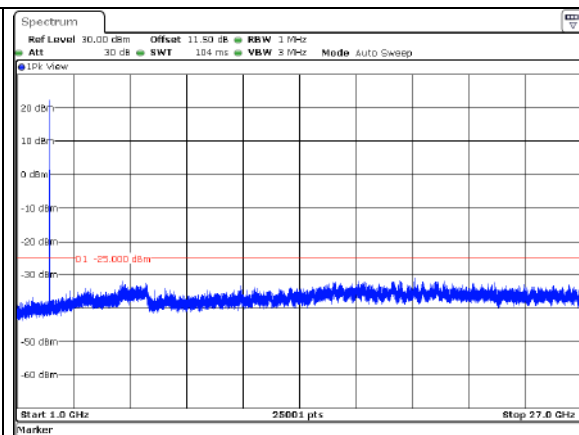
Channel

5MHz Bandwidth QPSK

Lowest

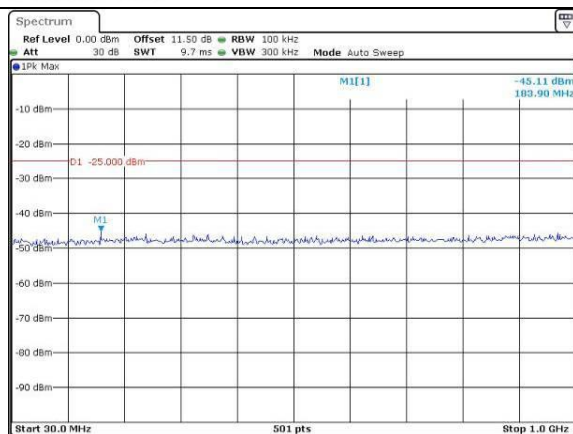


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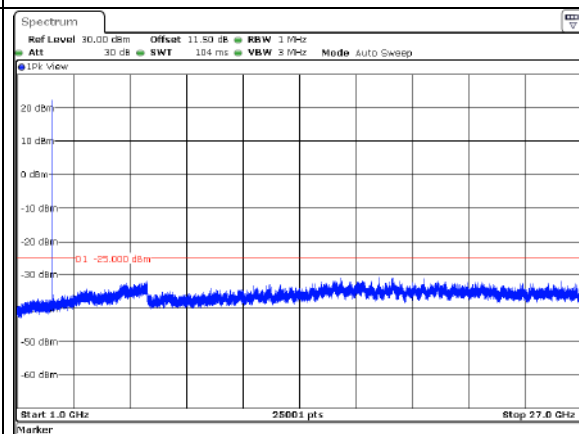


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Middle

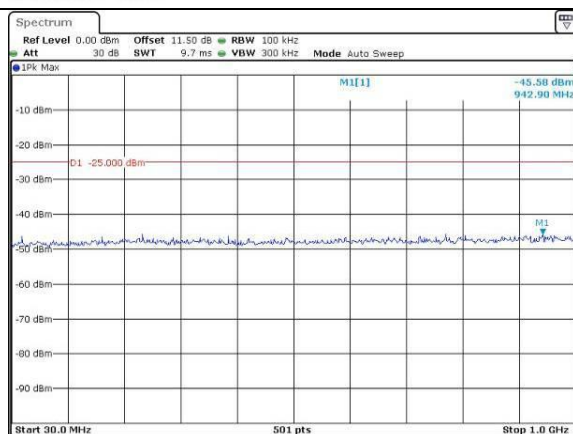


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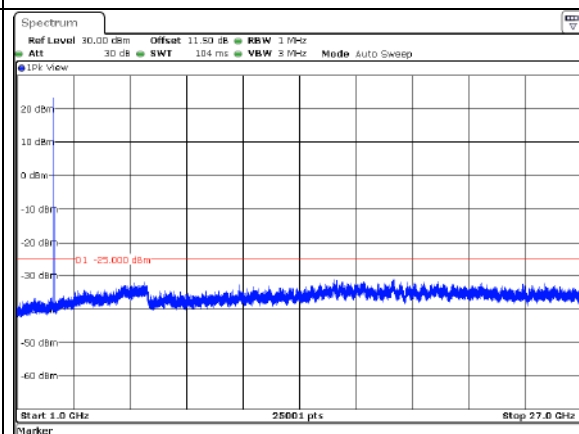


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High



ProjectNo.:CR230745209 Tester:Ken Tang
Date: 24.SEP.2023 21:51:24

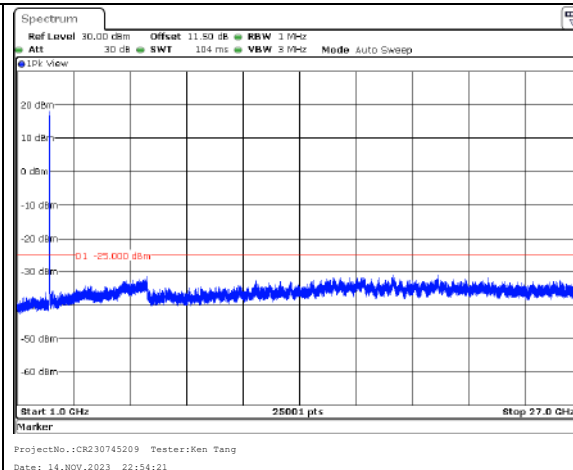
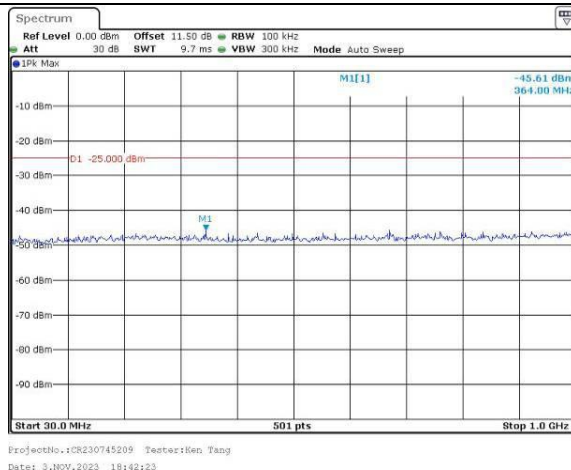


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Date: 14.NOV.2023 22:53:17

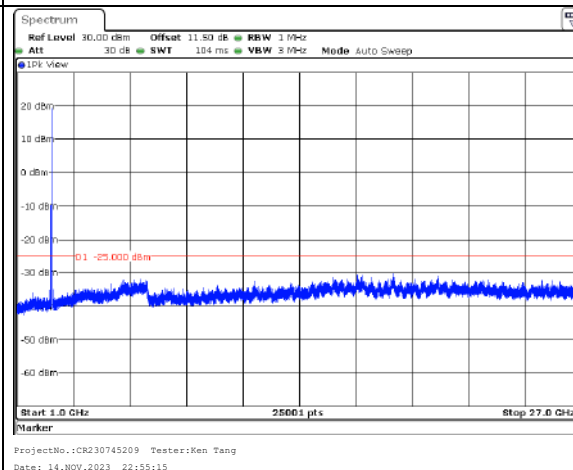
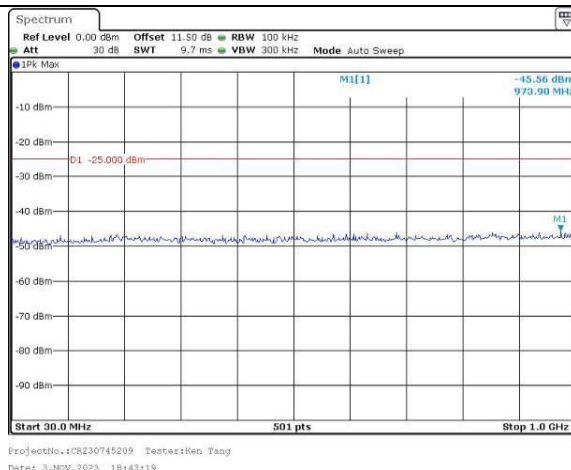
Channel

10MHz Bandwidth QPSK

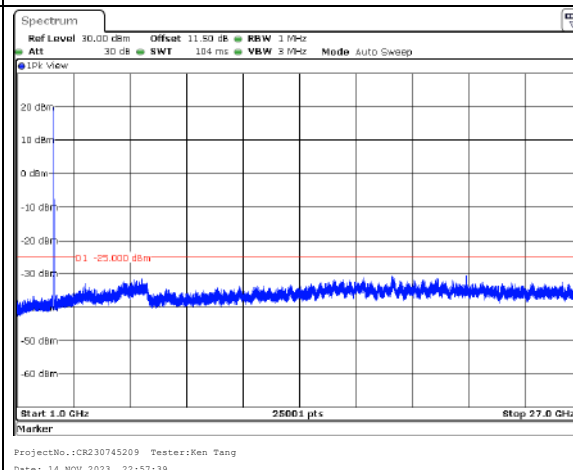
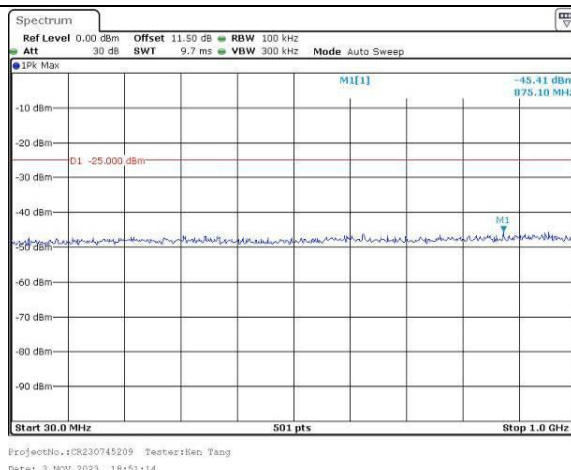
Lowest



Middle



High

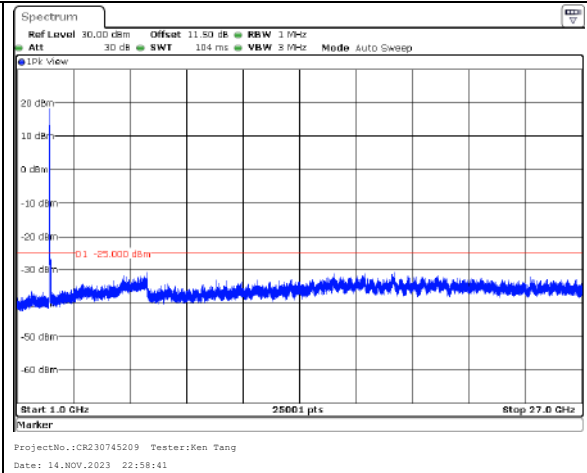
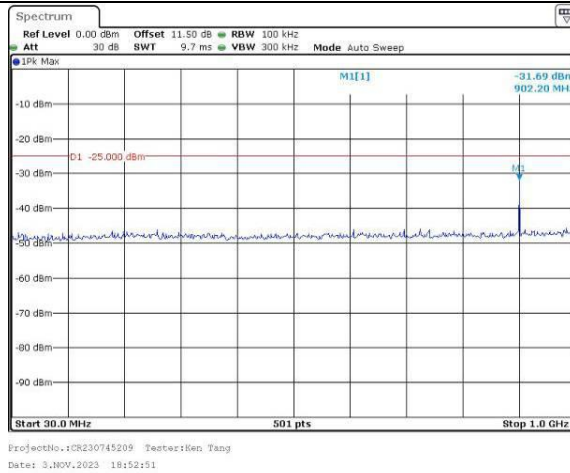


Spurious Emissions at Antenna Terminal

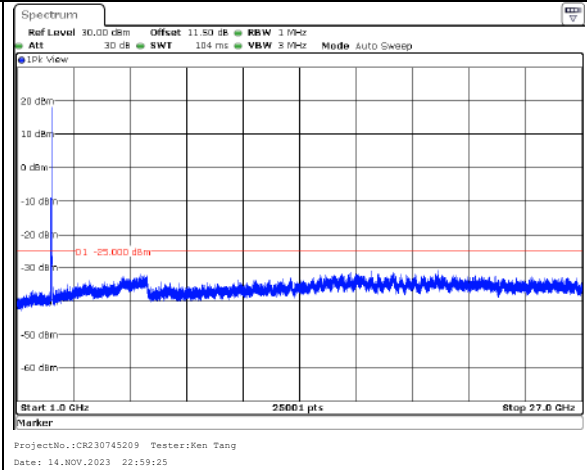
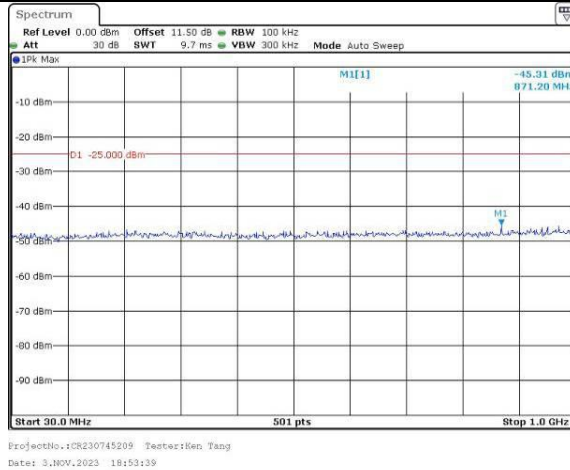
Channel

15MHz Bandwidth QPSK

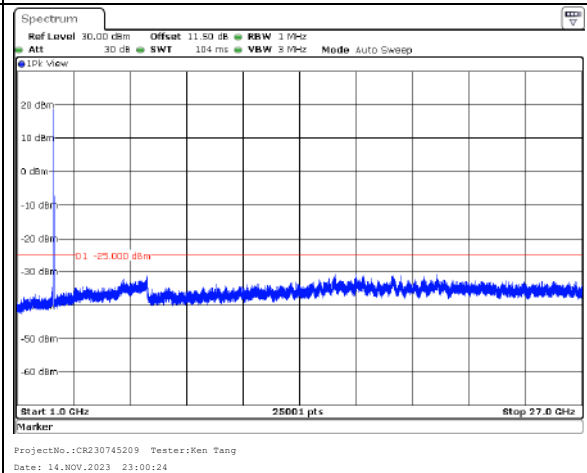
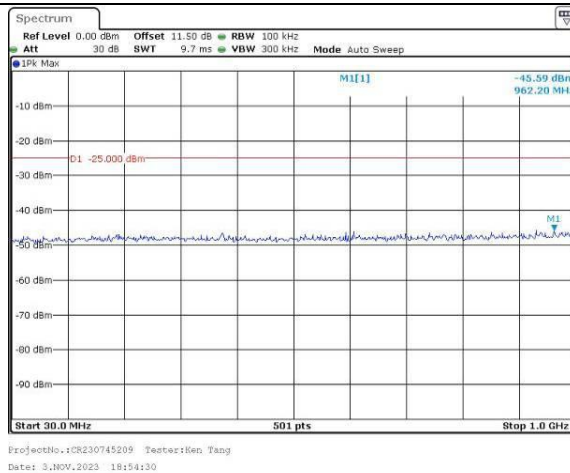
Lowest



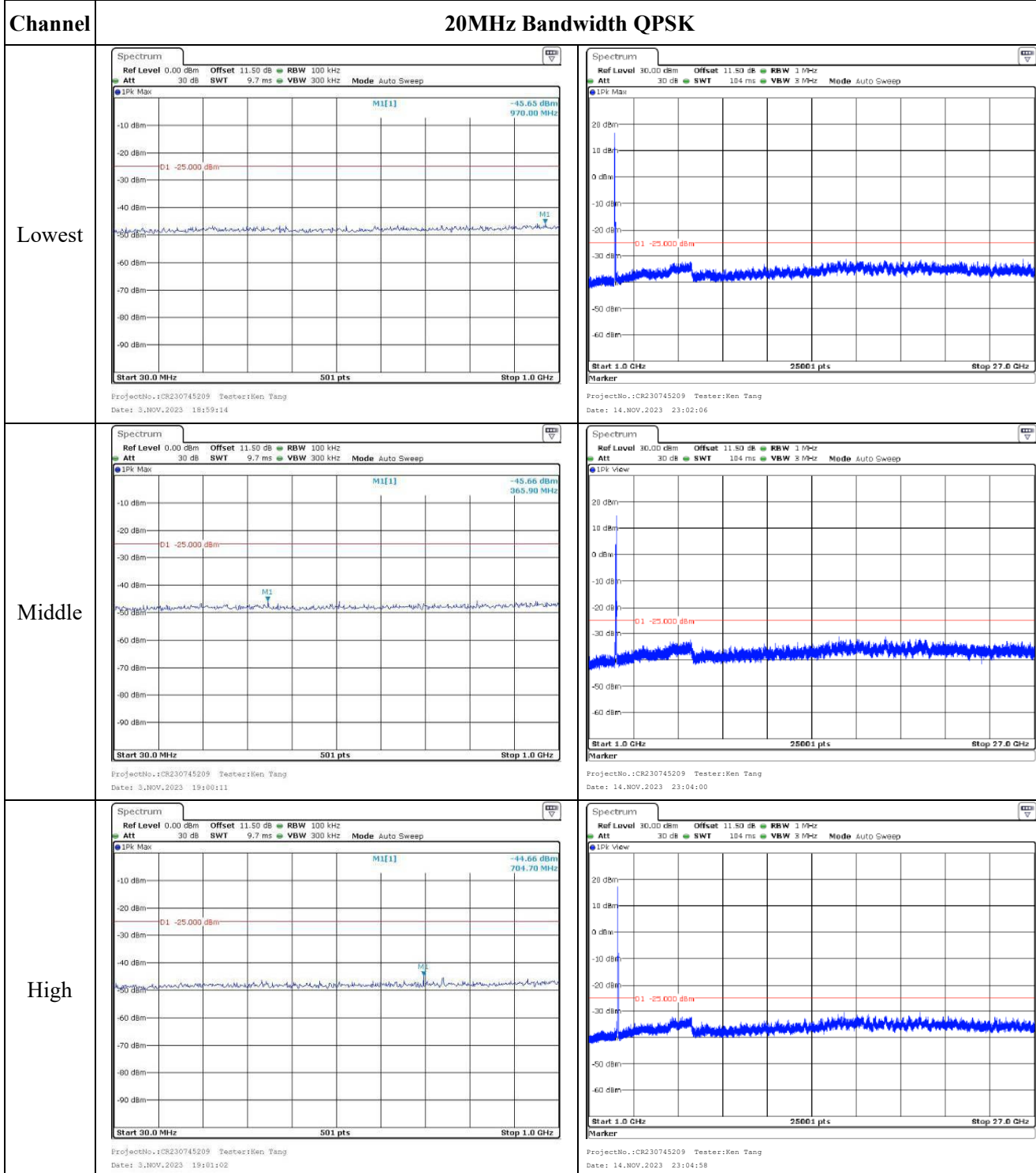
Middle



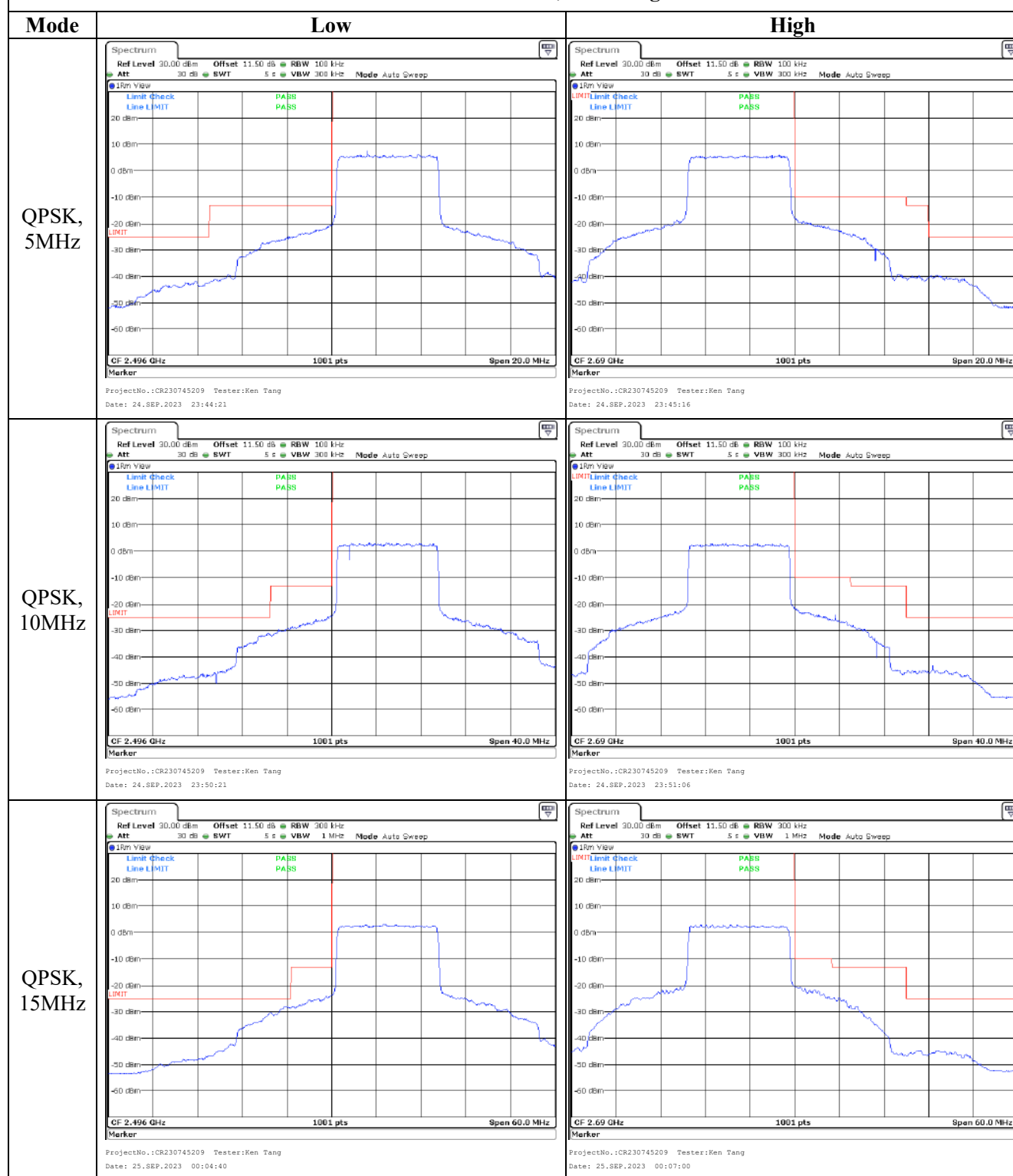
High



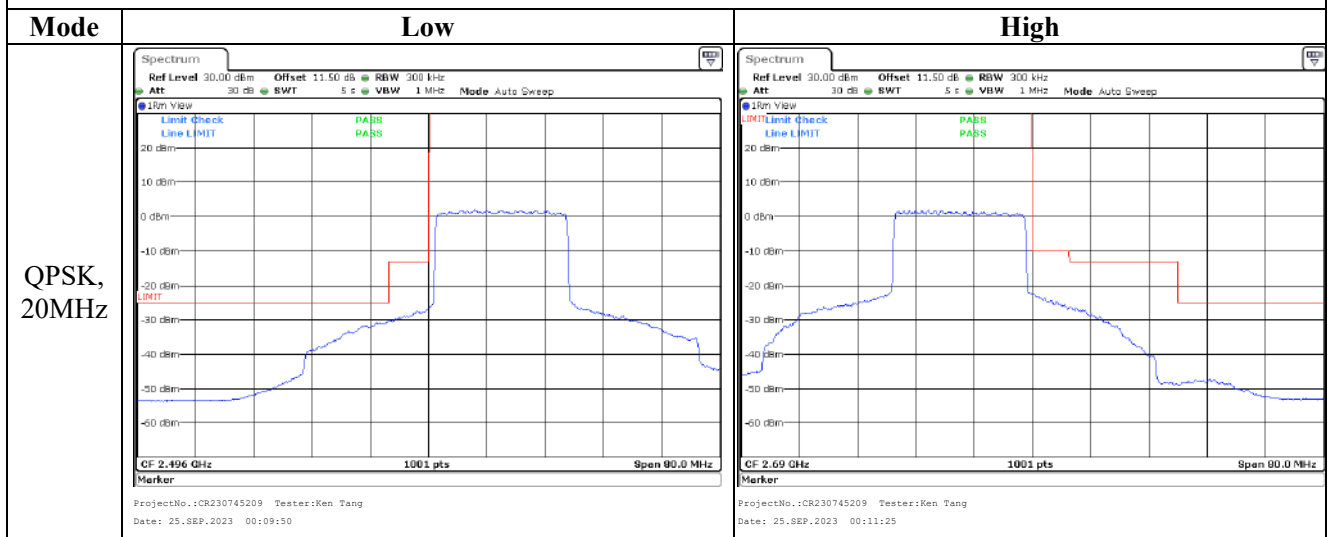
Spurious Emissions at Antenna Terminal



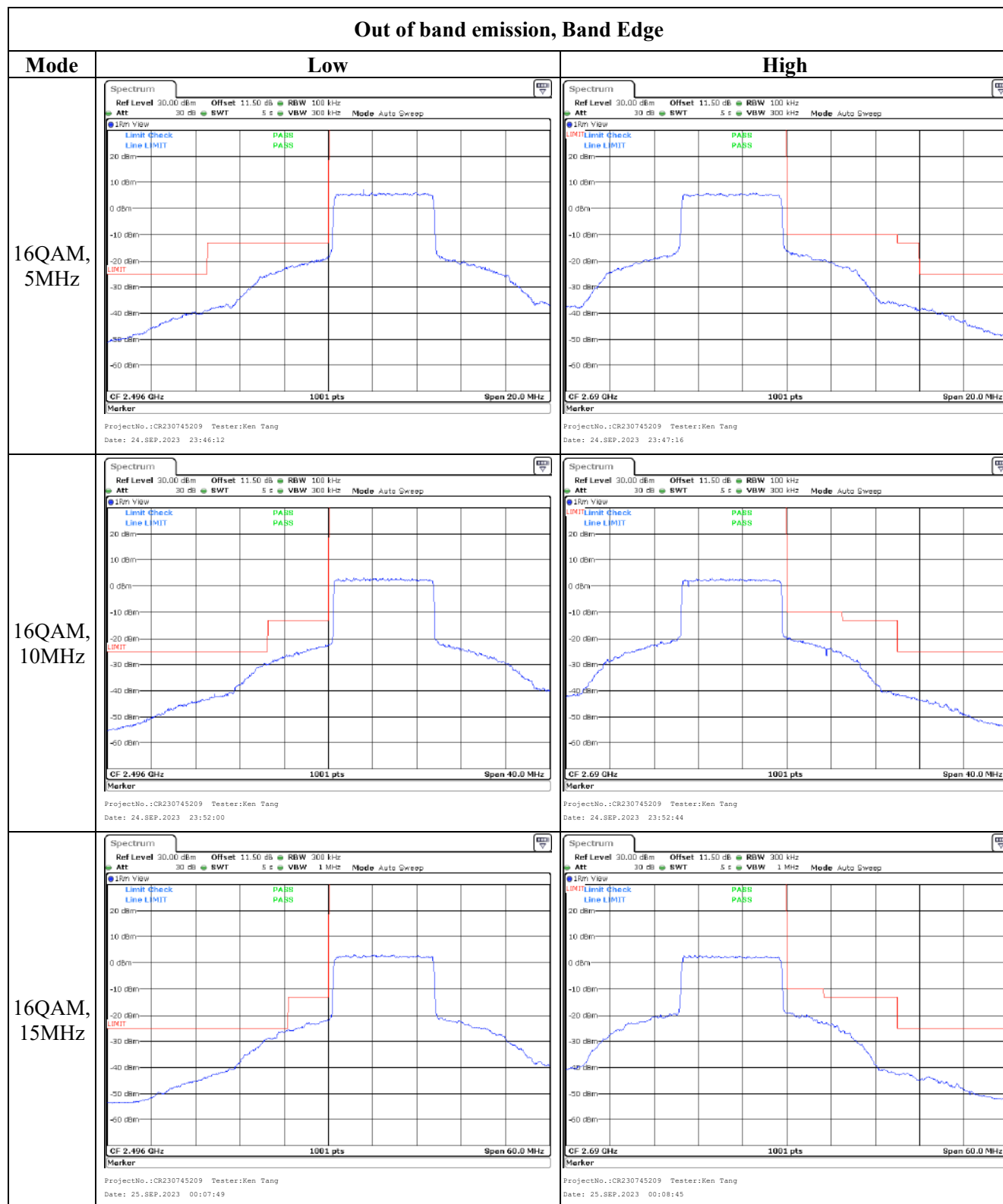
Out of band emission, Band Edge



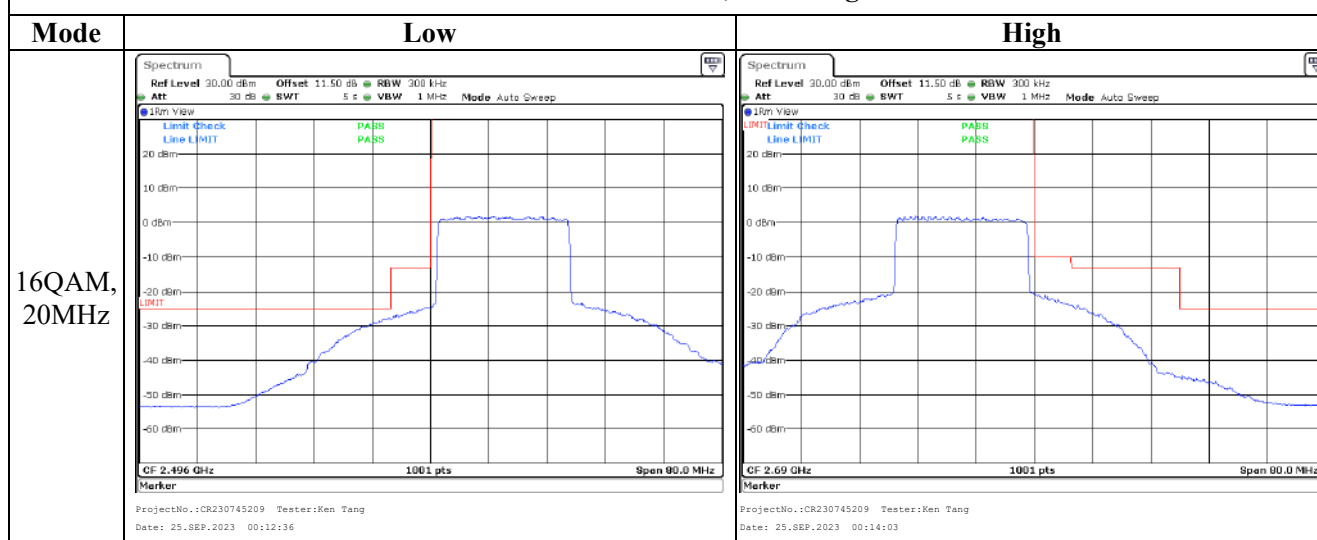
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.10 Radiated Spurious Emissions

Serial Number:	2BCU-2	Test Date:	2023/9/26~2023/9/27
Test Site:	966-1, 966-2	Test Mode:	Transmitting
Tester:	Carl Xue, coco Tian	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.5~25.8	Relative Humidity: (%)	49~60	ATM Pressure: (kPa)	100.2~100.3
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020/10/19	2023/10/18
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
EMCO	Adjustable Dipole Antenna	3121C	9109-756	N/A	N/A
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2022/7/16	2024/7/15
Agilent	Signal Generator	E8247C	MY43321352	2022/11/18	2023/11/17
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020/10/13	2023/10/12
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2022/11/9	2023/11/8
AH	Double Ridge Guide Horn Antenna	SAS-571	1396	2021/10/18	2024/10/17
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
PASTERNAK	Horn Antenna	PE9852/2F-20	112001	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
PASTERNAK	Horn Antenna	PE9850/2F-20	072001	2021/2/5	2024/2/4
PASTERNAK	Horn Antenna	PE9850/2F-20	072002	2021/2/5	2024/2/4
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5

** **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 Data:

Please refer to the below table and plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

Cellular Band**30 MHz-10 GHz:**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 850 Frequency:824.2MHz								
724.44	H	20.86	-51.97	0.00	0.51	-52.48	-13.00	39.48
691.98	V	20.77	-49.30	0.00	0.54	-49.84	-13.00	36.84
1648.400	H	48.31	-56.02	8.68	0.80	-48.14	-13.00	35.14
1648.400	V	46.62	-57.79	8.68	0.80	-49.91	-13.00	36.91
2472.600	H	43.87	-56.91	9.38	1.00	-48.53	-13.00	35.53
2472.600	V	45.29	-55.44	9.38	1.00	-47.06	-13.00	34.06
3296.800	H	36.47	-60.21	10.32	1.15	-51.04	-13.00	38.04
3296.800	V	35.64	-60.80	10.32	1.15	-51.63	-13.00	38.63
GSM 850 Frequency:836.6MHz								
714.36	H	21.10	-51.93	0.00	0.50	-52.43	-13.00	39.43
721.69	V	20.84	-48.61	0.00	0.50	-49.11	-13.00	36.11
1673.200	H	48.60	-55.71	8.71	0.85	-47.85	-13.00	34.85
1673.200	V	46.74	-57.67	8.71	0.85	-49.81	-13.00	36.81
2509.800	H	39.71	-60.90	9.42	1.01	-52.49	-13.00	39.49
2509.800	V	45.69	-54.93	9.42	1.01	-46.52	-13.00	33.52
3346.400	H	35.26	-61.91	10.34	1.16	-52.73	-13.00	39.73
3346.400	V	35.07	-61.96	10.34	1.16	-52.78	-13.00	39.78
GSM 850 Frequency:848.8MHz								
587.11	H	20.96	-53.15	0.00	0.47	-53.62	-13.00	40.62
711.65	V	21.13	-48.54	0.00	0.51	-49.05	-13.00	36.05
1697.600	H	47.63	-56.66	8.74	0.90	-48.82	-13.00	35.82
1697.600	V	46.65	-57.77	8.74	0.90	-49.93	-13.00	36.93
2546.400	H	40.12	-60.21	9.47	1.01	-51.75	-13.00	38.75
2546.400	V	47.27	-53.01	9.47	1.01	-44.55	-13.00	31.55
3395.200	H	36.32	-61.37	10.36	1.19	-52.20	-13.00	39.20
3395.200	V	35.30	-62.36	10.36	1.19	-53.19	-13.00	40.19

PCS Band

30 MHz-20 GHz:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 1900 Frequency:1850.2MHz								
94.09	H	42.30	-70.46	0.00	0.18	-70.64	-13.00	57.64
91.17	V	45.37	-63.69	0.00	0.18	-63.87	-13.00	50.87
3700.400	H	41.03	-56.29	10.60	1.25	-46.94	-13.00	33.94
3700.400	V	38.64	-58.66	10.60	1.25	-49.31	-13.00	36.31
5550.600	H	42.89	-50.37	11.44	1.49	-40.42	-13.00	27.42
5550.600	V	41.87	-51.23	11.44	1.49	-41.28	-13.00	28.28
GSM 1900 Frequency:1880MHz								
91.17	H	42.14	-70.81	0.00	0.18	-70.99	-13.00	57.99
92.13	V	45.34	-63.50	0.00	0.18	-63.68	-13.00	50.68
3760.000	H	41.56	-54.85	10.66	1.24	-45.43	-13.00	32.43
3760.000	V	39.26	-57.03	10.66	1.24	-47.61	-13.00	34.61
5640.000	H	41.77	-51.68	11.33	1.54	-41.89	-13.00	28.89
5640.000	V	40.39	-52.94	11.33	1.54	-43.15	-13.00	30.15
GSM 1900 Frequency:1909.8MHz								
95.76	H	41.97	-70.68	0.00	0.19	-70.87	-13.00	57.87
93.11	V	45.25	-63.36	0.00	0.18	-63.54	-13.00	50.54
3819.600	H	42.65	-53.21	10.72	1.29	-43.78	-13.00	30.78
3819.600	V	38.64	-57.08	10.72	1.29	-47.65	-13.00	34.65
5729.400	H	43.64	-49.84	11.22	1.59	-40.21	-13.00	27.21
5729.400	V	39.64	-53.72	11.22	1.59	-44.09	-13.00	31.09

WCDMA Band 2:**30 MHz-20 GHz:**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band II, Frequency:1852.4 MHz								
91.81	H	42.28	-70.63	0.00	0.18	-70.81	-13.00	57.81
92.46	V	45.09	-63.67	0.00	0.18	-63.85	-13.00	50.85
3704.800	H	35.12	-62.14	10.60	1.25	-52.79	-13.00	39.79
3704.800	V	34.98	-62.25	10.60	1.25	-52.90	-13.00	39.90
5557.200	H	37.16	-56.12	11.43	1.49	-46.18	-13.00	33.18
5557.200	V	35.74	-57.39	11.43	1.49	-47.45	-13.00	34.45
WCDMA Band II, Frequency:1880 MHz								
92.16	H	41.84	-71.05	0.00	0.18	-71.23	-13.00	58.23
91.17	V	44.60	-64.46	0.00	0.18	-64.64	-13.00	51.64
3760.000	H	35.09	-61.32	10.66	1.24	-51.90	-13.00	38.90
3760.000	V	35.46	-60.83	10.66	1.24	-51.41	-13.00	38.41
5640.000	H	37.65	-55.80	11.33	1.54	-46.01	-13.00	33.01
5640.000	V	35.16	-58.17	11.33	1.54	-48.38	-13.00	35.38
WCDMA Band II, Frequency:1907.6MHz								
94.09	H	41.76	-71.00	0.00	0.18	-71.18	-13.00	58.18
93.11	V	44.64	-63.97	0.00	0.18	-64.15	-13.00	51.15
3815.200	H	35.31	-60.54	10.72	1.29	-51.11	-13.00	38.11
3815.200	V	35.16	-60.53	10.72	1.29	-51.10	-13.00	38.10
5722.800	H	37.46	-56.03	11.23	1.58	-46.38	-13.00	33.38
5722.800	V	36.07	-57.28	11.23	1.58	-47.63	-13.00	34.63

WCDMA Band 5:

30 MHz-10 GHz:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band 5 Frequency:826.4 MHz								
539.47	H	21.13	-53.92	0.00	0.46	-54.38	-13.00	41.38
701.97	V	20.94	-48.94	0.00	0.55	-49.49	-13.00	36.49
1652.800	H	34.67	-69.66	8.68	0.81	-61.79	-13.00	48.79
1652.800	V	35.84	-68.57	8.68	0.81	-60.70	-13.00	47.70
2479.200	H	37.45	-63.31	9.39	1.01	-54.93	-13.00	41.93
2479.200	V	36.83	-63.90	9.39	1.01	-55.52	-13.00	42.52
3305.600	H	36.27	-60.46	10.32	1.15	-51.29	-13.00	38.29
3305.600	V	37.63	-58.87	10.32	1.15	-49.70	-13.00	36.70
WCDMA Band 5 Frequency:836.6MHz								
724.26	H	20.76	-52.07	0.00	0.51	-52.58	-13.00	39.58
697.06	V	21.02	-48.95	0.00	0.55	-49.50	-13.00	36.50
1673.200	H	34.69	-69.62	8.71	0.85	-61.76	-13.00	48.76
1673.200	V	35.64	-68.77	8.71	0.85	-60.91	-13.00	47.91
2509.800	H	37.64	-62.97	9.42	1.01	-54.56	-13.00	41.56
2509.800	V	40.35	-60.27	9.42	1.01	-51.86	-13.00	38.86
3346.400	H	38.64	-58.53	10.34	1.16	-49.35	-13.00	36.35
3346.400	V	36.21	-60.82	10.34	1.16	-51.64	-13.00	38.64
WCDMA Band 5 Frequency:846.6MHz								
701.78	H	21.03	-52.25	0.00	0.55	-52.80	-13.00	39.80
709.38	V	21.12	-48.60	0.00	0.52	-49.12	-13.00	36.12
1693.200	H	35.69	-68.61	8.73	0.89	-60.77	-13.00	47.77
1693.200	V	34.71	-69.71	8.73	0.89	-61.87	-13.00	48.87
2539.800	H	40.75	-59.63	9.46	1.01	-51.18	-13.00	38.18
2539.800	V	36.54	-63.80	9.46	1.01	-55.35	-13.00	42.35
3386.400	H	39.54	-58.05	10.35	1.18	-48.88	-13.00	35.88
3386.400	V	38.54	-59.00	10.35	1.18	-49.83	-13.00	36.83

LTE Bands:

(The Worst modulation and bandwidth was below)

LTE Band 2 (30MHz-20GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, 1.4MHz, Frequency:1850.7 MHz								
94.09	H	42.23	-70.53	0.00	0.18	-70.71	-13.00	57.71
92.14	V	44.91	-63.93	0.00	0.18	-64.11	-13.00	51.11
3701.400	H	35.19	-62.12	10.60	1.25	-52.77	-13.00	39.77
3701.400	V	35.27	-62.02	10.60	1.25	-52.67	-13.00	39.67
5552.100	H	36.42	-56.85	11.44	1.49	-46.90	-13.00	33.90
5552.100	V	35.64	-57.46	11.44	1.49	-47.51	-13.00	34.51
QPSK, 1.4MHz,Frequency:1880 MHz								
93.11	H	42.12	-70.70	0.00	0.18	-70.88	-13.00	57.88
91.49	V	44.82	-64.17	0.00	0.18	-64.35	-13.00	51.35
3760.000	H	35.26	-61.15	10.66	1.24	-51.73	-13.00	38.73
3760.000	V	34.76	-61.53	10.66	1.24	-52.11	-13.00	39.11
5640.000	H	36.42	-57.03	11.33	1.54	-47.24	-13.00	34.24
5640.000	V	35.21	-58.12	11.33	1.54	-48.33	-13.00	35.33
QPSK, 1.4MHz,Frequency:1909.3 MHz								
91.81	H	41.91	-71.00	0.00	0.18	-71.18	-13.00	58.18
93.44	V	45.30	-63.24	0.00	0.18	-63.42	-13.00	50.42
3818.600	H	34.97	-60.89	10.72	1.29	-51.46	-13.00	38.46
3818.600	V	35.10	-60.61	10.72	1.29	-51.18	-13.00	38.18
5727.900	H	36.42	-57.06	11.23	1.59	-47.42	-13.00	34.42
5727.900	V	35.81	-57.55	11.23	1.59	-47.91	-13.00	34.91

LTE Band 5(30MHz-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, 1.4MHz, Frequency: 824.7 MHz								
721.94	H	20.81	-52.07	0.00	0.50	-52.57	-13.00	39.57
716.90	V	21.04	-48.51	0.00	0.50	-49.01	-13.00	36.01
1649.400	H	34.86	-69.47	8.68	0.80	-61.59	-13.00	48.59
1649.400	V	34.69	-69.72	8.68	0.80	-61.84	-13.00	48.84
2474.100	H	35.41	-65.37	9.38	1.00	-56.99	-13.00	43.99
2474.100	V	34.66	-66.07	9.38	1.00	-57.69	-13.00	44.69
3298.800	H	41.82	-54.86	10.32	1.15	-45.69	-13.00	32.69
3298.800	V	40.52	-55.92	10.32	1.15	-46.75	-13.00	33.75
QPSK, 1.4MHz, Frequency: 836.5 MHz								
704.43	H	20.86	-52.37	0.00	0.55	-52.92	-13.00	39.92
727.02	V	20.94	-48.39	0.00	0.52	-48.91	-13.00	35.91
1673.000	H	35.13	-69.18	8.71	0.85	-61.32	-13.00	48.32
1673.000	V	34.87	-69.54	8.71	0.85	-61.68	-13.00	48.68
2509.500	H	35.01	-65.60	9.42	1.01	-57.19	-13.00	44.19
2509.500	V	35.45	-65.17	9.42	1.01	-56.76	-13.00	43.76
3346.000	H	38.61	-58.55	10.34	1.16	-49.37	-13.00	36.37
3346.000	V	37.01	-60.01	10.34	1.16	-50.83	-13.00	37.83
QPSK, 1.4MHz, Frequency: 848.3 MHz								
580.78	H	20.90	-53.34	0.00	0.46	-53.80	-13.00	40.80
714.40	V	21.22	-48.39	0.00	0.50	-48.89	-13.00	35.89
1696.600	H	34.69	-69.60	8.74	0.89	-61.75	-13.00	48.75
1696.600	V	34.69	-69.73	8.74	0.89	-61.88	-13.00	48.88
2544.900	H	35.10	-65.24	9.47	1.01	-56.78	-13.00	43.78
2544.900	V	35.20	-65.10	9.47	1.01	-56.64	-13.00	43.64
3393.200	H	41.58	-56.09	10.36	1.19	-46.92	-13.00	33.92
3393.200	V	39.67	-57.96	10.36	1.19	-48.79	-13.00	35.79

LTE Band 12 (30MHz-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, 1.4MHz, Frequency: 699.7 MHz								
581.01	H	20.54	-53.69	0.00	0.46	-54.15	-13.00	41.15
605.75	V	20.51	-51.12	0.00	0.50	-51.62	-13.00	38.62
1399.400	H	35.39	-68.31	8.22	0.71	-60.80	-13.00	47.80
1399.400	V	36.11	-67.64	8.22	0.71	-60.13	-13.00	47.13
2099.100	H	36.48	-65.40	9.16	0.91	-57.15	-13.00	44.15
2099.100	V	35.17	-66.66	9.16	0.91	-58.41	-13.00	45.41
2798.800	H	35.44	-64.49	9.88	1.04	-55.65	-13.00	42.65
2798.800	V	36.03	-63.77	9.88	1.04	-54.93	-13.00	41.93
QPSK, 1.4MHz, Frequency:707.5 MHz								
605.95	H	20.67	-53.16	0.00	0.49	-53.65	-13.00	40.65
510.21	V	20.70	-50.90	0.00	0.45	-51.35	-13.00	38.35
1415.000	H	36.47	-67.20	8.26	0.72	-59.66	-13.00	46.66
1415.000	V	35.43	-68.29	8.26	0.72	-60.75	-13.00	47.75
2122.500	H	35.69	-66.30	9.17	0.92	-58.05	-13.00	45.05
2122.500	V	35.17	-66.80	9.17	0.92	-58.55	-13.00	45.55
2830.000	H	36.73	-63.07	9.93	1.06	-54.20	-13.00	41.20
2830.000	V	35.21	-64.52	9.93	1.06	-55.65	-13.00	42.65
QPSK, 1.4MHz, Frequency: 715.3 MHz								
570.92	H	20.50	-53.93	0.00	0.46	-54.39	-13.00	41.39
553.00	V	20.64	-51.02	0.00	0.48	-51.50	-13.00	38.50
1430.600	H	35.56	-68.07	8.31	0.73	-60.49	-13.00	47.49
1430.600	V	36.31	-67.38	8.31	0.73	-59.80	-13.00	46.80
2145.900	H	36.77	-65.33	9.19	0.93	-57.07	-13.00	44.07
2145.900	V	35.28	-66.83	9.19	0.93	-58.57	-13.00	45.57
2861.200	H	36.48	-63.17	9.98	1.07	-54.26	-13.00	41.26
2861.200	V	35.16	-64.51	9.98	1.07	-55.60	-13.00	42.60

LTE Band 13 (30MHz-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, 5MHz, Frequency: 779.5 MHz								
658.83	H	20.71	-52.83	0.00	0.51	-53.34	-13.00	40.34
589.07	V	20.66	-51.05	0.00	0.48	-51.53	-13.00	38.53
1559.000	H	35.75	-68.24	8.57	0.80	-60.47	-40.00	20.47
1559.000	V	34.62	-69.43	8.57	0.80	-61.66	-40.00	21.66
2338.500	H	38.87	-62.72	9.30	0.97	-54.39	-13.00	41.39
2338.500	V	37.15	-64.21	9.30	0.97	-55.88	-13.00	42.88
3118.000	H	37.16	-60.33	10.25	1.13	-51.21	-13.00	38.21
3118.000	V	39.78	-57.57	10.25	1.13	-48.45	-13.00	35.45
QPSK, 5MHz, Frequency:784.5 MHz								
631.68	H	20.62	-53.07	0.00	0.49	-53.56	-13.00	40.56
496.17	V	20.54	-51.19	0.00	0.45	-51.64	-13.00	38.64
1569.000	H	35.38	-68.70	8.58	0.81	-60.93	-40.00	20.93
1569.000	V	36.15	-67.98	8.58	0.81	-60.21	-40.00	20.21
2353.500	H	38.64	-62.81	9.31	0.97	-54.47	-13.00	41.47
2353.500	V	46.39	-54.83	9.31	0.97	-46.49	-13.00	33.49
3138.000	H	39.58	-57.82	10.26	1.14	-48.70	-13.00	35.70
3138.000	V	42.58	-54.65	10.26	1.14	-45.53	-13.00	32.53

LTE Band 41 (30MHz-27GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, 5MHz, Frequency: 2498.5MHz								
94.42	H	41.80	-70.94	0.00	0.18	-71.12	-25.00	46.12
92.13	V	44.90	-63.94	0.00	0.18	-64.12	-25.00	39.12
4997.000	H	35.64	-57.30	11.20	1.48	-47.58	-25.00	22.58
4997.000	V	36.52	-56.28	11.20	1.48	-46.56	-25.00	21.56
7495.500	H	35.73	-54.06	10.90	1.94	-45.10	-25.00	20.10
7495.500	V	34.86	-55.43	10.90	1.94	-46.47	-25.00	21.47
QPSK, 5MHz, Frequency: 2593MHz								
93.76	H	42.10	-70.68	0.00	0.18	-70.86	-25.00	45.86
93.43	V	44.72	-63.82	0.00	0.18	-64.00	-25.00	39.00
5186.000	H	36.48	-57.55	11.31	1.44	-47.68	-25.00	22.68
5186.000	V	35.64	-58.25	11.31	1.44	-48.38	-25.00	23.38
7779.000	H	35.20	-54.29	10.84	1.99	-45.44	-25.00	20.44
7779.000	V	34.96	-54.98	10.84	1.99	-46.13	-25.00	21.13
QPSK, 5MHz, Frequency: 2687.5MHz								
92.46	H	41.65	-71.22	0.00	0.18	-71.40	-25.00	46.40
91.17	V	44.69	-64.37	0.00	0.18	-64.55	-25.00	39.55
5375.000	H	35.62	-57.89	11.43	1.49	-47.95	-25.00	22.95
5375.000	V	36.08	-57.42	11.43	1.49	-47.48	-25.00	22.48
8062.500	H	36.69	-51.53	10.81	2.12	-42.84	-25.00	17.84
8062.500	V	35.27	-53.45	10.81	2.12	-44.76	-25.00	19.76

Note:

- 1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
- 2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
- 3) Margin = Limit-Absolute Level

5. EUT PHOTOGRAPHS

Please refer to the attachment CR230745209-EXP EUT EXTERNAL PHOTOGRAPHS and CR230745209-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR230745209-00F-TSP TEST SETUP PHOTOGRAPHS.

==== END OF REPORT =====