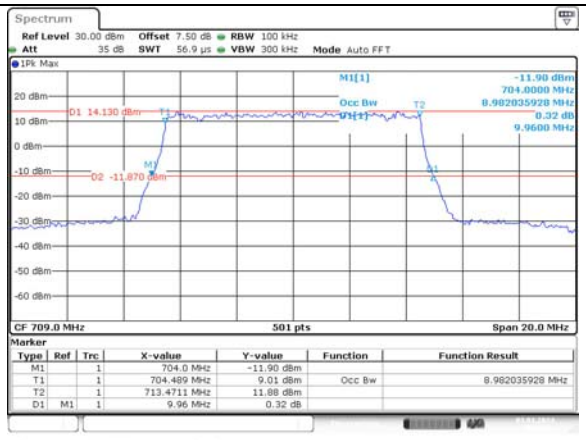
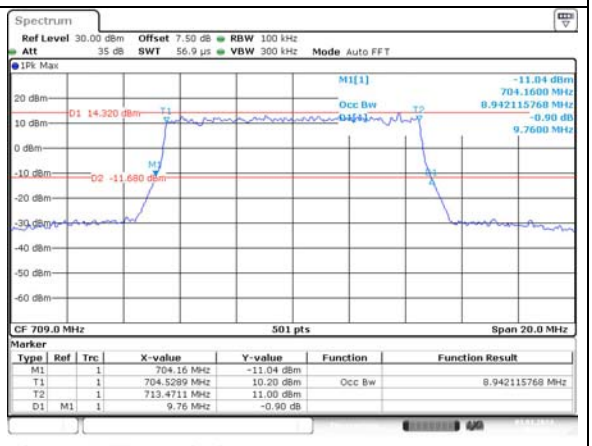
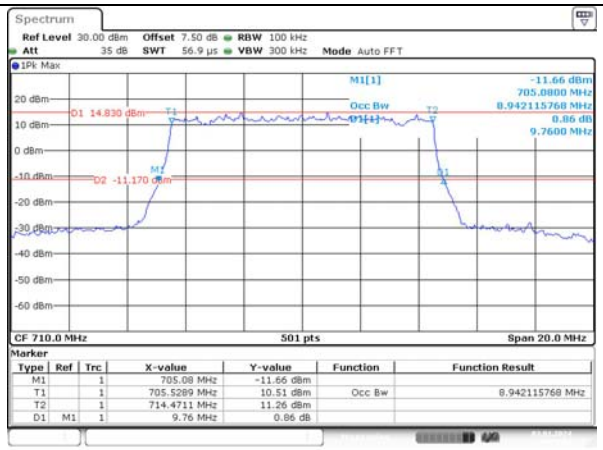
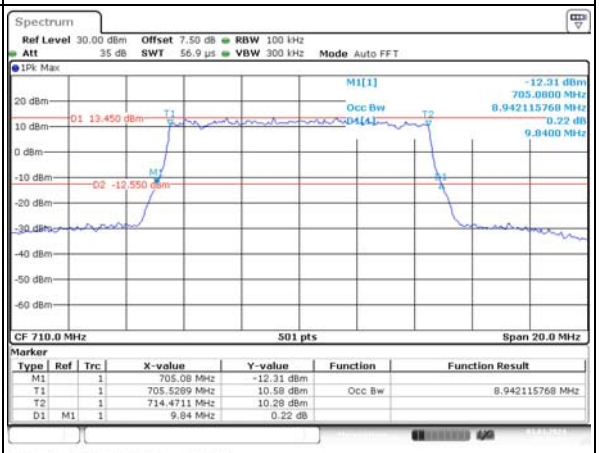
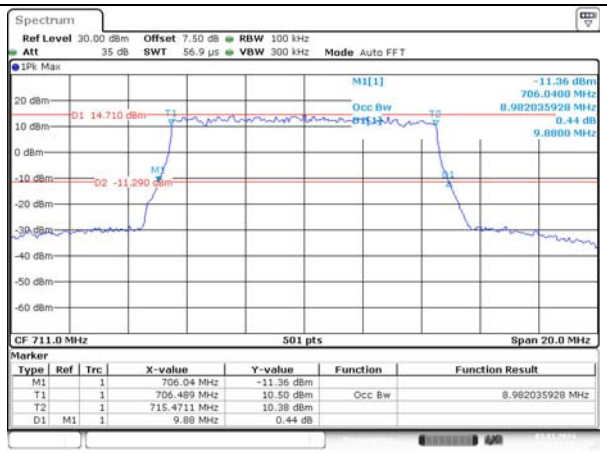
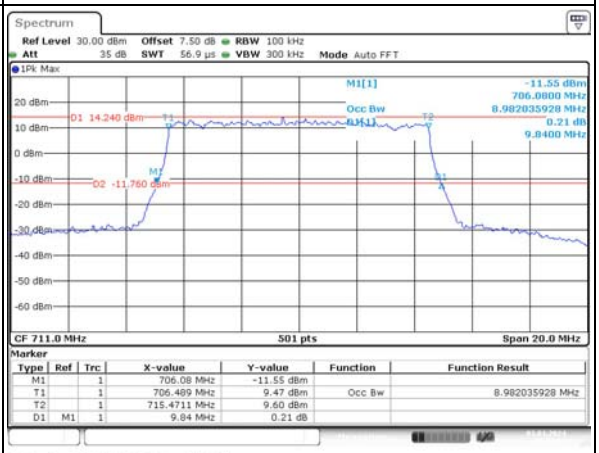
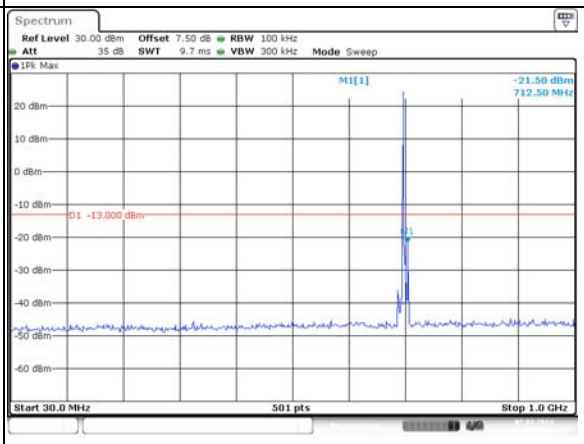
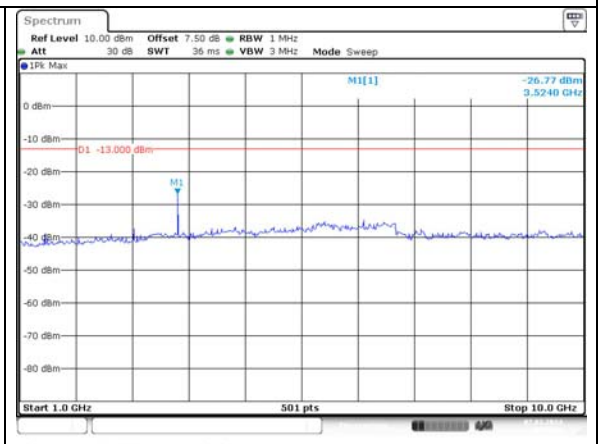
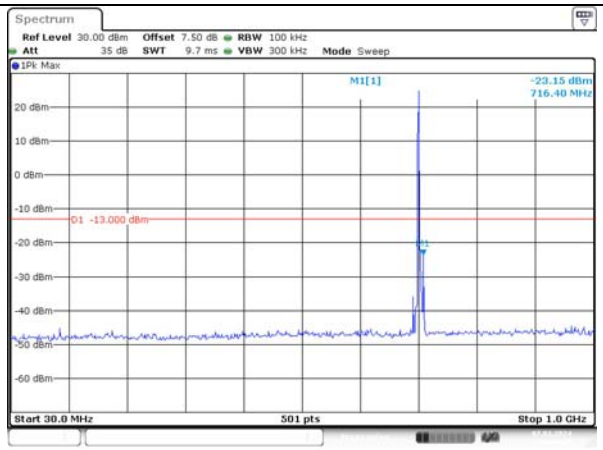
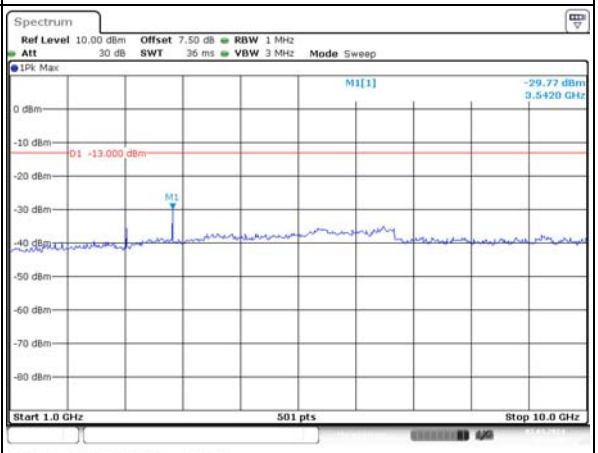
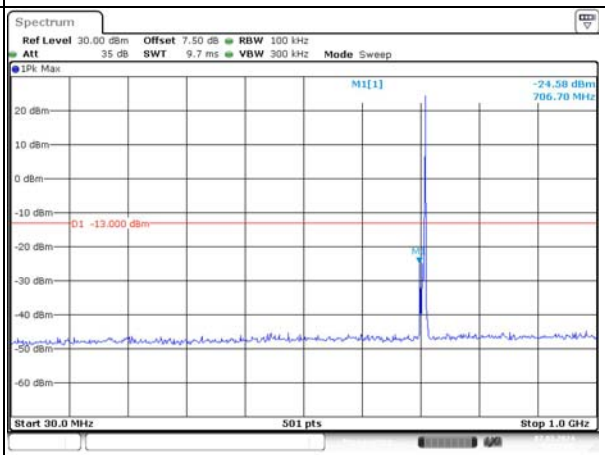
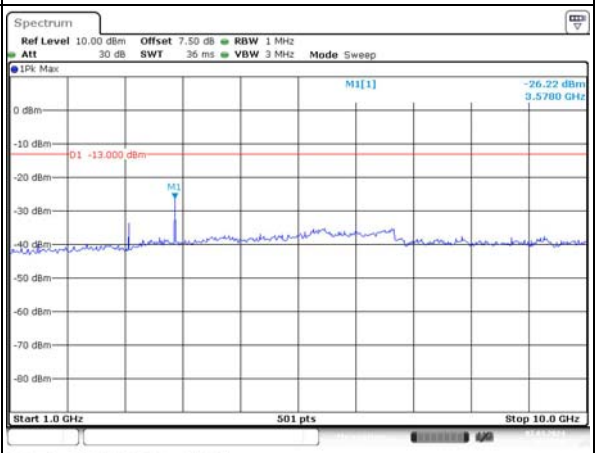
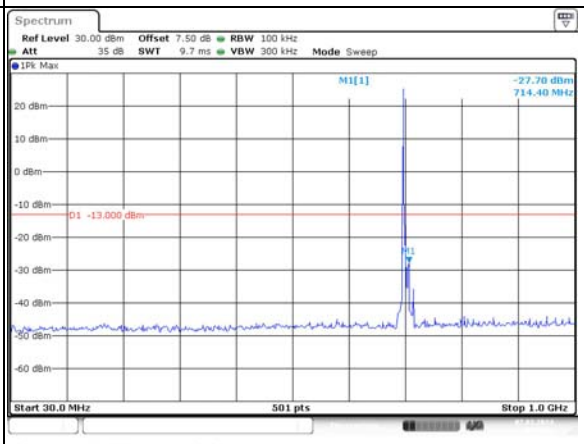
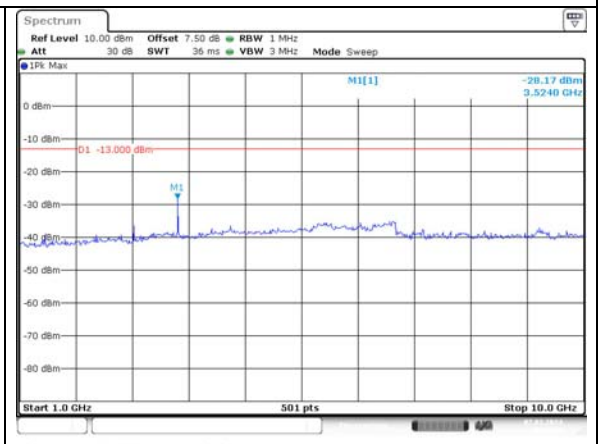
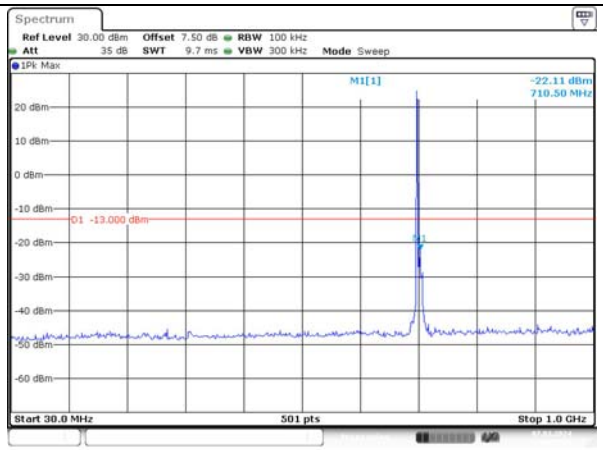
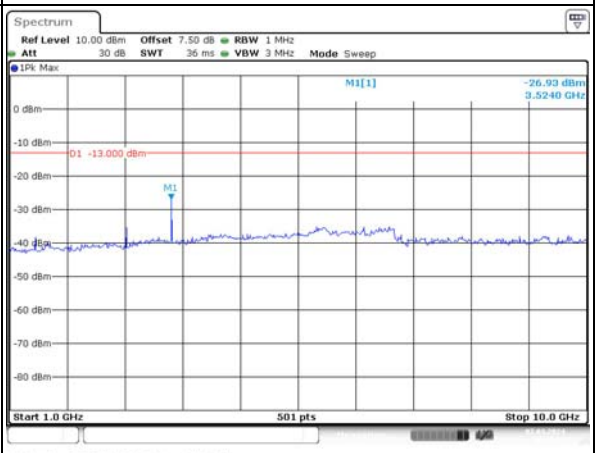
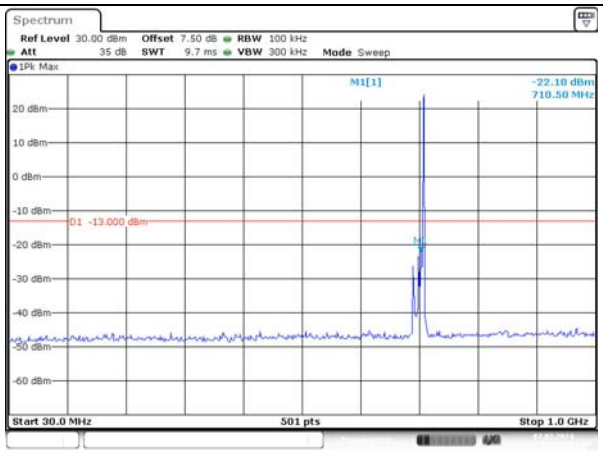
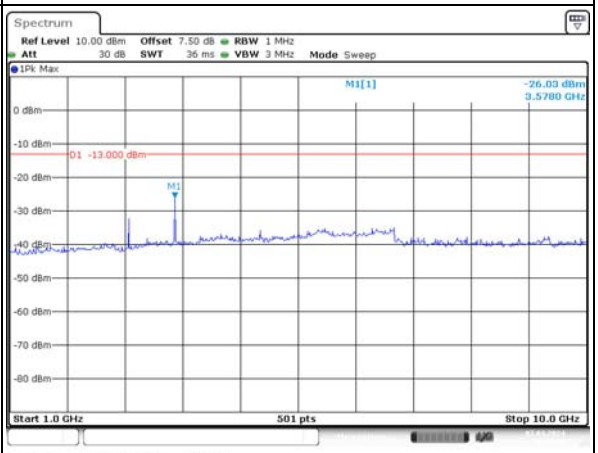
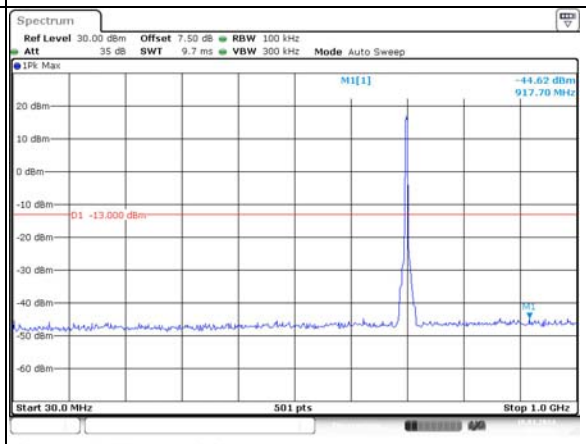
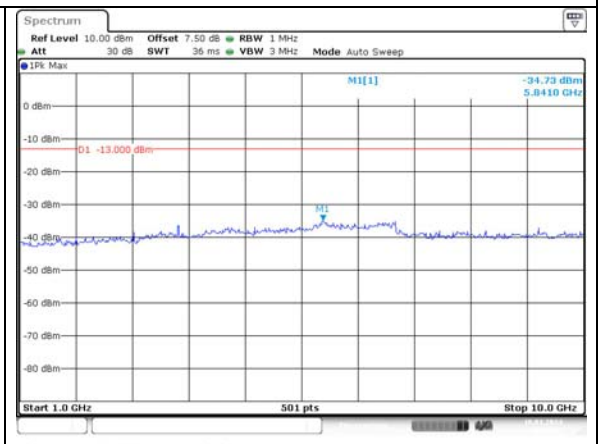
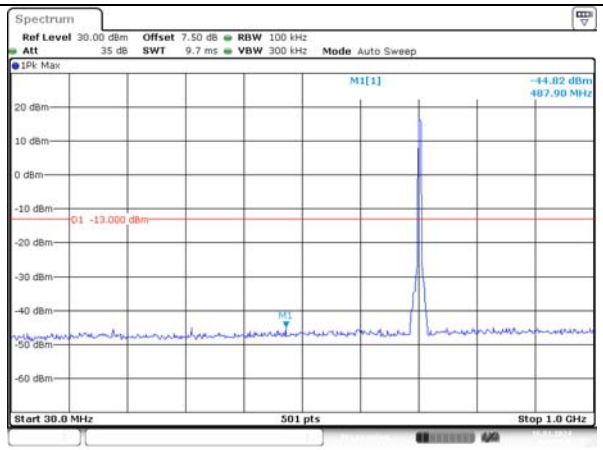
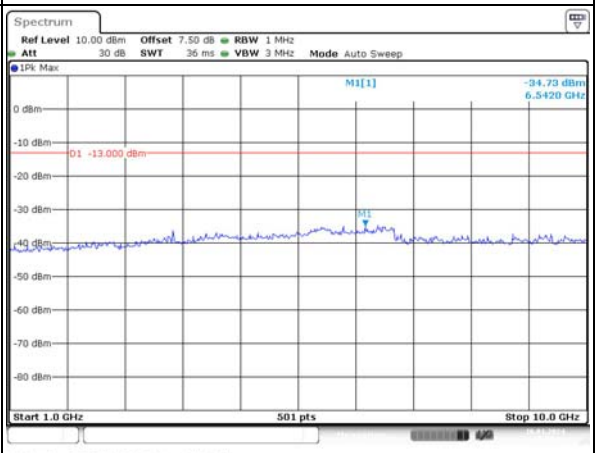
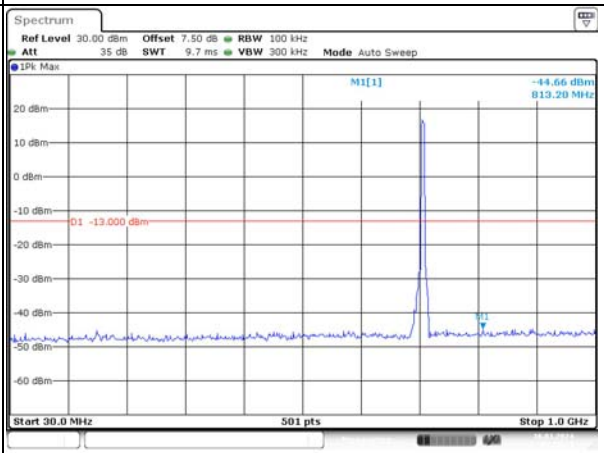
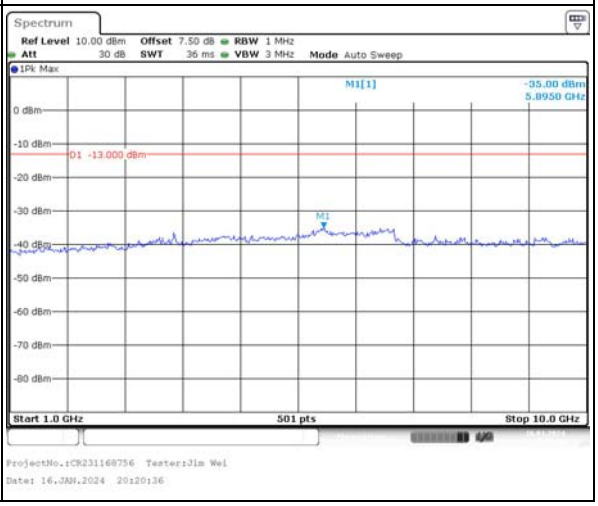
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

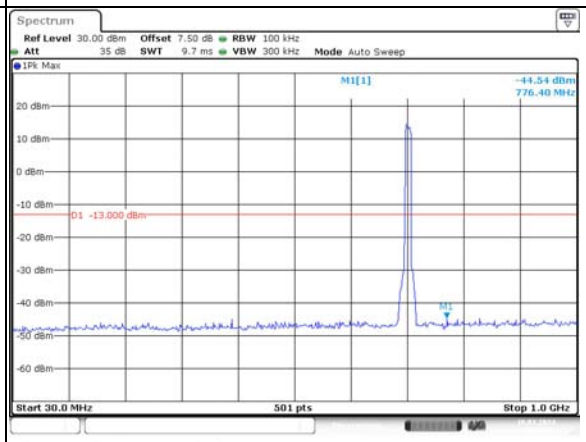
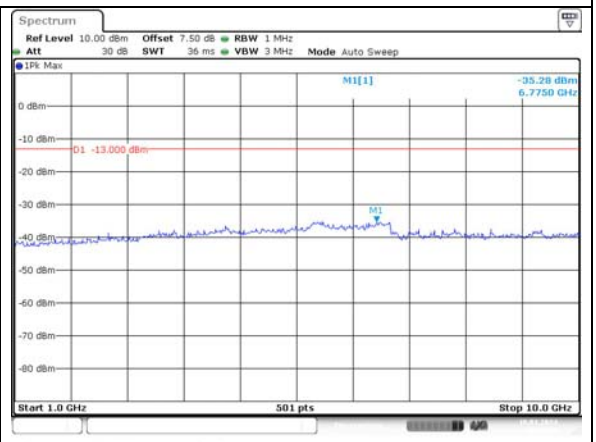
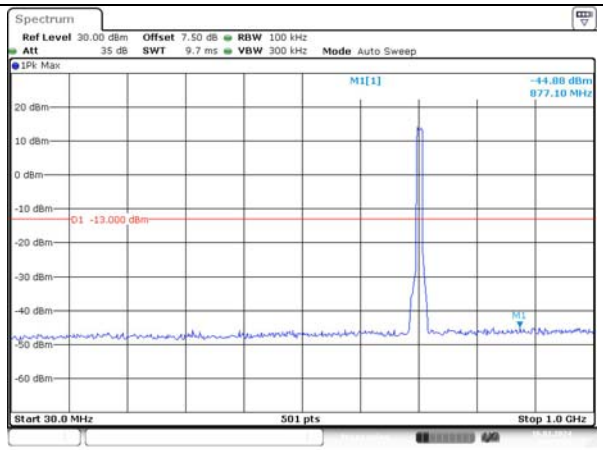
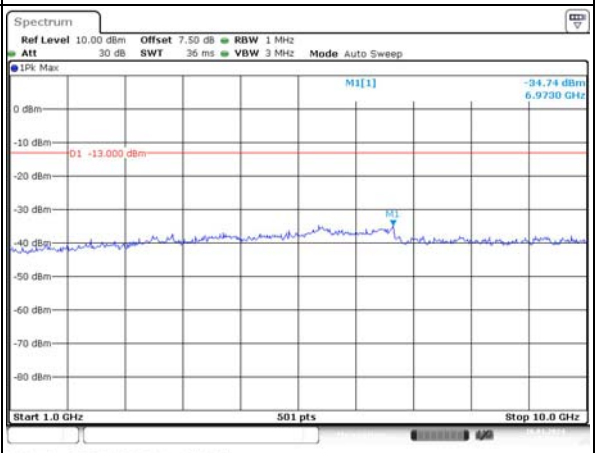
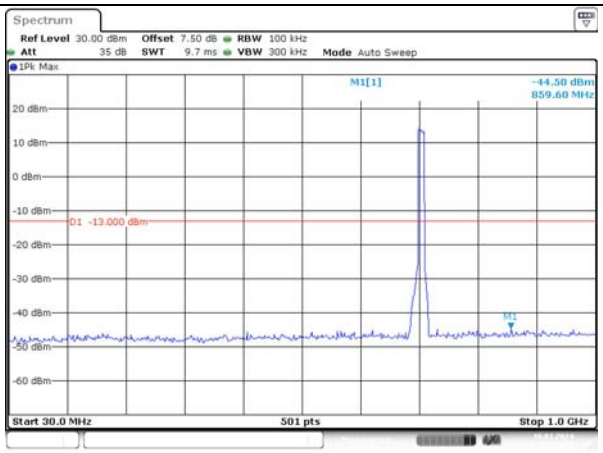
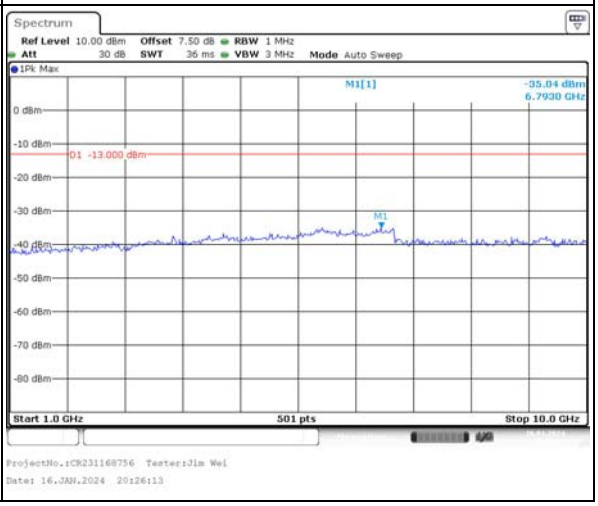
RB1#0:

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

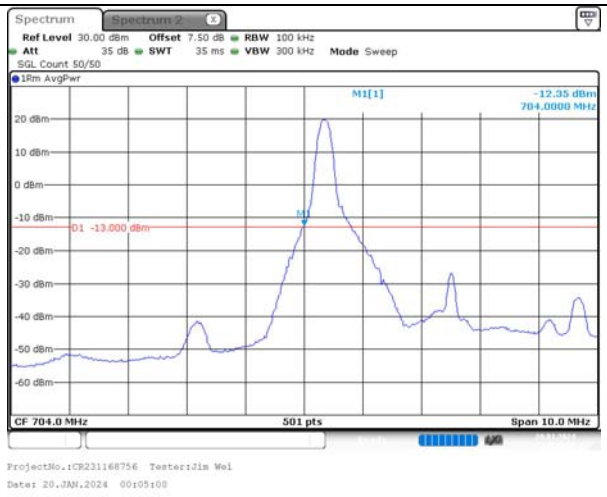
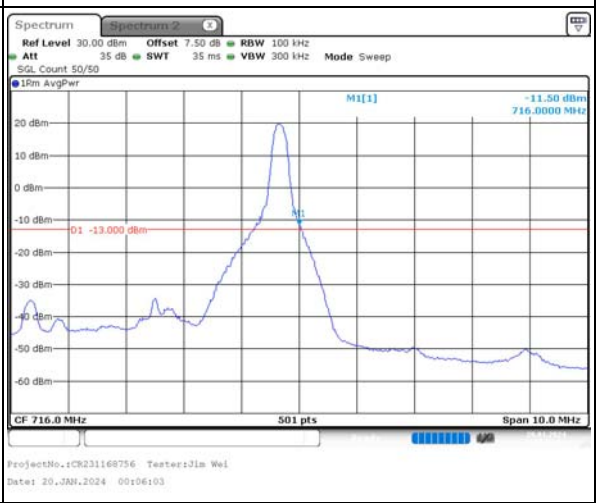
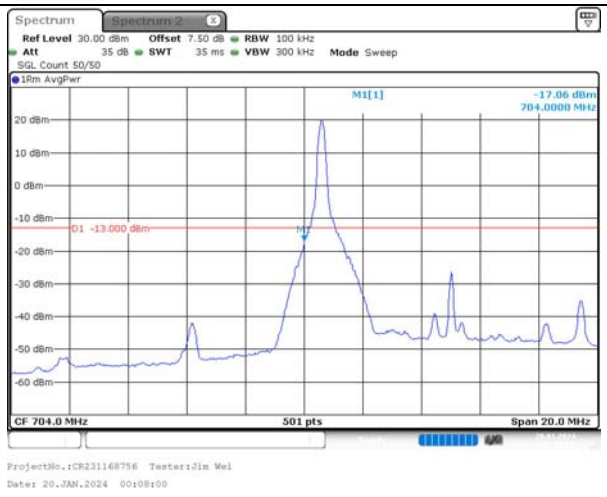
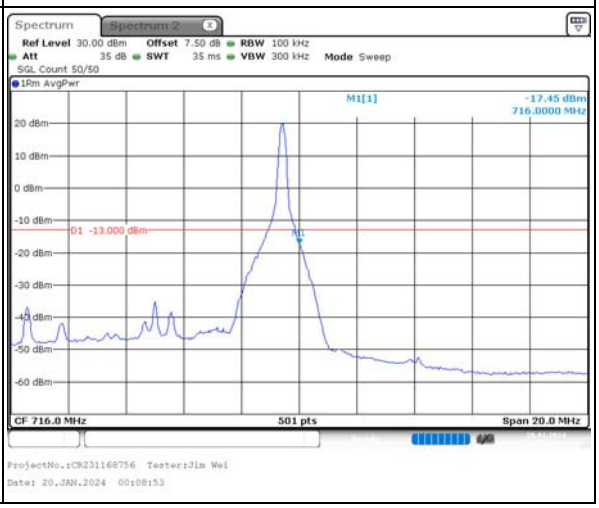
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

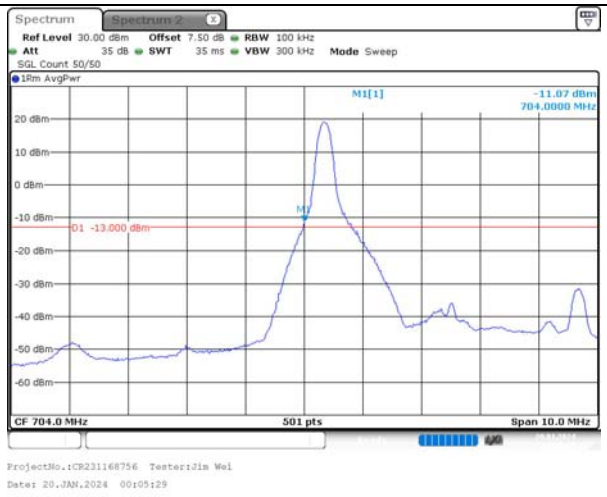
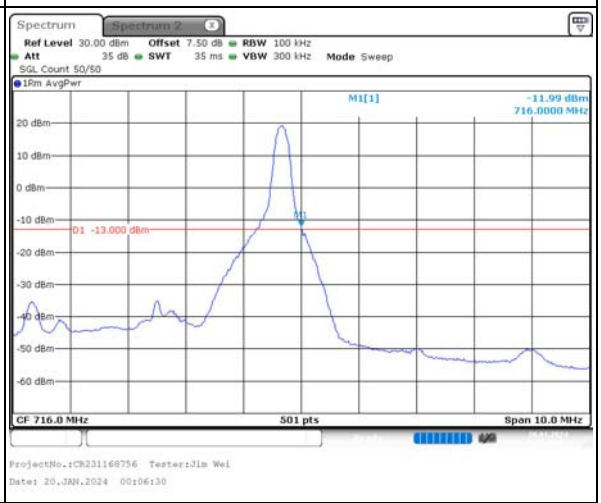
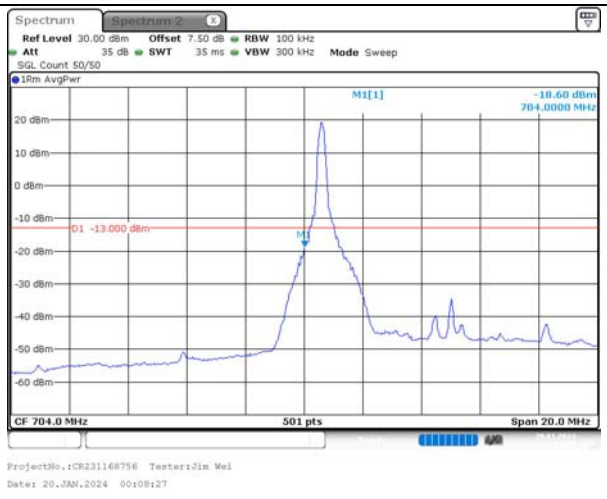
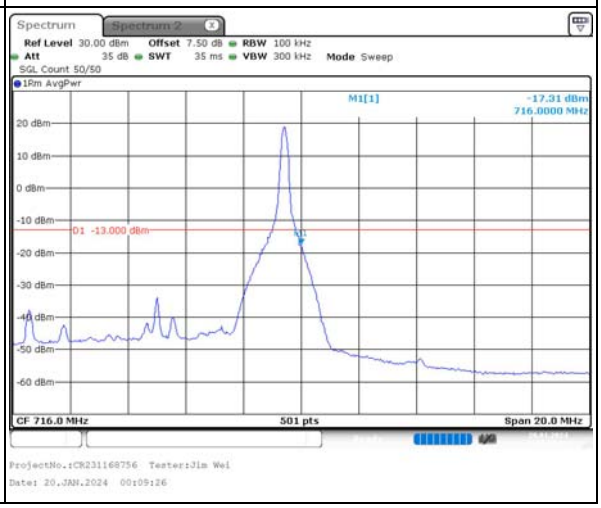
Full RB:

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

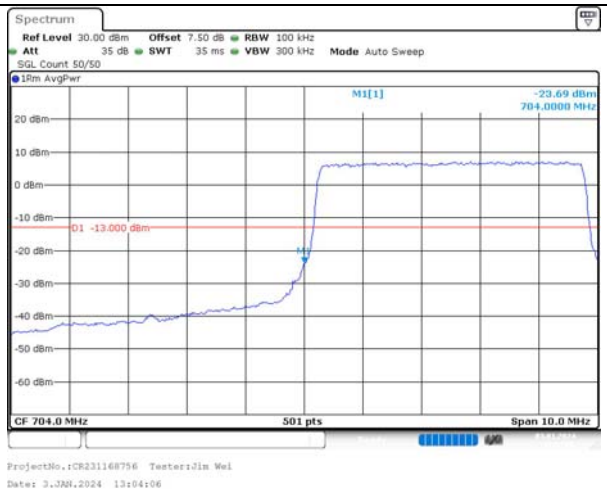
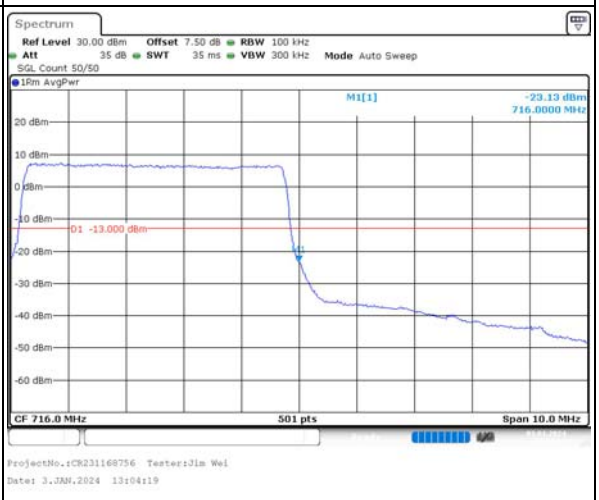
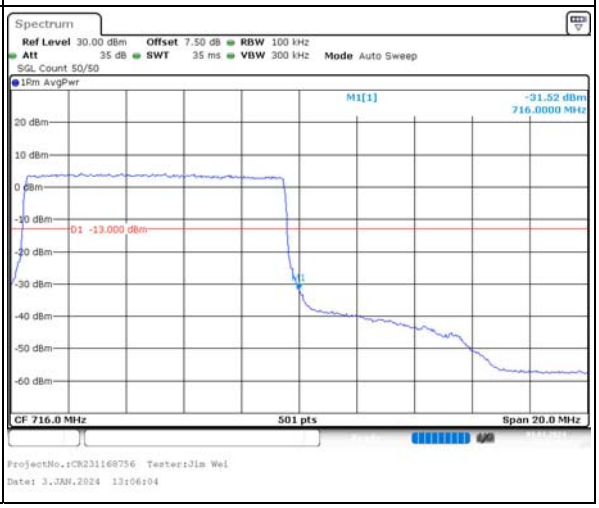
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

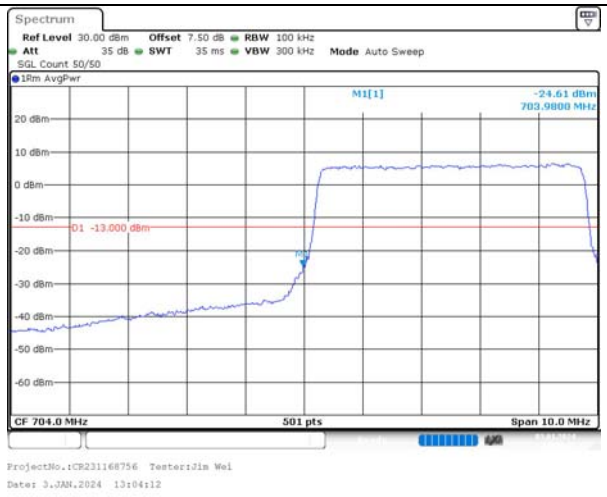
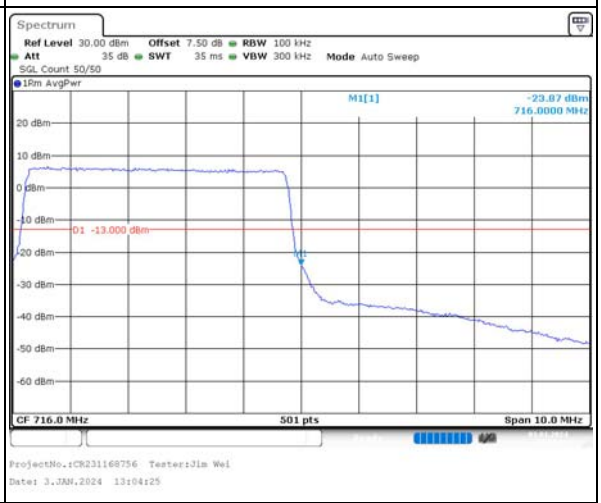
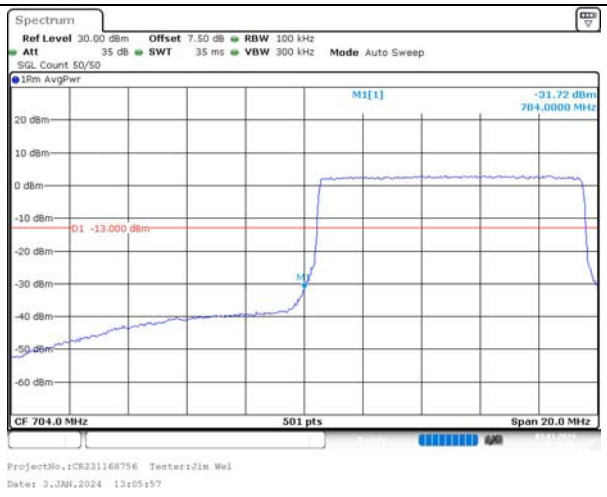
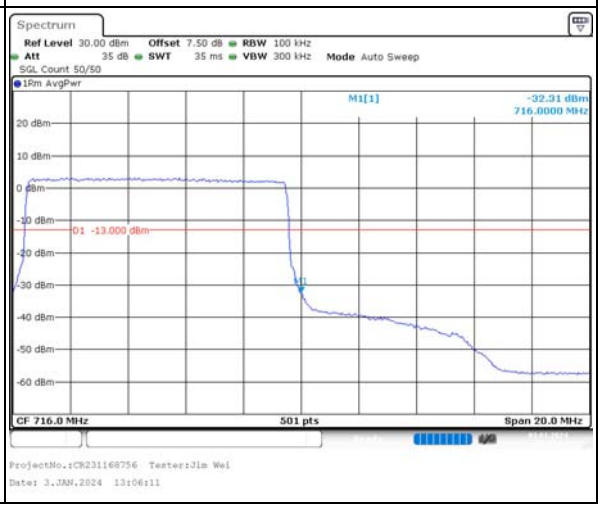
1RB:

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

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

Full RB:

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

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

4.12 Antenna Port Test Data and Results for LTE Band 25

Serial Number:	2DYK-1	Test Date:	2024/1/2-2024/3/7
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jim Wei	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.5~26.5	Relative Humidity: (%)	40~55	ATM Pressure: (kPa)	101.1-101.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Weinschel	Power Splitter	1515	RA914	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	2023/9/29	2024/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A

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

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1850.7	1882.5	1914.3
3MHz	1851.5	1882.5	1913.5
5MHz	1852.5	1882.5	1912.5
10MHz	1855	1882.5	1910
15MHz	1857.5	1882.5	1907.5
20MHz	1860	1882.5	1905

Test Data:

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	22.37	22.29	22.40	24.7	33
	RB1#3	22.51	22.46	**22.62**		
	RB1#5	22.37	22.27	22.37		
	RB3#0	22.42	22.36	22.35		
	RB3#3	22.49	22.42	22.33		
	RB6#0	21.38	21.34	21.44		
1.4MHz 16QAM	RB1#0	21.46	21.27	21.24	23.71	33
	RB1#3	**21.63**	21.47	21.43		
	RB1#5	21.43	21.31	21.26		
	RB3#0	21.39	21.43	21.38		
	RB3#3	21.37	21.38	21.40		
	RB6#0	20.45	20.31	20.36		
3MHz QPSK	RB1#0	22.40	22.32	22.39	24.53	33
	RB1#8	22.42	22.28	**22.45**		
	RB1#14	22.36	22.23	22.39		
	RB6#0	21.34	21.28	21.46		
	RB6#9	21.32	21.27	21.36		
	RB15#0	21.40	21.32	21.36		
3MHz 16QAM	RB1#0	21.39	**21.86**	21.45	23.94	33
	RB1#8	21.39	21.80	21.47		
	RB1#14	21.35	21.78	21.43		
	RB6#0	20.30	20.39	20.39		
	RB6#9	20.28	20.34	20.38		
	RB15#0	20.45	20.39	20.27		
5MHz QPSK	RB1#0	22.26	22.20	22.28	24.54	33
	RB1#13	22.38	22.33	**22.46**		
	RB1#24	22.22	22.20	22.29		
	RB15#0	21.41	21.35	21.41		
	RB15#10	21.42	21.36	21.30		
	RB25#0	21.38	21.32	21.32		
5MHz 16QAM	RB1#0	21.30	21.13	21.47	23.71	33
	RB1#13	21.47	21.23	**21.63**		
	RB1#24	21.29	21.11	21.40		
	RB15#0	20.46	20.38	20.34		
	RB15#10	20.43	20.41	20.24		
	RB25#0	20.37	20.39	20.28		
10MHz QPSK	RB1#0	22.35	22.28	22.32	24.61	33
	RB1#25	**22.53**	22.43	**22.53**		
	RB1#49	22.30	22.28	22.34		
	RB25#0	21.36	21.33	21.29		

	RB25#25	21.45	21.36	21.28		
	RB50#0	21.40	21.40	21.27		
10MHz 16QAM	RB1#0	21.33	21.87	21.42	24.03	33
	RB1#25	21.53	**21.95**	21.58		
	RB1#49	21.20	21.76	21.36		
	RB25#0	20.43	20.43	20.32		
	RB25#25	20.53	20.41	20.26		
	RB50#0	20.44	20.43	20.27		
15MHz QPSK	RB1#0	22.33	22.26	22.22	24.42	33
	RB1#38	**22.34**	22.27	22.30		
	RB1#74	22.23	22.13	22.26		
	RB36#0	21.39	21.39	21.36		
	RB36#39	21.49	21.39	21.44		
	RB75#0	21.44	21.41	21.39		
15MHz 16QAM	RB1#0	21.70	21.78	21.33	23.91	33
	RB1#38	21.63	**21.83**	21.41		
	RB1#74	21.49	21.60	21.28		
	RB36#0	20.32	20.35	20.33		
	RB36#39	20.39	20.35	20.32		
	RB75#0	20.41	20.39	20.35		
20MHz QPSK	RB1#0	22.13	22.10	22.09	24.53	33
	RB1#50	22.39	22.42	**22.45**		
	RB1#99	22.03	22.03	22.12		
	RB50#0	21.13	21.36	21.40		
	RB50#50	21.32	21.37	21.31		
	RB100#0	21.23	21.40	21.36		
20MHz 16QAM	RB1#0	21.63	21.40	21.25	23.92	33
	RB1#50	**21.84**	21.68	21.66		
	RB1#99	21.55	21.25	21.17		
	RB50#0	20.09	20.38	20.43		
	RB50#50	20.31	20.36	20.33		
	RB100#0	20.25	20.41	20.39		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						
					Result:	**Pass**

Peak-to-average Ratio(PAR)					
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	4.78	5.45	4.58	13
	RB100#0	4.81	5.10	4.58	13
20MHz 16QAM	RB1#0	5.88	6.52	5.45	13
	RB100#0	5.71	6.09	5.54	13
				Result:	**Pass**

Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.096	1.102	1.108	1.320	1.296	1.404
1.4MHz 16QAM	1.078	1.096	1.108	1.200	1.284	1.320
3MHz QPSK	2.683	2.695	2.683	2.880	2.880	2.892
3MHz 16QAM	2.659	2.683	2.683	2.796	2.880	2.880
5MHz QPSK	4.511	4.531	4.531	5.180	5.240	5.220
5MHz 16QAM	4.551	4.511	4.531	5.260	5.180	5.180
10MHz QPSK	8.981	8.942	8.942	10.200	9.840	9.800
10MHz 16QAM	8.981	8.942	8.942	9.760	9.920	9.800
15MHz QPSK	13.593	13.533	13.533	14.940	14.880	14.820
15MHz 16QAM	13.473	13.533	13.533	14.820	14.880	14.820
20MHz QPSK	17.964	18.044	17.884	19.520	19.760	19.680
20MHz 16QAM	17.964	18.044	17.964	19.680	19.680	19.920
Note: The test plots please refer to the Plots of Occupied Bandwidth						

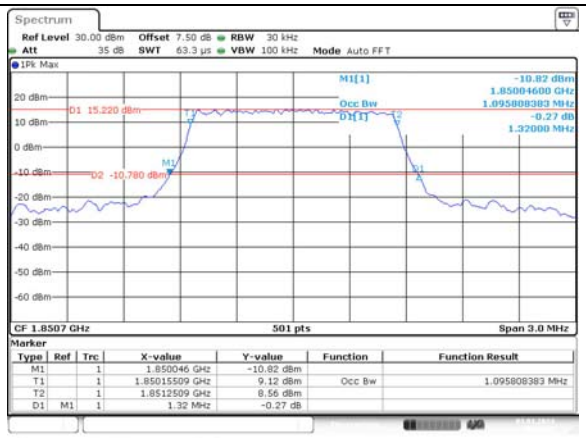
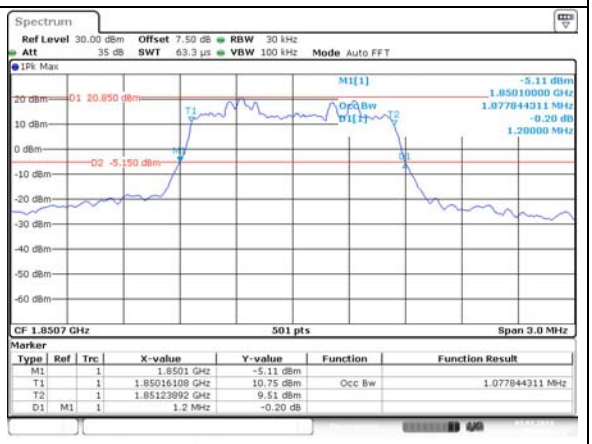
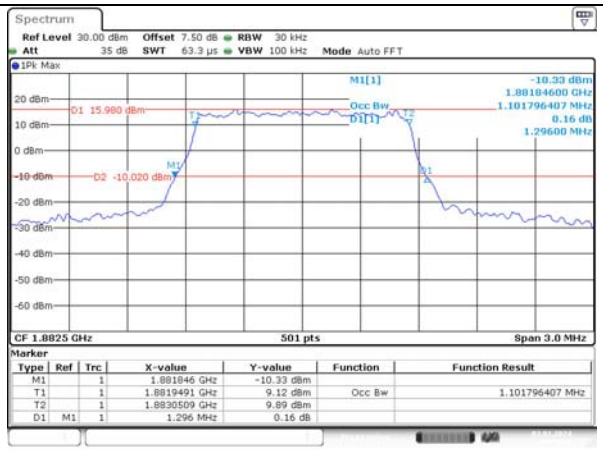
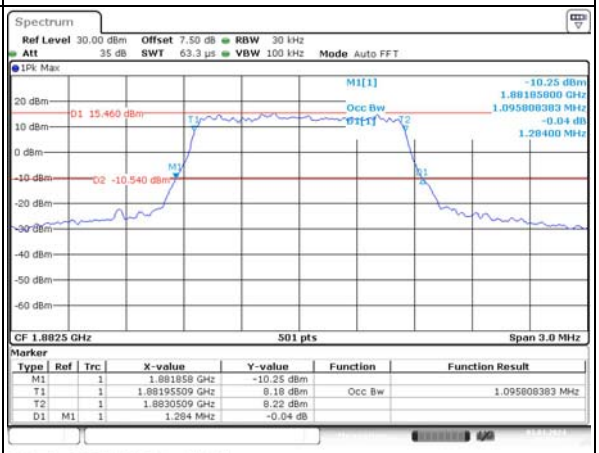
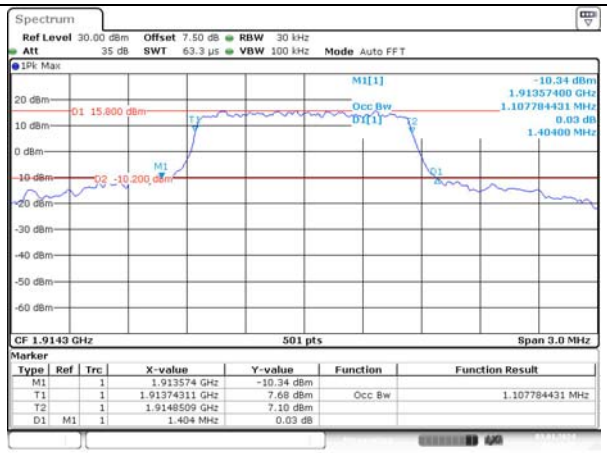
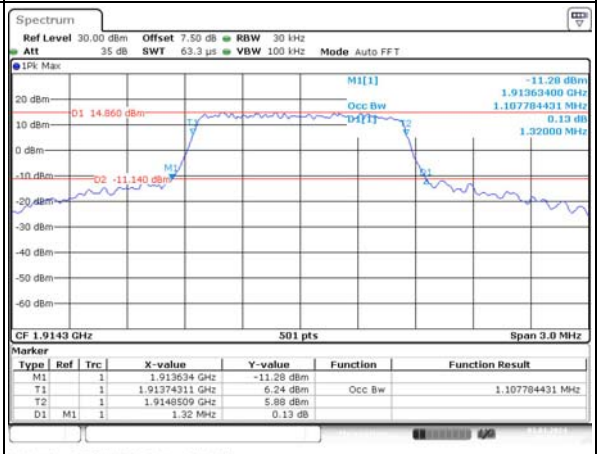
Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

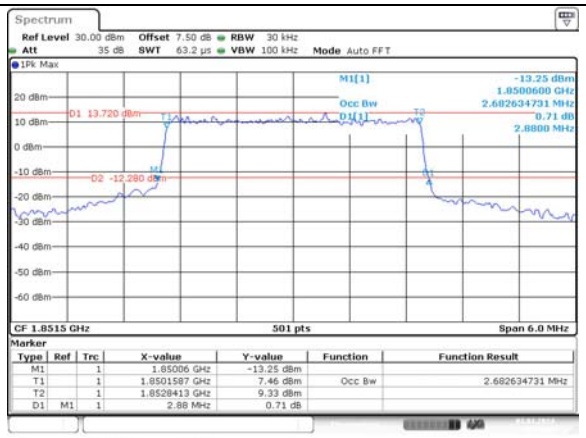
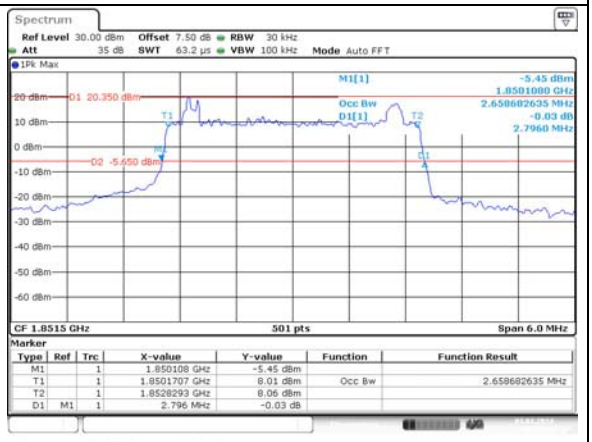
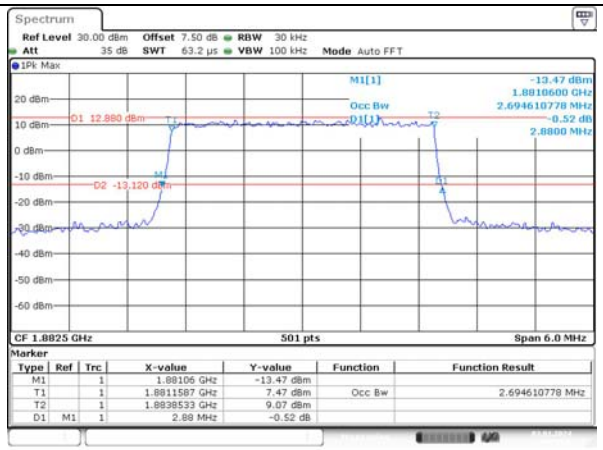
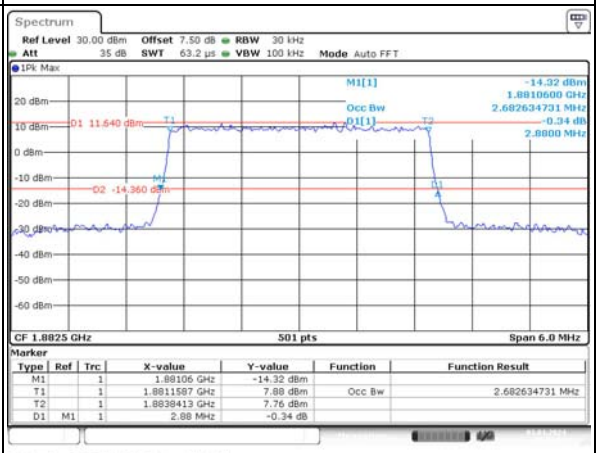
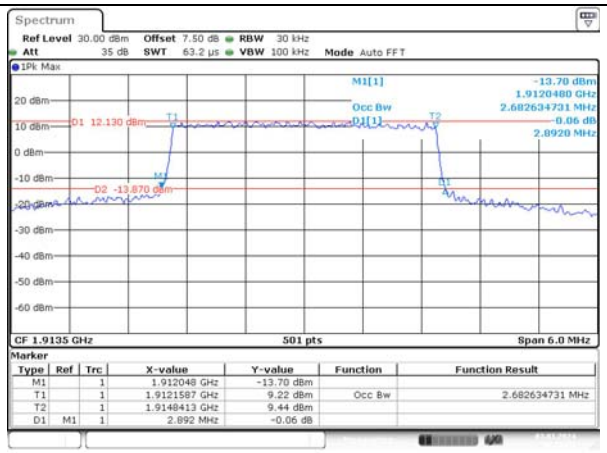
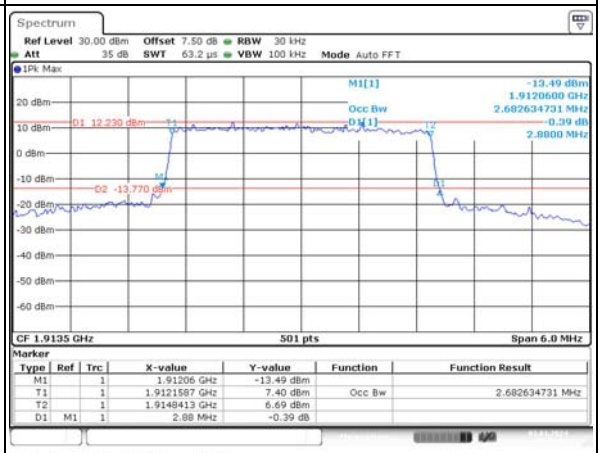
Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

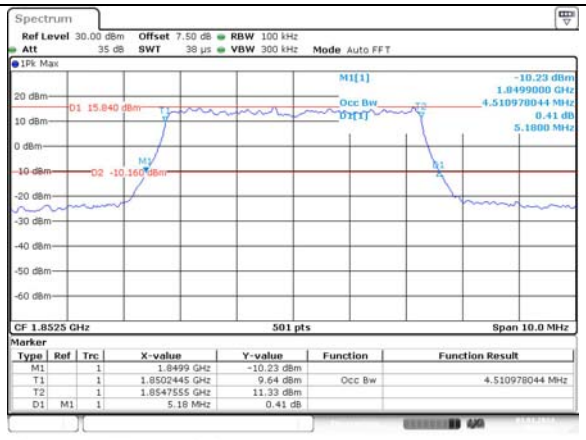
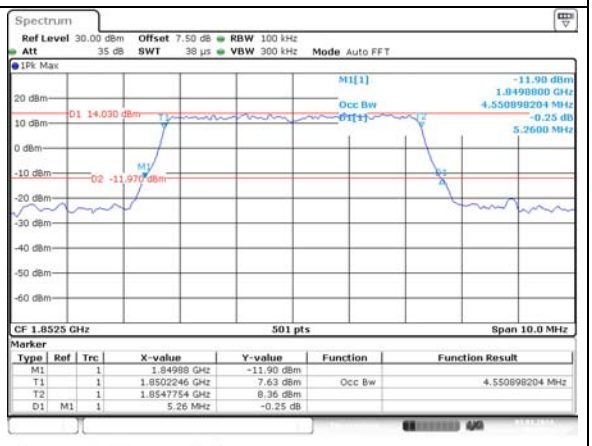
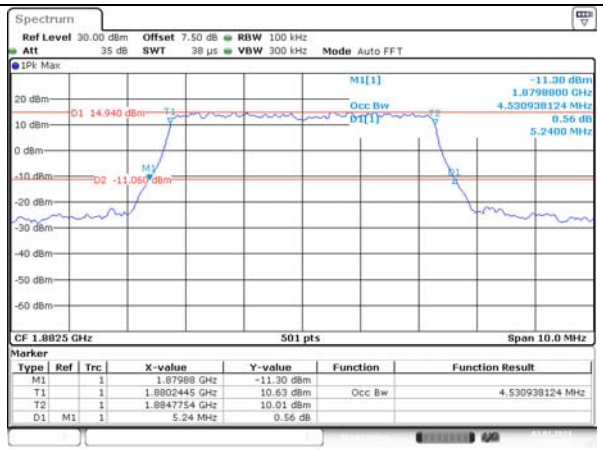
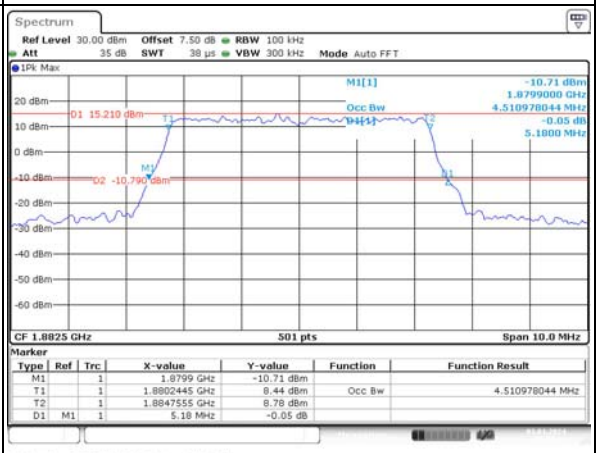
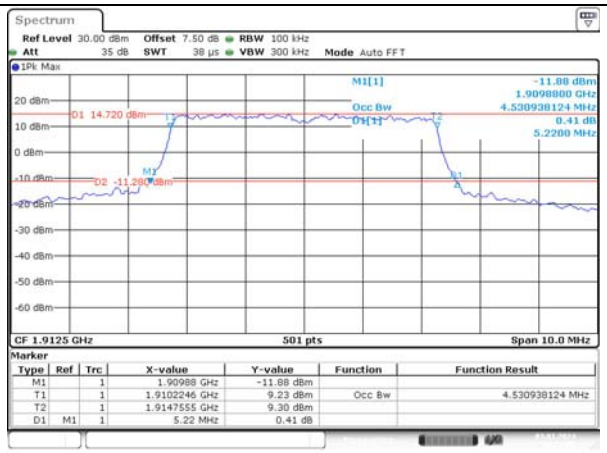
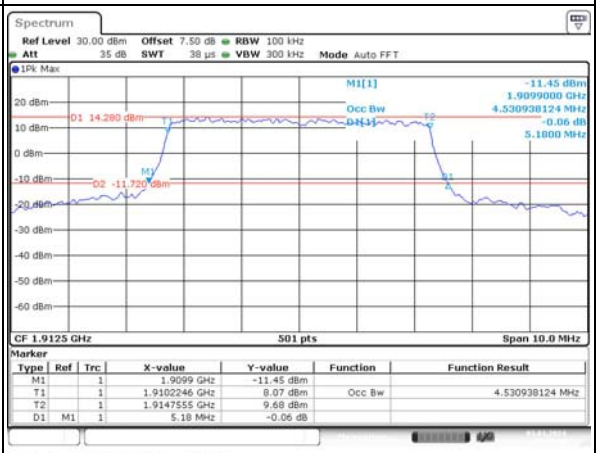
Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1851.034	1850.000	1913.939	1915.000
	-20	3.8	1851.037	1850.000	1913.915	1915.000
	-10	3.8	1851.037	1850.000	1913.921	1915.000
	0	3.8	1851.031	1850.000	1913.921	1915.000
	10	3.8	1851.031	1850.000	1913.915	1915.000
	20	3.8	1851.058	1850.000	1913.942	1915.000
	30	3.8	1851.079	1850.000	1913.948	1915.000
	40	3.8	1851.085	1850.000	1913.957	1915.000
	50	3.8	1851.082	1850.000	1913.945	1915.000
Frequency Stability vs. Voltage	20	3.23	1851.064	1850.000	1913.960	1915.000
	20	4.18	1851.070	1850.000	1913.945	1915.000
					Result:	**Pass**

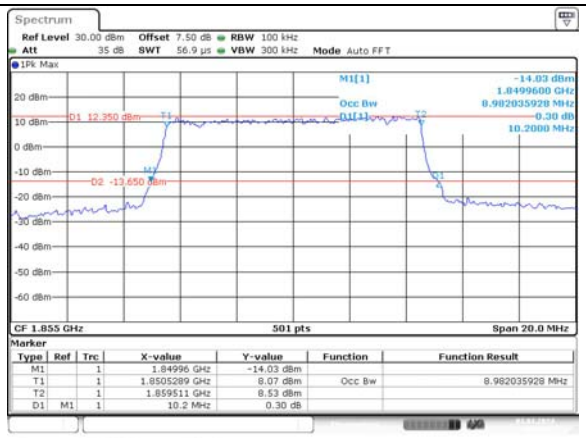
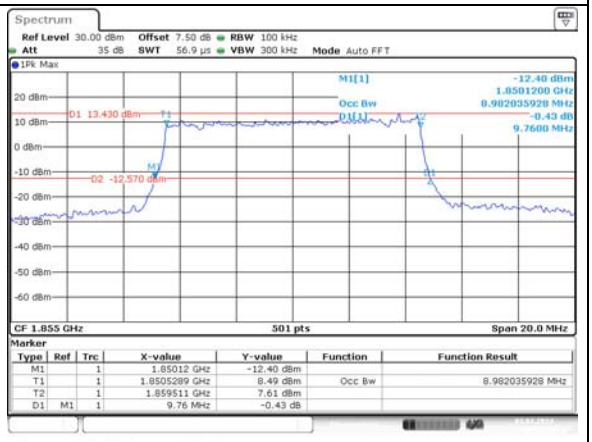
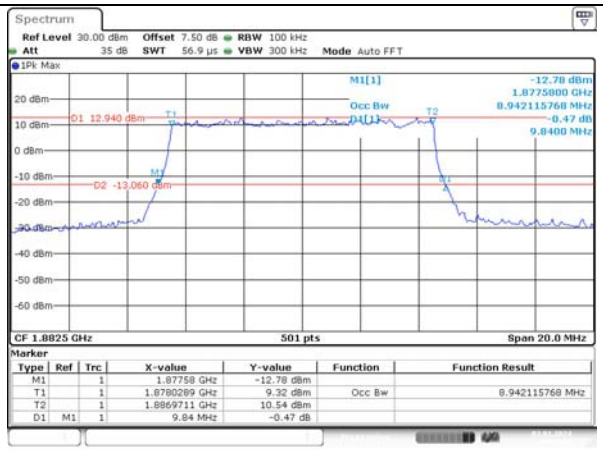
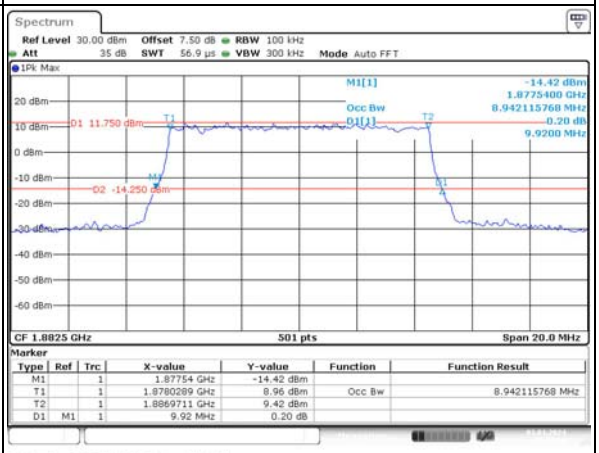
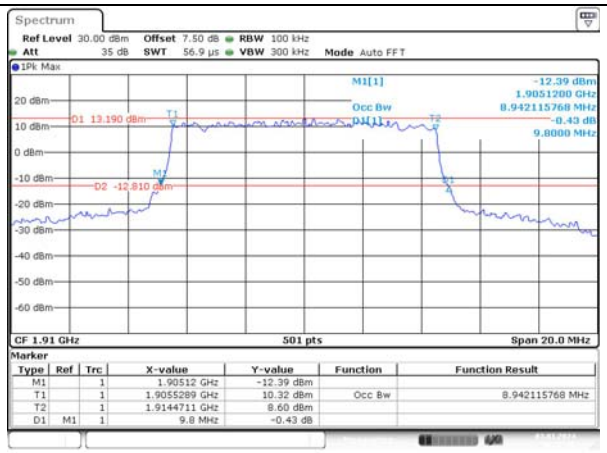
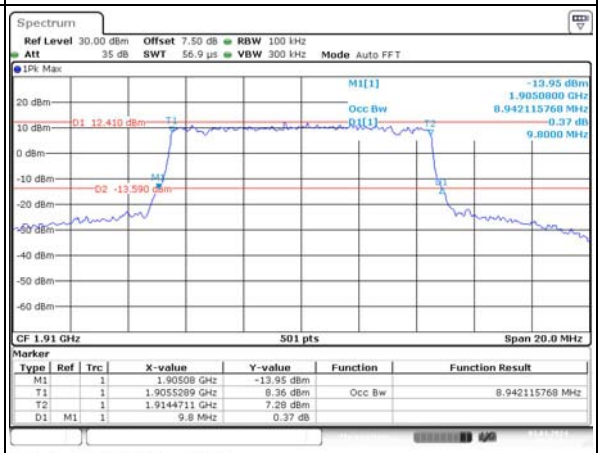
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1851.043	1850.000	1913.921	1915.000
	-20	3.8	1851.031	1850.000	1913.927	1915.000
	-10	3.8	1851.046	1850.000	1913.924	1915.000
	0	3.8	1851.037	1850.000	1913.927	1915.000
	10	3.8	1851.055	1850.000	1913.927	1915.000
	20	3.8	1851.058	1850.000	1913.942	1915.000
	30	3.8	1851.079	1850.000	1913.960	1915.000
	40	3.8	1851.079	1850.000	1913.954	1915.000
	50	3.8	1851.082	1850.000	1913.960	1915.000
Frequency Stability vs. Voltage	20	3.23	1851.064	1850.000	1913.957	1915.000
	20	4.18	1851.067	1850.000	1913.954	1915.000
					Result:	**Pass**

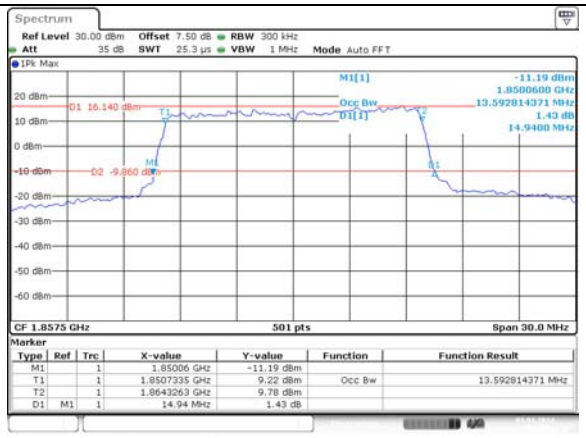
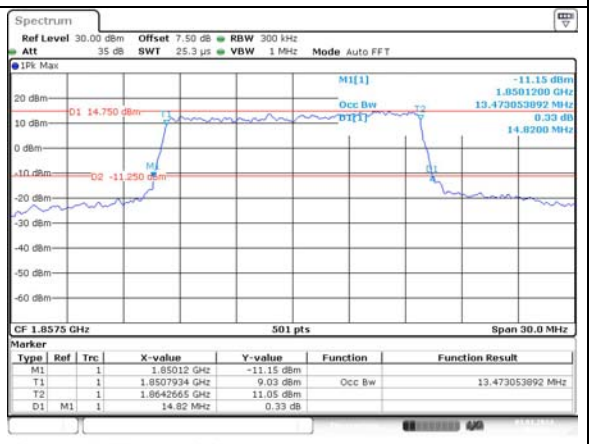
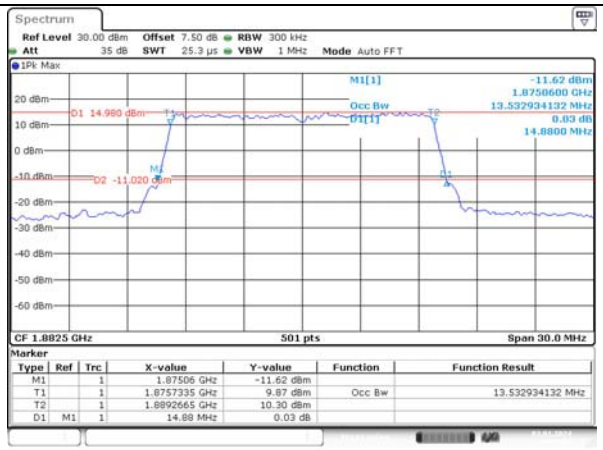
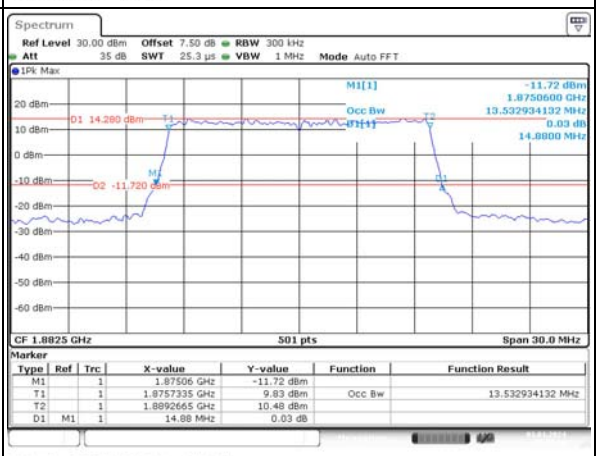
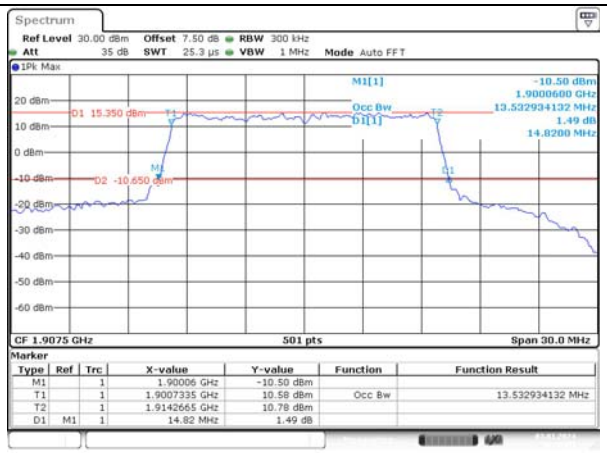
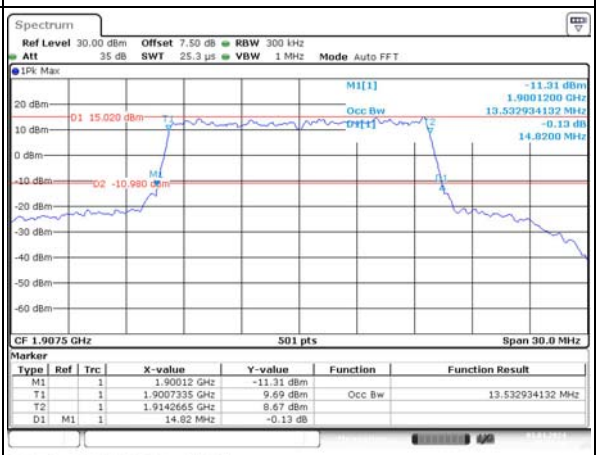
Test Plots(Note: The 7.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer)**:**

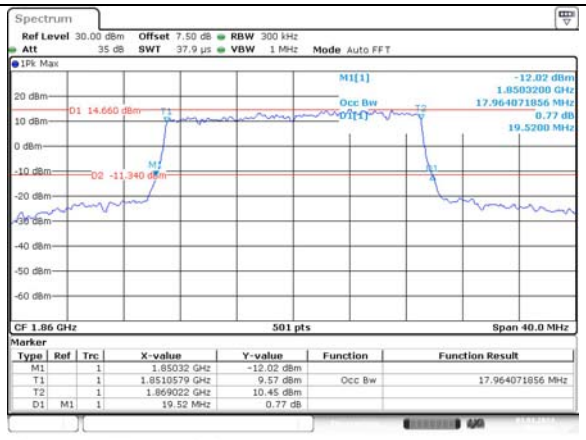
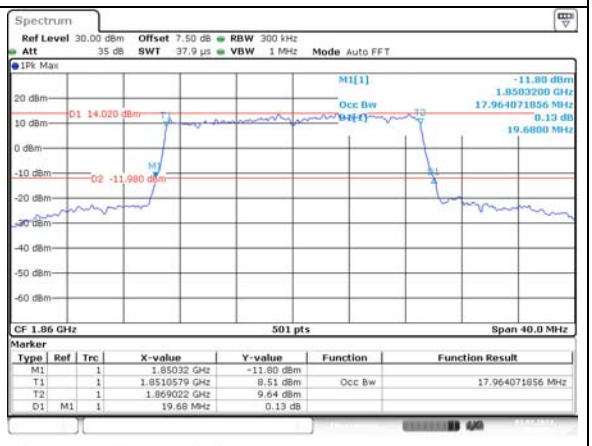
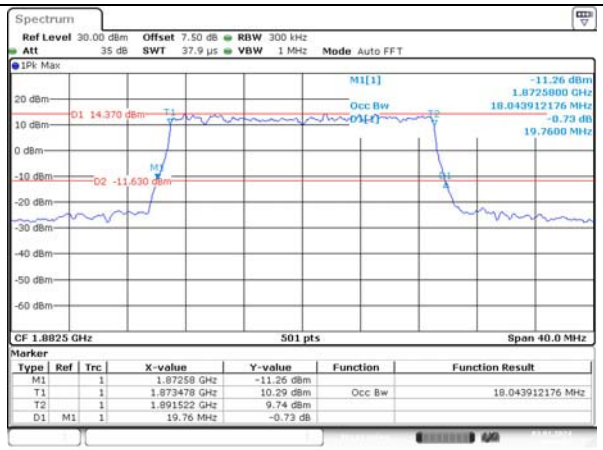
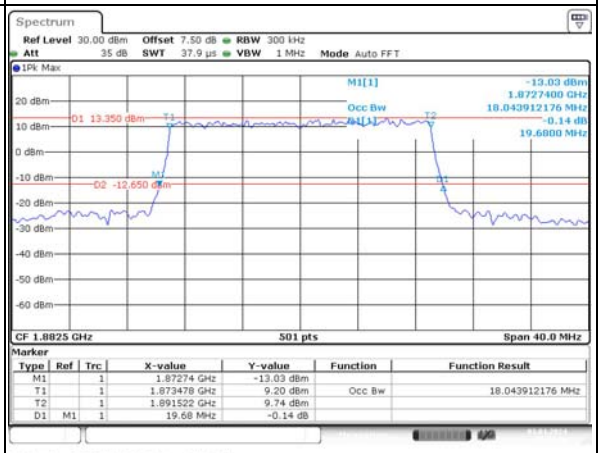
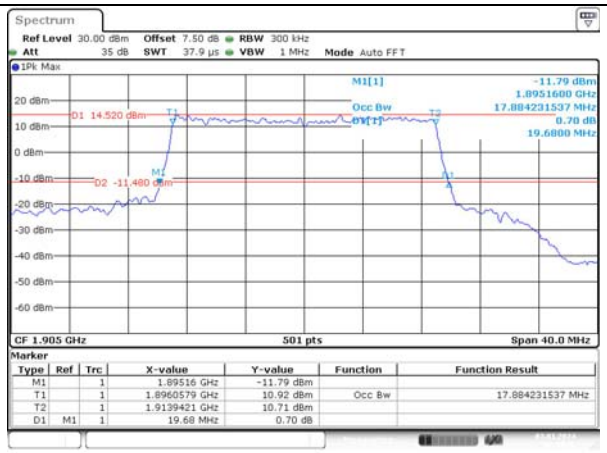
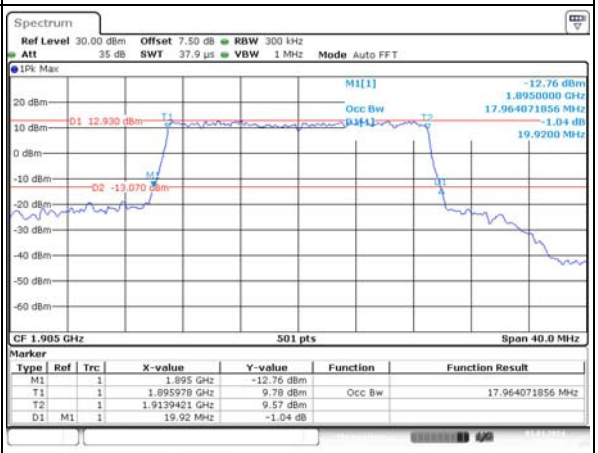
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

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

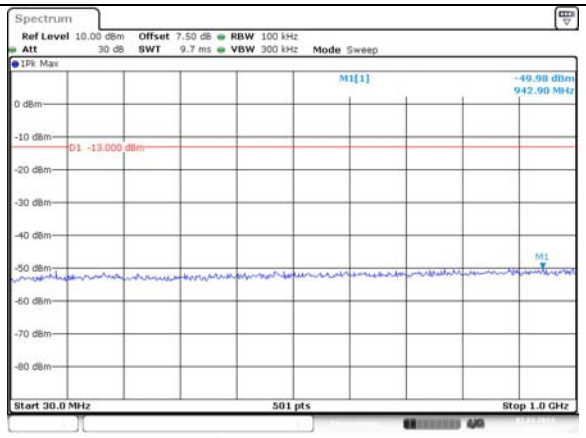
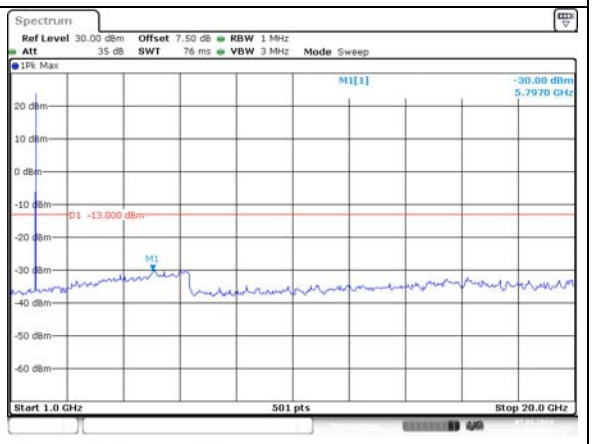
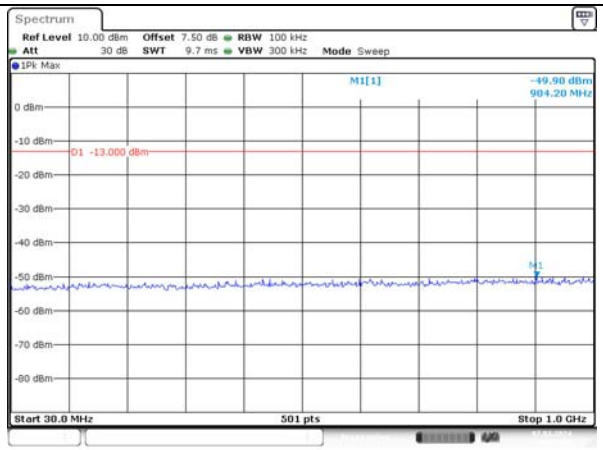
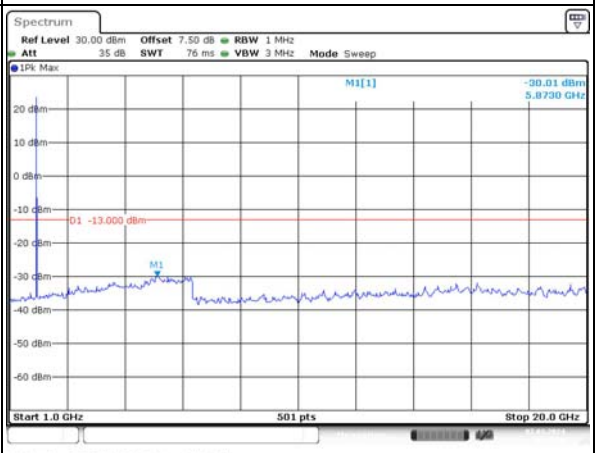
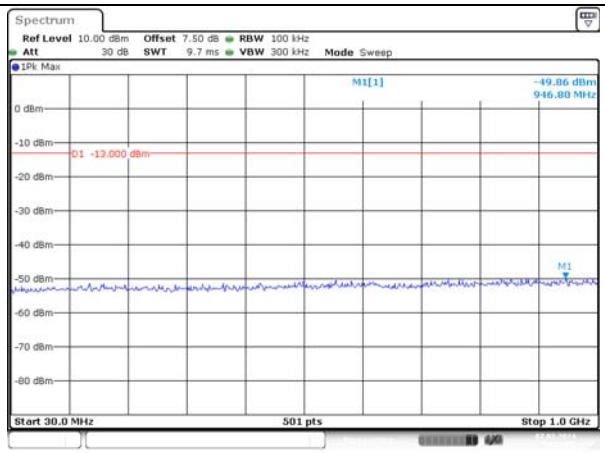
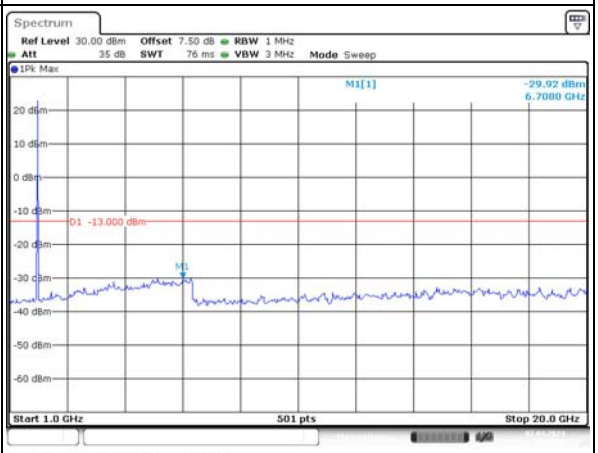
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

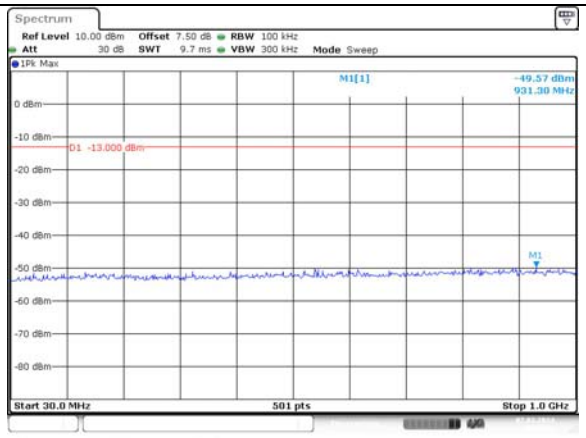
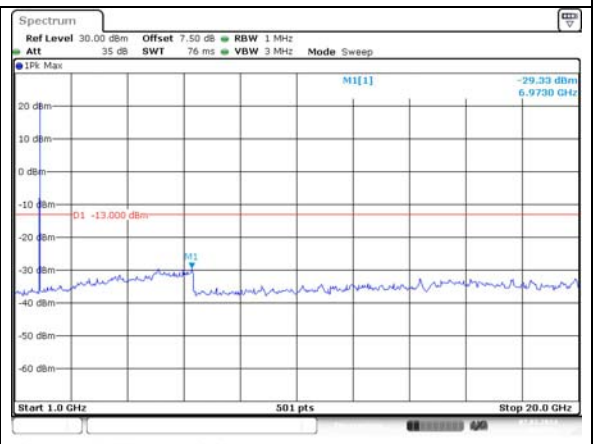
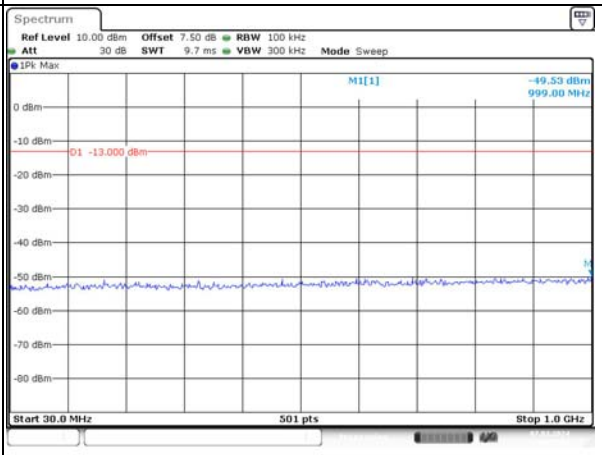
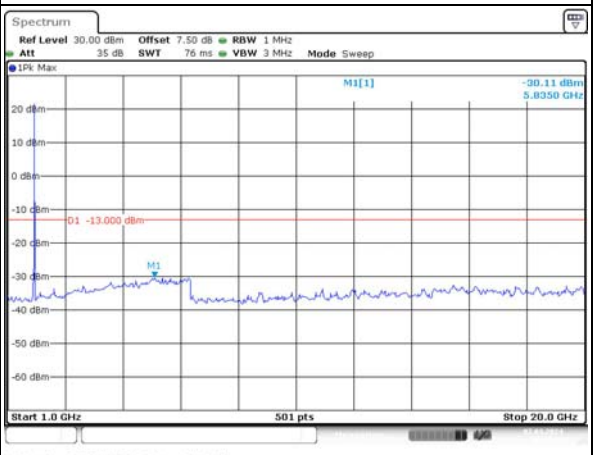
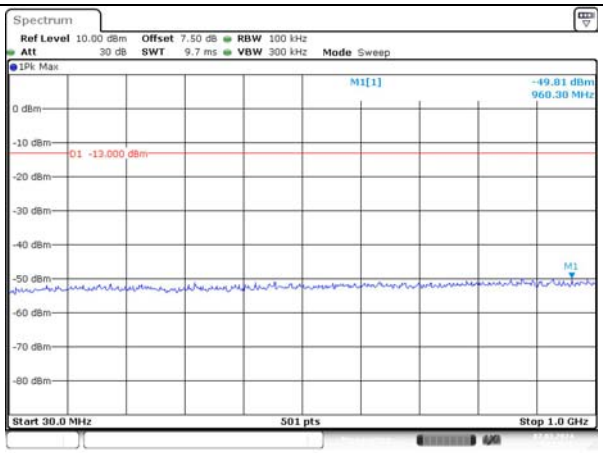
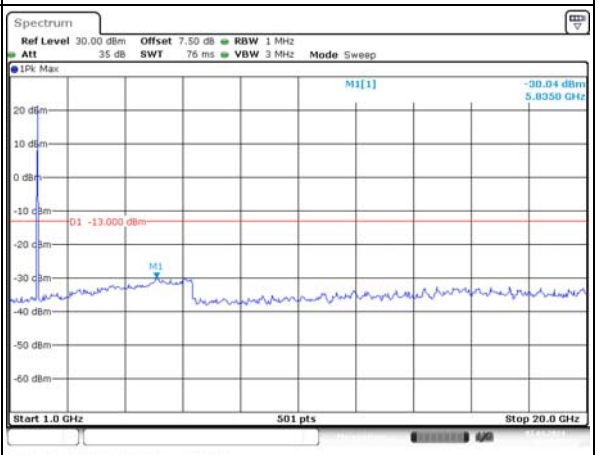
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

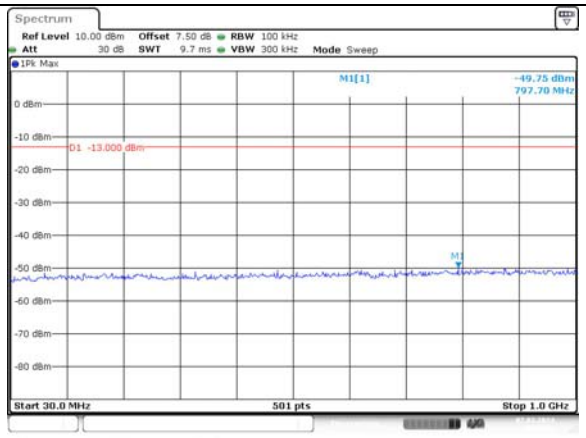
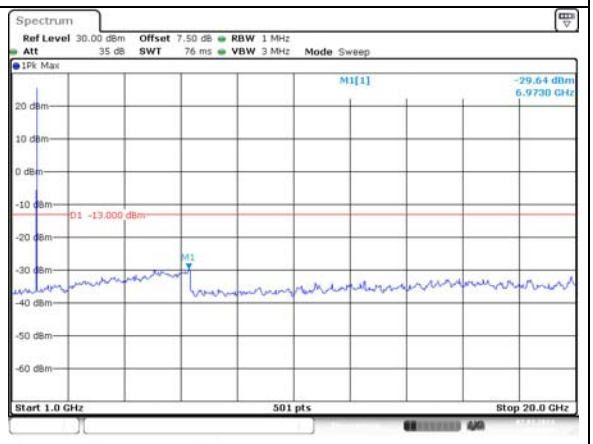
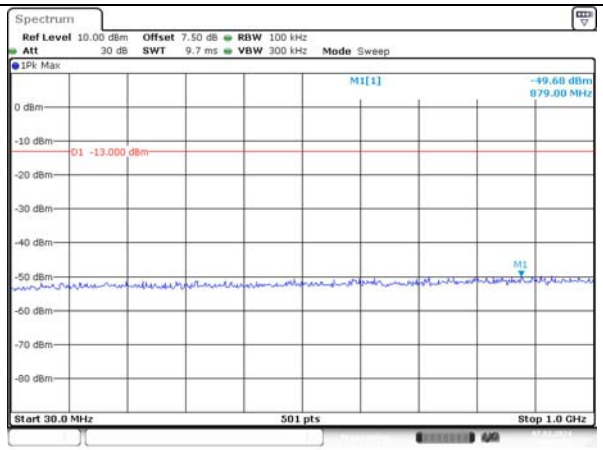
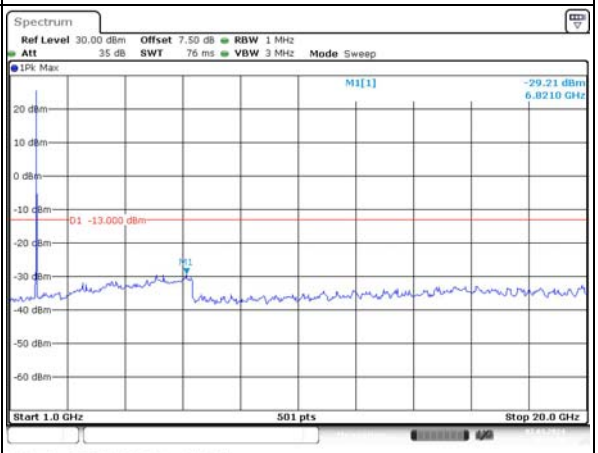
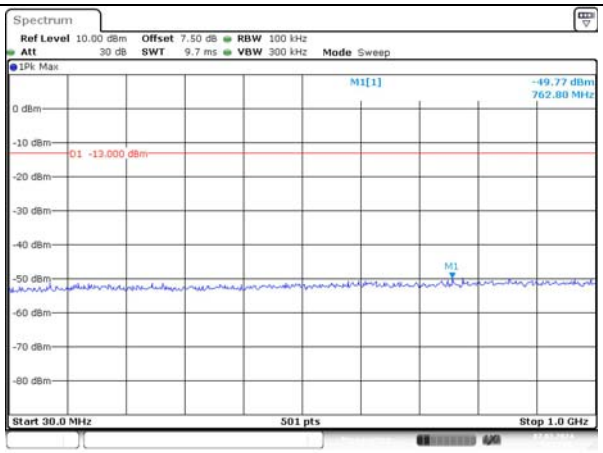
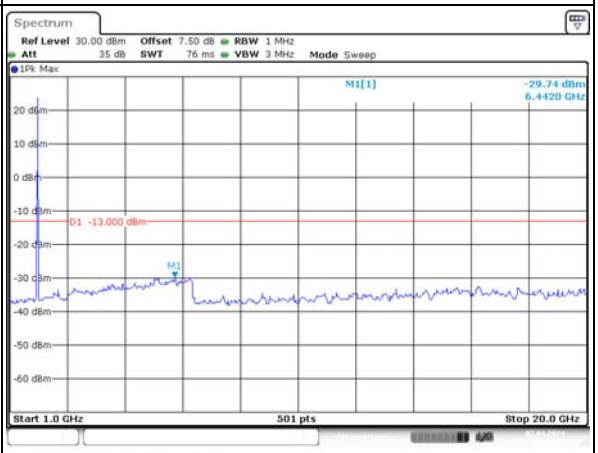
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

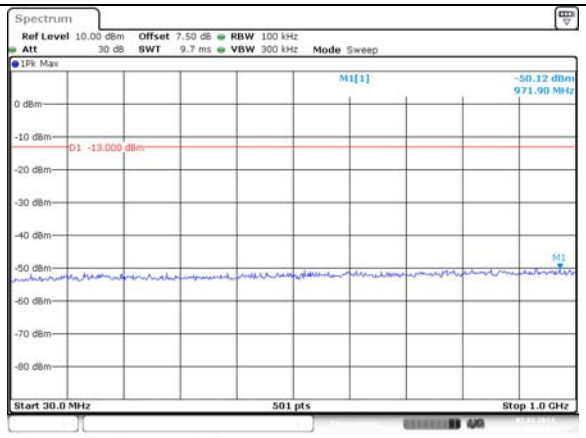
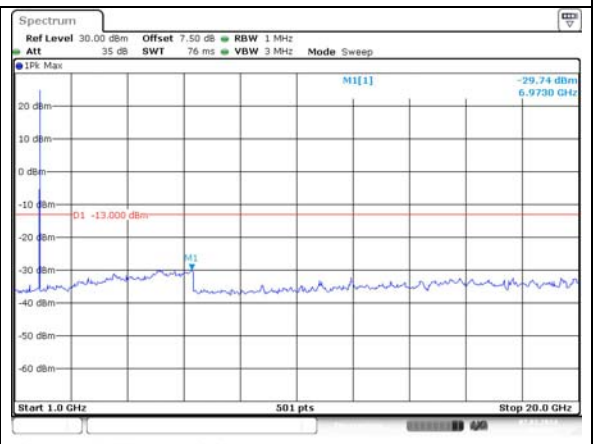
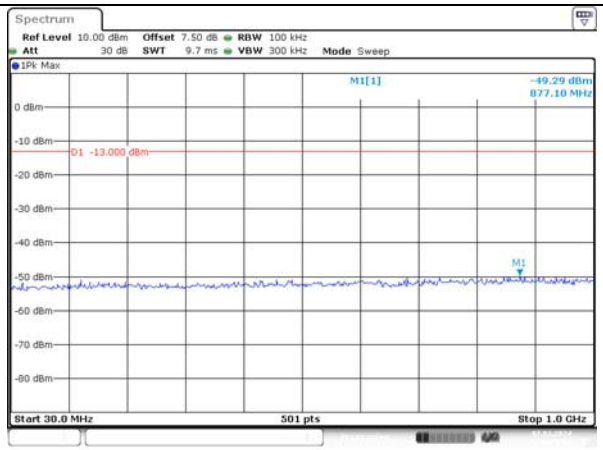
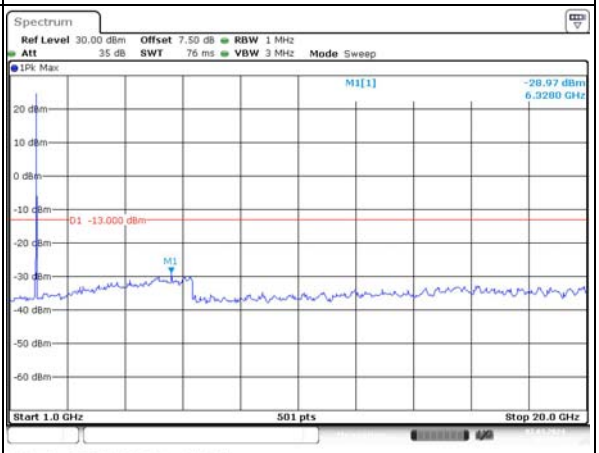
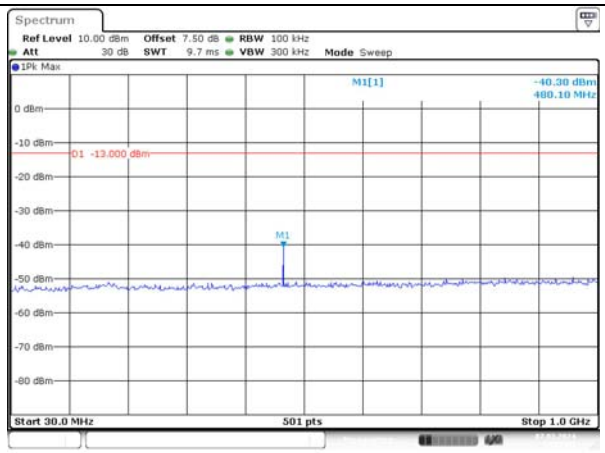
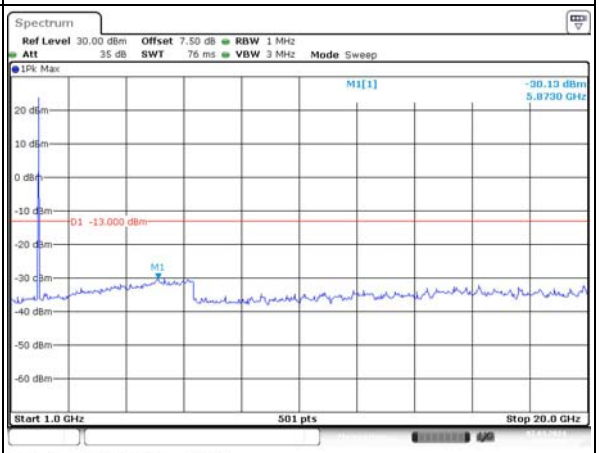
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

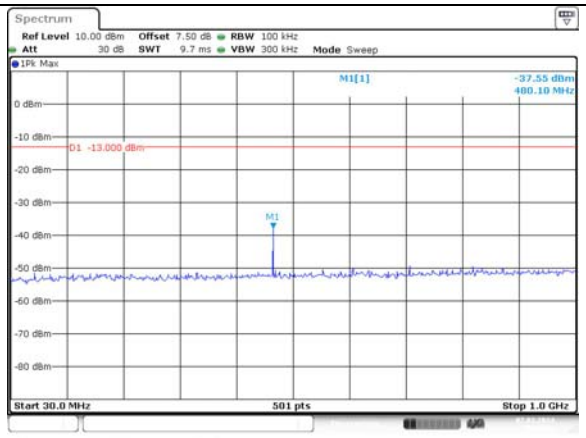
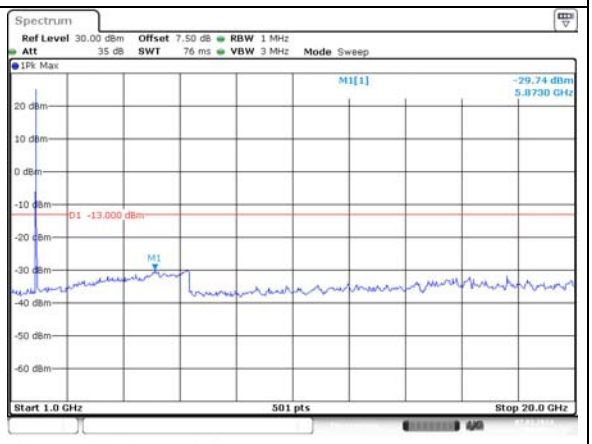
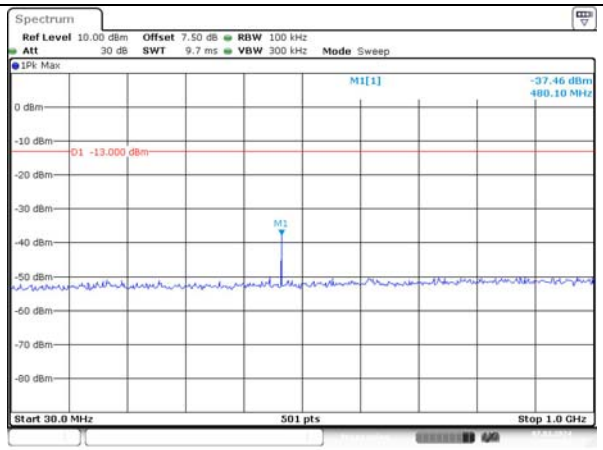
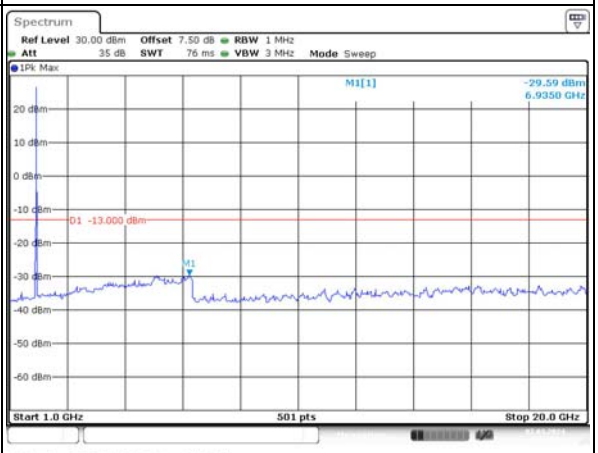
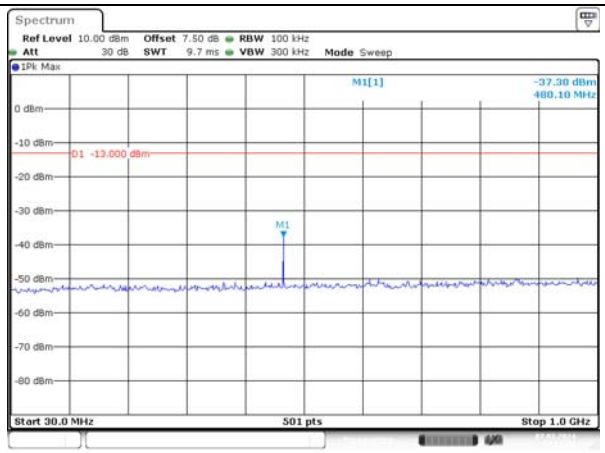
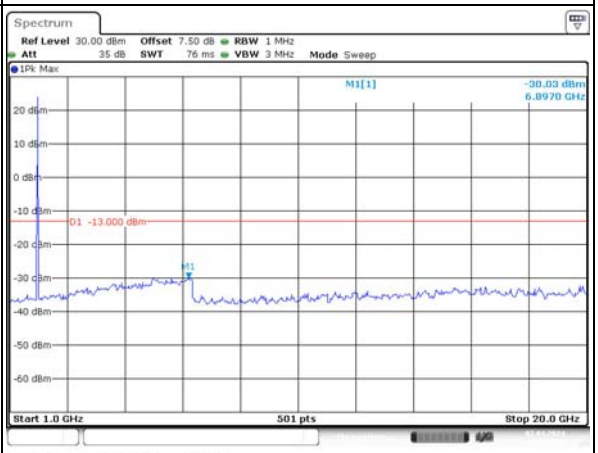
RB1#0:

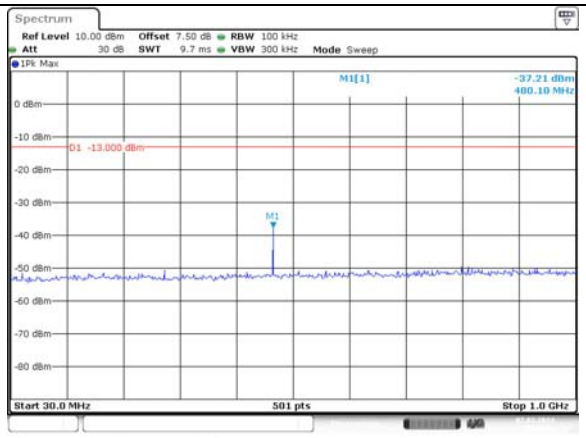
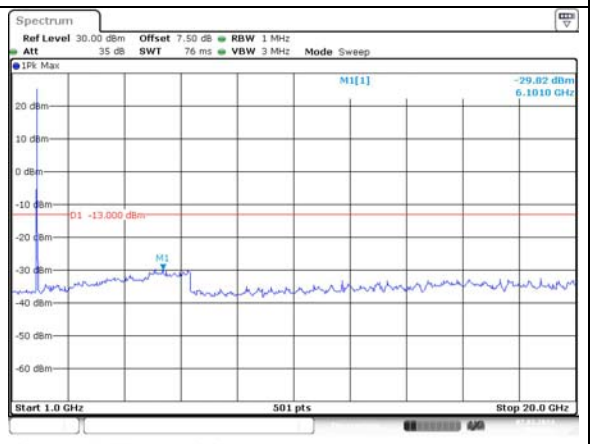
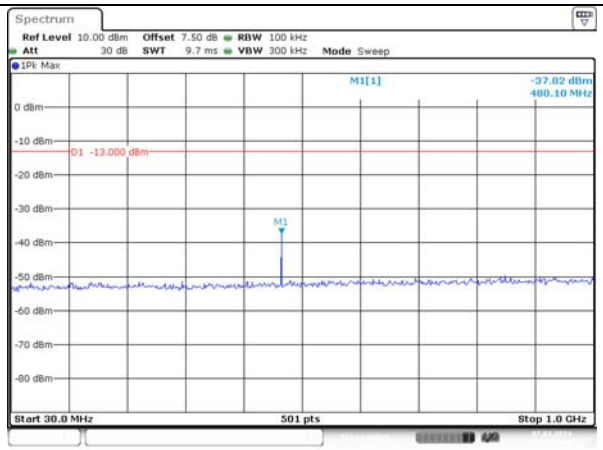
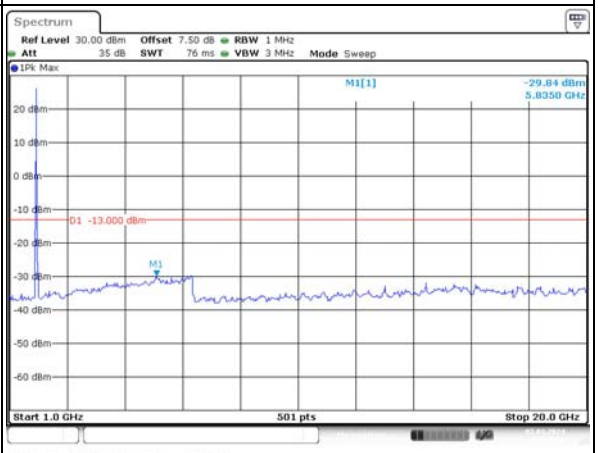
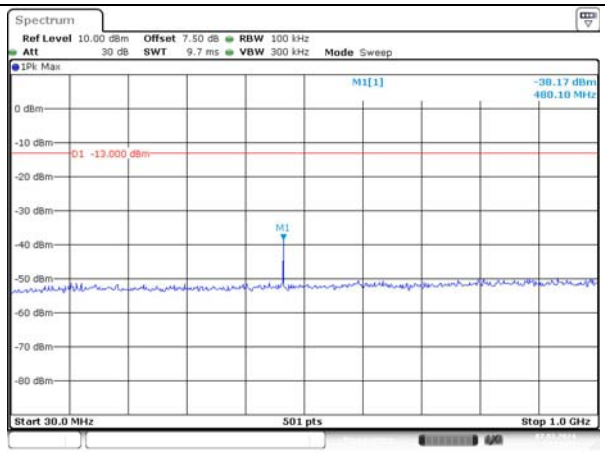
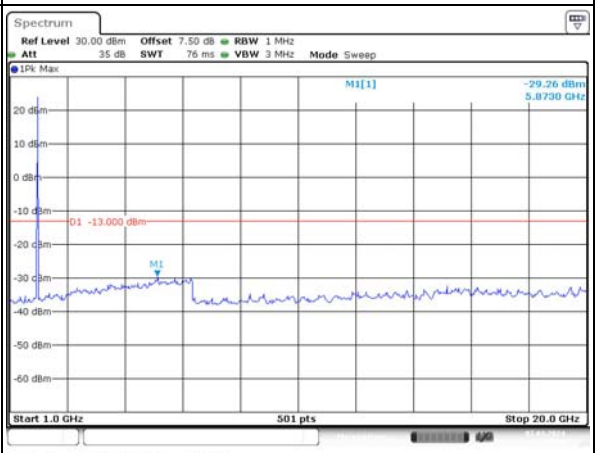
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

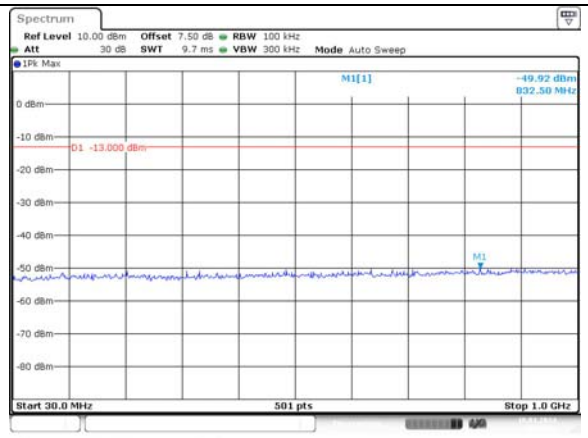
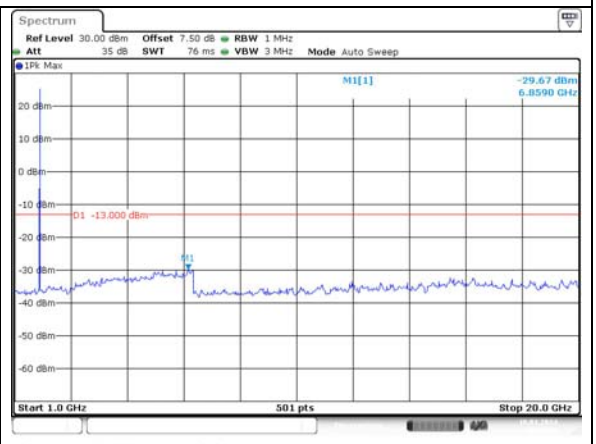
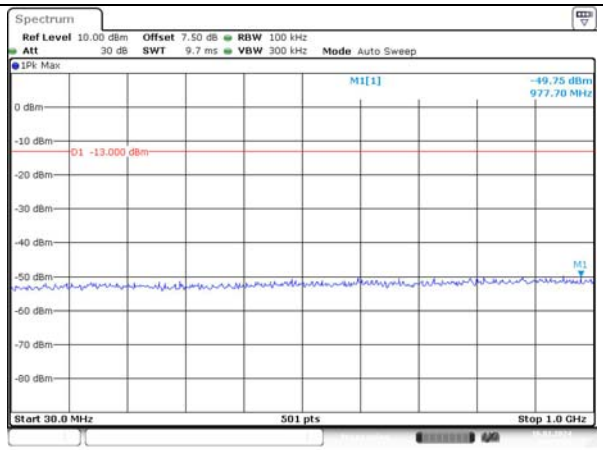
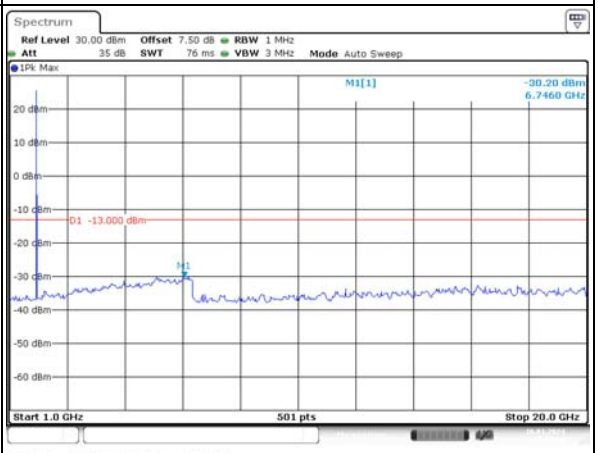
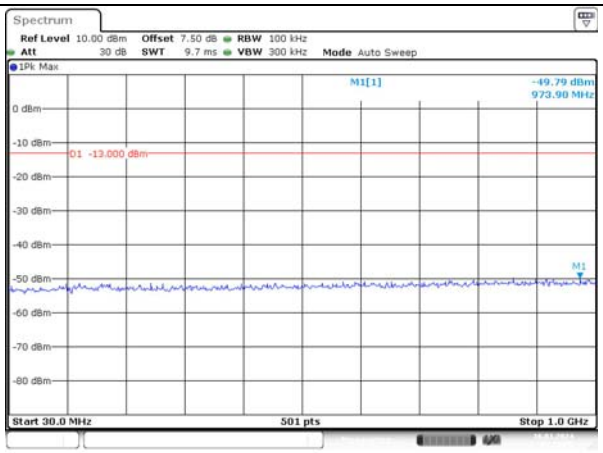
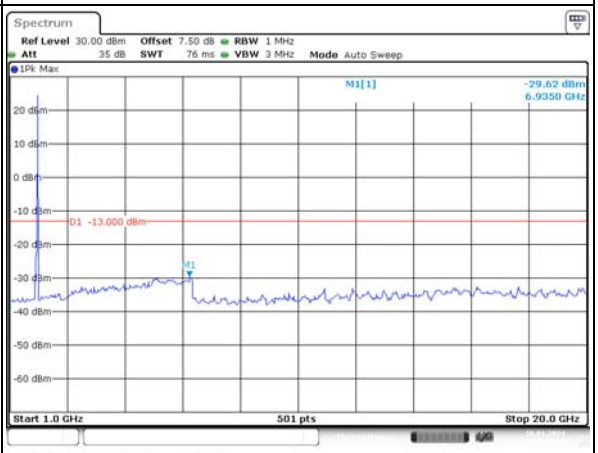
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

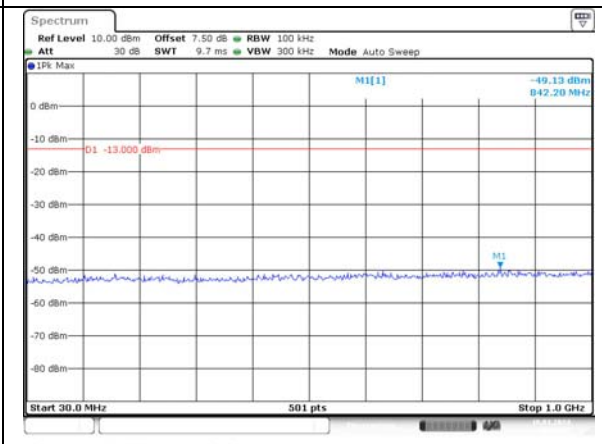
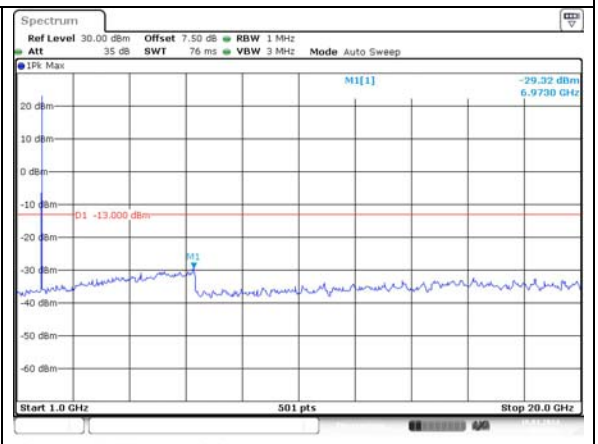
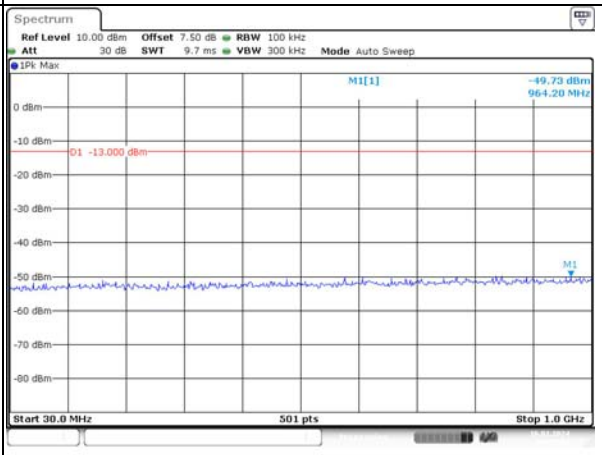
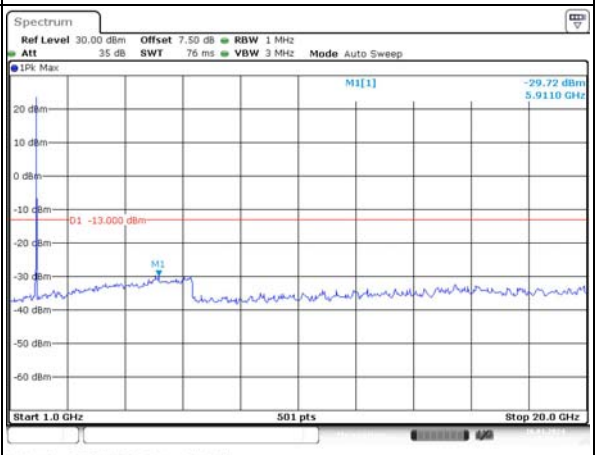
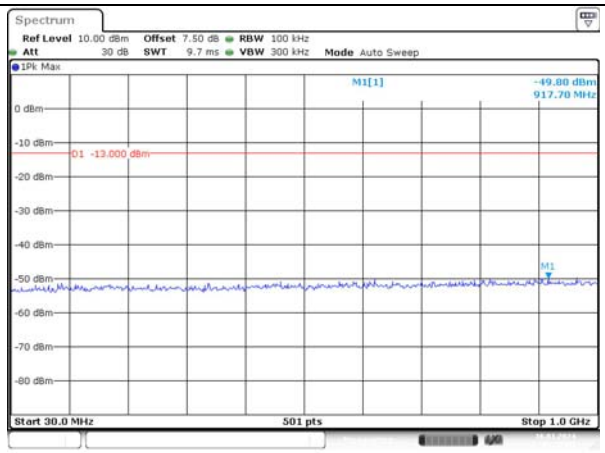
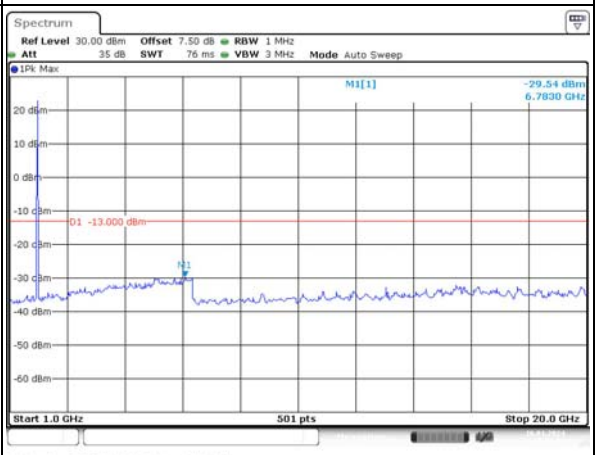
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

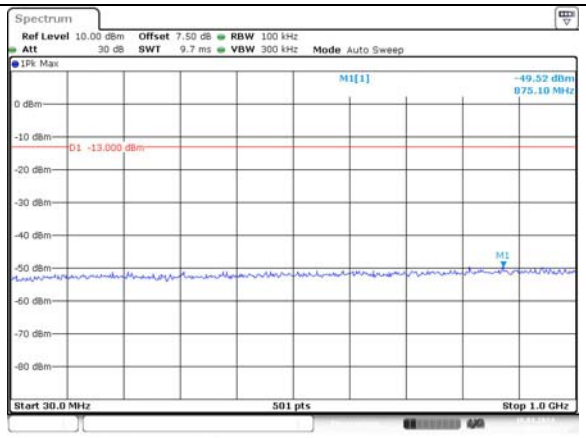
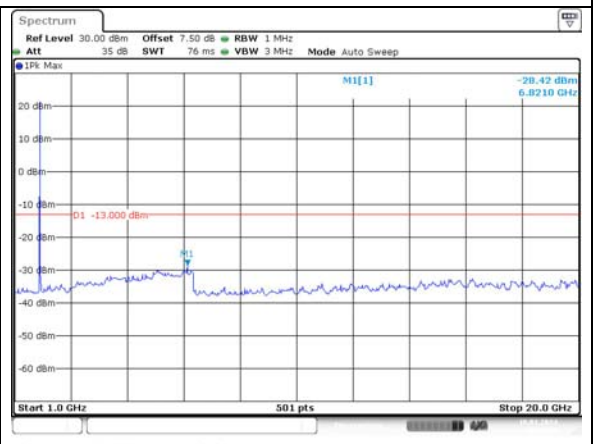
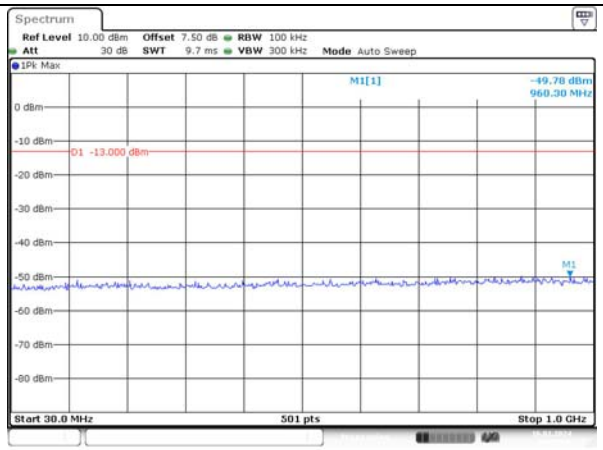
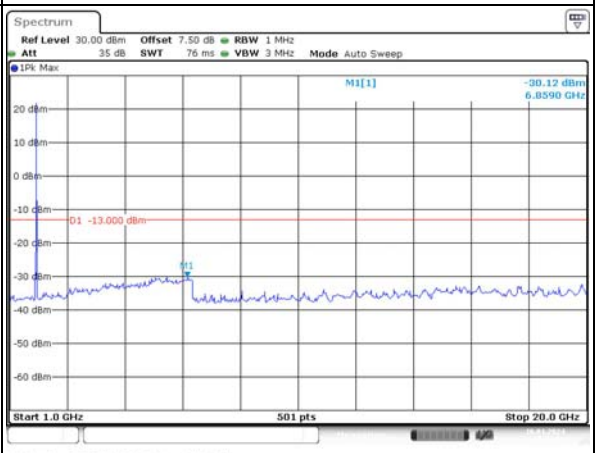
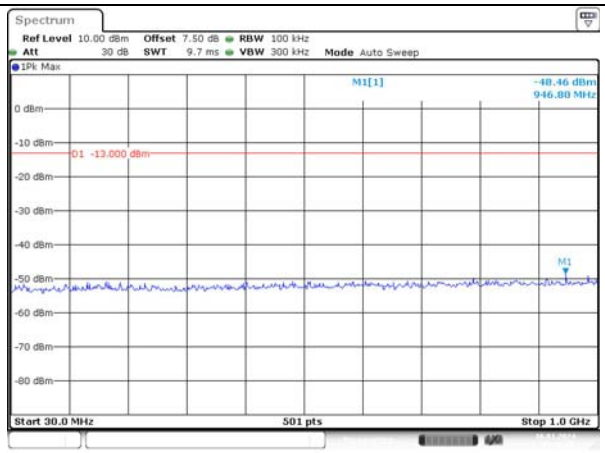
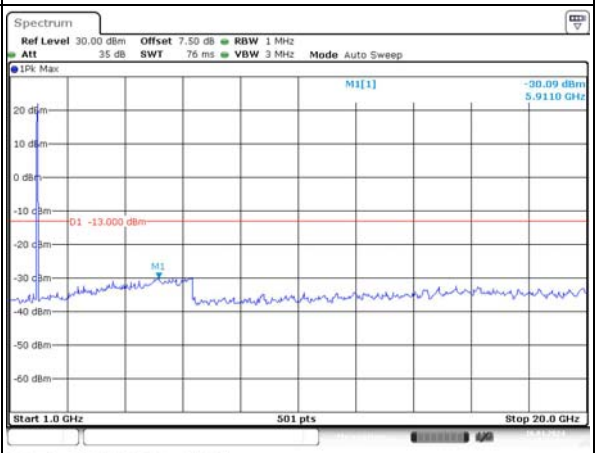
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

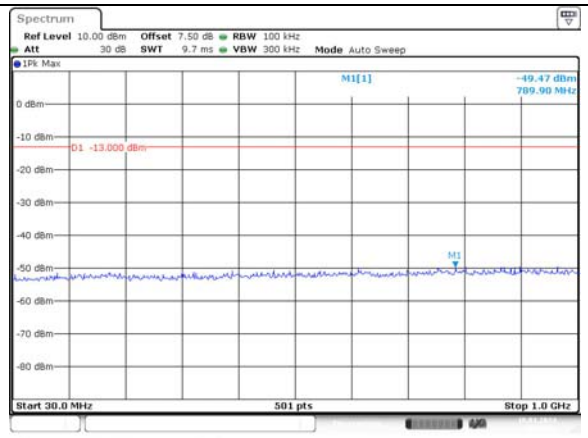
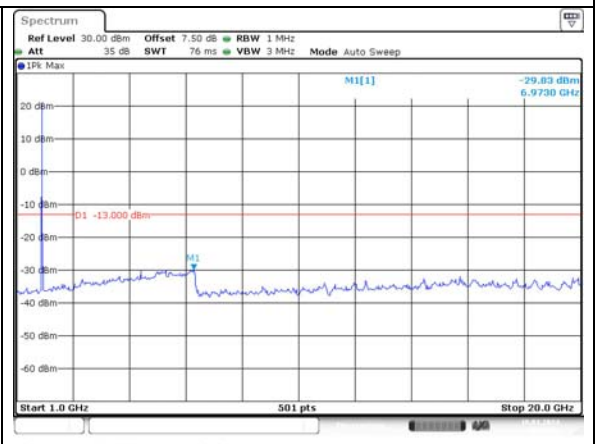
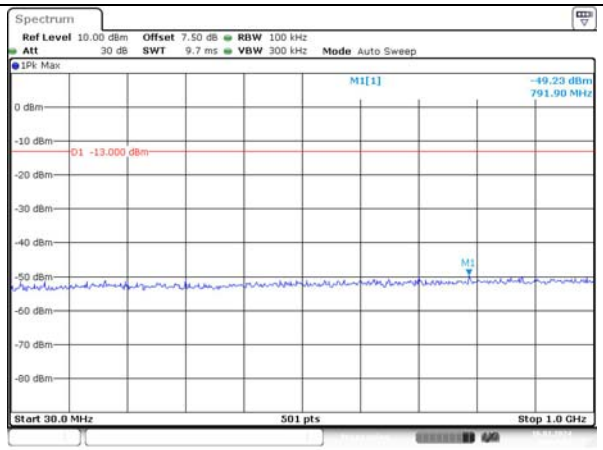
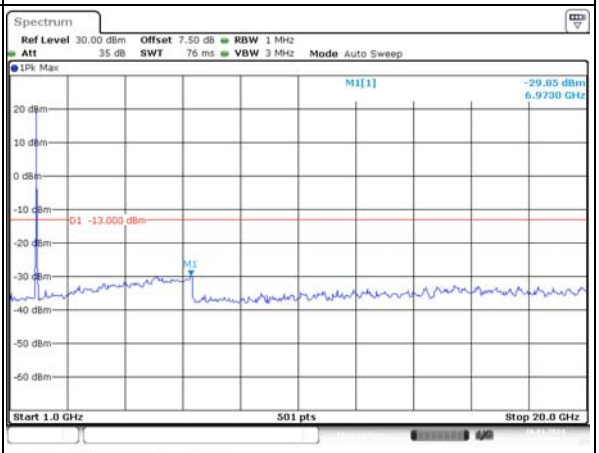
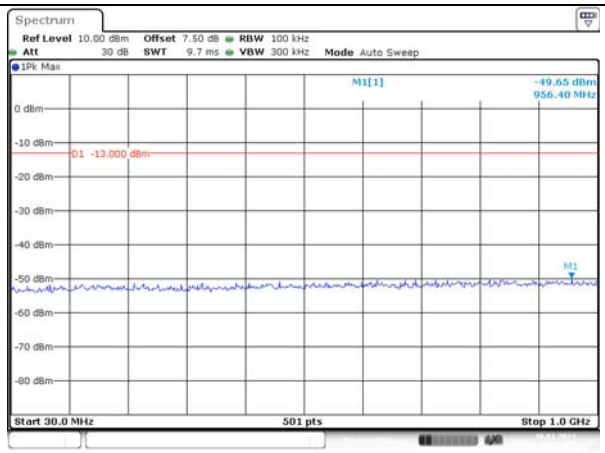
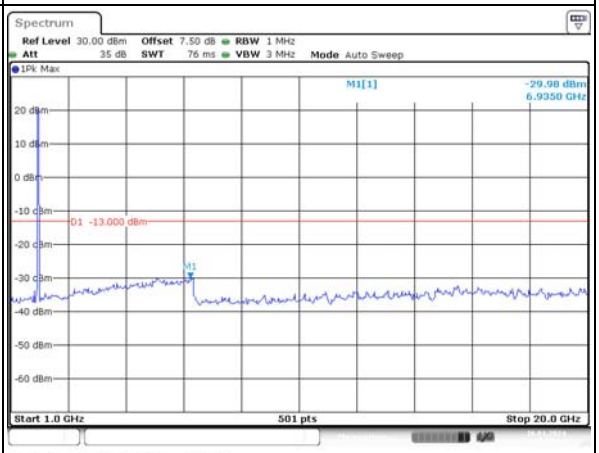
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

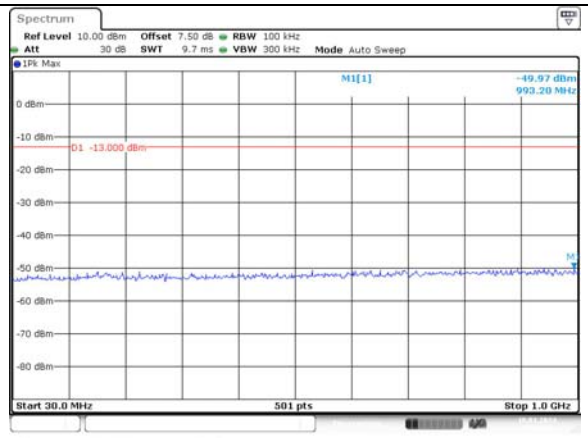
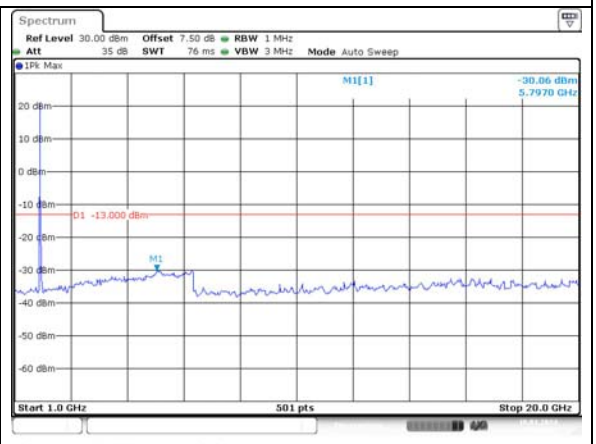
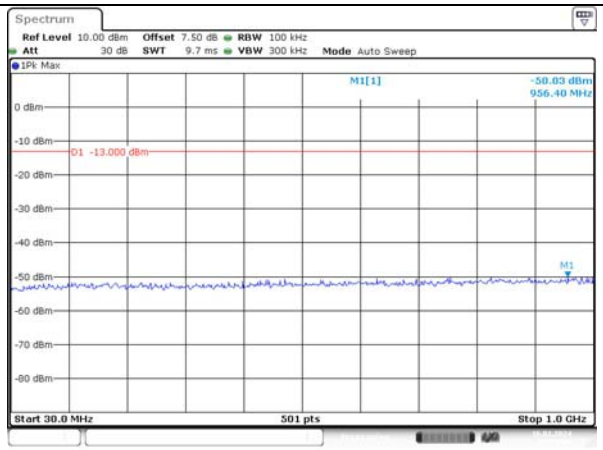
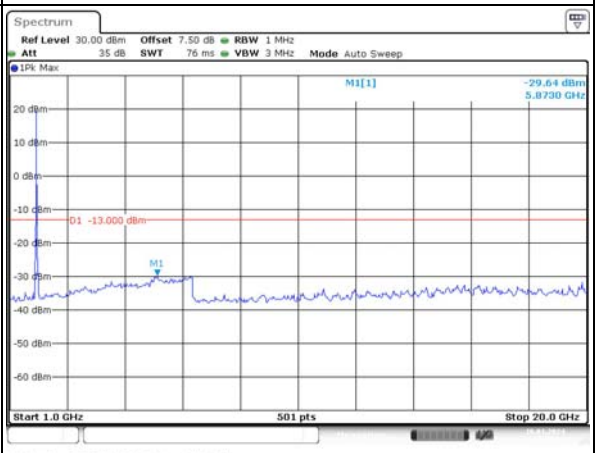
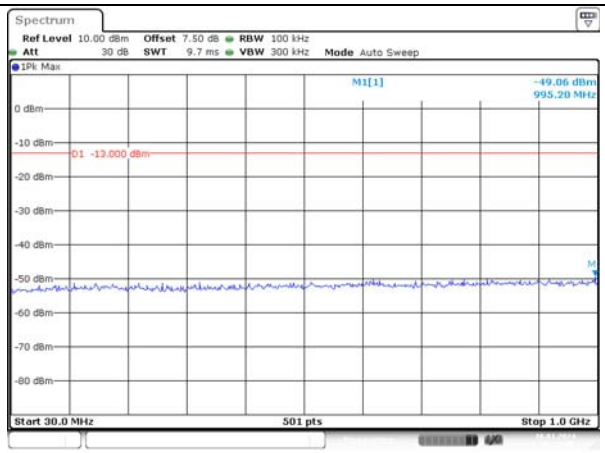
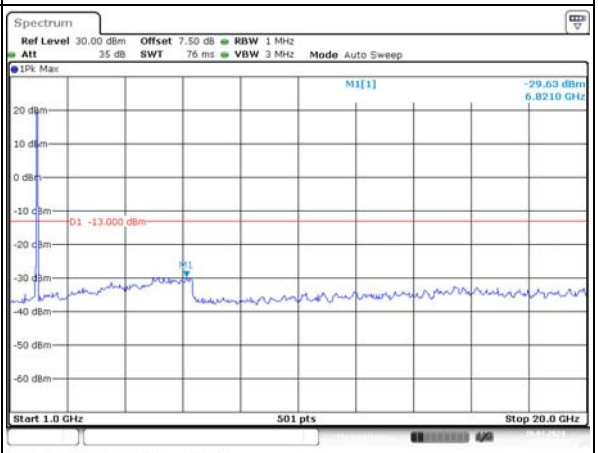
Full RB:

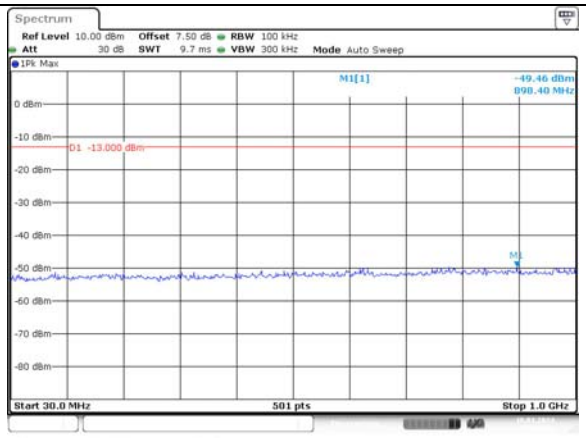
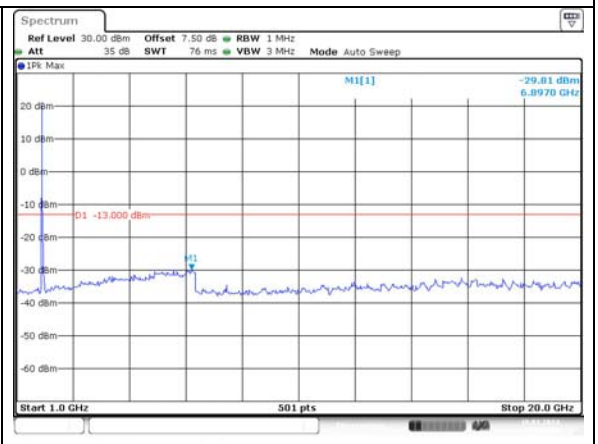
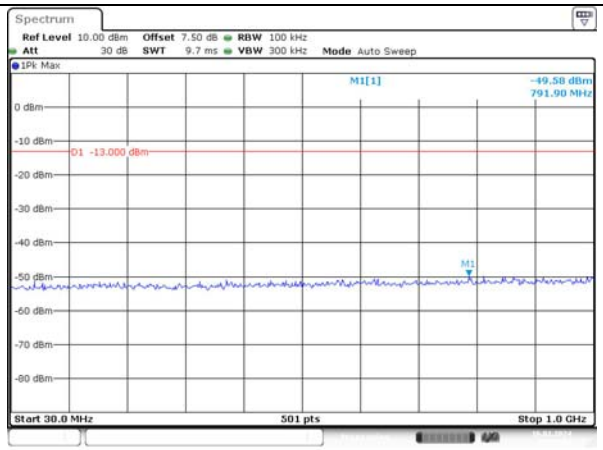
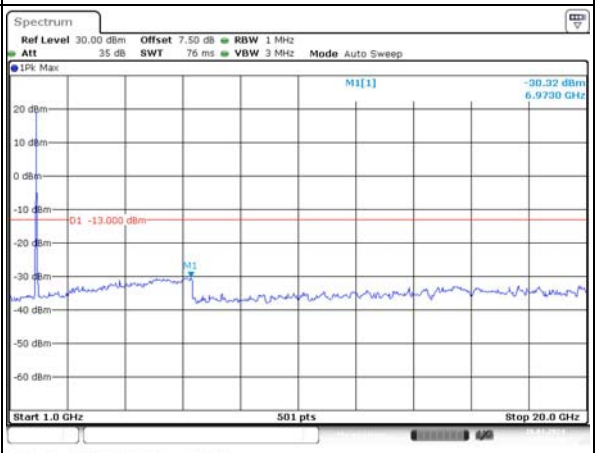
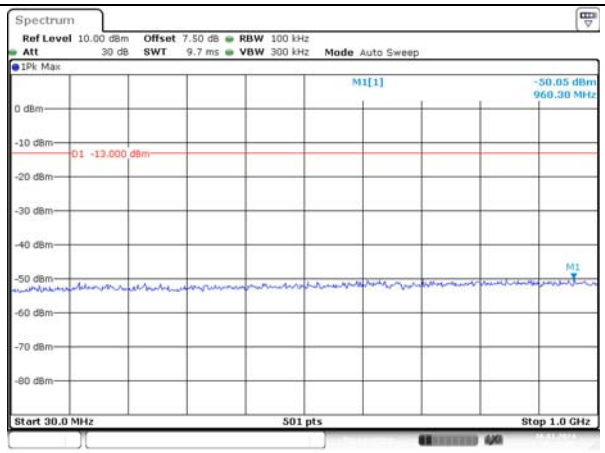
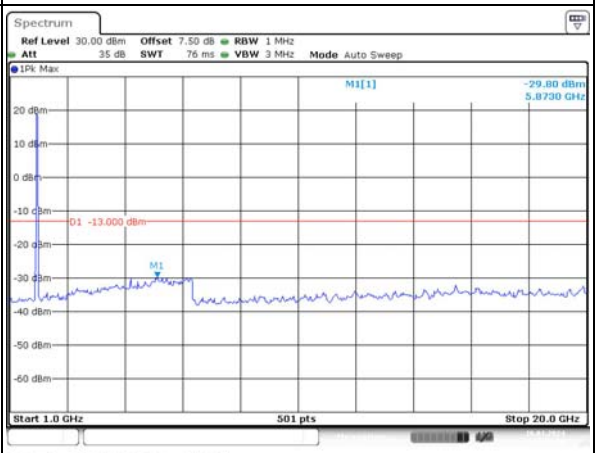
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

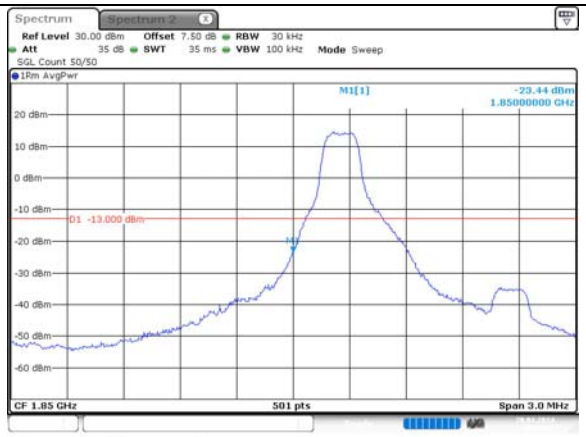
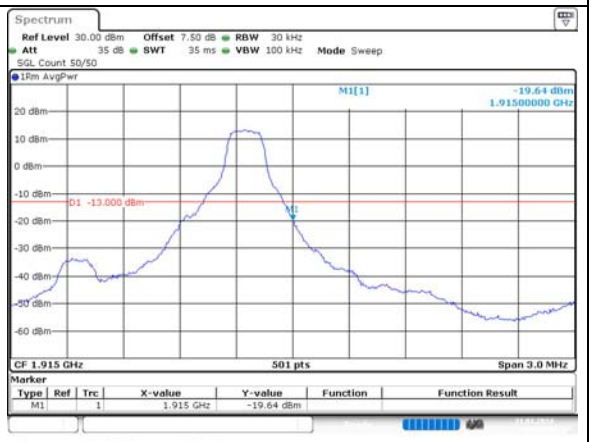
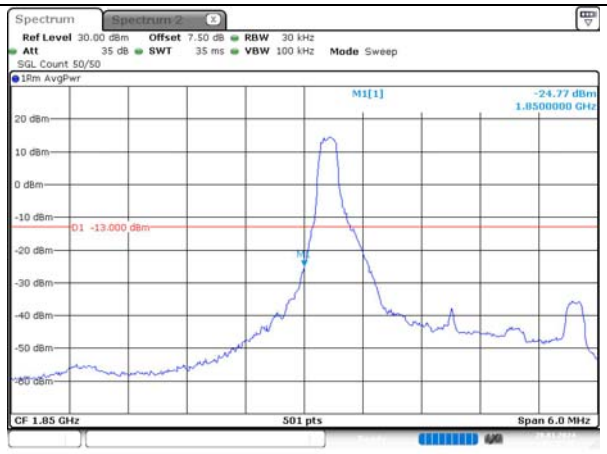
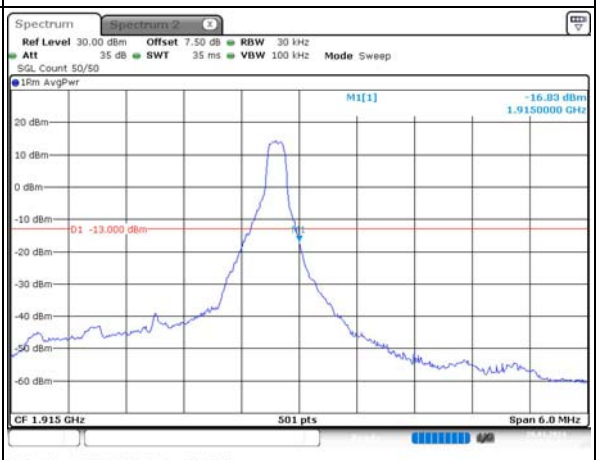
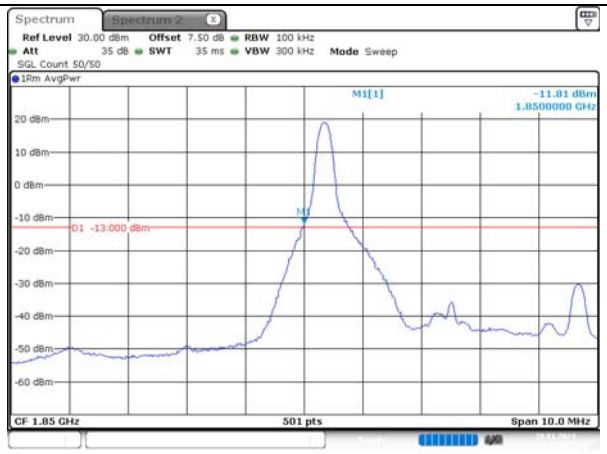
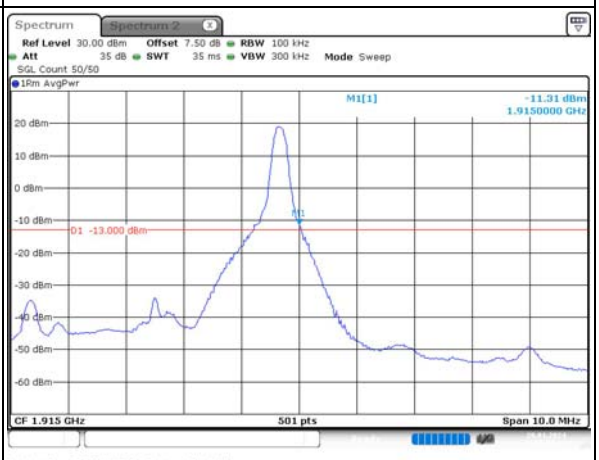
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

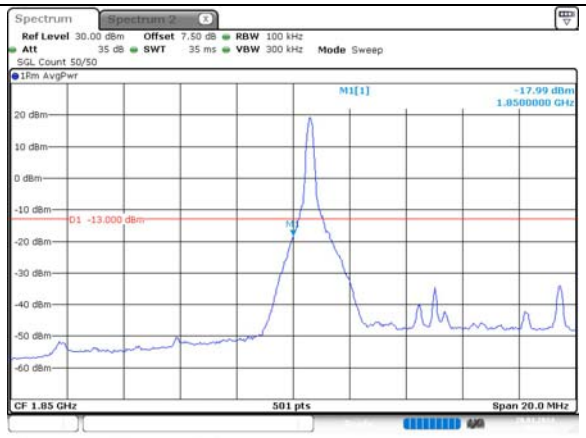
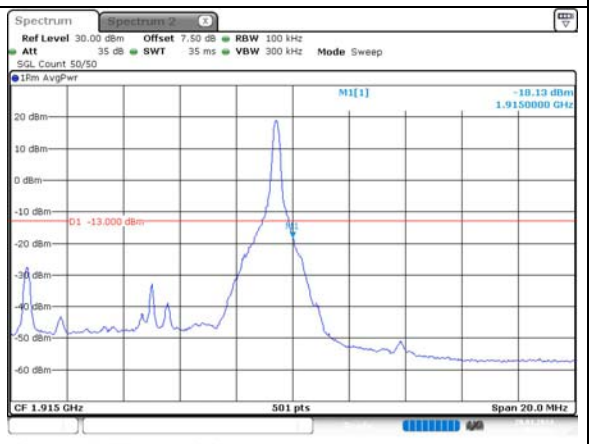
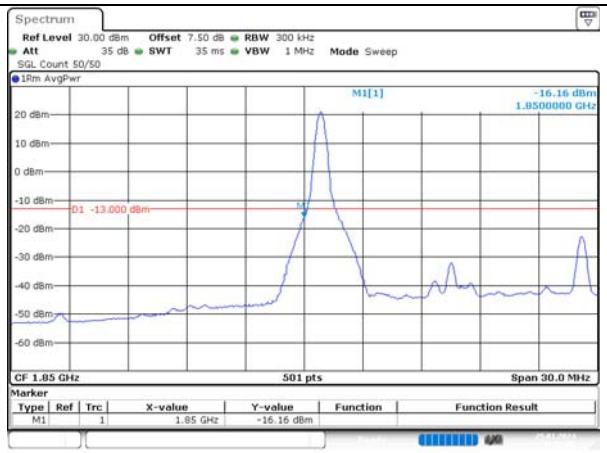
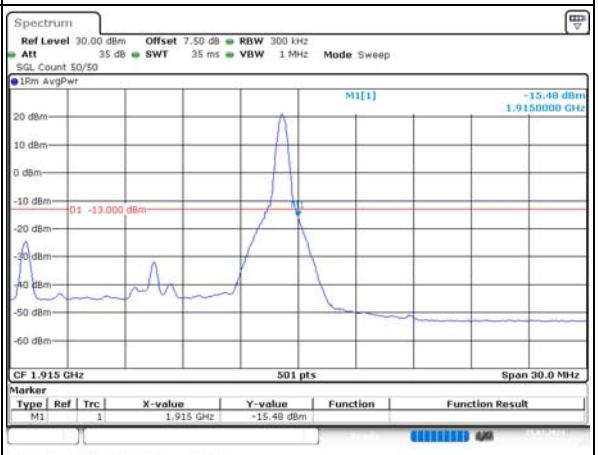
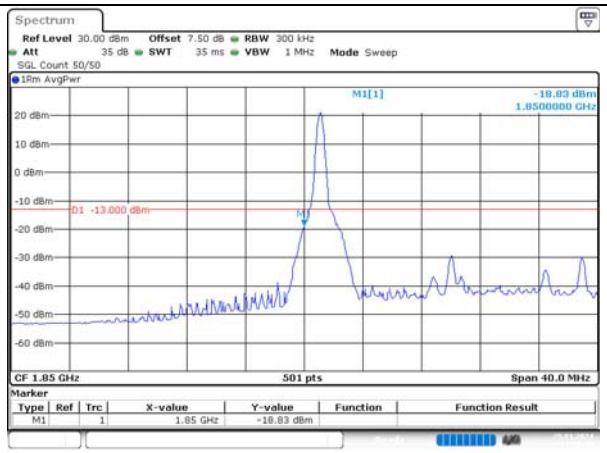
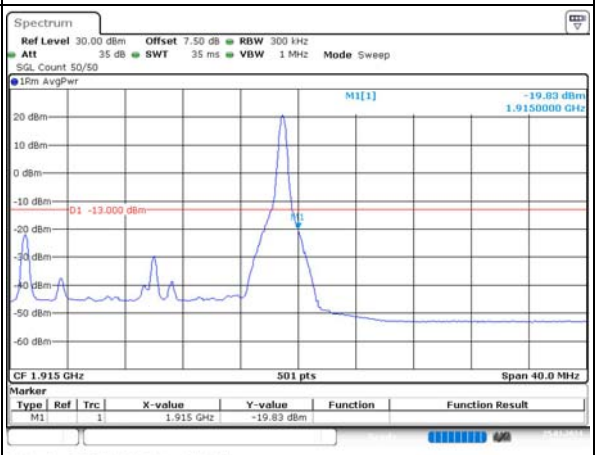
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

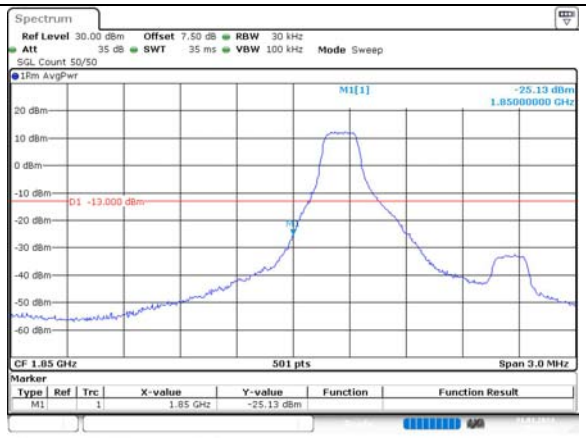
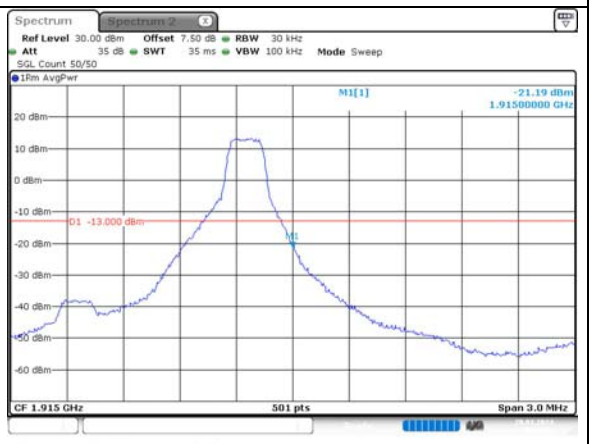
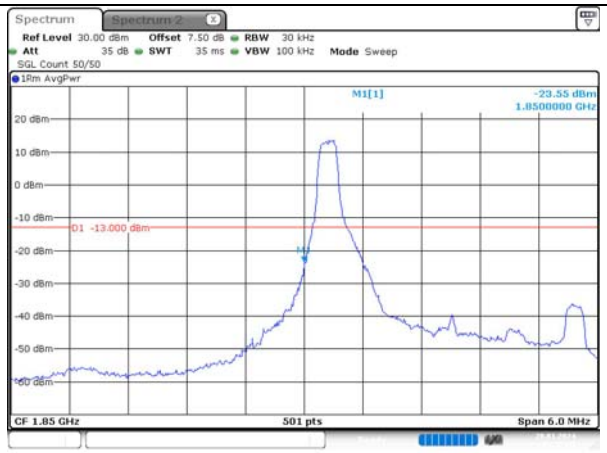
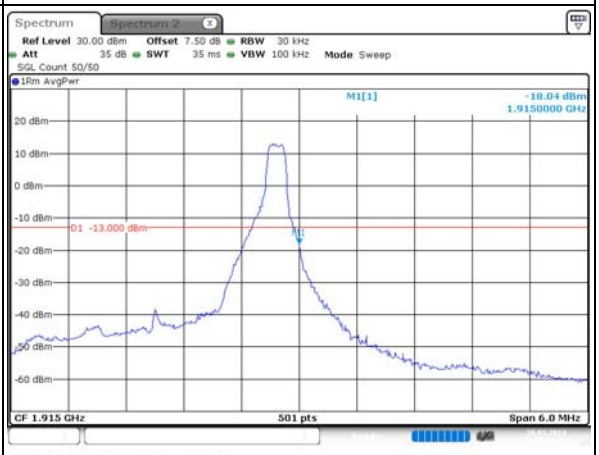
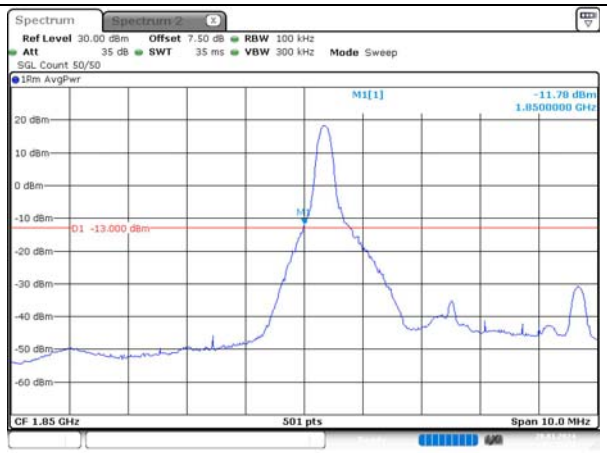
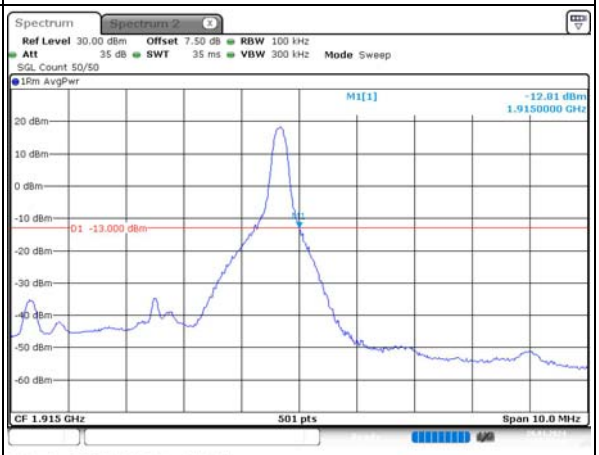
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

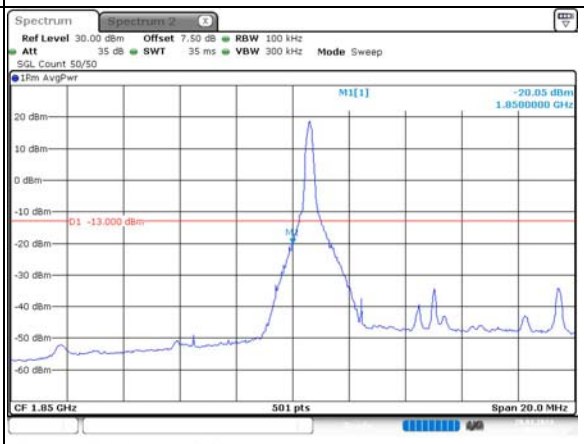
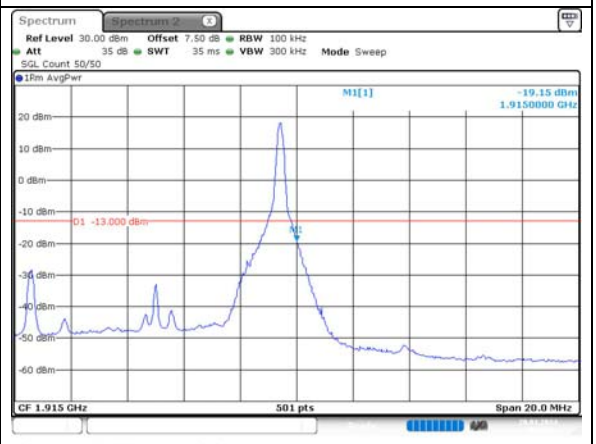
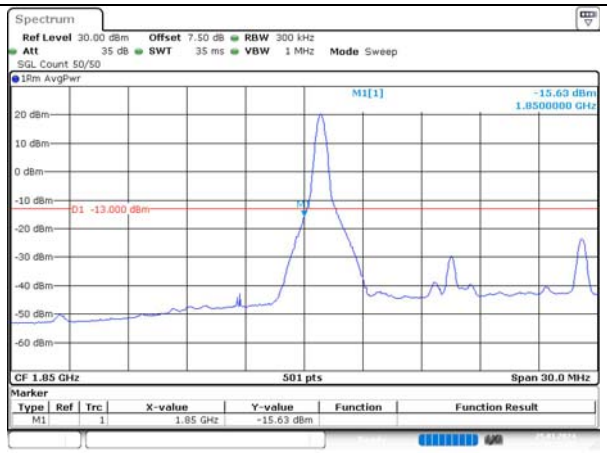
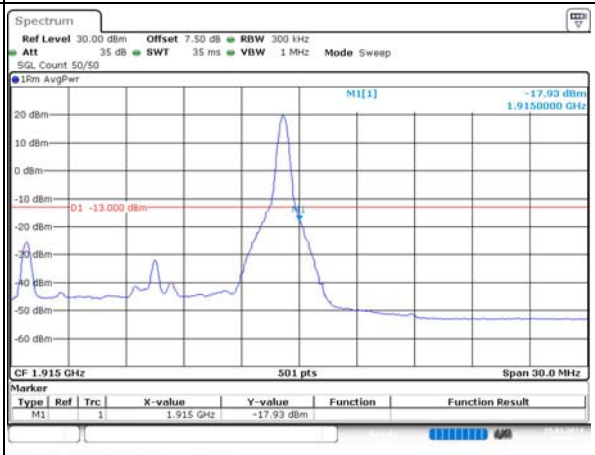
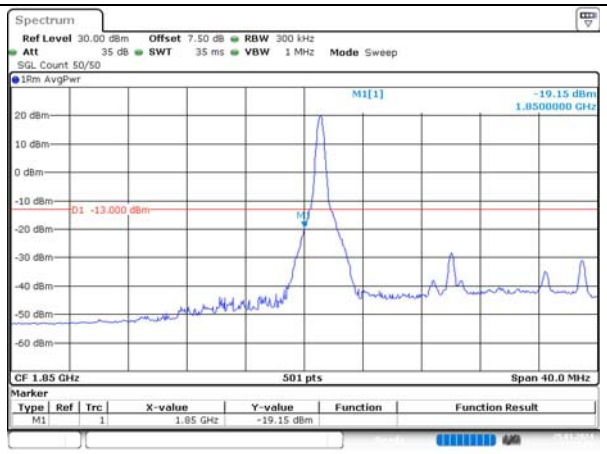
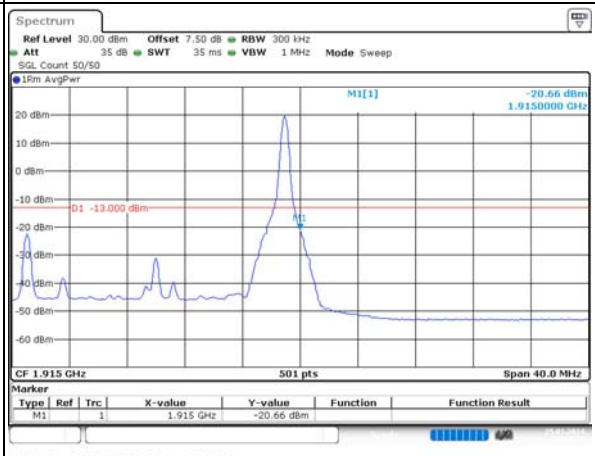
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

1RB:

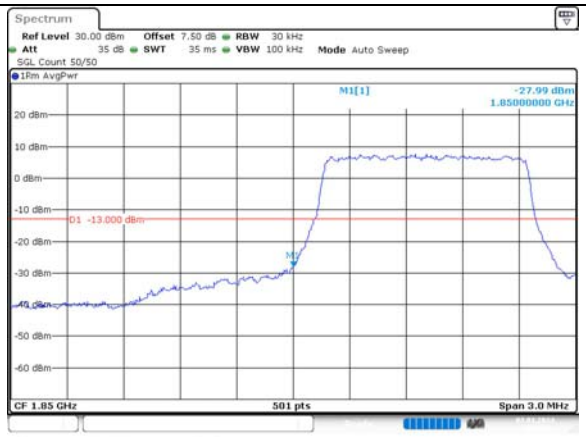
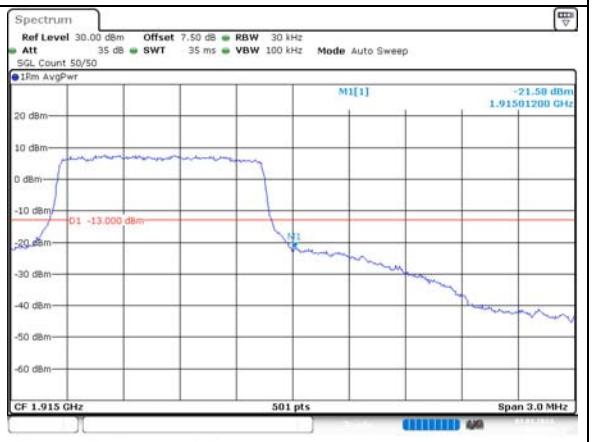
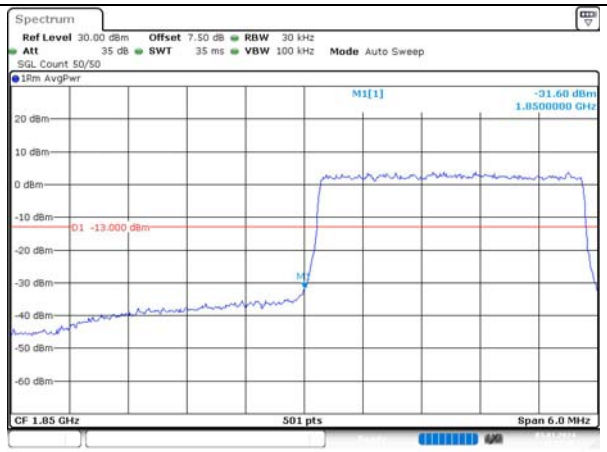
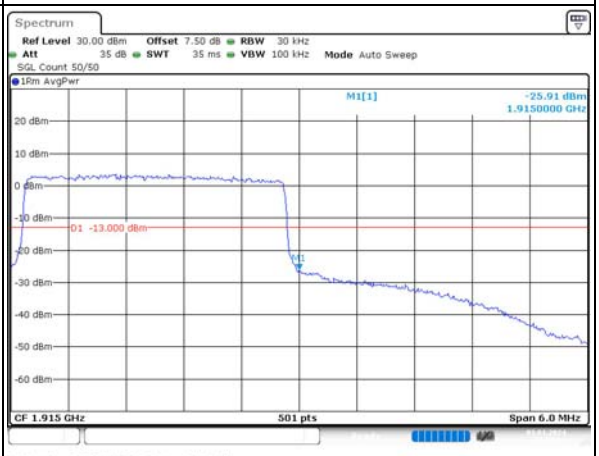
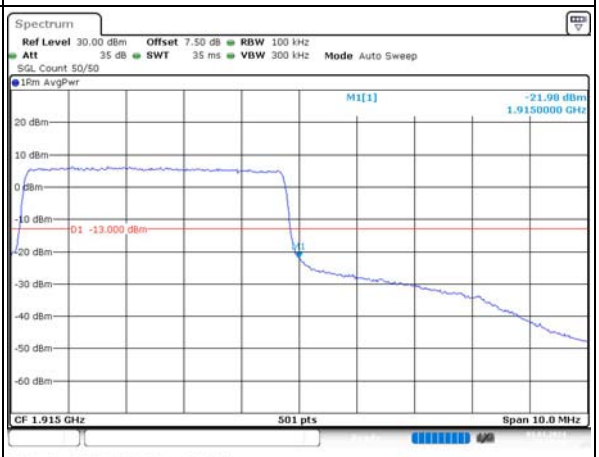
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 1.4MHz		
QPSK 3MHz		
QPSK 5MHz		

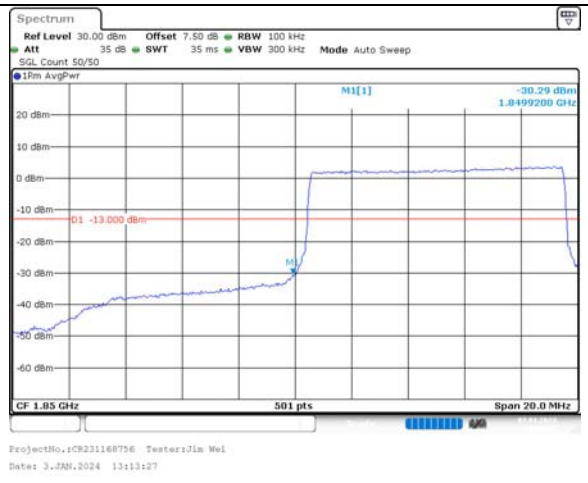
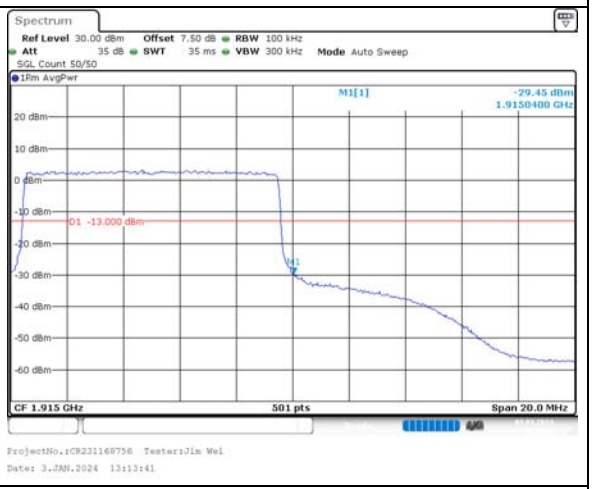
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz		
QPSK 15MHz		
QPSK 20MHz		

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		

Full RB:

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