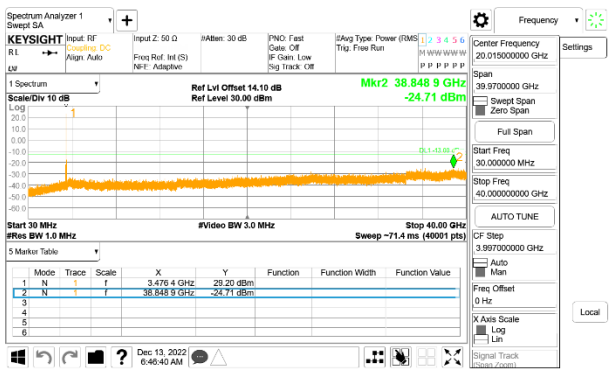
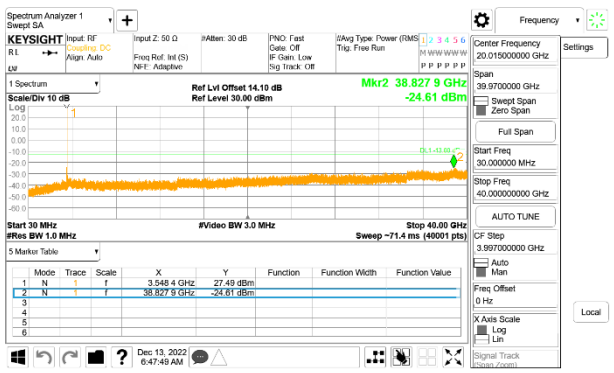
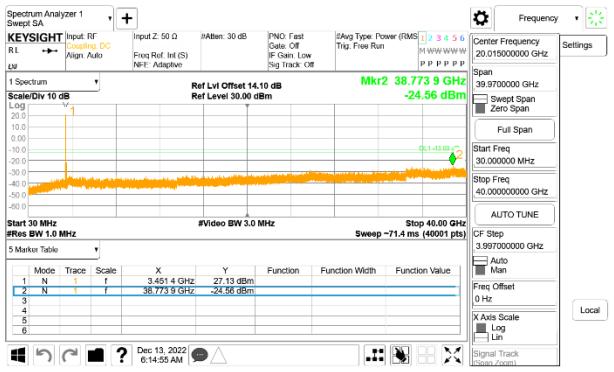


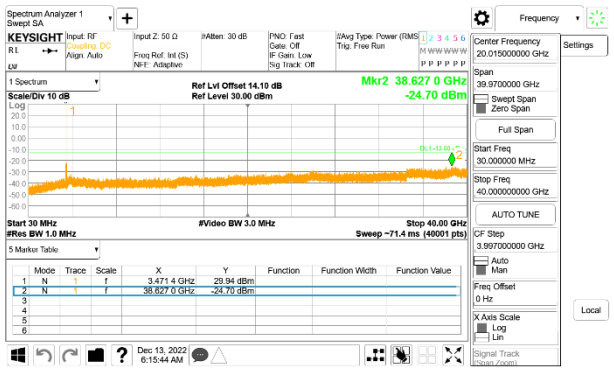
5G NR n77 50MHz BPSK Mid Channel RB1-1, ID:28498



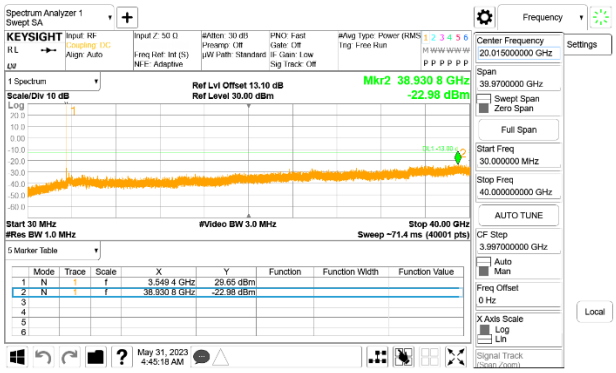
5G NR n77 50MHz BPSK High Channel RB1-132, ID:28498



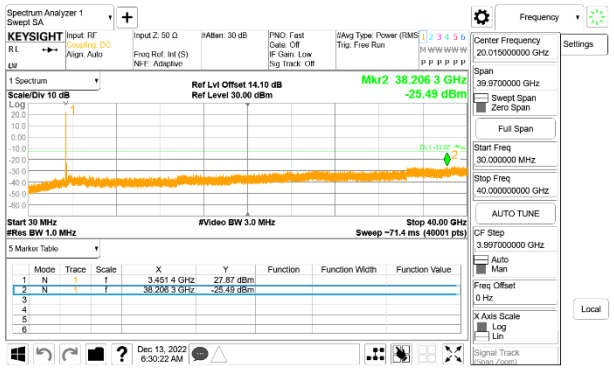
5G NR n77 60MHz BPSK Low Channel RB1-0, ID:28498



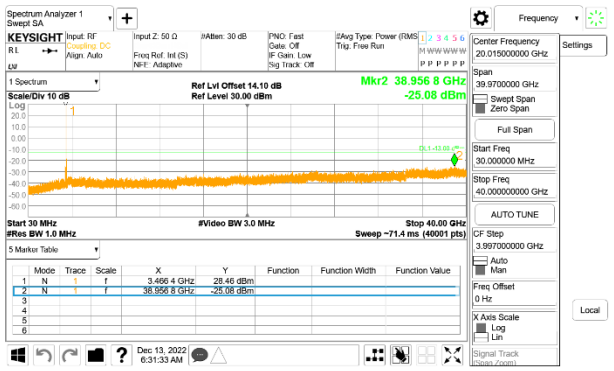
5G NR n77 60MHz BPSK Mid Channel RB1-1, ID:28498



5G NR n77 60MHz BPSK High Channel RB1-161, ID:28498

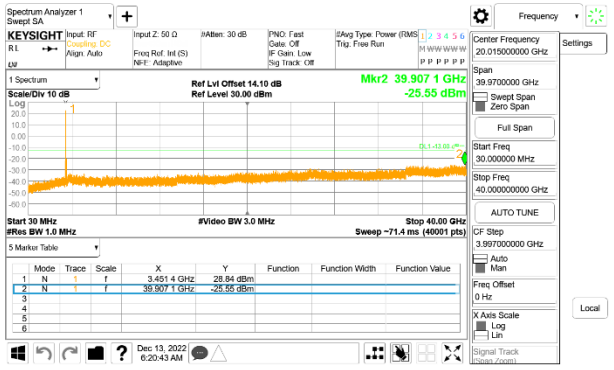


5G NR n77 70MHz BPSK Low Channel RB1-0, ID:28498

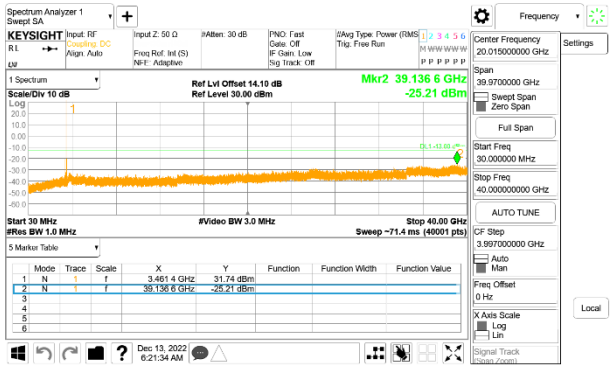


5G NR n77 70MHz BPSK Mid Channel RB1-1, ID:28498

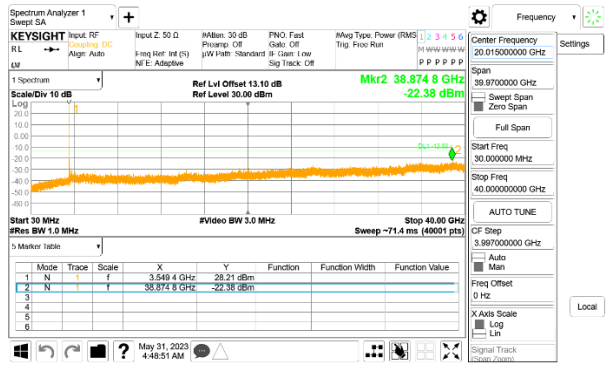
5G NR n77 70MHz BPSK High Channel RB1-188, ID:28498



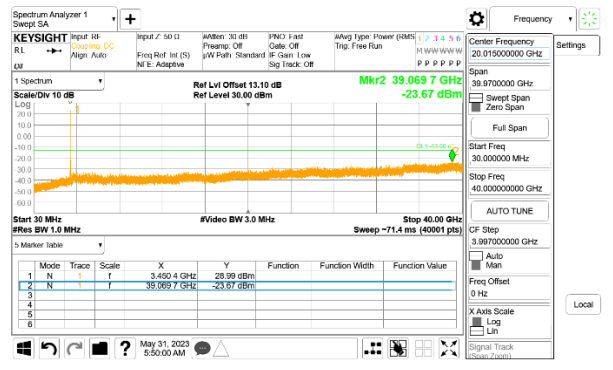
5G NR n77 80MHz BPSK Low Channel RB1-0, ID:28498



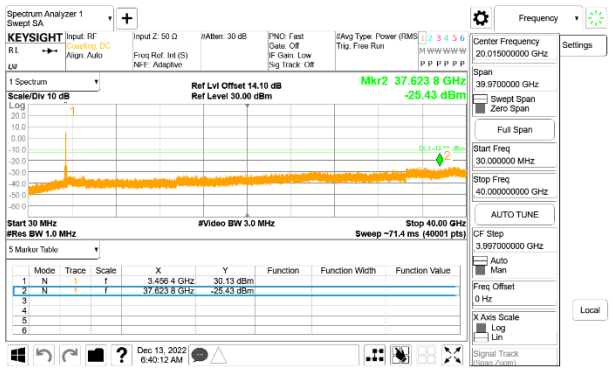
5G NR n77 80MHz BPSK Mid Channel RB1-1, ID:28498



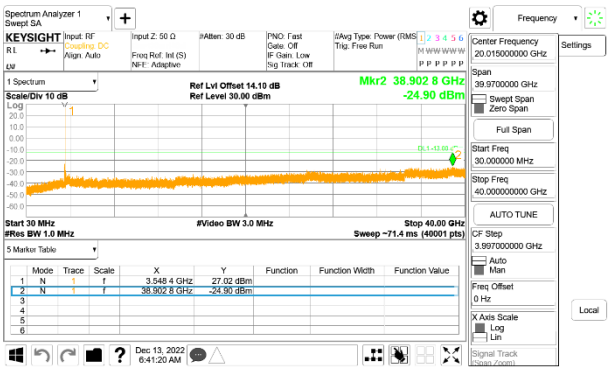
5G NR n77 80MHz BPSK High Channel RB1-216, ID:28498



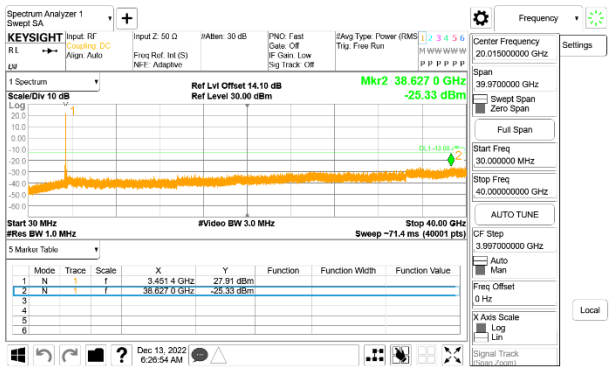
5G NR n77 90MHz BPSK Low Channel RB1-0, ID:28498



5G NR n77 90MHz BPSK Mid Channel RB1-1, ID:28498



5G NR n77 90MHz BPSK High Channel RB1-244



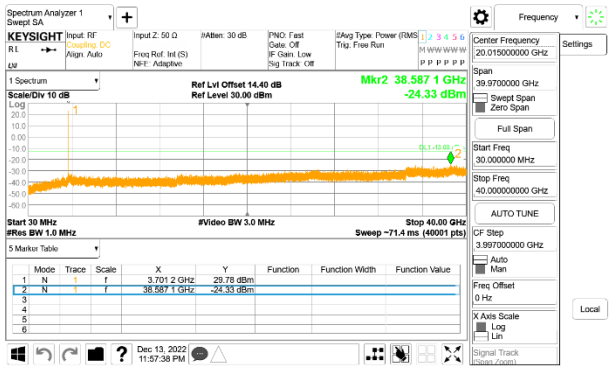
5G NR n77 100MHz BPSK Mid Channel RB1-1, ID:28498

Intentionally Blank

9.3.16. 5G NR n77 (Part 27 3700-3980MHz)

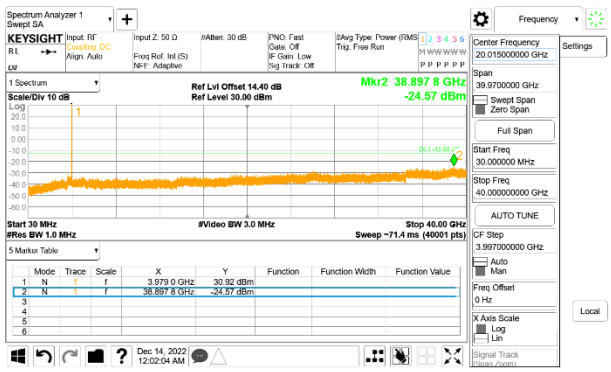
LIMITS

FCC: §27.53
Emission limits
(l) 3.7 GHz Service. The following emission limits apply to stations transmitting in the 3700-3980 MHz band:
(2) For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

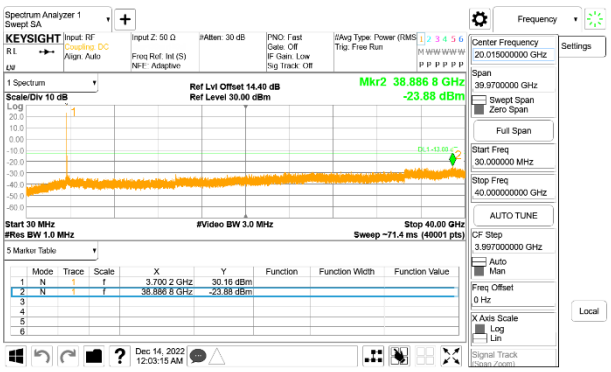


5G NR n77 10MHz BPSK Low Channel RB1-0, ID:28498

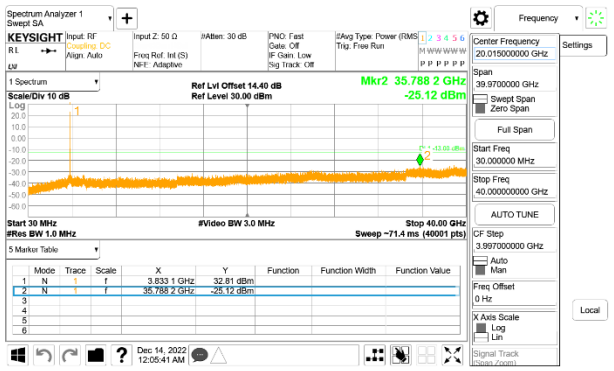
5G NR n77 10MHz BPSK Mid Channel RB1-1, ID:28498



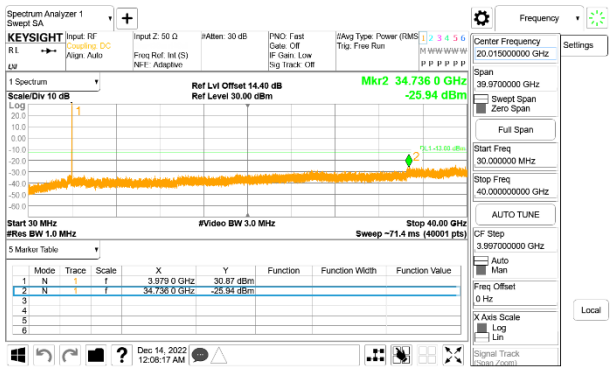
5G NR n77 10MHz BPSK High Channel RB1-23, ID:28498



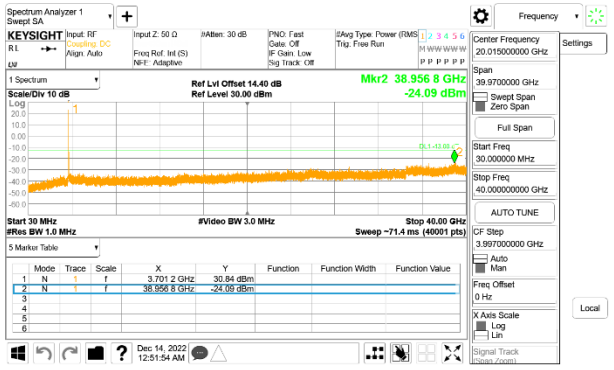
5G NR n77 15MHz BPSK Low Channel RB1-0, ID:28498



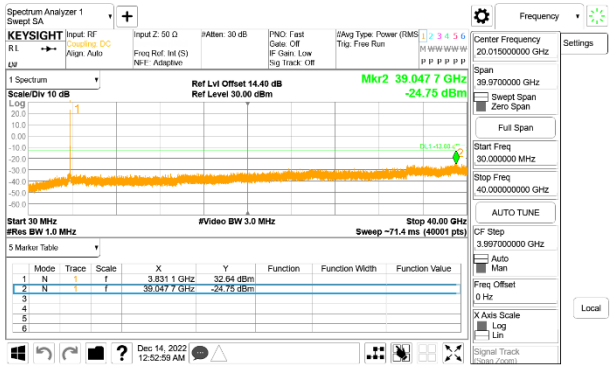
5G NR n77 15MHz BPSK Mid Channel RB1-1, ID:28498



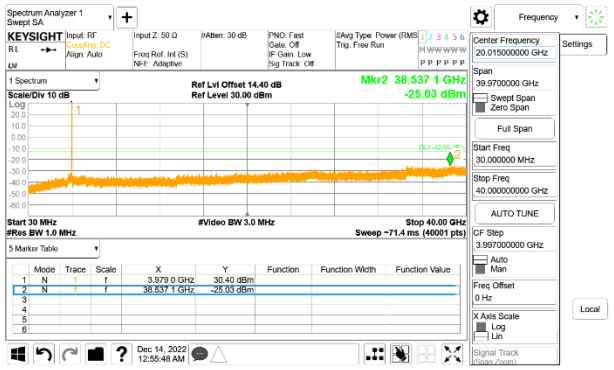
5G NR n77 15MHz BPSK High Channel RB1-37, ID:28498



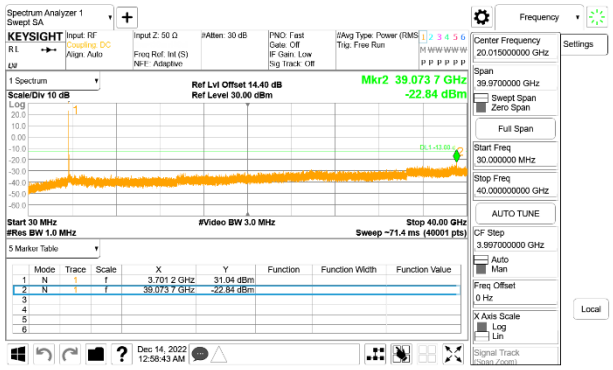
5G NR n77 20MHz BPSK Low Channel RB1-0, ID:28498



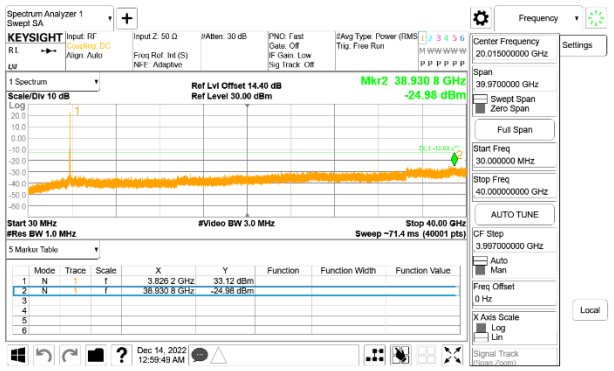
5G NR n77 20MHz BPSK Mid Channel RB1-1, ID:28498



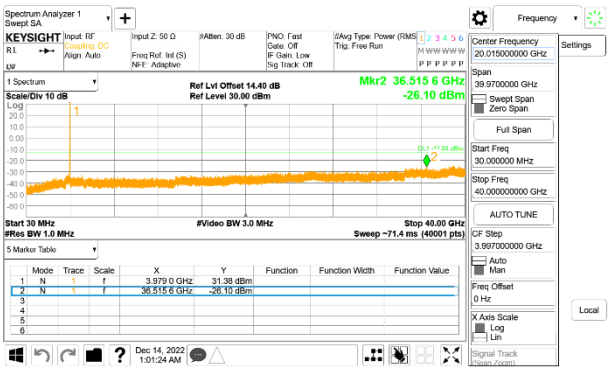
5G NR n77 20MHz BPSK High Channel RB1-50, ID:28498



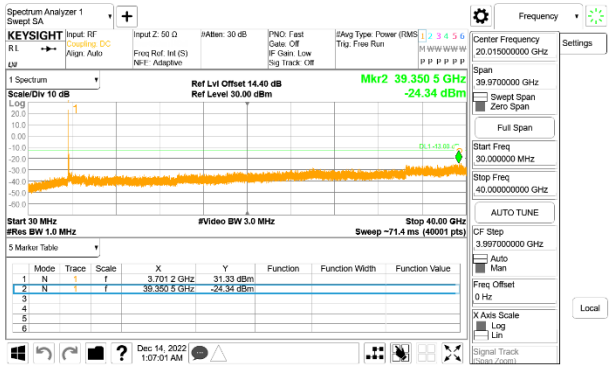
5G NR n77 30MHz BPSK Low Channel RB1-0, ID:28498



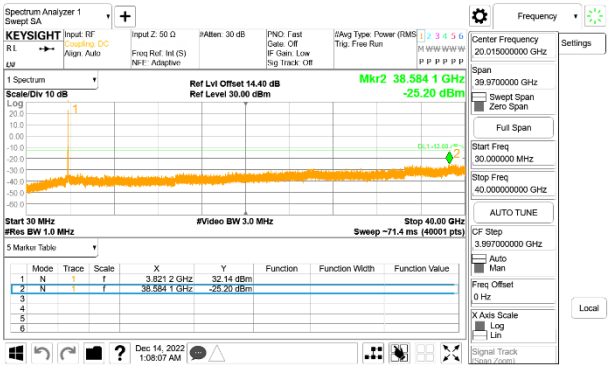
5G NR n77 30MHz BPSK Mid Channel RB1-1, ID:28498



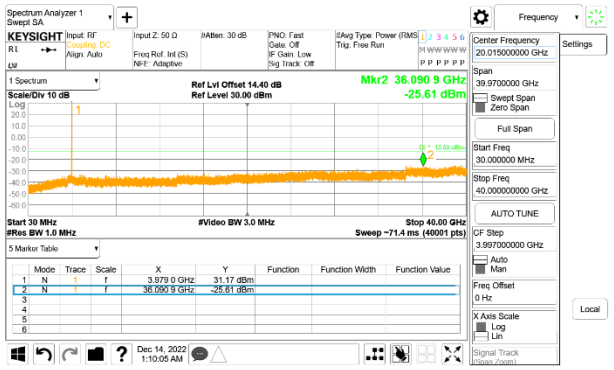
5G NR n77 30MHz BPSK High Channel RB1-77, ID:28498



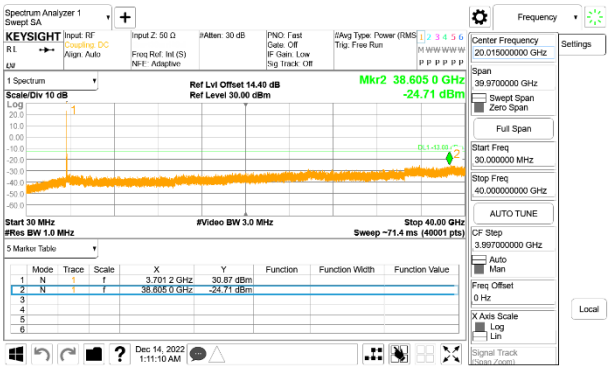
5G NR n77 40MHz BPSK Low Channel RB1-0, ID:28498



5G NR n77 40MHz BPSK Mid Channel RB1-1, ID:28498



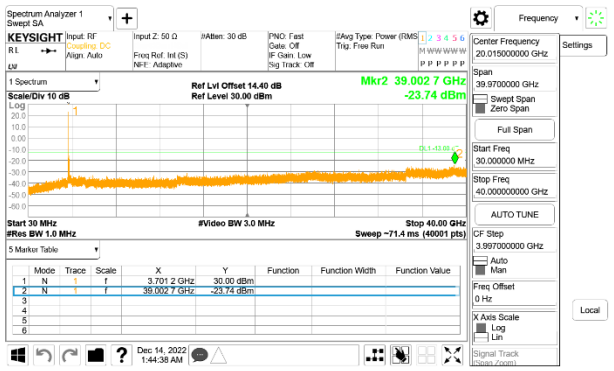
5G NR n77 40MHz BPSK High Channel RB1-105, ID:28498



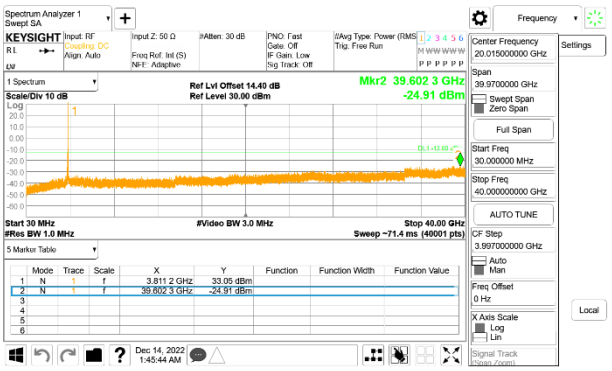
5G NR n77 50MHz BPSK Low Channel RB1-0, ID:28498

5G NR n77 50MHz BPSK Mid Channel RB1-1, ID:28498

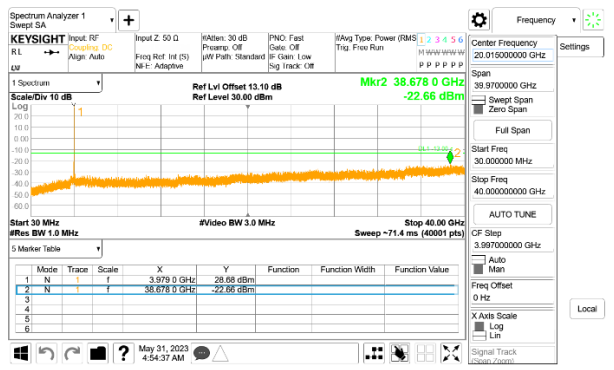
5G NR n77 50MHz BPSK High Channel RB1-132, ID:28498



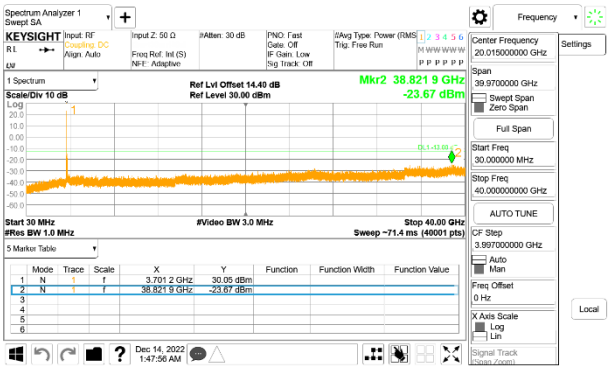
5G NR n77 60MHz BPSK Low Channel RB1-0, ID:28498



5G NR n77 60MHz BPSK Mid Channel RB1-1, ID:28498



5G NR n77 60MHz BPSK High Channel RB1-161, ID:28498



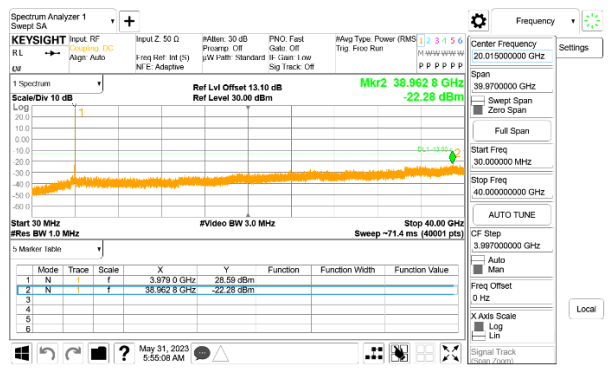
5G NR n77 70MHz BPSK Low Channel RB1-0, ID:28498

5G NR n77 70MHz BPSK Mid Channel RB1-1, ID:28498

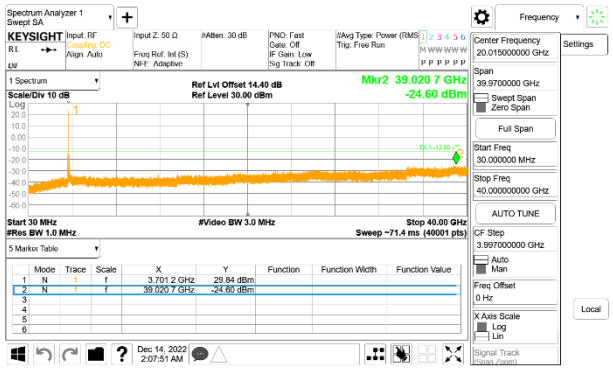
5G NR n77 70MHz BPSK High Channel RB1-188, ID:28498

5G NR n77 80MHz BPSK Low Channel RB1-0, ID:28498

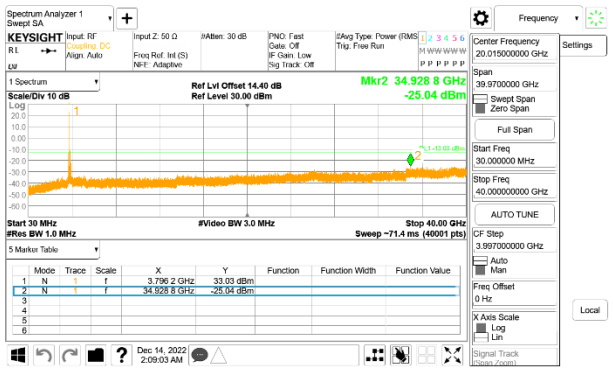
5G NR n77 80MHz BPSK Mid Channel RB1-1, ID:28498



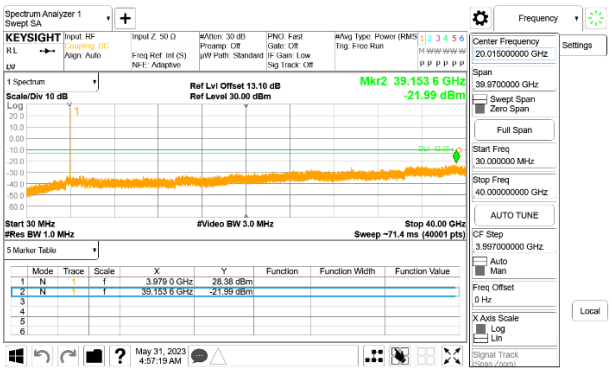
5G NR n77 80MHz BPSK High Channel RB1-216, ID:28498



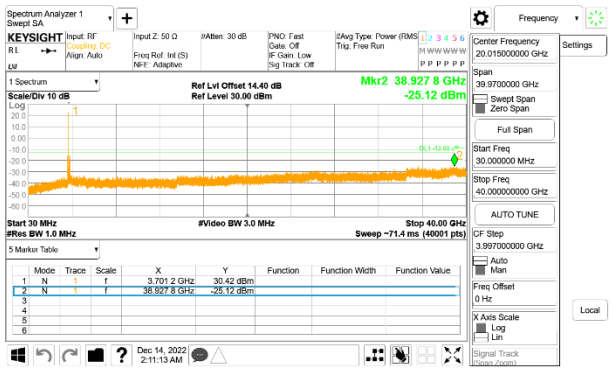
5G NR n77 90MHz BPSK Low Channel RB1-0, ID:28498



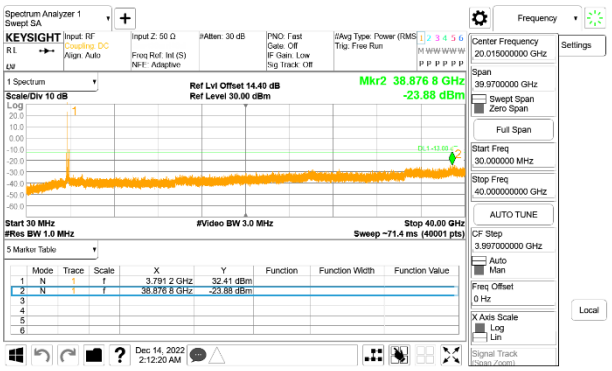
5G NR n77 90MHz BPSK Mid Channel RB1-1, ID:28498



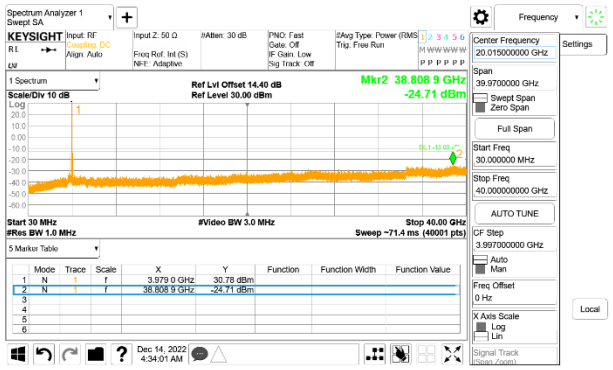
5G NR n77 90MHz BPSK High Channel RB1-244, ID:28498



5G NR n77 100MHz BPSK Low Channel RB1-0, ID:28498



5G NR n77 100MHz BPSK Mid Channel RB1-1, ID:28498



5G NR n77 100MHz BPSK High Channel RB1-272, ID:28498

Intentionally Blank

9.4. FREQUENCY STABILITY

TEST PROCEDURE

Use CMW 500 with Frequency Error measurement capability.

- Temp. = −30°C to +50°C
- Voltage = (85% - 115%)

  Low voltage, 3.23VDC, Normal, 3.8VDC and High voltage, 4.37VDC.
  End Voltage, 2.95VDC.

Frequency Stability vs Temperature:
The EUT is place inside a temperature chamber. The temperature is set to 20ºC and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50ºC is reached.

Frequency Stability vs Voltage:
The peak frequency error is recorded (worst-case).

RESULTS

See the following pages.

9.4.1. LTE BAND 7 AND 5G NR n7

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 7 QPSK (20MHz BANDWIDTH)

Band	7	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2500	2570			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	2500.7950	2569.2100			
Extreme (50°C)		2500.7950	2569.2100	0.2	0.000	Yes
Extreme (40°C)		2500.7950	2569.2100	-0.5	0.000	Yes
Extreme (30°C)		2500.7950	2569.2100	-1.2	0.000	Yes
Extreme (10°C)		2500.7950	2569.2100	1.5	0.001	Yes
Extreme (0°C)		2500.7950	2569.2100	2.2	0.001	Yes
Extreme (-10°C)		2500.7950	2569.2100	5.3	0.002	Yes
Extreme (-20°C)		2500.7950	2569.2100	6.6	0.003	Yes
Extreme (-30°C)		2500.7950	2569.2100	7.6	0.003	Yes
20°C	15%	2500.7950	2569.2100	-3.2	-0.001	Yes
	-15%	2500.7950	2569.2100	-4.4	-0.002	Yes
	End Point Voltage	2500.7950	2569.2100	-3.1	-0.001	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n7 BPSK (40MHz BANDWIDTH)

Band	7	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2500	2570			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		2500.8796	2569.1327			
Extreme (50°C)		2500.8796	2569.1327	-2.28	-0.001	Yes
Extreme (40°C)		2500.8796	2569.1327	-4.36	-0.002	Yes
Extreme (30°C)		2500.8796	2569.1327	-3.58	-0.001	Yes
Extreme (10°C)	Normal	2500.8796	2569.1327	-3.25	-0.001	Yes
Extreme (0°C)		2500.8796	2569.1327	-3.24	-0.001	Yes
Extreme (-10°C)		2500.8796	2569.1327	-3.71	-0.001	Yes
Extreme (-20°C)		2500.8796	2569.1327	-3.18	-0.001	Yes
Extreme (-30°C)		2500.8796	2569.1327	-3.29	-0.001	Yes
20°C	15%	2500.8796	2569.1327	-1.65	-0.001	Yes
	-15%	2500.8796	2569.1327	-4.82	-0.002	Yes
	End Point Voltage	2500.8796	2569.1327	1.27	0.001	Yes

9.4.3. LTE BAND 12 AND 5G NR n12

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 12 QPSK (10MHz BANDWIDTH)

Band	12	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		699	716			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	699.2650	715.7350			
Extreme (50°C)		699.2650	715.7350	0.2	0.000	Yes
Extreme (40°C)		699.2650	715.7350	0.8	0.001	Yes
Extreme (30°C)		699.2650	715.7350	0.5	0.001	Yes
Extreme (10°C)		699.2650	715.7350	1.0	0.001	Yes
Extreme (0°C)		699.2650	715.7350	1.2	0.002	Yes
Extreme (-10°C)		699.2650	715.7350	1.8	0.003	Yes
Extreme (-20°C)		699.2650	715.7350	2.9	0.004	Yes
Extreme (-30°C)		699.2650	715.7350	2.8	0.004	Yes
20°C	15%	699.2650	715.7350	2.4	0.003	Yes
	-15%	699.2650	715.7350	3.1	0.004	Yes
	End Point Voltage	699.2650	715.7350	1.7	0.002	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n12 BPSK (15MHz BANDWIDTH)

Band	12	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		699	716			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	699.4334	714.8349			
Extreme (50°C)		699.4334	714.8349	1.05	0.001	Yes
Extreme (40°C)		699.4334	714.8349	2.6	0.004	Yes
Extreme (30°C)		699.4334	714.8349	1.04	0.001	Yes
Extreme (10°C)		699.4334	714.8349	2.68	0.004	Yes
Extreme (0°C)		699.4334	714.8349	1.71	0.002	Yes
Extreme (-10°C)		699.4334	714.8349	1.96	0.003	Yes
Extreme (-20°C)		699.4334	714.8349	1.76	0.002	Yes
Extreme (-30°C)		699.4334	714.8349	-2.47	-0.003	Yes
20°C	15%	699.4334	714.8349	-0.176	0.000	Yes
	-15%	699.4334	714.8349	1.55	0.002	Yes
	End Point Voltage	699.4334	714.8349	1.47	0.002	Yes

9.4.4. LTE BAND 13

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

QPSK (10MHz BANDWIDTH)

Band	13	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		777	787			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	777.2675	786.7250			
Extreme (50°C)		777.2675	786.7250	1.4	0.002	Yes
Extreme (40°C)		777.2675	786.7250	2.0	0.003	Yes
Extreme (30°C)		777.2675	786.7250	2.3	0.003	Yes
Extreme (10°C)		777.2675	786.7250	2.5	0.003	Yes
Extreme (0°C)		777.2675	786.7250	1.8	0.002	Yes
Extreme (-10°C)		777.2675	786.7250	1.0	0.001	Yes
Extreme (-20°C)		777.2675	786.7250	3.5	0.004	Yes
Extreme (-30°C)		777.2675	786.7250	4.2	0.005	Yes
20°C	15%	777.2675	786.7250	3.2	0.004	Yes
	-15%	777.2675	786.7250	2.7	0.003	Yes
	End Point Voltage	777.2675	786.7250	4.3	0.005	Yes

9.4.5. LTE BAND 14 AND 5G NR n14

LIMITS

FCC: §90.539
(e) The frequency stability of mobile, portable and control transmitters operating in the wideband segment must be 1.25 ppm or better when AFC is locked to a base station, and 5 ppm or better when AFC is not locked.

Test Engineer ID:	39004	Test Date:	1/18/2023

QPSK (10MHz BANDWIDTH)

Band	14	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		788	798			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	788.2700	797.7375			
Extreme (50°C)		788.2700	797.7375	2.6	0.003	Yes
Extreme (40°C)		788.2700	797.7375	2.2	0.003	Yes
Extreme (30°C)		788.2700	797.7375	2.7	0.003	Yes
Extreme (10°C)		788.2700	797.7375	3.0	0.004	Yes
Extreme (0°C)		788.2700	797.7375	2.1	0.003	Yes
Extreme (-10°C)		788.2700	797.7375	5.4	0.007	Yes
Extreme (-20°C)		788.2700	797.7375	4.9	0.006	Yes
Extreme (-30°C)		788.2700	797.7375	4.1	0.005	Yes
20°C	15%	788.2700	797.7375	3.2	0.004	Yes
	-15%	788.2700	797.7375	3.1	0.004	Yes
	End Point Voltage	788.2700	797.7375	2.9	0.004	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n14 BPSK (10MHz BANDWIDTH)

Band	14	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		788	798			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	788.3199	797.2826			
Extreme (50°C)		788.3199	797.2826	3.33	0.004	Yes
Extreme (40°C)		788.3199	797.2826	1.22	0.002	Yes
Extreme (30°C)		788.3199	797.2826	1.25	0.002	Yes
Extreme (10°C)		788.3199	797.2826	2.5	0.003	Yes
Extreme (0°C)		788.3199	797.2826	2.4	0.003	Yes
Extreme (-10°C)		788.3199	797.2826	1.11	0.001	Yes
Extreme (-20°C)		788.3199	797.2826	2.86	0.004	Yes
Extreme (-30°C)		788.3199	797.2826	5.2	0.007	Yes
20°C	15%	788.3199	797.2826	1.52	0.002	Yes
	-15%	788.3199	797.2826	2.33	0.003	Yes
	End Point Voltage	788.3199	797.2826	2.85	0.004	Yes

9.4.6. LTE BAND 17

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

QPSK (10MHz BANDWIDTH)

Band	17	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		704	716			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	704.2700	715.7375			
Extreme (50°C)		704.2700	715.7375	1.3	0.002	Yes
Extreme (40°C)		704.2700	715.7375	-1.4	-0.002	Yes
Extreme (30°C)		704.2700	715.7375	-1.0	-0.001	Yes
Extreme (10°C)		704.2700	715.7375	-0.5	-0.001	Yes
Extreme (0°C)		704.2700	715.7375	1.1	0.002	Yes
Extreme (-10°C)		704.2700	715.7375	4.7	0.007	Yes
Extreme (-20°C)		704.2700	715.7375	3.8	0.005	Yes
Extreme (-30°C)		704.2700	715.7375	3.7	0.005	Yes
20°C	15%	704.2700	715.7375	-2.3	-0.003	Yes
	-15%	704.2700	715.7375	-1.9	-0.003	Yes
	End Point Voltage	704.2700	715.7375	-3.1	-0.004	Yes

9.4.7. LTE BAND 25 AND 5G NR n25

LIMITS

FCC: §24.235
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 25 QPSK (20MHz BANDWIDTH)

Band	25	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1850	1915		2.5	
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	1850.7750	1914.2150			
Extreme (50°C)		1850.7750	1914.2150	1.0	0.001	Yes
Extreme (40°C)		1850.7750	1914.2150	1.7	0.001	Yes
Extreme (30°C)		1850.7750	1914.2150	2.1	0.001	Yes
Extreme (10°C)		1850.7750	1914.2150	2.5	0.001	Yes
Extreme (0°C)		1850.7750	1914.2150	2.0	0.001	Yes
Extreme (-10°C)		1850.7750	1914.2150	7.6	0.004	Yes
Extreme (-20°C)		1850.7750	1914.2150	5.6	0.003	Yes
Extreme (-30°C)		1850.7750	1914.2150	4.1	0.002	Yes
20°C	15%	1850.7750	1914.2150	2.7	0.001	Yes
	-15%	1850.7750	1914.2150	3.4	0.002	Yes
	End Point Voltage	1850.7750	1914.2150	3.1	0.002	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n25 BPSK (40MHz BANDWIDTH)

Band	25	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1850	1915		2.5	
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	1850.1131	1914.2905			
Extreme (50°C)		1850.1131	1914.2905	1.46	0.001	Yes
Extreme (40°C)		1850.1131	1914.2905	-2.1	-0.001	Yes
Extreme (30°C)		1850.1131	1914.2905	1.03	0.001	Yes
Extreme (10°C)		1850.1131	1914.2905	-1.11	-0.001	Yes
Extreme (0°C)		1850.1131	1914.2905	2.78	0.001	Yes
Extreme (-10°C)		1850.1131	1914.2905	-2.65	-0.001	Yes
Extreme (-20°C)		1850.1131	1914.2905	-2.03	-0.001	Yes
Extreme (-30°C)		1850.1131	1914.2905	-4.95	-0.003	Yes
20°C	15%	1850.1131	1914.2905	3.29	0.002	Yes
	-15%	1850.1131	1914.2905	-3.73	-0.002	Yes
	End Point Voltage	1850.1131	1914.2905	-2.37	-0.001	Yes

9.4.8. LTE BAND 26 AND 5G NR n26 (PART 90S)

LIMITS

FCC: §90.213
The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 26 QPSK (10MHz BANDWIDTH)

Band	26	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		814	824		2.5	
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	814.2725	823.7675	0.1	0.000	Yes
Extreme (50°C)		814.2725	823.7675	0.9	0.001	Yes
Extreme (40°C)		814.2725	823.7675	1.0	0.001	Yes
Extreme (30°C)		814.2725	823.7675	1.3	0.002	Yes
Extreme (10°C)		814.2725	823.7675	3.2	0.004	Yes
Extreme (0°C)		814.2725	823.7675	6.0	0.007	Yes
Extreme (-10°C)		814.2725	823.7675	5.3	0.006	Yes
Extreme (-20°C)		814.2725	823.7675	5.0	0.006	Yes
Extreme (-30°C)		814.2725	823.7675	4.2	0.005	Yes
20°C	15%	814.2725	823.7675	3.8	0.005	Yes
	-15%	814.2725	823.7675	2.7	0.003	Yes
	End Point Voltage	814.2725	823.7675			

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n26 BPSK (10MHz BANDWIDTH)

Band	26	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		814	824		2.5	
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)		814.3454	823.2763			
Extreme (50°C)		814.3454	823.2763	1.67	0.002	Yes
Extreme (40°C)		814.3454	823.2763	-2.34	-0.003	Yes
Extreme (30°C)		814.3454	823.2763	-3.86	-0.005	Yes
Extreme (10°C)	Normal	814.3454	823.2763	-2.7	-0.003	Yes
Extreme (0°C)		814.3454	823.2763	-4.4	-0.005	Yes
Extreme (-10°C)		814.3454	823.2763	-1.27	-0.002	Yes
Extreme (-20°C)		814.3454	823.2763	-2.83	-0.003	Yes
Extreme (-30°C)		814.3454	823.2763	-5.68	-0.007	Yes
20°C	15%	814.3454	823.2763	4.29	0.005	Yes
	-15%	814.3454	823.2763	-1.56	-0.002	Yes
	End Point Voltage	814.3454	823.2763	-1.91	-0.002	Yes

9.4.9. LTE BAND 26 AND 5G NR n26 (PART 22)

LIMITS

FCC: §22.355
The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 26 QPSK (15MHz BANDWIDTH)

Band	26	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		824	849		2.5	
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		824.5175	848.4675			
Extreme (50°C)		824.5175	848.4675	1.3	0.002	Yes
Extreme (40°C)		824.5175	848.4675	1.1	0.001	Yes
Extreme (30°C)		824.5175	848.4675	0.7	0.001	Yes
Extreme (10°C)	Normal	824.5175	848.4675	0.2	0.000	Yes
Extreme (0°C)		824.5175	848.4675	1.0	0.001	Yes
Extreme (-10°C)		824.5175	848.4675	3.7	0.004	Yes
Extreme (-20°C)		824.5175	848.4675	4.0	0.005	Yes
Extreme (-30°C)		824.5175	848.4675	4.3	0.005	Yes
20°C	15%	824.5175	848.4675	1.2	0.001	Yes
	-15%	824.5175	848.4675	2.4	0.003	Yes
	End Point Voltage	824.5175	848.4675	2.8	0.003	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n26 BPSK (20MHz BANDWIDTH)

Band	26	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		814	824		2.5	
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)		824.3474	848.2745			
Extreme (50°C)		824.3474	848.2745	1.26	0.002	Yes
Extreme (40°C)		824.3474	848.2745	1.57	0.002	Yes
Extreme (30°C)		824.3474	848.2745	1.24	0.002	Yes
Extreme (10°C)	Normal	824.3474	848.2745	2.4	0.003	Yes
Extreme (0°C)		824.3474	848.2745	3.37	0.004	Yes
Extreme (-10°C)		824.3474	848.2745	1.86	0.002	Yes
Extreme (-20°C)		824.3474	848.2745	1.95	0.002	Yes
Extreme (-30°C)		824.3474	848.2745	5.79	0.007	Yes
20°C	15%	824.3474	848.2745	1.41	0.002	Yes
	-15%	824.3474	848.2745	-3.63	-0.004	Yes
	End Point Voltage	824.3474	848.2745	1.52	0.002	Yes

9.4.10. LTE BAND 30 AND 5G NR n30

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

QPSK (10MHz BANDWIDTH)

Band	30	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2305	2315			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	2305.2350	2314.7275			
Extreme (50°C)		2305.2350	2314.7275	1.6	0.001	Yes
Extreme (40°C)		2305.2350	2314.7275	2.1	0.001	Yes
Extreme (30°C)		2305.2350	2314.7275	2.6	0.001	Yes
Extreme (10°C)		2305.2350	2314.7275	3.0	0.001	Yes
Extreme (0°C)		2305.2350	2314.7275	3.2	0.001	Yes
Extreme (-10°C)		2305.2350	2314.7275	4.8	0.002	Yes
Extreme (-20°C)		2305.2350	2314.7275	5.2	0.002	Yes
Extreme (-30°C)		2305.2350	2314.7275	6.5	0.003	Yes
20°C	15%	2496.8400	2689.1950	3.8	0.002	Yes
	-15%	2496.8400	2689.1950	4.1	0.002	Yes
	End Point Voltage	2496.8400	2689.1950	3.5	0.002	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n30 BPSK (10MHz BANDWIDTH)

Band	30	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2305	2315			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		2305.3236	2314.3580			
Extreme (50°C)		2305.3236	2314.3580	-4.01	-0.002	Yes
Extreme (40°C)		2305.3236	2314.3580	-4.72	-0.002	Yes
Extreme (30°C)		2305.3236	2314.3580	-4.01	-0.002	Yes
Extreme (10°C)	Normal	2305.3236	2314.3580	-6.98	-0.003	Yes
Extreme (0°C)		2305.3236	2314.3580	-5.6	-0.002	Yes
Extreme (-10°C)		2305.3236	2314.3580	-3.88	-0.002	Yes
Extreme (-20°C)		2305.3236	2314.3580	-3.72	-0.002	Yes
Extreme (-30°C)		2305.3236	2314.3580	-2.53	-0.001	Yes
20°C	15%	2305.3236	2314.3580	-3.18	-0.001	Yes
	-15%	2305.3236	2314.3580	-4.66	-0.002	Yes
	End Point Voltage	2305.3236	2314.3580	-1.65	-0.001	Yes

9.4.11. LTE BAND 41 AND 5G NR n41

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 41 QPSK (20MHz BANDWIDTH)

Band	41	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2496	2690		0	
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	2496.8400	2689.1950			
Extreme (50°C)		2496.8400	2689.1950	-1.4	-0.001	Yes
Extreme (40°C)		2496.8400	2689.1950	-2.0	-0.001	Yes
Extreme (30°C)		2496.8400	2689.1950	-2.2	-0.001	Yes
Extreme (10°C)		2496.8400	2689.1950	-3.5	-0.001	Yes
Extreme (0°C)		2496.8400	2689.1950	-1.0	0.000	Yes
Extreme (-10°C)		2496.8400	2689.1950	-6.2	-0.002	Yes
Extreme (-20°C)		2496.8400	2689.1950	-5.9	-0.002	Yes
Extreme (-30°C)		2496.8400	2689.1950	-7.6	-0.003	Yes
20°C	15%	2496.8400	2689.1950	-3.8	-0.001	Yes
	-15%	2496.8400	2689.1950	-4.1	-0.002	Yes
	End Point Voltage	2496.8400	2689.1950	-3.2	-0.001	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n41 BPSK (100MHz BANDWIDTH)

Band	41	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		2496	2690		0	
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	2497.1693	2687.7478			
Extreme (50°C)		2497.1693	2687.7477	-6.19	-0.002	Yes
Extreme (40°C)		2497.1693	2687.7477	-7.49	-0.003	Yes
Extreme (30°C)		2497.1693	2687.7477	-6.96	-0.003	Yes
Extreme (10°C)		2497.1693	2687.7477	-10.62	-0.004	Yes
Extreme (0°C)		2497.1693	2687.7477	-11.02	-0.004	Yes
Extreme (-10°C)		2497.1693	2687.7477	-6.53	-0.003	Yes
Extreme (-20°C)		2497.1693	2687.7477	-8.34	-0.003	Yes
Extreme (-30°C)		2497.1693	2687.7477	-7.28	-0.003	Yes
20°C	15%	2497.1693	2687.7477	-7.31	-0.003	Yes
	-15%	2497.1693	2687.7477	-11.44	-0.004	Yes
	End Point Voltage	2497.1693	2687.7477	-9.01	-0.003	Yes

9.4.12. LTE BAND 48 AND 5G NR n48

Test Engineer ID:	39004	Test Date:	1/20/2023

LTE BAND 48 QPSK (20MHz BANDWIDTH)

Band	48	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		3550	3700			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)		3550.7350	3699.3650			
Extreme (50°C)		3550.7350	3699.3650	-0.6	0.000	Yes
Extreme (40°C)		3550.7350	3699.3650	-1.4	0.000	Yes
Extreme (30°C)		3550.7350	3699.3650	-2.0	-0.001	Yes
Extreme (10°C)	Normal	3550.7350	3699.3650	-3.6	-0.001	Yes
Extreme (0°C)		3550.7350	3699.3650	-1.9	-0.001	Yes
Extreme (-10°C)		3550.7350	3699.3650	-5.6	-0.002	Yes
Extreme (-20°C)		3550.7350	3699.3650	-4.3	-0.001	Yes
Extreme (-30°C)		3550.7350	3699.3650	-4.8	-0.001	Yes
20°C	15%	3550.7350	3699.3650	-4.3	-0.001	Yes
	-15%	3550.7350	3699.3650	-3.4	-0.001	Yes
	End Point Voltage	3550.7350	3699.3650	-4.1	-0.001	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n48 BPSK (40MHz BANDWIDTH)

Band	48	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		3550	3700			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		3550.9985	3697.0051			
Extreme (50°C)		3550.9985	3697.0051	-5.39	-0.001	Yes
Extreme (40°C)		3550.9985	3697.0051	-1.56	0.000	Yes
Extreme (30°C)		3550.9985	3697.0051	-4.82	-0.001	Yes
Extreme (10°C)	Normal	3550.9985	3697.0051	-1.88	-0.001	Yes
Extreme (0°C)		3550.9985	3697.0051	-2.81	-0.001	Yes
Extreme (-10°C)		3550.9985	3697.0051	-3.57	-0.001	Yes
Extreme (-20°C)		3550.9985	3697.0051	-2.57	-0.001	Yes
Extreme (-30°C)		3550.9985	3697.0051	-5.26	-0.001	Yes
20°C	15%	3550.9985	3697.0051	-5.13	-0.001	Yes
	-15%	3550.9985	3697.0051	-5.69	-0.002	Yes
	End Point Voltage	3550.9985	3697.0051	-4.24	-0.001	Yes

9.4.13. LTE BAND 66 AND 5G NR n66

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 66 QPSK (20MHz BANDWIDTH)

Band	66	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1710	1780			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		1710.7900	1779.2150			
Extreme (50°C)		1710.7900	1779.2150	0.4	0.000	Yes
Extreme (40°C)		1710.7900	1779.2150	1.5	0.001	Yes
Extreme (30°C)		1710.7900	1779.2150	2.0	0.001	Yes
Extreme (10°C)	Normal	1710.7900	1779.2150	3.1	0.002	Yes
Extreme (0°C)		1710.7900	1779.2150	3.0	0.002	Yes
Extreme (-10°C)		1710.7900	1779.2150	6.3	0.004	Yes
Extreme (-20°C)		1710.7900	1779.2150	5.2	0.003	Yes
Extreme (-30°C)		1710.7900	1779.2150	4.7	0.003	Yes
20°C	15%	1710.7900	1779.2150	3.3	0.002	Yes
	-15%	1710.7900	1779.2150	4.2	0.002	Yes
	End Point Voltage	1710.7900	1779.2150	3.7	0.002	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n66 BPSK (40MHz BANDWIDTH)

Band	66	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1710	1780			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		1710.4860	1779.4267			
Extreme (50°C)		1710.4860	1779.4267	-1.01	-0.001	Yes
Extreme (40°C)		1710.4860	1779.4267	-2.09	-0.001	Yes
Extreme (30°C)		1710.4860	1779.4267	-1.53	-0.001	Yes
Extreme (10°C)	Normal	1710.4860	1779.4267	-4.28	-0.002	Yes
Extreme (0°C)		1710.4860	1779.4267	-3.99	-0.002	Yes
Extreme (-10°C)		1710.4860	1779.4267	-2.18	-0.001	Yes
Extreme (-20°C)		1710.4860	1779.4267	-1.15	-0.001	Yes
Extreme (-30°C)		1710.4860	1779.4267	-2.73	-0.002	Yes
20°C	15%	1710.4860	1779.4267	-1.71	-0.001	Yes
	-15%	1710.4860	1779.4267	-3.91	-0.002	Yes
	End Point Voltage	1710.4860	1779.4267	-2.88	-0.002	Yes

9.4.14. 5G NR n70

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n70 BPSK (15MHz BANDWIDTH)

Band	70	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		1695	1710			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	1695.4493	1708.8327			
Extreme (50°C)		1695.4493	1708.8327	-3.57	-0.002	Yes
Extreme (40°C)		1695.4493	1708.8327	-1.3	-0.001	Yes
Extreme (30°C)		1695.4493	1708.8327	-3.93	-0.002	Yes
Extreme (10°C)		1695.4493	1708.8327	-4.12	-0.002	Yes
Extreme (0°C)		1695.4493	1708.8327	-3.91	-0.002	Yes
Extreme (-10°C)		1695.4493	1708.8327	-2.53	-0.001	Yes
Extreme (-20°C)		1695.4493	1708.8327	-3.33	-0.002	Yes
Extreme (-30°C)		1695.4493	1708.8327	-1.42	-0.001	Yes
20°C	15%	1695.4493	1708.8327	-4.92	-0.003	Yes
	-15%	1695.4493	1708.8327	-5.33	-0.003	Yes
	End Point Voltage	1695.4493	1708.8327	-4.43	-0.003	Yes

9.4.15. LTE BAND 71 AND 5G NR n71

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	39004	Test Date:	1/18/2023

LTE BAND 71 QPSK (20MHz BANDWIDTH)

Band	71	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		663	698			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	663.7850	697.2100			
Extreme (50°C)		663.7850	697.2100	-0.3	0.000	Yes
Extreme (40°C)		663.7850	697.2100	-1.0	-0.001	Yes
Extreme (30°C)		663.7850	697.2100	-1.2	-0.002	Yes
Extreme (10°C)		663.7850	697.2100	-2.8	-0.004	Yes
Extreme (0°C)		663.7850	697.2100	-5.3	-0.008	Yes
Extreme (-10°C)		663.7850	697.2100	-4.2	-0.006	Yes
Extreme (-20°C)		663.7850	697.2100	-6.2	-0.009	Yes
Extreme (-30°C)		663.7850	697.2100	-3.6	-0.005	Yes
20°C	15%	663.7850	697.2100	-4.3	-0.006	Yes
	-15%	663.7850	697.2100	-5.1	-0.007	Yes
	End Point Voltage	663.7850	697.2100	-3.8	-0.006	Yes

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n71 BPSK (20MHz BANDWIDTH)

Band	71	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		663	698			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)		663.5392	696.3899			
Extreme (50°C)		663.5391	696.3899	-6.48	-0.010	Yes
Extreme (40°C)		663.5392	696.3899	-3.92	-0.006	Yes
Extreme (30°C)		663.5392	696.3899	-2.77	-0.004	Yes
Extreme (10°C)	Normal	663.5392	696.3899	-3.72	-0.005	Yes
Extreme (0°C)		663.5392	696.3899	-2.69	-0.004	Yes
Extreme (-10°C)		663.5392	696.3899	-2.97	-0.004	Yes
Extreme (-20°C)		663.5391	696.3899	-4.69	-0.007	Yes
Extreme (-30°C)		663.5392	696.3899	-3.89	-0.006	Yes
20°C	15%	663.5391	696.3899	-4.15	-0.006	Yes
	-15%	663.5391	696.3899	-5.49	-0.008	Yes
	End Point Voltage	663.5392	696.3899	-3.3	-0.005	Yes

9.4.16. 5G NR n77 (Part 27 3450-3550MHz)

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n77 BPSK (100MHz BANDWIDTH)

Band	77	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		3450	3550			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	3451.1625	3547.7821			
Extreme (50°C)		3451.1625	3547.7821	-9.45	-0.003	Yes
Extreme (40°C)		3451.1625	3547.7821	-9.56	-0.003	Yes
Extreme (30°C)		3451.1625	3547.7821	-12.45	-0.004	Yes
Extreme (10°C)		3451.1625	3547.7821	-2.75	-0.001	Yes
Extreme (0°C)		3451.1625	3547.7821	-6.26	-0.002	Yes
Extreme (-10°C)		3451.1625	3547.7821	-5.6	-0.002	Yes
Extreme (-20°C)		3451.1625	3547.7821	-11.89	-0.003	Yes
Extreme (-30°C)		3451.1625	3547.7821	-5.25	-0.002	Yes
20°C	15%	3451.1625	3547.7821	-7.9	-0.002	Yes
	-15%	3451.1625	3547.7821	-11.77	-0.003	Yes
	End Point Voltage	3451.1625	3547.7821	-7.83	-0.002	Yes

9.4.17. 5G NR n77 (Part 27 3700-3980MHz)

LIMITS

FCC: §27.54
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Engineer ID:	27342	Test Date:	2/18/2023

5G NR n77 BPSK (100MHz BANDWIDTH)

Band	77	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		3700	3980			
Temperature	Voltage	Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Normal (20°C)	Normal	3701.0751	3977.7838			
Extreme (50°C)		3701.0751	3977.7837	-4.83	-0.001	Yes
Extreme (40°C)		3701.0751	3977.7837	-8.36	-0.002	Yes
Extreme (30°C)		3701.0751	3977.7838	2.88	0.001	Yes
Extreme (10°C)		3701.0751	3977.7837	-12.32	-0.003	Yes
Extreme (0°C)		3701.0751	3977.7837	-2.31	-0.001	Yes
Extreme (-10°C)		3701.0751	3977.7837	-7.73	-0.002	Yes
Extreme (-20°C)		3701.0751	3977.7837	-11.31	-0.003	Yes
Extreme (-30°C)		3701.0751	3977.7837	-7.25	-0.002	Yes
20°C	15%	3701.0751	3977.7837	-3.19	-0.001	Yes
	-15%	3701.0751	3977.7837	-13.86	-0.004	Yes
	End Point Voltage	3701.0751	3977.7837	-5.63	-0.001	Yes

9.5. PEAK-TO-AVERAGE POWER RATIO

LIMIT

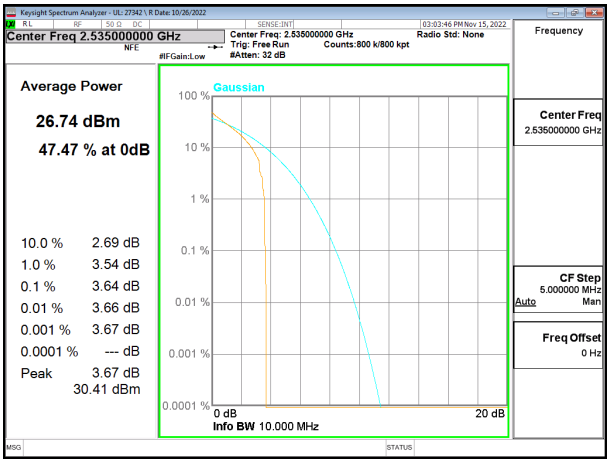
In addition, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

RESULT

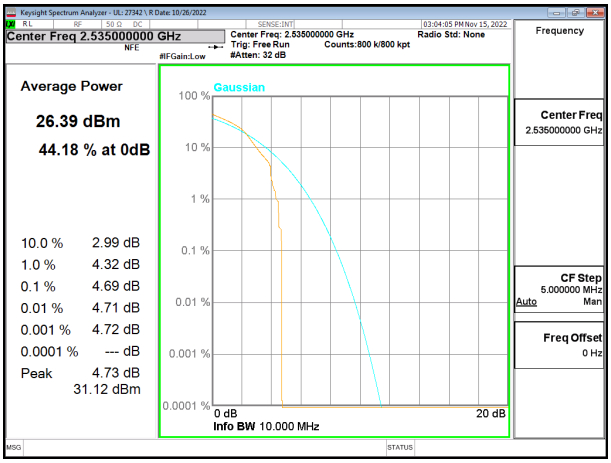
Antenna 1 was used to measure as the worst case; full resource block (FRB) for each bandwidth was used to measure as the worst case. The results from all CCDF measurements are passed with 13dB peak-to-average power ratio criteria.

9.5.1. LTE BAND 7 AND 5G NR n7

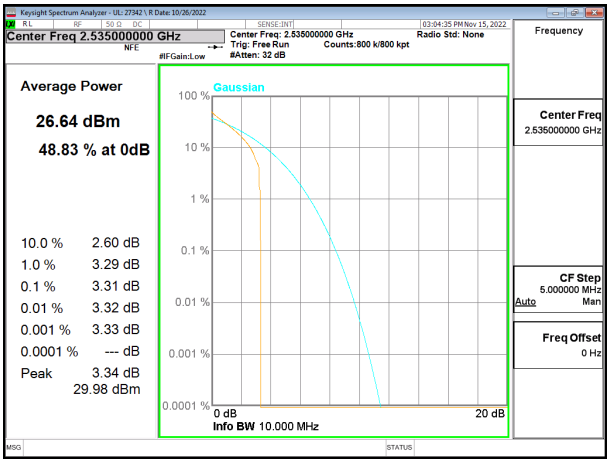
LTE BAND 7



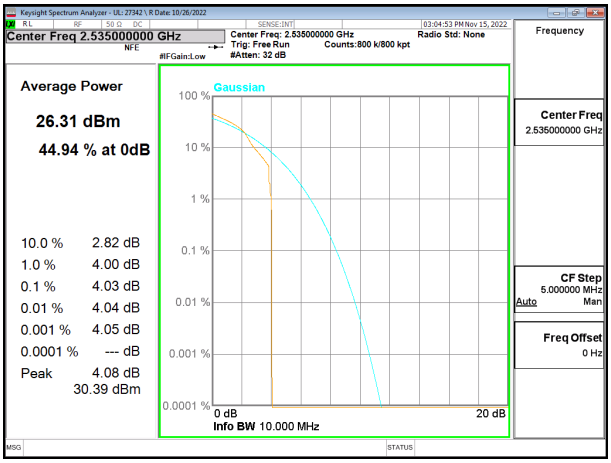
LTE B7 5MHz QPSK Middle Channel



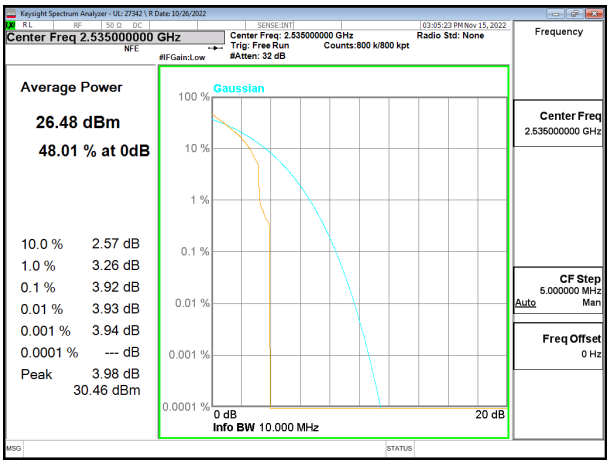
LTE B7 5MHz 16QAM Middle Channel



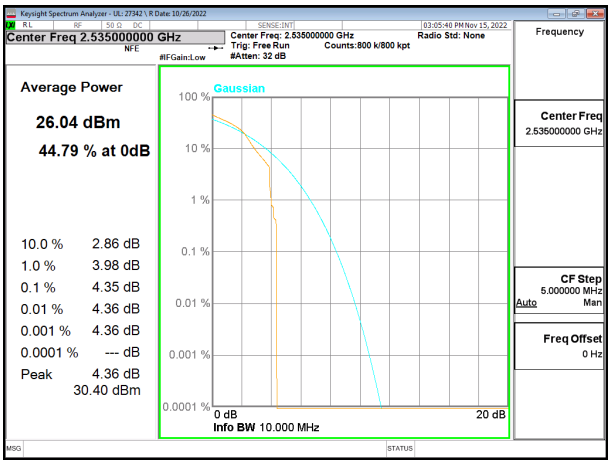
LTE B7 10MHz QPSK Middle Channel



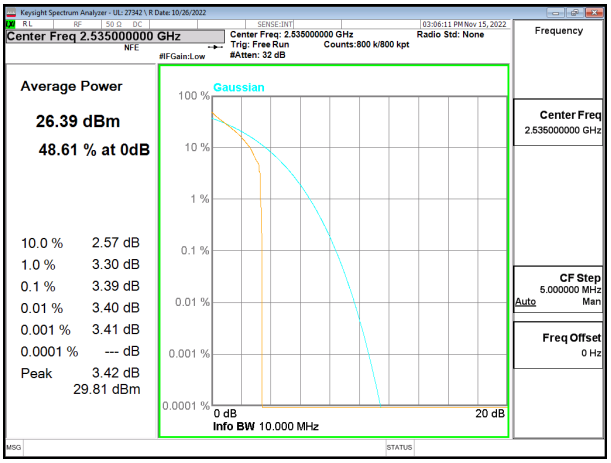
LTE B7 10MHz 16QAM Middle Channel



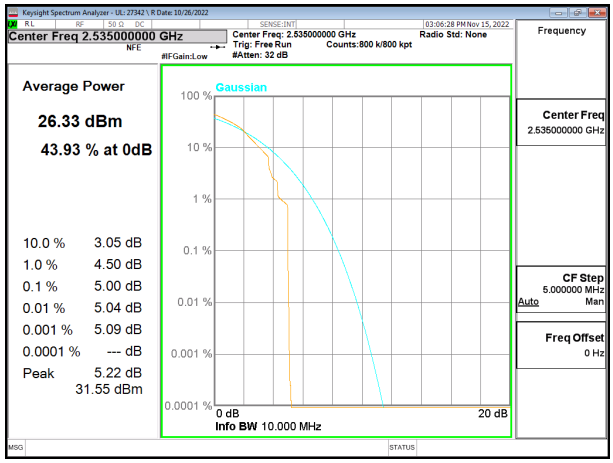
LTE B7 15MHz QPSK Middle Channel



LTE B7 15MHz 16QAM Middle Channel



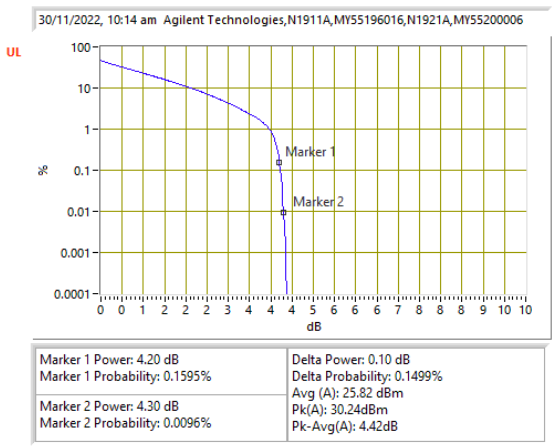
LTE B7 20MHz QPSK Middle Channel



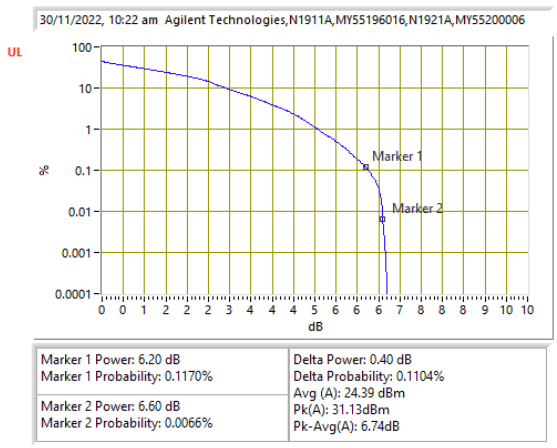
LTE B7 20MHz 16QAM Middle Channel

5G NR n7

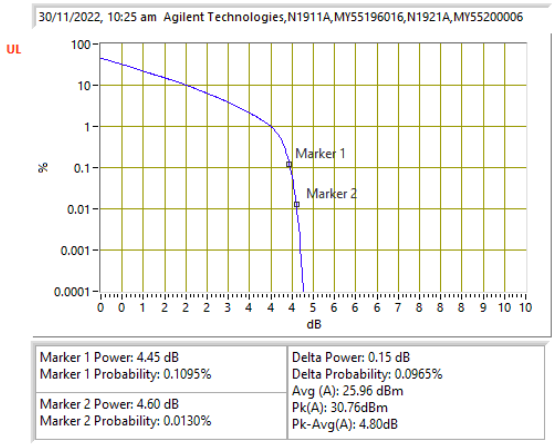
Test Engineer ID:	27342	Test Date:	11/30/2022



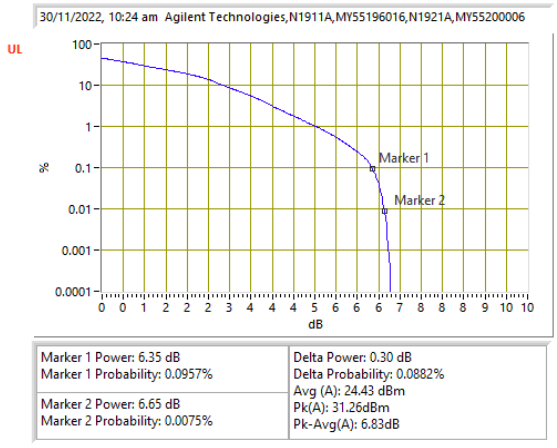
5G NR n7 5MHz BPSK Middle Channel



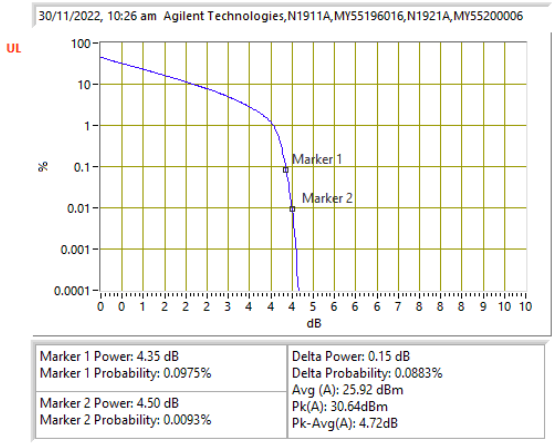
5G NR n7 5MHz 16QAM Middle Channel



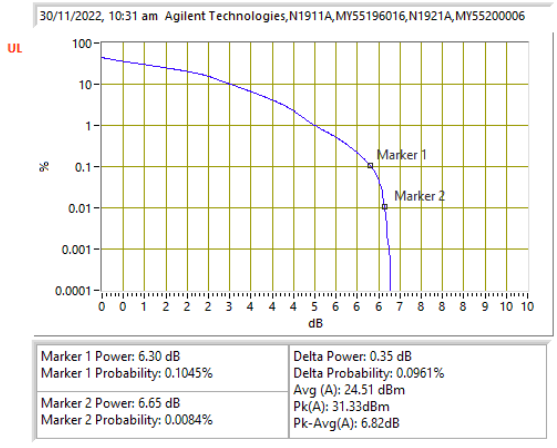
5G NR n7 10MHz BPSK Middle Channel



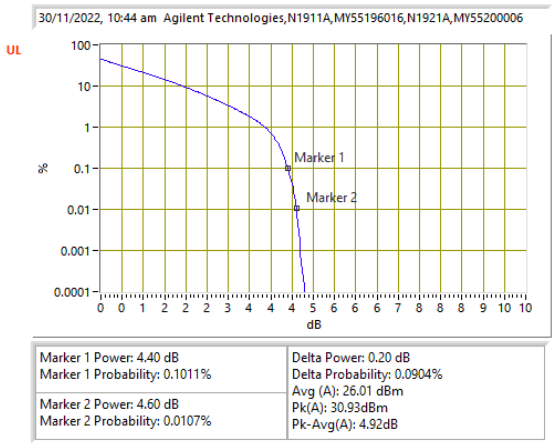
5G NR n7 10MHz 16QAM Middle Channel



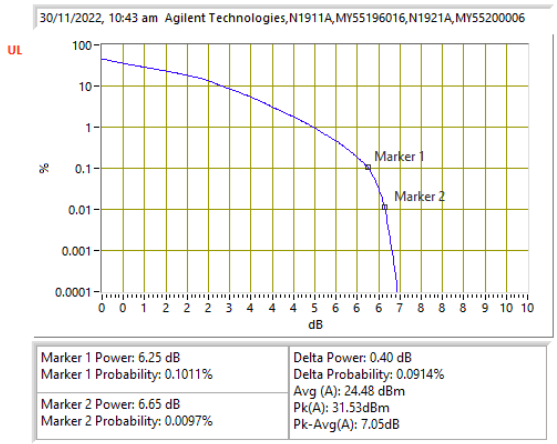
5G NR n7 15MHz BPSK Middle Channel



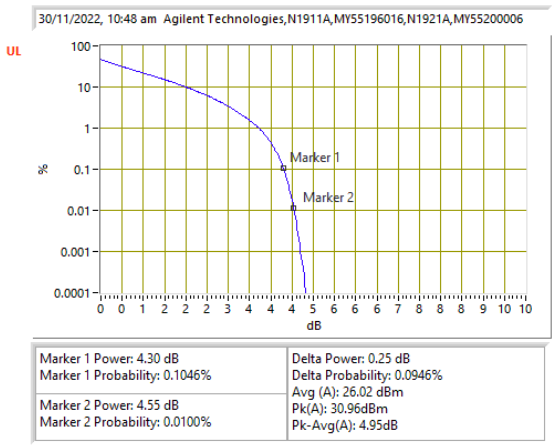
5G NR n7 15MHz 16QAM Middle Channel



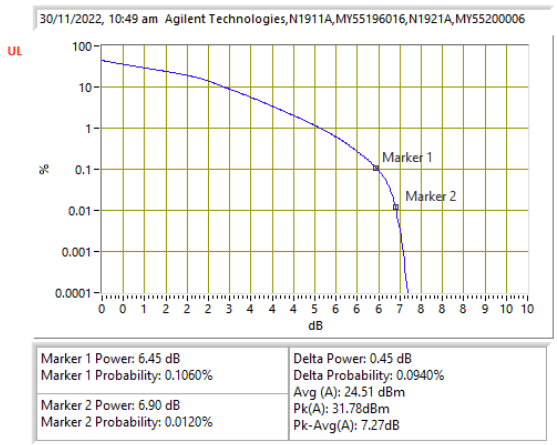
5G NR n7 20MHz BPSK Middle Channel



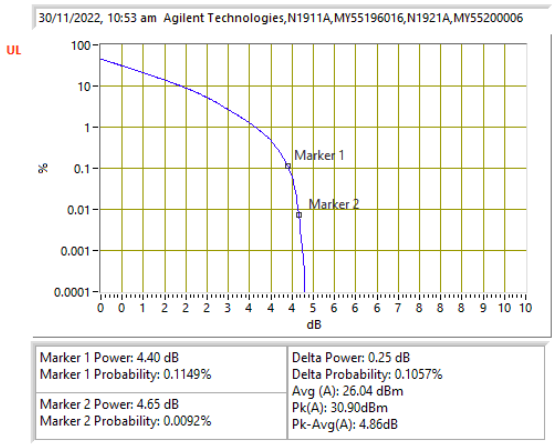
5G NR n7 20MHz 16QAM Middle Channel



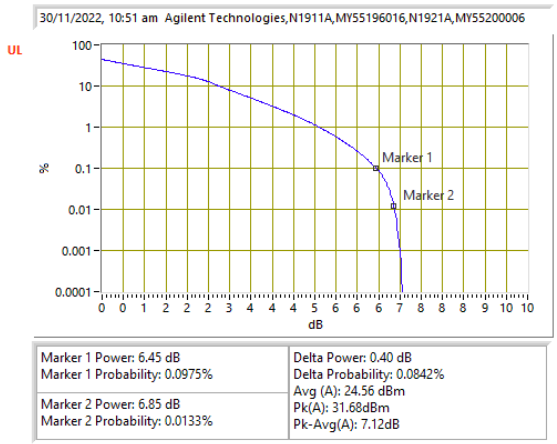
5G NR n7 25MHz BPSK Middle Channel



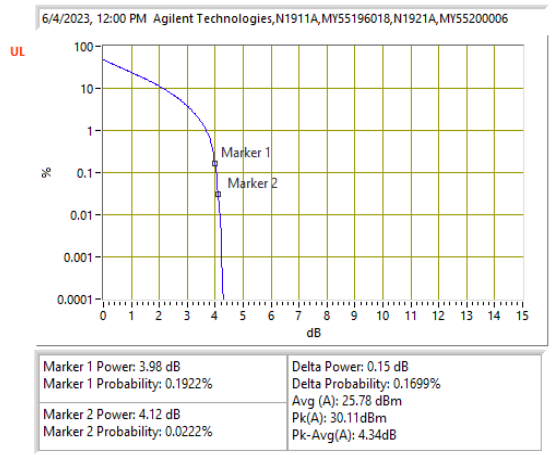
5G NR n7 25MHz 16QAM Middle Channel



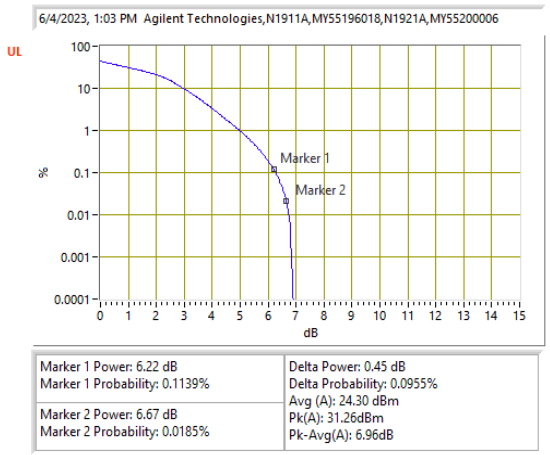
5G NR n7 30MHz BPSK Middle Channel



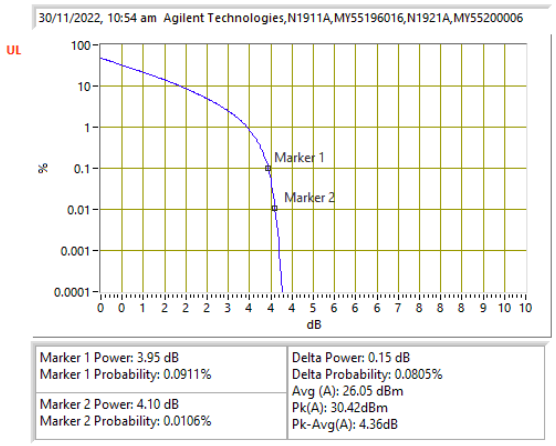
5G NR n7 30MHz 16QAM Middle Channel



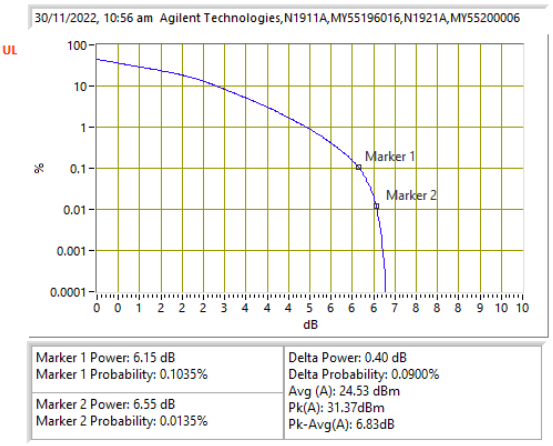
5G NR n7 35MHz BPSK Middle Channel



5G NR n7 35MHz 16QAM Middle Channel



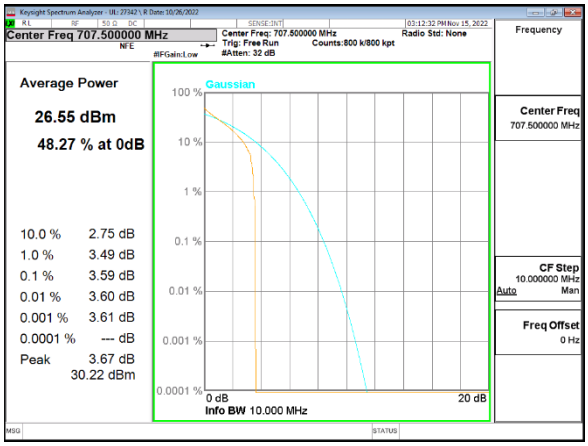
5G NR n7 40MHz BPSK Middle Channel



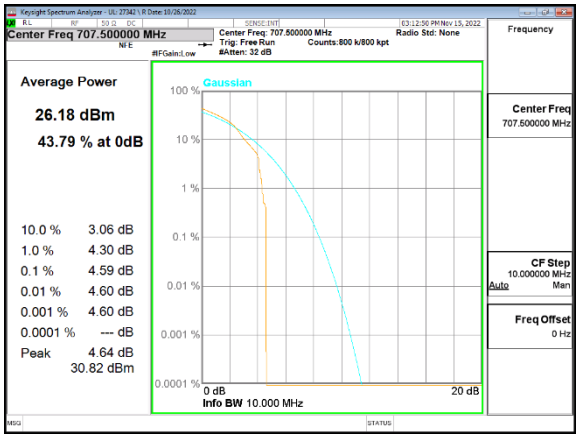
5G NR n7 40MHz 16QAM Middle Channel

9.5.2. LTE BAND 12 AND 5G NR n12

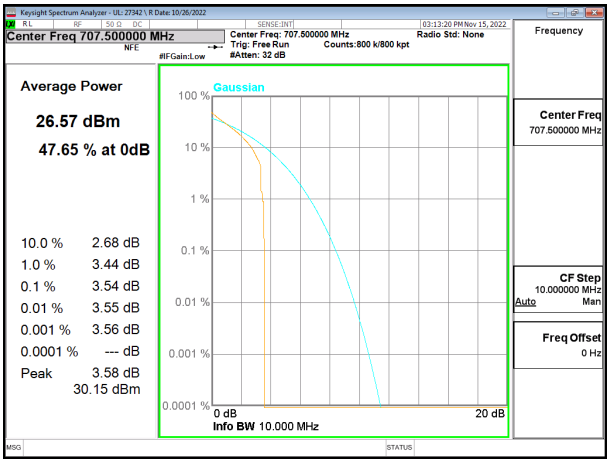
LTE BAND 12



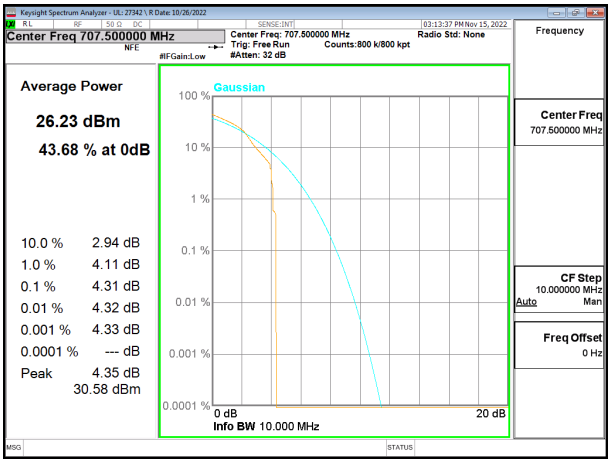
LTE B12 1.4MHz QPSK Middle Channel



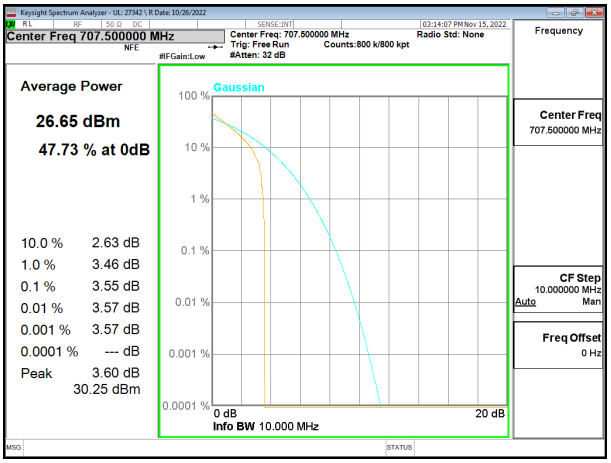
LTE B12 1.4MHz 16QAM Middle Channel



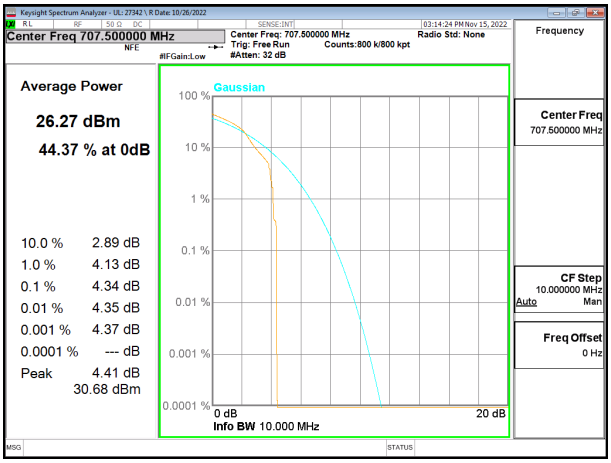
LTE B12 3MHz QPSK Middle Channel



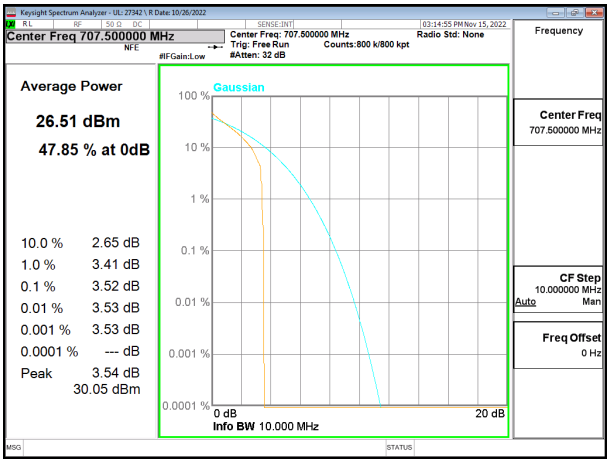
LTE B12 3MHz 16QAM Middle Channel



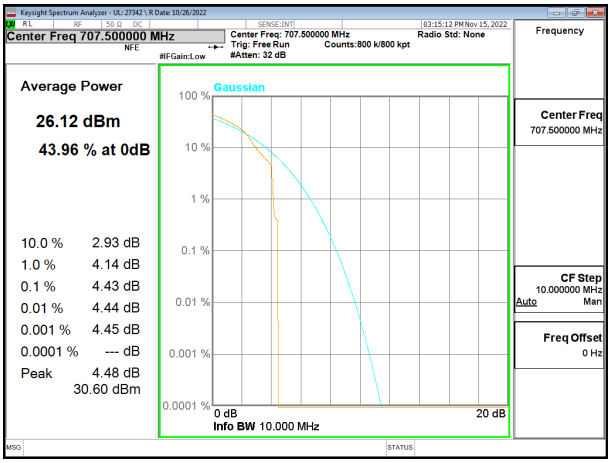
LTE B12 5MHz QPSK Middle Channel



LTE B12 5MHz 16QAM Middle Channel

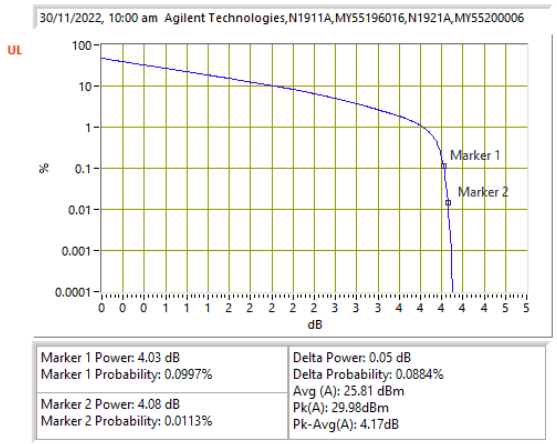


LTE B12 10MHz QPSK Middle Channel

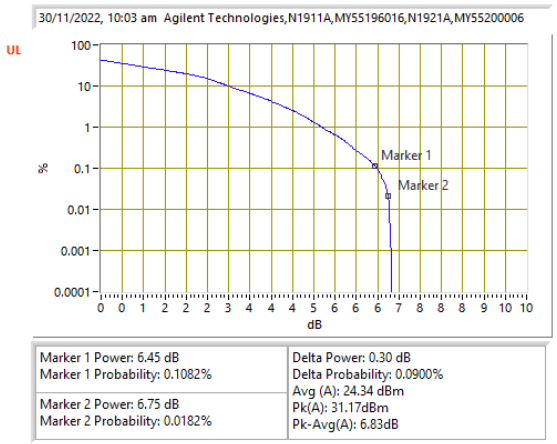


LTE B12 10MHz 16QAM Middle Channel

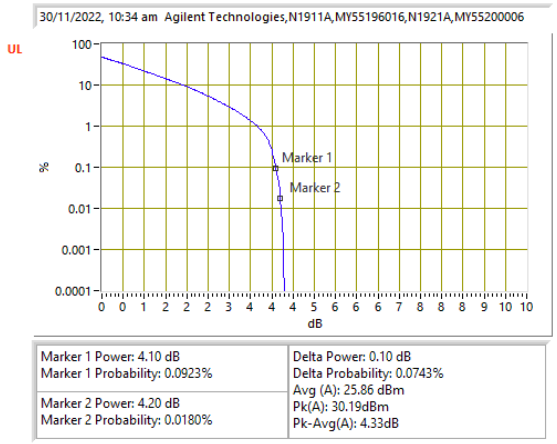
5G NR n12



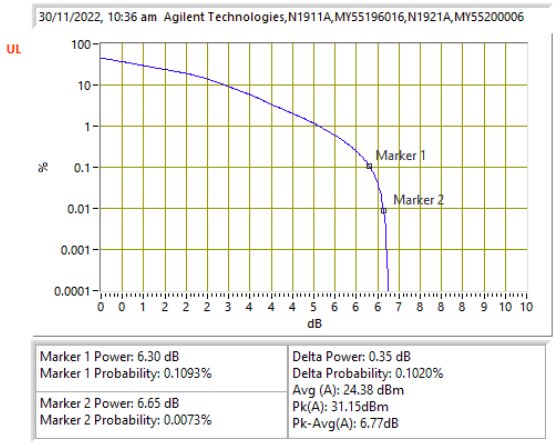
5G NR n12 5MHz BPSK Middle Channel



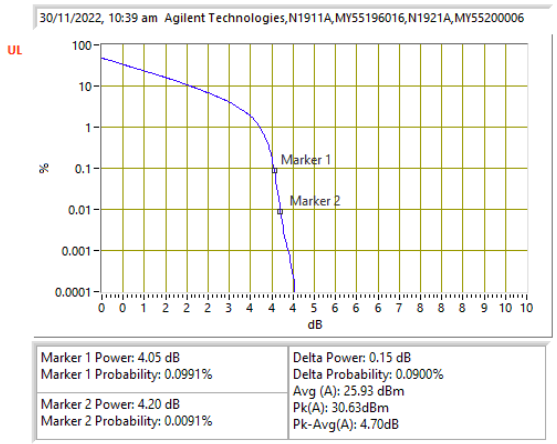
5G NR n12 5MHz 16QAM Middle Channel



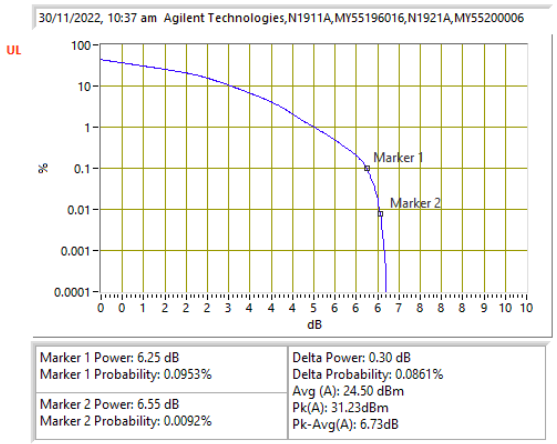
5G NR n12 10MHz BPSK Middle Channel



5G NR n12 10MHz 16QAM Middle Channel

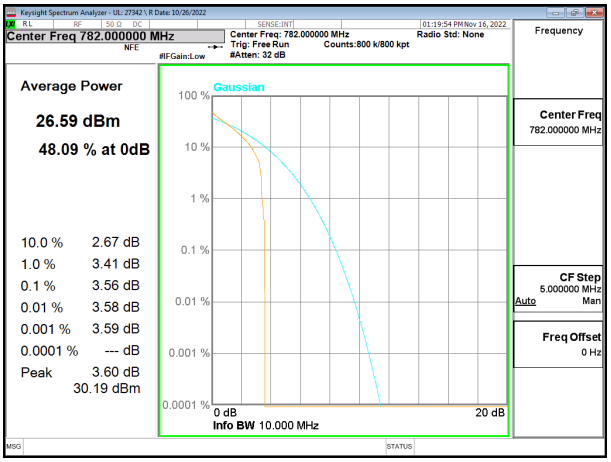


5G NR n12 15MHz BPSK Middle Channel

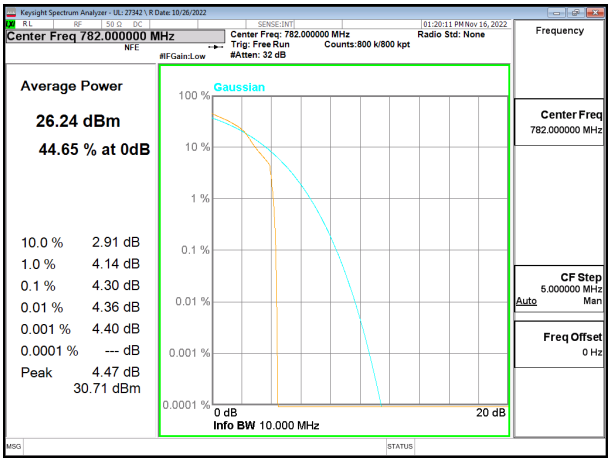


5G NR n12 15MHz 16QAM Middle Channel

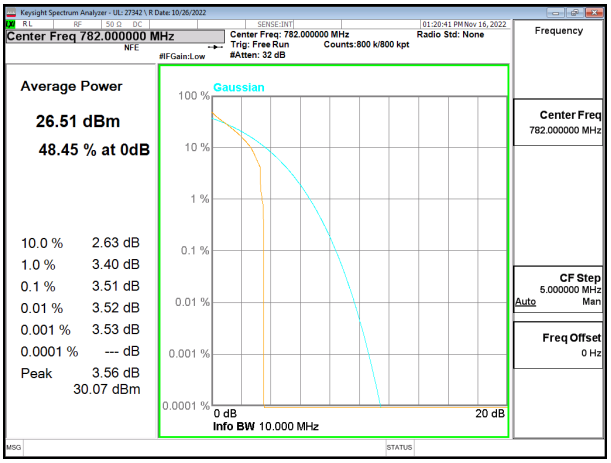
9.5.3. LTE BAND 13



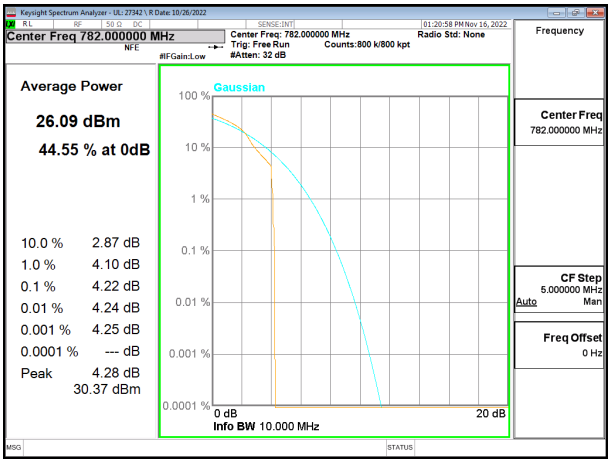
LTE B13 5MHz QPSK Middle Channel



LTE B13 5MHz 16QAM Middle Channel



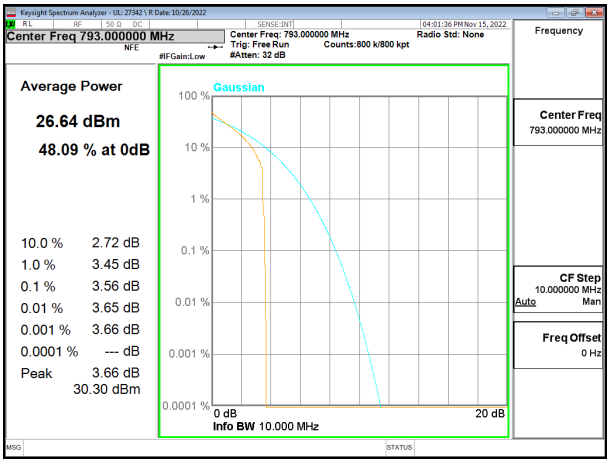
LTE B13 10MHz QPSK Middle Channel



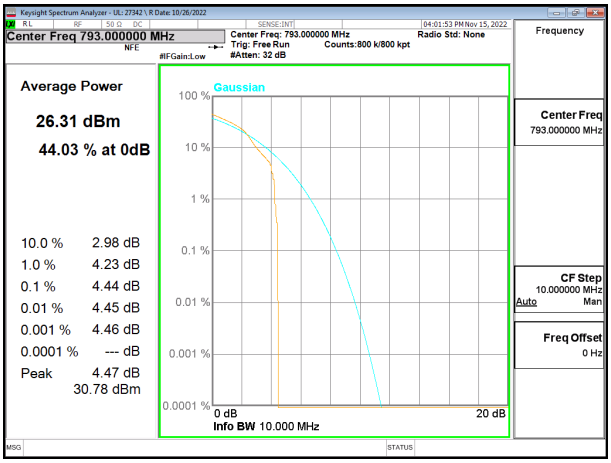
LTE B13 10MHz 16QAM Middle Channel

9.5.4. LTE BAND 14 AND 5G NR n14

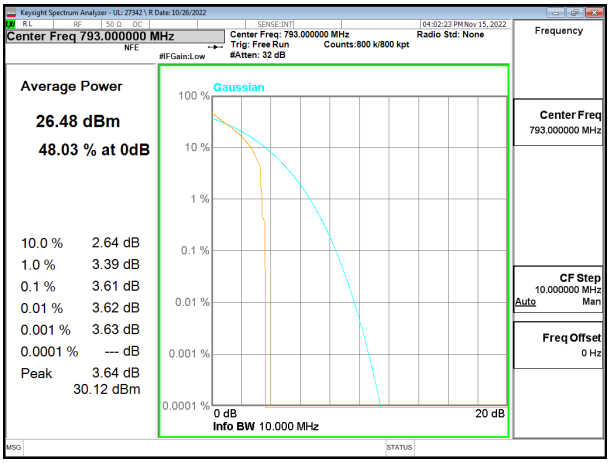
LTE BAND 14



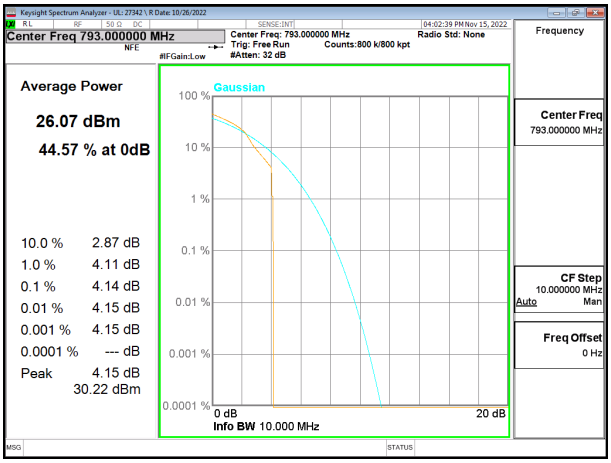
LTE B14 5MHz QPSK Middle Channel



LTE B14 5MHz 16QAM Middle Channel



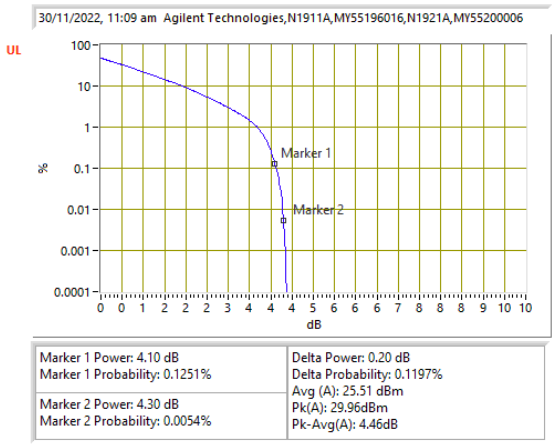
LTE B14 10MHz QPSK Middle Channel



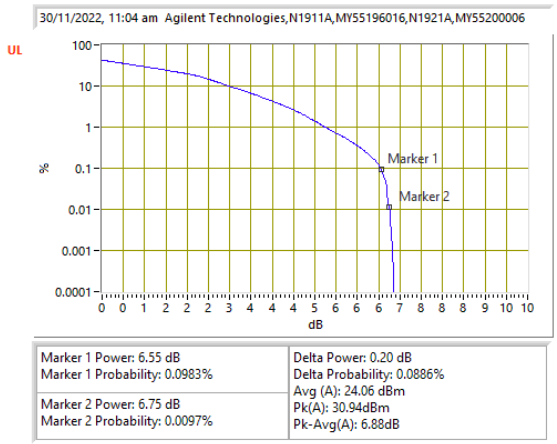
LTE B14 10MHz 16QAM Middle Channel

5G NR n14

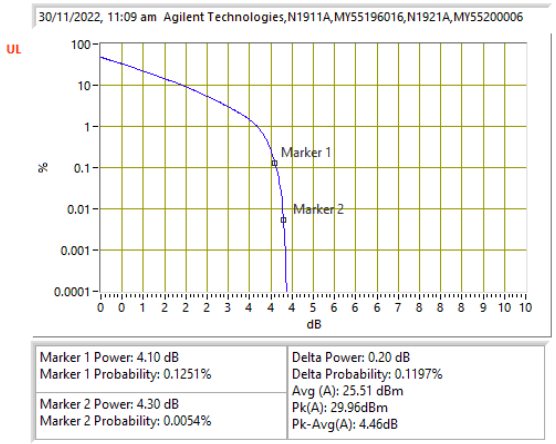
Test Engineer ID:	27342	Test Date:	11/30/2022



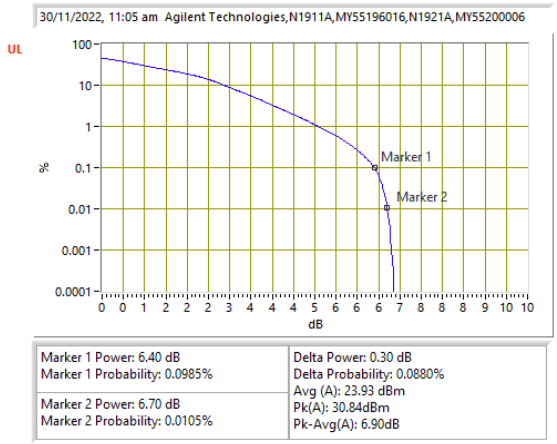
5G NR n14 5MHz BPSK Middle Channel



5G NR n14 5MHz 16QAM Middle Channel

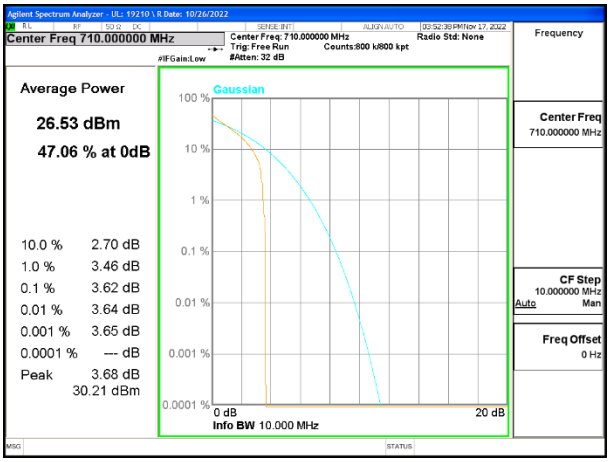


5G NR n14 10MHz BPSK Middle Channel

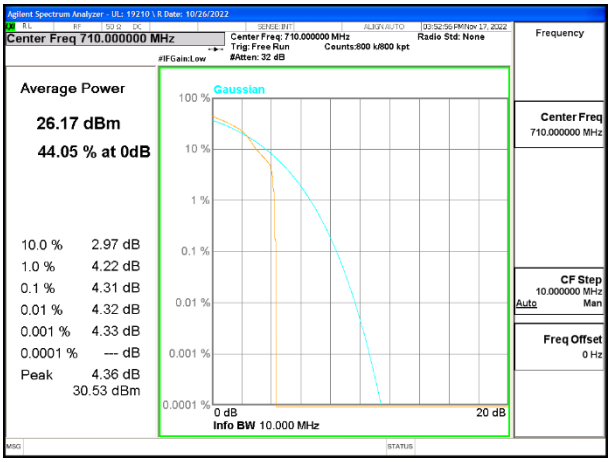


5G NR n14 10MHz 16QAM Middle Channel

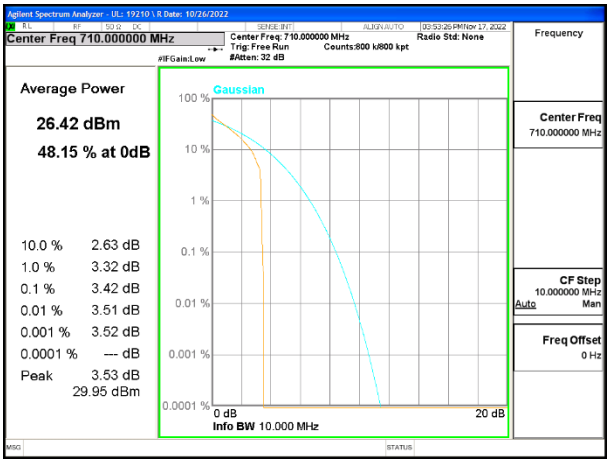
9.5.5. LTE BAND 17



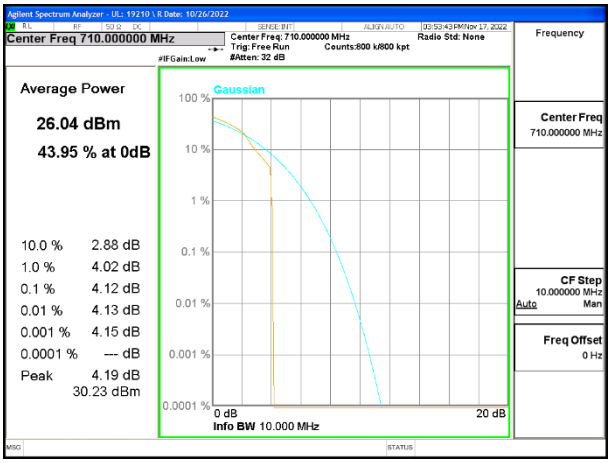
LTE B17 5MHz QPSK Middle Channel



LTE B17 5MHz 16QAM Middle Channel



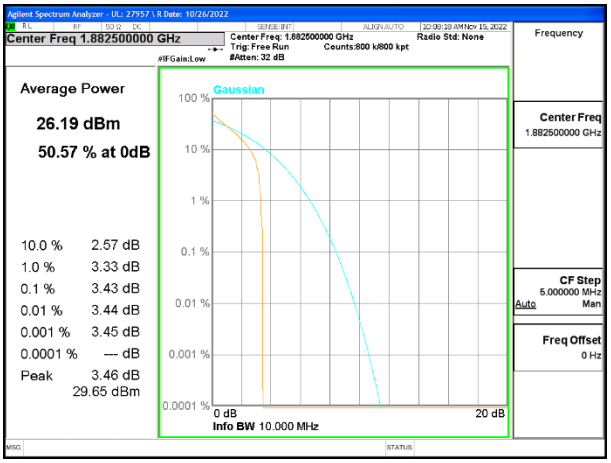
LTE B17 10MHz QPSK Middle Channel



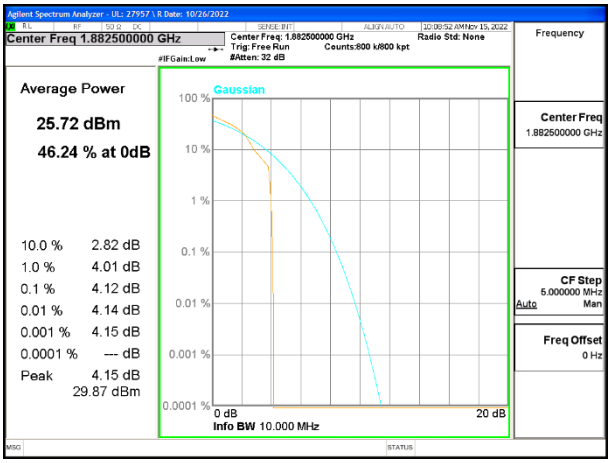
LTE B17 10MHz 16QAM Middle Channel

9.5.6. LTE BAND 25 AND 5G NR n25

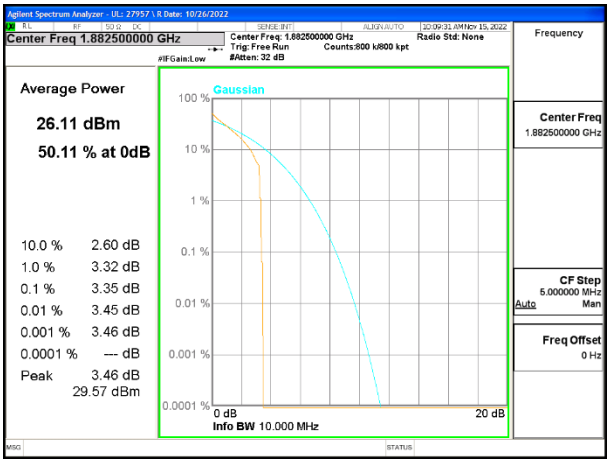
LTE BAND 25



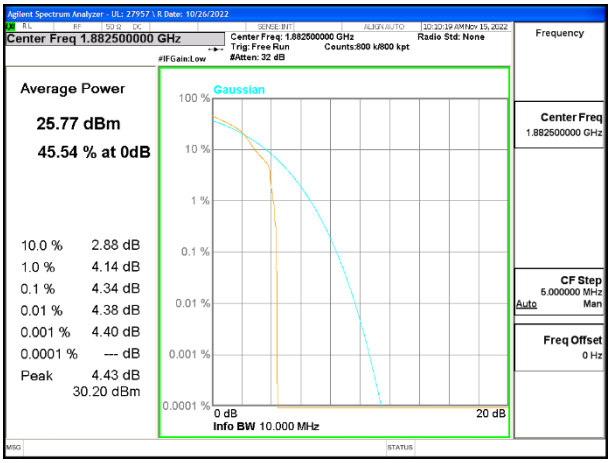
LTE B25 1.4MHz QPSK Middle Channel



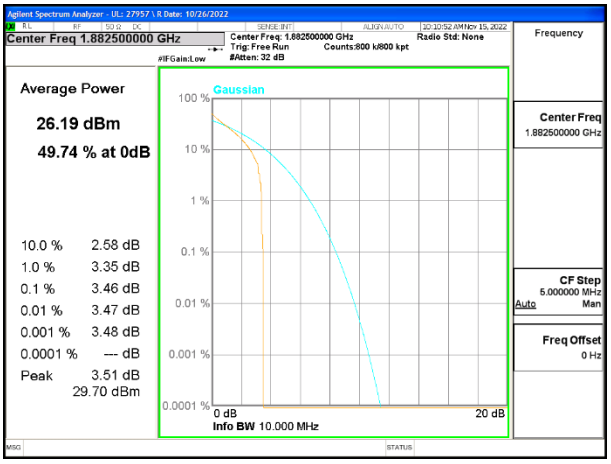
LTE B25 1.4MHz 16QAM Middle Channel



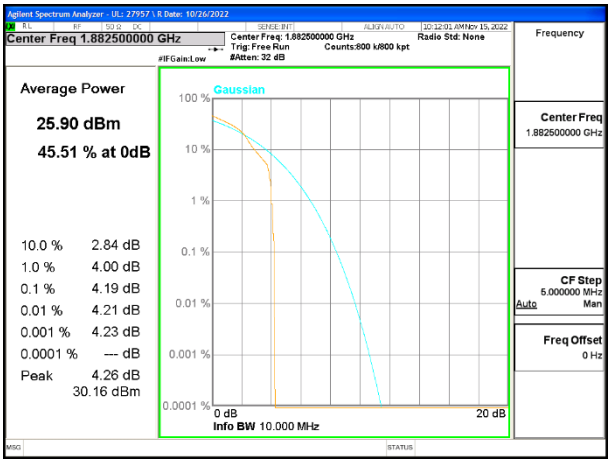
LTE B25 3MHz QPSK Middle Channel



LTE B25 3MHz 16QAM Middle Channel



LTE B2 5MHz QPSK Middle Channel



LTE B2 5MHz 16QAM Middle Channel