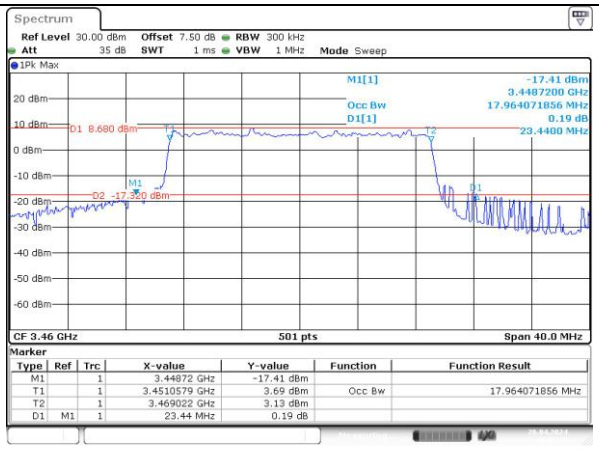
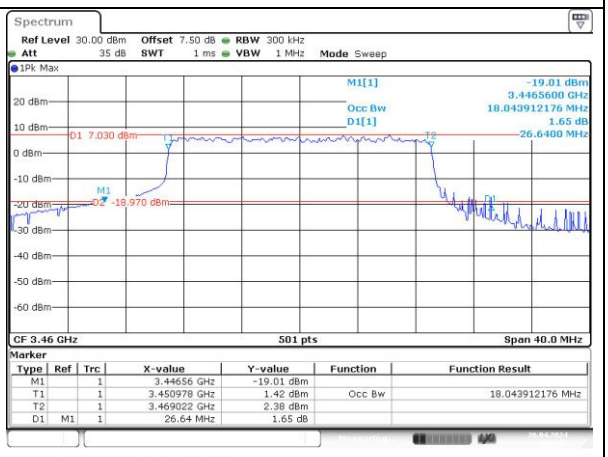
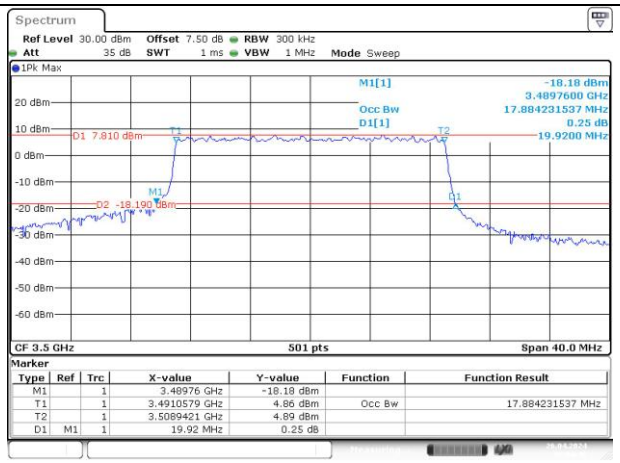
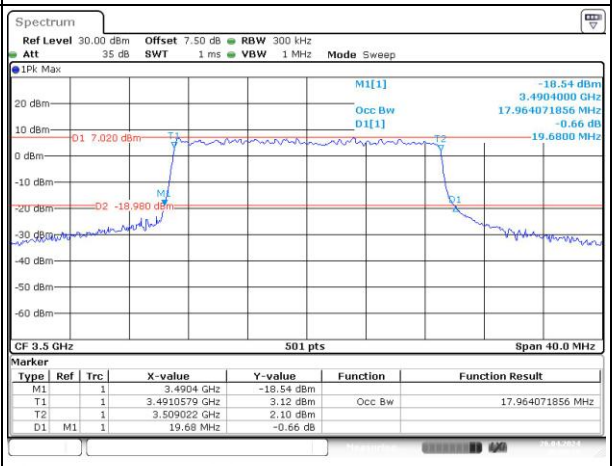
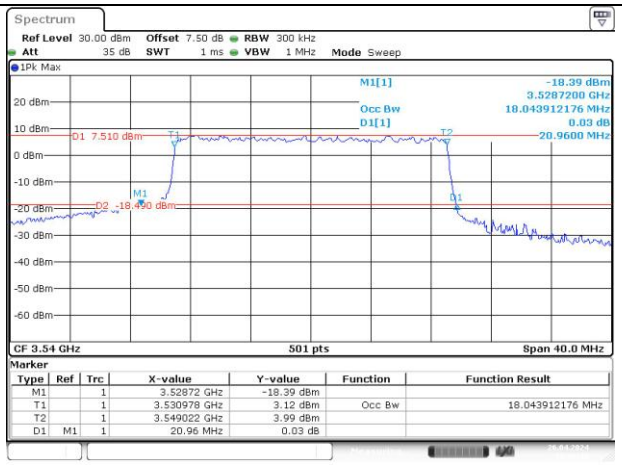
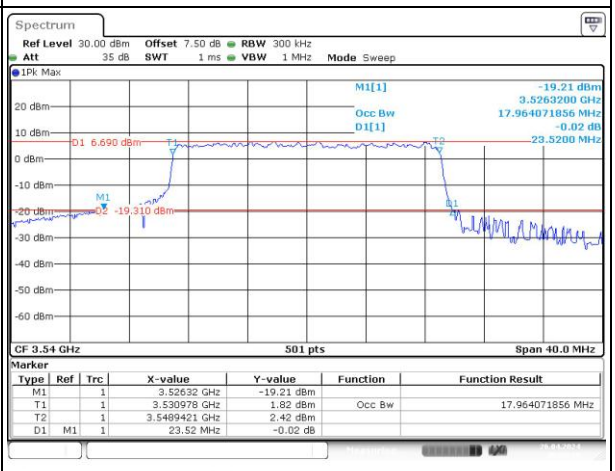
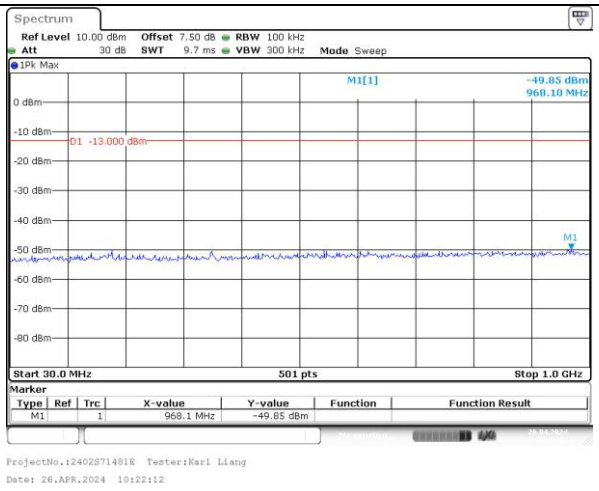
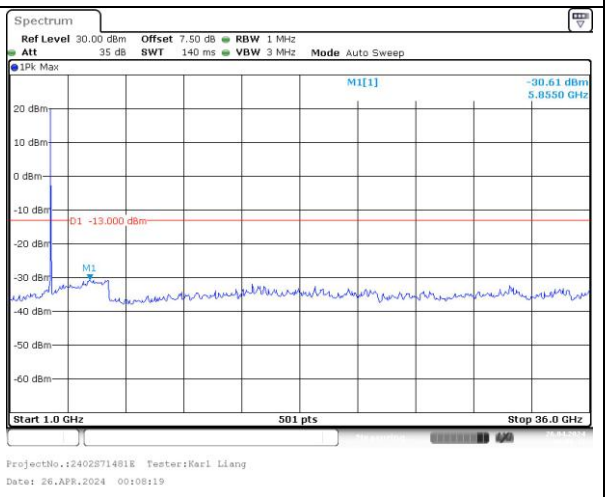
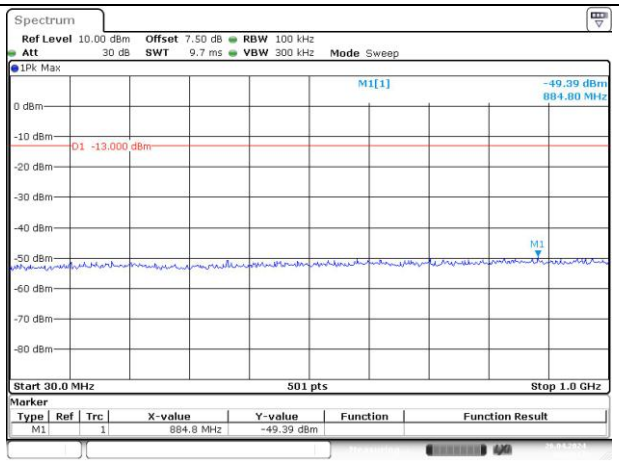
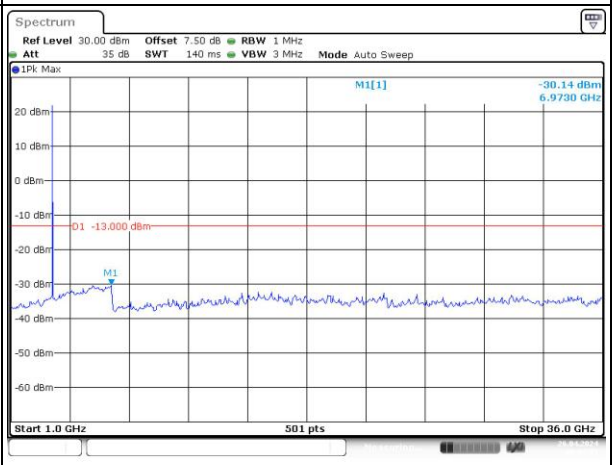
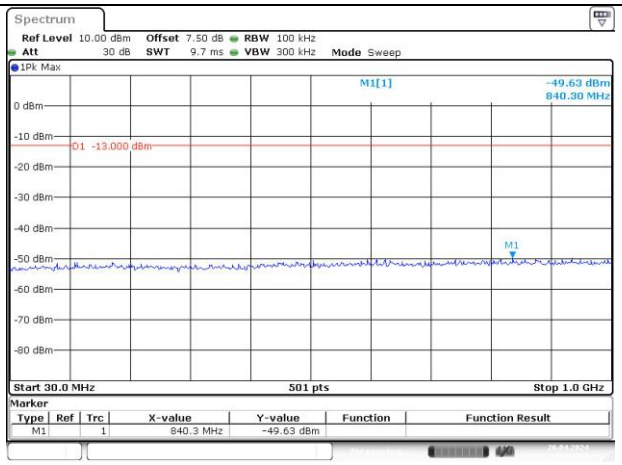
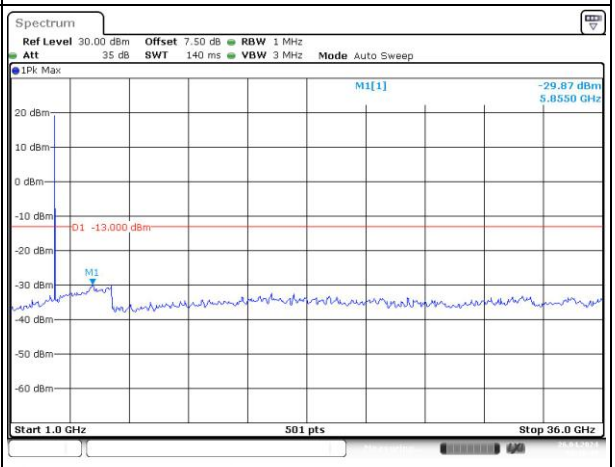
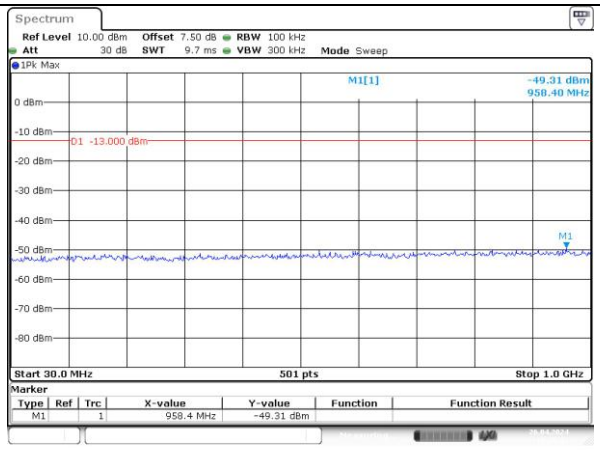
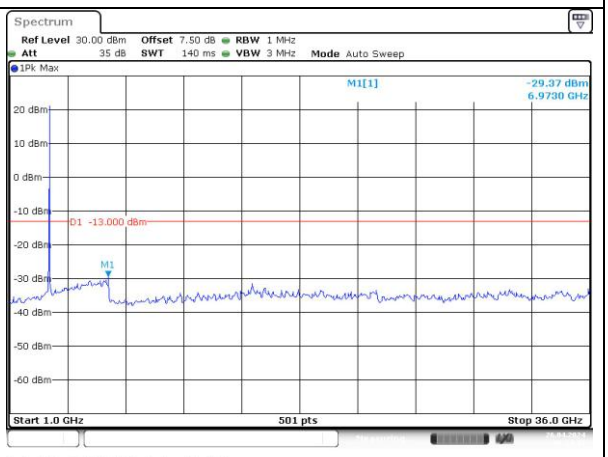
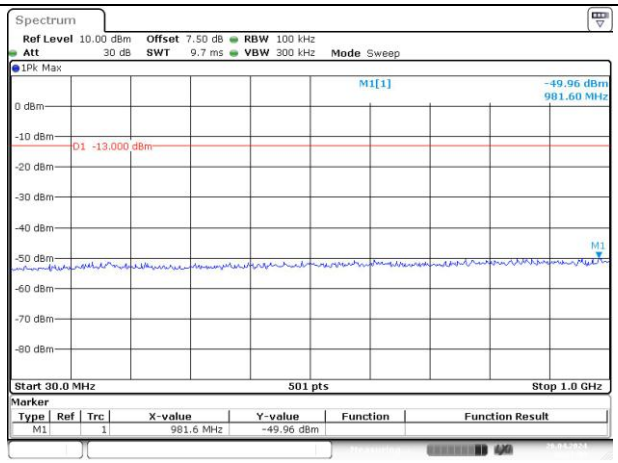
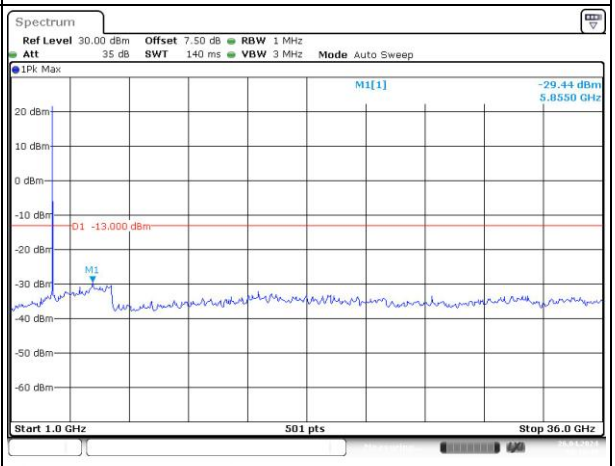
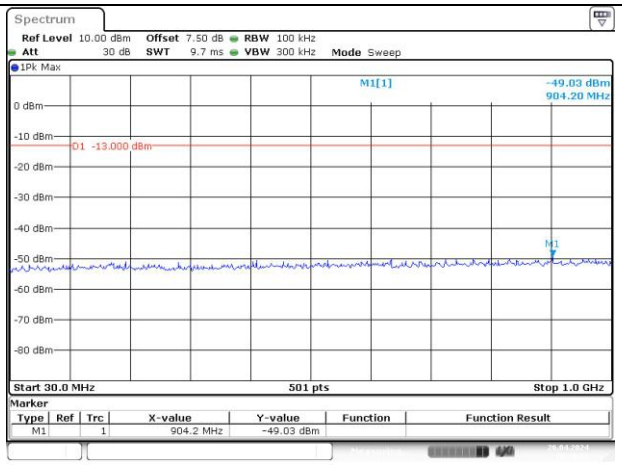
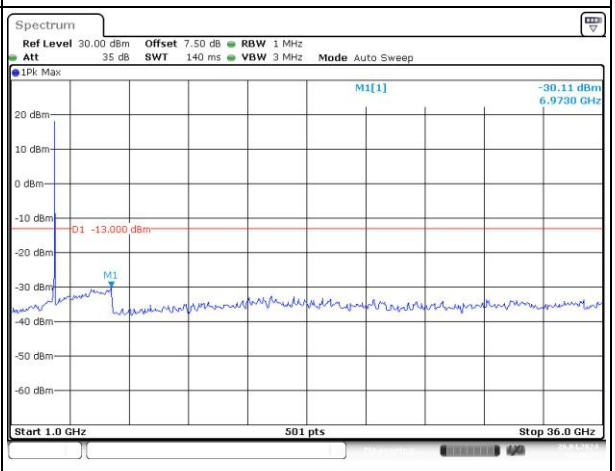
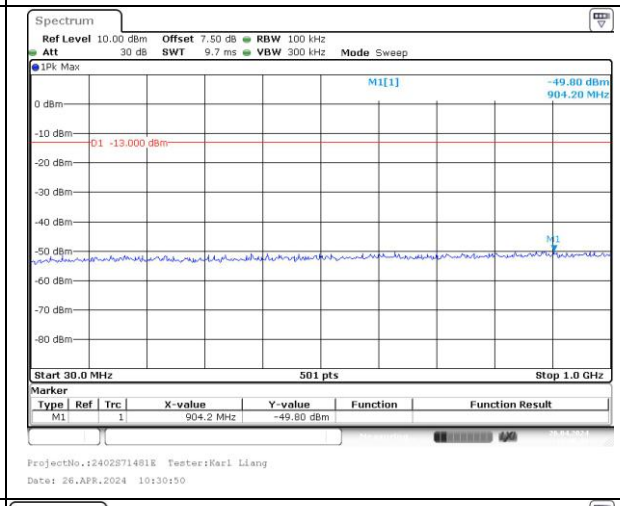
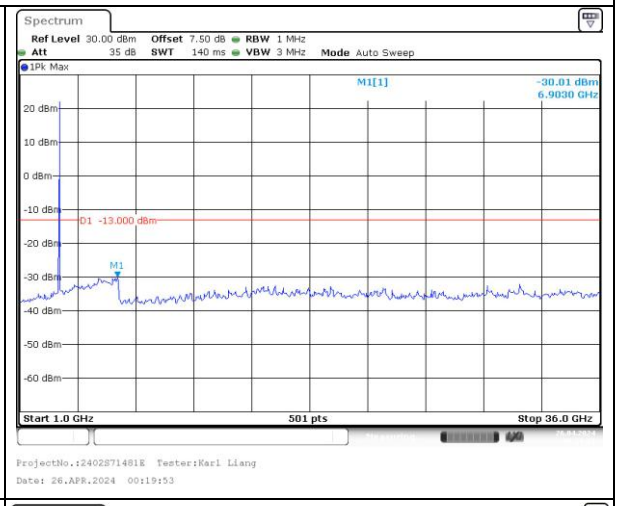
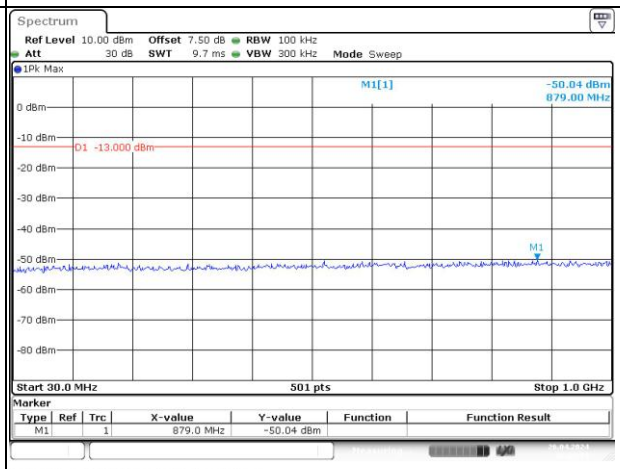
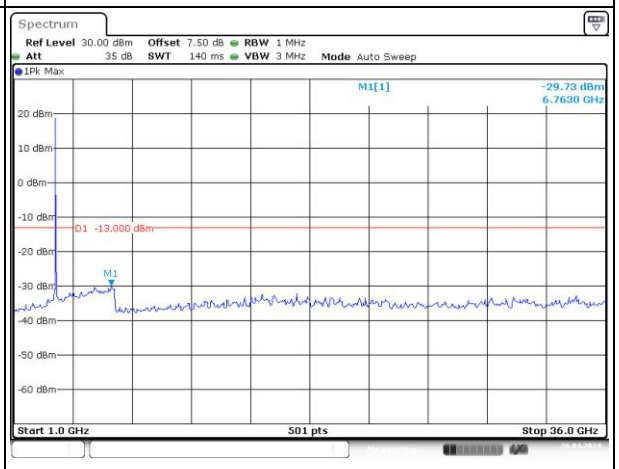
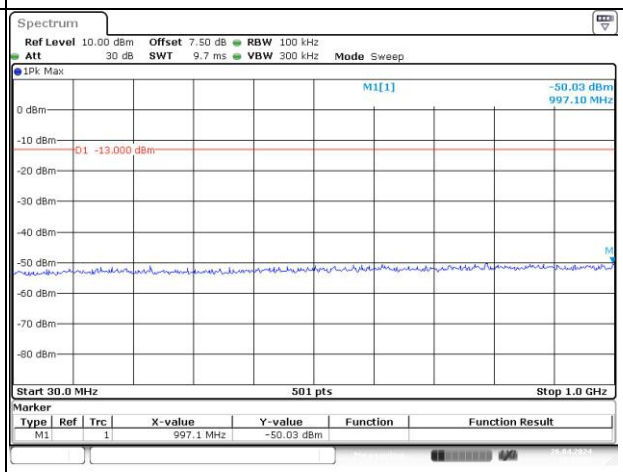
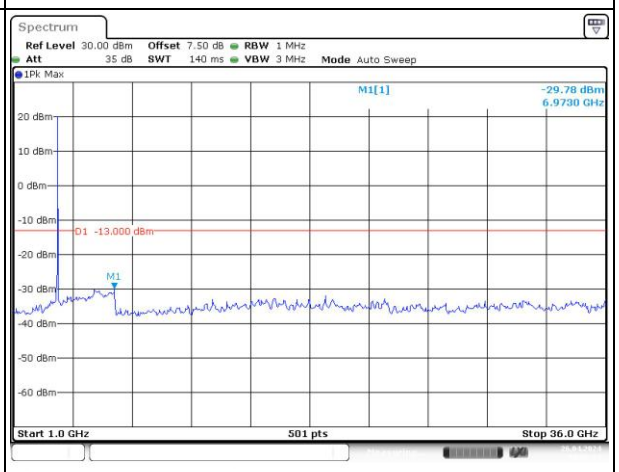
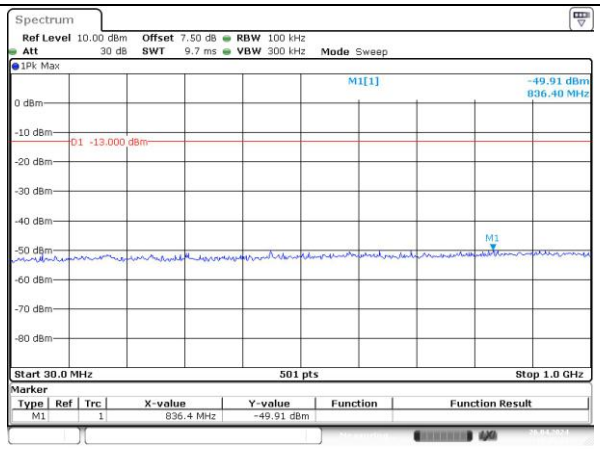
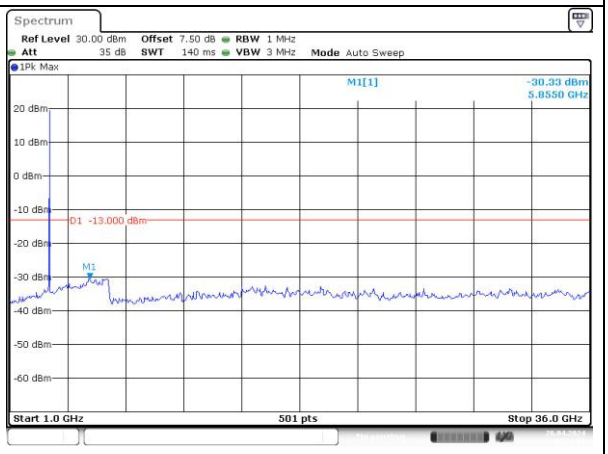
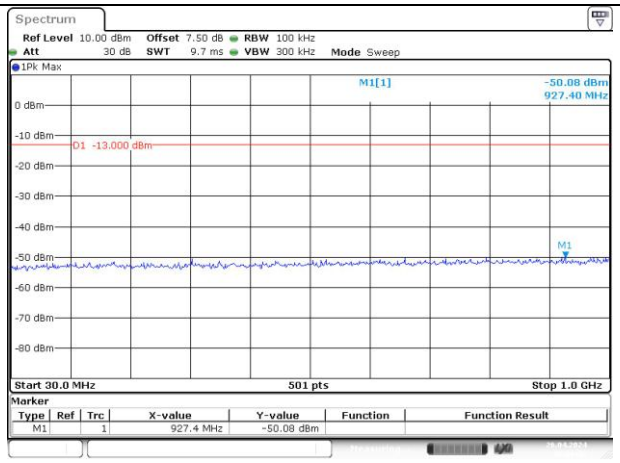
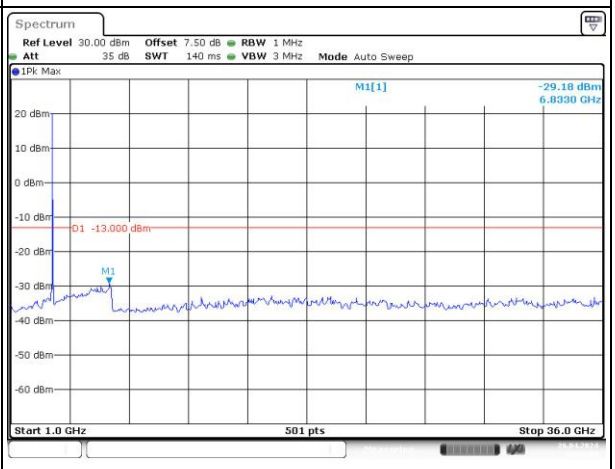
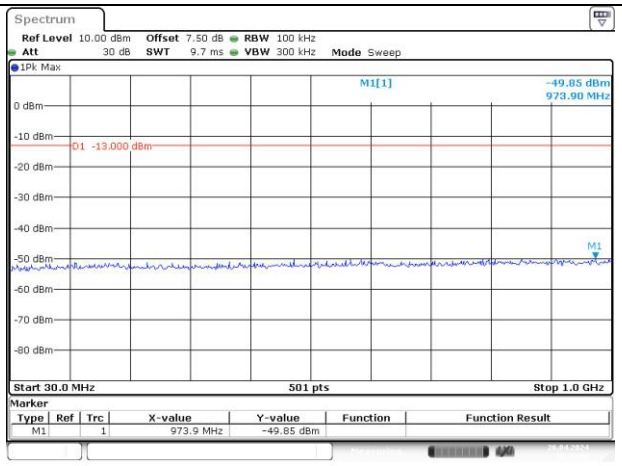
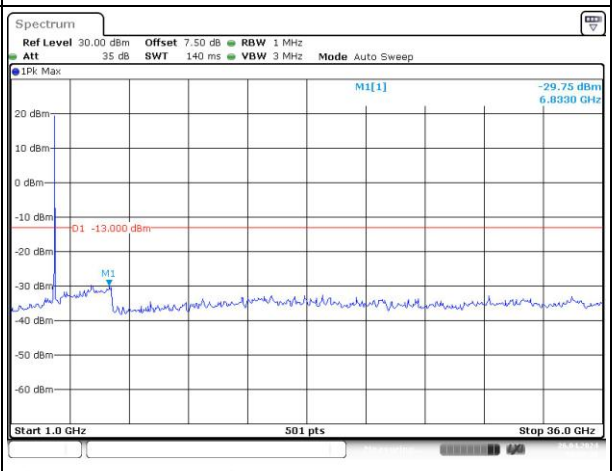
Occupied Bandwidth

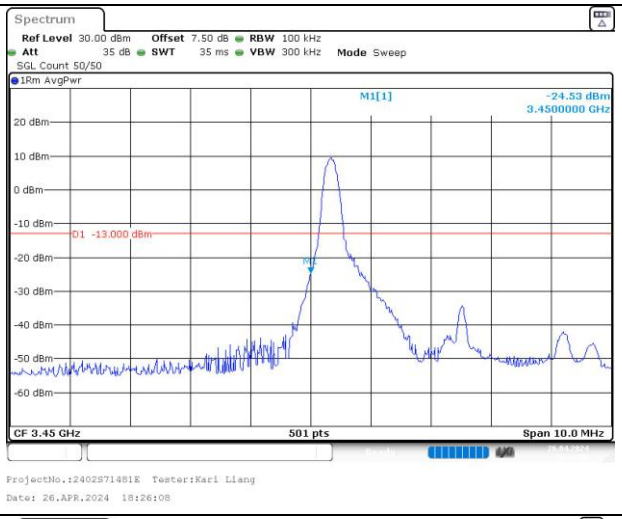
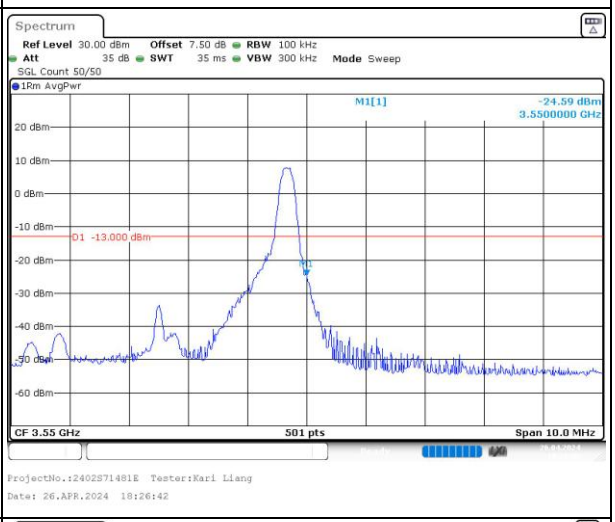
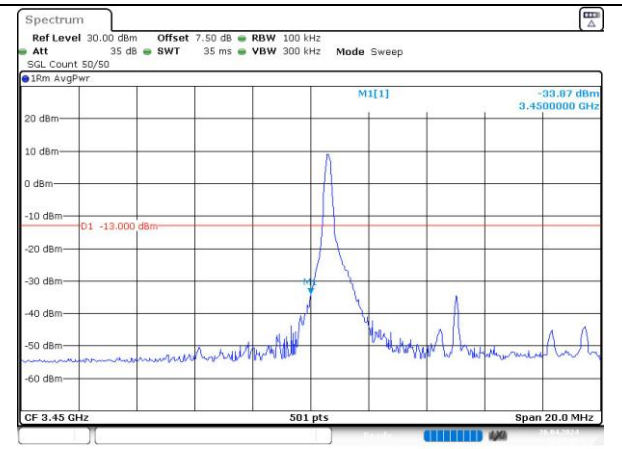
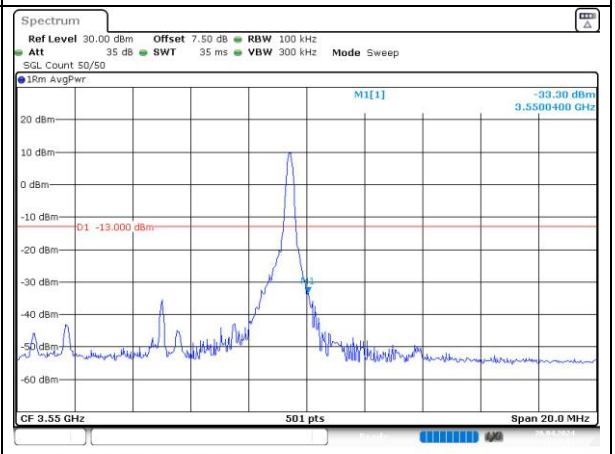
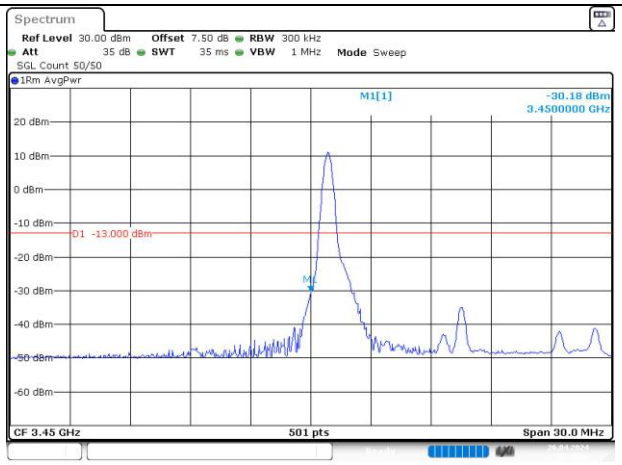
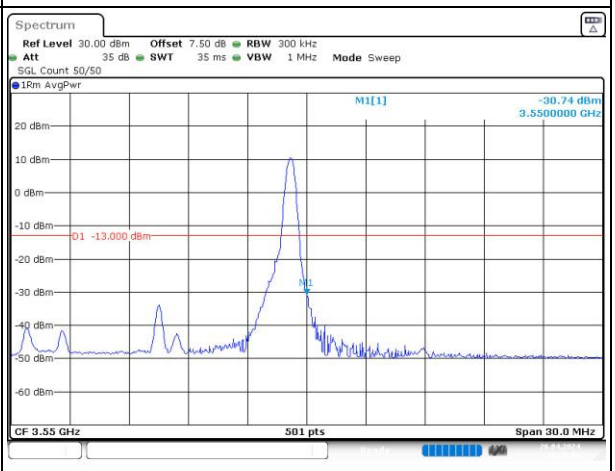
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

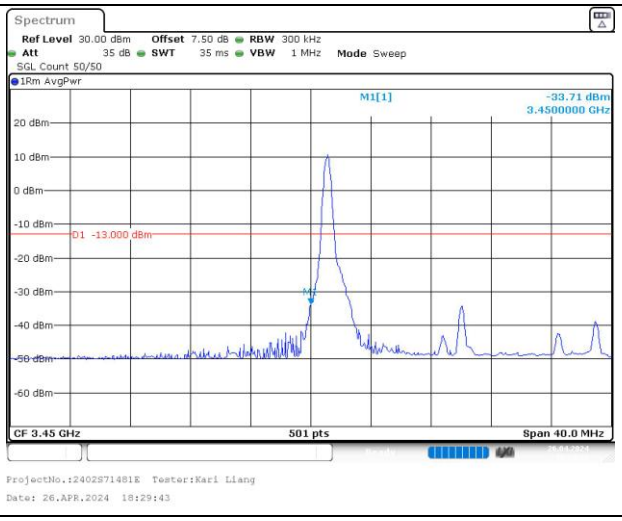
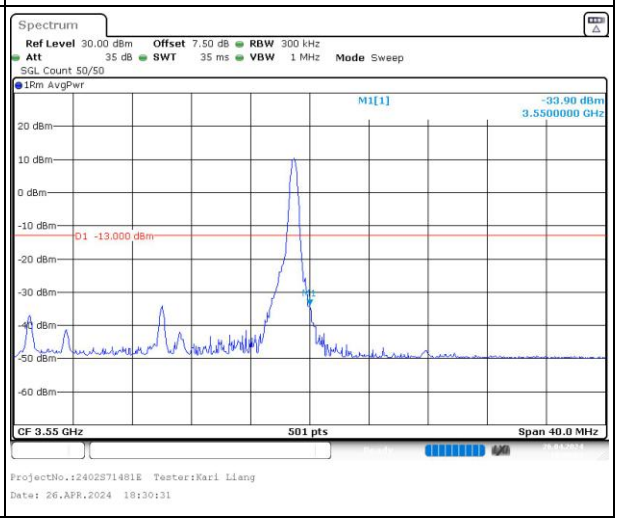
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

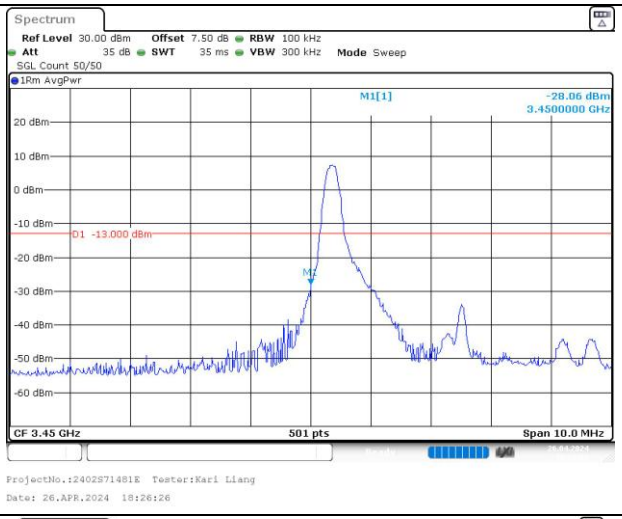
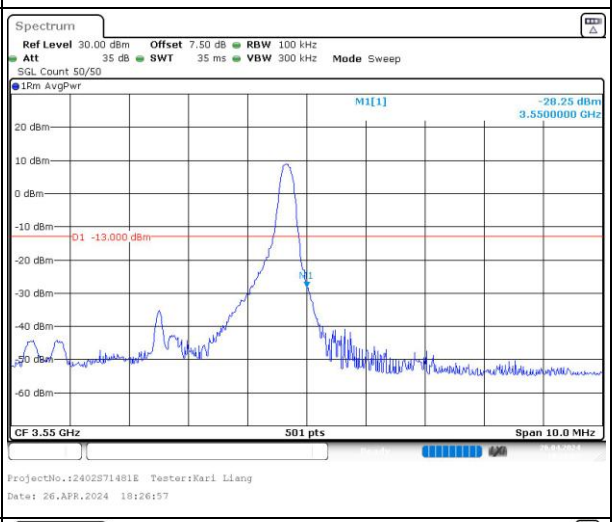
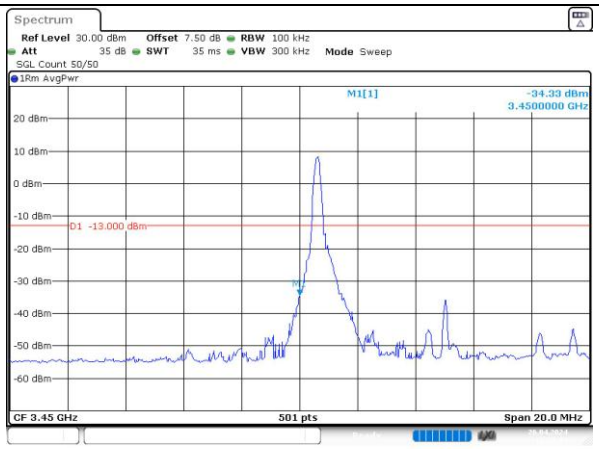
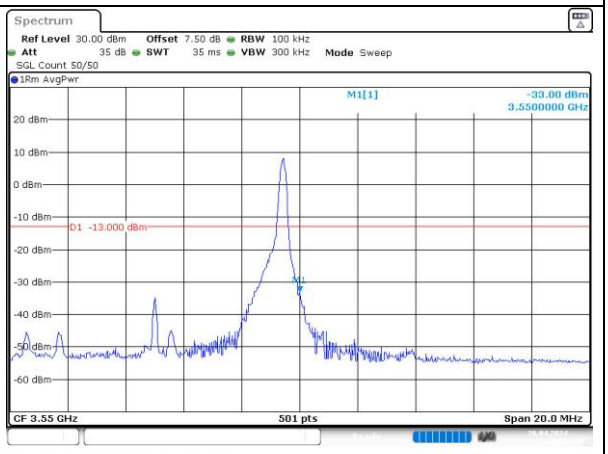
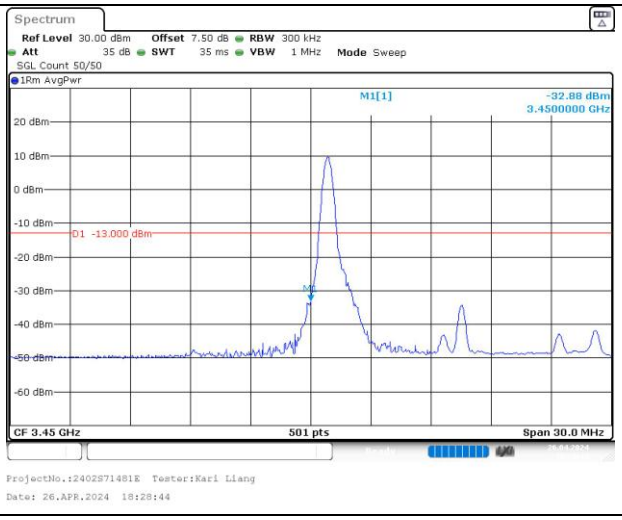
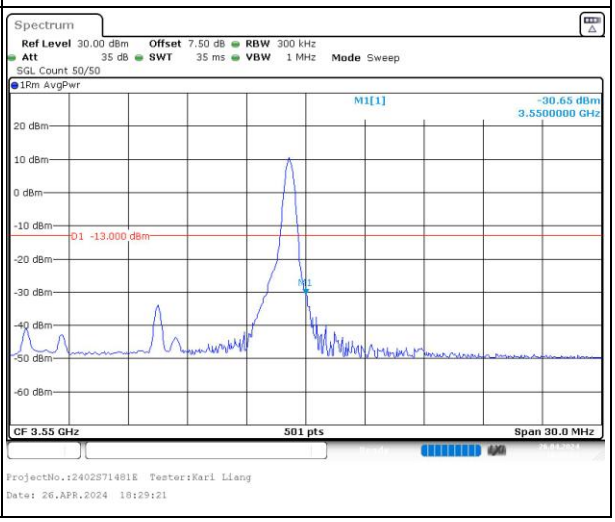
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

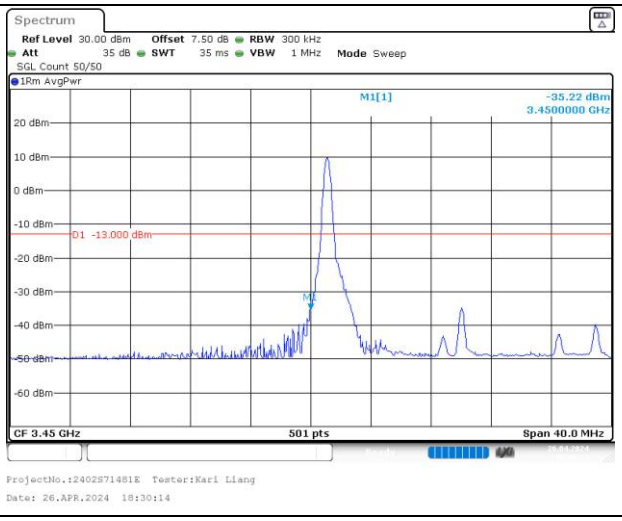
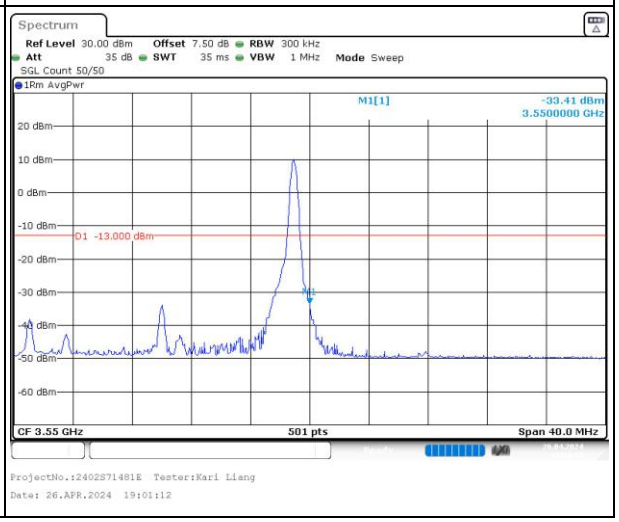
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

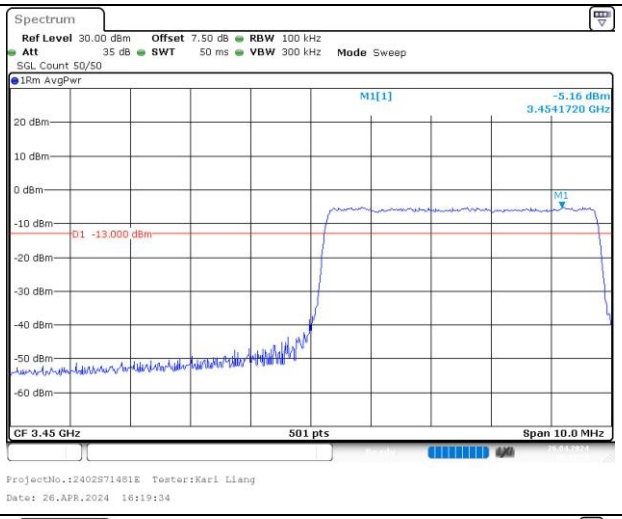
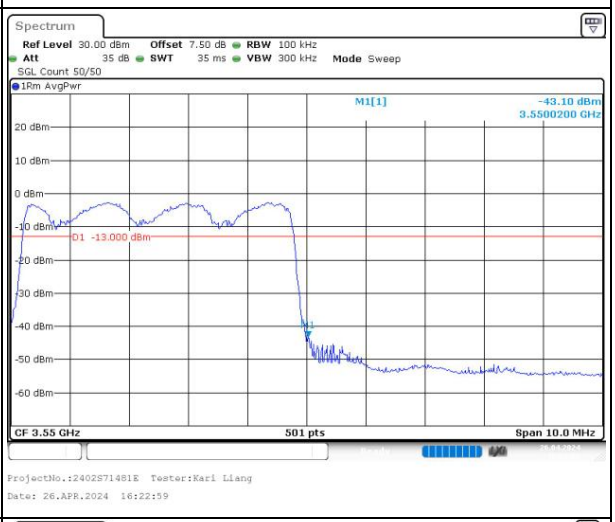
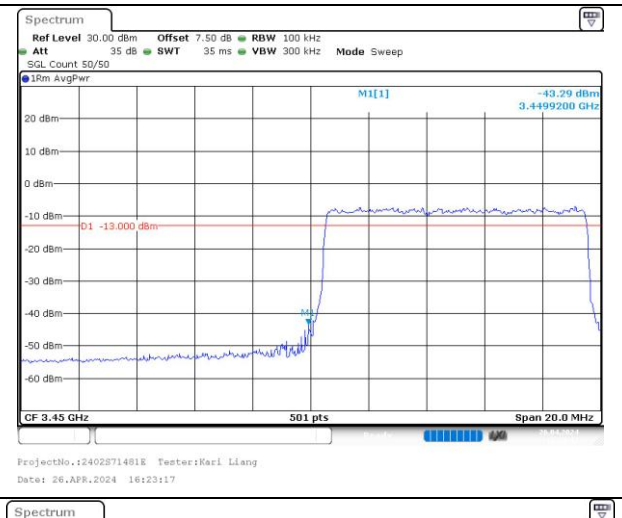
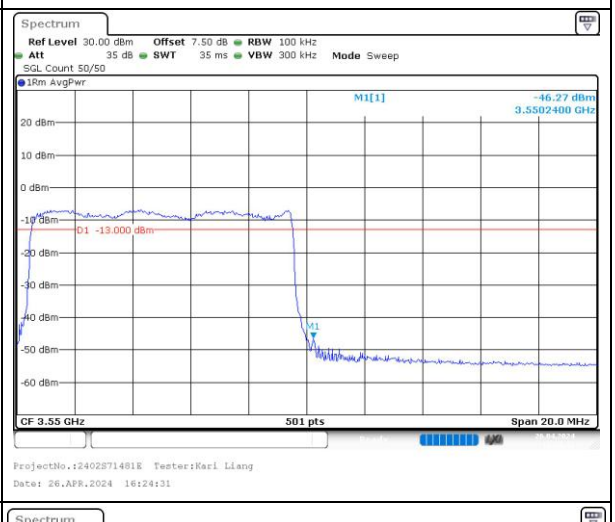
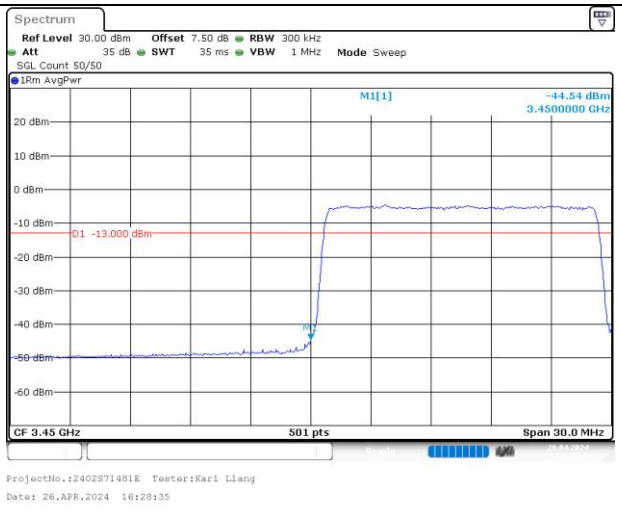
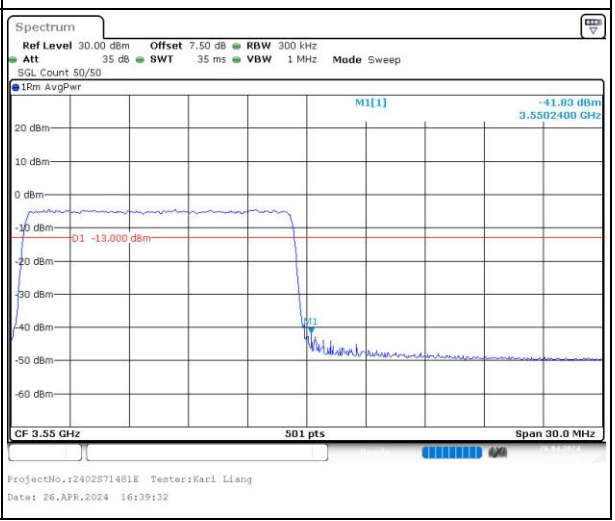
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

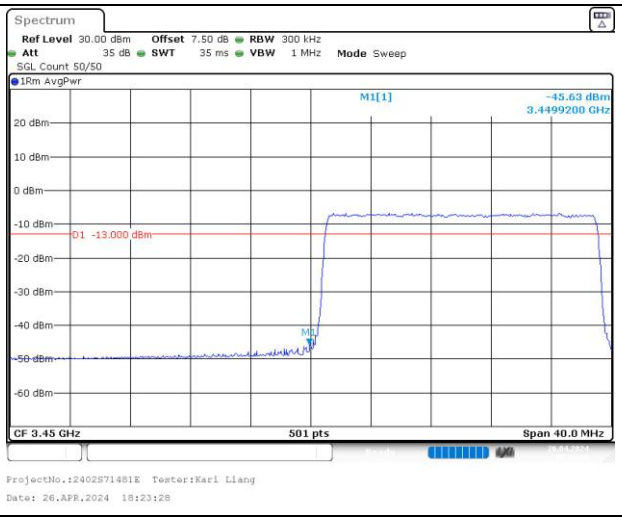
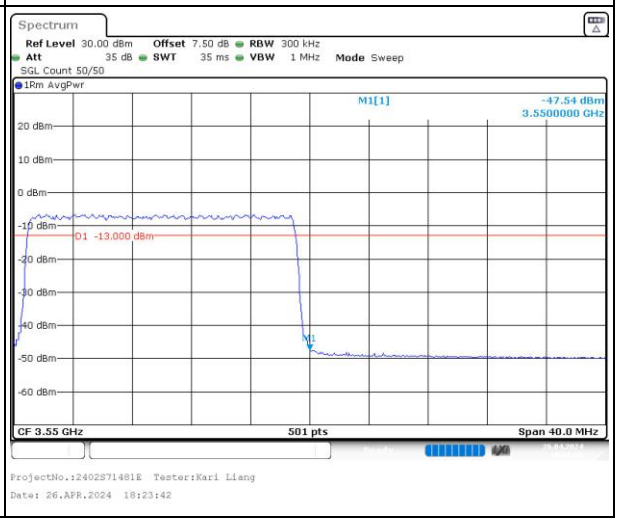
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 5MHz		
QPSK 10MHz		
QPSK 15MHz		

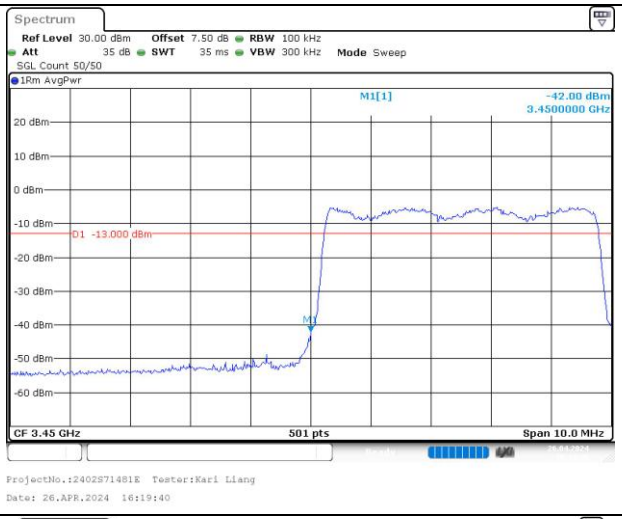
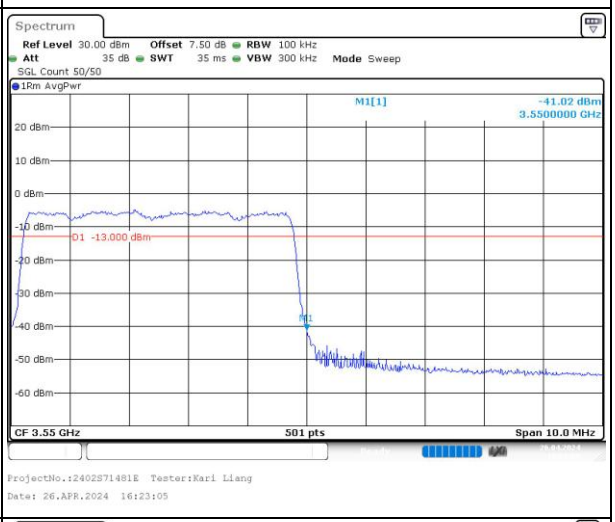
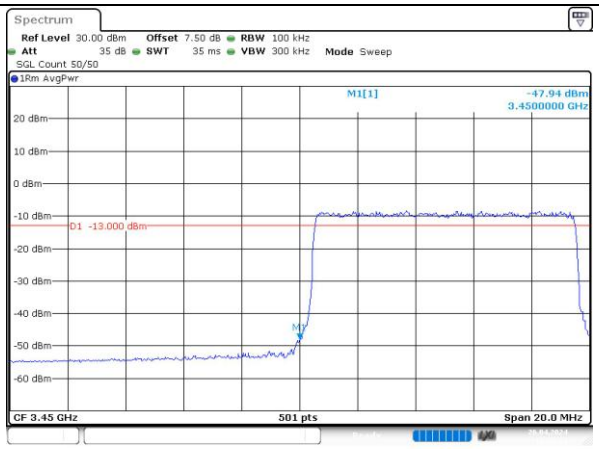
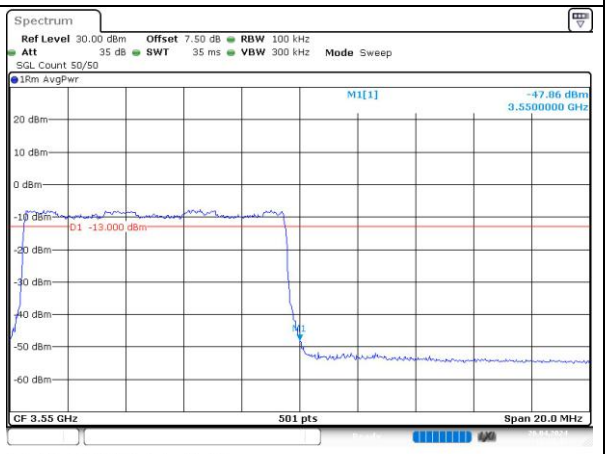
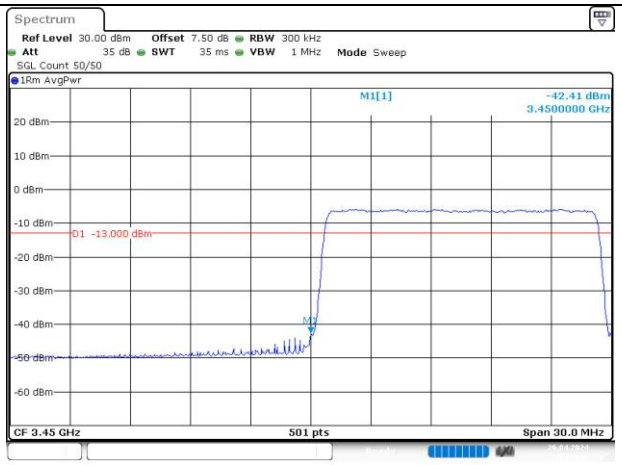
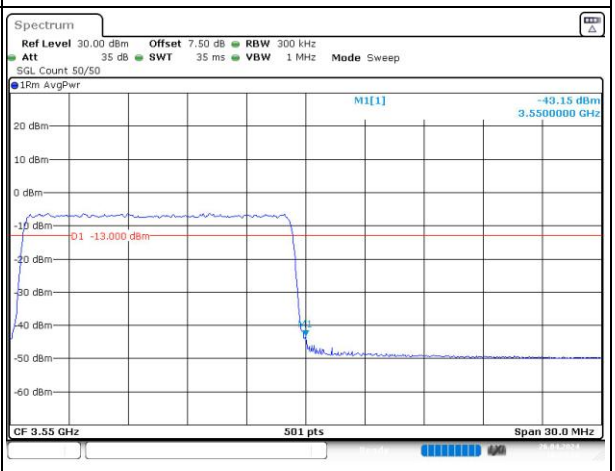
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 20MHz		

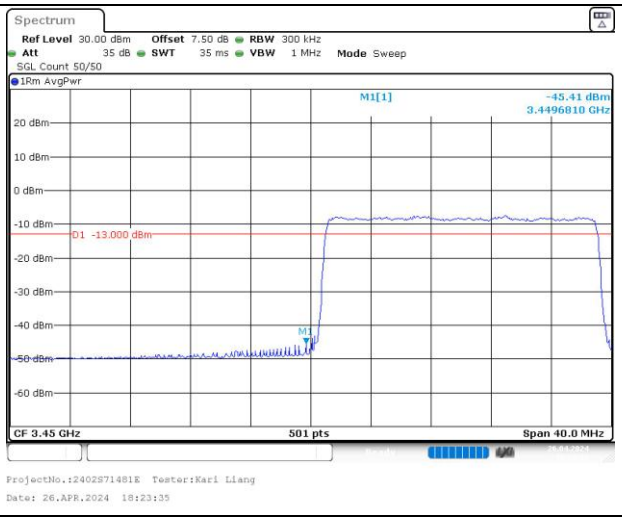
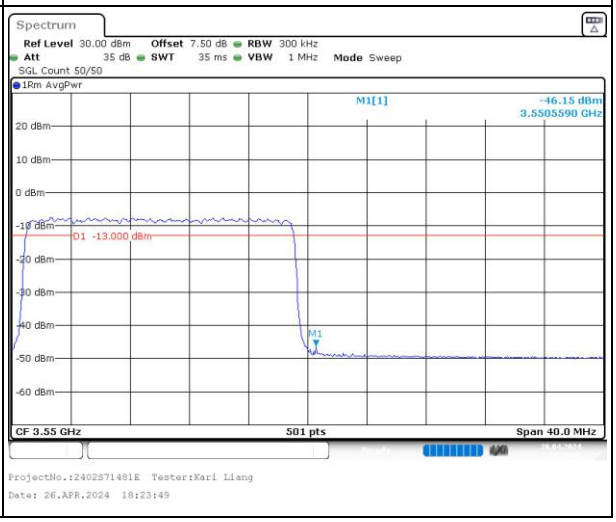
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
16QAM 5MHz		
16QAM 10MHz		
16QAM 15MHz		

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		

5.16 Antenna Port Test Data and Results for LTE Band 66

Serial Number:	OSEB119574-2	Test Date:	2024/5/5
Test Site:	RF	Test Mode:	Transmitting
Tester:	Karl Liang,Loge Long	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	24.5	Relative Humidity: (%)	64	ATM Pressure: (kPa)	100.3

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)
1.4MHz	1710.7	1745	1779.3
3MHz	1711.5	1745	1778.5
5MHz	1712.5	1745	1777.5
10MHz	1715	1745	1775
15MHz	1717.5	1745	1772.5
20MHz	1720	1745	1770

Test Data:

FCC §2.1046; § 27.50(d)(4)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	13.54	13.54	13.4	13.3	30
	RB1#3	13.55	13.57	13.38		
	RB1#5	13.55	13.54	13.39		
	RB3#0	13.57	13.59	13.42		
	RB3#3	13.53	13.6	13.4		
	RB6#0	12.51	12.57	12.38		
1.4MHz 16QAM	RB1#0	12.68	12.6	12.35	12.41	30
	RB1#3	12.67	12.58	12.42		
	RB1#5	12.71	12.57	12.38		
	RB3#0	12.53	12.64	12.55		
	RB3#3	12.52	12.65	12.59		
	RB6#0	11.63	11.47	11.4		
3MHz QPSK	RB1#0	13.54	13.56	13.41	13.29	30
	RB1#8	13.56	13.5	13.41		
	RB1#14	13.59	13.5	13.4		
	RB6#0	12.56	12.6	12.32		
	RB6#9	12.54	12.59	12.4		
	RB15#0	12.56	12.58	12.39		
3MHz 16QAM	RB1#0	12.53	13.2	12.54	12.9	30
	RB1#8	12.55	13.2	12.49		
	RB1#14	12.57	13.11	12.46		
	RB6#0	11.56	11.64	11.36		
	RB6#9	11.61	11.59	11.36		
	RB15#0	11.7	11.62	11.39		
5MHz QPSK	RB1#0	13.56	13.65	13.49	13.35	30
	RB1#13	13.59	13.59	13.45		
	RB1#24	13.63	13.61	13.45		
	RB15#0	12.56	12.56	12.45		
	RB15#10	12.61	12.53	12.41		
	RB25#0	12.58	12.56	12.43		
5MHz 16QAM	RB1#0	12.66	12.5	12.73	12.43	30
	RB1#13	12.66	12.51	12.7		
	RB1#24	12.72	12.48	12.68		
	RB15#0	11.68	11.61	11.39		
	RB15#10	11.61	11.56	11.37		
	RB25#0	11.68	11.61	11.4		

10MHz QPSK	RB1#0	13.58	13.6	13.46	13.37	30
	RB1#25	13.65	13.57	13.43		
	RB1#49	13.67	13.54	13.38		
	RB25#0	12.56	12.61	12.44		
	RB25#25	12.68	12.61	12.44		
	RB50#0	12.63	12.61	12.49		
10MHz 16QAM	RB1#0	12.55	13.18	12.58	12.88	30
	RB1#25	12.63	13.17	12.58		
	RB1#49	12.64	13.1	12.49		
	RB25#0	11.74	11.66	11.48		
	RB25#25	11.75	11.64	11.48		
	RB50#0	11.62	11.63	11.46		
15MHz QPSK	RB1#0	13.5	13.66	13.49	13.36	30
	RB1#38	13.57	13.65	13.47		
	RB1#74	13.59	13.56	13.39		
	RB36#0	12.61	12.66	12.47		
	RB36#39	12.67	12.6	12.44		
	RB75#0	12.67	12.63	12.51		
15MHz 16QAM	RB1#0	13.18	12.83	12.95	12.99	30
	RB1#38	13.29	12.76	12.91		
	RB1#74	13.27	12.65	12.81		
	RB36#0	11.64	11.7	11.49		
	RB36#39	11.73	11.63	11.45		
	RB75#0	11.64	11.66	11.48		
20MHz QPSK	RB1#0	13.61	13.72	13.56	13.43	30
	RB1#50	13.73	13.71	13.55		
	RB1#99	13.65	13.61	13.46		
	RB50#0	12.69	12.72	12.57		
	RB50#50	12.73	12.63	12.48		
	RB100#0	12.73	12.68	12.53		
20MHz 16QAM	RB1#0	13.15	12.97	12.74	12.99	30
	RB1#50	13.29	12.97	12.78		
	RB1#99	13.2	12.84	12.63		
	RB50#0	11.68	11.67	11.59		
	RB50#50	11.72	11.6	11.48		
	RB100#0	11.72	11.66	11.52		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						
					Result:	**Pass**

Peak-to-average Ratio(PAR)					
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	5.88	6.09	6.17	13
	RB100#0	4.32	4.35	4.26	13
20MHz 16QAM	RB1#0	6.26	6.67	7.28	13
	RB100#0	5.91	5.88	5.83	13
				Result:	**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.102	1.108	1.114	1.332	1.302	1.644
1.4MHz 16QAM	1.096	1.096	1.114	1.296	1.302	1.458
3MHz QPSK	2.695	2.695	2.695	2.916	2.892	3.264
3MHz 16QAM	2.695	2.683	2.683	2.916	3.048	3.18
5MHz QPSK	4.531	4.511	4.491	4.98	4.98	4.96
5MHz 16QAM	4.491	4.531	4.531	4.98	5	5
10MHz QPSK	8.982	8.942	9.022	9.72	10.4	10.32
10MHz 16QAM	8.942	8.942	9.022	9.56	9.64	11.08
15MHz QPSK	13.473	13.533	13.772	14.82	19.5	21.6
15MHz 16QAM	13.473	13.713	13.772	15.66	20.88	21.06
20MHz QPSK	17.964	17.884	18.204	19.28	18.8	25.6
20MHz 16QAM	17.964	17.964	18.044	19.36	19.44	24.96
Note: The test plots please refer to the Plots of Occupied Bandwidth						

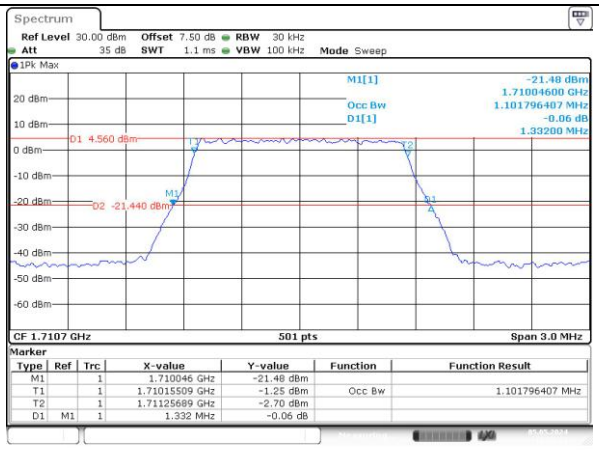
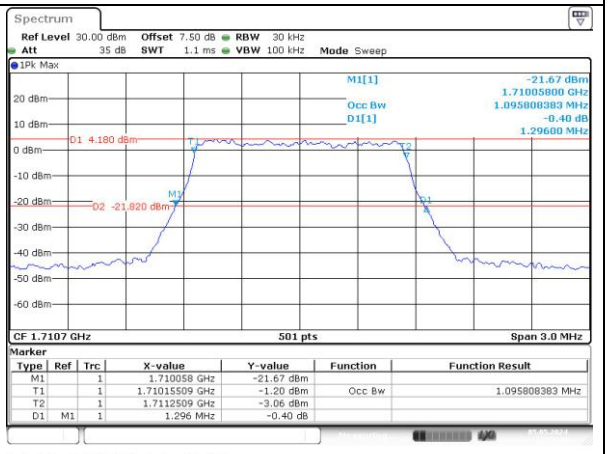
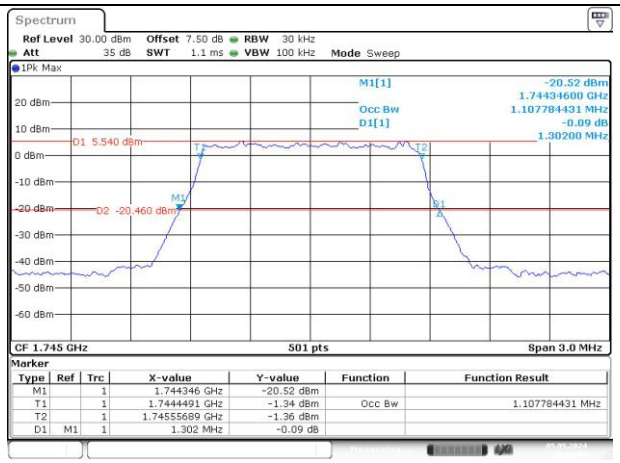
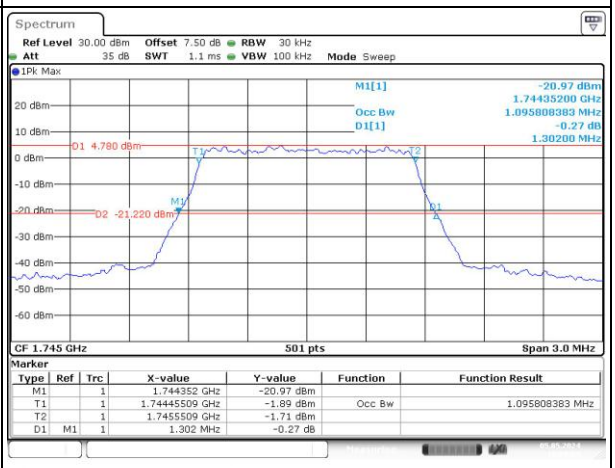
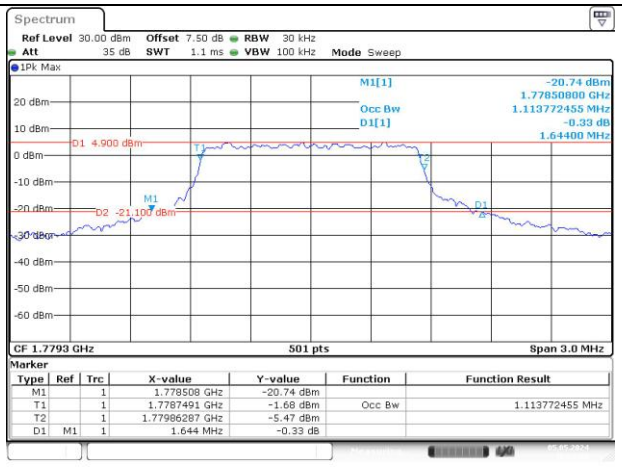
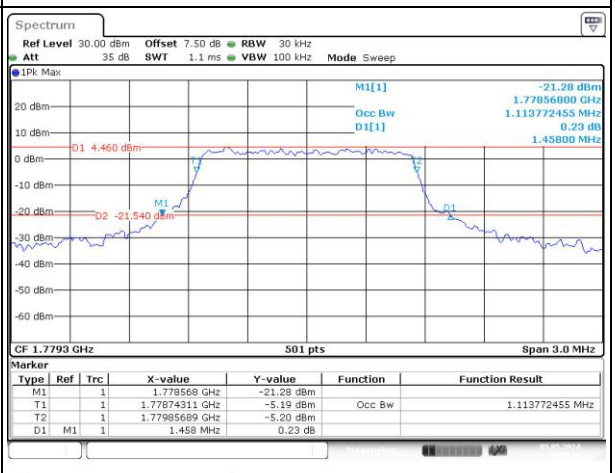
FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

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.**

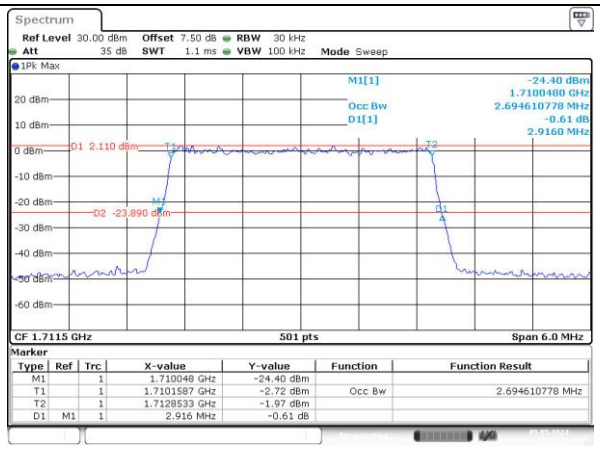
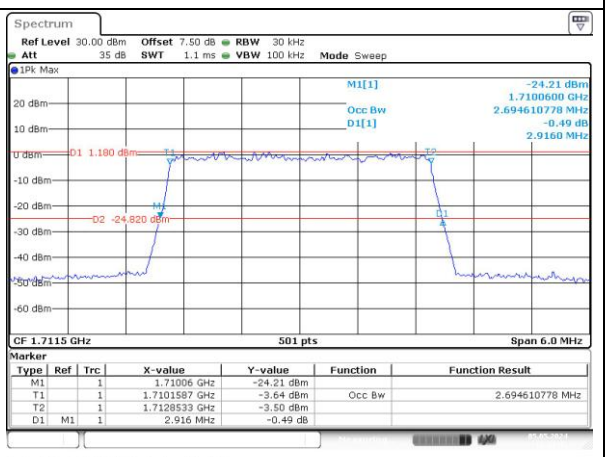
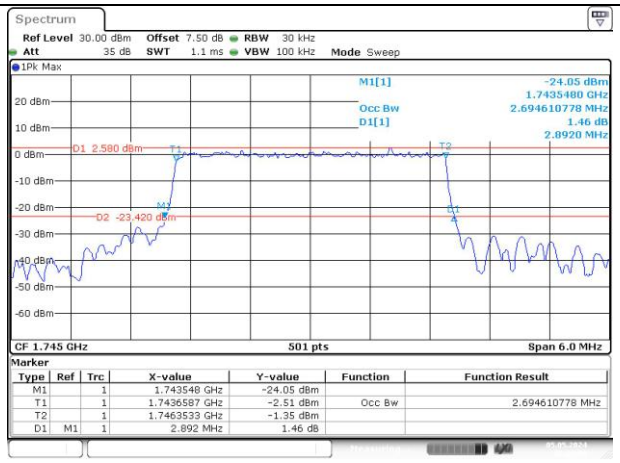
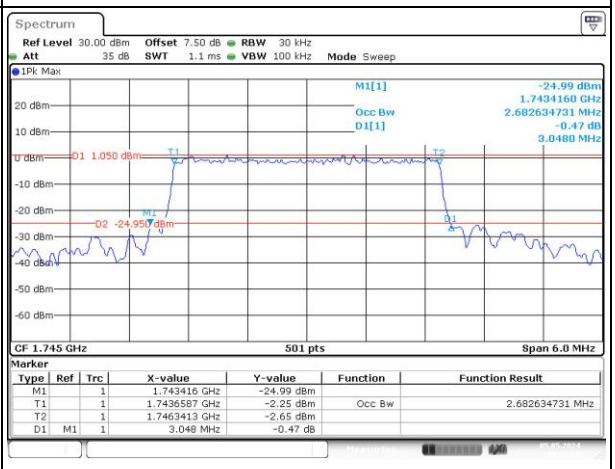
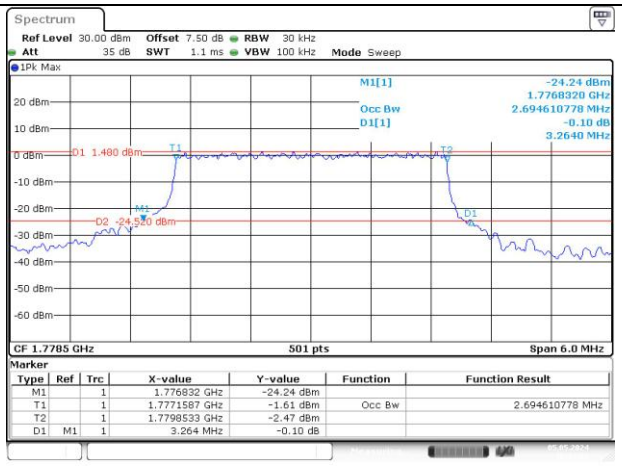
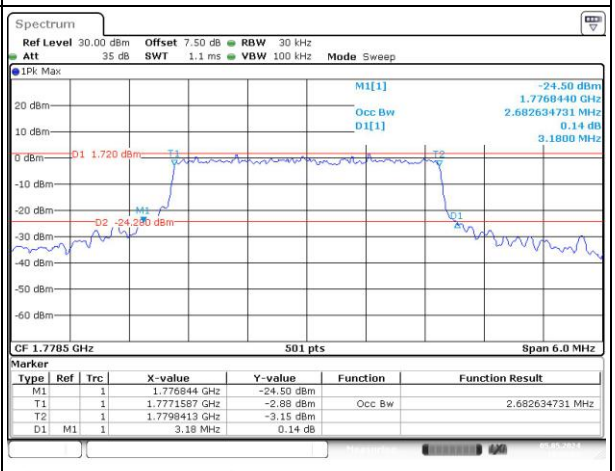
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.91	1711.037	1710.00	1779.099	1780
	-20	3.91	1711.049	1710.00	1779.096	1780
	-10	3.91	1711.046	1710.00	1779.078	1780
	0	3.91	1711.046	1710.00	1779.093	1780
	10	3.91	1711.055	1710.00	1779.081	1780
	20	3.91	1711.058	1710.00	1779.102	1780
	30	3.91	1711.079	1710.00	1779.117	1780
	40	3.91	1711.067	1710.00	1779.108	1780
	50	3.91	1711.061	1710.00	1779.123	1780
Frequency Stability vs. Voltage	20	3.45	1711.061	1710.00	1779.114	1780
	20	4.5	1711.061	1710.00	1779.120	1780
					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	1711.037	1710.00	1779.096	1780
	-20	3.91	1711.055	1710.00	1779.081	1780
	-10	3.91	1711.031	1710.00	1779.081	1780
	0	3.91	1711.055	1710.00	1779.093	1780
	10	3.91	1711.052	1710.00	1779.087	1780
	20	3.91	1711.058	1710.00	1779.102	1780
	30	3.91	1711.067	1710.00	1779.123	1780
	40	3.91	1711.085	1710.00	1779.108	1780
	50	3.91	1711.076	1710.00	1779.108	1780
Frequency Stability vs. Voltage	20	3.45	1711.070	1710.00	1779.108	1780
	20	4.5	1711.073	1710.00	1779.108	1780
					Result:	**Pass**

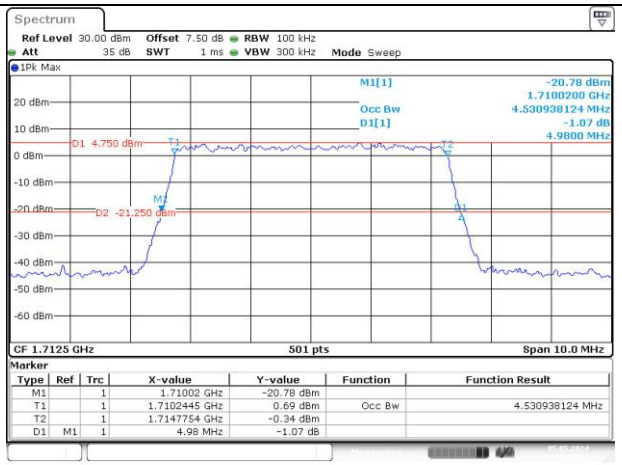
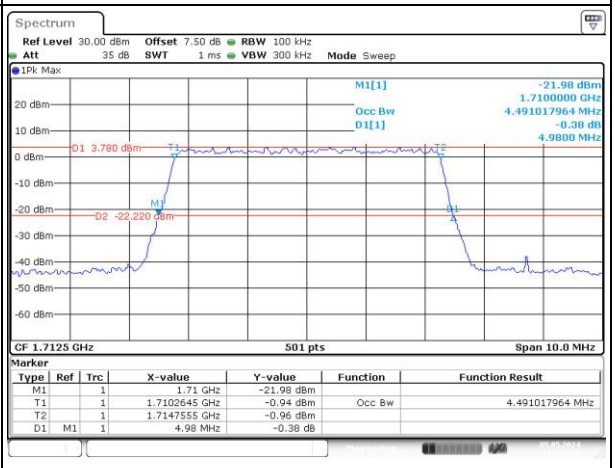
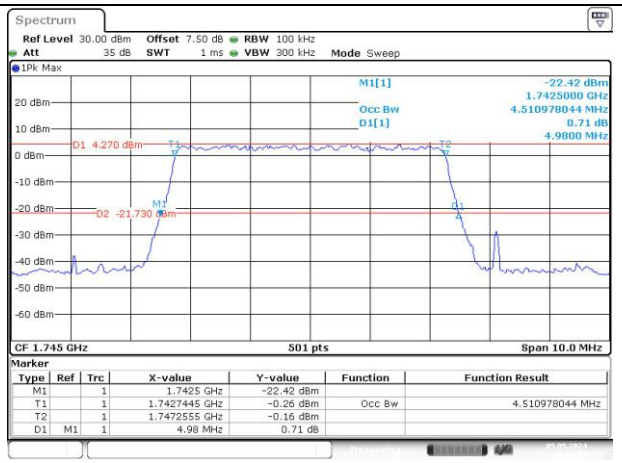
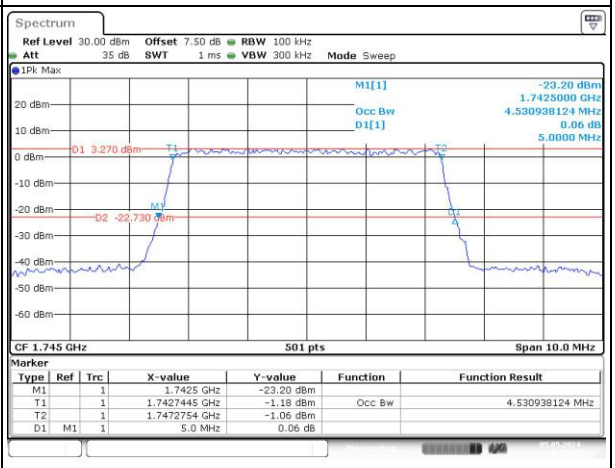
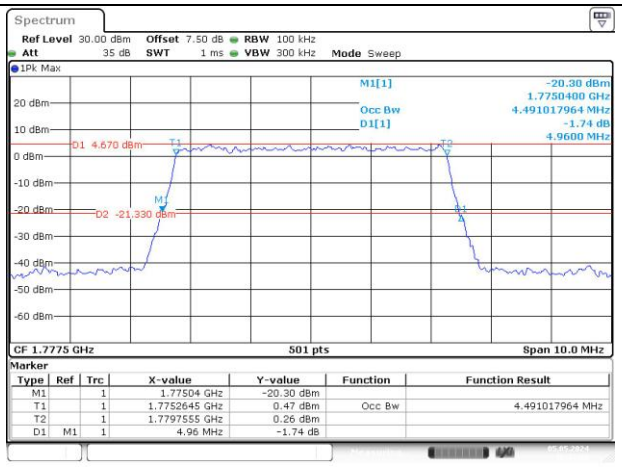
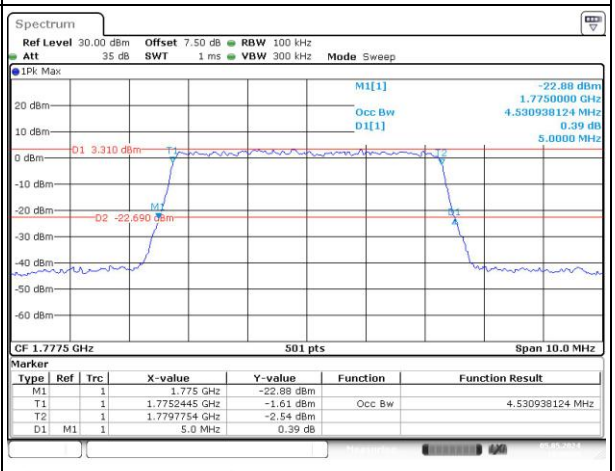
Test Plots:

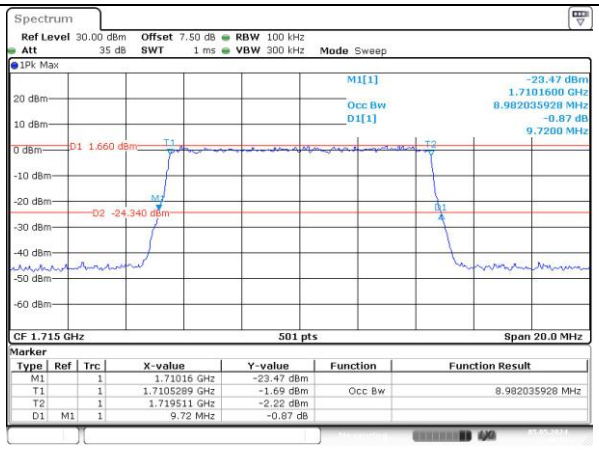
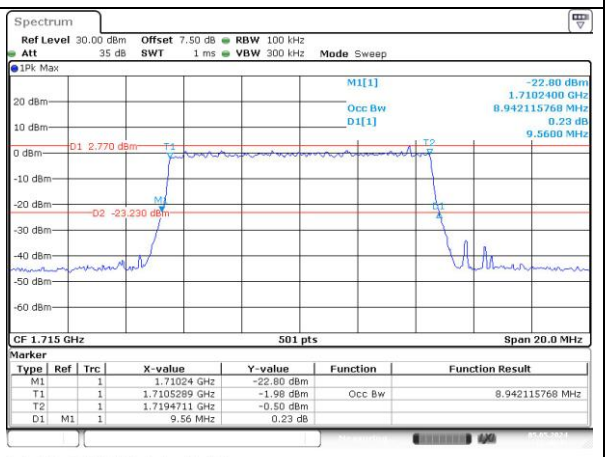
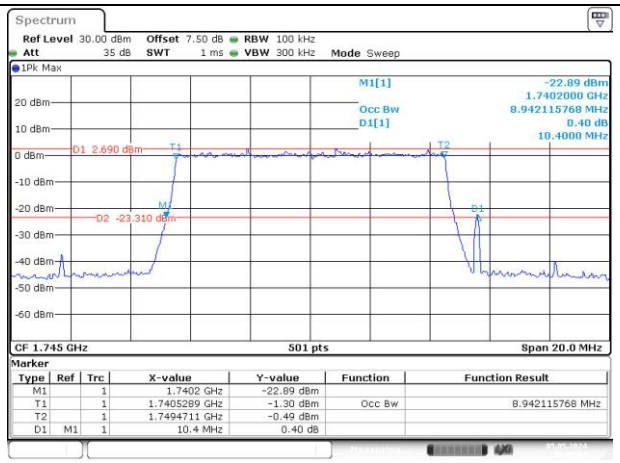
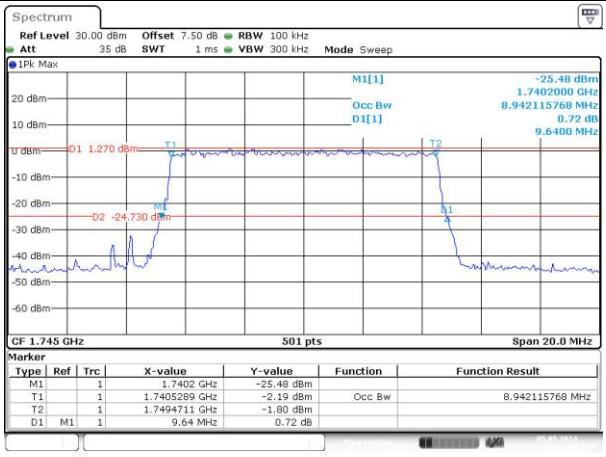
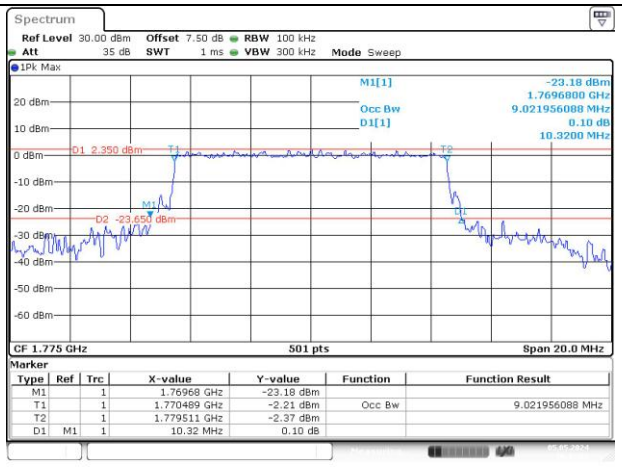
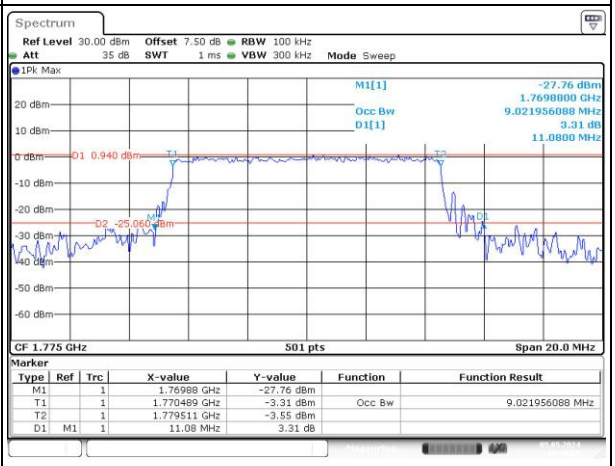
Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

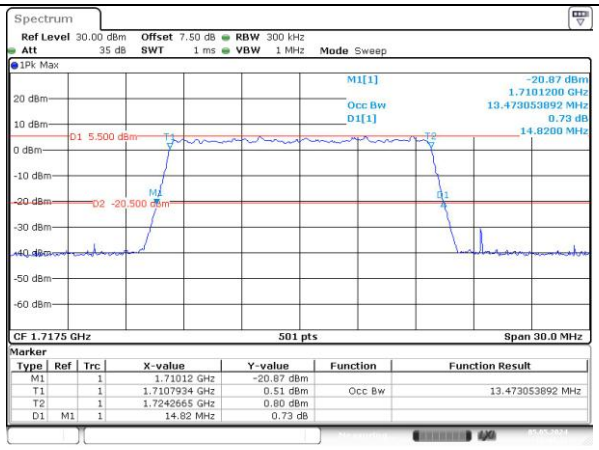
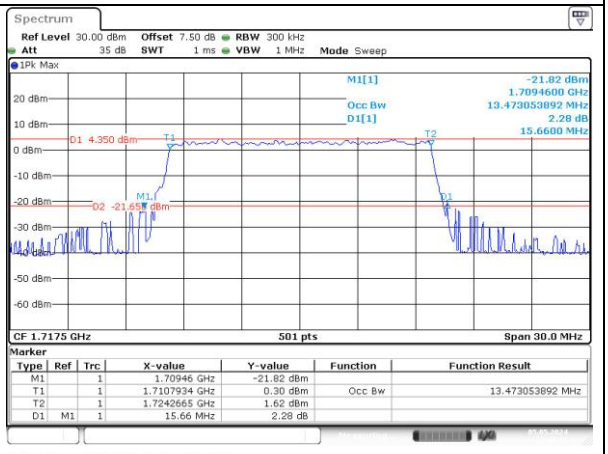
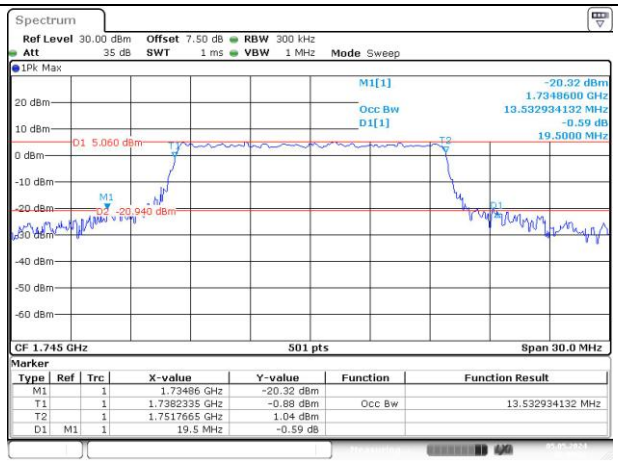
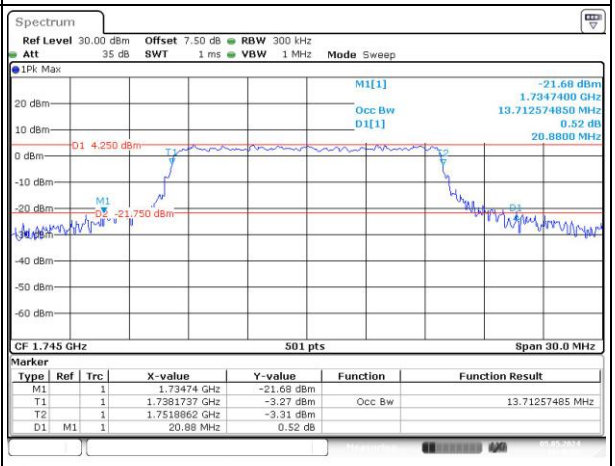
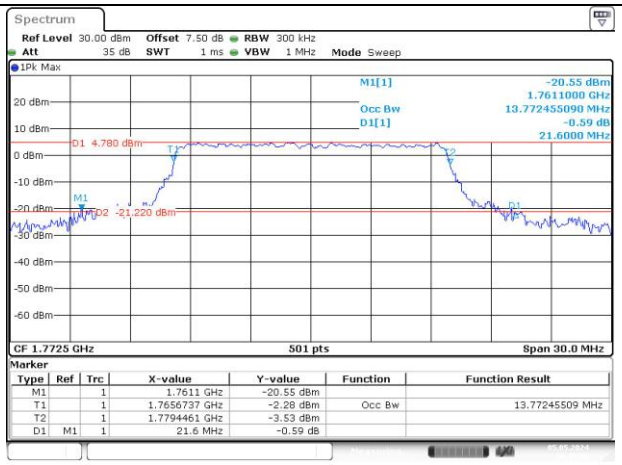
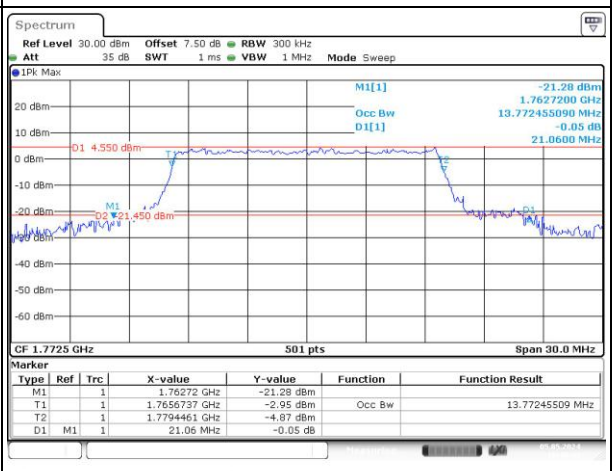
Occupied Bandwidth

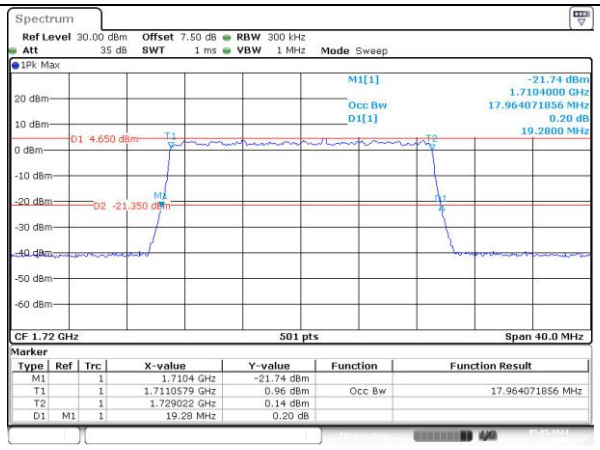
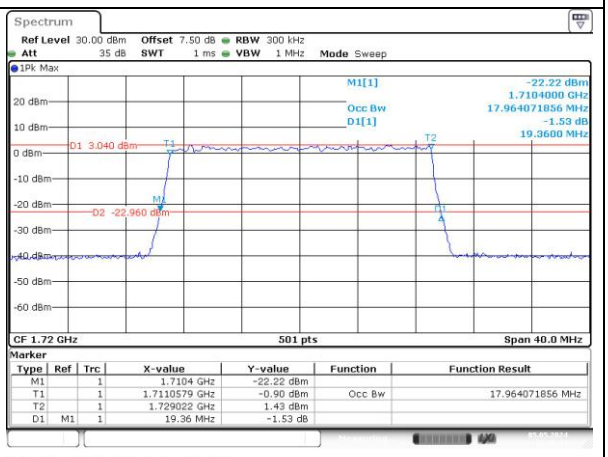
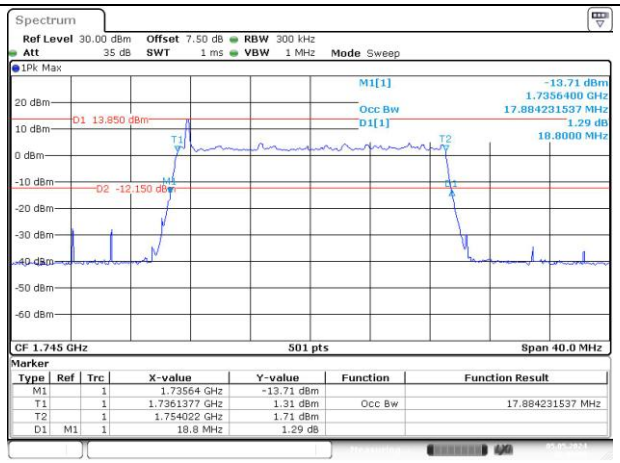
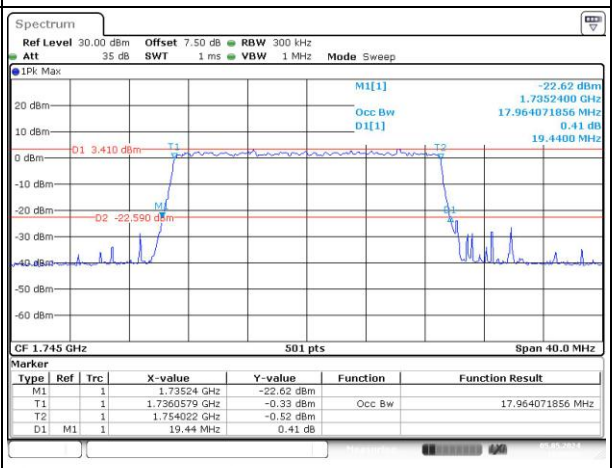
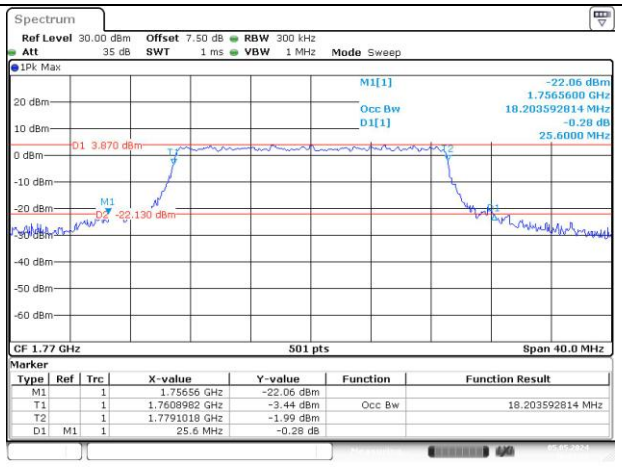
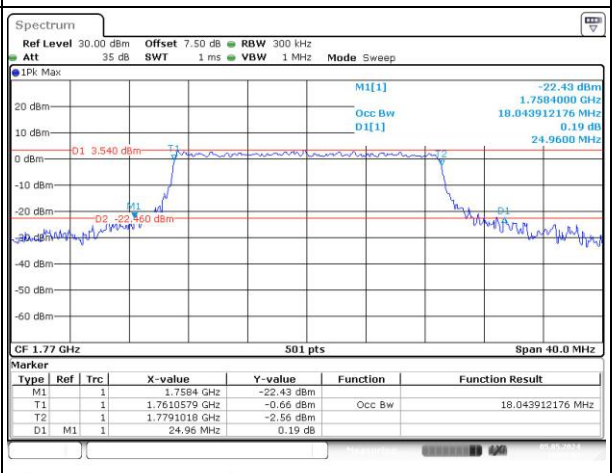
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

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