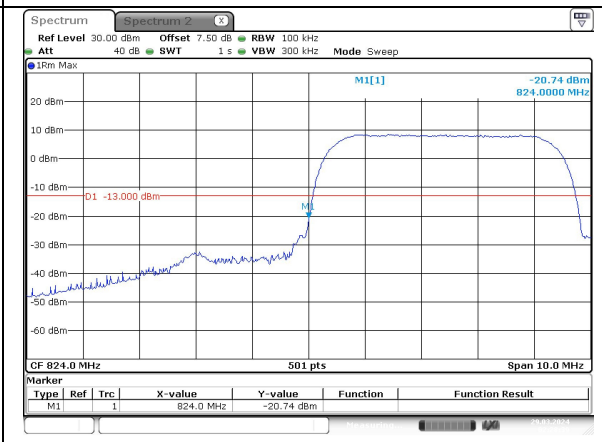
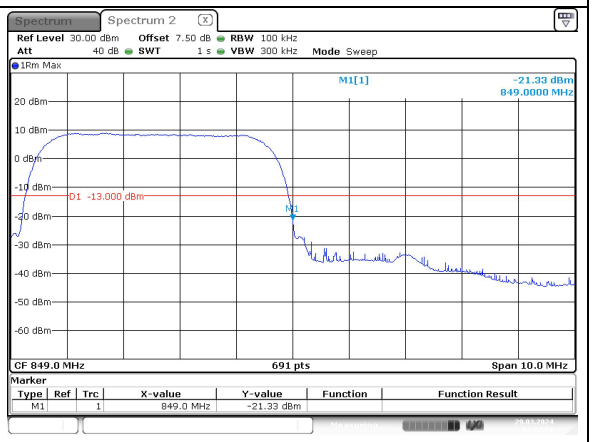
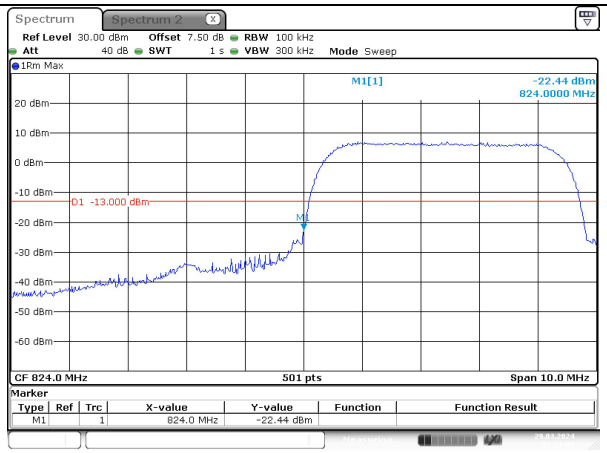
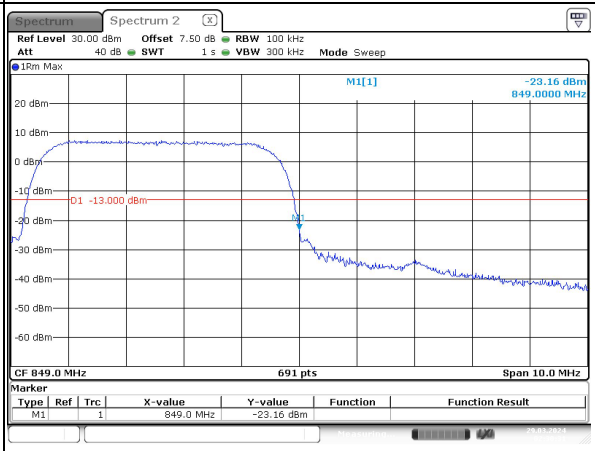
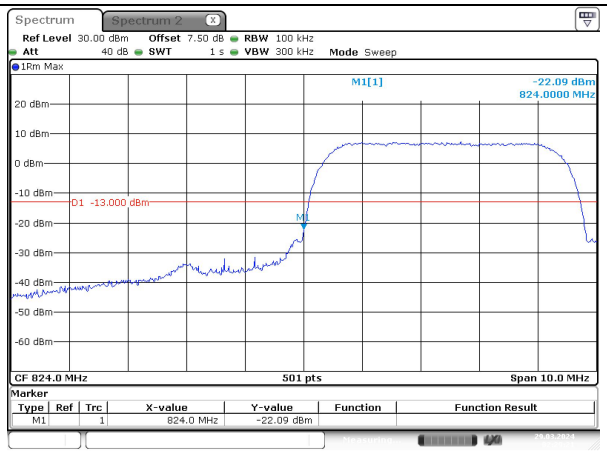
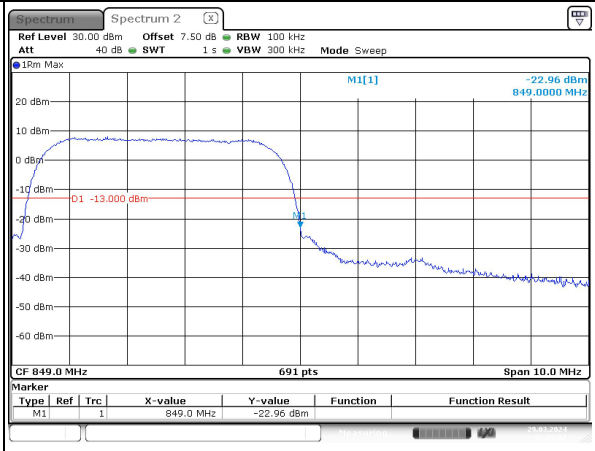
Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
R99		
HSUPA		
HSDPA		

5.5 Antenna Port Test Data and Results for LTE Band 2

Serial Number:	2I25-7	Test Date:	2024/3/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	Loge Long	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	26.2	Relative Humidity: (%)	59	ATM Pressure: (kPa)	101.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Minl-Clrcuits	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/2/25	2025/2/24
R&S	Wideband Radio Communication Tester	CMW500	149216	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
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41005011	2023/9/1	2024/8/31
Unknown	Coaxial Cable	C-SJ00-0010	C0010/01	2023/9/1	2024/8/31
R&S	Spectrum Analyzer	FSV40	101461	2023/11/27	2024/11/26

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1850.7	1880	1909.3
3MHz	1851.5	1880	1908.5
5MHz	1852.5	1880	1907.5
10MHz	1855	1880	1905
15MHz	1857.5	1880	1902.5
20MHz	1860	1880	1900

Test Data:

FCC§2.1046;§ 24.232

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	22.2	23.35	23.14	21.97	33
	RB1#3	22.43	23.57	23.35		
	RB1#5	22.23	23.41	23.11		
	RB3#0	22.23	23.51	23.25		
	RB3#3	22.3	23.51	23.2		
	RB6#0	21.3	22.47	22.2		
1.4MHz 16QAM	RB1#0	21.11	22.32	22.25	21.12	33
	RB1#3	21.4	22.62	22.44		
	RB1#5	21.22	22.41	22.22		
	RB3#0	21.37	22.67	22.19		
	RB3#3	21.36	22.72	22.19		
	RB6#0	20.22	21.47	21.31		
3MHz QPSK	RB1#0	22.18	23.36	23.21	21.83	33
	RB1#8	22.19	23.42	23.21		
	RB1#14	22.22	23.43	23.06		
	RB6#0	21.14	22.35	22.18		
	RB6#9	21.28	22.43	22.1		
	RB15#0	21.29	22.48	22.2		
3MHz 16QAM	RB1#0	21.14	22.89	22.36	21.37	33
	RB1#8	21.2	22.97	22.31		
	RB1#14	21.28	22.96	22.21		
	RB6#0	20.07	21.41	21.19		
	RB6#9	20.18	21.51	21.1		
	RB15#0	20.28	21.55	21.18		
5MHz QPSK	RB1#0	22.09	23.19	23.18	21.84	33
	RB1#13	22.35	23.44	23.26		
	RB1#24	22.35	23.34	22.96		
	RB15#0	21.27	22.45	22.32		
	RB15#10	21.35	22.39	22.19		
	RB25#0	21.29	22.39	22.2		
5MHz 16QAM	RB1#0	21.34	22.22	22.06	20.88	33
	RB1#13	21.64	22.48	22.1		
	RB1#24	21.54	22.42	21.85		
	RB15#0	20.26	21.49	21.35		
	RB15#10	20.31	21.43	21.21		
	RB25#0	20.28	21.44	21.26		
10MHz QPSK	RB1#0	22.12	23.25	23.47	21.95	33
	RB1#25	22.5	23.55	23.49		
	RB1#49	22.58	23.5	23.08		

	RB25#0	21.33	22.46	22.4		
	RB25#25	21.53	22.48	22.19		
	RB50#0	21.42	22.54	22.34		
10MHz 16QAM	RB1#0	21.28	22.22	23.05	21.45	33
	RB1#25	21.62	22.58	23.01		
	RB1#49	21.71	22.6	22.65		
	RB25#0	20.33	21.57	21.46		
	RB25#25	20.6	21.56	21.28		
	RB50#0	20.42	21.52	21.34		
15MHz QPSK	RB1#0	22.01	23.08	23.54	21.94	33
	RB1#38	22.46	23.45	23.37		
	RB1#74	22.61	23.43	23.06		
	RB36#0	21.34	22.44	22.49		
	RB36#39	21.69	22.49	22.35		
	RB75#0	21.56	22.49	22.43		
15MHz 16QAM	RB1#0	21.6	22.2	22.91	21.31	33
	RB1#38	22.01	22.59	22.79		
	RB1#74	22.2	22.58	22.39		
	RB36#0	20.35	21.45	21.5		
	RB36#39	20.69	21.52	21.28		
	RB75#0	20.5	21.46	21.36		
20MHz QPSK	RB1#0	22.03	22.87	23.44	22.15	33
	RB1#50	22.8	23.61	23.75		
	RB1#99	22.8	23.41	23.01		
	RB50#0	21.58	22.48	22.58		
	RB50#50	21.96	22.5	22.35		
	RB100#0	21.78	22.49	22.5		
20MHz 16QAM	RB1#0	21.27	22.47	22.79	21.54	33
	RB1#50	22.12	23.14	23.06		
	RB1#99	22.1	22.99	22.27		
	RB50#0	20.52	21.47	21.53		
	RB50#50	20.99	21.52	21.38		
	RB100#0	20.79	21.5	21.48		
Note: EIRP=Conducted Power(dBm) - L_C(dB) + G_T(dBi)						
					Result:	**Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	4	4.23	4.99	13
	RB100#0	5.16	5.04	5.1	13
20MHz 16QAM	RB1#0	4.81	5.1	5.97	13
	RB100#0	6.12	6	6.12	13
				Result:	**Pass**

FCC §2.1049, §24.238:Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.096	1.096	1.102	1.296	1.302	1.296
1.4MHz 16QAM	1.102	1.096	1.096	1.314	1.29	1.302
3MHz QPSK	2.683	2.683	2.695	2.88	2.88	2.88
3MHz 16QAM	2.683	2.683	2.683	2.88	2.868	2.88
5MHz QPSK	4.511	4.531	4.531	5.18	5.18	5.14
5MHz 16QAM	4.551	4.531	4.551	5.22	5.16	5.2
10MHz QPSK	8.942	8.981	8.942	9.96	9.88	9.84
10MHz 16QAM	8.942	8.942	8.942	9.88	9.88	9.88
15MHz QPSK	13.533	13.473	13.413	14.82	14.82	14.82
15MHz 16QAM	13.533	13.473	13.473	14.76	14.76	14.76
20MHz QPSK	17.964	17.964	17.884	19.84	19.6	19.6
20MHz 16QAM	17.964	18.044	17.884	19.68	19.76	19.36
Note: Test was performed at full RB. The test plots please refer to the Plots of Occupied Bandwidth						

FCC §2.1051, § 24.238 (a):Spurious Emissions at Antenna Terminal	
Result:	**Pass, Test was performed at RB1#0, please refer to the test plots of Spurious Emissions at Antenna Terminal.**

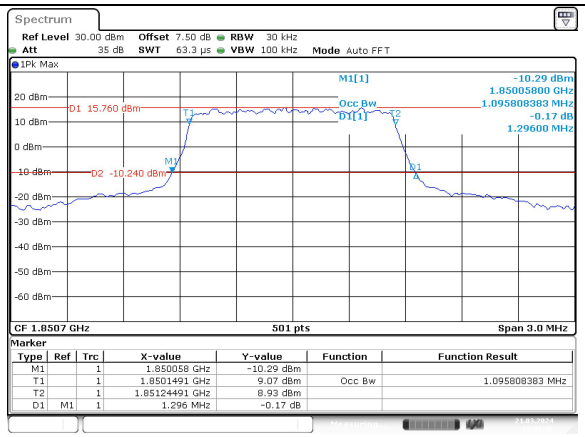
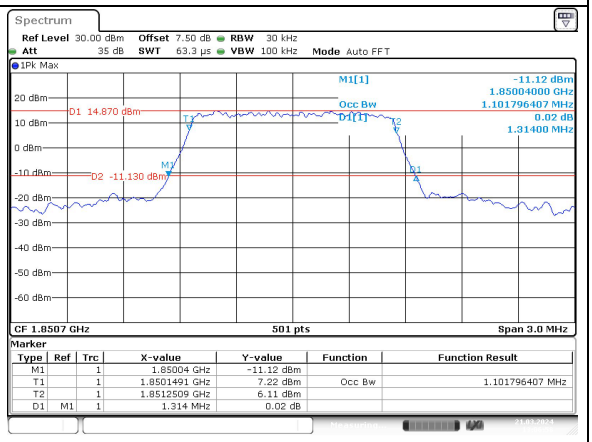
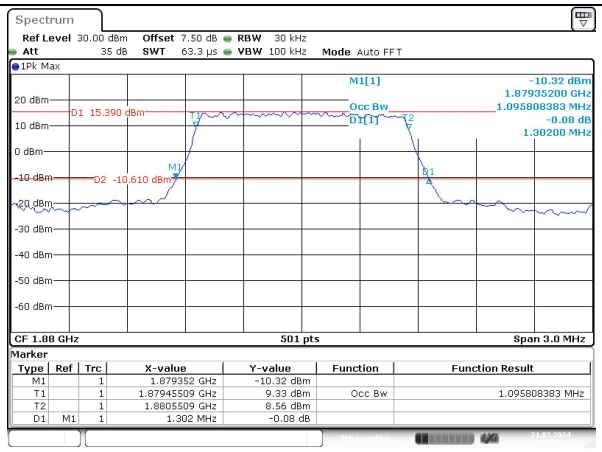
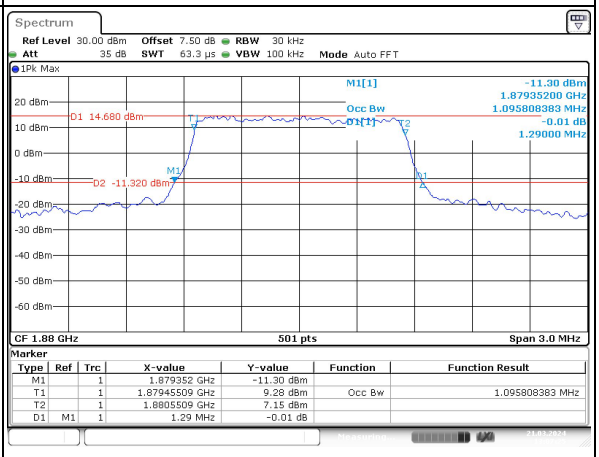
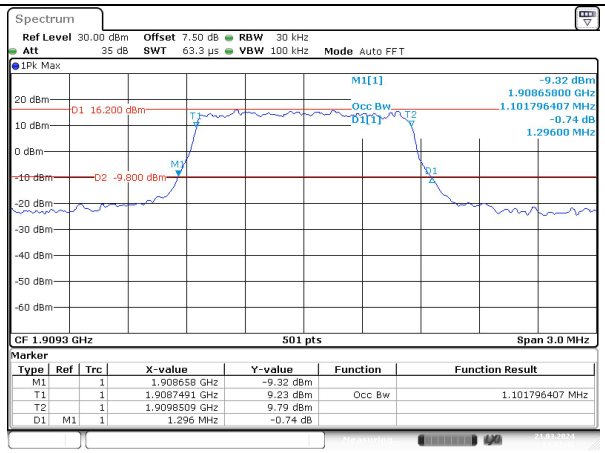
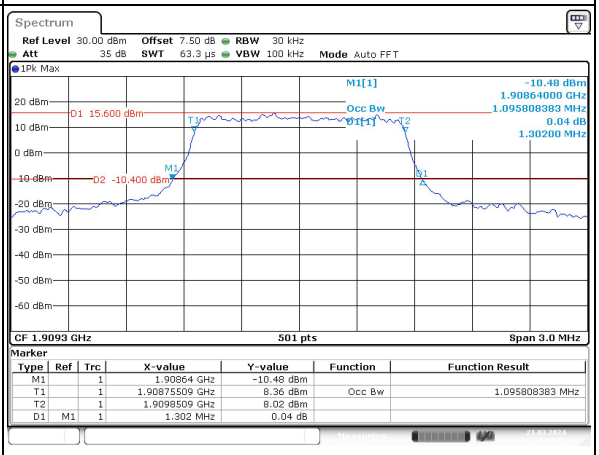
FCC §2.1051, § 24.238 (a):Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

FCC §2.1055, §24.235: Frequency Stability

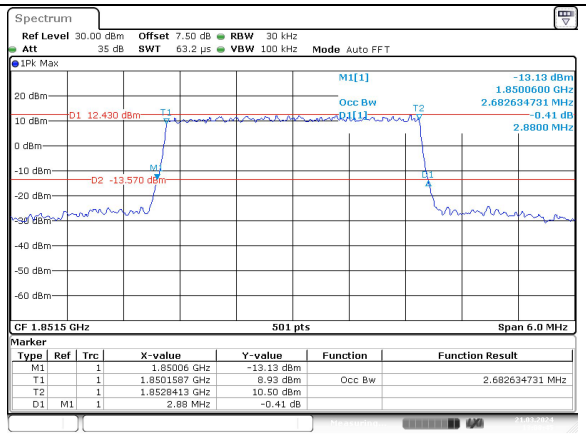
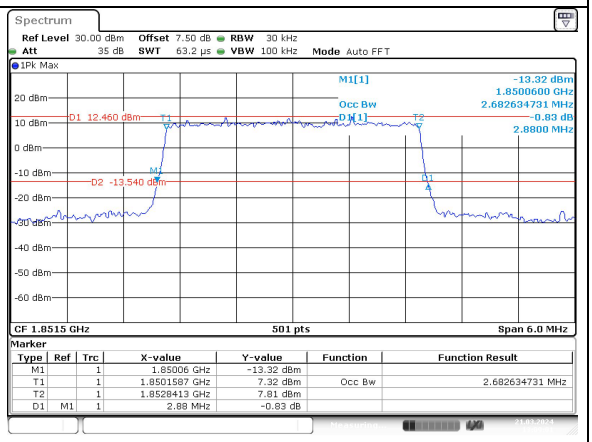
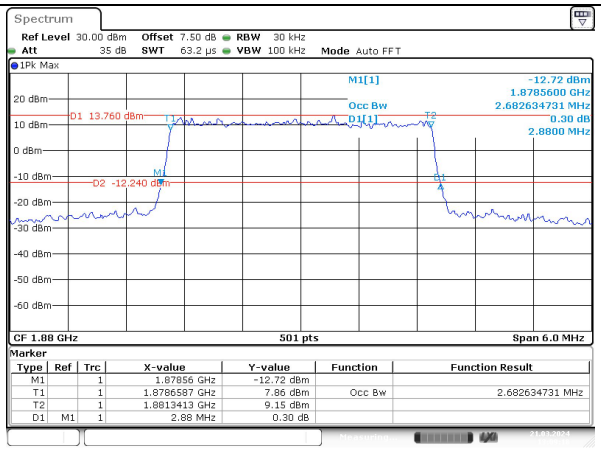
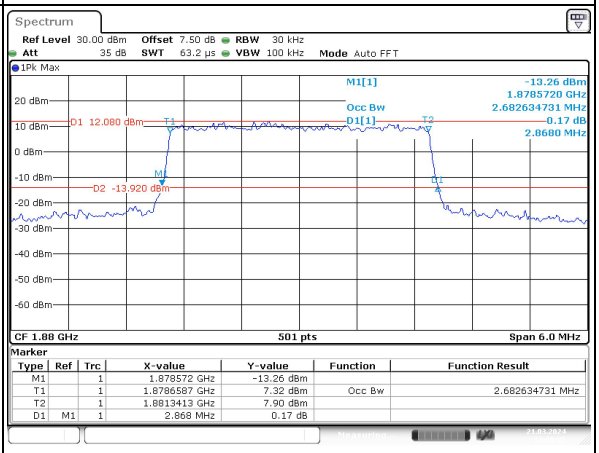
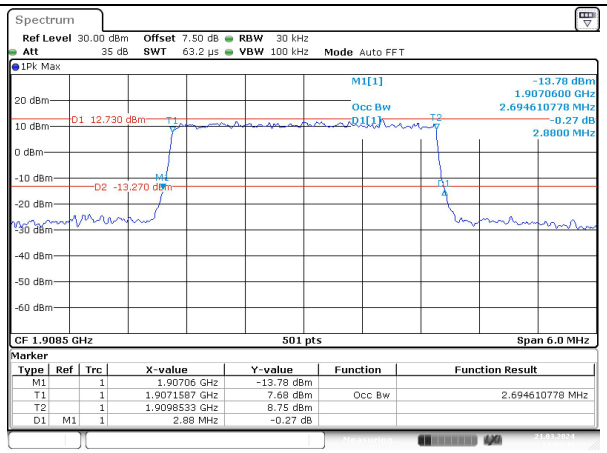
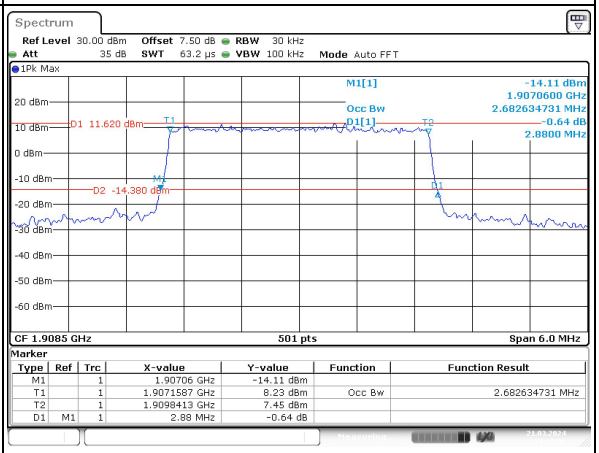
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1851.037	1850.000	1908.915	1910.000
	-20	3.8	1851.049	1850.000	1908.915	1910.000
	-10	3.8	1851.034	1850.000	1908.933	1910.000
	0	3.8	1851.037	1850.000	1908.924	1910.000
	10	3.8	1851.046	1850.000	1908.927	1910.000
	20	3.8	1851.058	1850.000	1908.942	1910.000
	30	3.8	1851.067	1850.000	1908.963	1910.000
	40	3.8	1851.070	1850.000	1908.945	1910.000
	50	3.8	1851.085	1850.000	1908.960	1910.000
Frequency Stability vs. Voltage	20	3.5	1851.085	1850.000	1908.963	1910.000
	20	4.35	1851.082	1850.000	1908.957	1910.000
					Result:	**Pass**

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	1851.016	1850.000	1908.939	1910.000
	-20	3.8	1851.031	1850.000	1908.915	1910.000
	-10	3.8	1851.049	1850.000	1908.924	1910.000
	0	3.8	1851.034	1850.000	1908.918	1910.000
	10	3.8	1851.037	1850.000	1908.924	1910.000
	20	3.8	1851.058	1850.000	1908.942	1910.000
	30	3.8	1851.076	1850.000	1908.948	1910.000
	40	3.8	1851.085	1850.000	1908.945	1910.000
	50	3.8	1851.079	1850.000	1908.963	1910.000
Frequency Stability vs. Voltage	20	3.5	1851.085	1850.000	1908.954	1910.000
	20	4.35	1851.067	1850.000	1908.945	1910.000
					Result:	**Pass**

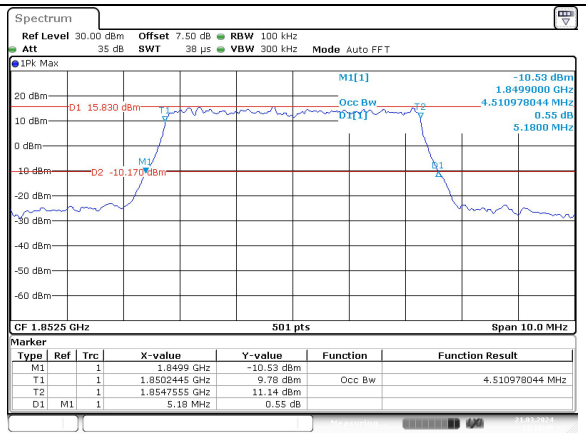
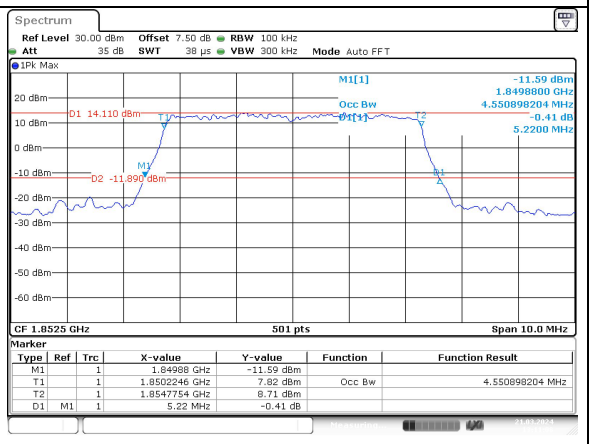
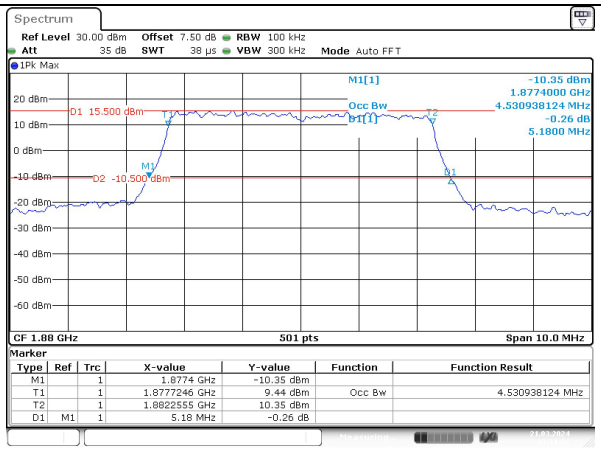
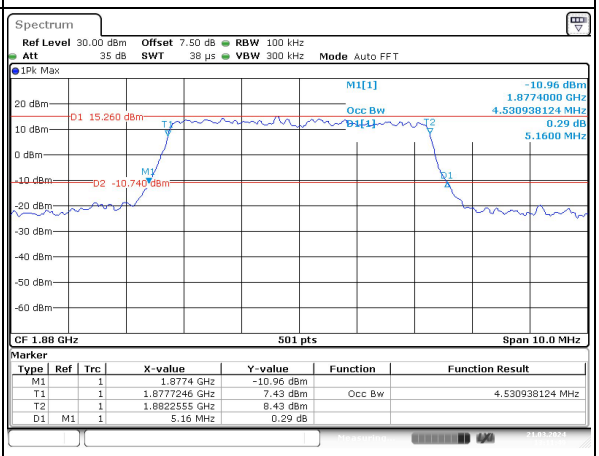
Test Plots:

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