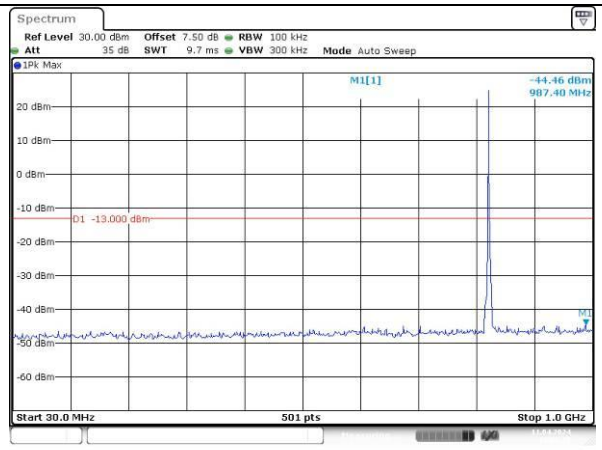
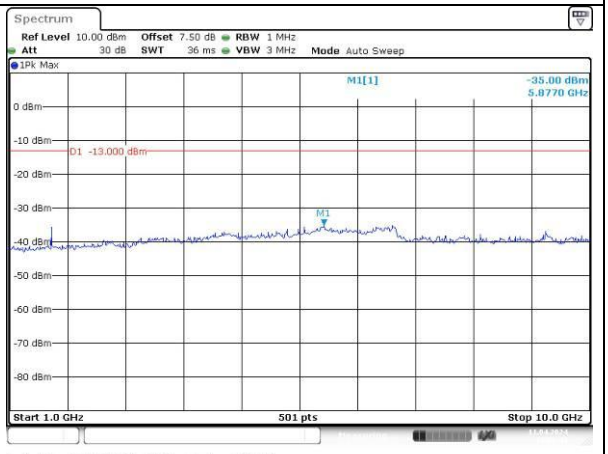
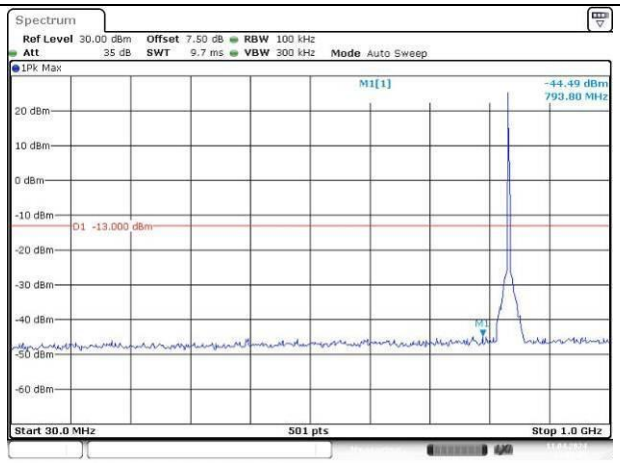
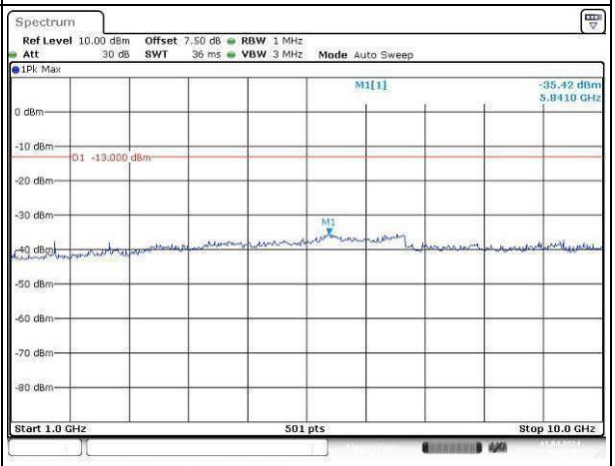
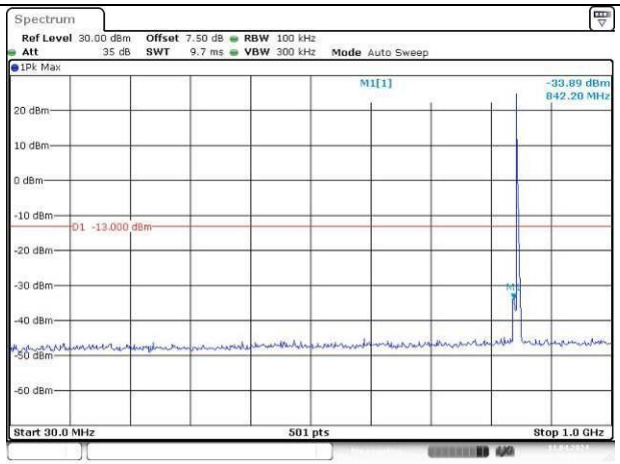
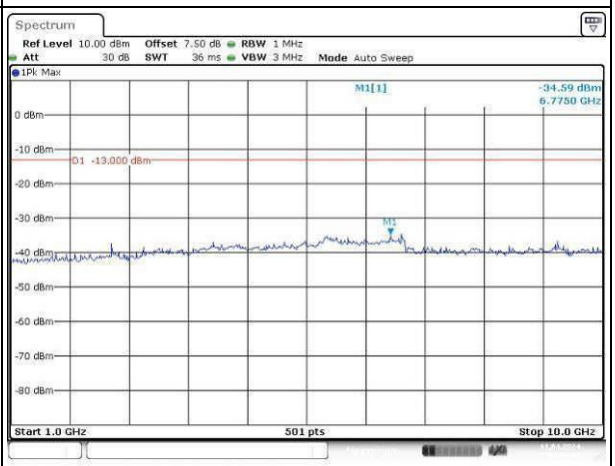
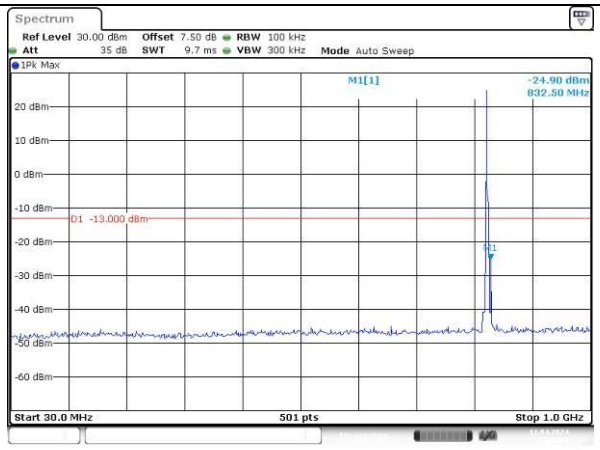
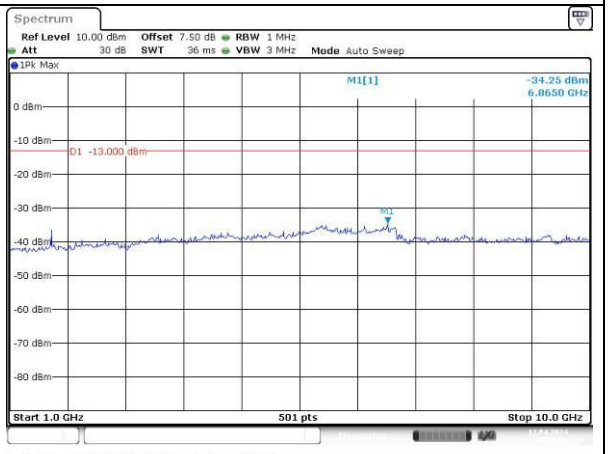
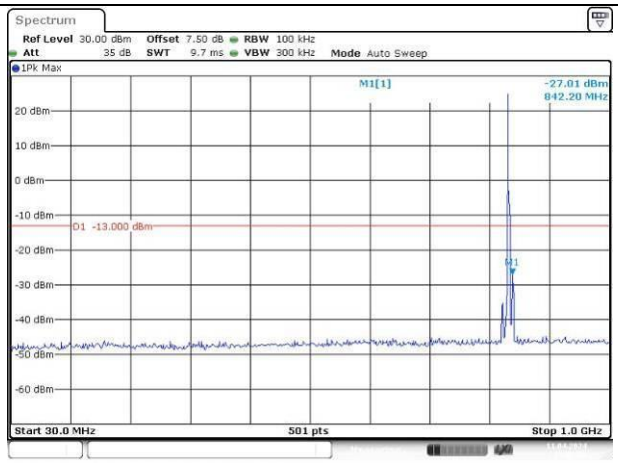
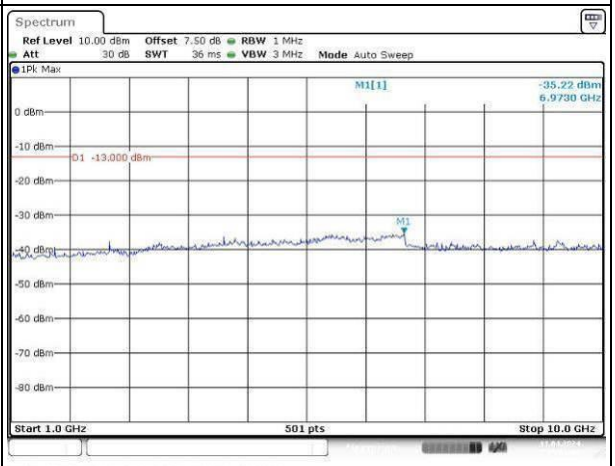
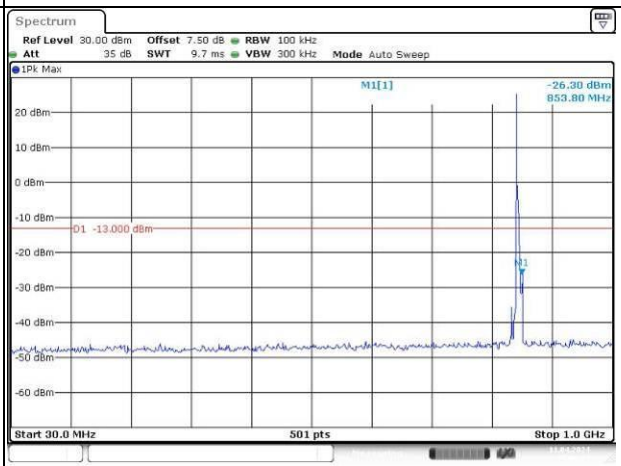
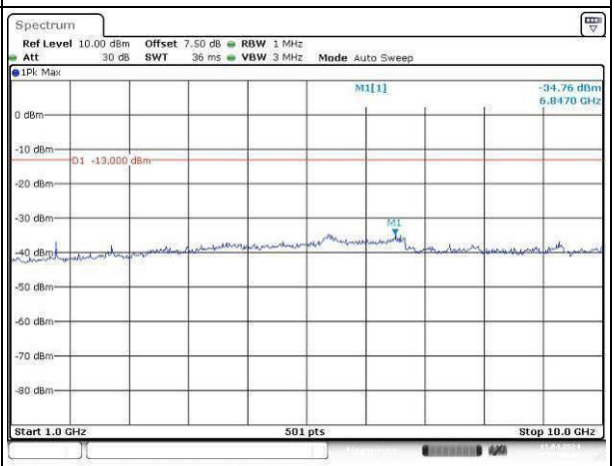
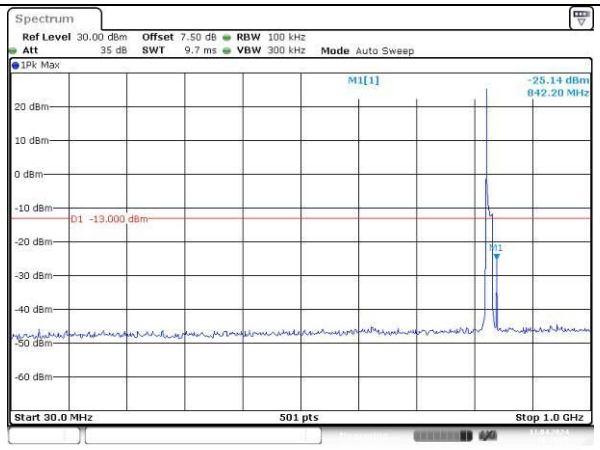
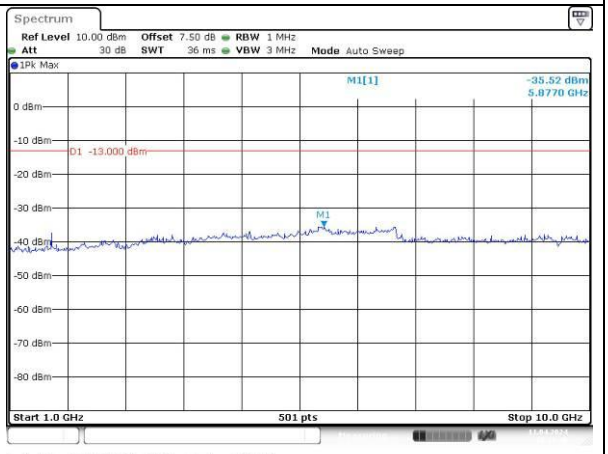
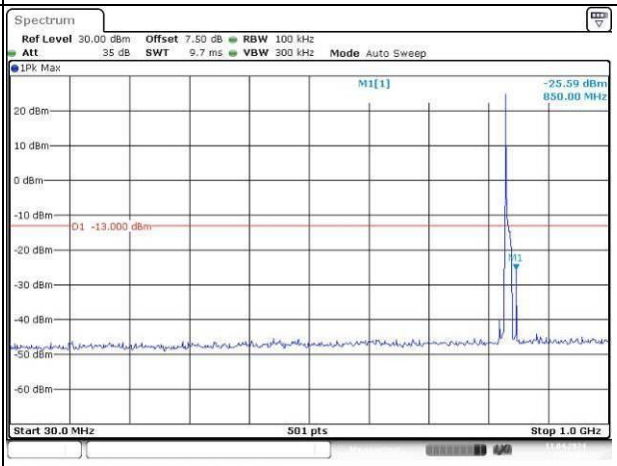
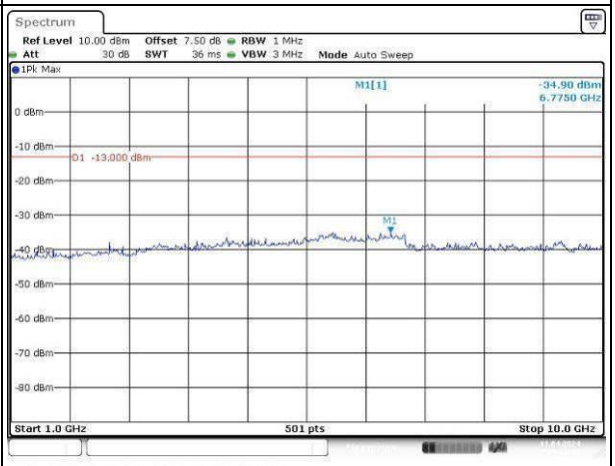
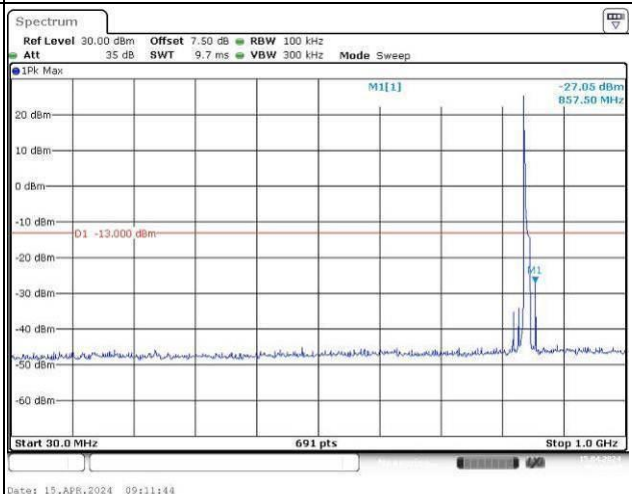
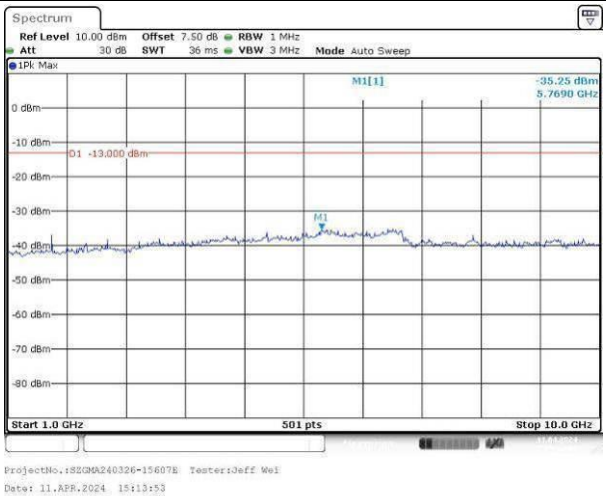
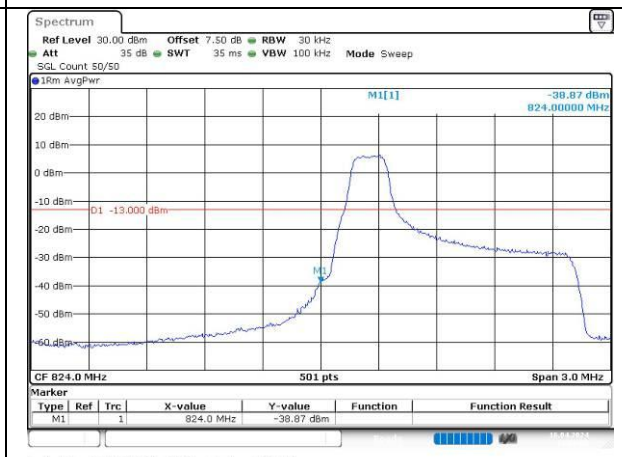
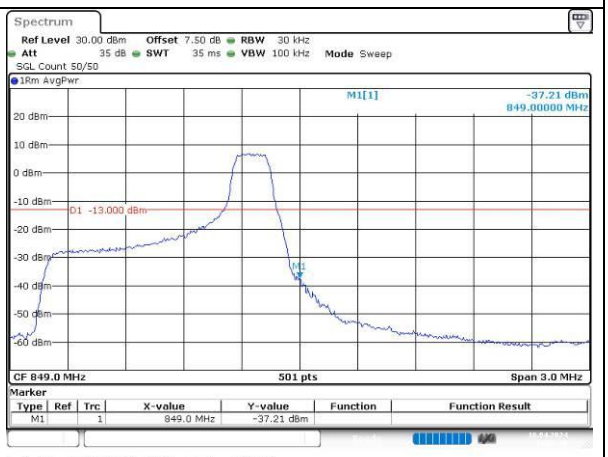
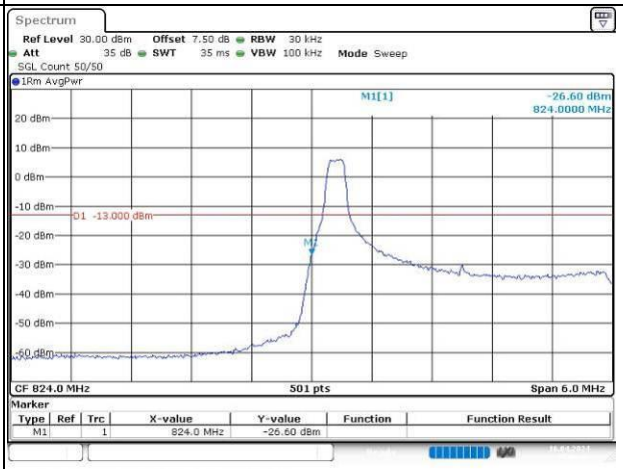
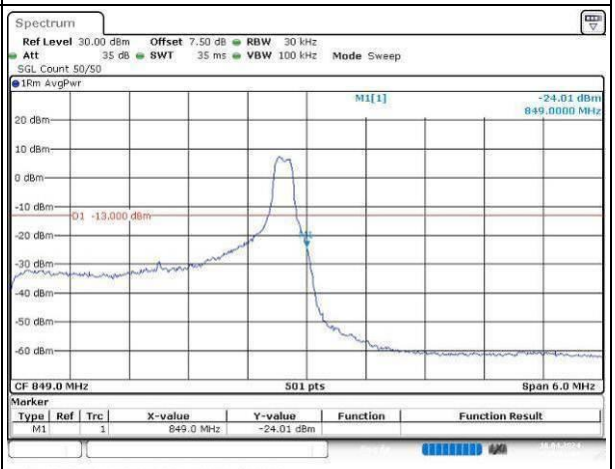
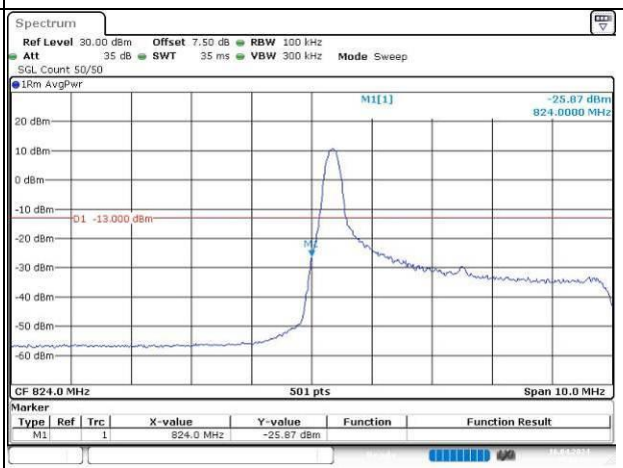
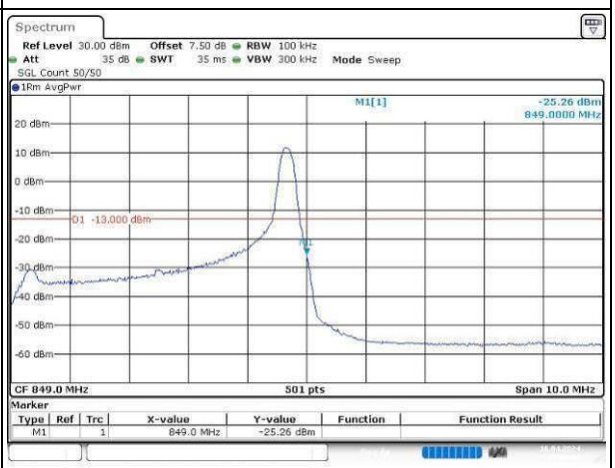
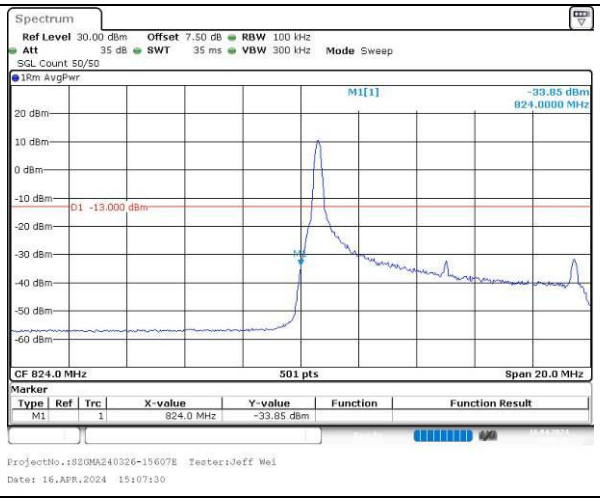
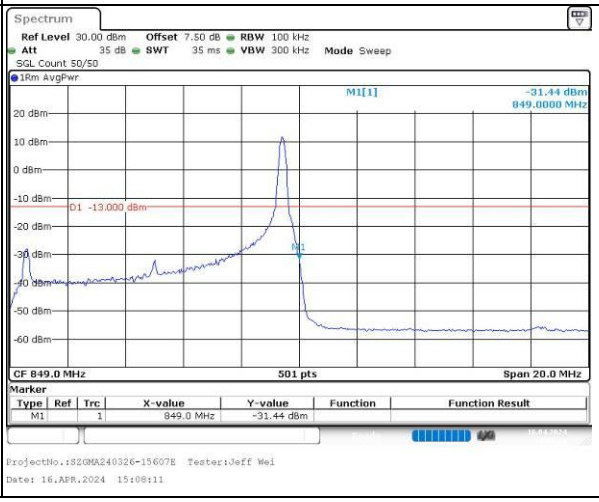
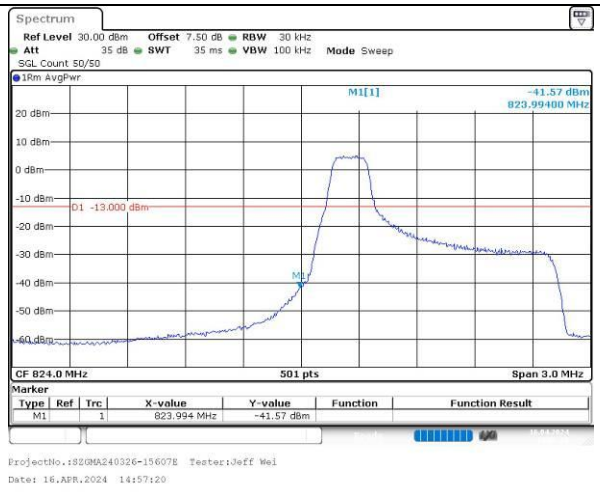
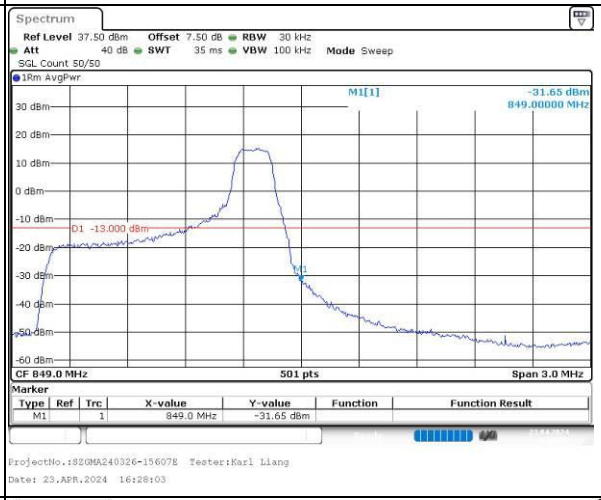
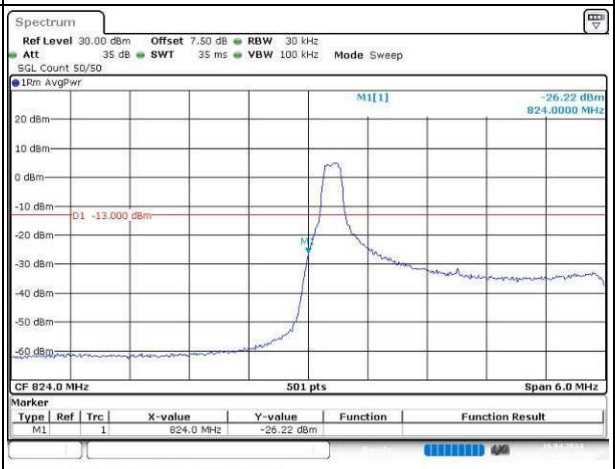
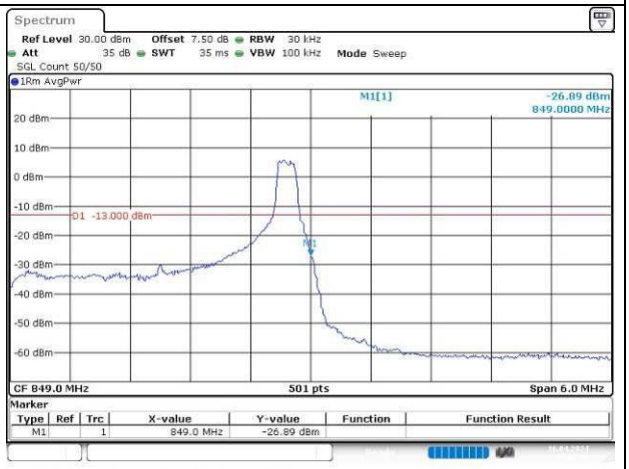
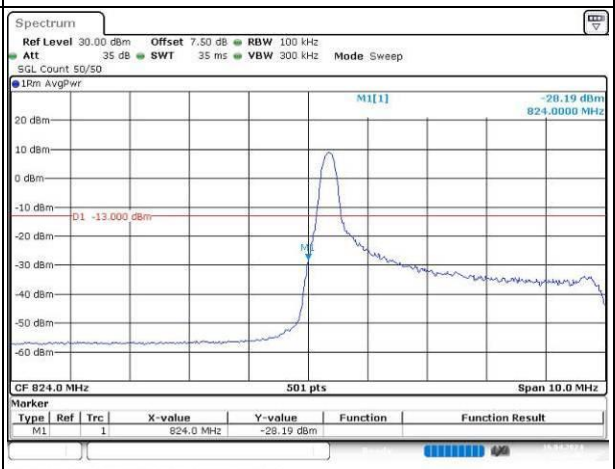
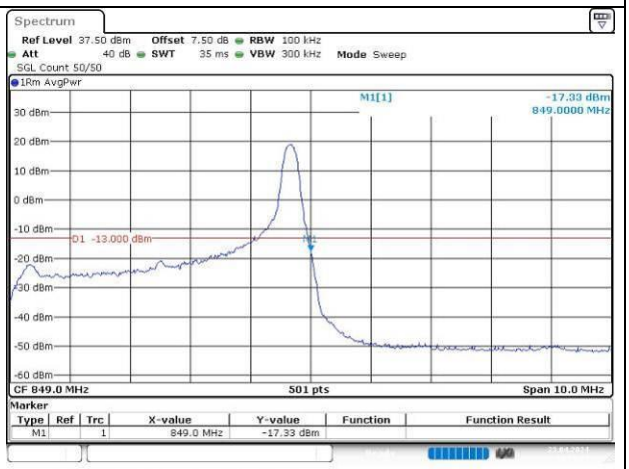
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

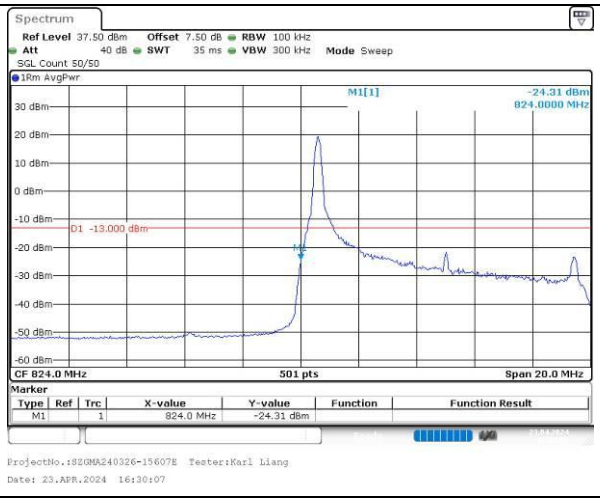
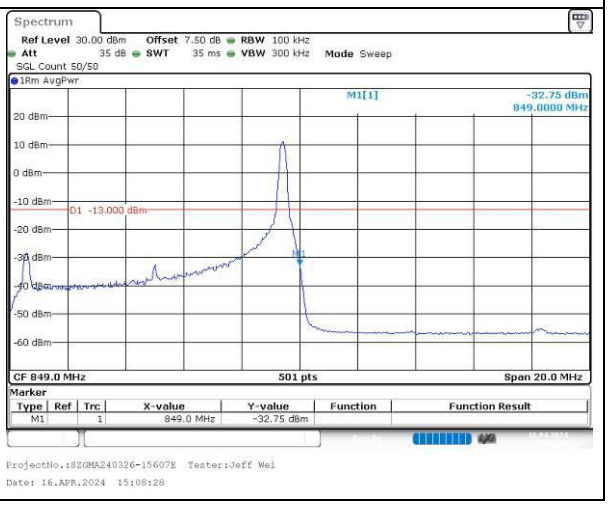
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

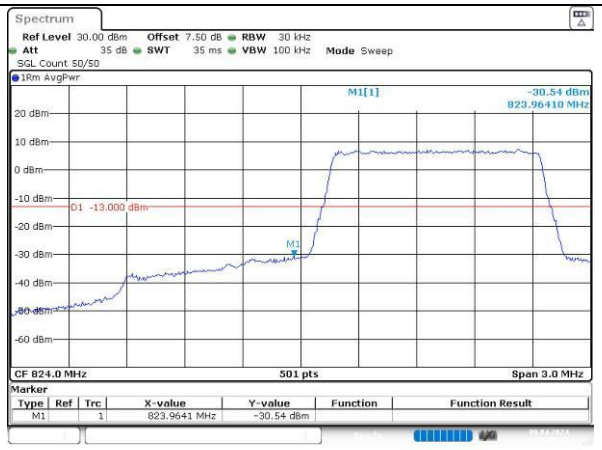
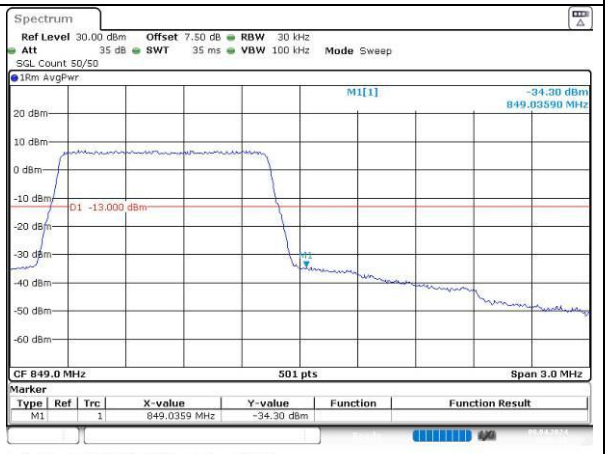
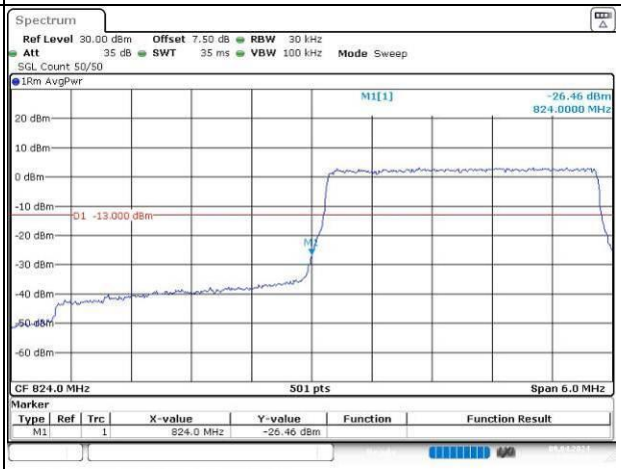
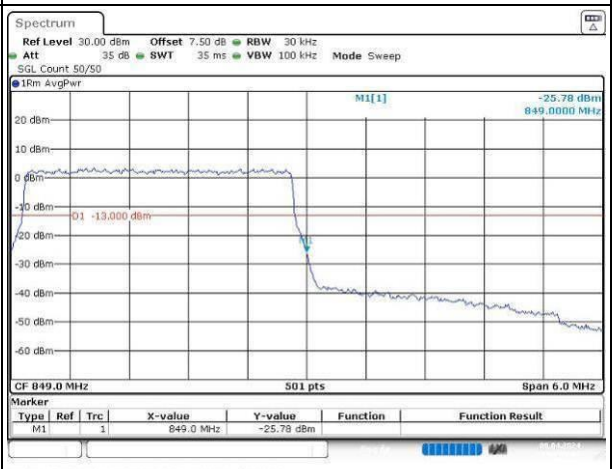
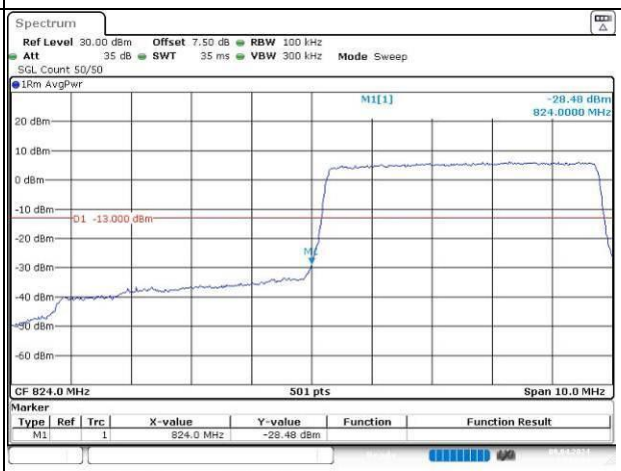
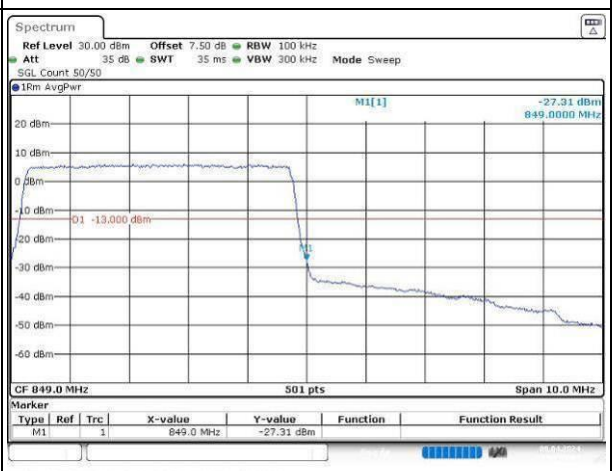
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

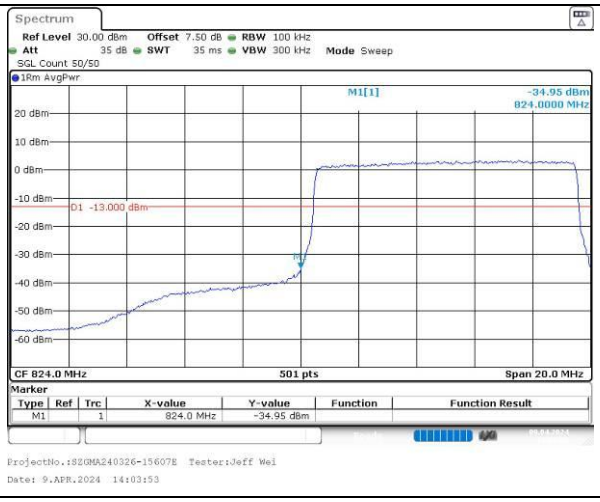
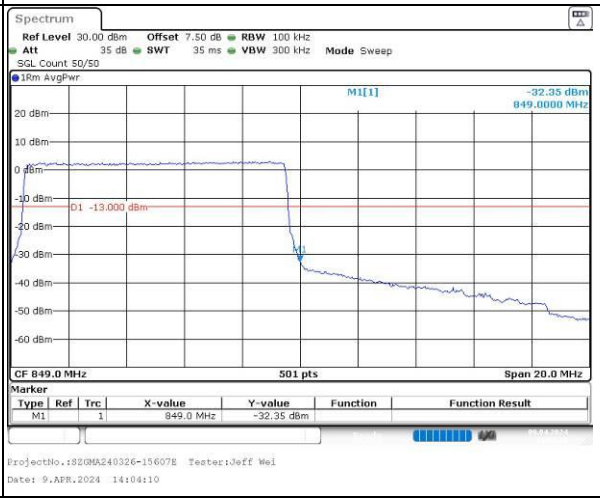
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 1.4MHz		
QPSK 3MHz		
QPSK 5MHz		

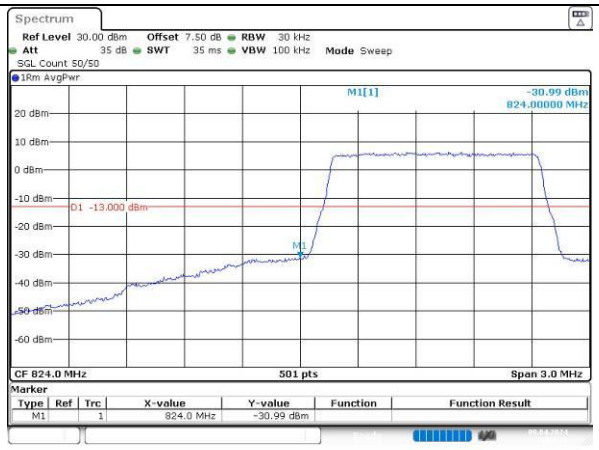
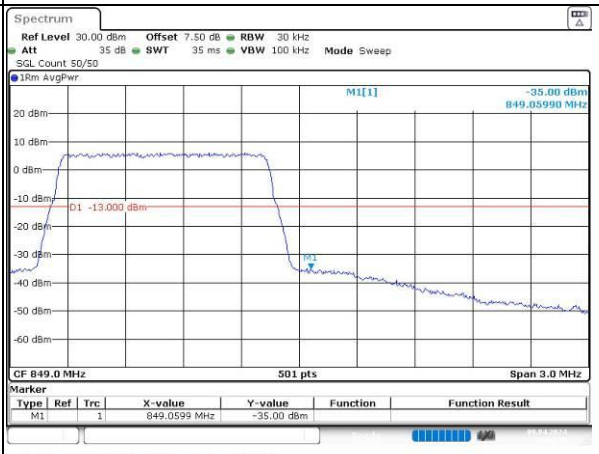
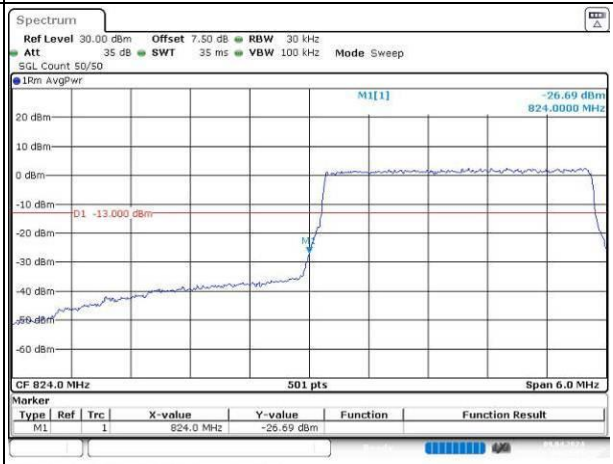
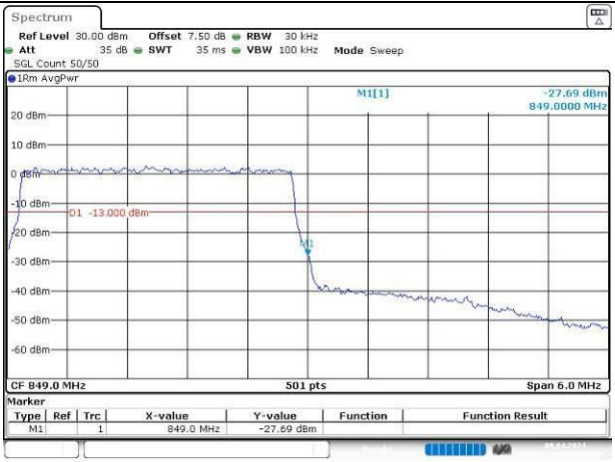
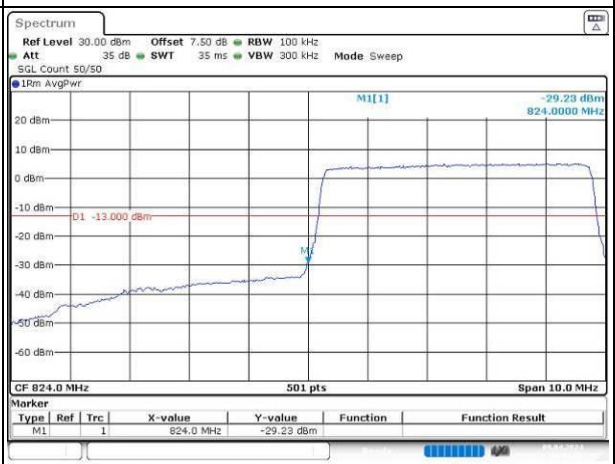
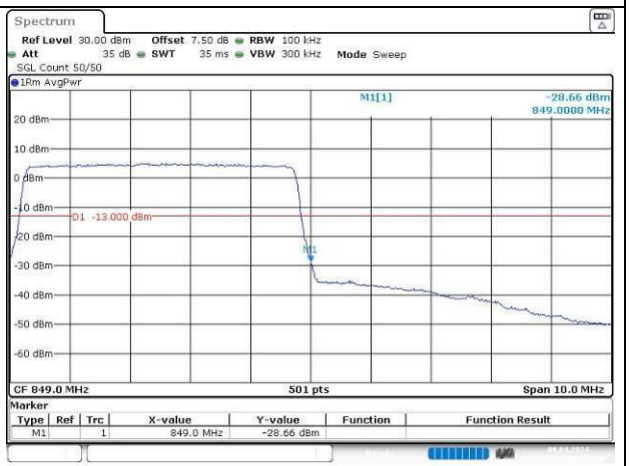
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 10MHz		

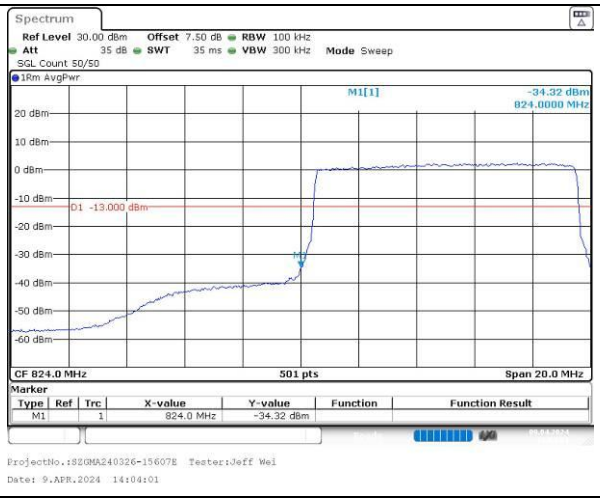
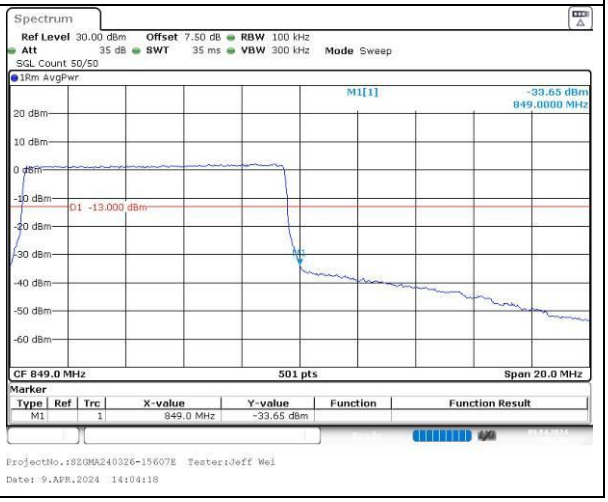
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
16QAM 1.4MHz		
16QAM 3MHz		
16QAM 5MHz		

Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
16QAM 10MHz		

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

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

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

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

5.9 Antenna Port Test Data and Results for LTE Band 7

Serial Number:	2J4T-2	Test Date:	2024/4/9~2024/4/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jeff Wei, Karl Liang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.1~27.2	Relative Humidity: (%)	49~72	ATM Pressure: (kPa)	100.0~101.2

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101461	2023/11/27	2024/11/26
Micro-Coax	Coaxial Cable	UFA210A	94089550	2023/9/1	2024/8/31
Minl-Clrcuits	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/2/25	2025/2/24
R&S	Wideband Radio Communication Tester	CMW500	144976	2023/10/18	2024/10/17
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2023/10/18	2024/10/17
All-sun	Clamp Meter	EM305A	8348897	2023/8/3	2024/8/2
TDK-Lambda	DC Power Supply	Z+60-14	F-08-EM038-1	N/A	N/A

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2502.5	2535	2567.5
10MHz	2505	2535	2565
15MHz	2507.5	2535	2562.5
20MHz	2510	2535	2560

Test Data:

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	19.63	19.64	19.48	18.79	33
	RB1#13	19.71	19.64	19.39		
	RB1#24	19.68	19.67	19.32		
	RB15#0	18.52	18.74	18.33		
	RB15#10	18.55	18.7	18.39		
	RB25#0	18.57	18.68	18.32		
5MHz 16QAM	RB1#0	18.66	18.25	17.68	17.83	33
	RB1#13	18.75	18.35	17.7		
	RB1#24	18.67	18.33	17.55		
	RB15#0	17.53	17.91	17.66		
	RB15#10	17.67	17.91	17.57		
	RB25#0	17.83	17.78	17.68		
10MHz QPSK	RB1#0	19.66	19.66	19.28	18.81	33
	RB1#25	19.65	19.67	19.29		
	RB1#49	19.71	19.73	19.31		
	RB25#0	18.56	18.81	18.53		
	RB25#25	18.59	18.76	18.36		
	RB50#0	18.66	18.68	18.37		
10MHz 16QAM	RB1#0	18.64	18.21	18.68	17.88	33
	RB1#25	18.68	18.2	18.65		
	RB1#49	18.8	18.21	18.58		
	RB25#0	17.86	18.02	17.66		
	RB25#25	17.8	18.01	17.61		
	RB50#0	17.86	17.89	17.54		
15MHz QPSK	RB1#0	19.64	19.67	19.5	18.83	33
	RB1#38	19.62	19.65	19.38		
	RB1#74	19.75	19.68	19.3		
	RB36#0	18.72	18.69	18.57		
	RB36#39	18.57	18.75	18.51		
	RB75#0	18.65	18.8	18.47		
15MHz 16QAM	RB1#0	18.84	19.22	18.87	18.35	33
	RB1#38	18.82	19.22	18.7		
	RB1#74	18.95	19.27	18.53		
	RB36#0	17.94	17.96	17.79		
	RB36#39	17.99	17.87	17.58		
	RB75#0	17.8	17.91	17.58		
20MHz QPSK	RB1#0	19.76	19.86	19.66	18.96	33
	RB1#50	19.82	19.83	19.54		
	RB1#99	19.84	19.88	19.36		
	RB50#0	18.65	18.83	18.65		

	RB50#50	18.73	18.77	18.51		
	RB100#0	18.6	18.67	18.62		
20MHz 16QAM	RB1#0	18.83	19.36	18.41	18.47	33
	RB1#50	18.86	19.3	18.34		
	RB1#99	18.93	19.39	18.27		
	RB50#0	17.8	17.88	17.93		
	RB50#50	17.87	17.92	17.63		
	RB100#0	17.75	17.98	17.7		
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	4.96	5.71	5.3	13
	RB100#0	4.32	4.26	4.38	13
20MHz 16QAM	RB1#0	5.62	6.46	6.17	13
	RB100#0	5.86	5.86	5.86	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
5MHz QPSK	4.511	4.491	4.511	5	4.88	5.02
5MHz 16QAM	4.551	4.491	4.531	5.02	4.98	5.02
10MHz QPSK	8.942	8.942	8.982	9.8	9.8	9.8
10MHz 16QAM	8.982	8.942	8.982	9.8	9.84	9.76
15MHz QPSK	13.473	13.533	13.533	15.06	15.12	15.12
15MHz 16QAM	13.533	13.473	13.593	15	15.06	15.06
20MHz QPSK	17.964	18.044	18.044	19.68	19.76	19.68
20MHz 16QAM	18.044	17.964	17.884	19.84	19.76	18.72
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.**

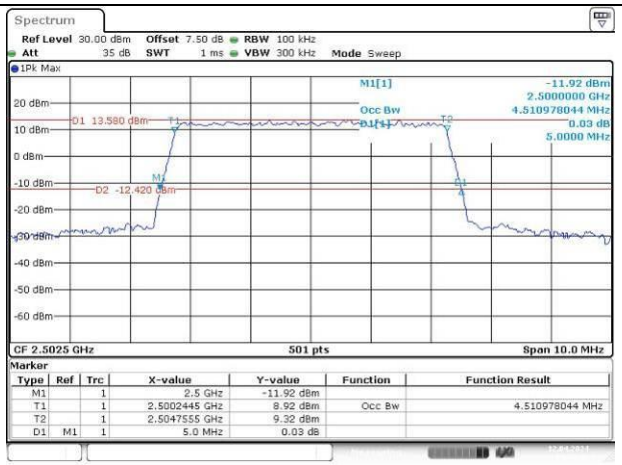
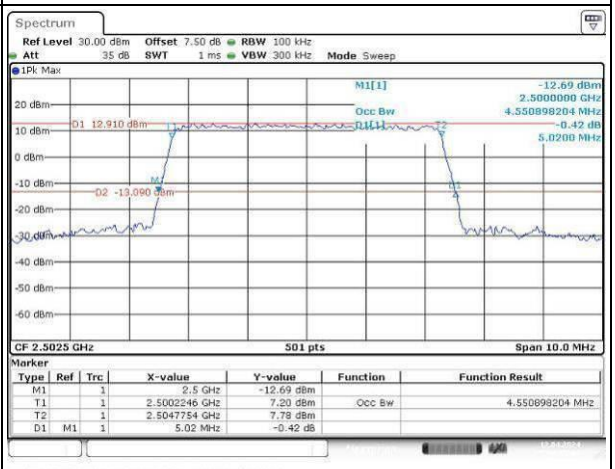
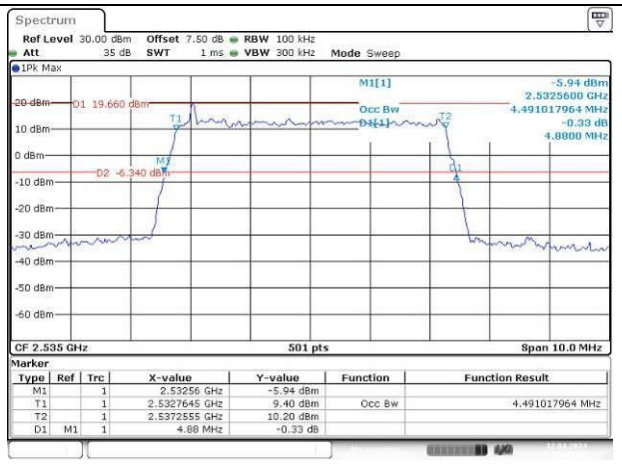
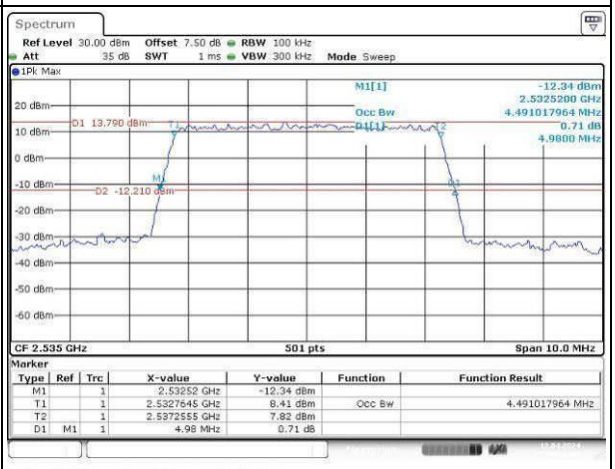
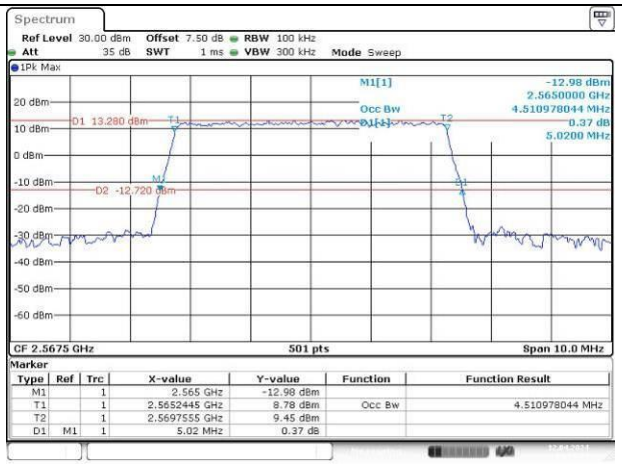
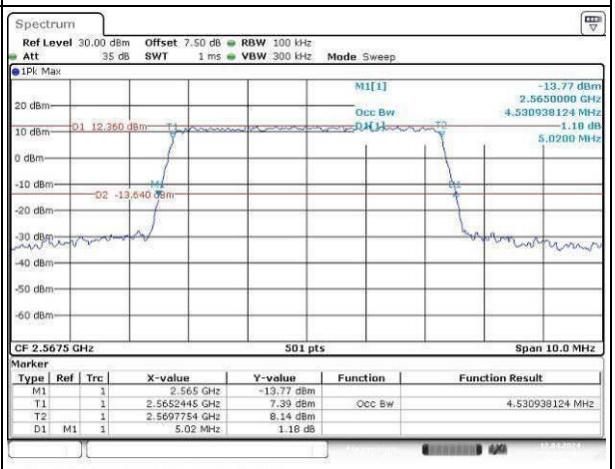
Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

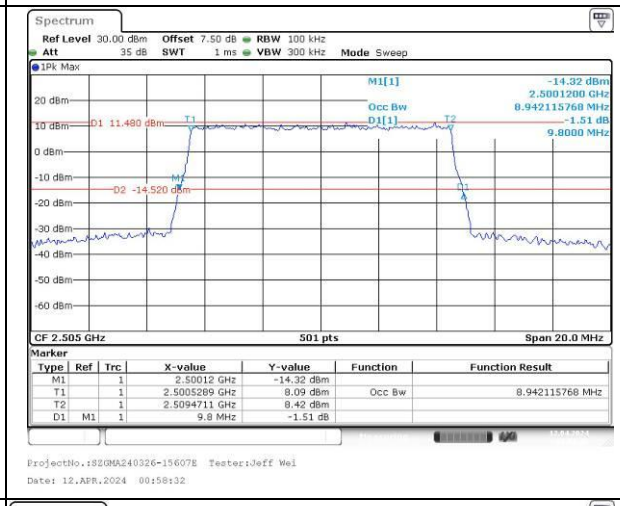
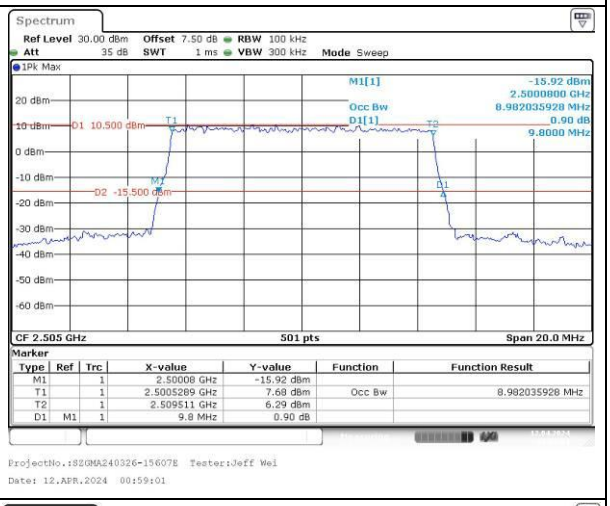
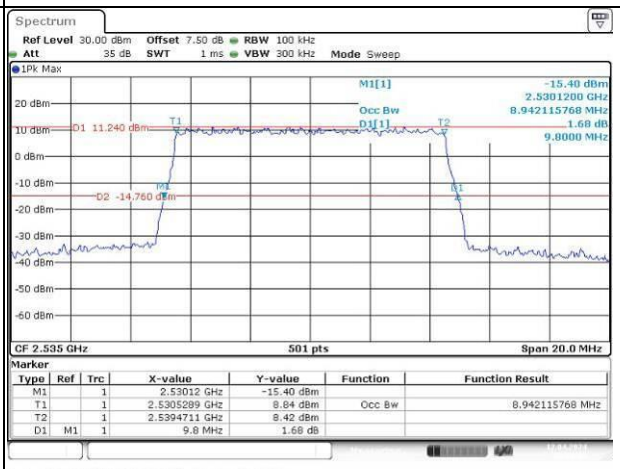
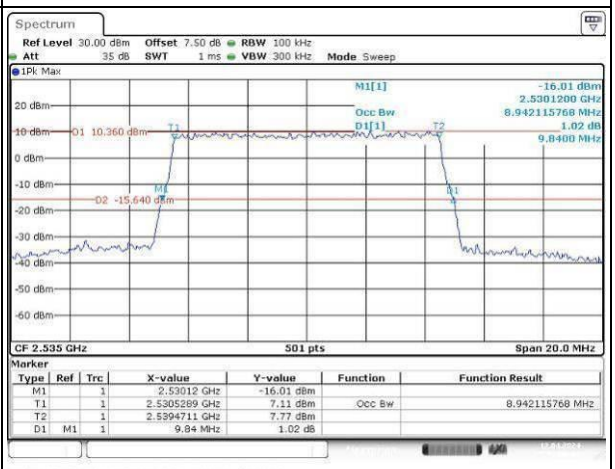
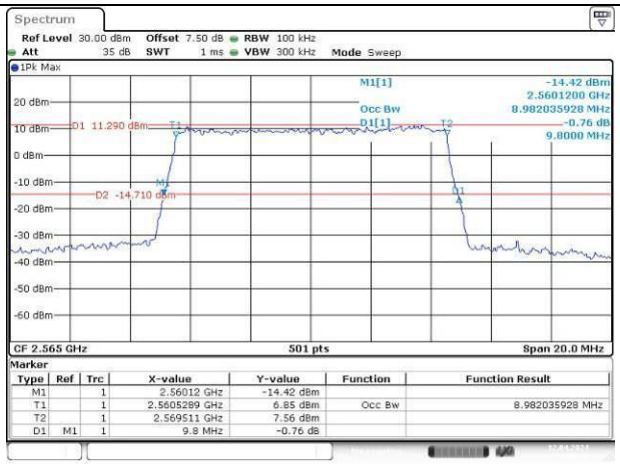
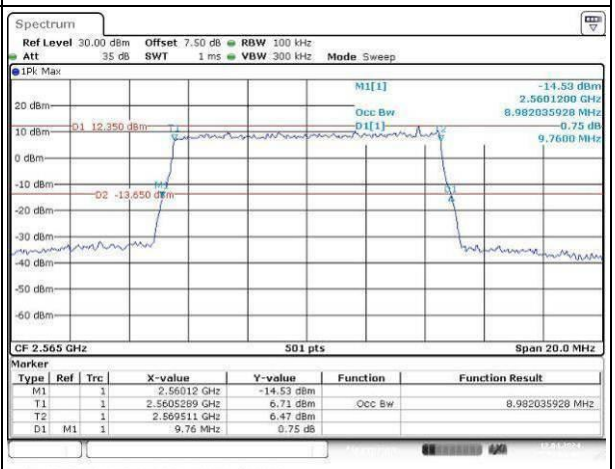
Frequency Stability

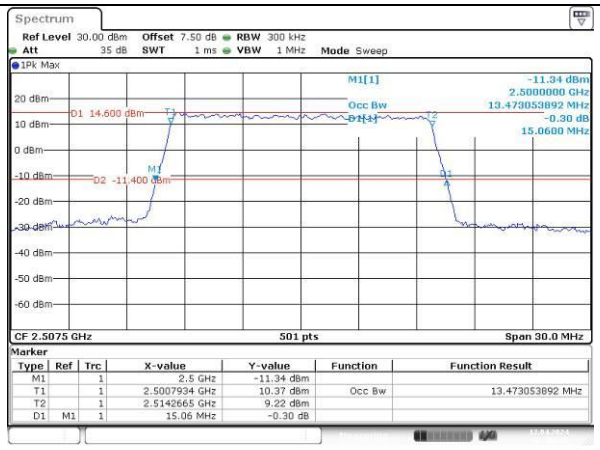
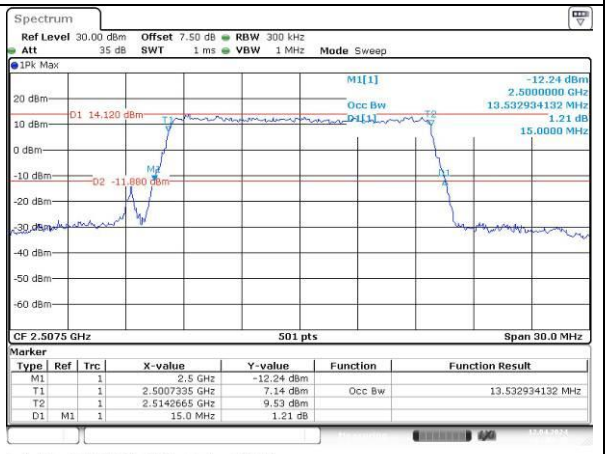
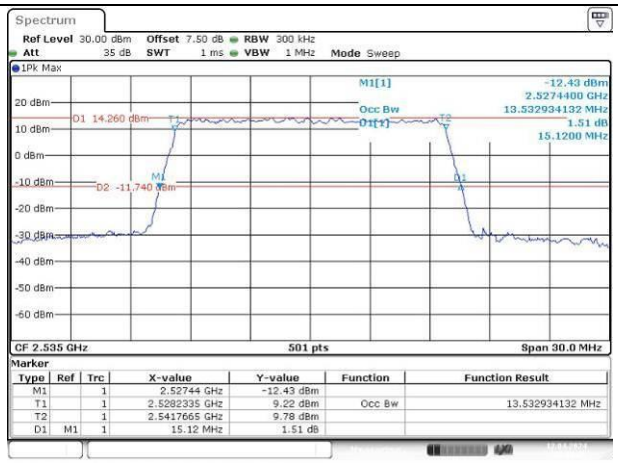
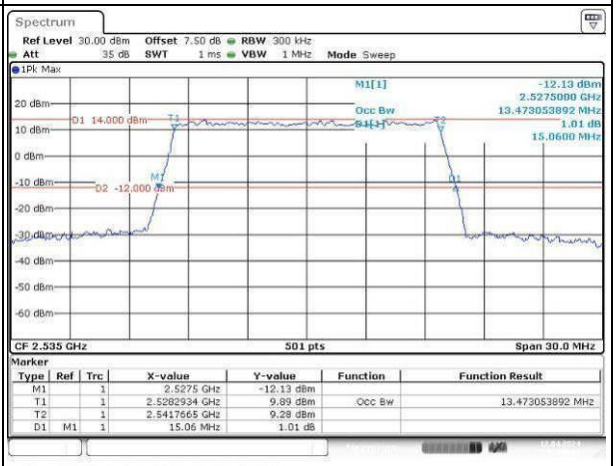
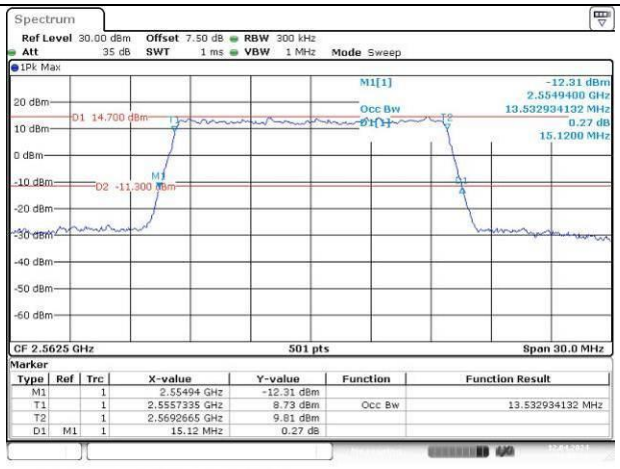
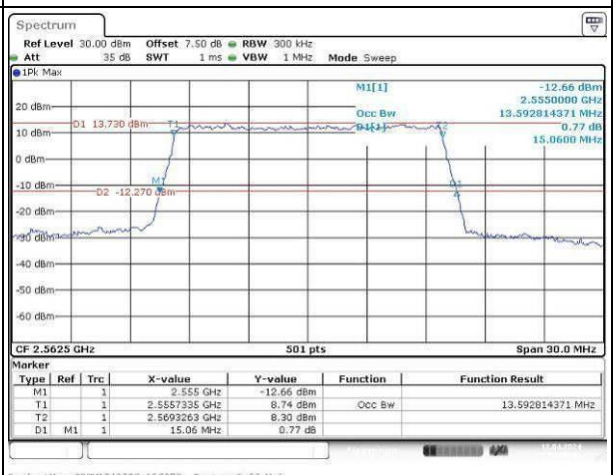
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.7	2501.025	2500.00	2569.010	2570
	-20	3.7	2501.037	2500.00	2569.019	2570
	-10	3.7	2501.040	2500.00	2569.004	2570
	0	3.7	2501.034	2500.00	2569.016	2570
	10	3.7	2501.052	2500.00	2569.013	2570
	20	3.7	2501.058	2500.00	2569.022	2570
	30	3.7	2501.085	2500.00	2569.028	2570
	40	3.7	2501.070	2500.00	2569.040	2570
	50	3.7	2501.064	2500.00	2569.025	2570
Frequency Stability vs. Voltage	20	3.4	2501.064	2500.00	2569.049	2570
	20	4.35	2501.067	2500.00	2569.040	2570
					Result:	**Pass**

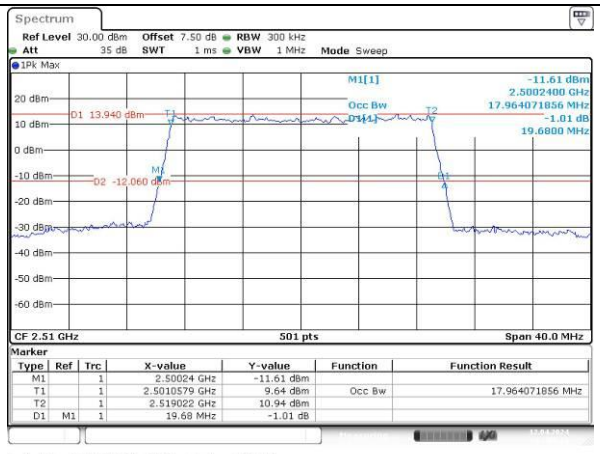
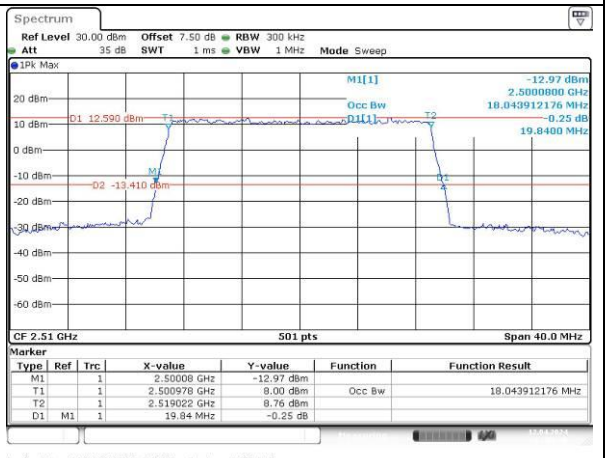
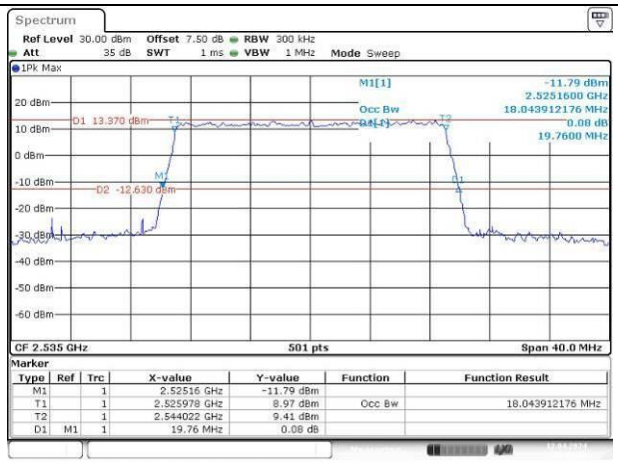
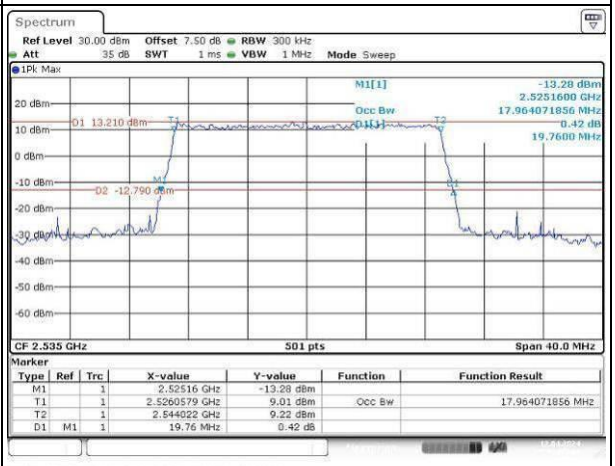
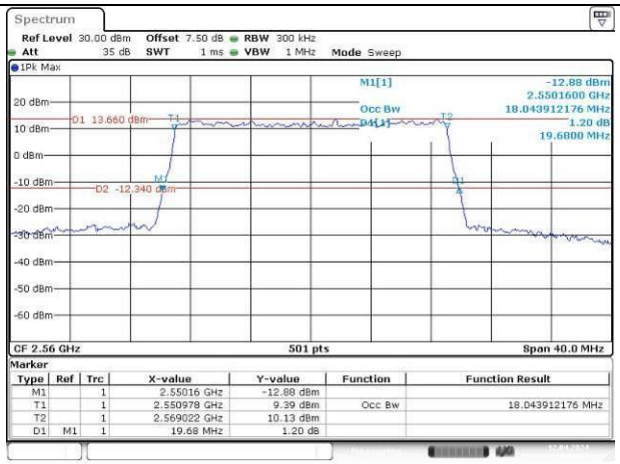
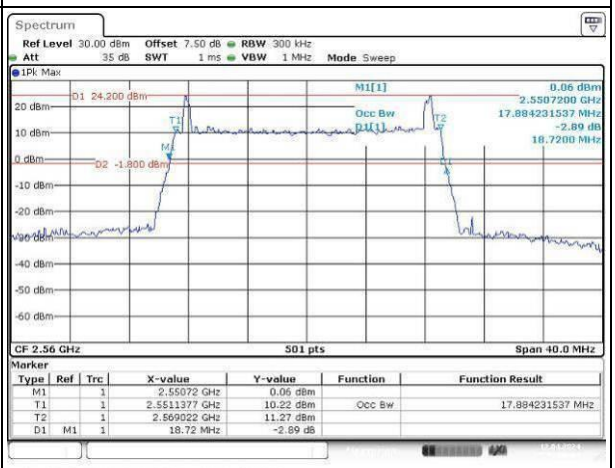
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.7	2500.969	2500.00	2569.019	2570
	-20	3.7	2500.966	2500.00	2568.998	2570
	-10	3.7	2500.966	2500.00	2569.007	2570
	0	3.7	2500.972	2500.00	2569.013	2570
	10	3.7	2500.975	2500.00	2569.004	2570
	20	3.7	2500.978	2500.00	2569.022	2570
	30	3.7	2500.984	2500.00	2569.028	2570
	40	3.7	2500.993	2500.00	2569.031	2570
	50	3.7	2500.993	2500.00	2569.034	2570
Frequency Stability vs. Voltage	20	3.4	2500.999	2500.00	2569.031	2570
	20	4.35	2500.990	2500.00	2569.049	2570
					Result:	**Pass**

Test Plots

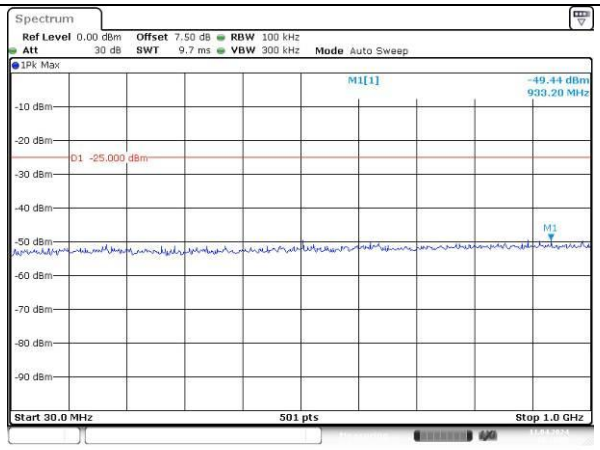
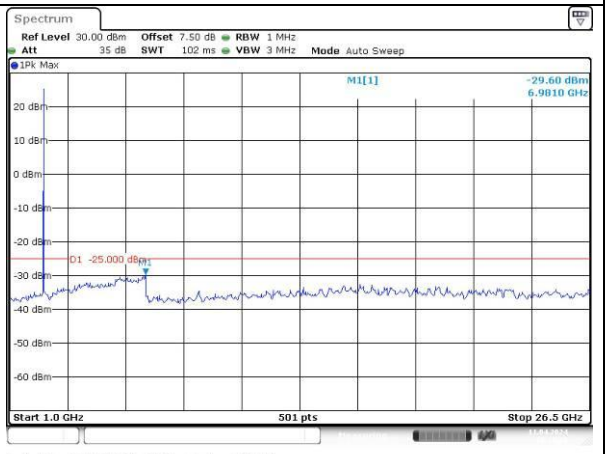
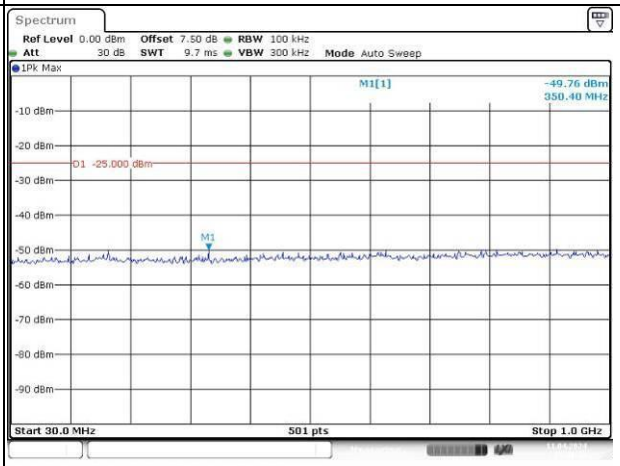
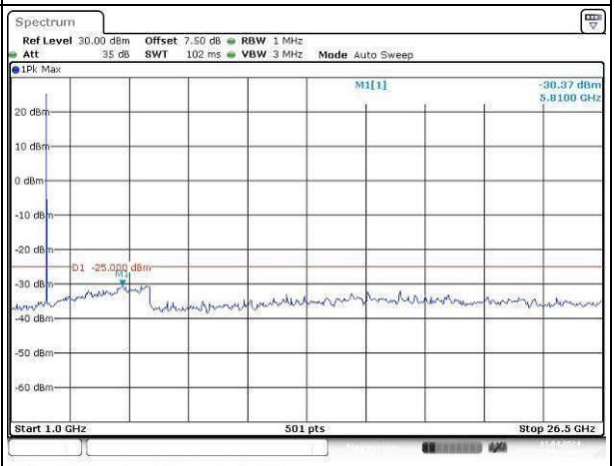
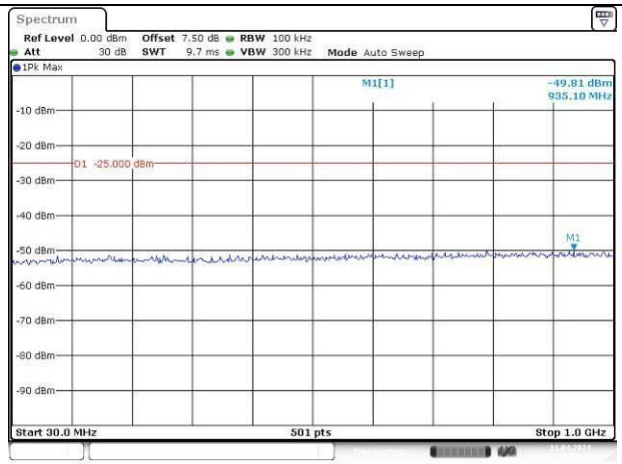
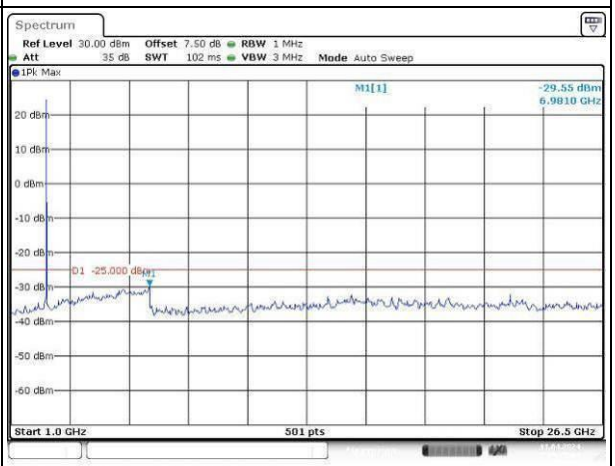
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

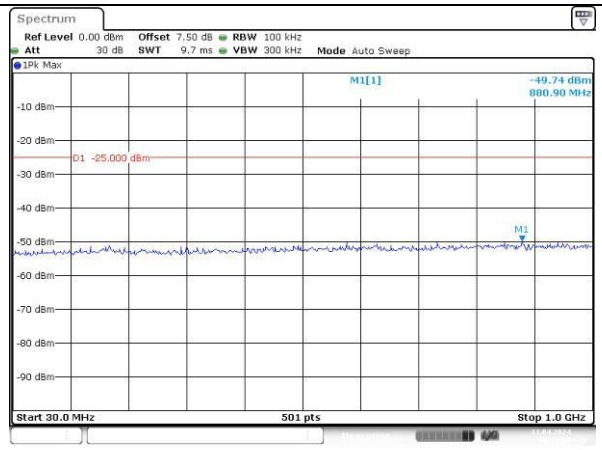
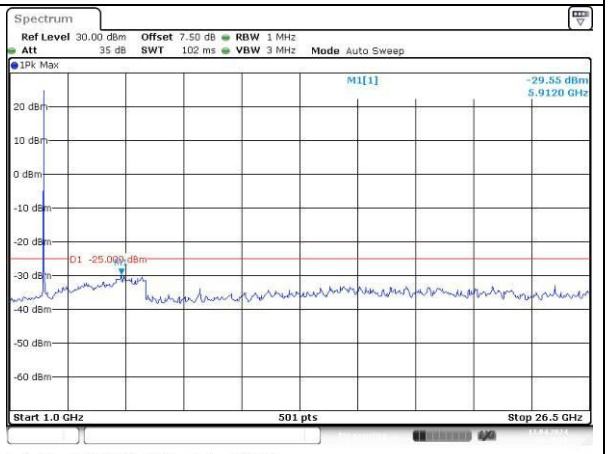
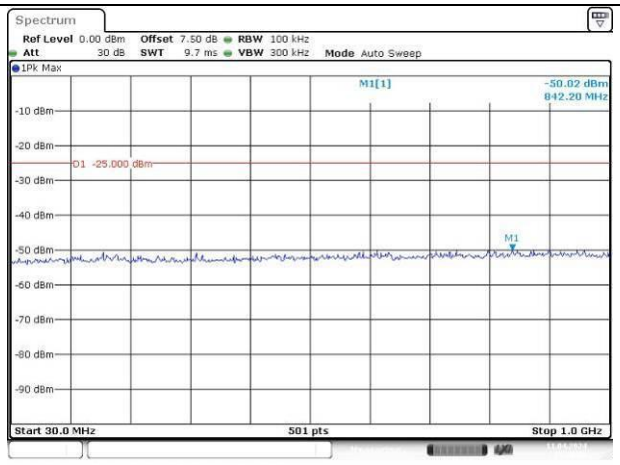
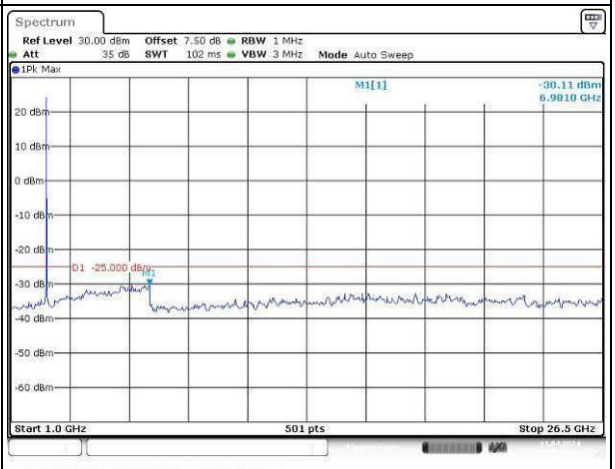
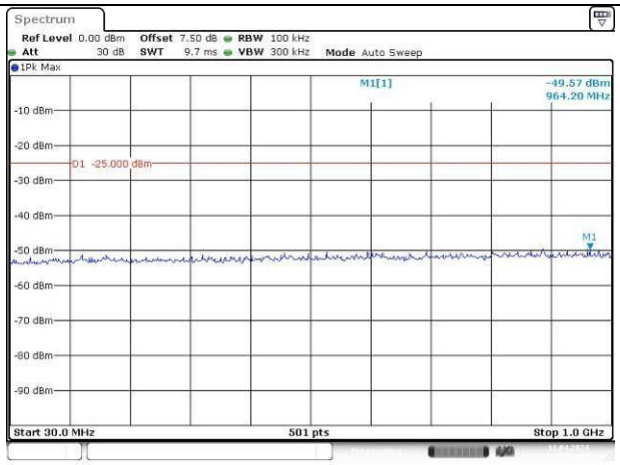
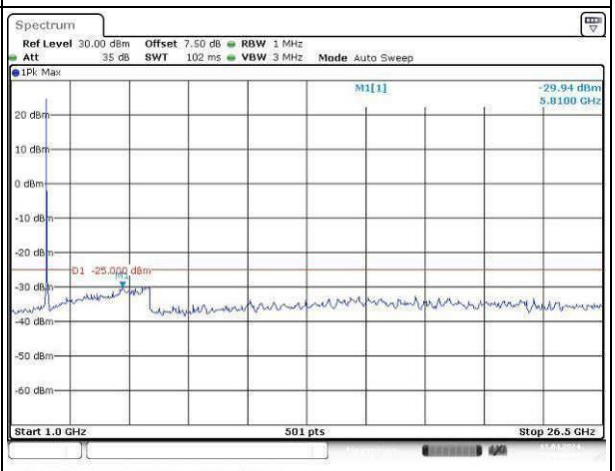
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

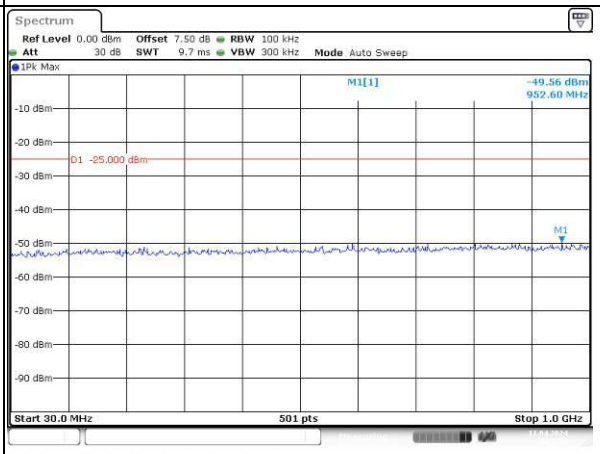
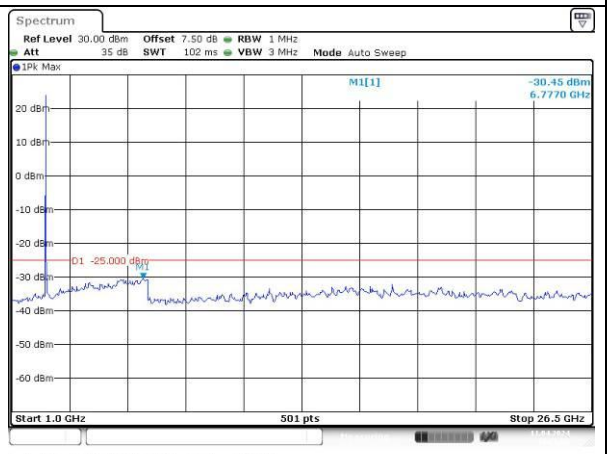
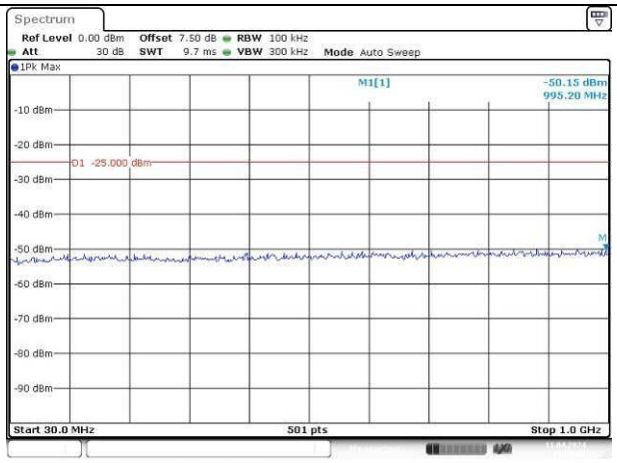
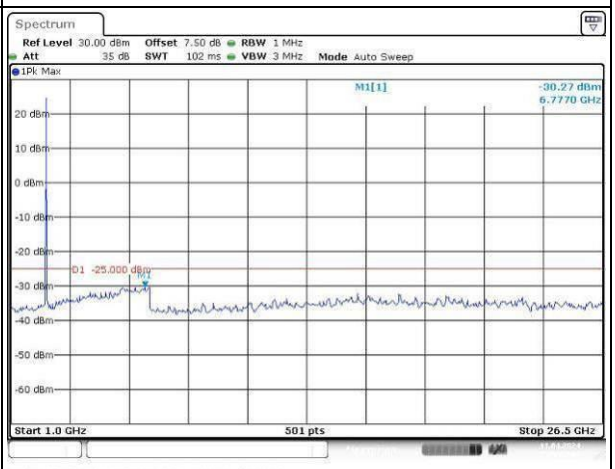
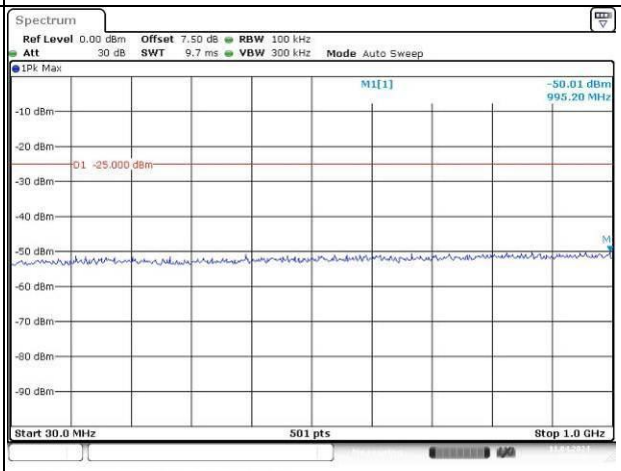
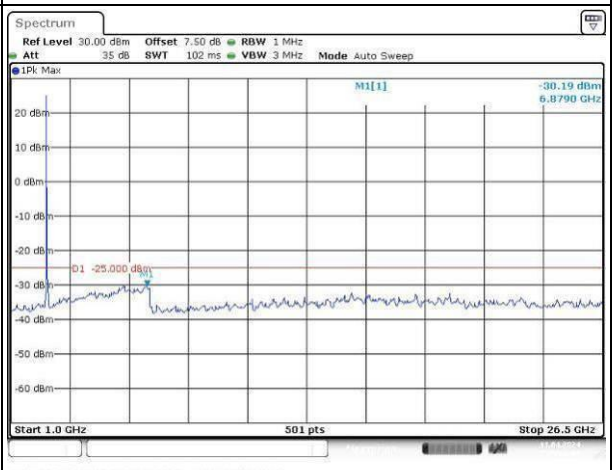
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

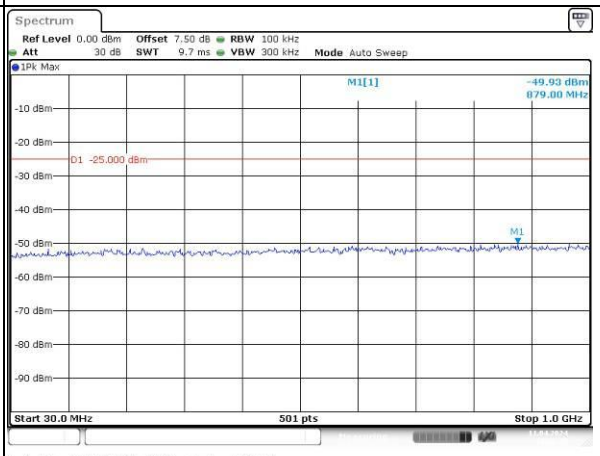
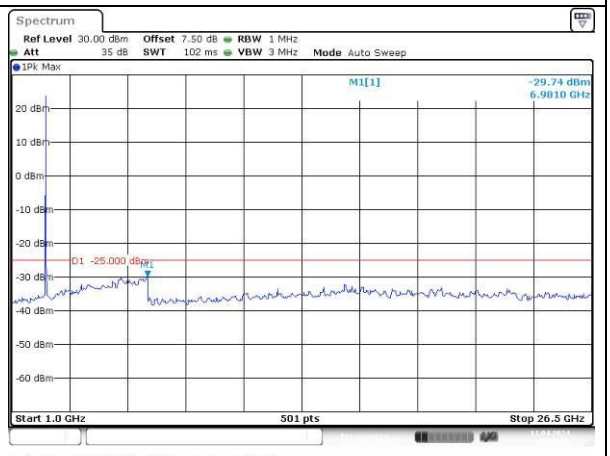
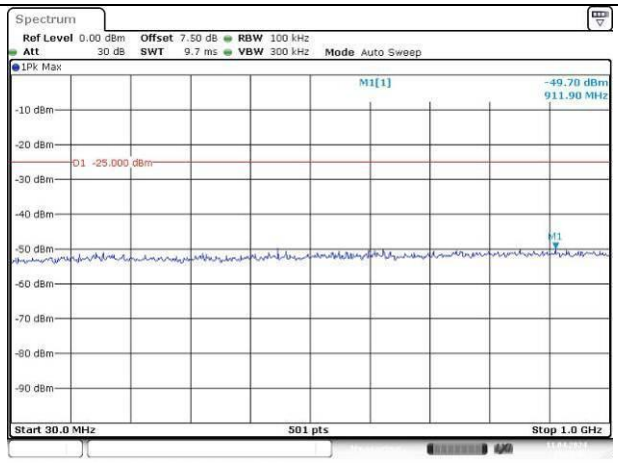
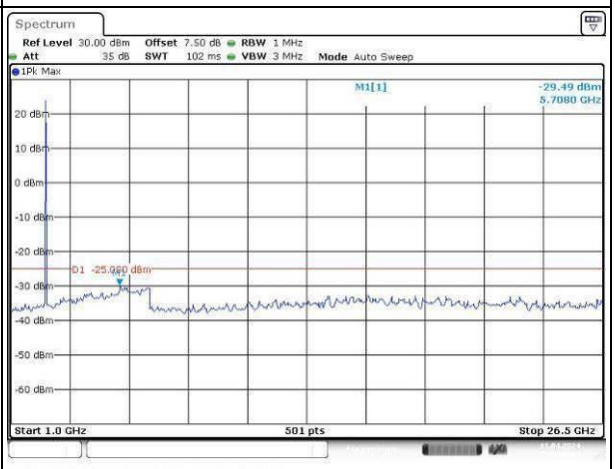
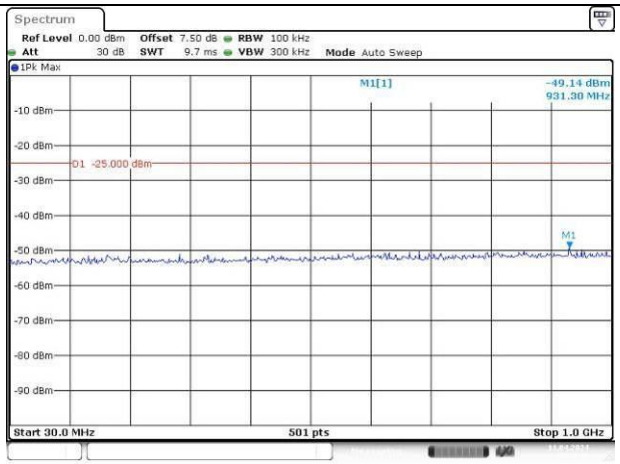
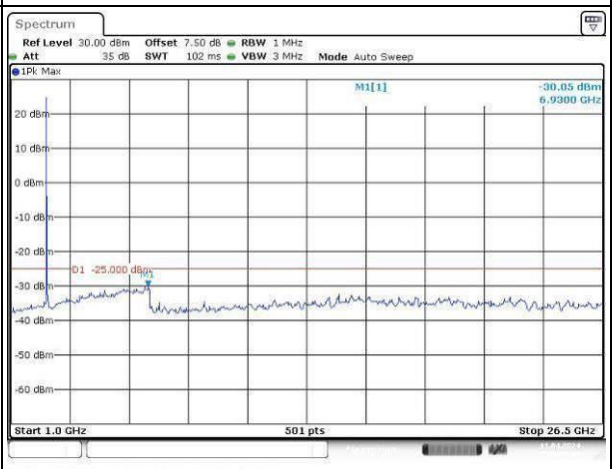
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

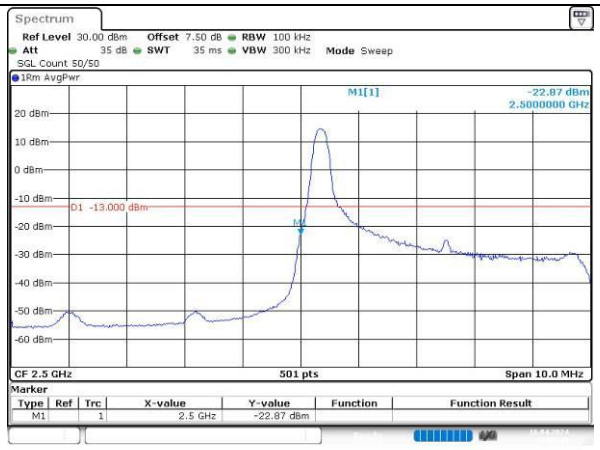
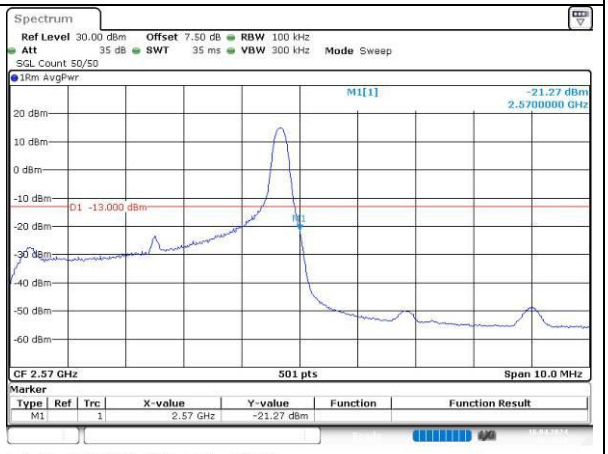
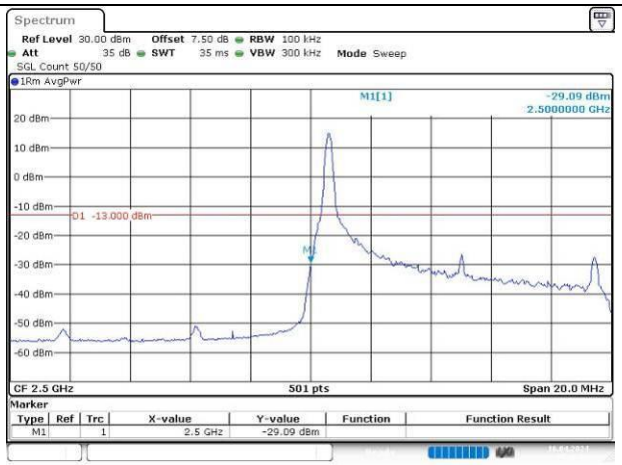
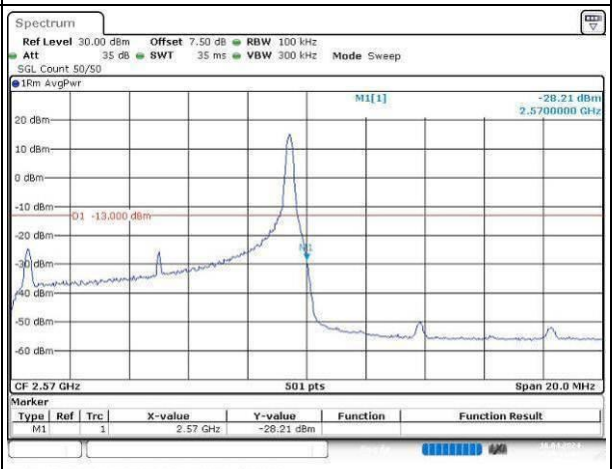
1RB:

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-RB 1#0**	**Highest-RB 1#Max**
QPSK 5MHz		
QPSK 10MHz		
QPSK 15MHz