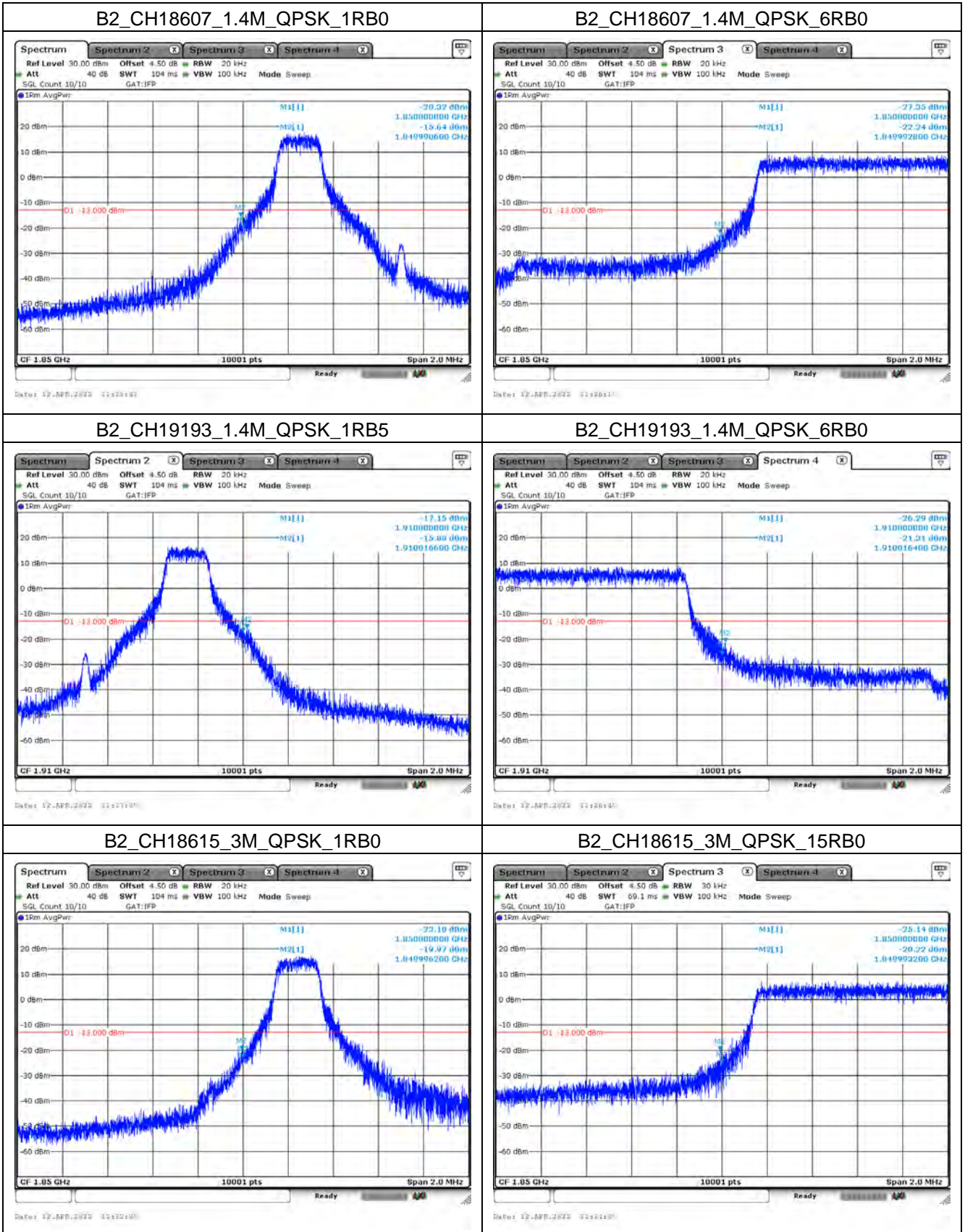
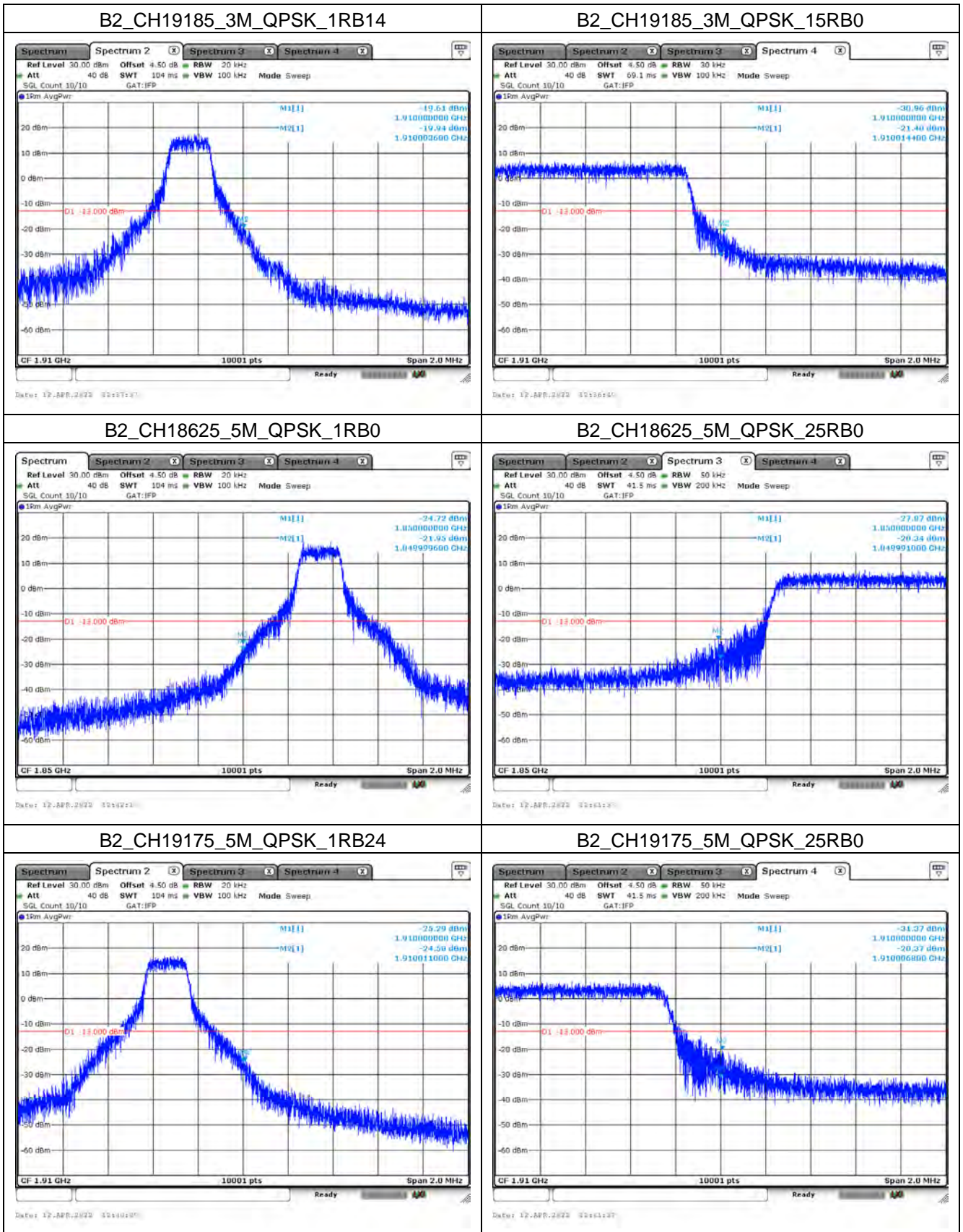
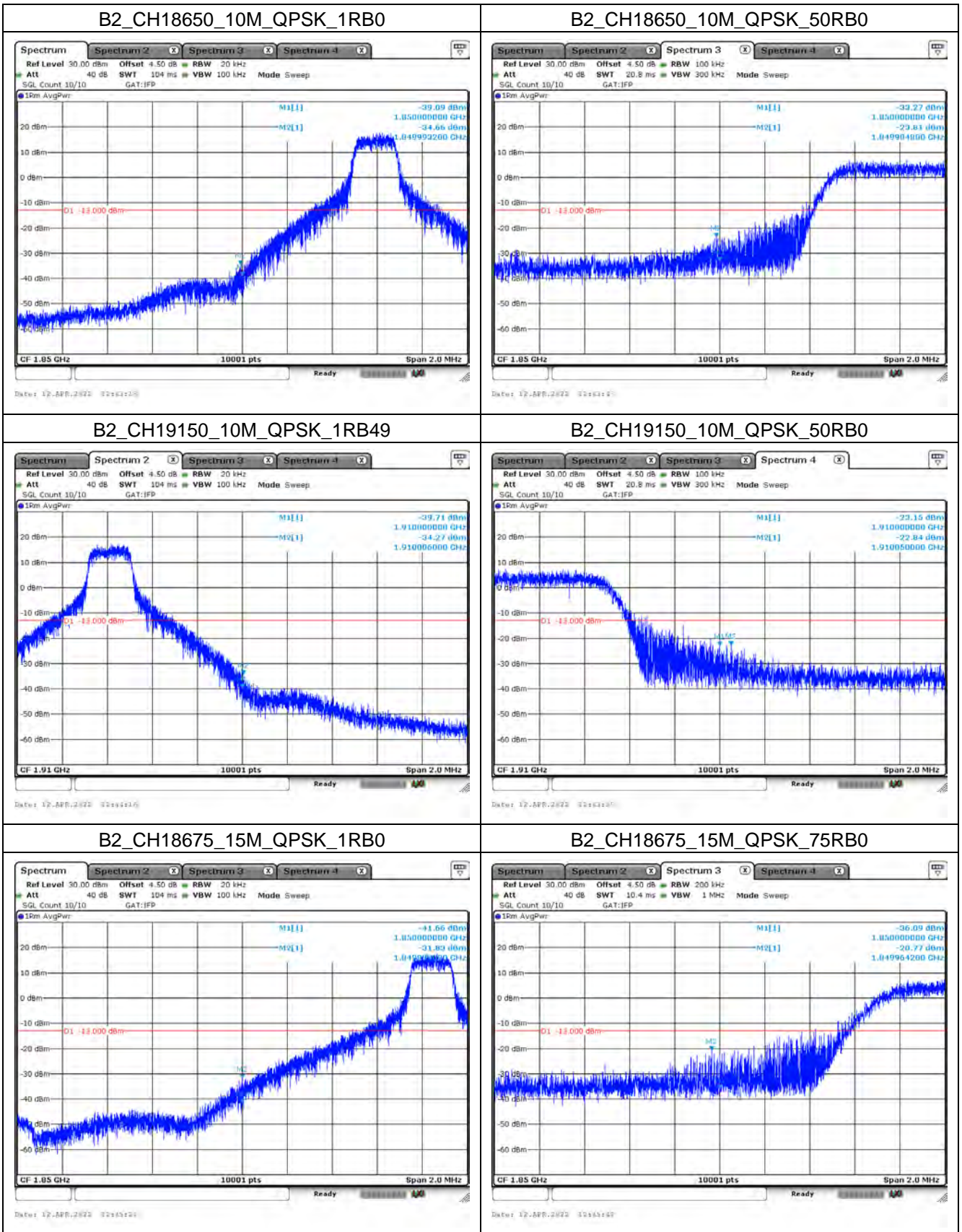


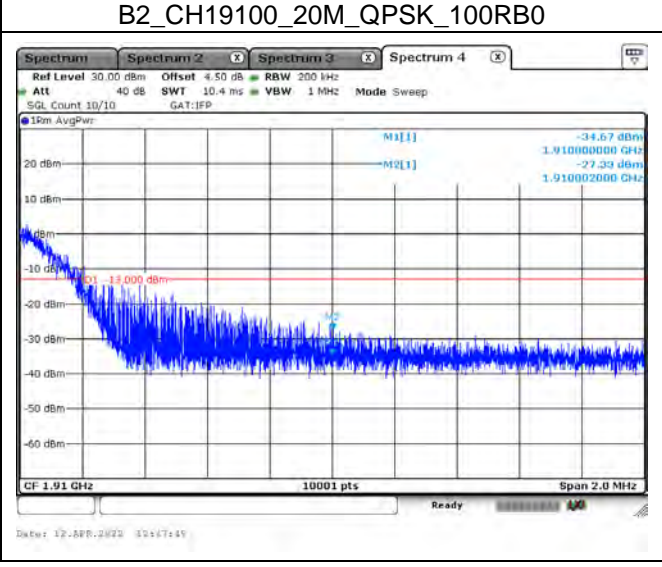
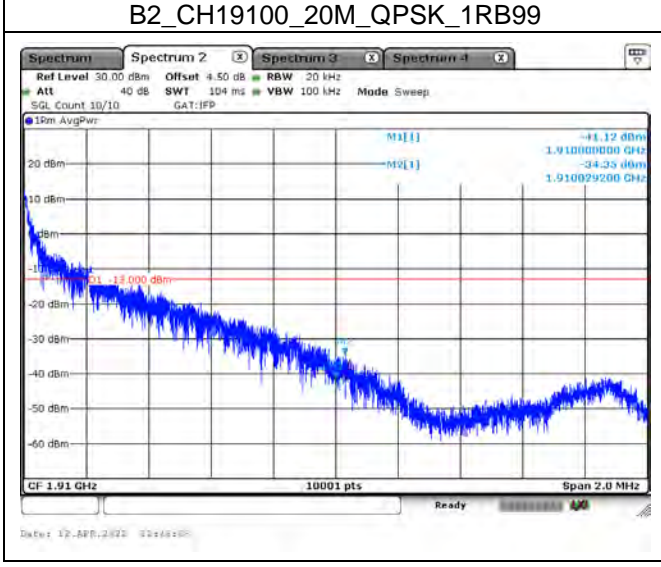
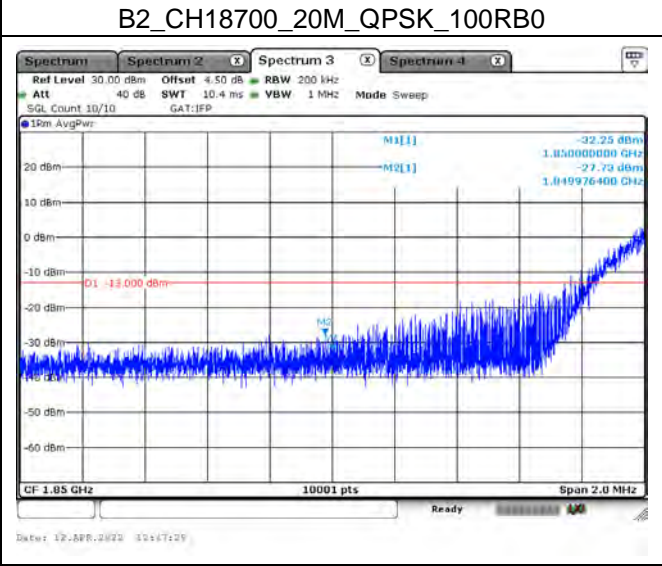
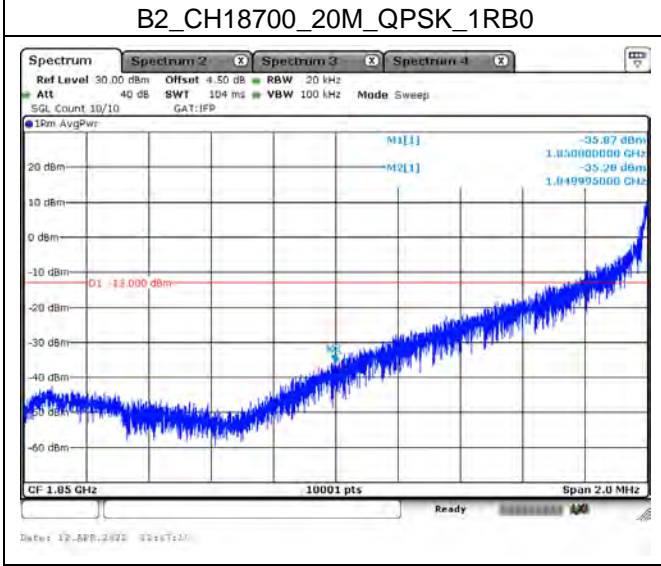
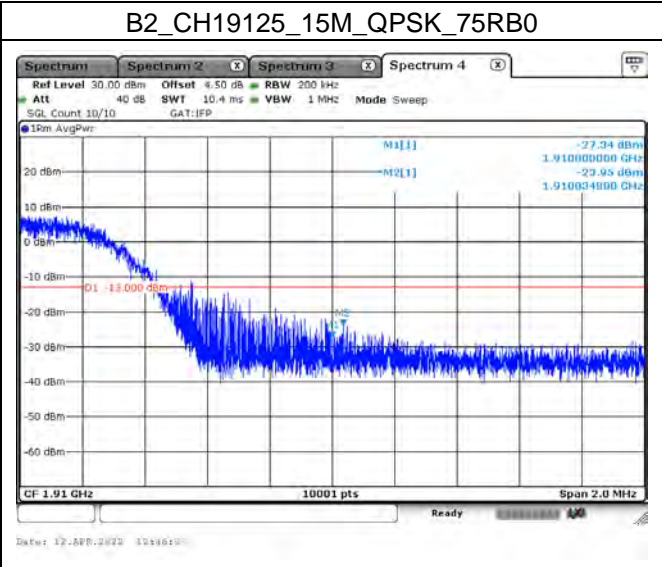
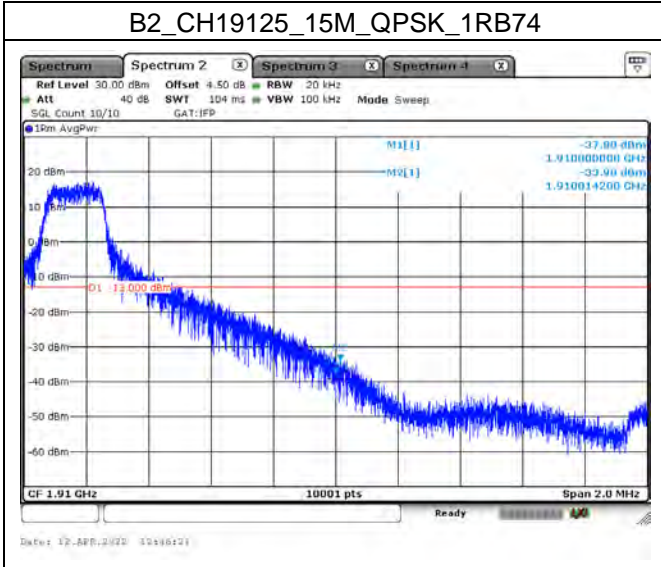
7.4. Test Result of Conducted Band Edge

Mode 1: LTE Band 2

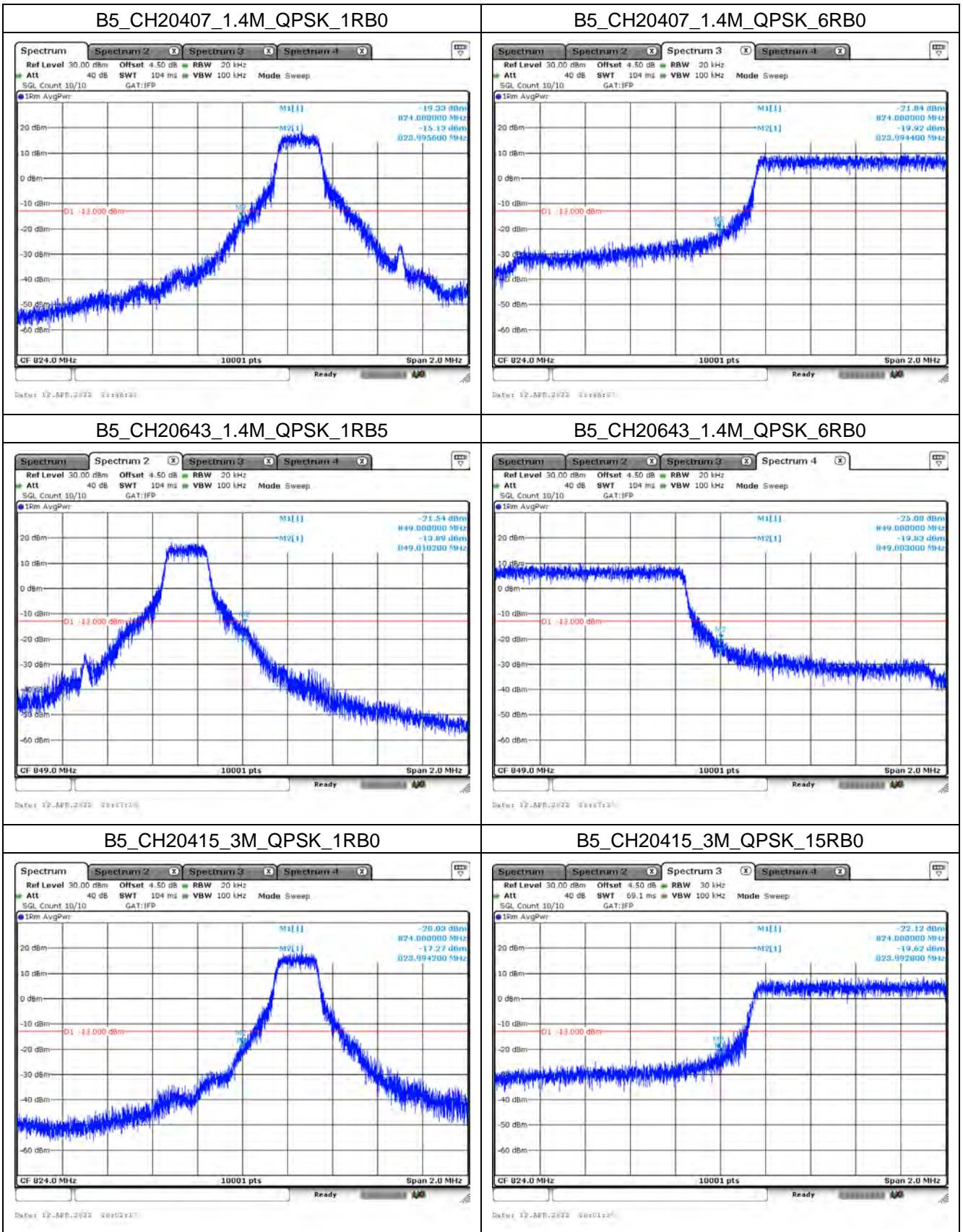


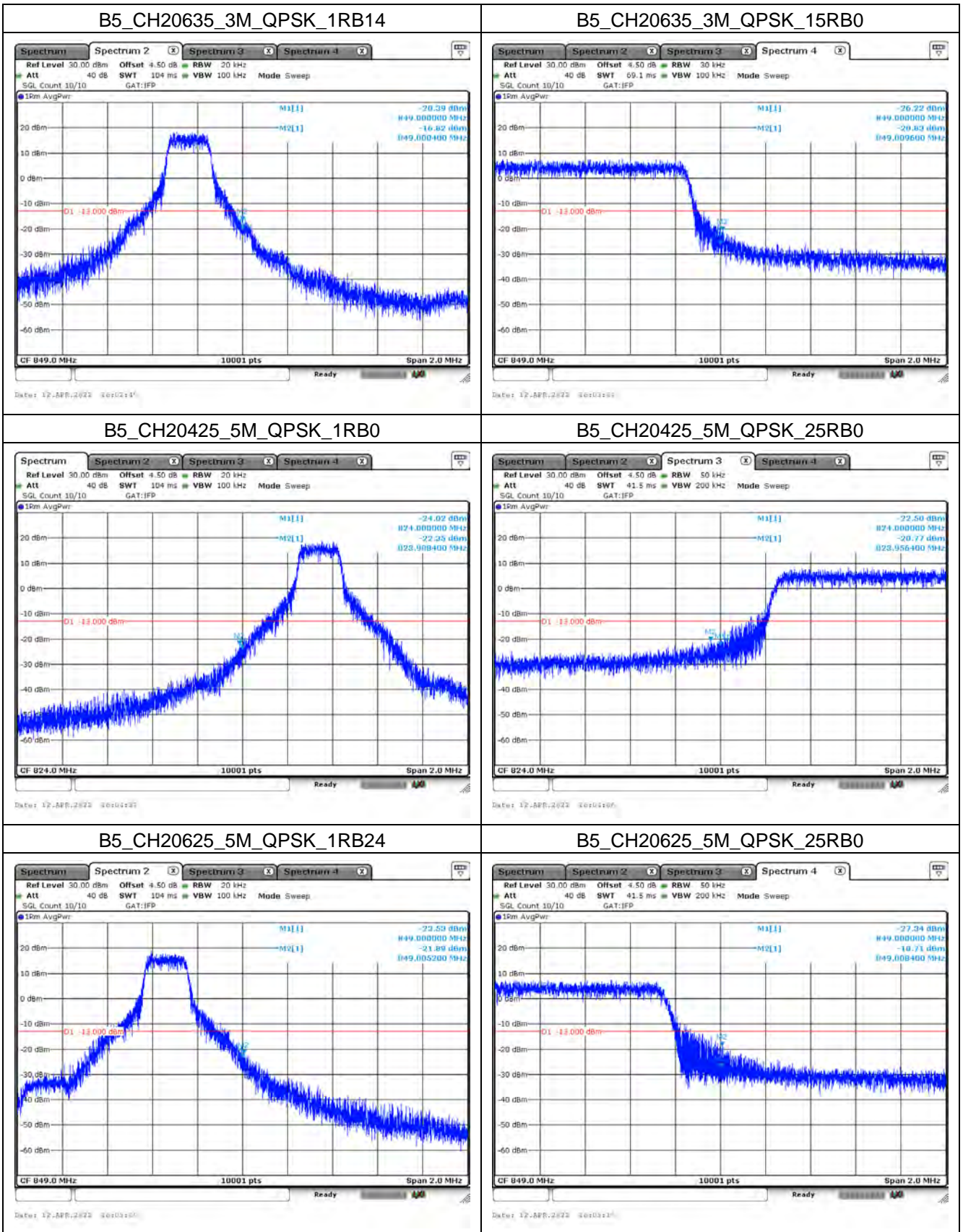


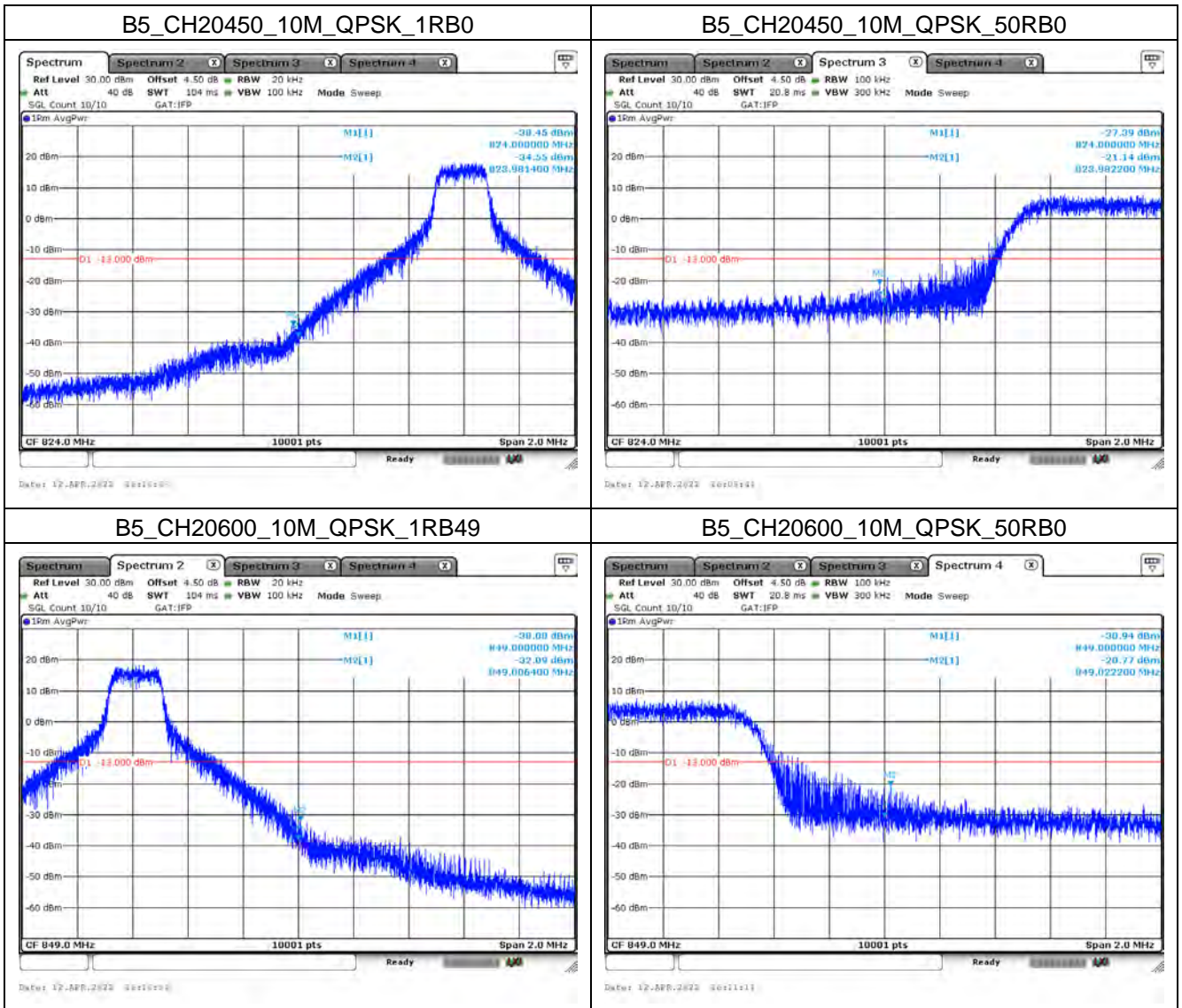




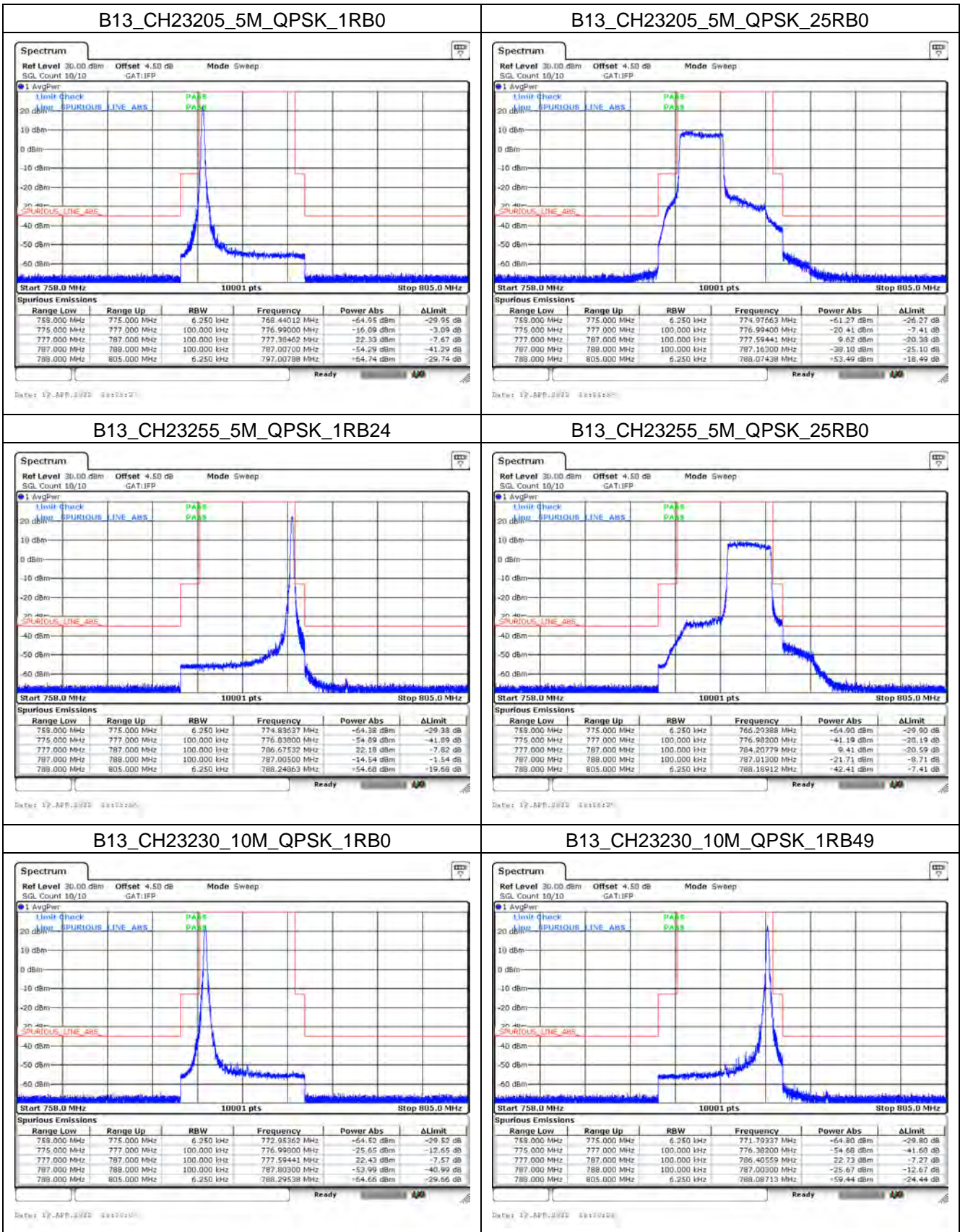
Mode 2: LTE Band 5

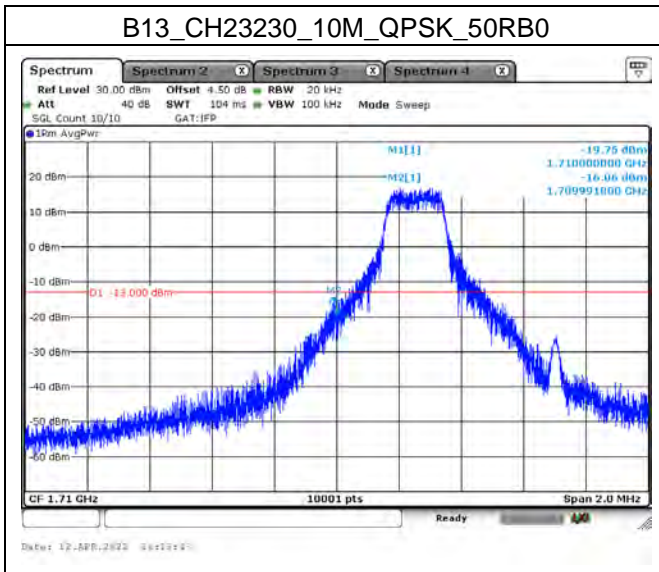




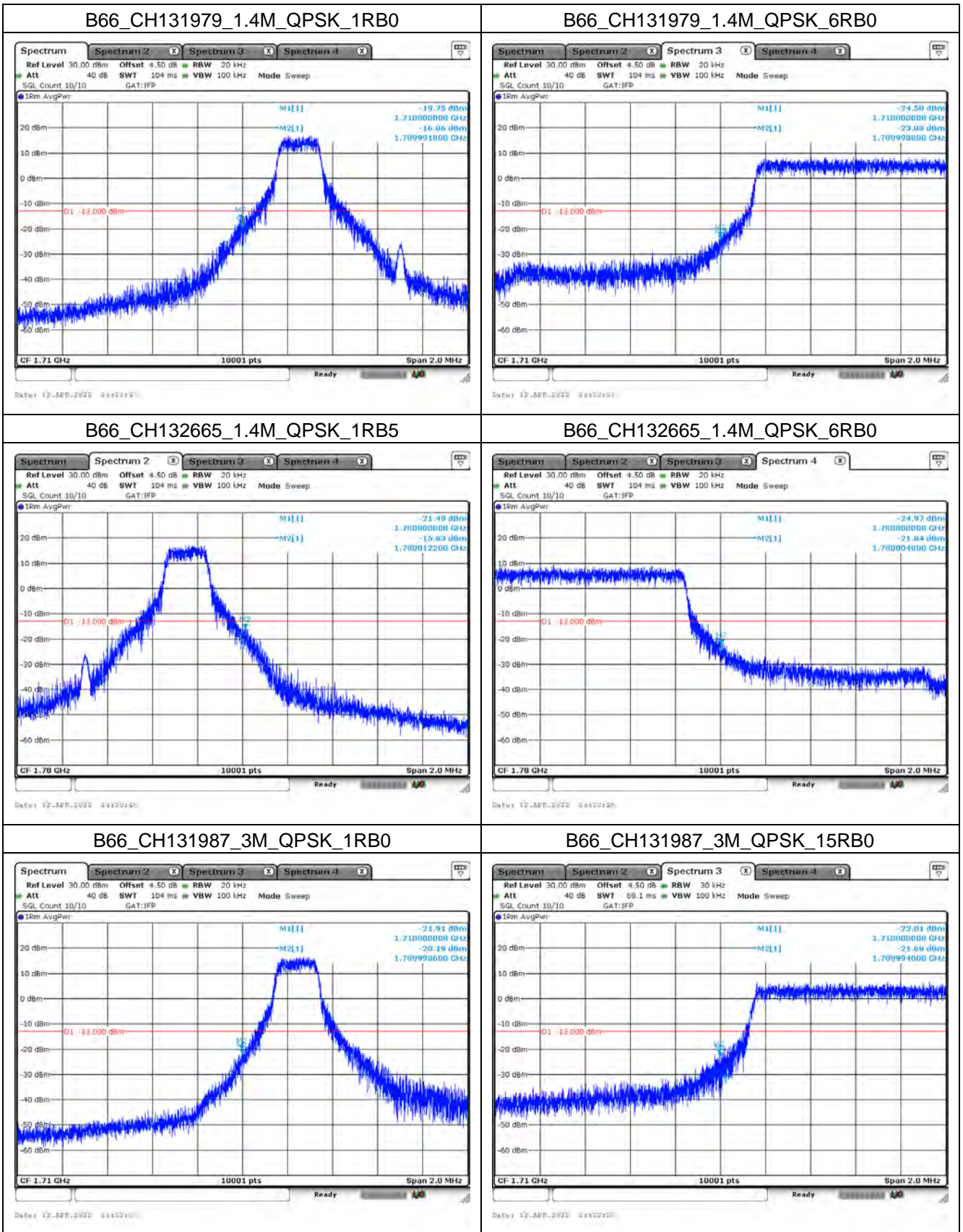


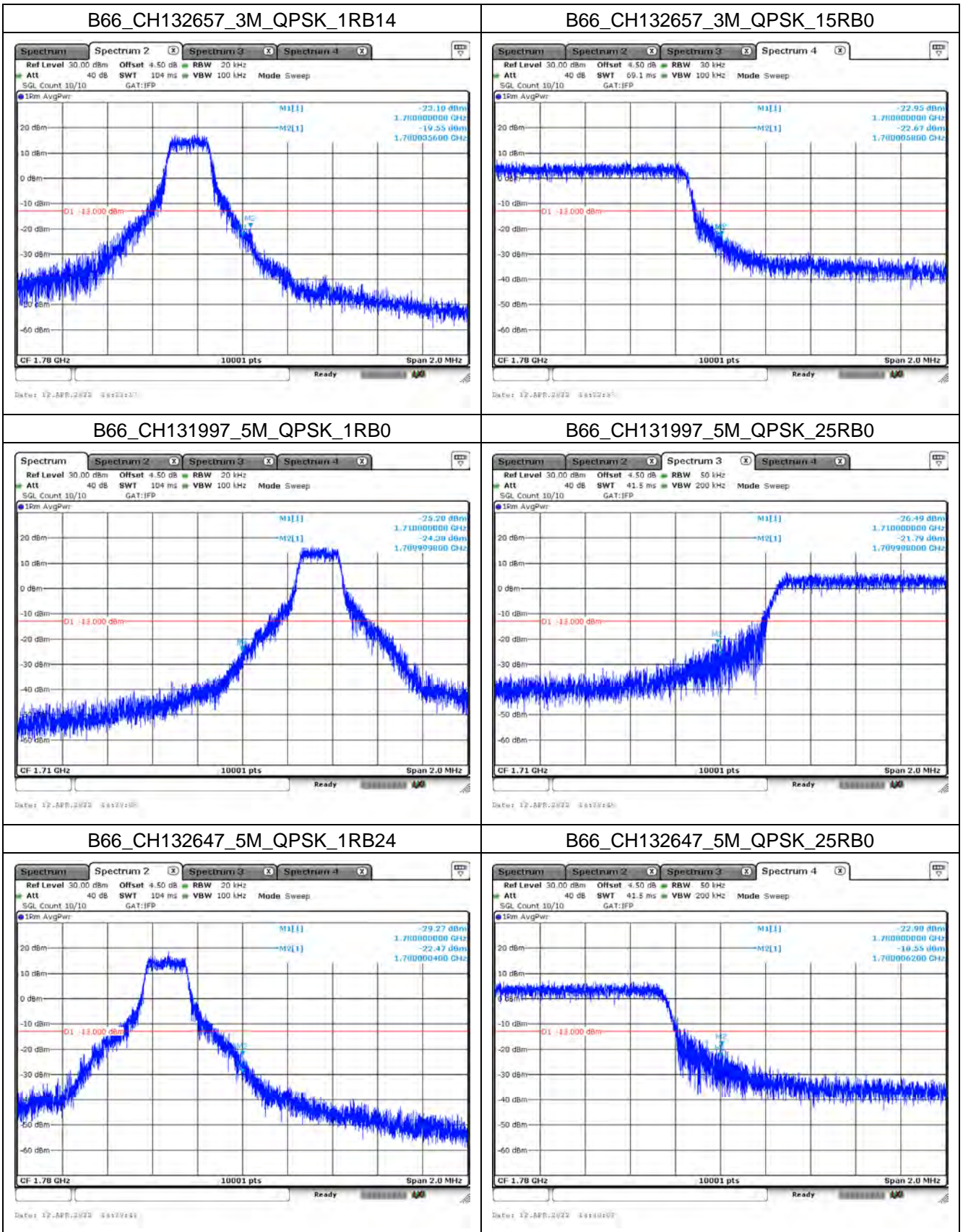
Mode 3: LTE Band 13

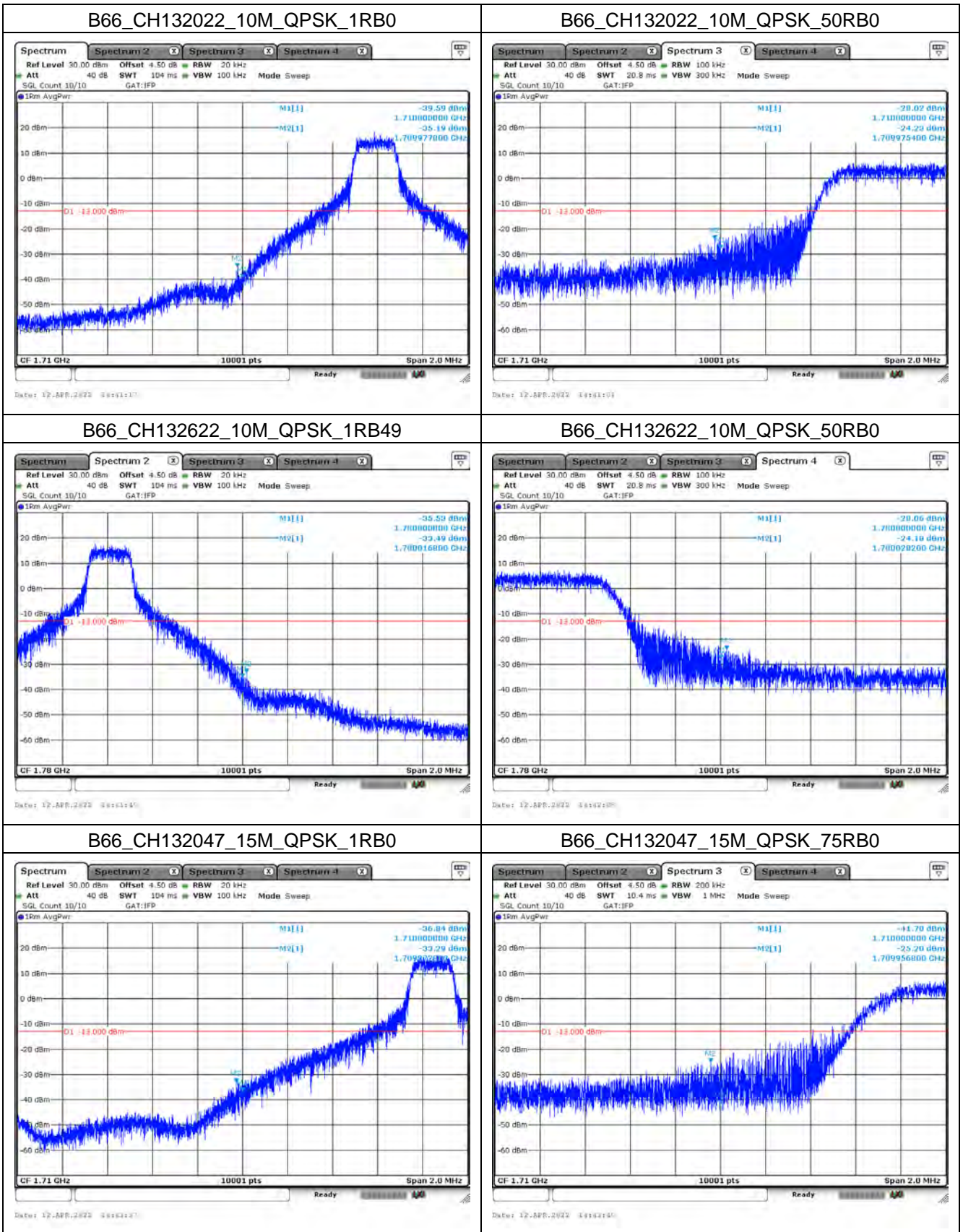


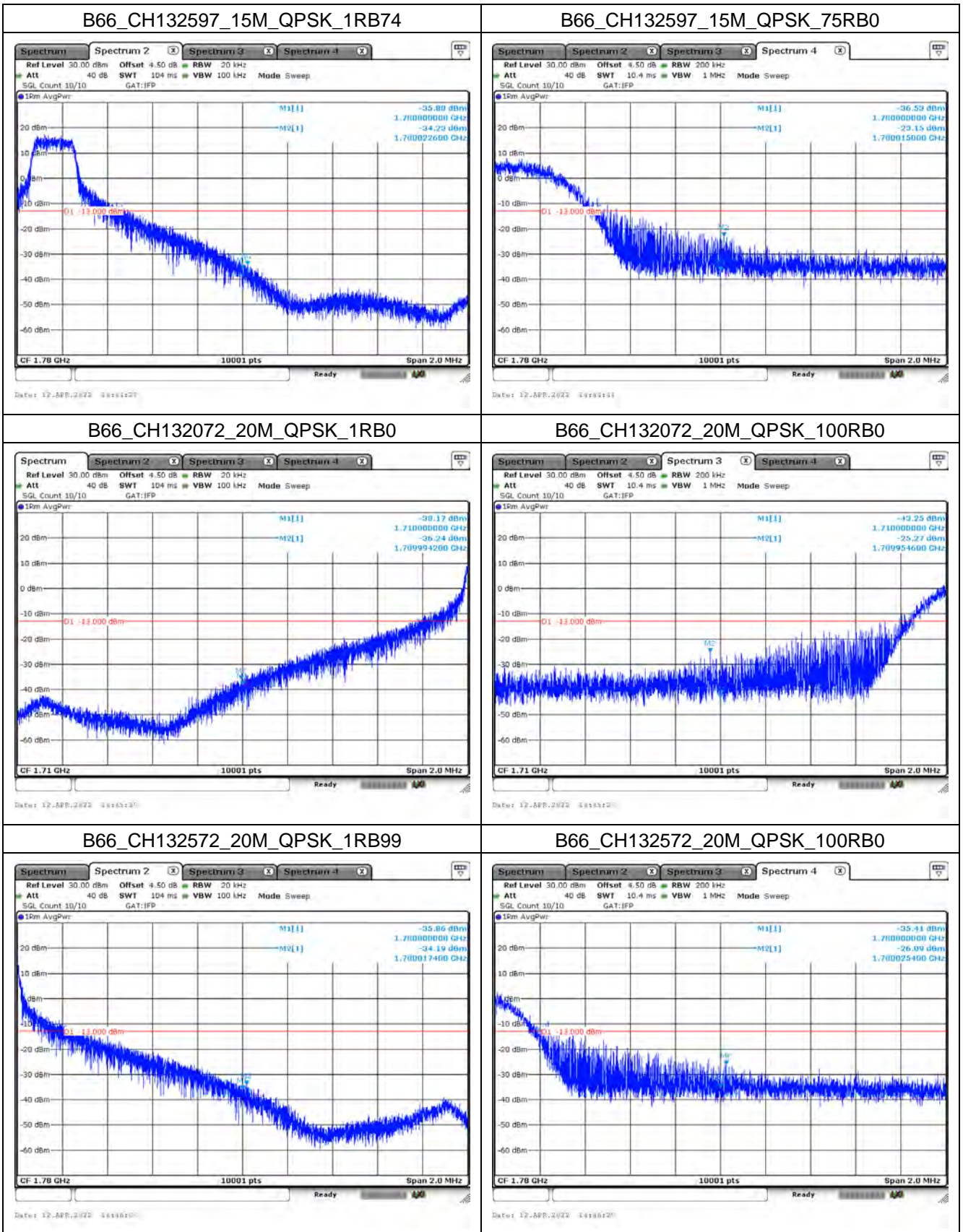


Mode 4: LTE Band 66



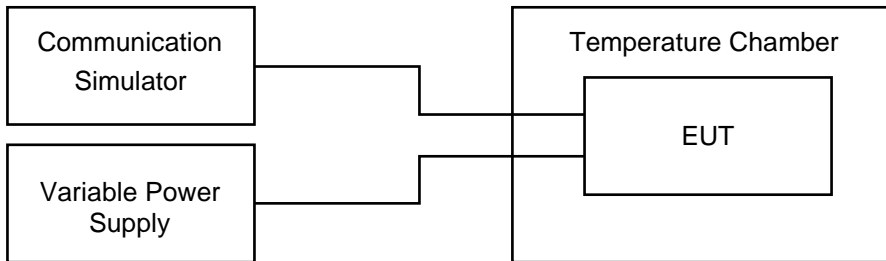






8. Frequency Stability

8.1. Test Setup



8.2. Test Procedure

Frequency Stability under Temperature Variations:

The EUT under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a communication simulator. The EUT was placed inside the temperature chamber. Set the EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC or DC power supply to power the EUT and set the voltage to rated voltage. Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

8.3. Test Methodology and Reference Procedures

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI C63.26-2015

8.4. Test Result of Frequency Stability

Mode 1: LTE Band 2

LTE Band 2 / 1.4 MHz / 1850.7 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.30	0.0012
120.00	3.12	0.0017
102.00	3.11	0.0017

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	3.18	0.0017
-20	1.55	0.0008
-10	2.09	0.0011
0	2.47	0.0013
10	2.83	0.0015
20	3.18	0.0017
30	2.21	0.0012
40	2.71	0.0015
50	3.55	0.0019

LTE Band 2 / 1.4 MHz / 1909.3 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.73	0.0009
120.00	2.66	0.0014
102.00	1.83	0.0010

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.16	0.0011
-20	1.96	0.0010
-10	2.65	0.0014
0	2.14	0.0011
10	1.24	0.0006
20	2.32	0.0012
30	1.79	0.0009
40	2.41	0.0013
50	1.27	0.0007

LTE Band 2 / 3 MHz / 1851.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	3.26	0.0018
120.00	3.02	0.0016
102.00	2.07	0.0011

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	3.01	0.0016
-20	2.50	0.0014
-10	1.95	0.0011
0	1.67	0.0009
10	2.34	0.0013
20	2.62	0.0014
30	2.69	0.0015
40	2.32	0.0013
50	3.33	0.0018

LTE Band 2 / 3 MHz / 1908.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	3.23	0.0017
120.00	2.86	0.0015
102.00	1.96	0.0010

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.23	0.0012
-20	2.39	0.0013
-10	2.43	0.0013
0	2.60	0.0014
10	1.61	0.0008
20	2.45	0.0013
30	2.93	0.0015
40	1.71	0.0009
50	2.41	0.0013

LTE Band 2 / 5 MHz / 1852.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.13	0.0006
120.00	2.41	0.0013
102.00	1.80	0.0010

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.51	0.0008
-20	2.50	0.0013
-10	1.96	0.0011
0	1.58	0.0009
10	0.92	0.0005
20	1.13	0.0006
30	1.34	0.0007
40	2.18	0.0012
50	2.60	0.0014

LTE Band 2 / 5 MHz / 1907.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	3.28	0.0017
120.00	3.02	0.0016
102.00	2.79	0.0015

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.83	0.0015
-20	3.06	0.0016
-10	3.61	0.0019
0	2.46	0.0013
10	2.81	0.0015
20	2.51	0.0013
30	2.90	0.0015
40	2.29	0.0012
50	2.78	0.0015

LTE Band 2 / 10 MHz / 1855 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.74	0.0009
120.00	2.74	0.0015
102.00	1.52	0.0008

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.24	0.0012
-20	1.75	0.0009
-10	1.79	0.0010
0	1.99	0.0011
10	1.42	0.0008
20	1.55	0.0008
30	2.69	0.0015
40	2.32	0.0013
50	1.72	0.0009

LTE Band 2 / 10 MHz / 1905 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.61	0.0014
120.00	2.82	0.0015
102.00	1.36	0.0007

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.77	0.0015
-20	1.20	0.0006
-10	2.68	0.0014
0	2.78	0.0015
10	1.65	0.0009
20	1.25	0.0007
30	1.60	0.0008
40	1.99	0.0010
50	2.12	0.0011

LTE Band 2 / 15 MHz / 1857.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.26	0.0007
120.00	2.31	0.0012
102.00	1.20	0.0006

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.23	0.0012
-20	1.29	0.0007
-10	1.54	0.0008
0	1.89	0.0010
10	1.70	0.0009
20	0.76	0.0004
30	2.64	0.0014
40	1.76	0.0009
50	1.69	0.0009

LTE Band 2 / 15 MHz / 1902.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.27	0.0012
120.00	2.37	0.0012
102.00	1.59	0.0008

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.64	0.0009
-20	1.42	0.0007
-10	2.07	0.0011
0	1.69	0.0009
10	1.54	0.0008
20	1.23	0.0006
30	2.50	0.0013
40	1.47	0.0008
50	2.01	0.0011

LTE Band 2 / 20 MHz / 1860 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.45	0.0008
120.00	2.31	0.0012
102.00	1.28	0.0007

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.04	0.0011
-20	2.27	0.0012
-10	1.99	0.0011
0	0.94	0.0005
10	2.54	0.0014
20	0.89	0.0005
30	2.26	0.0012
40	1.49	0.0008
50	1.56	0.0008

LTE Band 2 / 20 MHz / 1900 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.37	0.0012
120.00	2.26	0.0012
102.00	1.72	0.0009

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.04	0.0011
-20	1.25	0.0007
-10	1.43	0.0008
0	1.25	0.0007
10	2.46	0.0013
20	1.77	0.0009
30	2.16	0.0011
40	1.91	0.0010
50	2.58	0.0014

Mode 2: LTE Band 5**LTE Band 5 / 1.4 MHz / 824.7 MHz**

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	3.23	0.0039
120.00	3.12	0.0038
102.00	2.03	0.0025

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	3.38	0.0041
-20	1.95	0.0024
-10	2.61	0.0032
0	2.76	0.0033
10	2.68	0.0032
20	2.09	0.0025
30	1.65	0.0020
40	3.47	0.0042
50	2.66	0.0032

LTE Band 5 / 1.4 MHz / 848.3 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.85	0.0022
120.00	2.87	0.0034
102.00	2.12	0.0025

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.05	0.0024
-20	1.58	0.0019
-10	2.08	0.0025
0	2.87	0.0034
10	3.21	0.0038
20	1.89	0.0022
30	3.13	0.0037
40	2.30	0.0027
50	2.41	0.0028

LTE Band 5 / 3 MHz / 825.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.09	0.0025
120.00	2.47	0.0030
102.00	1.69	0.0020

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.27	0.0027
-20	1.40	0.0017
-10	2.51	0.0030
0	2.40	0.0029
10	1.76	0.0021
20	1.28	0.0016
30	1.73	0.0021
40	1.55	0.0019
50	2.81	0.0034

LTE Band 5 / 3 MHz / 847.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.05	0.0024
120.00	2.49	0.0029
102.00	1.28	0.0015

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.28	0.0027
-20	1.96	0.0023
-10	1.59	0.0019
0	1.85	0.0022
10	1.15	0.0014
20	2.58	0.0030
30	2.31	0.0027
40	2.51	0.0030
50	2.38	0.0028

LTE Band 5 / 5 MHz / 826.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.31	0.0028
120.00	2.79	0.0034
102.00	1.85	0.0022

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.65	0.0032
-20	2.92	0.0035
-10	2.19	0.0026
0	2.75	0.0033
10	1.98	0.0024
20	1.77	0.0021
30	1.96	0.0024
40	3.23	0.0039
50	2.72	0.0033

LTE Band 5 / 5 MHz / 846.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.57	0.0019
120.00	2.71	0.0032
102.00	2.86	0.0034

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.77	0.0033
-20	2.22	0.0026
-10	3.41	0.0040
0	2.44	0.0029
10	1.97	0.0023
20	1.34	0.0016
30	1.64	0.0019
40	2.43	0.0029
50	2.29	0.0027

LTE Band 5 / 10 MHz / 829 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.32	0.0028
120.00	2.49	0.0030
102.00	2.35	0.0028

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.56	0.0031
-20	1.48	0.0018
-10	1.45	0.0017
0	1.72	0.0021
10	1.60	0.0019
20	1.47	0.0018
30	1.78	0.0021
40	2.22	0.0027
50	2.24	0.0027

LTE Band 5 / 10 MHz / 844 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	3.35	0.0040
120.00	2.55	0.0030
102.00	1.97	0.0023

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.94	0.0023
-20	2.79	0.0033
-10	0.98	0.0012
0	1.98	0.0023
10	2.20	0.0026
20	2.06	0.0024
30	1.75	0.0021
40	2.66	0.0032
50	1.93	0.0023

Mode 3: LTE Band 13**LTE Band 13 / 5 MHz / 779.5 MHz**

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.19	0.0028
120.00	2.41	0.0031
102.00	1.93	0.0025

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.33	0.0030
-20	2.19	0.0028
-10	2.41	0.0031
0	2.83	0.0036
10	1.47	0.0019
20	1.76	0.0023
30	1.11	0.0014
40	2.19	0.0028
50	2.17	0.0028

LTE Band 13 / 5 MHz / 784.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.72	0.0022
120.00	2.54	0.0032
102.00	1.49	0.0019

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.26	0.0029
-20	1.85	0.0024
-10	2.75	0.0035
0	2.27	0.0029
10	1.43	0.0018
20	2.19	0.0028
30	1.96	0.0025
40	2.33	0.0030
50	1.93	0.0025

LTE Band 13 / 10 MHz / 782 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.55	0.0020
120.00	2.38	0.0030
102.00	1.97	0.0025

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.22	0.0028
-20	2.21	0.0028
-10	1.87	0.0024
0	2.71	0.0035
10	1.06	0.0014
20	1.41	0.0018
30	2.62	0.0034
40	1.63	0.0021
50	1.40	0.0018

Mode 4: LTE Band 66**LTE Band 66 / 1.4 MHz / 1710.7 MHz**

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.80	0.0011
120.00	2.56	0.0015
102.00	2.25	0.0013

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.79	0.0010
-20	2.21	0.0013
-10	1.54	0.0009
0	1.60	0.0009
10	2.72	0.0016
20	1.10	0.0006
30	2.44	0.0014
40	2.34	0.0014
50	1.39	0.0008

LTE Band 66 / 1.4 MHz / 1779.3 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.82	0.0016
120.00	2.31	0.0013
102.00	2.09	0.0012

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.24	0.0007
-20	1.26	0.0007
-10	0.82	0.0005
0	1.93	0.0011
10	2.80	0.0016
20	1.65	0.0009
30	2.04	0.0011
40	1.70	0.0010
50	2.26	0.0013

LTE Band 66 / 3 MHz / 1711.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.03	0.0012
120.00	1.92	0.0011
102.00	1.47	0.0009

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.69	0.0010
-20	1.50	0.0009
-10	1.22	0.0007
0	1.49	0.0009
10	1.65	0.0010
20	1.60	0.0009
30	1.38	0.0008
40	1.36	0.0008
50	1.53	0.0009

LTE Band 66 / 3 MHz / 1778.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	0.84	0.0005
120.00	1.63	0.0009
102.00	0.48	0.0003

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.18	0.0007
-20	1.40	0.0008
-10	0.88	0.0005
0	1.51	0.0008
10	1.72	0.0010
20	0.88	0.0005
30	0.75	0.0004
40	0.10	0.0001
50	1.11	0.0006

LTE Band 66 / 5 MHz / 1712.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.66	0.0016
120.00	2.97	0.0017
102.00	1.85	0.0011

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.82	0.0016
-20	1.64	0.0010
-10	2.51	0.0015
0	2.74	0.0016
10	2.71	0.0016
20	2.74	0.0016
30	3.26	0.0019
40	2.54	0.0015
50	2.75	0.0016

LTE Band 66 / 5 MHz / 1777.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.83	0.0016
120.00	2.90	0.0016
102.00	1.71	0.0010

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.01	0.0011
-20	3.60	0.0020
-10	2.48	0.0014
0	2.31	0.0013
10	1.90	0.0011
20	2.44	0.0014
30	2.59	0.0015
40	2.05	0.0012
50	2.01	0.0011

LTE Band 66 / 10 MHz / 1715 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.07	0.0006
120.00	2.19	0.0013
102.00	2.15	0.0013

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.43	0.0008
-20	1.51	0.0009
-10	0.67	0.0004
0	1.39	0.0008
10	1.52	0.0009
20	1.83	0.0011
30	1.49	0.0009
40	2.30	0.0013
50	1.52	0.0009

LTE Band 66 / 10 MHz / 1775 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.39	0.0008
120.00	2.24	0.0013
102.00	2.33	0.0013

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.38	0.0008
-20	1.28	0.0007
-10	1.42	0.0008
0	2.36	0.0013
10	0.66	0.0004
20	1.56	0.0009
30	1.56	0.0009
40	1.01	0.0006
50	1.69	0.0010

LTE Band 66 / 15 MHz / 1717.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.88	0.0011
120.00	2.32	0.0014
102.00	1.56	0.0009

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.32	0.0014
-20	2.40	0.0014
-10	2.81	0.0016
0	2.82	0.0016
10	2.01	0.0012
20	1.85	0.0011
30	1.27	0.0007
40	2.51	0.0015
50	2.84	0.0017

LTE Band 66 / 15 MHz / 1772.5 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	3.09	0.0017
120.00	2.84	0.0016
102.00	2.38	0.0013

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	1.42	0.0008
-20	2.09	0.0012
-10	2.55	0.0014
0	2.59	0.0015
10	2.96	0.0017
20	1.62	0.0009
30	2.53	0.0014
40	1.90	0.0011
50	1.96	0.0011

LTE Band 66 / 20 MHz / 1720 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	2.67	0.0016
120.00	2.88	0.0017
102.00	2.46	0.0014

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.54	0.0015
-20	2.84	0.0017
-10	2.07	0.0012
0	2.41	0.0014
10	1.85	0.0011
20	2.89	0.0017
30	1.55	0.0009
40	2.63	0.0015
50	2.17	0.0013

LTE Band 66 / 20 MHz / 1770 MHz

Voltage (VAC)	Frequency Stability (Hz)	Frequency Stability (ppm)
138.00	1.68	0.0009
120.00	2.67	0.0015
102.00	1.87	0.0011

Temperature (°C)	Frequency Stability (Hz)	Frequency Stability (ppm)
-30	2.44	0.0014
-20	2.83	0.0016
-10	1.70	0.0010
0	1.84	0.0010
10	2.22	0.0013
20	2.10	0.0012
30	2.39	0.0014
40	1.34	0.0008
50	1.57	0.0009