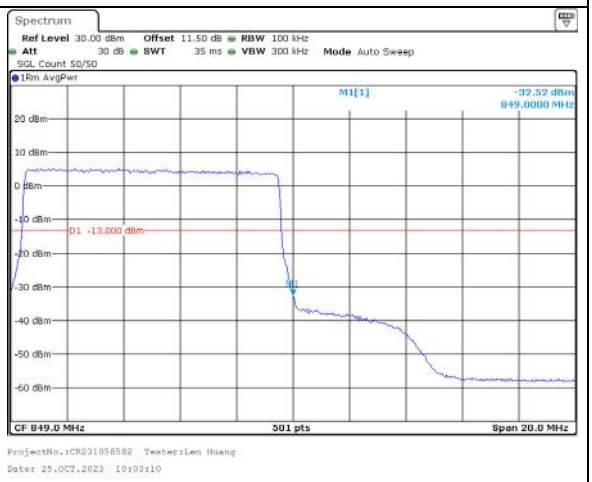
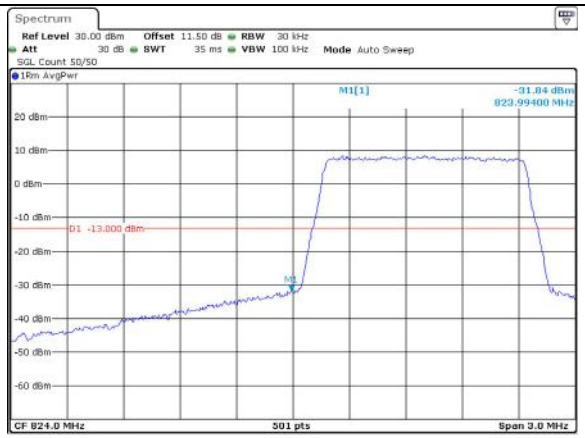
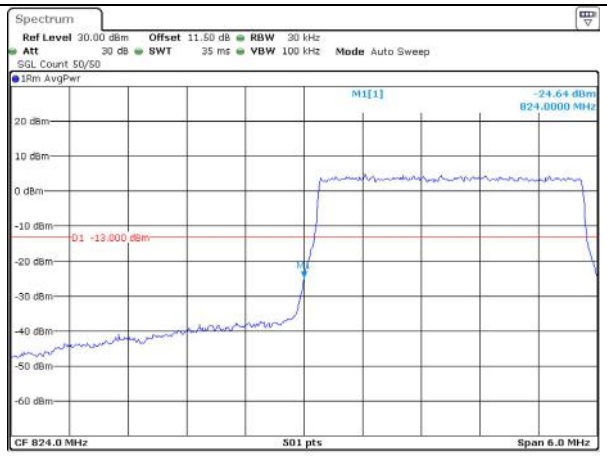
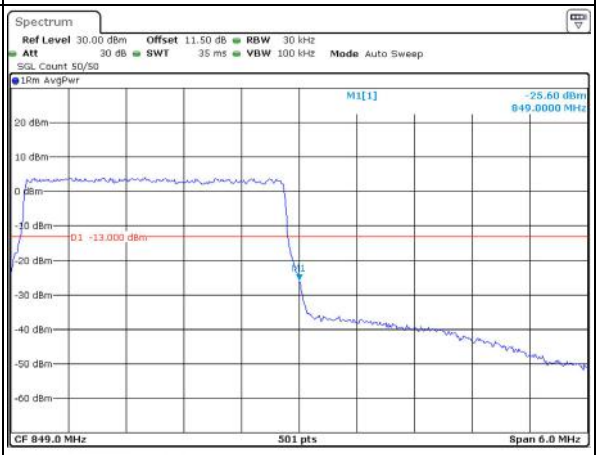
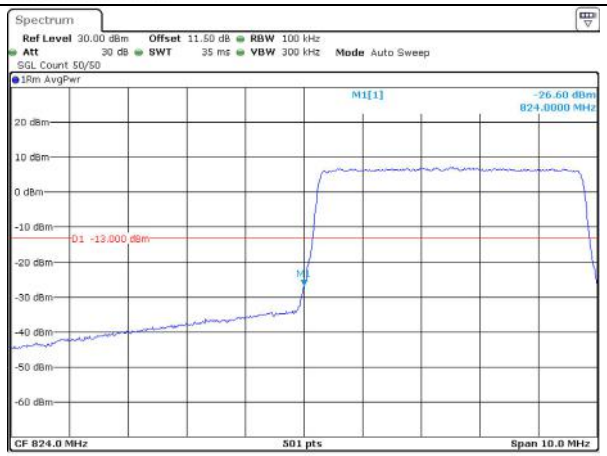
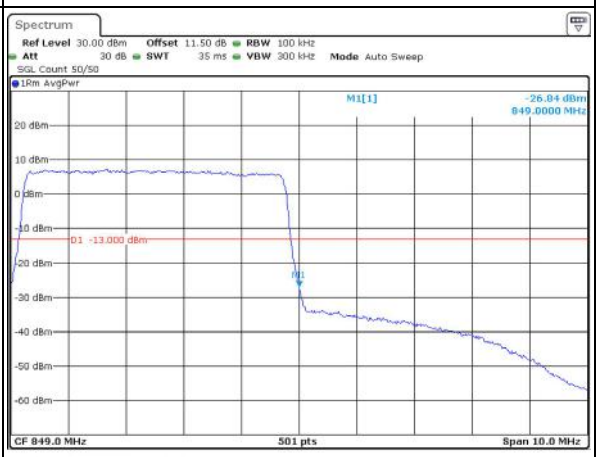
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz		

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

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

4.9 Antenna Port Test Data and Results for LTE Band 7

Serial Number:	2BZE-3	Test Date:	2023/11/2~2023/11/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.5	Relative Humidity: (%)	46	ATM Pressure: (kPa)	101.1

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	2502.5	2535	2567.5
10MHz	2505	2535	2565
15MHz	2507.5	2535	2562.5
20MHz	2510	2535	2560

Test Data:

FCC§2.1046;§ 27.50(h)(2)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	15.81	16.51	16.41	16.55	33
	RB1#13	16.23	16.85	16.95		
	RB1#24	15.71	16.2	16.52		
	RB15#0	15.4	15.9	15.84		
	RB15#10	15.39	15.8	15.91		
	RB25#0	15.4	15.8	15.83		
5MHz 16QAM	RB1#0	15.43	15.66	15.33	15.64	33
	RB1#13	15.88	16.04	15.93		
	RB1#24	15.28	15.39	15.48		
	RB15#0	14.21	14.84	14.78		
	RB15#10	14.2	14.76	14.86		
	RB25#0	14.22	14.79	14.82		
10MHz QPSK	RB1#0	-1.64	17.01	16.57	16.87	33
	RB1#25	16.43	16.91	16.8		
	RB1#49	16.64	17.03	17.27		
	RB25#0	15.69	16.1	15.86		
	RB25#25	15.82	16.1	16.2		
	RB50#0	15.76	16.09	16.03		
10MHz 16QAM	RB1#0	15.68	15.99	16.17	16.49	33
	RB1#25	15.76	15.99	16.48		
	RB1#49	15.95	16.05	16.89		
	RB25#0	14.41	15.09	14.82		
	RB25#25	14.56	15.11	15.17		
	RB50#0	14.49	15.07	14.98		
15MHz QPSK	RB1#0	16.45	17.24	16.53	16.84	33
	RB1#38	16.25	16.86	16.66		
	RB1#74	16.13	16.57	16.87		
	RB36#0	15.72	16.22	15.75		
	RB36#39	15.55	15.85	15.92		
	RB75#0	15.63	16.03	15.83		
15MHz 16QAM	RB1#0	16.28	16.38	16.05	15.98	33
	RB1#38	16.08	16.06	16.13		
	RB1#74	15.99	15.76	16.25		
	RB36#0	14.4	15.17	14.73		
	RB36#39	14.26	14.84	14.96		
	RB75#0	14.35	15.03	14.86		
20MHz QPSK	RB1#0	17.24	17.92	16.98	17.52	33

	RB1#50	16.53	16.95	16.66		
	RB1#99	16.63	17	17.26		
	RB50#0	16.18	16.56	15.89		
	RB50#50	15.99	16.07	16.08		
	RB100#0	16.13	16.29	15.96		
20MHz 16QAM	RB1#0	17.02	17.19	16.17	16.79	33
	RB1#50	16.36	16.28	15.91		
	RB1#99	16.47	16.28	16.48		
	RB50#0	15.02	15.45	14.83		
	RB50#50	14.78	14.99	15.02		
	RB100#0	14.91	15.27	14.92		
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	5.48	5.88	5.94	13
	RB100#0	5.48	5.54	5.54	13
20MHz 16QAM	RB1#0	5.91	6.52	6.99	13
	RB100#0	6.23	6.32	6.29	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	4.510	4.510	4.511	4.980	5.020	5.000
5MHz 16QAM	4.531	4.531	4.511	5.020	5.040	4.980
10MHz QPSK	8.942	8.942	8.942	9.720	9.800	9.800
10MHz 16QAM	8.942	8.942	8.942	9.800	9.800	9.760
15MHz QPSK	13.413	13.532	13.533	14.880	15.000	15.000
15MHz 16QAM	13.533	13.533	13.533	14.940	15.060	14.940
20MHz QPSK	17.964	18.044	18.044	19.600	19.760	19.680
20MHz 16QAM	17.964	18.044	17.884	19.680	19.840	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

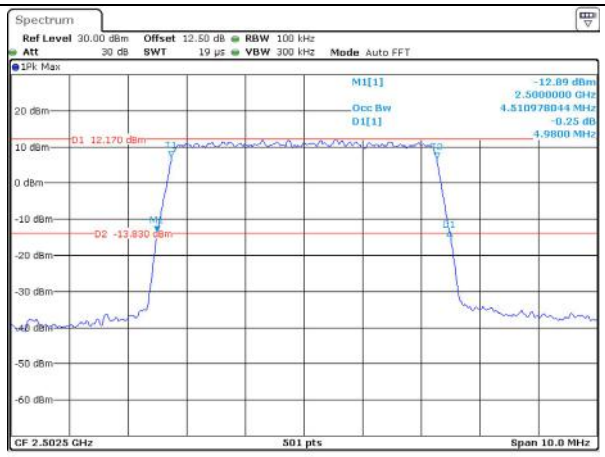
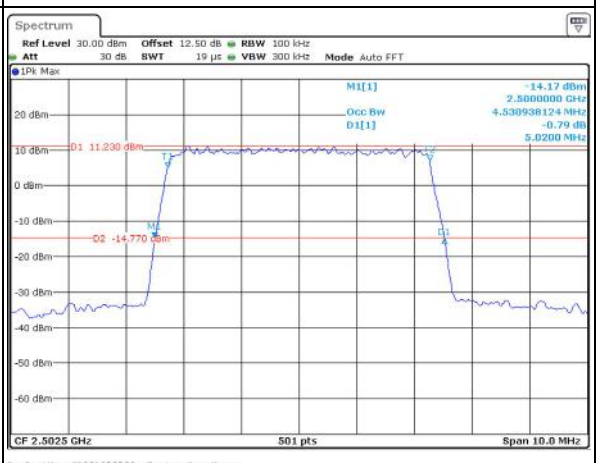
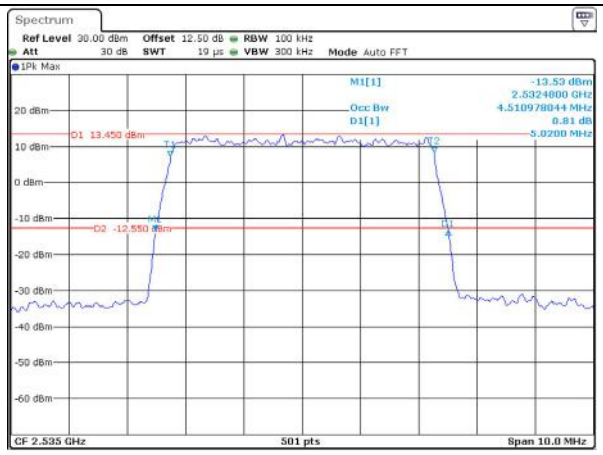
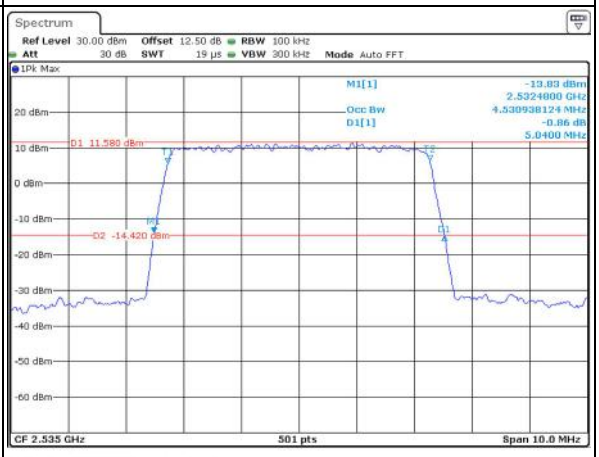
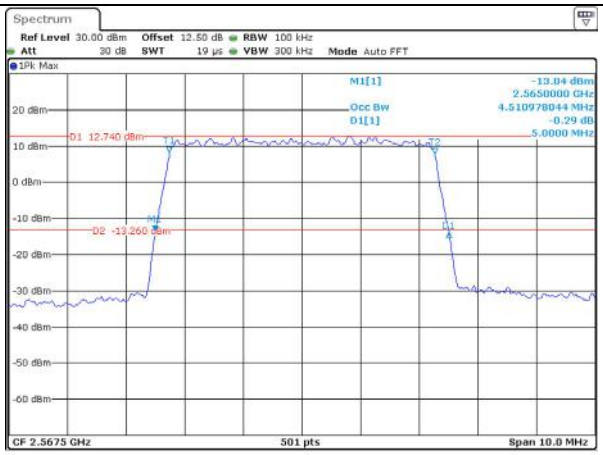
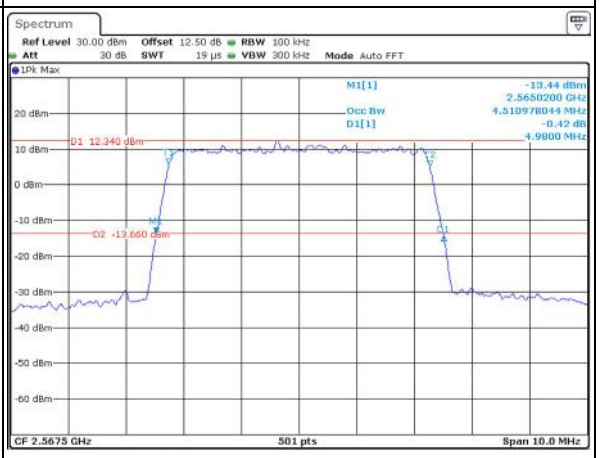
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

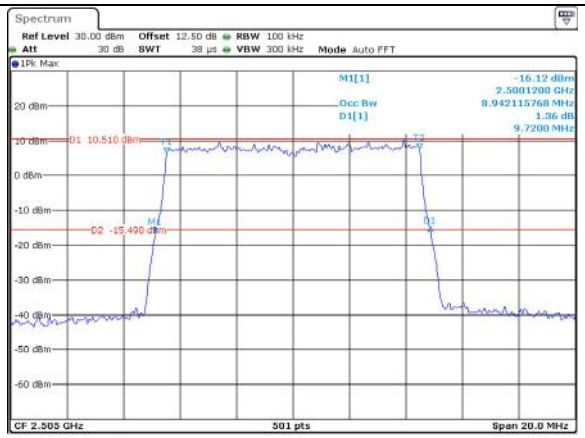
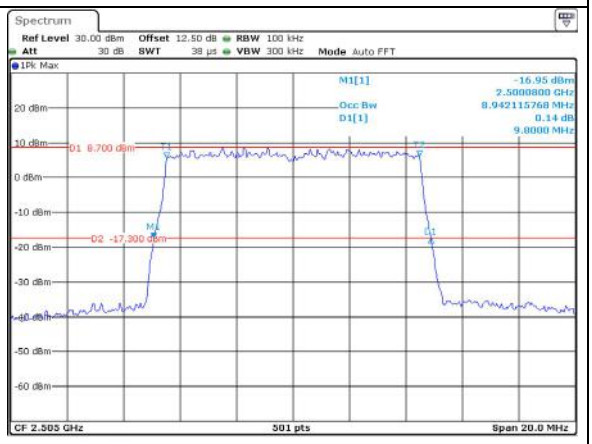
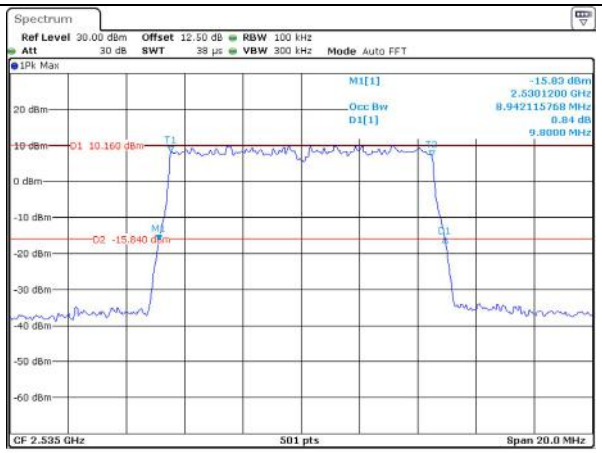
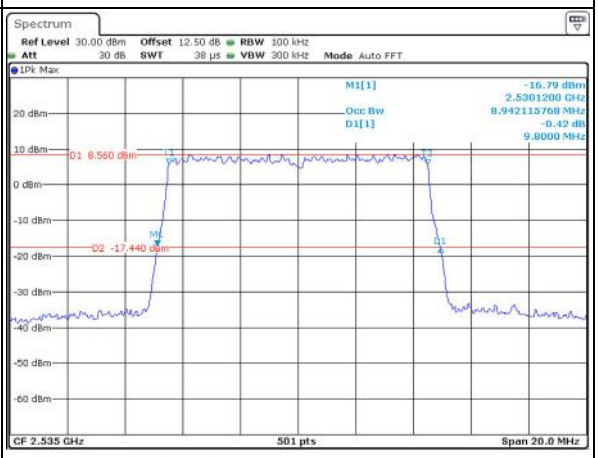
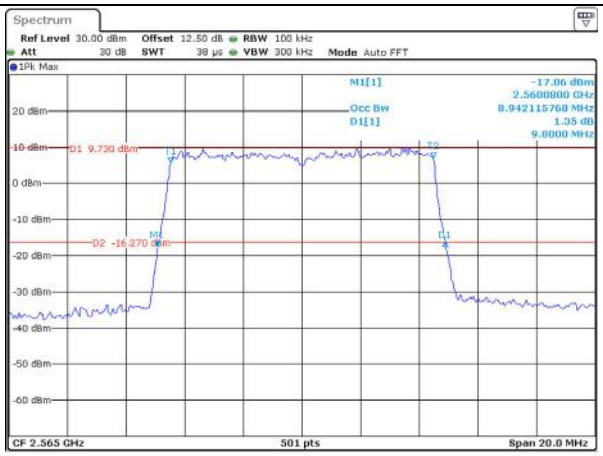
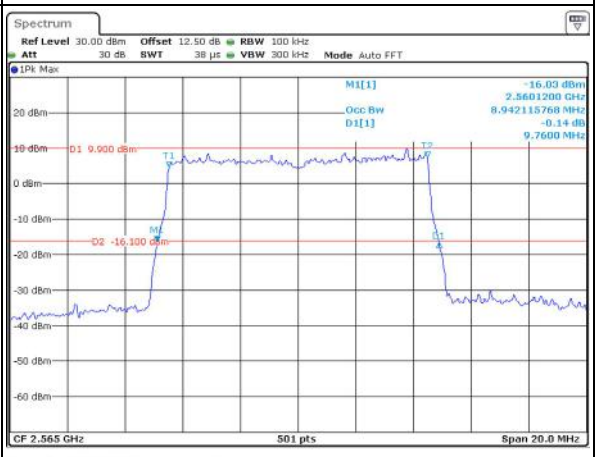
FCC §2.1055, §27.54: Frequency Stability

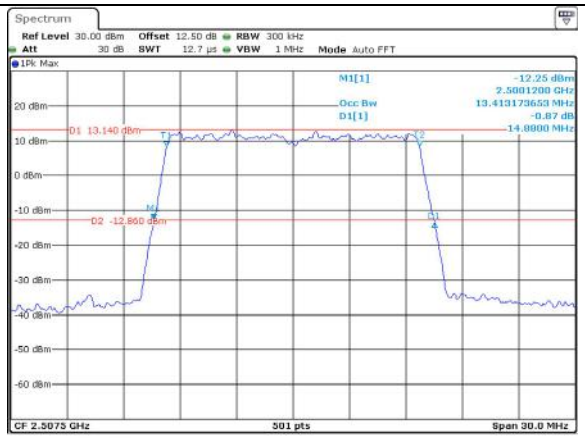
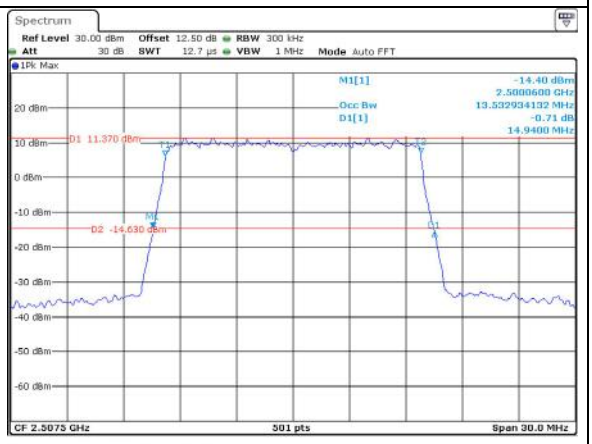
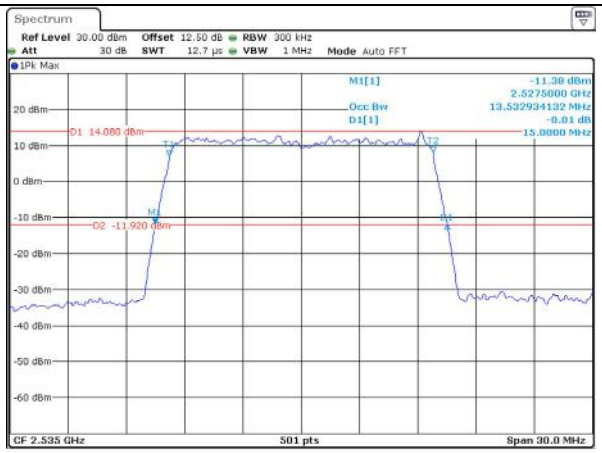
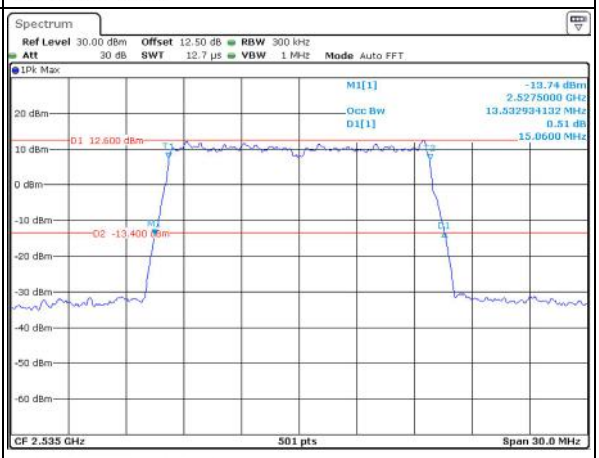
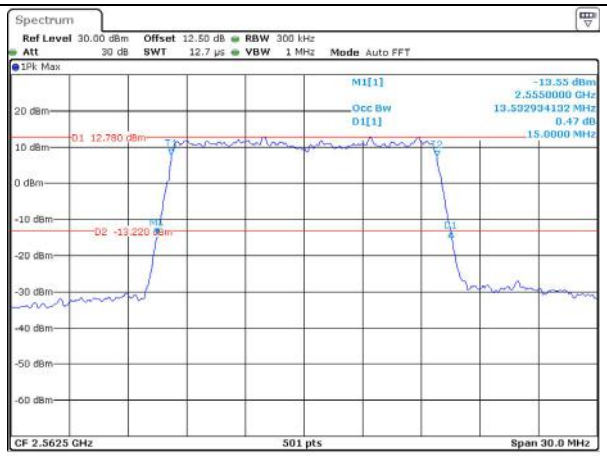
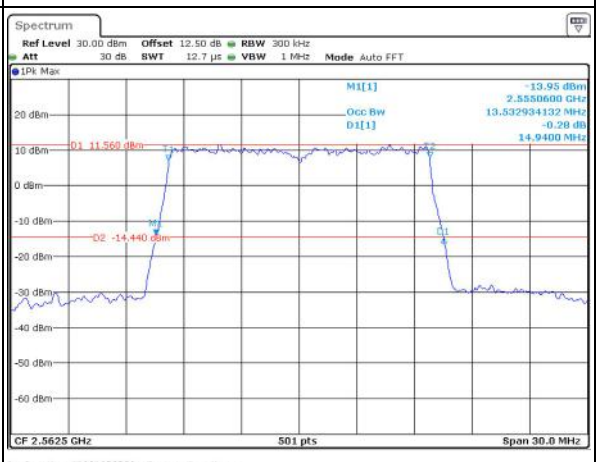
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2500.786	2500.00	2569.925	2570
	-20	3.85	2500.838	2500.00	2569.937	2570
	-10	3.85	2500.891	2500.00	2569.900	2570
	0	3.85	2500.405	2500.00	2569.914	2570
	10	3.85	2500.707	2500.00	2569.943	2570
	20	3.85	2500.351	2500.00	2569.982	2570
	30	3.85	2500.264	2500.00	2569.943	2570
	40	3.85	2500.488	2500.00	2569.985	2570
	50	3.85	2500.700	2500.00	2569.945	2570
Frequency Stability vs. Voltage	20	3.27	2500.278	2500.00	2569.939	2570
	20	4.43	2500.690	2500.00	2569.981	2570
					Result:	**Pass**

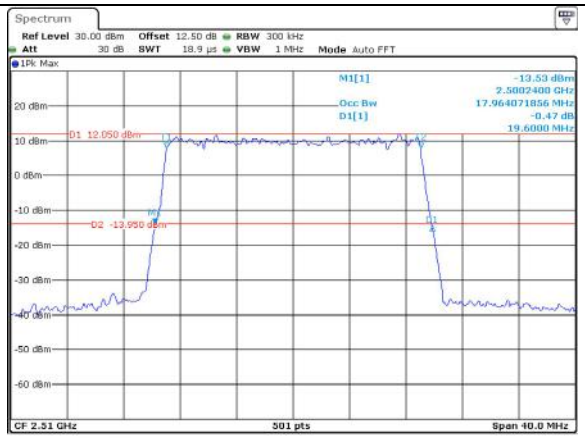
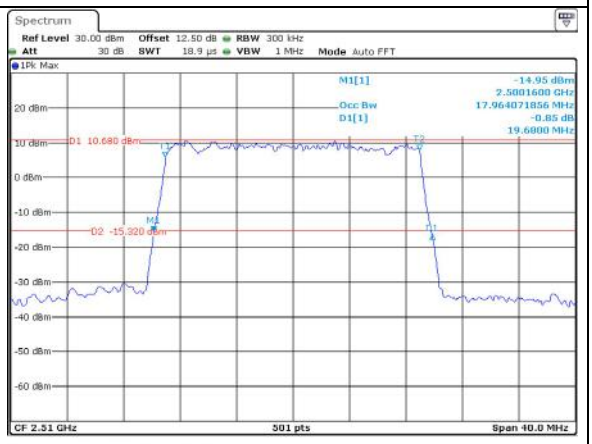
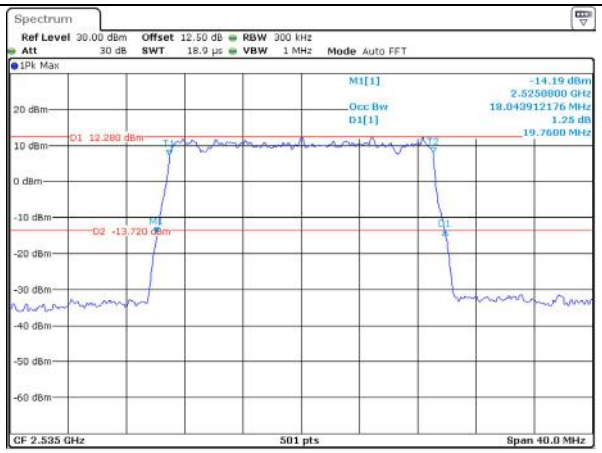
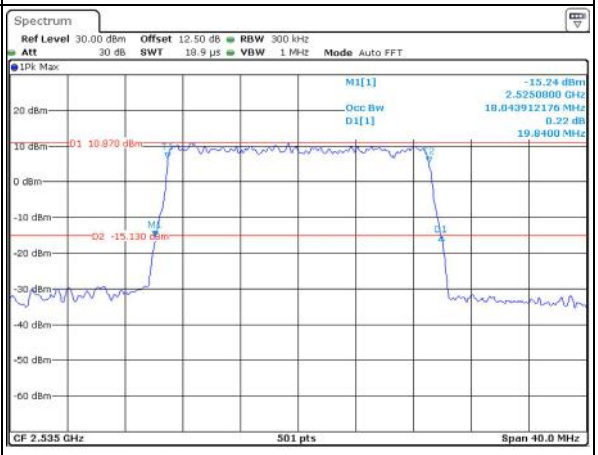
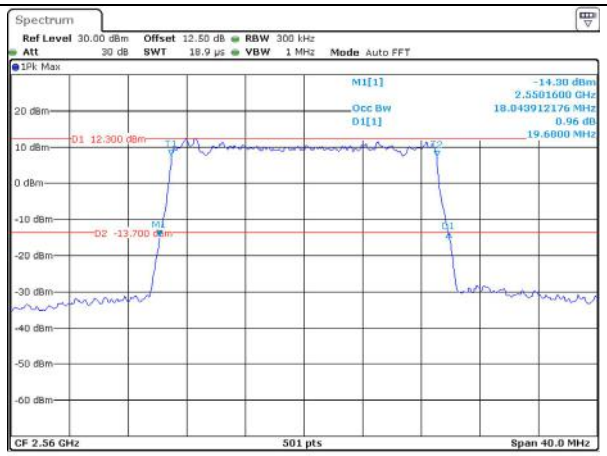
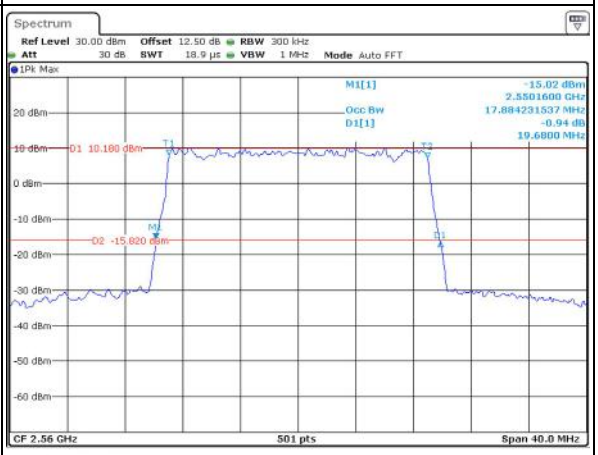
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2500.197	2500.00	2569.925	2570
	-20	3.85	2500.250	2500.00	2569.961	2570
	-10	3.85	2500.303	2500.00	2569.911	2570
	0	3.85	2500.218	2500.00	2569.897	2570
	10	3.85	2500.195	2500.00	2569.972	2570
	20	3.85	2500.304	2500.00	2569.971	2570
	30	3.85	2500.195	2500.00	2569.952	2570
	40	3.85	2500.321	2500.00	2569.948	2570
	50	3.85	2500.391	2500.00	2569.923	2570
Frequency Stability vs. Voltage	20	3.27	2500.168	2500.00	2569.934	2570
	20	4.43	2500.283	2500.00	2569.896	2570
					Result:	**Pass**

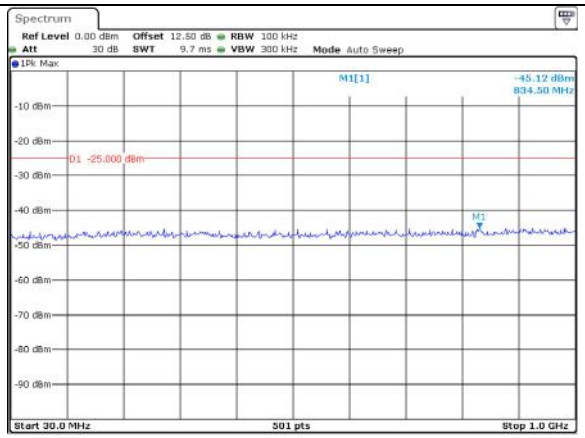
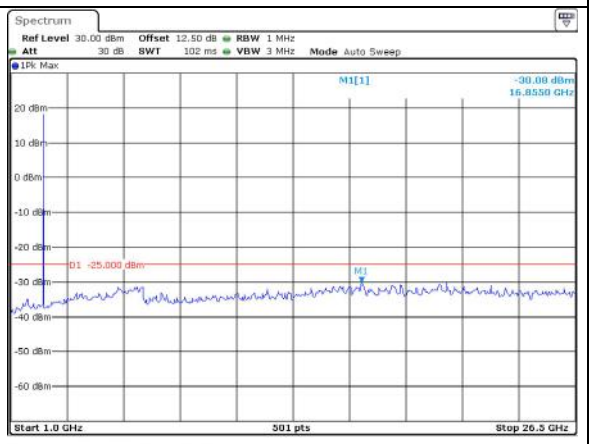
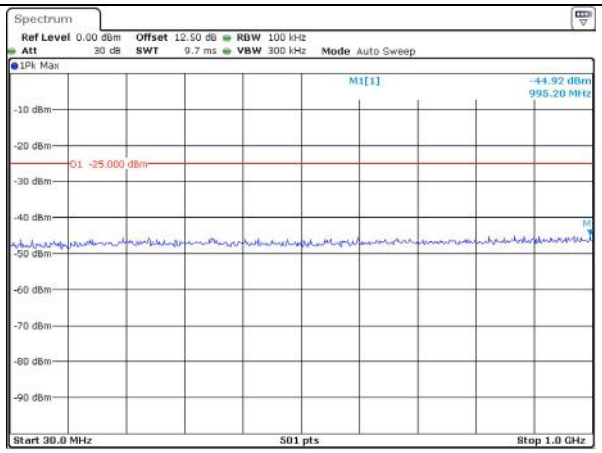
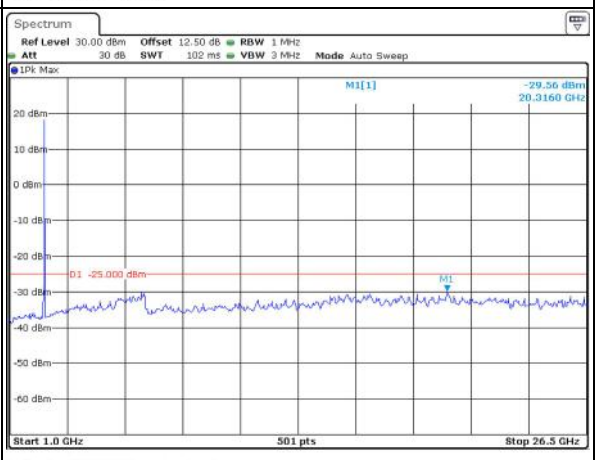
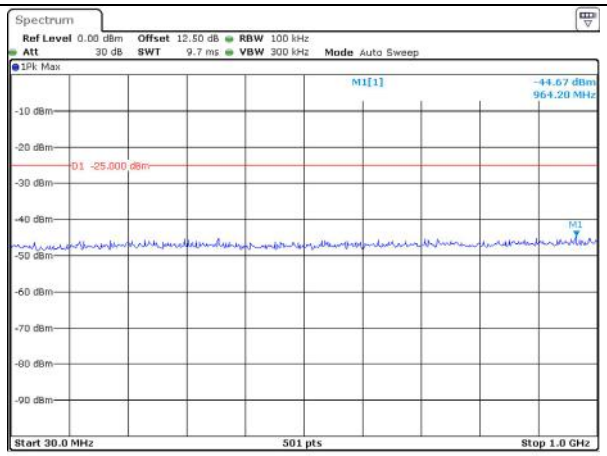
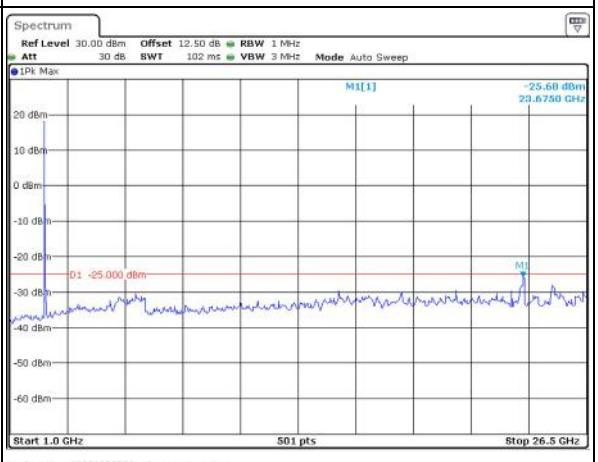
Test Plots(Note: The 11.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer)**:**

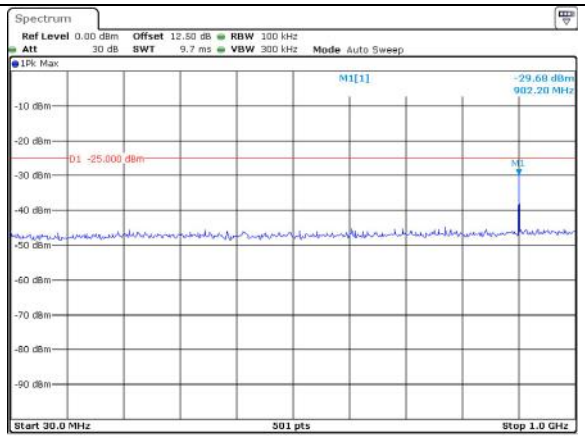
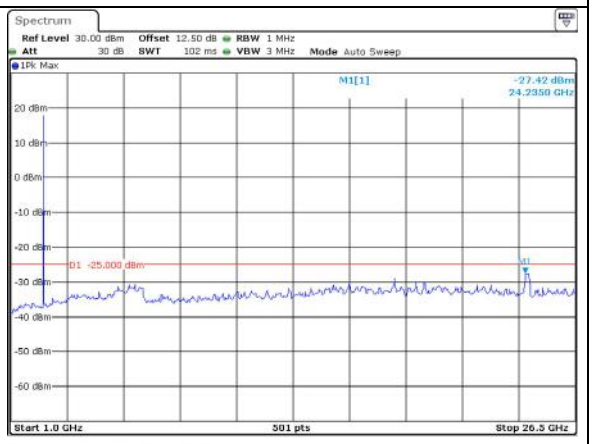
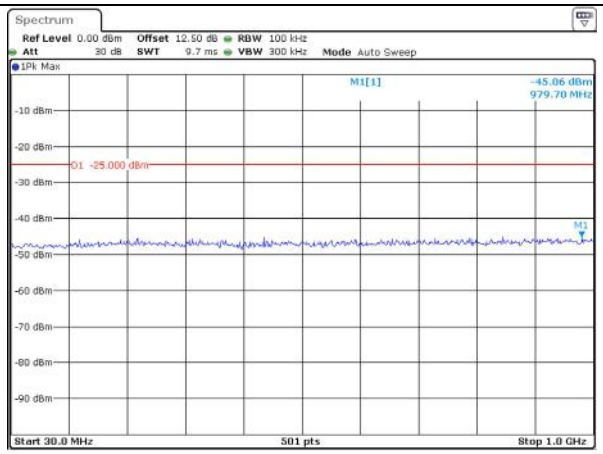
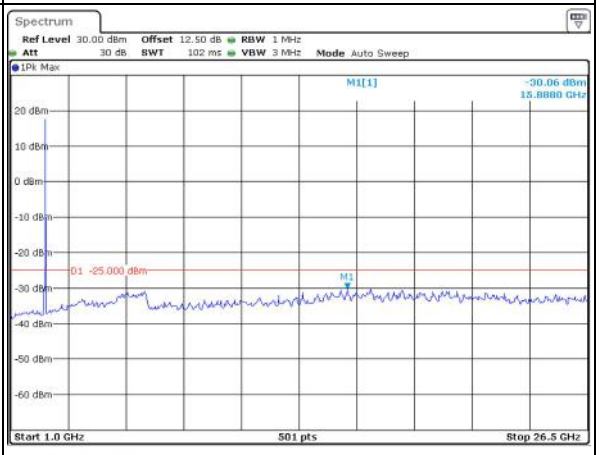
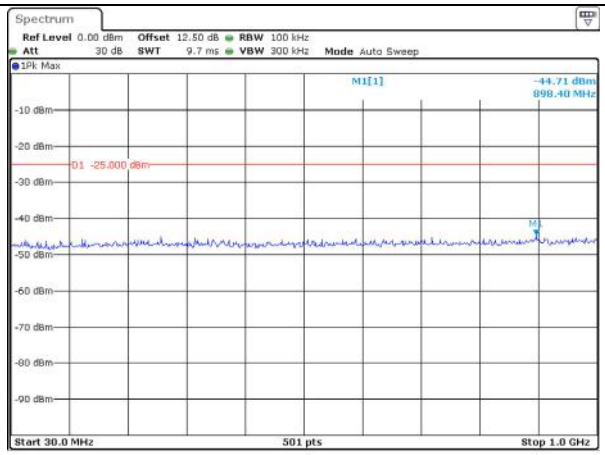
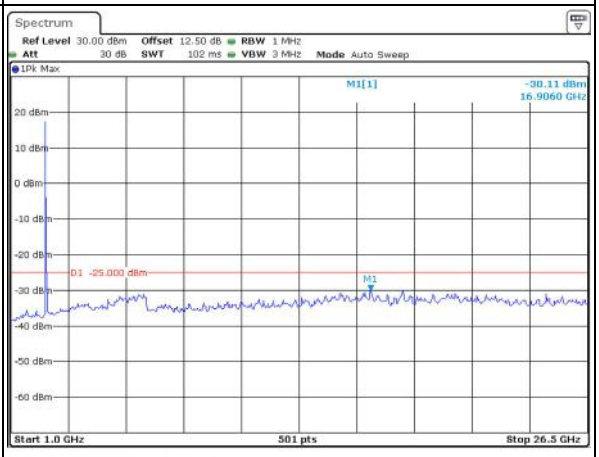
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

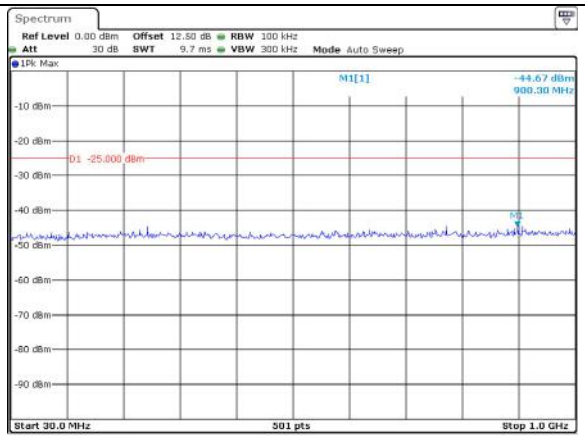
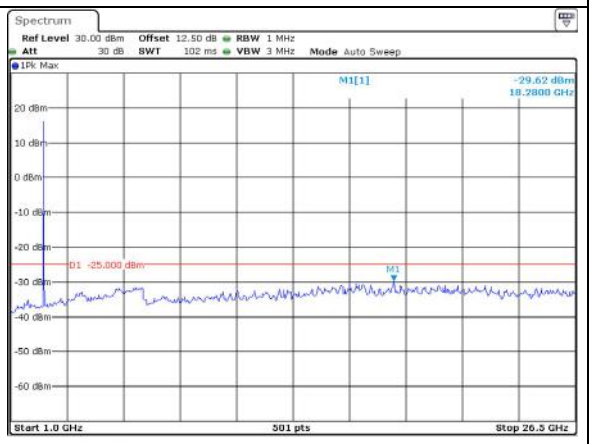
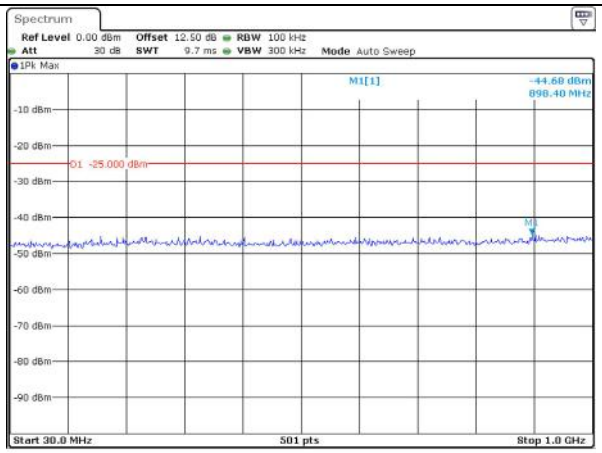
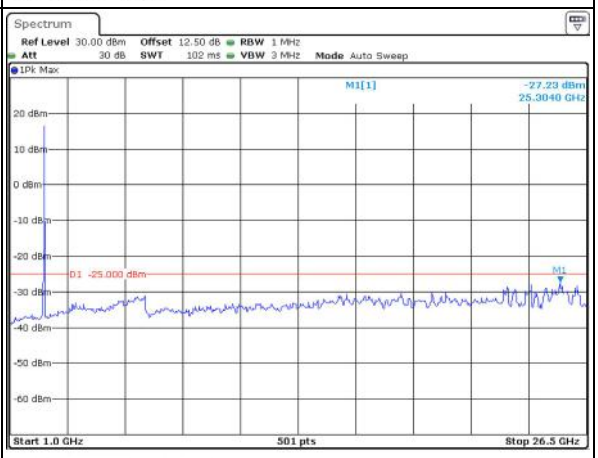
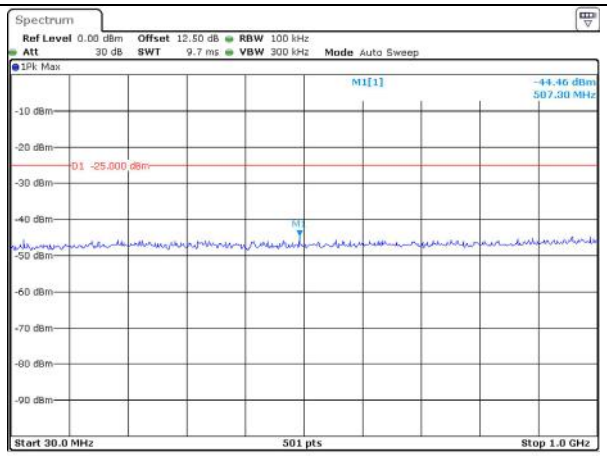
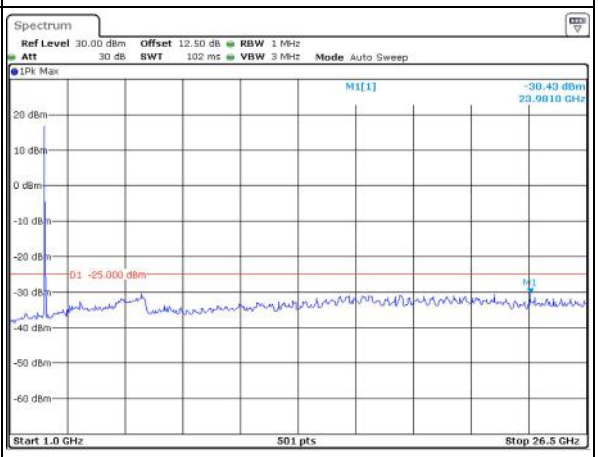
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

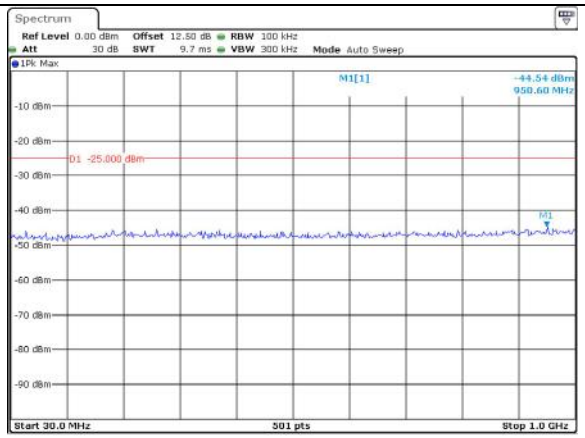
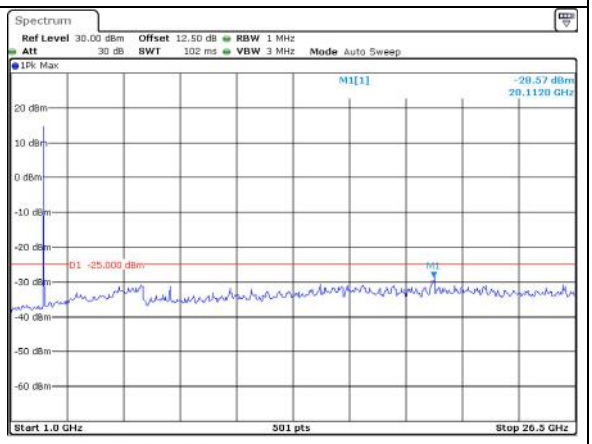
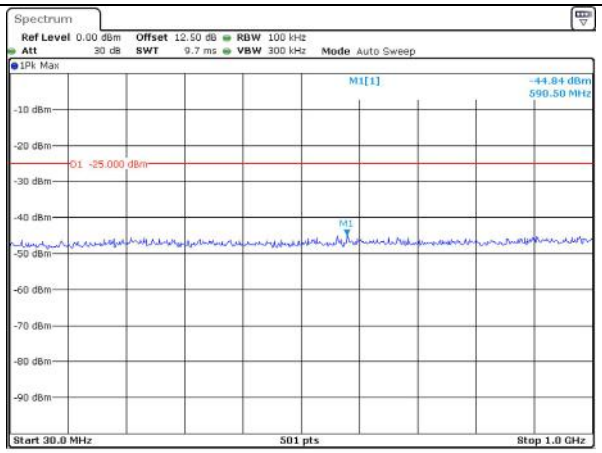
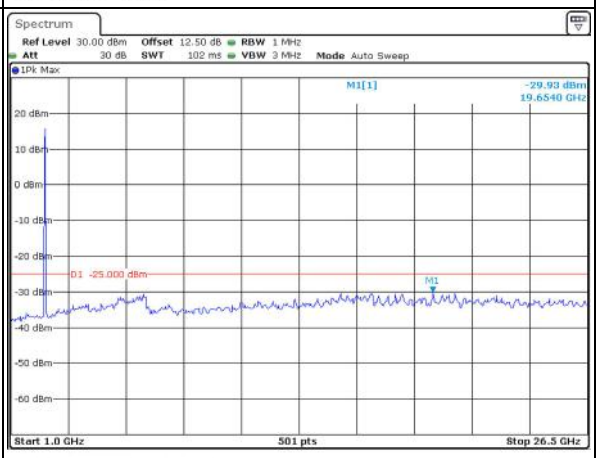
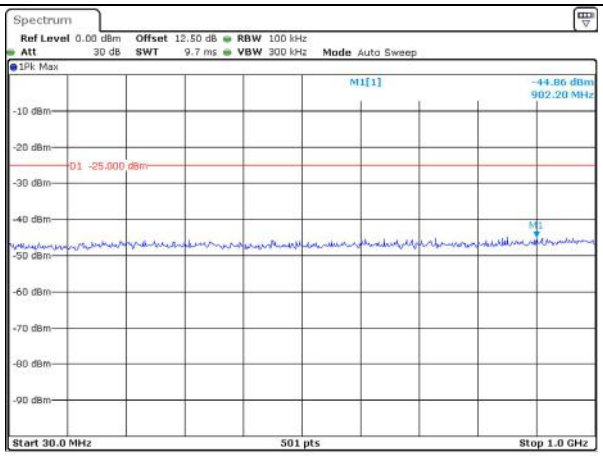
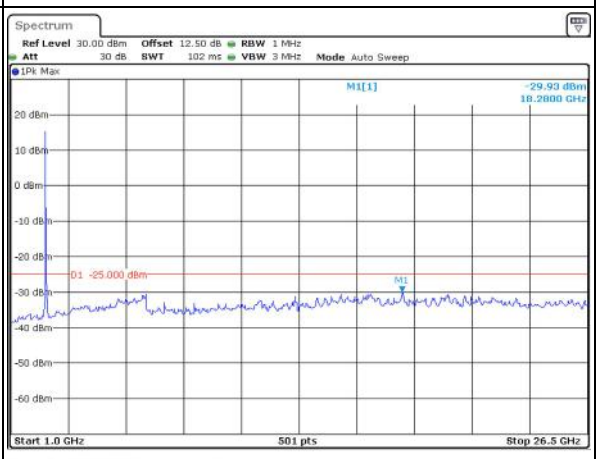
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

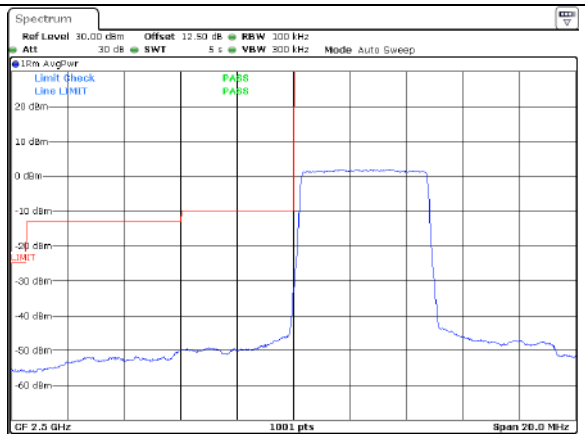
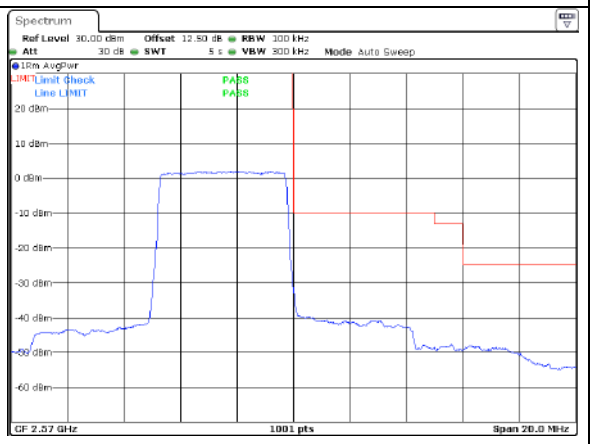
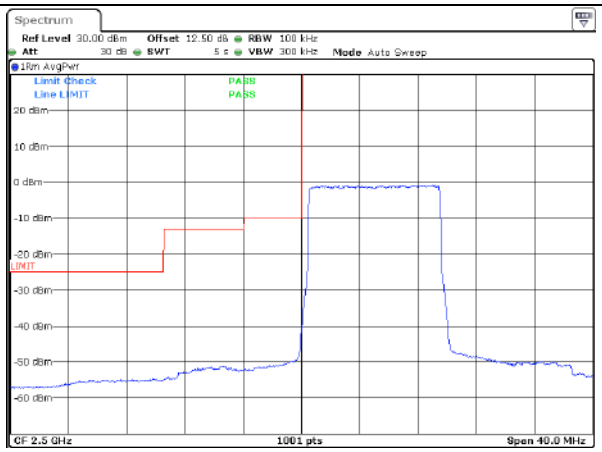
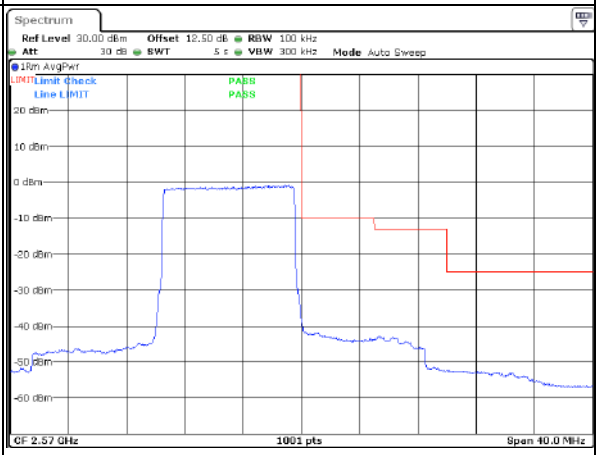
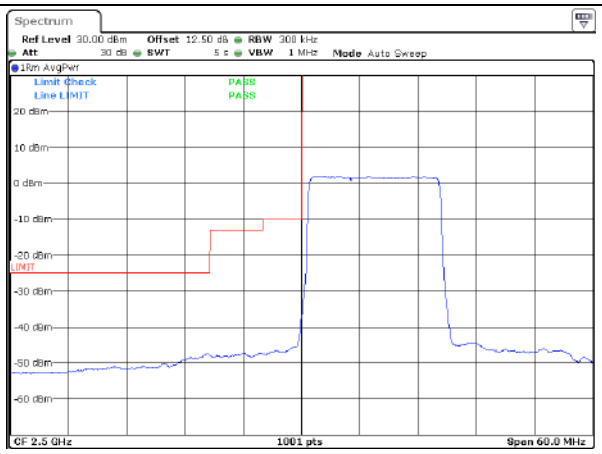
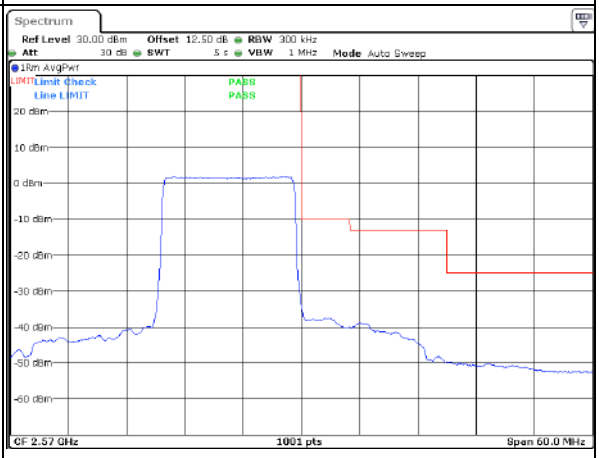
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

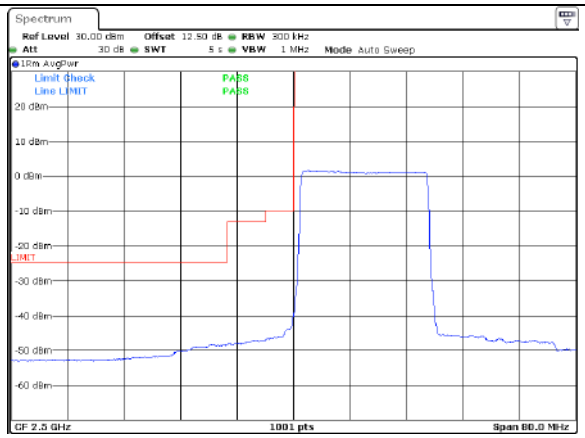
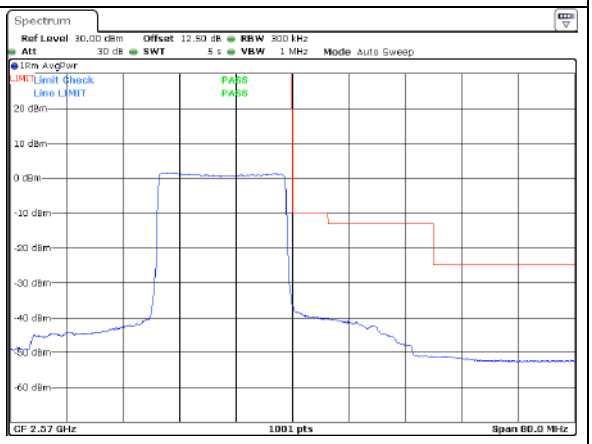
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

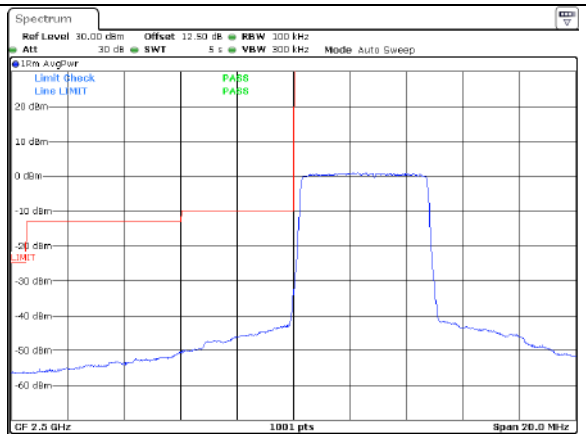
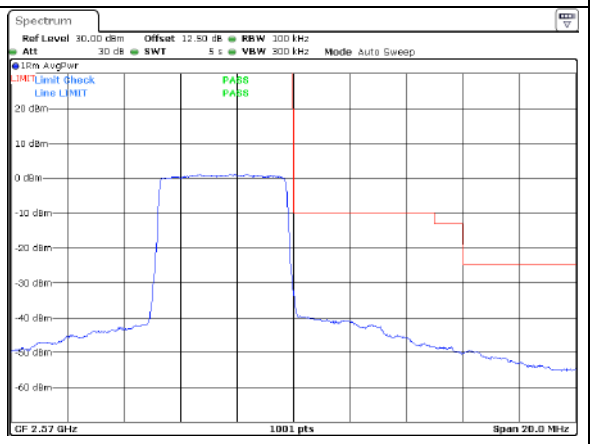
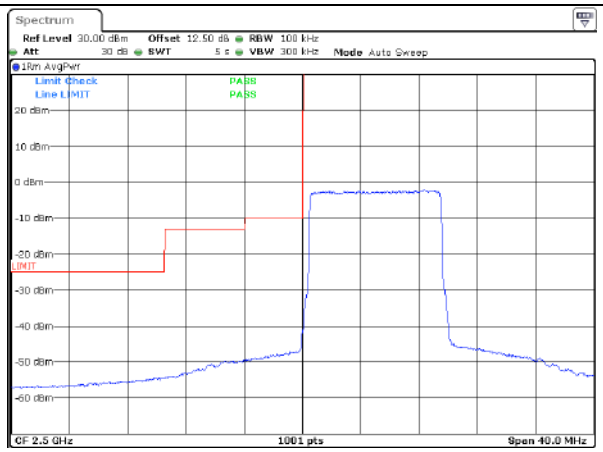
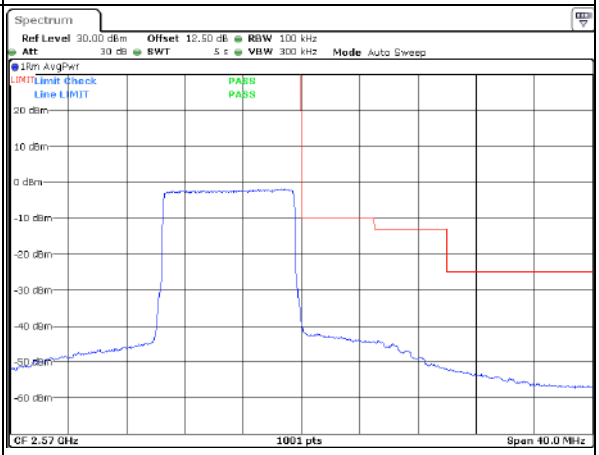
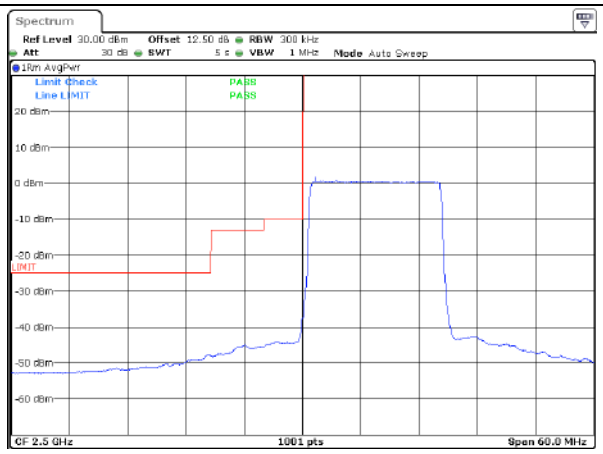
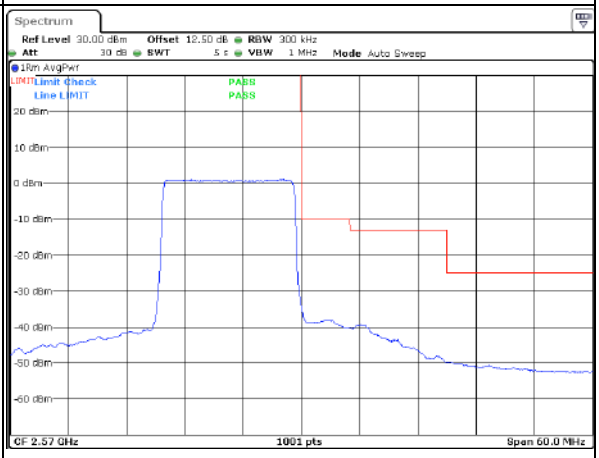
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

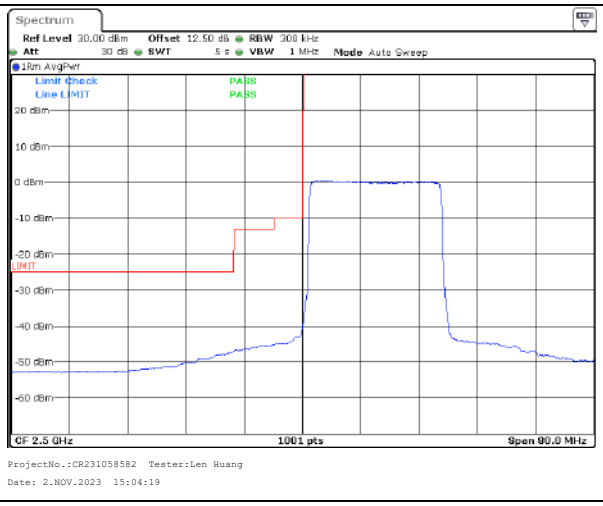
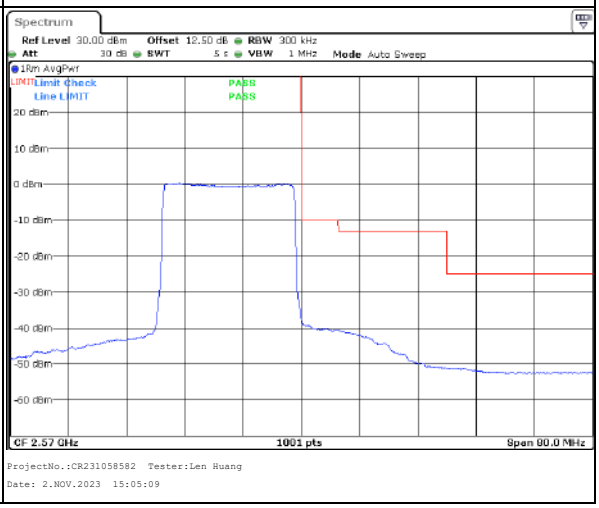
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

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

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		

4.10 Antenna Port Test Data and Results for LTE Band 12

Serial Number:	2BZE-3	Test Date:	2023/10/25-2023/10/27
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leg Huang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	26-26.5	Relative Humidity: (%)	52-54	ATM Pressure: (kPa)	101.4-101.5

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 (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	699.7	707.5	715.3
3MHz	700.5	707.5	714.5
5MHz	701.5	707.5	713.5
10MHz	704	707.5	711

Test Data:

FCC§2.1046;§ 27.50(c) (10)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	23.49	23.28	23.46	15.95	34.77
	RB1#3	23.46	23.24	23.63		
	RB1#5	23.52	23.20	23.62		
	RB3#0	23.41	23.35	23.59		
	RB3#3	23.39	23.35	23.7		
	RB6#0	22.40	22.24	22.60		
1.4MHz 16QAM	RB1#0	22.64	21.96	22.6	15.01	34.77
	RB1#3	22.61	21.81	22.76		
	RB1#5	22.7	21.75	22.75		
	RB3#0	22.55	22.08	22.41		
	RB3#3	22.5	22.13	22.53		
	RB6#0	21.7	21.43	21.81		
3MHz QPSK	RB1#0	23.46	23.28	23.57	16.02	34.77
	RB1#8	23.52	23.20	23.60		
	RB1#14	23.50	23.20	23.77		
	RB6#0	22.48	22.40	22.6		
	RB6#9	22.44	22.24	22.63		
	RB15#0	22.47	22.33	22.45		
3MHz 16QAM	RB1#0	22.18	22.74	23	15.68	34.77
	RB1#8	22.19	22.64	23.27		
	RB1#14	22.11	22.60	23.43		
	RB6#0	21.70	21.34	21.44		
	RB6#9	21.71	21.26	21.69		
	RB15#0	21.53	21.35	21.44		
5MHz QPSK	RB1#0	23.49	23.27	23.43	15.82	34.77
	RB1#13	23.52	23.22	23.46		
	RB1#24	23.6	23.20	23.51		
	RB15#0	22.39	22.33	22.47		
	RB15#10	22.39	22.26	22.4		
	RB25#0	22.37	22.21	22.46		
5MHz 16QAM	RB1#0	22.37	21.92	21.5	14.7	34.77
	RB1#13	22.40	21.76	21.50		
	RB1#24	22.45	21.87	21.64		
	RB15#0	21.31	21.4	21.53		
	RB15#10	21.31	21.31	21.52		
	RB25#0	21.35	21.20	21.47		

10MHz QPSK	RB1#0	23.32	23.36	23.32	15.92	34.77
	RB1#25	23.43	23	23.30		
	RB1#49	23.19	23.39	23.67		
	RB25#0	22.37	22.38	22.17		
	RB25#25	22.31	22.33	22.48		
	RB50#0	22.42	22.16	22.28		
10MHz 16QAM	RB1#0	21.86	22.49	23.03	15.53	34.77
	RB1#25	21.9	22.24	23.01		
	RB1#49	21.69	22.50	23.28		
	RB25#0	21.56	21.41	21.30		
	RB25#25	21.49	21	21.50		
	RB50#0	21.34	21.29	21.36		
Note: ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd) G_T(dBd)=G_T(dBi)-2.15						
					Result:	**Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	4.03	4.14	4.46	13
	RB50#0	4.87	5.13	5.04	13
10MHz 16QAM	RB1#0	5.13	5.30	5.45	13
	RB50#0	5.91	6.06	6.09	13
				Result:	**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.102	1.102	1.096	1.260	1.254	1.248
1.4MHz 16QAM	1.10	1.102	1.102	1.25	1.254	1.260
3MHz QPSK	2.695	2.695	2.707	3.012	3.012	2.988
3MHz 16QAM	2.695	2.695	2.695	3.000	3.024	3.024
5MHz QPSK	4.511	4.511	4.531	5.040	4.980	4.980
5MHz 16QAM	4.531	4.531	4.491	5.000	5.040	5.000
10MHz QPSK	8.942	8.942	8.942	9.760	9.800	9.760
10MHz 16QAM	8.982	8.942	8.942	9.760	9.840	9.720
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.**

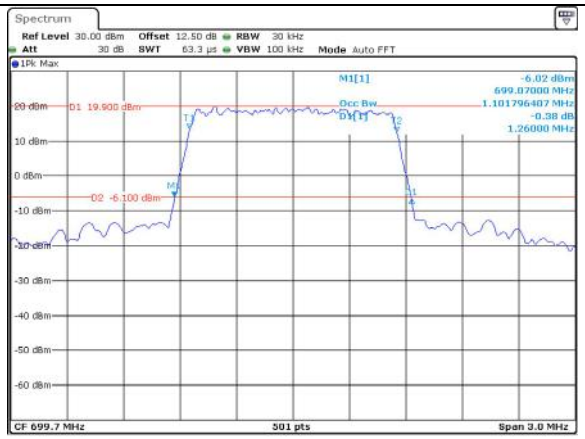
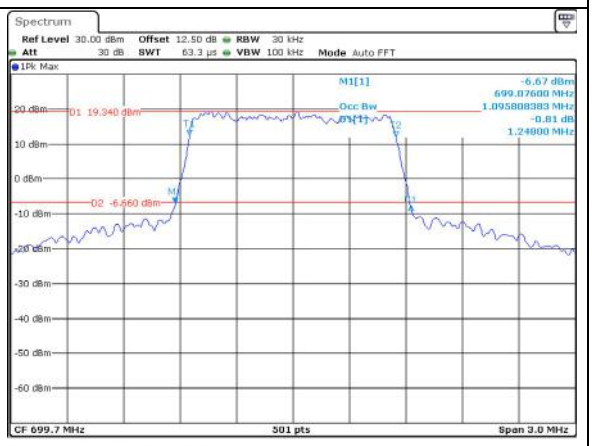
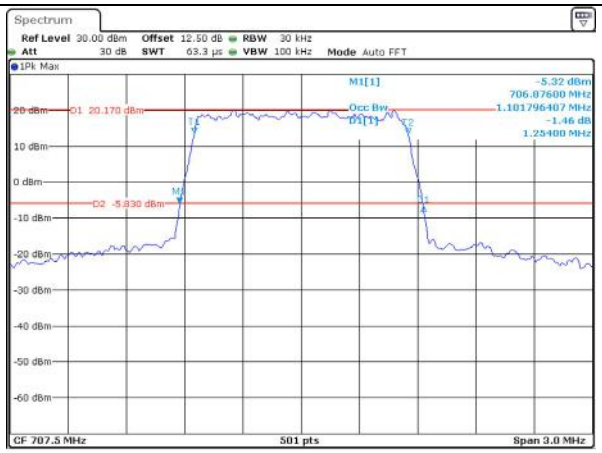
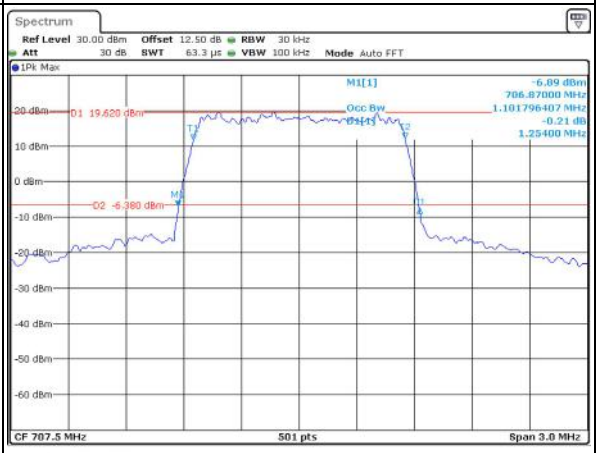
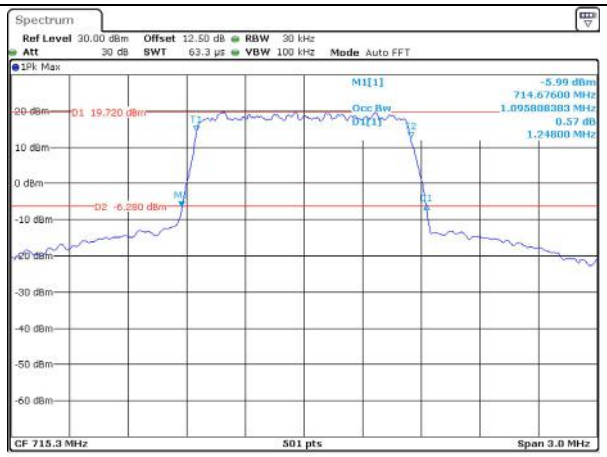
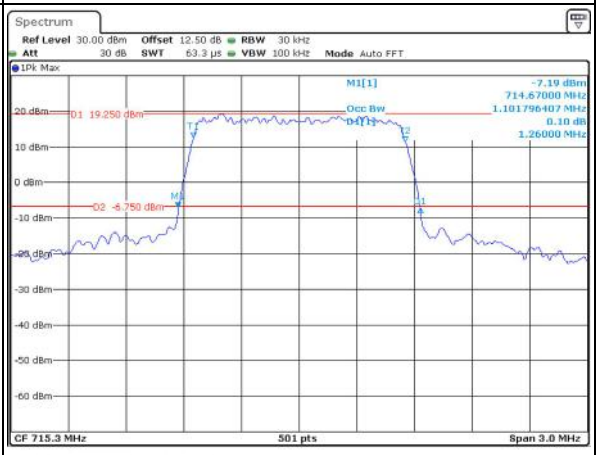
FCC §2.1051, §27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

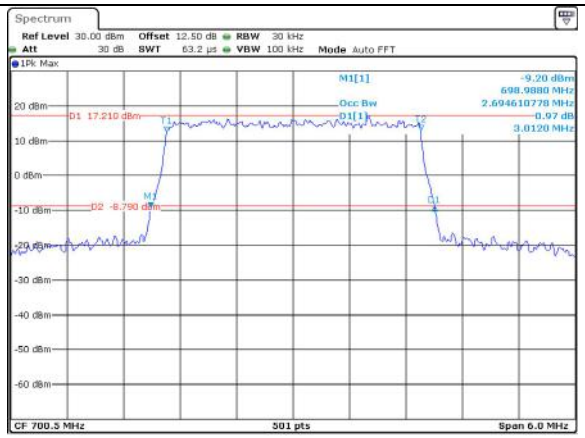
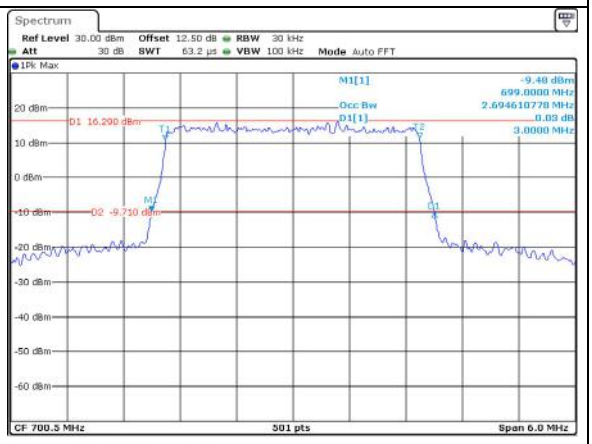
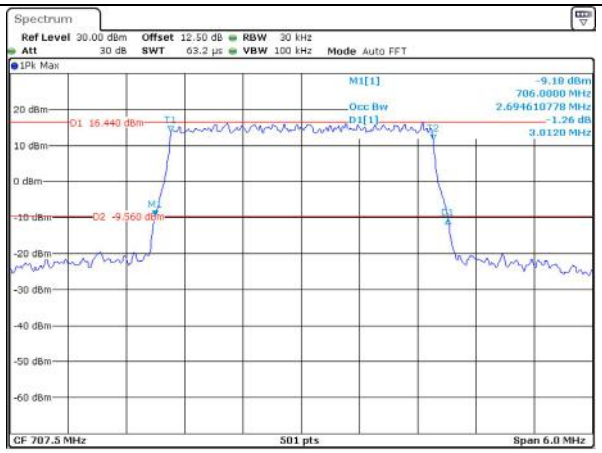
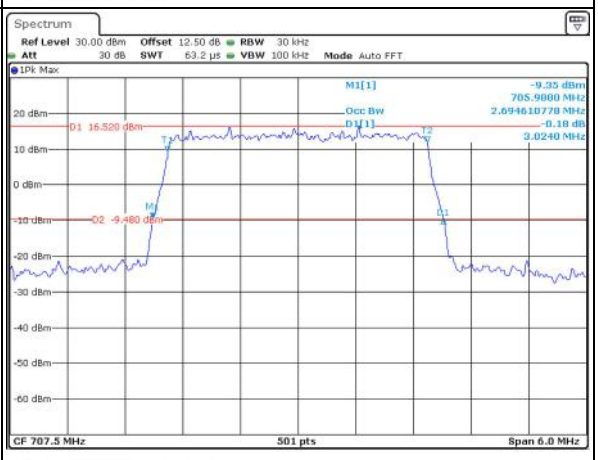
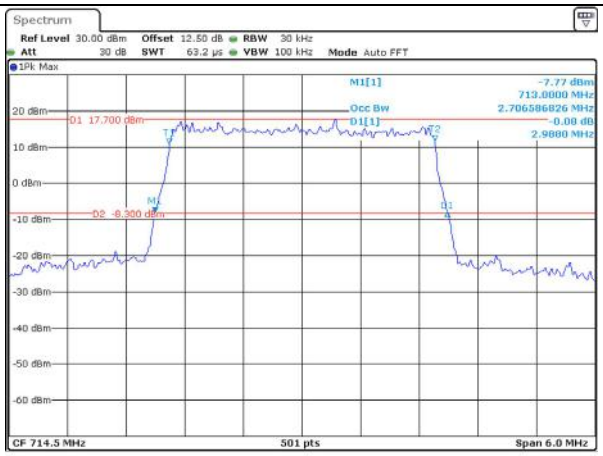
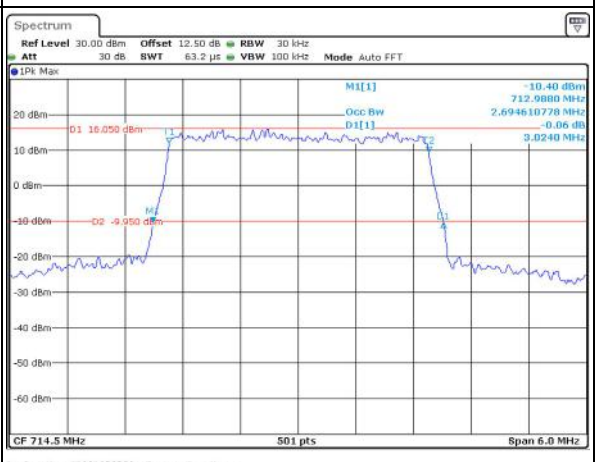
FCC §2.1055, §27.54: Frequency Stability

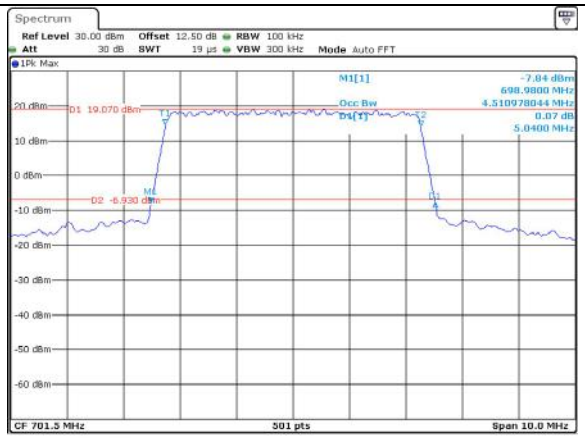
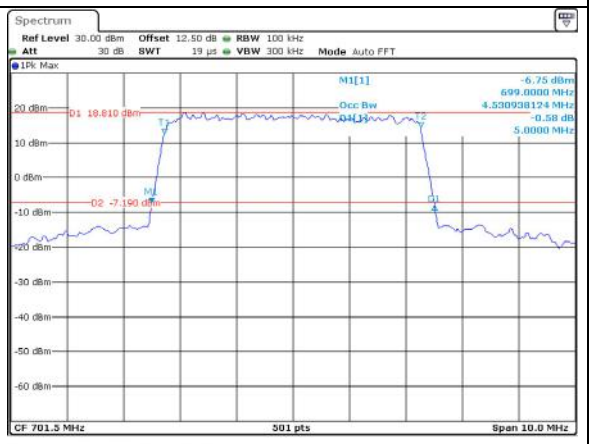
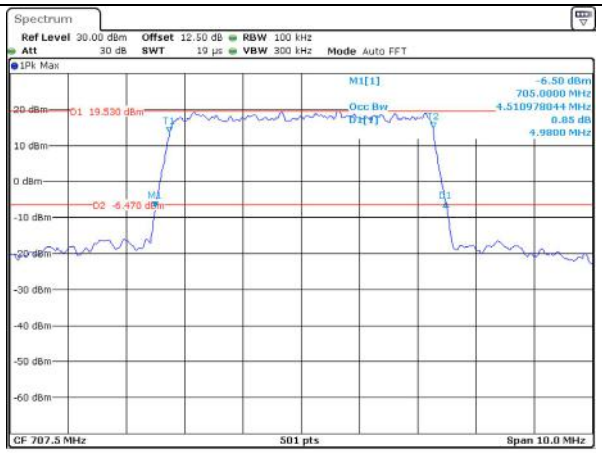
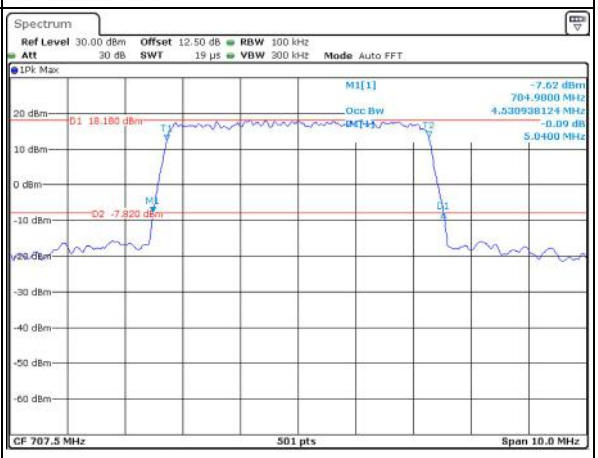
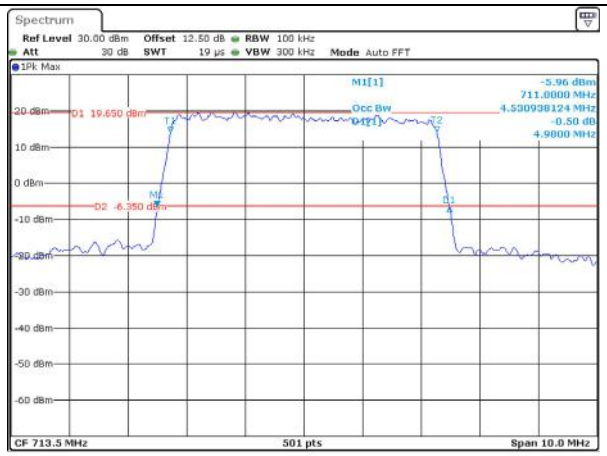
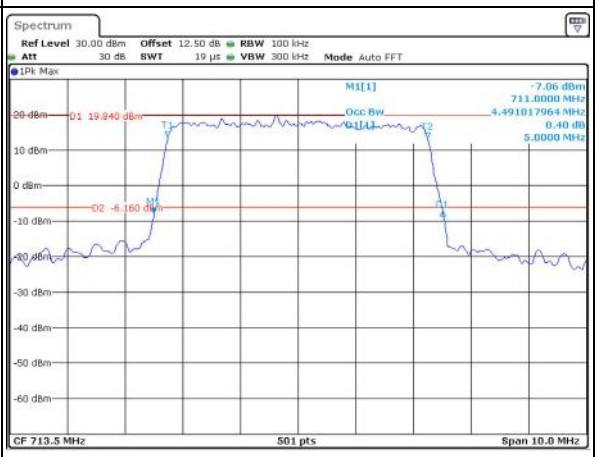
Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	699.055	699.00	715.969	716.00
	-20	3.85	699.045	699.00	715.992	716.00
	-10	3.85	699.017	699.00	715.983	716.00
	0	3.85	699.028	699.00	715.987	716.00
	10	3.85	699.061	699.00	715.975	716.00
	20	3.85	699.059	699.00	715.991	716.00
	30	3.85	699.049	699.00	715.988	716.00
	40	3.85	699.037	699.00	715.989	716.00
	50	3.85	699.045	699.00	715.995	716.00
Frequency Stability vs. Voltage	20	3.27	699.072	699.00	715.974	716.00
	20	4.43	699.062	699.00	715.977	716.00
					Result:	**Pass**

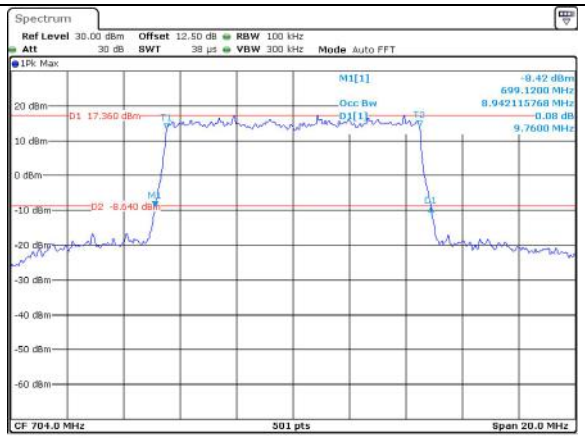
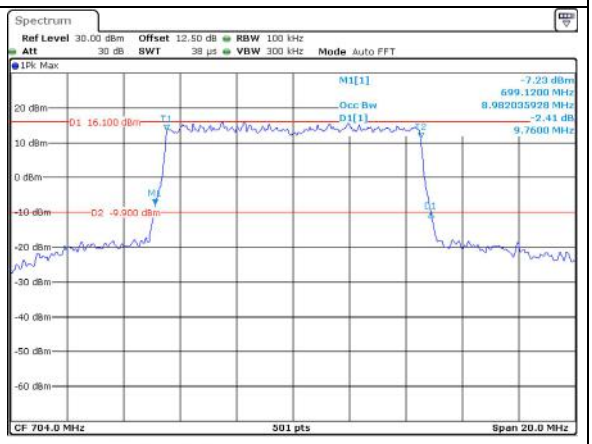
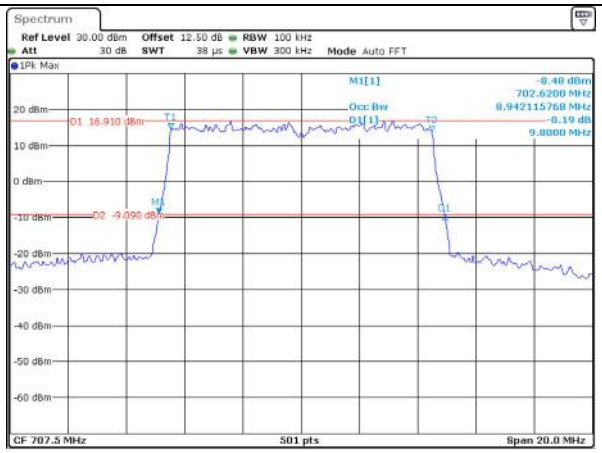
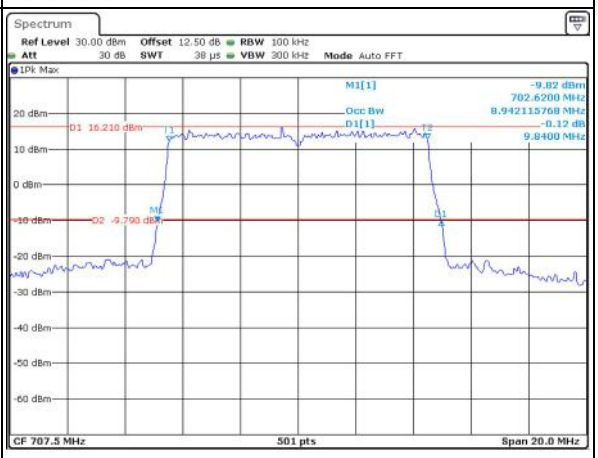
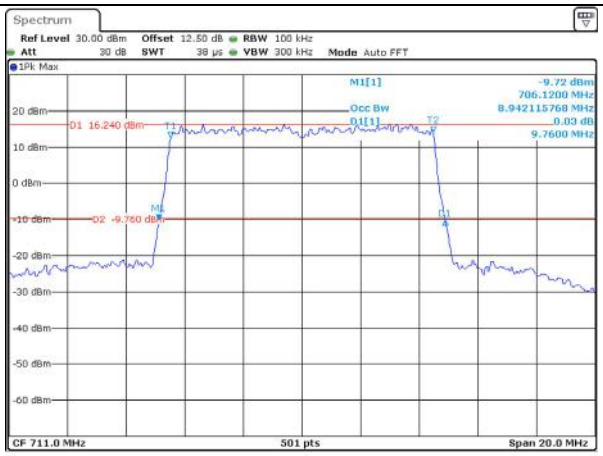
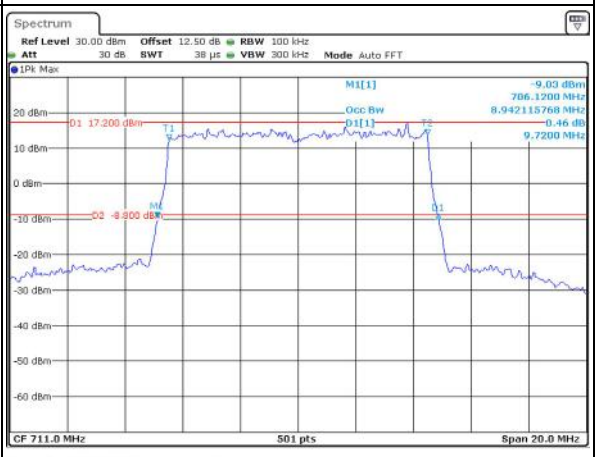
Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	699.022	699.00	715.995	716.00
	-20	3.85	699.003	699.00	715.994	716.00
	-10	3.85	699.020	699.00	715.980	716.00
	0	3.85	699.021	699.00	715.991	716.00
	10	3.85	699.010	699.00	715.980	716.00
	20	3.85	699.010	699.00	715.975	716.00
	30	3.85	699.009	699.00	715.994	716.00
	40	3.85	699.012	699.00	715.979	716.00
	50	3.85	699.024	699.00	715.996	716.00
Frequency Stability vs. Voltage	20	3.27	699.016	699.00	715.997	716.00
	20	4.43	699.025	699.00	715.970	716.00
					Result:	**Pass**

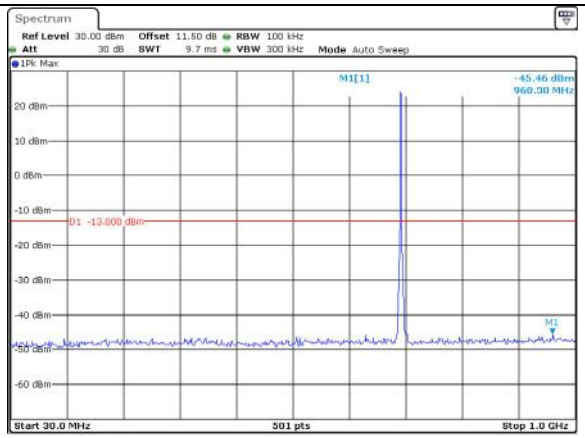
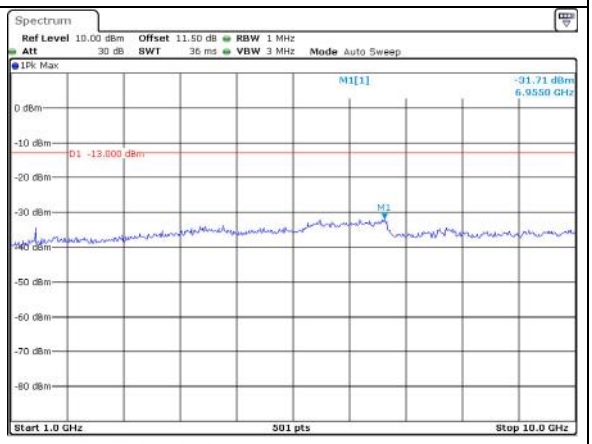
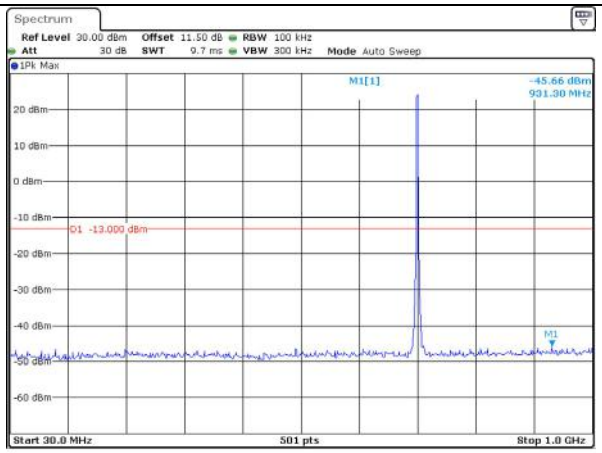
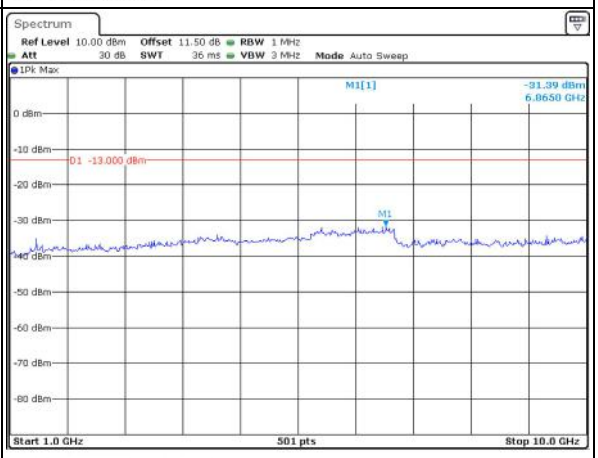
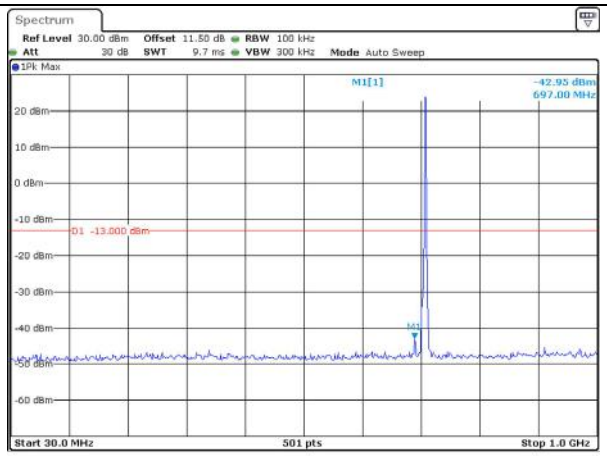
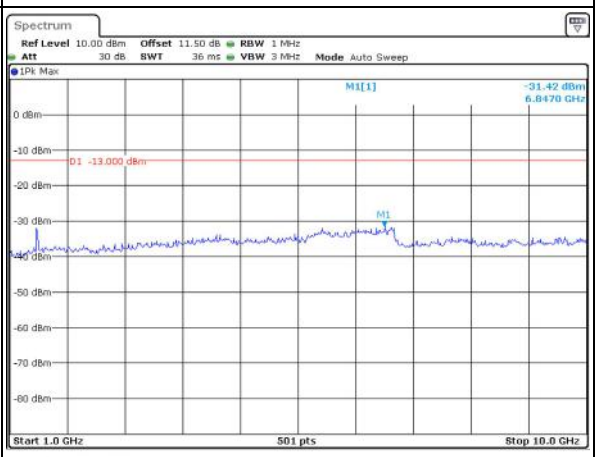
Test Plots (Note: The 10.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

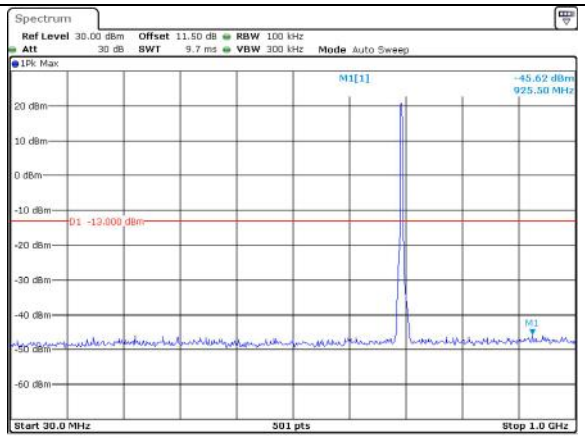
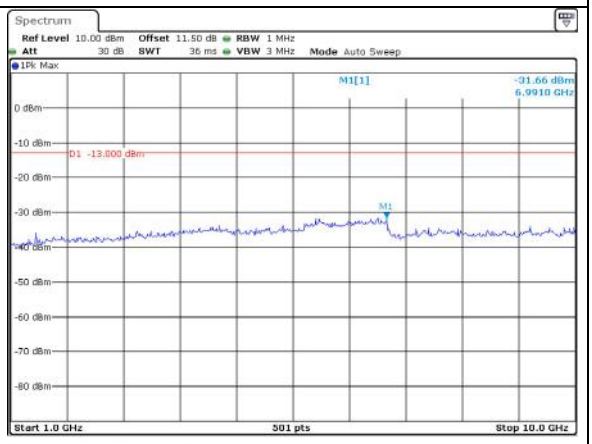
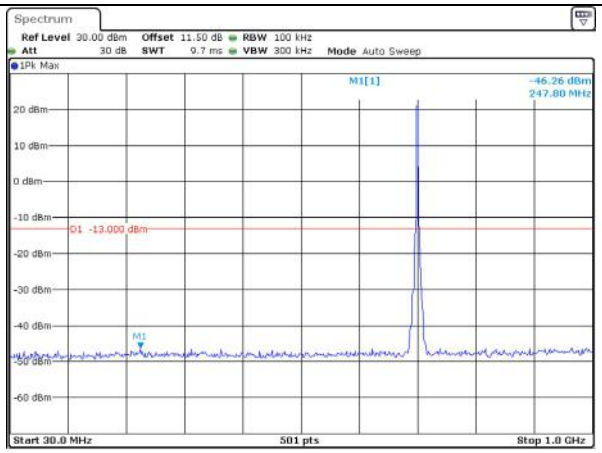
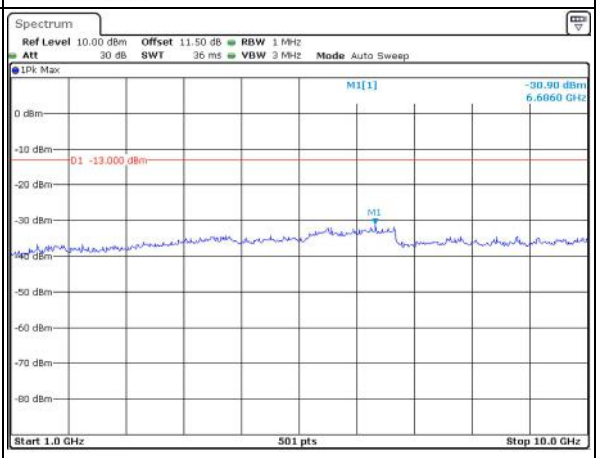
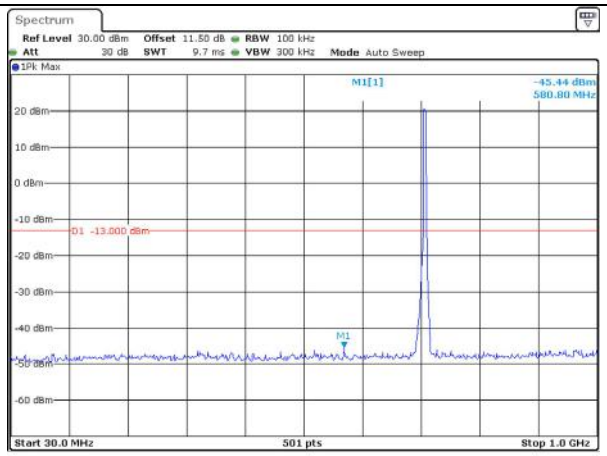
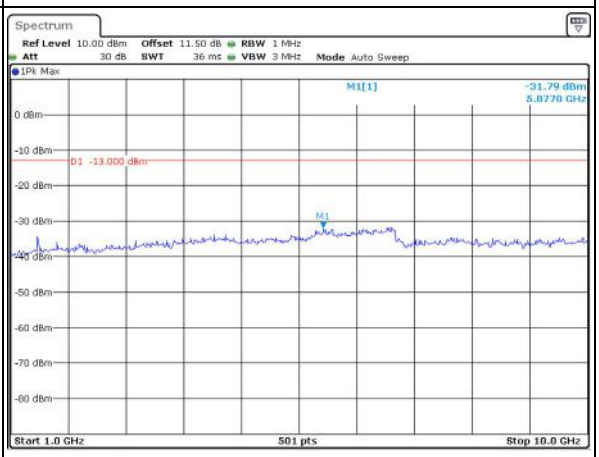
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

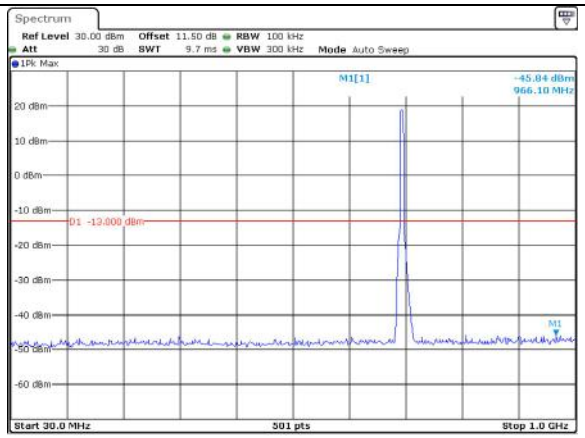
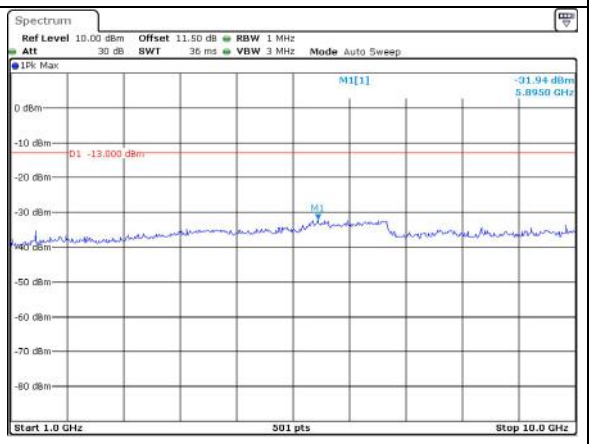
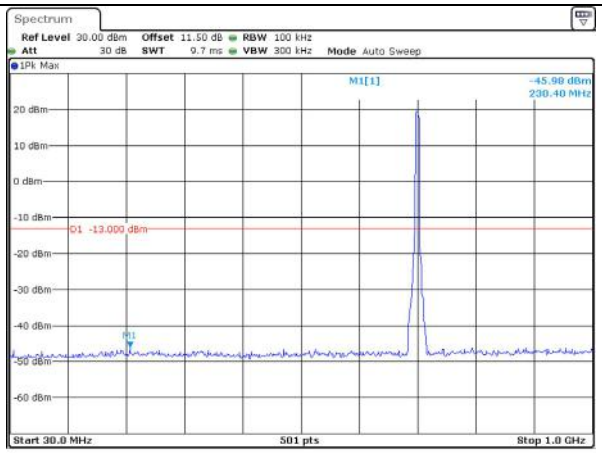
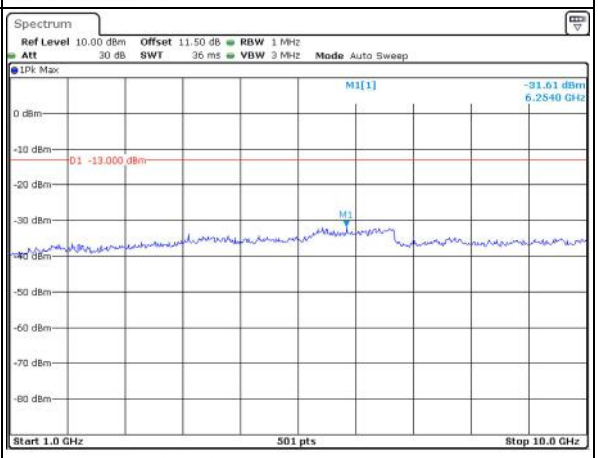
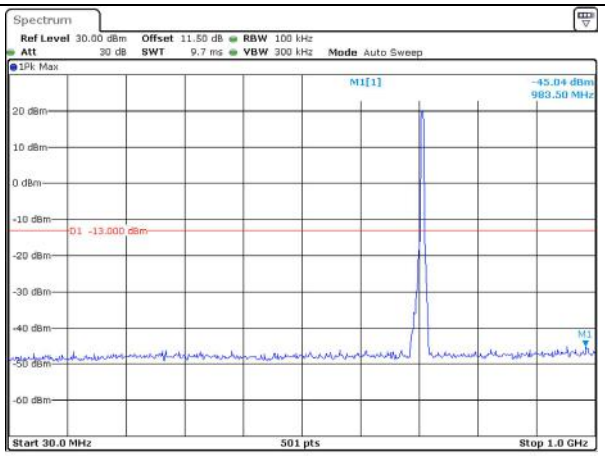
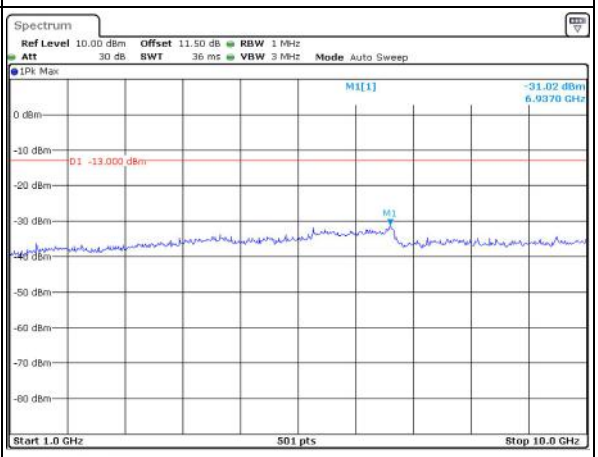
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

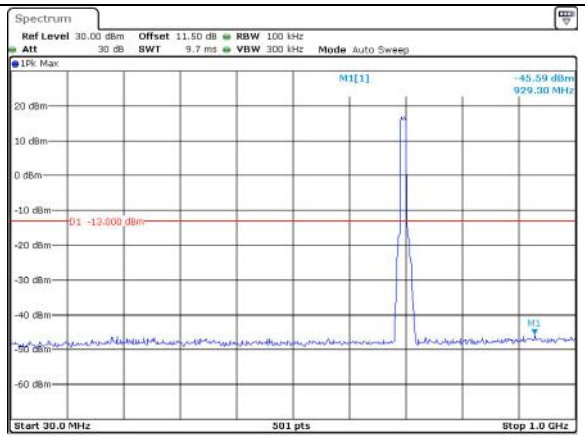
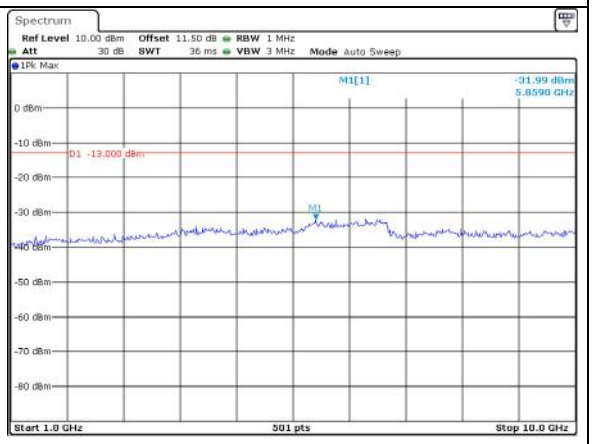
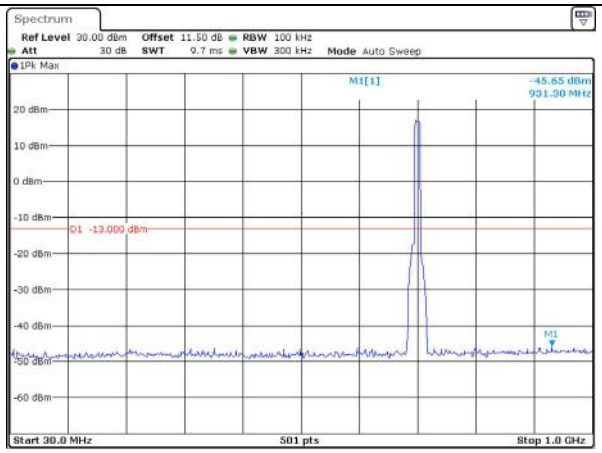
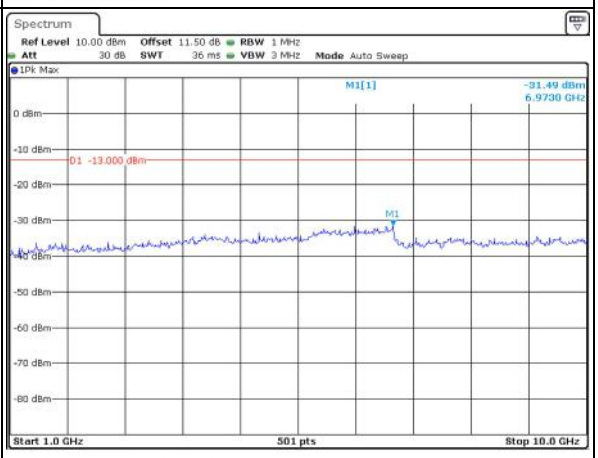
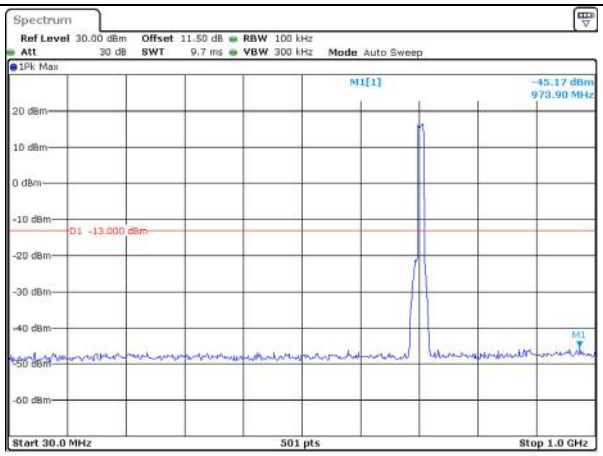
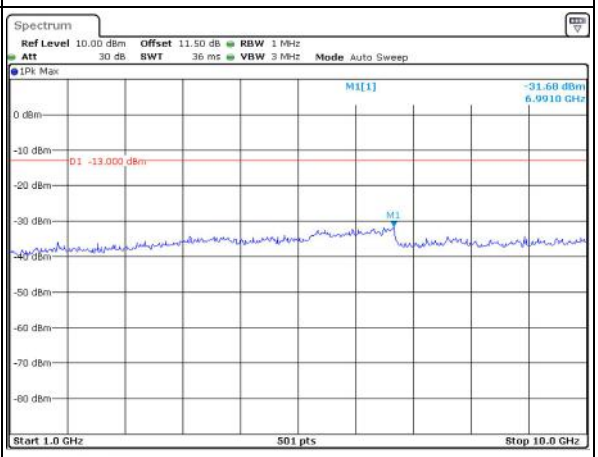
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

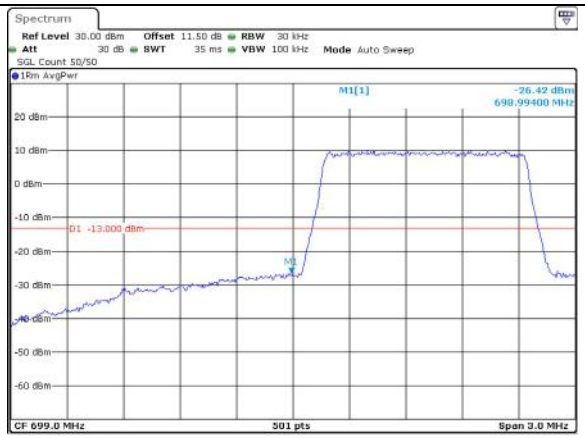
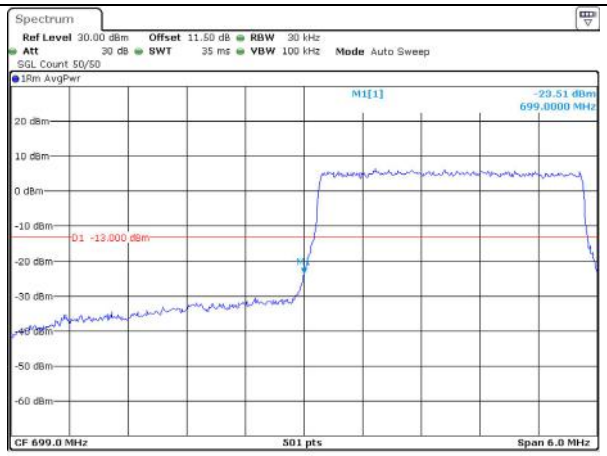
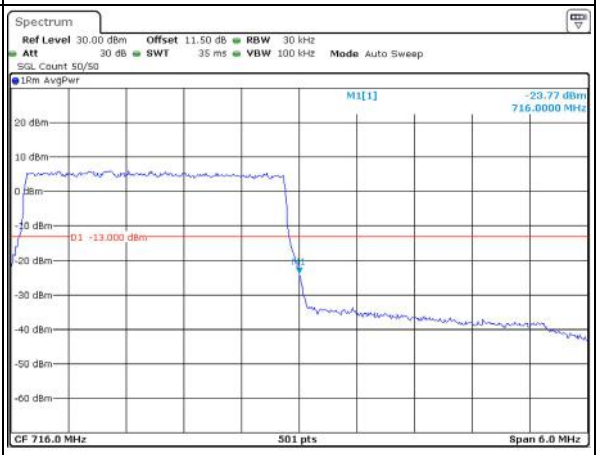
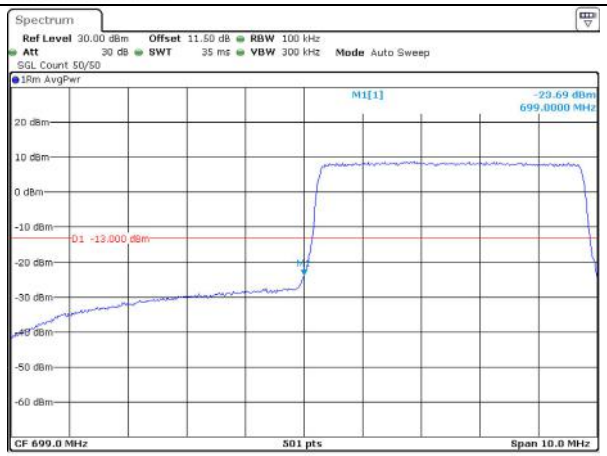
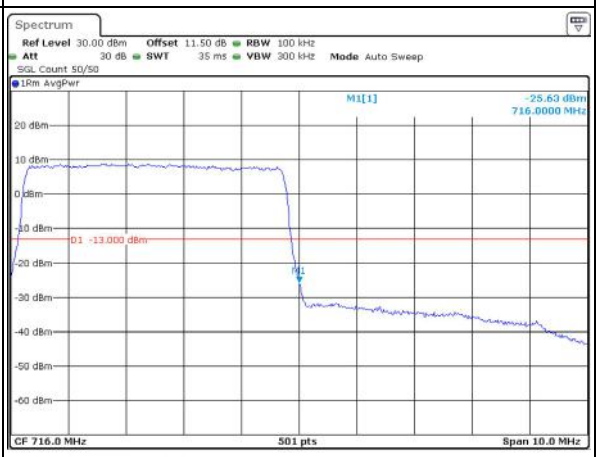
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

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

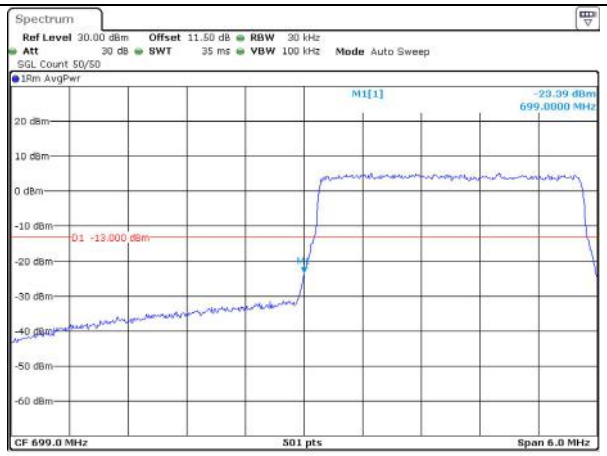
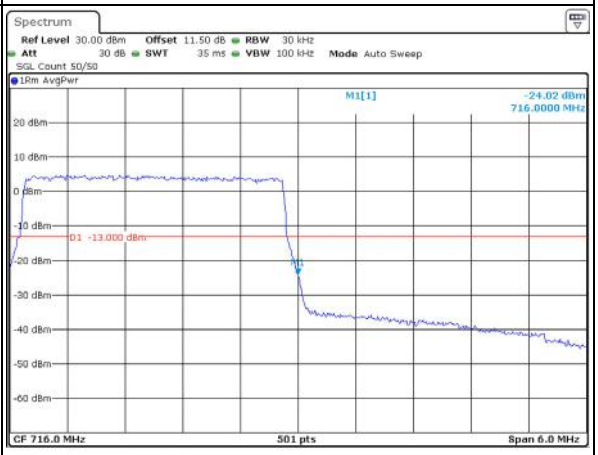
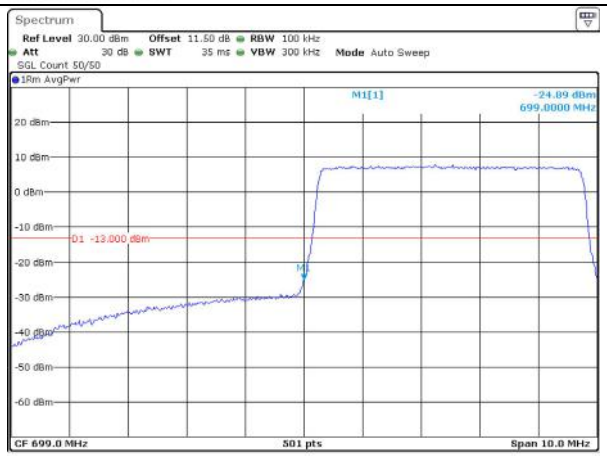
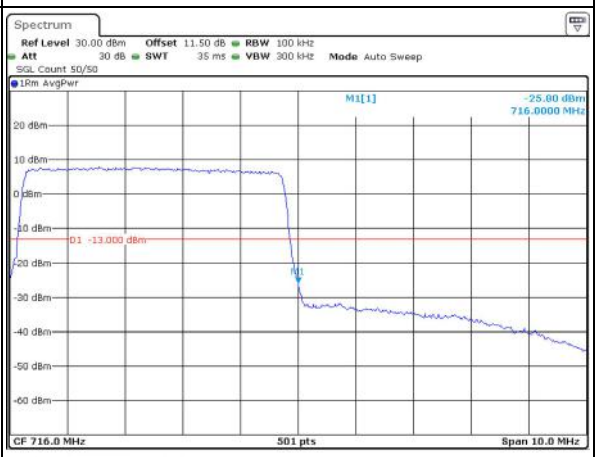
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

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

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

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

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

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

4.11 Antenna Port Test Data and Results for LTE Band 17

Serial Number:	2BZE-3	Test Date:	2023/10/25-2023/10/27
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leg Huang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	26-26.5	Relative Humidity: (%)	52-54	ATM Pressure: (kPa)	101.4-101.5

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 (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	706.5	710	713.5
10MHz	709	710	711

Test Data:

FCC§2.1046;§ 27.50(c) (10)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	23.48	23.1	23.33	15.8	34.77
	RB1#13	23.33	23.16	23.5		
	RB1#24	23.3	23.32	23.55		
	RB15#0	22.31	22.23	22.37		
	RB15#10	22.2	22.31	22.45		
	RB25#0	22.29	22.23	22.43		
5MHz 16QAM	RB1#0	22.18	21.69	21.44	14.43	34.77
	RB1#13	22.07	21.71	21.47		
	RB1#24	22.18	21.9	21.63		
	RB15#0	21.25	21.31	21.44		
	RB15#10	21.15	21.23	21.43		
	RB25#0	21.35	21.11	21.49		
10MHz QPSK	RB1#0	23.51	23.26	23.14	15.8	34.77
	RB1#25	23.26	23.22	23.15		
	RB1#49	23.6	23.44	23.51		
	RB25#0	22.38	22.20	22.13		
	RB25#25	22.38	22.41	22.43		
	RB50#0	22.14	22.3	22.23		
10MHz 16QAM	RB1#0	22.44	21.87	22.65	15.08	34.77
	RB1#25	22.21	21.72	22.54		
	RB1#49	22.50	21.86	22.83		
	RB25#0	21.5	21.34	21.17		
	RB25#25	21.55	21.63	21.38		
	RB50#0	21.29	21.32	21.21		

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

Result:	**Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	4.12	4.35	4.43	13
	RB50#0	5.10	5.04	5.04	13
10MHz 16QAM	RB1#0	5.25	5.57	5.48	13
	RB50#0	6.14	6.06	6.12	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	4.531	5.020	5.000	4.980
5MHz 16QAM	4.531	4.511	4.511	5.020	5.040	4.960
10MHz QPSK	8.942	8.942	8.942	9.760	9.800	9.760
10MHz 16QAM	8.942	8.942	8.942	9.840	9.880	9.760
Note: The test plots please refer to the Plots of Occupied Bandwidth						

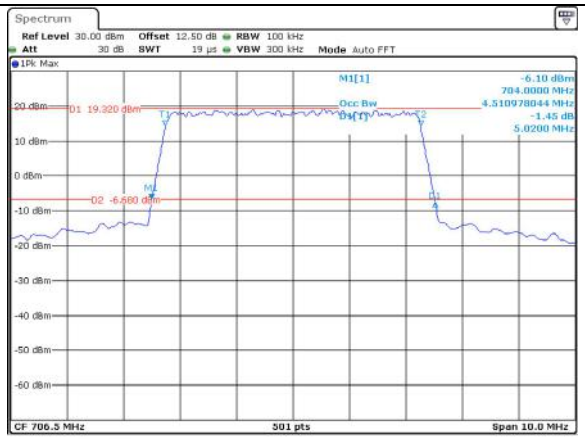
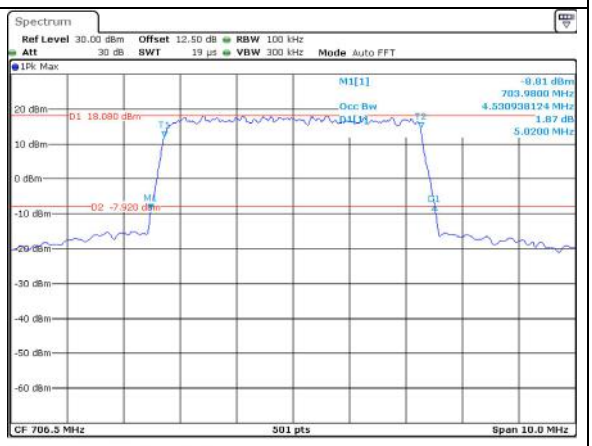
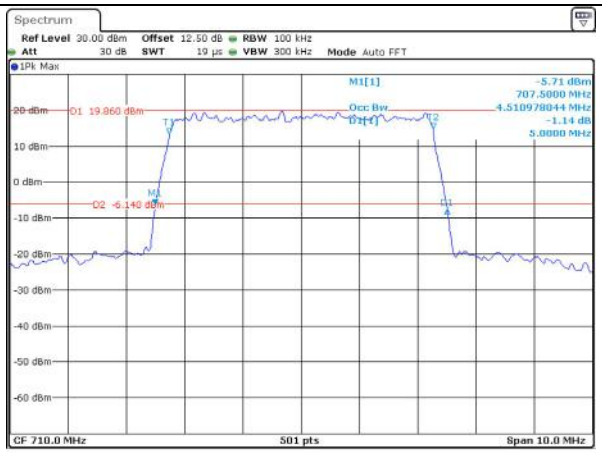
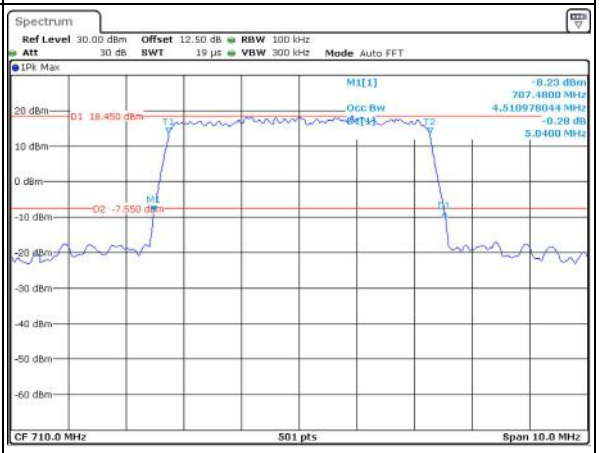
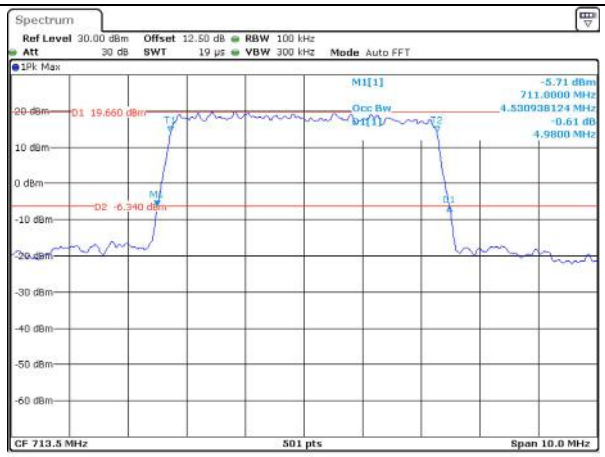
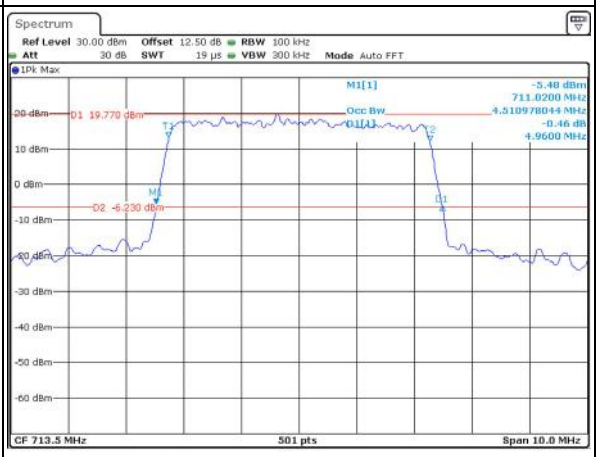
FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

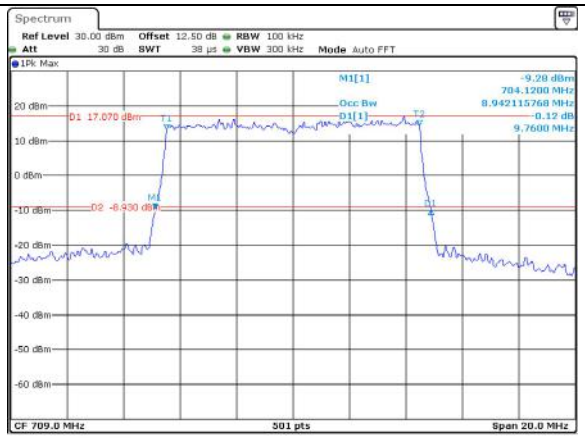
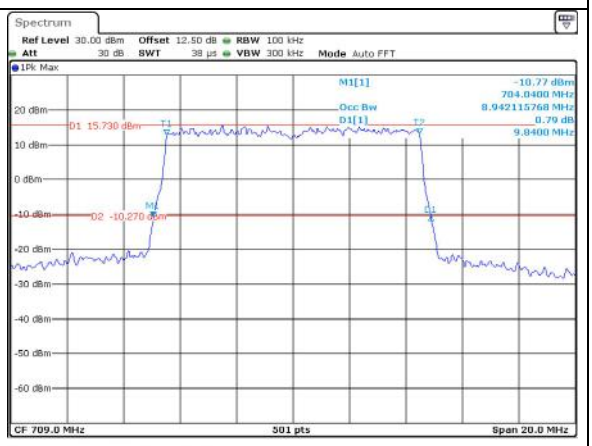
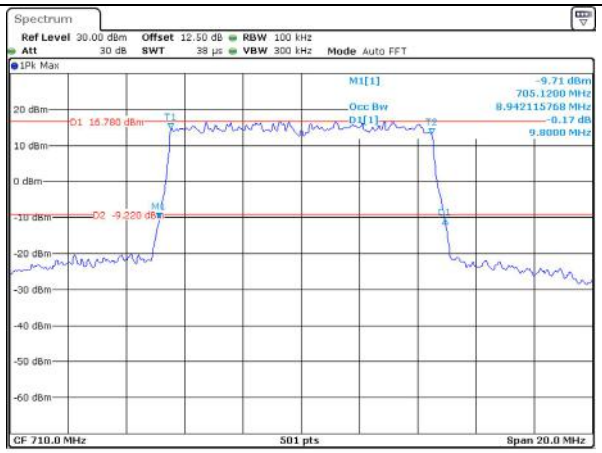
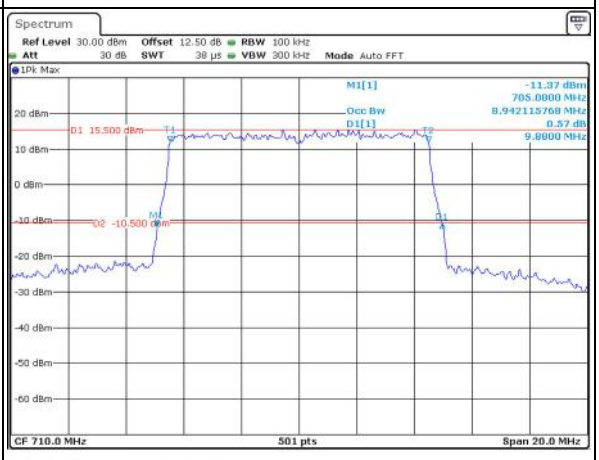
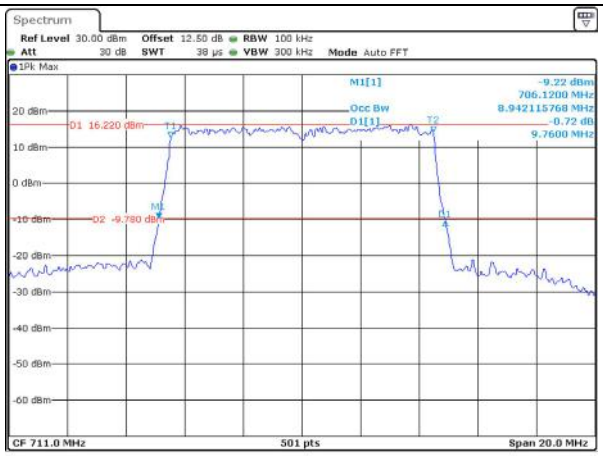
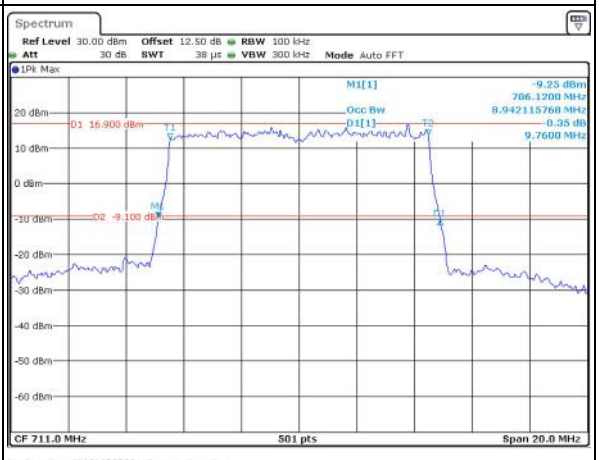
FCC §2.1051, §27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

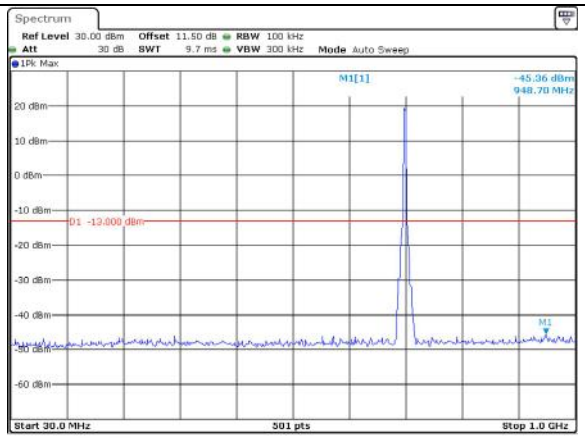
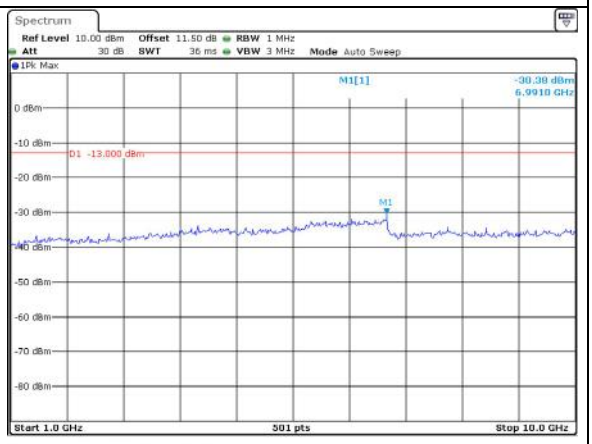
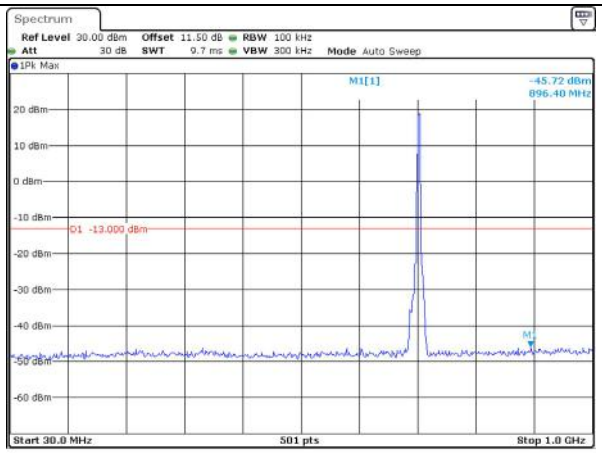
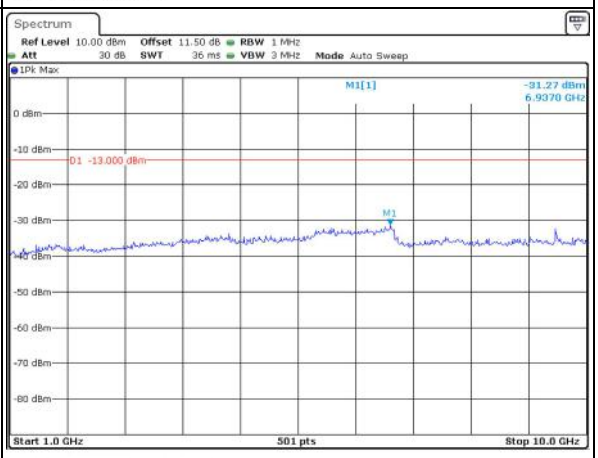
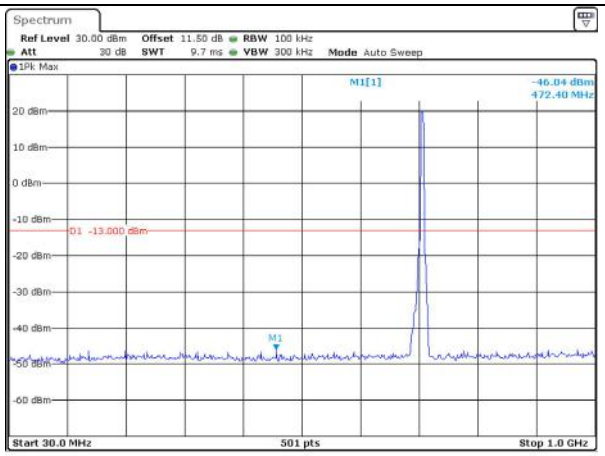
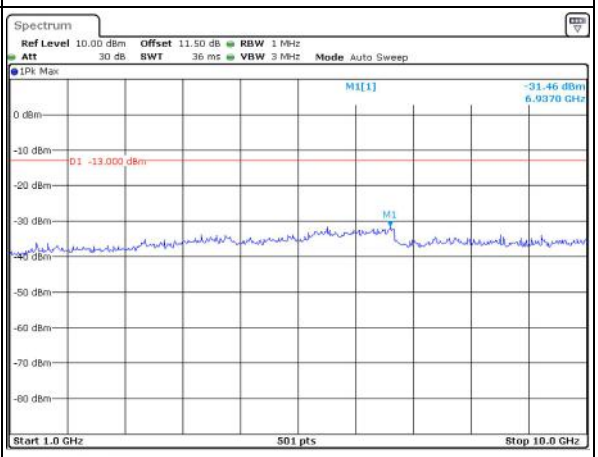
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	10M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	704.028	704.00	715.972	716.00
	-20	3.85	704.024	704.00	715.989	716.00
	-10	3.85	704.006	704.00	715.992	716.00
	0	3.85	704.004	704.00	715.989	716.00
	10	3.85	704.007	704.00	715.997	716.00
	20	3.85	704.017	704.00	715.991	716.00
	30	3.85	704.023	704.00	715.981	716.00
	40	3.85	704.005	704.00	715.982	716.00
	50	3.85	704.023	704.00	715.973	716.00
Frequency Stability vs. Voltage	20	3.27	704.003	704.00	715.972	716.00
	20	4.43	704.005	704.00	715.990	716.00
					Result:	**Pass**

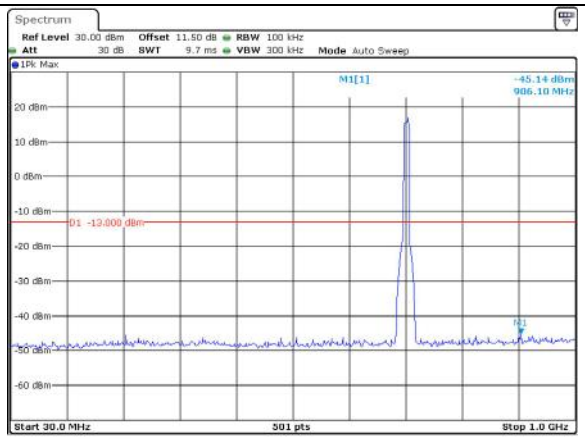
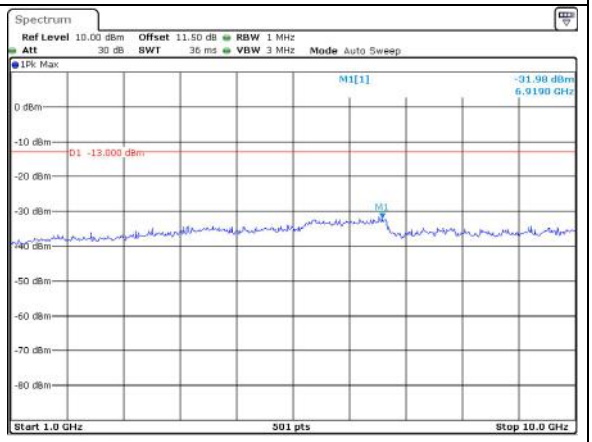
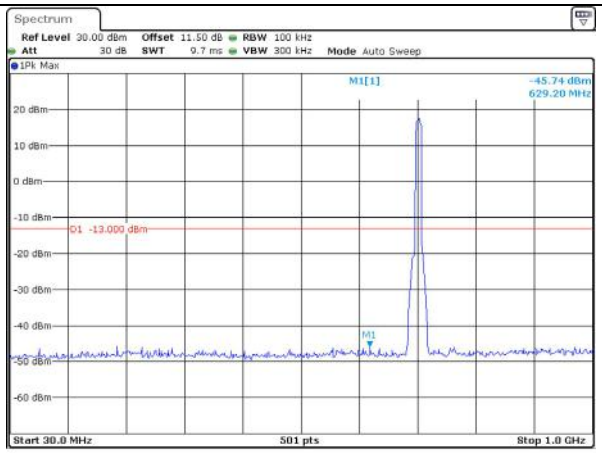
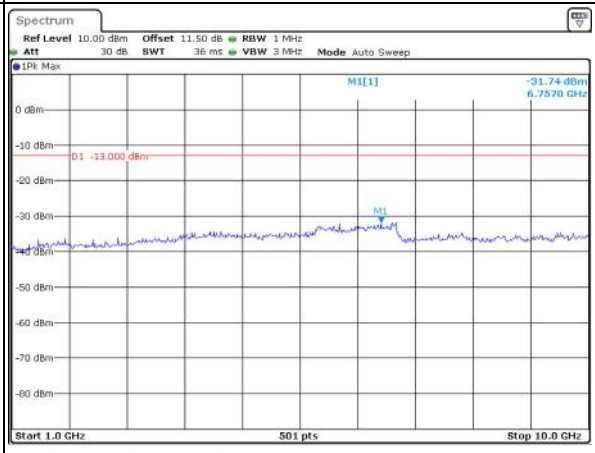
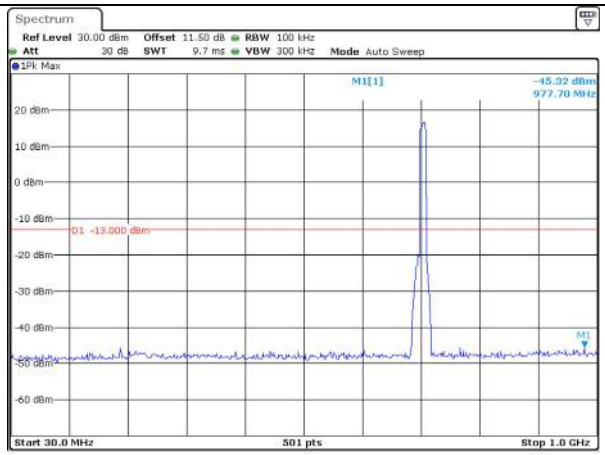
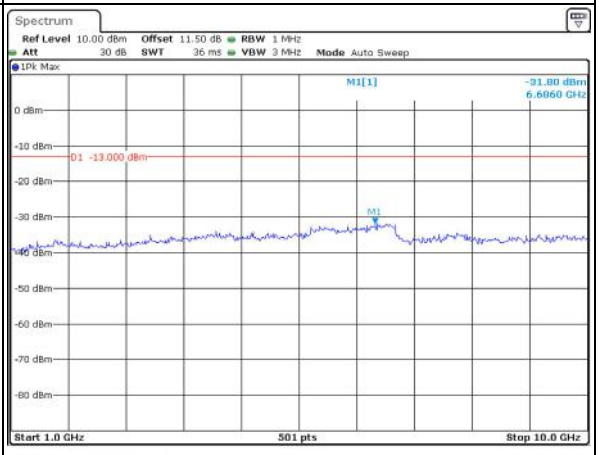
Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	704.004	704.00	715.982	716.00
	-20	3.85	704.010	704.00	715.980	716.00
	-10	3.85	704.024	704.00	715.979	716.00
	0	3.85	704.019	704.00	715.985	716.00
	10	3.85	704.031	704.00	715.988	716.00
	20	3.85	704.001	704.00	715.986	716.00
	30	3.85	704.028	704.00	715.975	716.00
	40	3.85	704.025	704.00	715.976	716.00
	50	3.85	704.016	704.00	715.987	716.00
Frequency Stability vs. Voltage	20	3.27	704.010	704.00	715.975	716.00
	20	4.43	704.029	704.00	715.994	716.00
					Result:	**Pass**

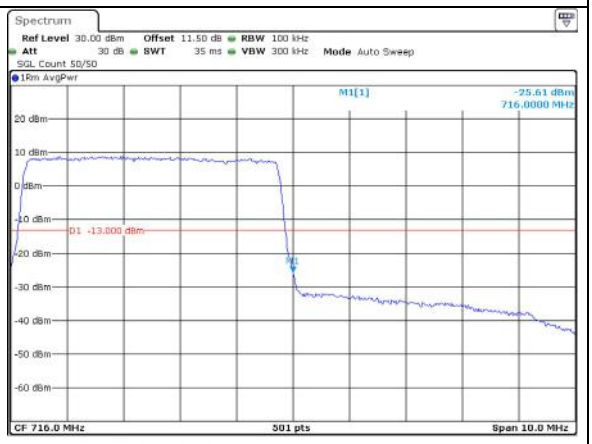
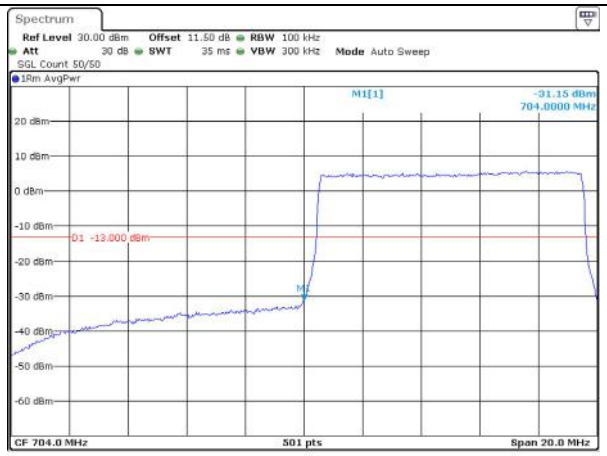
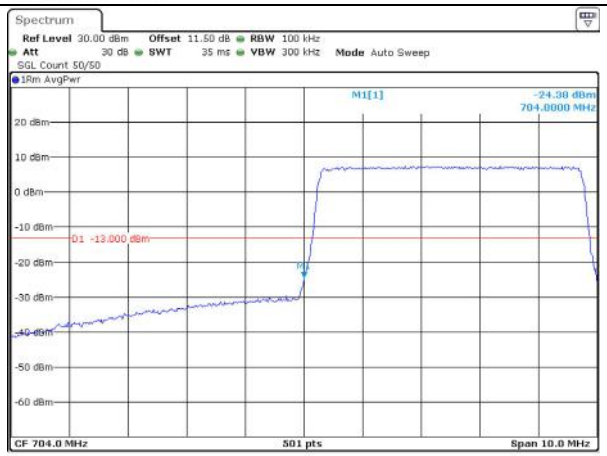
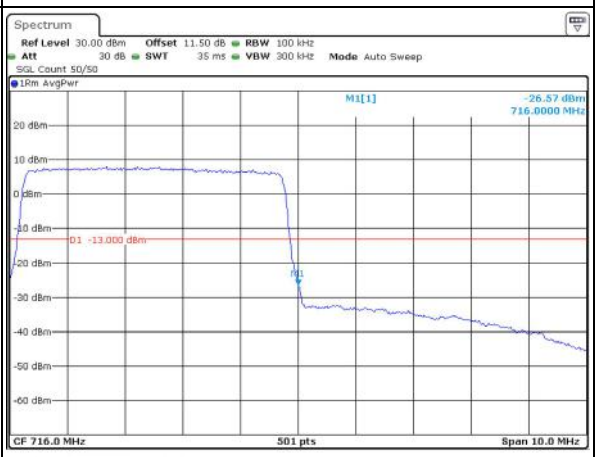
Test Plots (Note: The 10.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

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

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

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

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

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

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

4.12 Antenna Port Test Data and Results for LTE Band 26

Serial Number:	2BZE-3	Test Date:	2023/10/24-2023/11/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Leg Huang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.6-26.3	Relative Humidity: (%)	50-52	ATM Pressure: (kPa)	101-101.7

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.

4.12.1 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	23.15	23.26	23.0	17.44	50
	RB1#3	23.01	23.29	23.08		
	RB1#5	23.10	23.32	22.97		
	RB3#0	24	24.29	24.22		
	RB3#3	24.27	24.29	24.28		
	RB6#0	22.01	22.27	22.40		
1.4MHz 16QAM	RB1#0	22.58	23.11	21.74	16.45	50
	RB1#3	22.5	23.07	21.72		
	RB1#5	22.51	23.09	21.8		
	RB3#0	23.25	23.16	23.27		
	RB3#3	23.29	23.3	23.24		
	RB6#0	22.4	22.52	22.41		
3MHz QPSK	RB1#0	23.09	23.23	23.14	16.52	50
	RB1#8	23.05	23.33	23.05		
	RB1#14	23.1	23.37	23.11		
	RB6#0	22.1	22.29	22.24		
	RB6#9	22.11	22.26	22.38		
	RB15#0	21.99	22.23	22.40		
3MHz 16QAM	RB1#0	22.33	23.02	21.67	16.25	50
	RB1#8	22.26	23.1	21.59		
	RB1#14	22.43	23.10	21.61		
	RB6#0	22.2	22.36	22.37		
	RB6#9	22.23	22.42	22.53		
	RB15#0	22.21	22.31	22.48		
5MHz QPSK	RB1#0	22.90	23.13	23.30	16.48	50
	RB1#13	23.05	23.17	23.33		
	RB1#24	23.11	23.20	23.26		
	RB15#0	22.02	22.20	22.18		
	RB15#10	22.11	22.30	22.47		
	RB25#0	22	22.21	22.16		
5MHz 16QAM	RB1#0	22.08	21.23	22.23	15.61	50
	RB1#13	21.73	21.34	22.17		
	RB1#24	21.80	21.26	22.07		
	RB15#0	22.23	22.42	22.16		
	RB15#10	22.26	22.38	22.28		
	RB25#0	22.18	22.46	22.17		
10MHz QPSK	RB1#0	22.99	/	23.2	16.54	50

	RB1#25	23.05	/	23.39		
	RB1#49	22.86	/	23.25		
	RB25#0	22.24	/	22.13		
	RB25#25	21.94	/	22.16		
	RB50#0	22.12	/	22.16		
10MHz 16QAM	RB1#0	22.43	/	22.76	15.91	50
	RB1#25	22.53	/	22.29		
	RB1#49	22.39	/	22.16		
	RB25#0	22.46	/	22.32		
	RB25#25	22.43	/	22.44		
	RB50#0	22.35	/	22.35		
15MHz QPSK	RB1#0	22.94	/	23.25	16.4	50
	RB1#38	22.96	/	22.86		
	RB1#74	22.83	/	22.85		
	RB36#0	22.21	/	22.68		
	RB36#39	22.09	/	22.53		
	RB75#0	21.15	/	22.46		
15MHz 16QAM	RB1#0	22.41	/	22.51	15.8	50
	RB1#38	22.48	/	22.65		
	RB1#74	22.39	/	22.22		
	RB36#0	22.56	/	21.18		
	RB36#39	22.32	/	21.2		
	RB75#0	22.23	/	21.12		
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	1.096	1.102	1.098	1.248	1.254	1.250
1.4MHz 16QAM	1.10	1.102	1.103	1.27	1.242	1.259
3MHz QPSK	2.695	2.695	2.700	2.916	2.916	2.978
3MHz 16QAM	2.683	2.695	2.692	2.892	3.000	2.996
5MHz QPSK	4.511	4.511	4.472	5.000	4.980	4.877
5MHz 16QAM	4.531	4.511	4.457	5.020	5.000	4.891
10MHz QPSK	8.942	/	8.973	9.72	/	9.493
10MHz 16QAM	8.942	/	8.915	9.8	/	9.436
15MHz QPSK	13.415	/	13.372	14.891	/	14.110
15MHz 16QAM	13.546	/	13.372	15.065	/	14.067
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.**

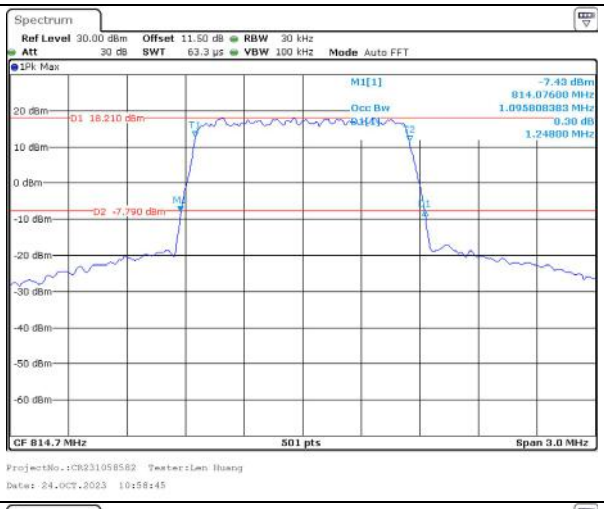
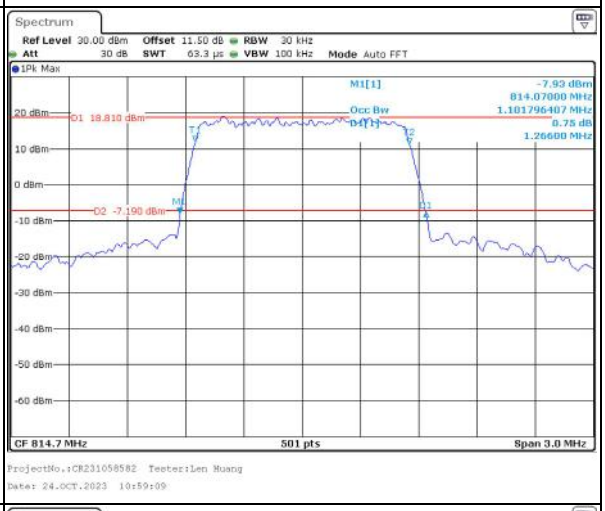
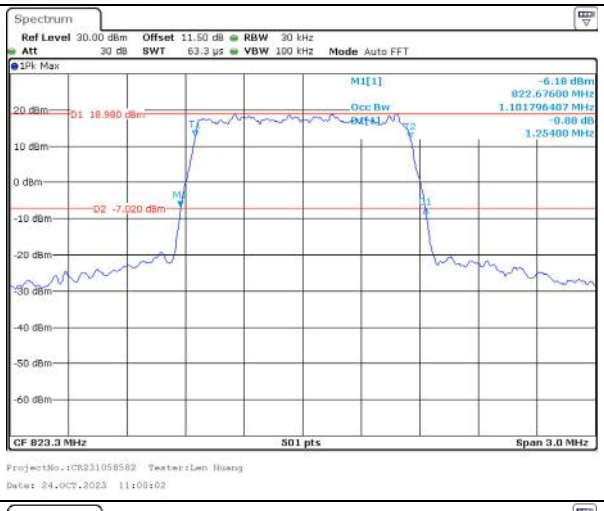
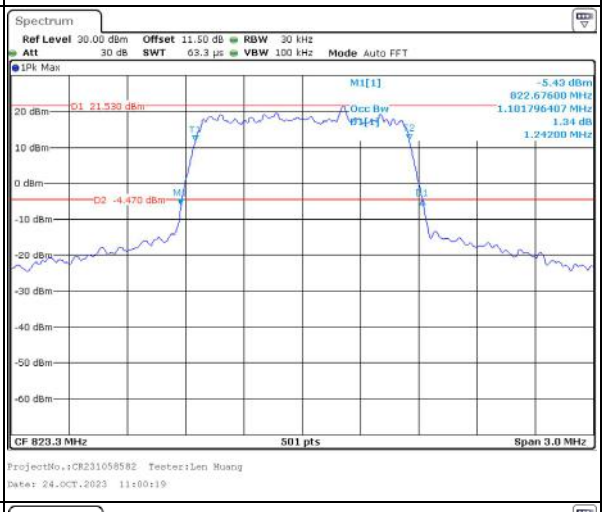
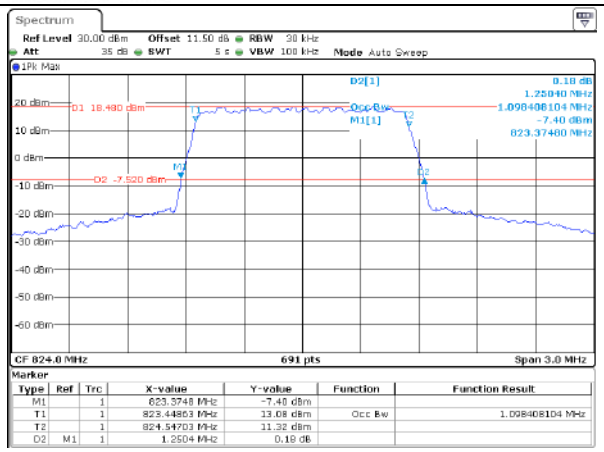
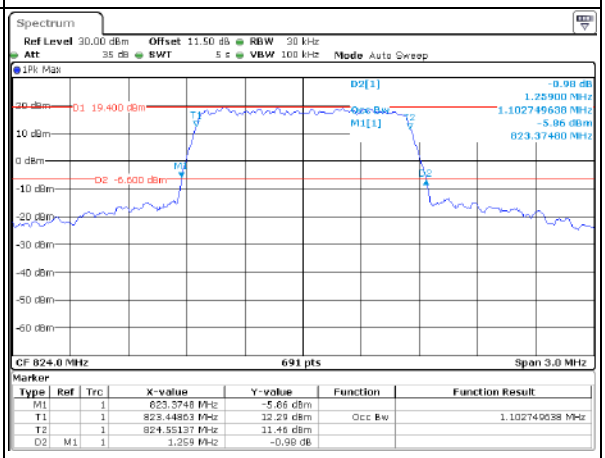
FCC §2.1051, §90.691: Out of band emission, Band Edge	
Result:	**Pass, please refer to the test plots of Out of band emission, Band Edge.**

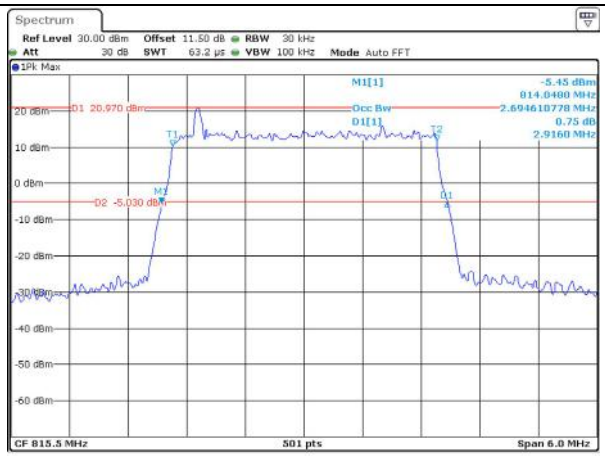
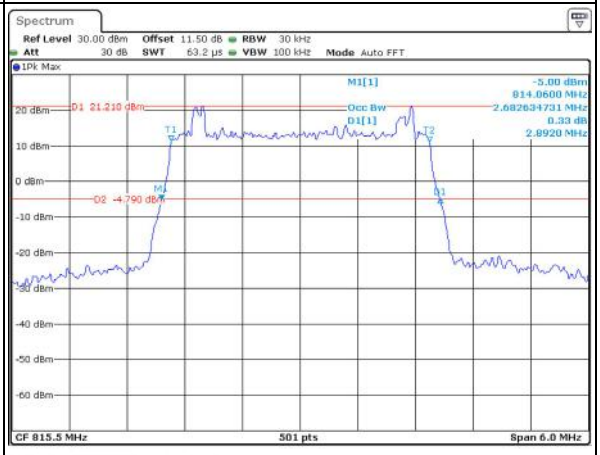
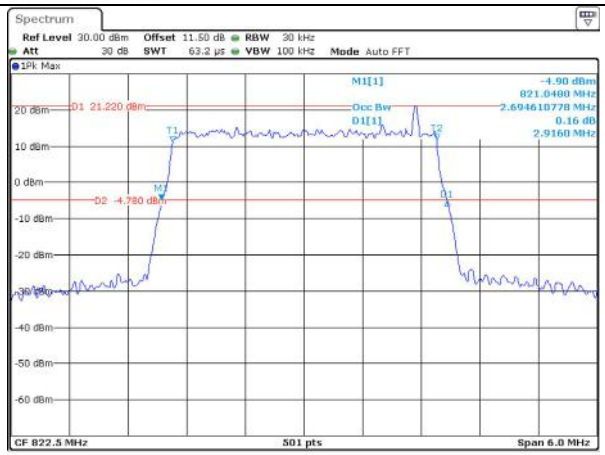
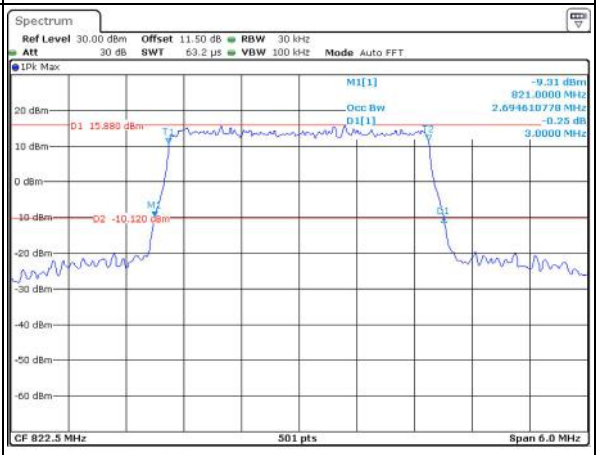
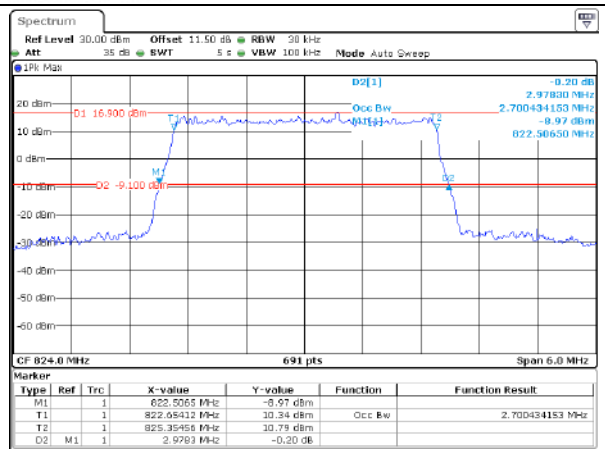
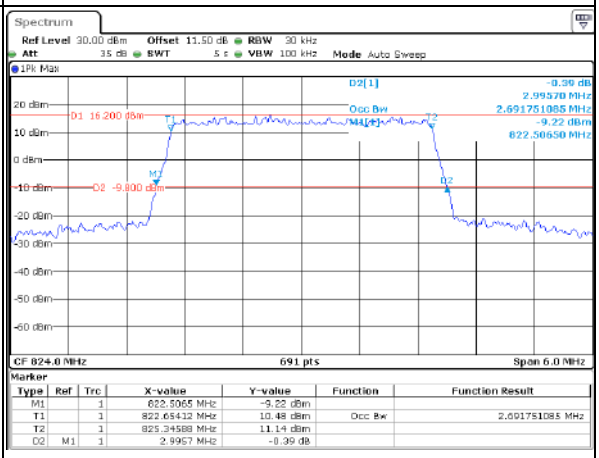
FCC §2.1055, §90.213: Frequency Stability					
Test Modulation:	15 MHz QPSK		Test Channel:	821.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.85	101.961	0.124	2.5
	-20	3.85	115.263	0.140	2.5
	-10	3.85	109.793	0.134	2.5
	0	3.85	118.520	0.144	2.5
	10	3.85	110.096	0.134	2.5
	20	3.85	117.420	0.143	2.5
	30	3.85	116.527	0.142	2.5
	40	3.85	117.075	0.143	2.5
	50	3.85	113.520	0.138	2.5
Frequency Stability vs. Voltage	20	3.27	100.282	0.122	2.5
	20	4.43	102.080	0.124	2.5
				Result:	**Pass**

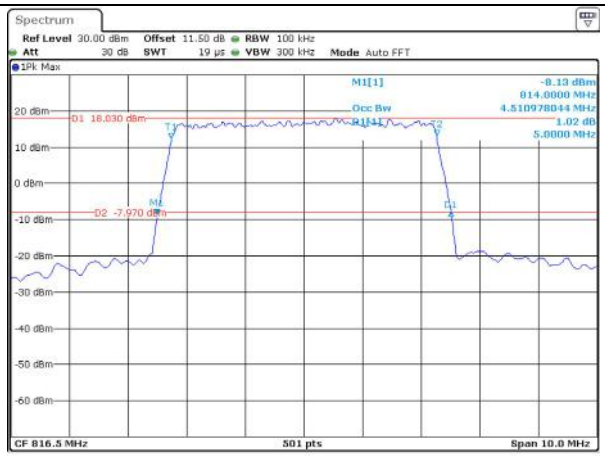
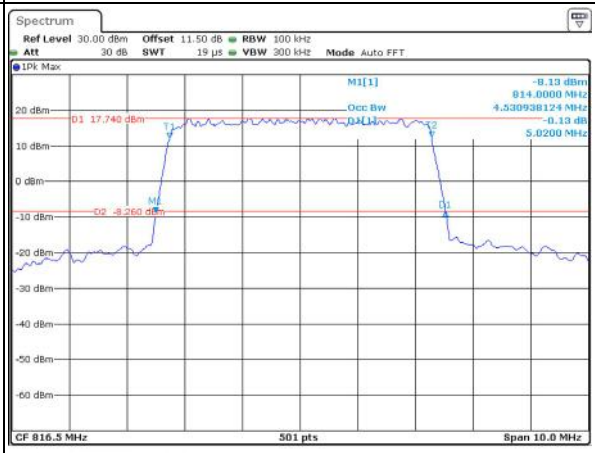
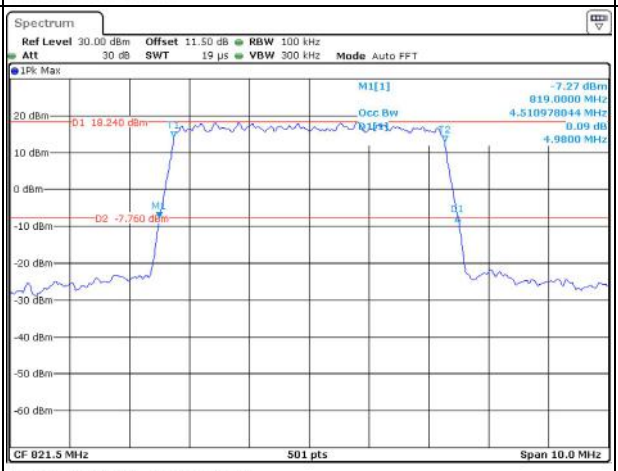
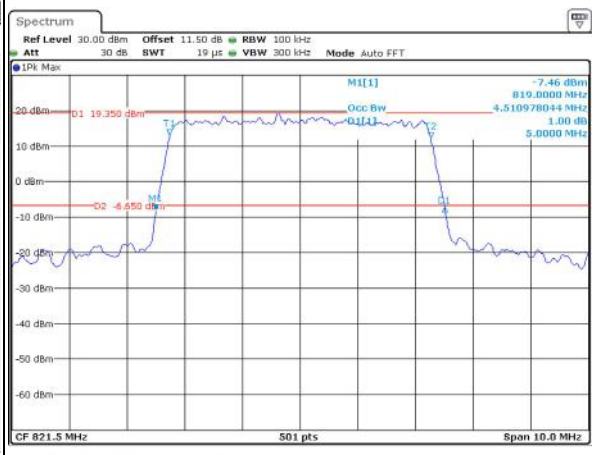
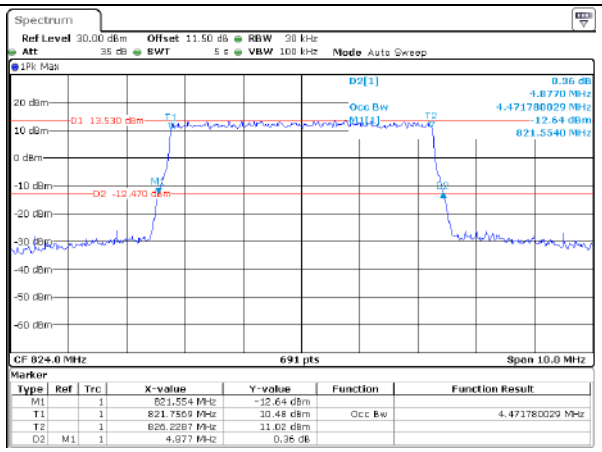
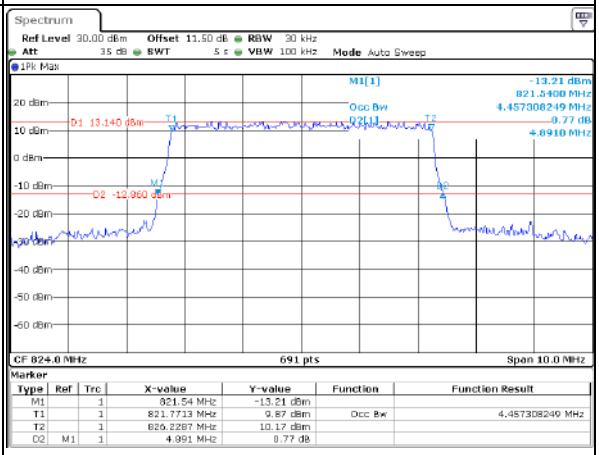
FCC §2.1055, §90.213: Frequency Stability					
Test Modulation:	15 MHz 16QAM		Test Channel:	821.5	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.85	115.334	0.140	2.5
	-20	3.85	111.430	0.136	2.5
	-10	3.85	107.516	0.131	2.5
	0	3.85	101.418	0.123	2.5
	10	3.85	118.291	0.144	2.5
	20	3.85	103.876	0.126	2.5
	30	3.85	103.530	0.126	2.5
	40	3.85	101.601	0.124	2.5
	50	3.85	115.246	0.140	2.5
Frequency Stability vs. Voltage	20	3.27	109.836	0.134	2.5
	20	4.43	113.575	0.138	2.5
				Result:	**Pass**

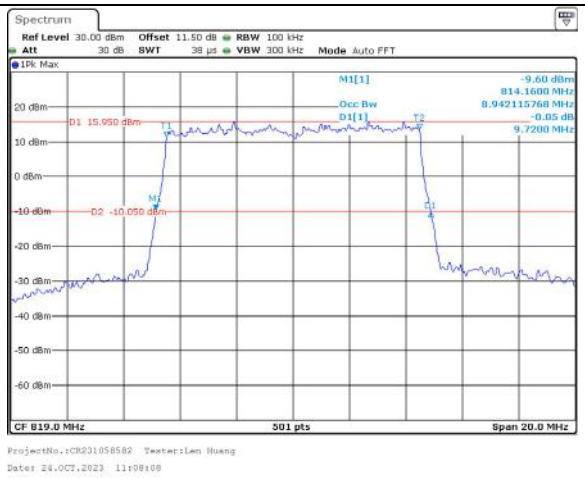
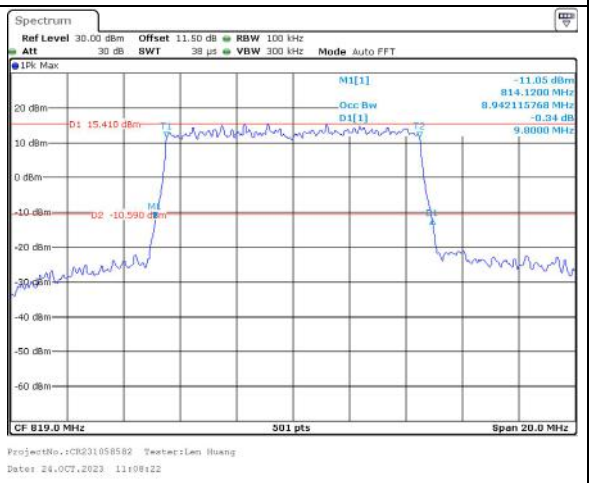
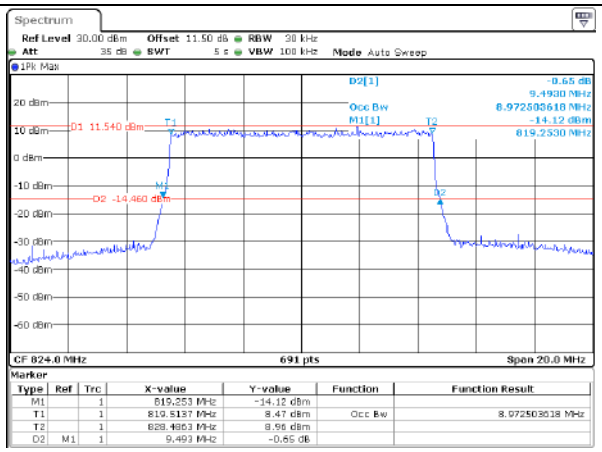
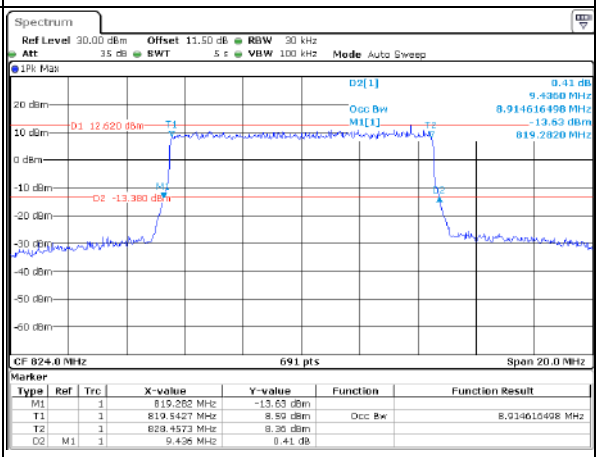
4.12.2 Test Plots for Part 90S:

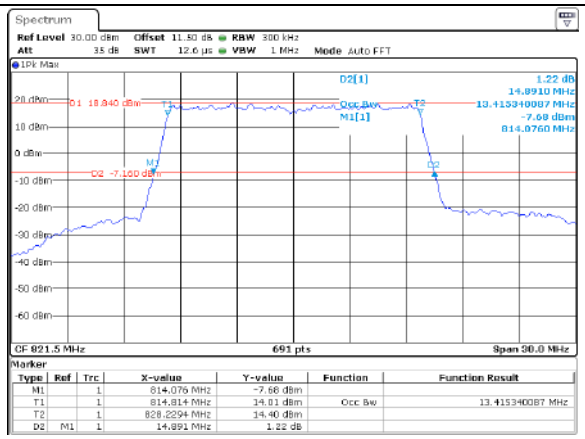
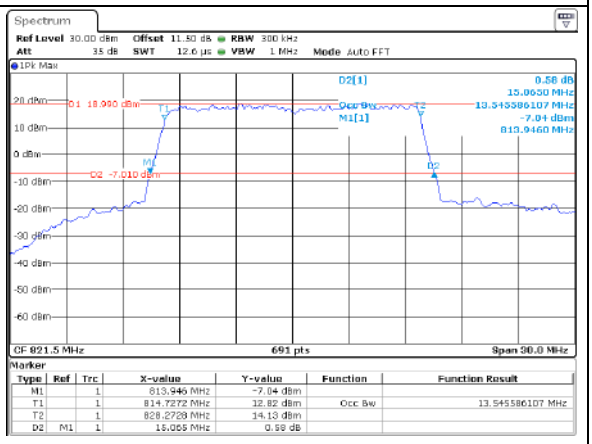
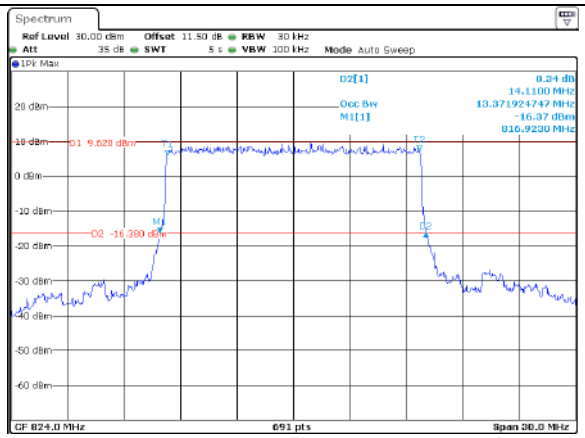
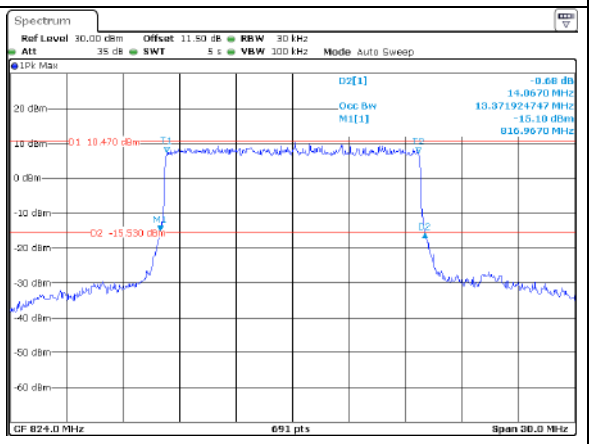
(Note: The 10.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

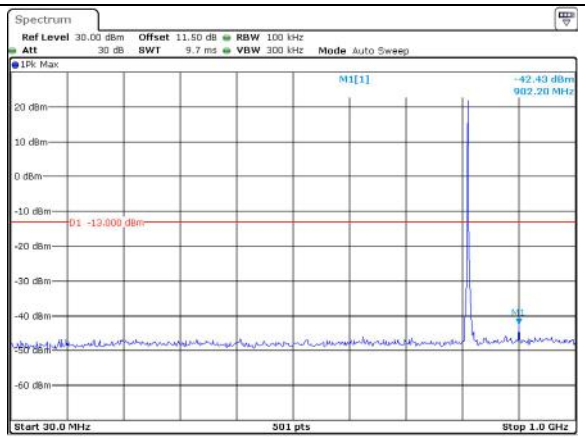
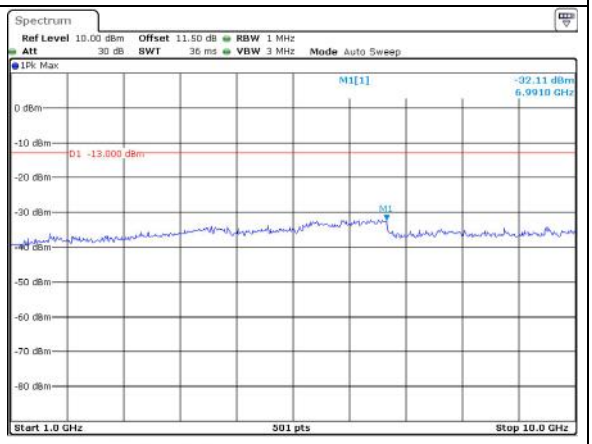
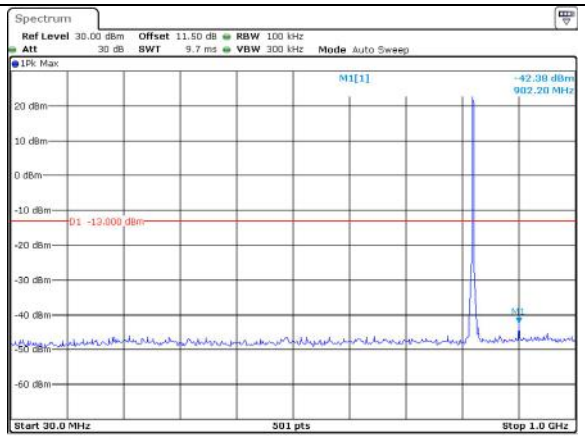
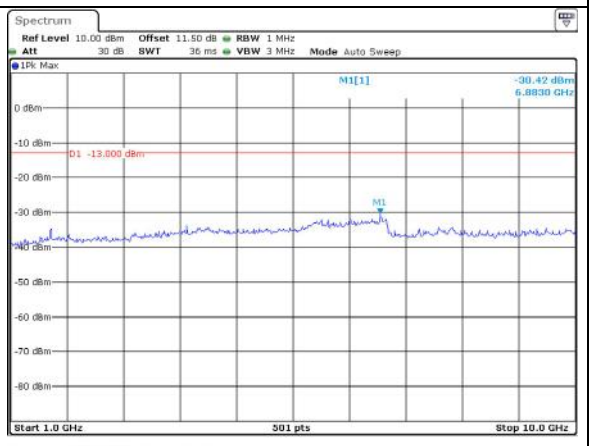
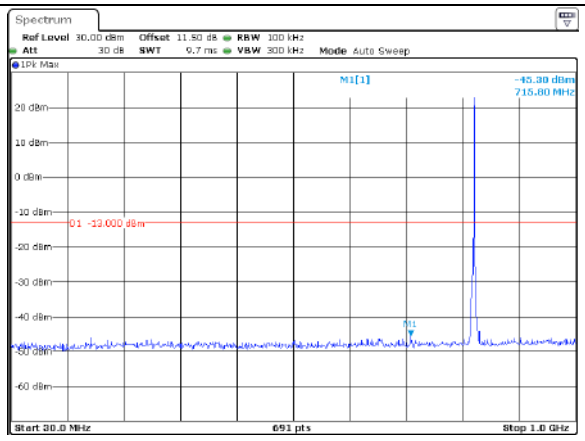
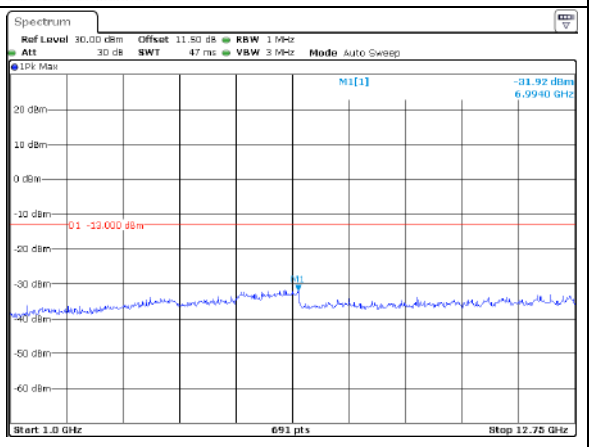
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest For 90S		
Highest For 90S		
Cross Channel		

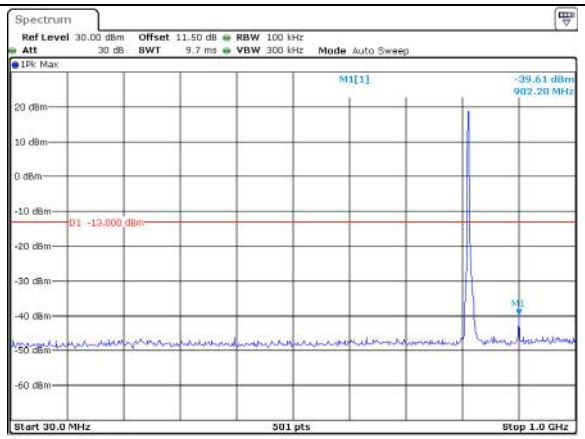
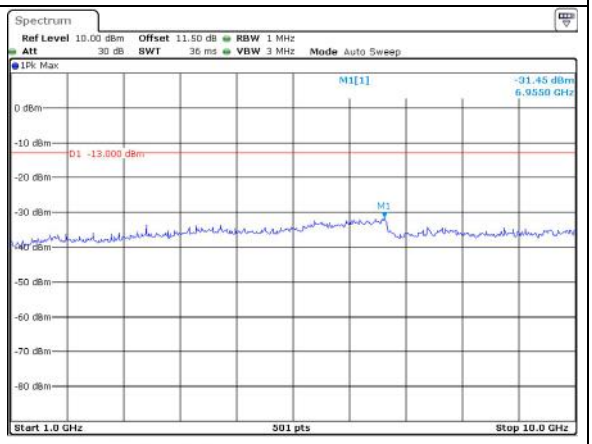
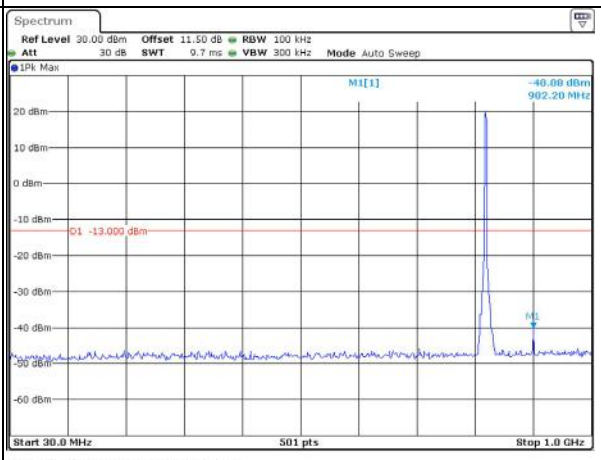
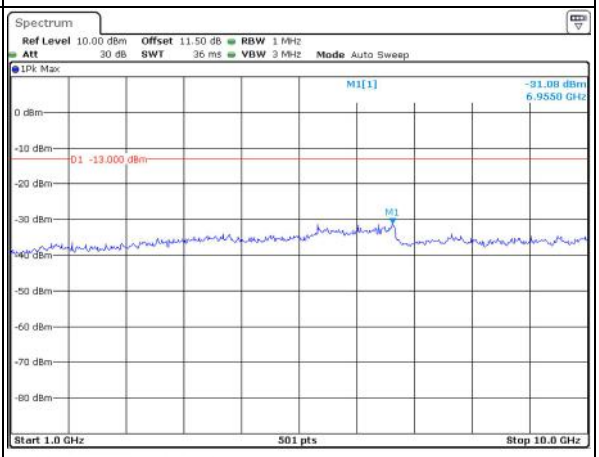
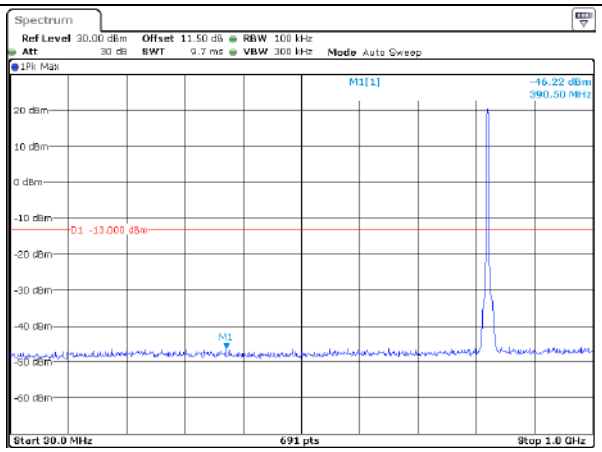
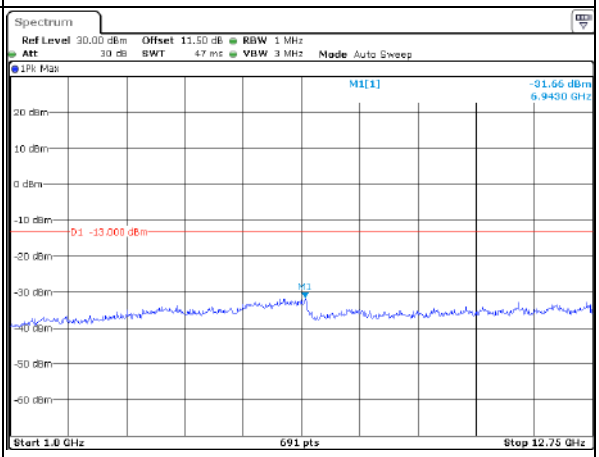
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest For 90S		
Highest For 90S		
Cross Channel		

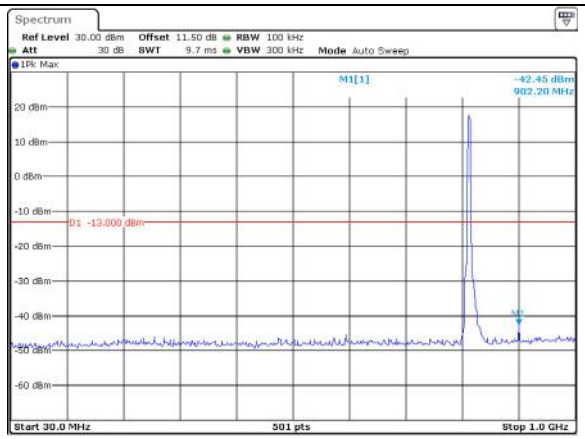
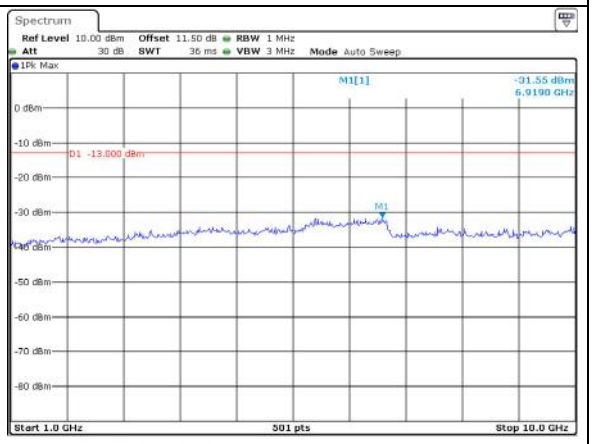
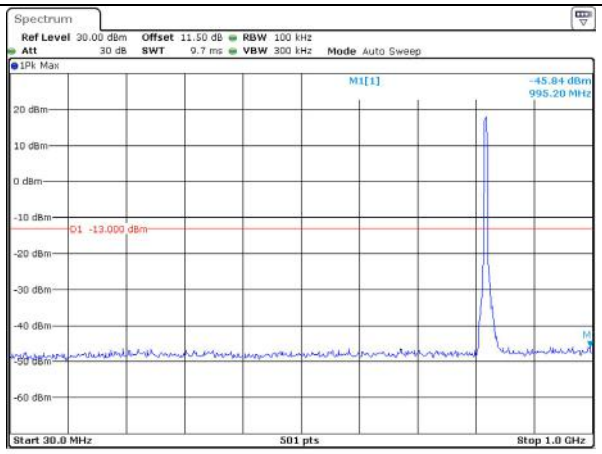
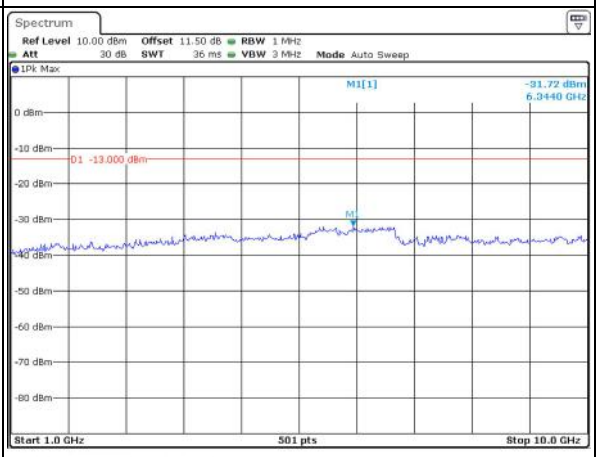
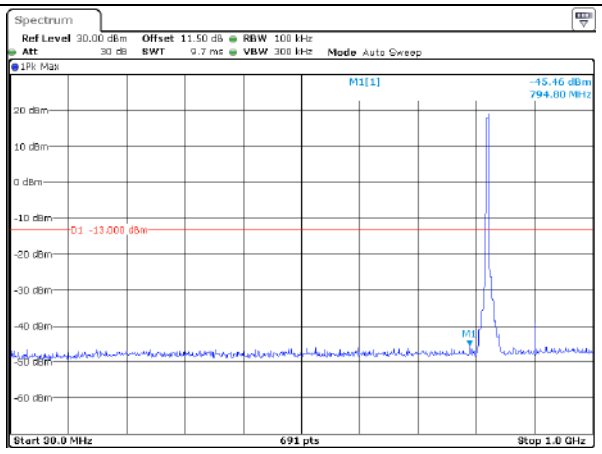
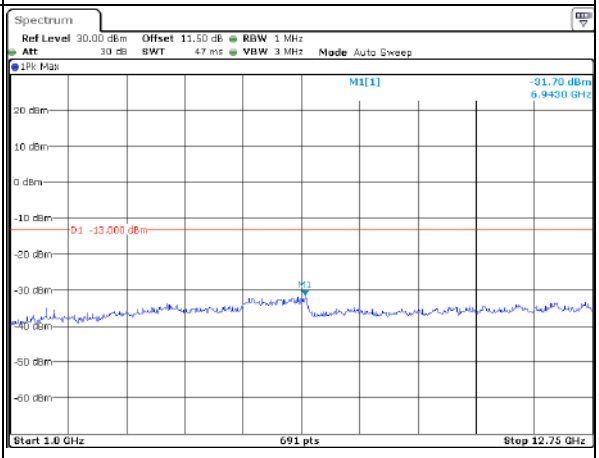
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest For 90S		
Highest For 90S		
Cross Channel		

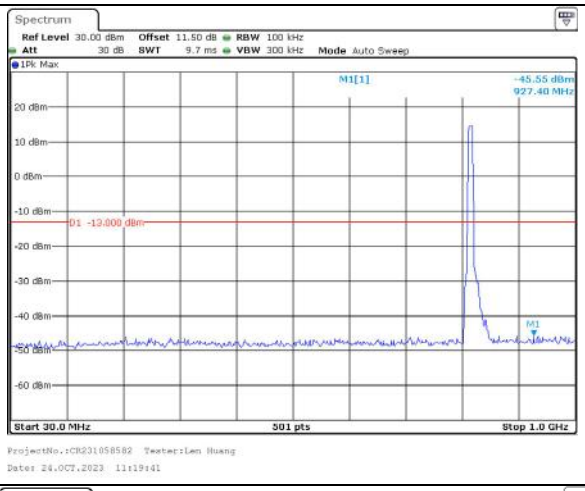
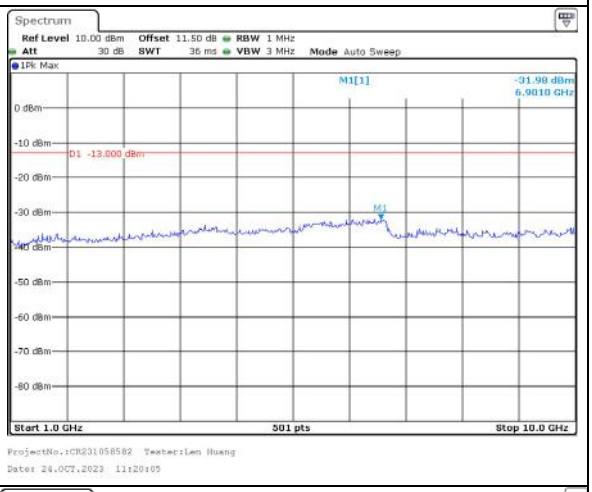
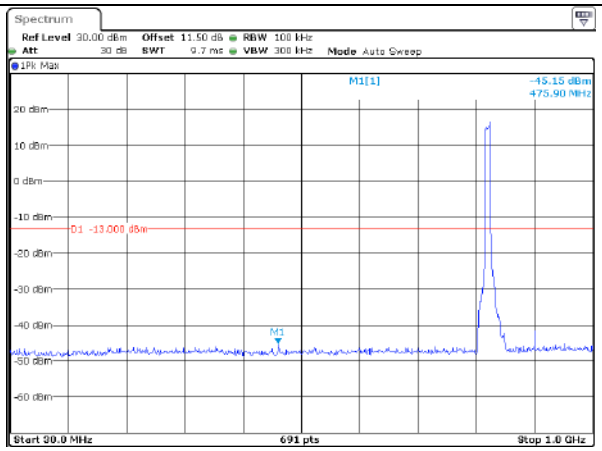
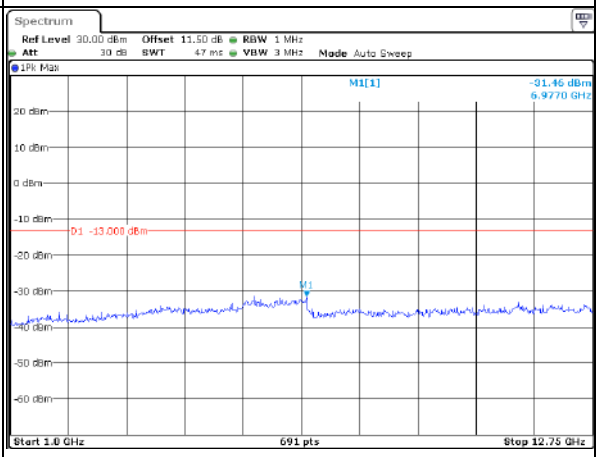
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest For 90S		
Cross Channel		

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