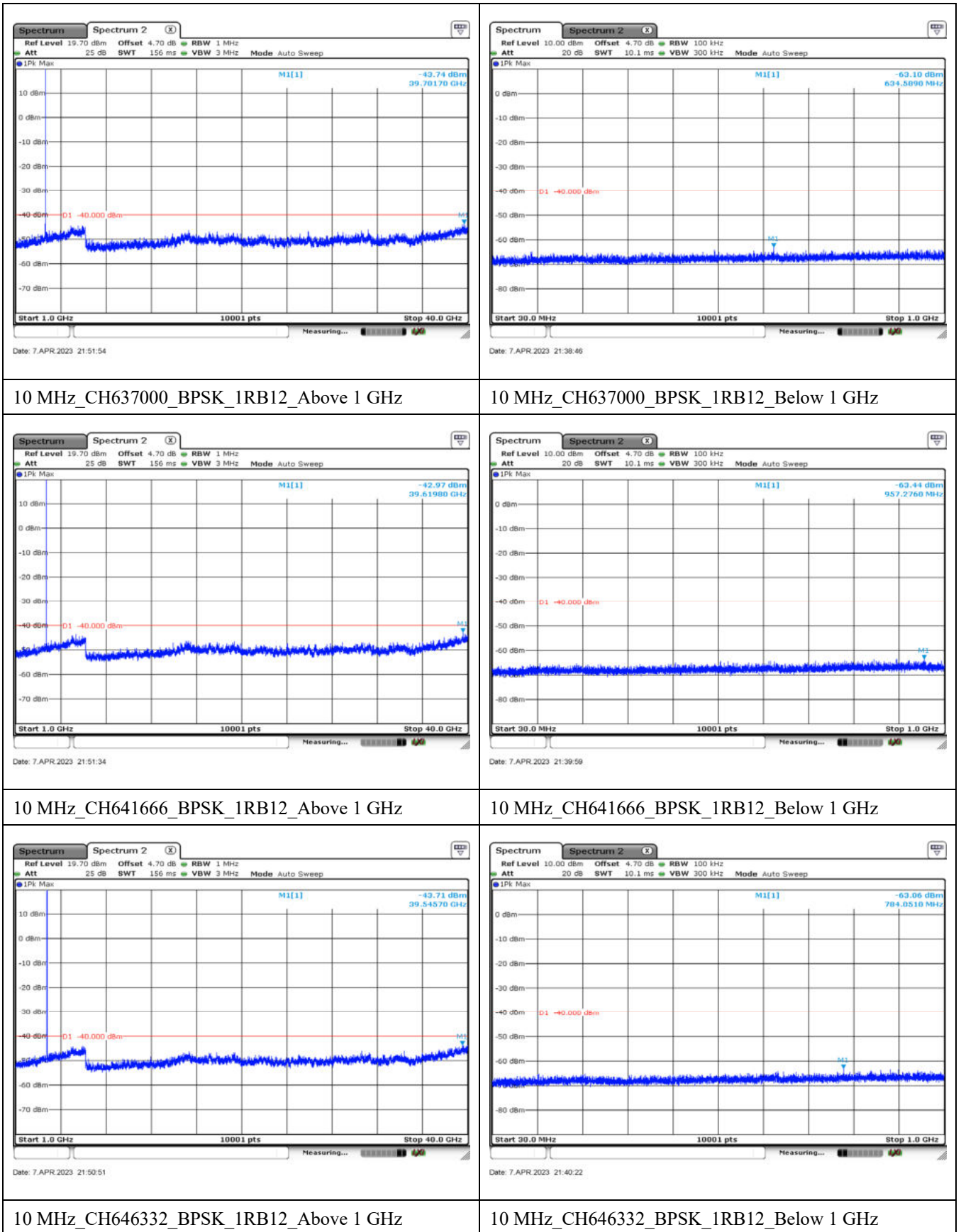
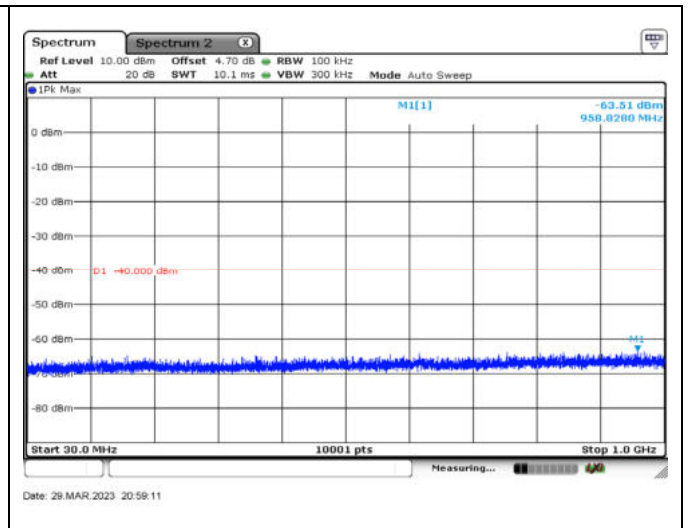
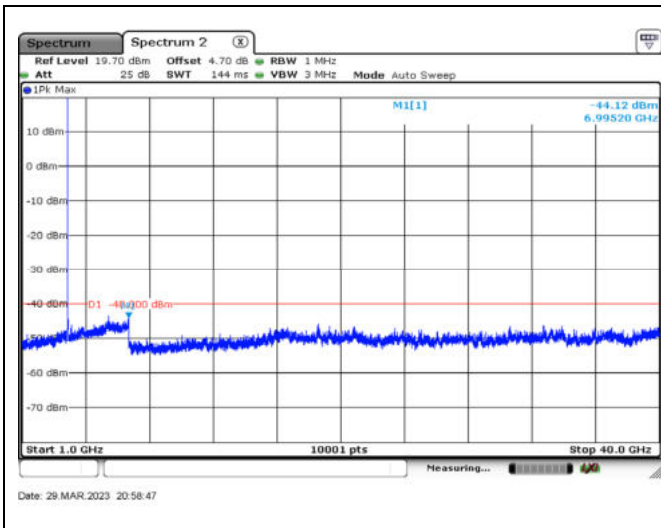


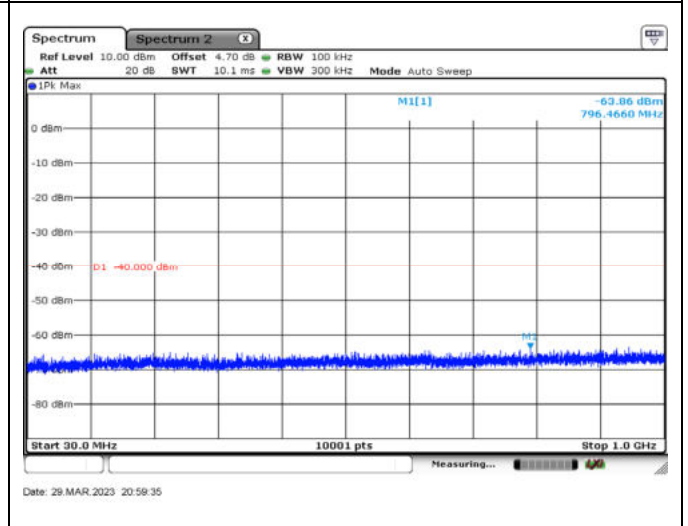
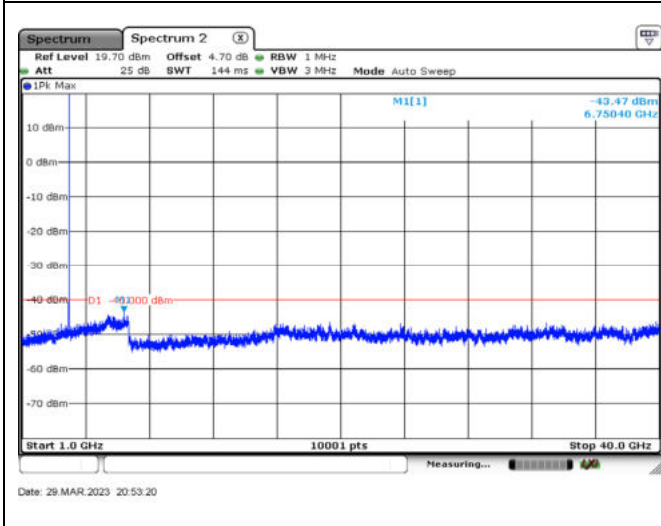
Mode 2: 5G NR n48





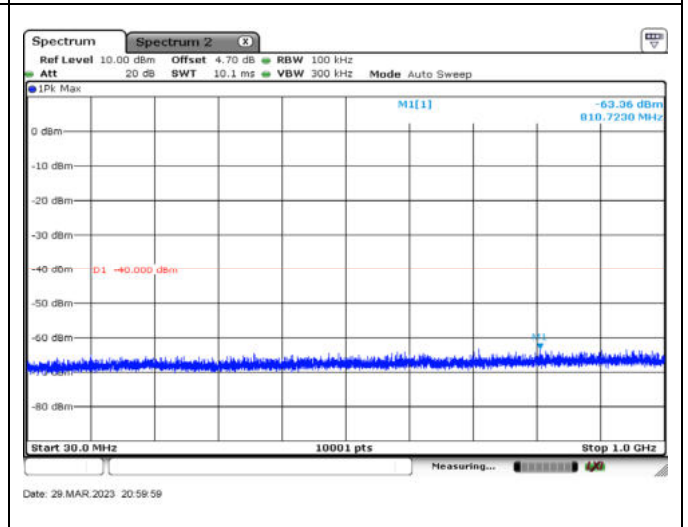
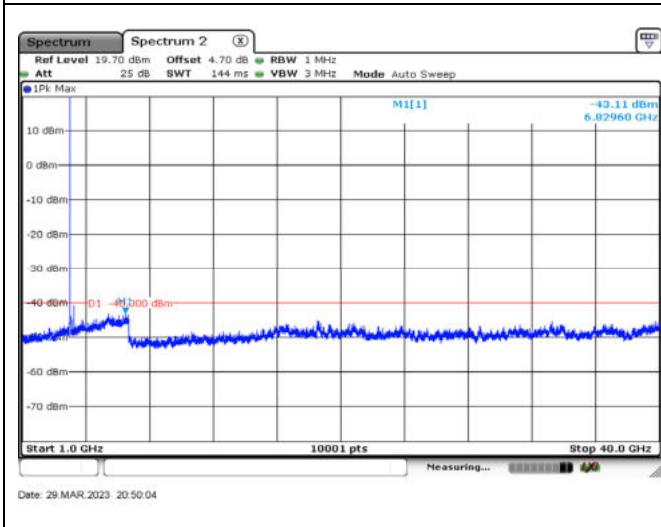
20 MHz_CH637334_BPSK_1RB25_Above 1 GHz

20 MHz_CH637334_BPSK_1RB25_Below 1 GHz



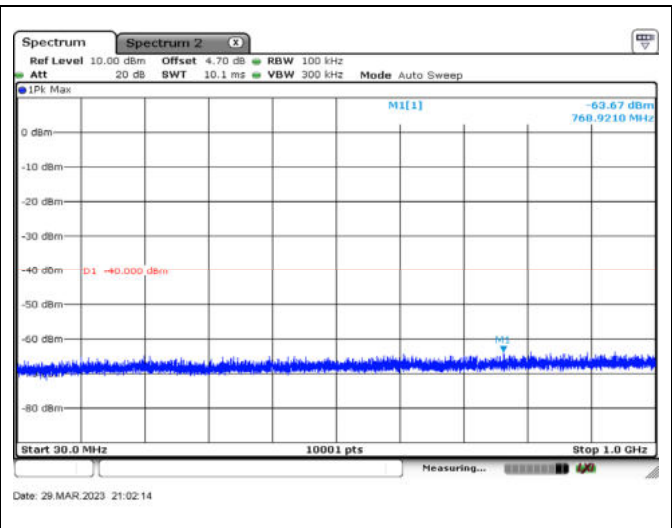
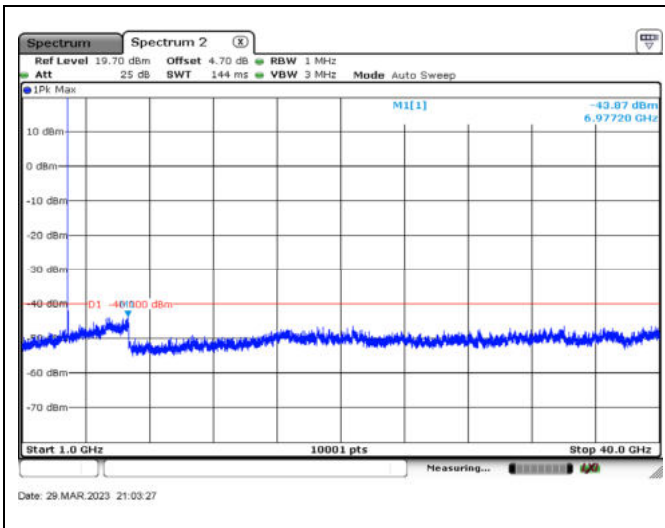
20 MHz_CH641666_BPSK_1RB25_Above 1 GHz

20 MHz_CH641666_BPSK_1RB25_Below 1 GHz



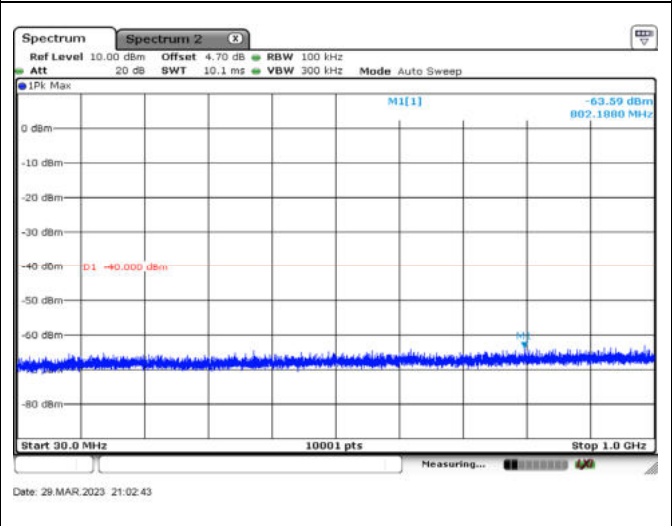
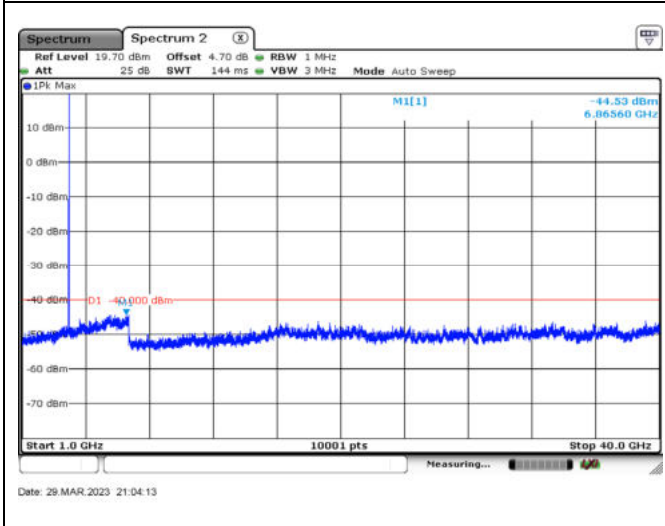
20 MHz_CH646000_BPSK_1RB25_Above 1 GHz

20 MHz_CH646000_BPSK_1RB25_Below 1 GHz



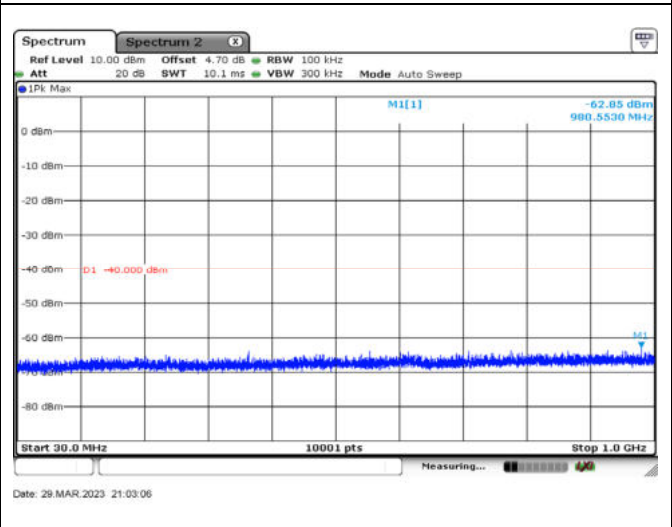
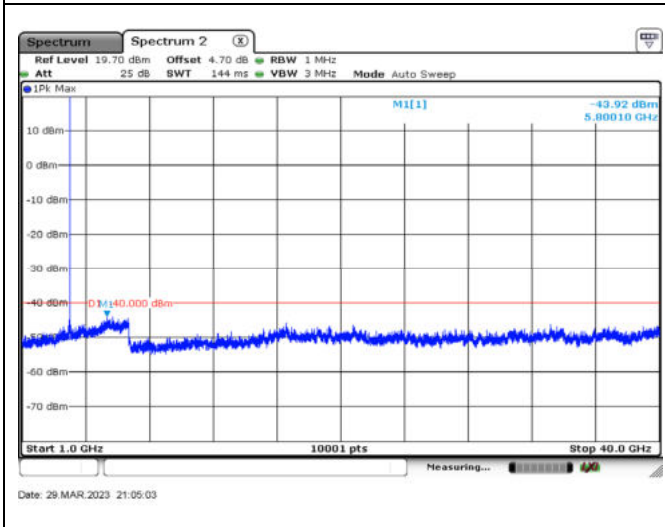
30 MHz_CH637668_BPSK_1RB39_Above 1 GHz

30 MHz_CH637668_BPSK_1RB39_Below 1 GHz



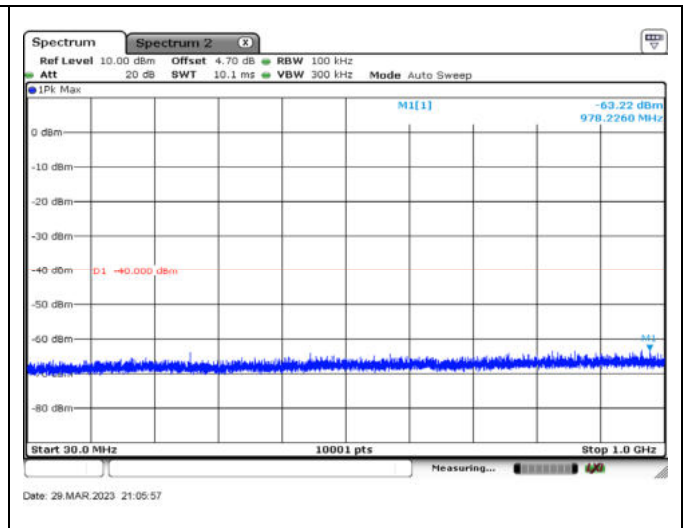
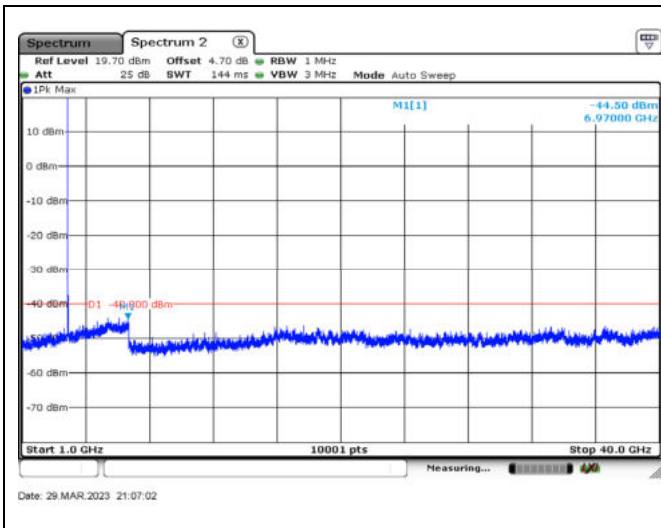
30 MHz_CH641666_BPSK_1RB39_Above 1 GHz

30 MHz_CH641666_BPSK_1RB39_Below 1 GHz



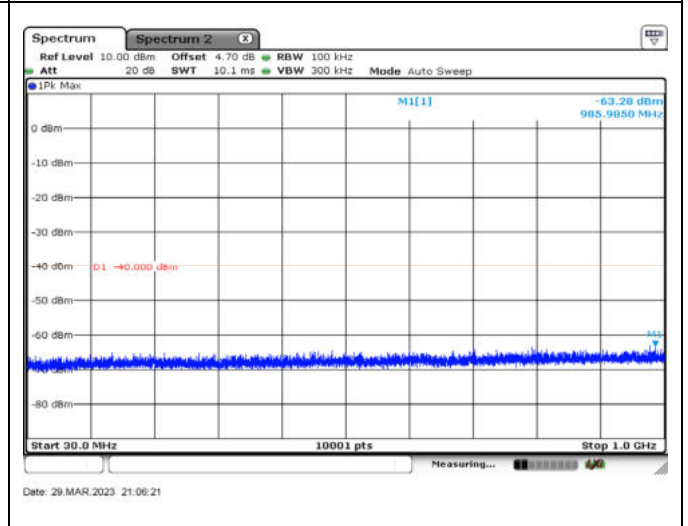
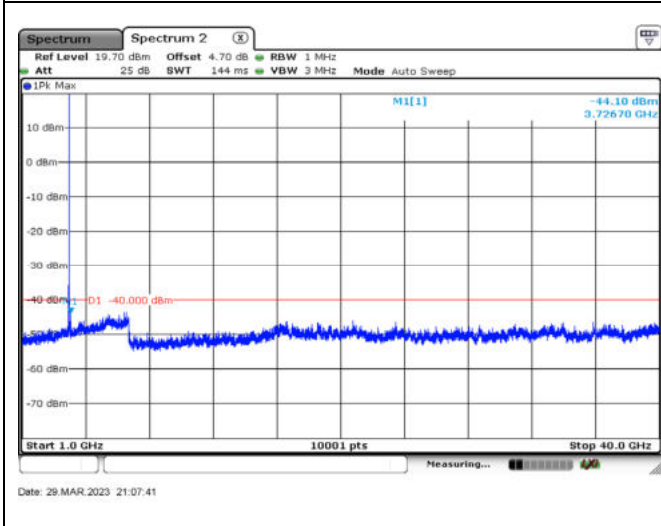
30 MHz_CH645666_BPSK_1RB39_Above 1 GHz

30 MHz_CH645666_BPSK_1RB39_Below 1 GHz



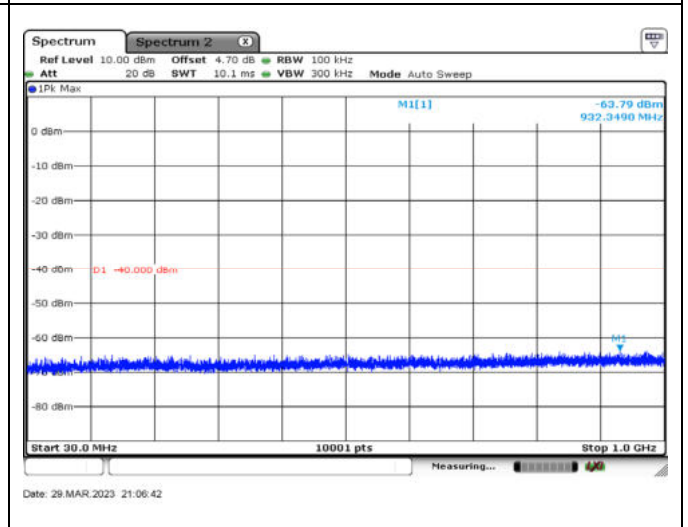
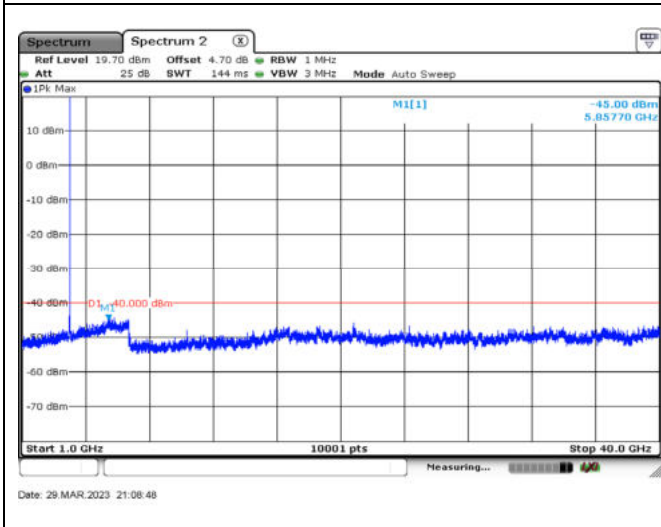
40 MHz_CH638000_BPSK_1RB53_Above 1 GHz

40 MHz_CH638000_BPSK_1RB53_Below 1 GHz



40 MHz_CH641666_BPSK_1RB53_Above 1 GHz

40 MHz_CH641666_BPSK_1RB53_Below 1 GHz

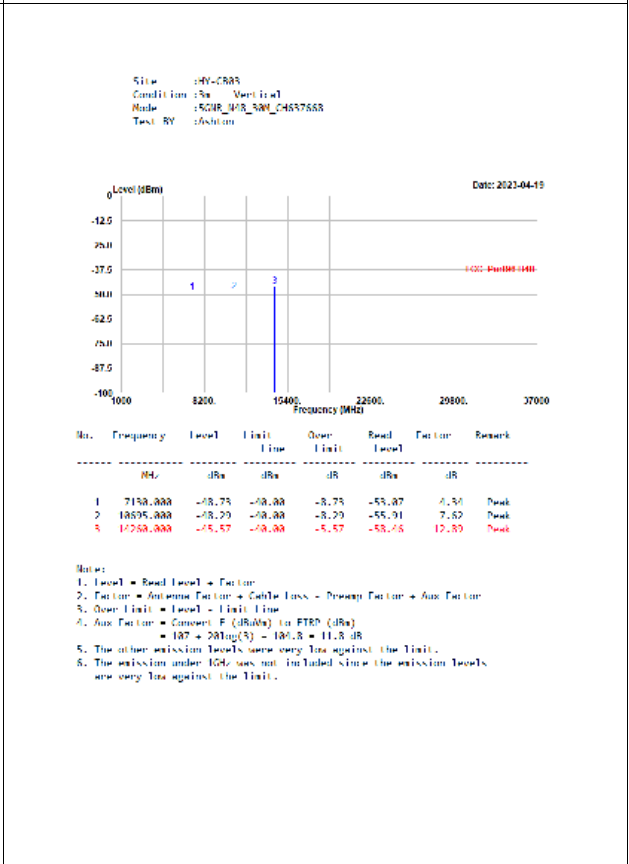
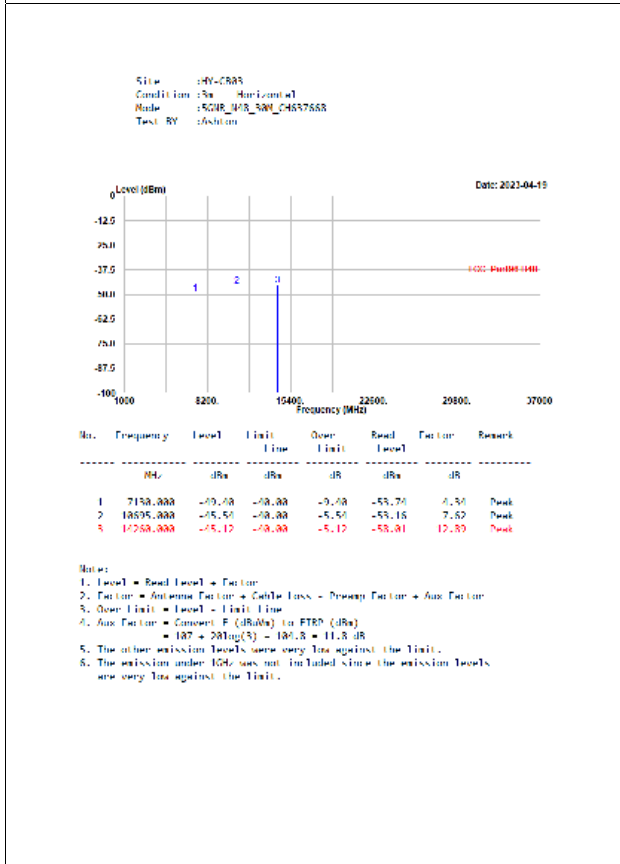
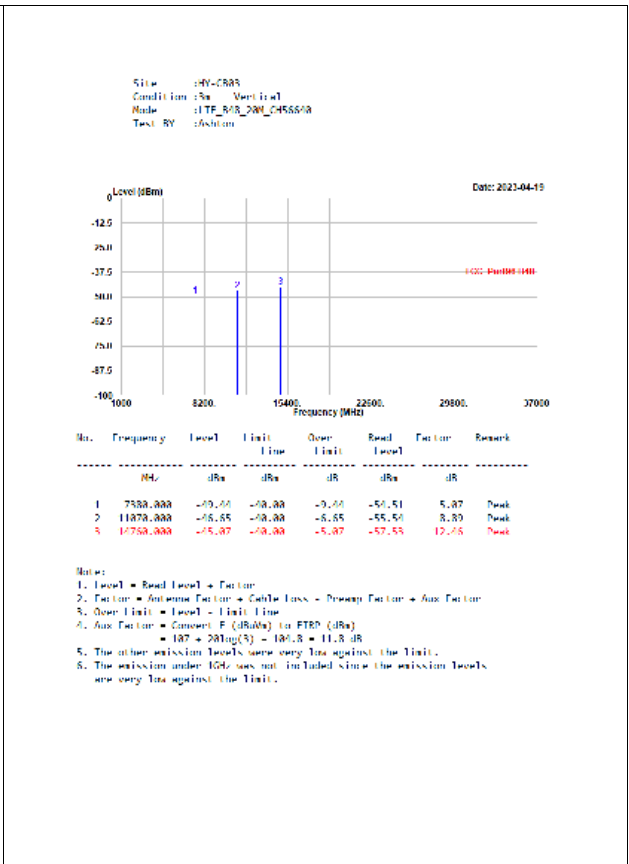
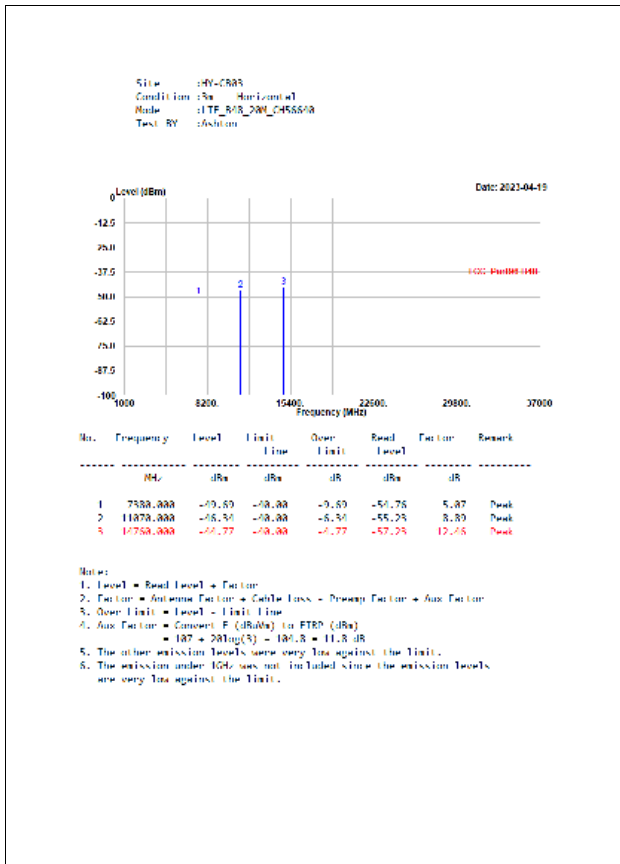


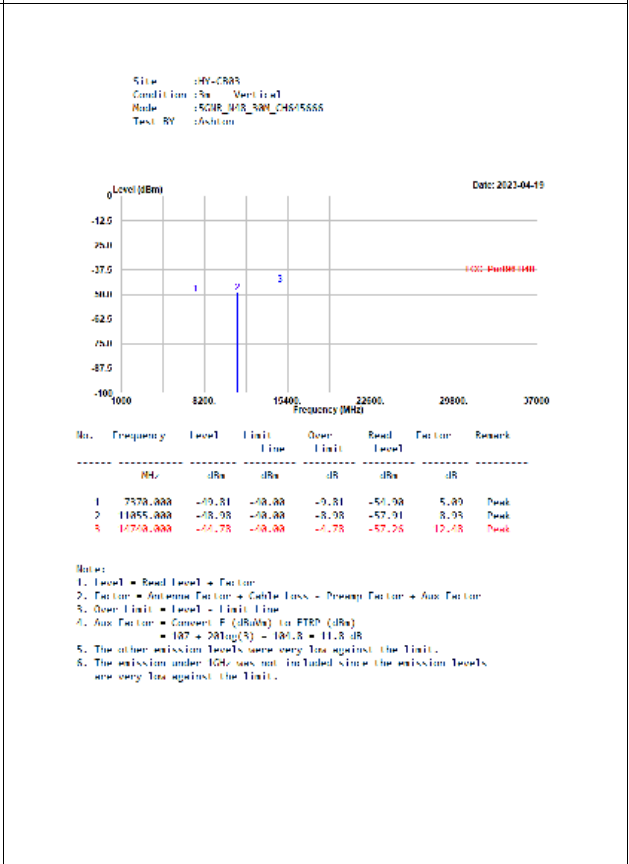
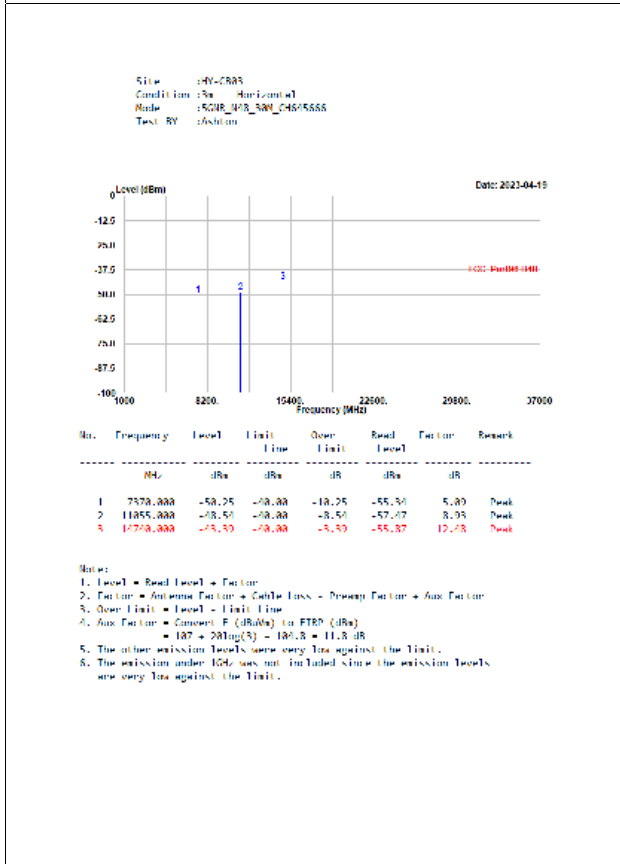
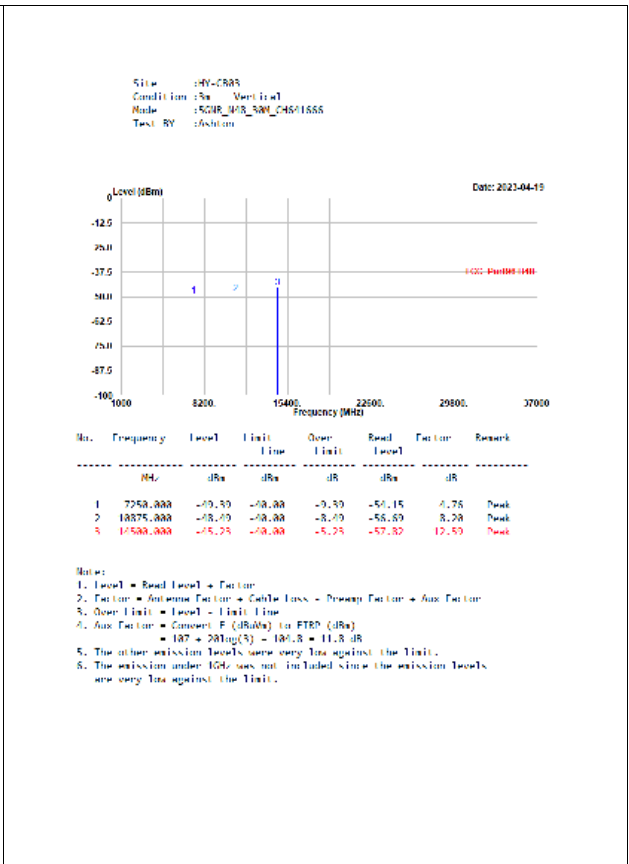
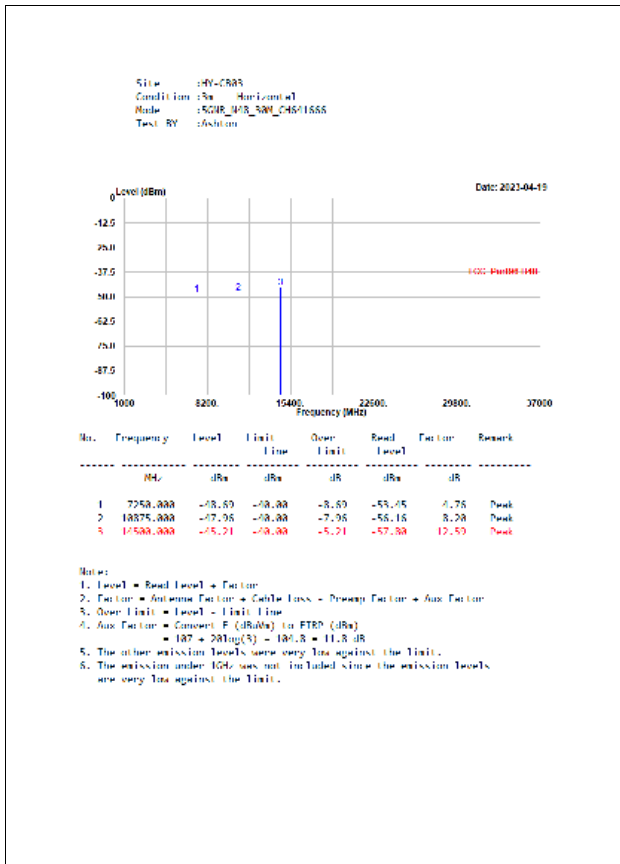
40 MHz_CH645332_BPSK_1RB53_Above 1 GHz

40 MHz_CH645332_BPSK_1RB53_Below 1 GHz

5.6. Test Result of Field Strength of Spurious Radiation

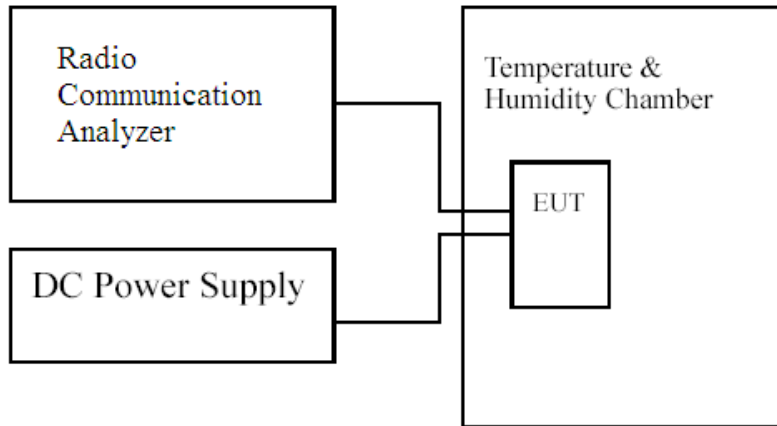






6. Frequency Stability

6.1. Test Setup



6.2. Test Limit

Limit: $<\pm 2.5$ ppm

6.3. Test Procedure

The frequency stability of transmitter is measured by:

- (a) Temperature: The temperature is varied from -30 °C to 50 °C in 10 °C increment using a standard temperature & Humidity chamber.
- (b) Primary Supply Voltage: The primary supply voltage is varied 85 % to 115 % of the nominal value for non hand-carried equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating endpoint which shall be specified by the manufacturer.

The EUT was connected via the base station simulator. Universal Radio Communication Tester, was used to measure The Frequency Error. The maximum result of measurements was recorded.

6.4. Test Specification

According to Part 2.1055

6.5. Test Result of Frequency Stability

Mode 1: LTE Band 48**BW: 5 MHz / 3552.5 MHz**

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.65	0.0007
120.00	1.74	0.0005
102.00	2.29	0.0006

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.82	0.0005
-20	2.66	0.0007
-10	2.38	0.0007
0	2.63	0.0007
10	1.79	0.0005
20	2.01	0.0006
30	2.77	0.0008
40	1.88	0.0005
50	2.52	0.0007

BW: 5 MHz / 3697.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.21	0.0006
120.00	1.67	0.0005
102.00	2.72	0.0007

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.59	0.0007
-20	1.90	0.0005
-10	2.36	0.0006
0	1.88	0.0005
10	1.67	0.0005
20	2.19	0.0006
30	2.41	0.0007
40	1.53	0.0004
50	1.70	0.0005

BW: 10 MHz / 3555 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.56	0.0007
120.00	2.17	0.0006
102.00	2.63	0.0007

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.97	0.0008
-20	2.26	0.0006
-10	2.08	0.0006
0	1.95	0.0005
10	2.90	0.0008
20	1.90	0.0005
30	2.21	0.0006
40	2.95	0.0008
50	1.60	0.0005

BW: 10 MHz / 3695 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.09	0.0006
120.00	1.86	0.0005
102.00	2.73	0.0007

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.33	0.0006
-20	2.95	0.0008
-10	2.65	0.0007
0	3.00	0.0008
10	2.91	0.0008
20	1.71	0.0005
30	1.53	0.0004
40	2.13	0.0006
50	1.79	0.0005

BW: 15 MHz / 3557.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.63	0.0005
120.00	2.54	0.0007
102.00	2.89	0.0008

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.93	0.0005
-20	1.99	0.0006
-10	2.67	0.0008
0	1.89	0.0005
10	1.67	0.0005
20	2.94	0.0008
30	1.62	0.0005
40	1.71	0.0005
50	2.99	0.0008

BW: 15 MHz / 3692.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.85	0.0005
120.00	2.57	0.0007
102.00	2.06	0.0006

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.59	0.0007
-20	2.06	0.0006
-10	1.77	0.0005
0	1.59	0.0004
10	2.55	0.0007
20	2.08	0.0006
30	2.82	0.0008
40	2.49	0.0007
50	1.78	0.0005

BW: 20 MHz / 3560 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.67	0.0005
120.00	2.30	0.0006
102.00	1.95	0.0005

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.84	0.0008
-20	1.88	0.0005
-10	2.84	0.0008
0	2.02	0.0006
10	2.82	0.0008
20	2.23	0.0006
30	2.38	0.0007
40	1.64	0.0005
50	1.96	0.0006

BW: 20 MHz / 3690 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.70	0.0005
120.00	2.87	0.0008
102.00	1.68	0.0005

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.81	0.0005
-20	2.38	0.0006
-10	1.88	0.0005
0	2.14	0.0006
10	2.18	0.0006
20	2.51	0.0007
30	2.33	0.0006
40	2.15	0.0006
50	2.72	0.0007

Mode 2: 5G NR n48**BW: 10 MHz / 3555 MHz**

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.78	0.0005
120.00	1.96	0.0006
102.00	2.02	0.0006

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.51	0.0004
-20	1.80	0.0005
-10	0.57	0.0002
0	1.58	0.0004
10	0.97	0.0003
20	1.23	0.0003
30	2.19	0.0006
40	0.78	0.0002
50	2.50	0.0007

BW: 10 MHz / 3695 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.23	0.0006
120.00	3.07	0.0008
102.00	2.56	0.0007

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	3.63	0.0010
-20	2.43	0.0007
-10	1.90	0.0005
0	2.55	0.0007
10	3.53	0.0010
20	2.54	0.0007
30	2.17	0.0006
40	3.21	0.0009
50	2.26	0.0006

BW: 20 MHz / 3560 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	0.98	0.0003
120.00	1.35	0.0004
102.00	1.22	0.0003

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.59	0.0004
-20	0.72	0.0002
-10	1.54	0.0004
0	0.88	0.0002
10	1.69	0.0005
20	0.89	0.0003
30	0.97	0.0003
40	0.79	0.0002
50	0.81	0.0002

BW: 20 MHz / 3690 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	0.88	0.0002
120.00	1.88	0.0005
102.00	1.21	0.0003

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.19	0.0003
-20	1.31	0.0004
-10	1.91	0.0005
0	0.74	0.0002
10	1.10	0.0003
20	1.82	0.0005
30	0.91	0.0002
40	0.88	0.0002
50	1.49	0.0004

BW: 30 MHz / 3565 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	0.75	0.0002
120.00	2.16	0.0006
102.00	1.37	0.0004

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.53	0.0004
-20	2.08	0.0006
-10	1.42	0.0004
0	1.42	0.0004
10	1.10	0.0003
20	0.74	0.0002
30	2.73	0.0008
40	1.39	0.0004
50	2.28	0.0006

BW: 30 MHz / 3685 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.65	0.0004
120.00	1.67	0.0005
102.00	1.13	0.0003

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.92	0.0005
-20	1.23	0.0003
-10	0.44	0.0001
0	1.67	0.0005
10	1.11	0.0003
20	1.38	0.0004
30	0.45	0.0001
40	0.59	0.0002
50	1.64	0.0004

BW: 40 MHz / 3570 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.96	0.0005
120.00	2.48	0.0007
102.00	2.73	0.0008

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.69	0.0005
-20	1.77	0.0005
-10	0.80	0.0002
0	2.77	0.0008
10	2.49	0.0007
20	1.47	0.0004
30	1.13	0.0003
40	1.30	0.0004
50	2.17	0.0006

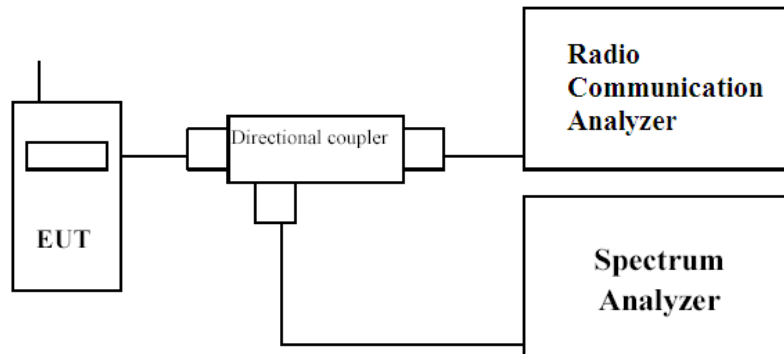
BW: 40 MHz / 3680 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.59	0.0004
120.00	1.96	0.0005
102.00	1.35	0.0004

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.11	0.0003
-20	1.98	0.0005
-10	1.21	0.0003
0	1.07	0.0003
10	1.68	0.0005
20	1.36	0.0004
30	0.65	0.0002
40	2.19	0.0006
50	1.79	0.0005

7. Peak to Average Ratio

7.1. Test Setup



7.2. Test Limit

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure.

7.3. Test Procedure

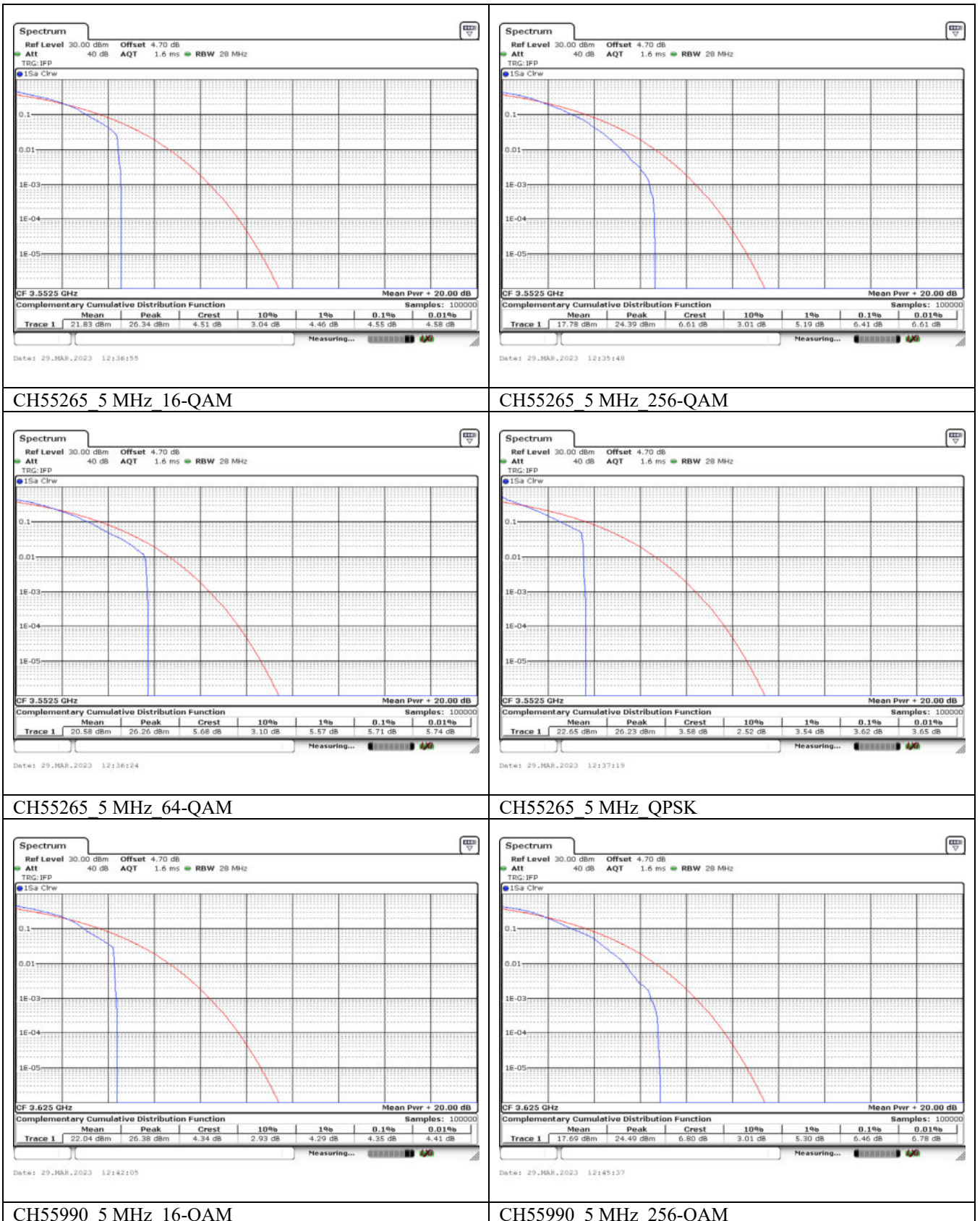
- a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;
- b) Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
- c) Set the number of counts to a value that stabilizes the measured CCDF curve;
- d) Set the measurement interval as follows:
 - 1) for continuous transmissions, set to 1 ms,
 - 2) for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
- e) Record the maximum PAPR level associated with a probability of 0.1%.

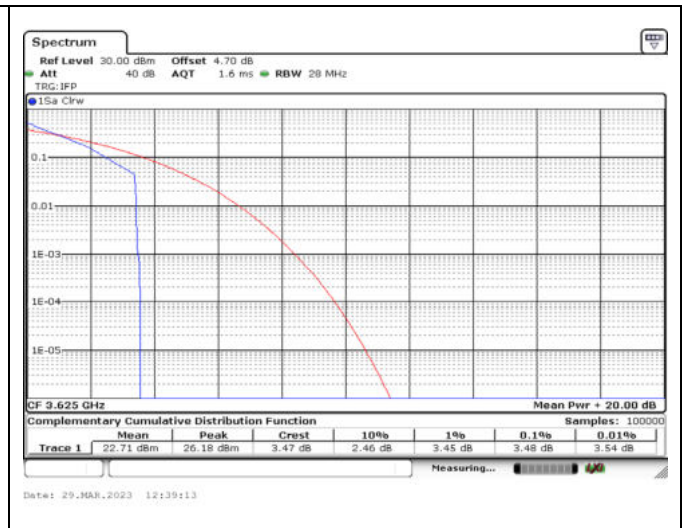
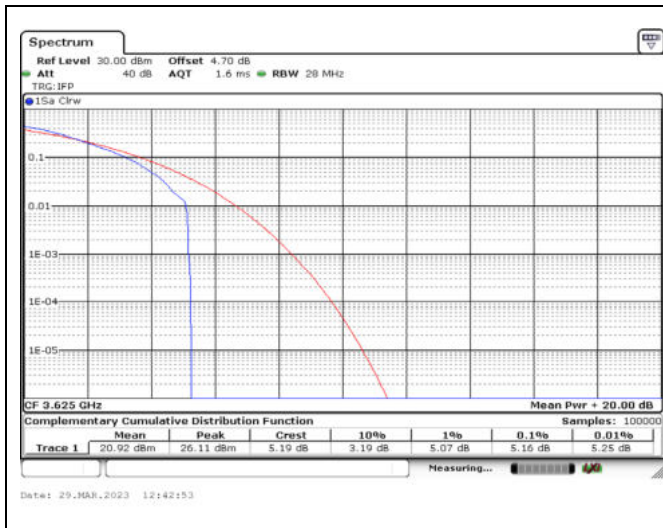
7.4. Test Specification

According to Part 96.41

7.5. Test Result of Peak to Average Ratio

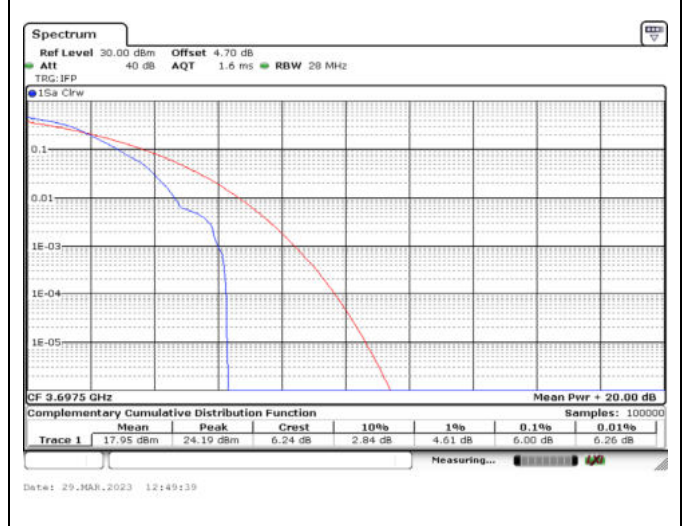
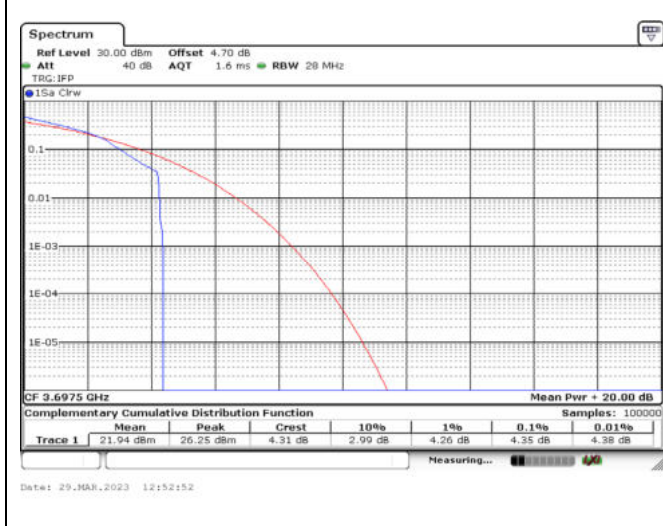
Mode 1: LTE Band 48





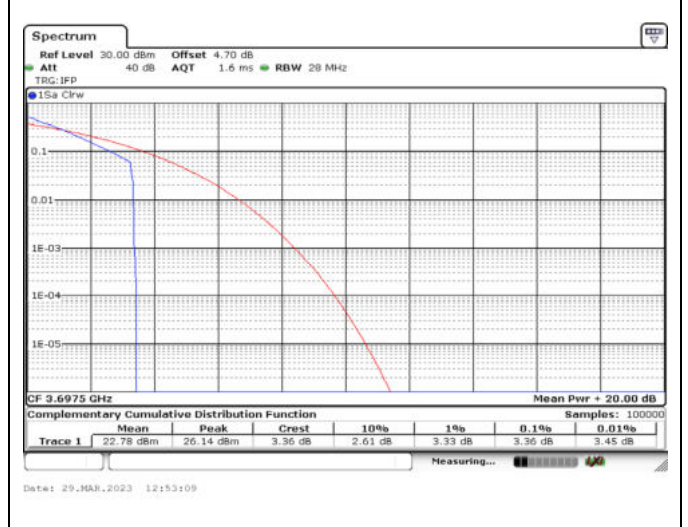
CH55990_5 MHz_64-QAM

CH55990_5 MHz_QPSK



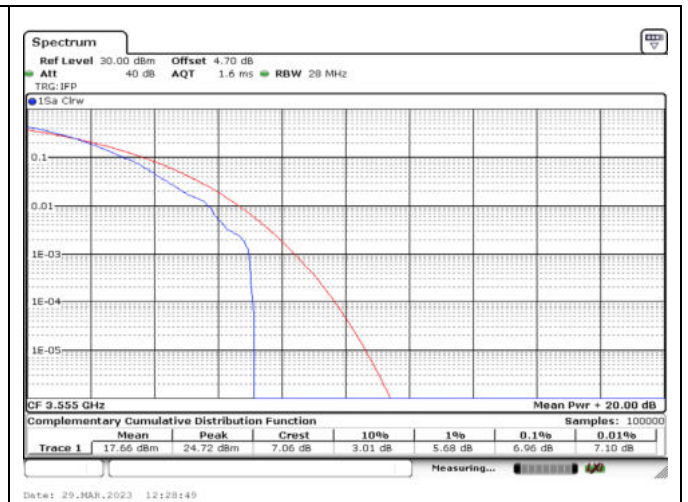
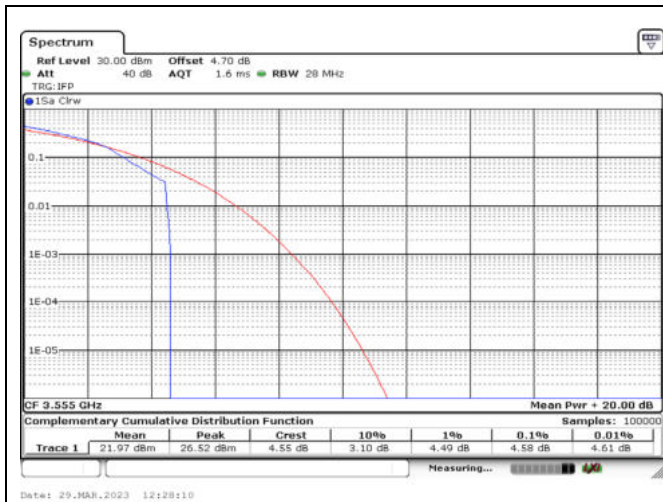
CH56715_5 MHz_16-QAM

CH56715_5 MHz_256-QAM



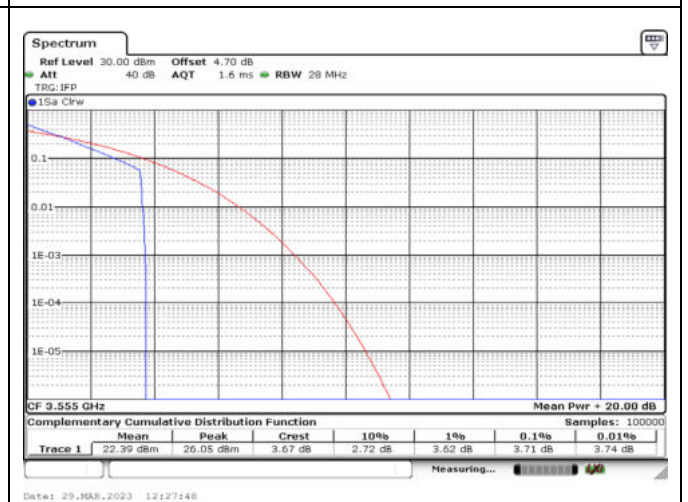
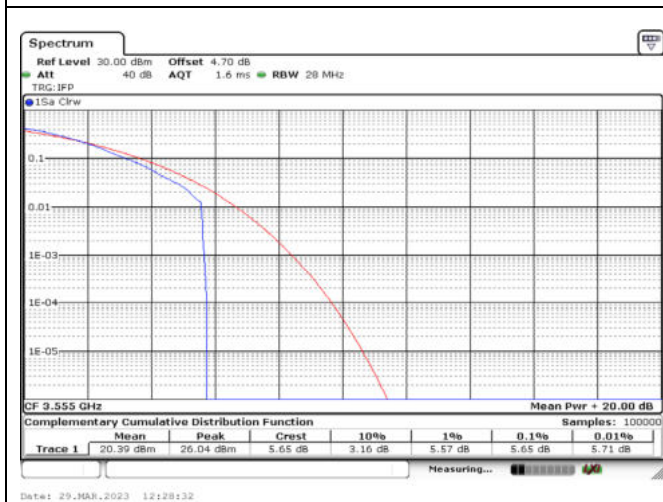
CH56715_5 MHz_64-QAM

CH56715_5 MHz_QPSK



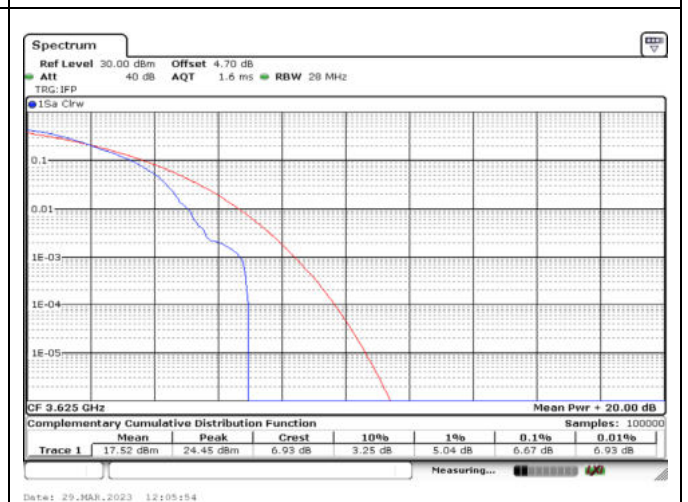
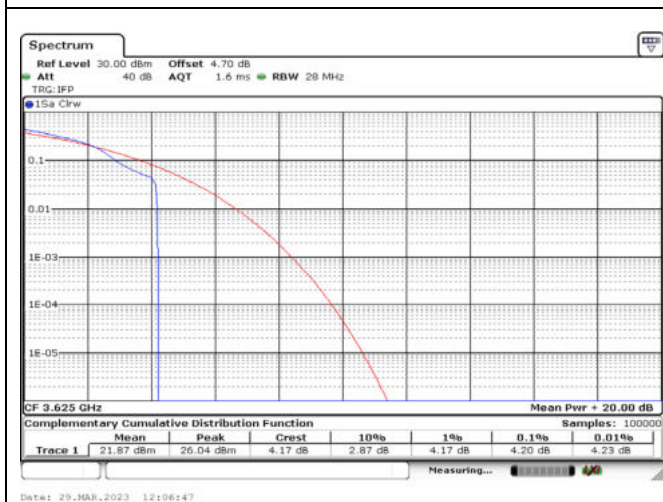
CH55290_10 MHz_16-QAM

CH55290_10 MHz_256-QAM



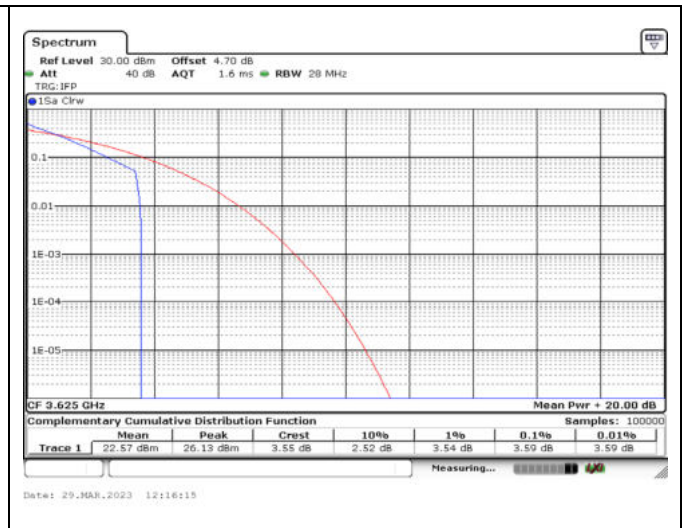
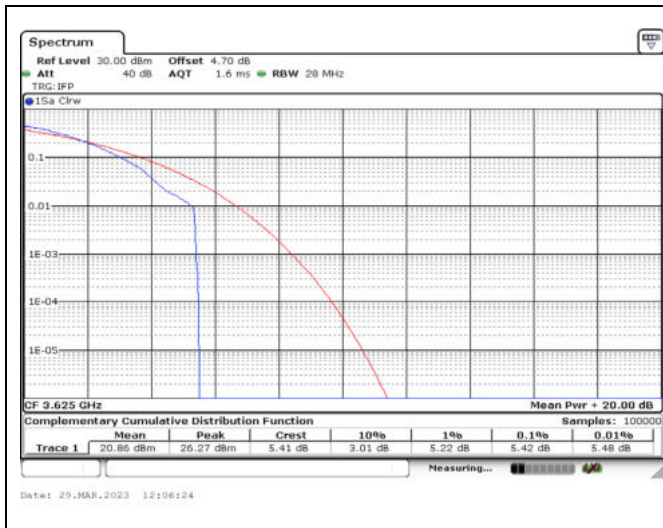
CH55290_10 MHz_64-QAM

CH55290_10 MHz_QPSK



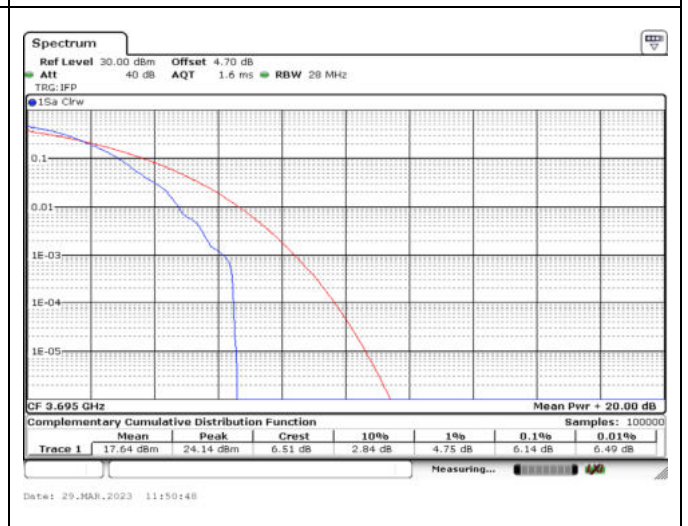
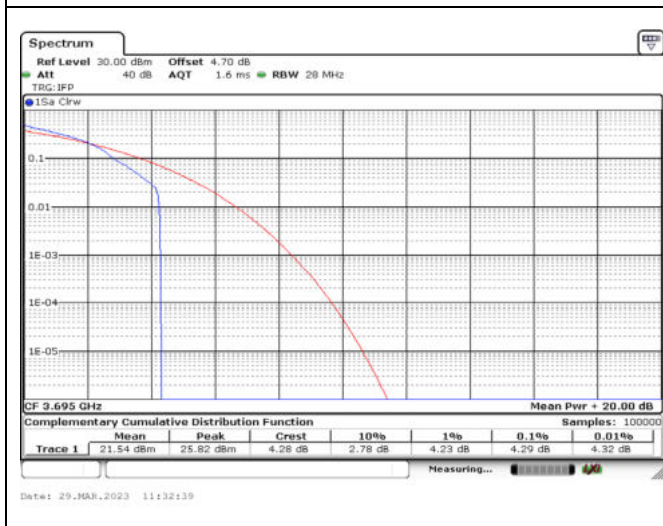
CH55990_10 MHz_16-QAM

CH55990_10 MHz_256-QAM



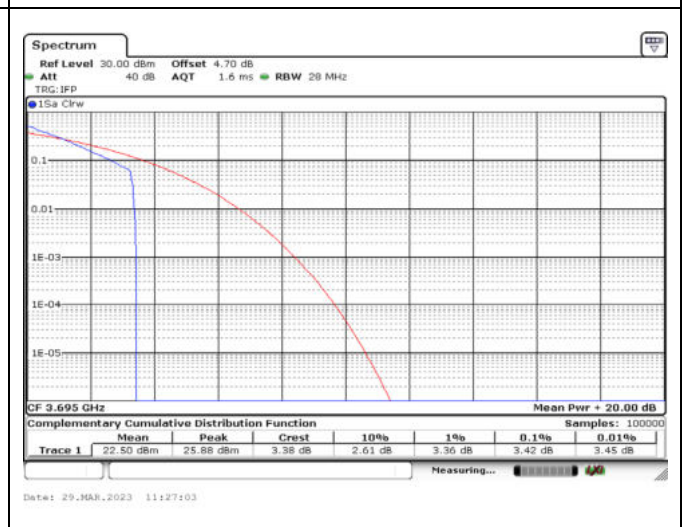
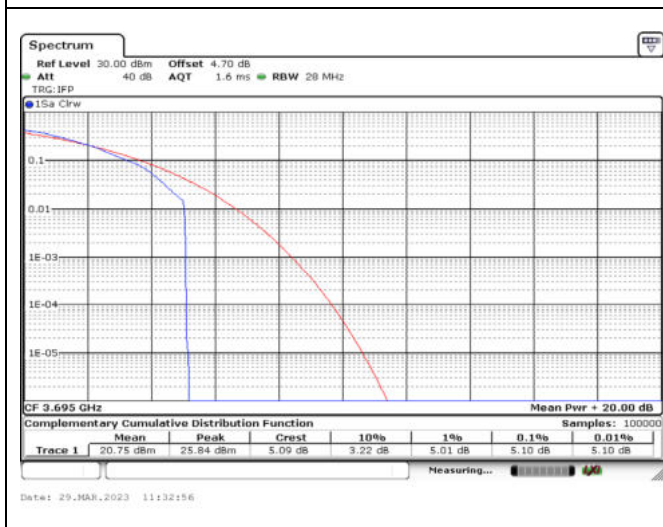
CH55990_10 MHz_64-QAM

CH55990_10 MHz_QPSK



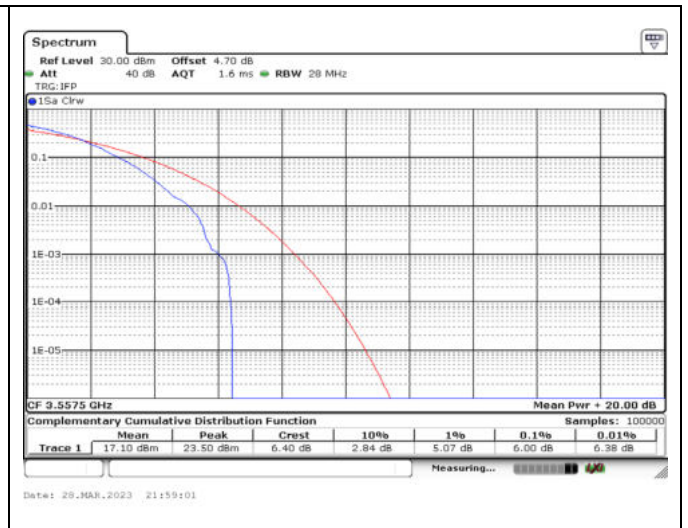
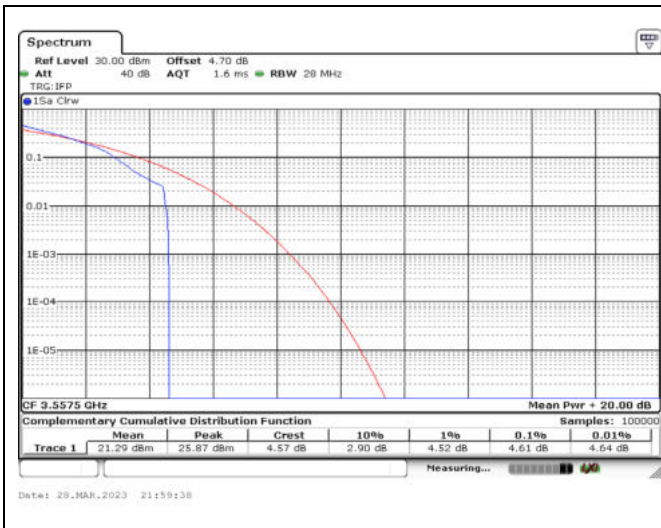
CH56690_10 MHz_16-QAM

CH56690_10 MHz_256-QAM



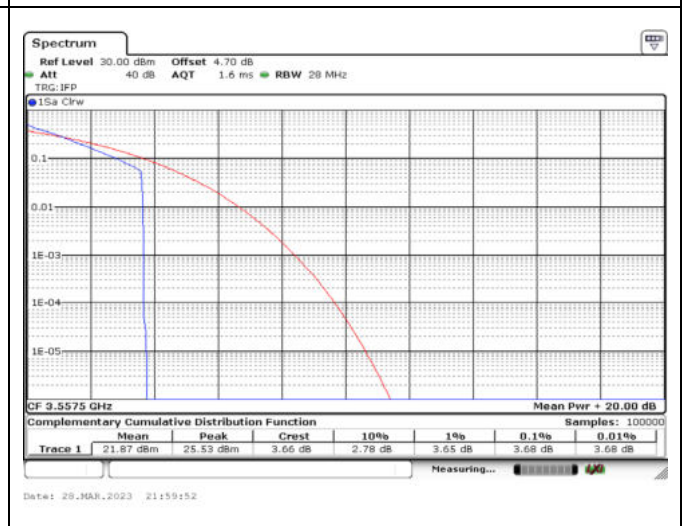
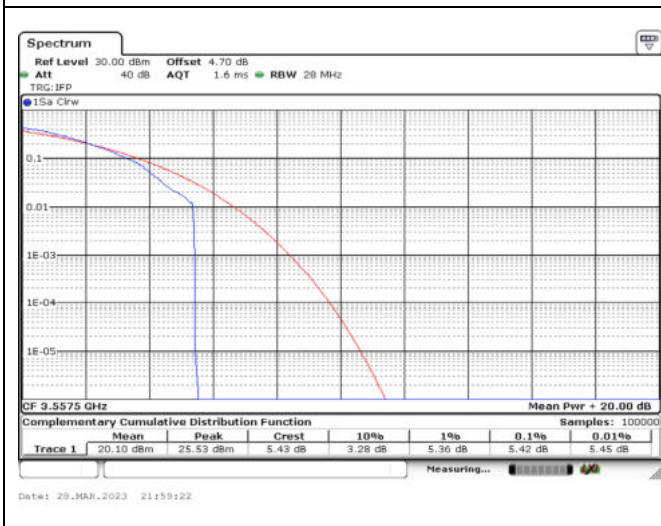
CH56690_10 MHz_64-QAM

CH56690_10 MHz_QPSK



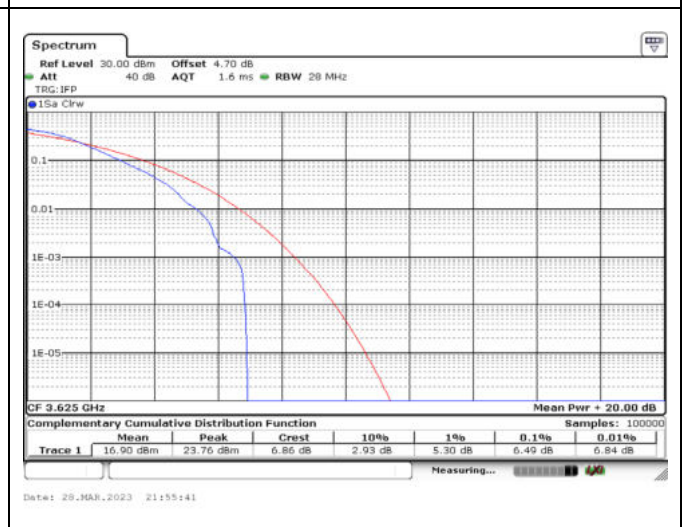
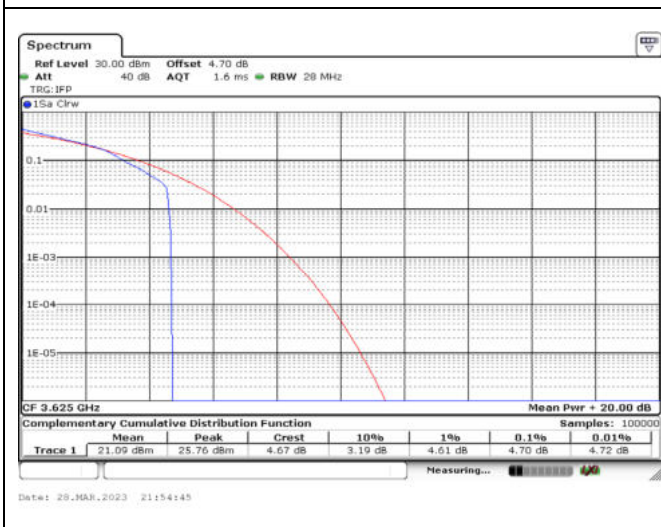
CH55315_15 MHz_16-QAM

CH55315_15 MHz_256-QAM



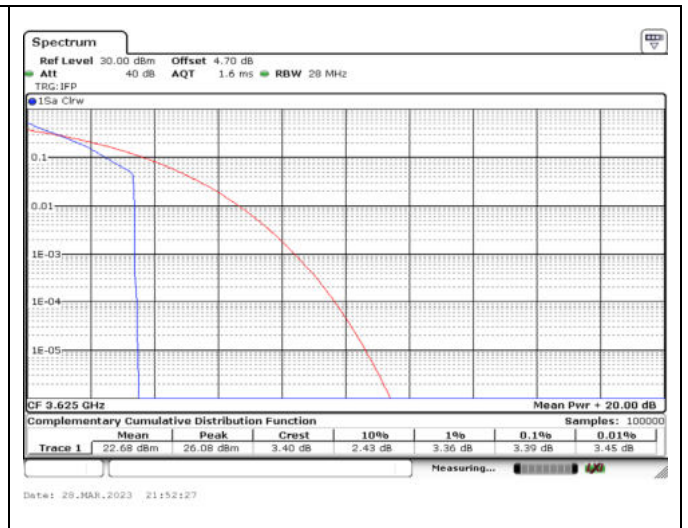
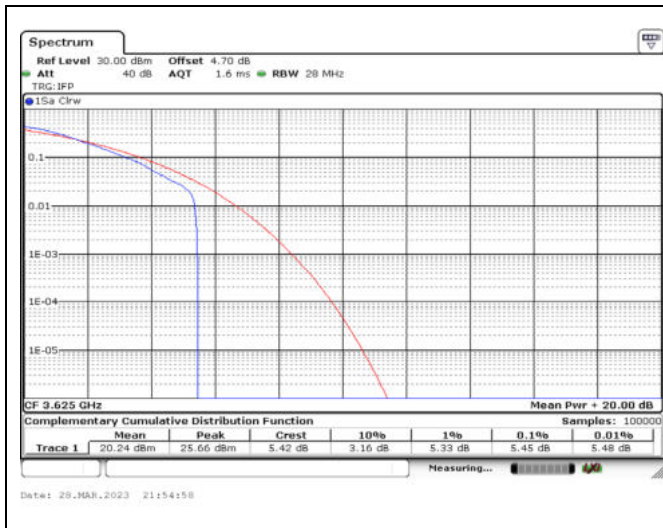
CH55315_15 MHz_64-QAM

CH55315_15 MHz_QPSK



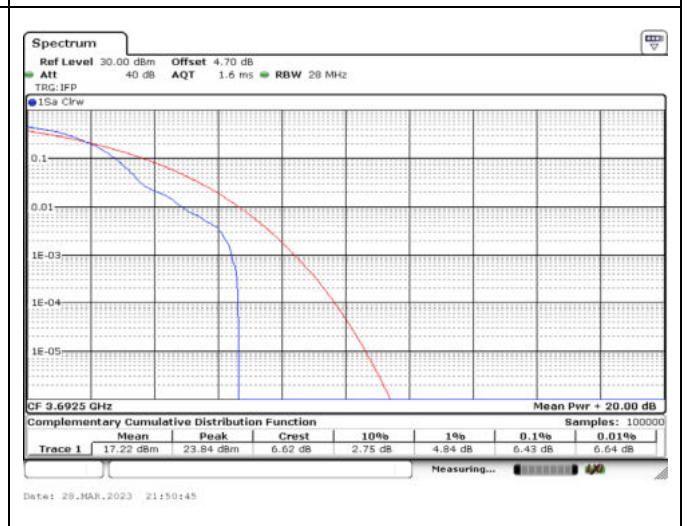
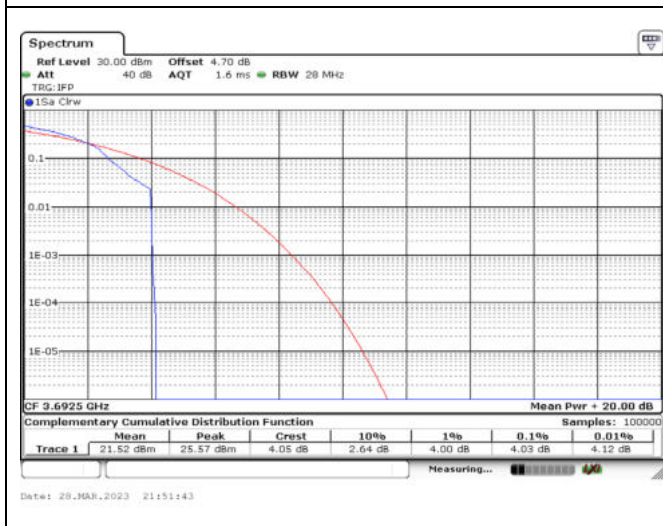
CH55990_15 MHz_16-QAM

CH55990_15 MHz_256-QAM



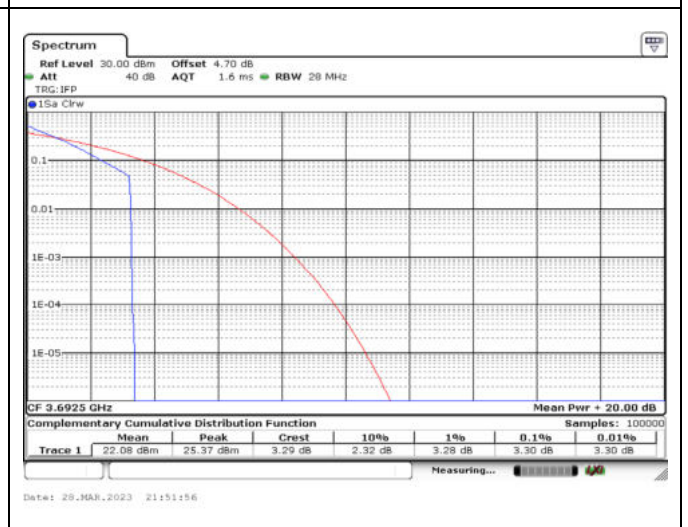
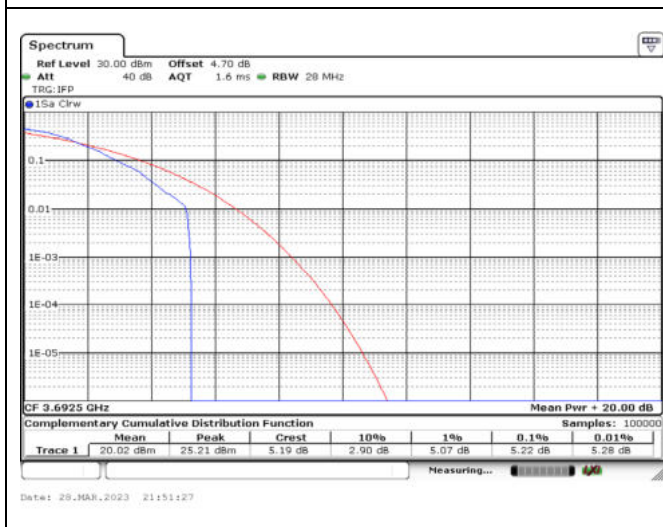
CH55990_15 MHz_64-QAM

CH55990_15 MHz_QPSK



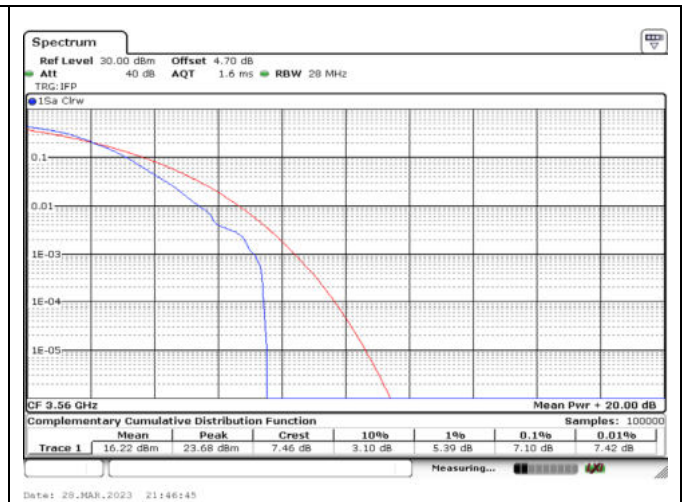
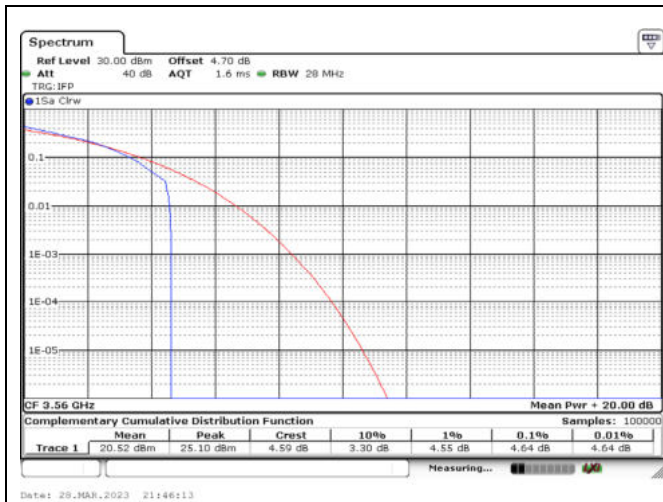
CH56665_15 MHz_16-QAM

CH56665_15 MHz_256-QAM



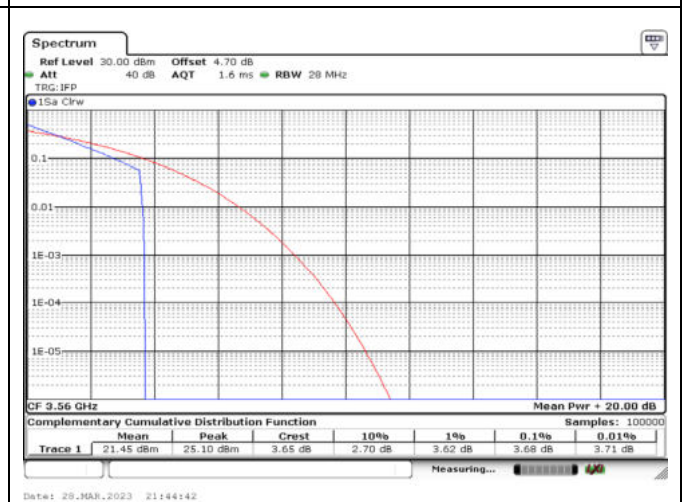
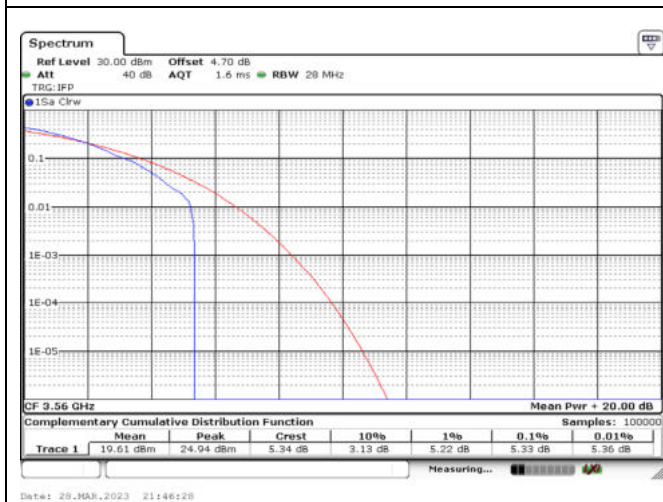
CH56665_15 MHz_64-QAM

CH56665_15 MHz_QPSK



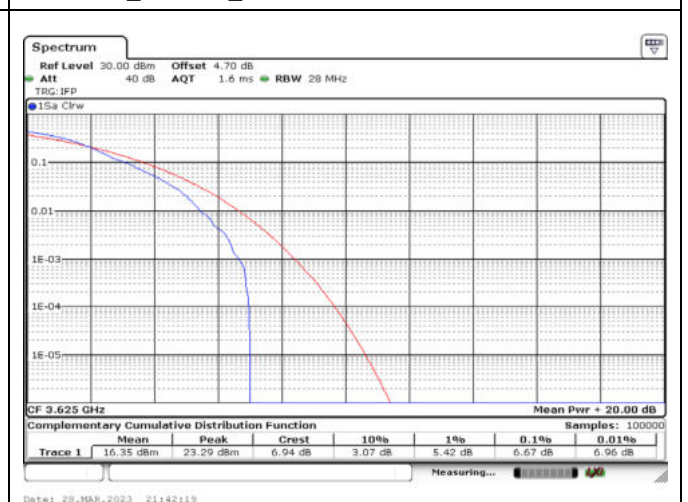
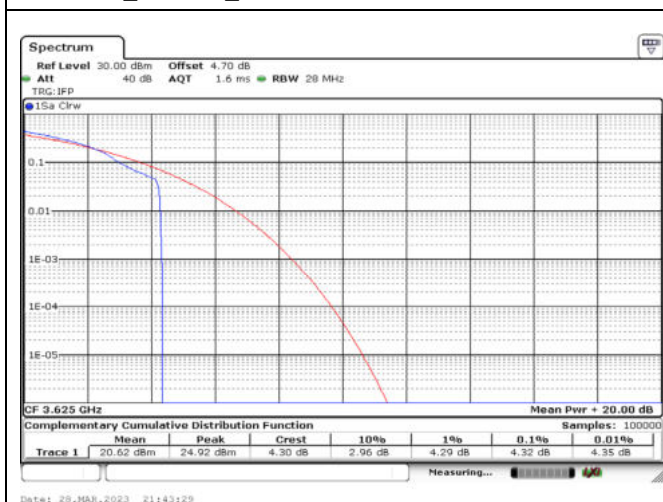
CH55340_20 MHz_16-QAM

CH55340_20 MHz_256-QAM



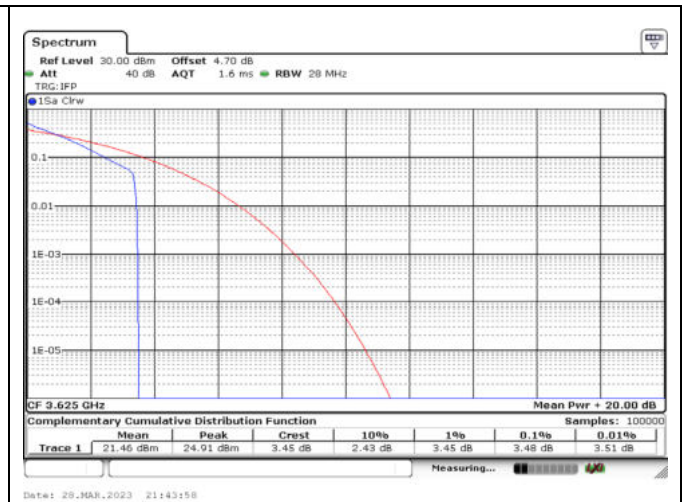
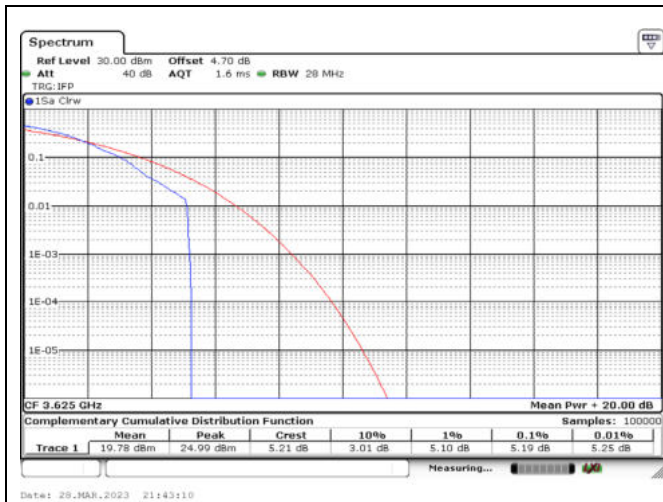
CH55340_20 MHz_64-QAM

CH55340_20 MHz_QPSK



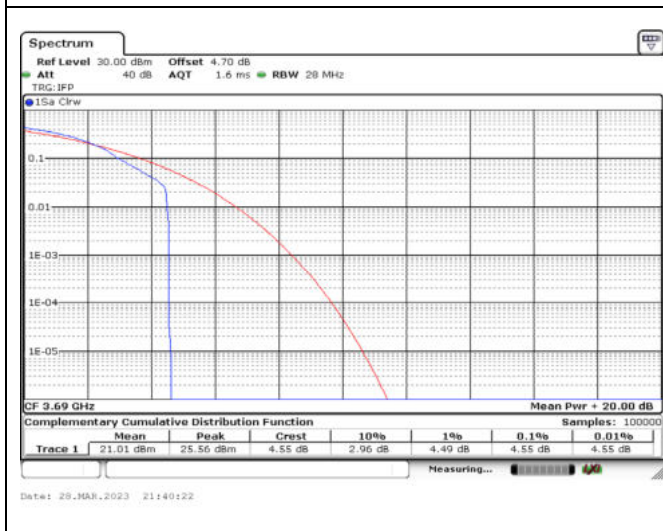
CH55990_20 MHz_16-QAM

CH55990_20 MHz_256-QAM



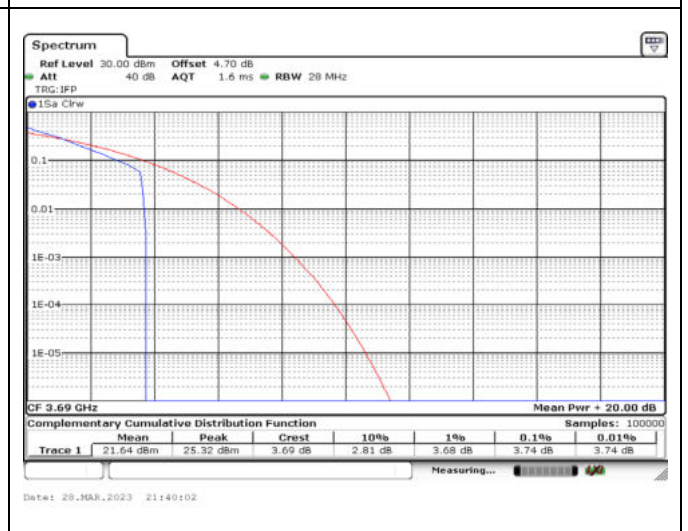
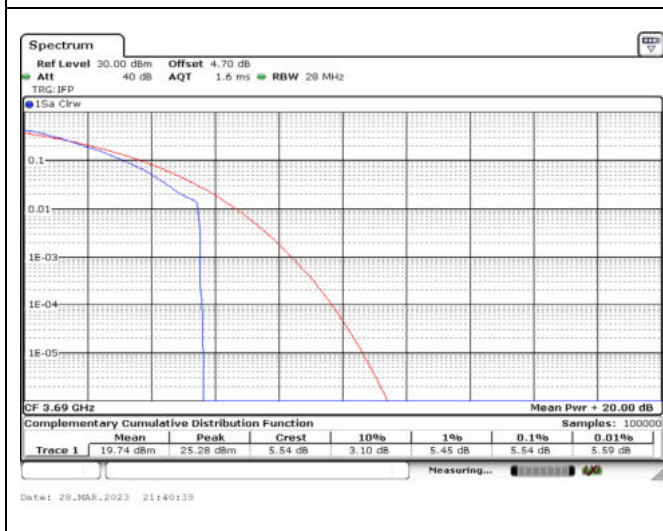
CH55990_20 MHz_64-QAM

CH55990_20 MHz_QPSK



CH56640_20 MHz_16-QAM

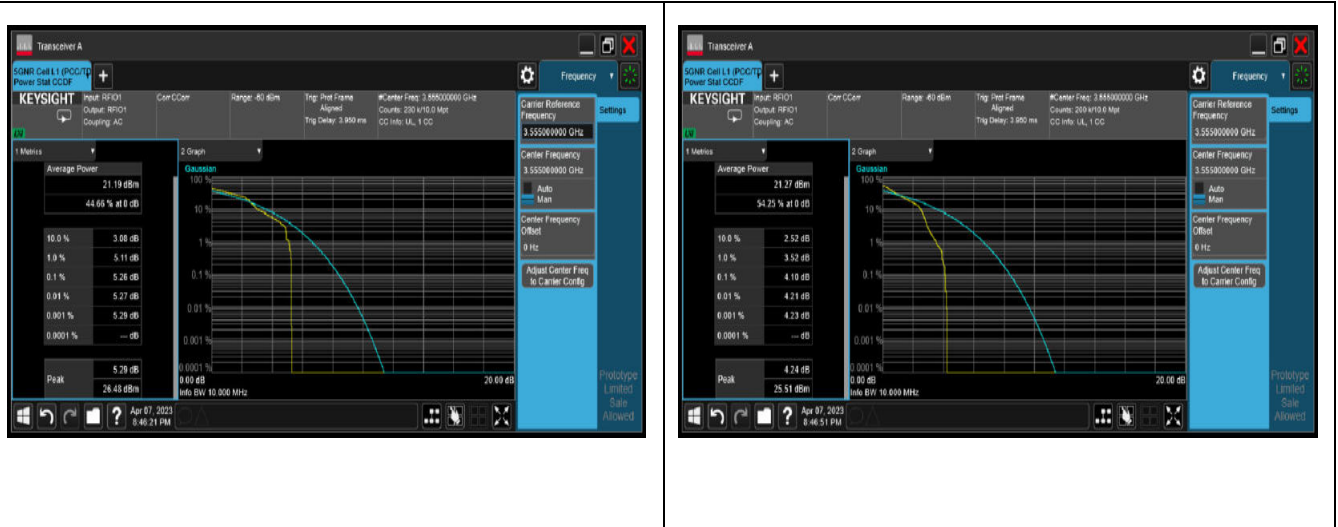
CH56640_20 MHz_256-QAM



CH56640_20 MHz_64-QAM

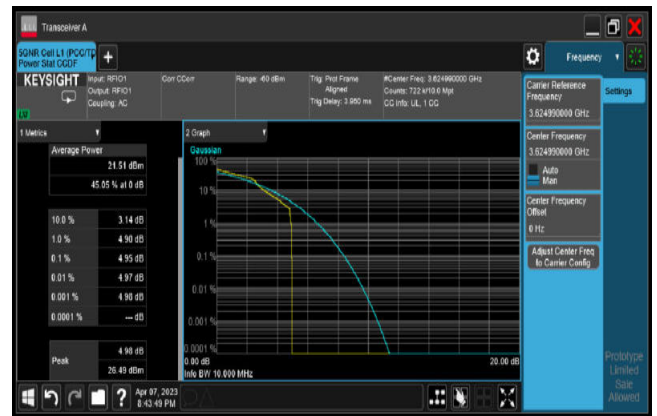
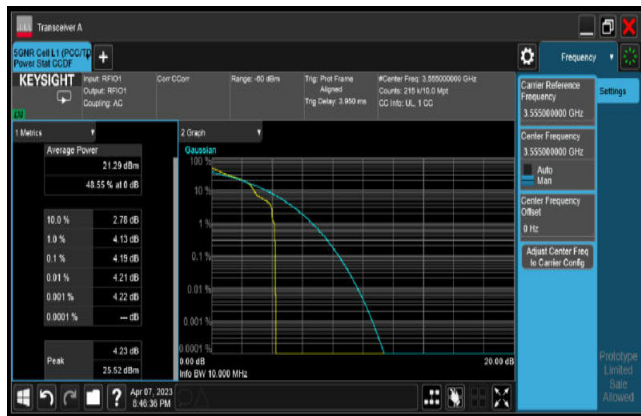
CH56640_20 MHz_QPSK

Mode 2: 5G NR n48



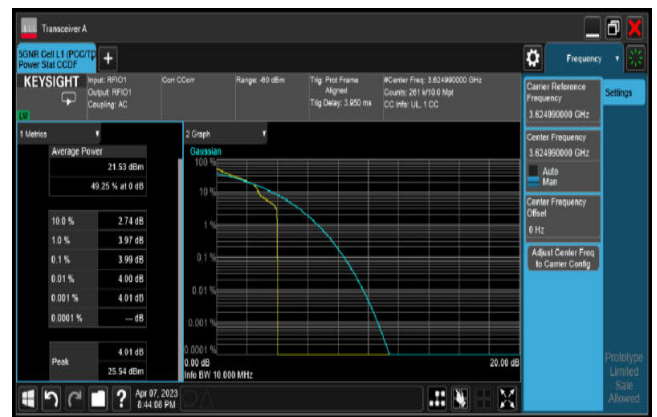
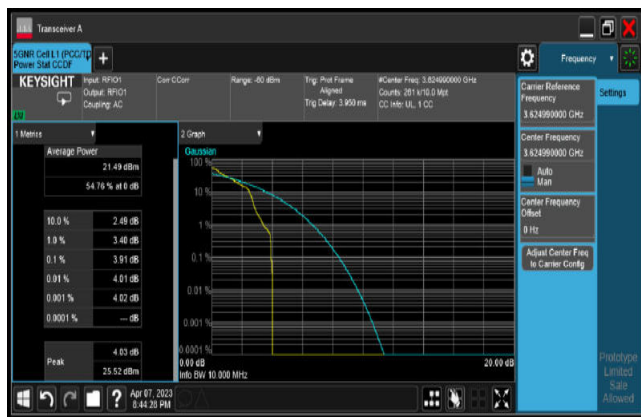
10 MHz_CH637000_16QAM

10 MHz_CH637000_BPSK



10 MHz_CH637000_QPSK

10 MHz_CH641666_16QAM



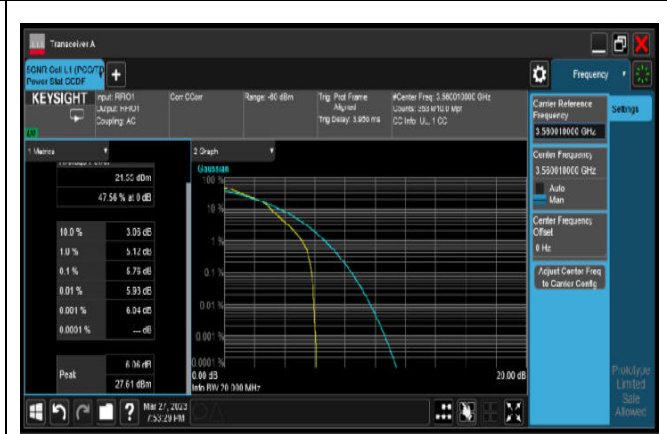
10 MHz_CH641666_BPSK

10 MHz_CH641666_QPSK



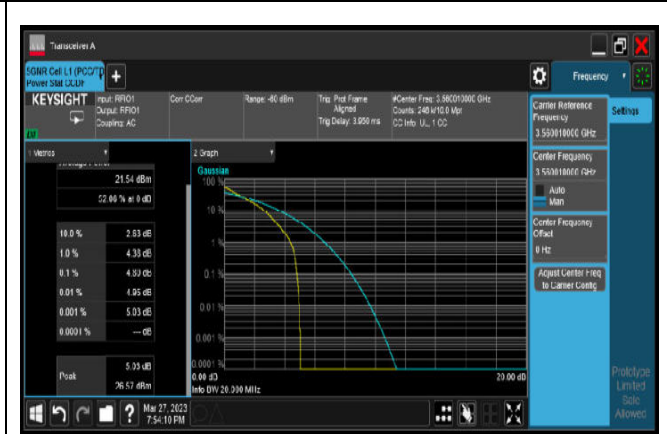
10 MHz_CH646332_16QAM

10 MHz_CH646332_BPSK



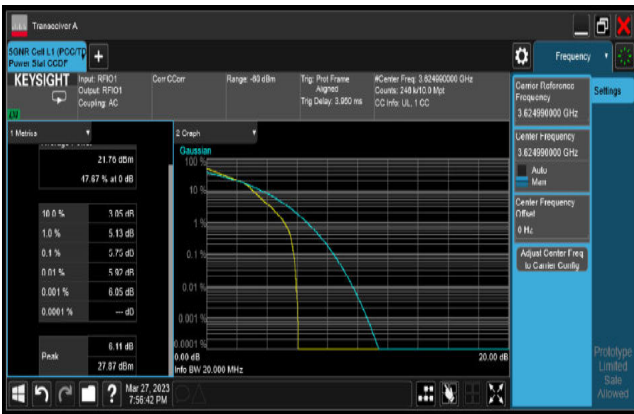
10 MHz_CH646332_QPSK

20 MHz_CH637334_16QAM



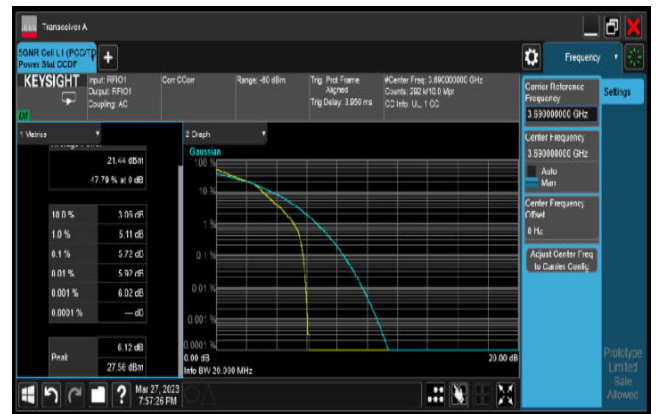
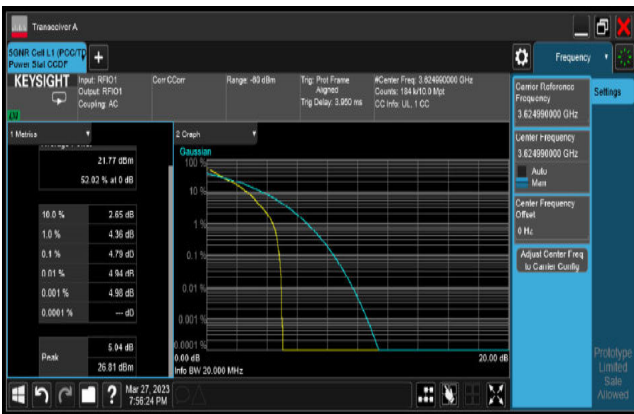
20 MHz_CH637334_BPSK

20 MHz_CH637334_QPSK



20 MHz_CH641666_16QAM

20 MHz_CH641666_BPSK



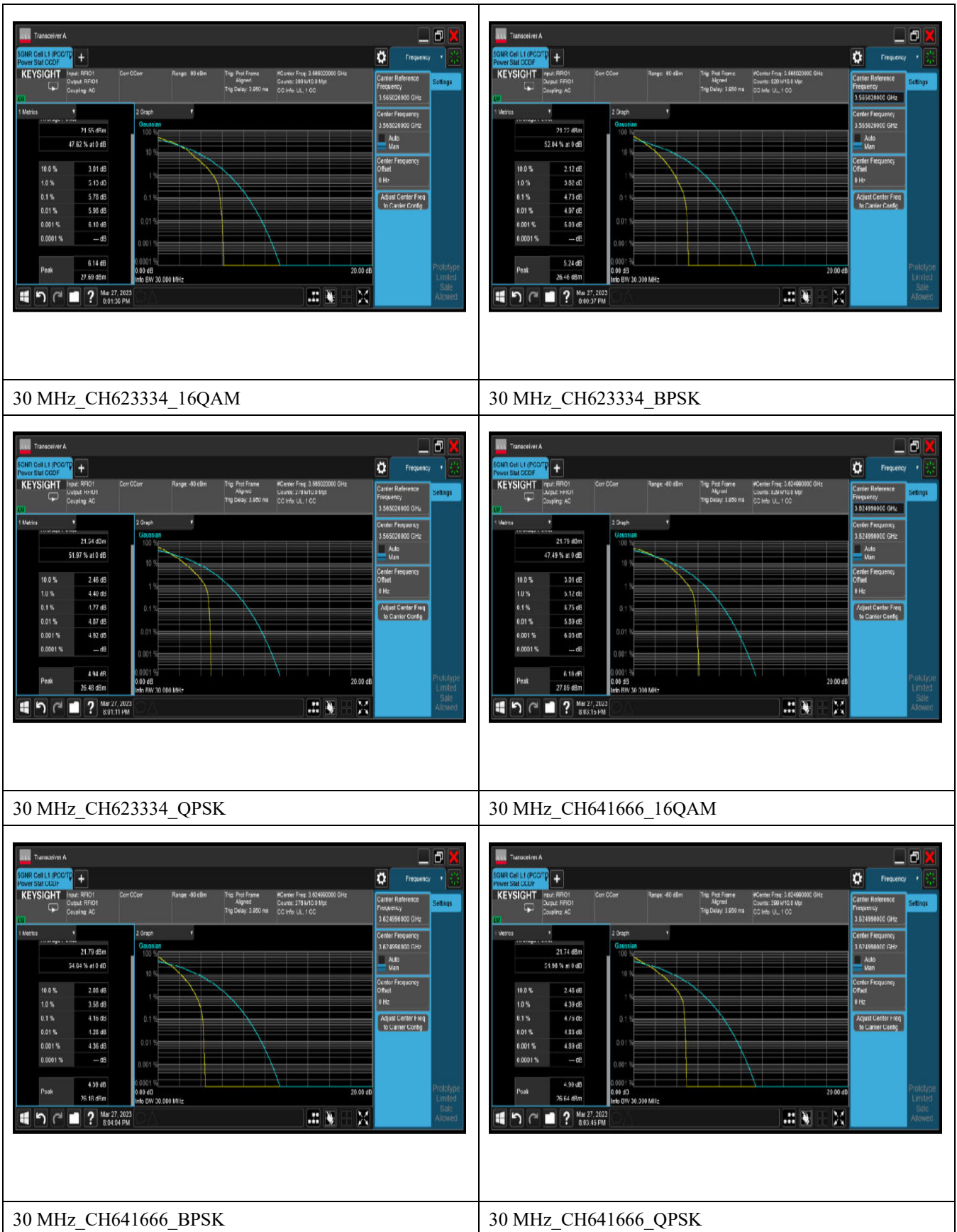
20 MHz_CH641666_QPSK

20 MHz_CH646000_16QAM



20 MHz_CH646000_BPSK

20 MHz_CH646000_QPSK





30 MHz_CH645666_16QAM

30 MHz_CH645666_BPSK



30 MHz_CH645666_QPSK

40 MHz_CH638000_16QAM



40 MHz_CH638000_BPSK

40 MHz_CH638000_QPSK



40 MHz_CH641666_16QAM

40 MHz_CH641666_BPSK



40 MHz_CH641666_QPSK

40 MHz_CH645332_16QAM



40 MHz_CH645332_BPSK

40 MHz_CH645332_QPSK