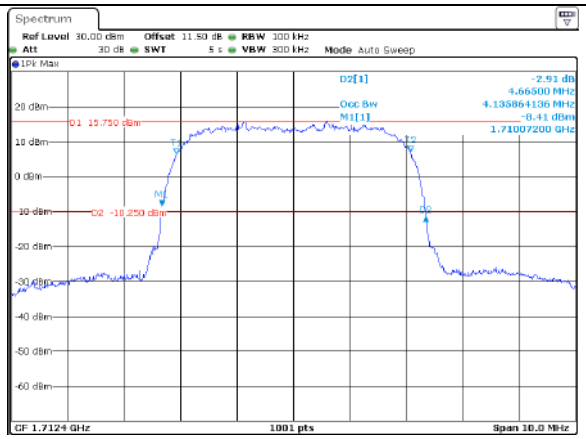
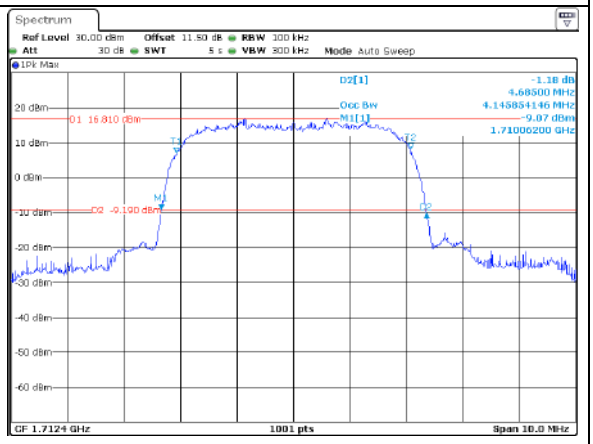
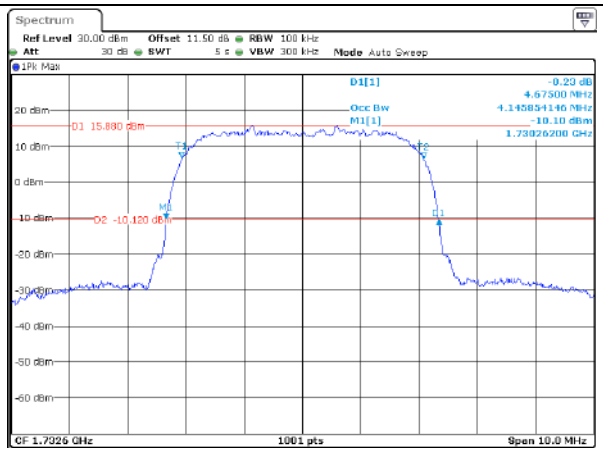
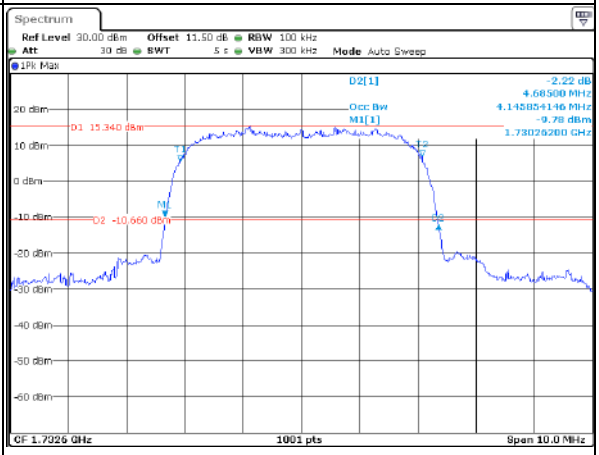
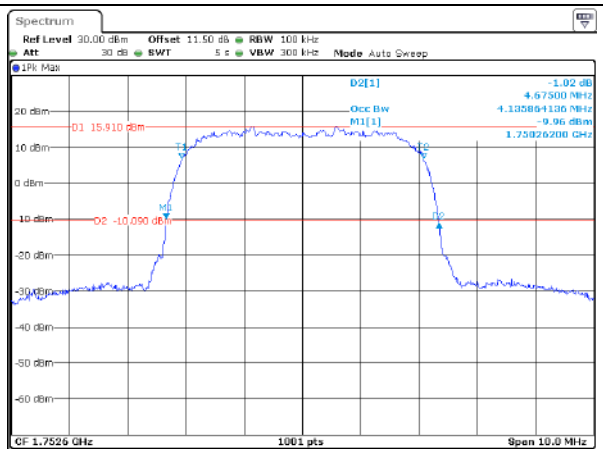
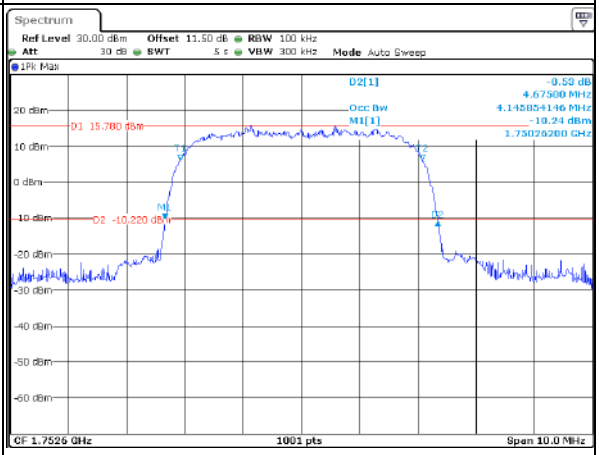
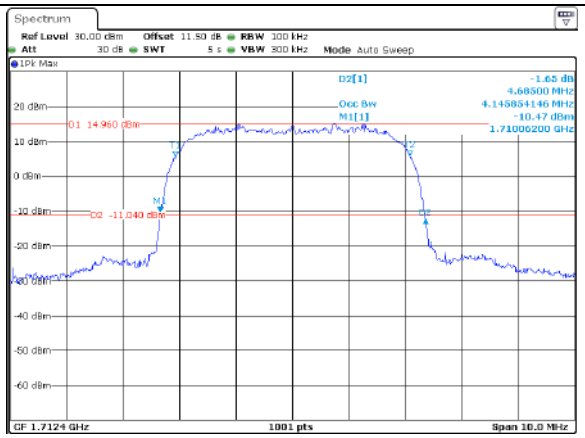
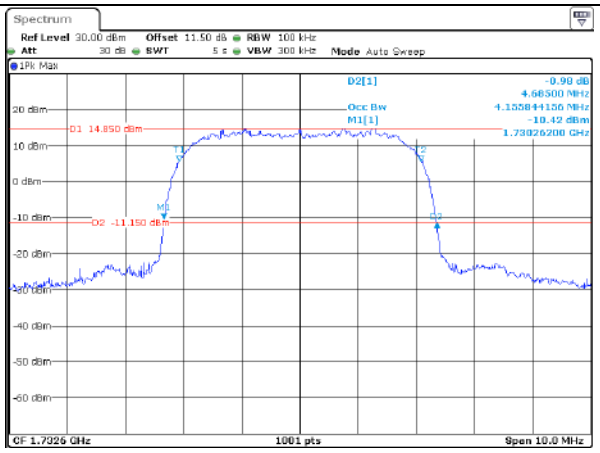
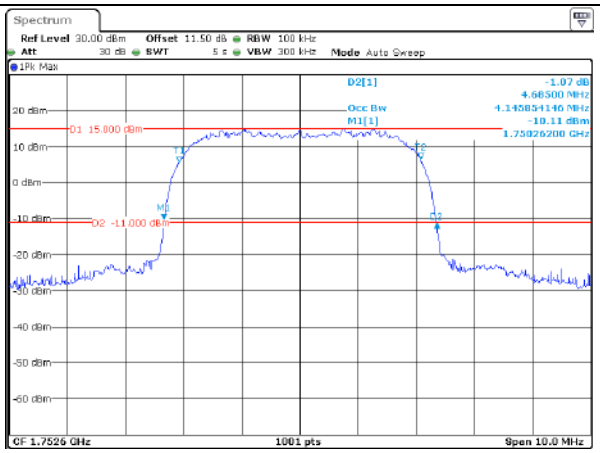
FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

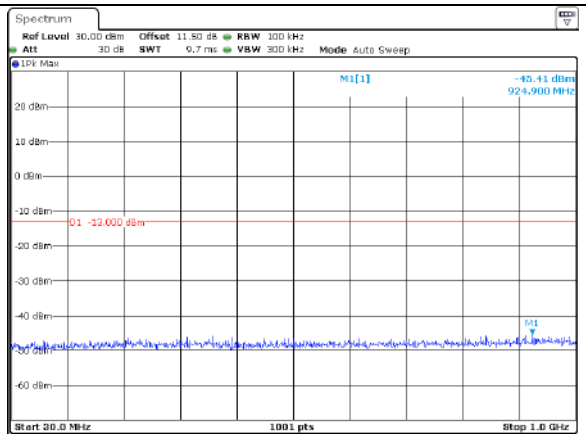
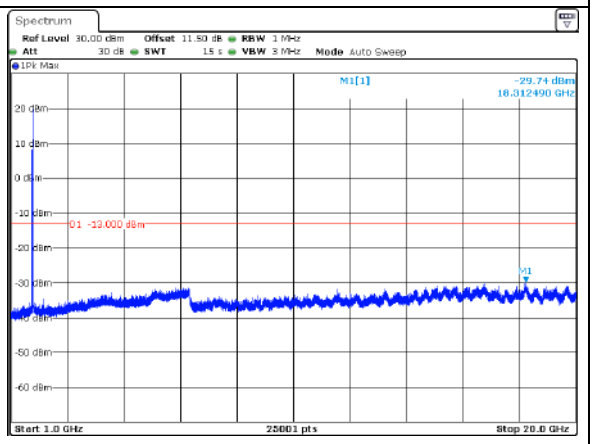
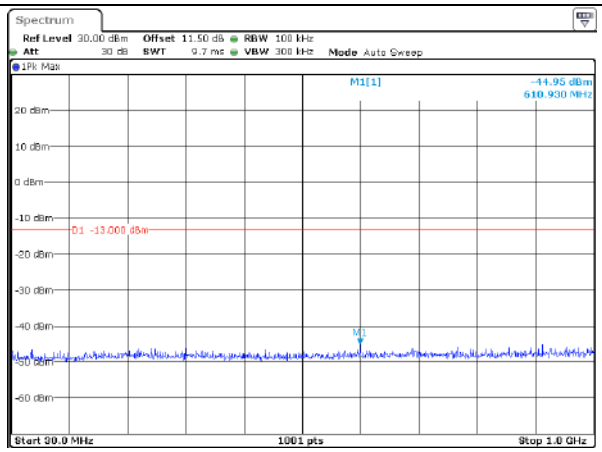
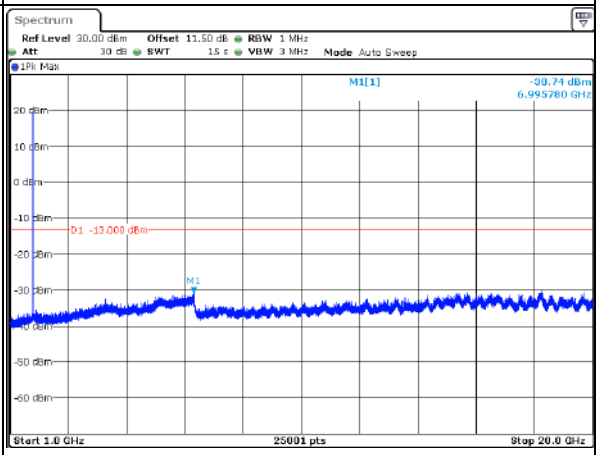
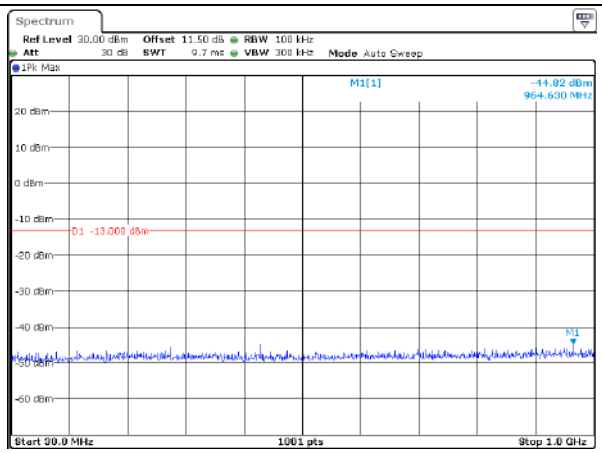
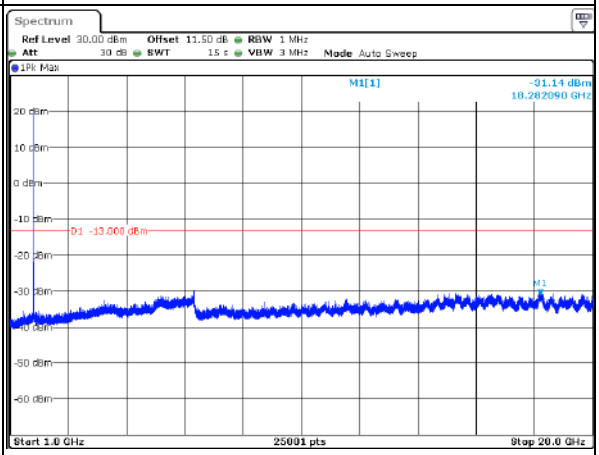
FCC §2.1055, §27.54: Frequency Stability

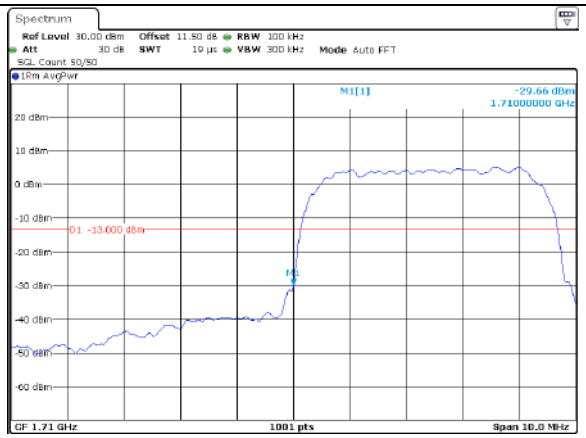
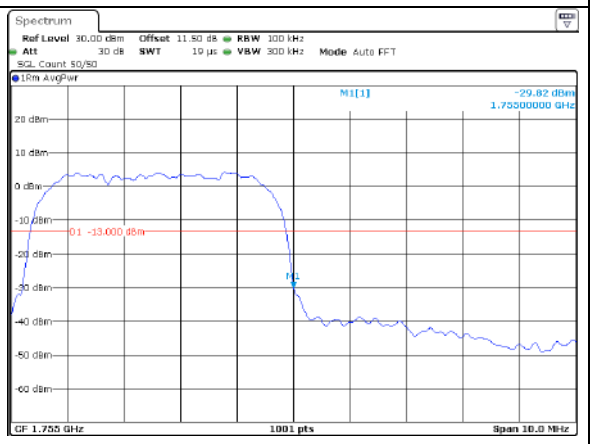
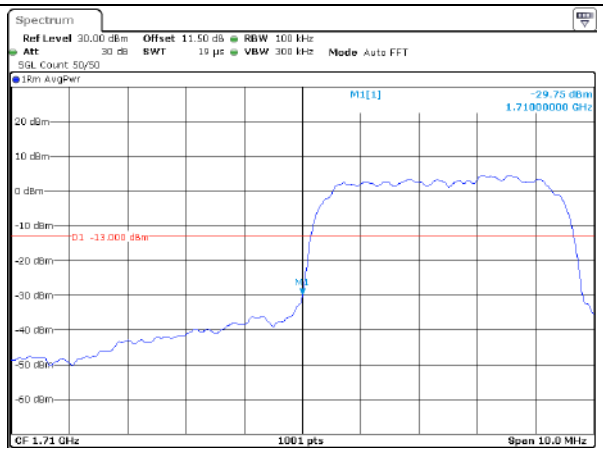
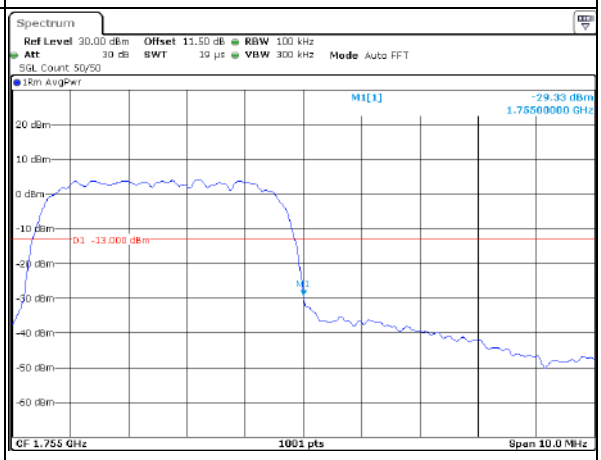
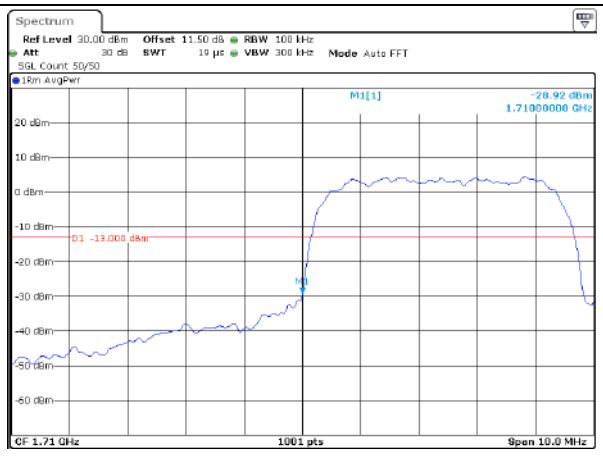
Test Mode:	WCDMA R99	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	1710.013	1710.000	1754.983	1755.000
	-20	3.85	1710.002	1710.000	1754.986	1755.000
	-10	3.85	1710.009	1710.000	1754.985	1755.000
	0	3.85	1710.001	1710.000	1754.986	1755.000
	10	3.85	1710.008	1710.000	1754.971	1755.000
	20	3.85	1710.025	1710.000	1754.992	1755.000
	30	3.85	1710.025	1710.000	1754.998	1755.000
	40	3.85	1710.010	1710.000	1754.982	1755.000
	50	3.85	1710.022	1710.000	1754.991	1755.000
Frequency Stability vs. Voltage	20	3.45	1710.026	1710.000	1754.999	1755.000
	20	4.4	1710.014	1710.000	1754.984	1755.000
					Result:	**Pass**

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

Occupied Bandwidth		
Channel	WCDMA R99	HSDPA
Lowest		
Middle		
Highest		

Occupied Bandwidth	
Channel	HSUPA
Lowest	
Middle	
Highest	

Spurious Emissions at Antenna Terminal		
Channel	WCDMA R99	
Lowest		
Middle		
Highest		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
R99		
HSUPA		
HSDPA		

4.5 Antenna Port Test Data and Results for WCDMA Band 5:

Serial Number:	2A55-4	Test Date:	2023/9/10~2023/9/25
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24-26	Relative Humidity: (%)	58	ATM Pressure: (kPa)	100.1~100.6

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	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Minl-Clrcuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28

** 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:

Operation Modes	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
WCDMA Band 5	826.4	836.6	846.6

Test Data:

FCC§2.1046;§ 22.913 (a)
RF Output Power:

Test Mode	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	23.05	23.07	23.18	16.03	38.45
HSDPA Subtest 1	23.05	23.05	22.94	15.90	38.45
HSDPA Subtest 2	22.82	23.04	23.01	15.89	38.45
HSDPA Subtest 3	22.93	22.88	22.82	15.78	38.45
HSDPA Subtest 4	22.72	23.01	22.98	15.86	38.45
HSUPA Subtest 1	23.03	23.16	23.06	16.01	38.45
HSUPA Subtest 2	23.29	23.21	23.36	16.21	38.45
HSUPA Subtest 3	23.30	23.41	23.35	**16.26**	38.45
HSUPA Subtest 4	23.13	23.39	23.25	16.24	38.45
HSUPA Subtest 5	23.05	23.17	23.25	16.10	38.45
HSPA+ Subtest 1	23.02	23.11	23.19	16.04	38.45
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 Mode	Peak-to-average Ratio(dB)			Limit (dB)	
	Lowest Channel	Middle Channel	Highest Channel		
WCDMA R99	9.76	8.59	7.40	13	
HSDPA	6.55	9.89	8.79	13	
HSUPA	8.33	9.57	8.78	13	
				Result:	**Pass**

FCC §2.1049, §22.917, §22.905:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
WCDMA R99	4.156	4.136	4.136	4.665	4.665	4.675
HSDPA	4.146	4.146	4.146	4.665	4.675	4.675
HSUPA	4.146	4.146	4.146	4.675	4.685	4.675
Note: The test plots please refer to the Plots of Occupied Bandwidth						

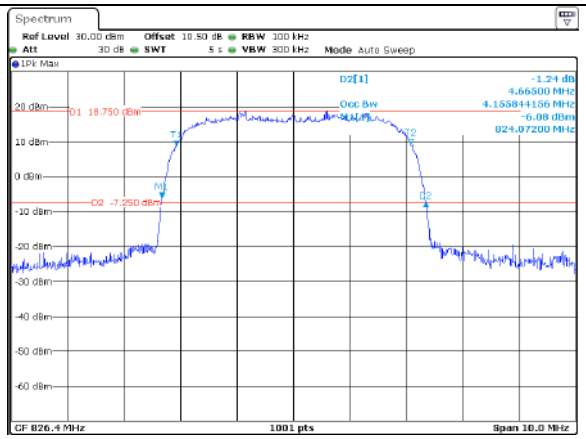
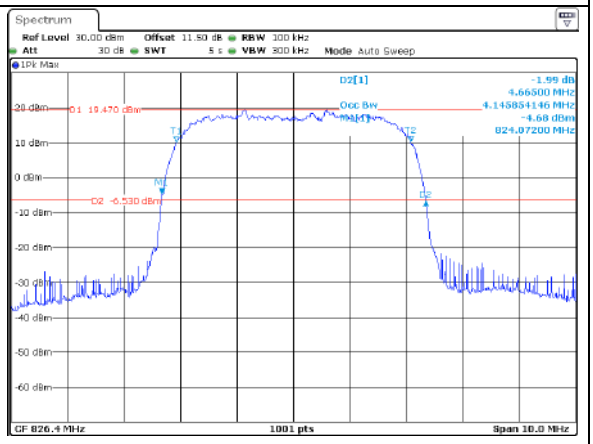
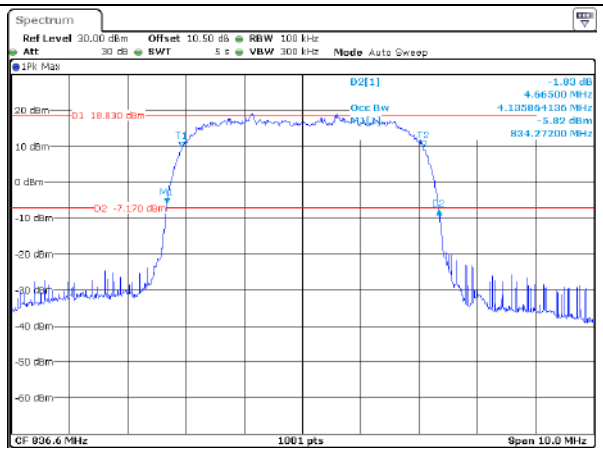
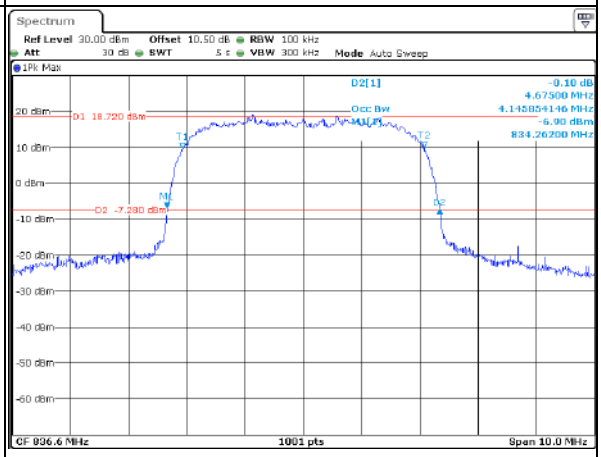
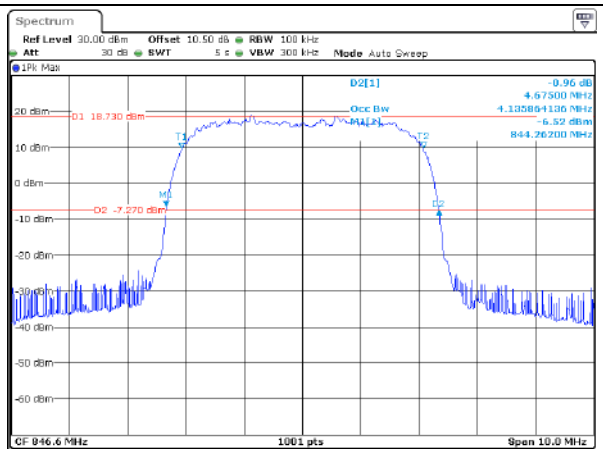
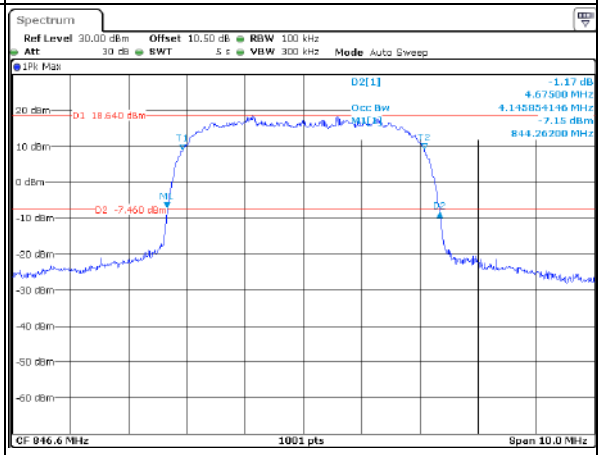
FCC §2.1051, §22.917(a):Spurious Emissions at Antenna Terminal

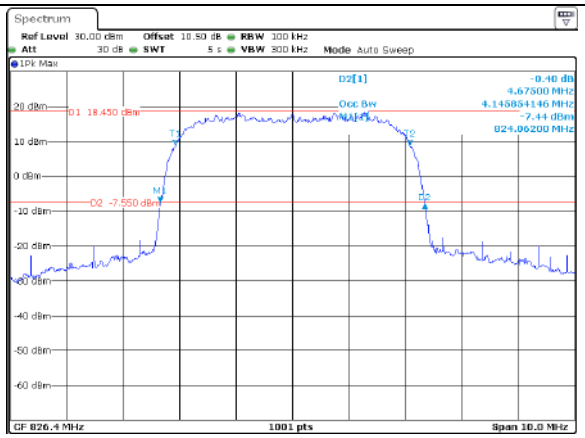
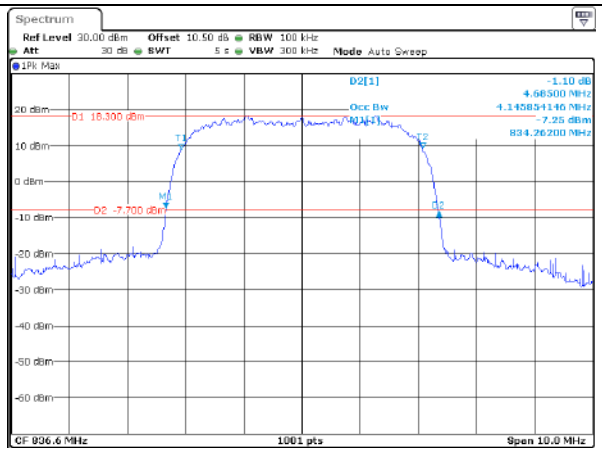
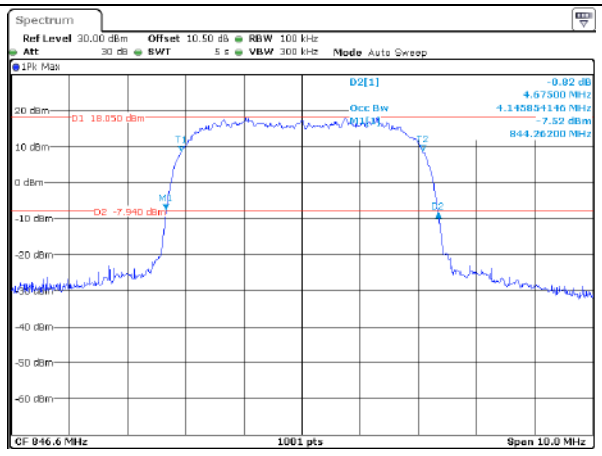
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

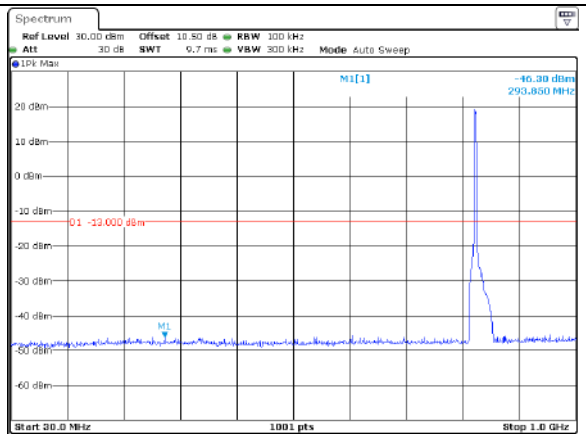
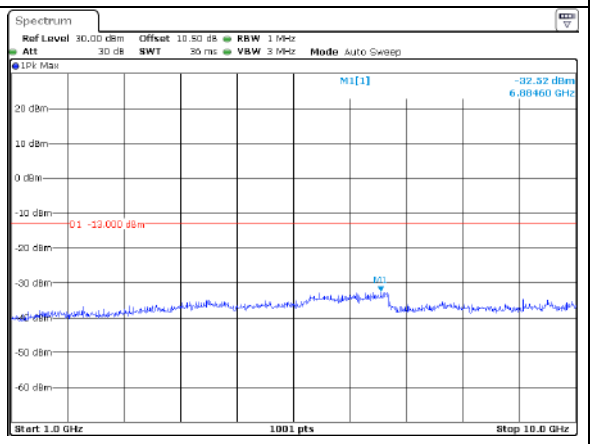
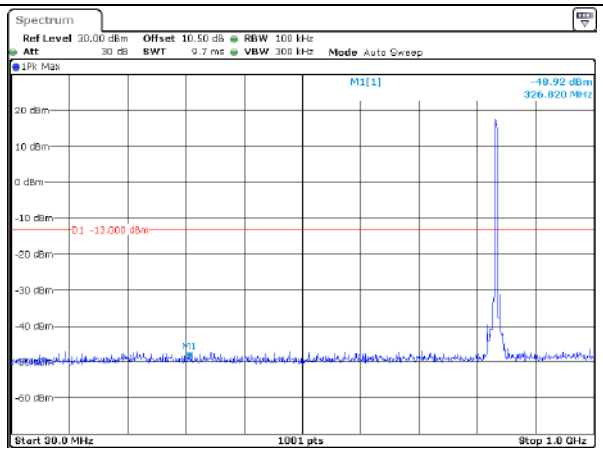
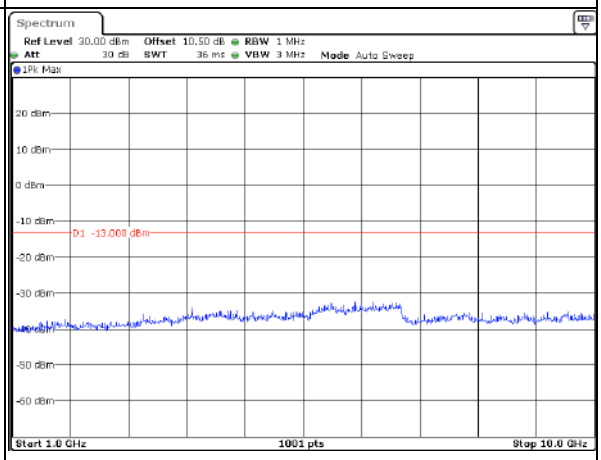
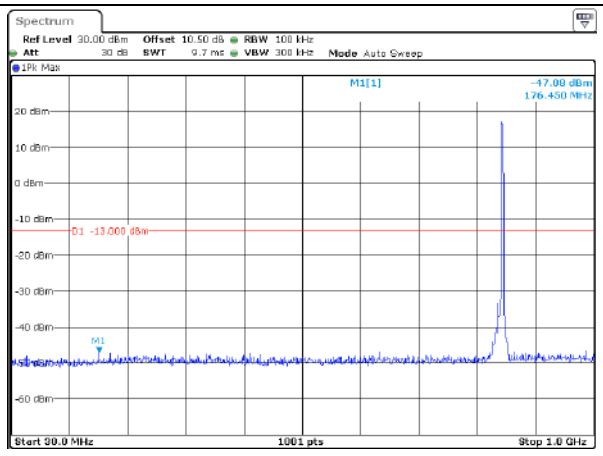
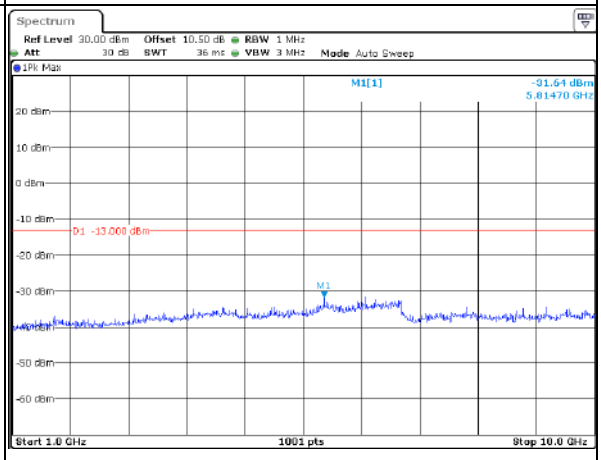
FCC §2.1051, §22.917(a):Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

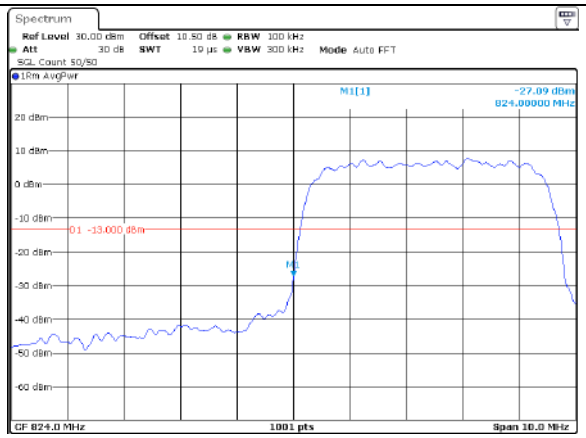
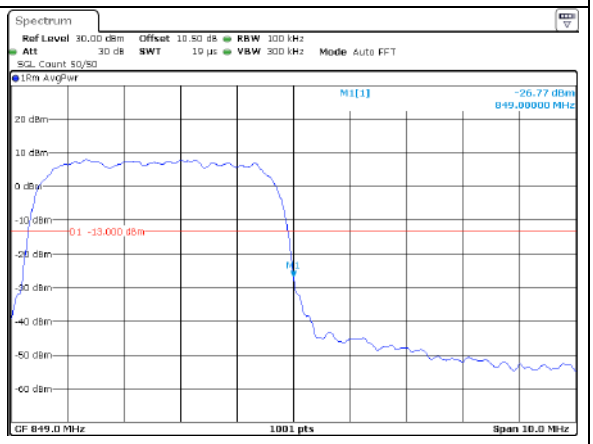
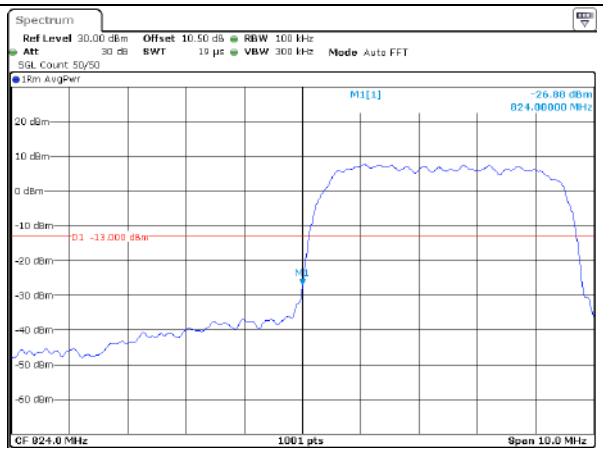
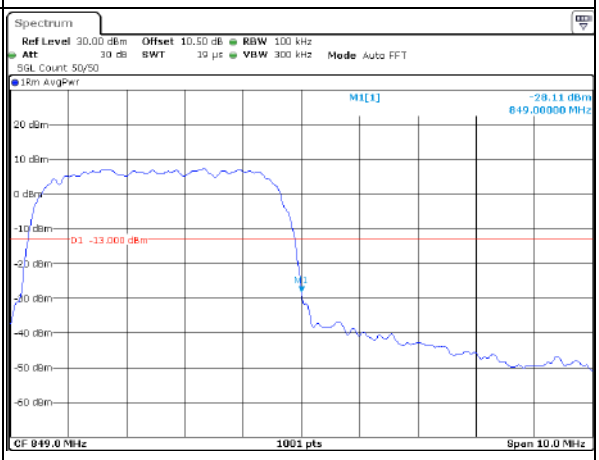
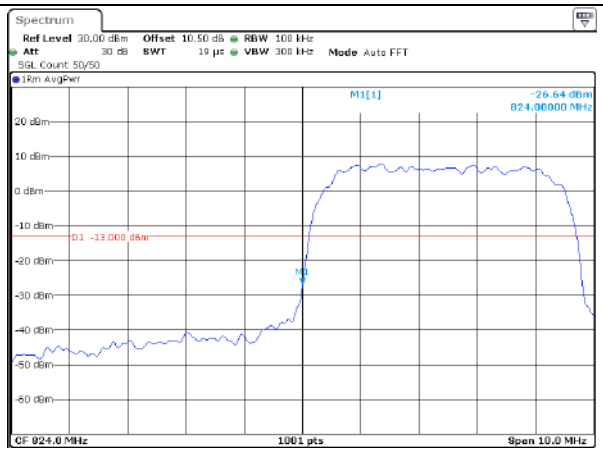
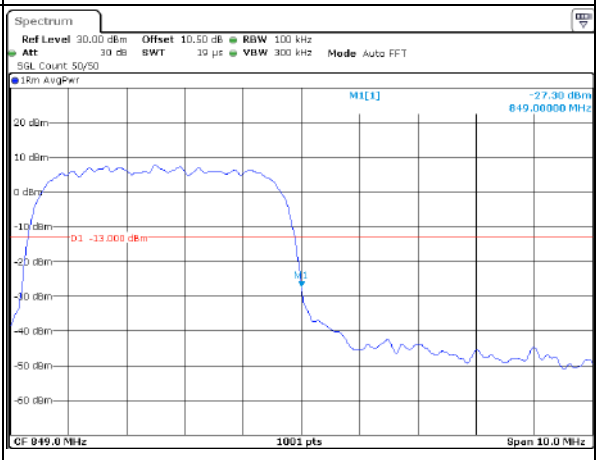
FCC §2.1055, §22.355: Frequency Stability					
Test Modulation:	WCDMA R99		Test Channel:	836.6	MHz
Test Item	Temperature (℃)	Voltage (V_{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.85	112.448	0.134	2.5
	-20	3.85	107.028	0.128	2.5
	-10	3.85	102.725	0.123	2.5
	0	3.85	103.143	0.123	2.5
	10	3.85	119.360	0.143	2.5
	20	3.85	113.191	0.135	2.5
	30	3.85	103.742	0.124	2.5
	40	3.85	109.784	0.131	2.5
	50	3.85	101.345	0.121	2.5
Frequency Stability vs. Voltage	20	3.45	119.576	0.143	2.5
	20	4.4	100.714	0.120	2.5
				Result:	**Pass**

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

Occupied Bandwidth		
Channel	WCDMA R99	HSDPA
Lowest		
Middle		
Highest		

Occupied Bandwidth	
Channel	HSUPA
Lowest	
Middle	
Highest	

Spurious Emissions at Antenna Terminal		
Channel	WCDMA R99	
Lowest		
Middle		
Highest		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
R99		
HSUPA		
HSDPA		

4.6 Antenna Port Test Data and Results for LTE Band 2

Serial Number:	2A55-4	Test Date:	2023/9/8
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.4	Relative Humidity: (%)	58	ATM Pressure: (kPa)	100.5

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	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Minl-Clrcuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28

** 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	1850.7	1880	1909.3
3MHz	1851.5	1880	1908.5
5MHz	1852.5	1880	1907.5
10MHz	1855	1880	1905
15MHz	1857.5	1880	1902.5
20MHz	1860	1880	1900

Test Data:

FCC§2.1046;§ 24.232

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP(dBm)	EIRP Limit(dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	22.18	22.13	22.00	20.88	33
	RB1#3	22.11	22.16	22.03		
	RB1#5	22.13	22.06	22.01		
	RB3#0	21.81	21.48	21.63		
	RB3#3	21.79	21.43	21.53		
	RB6#0	20.72	20.40	20.63		
1.4MHz 16QAM	RB1#0	21.03	21.40	21.83	20.53	33
	RB1#3	21.10	21.34	21.78		
	RB1#5	21.01	21.31	21.76		
	RB3#0	20.87	20.44	20.44		
	RB3#3	20.87	20.50	20.46		
	RB6#0	19.98	19.83	19.69		
3MHz QPSK	RB1#0	22.37	21.87	21.96	21.10	33
	RB1#8	22.40	21.83	22.00		
	RB1#14	22.35	21.87	22.02		
	RB6#0	20.74	20.50	20.52		
	RB6#9	20.69	20.53	20.56		
	RB15#0	20.76	20.44	20.53		
3MHz 16QAM	RB1#0	21.44	20.87	21.49	20.19	33
	RB1#8	21.41	20.78	21.49		
	RB1#14	21.38	20.78	21.49		
	RB6#0	19.95	19.60	19.59		
	RB6#9	20.05	19.55	19.50		
	RB15#0	19.87	19.53	19.70		
5MHz QPSK	RB1#0	22.42	21.96	22.04	21.12	33
	RB1#13	22.30	21.92	22.01		
	RB1#24	22.32	21.96	22.02		
	RB15#0	20.70	20.42	20.53		
	RB15#10	20.63	20.39	20.55		
	RB25#0	20.62	20.42	20.49		
5MHz 16QAM	RB1#0	21.42	20.69	20.17	20.12	33
	RB1#13	21.36	20.57	20.15		
	RB1#24	21.40	20.72	20.15		
	RB15#0	19.67	19.65	19.70		
	RB15#10	19.72	19.54	19.66		
	RB25#0	19.79	19.46	19.76		

10MHz QPSK	RB1#0	22.35	22.02	21.96	21.05	33
	RB1#25	22.32	21.91	21.89		
	RB1#49	22.26	21.98	22.04		
	RB25#0	20.74	20.42	20.46		
	RB25#25	20.74	20.36	20.56		
	RB50#0	20.64	20.39	20.59		
10MHz 16QAM	RB1#0	21.44	20.49	21.26	20.14	33
	RB1#25	21.42	20.45	21.30		
	RB1#49	21.36	20.39	21.29		
	RB25#0	19.87	19.72	19.62		
	RB25#25	19.87	19.70	19.60		
	RB50#0	19.84	19.56	19.66		
15MHz QPSK	RB1#0	22.32	21.95	21.82	21.02	33
	RB1#38	22.17	21.86	21.93		
	RB1#74	22.16	21.82	22.04		
	RB36#0	20.62	20.60	20.49		
	RB36#39	20.61	20.46	20.53		
	RB75#0	20.67	20.38	20.46		
15MHz 16QAM	RB1#0	22.01	21.41	21.22	**20.71**	33
	RB1#38	21.96	21.26	21.22		
	RB1#74	21.94	21.21	21.32		
	RB36#0	19.70	19.62	19.60		
	RB36#39	19.75	19.58	19.75		
	RB75#0	19.77	19.68	19.59		
20MHz QPSK	RB1#0	22.44	22.10	21.93	**21.14**	33
	RB1#50	22.25	21.99	22.00		
	RB1#99	22.15	22.06	22.16		
	RB50#0	20.68	20.47	20.48		
	RB50#50	20.64	20.48	20.44		
	RB100#0	20.65	20.46	20.45		
20MHz 16QAM	RB1#0	21.28	21.93	21.15	20.63	33
	RB1#50	21.19	21.75	21.12		
	RB1#99	21.11	21.77	21.23		
	RB50#0	19.70	19.66	19.61		
	RB50#50	19.71	19.47	19.69		
	RB100#0	19.71	19.65	19.60		
Note: EIRP=Conducted Power(dBm) - LC(dB) + GT(dBi)						
					Result:	**Pass**

Peak-to-average Ratio(PAR)					
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	4.26	5.48	4.64	13
	RB100#0	4.61	4.38	4.41	13
20MHz 16QAM	RB1#0	5.45	6	6.17	13
	RB100#0	6.12	5.97	5.97	13
				Result:	**Pass**

FCC §2.1049, §24.238:Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.102	1.096	1.102	1.260	1.260	1.260
1.4MHz 16QAM	1.102	1.102	1.09	1.254	1.260	1.248
3MHz QPSK	2.695	2.683	2.695	3.012	3.024	3.000
3MHz 16QAM	2.695	2.695	2.695	3.000	3.012	3.024
5MHz QPSK	4.511	4.511	4.531	5.000	4.980	5.000
5MHz 16QAM	4.531	4.511	4.511	5.000	5.000	4.980
10MHz QPSK	8.942	8.982	8.982	9.800	9.840	9.760
10MHz 16QAM	8.942	8.942	8.942	9.800	9.840	9.800
15MHz QPSK	13.473	13.533	13.533	15.000	15.000	14.880
15MHz 16QAM	13.533	13.533	13.533	15.060	14.880	15.000
20MHz QPSK	17.964	17.964	17.964	19.600	19.680	19.520
20MHz 16QAM	18.044	18.044	18.044	19.760	19.760	19.680
Note: The test plots please refer to the Plots of Occupied Bandwidth						

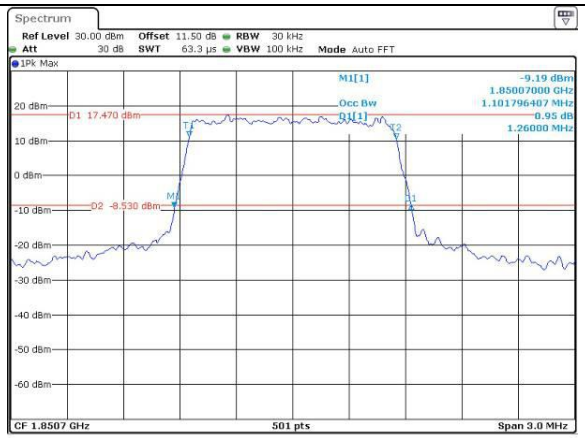
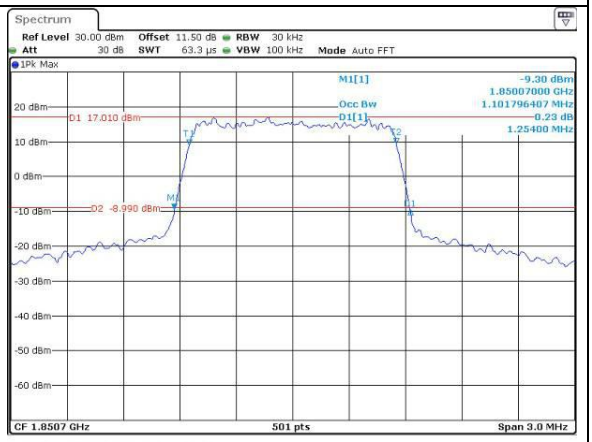
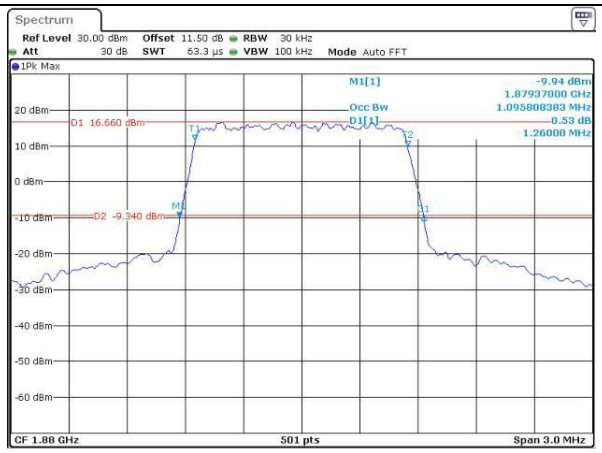
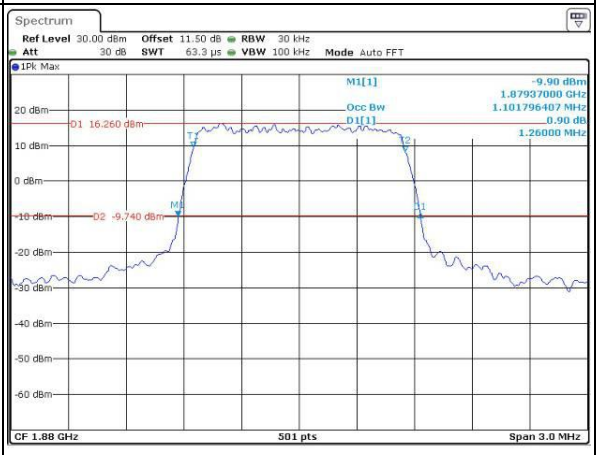
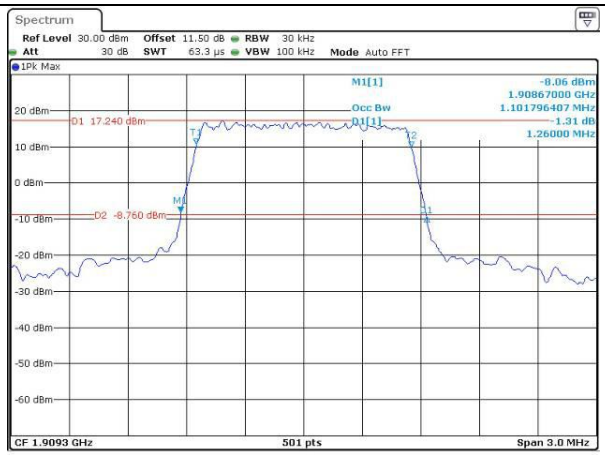
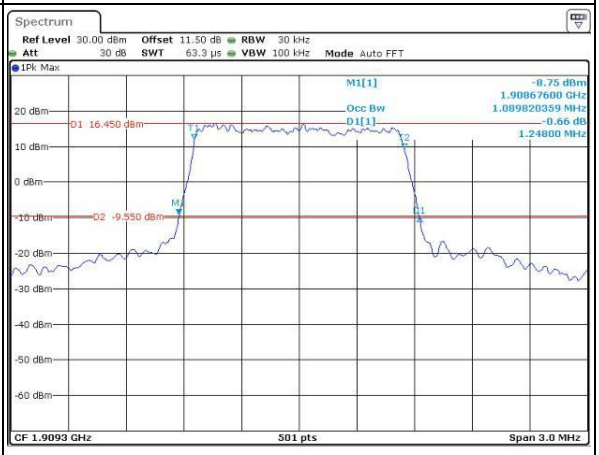
FCC §2.1051, § 24.238 (a):Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

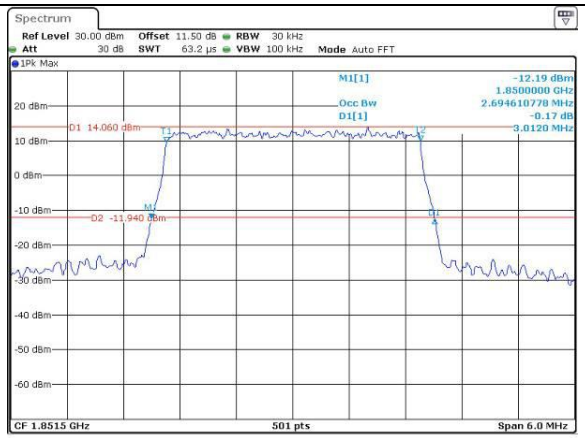
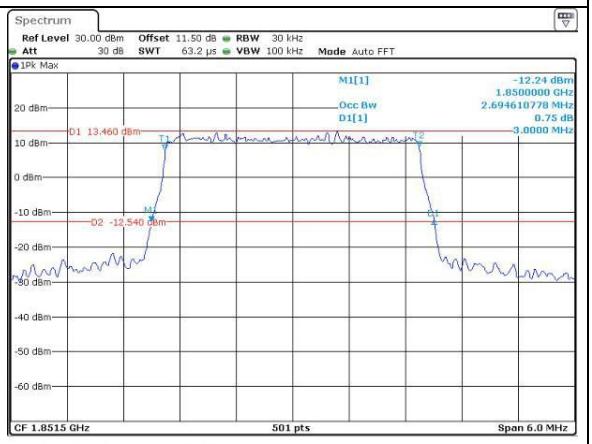
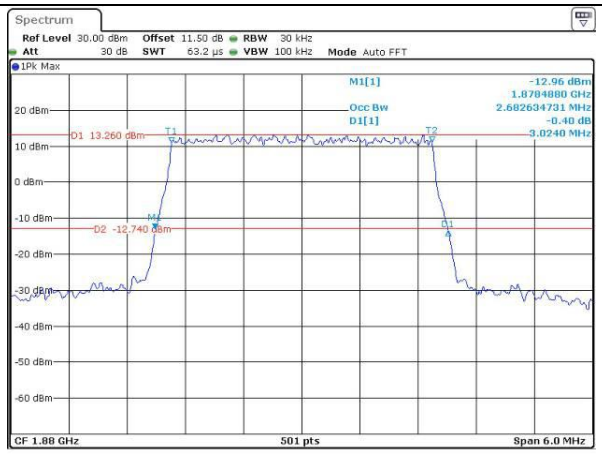
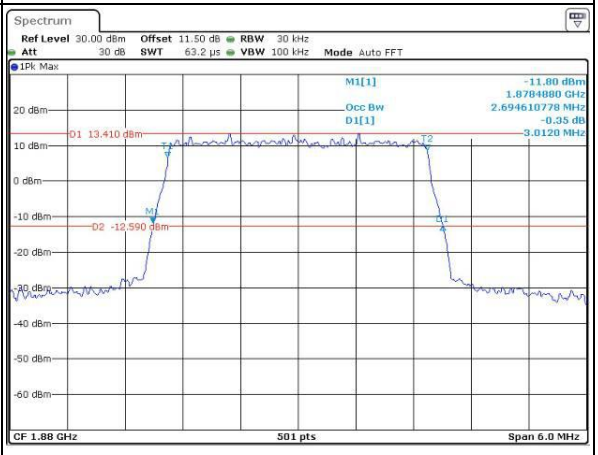
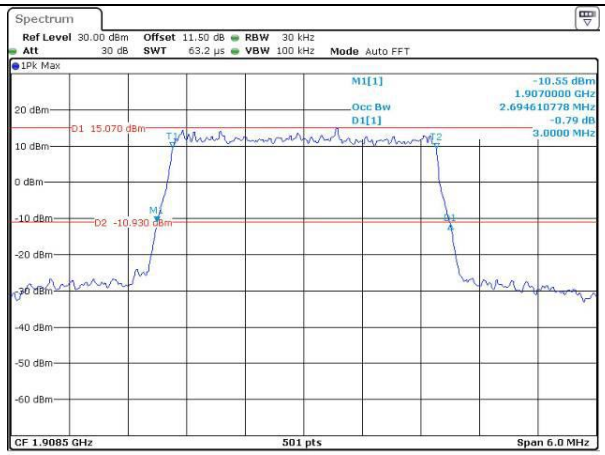
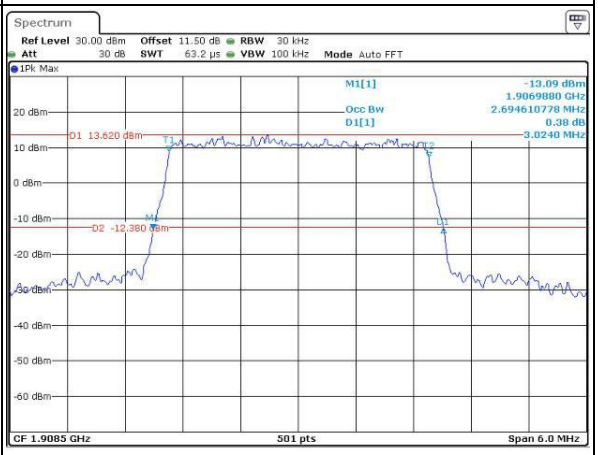
FCC §2.1051, § 24.238 (a):Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

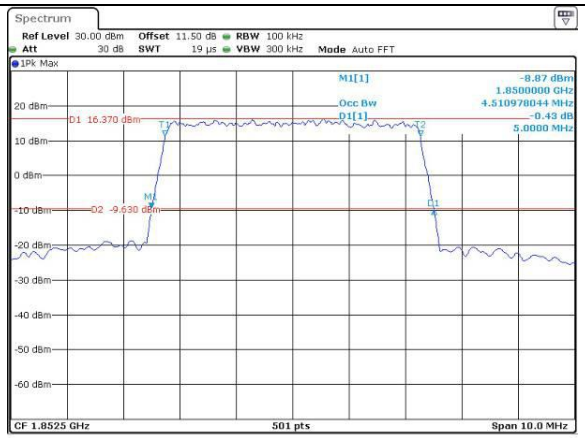
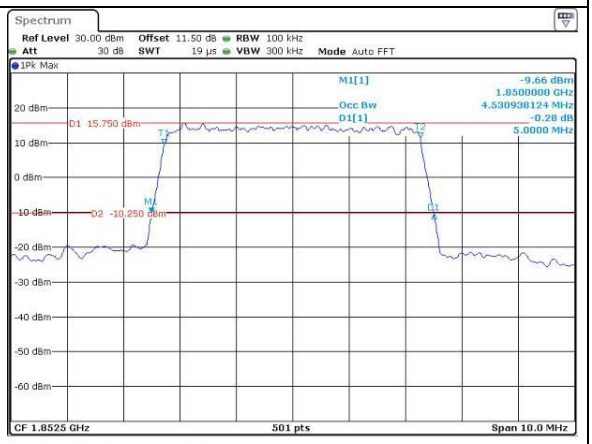
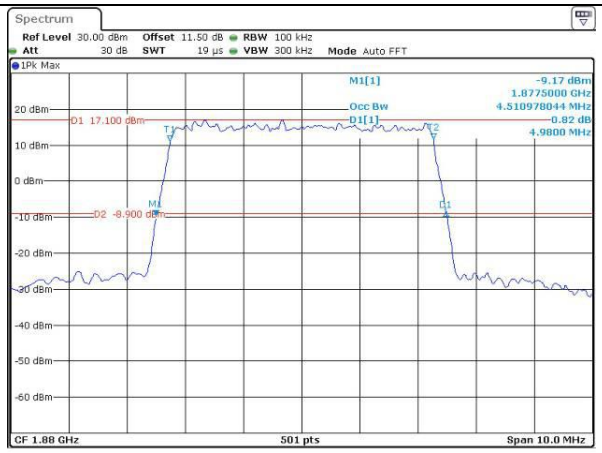
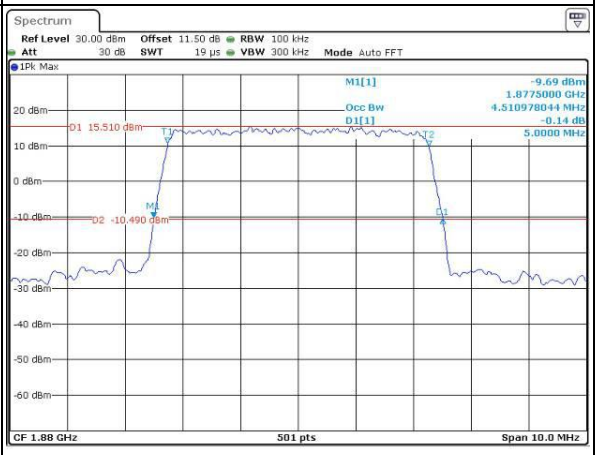
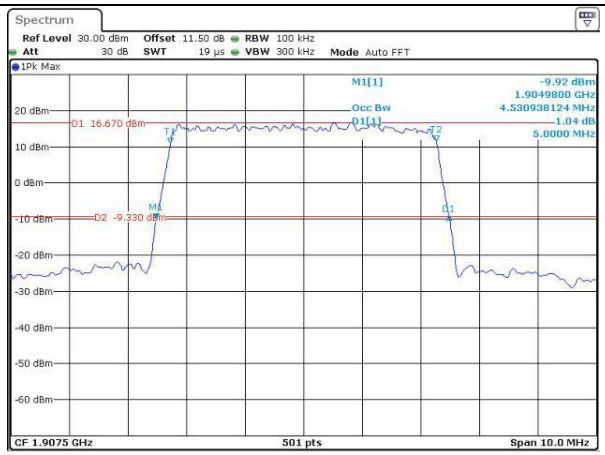
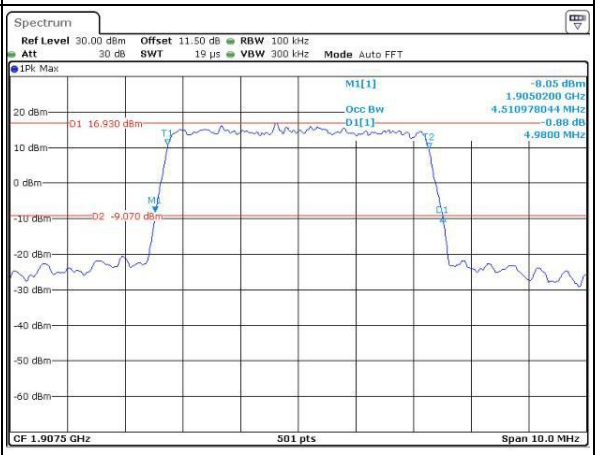
FCC §2.1055, §24.235: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	1850.008	1850.000	1909.999	1910.000
	-20	3.85	1850.014	1850.000	1909.994	1910.000
	-10	3.85	1850.017	1850.000	1909.994	1910.000
	0	3.85	1850.019	1850.000	1909.988	1910.000
	10	3.85	1850.016	1850.000	1909.991	1910.000
	20	3.85	1850.004	1850.000	1909.993	1910.000
	30	3.85	1850.011	1850.000	1909.982	1910.000
	40	3.85	1850.015	1850.000	1909.983	1910.000
	50	3.85	1850.014	1850.000	1909.989	1910.000
Frequency Stability vs. Voltage	20	3.45	1850.018	1850.000	1909.997	1910.000
	20	4.4	1850.008	1850.000	1909.997	1910.000
					Result:	**Pass**

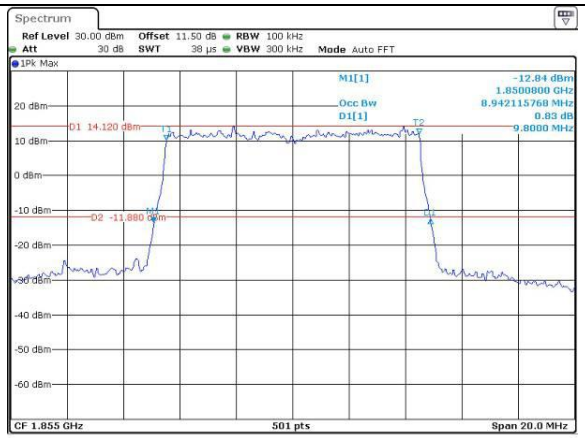
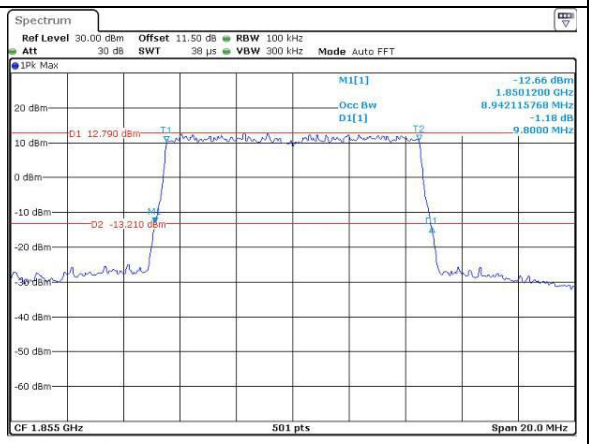
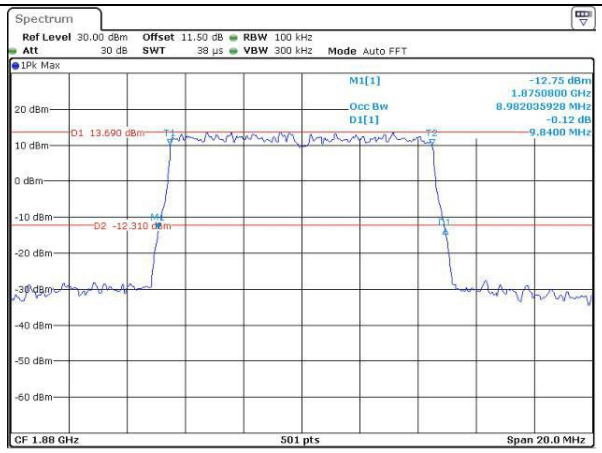
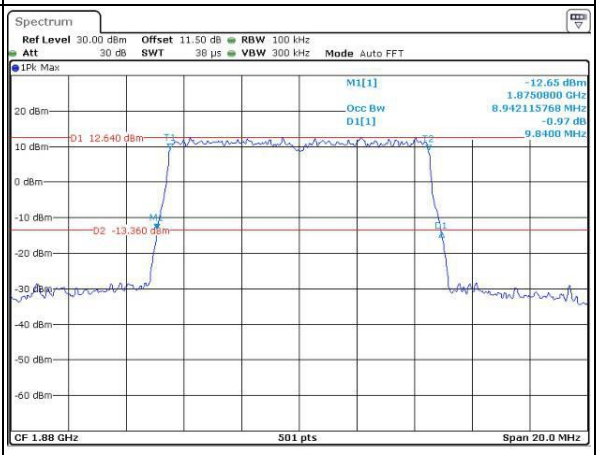
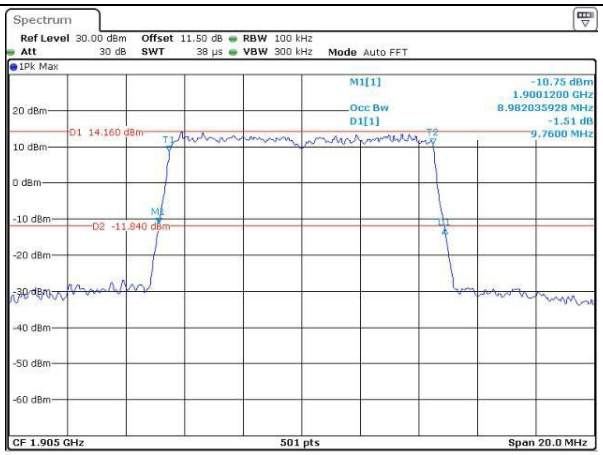
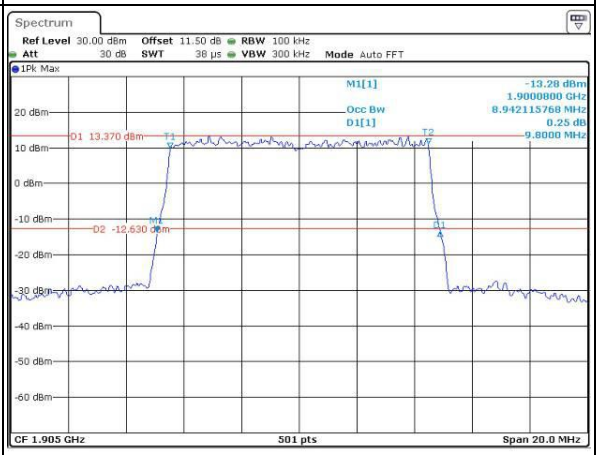
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	1850.012	1850.000	1909.986	1910.000
	-20	3.85	1850.013	1850.000	1909.992	1910.000
	-10	3.85	1850.009	1850.000	1909.990	1910.000
	0	3.85	1850.012	1850.000	1909.989	1910.000
	10	3.85	1850.015	1850.000	1909.986	1910.000
	20	3.85	1850.019	1850.000	1909.996	1910.000
	30	3.85	1850.017	1850.000	1909.993	1910.000
	40	3.85	1850.020	1850.000	1909.986	1910.000
	50	3.85	1850.013	1850.000	1909.993	1910.000
Frequency Stability vs. Voltage	20	3.45	1850.016	1850.000	1909.994	1910.000
	20	4.4	1850.018	1850.000	1909.989	1910.000
					Result:	**Pass**

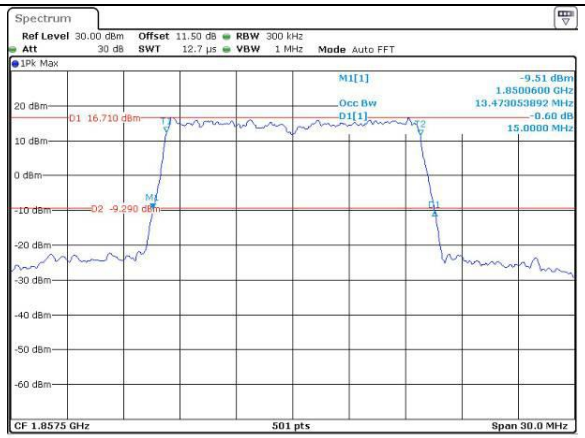
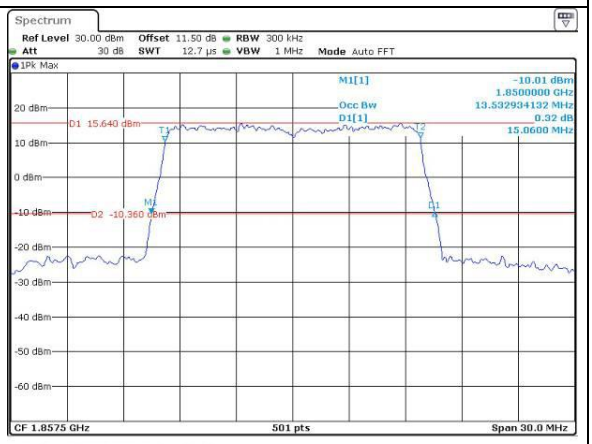
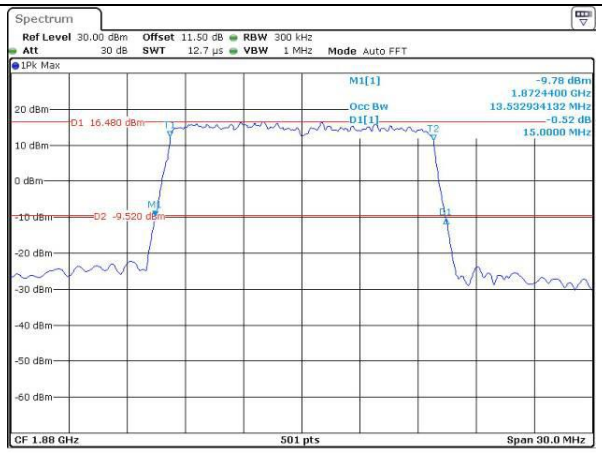
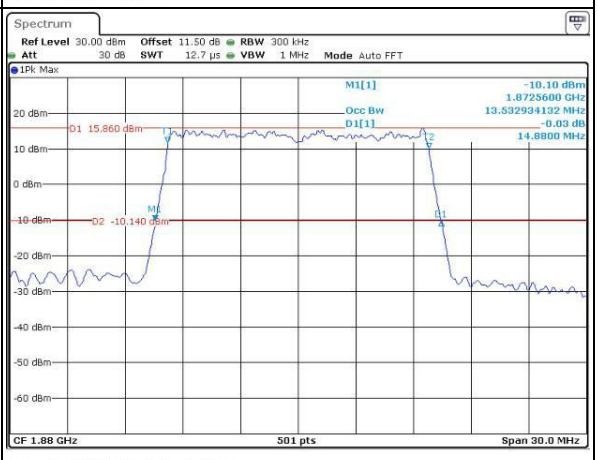
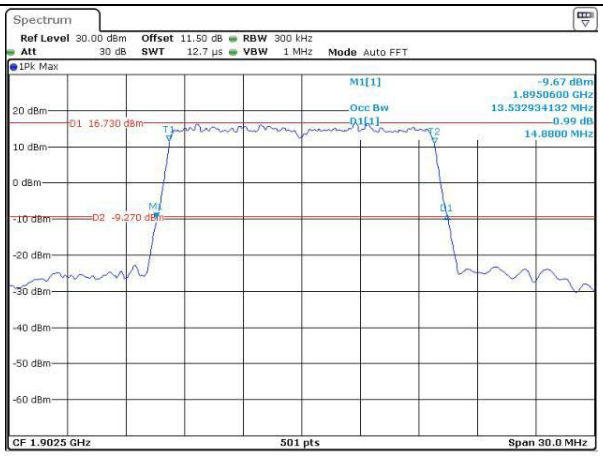
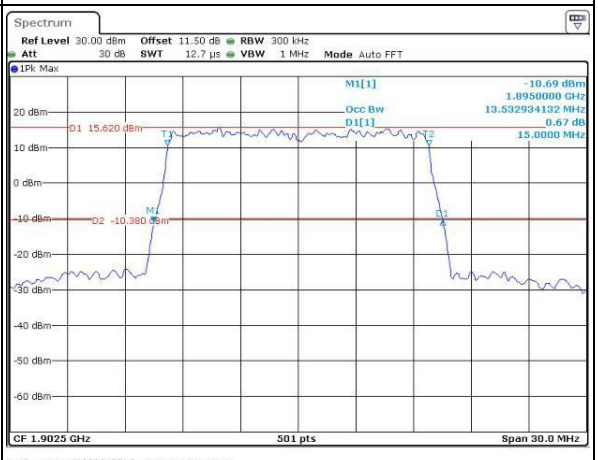
Test Plots(Note: The 11.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

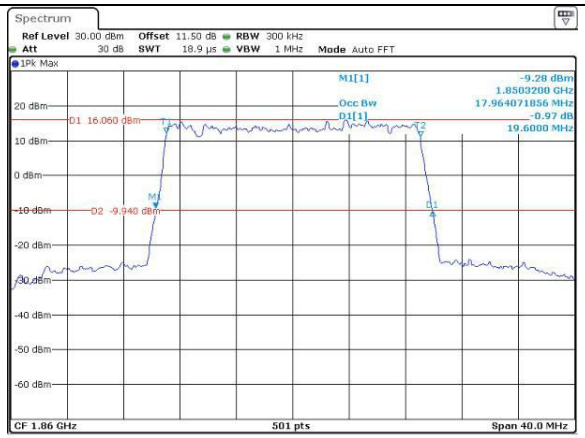
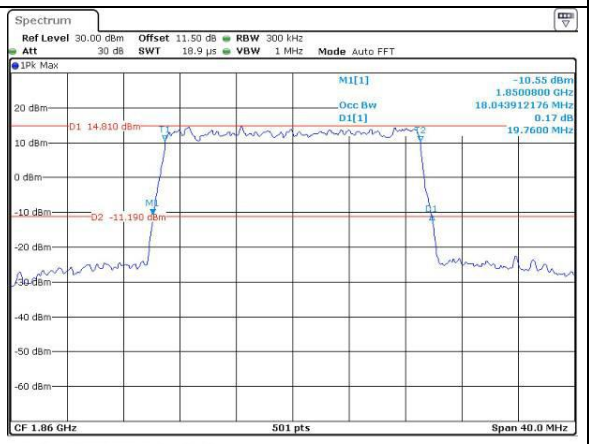
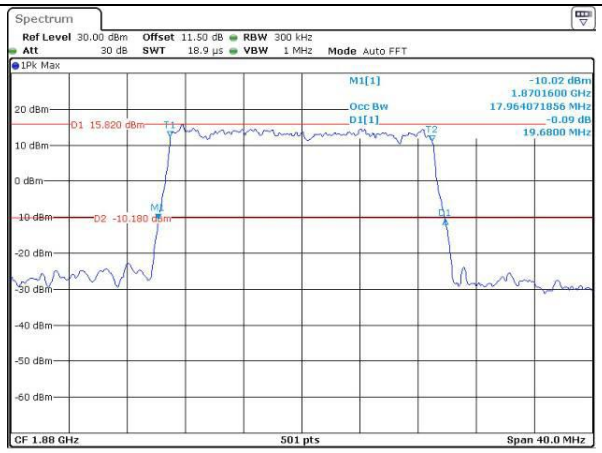
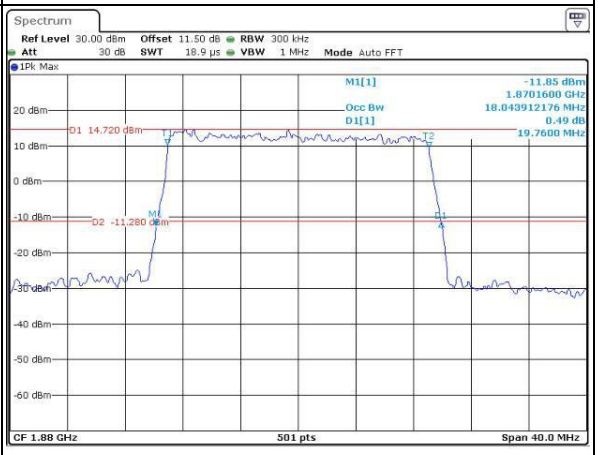
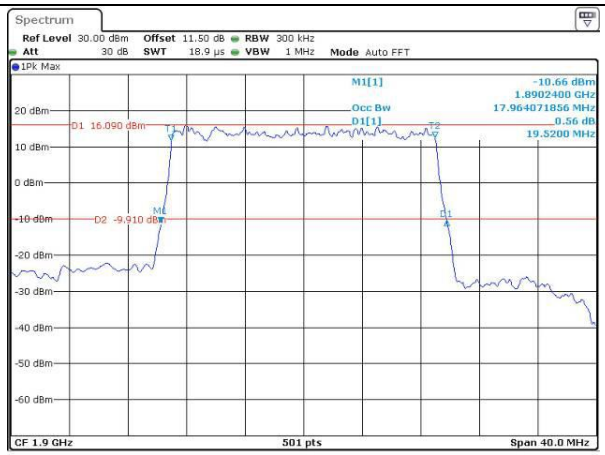
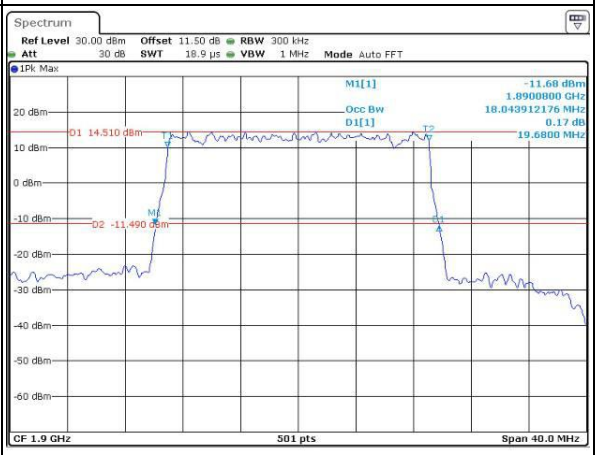
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

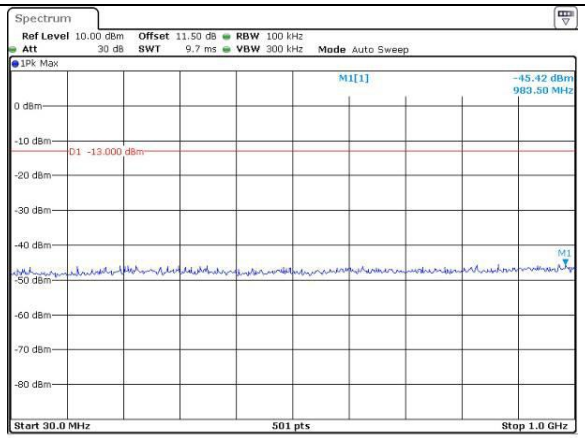
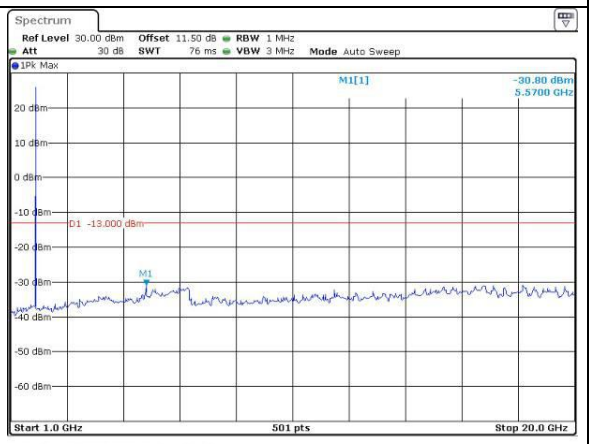
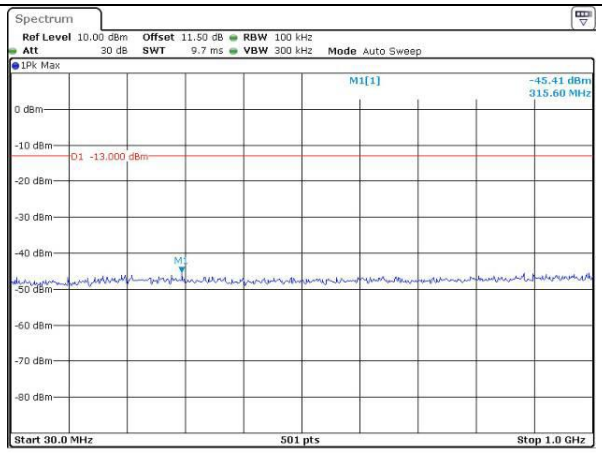
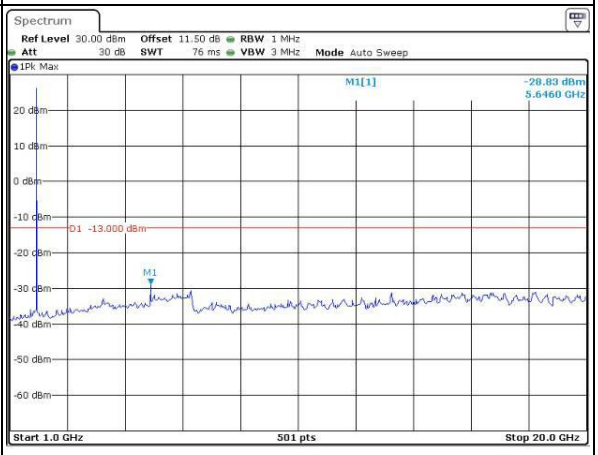
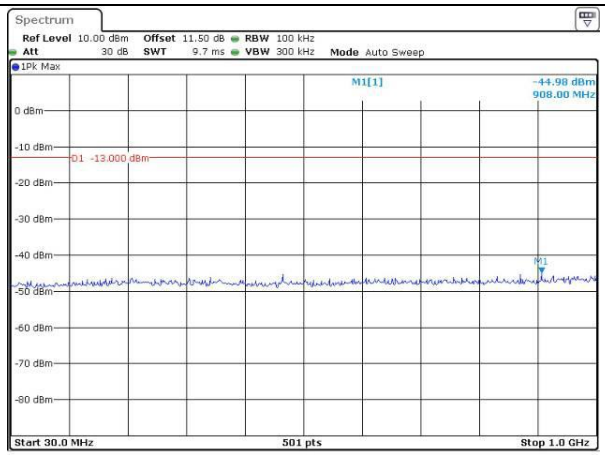
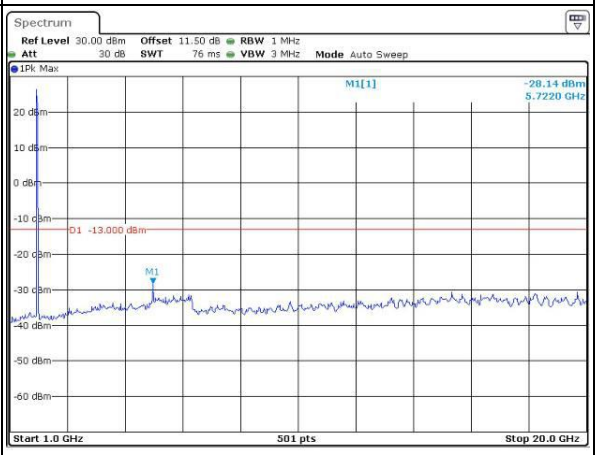
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

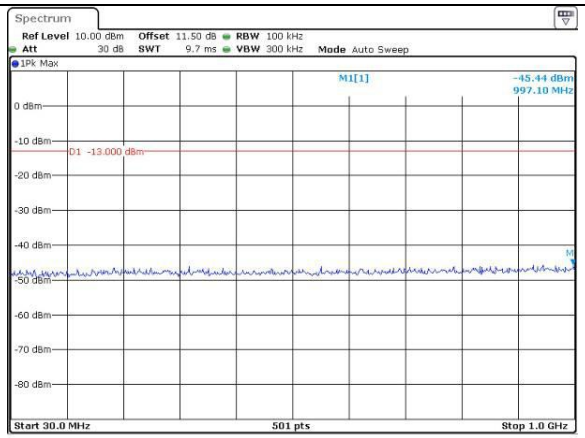
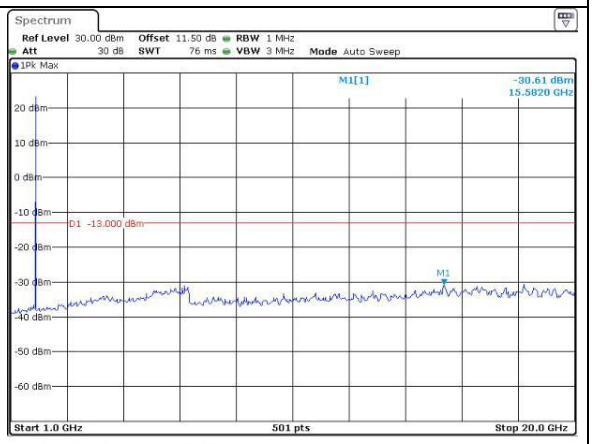
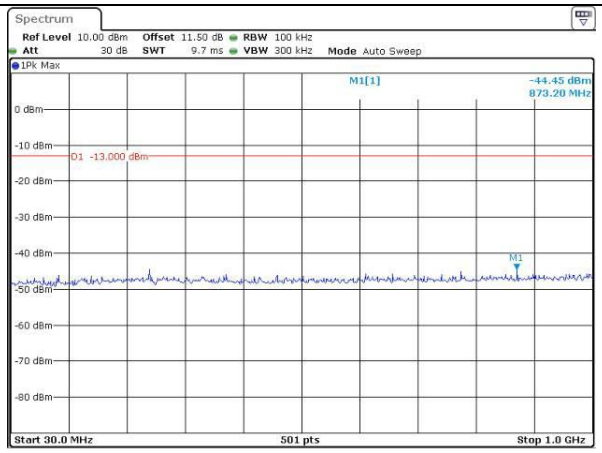
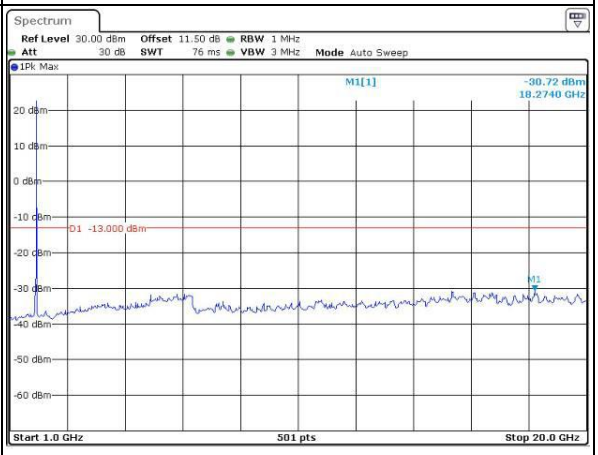
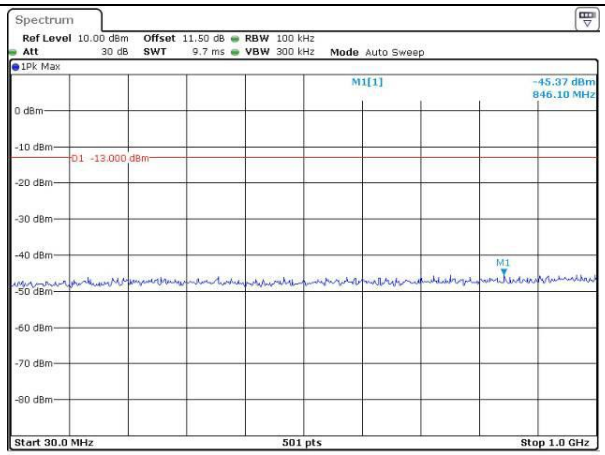
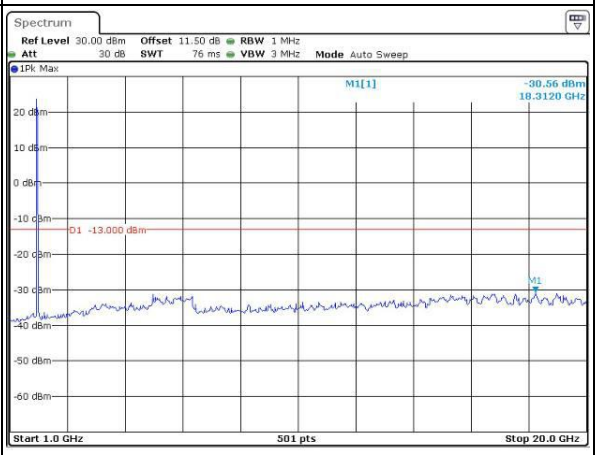
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

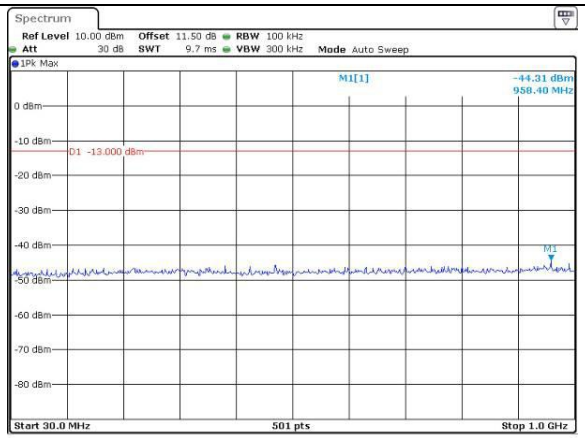
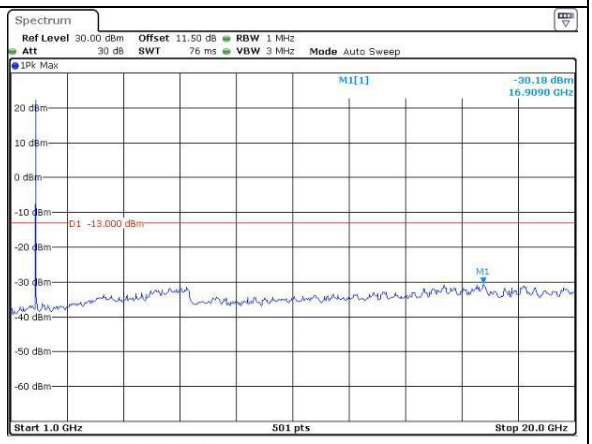
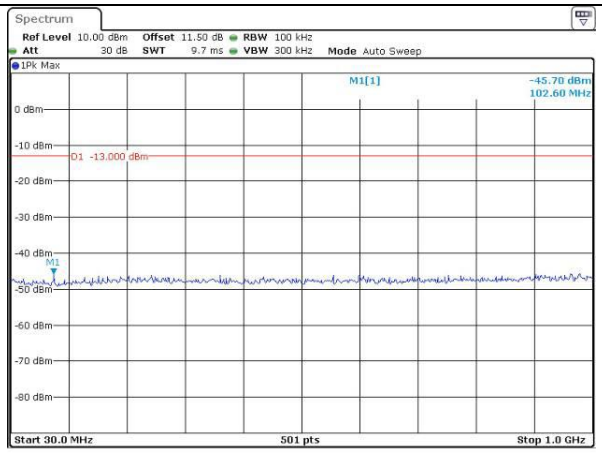
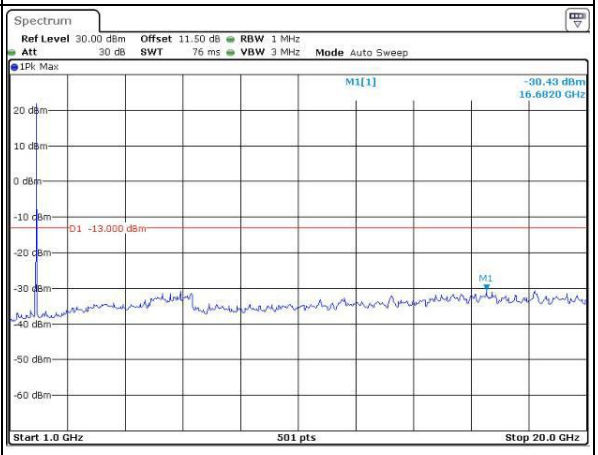
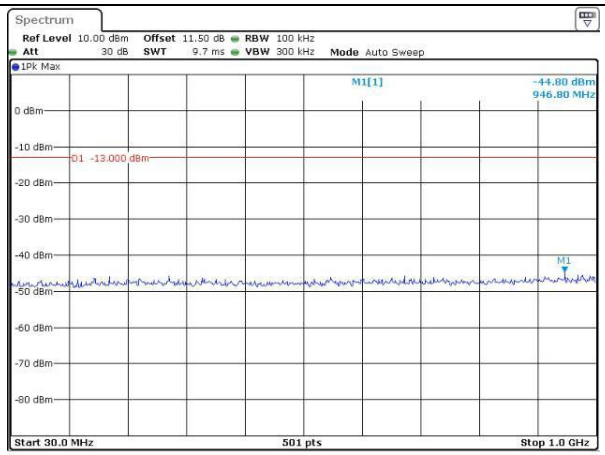
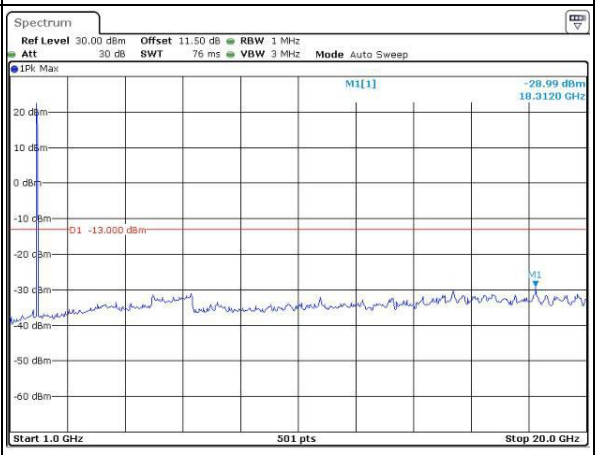
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

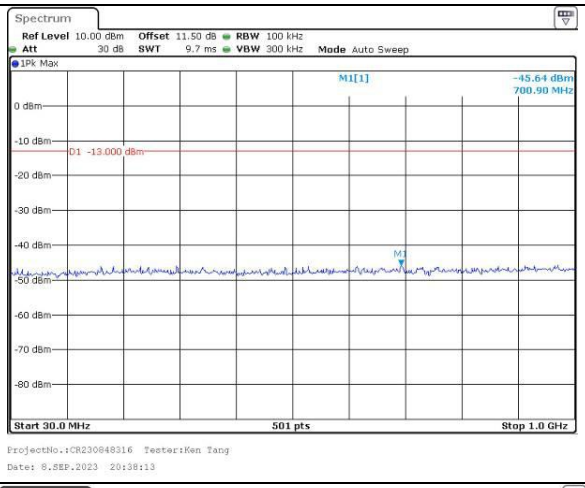
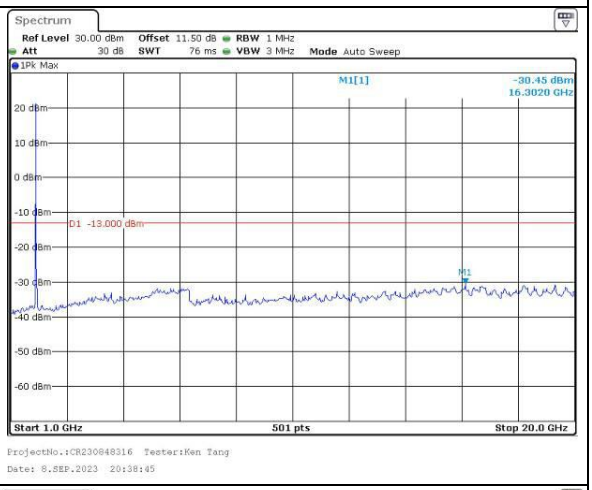
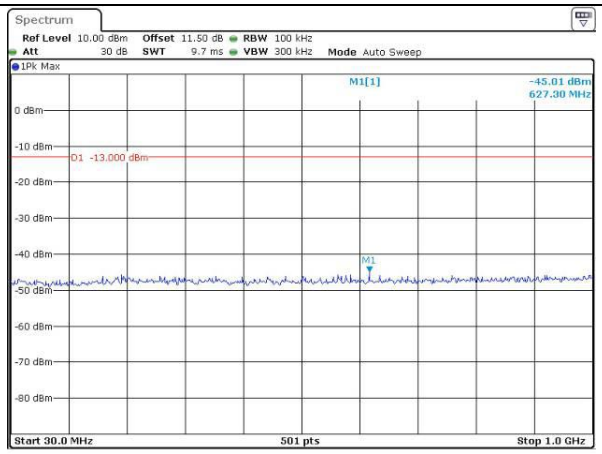
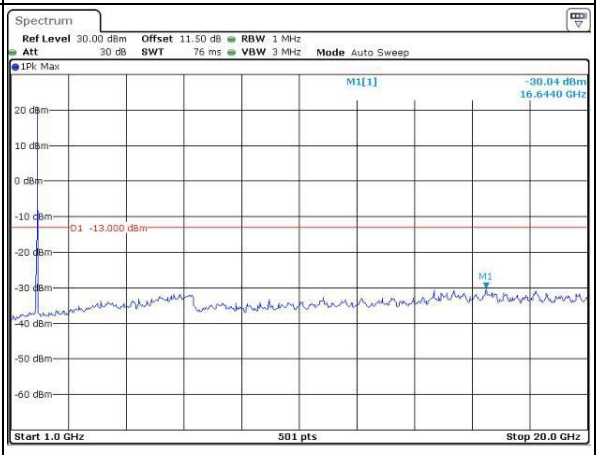
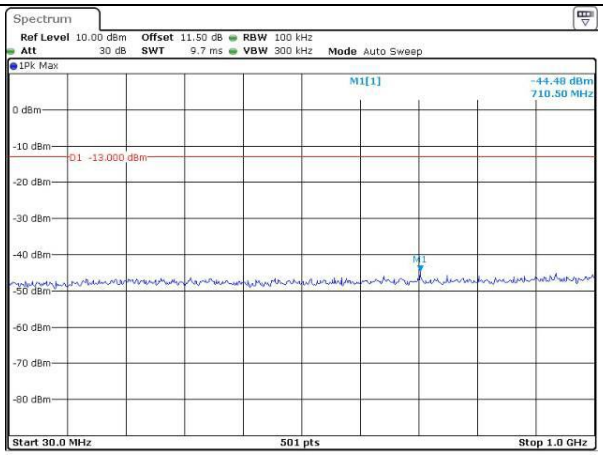
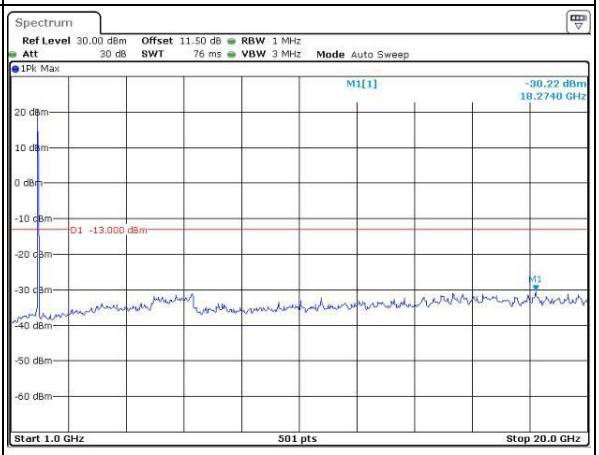
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

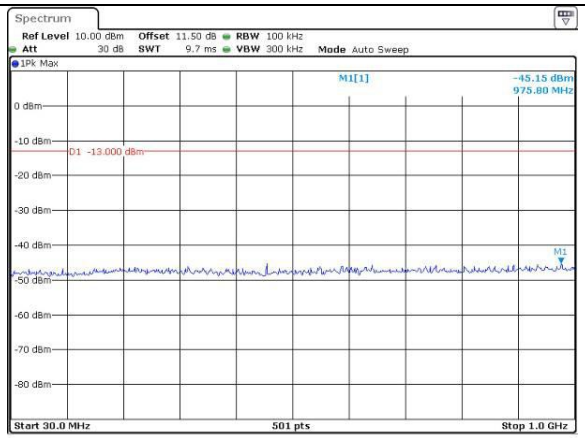
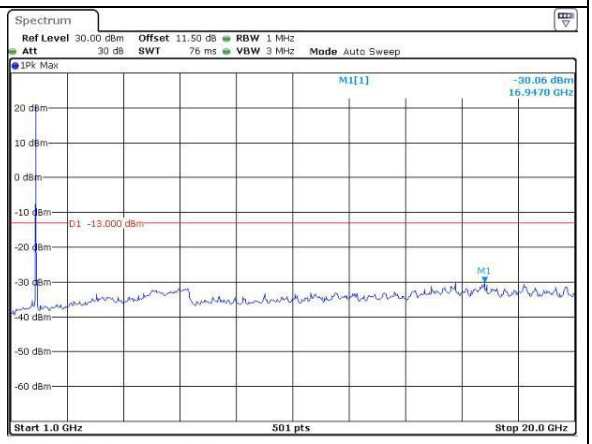
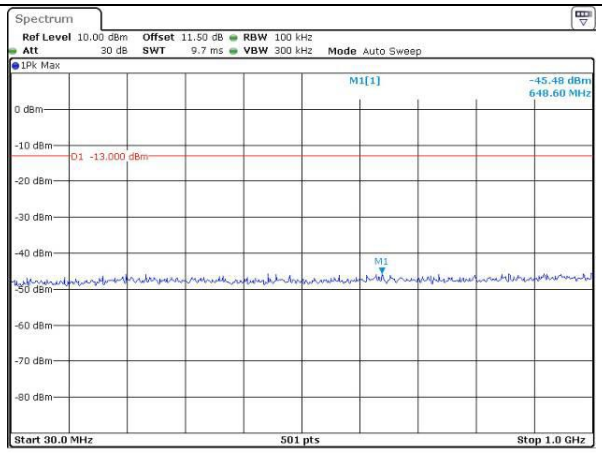
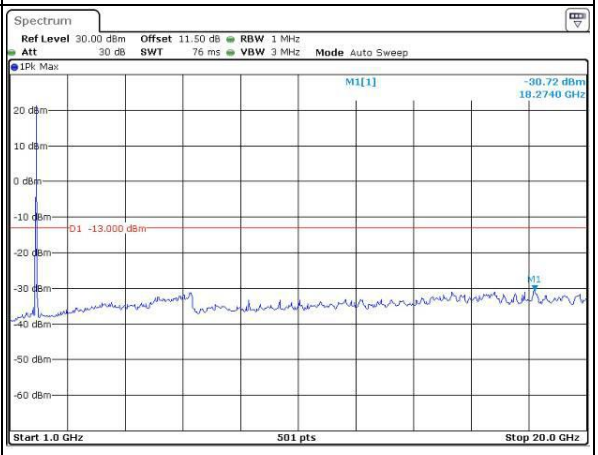
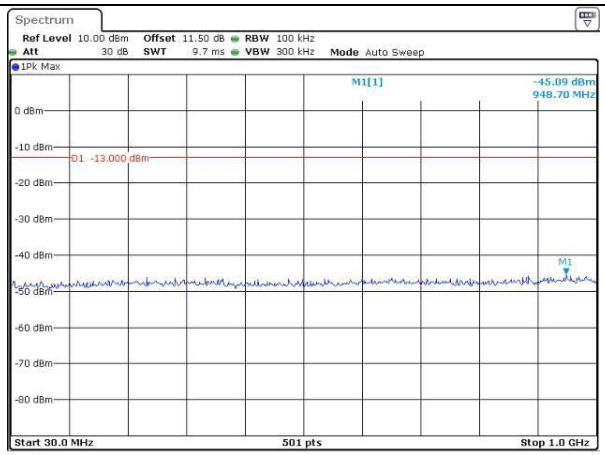
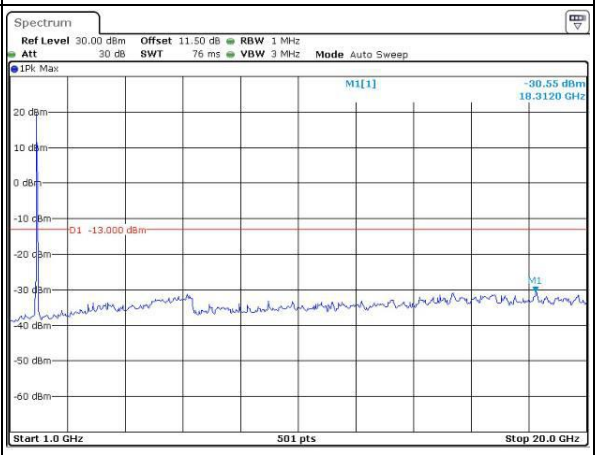
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

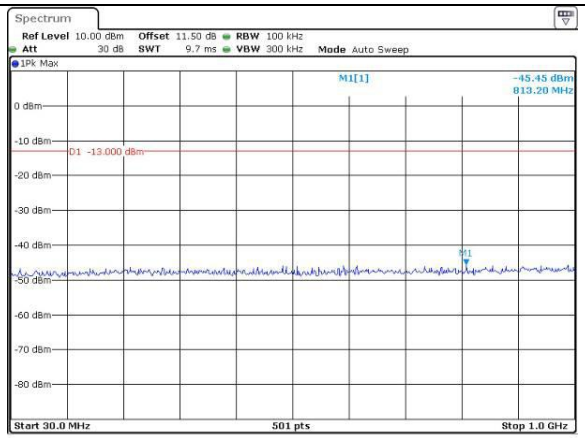
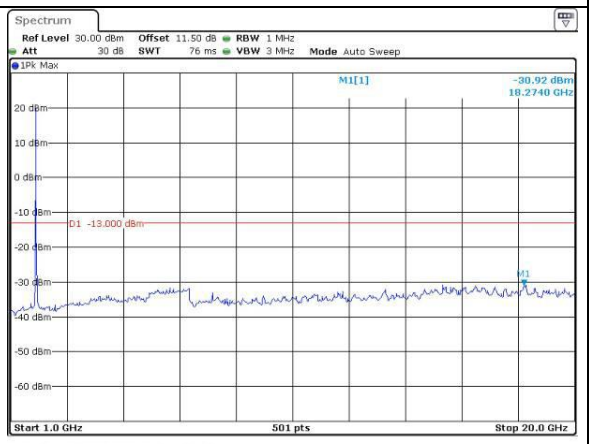
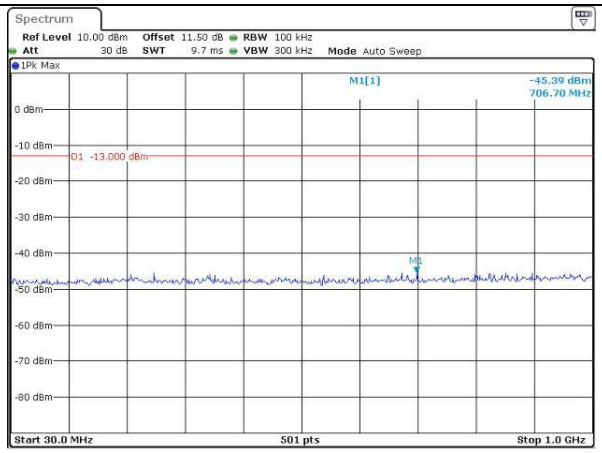
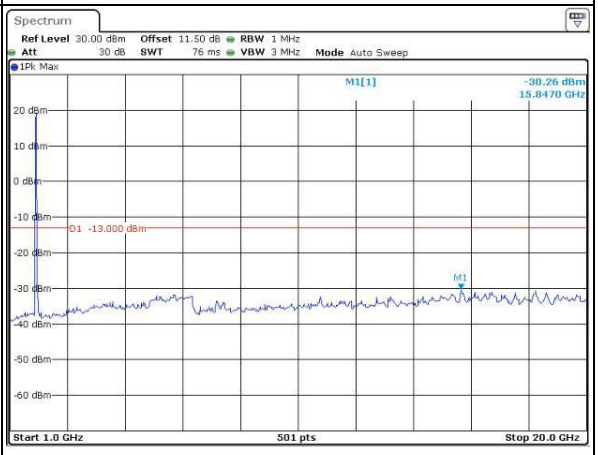
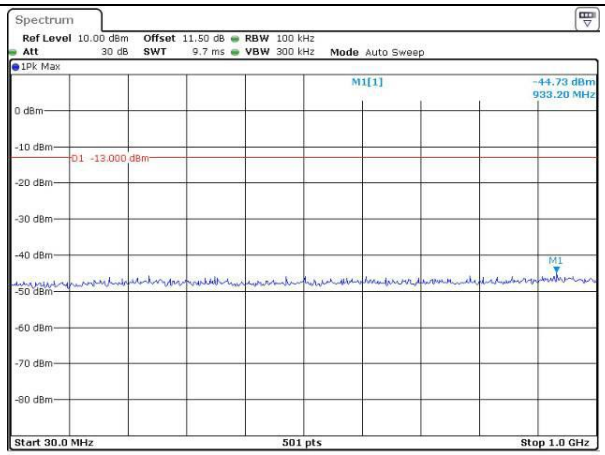
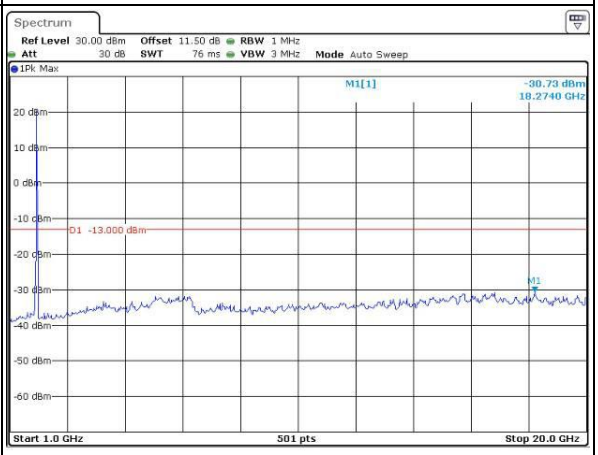
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

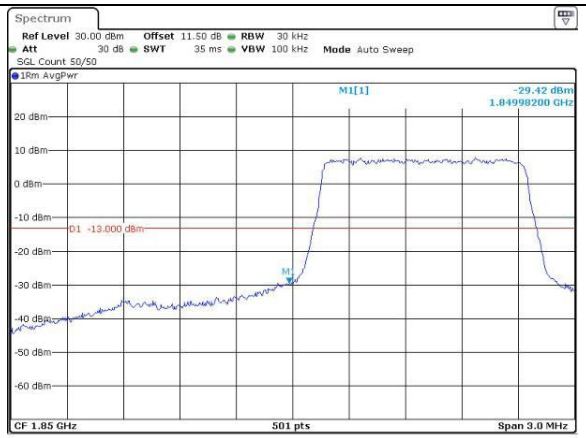
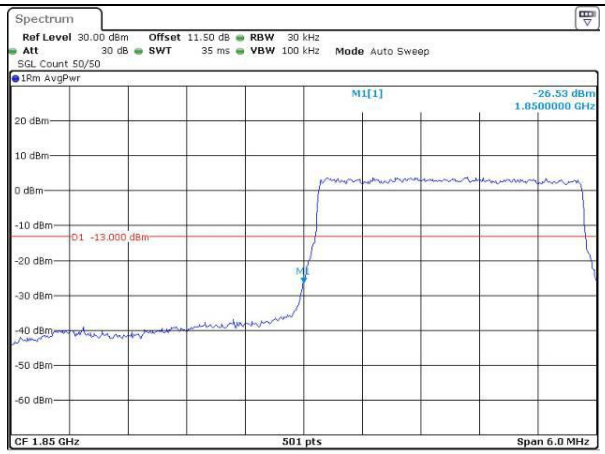
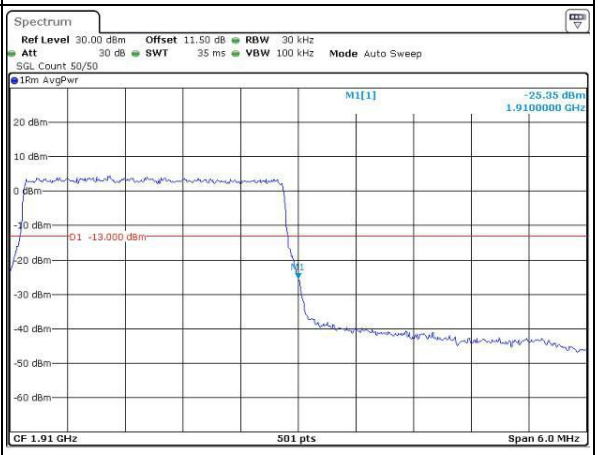
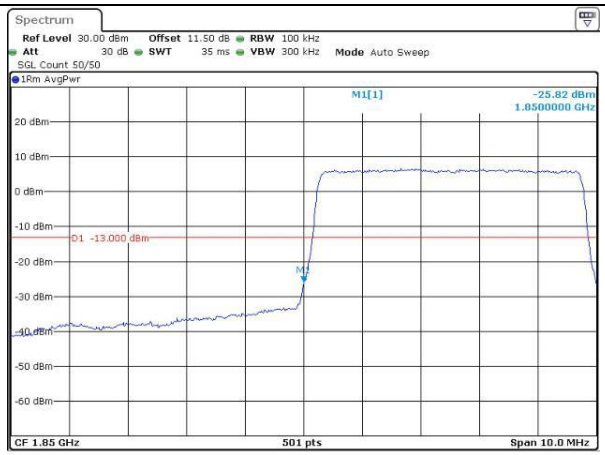
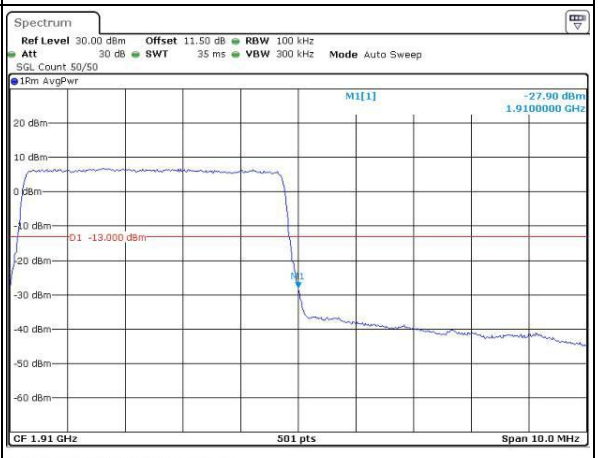
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

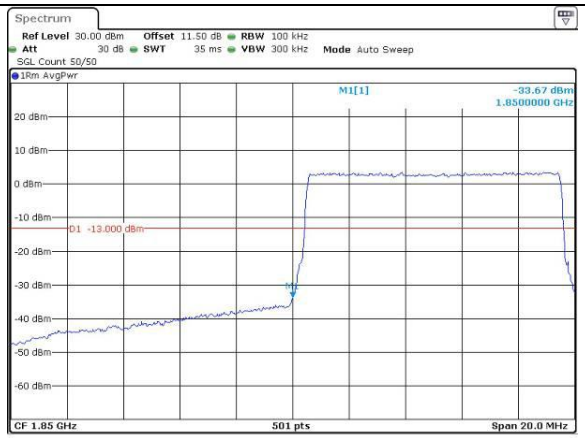
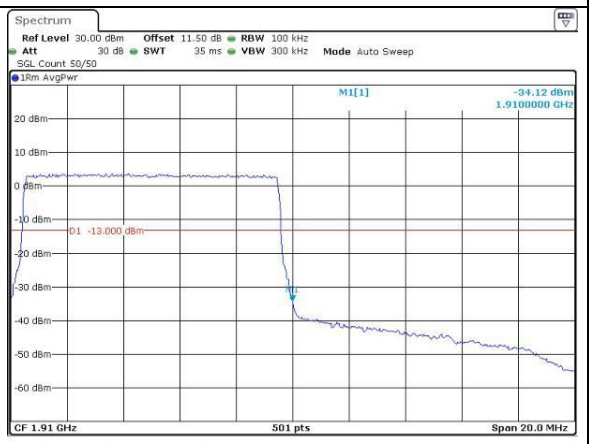
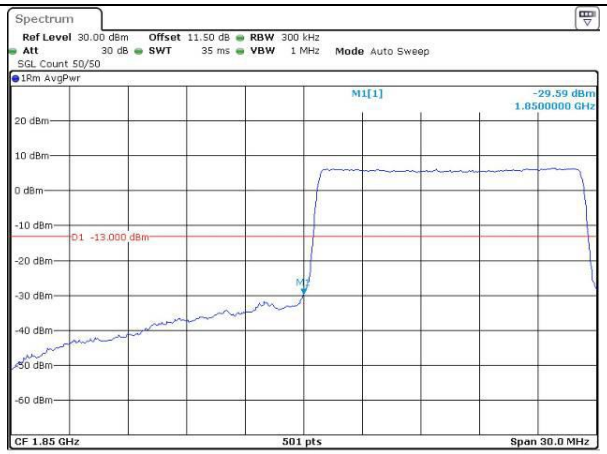
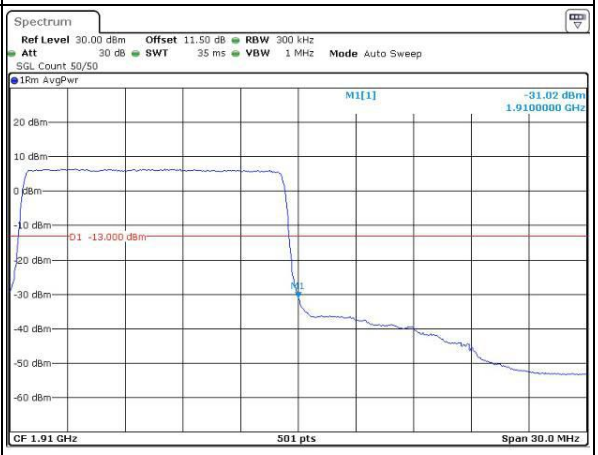
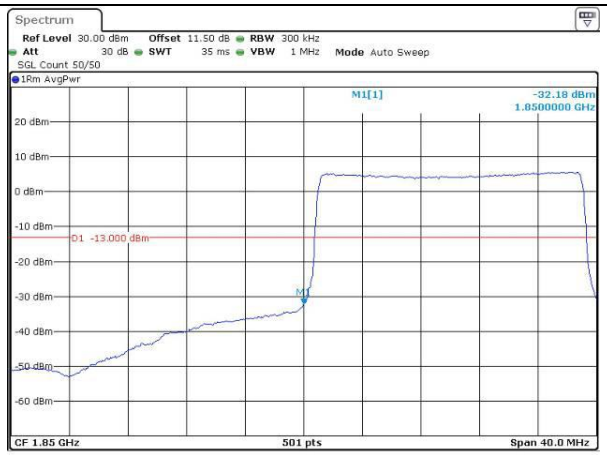
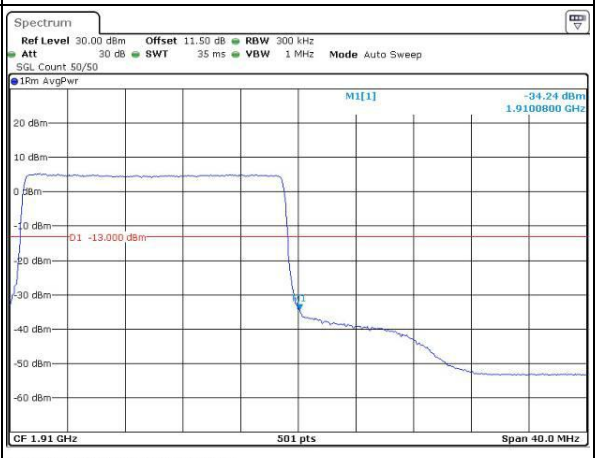
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

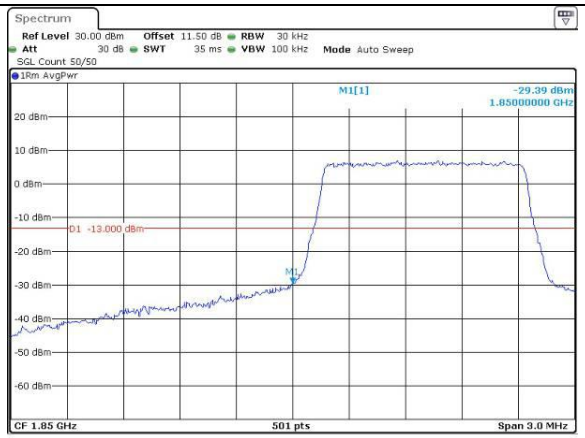
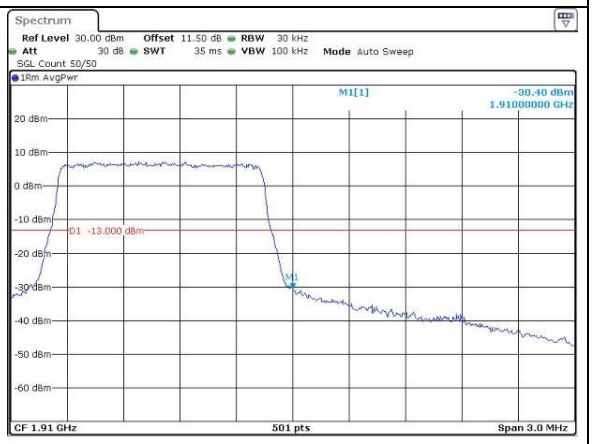
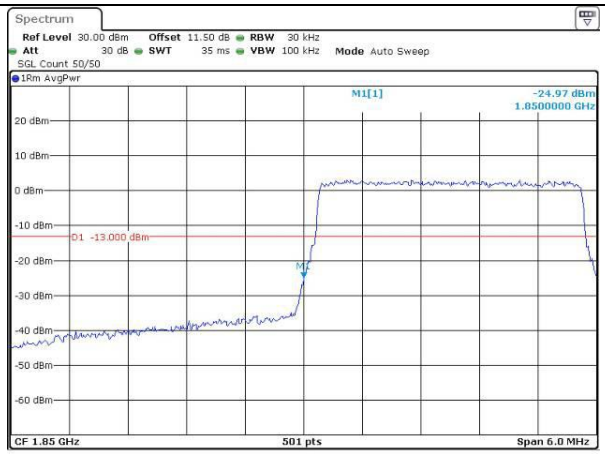
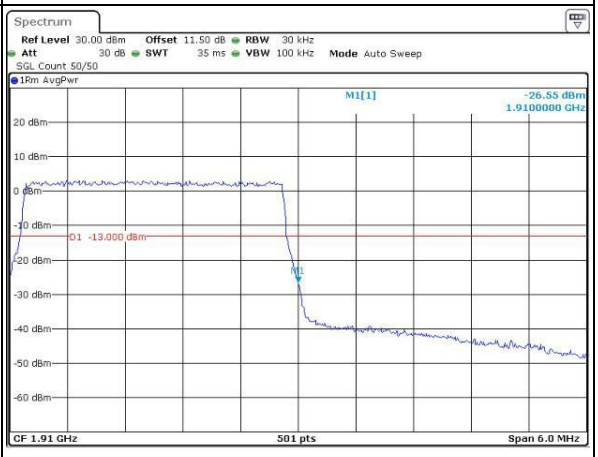
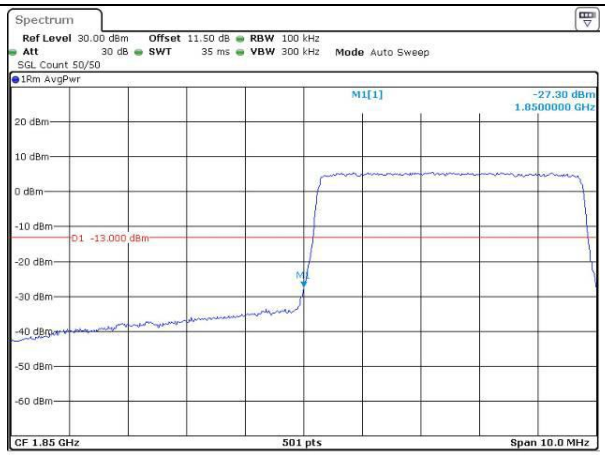
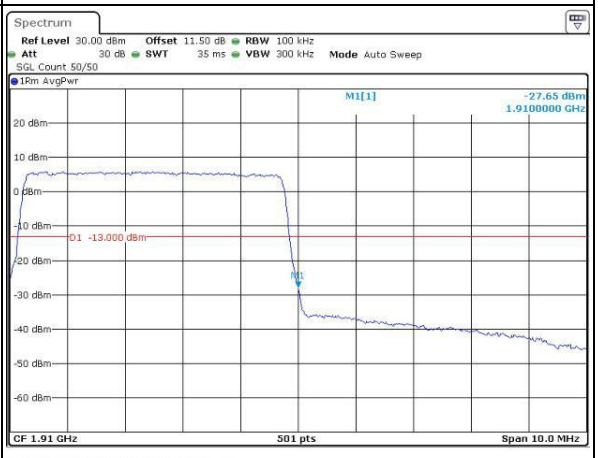
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

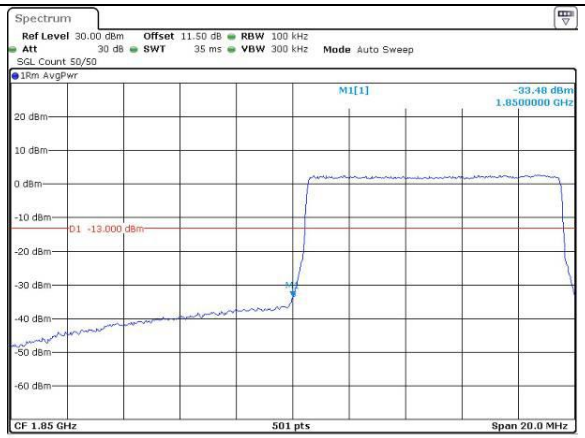
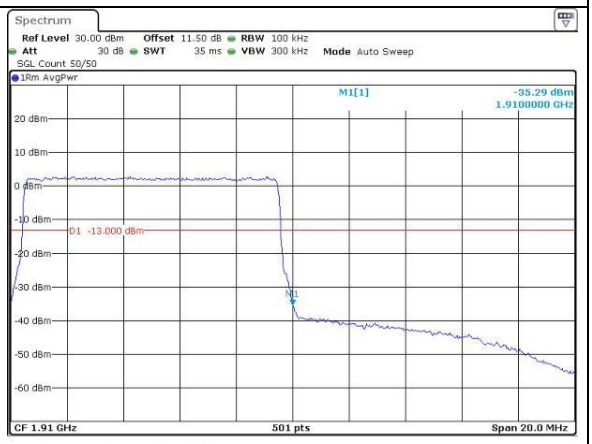
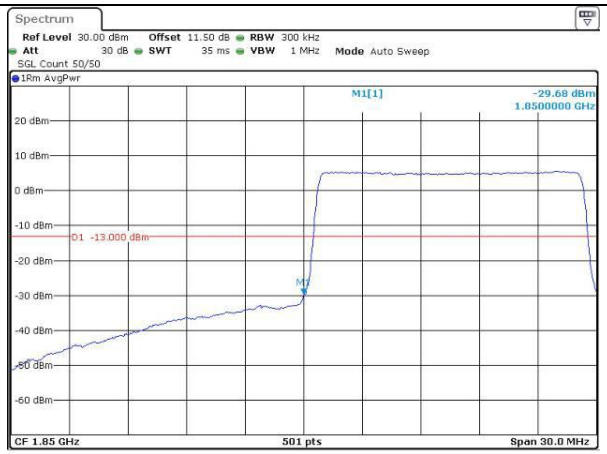
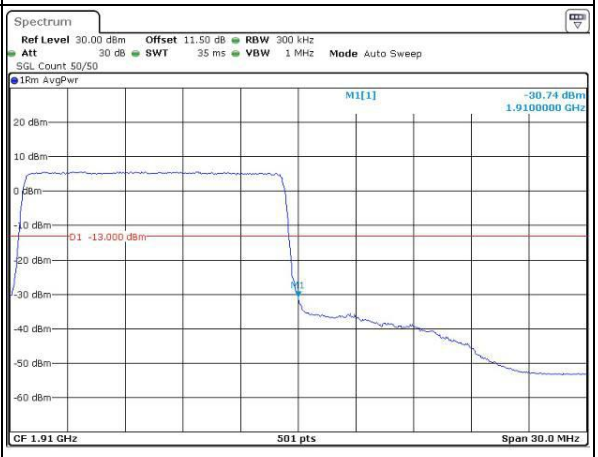
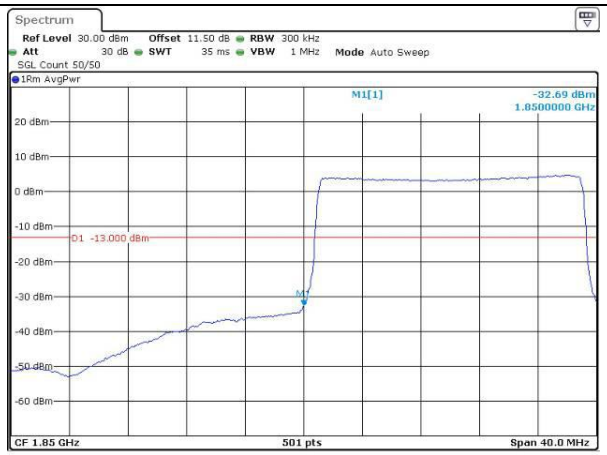
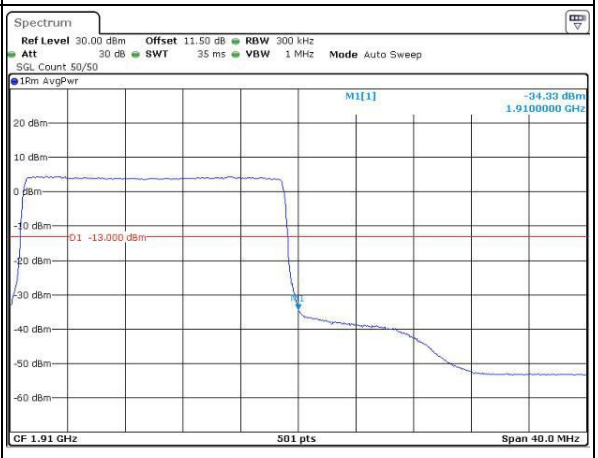
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

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

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

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

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

4.7 Antenna Port Test Data and Results for LTE Band 4

Serial Number:	2A55-4	Test Date:	2023/9/8
Test Site:	RF	Test Mode:	Transmitting
Tester:	Ken Tang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.4	Relative Humidity: (%)	58	ATM Pressure: (kPa)	100.5

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	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Minl-Clrcuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28

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

Test Frequency for Each Mode:

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

Test Data:

FCC§2.1046;§ 27.50(d)(4)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP(dBm)	EIRP Limit(dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	19.63	19.27	19.41	18.23	30
	RB1#3	19.56	19.33	19.41		
	RB1#5	19.62	19.41	19.36		
	RB3#0	19.41	19.37	19.34		
	RB3#3	19.44	19.39	19.32		
	RB6#0	18.51	18.39	18.33		
1.4MHz 16QAM	RB1#0	18.77	18.37	18.50	17.63	30
	RB1#3	19.03	18.57	18.71		
	RB1#5	18.86	18.41	18.51		
	RB3#0	18.80	18.61	18.84		
	RB3#3	18.85	18.61	18.84		
	RB6#0	17.30	17.50	17.18		
3MHz QPSK	RB1#0	19.67	19.36	19.23	18.27	30
	RB1#8	19.62	19.33	19.23		
	RB1#14	19.59	19.39	19.24		
	RB6#0	18.53	18.48	18.43		
	RB6#9	18.67	18.53	18.42		
	RB15#0	18.63	18.51	18.45		
3MHz 16QAM	RB1#0	18.82	18.43	18.96	17.68	30
	RB1#8	19.08	18.58	19.07		
	RB1#14	19.02	18.50	18.93		
	RB6#0	17.31	17.53	17.27		
	RB6#9	17.49	17.60	17.29		
	RB15#0	17.38	17.71	17.32		
5MHz QPSK	RB1#0	19.60	19.23	19.16	18.20	30
	RB1#13	19.47	19.33	19.15		
	RB1#24	19.50	19.36	19.04		
	RB15#0	18.74	18.80	18.41		
	RB15#10	18.84	18.85	18.42		
	RB25#0	18.74	18.78	18.37		
5MHz 16QAM	RB1#0	18.83	18.53	18.18	18.14	30
	RB1#13	19.54	19.06	18.70		
	RB1#24	19.03	18.61	18.18		
	RB15#0	17.31	17.59	17.21		
	RB15#10	17.46	17.67	17.23		
	RB25#0	17.39	17.62	17.21		

10MHz QPSK	RB1#0	19.65	19.37	19.33	18.25	30
	RB1#25	19.58	19.38	19.26		
	RB1#49	19.61	19.49	19.18		
	RB25#0	18.16	18.00	17.82		
	RB25#25	18.41	18.36	18.09		
	RB50#0	18.29	18.19	17.95		
10MHz 16QAM	RB1#0	18.86	18.38	19.09	**18.21**	30
	RB1#25	19.20	18.57	19.13		
	RB1#49	19.61	19.02	19.59		
	RB25#0	17.44	17.73	17.30		
	RB25#25	17.73	18.11	17.59		
	RB50#0	17.59	17.88	17.42		
15MHz QPSK	RB1#0	19.63	19.36	19.38	18.27	30
	RB1#38	19.58	19.36	19.28		
	RB1#74	19.67	19.36	19.18		
	RB36#0	18.61	18.36	18.45		
	RB36#39	18.79	18.49	18.37		
	RB75#0	18.69	18.43	18.40		
15MHz 16QAM	RB1#0	19.02	18.84	19.12	17.95	30
	RB1#38	19.12	19.00	18.90		
	RB1#74	19.35	19.06	18.98		
	RB36#0	17.48	17.65	17.54		
	RB36#39	17.68	17.80	17.49		
	RB75#0	17.59	17.74	17.53		
20MHz QPSK	RB1#0	19.52	19.51	19.77	**18.37**	30
	RB1#50	19.43	19.51	19.66		
	RB1#99	19.47	19.52	19.53		
	RB50#0	18.04	18.55	18.35		
	RB50#50	18.25	18.66	18.20		
	RB100#0	18.13	18.59	18.26		
20MHz 16QAM	RB1#0	18.72	19.25	19.12	17.97	30
	RB1#50	18.54	18.95	18.36		
	RB1#99	19.08	19.37	18.94		
	RB50#0	17.65	17.85	17.86		
	RB50#50	17.87	17.97	17.73		
	RB100#0	17.77	17.92	17.82		
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	6.72	6.35	6.7	13
	RB100#0	4.61	4.58	4.67	13
20MHz 16QAM	RB1#0	7.86	6.35	7.77	13
	RB100#0	6.06	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
1.4MHz QPSK	1.102	1.102	1.096	1.260	1.266	1.260
1.4MHz 16QAM	1.090	1.102	1.102	1.254	1.254	1.260
3MHz QPSK	2.695	2.695	2.695	3.012	3.012	2.988
3MHz 16QAM	2.683	2.695	2.695	3.012	3.024	3.012
5MHz QPSK	4.511	4.511	4.531	5.020	4.980	5.020
5MHz 16QAM	4.531	4.531	4.511	5.040	5.020	4.980
10MHz QPSK	8.942	8.942	8.942	9.760	9.800	9.800
10MHz 16QAM	8.942	8.942	8.942	9.760	9.880	9.760
15MHz QPSK	13.473	13.533	13.533	14.940	15.000	15.000
15MHz 16QAM	13.533	13.533	13.533	15.060	15.060	14.940
20MHz QPSK	17.964	17.884	17.964	19.680	19.680	19.680
20MHz 16QAM	17.964	17.884	18.044	19.600	19.520	19.680
Note: The test plots please refer to the Plots of Occupied Bandwidth						

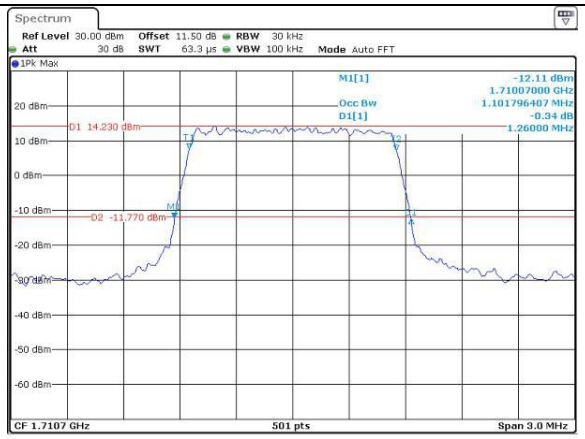
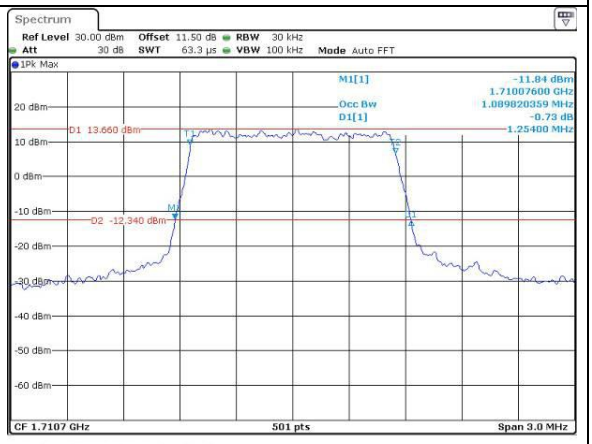
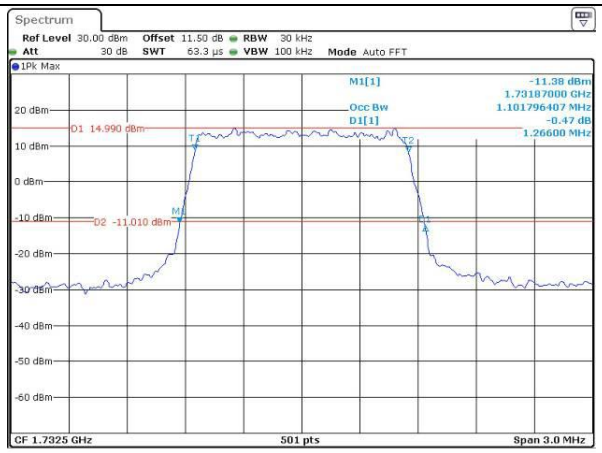
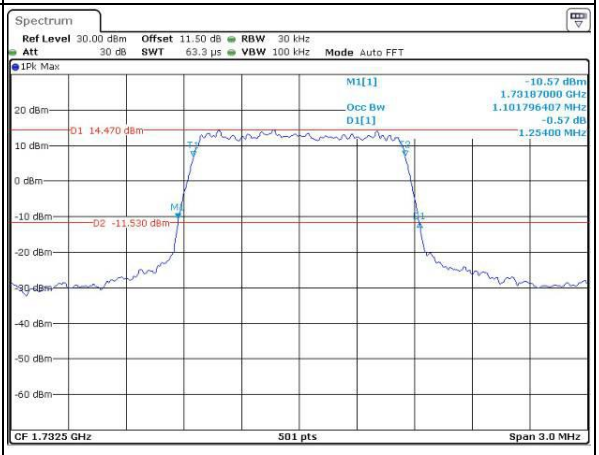
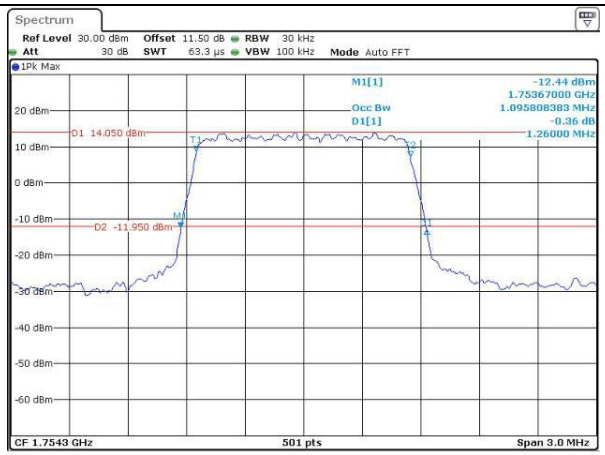
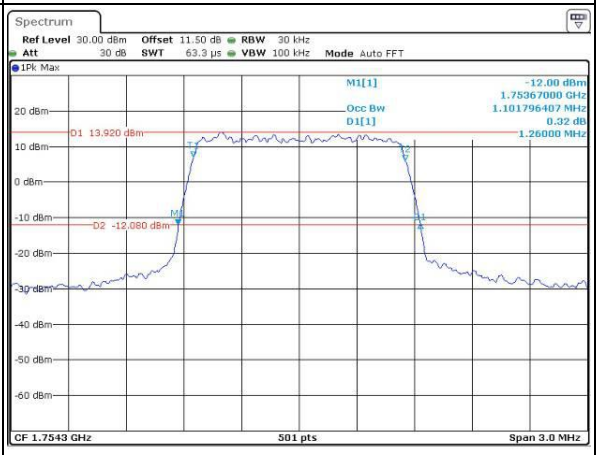
FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

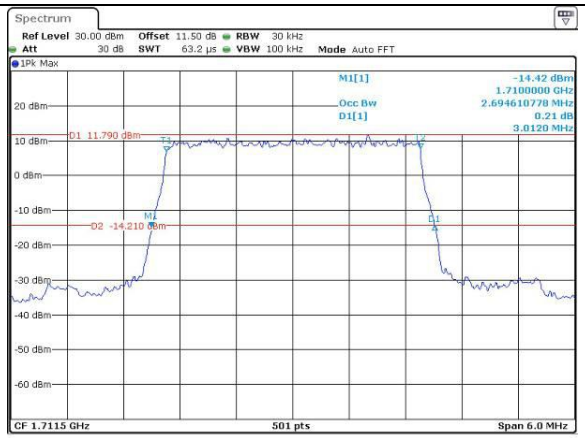
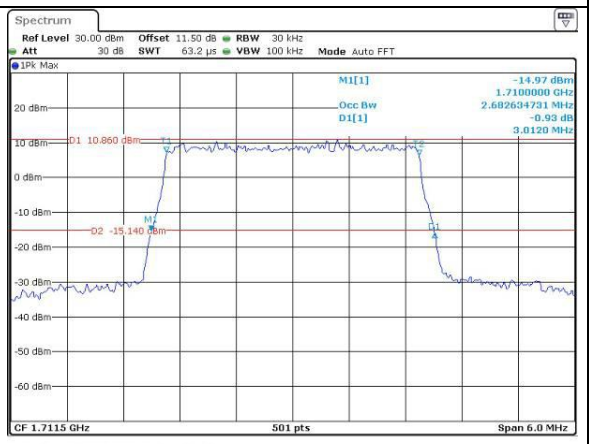
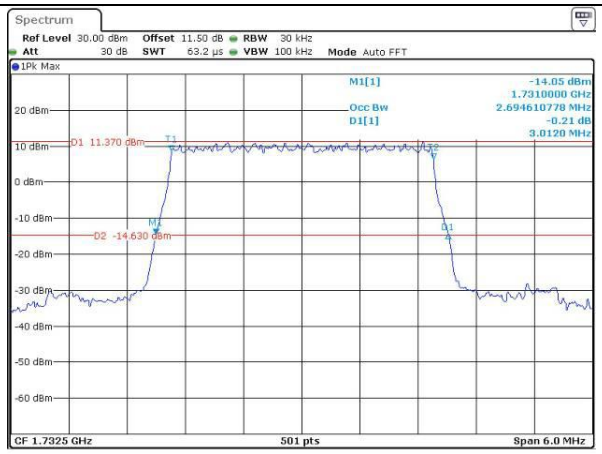
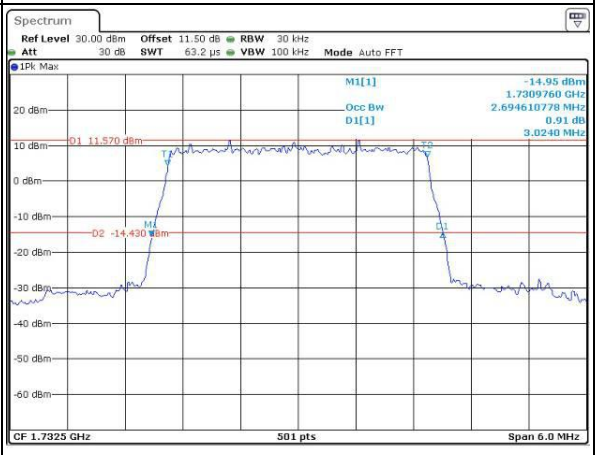
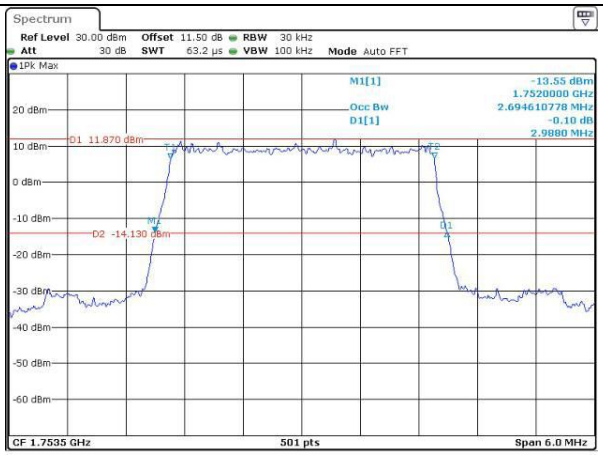
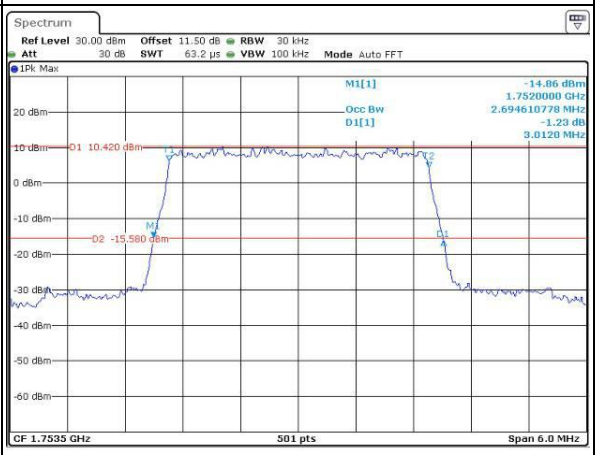
FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

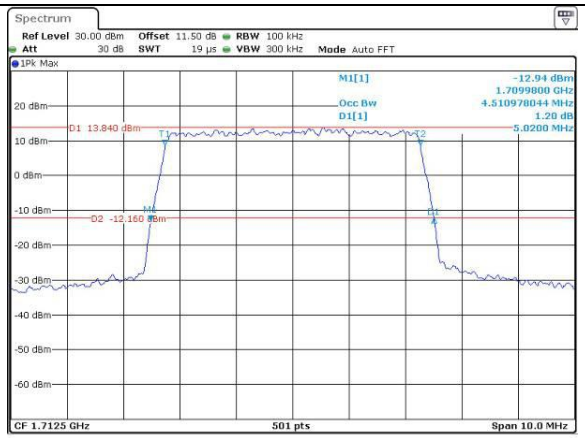
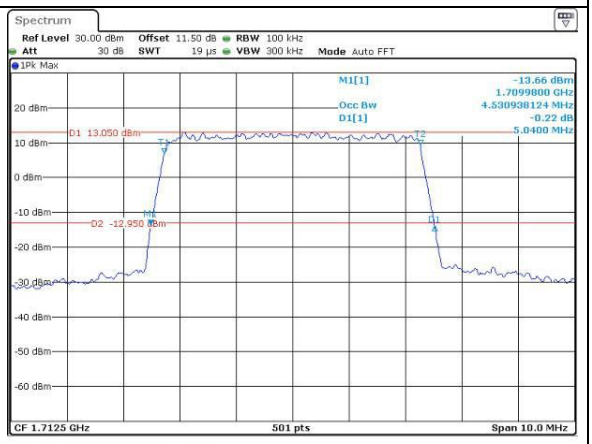
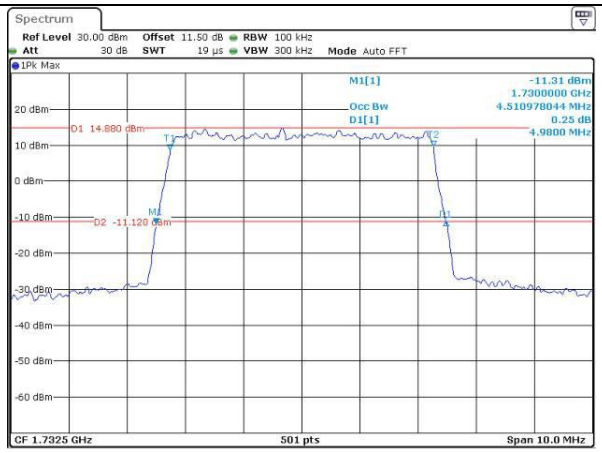
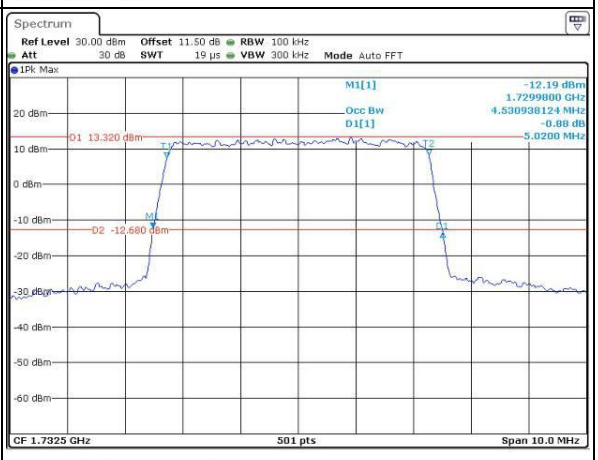
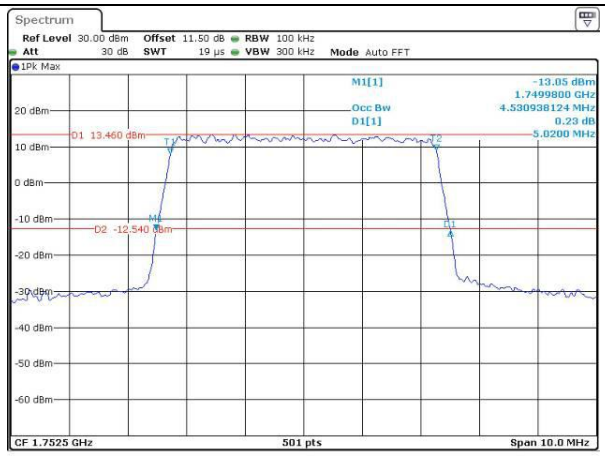
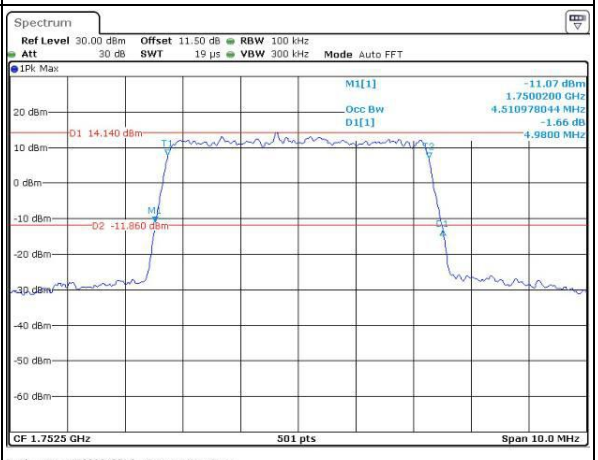
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	1710.016	1710.00	1754.983	1755
	-20	3.85	1710.010	1710.00	1754.989	1755
	-10	3.85	1710.015	1710.00	1754.989	1755
	0	3.85	1710.012	1710.00	1754.984	1755
	10	3.85	1710.007	1710.00	1754.997	1755
	20	3.85	1710.001	1710.00	1754.992	1755
	30	3.85	1710.012	1710.00	1754.980	1755
	40	3.85	1710.018	1710.00	1754.999	1755
	50	3.85	1710.014	1710.00	1754.986	1755
Frequency Stability vs. Voltage	20	3.45	1710.002	1710.00	1754.998	1755
	20	4.4	1710.010	1710.00	1754.995	1755
					Result:	**Pass**

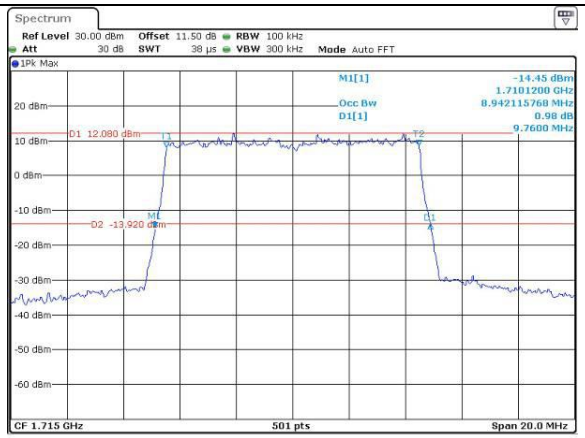
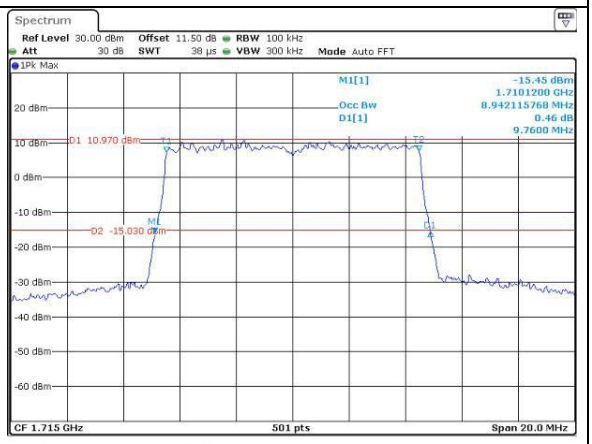
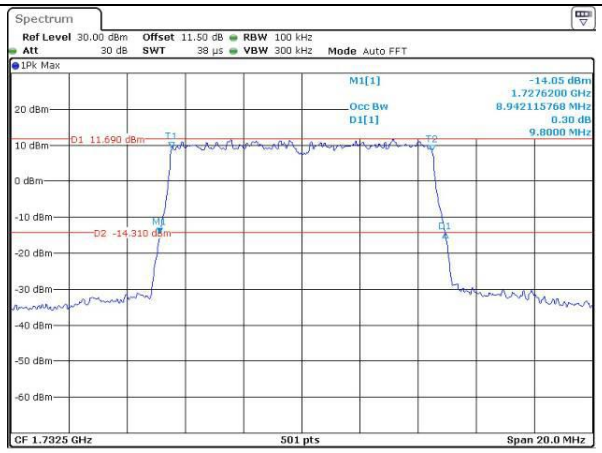
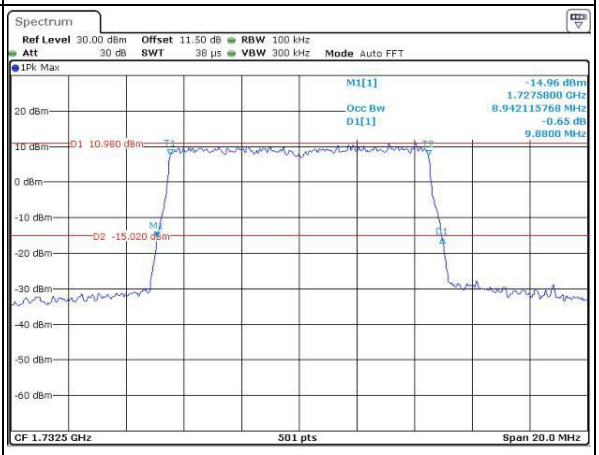
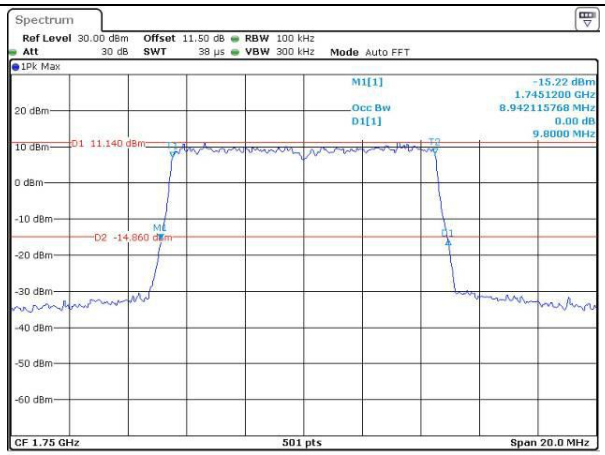
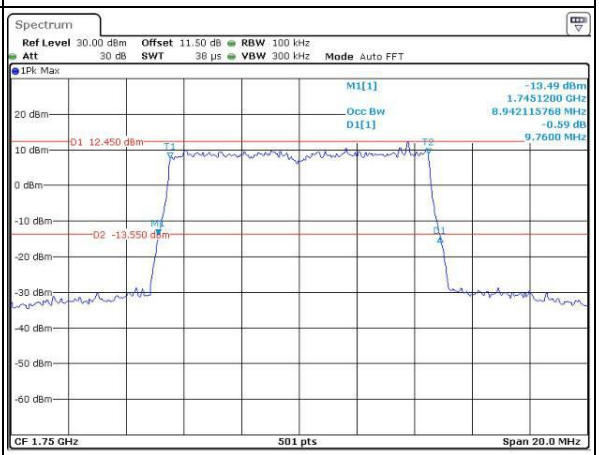
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	1710.004	1710.00	1754.982	1755
	-20	3.85	1710.006	1710.00	1754.998	1755
	-10	3.85	1710.008	1710.00	1754.987	1755
	0	3.85	1710.012	1710.00	1754.982	1755
	10	3.85	1710.001	1710.00	1754.989	1755
	20	3.85	1710.015	1710.00	1754.989	1755
	30	3.85	1710.007	1710.00	1754.983	1755
	40	3.85	1710.015	1710.00	1754.987	1755
	50	3.85	1710.018	1710.00	1754.980	1755
Frequency Stability vs. Voltage	20	3.45	1710.009	1710.00	1754.997	1755
	20	4.4	1710.019	1710.00	1754.983	1755
					Result:	**Pass**

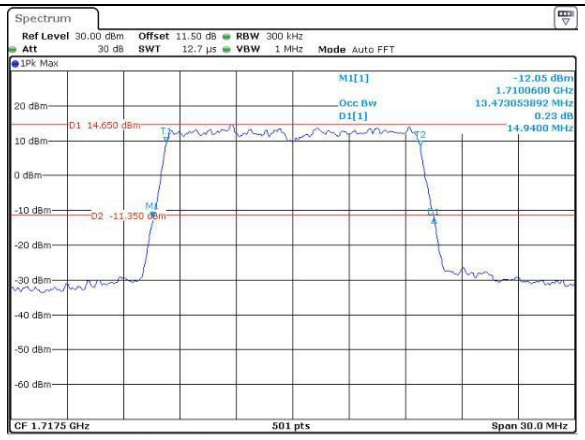
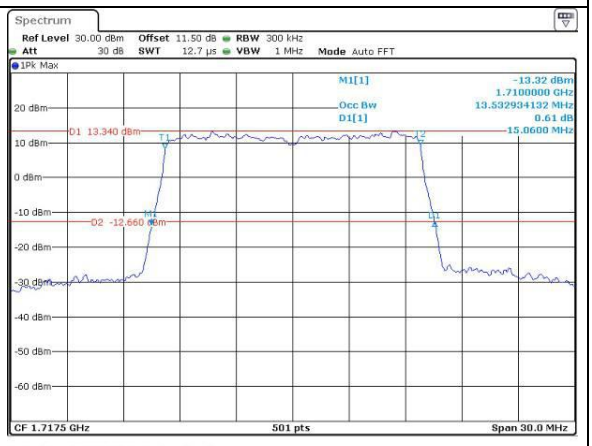
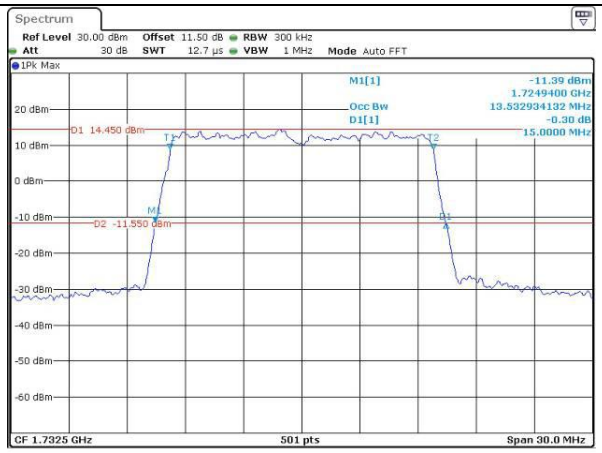
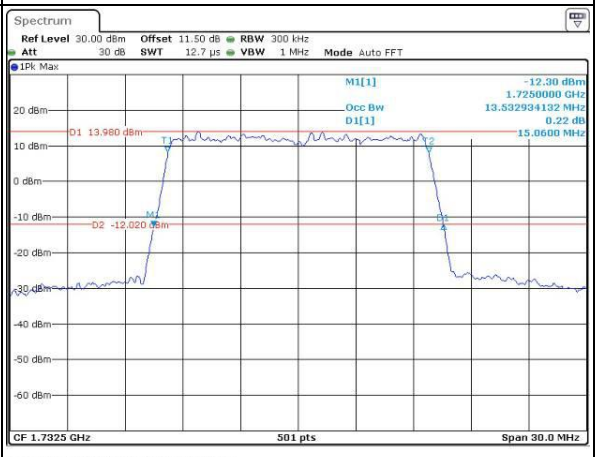
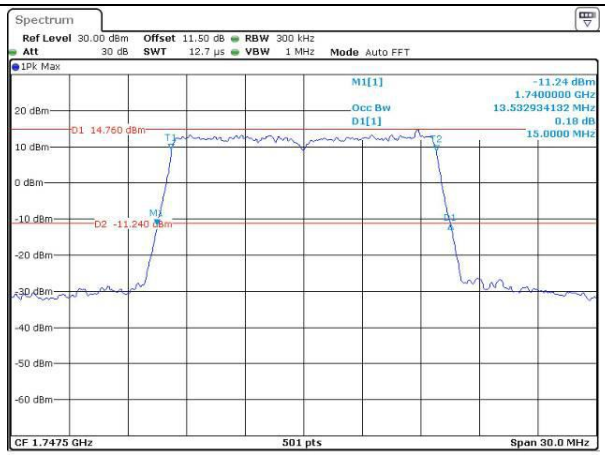
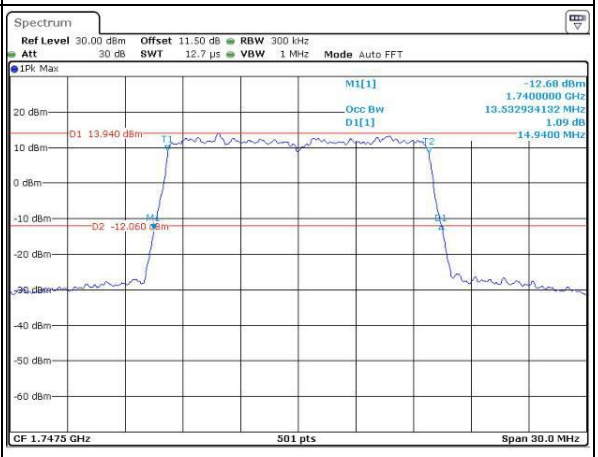
Test Plots (Note: The 11.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

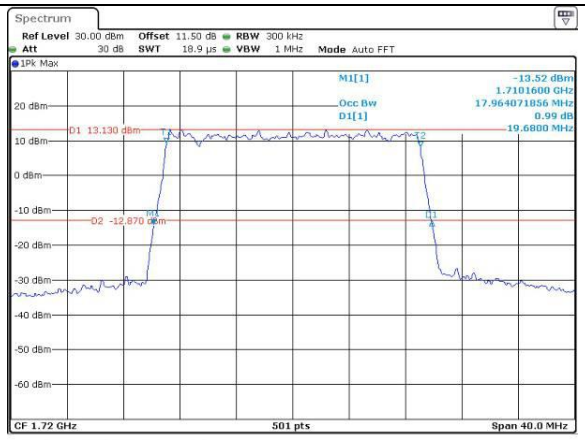
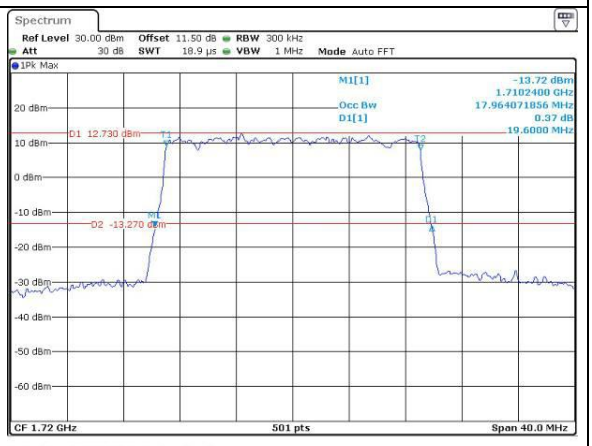
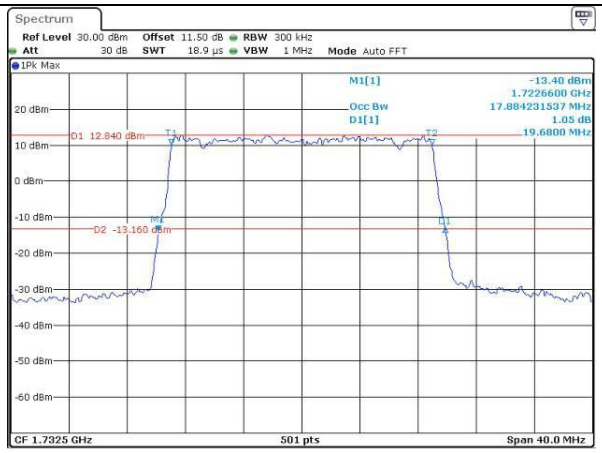
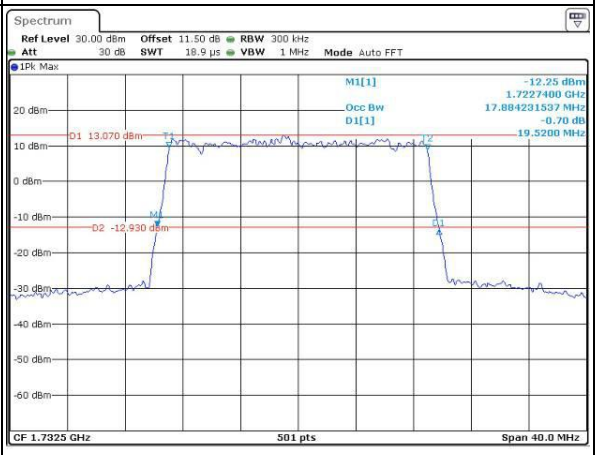
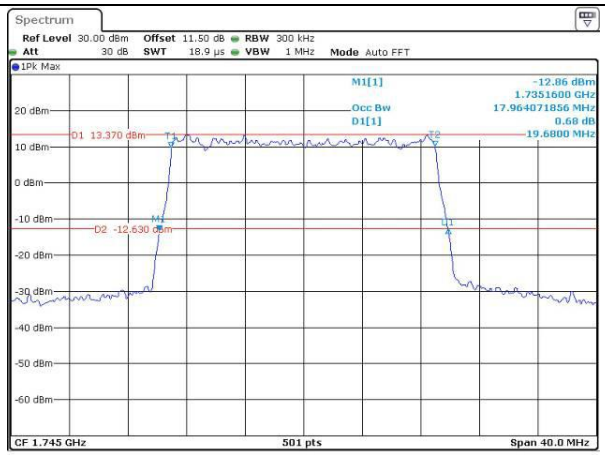
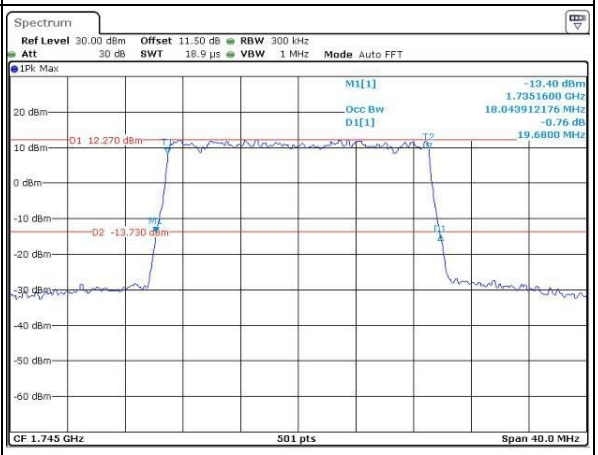
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

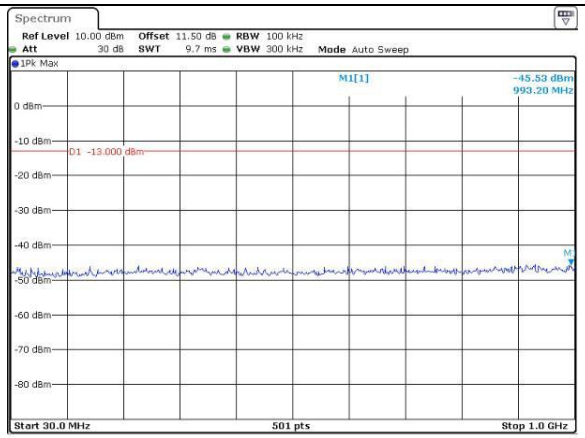
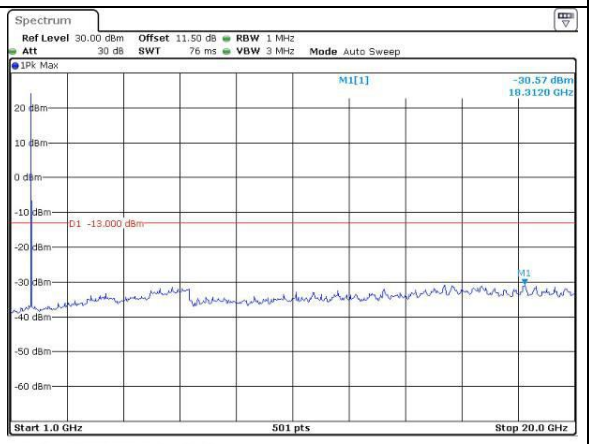
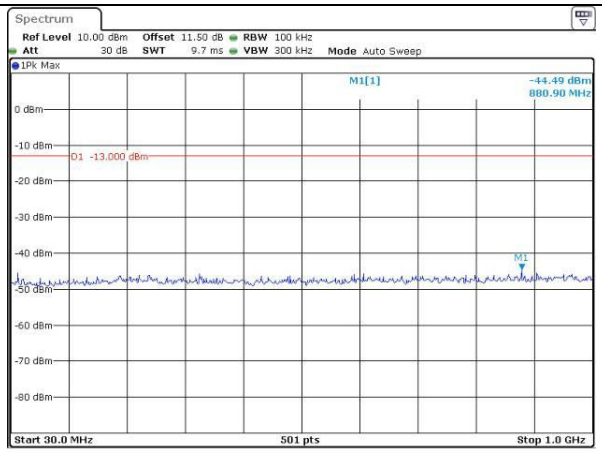
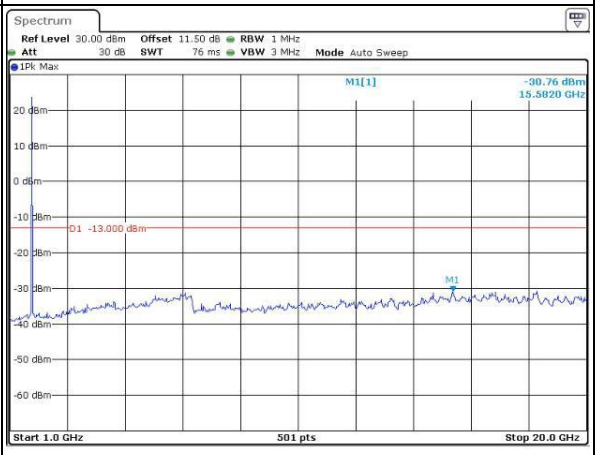
Occupied Bandwidth		
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

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

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

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

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

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