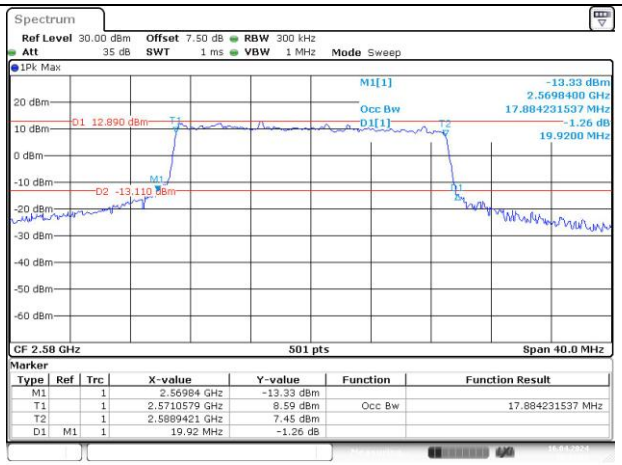
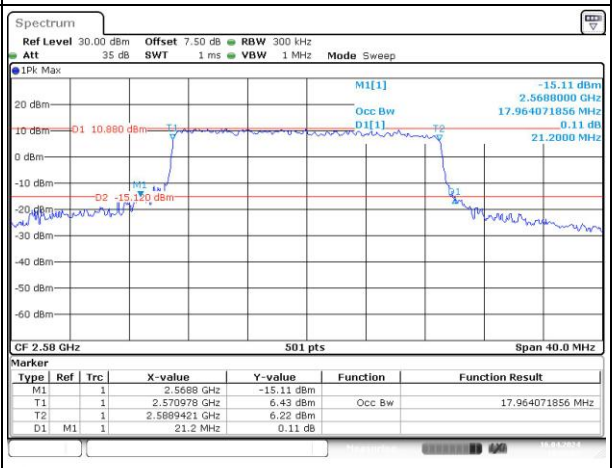
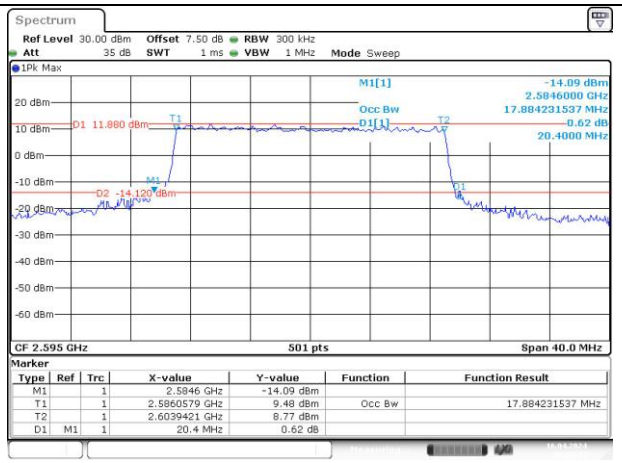
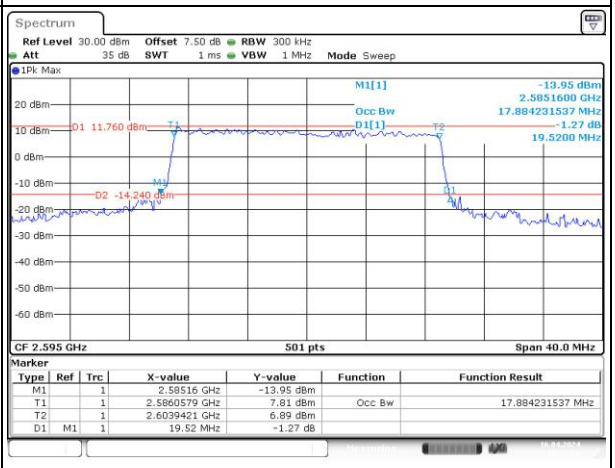
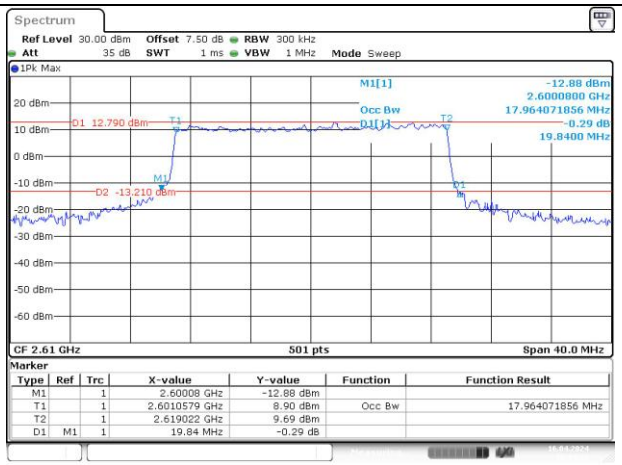
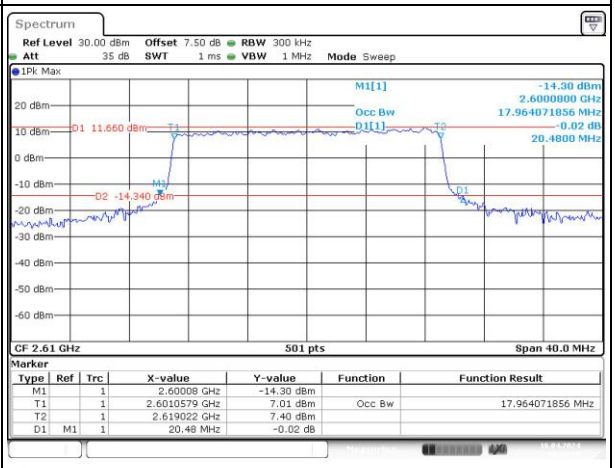
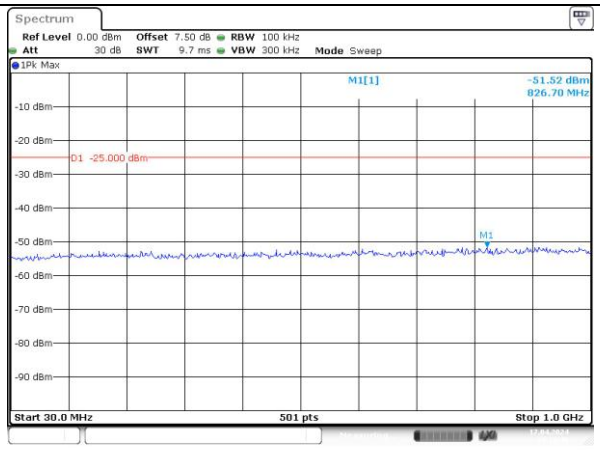
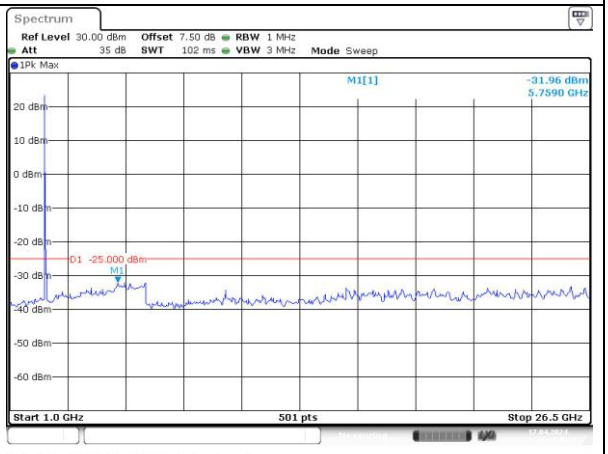
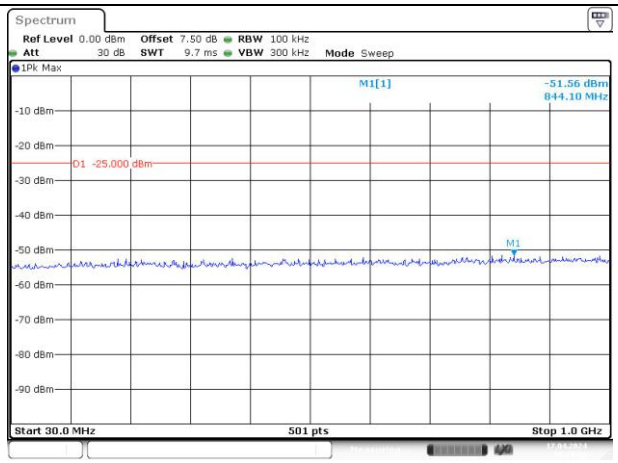
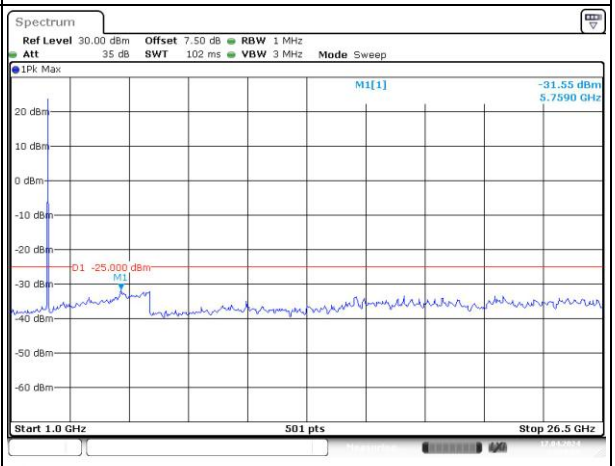
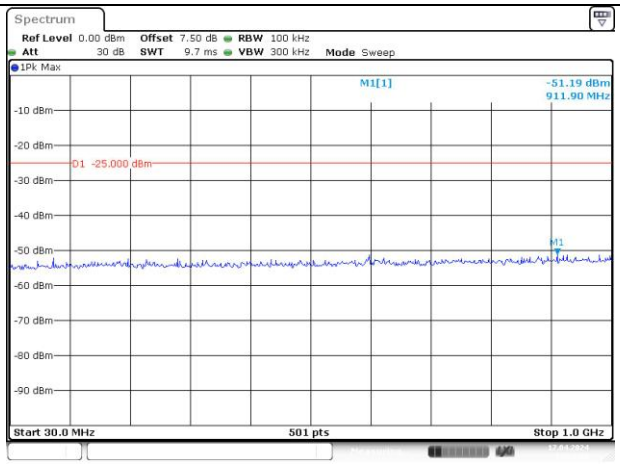
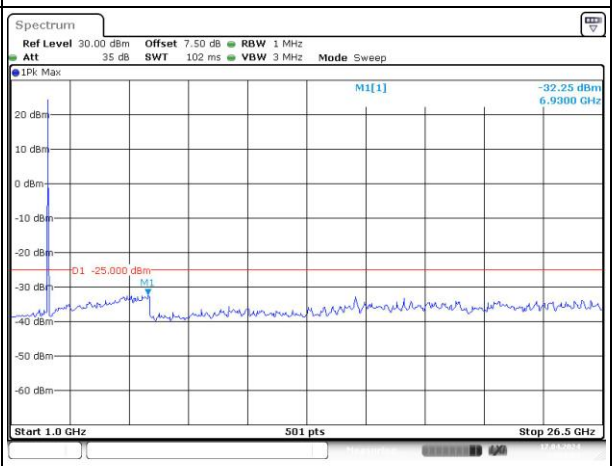
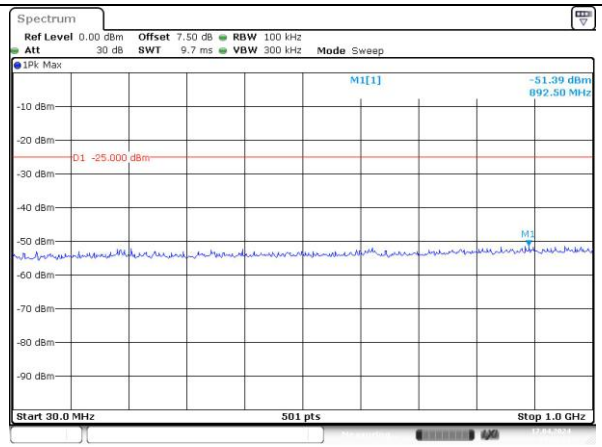
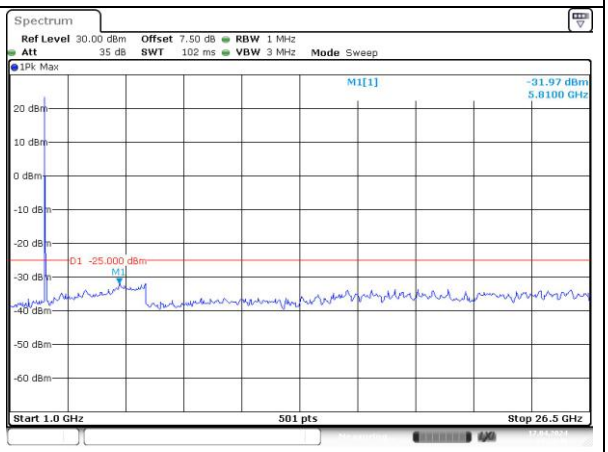
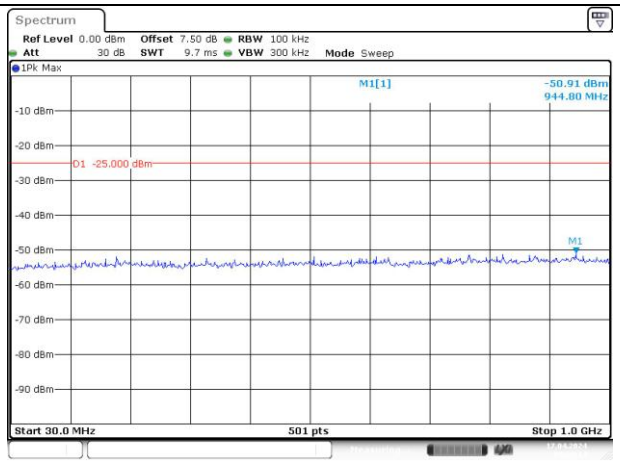
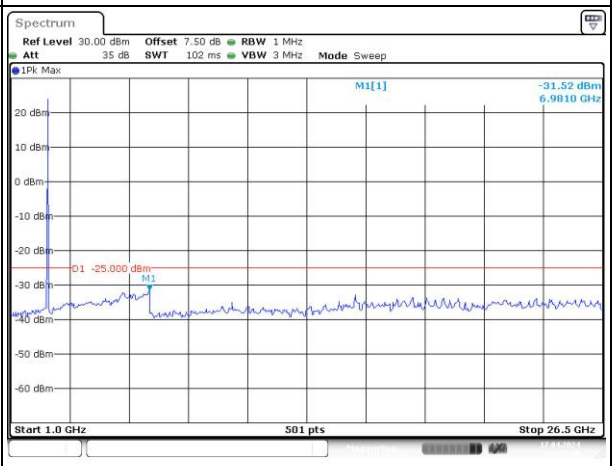
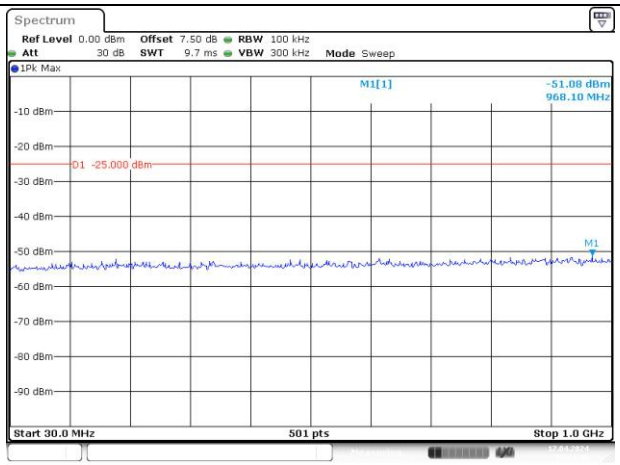
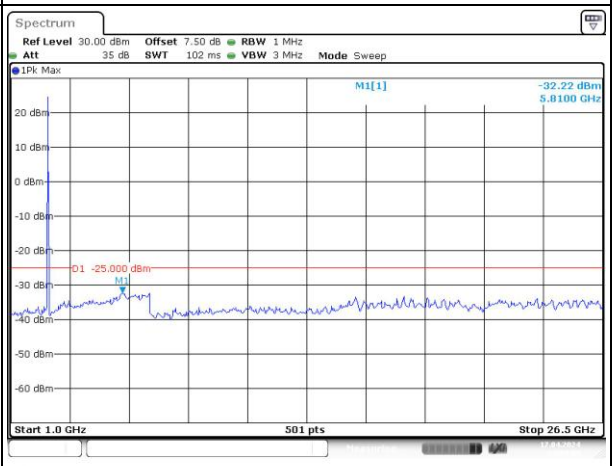
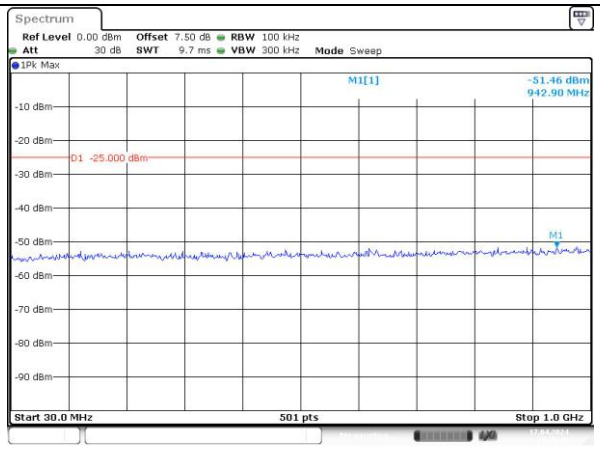
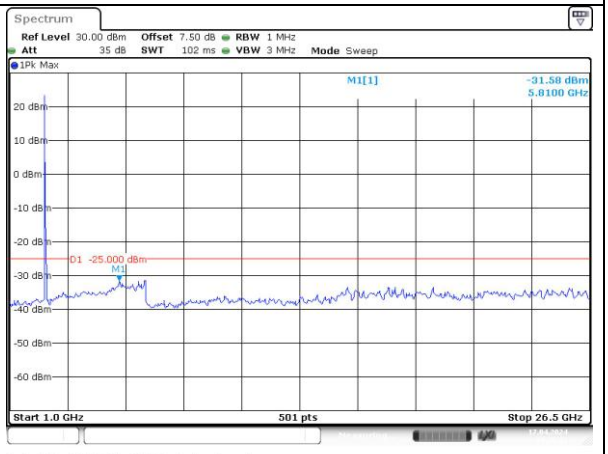
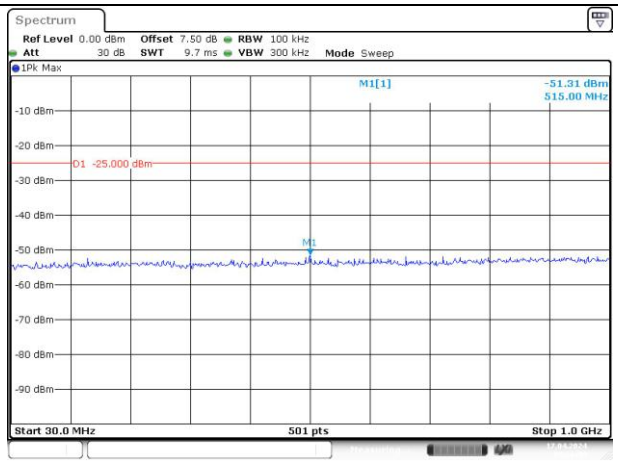
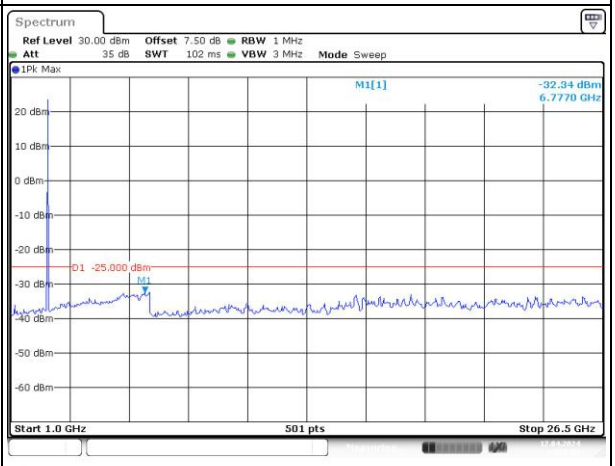
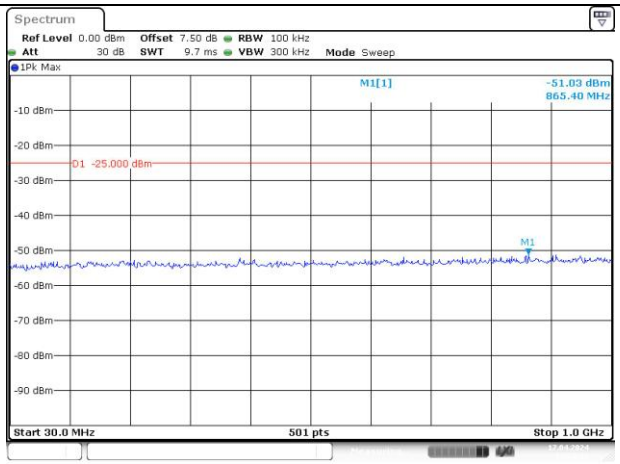
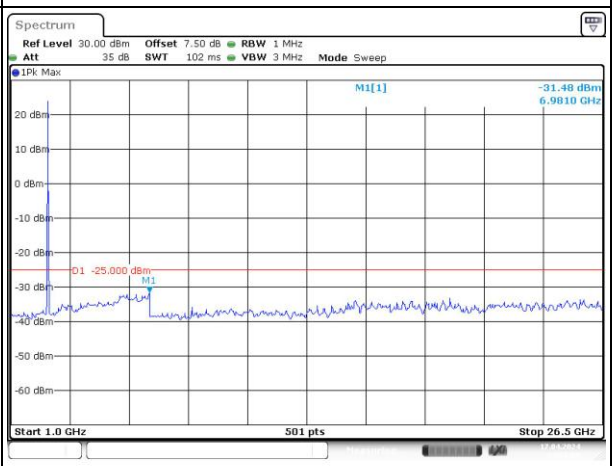
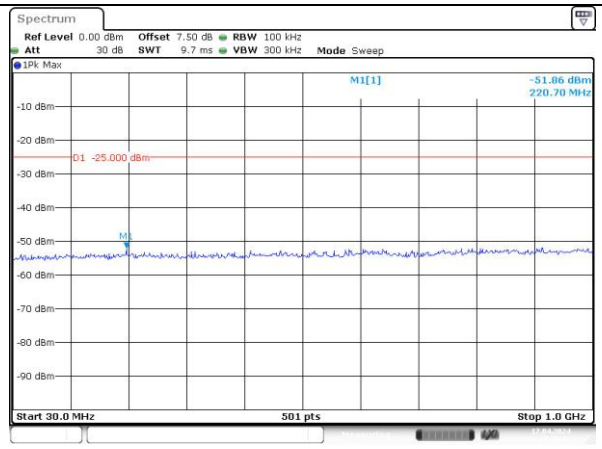
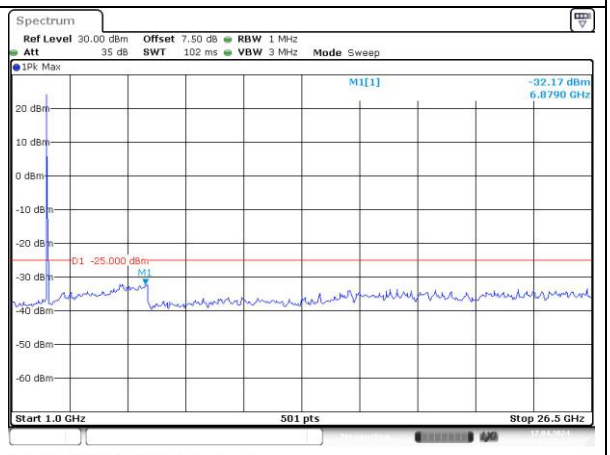
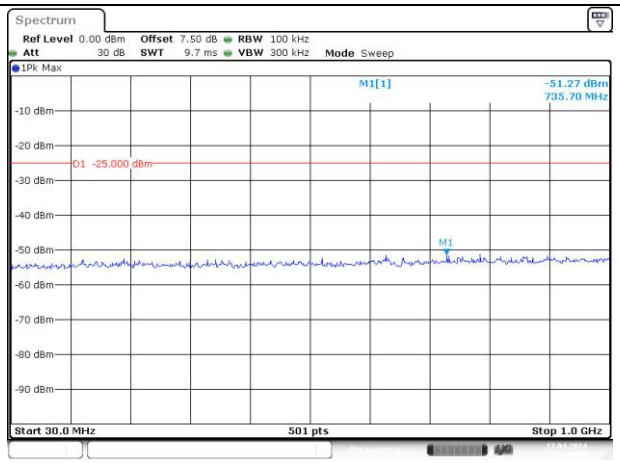
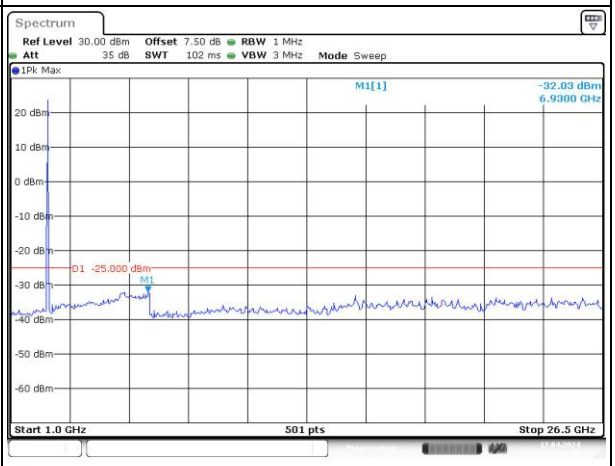
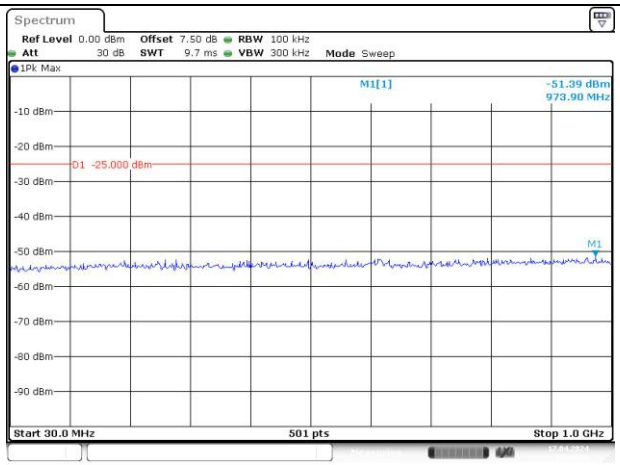
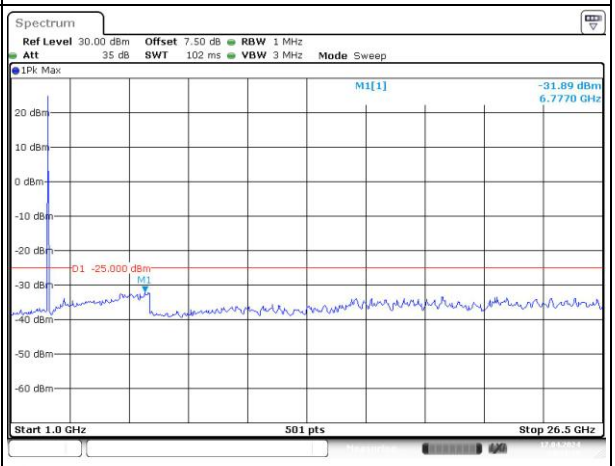
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

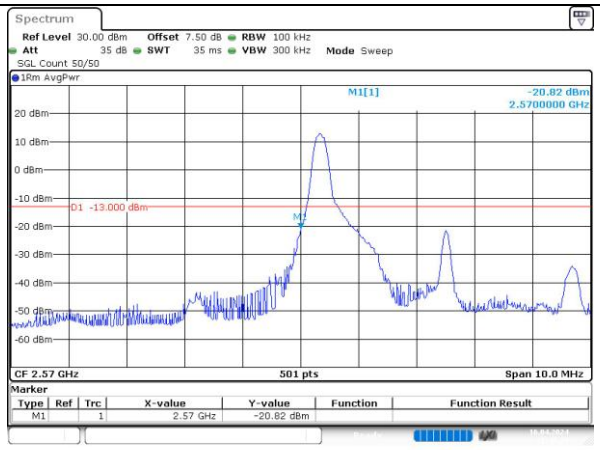
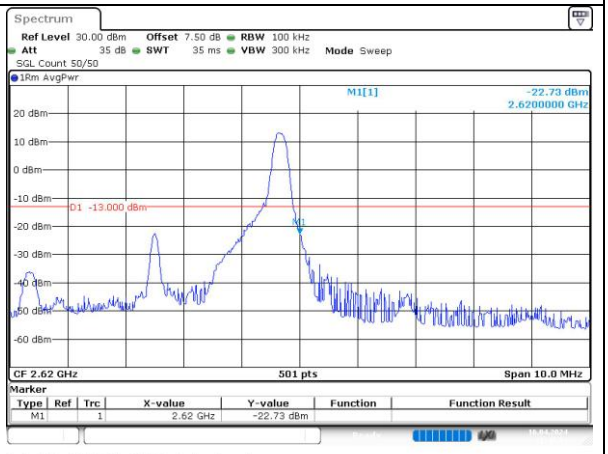
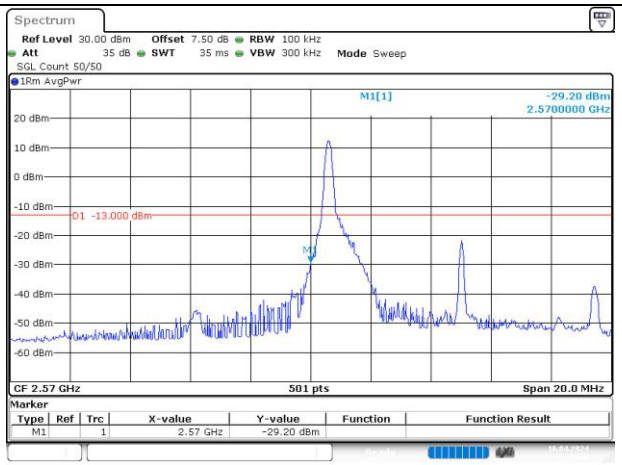
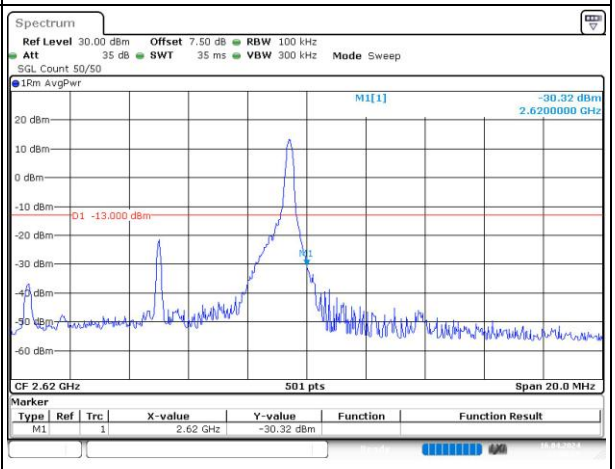
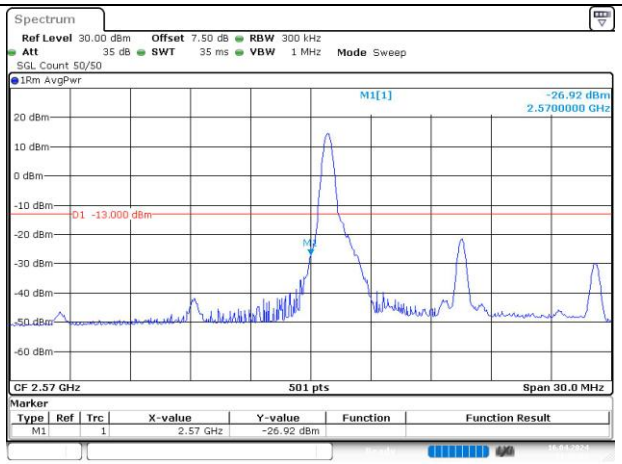
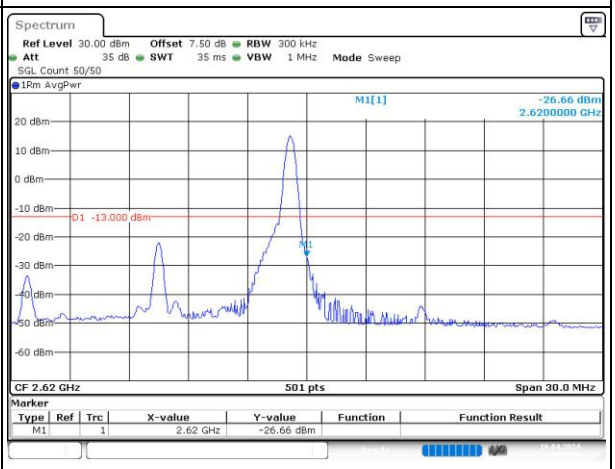
1RB:

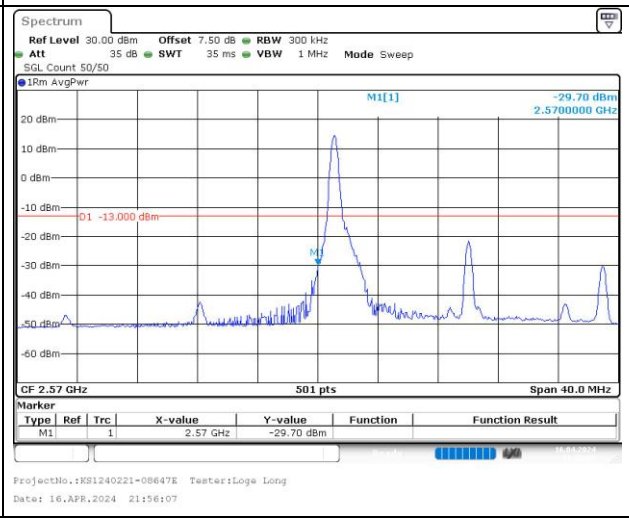
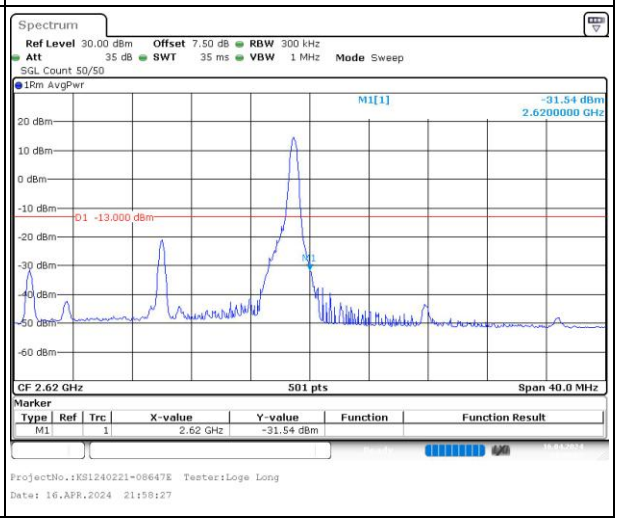
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

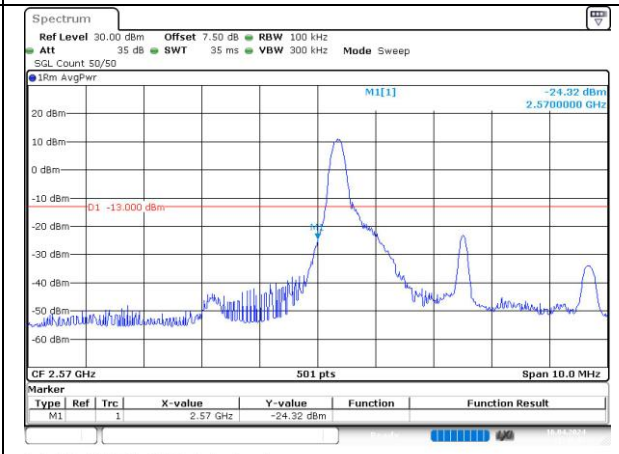
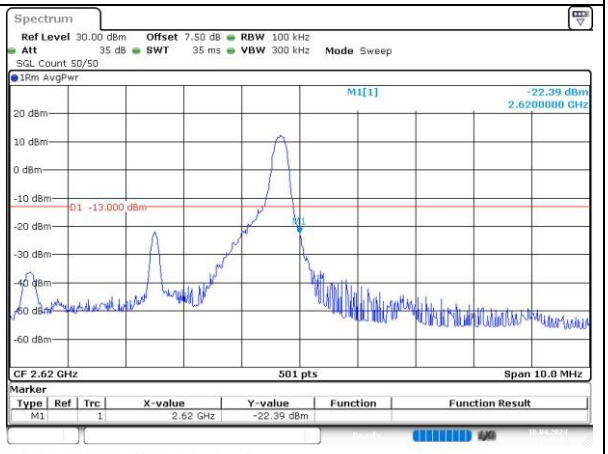
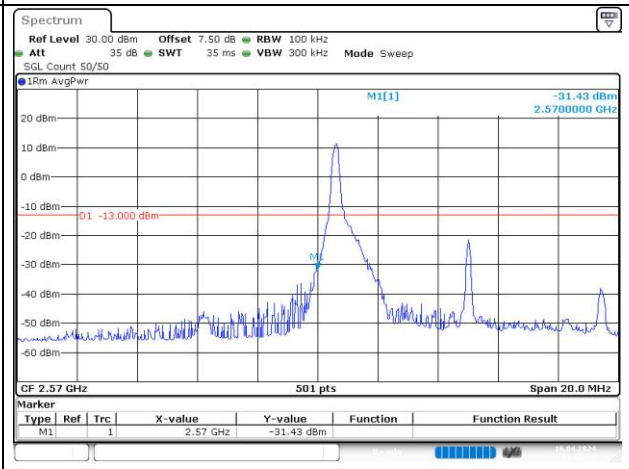
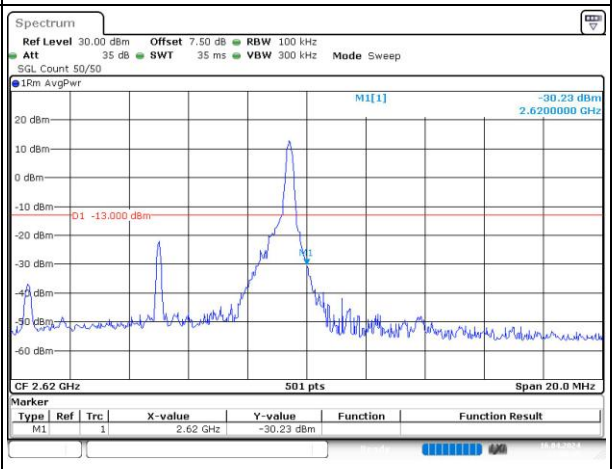
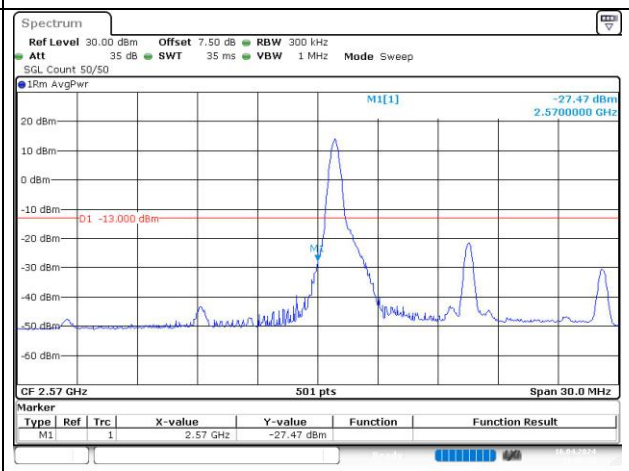
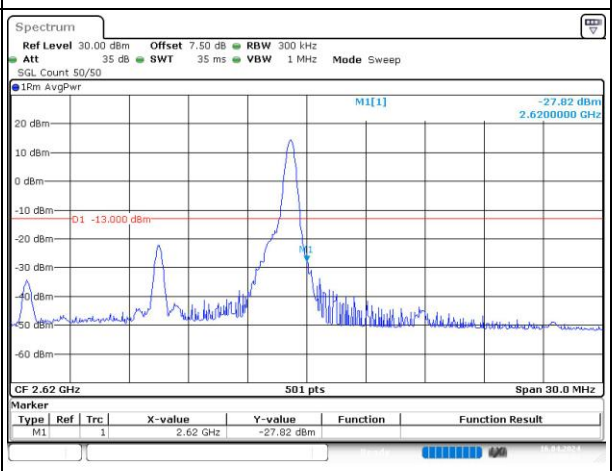
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

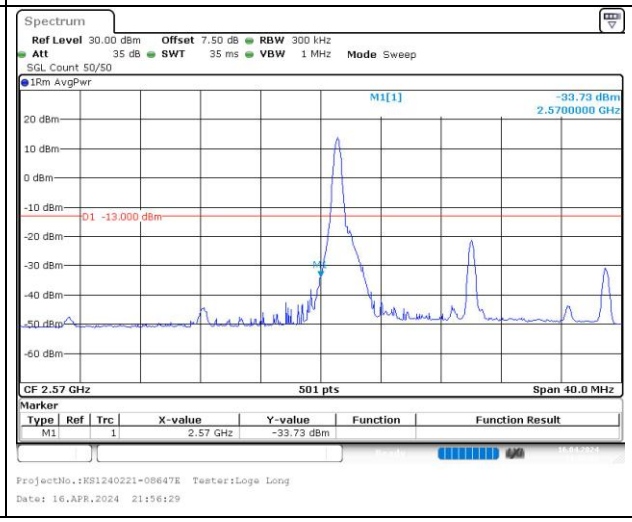
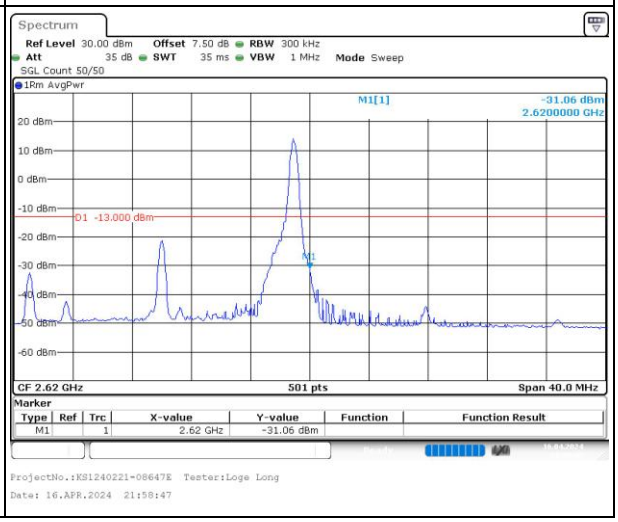
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

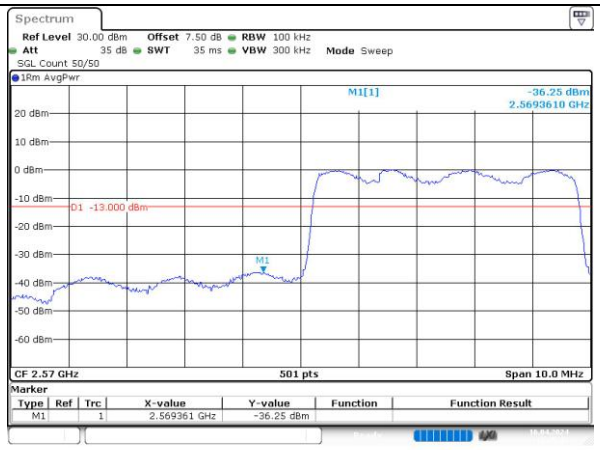
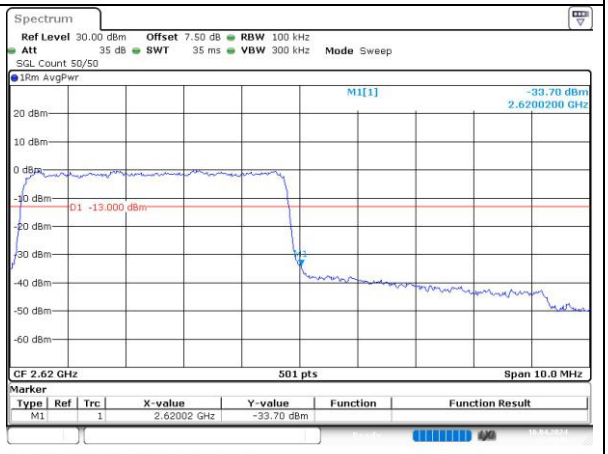
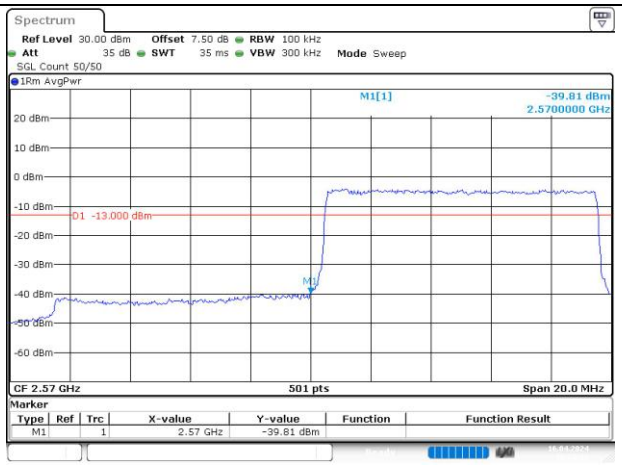
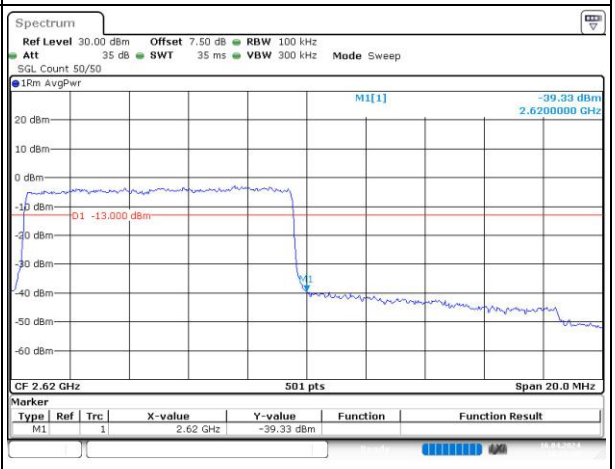
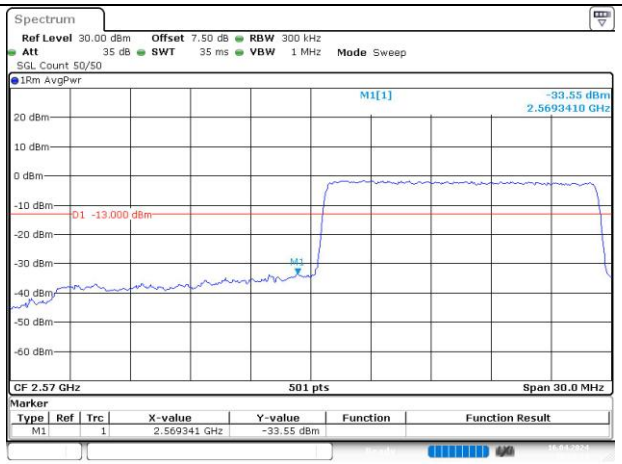
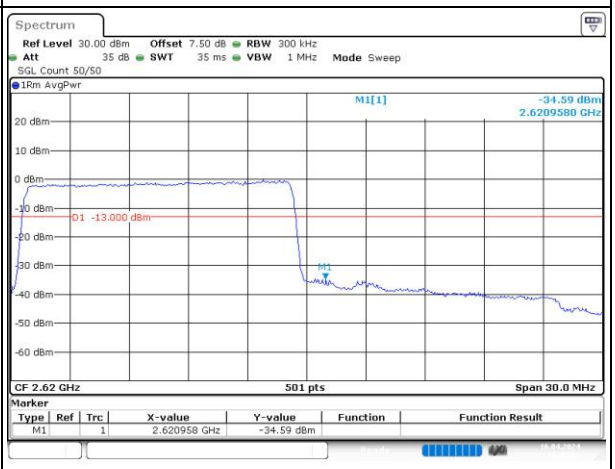
Spurious Emissions at Antenna Terminal		
Channel	**20MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

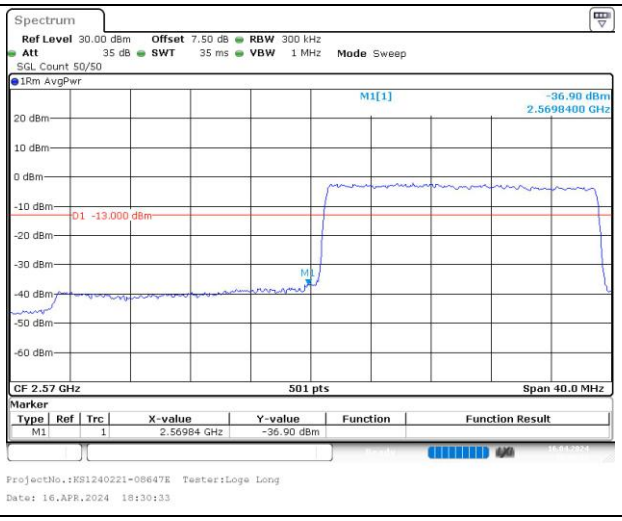
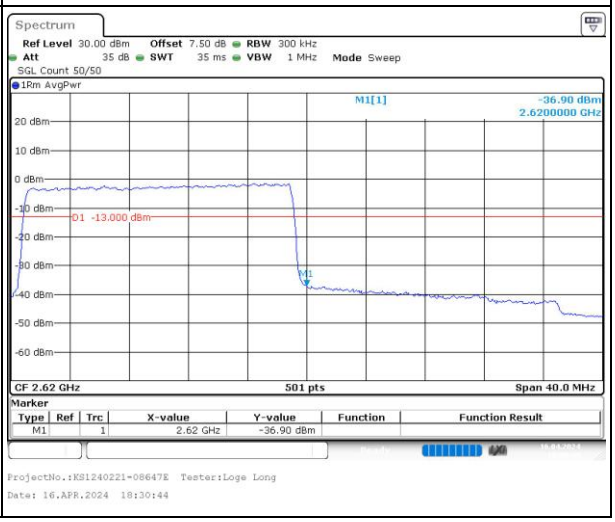
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 5MHz		
QPSK 10MHz		
QPSK 15MHz		

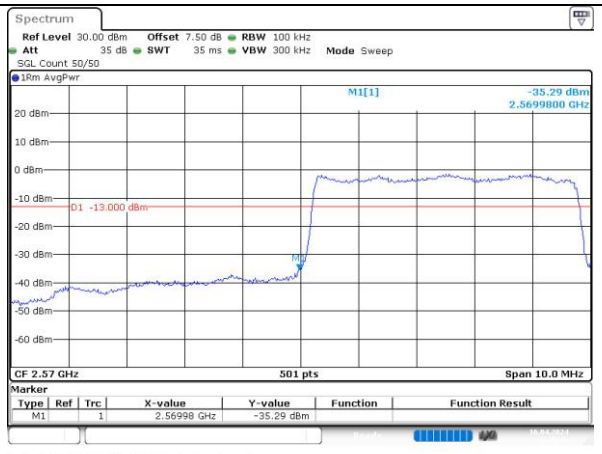
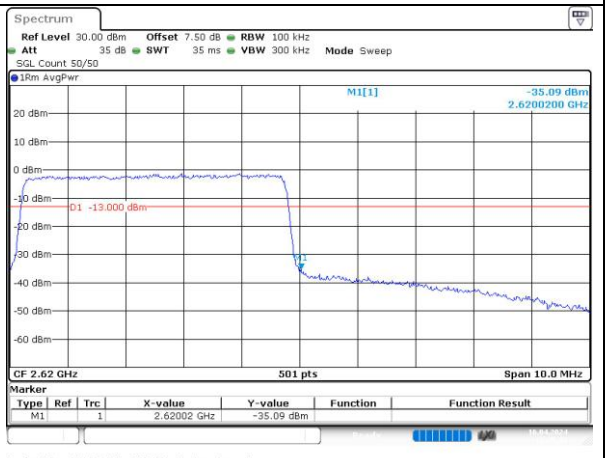
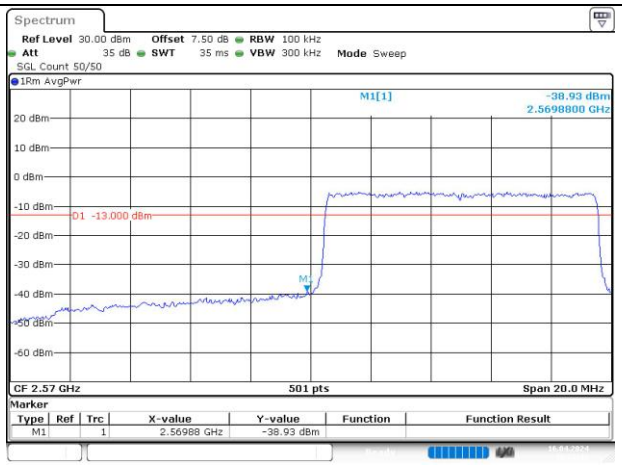
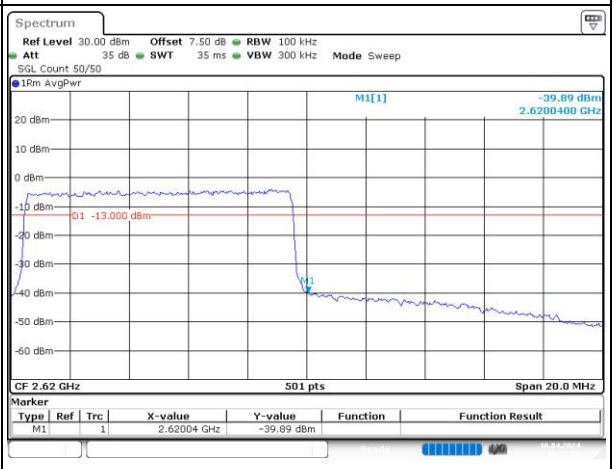
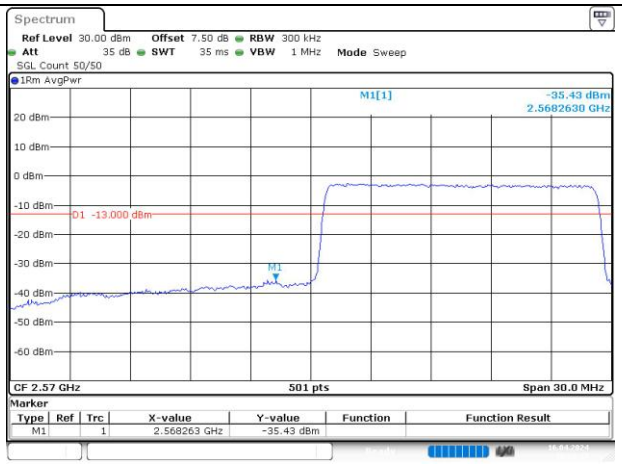
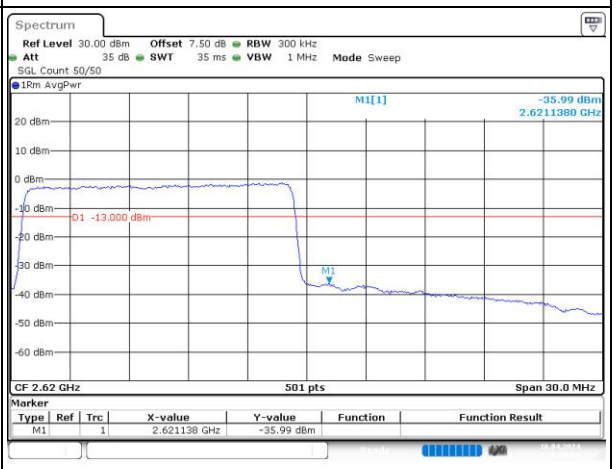
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
QPSK 20MHz		

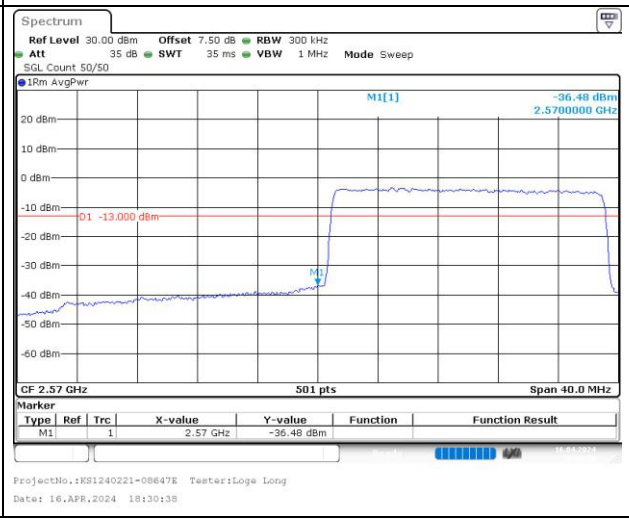
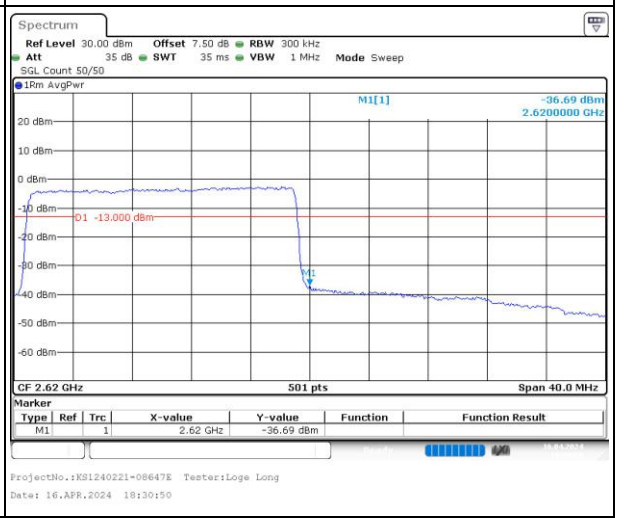
Out of band emission, Band Edge		
Mode	**Lowest-RB 1#0**	**Highest-RB 1#Max**
16QAM 5MHz		
16QAM 10MHz		
16QAM 15MHz		

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 41

Serial Number:	2HV7-2	Test Date:	2024/4/16~2024/4/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	26.4~28.1	Relative Humidity: (%)	46~61	ATM Pressure: (kPa)	100.1~100.5

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
Minl-Clrcuits	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/2/25	2025/2/24
R&S	Wideband Radio Communication Tester	CMW500	110479	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
Micro-Coax	Coaxial Cable	UFB205A	323308-024	2024/1/2	2025/1/1
TDK-Lambda	DC Power Supply	Z+60-14	F-08-EM038-1	N/A	N/A

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2537.5	2595	2652.5
10MHz	2540	2595	2650
15MHz	2542.5	2595	2647.5
20MHz	2545	2595	2645

Test Data:

FCC §2.1046; § 27.50(h)(2)

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	22.15	22.39	22.60	25.77	33
	RB1#13	22.31	22.66	22.64		
	RB1#24	22.24	22.35	22.37		
	RB15#0	21.25	21.32	21.40		
	RB15#10	21.26	21.31	21.39		
	RB25#0	21.13	21.26	21.35		
5MHz 16QAM	RB1#0	21.17	21.41	21.36	24.66	33
	RB1#13	21.36	21.55	21.44		
	RB1#24	21.25	21.50	21.30		
	RB15#0	20.29	20.29	20.37		
	RB15#10	20.28	20.29	20.28		
	RB25#0	20.18	20.21	20.37		
10MHz QPSK	RB1#0	22.09	22.22	22.67	25.82	33
	RB1#25	22.41	22.62	22.71		
	RB1#49	22.19	22.39	22.33		
	RB25#0	21.04	21.26	21.42		
	RB25#25	21.16	21.38	21.34		
	RB50#0	21.06	21.29	21.37		
10MHz 16QAM	RB1#0	20.84	21.24	21.58	24.96	33
	RB1#25	21.23	21.64	21.85		
	RB1#49	21.02	21.40	21.78		
	RB25#0	20.04	20.24	20.39		
	RB25#25	20.15	20.30	20.28		
	RB50#0	20.02	20.26	20.30		
15MHz QPSK	RB1#0	21.84	22.01	22.38	25.53	33
	RB1#38	22.03	22.25	22.42		
	RB1#74	21.93	22.21	22.15		
	RB36#0	20.93	21.20	21.43		
	RB36#39	21.06	21.30	21.34		
	RB75#0	21.00	21.30	21.42		
15MHz 16QAM	RB1#0	20.68	21.16	21.46	24.67	33
	RB1#38	20.86	21.39	21.56		
	RB1#74	20.76	21.35	21.30		
	RB36#0	19.82	20.20	20.30		
	RB36#39	19.93	20.29	20.21		
	RB75#0	19.95	20.19	20.25		
20MHz QPSK	RB1#0	21.61	21.87	22.16	25.76	33
	RB1#50	22.23	22.62	22.65		
	RB1#99	21.73	22.19	22.00		

	RB50#0	20.77	21.14	21.25		
	RB50#50	21.02	21.17	21.15		
	RB100#0	20.90	21.16	21.27		
20MHz 16QAM	RB1#0	20.52	21.04	21.17	24.84	33
	RB1#50	21.15	21.73	21.63		
	RB1#99	20.68	21.32	21.02		
	RB50#0	19.94	20.11	20.21		
	RB50#50	20.09	20.19	20.06		
	RB100#0	19.91	20.19	20.12		
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	8.61	8.29	9.13	13
	RB100#0	8.29	8.20	8.29	13
20MHz 16QAM	RB1#0	9.51	9.19	9.83	13
	RB100#0	9.97	9.80	9.94	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	4.511	4.511	4.511	4.960	5.100	4.940
5MHz 16QAM	4.511	4.511	4.511	5.120	5.080	5.260
10MHz QPSK	8.982	8.942	8.942	9.640	9.560	9.960
10MHz 16QAM	8.942	8.942	8.942	9.560	10.120	9.680
15MHz QPSK	13.533	13.533	13.533	17.100	15.840	15.900
15MHz 16QAM	13.533	13.533	13.533	16.092	17.220	15.900
20MHz QPSK	17.964	17.964	17.964	19.840	20.240	19.760
20MHz 16QAM	17.964	17.884	17.884	21.040	19.520	19.600
Note: The test plots please refer to the Plots of Occupied Bandwidth						

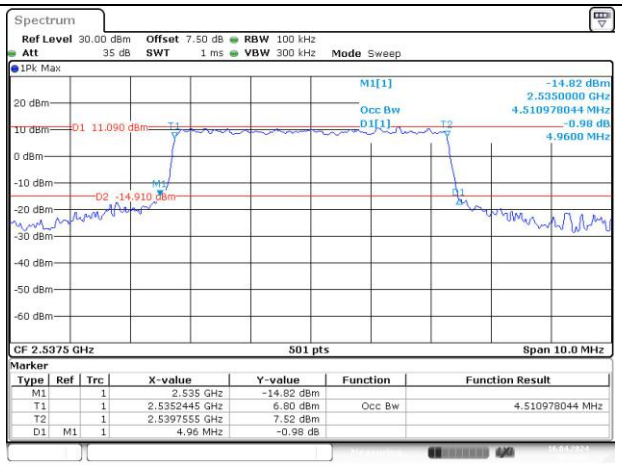
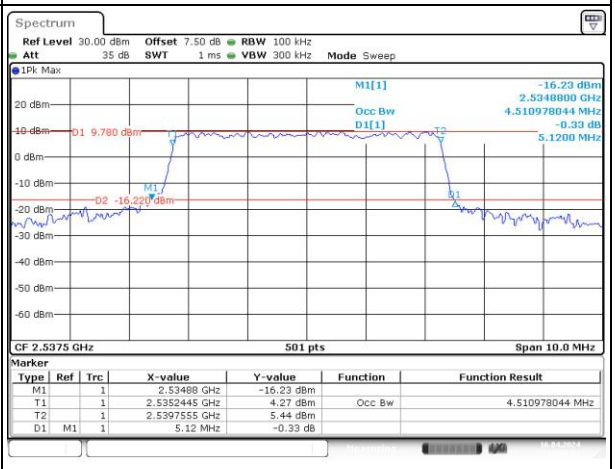
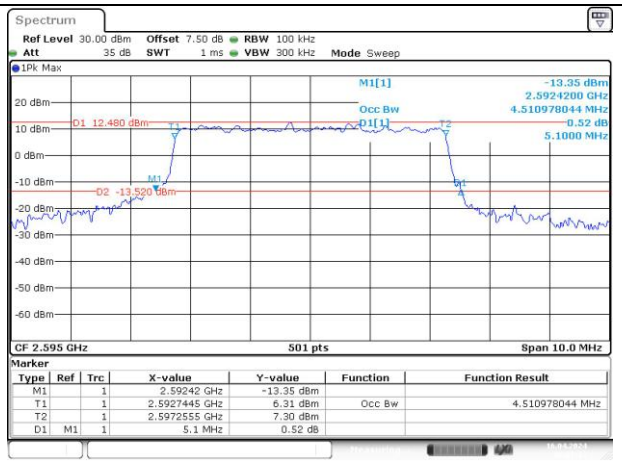
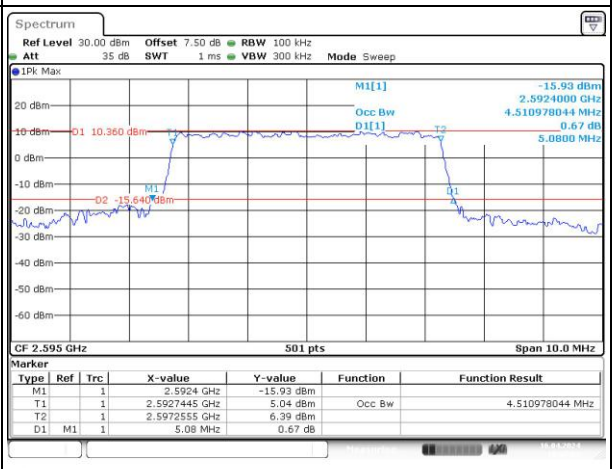
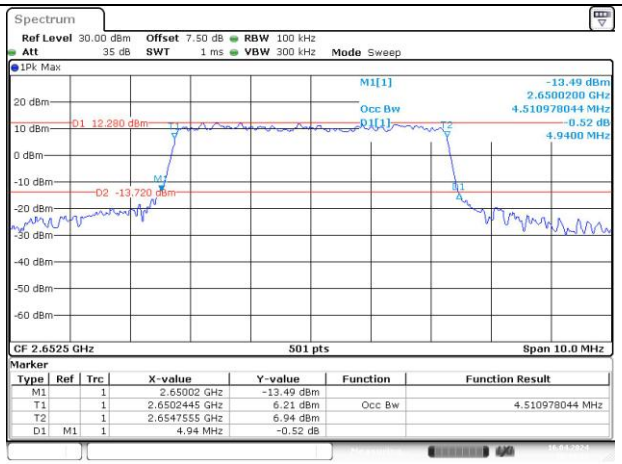
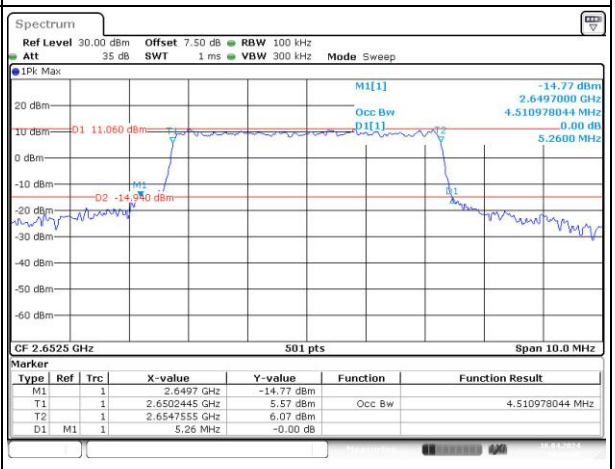
FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal	
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

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.**

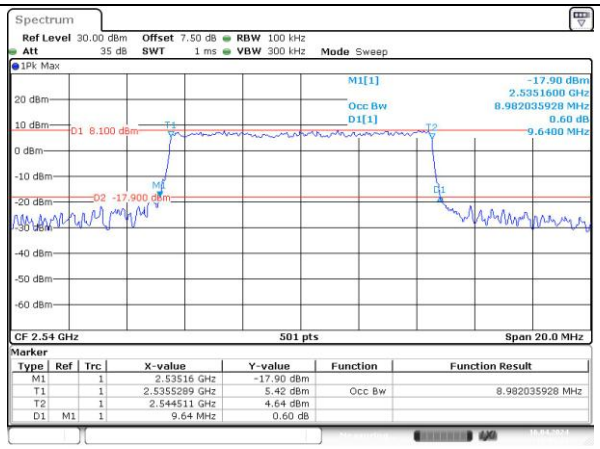
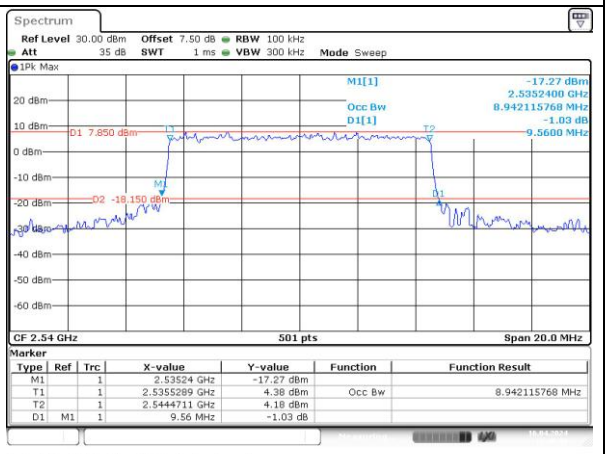
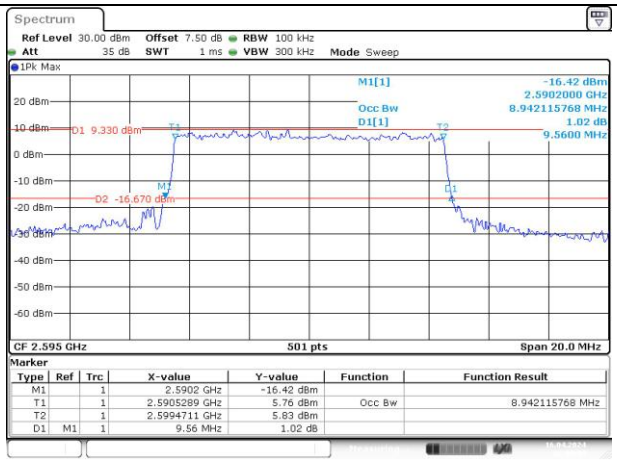
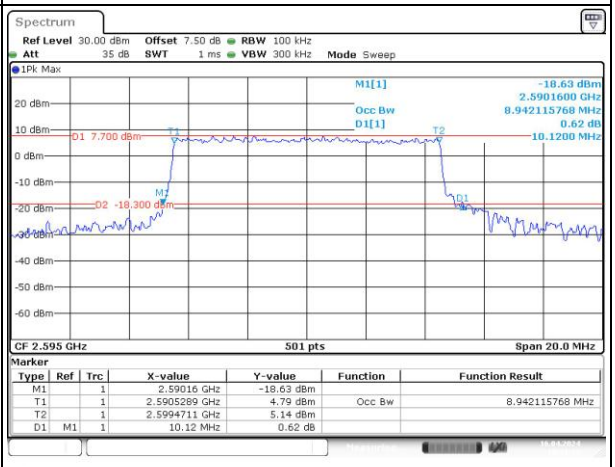
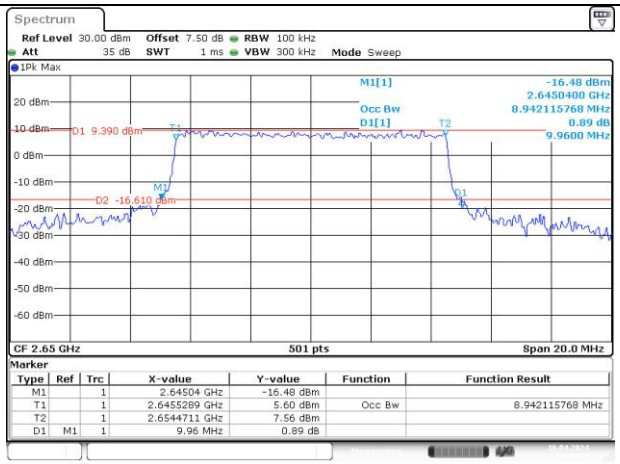
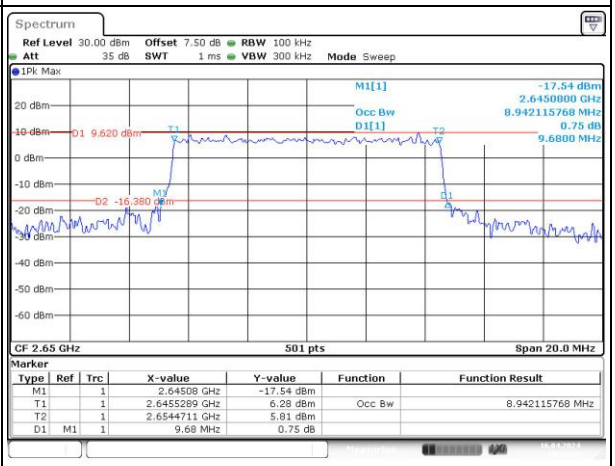
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	2536.052	2535.00	2653.998	2655
	-20	3.8	2536.049	2535.00	2654.016	2655
	-10	3.8	2536.049	2535.00	2653.995	2655
	0	3.8	2536.040	2535.00	2654.004	2655
	10	3.8	2536.046	2535.00	2653.995	2655
	20	3.8	2536.058	2535.00	2654.022	2655
	30	3.8	2536.073	2535.00	2654.049	2655
	40	3.8	2536.073	2535.00	2654.046	2655
	50	3.8	2536.073	2535.00	2654.043	2655
Frequency Stability vs. Voltage	20	3.4	2536.061	2535.00	2654.049	2655
	20	4.35	2536.064	2535.00	2654.046	2655
					Result:	**Pass**

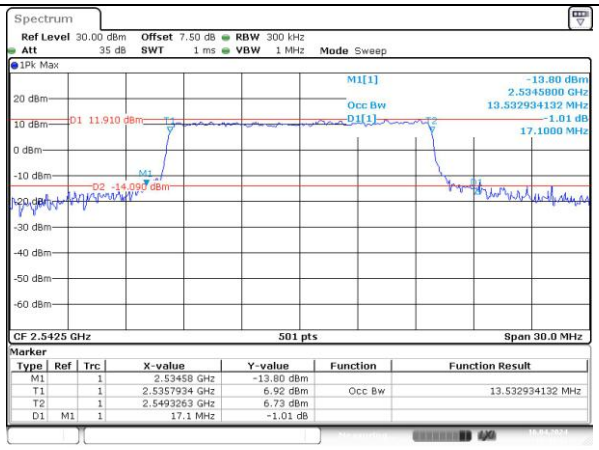
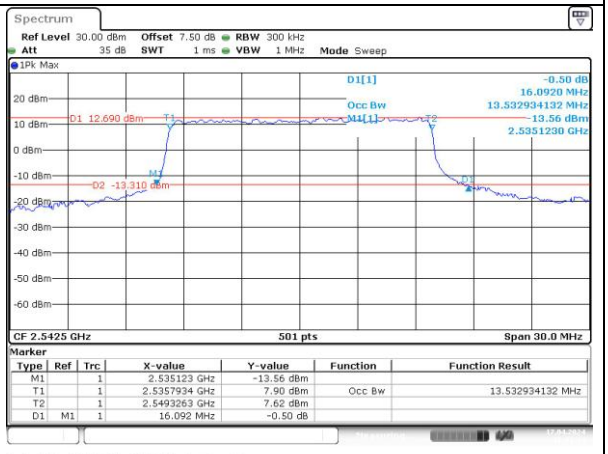
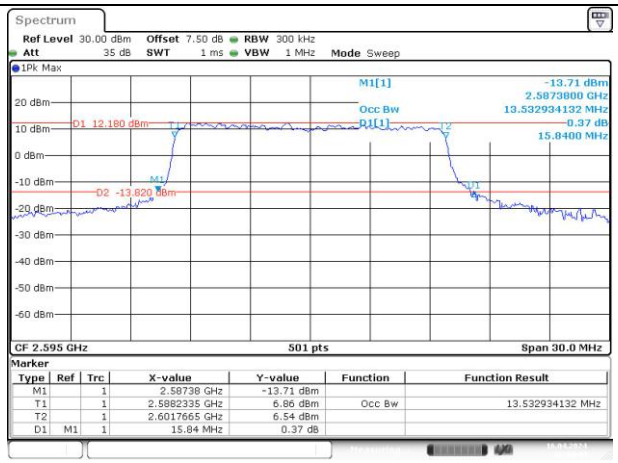
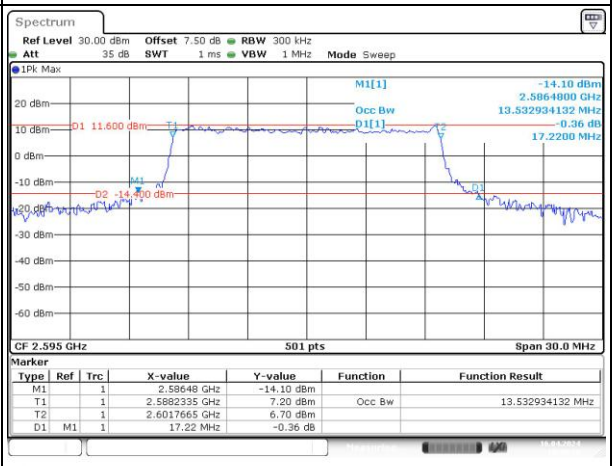
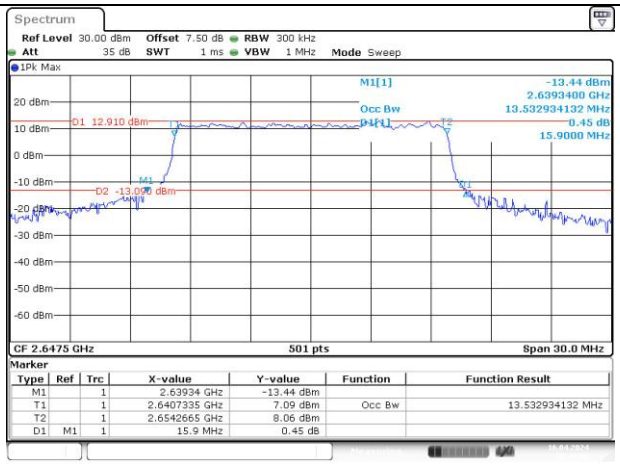
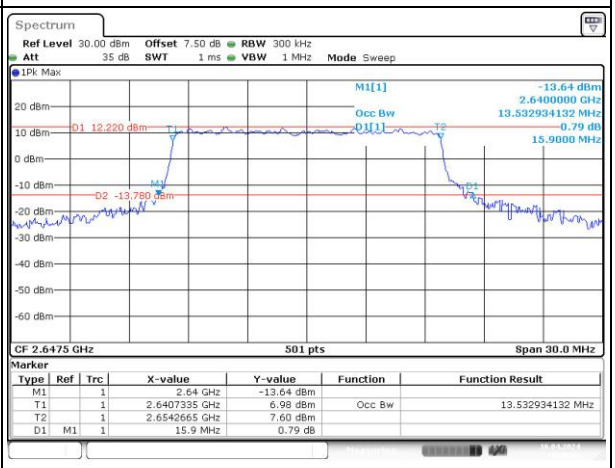
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	2536.043	2535.00	2654.007	2655
	-20	3.8	2536.052	2535.00	2654.007	2655
	-10	3.8	2536.034	2535.00	2654.019	2655
	0	3.8	2536.043	2535.00	2654.019	2655
	10	3.8	2536.043	2535.00	2654.007	2655
	20	3.8	2536.058	2535.00	2654.022	2655
	30	3.8	2536.082	2535.00	2654.031	2655
	40	3.8	2536.061	2535.00	2654.037	2655
	50	3.8	2536.085	2535.00	2654.043	2655
Frequency Stability vs. Voltage	20	3.4	2536.076	2535.00	2654.040	2655
	20	4.35	2536.079	2535.00	2654.031	2655
					Result:	**Pass**

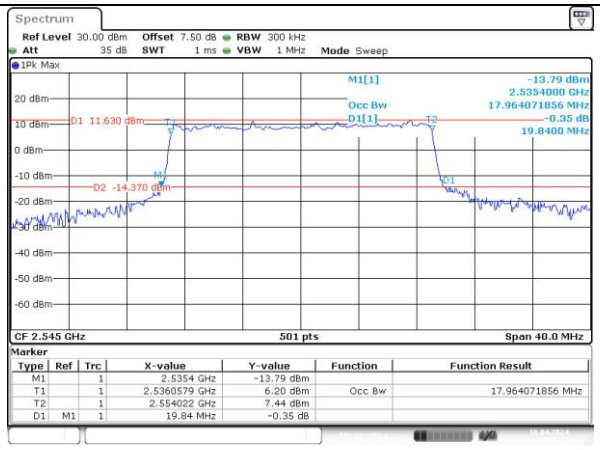
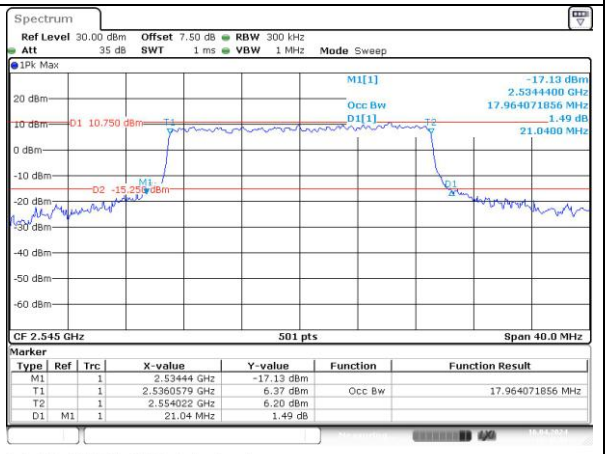
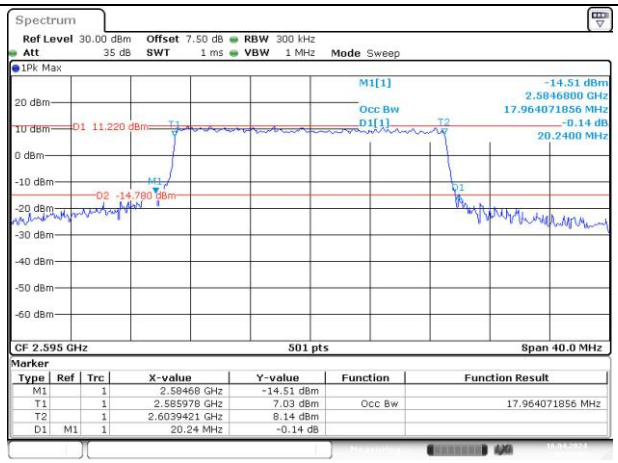
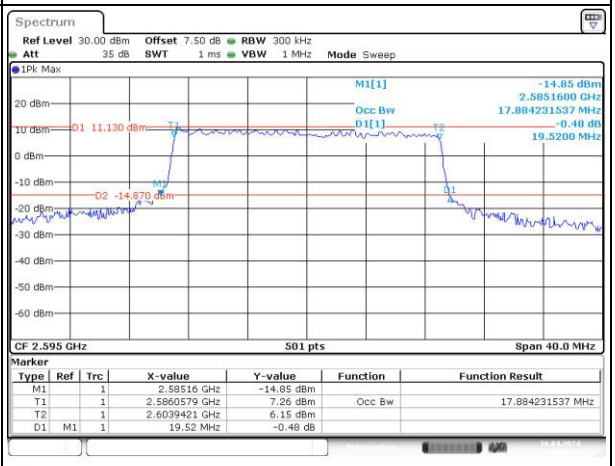
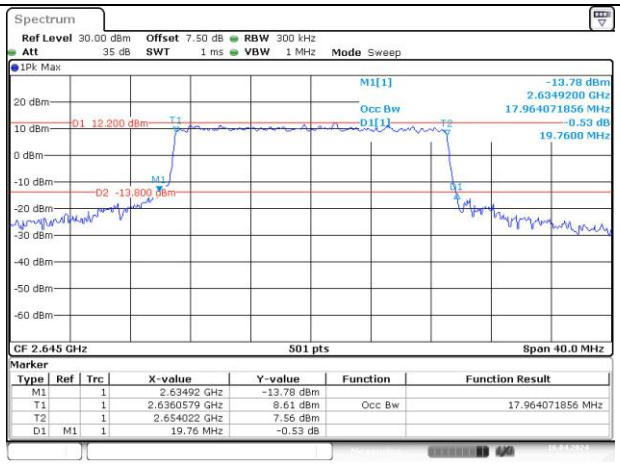
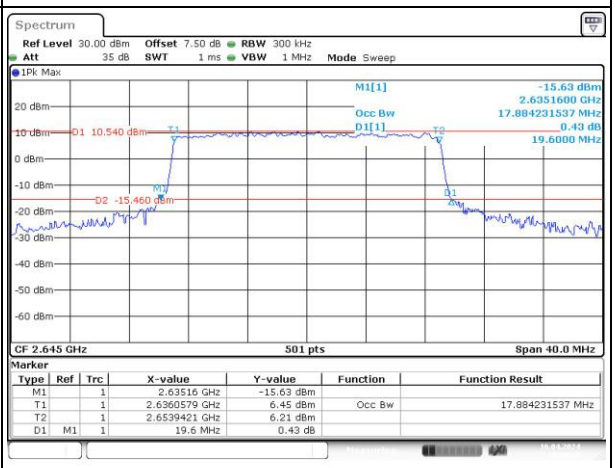
Test Plots:

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

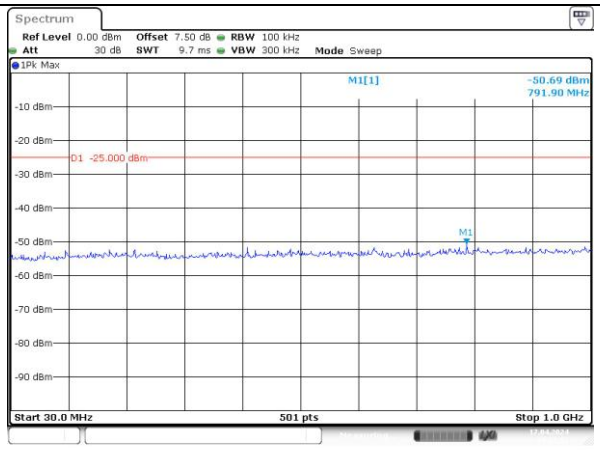
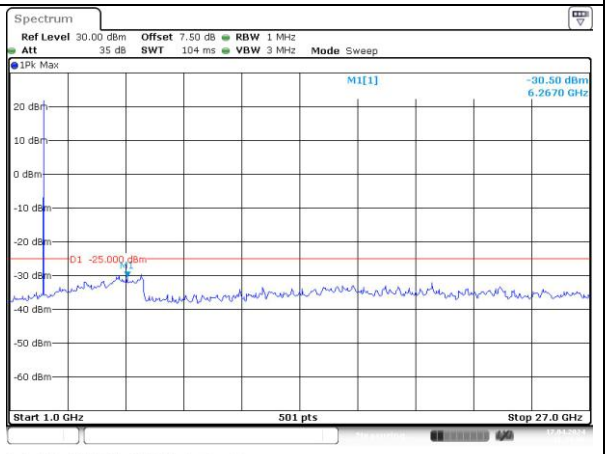
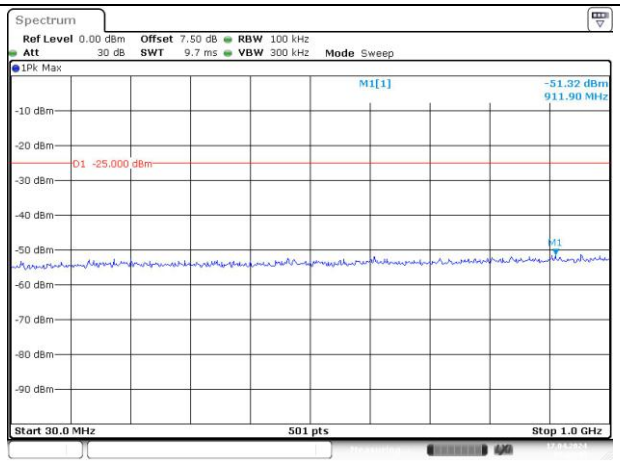
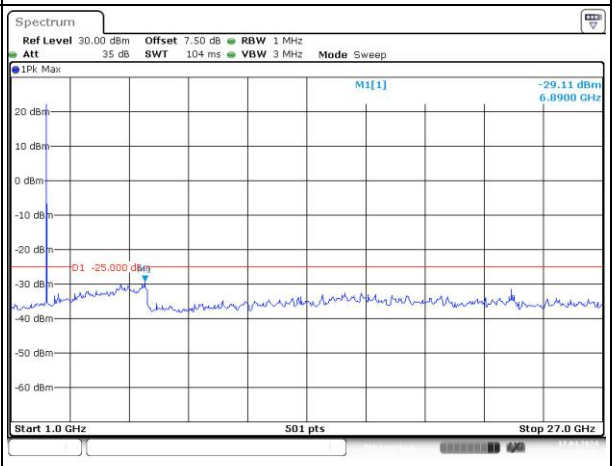
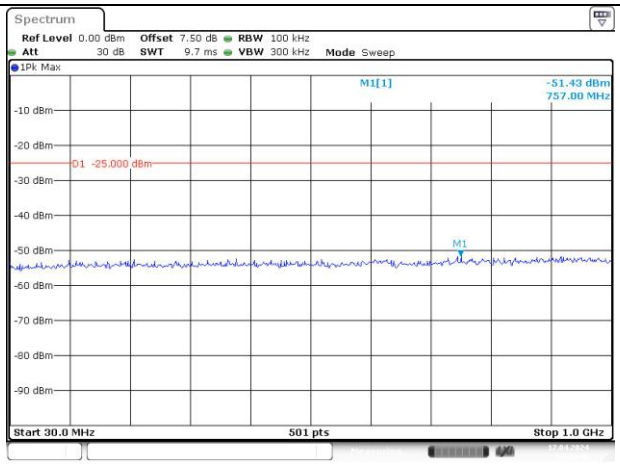
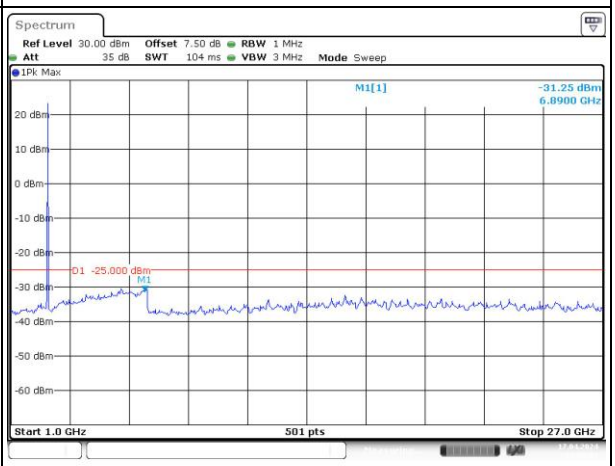
Occupied Bandwidth

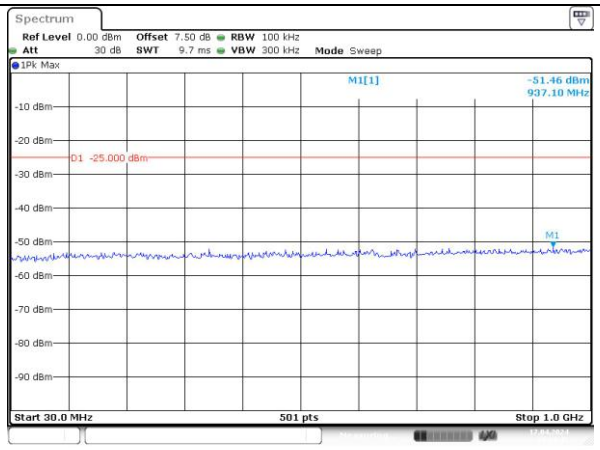
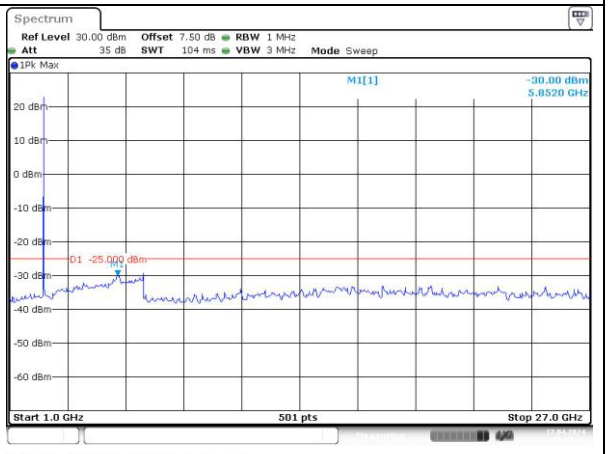
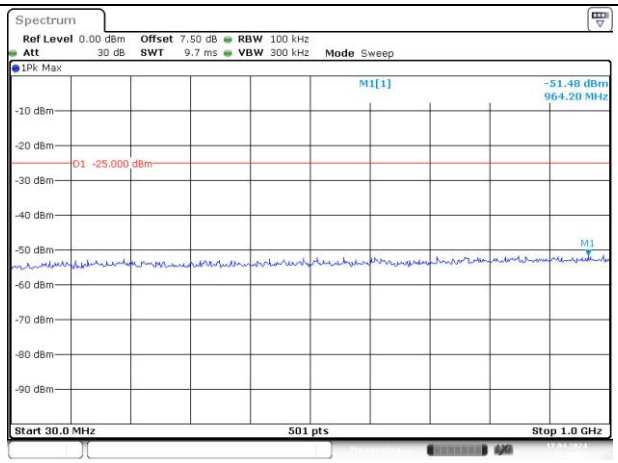
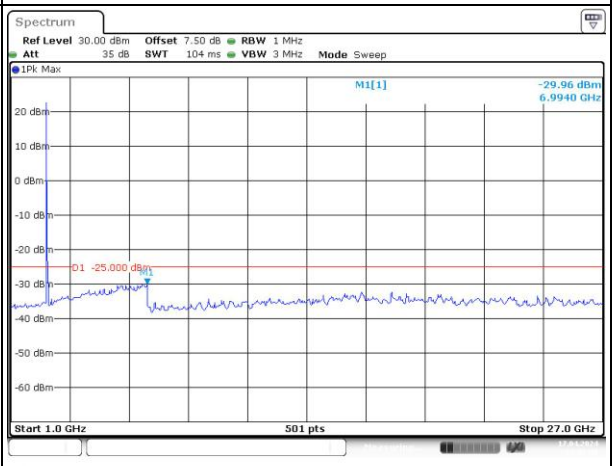
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

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