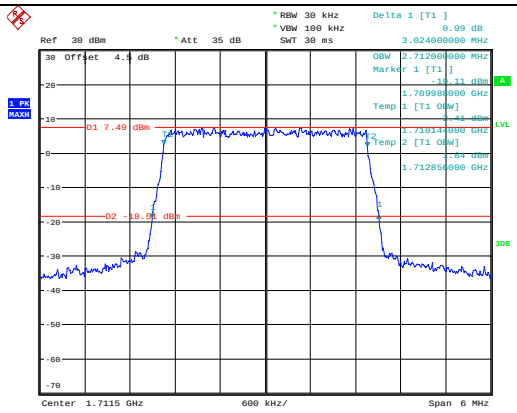
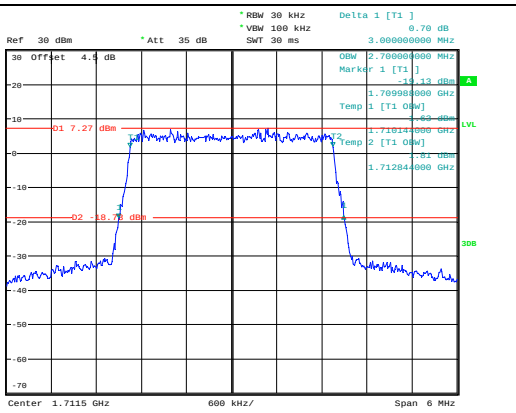
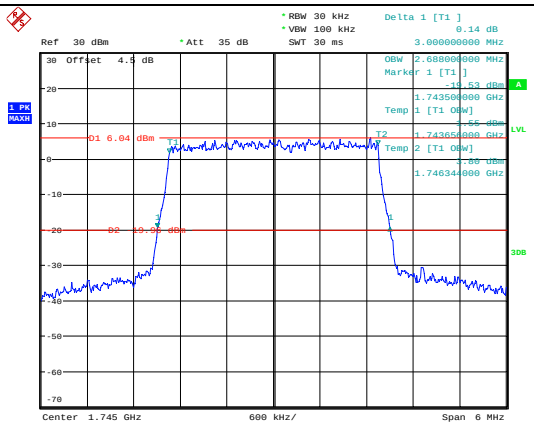
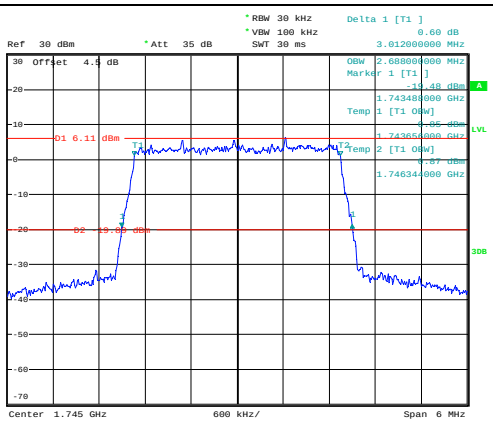
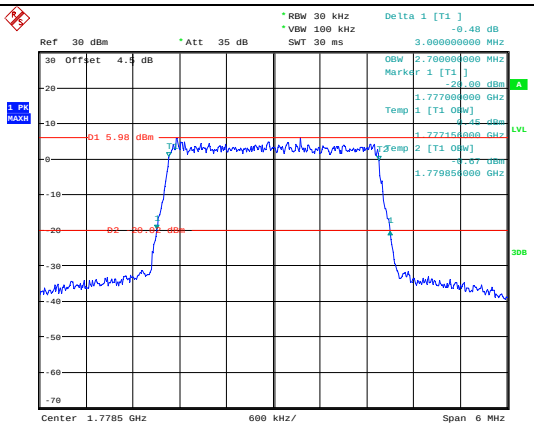
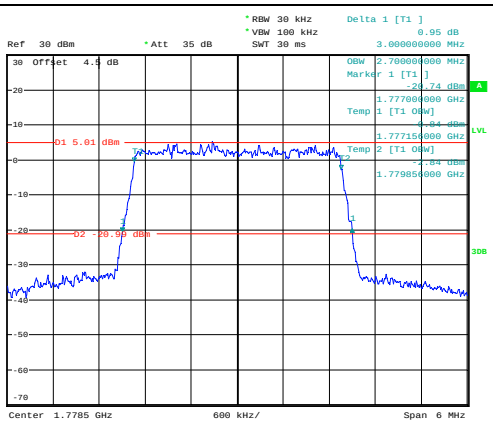
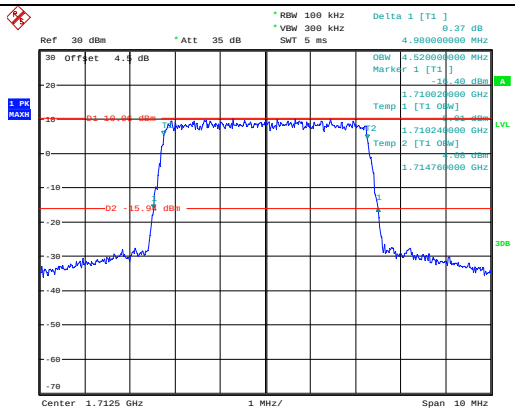
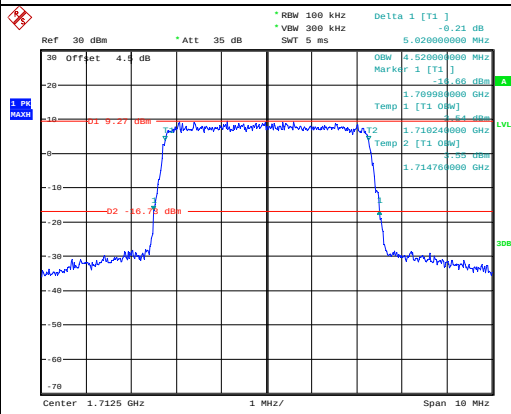
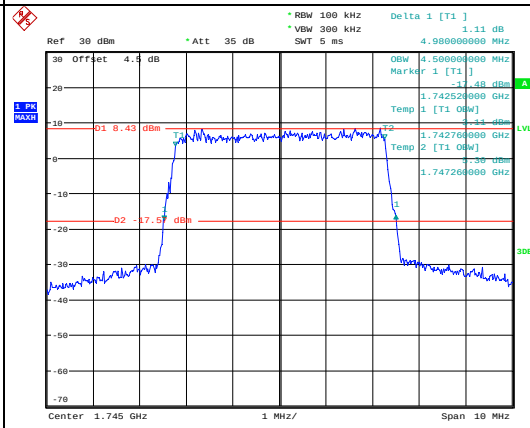
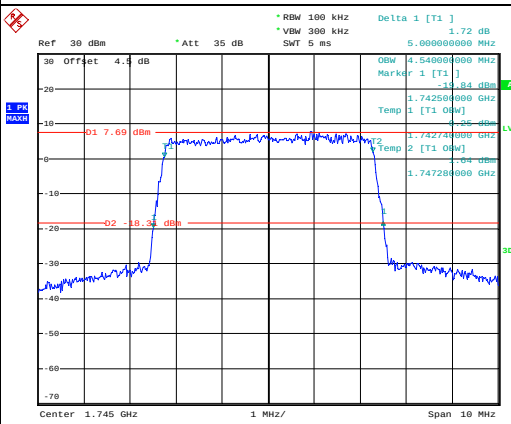
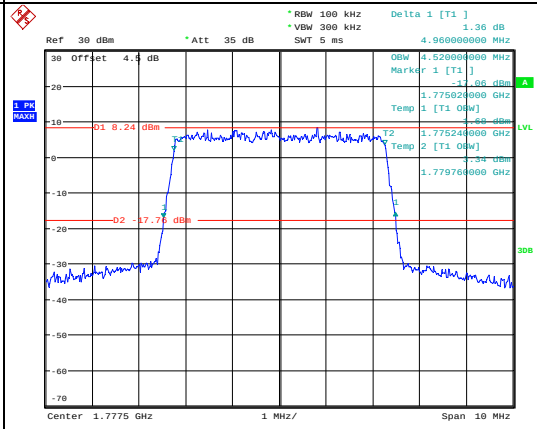
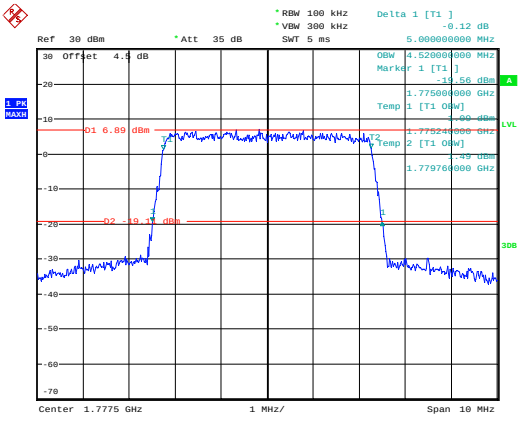
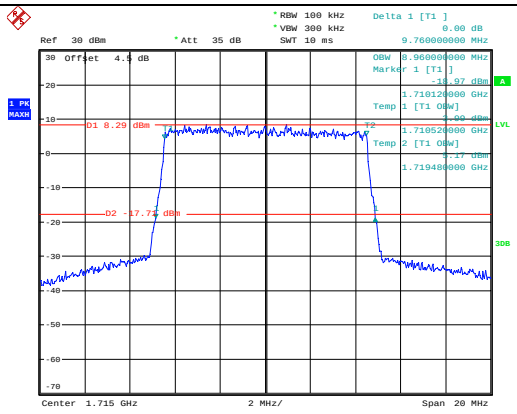
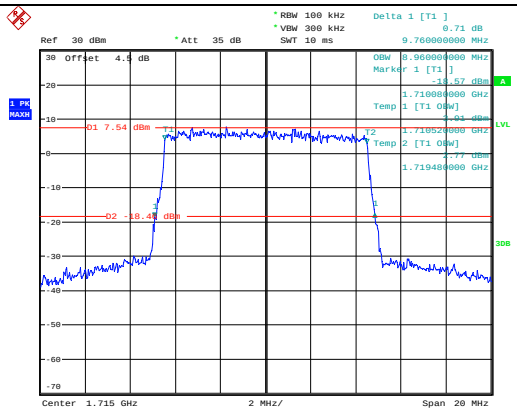
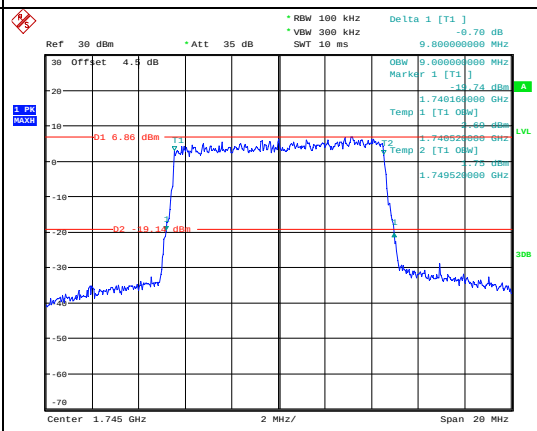
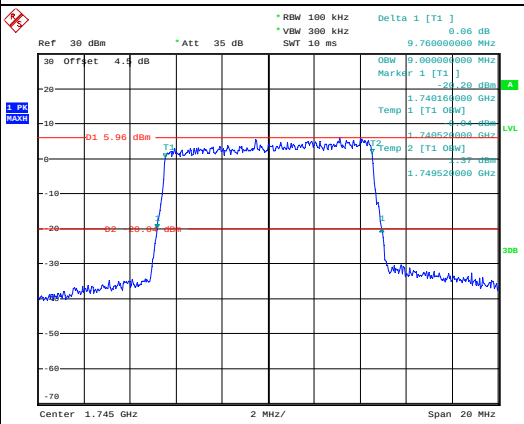
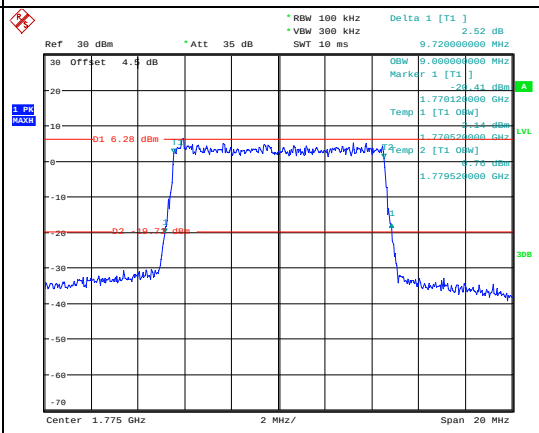
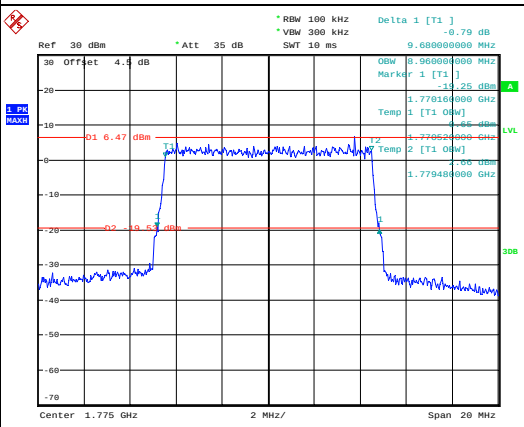
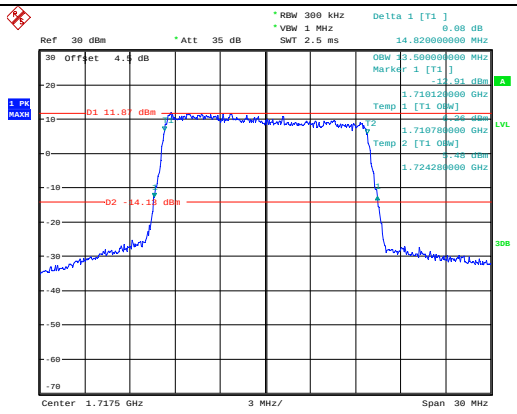
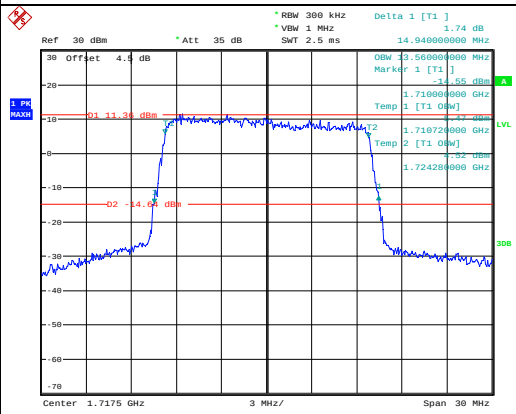
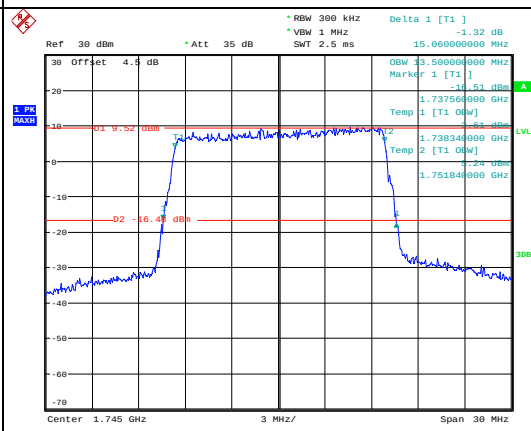
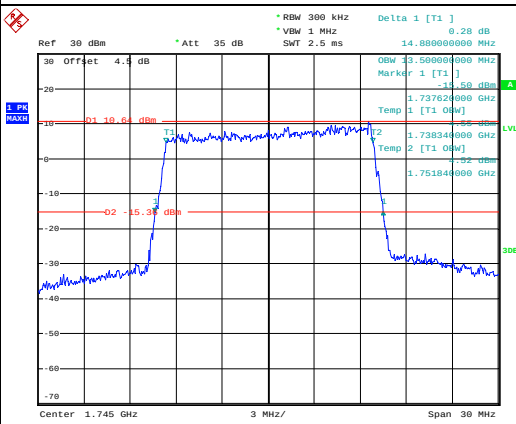
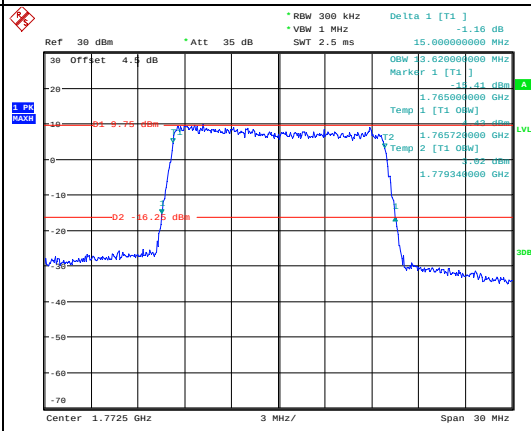
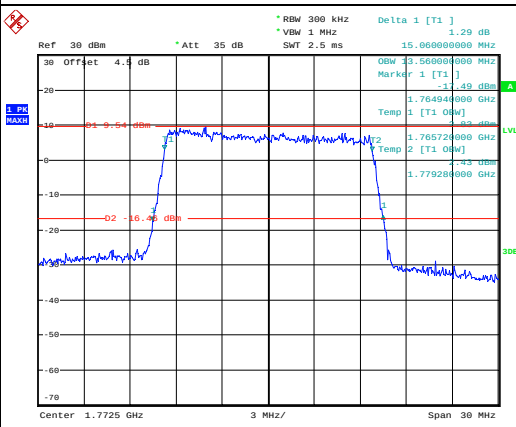
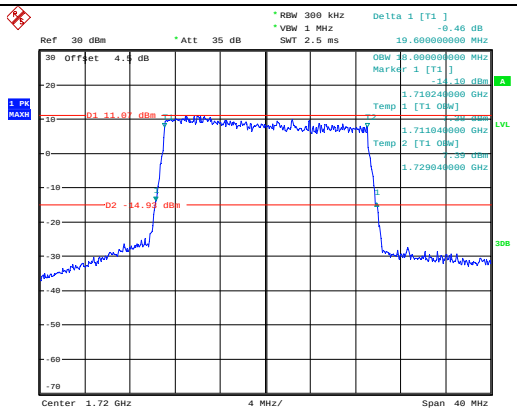
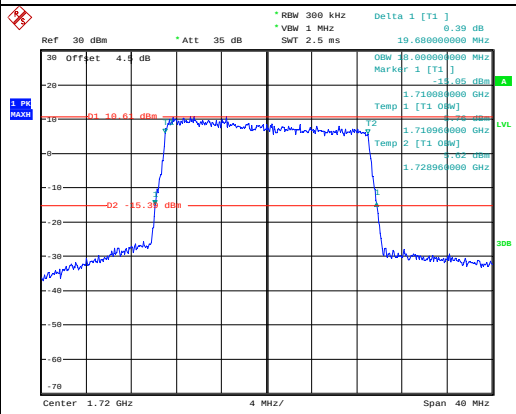
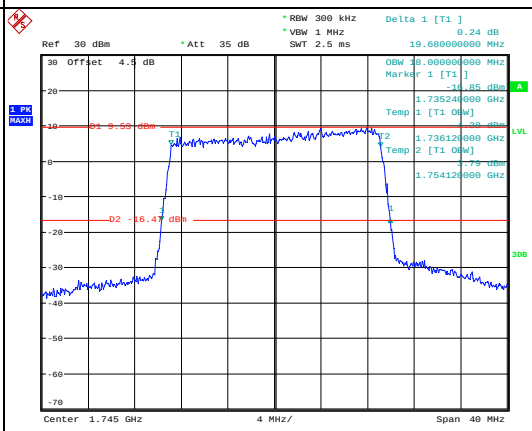
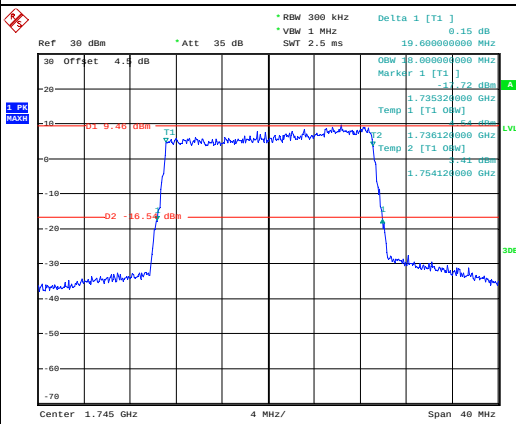
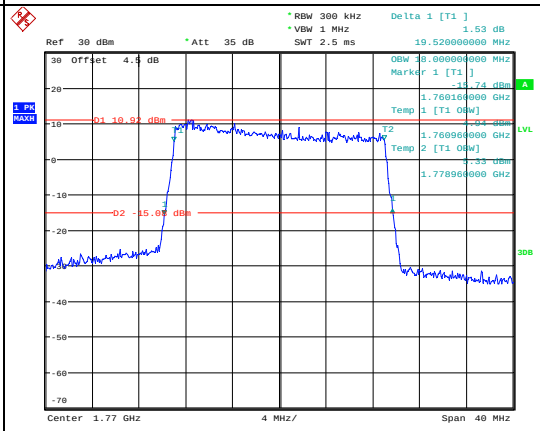
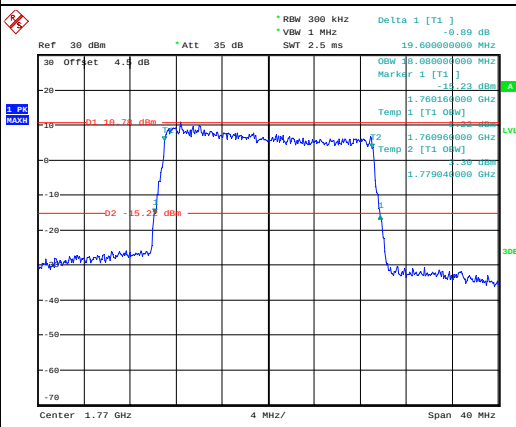
Occupied Bandwidth

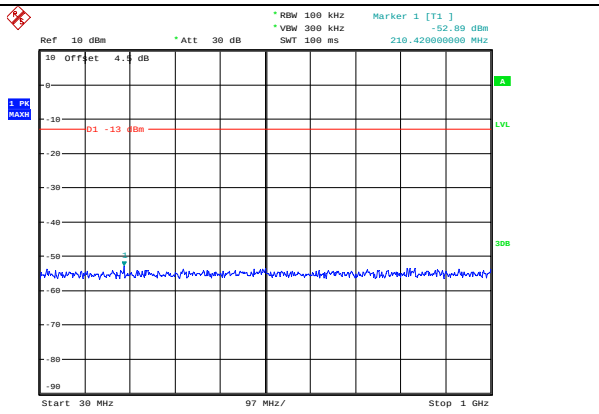
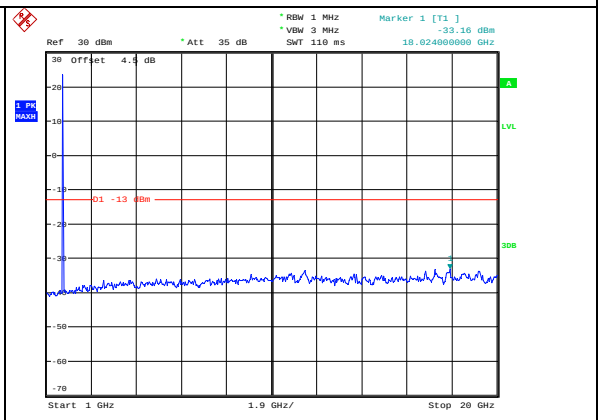
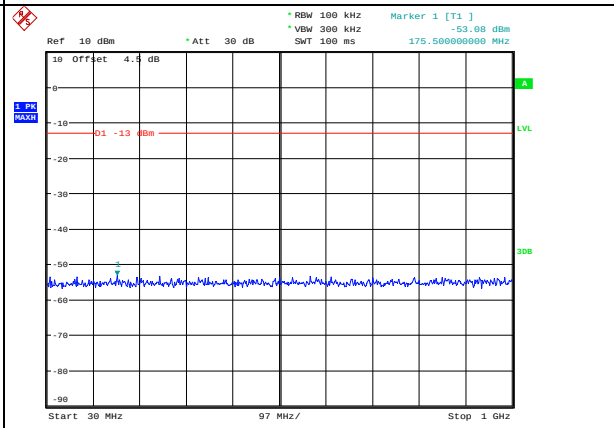
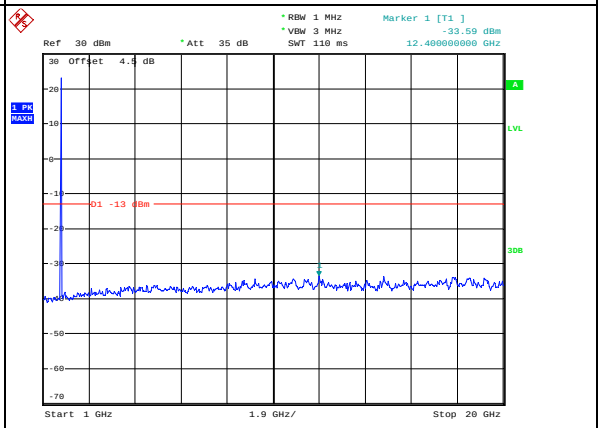
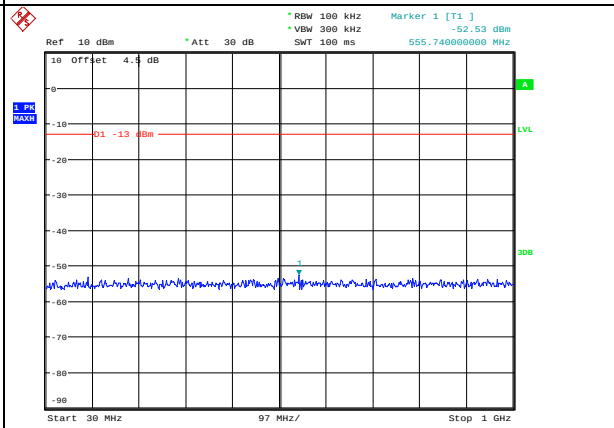
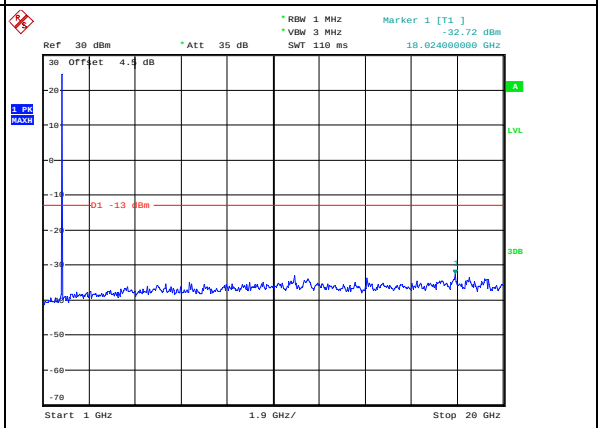
Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	 Date: 10.JAN.2023 19:39:51	 Date: 10.JAN.2023 19:40:05
Middle	 Date: 10.JAN.2023 19:40:21	 Date: 10.JAN.2023 19:40:38
Highest	 Date: 10.JAN.2023 19:40:54	 Date: 10.JAN.2023 19:41:11

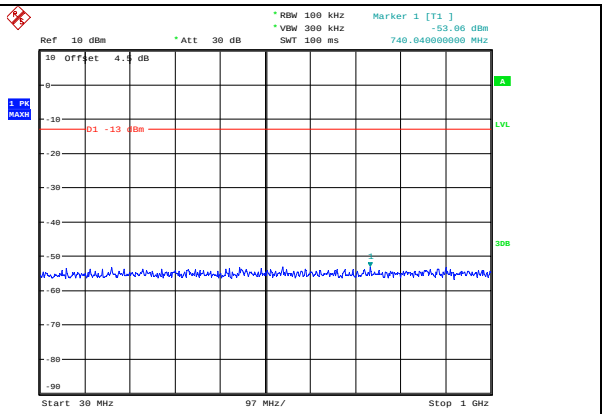
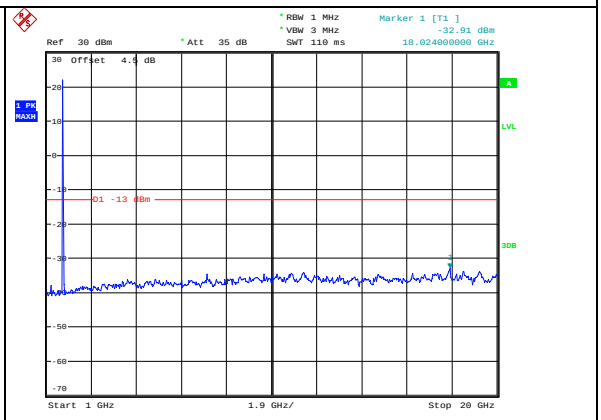
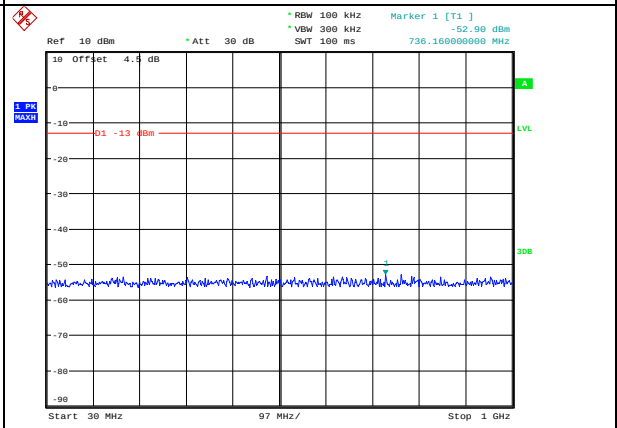
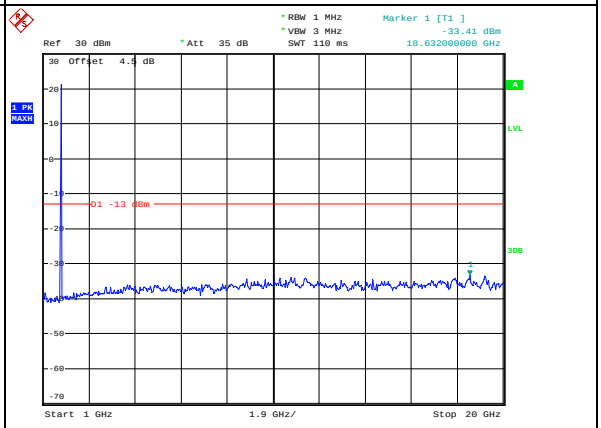
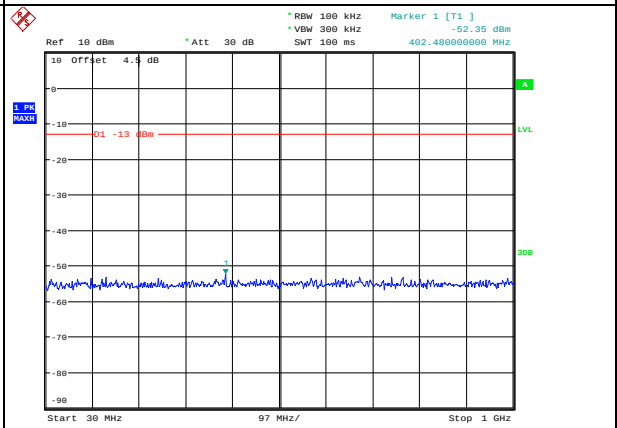
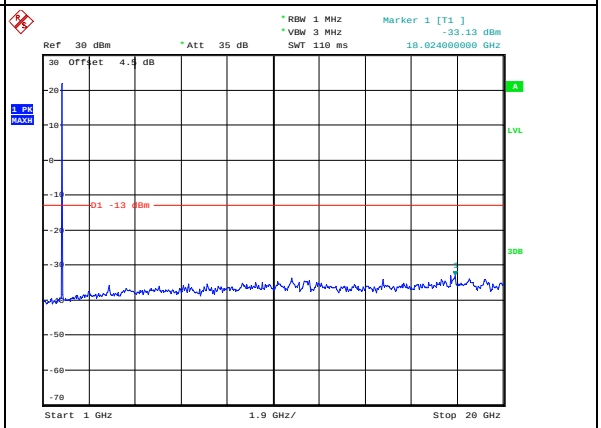
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

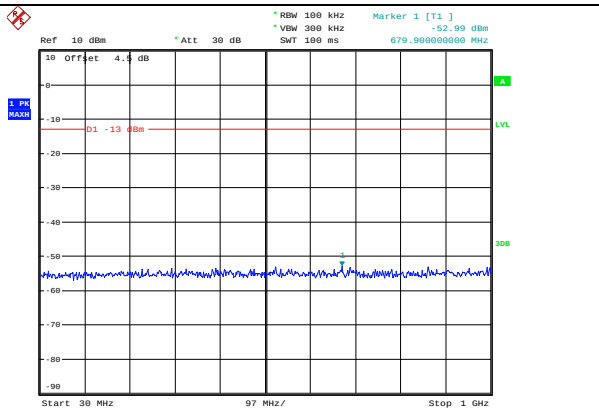
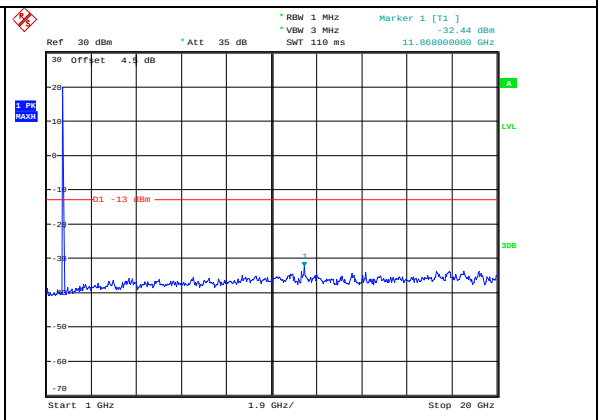
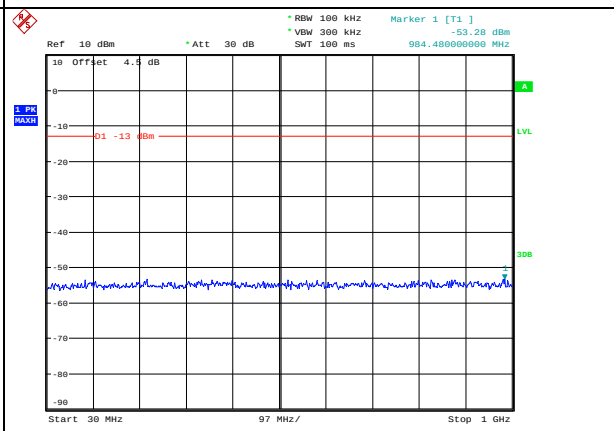
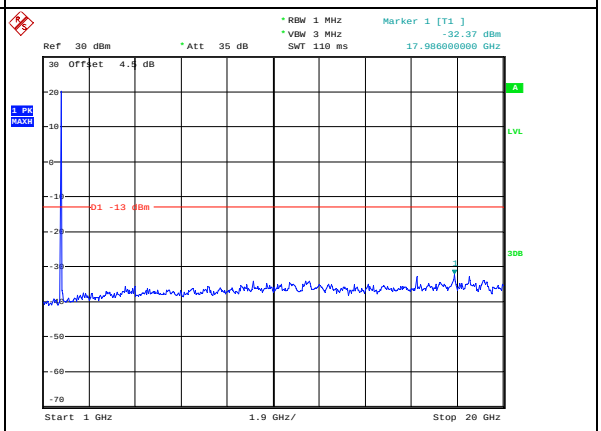
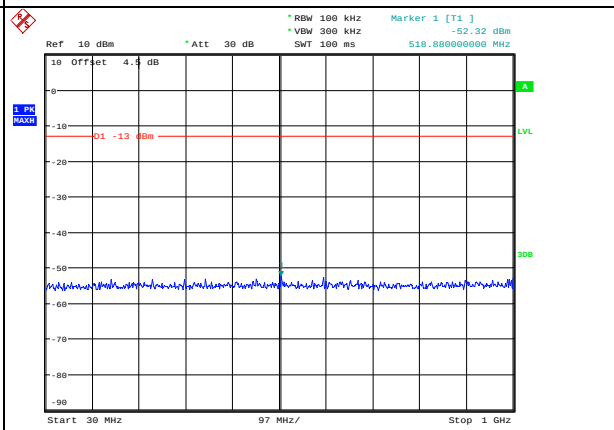
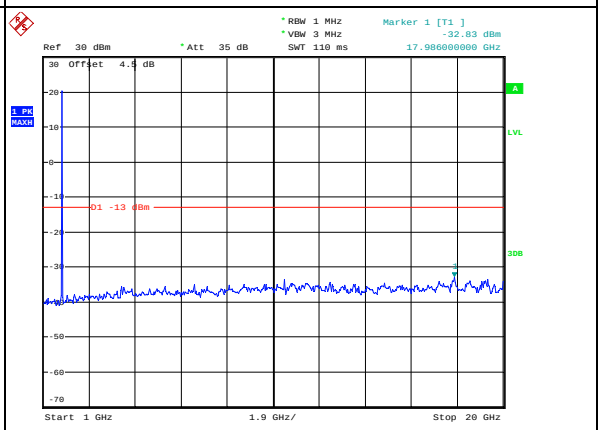
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

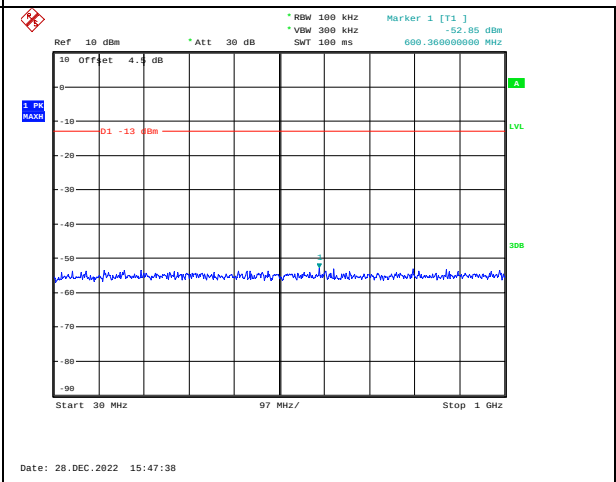
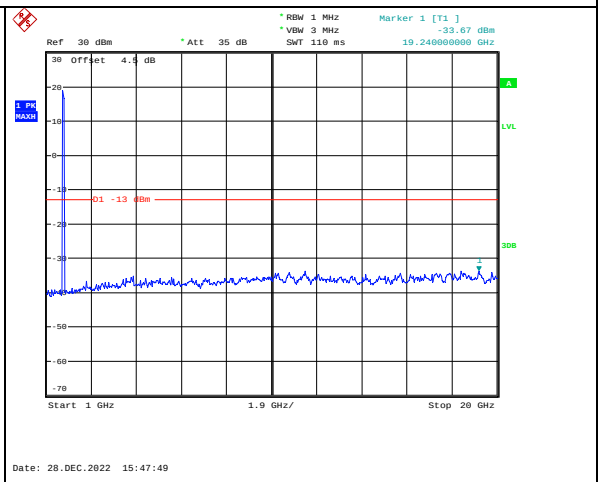
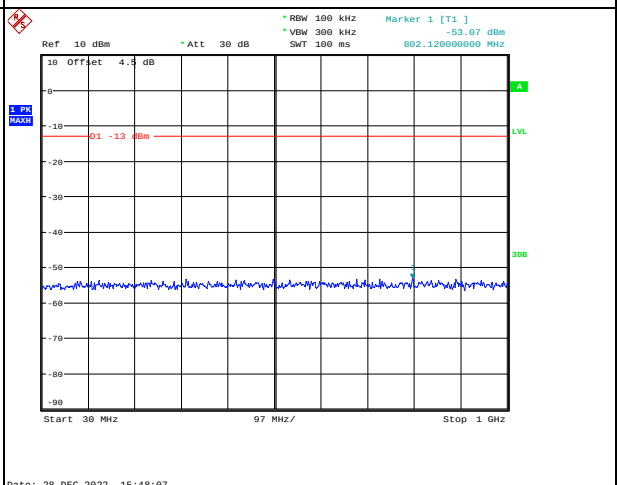
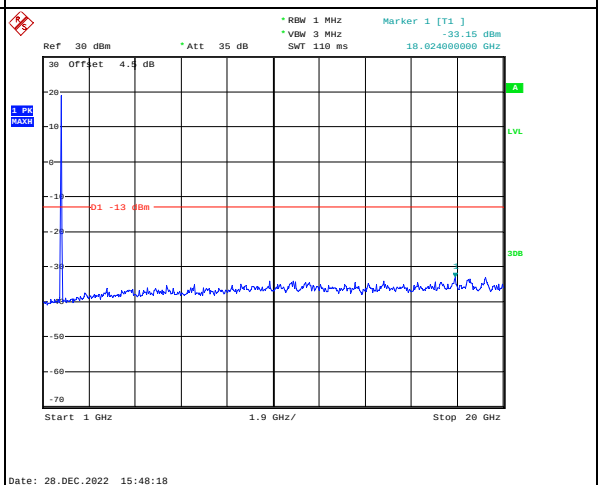
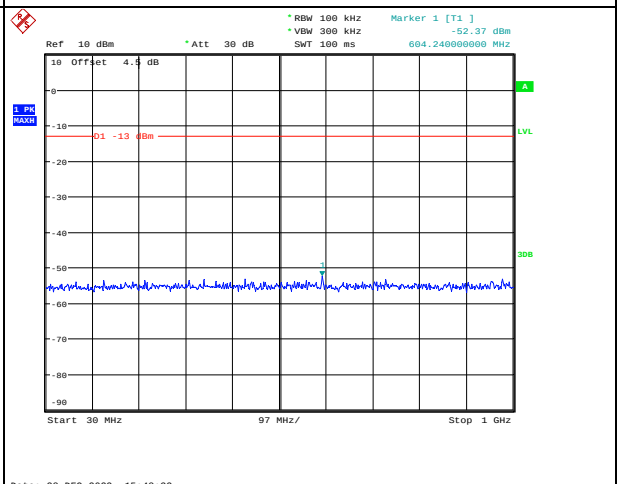
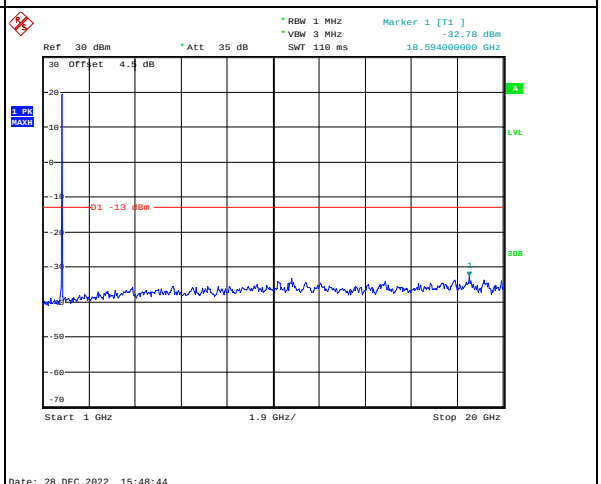
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

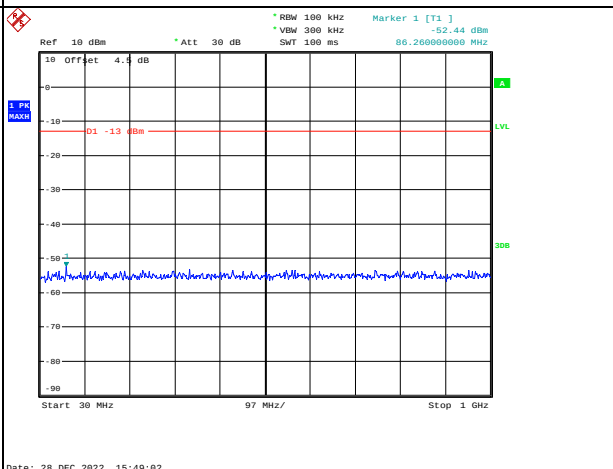
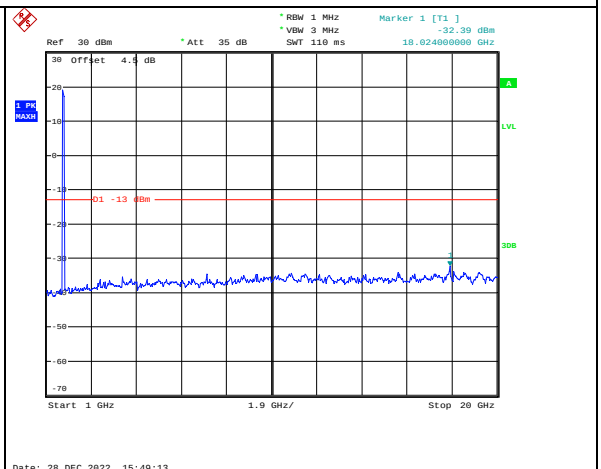
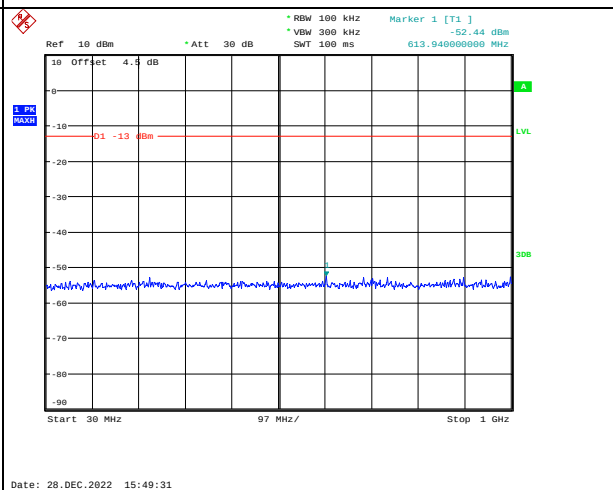
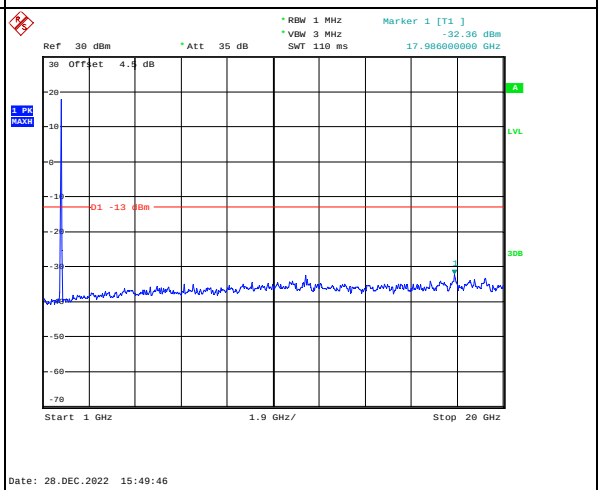
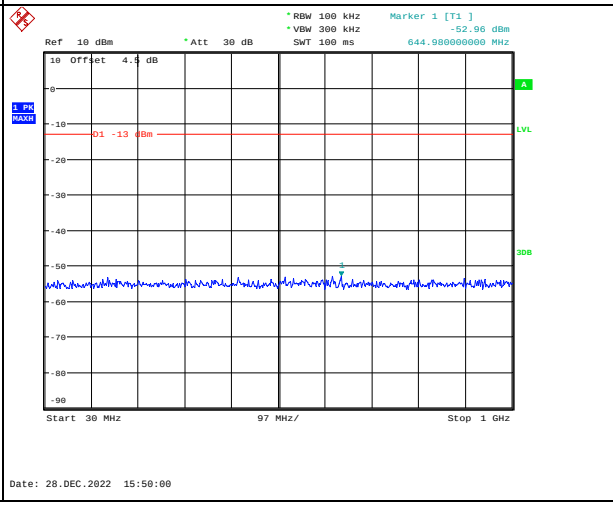
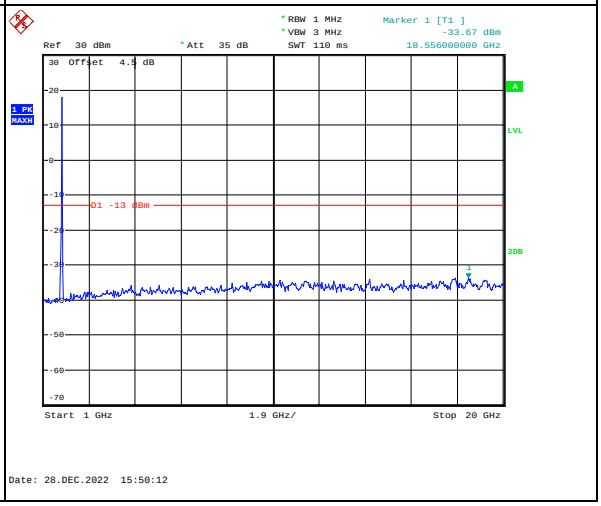
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

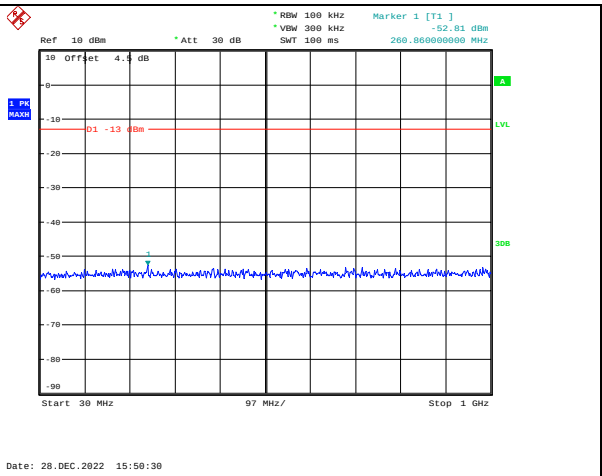
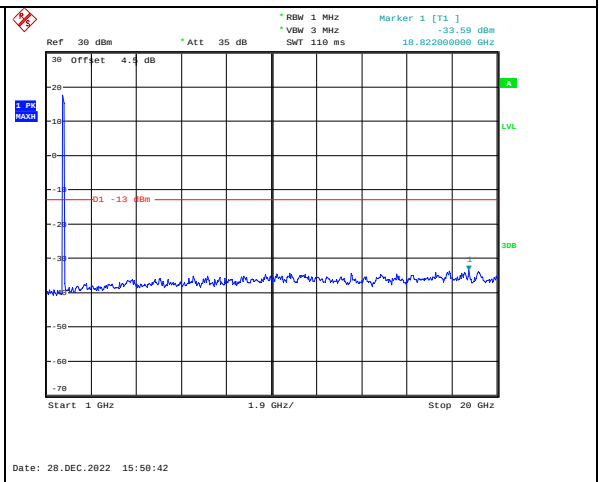
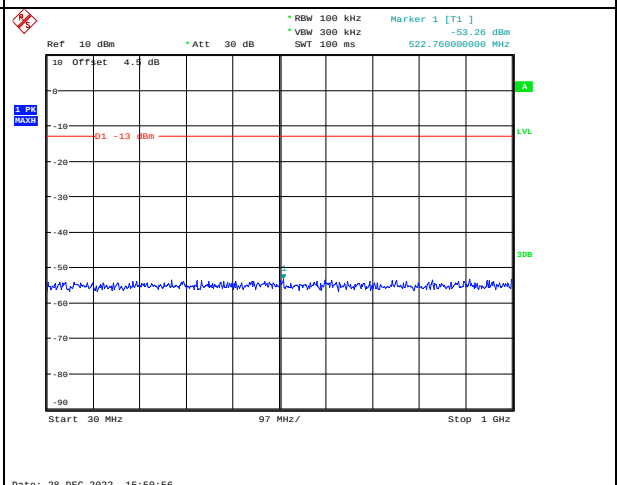
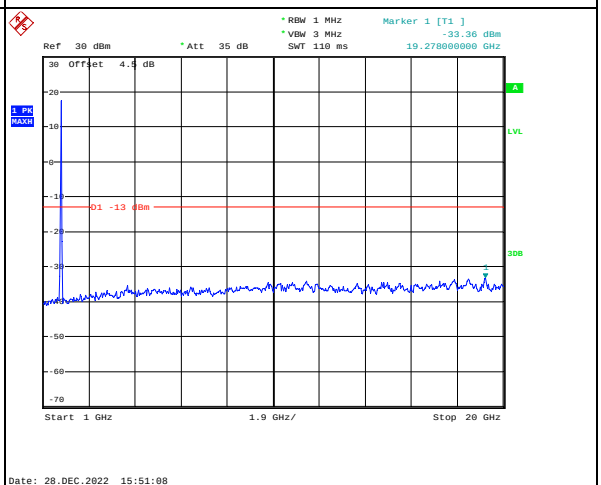
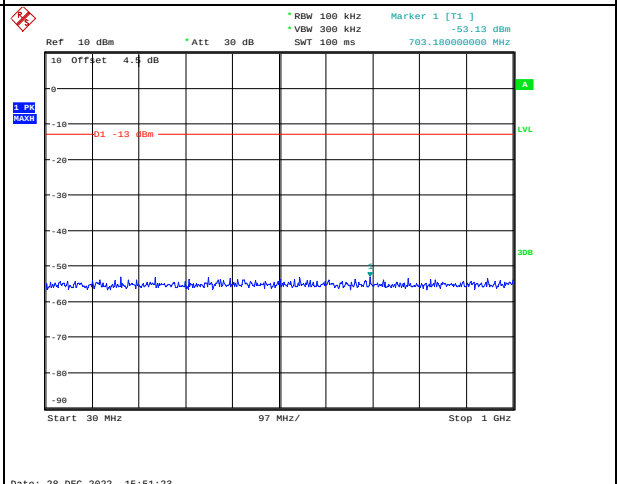
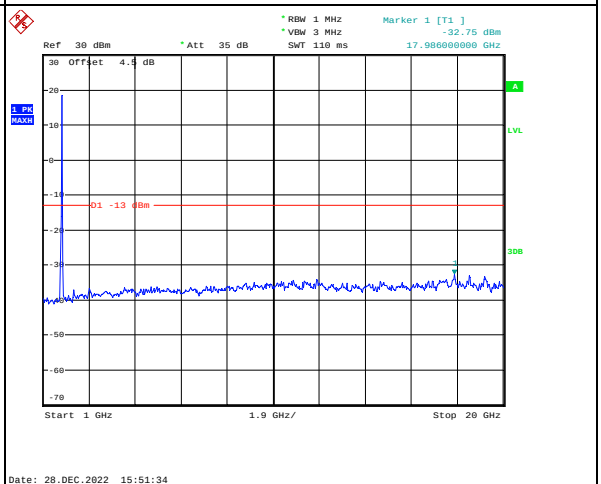
Spurious Emissions at Antenna Terminal		
Channel	**1.4MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

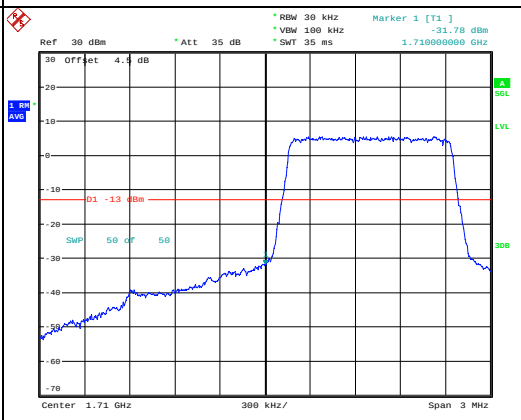
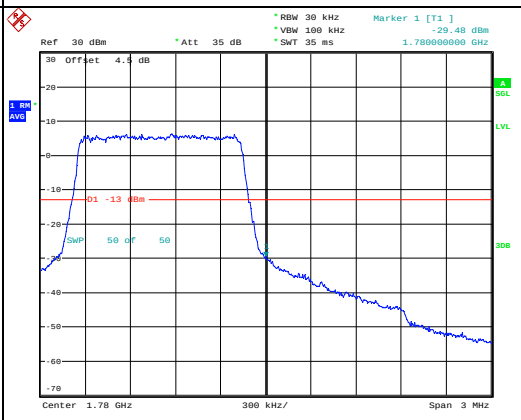
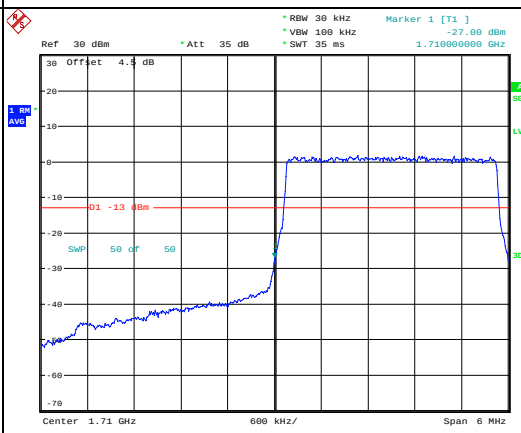
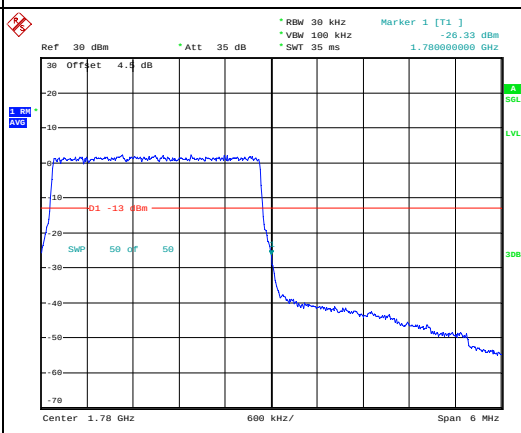
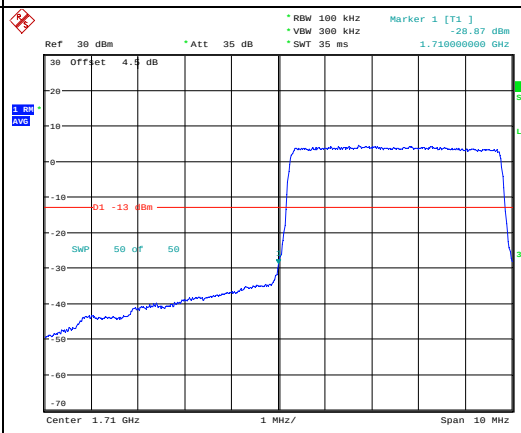
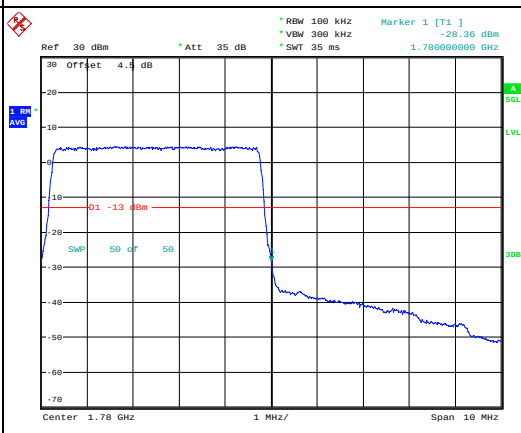
Spurious Emissions at Antenna Terminal		
Channel	**3MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

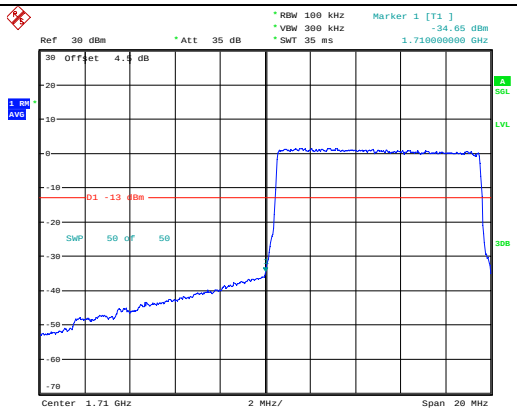
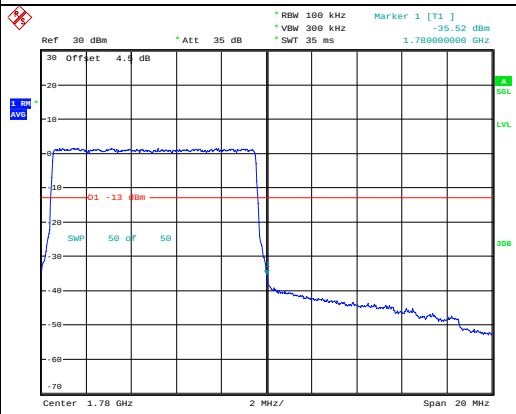
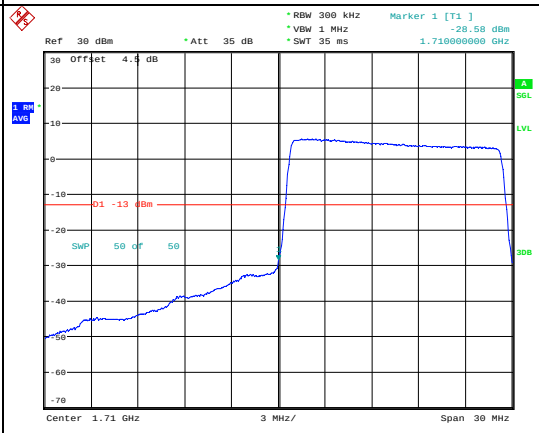
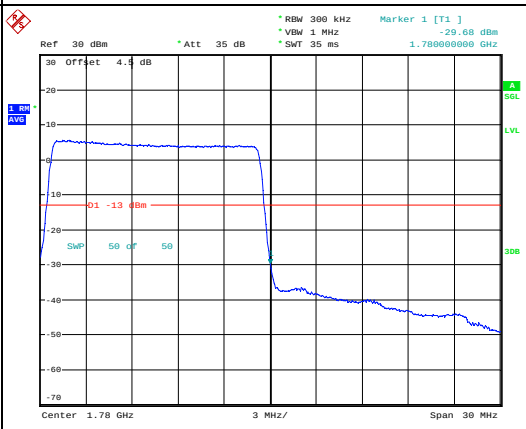
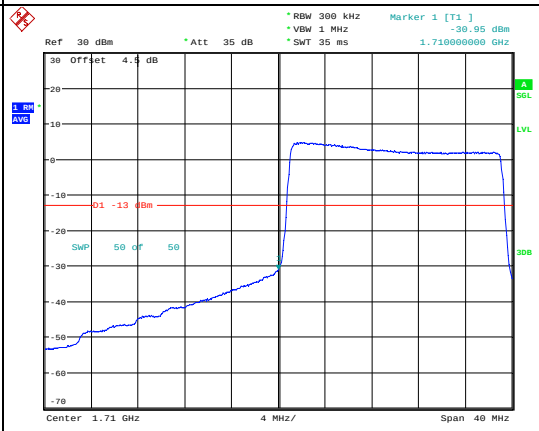
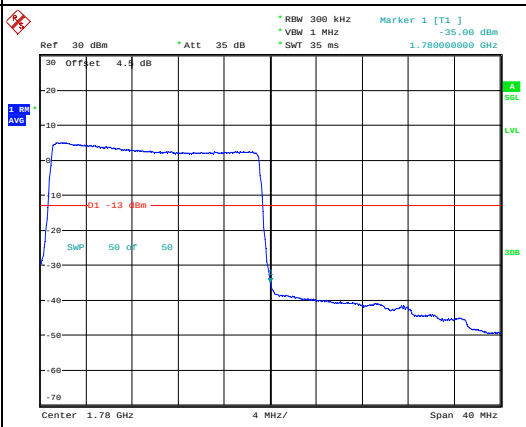
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

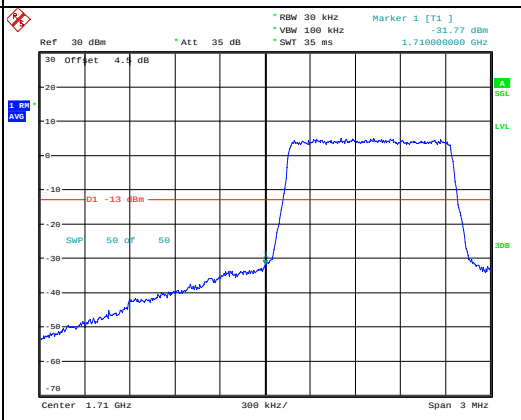
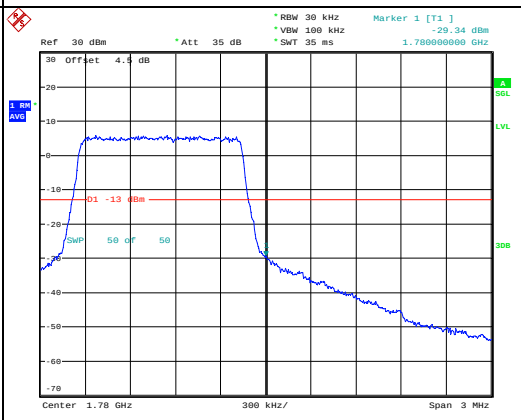
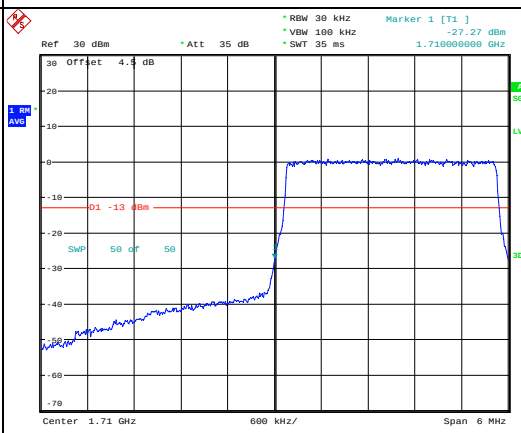
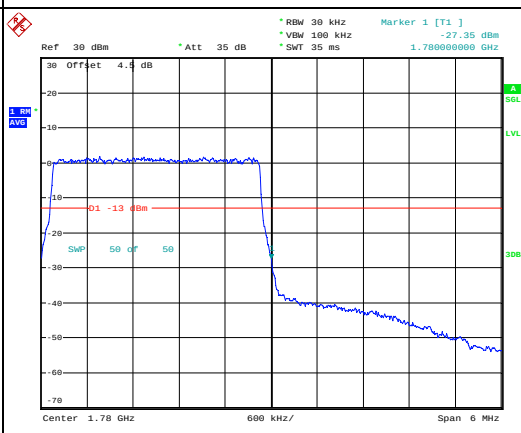
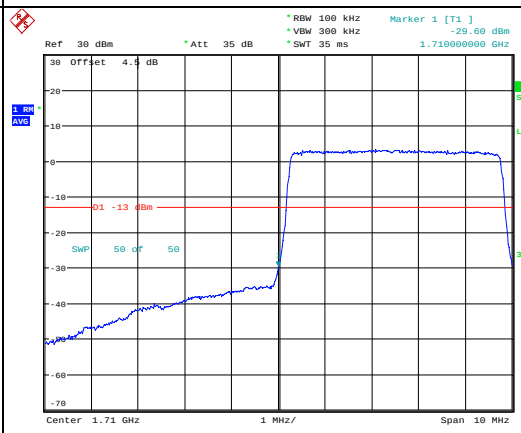
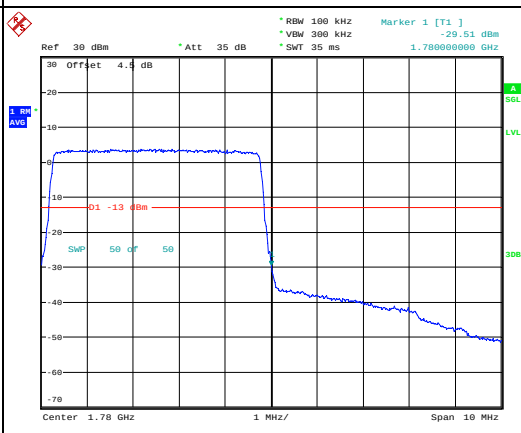
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

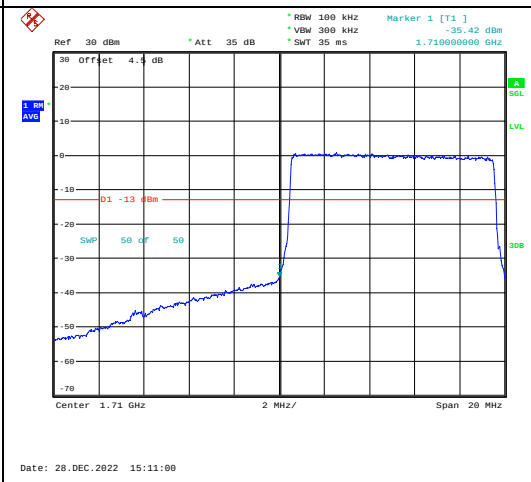
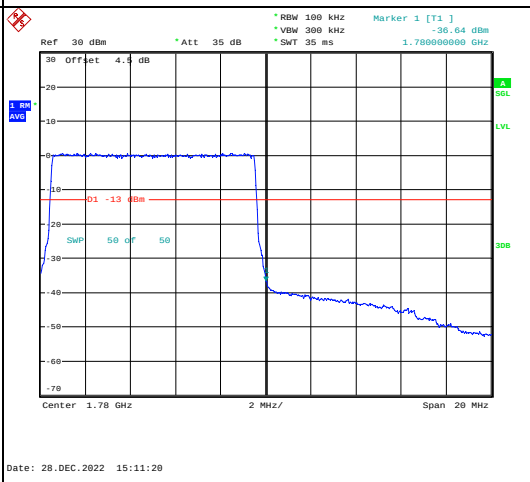
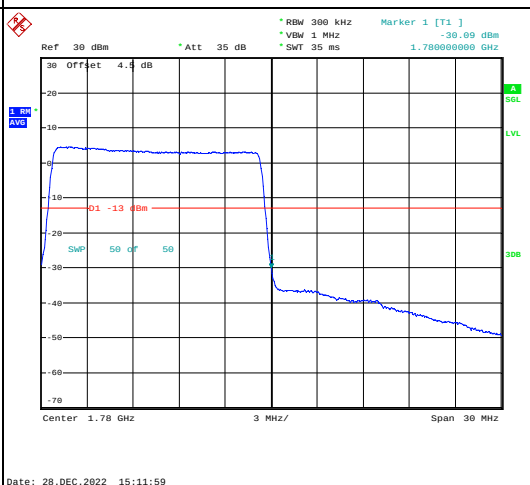
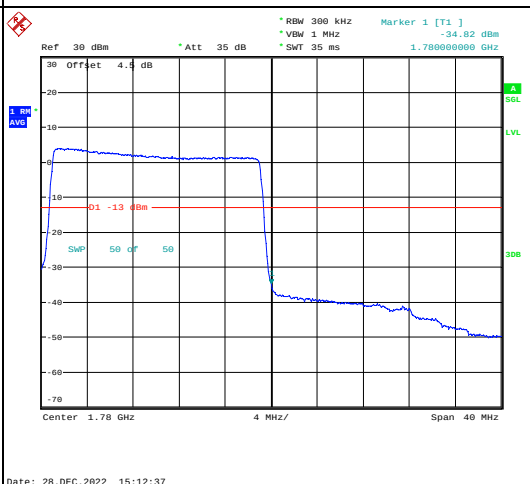
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz		
16QAM 15MHz		
16QAM 20MHz		

4.13 Antenna Port Test Data and Results for LTE Band 71

Serial Number:	1SNT-1	Test Date:	2023/1/3-2023/1/10
Test Site:	RF	Test Mode:	Transmitting
Tester:	Arthur Su	Test Result:	**Pass**

Environmental Conditions:					
Temperature: (℃)	23.3-23.2	Relative Humidity: (%)	38-63	ATM Pressure: (kPa)	102.1-101.3

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200445	2022/4/5	2023/4/4
R&S	Wideband Radio Communication Tester	CMW500	149218	2022/7/15	2023/7/14
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022/4/6	2023/4/5
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	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).*

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	665.5	680.5	695.5
10MHz	668	680.5	693
15MHz	670.5	680.5	690.5
20MHz	673	680.5	688

Test Data:

FCC§2.1046;§ 27.50(c) (10)

RF Output Power:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	18.74	18.86	18.91	12.79	34.77
	RB1#13	18.84	18.88	18.85		
	RB1#24	18.74	18.98	18.8		
	RB15#0	17.64	17.87	17.88		
	RB15#10	17.71	18.11	18.13		
	RB25#0	17.74	17.88	17.98		
5MHz 16QAM	RB1#0	17.56	17.05	17.17	11.52	34.77
	RB1#13	17.71	16.97	17.21		
	RB1#24	17.68	17.18	17.12		
	RB15#0	16.63	17.38	17.31		
	RB15#10	16.7	16.93	17.22		
	RB25#0	16.65	17.39	17.28		
10MHz QPSK	RB1#0	18.6	18.71	19	12.81	34.77
	RB1#25	18.6	18.83	18.88		
	RB1#49	18.92	18.83	18.8		
	RB25#0	17.75	17.91	17.75		
	RB25#25	17.78	17.9	18.02		
	RB50#0	17.84	17.77	17.91		
10MHz 16QAM	RB1#0	17.8	18.19	18.38	12.2	34.77
	RB1#25	18.16	18.05	18.26		
	RB1#49	18.26	18.3	18.39		
	RB25#0	16.83	16.78	17.32		
	RB25#25	16.83	16.75	17.2		
	RB50#0	16.89	17.26	16.89		
15MHz QPSK	RB1#0	18.54	18.68	18.89	12.74	34.77
	RB1#38	18.57	18.83	18.71		
	RB1#74	18.63	18.84	18.93		
	RB36#0	17.75	17.87	17.96		
	RB36#39	17.72	17.88	17.89		
	RB75#0	17.71	17.88	17.67		
15MHz 16QAM	RB1#0	17.67	18.01	18.09	11.99	34.77
	RB1#38	17.84	18.1	17.97		
	RB1#74	17.97	18.18	18.12		
	RB36#0	16.86	16.79	17.39		
	RB36#39	16.79	16.89	17.33		
	RB75#0	16.74	17.36	17.29		
20MHz QPSK	RB1#0	18.59	18.83	18.72	12.77	34.77
	RB1#50	18.78	18.9	18.85		

	RB1#99	18.88	18.91	18.96		
	RB50#0	17.73	18.03	17.93		
	RB50#50	17.89	17.94	17.91		
	RB100#0	17.69	17.77	17.84		
20MHz 16QAM	RB1#0	17.44	17.58	17.7	11.85	34.77
	RB1#50	17.6	17.56	17.82		
	RB1#99	17.99	17.4	18.04		
	RB50#0	16.9	17.38	16.86		
	RB50#50	16.84	16.83	16.95		
	RB100#0	16.74	17.34	17.33		

Note:
ERP= Conducted Power(dBm) - L_C(dB) + G_T(dBd)
G_T(dBd)=G_T(dBi)-2.15

Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd)

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	4.52	4.9	5.9	13
	RB100#0	5.58	5.29	5.54	13
20MHz 16QAM	RB1#0	5.61	6.12	6.99	13
	RB100#0	6.35	5.93	6.47	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	4.5	4.54	4.52	4.98	5.02	4.98
5MHz 16QAM	4.54	4.54	4.52	5	5.02	5
10MHz QPSK	9	8.96	8.92	9.84	9.76	9.68
10MHz 16QAM	8.96	8.96	8.92	9.8	9.8	9.68
15MHz QPSK	13.56	13.5	13.56	14.88	14.88	14.88
15MHz 16QAM	13.5	13.56	13.56	14.94	15	14.94
20MHz QPSK	18	17.92	18	19.68	19.6	19.84
20MHz 16QAM	18	18	18	19.6	19.68	19.84

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal

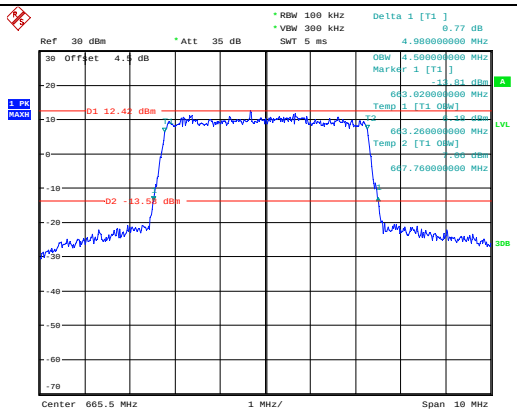
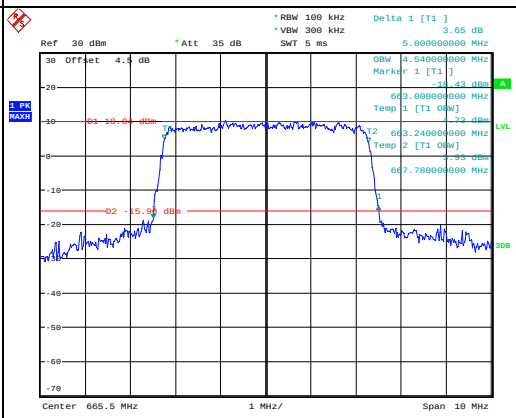
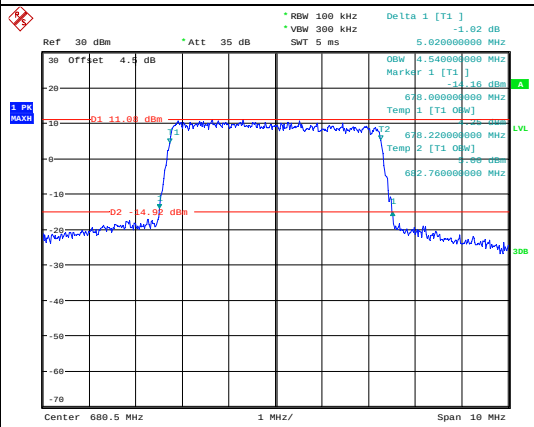
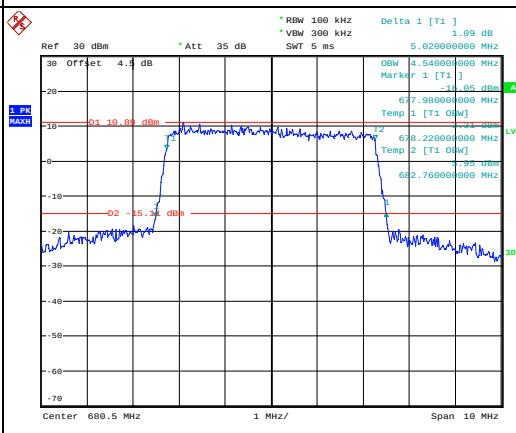
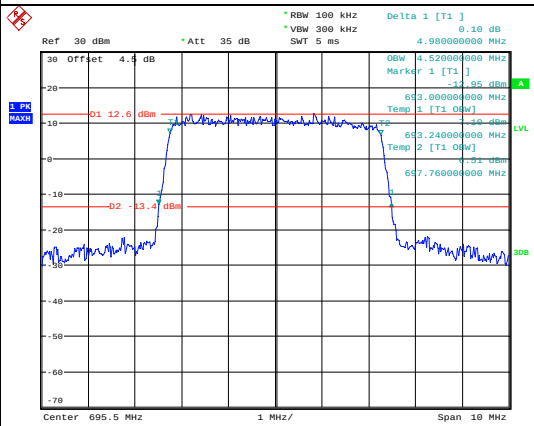
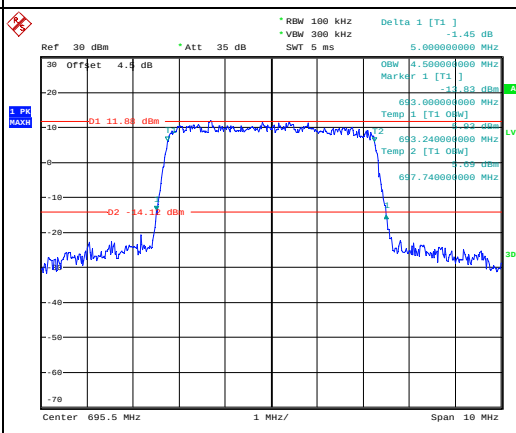
Result:	**Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

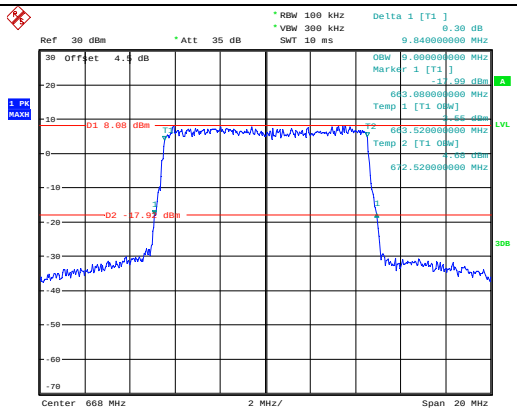
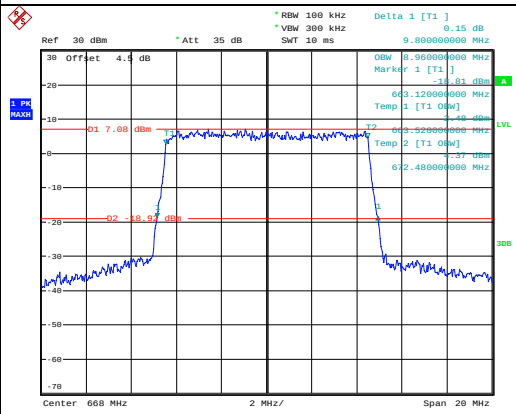
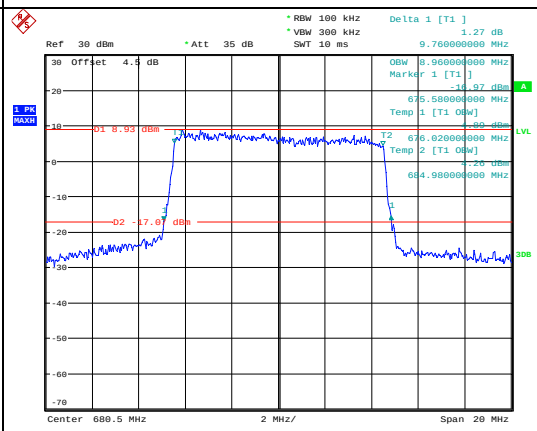
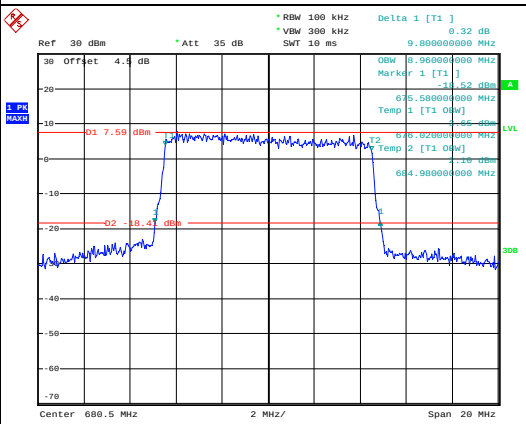
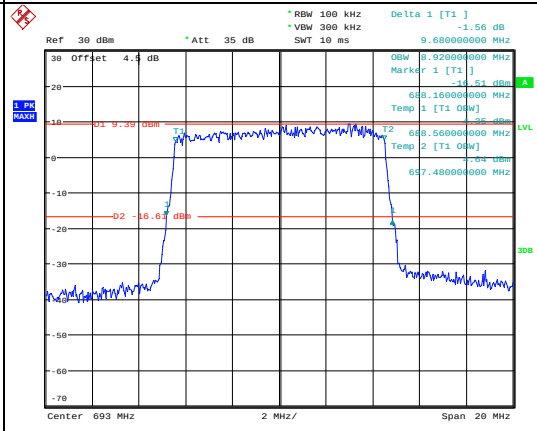
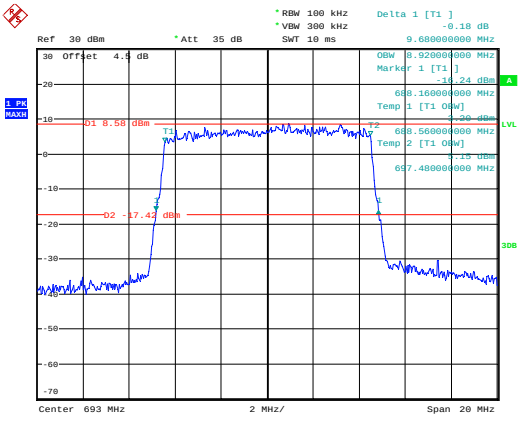
FCC §2.1051, §27.53:Out of band emission, Band Edge	
Result:	**Pass, Please refer to the test plots of Out of band emission, Band Edge.**

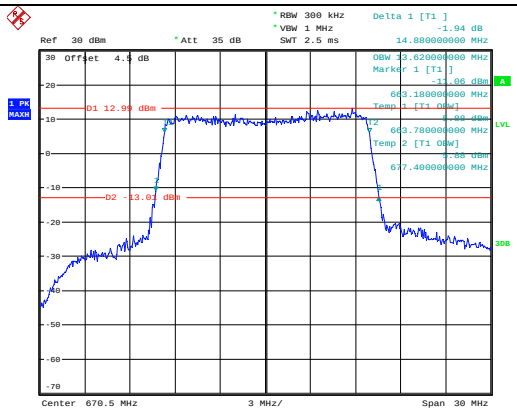
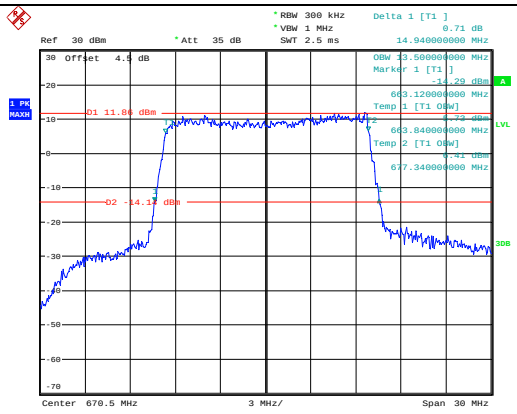
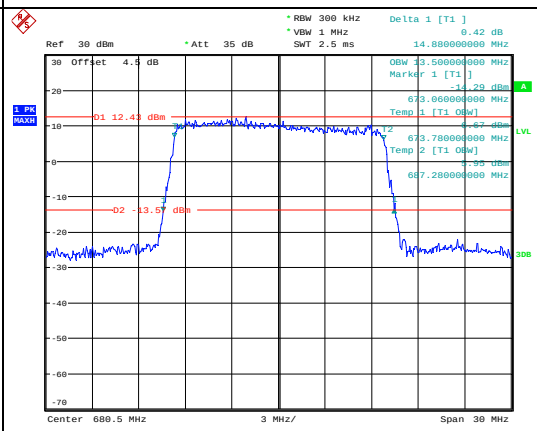
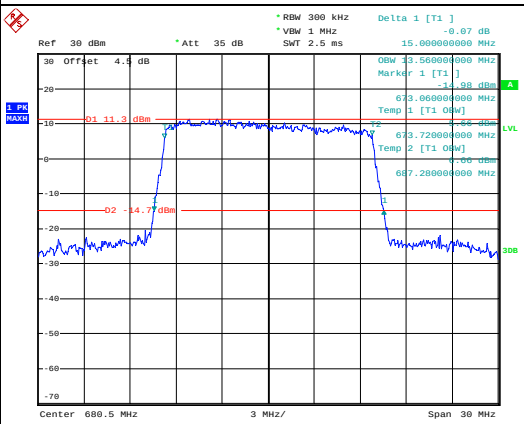
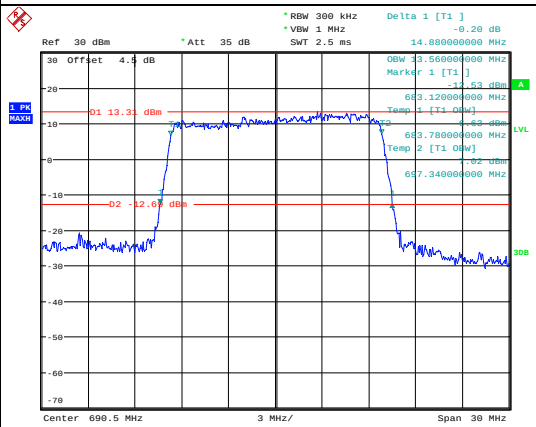
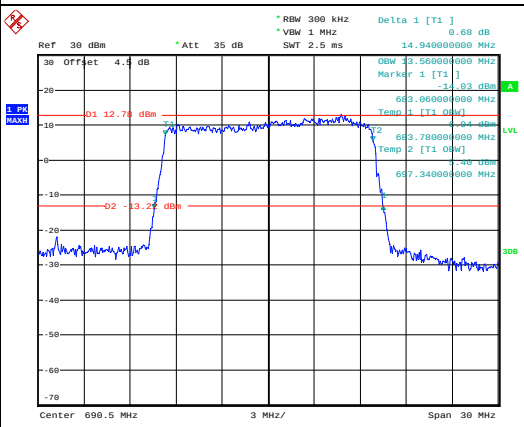
FCC §2.1055, §27.54: Frequency Stability						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (℃)	Voltage (V_{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	664.028	663.00	697.066	698.00
	-20	3.8	664.033	663.00	697.050	698.00
	-10	3.8	664.017	663.00	697.068	698.00
	0	3.8	664.024	663.00	697.055	698.00
	10	3.8	664.031	663.00	697.043	698.00
	20	3.8	664.040	663.00	697.040	698.00
	30	3.8	664.017	663.00	697.055	698.00
	40	3.8	664.031	663.00	697.043	698.00
	50	3.8	664.040	663.00	697.052	698.00
Frequency Stability vs. Voltage	20	3.5	664.025	663.00	697.062	698.00
	20	4.2	664.013	663.00	697.066	698.00
					Result:	**Pass**

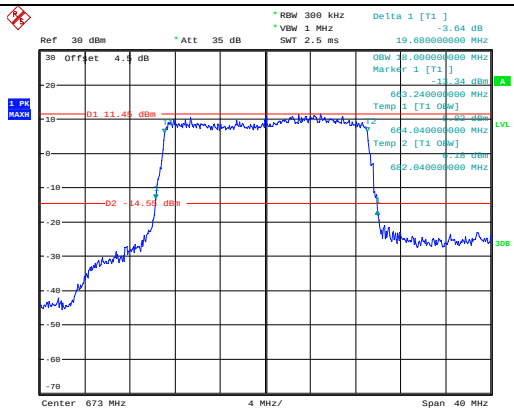
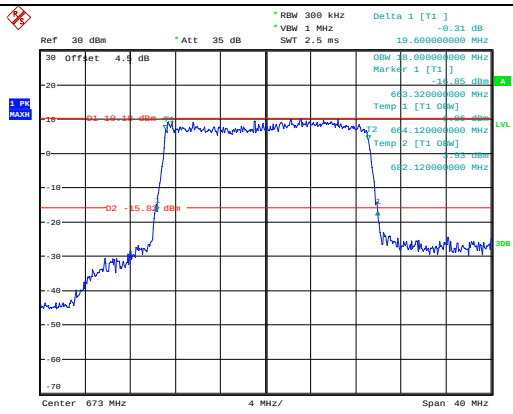
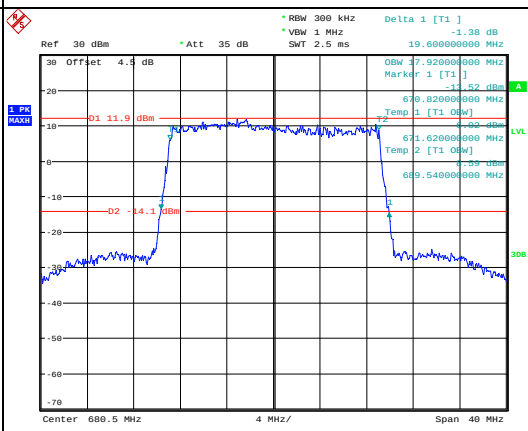
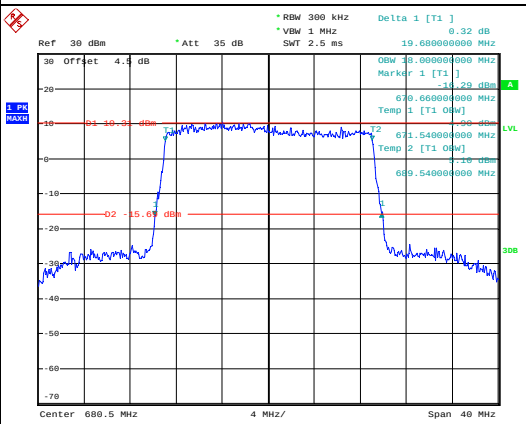
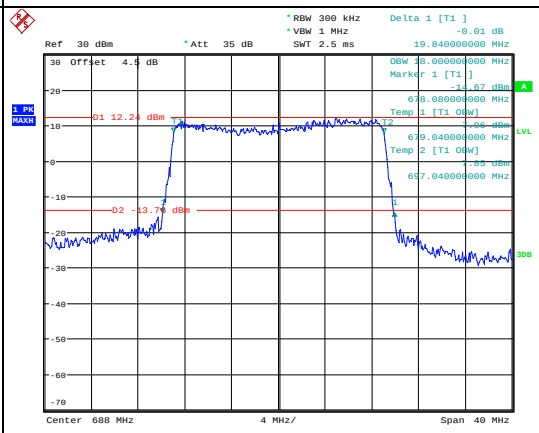
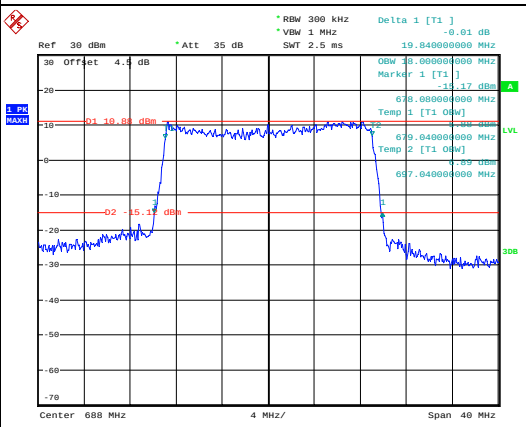
Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature(℃)	Voltage(V_{DC})	Lower Edge(MHz)		Upper Edge(MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	664.034	663.00	697.127	698.00
	-20	3.8	664.013	663.00	697.125	698.00
	-10	3.8	664.032	663.00	697.145	698.00
	0	3.8	664.033	663.00	697.130	698.00
	10	3.8	664.015	663.00	697.133	698.00
	20	3.8	664.040	663.00	697.120	698.00
	30	3.8	664.013	663.00	697.134	698.00
	40	3.8	664.036	663.00	697.148	698.00
	50	3.8	664.024	663.00	697.133	698.00
Frequency Stability vs. Voltage	20	3.5	664.017	663.00	697.135	698.00
	20	4.2	664.012	663.00	697.124	698.00
					Result:	**Pass**

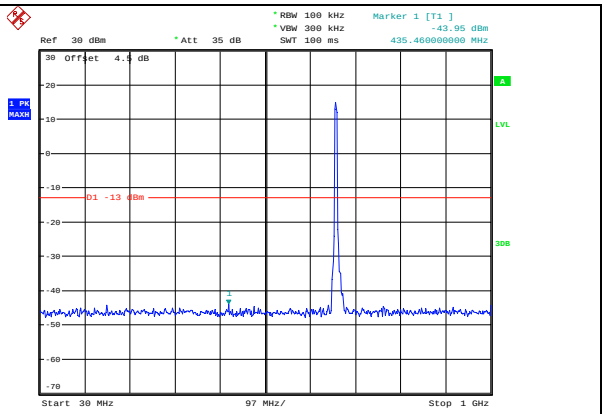
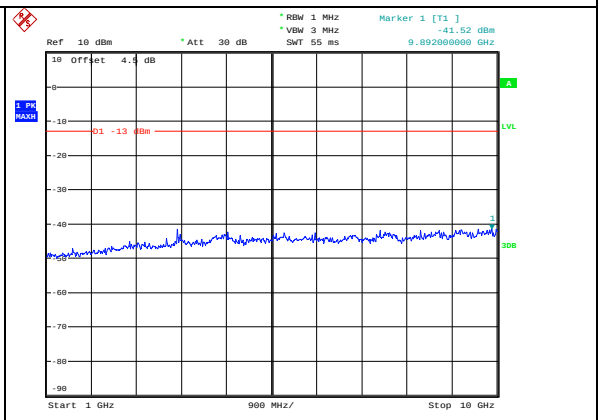
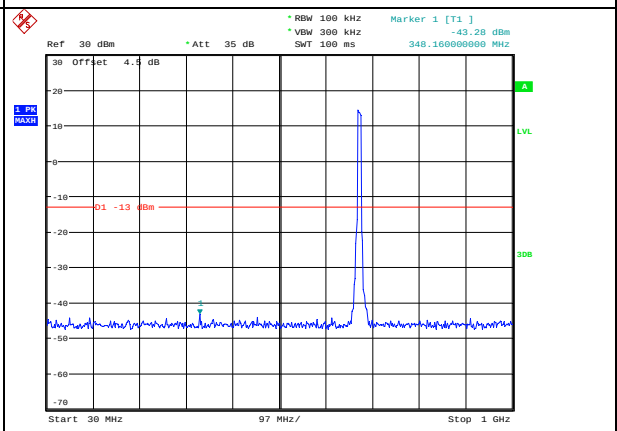
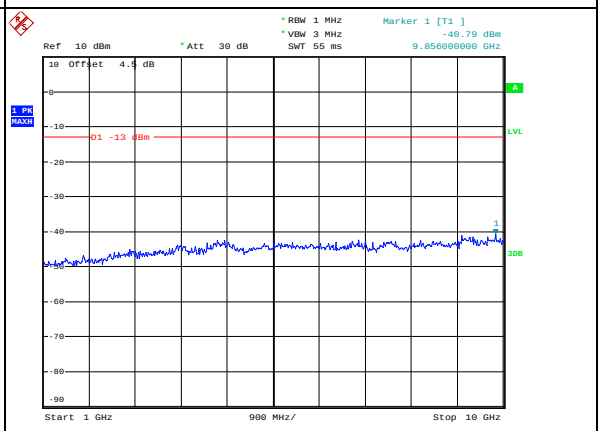
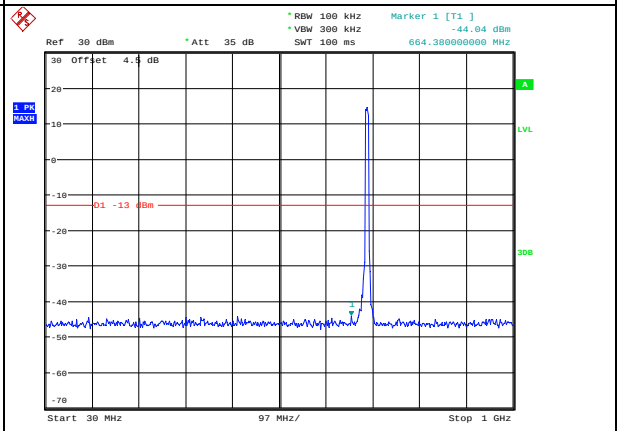
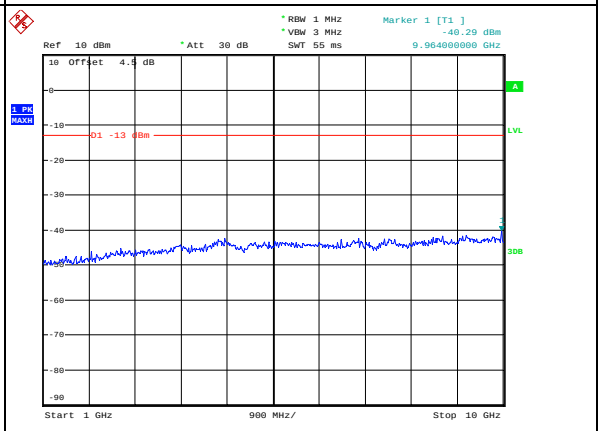
Test Plots(Note: The 4.5dB is the Insertion loss of the RF cable, Power Splitter, which was offset into the Spectrum Analyzer)**:**

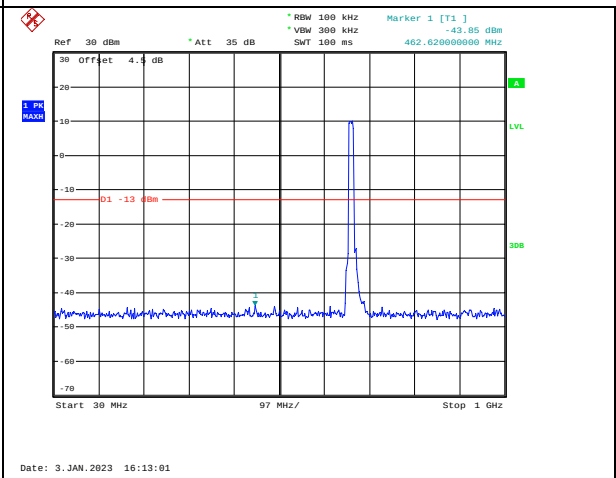
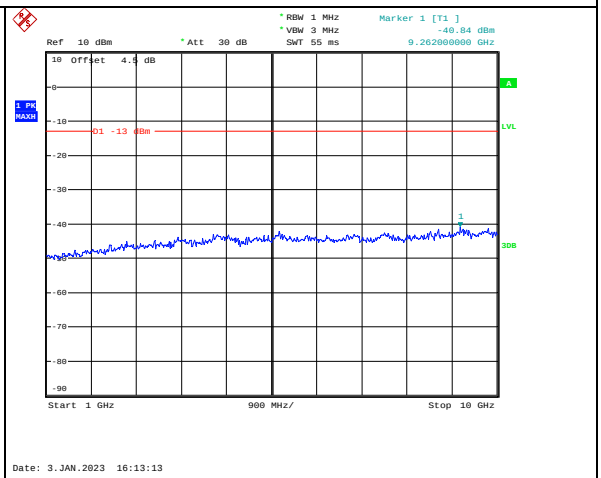
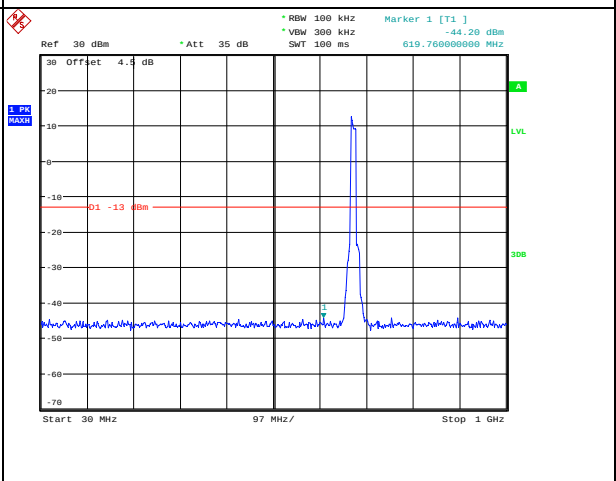
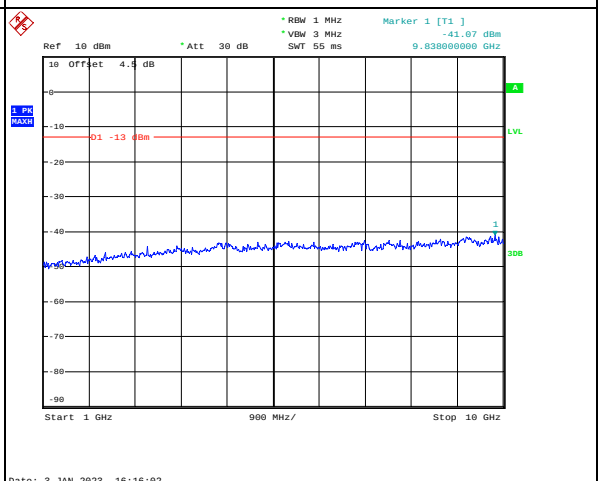
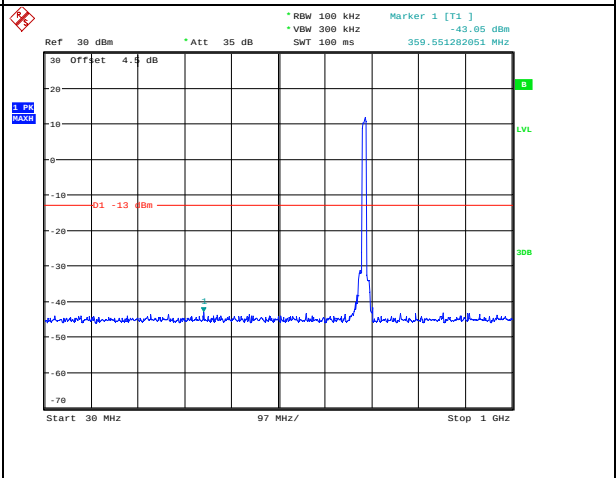
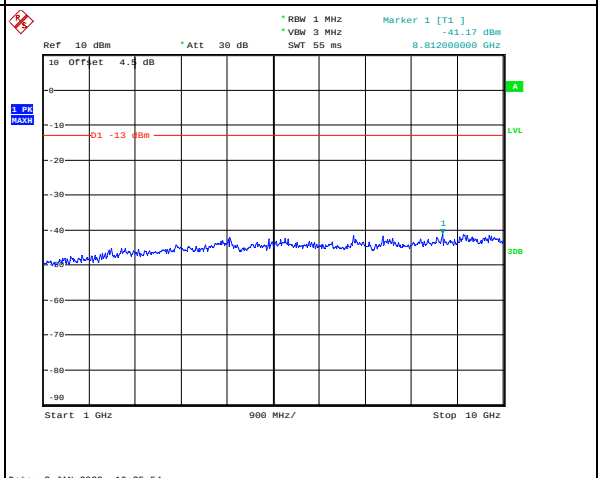
Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	 Date: 10.JAN.2023 17:44:20	 Date: 10.JAN.2023 17:44:44
Middle	 Date: 10.JAN.2023 17:47:02	 Date: 10.JAN.2023 17:47:20
Highest	 Date: 10.JAN.2023 17:50:10	 Date: 10.JAN.2023 17:50:31

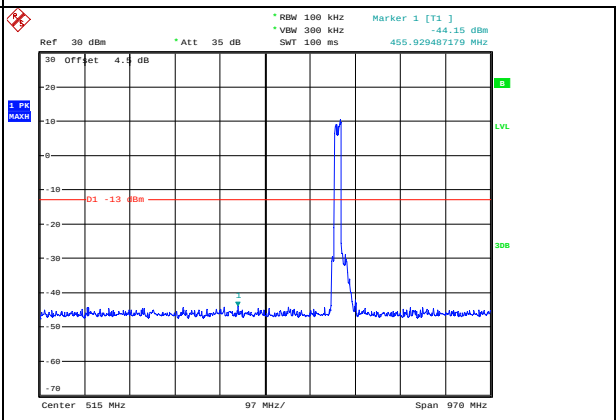
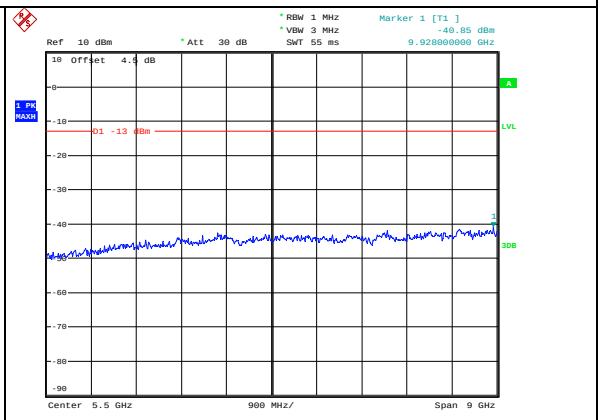
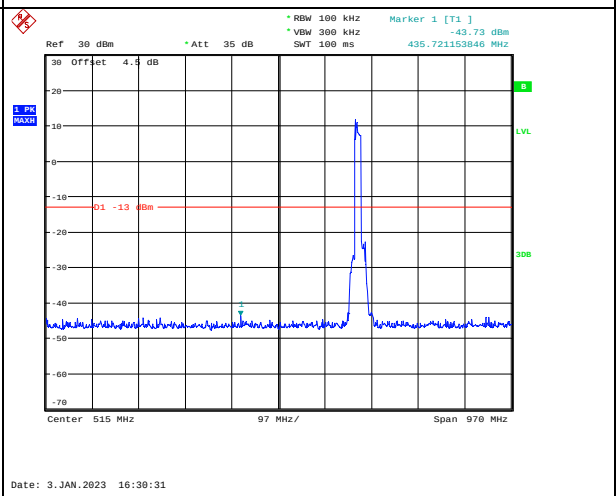
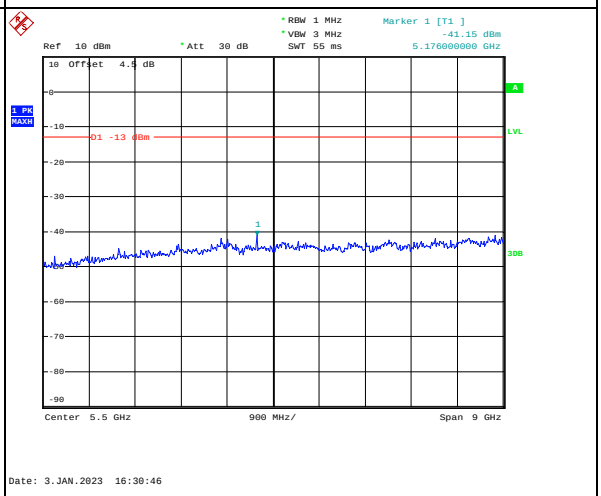
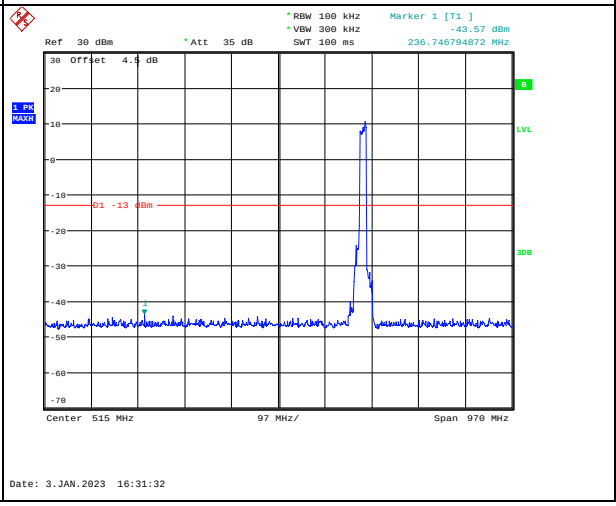
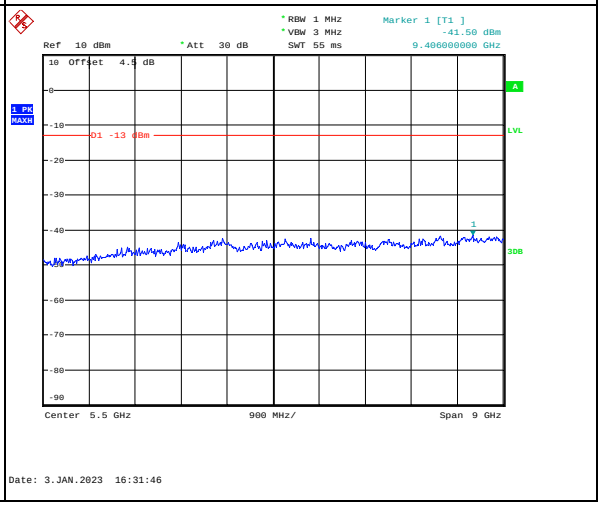
Occupied Bandwidth		
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

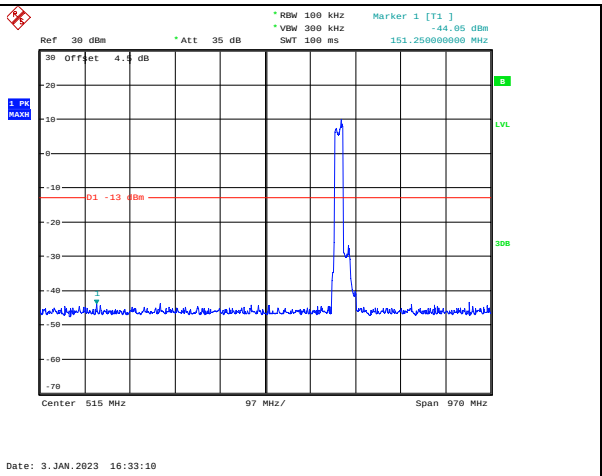
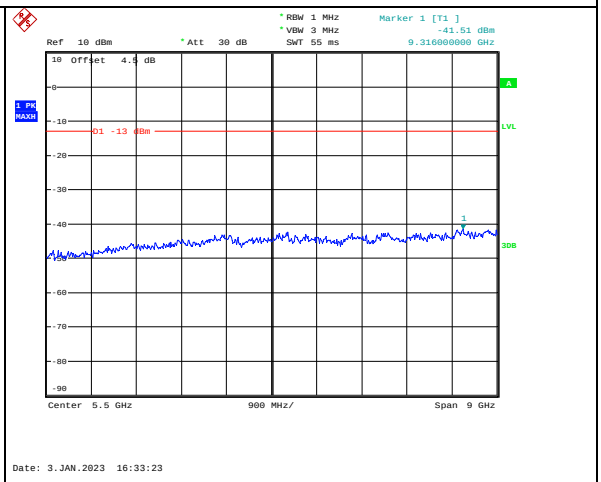
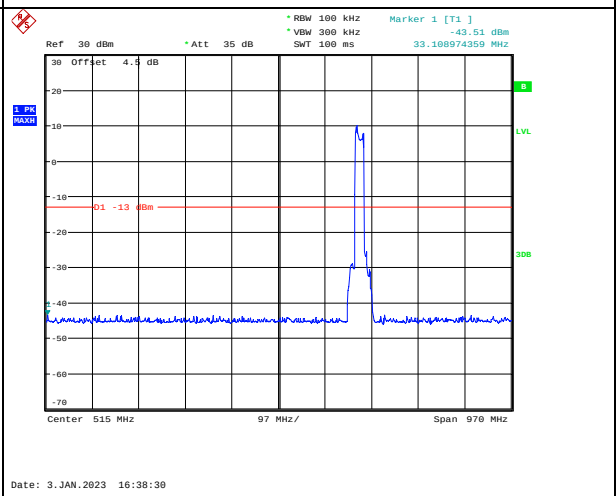
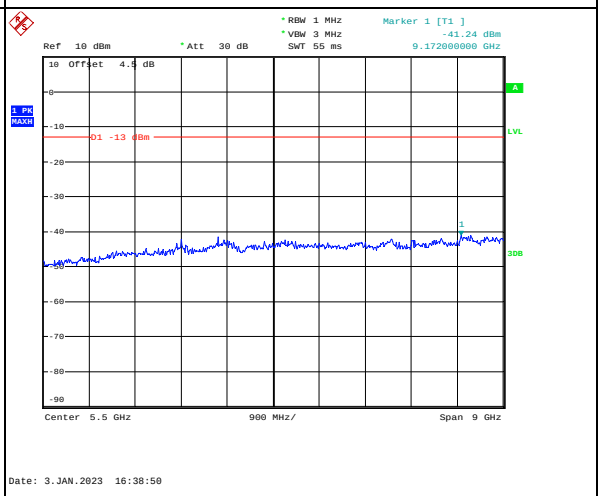
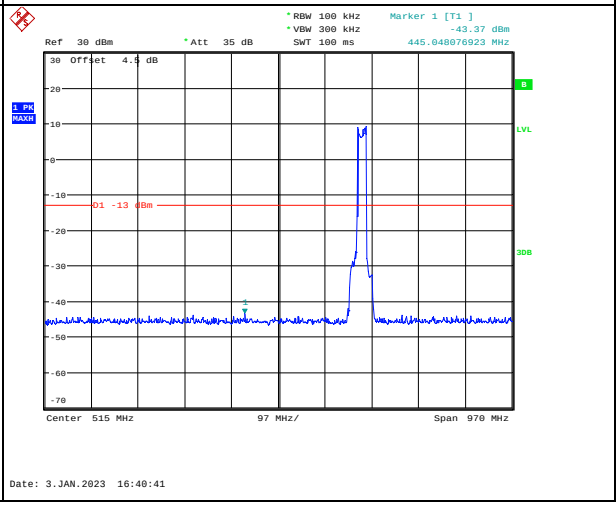
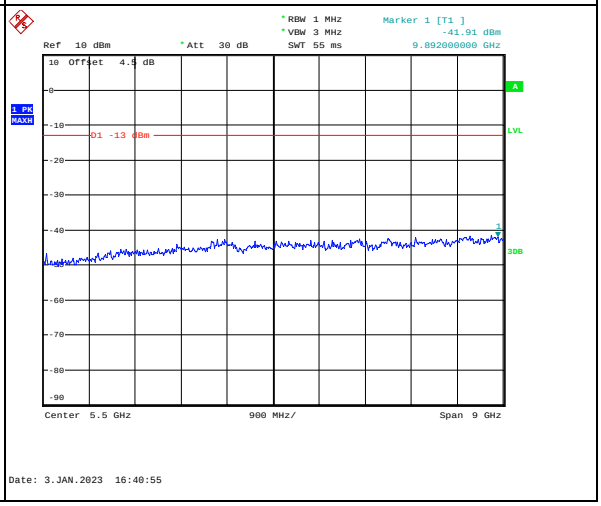
Occupied Bandwidth		
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

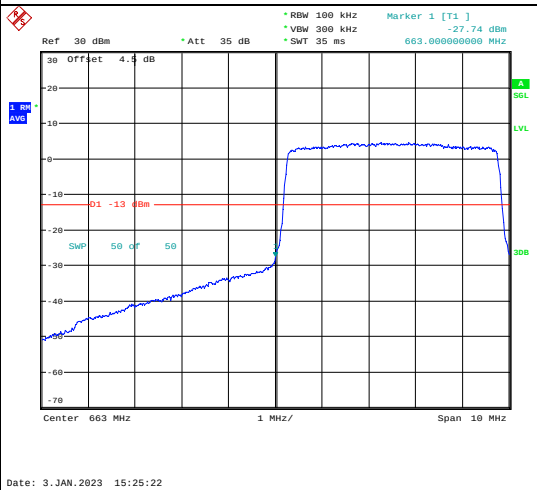
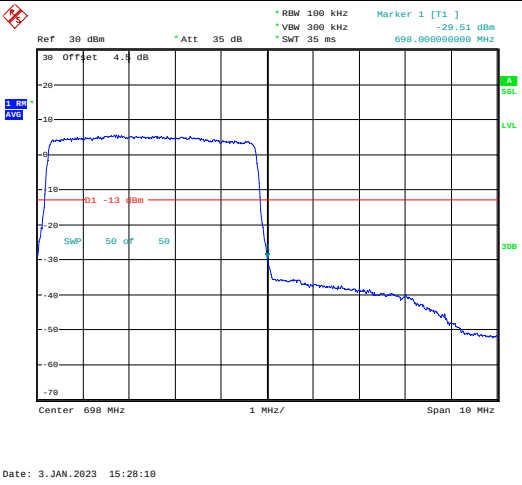
Occupied Bandwidth		
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

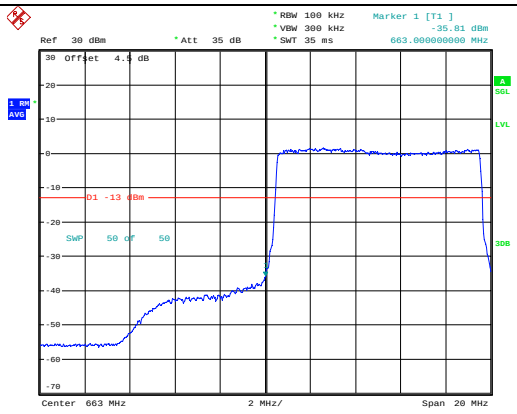
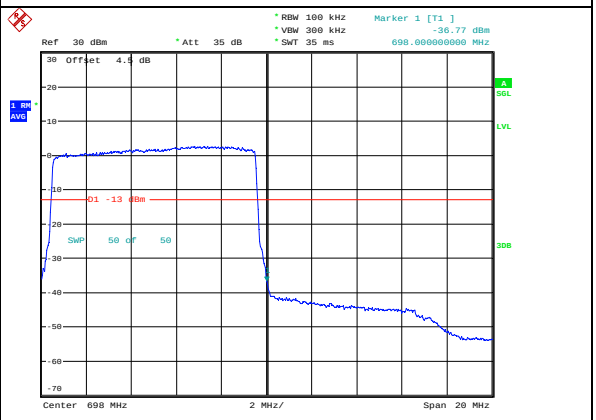
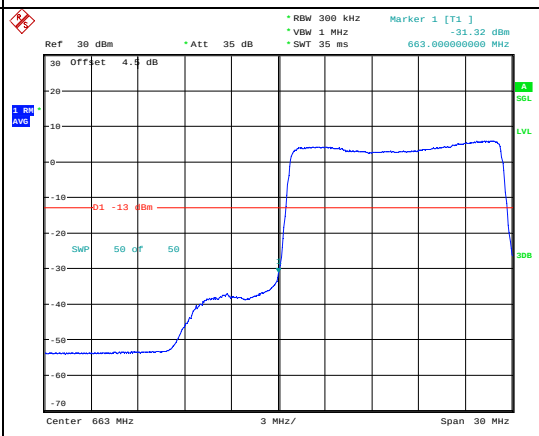
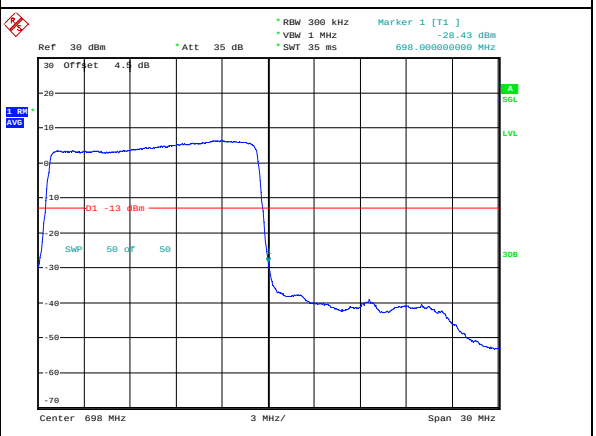
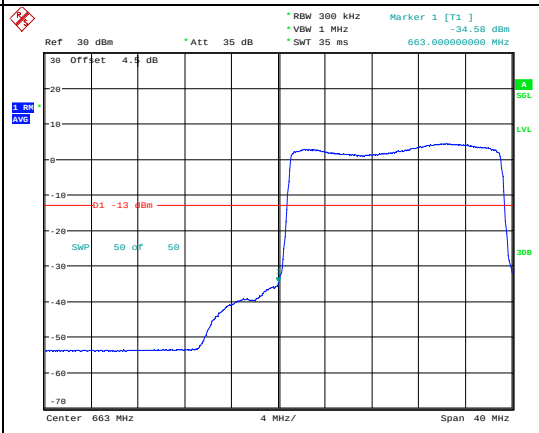
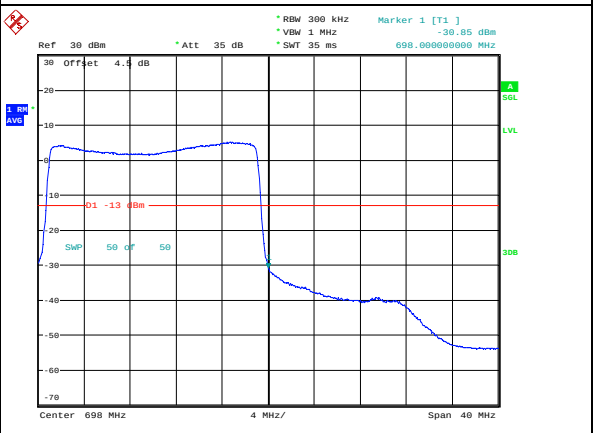
Spurious Emissions at Antenna Terminal		
Channel	**5MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

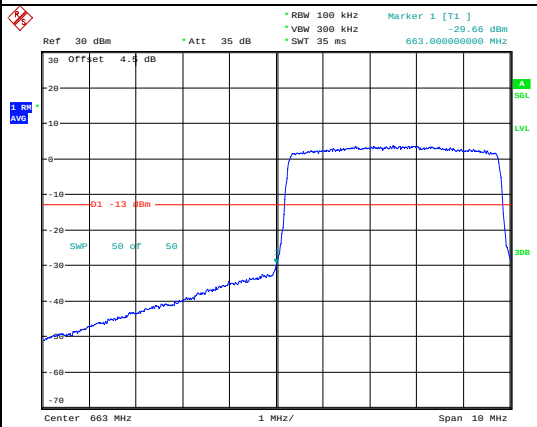
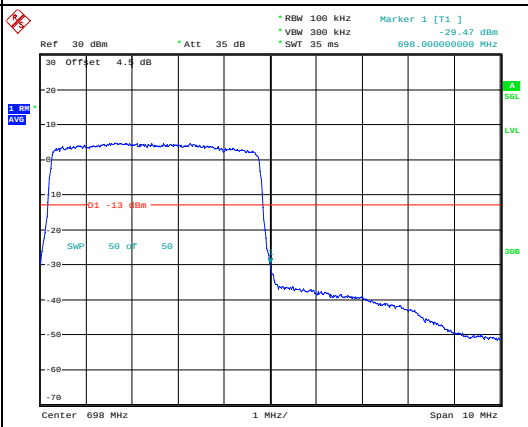
Spurious Emissions at Antenna Terminal		
Channel	**10MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

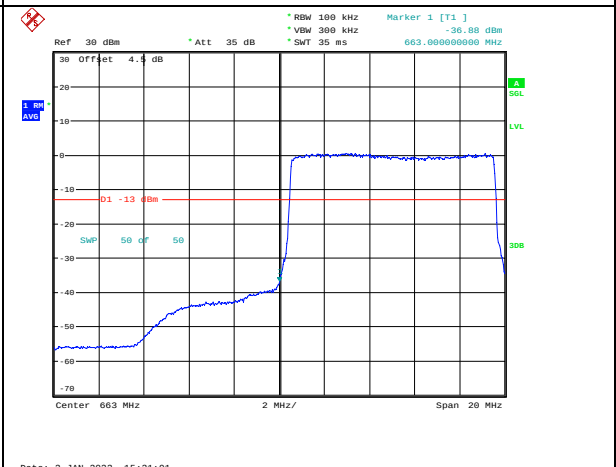
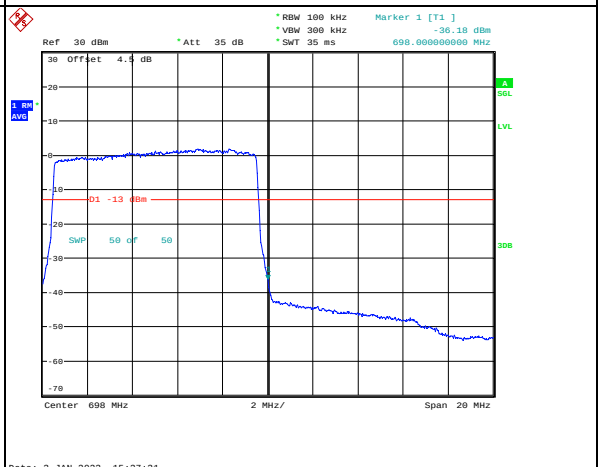
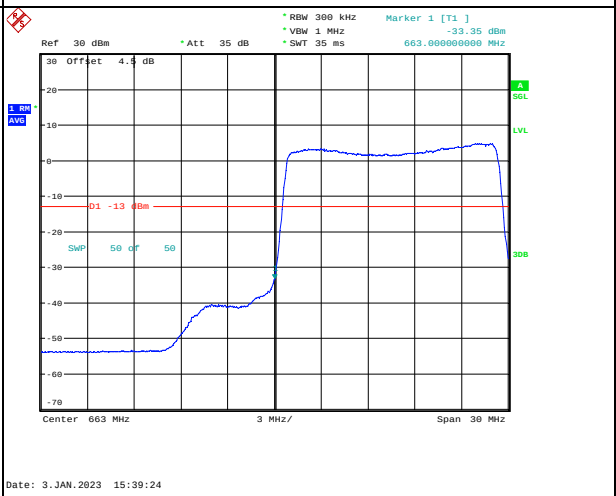
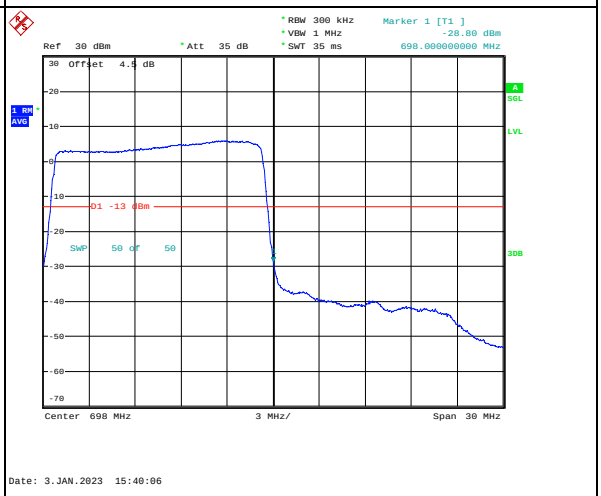
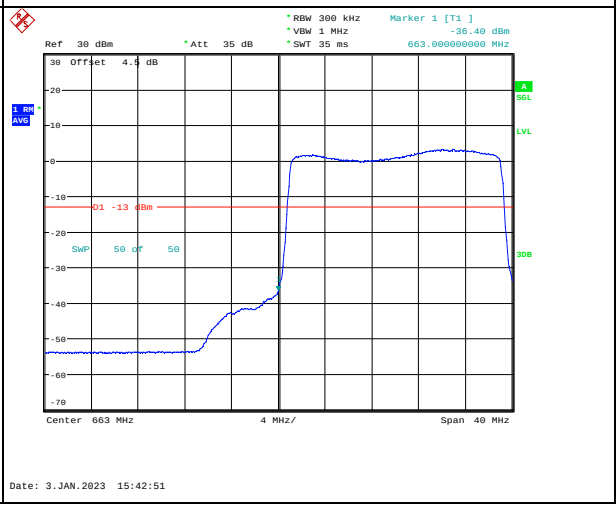
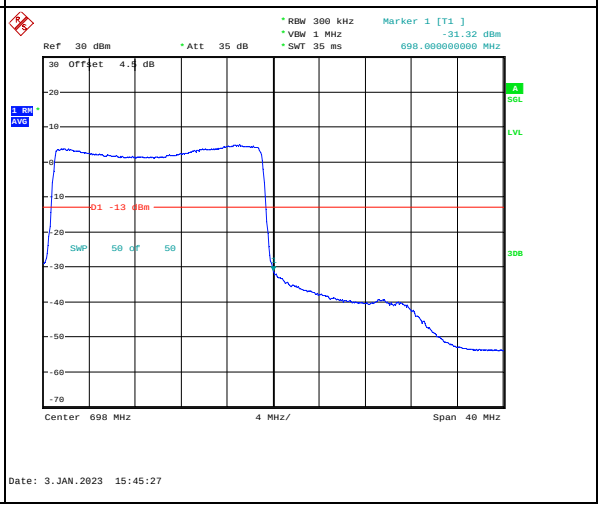
Spurious Emissions at Antenna Terminal		
Channel	**15MHz Bandwidth QPSK**	
Lowest		
Middle		
Highest		

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

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
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 5MHz		

Out of band emission, Band Edge		
Mode	**Lowest**	**Highest**
16QAM 10MHz		
16QAM 15MHz		
16QAM 20MHz		

4.14 Radiated Spurious Emissions

Serial Number:	1SNT-1	Test Date:	2022/12/19~2022/12/21
Test Site:	996-1/966-2	Test Mode:	Transmitting
Tester:	Carl Xue,Mack Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	20.5~21.8	Relative Humidity: (%)	37~44	ATM Pressure: (kPa)	101.2~101.8

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020/10/19	2023/10/18
R&S	EMI Test Receiver	ESR3	102724	2022/7/15	2023/7/14
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2022/7/17	2023/7/16
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2022/7/17	2023/7/16
EMCO	Adjustable Dipole Antenna	3121C	9109-756	N/A	N/A
Agilent	Signal Generator	E8247C	MY43321352	2022/4/1	2023/3/31
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020/10/13	2023/10/12
R&S	Spectrum Analyzer	FSV40	101591	2022/7/15	2023/7/14
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2022/8/7	2023/8/6
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2022/8/7	2023/8/6
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2022/11/9	2023/11/8
AH	Double Ridge Guide Horn Antenna	SAS-571	1396	2021/10/18	2024/10/17
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2022/7/17	2023/7/16
Agilent	Signal Generator	E8247C	MY43321352	2022/4/1	2023/3/31
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
PASTERNACK	Horn Antenna	PE9852/2F-20	112001	2021/2/5	2024/2/4
AH	Preamplifier	PAM-1840VH	190	2022/11/9	2023/11/8
PASTERNACK	Horn Antenna	PE9850/2F-20	072001	2021/2/5	2024/2/4
PASTERNACK	Horn Antenna	PE9850/2F-20	072002	2021/2/5	2024/2/4
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2022/8/7	2023/8/6

**** 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).*

Test Data:
Please refer to the below table and plots.
Note: The device can be mounted in multiple orientations, test was performed with X,Y, Z Axis according to C63.26 figure 5, the worst orientation was photographed and it`s data was recorded.

Cellular Band (PART 22H)

30 MHz-10 GHz:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 850 Frequency:824.2MHz								
589.10	H	21.50	-52.57	0.00	0.48	-53.05	-13.00	40.05
716.78	V	21.20	-48.35	0.00	0.50	-48.85	-13.00	35.85
1648.400	H	61.62	-42.71	8.68	0.80	-34.83	-13.00	21.83
1648.400	V	62.50	-41.91	8.68	0.80	-34.03	-13.00	21.03
2472.600	H	68.09	-32.69	9.38	1.00	-24.31	-13.00	11.31
2472.600	V	65.79	-34.94	9.38	1.00	-26.56	-13.00	13.56
3296.800	H	42.99	-53.69	10.32	1.15	-44.52	-13.00	31.52
3296.800	V	42.80	-53.64	10.32	1.15	-44.47	-13.00	31.47
GSM 850 Frequency:836.6MHz								
680.11	H	21.08	-52.35	0.00	0.52	-52.87	-13.00	39.87
721.82	V	20.99	-48.45	0.00	0.50	-48.95	-13.00	35.95
1673.200	H	64.28	-40.03	8.71	0.85	-32.17	-13.00	19.17
1673.200	V	64.95	-39.46	8.71	0.85	-31.60	-13.00	18.60
2509.800	H	71.38	-29.23	9.42	1.01	-20.82	-13.00	7.82
2509.800	V	67.55	-33.07	9.42	1.01	-24.66	-13.00	11.66
3346.400	H	43.53	-53.64	10.34	1.16	-44.46	-13.00	31.46
3346.400	V	43.10	-53.93	10.34	1.16	-44.75	-13.00	31.75
GSM 850 Frequency:848.8MHz								
724.37	H	21.43	-51.40	0.00	0.51	-51.91	-13.00	38.91
716.80	V	21.38	-48.17	0.00	0.50	-48.67	-13.00	35.67
1697.600	H	64.89	-39.40	8.74	0.90	-31.56	-13.00	18.56
1697.600	V	65.39	-39.03	8.74	0.90	-31.19	-13.00	18.19
2546.400	H	69.37	-30.96	9.47	1.01	-22.50	-13.00	9.50
2546.400	V	65.18	-35.10	9.47	1.01	-26.64	-13.00	13.64
3395.200	H	39.88	-57.81	10.36	1.19	-48.64	-13.00	35.64
3395.200	V	41.04	-56.62	10.36	1.19	-47.45	-13.00	34.45

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band 5 Frequency:826.4 MHz								
723.34	H	21.20	-51.65	0.00	0.50	-52.15	-13.00	39.15
726.25	V	21.01	-48.34	0.00	0.52	-48.86	-13.00	35.86
1652.800	H	41.80	-62.53	8.68	0.81	-54.66	-13.00	41.66
1652.800	V	42.61	-61.80	8.68	0.81	-53.93	-13.00	40.93
2479.200	H	39.45	-61.31	9.39	1.01	-52.93	-13.00	39.93
2479.200	V	35.13	-65.60	9.39	1.01	-57.22	-13.00	44.22
3305.600	H	41.50	-55.23	10.32	1.15	-46.06	-13.00	33.06
3305.600	V	42.22	-54.28	10.32	1.15	-45.11	-13.00	32.11
WCDMA Band 5 Frequency:836.6MHz								
713.65	H	21.46	-51.58	0.00	0.51	-52.09	-13.00	39.09
711.71	V	20.73	-48.93	0.00	0.51	-49.44	-13.00	36.44
1673.200	H	35.46	-68.85	8.71	0.85	-60.99	-13.00	47.99
1673.200	V	37.52	-66.89	8.71	0.85	-59.03	-13.00	46.03
2509.800	H	44.89	-55.72	9.42	1.01	-47.31	-13.00	34.31
2509.800	V	41.59	-59.03	9.42	1.01	-50.62	-13.00	37.62
3346.400	H	49.68	-47.49	10.34	1.16	-38.31	-13.00	25.31
3346.400	V	50.27	-46.76	10.34	1.16	-37.58	-13.00	24.58
WCDMA Band 5 Frequency:846.6MHz								
719.47	H	21.32	-51.61	0.00	0.49	-52.10	-13.00	39.10
684.58	V	20.89	-49.31	0.00	0.53	-49.84	-13.00	36.84
1693.200	H	40.97	-63.33	8.73	0.89	-55.49	-13.00	42.49
1693.200	V	42.38	-62.04	8.73	0.89	-54.20	-13.00	41.20
2539.800	H	39.42	-60.96	9.46	1.01	-52.51	-13.00	39.51
2539.800	V	40.67	-59.67	9.46	1.01	-51.22	-13.00	38.22
3386.400	H	51.67	-45.92	10.35	1.18	-36.75	-13.00	23.75
3386.400	V	51.01	-46.53	10.35	1.18	-37.36	-13.00	24.36

PCS Band (PART 24E)

30 MHz-20 GHz:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 1900 Frequency:1850.2MHz								
729.45	H	20.97	-51.76	0.00	0.53	-52.29	-13.00	39.29
716.79	V	21.18	-48.37	0.00	0.50	-48.87	-13.00	35.87
3700.400	H	34.83	-62.49	10.60	1.25	-53.14	-13.00	40.14
3700.400	V	34.12	-63.18	10.60	1.25	-53.83	-13.00	40.83
5550.600	H	37.86	-55.40	11.44	1.49	-45.45	-13.00	32.45
5550.600	V	35.48	-57.62	11.44	1.49	-47.67	-13.00	34.67
GSM 1900 Frequency:1880MHz								
706.81	H	21.46	-51.72	0.00	0.54	-52.26	-13.00	39.26
724.36	V	21.27	-48.12	0.00	0.51	-48.63	-13.00	35.63
3760.000	H	35.02	-61.39	10.66	1.24	-51.97	-13.00	38.97
3760.000	V	34.24	-62.05	10.66	1.24	-52.63	-13.00	39.63
5640.000	H	34.36	-59.09	11.33	1.54	-49.30	-13.00	36.30
5640.000	V	35.62	-57.71	11.33	1.54	-47.92	-13.00	34.92
GSM 1900 Frequency:1909.8MHz								
732.14	H	21.53	-51.14	0.00	0.53	-51.67	-13.00	38.67
719.43	V	21.28	-48.22	0.00	0.49	-48.71	-13.00	35.71
3819.600	H	34.26	-61.60	10.72	1.29	-52.17	-13.00	39.17
3819.600	V	33.57	-62.15	10.72	1.29	-52.72	-13.00	39.72
5729.400	H	34.12	-59.36	11.22	1.59	-49.73	-13.00	36.73
5729.400	V	35.01	-58.35	11.22	1.59	-48.72	-13.00	35.72

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band II, Frequency:1852.4 MHz								
796.02	H	20.71	-50.67	0.00	0.60	-51.27	-13.00	38.27
723.34	V	20.41	-49.00	0.00	0.50	-49.50	-13.00	36.50
3704.800	H	39.76	-57.50	10.60	1.25	-48.15	-13.00	35.15
3704.800	V	35.24	-61.99	10.60	1.25	-52.64	-13.00	39.64
5557.200	H	36.68	-56.60	11.43	1.49	-46.66	-13.00	33.66
5557.200	V	41.49	-51.64	11.43	1.49	-41.70	-13.00	28.70
WCDMA Band II, Frequency:1880 MHz								
725.28	H	21.12	-51.69	0.00	0.51	-52.20	-13.00	39.20
660.35	V	21.39	-49.25	0.00	0.51	-49.76	-13.00	36.76
3760.000	H	36.12	-60.29	10.66	1.24	-50.87	-13.00	37.87
3760.000	V	34.45	-61.84	10.66	1.24	-52.42	-13.00	39.42
5640.000	H	46.75	-46.70	11.33	1.54	-36.91	-13.00	23.91
5640.000	V	46.02	-47.31	11.33	1.54	-37.52	-13.00	24.52
WCDMA Band II, Frequency:1907.6MHz								
711.71	H	20.61	-52.47	0.00	0.51	-52.98	-13.00	39.98
729.16	V	21.43	-47.85	0.00	0.53	-48.38	-13.00	35.38
3815.200	H	36.16	-59.69	10.72	1.29	-50.26	-13.00	37.26
3815.200	V	39.13	-56.56	10.72	1.29	-47.13	-13.00	34.13
5722.800	H	42.65	-50.84	11.23	1.58	-41.19	-13.00	28.19
5722.800	V	36.02	-57.33	11.23	1.58	-47.68	-13.00	34.68

AWS Band(Part 27)

30 MHz-20 GHz:

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band Ⅳ, Frequency:1712.4 MHz								
725.28	H	21.15	-51.66	0.00	0.51	-52.17	-13.00	39.17
729.16	V	20.68	-48.60	0.00	0.53	-49.13	-13.00	36.13
3424.800	H	40.02	-57.75	10.37	1.17	-48.55	-13.00	35.55
3424.800	V	35.11	-62.63	10.37	1.17	-53.43	-13.00	40.43
5137.200	H	47.69	-45.93	11.28	1.46	-36.11	-13.00	23.11
5137.200	V	46.77	-46.73	11.28	1.46	-36.91	-13.00	23.91
WCDMA Band Ⅳ, Frequency:1732.6 MHz								
698.15	H	21.01	-52.32	0.00	0.55	-52.87	-13.00	39.87
724.31	V	20.53	-48.86	0.00	0.51	-49.37	-13.00	36.37
3465.200	H	35.07	-62.74	10.39	1.15	-53.50	-13.00	40.50
3465.200	V	34.23	-63.54	10.39	1.15	-54.30	-13.00	41.30
5197.800	H	46.24	-47.89	11.32	1.44	-38.01	-13.00	25.01
5197.800	V	46.04	-47.94	11.32	1.44	-38.06	-13.00	25.06
WCDMA Band Ⅳ, Frequency:1752.6MHz								
697.18	H	20.89	-52.45	0.00	0.55	-53.00	-13.00	40.00
476.24	V	20.62	-51.90	0.00	0.42	-52.32	-13.00	39.32
3505.200	H	34.56	-63.27	10.41	1.18	-54.04	-13.00	41.04
3505.200	V	39.83	-57.94	10.41	1.18	-48.71	-13.00	35.71
5257.800	H	45.63	-48.10	11.35	1.47	-38.22	-13.00	25.22
5257.800	V	41.03	-52.48	11.35	1.47	-42.60	-13.00	29.60

LTE Bands:
(The Worst modulation and bandwidth was below)

LTE Band 2 (30MHz-20GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK,Frequency:1850.7 MHz								
723.34	H	20.89	-51.96	0.00	0.50	-52.46	-13.00	39.46
702.02	V	21.31	-48.57	0.00	0.55	-49.12	-13.00	36.12
3701.400	H	42.99	-54.32	10.60	1.25	-44.97	-13.00	31.97
3701.400	V	38.53	-58.76	10.60	1.25	-49.41	-13.00	36.41
5552.100	H	50.10	-43.17	11.44	1.49	-33.22	-13.00	20.22
5552.100	V	46.42	-46.68	11.44	1.49	-36.73	-13.00	23.73
QPSK,Frequency:1880 MHz								
721.40	H	20.91	-51.98	0.00	0.50	-52.48	-13.00	39.48
724.31	V	21.32	-48.07	0.00	0.51	-48.58	-13.00	35.58
3760.000	H	41.56	-54.85	10.66	1.24	-45.43	-13.00	32.43
3760.000	V	37.44	-58.85	10.66	1.24	-49.43	-13.00	36.43
5640.000	H	53.65	-39.80	11.33	1.54	-30.01	-13.00	17.01
5640.000	V	49.73	-43.60	11.33	1.54	-33.81	-13.00	20.81
QPSK,Frequency:1909.3 MHz								
720.43	H	21.09	-51.82	0.00	0.49	-52.31	-13.00	39.31
706.87	V	21.46	-48.31	0.00	0.54	-48.85	-13.00	35.85
3818.600	H	39.61	-56.25	10.72	1.29	-46.82	-13.00	33.82
3818.600	V	39.88	-55.83	10.72	1.29	-46.40	-13.00	33.40
5727.900	H	43.42	-50.06	11.23	1.59	-40.42	-13.00	27.42
5727.900	V	40.04	-53.32	11.23	1.59	-43.68	-13.00	30.68
3818.600	H	39.61	-56.25	10.72	1.29	-46.82	-13.00	33.82
3818.600	V	39.88	-55.83	10.72	1.29	-46.40	-13.00	33.40

LTE Band 4 (30MHz-20GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK,Frequency:1710.7 MHz								
727.22	H	21.57	-51.20	0.00	0.52	-51.72	-13.00	38.72
722.37	V	20.76	-48.67	0.00	0.50	-49.17	-13.00	36.17
3421.400	H	43.89	-53.87	10.37	1.17	-44.67	-13.00	31.67
3421.400	V	41.94	-55.79	10.37	1.17	-46.59	-13.00	33.59
5132.100	H	44.47	-49.10	11.28	1.47	-39.29	-13.00	26.29
5132.100	V	41.46	-52.00	11.28	1.47	-42.19	-13.00	29.19
QPSK,Frequency:1732.5 MHz								
701.05	H	21.46	-51.84	0.00	0.55	-52.39	-13.00	39.39
704.93	V	20.63	-49.18	0.00	0.55	-49.73	-13.00	36.73
3465.000	H	40.70	-57.11	10.39	1.15	-47.87	-13.00	34.87
3465.000	V	40.65	-57.12	10.39	1.15	-47.88	-13.00	34.88
5197.500	H	46.66	-47.47	11.32	1.44	-37.59	-13.00	24.59
5197.500	V	46.60	-47.38	11.32	1.44	-37.50	-13.00	24.50
QPSK,Frequency:1754.3MHz								
723.34	H	20.92	-51.93	0.00	0.50	-52.43	-13.00	39.43
728.19	V	21.14	-48.17	0.00	0.52	-48.69	-13.00	35.69
3508.600	H	35.67	-62.15	10.41	1.19	-52.93	-13.00	39.93
3508.600	V	36.23	-61.53	10.41	1.19	-52.31	-13.00	39.31
5262.900	H	44.18	-49.52	11.36	1.47	-39.63	-13.00	26.63
5262.900	V	41.16	-52.31	11.36	1.47	-42.42	-13.00	29.42

LTE Band 5(30MHz-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, Frequency: 824.7 MHz								
723.34	H	21.44	-51.41	0.00	0.50	-51.91	-13.00	38.91
540.19	V	20.88	-50.76	0.00	0.46	-51.22	-13.00	38.22
1649.400	H	43.82	-60.51	8.68	0.80	-52.63	-13.00	39.63
1649.400	V	44.86	-59.55	8.68	0.80	-51.67	-13.00	38.67
2474.100	H	46.61	-54.17	9.38	1.00	-45.79	-13.00	32.79
2474.100	V	43.44	-57.29	9.38	1.00	-48.91	-13.00	35.91
3298.800	H	51.08	-45.60	10.32	1.15	-36.43	-13.00	23.43
3298.800	V	46.72	-49.72	10.32	1.15	-40.55	-13.00	27.55
QPSK, Frequency: 836.5 MHz								
186.50	H	21.46	-59.70	0.00	0.26	-59.96	-13.00	46.96
648.73	V	20.93	-49.92	0.00	0.52	-50.44	-13.00	37.44
1673.000	H	35.12	-69.19	8.71	0.85	-61.33	-13.00	48.33
1673.000	V	40.23	-64.18	8.71	0.85	-56.32	-13.00	43.32
2509.500	H	49.76	-50.85	9.42	1.01	-42.44	-13.00	29.44
2509.500	V	47.07	-53.55	9.42	1.01	-45.14	-13.00	32.14
3346.000	H	53.25	-43.91	10.34	1.16	-34.73	-13.00	21.73
3346.000	V	53.88	-43.14	10.34	1.16	-33.96	-13.00	20.96
QPSK, Frequency: 848.3 MHz								
510.15	H	21.54	-54.09	0.00	0.45	-54.54	-13.00	41.54
721.40	V	20.85	-48.60	0.00	0.50	-49.10	-13.00	36.10
1696.600	H	43.98	-60.31	8.74	0.89	-52.46	-13.00	39.46
1696.600	V	42.84	-61.58	8.74	0.89	-53.73	-13.00	40.73
2544.900	H	47.35	-52.99	9.47	1.01	-44.53	-13.00	31.53
2544.900	V	42.94	-57.36	9.47	1.01	-48.90	-13.00	35.90
3393.200	H	57.25	-40.42	10.36	1.19	-31.25	-13.00	18.25
3393.200	V	57.10	-40.53	10.36	1.19	-31.36	-13.00	18.36

LTE Band 12 (30MHz-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, Frequency: 699.7 MHz								
787.30	H	21.13	-50.43	0.00	0.58	-51.01	-13.00	38.01
569.27	V	20.82	-50.86	0.00	0.46	-51.32	-13.00	38.32
1399.400	H	38.90	-64.80	8.22	0.71	-57.29	-13.00	44.29
1399.400	V	42.54	-61.21	8.22	0.71	-53.70	-13.00	40.70
2099.100	H	42.64	-59.24	9.16	0.91	-50.99	-13.00	37.99
2099.100	V	44.01	-57.82	9.16	0.91	-49.57	-13.00	36.57
2798.800	H	35.12	-64.81	9.88	1.04	-55.97	-13.00	42.97
2798.800	V	34.56	-65.24	9.88	1.04	-56.40	-13.00	43.40
QPSK, Frequency:707.5 MHz								
484.96	H	21.30	-54.84	0.00	0.43	-55.27	-13.00	42.27
668.11	V	21.59	-48.91	0.00	0.50	-49.41	-13.00	36.41
1415.000	H	36.47	-67.20	8.26	0.72	-59.66	-13.00	46.66
1415.000	V	40.04	-63.68	8.26	0.72	-56.14	-13.00	43.14
2122.500	H	35.26	-66.73	9.17	0.92	-58.48	-13.00	45.48
2122.500	V	40.26	-61.71	9.17	0.92	-53.46	-13.00	40.46
2830.000	H	34.21	-65.59	9.93	1.06	-56.72	-13.00	43.72
2830.000	V	35.35	-64.38	9.93	1.06	-55.51	-13.00	42.51
QPSK, Frequency: 715.3 MHz								
563.45	H	21.11	-53.47	0.00	0.46	-53.93	-13.00	40.93
629.35	V	20.89	-50.31	0.00	0.48	-50.79	-13.00	37.79
1430.600	H	34.65	-68.98	8.31	0.73	-61.40	-13.00	48.40
1430.600	V	35.11	-68.58	8.31	0.73	-61.00	-13.00	48.00
2145.900	H	38.98	-63.12	9.19	0.93	-54.86	-13.00	41.86
2145.900	V	38.88	-63.23	9.19	0.93	-54.97	-13.00	41.97
2861.200	H	34.02	-65.63	9.98	1.07	-56.72	-13.00	43.72
2861.200	V	33.68	-65.99	9.98	1.07	-57.08	-13.00	44.08

LTE Band 17 (30MHz-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, Frequency: 706.5 MHz								
667.14	H	21.19	-52.31	0.00	0.50	-52.81	-13.00	39.81
557.64	V	21.13	-50.54	0.00	0.48	-51.02	-13.00	38.02
1413.000	H	35.11	-68.56	8.26	0.72	-61.02	-13.00	48.02
1413.000	V	34.62	-69.10	8.26	0.72	-61.56	-13.00	48.56
2119.500	H	36.86	-65.11	9.17	0.92	-56.86	-13.00	43.86
2119.500	V	40.47	-61.48	9.17	0.92	-53.23	-13.00	40.23
2826.000	H	34.23	-65.58	9.92	1.06	-56.72	-13.00	43.72
2826.000	V	34.03	-65.71	9.92	1.06	-56.85	-13.00	43.85
QPSK, Frequency:710 MHz								
662.29	H	21.07	-52.45	0.00	0.51	-52.96	-13.00	39.96
605.12	V	21.11	-50.53	0.00	0.50	-51.03	-13.00	38.03
1420.000	H	34.28	-69.38	8.28	0.73	-61.83	-13.00	48.83
1420.000	V	34.00	-69.71	8.28	0.73	-62.16	-13.00	49.16
2130.000	H	38.65	-63.37	9.18	0.92	-55.11	-13.00	42.11
2130.000	V	39.12	-62.89	9.18	0.92	-54.63	-13.00	41.63
2840.000	H	35.12	-64.63	9.94	1.06	-55.75	-13.00	42.75
2840.000	V	34.22	-65.49	9.94	1.06	-56.61	-13.00	43.61
QPSK, Frequency: 713.5 MHz								
562.48	H	21.28	-53.32	0.00	0.47	-53.79	-13.00	40.79
642.91	V	20.76	-50.19	0.00	0.52	-50.71	-13.00	37.71
1427.000	H	39.47	-64.17	8.30	0.73	-56.60	-13.00	43.60
1427.000	V	40.57	-63.12	8.30	0.73	-55.55	-13.00	42.55
2140.500	H	39.68	-62.39	9.18	0.93	-54.14	-13.00	41.14
2140.500	V	38.00	-64.08	9.18	0.93	-55.83	-13.00	42.83
2854.000	H	35.46	-64.23	9.97	1.07	-55.33	-13.00	42.33
2854.000	V	34.71	-64.97	9.97	1.07	-56.07	-13.00	43.07

LTE Band 41(30MHz-26.5GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK,Frequency:2557.5MHz								
727.02	H	21.10	-51.67	0.00	0.52	-52.19	-25.00	27.19
714.18	V	20.76	-48.85	0.00	0.50	-49.35	-25.00	24.35
5115.000	H	34.23	-59.20	11.27	1.51	-49.44	-25.00	24.44
5115.000	V	34.07	-59.26	11.27	1.51	-49.50	-25.00	24.50
7672.500	H	35.45	-54.06	10.87	2.03	-45.22	-25.00	20.22
7672.500	V	34.32	-55.87	10.87	2.03	-47.03	-25.00	22.03
QPSK,Frequency:2605 MHz								
716.49	H	21.47	-51.52	0.00	0.50	-52.02	-25.00	27.02
729.35	V	21.07	-48.21	0.00	0.53	-48.74	-25.00	23.74
5210.000	H	35.12	-58.96	11.33	1.45	-49.08	-25.00	24.08
5210.000	V	34.33	-59.59	11.33	1.45	-49.71	-25.00	24.71
7815.000	H	34.02	-55.38	10.84	1.99	-46.53	-25.00	21.53
7815.000	V	35.29	-54.50	10.84	1.99	-45.65	-25.00	20.65
QPSK,Frequency:2652.5MHz								
714.39	H	21.16	-51.87	0.00	0.50	-52.37	-25.00	27.37
5305.000	H	35.46	-57.98	11.38	1.46	-48.06	-25.00	23.06
5305.000	V	35.11	-58.07	11.38	1.46	-48.15	-25.00	23.15
7957.500	H	34.08	-54.34	10.81	2.09	-45.62	-25.00	20.62
7957.500	V	35.27	-53.60	10.81	2.09	-44.88	-25.00	19.88

LTE Band 66 (30MHz-20GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, Frequency: 1710.7 MHz								
721.40	H	21.06	-51.83	0.00	0.50	-52.33	-13.00	39.33
689.43	V	21.11	-49.00	0.00	0.54	-49.54	-13.00	36.54
3421.400	H	42.26	-55.50	10.37	1.17	-46.30	-13.00	33.30
3421.400	V	42.53	-55.20	10.37	1.17	-46.00	-13.00	33.00
5132.100	H	37.69	-55.88	11.28	1.47	-46.07	-13.00	33.07
5132.100	V	42.87	-50.59	11.28	1.47	-40.78	-13.00	27.78
QPSK, Frequency:1745 MHz								
494.65	H	21.40	-54.54	0.00	0.45	-54.99	-13.00	41.99
729.16	V	21.17	-48.11	0.00	0.53	-48.64	-13.00	35.64
3490.000	H	36.47	-61.37	10.40	1.17	-52.14	-13.00	39.14
3490.000	V	35.14	-62.64	10.40	1.17	-53.41	-13.00	40.41
5235.000	H	46.75	-47.15	11.34	1.46	-37.27	-13.00	24.27
5235.000	V	46.70	-47.01	11.34	1.46	-37.13	-13.00	24.13
QPSK, Frequency: 1779.3 MHz								
724.31	H	21.47	-51.36	0.00	0.51	-51.87	-13.00	38.87
719.47	V	21.15	-48.35	0.00	0.49	-48.84	-13.00	35.84
3558.600	H	37.24	-60.43	10.46	1.22	-51.19	-13.00	38.19
3558.600	V	35.12	-62.45	10.46	1.22	-53.21	-13.00	40.21
5337.900	H	41.11	-52.36	11.40	1.47	-42.43	-13.00	29.43
5337.900	V	44.22	-49.11	11.40	1.47	-39.18	-13.00	26.18

LTE Band 71 (30MHz-10GHz):

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBµV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, Frequency: 665.5 MHz								
621.59	H	21.17	-52.57	0.00	0.49	-53.06	-13.00	40.06
618.69	V	24.51	-46.88	0.00	0.49	-47.37	-13.00	34.37
1331.000	H	36.75	-66.28	8.03	0.76	-59.01	-13.00	46.01
1331.000	V	35.46	-67.90	8.03	0.76	-60.63	-13.00	47.63
1996.500	H	35.33	-66.83	9.10	0.89	-58.62	-13.00	45.62
1996.500	V	34.78	-66.76	9.10	0.89	-58.55	-13.00	45.55
2662.000	H	38.69	-61.27	9.66	1.06	-52.67	-13.00	39.67
2662.000	V	45.34	-54.54	9.66	1.06	-45.94	-13.00	32.94
QPSK, Frequency:680.5 MHz								
565.39	H	21.14	-53.40	0.00	0.46	-53.86	-13.00	40.86
632.25	V	25.48	-45.67	0.00	0.50	-46.17	-13.00	33.17
1361.000	H	34.65	-68.68	8.11	0.77	-61.34	-13.00	48.34
1361.000	V	35.11	-68.42	8.11	0.77	-61.08	-13.00	48.08
2041.500	H	41.29	-60.74	9.12	0.91	-52.53	-13.00	39.53
2041.500	V	37.78	-63.86	9.12	0.91	-55.65	-13.00	42.65
2722.000	H	35.27	-64.70	9.76	1.05	-55.99	-13.00	42.99
2722.000	V	34.05	-65.86	9.76	1.05	-57.15	-13.00	44.15
QPSK, Frequency: 695.5 MHz								
650.66	H	21.50	-52.09	0.00	0.52	-52.61	-13.00	39.61
648.73	V	26.52	-44.33	0.00	0.52	-44.85	-13.00	31.85
1391.000	H	36.12	-67.50	8.19	0.72	-60.03	-13.00	47.03
1391.000	V	35.07	-68.63	8.19	0.72	-61.16	-13.00	48.16
2086.500	H	38.44	-63.47	9.15	0.91	-55.23	-13.00	42.23
2086.500	V	39.64	-62.15	9.15	0.91	-53.91	-13.00	40.91
2782.000	H	35.13	-64.81	9.85	1.05	-56.01	-13.00	43.01
2782.000	V	35.63	-64.20	9.85	1.05	-55.40	-13.00	42.40

Note:
1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
3) Margin = Limit-Absolute Level

==== END OF REPORT =====