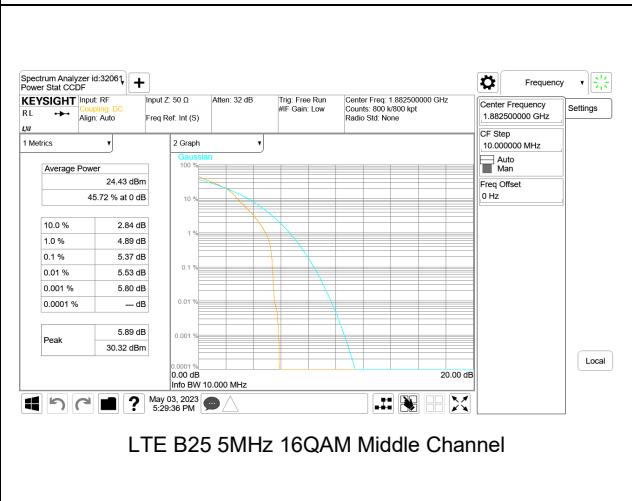
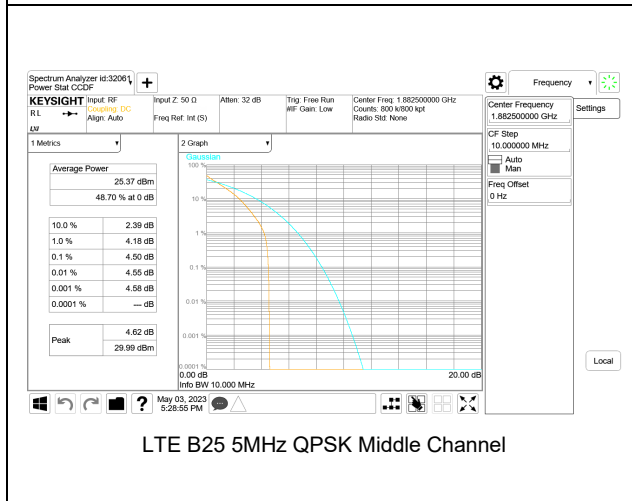
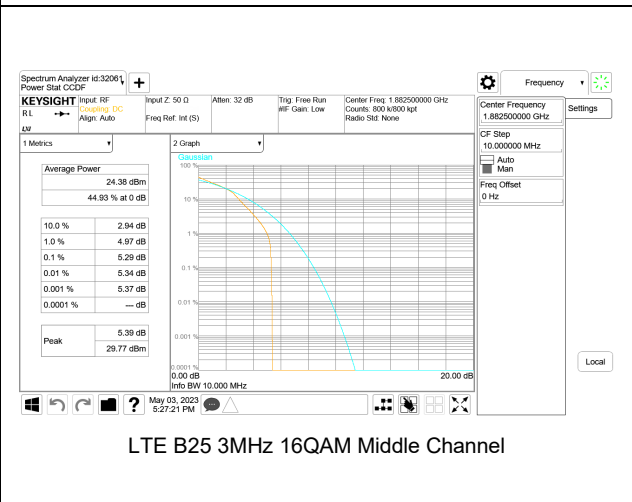
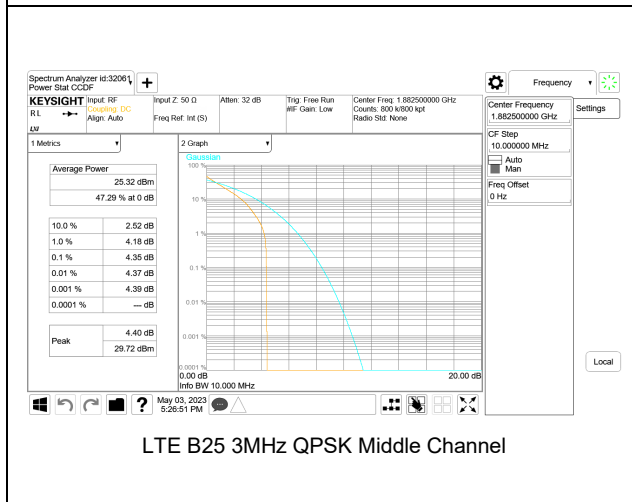
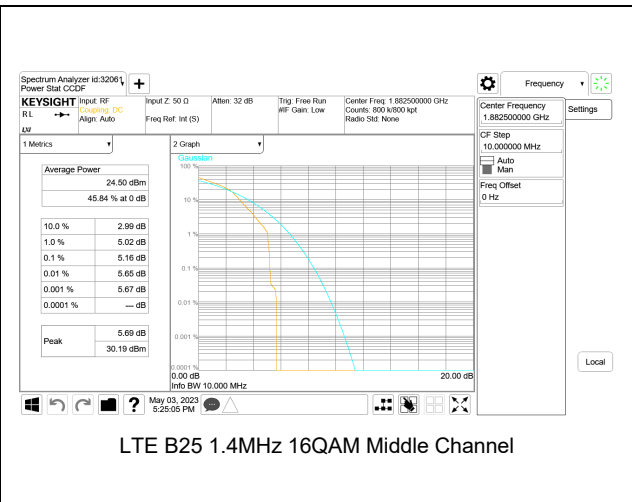
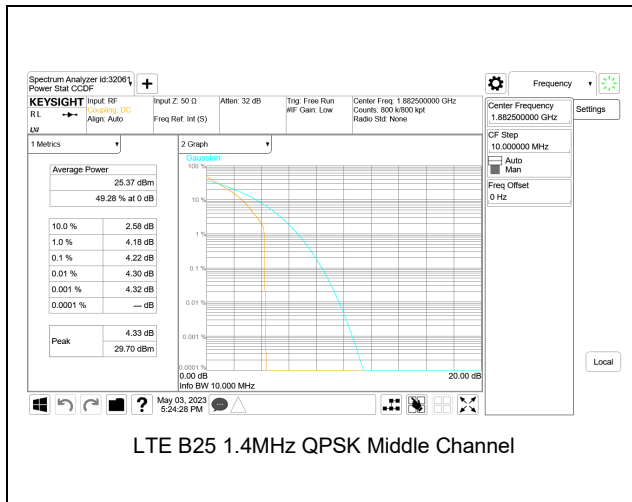
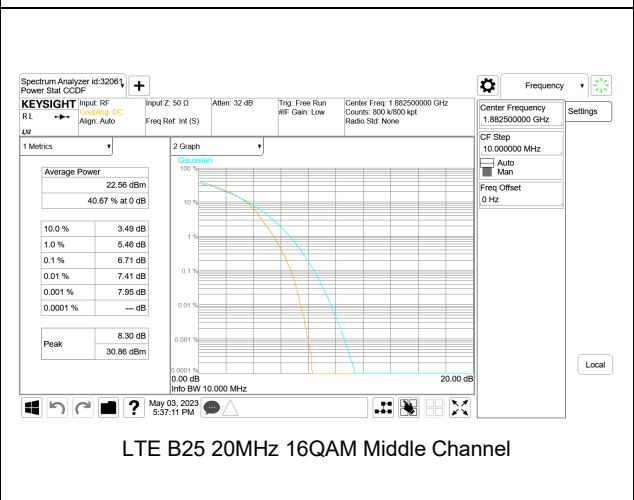
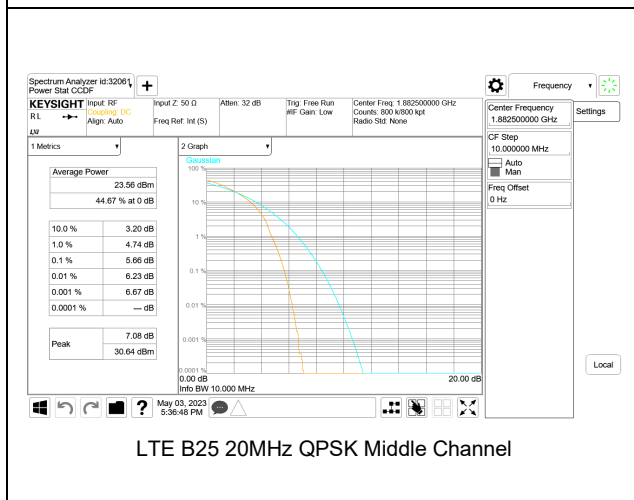
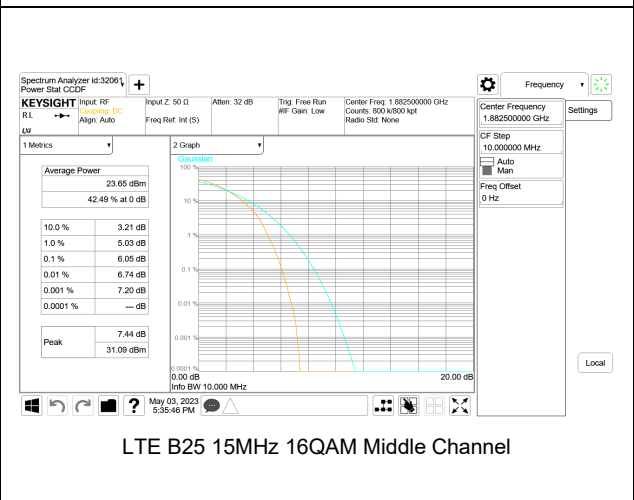
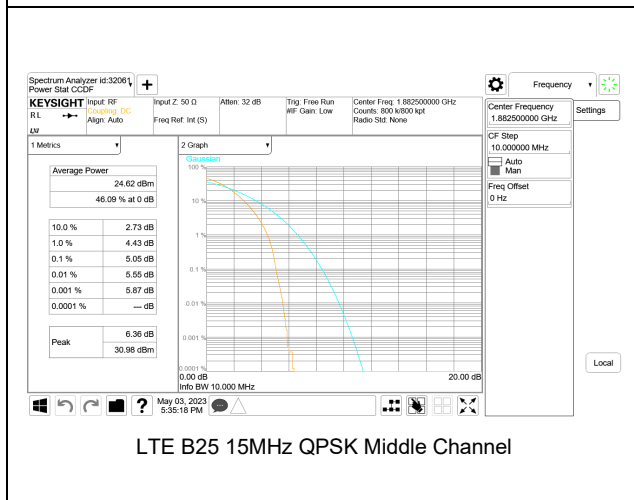
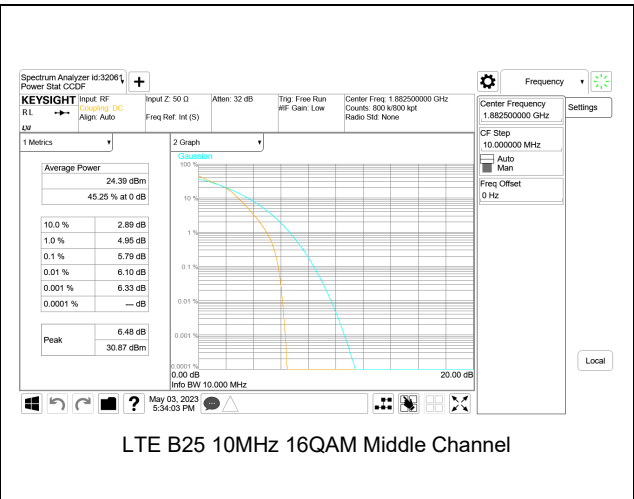
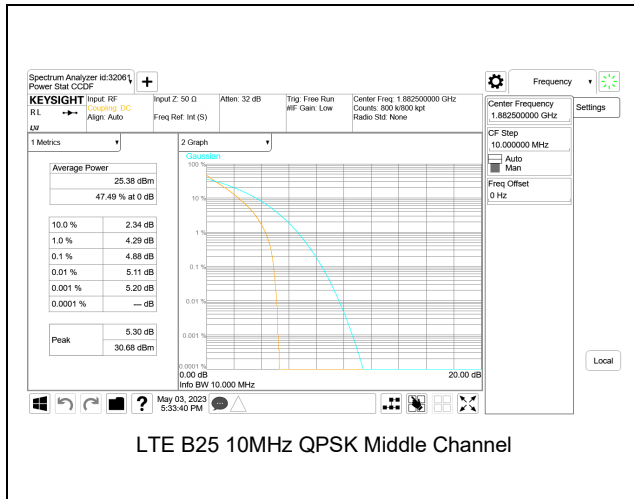


### 9.5.6. LTE BAND 25 AND 5G NR n25

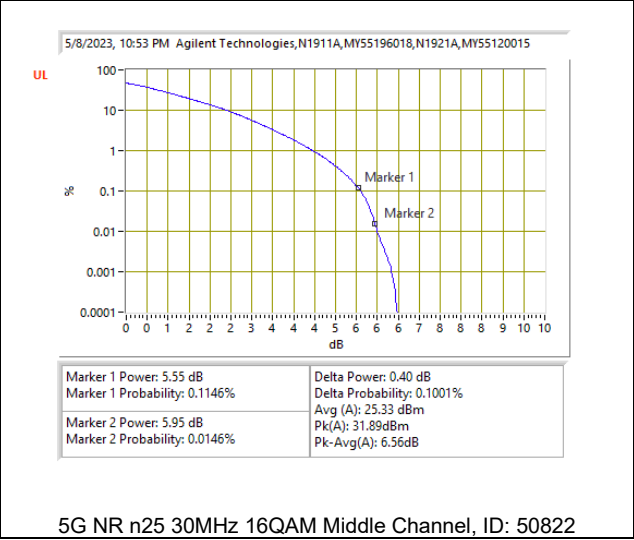
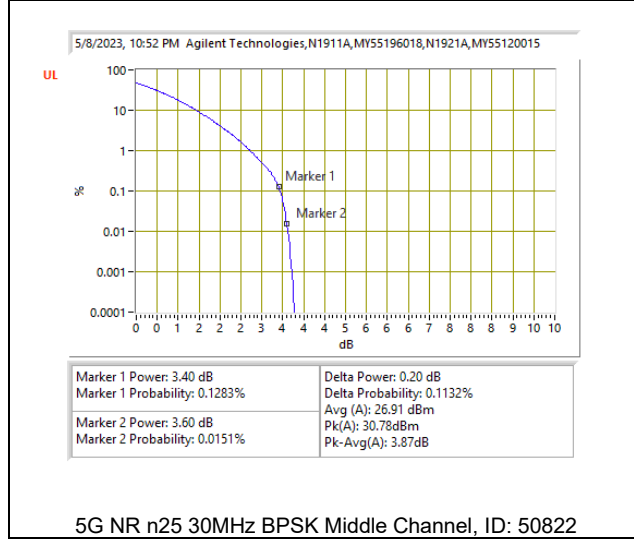
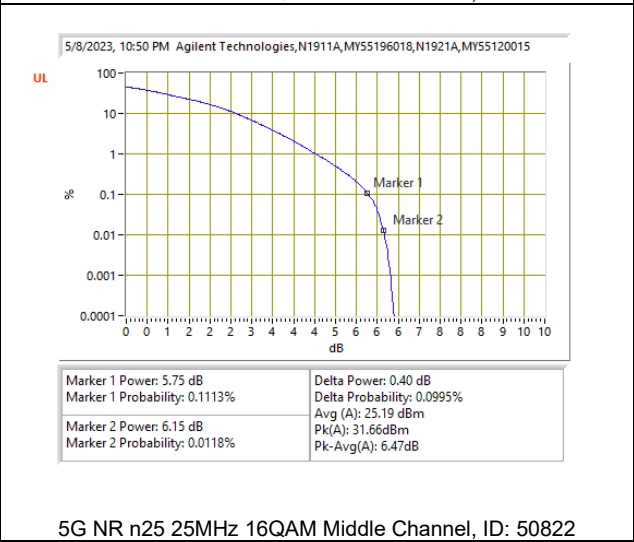
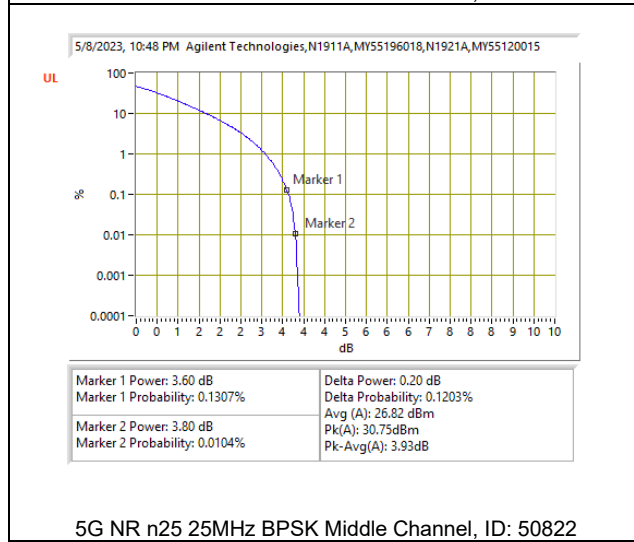
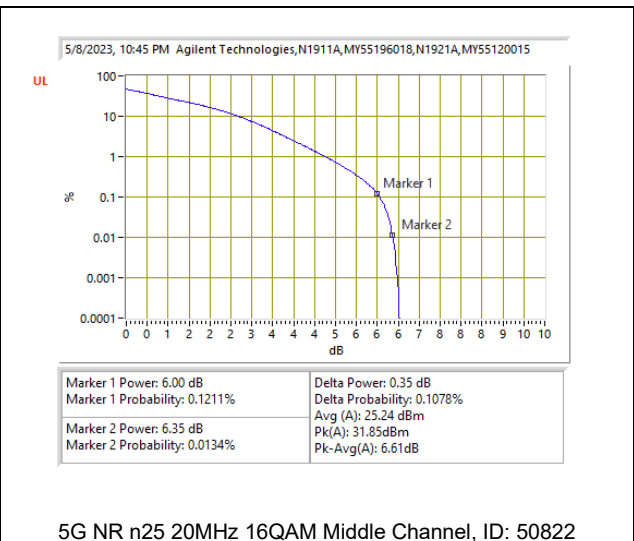
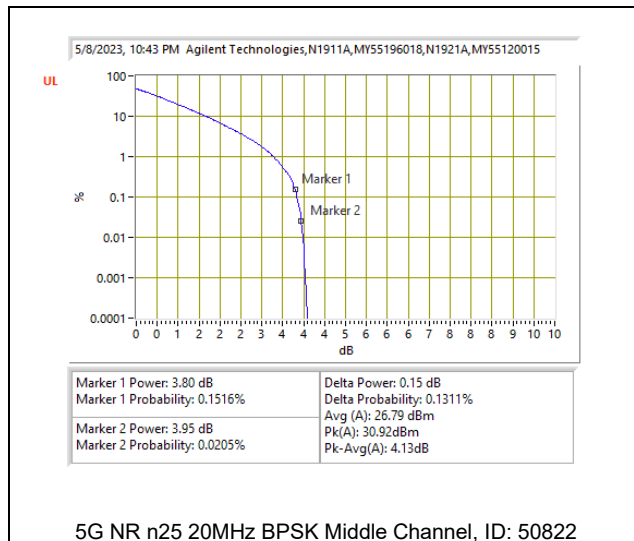
#### LTE BAND 25

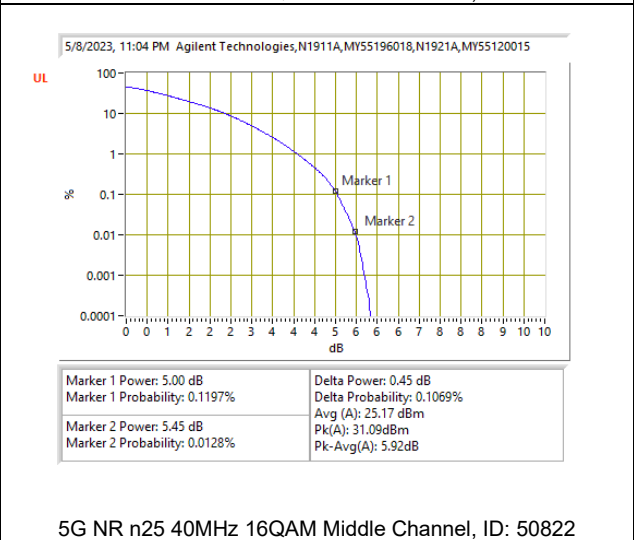
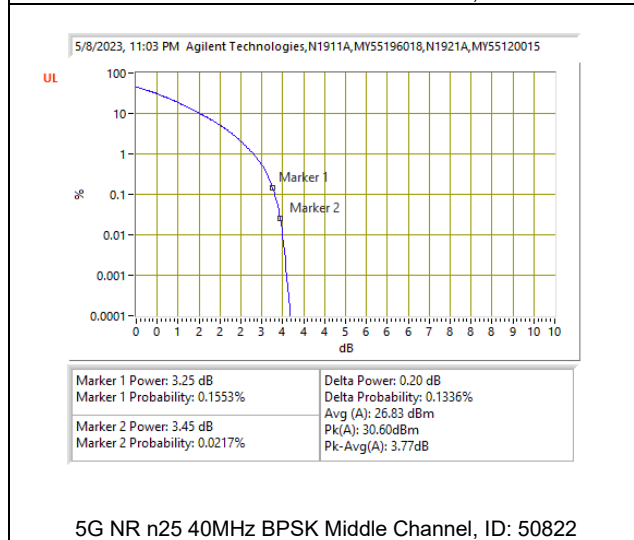
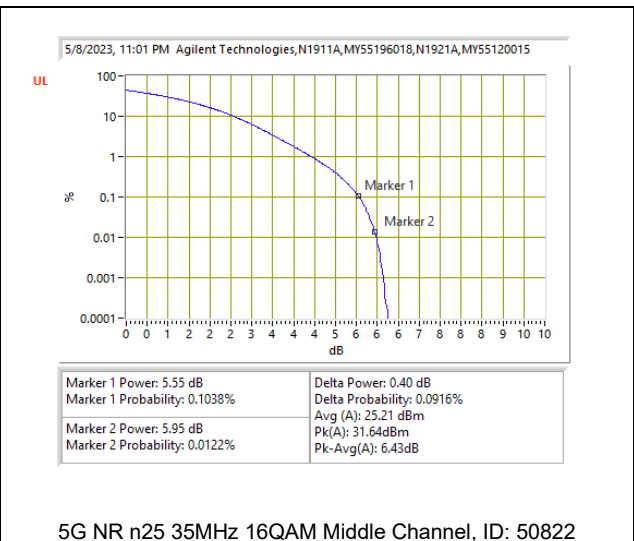
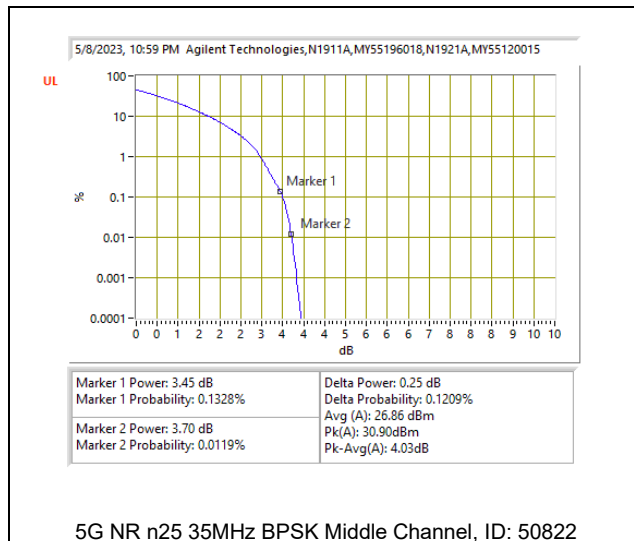




**5G NR n25**

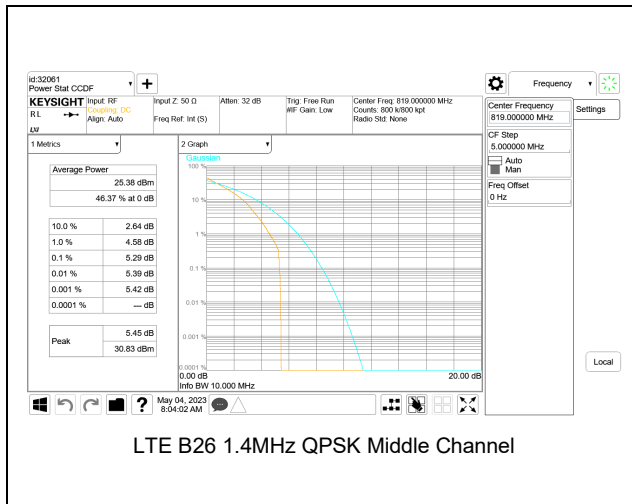




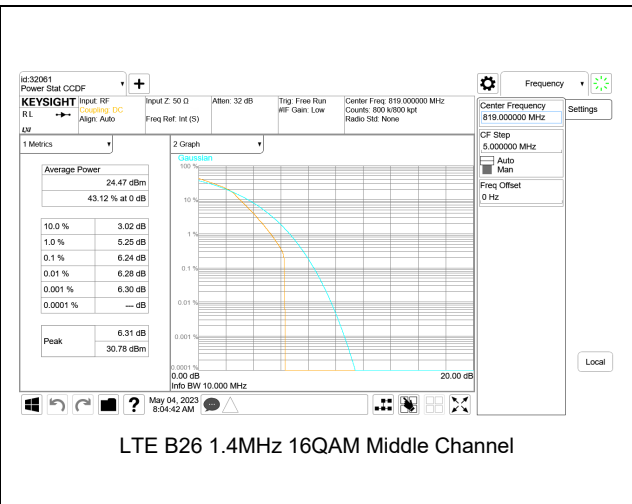


### 9.5.7. LTE BAND 26 AND 5G NR n26 (PART 90S)

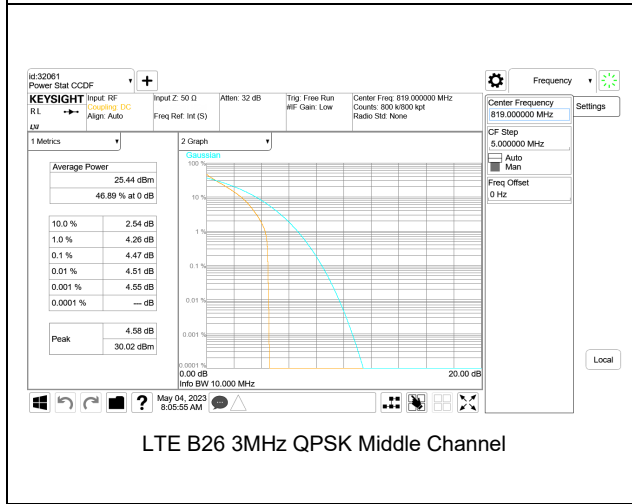
#### LTE BAND 26



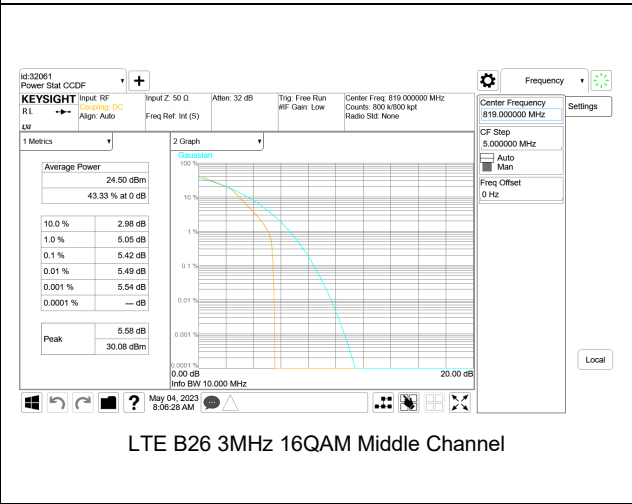
LTE B26 1.4MHz QPSK Middle Channel



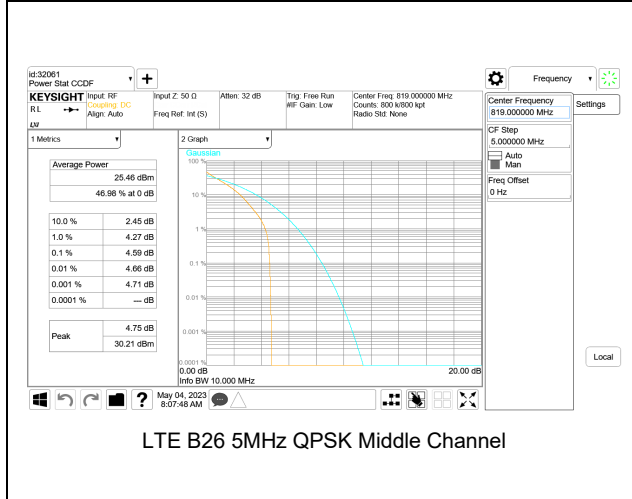
LTE B26 1.4MHz 16QAM Middle Channel



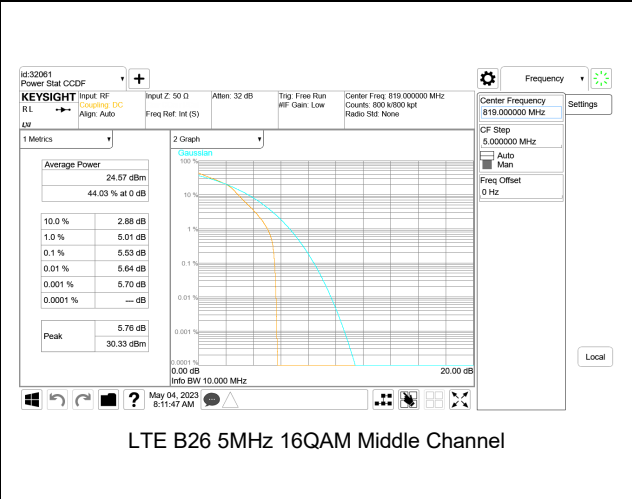
LTE B26 3MHz QPSK Middle Channel



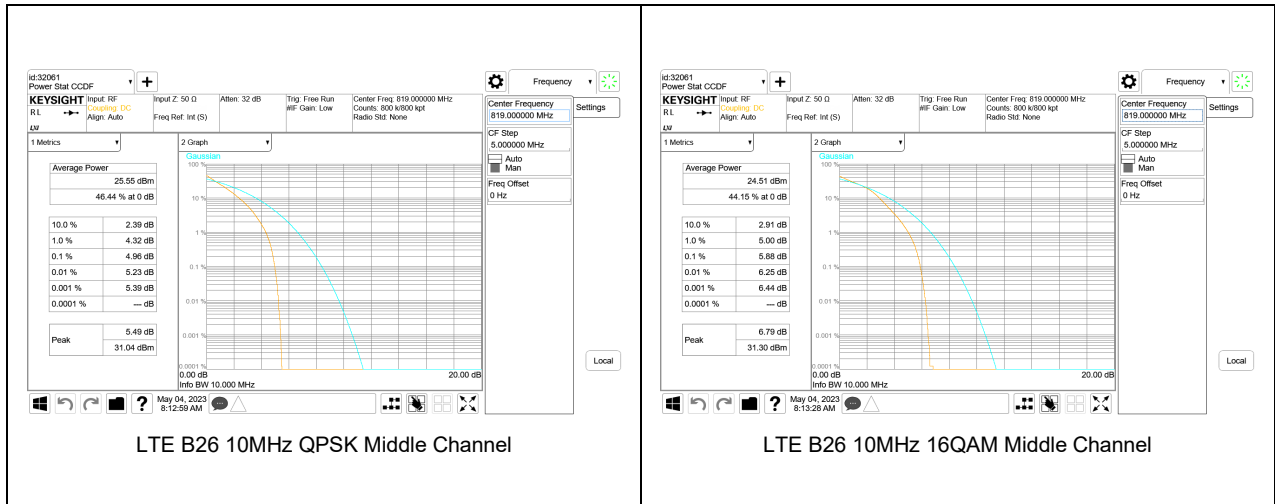
LTE B26 3MHz 16QAM Middle Channel



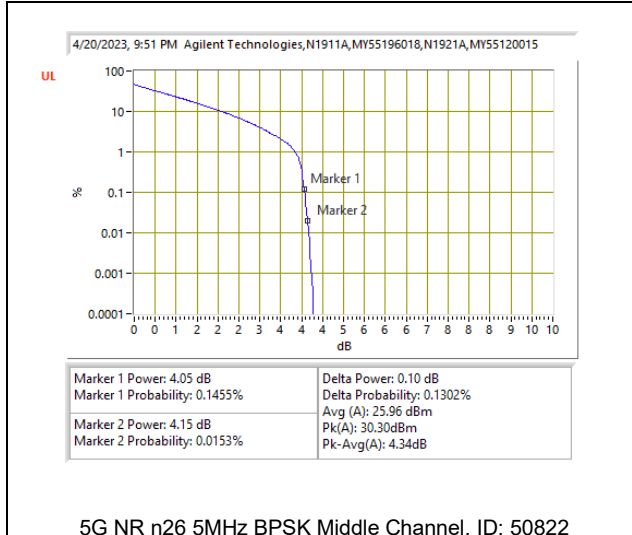
LTE B26 5MHz QPSK Middle Channel



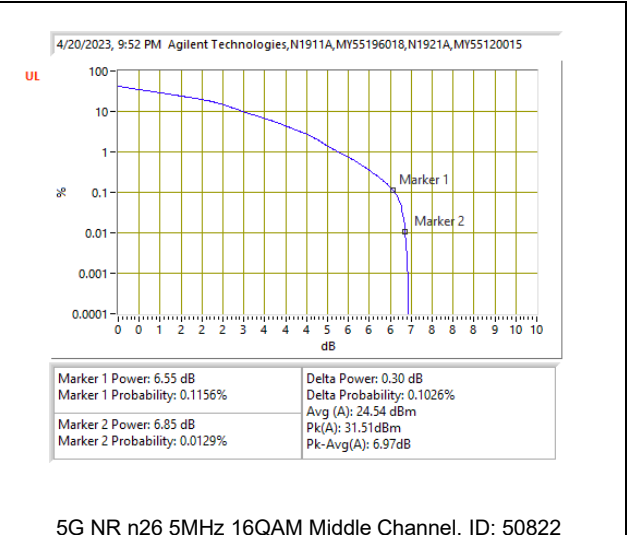
LTE B26 5MHz 16QAM Middle Channel



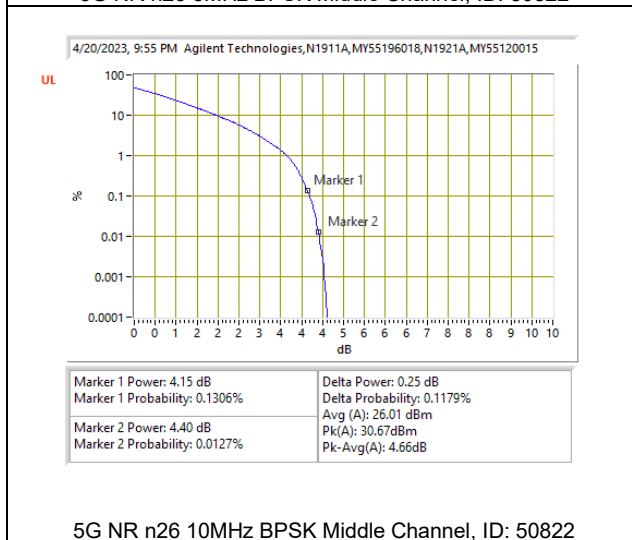
**5G NR n26**



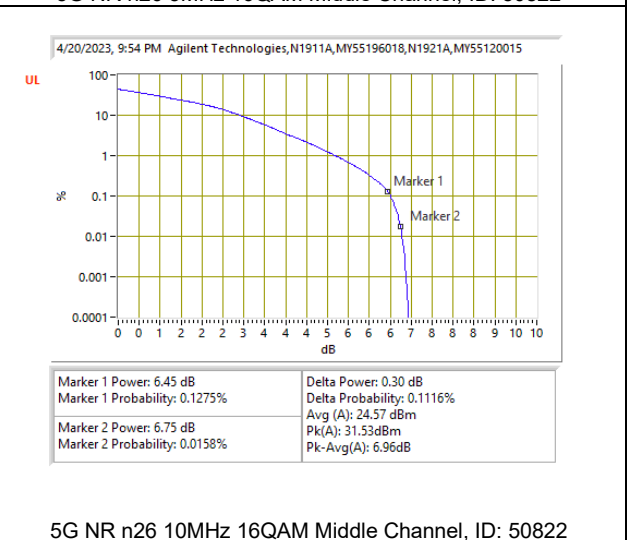
5G NR n26 5MHz BPSK Middle Channel, ID: 50822



5G NR n26 5MHz 16QAM Middle Channel, ID: 50822



5G NR n26 10MHz BPSK Middle Channel, ID: 50822



5G NR n26 10MHz 16QAM Middle Channel, ID: 50822

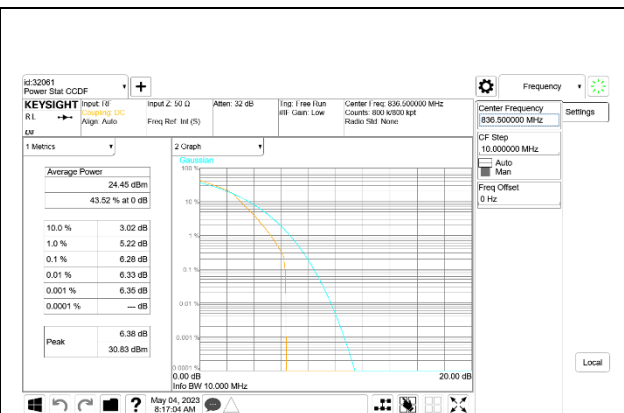


### 9.5.8. LTE BAND 26 AND 5G NR n26 (PART 22)

#### LTE BAND 26



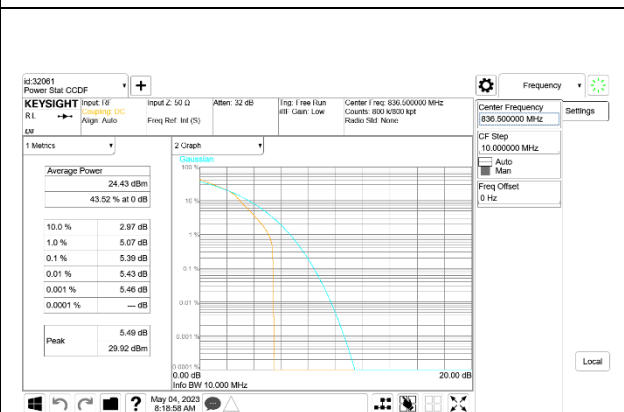
LTE B26 1.4MHz QPSK Middle Channel



LTE B26 1.4MHz 16QAM Middle Channel



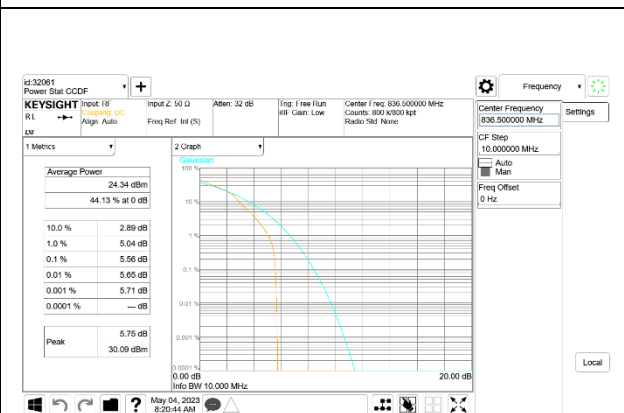
LTE B26 3MHz QPSK Middle Channel



LTE B26 3MHz 16QAM Middle Channel



LTE B26 5MHz QPSK Middle Channel

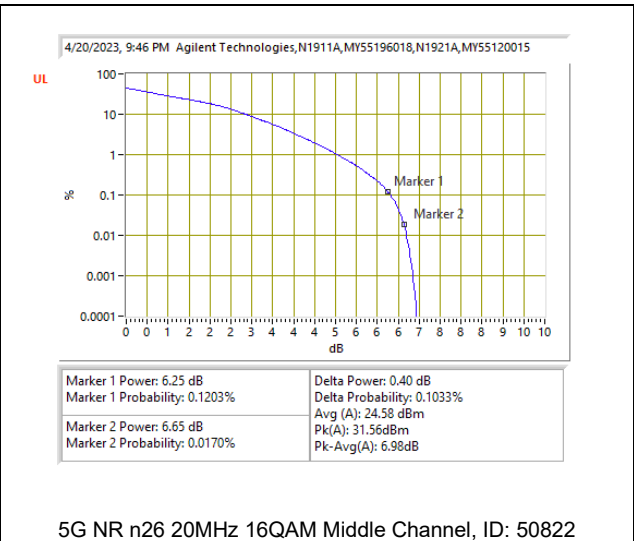
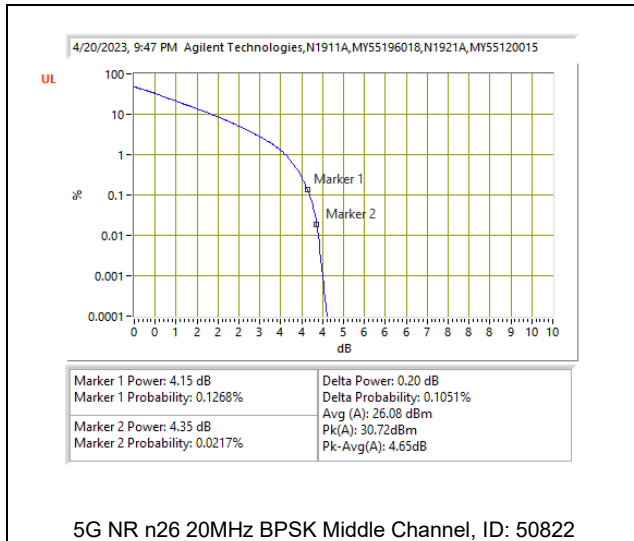


LTE B26 5MHz 16QAM Middle Channel



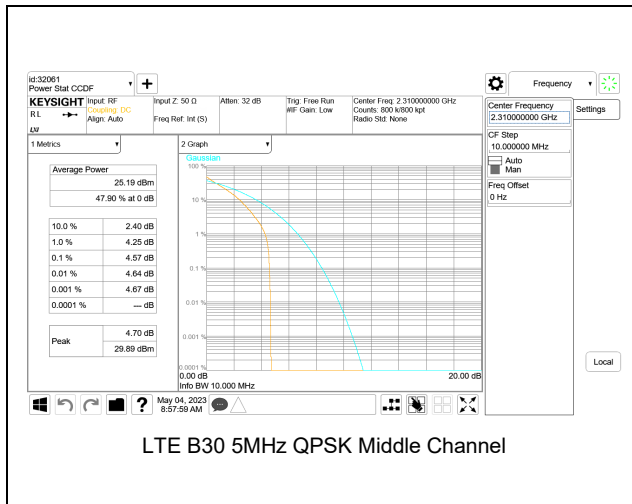
**5G NR n26**



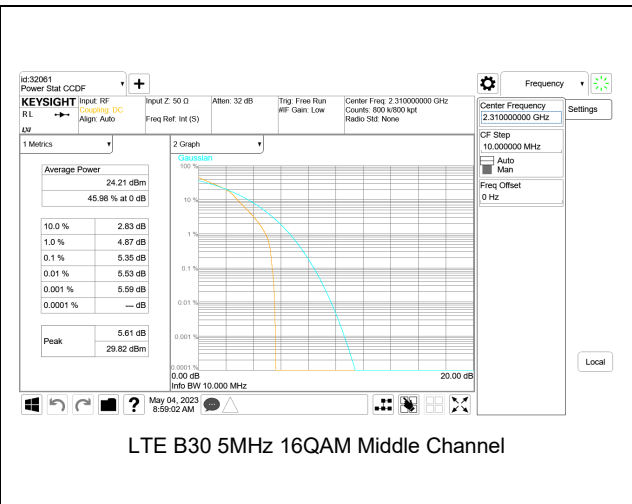


### 9.5.9. LTE BAND 30 AND 5G NR n30

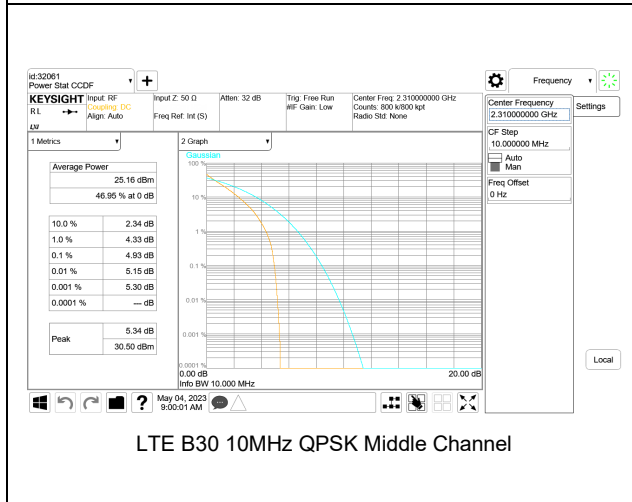
#### LTE BAND 30



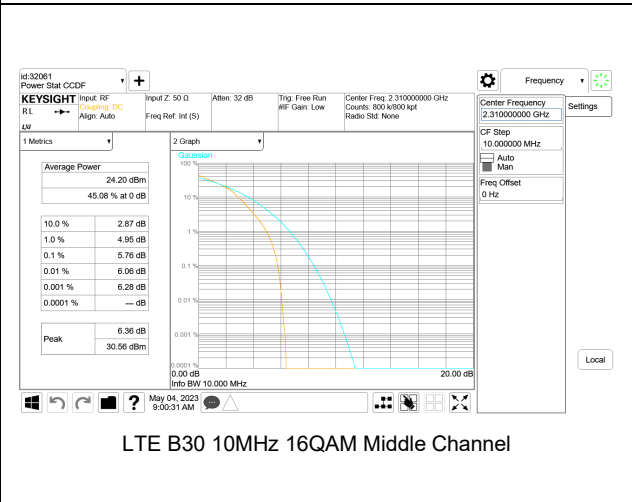
LTE B30 5MHz QPSK Middle Channel



LTE B30 5MHz 16QAM Middle Channel

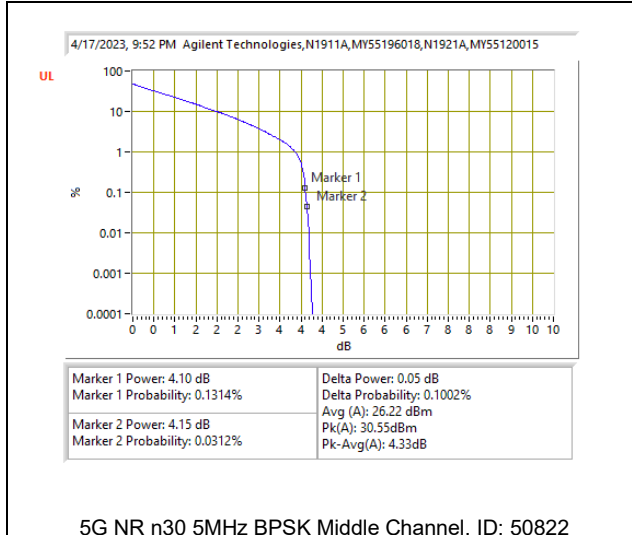


LTE B30 10MHz QPSK Middle Channel

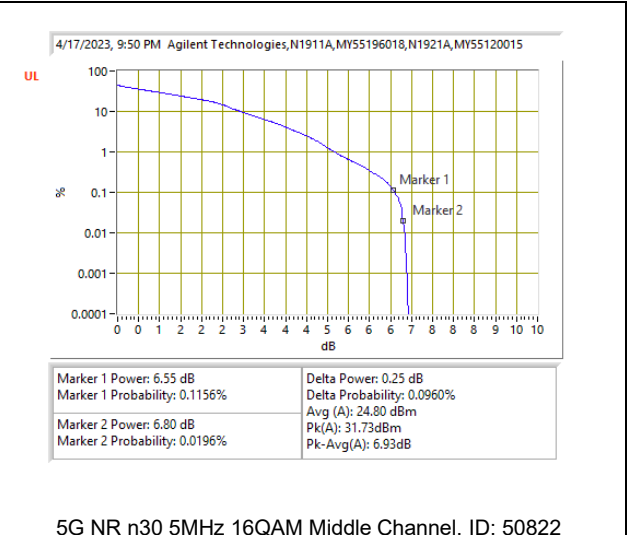


LTE B30 10MHz 16QAM Middle Channel

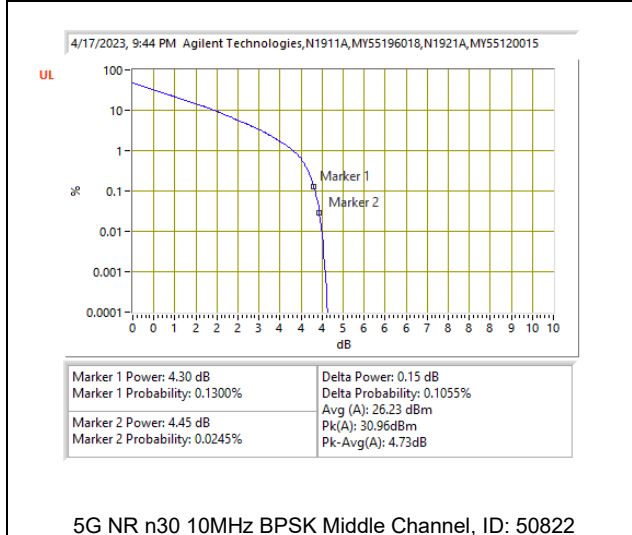
**5G NR n30**



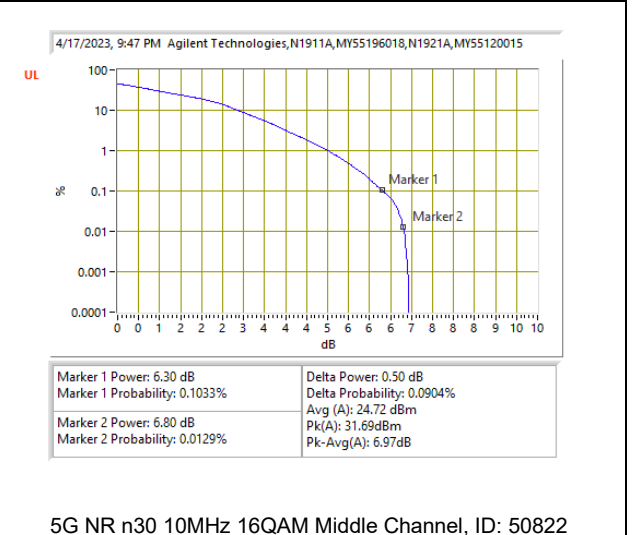
5G NR n30 5MHz BPSK Middle Channel, ID: 50822



5G NR n30 5MHz 16QAM Middle Channel, ID: 50822



5G NR n30 10MHz BPSK Middle Channel, ID: 50822



5G NR n30 10MHz 16QAM Middle Channel, ID: 50822

**9.5.10. LTE BAND 41 AND 5G NR n41**

<b>Test Engineer ID:</b>	50822	<b>Test Date:</b>	5/10/2023
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Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band 41	5MHz	2593.0	25	0	QPSK	33.34	21.76	*4.59
					16QAM	33.32	20.78	*5.55
	10MHz		50	0	QPSK	33.36	21.77	*4.6
					16QAM	33.35	20.79	*5.57
	15MHz		75	0	QPSK	33.24	21.60	*4.65
					16QAM	33.17	20.63	*5.55
20MHz	100	0	QPSK	33.26	21.60	*4.67		
			16QAM	33.24	20.61	*5.64		
5G NR Band n41	10MHz	2593.0	24	0	BPSK	32.39	28.89	3.50
					16QAM	33.61	27.88	5.73
	15MHz		36	0	BPSK	33.52	29.60	3.92
					16QAM	34.21	28.10	6.11
	20MHz		50	0	BPSK	33.06	29.61	3.45
					16QAM	33.81	28.00	5.81
	30MHz		75	0	BPSK	32.87	29.48	3.39
					16QAM	33.97	28.13	5.84
	40MHz		100	0	BPSK	33.31	29.51	3.80
					16QAM	33.66	27.96	5.70
	50MHz		128	0	BPSK	33.33	29.44	3.89
					16QAM	33.84	27.90	5.94
	60MHz		162	0	BPSK	33.17	29.46	3.71
					16QAM	33.60	27.80	5.80
	70MHz		180	0	BPSK	33.16	29.49	3.67
					16QAM	33.94	27.77	6.17
	80MHz		216	0	BPSK	32.83	29.40	3.43
					16QAM	33.23	27.75	5.48
90MHz	243	0	BPSK	32.85	29.32	3.53		
			16QAM	33.48	27.71	5.77		
100MHz	270	0	BPSK	32.70	29.40	3.30		
			16QAM	33.27	27.68	5.59		
* Duty Cycle Correction Factor (dB)			6.99					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

**9.5.11. LTE BAND 48 AND 5G NR n48**

<b>Test Engineer ID:</b>	50822	<b>Test Date:</b>	4/17/2023
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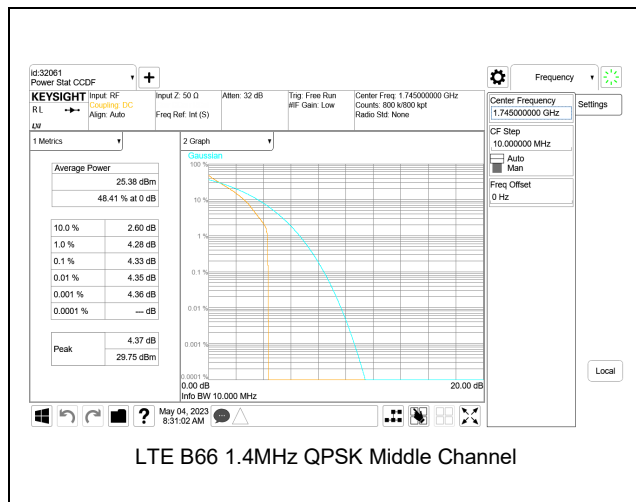
Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band 48	5MHz	3625.0	25	0	QPSK	30.01	18.43	*4.59
					16QAM	30.08	17.48	*5.61
	10MHz		50	0	QPSK	30.19	18.45	*4.75
					16QAM	30.14	17.49	*5.66
	15MHz		75	0	QPSK	30.09	18.39	*4.71
					16QAM	30.02	17.41	*5.62
20MHz	100	0	QPSK	30.07	18.37	*4.71		
			16QAM	30.10	17.38	*5.73		
5G NR n48	10MHz	3625.0	24	0	BPSK	30.05	25.66	4.39
					16QAM	30.86	24.13	6.73
	15MHz		36	0	BPSK	30.39	26.23	4.16
					16QAM	31.24	24.71	6.53
	20MHz		50	0	BPSK	30.55	26.21	4.34
					16QAM	31.33	24.69	6.64
	30MHz		75	0	BPSK	30.27	26.19	4.08
					16QAM	31.38	24.77	6.61
40MHz	100	0	BPSK	30.27	26.22	4.05		
			16QAM	31.17	24.70	6.47		

\* Duty Cycle Correction Factor (dB) = 6.99  
 Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor

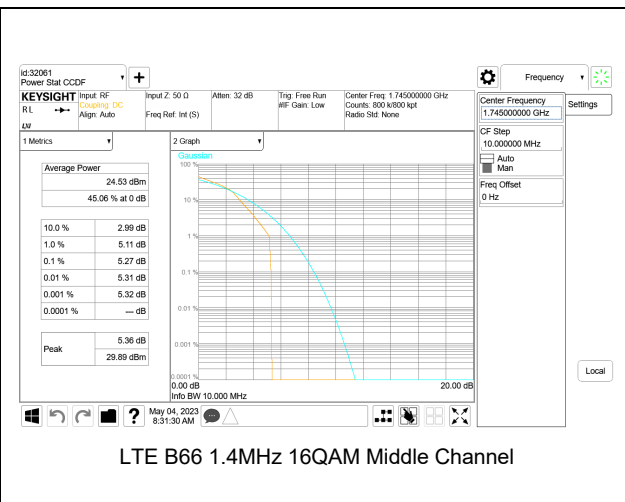


### 9.5.12. LTE BAND 66 AND 5G NR n66

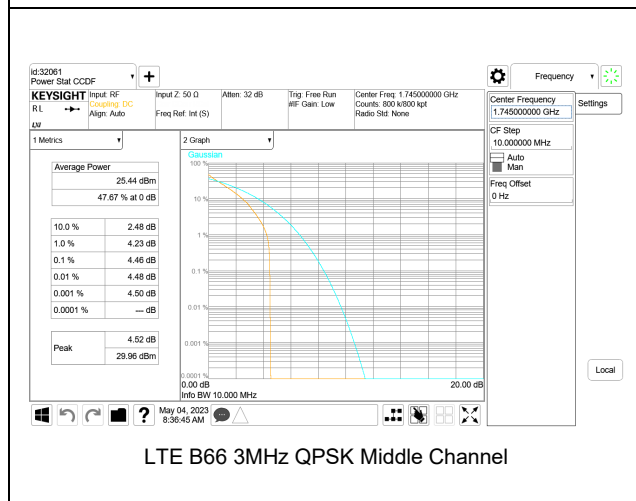
#### LTE BAND 66



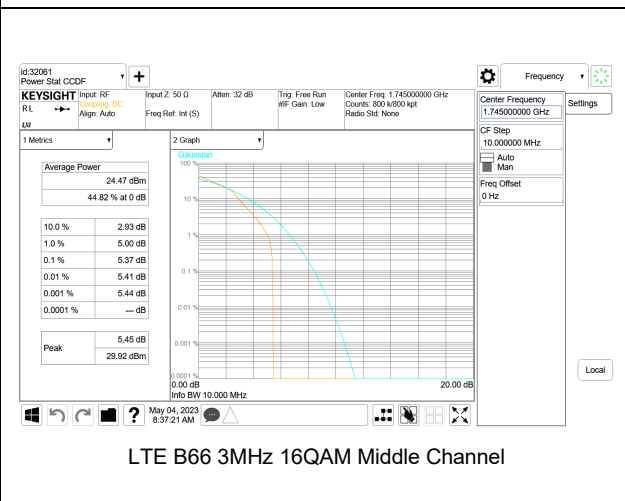
LTE B66 1.4MHz QPSK Middle Channel



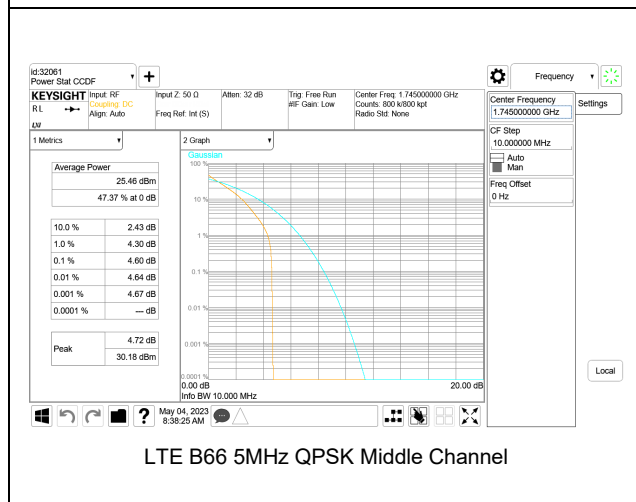
LTE B66 1.4MHz 16QAM Middle Channel



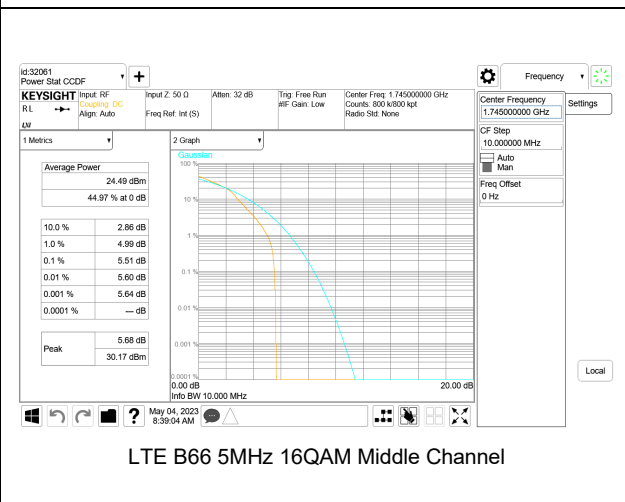
LTE B66 3MHz QPSK Middle Channel



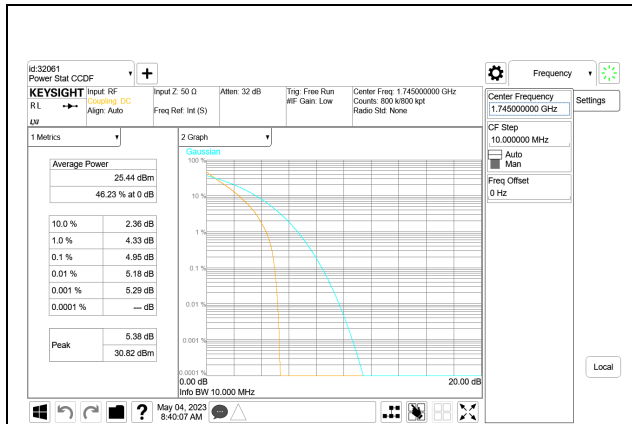
LTE B66 3MHz 16QAM Middle Channel



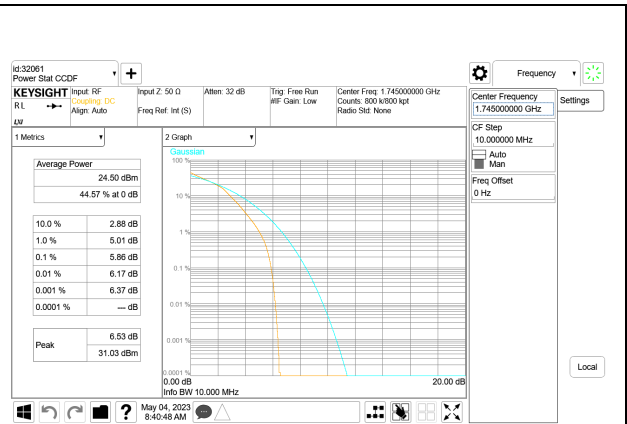
LTE B66 5MHz QPSK Middle Channel



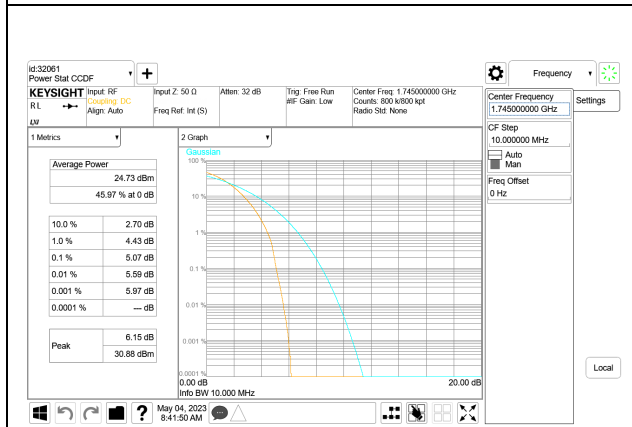
LTE B66 5MHz 16QAM Middle Channel



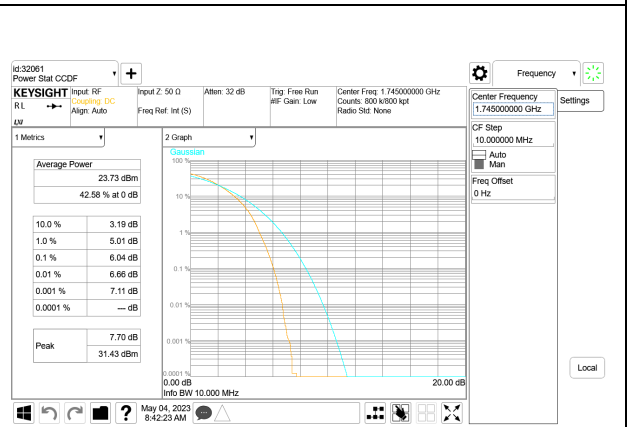
LTE B66 10MHz QPSK Middle Channel



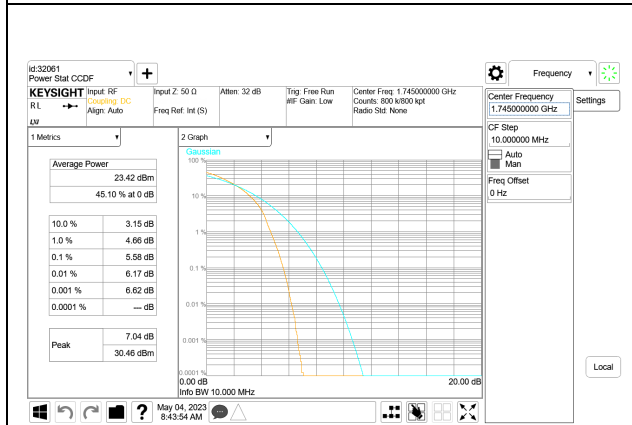
LTE B66 10MHz 16QAM Middle Channel



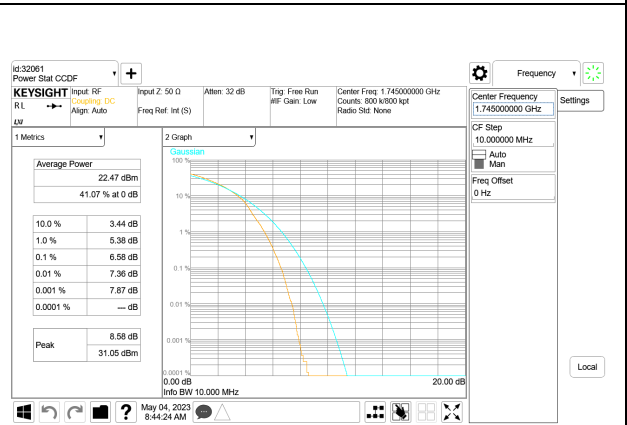
LTE B66 15MHz QPSK Middle Channel



LTE B66 15MHz 16QAM Middle Channel

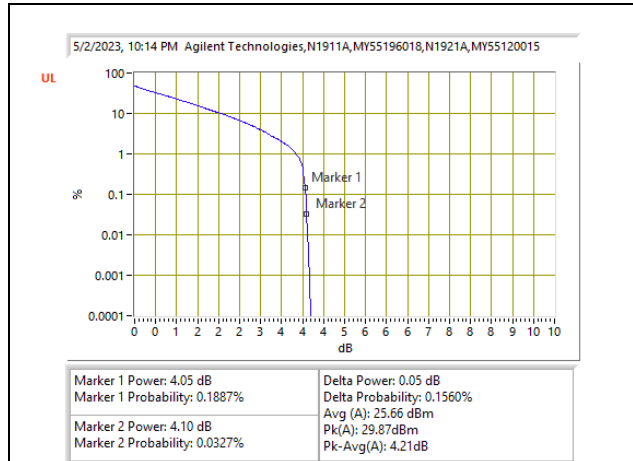


LTE B66 20MHz QPSK Middle Channel

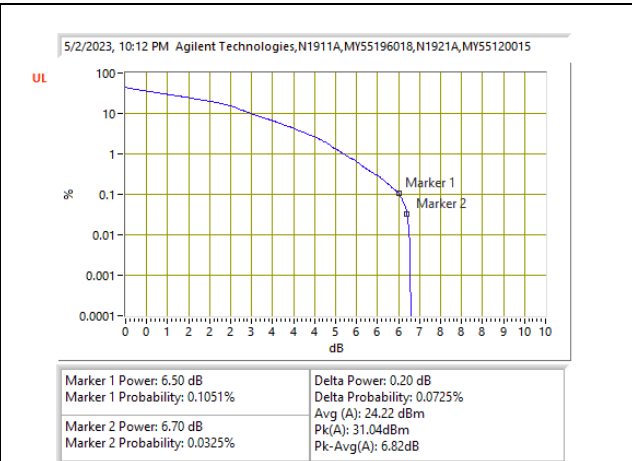


LTE B66 20MHz 16QAM Middle Channel

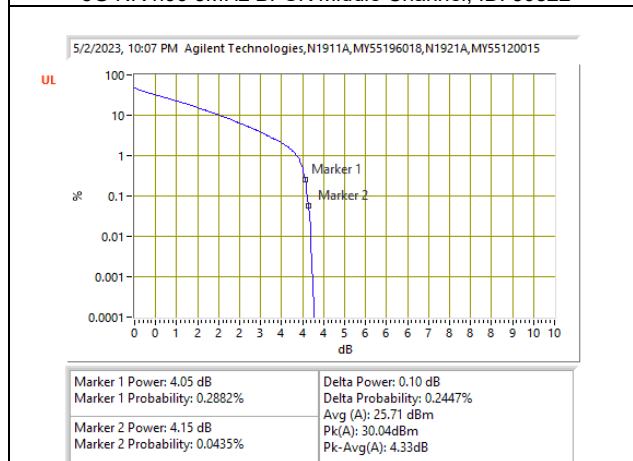
**5G NR n66**



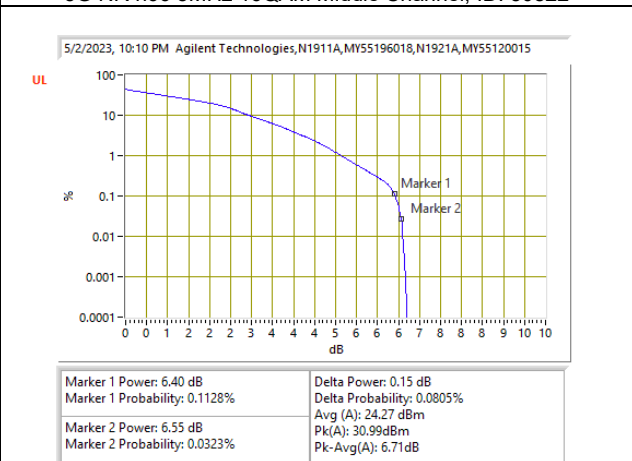
5G NR n66 5MHz BPSK Middle Channel, ID: 50822



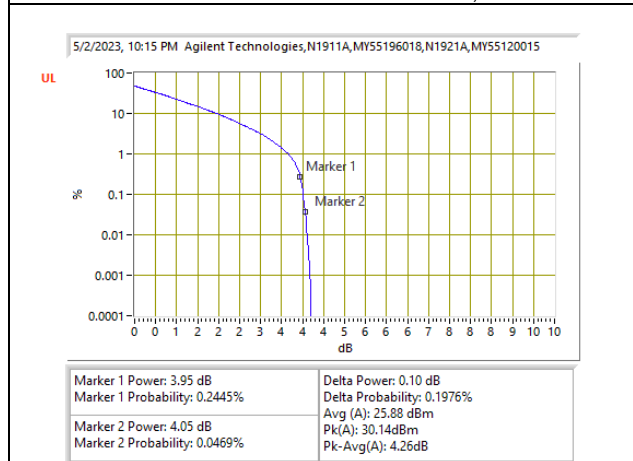
5G NR n66 5MHz 16QAM Middle Channel, ID: 50822



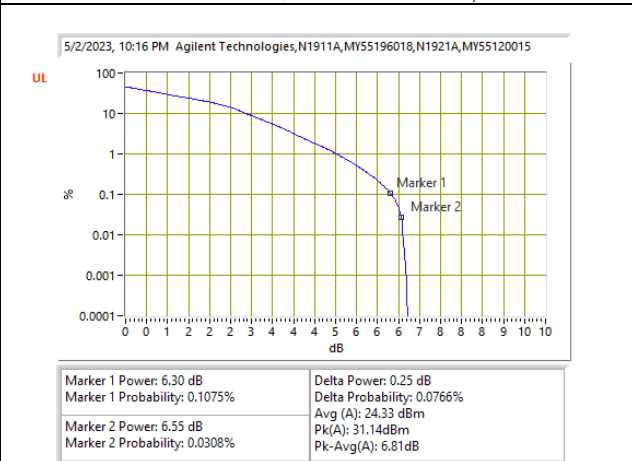
5G NR n66 10MHz BPSK Middle Channel, ID: 50822



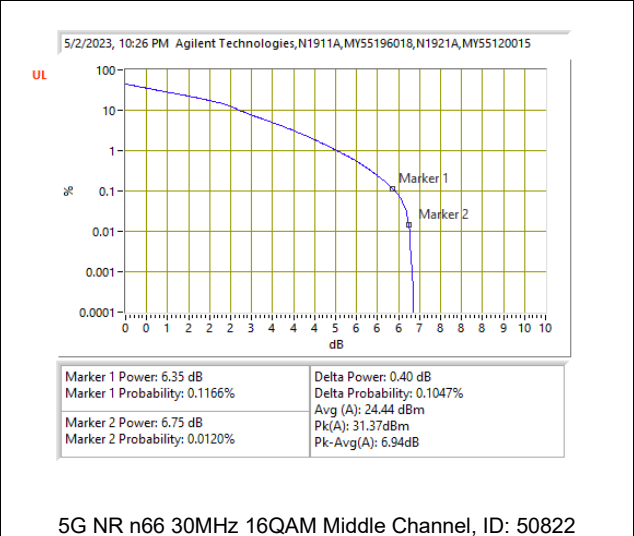
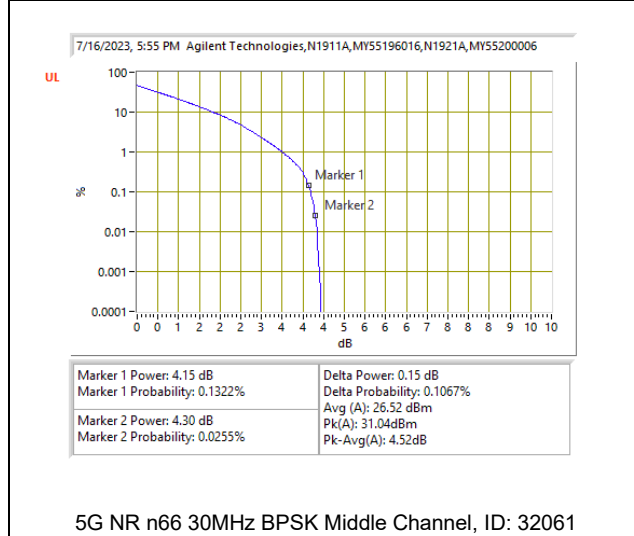
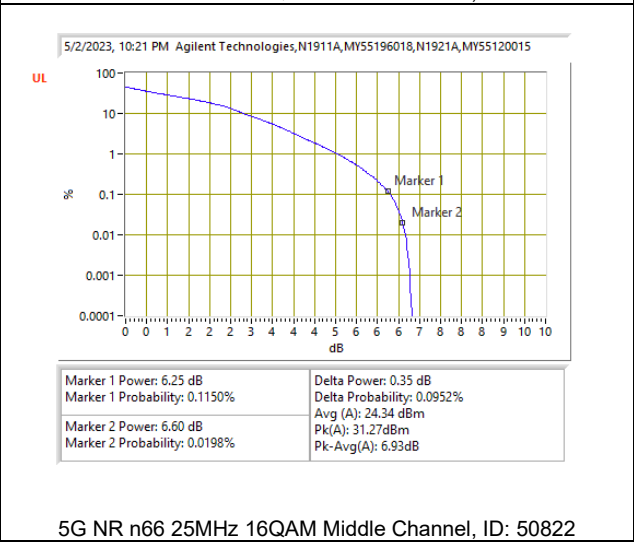
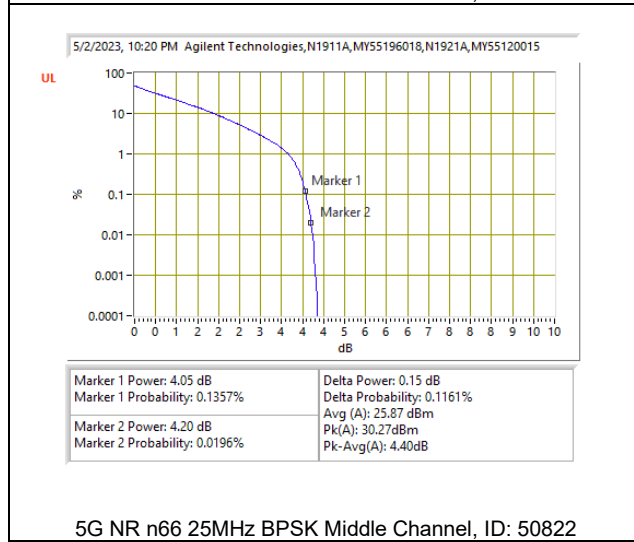
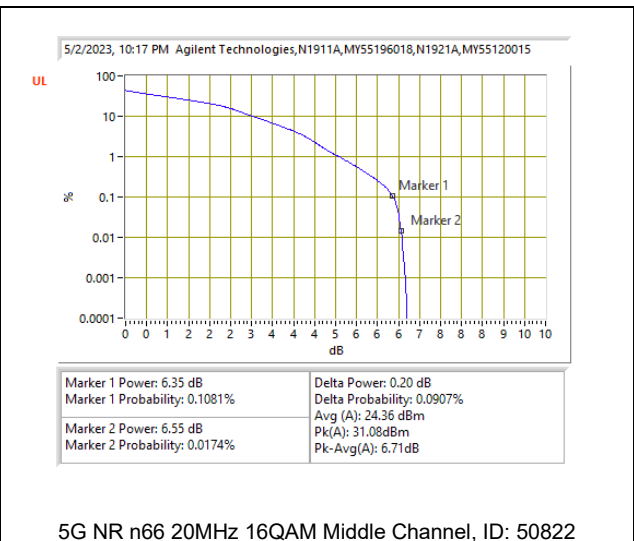
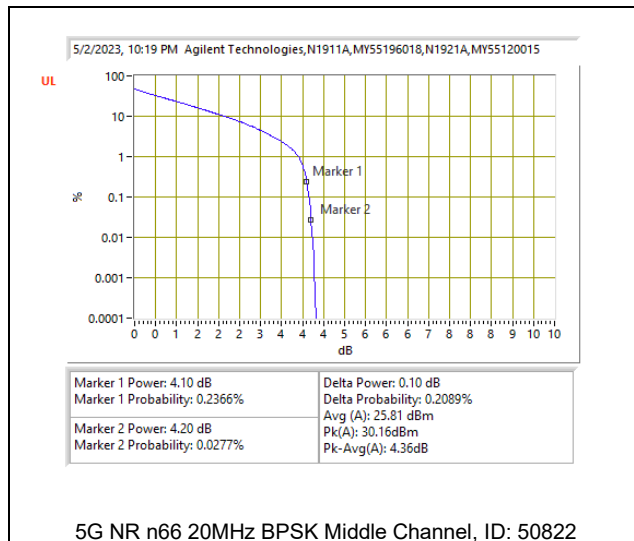
5G NR n66 10MHz 16QAM Middle Channel, ID: 50822

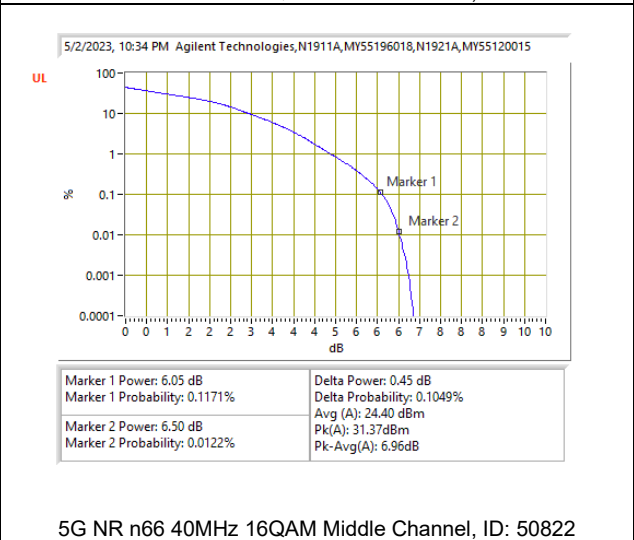
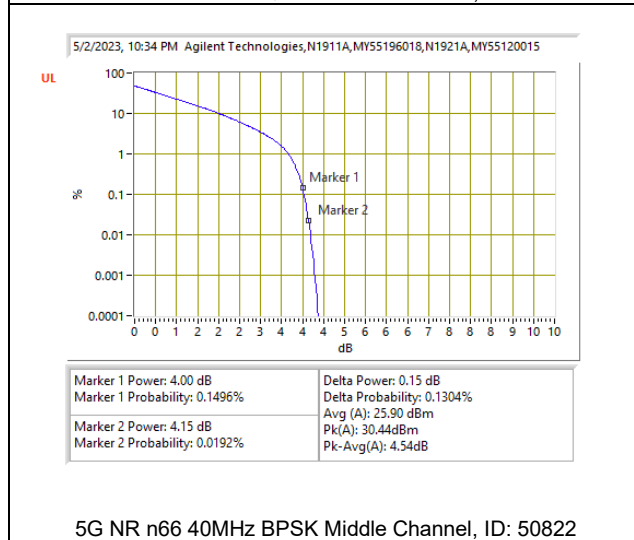
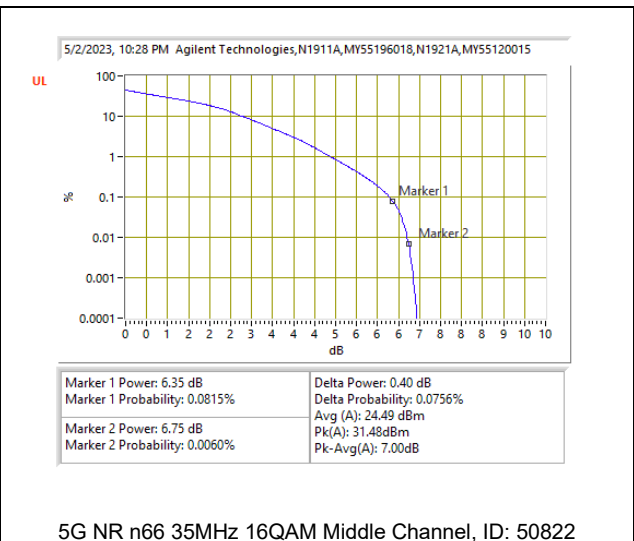
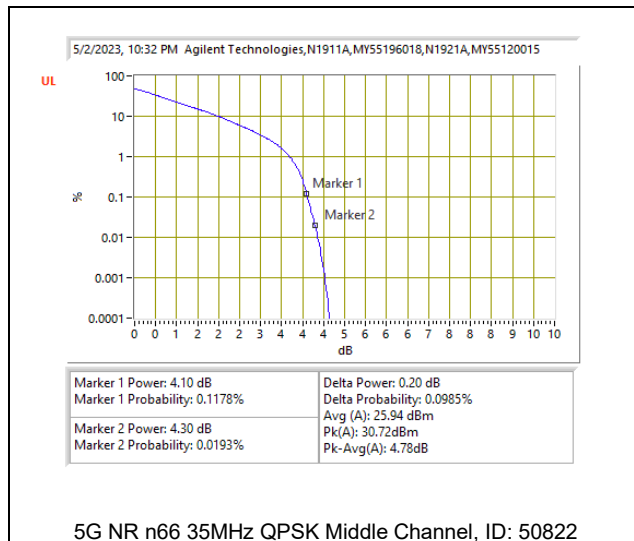


5G NR n66 15MHz BPSK Middle Channel, ID: 50822



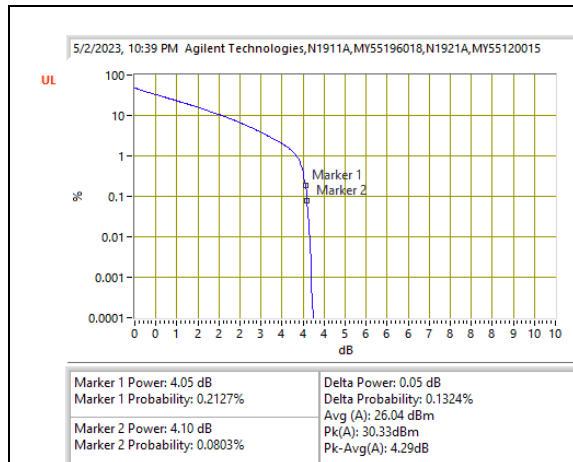
5G NR n66 15MHz 16QAM Middle Channel, ID: 50822



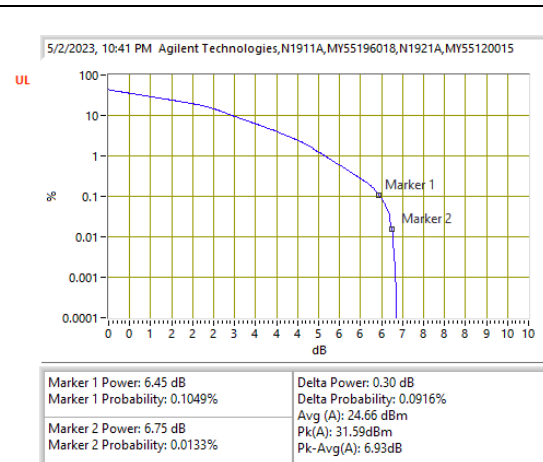


### 9.5.13. 5G NR n70

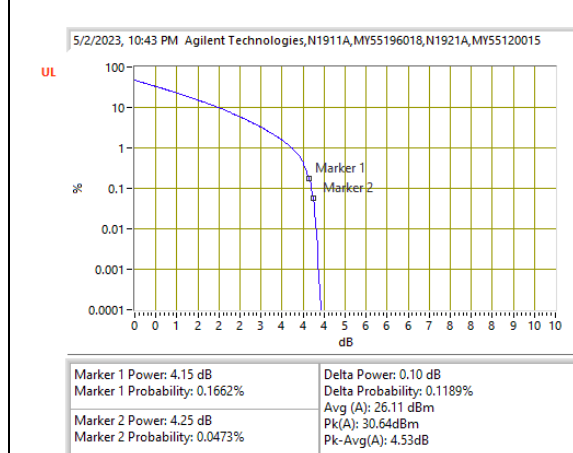
#### 5G NR n70



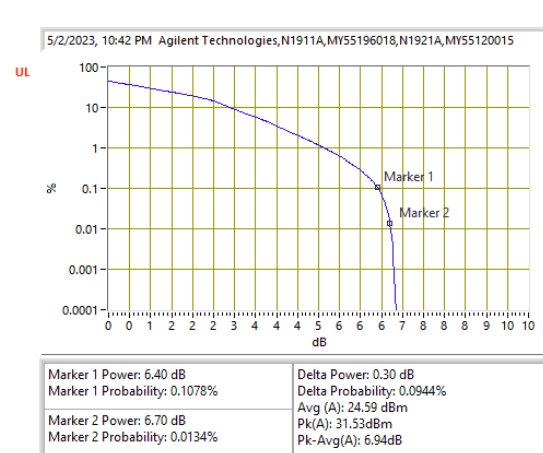
5G NR n70 5MHz BPSK Middle Channel, ID: 50822



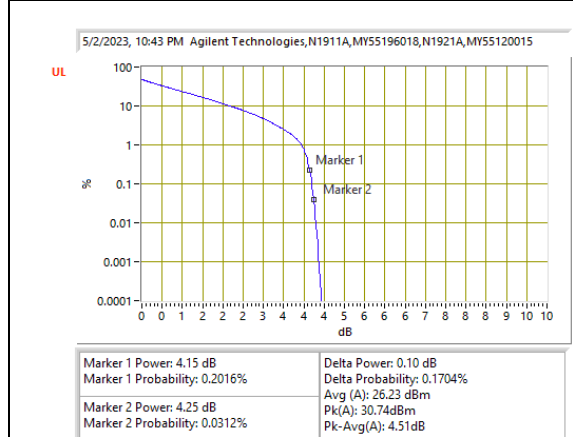
5G NR n70 5MHz 16QAM Middle Channel, ID: 50822



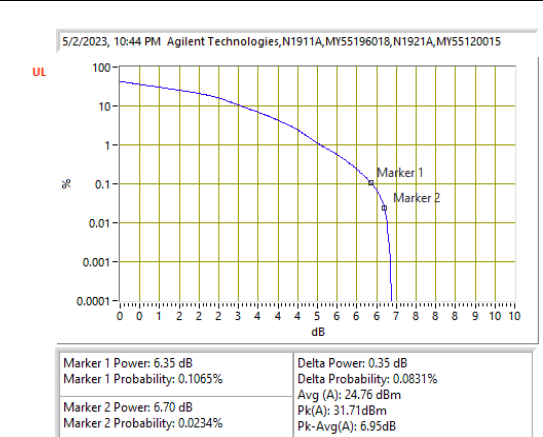
5G NR n70 10MHz BPSK Middle Channel, ID: 50822



5G NR n70 10MHz 16QAM Middle Channel, ID: 50822



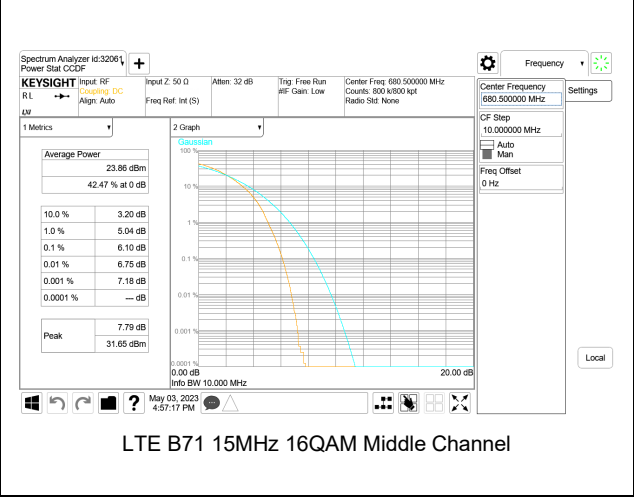
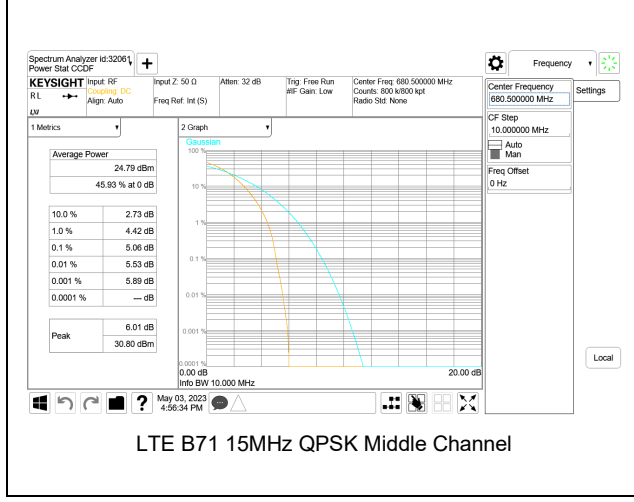
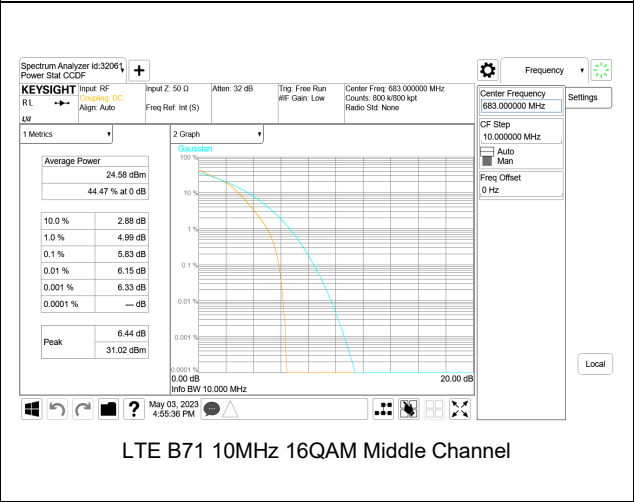
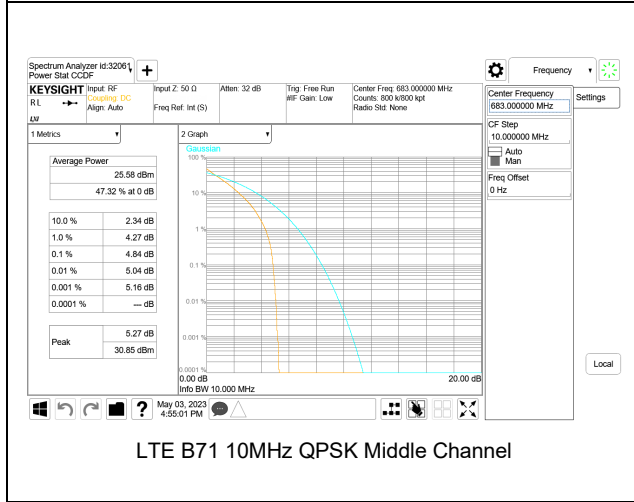
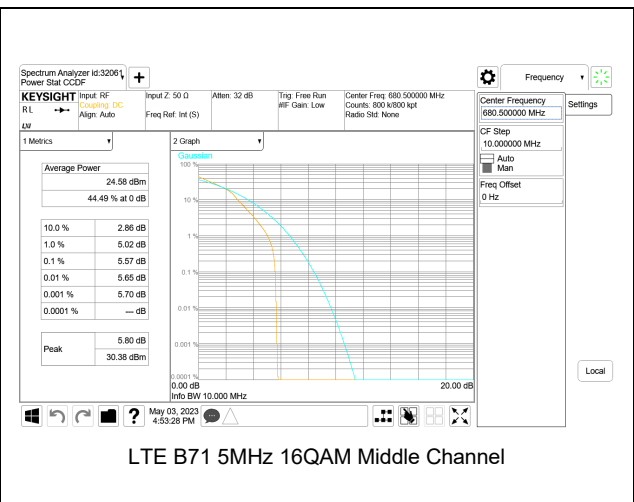
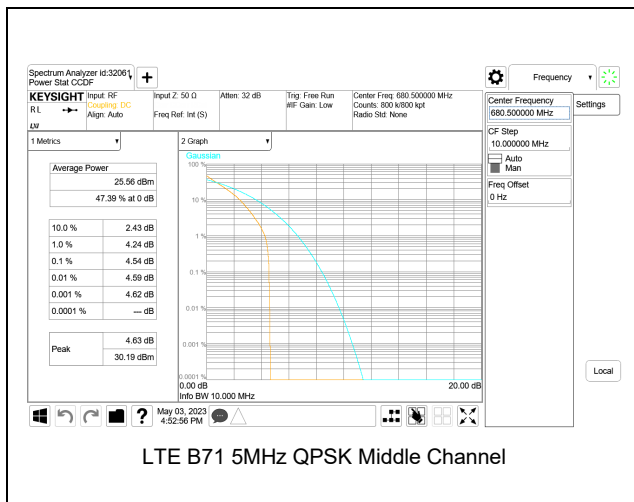
5G NR n70 15MHz BPSK Middle Channel, ID: 50822

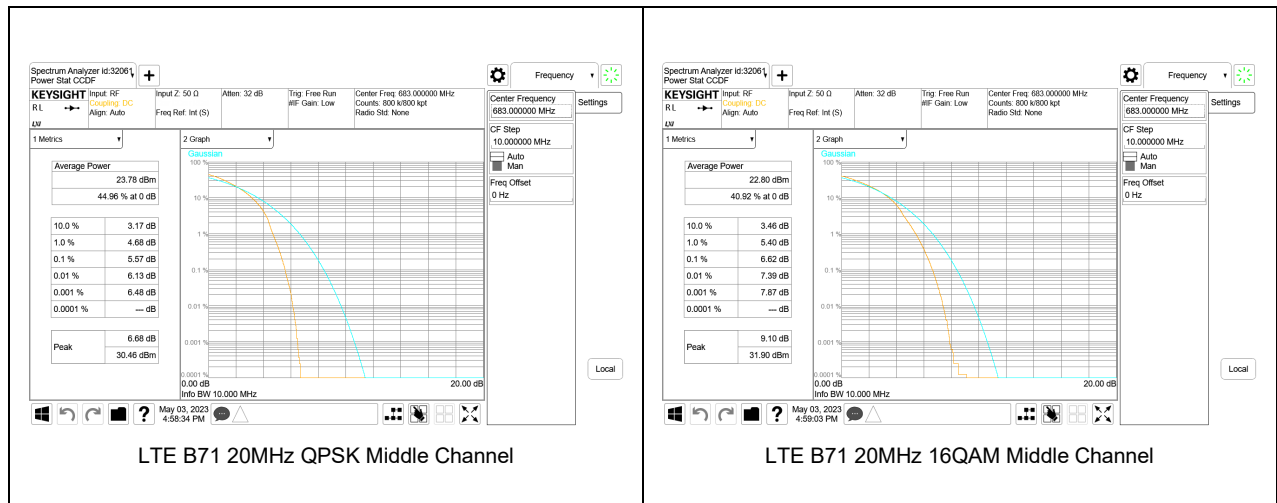


5G NR n70 15MHz 16QAM Middle Channel, ID: 50822

### 9.5.14. LTE BAND 71 AND 5G NR n71

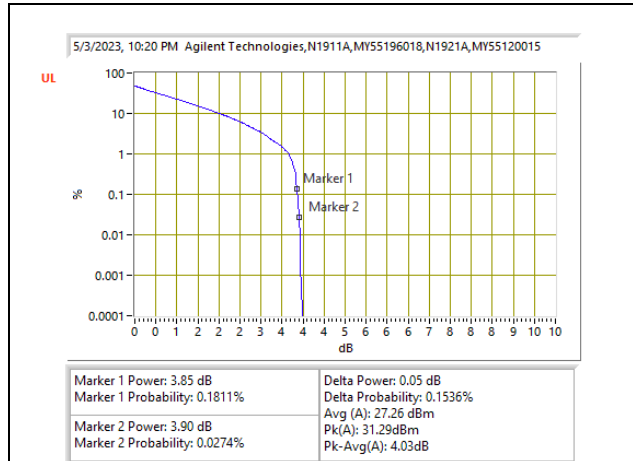
#### LTE BAND 71



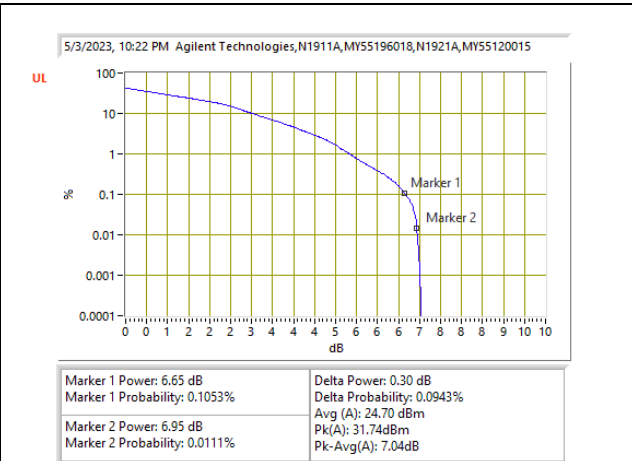




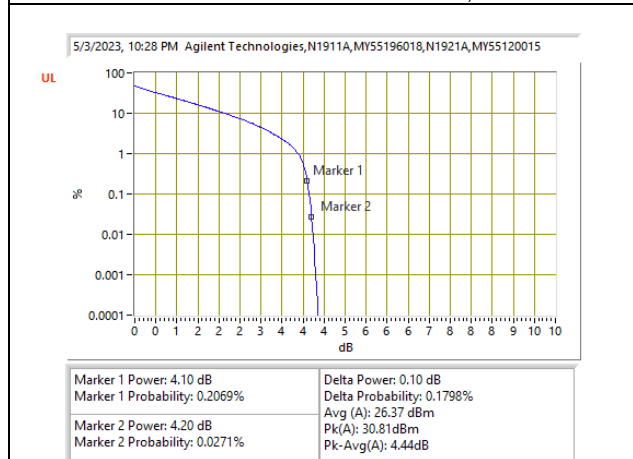
**5G NR n71**



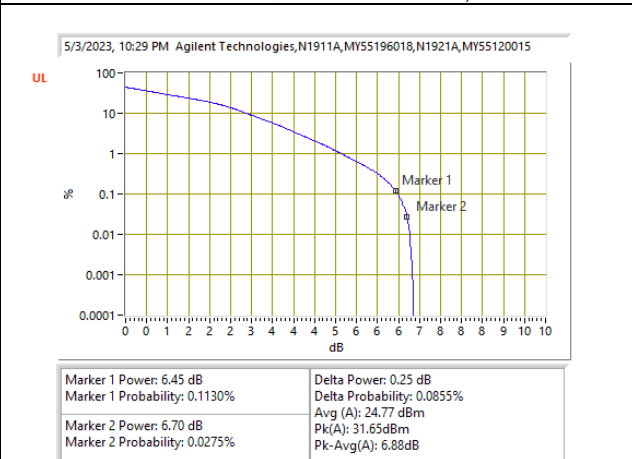
5G NR n71 5MHz BPSK Middle Channel, ID: 50822



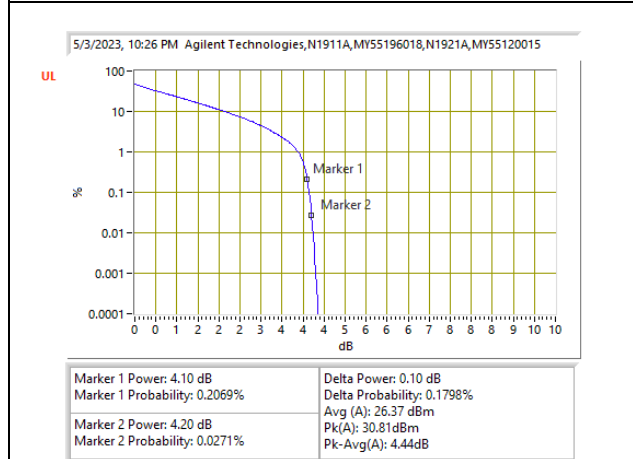
5G NR n71 5MHz 16QAM Middle Channel, ID: 50822



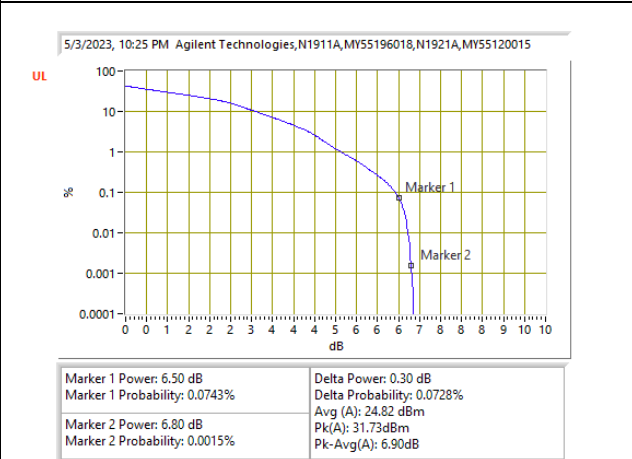
5G NR n71 10MHz BPSK Middle Channel, ID: 50822



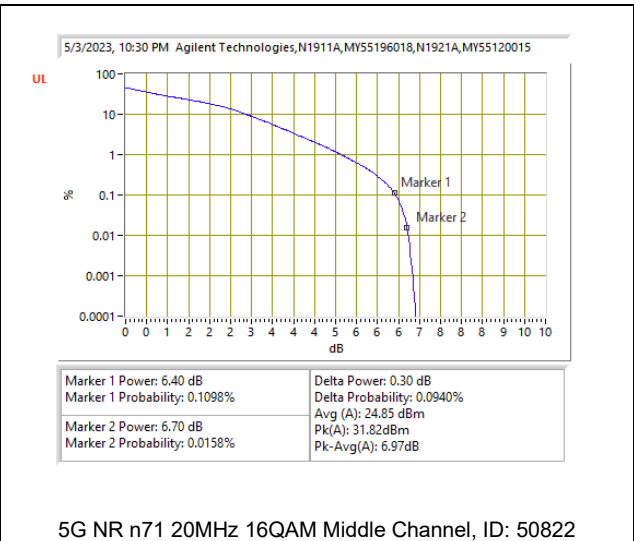
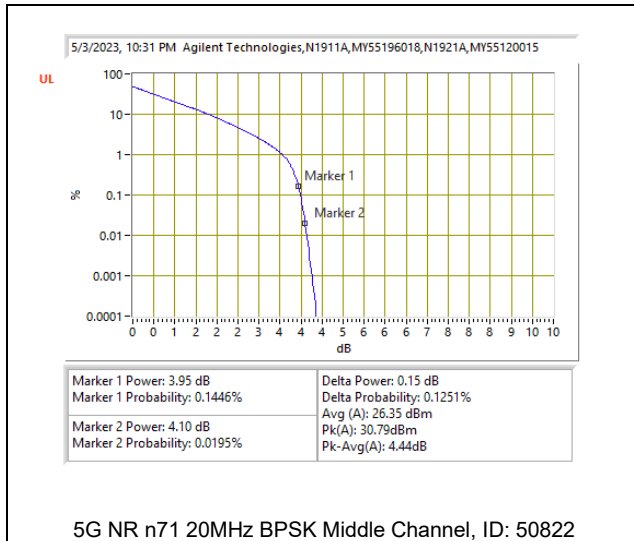
5G NR n71 10MHz 16QAM Middle Channel, ID: 50822



5G NR n71 15MHz BPSK Middle Channel, ID: 50822



5G NR n71 15MHz 16QAM Middle Channel, ID: 50822



**9.5.15. 5G NR n77 (Part 27 3450-3550MHz)**

<b>Test Engineer ID:</b>	50822	<b>Test Date:</b>	5/3/2023
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Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
5G NR n77 (FCC Part 27 3450-3550MHz)	10MHz	3500.0	24	0	BPSK	32.63	28.44	4.19
					16QAM	34.09	27.26	6.83
	15MHz		36	0	BPSK	33.25	29.17	4.08
					16QAM	34.41	27.58	6.83
	20MHz		50	0	BPSK	33.12	29.01	4.11
					16QAM	34.35	27.60	6.75
	30MHz		75	0	BPSK	33.23	29.02	4.21
					16QAM	34.52	27.64	6.88
	40MHz		100	0	BPSK	33.27	29.22	4.05
					16QAM	34.33	27.70	6.63
	50MHz		128	0	BPSK	31.97	28.13	3.84
					16QAM	33.08	26.62	6.46
	60MHz		162	0	BPSK	32.09	28.24	3.85
					16QAM	32.99	26.59	6.40
	70MHz		180	0	BPSK	32.21	28.28	3.93
					16QAM	33.18	26.55	6.63
	80MHz		216	0	BPSK	31.76	28.23	3.53
					16QAM	32.64	26.57	6.07
	90MHz		243	0	BPSK	31.69	28.22	3.47
					16QAM	32.56	26.60	5.96
100MHz	270	0	BPSK	31.72	28.18	3.54		
			16QAM	32.51	26.65	5.86		
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

**9.5.16. 5G NR n77 (Part 27 3700-3980MHz)**

<b>Test Engineer ID:</b>	50822	<b>Test Date:</b>	5/9/2023
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Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
5G NR n77 (FCC Part 27 3700-3980MHz)	10MHz	3480.0	24	0	BPSK	33.16	28.95	4.21
					16QAM	34.17	27.46	6.71
	15MHz		36	0	BPSK	33.31	29.07	4.24
					16QAM	34.33	27.60	6.73
	20MHz		50	0	BPSK	33.39	29.10	4.29
					16QAM	34.37	27.63	6.74
	30MHz		75	0	BPSK	33.38	29.12	4.26
					16QAM	34.49	27.66	6.83
	40MHz		100	0	BPSK	33.17	29.11	4.06
					16QAM	34.28	27.57	6.71
	50MHz		128	0	BPSK	32.90	29.00	3.90
					16QAM	33.58	27.27	6.31
	60MHz		162	0	BPSK	32.35	29.53	2.82
					16QAM	32.90	27.71	5.19
	70MHz		180	0	BPSK	32.52	29.36	3.16
					16QAM	32.78	27.51	5.27
	80MHz		216	0	BPSK	31.78	29.41	2.37
					16QAM	32.69	27.63	5.06
	90MHz		243	0	BPSK	31.88	27.49	4.39
					16QAM	31.78	29.44	2.34
100MHz	270	0	BPSK	31.82	29.43	2.39		
			16QAM	31.87	27.59	4.28		
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

## 10. RADIATED TEST RESULTS

### Radiated measurement using the Field Strength Method

Using the test configuration shown in Figure 6 below, We measure the radiated emissions directly from the EUT and convert the measured field strength or received power to ERP or EIRP, as required, for comparison to the applicable limits. As stated in 5.5.1 of ANSI C63.26-2015, the field strength measurement method using a test site validated to the requirements of ANSI C63.4 is an alternative to the substitution measurement method.

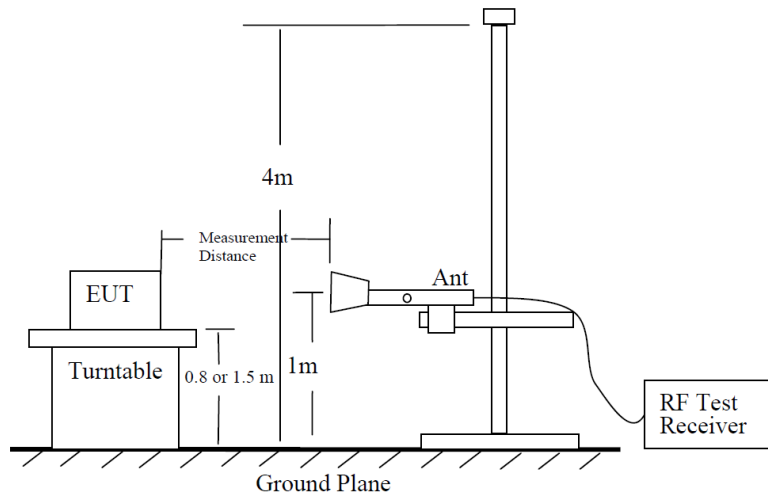


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

### Radiated Power Measurement Calculation According to ANSI C63.26-2015

- a)  $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$ .
- b)  $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$ .
- c)  $E \text{ (dB}\mu\text{V/m)} = \text{EIRP (dBm)} - 20\log(D) + 104.8$ ; where D is the measurement distance (in the far field region) in m.
- d)  $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8$ ; where D is the measurement distance (in the far field region) in m.

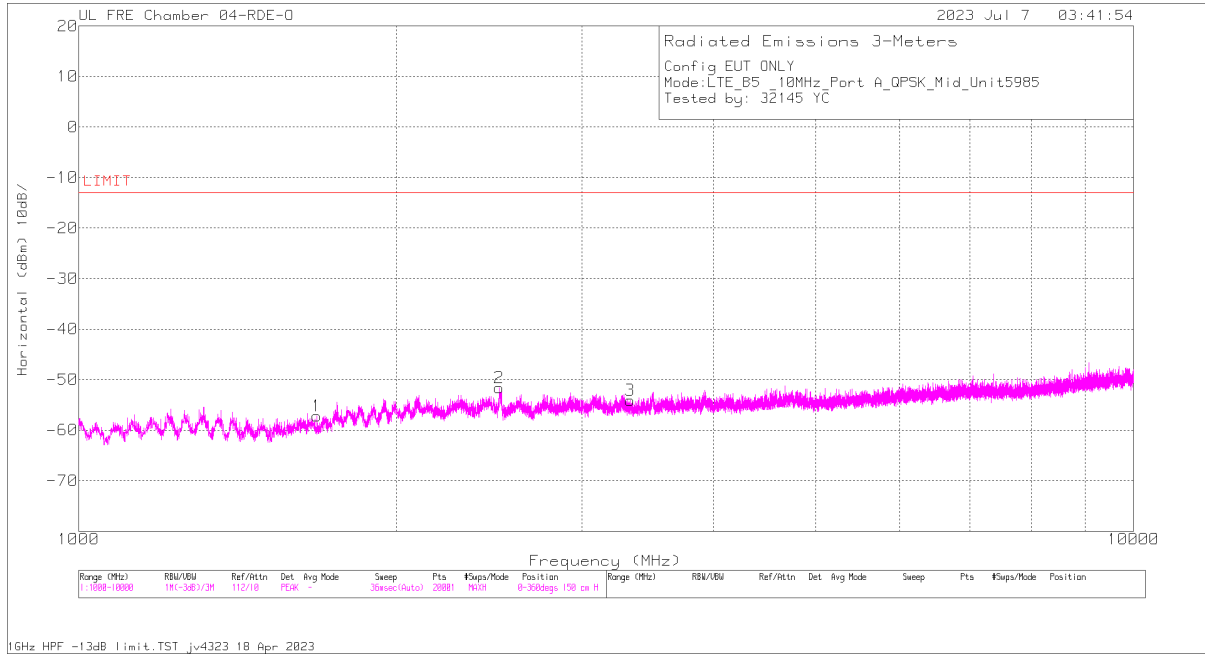
So, from d)

The measuring distance is usually at 3m, then  $20 \cdot \log(3) = 9.5424$

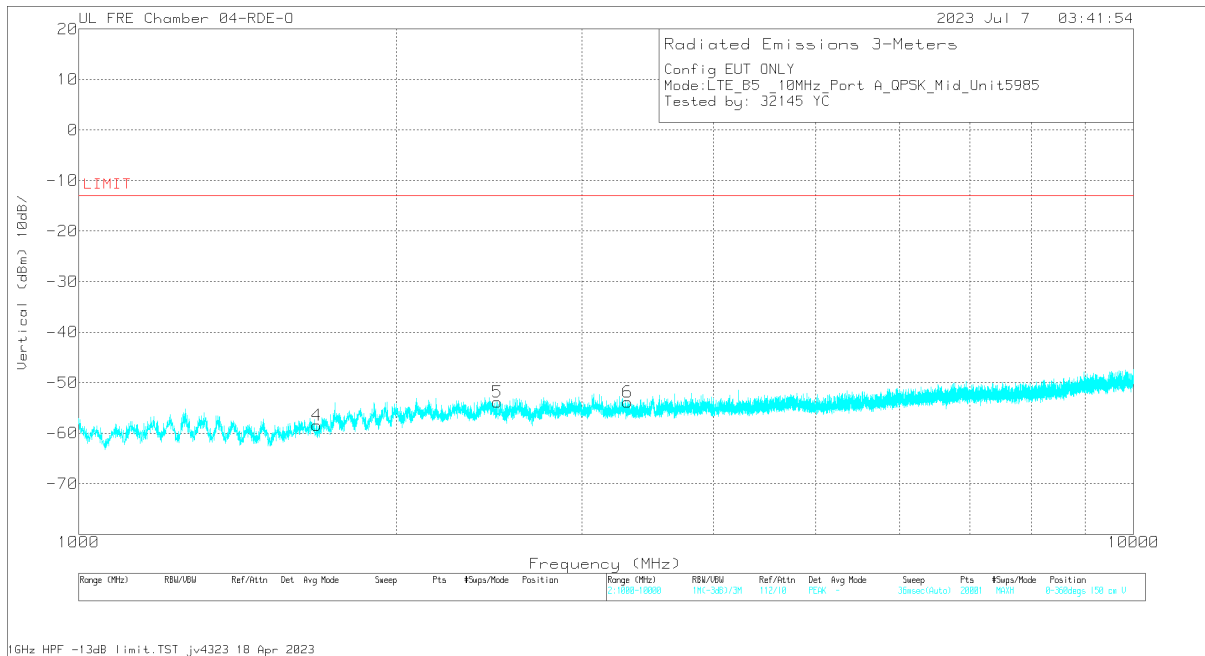
Then,  $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 9.5424 - 104.8 = E \text{ (dB}\mu\text{V/m)} - 95.2576$

Note: Confidence check of each chamber is performed daily to see if any degradation from expected/normal reading reference data. Ambient check of each chamber is performed monthly.

**Example Plot**



Horizontal Polarity



Vertical Polarity

### Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	80404_ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
4	1.680850	54.47	Pk	28.8	-95.2	-46.49	-58.42	-13	-45.42	V
1	1.681300	55.73	Pk	28.8	-95.2	-46.51	-57.18	-13	-44.18	H
5	2.494450	55.26	Pk	32.1	-95.2	-45.98	-53.82	-13	-40.82	V
2	2.503900	57.44	Pk	32.2	-95.2	-46.03	-51.59	-13	-38.59	H
6	3.31390	53.14	Pk	33	-95.2	-44.78	-53.84	-13	-40.84	V
3	3.33100	53.03	Pk	32.9	-95.2	-44.79	-54.06	-13	-41.06	H

Pk - Peak detector

### Radiated Emissions

## 10.1. FIELD STRENGTH OF SPURIOUS RADIATION, ANT1

### TEST PROCEDURE

KDB 971168 D01 v03r01/D02 v02r02

All tests above 1GHz were done with a Resolution Bandwidth of 1MHz, and a Video Bandwidth of 3MHz

### RESULTS

#### 10.1.1. LTE BAND 7 AND 5G NR n7

##### LIMITS

FCC: §27.53 (m)

At least  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.



**QPSK LTE BAND 7 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/21/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE7 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 2510MHz</b>										
5.043281	36.13	Pk	34.2	.6	-95.2	-23.25	-47.52	-25	-22.52	H
5.043281	37.08	Pk	34.2	.6	-95.2	-23.25	-46.57	-25	-21.57	V
7.497188	33.87	Pk	35.5	.4	-95.2	-19.48	-44.91	-25	-19.91	V
7.516875	33.18	Pk	35.4	.3	-95.2	-19.54	-45.86	-25	-20.86	H
10.058438	33.01	Pk	36.9	.7	-95.2	-17.09	-41.68	-25	-16.68	H
10.079531	32.94	Pk	37.0	.6	-95.2	-17.17	-41.83	-25	-16.83	V
<b>Mid Channel, 2535MHz</b>										
5.067188	35.09	Pk	34.3	.6	-95.2	-23.28	-48.49	-25	-23.49	V
5.070469	37.3	Pk	34.3	.7	-95.2	-23.2	-46.10	-25	-21.10	H
7.620938	33.05	Pk	35.5	.4	-95.2	-19.21	-45.46	-25	-20.46	V
7.626563	33.05	Pk	35.6	.4	-95.2	-19.19	-45.34	-25	-20.34	H
10.128750	33.01	Pk	36.9	.7	-95.2	-16.99	-41.58	-25	-16.58	H
10.138594	31.80	Pk	37.0	.7	-95.2	-16.96	-42.66	-25	-17.66	V
<b>High Channel, 2560MHz</b>										
5.144063	35.37	Pk	34.4	.8	-95.2	-23.13	-47.76	-25	-22.76	H
5.163281	35.12	Pk	34.4	.7	-95.2	-23.16	-48.14	-25	-23.14	V
7.629375	32.81	Pk	35.6	.4	-95.2	-19.14	-45.53	-25	-20.53	H
7.633125	32.97	Pk	35.6	.4	-95.2	-19.07	-45.30	-25	-20.30	V
10.240781	33.19	Pk	37.1	.8	-95.2	-16.68	-40.79	-25	-15.79	H
10.270313	32.66	Pk	37.1	.7	-95.2	-16.59	-41.33	-25	-16.33	V

**BPSK 5G NR n7 (40.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/29/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	n7 BPSK 40MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 2525MHz</b>										
5.037656	35.61	Pk	34.2	.6	-95.2	-23.37	-48.16	-25	-23.16	H
5.060156	35.50	Pk	34.3	.6	-95.2	-23.31	-48.11	-25	-23.11	V
7.574063	32.83	Pk	35.5	.4	-95.2	-19.39	-45.86	-25	-20.86	H
7.578281	33.40	Pk	35.5	.5	-95.2	-19.38	-45.18	-25	-20.18	V
10.097813	32.15	Pk	37.0	.7	-95.2	-17.10	-42.45	-25	-17.45	H
10.120781	31.48	Pk	37.0	.7	-95.2	-17.00	-43.02	-25	-18.02	V
<b>Mid Channel, 2535MHz</b>										
5.110781	35.47	Pk	34.3	.8	-95.2	-23.27	-47.90	-25	-22.90	V
5.115000	36.92	Pk	34.4	.8	-95.2	-23.18	-46.26	-25	-21.26	H
7.502344	32.53	Pk	35.5	.4	-95.2	-19.48	-46.25	-25	-21.25	V
7.517813	35.27	Pk	35.4	.3	-95.2	-19.54	-43.77	-25	-18.77	H
10.062188	32.99	Pk	36.9	.7	-95.2	-17.10	-41.71	-25	-16.71	V
10.069219	32.93	Pk	37.0	.7	-95.2	-17.11	-41.68	-25	-16.68	H
<b>High Channel, 2545MHz</b>										
5.099531	35.44	Pk	34.4	.8	-95.2	-23.28	-47.84	-25	-22.84	H
5.118281	34.68	Pk	34.4	.8	-95.2	-23.27	-48.59	-25	-23.59	V
7.506094	32.7	Pk	35.5	.3	-95.2	-19.53	-46.23	-25	-21.23	V
7.553906	33.36	Pk	35.6	.3	-95.2	-19.52	-45.46	-25	-20.46	H
10.006406	31.51	Pk	36.9	.6	-95.2	-16.72	-42.91	-25	-17.91	V
10.093594	32.81	Pk	37	.6	-95.2	-17.15	-41.94	-25	-16.94	H

## 10.1.2. LTE BAND 12 AND 5G NR n12

### LIMITS

FCC: §27.53 (g)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

**QPSK LTE BAND 12 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/20/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE12 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBUV)	Det	Horn Antenna ACF(dB)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 704MHz</b>										
1.414133	37.93	Pk	28.4	.9	-95.2	-29.30	-57.27	-13	-44.27	V
1.421956	38.27	Pk	28.5	.9	-95.2	-29.15	-56.68	-13	-43.68	H
2.125467	37.89	Pk	31.7	.5	-95.2	-28.03	-53.14	-13	-40.14	H
2.125467	38.03	Pk	31.7	.5	-95.2	-28.03	-53.00	-13	-40.00	V
2.816267	36.75	Pk	32.6	.6	-95.2	-26.69	-51.94	-13	-38.94	H
2.817245	36.47	Pk	32.6	.6	-95.2	-26.62	-52.15	-13	-39.15	V
<b>Mid Channel, 707.5MHz</b>										
1.401422	38.18	Pk	28.7	.9	-95.2	-29.44	-56.86	-13	-43.86	V
1.401911	37.94	Pk	28.7	.9	-95.2	-29.42	-57.08	-13	-44.08	H
2.146978	37.25	Pk	31.7	.5	-95.2	-27.84	-53.59	-13	-40.59	H
2.154800	37.42	Pk	31.7	.5	-95.2	-27.77	-53.35	-13	-40.35	V
2.843645	37.13	Pk	32.6	.7	-95.2	-26.82	-51.59	-13	-38.59	V
2.851467	36.35	Pk	32.6	.6	-95.2	-26.8	-52.45	-13	-39.45	H
<b>High Channel, 711MHz</b>										
1.419511	37.43	Pk	28.5	.9	-95.2	-29.12	-57.49	-13	-44.49	V
1.421467	38.07	Pk	28.5	.9	-95.2	-29.13	-56.86	-13	-43.86	H
2.14600	39.25	Pk	31.7	.5	-95.2	-27.91	-51.66	-13	-38.66	H
2.146489	37.5	Pk	31.7	.5	-95.2	-27.88	-53.38	-13	-40.38	V
2.833867	35.45	Pk	32.6	.7	-95.2	-26.68	-53.13	-13	-40.13	H
2.844623	35.51	Pk	32.5	.7	-95.2	-26.8	-53.29	-13	-40.29	V

**BPSK 5G NR n12 (15.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/28/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N12 BPSK 15MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 706.5MHz</b>										
1.398978	38.85	Pk	28.6	.9	-95.2	-29.43	-56.28	-13	-43.28	H
1.401422	38.14	Pk	28.7	.9	-95.2	-29.44	-56.9	-13	-43.9	V
2.111289	37.17	Pk	31.9	.5	-95.2	-27.99	-53.62	-13	-40.62	V
2.117645	37.04	Pk	31.8	.5	-95.2	-27.99	-53.85	-13	-40.85	H
2.813823	36.3	Pk	32.6	.6	-95.2	-26.7	-52.40	-13	-39.40	V
2.822623	36.47	Pk	32.7	.7	-95.2	-26.75	-52.08	-13	-39.08	H
<b>Mid Channel, 707.5MHz</b>										
1.392622	38.45	Pk	28.8	1	-95.2	-29.42	-56.37	-13	-43.37	V
1.400933	38.49	Pk	28.6	.9	-95.2	-29.45	-56.66	-13	-43.66	H
2.183645	36.87	Pk	31.6	.6	-95.2	-27.71	-53.84	-13	-40.84	V
2.191956	37.19	Pk	31.7	.6	-95.2	-27.72	-53.43	-13	-40.43	H
2.816267	36.52	Pk	32.6	.6	-95.2	-26.69	-52.17	-13	-39.17	V
2.826045	36.28	Pk	32.6	.7	-95.2	-26.62	-52.24	-13	-39.24	H
<b>High Channel, 708.5MHz</b>										
1.452022	38.1	Pk	28.1	.9	-95.2	-29.08	-57.18	-13	-44.18	V
1.452267	38.49	Pk	28.1	.9	-95.2	-29.08	-56.79	-13	-43.79	H
2.011556	36.49	Pk	31.7	.5	-95.2	-28.31	-54.82	-13	-41.82	V
2.017422	38.38	Pk	31.5	.5	-95.2	-28.21	-53.03	-13	-40.03	H
2.810889	35.63	Pk	32.7	.6	-95.2	-26.63	-52.9	-13	-39.9	V
2.825067	35.94	Pk	32.7	.7	-95.2	-26.62	-52.48	-13	-39.48	H

**10.1.3. LTE BAND 13**

**LIMITS**

FCC: §27.53

(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

**QPSK LTE BAND 13 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/20/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE13 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Mid Channel, 782MHz</b>										
1.572045	38.12	Pk	27.8	.9	-95.2	-28.91	-57.29	-40	-17.29	V
1.573022	38.07	Pk	27.8	.9	-95.2	-28.9	-57.33	-40	-17.33	H
2.359645	37.38	Pk	31.9	.5	-95.2	-27.46	-52.88	-13	-39.88	H
2.3748	36.95	Pk	31.8	.5	-95.2	-27.46	-53.41	-13	-40.41	V
3.115956	35.87	Pk	32.6	.7	-95.2	-26.25	-52.28	-13	-39.28	V
3.138934	36.38	Pk	32.6	.6	-95.2	-26.37	-51.99	-13	-38.99	H

#### 10.1.4. LTE BAND 14 AND 5G NR n14

##### LIMITS

FCC: §90.543 Emission Limitations. (Band 14)

(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least  $43 + 10 \log (P)$  dB.

(f) For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to  $-70$  dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and  $-80$  dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation

**QPSK LTE BAND 14 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/21/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE14 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Mid Channel, 793MHz</b>										
1.586222	35.41	Pk	27.7	.8	-95.2	-29.04	-60.33	-40	-20.33	H
1.586222	35.41	Pk	27.7	.8	-95.2	-29.04	-60.33	-40	-20.33	V
2.391172	38.79	Pk	31.8	.5	-95.2	-27.54	-51.65	-13	-38.65	H
2.391815	38.79	Pk	31.8	.5	-95.2	-27.56	-51.67	-13	-38.67	V
3.172667	35.14	Pk	32.8	.5	-95.2	-26.44	-53.20	-13	-40.20	H
3.172667	34.32	Pk	32.8	.5	-95.2	-26.44	-54.02	-13	-41.02	V

**BPSK 5G NR n14 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/28/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N14 BPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	HP EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Mid Channel, 793MHz</b>										
1.573511	38.15	Pk	27.8	.9	-95.2	-28.94	-57.29	-40	-17.29	V
1.576445	37.64	Pk	27.8	.8	-95.2	-29.09	-58.05	-40	-18.05	H
2.365267	37.06	Pk	31.9	.5	-95.2	-27.47	-53.21	-13	-40.21	V
2.365511	40.11	Pk	31.9	.5	-95.2	-27.46	-50.15	-13	-37.15	H
3.156534	36.57	Pk	32.7	.5	-95.2	-26.55	-51.98	-13	-38.98	V
3.1624	37.00	Pk	32.8	.5	-95.2	-26.56	-51.46	-13	-38.46	H



## 10.1.5. LTE BAND 17

### LIMITS

FCC: §27.53 (g)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

**QPSK LTE BAND 17 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/20/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE17 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 709MHz</b>										
1.391156	39.03	Pk	28.9	1	-95.2	-29.40	-55.67	-13	-42.67	V
1.402400	38.36	Pk	28.7	.9	-95.2	-29.41	-56.65	-13	-43.65	H
2.139645	39.69	Pk	31.7	.5	-95.2	-27.96	-51.27	-13	-38.27	H
2.143067	37.04	Pk	31.7	.5	-95.2	-28.06	-54.02	-13	-41.02	V
2.803556	36.84	Pk	32.6	.5	-95.2	-26.63	-51.89	-13	-38.89	V
2.810400	36.15	Pk	32.7	.6	-95.2	-26.64	-52.39	-13	-39.39	H
<b>Mid Channel, 710MHz</b>										
1.392133	38.57	Pk	28.8	1	-95.2	-29.41	-56.24	-13	-43.24	V
1.403867	38.24	Pk	28.7	.9	-95.2	-29.41	-56.77	-13	-43.77	H
2.143556	39	Pk	31.7	.5	-95.2	-28.05	-52.05	-13	-39.05	H
2.152356	37.68	Pk	31.7	.5	-95.2	-27.86	-53.18	-13	-40.18	V
2.865156	37.67	Pk	32.6	.5	-95.2	-26.85	-51.28	-13	-38.28	H
2.874445	38.33	Pk	32.5	.5	-95.2	-26.82	-50.69	-13	-37.69	V
<b>High Channel, 711MHz</b>										
1.429778	38.25	Pk	28.4	.9	-95.2	-29.09	-56.74	-13	-43.74	H
1.434178	38.11	Pk	28.4	.9	-95.2	-29.07	-56.86	-13	-43.86	V
2.143556	38.72	Pk	31.7	.5	-95.2	-28.05	-52.33	-13	-39.33	H
2.150889	36.95	Pk	31.7	.5	-95.2	-27.92	-53.97	-13	-40.97	V
2.879823	36.16	Pk	32.5	.5	-95.2	-26.85	-52.89	-13	-39.89	V
2.888134	36.94	Pk	32.5	.4	-95.2	-26.86	-52.22	-13	-39.22	H

## 10.1.6. LTE BAND 25 AND 5G NR n25

### LIMITS

FCC: §24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

**QPSK LTE BAND 25 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/20/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE 25 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 1860MHz</b>									
3.733125	37.02	Pk	33.0	-95.2	-24.81	-49.99	-13	-36.99	H
3.742031	37.86	Pk	32.9	-95.2	-24.78	-49.22	-13	-36.22	V
5.581875	34.30	Pk	34.7	-95.2	-20.97	-47.17	-13	-34.17	H
5.583281	34.00	Pk	34.7	-95.2	-20.94	-47.44	-13	-34.44	V
7.463906	33.05	Pk	35.5	-95.2	-19.01	-45.66	-13	-32.66	H
7.504688	33.68	Pk	35.5	-95.2	-18.89	-44.91	-13	-31.91	V
<b>Mid Channel, 1882.5MHz</b>									
3.739219	37.33	Pk	33.0	-95.2	-24.65	-49.52	-13	-36.52	V
3.758906	37.85	Pk	32.8	-95.2	-24.89	-49.44	-13	-36.44	H
5.649375	34.99	Pk	34.6	-95.2	-20.73	-46.34	-13	-33.34	H
5.664844	34.27	Pk	34.7	-95.2	-20.71	-46.94	-13	-33.94	V
7.552969	33.4	Pk	35.6	-95.2	-18.37	-44.57	-13	-31.57	H
7.553906	32.87	Pk	35.6	-95.2	-18.38	-45.11	-13	-32.11	V
<b>High Channel, 1905MHz</b>									
3.873750	38.26	Pk	32.8	-95.2	-24.57	-48.71	-13	-35.71	V
3.876094	37.29	Pk	32.8	-95.2	-24.46	-49.57	-13	-36.57	H
5.711719	33.97	Pk	34.7	-95.2	-21.51	-48.04	-13	-35.04	V
5.720625	37.21	Pk	34.7	-95.2	-21.65	-44.94	-13	-31.94	H
7.653281	33.39	Pk	35.6	-95.2	-17.81	-44.02	-13	-31.02	H
7.678594	33.66	Pk	35.6	-95.2	-18.16	-44.10	-13	-31.10	V

**BPSK 5G NR n25 (40.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/4/2022
Test Engineer:	27661
Configuration:	EUT only
Mode	N25 BPSK 40MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 1870MHz</b>									
3.750000	37.32	Pk	32.9	-95.2	-24.81	-49.79	-13	-36.79	V
3.752813	37.07	Pk	32.9	-95.2	-24.81	-50.04	-13	-37.04	H
5.633438	35.54	Pk	34.7	-95.2	-20.6	-45.56	-13	-32.56	H
5.633438	34.72	Pk	34.7	-95.2	-20.6	-46.38	-13	-33.38	V
7.498594	33.04	Pk	35.5	-95.2	-18.92	-45.58	-13	-32.58	V
7.506563	33.87	Pk	35.5	-95.2	-18.87	-44.70	-13	-31.70	H
<b>Mid Channel, 1882.5MHz</b>									
3.736406	36.27	Pk	33	-95.2	-24.76	-50.69	-13	-37.69	V
3.755156	36.81	Pk	32.9	-95.2	-24.87	-50.36	-13	-37.36	H
5.627813	35.51	Pk	34.7	-95.2	-20.55	-45.54	-13	-32.54	V
5.637656	33.94	Pk	34.6	-95.2	-20.66	-47.32	-13	-34.32	H
7.540781	33.53	Pk	35.5	-95.2	-18.48	-44.65	-13	-31.65	H
7.550156	32.73	Pk	35.6	-95.2	-18.43	-45.30	-13	-32.30	V
<b>High Channel, 1895MHz</b>									
3.779063	37.14	Pk	33	-95.2	-24.97	-50.03	-13	-37.03	V
3.781406	37.53	Pk	33	-95.2	-24.94	-49.61	-13	-36.61	H
5.657813	33.59	Pk	34.7	-95.2	-20.69	-47.60	-13	-34.60	H
5.668125	34.23	Pk	34.7	-95.2	-20.78	-47.05	-13	-34.05	V
7.6125	32.97	Pk	35.5	-95.2	-17.76	-44.49	-13	-31.49	H
7.639219	33.2	Pk	35.6	-95.2	-17.73	-44.13	-13	-31.13	V

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

#### LIMITS

FCC: §90.691

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

#### QPSK LTE BAND 26 (10.0MHZ BANDWIDTH)

Project #:	4790592293
Date:	3/21/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Mid Channel, 819MHz</b>										
1.638045	36.06	Pk	28.4	.7	-95.2	-28.82	-58.86	-13	-45.86	H
1.638045	34.83	Pk	28.4	.7	-95.2	-28.82	-60.09	-13	-47.09	V
2.469273	38.38	Pk	32.3	.5	-95.2	-27.58	-51.60	-13	-38.60	V
2.471107	38.98	Pk	32.3	.5	-95.2	-27.58	-51.00	-13	-38.00	H
3.275823	35.24	Pk	33.2	.8	-95.2	-25.94	-51.90	-13	-38.90	H
3.276312	35.26	Pk	33.2	.8	-95.2	-25.93	-51.87	-13	-38.87	V

#### BPSK 5G NR n26 (10.0MHZ BANDWIDTH)

Project #:	4790592293
Date:	3/29/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N26 BPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Mid Channel, 819MHz</b>										
1.659556	39.83	Pk	28.5	.8	-95.2	-28.86	-54.93	-13	-41.93	H
1.678622	36.59	Pk	28.6	.7	-95.2	-28.75	-58.06	-13	-45.06	V
2.461334	36.62	Pk	32.3	.5	-95.2	-27.58	-53.36	-13	-40.36	H
2.465245	35.81	Pk	32.3	.5	-95.2	-27.66	-54.25	-13	-41.25	V
3.270934	36.11	Pk	33.4	.7	-95.2	-26.03	-51.02	-13	-38.02	H
3.285600	35.14	Pk	33	.9	-95.2	-26.01	-52.17	-13	-39.17	V

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

**LIMITS**

FCC: §22.917(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

**QPSK LTE BAND 26 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	6/3/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	84796 ACF (dB) - 3mH	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 831.5MHz</b>									
1.66960	56.19	Pk	28.9	-95.2	-46.47	-56.58	-13	-43.58	V
1.67230	55.98	Pk	28.9	-95.2	-46.45	-56.77	-13	-43.77	H
2.48545	56.00	Pk	32.1	-95.2	-45.89	-52.99	-13	-39.99	V
2.48770	54.77	Pk	32.1	-95.2	-45.87	-54.2	-13	-41.20	H
3.317950	53.62	Pk	33.0	-95.2	-44.95	-53.53	-13	-40.53	H
3.323800	53.36	Pk	33.0	-95.2	-44.83	-53.67	-13	-40.67	V
<b>Mid Channel, 836.5MHz</b>									
1.656550	54.93	Pk	29	-95.2	-46.44	-57.71	-13	-44.71	V
1.666450	55.91	Pk	28.9	-95.2	-46.51	-56.9	-13	-43.90	H
2.529435	62.14	Pk	32.2	-95.2	-46.52	-47.38	-13	-34.38	H
2.529550	56.08	Pk	32.2	-95.2	-46.53	-53.45	-13	-40.45	V
3.324925	53.24	Pk	33.0	-95.2	-44.92	-53.88	-13	-40.88	V
3.333700	53.28	Pk	32.9	-95.2	-44.96	-53.98	-13	-40.98	H
<b>High Channel, 841.5MHz</b>									
1.691200	56.64	Pk	28.7	-95.2	-46.56	-56.42	-13	-43.42	V
1.698850	55.92	Pk	28.9	-95.2	-46.66	-57.04	-13	-44.04	H
2.511550	55.45	Pk	32.3	-95.2	-46.09	-53.54	-13	-40.54	H
2.523700	55.68	Pk	32.2	-95.2	-46.41	-53.73	-13	-40.73	V
3.359800	53.17	Pk	33.0	-95.2	-45.07	-54.10	-13	-41.10	H
3.367900	53.31	Pk	33.0	-95.2	-44.94	-53.83	-13	-40.83	V

**BPSK 5G NR n26 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/29/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	n25 BPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBUV)	Det	AF T136 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 834.0MHz</b>										
1.644889	36.38	Pk	28.5	.7	-95.2	-28.87	-58.49	-13	-45.49	V
1.648800	39.77	Pk	28.5	.7	-95.2	-29.05	-55.28	-13	-42.28	H
2.526356	36.19	Pk	32.2	.8	-95.2	-27.33	-53.34	-13	-40.34	V
2.530267	36.34	Pk	32.2	.8	-95.2	-27.37	-53.23	-13	-40.23	H
3.338889	35.07	Pk	32.5	.5	-95.2	-26.31	-53.44	-13	-40.44	H
3.343778	35.49	Pk	32.5	.5	-95.2	-26.26	-52.97	-13	-39.97	V
<b>Mid Channel, 836.5MHz</b>										
1.649778	40.35	Pk	28.4	.8	-95.2	-29.03	-54.68	-13	-41.68	H
1.653200	36.66	Pk	28.4	.8	-95.2	-28.89	-58.23	-13	-45.23	V
2.523423	35.5	Pk	32.2	.8	-95.2	-27.4	-54.10	-13	-41.10	H
2.526356	36.34	Pk	32.2	.8	-95.2	-27.33	-53.19	-13	-40.19	V
3.366267	34.77	Pk	32.4	.6	-95.2	-26.17	-53.60	-13	-40.60	V
3.369689	35.08	Pk	32.4	.6	-95.2	-26.11	-53.23	-13	-40.23	H
<b>High Channel, 839.0Hz</b>										
1.685467	37.47	Pk	28.7	.7	-95.2	-28.77	-57.10	-13	-44.10	H
1.688400	37.7	Pk	28.7	.7	-95.2	-28.64	-56.74	-13	-43.74	V
2.518045	36.35	Pk	32.2	.8	-95.2	-27.42	-53.27	-13	-40.27	H
2.522934	36.13	Pk	32.2	.8	-95.2	-27.4	-53.47	-13	-40.47	V
3.345734	34.85	Pk	32.5	.5	-95.2	-26.27	-53.62	-13	-40.62	V
3.354534	35.16	Pk	32.5	.6	-95.2	-26.17	-53.11	-13	-40.11	H



**10.1.9. LTE BAND 30 AND 5G NR n30**

**LIMITS**

FCC: §27.53 (a)

For mobile and portable stations operating in the 2305-2315 MHz: by a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

**QPSK LTE BAND 30 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	6/7/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 30 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.613906	23.55	RMS	33.8	-95.2	-23.82	-61.67	-40	-21.67	H
6.931875	20.28	RMS	35.5	-95.2	-19.56	-58.98	-40	-18.98	H
9.270938	19.51	RMS	36.1	-95.2	-17.00	-56.59	-40	-16.59	H
4.595156	23.56	RMS	33.8	-95.2	-23.57	-61.41	-40	-21.41	V
6.945938	20.57	RMS	35.5	-95.2	-19.40	-58.53	-40	-18.53	V
9.25875	19.51	RMS	36.1	-95.2	-17.21	-56.80	-40	-16.80	V

**BPSK 5G NR n30 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	6/2/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	N30 BPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Mid Channel, 2310MHz</b>									
4.598906	27.36	RMS	34.3	-95.2	-29.42	-62.96	-40	-22.96	V
4.610156	27.80	RMS	34.3	-95.2	-29.24	-62.34	-40	-22.34	H
6.904219	24.79	RMS	35.7	-95.2	-26.52	-61.23	-40	-21.23	V
6.925313	24.70	RMS	35.7	-95.2	-26.40	-61.20	-40	-21.20	H
9.171094	22.94	RMS	36.1	-95.2	-23.91	-60.07	-40	-20.07	V
9.242813	22.74	RMS	36.2	-95.2	-23.70	-59.96	-40	-19.96	H

**10.1.10. LTE BAND 41 AND 5G NR n41**

**LIMITS**

FCC: §27.53 (m)

At least 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

**QPSK LTE BAND 41 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/21/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE 41 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 2506MHz</b>										
5.031563	34.66	Pk	34.2	.7	-95.2	-23.48	-49.12	-25	-24.12	V
5.03625	36.9	Pk	34.2	.6	-95.2	-23.36	-46.86	-25	-21.86	H
7.544531	35.61	Pk	35.5	.3	-95.2	-19.48	-43.27	-25	-18.27	H
7.565156	33.61	Pk	35.5	.4	-95.2	-19.43	-45.12	-25	-20.12	V
9.991875	33.04	Pk	36.8	.5	-95.2	-16.55	-41.41	-25	-16.41	V
10.004063	32.15	Pk	36.9	.6	-95.2	-16.66	-42.21	-25	-17.21	H
<b>Mid Channel, 2593MHz</b>										
5.205938	35.37	Pk	34.5	.9	-95.2	-23.12	-47.55	-25	-22.55	H
5.210156	34.23	Pk	34.5	1	-95.2	-23.1	-48.57	-25	-23.57	V
7.799063	34.76	Pk	35.6	.4	-95.2	-19.04	-43.48	-25	-18.48	H
7.804688	33.74	Pk	35.6	.4	-95.2	-19.11	-44.57	-25	-19.57	V
10.35	32.42	Pk	37.2	.7	-95.2	-16.3	-41.18	-25	-16.18	H
10.410469	32.22	Pk	37.3	.8	-95.2	-16.21	-41.09	-25	-16.09	V
<b>High Channel, 2680MHz</b>										
5.166094	35.34	Pk	34.4	.7	-95.2	-23.12	-47.88	-25	-22.88	V
5.173125	35.36	Pk	34.4	.7	-95.2	-23.09	-47.83	-25	-22.83	H
7.701563	33.17	Pk	35.6	.5	-95.2	-19.03	-44.96	-25	-19.96	H
7.716094	33.3	Pk	35.6	.4	-95.2	-18.86	-44.76	-25	-19.76	V
10.377188	32.47	Pk	37.3	.8	-95.2	-16.38	-41.01	-25	-16.01	H
10.399688	32.15	Pk	37.2	.8	-95.2	-16.25	-41.3	-25	-16.3	V

**BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/3/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N41 BPSK 100MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 2546MHz</b>										
5.171719	34.56	Pk	34.4	.7	-95.2	-23.11	-48.65	-25	-23.65	V
5.179688	34.52	Pk	34.5	.7	-95.2	-23.04	-48.52	-25	-23.52	H
7.762500	32.03	Pk	35.6	.3	-95.2	-19.08	-46.35	-25	-21.35	V
7.773750	33.59	Pk	35.6	.3	-95.2	-19.04	-44.75	-25	-19.75	H
10.30875	32.75	Pk	37.2	.6	-95.2	-16.39	-41.04	-25	-16.04	H
10.336406	32.82	Pk	37.2	.6	-95.2	-16.41	-40.99	-25	-15.99	V
<b>Mid Channel, 2593MHz</b>										
5.1525	35.11	Pk	34.4	.8	-95.2	-23.16	-48.05	-25	-23.05	V
5.169375	35.26	Pk	34.4	.7	-95.2	-23.16	-48	-25	-23	H
7.633125	35.32	Pk	35.6	.4	-95.2	-19.07	-42.95	-25	-17.95	H
7.633171	42.54	Pk	35.6	.4	-95.2	-19.07	-35.73	-25	-10.73	V
10.343906	33.36	Pk	37.1	.7	-95.2	-16.4	-40.44	-25	-15.44	H
10.363594	31.48	Pk	37.2	.8	-95.2	-16.29	-42.01	-25	-17.01	V
<b>High Channel, 2640MHz</b>										
5.279531	34.93	Pk	34.6	.3	-95.2	-23.54	-48.91	-25	-23.91	V
5.290313	34.99	Pk	34.6	.4	-95.2	-23.56	-48.77	-25	-23.77	H
7.924219	33.01	Pk	35.6	.2	-95.2	-19.15	-45.54	-25	-20.54	H
7.928438	33.12	Pk	35.6	.1	-95.2	-19.13	-45.51	-25	-20.51	V
10.58625	31.98	Pk	37.4	.9	-95.2	-16.12	-41.04	-25	-16.04	H
10.632656	32.69	Pk	37.4	.5	-95.2	-16.15	-40.76	-25	-15.76	V

### 10.1.11. LTE BAND 66 AND 5G NR n66

#### LIMITS

FCC: §27.53 (h)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

**QPSK LTE BAND 66 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/22/2023
Test Engineer:	27761
Configuration:	EUT only
Mode	LTE 66 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 1720MHz</b>									
3.438750	35.95	Pk	32.5	-95.2	-25.72	-52.47	-13	-39.47	H
3.446719	35.84	Pk	32.5	-95.2	-25.59	-52.45	-13	-39.45	V
5.130000	35.13	Pk	34.4	-95.2	-22.33	-48.00	-13	-35.00	V
5.138438	34.94	Pk	34.4	-95.2	-22.53	-48.39	-13	-35.39	H
6.902813	33.55	Pk	35.5	-95.2	-19.84	-45.99	-13	-32.99	H
6.905625	33.73	Pk	35.5	-95.2	-19.85	-45.82	-13	-32.82	V
<b>Mid Channel, 1745MHz</b>									
3.430781	37.18	Pk	32.6	-95.2	-25.83	-51.25	-13	-38.25	H
3.43125	35.72	Pk	32.6	-95.2	-25.81	-52.69	-13	-39.69	V
5.214375	35.39	Pk	34.5	-95.2	-22.93	-48.24	-13	-35.24	V
5.225156	34.98	Pk	34.5	-95.2	-22.75	-48.47	-13	-35.47	H
6.995625	33.42	Pk	35.5	-95.2	-18.81	-45.09	-13	-32.09	H
6.996094	33.14	Pk	35.5	-95.2	-18.82	-45.38	-13	-32.38	V
<b>High Channel, 1770MHz</b>									
3.535313	34.98	Pk	32.6	-95.2	-24.06	-51.68	-13	-38.68	V
3.552188	34.07	Pk	32.8	-95.2	-23.71	-52.04	-13	-39.04	H
5.283750	34.09	Pk	34.6	-95.2	-22.22	-48.73	-13	-35.73	V
5.316094	34.87	Pk	34.6	-95.2	-21.8	-47.53	-13	-34.53	H
6.990000	33.22	Pk	35.5	-95.2	-18.91	-45.39	-13	-32.39	V
6.999844	33.36	Pk	35.5	-95.2	-18.78	-45.12	-13	-32.12	H

**BPSK 5G NR n66 (40.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/2/2022
Test Engineer:	32145
Configuration:	EUT only
Mode	N66 BPSK 40MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80404_ACF (dB) - 3mH	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 1730MHz</b>									
3.484000	53.79	Pk	33.3	-95.2	-44.76	-52.87	-13	-39.87	H
3.498000	52.69	Pk	34.8	-95.2	-44.77	-52.48	-13	-39.48	V
5.163000	54.00	Pk	34.4	-95.2	-45.15	-51.95	-13	-38.95	V
5.175000	54.16	Pk	34.4	-95.2	-45.16	-51.80	-13	-38.80	H
6.938500	51.76	Pk	36.0	-95.2	-42.92	-50.36	-13	-37.36	H
6.952000	52.13	Pk	36.0	-95.2	-42.97	-50.04	-13	-37.04	V
<b>Mid Channel, 1745MHz</b>									
3.491500	53.56	Pk	33.8	-95.2	-44.83	-52.67	-13	-39.67	V
3.498500	54.07	Pk	34.8	-95.2	-44.77	-51.10	-13	-38.10	H
5.177830	56.71	Pk	34.4	-95.2	-45.18	-49.27	-13	-36.27	H
5.177457	56.90	Pk	34.4	-95.2	-45.17	-49.07	-13	-36.07	V
6.986500	51.61	Pk	35.8	-95.2	-42.72	-50.51	-13	-37.51	H
7.017500	50.89	Pk	36.8	-95.2	-42.57	-50.88	-13	-37.88	V
<b>High Channel, 1760MHz</b>									
3.511500	54.62	Pk	33.8	-95.2	-44.87	-51.65	-13	-38.65	V
3.514000	54.87	Pk	33.6	-95.2	-44.8	-51.53	-13	-38.53	H
5.222477	58.21	Pk	34.5	-95.2	-45.06	-47.55	-13	-34.55	V
5.222516	59.42	Pk	34.5	-95.2	-45.05	-46.33	-13	-33.33	H
7.057000	51.75	Pk	35.9	-95.2	-42.57	-50.12	-13	-37.12	H
7.057500	50.58	Pk	35.9	-95.2	-42.56	-51.28	-13	-38.28	V

**10.1.12. 5G NR n70**

**LIMITS**

FCC: §27.53 (h)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

**BPSK 5G NR n70 (15.0MHZ BANDWIDTH based on 5G NR n70 maximum frequency range)**

Project #:	4790592293
Date:	3/3/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N70 BPSK 15MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T862 (dB/m)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Mid Channel, 1702.5MHz</b>									
3.427031	35.68	Pk	32.6	-95.2	-25.72	-52.64	-13	-39.64	H
3.435938	34.76	Pk	32.5	-95.2	-25.72	-53.66	-13	-40.66	V
5.089688	35.22	Pk	34.3	-95.2	-21.81	-47.49	-13	-34.49	V
5.103281	34.91	Pk	34.4	-95.2	-21.98	-47.87	-13	-34.87	H
6.883125	33.39	Pk	35.4	-95.2	-19.95	-46.36	-13	-33.36	H
6.893438	33.11	Pk	35.4	-95.2	-19.86	-46.55	-13	-33.55	V



#### 10.1.14. LTE BAND 71 AND 5G NR n71

##### LIMITS

FCC: §27.53 (g)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

**QPSK LTE BAND 71 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/21/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE 71 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	80404_ACF (dB) - 3mH	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 673MHz</b>									
1.353700	56.11	Pk	28.5	-95.2	-46.12	-56.71	-13	-43.71	H
1.356850	55.67	Pk	28.6	-95.2	-46.15	-57.08	-13	-44.08	V
2.033650	53.94	Pk	31.6	-95.2	-46.53	-56.19	-13	-43.19	H
2.043550	55.53	Pk	31.9	-95.2	-46.57	-54.34	-13	-41.34	V
2.692000	54.75	Pk	32.1	-95.2	-46.43	-54.78	-13	-41.78	H
2.702350	54.17	Pk	32.1	-95.2	-46.43	-55.36	-13	-42.36	V
<b>Low Channel, 680.5MHz</b>									
1.356850	56.88	Pk	28.6	-95.2	-46.15	-55.87	-13	-42.87	H
1.357300	55.95	Pk	28.6	-95.2	-46.16	-56.81	-13	-43.81	V
2.044900	55.03	Pk	31.9	-95.2	-46.50	-54.77	-13	-41.77	V
2.045350	55.97	Pk	31.9	-95.2	-46.50	-53.83	-13	-40.83	H
2.718550	55.58	Pk	32.2	-95.2	-46.51	-53.93	-13	-40.93	V
2.719900	55.32	Pk	32.2	-95.2	-46.49	-54.17	-13	-41.17	H
<b>Low Channel, 688MHz</b>									
1.363600	55.35	Pk	28.8	-95.2	-46.18	-57.23	-13	-44.23	V
1.364500	55.40	Pk	28.7	-95.2	-46.18	-57.28	-13	-44.28	H
2.078200	55.66	Pk	32.3	-95.2	-46.75	-53.99	-13	-40.99	H
2.080900	54.93	Pk	32.3	-95.2	-46.81	-54.78	-13	-41.78	V
2.755450	55.17	Pk	32.4	-95.2	-46.43	-54.06	-13	-41.06	V
2.757250	55.62	Pk	32.5	-95.2	-46.28	-53.36	-13	-40.36	H

**BPSK 5G NR n71 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/28/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N71 BPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBUV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 673MHz</b>										
1.332000	39.86	Pk	29	1.1	-95.2	-29.56	-54.80	-13	-41.80	H
1.335911	38.04	Pk	29.2	1.1	-95.2	-29.44	-56.30	-13	-43.30	V
2.029156	37.89	Pk	31.5	.5	-95.2	-28.2	-53.51	-13	-40.51	H
2.033067	37.55	Pk	31.5	.5	-95.2	-28.17	-53.82	-13	-40.82	V
2.686223	36.73	Pk	32.4	.6	-95.2	-27.23	-52.70	-13	-39.70	H
2.688667	37.44	Pk	32.5	.6	-95.2	-27.21	-51.87	-13	-38.87	V
<b>Mid Channel, 680.5MHz</b>										
1.354000	39.16	Pk	29	1	-95.2	-29.55	-55.59	-13	-42.59	V
1.354489	38.13	Pk	29.1	1	-95.2	-29.54	-56.51	-13	-43.51	H
2.050178	38.1	Pk	31.6	.5	-95.2	-28.17	-53.17	-13	-40.17	H
2.054089	36.22	Pk	31.6	.5	-95.2	-28.11	-54.99	-13	-41.99	V
2.713111	35.77	Pk	32.6	.5	-95.2	-27.21	-53.54	-13	-40.54	V
2.729245	36.39	Pk	32.4	.5	-95.2	-27.06	-52.97	-13	-39.97	H
<b>High Channel, 688MHz</b>										
1.387733	37.65	Pk	28.9	1	-95.2	-29.43	-57.08	-13	-44.08	H
1.389689	37.61	Pk	28.9	1	-95.2	-29.45	-57.14	-13	-44.14	V
2.031111	37.87	Pk	31.5	.5	-95.2	-28.1	-53.43	-13	-40.43	V
2.036000	39.61	Pk	31.4	.5	-95.2	-28.16	-51.85	-13	-38.85	H
2.736089	36.55	Pk	32.4	.5	-95.2	-27.03	-52.78	-13	-39.78	V
2.740489	36.33	Pk	32.4	.5	-95.2	-26.96	-52.93	-13	-39.93	H

## 10.2. FIELD STRENGTH OF SPURIOUS RADIATION, ANT2

### TEST PROCEDURE

KDB 971168 D01 v03r01/D02 v02r02

All tests below 1GHz were done with a Resolution Bandwidth of 100kHz, and a Video Bandwidth of 300kHz.

### RESULTS

#### 10.2.1. LTE BAND 7 AND 5G NR n7

##### LIMITS

FCC: §27.53 (m)

At least  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

**QPSK LTE BAND 7 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/23/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE7 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	BRF 2495-2690MHz T1790 1-18GHz )	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 2510MHz</b>										
5.038594	35.67	Pk	34.2	.6	-95.2	-23.35	-48.08	-25	-23.08	V
5.055000	34.97	Pk	34.2	.6	-95.2	-23.24	-48.67	-25	-23.67	H
7.526719	33.04	Pk	35.5	.3	-95.2	-19.43	-45.79	-25	-20.79	H
7.532344	32.46	Pk	35.5	.3	-95.2	-19.39	-46.33	-25	-21.33	V
10.020000	31.99	Pk	36.9	.6	-95.2	-16.88	-42.59	-25	-17.59	V
10.036875	32.98	Pk	36.9	.7	-95.2	-17.01	-41.63	-25	-16.63	H
<b>Mid Channel, 2535MHz</b>										
5.033438	35.01	Pk	34.2	.7	-95.2	-23.39	-48.68	-25	-23.68	V
5.055938	36.02	Pk	34.3	.6	-95.2	-23.25	-47.53	-25	-22.53	H
7.603594	33.02	Pk	35.5	.4	-95.2	-19.17	-45.45	-25	-20.45	H
7.631719	35.24	Pk	35.6	.4	-95.2	-19.10	-43.06	-25	-18.06	V
10.170000	32.62	Pk	37	.6	-95.2	-16.78	-41.76	-25	-16.76	H
10.170000	32.46	Pk	37	.6	-95.2	-16.78	-41.92	-25	-16.92	V
<b>High Channel, 2560MHz</b>										
5.169375	35.08	Pk	34.4	.7	-95.2	-23.16	-48.18	-25	-23.18	H
5.180625	34.91	Pk	34.4	.7	-95.2	-23.05	-48.24	-25	-23.24	V
7.658906	34.13	Pk	35.5	.3	-95.2	-18.92	-44.19	-25	-19.19	V
7.668750	32.76	Pk	35.5	.3	-95.2	-18.93	-45.57	-25	-20.57	H
10.288125	32.35	Pk	37.2	.7	-95.2	-16.38	-41.33	-25	-16.33	V
10.305938	32.61	Pk	37.2	.6	-95.2	-16.38	-41.17	-25	-16.17	H

**BPSK 5G NR n7 (40.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/6/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	n7 BPSK 40MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	BRF 2495-2690MHz T1790 1-18GHz )	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 2525MHz</b>										
5.070469	35.08	Pk	34.3	.7	-95.2	-23.20	-48.32	-25	-23.32	V
5.071875	35.72	Pk	34.3	.7	-95.2	-23.19	-47.67	-25	-22.67	H
7.543594	32.31	Pk	35.5	.3	-95.2	-19.46	-46.55	-25	-21.55	V
7.560000	33.15	Pk	35.6	.3	-95.2	-19.5	-45.65	-25	-20.65	H
10.042031	33.40	Pk	36.9	.7	-95.2	-17.06	-41.26	-25	-16.26	H
10.047656	32.77	Pk	36.9	.7	-95.2	-17.08	-41.91	-25	-16.91	V
<b>Mid Channel, 2535MHz</b>										
5.054063	34.76	Pk	34.3	.6	-95.2	-23.25	-48.79	-25	-23.79	V
5.055469	36.29	Pk	34.3	.6	-95.2	-23.24	-47.25	-25	-22.25	H
7.615781	33.37	Pk	35.5	.4	-95.2	-19.22	-45.15	-25	-20.15	H
7.636406	32.71	Pk	35.6	.4	-95.2	-19.01	-45.50	-25	-20.50	V
10.195781	32.32	Pk	37.0	.8	-95.2	-16.90	-41.98	-25	-16.98	V
10.202344	33.01	Pk	37.1	.8	-95.2	-16.89	-41.18	-25	-16.18	H
<b>High Channel, 2545MHz</b>										
5.120391	35.32	Pk	34.4	.8	-95.2	-23.26	-47.94	-25	-22.94	H
5.136094	34.81	Pk	34.4	.8	-95.2	-23.23	-48.42	-25	-23.42	V
7.634531	32.82	Pk	35.6	.4	-95.2	-19.07	-45.45	-25	-20.45	V
7.672969	32.69	Pk	35.6	.4	-95.2	-18.89	-45.40	-25	-20.40	H
10.209375	32.22	Pk	37.0	.9	-95.2	-16.84	-41.92	-25	-16.92	V
10.219688	32.89	Pk	37.1	.9	-95.2	-16.81	-41.12	-25	-16.12	H

## 10.2.2. LTE BAND 12 AND 5G NR n12

### LIMITS

FCC: §27.53 (g)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

**QPSK LTE BAND 12 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/22/2022
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE12 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 704MHz</b>										
1.401422	38.92	Pk	28.7	.9	-95.2	-29.44	-56.12	-13	-43.12	V
1.402400	37.99	Pk	28.7	.9	-95.2	-29.41	-57.02	-13	-44.02	H
2.133289	37.11	Pk	31.7	.5	-95.2	-28.06	-53.95	-13	-40.95	H
2.135245	36.94	Pk	31.7	.5	-95.2	-28.10	-54.16	-13	-41.16	V
2.812356	38.47	Pk	32.6	.6	-95.2	-26.59	-50.12	-13	-37.12	V
2.825556	35.97	Pk	32.6	.7	-95.2	-26.62	-52.55	-13	-39.55	H
<b>Mid Channel, 707.5MHz</b>										
1.412178	38.32	Pk	28.5	.9	-95.2	-29.31	-56.79	-13	-43.79	H
1.415600	37.94	Pk	28.5	.9	-95.2	-29.28	-57.14	-13	-44.14	V
2.136711	37.50	Pk	31.7	.5	-95.2	-28.09	-53.59	-13	-40.59	V
2.137200	37.49	Pk	31.7	.5	-95.2	-28.07	-53.58	-13	-40.58	H
2.824578	35.52	Pk	32.7	.7	-95.2	-26.65	-52.93	-13	-39.93	V
2.839245	35.37	Pk	32.6	.7	-95.2	-26.73	-53.26	-13	-40.26	H
<b>High Channel, 711MHz</b>										
1.420489	36.80	Pk	28.5	.9	-95.2	-29.10	-58.10	-13	-45.10	V
1.421956	37.59	Pk	28.5	.9	-95.2	-29.15	-57.36	-13	-44.36	H
2.130845	38.01	Pk	31.7	.5	-95.2	-28.11	-53.10	-13	-40.10	V
2.142089	37.08	Pk	31.7	.5	-95.2	-28.04	-53.96	-13	-40.96	H
2.841200	35.50	Pk	32.6	.7	-95.2	-26.66	-53.06	-13	-40.06	V
2.842667	36.22	Pk	32.6	.7	-95.2	-26.79	-52.47	-13	-39.47	H



**BPSK 5G NR n12 (15.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/4/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N12 BPSK 15MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBUV)	Det	Horn Antenna ACF(dB)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 704MHz</b>										
1.401422	36.61	Pk	28.7	.9	-95.2	-29.44	-58.43	-13	-45.43	V
1.409244	37.53	Pk	28.5	.9	-95.2	-29.35	-57.62	-13	-44.62	H
2.076578	37.20	Pk	31.7	.5	-95.2	-28.19	-53.99	-13	-40.99	V
2.102978	36.10	Pk	31.8	.5	-95.2	-28.07	-54.87	-13	-41.87	H
2.822134	34.87	Pk	32.7	.7	-95.2	-26.77	-53.70	-13	-40.70	V
2.831911	35.82	Pk	32.6	.7	-95.2	-26.71	-52.79	-13	-39.79	H
<b>Mid Channel, 707.5MHz</b>										
1.415111	37.82	Pk	28.5	.9	-95.2	-29.27	-57.25	-13	-44.25	V
1.419511	38.16	Pk	28.5	.9	-95.2	-29.12	-56.76	-13	-43.76	H
2.088311	37.22	Pk	31.9	.5	-95.2	-28.16	-53.74	-13	-40.74	V
2.100045	37.29	Pk	31.8	.5	-95.2	-28.25	-53.86	-13	-40.86	H
2.892045	35.99	Pk	32.6	.4	-95.2	-26.72	-52.93	-13	-39.93	H
2.897912	36.16	Pk	32.6	.4	-95.2	-26.76	-52.80	-13	-39.80	V
<b>High Channel, 711MHz</b>										
1.444933	37.62	Pk	28.3	.9	-95.2	-29.10	-57.48	-13	-44.48	V
1.446889	37.74	Pk	28.2	.9	-95.2	-29.05	-57.41	-13	-44.41	H
2.117156	36.65	Pk	31.8	.5	-95.2	-28.01	-54.26	-13	-41.26	V
2.128400	37.05	Pk	31.7	.5	-95.2	-28.18	-54.13	-13	-41.13	H
2.891067	36.06	Pk	32.6	.4	-95.2	-26.71	-52.85	-13	-39.85	V
2.893512	35.33	Pk	32.6	.4	-95.2	-26.83	-53.70	-13	-40.70	H

**10.2.3. LTE BAND 13**

**LIMITS**

FCC: §27.53

(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

**QPSK LTE BAND 13 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/22/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE13 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Mid Channel, 782MHz</b>										
1.567645	37.48	Pk	27.8	.9	-95.2	-29.01	-58.03	-40	-18.03	V
1.568133	38.02	Pk	27.8	.9	-95.2	-29.05	-57.53	-40	-17.53	H
2.344978	36.57	Pk	31.9	.5	-95.2	-27.42	-53.65	-13	-40.65	V
2.356711	36.61	Pk	31.9	.5	-95.2	-27.52	-53.71	-13	-40.71	H
3.131600	35.74	Pk	32.6	.6	-95.2	-26.38	-52.64	-13	-39.64	V
3.134534	36.64	Pk	32.6	.6	-95.2	-26.52	-51.88	-13	-38.88	H

#### 10.2.4. LTE BAND 14 AND 5G NR n14

##### LIMITS

FCC: §90.543 Emission Limitations. (Band 14)

(e) For operations in the 758-768 MHz and the 788-798 MHz bands, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least  $43 + 10 \log (P)$  dB.

(f) For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559-1610 MHz shall be limited to  $-70$  dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and  $-80$  dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation

**QPSK LTE BAND 14 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/27/2023
Test Engineer:	26120
Configuration:	EUT only
Mode	LTE14 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB) 3mH	172654 HPF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Mid Channel, 793MHz</b>										
1.577422	45.36	Pk	27.8	.8	-95.2	-35.23	-56.47	-40	-16.47	H
1.577422	45.91	Pk	27.8	.8	-95.2	-35.23	-55.92	-40	-15.92	V
2.397289	40.92	Pk	32.1	.6	-95.2	-35.01	-56.59	-13	-43.59	H
2.397289	41.37	Pk	32.1	.6	-95.2	-35.01	-56.14	-13	-43.14	V
3.172667	42.50	Pk	32.9	.5	-95.2	-34.06	-53.36	-13	-40.36	H
3.172667	39.93	Pk	32.9	.5	-95.2	-34.06	-55.93	-13	-42.93	V

**BPSK 5G NR n14 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/4/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N14 BPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Mid Channel, 793MHz</b>										
1.595022	36.85	Pk	27.8	.8	-95.2	-28.94	-58.69	-40	-18.69	V
1.601867	37.27	Pk	27.8	.7	-95.2	-28.87	-58.30	-40	-18.30	H
2.368445	36.60	Pk	31.8	.5	-95.2	-27.47	-53.77	-13	-40.77	H
2.387511	36.79	Pk	31.8	.5	-95.2	-27.48	-53.59	-13	-40.59	V
3.166312	36.26	Pk	32.8	.5	-95.2	-26.47	-52.11	-13	-39.11	H
3.176089	35.65	Pk	32.8	.5	-95.2	-26.38	-52.63	-13	-39.63	V

## 10.2.5. LTE BAND 17

### LIMITS

FCC: §27.53 (g)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

### QPSK LTE BAND 17 (10.0MHZ BANDWIDTH)

Project #:	4790592293
Date:	3/23/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE17 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 709MHz</b>										
1.418044	36.71	Pk	28.5	.9	-95.2	-29.19	-58.28	-13	-45.28	H
1.418044	36.07	Pk	28.5	.9	-95.2	-29.19	-58.92	-13	-45.92	V
2.126934	36.02	Pk	31.7	.5	-95.2	-28.09	-55.07	-13	-42.07	H
2.127422	38.11	Pk	31.7	.5	-95.2	-28.12	-53.01	-13	-40.01	V
2.836311	34.52	Pk	32.6	.7	-95.2	-26.84	-54.22	-13	-41.22	H
2.836311	34.90	Pk	32.6	.7	-95.2	-26.84	-53.84	-13	-40.84	V
<b>Mid Channel, 710MHz</b>										
1.420489	36.25	Pk	28.5	.9	-95.2	-29.1	-58.65	-13	-45.65	H
1.420489	37.40	Pk	28.5	.9	-95.2	-29.1	-57.5	-13	-44.50	V
2.129867	37.21	Pk	31.7	.5	-95.2	-28.14	-53.93	-13	-40.93	V
2.130356	35.41	Pk	31.7	.5	-95.2	-28.12	-55.71	-13	-42.71	H
2.840223	34.76	Pk	32.6	.7	-95.2	-26.68	-53.82	-13	-40.82	H
2.840711	34.42	Pk	32.6	.7	-95.2	-26.65	-54.13	-13	-41.13	V
<b>High Channel, 711MHz</b>										
1.421956	35.98	Pk	28.5	.9	-95.2	-29.15	-58.97	-13	-45.97	V
1.422445	36.17	Pk	28.5	.9	-95.2	-29.16	-58.79	-13	-45.79	H
2.133778	37.15	Pk	31.7	.5	-95.2	-28.07	-53.92	-13	-40.92	H
2.133778	36.91	Pk	31.7	.5	-95.2	-28.07	-54.16	-13	-41.16	V
2.844134	34.41	Pk	32.6	.7	-95.2	-26.81	-54.3	-13	-41.30	V
2.844623	35.37	Pk	32.5	.7	-95.2	-26.80	-53.43	-13	-40.43	H

### 10.2.6. LTE BAND 25 AND 5G NR n25

#### LIMITS

FCC: §24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

#### QPSK LTE BAND 25 (20.0MHZ BANDWIDTH)

Project #:	4790592293
Date:	3/23/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE 25 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 1860MHz</b>									
3.727500	36.63	Pk	33.1	-95.2	-24.90	-50.37	-13	-37.37	V
3.733125	37.40	Pk	33.0	-95.2	-24.81	-49.61	-13	-36.61	H
5.584688	33.83	Pk	34.7	-95.2	-20.86	-47.53	-13	-34.53	H
5.601563	34.78	Pk	34.6	-95.2	-20.74	-46.56	-13	-33.56	V
7.446094	33.19	Pk	35.4	-95.2	-19.01	-45.62	-13	-32.62	H
7.498594	32.94	Pk	35.5	-95.2	-18.92	-45.68	-13	-32.68	V
<b>Mid Channel, 1882.5MHz</b>									
3.745313	37.55	Pk	32.9	-95.2	-24.71	-49.46	-13	-36.46	V
3.750938	36.56	Pk	32.9	-95.2	-24.81	-50.55	-13	-37.55	H
5.628281	34.86	Pk	34.7	-95.2	-20.55	-46.19	-13	-33.19	H
5.632969	34.15	Pk	34.7	-95.2	-20.6	-46.95	-13	-33.95	V
7.516406	33.14	Pk	35.4	-95.2	-18.73	-45.39	-13	-32.39	V
7.520156	33.57	Pk	35.4	-95.2	-18.64	-44.87	-13	-31.87	H
<b>High Channel, 1905MHz</b>									
3.829219	37.73	Pk	32.9	-95.2	-25.07	-49.64	-13	-36.64	V
3.834375	38.45	Pk	32.9	-95.2	-24.93	-48.78	-13	-35.78	H
5.675156	33.96	Pk	34.7	-95.2	-20.96	-47.5	-13	-34.5	V
5.708438	34.23	Pk	34.7	-95.2	-21.43	-47.7	-13	-34.7	H
7.557188	32.83	Pk	35.6	-95.2	-18.28	-45.05	-13	-32.05	V
7.623281	32.9	Pk	35.5	-95.2	-17.88	-44.68	-13	-31.68	H

**BPSK 5G NR n25 (40.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/7/2023
Test Engineer:	26771
Configuration:	EUT only
Mode	N25 BPSK 40MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 1870MHz</b>									
3.725156	36.66	Pk	33.1	-95.2	-24.89	-50.33	-13	-37.33	V
3.750469	38.31	Pk	32.9	-95.2	-24.81	-48.80	-13	-35.80	H
5.630156	35.29	Pk	34.7	-95.2	-20.57	-45.78	-13	-32.78	H
5.630625	34.77	Pk	34.7	-95.2	-20.58	-46.31	-13	-33.31	V
7.638281	33.91	Pk	35.6	-95.2	-17.74	-43.43	-13	-30.43	H
7.647188	32.46	Pk	35.6	-95.2	-17.7	-44.84	-13	-31.84	V
<b>Mid Channel, 1882.5MHz</b>									
3.778125	37	Pk	33.0	-95.2	-24.97	-50.17	-13	-37.17	H
3.783281	36.24	Pk	33.0	-95.2	-24.93	-50.89	-13	-37.89	V
5.660156	34.11	Pk	34.7	-95.2	-20.72	-47.11	-13	-34.11	V
5.662031	33.82	Pk	34.7	-95.2	-20.73	-47.41	-13	-34.41	H
7.570781	33.92	Pk	35.5	-95.2	-18.08	-43.86	-13	-30.86	H
7.583906	32.47	Pk	35.5	-95.2	-17.98	-45.21	-13	-32.21	V
<b>High Channel, 1895MHz</b>									
3.800156	36.57	Pk	33.1	-95.2	-25.09	-50.62	-13	-37.62	V
3.808594	37.70	Pk	33	-95.2	-25.08	-49.58	-13	-36.58	H
5.644219	35.32	Pk	34.6	-95.2	-20.73	-46.01	-13	-33.01	H
5.648906	34.39	Pk	34.6	-95.2	-20.74	-46.95	-13	-33.95	V
7.604531	32.90	Pk	35.5	-95.2	-17.7	-44.5	-13	-31.5	H
7.621875	33.14	Pk	35.5	-95.2	-17.88	-44.44	-13	-31.44	V

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

**LIMITS**

FCC: §90.691

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

**QPSK LTE BAND 26 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	6/6/2023
Test Engineer:	18860
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	84796 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Mid Channel, 819MHz</b>									
1.675000	53.43	Pk	28.9	-95.2	-46.62	-59.49	-13	-46.49	V
1.679500	53.30	Pk	28.8	-95.2	-46.48	-59.58	-13	-46.58	H
2.504350	52.75	Pk	32.2	-95.2	-46.02	-56.27	-13	-43.27	V
2.507500	53.19	Pk	32.3	-95.2	-46.09	-55.80	-13	-42.80	H
3.346750	51.55	Pk	32.8	-95.2	-44.88	-55.73	-13	-42.73	H
3.355750	50.69	Pk	32.9	-95.2	-44.97	-56.58	-13	-43.58	V

**BPSK 5G NR n26 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	3/9/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N25 BPSK 20MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	84796 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Mid Channel, 819MHz</b>									
1.629000	59.32	Pk	28.4	-95.2	-47.65	-55.13	-13	-42.13	H
1.629000	62.04	Pk	28.4	-95.2	-47.65	-52.41	-13	-39.41	V
2.443440	59.43	Pk	31.9	-95.2	-47.96	-51.83	-13	-38.83	V
2.467640	55.67	Pk	32.0	-95.2	-47.88	-55.41	-13	-42.41	H
3.259200	55.05	Pk	32.9	-95.2	-46.84	-54.09	-13	-41.09	V
3.286040	55.39	Pk	32.9	-95.2	-46.50	-53.41	-13	-40.41	H



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

#### LIMITS

FCC: §22.917(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

#### QPSK LTE BAND 26 (10.0MHZ BANDWIDTH)

Project #:	4790592293
Date:	3/23/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 831.5MHz</b>										
1.683022	36.64	Pk	28.6	.7	-95.2	-28.65	-57.91	-13	-44.91	V
1.683511	35.51	Pk	28.7	.7	-95.2	-28.71	-59.00	-13	-46.00	H
2.524400	33.81	Pk	32.2	.8	-95.2	-27.4	-55.79	-13	-42.79	H
2.524889	34.91	Pk	32.2	.8	-95.2	-27.39	-54.68	-13	-41.68	V
3.366267	34.33	Pk	32.4	.6	-95.2	-26.17	-54.04	-13	-41.04	H
3.366267	34.60	Pk	32.4	.6	-95.2	-26.17	-53.77	-13	-40.77	V
<b>Mid Channel, 836.5MHz</b>										
1.643422	35.82	Pk	28.5	.7	-95.2	-29	-59.18	-13	-46.18	H
1.643422	35.31	Pk	28.5	.7	-95.2	-29	-59.69	-13	-46.69	V
2.464756	35.16	Pk	32.3	.5	-95.2	-27.65	-54.89	-13	-41.89	H
2.464756	35.51	Pk	32.3	.5	-95.2	-27.65	-54.54	-13	-41.54	V
3.286089	34.70	Pk	33.0	.9	-95.2	-26.05	-52.65	-13	-39.65	H
3.286089	33.86	Pk	33.0	.9	-95.2	-26.05	-53.49	-13	-40.49	V
<b>High Channel, 841.5MHz</b>										
1.663467	37.57	Pk	28.5	.8	-95.2	-28.99	-57.32	-13	-44.32	H
1.663467	36.20	Pk	28.5	.8	-95.2	-28.99	-58.69	-13	-45.69	V
2.494578	35.96	Pk	32.2	.6	-95.2	-27.57	-54.01	-13	-41.01	H
2.494578	35.21	Pk	32.2	.6	-95.2	-27.57	-54.76	-13	-41.76	V
3.326667	35.65	Pk	32.6	.6	-95.2	-26.15	-52.50	-13	-39.50	H
3.326667	34.35	Pk	32.6	.6	-95.2	-26.15	-53.80	-13	-40.80	V

**BPSK 5G NR n26 (20.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/7/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	n26 BPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	HPF 1.2GHz T1737 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Low Channel, 834.0MHz</b>										
1.648800	37.05	Pk	28.5	.7	-95.2	-29.05	-58.00	-13	-45.00	H
1.651245	37.07	Pk	28.4	.8	-95.2	-28.95	-57.88	-13	-44.88	V
2.517556	35.99	Pk	32.2	.8	-95.2	-27.44	-53.65	-13	-40.65	V
2.524889	36.20	Pk	32.2	.8	-95.2	-27.39	-53.39	-13	-40.39	H
3.332045	35.23	Pk	32.6	.5	-95.2	-26.28	-53.15	-13	-40.15	H
3.336445	35.78	Pk	32.5	.5	-95.2	-26.24	-52.66	-13	-39.66	V
<b>Mid Channel, 836.5MHz</b>										
1.698667	37.97	Pk	28.9	.6	-95.2	-28.83	-56.56	-13	-43.56	H
1.710889	37.45	Pk	29	.6	-95.2	-28.62	-56.77	-13	-43.77	V
2.539067	36.41	Pk	32.2	.7	-95.2	-27.40	-53.29	-13	-40.29	H
2.548845	37.31	Pk	32.4	.6	-95.2	-27.23	-52.12	-13	-39.12	V
3.457689	34.91	Pk	32.5	.5	-95.2	-25.67	-52.96	-13	-39.96	V
3.461112	35.32	Pk	32.5	.5	-95.2	-25.70	-52.58	-13	-39.58	H
<b>High Channel, 839.0Hz</b>										
1.710889	38.32	Pk	29.0	.6	-95.2	-28.62	-55.9	-13	-42.90	H
1.714311	37.39	Pk	29.1	.6	-95.2	-28.74	-56.85	-13	-43.85	V
2.549578	35.76	Pk	32.3	.6	-95.2	-27.21	-53.75	-13	-40.75	V
2.556178	35.32	Pk	32.4	.5	-95.2	-27.14	-54.12	-13	-41.12	H
3.340845	35.88	Pk	32.5	.5	-95.2	-26.21	-52.53	-13	-39.53	V
3.341823	35.29	Pk	32.5	.5	-95.2	-26.19	-53.10	-13	-40.10	H

**10.2.9. LTE BAND 30 AND 5G NR n30**

**LIMITS**

FCC: §27.53 (a)

For mobile and portable stations operating in the 2305-2315 MHz: by a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

**QPSK LTE BAND 30 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	6/7/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 30 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.614844	23.54	RMS	33.8	-95.2	-23.83	-61.69	-40	-21.69	H
6.935625	20.39	RMS	35.5	-95.2	-19.53	-58.84	-40	-18.84	H
9.232031	19.66	RMS	36.1	-95.2	-17.50	-56.94	-40	-16.94	H
4.609688	23.59	RMS	33.8	-95.2	-23.76	-61.57	-40	-21.57	V
6.948750	20.45	RMS	35.5	-95.2	-19.38	-58.63	-40	-18.63	V
9.189375	19.58	RMS	36.1	-95.2	-17.52	-57.04	-40	-17.04	V

**BPSK 5G NR n30 (10.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	6/2/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	N30 BPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	80404_ ACF(dB) - 3mH	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.612500	27.33	RMS	34.3	-95.2	-29.23	-62.80	-40	-22.80	H
4.626563	26.78	RMS	34.3	-95.2	-29.02	-63.14	-40	-23.14	V
6.927656	24.72	RMS	35.7	-95.2	-26.40	-61.18	-40	-21.18	H
6.939844	24.86	RMS	35.7	-95.2	-26.43	-61.07	-40	-21.07	V
9.352500	22.48	RMS	36.2	-95.2	-23.90	-60.42	-40	-20.42	V
9.424219	22.41	RMS	36.3	-95.2	-24.12	-60.61	-40	-20.61	H

### 10.2.10. LTE BAND 41 AND 5G NR n41

#### LIMITS

FCC: §27.53 (m)

At least 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

#### QPSK LTE BAND 41 (20.0MHZ BANDWIDTH)

Project #:	4790592293
Date:	3/22/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE 41 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 2506MHz</b>										
5.012344	33.54	Pk	34.1	.8	-95.2	-23.54	-50.3	-25	-25.30	H
5.012813	33.90	Pk	34.1	.8	-95.2	-23.53	-49.93	-25	-24.93	V
7.517813	30.47	Pk	35.4	.3	-95.2	-19.54	-48.57	-25	-23.57	V
7.518281	31.47	Pk	35.4	.3	-95.2	-19.54	-47.57	-25	-22.57	H
10.024219	32.05	Pk	36.9	.6	-95.2	-16.94	-42.59	-25	-17.59	H
10.024688	30.82	Pk	36.9	.6	-95.2	-16.94	-43.82	-25	-18.82	V
<b>Mid Channel, 2593MHz</b>										
5.186250	33.60	Pk	34.5	.8	-95.2	-23.03	-49.33	-25	-24.33	V
5.187188	33.13	Pk	34.5	.8	-95.2	-23.01	-49.78	-25	-24.78	H
7.779375	33.52	Pk	35.6	.3	-95.2	-18.99	-44.77	-25	-19.77	H
7.779375	31.13	Pk	35.6	.3	-95.2	-18.99	-47.16	-25	-22.16	V
10.372500	30.34	Pk	37.2	.8	-95.2	-16.38	-43.24	-25	-18.24	H
10.372500	30.84	Pk	37.2	.8	-95.2	-16.38	-42.74	-25	-17.74	V
<b>High Channel, 2680MHz</b>										
5.359688	32.04	Pk	34.6	.5	-95.2	-23.18	-51.24	-25	-26.24	V
5.360156	32.19	Pk	34.6	.5	-95.2	-23.17	-51.08	-25	-26.08	H
8.040469	31.42	Pk	35.8	.4	-95.2	-18.78	-46.36	-25	-21.36	H
8.040469	32.19	Pk	35.8	.4	-95.2	-18.78	-45.59	-25	-20.59	V
10.720313	30.77	Pk	37.5	.6	-95.2	-16.18	-42.51	-25	-17.51	H
10.720313	30.3	Pk	37.5	.6	-95.2	-16.18	-42.98	-25	-17.98	V

**BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	4/5/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	N41 BPSK 100MHz
Chamber #:	01-RDE- A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 2546MHz</b>										
5.092031	34.57	Pk	34.4	.8	-95.2	-23.25	-48.68	-25	-23.68	H
5.118750	36.21	Pk	34.3	.8	-95.2	-23.26	-47.15	-25	-22.15	V
7.637813	32.78	Pk	35.6	.4	-95.2	-18.98	-45.4	-25	-20.40	H
7.645781	33.10	Pk	35.6	.4	-95.2	-18.87	-44.97	-25	-19.97	V
10.216406	33.03	Pk	37.0	.9	-95.2	-16.78	-41.05	-25	-16.05	H
10.244531	32.58	Pk	37.1	.8	-95.2	-16.66	-41.38	-25	-16.38	V
<b>Mid Channel, 2593MHz</b>										
5.175000	34.76	Pk	34.5	.7	-95.2	-23.11	-48.35	-25	-23.35	V
5.203125	34.34	Pk	34.5	.9	-95.2	-23.08	-48.54	-25	-23.54	H
7.755000	33.00	Pk	35.6	.3	-95.2	-19.06	-45.36	-25	-20.36	H
7.780781	32.61	Pk	35.6	.3	-95.2	-18.97	-45.66	-25	-20.66	V
10.412344	33.83	Pk	37.3	.8	-95.2	-16.21	-39.48	-25	-14.48	H
10.439063	32.06	Pk	37.3	.8	-95.2	-16.21	-41.25	-25	-16.25	V
<b>High Channel, 2640MHz</b>										
5.259844	33.34	Pk	34.6	.3	-95.2	-23.3	-50.26	-25	-25.26	V
5.283281	33.99	Pk	34.6	.3	-95.2	-23.57	-49.88	-25	-24.88	H
7.916719	32.84	Pk	35.6	.2	-95.2	-19.11	-45.67	-25	-20.67	H
7.932656	33.10	Pk	35.6	.1	-95.2	-19.11	-45.51	-25	-20.51	V
10.576406	32.40	Pk	37.3	.9	-95.2	-16.19	-40.79	-25	-15.79	H
10.601250	32.62	Pk	37.4	.8	-95.2	-16.07	-40.45	-25	-15.45	V

### 10.2.11. LTE BAND 66 AND 5G NR n66

#### LIMITS

FCC: §27.53 (h)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

#### QPSK LTE BAND 66 (20.0MHZ BANDWIDTH)

Project #:	4790592293
Date:	3/23/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE 66 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 1720MHz</b>									
3.452813	34.74	Pk	32.5	-95.2	-25.52	-53.48	-13	-40.48	V
3.453281	35.63	Pk	32.5	-95.2	-25.51	-52.58	-13	-39.58	H
5.139844	34.85	Pk	34.4	-95.2	-22.55	-48.50	-13	-35.50	V
5.153906	36.08	Pk	34.4	-95.2	-22.84	-47.56	-13	-34.56	H
6.859219	33.09	Pk	35.5	-95.2	-19.99	-46.60	-13	-33.60	V
6.885469	33.72	Pk	35.4	-95.2	-19.92	-46.00	-13	-33.00	H
<b>Mid Channel, 1745MHz</b>									
3.484219	34.97	Pk	32.5	-95.2	-24.76	-52.49	-13	-39.49	H
3.484219	35.38	Pk	32.5	-95.2	-24.76	-52.08	-13	-39.08	V
5.185313	35.21	Pk	34.5	-95.2	-23.06	-48.55	-13	-35.55	V
5.230781	34.29	Pk	34.5	-95.2	-22.59	-49.00	-13	-36.00	H
6.964688	34.04	Pk	35.4	-95.2	-19.27	-45.03	-13	-32.03	H
6.987188	34.03	Pk	35.5	-95.2	-18.95	-44.62	-13	-31.62	V
<b>High Channel, 1770MHz</b>									
3.557344	35.18	Pk	32.8	-95.2	-23.53	-50.75	-13	-37.75	V
3.557813	35.95	Pk	32.9	-95.2	-23.52	-49.87	-13	-36.87	H
5.328281	33.82	Pk	34.6	-95.2	-21.74	-48.52	-13	-35.52	H
5.335313	33.71	Pk	34.6	-95.2	-21.65	-48.54	-13	-35.54	V
7.062656	33.23	Pk	35.5	-95.2	-18.65	-45.12	-13	-32.12	V
7.073906	34.37	Pk	35.5	-95.2	-18.76	-44.09	-13	-31.09	H

**BPSK 5G NR n66 (40.0MHZ BANDWIDTH)**

Project #:	4790592293
Date:	2/21/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	N66 BPSK 40MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T348 (dB/m)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
<b>Low Channel, 1730MHz</b>									
3.485000	54.05	Pk	33.3	-95.2	-44.81	-52.66	-13	-39.66	V
3.490500	53.43	Pk	33.7	-95.2	-44.80	-52.87	-13	-39.87	H
5.173000	53.11	Pk	34.4	-95.2	-45.10	-52.79	-13	-39.79	H
5.188000	53.00	Pk	34.4	-95.2	-45.05	-52.85	-13	-39.85	V
6.911500	51.65	Pk	36.2	-95.2	-43.06	-50.41	-13	-37.41	H
6.913500	51.29	Pk	36.1	-95.2	-43.08	-50.89	-13	-37.89	V
<b>Mid Channel, 1745MHz</b>									
3.486500	54.19	Pk	33.4	-95.2	-44.88	-52.49	-13	-39.49	V
3.499000	53.20	Pk	34.9	-95.2	-44.76	-51.86	-13	-38.86	H
5.237500	52.33	Pk	34.7	-95.2	-44.97	-53.14	-13	-40.14	V
5.254000	52.87	Pk	34.6	-95.2	-44.96	-52.69	-13	-39.69	H
6.959000	51.75	Pk	36.0	-95.2	-42.89	-50.34	-13	-37.34	H
6.959000	51.62	Pk	36.0	-95.2	-42.89	-50.47	-13	-37.47	V
<b>High Channel, 1760MHz</b>									
3.509000	53.70	Pk	34.1	-95.2	-44.93	-52.33	-13	-39.33	H
3.513500	54.96	Pk	33.7	-95.2	-44.8	-51.34	-13	-38.34	V
5.306000	53.44	Pk	34.6	-95.2	-44.9	-52.06	-13	-39.06	H
5.315500	52.77	Pk	34.6	-95.2	-44.79	-52.62	-13	-39.62	V
7.013000	50.52	Pk	36.0	-95.2	-42.53	-51.21	-13	-38.21	V
7.023000	51.93	Pk	35.9	-95.2	-42.53	-49.90	-13	-36.9	H

**10.2.12. 5G NR n70**

**LIMITS**

FCC: §27.53 (h)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

**BPSK 5G NR n70 (15.0MHZ BANDWIDTH based on 5G NR n70 maximum frequency range)**

Project #:	4790592293
Date:	6/6/2023
Test Engineer:	18860
Configuration:	EUT only
Mode	N70 BPSK 15MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	Horn Antenna ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
<b>Mid Channel, 1702.5MHz</b>									
1.675000	53.43	Pk	28.9	-95.2	-46.62	-59.49	-13	-46.49	V
1.679500	53.3	Pk	28.8	-95.2	-46.48	-59.58	-13	-46.58	H
2.504350	52.75	Pk	32.2	-95.2	-46.02	-56.27	-13	-43.27	V
2.507500	53.19	Pk	32.3	-95.2	-46.09	-55.80	-13	-42.80	H
3.346750	51.55	Pk	32.8	-95.2	-44.88	-55.73	-13	-42.73	H
3.355750	50.69	Pk	32.9	-95.2	-44.97	-56.58	-13	-43.58	V