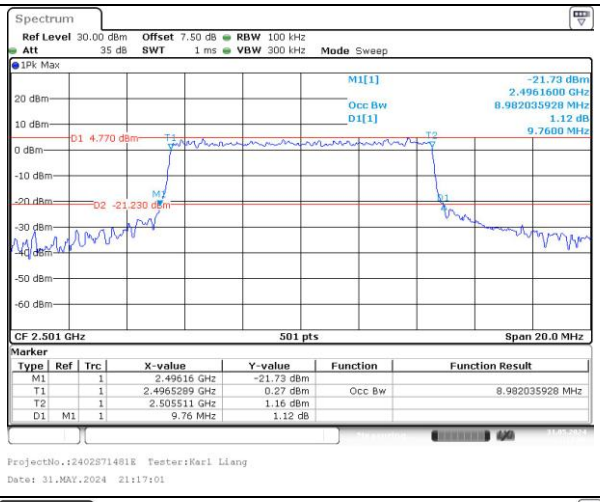
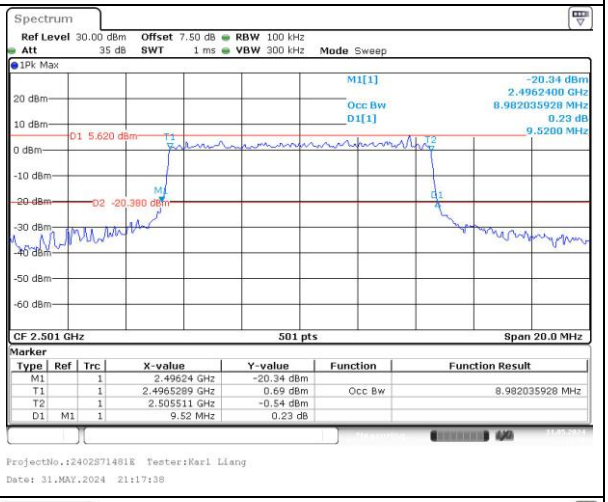
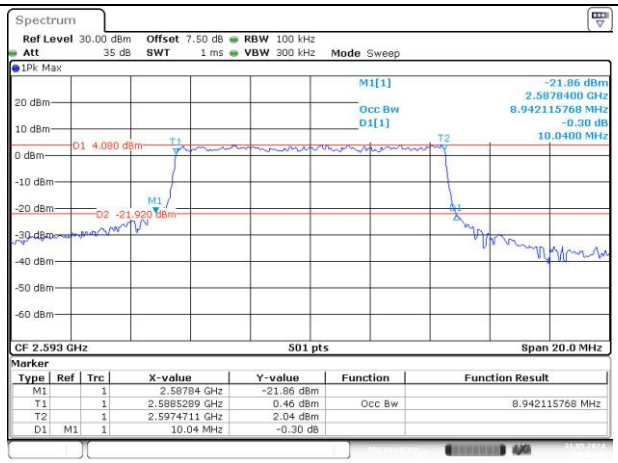
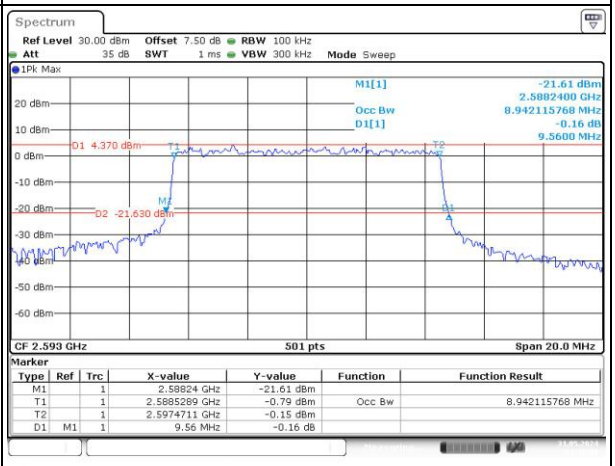
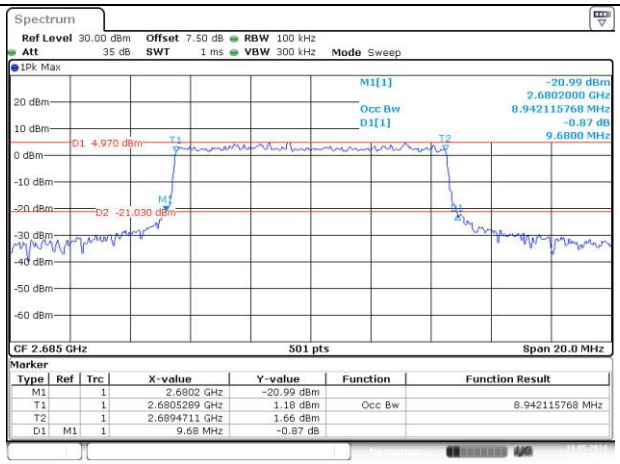
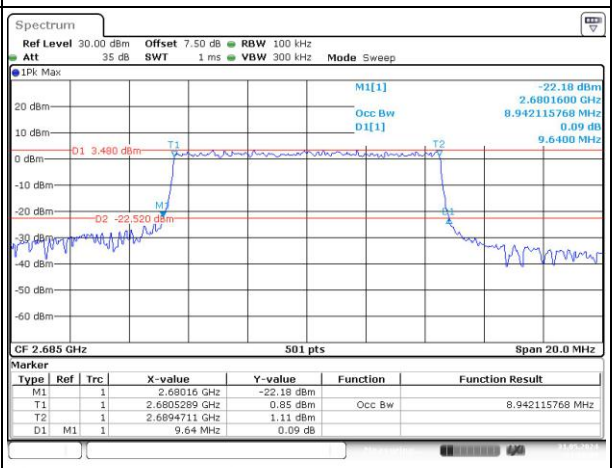
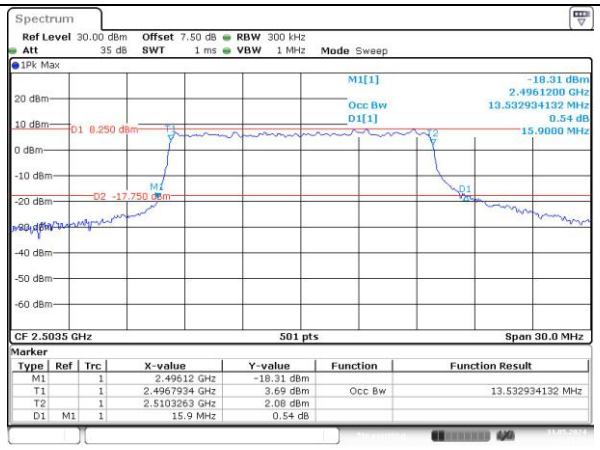
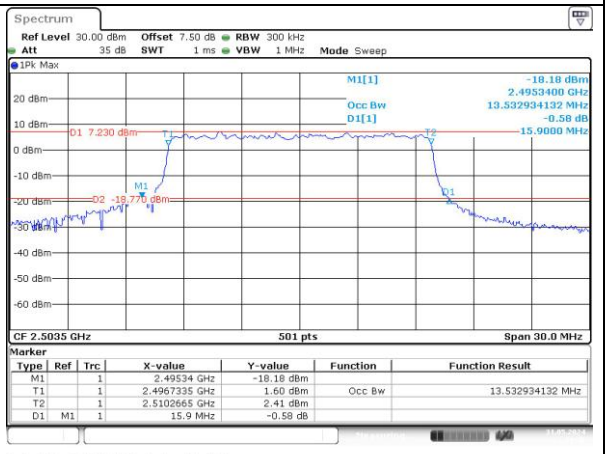
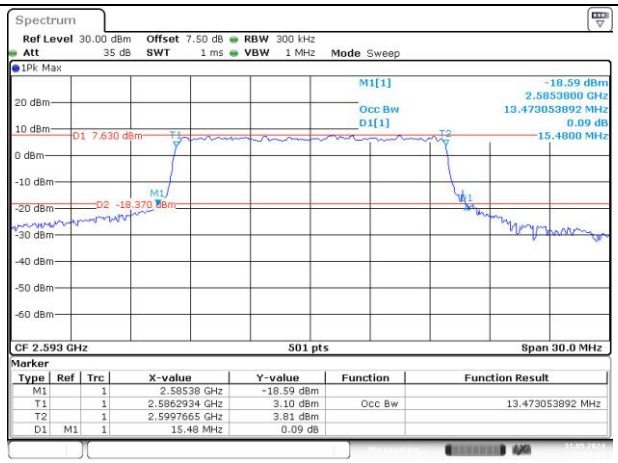
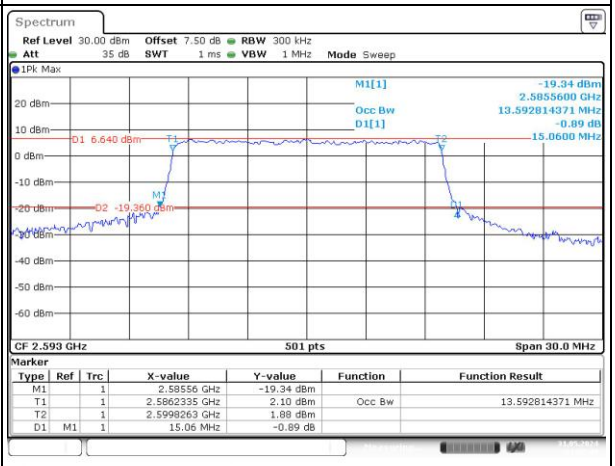
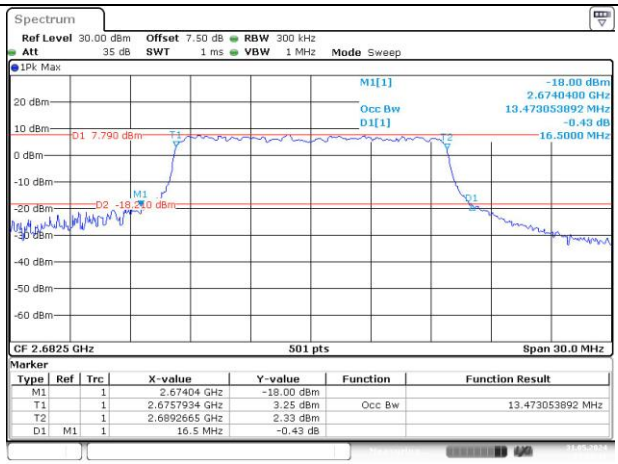
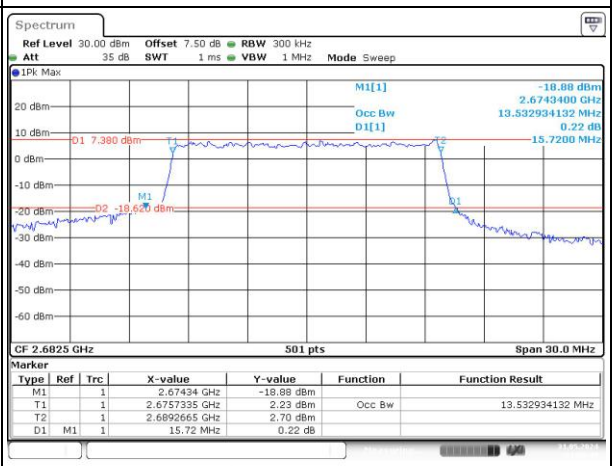
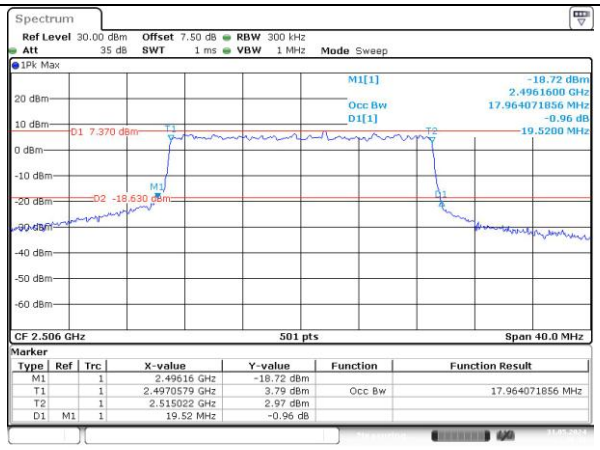
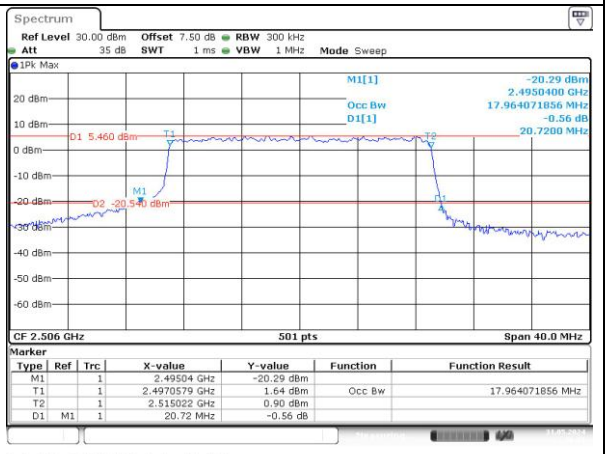
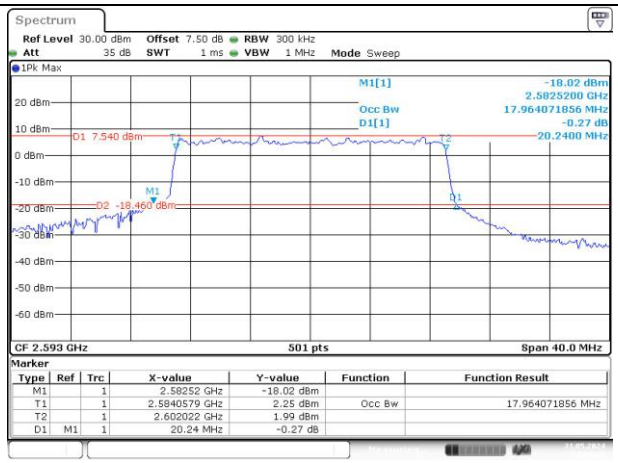
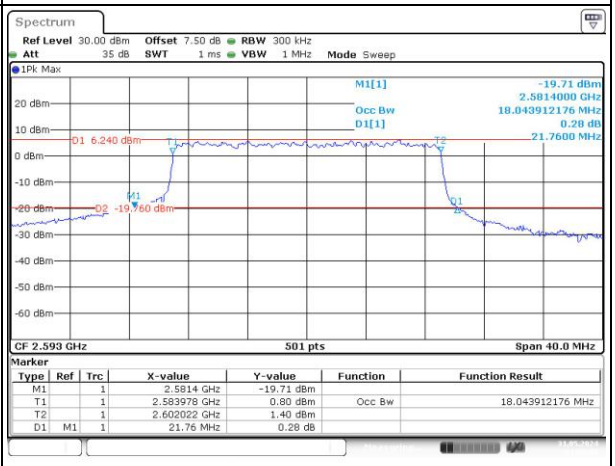
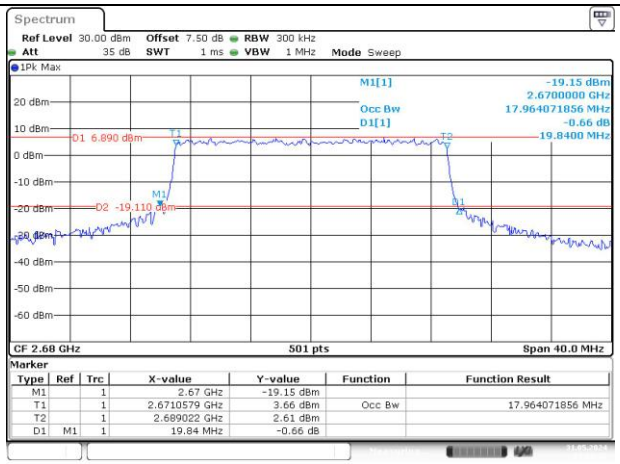
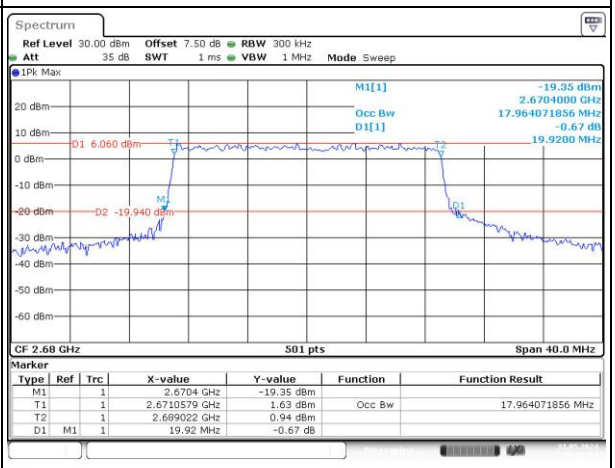
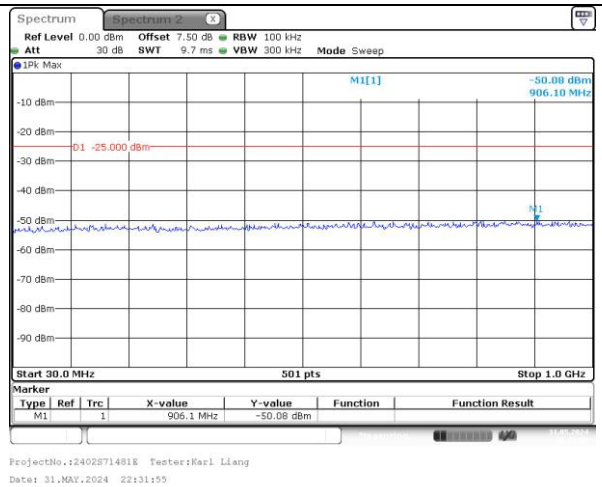
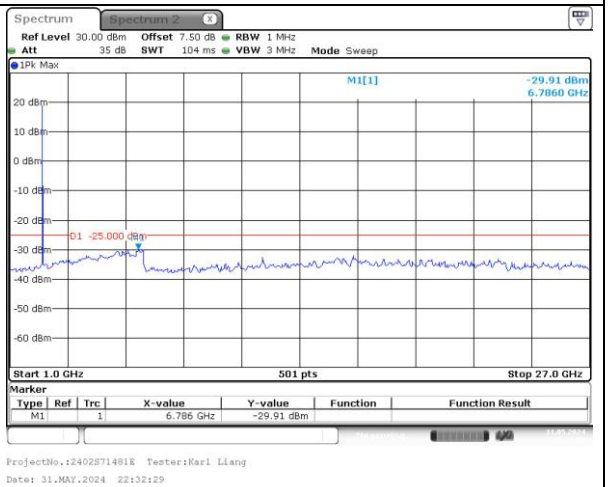
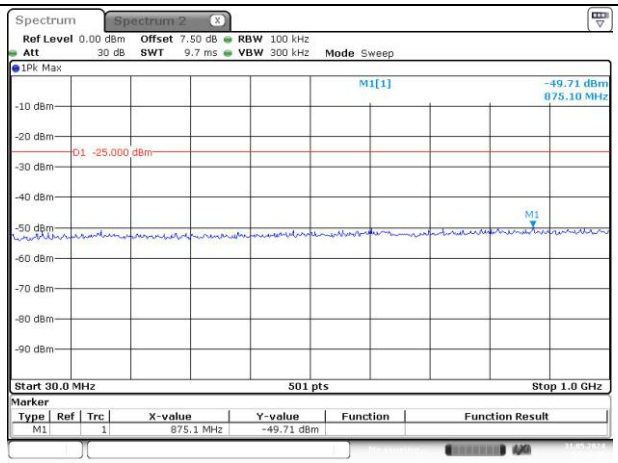
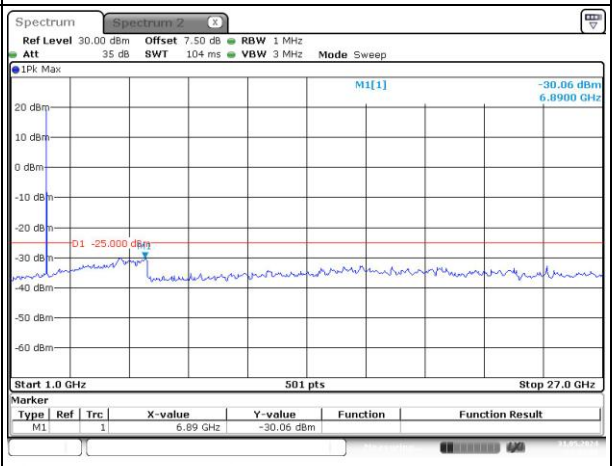
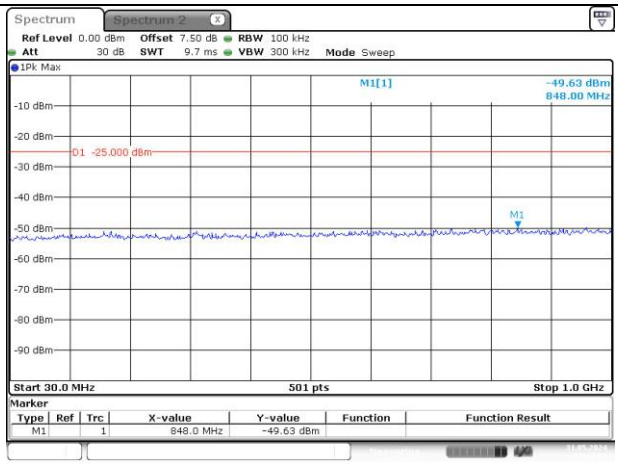
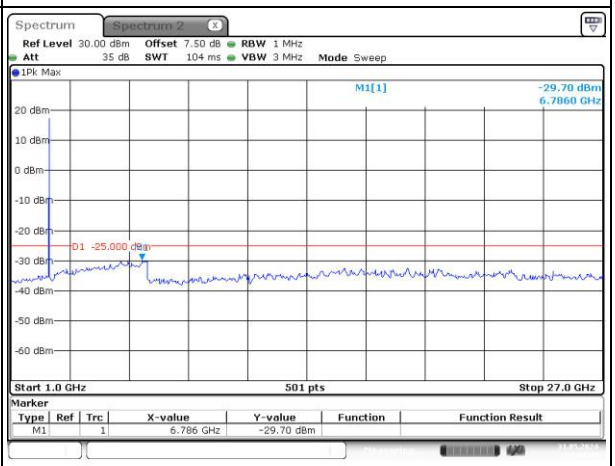
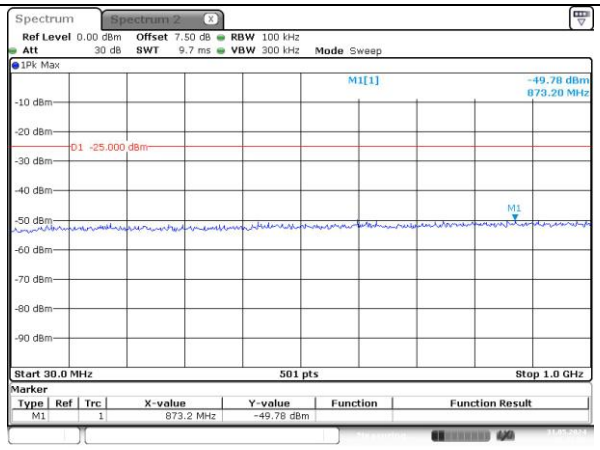
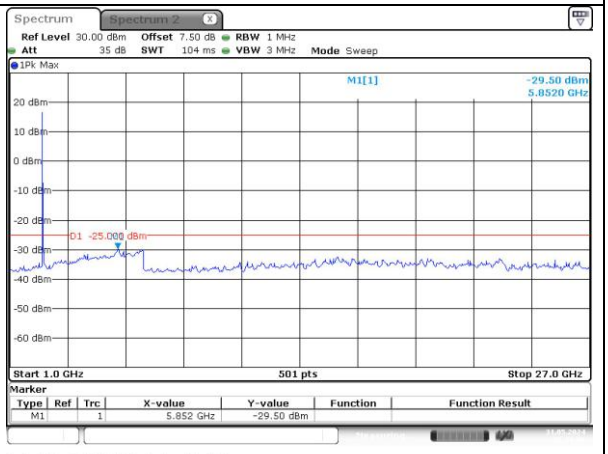
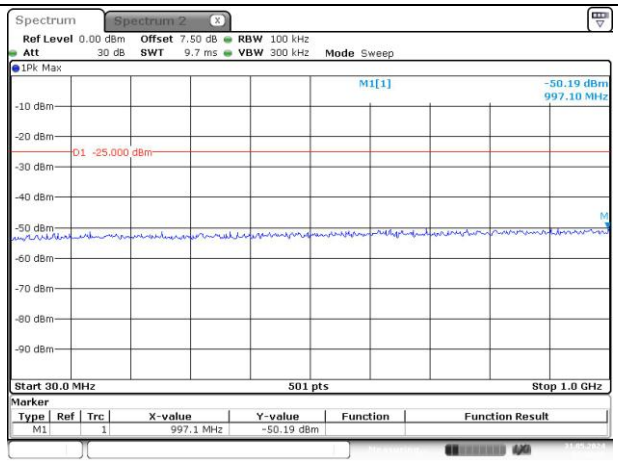
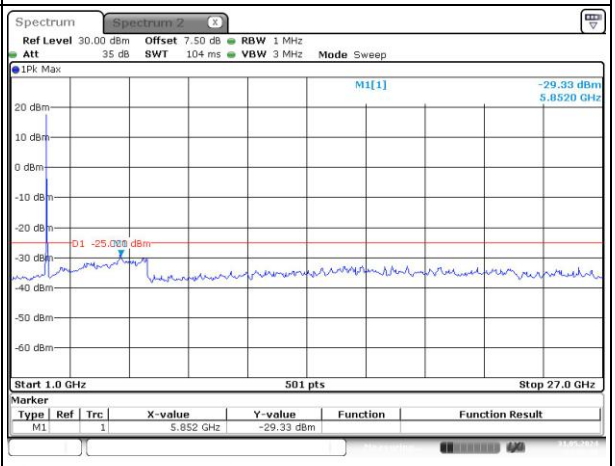
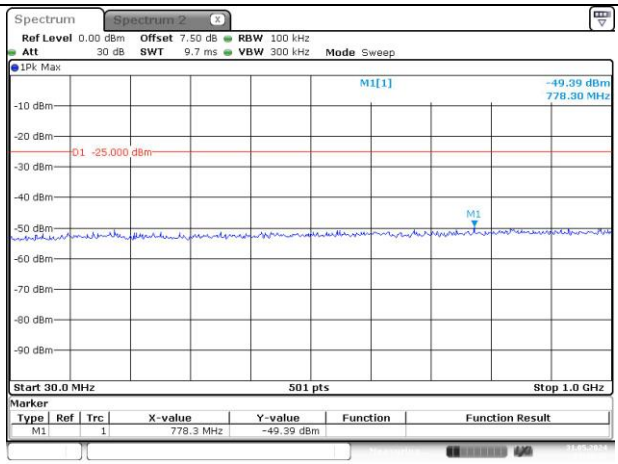
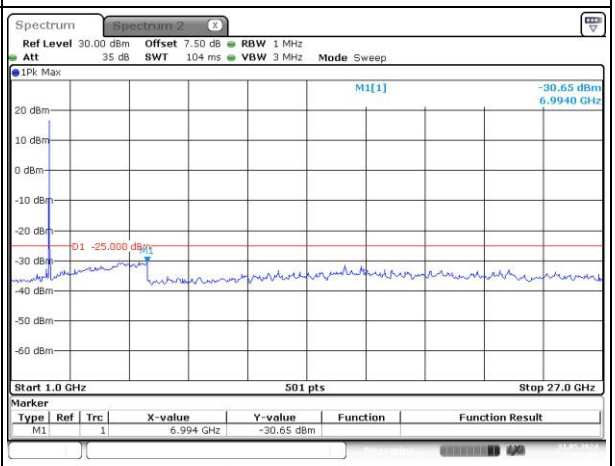
Occupied Bandwidth

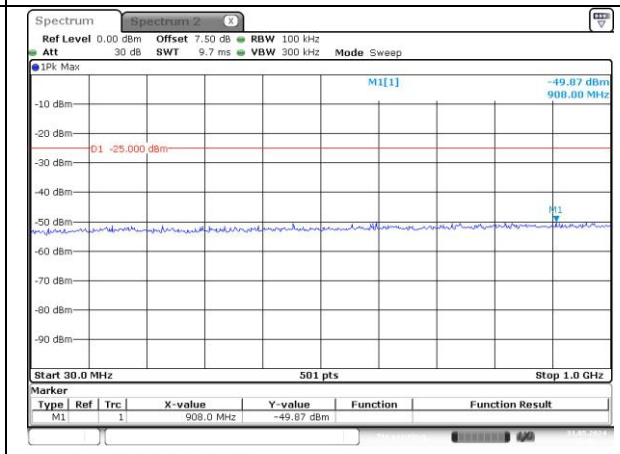
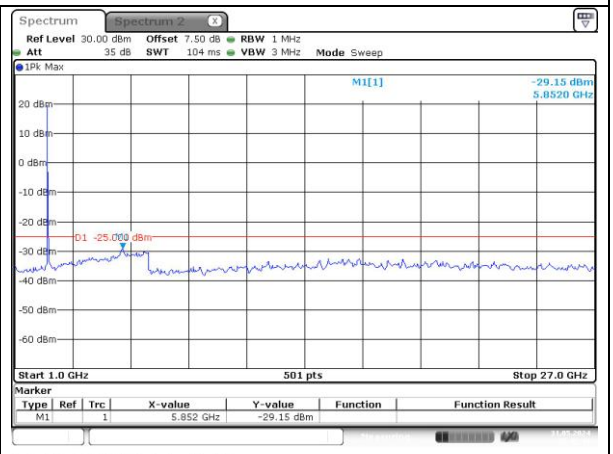
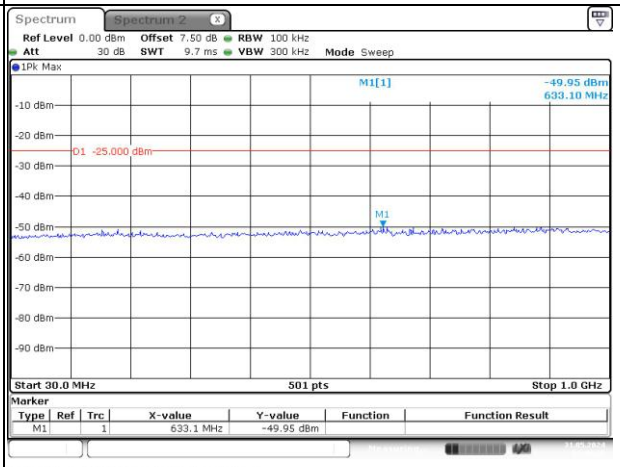
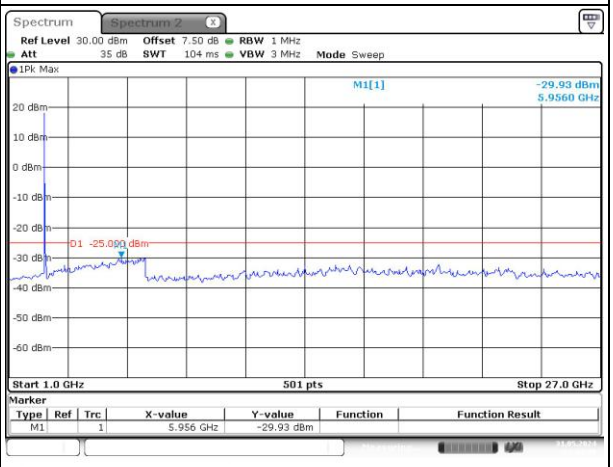
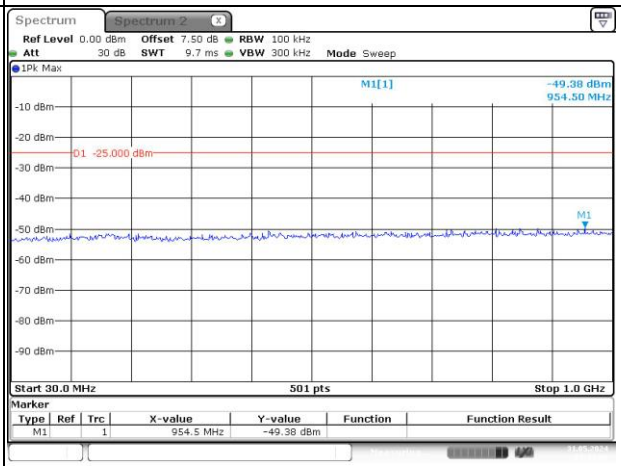
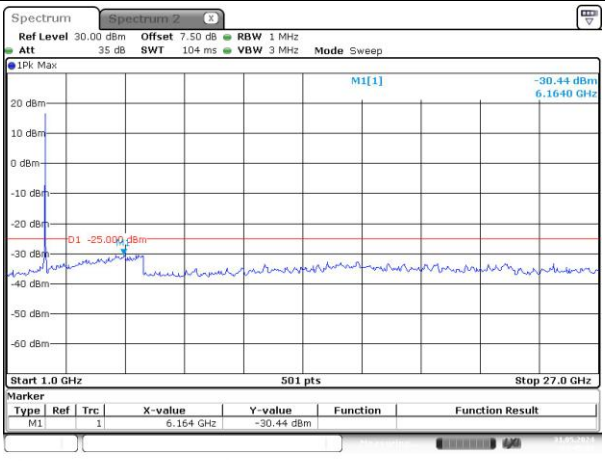
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

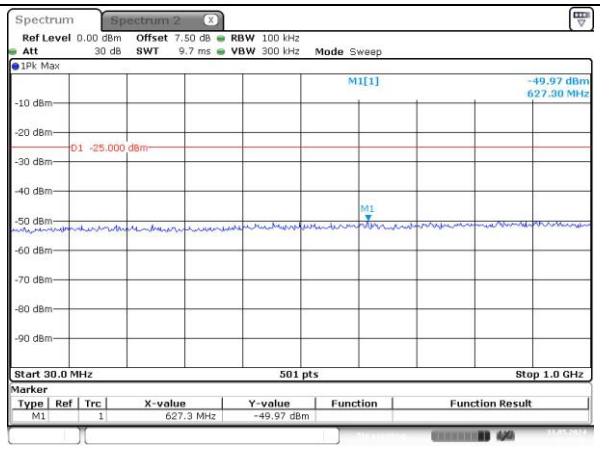
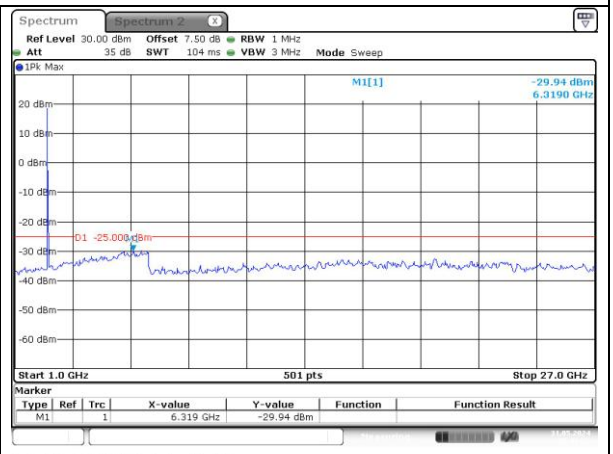
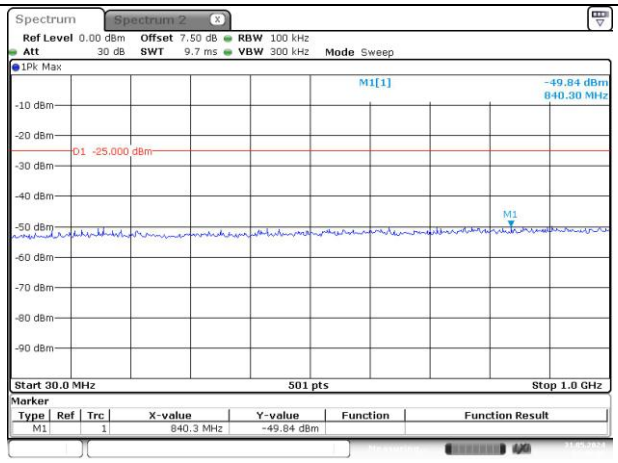
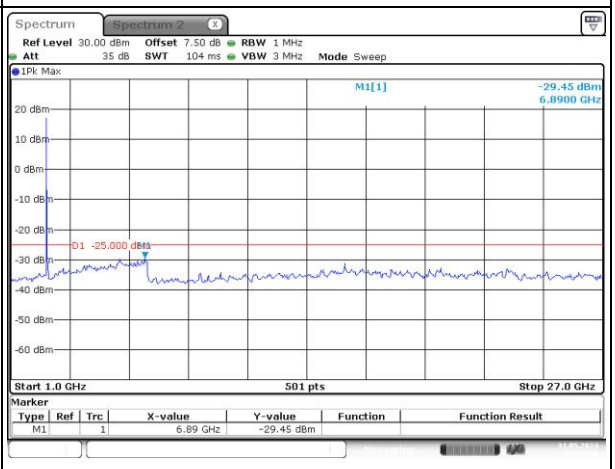
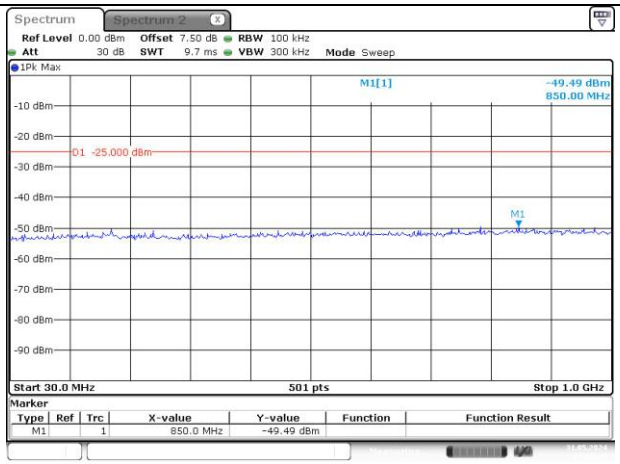
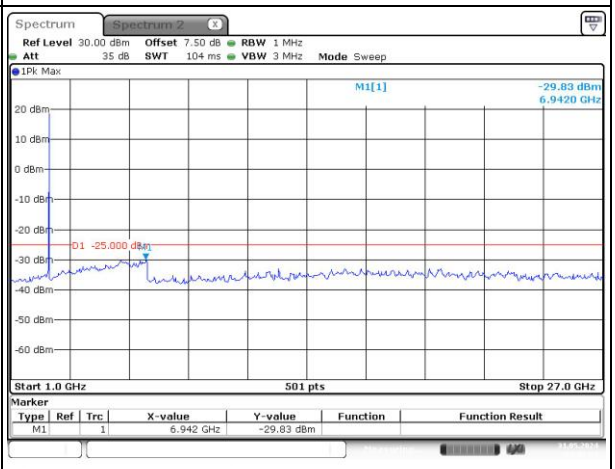
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

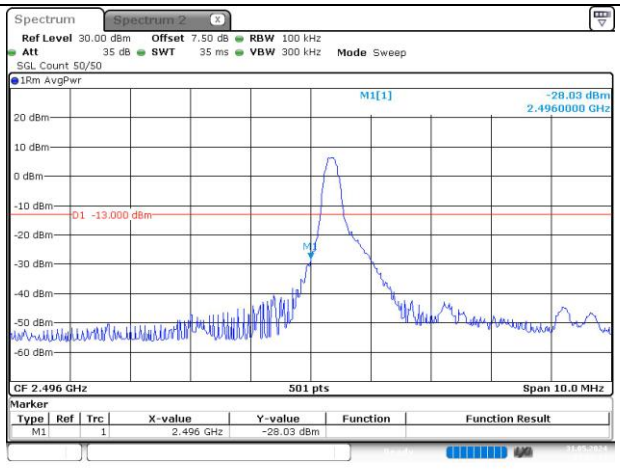
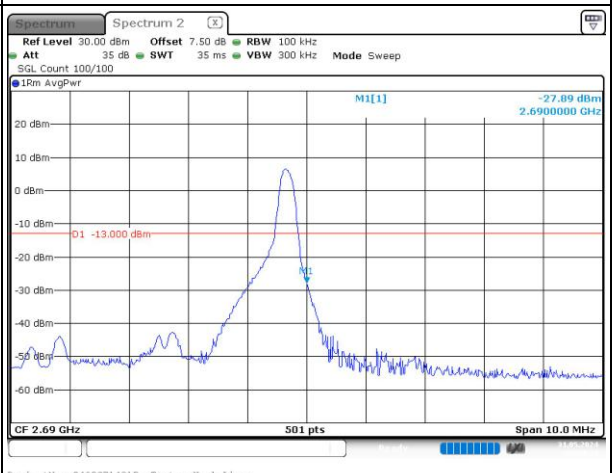
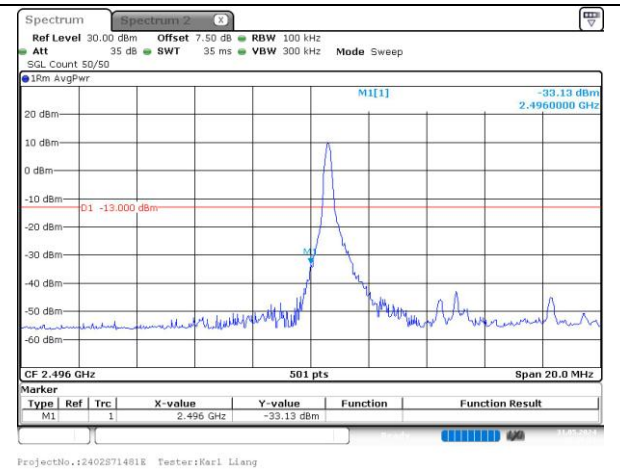
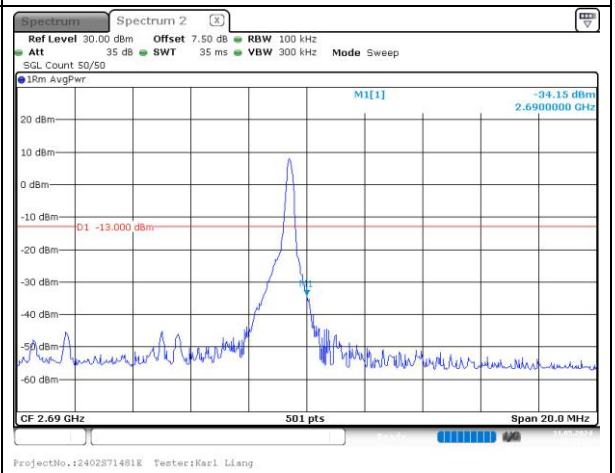
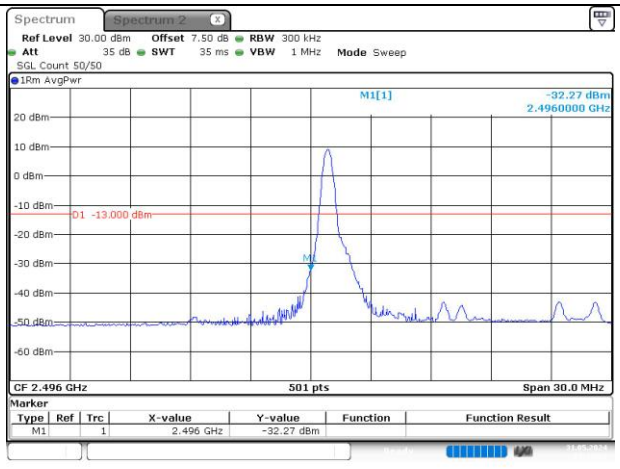
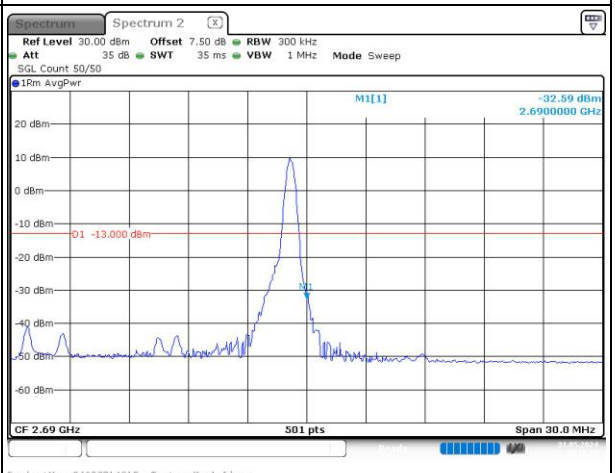
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

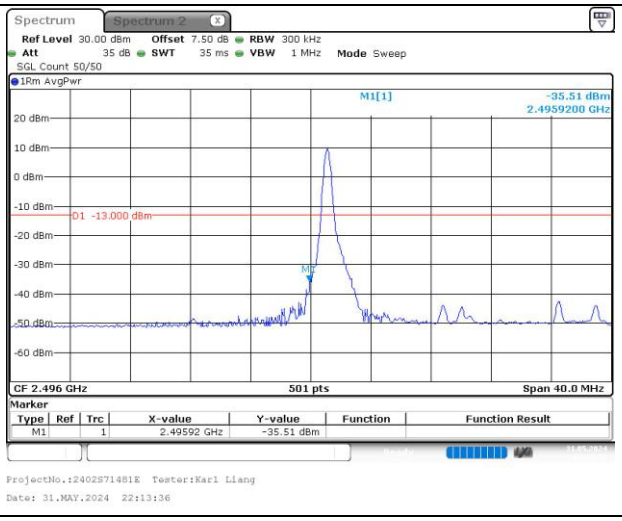
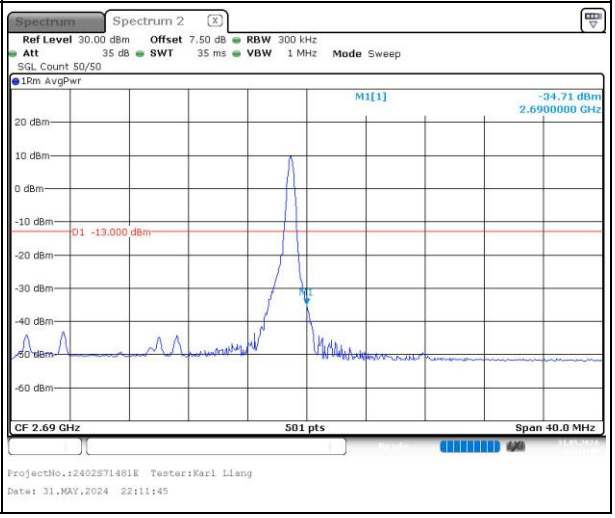
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

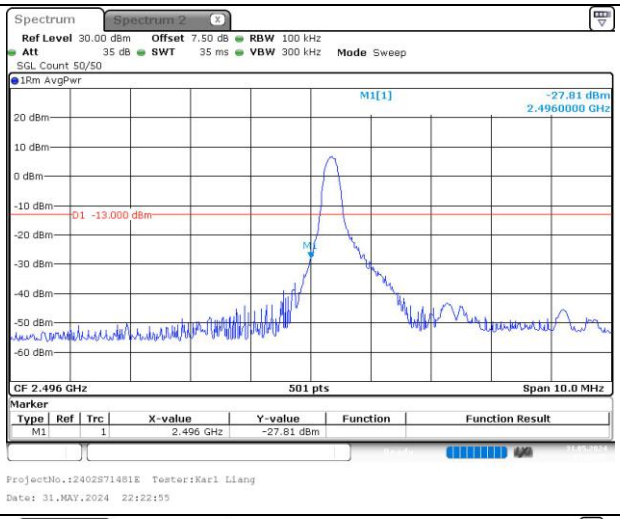
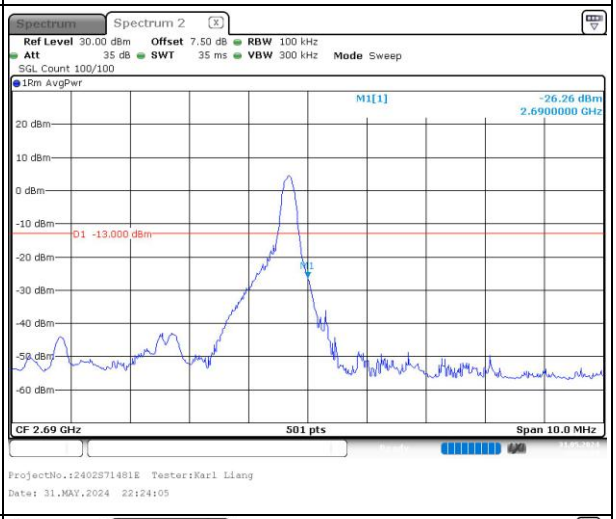
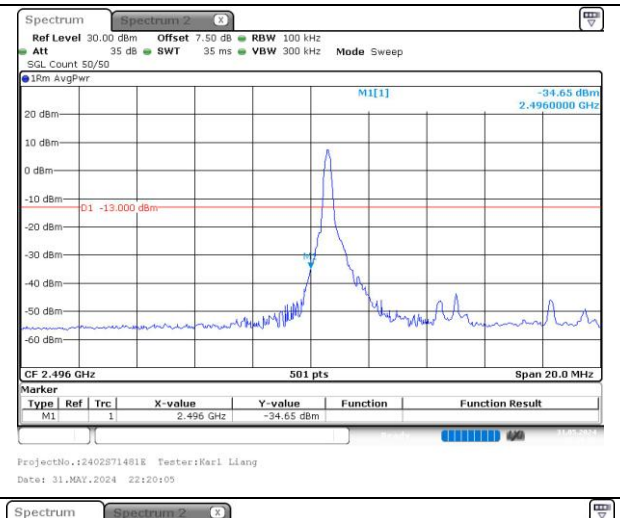
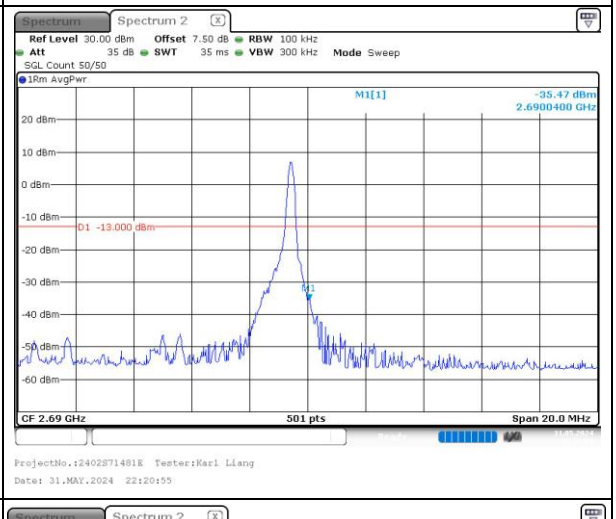
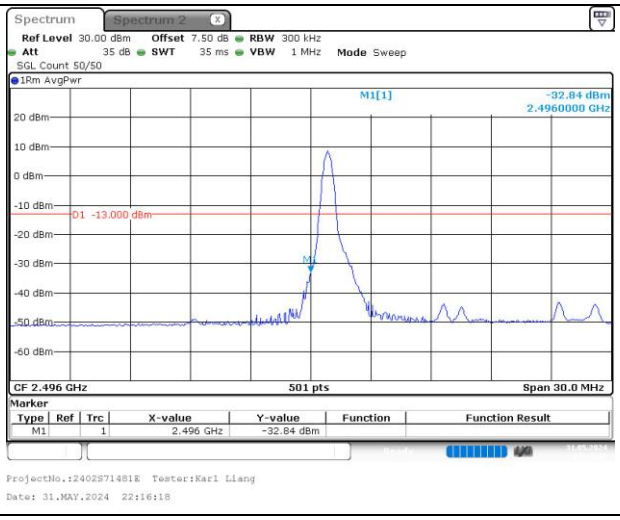
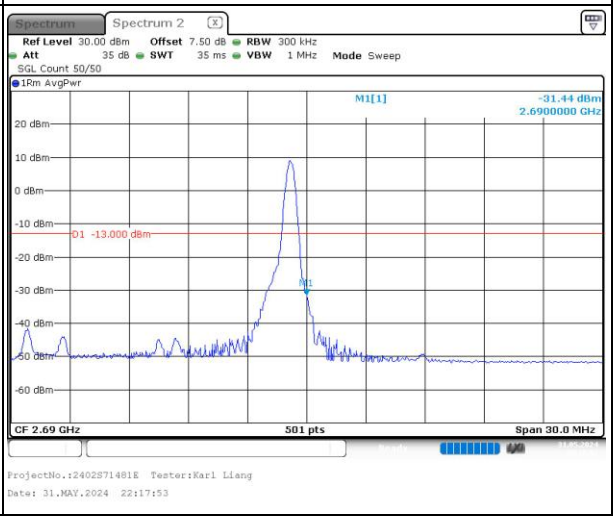
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

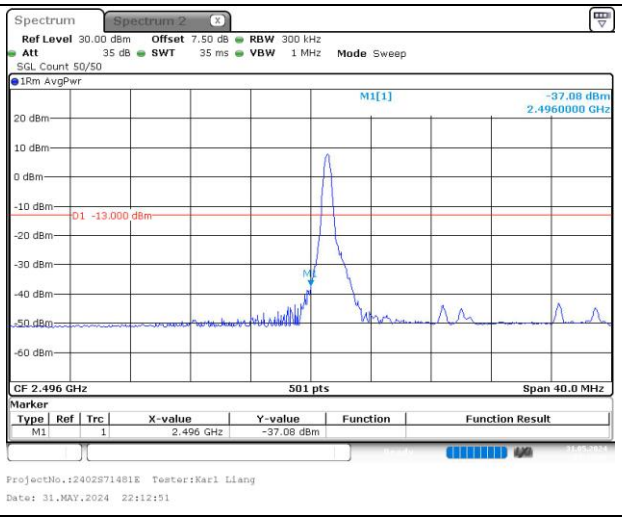
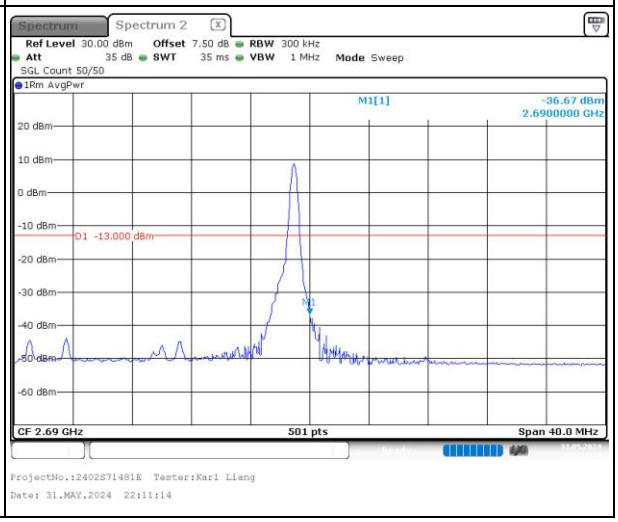
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

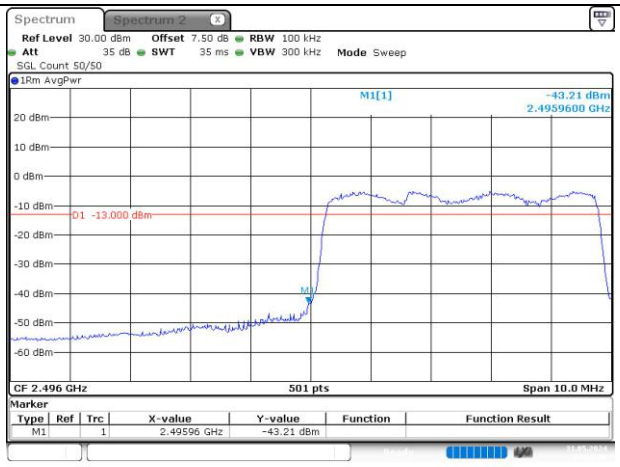
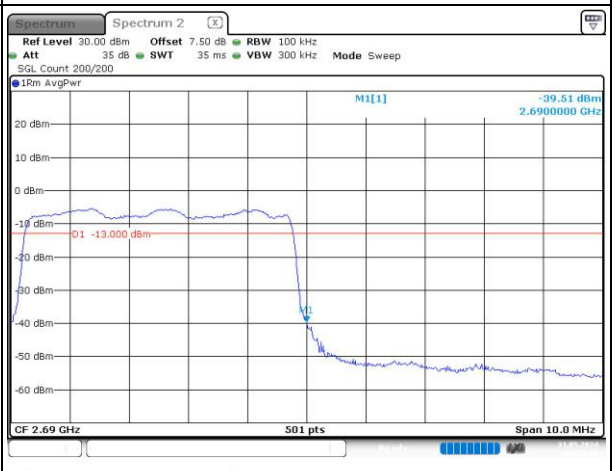
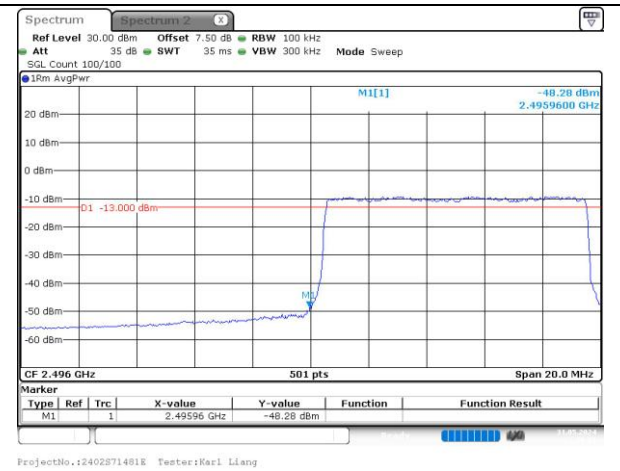
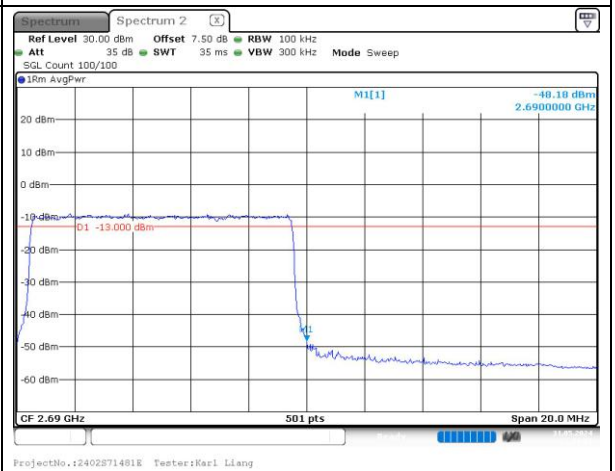
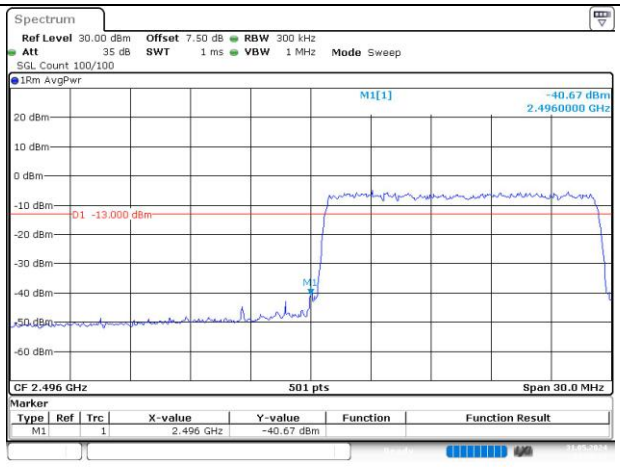
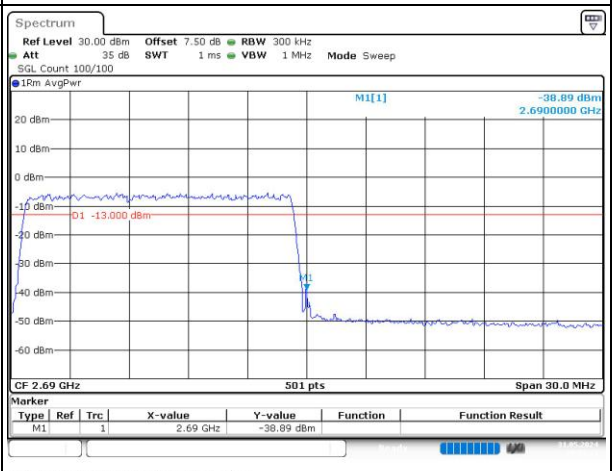
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

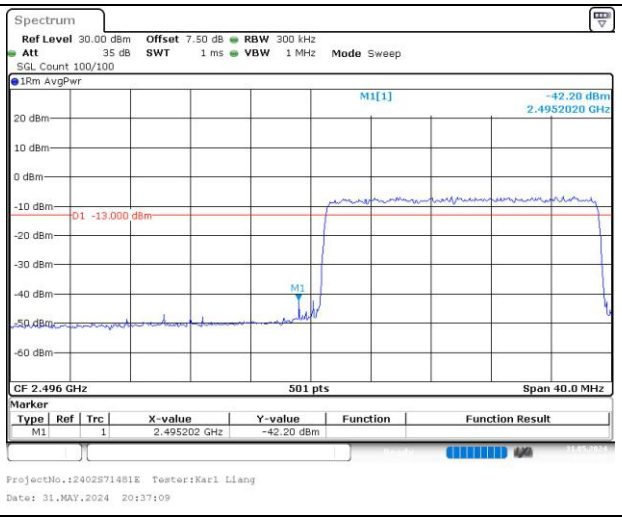
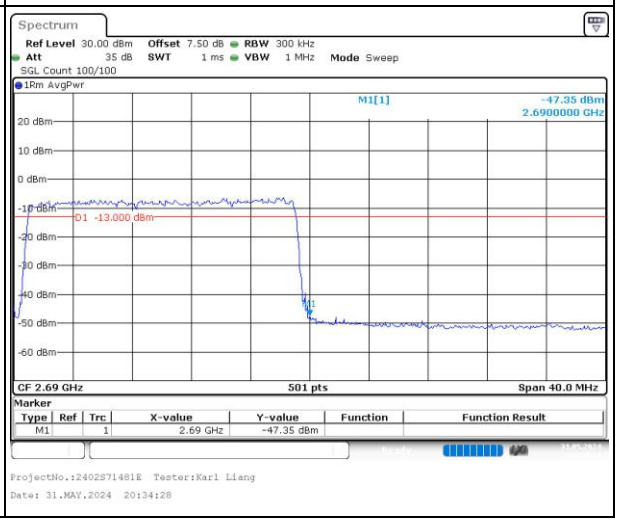
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 5MHz		
QPSK 10MHz		
QPSK 15MHz		

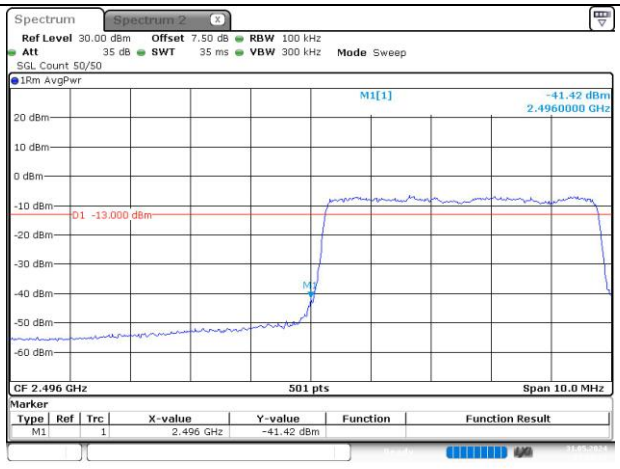
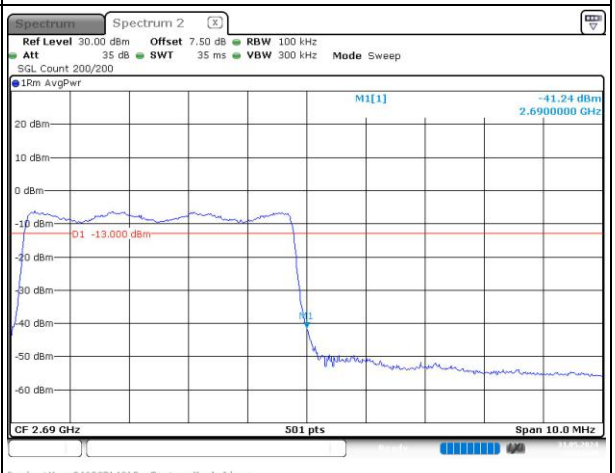
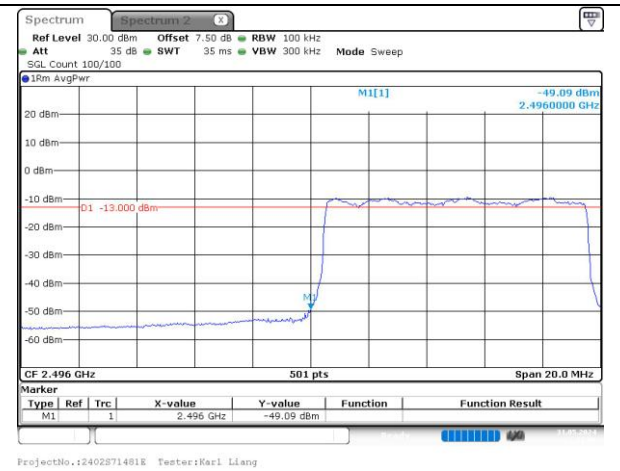
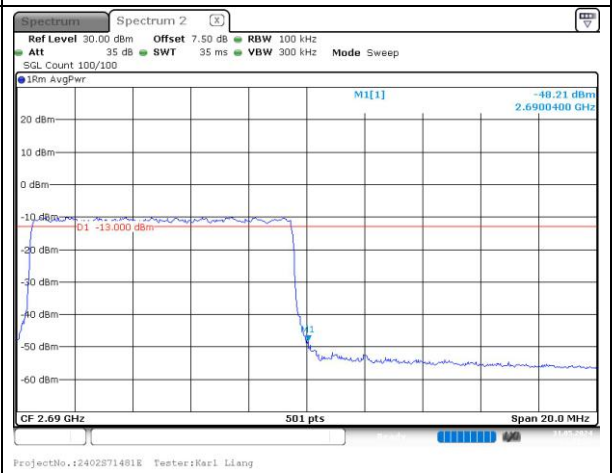
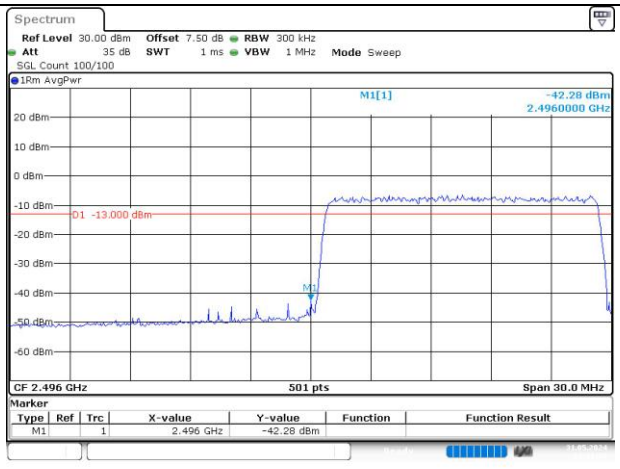
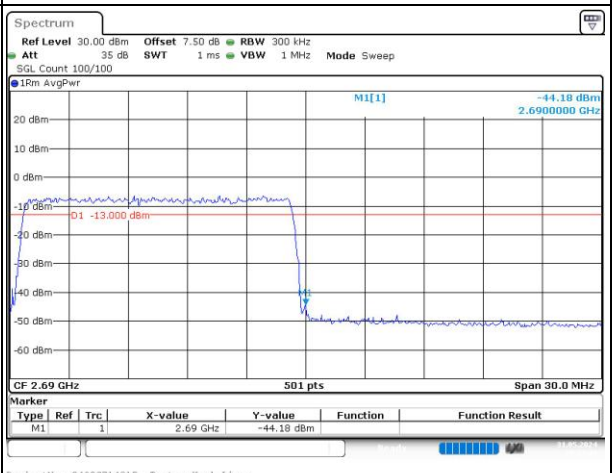
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 20MHz		

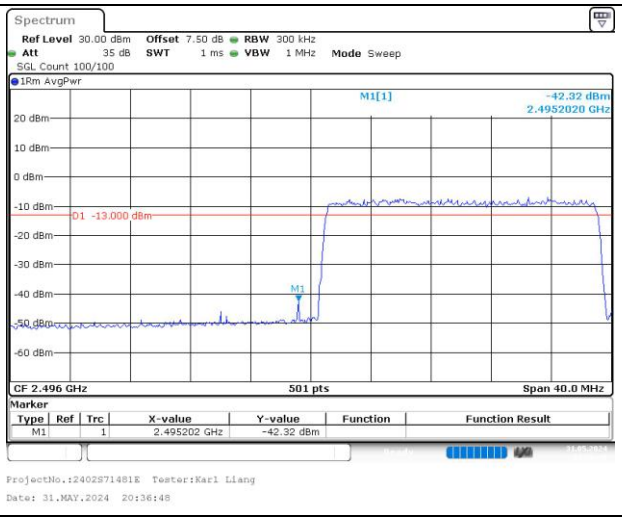
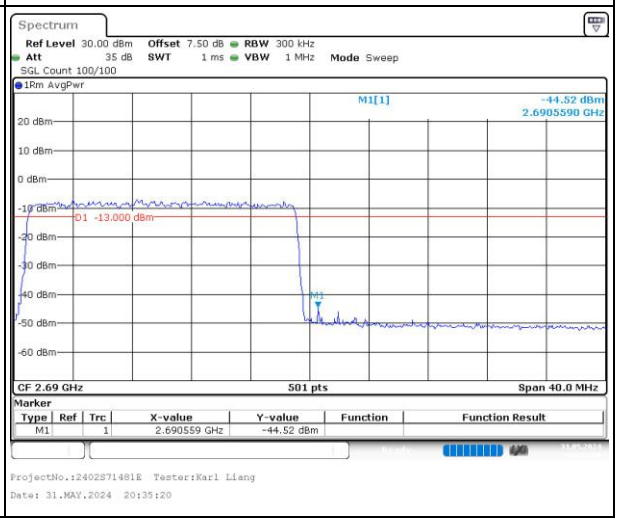
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
16QAM 5MHz		
16QAM 10MHz		
16QAM 15MHz		

Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
16QAM 20MHz		

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

Out of band emission, Band Edge		
Mode	**Lowest-Full RB**	**Highest-Full RB**
QPSK 20MHz		

Out of band emission, Band Edge		
Mode	**Lowest-Full RB**	**Highest-Full RB**
16QAM 5MHz		
16QAM 10MHz		
16QAM 15MHz		

Out of band emission, Band Edge		
Mode	**Lowest-Full RB**	**Highest-Full RB**
16QAM 20MHz		

5.15 Antenna Port Test Data and Results for LTE Band 42

Serial Number:	OSEB119574-2	Test Date:	2024/4/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.6	Relative Humidity: (%)	70	ATM Pressure: (kPa)	100.6

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	UFB205A	323308-024	2024/1/2	2025/1/1
Eastsheep	Coaxial Attenuator	5W-N-JK-6G-10dB	F-08-EM502	2023/9/10	2024/9/9
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	3452.5	3500	3547.5
10MHz	3455	3500	3545
15MHz	3457.5	3500	3542.5
20MHz	3460	3500	3540

Test Data:

FCC §2.1046; § 27.50(k)(3)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	15.25	15.38	15.58	14.92	30
	RB1#13	15.24	15.41	15.56		
	RB1#24	15.28	15.4	15.61		
	RB15#0	14.2	14.32	14.6		
	RB15#10	14.19	14.29	14.55		
	RB25#0	14.21	14.32	14.57		
5MHz 16QAM	RB1#0	14.47	14.37	14.67	13.98	30
	RB1#13	14.47	14.32	14.63		
	RB1#24	14.51	14.36	14.65		
	RB15#0	13.19	13.23	13.6		
	RB15#10	13.2	13.2	13.54		
	RB25#0	13.18	13.33	13.61		
10MHz QPSK	RB1#0	15.19	15.4	15.55	14.93	30
	RB1#25	15.26	15.41	15.62		
	RB1#49	15.2	15.38	15.56		
	RB25#0	14.14	14.26	14.52		
	RB25#25	14.2	14.24	14.57		
	RB50#0	14.17	14.29	14.58		
10MHz 16QAM	RB1#0	14.36	14.27	14.62	14	30
	RB1#25	14.43	14.3	14.69		
	RB1#49	14.43	14.26	14.66		
	RB25#0	13.16	13.29	13.55		
	RB25#25	13.19	13.31	13.57		
	RB50#0	13.15	13.26	13.59		
15MHz QPSK	RB1#0	15.11	15.29	15.37	14.78	30
	RB1#38	15.25	15.35	15.47		
	RB1#74	15.21	15.31	15.44		
	RB36#0	14.14	14.24	14.36		
	RB36#39	14.21	14.25	14.45		
	RB75#0	14.22	14.25	14.47		
15MHz 16QAM	RB1#0	14.35	14.47	14.29	13.87	30
	RB1#38	14.44	14.56	14.42		
	RB1#74	14.46	14.54	14.38		
	RB36#0	13.18	13.23	13.35		
	RB36#39	13.22	13.24	13.39		
	RB75#0	13.15	13.2	13.44		

20MHz QPSK	RB1#0	15.11	15.2	15.5	14.89	30
	RB1#50	15.23	15.37	15.58		
	RB1#99	15.25	15.27	15.55		
	RB50#0	14.18	14.27	14.44		
	RB50#50	14.28	14.34	14.49		
	RB100#0	14.2	14.26	14.48		
20MHz 16QAM	RB1#0	14.21	14.17	14.68	14.04	30
	RB1#50	14.32	14.35	14.71		
	RB1#99	14.27	14.26	14.73		
	RB50#0	13.14	13.28	13.44		
	RB50#50	13.24	13.39	13.45		
	RB100#0	13.16	13.25	13.44		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						
					Result:	**Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	9.74	10.06	9.51	13
	RB100#0	8.58	8.61	8.58	13
20MHz 16QAM	RB1#0	10.64	10.49	10.26	13
	RB100#0	10.03	10.06	10.03	13
				Result:	**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.491	4.531	4.511	5	5.02	5.2
5MHz 16QAM	4.491	4.491	4.511	4.96	4.98	4.96
10MHz QPSK	8.942	8.942	8.982	9.84	9.64	9.76
10MHz 16QAM	8.942	8.942	8.942	9.56	9.64	9.56
15MHz QPSK	13.473	13.533	13.533	15.42	16.14	16.56
15MHz 16QAM	13.593	13.533	13.533	15.42	16.14	15.42
20MHz QPSK	17.964	17.884	18.044	23.44	19.92	20.96
20MHz 16QAM	18.044	17.964	17.964	26.64	19.68	23.52
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.**

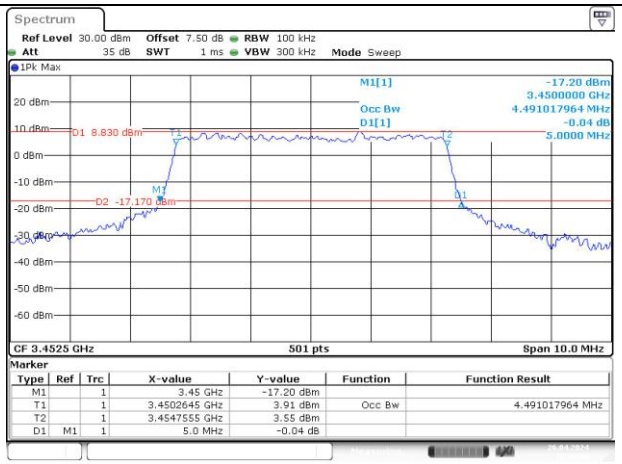
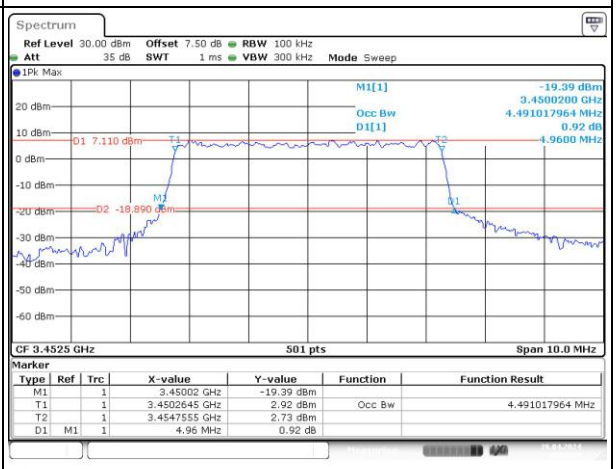
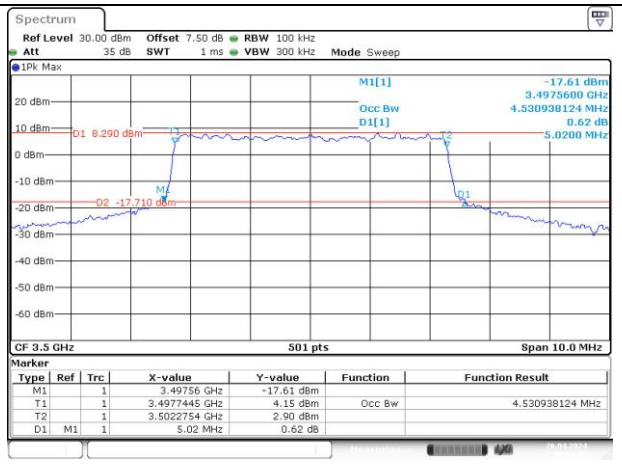
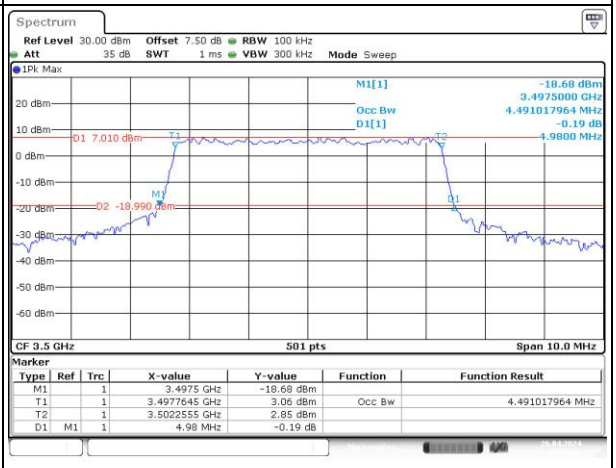
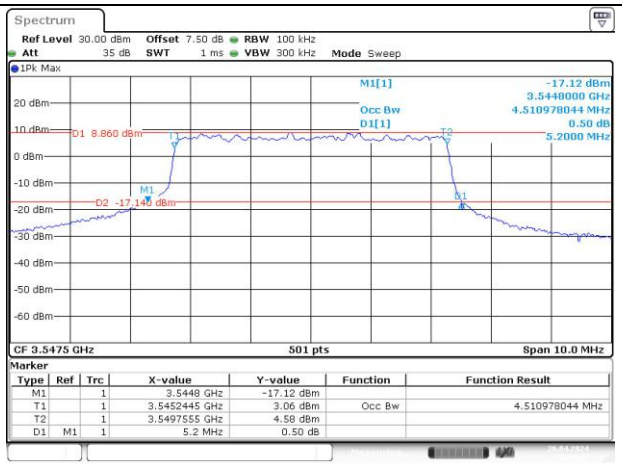
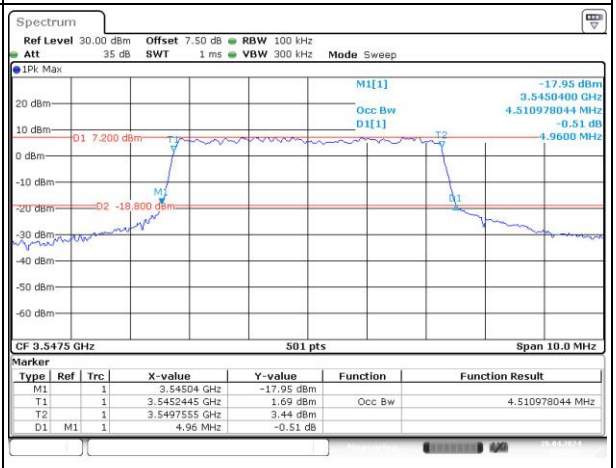
FCC §2.1051, §27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

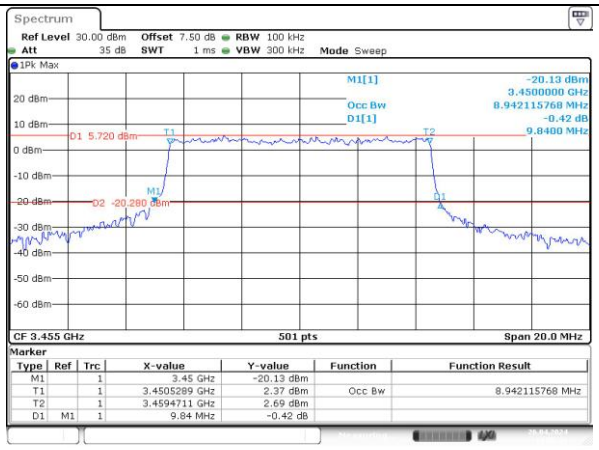
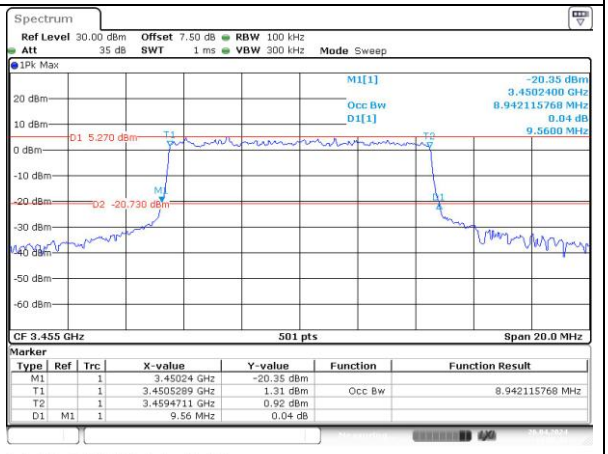
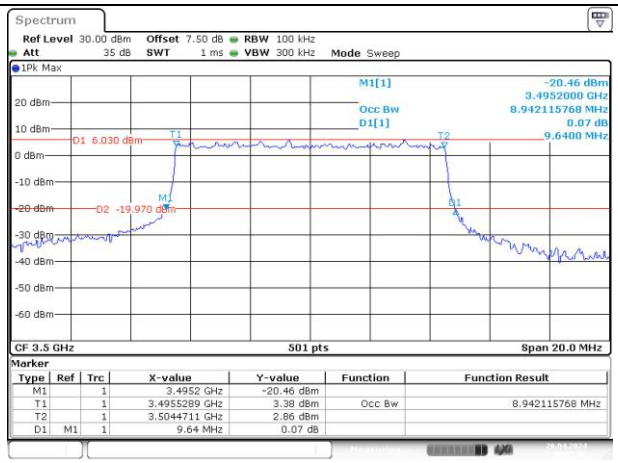
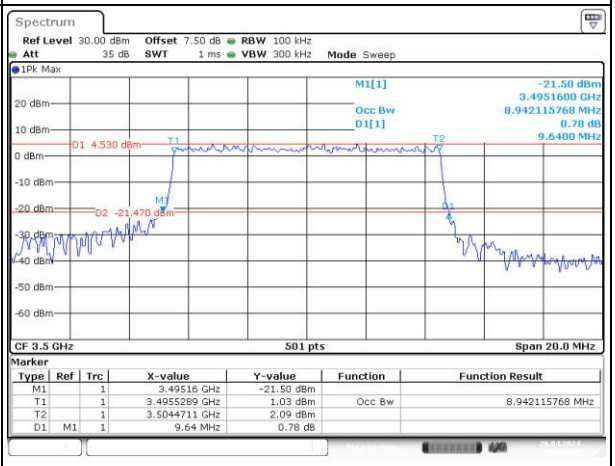
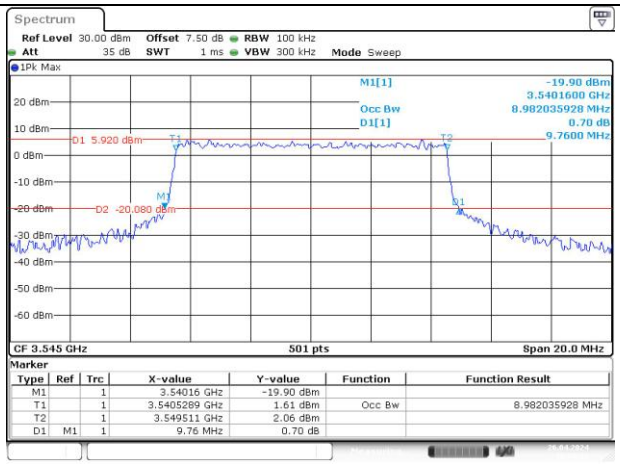
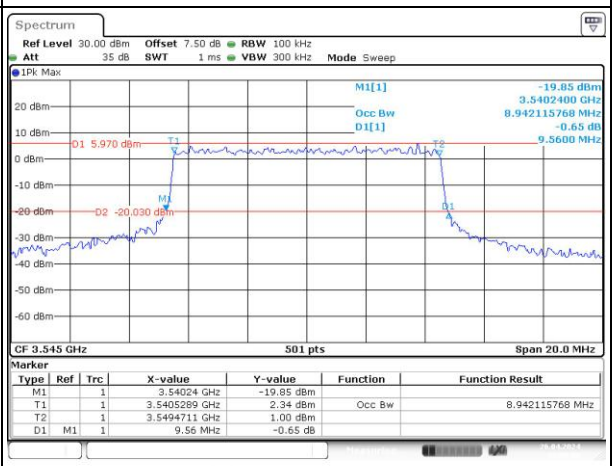
FCC §2.1055, §27.54: Frequency Stability

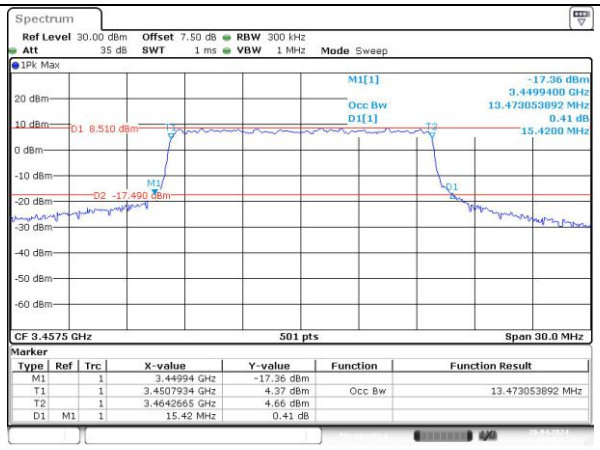
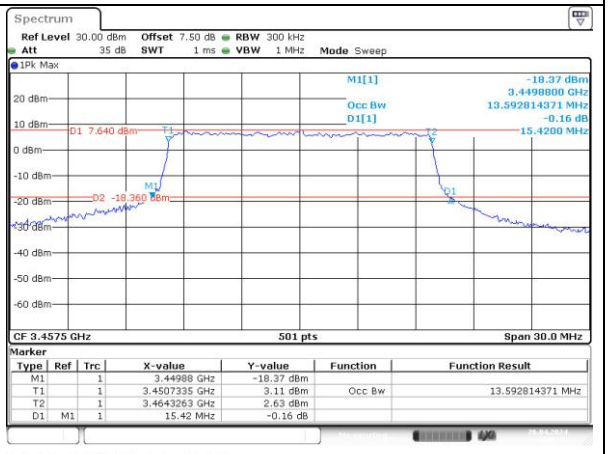
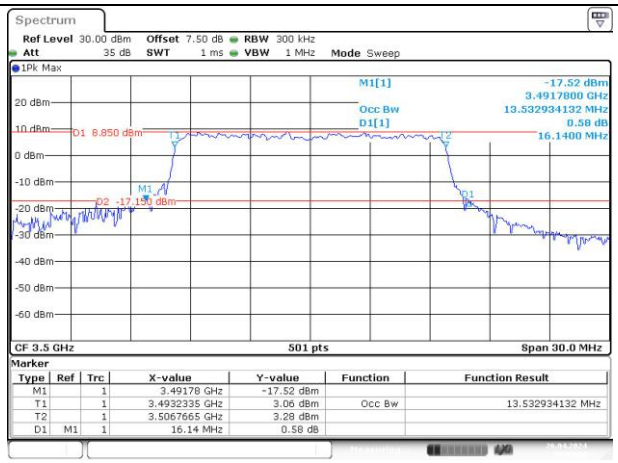
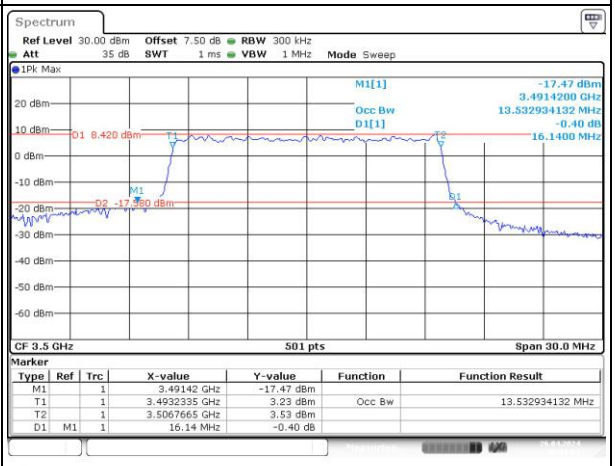
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.91	3451.040	3450.00	3549.013	3550
	-20	3.91	3451.052	3450.00	3549.010	3550
	-10	3.91	3451.040	3450.00	3549.001	3550
	0	3.91	3451.055	3450.00	3548.995	3550
	10	3.91	3451.037	3450.00	3549.007	3550
	20	3.91	3451.058	3450.00	3549.022	3550
	30	3.91	3451.079	3450.00	3549.037	3550
	40	3.91	3451.064	3450.00	3549.040	3550
	50	3.91	3451.073	3450.00	3549.037	3550
Frequency Stability vs. Voltage	20	3.45	3451.076	3450.00	3549.028	3550
	20	4.5	3451.061	3450.00	3549.043	3550
					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	3.91	3450.960	3450.00	3548.933	3550
	-20	3.91	3450.969	3450.00	3548.924	3550
	-10	3.91	3450.960	3450.00	3548.927	3550
	0	3.91	3450.975	3450.00	3548.939	3550
	10	3.91	3450.969	3450.00	3548.936	3550
	20	3.91	3450.978	3450.00	3548.942	3550
	30	3.91	3451.002	3450.00	3548.957	3550
	40	3.91	3450.990	3450.00	3548.969	3550
	50	3.91	3451.002	3450.00	3548.963	3550
Frequency Stability vs. Voltage	20	3.45	3450.996	3450.00	3548.954	3550
	20	4.5	3450.996	3450.00	3548.957	3550
					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		
iddle		
Highest