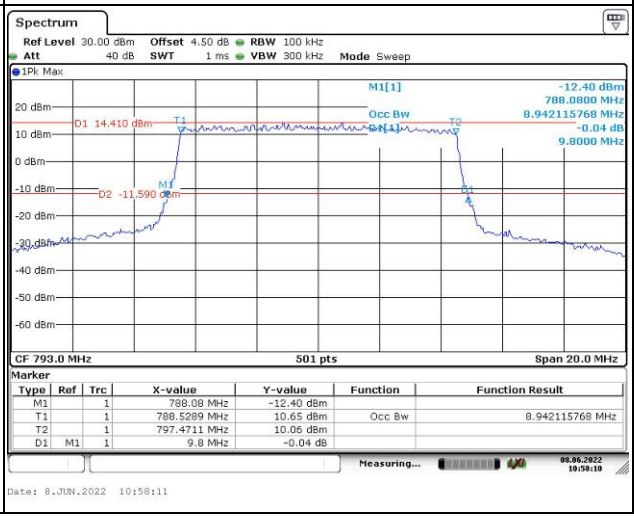
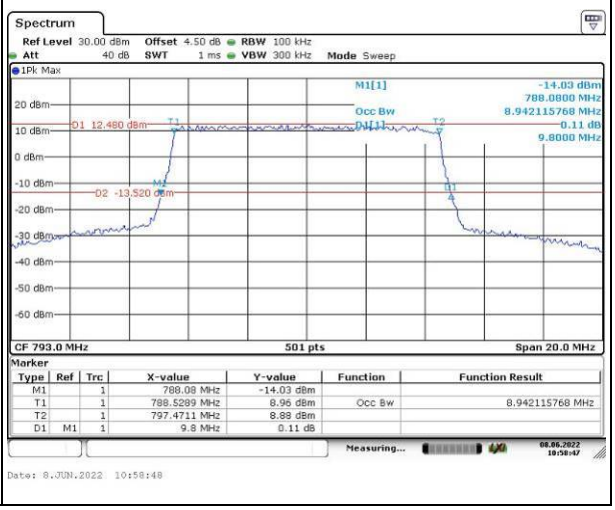
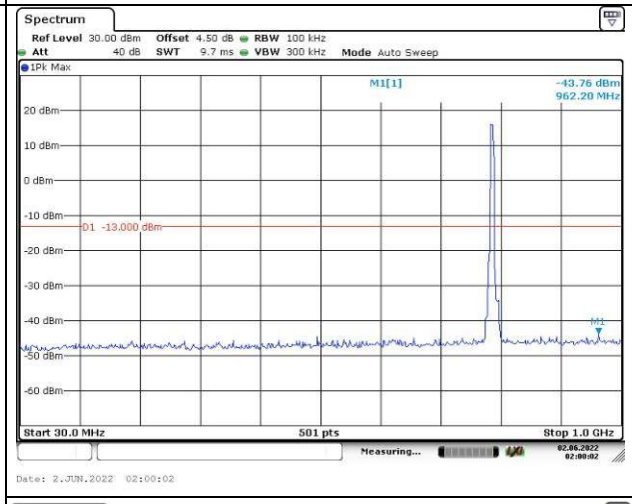
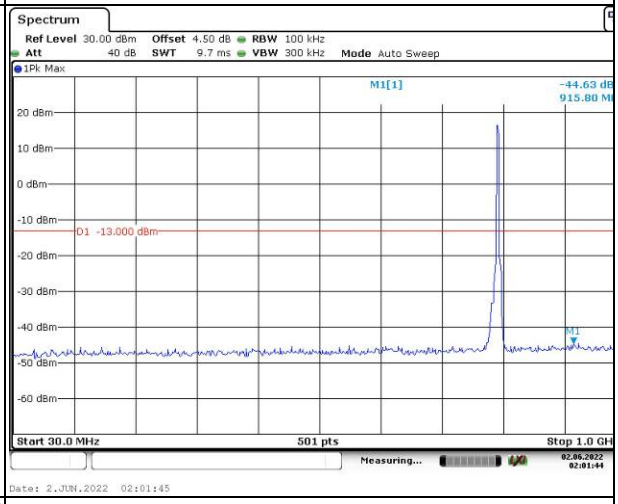
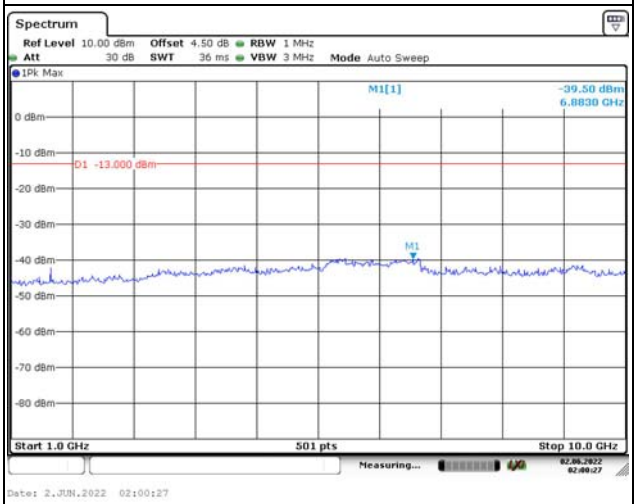
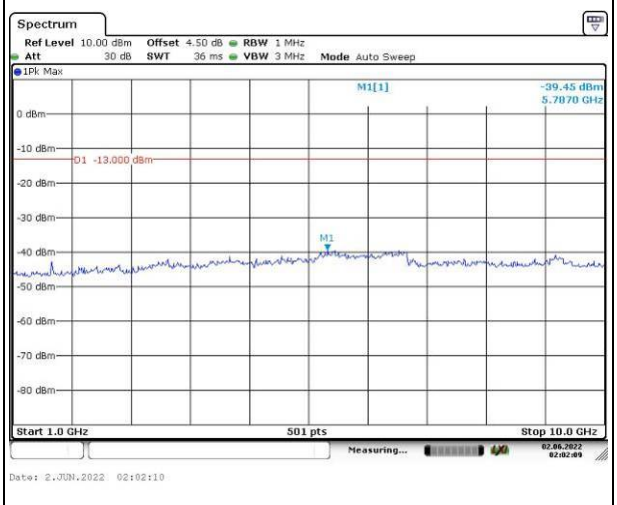
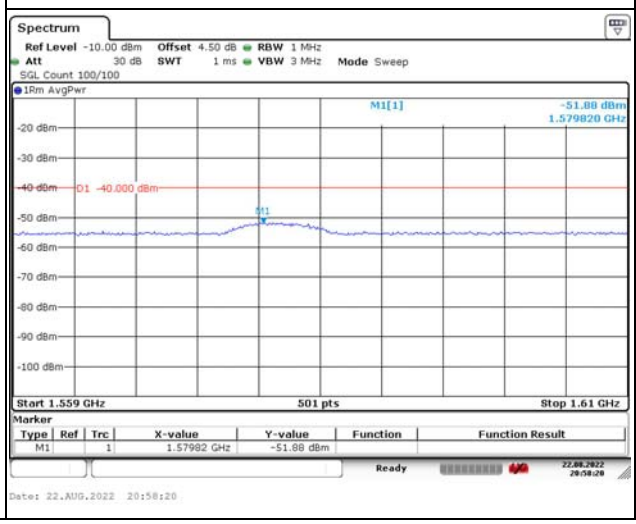
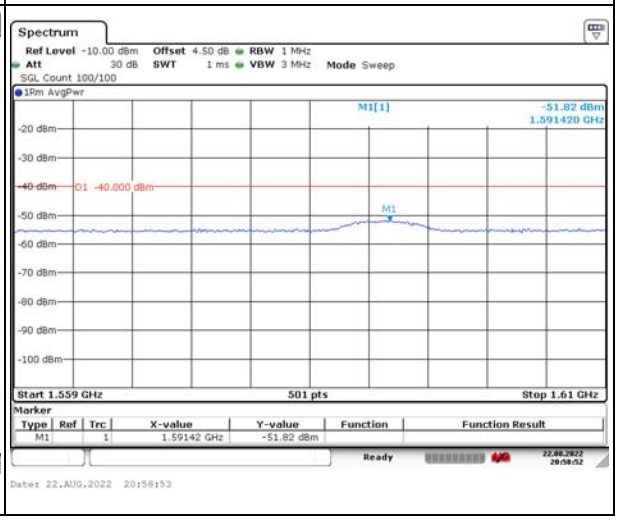
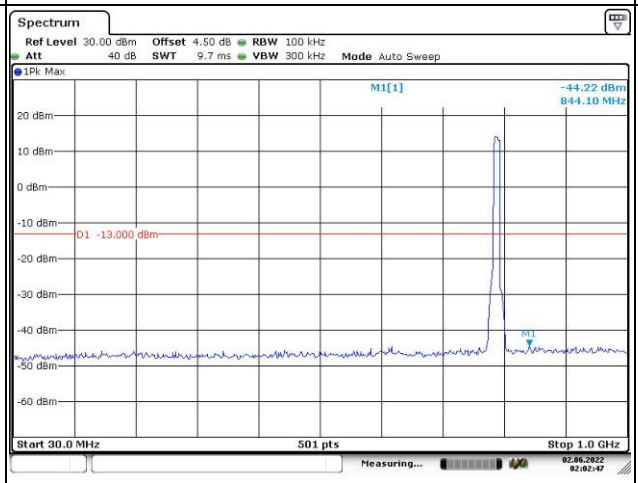
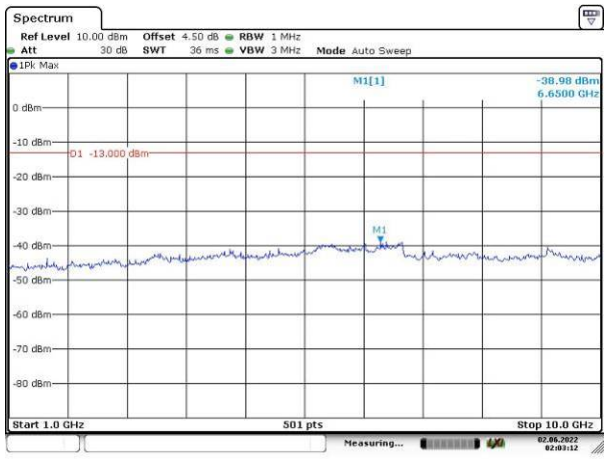
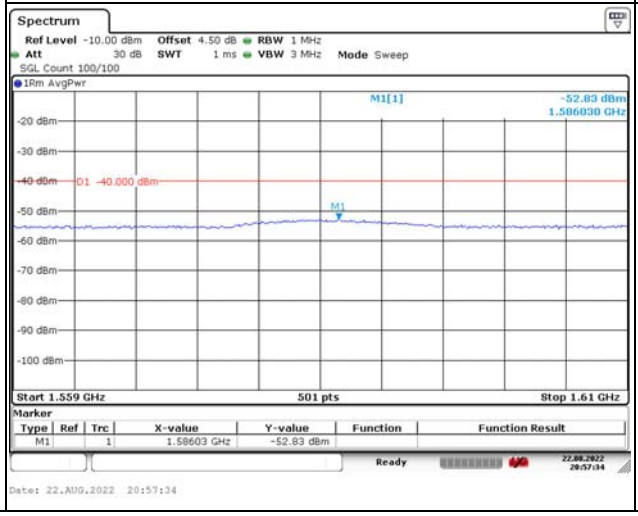
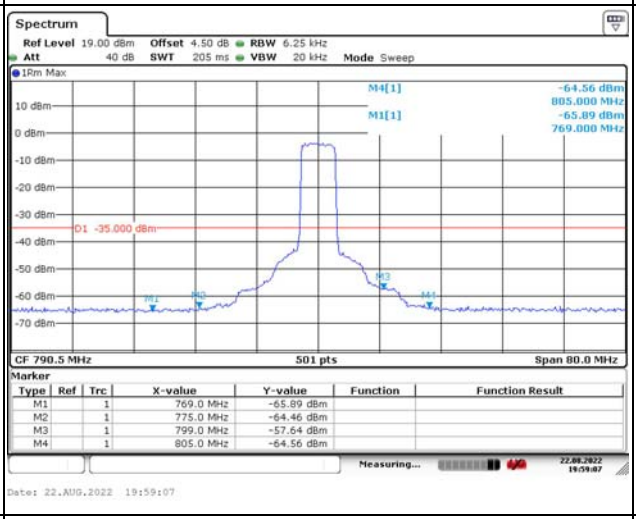
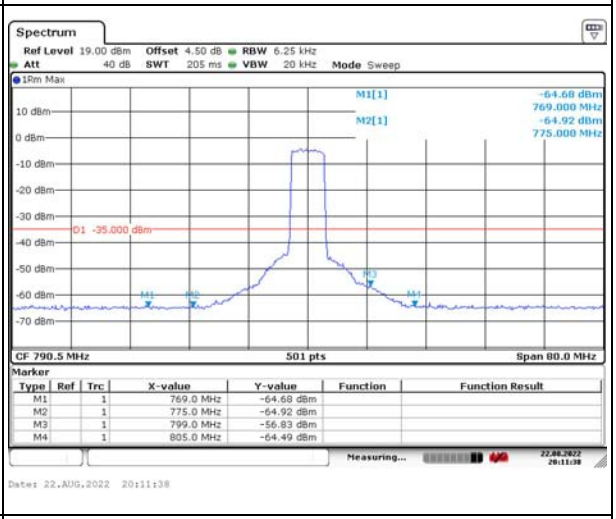
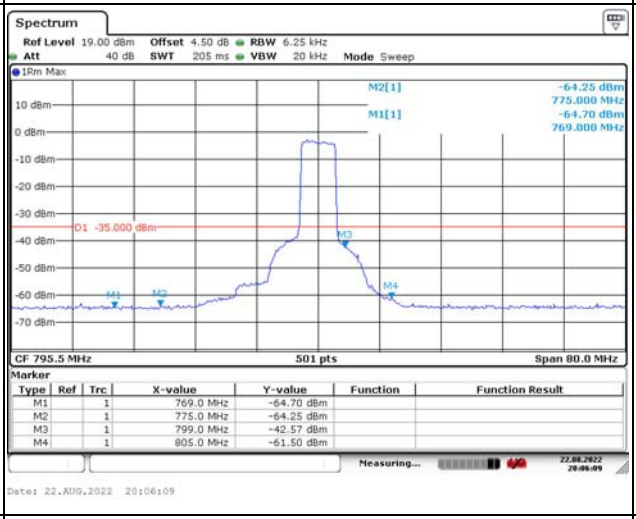
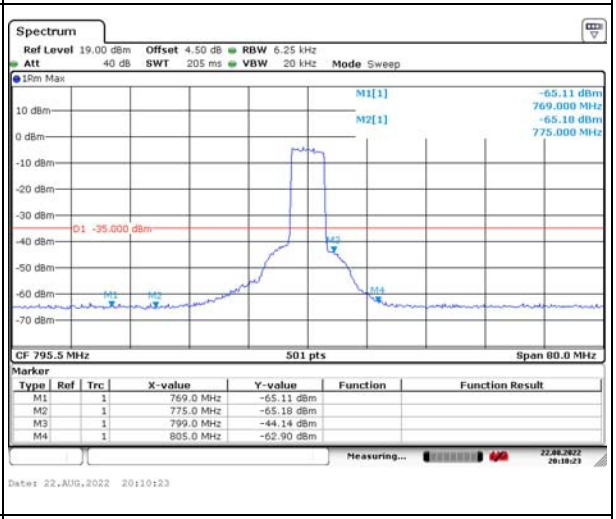
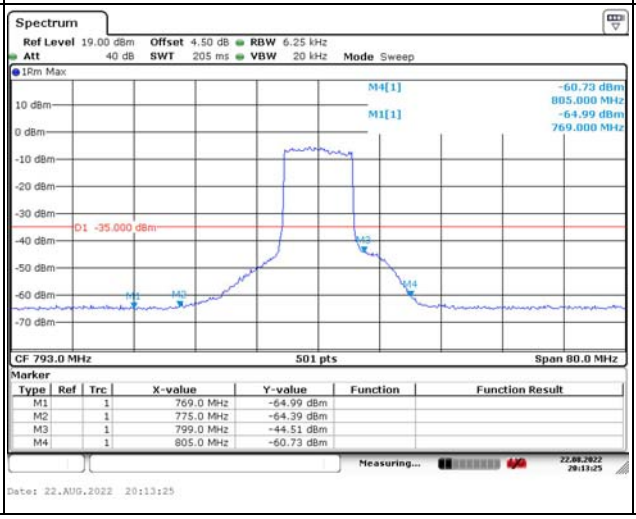
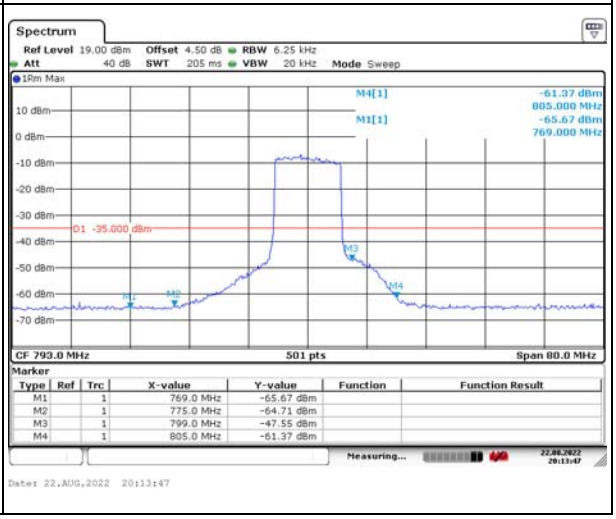
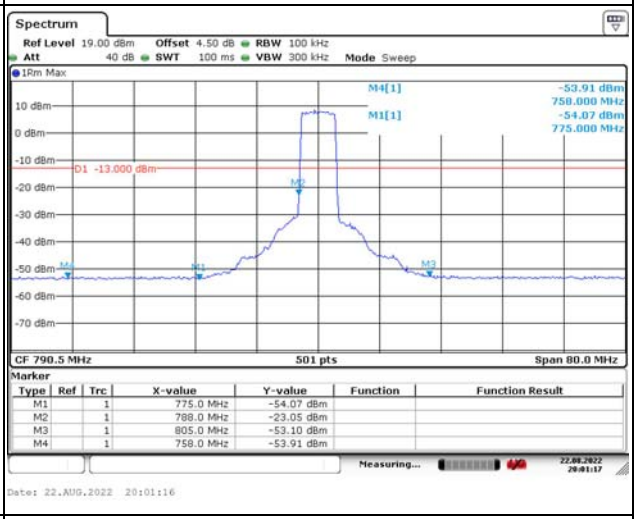
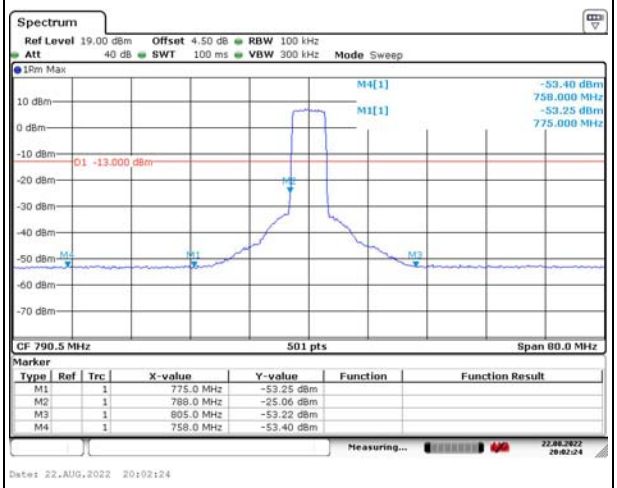
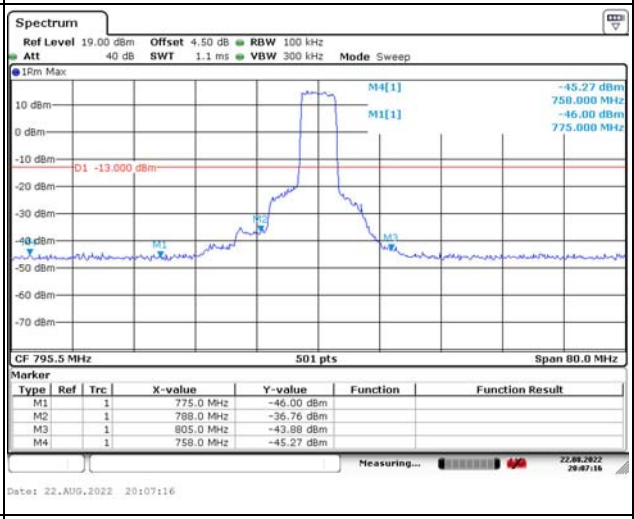
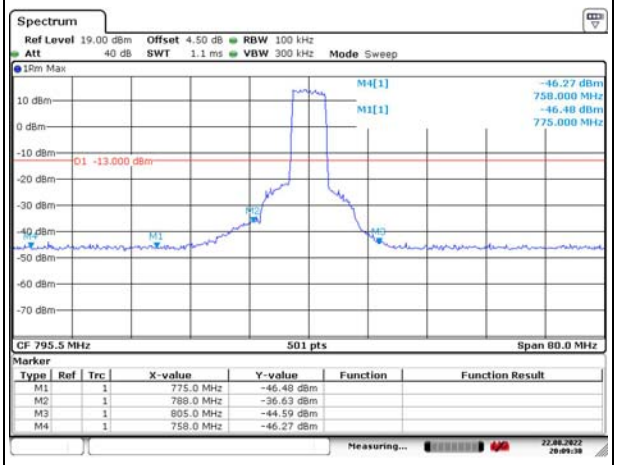
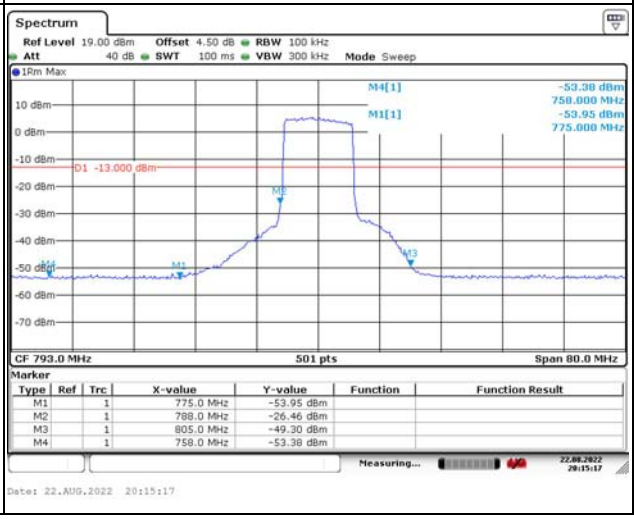
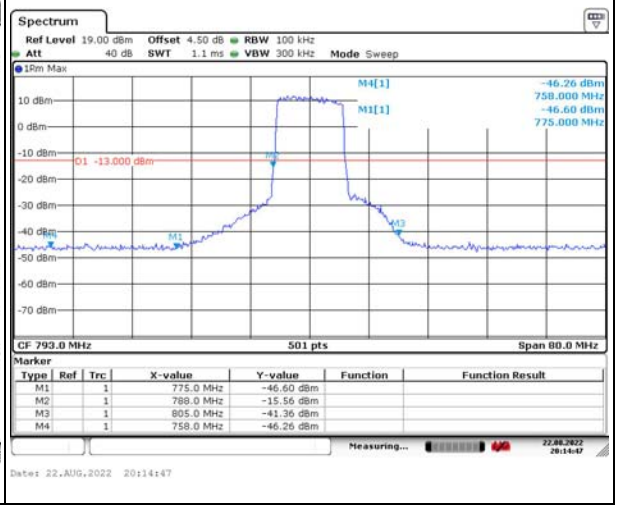
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Middle		

Spurious Emissions at Antenna Terminal		
Mode	Lowest Channel	Highest Channel
QPSK 5MHz		
		
		

Spurious Emissions at Antenna Terminal		
Mode	Middle Channel	/
QPSK 10MHz		/
		/
		/

Out of band emission, Band Edge		
Mode	**769-775MHz&799-805MHz**	**775-788MHz&Above 805MHz**
QPSK 5MHz Lowest Channel		
QPSK 5MHz Highest Channel		
QPSK 10MHz Middle Channel		

Out of band emission, Band Edge		
Mode	**769-775MHz&799-805MHz**	**775-788MHz&Above 805MHz**
16QAM 5MHz Lowest Channel		
16QAM 5MHz Highest Channel		
16QAM 10MHz Middle Channel		

4.10 Antenna Port Test Data and Results for LTE Band 66:

Serial Number:	CR22050037-RF-S1	Test Date:	2022-06-02~2022-07-13
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rinka Li	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	25.9~26	Relative Humidity: (%)	67	ATM Pressure: (kPa)	100.0~100.1

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2021-07-22	2022-07-21
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554404	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2021-07-22	2022-07-21
UNI-T	Multimeter	UT39A+	C210582554	2021-09-30	2022-09-29
Weinschel	Coaxial Attenuator	53-20-34	LN751	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150	30026	2021-07-22	2022-07-21
UNI-T	Multimeter	UT39A+	C210582554	2021-07-22	2022-07-21
E-Microwave	Two-way Spliter	ODP-1-6	OE0120176	Each Time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

EUT Information@ LTE Band 66▲:

Antenna Gain (dBi):	3.87			Cable Loss (dB):	0
Operation Voltage(V_{DC}):					
Lowest:	10.8	Normal:	13.8	Highest:	36

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;§ 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	22.08	22.13	21.66	26.1	30
	RB1#3	22.11	22.23	21.83		
	RB1#5	21.92	22.14	21.77		
	RB3#0	21.95	22.16	21.74		
	RB3#3	21.92	22.14	21.68		
	RB6#0	20.99	21.13	20.71		
1.4MHz 16QAM	RB1#0	20.87	21.14	20.75	25.04	30
	RB1#3	21.14	21.09	20.83		
	RB1#5	21	21.09	20.66		
	RB3#0	21.01	21.17	20.72		
	RB3#3	21.01	21.09	20.62		
	RB6#0	20.12	20.1	19.85		
3MHz QPSK	RB1#0	22.05	22.18	21.76	26.12	30
	RB1#8	21.94	22.07	21.73		
	RB1#14	22	22.25	21.73		
	RB6#0	21.03	21.23	20.88		
	RB6#9	21.03	21.07	20.67		
	RB15#0	20.97	21.07	20.81		
3MHz 16QAM	RB1#0	21.02	21.03	21.01	24.93	30
	RB1#8	20.89	20.94	20.8		
	RB1#14	21.06	21	20.68		
	RB6#0	20.11	20.17	19.93		
	RB6#9	20.07	20.05	19.75		
	RB15#0	20.08	20.15	19.85		
5MHz QPSK	RB1#0	22.03	22.16	21.77	26.03	30
	RB1#13	22	22.04	21.76		
	RB1#24	22	22.03	21.65		
	RB15#0	21.14	21.21	20.89		
	RB15#10	21.06	21.09	20.72		
	RB25#0	21.15	21.12	20.83		
5MHz 16QAM	RB1#0	21.08	21.22	20.92	25.09	30
	RB1#13	21.11	21.1	20.78		
	RB1#24	20.95	21.17	20.58		
	RB15#0	20.1	20.22	19.89		
	RB15#10	20.04	20.13	19.82		
	RB25#0	20.06	20.12	19.84		

10MHz QPSK	RB1#0	22.14	22.36	21.95	26.24	30
	RB1#25	22.2	22.37	22.05		
	RB1#49	22.14	22.13	21.79		
	RB25#0	21.18	21.35	20.82		
	RB25#25	21.08	21.08	20.78		
	RB50#0	21.17	21.28	20.86		
10MHz 16QAM	RB1#0	20.79	21.2	20.91	25.07	30
	RB1#25	21.06	21.2	21.04		
	RB1#49	20.97	21.11	20.67		
	RB25#0	20.14	20.37	19.92		
	RB25#25	20.14	20.17	19.87		
	RB50#0	20.18	20.25	19.87		
15MHz QPSK	RB1#0	22.2	22.3	21.87	26.17	30
	RB1#38	22.18	22.09	21.81		
	RB1#74	22.16	22.08	21.64		
	RB36#0	21.19	21.38	20.71		
	RB36#39	21.07	21.05	20.77		
	RB75#0	21.05	21.2	20.75		
15MHz 16QAM	RB1#0	20.92	21.25	20.74	25.12	30
	RB1#38	20.9	21.1	20.76		
	RB1#74	20.89	20.98	20.54		
	RB36#0	20.16	20.35	19.81		
	RB36#39	20.11	20.15	19.77		
	RB75#0	20.08	20.25	19.89		
20MHz QPSK	RB1#0	21.92	22.25	21.87	26.23	30
	RB1#50	22.12	22.36	21.79		
	RB1#99	21.96	22.27	21.6		
	RB50#0	21.07	21.27	20.67		
	RB50#50	20.99	21	20.8		
	RB100#0	21.03	21.11	20.61		
20MHz 16QAM	RB1#0	20.89	21.02	20.72	25.06	30
	RB1#50	21.19	21.07	21.05		
	RB1#99	21.05	20.79	20.51		
	RB50#0	20.06	20.28	19.84		
	RB50#50	20.06	20.11	19.79		
	RB100#0	20.03	20.18	19.69		
Note: EIRP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(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	4.09	4.52	4.09	13
	RB100#0	4.9	4.64	4.26	13
20MHz 16QAM	RB1#0	5.19	5.36	5.28	13
	RB100#0	5.88	5.74	5.3	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	1.096	1.102	1.102	1.32	1.344	1.338
1.4MHz 16QAM	1.096	1.102	1.102	1.314	1.356	1.308
3MHz QPSK	2.683	2.695	2.695	2.952	2.976	2.964
3MHz 16QAM	2.695	2.695	2.695	2.964	2.952	2.988
5MHz QPSK	4.531	4.531	4.511	5.04	5.04	5.02
5MHz 16QAM	4.511	4.511	4.511	5.04	5	5
10MHz QPSK	8.981	8.942	8.942	9.76	9.8	9.76
10MHz 16QAM	8.942	8.942	8.942	9.8	9.76	9.68
15MHz QPSK	13.473	13.413	13.413	14.82	14.82	14.82
15MHz 16QAM	13.473	13.413	13.413	14.82	14.76	14.76
20MHz QPSK	17.884	17.884	17.884	19.36	19.36	19.36
20MHz 16QAM	17.884	17.804	17.884	19.36	19.36	19.44
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.**

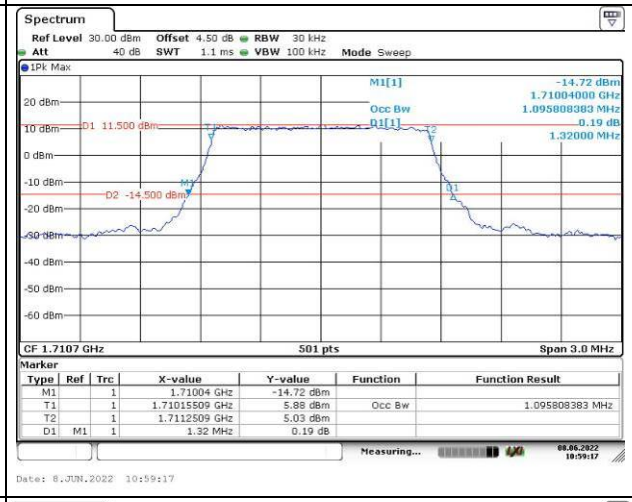
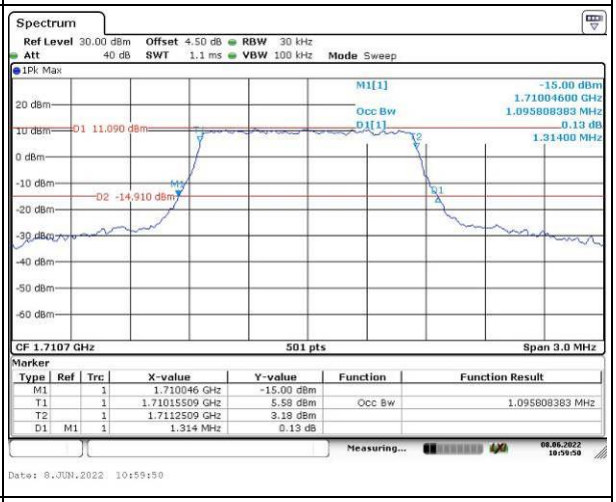
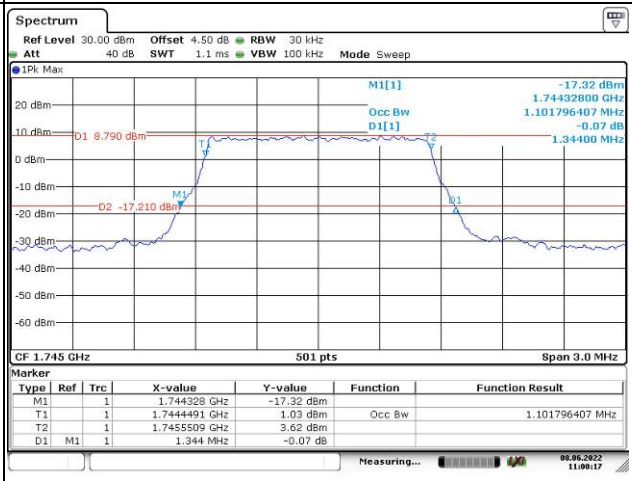
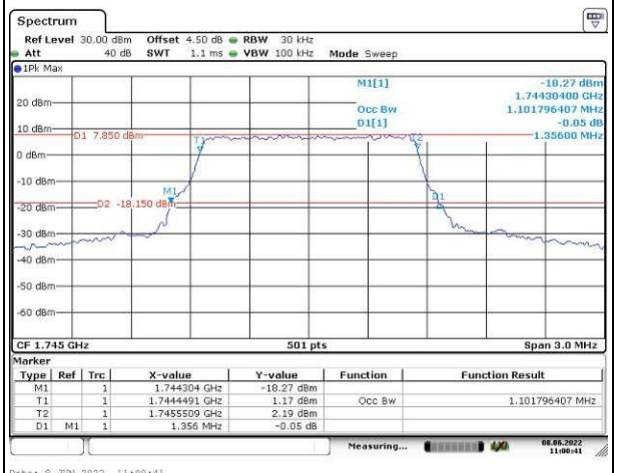
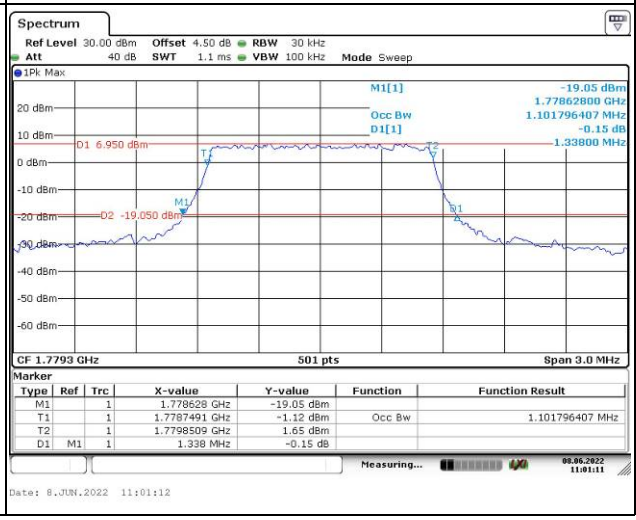
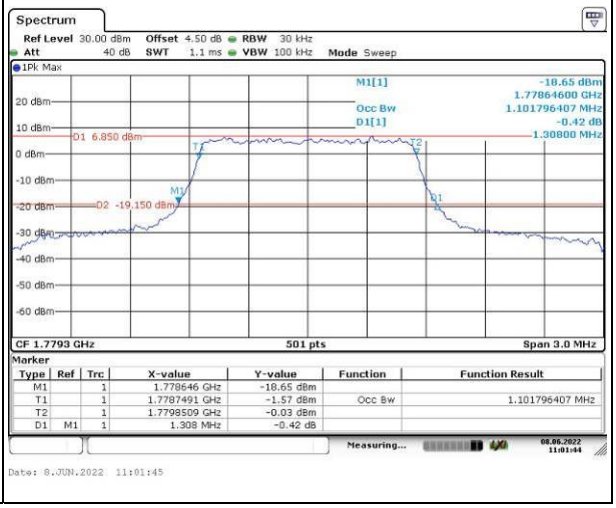
FCC §2.1051, § 27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

FCC §2.1055, §27.54: Frequency Stability

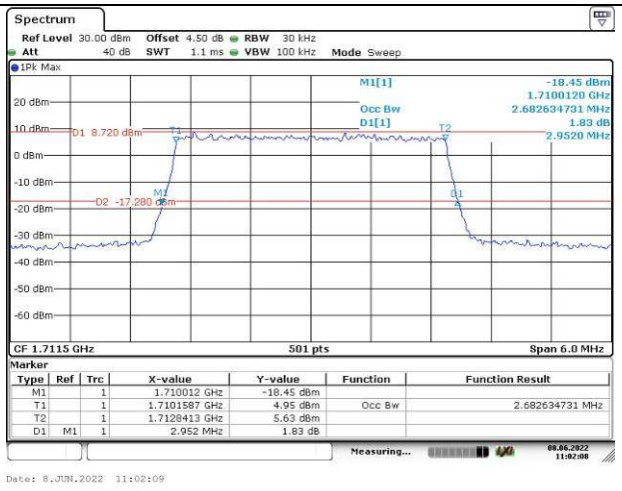
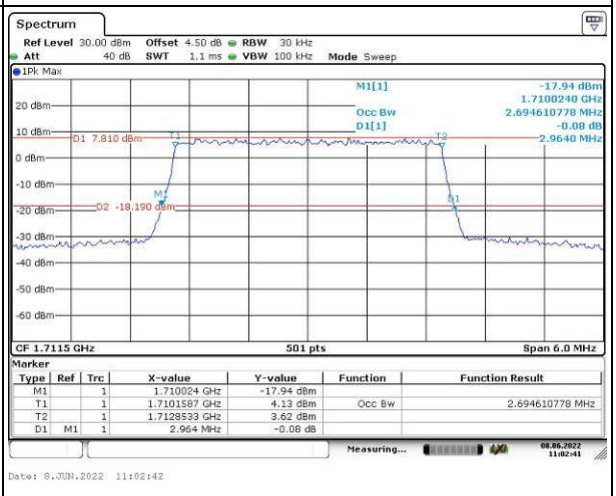
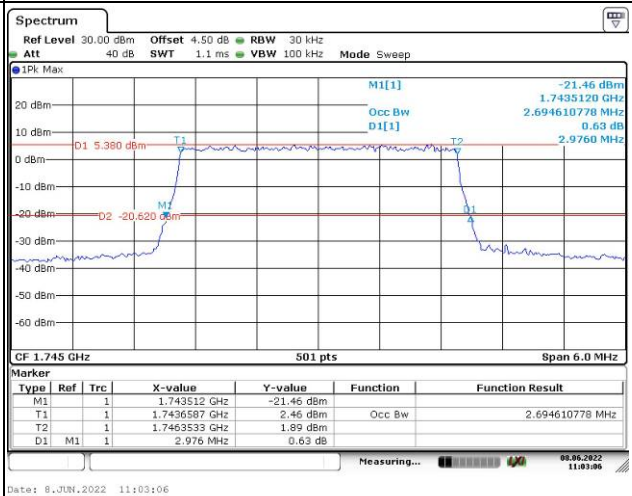
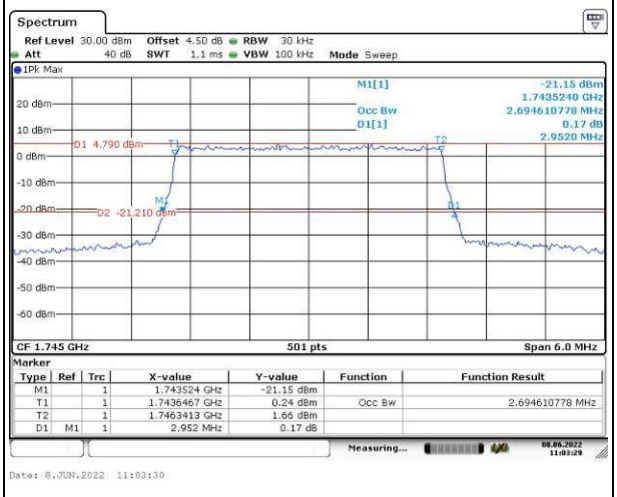
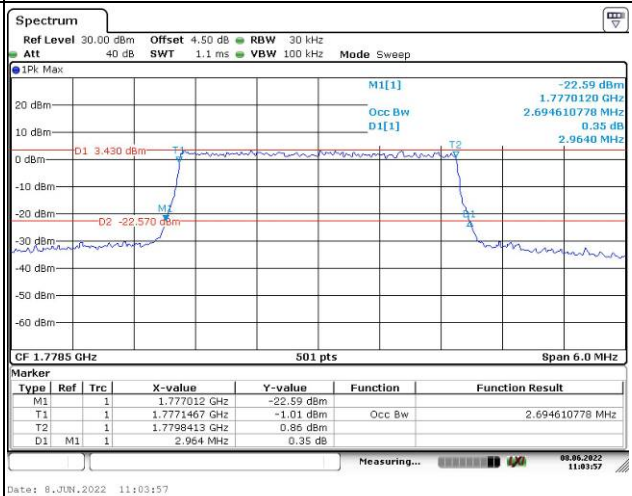
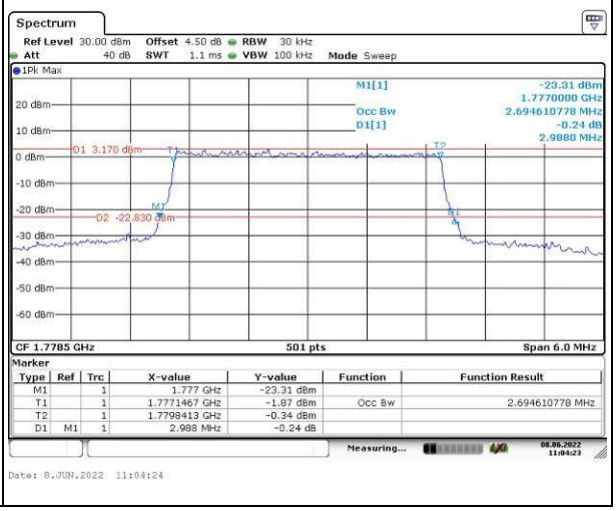
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	13.8	1710.120	1710.00	1779.958	1780
	-20	13.8	1710.109	1710.00	1779.947	1780
	-10	13.8	1710.104	1710.00	1779.938	1780
	0	13.8	1710.103	1710.00	1779.927	1780
	10	13.8	1710.099	1710.00	1779.919	1780
	20	13.8	1710.085	1710.00	1779.915	1780
	30	13.8	1710.087	1710.00	1779.921	1780
	40	13.8	1710.092	1710.00	1779.931	1780
	50	13.8	1710.105	1710.00	1779.933	1780
Frequency Stability vs. Voltage	20	10.8	1710.112	1710.00	1779.941	1780
	20	36	1710.112	1710.00	1779.951	1780
					Result:	**Pass**

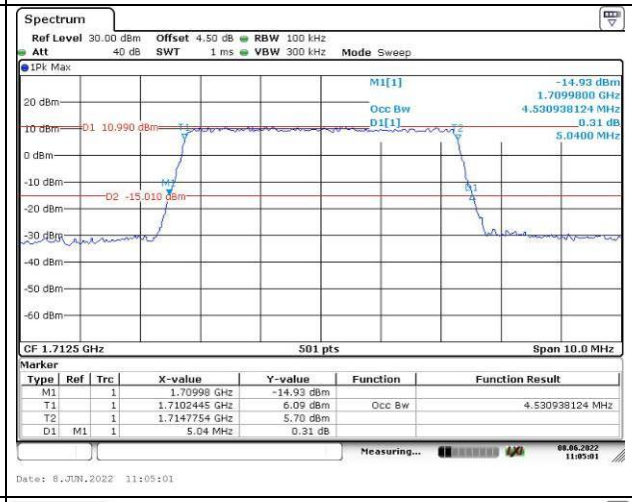
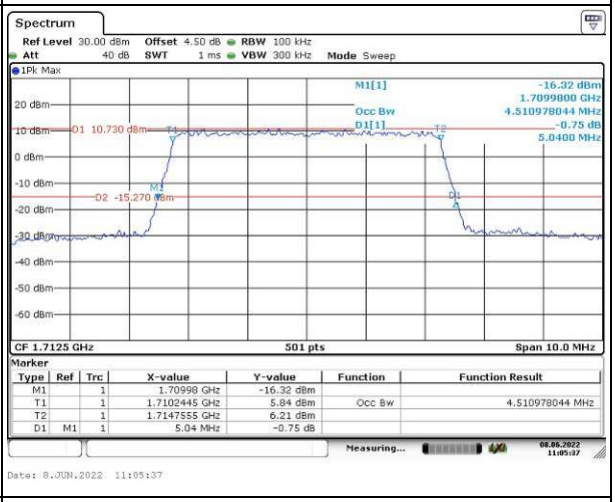
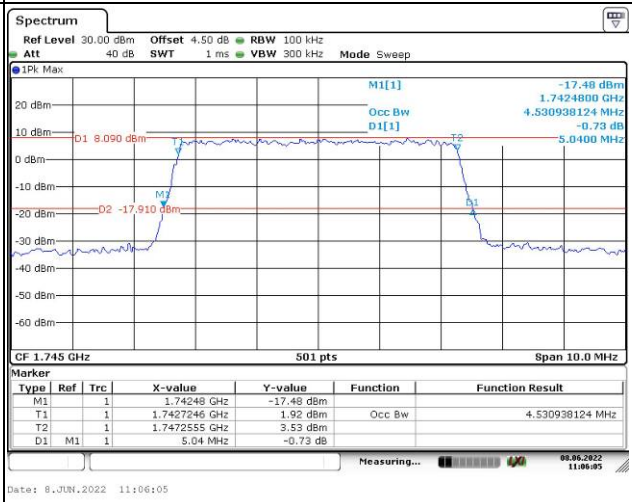
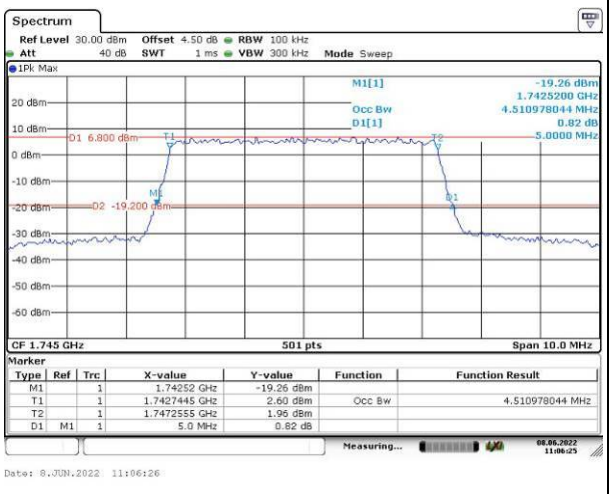
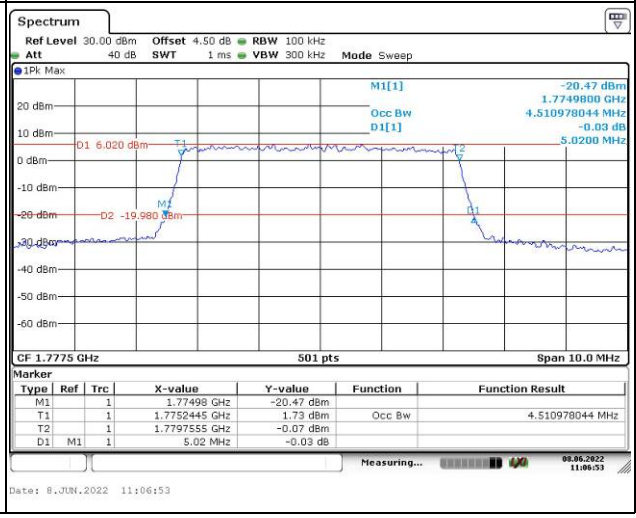
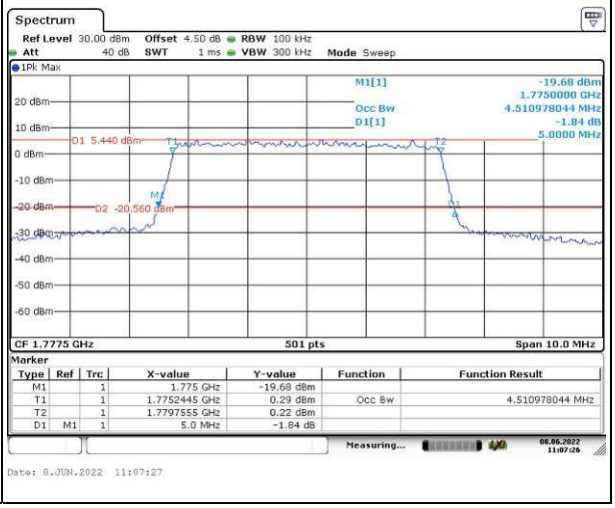
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	13.8	1710.103	1710.00	1779.944	1780
	-20	13.8	1710.103	1710.00	1779.935	1780
	-10	13.8	1710.102	1710.00	1779.935	1780
	0	13.8	1710.094	1710.00	1779.925	1780
	10	13.8	1710.088	1710.00	1779.916	1780
	20	13.8	1710.085	1710.00	1779.915	1780
	30	13.8	1710.097	1710.00	1779.925	1780
	40	13.8	1710.105	1710.00	1779.932	1780
	50	13.8	1710.107	1710.00	1779.944	1780
Frequency Stability vs. Voltage	20	10.8	1710.107	1710.00	1779.949	1780
	20	36	1710.108	1710.00	1779.949	1780
					Result:	**Pass**

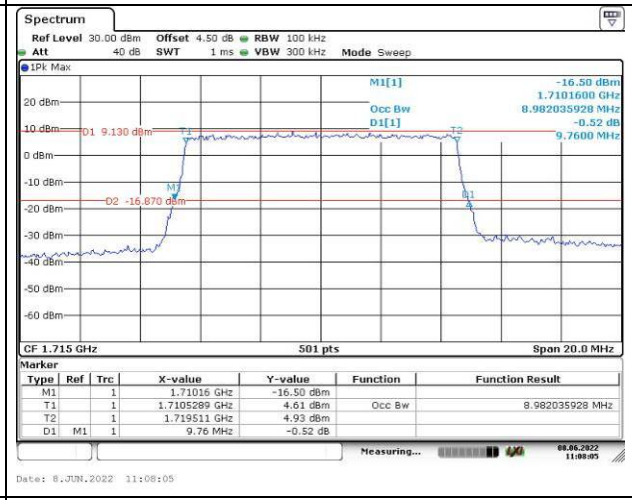
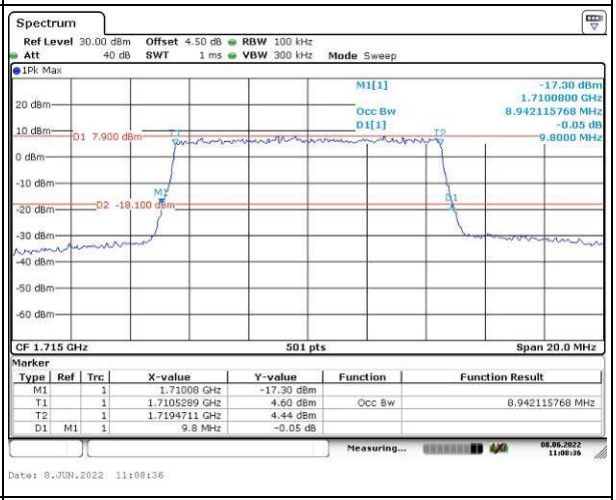
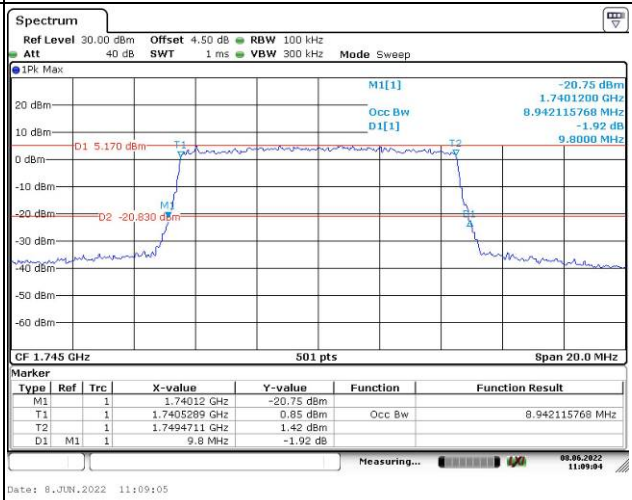
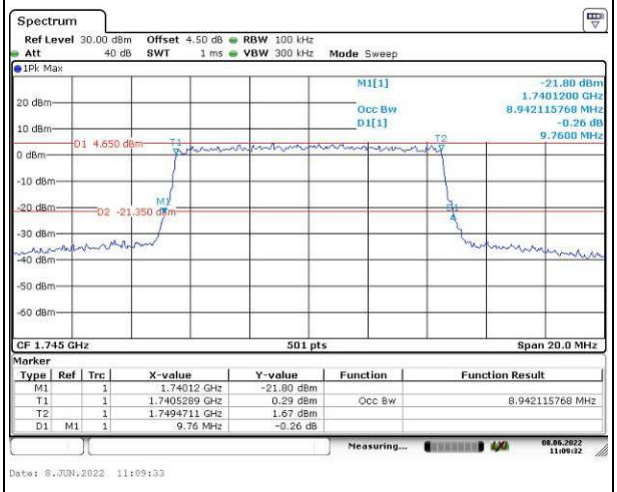
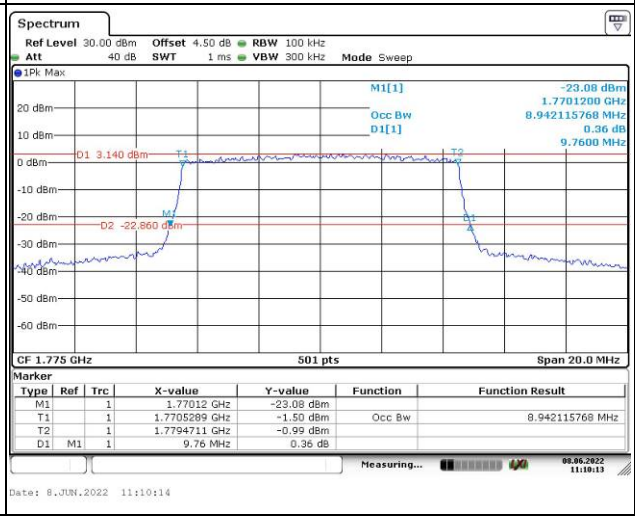
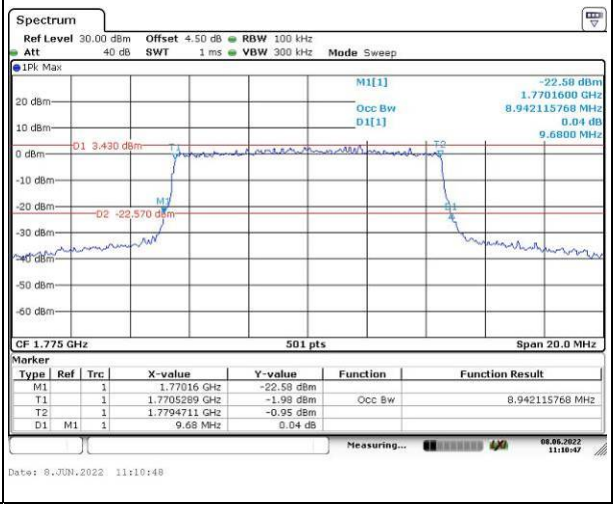
Test Plots:

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

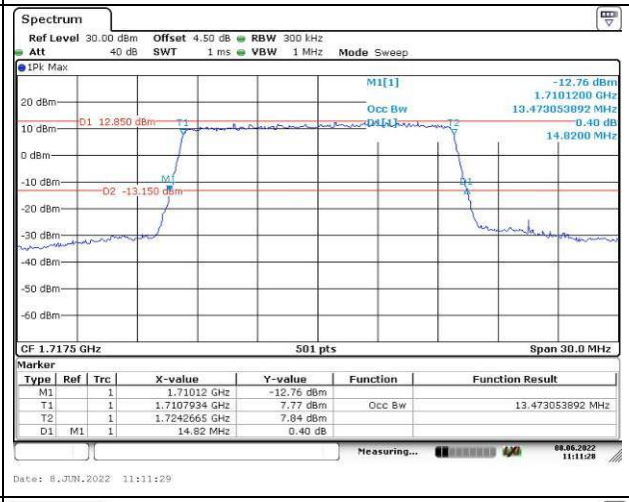
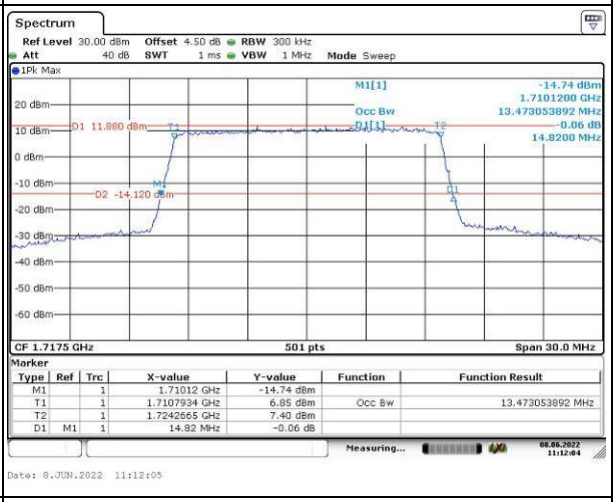
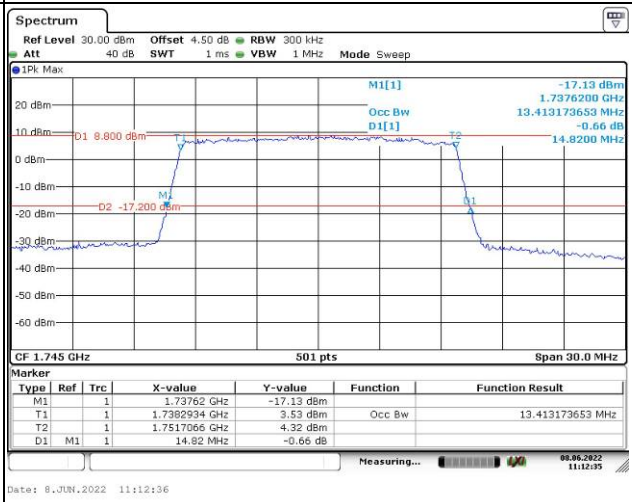
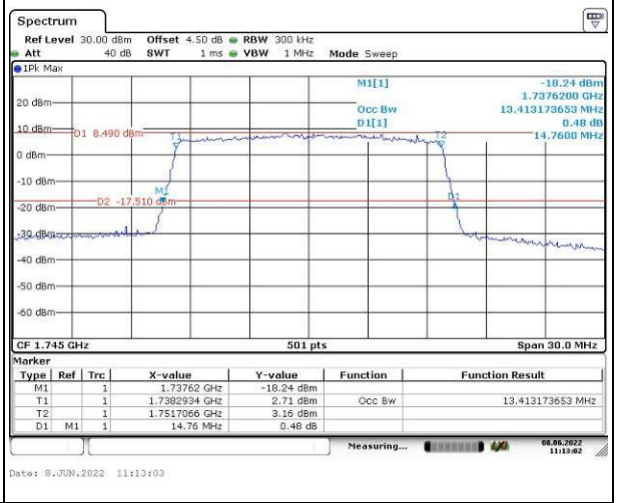
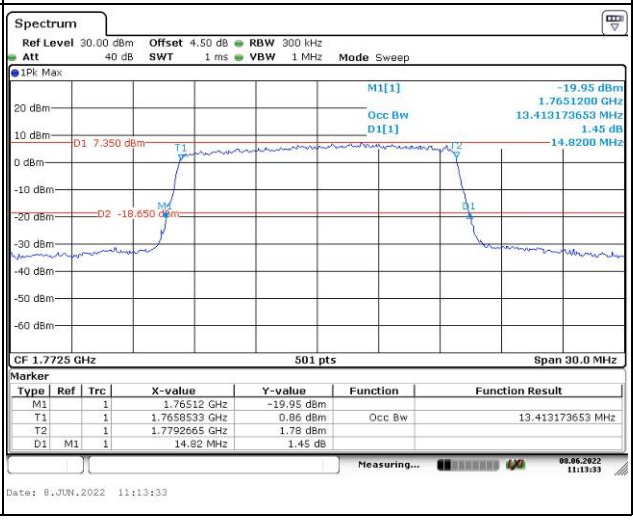
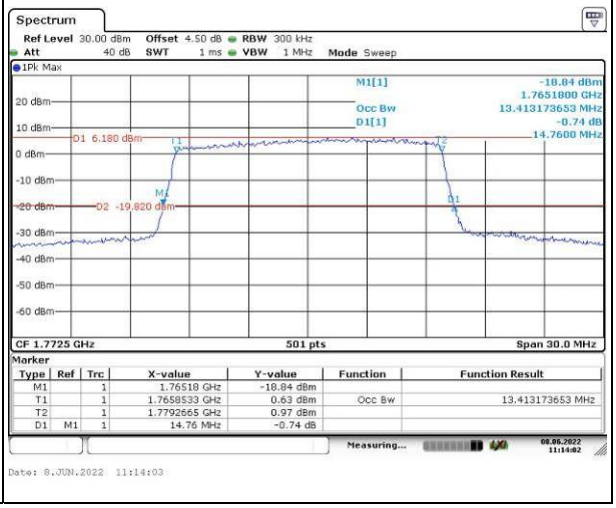
Occupied Bandwidth

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

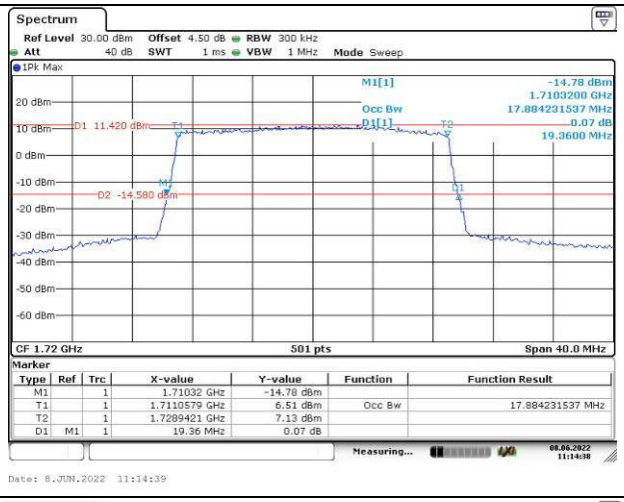
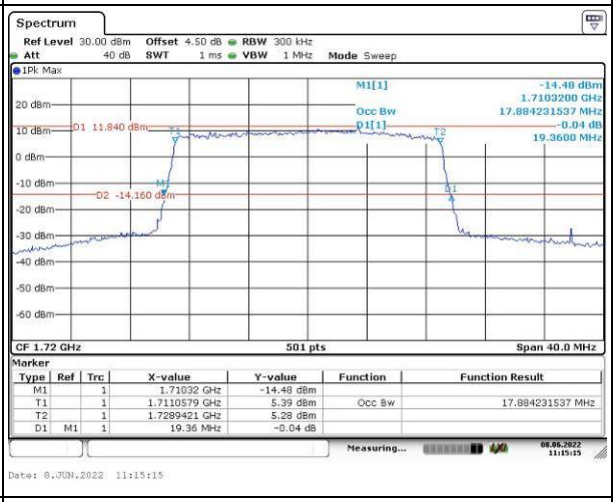
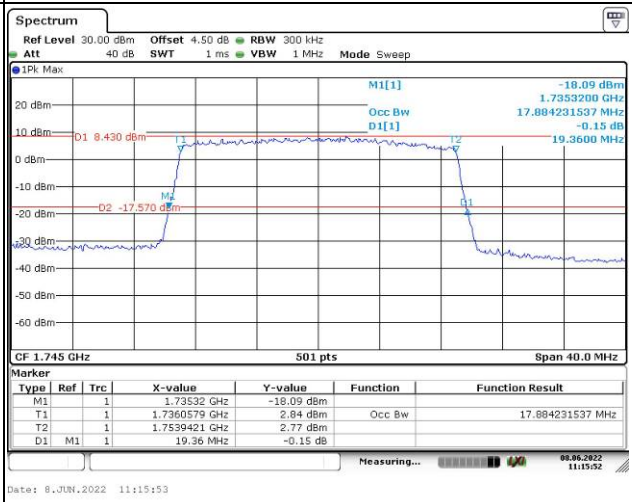
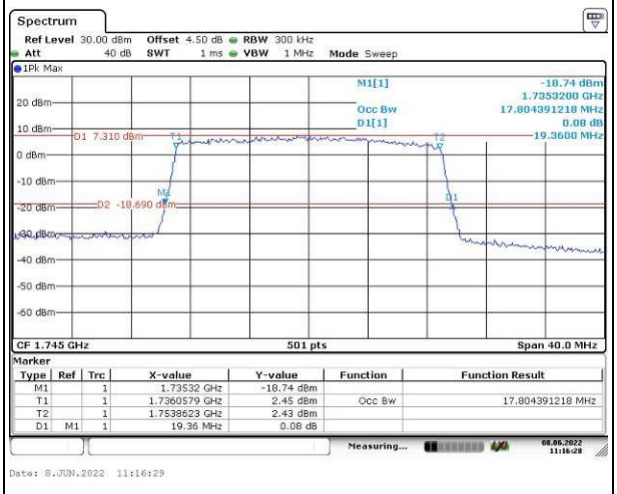
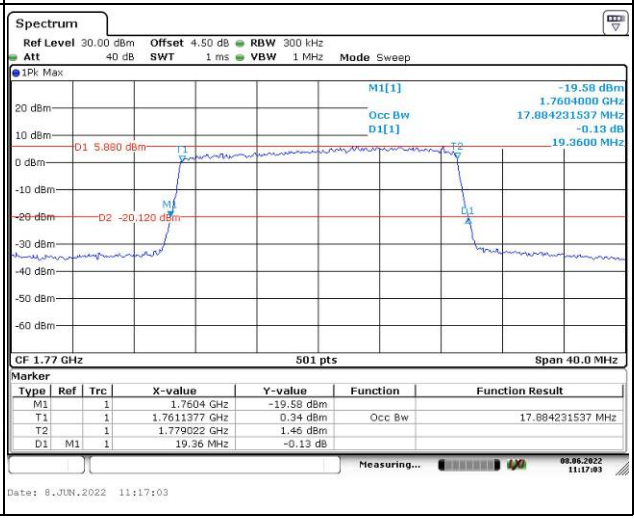
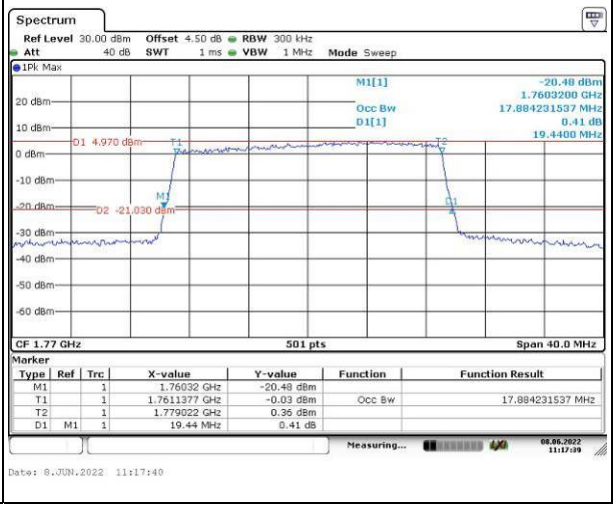
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

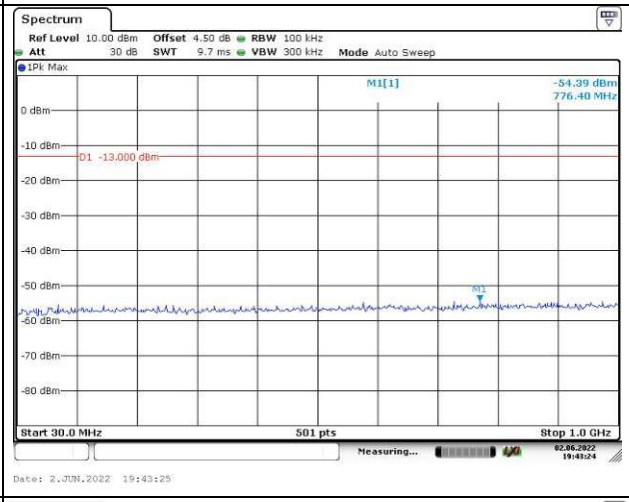
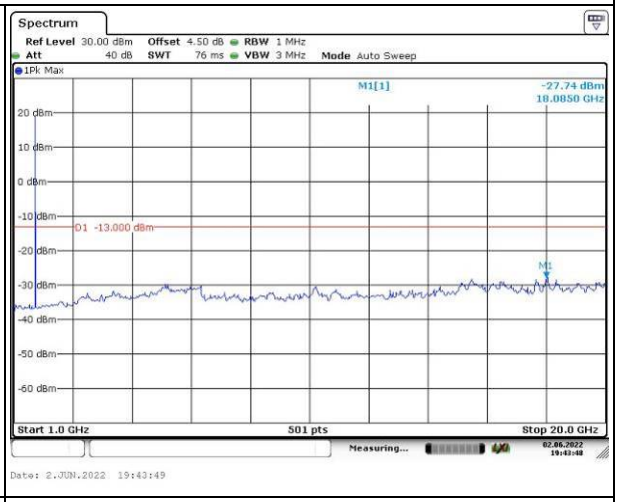
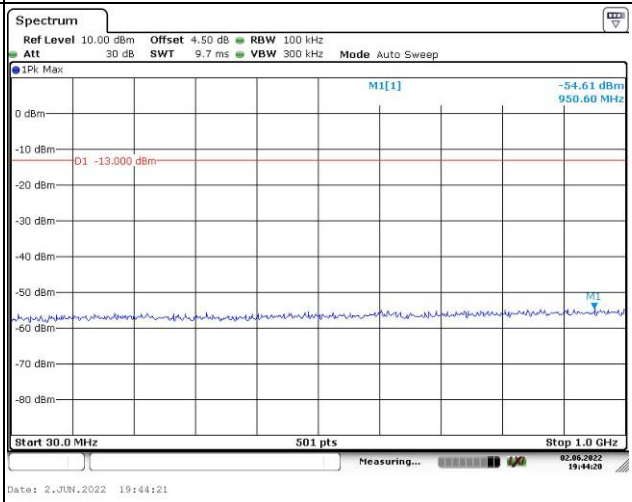
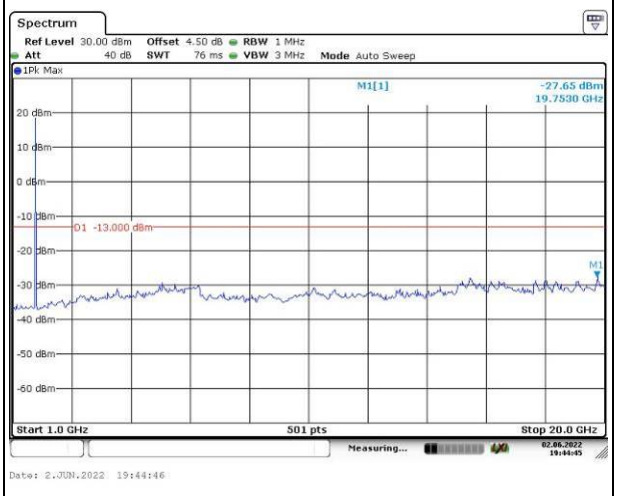
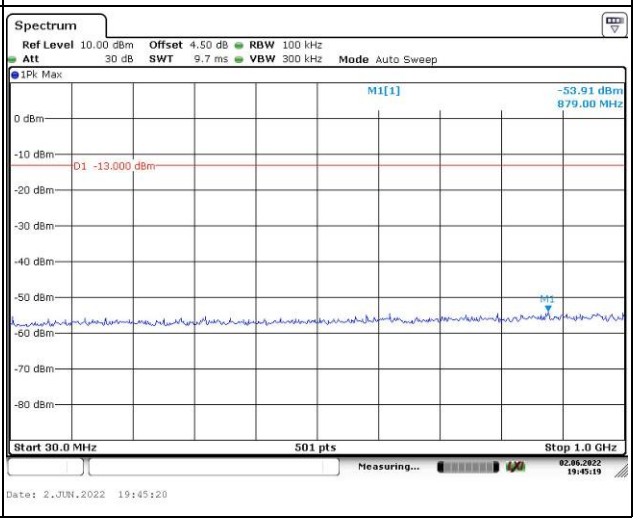
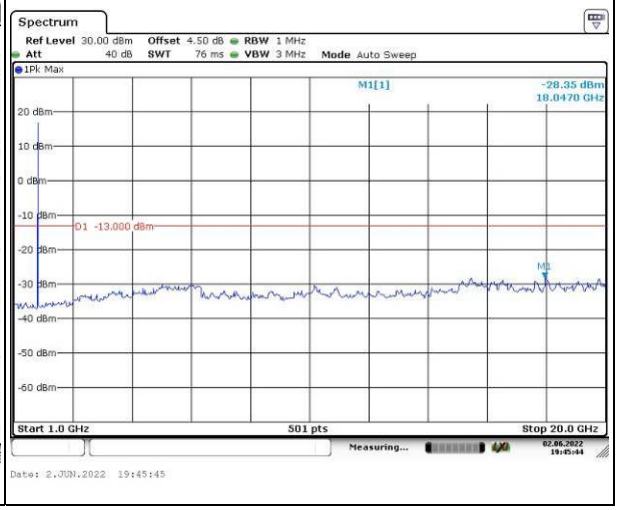
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

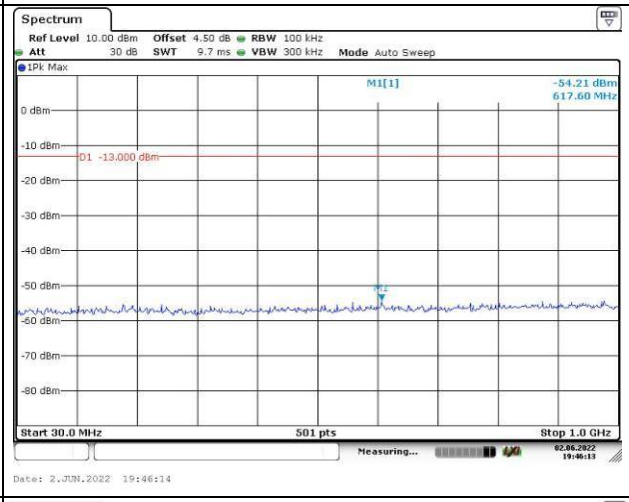
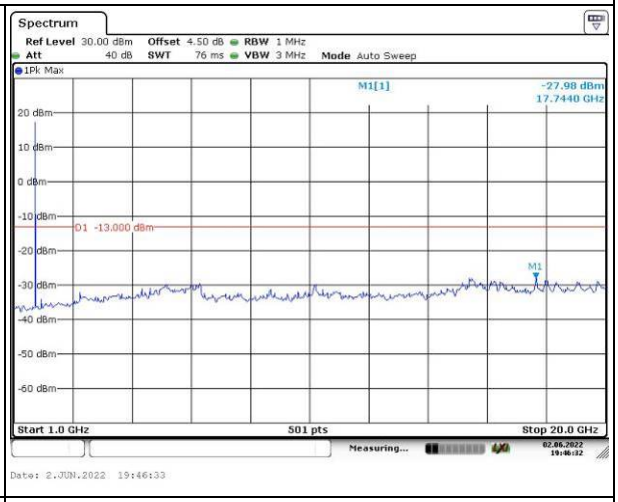
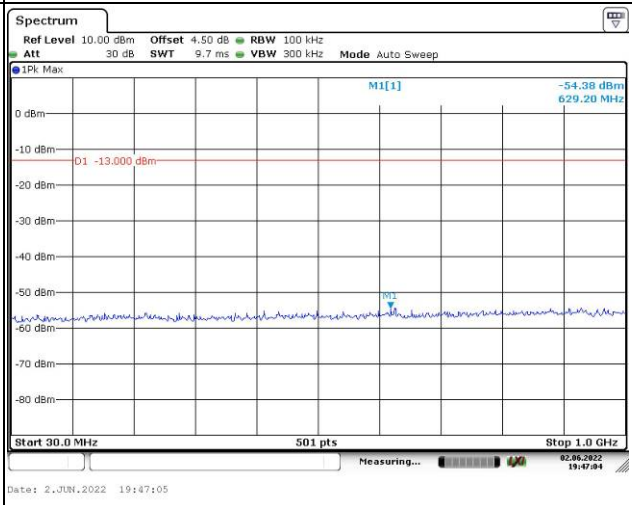
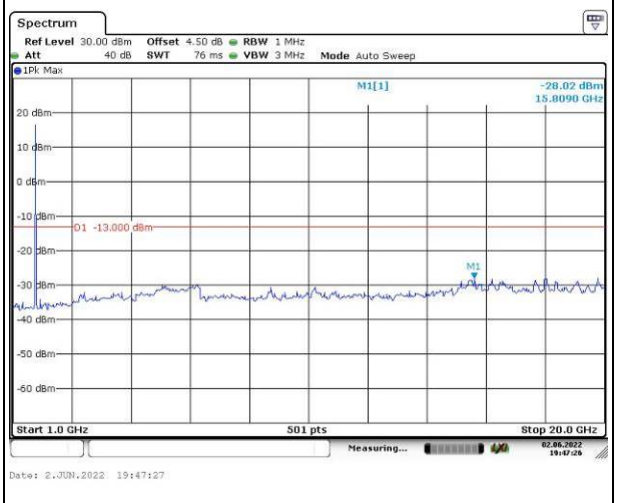
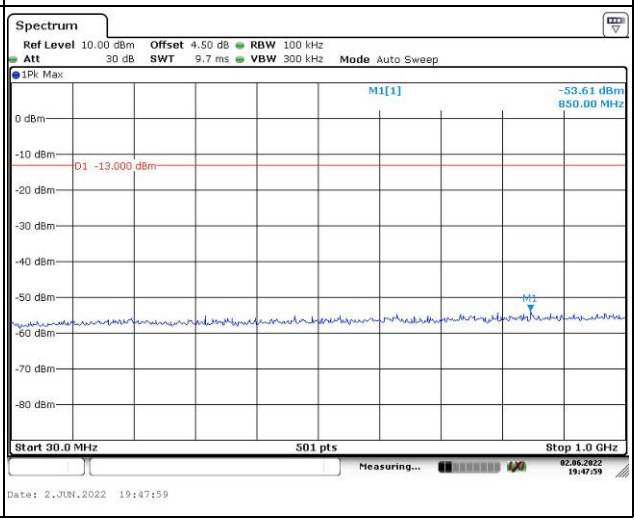
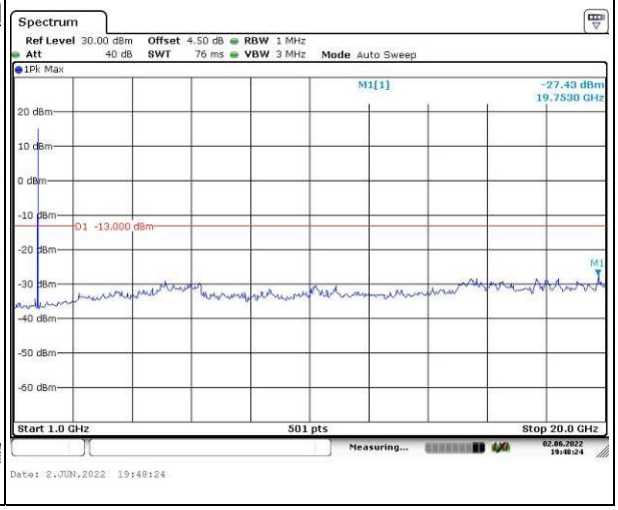
Occupied Bandwidth

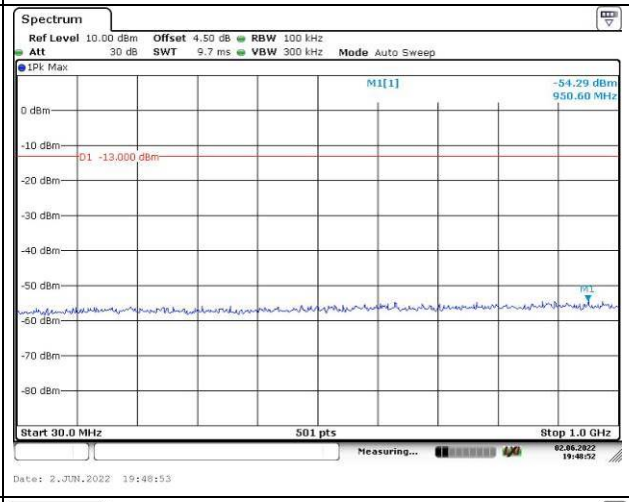
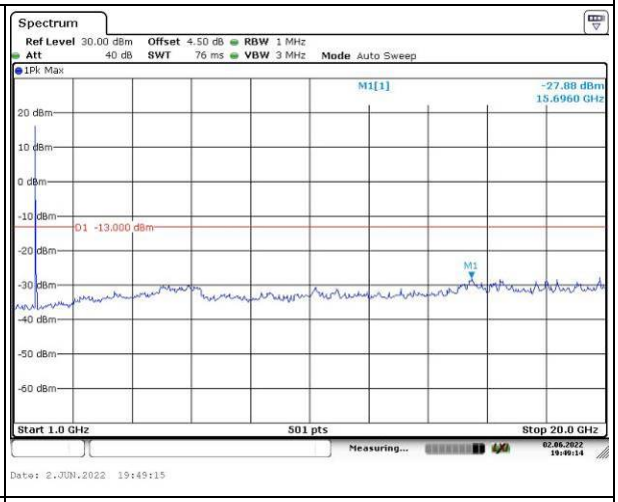
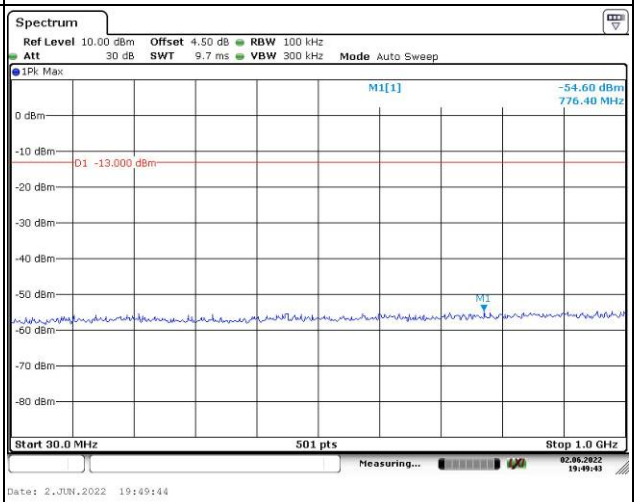
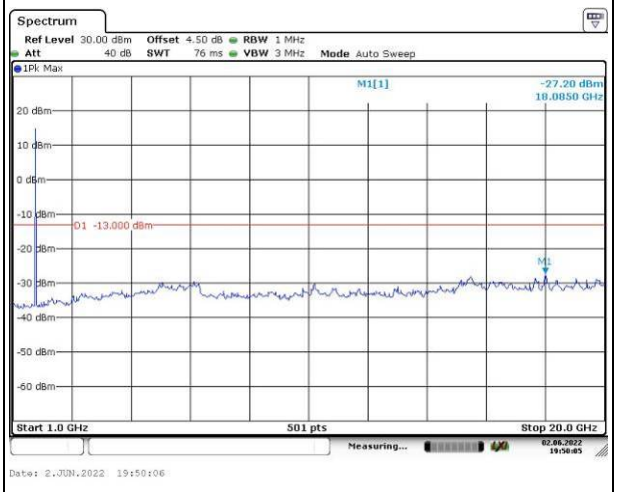
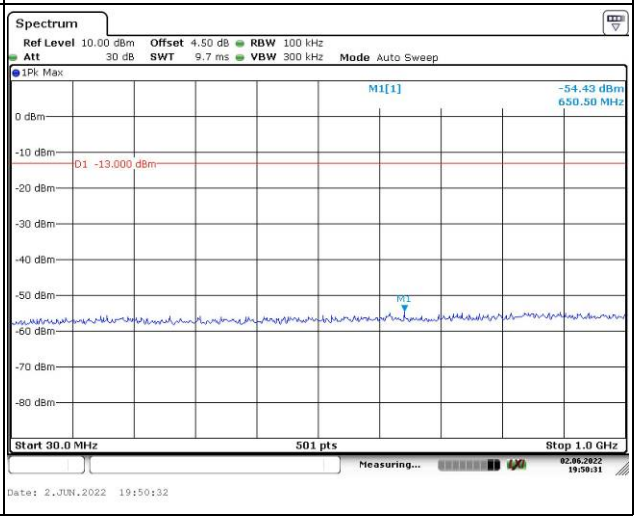
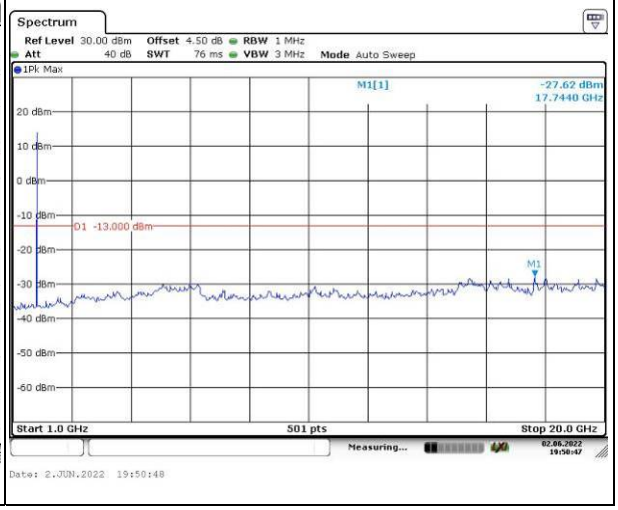
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

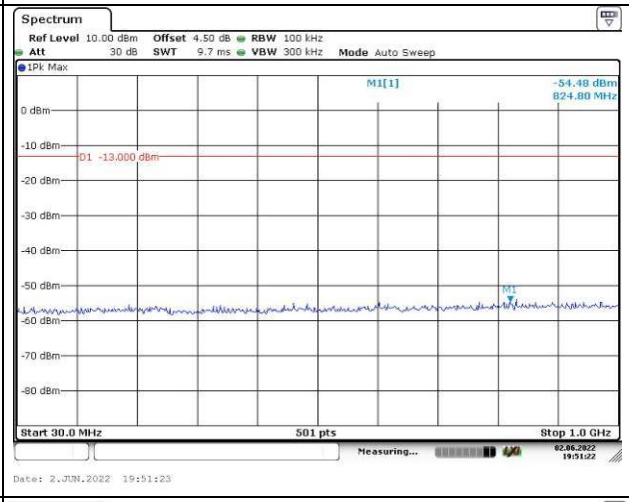
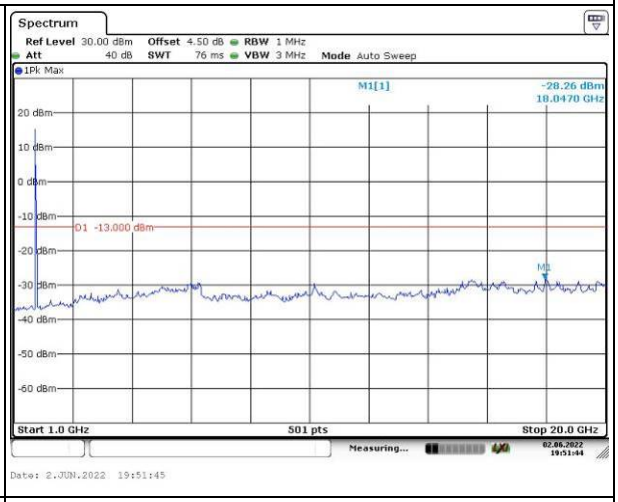
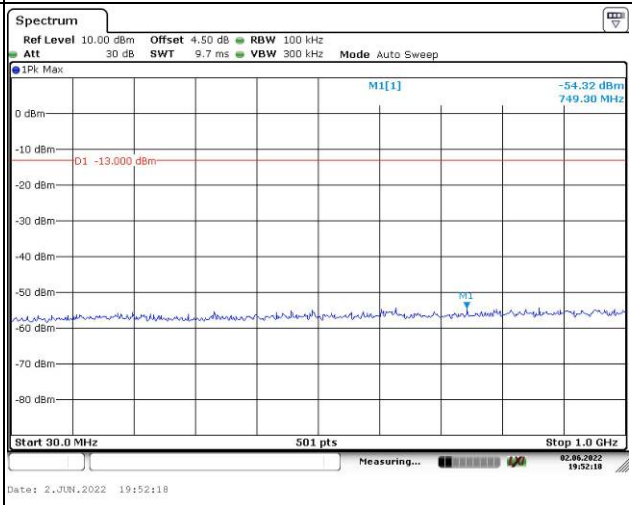
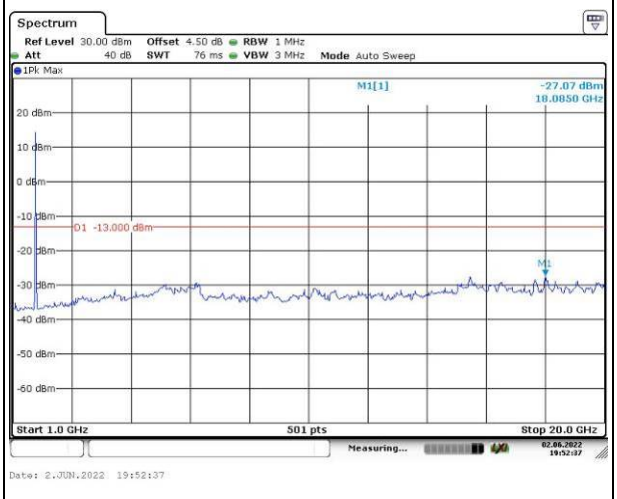
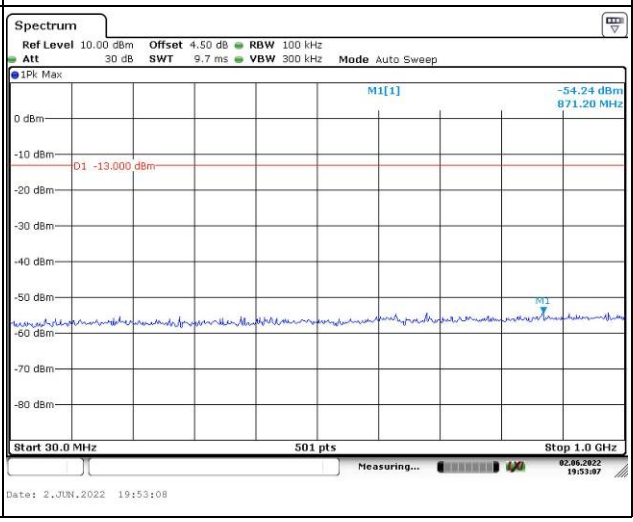
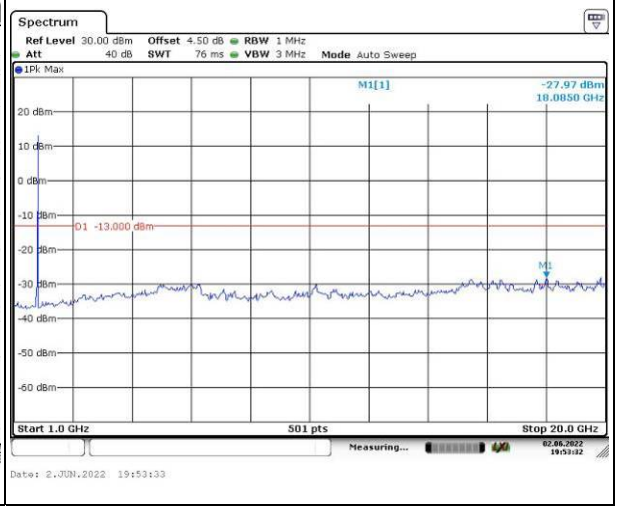
Occupied Bandwidth

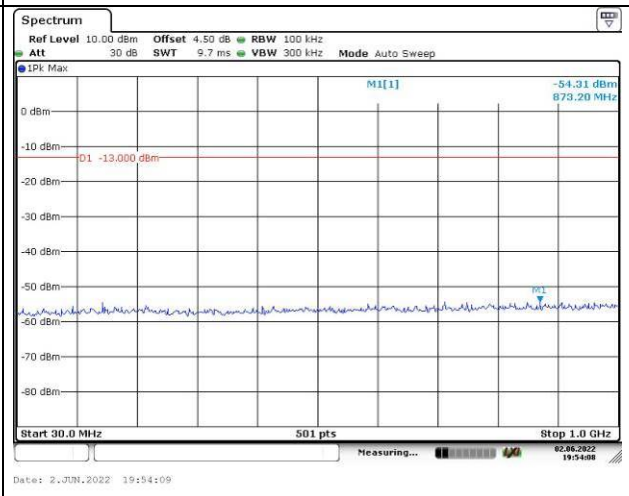
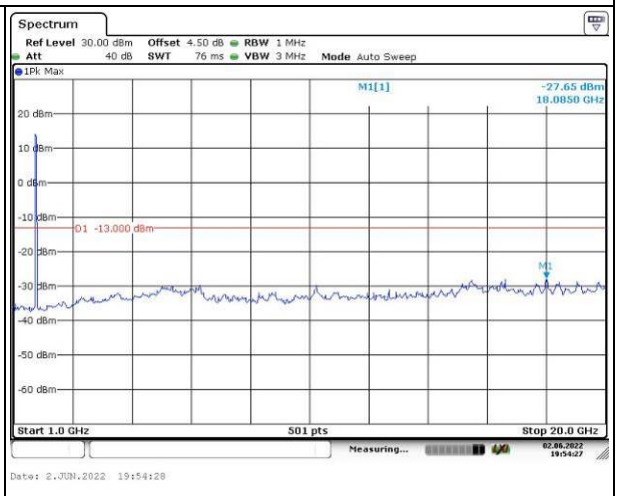
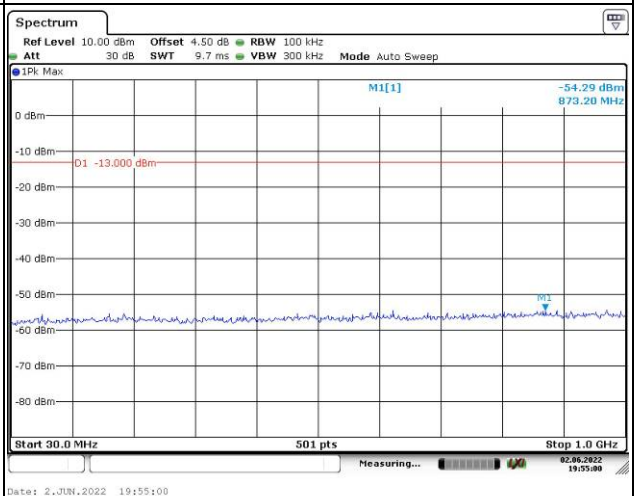
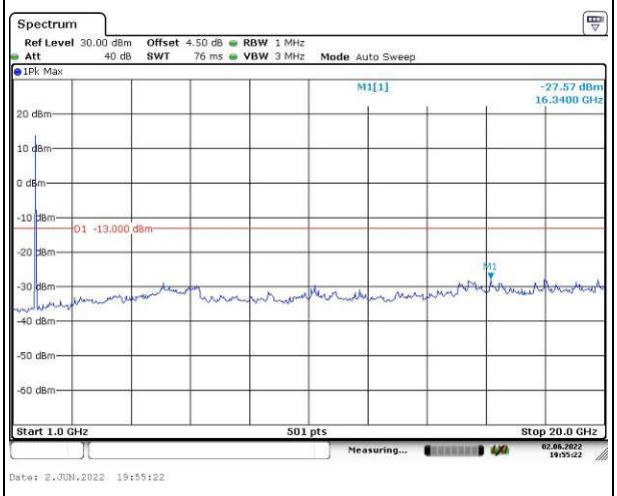
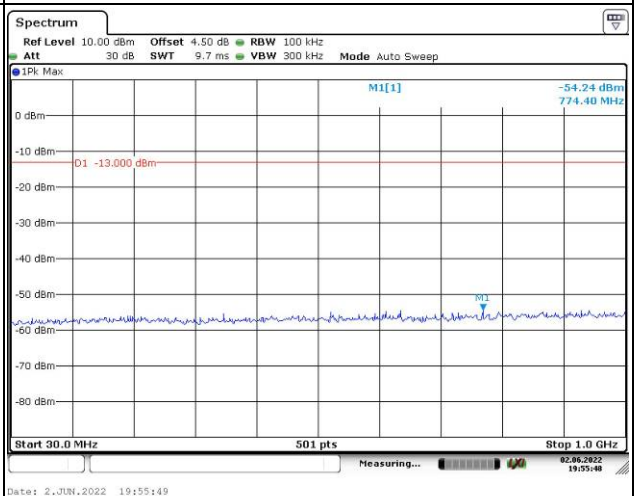
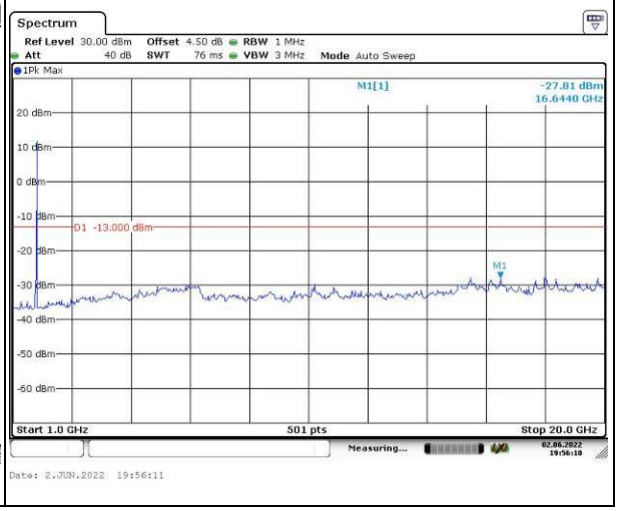
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

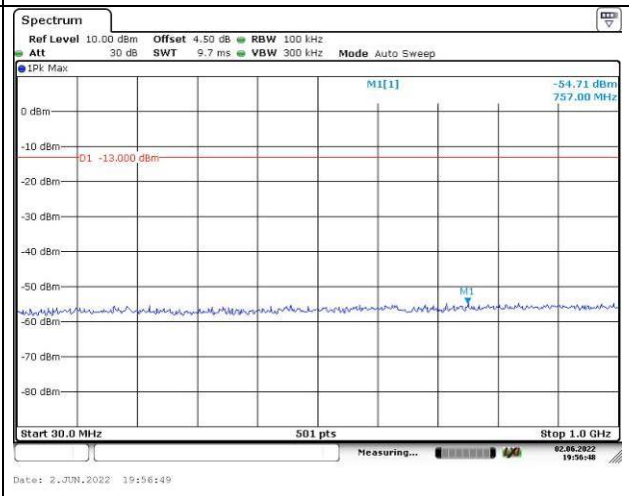
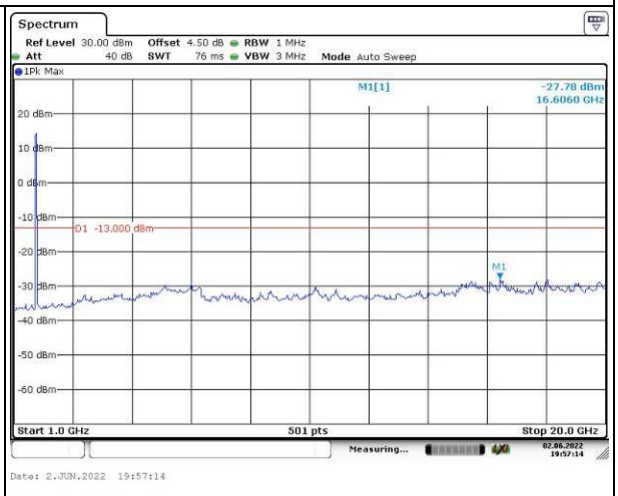
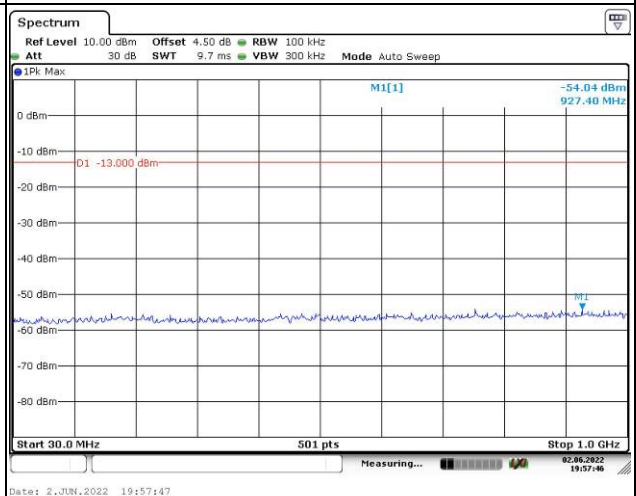
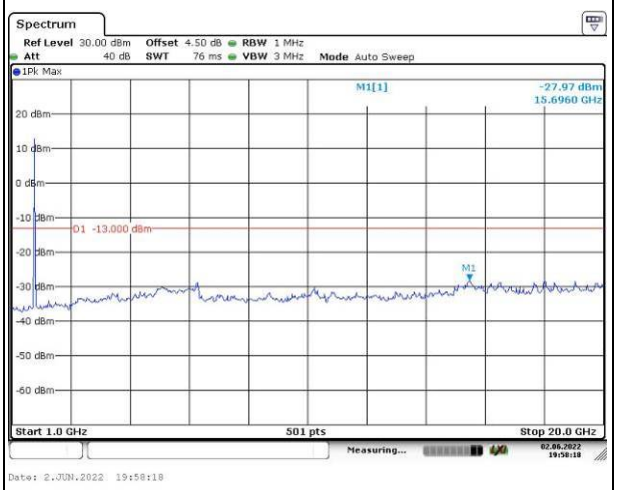
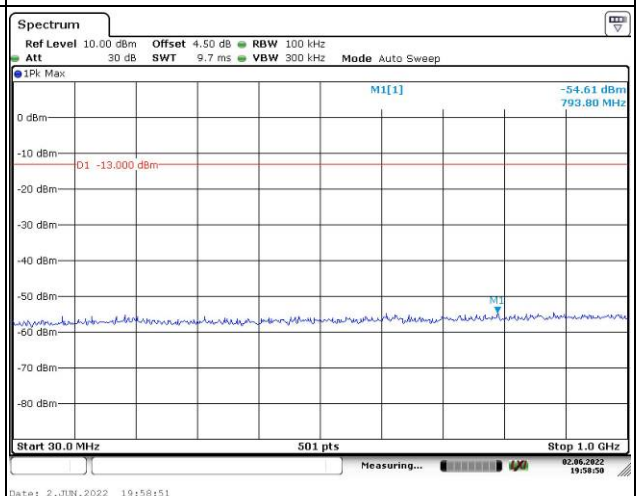
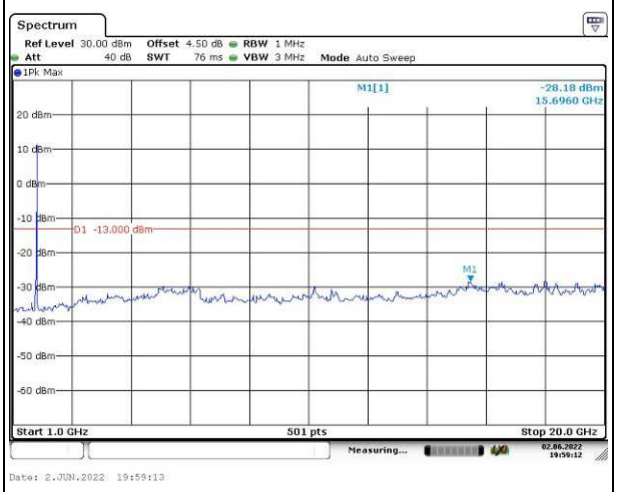
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

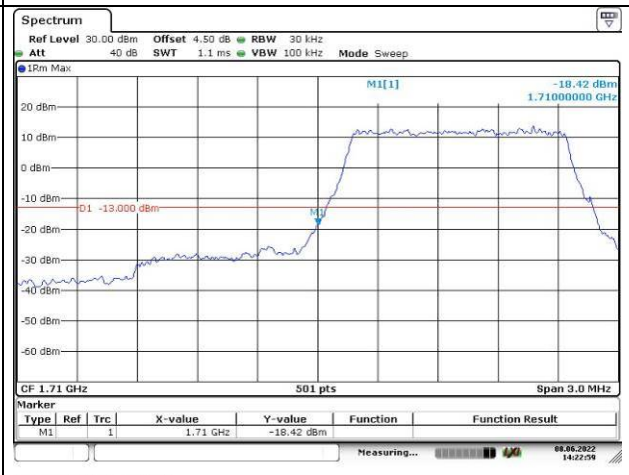
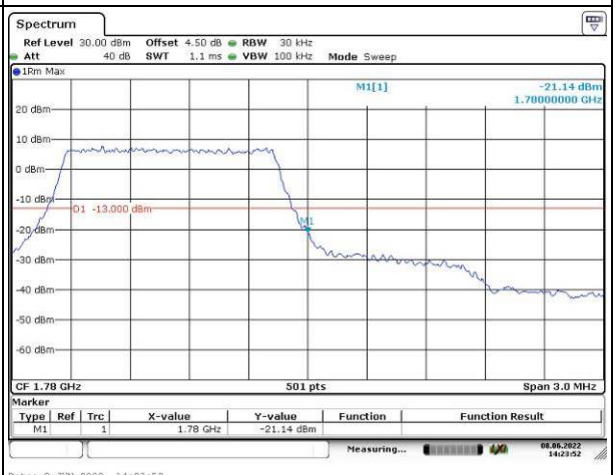
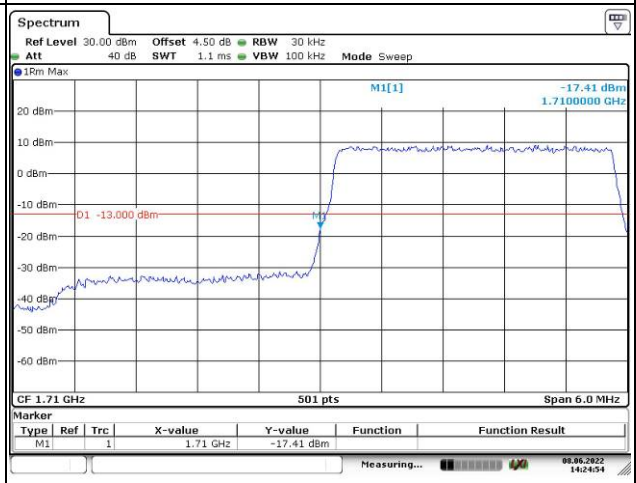
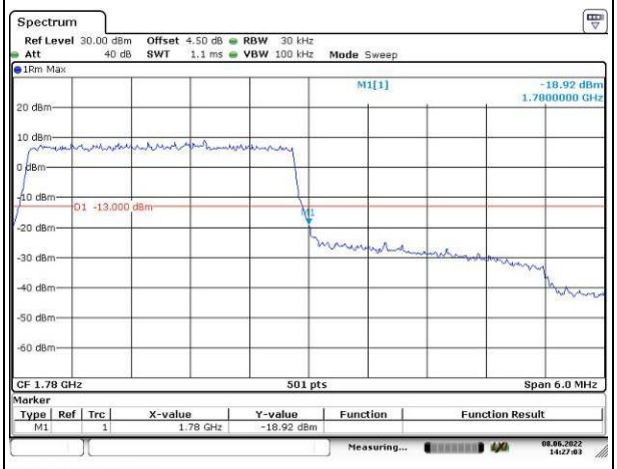
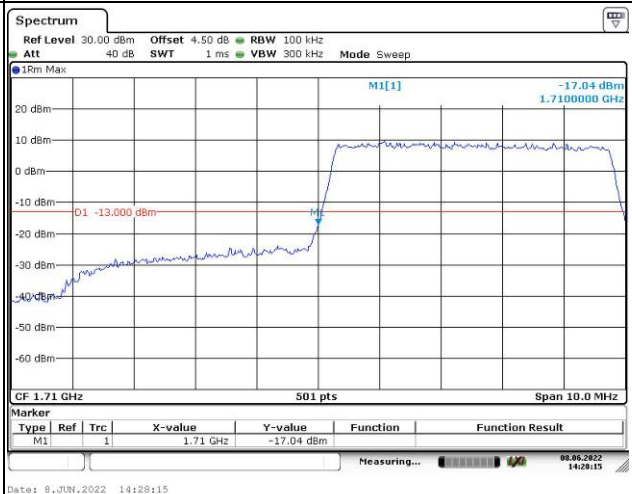
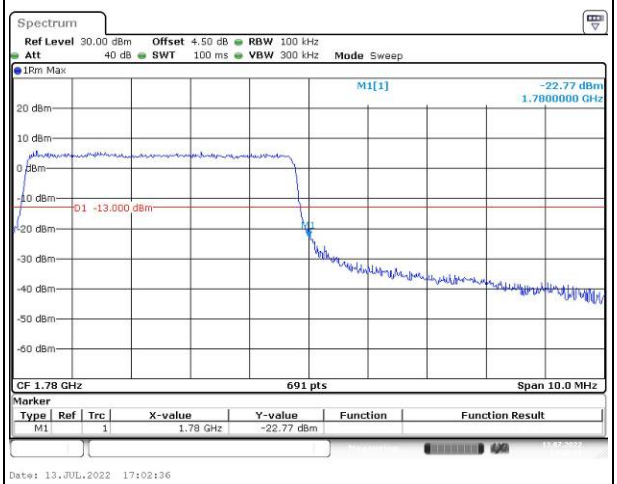
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

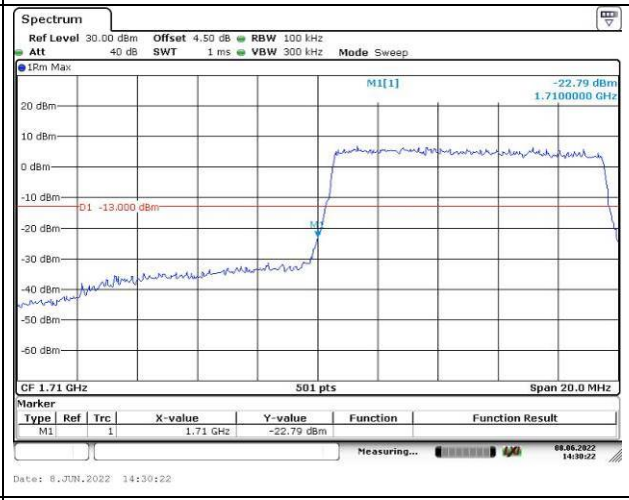
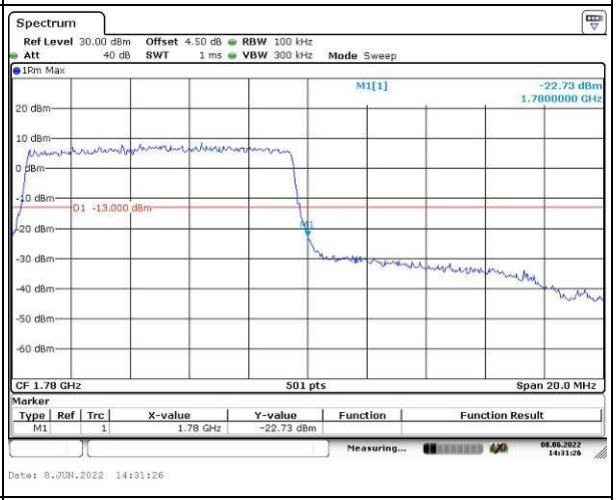
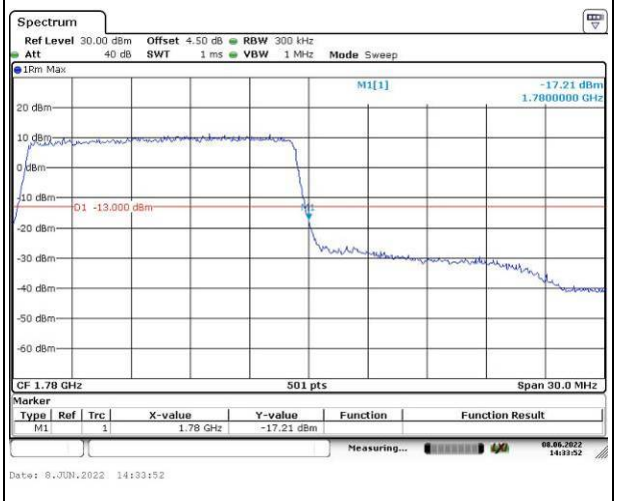
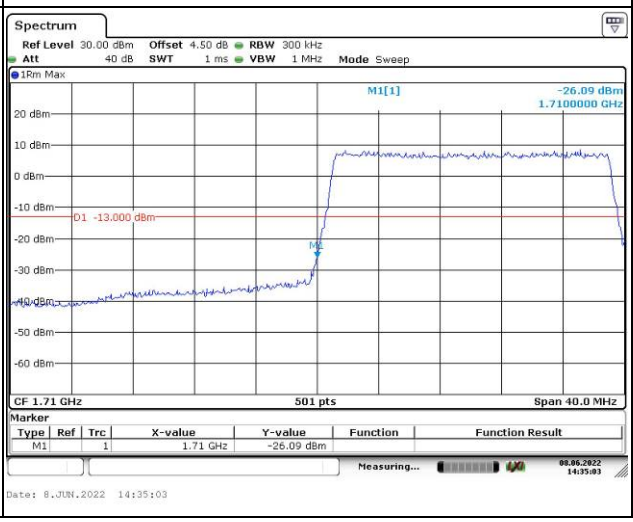
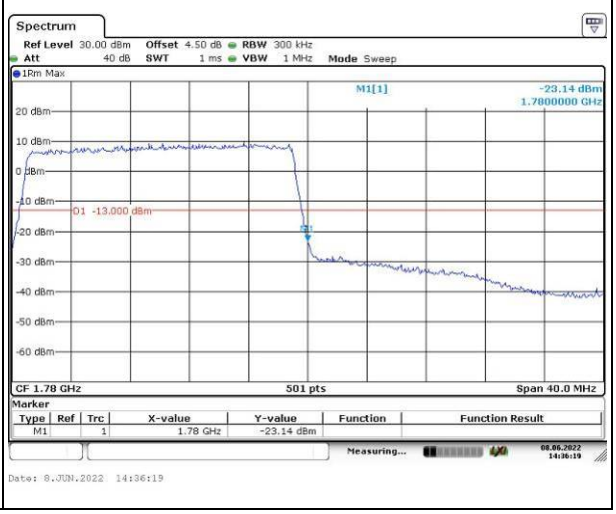
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

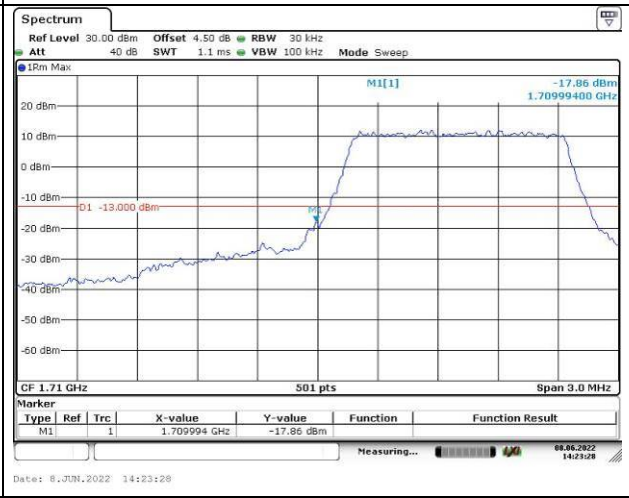
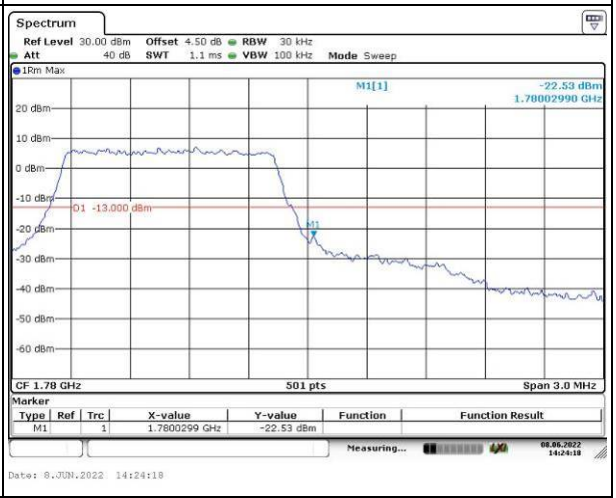
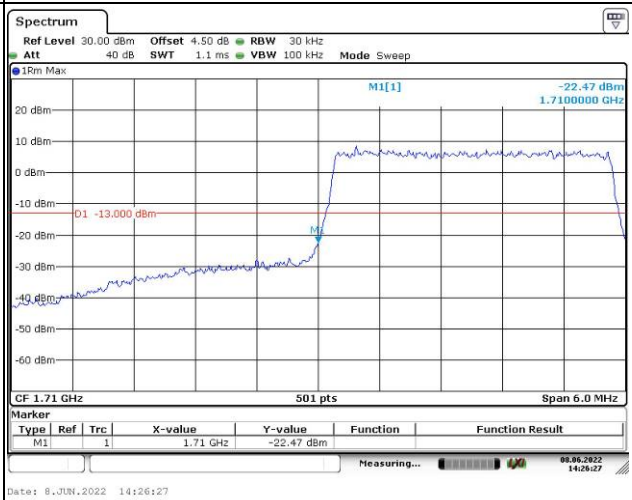
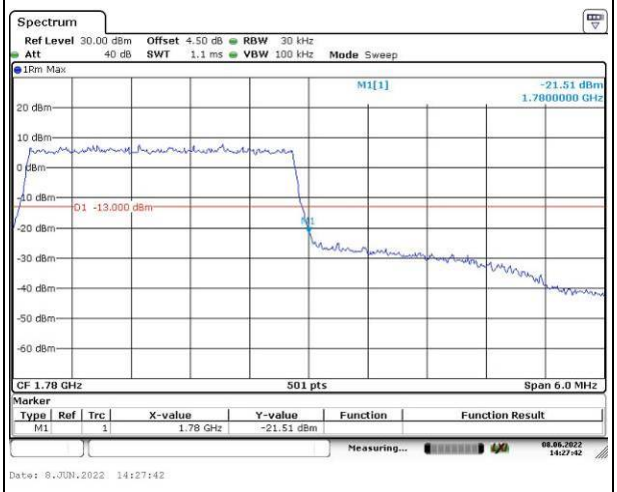
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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**	**Highest**
QPSK 1.4MHz		
QPSK 3MHz		
QPSK 5MHz		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
QPSK 10MHz		
QPSK 15MHz		
QPSK 20MHz		

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