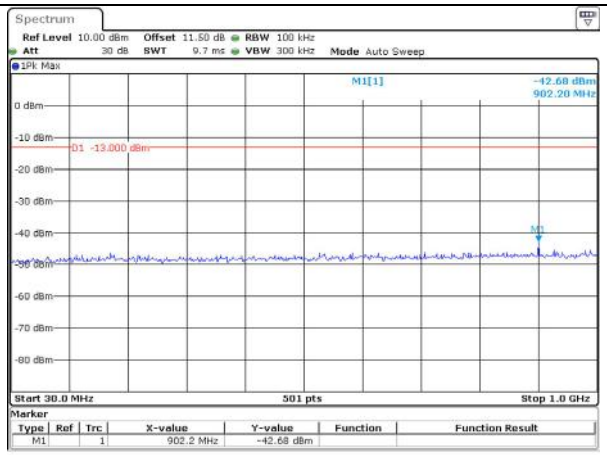
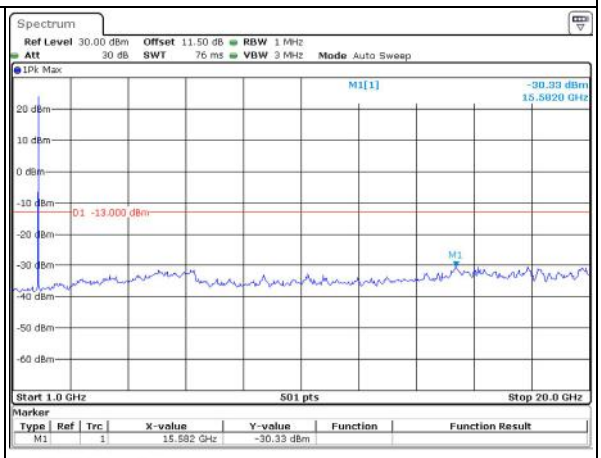
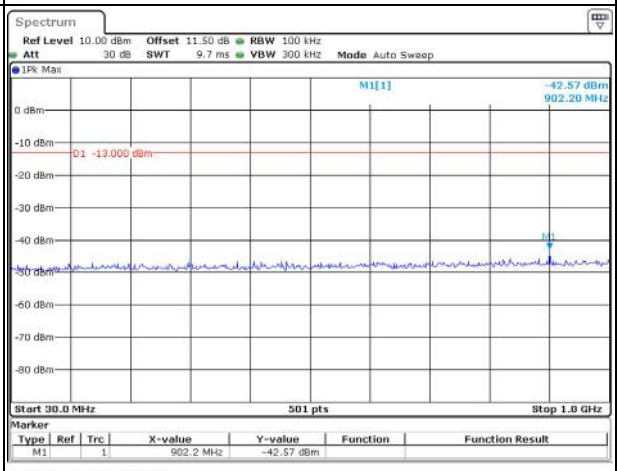
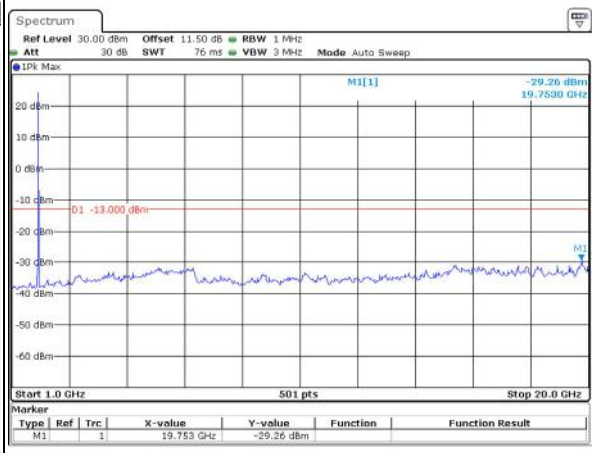
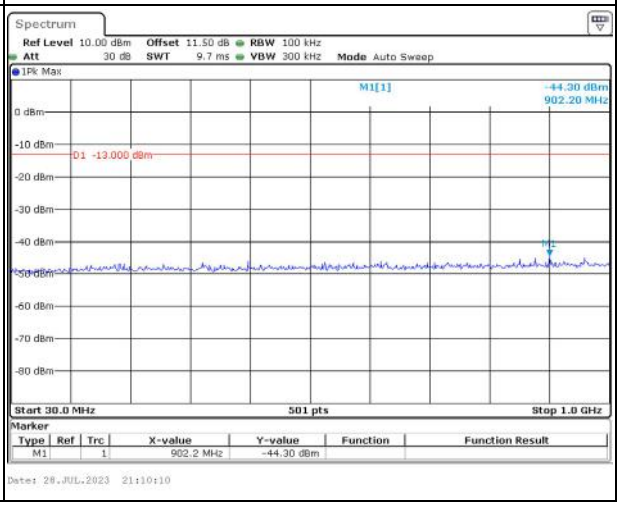
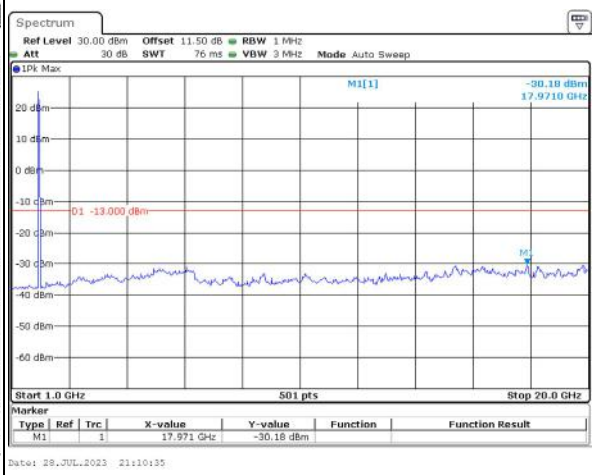
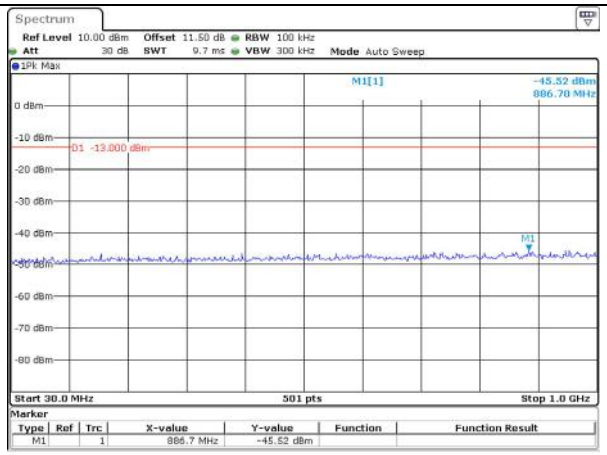
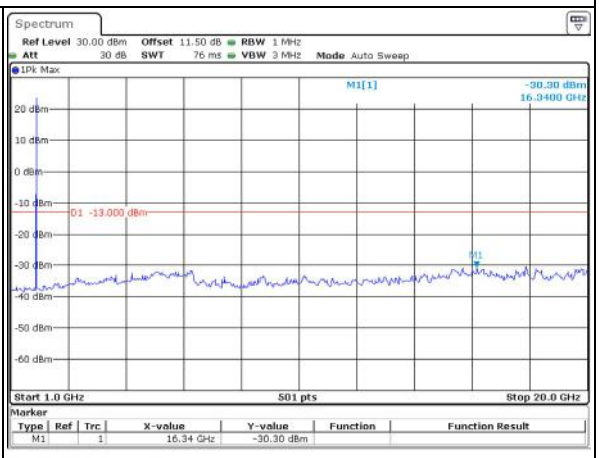
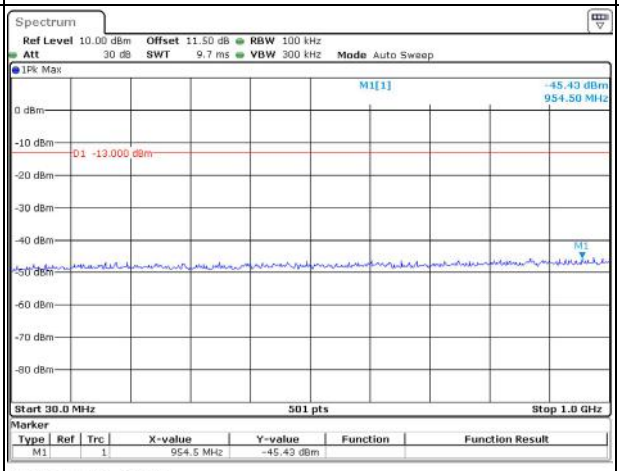
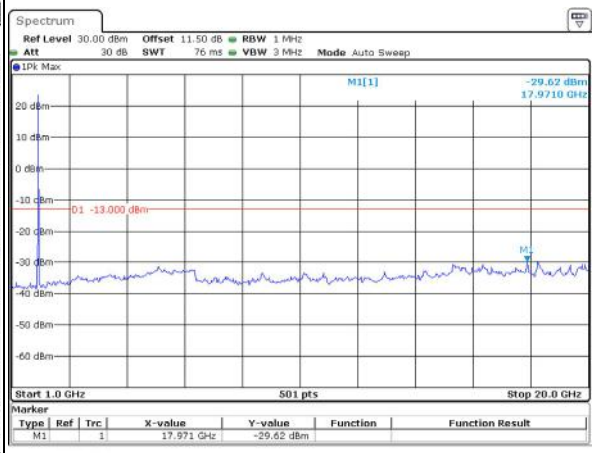
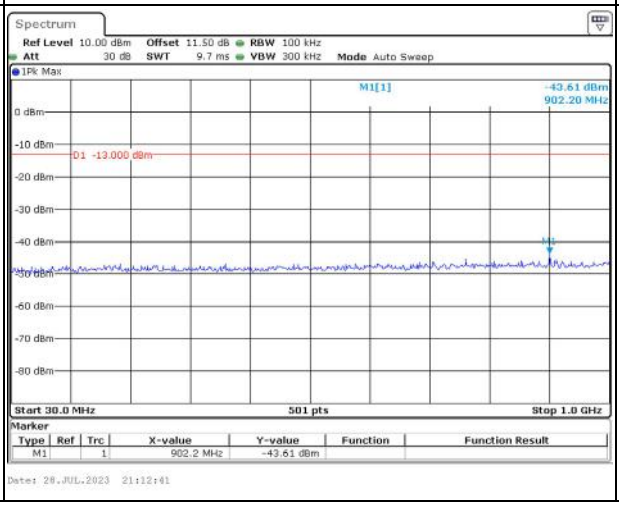
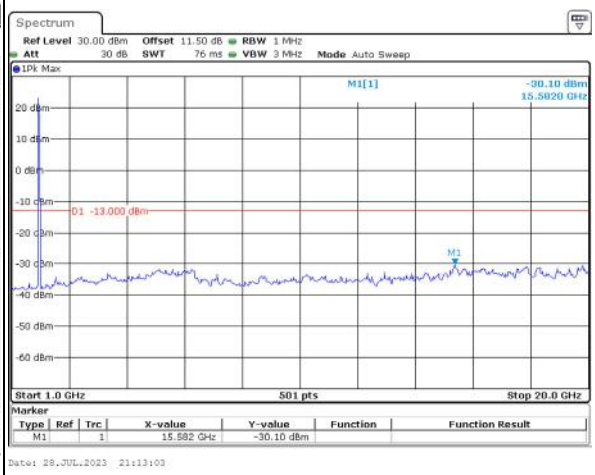
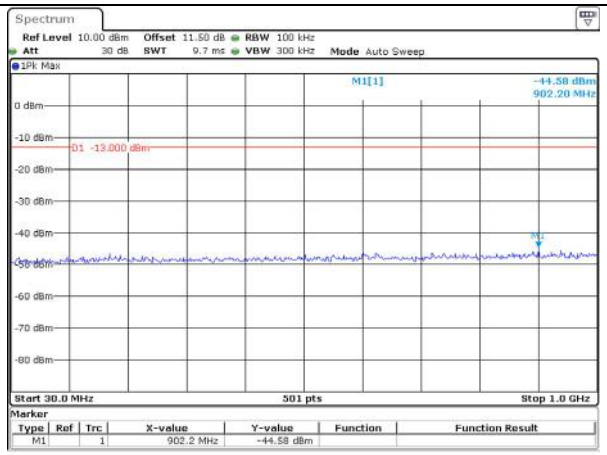
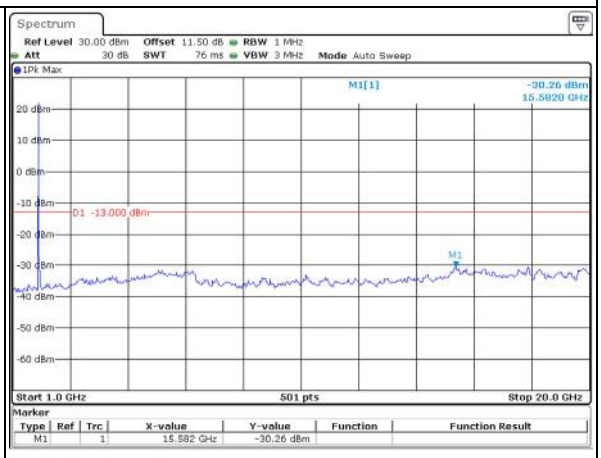
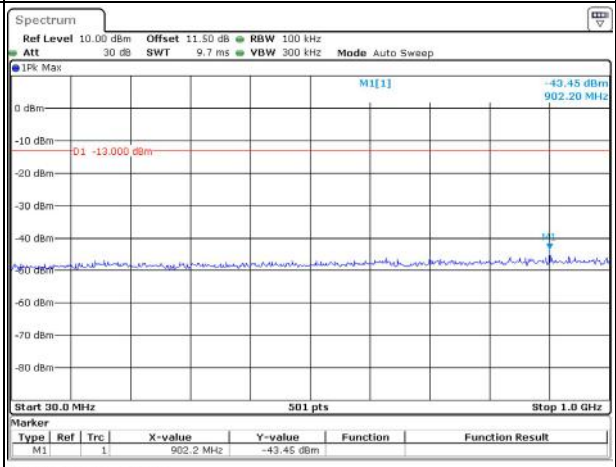
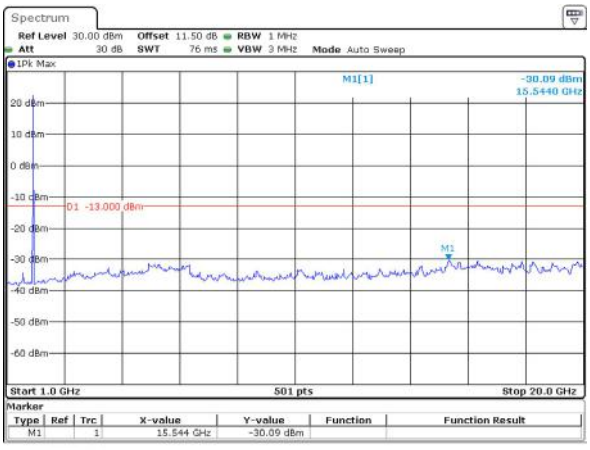
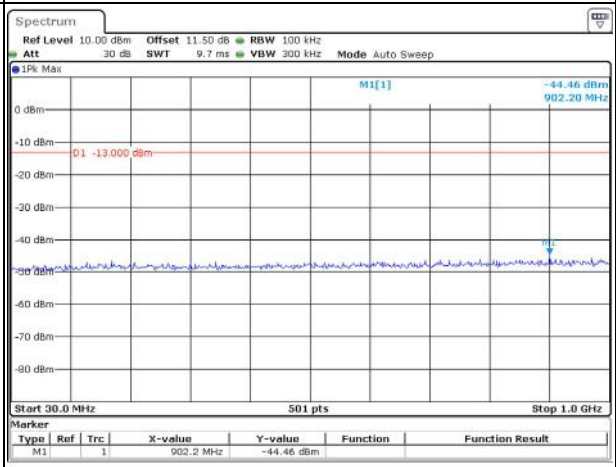
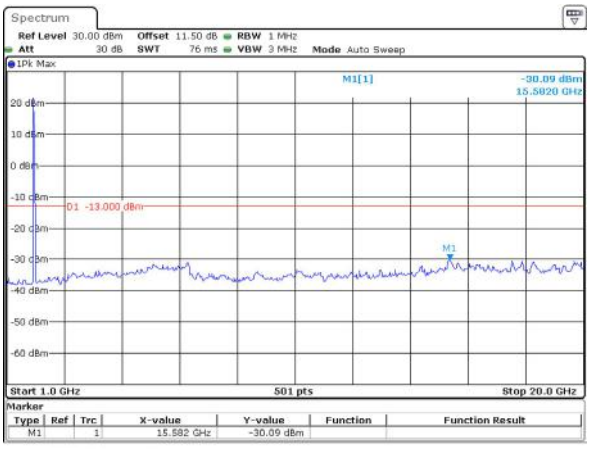
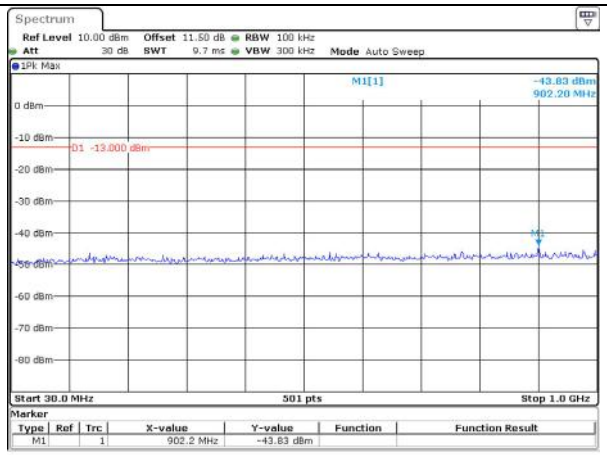
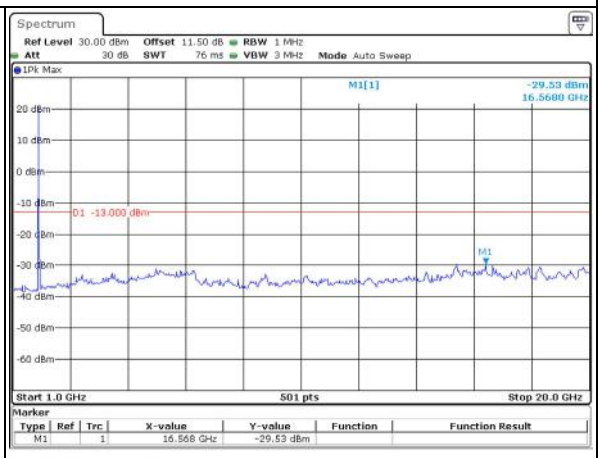
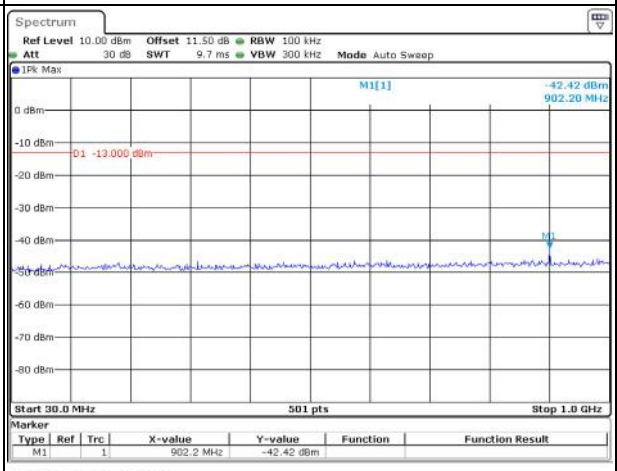
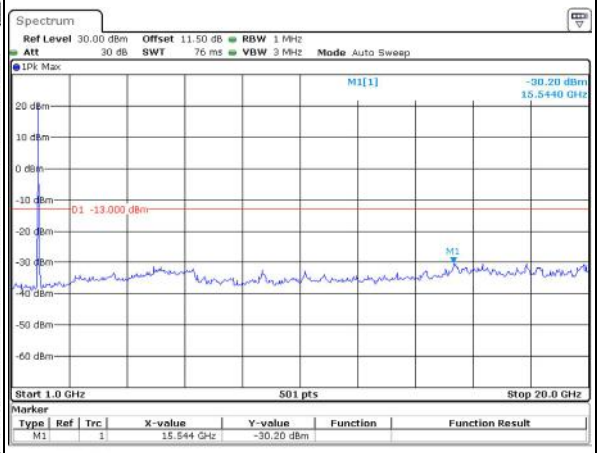
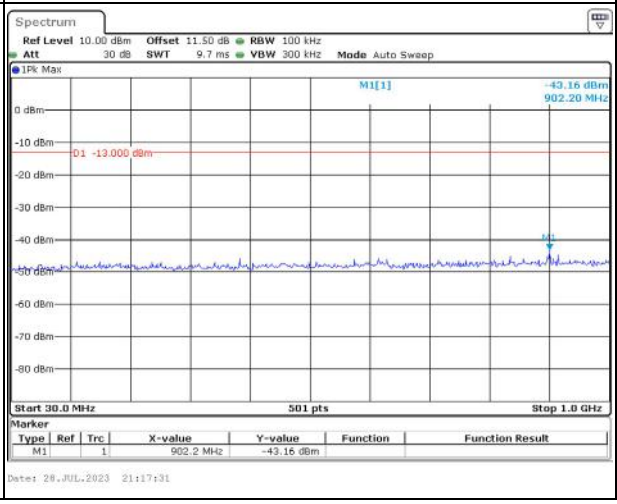
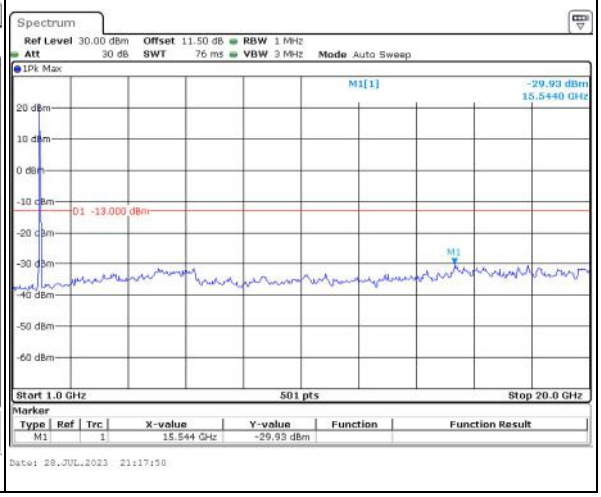
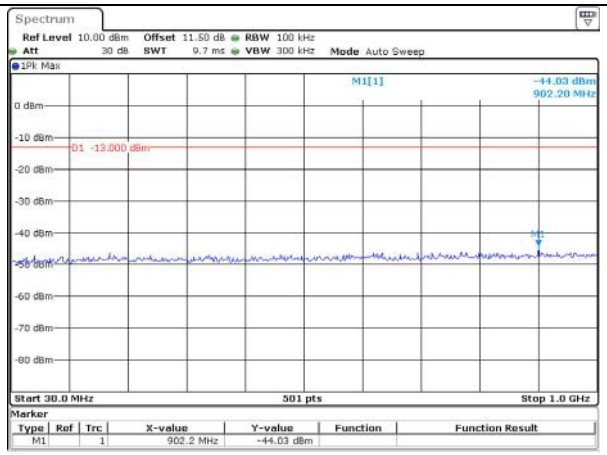
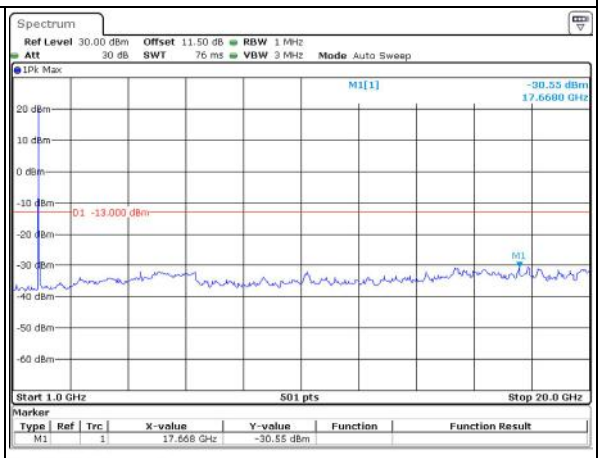
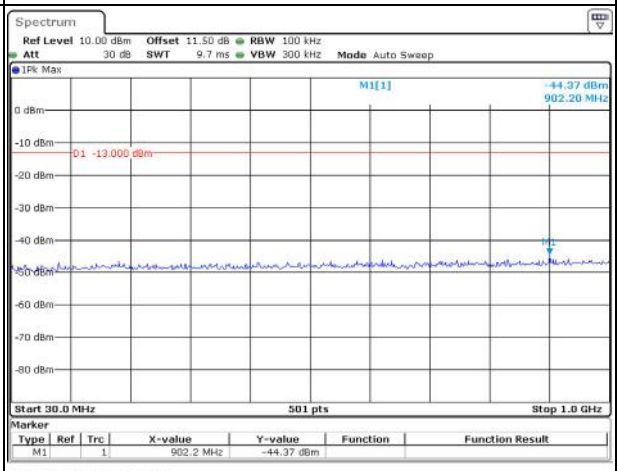
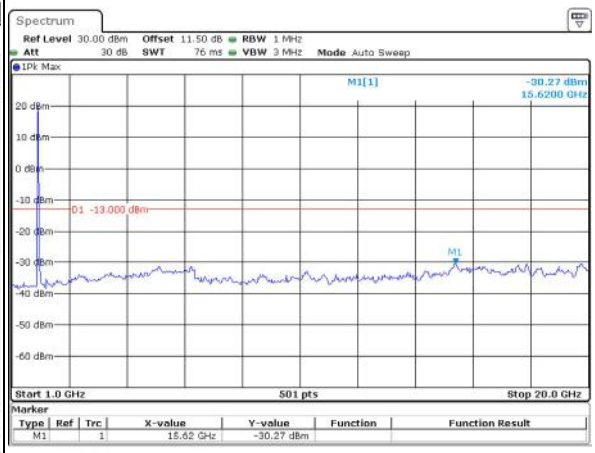
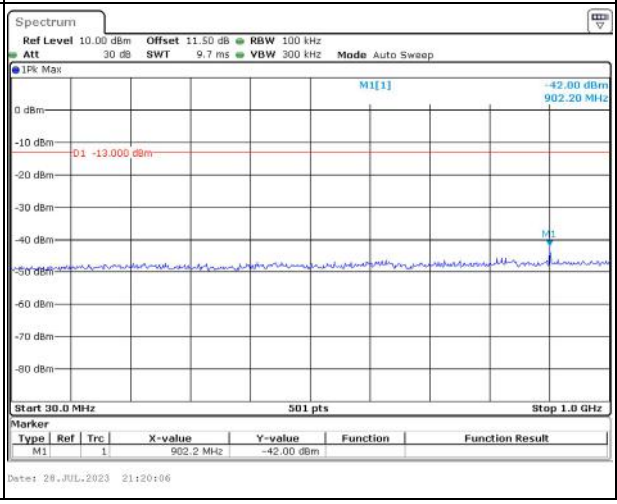
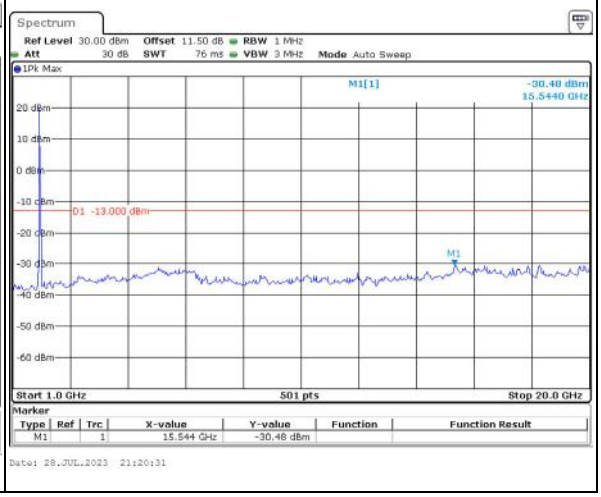
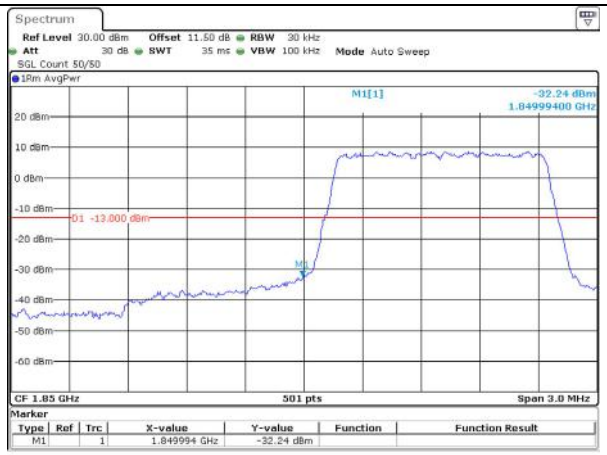
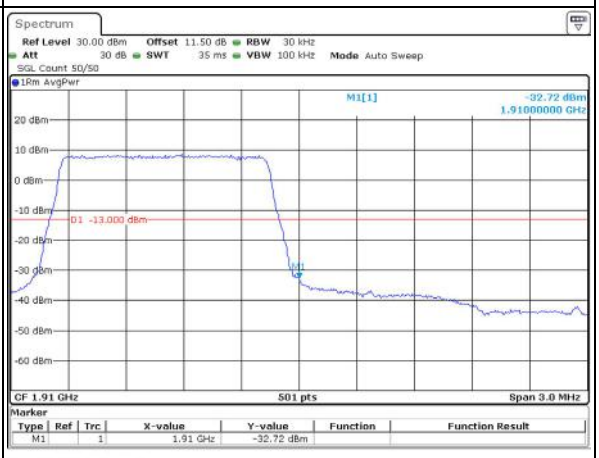
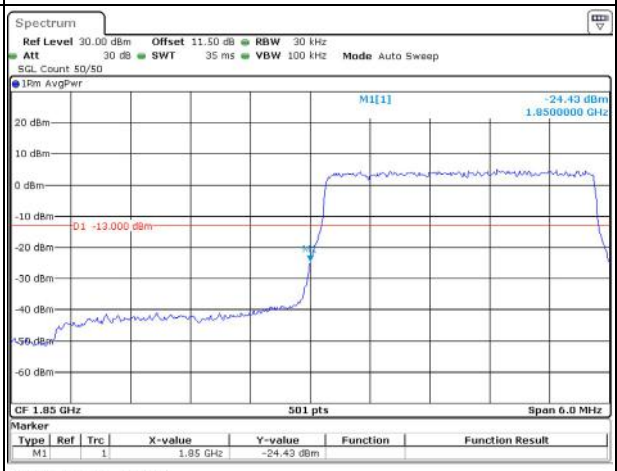
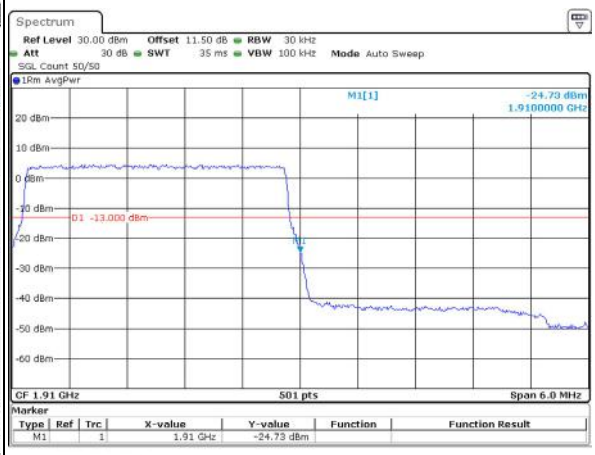
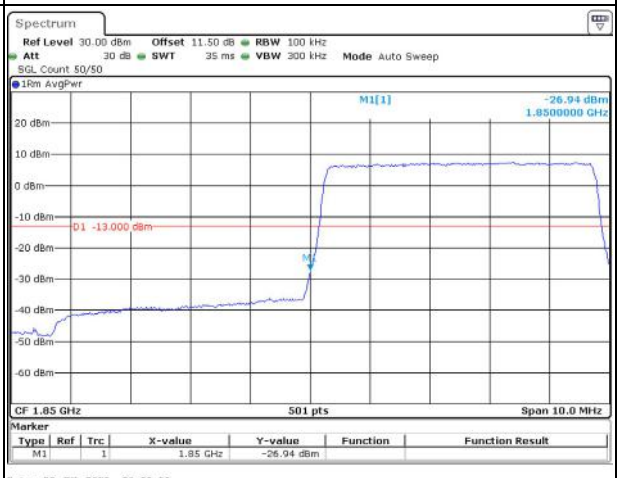
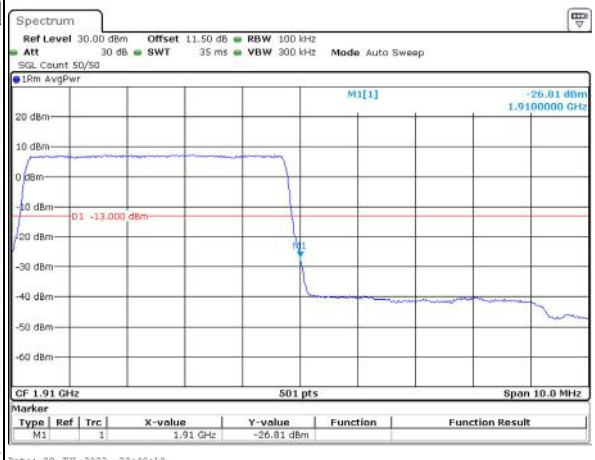
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

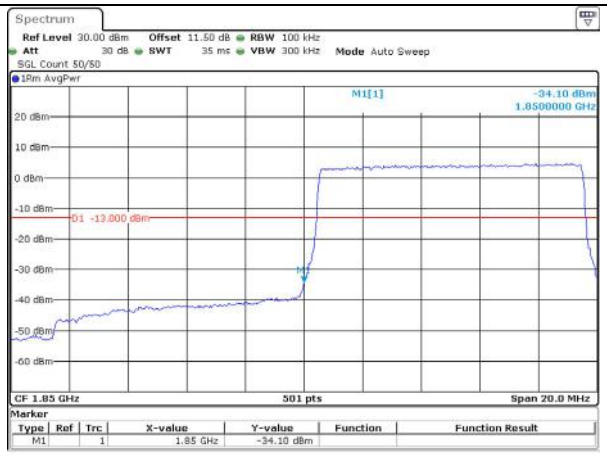
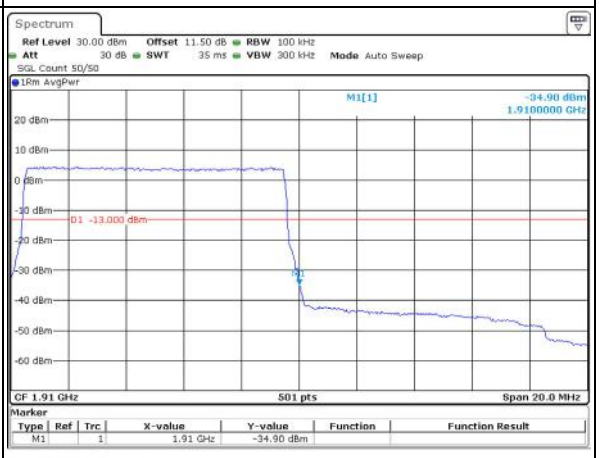
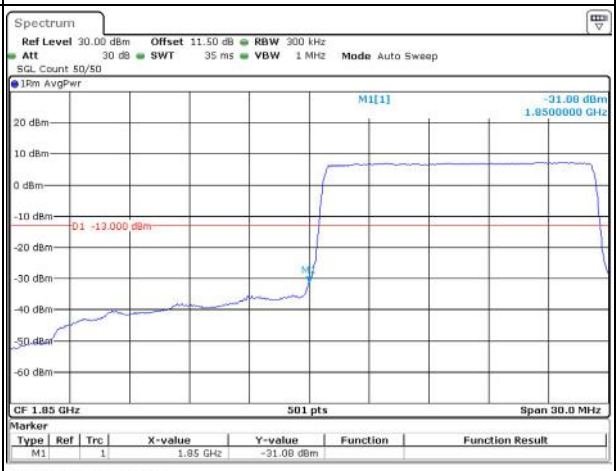
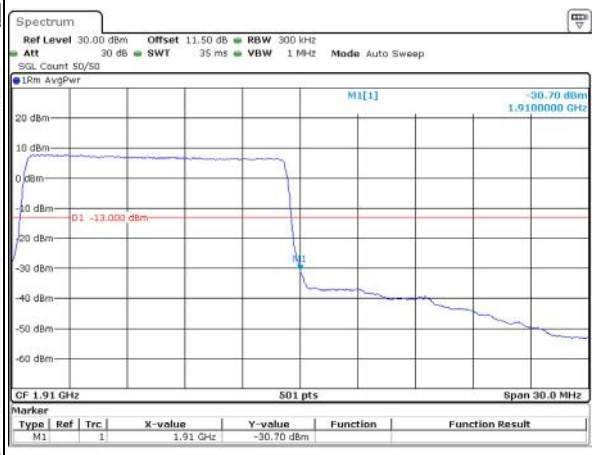
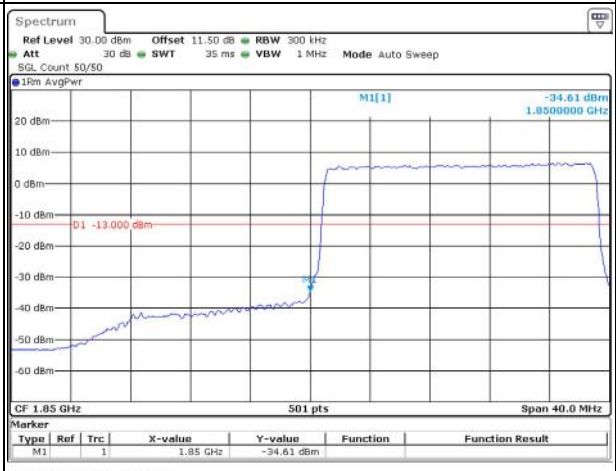
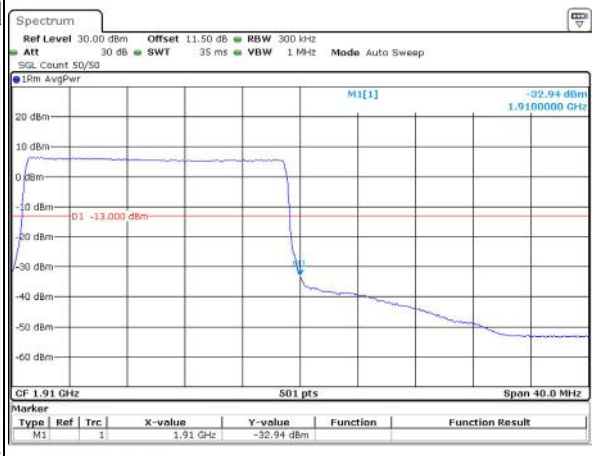
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

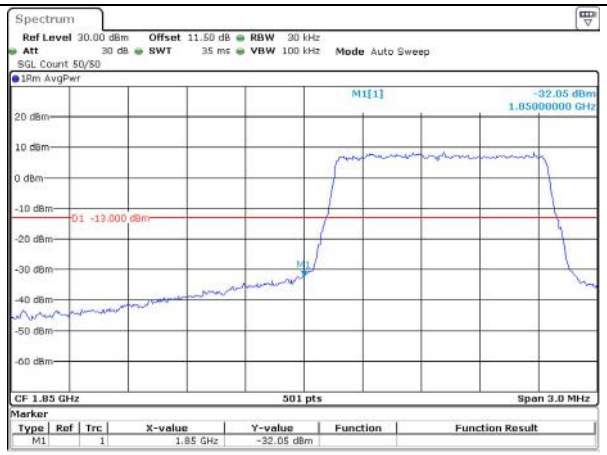
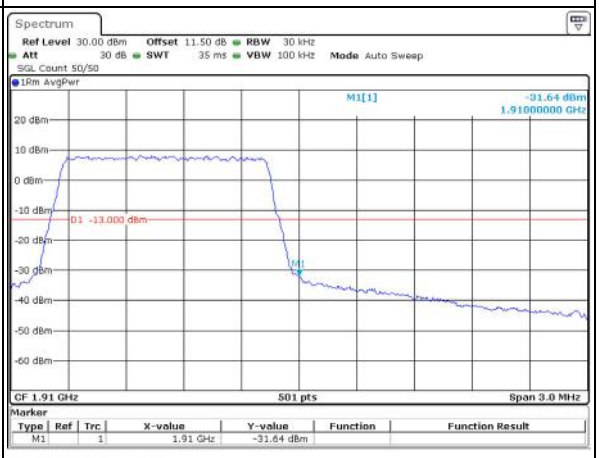
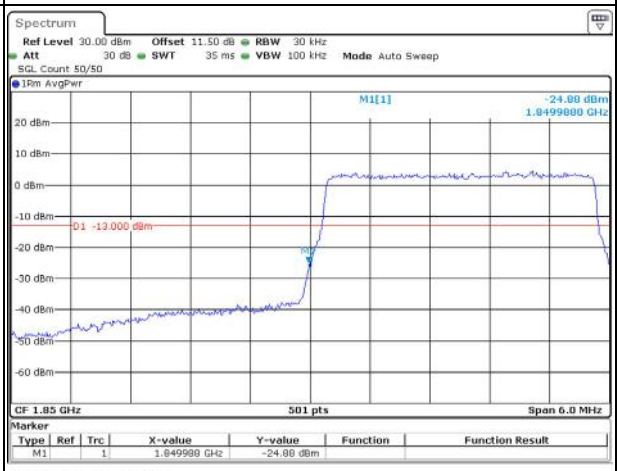
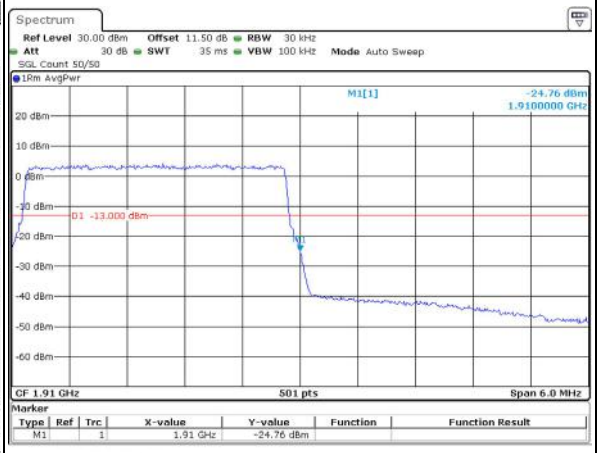
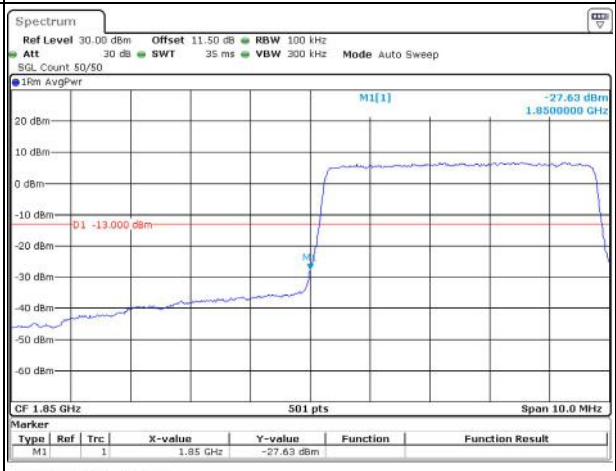
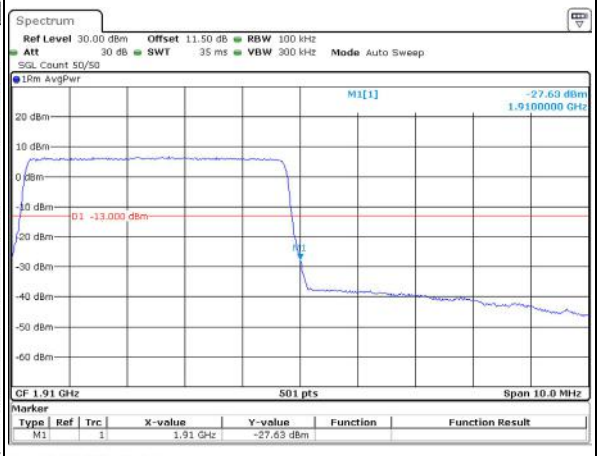
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

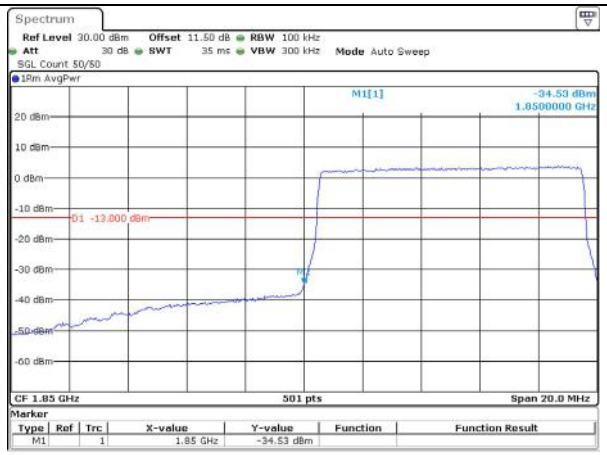
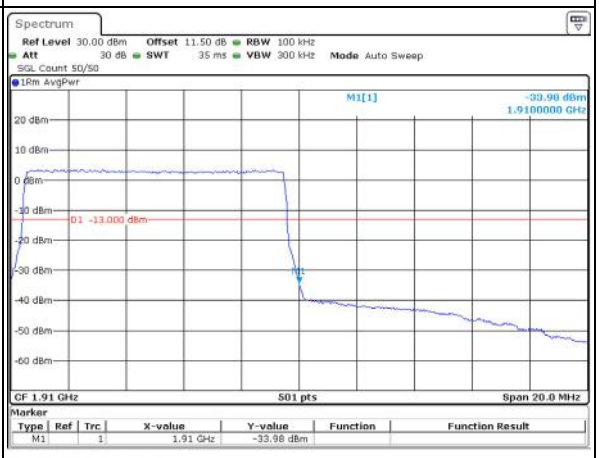
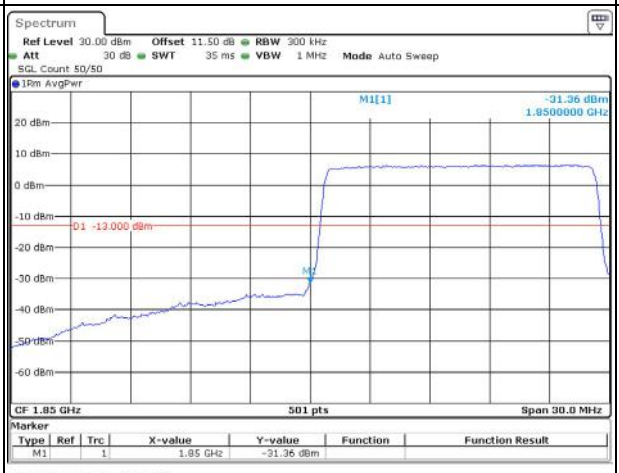
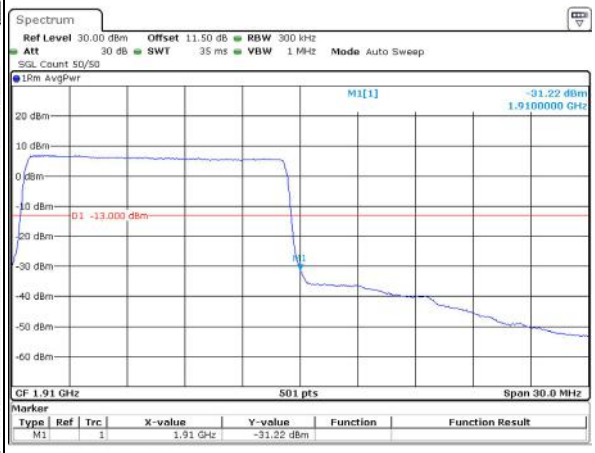
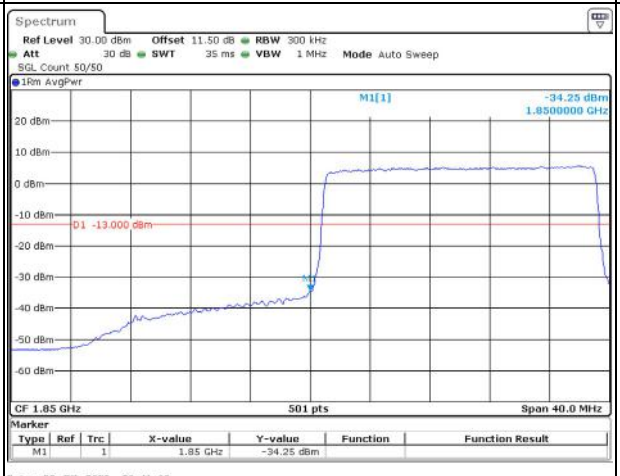
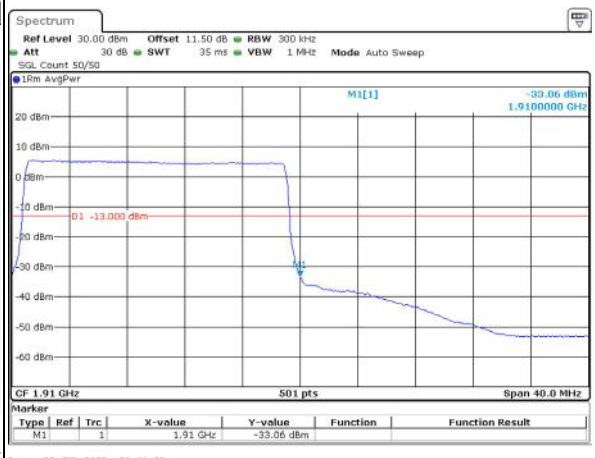
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

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 5MHz		

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

4.7 Antenna Port Test Data and Results for LTE Band 4

Serial Number:	28O3-4	Test Date:	2023/7/28-2023/7/31
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.6	Relative Humidity: (%)	64	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40-N	102259	2023/4/18	2024/4/17
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

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

Test Frequency for Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1710.7	1732.5	1754.3
3MHz	1711.5	1732.5	1753.5
5MHz	1712.5	1732.5	1752.5
10MHz	1715	1732.5	1750
15MHz	1717.5	1732.5	1747.5
20MHz	1720	1732.5	1745

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	21.96	21.86	22.12	23.72	30
	RB1#3	21.98	21.82	22.09		
	RB1#5	21.91	21.81	22.08		
	RB3#0	22	21.99	21.98		
	RB3#3	22.05	22.06	21.98		
	RB6#0	21.02	20.98	20.8		
1.4MHz 16QAM	RB1#0	20.76	20.73	20.65	22.88	30
	RB1#3	20.84	20.72	20.49		
	RB1#5	20.81	20.7	20.49		
	RB3#0	21.27	21.09	20.66		
	RB3#3	21.28	21.07	20.54		
	RB6#0	20.39	20.23	20.34		
3MHz QPSK	RB1#0	21.96	21.81	21.78	23.56	30
	RB1#8	21.9	21.76	21.8		
	RB1#14	21.91	21.76	21.76		
	RB6#0	21.16	20.96	20.97		
	RB6#9	20.98	20.89	20.84		
	RB15#0	21.21	20.86	20.88		
3MHz 16QAM	RB1#0	20.88	21.14	21.49	23.13	30
	RB1#8	20.83	21.09	21.53		
	RB1#14	20.74	21.07	21.48		
	RB6#0	20.41	20.31	19.89		
	RB6#9	20.22	20.16	20.19		
	RB15#0	20.31	20.09	19.98		
5MHz QPSK	RB1#0	22.09	21.93	21.83	23.69	30
	RB1#13	22.03	21.91	21.82		
	RB1#24	21.98	21.83	21.85		
	RB15#0	21.08	20.98	20.84		
	RB15#10	21.02	21	20.85		
	RB25#0	20.95	20.93	20.91		
5MHz 16QAM	RB1#0	21.23	20.69	20.37	22.83	30
	RB1#13	21.07	20.64	20.5		
	RB1#24	21.1	20.81	20.44		
	RB15#0	20.17	20.33	19.96		
	RB15#10	19.97	20.04	19.97		
	RB25#0	20.08	19.97	19.83		

10MHz QPSK	RB1#0	22.1	21.93	21.75	23.7	30
	RB1#25	22	21.9	21.81		
	RB1#49	22.09	21.95	21.84		
	RB25#0	20.97	20.99	20.9		
	RB25#25	20.98	20.93	20.82		
	RB50#0	21.02	20.98	20.9		
10MHz 16QAM	RB1#0	21.23	20.43	21.28	22.88	30
	RB1#25	21.11	20.4	21.16		
	RB1#49	21.07	20.39	21.16		
	RB25#0	20.12	20.43	20.17		
	RB25#25	20.35	20.07	19.91		
	RB50#0	20.1	20.11	19.89		
15MHz QPSK	RB1#0	22.16	21.88	21.85	23.76	30
	RB1#38	22.11	21.84	21.85		
	RB1#74	22.07	21.78	21.85		
	RB36#0	20.87	20.96	20.99		
	RB36#39	20.92	20.87	20.84		
	RB75#0	20.95	20.99	20.75		
15MHz 16QAM	RB1#0	21.28	21.34	21.15	22.94	30
	RB1#38	21.12	21.22	21.1		
	RB1#74	21.14	21.21	21.09		
	RB36#0	20.07	19.99	20.39		
	RB36#39	20.06	19.97	20.02		
	RB75#0	20.39	20.05	20.29		
20MHz QPSK	RB1#0	22.04	21.95	22.1	23.74	30
	RB1#50	21.97	21.9	22.09		
	RB1#99	21.93	21.96	22.14		
	RB50#0	20.96	21.02	20.81		
	RB50#50	21.05	21.08	20.95		
	RB100#0	20.9	20.97	20.95		
20MHz 16QAM	RB1#0	21.51	21.85	20.59	23.45	30
	RB1#50	21.27	21.7	20.66		
	RB1#99	21.32	21.64	20.58		
	RB50#0	20.11	20.29	20.03		
	RB50#50	20.16	20.02	19.92		
	RB100#0	20	20.16	20.28		
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	4.99	5.33	5.22	13
	RB100#0	4.17	4.17	4.17	13
20MHz 16QAM	RB1#0	5.77	6.17	6.43	13
	RB100#0	5.8	5.8	5.71	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	1.102	1.096	1.096	1.260	1.254	1.260
1.4MHz 16QAM	1.102	1.102	1.090	1.260	1.260	1.248
3MHz QPSK	2.695	2.695	2.695	3.000	3.012	3.000
3MHz 16QAM	2.683	2.683	2.695	3.012	3.024	3.012
5MHz QPSK	4.511	4.511	4.511	5.000	4.980	5.000
5MHz 16QAM	4.531	4.531	4.511	5.020	5.040	5.000
10MHz QPSK	8.942	8.942	8.942	9.720	9.800	9.800
10MHz 16QAM	8.982	8.942	8.942	9.800	9.800	9.840
15MHz QPSK	13.473	13.533	13.533	15.000	15.120	15.000
15MHz 16QAM	13.533	13.533	13.533	15.000	15.000	14.940
20MHz QPSK	17.964	17.964	17.964	19.680	19.600	19.600
20MHz 16QAM	17.964	17.964	18.044	19.760	19.600	19.920
Note: The test plots please refer to the Plots of Occupied Bandwidth						

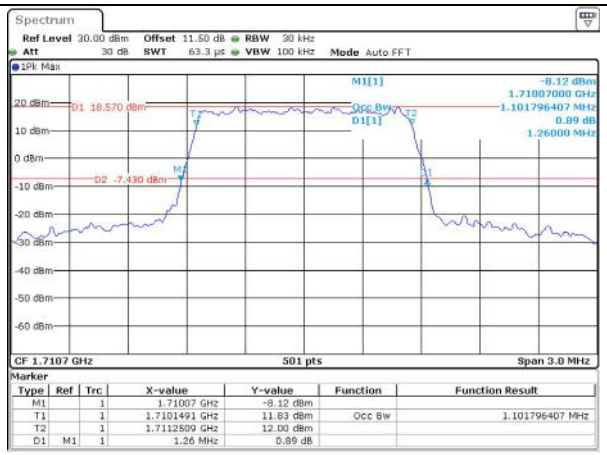
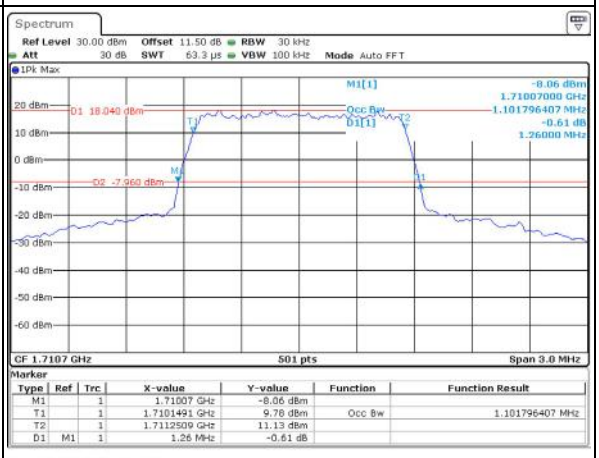
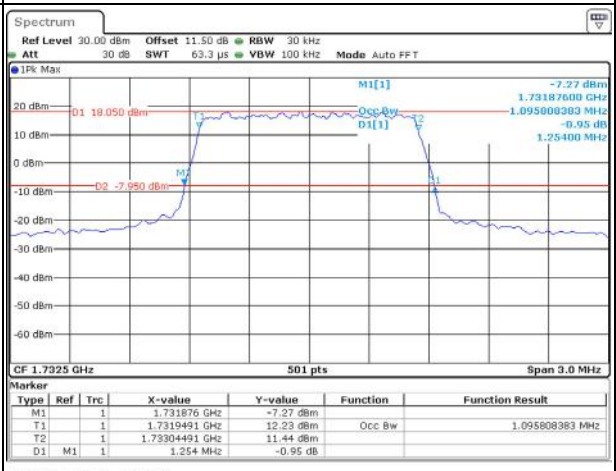
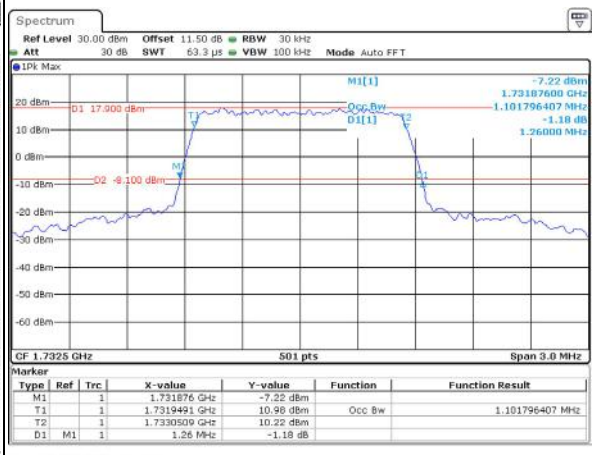
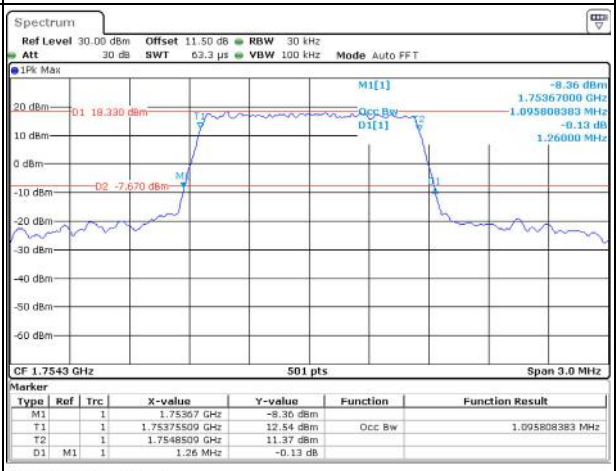
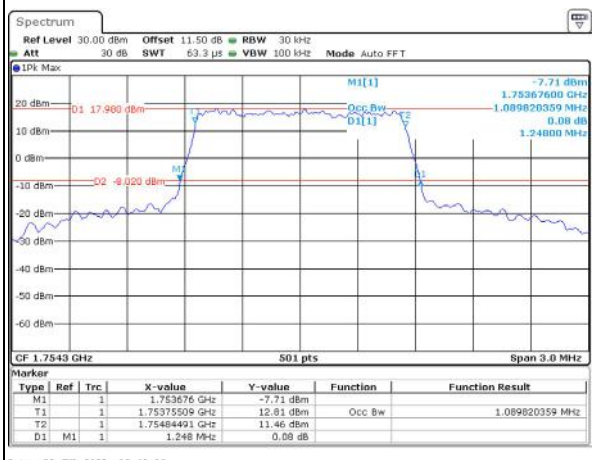
FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

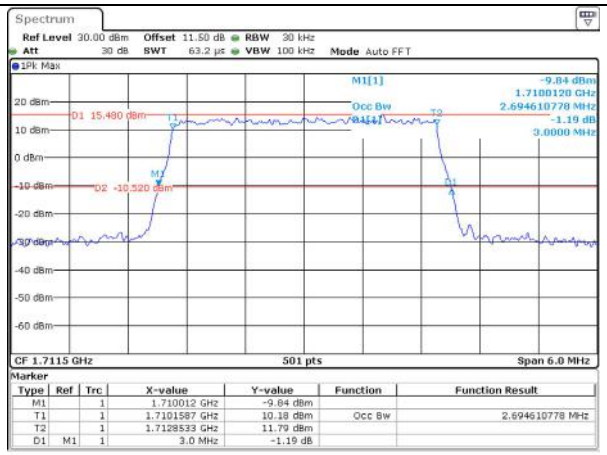
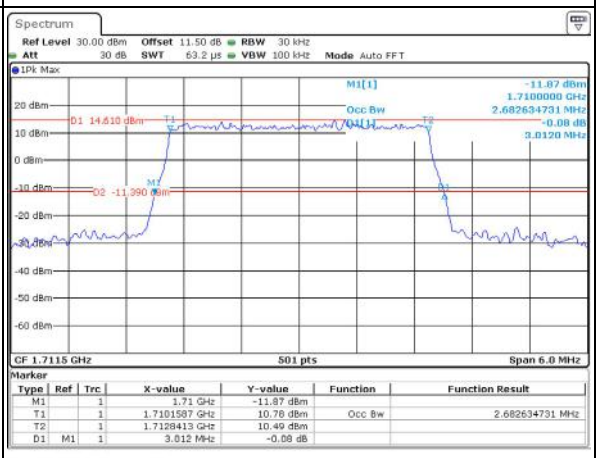
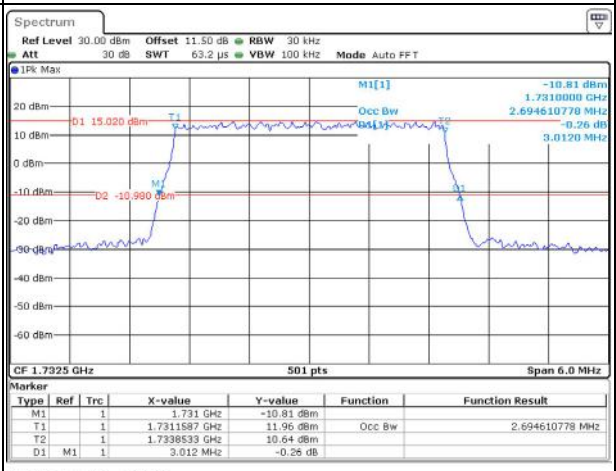
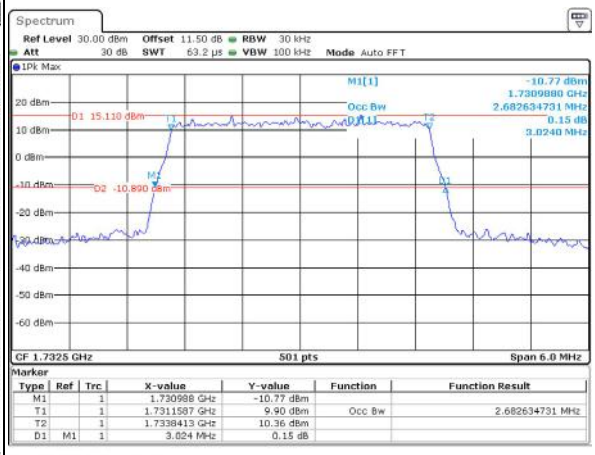
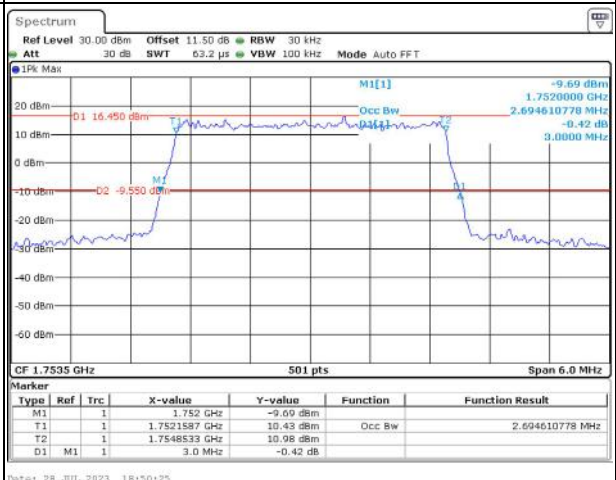
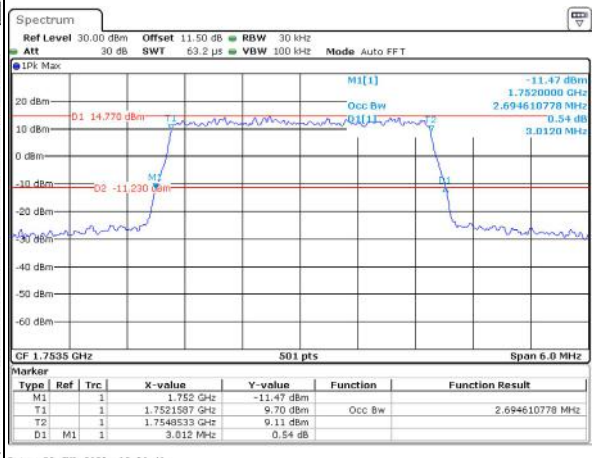
FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

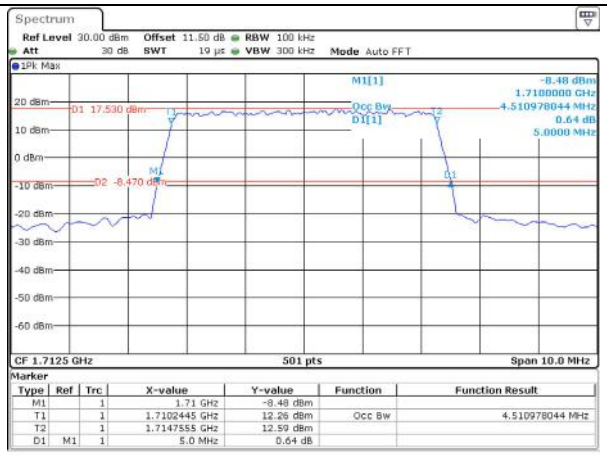
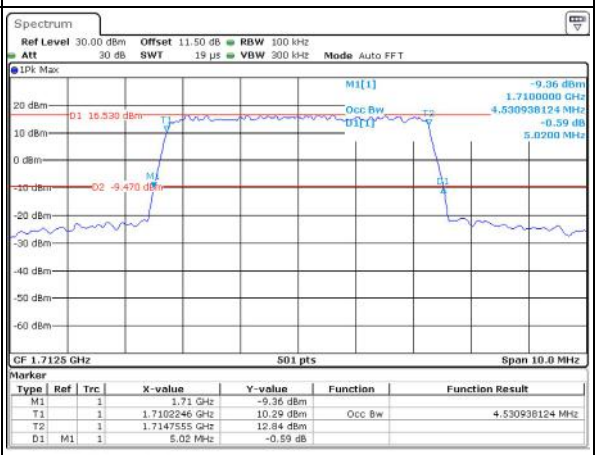
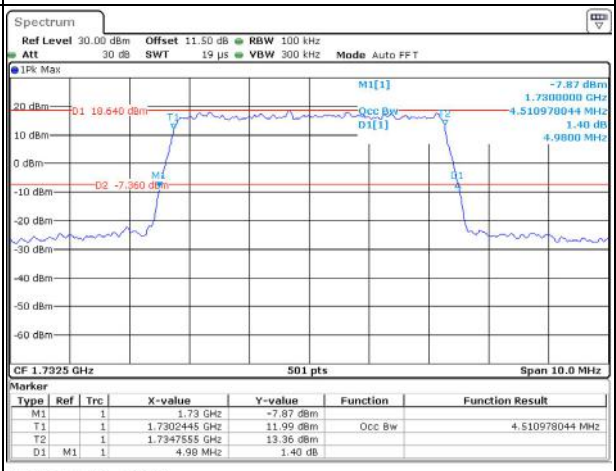
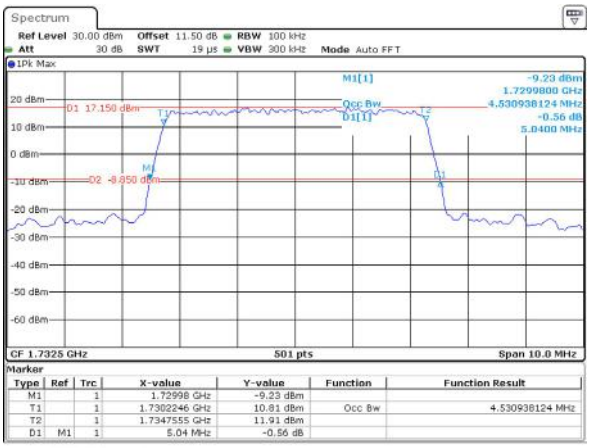
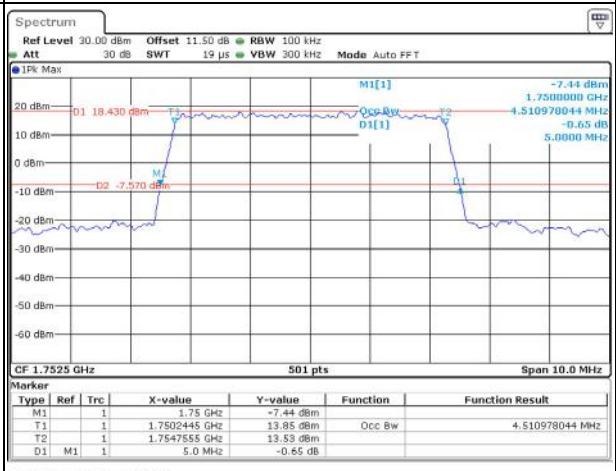
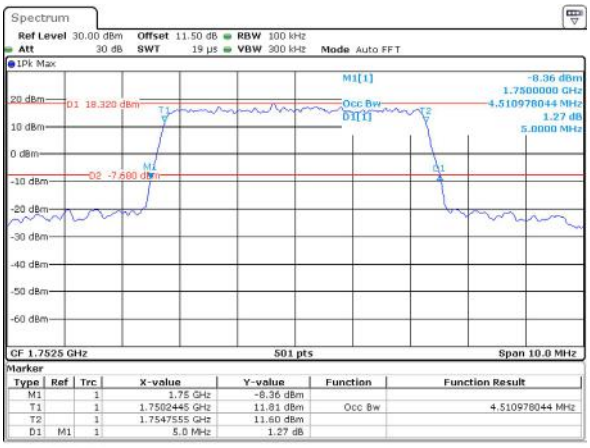
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1710.1156	1710.00	1754.873	1755
	-20	3.8	1710.1148	1710.00	1754.8726	1755
	-10	3.8	1710.1148	1710.00	1754.8739	1755
	0	3.8	1710.1161	1710.00	1754.8739	1755
	10	3.8	1710.1154	1710.00	1754.875	1755
	20	3.8	1710.1141	1710.00	1754.8754	1755
	30	3.8	1710.114	1710.00	1754.8751	1755
	40	3.8	1710.113	1710.00	1754.8764	1755
	50	3.8	1710.1136	1710.00	1754.8741	1755
Frequency Stability vs. Voltage	20	3.4	1710.112	1710.00	1754.8745	1755
	20	4.35	1710.103	1710.00	1754.8733	1755
					Result:	**Pass**

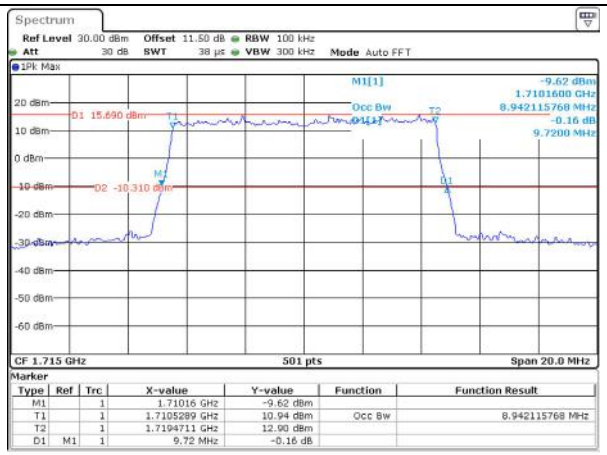
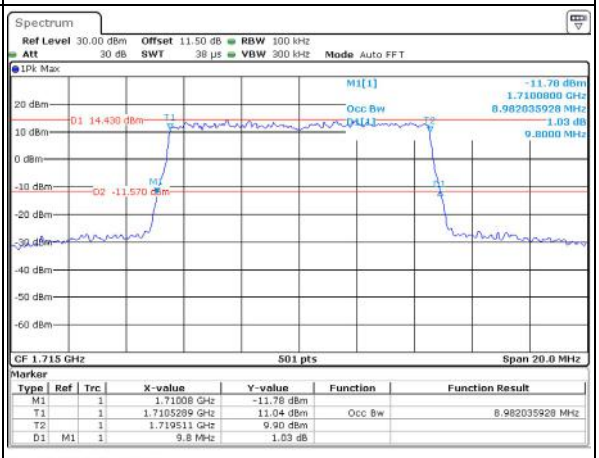
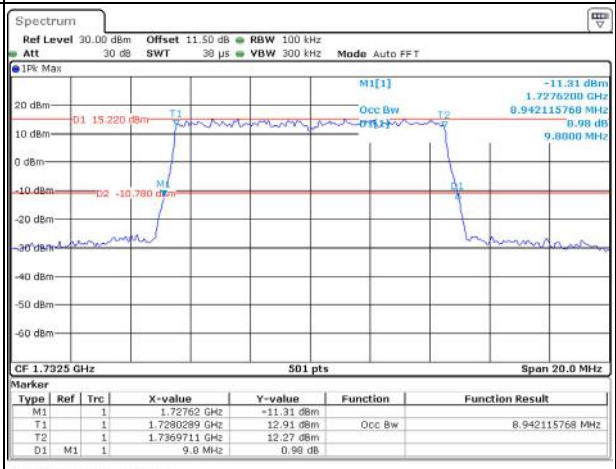
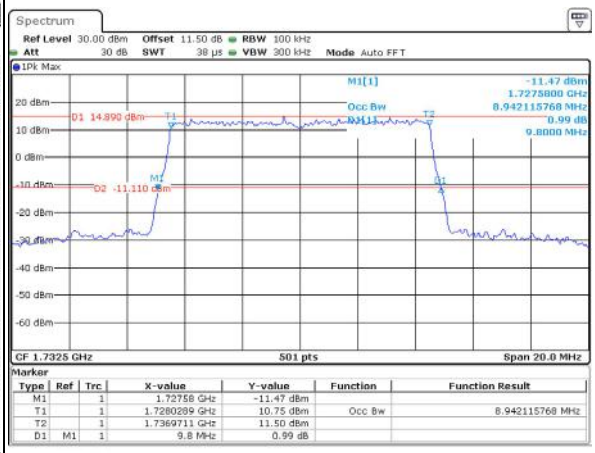
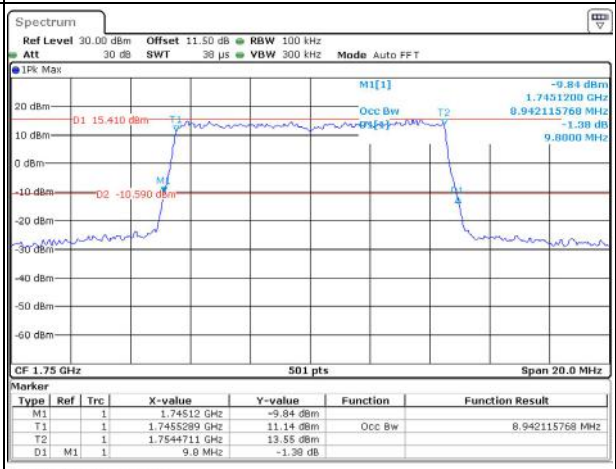
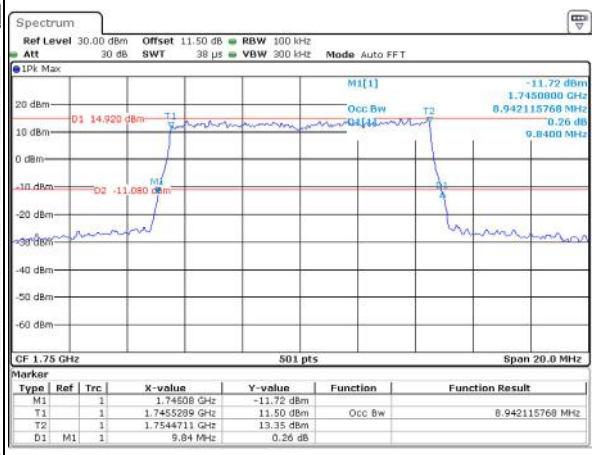
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1710.2975	1710.00	1754.7677	1755
	-20	3.8	1710.2961	1710.00	1754.7554	1755
	-10	3.8	1710.2747	1710.00	1754.7671	1755
	0	3.8	1710.2649	1710.00	1754.7456	1755
	10	3.8	1710.2627	1710.00	1754.744	1755
	20	3.8	1710.2652	1710.00	1754.762	1755
	30	3.8	1710.2566	1710.00	1754.7621	1755
	40	3.8	1710.2658	1710.00	1754.7659	1755
	50	3.8	1710.2642	1710.00	1754.7757	1755
Frequency Stability vs. Voltage	20	3.4	1710.2627	1710.00	1754.7532	1755
	20	4.35	1710.2709	1710.00	1754.7515	1755
					Result:	**Pass**

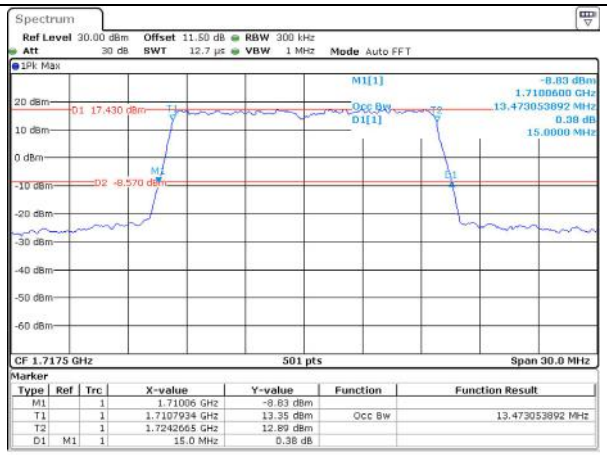
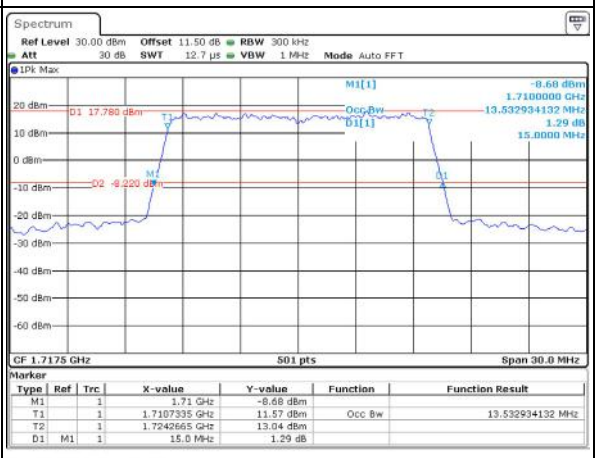
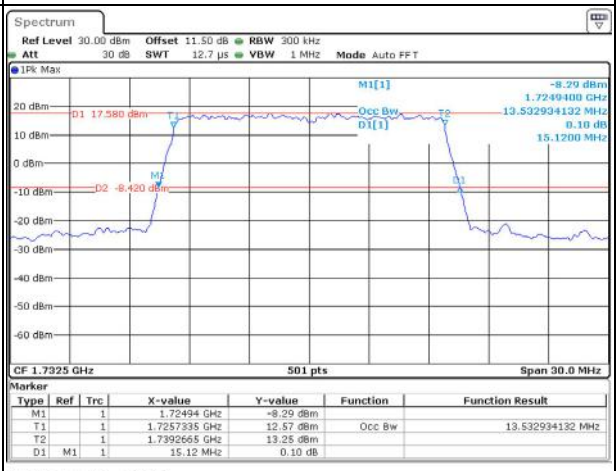
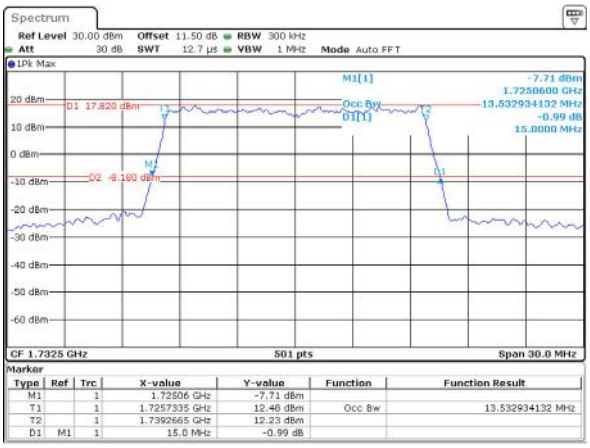
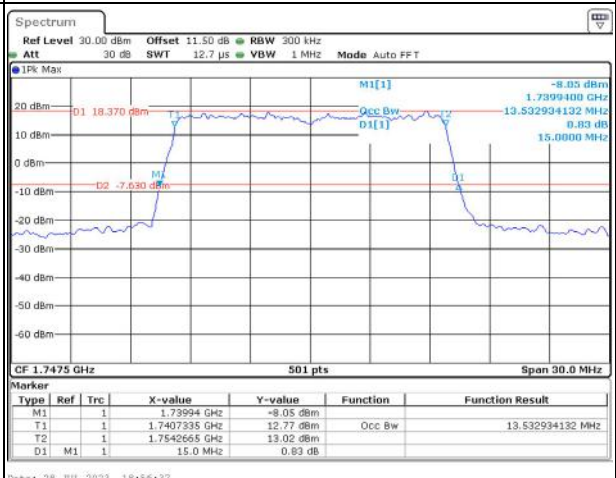
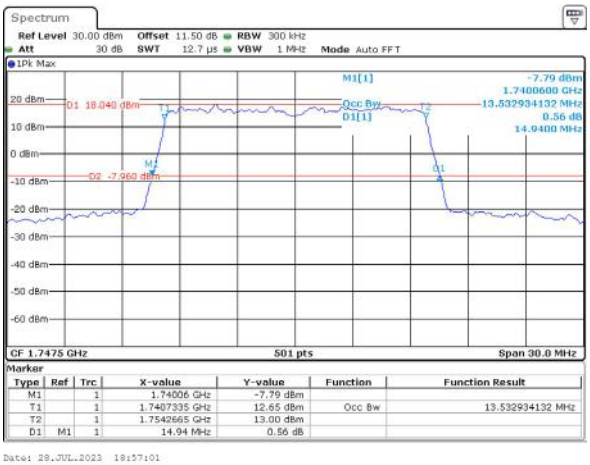
Test Plots(Note: The 11.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

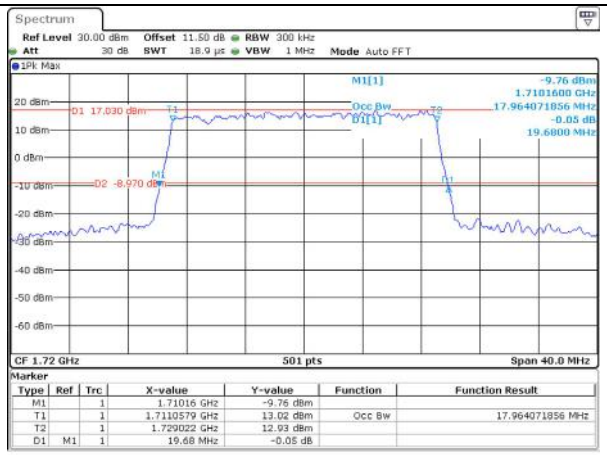
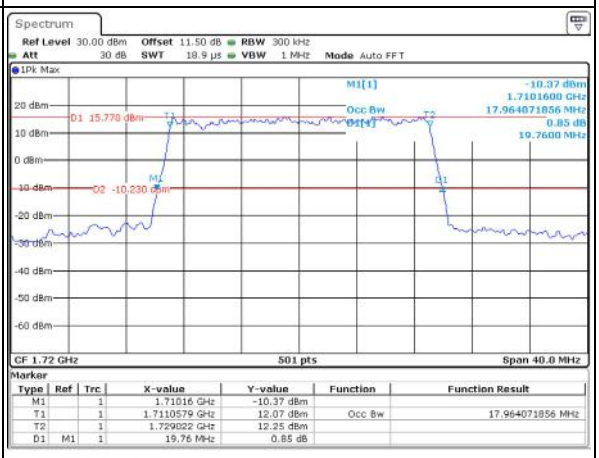
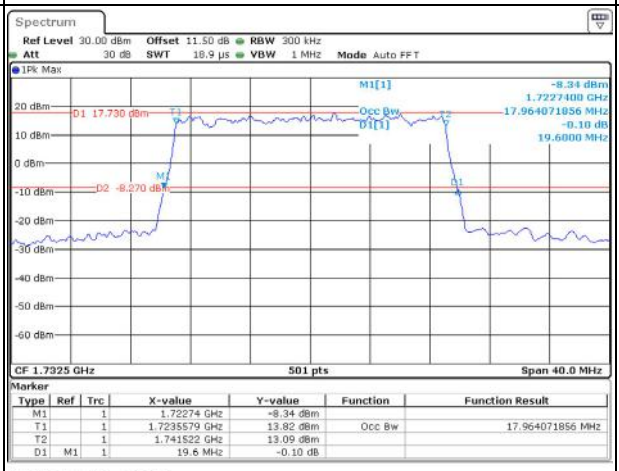
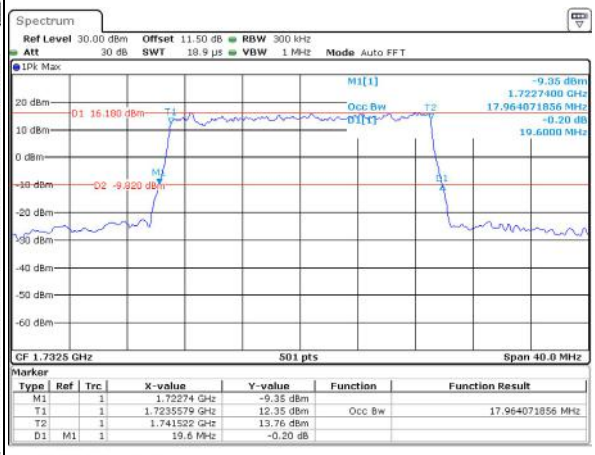
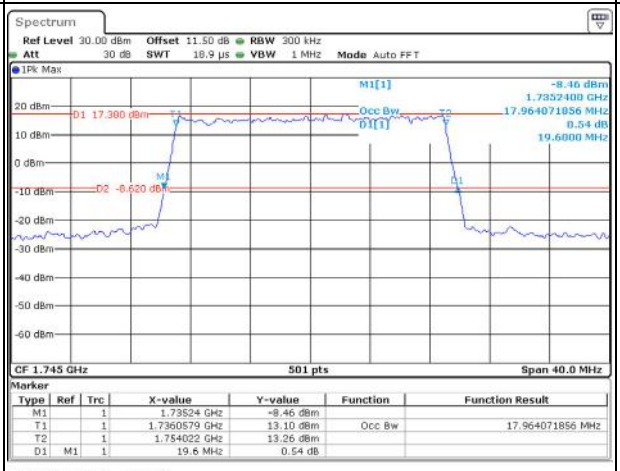
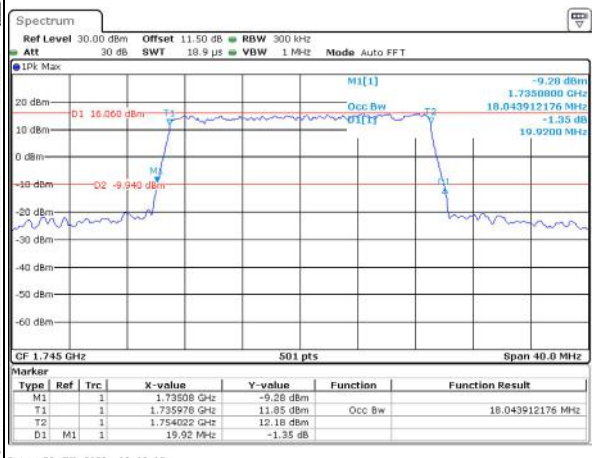
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

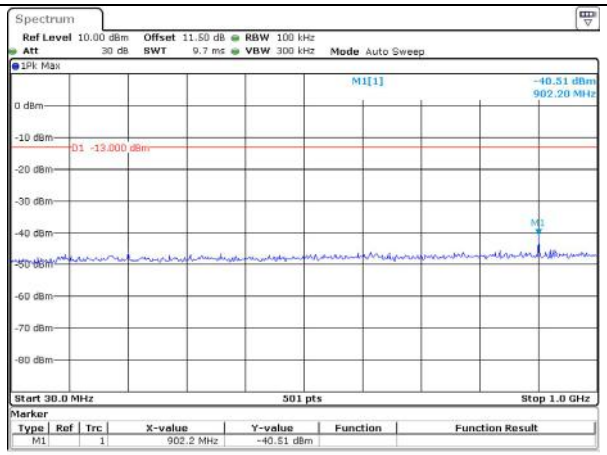
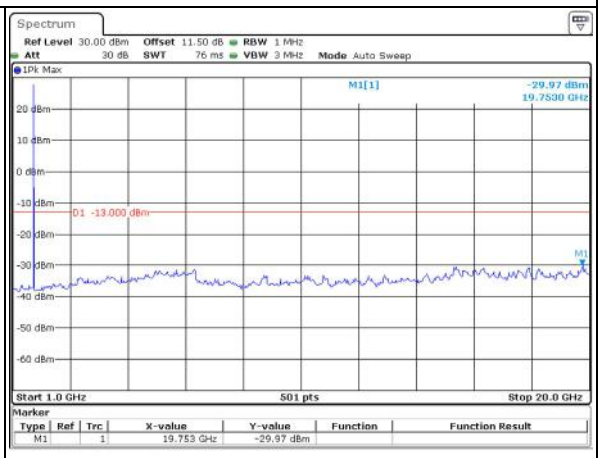
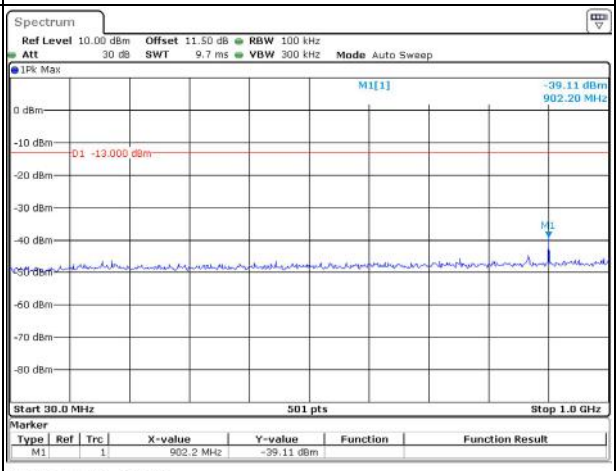
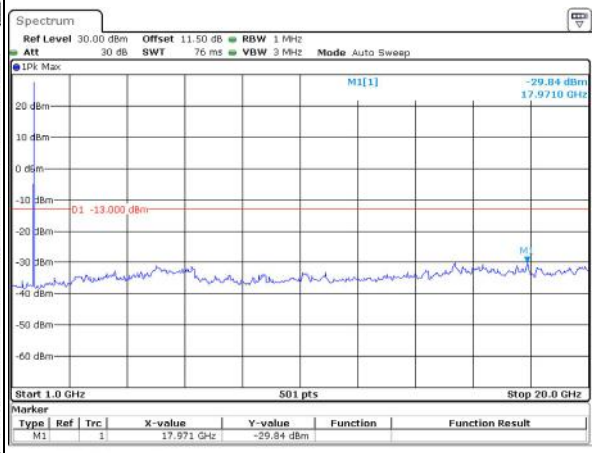
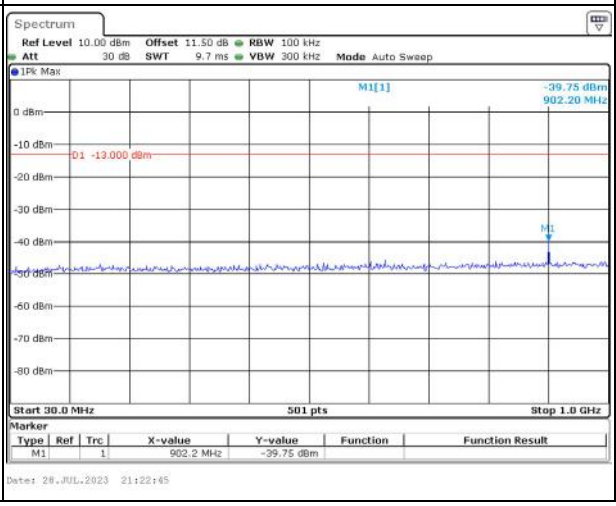
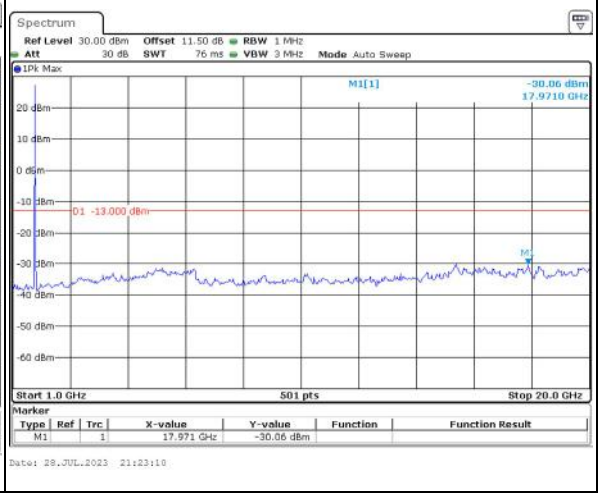
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

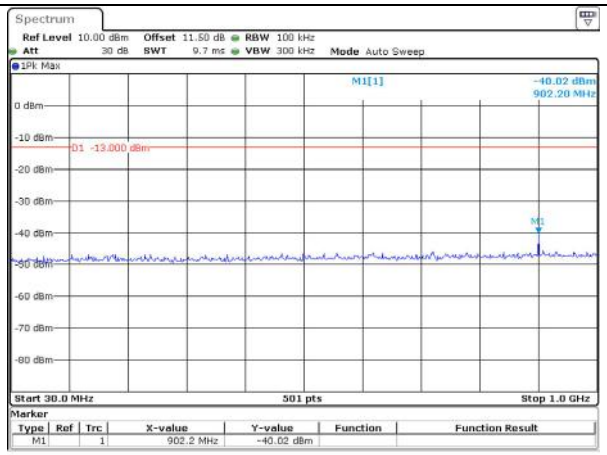
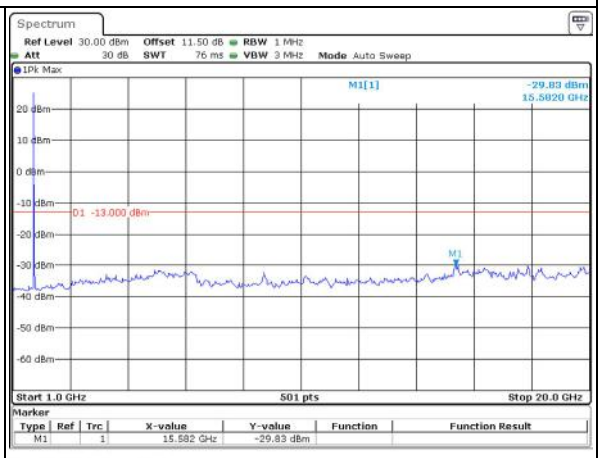
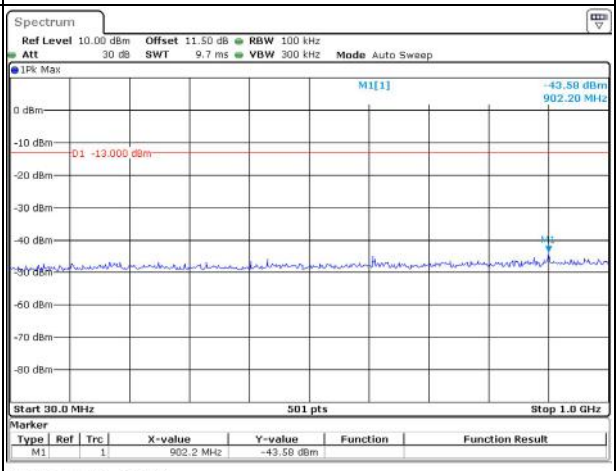
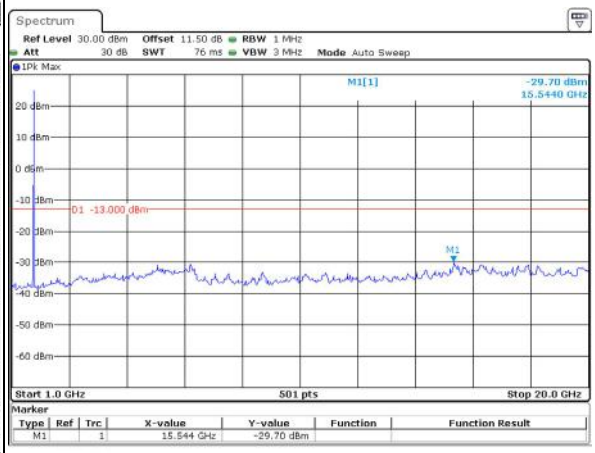
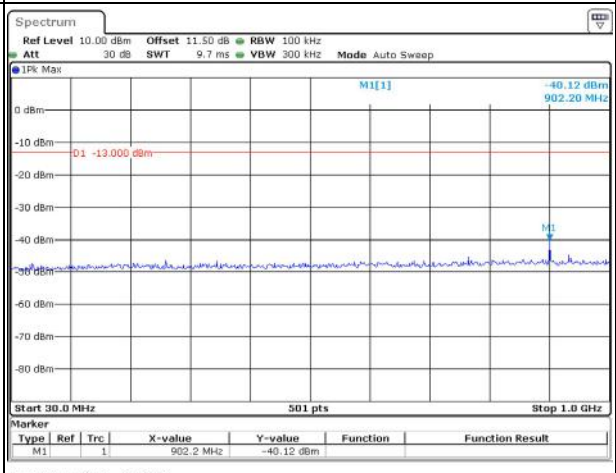
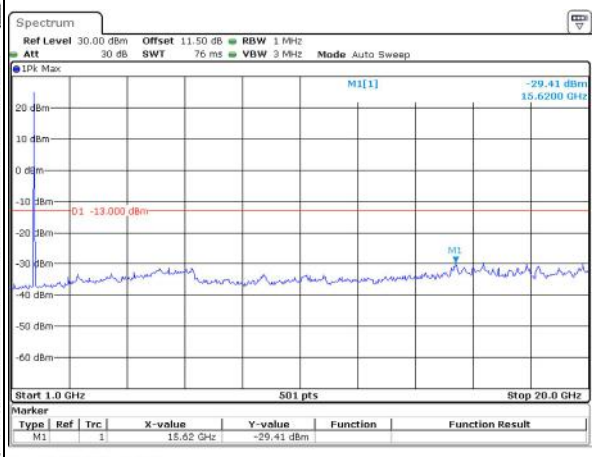
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

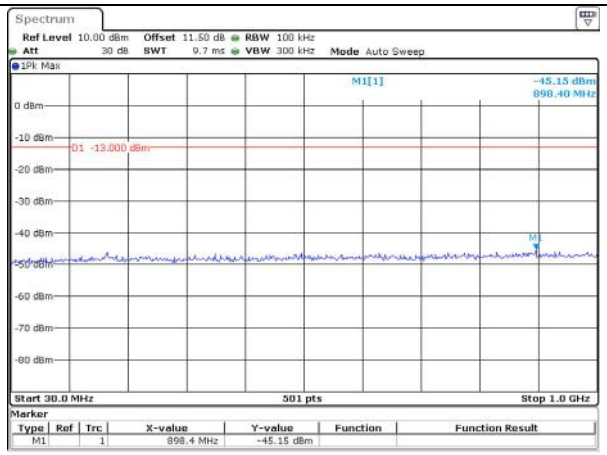
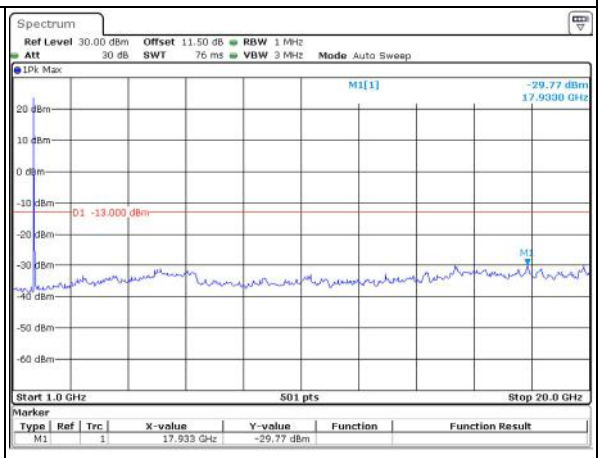
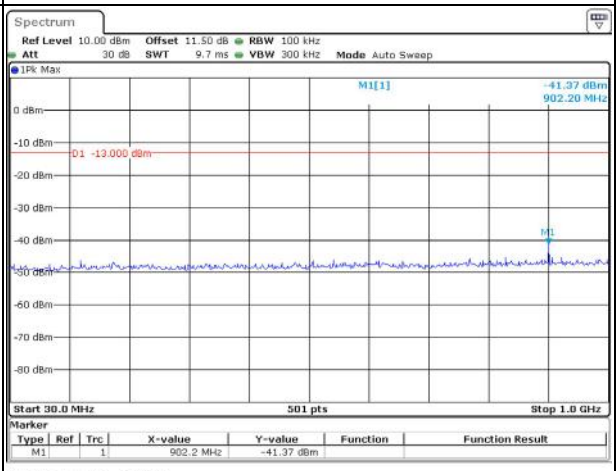
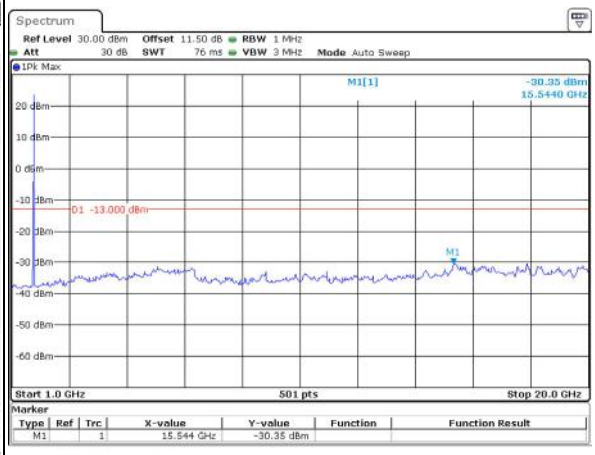
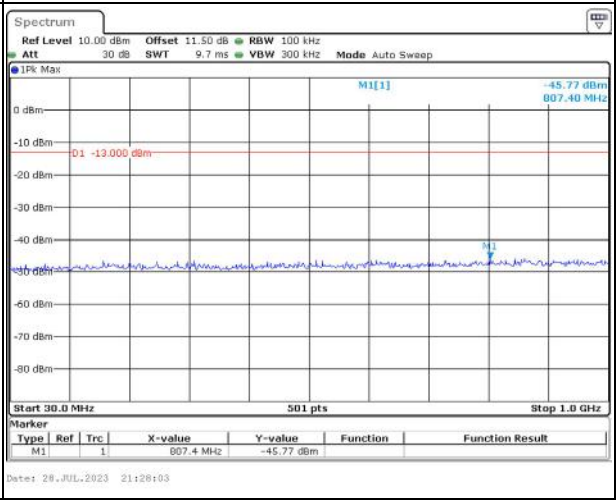
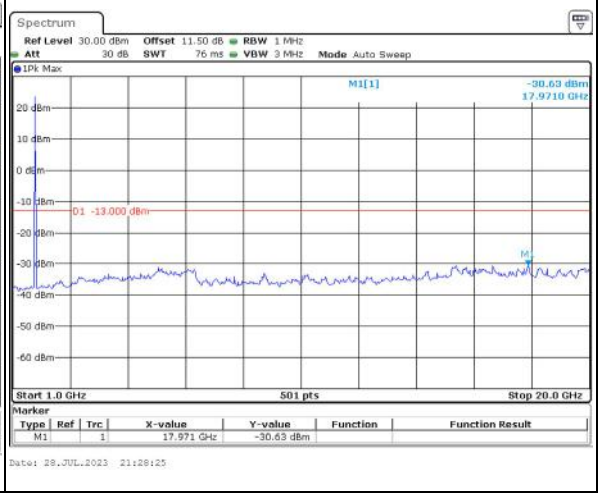
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

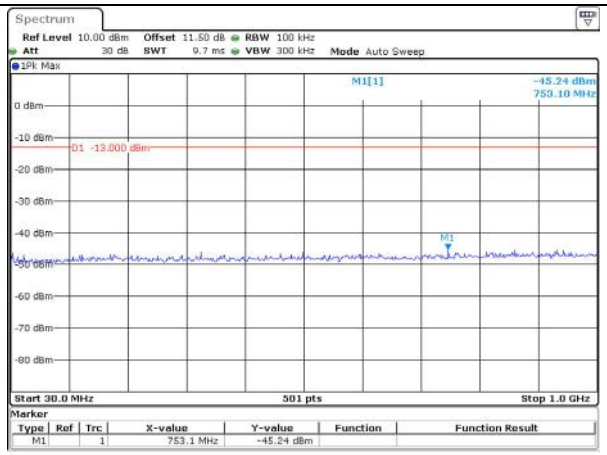
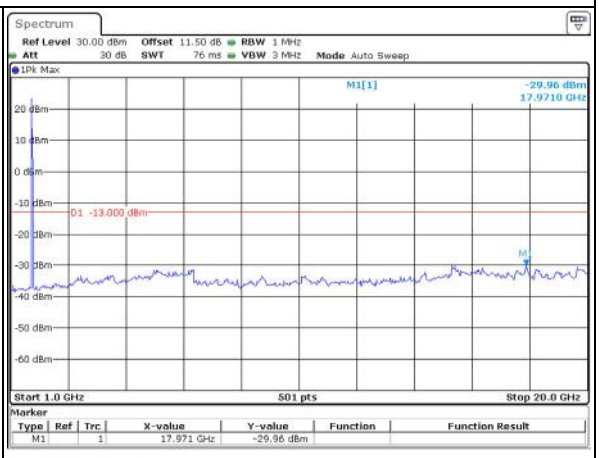
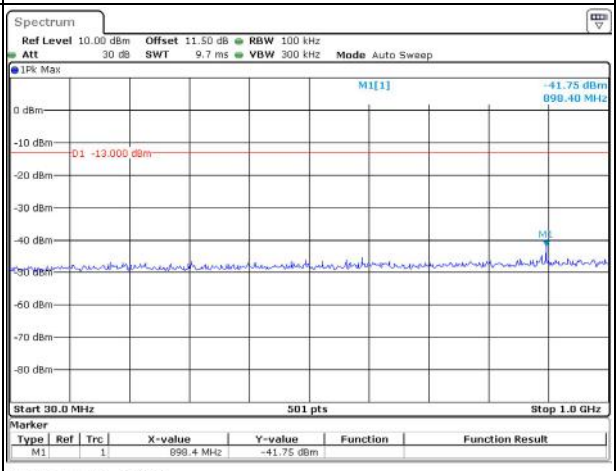
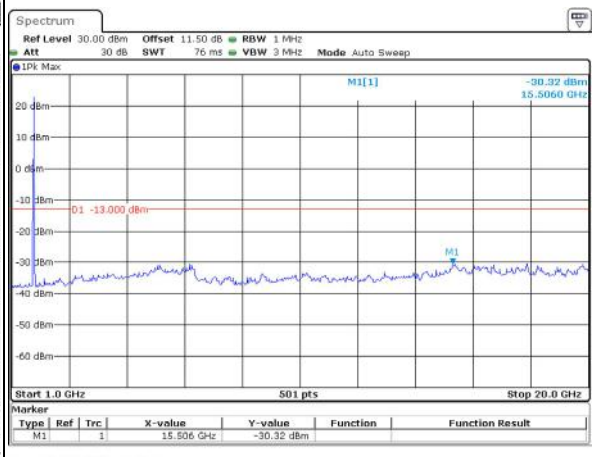
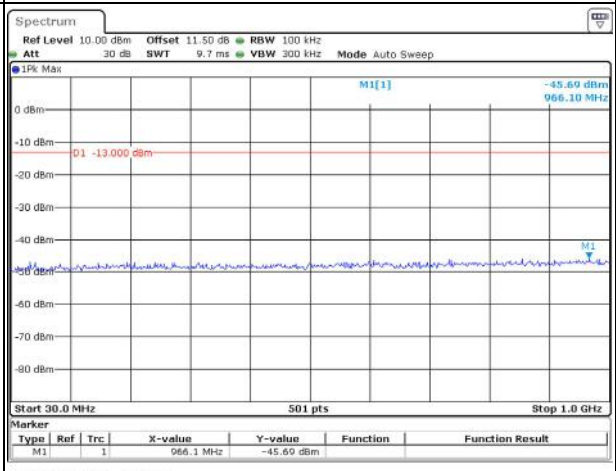
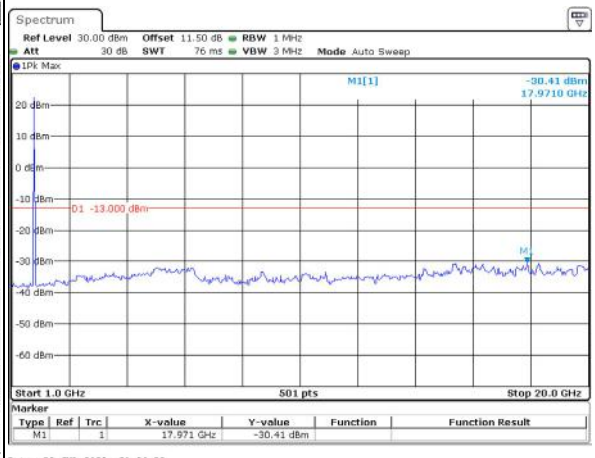
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

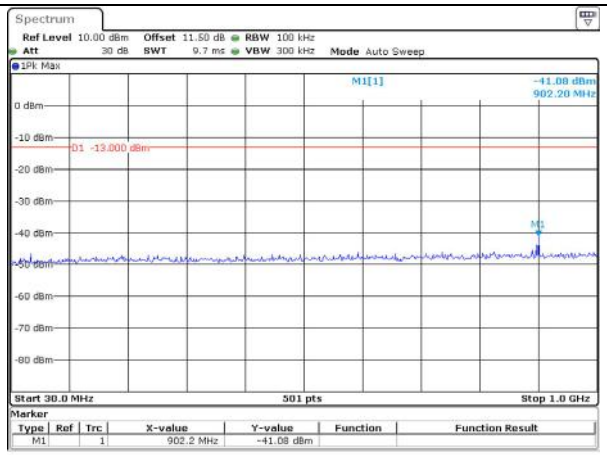
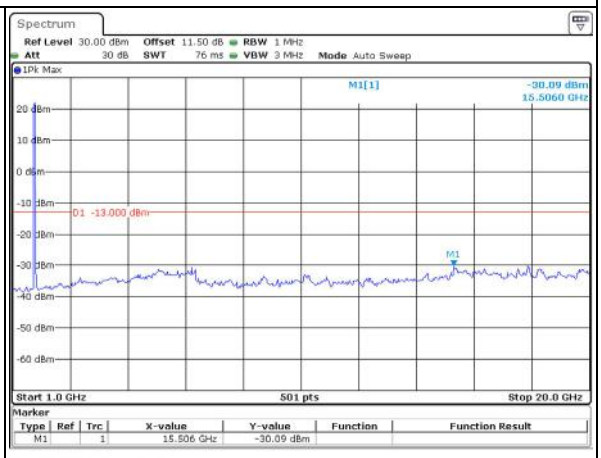
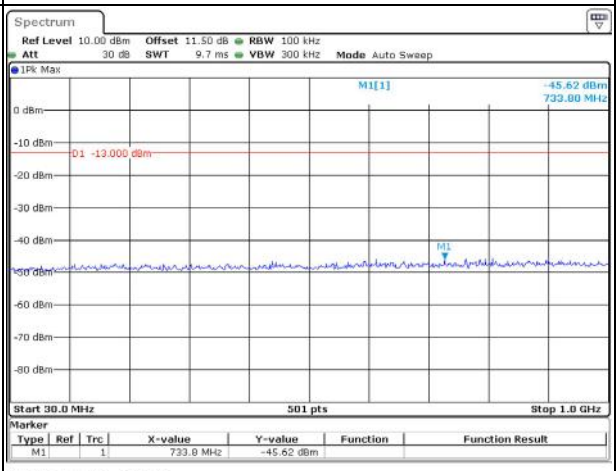
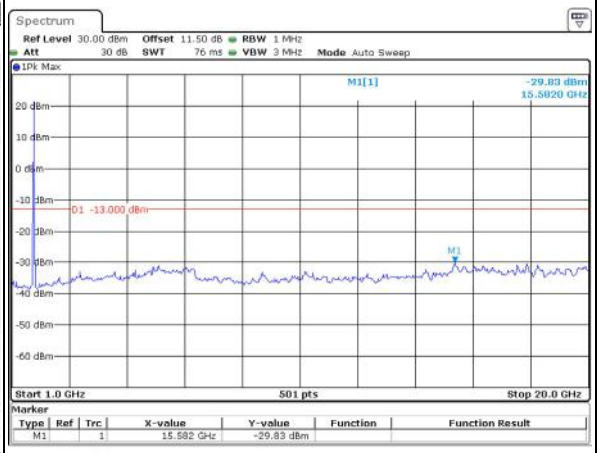
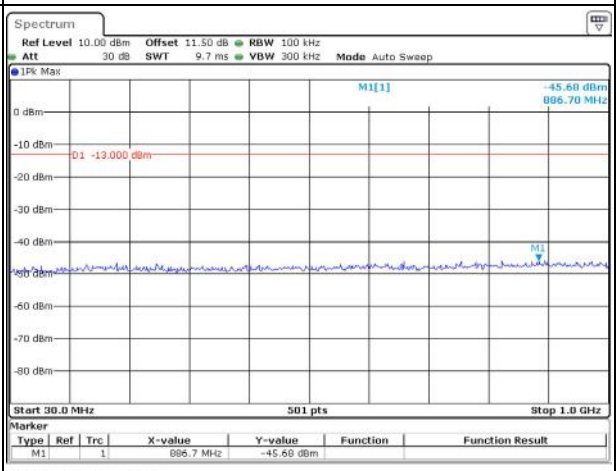
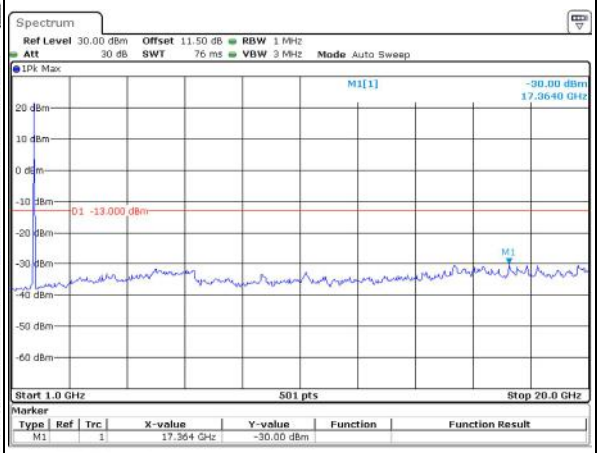
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

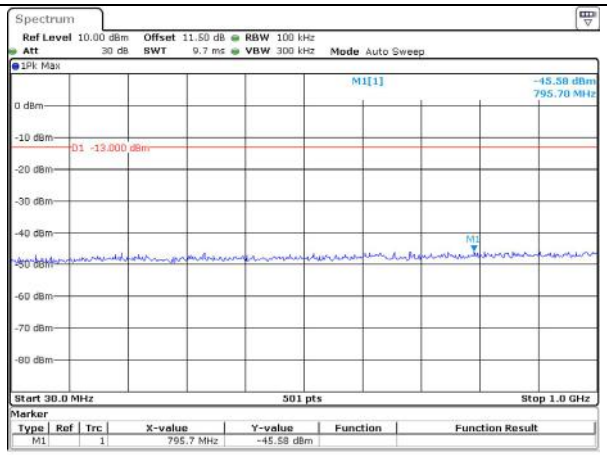
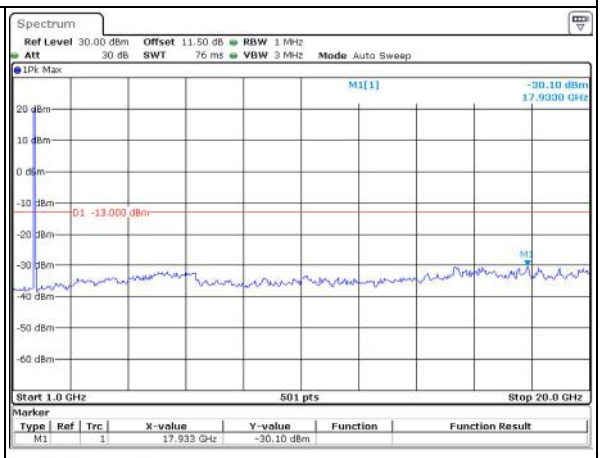
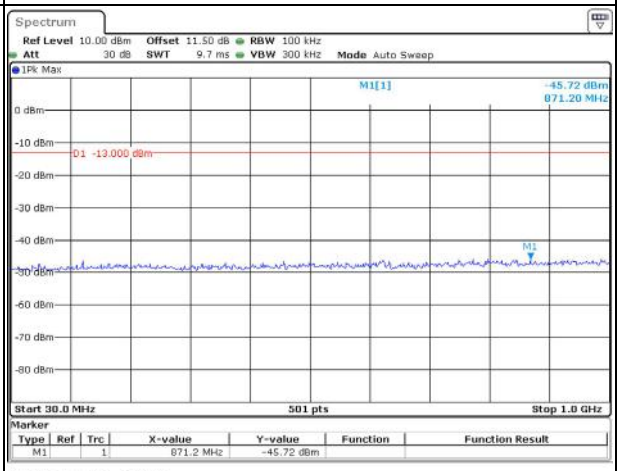
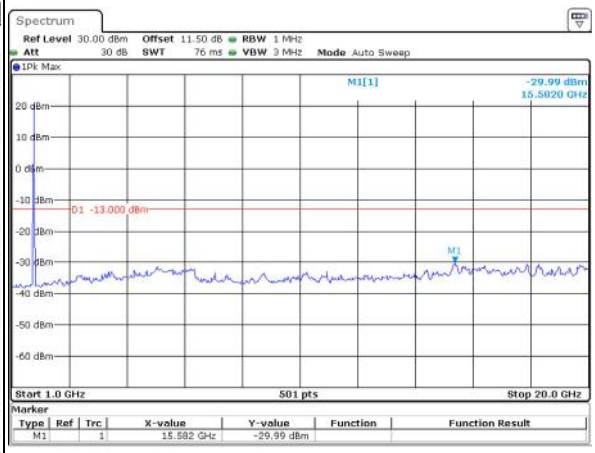
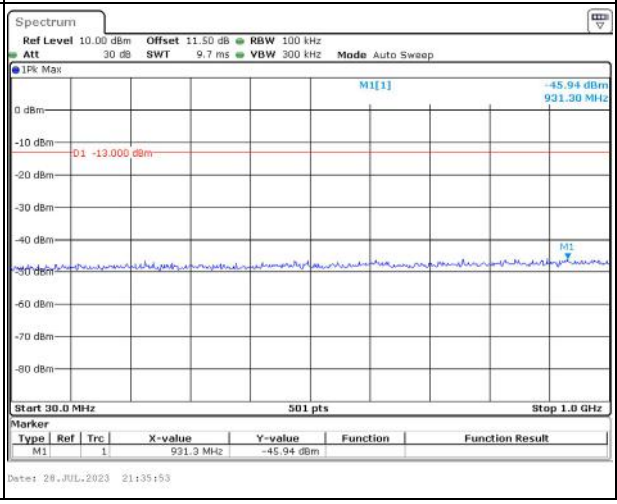
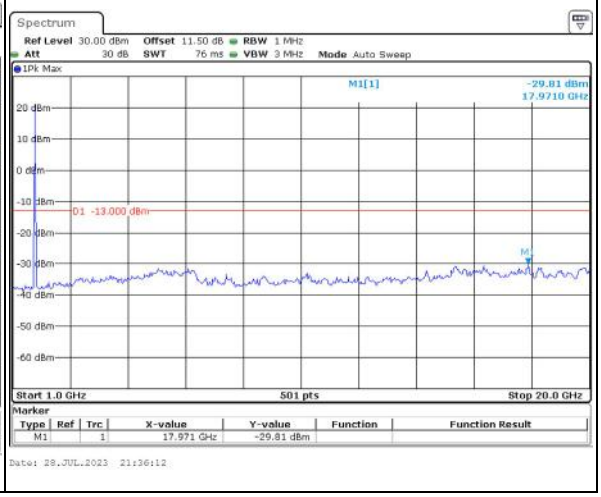
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

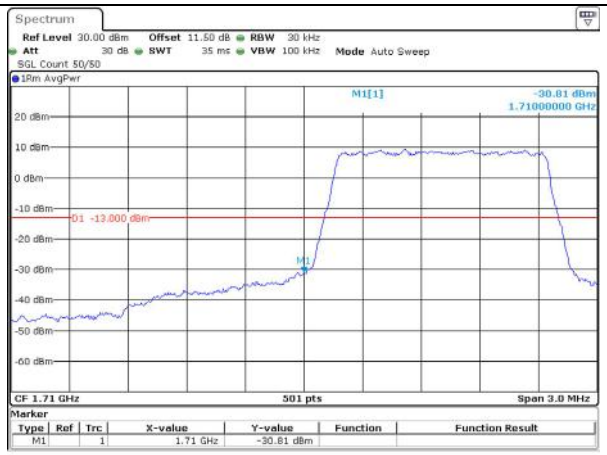
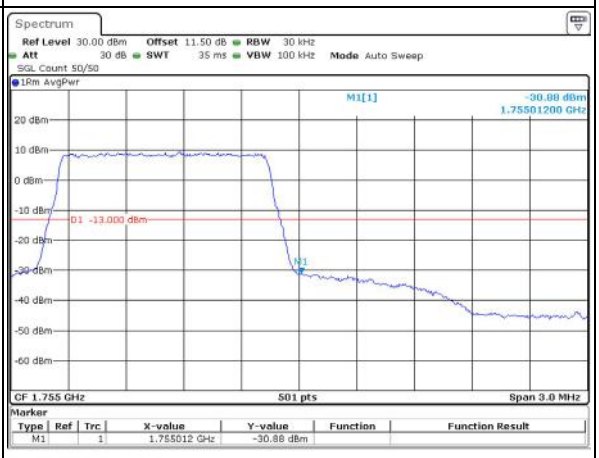
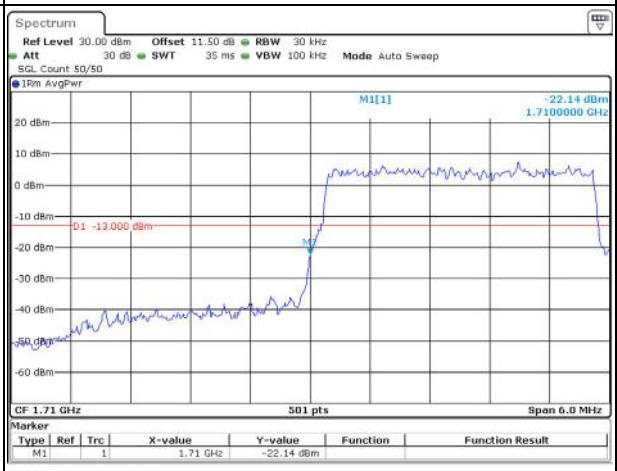
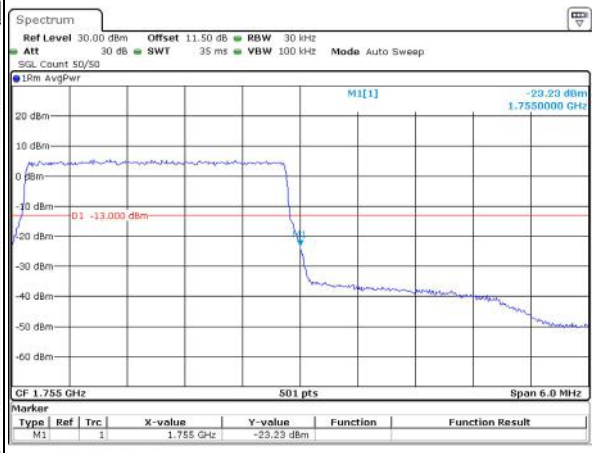
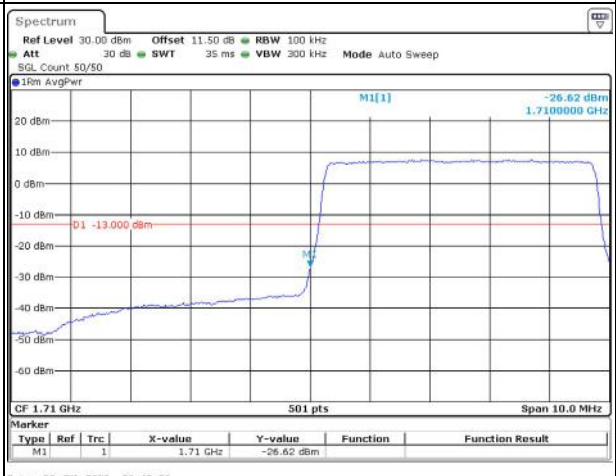
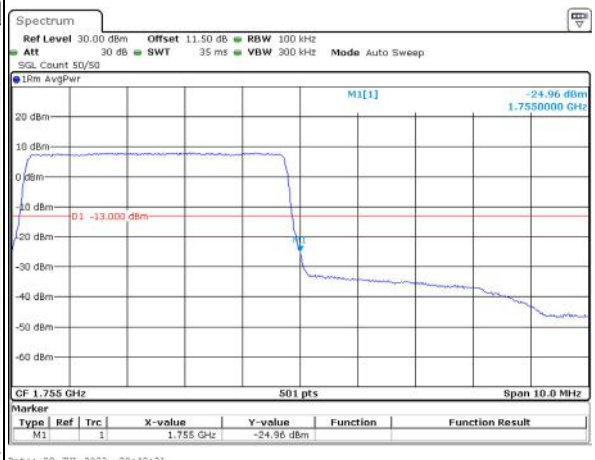
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

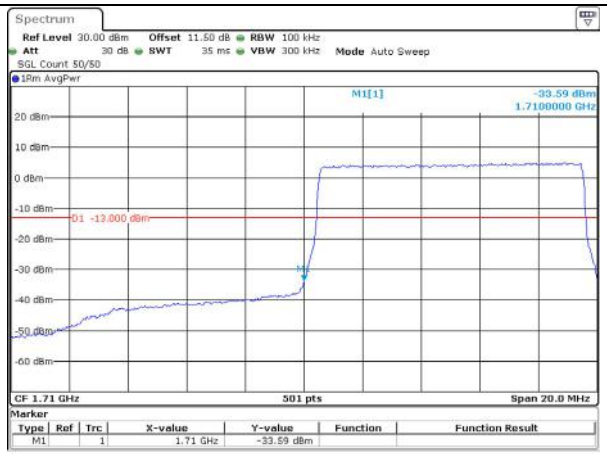
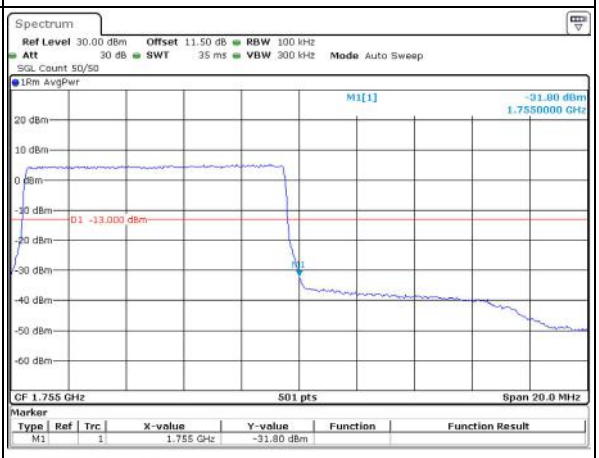
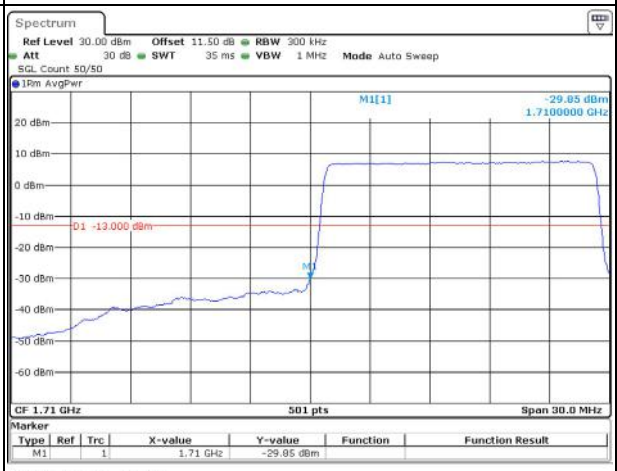
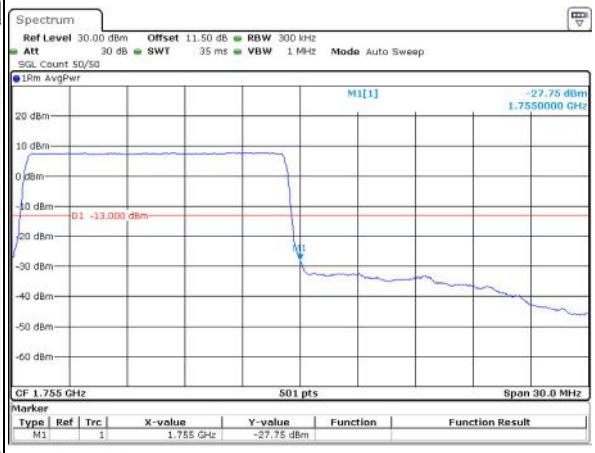
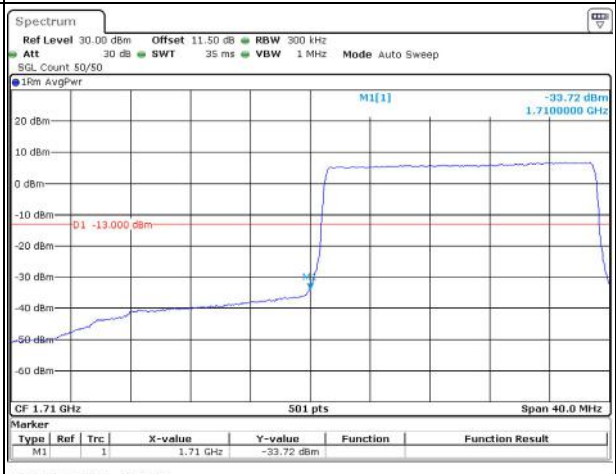
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

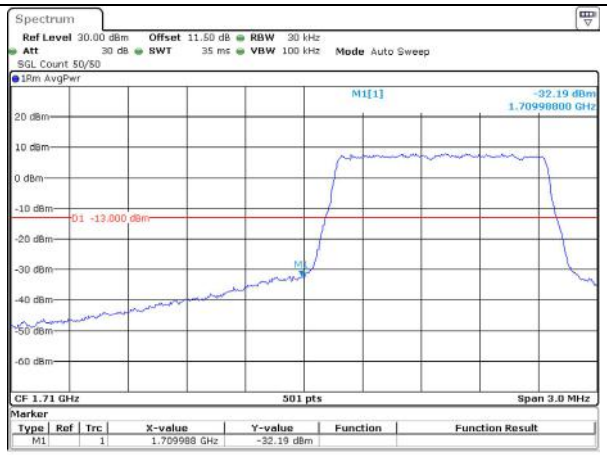
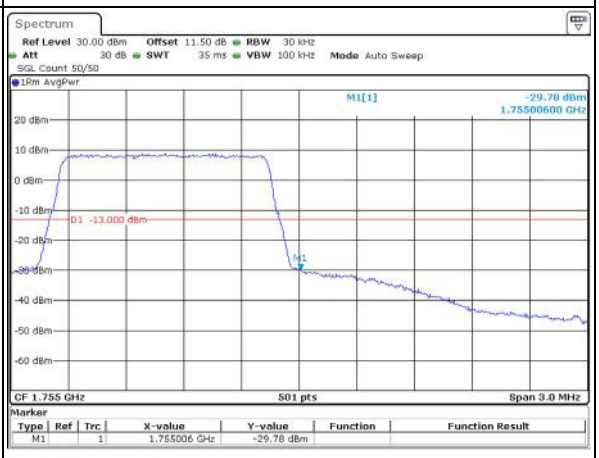
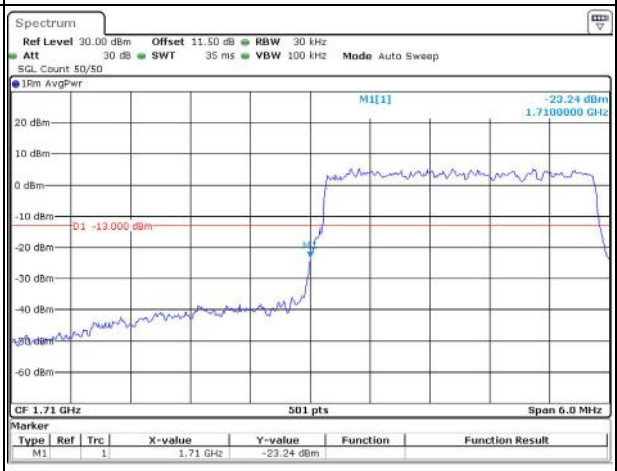
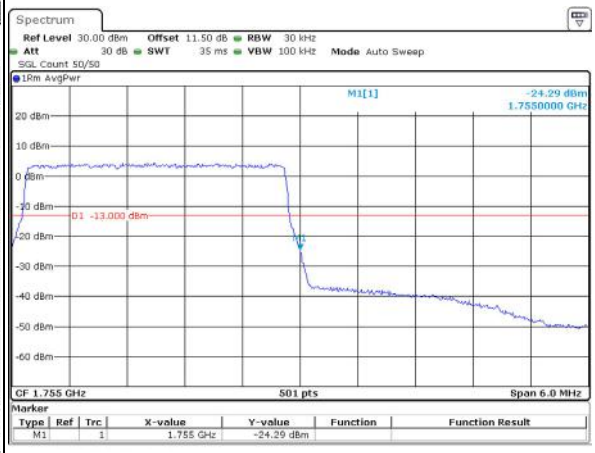
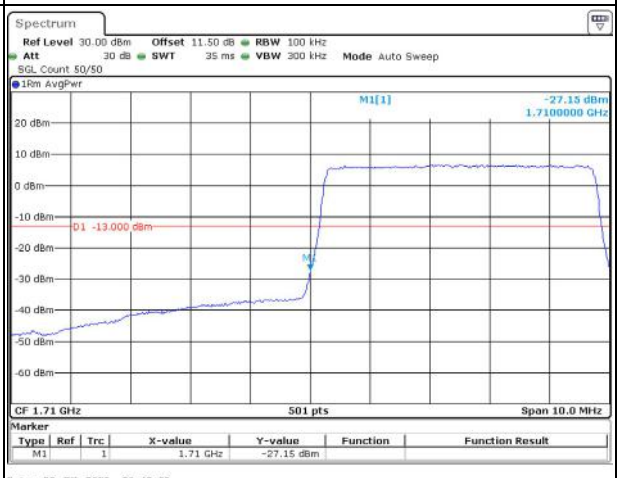
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

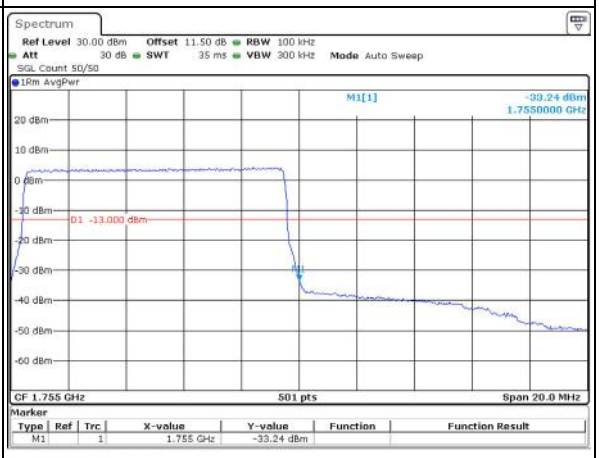
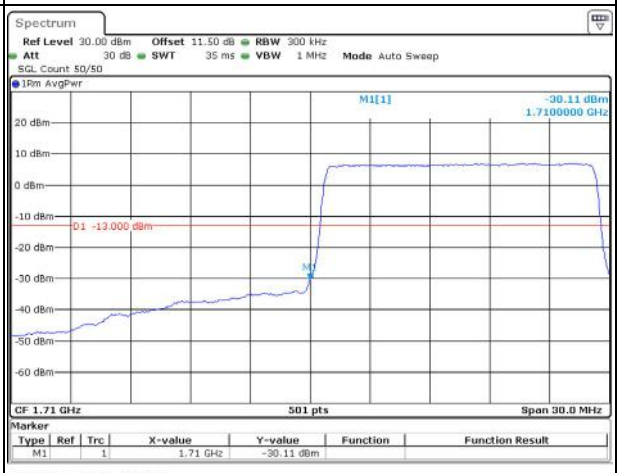
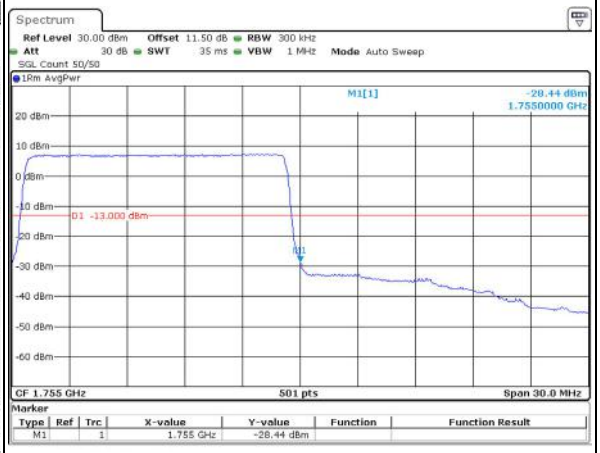
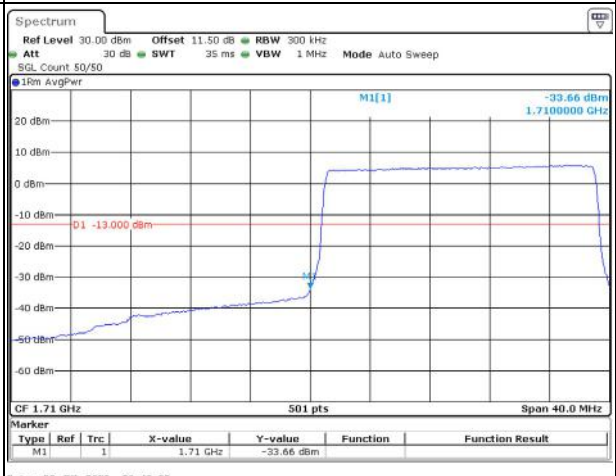
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

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 5MHz		

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

4.8 Antenna Port Test Data and Results for LTE Band 5

Serial Number:	28O3-4	Test Date:	2023/7/28-2023/7/31
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.6	Relative Humidity: (%)	64	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40-N	102259	2023/4/18	2024/4/17
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

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

Test Frequency for Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	824.7	836.5	848.3
3MHz	825.5	836.5	847.5
5MHz	826.5	836.5	846.5
10MHz	829	836.5	844

Test Data:

FCC§2.1046;§ 22.913 (a)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	22.62	22.54	22.57	20.97	38.45
	RB1#3	22.6	22.59	22.57		
	RB1#5	22.68	22.64	22.61		
	RB3#0	22.77	22.79	22.56		
	RB3#3	22.68	22.74	22.67		
	RB6#0	21.66	21.5	21.55		
1.4MHz 16QAM	RB1#0	22.41	21.3	21.89	20.59	38.45
	RB1#3	22.31	21.25	21.95		
	RB1#5	22.29	21.25	21.94		
	RB3#0	21.52	21.68	21.6		
	RB3#3	21.46	21.62	21.62		
	RB6#0	21.17	20.86	21.21		
3MHz QPSK	RB1#0	22.61	22.58	22.46	20.86	38.45
	RB1#8	22.63	22.68	22.52		
	RB1#14	22.56	22.58	22.56		
	RB6#0	21.7	21.64	21.58		
	RB6#9	21.51	21.42	21.53		
	RB15#0	21.64	21.45	21.47		
3MHz 16QAM	RB1#0	22.36	21.26	21.83	20.54	38.45
	RB1#8	22.28	21.18	21.76		
	RB1#14	22.16	21.21	21.85		
	RB6#0	21.09	20.7	20.99		
	RB6#9	20.68	20.85	20.98		
	RB15#0	21.03	20.71	21.05		
5MHz QPSK	RB1#0	22.67	22.49	22.67	20.85	38.45
	RB1#13	22.53	22.54	22.52		
	RB1#24	22.62	22.65	22.58		
	RB15#0	21.65	21.67	21.66		
	RB15#10	21.5	21.52	21.52		
	RB25#0	21.54	21.59	21.63		
5MHz 16QAM	RB1#0	21.72	21.3	20.71	19.9	38.45
	RB1#13	21.67	21.12	20.61		
	RB1#24	21.7	21.3	20.62		
	RB15#0	20.97	20.6	21.12		
	RB15#10	20.43	20.67	21.11		
	RB25#0	20.62	20.61	21.22		

10MHz QPSK	RB1#0	22.84	22.56	22.61	21.02	38.45
	RB1#25	22.71	22.61	22.51		
	RB1#49	22.64	22.72	22.5		
	RB25#0	21.42	21.71	21.82		
	RB25#25	21.72	21.76	21.52		
	RB50#0	21.49	21.7	21.69		
10MHz 16QAM	RB1#0	21.83	21.22	21.75	20.01	38.45
	RB1#25	21.72	21.03	21.68		
	RB1#49	21.71	21.15	21.69		
	RB25#0	20.62	20.69	21.06		
	RB25#25	20.74	21.23	21.06		
	RB50#0	21.14	20.72	20.63		
Note: ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)G_T(dBd)=G_T(dBi)-2.15						
					Result:	**Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	4.64	5.28	4.06	13
	RB50#0	5.28	5.25	5.07	13
10MHz 16QAM	RB1#0	5.16	5.71	5.57	13
	RB50#0	6.2	6.17	5.97	13
				Result:	**Pass**

FCC §2.1049, §22.905:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.096	1.102	1.102	1.254	1.254	1.254
1.4MHz 16QAM	1.102	1.090	1.102	1.260	1.248	1.254
3MHz QPSK	2.695	2.695	2.707	3.000	3.000	2.988
3MHz 16QAM	2.683	2.695	2.683	3.000	3.024	3.012
5MHz QPSK	4.511	4.511	4.511	5.020	5.000	5.000
5MHz 16QAM	4.531	4.551	4.511	5.000	5.020	4.980
10MHz QPSK	8.942	8.982	8.942	9.720	9.840	9.760
10MHz 16QAM	8.942	8.942	8.942	9.760	9.880	9.720
Note: The test plots please refer to the Plots of Occupied Bandwidth						

FCC §2.1051, §22.917(a):Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

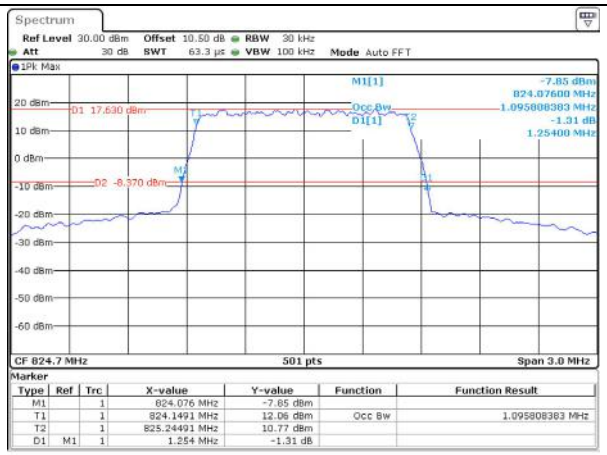
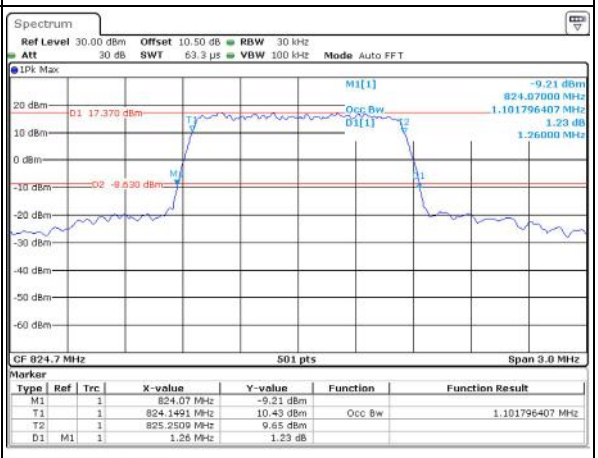
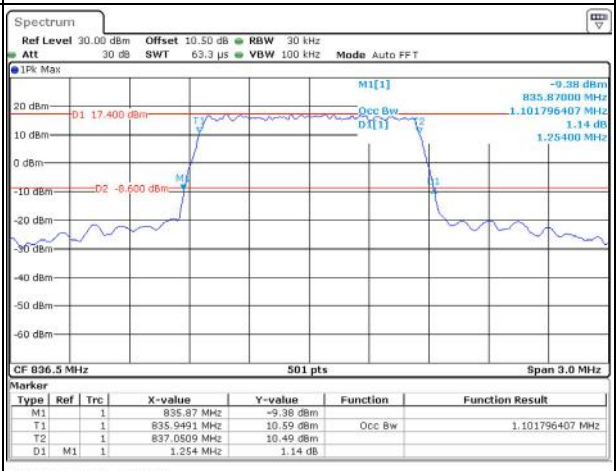
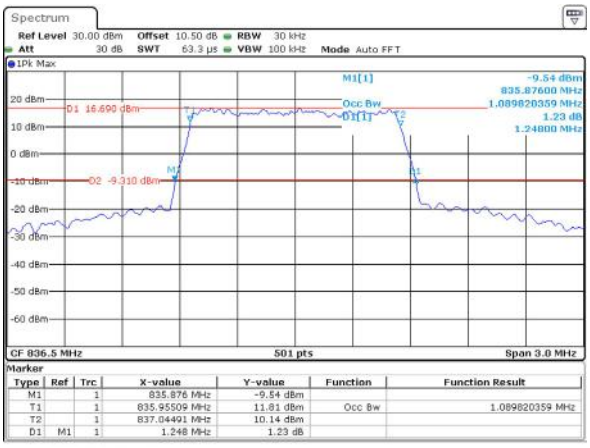
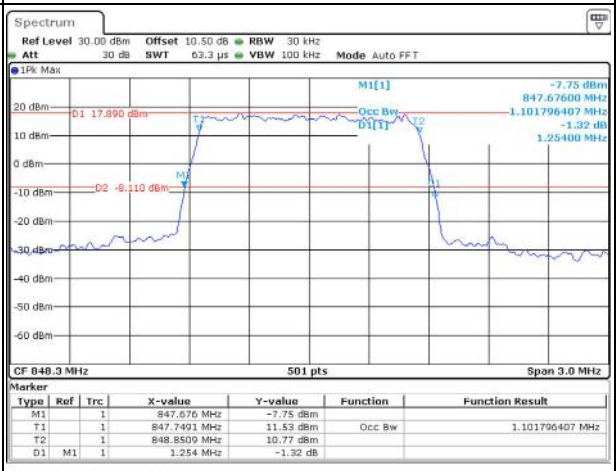
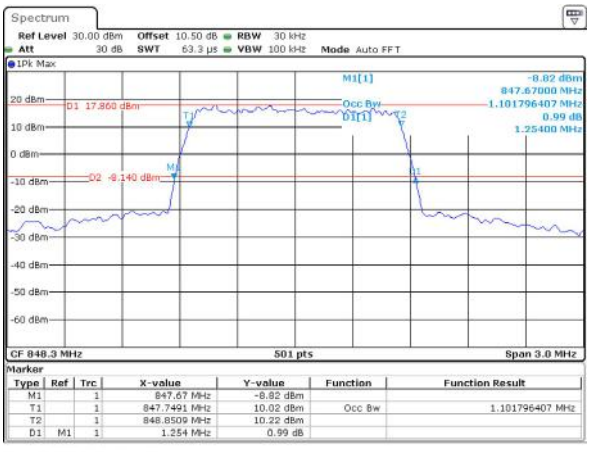
FCC §2.1051, §22.917(a):Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

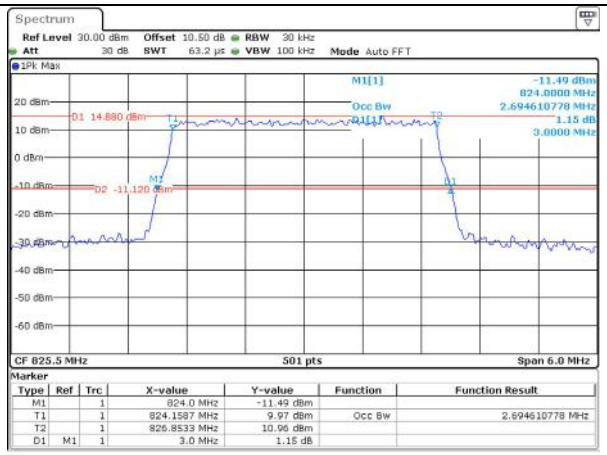
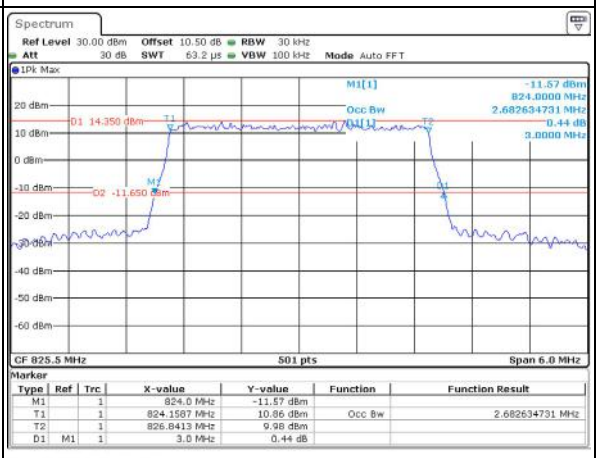
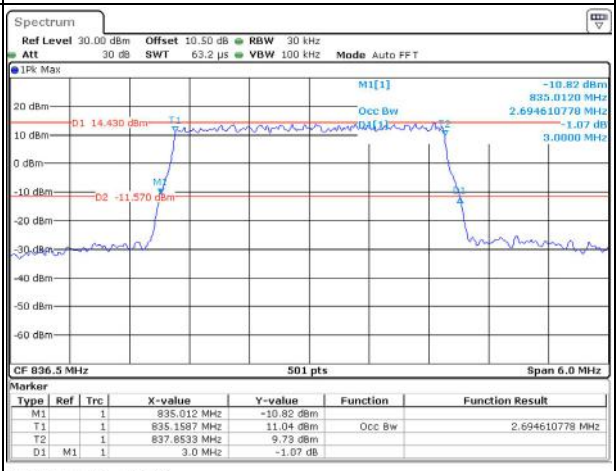
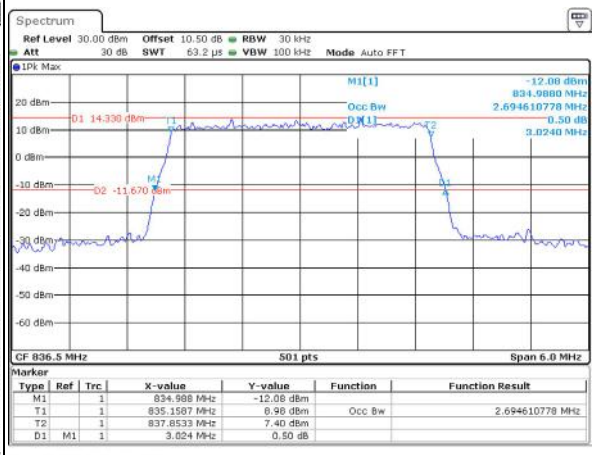
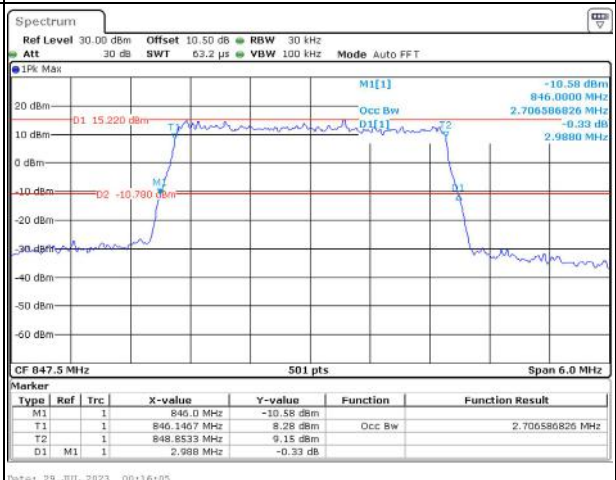
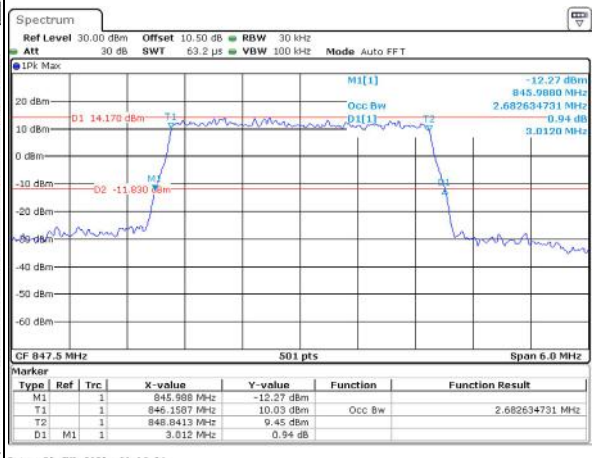
FCC §2.1055, §22.355: Frequency Stability

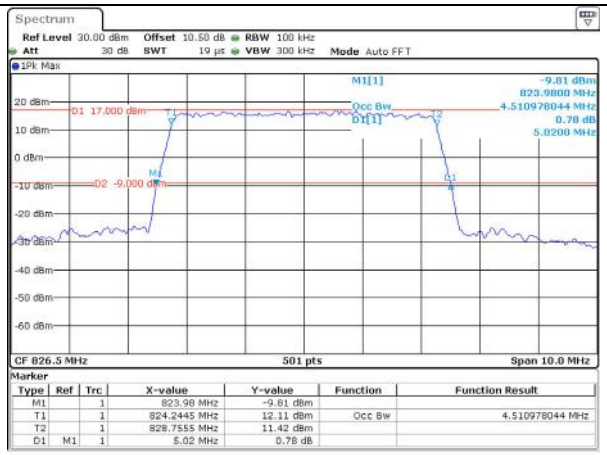
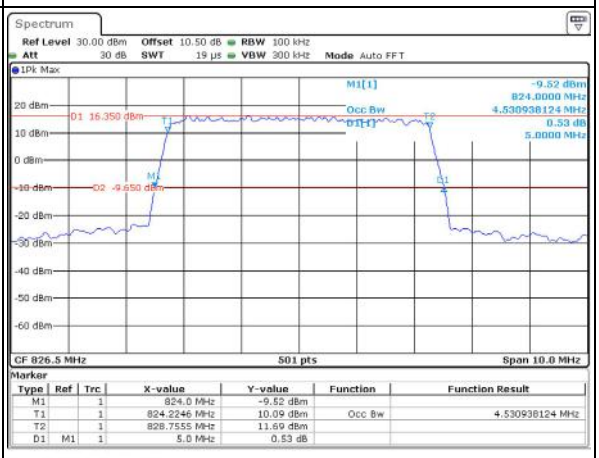
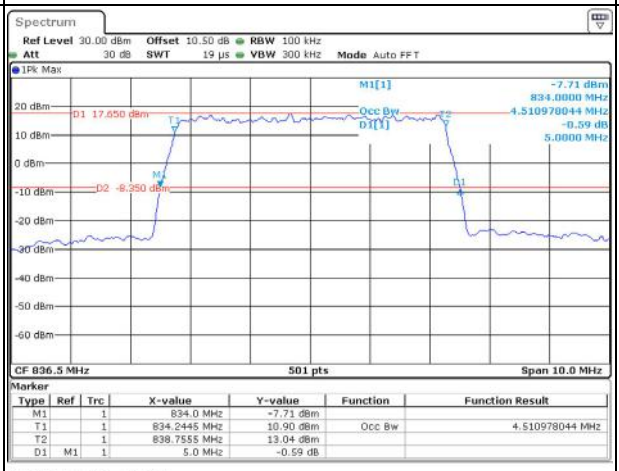
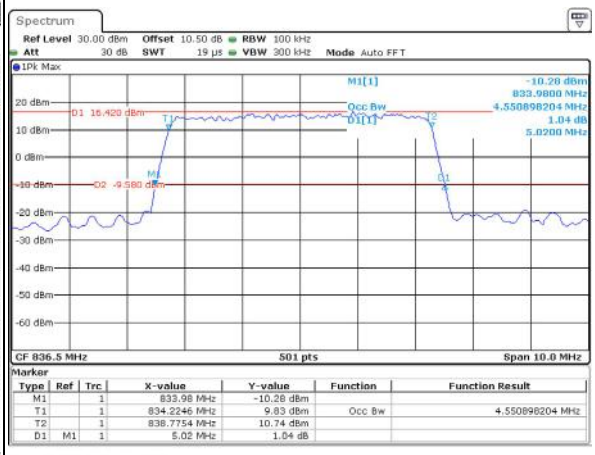
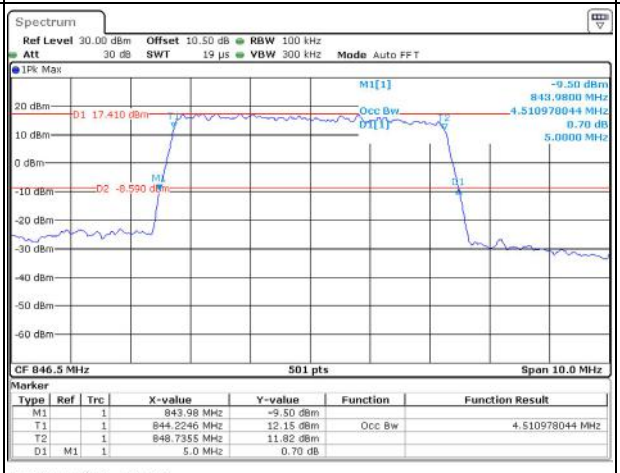
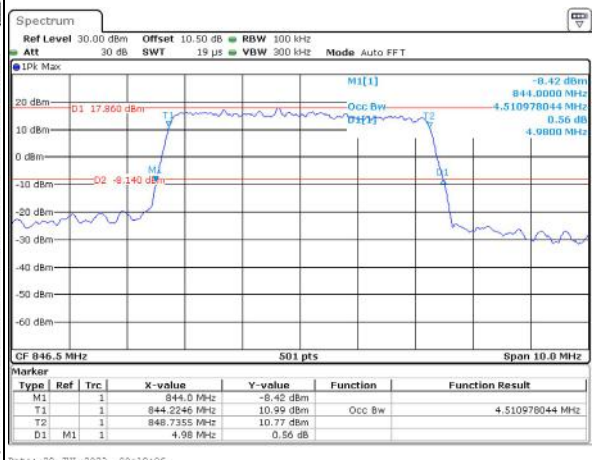
Test Modulation:	10 MHz QPSK		Test Channel:	836.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	7.94	0.009	2.5
	-20	3.8	-7.9	-0.009	2.5
	-10	3.8	8.32	0.010	2.5
	0	3.8	-6.24	-0.007	2.5
	10	3.8	-7.03	-0.008	2.5
	20	3.8	7.22	0.009	2.5
	30	3.8	9.31	0.011	2.5
	40	3.8	-7.36	-0.009	2.5
	50	3.8	6.08	0.007	2.5
Frequency Stability vs. Voltage	20	3.4	6.28	0.008	2.5
	20	4.35	8.06	0.010	2.5
				Result:	**Pass**

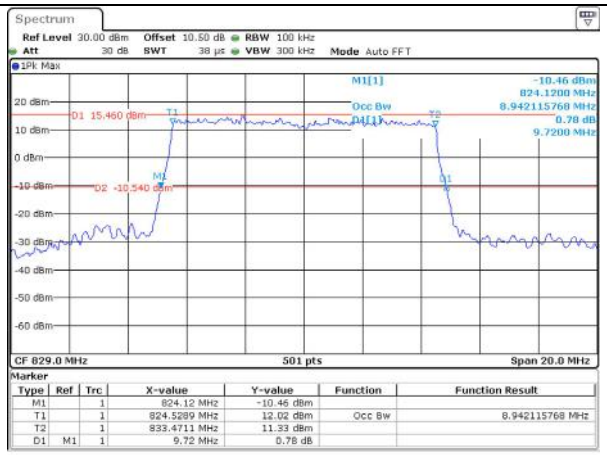
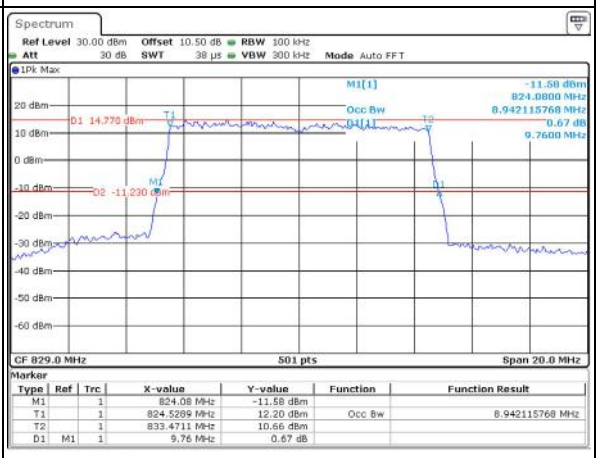
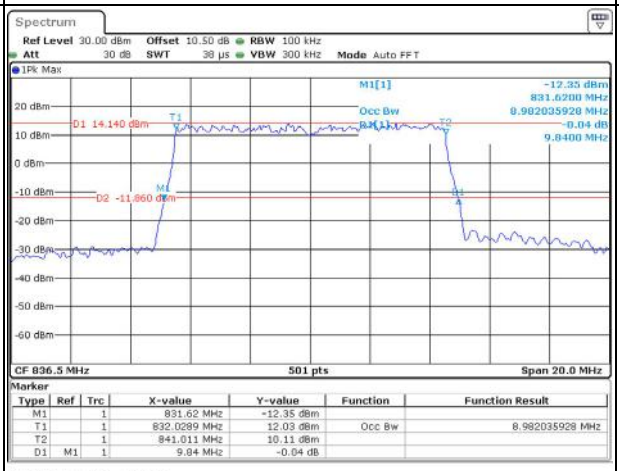
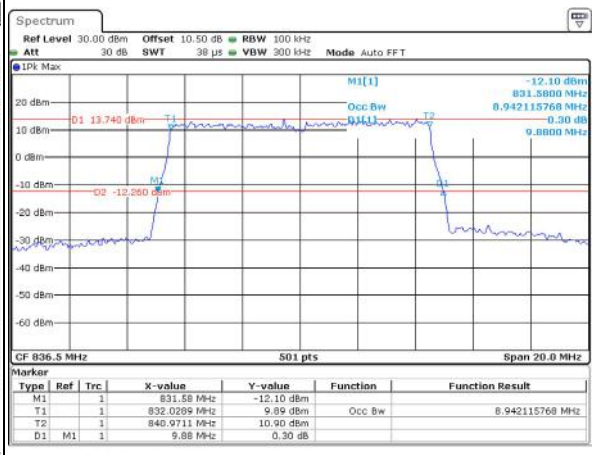
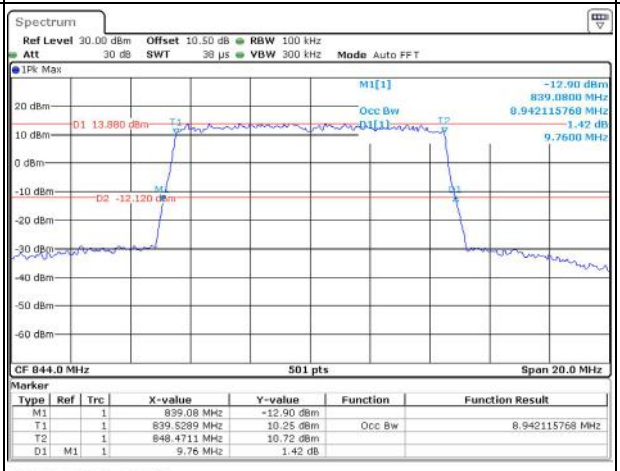
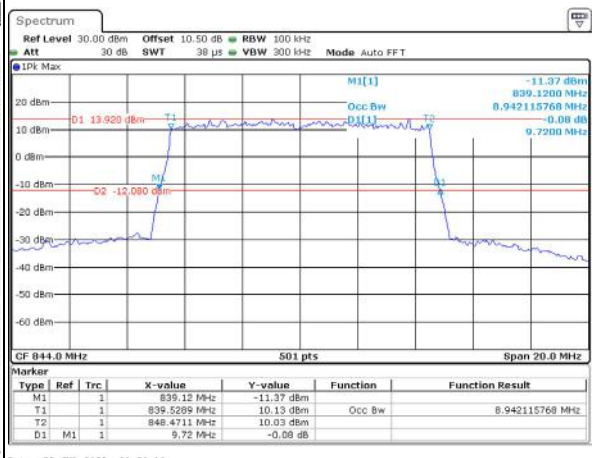
Test Modulation:	10 MHz 16QAM		Test Channel:	836.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	-14.87	-0.018	2.5
	-20	3.8	6.55	0.008	2.5
	-10	3.8	8.12	0.010	2.5
	0	3.8	7.92	0.009	2.5
	10	3.8	-5.43	-0.006	2.5
	20	3.8	8.29	0.010	2.5
	30	3.8	-6.63	-0.008	2.5
	40	3.8	8.41	0.010	2.5
	50	3.8	8.97	0.011	2.5
Frequency Stability vs. Voltage	20	3.4	8.81	0.011	2.5
	20	4.35	5.56	0.007	2.5
				Result:	**Pass**

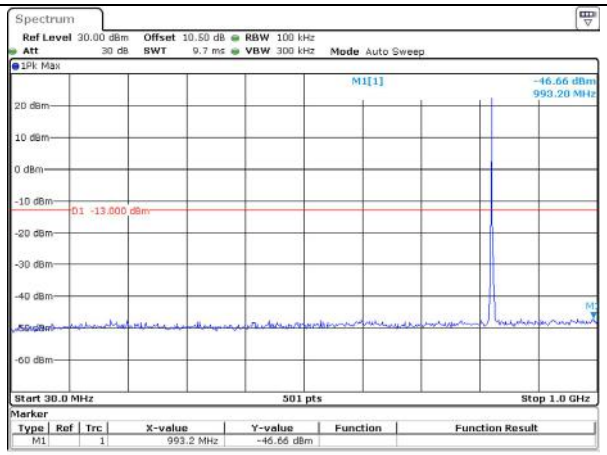
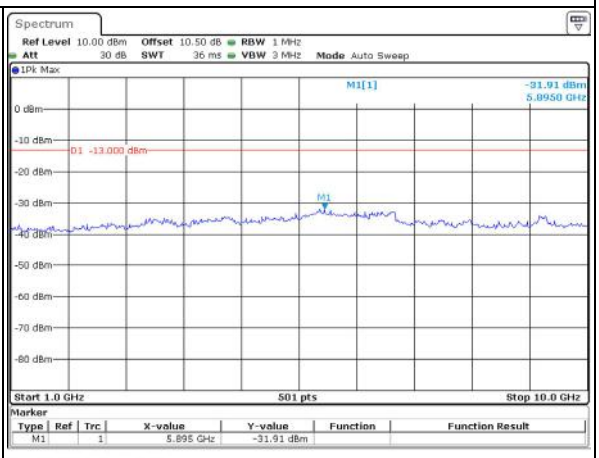
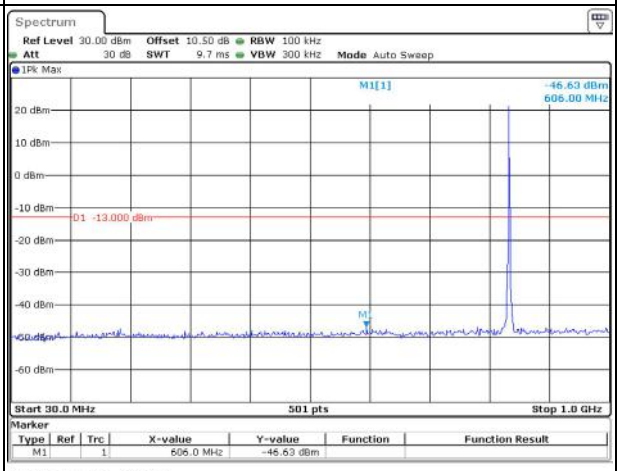
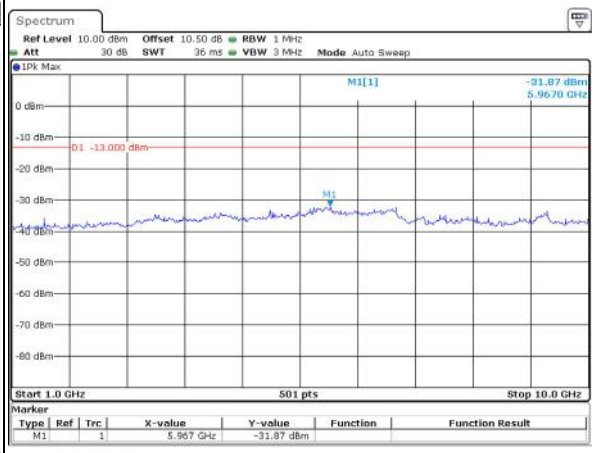
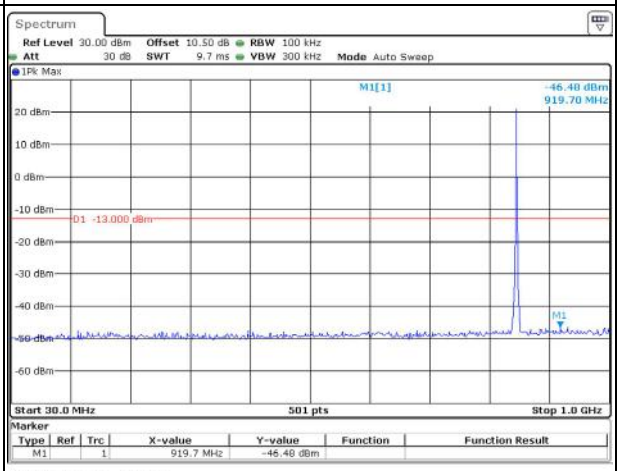
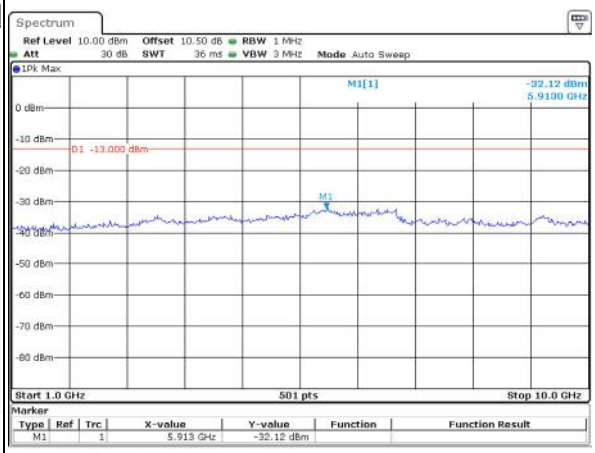
Test Plots(Note: The 10.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

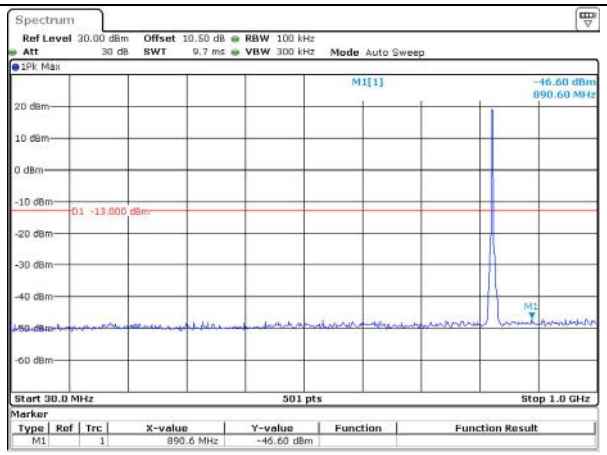
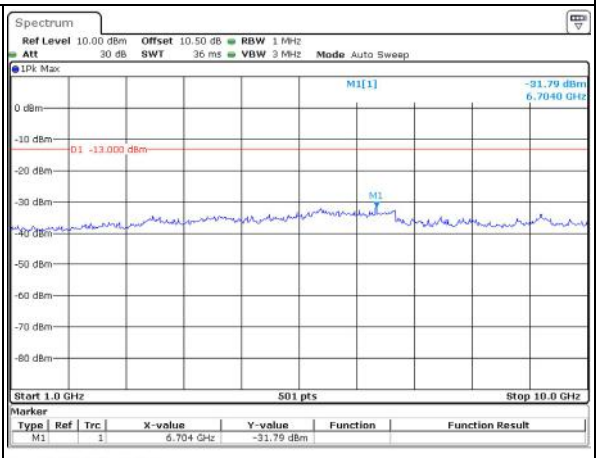
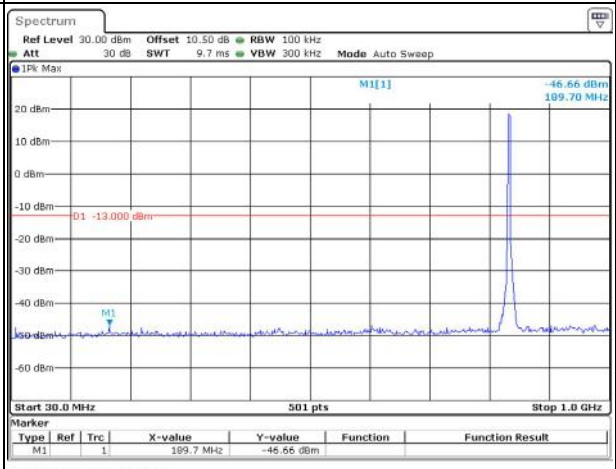
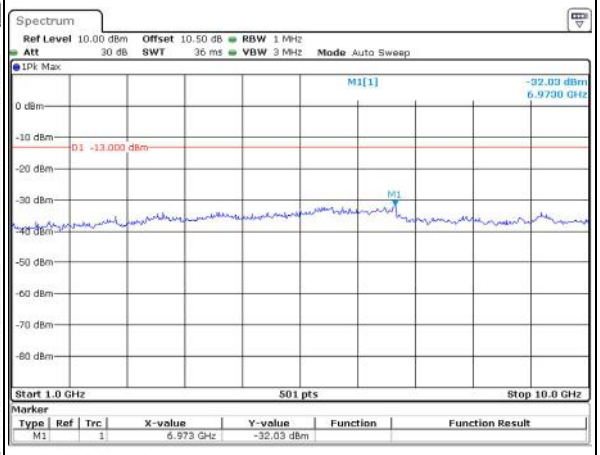
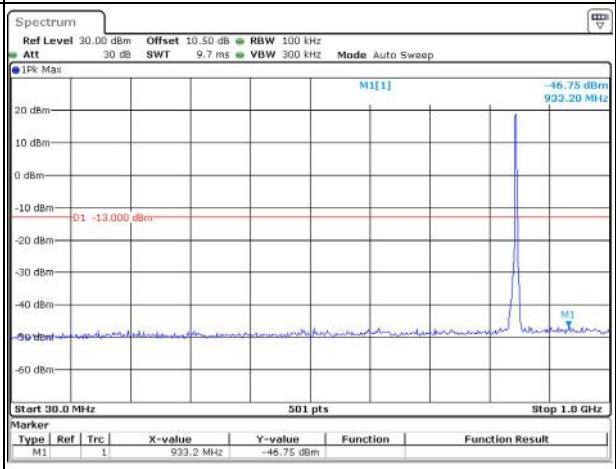
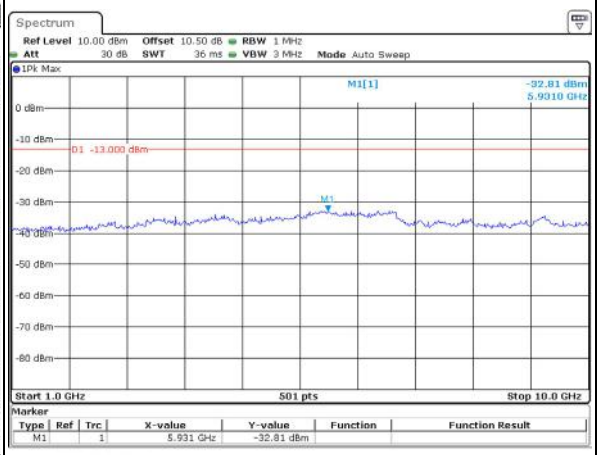
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

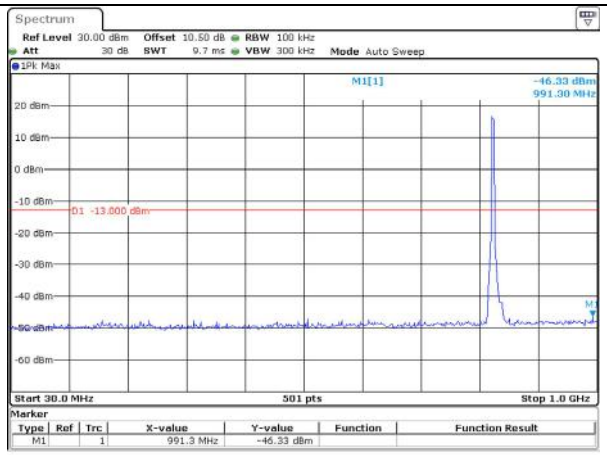
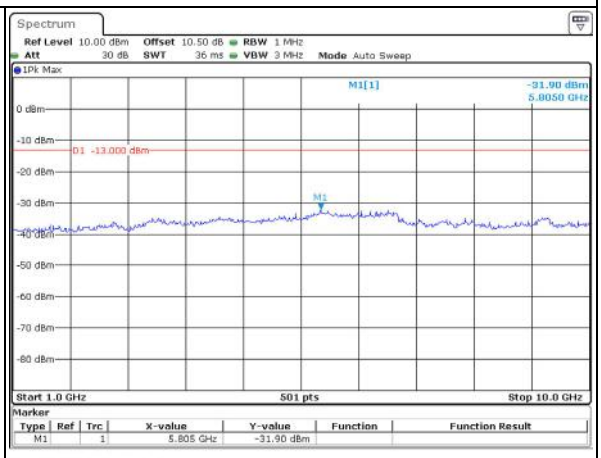
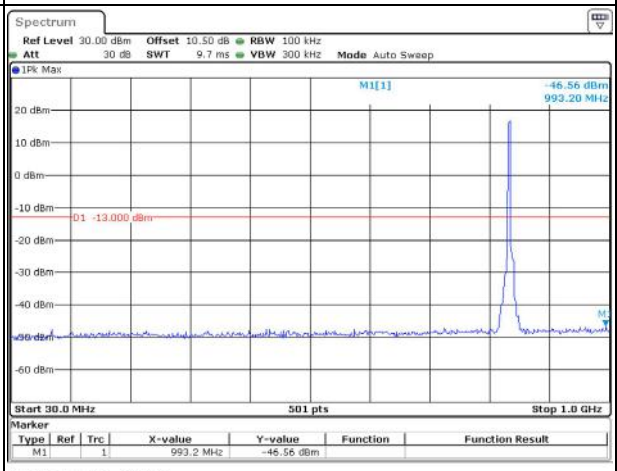
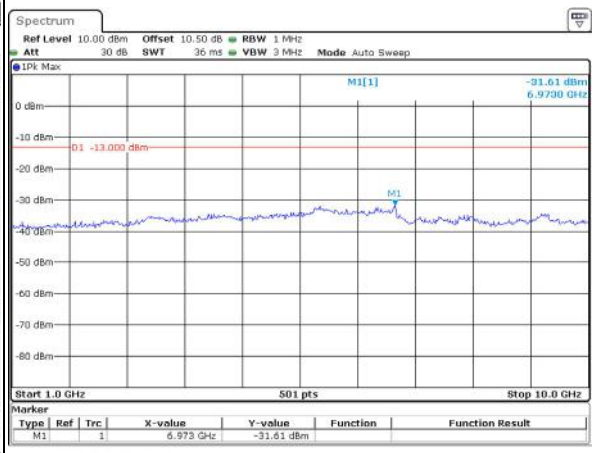
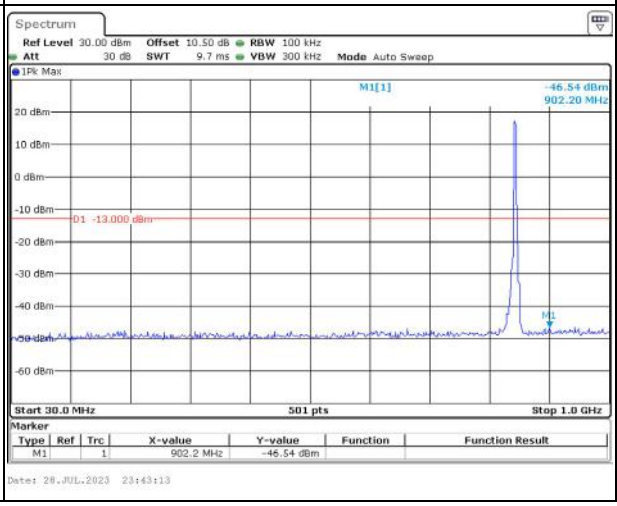
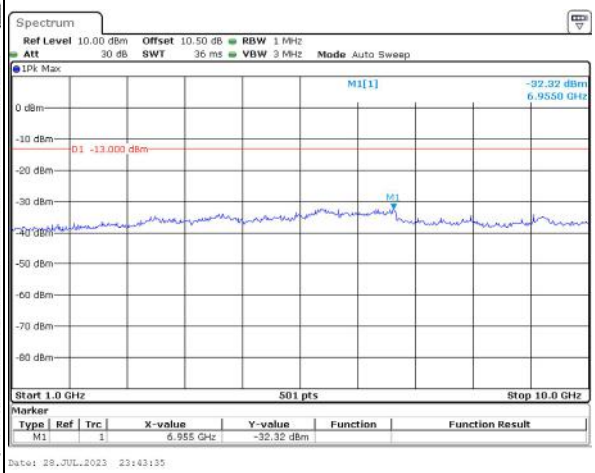
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

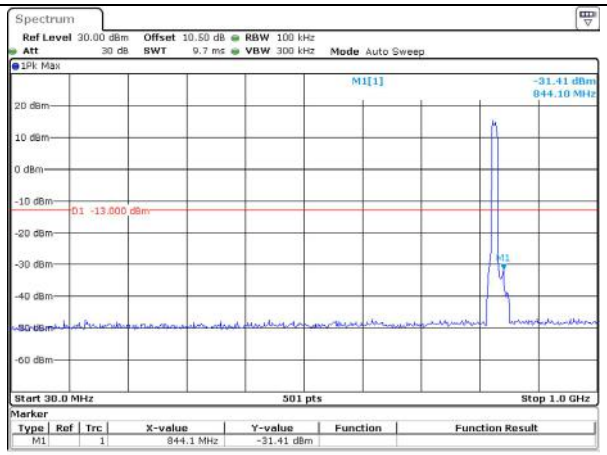
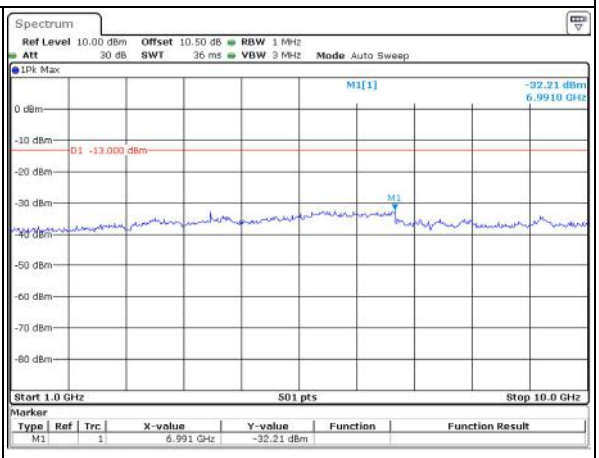
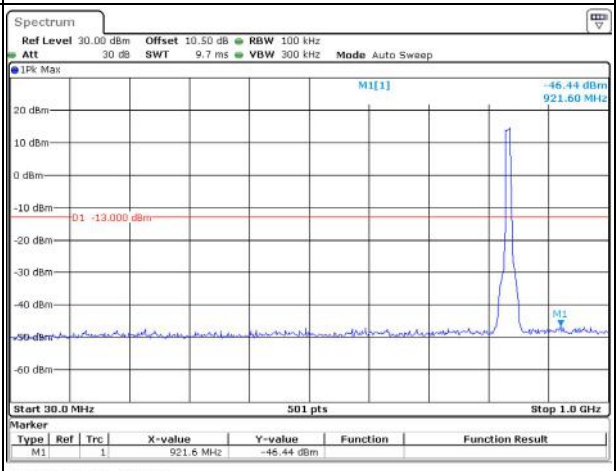
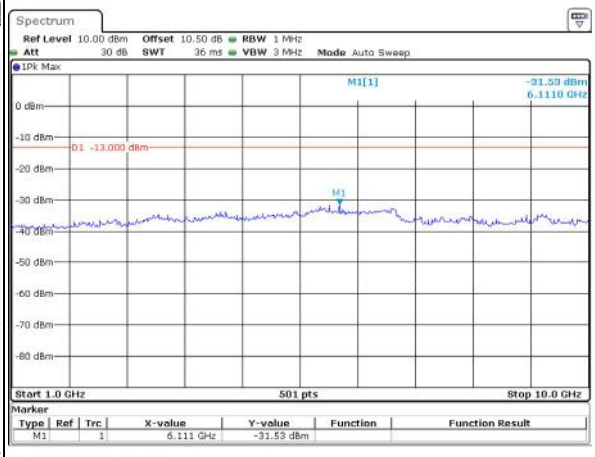
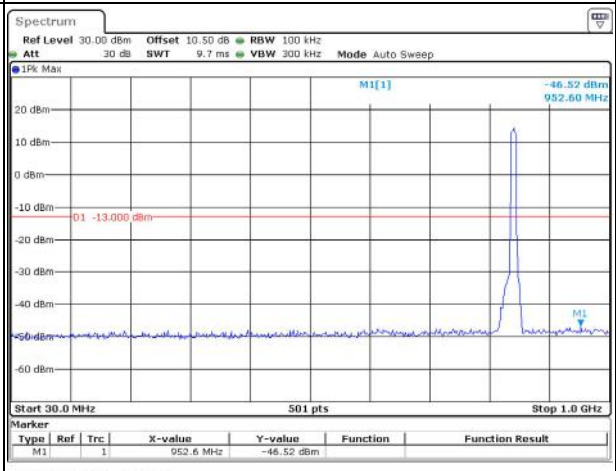
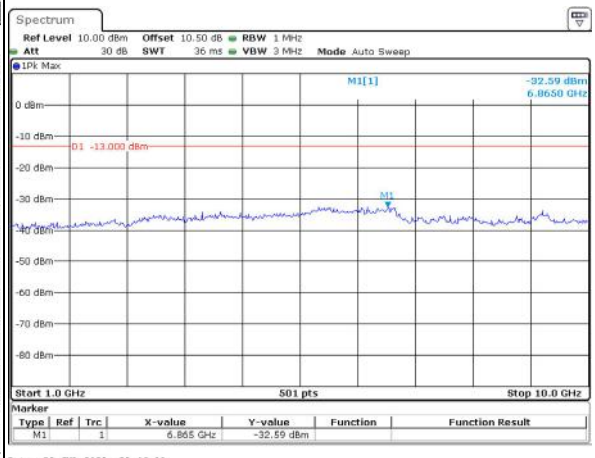
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

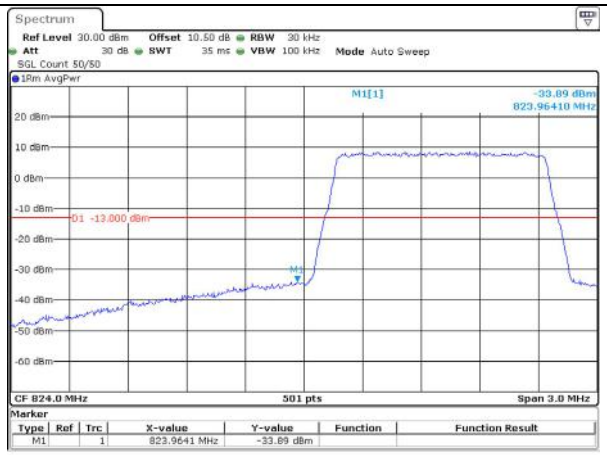
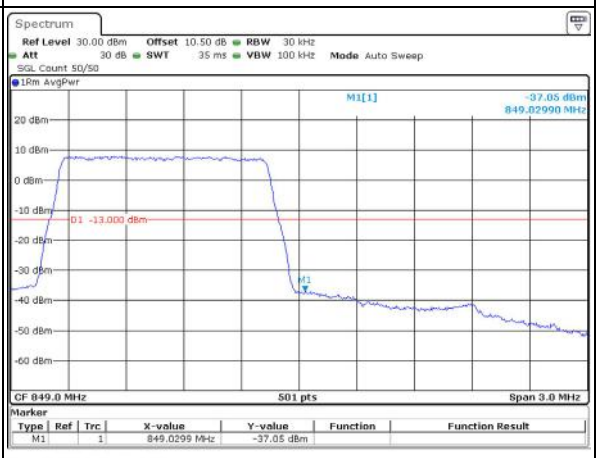
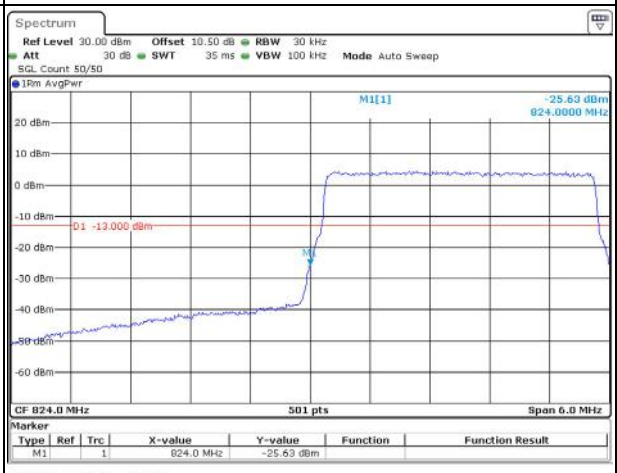
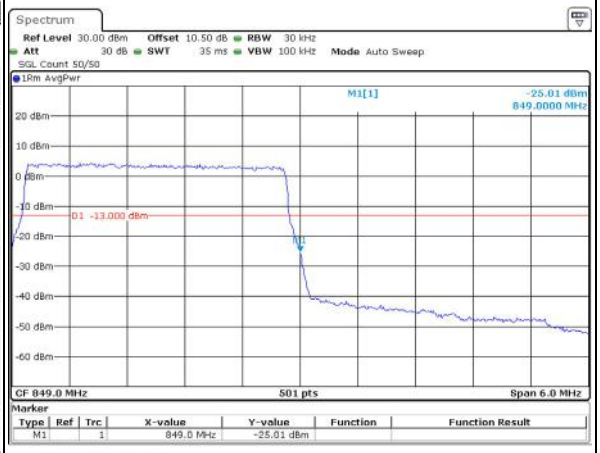
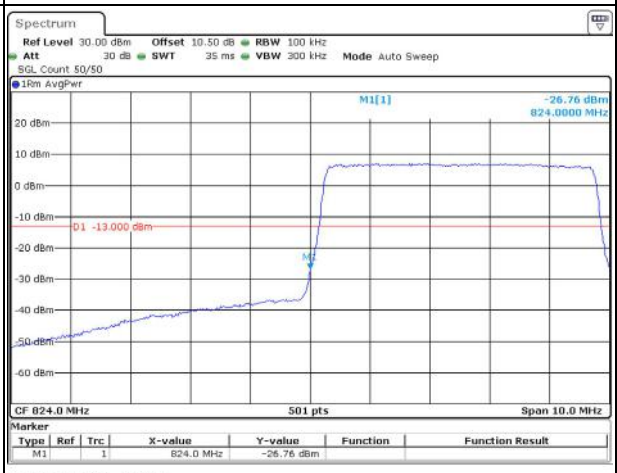
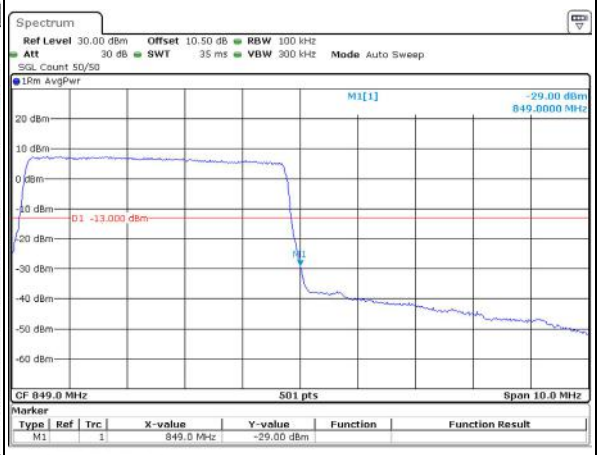
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

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

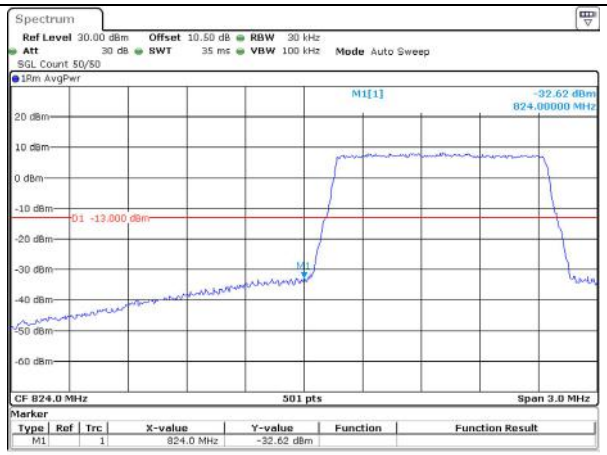
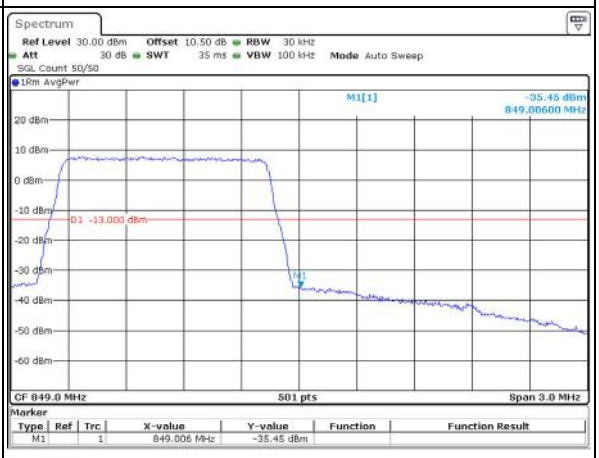
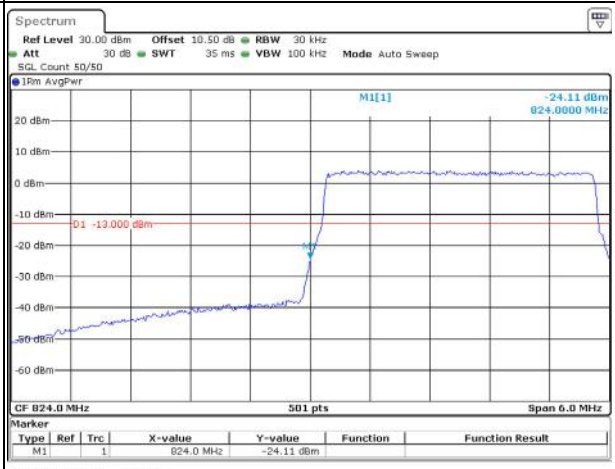
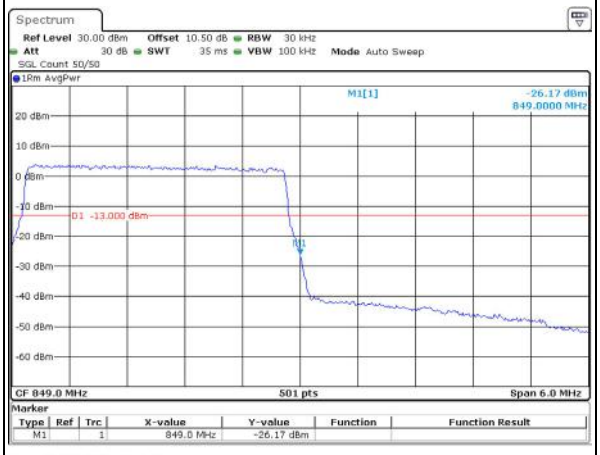
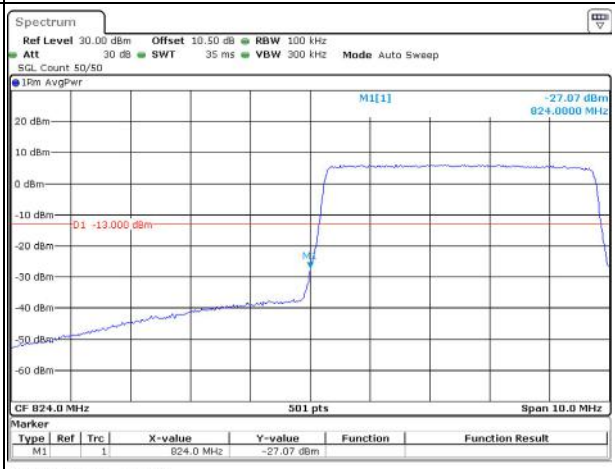
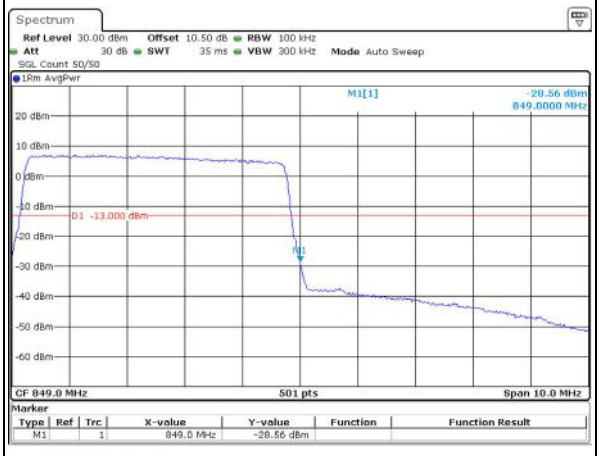
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

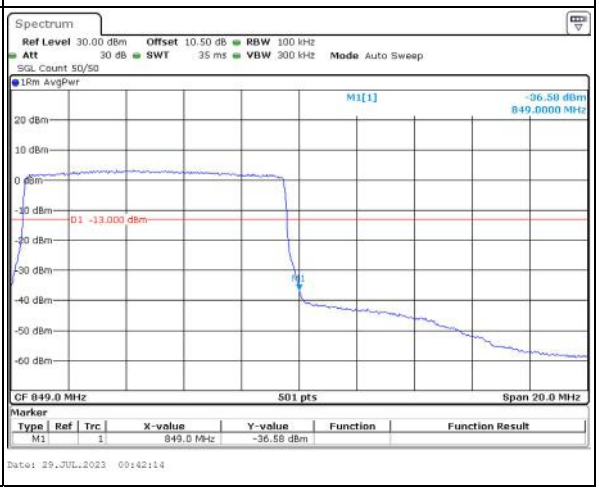
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

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

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

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		

4.9 Antenna Port Test Data and Results for LTE Band 7

Serial Number:	28O3-4	Test Date:	2023/7/28-2023/9/27
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.6-26.9	Relative Humidity: (%)	61~64	ATM Pressure: (kPa)	100~101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40-N	102259	2023/4/18	2024/4/17
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

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

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2502.5	2535	2567.5
10MHz	2505	2535	2565
15MHz	2507.5	2535	2562.5
20MHz	2510	2535	2560

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	21.32	21.38	21.54	23.32	33
	RB1#13	21.4	21.3	21.59		
	RB1#24	21.29	21.3	21.52		
	RB15#0	20.32	20.46	20.62		
	RB15#10	20.34	20.34	20.58		
	RB25#0	20.24	20.39	20.48		
5MHz 16QAM	RB1#0	19.48	19.94	19.71	21.71	33
	RB1#13	19.58	19.91	19.78		
	RB1#24	19.55	19.98	19.69		
	RB15#0	19.54	19.48	19.73		
	RB15#10	19.38	19.54	19.78		
	RB25#0	19.51	19.34	19.73		
10MHz QPSK	RB1#0	21.33	21.35	21.39	23.2	33
	RB1#25	21.35	21.37	21.47		
	RB1#49	21.46	21.32	21.41		
	RB25#0	20.24	20.37	20.46		
	RB25#25	20.27	20.3	20.53		
	RB50#0	20.24	20.32	20.49		
10MHz 16QAM	RB1#0	20.47	19.9	20.61	22.49	33
	RB1#25	20.48	19.95	20.7		
	RB1#49	20.52	19.89	20.76		
	RB25#0	19.47	19.61	19.61		
	RB25#25	19.56	19.65	19.62		
	RB50#0	19.53	19.58	19.76		
15MHz QPSK	RB1#0	21.25	21.35	21.24	23.22	33
	RB1#38	21.34	21.33	21.4		
	RB1#74	21.49	21.38	21.44		
	RB36#0	20.38	20.26	20.39		
	RB36#39	20.38	20.4	20.49		
	RB75#0	20.38	20.34	20.43		
15MHz 16QAM	RB1#0	20.6	20.9	20.66	22.63	33
	RB1#38	20.57	20.87	20.76		
	RB1#74	20.68	20.88	20.78		
	RB36#0	19.56	19.51	19.69		
	RB36#39	19.53	19.53	19.79		
	RB75#0	19.48	19.53	19.74		

20MHz QPSK	RB1#0	21.31	21.43	21.48	23.29	33
	RB1#50	21.34	21.52	21.45		
	RB1#99	21.39	21.56	21.54		
	RB50#0	20.31	20.46	20.44		
	RB50#50	20.3	20.45	20.49		
	RB100#0	20.36	20.33	20.37		
20MHz 16QAM	RB1#0	20.9	21	20.2	22.76	33
	RB1#50	20.95	20.98	20.2		
	RB1#99	21.03	20.93	20.31		
	RB50#0	19.54	19.43	19.62		
	RB50#50	19.6	19.48	19.73		
	RB100#0	19.45	19.62	19.52		
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	4.29	4.72	4.61	13
	RB100#0	4.12	4.29	4.23	13
20MHz 16QAM	RB1#0	5.48	6.17	5.86	13
	RB100#0	5.8	5.94	5.88	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	4.511	4.511	4.511	5.000	4.980	5.000
5MHz 16QAM	4.511	4.511	4.531	4.980	4.980	5.020
10MHz QPSK	8.942	8.942	8.942	9.760	9.800	9.800
10MHz 16QAM	8.982	8.942	8.942	9.840	9.840	9.840
15MHz QPSK	13.413	13.473	13.533	15.000	15.000	15.120
15MHz 16QAM	13.533	13.533	13.533	15.000	15.120	15.060
20MHz QPSK	17.964	17.964	18.044	19.520	19.680	19.760
20MHz 16QAM	18.044	17.964	17.964	19.840	19.680	19.680
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.**

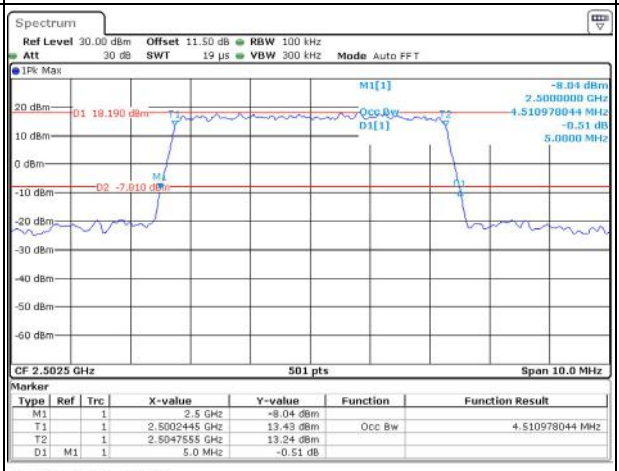
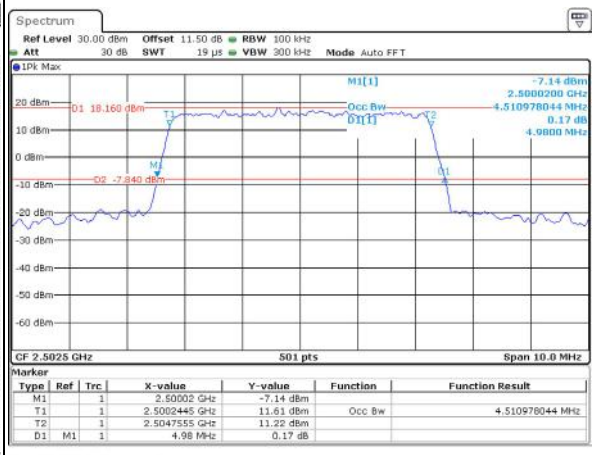
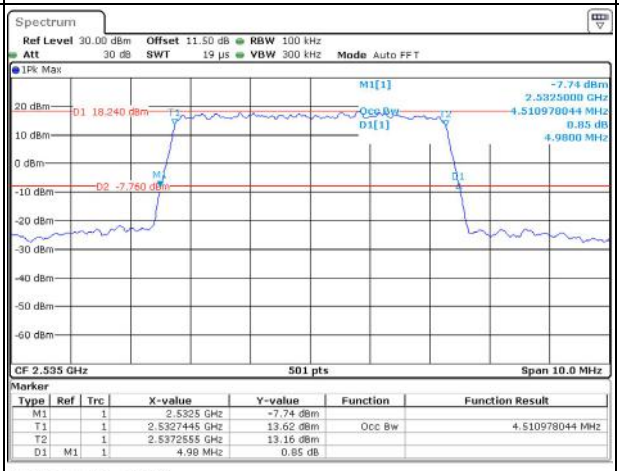
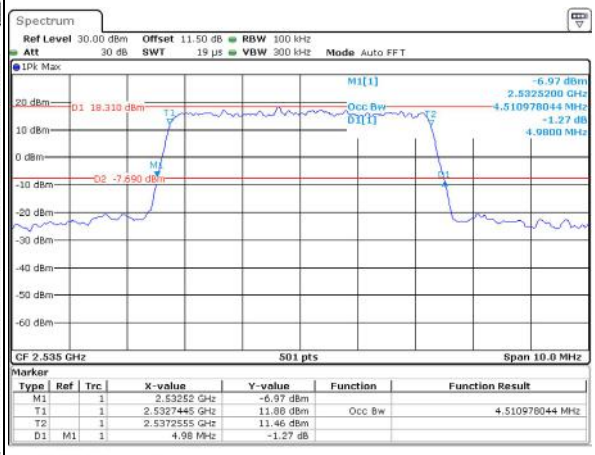
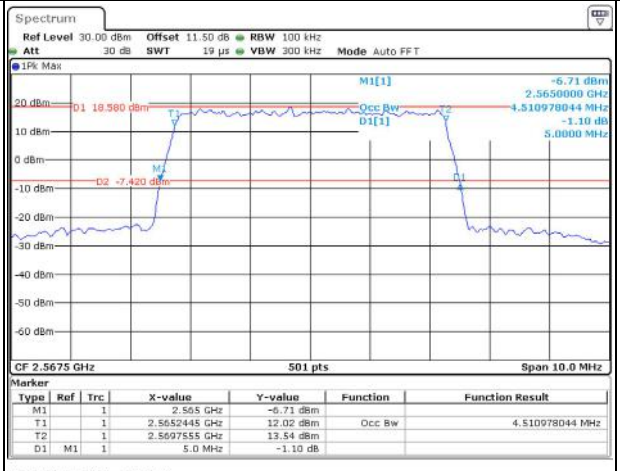
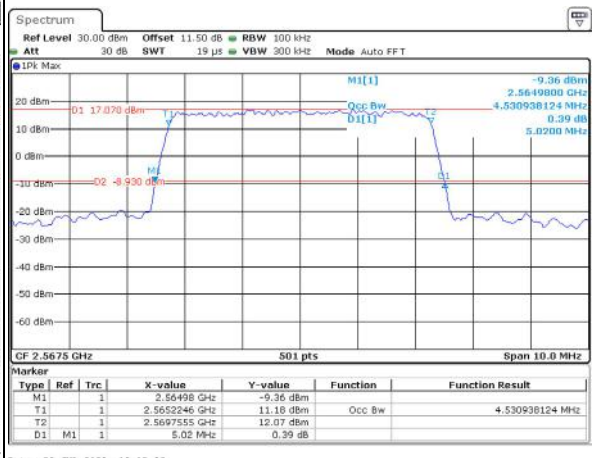
FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

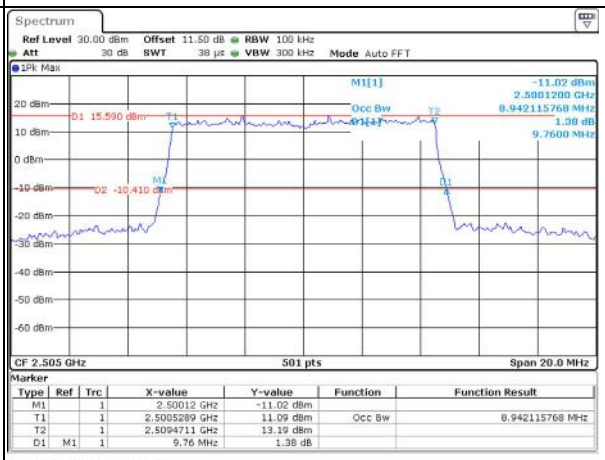
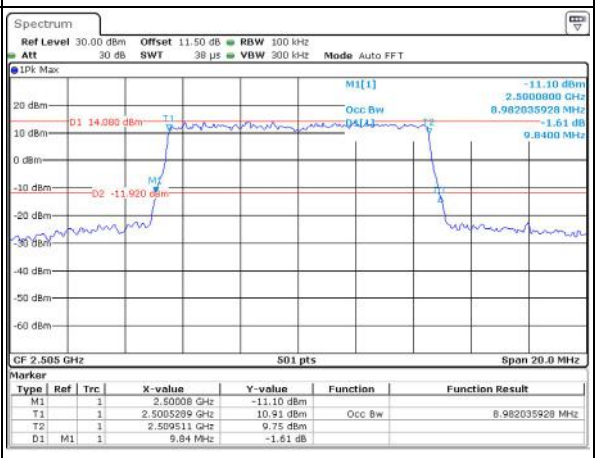
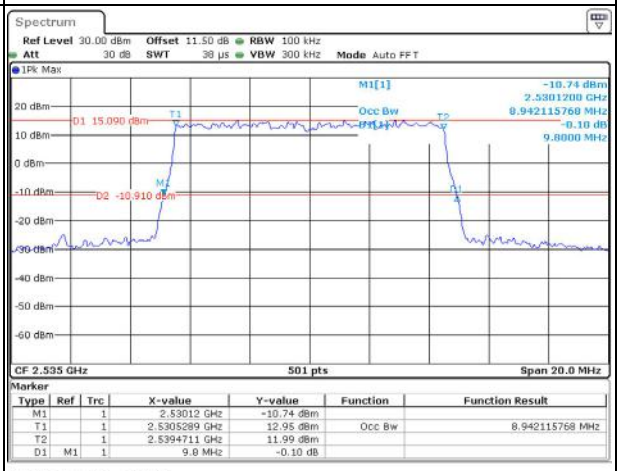
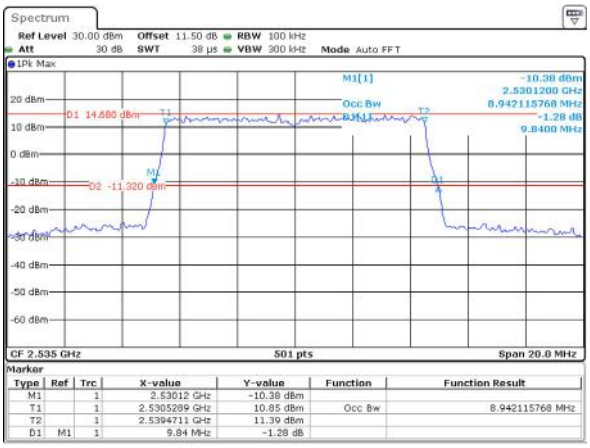
FCC §2.1055, §27.54: Frequency Stability

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	3.8	2500.7805	2500.00	2569.925	2570
	-20	3.8	2500.8406	2500.00	2569.9457	2570
	-10	3.8	2500.8918	2500.00	2569.912	2570
	0	3.8	2500.4049	2500.00	2569.9135	2570
	10	3.8	2500.7026	2500.00	2569.9461	2570
	20	3.8	2500.3448	2500.00	2569.9646	2570
	30	3.8	2500.2618	2500.00	2569.9363	2570
	40	3.8	2500.5022	2500.00	2569.9947	2570
	50	3.8	2500.6999	2500.00	2569.9485	2570
Frequency Stability vs. Voltage	20	3.4	2500.2704	2500.00	2569.9261	2570
	20	4.35	2500.6922	2500.00	2569.9749	2570
					Result:	**Pass**

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	2500.1763	2500.00	2569.9259	2570
	-20	3.8	2500.2435	2500.00	2569.9564	2570
	-10	3.8	2500.3191	2500.00	2569.9259	2570
	0	3.8	2500.2084	2500.00	2569.9154	2570
	10	3.8	2500.198	2500.00	2569.9594	2570
	20	3.8	2500.2982	2500.00	2569.9592	2570
	30	3.8	2500.1926	2500.00	2569.956	2570
	40	3.8	2500.3142	2500.00	2569.9536	2570
	50	3.8	2500.3862	2500.00	2569.9257	2570
Frequency Stability vs. Voltage	20	3.4	2500.1656	2500.00	2569.9248	2570
	20	4.35	2500.2821	2500.00	2569.9155	2570
					Result:	**Pass**

Test Plots(Note: The 11.5dB 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