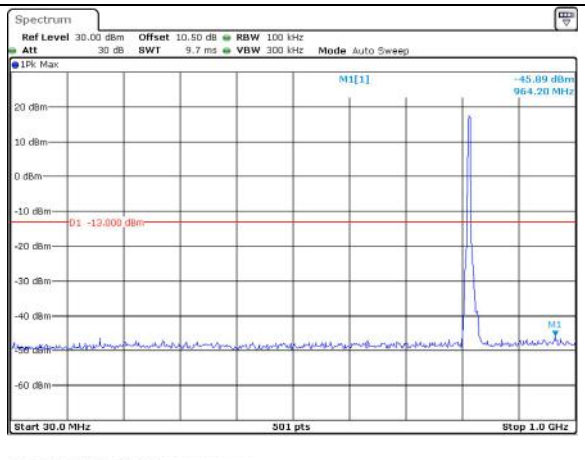
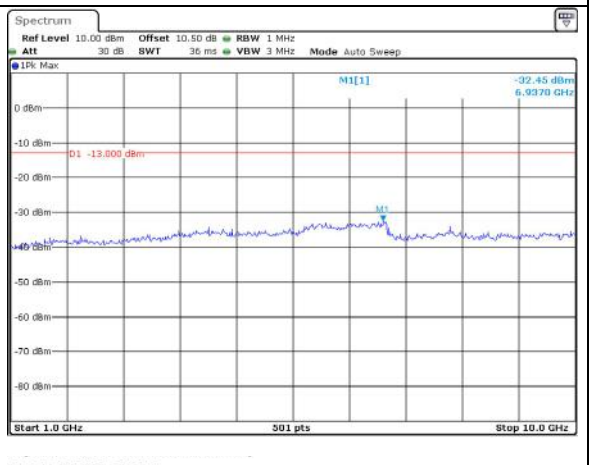
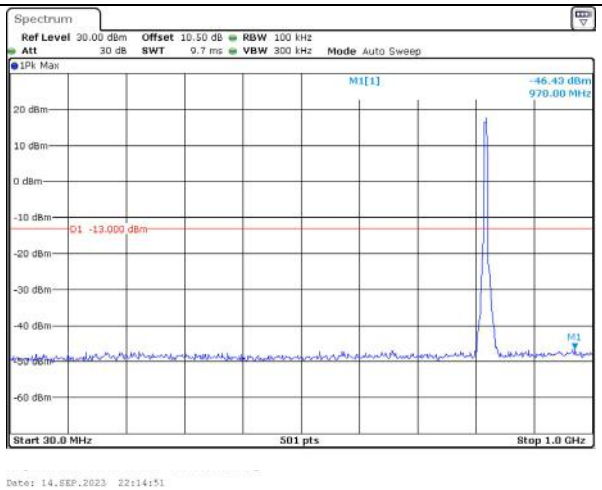
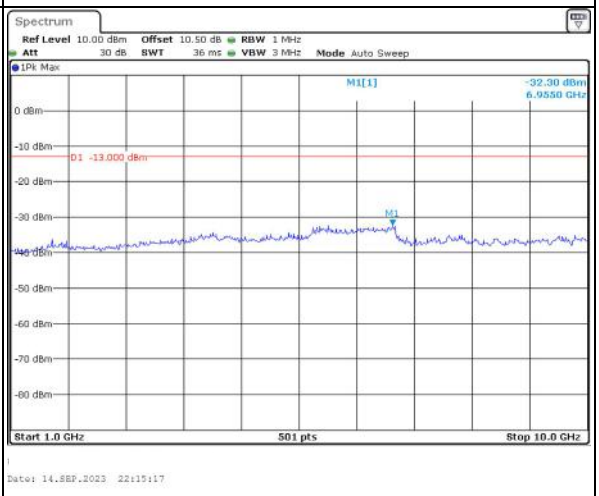
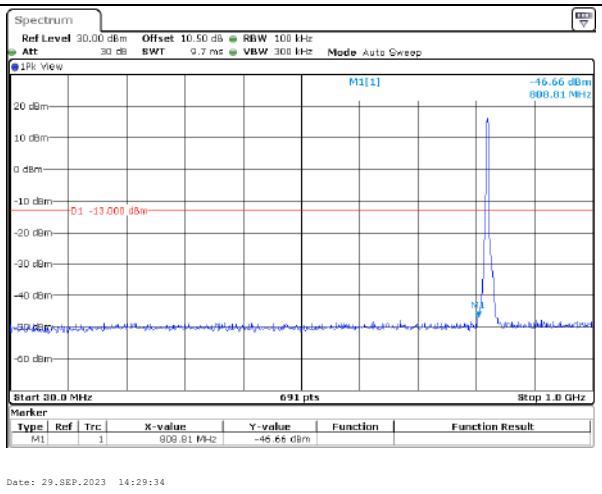
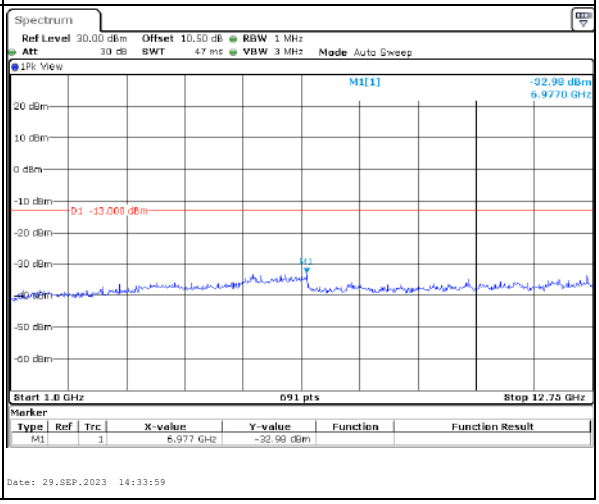
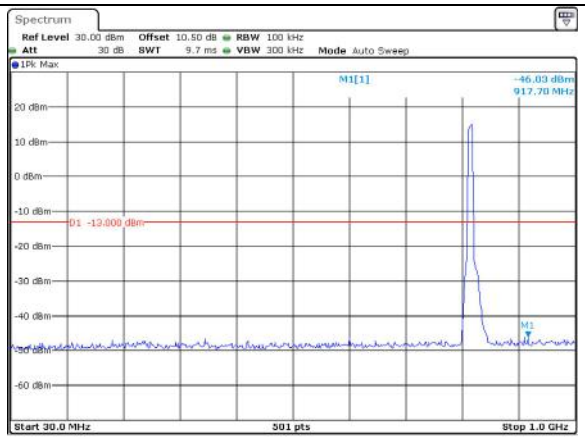
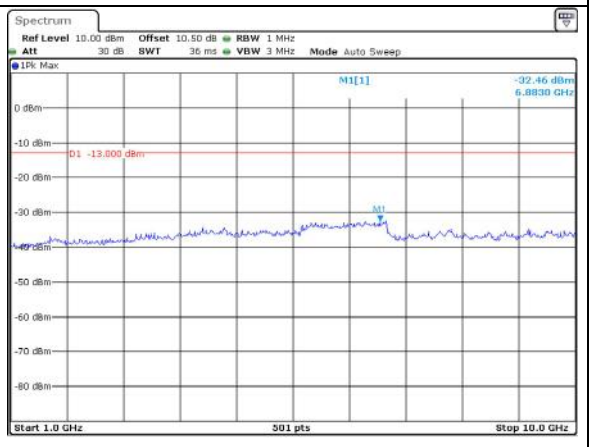
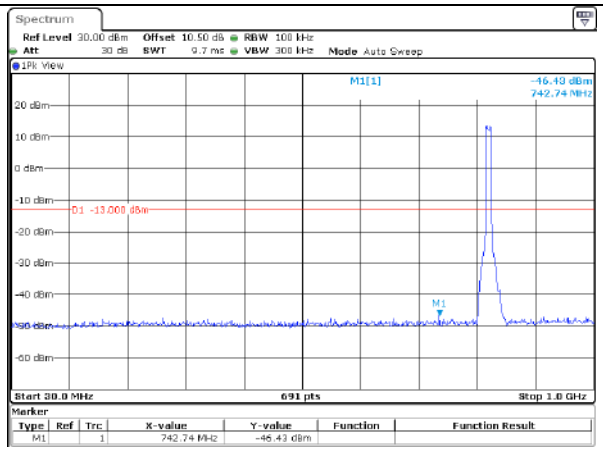
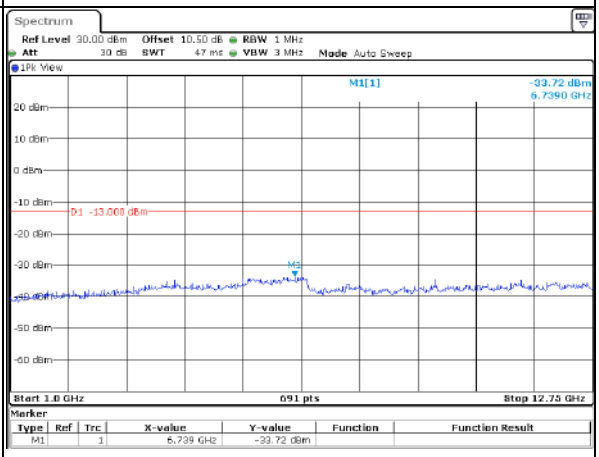
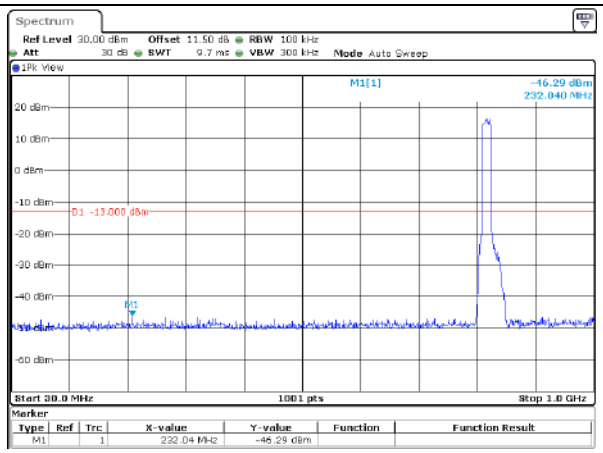
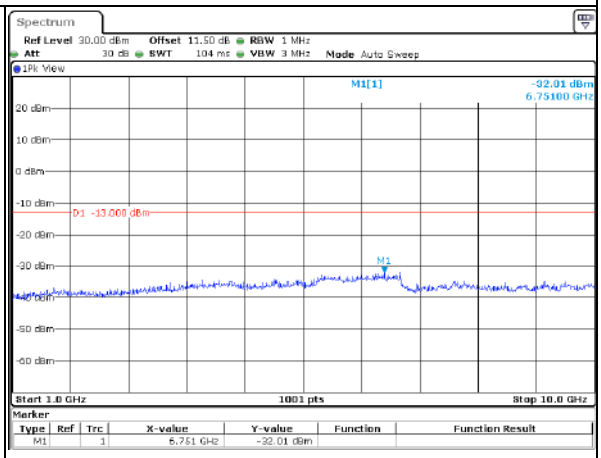
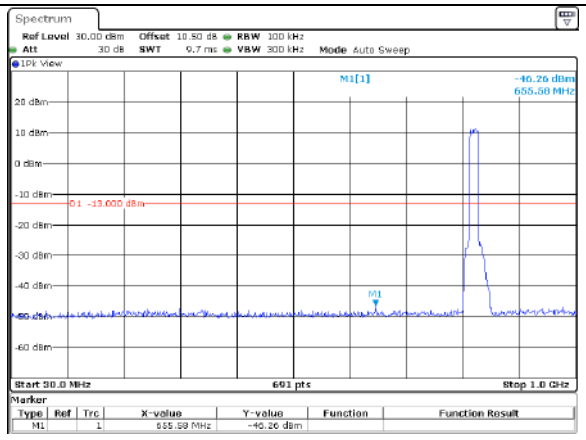
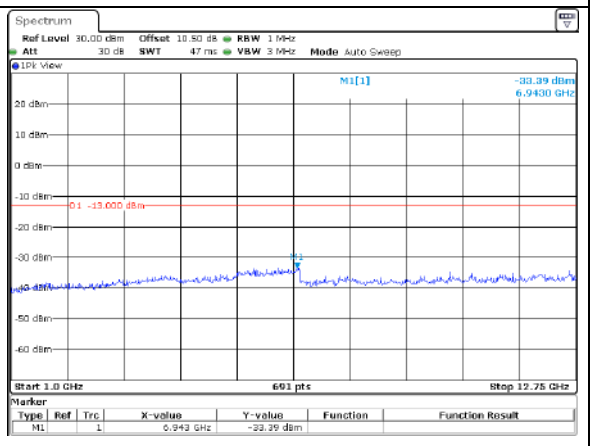
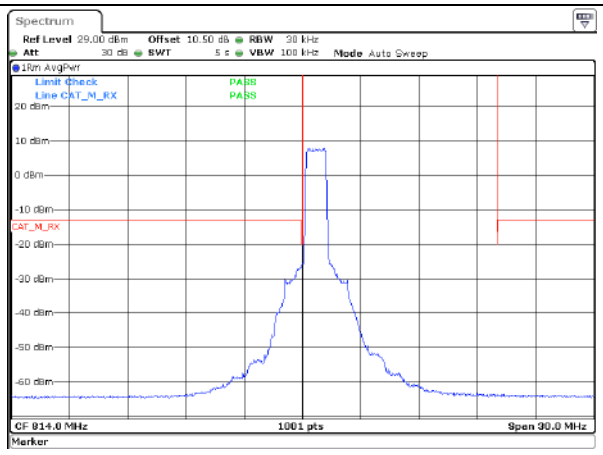
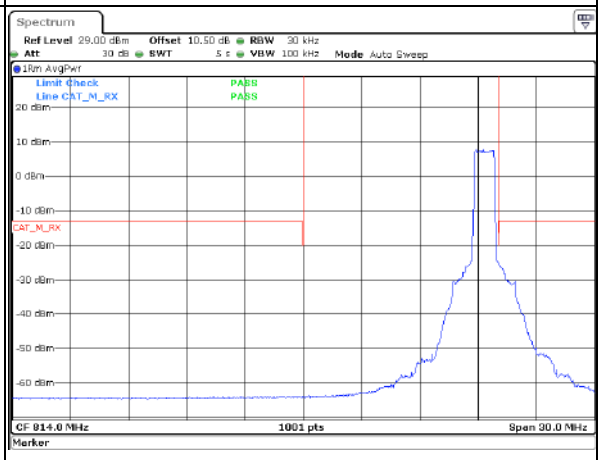
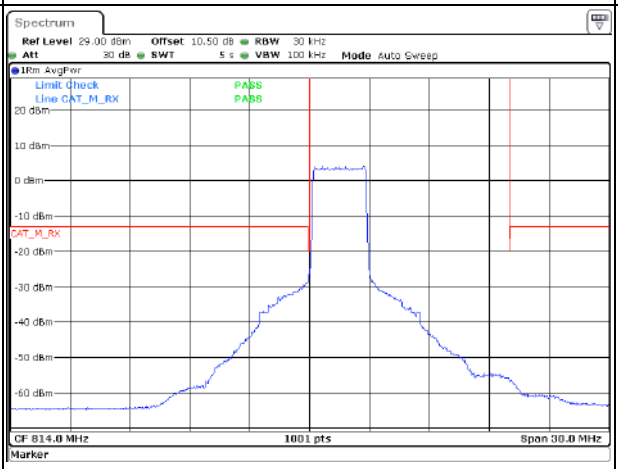
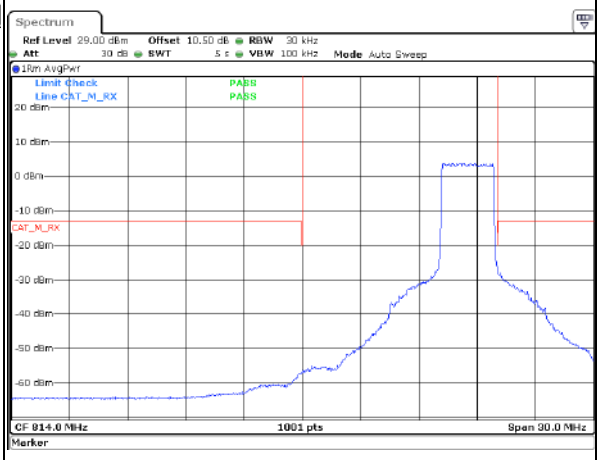
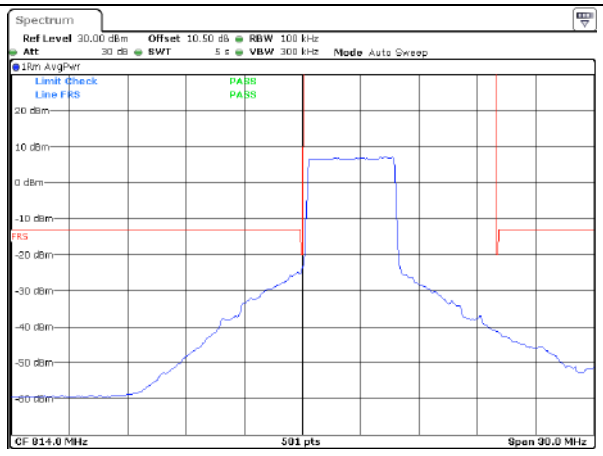
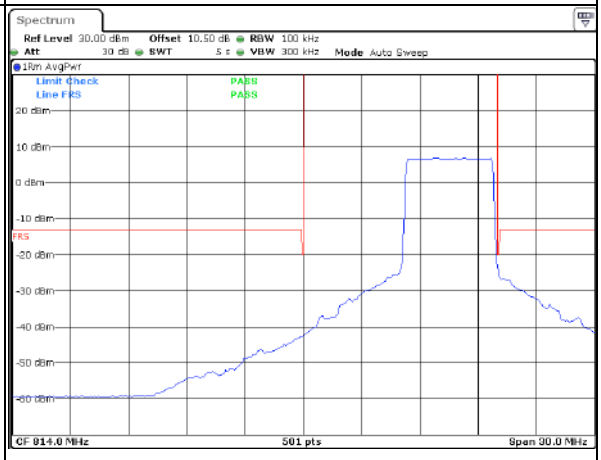
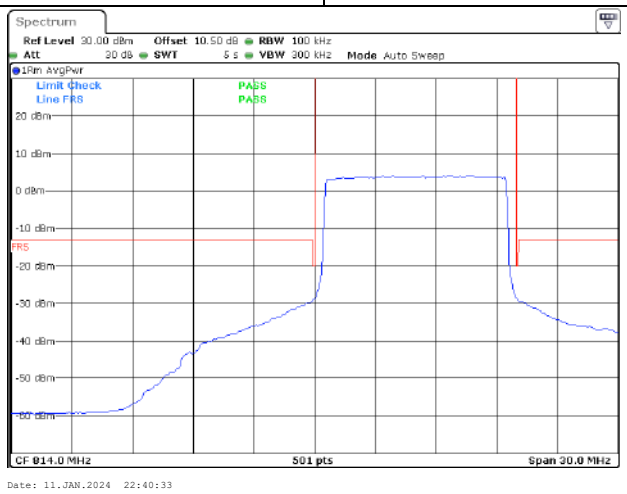
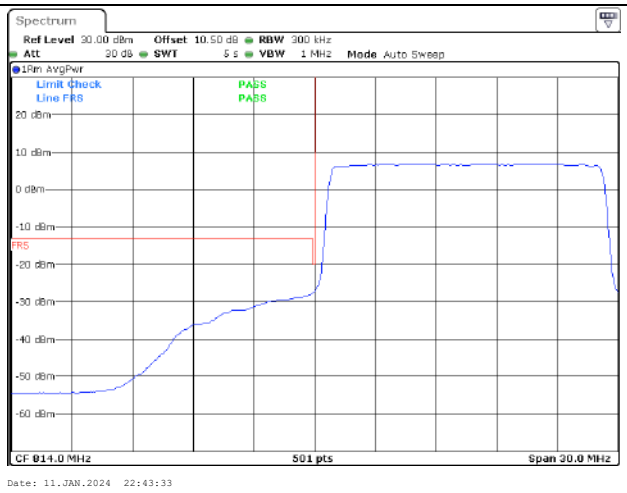
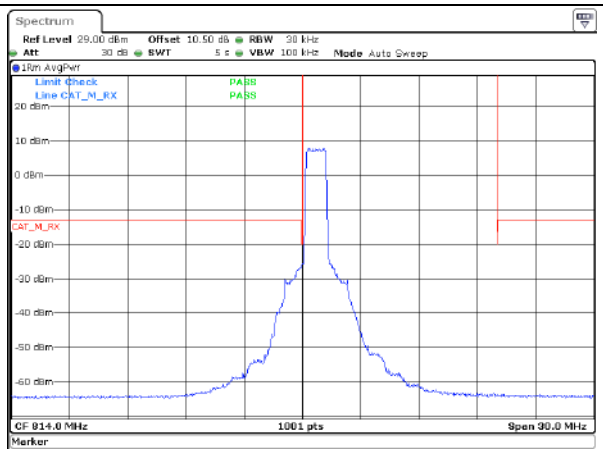
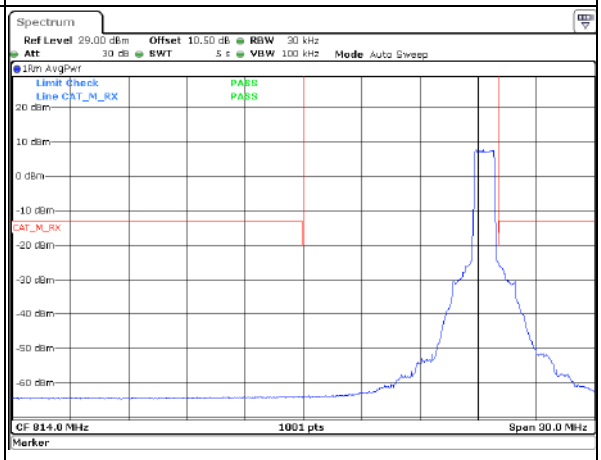
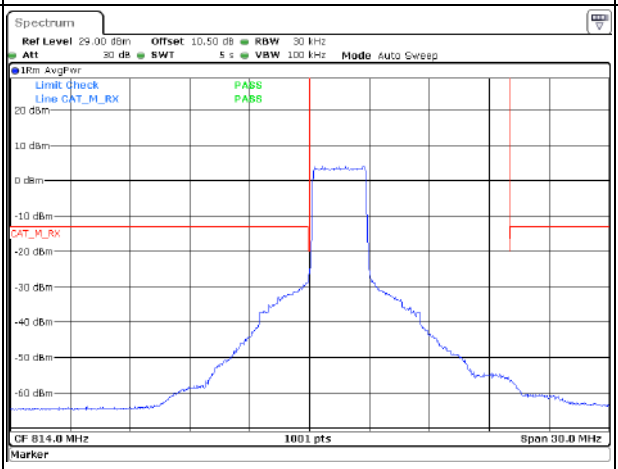
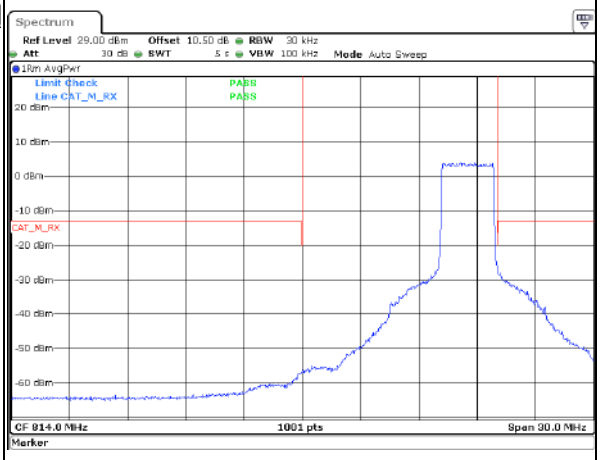
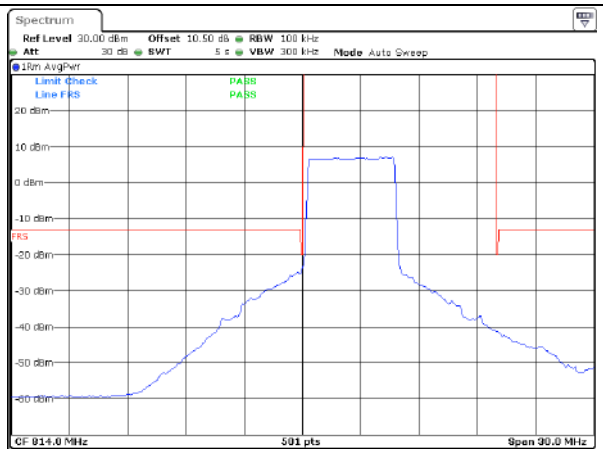
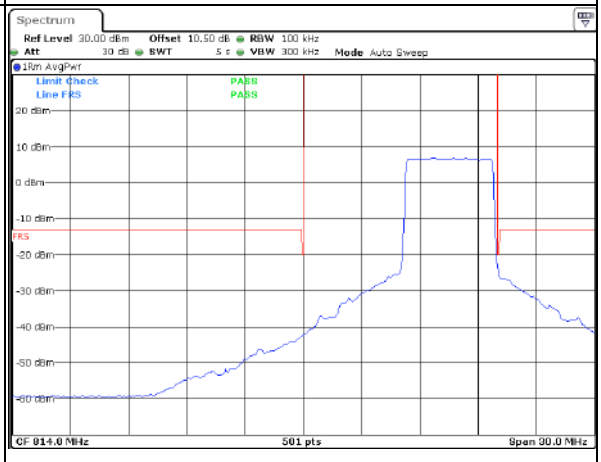
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest For 90S		
Highest For 90S		
Cross Channel		

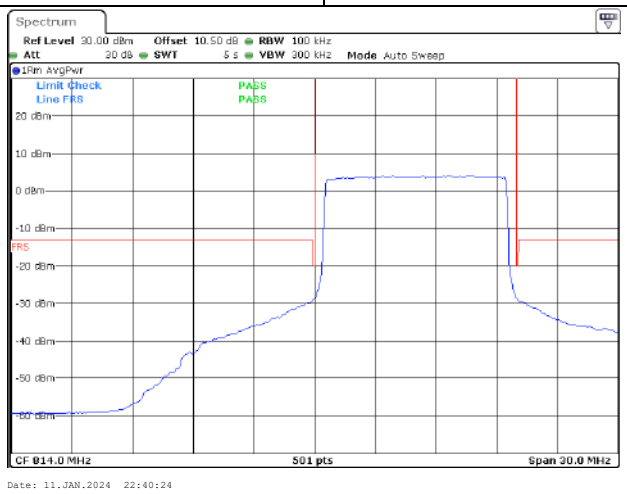
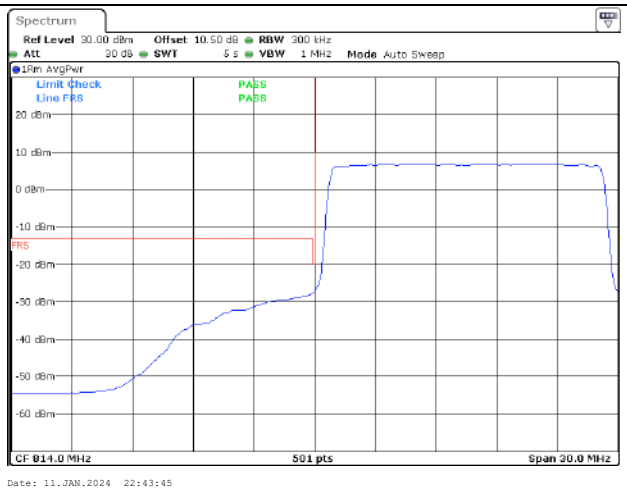
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest For 90S		
Cross Channel		

Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest For 90S		
Cross Channel		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz For 90S		
QPSK 3MHz For 90S		
QPSK 5MHz For 90S		

Out of band emission, Band Edge		
Mode		
QPSK 10MHz For 90S		
QPSK 15MHz Across 90S and 22H		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz For 90S		
16QAM 3MHz For 90S		
16QAM 5MHz For 90S		

Out of band emission, Band Edge		
Mode		
16QAM 10MHz For 90S		
16QAM 15MHz Across 90S and 22H		

4.14.3 Test Data for Part 22H:

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 Frequency For 22H	Middle Frequency For 22H	Highest Frequency For 22H		
1.4MHz QPSK	RB1#0	24.01	23.97	23.91	18.06	38.45
	RB1#3	23.96	23.99	23.89		
	RB1#5	23.90	23.93	23.85		
	RB3#0	23.08	22.96	22.86		
	RB3#3	23.03	23.00	22.94		
	RB6#0	23.04	22.95	22.90		
1.4MHz 16QAM	RB1#0	23.21	23.11	23.68	17.73	38.45
	RB1#3	23.21	23.05	23.61		
	RB1#5	23.11	22.92	23.59		
	RB3#0	22.10	22.05	21.98		
	RB3#3	22.03	22.08	22.01		
	RB6#0	22.05	21.97	21.93		
3MHz QPSK	RB1#0	23.94	23.84	23.76	17.99	38.45
	RB1#8	23.83	23.79	23.70		
	RB1#14	23.89	23.74	23.60		
	RB6#0	22.89	22.82	22.80		
	RB6#9	22.96	22.92	22.85		
	RB15#0	22.90	22.82	22.80		
3MHz 16QAM	RB1#0	23.28	23.28	23.45	17.50	38.45
	RB1#8	23.14	23.32	23.41		
	RB1#14	23.22	23.27	23.35		
	RB6#0	21.88	21.83	21.83		
	RB6#9	21.94	21.90	21.88		
	RB15#0	21.93	21.81	21.85		
5MHz QPSK	RB1#0	24.13	24.06	24.06	18.19	38.45
	RB1#13	23.91	23.92	24.14		
	RB1#24	23.95	24.05	23.86		
	RB15#0	23.04	22.96	23.18		
	RB15#10	23.21	23.00	23.07		
	RB25#0	22.97	23.20	23.13		
5MHz 16QAM	RB1#0	23.05	22.85	22.95	17.29	38.45
	RB1#13	23.24	23.13	23.03		
	RB1#24	22.98	22.88	22.85		
	RB15#0	22.19	22.26	22.09		
	RB15#10	22.22	21.95	22.20		
	RB25#0	22.21	22.17	22.14		

10MHz QPSK	RB1#0	23.93	23.80	23.81	17.98	38.45
	RB1#25	23.88	23.81	23.78		
	RB1#49	23.67	23.82	23.77		
	RB25#0	21.83	21.67	21.76		
	RB25#25	21.82	21.70	21.81		
	RB50#0	21.88	21.89	21.83		
10MHz 16QAM	RB1#0	23.66	22.31	23.26	17.71	38.45
	RB1#25	23.47	22.38	23.16		
	RB1#49	23.44	22.22	23.29		
	RB25#0	21.99	21.91	21.84		
	RB25#25	21.75	21.94	21.95		
	RB50#0	21.91	21.95	21.87		
15MHz QPSK	RB1#0	24.08	23.66	23.74	18.13	38.45
	RB1#38	23.84	23.61	23.74		
	RB1#74	23.93	23.65	23.78		
	RB36#0	21.90	21.69	21.76		
	RB36#39	21.57	21.91	21.79		
	RB75#0	21.82	21.82	21.85		
15MHz 16QAM	RB1#0	23.07	22.93	23.05	17.19	38.45
	RB1#38	22.87	22.93	23.07		
	RB1#74	22.96	22.88	23.14		
	RB36#0	21.96	21.83	21.83		
	RB36#39	21.86	21.85	21.82		
	RB75#0	21.74	21.88	21.85		
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 Frequency For 22H	Middle Frequency For 22H	Highest Frequency For 22H	
15MHz QPSK	RB1#0	6.24	9.53	9.51	13
	RB75#0	9.92	6.96	9.22	13
15MHz 16QAM	RB1#0	6.70	9.04	6.34	13
	RB75#0	8.92	6.17	6.94	13
				Result:	**Pass**

FCC §2.1049, §22.905: Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Lowest For 22H	Middle For 22H	Highest For 22H	Lowest For 22H	Middle For 22H	Highest For 22H
1.4MHz QPSK	1.102	1.084	1.09	1.236	1.212	1.22
1.4MHz 16QAM	1.096	1.096	1.09	1.248	1.254	1.19
3MHz QPSK	2.683	2.695	2.695	2.964	2.952	2.952
3MHz 16QAM	2.683	2.695	2.695	2.940	2.976	2.976
5MHz QPSK	4.511	4.511	4.511	4.960	5.020	5.000
5MHz 16QAM	4.511	4.511	4.531	5.060	4.980	5.000
10MHz QPSK	8.982	8.982	8.942	9.760	9.720	9.680
10MHz 16QAM	8.982	1.252	8.942	9.720	9.600	9.680
15MHz QPSK	13.473	13.473	13.473	14.880	14.820	14.700
15MHz 16QAM	13.473	13.533	13.473	14.760	14.760	14.700
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.**

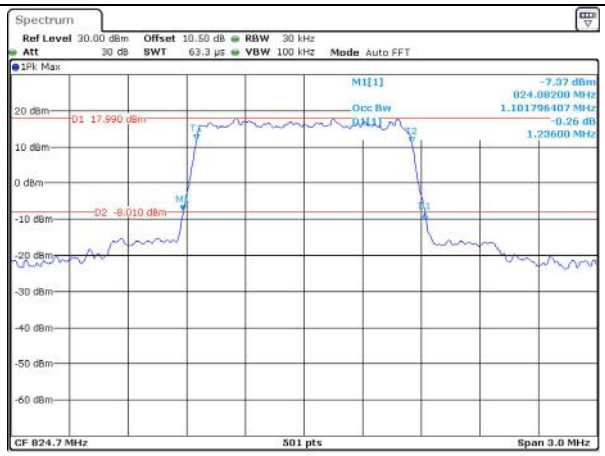
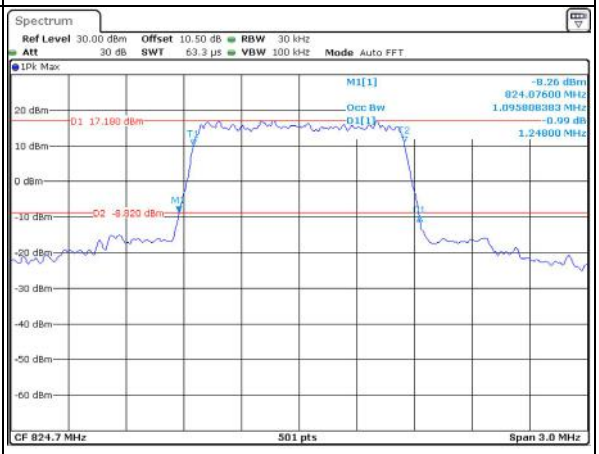
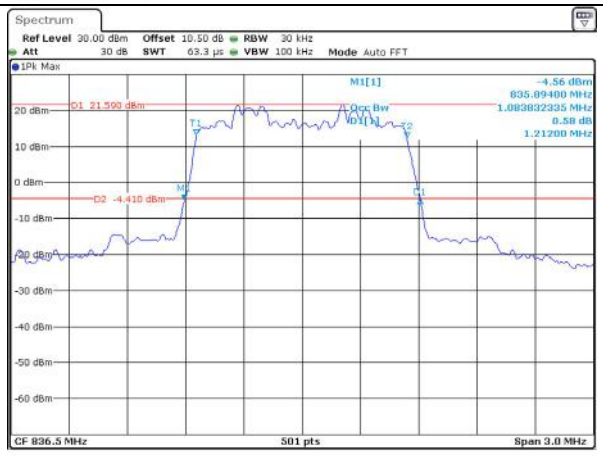
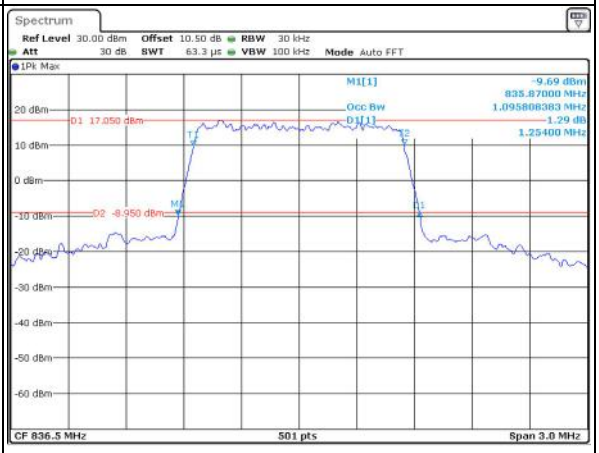
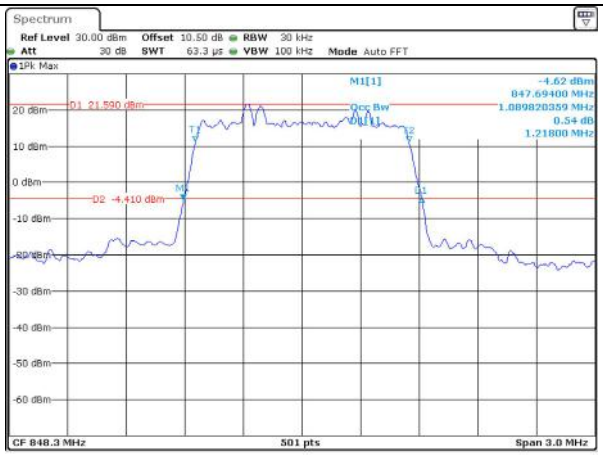
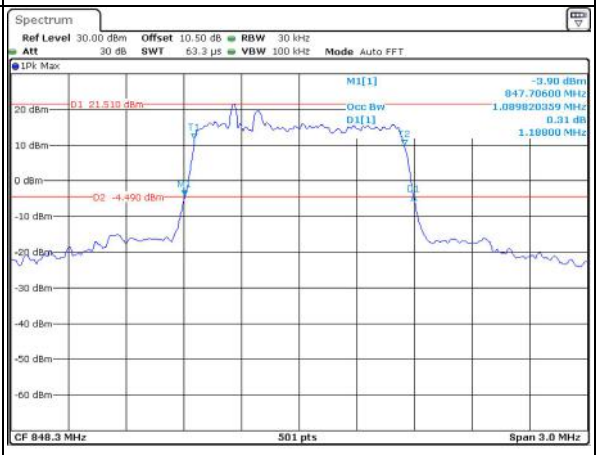
FCC §2.1051, §22.917(a): Out of band emission, Band Edge	
Result:	**Pass, please refer to the test plots of Out of band emission, Band Edge.**

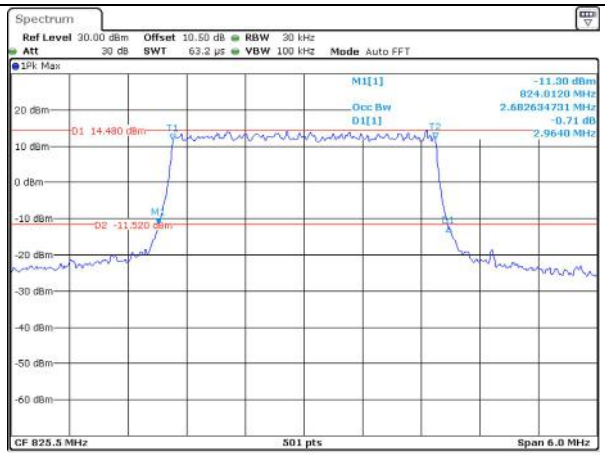
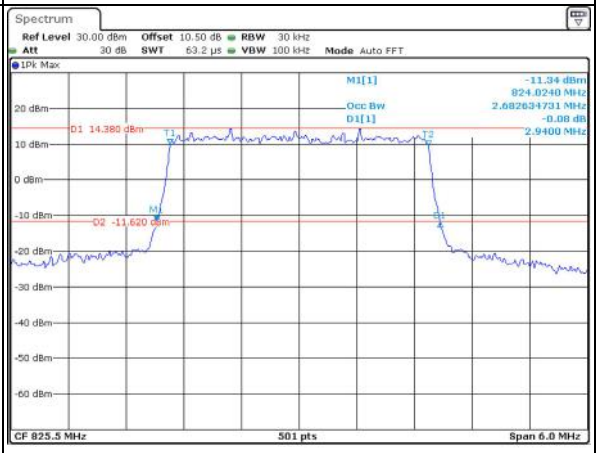
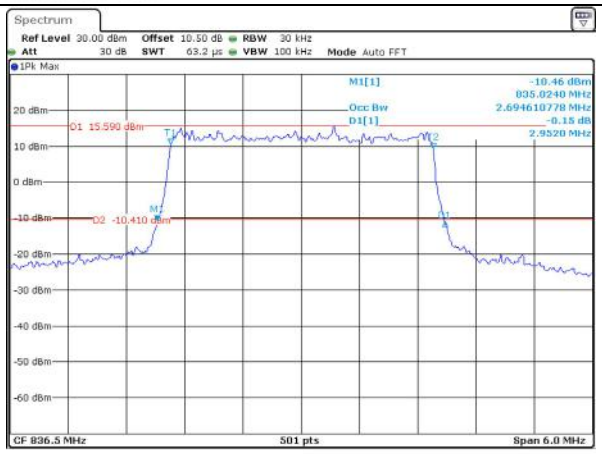
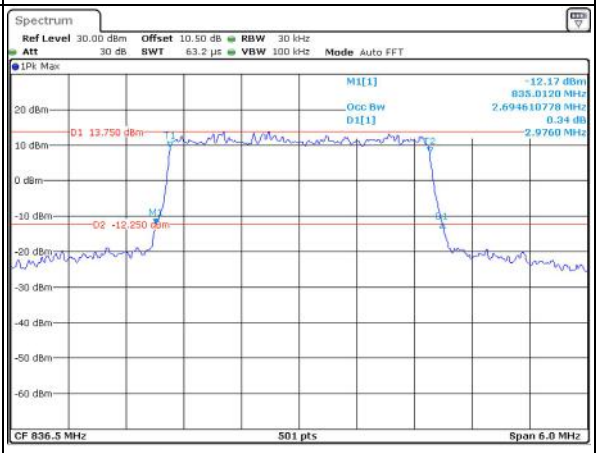
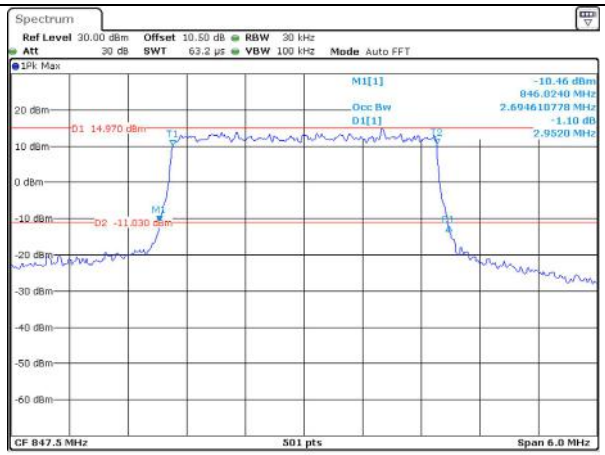
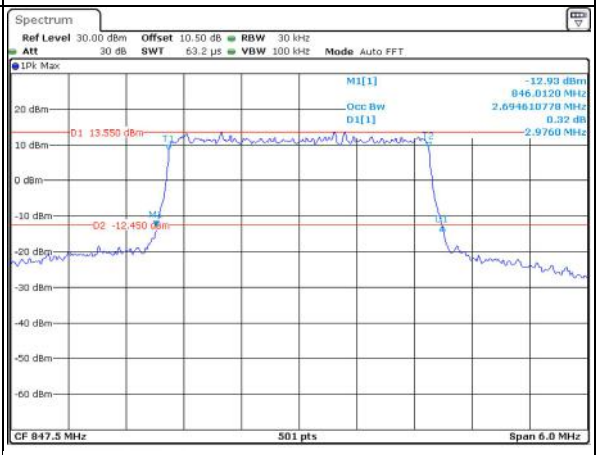
FCC §2.1055, §22.355: Frequency Stability					
Test Modulation:	15 MHz QPSK		Test Channel:	831.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.85	112.471	0.135	2.5
	-20	3.85	112.226	0.135	2.5
	-10	3.85	116.556	0.140	2.5
	0	3.85	107.662	0.129	2.5
	10	3.85	113.297	0.136	2.5
	20	3.85	112.438	0.135	2.5
	30	3.85	104.104	0.125	2.5
	40	3.85	109.451	0.132	2.5
	50	3.85	108.624	0.131	2.5
Frequency Stability vs. Voltage	20	3.66	113.008	0.136	2.5
	20	4.24	111.617	0.134	2.5
				Result:	**Pass**

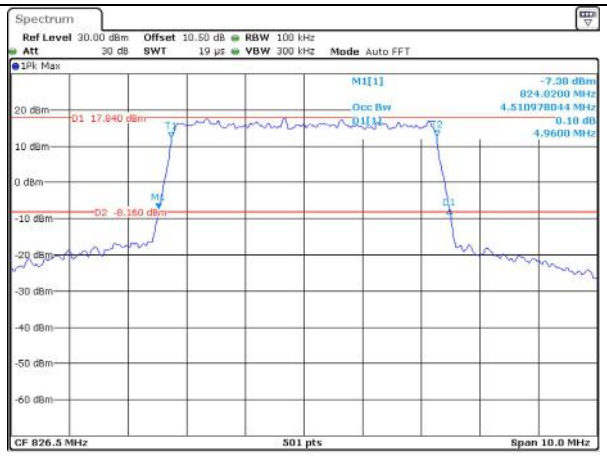
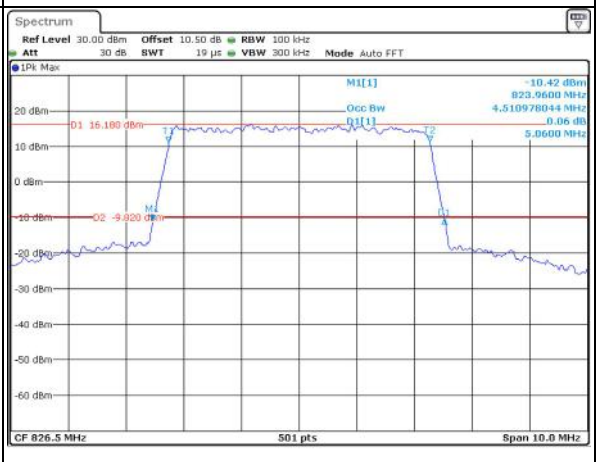
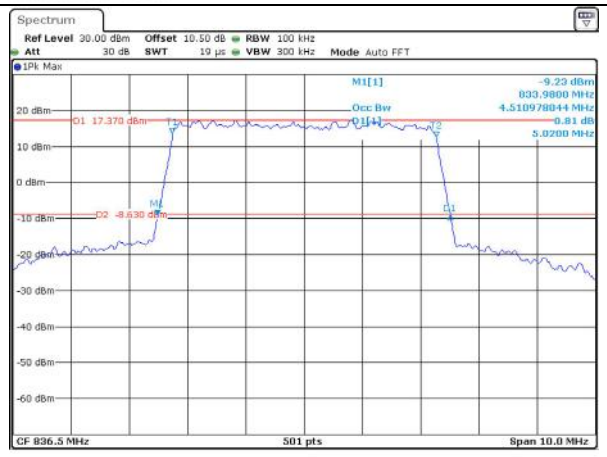
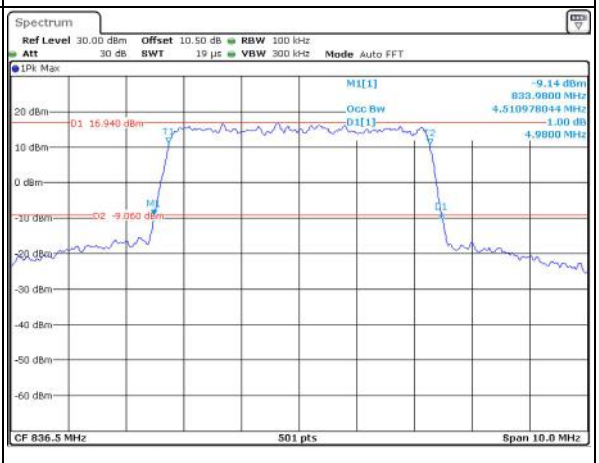
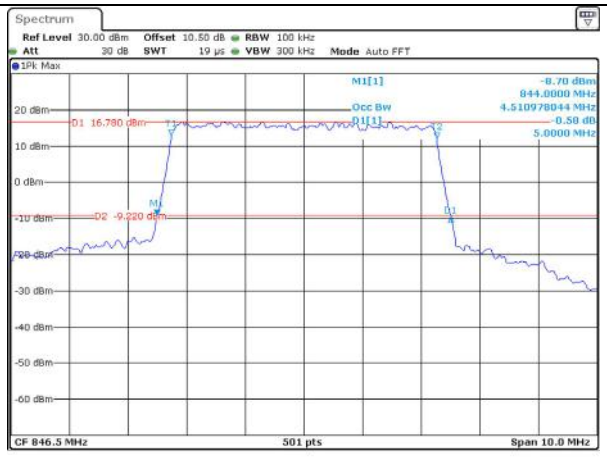
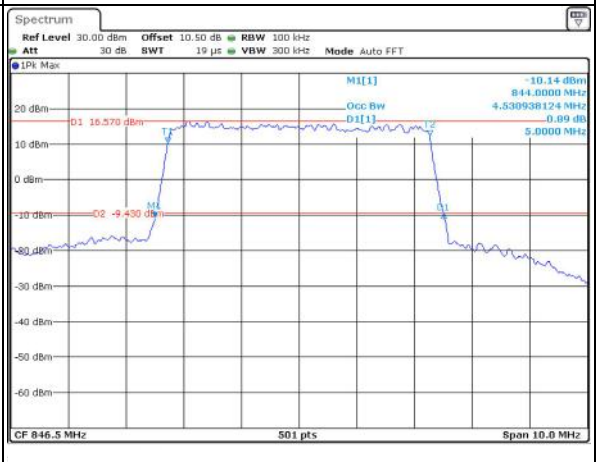
FCC §2.1055, §22.355: Frequency Stability					
Test Modulation:	15 MHz 16QAM		Test Channel:	831.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.85	109.004	0.131	2.5
	-20	3.85	117.858	0.142	2.5
	-10	3.85	107.249	0.129	2.5
	0	3.85	117.385	0.141	2.5
	10	3.85	105.485	0.127	2.5
	20	3.85	106.275	0.128	2.5
	30	3.85	101.019	0.121	2.5
	40	3.85	101.374	0.122	2.5
	50	3.85	102.365	0.123	2.5
Frequency Stability vs. Voltage	20	3.66	117.526	0.141	2.5
	20	4.24	112.195	0.135	2.5
				Result:	**Pass**

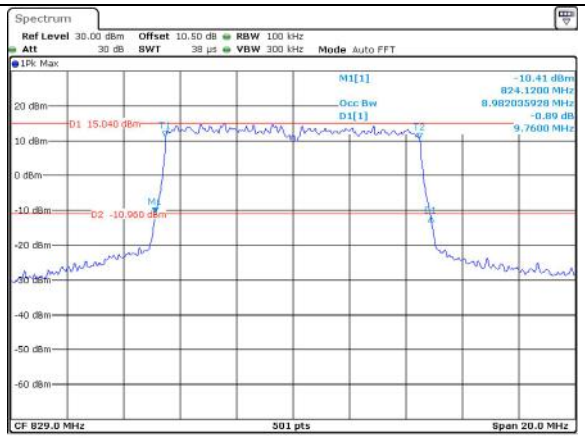
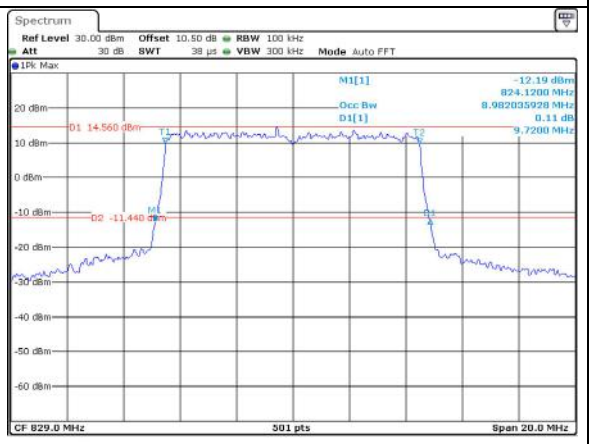
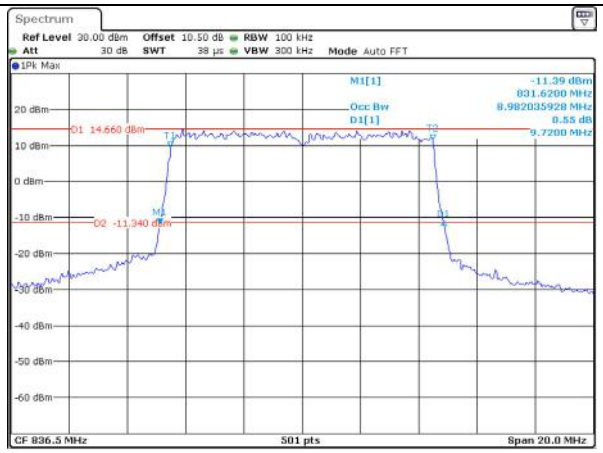
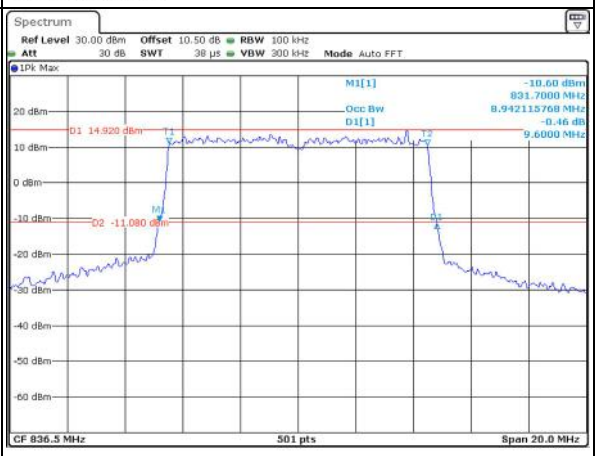
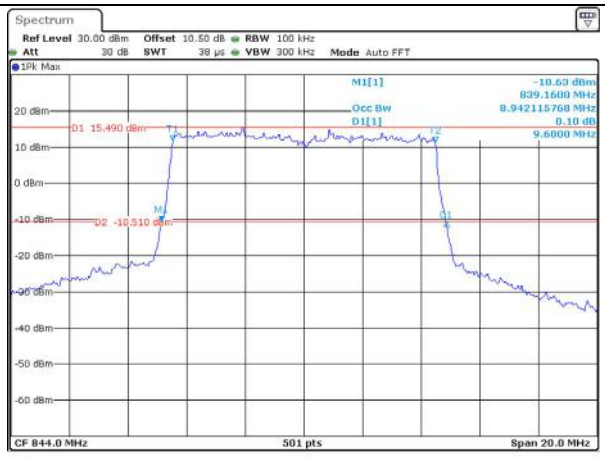
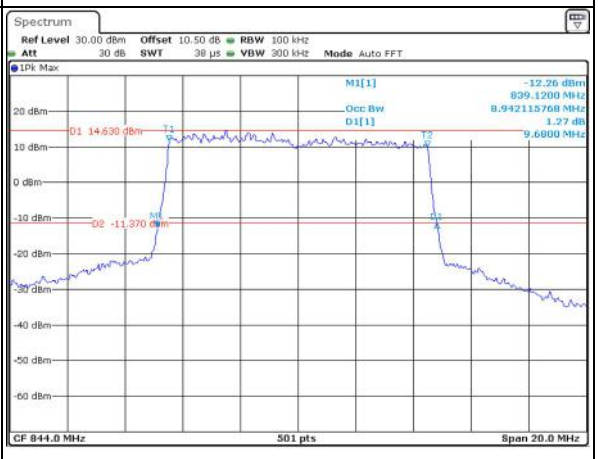
4.14.4 Test Plots for Part 22H:

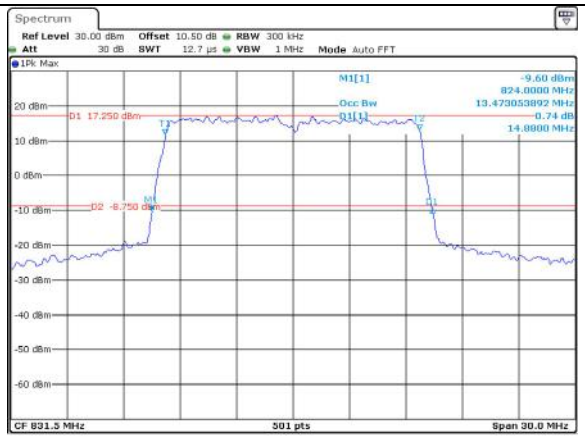
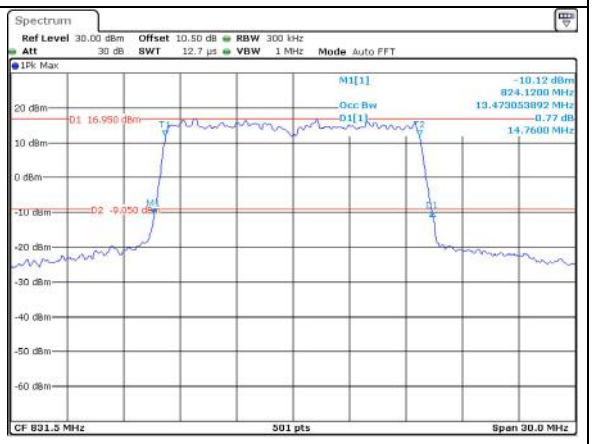
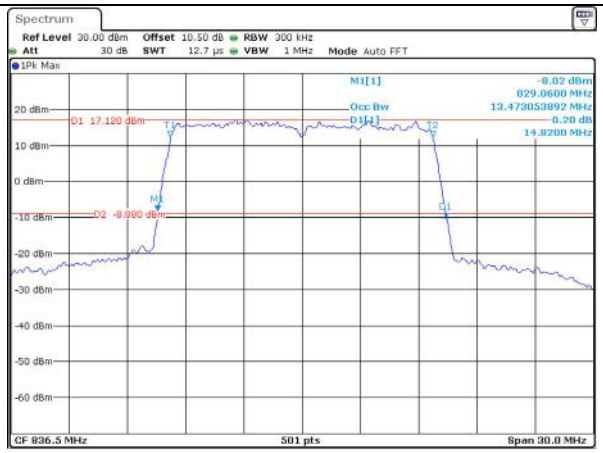
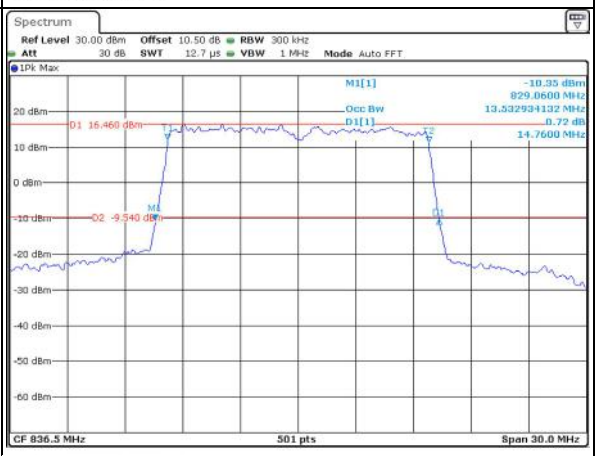
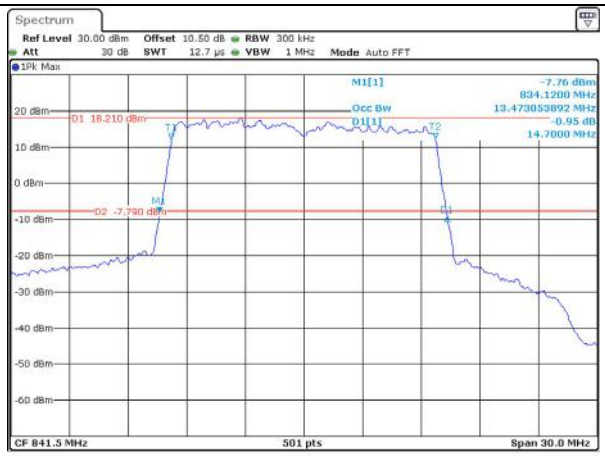
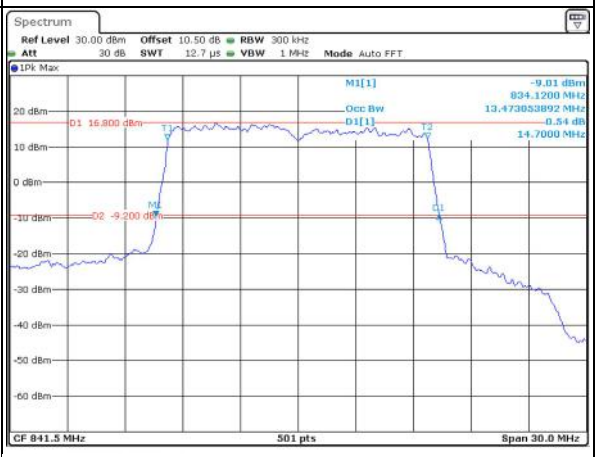
(Note: The 10.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

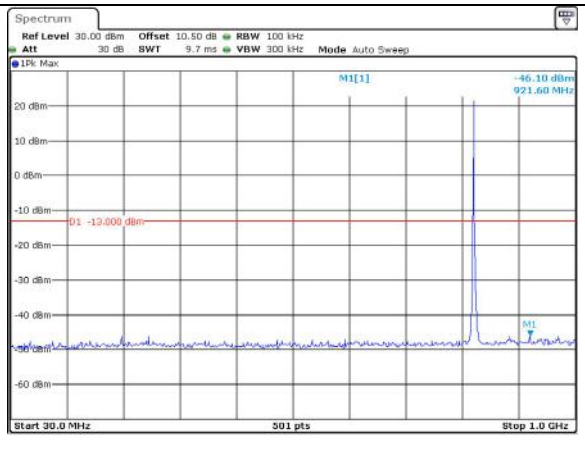
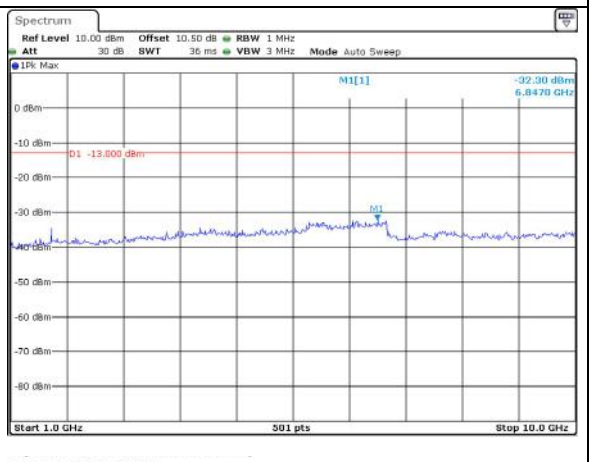
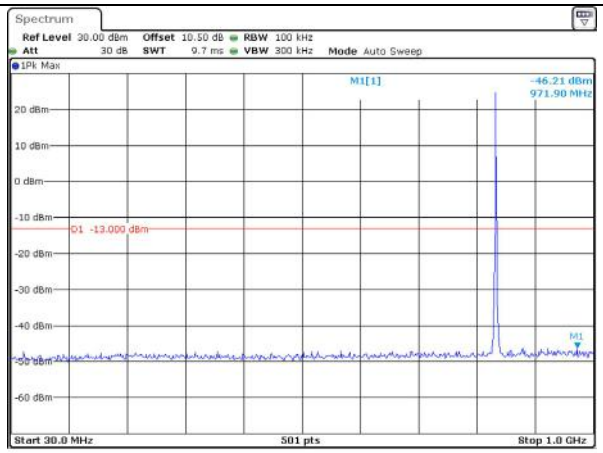
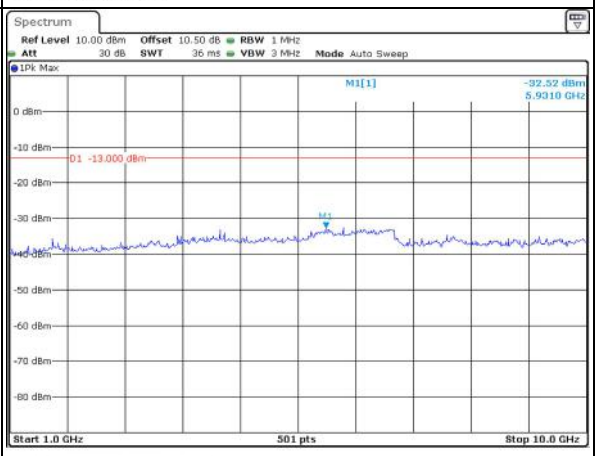
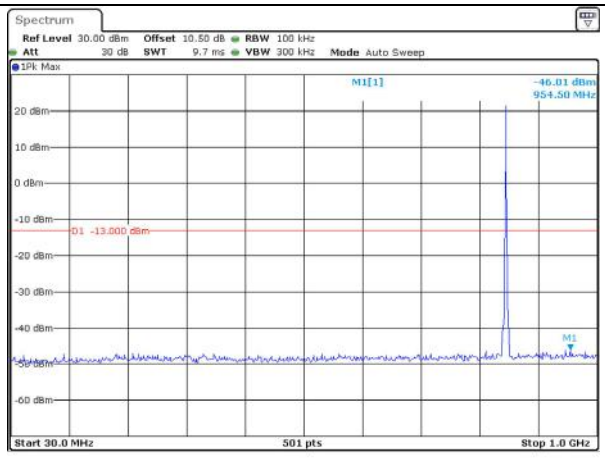
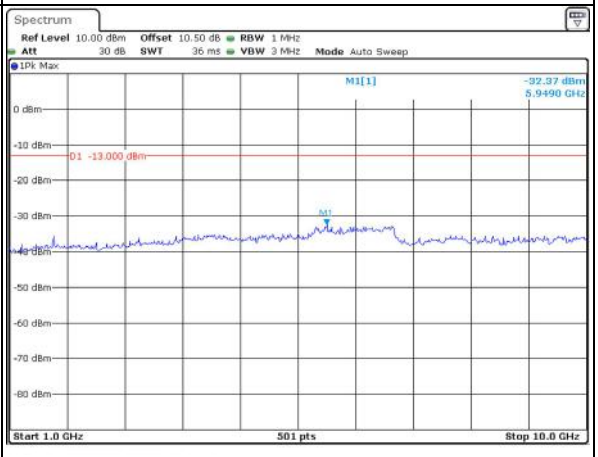
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

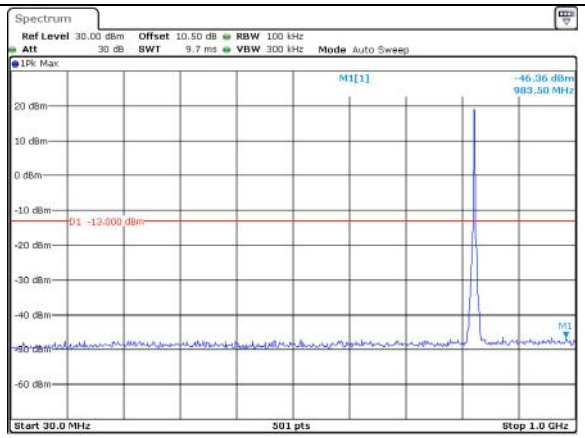
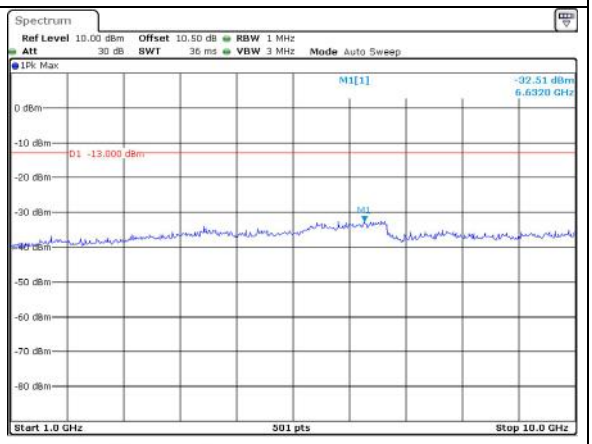
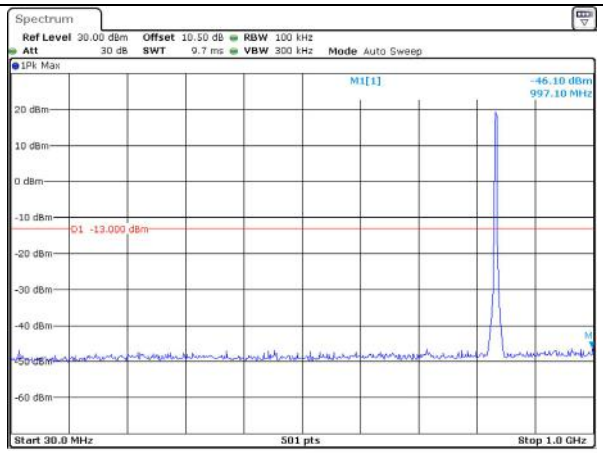
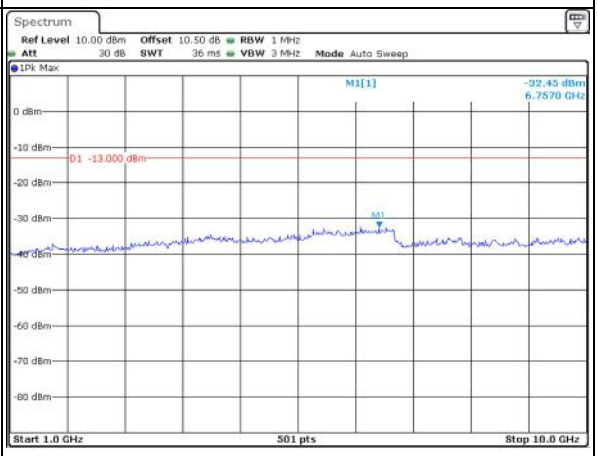
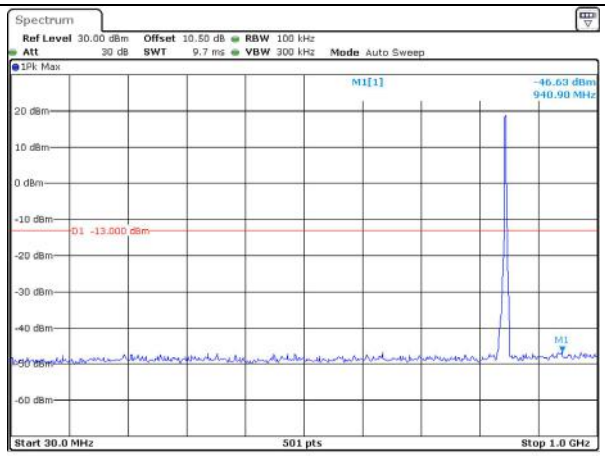
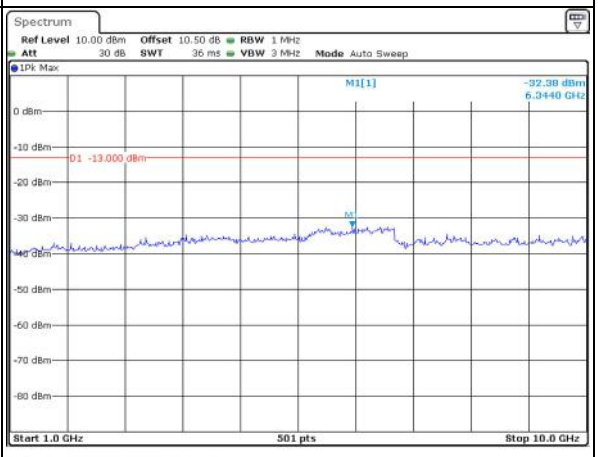
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

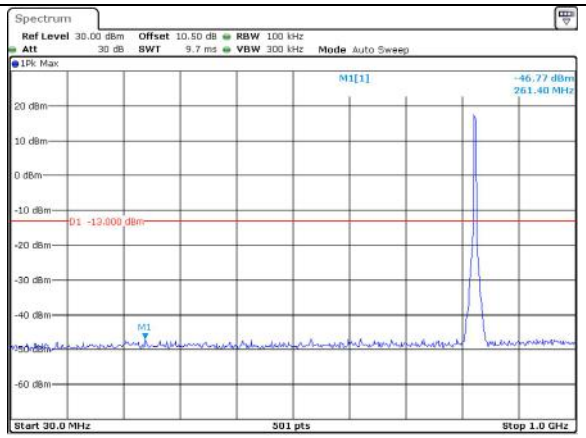
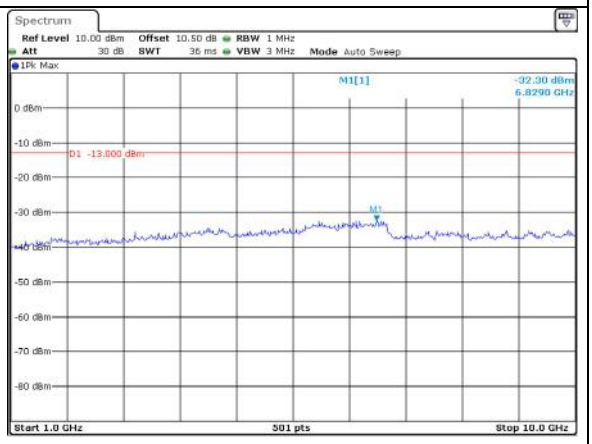
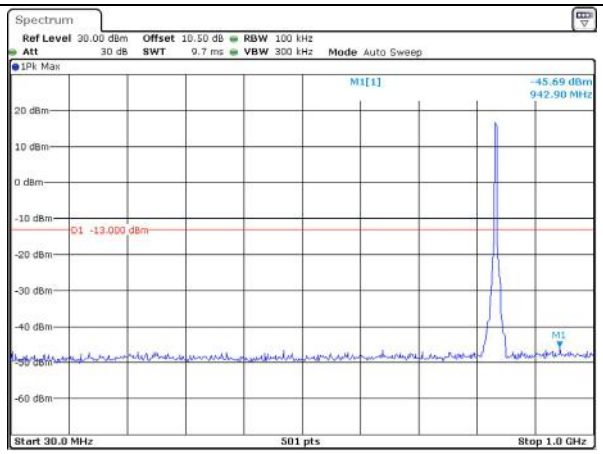
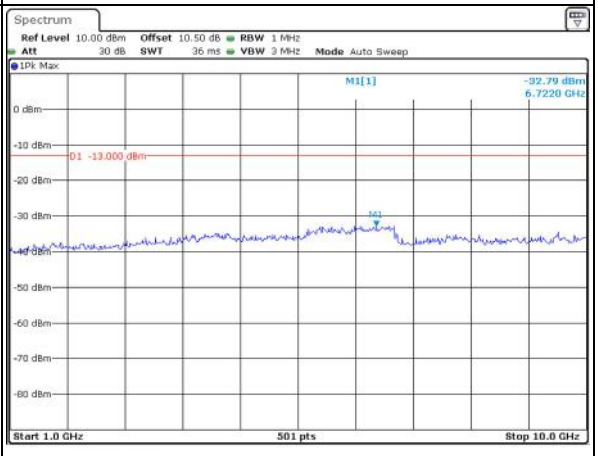
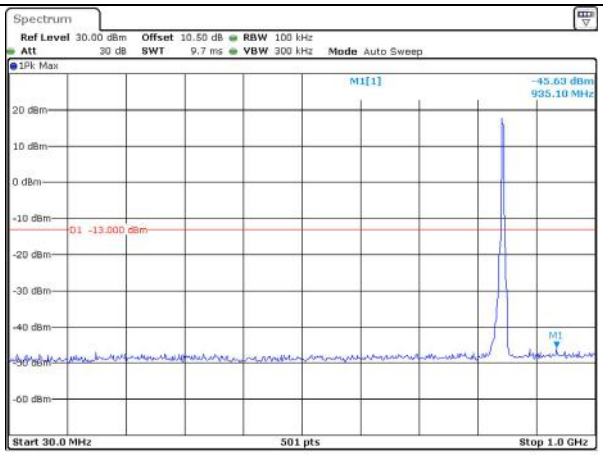
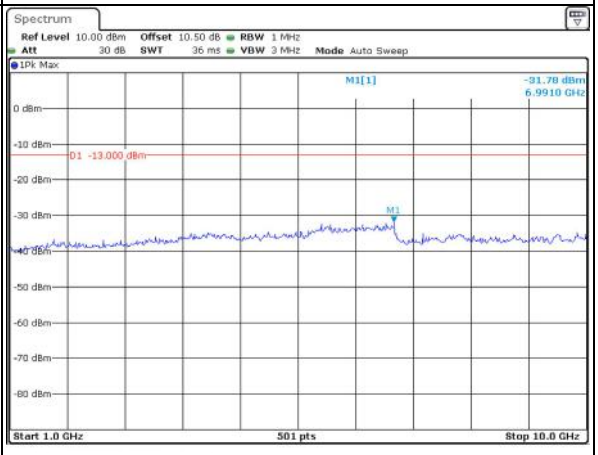
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

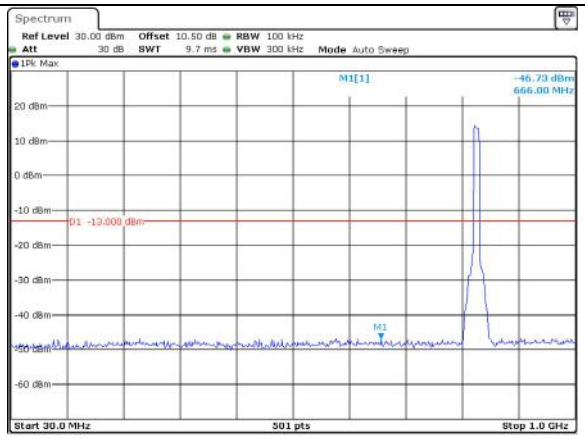
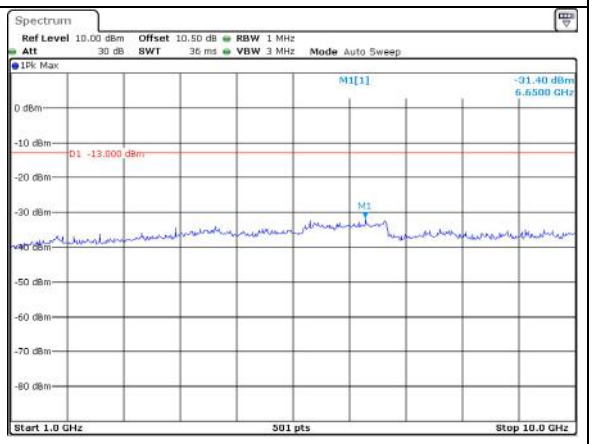
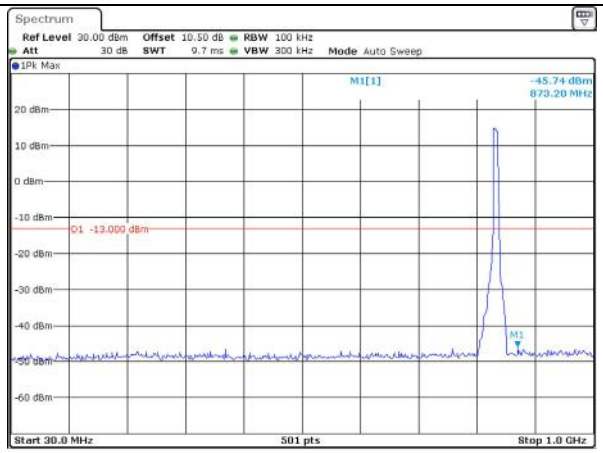
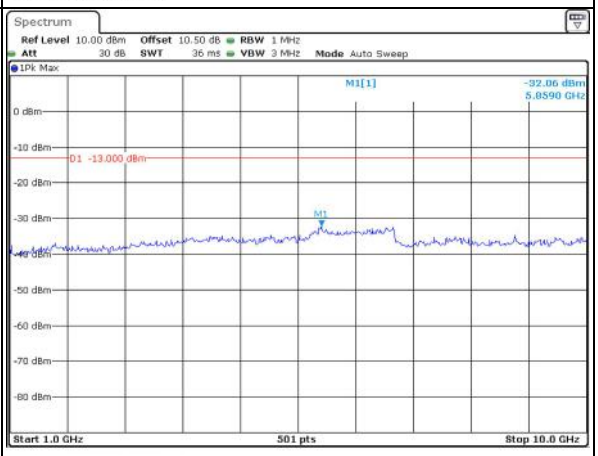
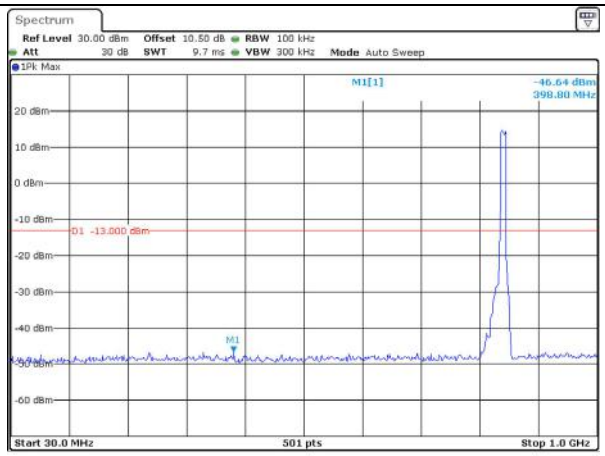
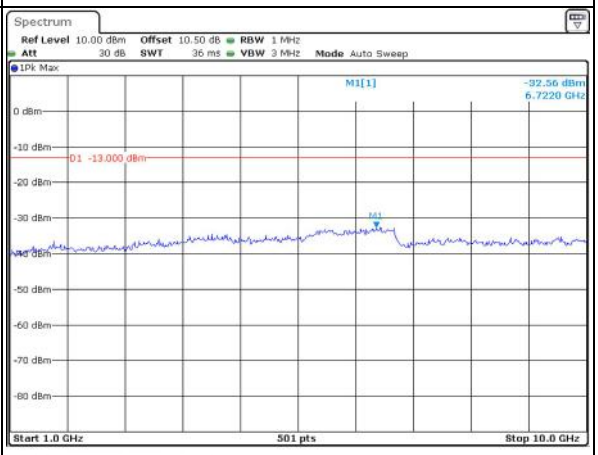
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

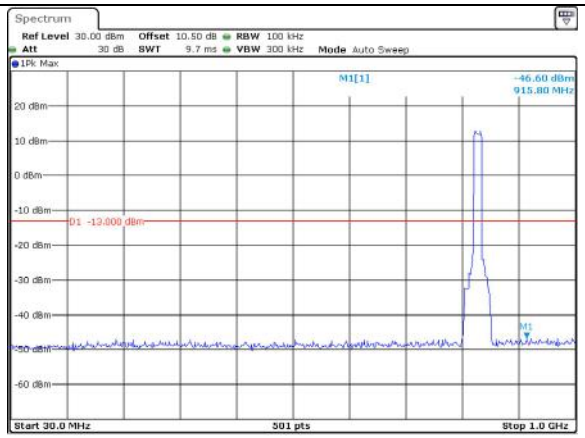
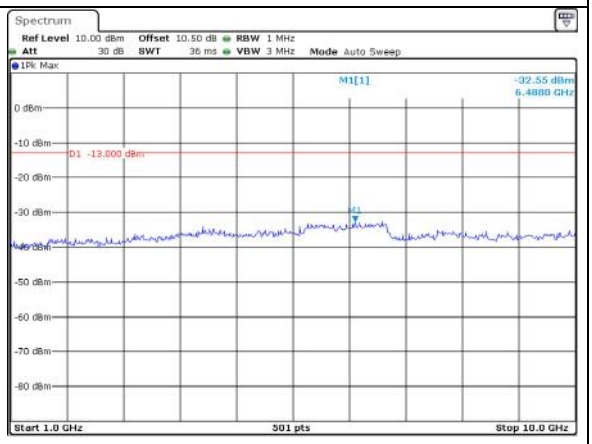
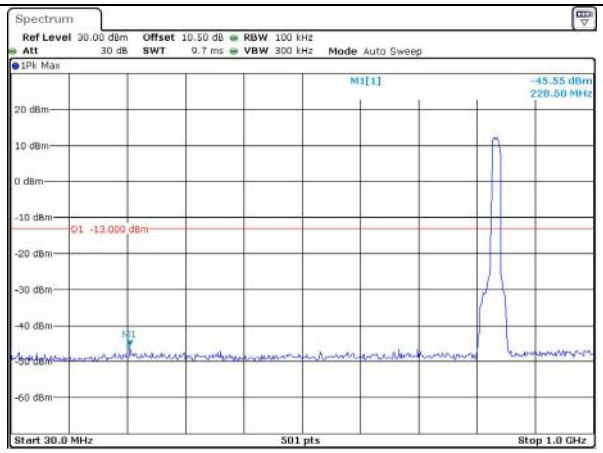
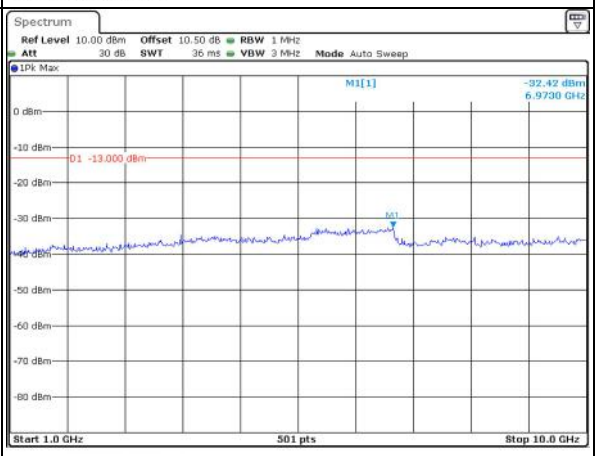
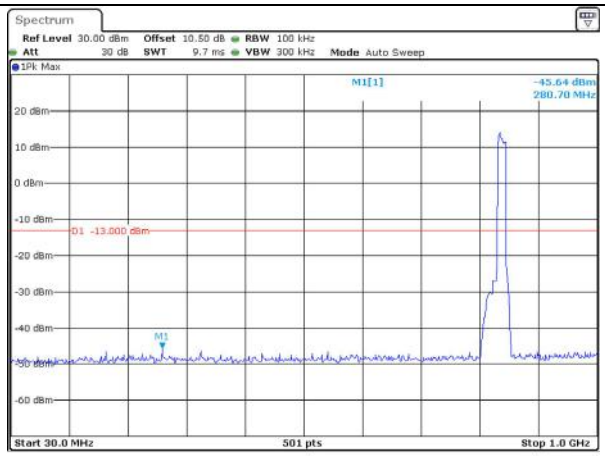
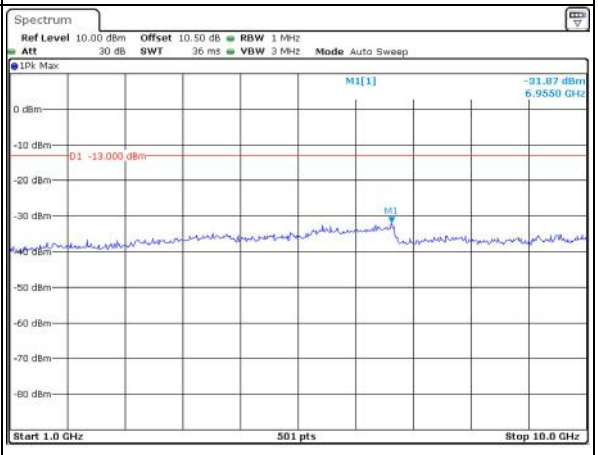
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

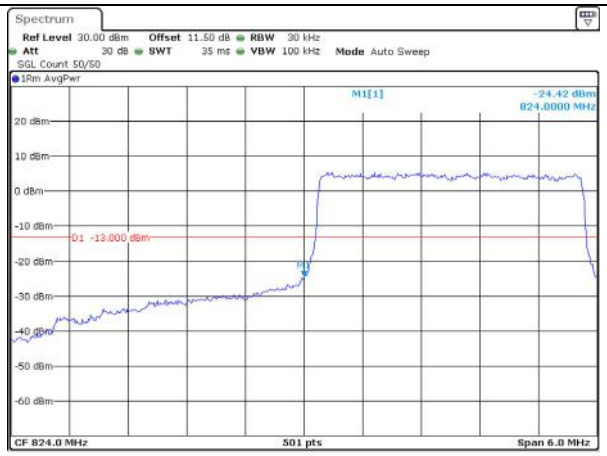
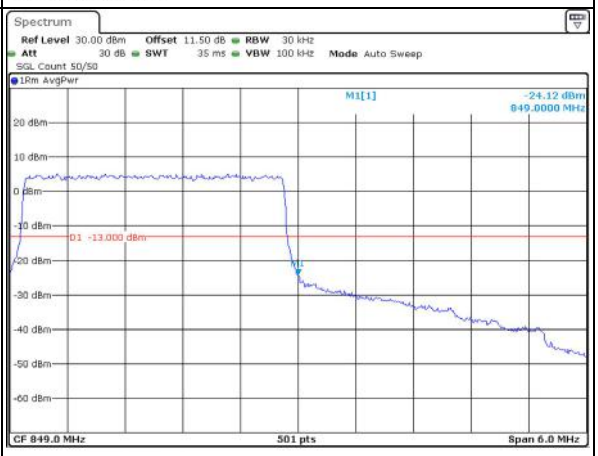
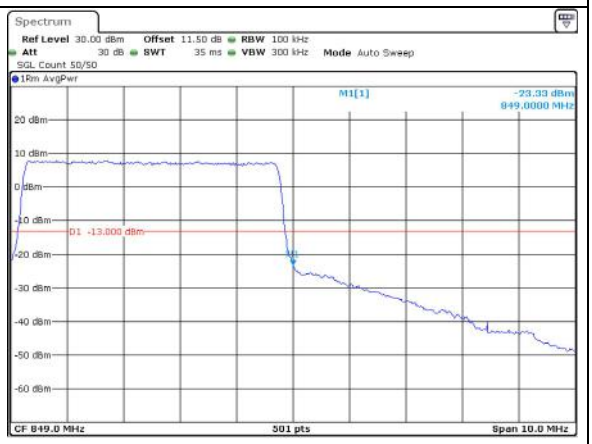
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

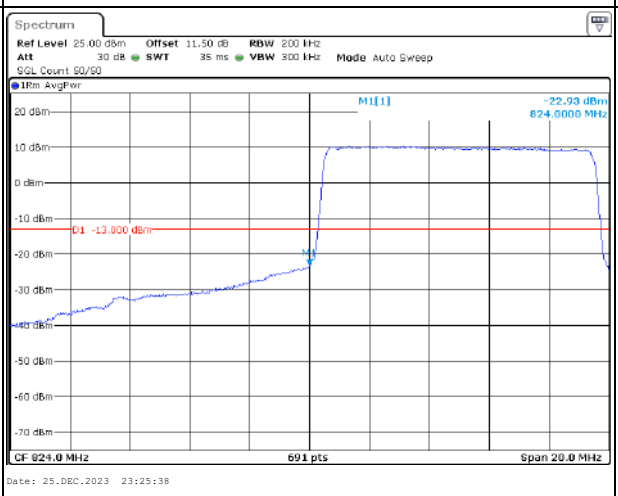
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

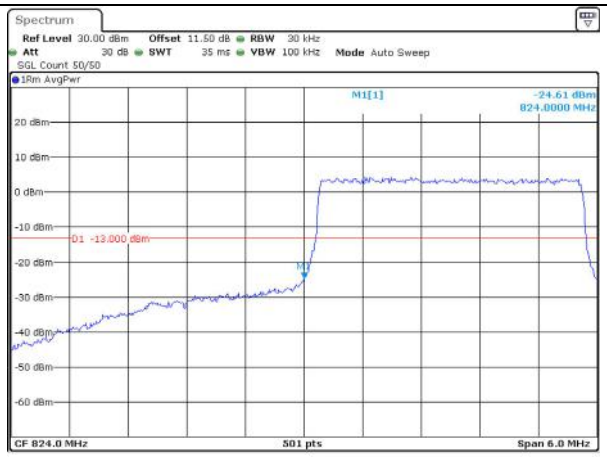
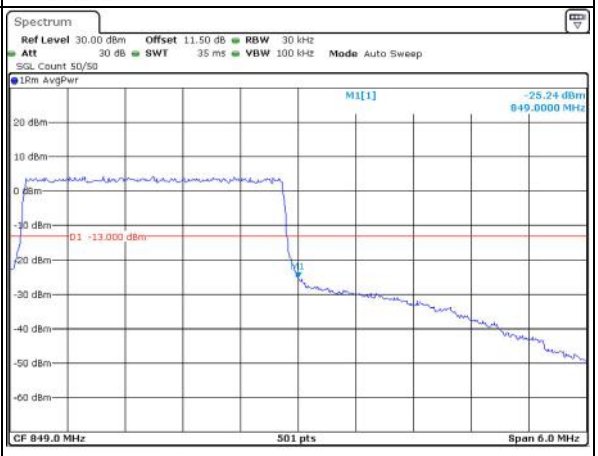
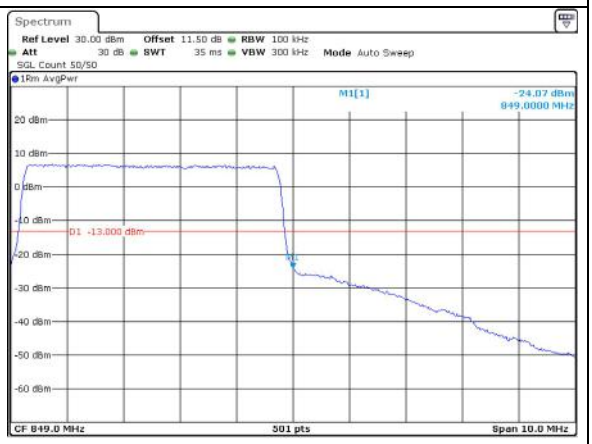
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

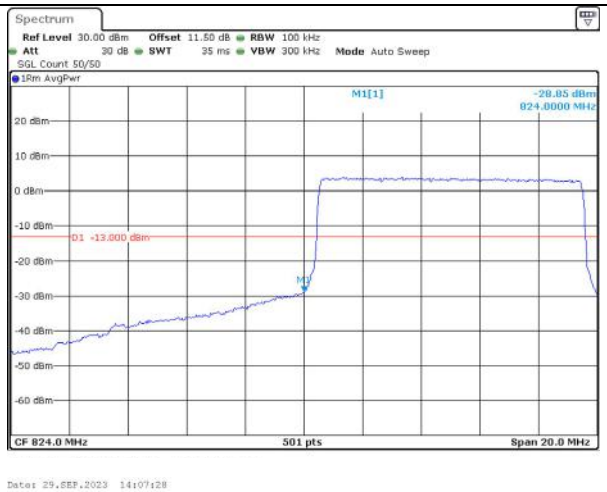
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz For 22H		
QPSK 3MHz For 22H		
QPSK 5MHz For 22H		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz For 22H		
QPSK 15MHz For 22H		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 1.4MHz For 22H		
16QAM 3MHz For 22H		
16QAM 5MHz For 22H		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz For 22H		
16QAM 15MHz For 22H		

4.15 Antenna Port Test Data and Results for LTE Band 38

Serial Number:	294A-2	Test Date:	2023/9/14-2023/9/27
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	26.7~28.4	Relative Humidity: (%)	53~58	ATM Pressure: (kPa)	100.2~100.6

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Minl-Clrcuits	Power Splitter	ZFRSC-183-S+	S F448201619	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

** 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	2572.5	2595	2617.5
10MHz	2575	2595	2615
15MHz	2577.5	2595	2612.5
20MHz	2580	2595	2610

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	22.92	22.99	23.16	**22.09**	33
	RB1#13	22.93	23.03	23.04		
	RB1#24	22.95	23.04	23.08		
	RB15#0	21.99	22.10	22.13		
	RB15#10	22.08	22.16	22.15		
	RB25#0	22.08	22.10	22.24		
5MHz 16QAM	RB1#0	22.16	22.56	22.05	**21.53**	33
	RB1#13	22.19	22.48	22.00		
	RB1#24	22.23	22.60	22.14		
	RB15#0	20.95	21.14	21.17		
	RB15#10	21.06	21.21	21.26		
	RB25#0	21.09	21.11	21.24		
10MHz QPSK	RB1#0	22.90	22.94	22.95	21.91	33
	RB1#25	22.94	22.95	22.94		
	RB1#49	22.98	22.98	22.98		
	RB25#0	21.84	21.95	22.01		
	RB25#25	21.92	22.07	22.07		
	RB50#0	21.91	21.95	22.02		
10MHz 16QAM	RB1#0	22.26	22.37	22.01	21.32	33
	RB1#25	22.27	22.39	22.03		
	RB1#49	22.35	22.38	22.05		
	RB25#0	20.88	20.97	20.96		
	RB25#25	21.03	21.03	21.01		
	RB50#0	20.95	20.94	21.10		
15MHz QPSK	RB1#0	22.79	23.03	23.03	22.02	33
	RB1#38	22.76	23.08	23.06		
	RB1#74	22.92	23.09	23.05		
	RB36#0	21.90	21.96	22.01		
	RB36#39	22.00	22.08	22.08		
	RB75#0	21.99	22.00	22.02		
15MHz 16QAM	RB1#0	22.01	22.29	22.17	21.37	33
	RB1#38	22.00	22.34	22.22		
	RB1#74	22.05	22.44	22.23		
	RB36#0	20.95	20.98	21.00		
	RB36#39	21.07	21.08	21.11		
	RB75#0	20.99	20.99	21.00		
20MHz QPSK	RB1#0	22.28	22.24	22.17	21.21	33

	RB1#50	22.26	22.27	22.13		
	RB1#99	22.27	22.21	22.12		
	RB50#0	21.29	21.18	21.18		
	RB50#50	21.28	21.21	21.21		
	RB100#0	21.30	21.21	21.15		
20MHz 16QAM	RB1#0	21.28	21.68	21.26	20.72	33
	RB1#50	21.38	21.79	21.35		
	RB1#99	21.27	21.76	21.27		
	RB50#0	20.31	20.23	20.12		
	RB50#50	20.37	20.29	20.13		
	RB100#0	20.29	20.21	20.22		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						
					Result:	**Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	7.29	9.91	9.82	13
	RB100#0	6.55	6.40	8.70	13
20MHz 16QAM	RB1#0	6.11	7.20	9.35	13
	RB100#0	9.18	6.40	6.40	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	5.060	4.980	5.000
5MHz 16QAM	4.511	4.511	4.511	5.160	5.360	5.040
10MHz QPSK	8.942	8.942	8.942	9.680	9.840	9.640
10MHz 16QAM	8.942	8.942	8.942	9.600	9.600	9.680
15MHz QPSK	13.533	13.533	13.413	14.760	14.760	14.940
15MHz 16QAM	13.533	13.593	13.533	14.760	14.820	14.700
20MHz QPSK	18.044	17.964	17.884	19.280	19.120	19.200
20MHz 16QAM	17.884	17.964	17.964	19.280	19.280	19.680
Note: The test plots please refer to the Plots of Occupied Bandwidth						

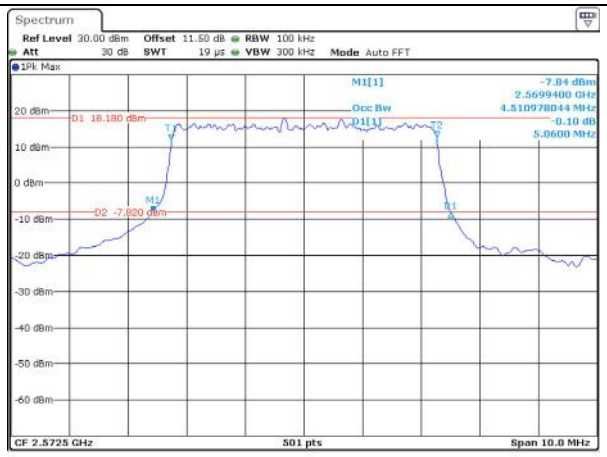
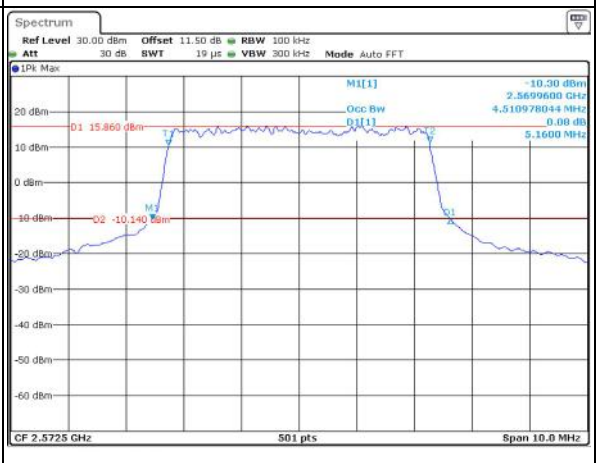
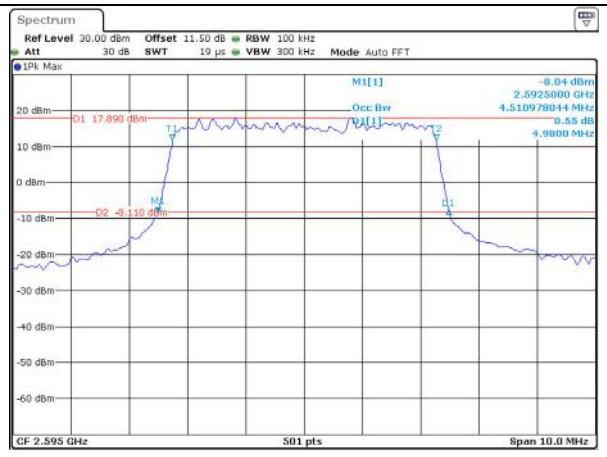
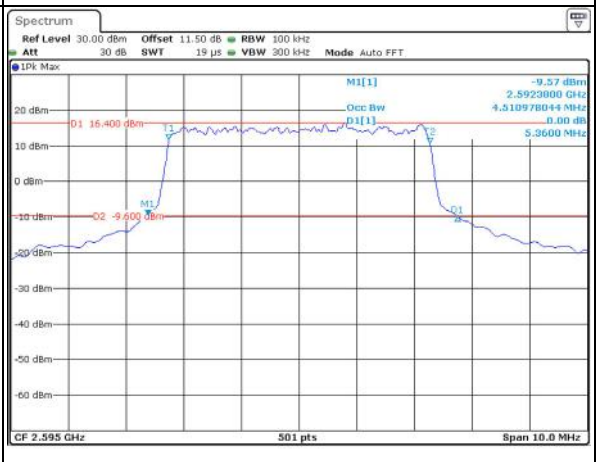
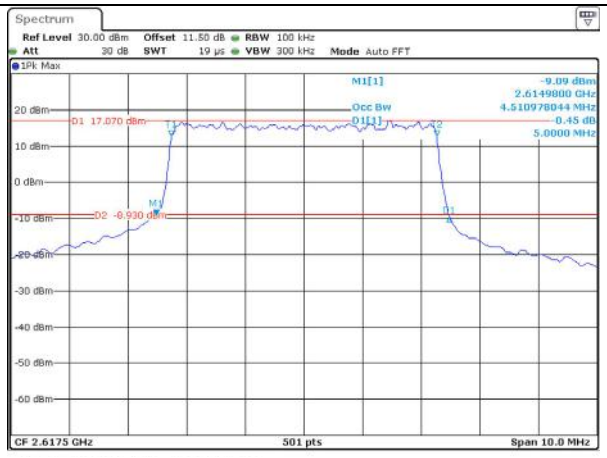
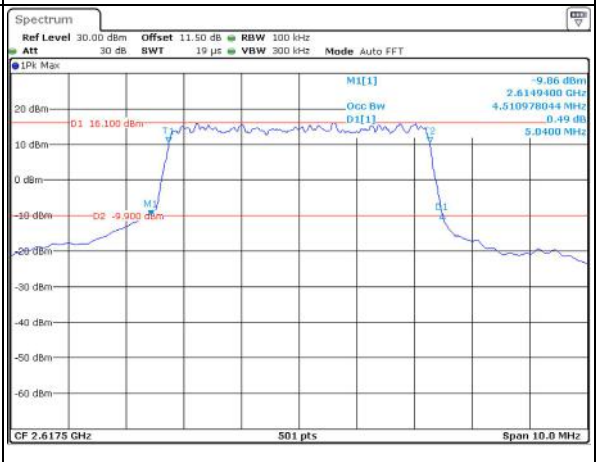
FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

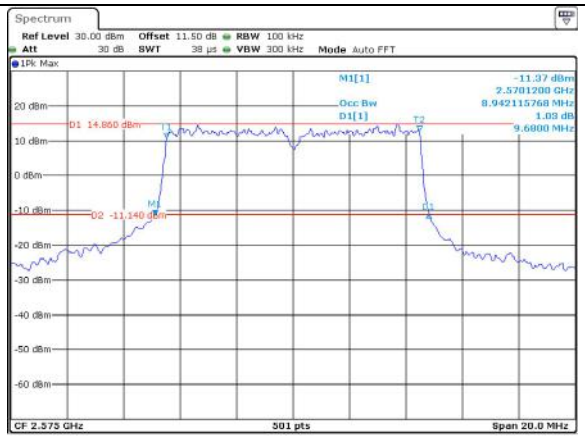
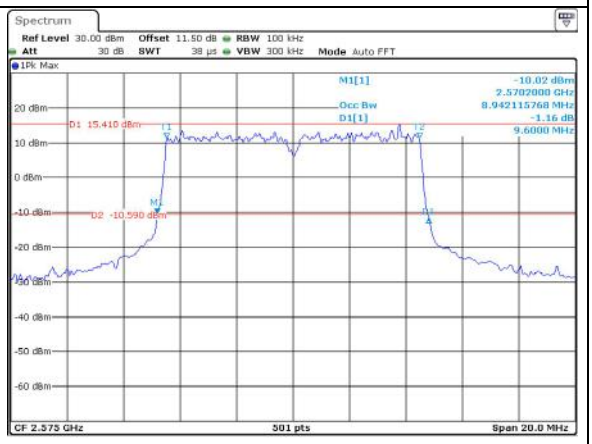
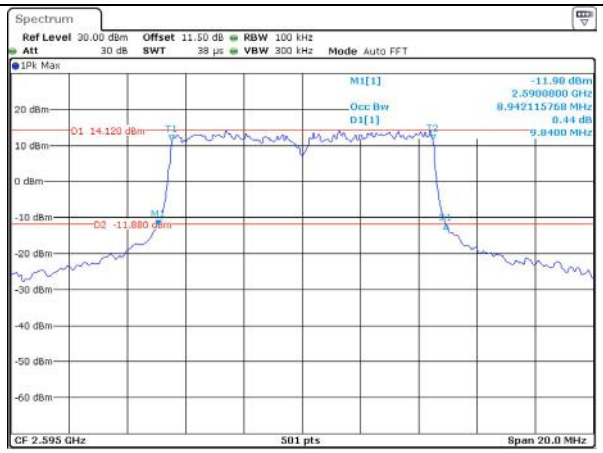
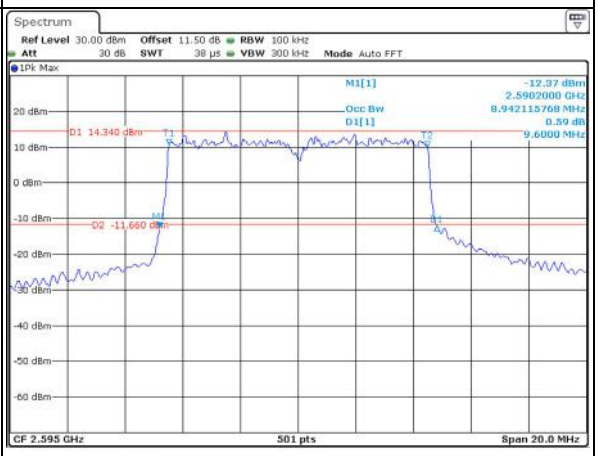
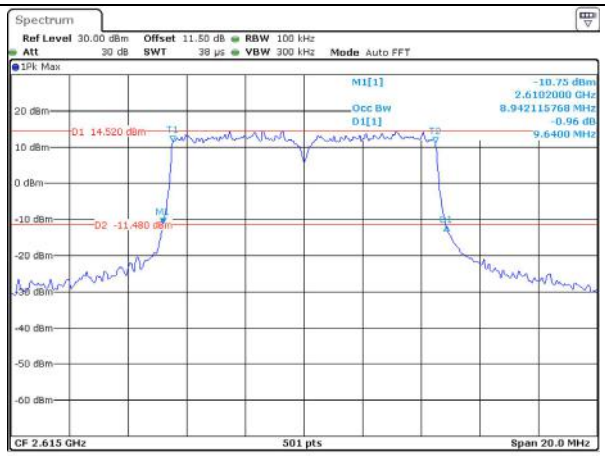
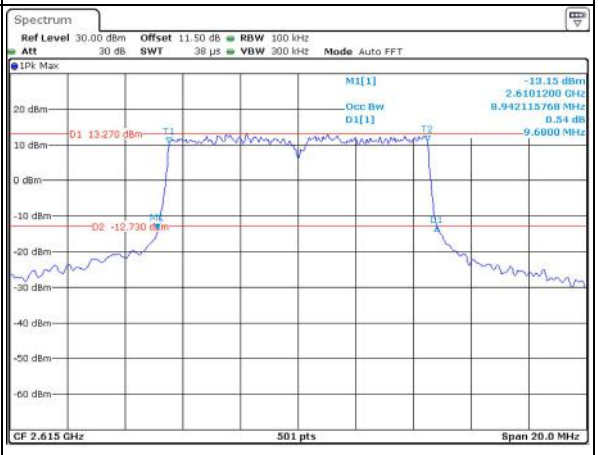
FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

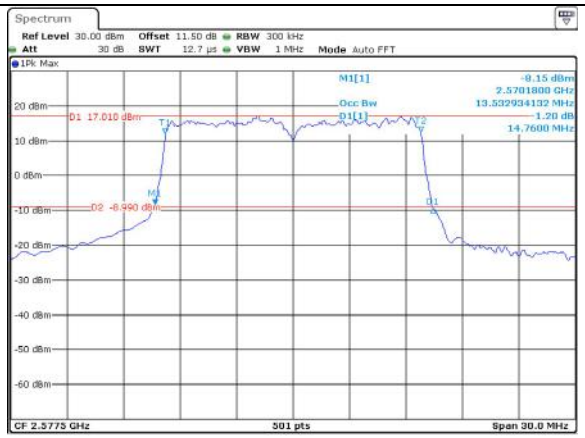
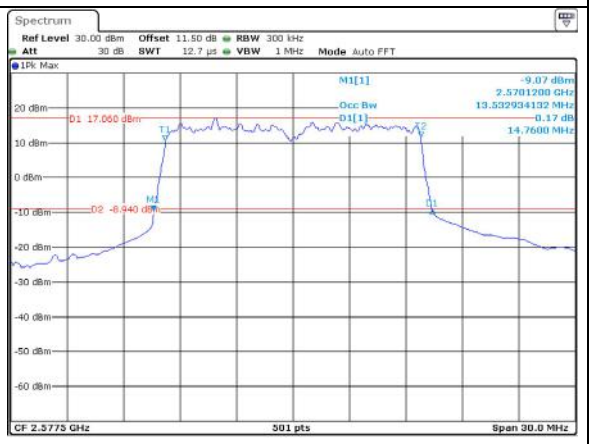
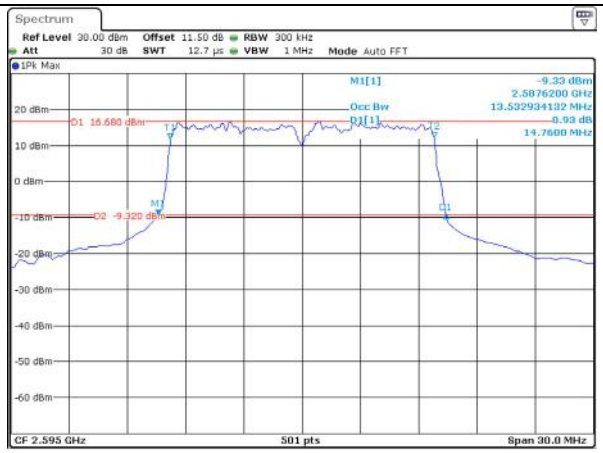
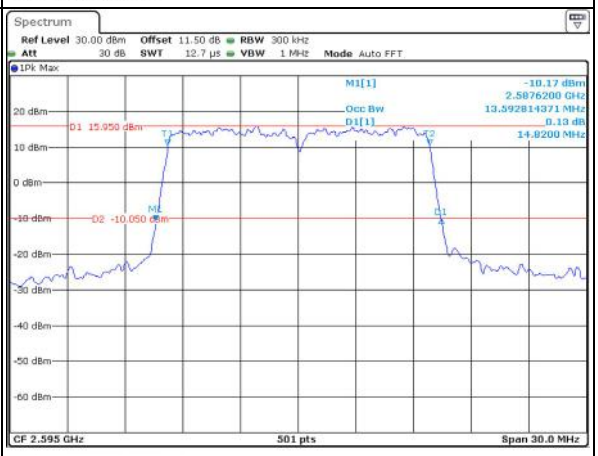
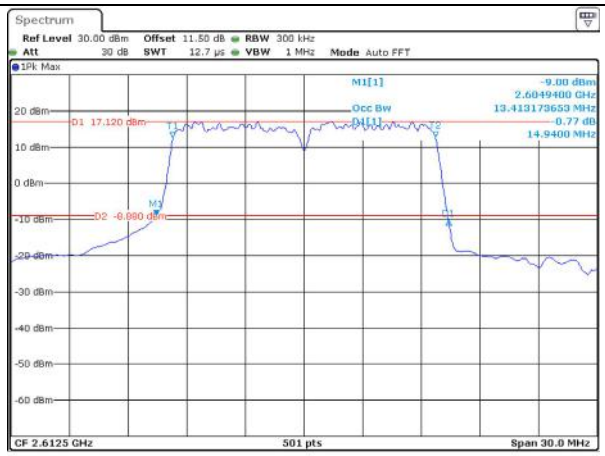
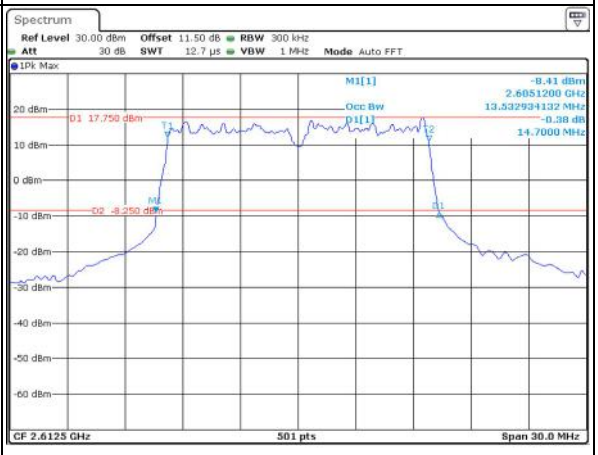
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2570.029	2570.00	2619.978	2620
	-20	3.85	2570.019	2570.00	2619.980	2620
	-10	3.85	2570.003	2570.00	2619.991	2620
	0	3.85	2570.022	2570.00	2619.982	2620
	10	3.85	2570.001	2570.00	2619.975	2620
	20	3.85	2570.028	2570.00	2619.986	2620
	30	3.85	2570.022	2570.00	2619.978	2620
	40	3.85	2570.017	2570.00	2619.977	2620
	50	3.85	2570.019	2570.00	2619.982	2620
Frequency Stability vs. Voltage	20	3.66	2570.028	2570.00	2619.985	2620
	20	4.24	2570.027	2570.00	2619.987	2620
					Result:	**Pass**

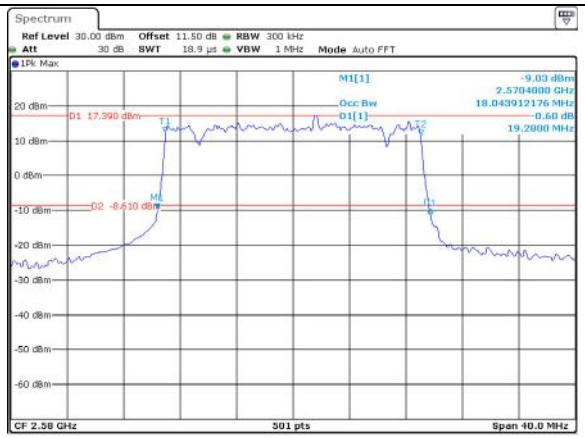
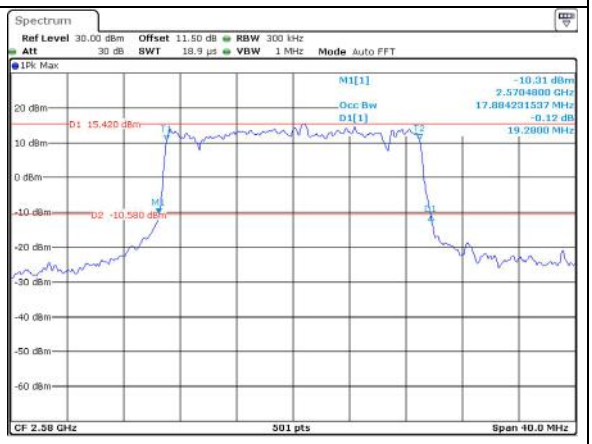
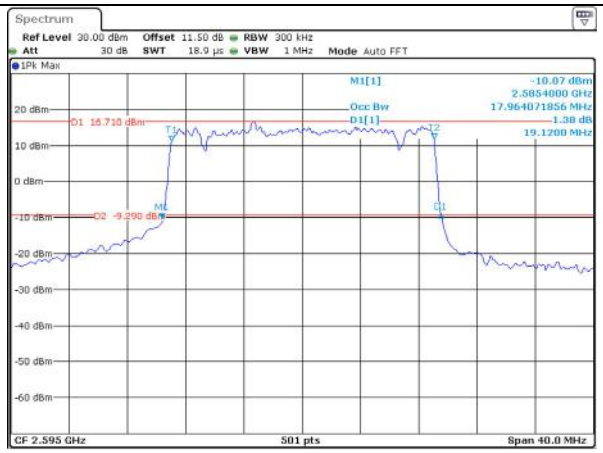
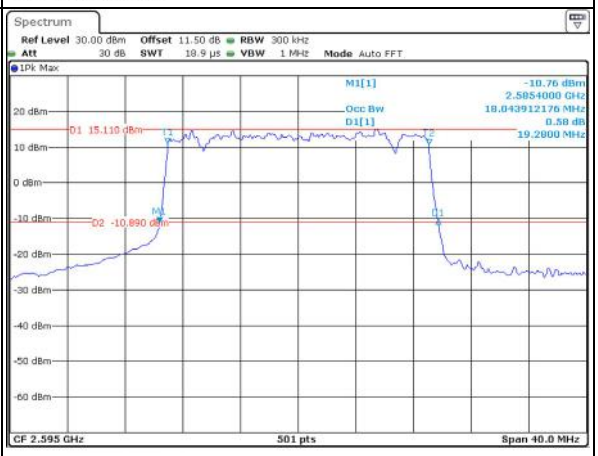
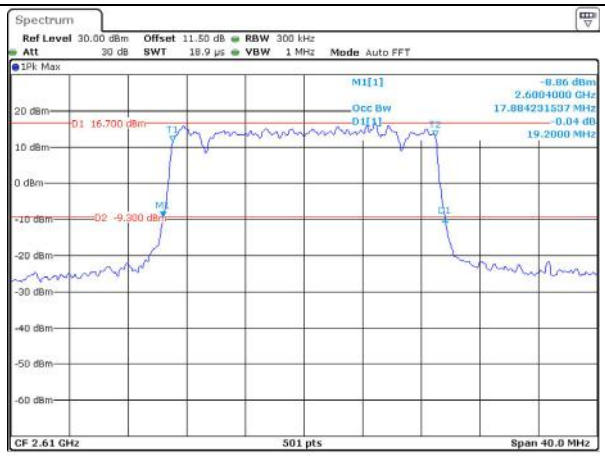
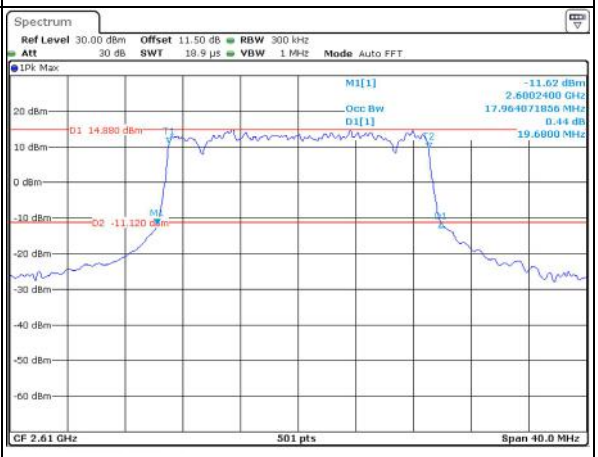
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature(℃)	Voltage(V_{DC})	Lower Edge(MHz)		Upper Edge(MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2570.011	2570.00	2619.975	2620
	-20	3.85	2570.022	2570.00	2619.997	2620
	-10	3.85	2570.028	2570.00	2619.978	2620
	0	3.85	2570.023	2570.00	2619.977	2620
	10	3.85	2570.012	2570.00	2619.920	2620
	20	3.85	2570.017	2570.00	2619.981	2620
	30	3.85	2570.023	2570.00	2619.986	2620
	40	3.85	2570.008	2570.00	2619.992	2620
	50	3.85	2570.011	2570.00	2619.988	2620
Frequency Stability vs. Voltage	20	3.66	2570.018	2570.00	2619.981	2620
	20	4.24	2570.027	2570.00	2619.970	2620
					Result:	**Pass**

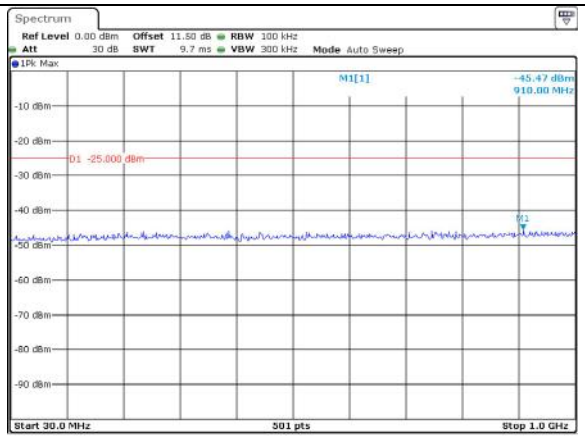
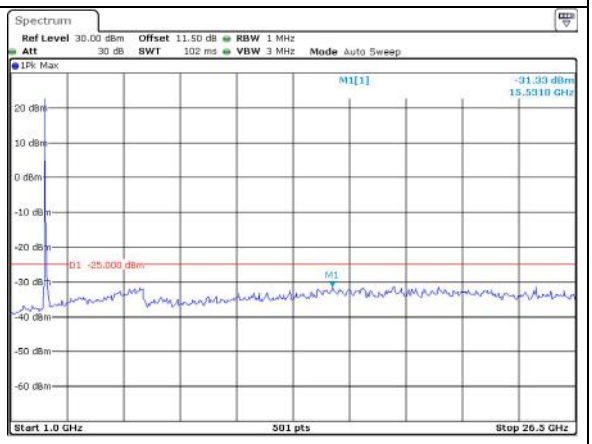
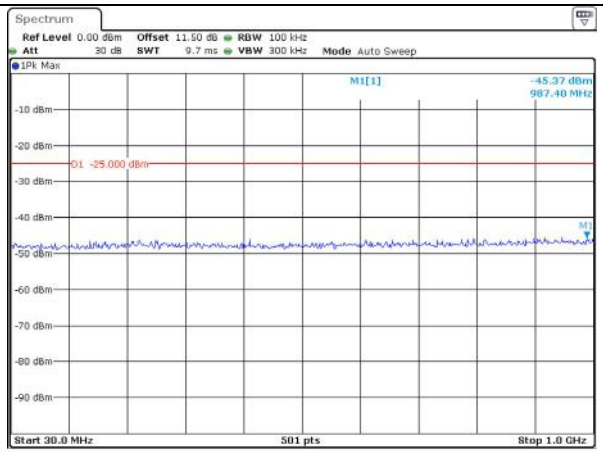
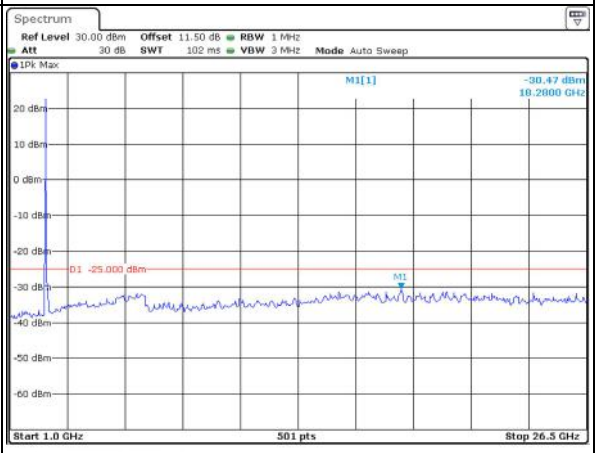
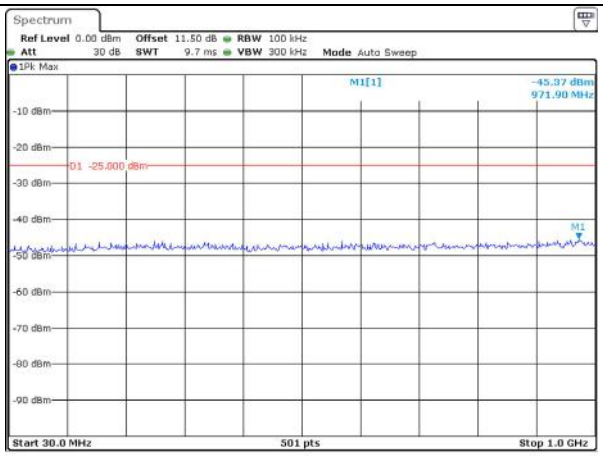
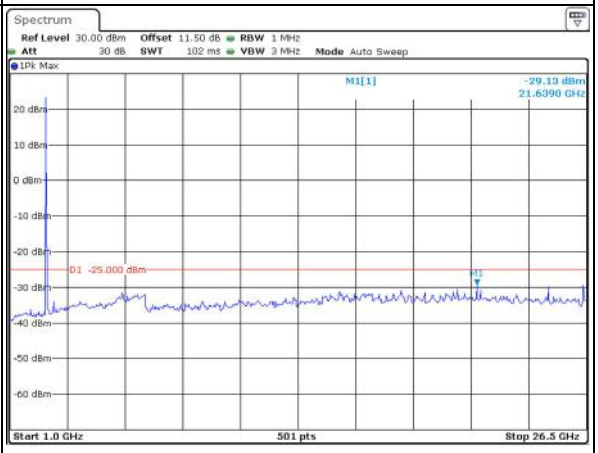
Test Plots(Note: The 11.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer)**:**

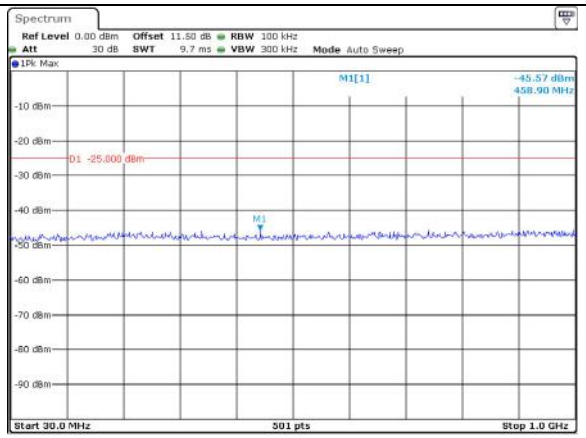
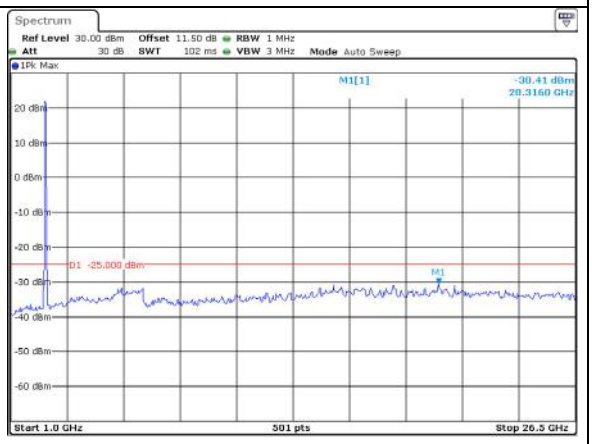
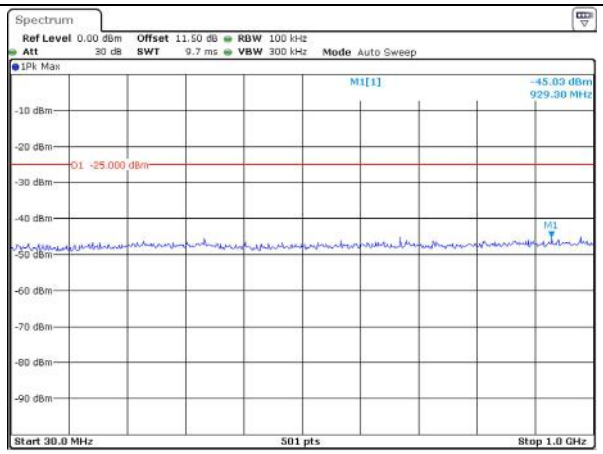
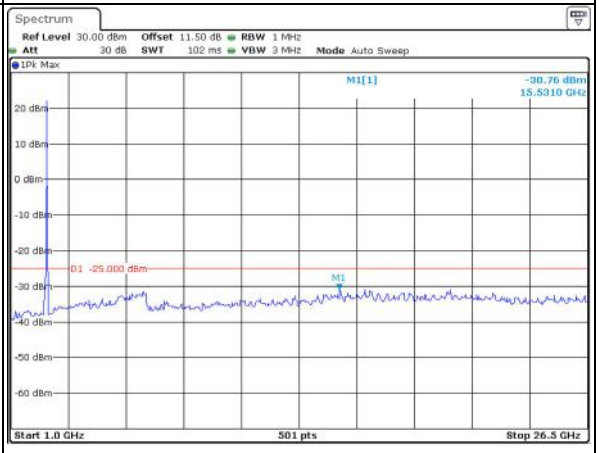
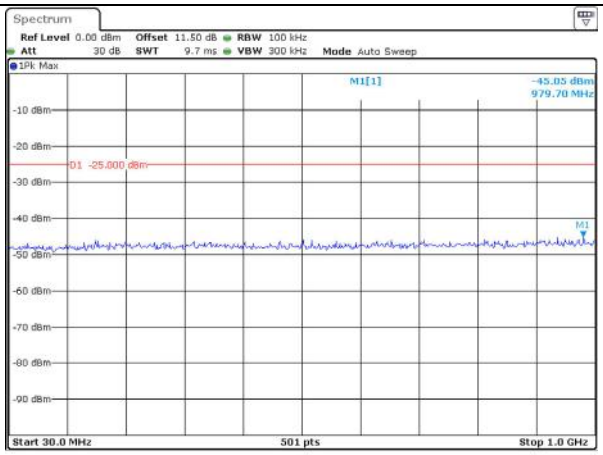
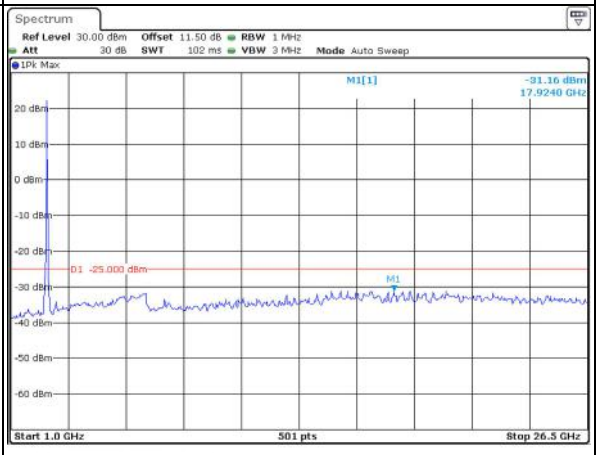
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

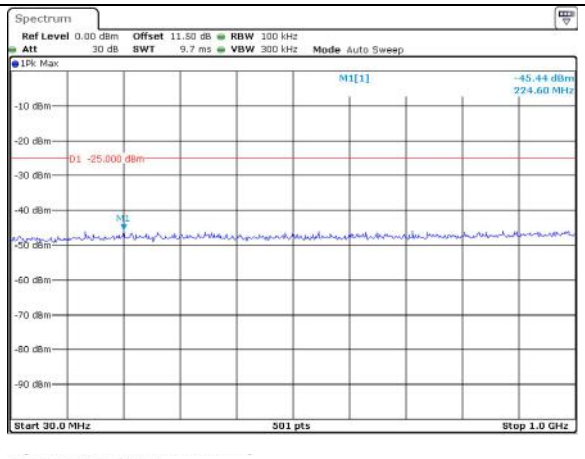
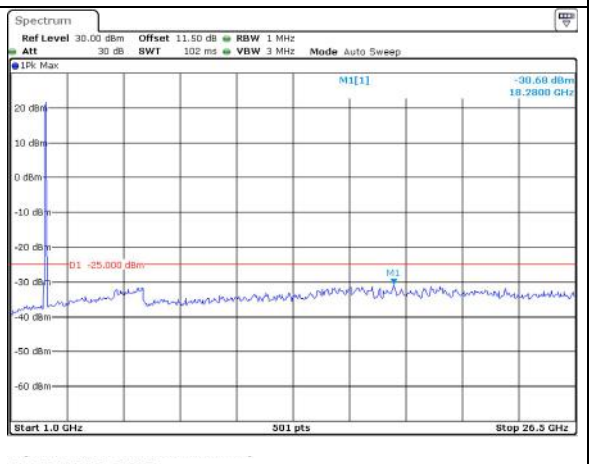
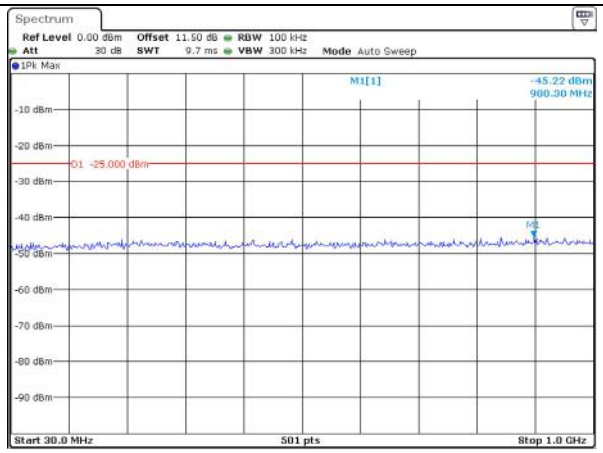
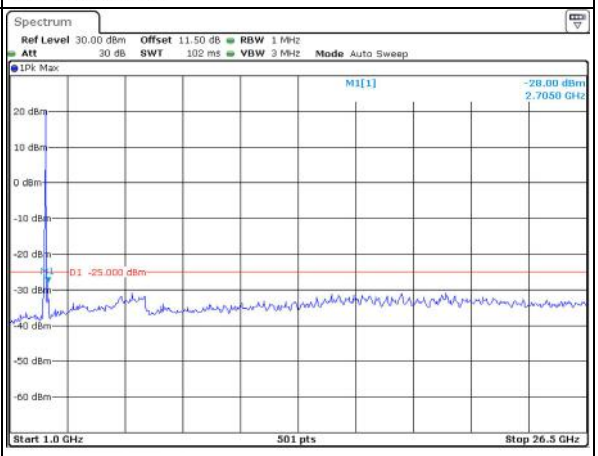
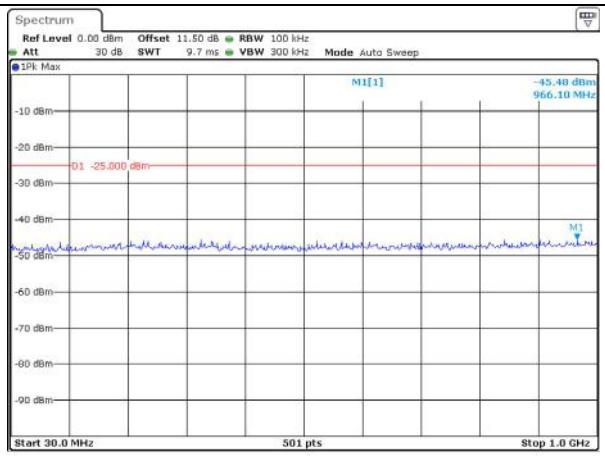
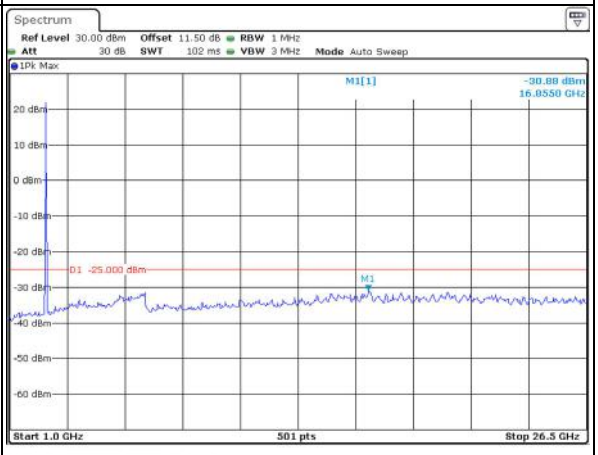
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

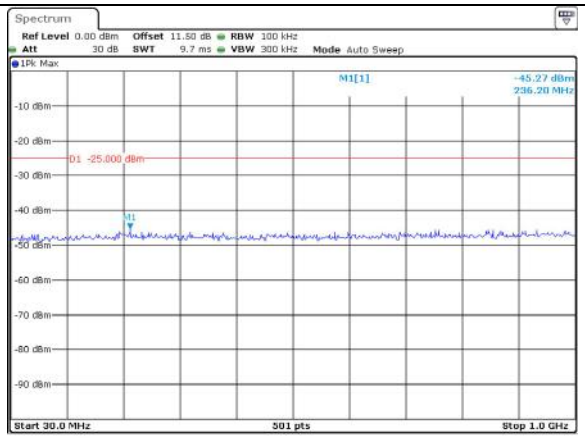
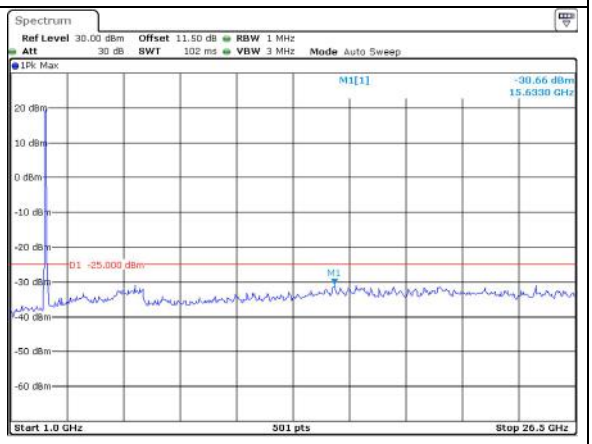
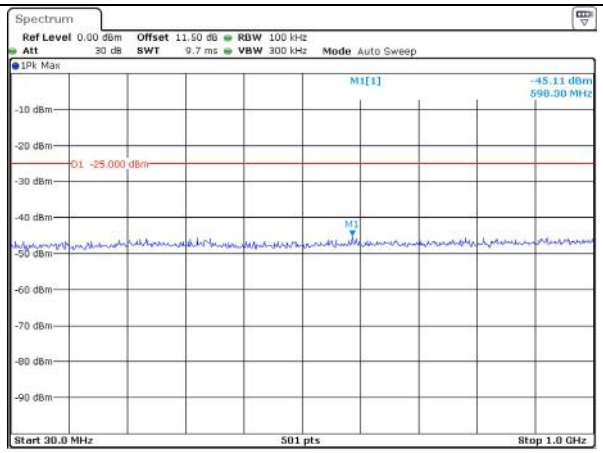
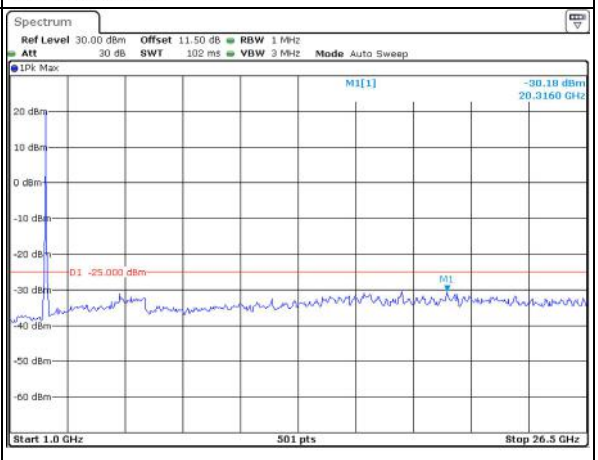
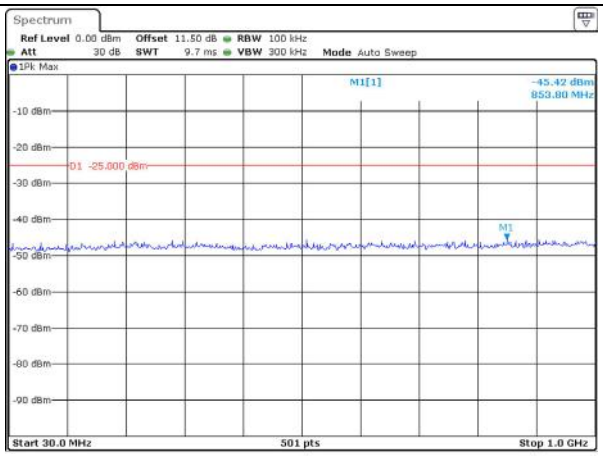
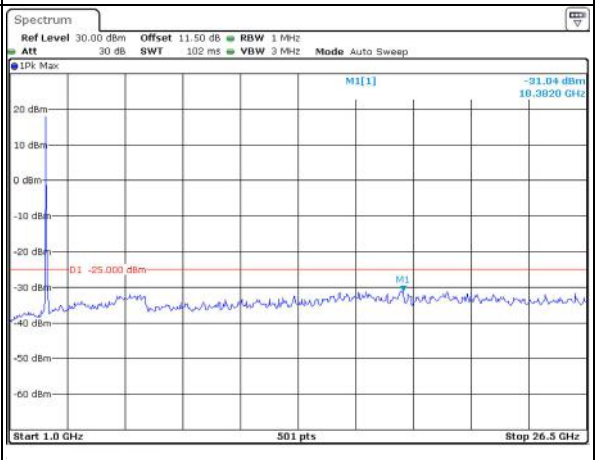
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

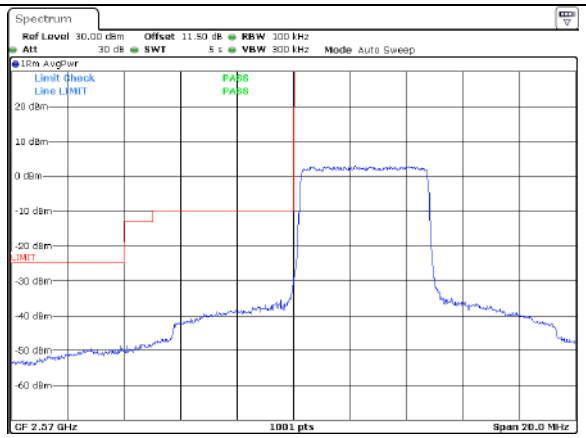
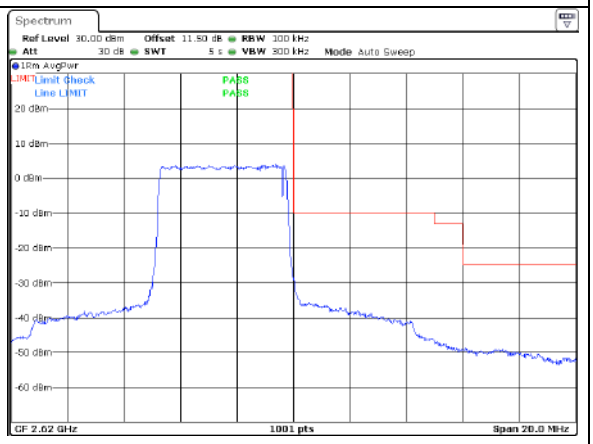
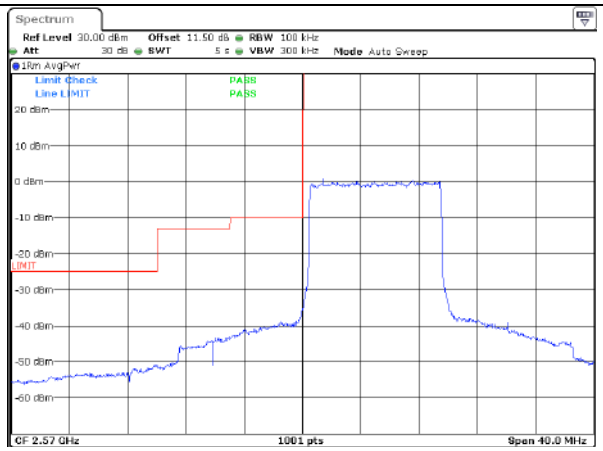
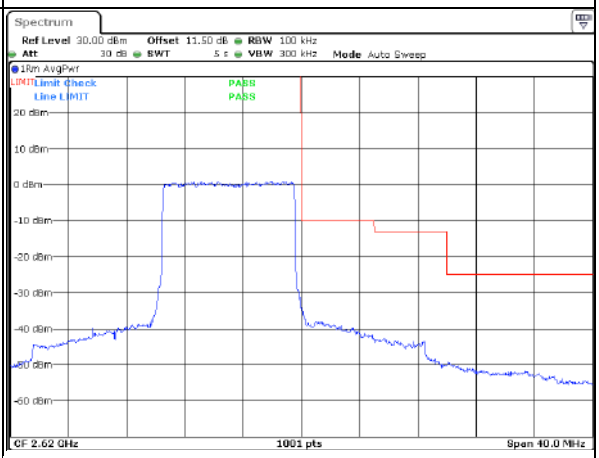
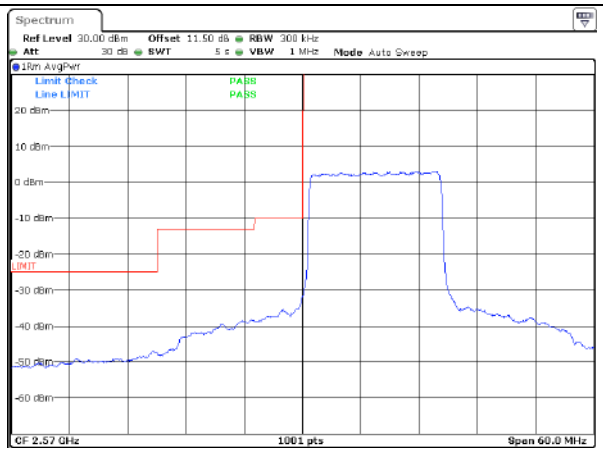
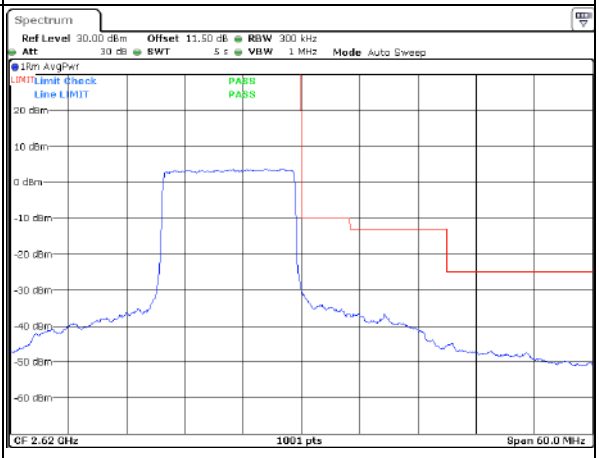
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

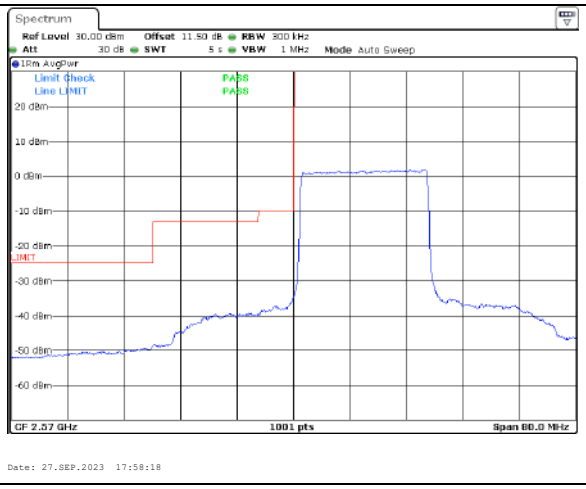
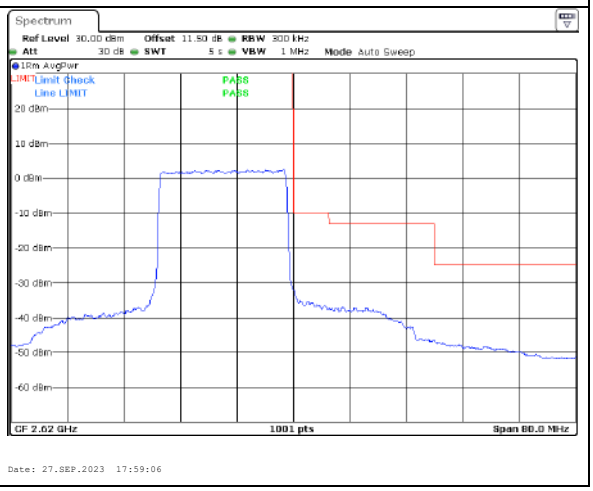
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

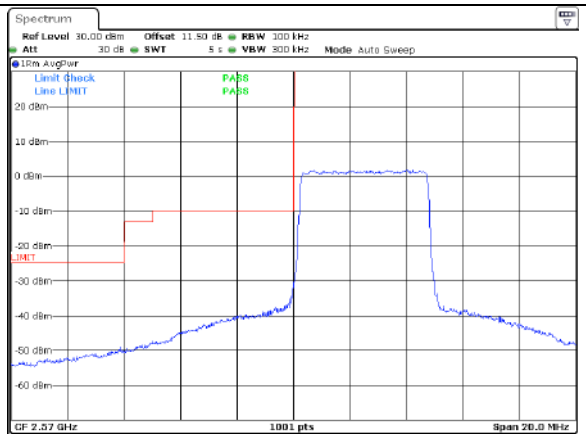
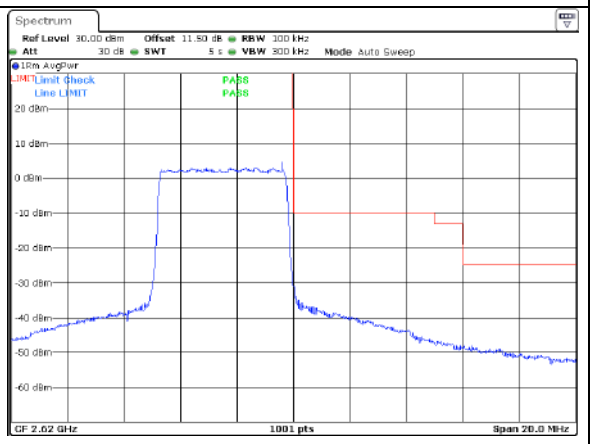
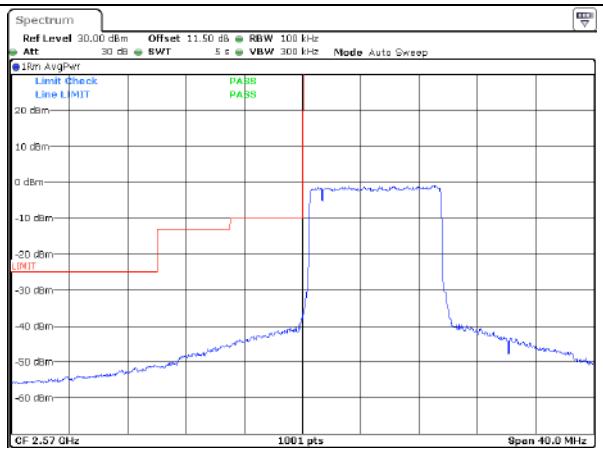
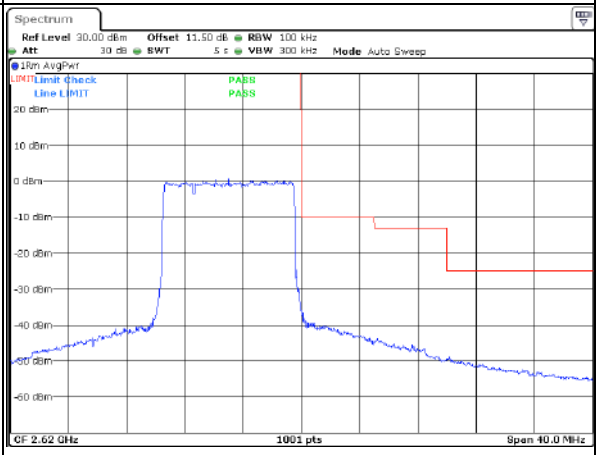
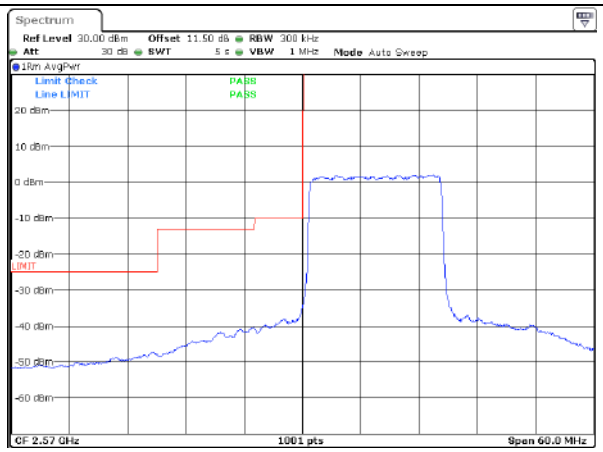
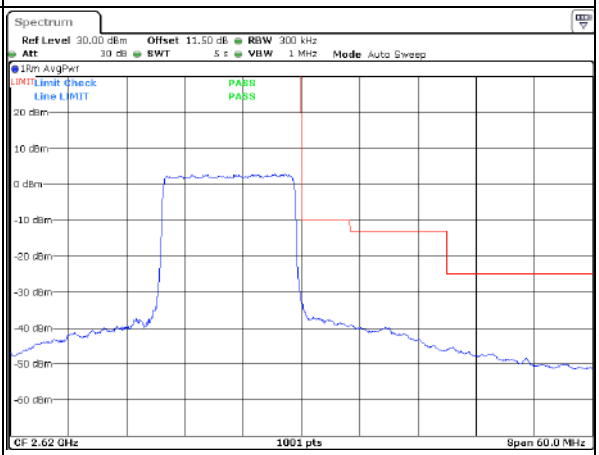
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

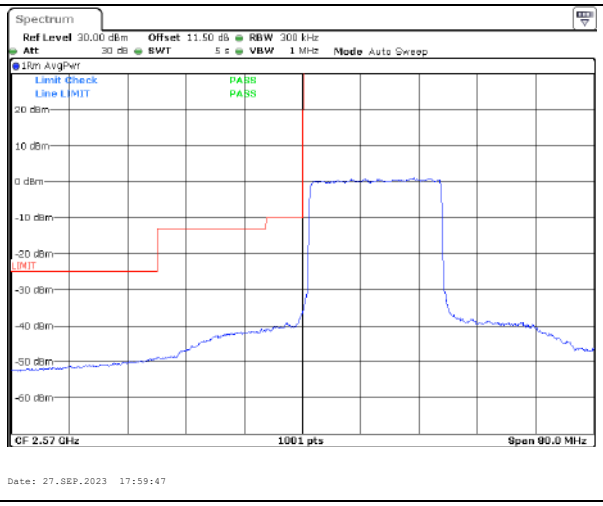
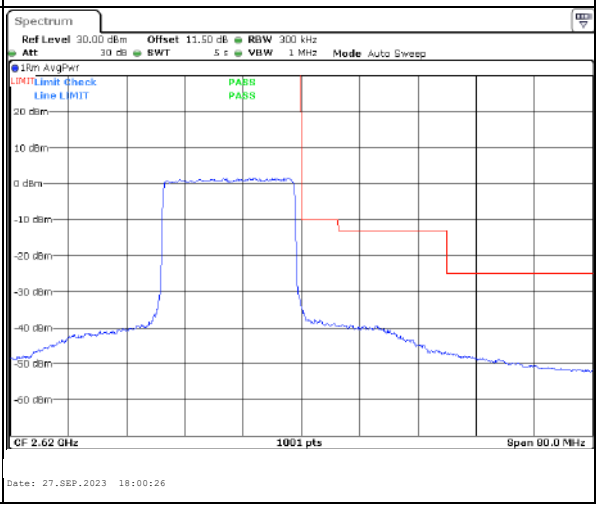
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 5MHz	 Date: 27.SEP.2023 17:42:50	 Date: 27.SEP.2023 17:43:26
QPSK 10MHz	 Date: 27.SEP.2023 17:48:44	 Date: 27.SEP.2023 17:49:21
QPSK 15MHz	 Date: 27.SEP.2023 17:52:01	 Date: 27.SEP.2023 17:52:44

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

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

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

4.16 Antenna Port Test Data and Results for LTE Band 40

Serial Number:	294A-2	Test Date:	2023/9/14-2023/12/25
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	26.7~28.4	Relative Humidity: (%)	53~58	ATM Pressure: (kPa)	100.2~100.6

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101943	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Minl-Clrcuits	Power Splitter	ZFRSC-183-S+	S F448201619	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

** 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	2307.5	/	2312.5
10MHz	/	2310	/
5MHz	2352.5	/	2357.5
10MHz	/	2355	/

Test Data:
(Note:Uplink Downlink configuration 3 was tested)

FCC§2.1046;§ 27.50(a)(3)						
LTE Band 40 Lower:						
RF Output Power:						
Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	22.28	/	22.17	20.78	24
	RB1#13	22.26	/	22.13		
	RB1#24	22.27	/	22.12		
	RB15#0	21.29	/	21.18		
	RB15#10	21.28	/	21.21		
	RB25#0	21.3	/	21.15		
5MHz 16QAM	RB1#0	21.28	/	21.26	19.88	24
	RB1#13	21.38	/	21.35		
	RB1#24	21.27	/	21.27		
	RB15#0	20.31	/	20.12		
	RB15#10	20.37	/	20.13		
	RB25#0	20.29	/	20.22		
10MHz QPSK	RB1#0	/	22.24	/	20.77	24
	RB1#25	/	22.27	/		
	RB1#49	/	22.21	/		
	RB25#0	/	21.18	/		
	RB25#25	/	21.21	/		
	RB50#0	/	21.21	/		
10MHz 16QAM	RB1#0	/	21.68	/	**20.29**	24
	RB1#25	/	21.79	/		
	RB1#49	/	21.76	/		
	RB25#0	/	20.23	/		
	RB25#25	/	20.29	/		
	RB50#0	/	20.21	/		

EIRP PSD in 5MHz:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted PSD(dBm/5MHz)			Maximum EIRP PSD (dBm/5MHz)	Limit (dBm/5MHz)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	/	22.24	/	**20.81**	24
	RB1#25	/	22.24	/		
	RB1#49	/	22.31	/		
	RB25#0	/	21.19	/		
	RB25#25	/	21.37	/		
	RB50#0	/	21.3	/		
10MHz 16QAM	RB1#0	/	21.35	/	20.01	24
	RB1#25	/	21.45	/		
	RB1#49	/	21.51	/		
	RB25#0	/	20.25	/		
	RB25#25	/	20.32	/		
	RB50#0	/	20.31	/		

Note:
For 5MHz mode, the channel power is equal to the test result in dBm/5MHz.
EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)
EIRP PSD=Conducted PSD(dBm/5MHz) - L_C(dB) + G_T(dBi)

LTE Band 40 Upper:

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	22.25	/	22.18	**20.75**	24
	RB1#13	22.25	/	22.1		
	RB1#24	22.2	/	22.11		
	RB15#0	21.28	/	21.14		
	RB15#10	21.3	/	21.19		
	RB25#0	21.29	/	21.23		
5MHz 16QAM	RB1#0	21.62	/	21.1	**20.20**	24
	RB1#13	21.65	/	21.09		
	RB1#24	21.7	/	21.2		
	RB15#0	20.19	/	20.26		
	RB15#10	20.27	/	20.24		
	RB25#0	20.27	/	20.22		
10MHz QPSK	RB1#0	/	22.06	/	20.56	24
	RB1#25	/	22.05	/		
	RB1#49	/	21.99	/		
	RB25#0	/	21.09	/		
	RB25#25	/	21.11	/		
	RB50#0	/	21.12	/		
10MHz 16QAM	RB1#0	/	21.34	/	19.90	24
	RB1#25	/	21.36	/		
	RB1#49	/	21.4	/		
	RB25#0	/	20.06	/		
	RB25#25	/	20.1	/		
	RB50#0	/	20.08	/		

EIRP PSD in 5MHz:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted PSD(dBm/5MHz)			Maximum EIRP PSD (dBm/5MHz)	Limit (dBm/5MHz)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	/	22.04	/	20.55	24
	RB1#25	/	21.96	/		
	RB1#49	/	22.05	/		
	RB25#0	/	21.02	/		
	RB25#25	/	21.07	/		
	RB50#0	/	21.01	/		
10MHz 16QAM	RB1#0	/	21.18	/	19.68	24
	RB1#25	/	21.12	/		
	RB1#49	/	21.14	/		
	RB25#0	/	19.99	/		
	RB25#25	/	20.04	/		
	RB50#0	/	19.98	/		

Note:
For 5MHz mode, the channel power is equal to the test result in dBm/5MHz.
EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)
EIRP PSD=Conducted PSD(dBm/5MHz) - L_C(dB) + G_T(dBi)

Result:	**Pass**

Duty Cycle

Operation Band	Modulation	Bandwidth	Ton (ms)	Ton+off (ms)	Duty Cycle (%)	Limit (%)
LTE Band 40 Lower	QPSK	5M	3	10	30.00	38
		10M	3	10	30.00	38
	16QAM	5M	3	10	30.00	38
		10M	3	10	30.00	38
LTE Band 40 Upper	QPSK	5M	3	10	30.00	38
		10M	3	10	30.00	38
	16QAM	5M	3	10	30.00	38
		10M	3	10	30.00	38
					Result:	**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth

LTE Band 40 Lower:

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle channel	High Channel
5MHz QPSK	4.511	/	4.511	5.040	/	5.000
5MHz 16QAM	4.511	/	4.511	5.000	/	5.040
10MHz QPSK	/	8.942	/	/	9.760	/
10MHz 16QAM	/	8.942	/	/	9.600	/

LTE Band 40 Upper:

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle channel	High Channel
5MHz QPSK	4.511	/	4.511	5.060	/	5.000
5MHz 16QAM	4.511	/	4.511	5.000	/	5.380
10MHz QPSK	/	8.942	/	/	9.720	/
10MHz 16QAM	/	8.942	/	/	9.560	/

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

LTE Band 40 Lower:

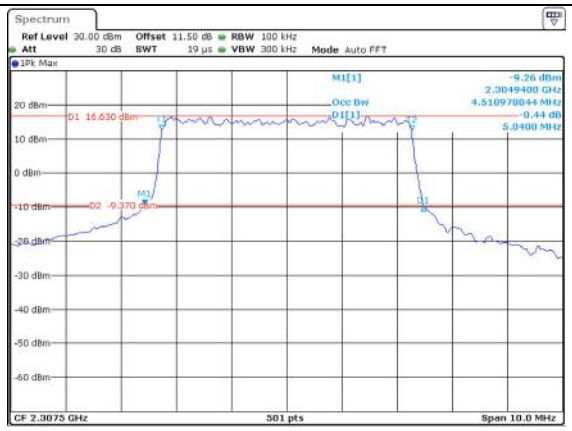
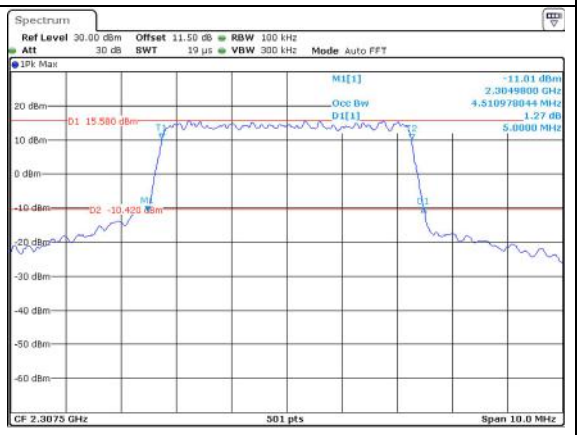
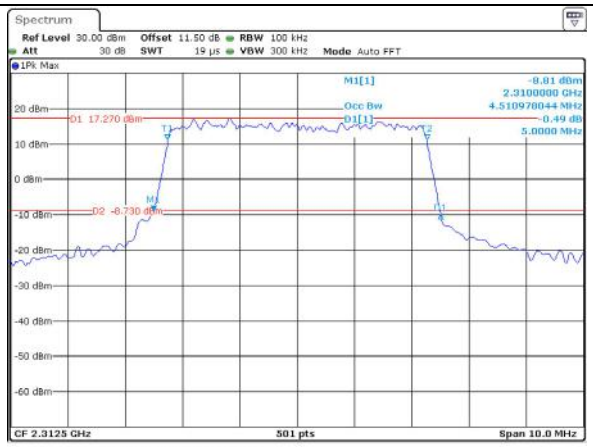
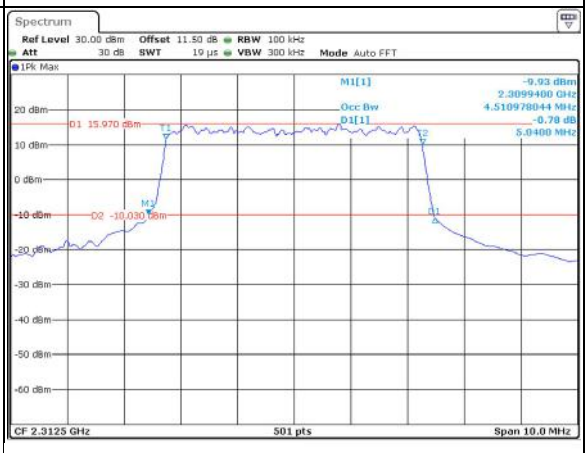
Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2305.360	2305.000	2314.990	2315.000
	-20	3.85	2305.001	2305.000	2314.991	2315.000
	-10	3.85	2305.011	2305.000	2314.995	2315.000
	0	3.85	2305.017	2305.000	2314.992	2315.000
	10	3.85	2305.024	2305.000	2314.975	2315.000
	20	3.85	2305.010	2305.000	2314.978	2315.000
	30	3.85	2305.001	2305.000	2314.980	2315.000
	40	3.85	2305.011	2305.000	2314.990	2315.000
	50	3.85	2305.010	2305.000	2314.977	2315.000
Frequency Stability vs. Voltage	20	3.66	2305.022	2305.000	2314.980	2315.000
	20	4.24	2305.028	2305.000	2314.988	2315.000
					Result:	**Pass**

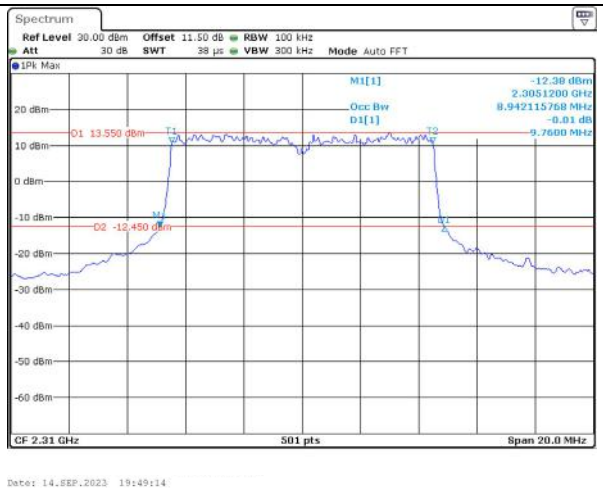
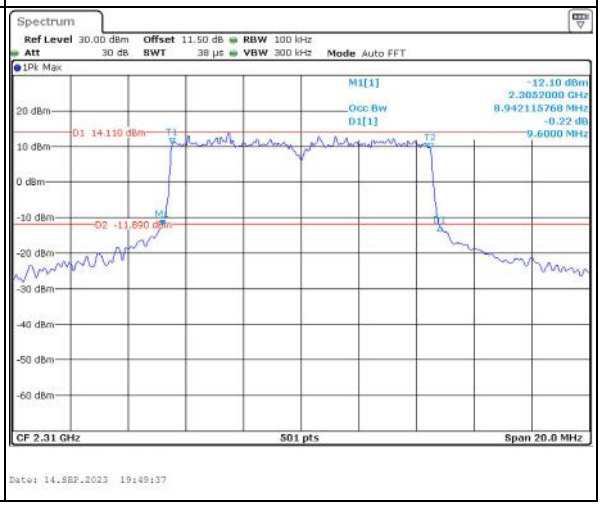
Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2305.029	2305.000	2314.986	2315.000
	-20	3.85	2305.029	2305.000	2314.991	2315.000
	-10	3.85	2305.001	2305.000	2314.992	2315.000
	0	3.85	2305.009	2305.000	2314.976	2315.000
	10	3.85	2305.023	2305.000	2314.984	2315.000
	20	3.85	2305.028	2305.000	2314.991	2315.000
	30	3.85	2305.020	2305.000	2314.981	2315.000
	40	3.85	2305.030	2305.000	2314.998	2315.000
	50	3.85	2305.006	2305.000	2314.984	2315.000
Frequency Stability vs. Voltage	20	3.66	2305.028	2305.000	2314.983	2315.000
	20	4.24	2305.024	2305.000	2314.981	2315.000
					Result:	**Pass**

LTE Band 40 Upper:						
Test Mode:	10M 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	3.85	2350.026	2350.000	2359.994	2360.000
	-20	3.85	2350.014	2350.000	2359.977	2360.000
	-10	3.85	2350.015	2350.000	2359.976	2360.000
	0	3.85	2350.022	2350.000	2359.975	2360.000
	10	3.85	2350.005	2350.000	2359.988	2360.000
	20	3.85	2350.026	2350.000	2359.982	2360.000
	30	3.85	2350.223	2350.000	2359.993	2360.000
	40	3.85	2350.010	2350.000	2359.983	2360.000
	50	3.85	2350.019	2350.000	2359.971	2360.000
Frequency Stability vs. Voltage	20	3.66	2350.001	2350.000	2359.972	2360.000
	20	4.24	2350.010	2350.000	2359.992	2360.000
					Result:	**Pass**

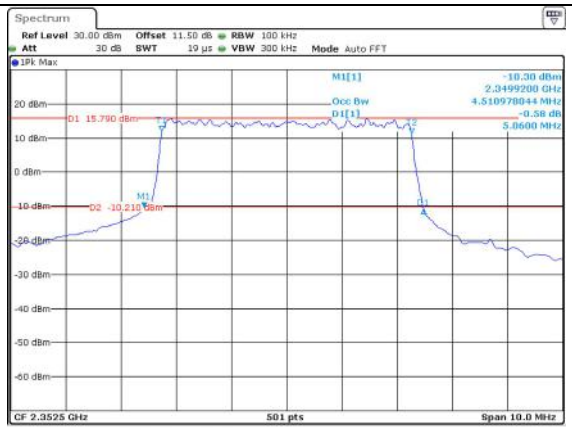
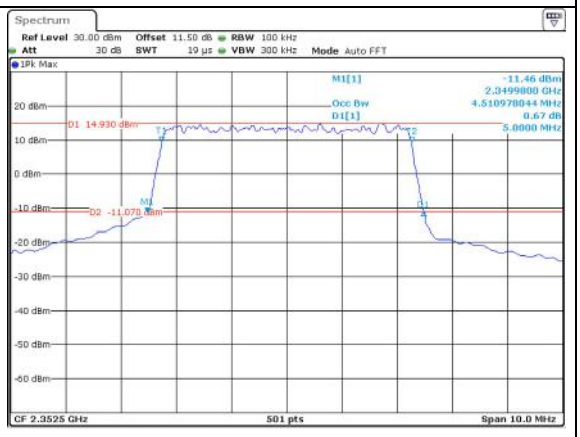
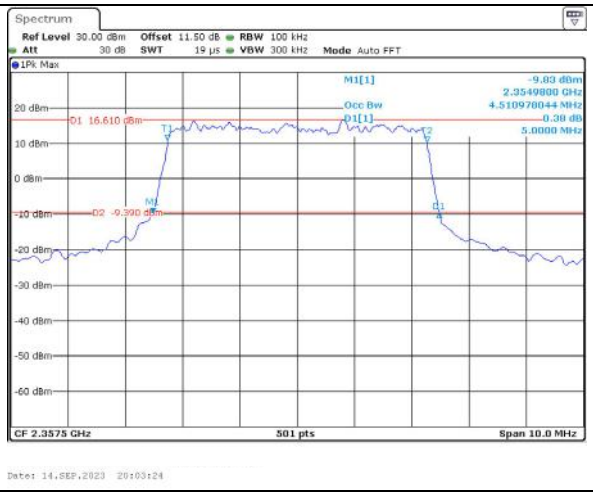
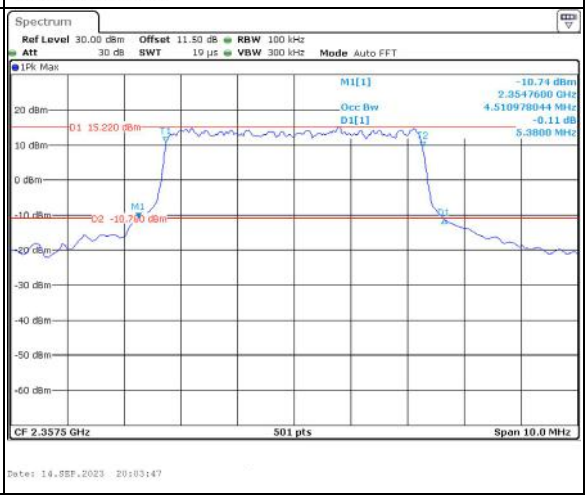
Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2350.004	2350.000	2359.995	2360.000
	-20	3.85	2350.030	2350.000	2359.995	2360.000
	-10	3.85	2350.010	2350.000	2359.987	2360.000
	0	3.85	2350.014	2350.000	2359.972	2360.000
	10	3.85	2350.016	2350.000	2359.978	2360.000
	20	3.85	2350.019	2350.000	2359.976	2360.000
	30	3.85	2350.011	2350.000	2359.987	2360.000
	40	3.85	2350.025	2350.000	2359.979	2360.000
	50	3.85	2350.006	2350.000	2359.986	2360.000
Frequency Stability vs. Voltage	20	3.66	2350.004	2350.000	2359.972	2360.000
	20	4.24	2350.005	2350.000	2359.981	2360.000
					Result:	**Pass**

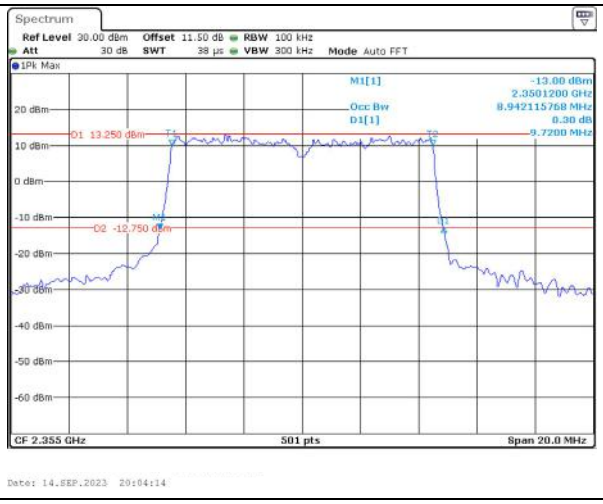
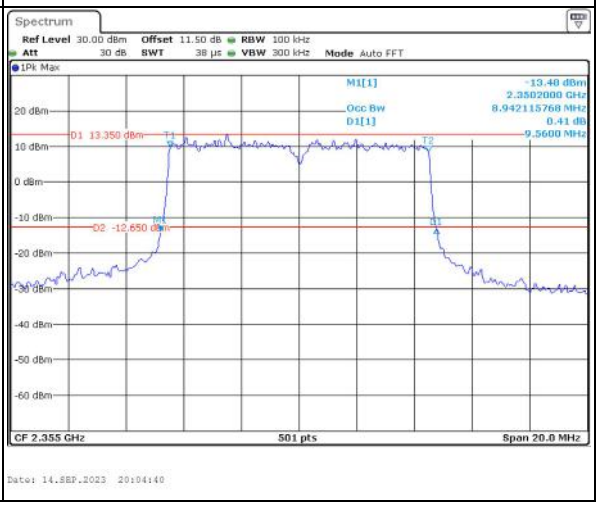
Test Plots (Note: The 11.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):
2305-2315 MHz:

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

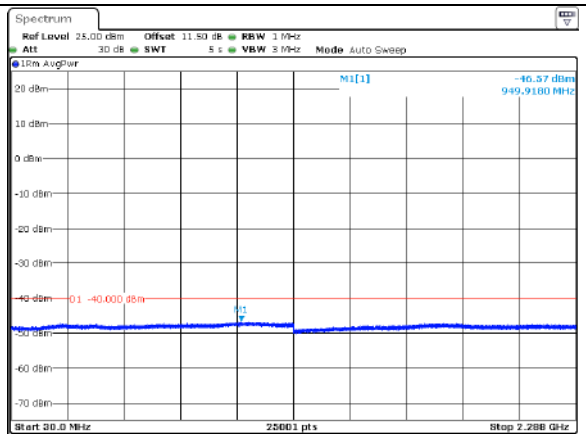
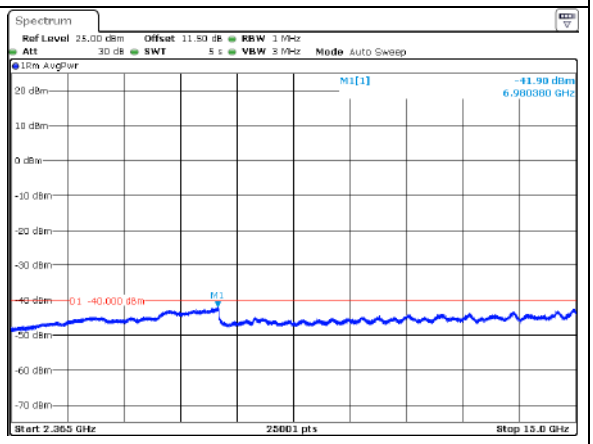
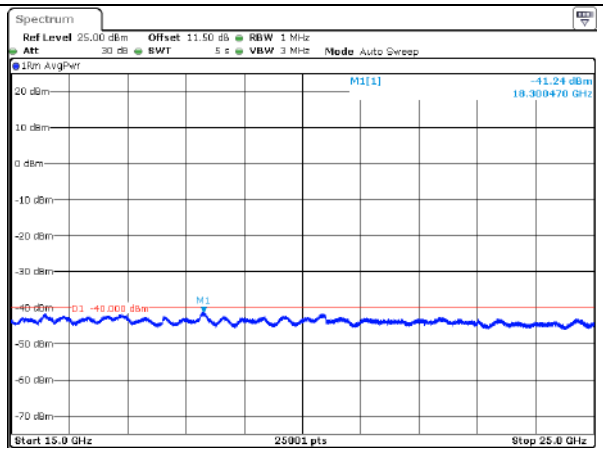
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Middle		

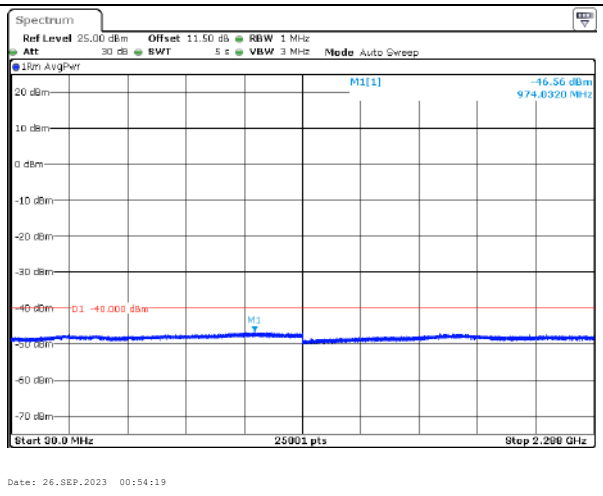
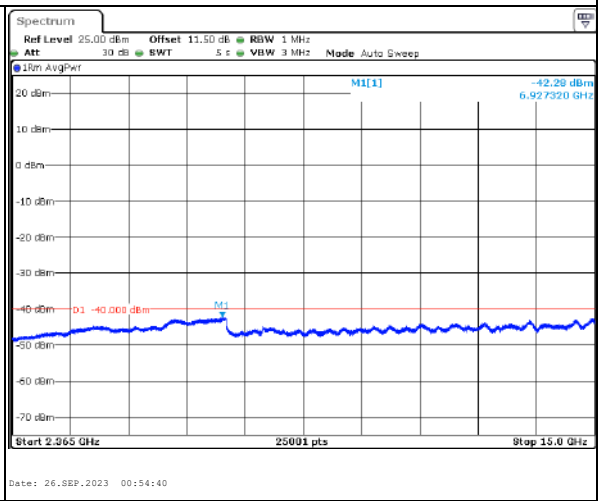
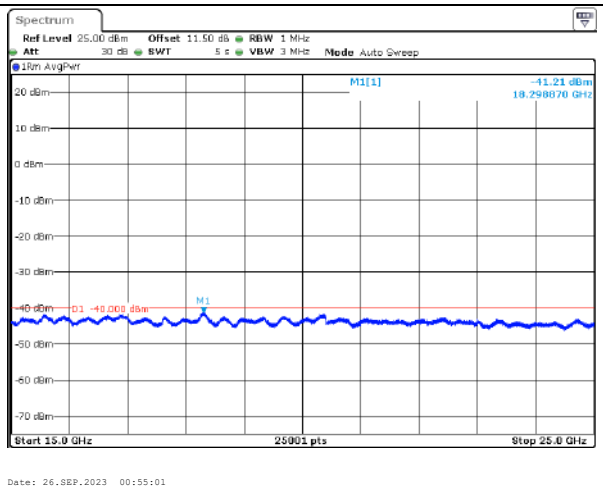
2350-2360 MHz:

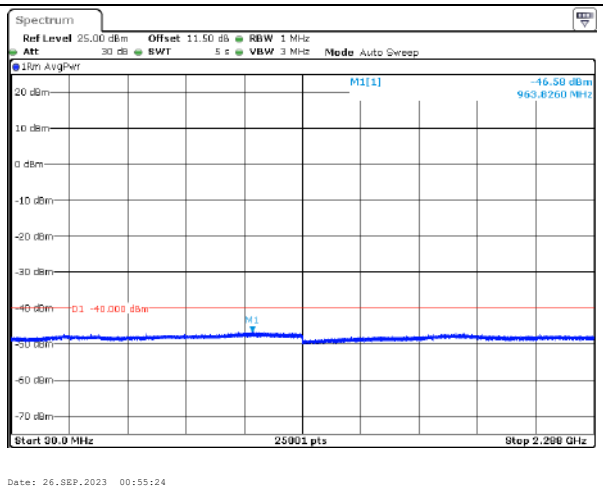
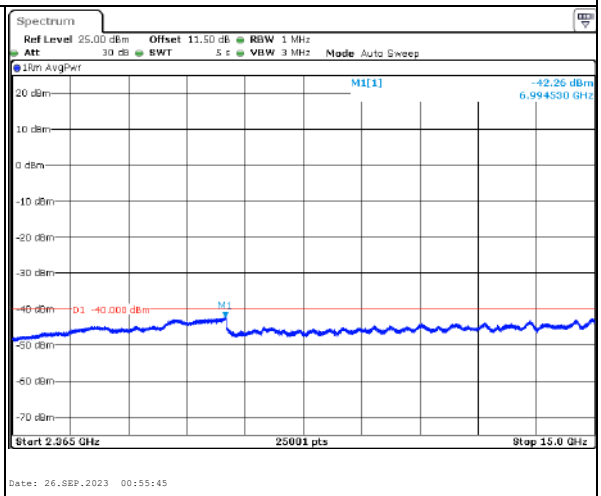
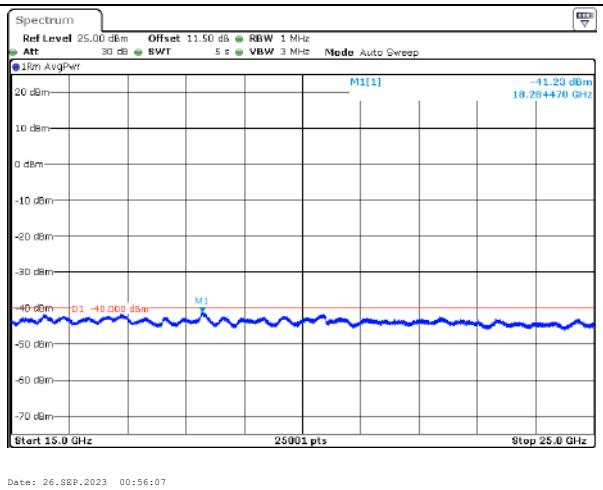
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Highest		

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

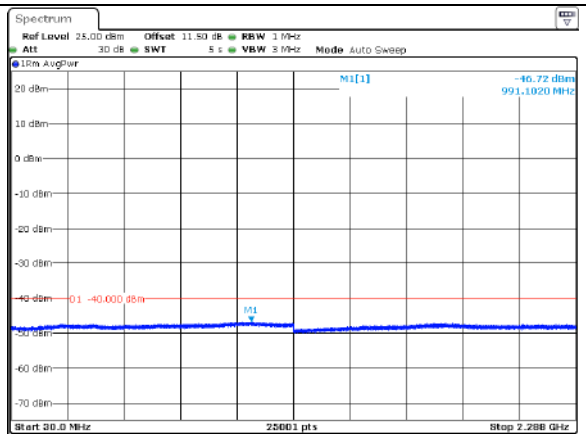
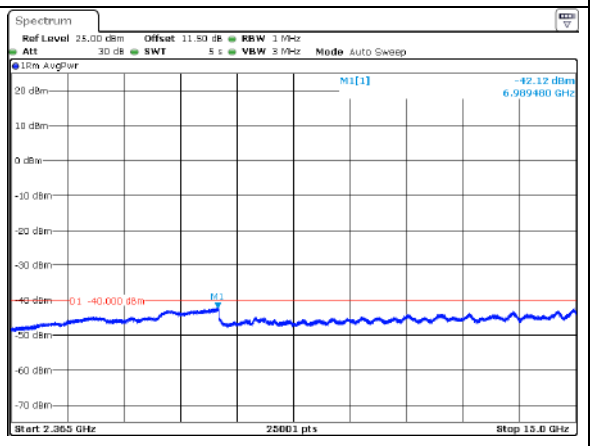
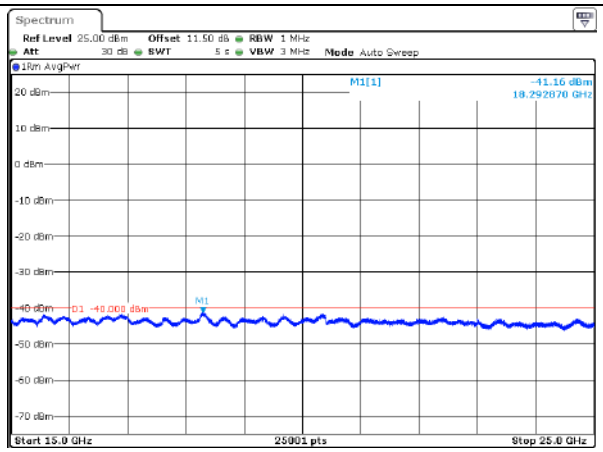
2305-2315 MHz:

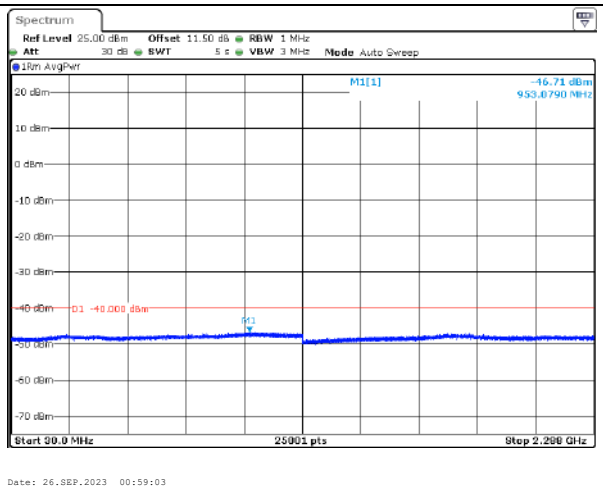
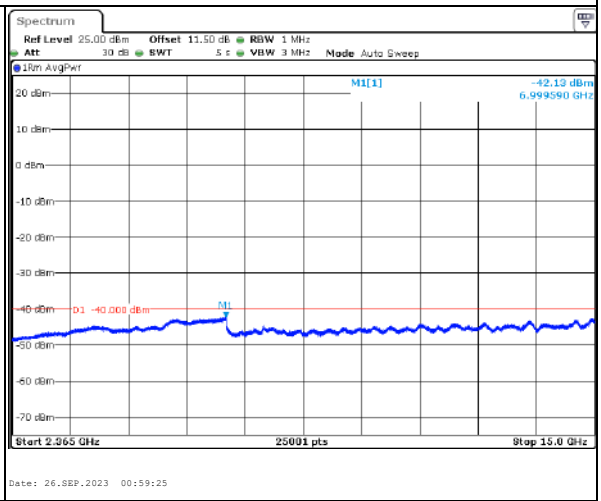
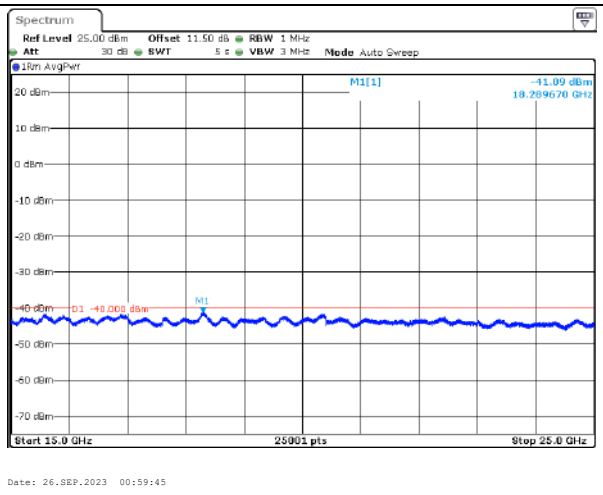
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Lowest		/

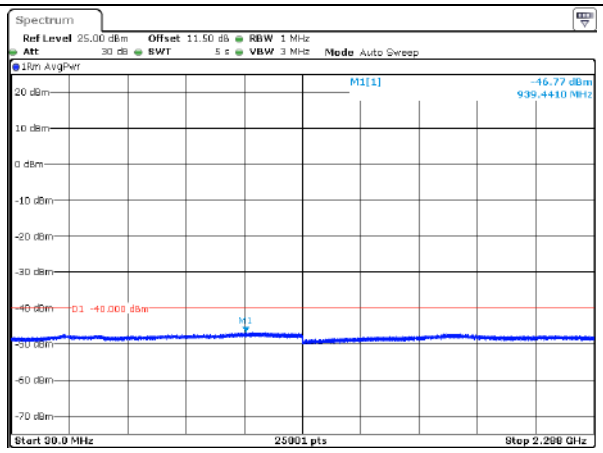
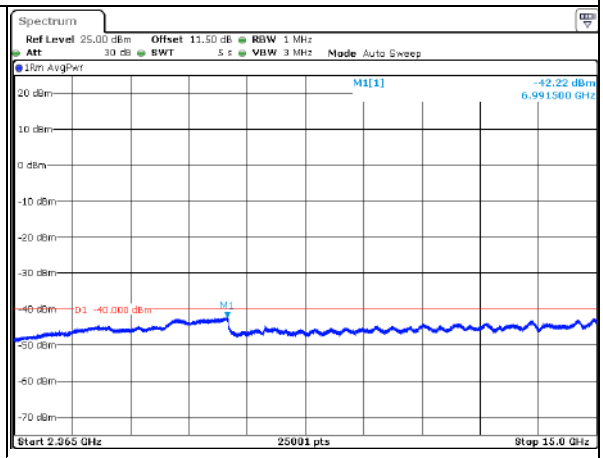
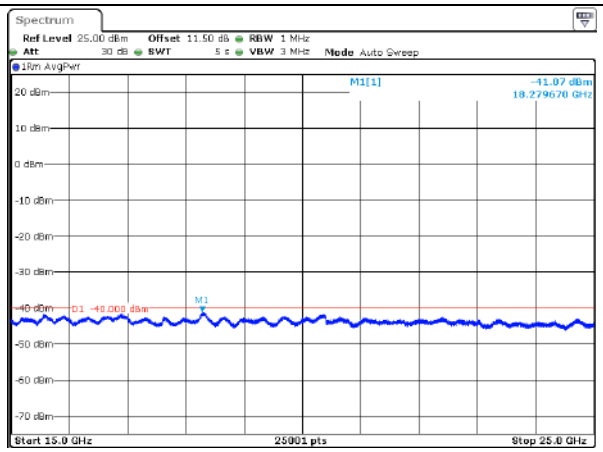
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Highest		
Highest		/

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

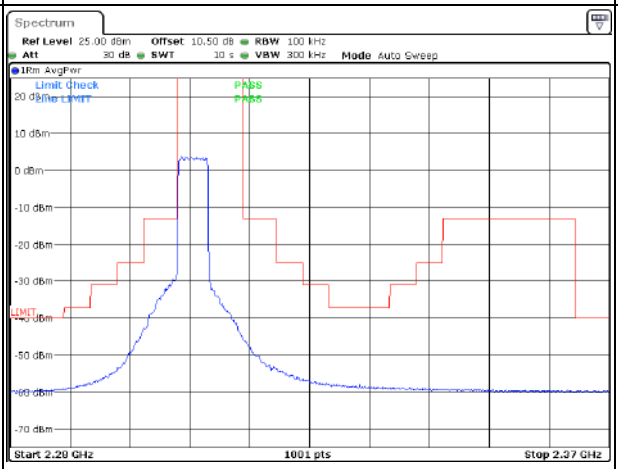
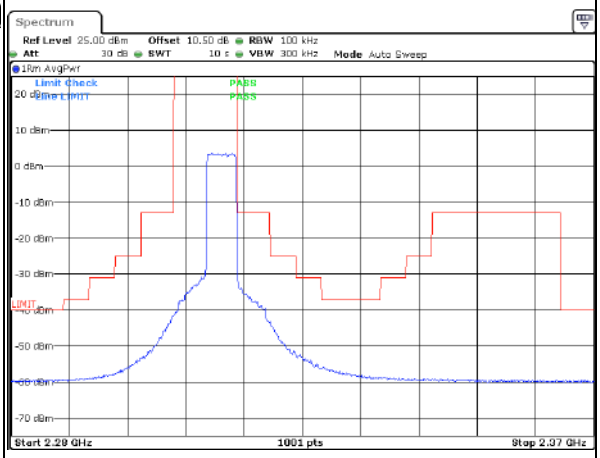
2350-2360 MHz:

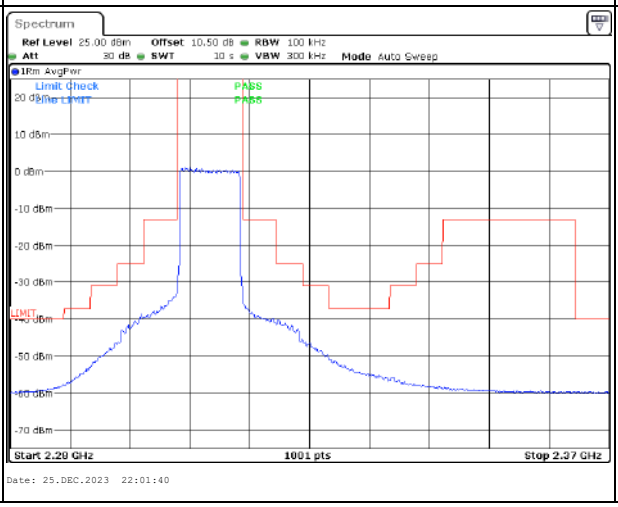
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Lowest		/

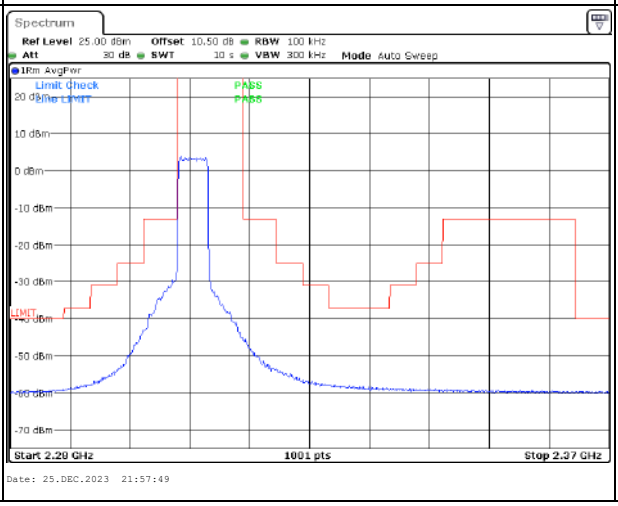
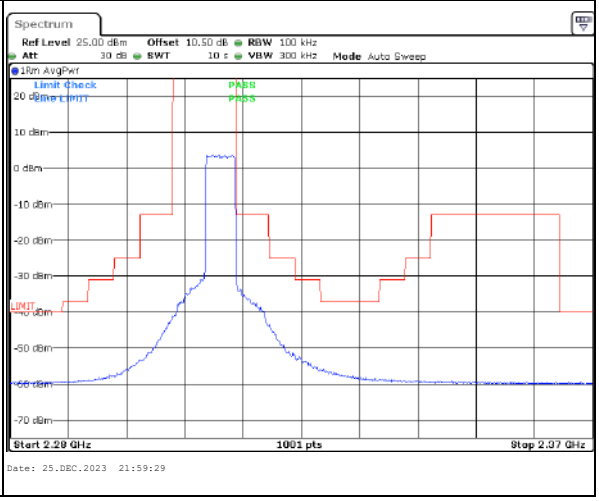
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Highest		
Highest		/

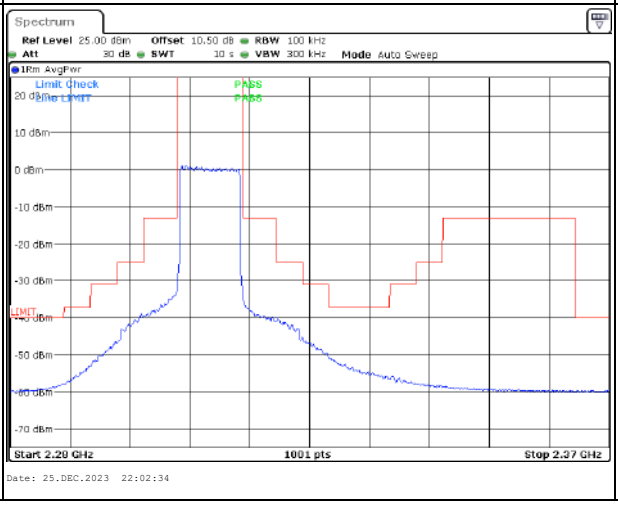
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Middle		
Middle		/

2305-2315 MHz:

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

Out of band emission, Band Edge		
Mode	Middle	/
QPSK 10MHz		/

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

Out of band emission, Band Edge		
Mode	Middle	/
16QAM 10MHz		/