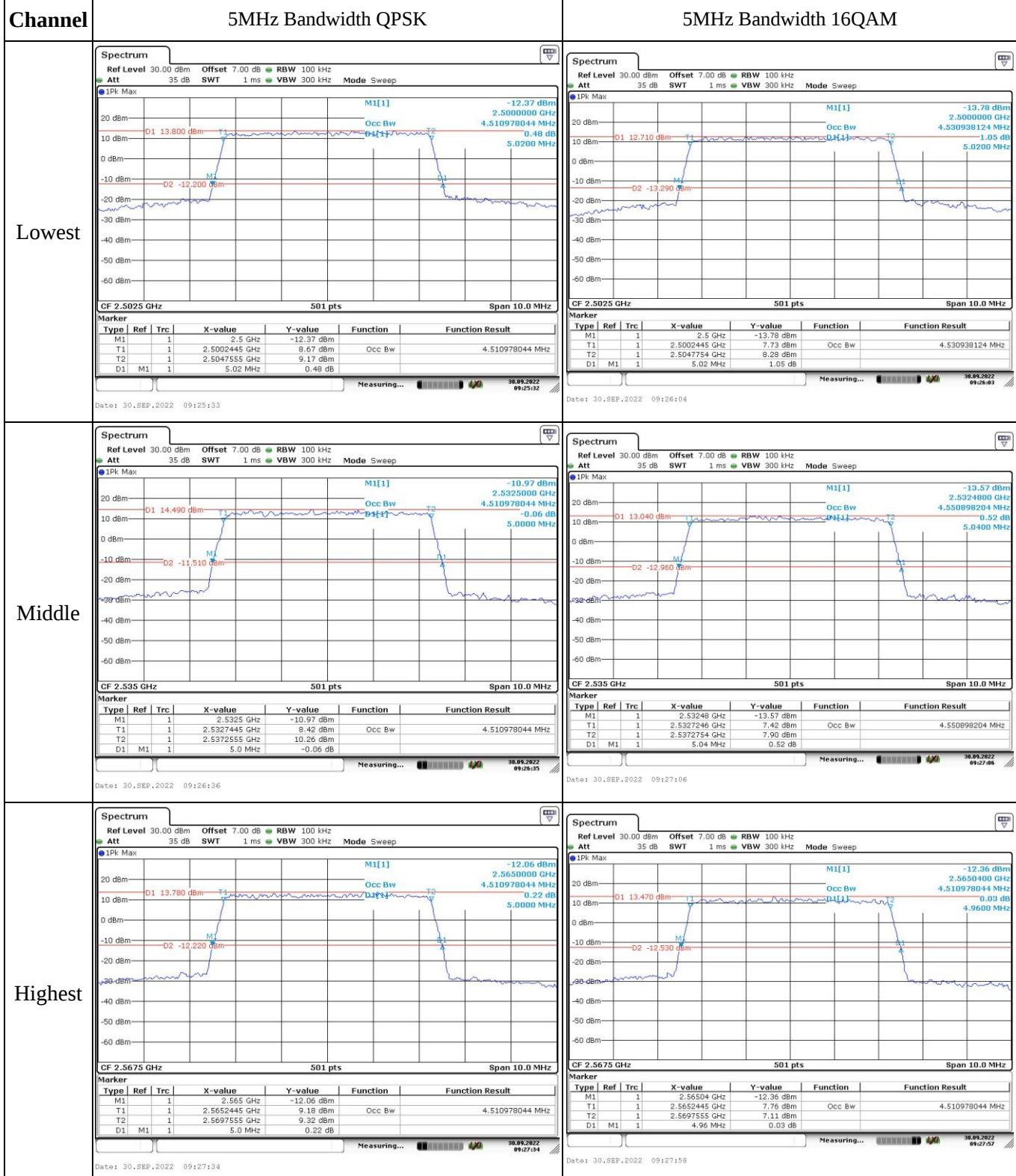


Test Plots(Note: The 7.0dB is the Insertion loss of the RF cable, Coaxial tee connector and DC Block, which was offset into the Spectrum Analyzer):

Occupied Bandwidth



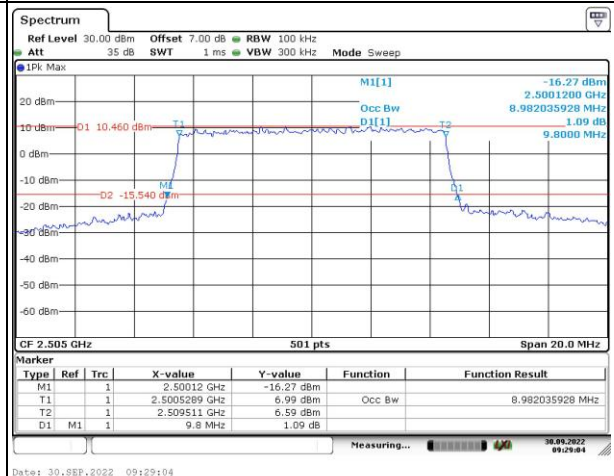
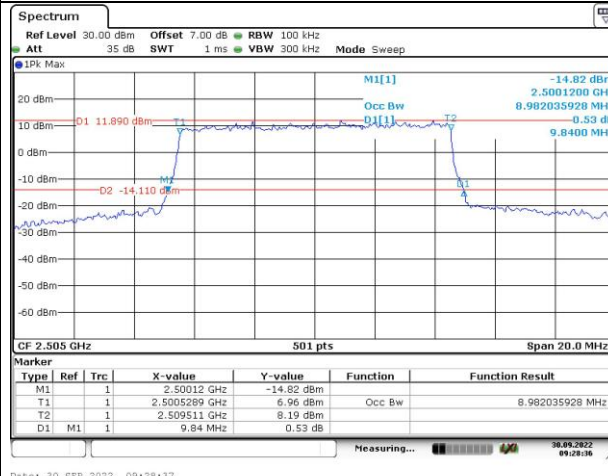
Occupied Bandwidth

Channel

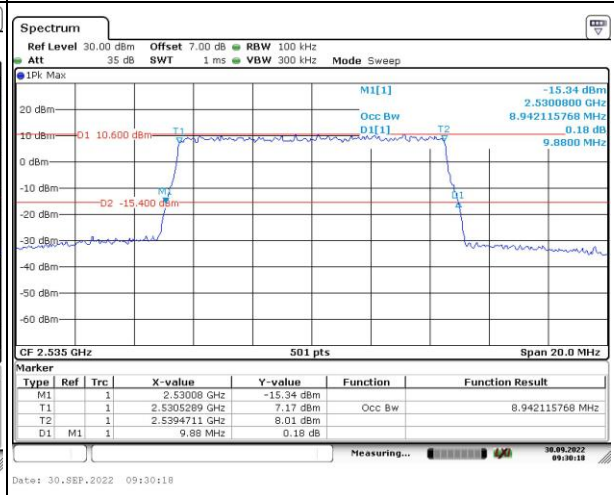
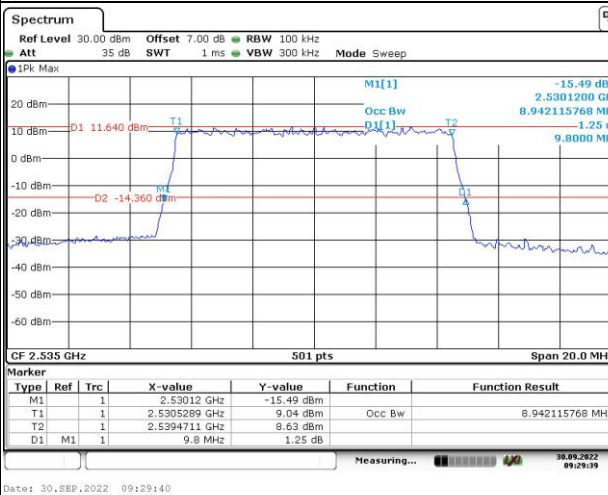
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

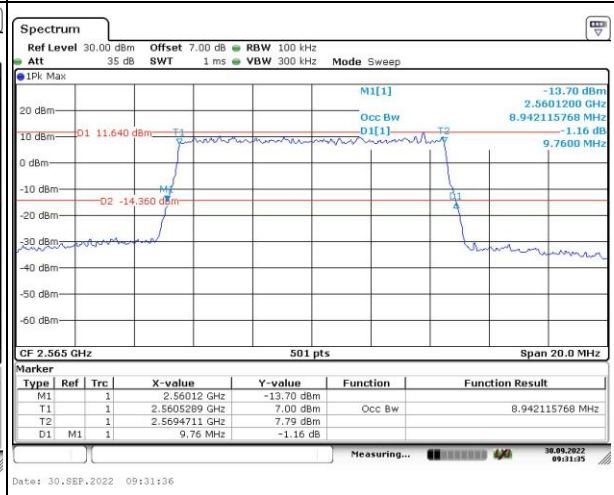
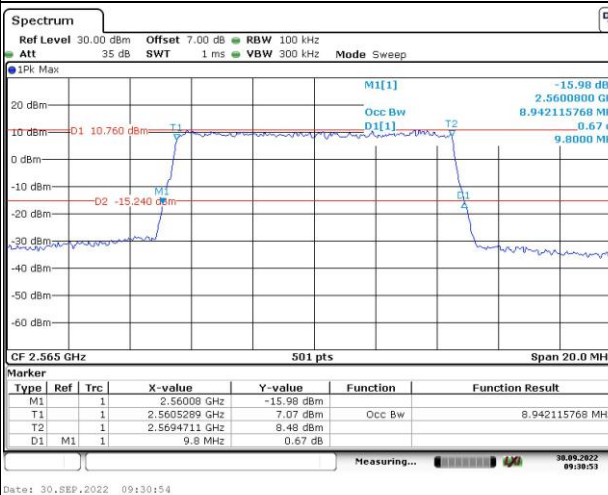
Lowest



Middle



Highest



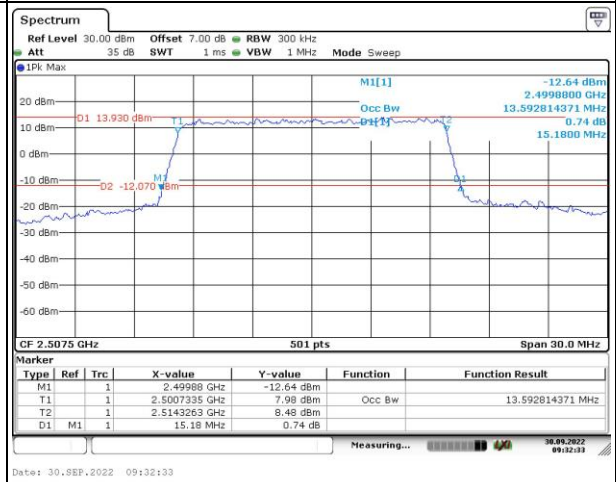
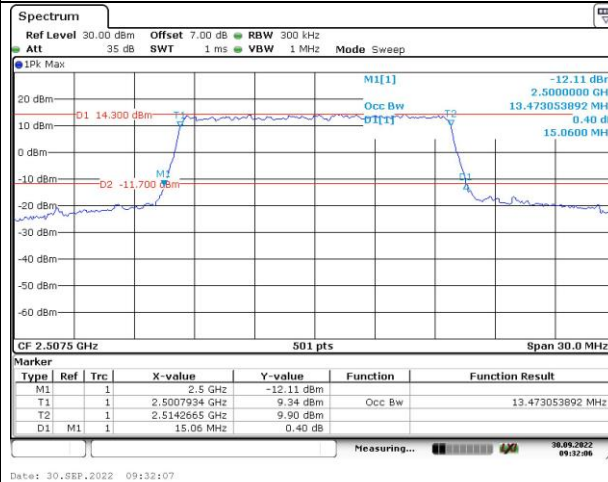
Occupied Bandwidth

Channel

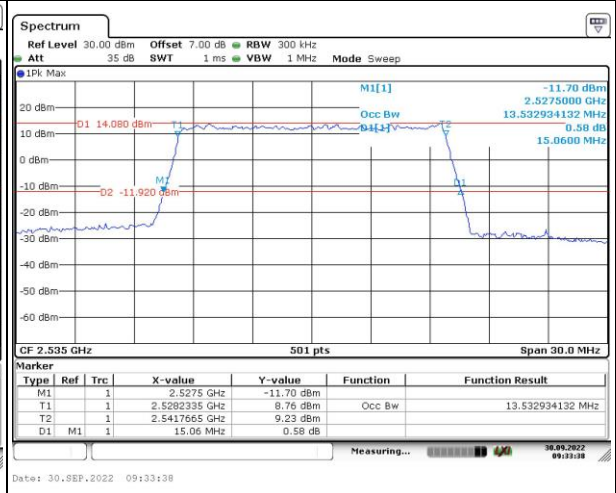
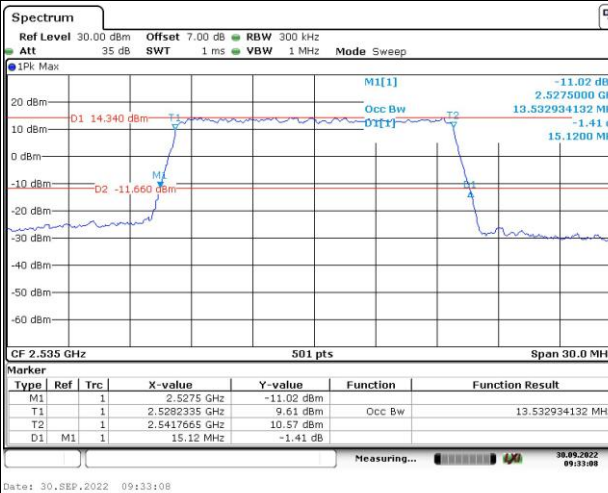
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

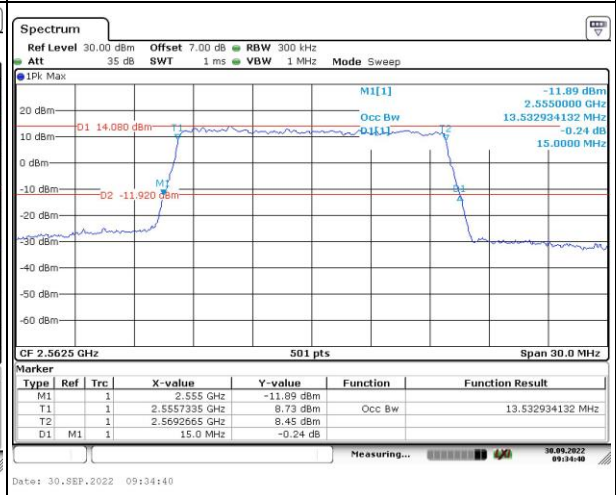
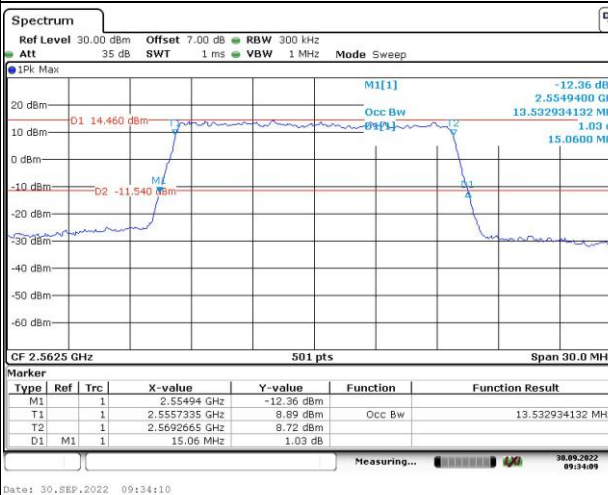
Lowest



Middle



Highest



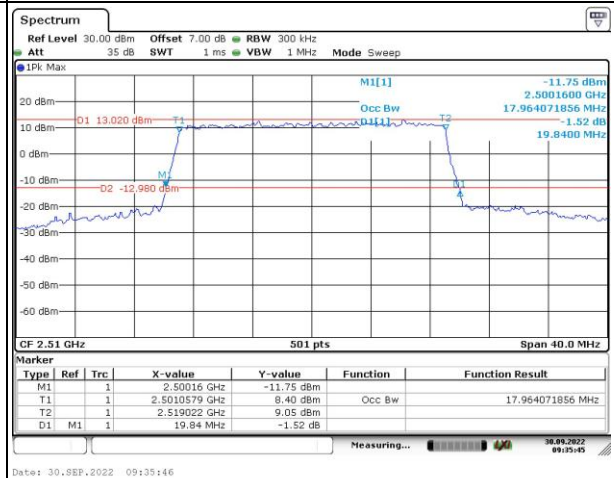
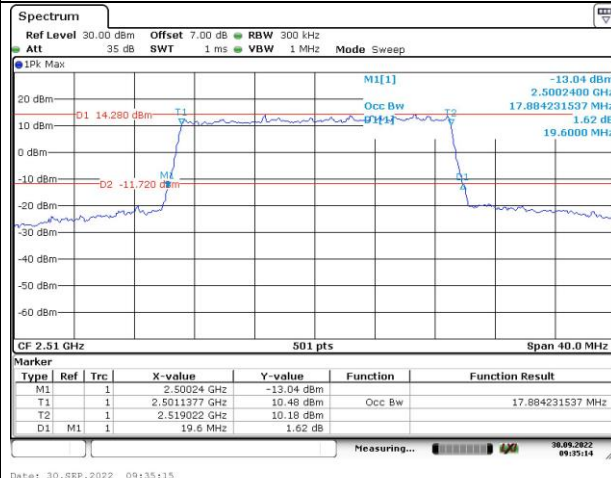
Occupied Bandwidth

Channel

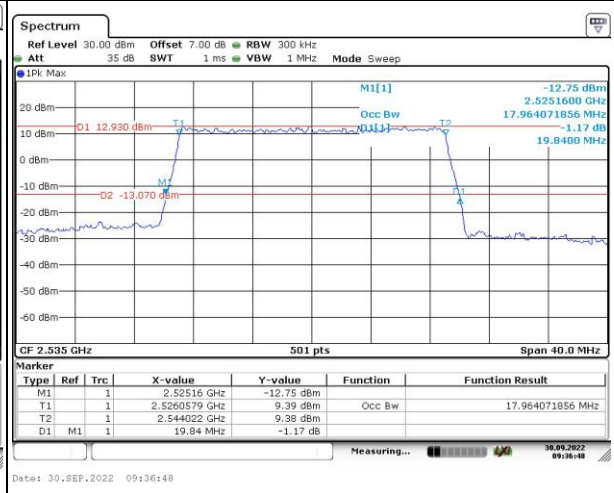
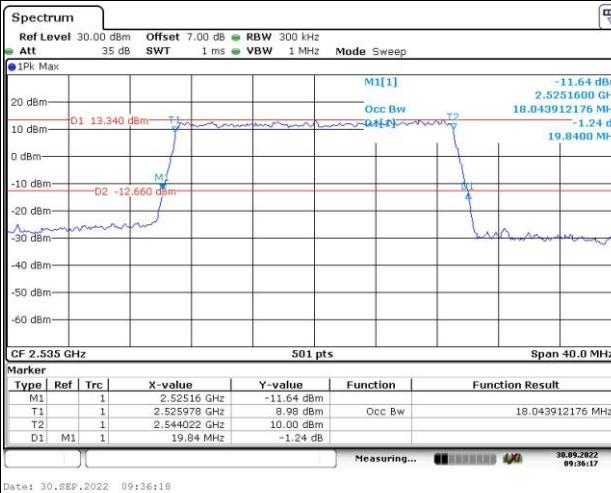
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

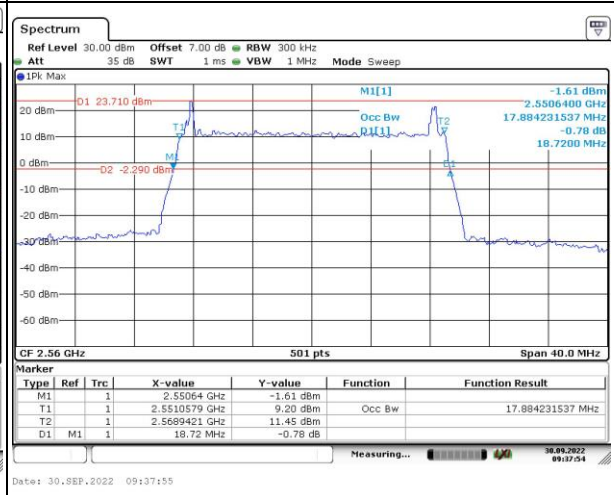
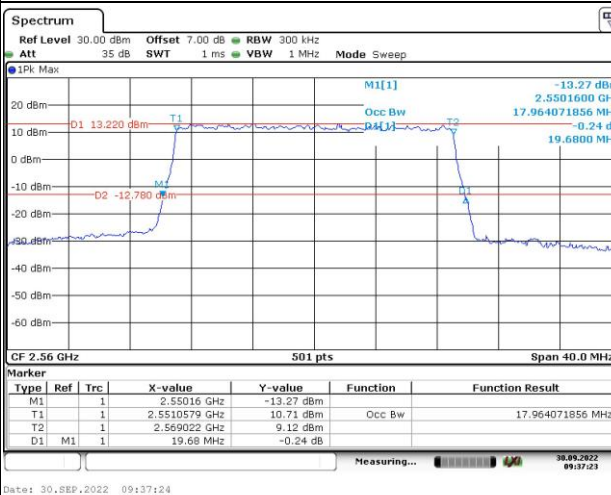
Lowest



Middle



Highest

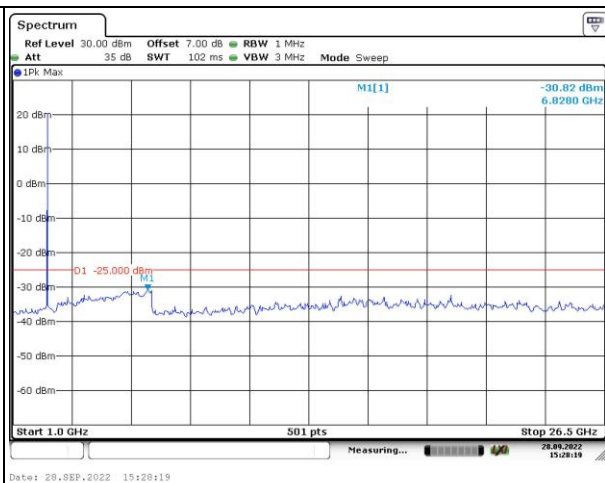
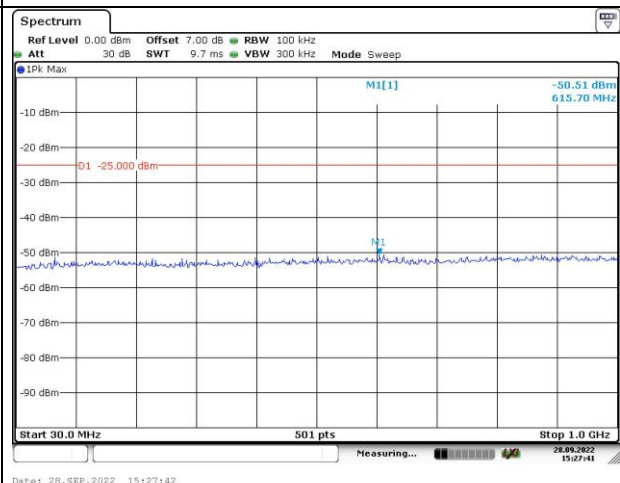


Spurious Emissions at Antenna Terminal

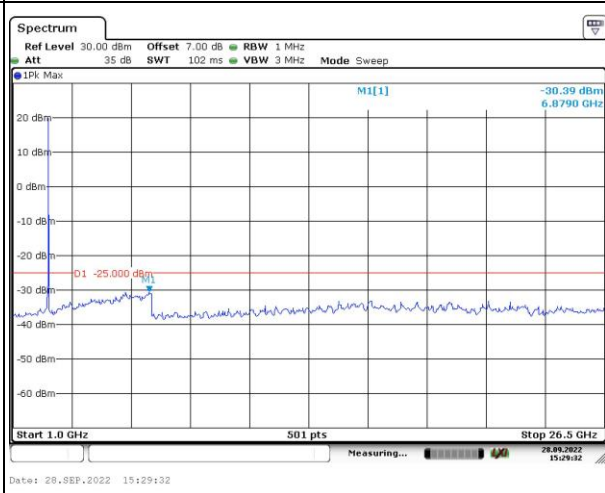
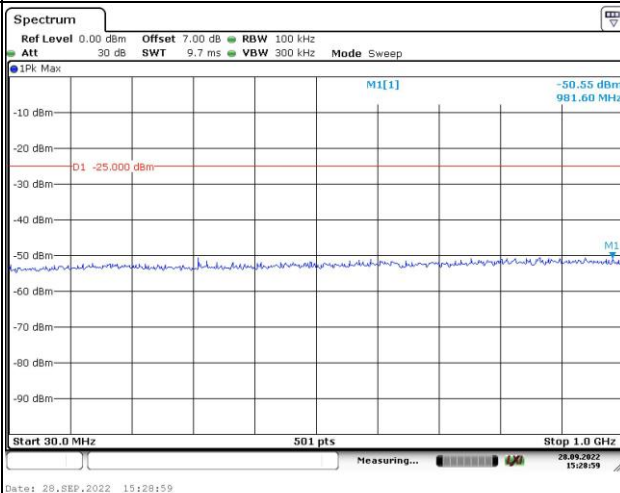
Channel

5MHz Bandwidth QPSK

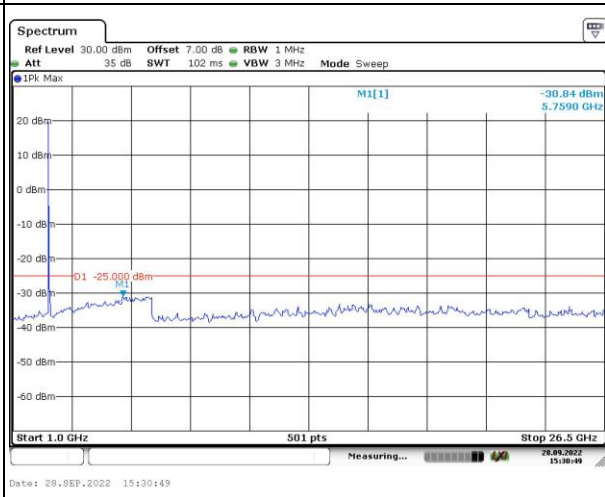
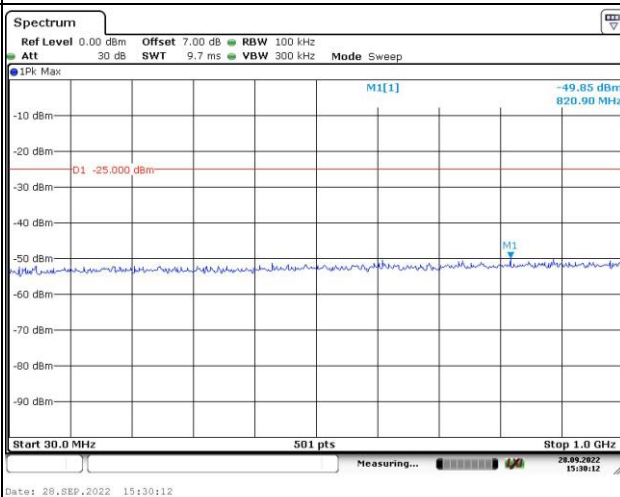
Lowest



Middle



Highest

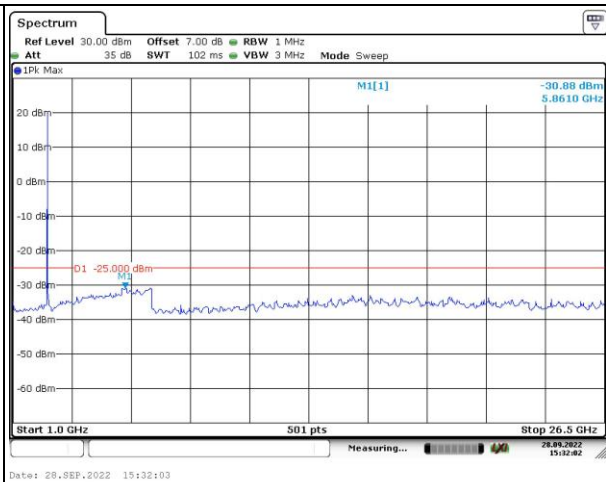
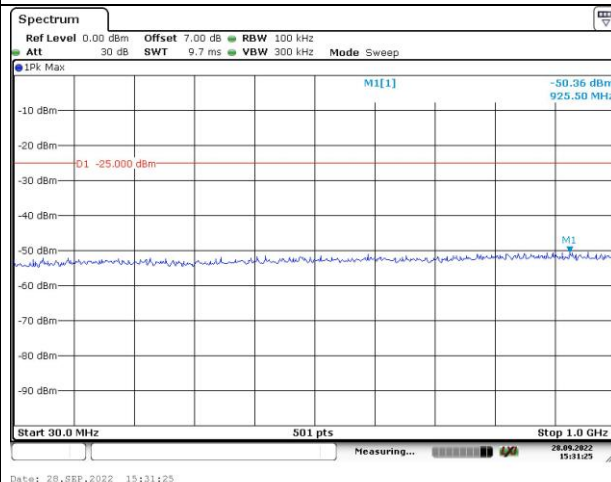


Spurious Emissions at Antenna Terminal

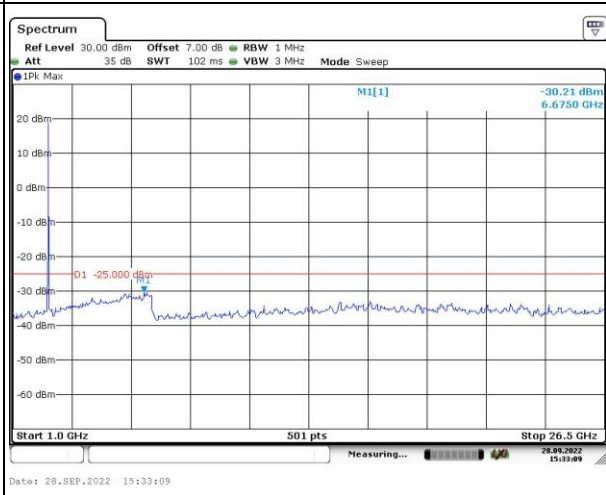
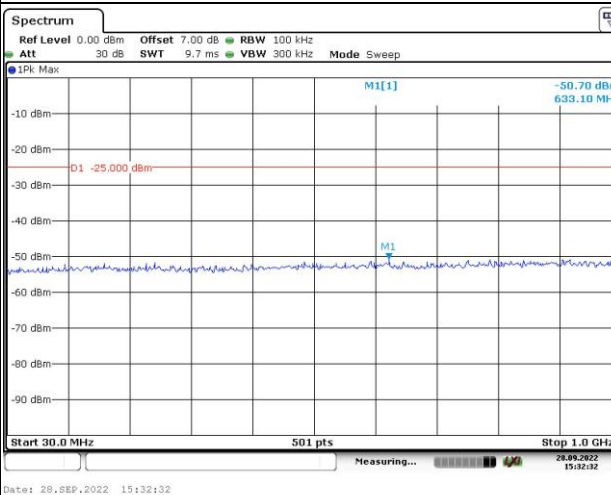
Channel

10MHz Bandwidth QPSK

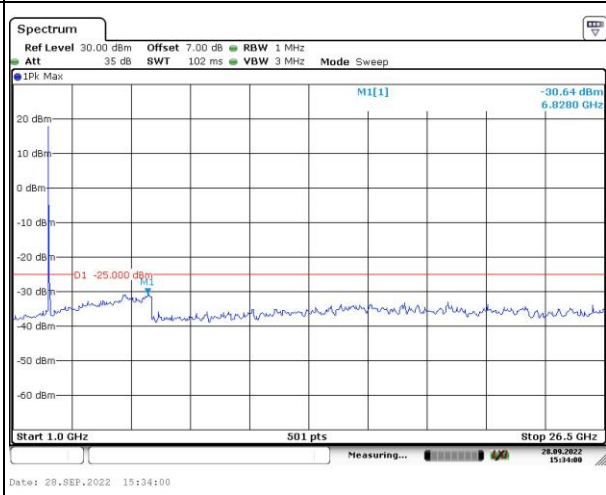
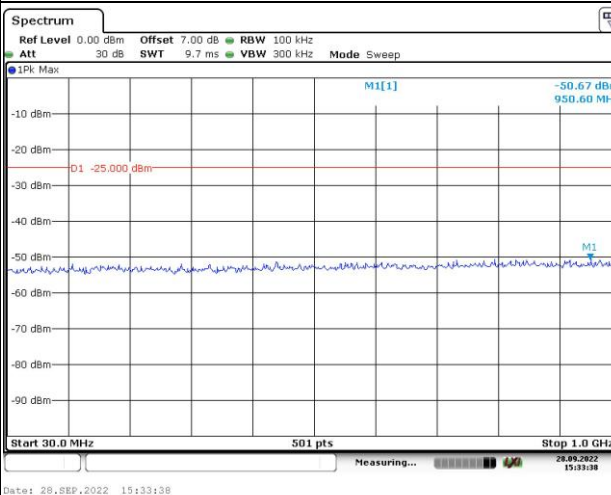
Lwest



Middle



Highest

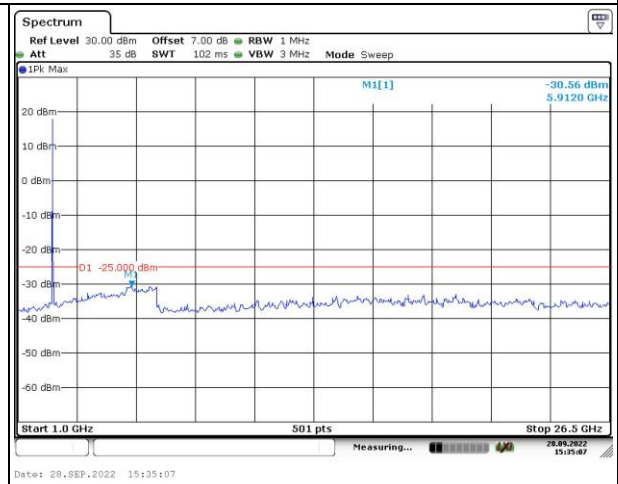
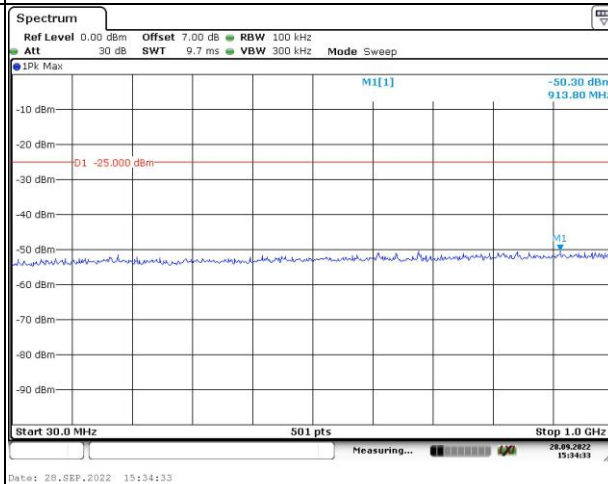


Spurious Emissions at Antenna Terminal

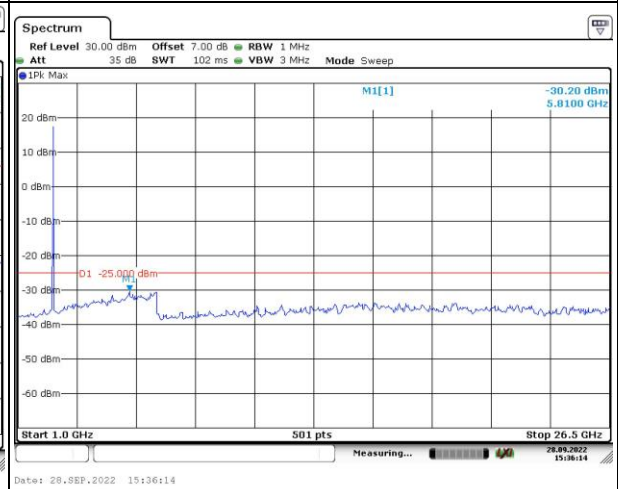
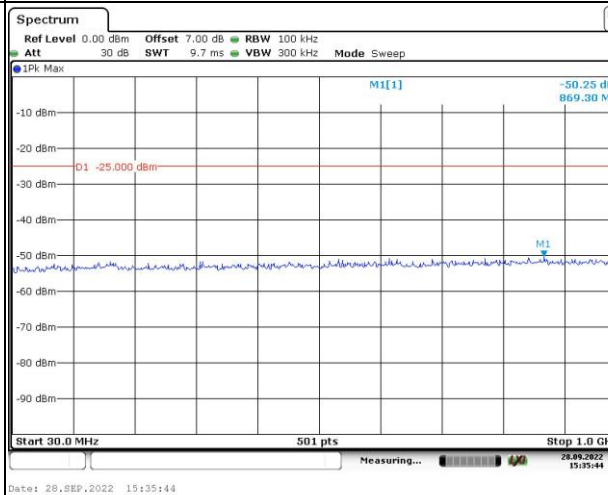
Channel

15MHz Bandwidth QPSK

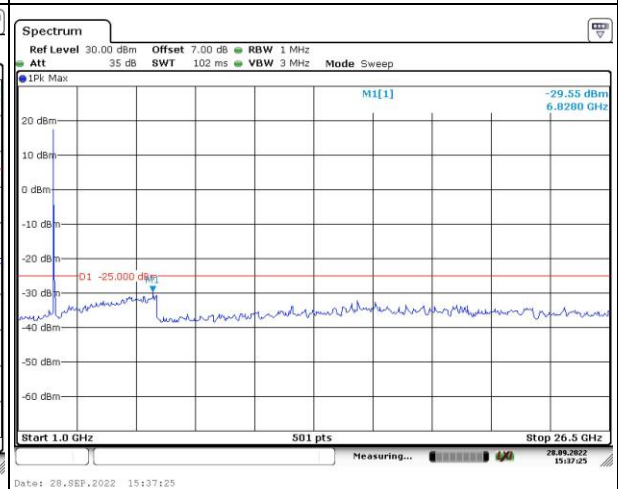
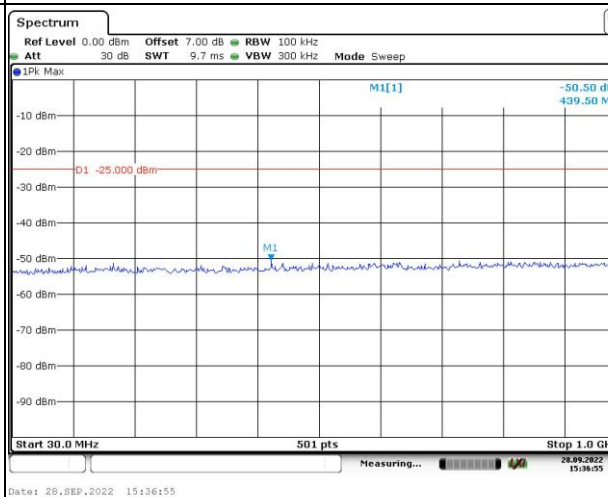
Lowest



Middle



Highest

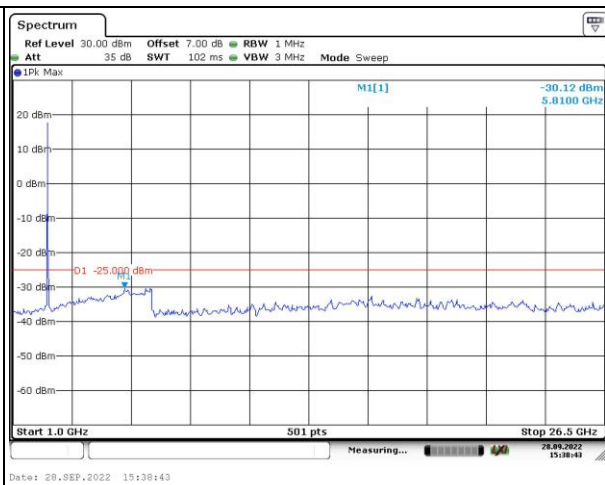
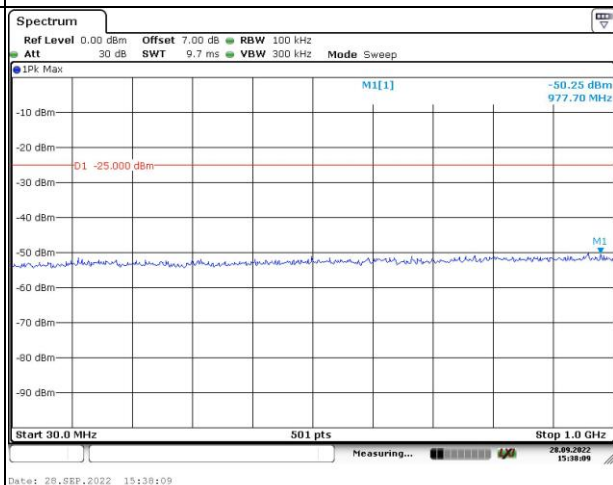


Spurious Emissions at Antenna Terminal

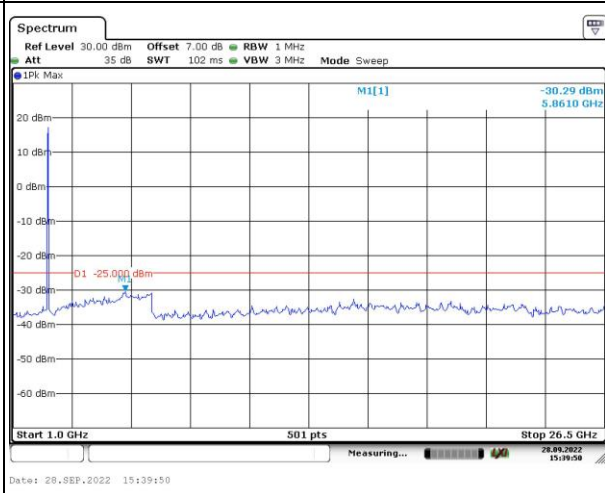
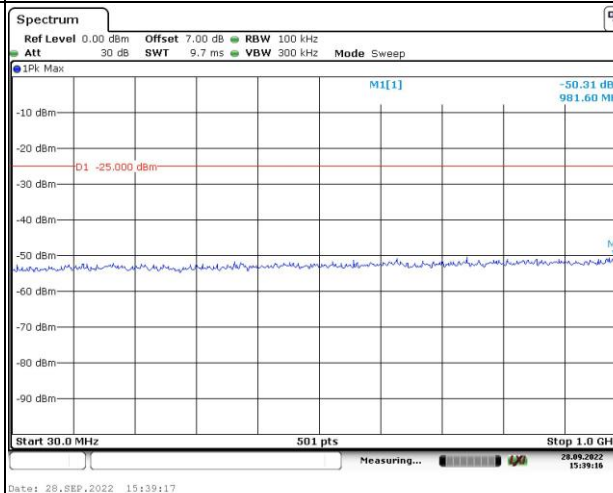
Channel

20MHz Bandwidth QPSK

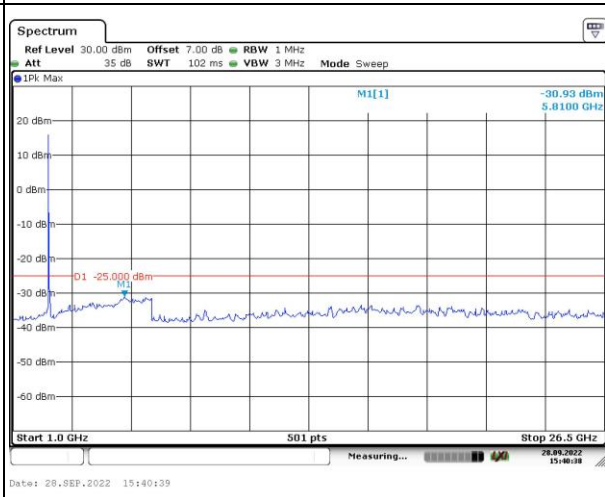
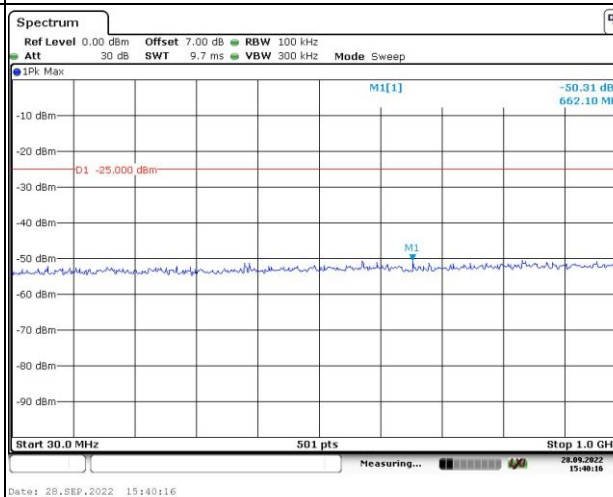
Lowest



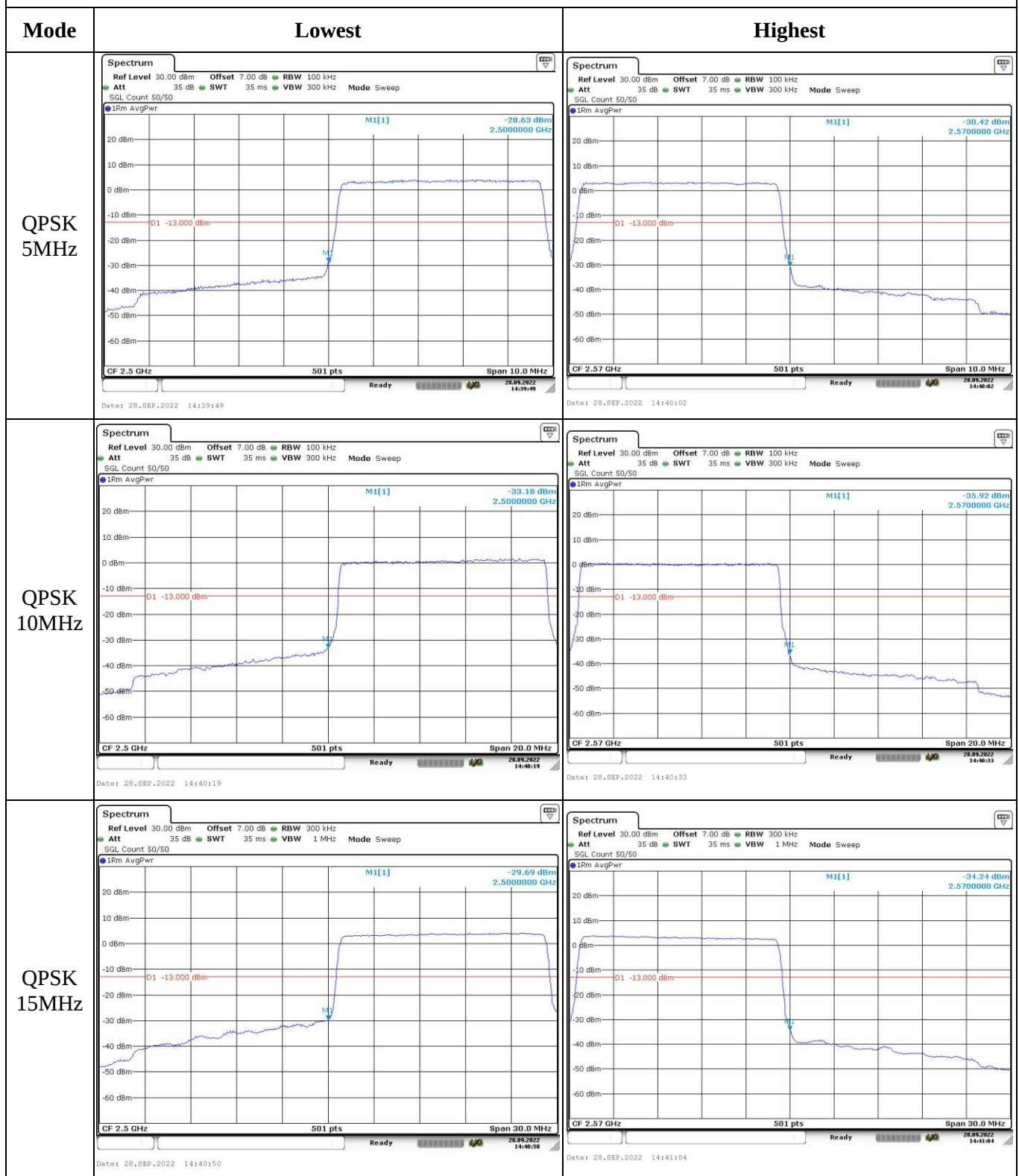
Middle



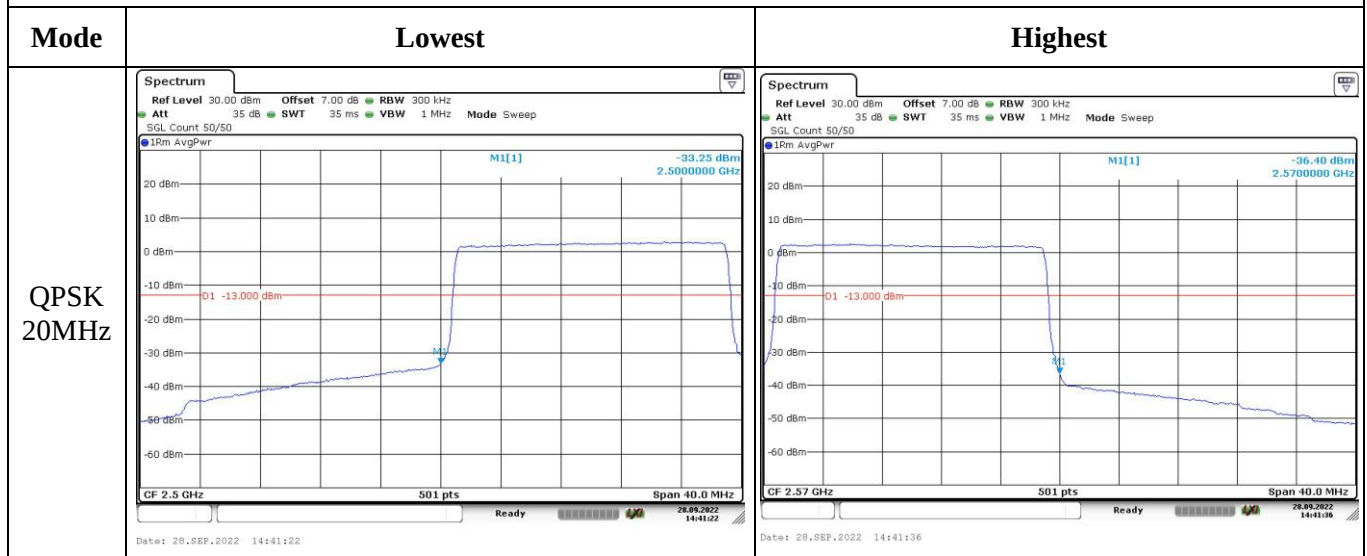
Highest



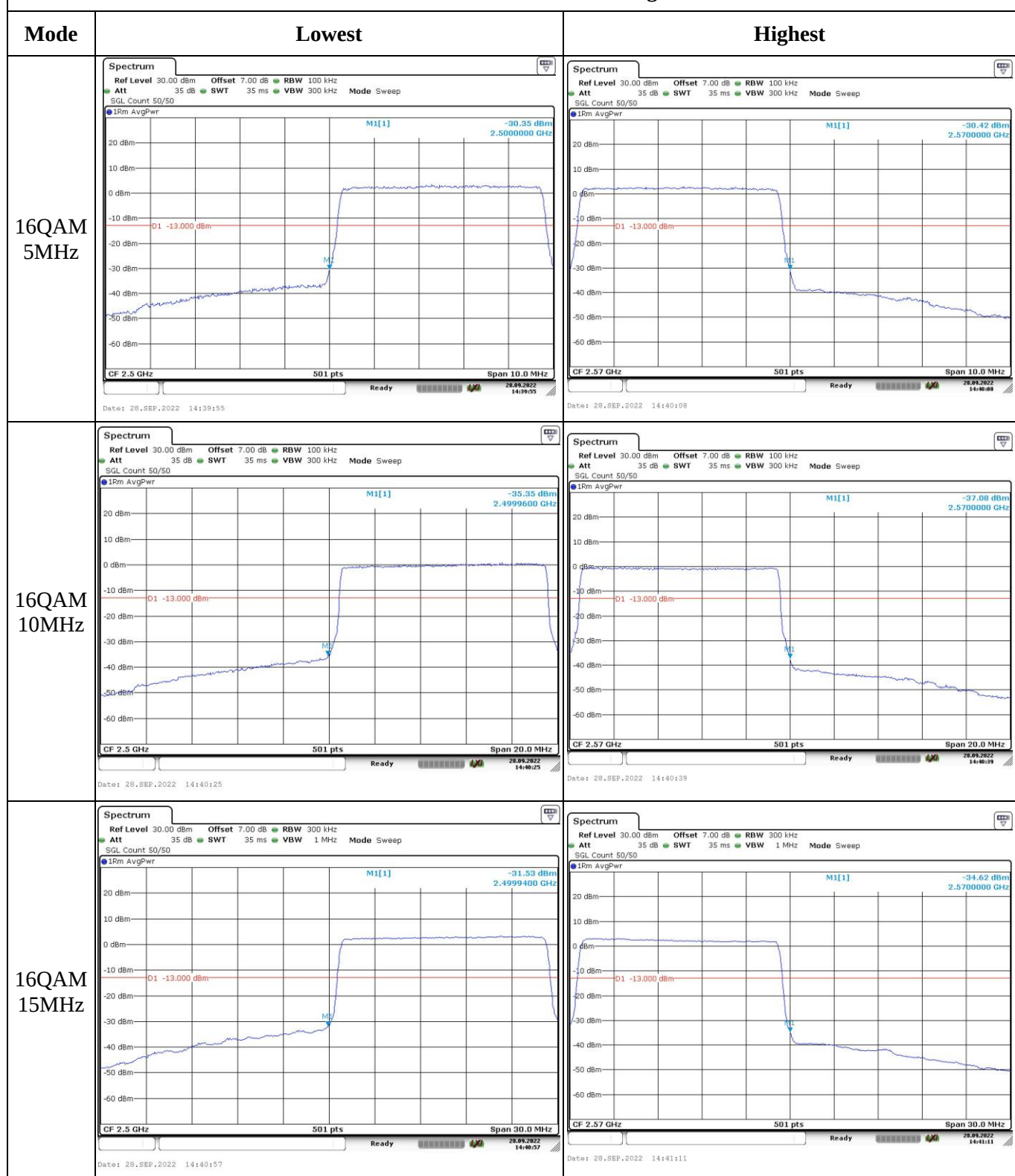
Out of band emission, Band Edge



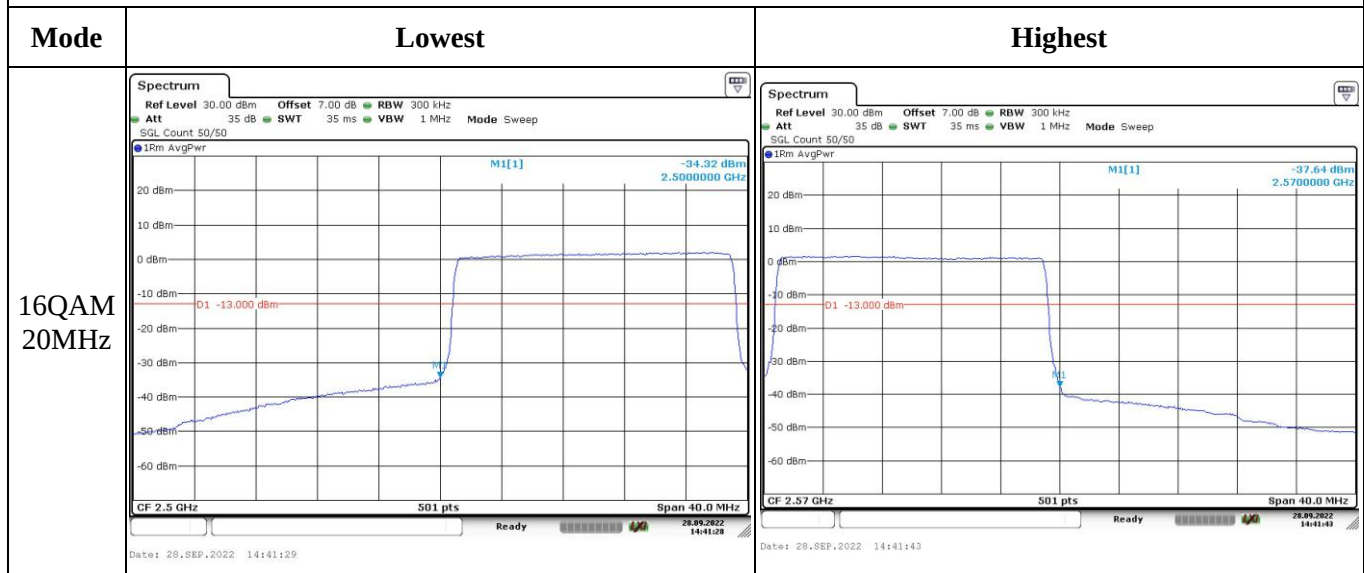
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.13 Radiated Spurious Emissions

Serial Number:	CR220943987-RF-S1	Test Date:	2022-10-04~2022-10-10
Test Site:	966-2, 966-1	Test Mode:	Transmitting
Tester:	Carl Xue, Nick Tang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	26.2~27.5	Relative Humidity: (%)	53~57	ATM Pressure: (kPa)	101.4~101.5
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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	2022/07/15	2023/07/14
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2022/07/17	2023/07/16
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2022/07/17	2023/07/16
Sonoma	Amplifier	310N	186165	2022/07/17	2023/07/16
EMCO	Adjustable Dipole Antenna	3121C	9109-756	N/A	N/A
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2022/07/17	2023/07/16
Agilent	Signal Generator	E8247C	MY43321352	2022/04/01	2023/03/31
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020-10-13	2023-10-12
R&S	Spectrum Analyzer	FSV40	101591	2022-07-15	2023-07-14
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2022-08-07	2023-08-06
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2022-08-07	2023-08-06
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2021-11-10	2022-11-09
AH	Double Ridge Guide Horn Antenna	SAS-571	1396	2021-10-18	2024-10-17
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021-02-05	2024-02-04
PASTERNAK	Horn Antenna	PE9852/2F-20	112001	2021-02-05	2024-02-04
AH	Preamplifier	PAM-1840VH	190	2021-11-19	2022-11-18
PASTERNAK	Horn Antenna	PE9850/2F-20	072001	2021-02-05	2024-02-04
PASTERNAK	Horn Antenna	PE9850/2F-20	072002	2021-02-05	2024-02-04
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2022-08-07	2023-08-06

* 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								
80.08	H	33.31	-76.49	0.00	0.16	-76.65	-13.00	63.65
74.91	V	40.95	-64.59	-2.55	0.16	-67.30	-13.00	54.30
1648.40	H	44.61	-59.72	8.68	0.80	-51.84	-13.00	38.84
1648.40	V	45.38	-59.03	8.68	0.80	-51.15	-13.00	38.15
2472.60	H	36.98	-63.80	9.38	1.00	-55.42	-13.00	42.42
2472.60	V	38.55	-62.18	9.38	1.00	-53.80	-13.00	40.80
3296.80	H	42.12	-54.56	10.32	1.15	-45.39	-13.00	32.39
3296.80	V	39.98	-56.46	10.32	1.15	-47.29	-13.00	34.29
GSM 850 Frequency:836.6MHz								
172.87	H	34.64	-77.53	0.00	0.24	-77.77	-13.00	64.77
30.63	V	37.70	-42.85	-26.01	0.10	-68.96	-13.00	55.96
1673.20	H	42.50	-61.81	8.71	0.85	-53.95	-13.00	40.95
1673.20	V	44.84	-59.57	8.71	0.85	-51.71	-13.00	38.71
2509.80	H	40.57	-60.04	9.42	1.01	-51.63	-13.00	38.63
2509.80	V	43.14	-57.48	9.42	1.01	-49.07	-13.00	36.07
3346.40	H	45.00	-52.17	10.34	1.16	-42.99	-13.00	29.99
3346.40	V	42.07	-54.96	10.34	1.16	-45.78	-13.00	32.78
GSM 850 Frequency:848.8MHz								
79.70	H	33.16	-76.44	-0.15	0.16	-76.75	-13.00	63.75
192.42	V	40.03	-69.45	0.00	0.26	-69.71	-13.00	56.71
1697.60	H	40.97	-63.32	8.74	0.90	-55.48	-13.00	42.48
1697.60	V	47.37	-57.05	8.74	0.90	-49.21	-13.00	36.21
2546.40	H	45.12	-55.21	9.47	1.01	-46.75	-13.00	33.75
2546.40	V	45.37	-54.91	9.47	1.01	-46.45	-13.00	33.45
3395.20	H	44.58	-53.11	10.36	1.19	-43.94	-13.00	30.94
3395.20	V	43.16	-54.50	10.36	1.19	-45.33	-13.00	32.33

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								
72.02	H	31.28	-73.71	-3.99	0.15	-77.85	-13.00	64.85
31.59	V	38.55	-42.97	-25.57	0.10	-68.64	-13.00	55.64
1652.80	H	36.38	-67.95	8.68	0.81	-60.08	-13.00	47.08
1652.80	V	39.36	-65.05	8.68	0.81	-57.18	-13.00	44.18
2479.20	H	35.33	-65.43	9.39	1.01	-57.05	-13.00	44.05
2479.20	V	35.13	-65.60	9.39	1.01	-57.22	-13.00	44.22
3305.60	H	35.18	-61.55	10.32	1.15	-52.38	-13.00	39.38
3305.60	V	35.10	-61.40	10.32	1.15	-52.23	-13.00	39.23
WCDMA Band 5 Frequency:836.6MHz								
45.35	H	30.91	-61.97	-19.46	0.12	-81.55	-13.00	68.55
31.50	V	39.33	-42.10	-25.61	0.10	-67.81	-13.00	54.81
1673.20	H	47.27	-57.04	8.71	0.85	-49.18	-13.00	36.18
1673.20	V	48.09	-56.32	8.71	0.85	-48.46	-13.00	35.46
2509.80	H	34.74	-65.87	9.42	1.01	-57.46	-13.00	44.46
2509.80	V	34.97	-65.65	9.42	1.01	-57.24	-13.00	44.24
3346.40	H	35.25	-61.92	10.34	1.16	-52.74	-13.00	39.74
3346.40	V	34.87	-62.16	10.34	1.16	-52.98	-13.00	39.98
WCDMA Band 5 Frequency:846.6MHz								
46.47	H	30.99	-63.82	-18.36	0.12	-82.30	-13.00	69.30
49.35	V	38.39	-62.20	-15.54	0.12	-77.86	-13.00	64.86
1693.20	H	36.35	-67.95	8.73	0.89	-60.11	-13.00	47.11
1693.20	V	36.70	-67.72	8.73	0.89	-59.88	-13.00	46.88
2539.80	H	35.41	-64.97	9.46	1.01	-56.52	-13.00	43.52
2539.80	V	35.07	-65.27	9.46	1.01	-56.82	-13.00	43.82
3386.40	H	34.72	-62.87	10.35	1.18	-53.70	-13.00	40.70
3386.40	V	34.57	-62.97	10.35	1.18	-53.80	-13.00	40.80

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								
79.16	H	33.30	-75.98	-0.42	0.16	-76.56	-13.00	63.56
47.82	V	39.69	-59.39	-17.04	0.12	-76.55	-13.00	63.55
3700.40	H	54.70	-42.62	10.60	1.25	-33.27	-13.00	20.27
3700.40	V	57.65	-39.65	10.60	1.25	-30.30	-13.00	17.30
5550.60	H	55.52	-37.74	11.44	1.49	-27.79	-13.00	14.79
5550.60	V	50.85	-42.25	11.44	1.49	-32.30	-13.00	19.30
GSM 1900 Frequency:1880MHz								
79.71	H	33.04	-76.57	-0.15	0.16	-76.88	-13.00	63.88
30.53	V	37.42	-43.03	-26.06	0.10	-69.19	-13.00	56.19
3760.00	H	51.10	-45.31	10.66	1.24	-35.89	-13.00	22.89
3760.00	V	55.48	-40.81	10.66	1.24	-31.39	-13.00	18.39
5640.00	H	56.59	-36.86	11.33	1.54	-27.07	-13.00	14.07
5640.00	V	51.98	-41.35	11.33	1.54	-31.56	-13.00	18.56
GSM 1900 Frequency:1909.8MHz								
79.19	H	33.12	-76.17	-0.41	0.16	-76.74	-13.00	63.74
41.13	V	38.88	-52.40	-24.91	0.12	-77.43	-13.00	64.43
3819.60	H	44.44	-51.42	10.72	1.29	-41.99	-13.00	28.99
3819.60	V	42.15	-53.57	10.72	1.29	-44.14	-13.00	31.14
5729.40	H	55.67	-37.81	11.22	1.59	-28.18	-13.00	15.18
5729.40	V	50.75	-42.61	11.22	1.59	-32.98	-13.00	19.98

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								
71.76	H	29.64	-75.20	-4.12	0.15	-79.47	-13.00	66.47
31.39	V	39.19	-42.13	-25.66	0.10	-67.89	-13.00	54.89
3704.80	H	36.08	-61.18	10.60	1.25	-51.83	-13.00	38.83
3704.80	V	35.40	-61.83	10.60	1.25	-52.48	-13.00	39.48
5557.20	H	35.69	-57.59	11.43	1.49	-47.65	-13.00	34.65
5557.20	V	35.50	-57.63	11.43	1.49	-47.69	-13.00	34.69
WCDMA Band II, Frequency:1880 MHz								
71.82	H	30.65	-74.22	-4.09	0.15	-78.46	-13.00	65.46
66.26	V	39.32	-64.56	-6.98	0.15	-71.69	-13.00	58.69
3760.00	H	35.75	-60.66	10.66	1.24	-51.24	-13.00	38.24
3760.00	V	36.03	-60.26	10.66	1.24	-50.84	-13.00	37.84
5640.00	H	35.44	-58.01	11.33	1.54	-48.22	-13.00	35.22
5640.00	V	34.68	-58.65	11.33	1.54	-48.86	-13.00	35.86
WCDMA Band II, Frequency:1907.6MHz								
71.51	H	29.62	-75.07	-4.25	0.15	-79.47	-13.00	66.47
42.00	V	38.30	-54.11	-23.76	0.12	-77.99	-13.00	64.99
3815.20	H	35.09	-60.76	10.72	1.29	-51.33	-13.00	38.33
3815.20	V	34.82	-60.87	10.72	1.29	-51.44	-13.00	38.44
5722.80	H	34.48	-59.01	11.23	1.58	-49.36	-13.00	36.36
5722.80	V	34.62	-58.73	11.23	1.58	-49.08	-13.00	36.08

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								
72.15	H	29.96	-75.11	-3.93	0.15	-79.19	-13.00	66.19
31.45	V	38.09	-43.29	-25.63	0.10	-69.02	-13.00	56.02
3701.40	H	41.30	-56.01	10.60	1.25	-46.66	-13.00	33.66
3701.40	V	45.54	-51.75	10.60	1.25	-42.40	-13.00	29.40
5552.10	H	50.60	-42.67	11.44	1.49	-32.72	-13.00	19.72
5552.10	V	50.49	-42.61	11.44	1.49	-32.66	-13.00	19.66
QPSK, Frequency: 1880 MHz								
72.15	H	29.92	-75.15	-3.93	0.15	-79.23	-13.00	66.23
48.90	V	37.50	-62.65	-15.98	0.12	-78.75	-13.00	65.75
3760.00	H	40.24	-56.17	10.66	1.24	-46.75	-13.00	33.75
3760.00	V	44.28	-52.01	10.66	1.24	-42.59	-13.00	29.59
5640.00	H	53.24	-40.21	11.33	1.54	-30.42	-13.00	17.42
5640.00	V	55.01	-38.32	11.33	1.54	-28.53	-13.00	15.53
QPSK, Frequency: 1909.3 MHz								
73.12	H	29.39	-76.26	-3.44	0.16	-79.86	-13.00	66.86
31.45	V	38.71	-42.67	-25.63	0.10	-68.40	-13.00	55.40
3818.60	H	43.18	-52.68	10.72	1.29	-43.25	-13.00	30.25
3818.60	V	44.41	-51.30	10.72	1.29	-41.87	-13.00	28.87
5727.90	H	50.98	-42.50	11.23	1.59	-32.86	-13.00	19.86
5727.90	V	50.02	-43.34	11.23	1.59	-33.70	-13.00	20.70

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								
72.15	H	29.50	-75.57	-3.93	0.15	-79.65	-13.00	66.65
31.45	V	40.40	-40.98	-25.63	0.10	-66.71	-13.00	53.71
3421.40	H	46.94	-50.82	10.37	1.17	-41.62	-13.00	28.62
3421.40	V	52.44	-45.29	10.37	1.17	-36.09	-13.00	23.09
5132.10	H	41.46	-52.11	11.28	1.47	-42.30	-13.00	29.30
5132.10	V	44.61	-48.85	11.28	1.47	-39.04	-13.00	26.04
QPSK,Frequency:1732.5 MHz								
159.37	H	29.50	-82.12	0.00	0.23	-82.35	-13.00	69.35
31.45	V	39.38	-42.00	-25.63	0.10	-67.73	-13.00	54.73
3465.00	H	48.47	-49.34	10.39	1.15	-40.10	-13.00	27.10
3465.00	V	53.26	-44.51	10.39	1.15	-35.27	-13.00	22.27
5197.50	H	44.16	-49.97	11.32	1.44	-40.09	-13.00	27.09
5197.50	V	45.58	-48.40	11.32	1.44	-38.52	-13.00	25.52
QPSK,Frequency:1752.6MHz								
73.12	H	30.32	-75.33	-3.44	0.16	-78.93	-13.00	65.93
49.87	V	38.75	-62.35	-15.03	0.12	-77.50	-13.00	64.50
3508.60	H	50.39	-47.43	10.41	1.19	-38.21	-13.00	25.21
3508.60	V	51.68	-46.08	10.41	1.19	-36.86	-13.00	23.86
5262.90	H	43.48	-50.22	11.36	1.47	-40.33	-13.00	27.33
5262.90	V	43.15	-50.32	11.36	1.47	-40.43	-13.00	27.43

LTE Band 7 (30MHz-26.5GHz):

			Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
QPSK, Frequency: 2502.5 MHz								
72.15	H	29.63	-75.44	-3.93	0.15	-79.52	-25.00	54.52
49.87	V	39.42	-61.68	-15.03	0.12	-76.83	-25.00	51.83
5005.00	H	47.62	-45.34	11.20	1.47	-35.61	-25.00	10.61
5005.00	V	50.91	-41.91	11.20	1.47	-32.18	-25.00	7.18
7507.50	H	49.22	-40.57	10.90	1.95	-31.62	-25.00	6.62
7507.50	V	47.03	-43.26	10.90	1.95	-34.31	-25.00	9.31
QPSK, Frequency:2535 MHz								
72.15	H	29.84	-75.23	-3.93	0.15	-79.31	-25.00	54.31
31.45	V	39.90	-41.48	-25.63	0.10	-67.21	-25.00	42.21
5070.00	H	50.33	-42.86	11.24	1.47	-33.09	-25.00	8.09
5070.00	V	52.73	-40.36	11.24	1.47	-30.59	-25.00	5.59
7605.00	H	47.24	-42.23	10.88	2.01	-33.36	-25.00	8.36
7605.00	V	43.08	-47.11	10.88	2.01	-38.24	-25.00	13.24
QPSK, Frequency: 2567.5 MHz								
261.11	H	29.57	-82.07	0.00	0.31	-82.38	-25.00	57.38
48.90	V	38.89	-61.26	-15.98	0.12	-77.36	-25.00	52.36
5135.00	H	51.79	-41.81	11.28	1.47	-32.00	-25.00	7.00
5135.00	V	52.39	-41.10	11.28	1.47	-31.29	-25.00	6.29
7702.50	H	50.13	-39.39	10.86	1.97	-30.50	-25.00	5.50
7702.50	V	46.03	-44.15	10.86	1.97	-35.26	-25.00	10.26

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 =====