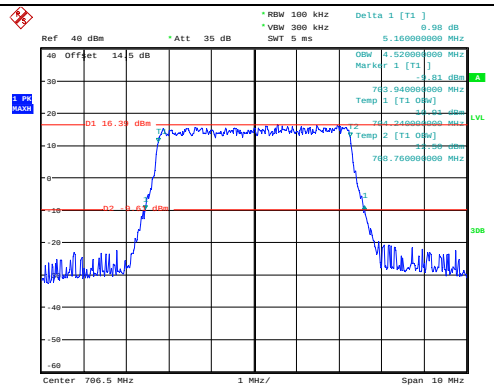
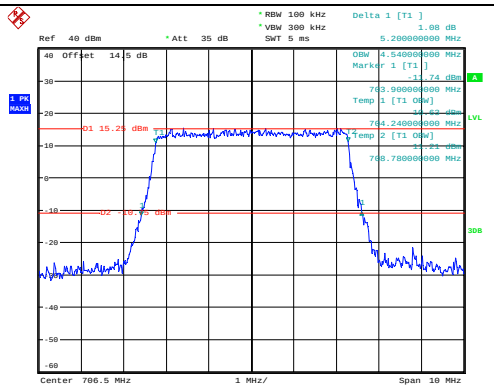
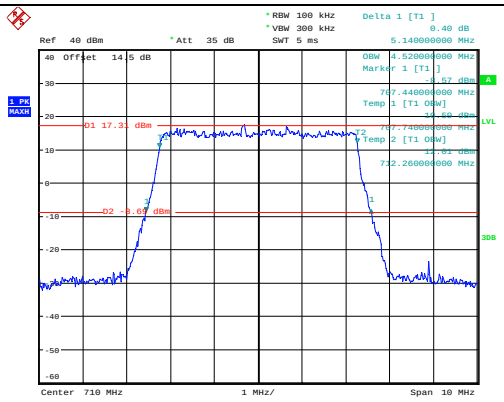
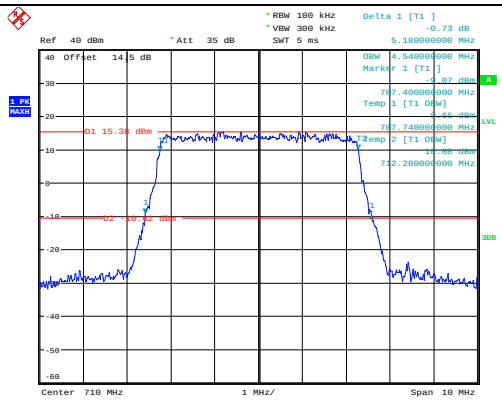
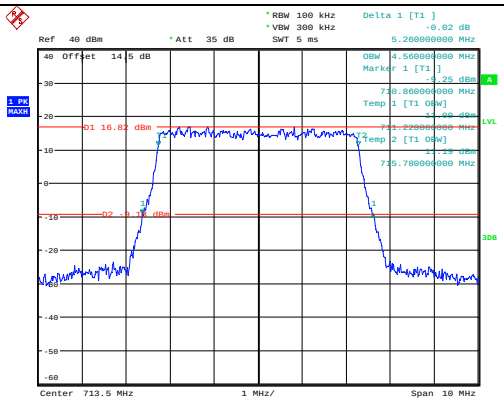
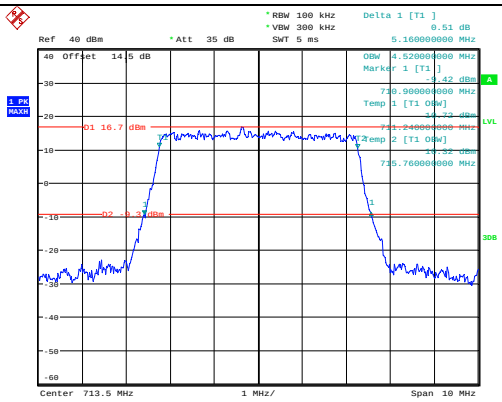
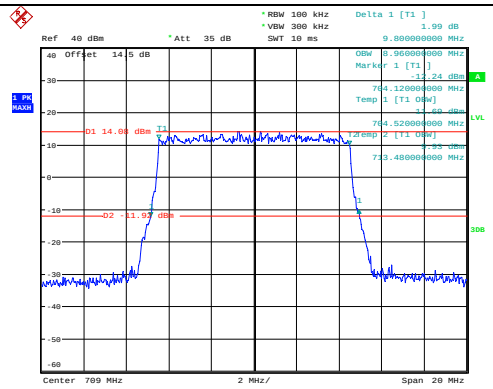
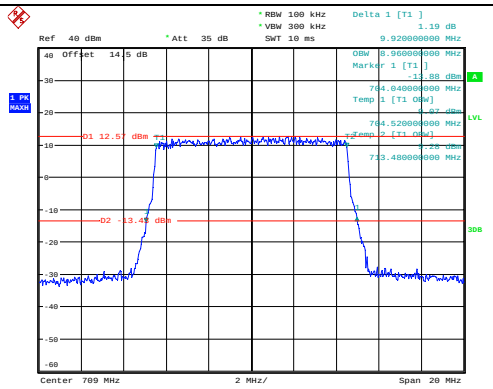
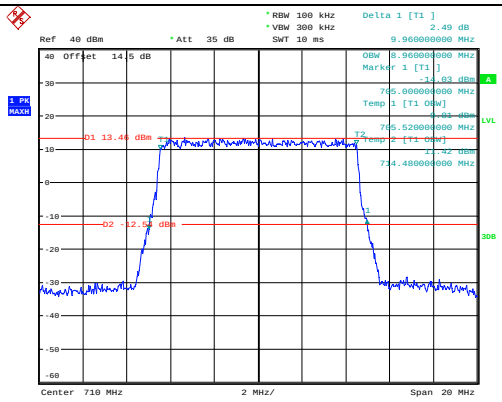
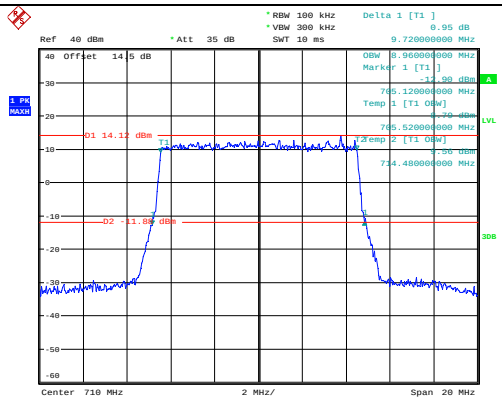
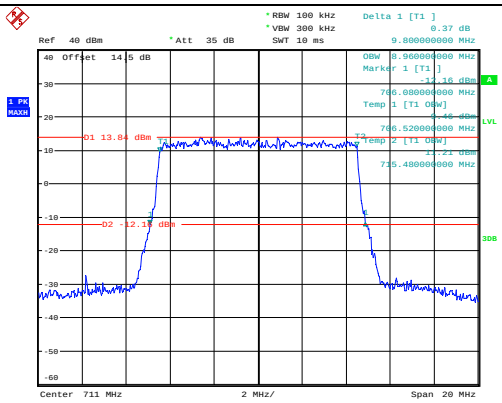
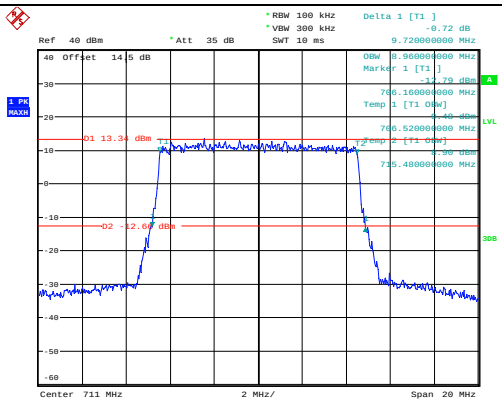
Test Plots for Occupied Bandwidth:

Note: The test is performed in full RB mode.

Occupied Bandwidth

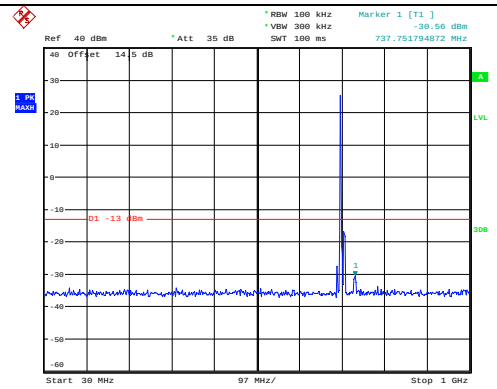
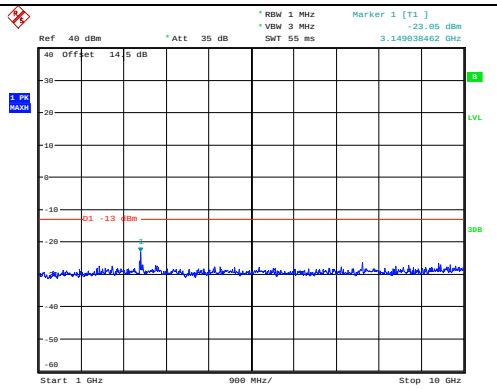
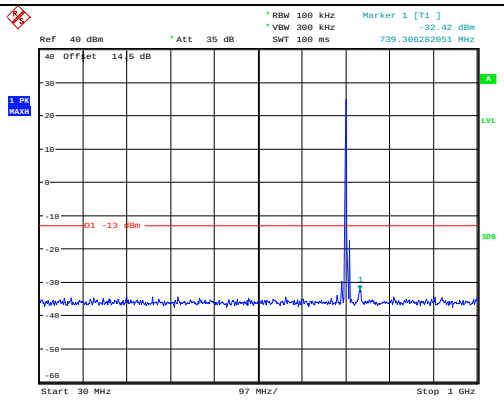
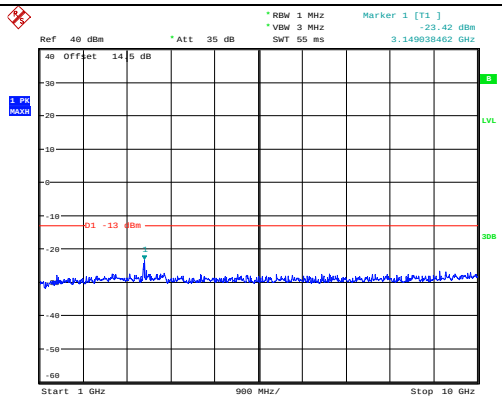
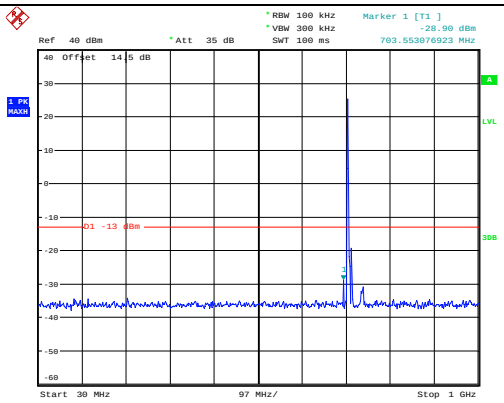
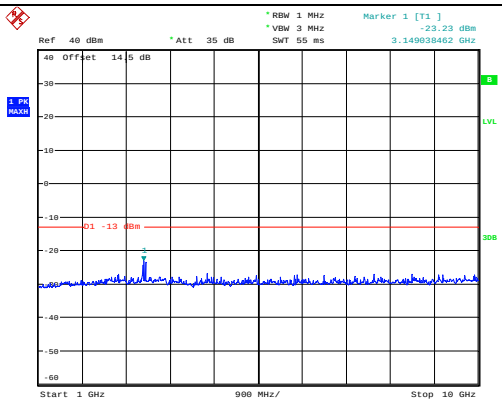
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

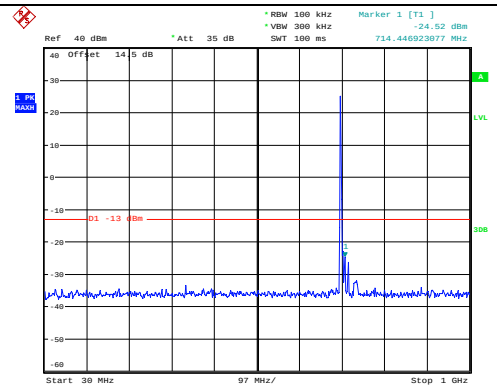
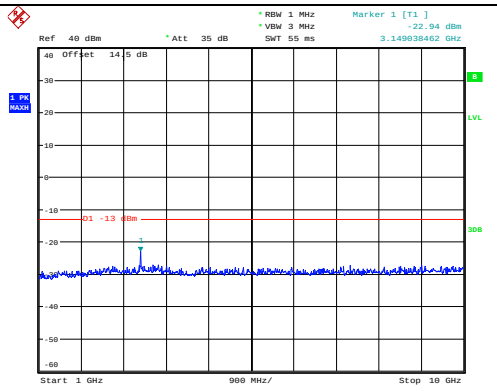
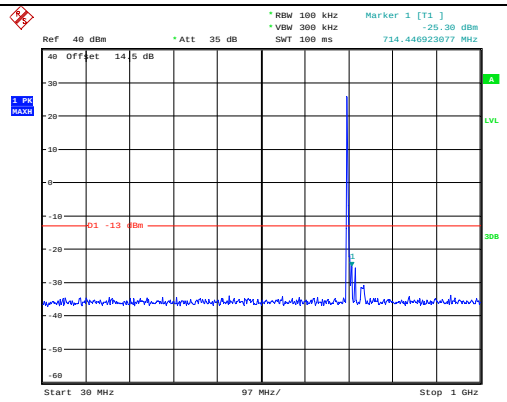
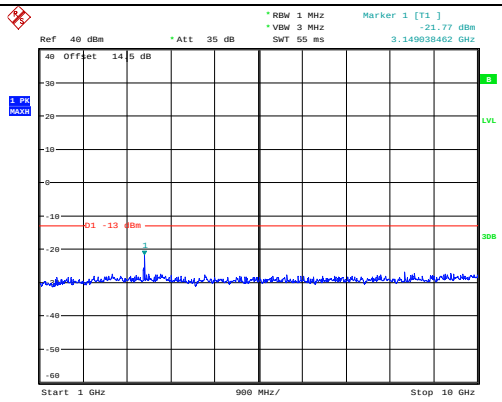
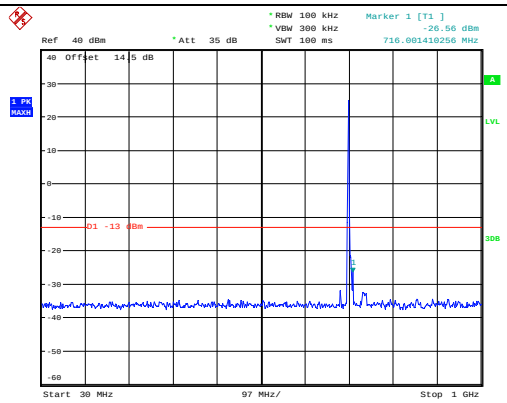
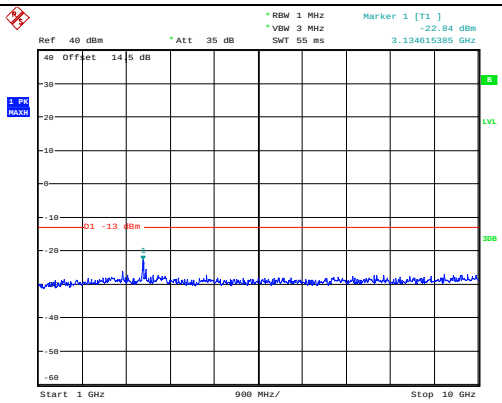
Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

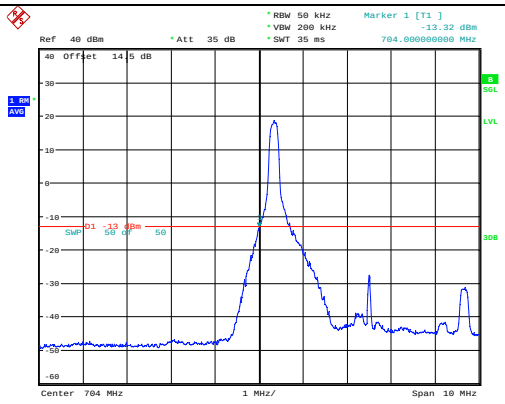
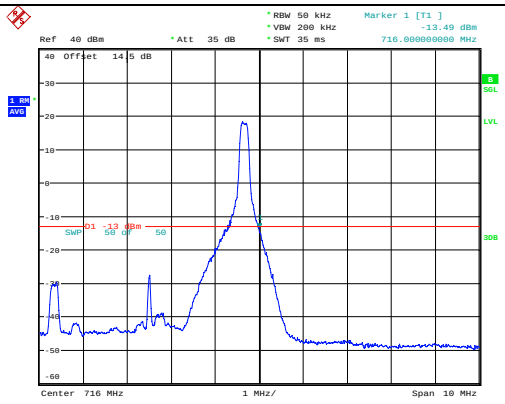
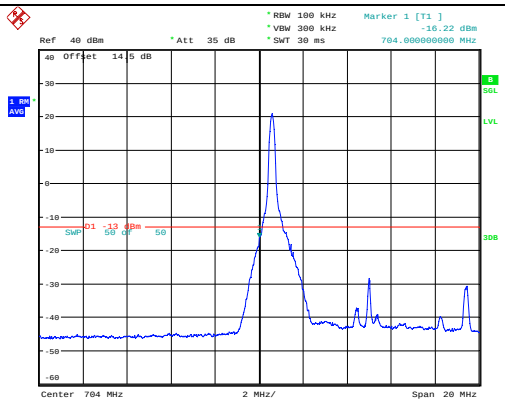
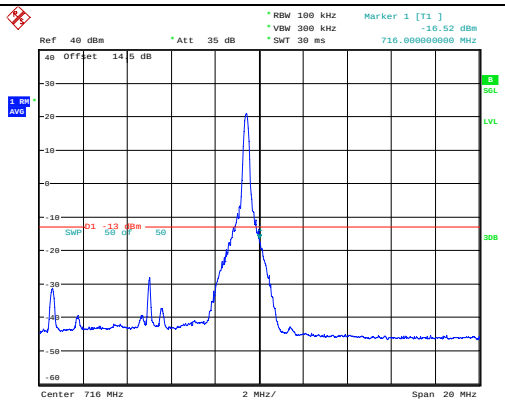
Test Plots for Spurious Emissions at Antenna Terminal:

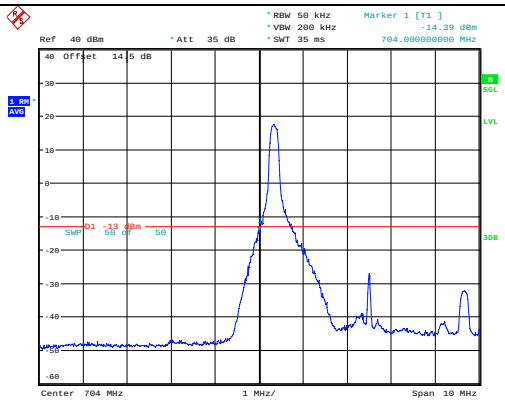
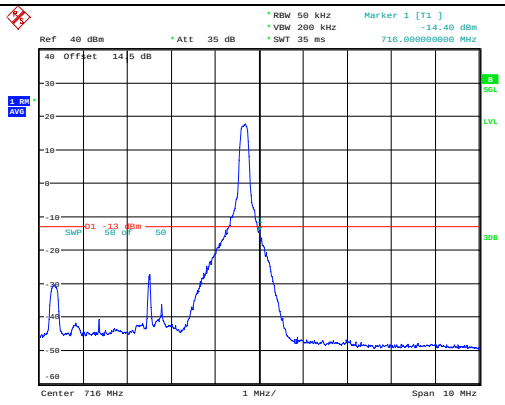
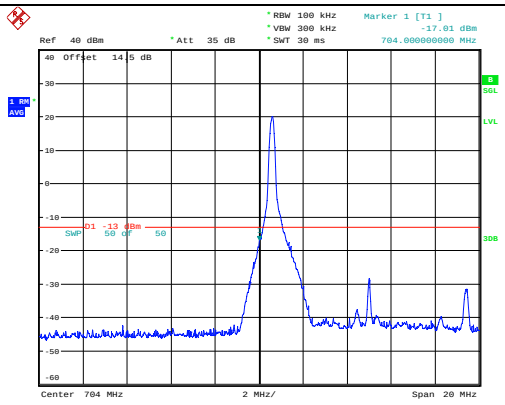
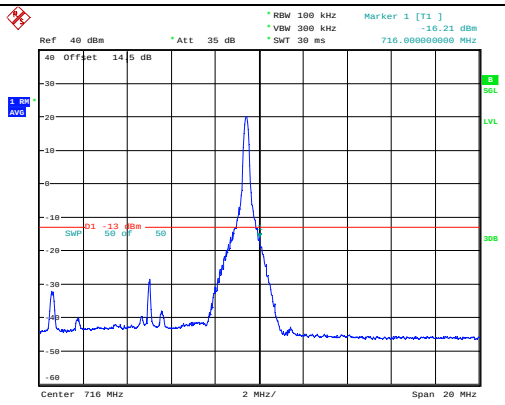
Note: The test is performed in 1RB mode.

Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:06:14	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:06:52
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:08:18	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:07:21
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:09:08	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:09:40

Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:11:09	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:12:02
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:15:47	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:12:29
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:14:20	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:14:58

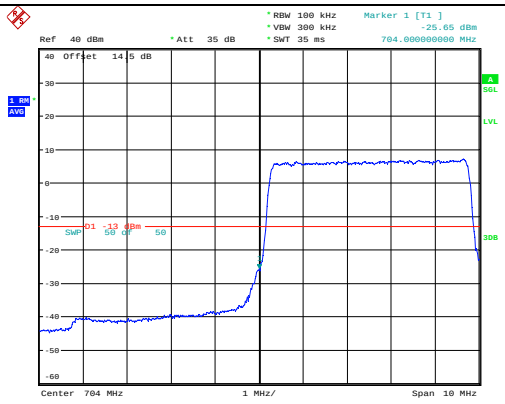
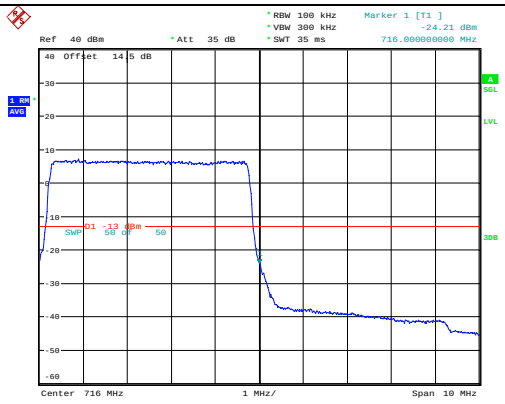
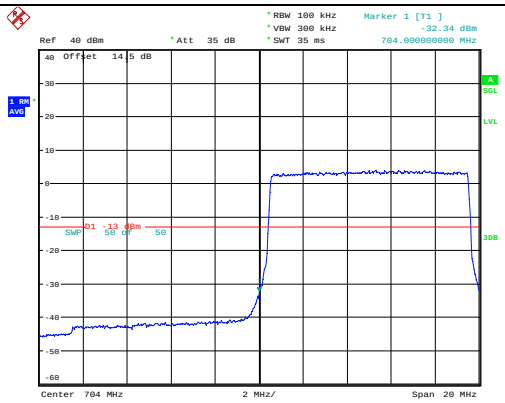
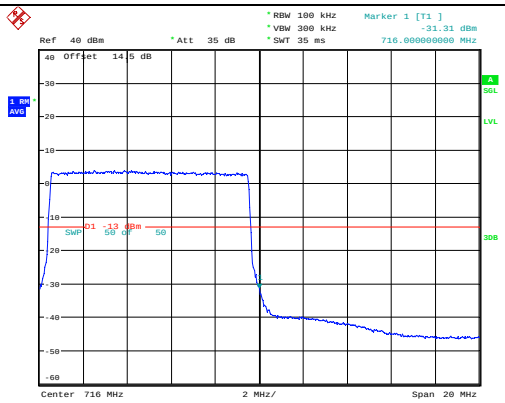
Test Plots for Out of band emission, Band Edge:
Note: The test is performed in 1RB mode.

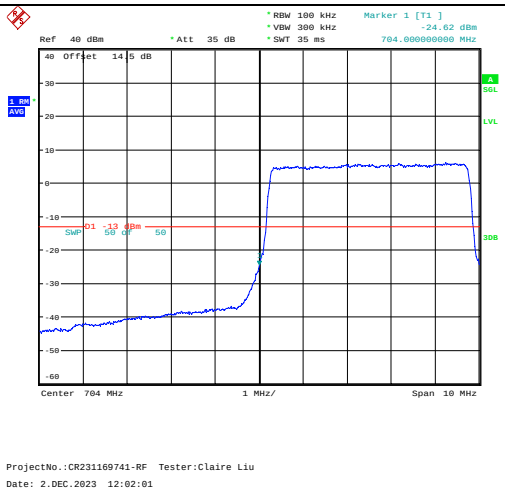
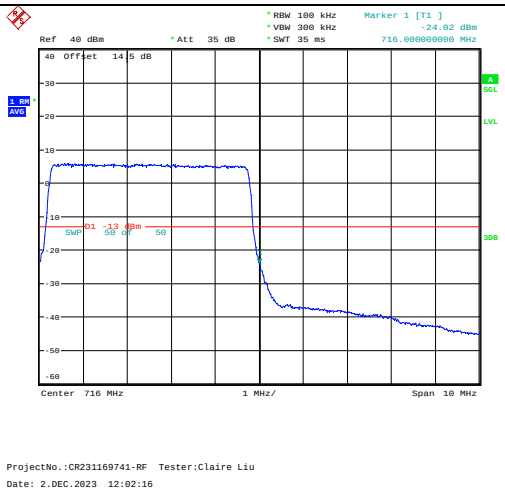
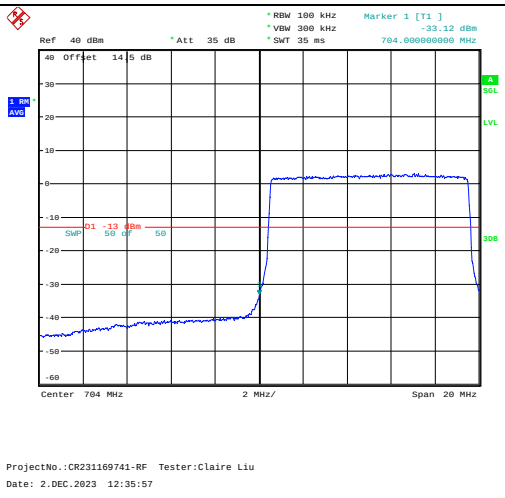
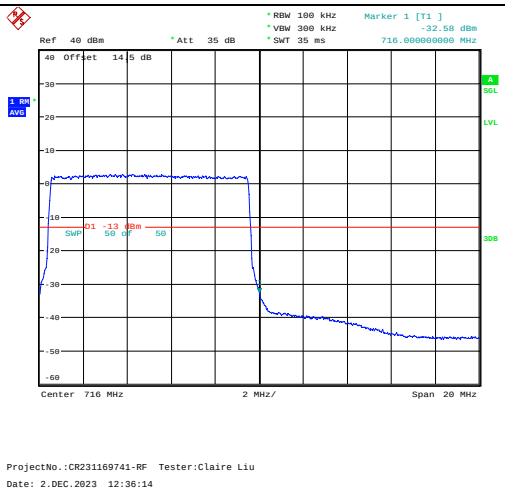
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:58:22	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 12:00:37
QPSK 10MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:03:15	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:05:08

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:59:11	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 12:00:07
16QAM 10MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:03:51	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:05:49

Test Plots for Out of band emission, Band Edge:

Note: The test is performed in full RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:01:52	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:02:09
QPSK 10MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:35:48	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:36:06

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:02:01	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:02:16
16QAM 10MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:35:57	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:36:14

4.11 Antenna Port Test Data and Results for LTE Band 41

Serial Number:	2E5M-1	Test Date:	2023/12/1-2023/12/5
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu/Arthur Su	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24.3-25.8	Relative Humidity: (%)	52-61	ATM Pressure: (kPa)	101-101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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
Unknown	Coaxial tee connector	Unknown	2204005	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	2537.5	2595	2652.5
10MHz	2540	2595	2650
15MHz	2542.5	2595	2647.5
20MHz	2545	2595	2645

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	19.38	18.73	18.32	19.94	33
	RB1#13	**19.46**	18.86	18.42		
	RB1#24	19.33	18.72	18.26		
	RB15#0	18.42	17.80	17.42		
	RB15#10	18.40	17.79	17.45		
	RB25#0	18.40	17.79	17.39		
5MHz 16QAM	RB1#0	18.63	17.75	17.46	19.18	33
	RB1#13	**18.70**	17.85	17.54		
	RB1#24	18.61	17.74	17.39		
	RB15#0	17.48	16.78	16.44		
	RB15#10	17.49	16.77	16.45		
	RB25#0	17.46	16.85	16.47		
10MHz QPSK	RB1#0	18.99	18.75	18.87	19.79	33
	RB1#25	**19.31**	18.84	19.01		
	RB1#49	18.99	18.26	18.52		
	RB25#0	18.02	17.39	17.74		
	RB25#25	17.95	17.52	17.74		
	RB50#0	18.02	17.55	17.64		
10MHz 16QAM	RB1#0	17.91	17.82	18.04	18.74	33
	RB1#25	18.22	17.85	**18.26**		
	RB1#49	17.89	17.65	17.96		
	RB25#0	17.03	16.61	16.64		
	RB25#25	17.09	16.81	16.88		
	RB50#0	17.11	16.75	16.98		
15MHz QPSK	RB1#0	19.41	18.74	19.02	19.93	33
	RB1#38	**19.45**	18.77	19.07		
	RB1#74	19.35	18.60	18.87		
	RB36#0	18.51	17.80	18.18		
	RB36#39	18.43	17.73	17.97		
	RB75#0	18.49	17.76	18.22		
15MHz 16QAM	RB1#0	18.34	17.96	18.19	18.88	33
	RB1#38	**18.40**	18.02	18.07		
	RB1#74	18.28	17.83	18.26		
	RB36#0	17.48	16.88	17.01		
	RB36#39	17.38	16.80	17.12		
	RB75#0	17.53	16.77	17.14		
20MHz QPSK	RB1#0	18.58	18.68	18.73	19.64	33
	RB1#50	19.04	19.09	**19.16**		
	RB1#99	18.49	18.42	18.55		
	RB50#0	17.85	17.54	18.09		

	RB50#50	17.77	17.50	18.01		
	RB100#0	17.81	17.54	18.00		
20MHz 16QAM	RB1#0	17.58	17.62	17.68	18.86	33
	RB1#50	18.03	18.08	**18.38**		
	RB1#99	17.52	17.62	17.55		
	RB50#0	16.98	16.66	17.11		
	RB50#50	16.90	16.60	17.00		
	RB100#0	16.91	16.70	17.17		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(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	8.75	9.10	8.93	13
	RB100#0	8.20	9.36	9.19	13
20MHz 16QAM	RB1#0	9.59	10.00	9.77	13
	RB100#0	9.83	10.14	10.03	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	4.520	4.500	4.520	5.020	4.900	4.960
5MHz 16QAM	4.500	4.500	4.520	4.920	4.940	5.120
10MHz QPSK	8.960	8.960	8.960	9.640	9.520	9.600
10MHz 16QAM	8.960	8.960	8.960	9.480	9.760	9.520
15MHz QPSK	13.500	13.500	13.560	14.820	15.180	15.600
15MHz 16QAM	13.560	13.560	13.500	14.700	15.300	15.900
20MHz QPSK	18.000	18.000	18.000	19.280	20.560	19.440
20MHz 16QAM	17.920	18.000	18.000	20.080	19.200	19.520
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.**

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

Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	2536.024	2535.00	2654.044	2655
	-20	3.8	2536.032	2535.00	2654.066	2655
	-10	3.8	2536.030	2535.00	2654.063	2655
	0	3.8	2536.027	2535.00	2654.060	2655
	10	3.8	2536.023	2535.00	2654.066	2655
	20	3.8	2536.040	2535.00	2654.040	2655
	30	3.8	2536.039	2535.00	2654.054	2655
	40	3.8	2536.032	2535.00	2654.057	2655
	50	3.8	2536.016	2535.00	2654.042	2655
Frequency Stability vs. Voltage	20	3.6	2536.021	2535.00	2654.048	2655
	20	4.35	2536.031	2535.00	2654.050	2655
					Result:	**Pass**

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	2536.019	2535.00	2654.060	2655
	-20	3.8	2536.033	2535.00	2654.040	2655
	-10	3.8	2536.027	2535.00	2654.042	2655
	0	3.8	2536.028	2535.00	2654.058	2655
	10	3.8	2536.028	2535.00	2654.062	2655
	20	3.8	2536.040	2535.00	2654.040	2655
	30	3.8	2536.024	2535.00	2654.057	2655
	40	3.8	2536.025	2535.00	2654.049	2655
	50	3.8	2536.021	2535.00	2654.045	2655
Frequency Stability vs. Voltage	20	3.6	2536.030	2535.00	2654.053	2655
	20	4.35	2536.040	2535.00	2654.051	2655
					Result:	**Pass**

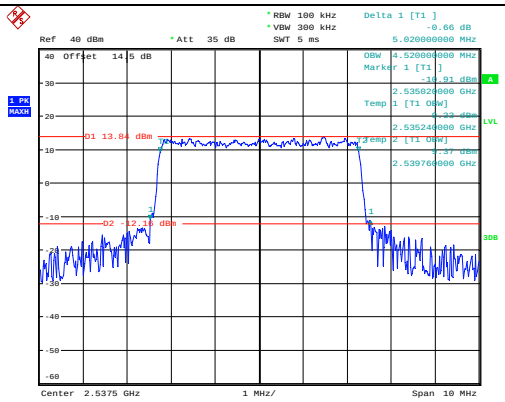
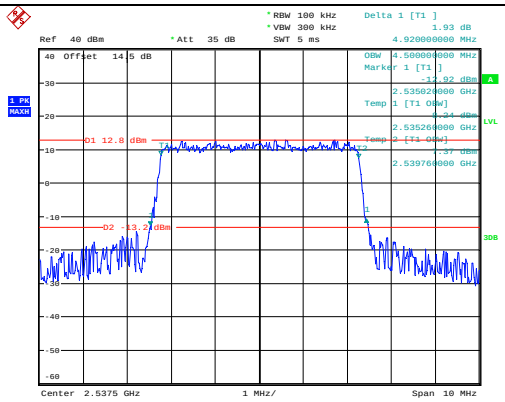
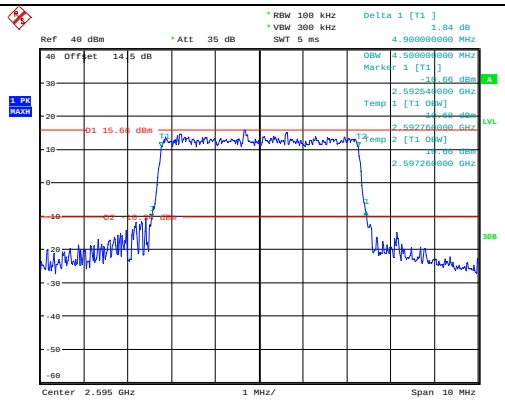
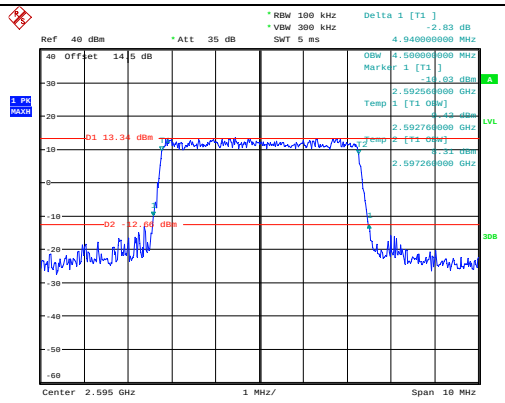
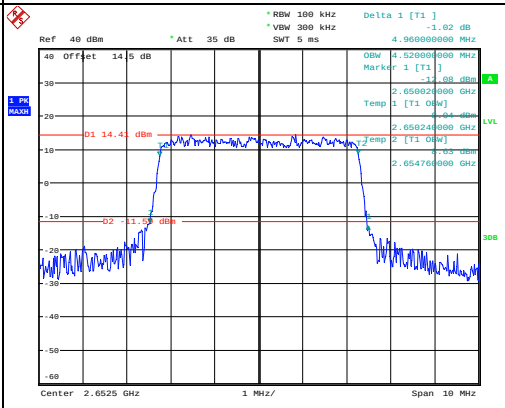
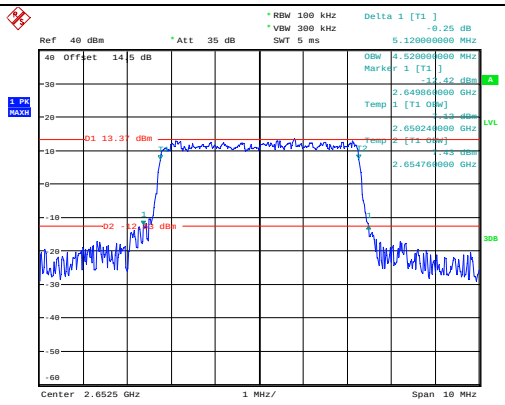
Test Plots:

Please refer to the below plots.

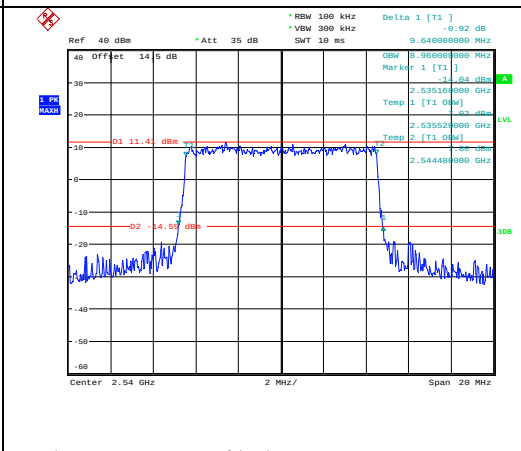
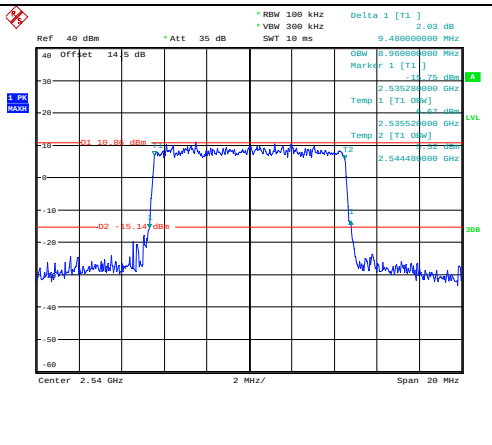
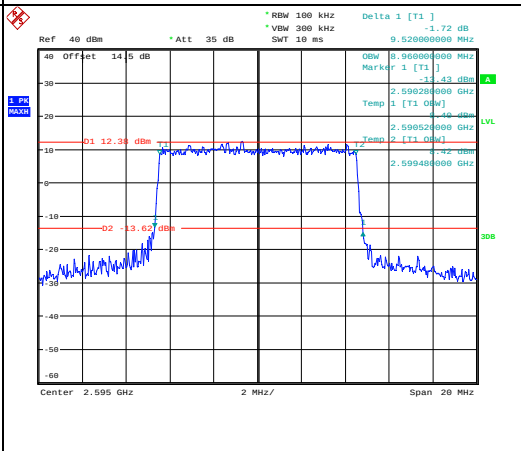
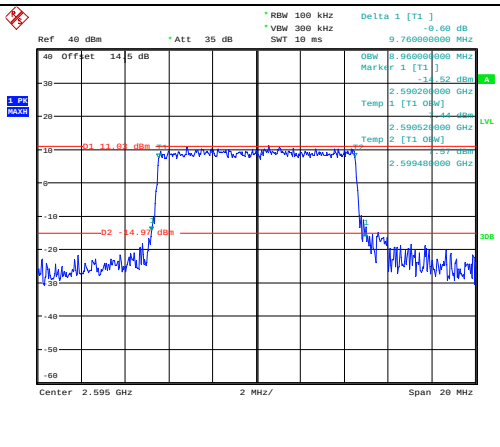
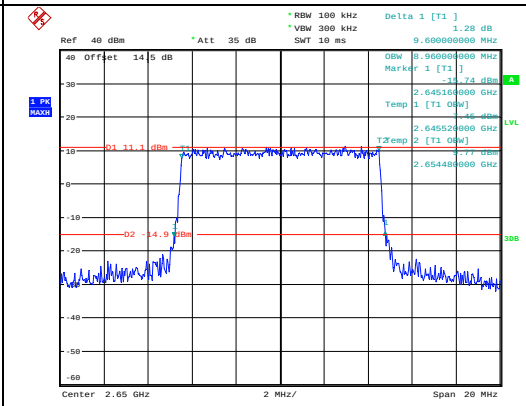
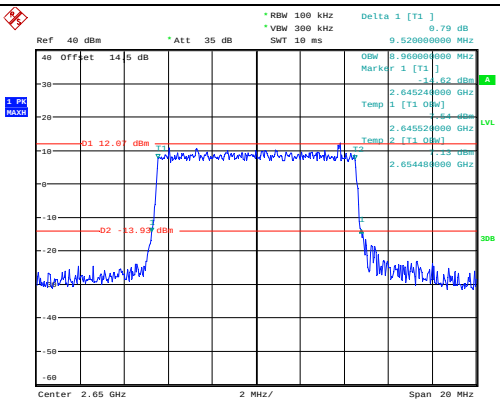
Note: The 14.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer.

Test Plots for Occupied Bandwidth:

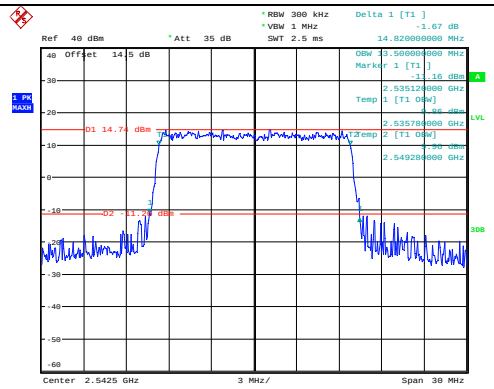
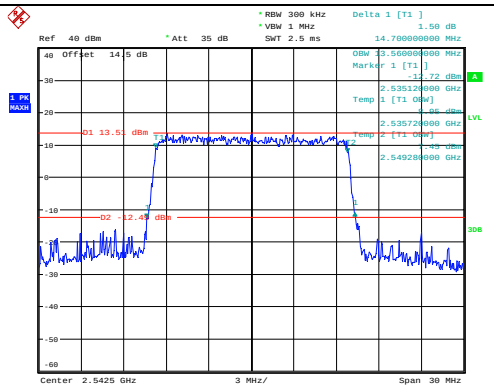
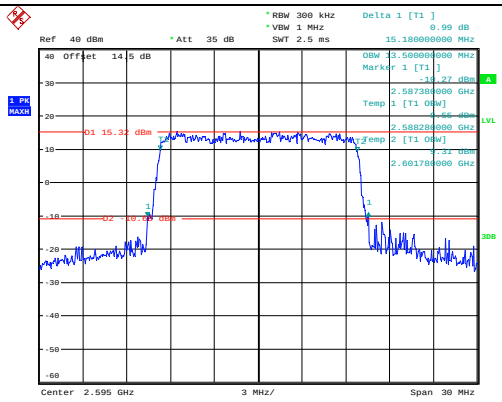
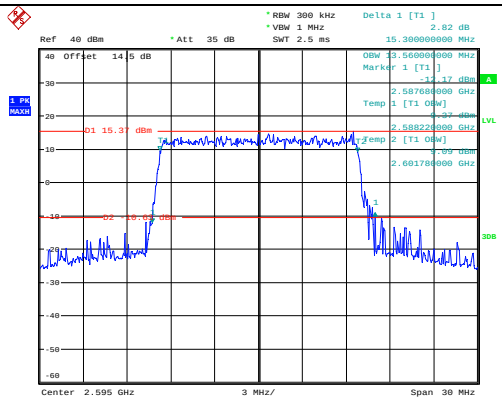
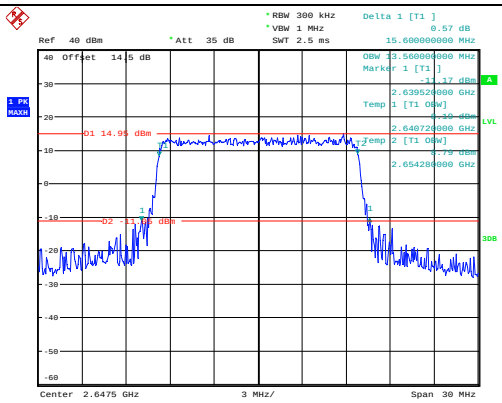
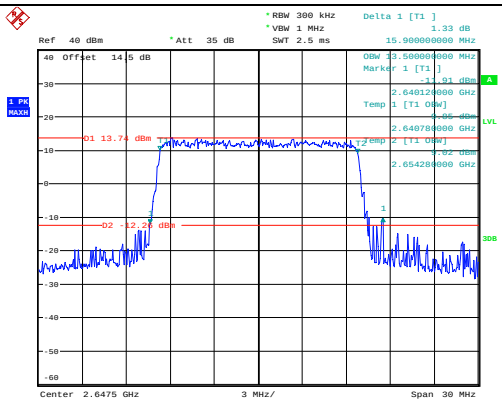
Note: The test is performed in full RB mode.

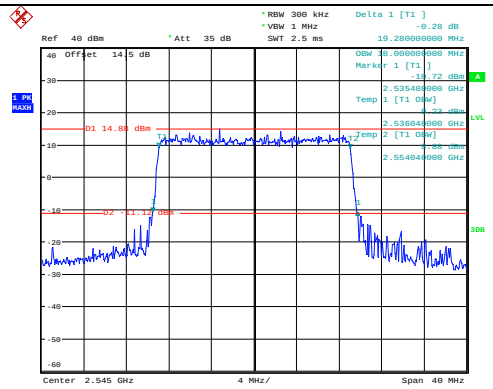
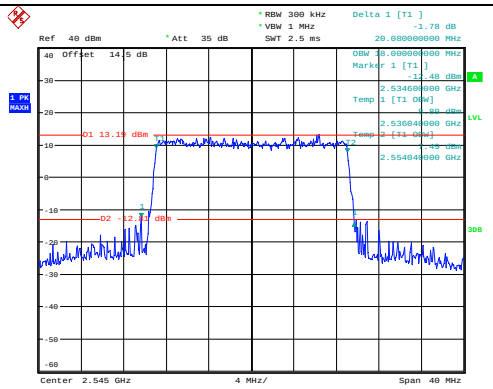
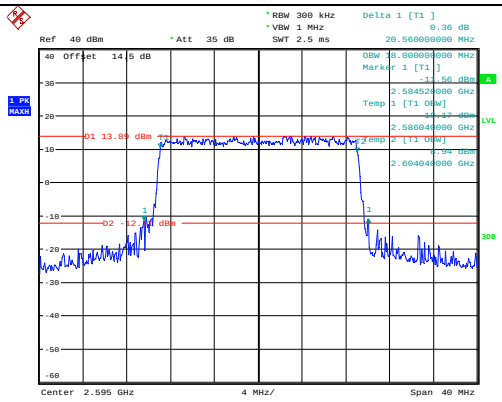
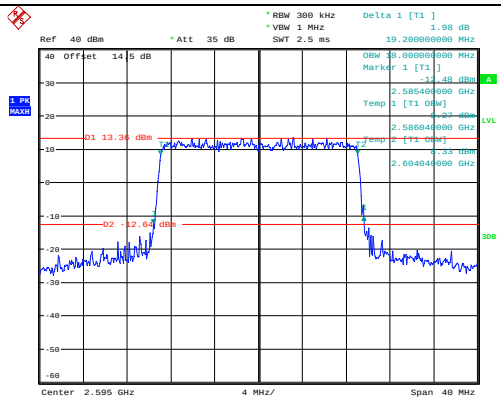
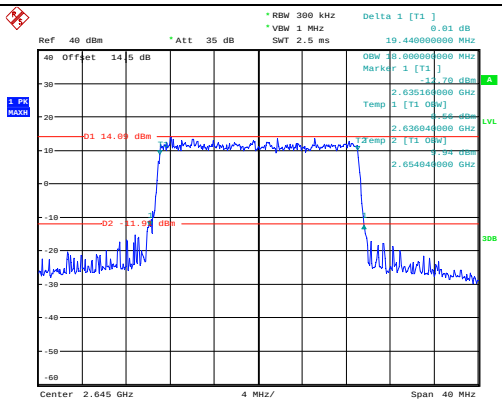
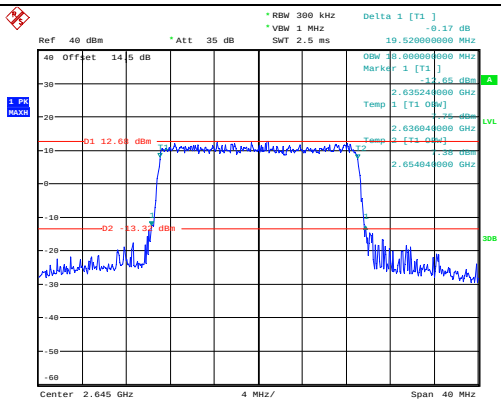
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:59:00	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:59:24
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:59:46	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:00:07
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:00:29	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:00:53

Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

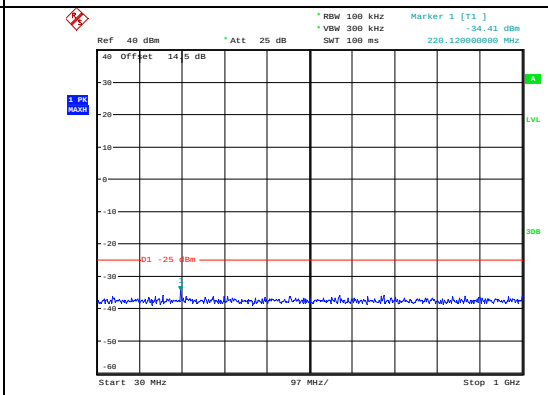
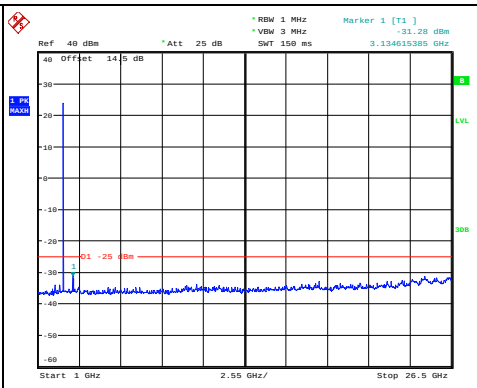
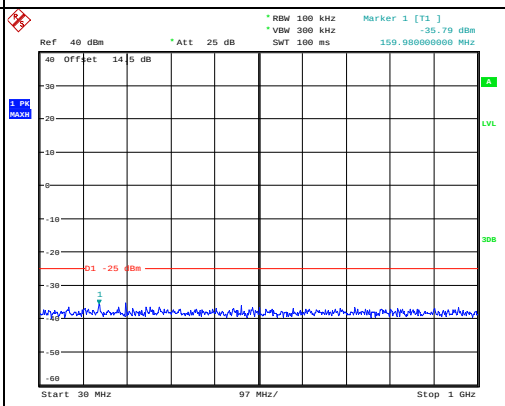
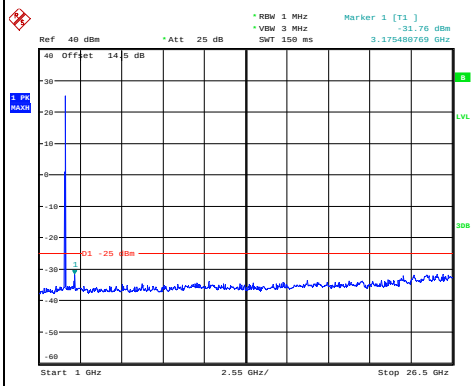
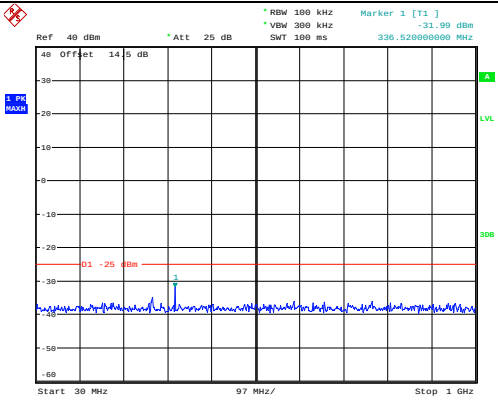
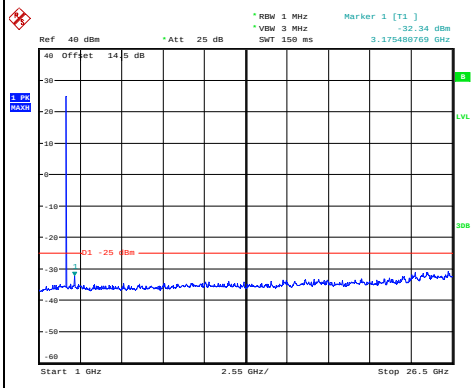
Occupied Bandwidth

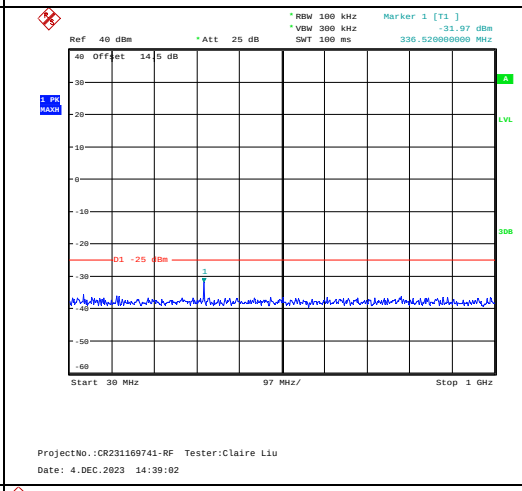
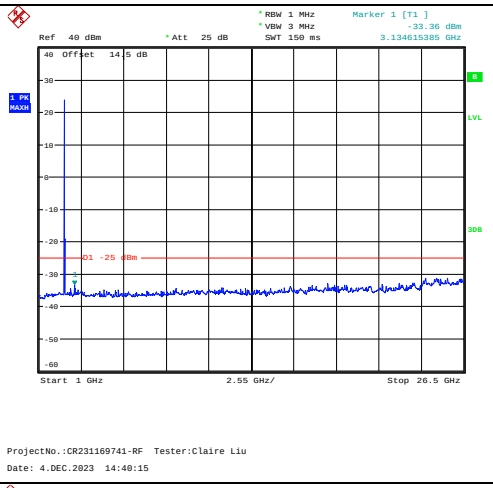
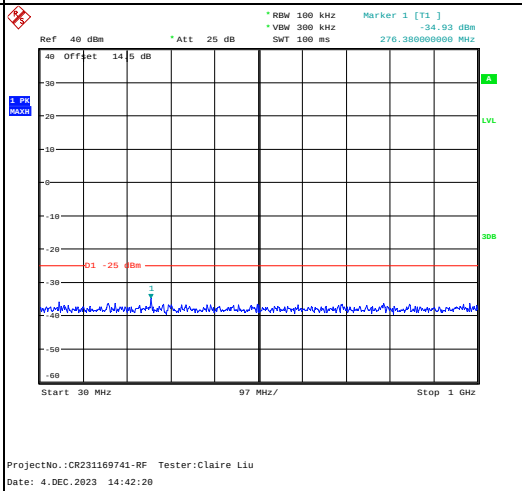
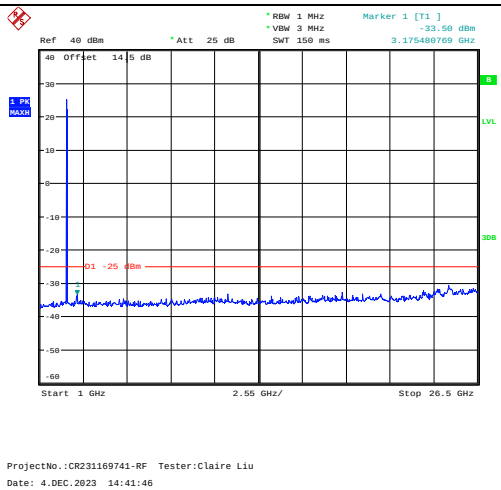
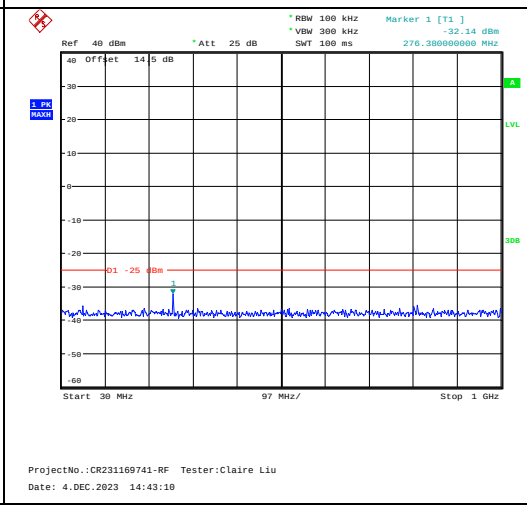
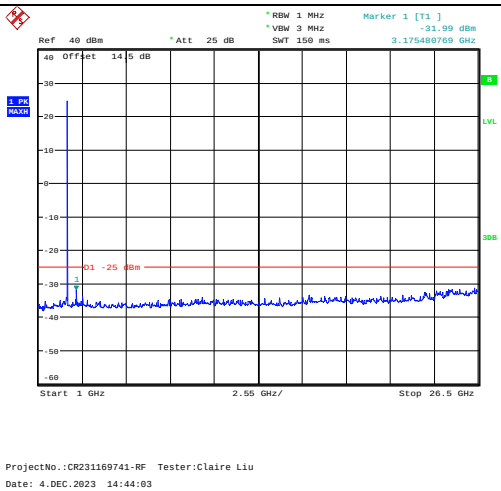
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:03:24	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:03:39
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:03:57	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:04:15
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:04:36	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:05:00

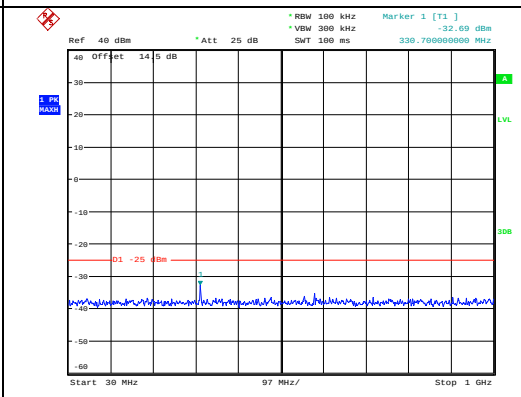
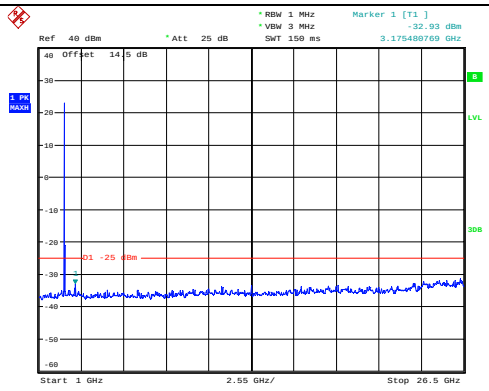
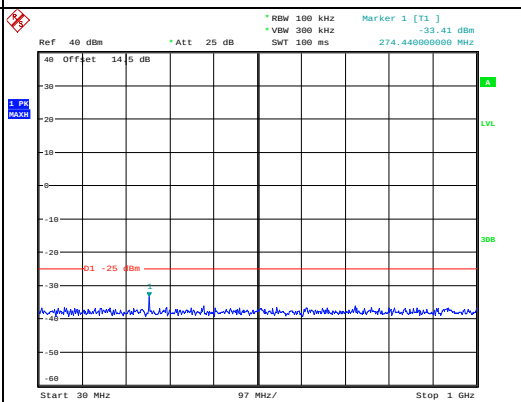
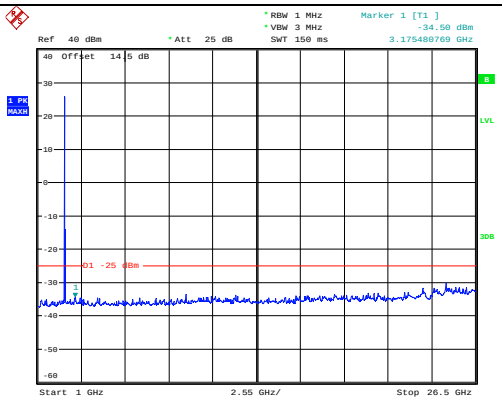
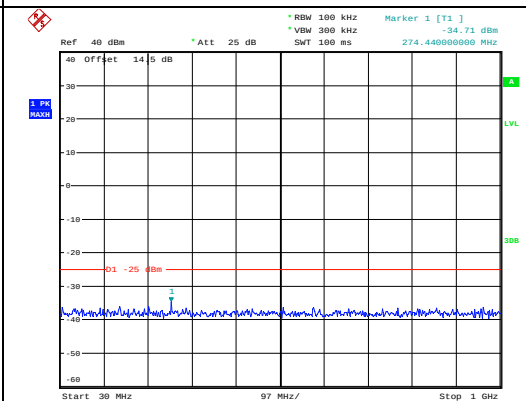
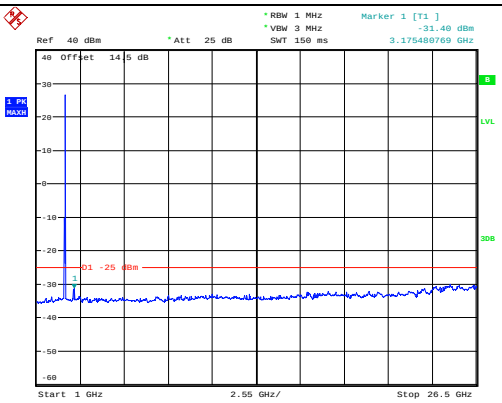
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:05:21	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:05:40
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:06:01	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:06:19
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:06:35	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 13:06:52

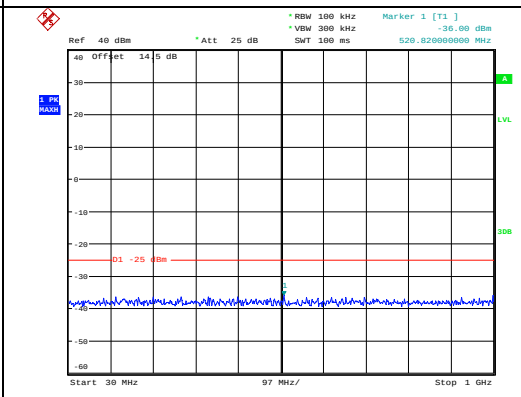
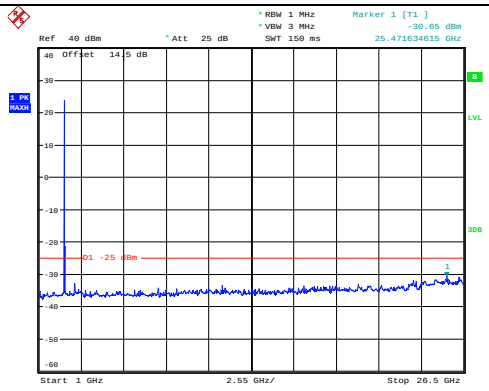
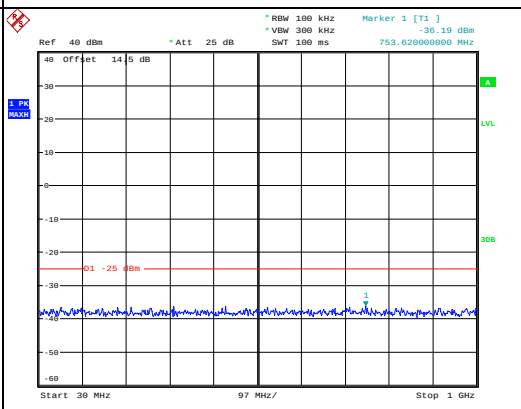
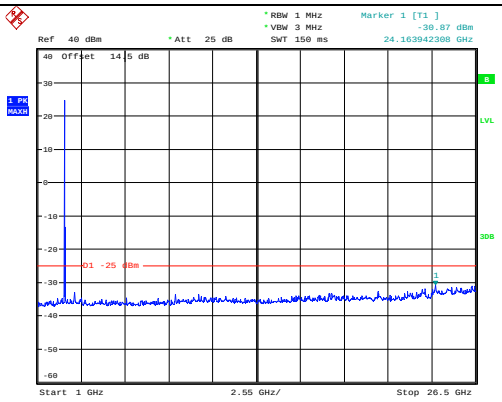
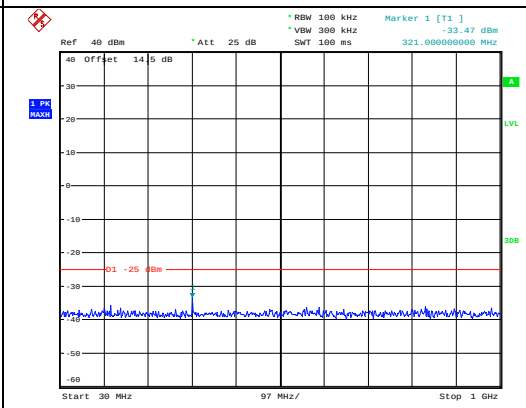
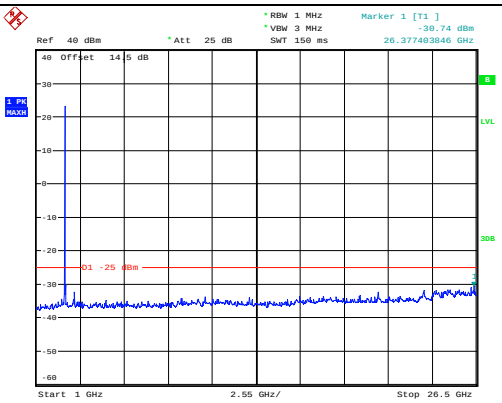
Test Plots for Spurious Emissions at Antenna Terminal:

Note: The test is performed in 1RB mode.

Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:32:59	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:31:50
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:33:34	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:34:30
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:38:22	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:36:01

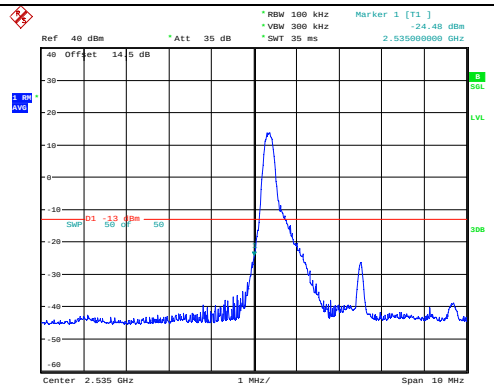
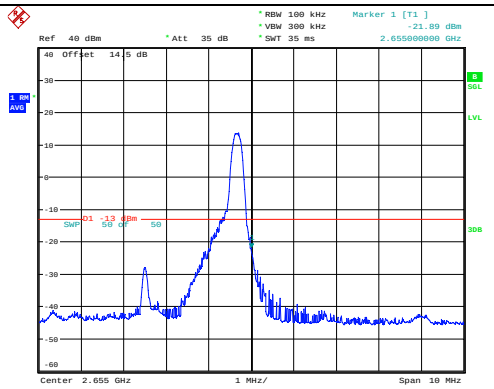
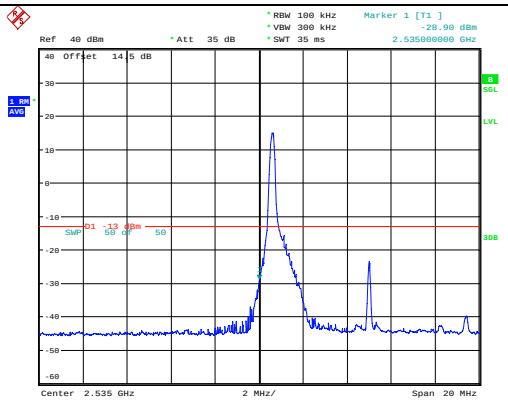
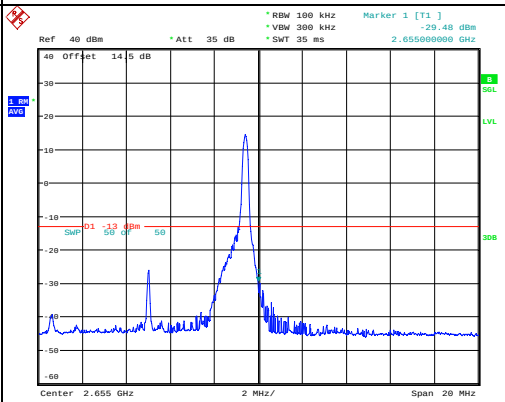
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:39:02	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:40:15
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:42:20	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:41:46
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:43:10	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:44:03

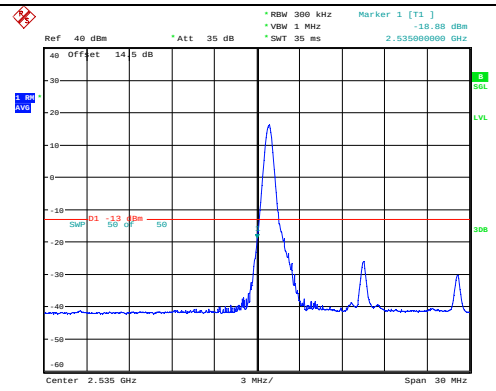
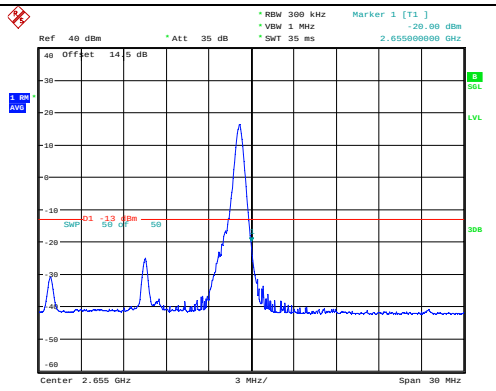
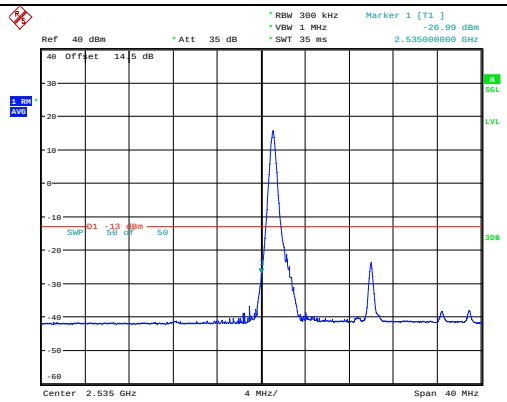
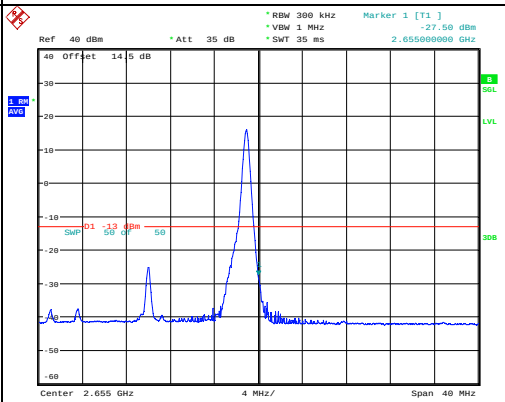
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:45:10	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:46:39
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:48:52	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:47:49
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 14:50:23	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:12:53

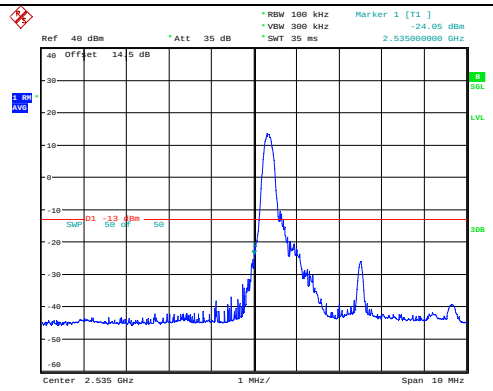
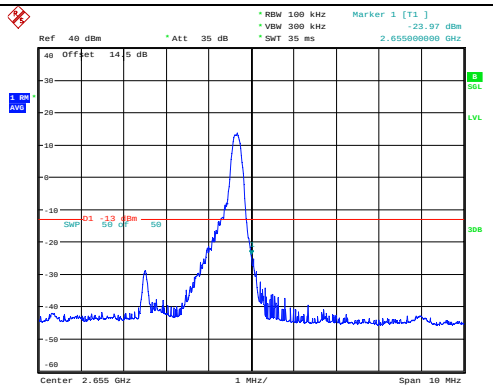
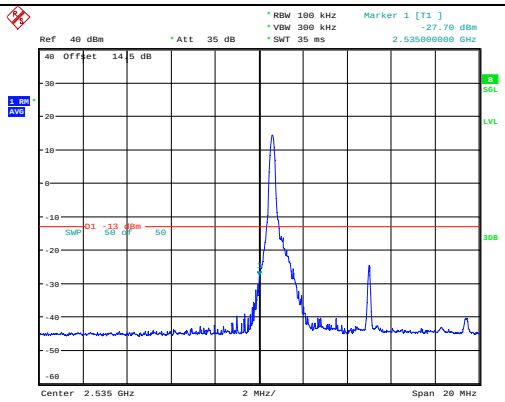
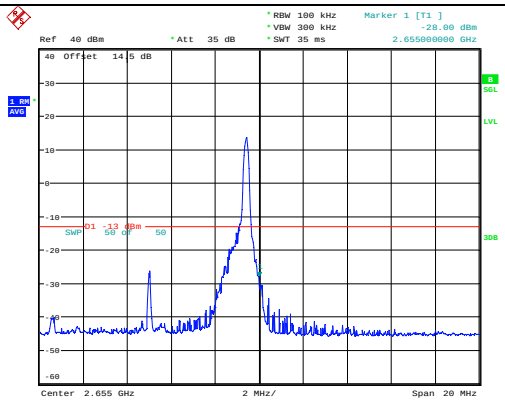
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:14:40	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:14:13
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:15:14	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:16:10
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:17:54	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:17:27

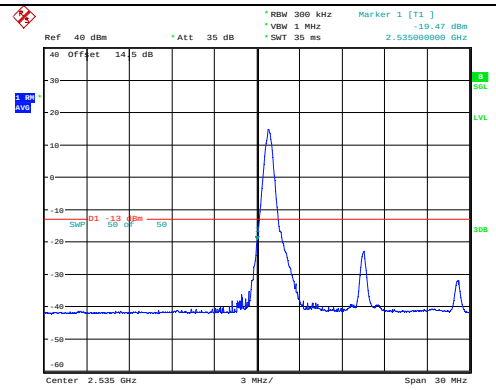
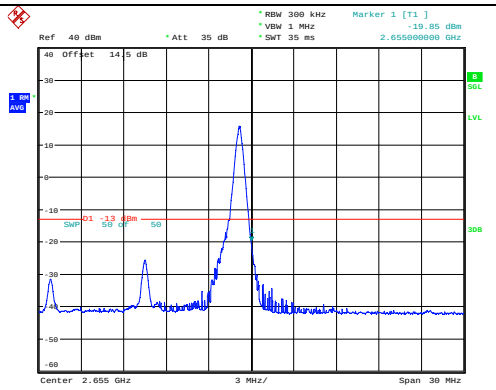
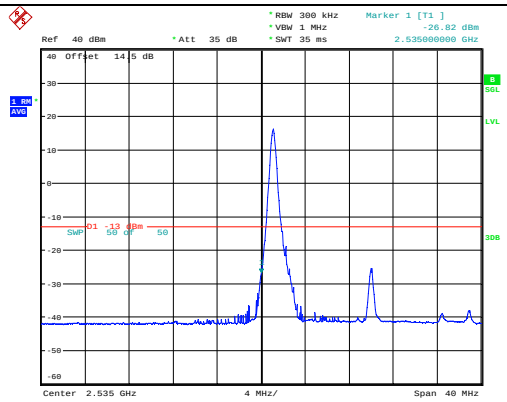
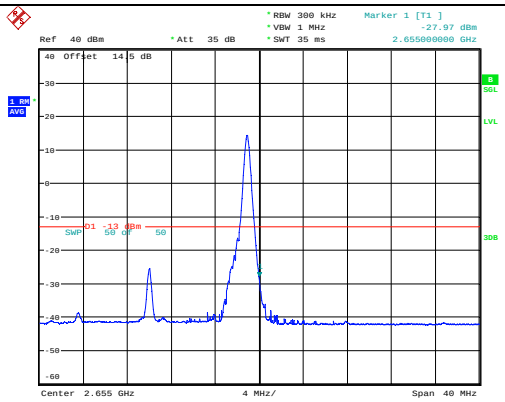
Test Plots for Out of band emission, Band Edge:

Note: The test is performed in 1RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz		
QPSK 10MHz		

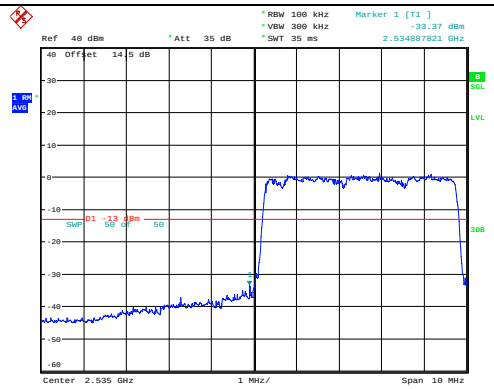
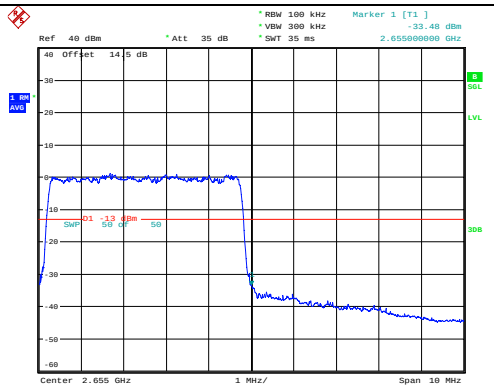
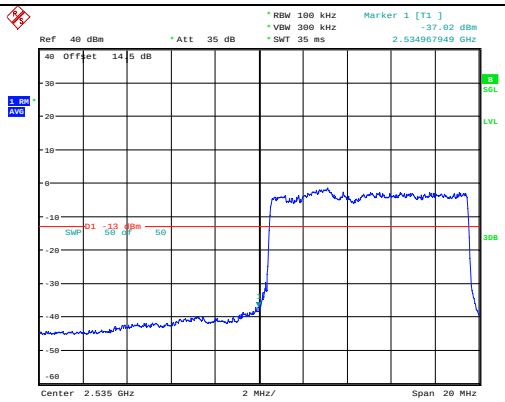
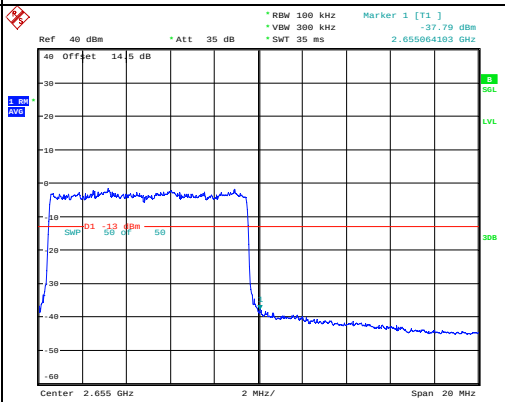
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 15MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:22:52	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:26:26
QPSK 20MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:34:47	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:37:20

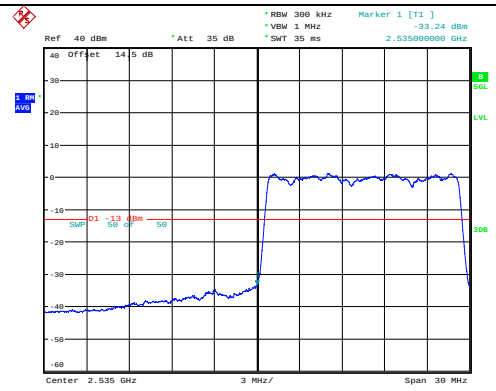
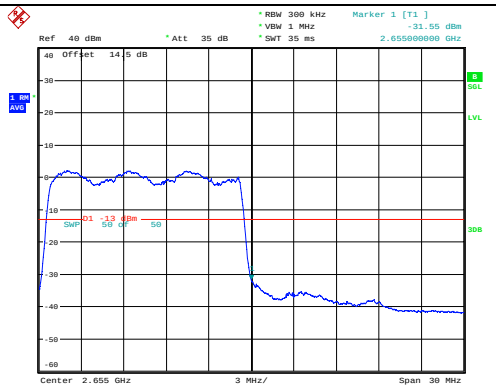
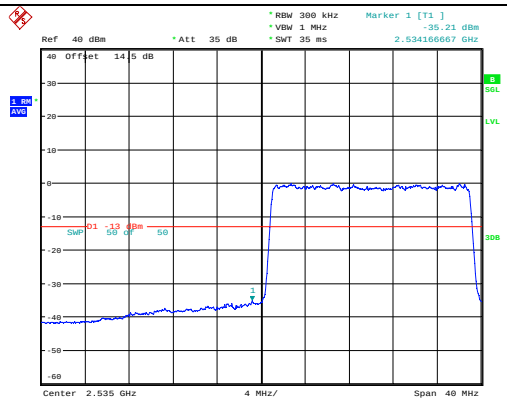
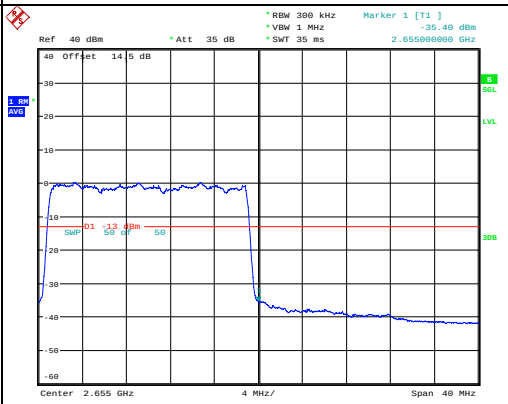
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz		
16QAM 10MHz		

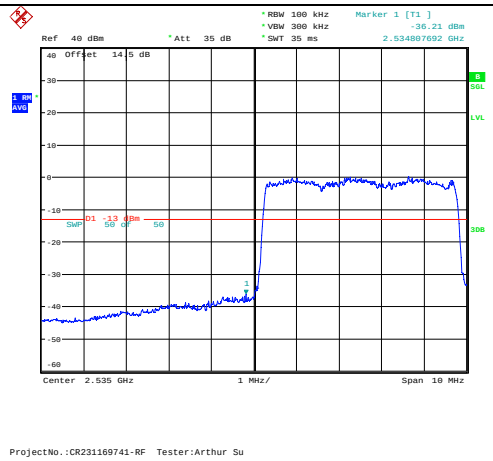
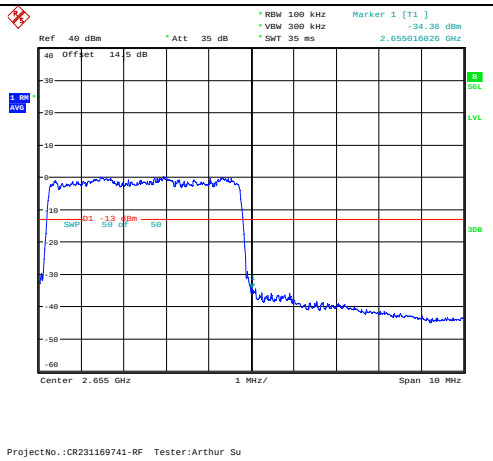
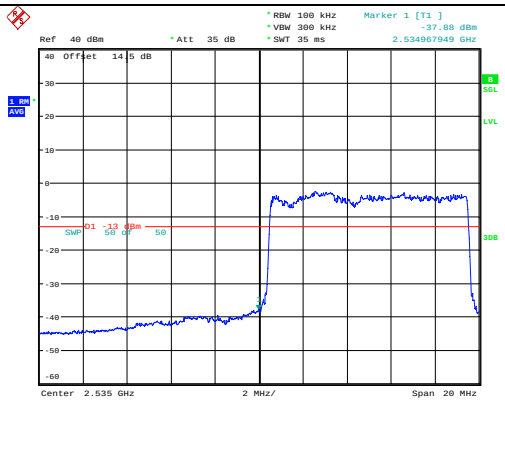
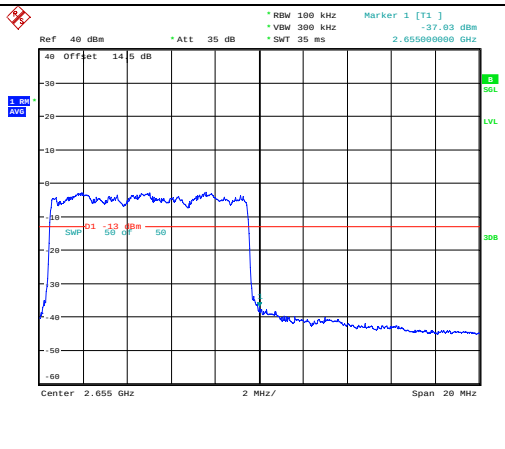
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 15MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:24:54	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:26:55
16QAM 20MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:35:12	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:37:48

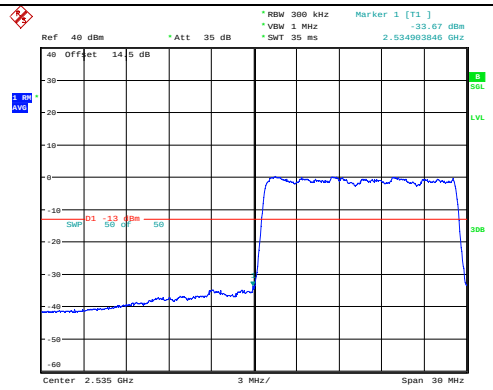
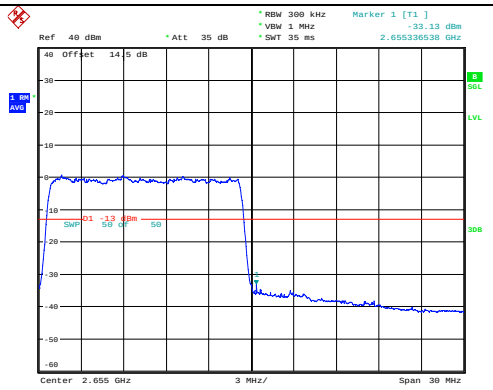
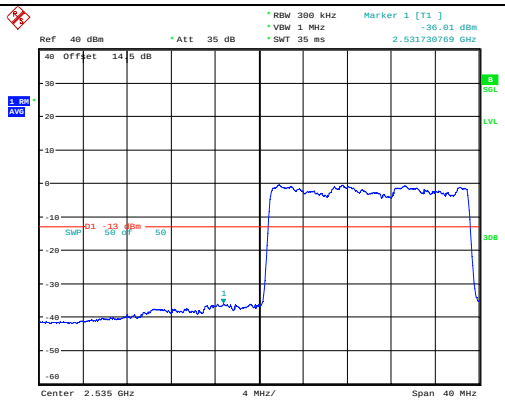
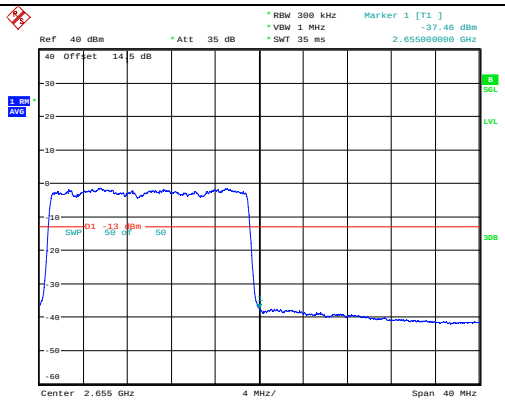
Test Plots for Out of band emission, Band Edge:

Note: The test is performed in full RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:09:57	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:13:10
QPSK 10MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:16:11	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:19:07

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 15MHz		
QPSK 20MHz		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz		
16QAM 10MHz		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 15MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:24:09	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:28:00
16QAM 20MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:36:15	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:38:10

4.12 Antenna Port Test Data and Results for LTE Band 66

Serial Number:	2E5M-1	Test Date:	2023/12/1-2023/12/5
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu/Arthur Su	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24.3-25.8	Relative Humidity: (%)	52-61	ATM Pressure: (kPa)	101-101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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
Unknown	Coaxial tee connector	Unknown	2204005	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	1710.7	1745	1779.3
3MHz	1711.5	1745	1778.5
5MHz	1712.5	1745	1777.5
10MHz	1715	1745	1775
15MHz	1717.5	1745	1772.5
20MHz	1720	1745	1770

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		
1.4MHz QPSK	RB1#0	18.91	18.42	18.69	19.42	30
	RB1#3	**19.04**	18.60	18.78		
	RB1#5	18.92	18.41	18.63		
	RB3#0	18.97	18.53	18.75		
	RB3#3	19.00	18.51	18.72		
	RB6#0	17.97	17.50	17.65		
1.4MHz 16QAM	RB1#0	18.01	17.48	17.67	18.58	30
	RB1#3	**18.20**	17.63	17.80		
	RB1#5	18.05	17.46	17.65		
	RB3#0	18.02	17.62	17.91		
	RB3#3	17.96	17.64	17.92		
	RB6#0	17.06	16.47	16.70		
3MHz QPSK	RB1#0	**18.97**	18.06	18.87	19.35	30
	RB1#8	18.95	18.00	18.90		
	RB1#14	18.88	17.97	18.83		
	RB6#0	17.93	17.00	17.79		
	RB6#9	17.87	16.99	17.78		
	RB15#0	17.93	17.04	17.84		
3MHz 16QAM	RB1#0	**18.01**	17.64	**18.01**	18.39	30
	RB1#8	17.98	17.64	17.95		
	RB1#14	17.92	17.55	17.91		
	RB6#0	16.90	16.13	16.82		
	RB6#9	16.86	16.09	16.84		
	RB15#0	16.98	16.11	16.81		
5MHz QPSK	RB1#0	**19.38**	18.16	18.40	19.76	30
	RB1#13	18.94	18.26	18.52		
	RB1#24	18.80	18.09	18.34		
	RB15#0	17.92	17.23	17.49		
	RB15#10	17.89	17.24	17.45		
	RB25#0	17.90	17.18	17.45		
5MHz 16QAM	RB1#0	18.20	17.26	17.31	18.64	30
	RB1#13	**18.26**	17.33	17.44		
	RB1#24	18.10	17.22	17.34		
	RB15#0	16.92	16.27	16.56		
	RB15#10	16.90	16.25	16.48		
	RB25#0	16.91	16.23	16.54		
10MHz QPSK	RB1#0	18.97	18.74	18.71	19.41	30
	RB1#25	**19.03**	18.94	18.88		
	RB1#49	18.84	18.69	18.60		
	RB25#0	17.91	17.74	17.83		

	RB25#25	17.86	17.79	17.70		
	RB50#0	17.89	17.80	17.76		
10MHz 16QAM	RB1#0	17.96	18.36	17.85	18.89	30
	RB1#25	18.09	**18.51**	18.06		
	RB1#49	17.87	18.30	17.86		
	RB25#0	17.03	16.82	16.93		
	RB25#25	16.99	16.84	16.77		
	RB50#0	16.96	16.84	16.84		
15MHz QPSK	RB1#0	**18.91**	18.19	18.69	19.29	30
	RB1#38	18.88	18.23	18.78		
	RB1#74	18.73	18.08	18.67		
	RB36#0	17.95	17.26	17.89		
	RB36#39	17.86	17.24	17.80		
	RB75#0	17.89	17.25	17.81		
15MHz 16QAM	RB1#0	18.31	17.77	17.82	18.73	30
	RB1#38	**18.35**	17.83	17.96		
	RB1#74	18.19	17.65	17.78		
	RB36#0	16.93	16.28	16.92		
	RB36#39	16.82	16.27	16.78		
	RB75#0	16.90	16.28	16.84		
20MHz QPSK	RB1#0	18.75	18.67	18.16	19.35	30
	RB1#50	18.95	**18.97**	18.55		
	RB1#99	18.59	18.57	18.09		
	RB50#0	17.98	17.75	17.65		
	RB50#50	17.89	17.75	17.32		
	RB100#0	17.94	17.77	17.50		
20MHz 16QAM	RB1#0	18.06	17.88	17.74	18.71	30
	RB1#50	**18.33**	18.14	18.15		
	RB1#99	17.93	17.76	17.70		
	RB50#0	16.98	16.82	16.66		
	RB50#50	16.90	16.74	16.34		
	RB100#0	16.95	16.82	16.54		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(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	7.24	6.86	7.82	13
	RB100#0	6.38	6.44	6.28	13
20MHz 16QAM	RB1#0	7.18	7.12	8.01	13
	RB100#0	7.08	7.21	7.02	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	1.104	1.104	1.098	1.320	1.296	1.302
1.4MHz 16QAM	1.092	1.104	1.098	1.284	1.362	1.308
3MHz QPSK	2.687	2.700	2.687	2.892	2.904	2.880
3MHz 16QAM	2.687	2.687	2.687	2.868	2.964	2.880
5MHz QPSK	4.520	4.520	4.520	5.200	5.180	5.140
5MHz 16QAM	4.520	4.520	4.520	5.200	5.140	5.180
10MHz QPSK	8.960	8.960	8.960	9.800	10.000	9.720
10MHz 16QAM	8.960	8.960	8.960	9.880	9.720	9.840
15MHz QPSK	13.560	13.560	13.500	15.300	15.060	15.000
15MHz 16QAM	13.560	13.500	13.620	15.000	15.060	15.060
20MHz QPSK	18.000	18.000	18.000	19.760	19.520	19.520
20MHz 16QAM	18.000	18.080	18.000	19.760	19.760	19.600
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.**

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

Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1711.036	1710.00	1778.984	1780
	-20	3.8	1711.011	1710.00	1778.964	1780
	-10	3.8	1711.019	1710.00	1778.962	1780
	0	3.8	1711.038	1710.00	1778.964	1780
	10	3.8	1711.026	1710.00	1778.986	1780
	20	3.8	1711.040	1710.00	1778.960	1780
	30	3.8	1711.029	1710.00	1778.962	1780
	40	3.8	1711.017	1710.00	1778.988	1780
	50	3.8	1711.038	1710.00	1778.964	1780
Frequency Stability vs. Voltage	20	3.6	1711.033	1710.00	1778.985	1780
	20	4.35	1711.013	1710.00	1778.987	1780
					Result:	**Pass**

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1711.039	1710.00	1778.979	1780
	-20	3.8	1711.018	1710.00	1778.978	1780
	-10	3.8	1711.014	1710.00	1778.968	1780
	0	3.8	1711.036	1710.00	1778.961	1780
	10	3.8	1711.022	1710.00	1778.974	1780
	20	3.8	1711.040	1710.00	1778.960	1780
	30	3.8	1711.023	1710.00	1778.974	1780
	40	3.8	1711.033	1710.00	1778.971	1780
	50	3.8	1711.039	1710.00	1778.966	1780
Frequency Stability vs. Voltage	20	3.6	1711.032	1710.00	1778.989	1780
	20	4.35	1711.040	1710.00	1778.966	1780
					Result:	**Pass**

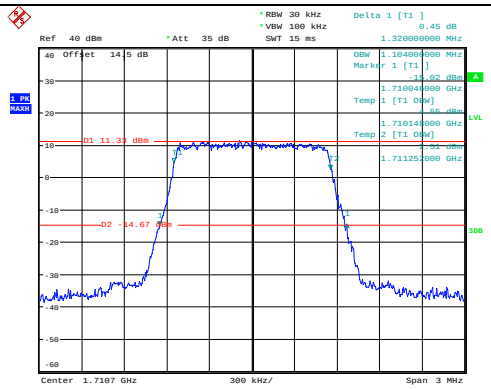
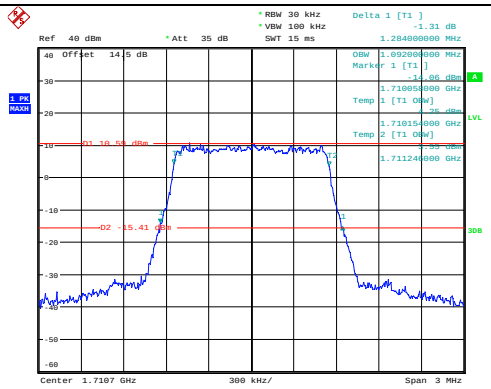
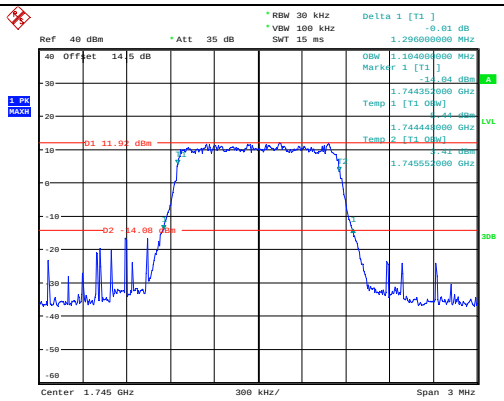
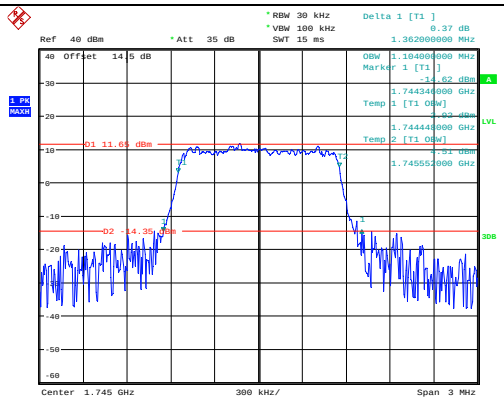
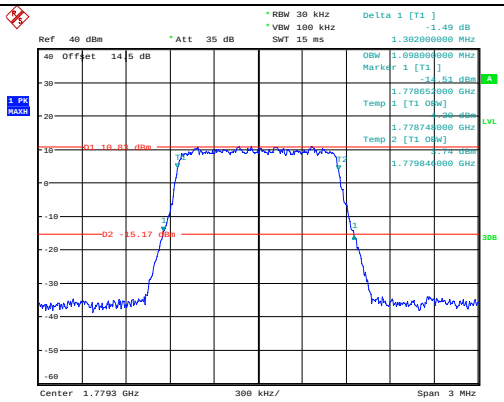
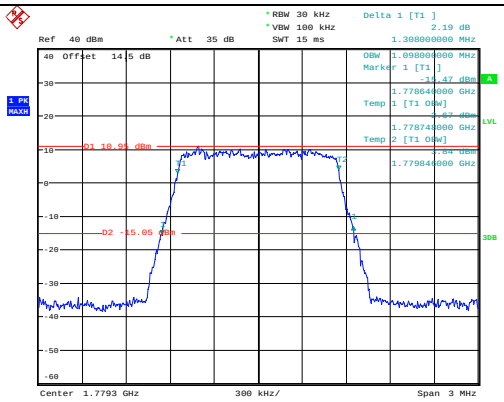
Test Plots:

Please refer to the below plots.

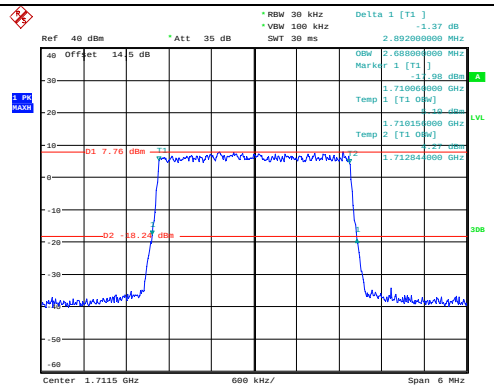
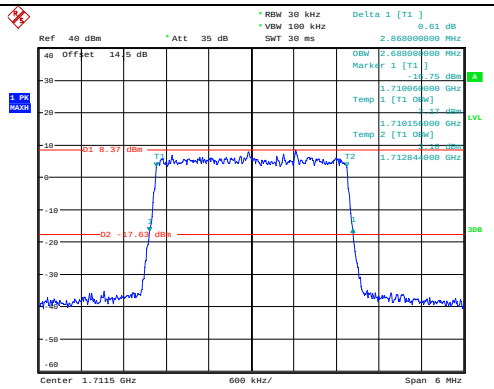
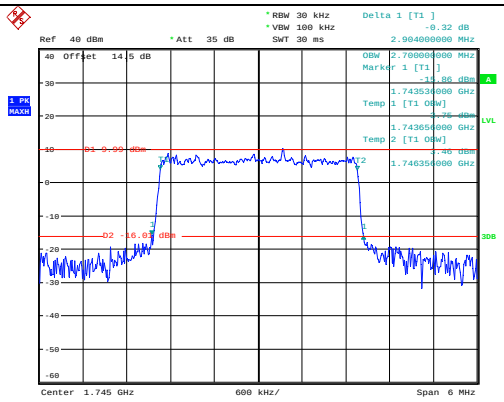
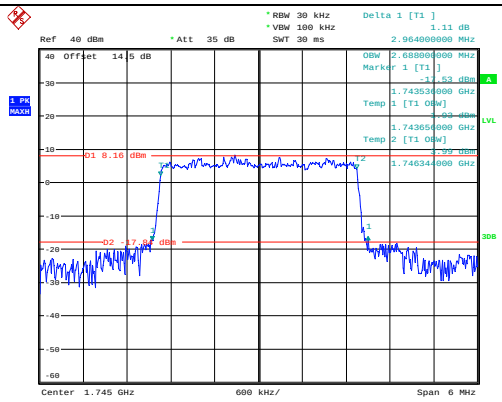
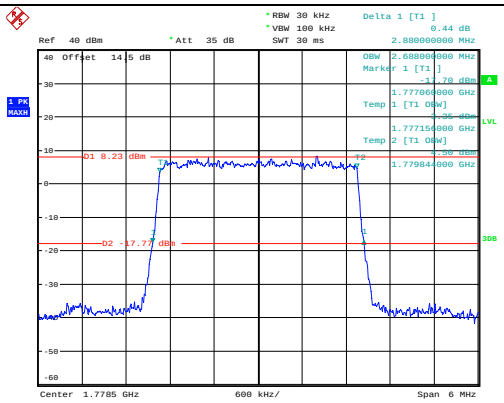
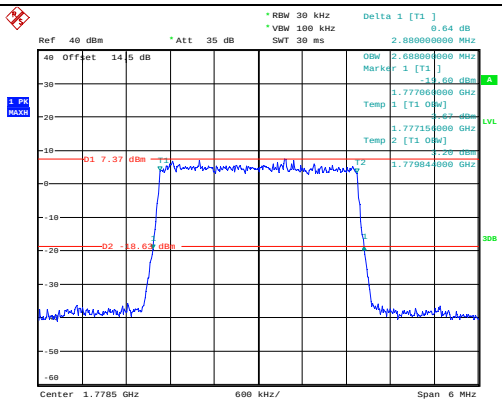
Note: The 14.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer.

Test Plots for Occupied Bandwidth:

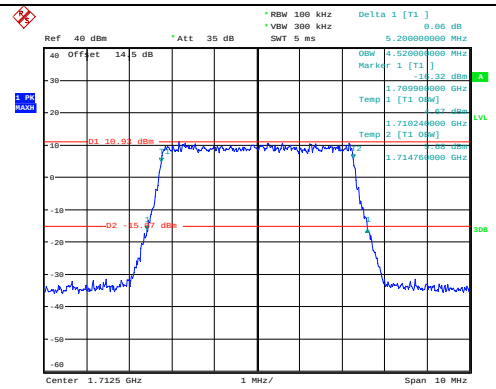
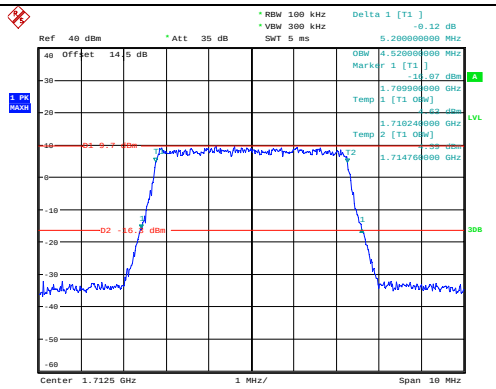
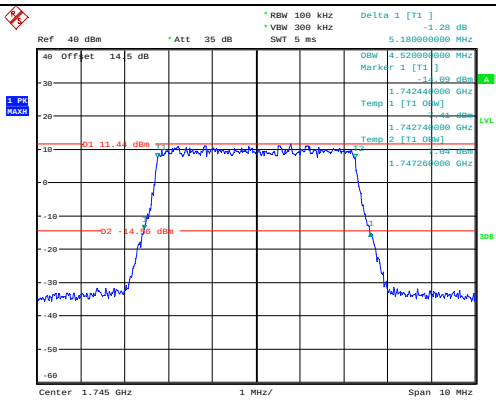
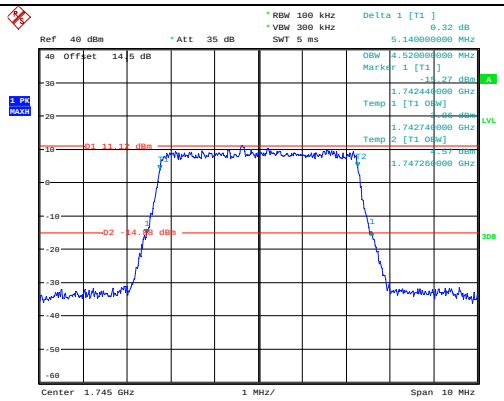
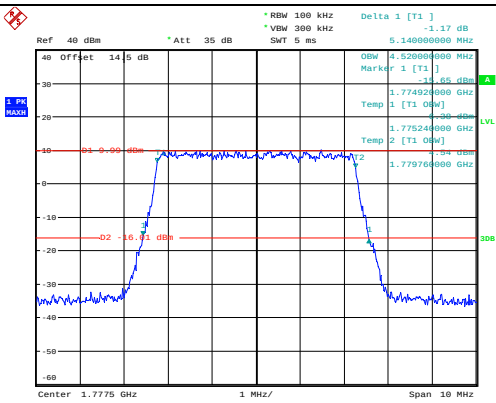
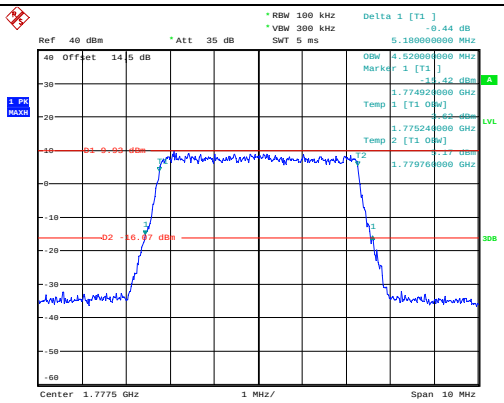
Note: The test is performed in full RB mode.

Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:44:25	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:44:39
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:44:53	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:45:12
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:45:27	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:45:41

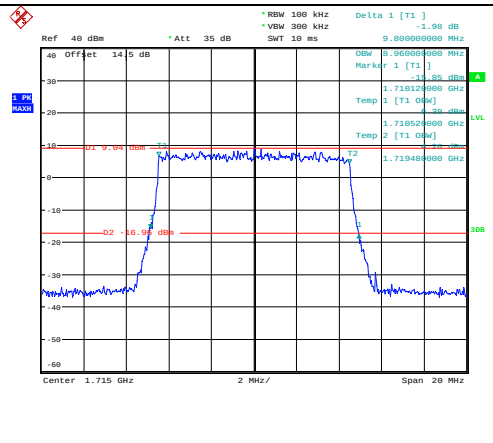
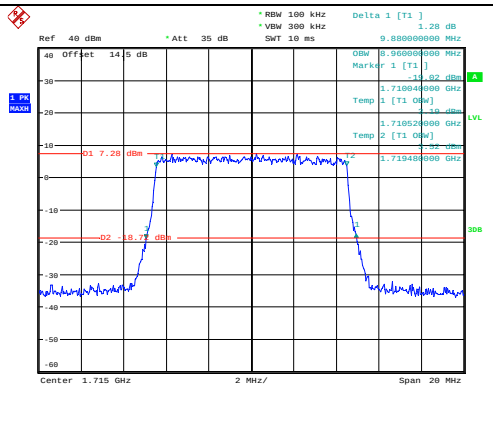
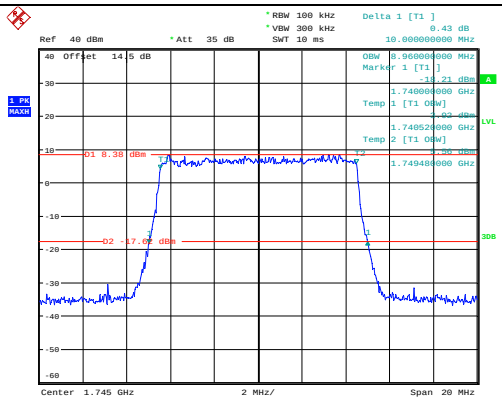
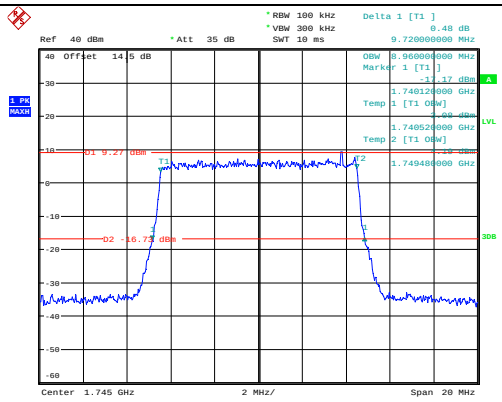
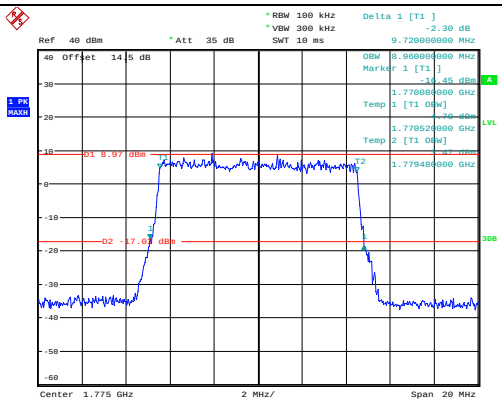
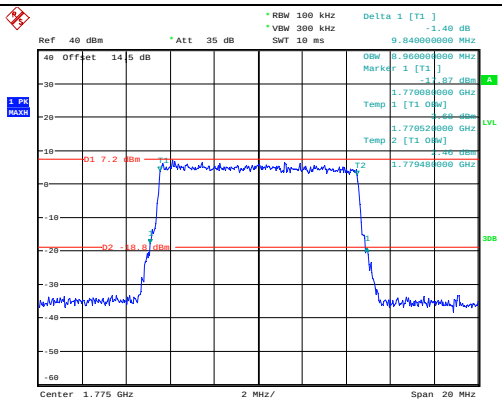
Occupied Bandwidth

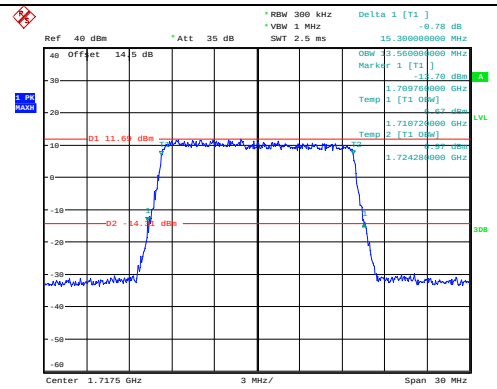
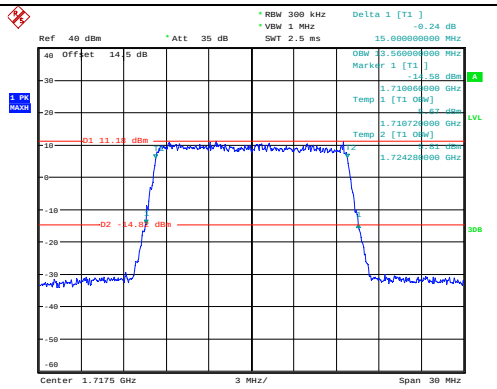
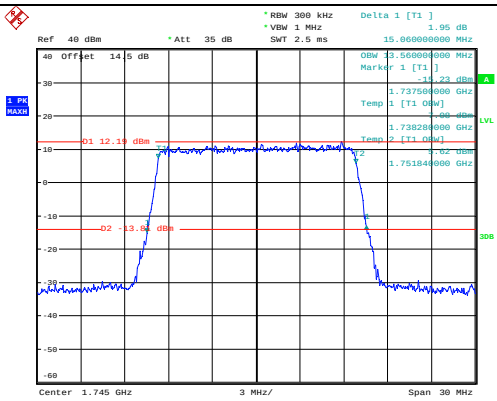
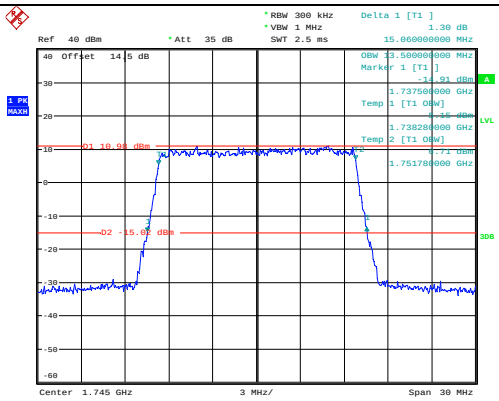
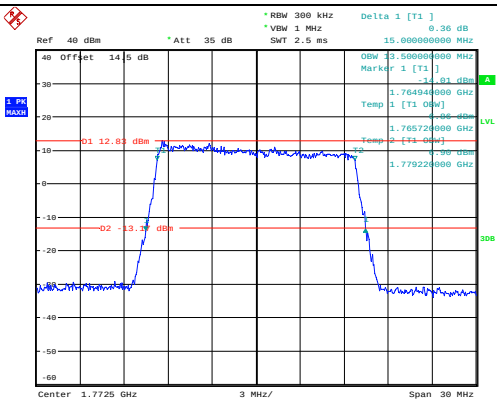
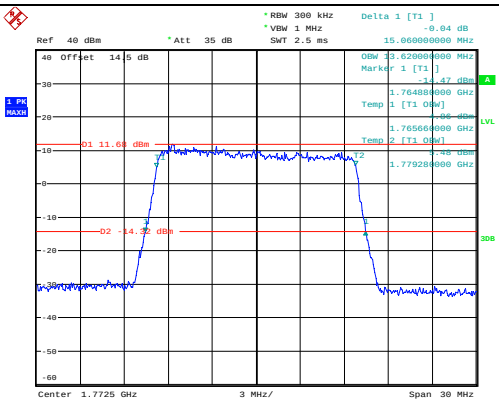
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:46:20	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:46:34
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:46:54	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:47:11
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:47:28	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:47:42

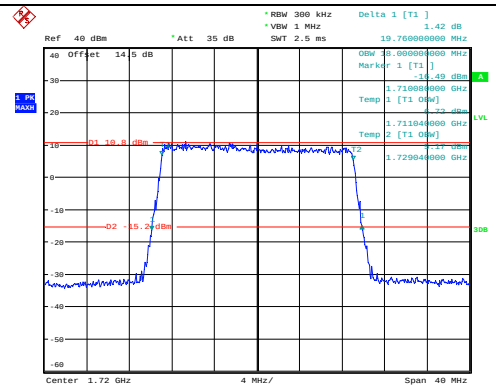
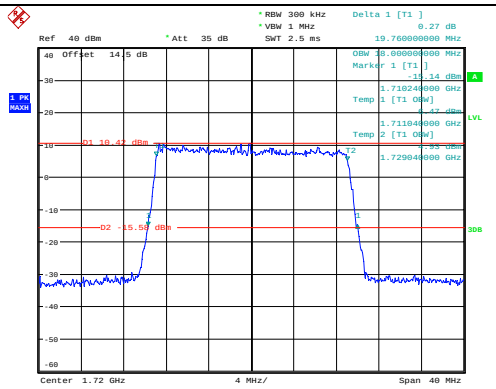
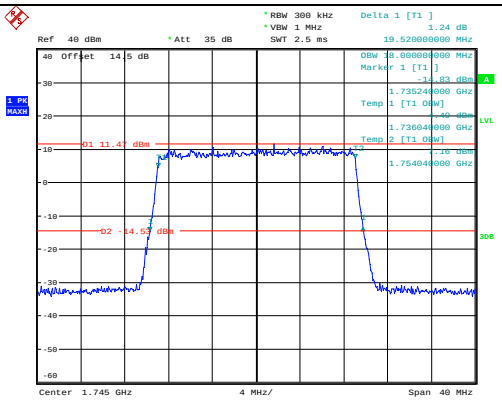
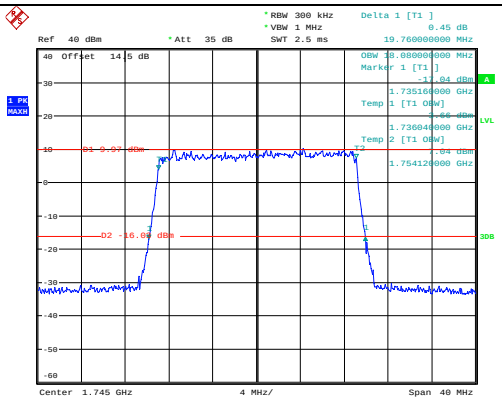
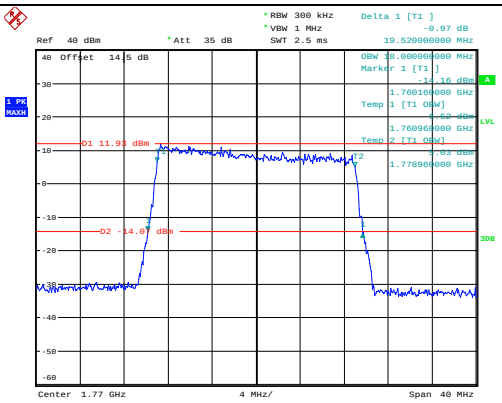
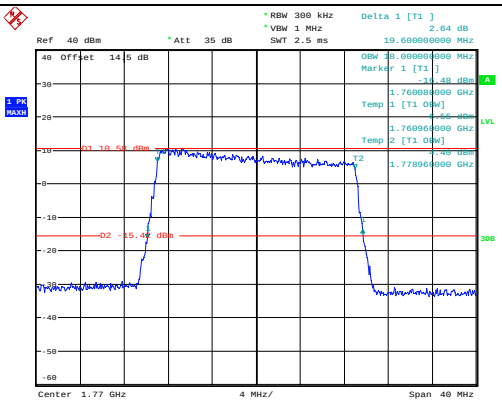
Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:48:24	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:48:41
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:48:58	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:49:15
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:49:32	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:49:49

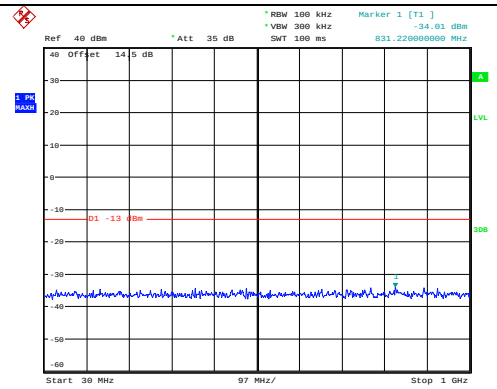
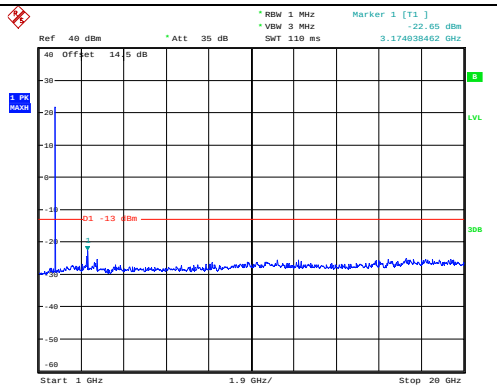
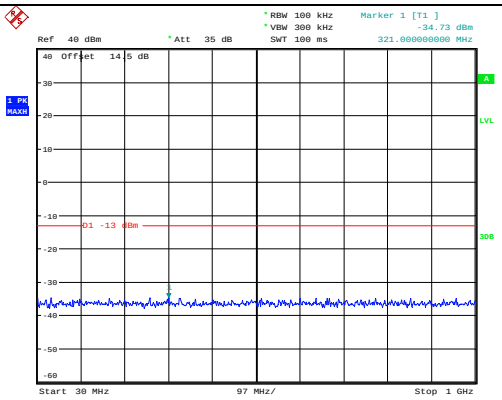
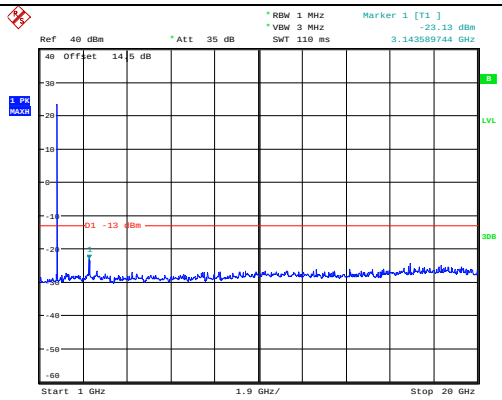
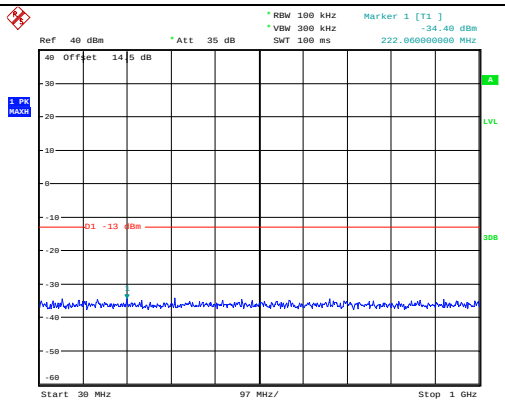
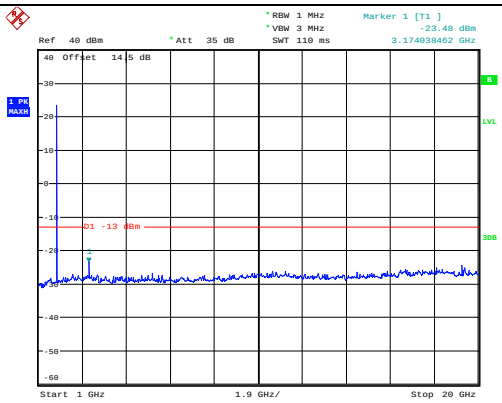
Occupied Bandwidth

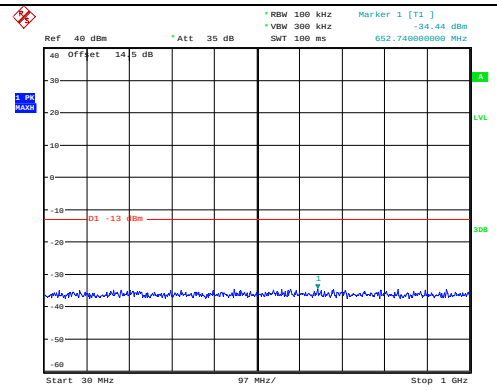
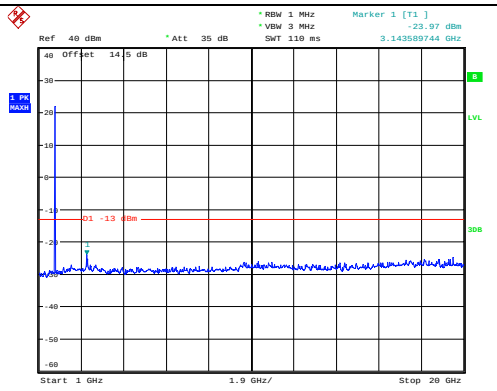
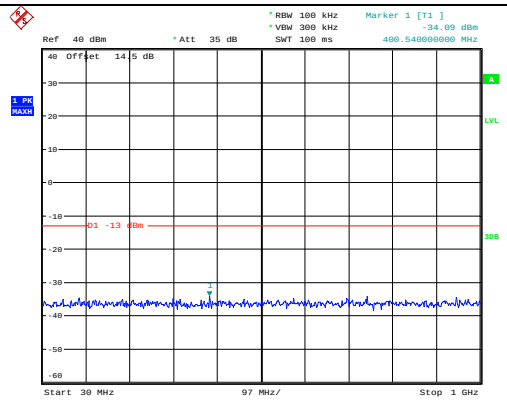
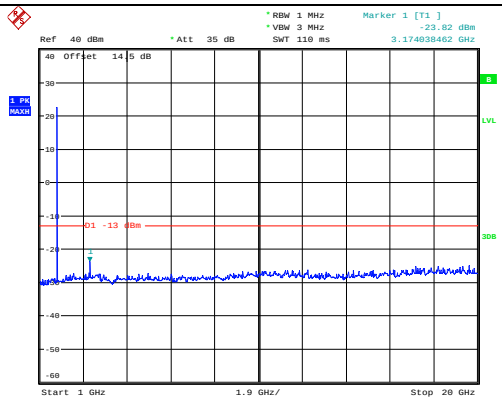
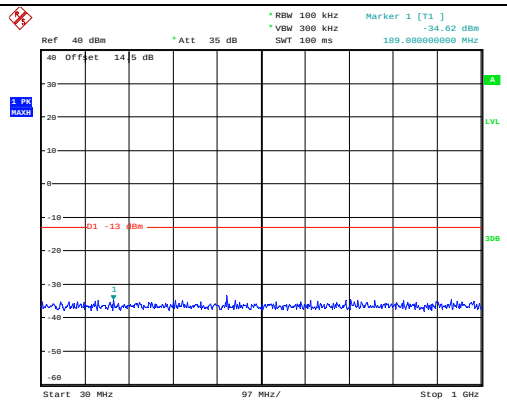
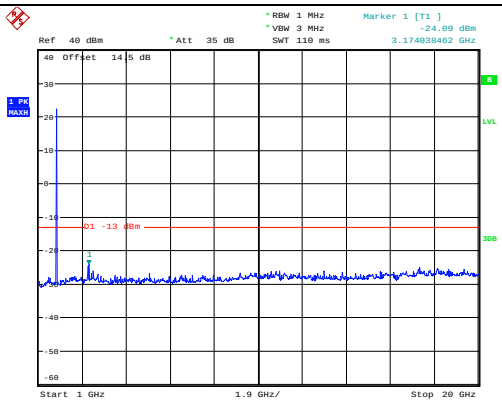
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:50:32	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:50:48
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:51:06	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:51:19
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:51:33	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:51:50

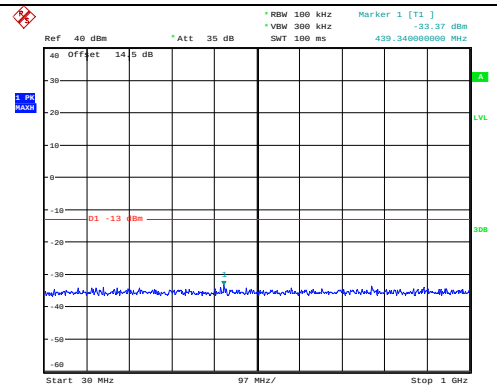
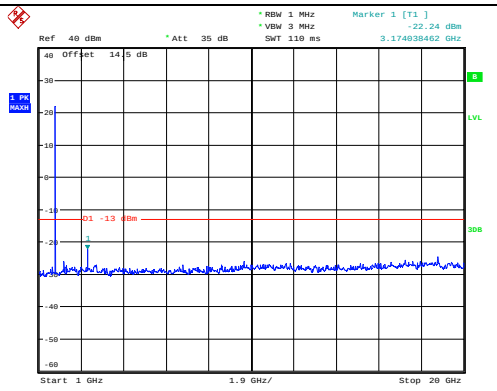
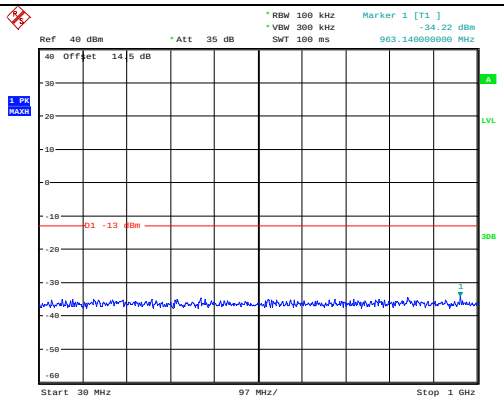
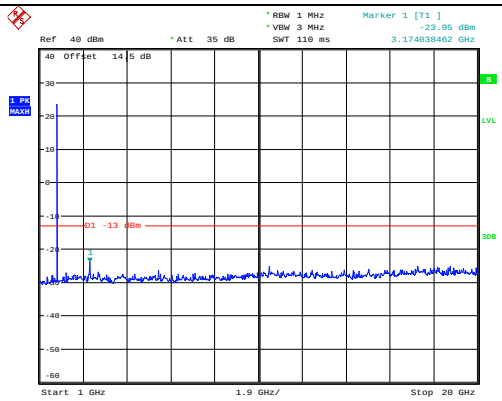
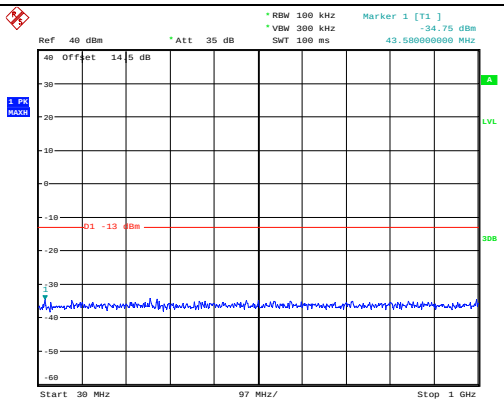
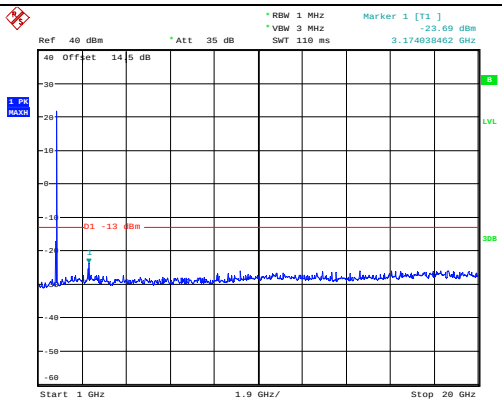
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:52:29	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:52:43
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:52:57	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:53:11
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:53:25	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 1.DEC.2023 23:53:39

Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

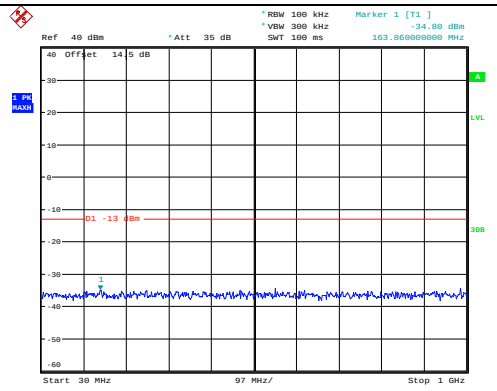
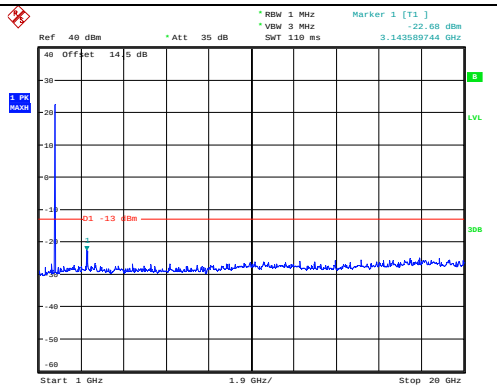
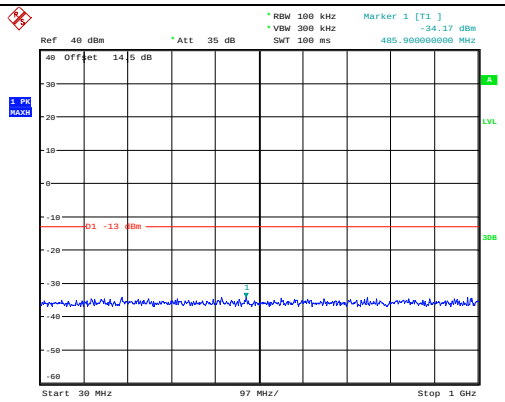
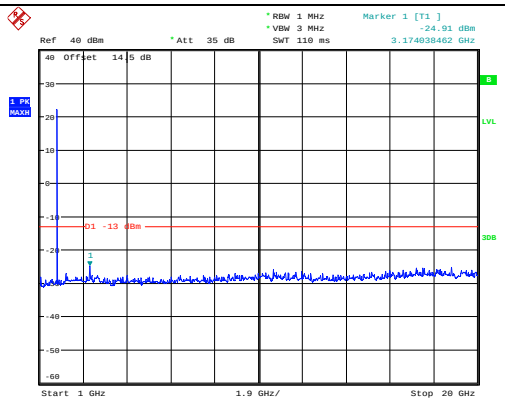
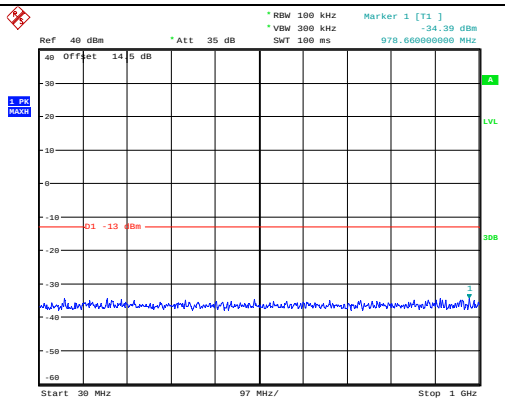
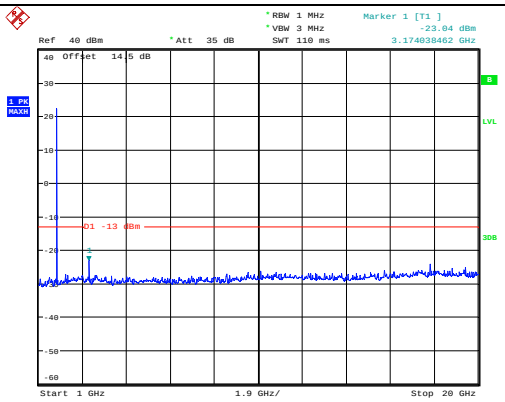
Test Plots for Spurious Emissions at Antenna Terminal:
Note: The test is performed in 1RB mode.

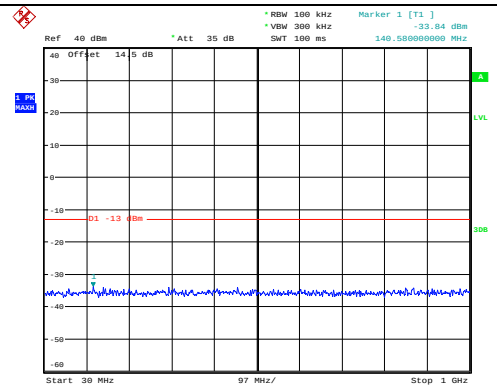
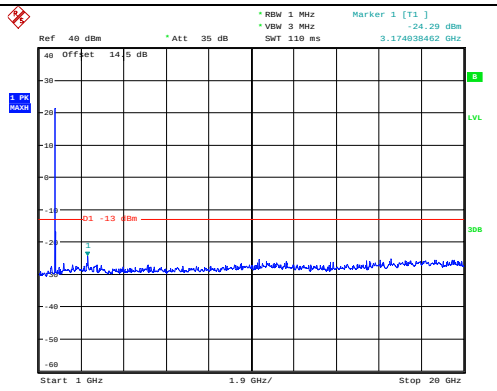
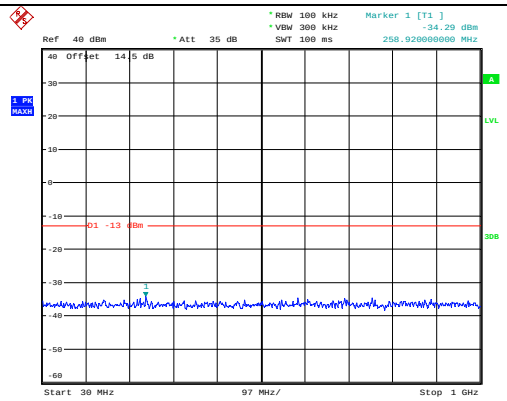
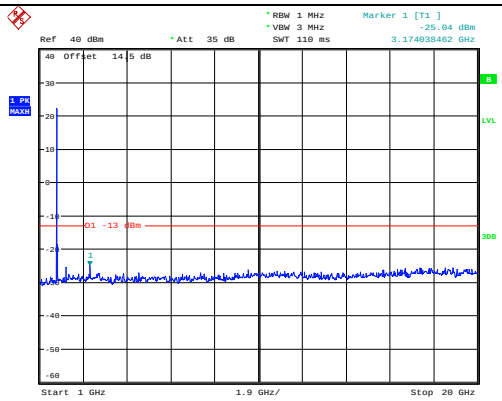
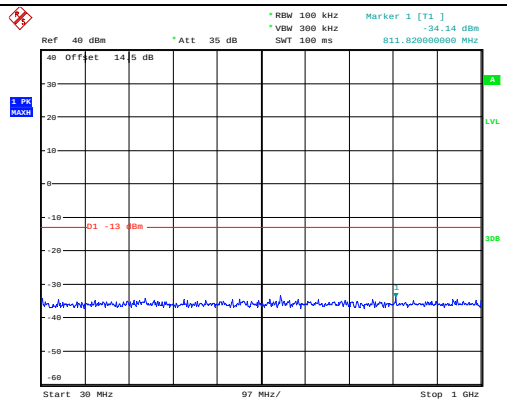
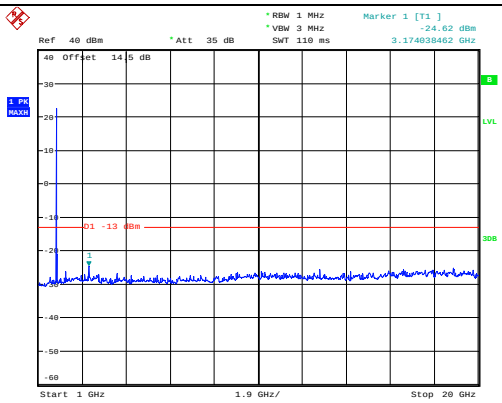
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:20:06	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:27:14
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:29:08	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:28:40
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:29:40	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:30:36

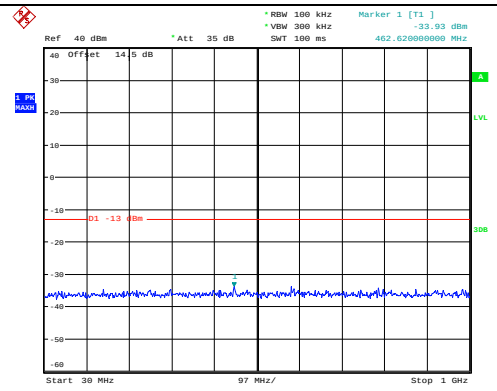
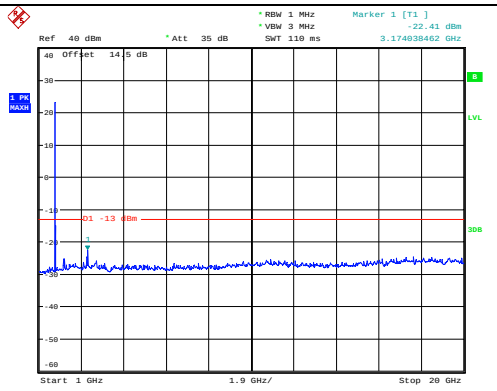
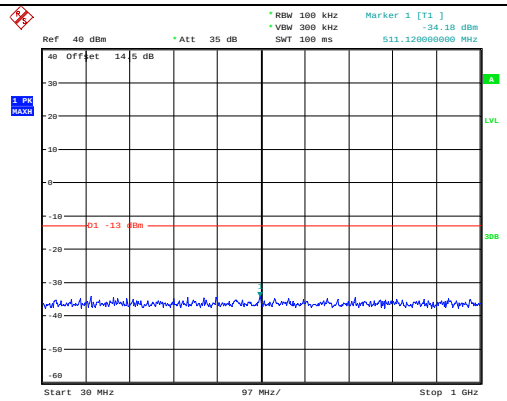
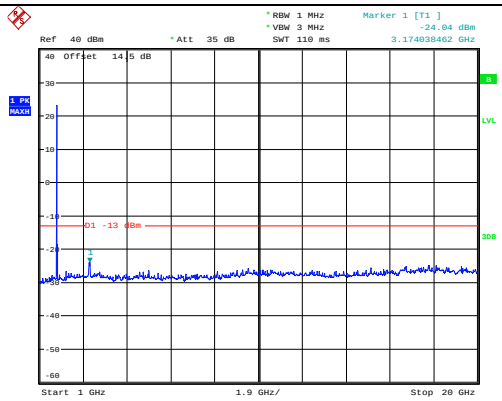
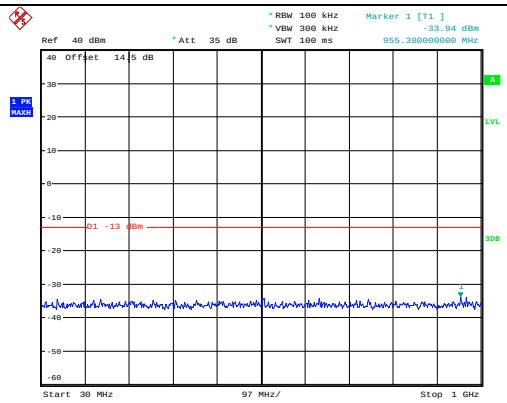
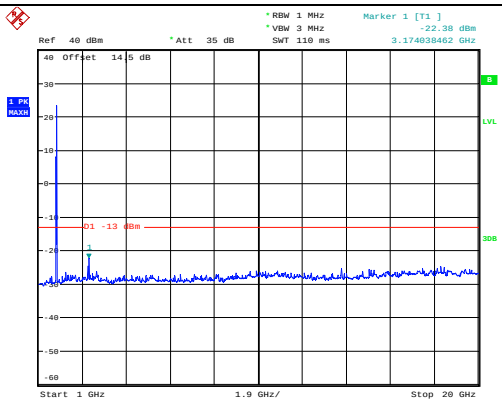
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:32:33	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:31:59
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:33:05	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:33:53
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:35:13	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:34:49

Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:35:58	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:37:00
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:38:18	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:37:51
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:38:45	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:39:29

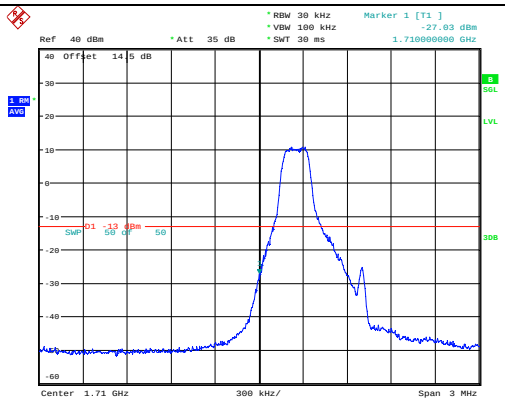
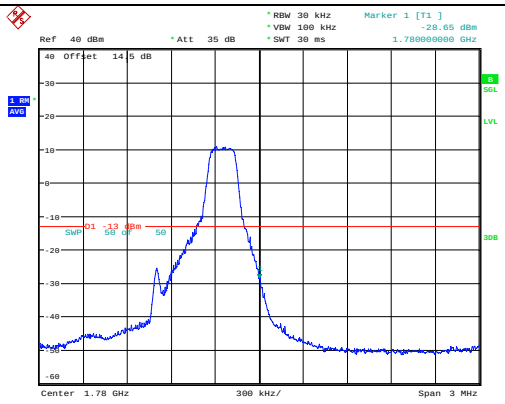
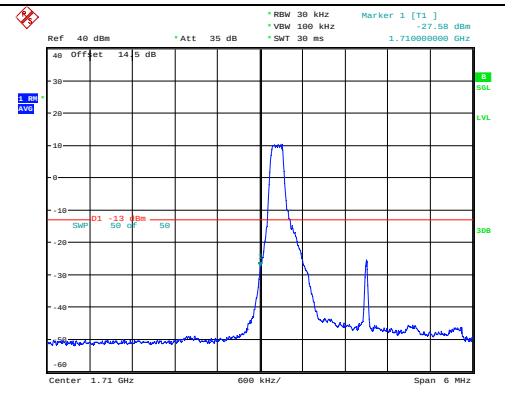
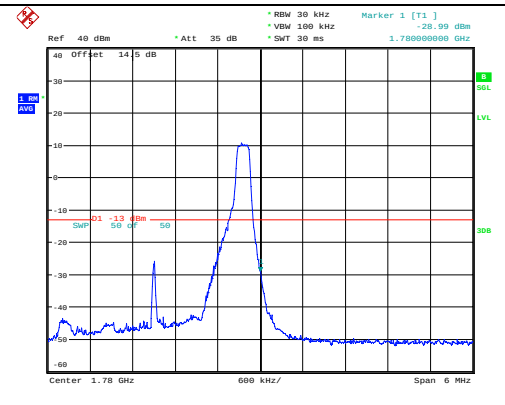
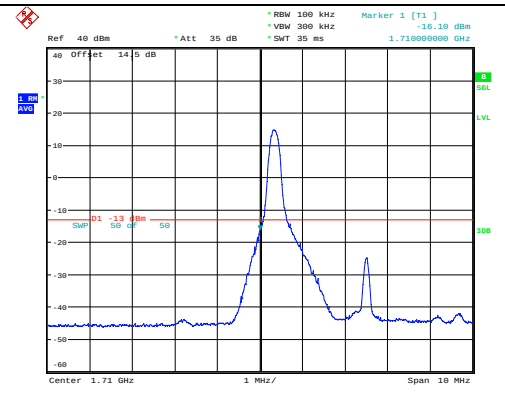
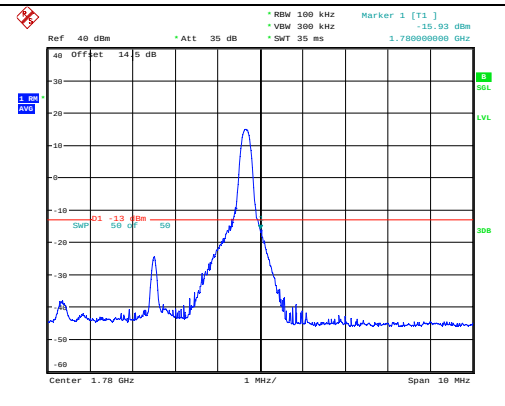
Spurious Emissions at Antenna Terminal

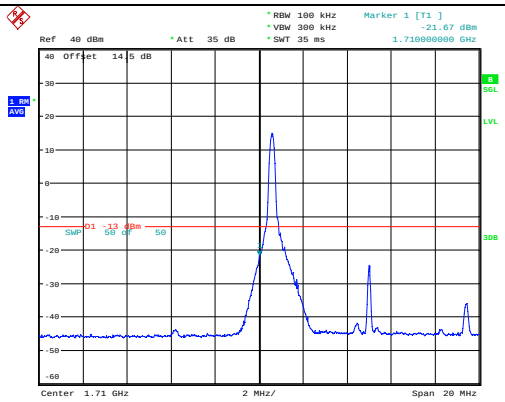
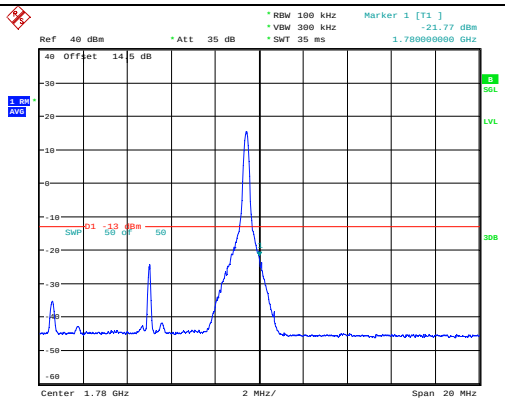
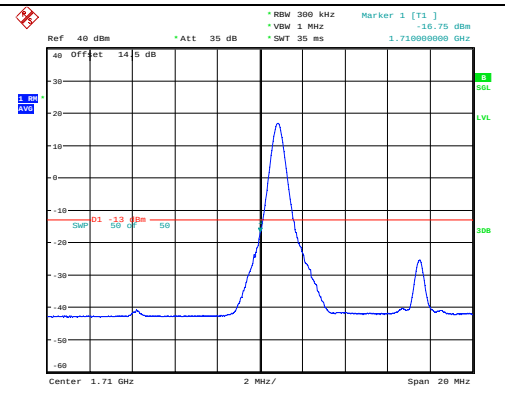
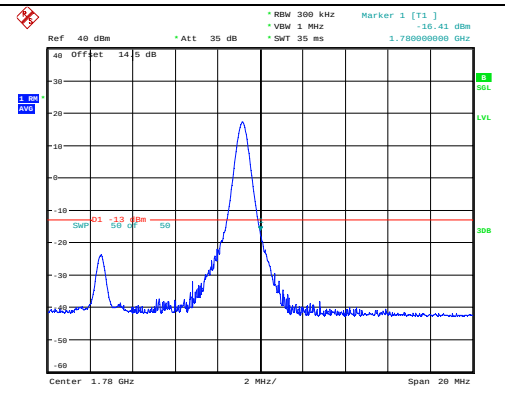
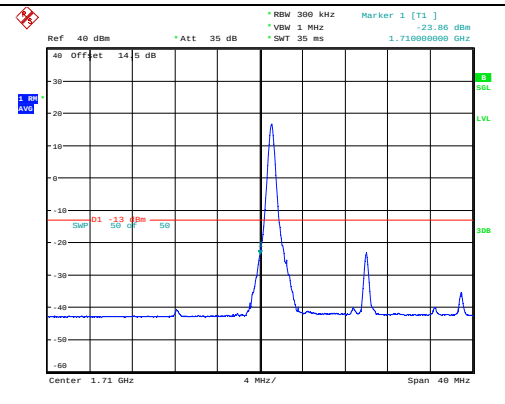
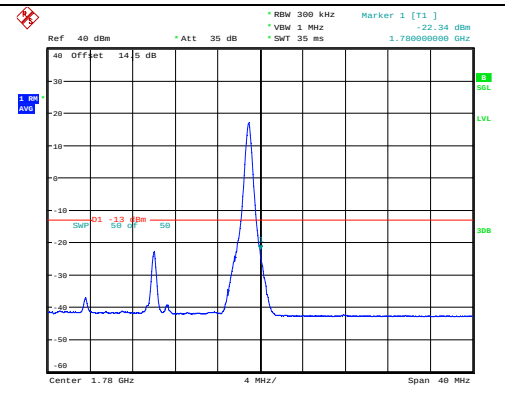
Channel	10MHz Bandwidth QPSK	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:41:48	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:41:22
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:42:10	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:42:44
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:44:05	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:43:27

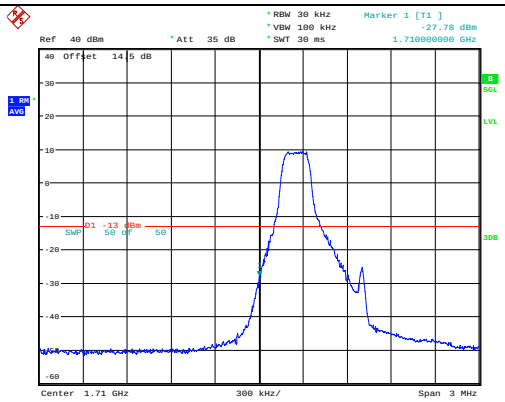
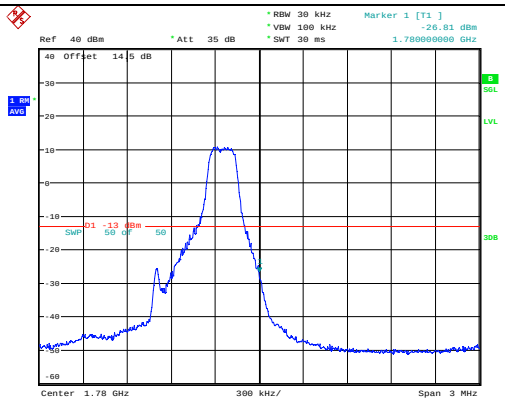
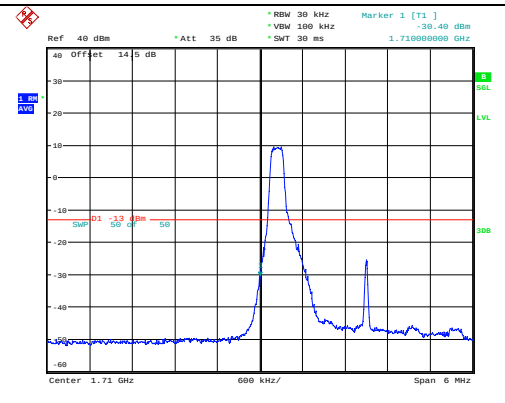
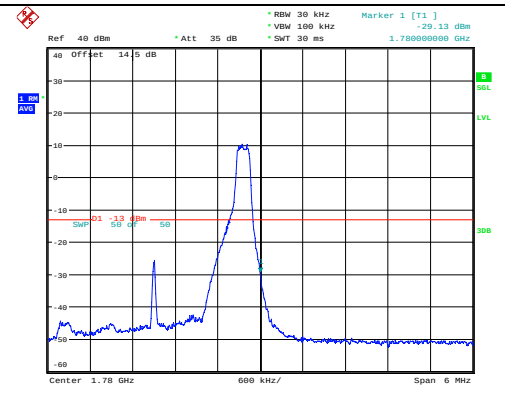
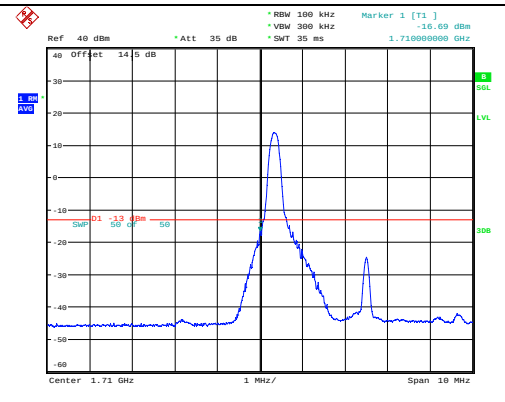
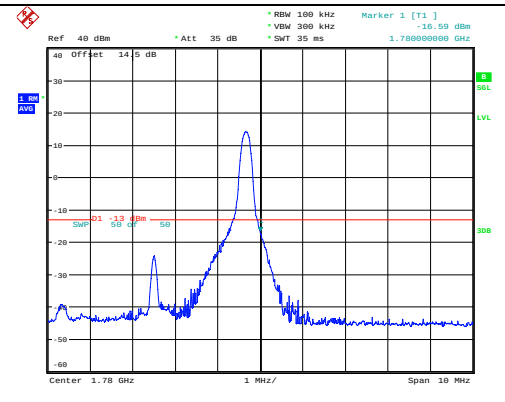
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:44:32	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:45:55
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:46:56	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:46:36
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:47:17	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:48:07

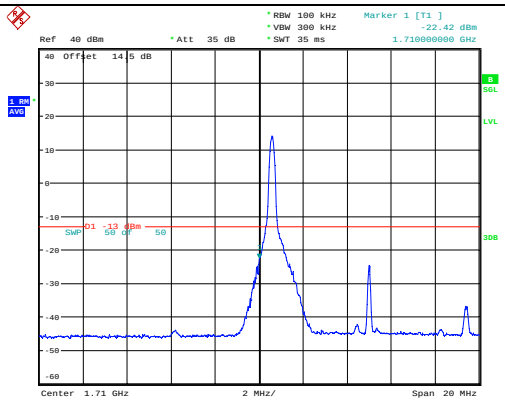
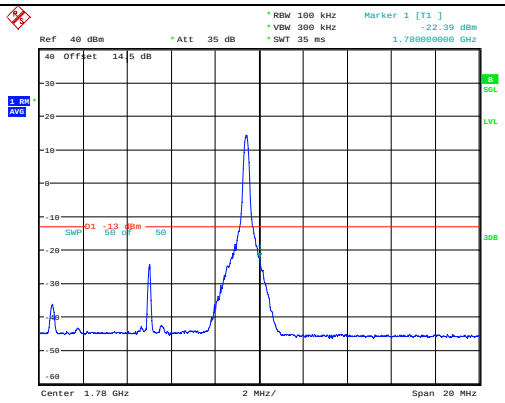
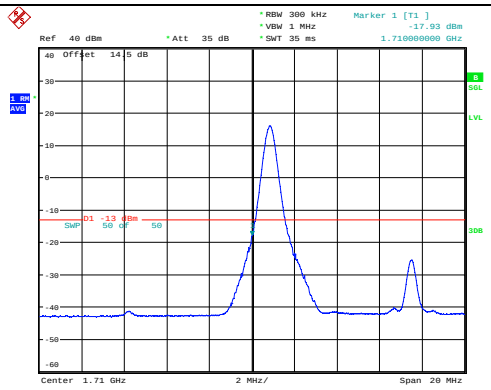
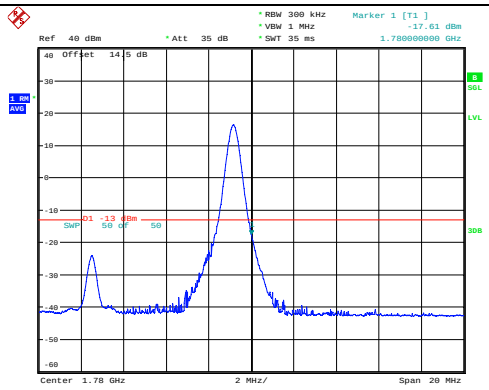
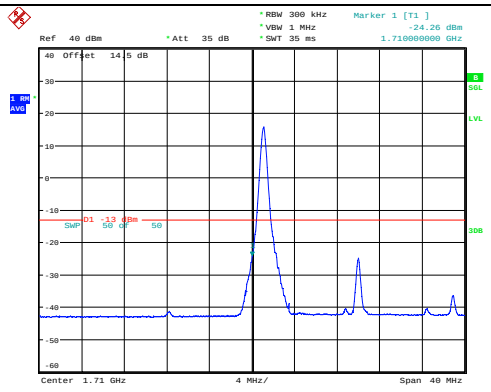
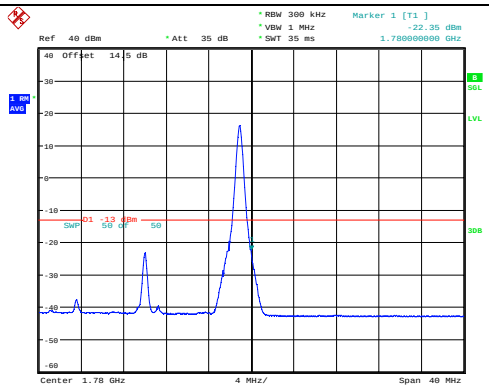
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:51:21	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:50:44
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:52:32	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:53:44
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:55:40	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 15:55:12

Test Plots for Out of band emission, Band Edge:
Note: The test is performed in 1RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:08:42	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:10:17
QPSK 3MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:12:09	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:13:35
QPSK 5MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:16:38	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:19:11

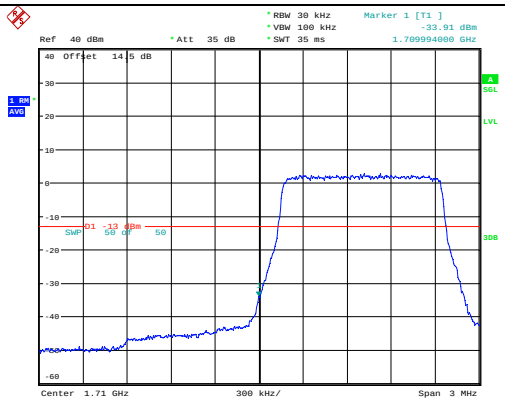
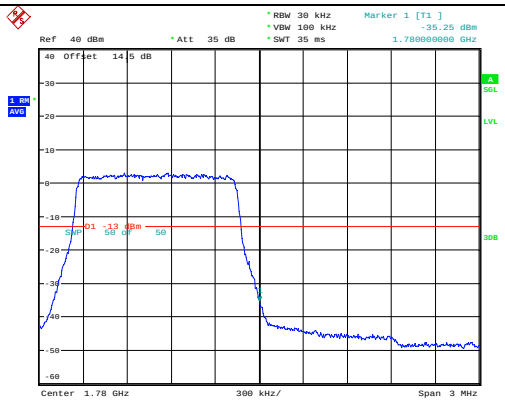
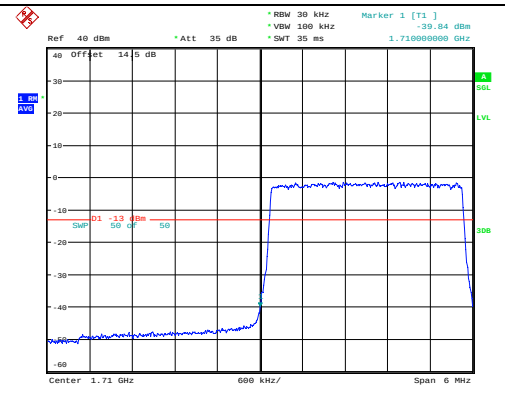
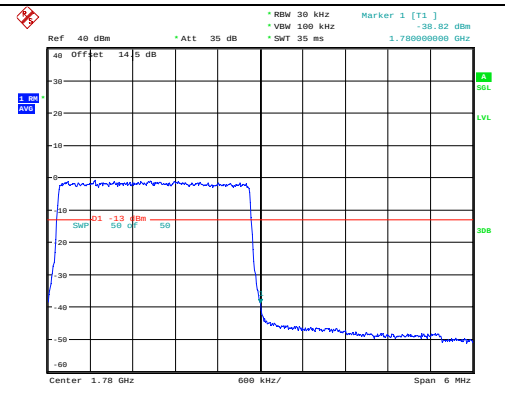
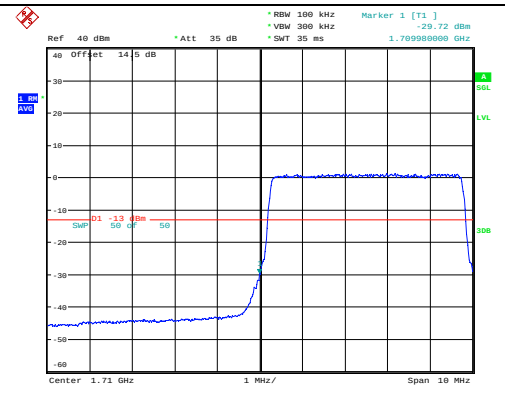
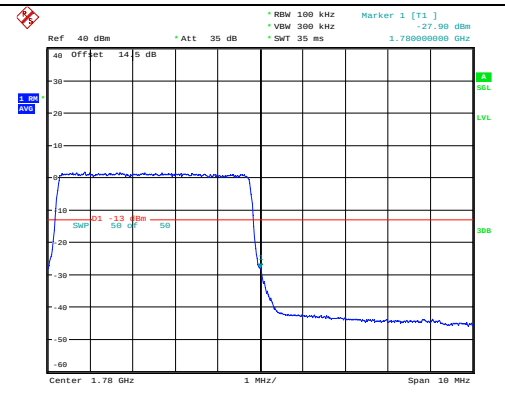
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:21:39	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:23:22
QPSK 15MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:26:16	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:27:36
QPSK 20MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:29:59	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:31:28

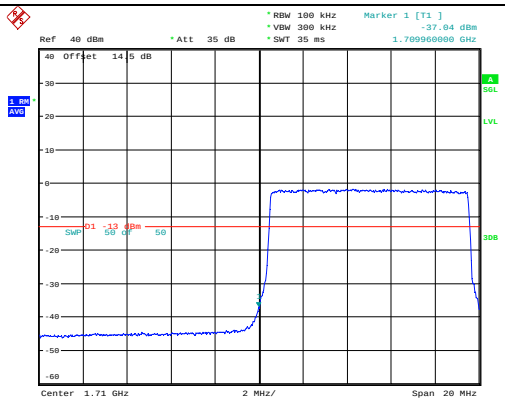
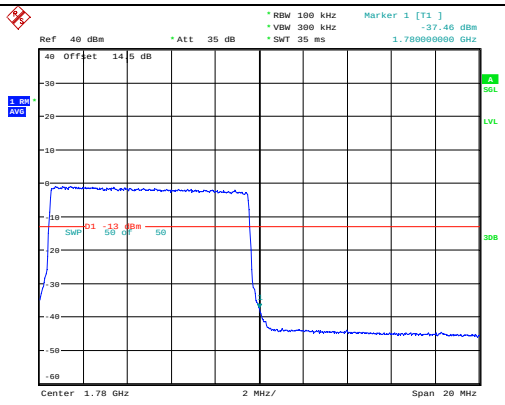
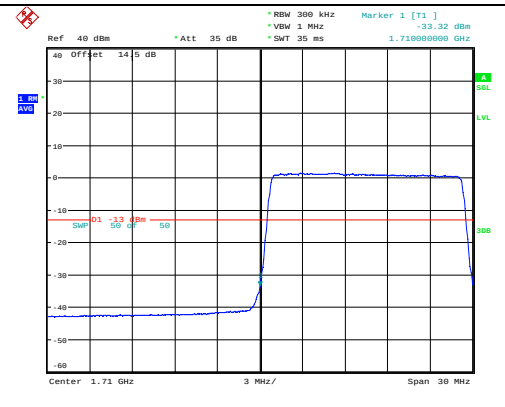
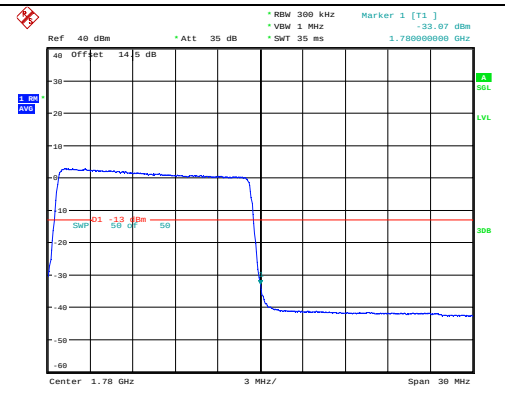
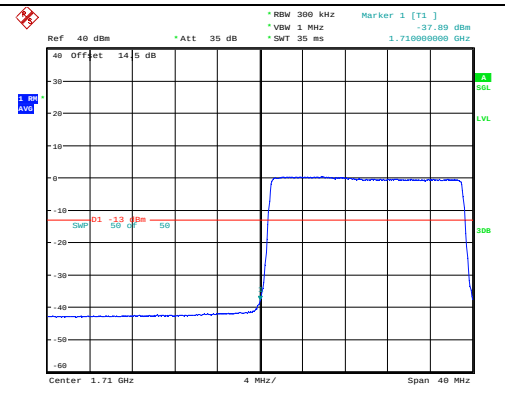
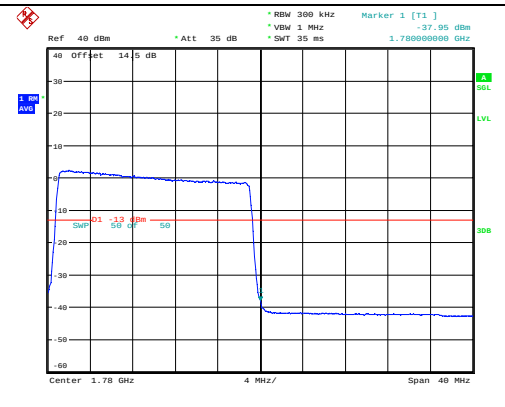
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:09:06	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:10:43
16QAM 3MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:12:35	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:14:04
16QAM 5MH	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:17:23	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:19:51

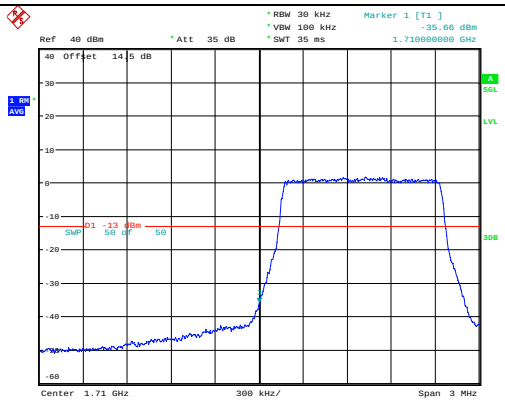
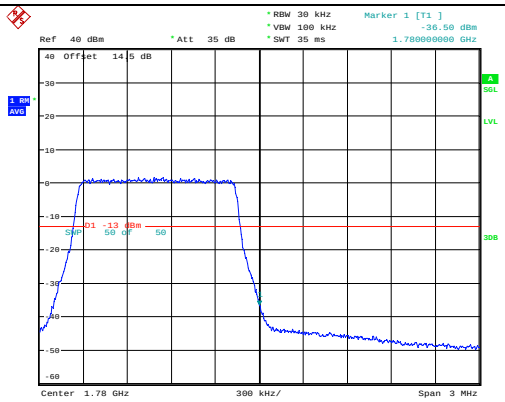
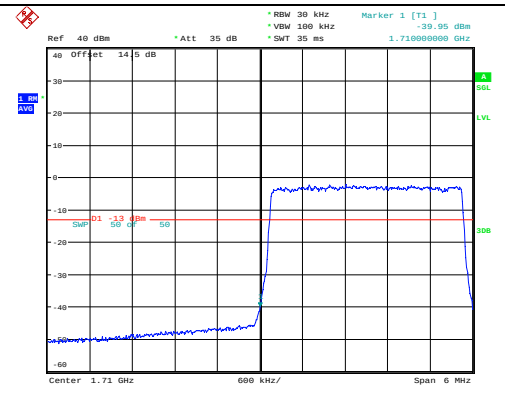
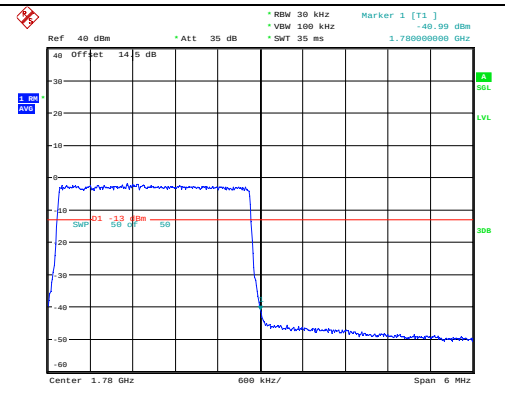
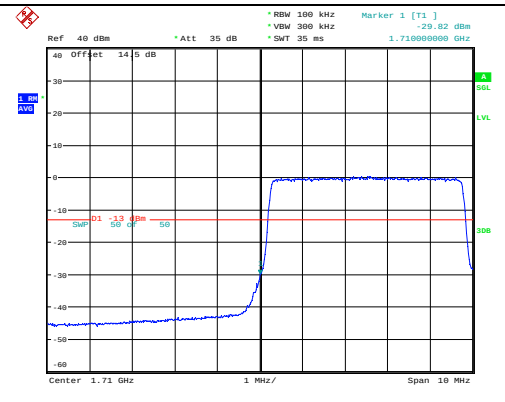
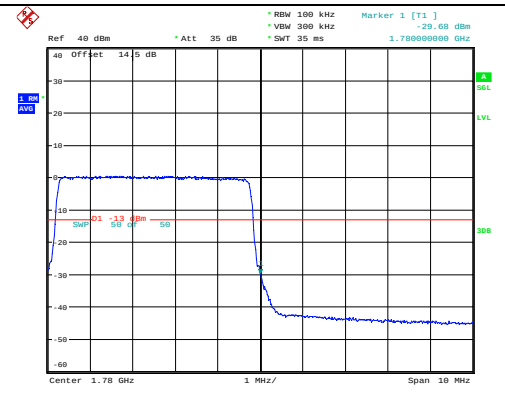
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:22:23	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:24:01
16QAM 15MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:26:51	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:28:05
16QAM 20MH	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:30:27	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:31:56

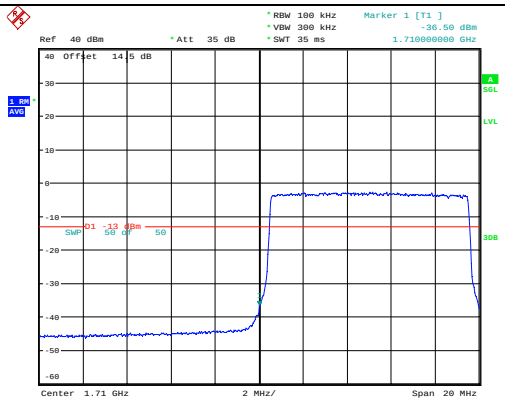
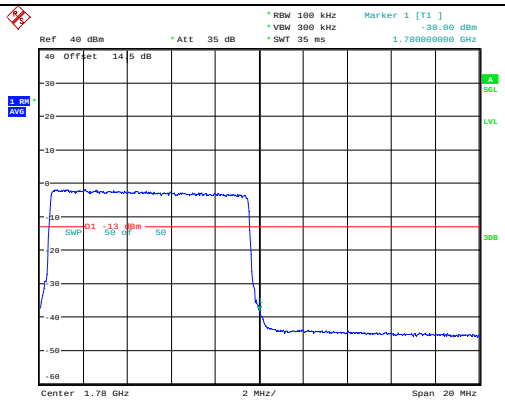
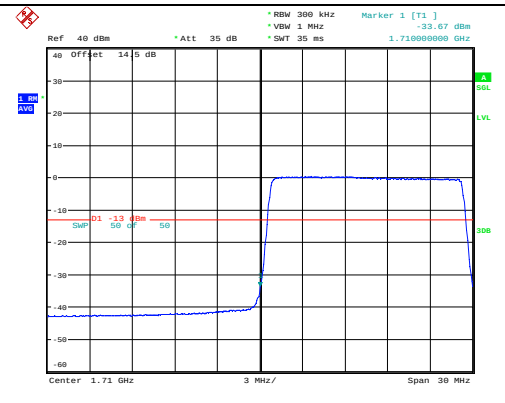
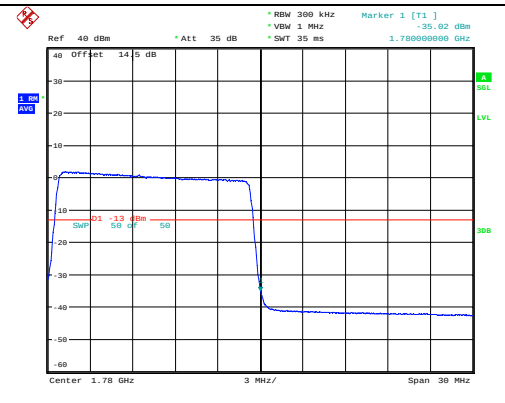
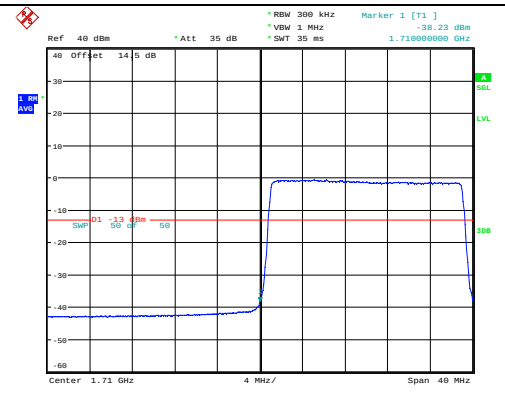
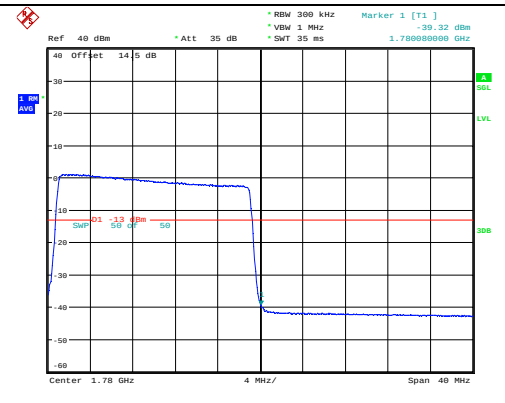
Test Plots for Out of band emission, Band Edge:

Note: The test is performed in full RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:36:27	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:36:43
QPSK 3MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:43:43	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:44:00
QPSK 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:44:41	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:44:58

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:45:55	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:46:13
QPSK 15MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:47:09	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:47:24
QPSK 20MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:48:03	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:48:18

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:36:35	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:36:50
16QAM 3MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:43:51	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:44:08
16QAM 5MH	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:44:49	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:45:07

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:46:03	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:46:22
16QAM 15MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:47:16	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:47:31
16QAM 20MH	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:48:10	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 12:48:25

4.13 Antenna Port Test Data and Results for LTE Band 71

Serial Number:	2E5M-1	Test Date:	2023/12/1-2023/12/5
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu/Arthur Su	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24.3-25.8	Relative Humidity: (%)	52-61	ATM Pressure: (kPa)	101-101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200256	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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
Unknown	Coaxial tee connector	Unknown	2204005	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	665.5	680.5	695.5
10MHz	668	680.5	693
15MHz	670.5	680.5	690.5
20MHz	673	680.5	688

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	24.84	**25.35**	25.26	22.53	34.77
	RB1#13	24.99	25.19	25.16		
	RB1#24	24.87	24.79	24.77		
	RB15#0	24.07	24.04	23.96		
	RB15#10	24.05	23.94	23.92		
	RB25#0	24.00	23.93	23.91		
5MHz 16QAM	RB1#0	23.99	23.75	24.09	21.39	34.77
	RB1#13	24.06	23.90	**24.21**		
	RB1#24	23.99	23.74	24.03		
	RB15#0	23.08	23.06	22.96		
	RB15#10	23.06	23.00	22.91		
	RB25#0	23.06	23.03	22.92		
10MHz QPSK	RB1#0	24.91	24.85	**25.11**	22.29	34.77
	RB1#25	25.08	25.06	24.98		
	RB1#49	24.90	24.83	24.89		
	RB25#0	24.13	24.13	24.07		
	RB25#25	24.18	24.03	23.87		
	RB50#0	24.15	24.08	23.97		
10MHz 16QAM	RB1#0	24.57	23.96	24.00	21.88	34.77
	RB1#25	**24.70**	24.10	24.16		
	RB1#49	24.56	23.88	24.03		
	RB25#0	23.16	23.22	23.08		
	RB25#25	23.29	23.15	22.93		
	RB50#0	23.18	23.16	23.01		
15MHz QPSK	RB1#0	24.86	24.81	**25.26**	22.44	34.77
	RB1#38	24.96	24.90	24.82		
	RB1#74	24.80	24.77	24.72		
	RB36#0	24.02	24.11	23.86		
	RB36#39	23.98	24.03	23.86		
	RB75#0	24.01	24.08	23.85		
15MHz 16QAM	RB1#0	24.55	24.47	24.42	21.76	34.77
	RB1#38	**24.58**	24.55	24.45		
	RB1#74	24.44	24.42	24.34		
	RB36#0	22.99	23.12	22.85		
	RB36#39	23.00	23.03	22.90		
	RB75#0	22.99	23.10	22.89		
20MHz QPSK	RB1#0	24.77	24.71	24.72	22.31	34.77
	RB1#50	**25.13**	25.06	25.04		
	RB1#99	24.68	24.65	24.65		
	RB50#0	23.80	24.11	23.83		

	RB50#50	23.80	24.11	23.71		
	RB100#0	23.78	24.10	23.80		
20MHz 16QAM	RB1#0	24.07	24.06	24.08	21.63	34.77
	RB1#50	**24.45**	24.44	24.41		
	RB1#99	24.04	23.98	23.97		
	RB50#0	22.82	23.20	22.83		
	RB50#50	22.80	23.08	22.74		
	RB100#0	22.83	23.11	22.87		
Note: ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd) G_T(dBd)=G_T(dBi)-2.15						
Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd)						
					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	8.40	8.21	7.95	13
	RB100#0	6.19	6.57	6.28	13
20MHz 16QAM	RB1#0	7.47	8.24	7.85	13
	RB100#0	6.92	7.31	6.99	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	4.520	4.520	4.540	5.200	5.180	5.100
5MHz 16QAM	4.560	4.540	4.560	5.180	5.220	5.240
10MHz QPSK	9.000	9.040	9.000	9.880	9.880	10.360
10MHz 16QAM	9.000	9.000	9.000	9.840	9.840	9.880
15MHz QPSK	13.500	13.620	13.500	15.120	15.240	14.940
15MHz 16QAM	13.500	13.620	13.440	15.540	15.180	14.940
20MHz QPSK	17.920	18.000	17.920	19.520	19.680	19.440
20MHz 16QAM	17.920	18.000	17.920	19.600	19.600	19.280
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.**

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

Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	664.026	663.00	696.985	698.00
	-20	3.8	664.037	663.00	696.969	698.00
	-10	3.8	664.031	663.00	696.963	698.00
	0	3.8	664.021	663.00	696.966	698.00
	10	3.8	664.036	663.00	696.964	698.00
	20	3.8	664.040	663.00	696.960	698.00
	30	3.8	664.014	663.00	696.986	698.00
	40	3.8	664.023	663.00	696.972	698.00
	50	3.8	664.030	663.00	696.985	698.00
Frequency Stability vs. Voltage	20	3.6	664.028	663.00	696.961	698.00
	20	4.35	664.029	663.00	696.970	698.00
					Result:	**Pass**

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	664.039	663.00	696.965	698.00
	-20	3.8	664.036	663.00	696.971	698.00
	-10	3.8	664.032	663.00	696.981	698.00
	0	3.8	664.026	663.00	696.968	698.00
	10	3.8	664.017	663.00	696.962	698.00
	20	3.8	664.040	663.00	696.960	698.00
	30	3.8	664.025	663.00	696.978	698.00
	40	3.8	664.016	663.00	696.972	698.00
	50	3.8	664.031	663.00	696.969	698.00
Frequency Stability vs. Voltage	20	3.6	664.030	663.00	696.985	698.00
	20	4.35	664.023	663.00	696.967	698.00
					Result:	**Pass**

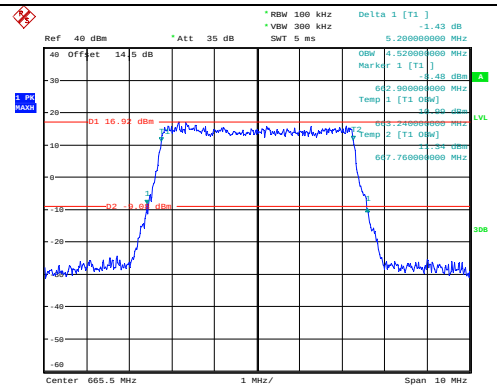
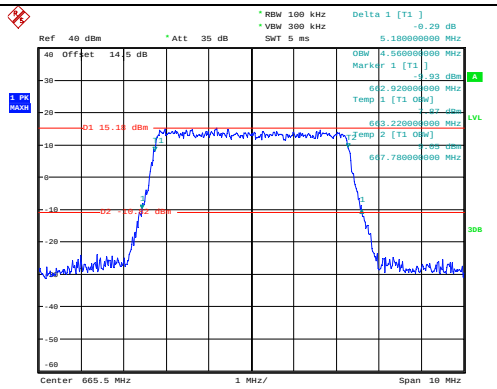
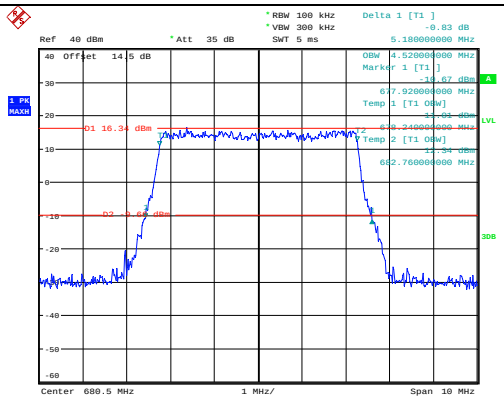
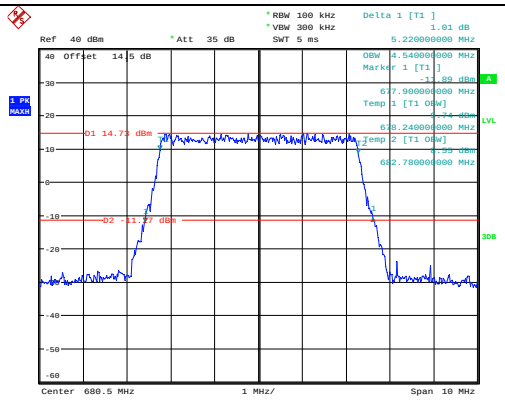
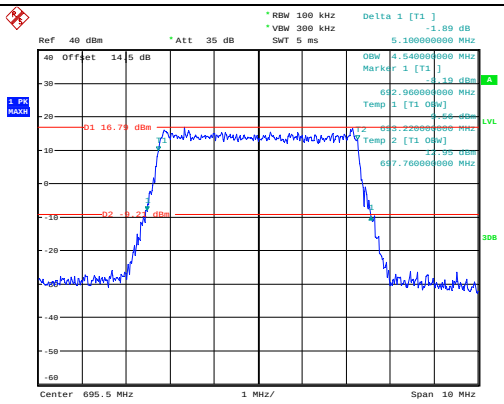
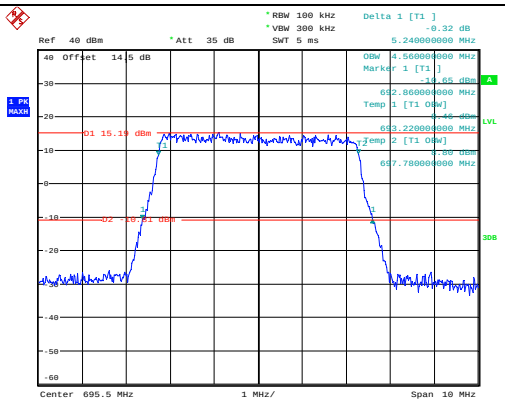
Test Plots:

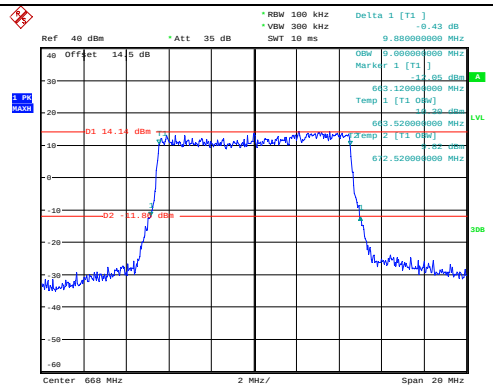
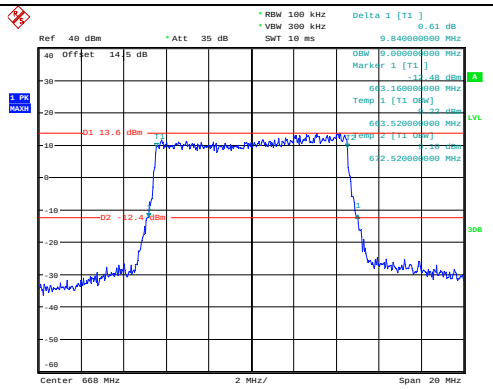
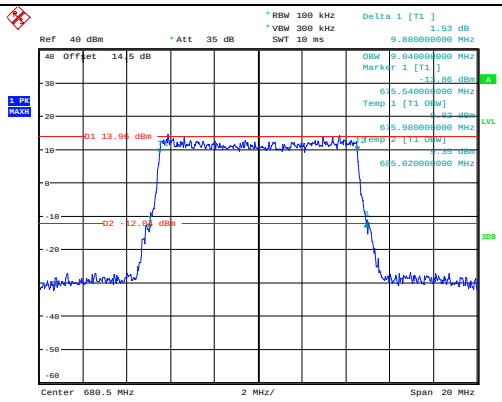
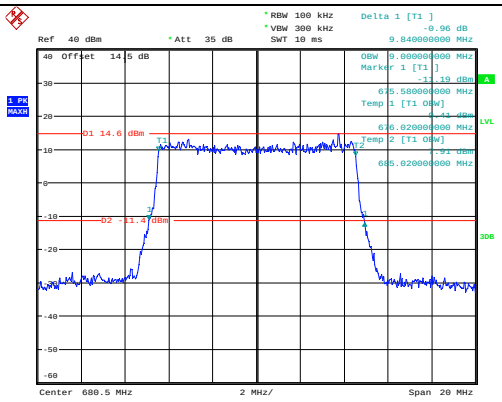
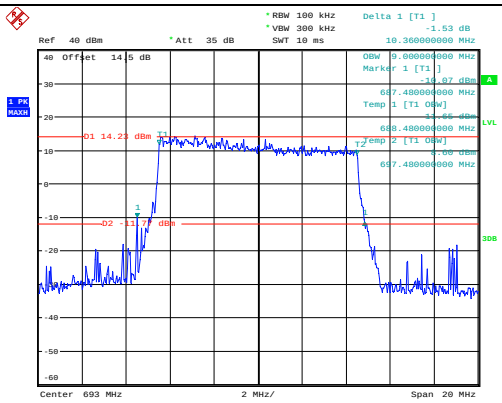
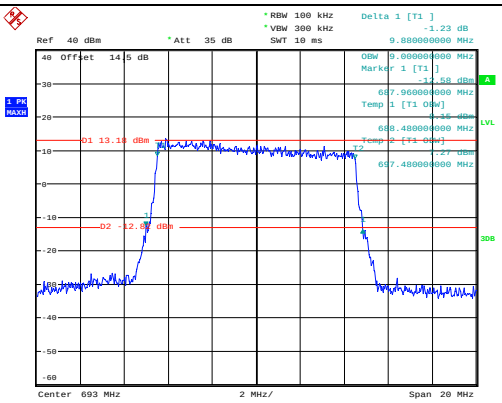
Please refer to the below plots.

Note: The 14.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer.

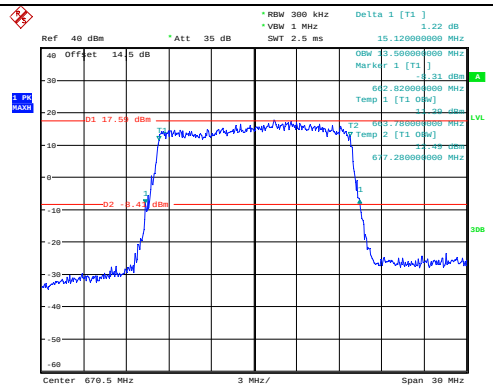
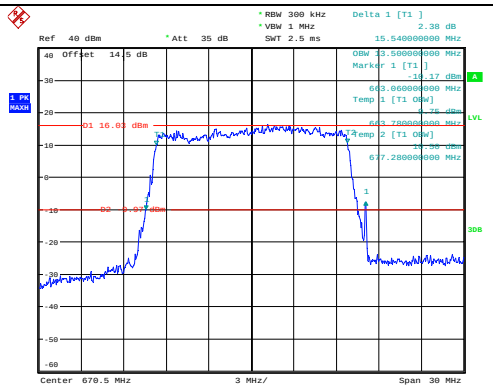
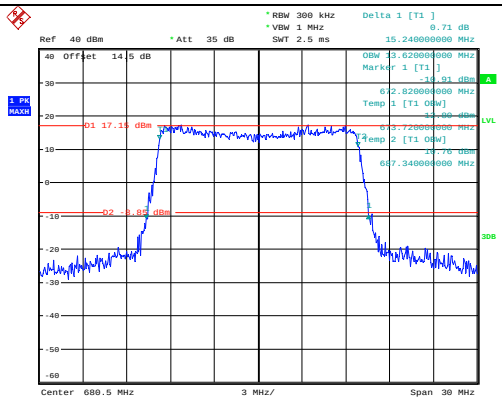
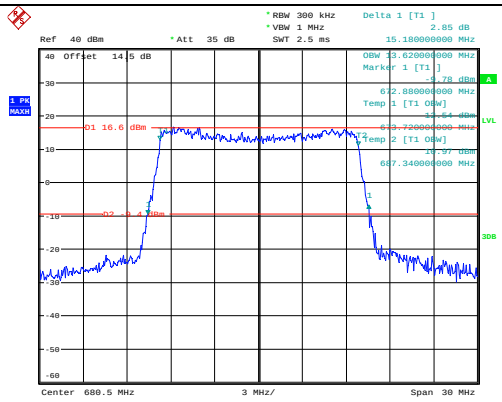
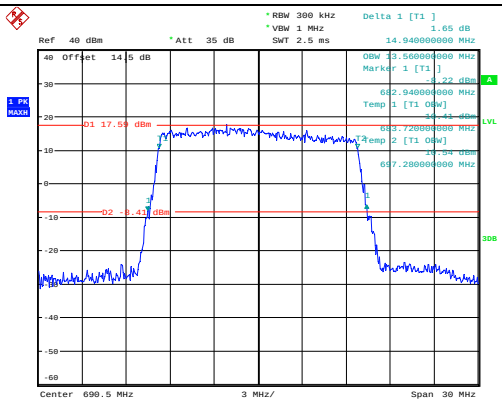
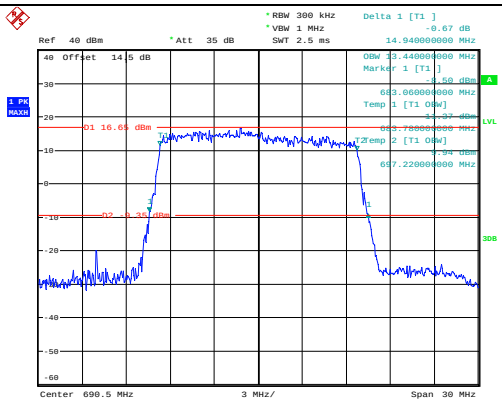
Test Plots for Occupied Bandwidth:

Note: The test is performed in full RB mode.

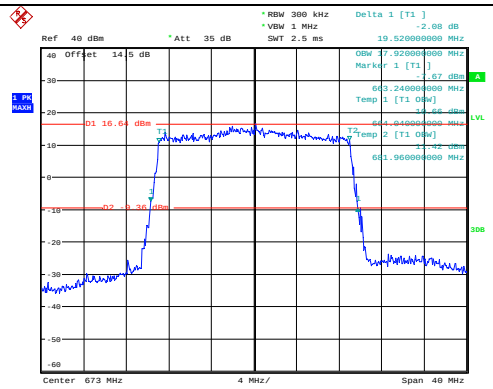
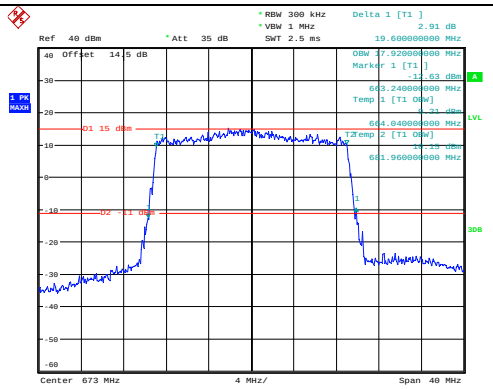
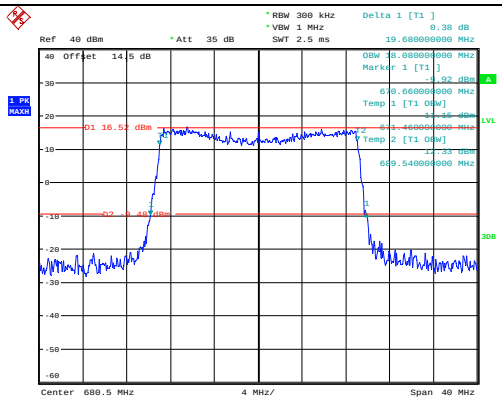
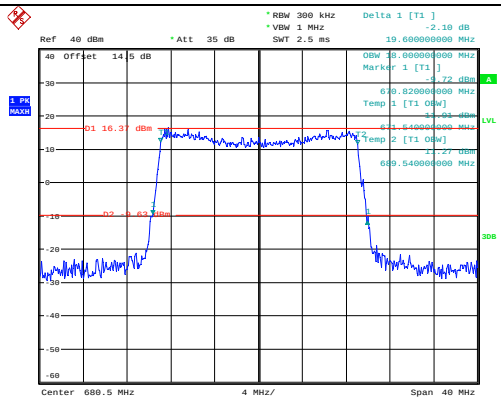
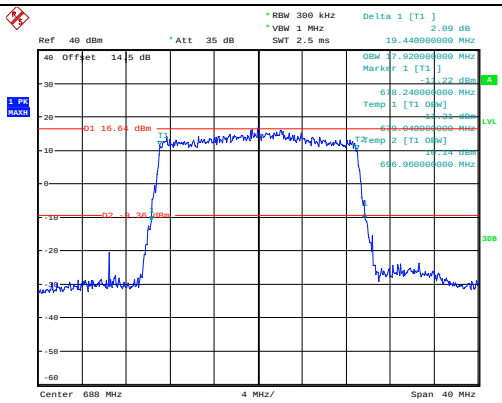
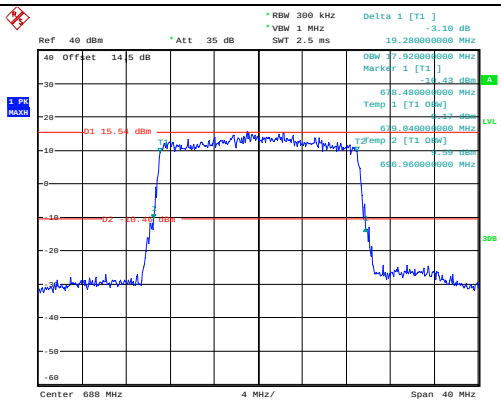
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:46:38	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:47:01
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:47:50	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:48:10
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:49:10	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:49:30

Occupied Bandwidth

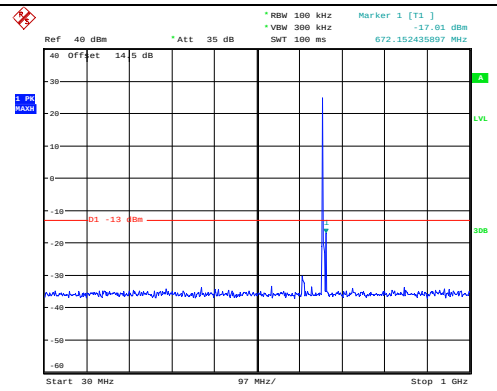
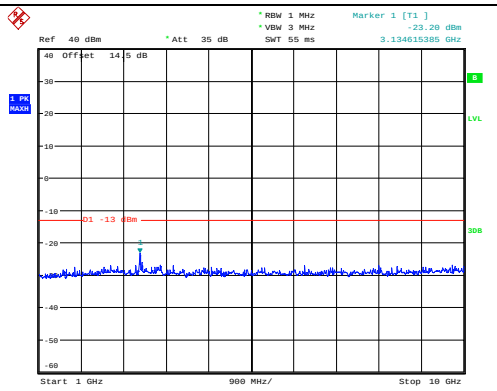
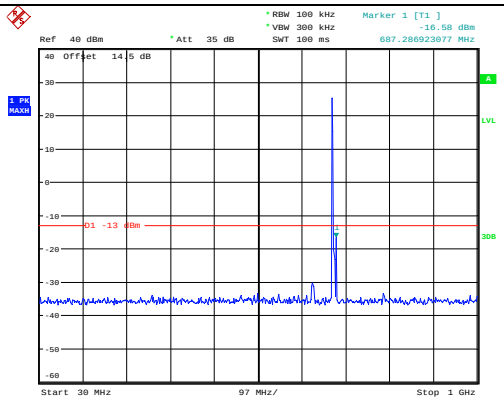
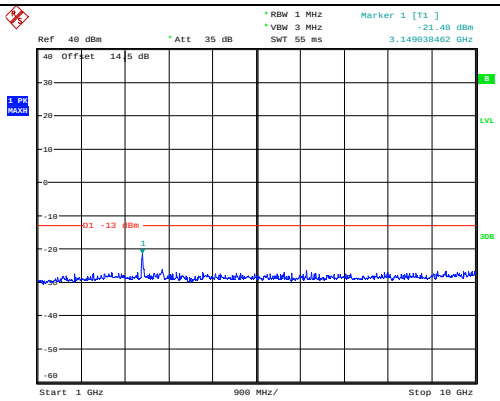
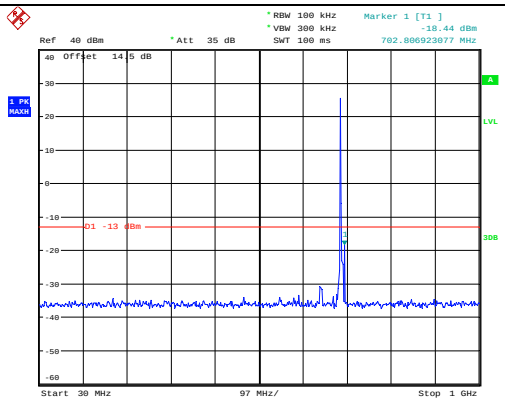
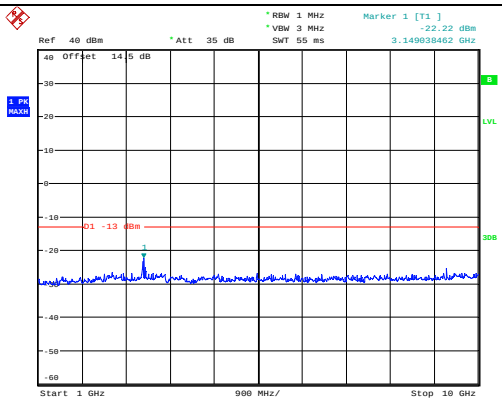
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:59:12	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 14:59:35
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:00:18	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:00:41
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:01:42	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:02:01

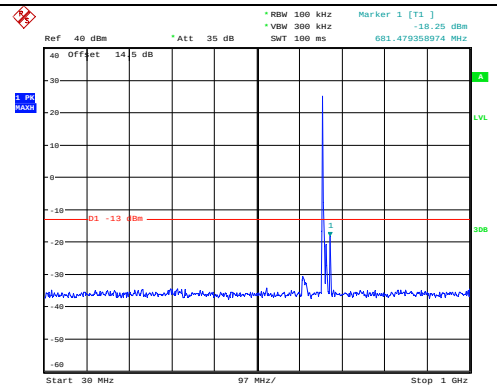
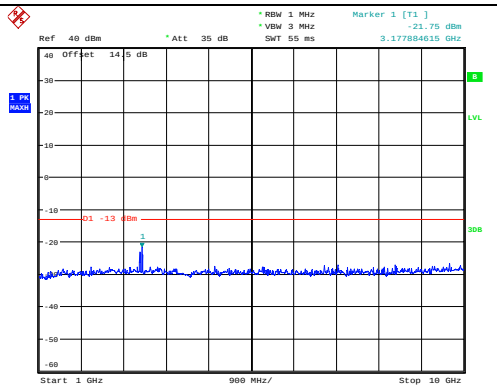
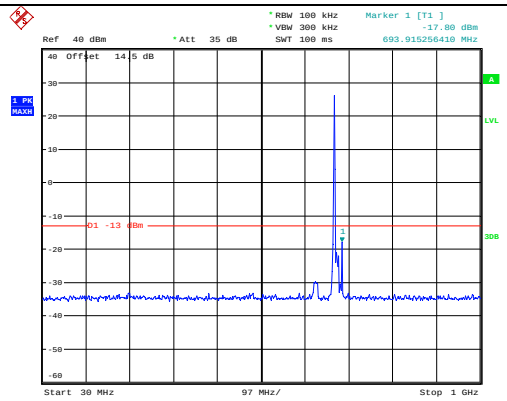
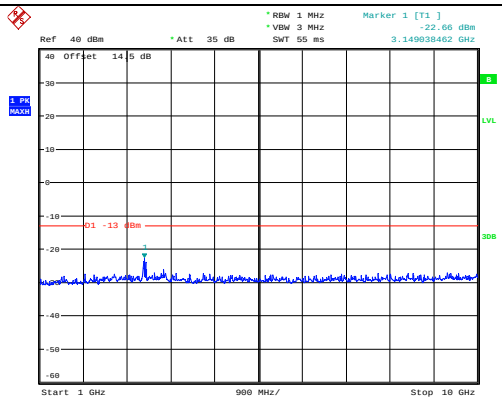
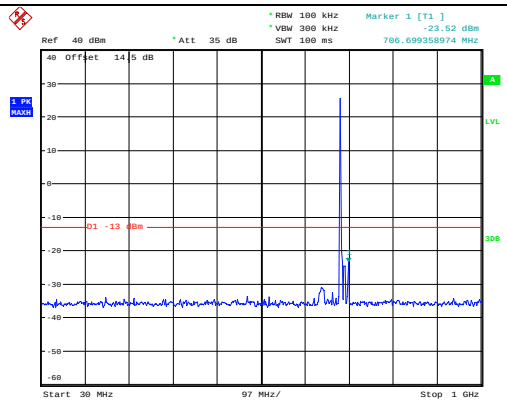
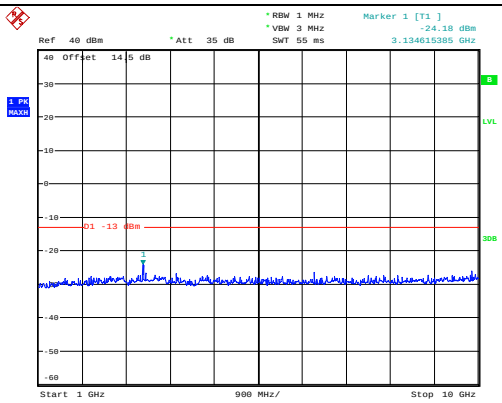
Occupied Bandwidth

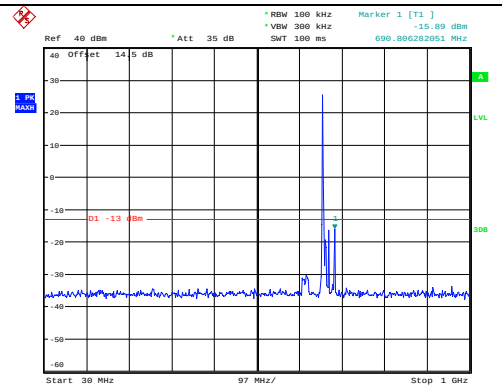
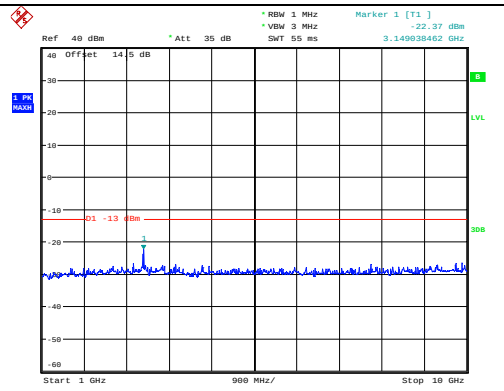
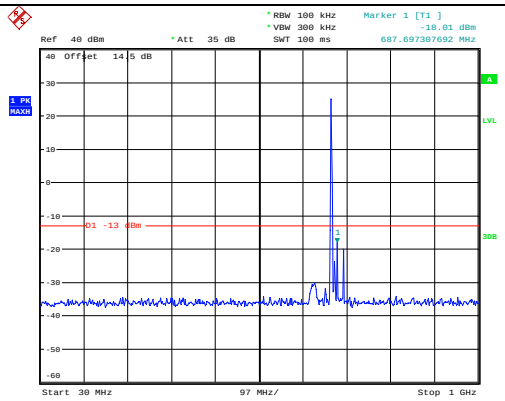
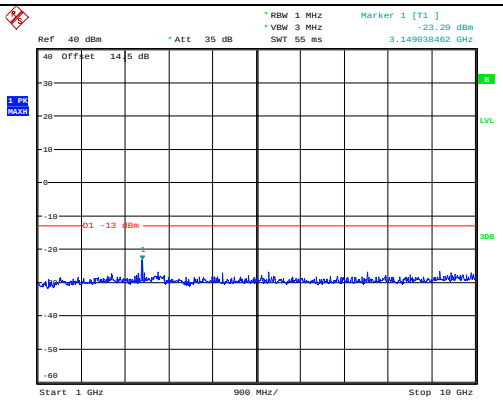
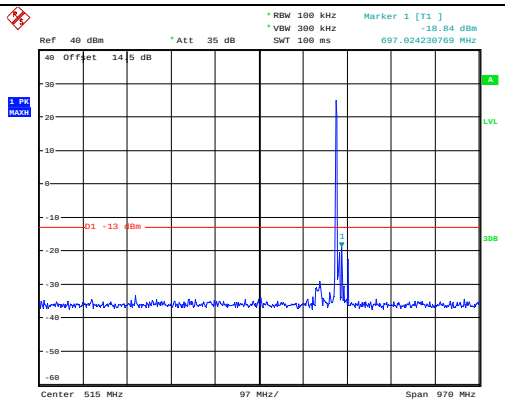
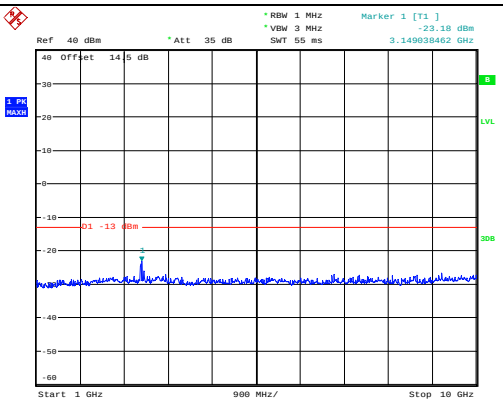
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:03:08	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:03:31
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:04:34	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:04:58
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:14:18	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:14:38

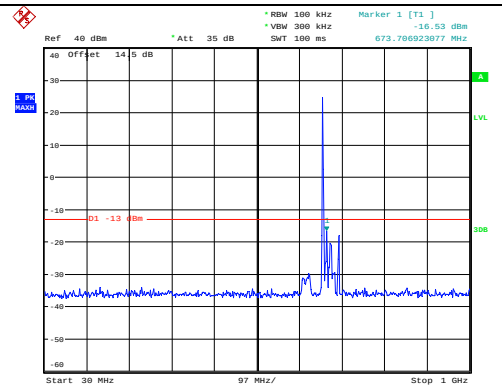
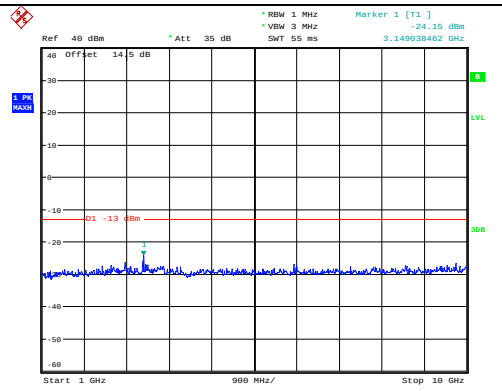
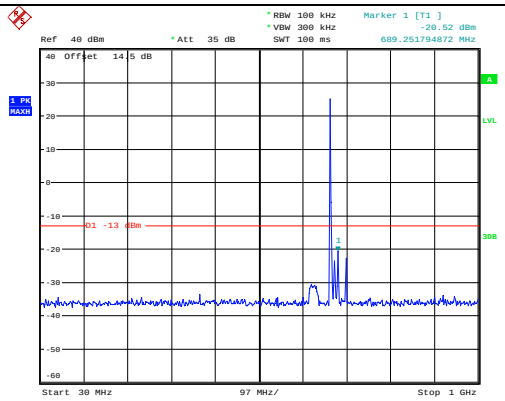
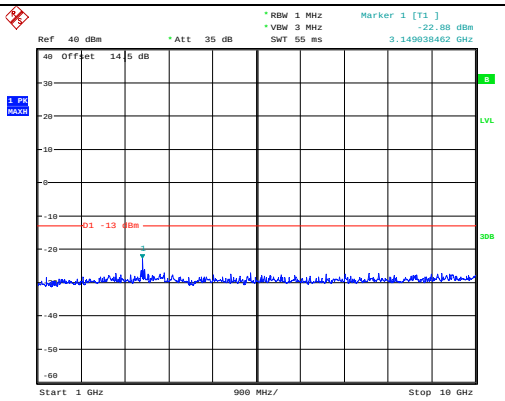
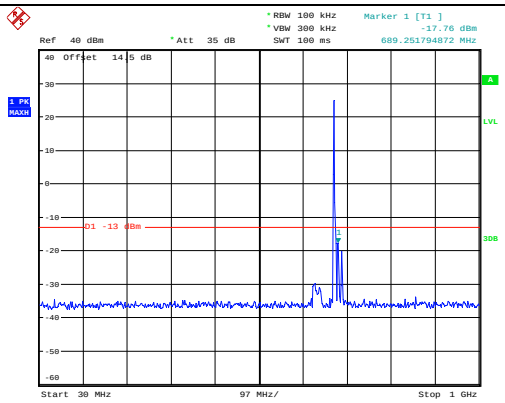
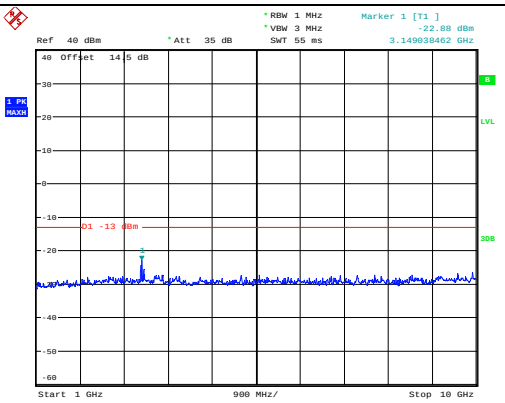
Test Plots for Spurious Emissions at Antenna Terminal:

Note: The test is performed in 1RB mode.

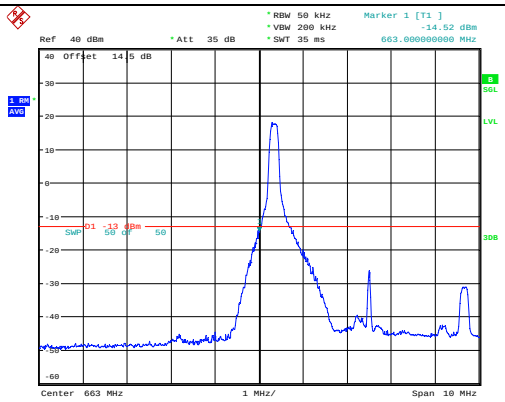
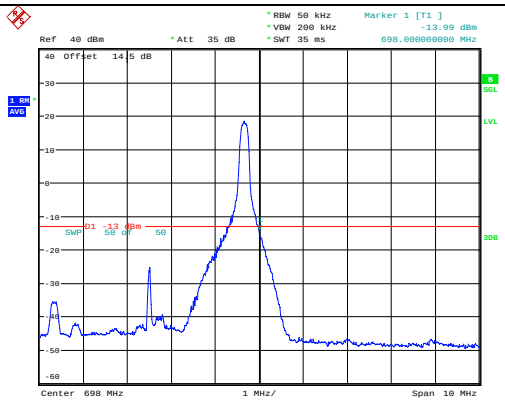
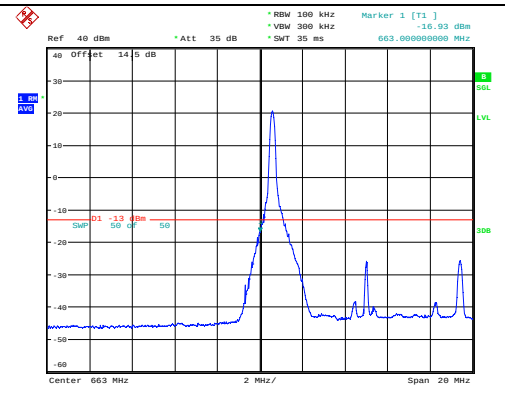
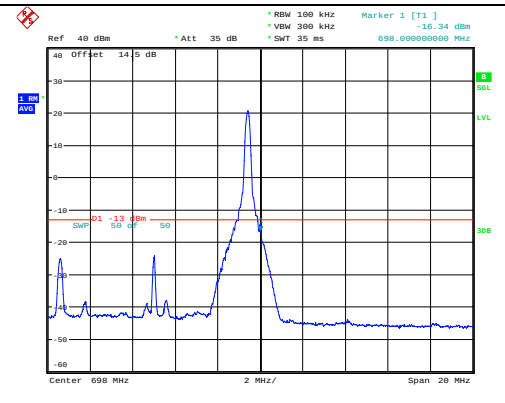
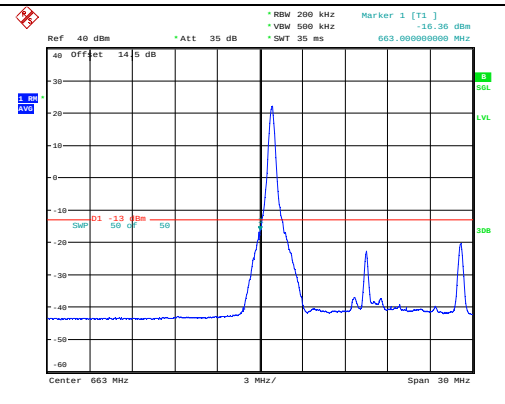
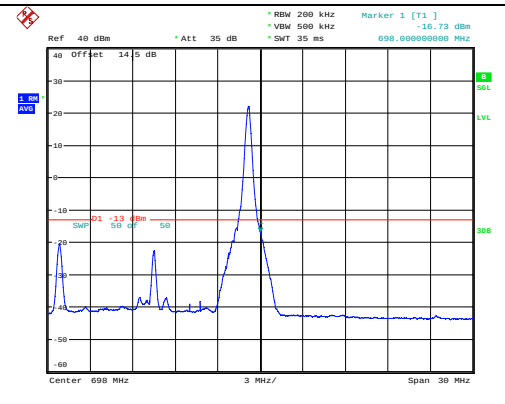
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:00:29	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:00:57
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:02:54	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:01:18
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:09:38	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:03:47

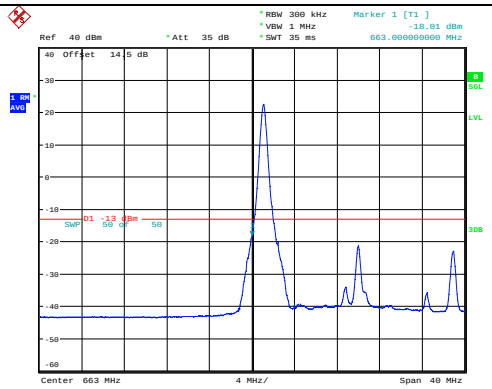
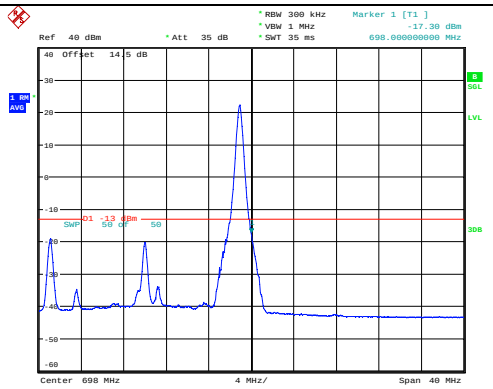
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:12:01	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:10:22
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:29:09	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:29:55
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:31:34	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:30:27

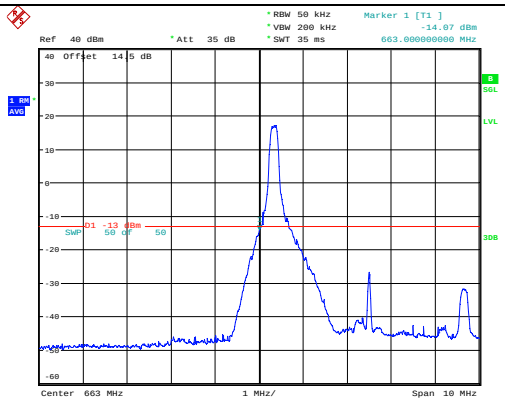
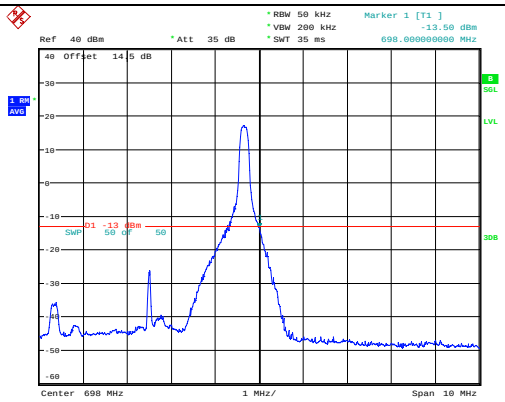
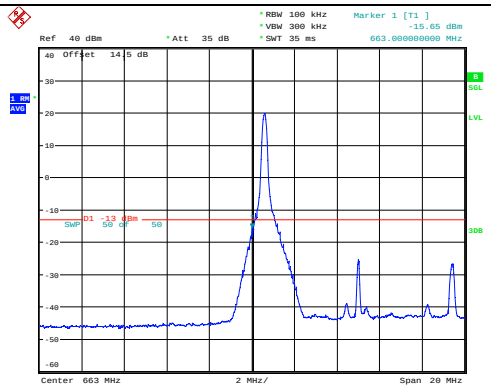
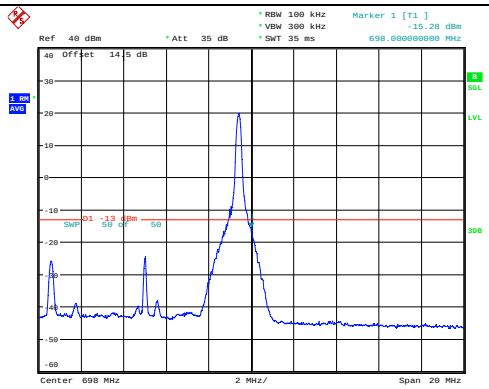
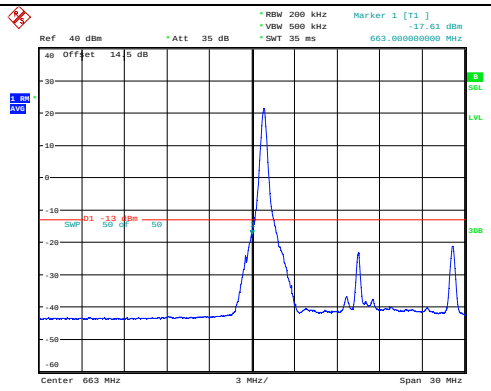
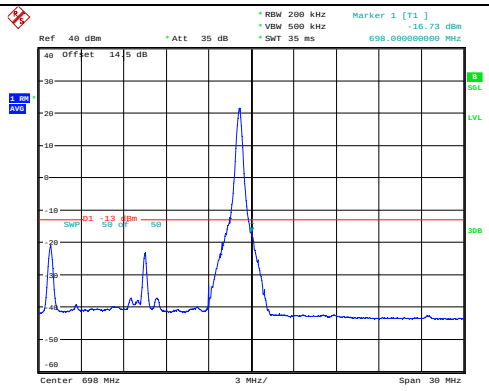
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

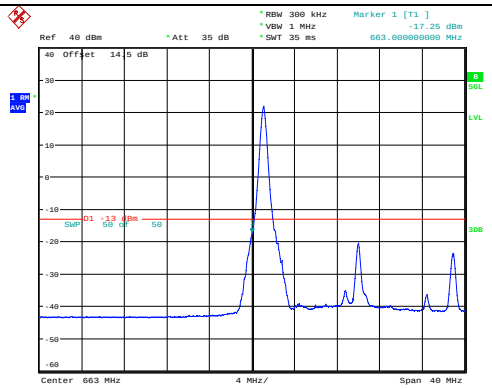
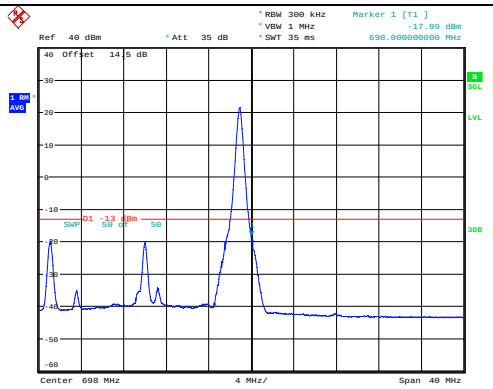
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:39:38	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:37:55
Middle	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:42:08	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:42:30
Highest	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:43:50	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 4.DEC.2023 16:42:59

Test Plots for Out of band emission, Band Edge:
Note: The test is performed in 1RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 10:33:09	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:34:29
QPSK 10MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:49:07	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:51:21
QPSK 15MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:37:33	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:40:58

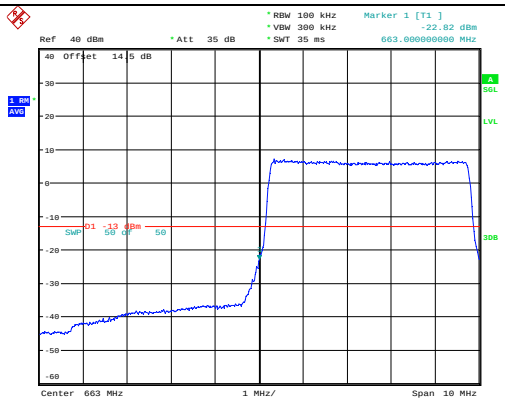
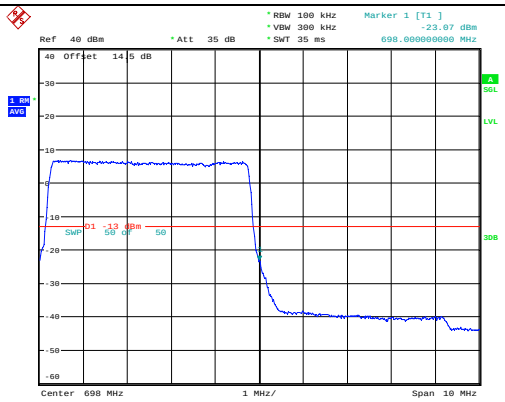
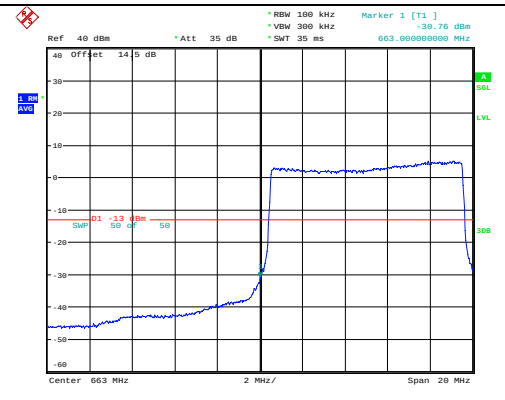
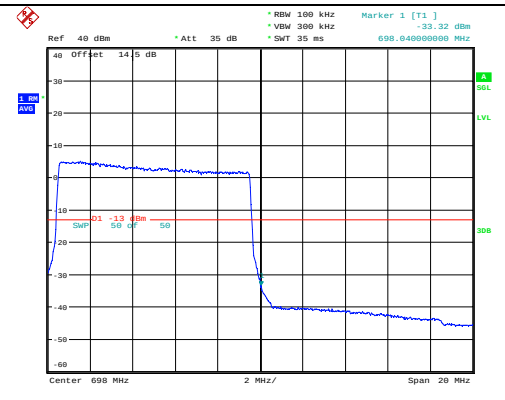
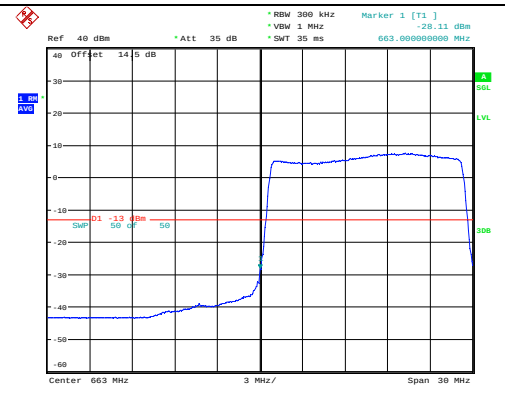
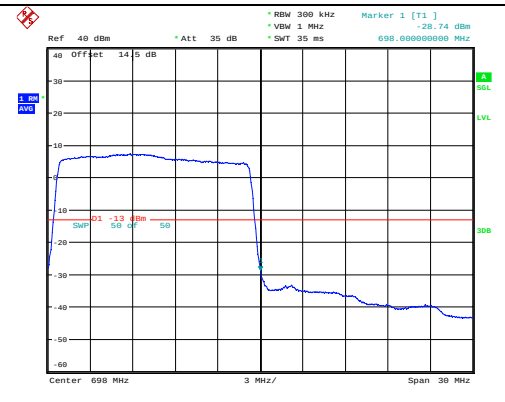
QPSK 20MHz	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -18.01 dBm 663.000000000 MHz Ref 40 dBm Att 35 dB Offset 14.5 dB D1 -13 dBm Center 663 MHz 4 MHz/ Span 40 MHz ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:59:38	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -17.30 dBm 698.000000000 MHz Ref 40 dBm Att 35 dB Offset 14.5 dB D1 -13 dBm Center 698 MHz 4 MHz/ Span 40 MHz ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 23:01:41

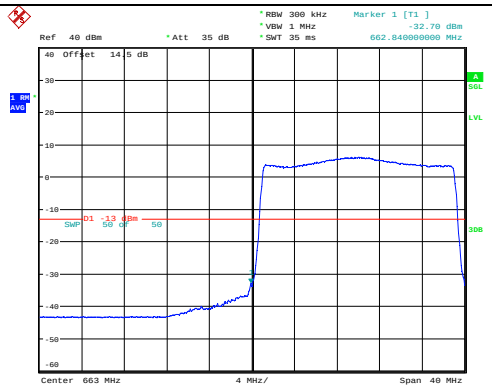
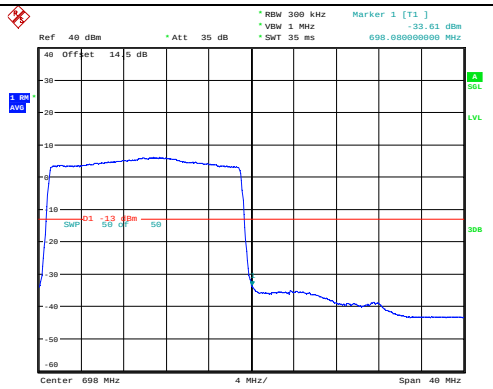
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 10:34:29	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:32:56
16QAM 10MHz	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:49:35	 ProjectNo.:CR231169741-RF Tester:Arthur Su Date: 4.DEC.2023 22:51:58
16QAM 15MH	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:38:11	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 5.DEC.2023 11:40:13

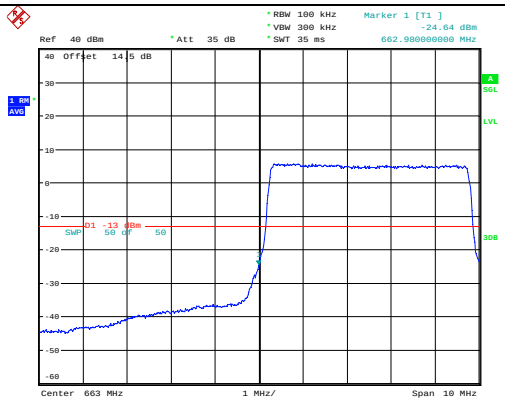
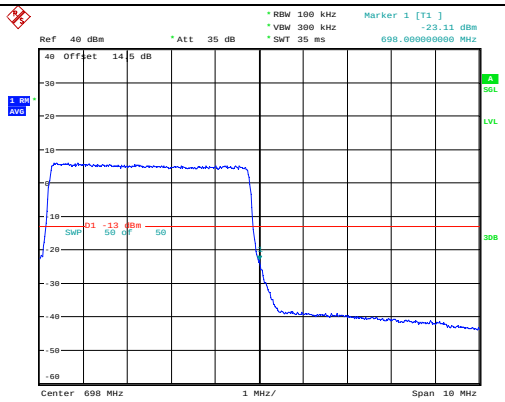
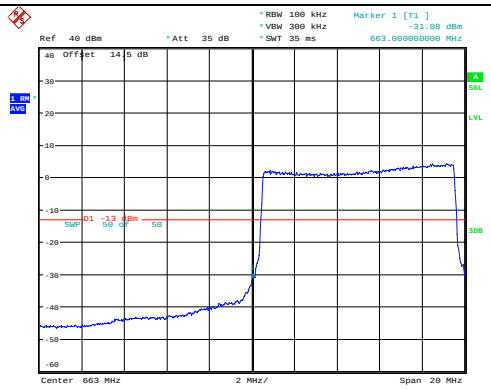
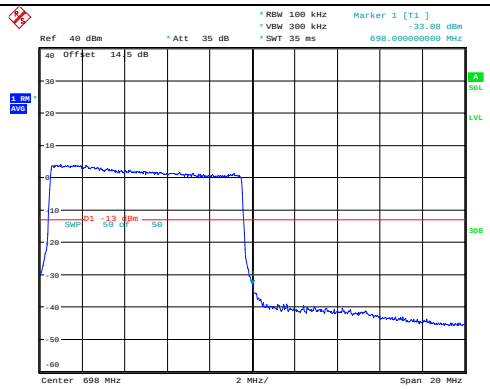
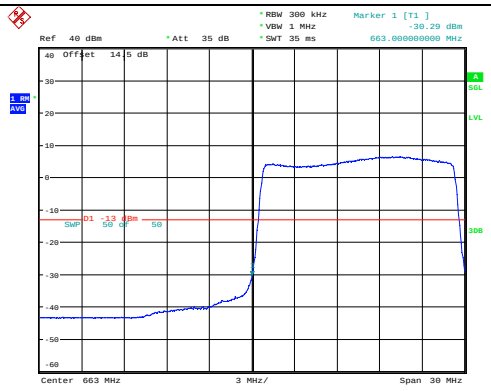
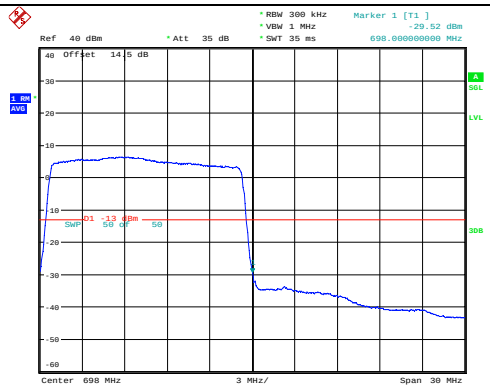
16QAM 20MH		

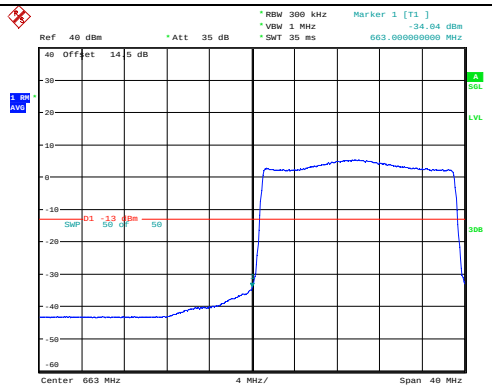
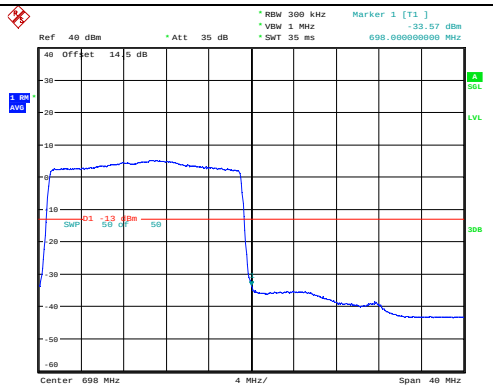
Test Plots for Out of band emission, Band Edge:

Note: The test is performed in full RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:20:27	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:29:09
QPSK 10MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:30:05	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:30:51
QPSK 15MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:32:07	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:32:47

QPSK 20MHz	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -32.70 dBm 662.840000000 MHz Ref 40 dBm Att 35 dB Offset 14.5 dB 1 RM AVG A SGL LVL 3DB D1 -13 dBm SWP 50 of 50 Center 663 MHz 4 MHz/ Span 40 MHz ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:33:30	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -33.61 dBm 698.080000000 MHz Ref 40 dBm Att 35 dB Offset 14.5 dB 1 RM AVG A SGL LVL 3DB D1 -13 dBm SWP 50 of 50 Center 698 MHz 4 MHz/ Span 40 MHz ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:34:14

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:20:36	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:29:21
16QAM 10MHz	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:30:16	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:31:04
16QAM 15MH	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:32:16	 ProjectNo.:CR231169741-RF Tester:Claire Liu Date: 2.DEC.2023 15:32:56

16QAM 20MH		

4.14 Radiated Spurious Emissions

Serial Number:	2E5M -2	Test Date:	2023/12/4-2023/12/5
Test Site:	966-2,966-1	Test Mode:	Transmitting
Tester:	Carl Xue, Mack Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.1~25.8	Relative Humidity: (%)	42~53	ATM Pressure: (kPa)	101.2~101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-6	2023/9/18	2026/9/17
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	2023/7/16	2024/7/15
Agilent	Signal Generator	E8247C	MY43321352	2023/11/17	2024/11/16
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
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	2023/11/8	2024/11/7
AH	Double Ridge Guide Horn Antenna	SAS-571	1396	2021/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2023/7/16	2024/7/15
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
PASTERNACK	Horn Antenna	PE9852/2F-20	112001	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
PASTERNACK	Horn Antenna	PE9850/2F-20	072001	2021/2/5	2024/2/4
PASTERNACK	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.

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

Cellular Band (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)			
			Frequency:	824.2	MHz			
726.80	H	20.86	-51.92	0.00	0.52	-52.44	-13.00	39.44
719.21	V	20.65	-48.85	0.00	0.49	-49.34	-13.00	36.34
1648.400	H	36.45	-67.88	8.68	0.80	-60.00	-13.00	47.00
1648.400	V	37.89	-66.52	8.68	0.80	-58.64	-13.00	45.64
2472.600	H	35.11	-65.67	9.38	1.00	-57.29	-13.00	44.29
2472.600	V	35.23	-65.50	9.38	1.00	-57.12	-13.00	44.12
3296.800	H	34.62	-62.06	10.32	1.15	-52.89	-13.00	39.89
3296.800	V	35.47	-60.97	10.32	1.15	-51.80	-13.00	38.80
			Frequency:	836.6	MHz			
675.25	H	20.61	-52.84	0.00	0.50	-53.34	-13.00	40.34
597.34	V	20.60	-51.13	0.00	0.51	-51.64	-13.00	38.64
1673.200	H	37.11	-67.20	8.71	0.85	-59.34	-13.00	46.34
1673.200	V	37.45	-66.96	8.71	0.85	-59.10	-13.00	46.10
2509.800	H	35.65	-64.96	9.42	1.01	-56.55	-13.00	43.55
2509.800	V	36.10	-64.52	9.42	1.01	-56.11	-13.00	43.11
3346.400	H	35.11	-62.06	10.34	1.16	-52.88	-13.00	39.88
3346.400	V	34.98	-62.05	10.34	1.16	-52.87	-13.00	39.87
			Frequency:	848.8	MHz			
692.04	H	20.84	-52.52	0.00	0.54	-53.06	-13.00	40.06
680.08	V	20.79	-49.49	0.00	0.52	-50.01	-13.00	37.01
1697.600	H	36.44	-67.85	8.74	0.90	-60.01	-13.00	47.01
1697.600	V	35.78	-68.64	8.74	0.90	-60.80	-13.00	47.80
2546.400	H	34.69	-65.64	9.47	1.01	-57.18	-13.00	44.18
2546.400	V	35.11	-65.17	9.47	1.01	-56.71	-13.00	43.71
3395.200	H	35.78	-61.91	10.36	1.19	-52.74	-13.00	39.74
3395.200	V	35.89	-61.77	10.36	1.19	-52.60	-13.00	39.60

PCS Band (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)			
GSM 1900 Frequency:1850.2MHz								
86.50	H	35.93	-75.96	0.00	0.17	-76.13	-13.00	63.13
51.84	V	38.78	-63.33	-14.05	0.13	-77.51	-13.00	64.51
3700.400	H	36.11	-61.21	10.60	1.25	-51.86	-13.00	38.86
3700.400	V	35.47	-61.83	10.60	1.25	-52.48	-13.00	39.48
5550.600	H	36.52	-56.74	11.44	1.49	-46.79	-13.00	33.79
5550.600	V	35.22	-57.88	11.44	1.49	-47.93	-13.00	34.93
GSM 1900 Frequency:1880MHz								
84.40	H	35.47	-75.74	0.00	0.17	-75.91	-13.00	62.91
52.75	V	38.21	-64.33	-13.64	0.13	-78.10	-13.00	65.10
3760.000	H	35.12	-61.29	10.66	1.24	-51.87	-13.00	38.87
3760.000	V	35.23	-61.06	10.66	1.24	-51.64	-13.00	38.64
5640.000	H	34.78	-58.67	11.33	1.54	-48.88	-13.00	35.88
5640.000	V	35.96	-57.37	11.33	1.54	-47.58	-13.00	34.58
GSM 1900 Frequency:1909.8MHz								
85.29	H	36.92	-74.58	0.00	0.17	-74.75	-13.00	61.75
51.30	V	37.76	-64.09	-14.30	0.13	-78.52	-13.00	65.52
3819.600	H	36.14	-59.72	10.72	1.29	-50.29	-13.00	37.29
3819.600	V	35.25	-60.47	10.72	1.29	-51.04	-13.00	38.04
5729.400	H	35.44	-58.04	11.22	1.59	-48.41	-13.00	35.41
5729.400	V	34.56	-58.80	11.22	1.59	-49.17	-13.00	36.17

WCDMA 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)			
WCDMA Band II, Frequency:1852.4 MHz								
85.29	H	35.07	-76.43	0.00	0.17	-76.60	-13.00	63.60
51.66	V	39.38	-62.64	-14.14	0.13	-76.91	-13.00	63.91
3704.800	H	36.12	-61.14	10.60	1.25	-51.79	-13.00	38.79
3704.800	V	36.55	-60.68	10.60	1.25	-51.33	-13.00	38.33
5557.200	H	35.14	-58.14	11.43	1.49	-48.20	-13.00	35.20
5557.200	V	35.20	-57.93	11.43	1.49	-47.99	-13.00	34.99
WCDMA Band II, Frequency:1880 MHz								
87.11	H	34.96	-77.13	0.00	0.17	-77.30	-13.00	64.30
51.12	V	38.95	-62.82	-14.38	0.13	-77.33	-13.00	64.33
3760.000	H	35.78	-60.63	10.66	1.24	-51.21	-13.00	38.21
3760.000	V	36.01	-60.28	10.66	1.24	-50.86	-13.00	37.86
5640.000	H	35.53	-57.92	11.33	1.54	-48.13	-13.00	35.13
5640.000	V	34.78	-58.55	11.33	1.54	-48.76	-13.00	35.76
WCDMA Band II, Frequency:1907.6MHz								
88.33	H	34.30	-78.19	0.00	0.17	-78.36	-13.00	65.36
52.02	V	38.62	-63.58	-13.97	0.13	-77.68	-13.00	64.68
3815.200	H	36.22	-59.63	10.72	1.29	-50.20	-13.00	37.20
3815.200	V	35.58	-60.11	10.72	1.29	-50.68	-13.00	37.68
5722.800	H	35.69	-57.80	11.23	1.58	-48.15	-13.00	35.15
5722.800	V	34.69	-58.66	11.23	1.58	-49.01	-13.00	36.01

WCDMA Band 4(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)			
Frequency: 1712.4 MHz								
86.80	H	34.55	-77.44	0.00	0.17	-77.61	-13.00	64.61
52.02	V	38.88	-63.32	-13.97	0.13	-77.42	-13.00	64.42
3424.800	H	37.11	-60.66	10.37	1.17	-51.46	-13.00	38.46
3424.800	V	37.65	-60.09	10.37	1.17	-50.89	-13.00	37.89
5137.200	H	35.46	-58.16	11.28	1.46	-48.34	-13.00	35.34
5137.200	V	36.01	-57.49	11.28	1.46	-47.67	-13.00	34.67
Frequency: 1732.6 MHz								
87.72	H	34.42	-77.87	0.00	0.17	-78.04	-13.00	65.04
51.48	V	38.71	-63.23	-14.22	0.13	-77.58	-13.00	64.58
3465.200	H	36.68	-61.13	10.39	1.15	-51.89	-13.00	38.89
3465.200	V	37.10	-60.67	10.39	1.15	-51.43	-13.00	38.43
5197.800	H	35.54	-58.59	11.32	1.44	-48.71	-13.00	35.71
5197.800	V	35.66	-58.32	11.32	1.44	-48.44	-13.00	35.44
Frequency: 1752.6 MHz								
88.34	H	34.32	-78.17	0.00	0.17	-78.34	-13.00	65.34
51.12	V	39.14	-62.63	-14.38	0.13	-77.14	-13.00	64.14
3505.200	H	36.47	-61.36	10.41	1.18	-52.13	-13.00	39.13
3505.200	V	35.46	-62.31	10.41	1.18	-53.08	-13.00	40.08
5257.800	H	35.10	-58.63	11.35	1.47	-48.75	-13.00	35.75
5257.800	V	34.77	-58.74	11.35	1.47	-48.86	-13.00	35.86

WCDMA 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)			
WCDMA Band 5 Frequency:826.4 MHz								
638.64	H	20.83	-52.82	0.00	0.52	-53.34	-13.00	40.34
506.65	V	20.89	-50.70	0.00	0.45	-51.15	-13.00	38.15
1652.800	H	38.12	-66.21	8.68	0.81	-58.34	-13.00	45.34
1652.800	V	36.55	-67.86	8.68	0.81	-59.99	-13.00	46.99
2479.200	H	35.12	-65.64	9.39	1.01	-57.26	-13.00	44.26
2479.200	V	34.69	-66.04	9.39	1.01	-57.66	-13.00	44.66
3305.600	H	35.47	-61.26	10.32	1.15	-52.09	-13.00	39.09
3305.600	V	35.31	-61.19	10.32	1.15	-52.02	-13.00	39.02
WCDMA Band 5 Frequency:836.6MHz								
714.40	H	20.65	-52.38	0.00	0.50	-52.88	-13.00	39.88
574.75	V	20.73	-50.96	0.00	0.46	-51.42	-13.00	38.42
1673.200	H	37.44	-66.87	8.71	0.85	-59.01	-13.00	46.01
1673.200	V	37.58	-66.83	8.71	0.85	-58.97	-13.00	45.97
2509.800	H	35.63	-64.98	9.42	1.01	-56.57	-13.00	43.57
2509.800	V	35.10	-65.52	9.42	1.01	-57.11	-13.00	44.11
3346.400	H	34.87	-62.30	10.34	1.16	-53.12	-13.00	40.12
3346.400	V	35.55	-61.48	10.34	1.16	-52.30	-13.00	39.30
WCDMA Band 5 Frequency:846.6MHz								
727.02	H	20.67	-52.10	0.00	0.52	-52.62	-13.00	39.62
709.19	V	20.85	-48.87	0.00	0.52	-49.39	-13.00	36.39
1693.200	H	39.10	-65.20	8.73	0.89	-57.36	-13.00	44.36
1693.200	V	37.44	-66.98	8.73	0.89	-59.14	-13.00	46.14
2539.800	H	35.25	-65.13	9.46	1.01	-56.68	-13.00	43.68
2539.800	V	36.13	-64.21	9.46	1.01	-55.76	-13.00	42.76
3386.400	H	35.78	-61.81	10.35	1.18	-52.64	-13.00	39.64
3386.400	V	35.10	-62.44	10.35	1.18	-53.27	-13.00	40.27

LTE Bands:

(Note: The test is performed in 1RB mode.)

(The Worst modulation and bandwidth were 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								
87.72	H	34.56	-77.73	0.00	0.17	-77.90	-13.00	64.90
51.84	V	39.57	-62.54	-14.05	0.13	-76.72	-13.00	63.72
3701.400	H	36.12	-61.19	10.60	1.25	-51.84	-13.00	38.84
3701.400	V	37.52	-59.77	10.60	1.25	-50.42	-13.00	37.42
5552.100	H	35.55	-57.72	11.44	1.49	-47.77	-13.00	34.77
5552.100	V	35.19	-57.91	11.44	1.49	-47.96	-13.00	34.96
QPSK, 1.4MHz, Frequency:1880 MHz								
86.50	H	34.20	-77.69	0.00	0.17	-77.86	-13.00	64.86
52.28	V	38.50	-63.82	-13.85	0.13	-77.80	-13.00	64.80
3760.000	H	36.52	-59.89	10.66	1.24	-50.47	-13.00	37.47
3760.000	V	36.78	-59.51	10.66	1.24	-50.09	-13.00	37.09
5640.000	H	35.23	-58.22	11.33	1.54	-48.43	-13.00	35.43
5640.000	V	34.61	-58.72	11.33	1.54	-48.93	-13.00	35.93
QPSK, 1.4MHz, Frequency:1909.3 MHz								
88.65	H	34.52	-78.07	0.00	0.18	-78.25	-13.00	65.25
51.48	V	39.26	-62.68	-14.22	0.13	-77.03	-13.00	64.03
3818.600	H	35.44	-60.42	10.72	1.29	-50.99	-13.00	37.99
3818.600	V	36.23	-59.48	10.72	1.29	-50.05	-13.00	37.05
5727.900	H	35.77	-57.71	11.23	1.59	-48.07	-13.00	35.07
5727.900	V	34.96	-58.40	11.23	1.59	-48.76	-13.00	35.76

LTE Band 4(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)			
1.4MHz QPSK, Frequency: 1710.7 MHz								
86.20	H	35.32	-76.48	0.00	0.17	-76.65	-13.00	63.65
51.66	V	39.32	-62.70	-14.14	0.13	-76.97	-13.00	63.97
3421.400	H	35.78	-61.98	10.37	1.17	-52.78	-13.00	39.78
3421.400	V	36.41	-61.32	10.37	1.17	-52.12	-13.00	39.12
5132.100	H	36.22	-57.35	11.28	1.47	-47.54	-13.00	34.54
5132.100	V	35.20	-58.26	11.28	1.47	-48.45	-13.00	35.45
1.4MHz QPSK, Frequency: 1732.5 MHz								
85.01	H	34.76	-76.65	0.00	0.17	-76.82	-13.00	63.82
52.02	V	39.30	-62.90	-13.97	0.13	-77.00	-13.00	64.00
3465.000	H	35.10	-62.71	10.39	1.15	-53.47	-13.00	40.47
3465.000	V	35.79	-61.98	10.39	1.15	-52.74	-13.00	39.74
5197.500	H	34.63	-59.50	11.32	1.44	-49.62	-13.00	36.62
5197.500	V	35.33	-58.65	11.32	1.44	-48.77	-13.00	35.77
1.4MHz QPSK, Frequency: 1754.3 MHz								
87.11	H	34.91	-77.18	0.00	0.17	-77.35	-13.00	64.35
51.66	V	38.82	-63.20	-14.14	0.13	-77.47	-13.00	64.47
3508.600	H	36.47	-61.35	10.41	1.19	-52.13	-13.00	39.13
3508.600	V	36.85	-60.91	10.41	1.19	-51.69	-13.00	38.69
5262.900	H	35.11	-58.59	11.36	1.47	-48.70	-13.00	35.70
5262.900	V	35.20	-58.27	11.36	1.47	-48.38	-13.00	35.38

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								
633.99	H	20.64	-53.04	0.00	0.51	-53.55	-13.00	40.55
685.03	V	20.65	-49.54	0.00	0.53	-50.07	-13.00	37.07
1649.400	H	35.10	-69.23	8.68	0.80	-61.35	-13.00	48.35
1649.400	V	34.78	-69.63	8.68	0.80	-61.75	-13.00	48.75
2474.100	H	36.02	-64.76	9.38	1.00	-56.38	-13.00	43.38
2474.100	V	35.22	-65.51	9.38	1.00	-57.13	-13.00	44.13
3298.800	H	34.88	-61.80	10.32	1.15	-52.63	-13.00	39.63
3298.800	V	35.10	-61.34	10.32	1.15	-52.17	-13.00	39.17
QPSK, 1.4MHz, Frequency: 836.5 MHz								
701.78	H	20.83	-52.45	0.00	0.55	-53.00	-13.00	40.00
716.96	V	20.80	-48.75	0.00	0.50	-49.25	-13.00	36.25
1673.000	H	40.57	-63.74	8.71	0.85	-55.88	-13.00	42.88
1673.000	V	36.44	-67.97	8.71	0.85	-60.11	-13.00	47.11
2509.500	H	35.44	-65.17	9.42	1.01	-56.76	-13.00	43.76
2509.500	V	35.63	-64.99	9.42	1.01	-56.58	-13.00	43.58
3346.000	H	35.77	-61.39	10.34	1.16	-52.21	-13.00	39.21
3346.000	V	36.01	-61.01	10.34	1.16	-51.83	-13.00	38.83
QPSK, 1.4MHz, Frequency: 848.3 MHz								
714.18	H	20.86	-52.17	0.00	0.50	-52.67	-13.00	39.67
697.13	V	20.82	-49.15	0.00	0.55	-49.70	-13.00	36.70
1696.600	H	36.01	-68.28	8.74	0.89	-60.43	-13.00	47.43
1696.600	V	35.46	-68.96	8.74	0.89	-61.11	-13.00	48.11
2544.900	H	34.66	-65.68	9.47	1.01	-57.22	-13.00	44.22
2544.900	V	35.20	-65.10	9.47	1.01	-56.64	-13.00	43.64
3393.200	H	35.10	-62.57	10.36	1.19	-53.40	-13.00	40.40
3393.200	V	34.97	-62.66	10.36	1.19	-53.49	-13.00	40.49

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								
528.41	H	20.46	-54.81	0.00	0.44	-55.25	-13.00	42.25
551.27	V	20.54	-51.12	0.00	0.48	-51.60	-13.00	38.60
1399.400	H	35.14	-68.56	8.22	0.71	-61.05	-13.00	48.05
1399.400	V	34.63	-69.12	8.22	0.71	-61.61	-13.00	48.61
2099.100	H	35.28	-66.60	9.16	0.91	-58.35	-13.00	45.35
2099.100	V	36.01	-65.82	9.16	0.91	-57.57	-13.00	44.57
2798.800	H	35.77	-64.16	9.88	1.04	-55.32	-13.00	42.32
2798.800	V	34.24	-65.56	9.88	1.04	-56.72	-13.00	43.72
QPSK, 1.4MHz, Frequency:707.5 MHz								
607.89	H	20.56	-53.26	0.00	0.48	-53.74	-13.00	40.74
574.94	V	20.65	-51.04	0.00	0.46	-51.50	-13.00	38.50
1415.000	H	34.44	-69.23	8.26	0.72	-61.69	-13.00	48.69
1415.000	V	35.14	-68.58	8.26	0.72	-61.04	-13.00	48.04
2122.500	H	34.66	-67.33	9.17	0.92	-59.08	-13.00	46.08
2122.500	V	34.78	-67.19	9.17	0.92	-58.94	-13.00	45.94
2830.000	H	35.23	-64.57	9.93	1.06	-55.70	-13.00	42.70
2830.000	V	35.02	-64.71	9.93	1.06	-55.84	-13.00	42.84
QPSK, 1.4MHz, Frequency: 715.3 MHz								
558.79	H	20.52	-54.15	0.00	0.47	-54.62	-13.00	41.62
638.65	V	20.62	-50.41	0.00	0.52	-50.93	-13.00	37.93
1430.600	H	35.46	-68.17	8.31	0.73	-60.59	-13.00	47.59
1430.600	V	34.52	-69.17	8.31	0.73	-61.59	-13.00	48.59
2145.900	H	36.01	-66.09	9.19	0.93	-57.83	-13.00	44.83
2145.900	V	35.52	-66.59	9.19	0.93	-58.33	-13.00	45.33
2861.200	H	35.22	-64.43	9.98	1.07	-55.52	-13.00	42.52
2861.200	V	34.69	-64.98	9.98	1.07	-56.07	-13.00	43.07

LTE Band 17(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: 706.5 MHz								
627.53	H	20.67	-53.04	0.00	0.48	-53.52	-13.00	40.52
612.16	V	20.51	-51.00	0.00	0.47	-51.47	-13.00	38.47
1413.000	H	37.41	-66.26	8.26	0.72	-58.72	-13.00	45.72
1413.000	V	35.14	-68.58	8.26	0.72	-61.04	-13.00	48.04
2119.500	H	35.23	-66.74	9.17	0.92	-58.49	-13.00	45.49
2119.500	V	34.66	-67.29	9.17	0.92	-59.04	-13.00	46.04
2826.000	H	35.27	-64.54	9.92	1.06	-55.68	-13.00	42.68
2826.000	V	34.98	-64.76	9.92	1.06	-55.90	-13.00	42.90
QPSK, 5MHz, Frequency:710 MHz								
535.87	H	20.54	-54.58	0.00	0.46	-55.04	-13.00	42.04
580.82	V	20.47	-51.23	0.00	0.46	-51.69	-13.00	38.69
1420.000	H	36.12	-67.54	8.28	0.73	-59.99	-13.00	46.99
1420.000	V	36.22	-67.49	8.28	0.73	-59.94	-13.00	46.94
2130.000	H	35.47	-66.55	9.18	0.92	-58.29	-13.00	45.29
2130.000	V	34.23	-67.78	9.18	0.92	-59.52	-13.00	46.52
2840.000	H	34.85	-64.90	9.94	1.06	-56.02	-13.00	43.02
2840.000	V	35.01	-64.70	9.94	1.06	-55.82	-13.00	42.82
QPSK, 5MHz, Frequency: 713.5 MHz								
578.01	H	20.61	-53.68	0.00	0.46	-54.14	-13.00	41.14
496.11	V	20.53	-51.20	0.00	0.45	-51.65	-13.00	38.65
1427.000	H	36.23	-67.41	8.30	0.73	-59.84	-13.00	46.84
1427.000	V	35.22	-68.47	8.30	0.73	-60.90	-13.00	47.90
2140.500	H	35.47	-66.60	9.18	0.93	-58.35	-13.00	45.35
2140.500	V	34.46	-67.62	9.18	0.93	-59.37	-13.00	46.37
2854.000	H	35.20	-64.49	9.97	1.07	-55.59	-13.00	42.59
2854.000	V	35.11	-64.57	9.97	1.07	-55.67	-13.00	42.67

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)			
5MHz QPSK, Frequency: 2537.5 MHz								
86.20	H	35.78	-76.02	0.00	0.17	-76.19	-25.00	51.19
50.76	V	38.85	-62.74	-14.55	0.13	-77.42	-25.00	52.42
5075.000	H	35.11	-58.10	11.25	1.48	-48.33	-25.00	23.33
5075.000	V	36.44	-56.67	11.25	1.48	-46.90	-25.00	21.90
7612.500	H	35.20	-54.28	10.88	2.02	-45.42	-25.00	20.42
7612.500	V	34.77	-55.42	10.88	2.02	-46.56	-25.00	21.56
5MHz QPSK, Frequency: 2595 MHz								
85.29	H	35.22	-76.28	0.00	0.17	-76.45	-25.00	51.45
50.05	V	38.63	-62.62	-14.88	0.12	-77.62	-25.00	52.62
5190.000	H	36.69	-57.38	11.31	1.44	-47.51	-25.00	22.51
5190.000	V	37.12	-56.80	11.31	1.44	-46.93	-25.00	21.93
7785.000	H	35.52	-53.97	10.84	1.99	-45.12	-25.00	20.12
7785.000	V	35.96	-53.96	10.84	1.99	-45.11	-25.00	20.11
5MHz QPSK, Frequency: 2652.5 MHz								
86.80	H	34.98	-77.01	0.00	0.17	-77.18	-25.00	52.18
51.12	V	39.16	-62.61	-14.38	0.13	-77.12	-25.00	52.12
5305.000	H	35.77	-57.67	11.38	1.46	-47.75	-25.00	22.75
5305.000	V	36.48	-56.70	11.38	1.46	-46.78	-25.00	21.78
7957.500	H	34.97	-53.45	10.81	2.09	-44.73	-25.00	19.73
7957.500	V	35.51	-53.36	10.81	2.09	-44.64	-25.00	19.64

LTE Band 66(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)			
1.4MHz QPSK, Frequency: 1710.7 MHz								
84.90	H	34.52	-76.85	0.00	0.17	-77.02	-13.00	64.02
51.66	V	39.36	-62.66	-14.14	0.13	-76.93	-13.00	63.93
3421.400	H	36.02	-61.74	10.37	1.17	-52.54	-13.00	39.54
3421.400	V	36.44	-61.29	10.37	1.17	-52.09	-13.00	39.09
5132.100	H	35.12	-58.45	11.28	1.47	-48.64	-13.00	35.64
5132.100	V	34.53	-58.93	11.28	1.47	-49.12	-13.00	36.12
1.4MHz QPSK, Frequency: 1745 MHz								
84.70	H	34.91	-76.40	0.00	0.17	-76.57	-13.00	63.57
51.12	V	38.75	-63.02	-14.38	0.13	-77.53	-13.00	64.53
3490.000	H	35.78	-62.06	10.40	1.17	-52.83	-13.00	39.83
3490.000	V	36.22	-61.56	10.40	1.17	-52.33	-13.00	39.33
5235.000	H	34.85	-59.05	11.34	1.46	-49.17	-13.00	36.17
5235.000	V	35.63	-58.08	11.34	1.46	-48.20	-13.00	35.20
1.4MHz QPSK, Frequency: 1779.3 MHz								
82.36	H	34.72	-75.83	0.00	0.16	-75.99	-13.00	62.99
51.84	V	38.99	-63.12	-14.05	0.13	-77.30	-13.00	64.30
3558.600	H	35.64	-62.03	10.46	1.22	-52.79	-13.00	39.79
3558.600	V	35.29	-62.28	10.46	1.22	-53.04	-13.00	40.04
5337.900	H	34.11	-59.36	11.40	1.47	-49.43	-13.00	36.43
5337.900	V	35.89	-57.44	11.40	1.47	-47.51	-13.00	34.51

LTE Band 71 (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)			
5MHz QPSK, Frequency: 665.5 MHz								
585.07	H	20.43	-53.72	0.00	0.46	-54.18	-13.00	41.18
441.95	V	20.53	-53.35	0.00	0.42	-53.77	-13.00	40.77
1331.000	H	37.12	-65.91	8.03	0.76	-58.64	-13.00	45.64
1331.000	V	37.22	-66.14	8.03	0.76	-58.87	-13.00	45.87
1996.500	H	36.01	-66.15	9.10	0.89	-57.94	-13.00	44.94
1996.500	V	35.46	-66.08	9.10	0.89	-57.87	-13.00	44.87
2662.000	H	35.23	-64.73	9.66	1.06	-56.13	-13.00	43.13
2662.000	V	34.69	-65.19	9.66	1.06	-56.59	-13.00	43.59
5MHz QPSK, Frequency: 680.5 MHz								
532.26	H	20.54	-54.65	0.00	0.45	-55.10	-13.00	42.10
519.32	V	20.58	-51.03	0.00	0.41	-51.44	-13.00	38.44
1361.000	H	36.96	-66.37	8.11	0.77	-59.03	-13.00	46.03
1361.000	V	37.11	-66.42	8.11	0.77	-59.08	-13.00	46.08
2041.500	H	35.56	-66.47	9.12	0.91	-58.26	-13.00	45.26
2041.500	V	35.74	-65.90	9.12	0.91	-57.69	-13.00	44.69
2722.000	H	35.63	-64.34	9.76	1.05	-55.63	-13.00	42.63
2722.000	V	35.02	-64.89	9.76	1.05	-56.18	-13.00	43.18
5MHz QPSK, Frequency: 695.5 MHz								
489.34	H	20.59	-55.46	0.00	0.44	-55.90	-13.00	42.90
560.83	V	20.46	-51.21	0.00	0.47	-51.68	-13.00	38.68
1391.000	H	35.89	-67.73	8.19	0.72	-60.26	-13.00	47.26
1391.000	V	36.49	-67.21	8.19	0.72	-59.74	-13.00	46.74
2086.500	H	35.10	-66.81	9.15	0.91	-58.57	-13.00	45.57
2086.500	V	34.44	-67.35	9.15	0.91	-59.11	-13.00	46.11
2782.000	H	35.58	-64.36	9.85	1.05	-55.56	-13.00	42.56
2782.000	V	35.21	-64.62	9.85	1.05	-55.82	-13.00	42.82

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 CR231169741-EXP EUT EXTERNAL PHOTOGRAPHS and CR231169741-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR231169741-00F-TSP TEST SETUP PHOTOGRAPHS.

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