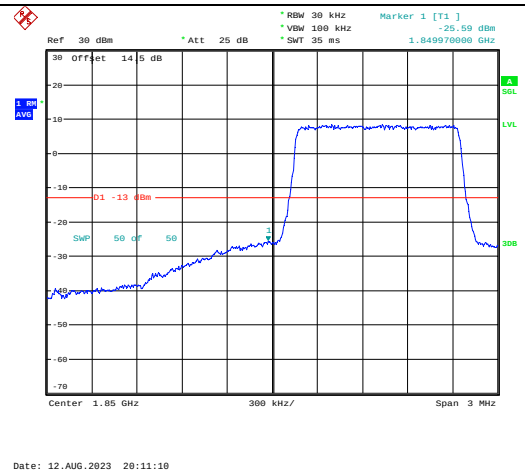
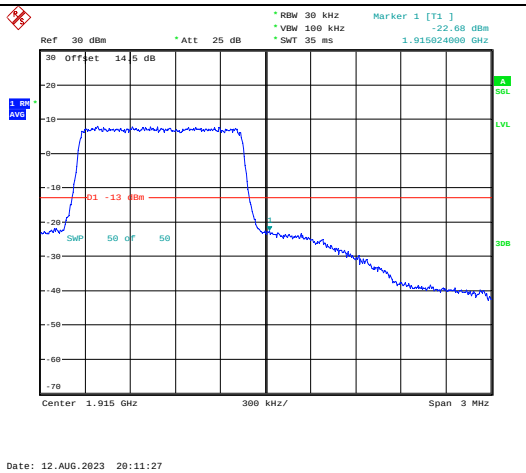
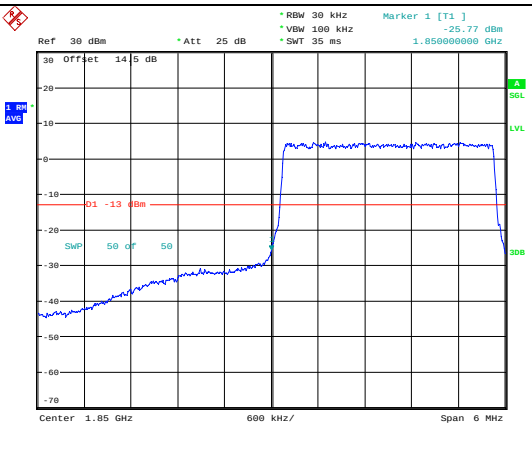
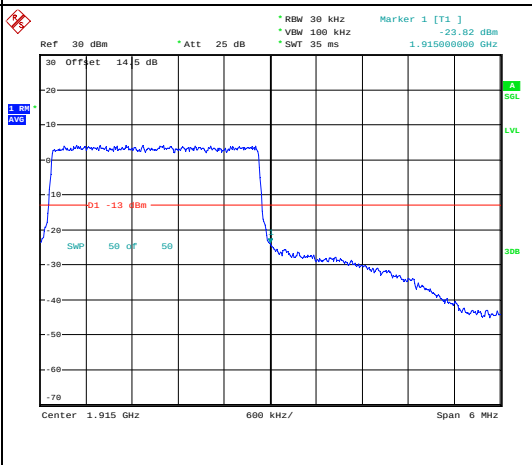
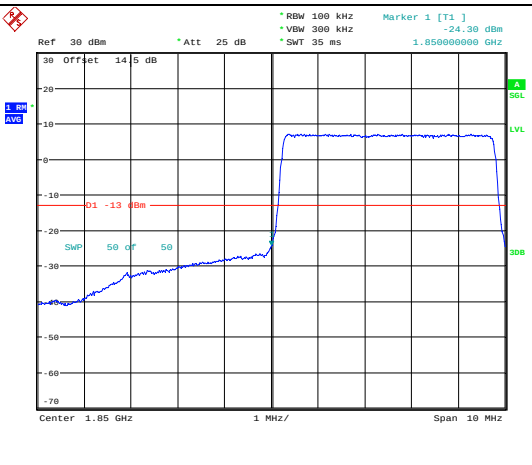
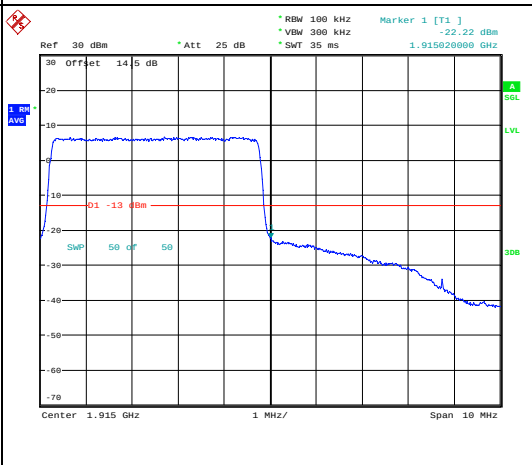
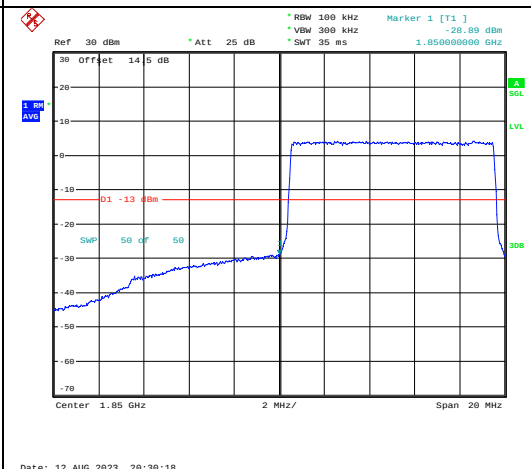
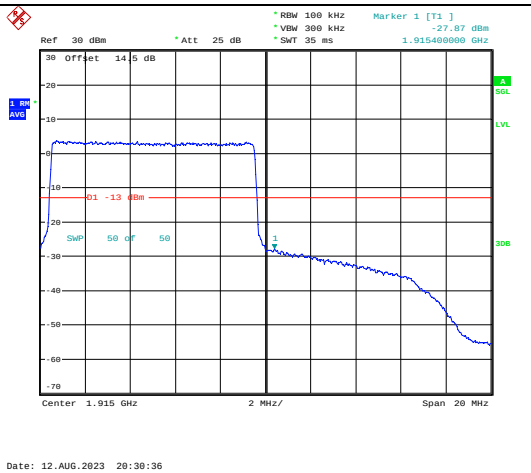
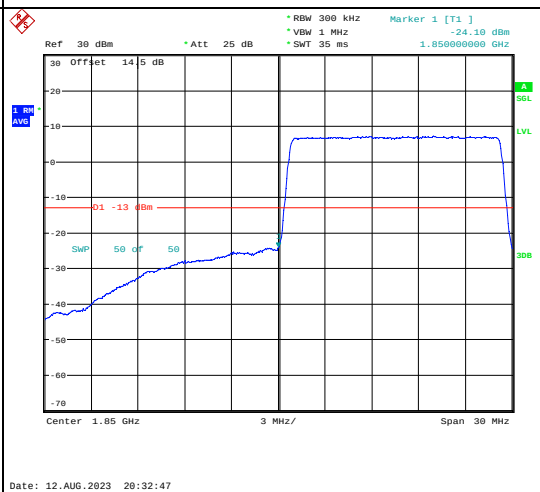
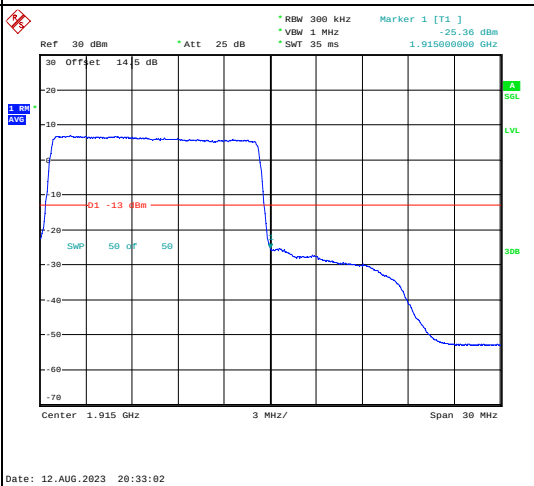
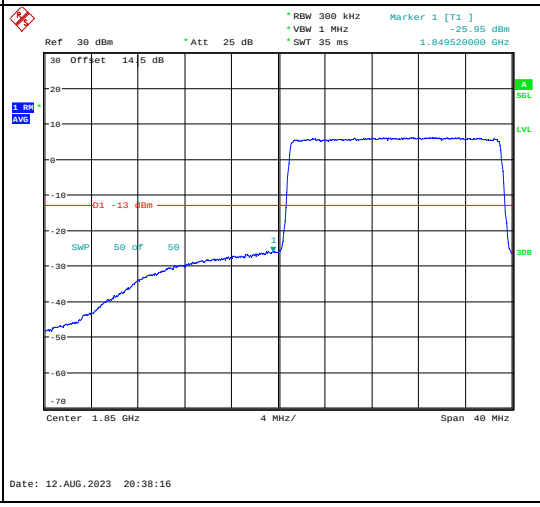
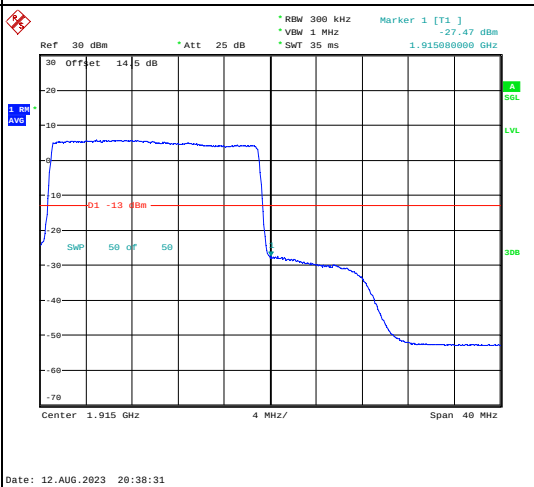
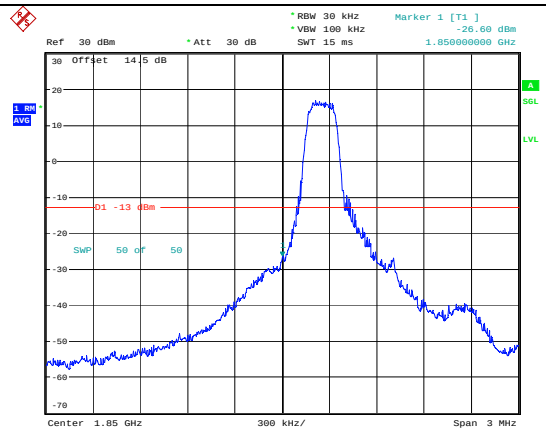
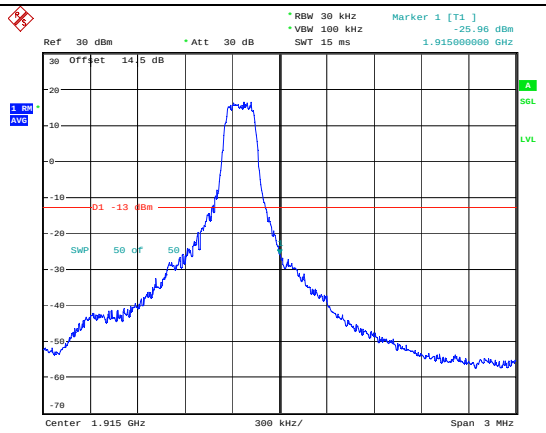
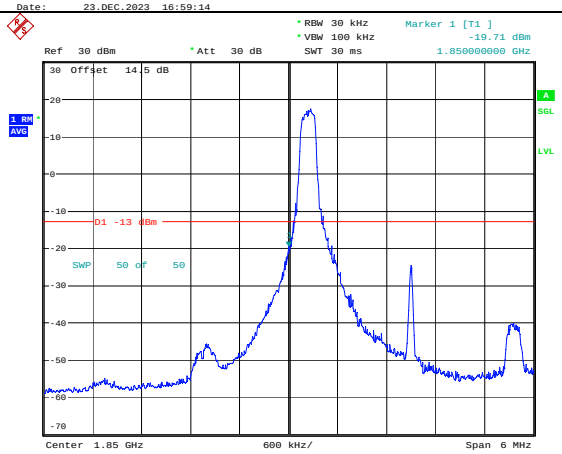
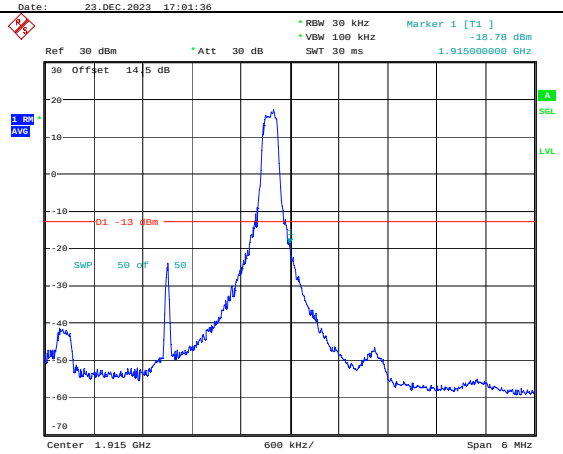
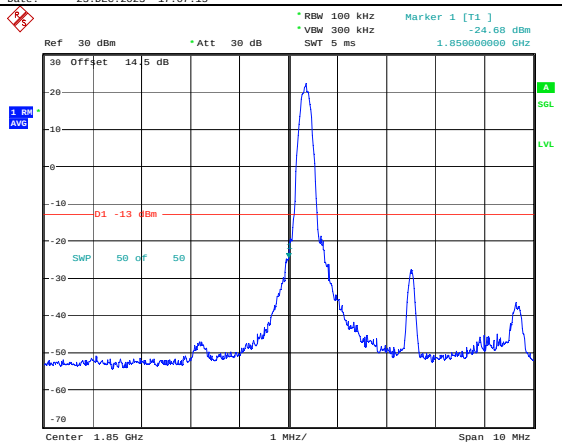
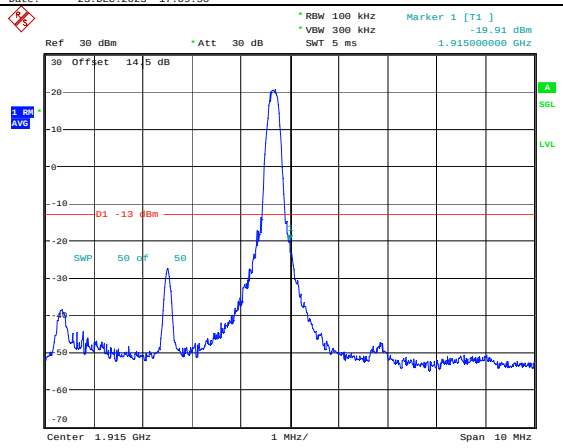
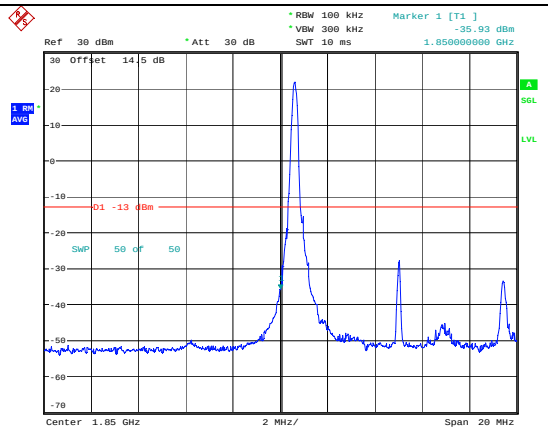
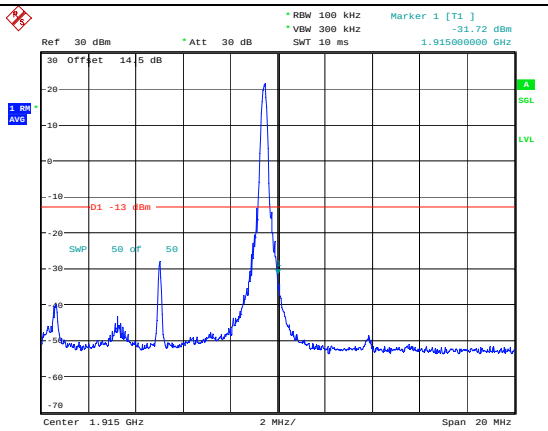
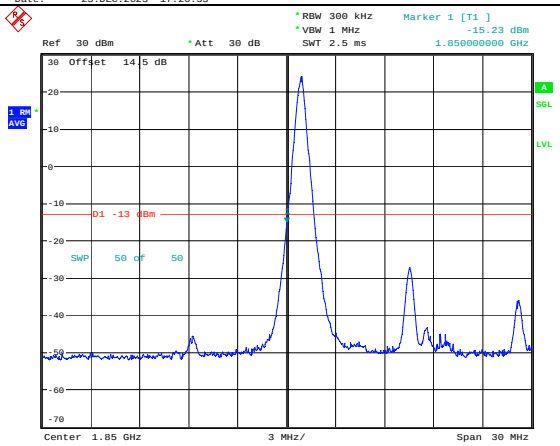
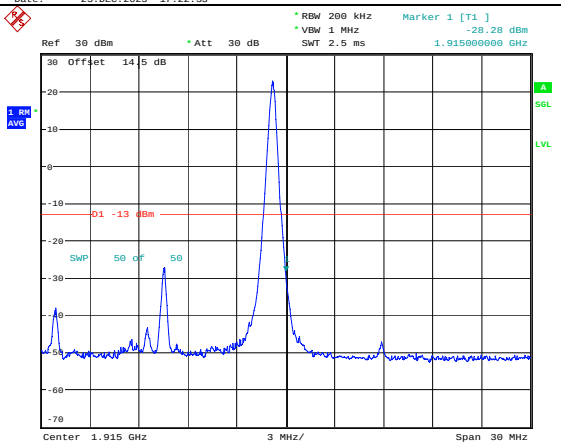
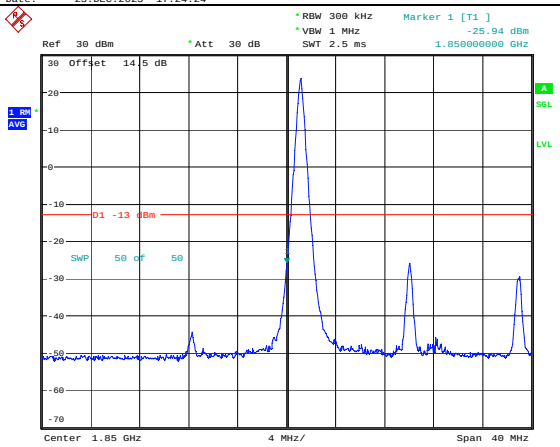
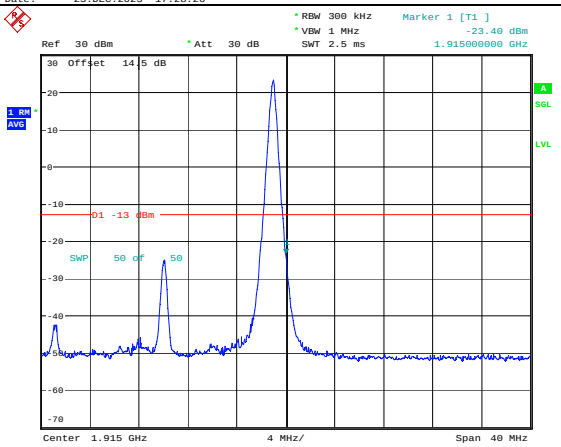
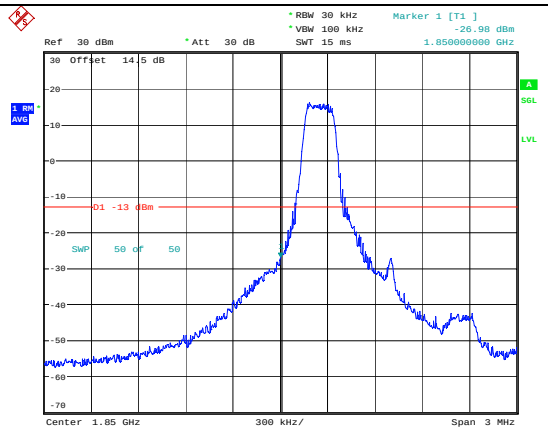
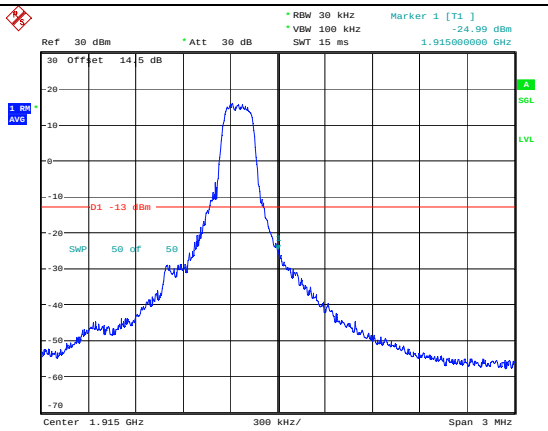
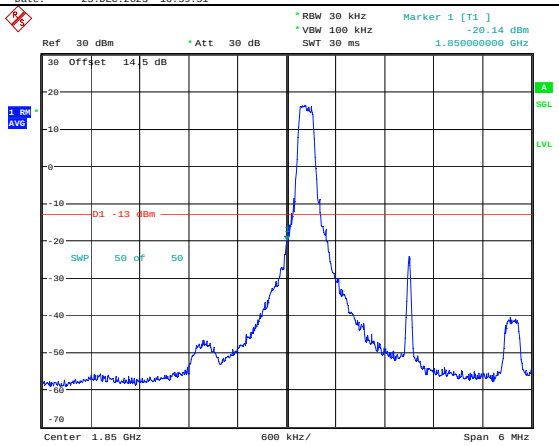
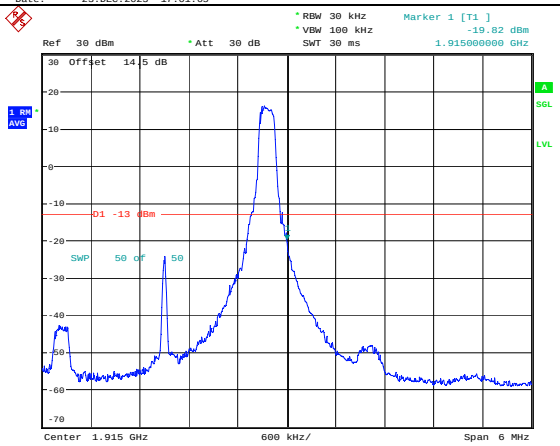
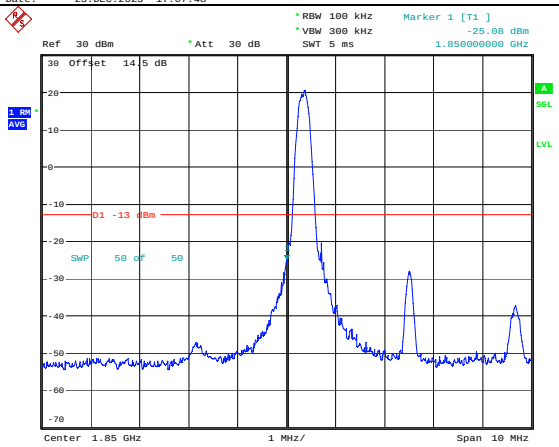
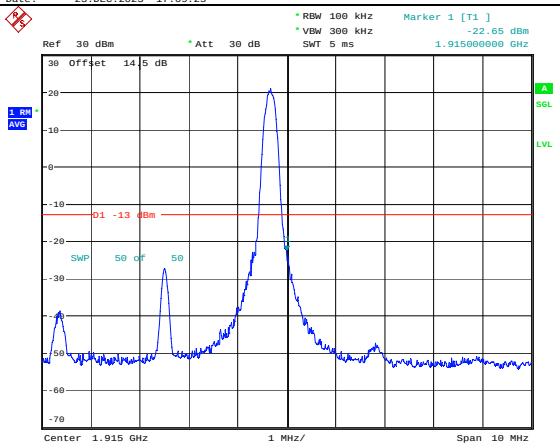
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz		
16QAM 3MHz		
16QAM 5MHz		

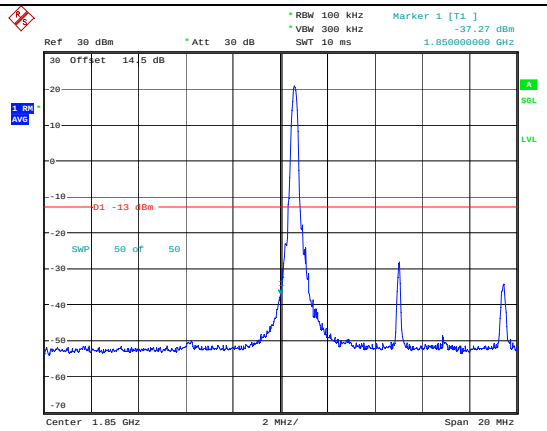
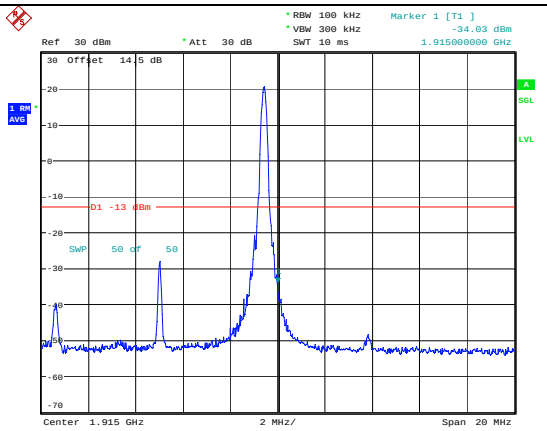
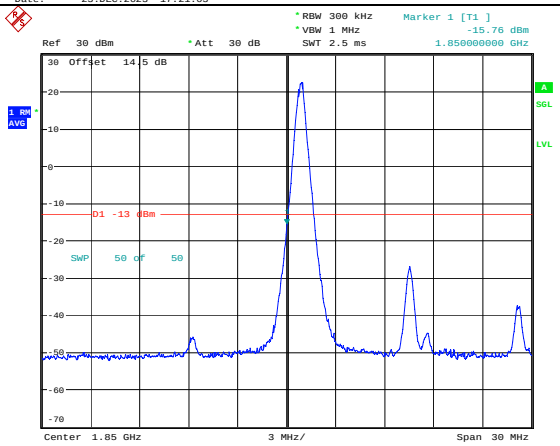
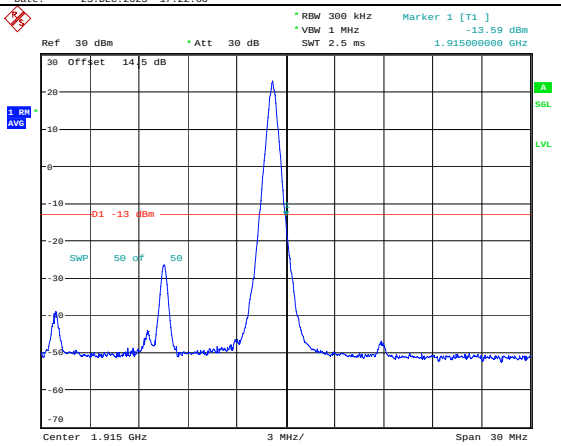
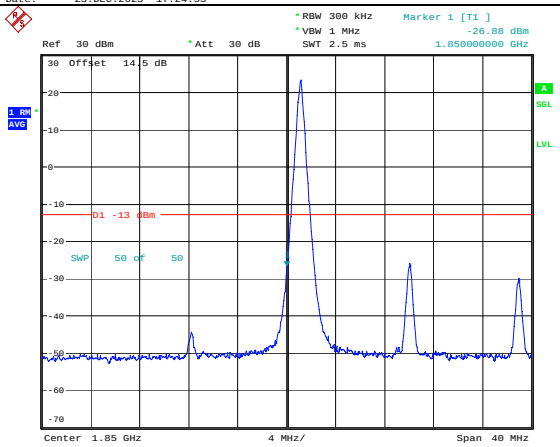
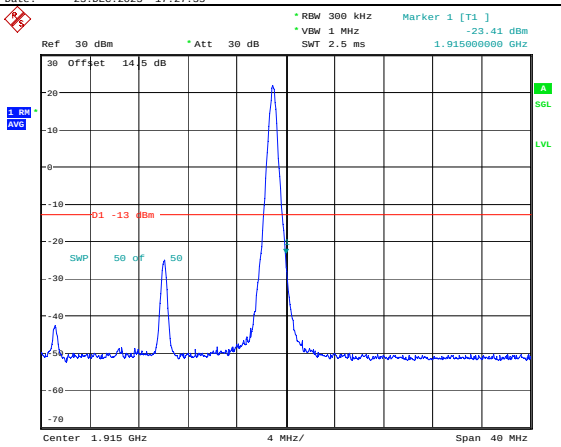
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz		
16QAM 15MHz		
16QAM 20MHz		

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		
QPSK 3MHz		
QPSK 5MHz		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:20:33	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:22:33
QPSK 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:24:24	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:28:26
QPSK 20MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:30:30	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:34:19

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 16:59:51	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:01:05
16QAM 3MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:07:48	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:09:25
16QAM 5MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:15:30	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:16:48

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:21:03	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:22:06
16QAM 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:24:53	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:27:35
16QAM 20MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:32:54	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:33:54

4.9 Antenna Port Test Data and Results for LTE Band 41

Serial Number:	288V-1	Test Date:	2023/8/4-2023/12/27
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu/Arthur Su/LingLing Li	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24.3-25.1	Relative Humidity: (%)	42-60	ATM Pressure: (kPa)	99.7-101.2

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	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A
Unknown	Coaxial tee connector	Unknown	2204004	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency for Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2498.5	2593	2687.5
10MHz	2501	2593	2685
15MHz	2503.5	2593	2682.5
20MHz	2506	2593	2680

Test Data:

FCC§2.1046;§ 27.50(h)(2)

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	19.59	19.7	19.06	21.22	33
	RB1#13	19.65	19.84	19.19		
	RB1#24	19.66	19.75	19.12		
	RB15#0	18.6	18.81	18.14		
	RB15#10	18.6	18.82	18.11		
	RB25#0	18.57	18.8	18.09		
5MHz 16QAM	RB1#0	18.94	18.87	18.29	20.42	33
	RB1#13	19.04	18.99	18.42		
	RB1#24	19.04	18.96	18.3		
	RB15#0	17.77	17.83	17.27		
	RB15#10	17.79	17.88	17.31		
	RB25#0	17.73	17.98	17.33		
10MHz QPSK	RB1#0	19.6	19.21	19.28	21.12	33
	RB1#25	19.69	19.38	18.72		
	RB1#49	19.74	19.37	19.34		
	RB25#0	18.73	18.29	17.94		
	RB25#25	18.72	18.41	17.99		
	RB50#0	18.71	18.38	17.93		
10MHz 16QAM	RB1#0	18.85	18.57	18.32	20.38	33
	RB1#25	18.94	18.68	17.74		
	RB1#49	19	18.7	18.4		
	RB25#0	17.82	17.46	17.04		
	RB25#25	17.89	17.54	17.14		
	RB50#0	17.89	17.5	17.06		
15MHz QPSK	RB1#0	19.61	19.82	19.32	21.37	33
	RB1#38	19.8	19.99	19.41		
	RB1#74	19.76	19.95	19.38		
	RB36#0	18.68	18.95	18.44		
	RB36#39	18.74	19.02	18.4		
	RB75#0	18.71	18.93	18.46		
15MHz 16QAM	RB1#0	18.97	19.17	18.37	20.71	33
	RB1#38	19.12	19.33	18.48		
	RB1#74	19.15	19.33	18.44		
	RB36#0	17.88	18.01	17.5		
	RB36#39	17.92	18.1	17.5		
	RB75#0	17.84	18.08	17.61		
20MHz QPSK	RB1#0	19.65	19.13	20.07	21.45	33
	RB1#50	19.86	19.48	19.06		
	RB1#99	19.83	19.55	19.14		

	RB50#0	18.75	18.37	18.15		
	RB50#50	18.83	18.58	18.11		
	RB100#0	18.81	18.53	18.2		
20MHz 16QAM	RB1#0	19.03	18.48	19.17	20.63	33
	RB1#50	19.25	18.73	18.18		
	RB1#99	19.24	18.72	18.29		
	RB50#0	17.89	17.11	17.35		
	RB50#50	17.98	17.24	17.27		
	RB100#0	17.93	17.06	17.34		
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	4.93	6.97	5.45	13
	RB100#0	7.21	7.38	7.21	13
20MHz 16QAM	RB1#0	6.75	6.42	6.78	13
	RB100#0	7.98	8.05	8.34	13
				Result:	**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.52	4.52	4.52	5.16	4.92	4.92
5MHz 16QAM	4.52	4.52	4.52	5.00	4.98	5.10
10MHz QPSK	8.96	8.96	8.96	9.60	9.64	9.72
10MHz 16QAM	8.96	8.96	8.96	9.68	9.56	9.56
15MHz QPSK	13.44	13.5	13.5	14.76	14.8	14.8
15MHz 16QAM	13.5	13.5	13.5	14.9	14.9	14.8
20MHz QPSK	17.92	17.92	17.84	19.36	19.36	19.12
20MHz 16QAM	17.92	17.84	17.92	19.44	19.36	19.28
Note: The test plots please refer to the Plots of Occupied Bandwidth						

FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

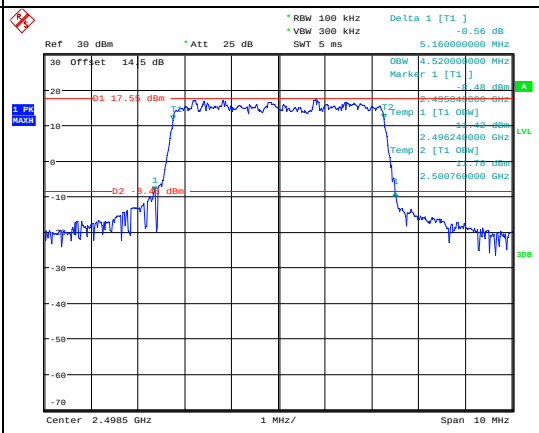
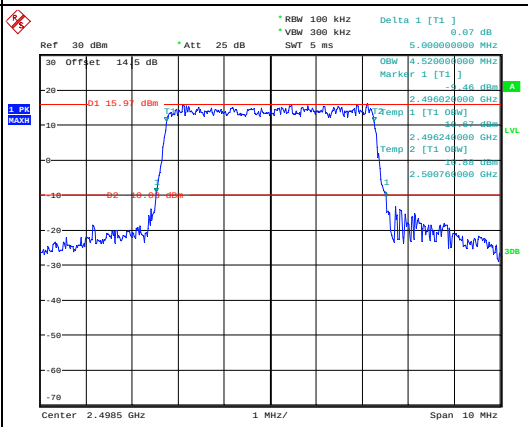
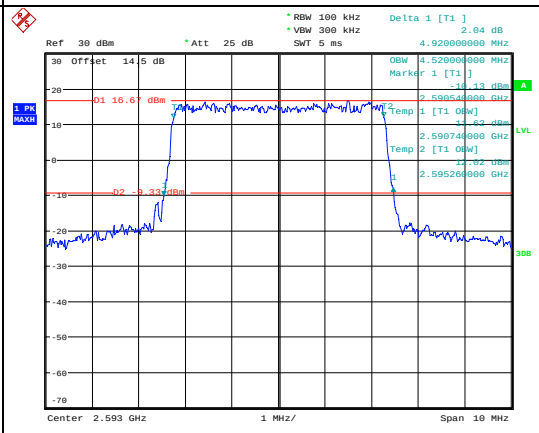
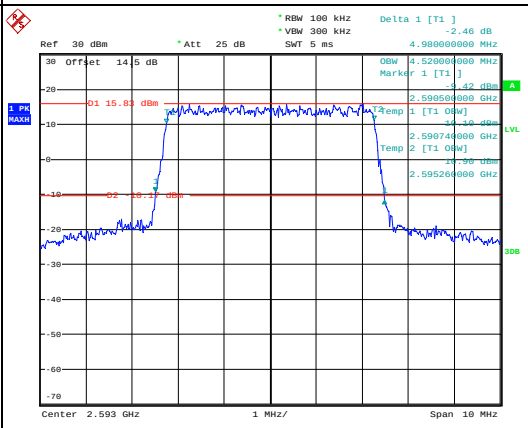
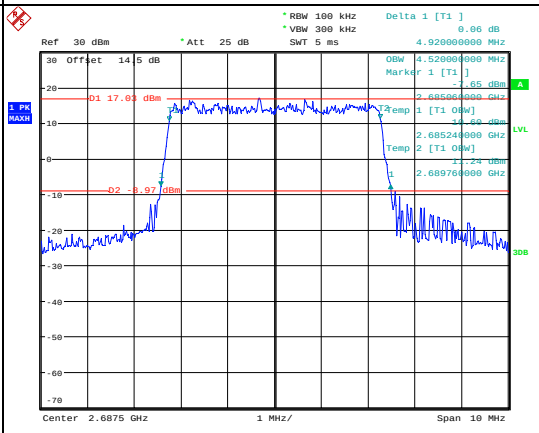
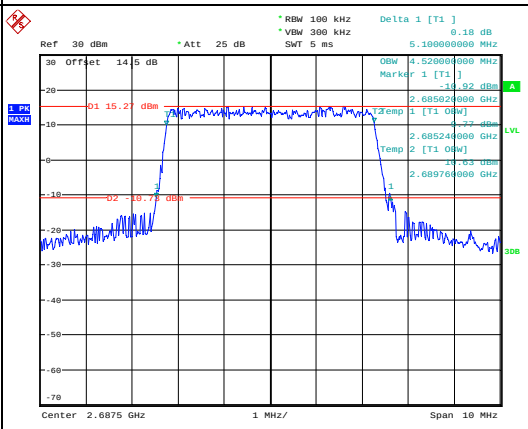
FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

FCC §2.1055, §27.54: Frequency Stability		
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge

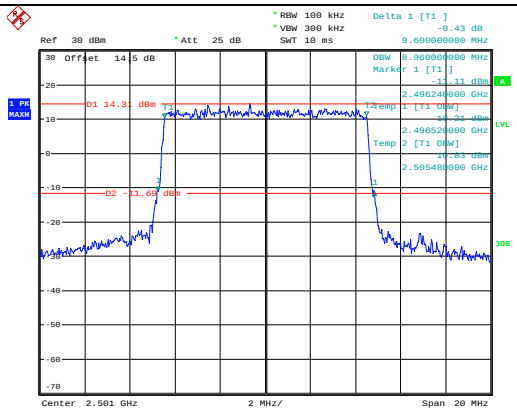
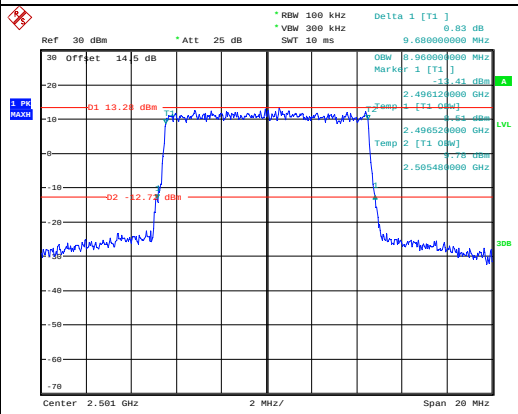
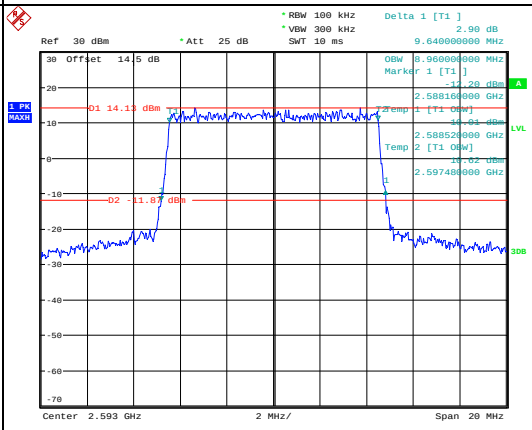
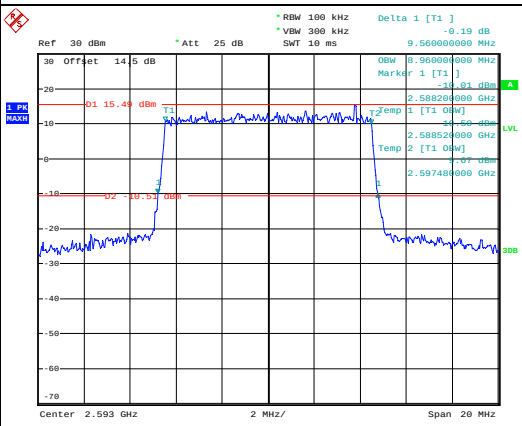
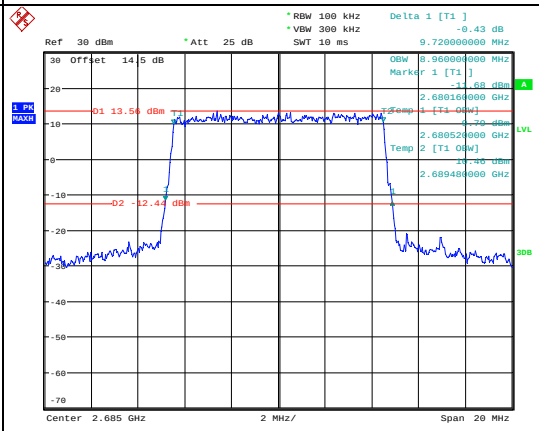
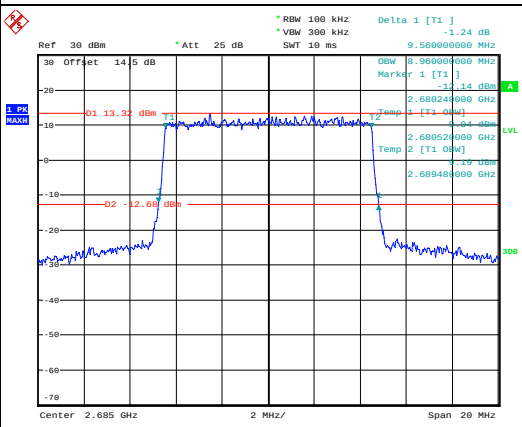
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	5	2497.016	2496.00	2688.985	2690
	-20	5	2497.022	2496.00	2688.988	2690
	-10	5	2497.021	2496.00	2688.982	2690
	0	5	2497.038	2496.00	2688.988	2690
	10	5	2497.035	2496.00	2688.983	2690
	20	5	2497.040	2496.00	2688.960	2690
	30	5	2497.031	2496.00	2688.970	2690
	40	5	2497.018	2496.00	2688.974	2690
	50	5	2497.027	2496.00	2688.972	2690
Frequency Stability vs. Voltage	20	4.4	2497.024	2496.00	2688.981	2690
	20	5.25	2497.030	2496.00	2688.975	2690
					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	5	2497.031	2496.00	2688.986	2690
	-20	5	2497.017	2496.00	2688.963	2690
	-10	5	2497.016	2496.00	2688.973	2690
	0	5	2497.039	2496.00	2688.971	2690
	10	5	2497.020	2496.00	2688.987	2690
	20	5	2497.040	2496.00	2688.960	2690
	30	5	2497.011	2496.00	2688.977	2690
	40	5	2497.033	2496.00	2688.965	2690
	50	5	2497.016	2496.00	2688.962	2690
Frequency Stability vs. Voltage	20	4.4	2497.017	2496.00	2688.967	2690
	20	5.25	2497.012	2496.00	2688.978	2690
					Result:	**Pass**

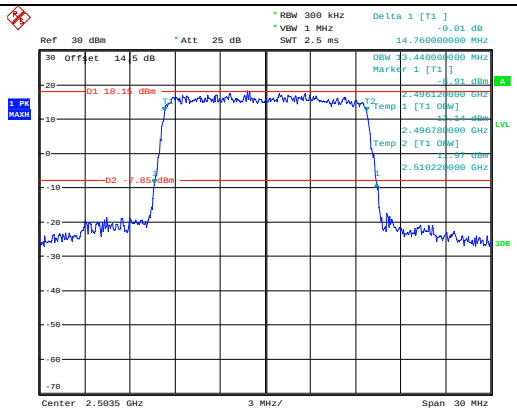
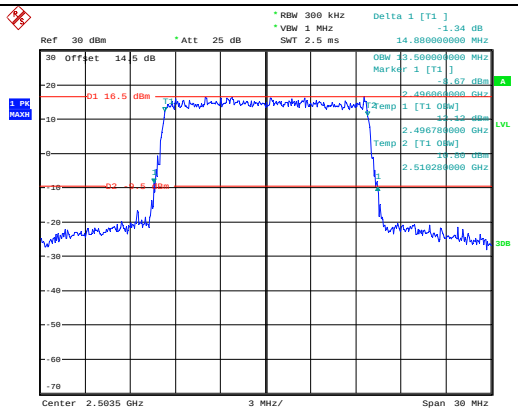
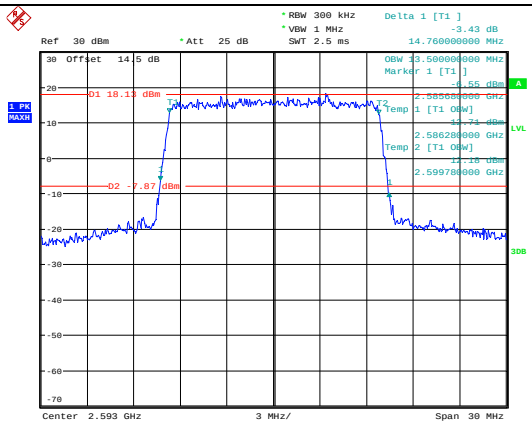
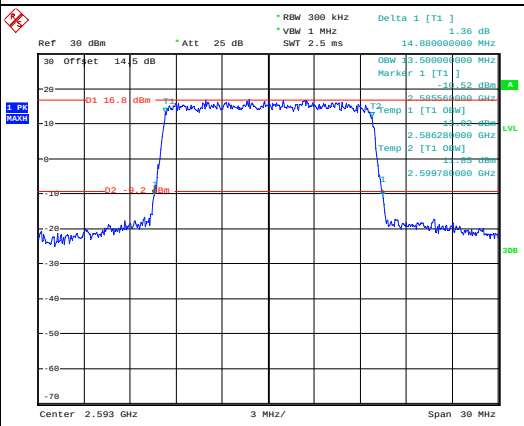
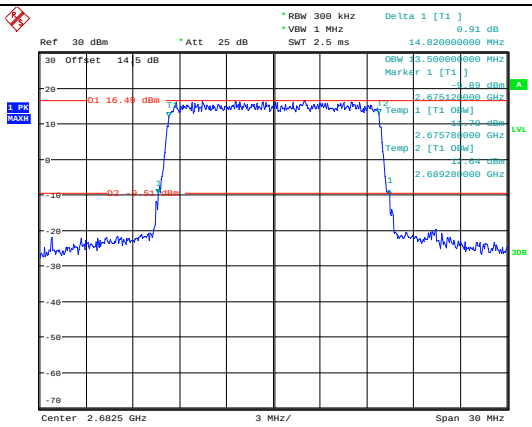
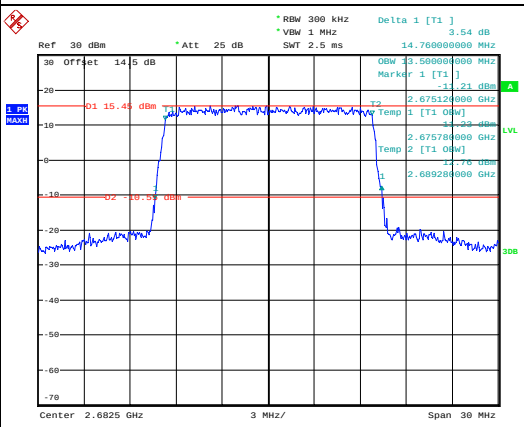
Test Plots(Note: The 14.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer)**:**

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

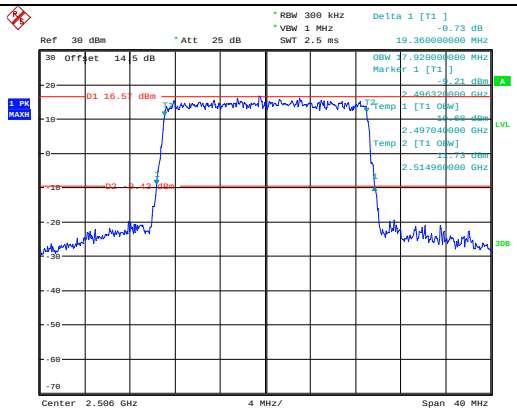
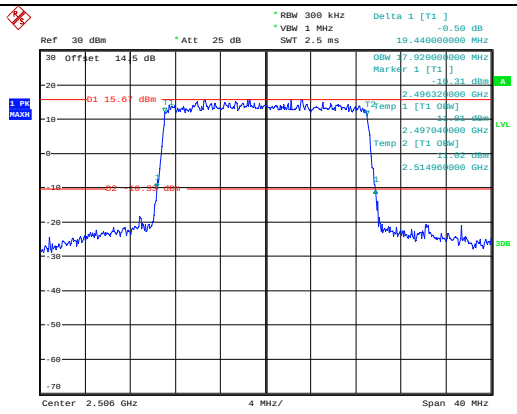
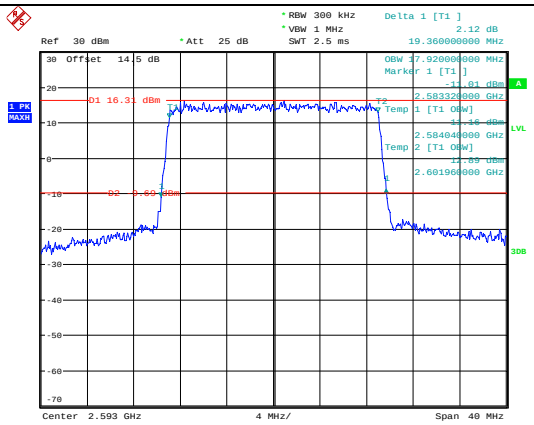
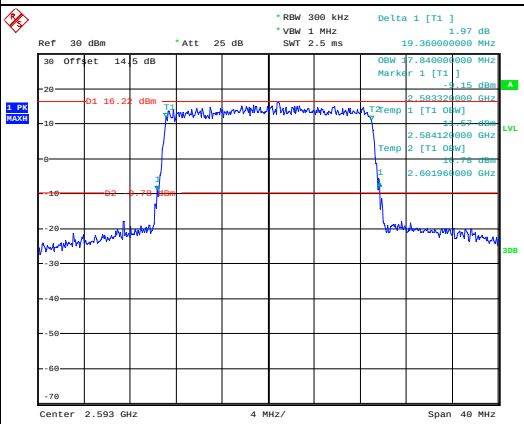
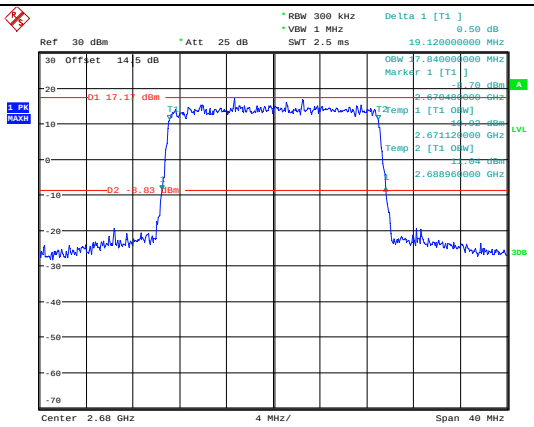
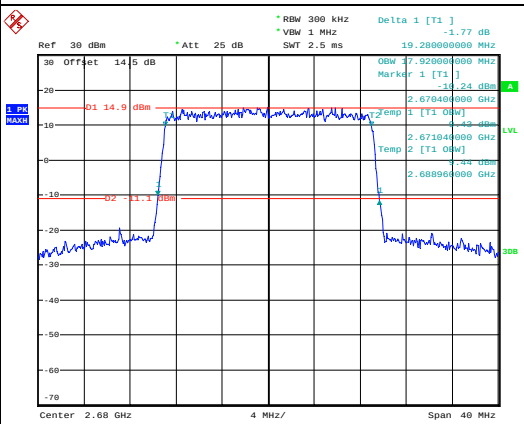
Occupied Bandwidth

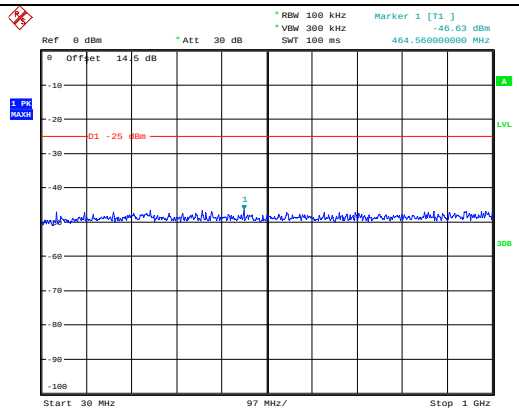
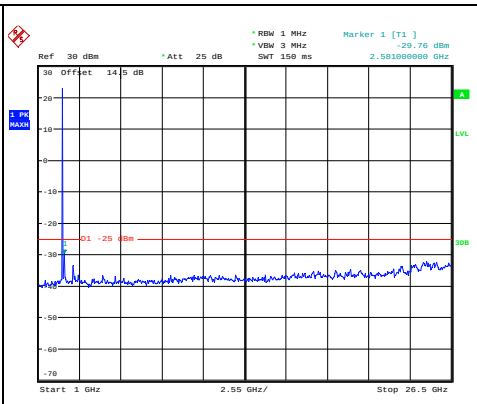
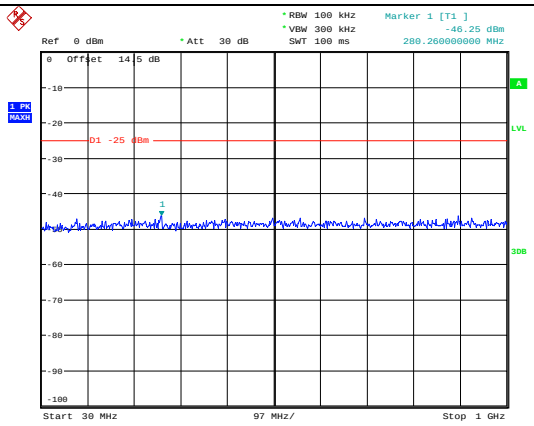
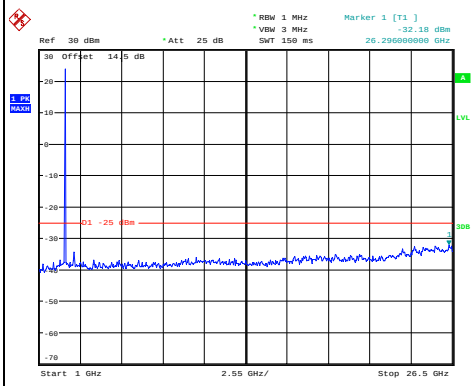
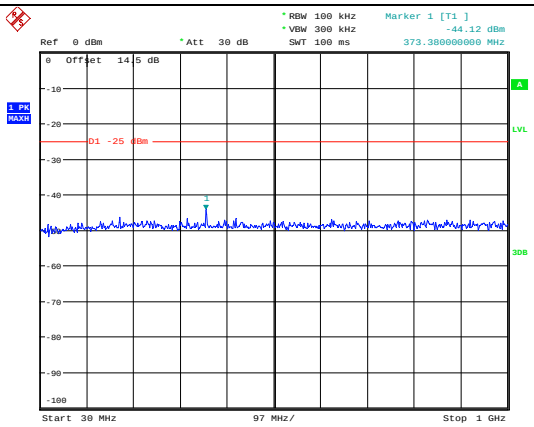
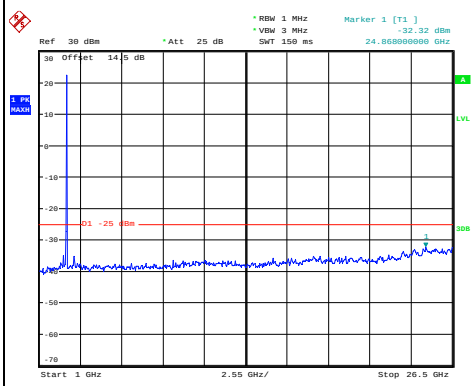
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

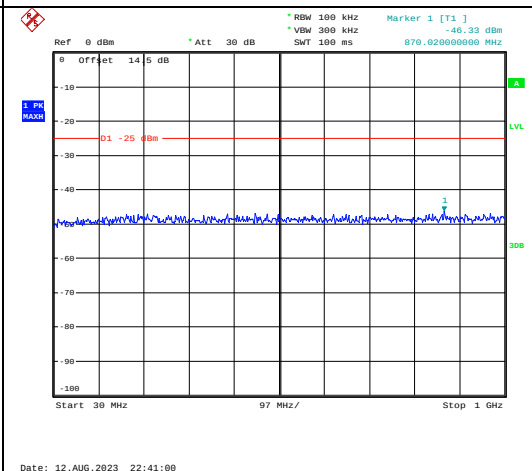
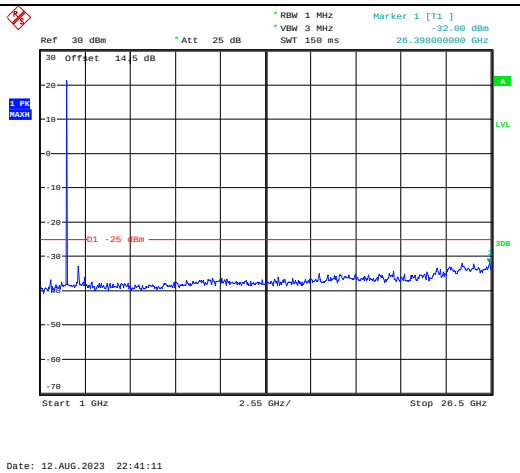
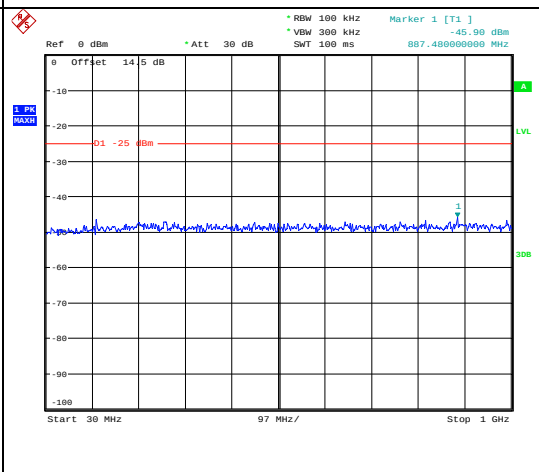
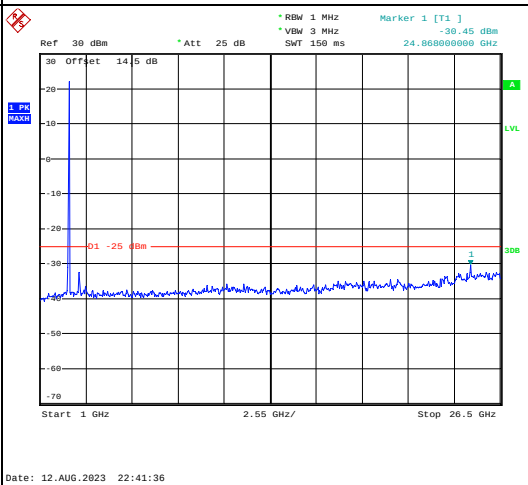
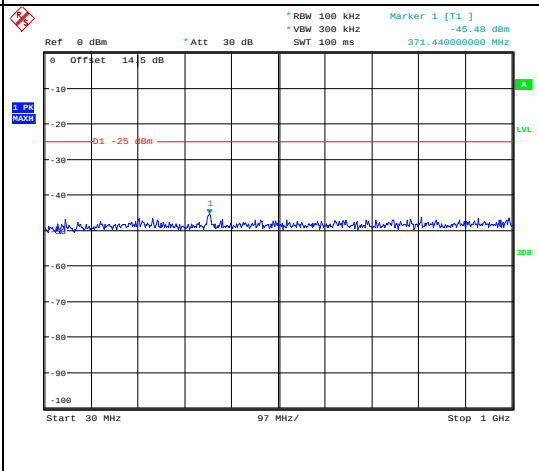
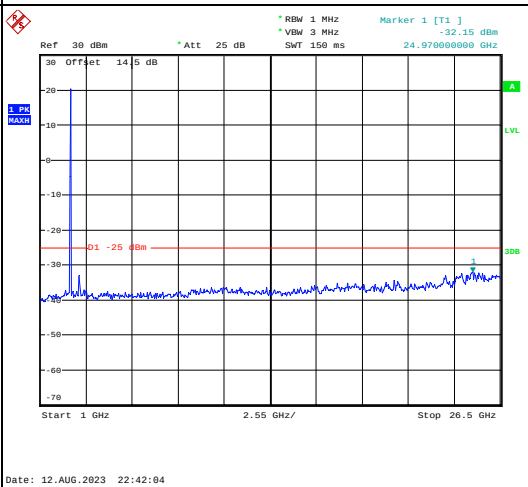
Occupied Bandwidth

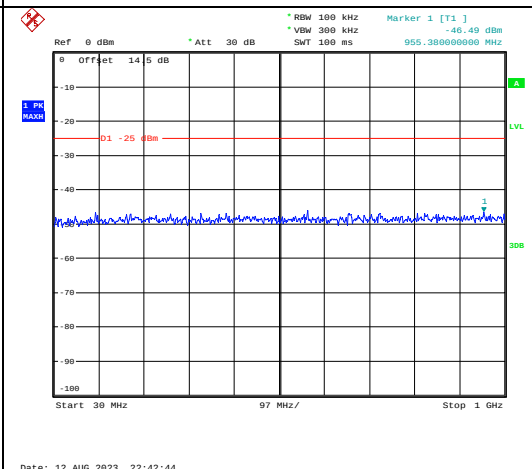
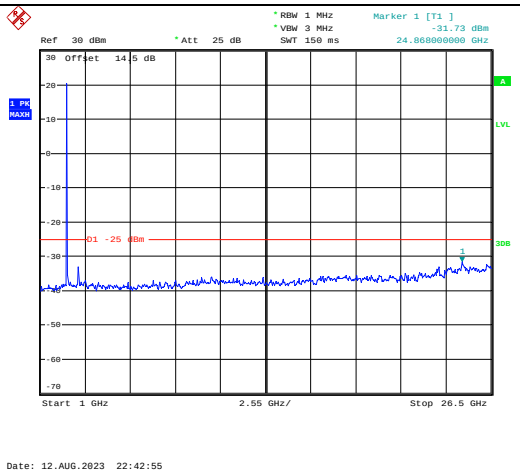
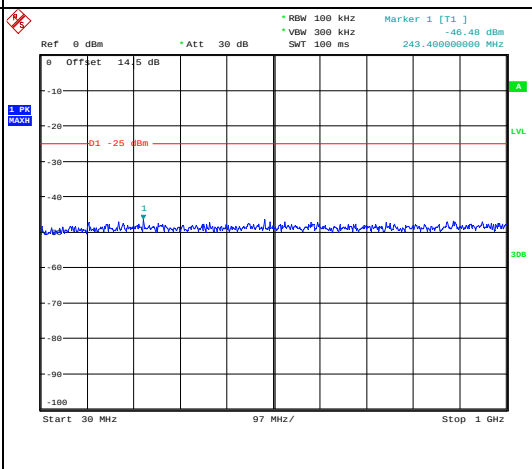
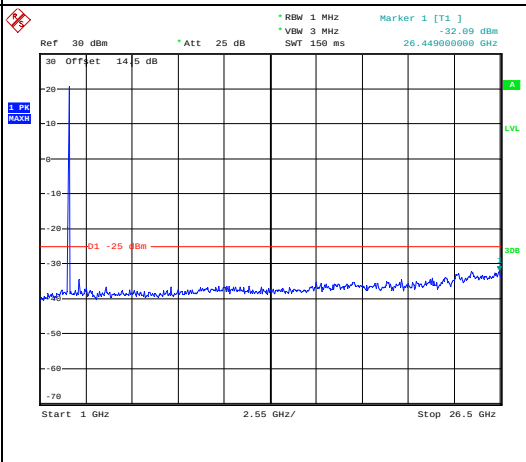
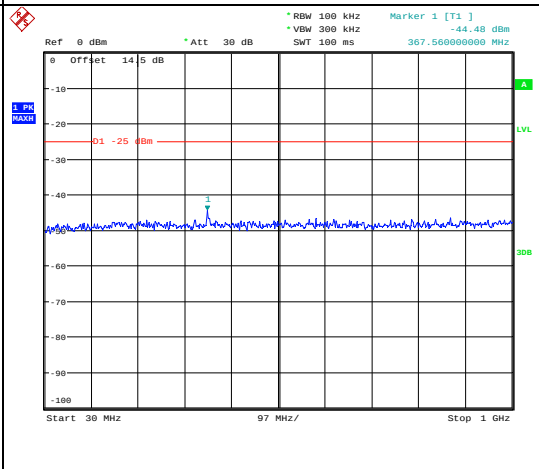
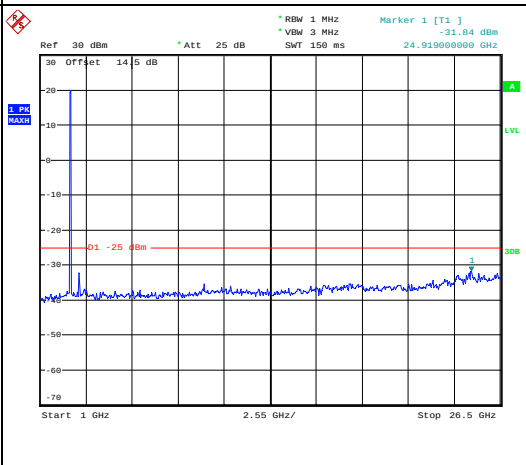
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

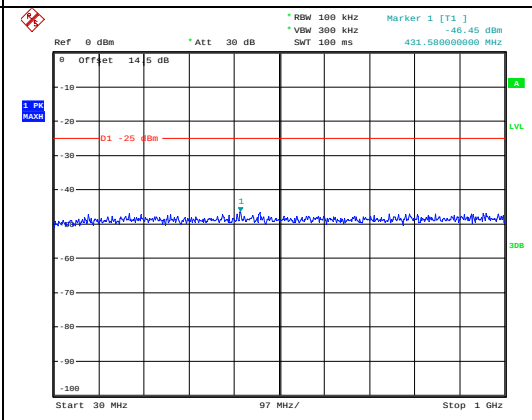
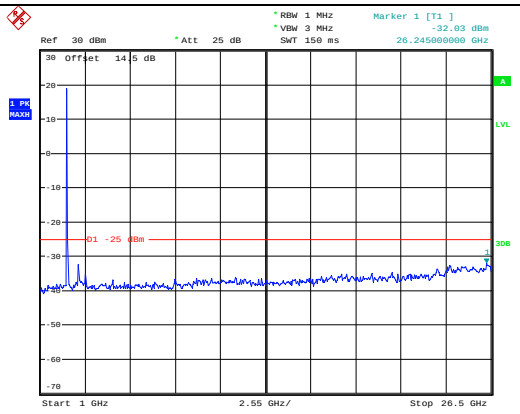
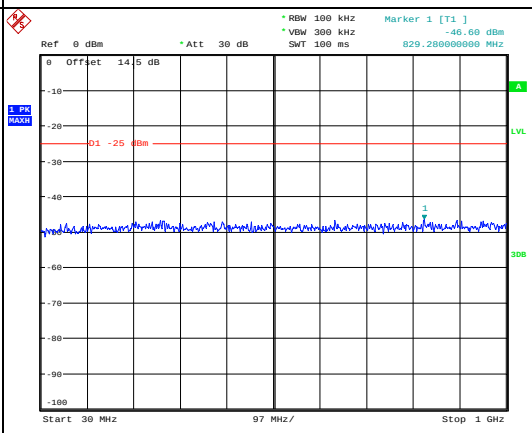
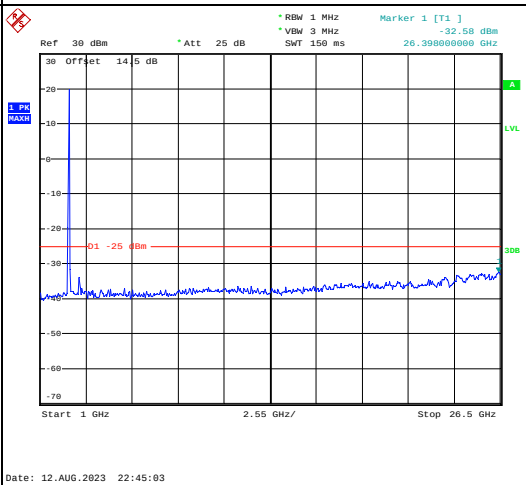
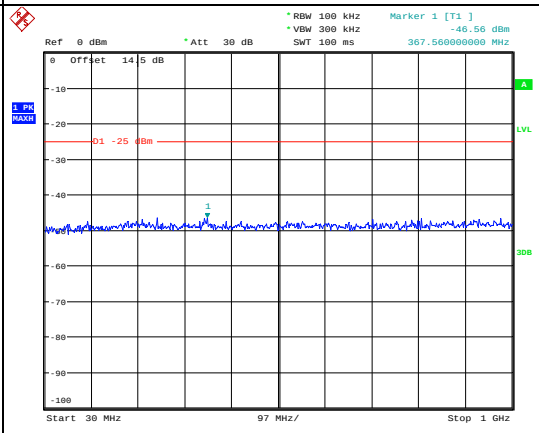
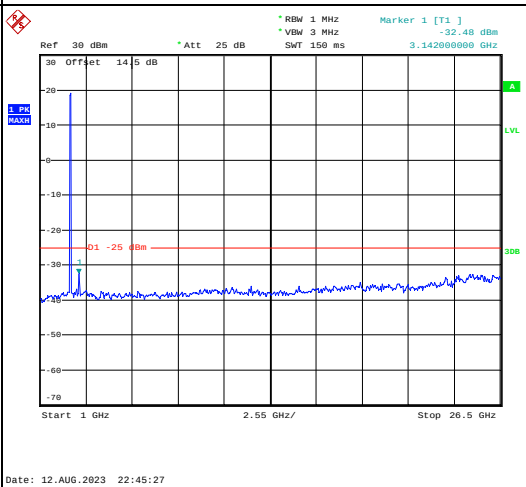
Occupied Bandwidth

Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	 Date: 12.AUG.2023 22:16:46	 Date: 12.AUG.2023 22:17:07
Middle	 Date: 12.AUG.2023 22:17:25	 Date: 12.AUG.2023 22:17:40
Highest	 Date: 12.AUG.2023 22:18:01	 Date: 12.AUG.2023 22:18:19

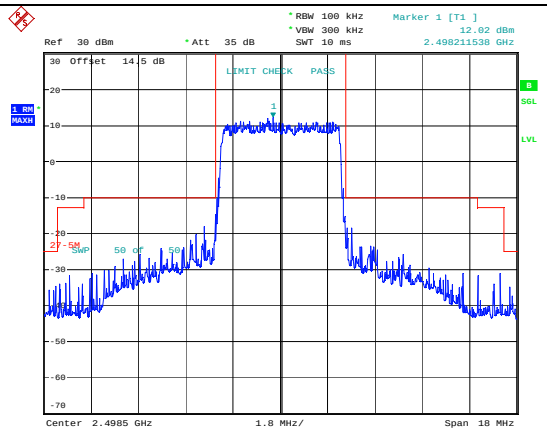
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest	 Date: 12.AUG.2023 22:39:21	 Date: 12.AUG.2023 22:39:32
Middle	 Date: 12.AUG.2023 22:39:46	 Date: 12.AUG.2023 22:39:57
Highest	 Date: 12.AUG.2023 22:40:10	 Date: 12.AUG.2023 22:40:22

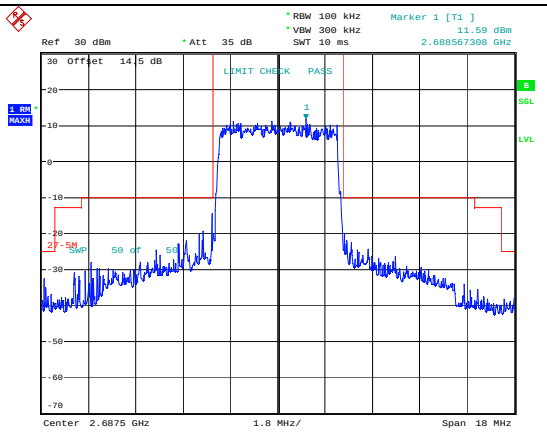
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

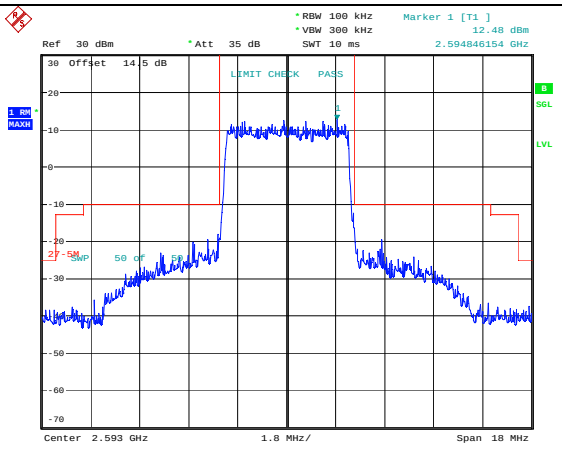
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

<table>
<tr><th colspan="3">Out of band emission, Band Edge</th></tr>
<tr><th>Mode</th><th>Lowest</th><th>Highest</th></tr>
<tr><td rowspan="2">QPSK
5MHz</td><td> 

Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI
Date: 25.DEC.2023 11:32:22</td><td> 

Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI
Date: 25.DEC.2023 11:28:09</td></tr>
<tr><td>Middle</td><td></td></tr>
<tr><td></td><td> 

Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI
Date: 25.DEC.2023 11:34:22</td><td></td></tr>
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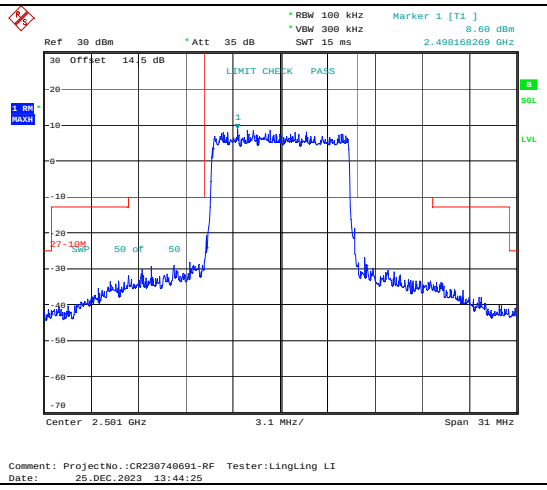
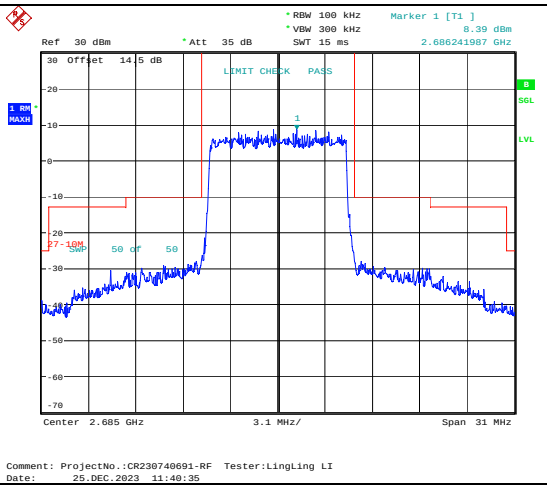
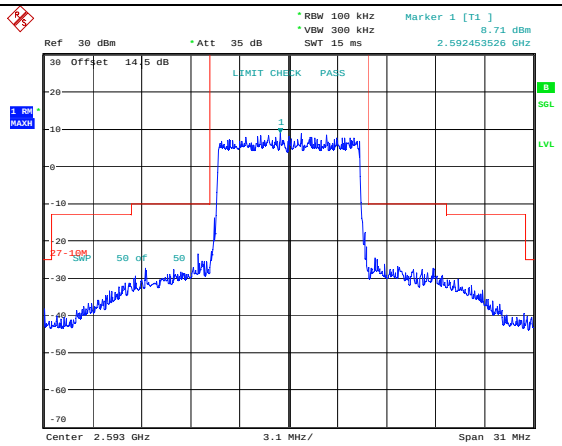
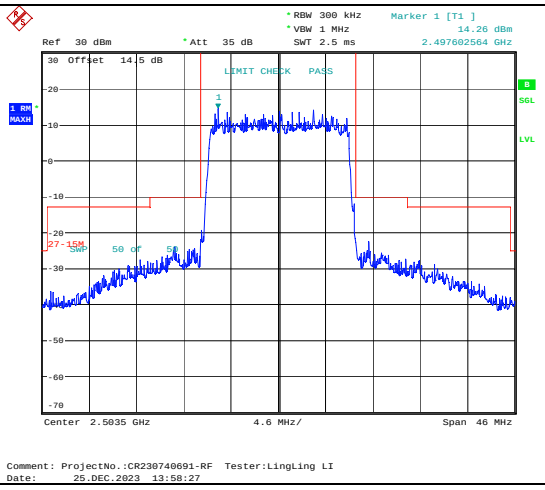
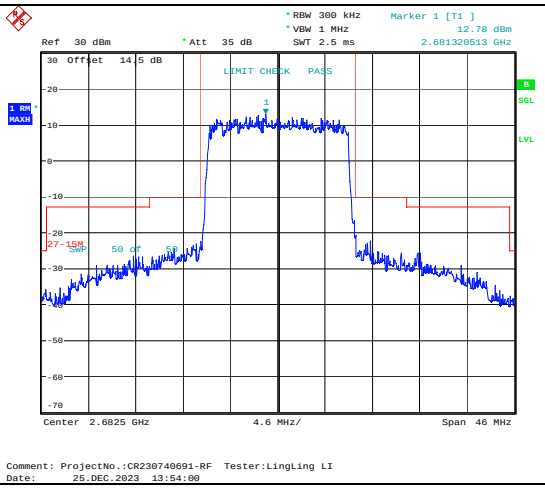
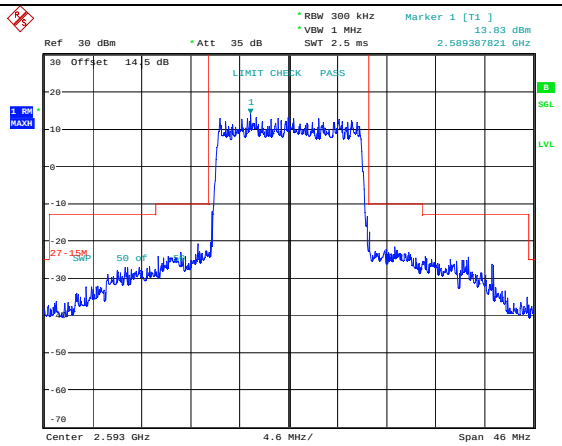
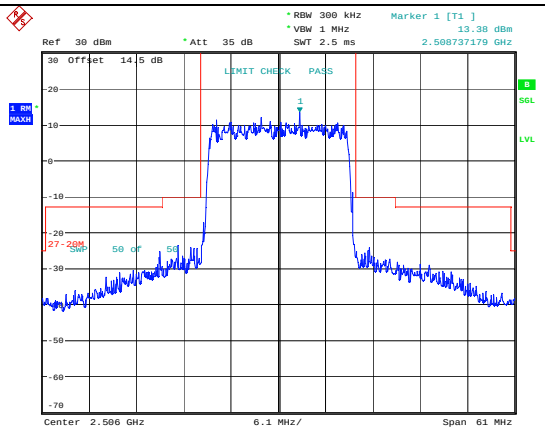
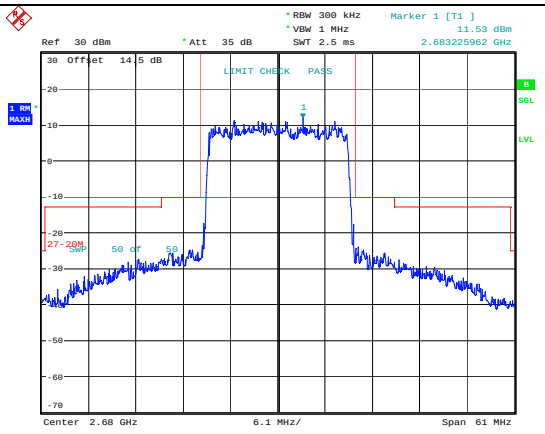
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:44:25	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:40:35
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:56:15	

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:58:27	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:54:00
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:55:46	

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 20MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:00:36	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 10:58:09
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	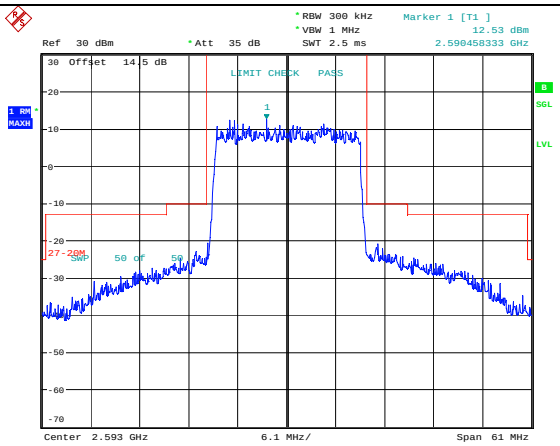 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:03:45	

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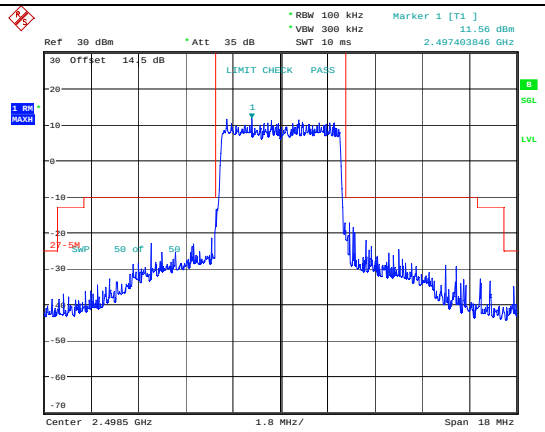
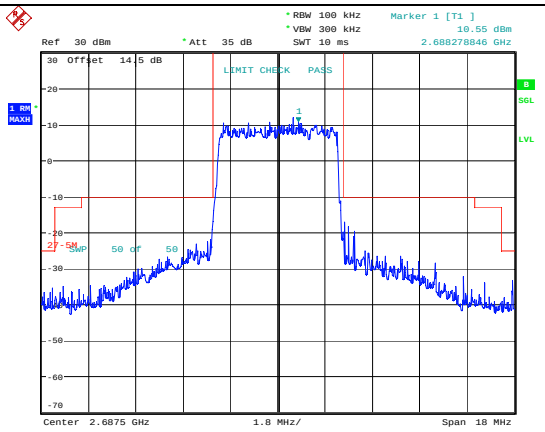
5MHz</td><td> 

Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI
Date: 25.DEC.2023 11:31:29</td><td> 

Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI
Date: 25.DEC.2023 11:29:36</td></tr>
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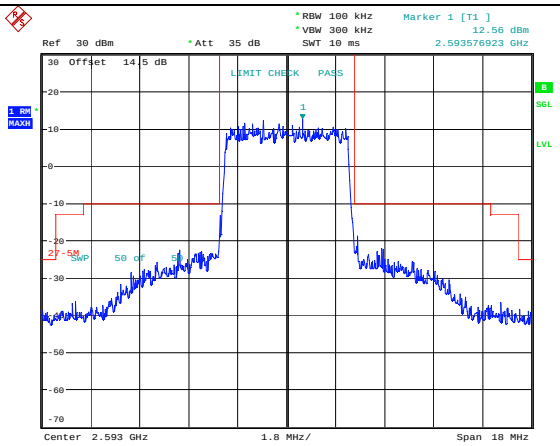
<tr><td></td><td> 

Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI
Date: 25.DEC.2023 11:34:55</td><td></td></tr>
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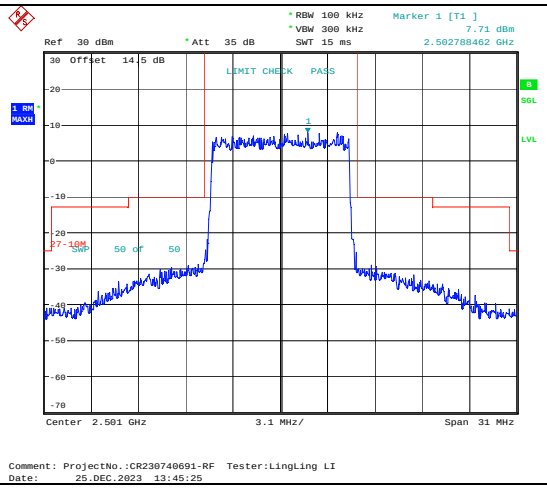
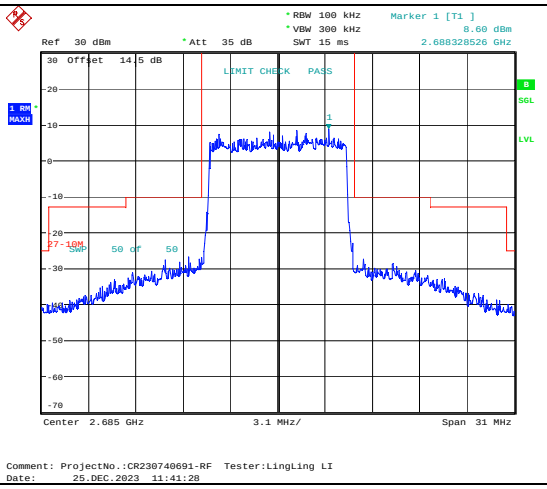
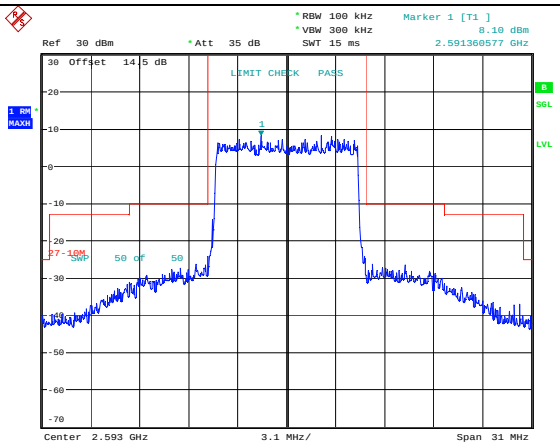
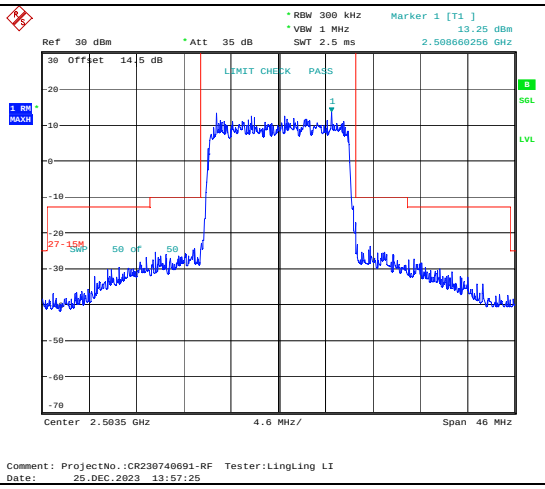
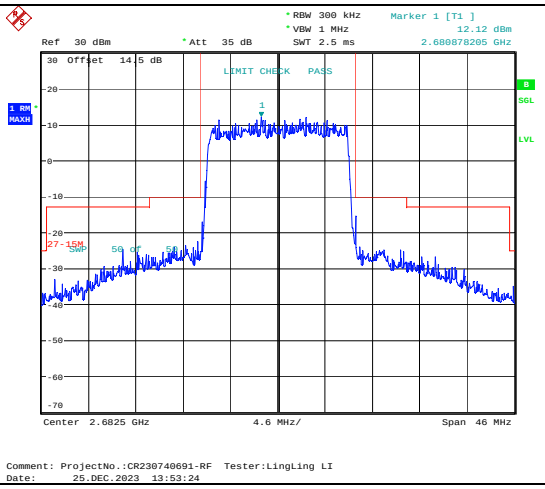
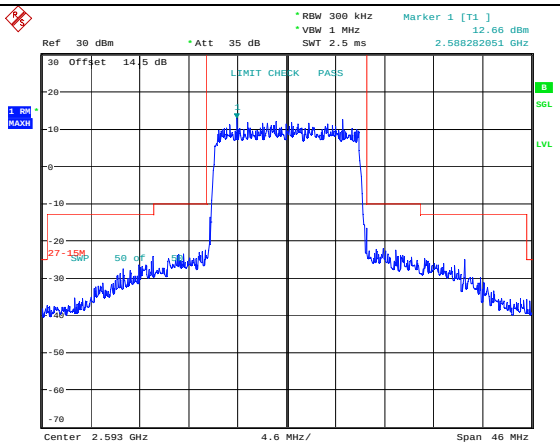
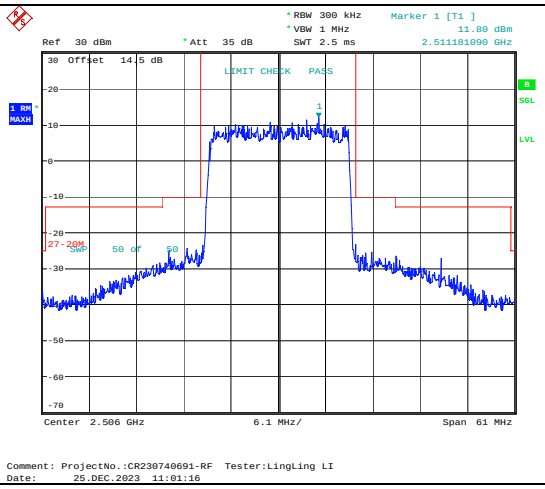
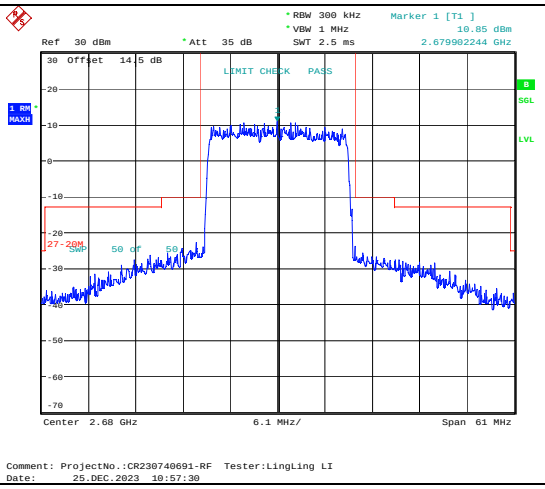
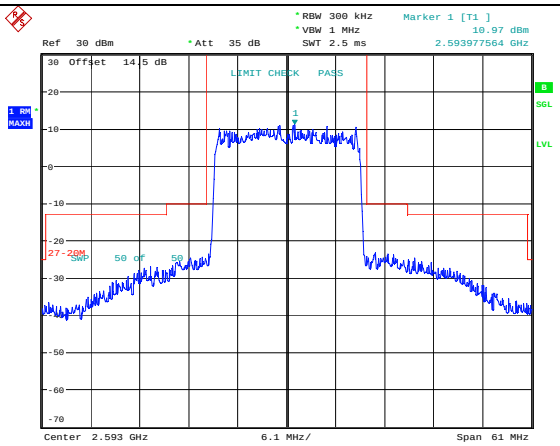
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:45:25	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:41:28
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:51:03	

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:57:25	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:53:24
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 13:56:14	

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 20MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:01:16	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 10:57:30
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 11:03:18	

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

<table>
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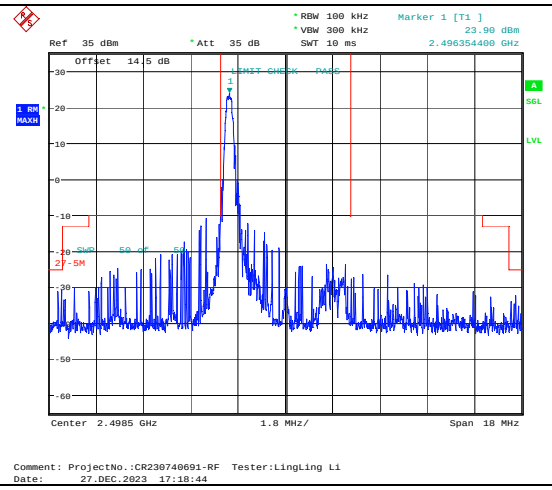
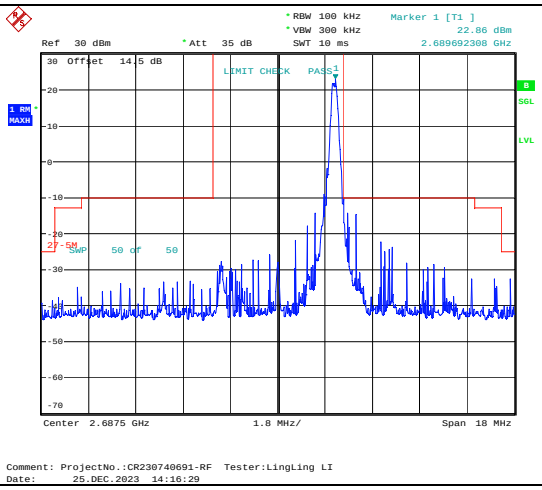
<tr><th>Mode</th><th>Lowest</th><th>Highest</th></tr>
<tr><td rowspan="2">QPSK
5MHz</td><td> 
</td><td> 
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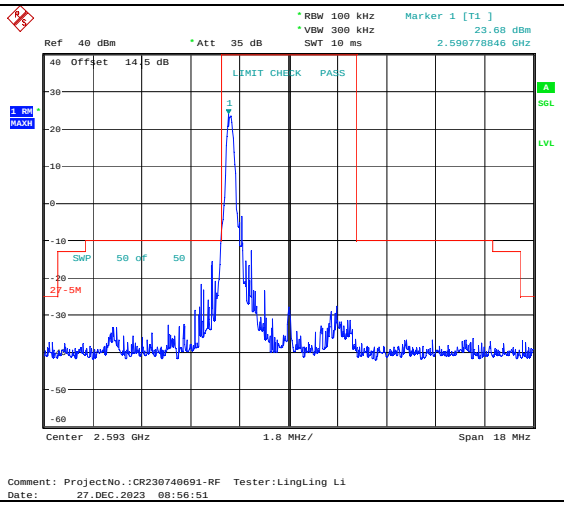
<tr><td></td><td> 
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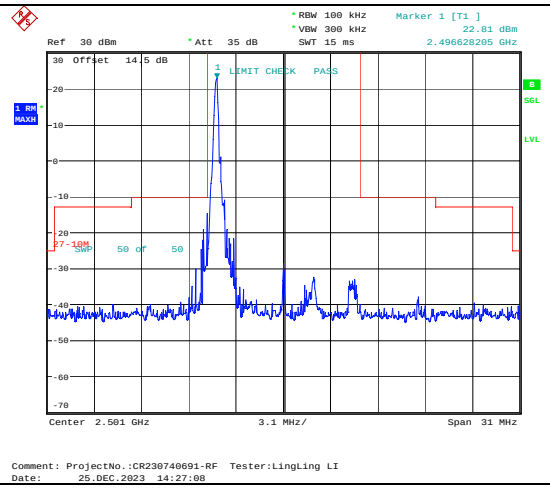
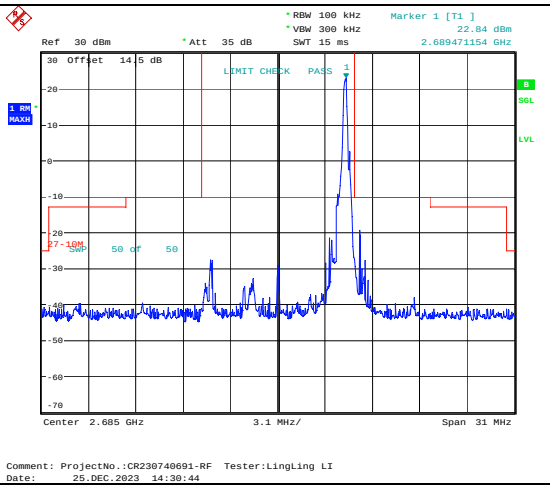
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz		
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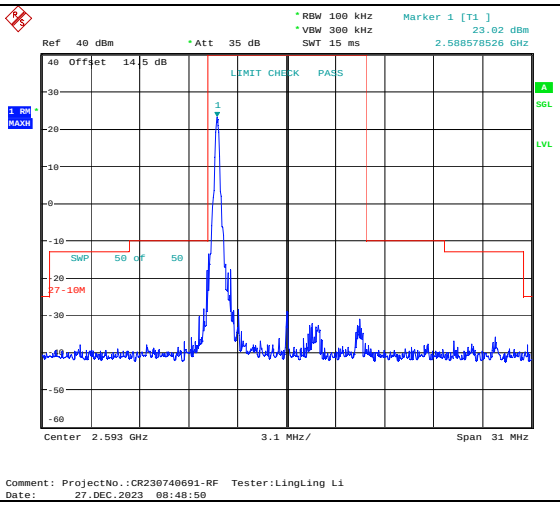
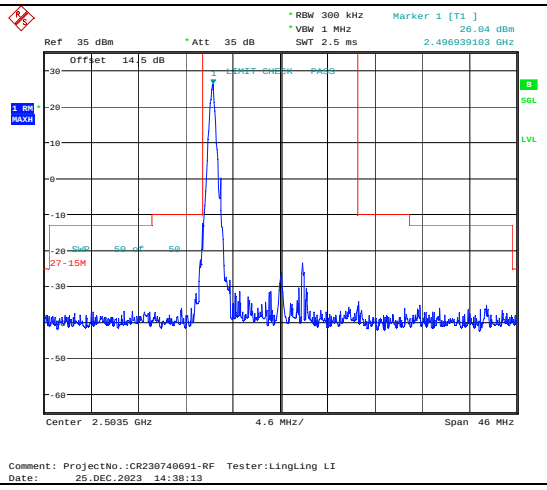
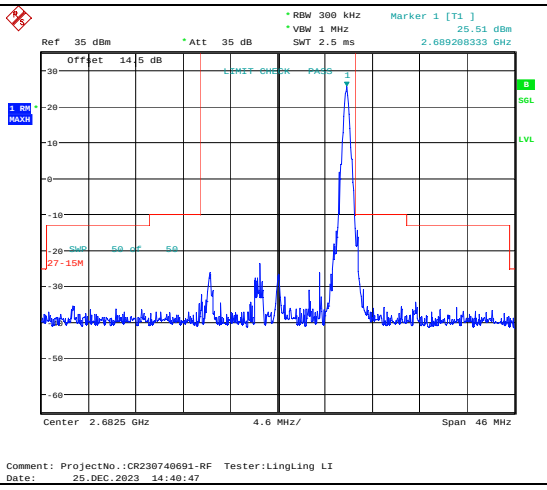
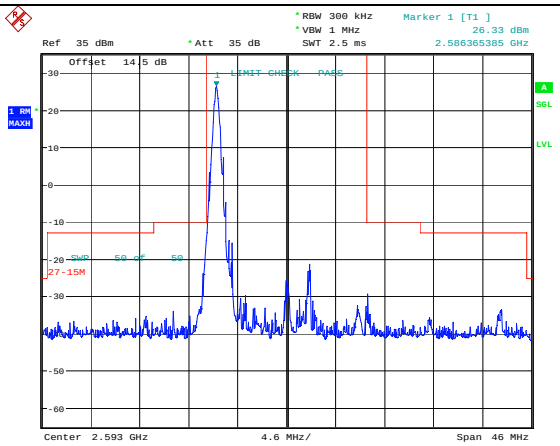
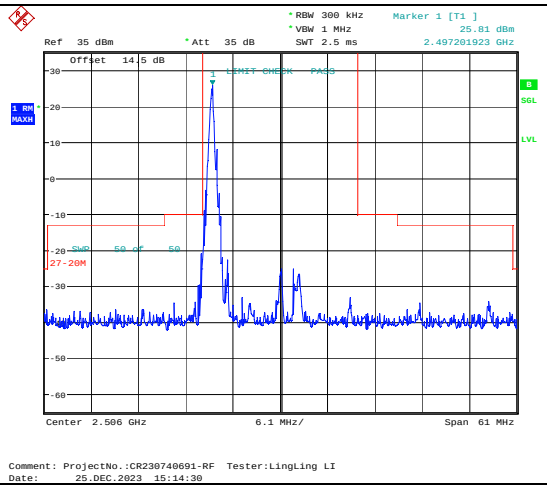
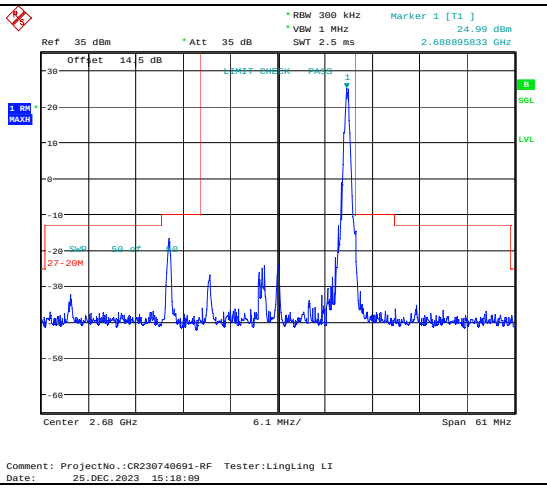
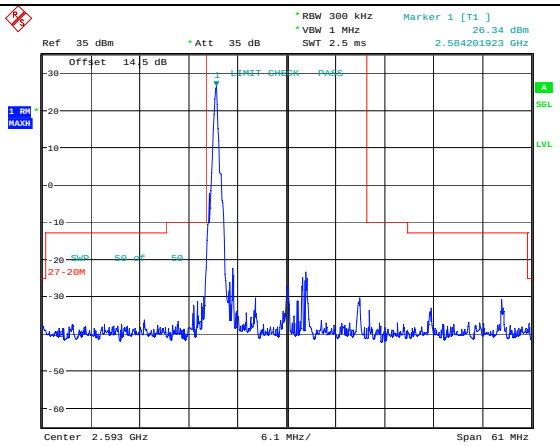
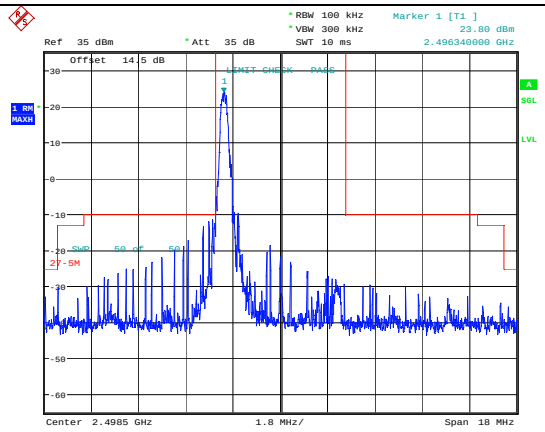
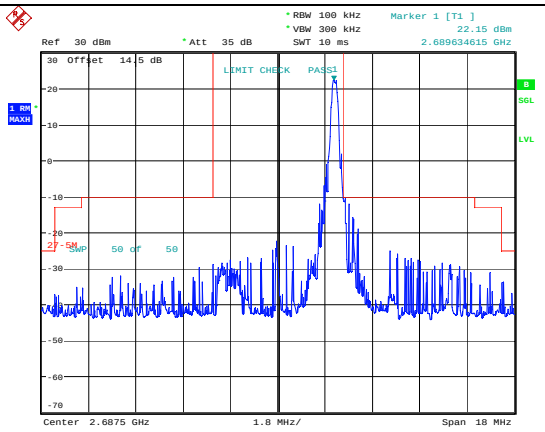
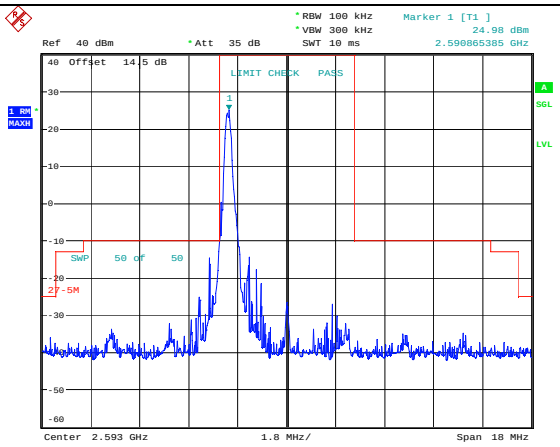
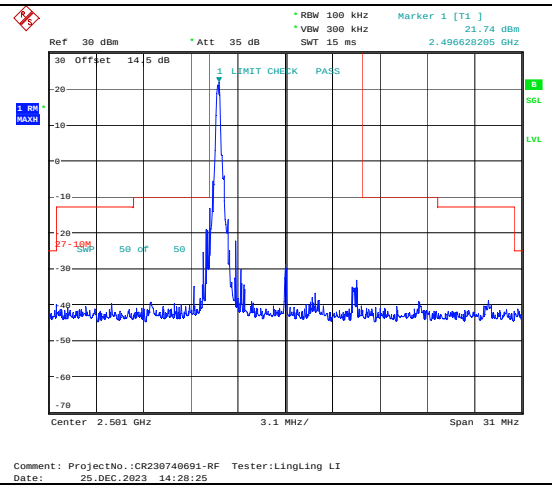
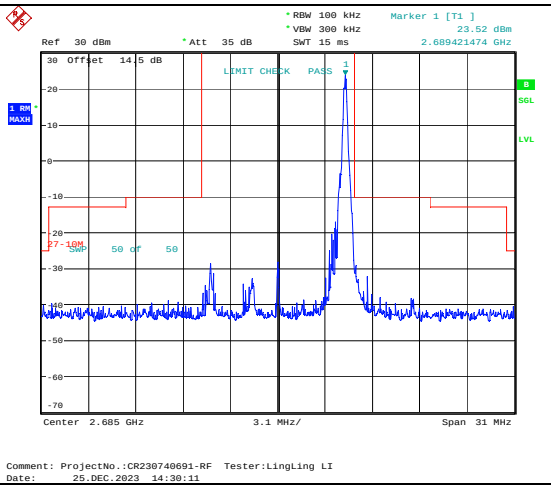
		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 14:38:13	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 14:40:47
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 27.DEC.2023 09:03:55	

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 20MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 15:14:30	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 15:18:09
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 27.DEC.2023 09:09:48	

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 27.DEC.2023 17:22:49	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 14:17:36
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 27.DEC.2023 08:53:58	

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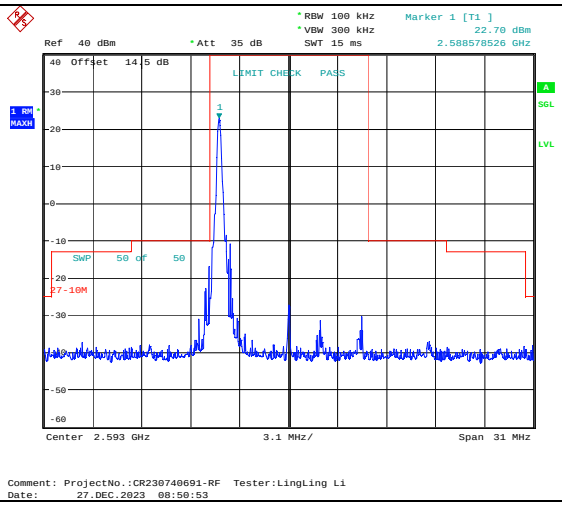
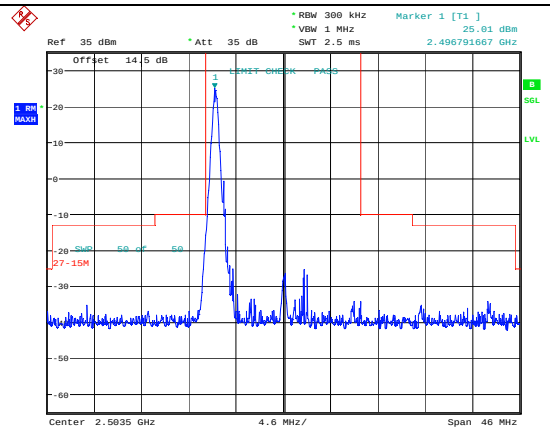
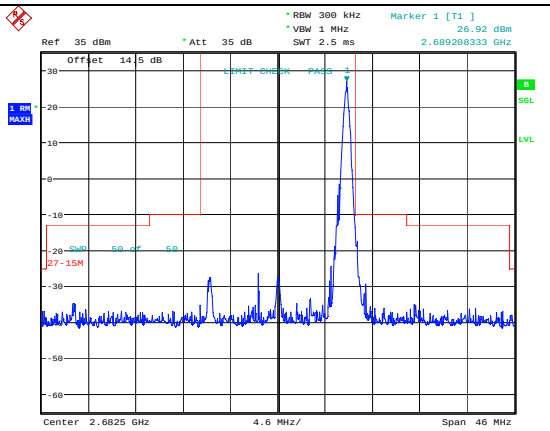
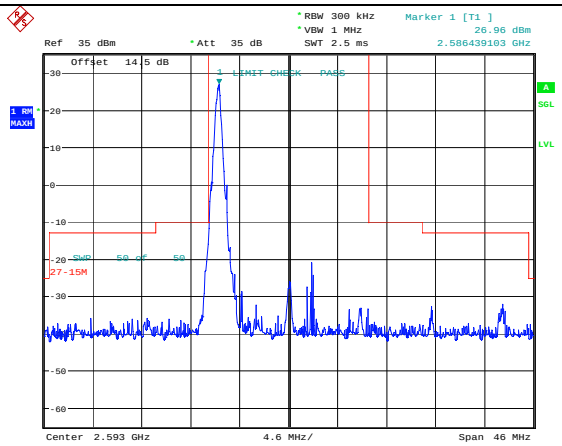
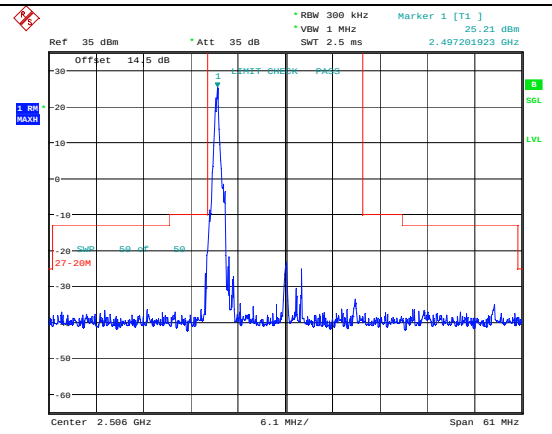
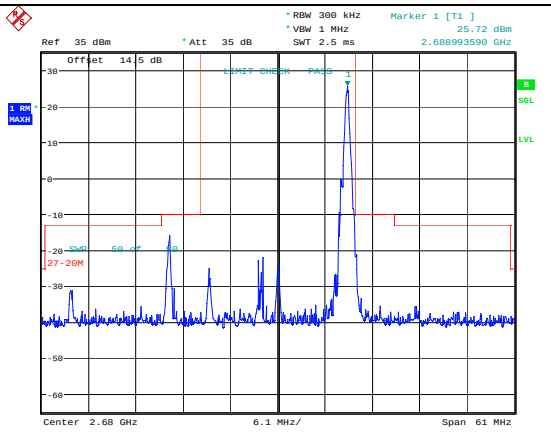
		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 14:37:30	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 14:41:57
	Middle	
	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 27.DEC.2023 09:04:59	

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 20MHz		
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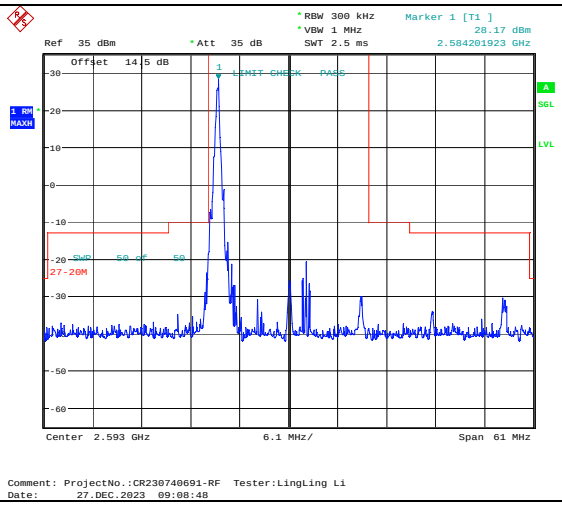
		

4.10 Antenna Port Test Data and Results for LTE Band 66

Serial Number:	288V-1	Test Date:	2023/8/4-2023/12/25
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu/Arthur Su/LingLing Li	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24.3-25.8	Relative Humidity: (%)	42-61	ATM Pressure: (kPa)	99.7-101.1

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	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A
Unknown	Coaxial tee connector	Unknown	2204004	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30

** 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:

FCC§2.1046;§ 27.50(d)(4)

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	22.45	22.4	22.33	22.27	30
	RB1#3	22.55	22.52	22.52		
	RB1#5	22.44	22.43	22.4		
	RB3#0	22.69	22.57	22.59		
	RB3#3	22.63	22.58	22.62		
	RB6#0	22.43	22.43	22.44		
1.4MHz 16QAM	RB1#0	22.71	22.62	22.63	22.56	30
	RB1#3	22.85	22.66	22.72		
	RB1#5	22.72	22.64	22.63		
	RB3#0	22.73	22.79	22.92		
	RB3#3	22.69	22.86	22.98		
	RB6#0	22.64	22.54	22.69		
3MHz QPSK	RB1#0	22.48	22.31	22.33	22.08	30
	RB1#8	22.44	22.37	22.42		
	RB1#14	22.35	22.28	22.29		
	RB6#0	22.44	22.46	22.39		
	RB6#9	22.42	22.41	22.33		
	RB15#0	22.47	22.5	22.45		
3MHz 16QAM	RB1#0	22.53	23.08	22.63	22.78	30
	RB1#8	22.66	23.2	22.74		
	RB1#14	22.53	23.03	22.58		
	RB6#0	22.55	22.71	22.6		
	RB6#9	22.53	22.62	22.59		
	RB15#0	22.72	22.71	22.59		
5MHz QPSK	RB1#0	22.35	22.28	22.27	22.17	30
	RB1#13	22.59	22.48	22.5		
	RB1#24	22.28	22.21	22.37		
	RB15#0	22.44	22.46	22.48		
	RB15#10	22.43	22.42	22.44		
	RB25#0	22.44	22.44	22.46		
5MHz 16QAM	RB1#0	22.5	22.37	22.79	22.6	30
	RB1#13	22.74	22.56	23.02		
	RB1#24	22.52	22.29	22.79		
	RB15#0	22.66	22.66	22.63		
	RB15#10	22.64	22.64	22.62		
	RB25#0	22.61	22.62	22.68		
10MHz QPSK	RB1#0	22.43	22.16	22.29	22.04	30
	RB1#25	22.45	22.11	22.41		
	RB1#49	22.34	22.02	22.35		

	RB25#0	22.45	22.19	22.36		
	RB25#25	22.37	22.17	22.46		
	RB50#0	22.33	22.23	22.38		
10MHz 16QAM	RB1#0	22.53	22.93	22.62	22.51	30
	RB1#25	22.59	22.91	22.74		
	RB1#49	22.46	22.78	22.69		
	RB25#0	22.74	22.38	22.54		
	RB25#25	22.64	22.36	22.63		
	RB50#0	22.61	22.29	22.56		
15MHz QPSK	RB1#0	22.46	22.45	22.23	22.17	30
	RB1#38	22.59	22.51	22.39		
	RB1#74	22.35	22.36	22.29		
	RB36#0	22.39	22.4	22.14		
	RB36#39	22.32	22.36	22.26		
	RB75#0	22.31	22.38	22.14		
15MHz 16QAM	RB1#0	23.04	23.23	22.53	22.87	30
	RB1#38	23.23	23.29	22.77		
	RB1#74	23	23.1	22.65		
	RB36#0	22.52	22.52	22.32		
	RB36#39	22.48	22.39	22.47		
	RB75#0	22.44	22.39	22.31		
20MHz QPSK	RB1#0	22.32	22.52	22.35	22.1	30
	RB1#50	22.31	22.43	22.42		
	RB1#99	22.24	22.42	22.43		
	RB50#0	22.34	22.41	22.36		
	RB50#50	22.31	22.36	22.34		
	RB100#0	22.33	22.42	22.31		
20MHz 16QAM	RB1#0	23.13	23.04	22.77	22.72	30
	RB1#50	23.14	22.92	22.8		
	RB1#99	23.06	22.88	22.87		
	RB50#0	22.45	22.59	22.48		
	RB50#50	22.49	22.52	22.43		
	RB100#0	22.46	22.57	22.53		
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	3.75	3.65	3.72	13
	RB100#0	6.51	6.47	6.35	13
20MHz 16QAM	RB1#0	6.22	5.48	6.09	13
	RB100#0	7.24	7.34	7.21	13
				Result:	**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.098	1.104	1.098	1.254	1.248	1.260
1.4MHz 16QAM	1.098	1.092	1.098	1.236	1.254	1.248
3MHz QPSK	2.7	2.7	2.7	3.0	3.0	3.0
3MHz 16QAM	2.687	2.687	2.687	2.952	2.964	2.964
5MHz QPSK	4.52	4.52	4.52	4.96	4.98	4.98
5MHz 16QAM	4.54	4.52	4.5	4.98	5.04	5.0
10MHz QPSK	8.96	8.96	8.96	9.72	9.72	9.60
10MHz 16QAM	8.96	8.96	8.96	9.76	9.56	9.60
15MHz QPSK	13.5	13.5	13.5	14.8	14.9	14.8
15MHz 16QAM	13.5	13.560	13.5	14.8	14.820	14.8
20MHz QPSK	18	18	17.92	20	19	19.44
20MHz 16QAM	17.92	18	17.92	19.44	19	19.36
Note: The test plots please refer to the Plots of Occupied Bandwidth						

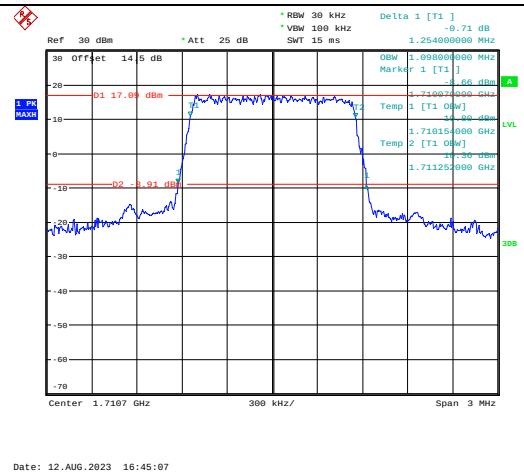
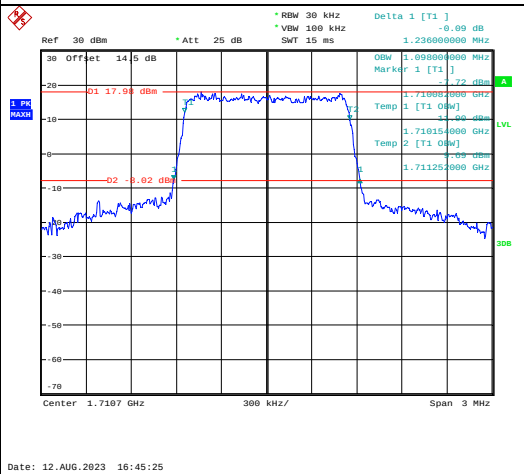
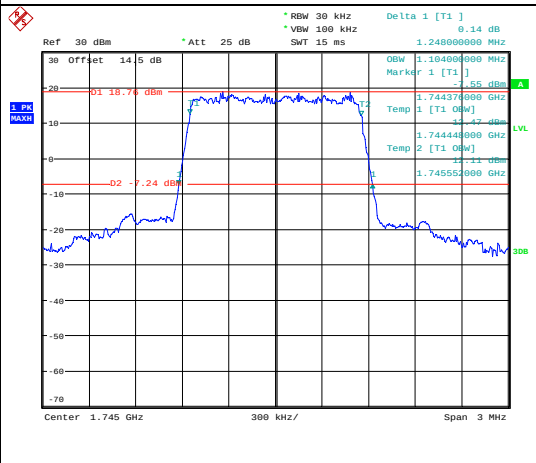
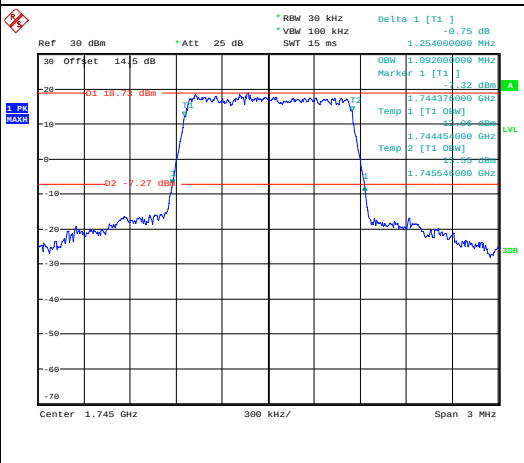
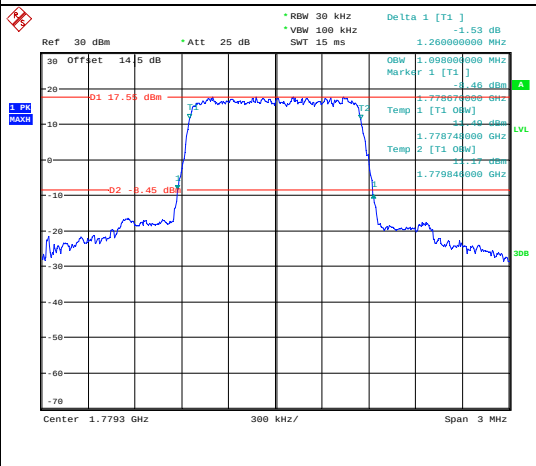
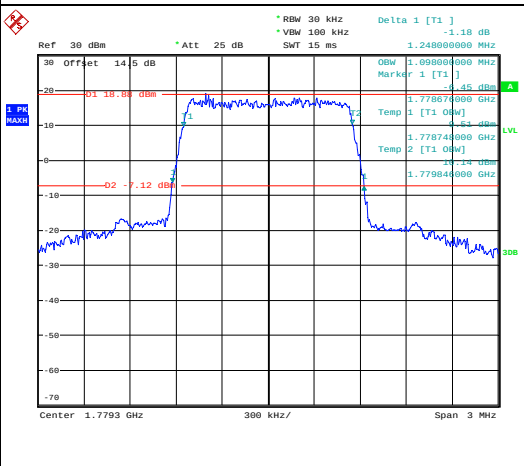
FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

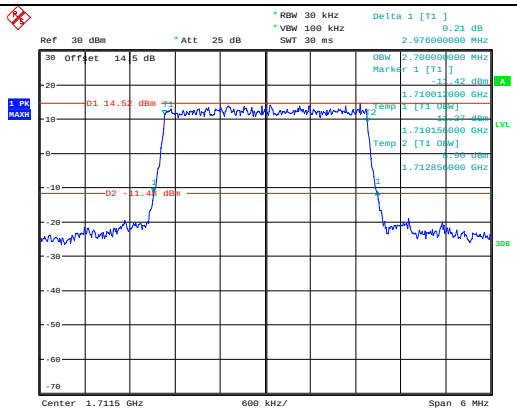
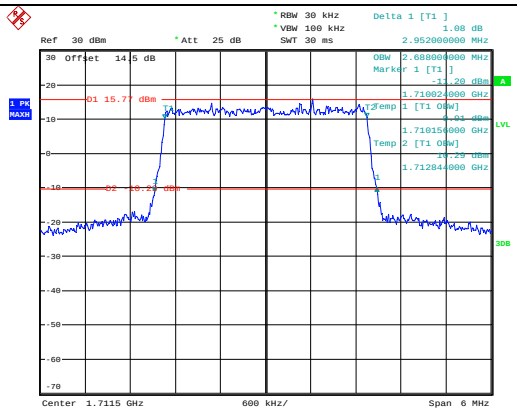
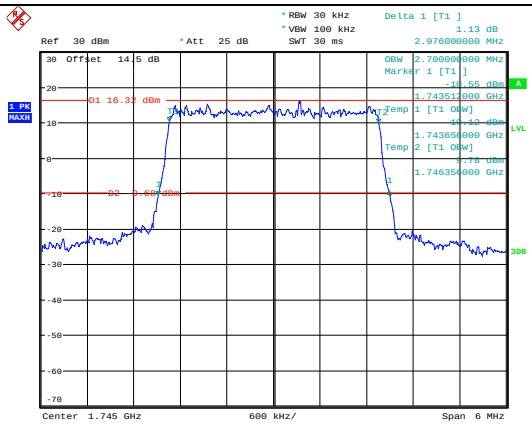
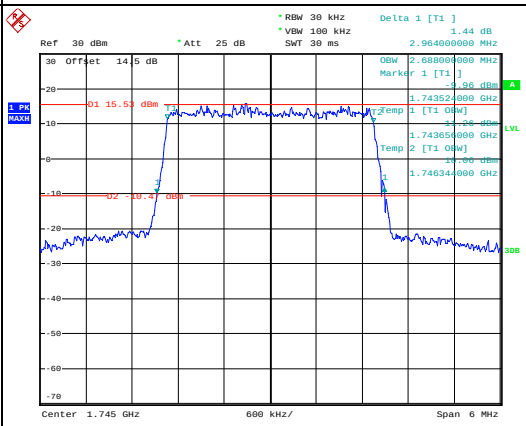
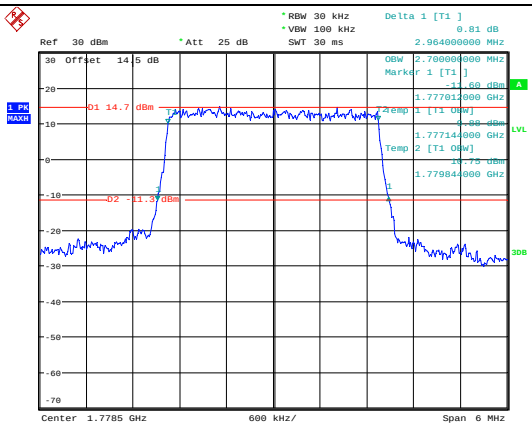
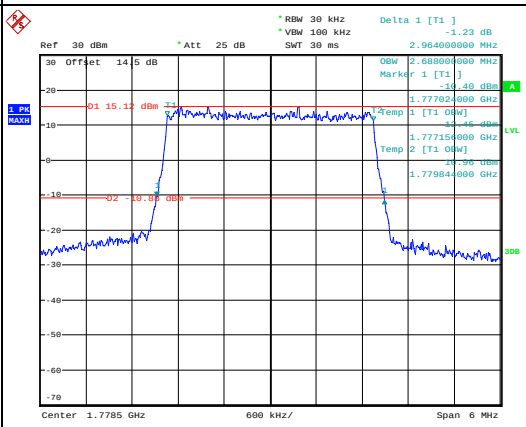
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	5	1711.038	1710.00	1778.963	1780
	-20	5	1711.034	1710.00	1778.975	1780
	-10	5	1711.031	1710.00	1778.977	1780
	0	5	1711.014	1710.00	1778.976	1780
	10	5	1711.030	1710.00	1778.968	1780
	20	5	1711.040	1710.00	1778.960	1780
	30	5	1711.028	1710.00	1778.961	1780
	40	5	1711.015	1710.00	1778.967	1780
	50	5	1711.038	1710.00	1778.961	1780
Frequency Stability vs. Voltage	20	4.4	1711.012	1710.00	1778.983	1780
	20	5.25	1711.016	1710.00	1778.983	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	5	1711.107	1710.00	1778.972	1780
	-20	5	1711.096	1710.00	1778.985	1780
	-10	5	1711.100	1710.00	1778.973	1780
	0	5	1711.118	1710.00	1778.987	1780
	10	5	1711.105	1710.00	1778.987	1780
	20	5	1711.120	1710.00	1778.960	1780
	30	5	1711.113	1710.00	1778.962	1780
	40	5	1711.102	1710.00	1778.985	1780
	50	5	1711.095	1710.00	1778.962	1780
Frequency Stability vs. Voltage	20	4.4	1711.112	1710.00	1778.971	1780
	20	5.25	1711.119	1710.00	1778.967	1780
					Result:	**Pass**

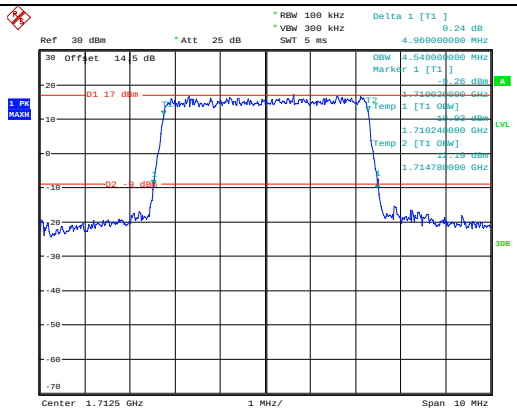
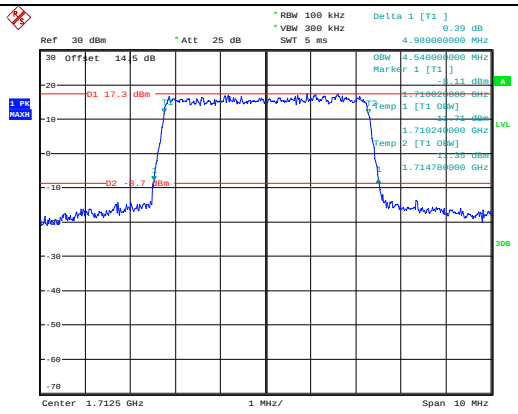
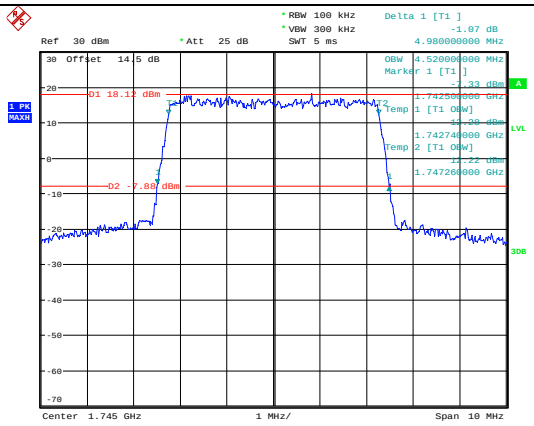
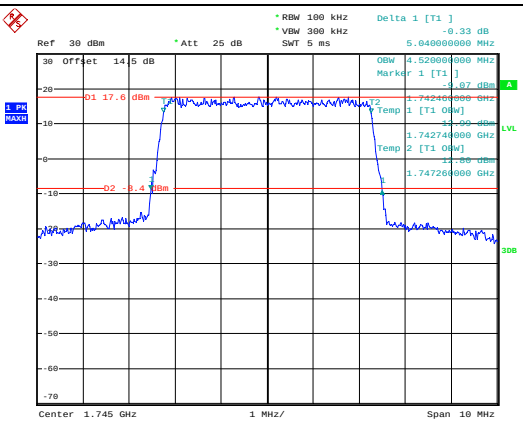
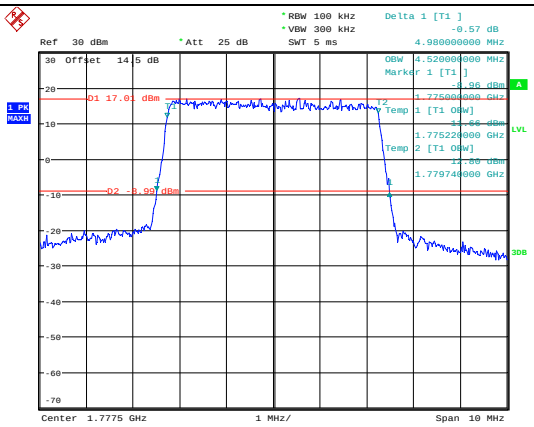
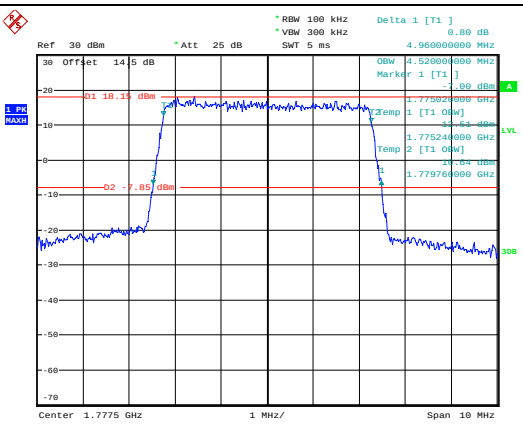
Test Plots(Note: The 14.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

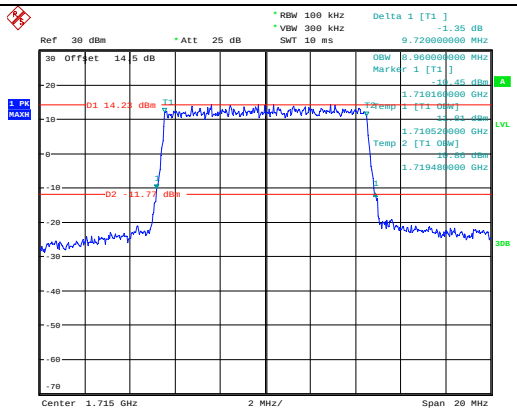
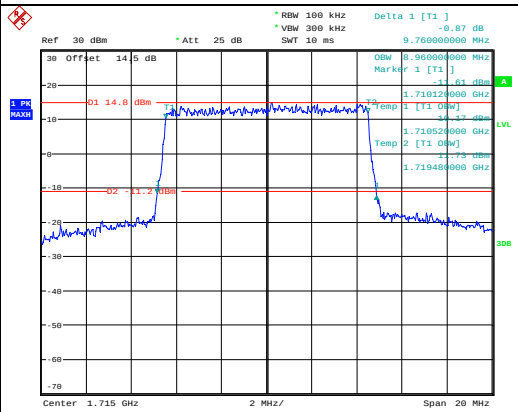
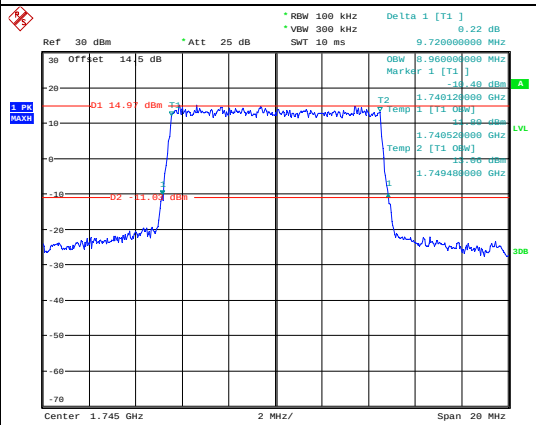
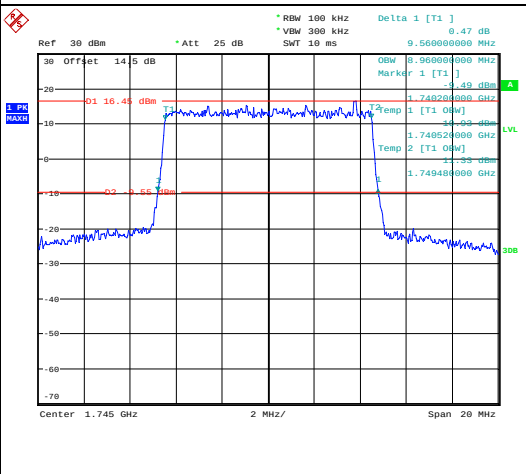
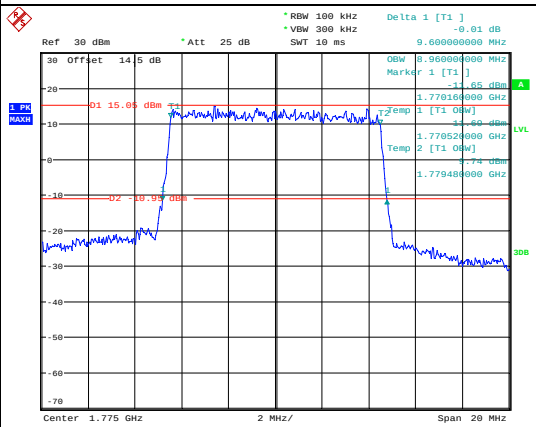
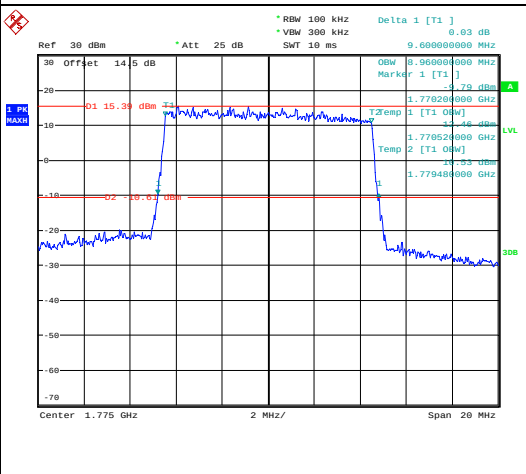
Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

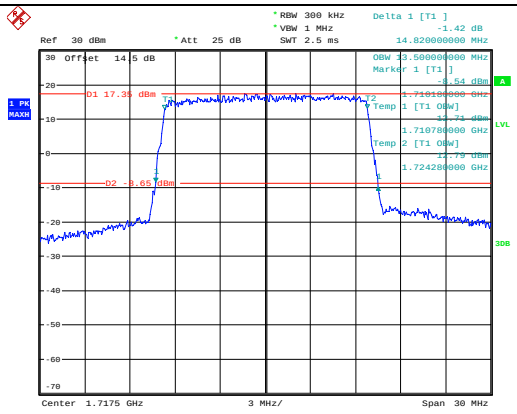
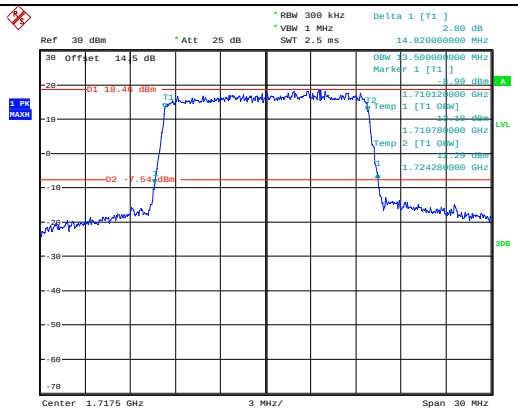
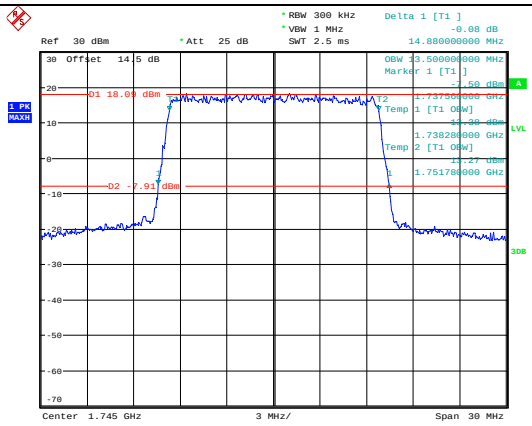
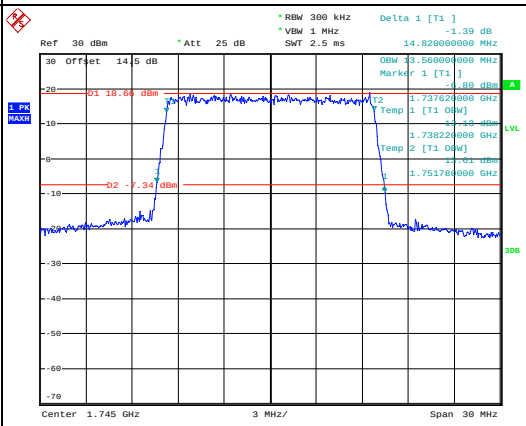
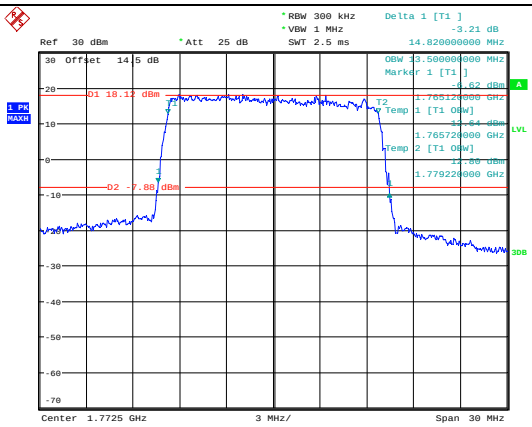
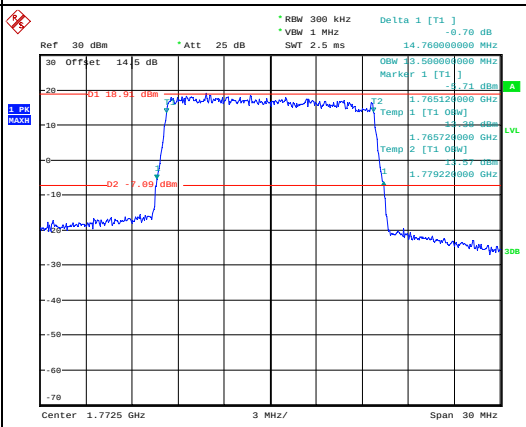
Occupied Bandwidth

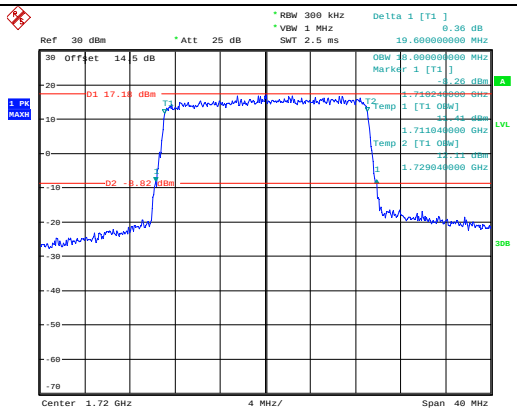
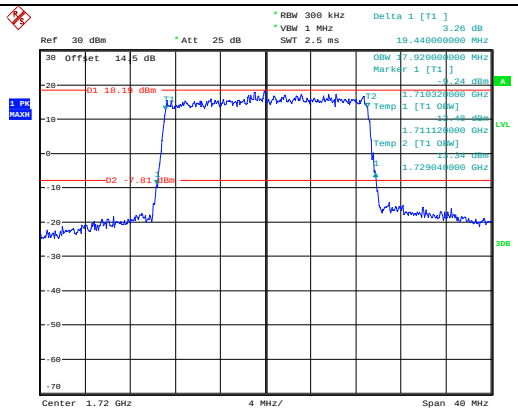
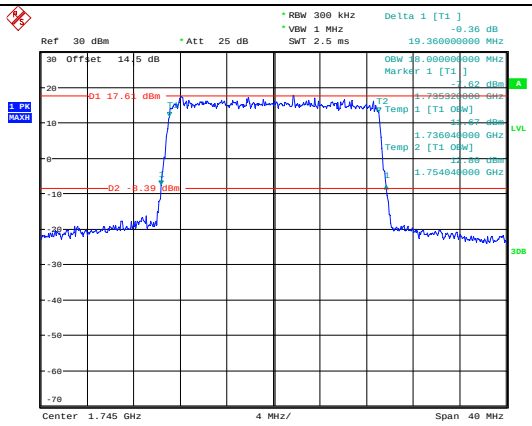
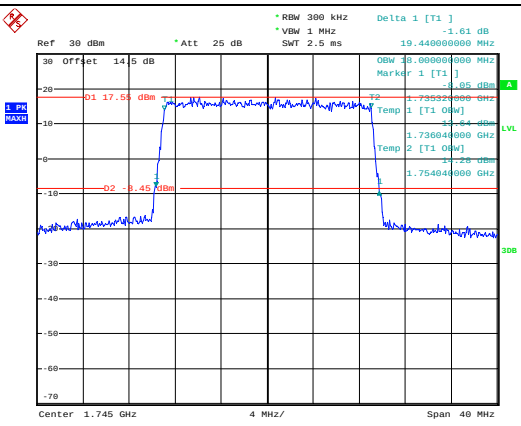
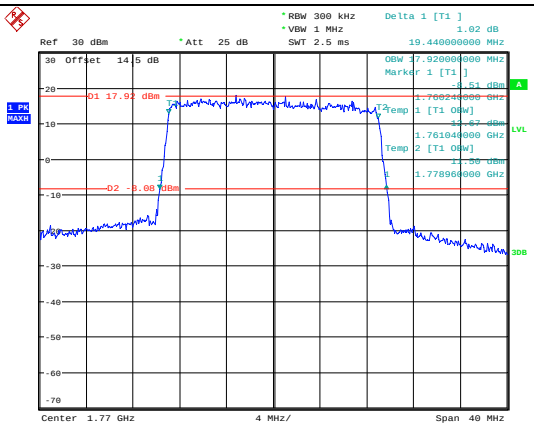
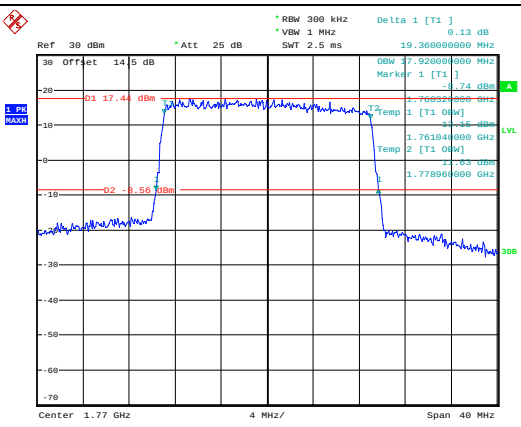
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

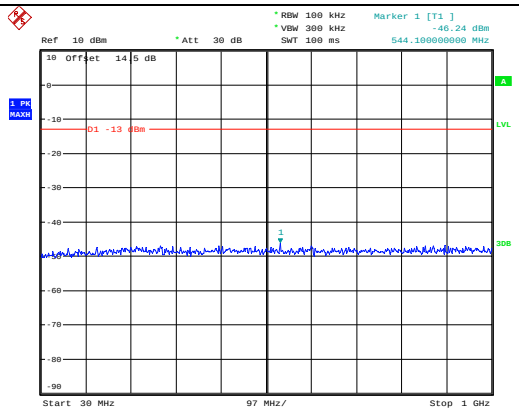
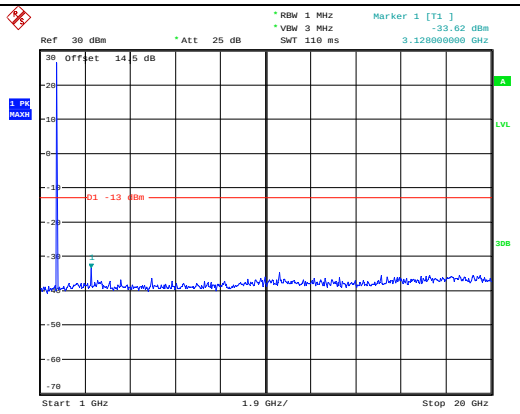
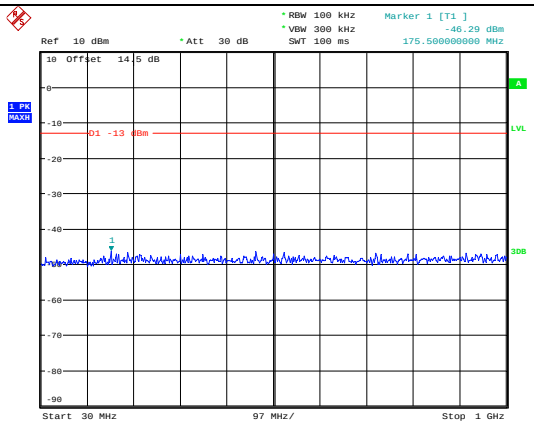
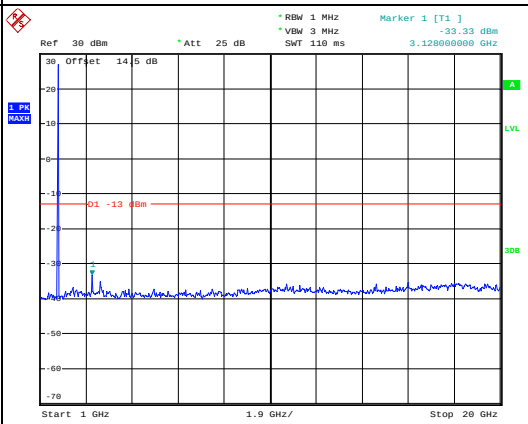
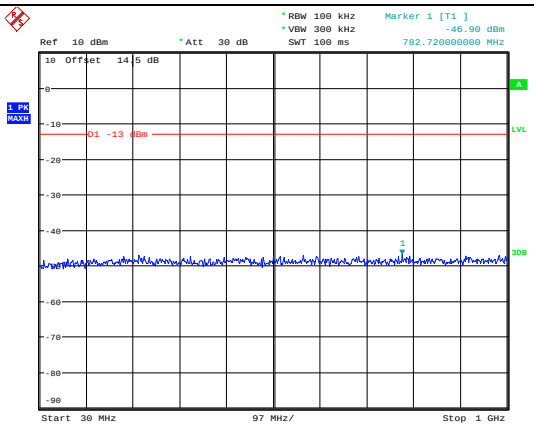
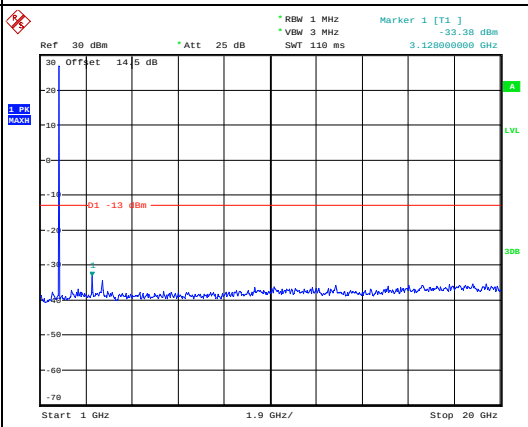
Occupied Bandwidth

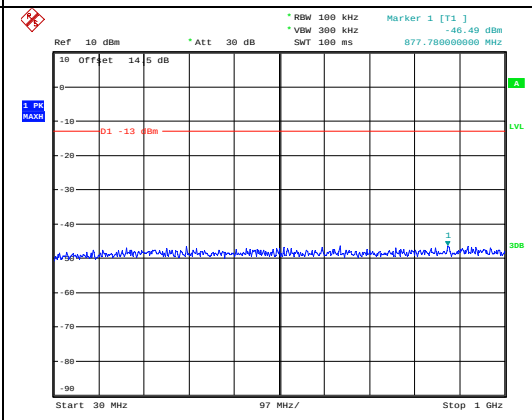
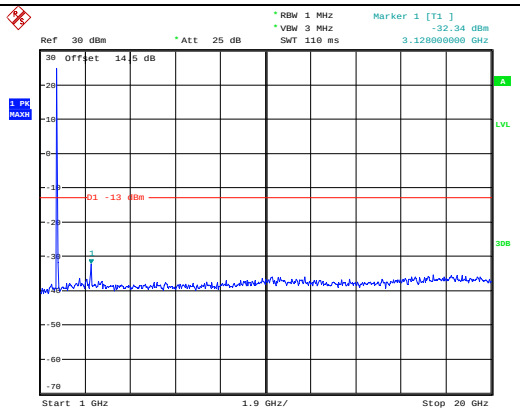
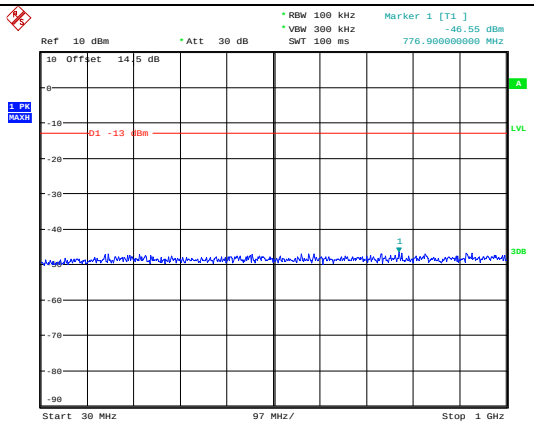
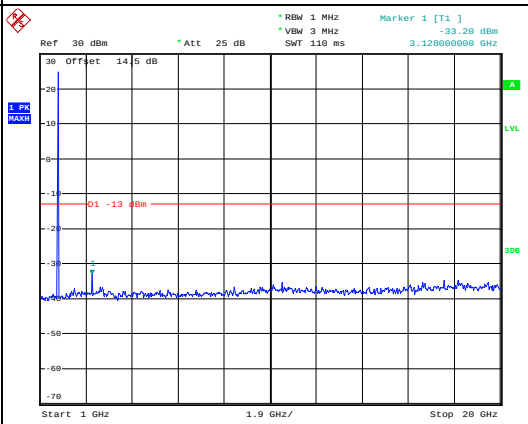
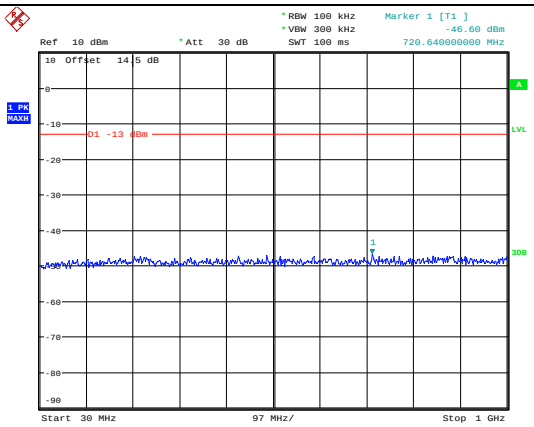
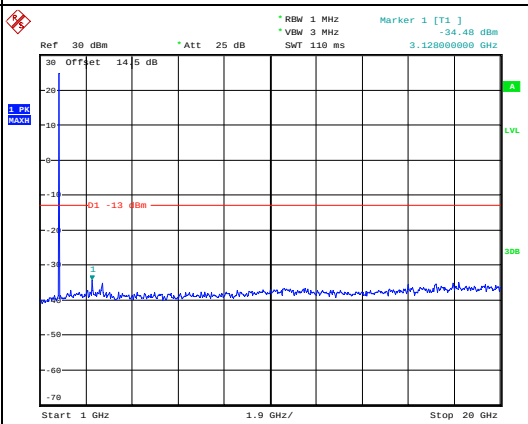
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

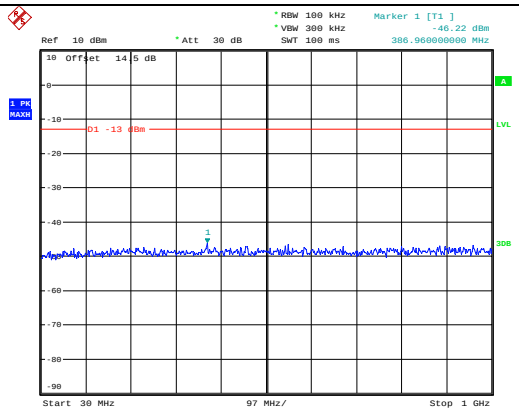
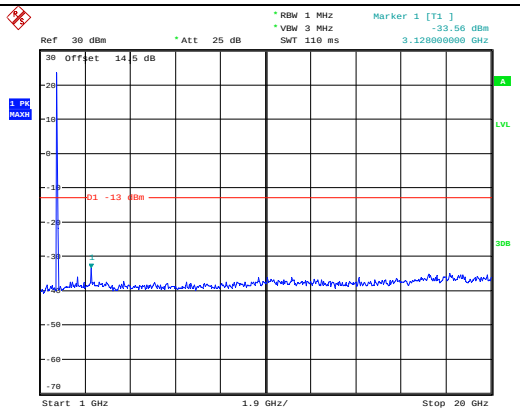
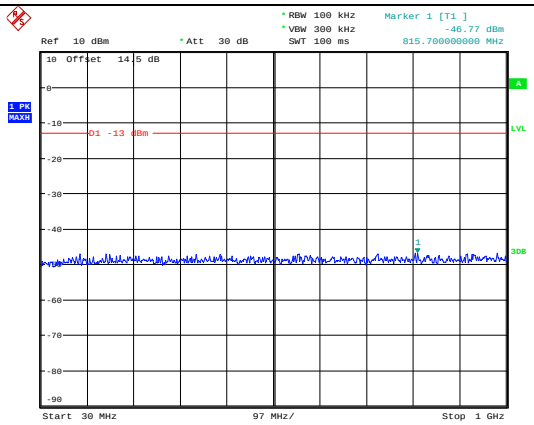
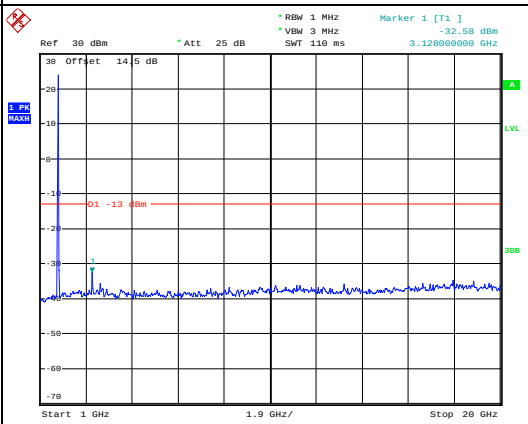
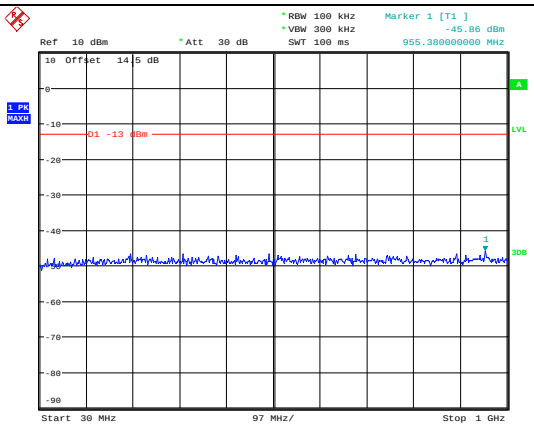
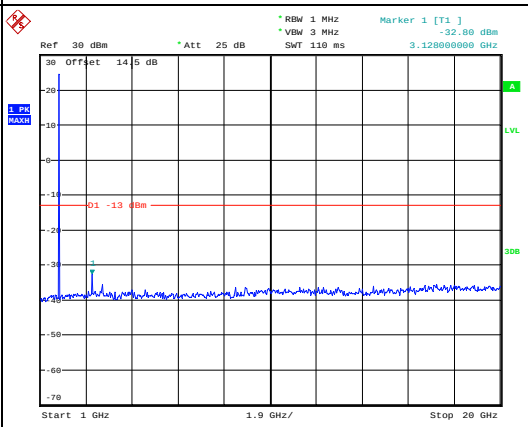
Occupied Bandwidth

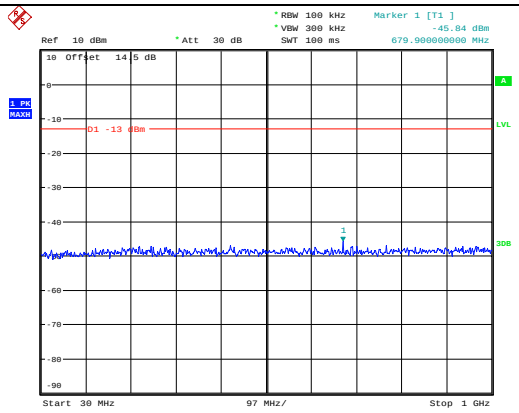
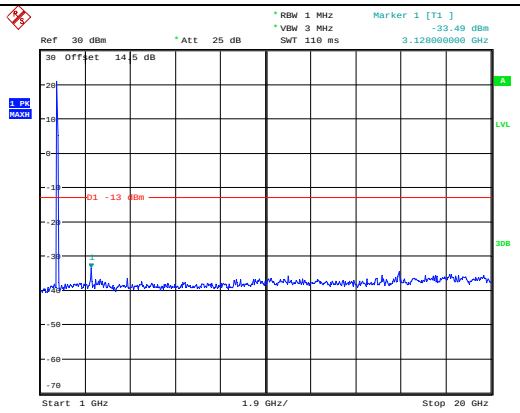
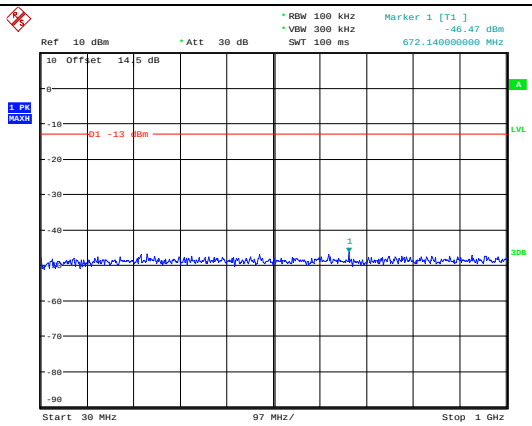
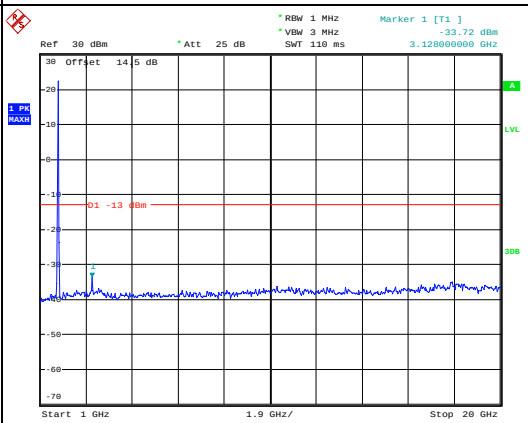
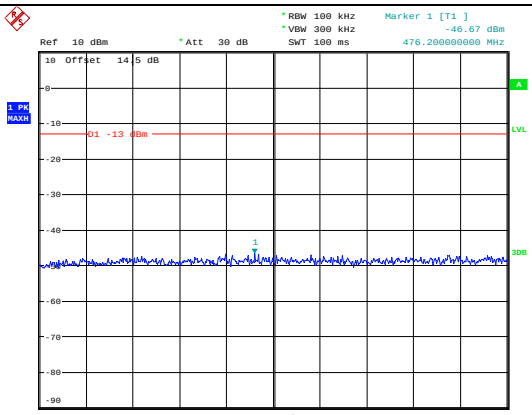
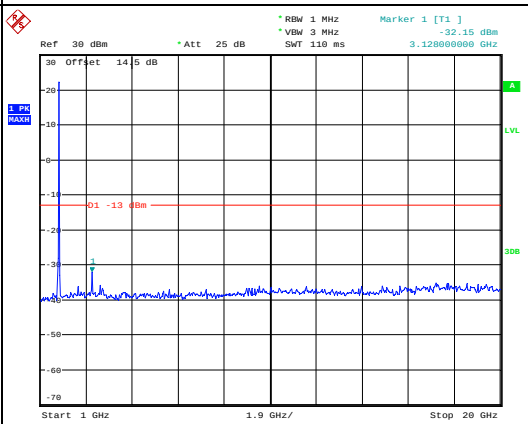
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

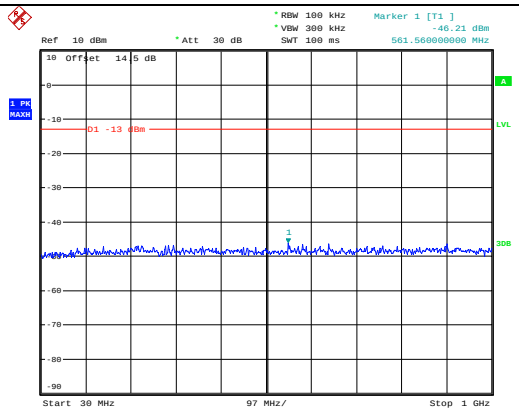
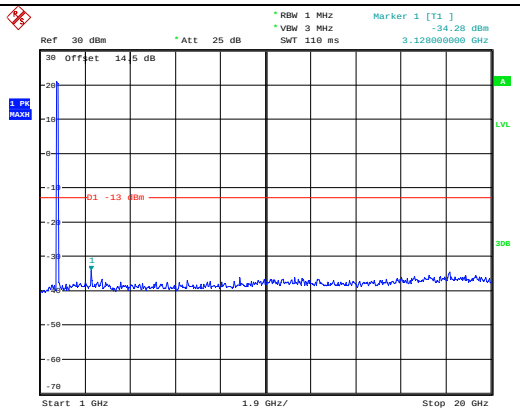
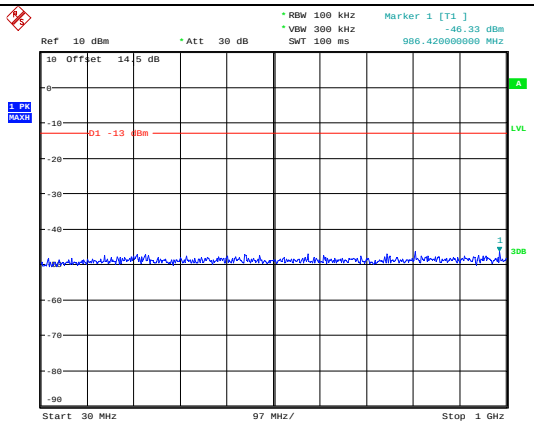
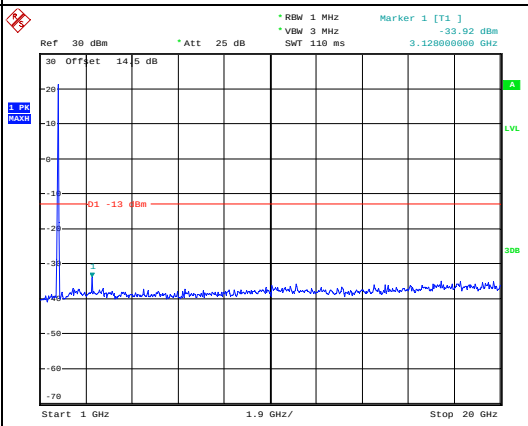
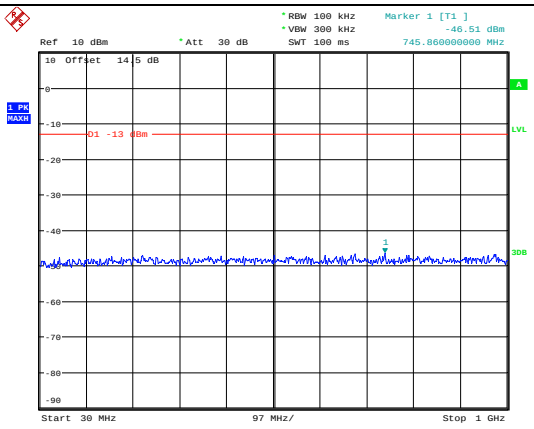
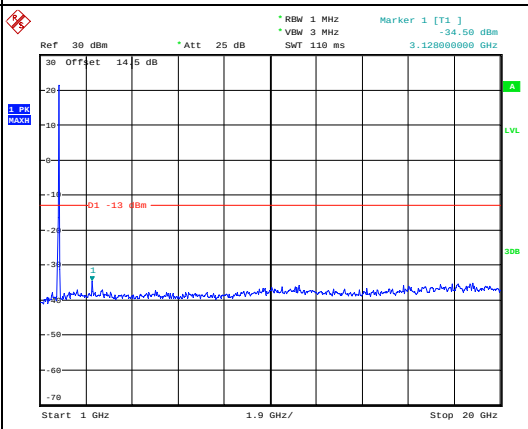
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

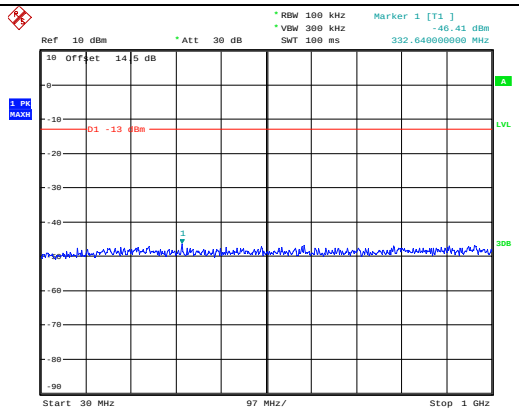
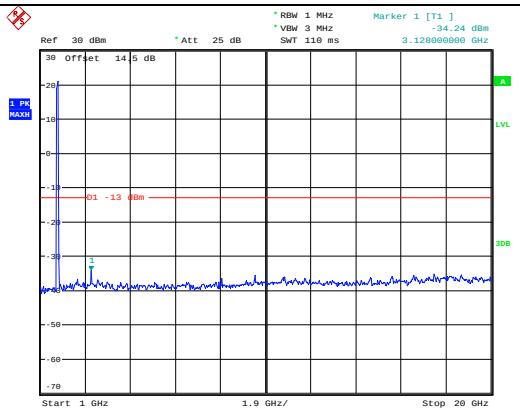
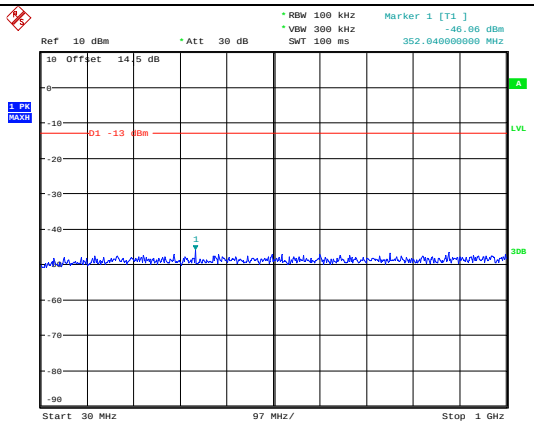
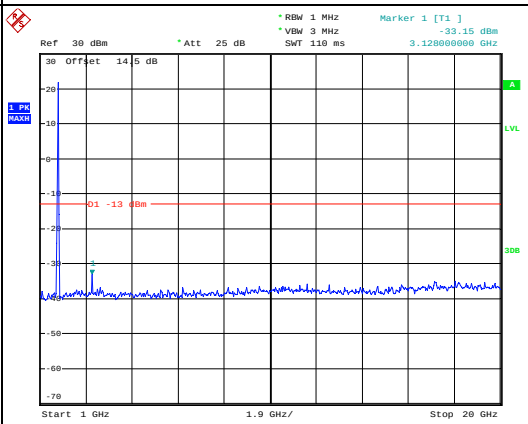
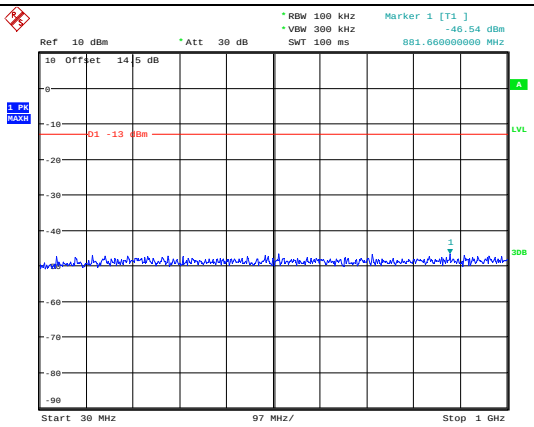
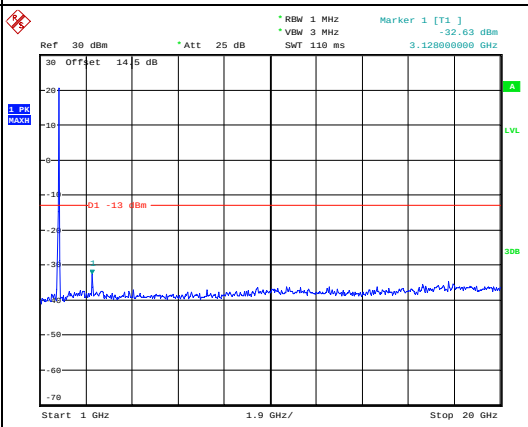
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest	 Date: 12.AUG.2023 21:36:59	 Date: 12.AUG.2023 21:37:11
Middle	 Date: 12.AUG.2023 21:37:28	 Date: 12.AUG.2023 21:37:39
Highest	 Date: 12.AUG.2023 21:37:53	 Date: 12.AUG.2023 21:38:04

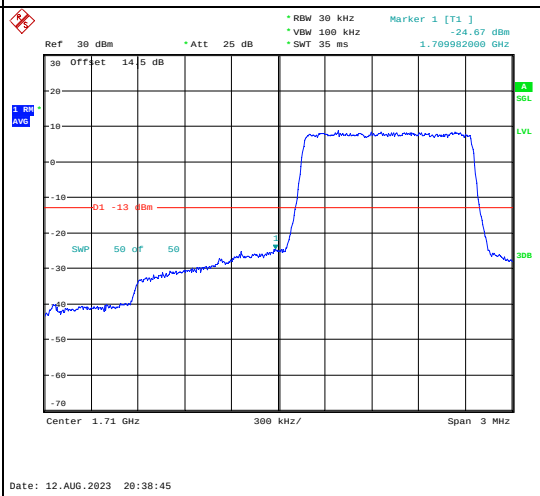
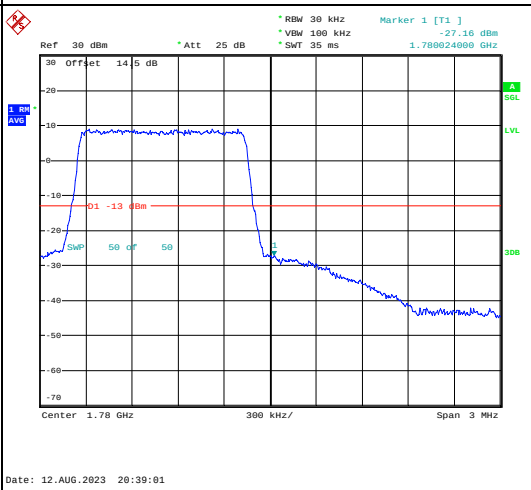
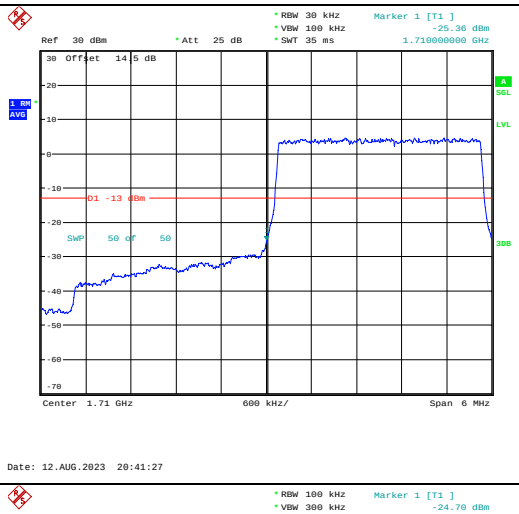
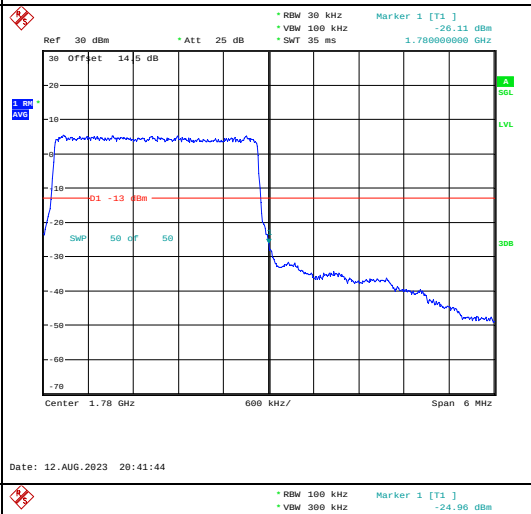
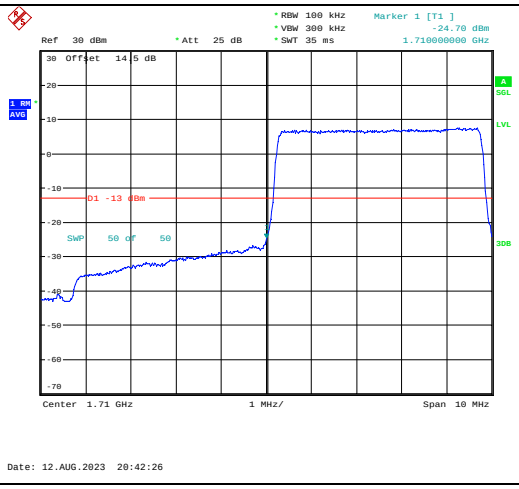
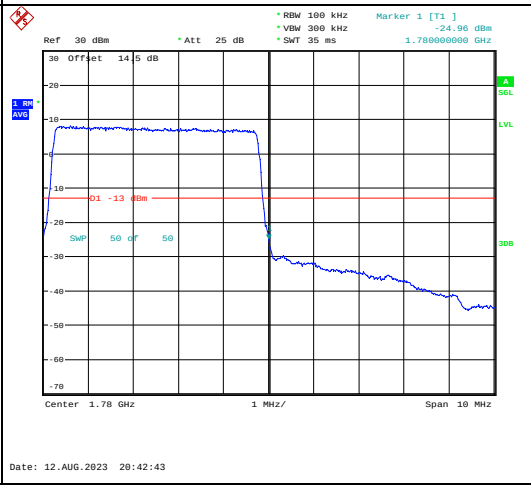
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

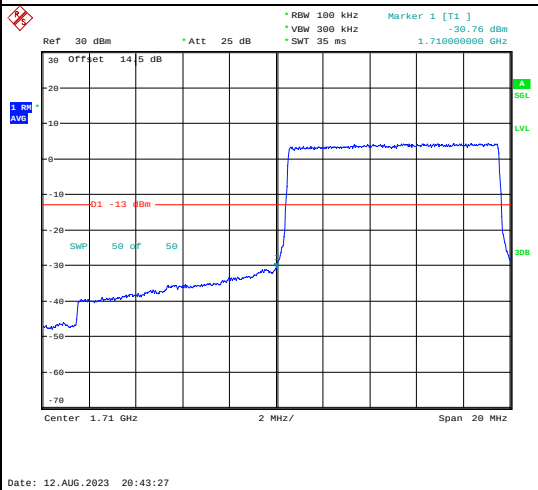
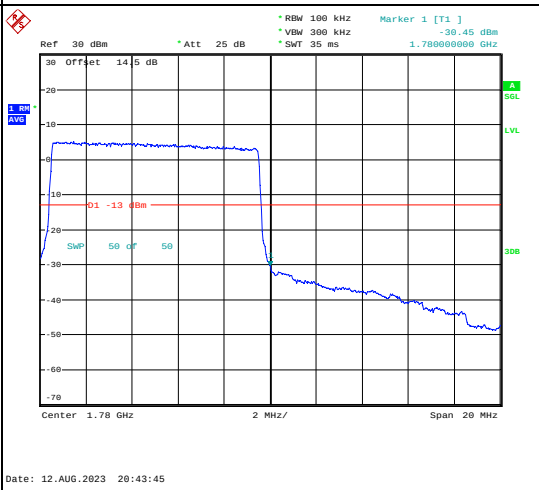
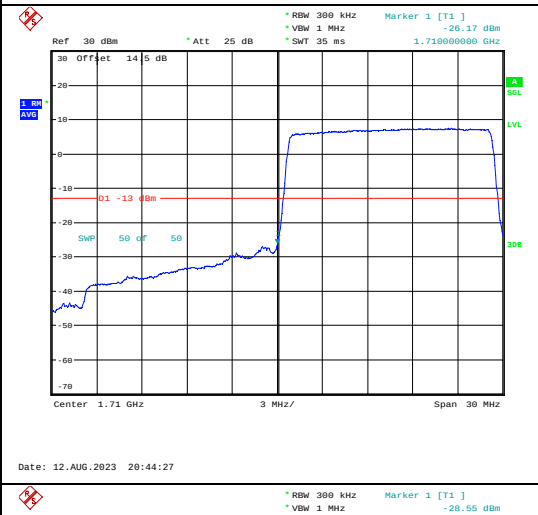
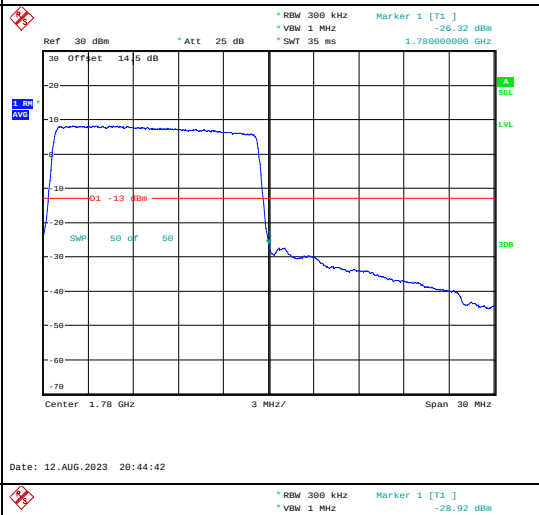
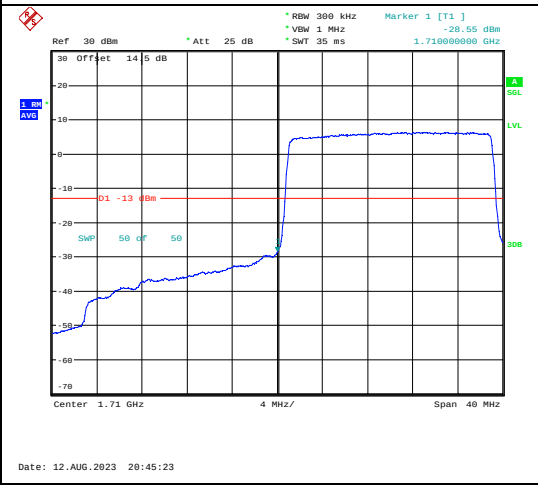
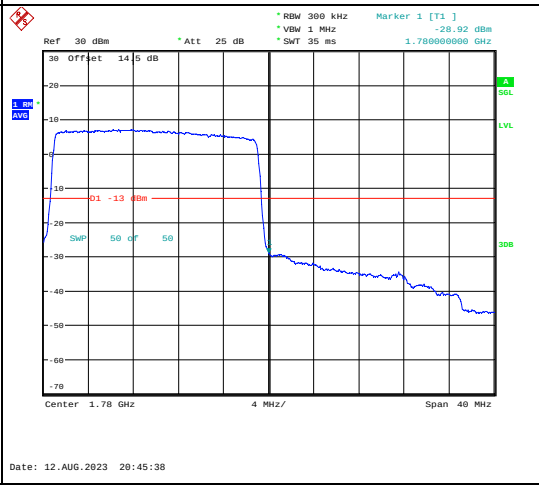
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest	 Date: 12.AUG.2023 21:40:26	 Date: 12.AUG.2023 21:40:37
Middle	 Date: 12.AUG.2023 21:40:51	 Date: 12.AUG.2023 21:41:02
Highest	 Date: 12.AUG.2023 21:41:15	 Date: 12.AUG.2023 21:41:27

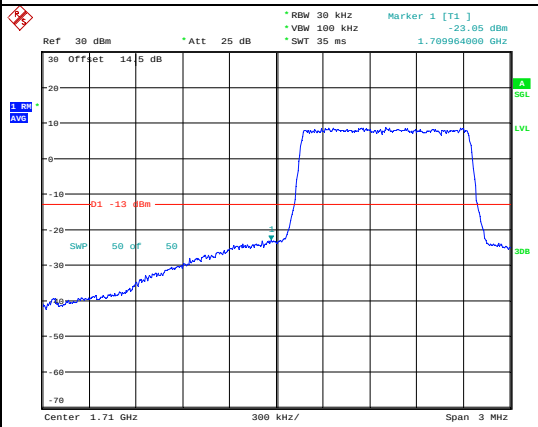
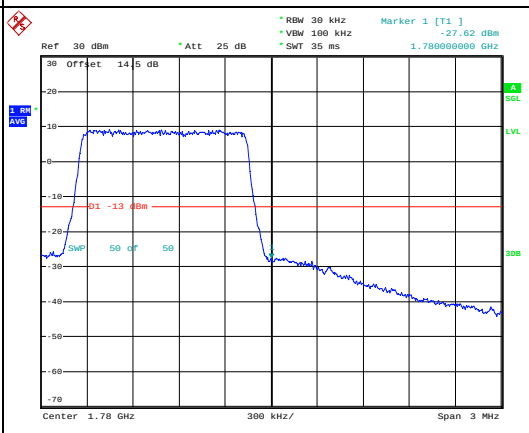
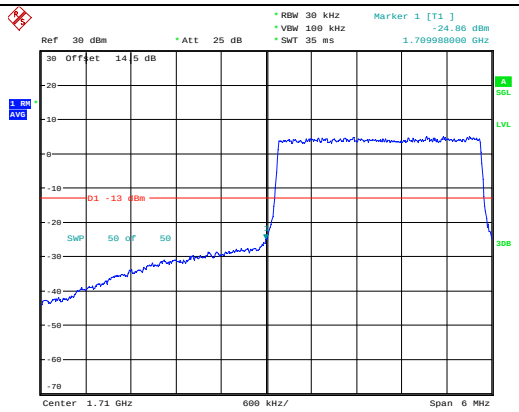
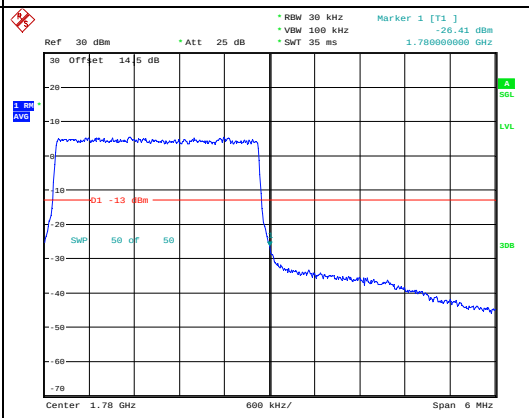
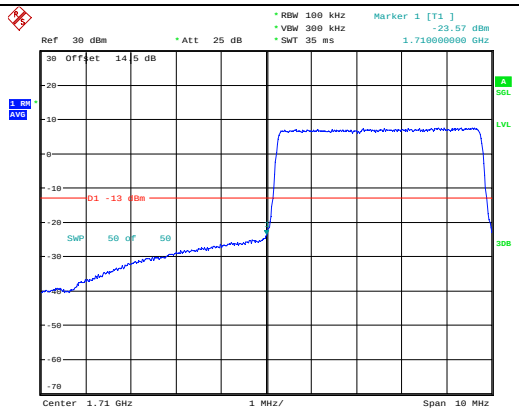
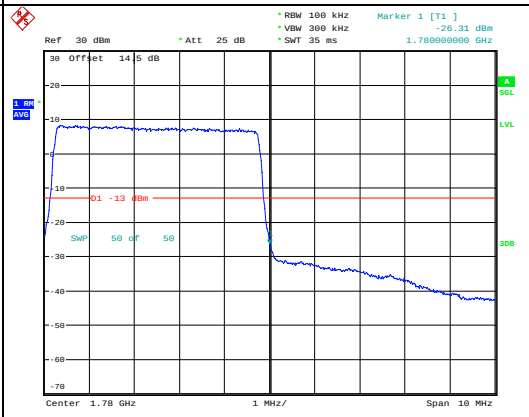
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

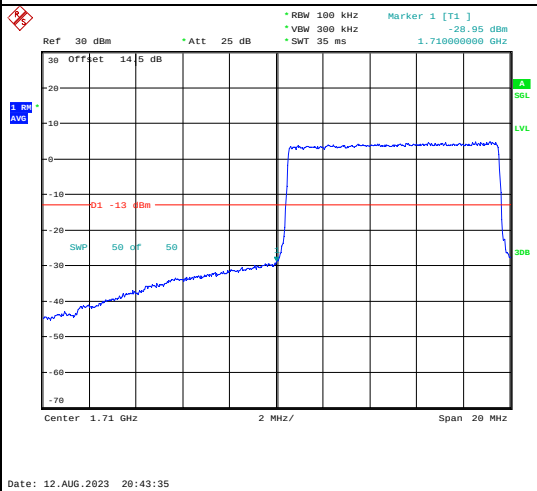
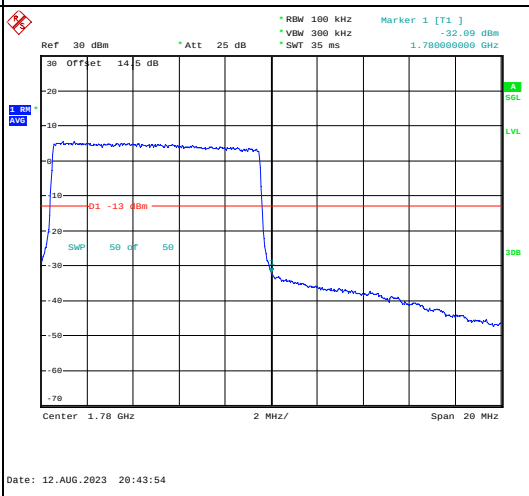
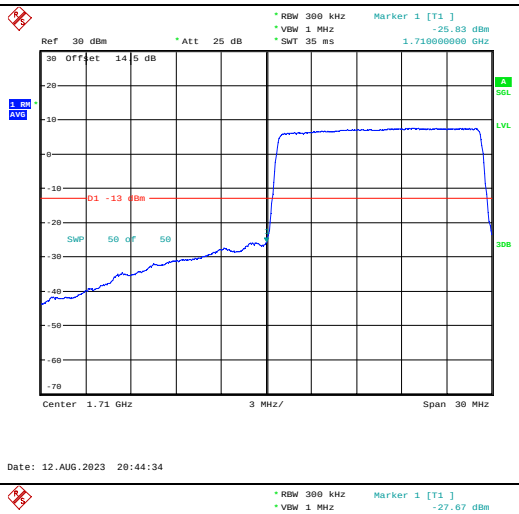
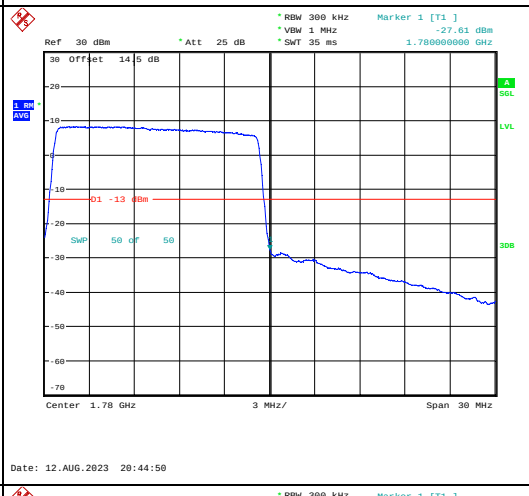
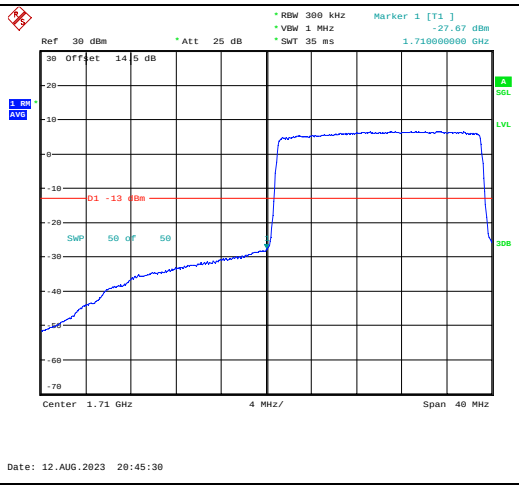
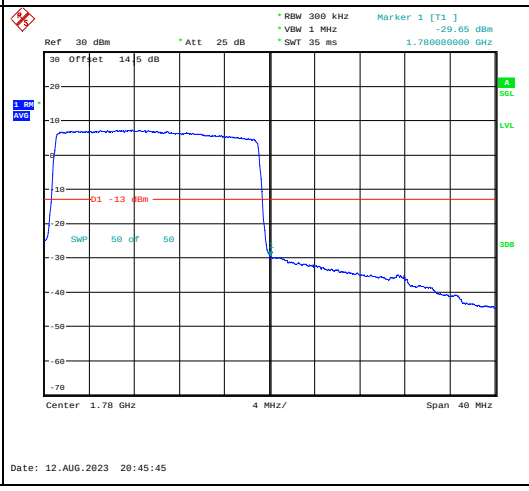
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest	 Date: 12.AUG.2023 21:43:51	 Date: 12.AUG.2023 21:44:02
Middle	 Date: 12.AUG.2023 21:44:16	 Date: 12.AUG.2023 21:44:27
Highest	 Date: 12.AUG.2023 21:44:41	 Date: 12.AUG.2023 21:44:52

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

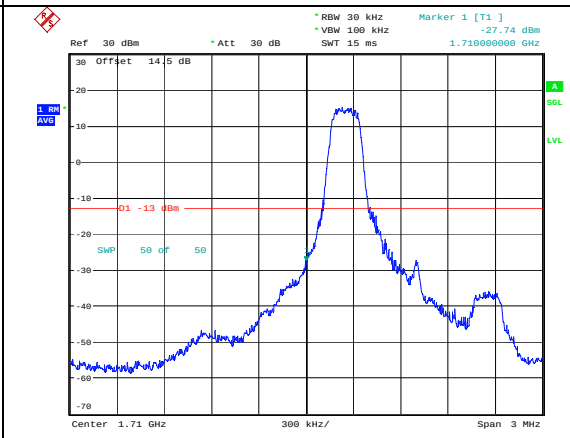
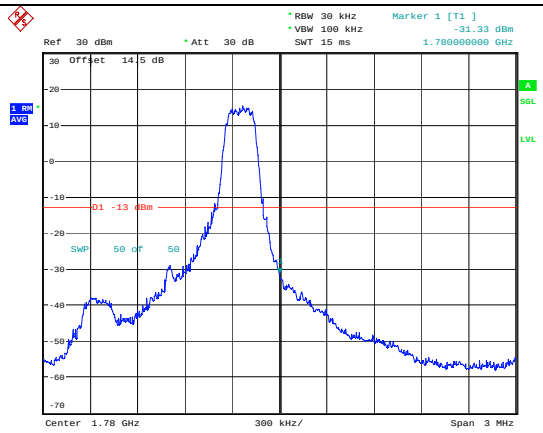
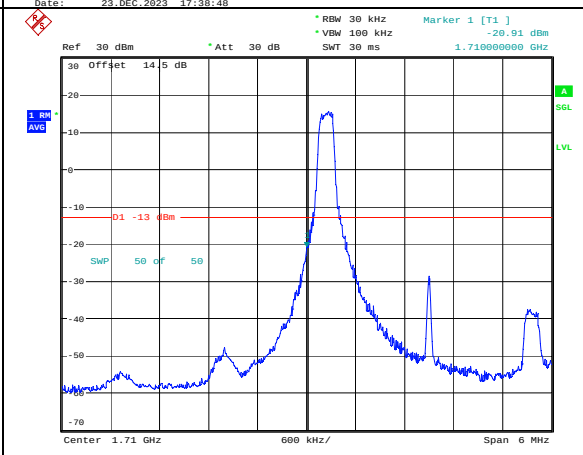
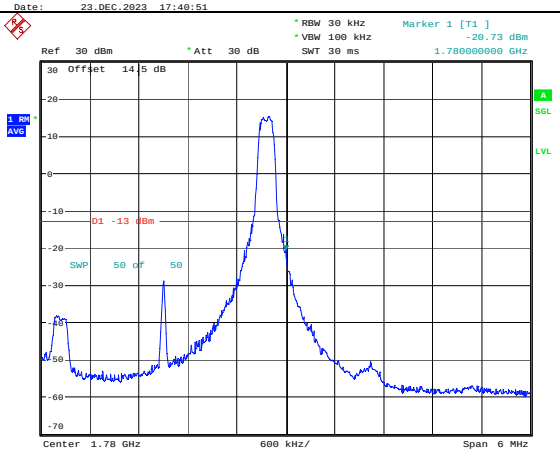
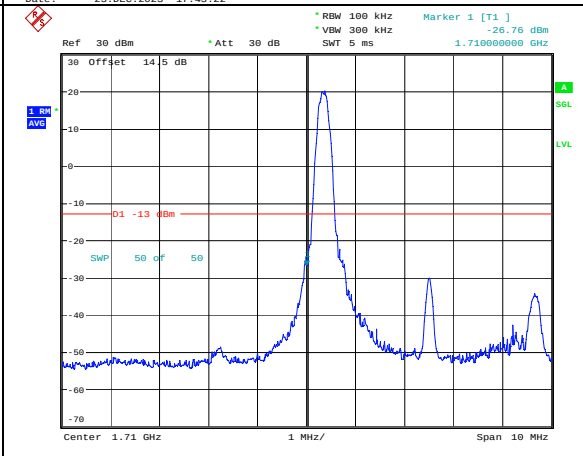
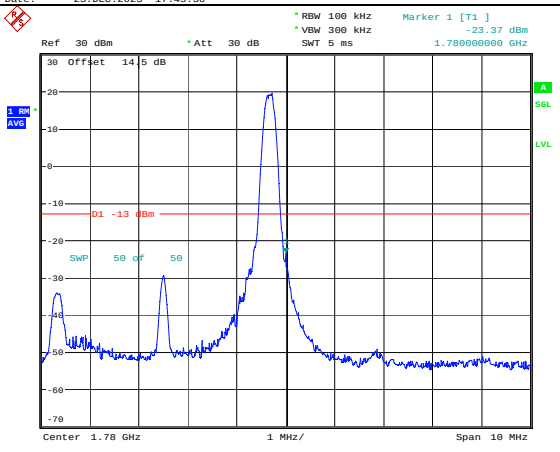
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz		
QPSK 3MHz		
QPSK 5MHz		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz		
QPSK 15MHz		
QPSK 20MHz		

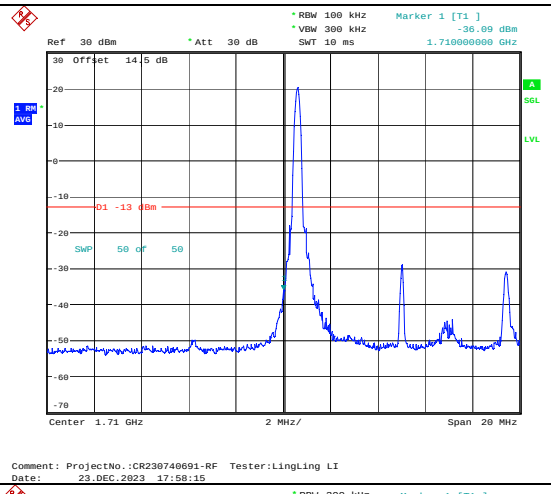
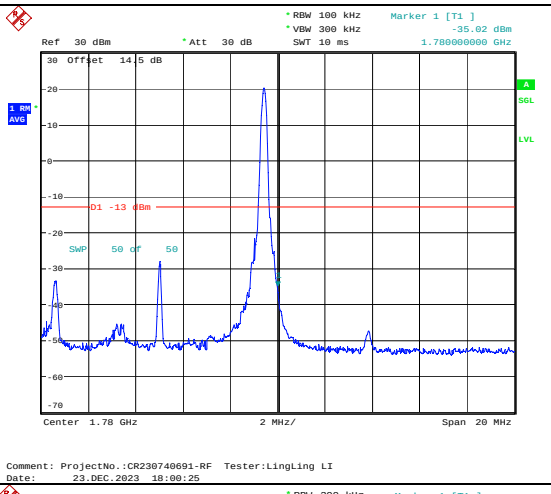
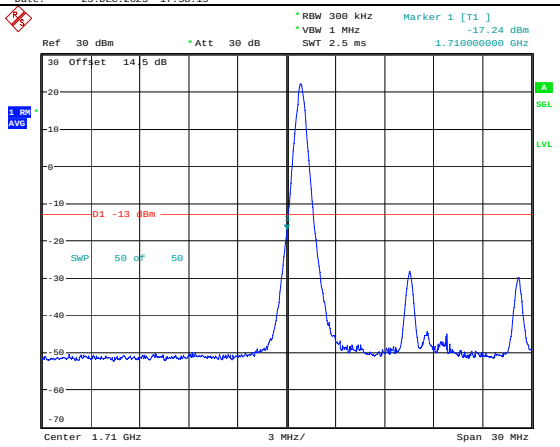
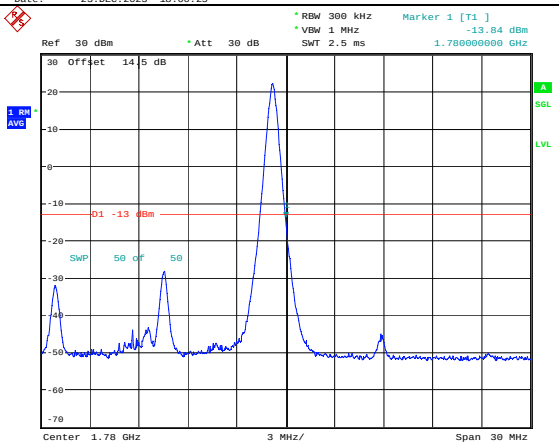
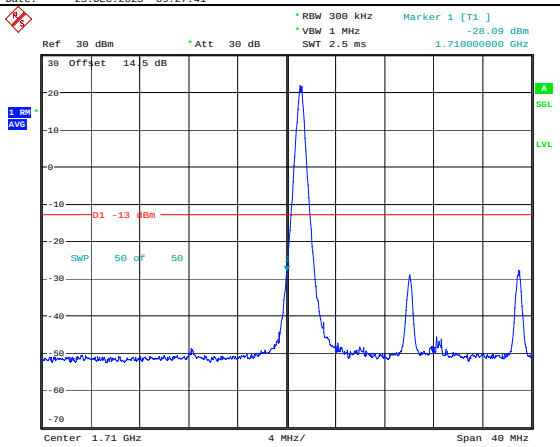
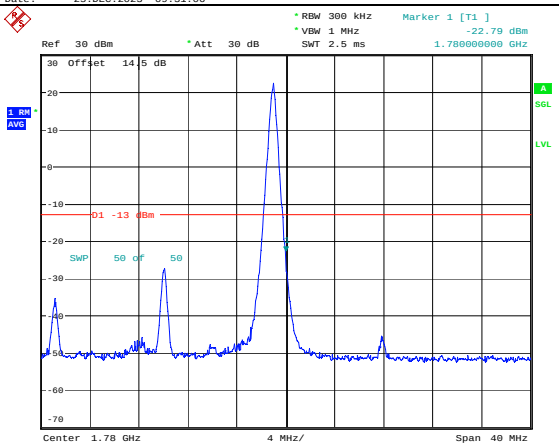
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz		
16QAM 3MHz		
16QAM 5MH		

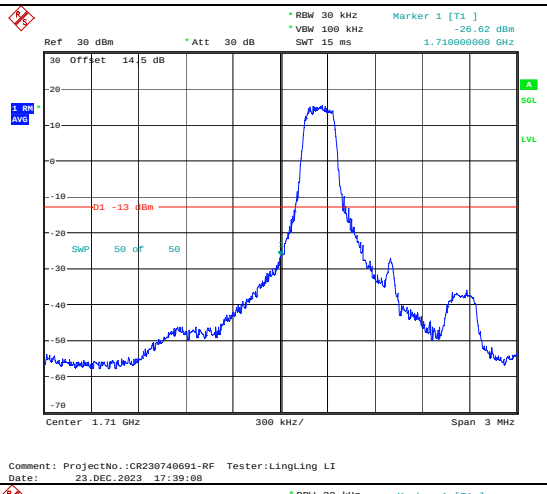
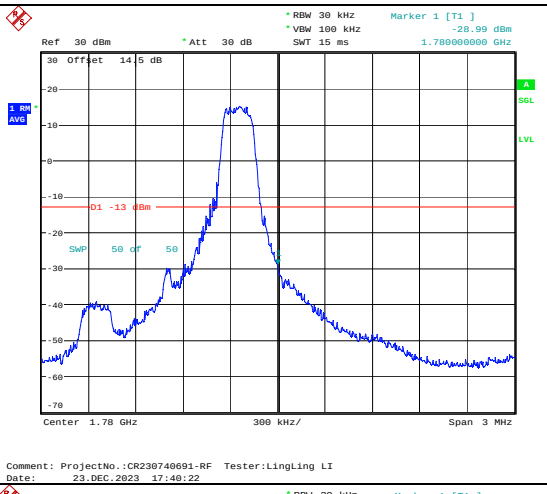
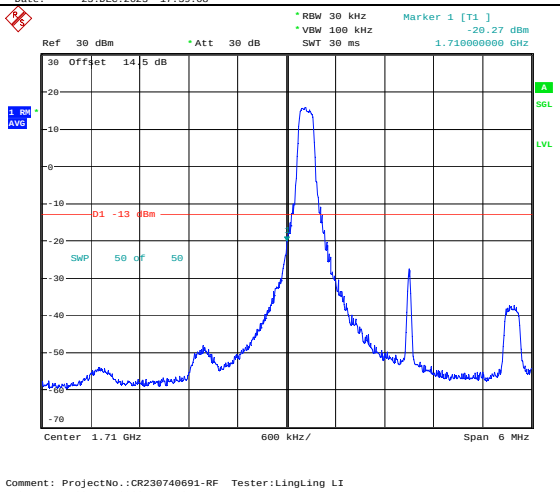
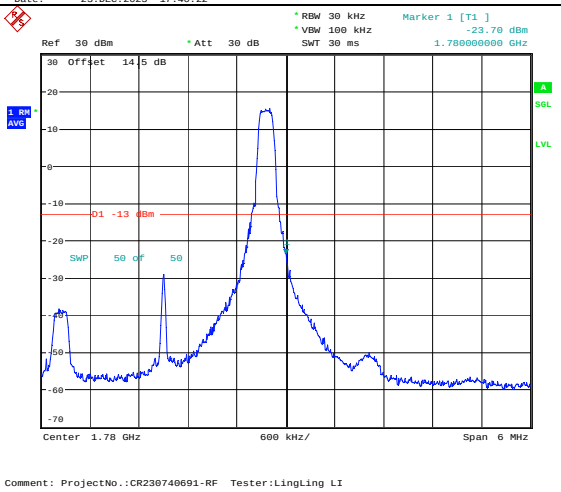
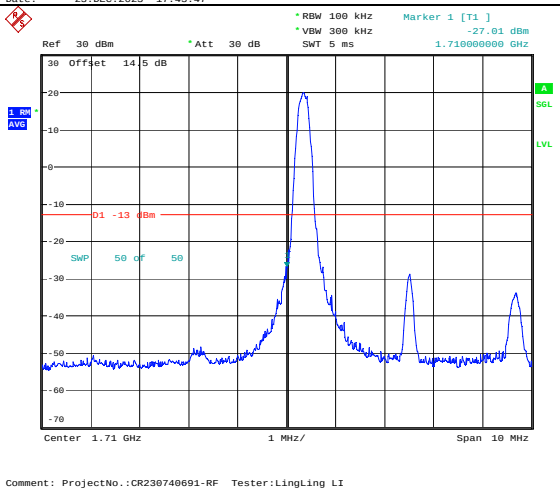
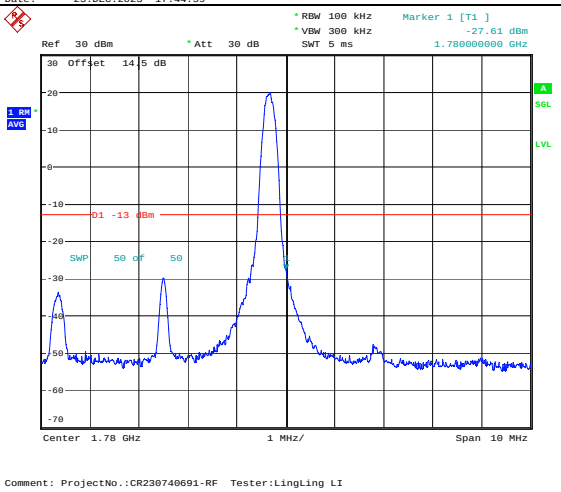
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz		
16QAM 15MHz		
16QAM 20MH		

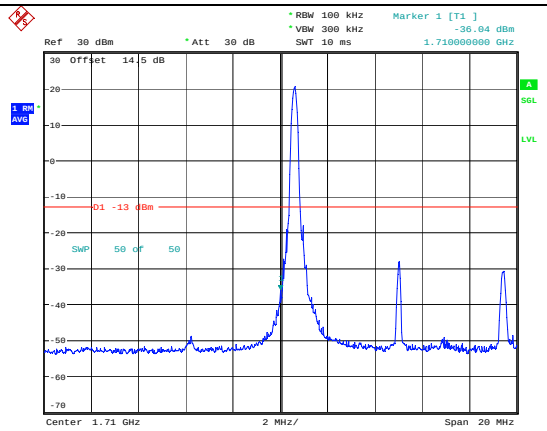
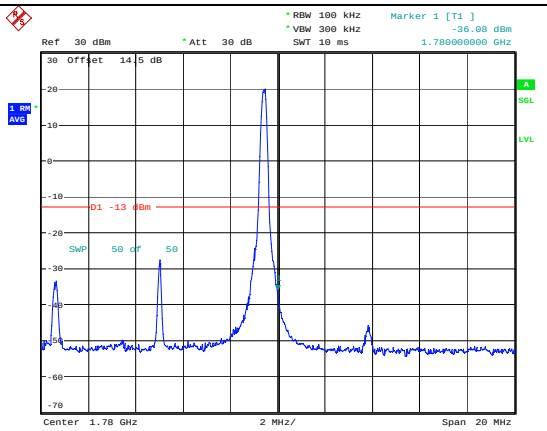
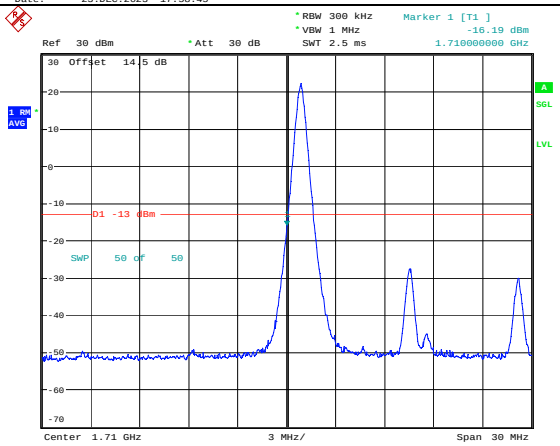
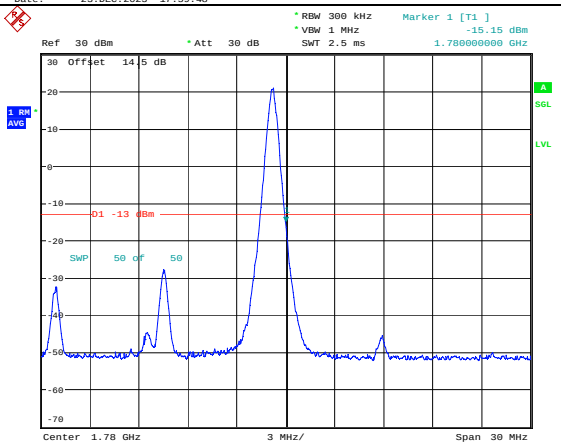
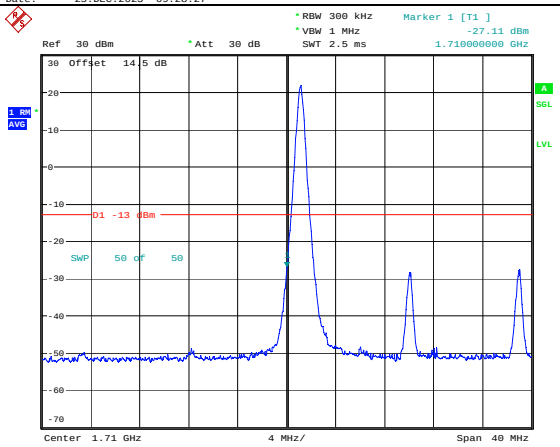
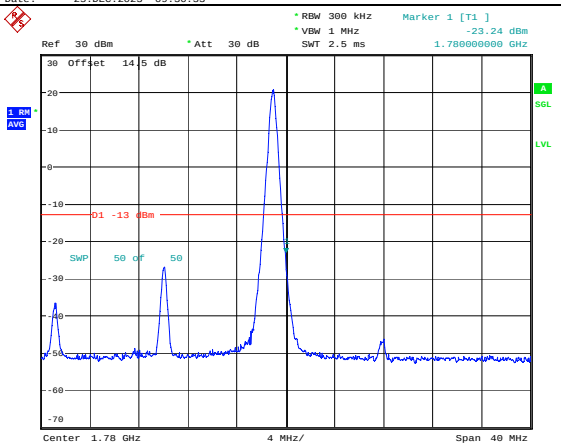
Test Plots for Out of band emission, Band Edge:
Note: The test is performed in 1RB mode.

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz		
QPSK 3MHz		
QPSK 5MHz		

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 10MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:58:15	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 18:00:25
QPSK 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:27:41	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:31:06
QPSK 20MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:41:27	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:40:21

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:39:08	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:40:22
16QAM 3MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:43:47	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:44:59
16QAM 5MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:47:47	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:54:48

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:58:45	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 23.DEC.2023 17:59:48
16QAM 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:28:27	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:30:33
16QAM 20MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:41:52	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing LI Date: 25.DEC.2023 09:39:54

4.11 Antenna Port Test Data and Results for LTE Band 71

Serial Number:	288V-1	Test Date:	2023/8/4-2023/12/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Claire Liu/Arthur Su/LingLing Li	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24.3-25.7	Relative Humidity: (%)	42-58	ATM Pressure: (kPa)	99.7-101.3

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	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A
Unknown	Coaxial tee connector	Unknown	2204004	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
R&S	Spectrum Analyzer	FSU26	100147	2023/3/31	2024/3/30

** 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:

FCC§2.1046;§ 27.50(c) (10)						
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	25.15	26.04	25.95	22.66	34.77
	RB1#13	26.06	26.09	26		
	RB1#24	26.19	25.99	25.93		
	RB15#0	25.2	25.14	24.9		
	RB15#10	25.27	25.1	24.96		
	RB25#0	25.29	25.07	24.89		
5MHz 16QAM	RB1#0	25.38	25.2	25.29	21.88	34.77
	RB1#13	25.36	25.25	25.41		
	RB1#24	25.38	25.13	25.25		
	RB15#0	24.3	24.25	23.96		
	RB15#10	24.39	24.14	24.01		
	RB25#0	24.4	24.21	23.98		
10MHz QPSK	RB1#0	26.12	26.02	25.99	22.61	34.77
	RB1#25	26.14	26	25.95		
	RB1#49	26.04	26.01	25.98		
	RB25#0	25.24	25.16	25.03		
	RB25#25	25.12	25.06	24.91		
	RB50#0	25.17	25.13	25		
10MHz 16QAM	RB1#0	25.22	25.25	25.07	21.72	34.77
	RB1#25	25.2	25.21	24.96		
	RB1#49	25.15	25.25	25.02		
	RB25#0	24.36	24.27	24.18		
	RB25#25	24.32	24.18	24.11		
	RB50#0	24.28	24.15	24.13		
15MHz QPSK	RB1#0	26.13	26.11	26.02	22.56	34.77
	RB1#38	26.09	26.01	25.94		
	RB1#74	26.07	26.02	25.88		
	RB36#0	25.15	25.12	24.93		
	RB36#39	25.12	25.02	24.89		
	RB75#0	25.06	25.04	24.98		
15MHz 16QAM	RB1#0	25.65	25.58	25.48	22.67	34.77
	RB1#38	25.56	25.52	25.42		
	RB1#74	25.54	25.5	25.4		
	RB36#0	24.26	24.18	24.01		
	RB36#39	24.21	24.09	24		
	RB75#0	24.16	24.12	24.06		
20MHz QPSK	RB1#0	26.2	26.09	26.14	22.58	34.77
	RB1#50	26.11	25.95	26.04		
	RB1#99	26.02	25.9	25.98		

	RB50#0	25.2	25.12	25.06		
	RB50#50	25.14	25.01	24.97		
	RB100#0	25.19	25.07	24.95		
20MHz 16QAM	RB1#0	25.49	25.75	25.4	22.22	34.77
	RB1#50	25.38	25.64	25.34		
	RB1#99	25.32	25.58	25.26		
	RB50#0	24.32	24.22	24.14		
	RB50#50	24.34	24.11	24.1		
	RB100#0	24.32	24.16	24.06		
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	3.49	3.56	3.53	13
	RB100#0	6.15	6.83	6.12	13
20MHz 16QAM	RB1#0	5.74	5.45	5.54	13
	RB100#0	7.02	7.4	6.96	13
				Result:	**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.54	4.5	4.52	5.02	5.0	4.98
5MHz 16QAM	4.52	4.54	4.54	4.98	5.02	5.00
10MHz QPSK	8.96	9	9	9.64	10	10
10MHz 16QAM	8.96	9	9	9.64	10	10
15MHz QPSK	13.44	13.62	13.5	14.76	14.82	14.7
15MHz 16QAM	13.44	13.560	13.5	14.70	14.820	14.7
20MHz QPSK	17.92	18	17.76	19.36	20	19.44
20MHz 16QAM	17.84	18	17.92	19.28	19	19.28
Note: The test plots please refer to the Plots of Occupied Bandwidth						

FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

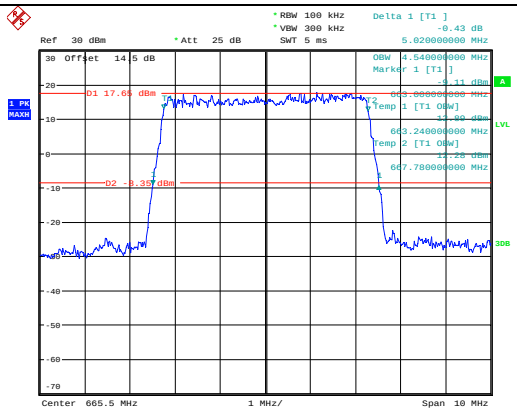
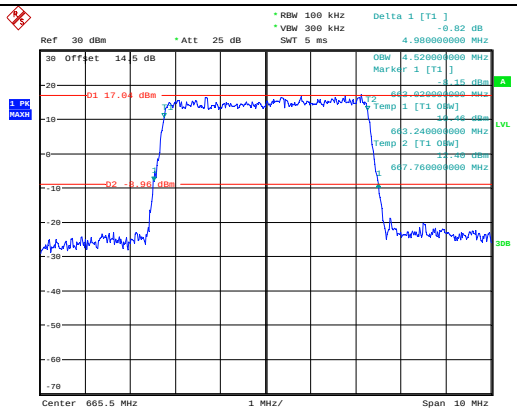
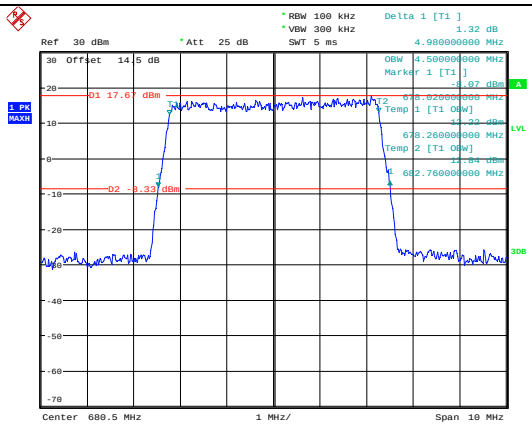
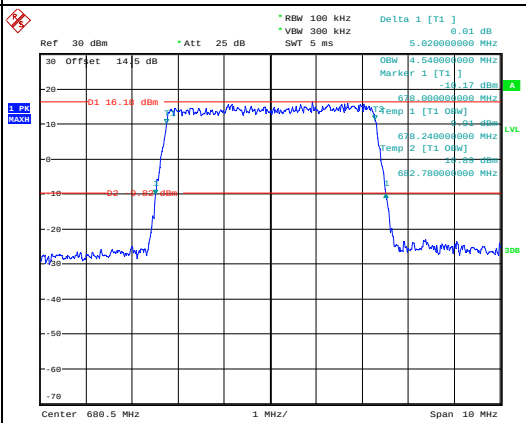
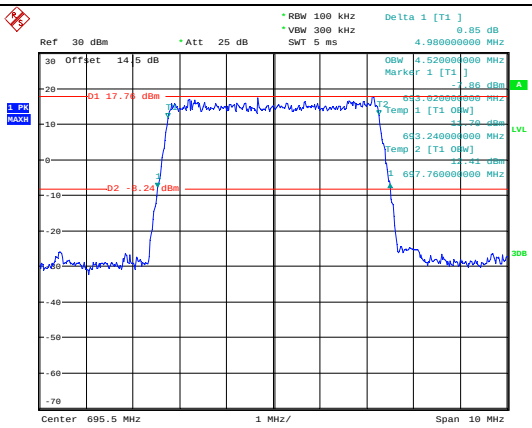
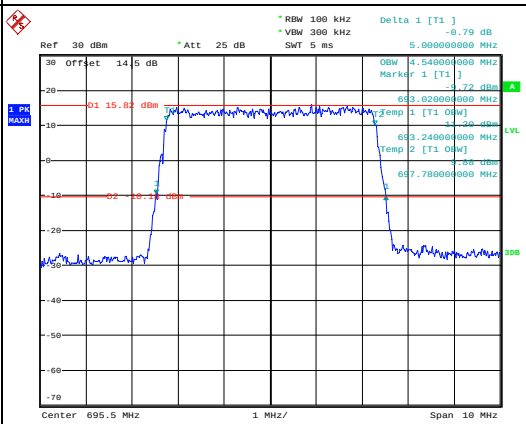
FCC §2.1051, §27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

FCC §2.1055, §27.54: Frequency Stability

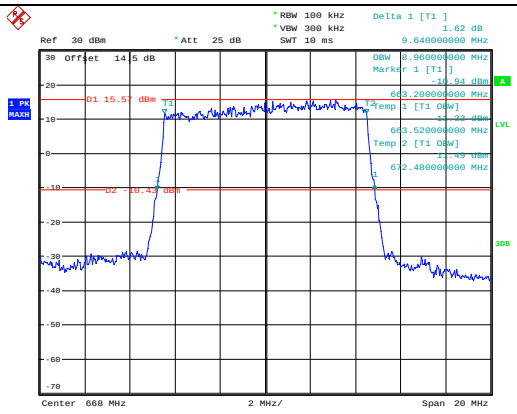
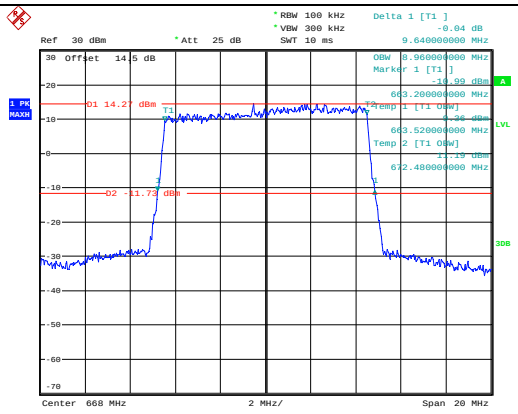
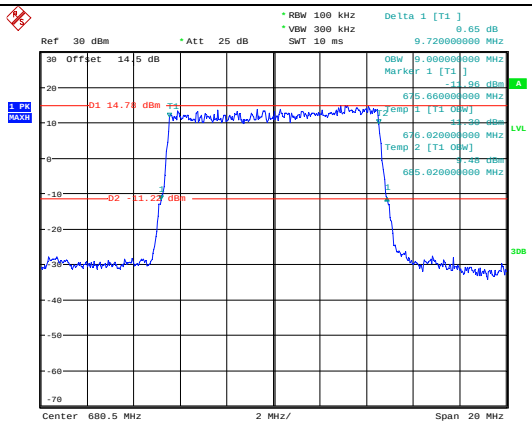
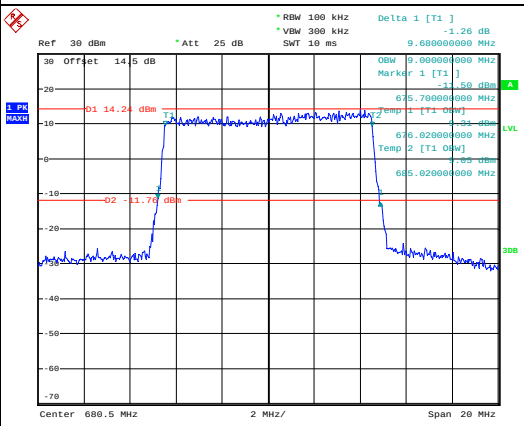
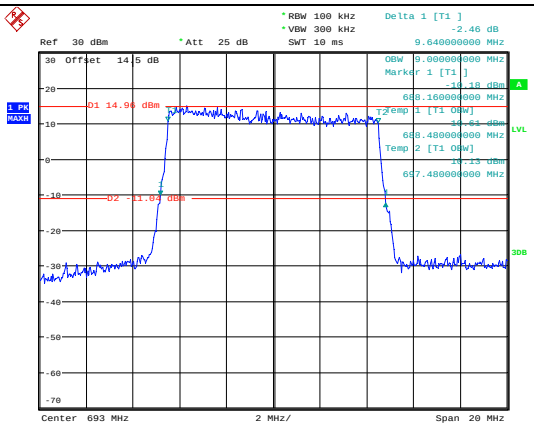
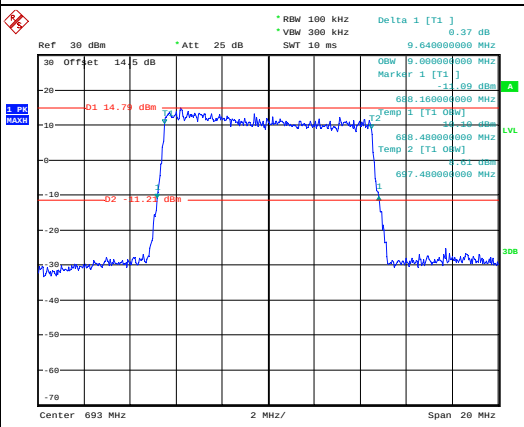
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	5	664.116	663.00	696.889	698.00
	-20	5	664.105	663.00	696.888	698.00
	-10	5	664.093	663.00	696.909	698.00
	0	5	664.097	663.00	696.892	698.00
	10	5	664.111	663.00	696.905	698.00
	20	5	664.120	663.00	696.880	698.00
	30	5	664.102	663.00	696.907	698.00
	40	5	664.098	663.00	696.899	698.00
	50	5	664.095	663.00	696.907	698.00
Frequency Stability vs. Voltage	20	4.4	664.102	663.00	696.905	698.00
	20	5.25	664.113	663.00	696.888	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	5	664.112	663.00	696.979	698.00
	-20	5	664.103	663.00	696.988	698.00
	-10	5	664.094	663.00	696.964	698.00
	0	5	664.114	663.00	696.963	698.00
	10	5	664.109	663.00	696.978	698.00
	20	5	664.120	663.00	696.960	698.00
	30	5	664.097	663.00	696.975	698.00
	40	5	664.114	663.00	696.978	698.00
	50	5	664.113	663.00	696.966	698.00
Frequency Stability vs. Voltage	20	4.4	664.116	663.00	696.987	698.00
	20	5.25	664.100	663.00	696.969	698.00
					Result:	**Pass**

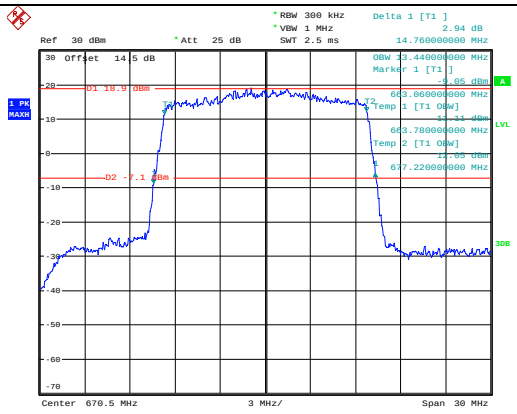
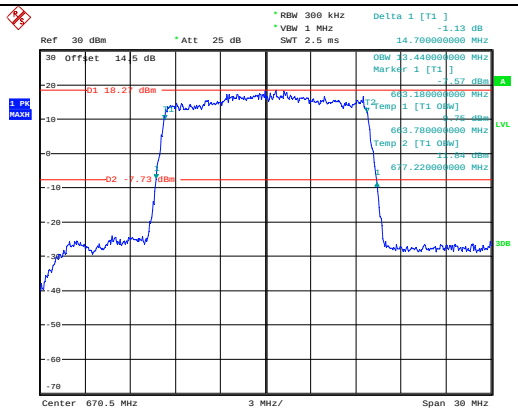
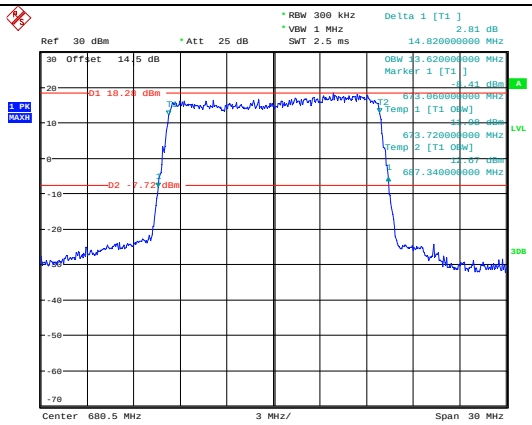
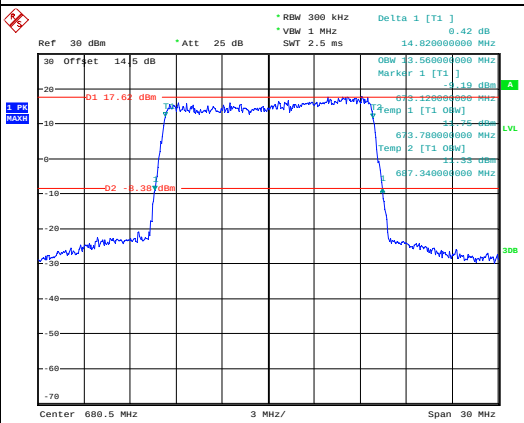
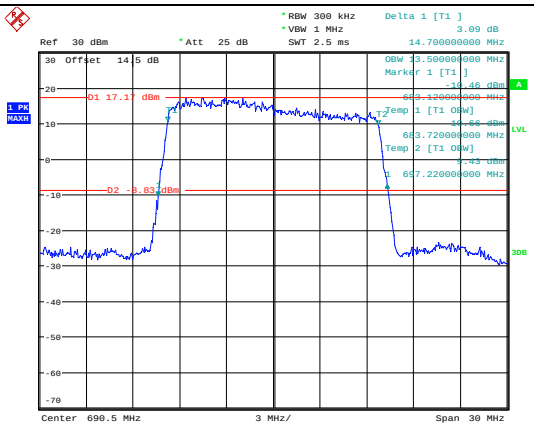
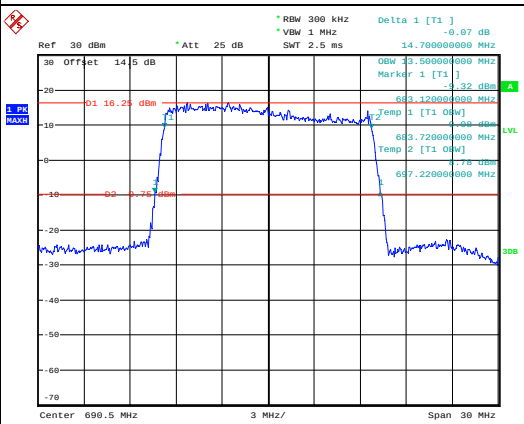
Test Plots(Note: The 14.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	 Date: 12.AUG.2023 23:02:18	 Date: 12.AUG.2023 23:02:36
Middle	 Date: 12.AUG.2023 23:14:08	 Date: 12.AUG.2023 23:14:26
Highest	 Date: 12.AUG.2023 23:15:08	 Date: 12.AUG.2023 23:15:22

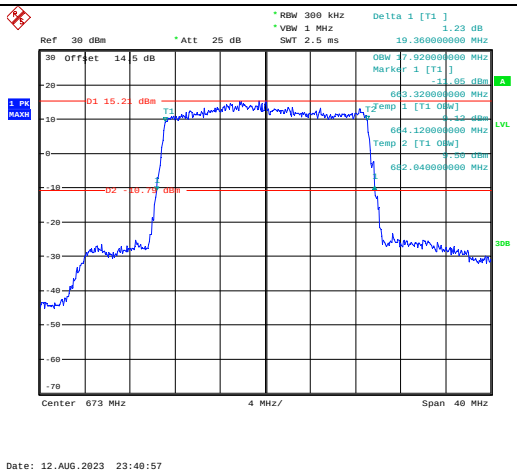
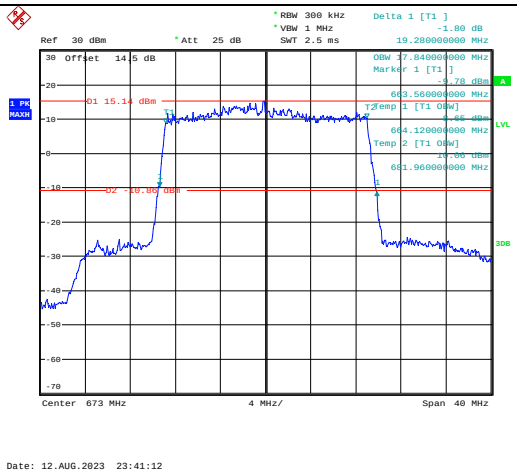
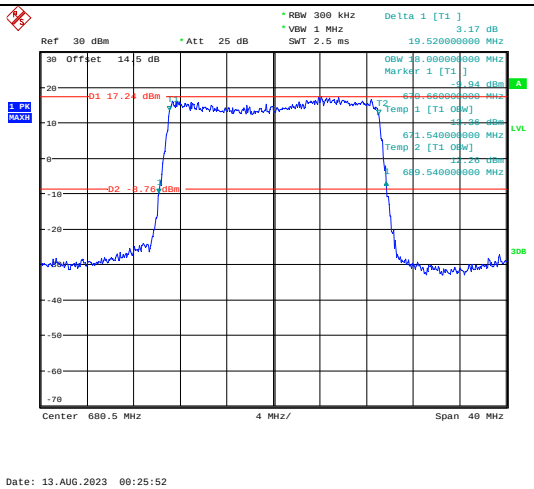
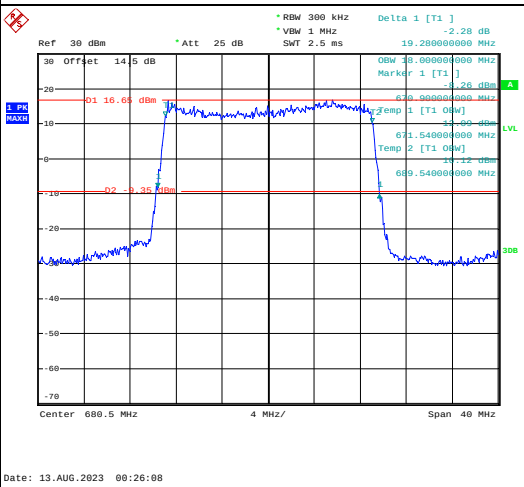
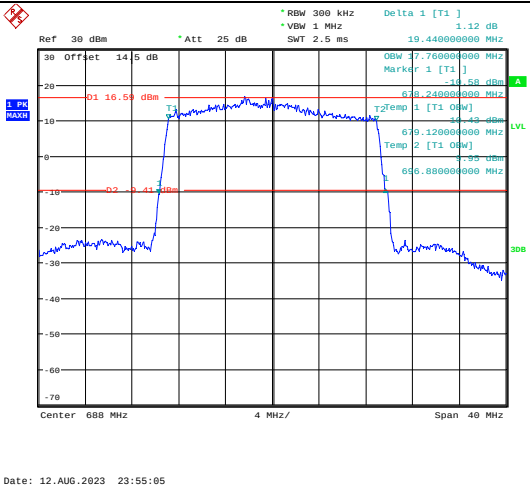
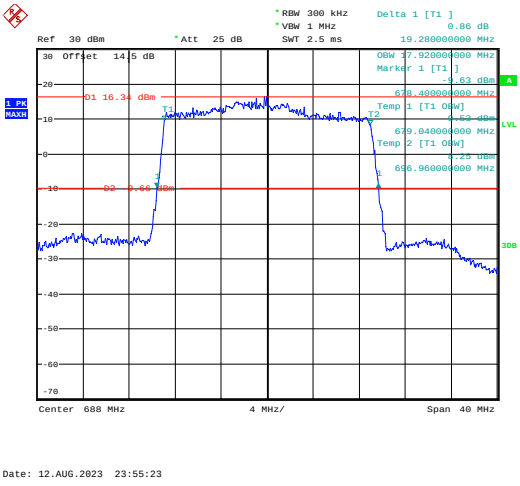
Occupied Bandwidth

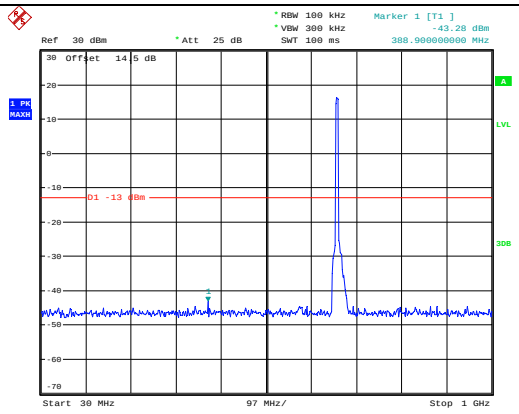
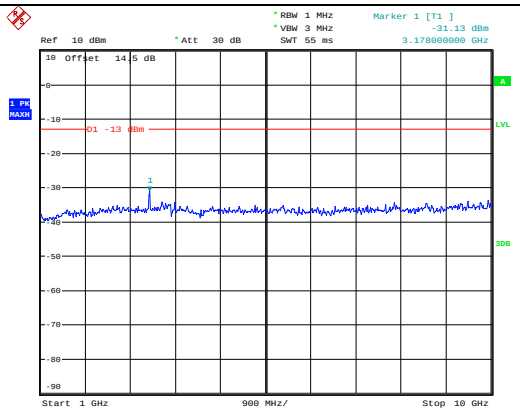
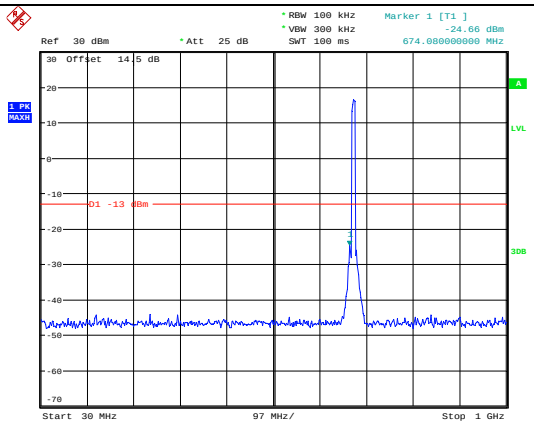
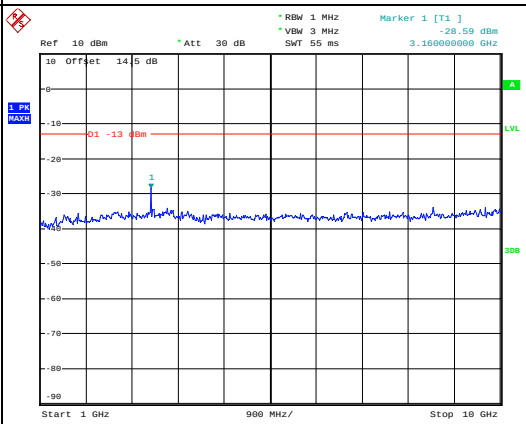
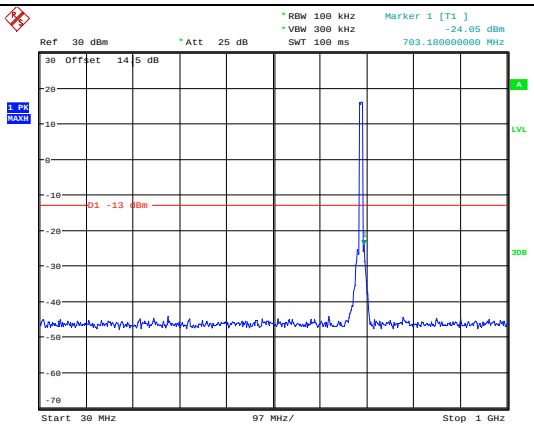
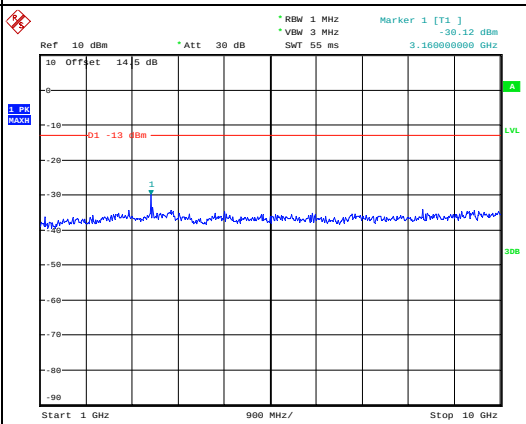
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

Occupied Bandwidth

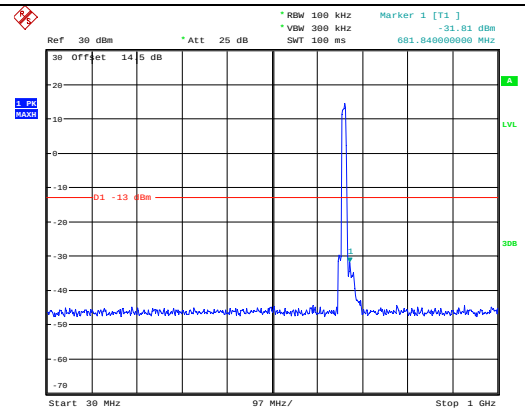
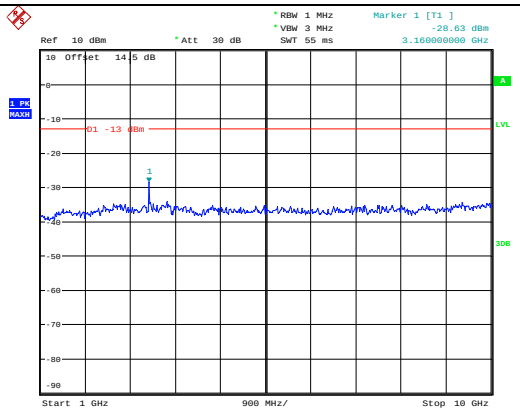
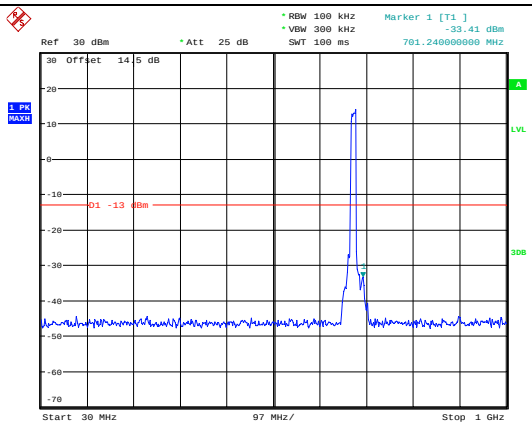
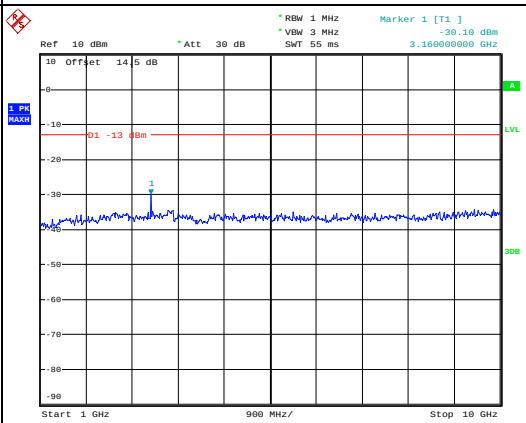
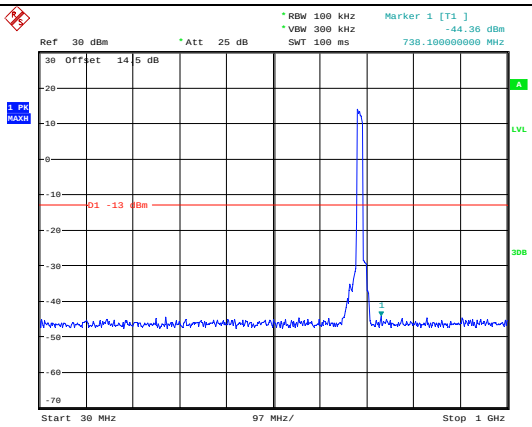
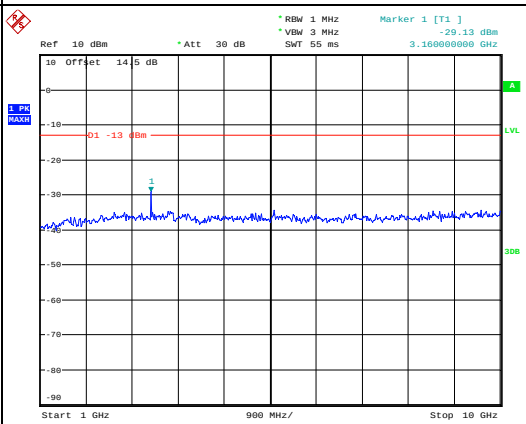
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

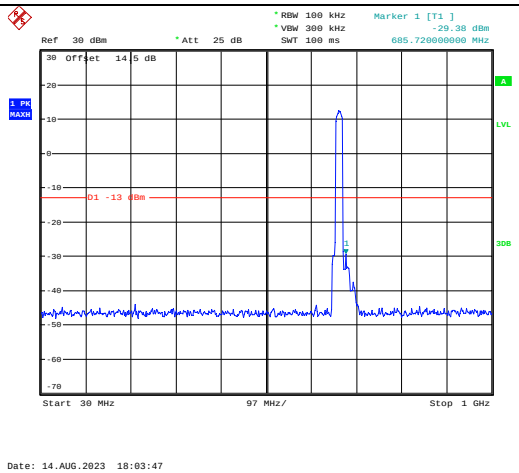
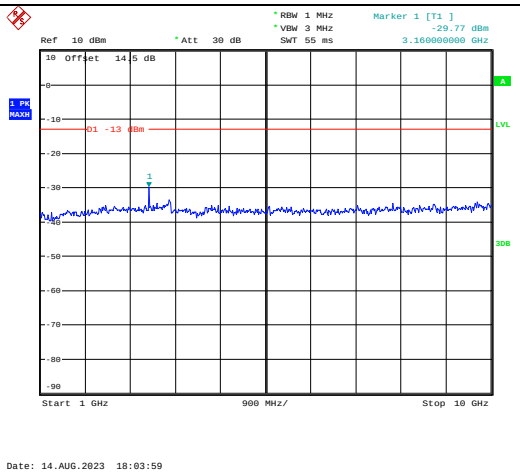
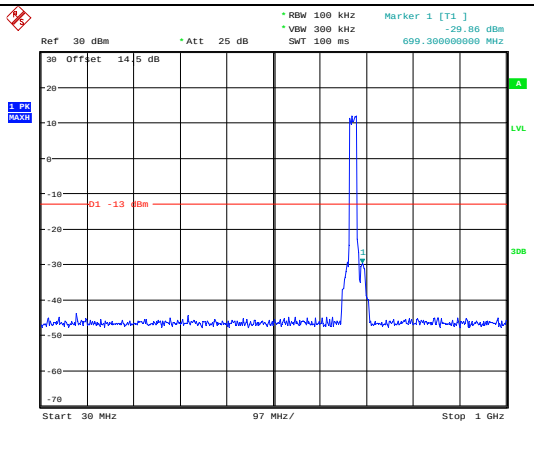
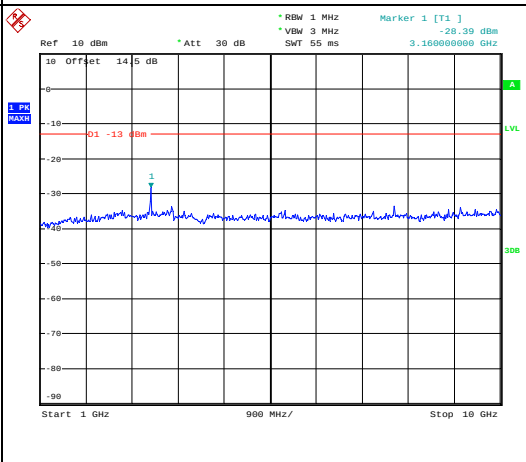
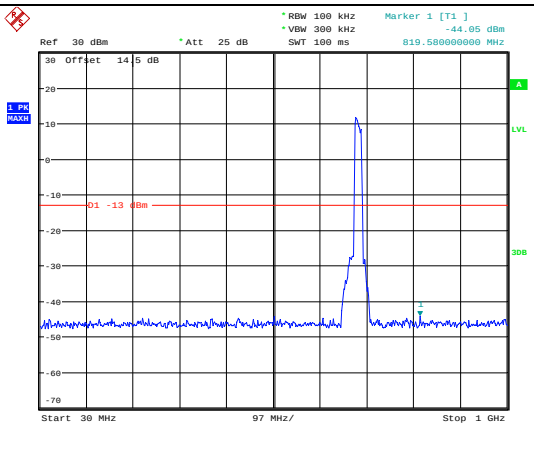
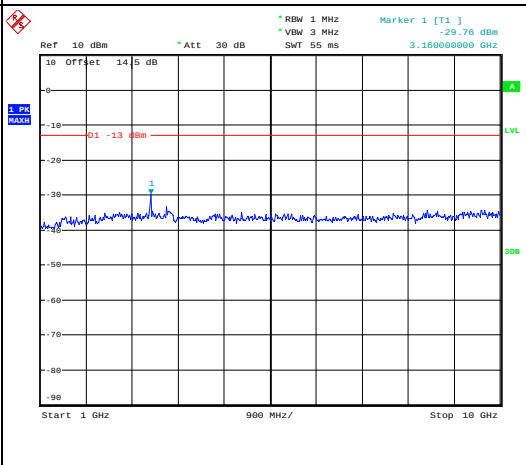
Occupied Bandwidth

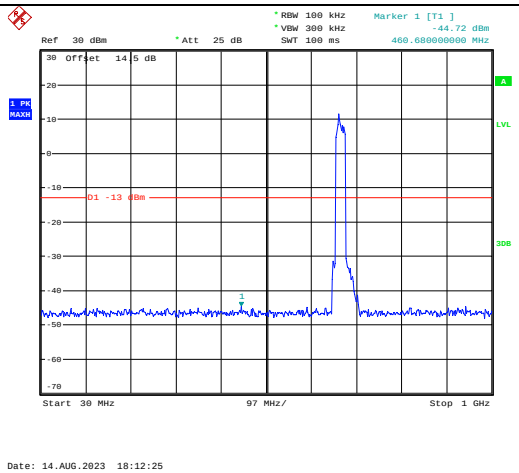
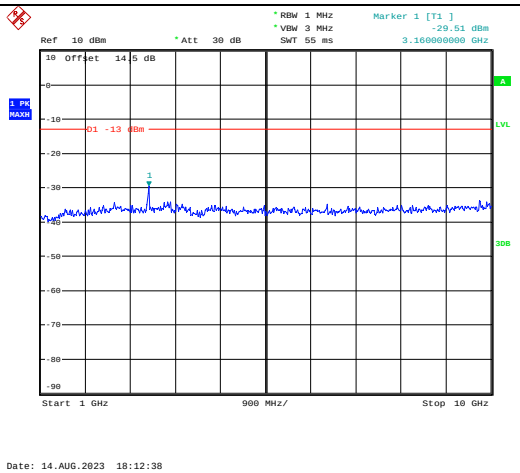
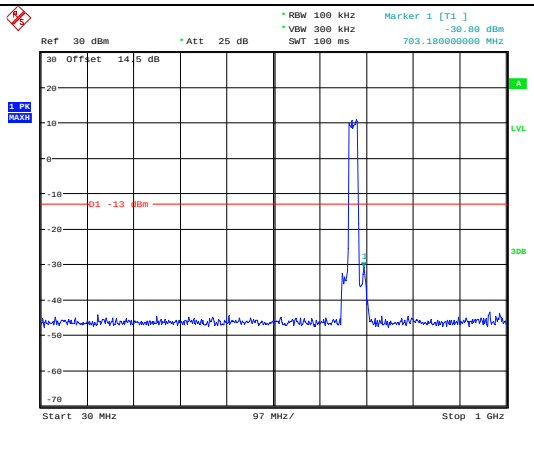
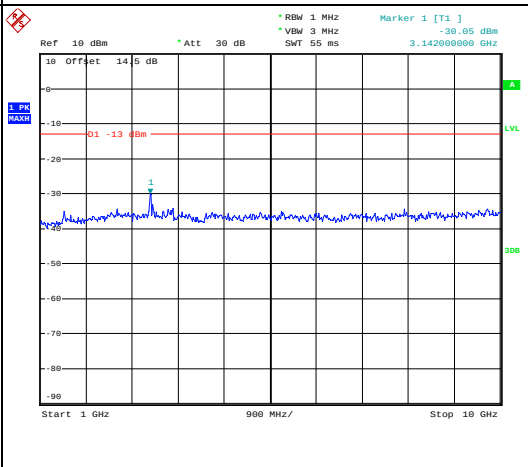
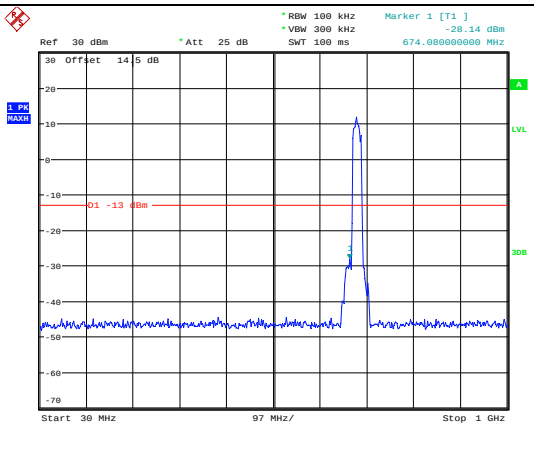
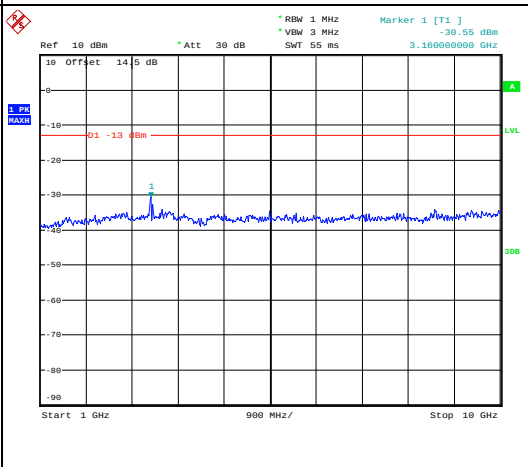
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

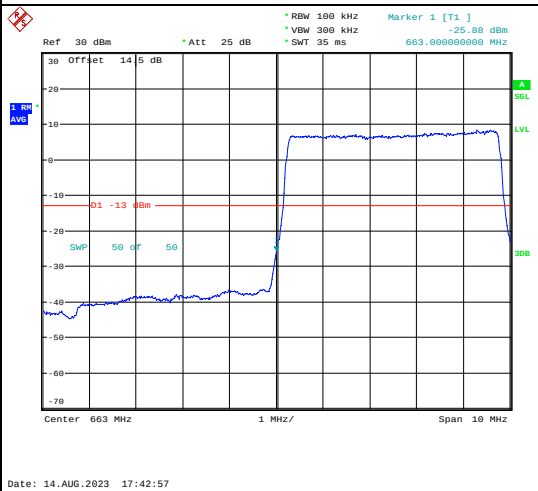
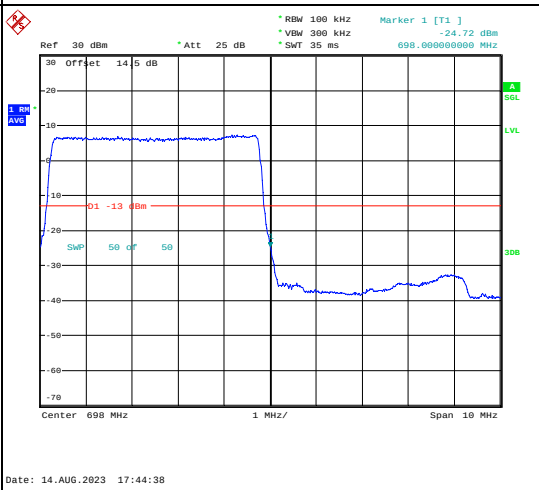
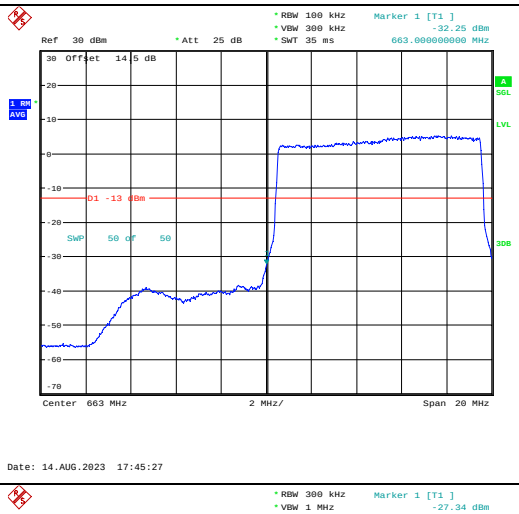
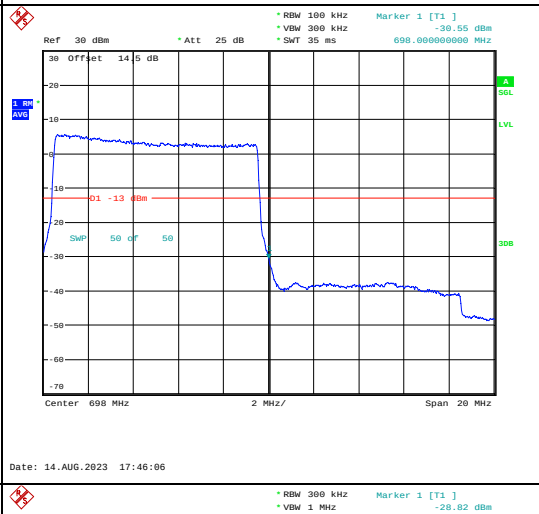
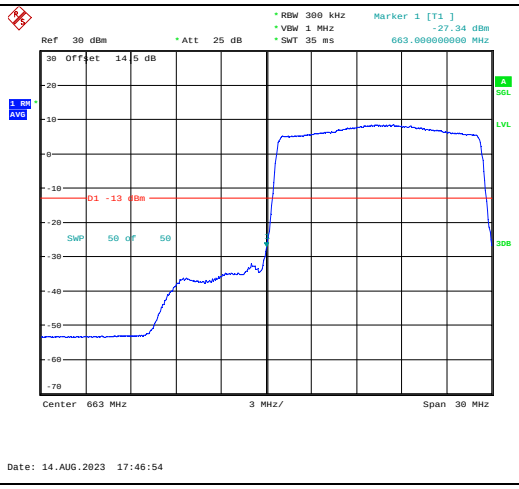
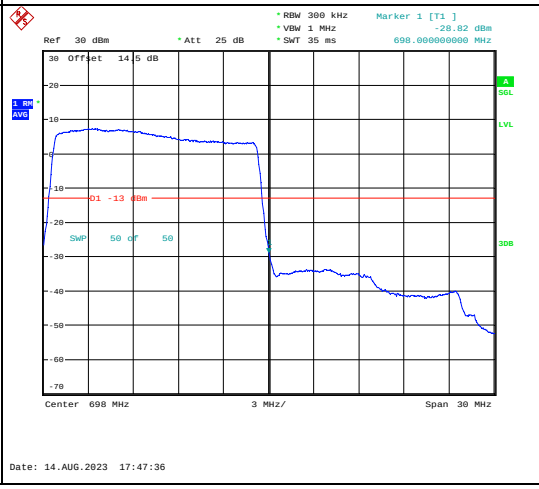
Spurious Emissions at Antenna Terminal

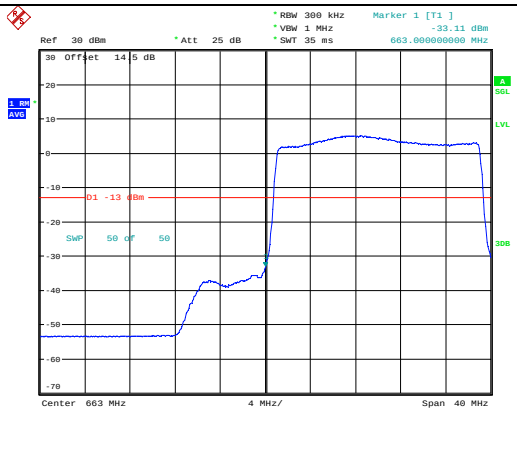
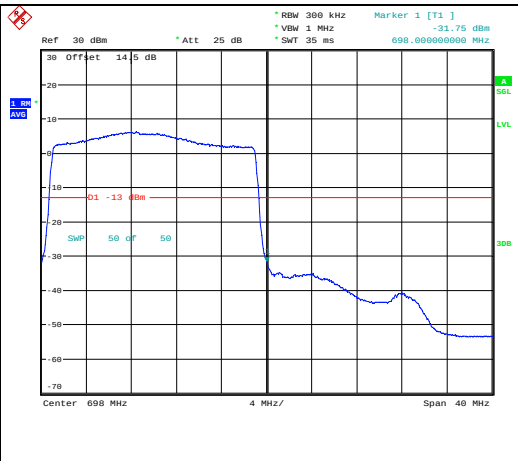
Channel	10MHz Bandwidth QPSK	
Lowest	 Date: 14.AUG.2023 17:55:26	 Date: 14.AUG.2023 17:55:39
Middle	 Date: 14.AUG.2023 18:02:07	 Date: 14.AUG.2023 18:02:20
Highest	 Date: 14.AUG.2023 18:02:53	 Date: 14.AUG.2023 18:03:06

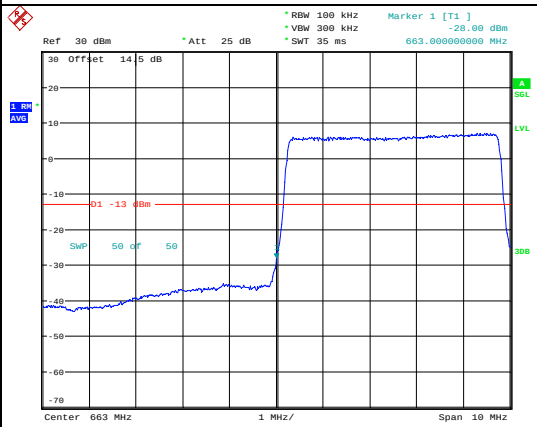
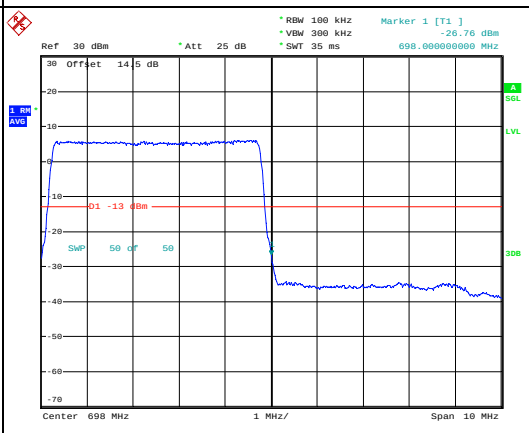
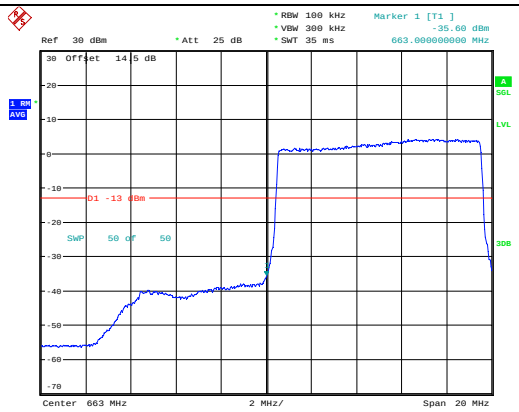
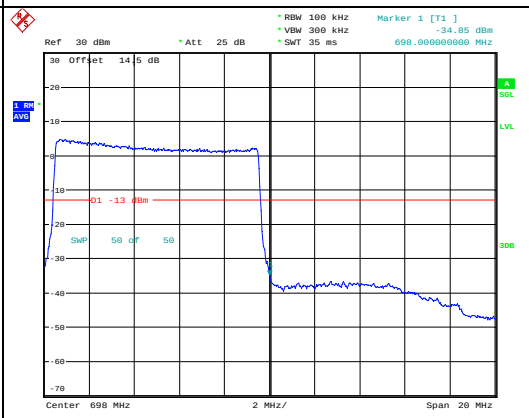
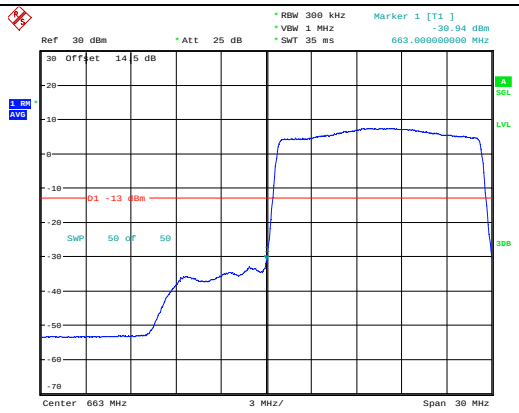
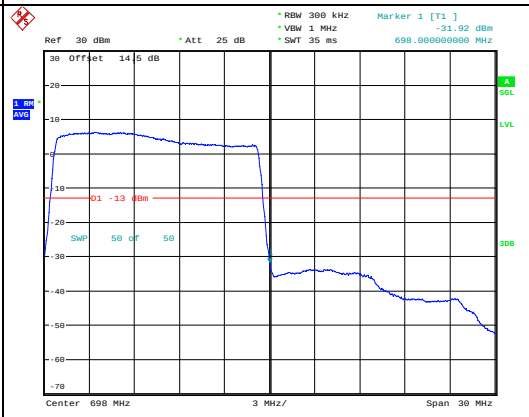
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

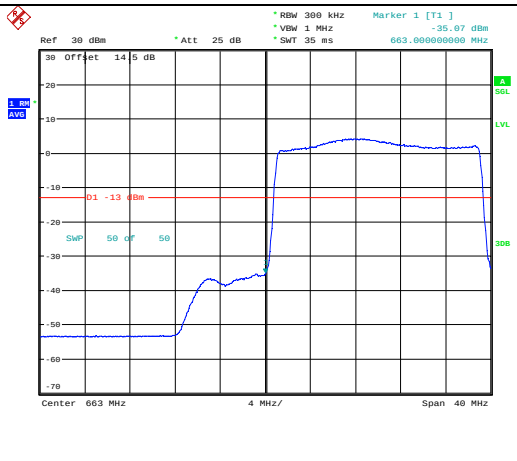
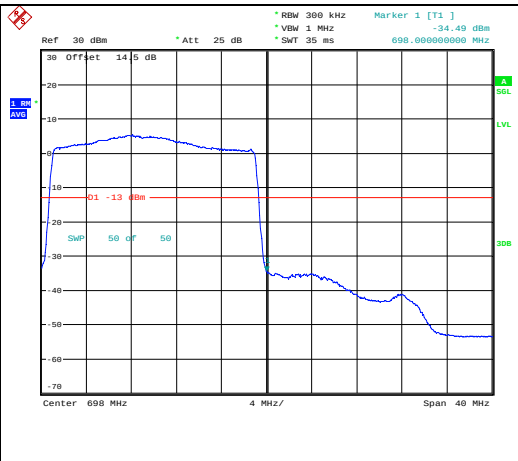
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest	 Date: 14.AUG.2023 18:12:25	 Date: 14.AUG.2023 18:12:38
Middle	 Date: 14.AUG.2023 18:20:48	 Date: 14.AUG.2023 18:21:01
Highest	 Date: 14.AUG.2023 18:21:31	 Date: 14.AUG.2023 18:21:44

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

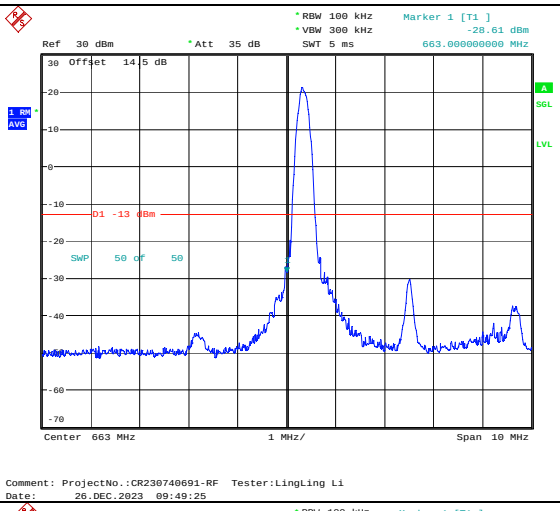
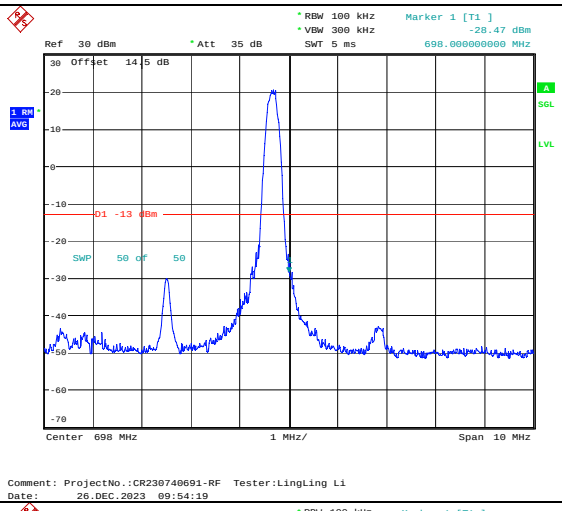
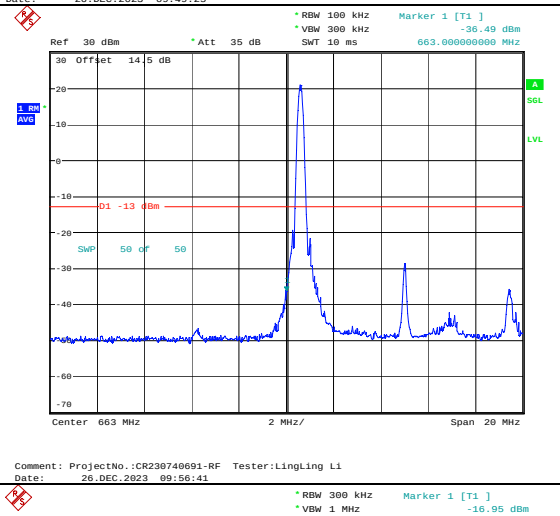
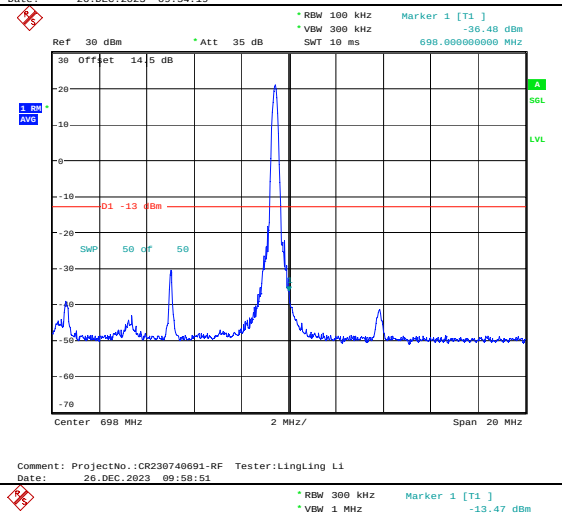
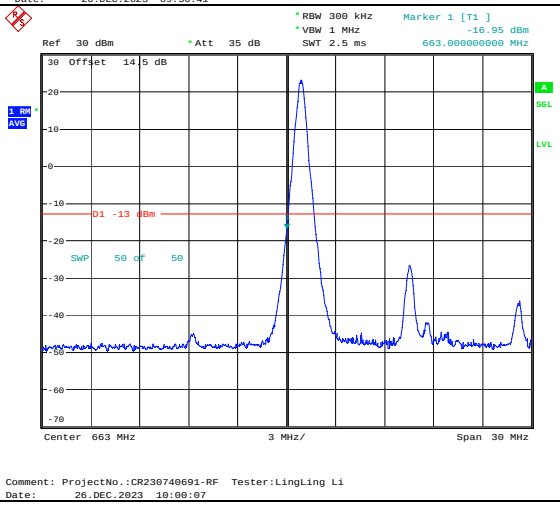
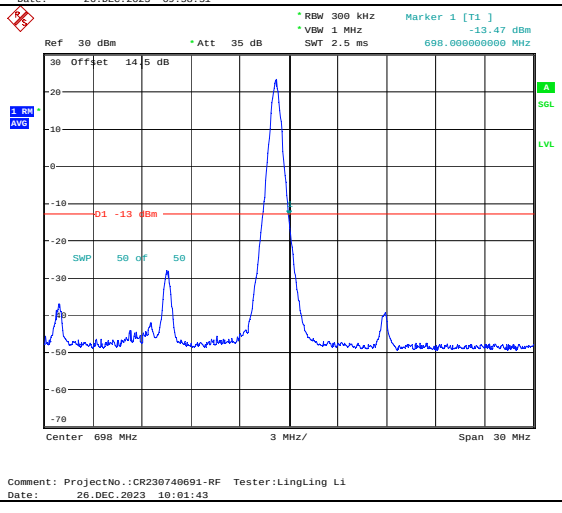
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz		
QPSK 10MHz		
QPSK 15MHz		

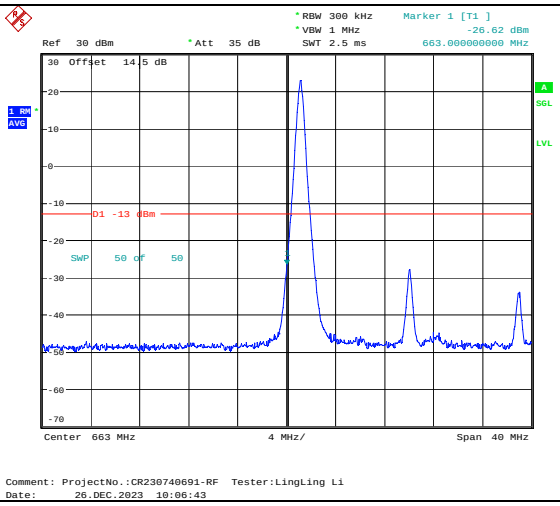
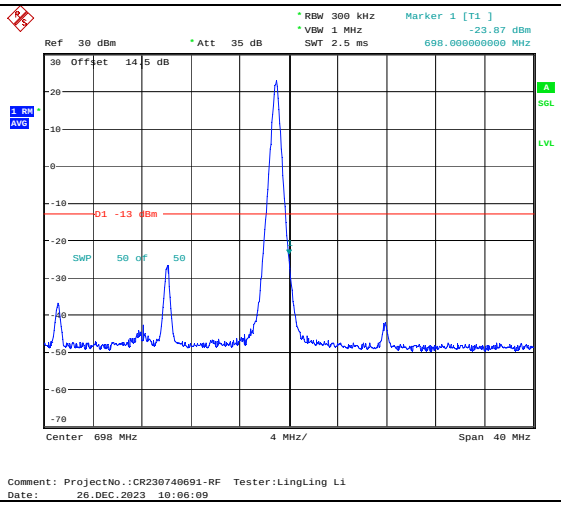
QPSK 20MHz	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -33.11 dBm 663.000000000 MHz Ref 30 dBm Att 25 dB Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 663 MHz 4 MHz/ Span 40 MHz Date: 14.AUG.2023 17:48:20	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -31.75 dBm 698.000000000 MHz Ref 30 dBm Att 25 dB Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 698 MHz 4 MHz/ Span 40 MHz Date: 14.AUG.2023 17:49:02

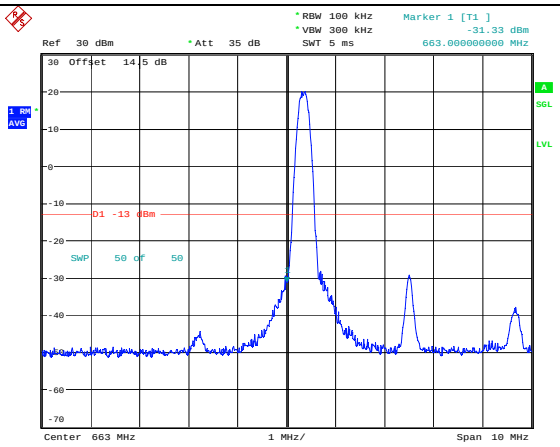
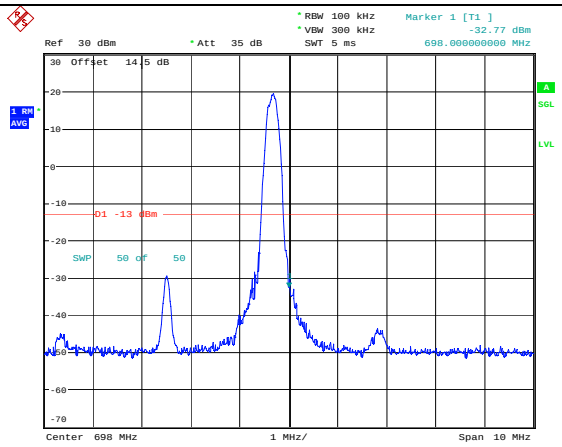
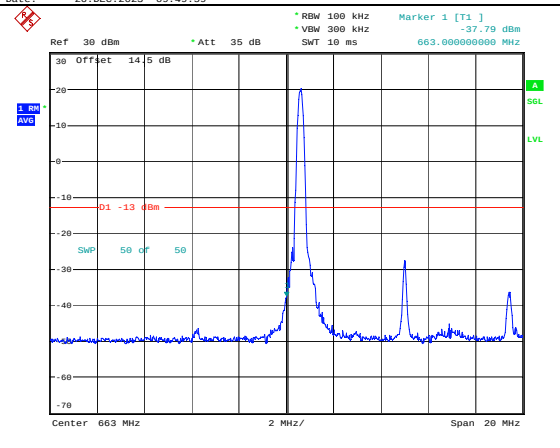
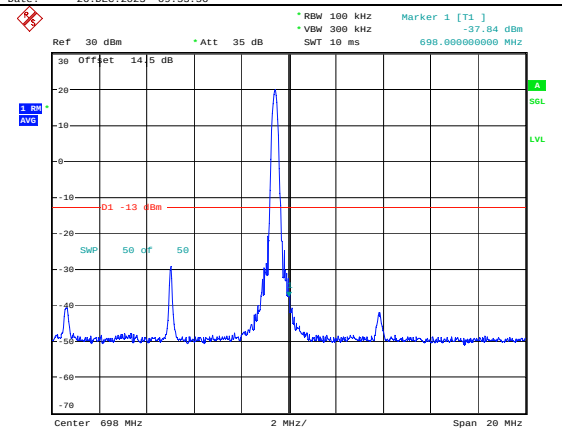
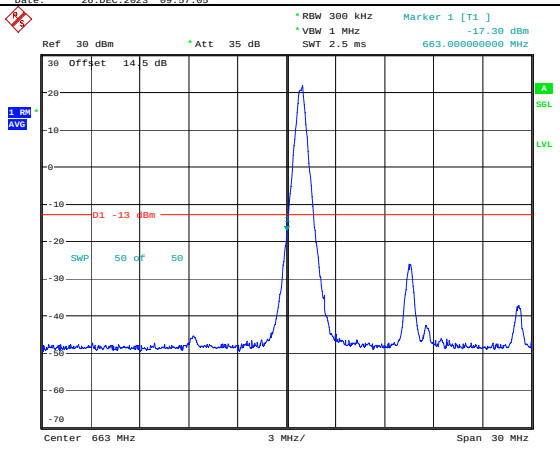
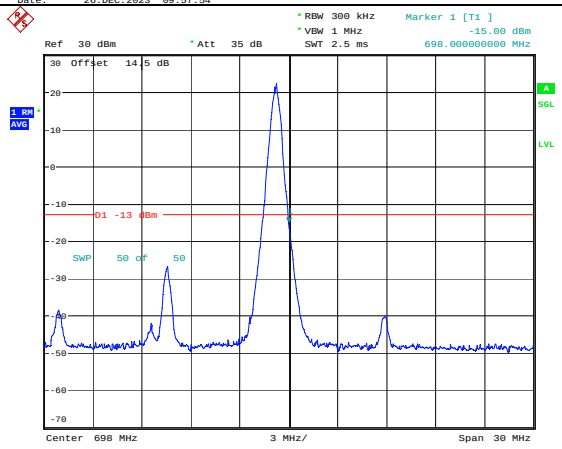
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz		
16QAM 10MHz		
16QAM 15MH		

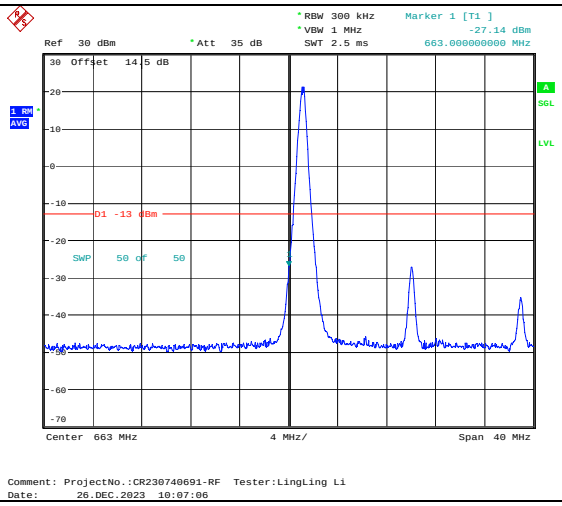
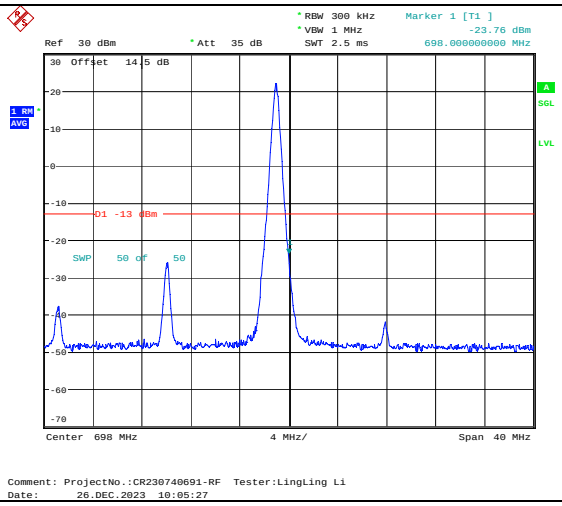
16QAM 20MH	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -35.07 dBm 663.000000000 MHz Ref 30 dBm Att 25 dB Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 663 MHz 4 MHz/ Span 40 MHz Date: 14.AUG.2023 17:48:29	 RBW 300 kHz VBW 1 MHz SWT 35 ms Marker 1 [T1] -34.49 dBm 698.000000000 MHz Ref 30 dBm Att 25 dB Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 698 MHz 4 MHz/ Span 40 MHz Date: 14.AUG.2023 17:49:11

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		
QPSK 15MHz		

QPSK 20MHz	 RBW 300 kHz VBW 1 MHz SWT 2.5 ms Marker 1 [T1] -26.62 dBm 663.000000000 MHz Ref 30 dBm Att 35 dB 30 Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 663 MHz 4 MHz/ Span 40 MHz Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 10:06:43	 RBW 300 kHz VBW 1 MHz SWT 2.5 ms Marker 1 [T1] -23.87 dBm 698.000000000 MHz Ref 30 dBm Att 35 dB 30 Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 698 MHz 4 MHz/ Span 40 MHz Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 10:06:09

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 5MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 09:49:59	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 09:53:56
16QAM 10MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 09:57:05	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 09:57:54
16QAM 15MHz	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 10:00:29	 Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 10:01:19

16QAM 20MHz	 RBW 300 kHz VBW 1 MHz SWT 2.5 ms Marker 1 [T1] -27.14 dBm 663.000000000 MHz Ref 30 dBm Att 35 dB Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 663 MHz 4 MHz/ Span 40 MHz Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 10:07:06	 RBW 300 kHz VBW 1 MHz SWT 2.5 ms Marker 1 [T1] -23.76 dBm 698.000000000 MHz Ref 30 dBm Att 35 dB Offset 14.5 dB D1 -13 dBm SWP 50 of 50 Center 698 MHz 4 MHz/ Span 40 MHz Comment: ProjectNo.:CR230740691-RF Tester:LingLing Li Date: 26.DEC.2023 10:05:27

4.12 Radiated Spurious Emissions

Serial Number:	288V-1	Test Date:	2023/8/9~2023/8/12
Test Site:	966-2,966-1	Test Mode:	Transmitting
Tester:	Vic Du, coco Tian	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	26.5~27.9	Relative Humidity: (%)	52~64	ATM Pressure: (kPa)	99.7~99.9

Test Equipment List and Details:

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

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

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								
205.68	H	53.93	-58.85	0.00	0.26	-59.11	-13.00	46.11
64.89	V	57.15	-47.20	-7.71	0.14	-55.05	-13.00	42.05
3704.800	H	35.48	-61.78	10.60	1.25	-52.43	-13.00	39.43
3704.800	V	36.79	-60.44	10.60	1.25	-51.09	-13.00	38.09
5557.200	H	34.85	-58.43	11.43	1.49	-48.49	-13.00	35.49
5557.200	V	35.13	-58.00	11.43	1.49	-48.06	-13.00	35.06
WCDMA Band II, Frequency:1880 MHz								
240.83	H	51.05	-61.03	0.00	0.29	-61.32	-13.00	48.32
62.87	V	56.89	-48.14	-8.78	0.14	-57.06	-13.00	44.06
3760.000	H	37.54	-58.87	10.66	1.24	-49.45	-13.00	36.45
3760.000	V	36.52	-59.77	10.66	1.24	-50.35	-13.00	37.35
5640.000	H	35.45	-58.00	11.33	1.54	-48.21	-13.00	35.21
5640.000	V	36.15	-57.18	11.33	1.54	-47.39	-13.00	34.39
WCDMA Band II, Frequency:1907.6MHz								
239.15	H	51.26	-60.85	0.00	0.29	-61.14	-13.00	48.14
63.31	V	57.05	-47.83	-8.54	0.14	-56.51	-13.00	43.51
3815.200	H	34.62	-61.23	10.72	1.29	-51.80	-13.00	38.80
3815.200	V	35.15	-60.54	10.72	1.29	-51.11	-13.00	38.11
5722.800	H	36.79	-56.70	11.23	1.58	-47.05	-13.00	34.05
5722.800	V	35.28	-58.07	11.23	1.58	-48.42	-13.00	35.42

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			
210.79	H	52.76	-59.92	0.00	0.26	-60.18	-13.00	47.18
63.31	V	57.03	-47.85	-8.54	0.14	-56.53	-13.00	43.53
3424.800	H	38.79	-58.98	10.37	1.17	-49.78	-13.00	36.78
3424.800	V	37.94	-59.80	10.37	1.17	-50.60	-13.00	37.60
5137.200	H	35.46	-58.16	11.28	1.46	-48.34	-13.00	35.34
5137.200	V	35.82	-57.68	11.28	1.46	-47.86	-13.00	34.86
			Frequency:	1732.6	MHz			
219.08	H	51.28	-61.23	0.00	0.27	-61.50	-13.00	48.50
63.98	V	57.48	-47.18	-8.19	0.14	-55.51	-13.00	42.51
3465.200	H	39.63	-58.18	10.39	1.15	-48.94	-13.00	35.94
3465.200	V	37.84	-59.93	10.39	1.15	-50.69	-13.00	37.69
5197.800	H	34.62	-59.51	11.32	1.44	-49.63	-13.00	36.63
5197.800	V	35.53	-58.45	11.32	1.44	-48.57	-13.00	35.57
			Frequency:	1752.6	MHz			
239.99	H	52.57	-59.53	0.00	0.29	-59.82	-13.00	46.82
63.54	V	57.18	-47.63	-8.43	0.14	-56.20	-13.00	43.20
3505.200	H	40.16	-57.67	10.41	1.18	-48.44	-13.00	35.44
3505.200	V	37.94	-59.83	10.41	1.18	-50.60	-13.00	37.60
5257.800	H	35.36	-58.37	11.35	1.47	-48.49	-13.00	35.49
5257.800	V	34.71	-58.80	11.35	1.47	-48.92	-13.00	35.92

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								
243.38	H	23.61	-57.24	0.00	0.30	-57.54	-13.00	44.54
65.34	V	26.38	-46.23	-7.47	0.14	-53.84	-13.00	40.84
1652.800	H	37.65	-66.68	8.68	0.81	-58.81	-13.00	45.81
1652.800	V	36.12	-68.29	8.68	0.81	-60.42	-13.00	47.42
2479.200	H	34.72	-66.04	9.39	1.01	-57.66	-13.00	44.66
2479.200	V	34.59	-66.14	9.39	1.01	-57.76	-13.00	44.76
3305.600	H	35.14	-61.59	10.32	1.15	-52.42	-13.00	39.42
3305.600	V	34.79	-61.71	10.32	1.15	-52.54	-13.00	39.54
WCDMA Band 5 Frequency:836.6MHz								
239.99	H	31.63	-49.26	0.00	0.29	-49.55	-13.00	36.55
64.21	V	26.58	-46.44	-8.07	0.14	-54.65	-13.00	41.65
1673.200	H	36.21	-68.10	8.71	0.85	-60.24	-13.00	47.24
1673.200	V	36.45	-67.96	8.71	0.85	-60.10	-13.00	47.10
2509.800	H	35.60	-65.01	9.42	1.01	-56.60	-13.00	43.60
2509.800	V	35.16	-65.46	9.42	1.01	-57.05	-13.00	44.05
3346.400	H	35.49	-61.68	10.34	1.16	-52.50	-13.00	39.50
3346.400	V	35.32	-61.71	10.34	1.16	-52.53	-13.00	39.53
WCDMA Band 5 Frequency:846.6MHz								
235.82	H	33.75	-47.19	0.00	0.29	-47.48	-13.00	34.48
63.31	V	26.54	-46.80	-8.54	0.14	-55.48	-13.00	42.48
1693.200	H	36.44	-67.86	8.73	0.89	-60.02	-13.00	47.02
1693.200	V	37.21	-67.21	8.73	0.89	-59.37	-13.00	46.37
2539.800	H	35.64	-64.74	9.46	1.01	-56.29	-13.00	43.29
2539.800	V	36.08	-64.26	9.46	1.01	-55.81	-13.00	42.81
3386.400	H	34.55	-63.04	10.35	1.18	-53.87	-13.00	40.87
3386.400	V	34.84	-62.70	10.35	1.18	-53.53	-13.00	40.53

LTE Bands:

(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								
236.65	H	51.37	-60.79	0.00	0.29	-61.08	-13.00	48.08
62.87	V	57.30	-47.73	-8.78	0.14	-56.65	-13.00	43.65
3701.400	H	36.54	-60.77	10.60	1.25	-51.42	-13.00	38.42
3701.400	V	37.10	-60.19	10.60	1.25	-50.84	-13.00	37.84
5552.100	H	35.49	-57.78	11.44	1.49	-47.83	-13.00	34.83
5552.100	V	38.42	-54.68	11.44	1.49	-44.73	-13.00	31.73
QPSK, 1.4MHz, Frequency:1880 MHz								
243.38	H	51.62	-60.41	0.00	0.30	-60.71	-13.00	47.71
63.98	V	57.22	-47.44	-8.19	0.14	-55.77	-13.00	42.77
3760.000	H	35.48	-60.93	10.66	1.24	-51.51	-13.00	38.51
3760.000	V	37.69	-58.60	10.66	1.24	-49.18	-13.00	36.18
5640.000	H	37.65	-55.80	11.33	1.54	-46.01	-13.00	33.01
5640.000	V	40.12	-53.21	11.33	1.54	-43.42	-13.00	30.42
QPSK, 1.4MHz, Frequency:1909.3 MHz								
204.24	H	52.05	-60.76	0.00	0.26	-61.02	-13.00	48.02
64.21	V	56.65	-47.93	-8.07	0.14	-56.14	-13.00	43.14
3818.600	H	35.96	-59.90	10.72	1.29	-50.47	-13.00	37.47
3818.600	V	37.12	-58.59	10.72	1.29	-49.16	-13.00	36.16
5727.900	H	38.41	-55.07	11.23	1.59	-45.43	-13.00	32.43
5727.900	V	36.64	-56.72	11.23	1.59	-47.08	-13.00	34.08

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								
239.15	H	52.32	-59.79	0.00	0.29	-60.08	-13.00	47.08
62.43	V	57.76	-47.42	-9.01	0.14	-56.57	-13.00	43.57
3421.400	H	47.41	-50.35	10.37	1.17	-41.15	-13.00	28.15
3421.400	V	45.38	-52.35	10.37	1.17	-43.15	-13.00	30.15
5132.100	H	35.62	-57.95	11.28	1.47	-48.14	-13.00	35.14
5132.100	V	34.71	-58.75	11.28	1.47	-48.94	-13.00	35.94
1.4MHz QPSK, Frequency: 1732.5 MHz								
209.31	H	52.37	-60.34	0.00	0.26	-60.60	-13.00	47.60
64.43	V	57.88	-46.62	-7.95	0.14	-54.71	-13.00	41.71
3465.000	H	46.87	-50.94	10.39	1.15	-41.70	-13.00	28.70
3465.000	V	42.88	-54.89	10.39	1.15	-45.65	-13.00	32.65
5197.500	H	34.67	-59.46	11.32	1.44	-49.58	-13.00	36.58
5197.500	V	35.16	-58.82	11.32	1.44	-48.94	-13.00	35.94
1.4MHz QPSK, Frequency: 1754.3 MHz								
239.15	H	55.83	-56.28	0.00	0.29	-56.57	-13.00	43.57
63.31	V	58.43	-46.45	-8.54	0.14	-55.13	-13.00	42.13
3508.600	H	44.53	-53.29	10.41	1.19	-44.07	-13.00	31.07
3508.600	V	40.75	-57.01	10.41	1.19	-47.79	-13.00	34.79
5262.900	H	36.49	-57.21	11.36	1.47	-47.32	-13.00	34.32
5262.900	V	35.42	-58.05	11.36	1.47	-48.16	-13.00	35.16

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								
240.83	H	25.30	-55.58	0.00	0.29	-55.87	-13.00	42.87
63.31	V	26.63	-46.71	-8.54	0.14	-55.39	-13.00	42.39
1649.400	H	38.66	-65.67	8.68	0.80	-57.79	-13.00	44.79
1649.400	V	37.51	-66.90	8.68	0.80	-59.02	-13.00	46.02
2474.100	H	34.65	-66.13	9.38	1.00	-57.75	-13.00	44.75
2474.100	V	37.28	-63.45	9.38	1.00	-55.07	-13.00	42.07
3298.800	H	34.79	-61.89	10.32	1.15	-52.72	-13.00	39.72
3298.800	V	35.07	-61.37	10.32	1.15	-52.20	-13.00	39.20
QPSK, 1.4MHz, Frequency: 836.5 MHz								
239.93	H	26.31	-54.58	0.00	0.29	-54.87	-13.00	41.87
63.54	V	26.83	-46.43	-8.43	0.14	-55.00	-13.00	42.00
1673.000	H	36.54	-67.77	8.71	0.85	-59.91	-13.00	46.91
1673.000	V	35.64	-68.77	8.71	0.85	-60.91	-13.00	47.91
2509.500	H	35.29	-65.32	9.42	1.01	-56.91	-13.00	43.91
2509.500	V	34.79	-65.83	9.42	1.01	-57.42	-13.00	44.42
3346.000	H	35.12	-62.04	10.34	1.16	-52.86	-13.00	39.86
3346.000	V	34.65	-62.37	10.34	1.16	-53.19	-13.00	40.19
QPSK, 1.4MHz, Frequency: 848.3 MHz								
240.83	H	23.66	-57.22	0.00	0.29	-57.51	-13.00	44.51
63.98	V	26.37	-46.73	-8.19	0.14	-55.06	-13.00	42.06
1696.600	H	37.64	-66.65	8.74	0.89	-58.80	-13.00	45.80
1696.600	V	35.97	-68.45	8.74	0.89	-60.60	-13.00	47.60
2544.900	H	35.26	-65.08	9.47	1.01	-56.62	-13.00	43.62
2544.900	V	34.79	-65.51	9.47	1.01	-57.05	-13.00	44.05
3393.200	H	35.11	-62.56	10.36	1.19	-53.39	-13.00	40.39
3393.200	V	34.69	-62.94	10.36	1.19	-53.77	-13.00	40.77

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								
417.64	H	24.57	-52.94	0.00	0.39	-53.33	-13.00	40.33
65.34	V	25.87	-46.74	-7.47	0.14	-54.35	-13.00	41.35
1413.000	H	48.65	-55.02	8.26	0.72	-47.48	-13.00	34.48
1413.000	V	43.67	-60.05	8.26	0.72	-52.51	-13.00	39.51
2119.500	H	35.26	-66.71	9.17	0.92	-58.46	-13.00	45.46
2119.500	V	34.69	-67.26	9.17	0.92	-59.01	-13.00	46.01
2826.000	H	34.65	-65.16	9.92	1.06	-56.30	-13.00	43.30
2826.000	V	35.02	-64.72	9.92	1.06	-55.86	-13.00	42.86
QPSK, 5MHz, Frequency:710 MHz								
236.64	H	23.99	-56.94	0.00	0.29	-57.23	-13.00	44.23
64.21	V	25.85	-47.17	-8.07	0.14	-55.38	-13.00	42.38
1420.000	H	42.67	-60.99	8.28	0.73	-53.44	-13.00	40.44
1420.000	V	40.29	-63.42	8.28	0.73	-55.87	-13.00	42.87
2130.000	H	34.67	-67.35	9.18	0.92	-59.09	-13.00	46.09
2130.000	V	35.32	-66.69	9.18	0.92	-58.43	-13.00	45.43
2840.000	H	34.73	-65.02	9.94	1.06	-56.14	-13.00	43.14
2840.000	V	34.85	-64.86	9.94	1.06	-55.98	-13.00	42.98
QPSK, 5MHz, Frequency: 713.5 MHz								
206.40	H	23.98	-57.30	0.00	0.26	-57.56	-13.00	44.56
63.09	V	26.26	-47.16	-8.66	0.14	-55.96	-13.00	42.96
1427.000	H	45.36	-58.28	8.30	0.73	-50.71	-13.00	37.71
1427.000	V	41.51	-62.18	8.30	0.73	-54.61	-13.00	41.61
2140.500	H	35.64	-66.43	9.18	0.93	-58.18	-13.00	45.18
2140.500	V	35.43	-66.65	9.18	0.93	-58.40	-13.00	45.40
2854.000	H	34.78	-64.91	9.97	1.07	-56.01	-13.00	43.01
2854.000	V	34.93	-64.75	9.97	1.07	-55.85	-13.00	42.85

LTE Band 25: (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: 1850.7 MHz								
239.15	H	58.08	-54.03	0.00	0.29	-54.32	-13.00	41.32
63.09	V	56.88	-48.08	-8.66	0.14	-56.88	-13.00	43.88
3700.800	H	37.59	-59.73	10.60	1.25	-50.38	-13.00	37.38
3700.800	V	36.41	-60.89	10.60	1.25	-51.54	-13.00	38.54
5551.200	H	35.43	-57.83	11.44	1.49	-47.88	-13.00	34.88
5551.200	V	34.29	-58.81	11.44	1.49	-48.86	-13.00	35.86
1.4MHz QPSK, Frequency: 1882.5 MHz								
234.17	H	52.95	-59.26	0.00	0.29	-59.55	-13.00	46.55
64.21	V	57.15	-47.43	-8.07	0.14	-55.64	-13.00	42.64
3765.000	H	37.65	-58.68	10.67	1.25	-49.26	-13.00	36.26
3765.000	V	36.53	-59.68	10.67	1.25	-50.26	-13.00	37.26
5647.500	H	35.62	-57.83	11.32	1.55	-48.06	-13.00	35.06
5647.500	V	34.71	-58.62	11.32	1.55	-48.85	-13.00	35.85
1.4MHz QPSK, Frequency: 1914.3 MHz								
235.81	H	52.01	-60.17	0.00	0.29	-60.46	-13.00	47.46
63.76	V	57.09	-47.64	-8.31	0.14	-56.09	-13.00	43.09
3828.600	H	37.98	-57.92	10.73	1.28	-48.47	-13.00	35.47
3828.600	V	36.24	-59.53	10.73	1.28	-50.08	-13.00	37.08
5742.900	H	35.40	-58.08	11.21	1.60	-48.47	-13.00	35.47
5742.900	V	34.79	-58.57	11.21	1.60	-48.96	-13.00	35.96

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: 2498.5 MHz								
236.64	H	51.54	-60.62	0.00	0.29	-60.91	-25.00	35.91
62.21	V	57.15	-48.11	-9.13	0.14	-57.38	-25.00	32.38
4992.000	H	49.65	-43.28	11.19	1.48	-33.57	-25.00	8.57
4992.000	V	50.16	-42.65	11.19	1.48	-32.94	-25.00	7.94
7488.000	H	34.79	-54.96	10.91	1.94	-45.99	-25.00	20.99
7488.000	V	35.26	-55.00	10.91	1.94	-46.03	-25.00	21.03
5MHz QPSK, Frequency: 2593 MHz								
239.15	H	51.01	-61.10	0.00	0.29	-61.39	-25.00	36.39
64.21	V	56.86	-47.72	-8.07	0.14	-55.93	-25.00	30.93
5186.000	H	50.13	-43.90	11.31	1.44	-34.03	-25.00	9.03
5186.000	V	53.50	-40.39	11.31	1.44	-30.52	-25.00	5.52
7779.000	H	35.26	-54.23	10.84	1.99	-45.38	-25.00	20.38
7779.000	V	34.72	-55.22	10.84	1.99	-46.37	-25.00	21.37
5MHz QPSK, Frequency: 2687.5 MHz								
240.83	H	49.99	-62.09	0.00	0.29	-62.38	-25.00	37.38
63.31	V	57.30	-47.58	-8.54	0.14	-56.26	-25.00	31.26
5380.000	H	52.37	-41.15	11.43	1.49	-31.21	-25.00	6.21
5380.000	V	53.63	-39.89	11.43	1.49	-29.95	-25.00	4.95
8070.000	H	34.59	-53.65	10.81	2.10	-44.94	-25.00	19.94
8070.000	V	34.75	-53.99	10.81	2.10	-45.28	-25.00	20.28

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								
236.64	H	52.22	-59.94	0.00	0.29	-60.23	-13.00	47.23
63.31	V	57.10	-47.78	-8.54	0.14	-56.46	-13.00	43.46
3421.400	H	43.67	-54.09	10.37	1.17	-44.89	-13.00	31.89
3421.400	V	40.18	-57.55	10.37	1.17	-48.35	-13.00	35.35
5132.100	H	39.54	-54.03	11.28	1.47	-44.22	-13.00	31.22
5132.100	V	37.89	-55.57	11.28	1.47	-45.76	-13.00	32.76
1.4MHz QPSK, Frequency: 1745 MHz								
240.83	H	52.82	-59.26	0.00	0.29	-59.55	-13.00	46.55
63.98	V	58.10	-46.56	-8.19	0.14	-54.89	-13.00	41.89
3490.000	H	42.46	-55.38	10.40	1.17	-46.15	-13.00	33.15
3490.000	V	46.35	-51.43	10.40	1.17	-42.20	-13.00	29.20
5235.000	H	40.35	-53.55	11.34	1.46	-43.67	-13.00	30.67
5235.000	V	37.42	-56.29	11.34	1.46	-46.41	-13.00	33.41
1.4MHz QPSK, Frequency: 1779.3 MHz								
216.02	H	51.65	-60.92	0.00	0.27	-61.19	-13.00	48.19
63.76	V	57.00	-47.73	-8.31	0.14	-56.18	-13.00	43.18
3558.600	H	41.79	-55.88	10.46	1.22	-46.64	-13.00	33.64
3558.600	V	39.88	-57.69	10.46	1.22	-48.45	-13.00	35.45
5337.900	H	37.64	-55.83	11.40	1.47	-45.90	-13.00	32.90
5337.900	V	36.51	-56.82	11.40	1.47	-46.89	-13.00	33.89

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								
239.26	H	24.68	-56.22	0.00	0.29	-56.51	-13.00	43.51
64.28	V	25.84	-47.15	-8.03	0.14	-55.32	-13.00	42.32
1331.000	H	45.67	-57.36	8.03	0.76	-50.09	-13.00	37.09
1331.000	V	42.08	-61.28	8.03	0.76	-54.01	-13.00	41.01
1996.500	H	34.97	-67.19	9.10	0.89	-58.98	-13.00	45.98
1996.500	V	35.09	-66.45	9.10	0.89	-58.24	-13.00	45.24
2662.000	H	34.23	-65.73	9.66	1.06	-57.13	-13.00	44.13
2662.000	V	34.06	-65.82	9.66	1.06	-57.22	-13.00	44.22
5MHz QPSK, Frequency: 680.5 MHz								
240.51	H	25.08	-55.80	0.00	0.29	-56.09	-13.00	43.09
64.37	V	25.62	-47.34	-7.98	0.14	-55.46	-13.00	42.46
1361.000	H	40.67	-62.66	8.11	0.77	-55.32	-13.00	42.32
1361.000	V	39.89	-63.64	8.11	0.77	-56.30	-13.00	43.30
2041.500	H	35.84	-66.19	9.12	0.91	-57.98	-13.00	44.98
2041.500	V	35.32	-66.32	9.12	0.91	-58.11	-13.00	45.11
2722.000	H	35.64	-64.33	9.76	1.05	-55.62	-13.00	42.62
2722.000	V	34.29	-65.62	9.76	1.05	-56.91	-13.00	43.91
5MHz QPSK, Frequency: 695.5 MHz								
240.16	H	24.93	-55.96	0.00	0.29	-56.25	-13.00	43.25
64.15	V	25.46	-47.58	-8.10	0.14	-55.82	-13.00	42.82
1391.000	H	42.65	-60.97	8.19	0.72	-53.50	-13.00	40.50
1391.000	V	41.35	-62.35	8.19	0.72	-54.88	-13.00	41.88
2086.500	H	36.42	-65.49	9.15	0.91	-57.25	-13.00	44.25
2086.500	V	35.17	-66.62	9.15	0.91	-58.38	-13.00	45.38
2782.000	H	34.65	-65.29	9.85	1.05	-56.49	-13.00	43.49
2782.000	V	34.73	-65.10	9.85	1.05	-56.30	-13.00	43.30

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 CR230740691-EXP EUT EXTERNAL PHOTOGRAPHS and CR230740691-INP EUT INTERNAL PHOTOGRAPHS

6. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR230740691-00E-TSP TEST SETUP PHOTOGRAPHS.

******* END OF REPORT *******