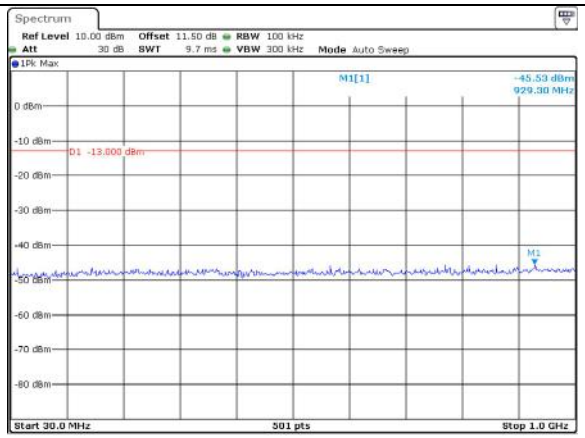
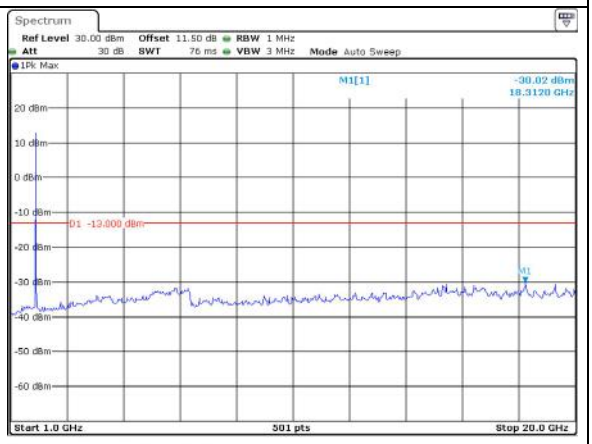
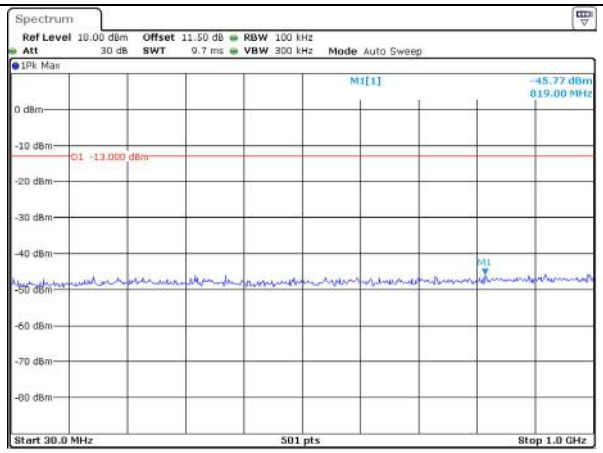
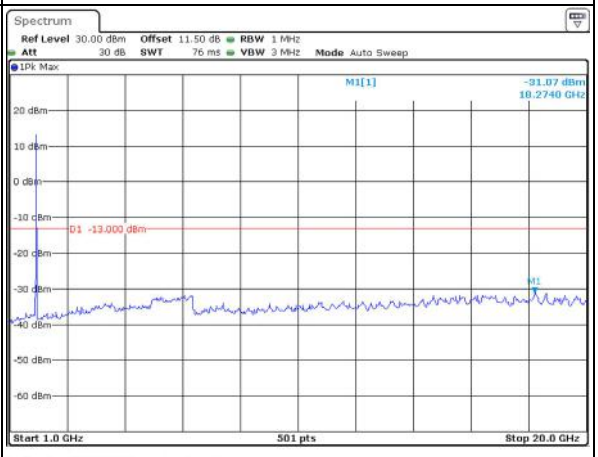
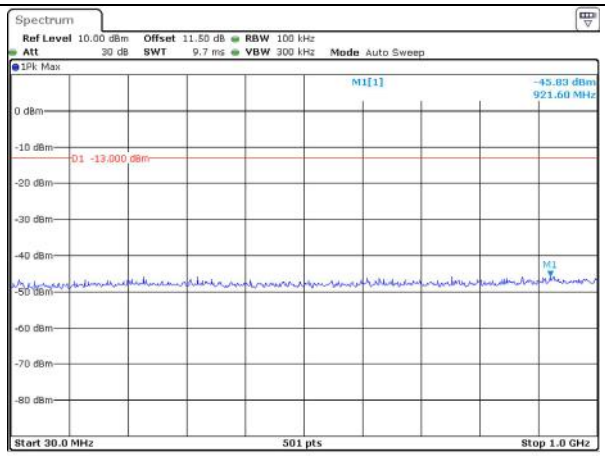
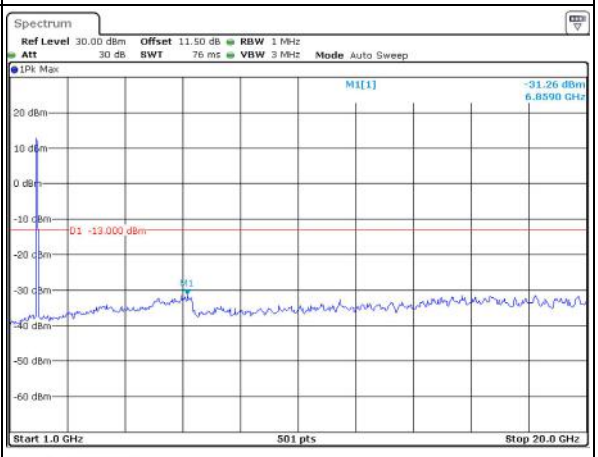
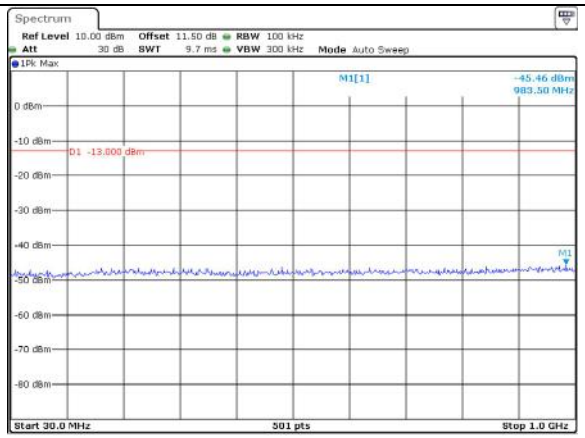
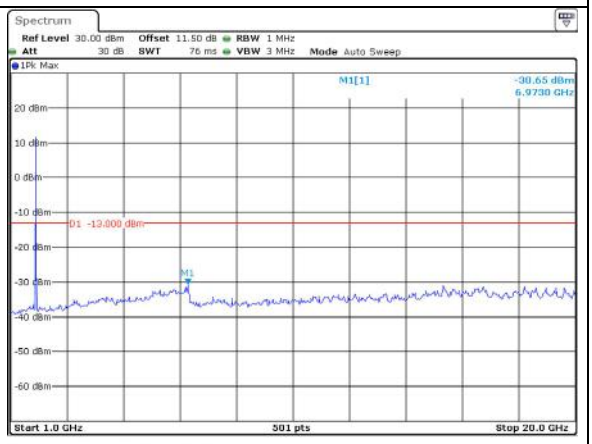
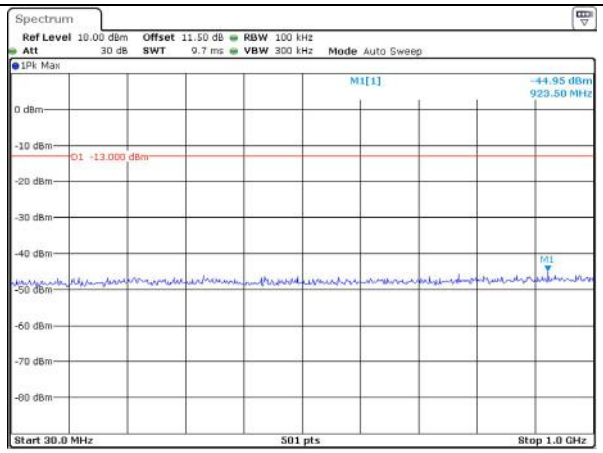
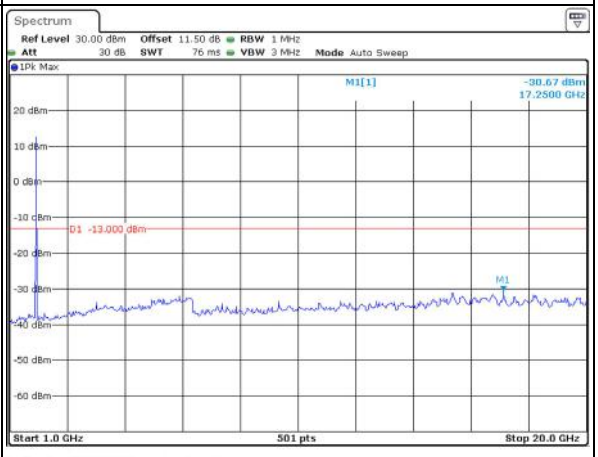
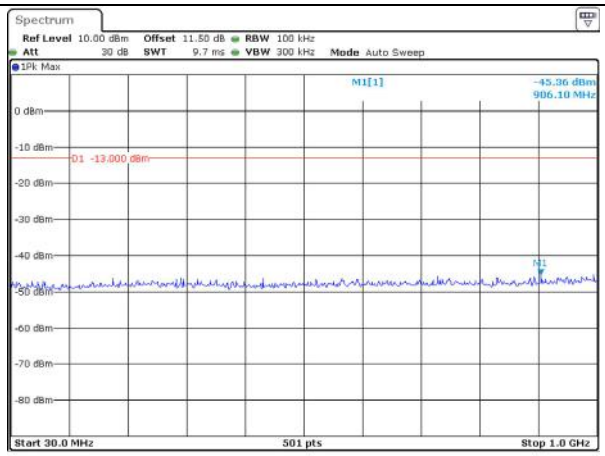
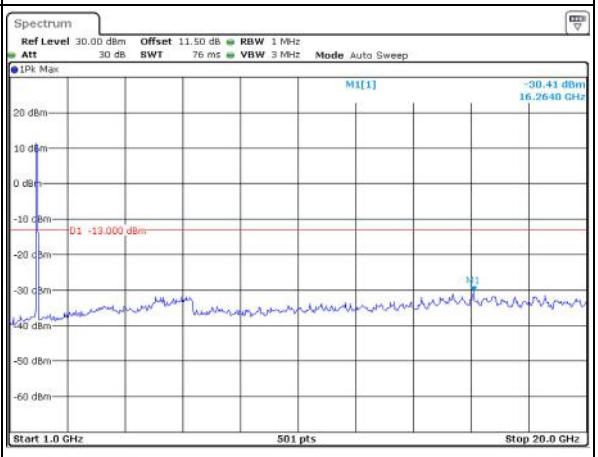
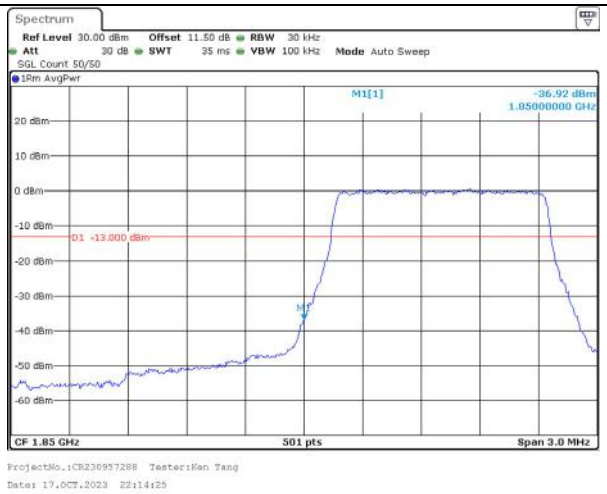
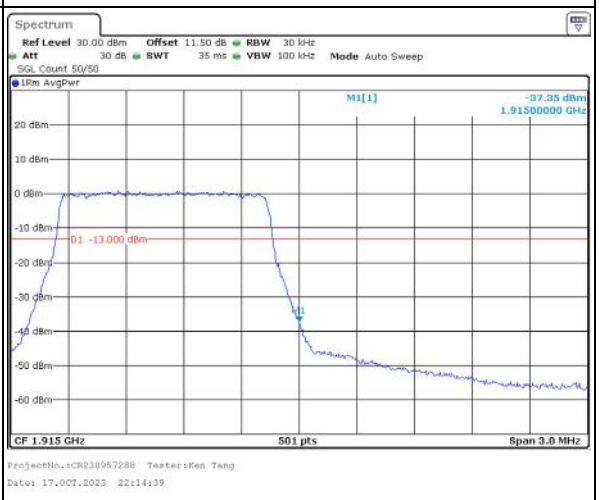
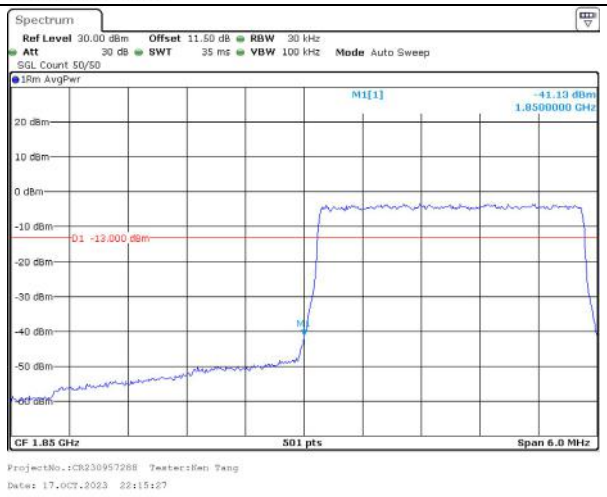
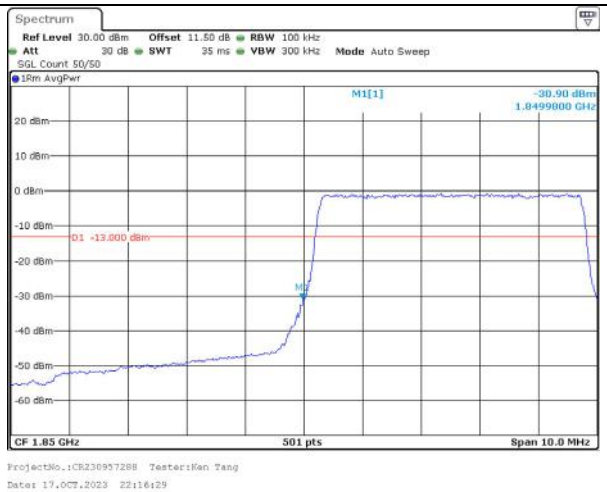
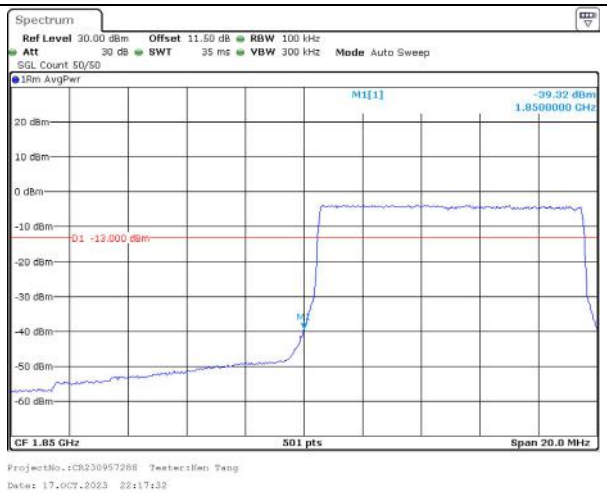
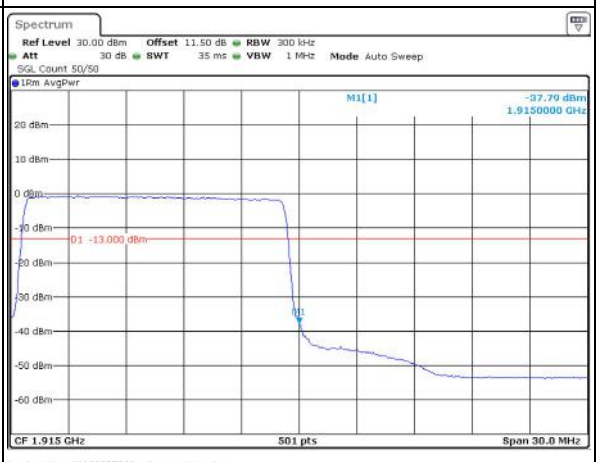
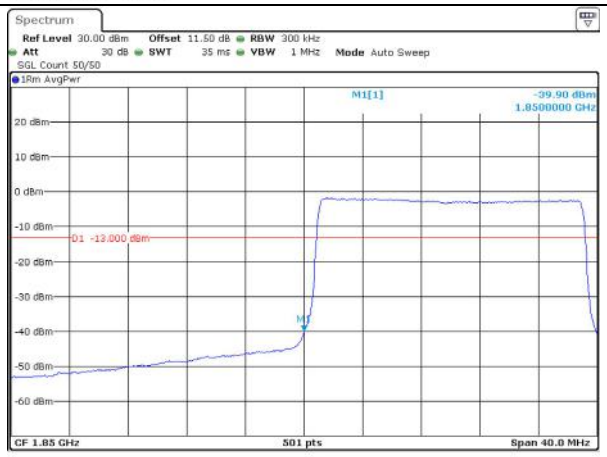
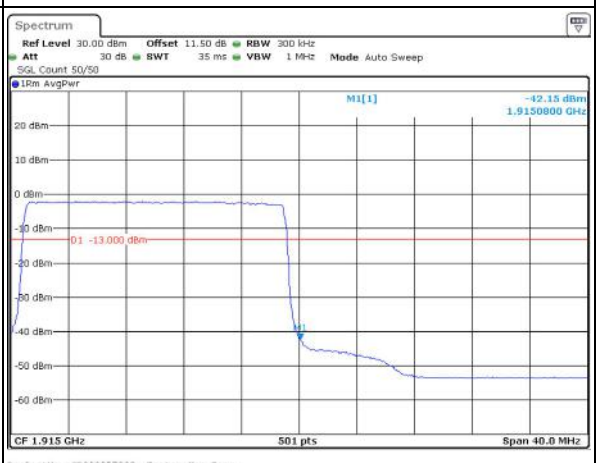
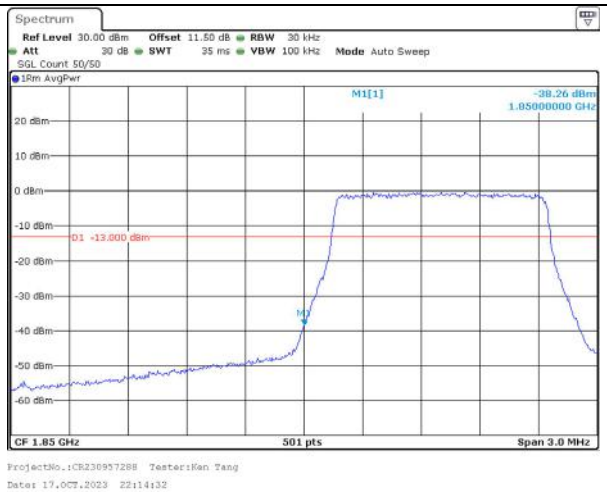
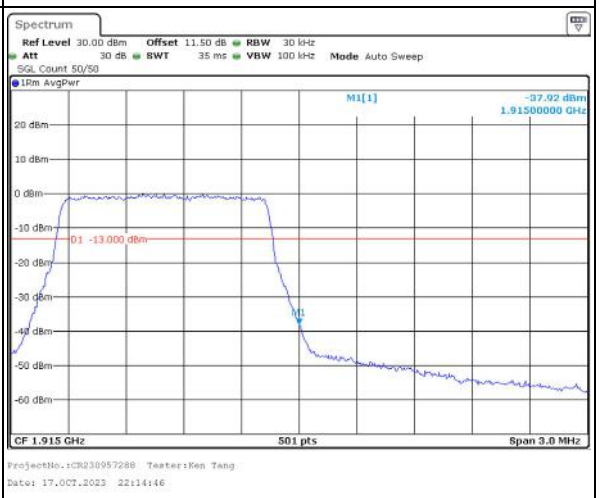
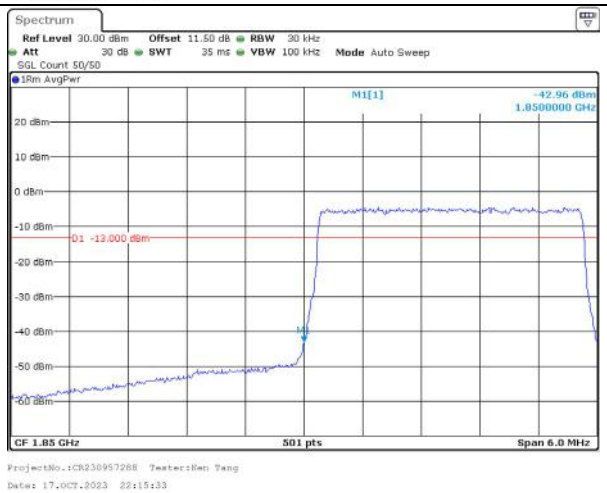
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

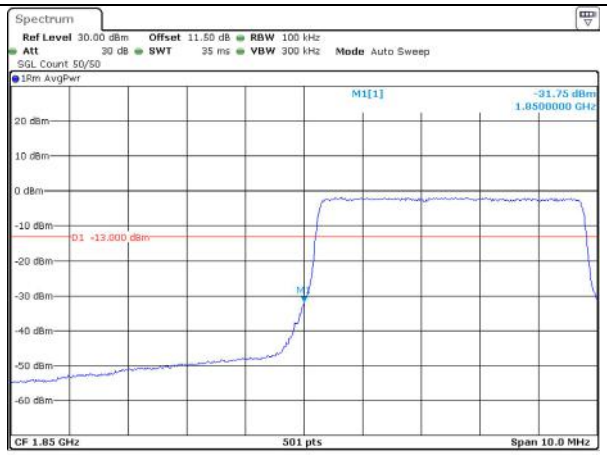
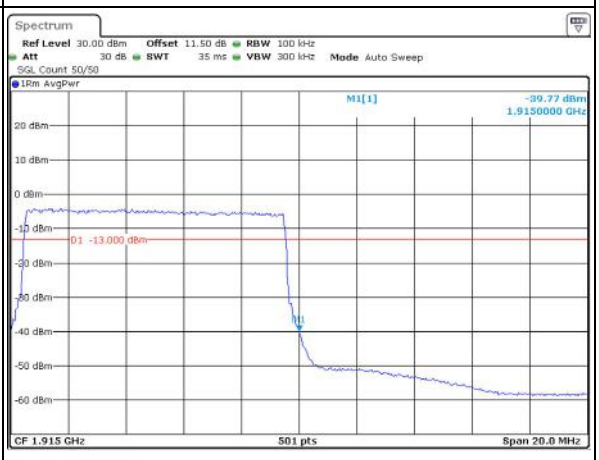
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

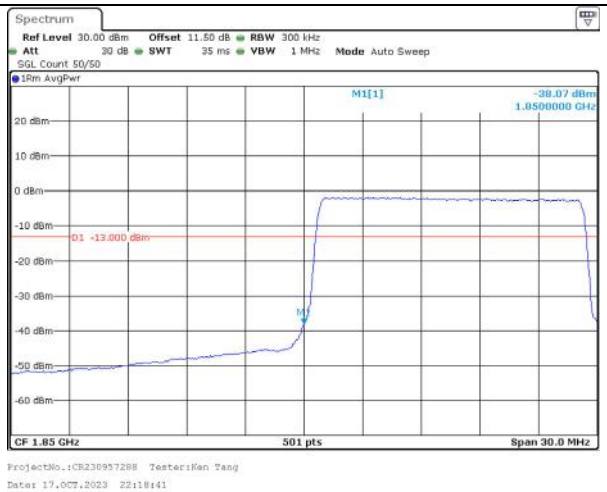
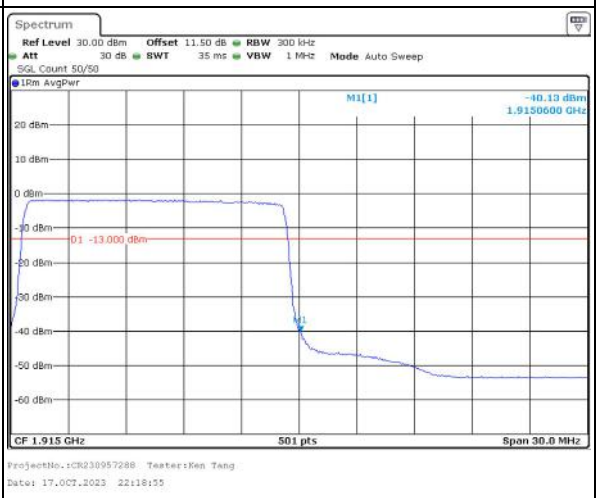
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz		
QPSK 3MHz		

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

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

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

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

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

4.14 Antenna Port Test Data and Results for LTE Band 26

Serial Number:	2BUF-5	Test Date:	2023/10/15~2023/11/7
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.6-26	Relative Humidity: (%)	49	ATM Pressure: (kPa)	101.3-101.5

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
zhuoxiang	Coaxial Cable	SMA-178	211002	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	2023/9/28	2024/9/27
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 For 90S (MHz)	Highest Frequency For 90S (MHz)	Channel Cross 90S and 22H	Lowest Frequency For 22H (MHz)	Middle Frequency For 22H (MHz)	Highest Frequency For 22H (MHz)
1.4MHz	814.7	823.3	824	824.7	831.5	848.3
3MHz	815.5	822.5	824	825.5	831.5	847.5
5MHz	816.5	821.5	824	826.5	831.5	846.5
10MHz	819	/	824	829	831.5	844
15MHz	821.5	/	824	831.5	836.5	841.5

Note: 15MHz bandwidth 821.5MHz cross Rules 90S and 22H.

4.14.1 Test Data for Part 90S:

FCC§2.1046; § 90.635

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel For 90S	Highest Channel For 90S	Cross Channel		
1.4MHz QPSK	RB1#0	22.93	22.79	22.7	15.23	50
	RB1#3	23.08	22.93	22.83		
	RB1#5	22.86	22.74	22.67		
	RB3#0	23.00	22.87	22.83		
	RB3#3	22.97	22.95	22.81		
	RB6#0	21.94	21.83	21.76		
1.4MHz 16QAM	RB1#0	21.94	21.85	21.83	14.25	50
	RB1#3	22.10	21.98	21.98		
	RB1#5	21.94	21.78	21.8		
	RB3#0	22.06	22.08	21.79		
	RB3#3	22.04	22.1	21.84		
	RB6#0	20.9	20.86	20.82		
3MHz QPSK	RB1#0	22.89	22.71	22.64	15.13	50
	RB1#8	22.98	22.87	22.79		
	RB1#14	22.8	22.67	22.61		
	RB6#0	21.9	21.84	21.83		
	RB6#9	21.97	21.82	21.74		
	RB15#0	21.93	21.84	21.76		
3MHz 16QAM	RB1#0	22.14	21.82	21.54	14.41	50
	RB1#8	22.26	21.9	21.68		
	RB1#14	22.11	21.78	21.44		
	RB6#0	20.9	20.87	20.87		
	RB6#9	20.95	20.89	20.79		
	RB15#0	20.92	20.88	20.86		
5MHz QPSK	RB1#0	22.89	22.77	22.75	15.09	50
	RB1#13	22.94	22.83	22.79		
	RB1#24	22.73	22.66	22.69		
	RB15#0	21.96	21.92	21.93		
	RB15#10	21.91	21.84	21.78		
	RB25#0	22	21.92	21.79		
5MHz 16QAM	RB1#0	22.27	22.35	22.19	14.58	50
	RB1#13	22.33	22.43	22.16		
	RB1#24	22.19	22.28	22.07		
	RB15#0	20.94	20.89	20.91		
	RB15#10	20.84	20.87	20.69		
	RB25#0	20.93	20.91	20.78		
10MHz QPSK	RB1#0	22.98	/	23.05	15.21	50

	RB1#25	23.03	/	23.06		
	RB1#49	22.88	/	22.89		
	RB25#0	22.24	/	22.11		
	RB25#25	21.94	/	22.2		
	RB50#0	22.12	/	22.14		
10MHz 16QAM	RB1#0	22.43	/	22.45	14.68	50
	RB1#25	22.53	/	22.5		
	RB1#49	22.39	/	22.4		
	RB25#0	20.96	/	21.07		
	RB25#25	20.84	/	20.94		
	RB50#0	20.96	/	21.03		
15MHz QPSK	RB1#0	22.96	/	23.04	15.19	50
	RB1#38	22.98	/	22.97		
	RB1#74	22.85	/	22.83		
	RB36#0	22.2	/	22.08		
	RB36#39	22.09	/	21.93		
	RB75#0	22.15	/	22.23		
15MHz 16QAM	RB1#0	22.41	/	22.5	14.70	50
	RB1#38	22.48	/	22.55		
	RB1#74	22.39	/	22.24		
	RB36#0	20.96	/	21.09		
	RB36#39	20.9	/	21.02		
	RB75#0	21.23	/	21.02		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

Result:	**Pass**

FCC §2.1049, §90.209: Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Lowest For 90S	Highest For 90S	Cross	Lowest For 90S	Highest For 90S	Cross
1.4MHz QPSK	1.102	1.096	1.098	1.290	1.308	1.316
1.4MHz 16QAM	1.090	1.090	1.094	1.296	1.284	1.281
3MHz QPSK	2.683	2.683	2.683	2.880	2.880	2.918
3MHz 16QAM	2.683	2.683	2.674	2.868	2.880	2.883
5MHz QPSK	4.511	4.511	4.515	5.460	4.960	4.964
5MHz 16QAM	4.531	4.491	4.486	5.180	4.920	4.993
10MHz QPSK	8.942	/	8.973	9.640	/	9.638
10MHz 16QAM	8.942	/	8.944	9.560	/	9.551
15MHz QPSK	13.415	/	13.459	14.240	/	14.891
15MHz 16QAM	13.415	/	13.502	14.153	/	15.456

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §90.691: Spurious Emissions at Antenna Terminal

Result:	**Pass, please refer to the test plots of Spurious Emissions at Antenna Terminal.**

FCC §2.1051, §90.691: Out of band emission, Band Edge	
Result:	**Pass, please refer to the test plots of Out of band emission, Band Edge.**

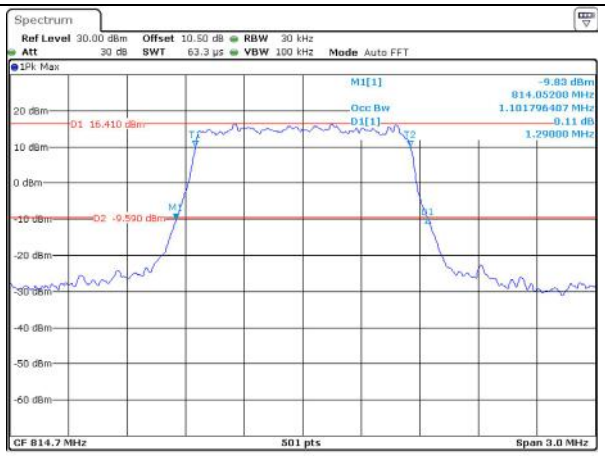
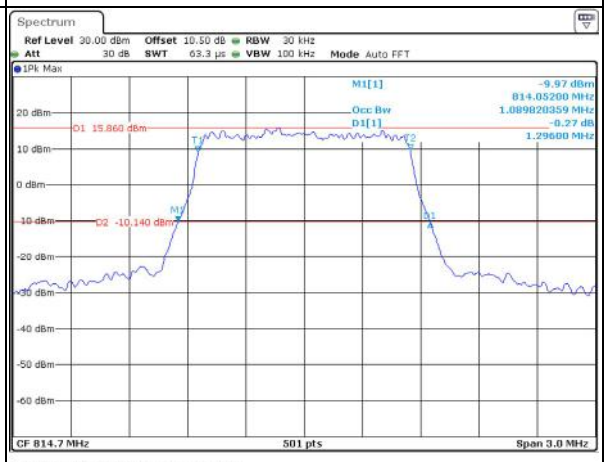
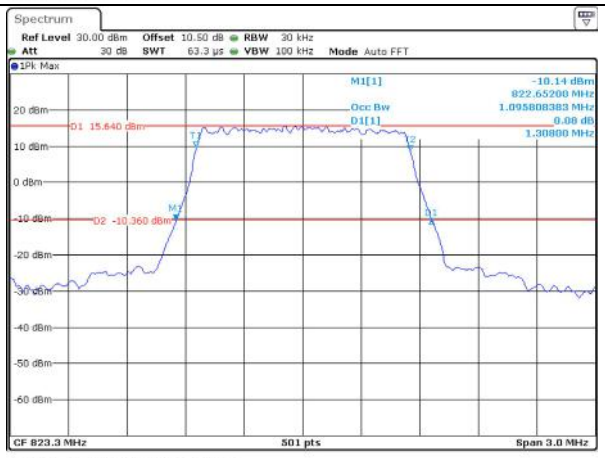
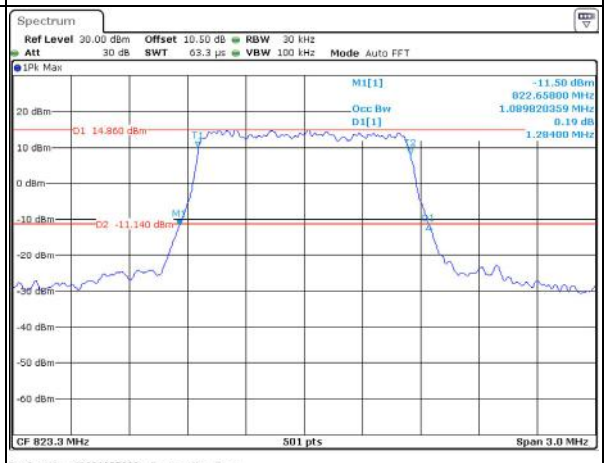
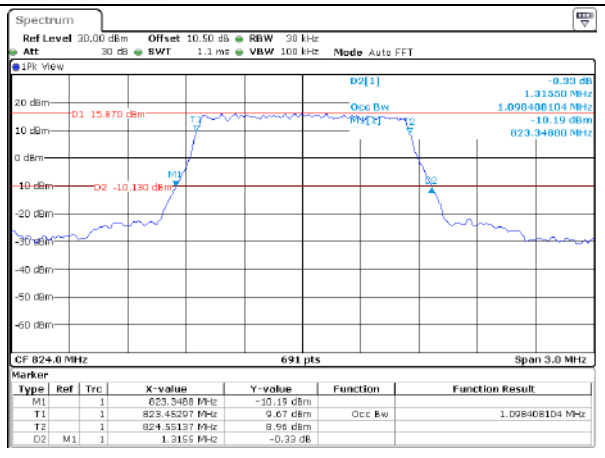
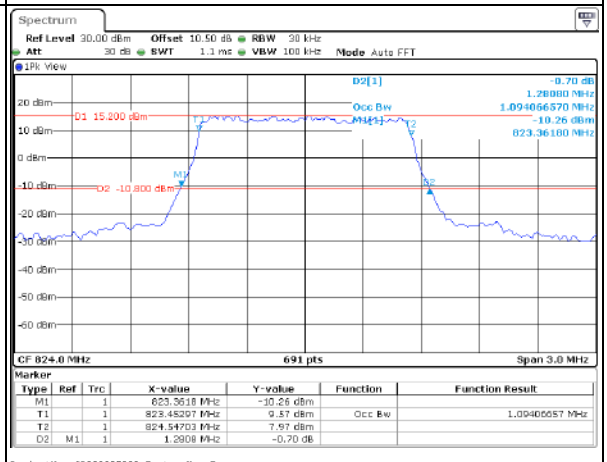
FCC §2.1055, §90.213: Frequency Stability					
Test Modulation:	15 MHz QPSK		Test Channel:	821.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	101.261	0.123	2.5
	-20	3.87	116.163	0.141	2.5
	-10	3.87	110.693	0.135	2.5
	0	3.87	119.820	0.146	2.5
	10	3.87	108.796	0.132	2.5
	20	3.87	117.620	0.143	2.5
	30	3.87	116.427	0.142	2.5
	40	3.87	115.275	0.140	2.5
	50	3.87	114.820	0.140	2.5
Frequency Stability vs. Voltage	20	3.29	101.482	0.124	2.5
	20	4.45	103.480	0.126	2.5
				Result:	**Pass**

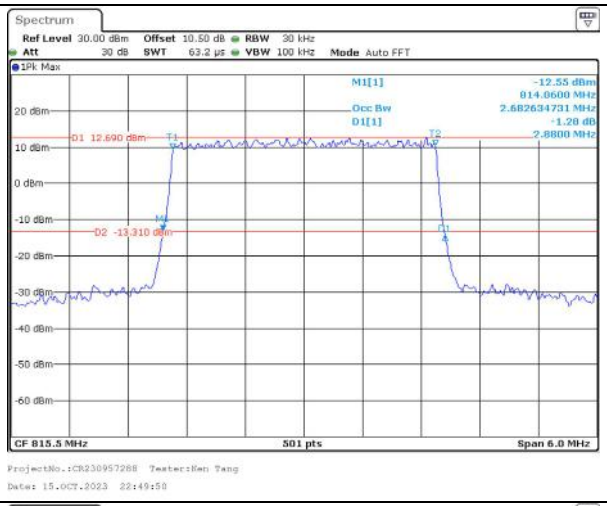
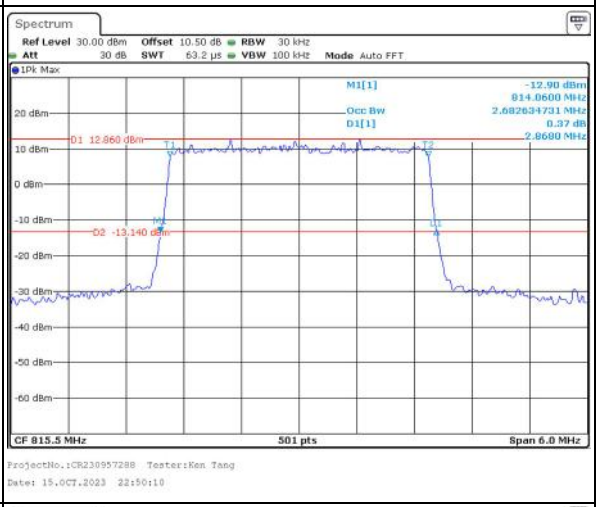
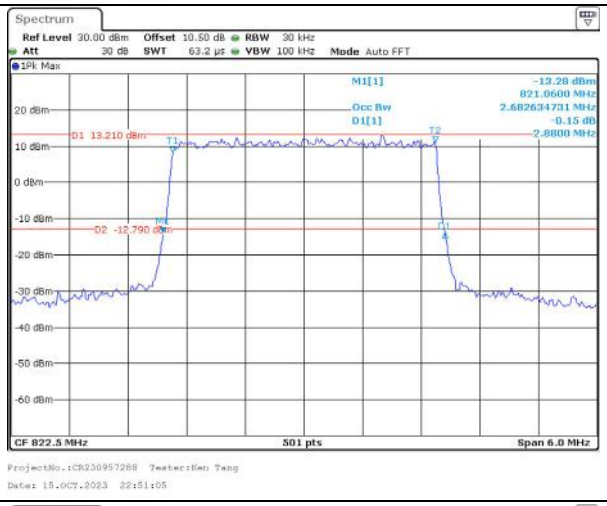
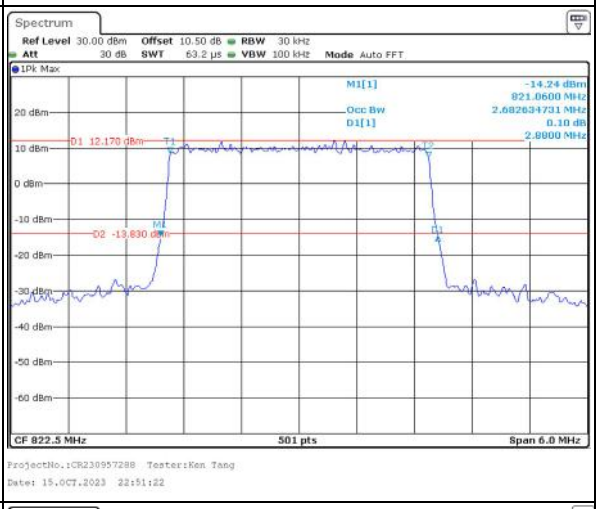
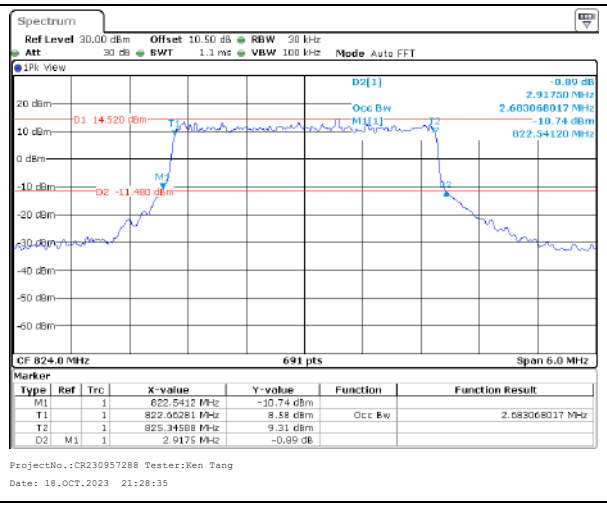
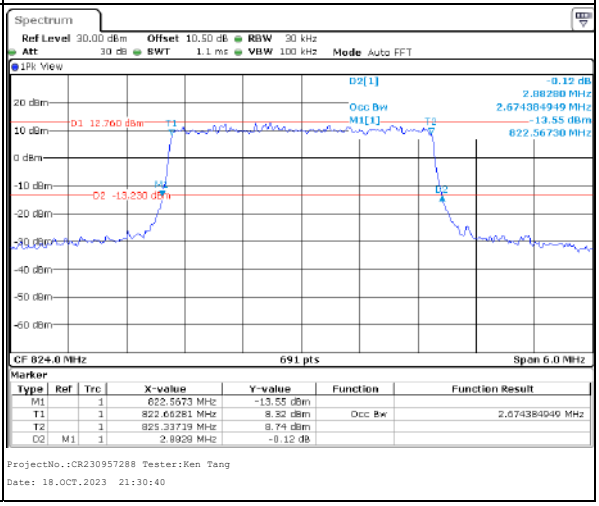
FCC §2.1055, §90.213: Frequency Stability					
Test Modulation:	15 MHz 16QAM		Test Channel:	821.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	116.834	0.142	2.5
	-20	3.87	109.630	0.133	2.5
	-10	3.87	109.116	0.133	2.5
	0	3.87	102.318	0.125	2.5
	10	3.87	117.091	0.143	2.5
	20	3.87	104.076	0.127	2.5
	30	3.87	101.930	0.124	2.5
	40	3.87	102.001	0.124	2.5
	50	3.87	113.446	0.138	2.5
Frequency Stability vs. Voltage	20	3.29	107.836	0.131	2.5
	20	4.45	115.175	0.140	2.5
				Result:	**Pass**

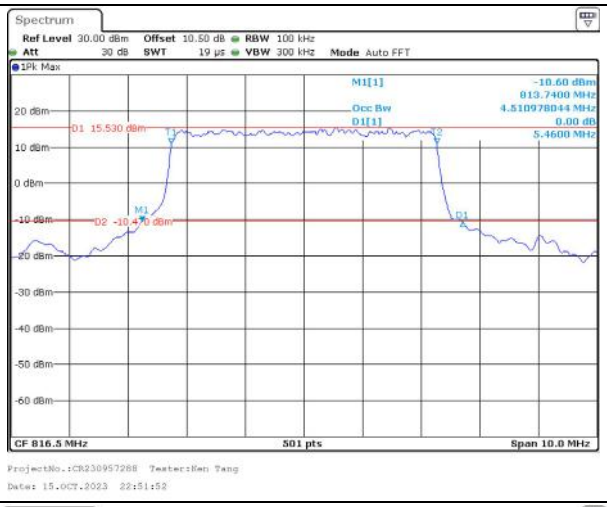
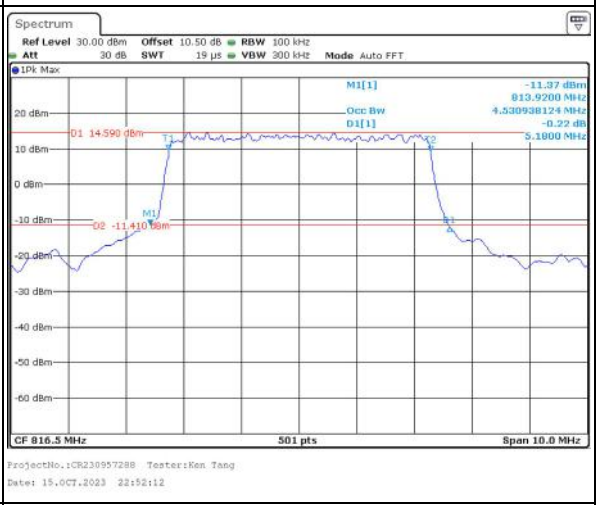
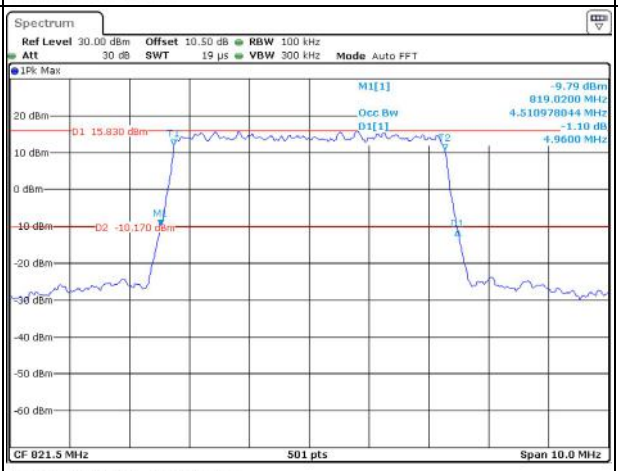
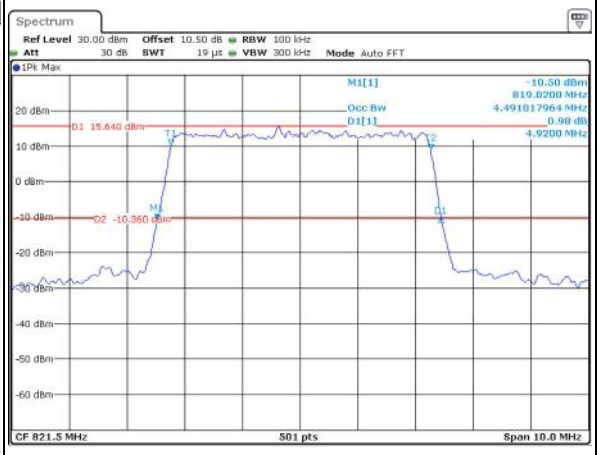
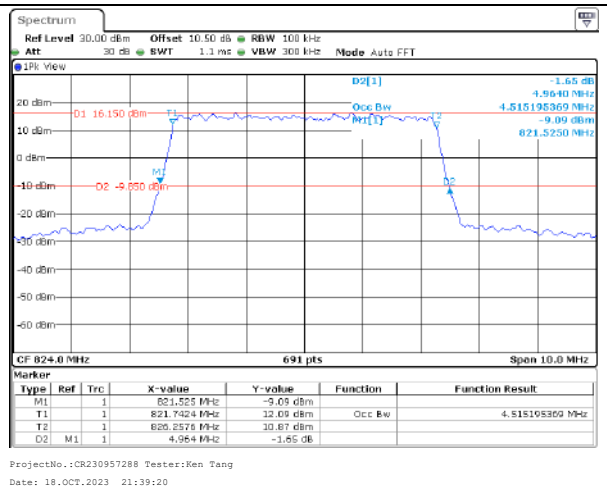
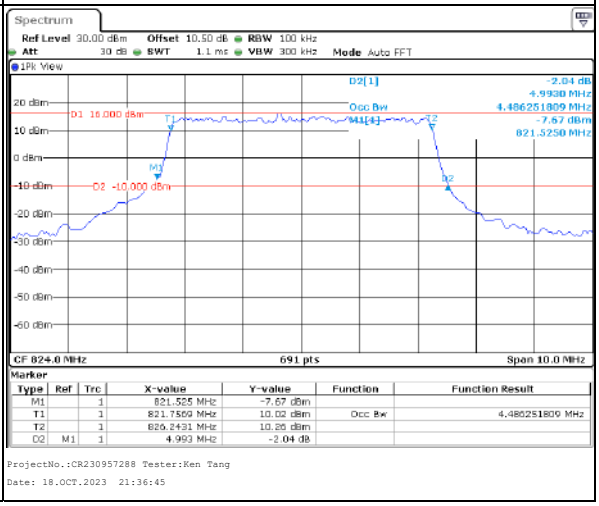
4.14.2 Test Plots for Part 90S:

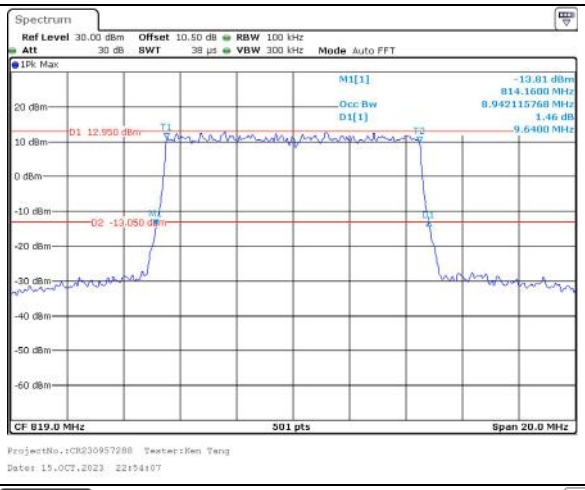
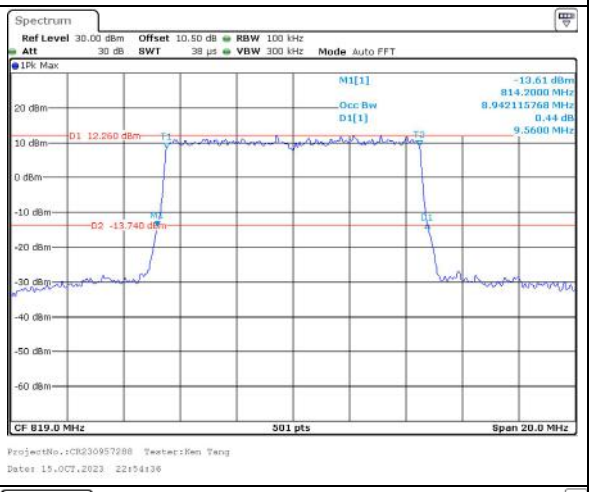
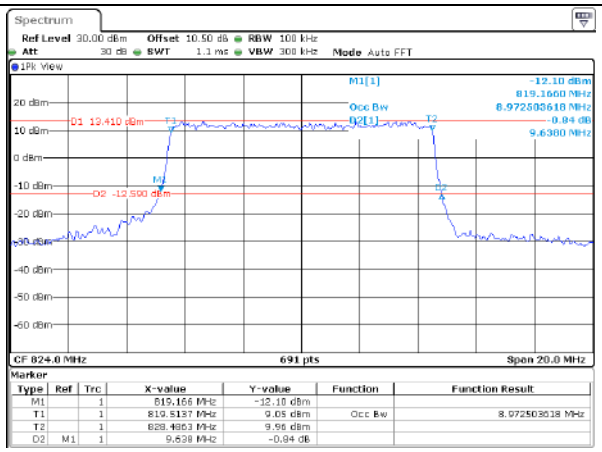
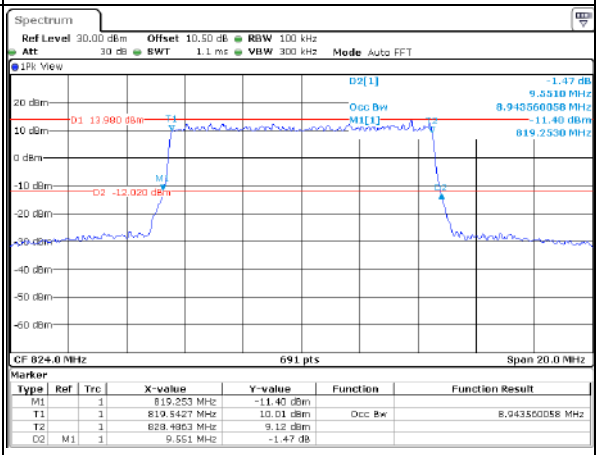
(Note: The 10.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

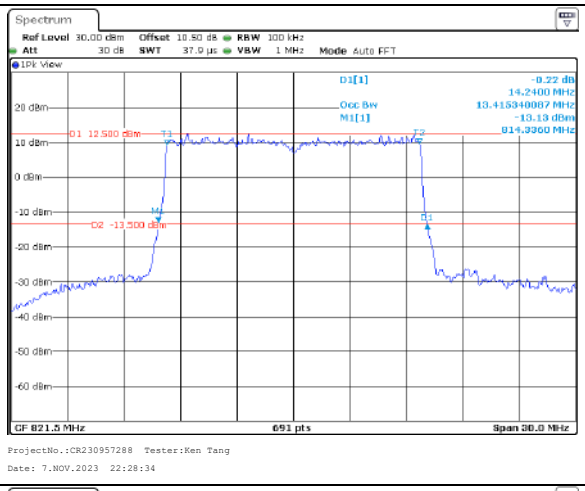
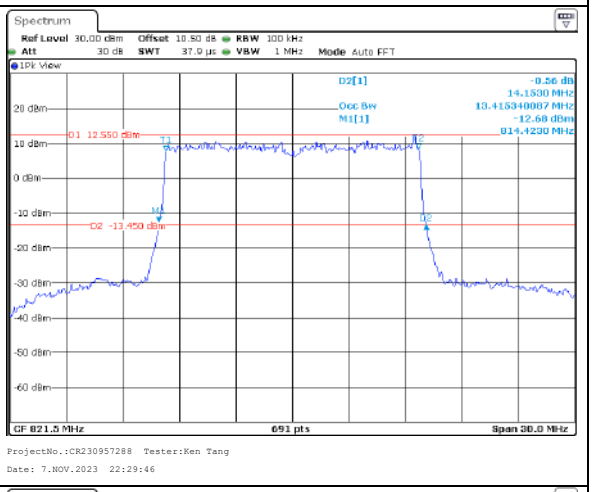
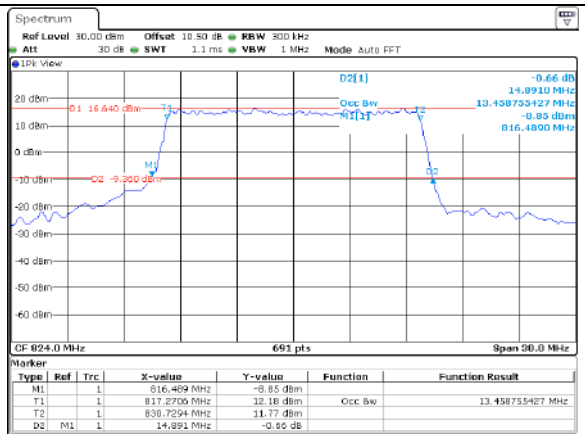
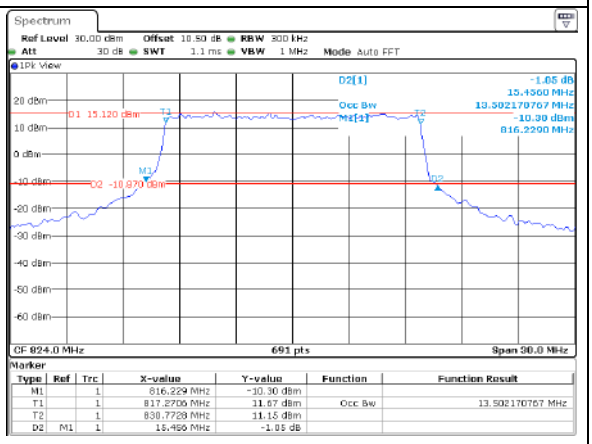
Occupied Bandwidth

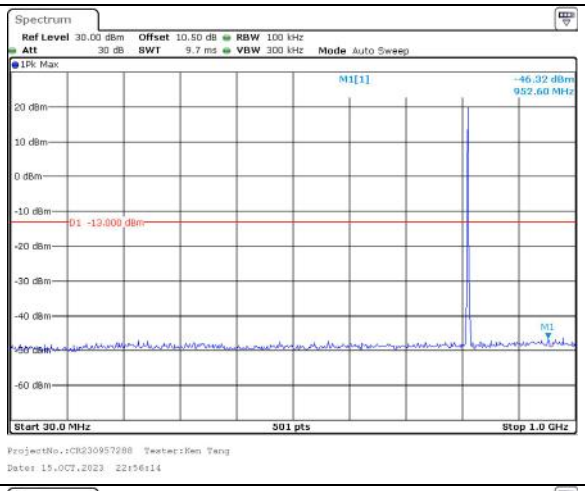
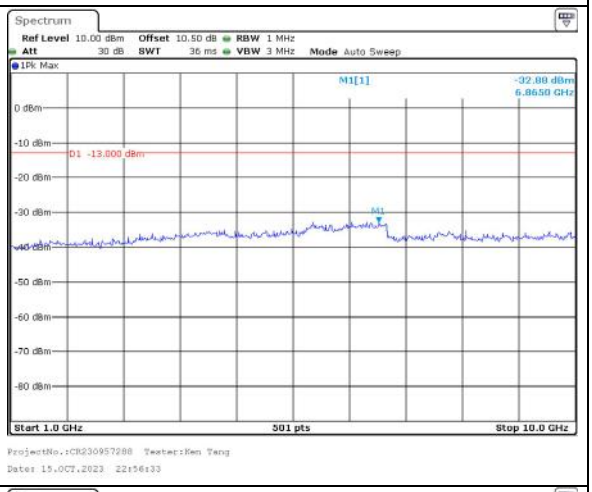
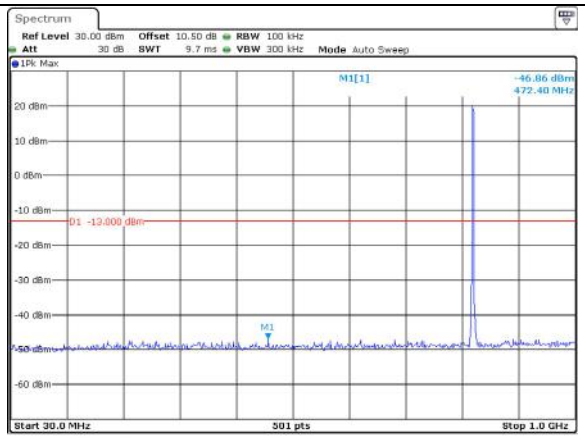
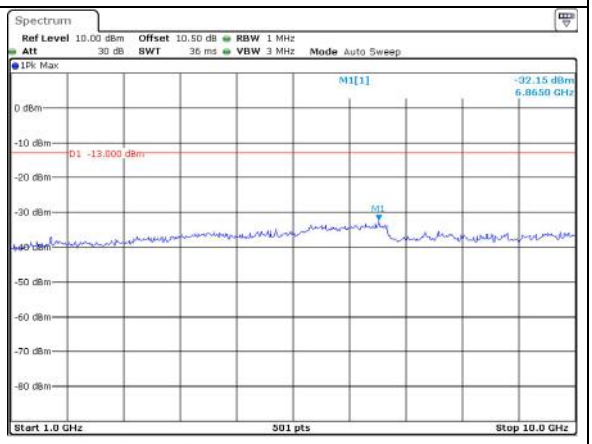
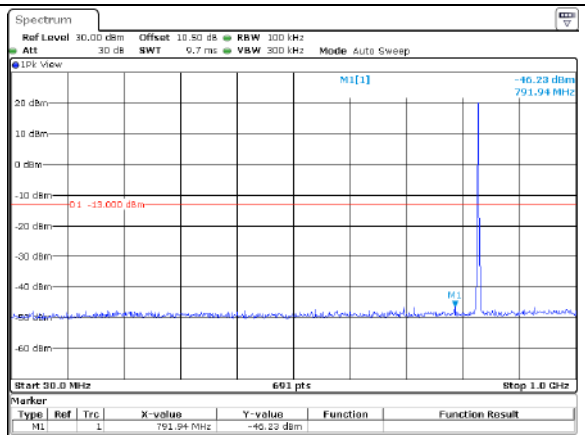
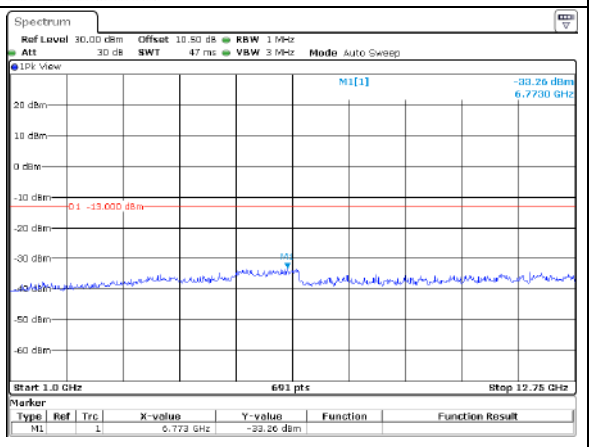
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest For 90S		
Highest For 90S		
Cross Channel		

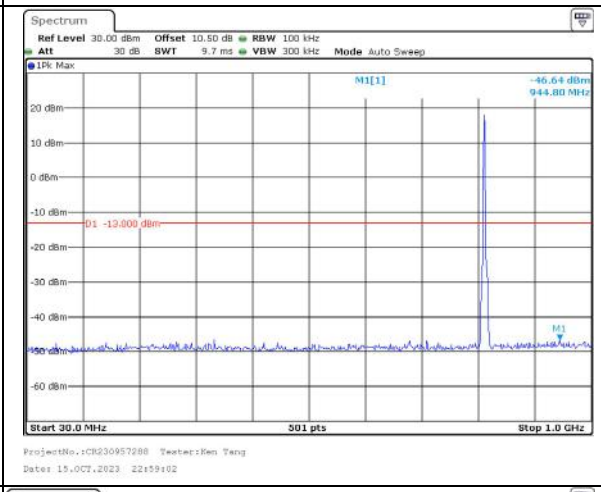
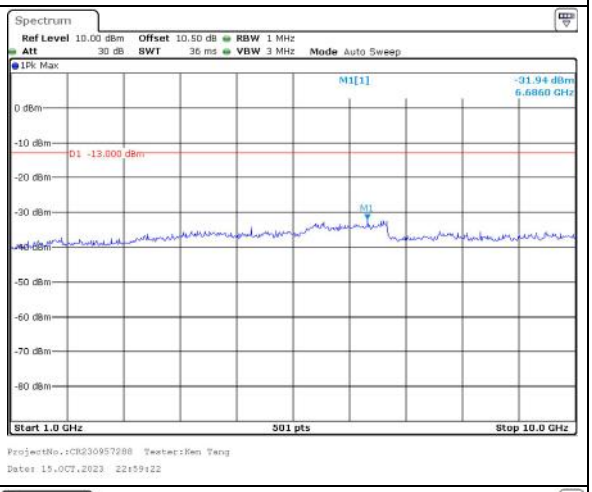
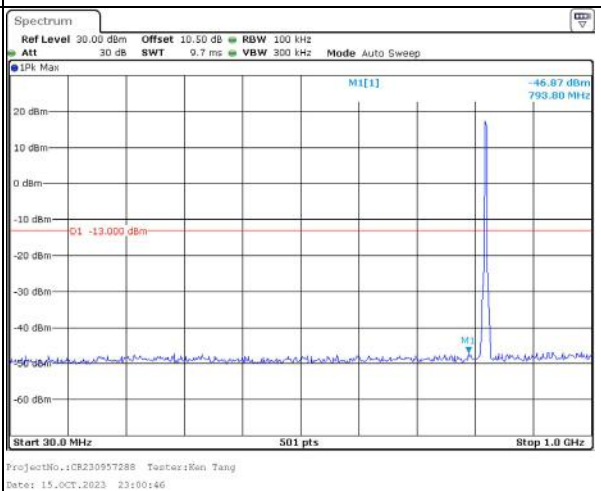
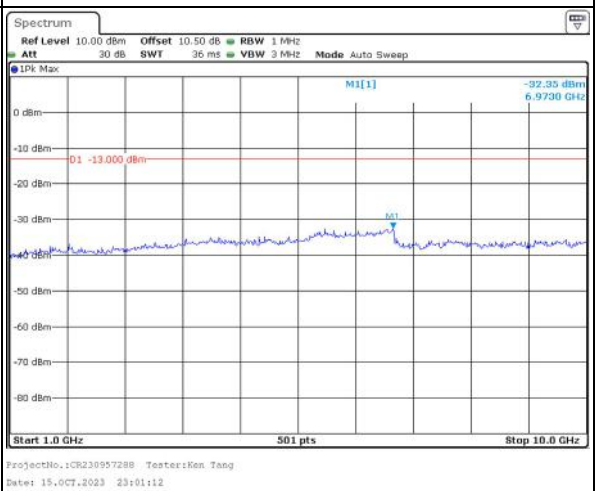
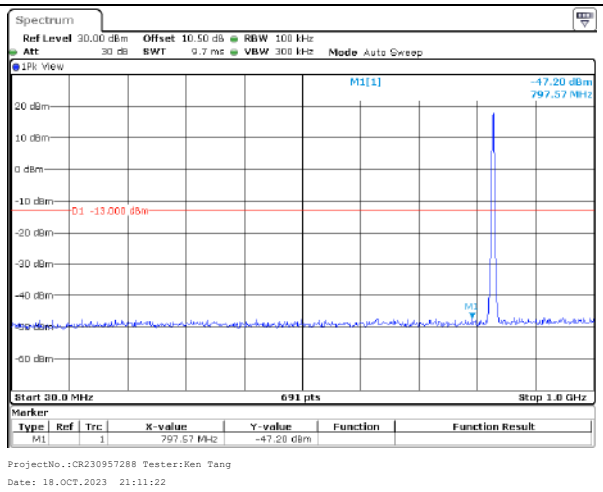
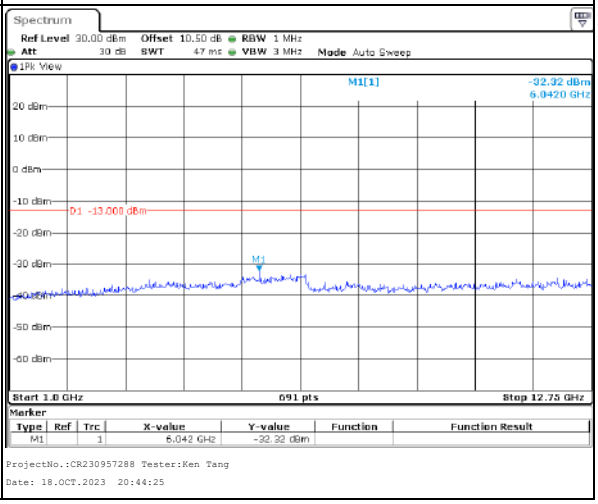
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest For 90S		
Highest For 90S		
Cross Channel		

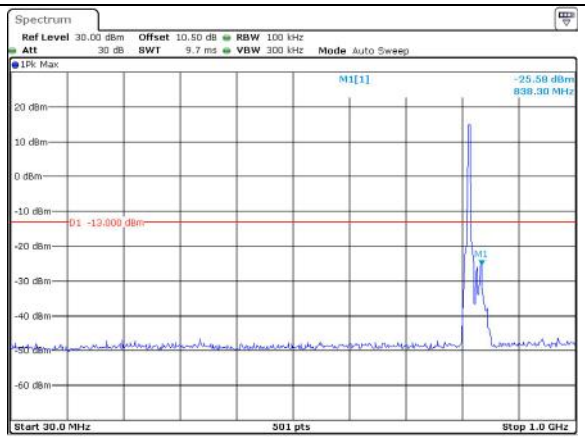
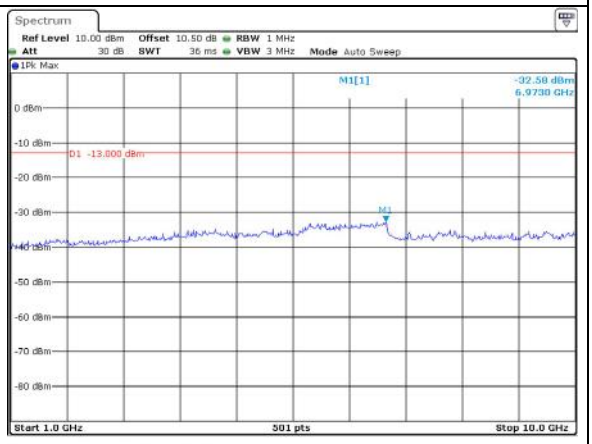
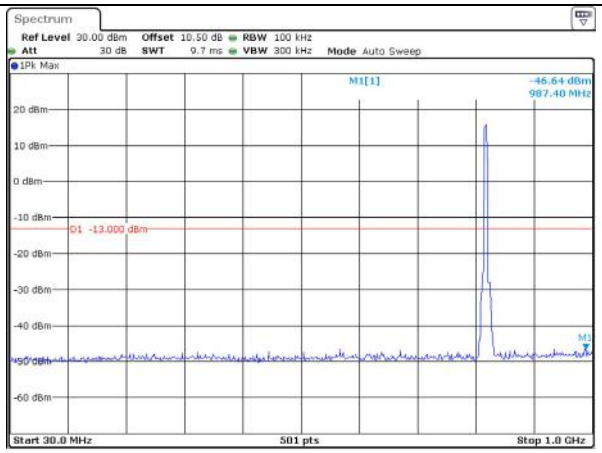
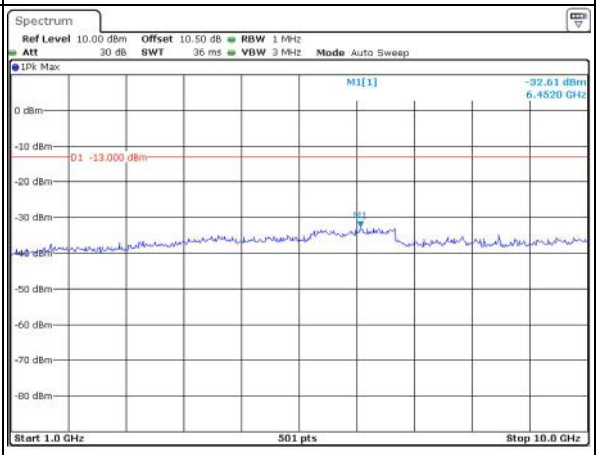
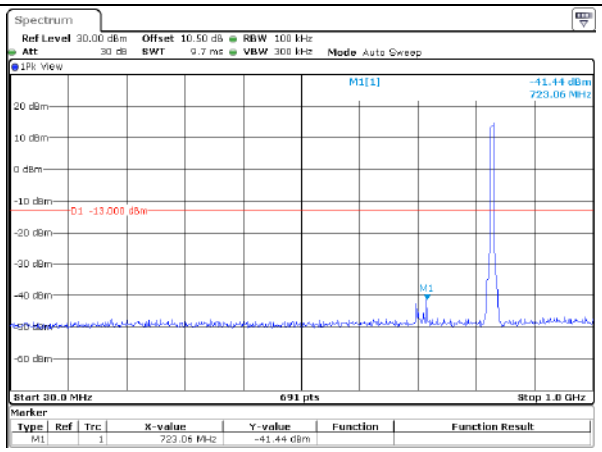
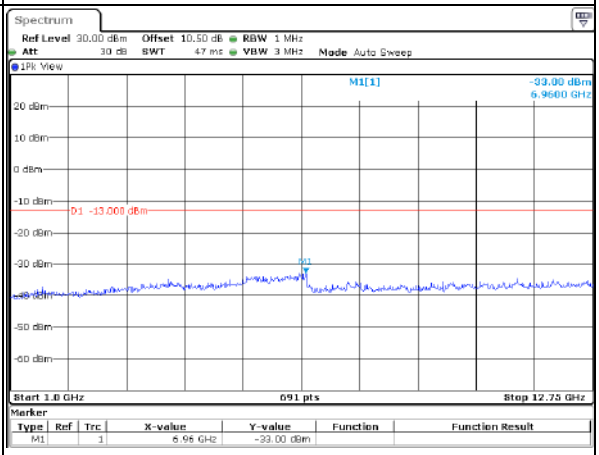
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest For 90S		
Highest For 90S		
Cross Channel		

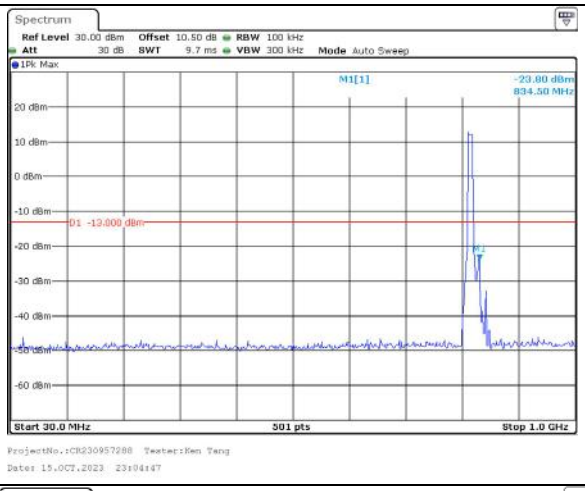
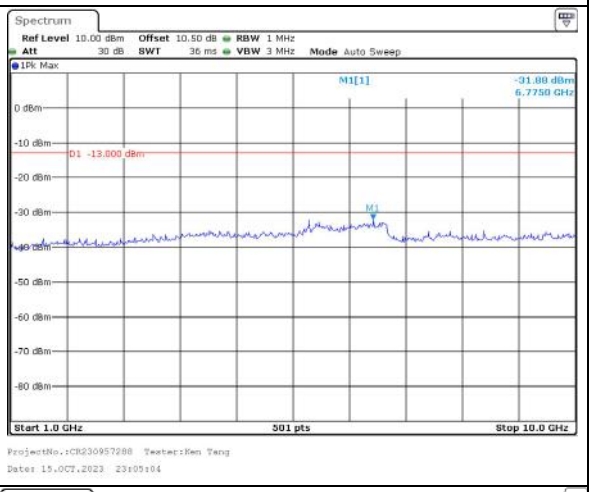
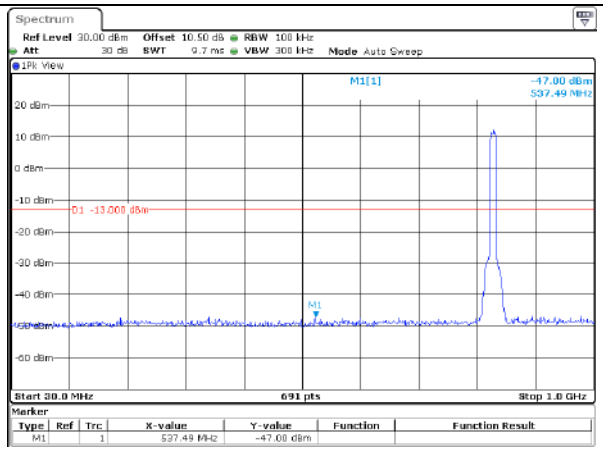
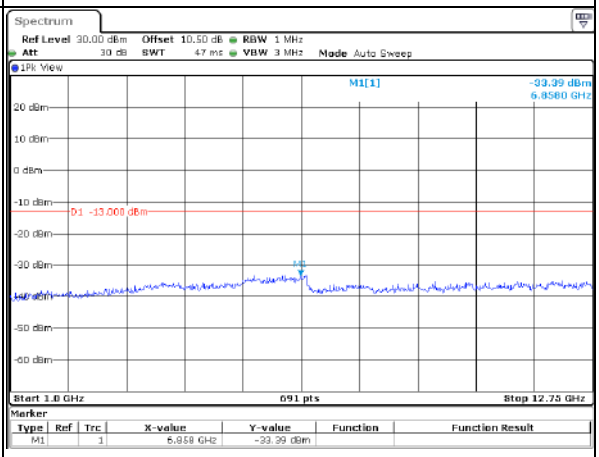
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest For 90S		
Cross Channel		

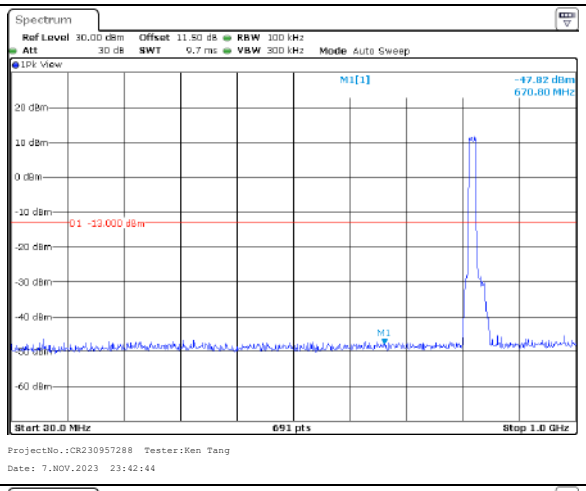
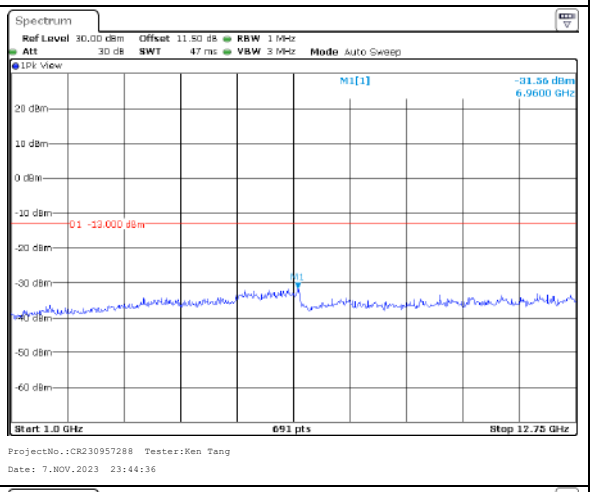
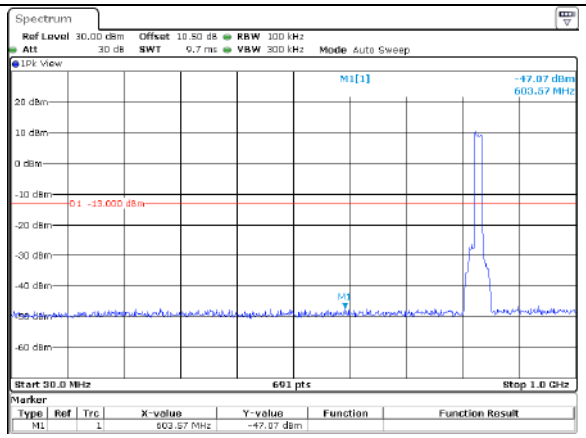
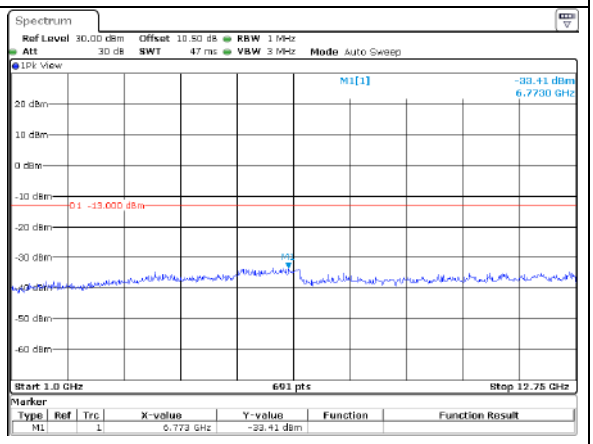
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Middle For 90S		
Cross Channel		

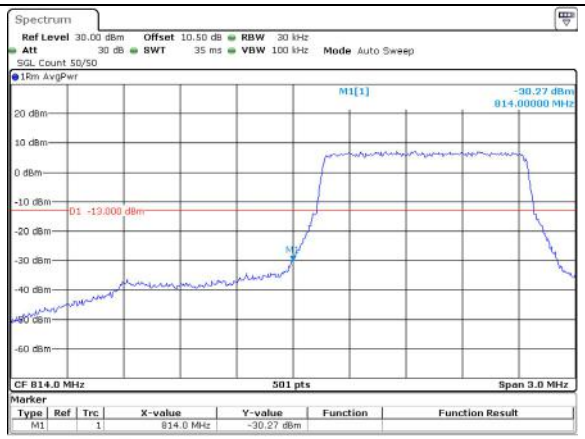
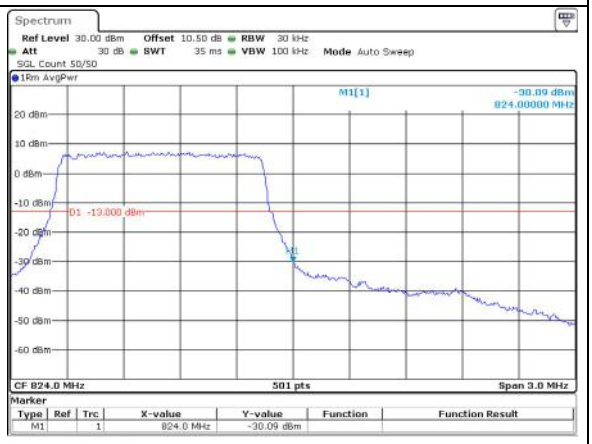
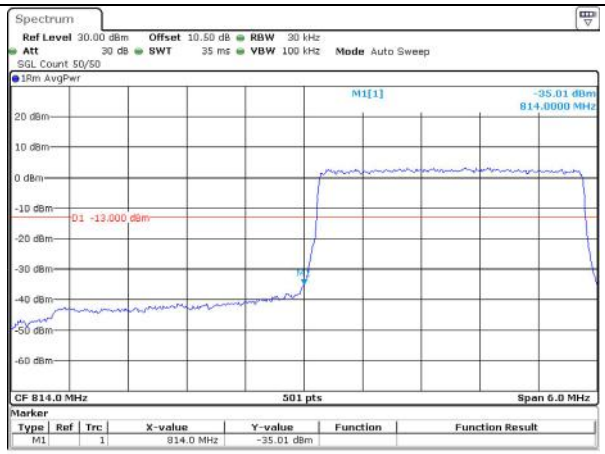
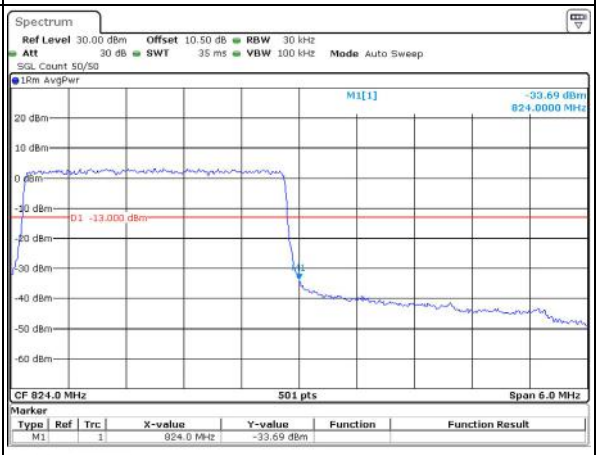
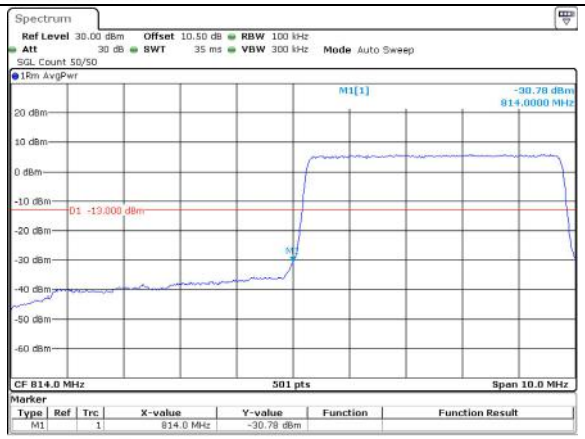
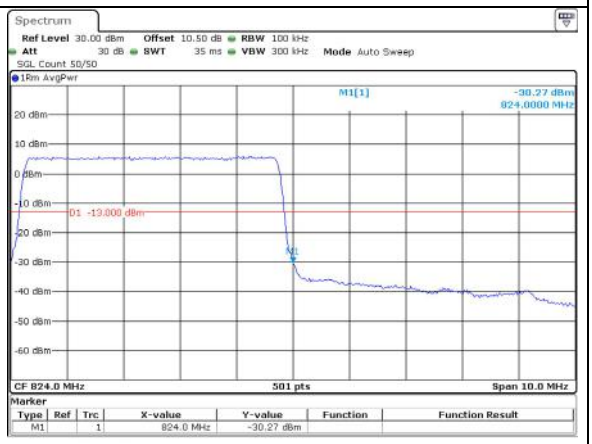
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest For 90S		
Highest For 90S		
Cross Channel		

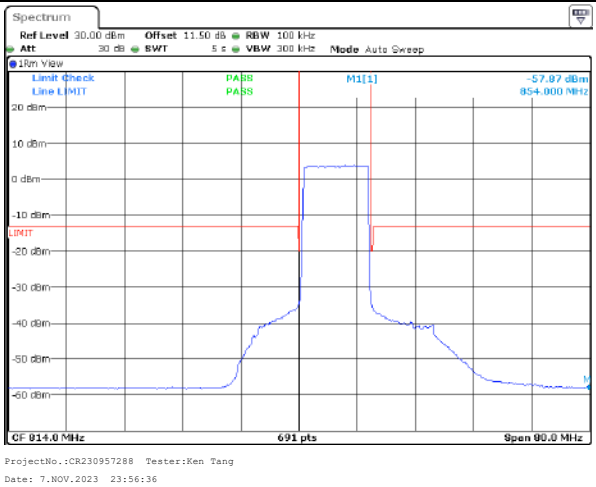
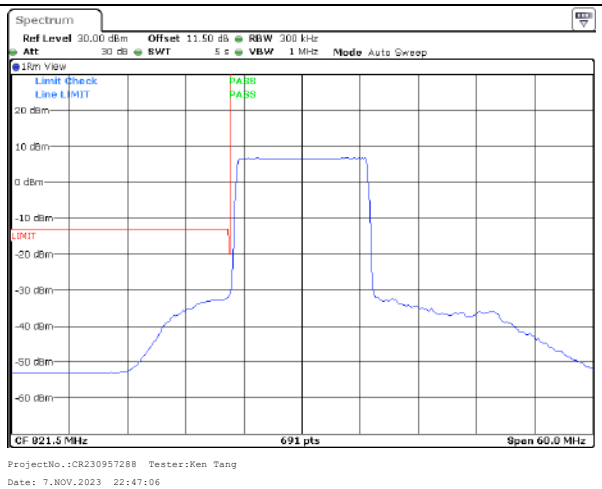
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest For 90S		
Highest For 90S		
Cross Channel		

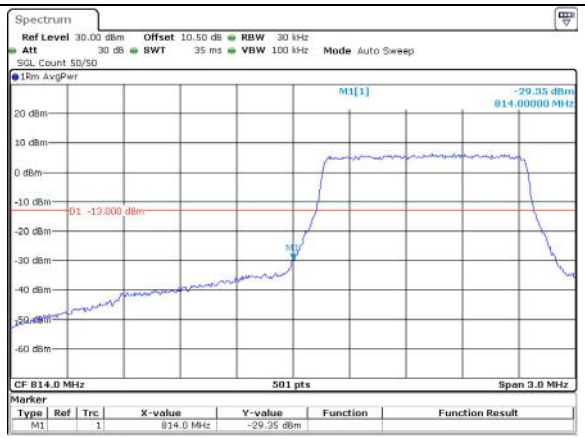
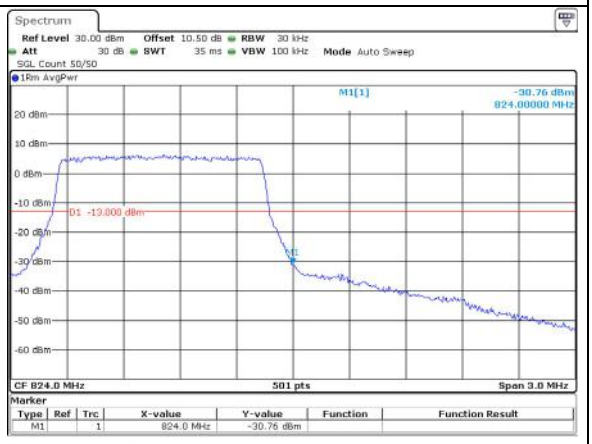
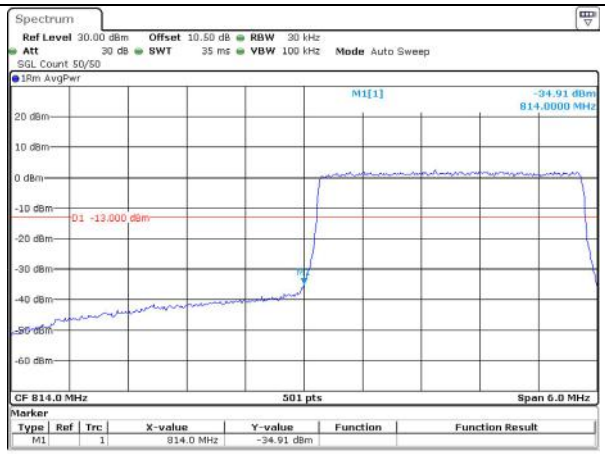
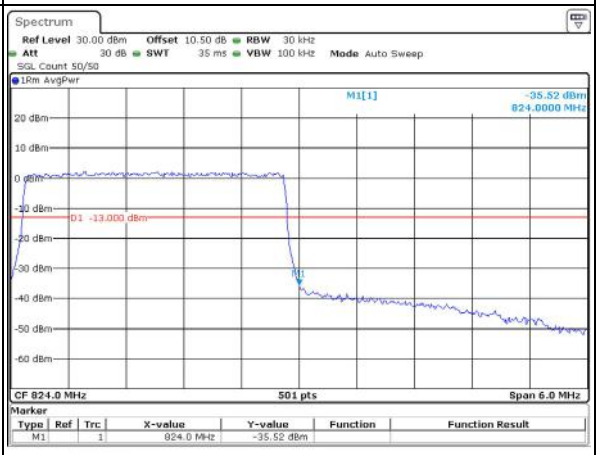
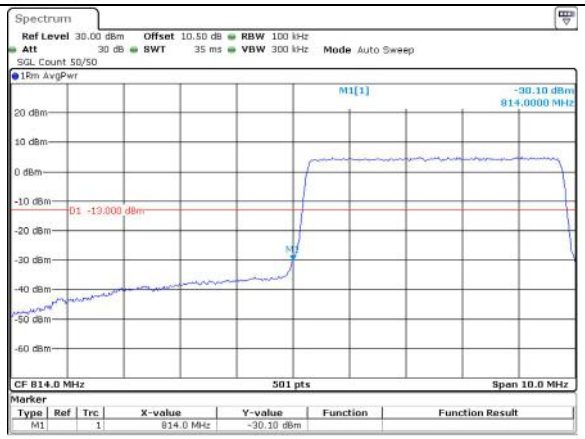
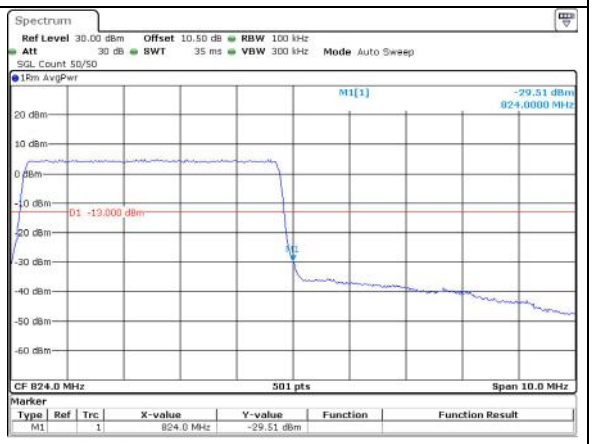
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest For 90S		
Highest For 90S		
Cross Channel		

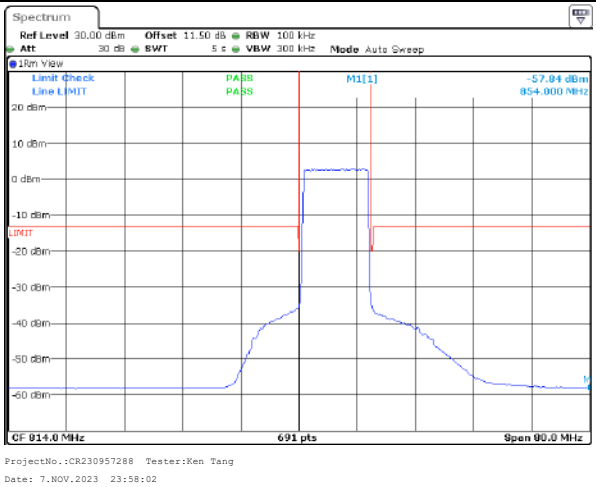
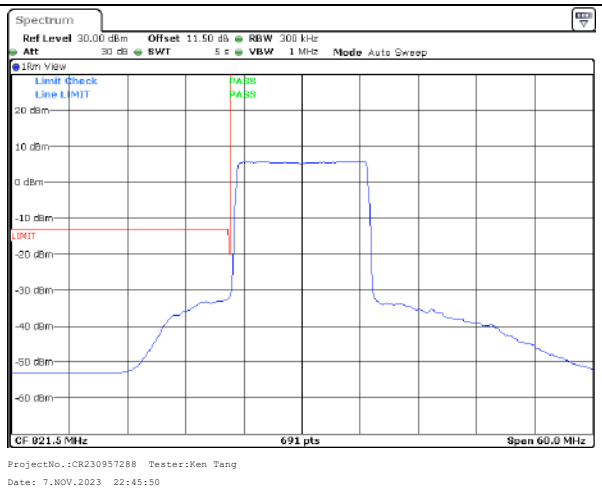
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest For 90S		
Cross Channel		

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	22.96	22.81	22.75	15.13	38.45
	RB1#3	22.98	22.8	22.77		
	RB1#5	22.95	22.72	22.74		
	RB3#0	21.85	21.81	21.6		
	RB3#3	21.89	21.78	21.66		
	RB6#0	21.92	21.86	21.75		
1.4MHz 16QAM	RB1#0	22	22.43	21.91	14.58	38.45
	RB1#3	22	22.43	21.9		
	RB1#5	21.94	22.35	21.88		
	RB3#0	20.83	20.89	20.75		
	RB3#3	20.81	20.87	20.75		
	RB6#0	20.99	20.93	20.73		
3MHz QPSK	RB1#0	22.92	22.83	22.74	15.25	38.45
	RB1#8	23.1	22.97	22.97		
	RB1#14	22.84	22.7	22.73		
	RB6#0	21.92	21.9	21.84		
	RB6#9	21.93	21.87	21.68		
	RB15#0	21.96	21.87	21.8		
3MHz 16QAM	RB1#0	21.9	22.39	21.93	14.71	38.45
	RB1#8	22.02	22.56	22.07		
	RB1#14	21.86	22.35	21.84		
	RB6#0	21.03	20.97	20.9		
	RB6#9	21.04	20.93	20.72		
	RB15#0	20.98	20.91	20.82		
5MHz QPSK	RB1#0	23.04	23.14	23.16	15.31	38.45
	RB1#13	23.15	23.14	23.16		
	RB1#24	23	22.75	23.01		
	RB15#0	22.21	22.21	22		
	RB15#10	22.01	22.2	22.03		
	RB25#0	22.09	22.01	22.07		
5MHz 16QAM	RB1#0	22.5	22.56	22.48	14.73	38.45
	RB1#13	22.56	22.58	22.42		
	RB1#24	22.4	22.34	22.32		
	RB15#0	21.11	21.19	21.24		
	RB15#10	20.94	20.9	21.11		
	RB25#0	21.15	21.13	21		

10MHz QPSK	RB1#0	23.03	23.03	22.96	15.37	38.45
	RB1#25	23.22	22.95	23.09		
	RB1#49	22.9	22.84	22.95		
	RB25#0	22.06	22.02	22.2		
	RB25#25	22.03	21.99	22.09		
	RB50#0	22.14	22.28	22.15		
10MHz 16QAM	RB1#0	22.43	22.45	22.45	14.73	38.45
	RB1#25	22.55	22.51	22.58		
	RB1#49	22.27	22.47	22.21		
	RB25#0	21.11	21.04	21.09		
	RB25#25	21.11	21.08	21.12		
	RB50#0	21.22	21.13	21.01		
15MHz QPSK	RB1#0	23.17	23.02	22.89	15.32	38.45
	RB1#38	22.96	23.09	23		
	RB1#74	22.97	23.01	22.86		
	RB36#0	22.25	22.19	22.17		
	RB36#39	22.06	22.04	22.15		
	RB75#0	22.16	22.24	22.29		
15MHz 16QAM	RB1#0	22.32	22.31	22.27	14.77	38.45
	RB1#38	22.52	22.62	22.47		
	RB1#74	22.26	22.37	22.29		
	RB36#0	20.96	20.96	20.98		
	RB36#39	21.13	21.1	21.11		
	RB75#0	20.94	21	20.98		
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	7.40	7.66	7.96	13
	RB75#0	8.71	6.96	7.08	13
15MHz 16QAM	RB1#0	9.42	7.97	8.68	13
	RB75#0	8.95	9.31	6.52	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	1.090	1.09	1.102	1.290	1.302	1.284
1.4MHz 16QAM	1.096	1.09	1.102	1.320	1.284	1.320
3MHz QPSK	2.683	2.683	2.683	2.880	2.880	2.880
3MHz 16QAM	2.683	2.683	2.683	2.868	2.892	2.880
5MHz QPSK	4.511	4.491	4.511	4.940	4.940	4.980
5MHz 16QAM	4.511	4.511	4.491	4.940	4.980	4.920
10MHz QPSK	8.942	8.942	8.942	9.560	9.600	9.640
10MHz 16QAM	8.942	8.942	8.982	9.680	9.600	9.680
15MHz QPSK	13.413	13.473	13.473	14.640	14.640	14.820
15MHz 16QAM	13.533	13.473	13.533	14.640	14.640	14.640
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.**

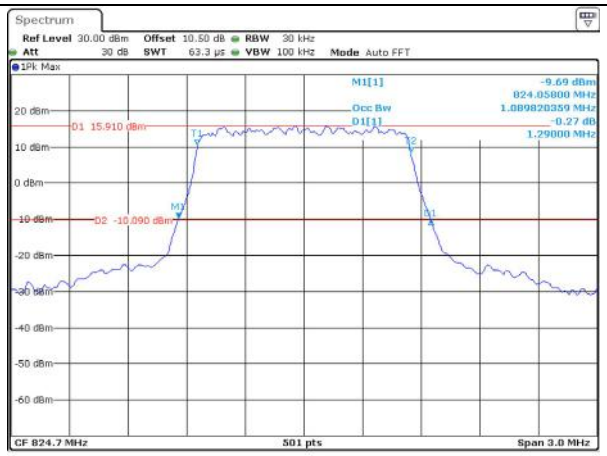
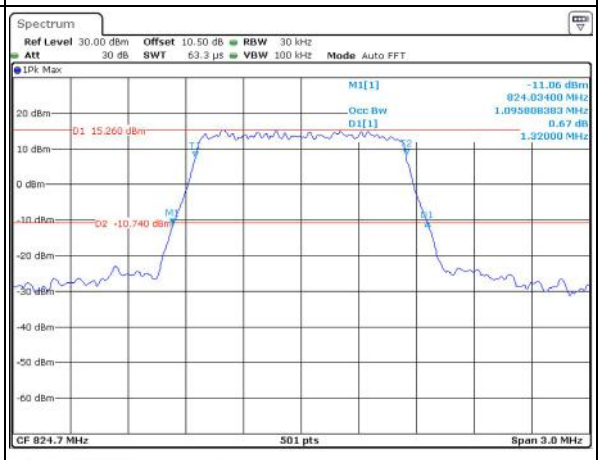
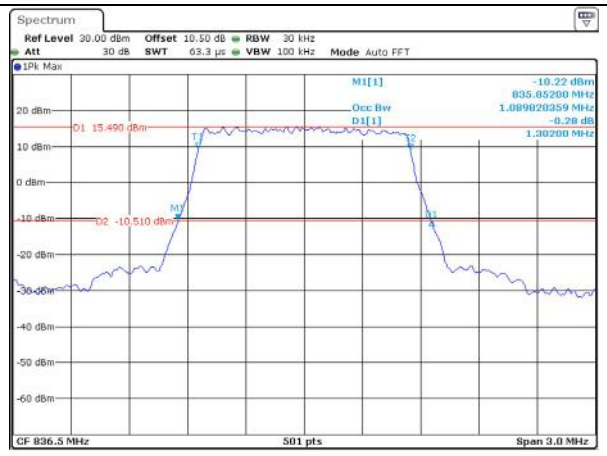
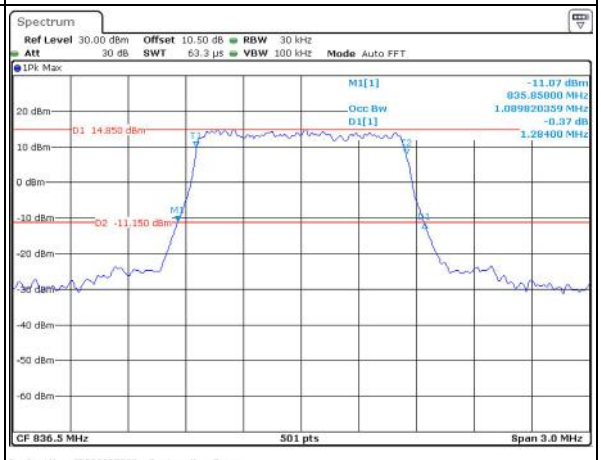
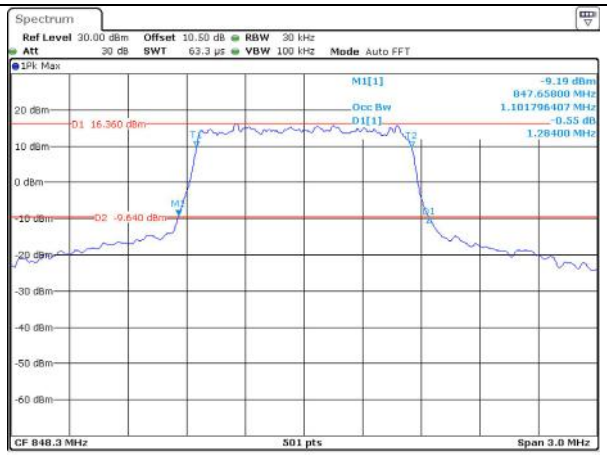
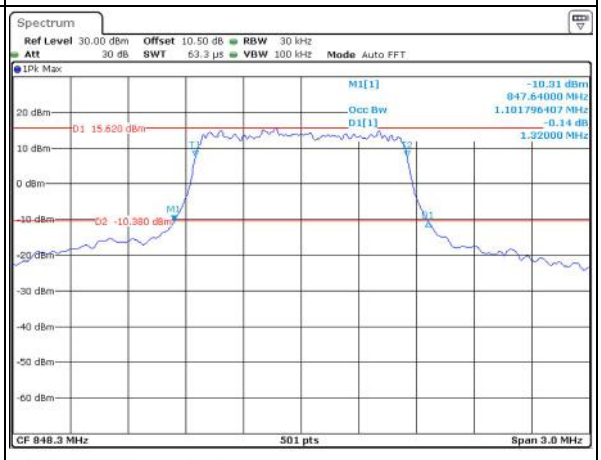
FCC §2.1051, §22.917(a): Out of band emission, Band Edge	
Result:	**Pass, please refer to the test plots of Out of band emission, Band Edge.**

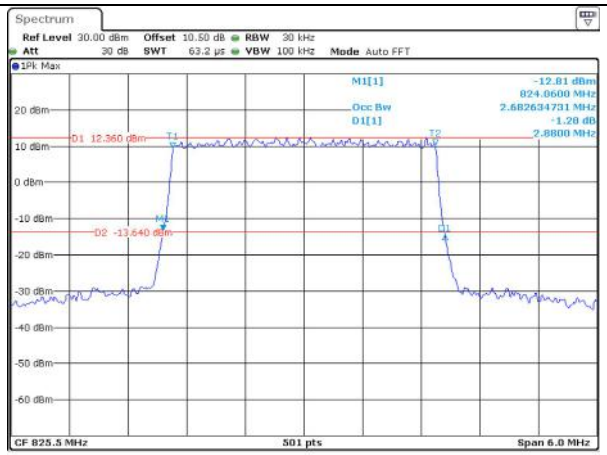
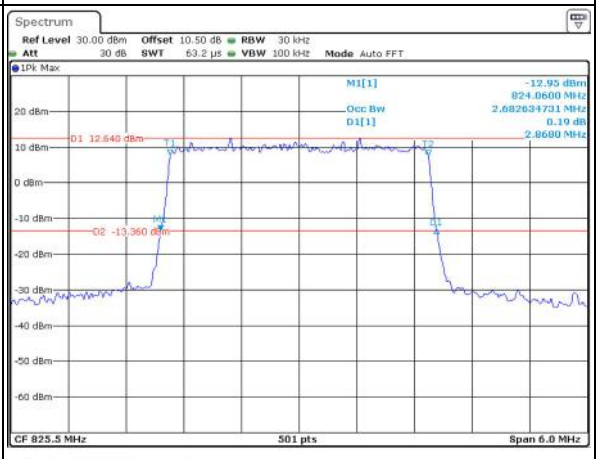
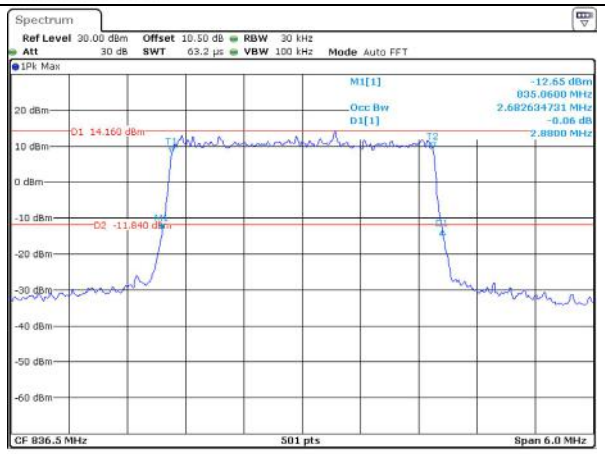
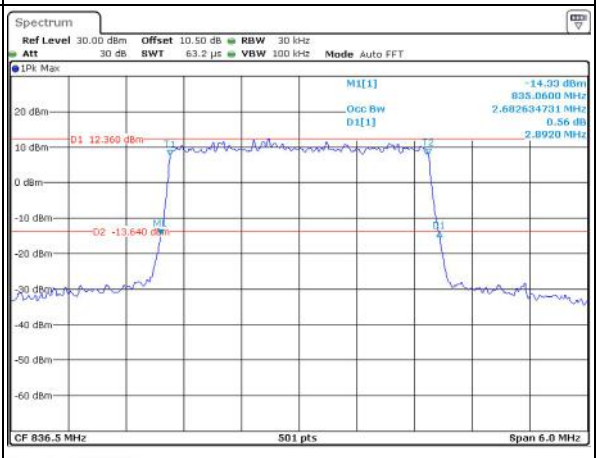
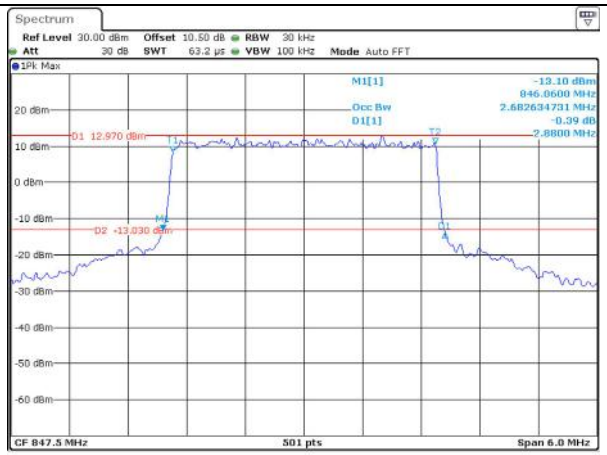
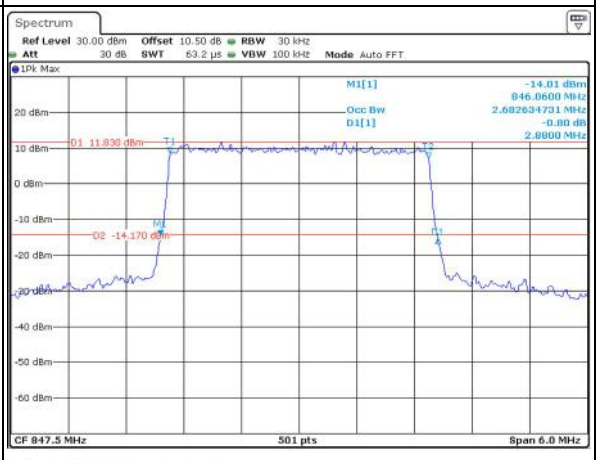
FCC §2.1055, §22.355: Frequency Stability					
Test Modulation:	15 MHz QPSK		Test Channel:	831.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	118.225	0.142	2.5
	-20	3.87	106.867	0.129	2.5
	-10	3.87	115.306	0.139	2.5
	0	3.87	111.676	0.134	2.5
	10	3.87	103.763	0.125	2.5
	20	3.87	111.531	0.134	2.5
	30	3.87	114.625	0.138	2.5
	40	3.87	114.306	0.137	2.5
	50	3.87	102.214	0.123	2.5
Frequency Stability vs. Voltage	20	3.29	117.760	0.142	2.5
	20	4.45	103.256	0.124	2.5
				Result:	**Pass**

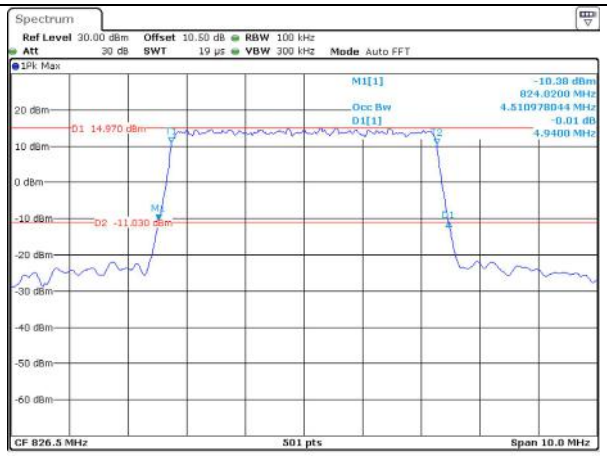
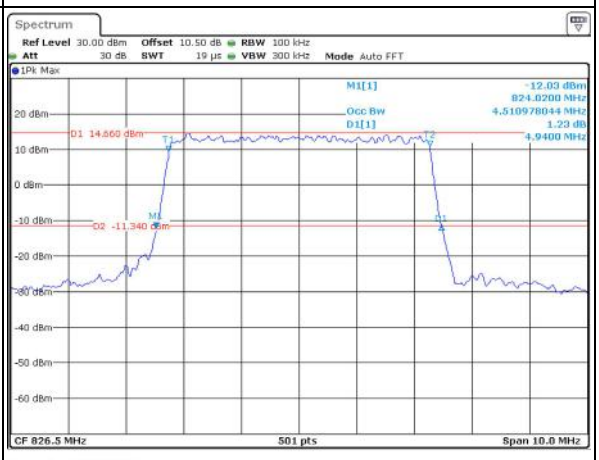
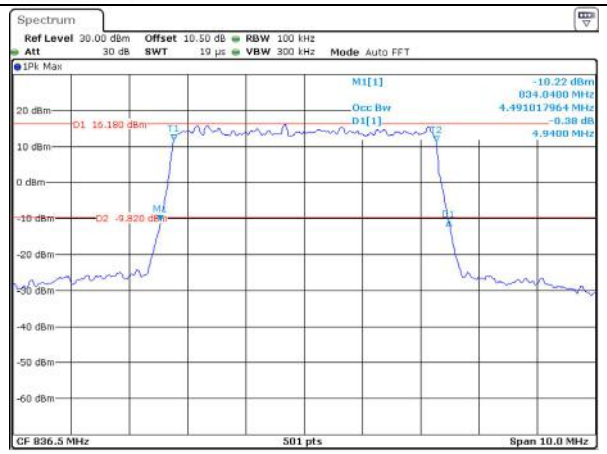
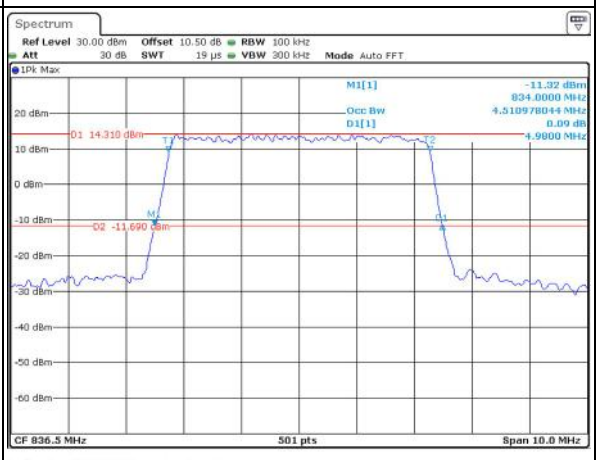
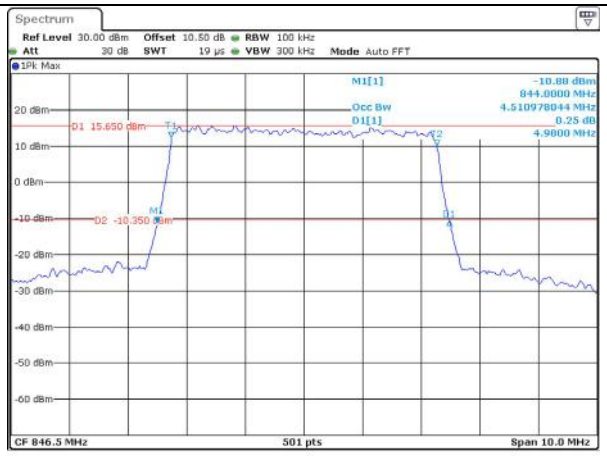
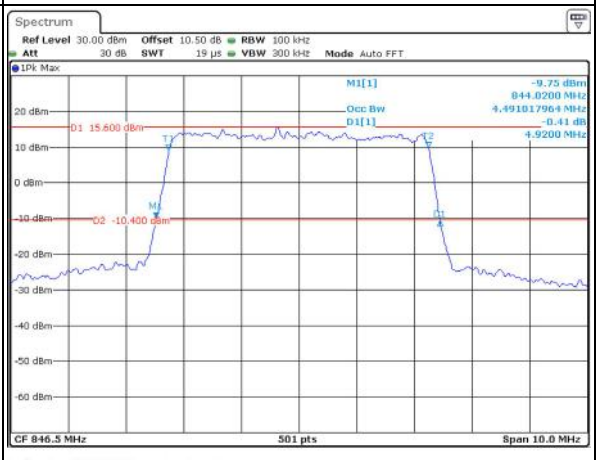
FCC §2.1055, §22.355: Frequency Stability					
Test Modulation:	15 MHz 16QAM		Test Channel:	831.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.87	104.558	0.126	2.5
	-20	3.87	117.717	0.142	2.5
	-10	3.87	106.057	0.128	2.5
	0	3.87	105.789	0.127	2.5
	10	3.87	118.606	0.143	2.5
	20	3.87	104.090	0.125	2.5
	30	3.87	101.295	0.122	2.5
	40	3.87	112.189	0.135	2.5
	50	3.87	116.905	0.141	2.5
Frequency Stability vs. Voltage	20	3.29	118.967	0.143	2.5
	20	4.45	116.697	0.140	2.5
				Result:	**Pass**

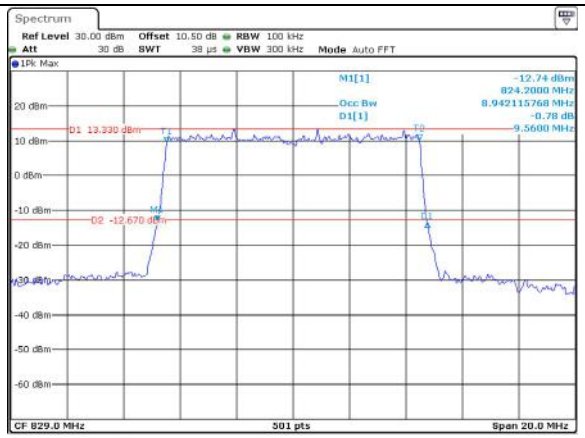
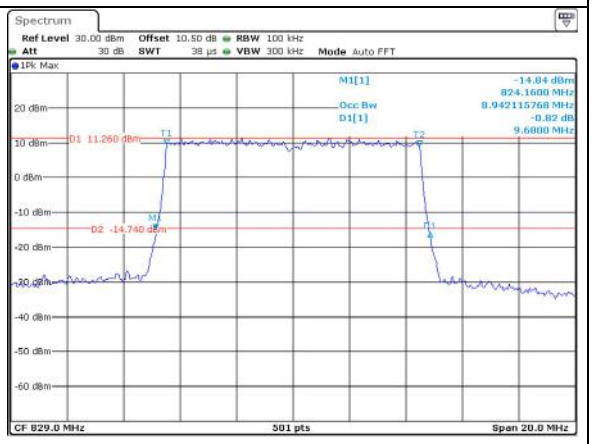
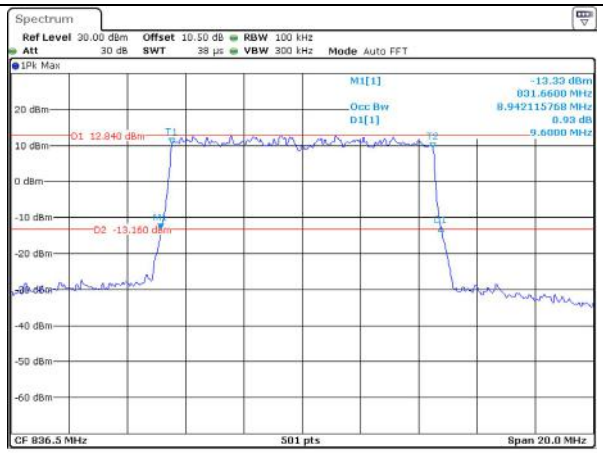
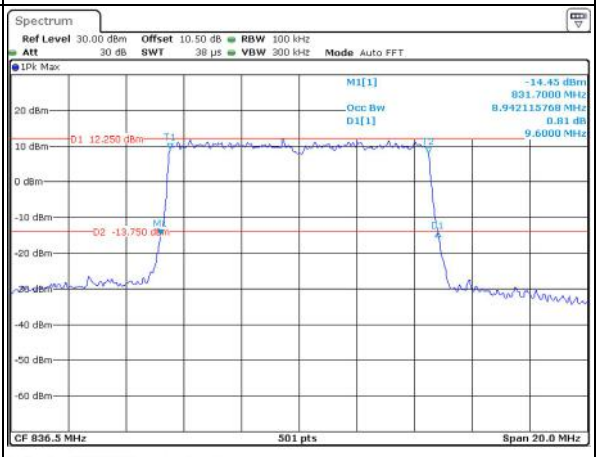
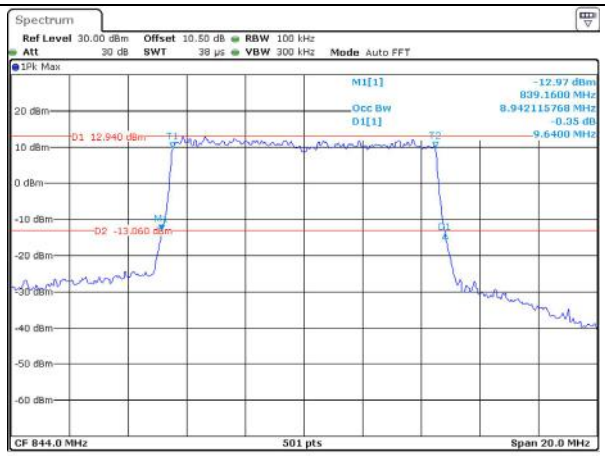
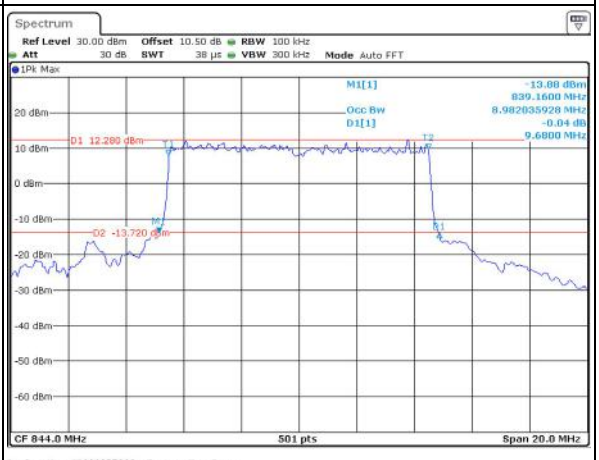
4.14.4 Test Plots for Part 22H:

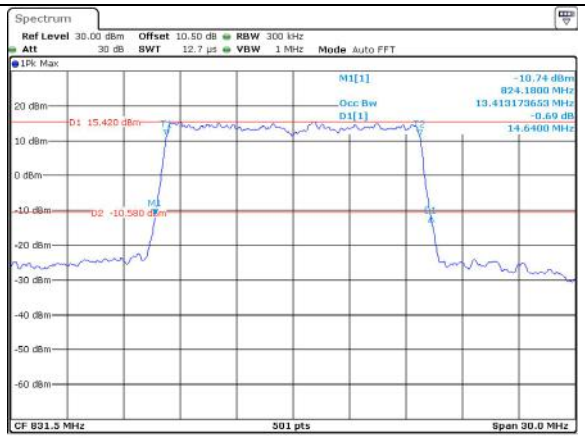
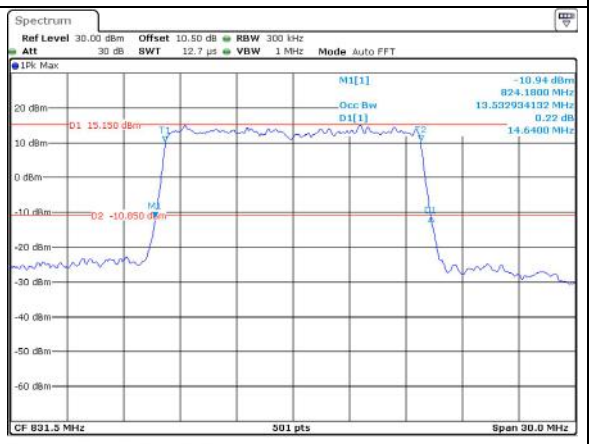
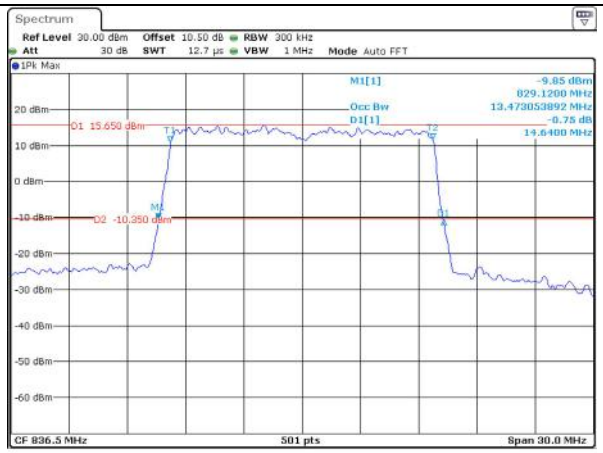
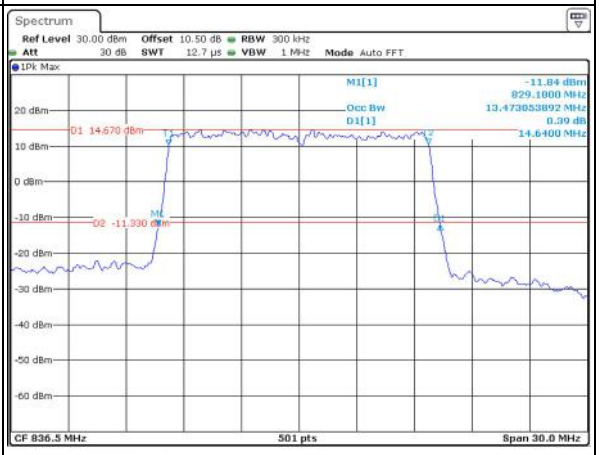
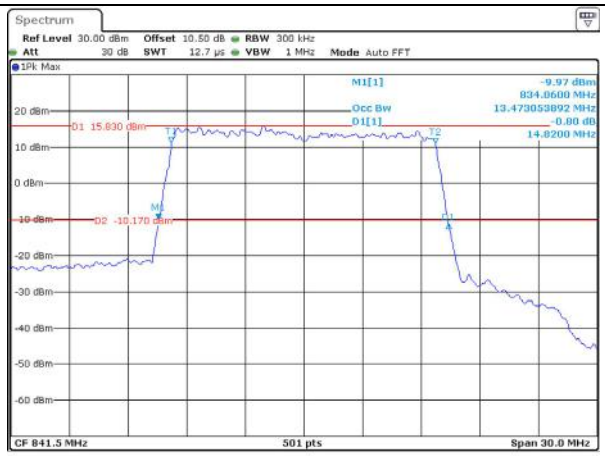
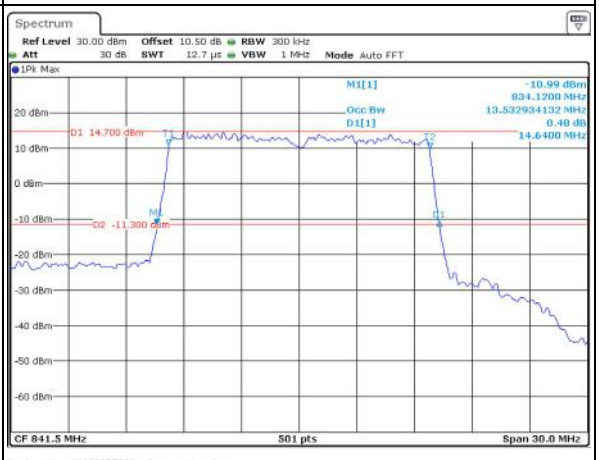
(Note: The 10.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

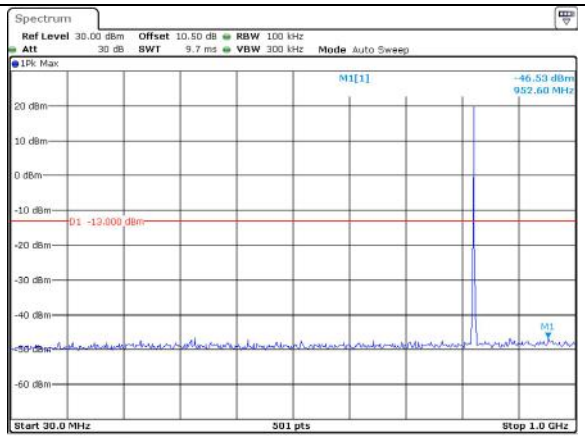
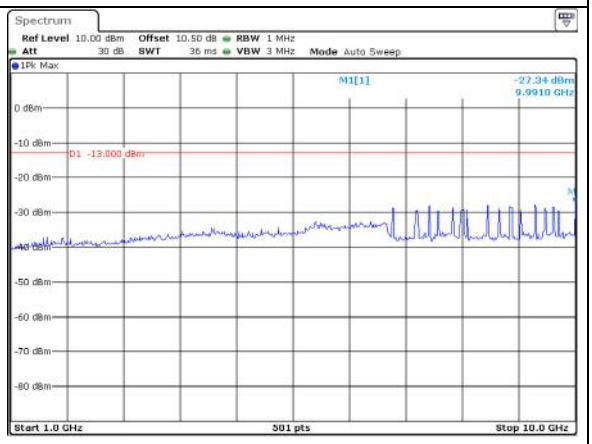
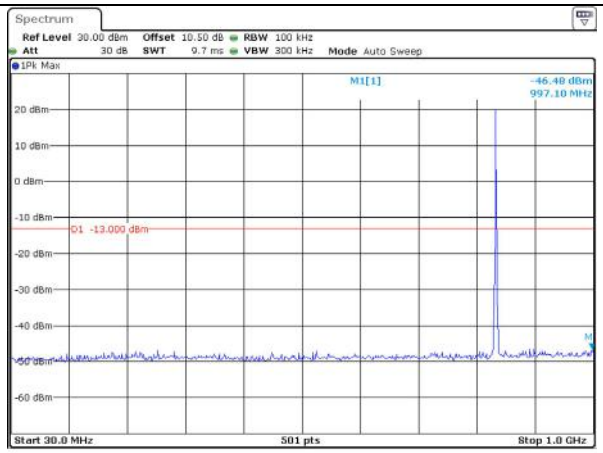
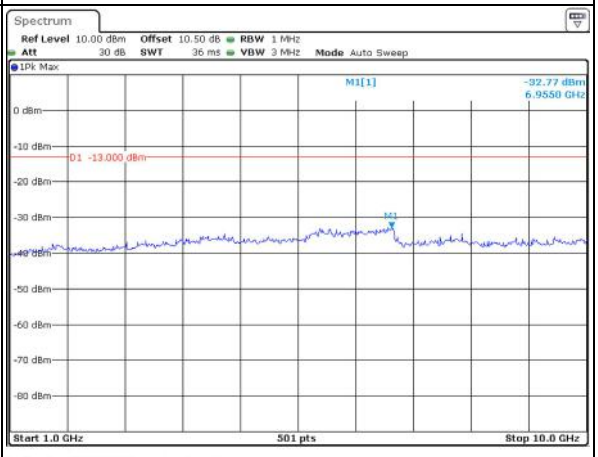
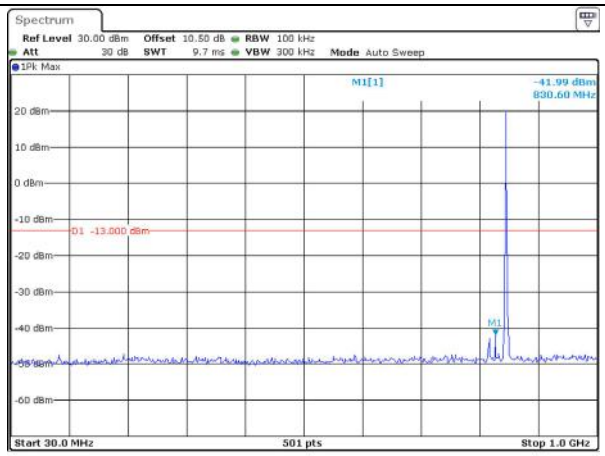
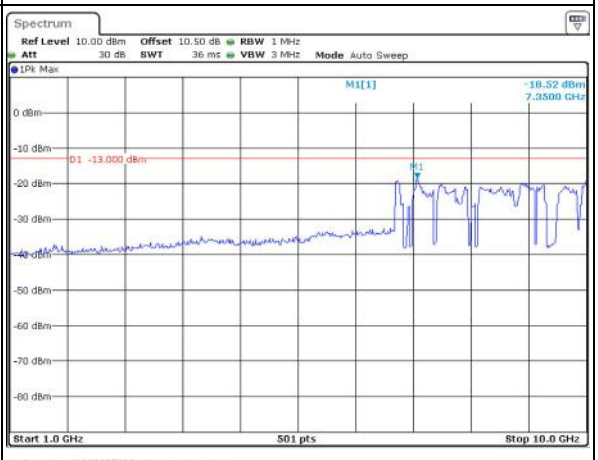
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

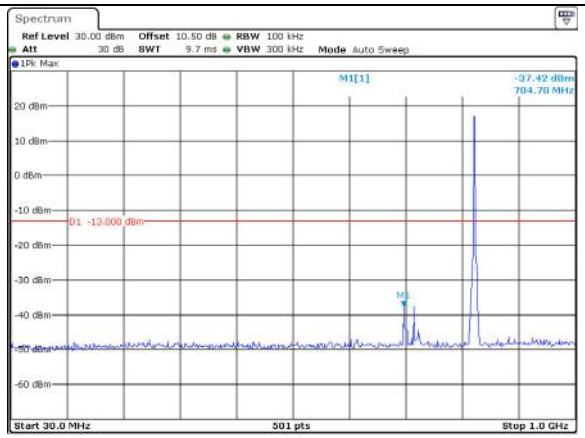
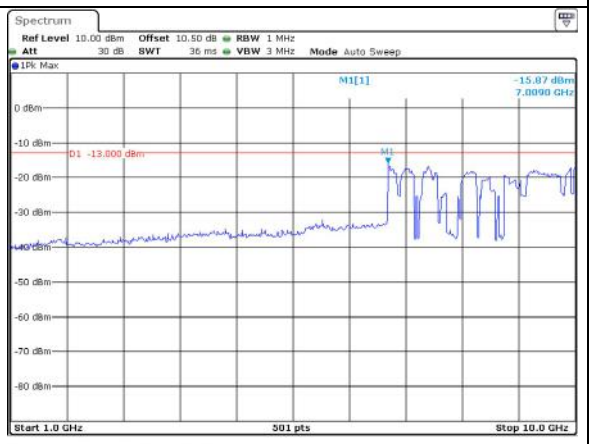
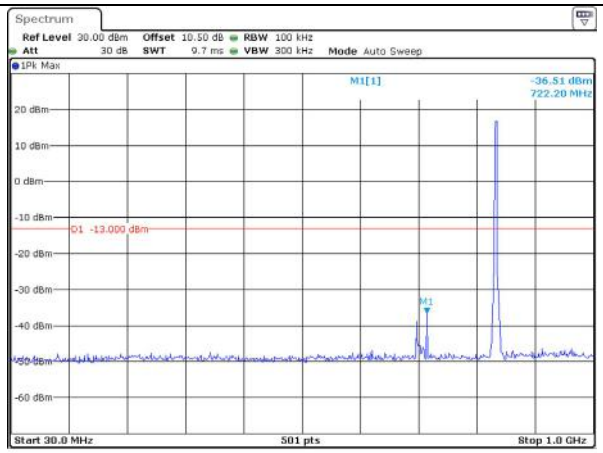
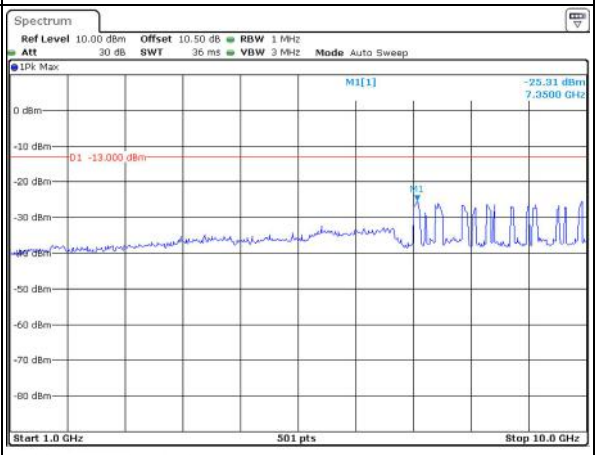
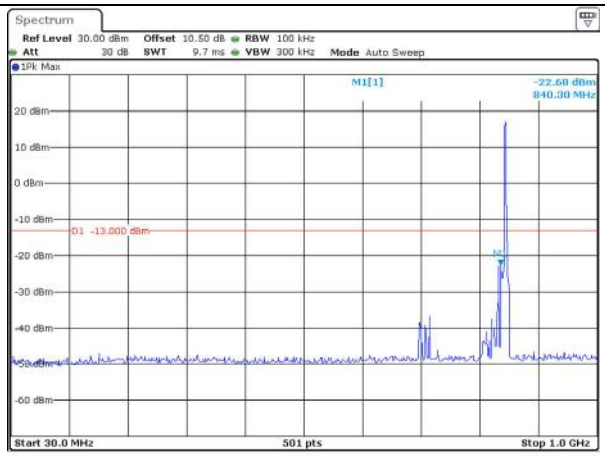
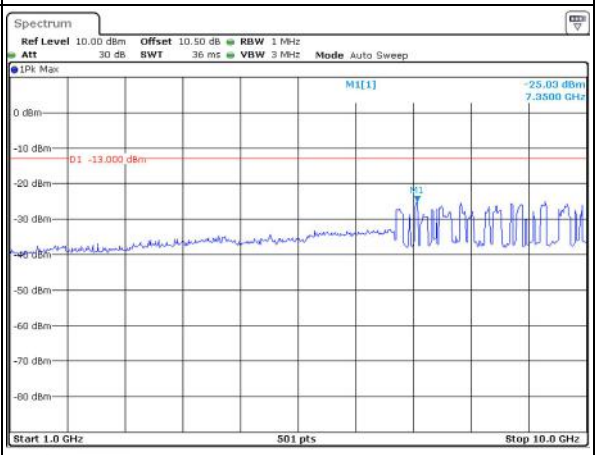
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

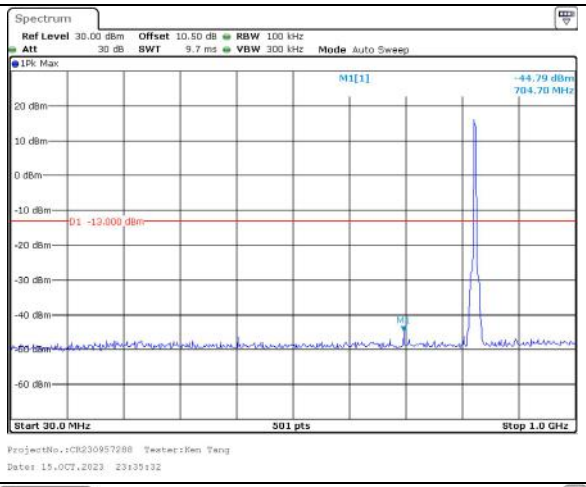
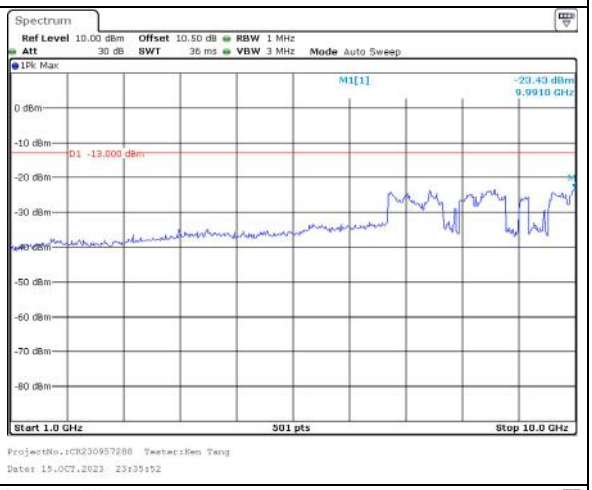
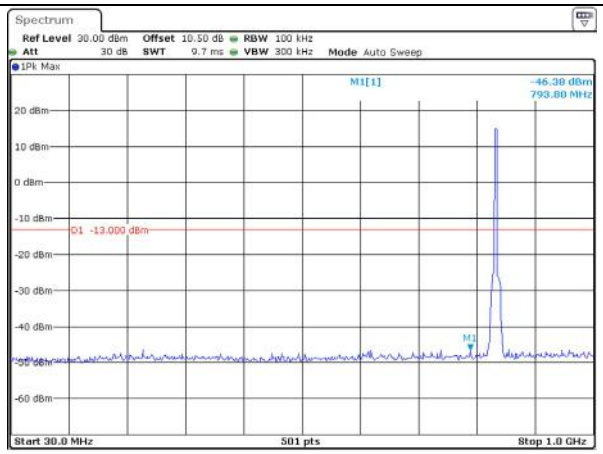
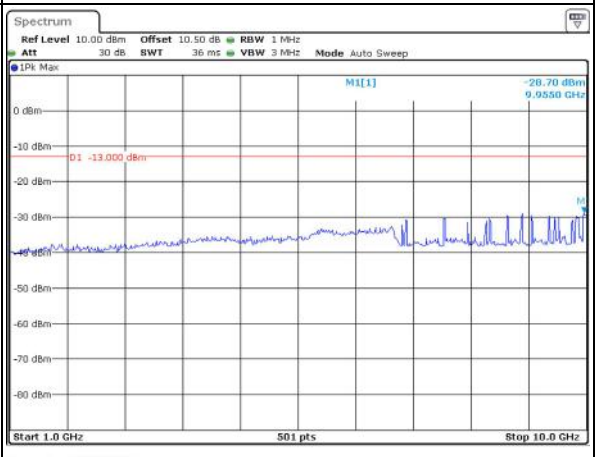
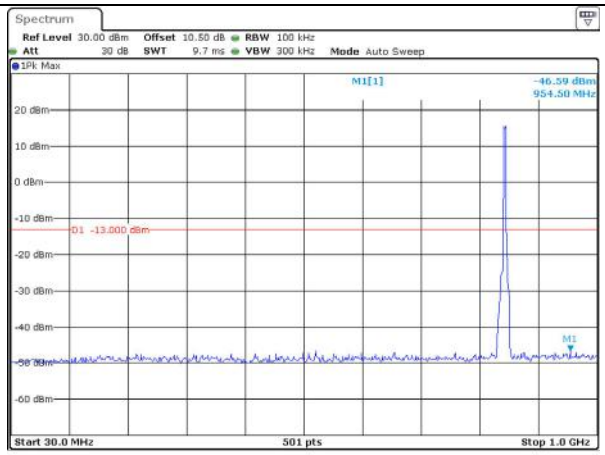
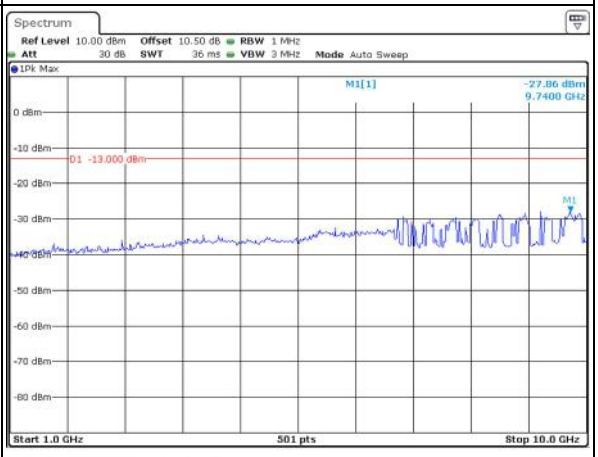
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

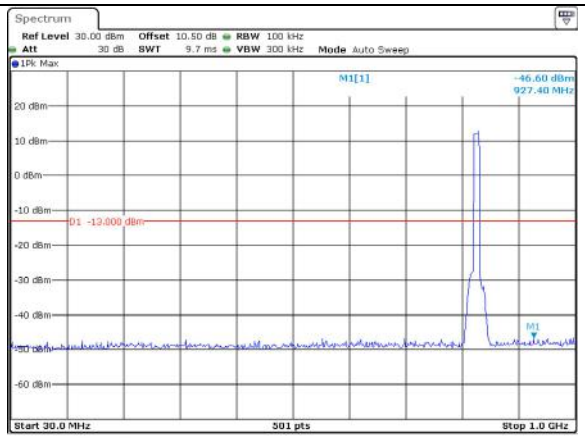
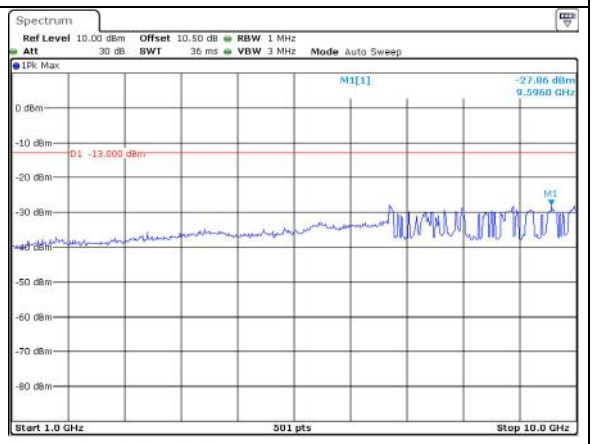
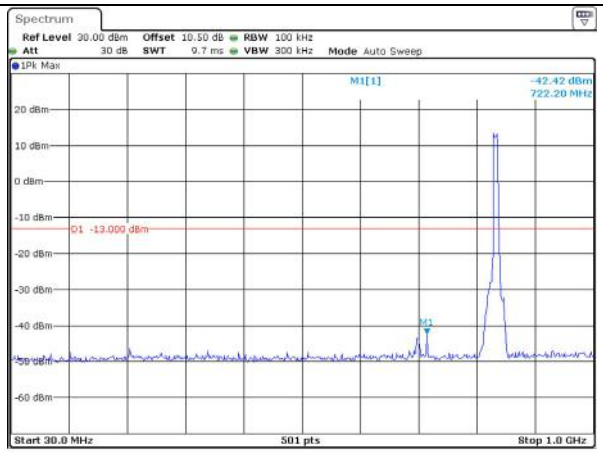
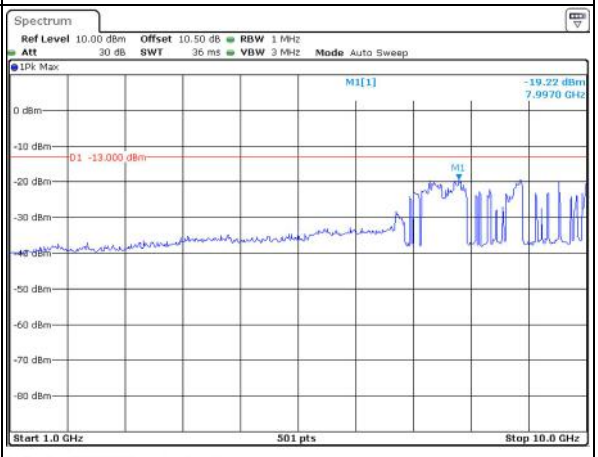
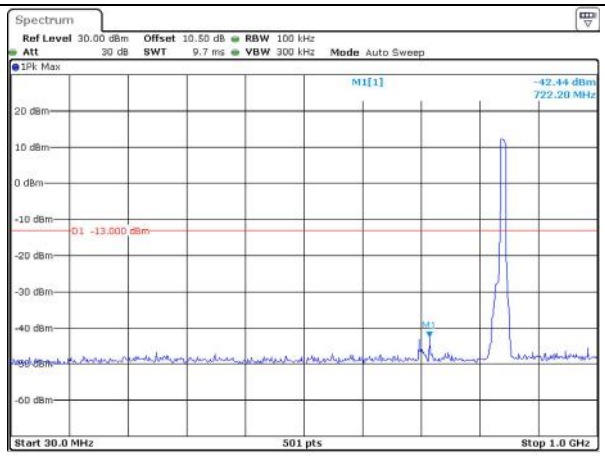
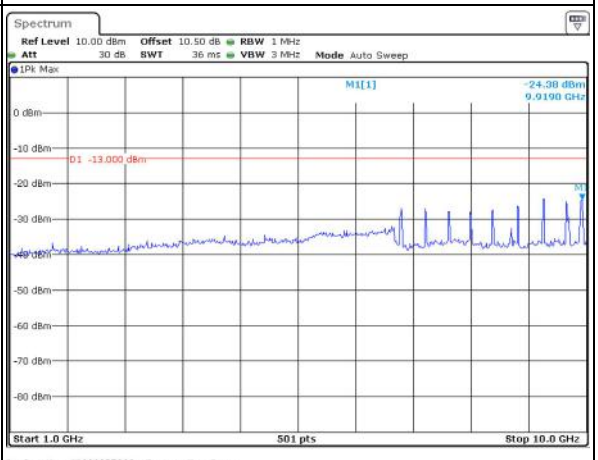
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

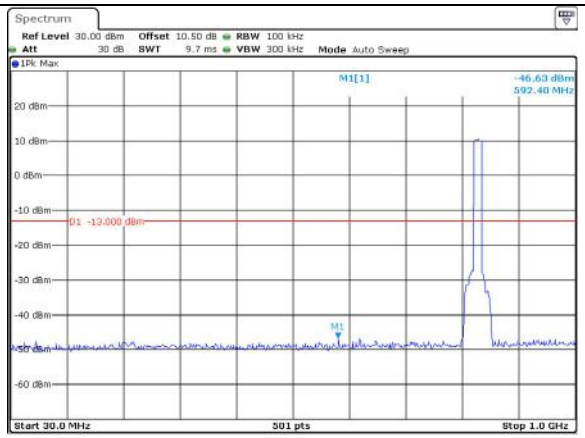
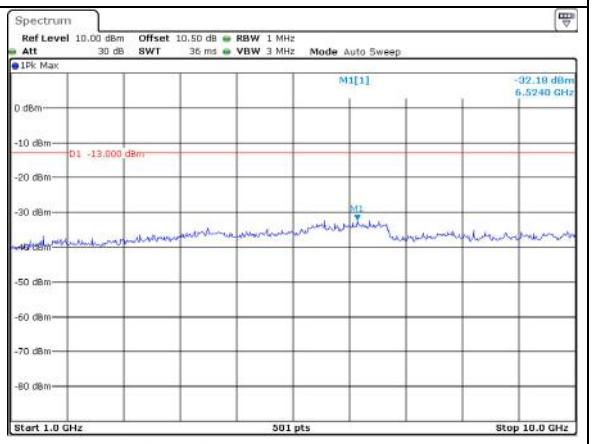
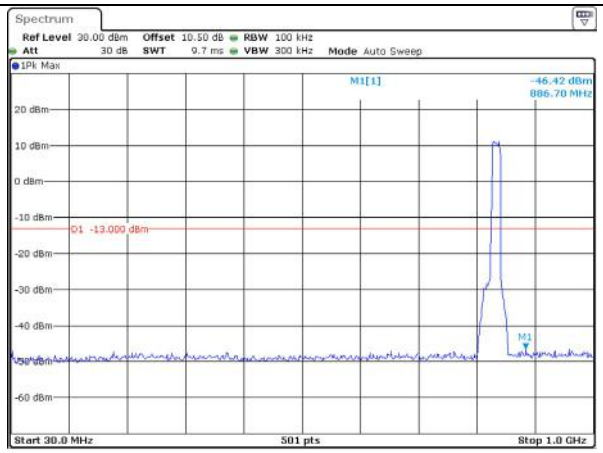
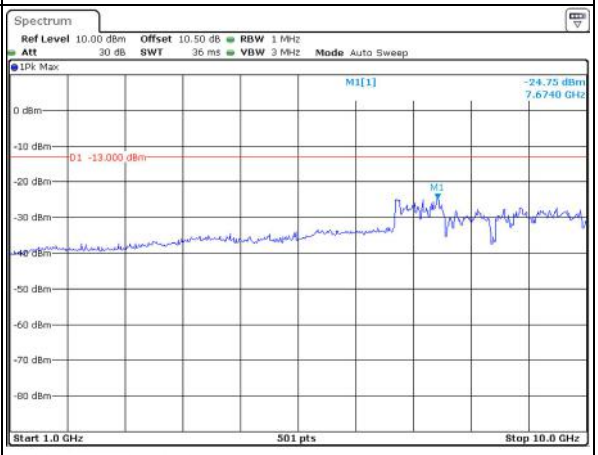
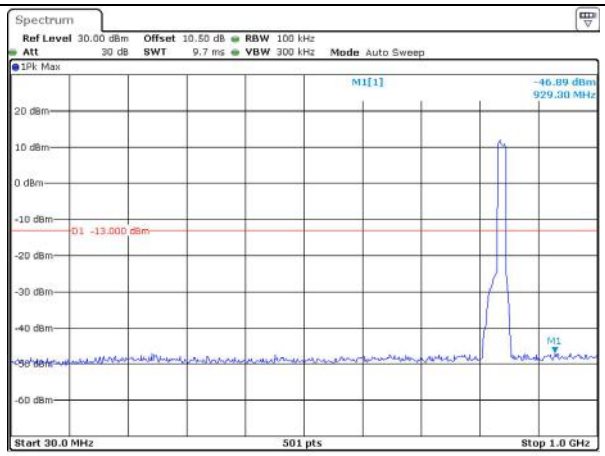
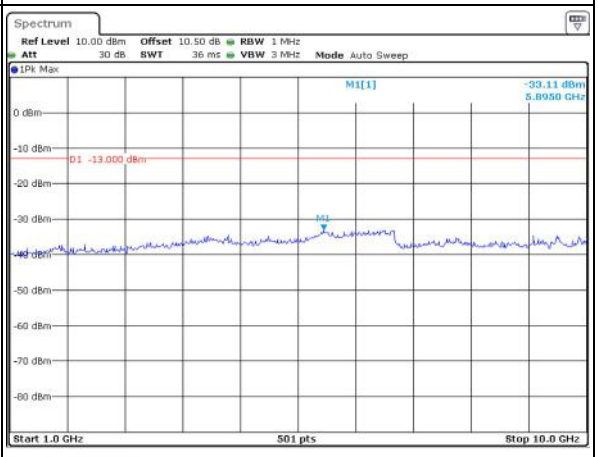
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest For 22H		
Middle For 22H		
Highest For 22H		

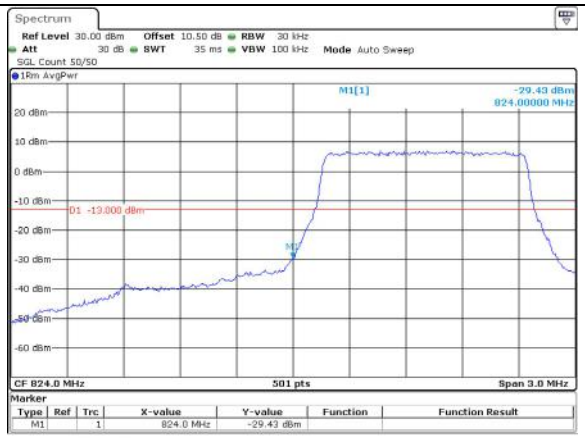
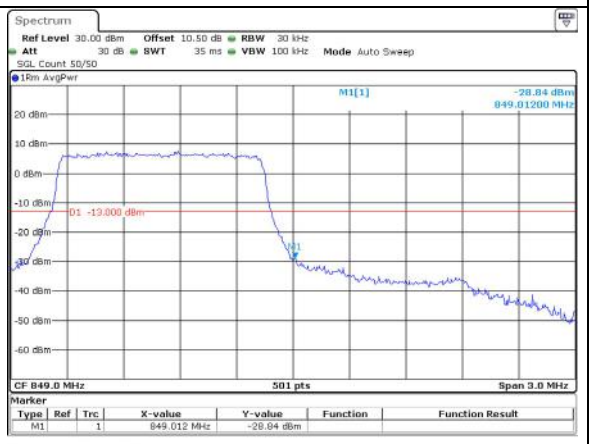
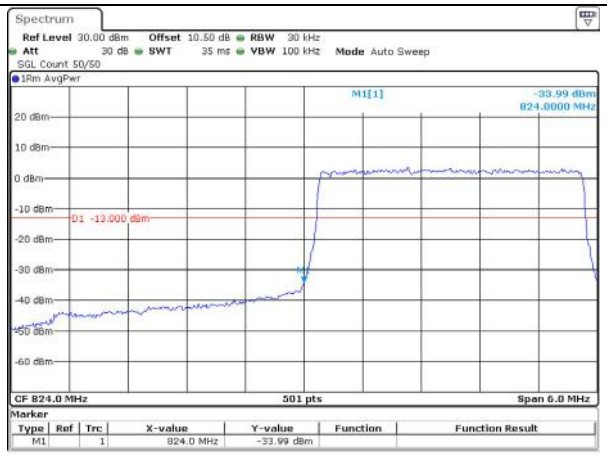
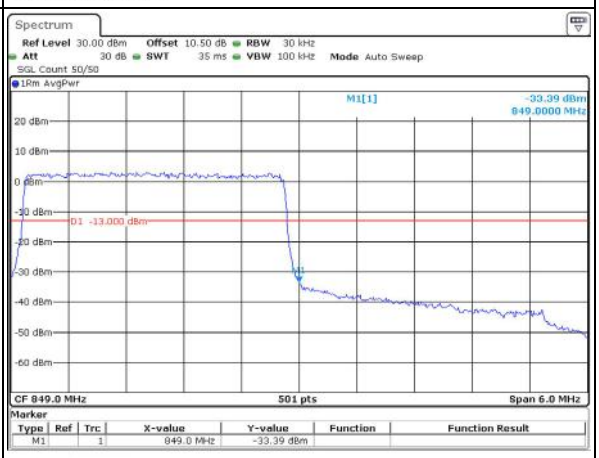
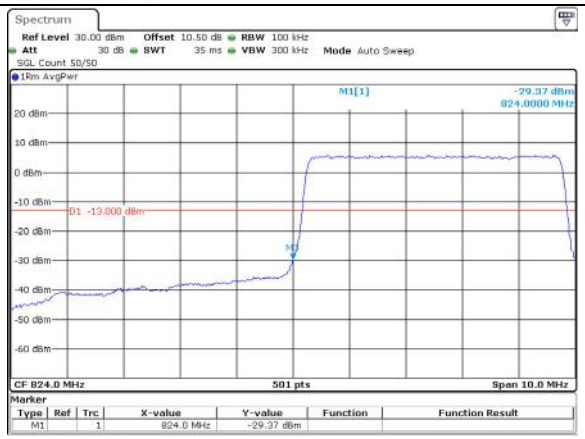
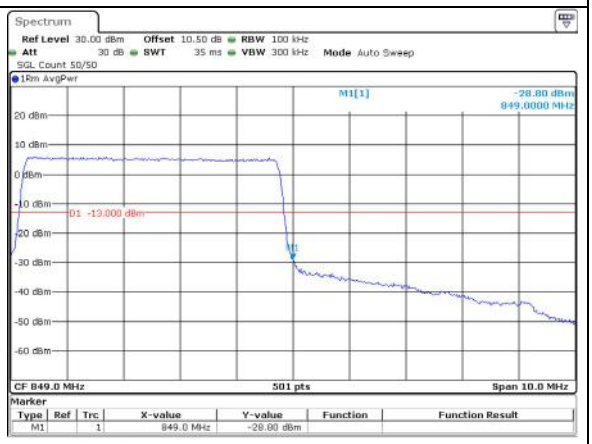
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

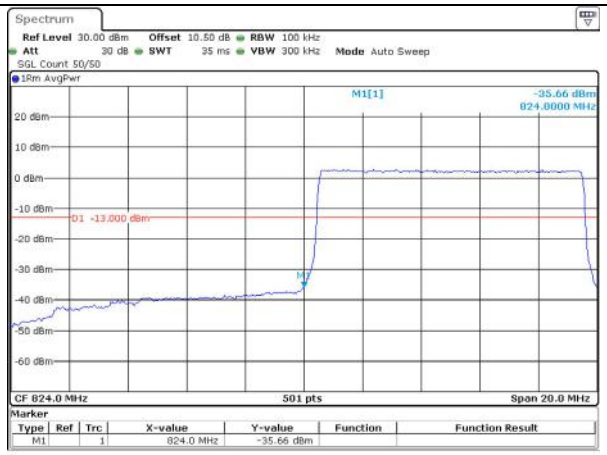
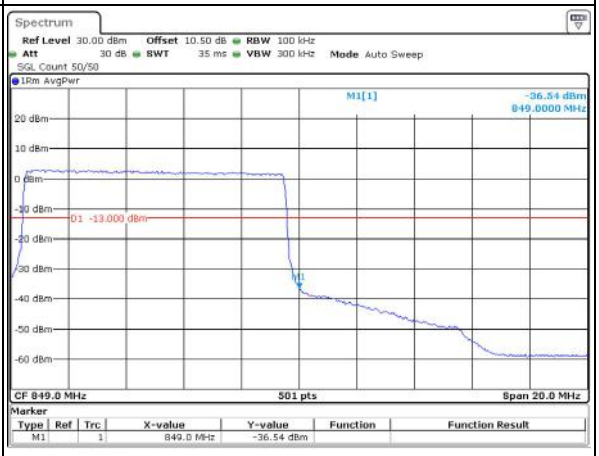
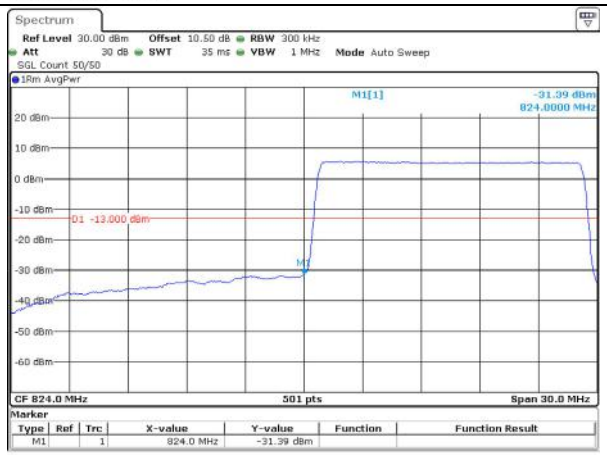
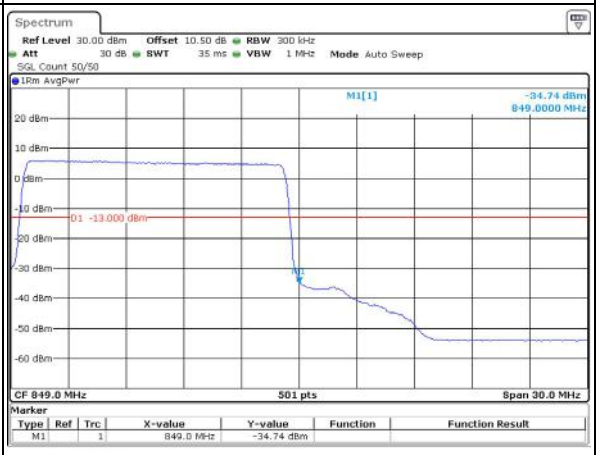
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

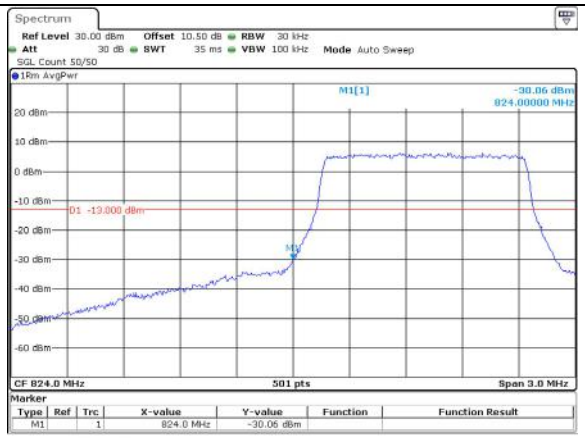
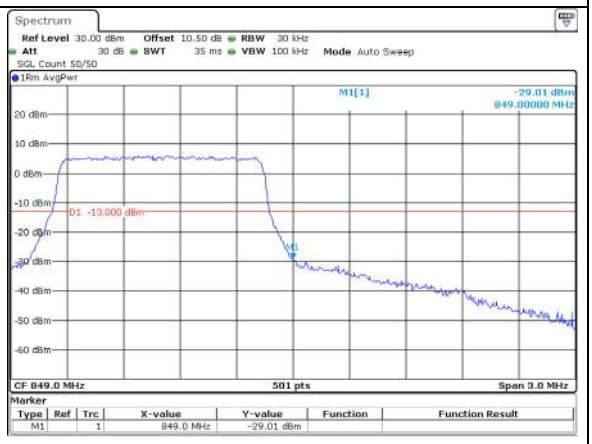
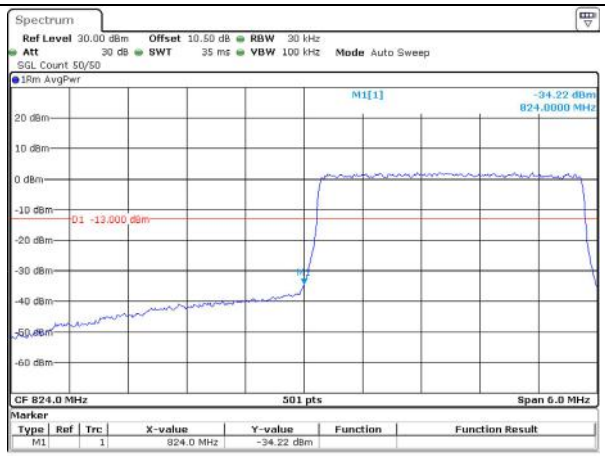
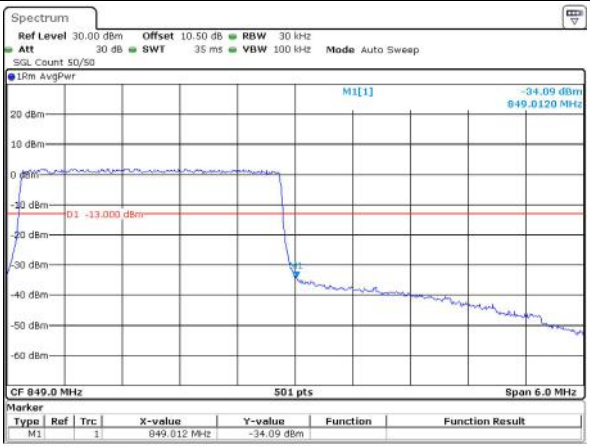
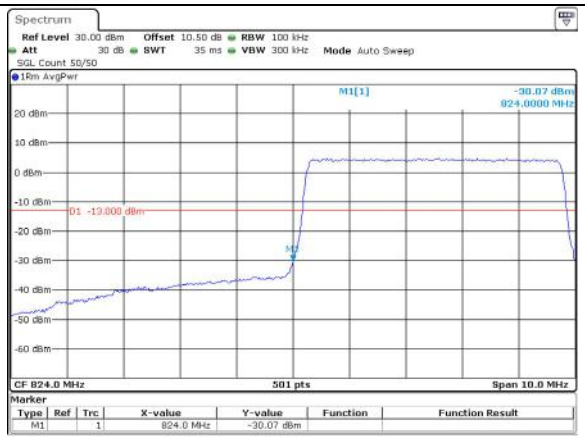
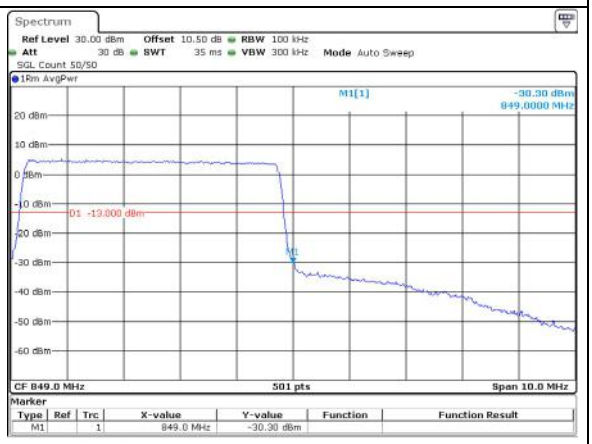
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

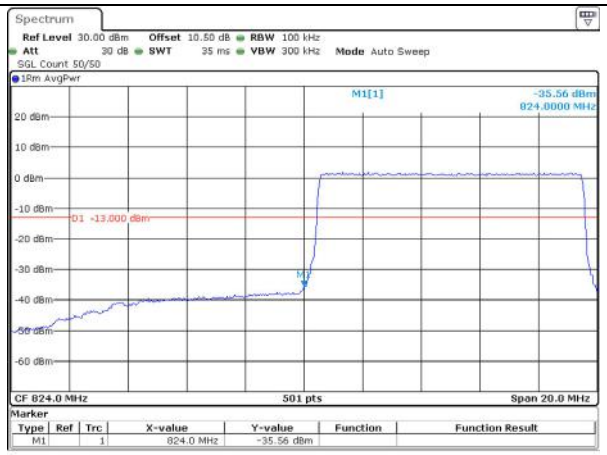
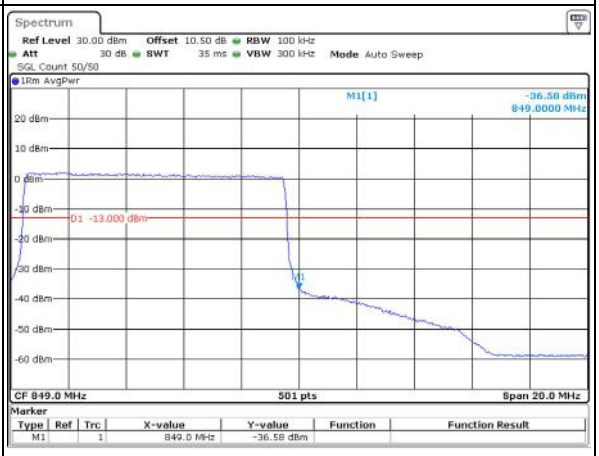
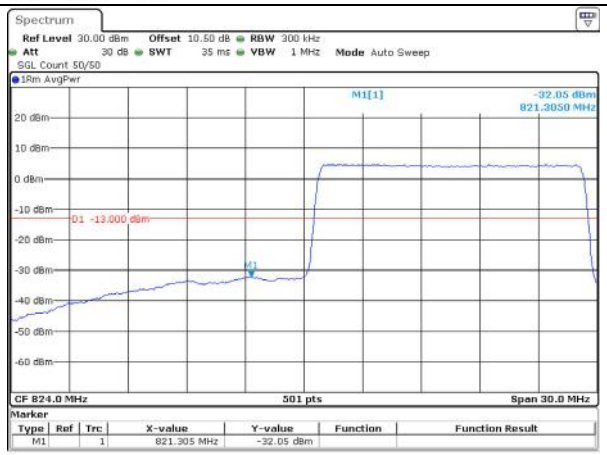
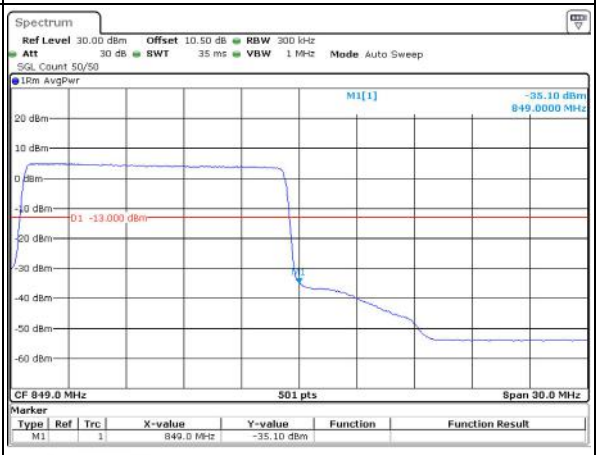
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest For 22H		
Middle For 22H		
Highest For 22H		

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:	2BUF-5	Test Date:	2023/10/17~2023/11/6
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.6	Relative Humidity: (%)	48	ATM Pressure: (kPa)	101.2

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
zhuoxiang	Coaxial Cable	SMA-178	211002	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	2023/9/28	2024/9/27
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	15.79	15.71	15.58	15.39	33
	RB1#13	15.9	15.81	15.66		
	RB1#24	15.78	15.7	15.63		
	RB15#0	14.75	14.7	14.7		
	RB15#10	14.84	14.75	14.73		
	RB25#0	14.78	14.71	14.74		
5MHz 16QAM	RB1#0	14.88	14.6	14.58	14.46	33
	RB1#13	14.97	14.75	14.76		
	RB1#24	14.87	14.64	14.67		
	RB15#0	13.8	13.59	13.73		
	RB15#10	13.85	13.65	13.72		
	RB25#0	13.74	13.67	13.75		
10MHz QPSK	RB1#0	15.97	15.71	15.66	15.72	33
	RB1#25	16.23	15.97	15.94		
	RB1#49	15.95	15.68	15.66		
	RB25#0	14.73	14.63	14.73		
	RB25#25	14.91	14.68	14.66		
	RB50#0	14.55	14.61	14.67		
10MHz 16QAM	RB1#0	14.67	14.79	14.58	14.53	33
	RB1#25	14.93	15.04	14.81		
	RB1#49	14.72	14.82	14.58		
	RB25#0	13.65	13.6	13.78		
	RB25#25	13.77	13.66	13.69		
	RB50#0	13.74	13.61	13.7		
15MHz QPSK	RB1#0	15.88	15.77	15.72	15.41	33
	RB1#38	15.92	15.84	15.73		
	RB1#74	15.8	15.66	15.66		
	RB36#0	14.84	14.87	14.87		
	RB36#39	15	14.91	14.7		
	RB75#0	14.93	14.9	14.8		
15MHz 16QAM	RB1#0	14.91	14.8	14.58	14.46	33
	RB1#38	14.97	14.91	14.66		
	RB1#74	14.86	14.78	14.55		
	RB36#0	13.82	13.74	13.74		
	RB36#39	13.96	13.78	13.65		
	RB75#0	13.86	13.76	13.76		
20MHz QPSK	RB1#0	15.66	15.73	15.63	15.66	33

	RB1#50	16.1	16.17	16		
	RB1#99	15.64	15.66	15.53		
	RB50#0	14.67	14.66	14.78		
	RB50#50	14.88	14.73	14.54		
	RB100#0	14.78	14.69	14.7		
20MHz 16QAM	RB1#0	14.55	14.84	14.57	14.73	33
	RB1#50	14.98	15.24	15		
	RB1#99	14.52	14.81	14.59		
	RB50#0	13.71	13.66	13.77		
	RB50#50	13.89	13.7	13.57		
	RB100#0	13.66	13.50	13.73		
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	9.53	8.51	6.94	13
	RB100#0	7.33	6.77	7.21	13
20MHz 16QAM	RB1#0	9.84	7.51	8.57	13
	RB100#0	8.25	7.19	8.12	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	4.980	4.940	5.280
5MHz 16QAM	4.511	4.511	4.511	5.260	5.200	4.940
10MHz QPSK	8.942	8.942	8.942	9.600	9.680	9.680
10MHz 16QAM	8.942	8.942	8.942	9.720	9.480	9.480
15MHz QPSK	13.533	13.473	13.473	15.600	15.240	14.580
15MHz 16QAM	13.473	13.533	13.533	14.700	14.880	14.580
20MHz QPSK	17.884	17.964	17.884	19.280	19.440	19.280
20MHz 16QAM	17.964	17.884	17.884	19.200	19.200	19.360
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.**