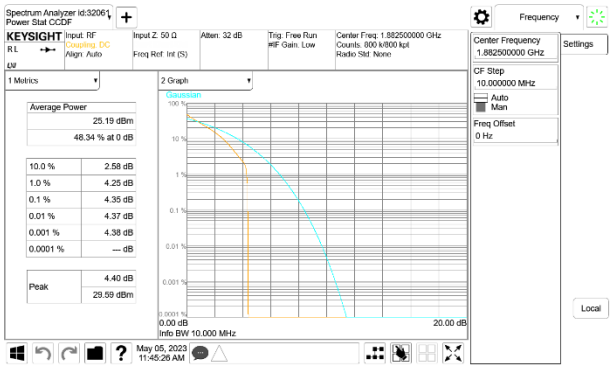
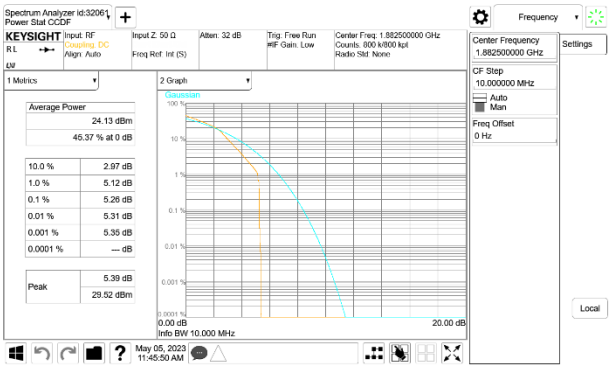
9.5.6. LTE BAND 25 AND 5G NR n25

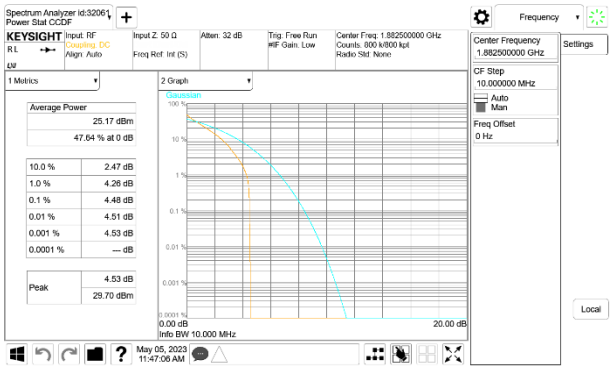
LTE BAND 25



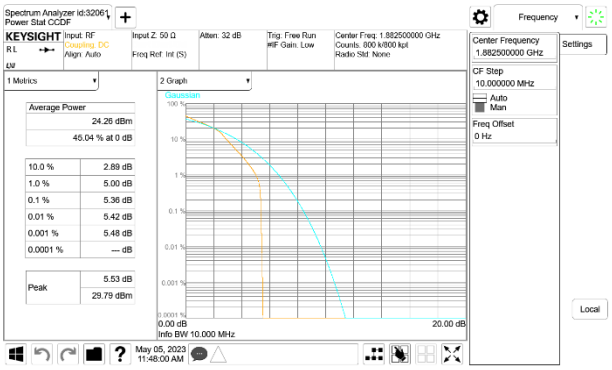
LTE B25 1.4MHz QPSK Middle Channel



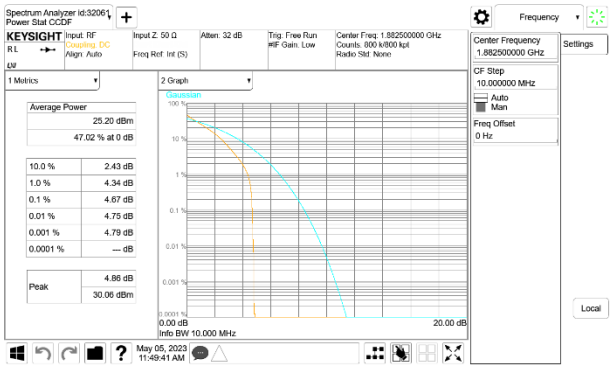
LTE B25 1.4MHz 16QAM Middle Channel



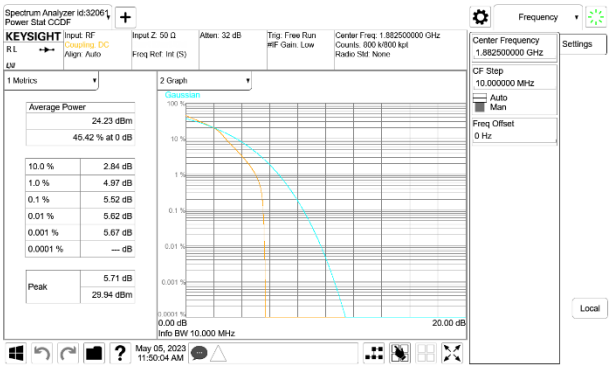
LTE B25 3MHz QPSK Middle Channel



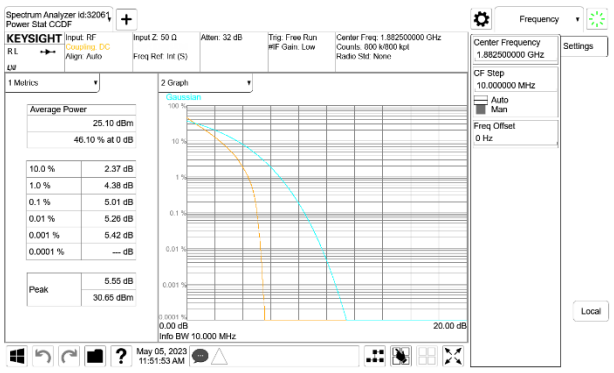
LTE B25 3MHz 16QAM Middle Channel



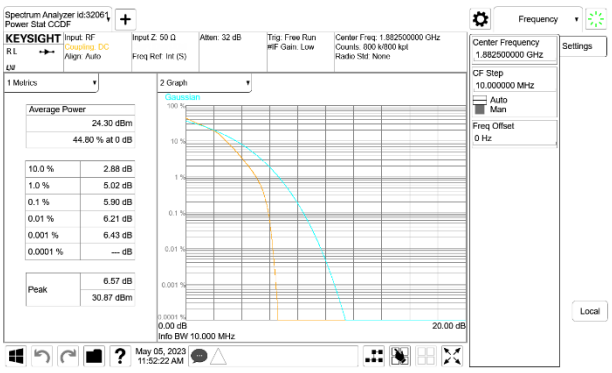
LTE B2 5MHz QPSK Middle Channel



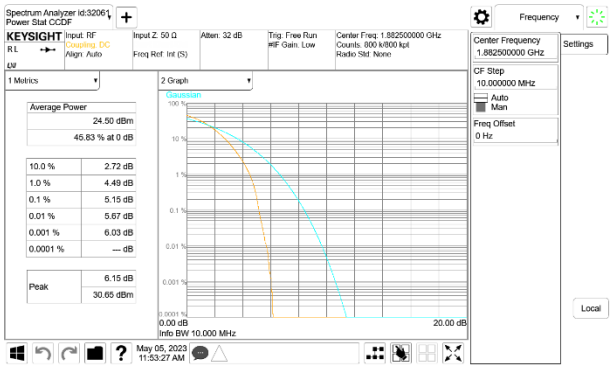
LTE B2 5MHz 16QAM Middle Channel



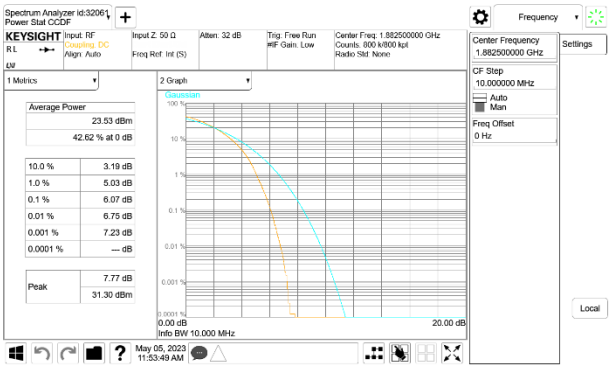
LTE B25 10MHz QPSK Middle Channel



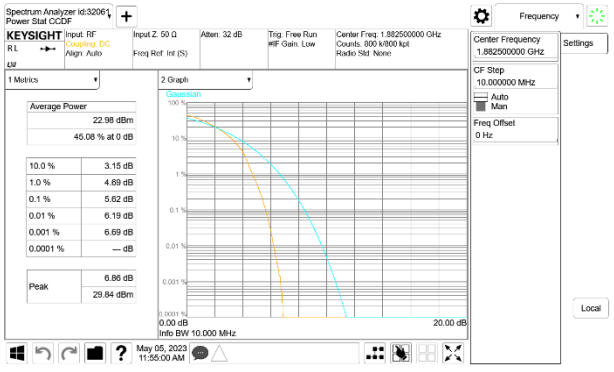
LTE B25 10MHz 16QAM Middle Channel



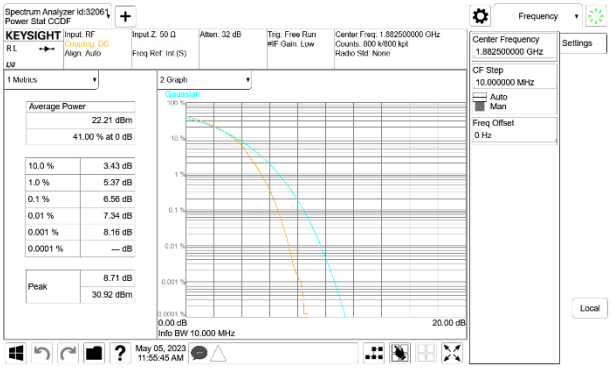
LTE B25 15MHz QPSK Middle Channel



LTE B25 15MHz 16QAM Middle Channel

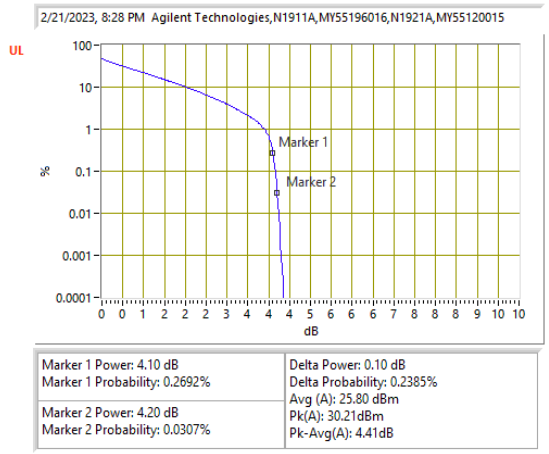


LTE B25 20MHz QPSK Middle Channel

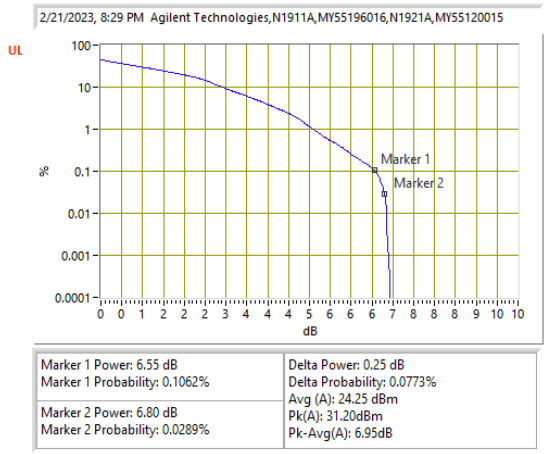


LTE B25 20MHz 16QAM Middle Channel

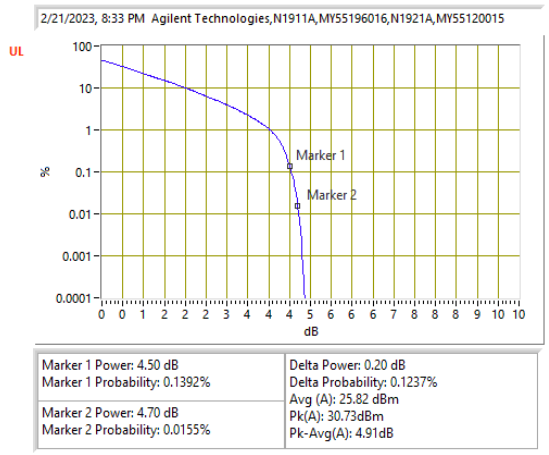
5G NR n25



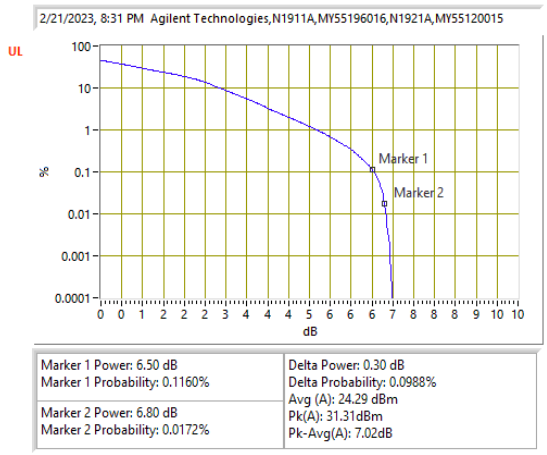
5G NR n25 5MHz BPSK Middle Channel, ID:50822



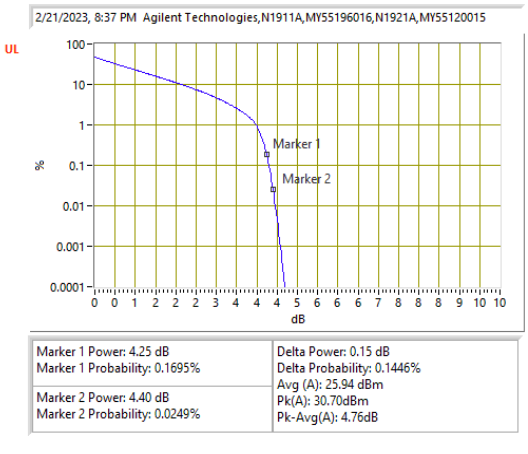
5G NR n25 5MHz 16QAM Middle Channel, ID:50822



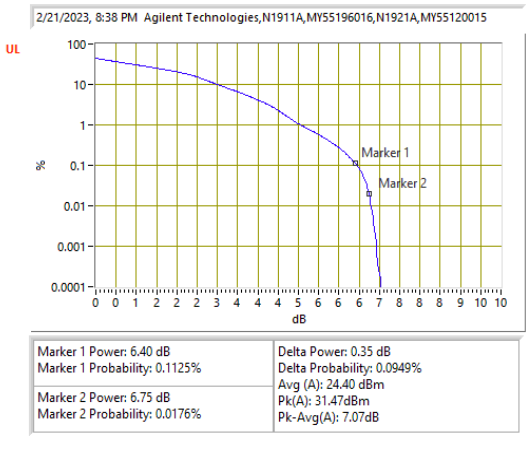
5G NR n25 10MHz BPSK Middle Channel, ID:50822



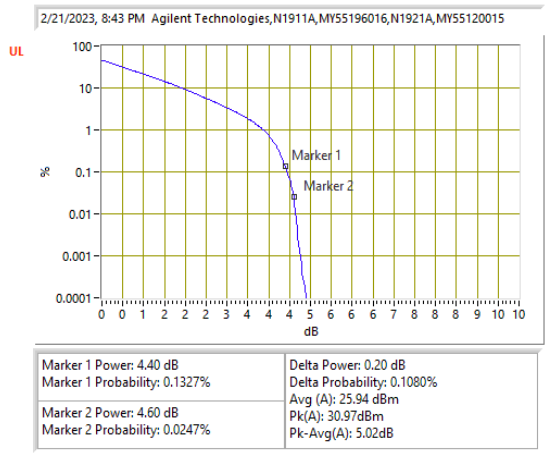
5G NR n25 10MHz 16QAM Middle Channel, ID:50822



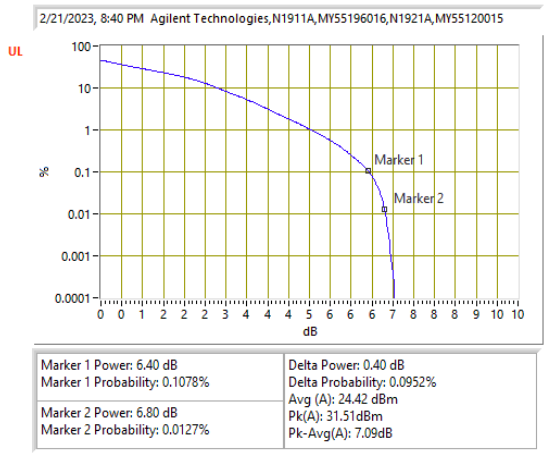
5G NR n25 15MHz BPSK Middle Channel, ID:50822



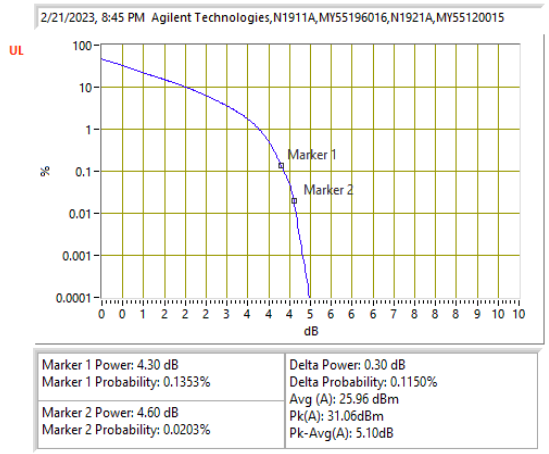
5G NR n25 15MHz 16QAM Middle Channel, ID:50822



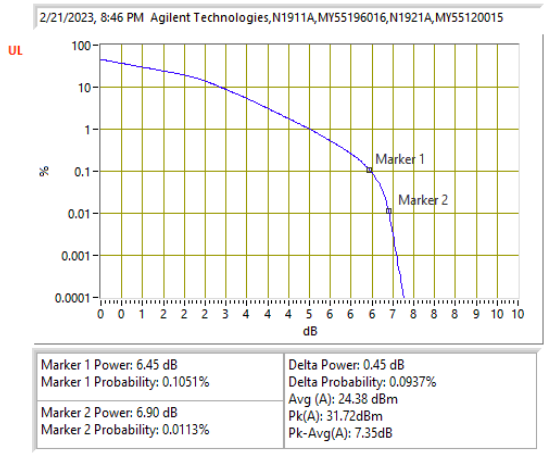
5G NR n25 20MHz BPSK Middle Channel, ID:50822



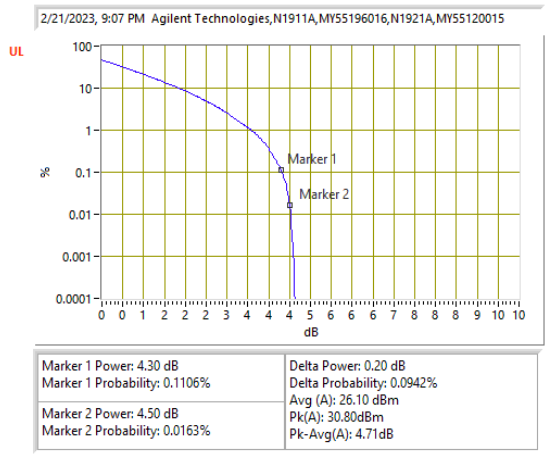
5G NR n25 20MHz 16QAM Middle Channel, ID:50822



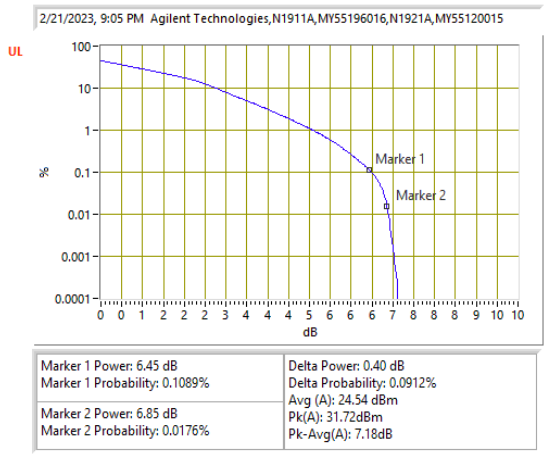
5G NR n25 25MHz BPSK Middle Channel, ID:50822



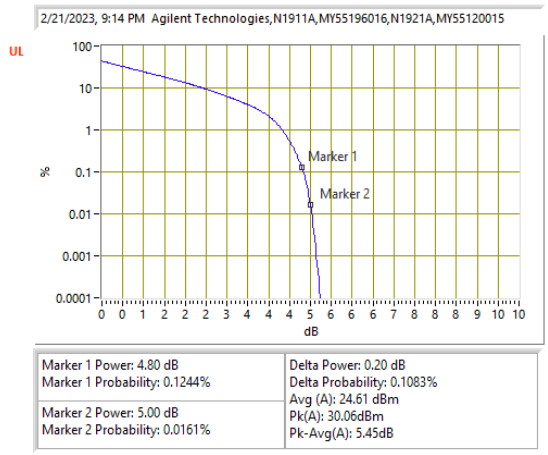
5G NR n25 25MHz 16QAM Middle Channel, ID:50822



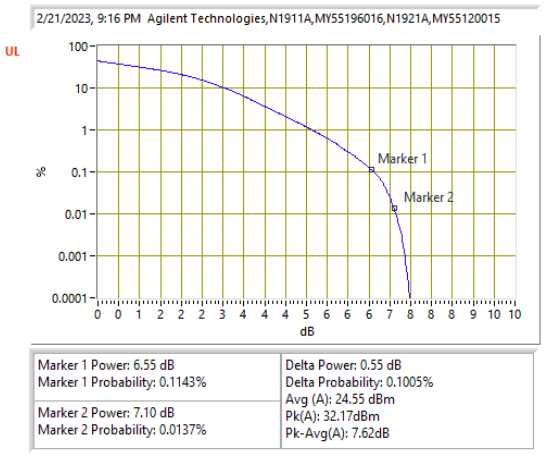
5G NR n25 30MHz BPSK Middle Channel, ID:50822



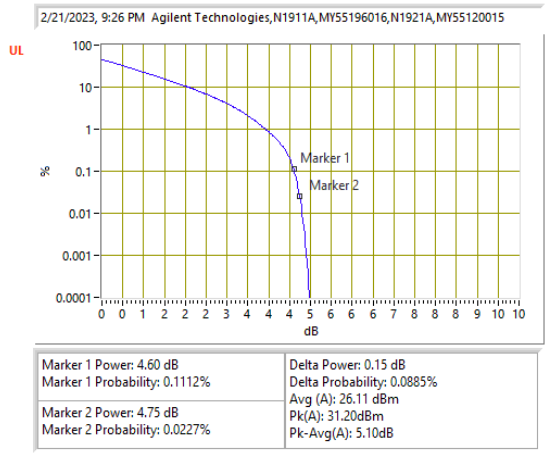
5G NR n25 30MHz 16QAM Middle Channel, ID:50822



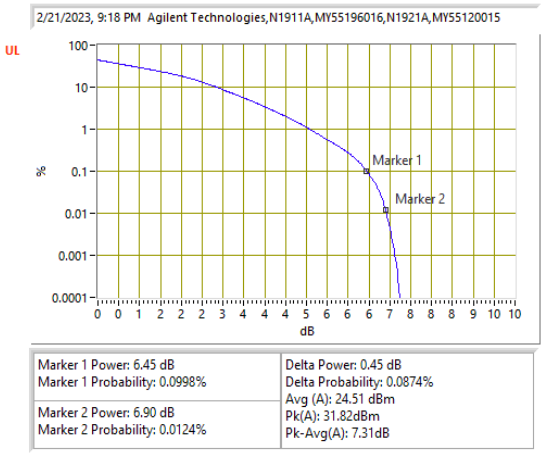
5G NR n25 35MHz BPSK Middle Channel, ID:50822



5G NR n25 35MHz 16QAM Middle Channel, ID:50822



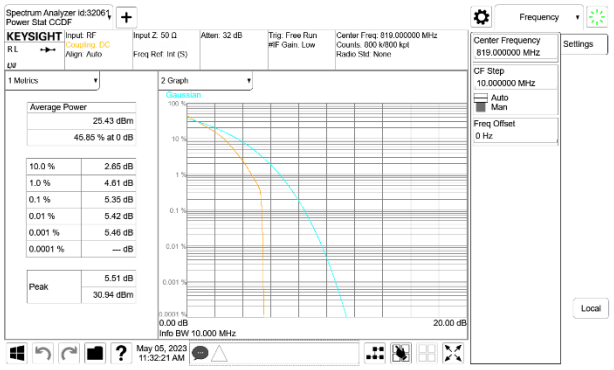
5G NR n25 40MHz BPSK Middle Channel, ID:50822



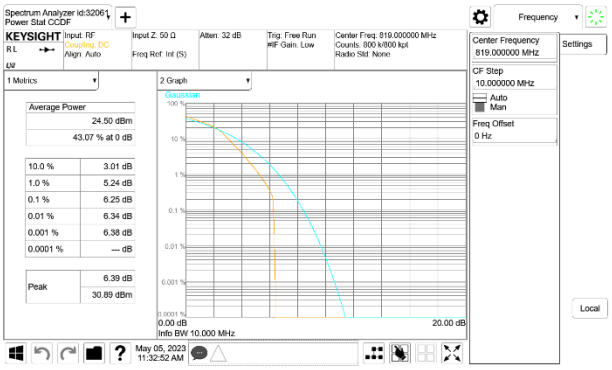
5G NR n25 40MHz 16QAM Middle Channel, ID:50822

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

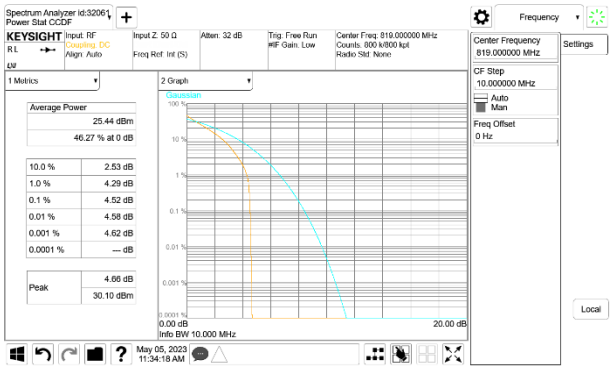
LTE BAND 26



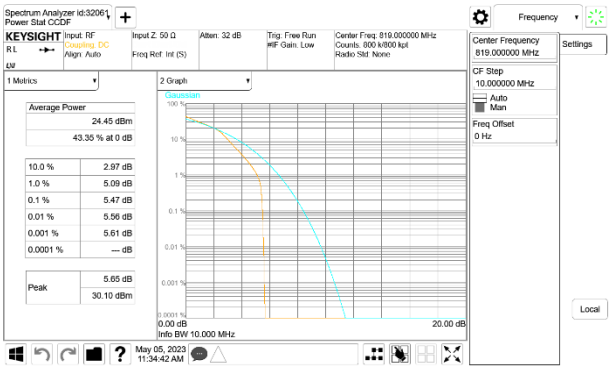
LTE B26 1.4MHz QPSK Middle Channel



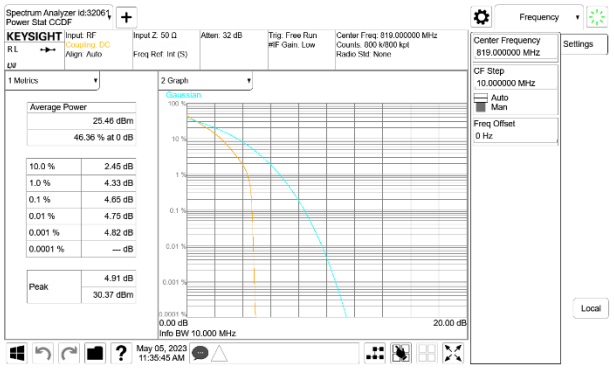
LTE B26 1.4MHz 16QAM Middle Channel



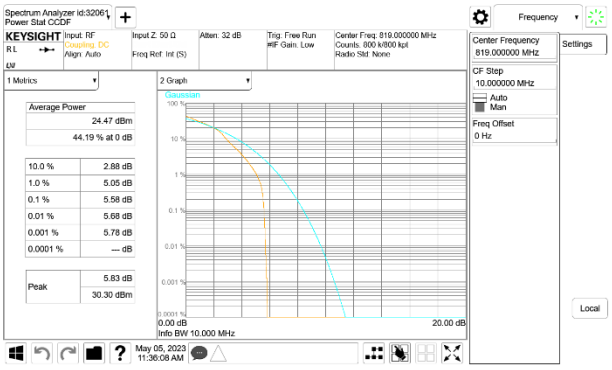
LTE B26 3MHz QPSK Middle Channel



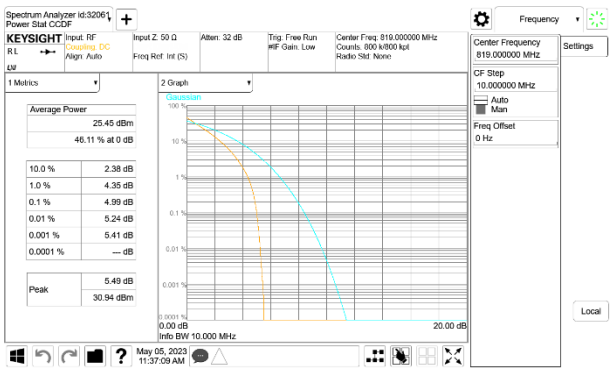
LTE B26 3MHz 16QAM Middle Channel



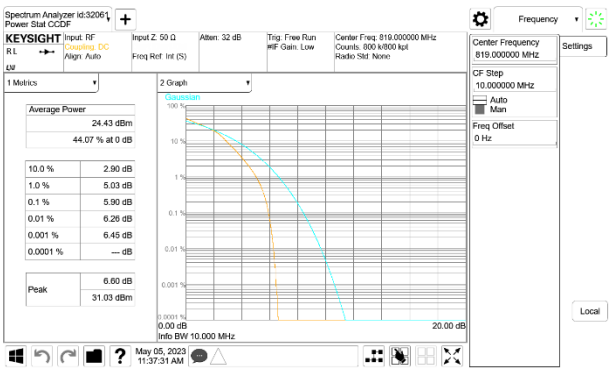
LTE B26 5MHz QPSK Middle Channel



LTE B26 5MHz 16QAM Middle Channel

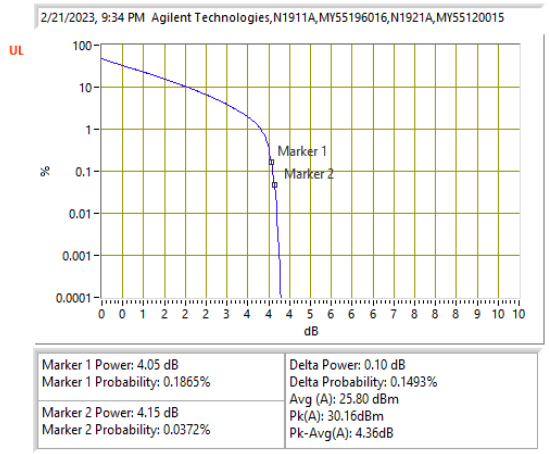


LTE B26 10MHz QPSK Middle Channel

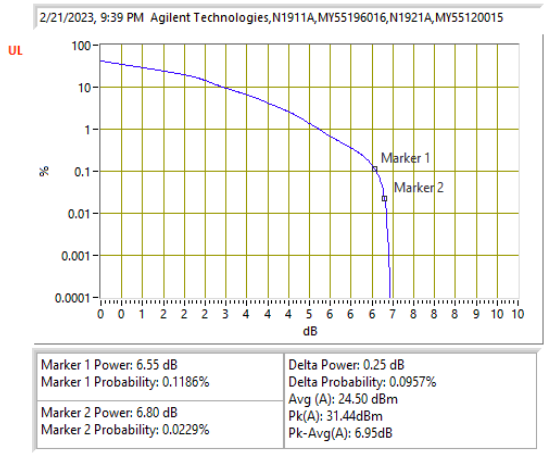


LTE B26 10MHz 16QAM Middle Channel

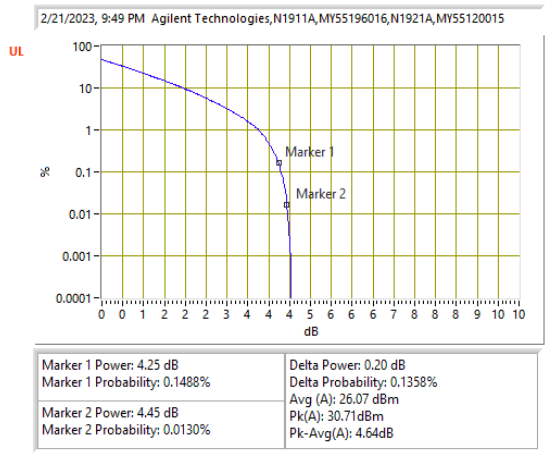
5G NR n26



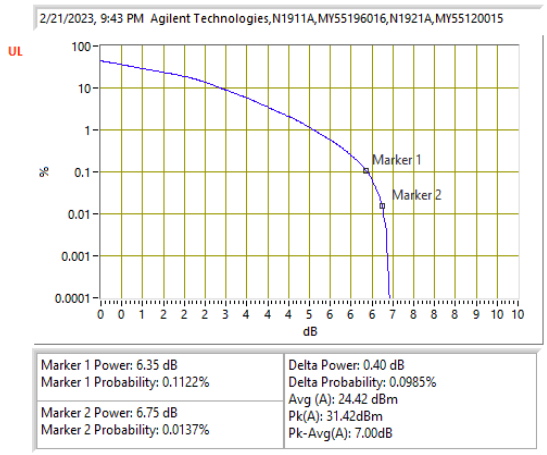
5G NR n26 5MHz BPSK Middle Channel, ID:50822



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



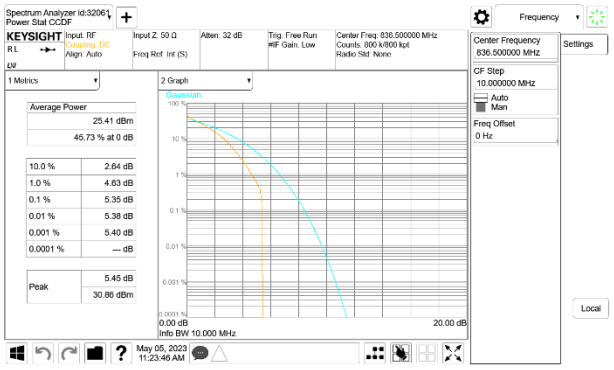
5G NR n26 10MHz BPSK Middle Channel, ID:50822



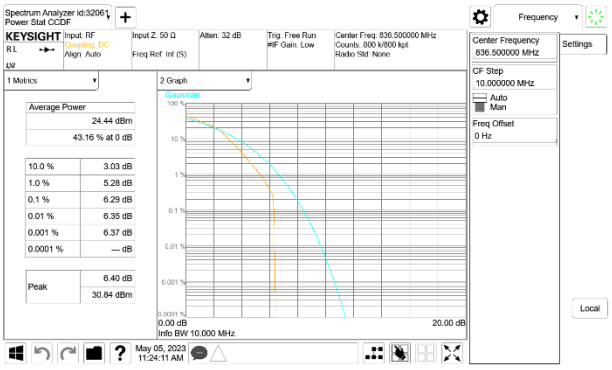
5G NR n26 10MHz 16QAM Middle Channel, ID:50822

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

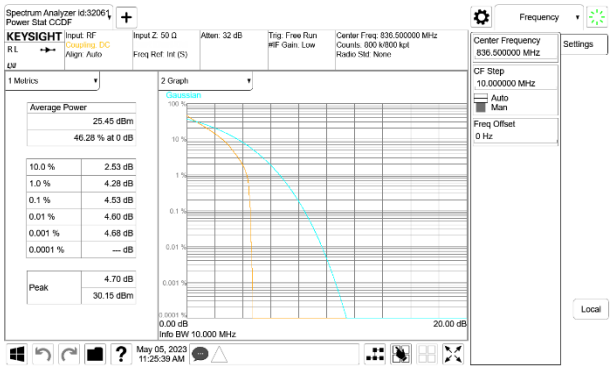
LTE BAND 26



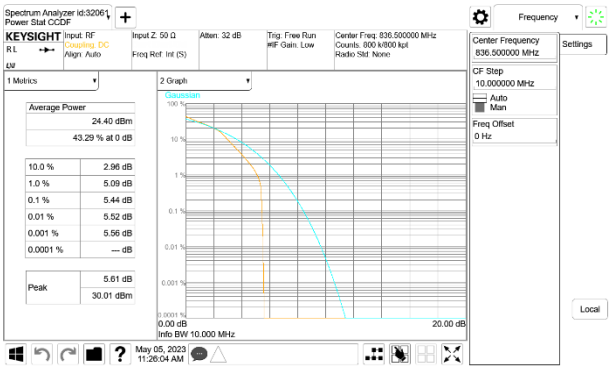
LTE B26 1.4MHz QPSK Middle Channel



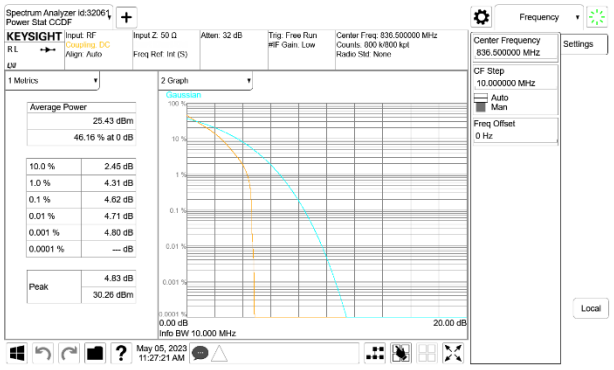
LTE B26 1.4MHz 16QAM Middle Channel



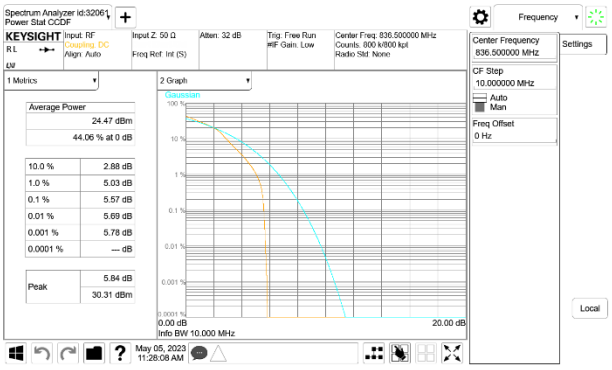
LTE B26 3MHz QPSK Middle Channel



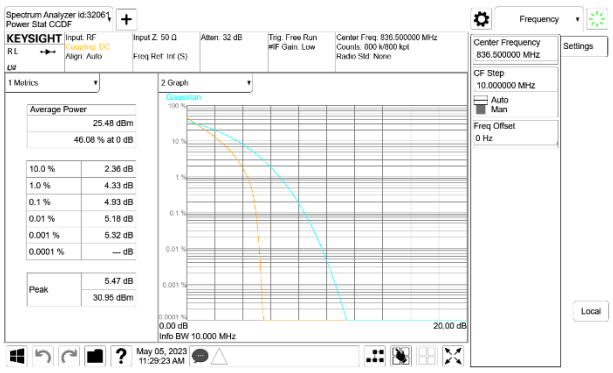
LTE B26 3MHz 16QAM Middle Channel



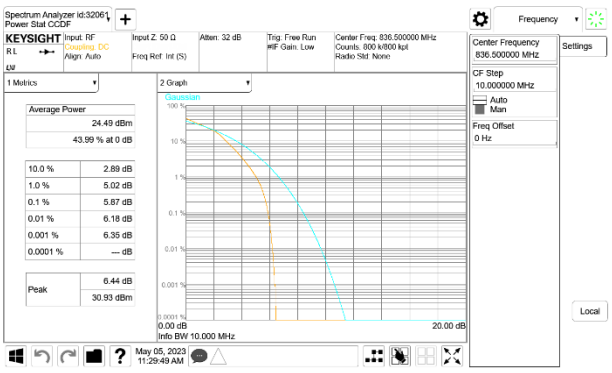
LTE B26 5MHz QPSK Middle Channel



LTE B26 5MHz 16QAM Middle Channel

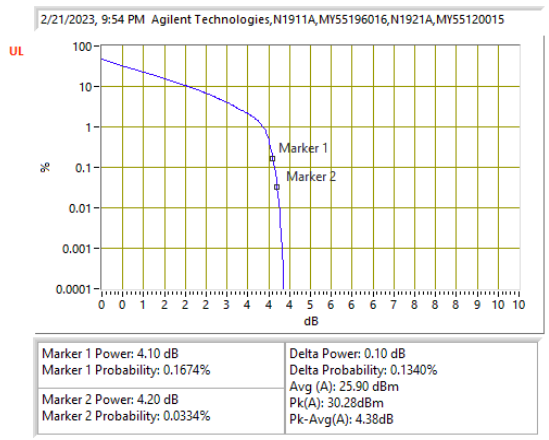


LTE B26 10MHz QPSK Middle Channel

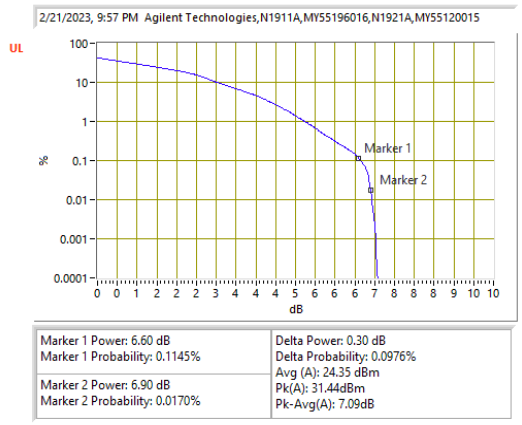


LTE B26 10MHz 16QAM Middle Channel

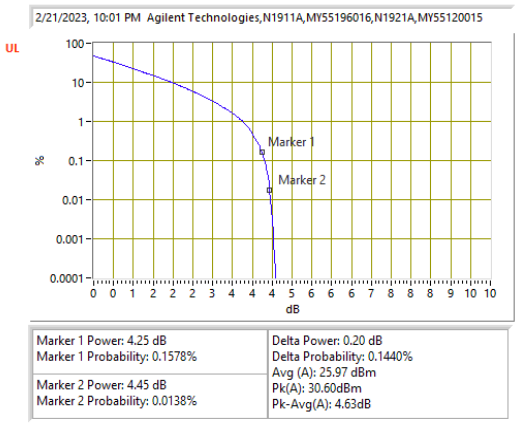
5G NR n26



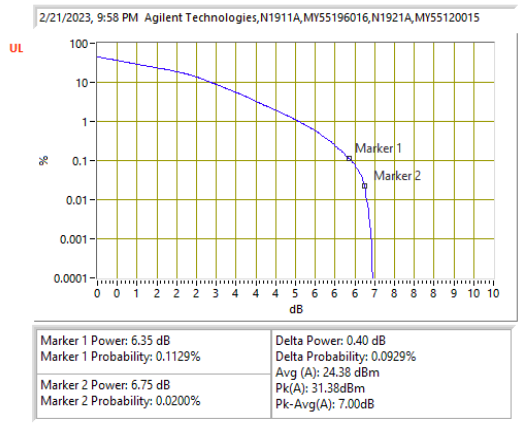
5G NR n26 5MHz BPSK Middle Channel, ID:50822



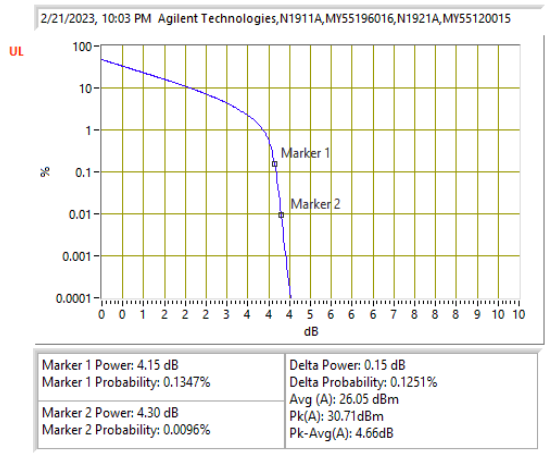
5G NR n26 5MHz 16QAM Middle Channel, ID:50822



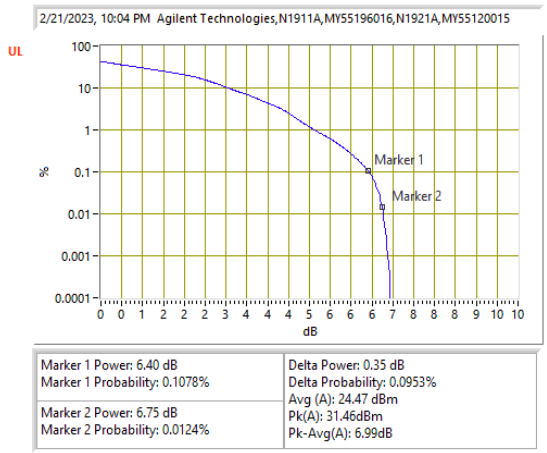
5G NR n26 10MHz BPSK Middle Channel, ID:50822



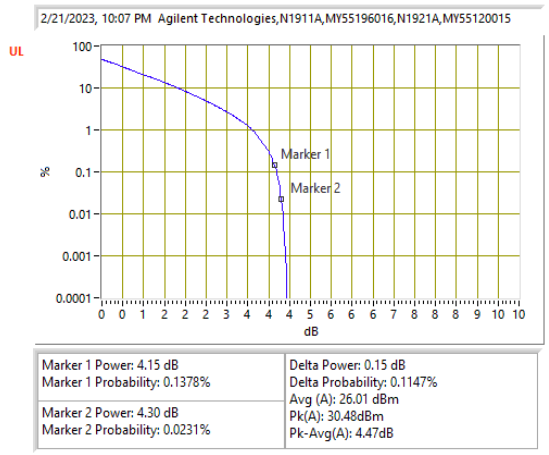
5G NR n26 10MHz 16QAM Middle Channel, ID:50822



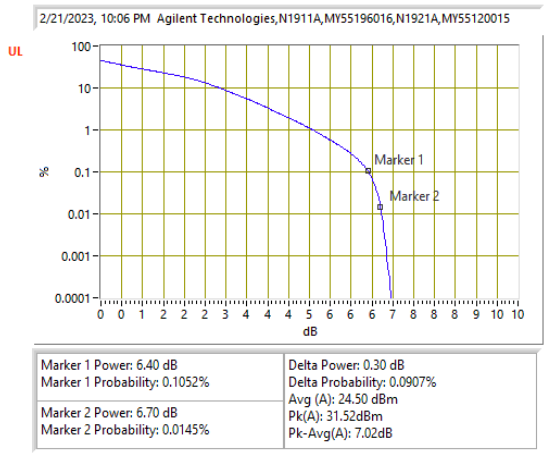
5G NR n26 15MHz BPSK Middle Channel, ID:50822



5G NR n26 15MHz 16QAM Middle Channel, ID:50822



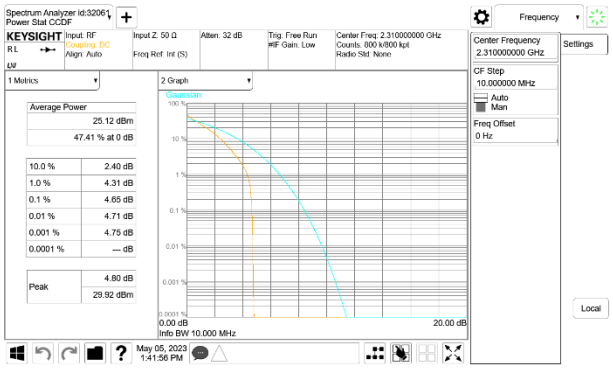
5G NR n26 20MHz BPSK Middle Channel, ID:50822



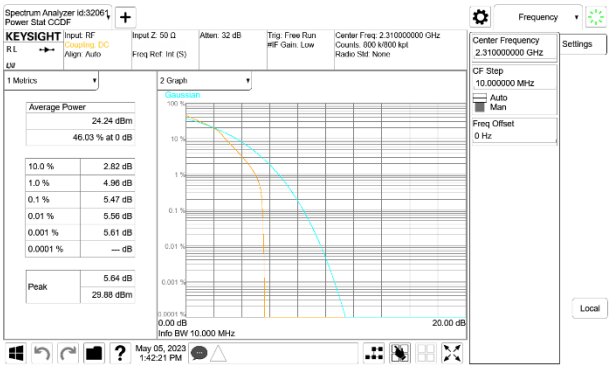
5G NR n26 20MHz 16QAM Middle Channel, ID:50822

9.5.9. LTE BAND 30 AND 5G NR n30

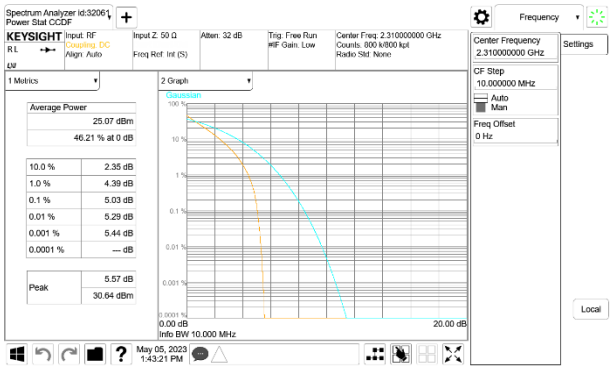
LTE BAND 30



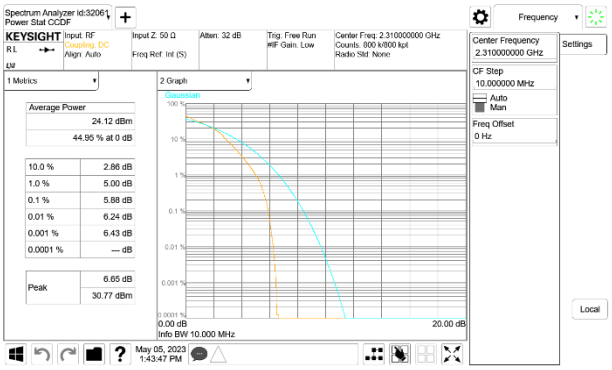
LTE B30 5MHz QPSK Middle Channel



LTE B30 5MHz 16QAM Middle Channel

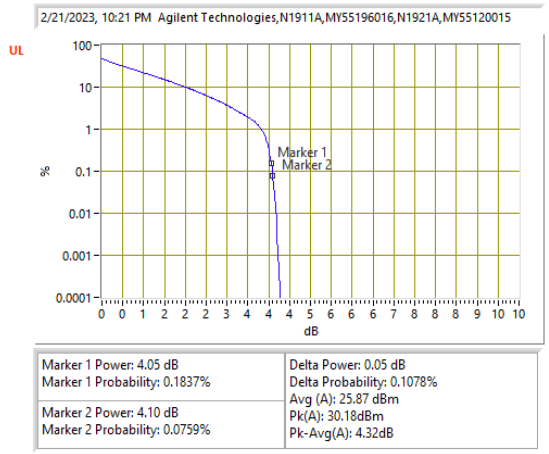


LTE B30 10MHz QPSK Middle Channel

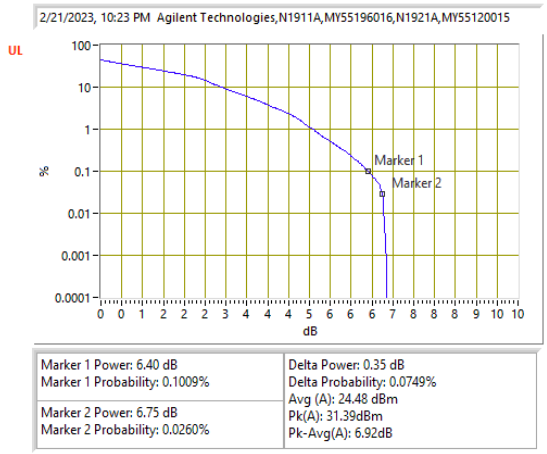


LTE B30 10MHz 16QAM Middle Channel

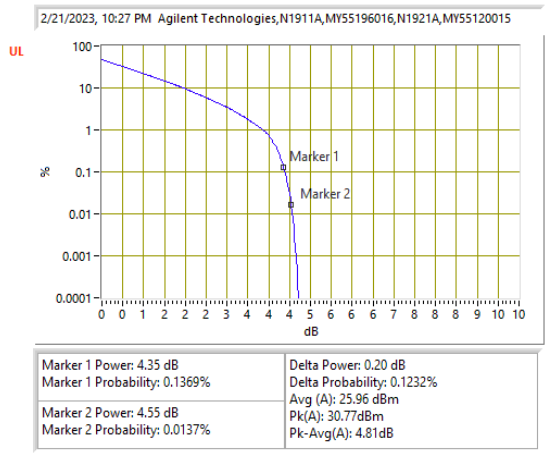
5G NR n30



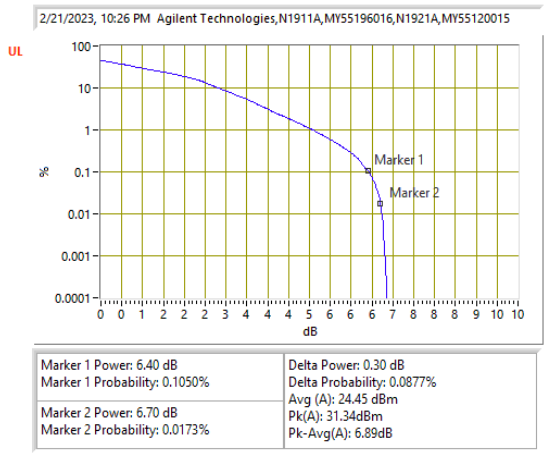
5G NR n30 5MHz BPSK Middle Channel, ID:50822



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

Test Engineer ID:	50822	Test Date:	2/21/2023

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	33.02	21.34	*4.69
					16QAM	34.02	21.36	*5.67
	10MHz		50	0	QPSK	33.10	21.37	*4.74
					16QAM	34.04	21.38	*5.67
	15MHz		75	0	QPSK	33.01	21.23	*4.79
					16QAM	33.98	21.28	*5.71
	20MHz		100	0	QPSK	33.07	21.25	*4.83
					16QAM	34.04	21.27	*5.78
5G NR Band n41	10MHz		24	0	BPSK	32.59	28.92	3.67
					16QAM	32.72	26.66	6.06
	15MHz		36	0	BPSK	32.47	29.02	3.45
					16QAM	32.85	26.99	5.86
	20MHz		50	0	BPSK	32.93	29.38	3.55
					16QAM	32.83	26.89	5.94
	30MHz		75	0	BPSK	31.84	28.28	3.56
					16QAM	32.66	26.66	6.00
	40MHz		100	0	BPSK	32.17	28.69	3.48
					16QAM	32.42	26.54	5.88
	50MHz		128	0	BPSK	32.37	28.99	3.38
					16QAM	32.57	26.86	5.71
	60MHz		162	0	BPSK	32.59	29.30	3.29
					16QAM	32.80	27.01	5.79
	70MHz		180	0	BPSK	33.22	29.53	3.69
					16QAM	33.02	27.20	5.82
	80MHz		216	0	BPSK	31.97	28.77	3.20
					16QAM	32.77	27.20	5.57
	90MHz		243	0	BPSK	31.65	28.47	3.18
					16QAM	32.12	26.71	5.41
	100MHz		270	0	BPSK	39.26	35.58	3.68
					16QAM	32.21	26.76	5.45
Duty Cycle Correction Factor (dB) =			6.99					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

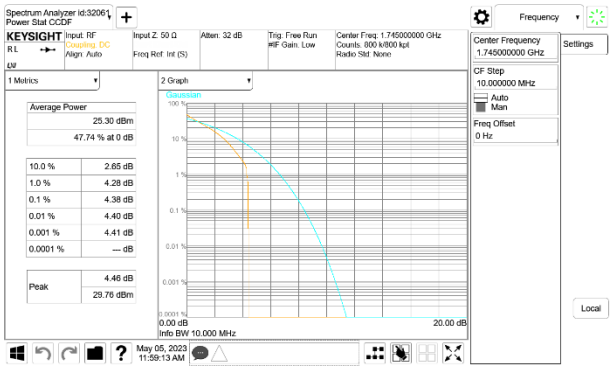
9.5.11. LTE BAND 48 AND 5G NR n48

Test Engineer ID:	50822	Test Date:	2/22/2023

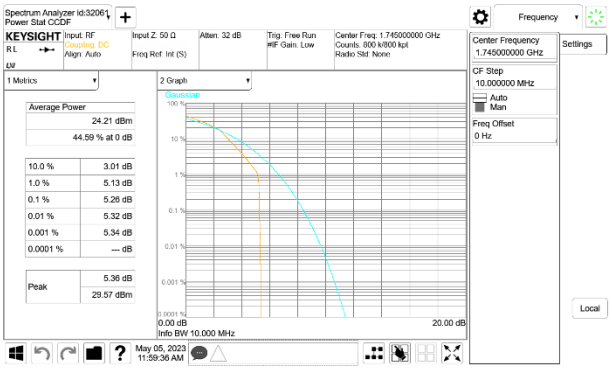
Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band 48	5MHz	3625.0	25	0	QPSK	30.50	19.13	*4.38
					16QAM	32.45	19.73	*5.73
	10MHz		50	0	QPSK	31.05	19.11	*4.95
					16QAM	32.36	19.54	*5.83
	15MHz		75	0	QPSK	30.92	19.34	*4.59
					16QAM	32.35	18.68	*6.68
	20MHz		100	0	QPSK	31.30	17.83	*6.48
					16QAM	31.60	16.65	*7.96
5G NR Band n48	10MHz		24	0	BPSK	30.18	25.74	4.44
					16QAM	31.15	24.28	6.87
	15MHz		36	0	BPSK	30.44	25.99	4.45
					16QAM	31.20	24.38	6.82
	20MHz		50	0	BPSK	31.26	25.87	5.39
					16QAM	31.80	24.38	7.42
	30MHz		75	0	BPSK	26.41	22.09	4.32
					16QAM	31.55	24.61	6.94
	40MHz		100	0	BPSK	30.18	26.00	4.18
					16QAM	31.15	24.50	6.65
* 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

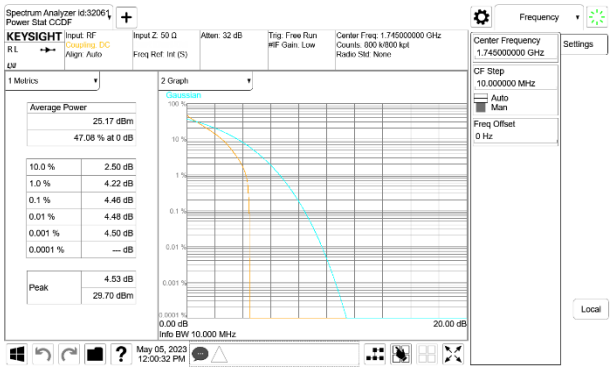
LTE BAND 66



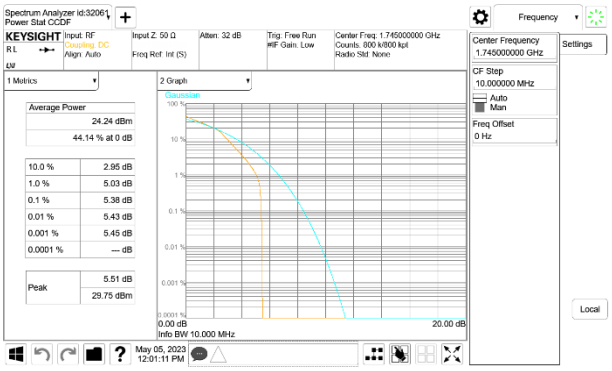
LTE B66 1.4MHz QPSK Middle Channel



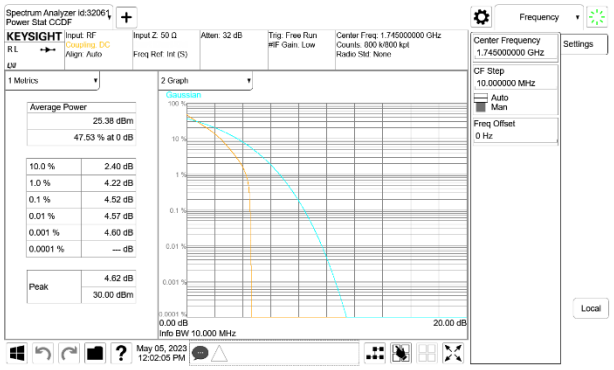
LTE B66 1.4MHz 16QAM Middle Channel



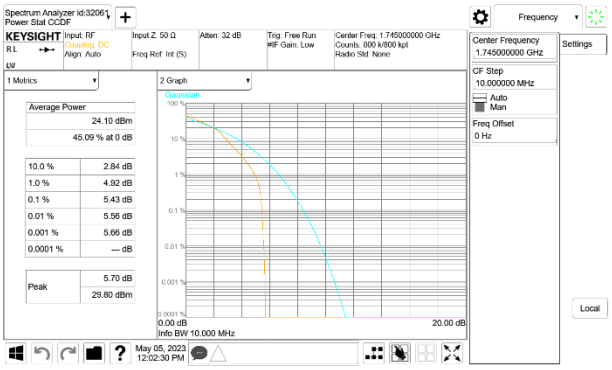
LTE B66 3MHz QPSK Middle Channel



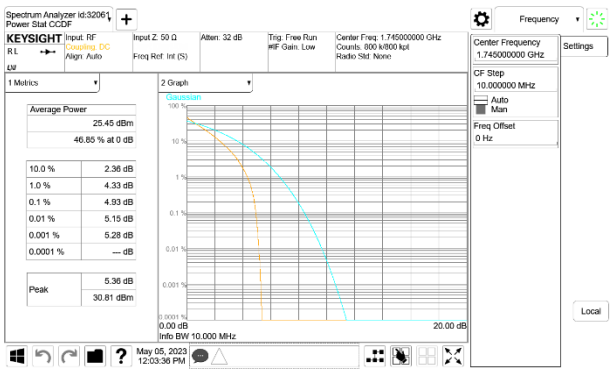
LTE B66 3MHz 16QAM Middle Channel



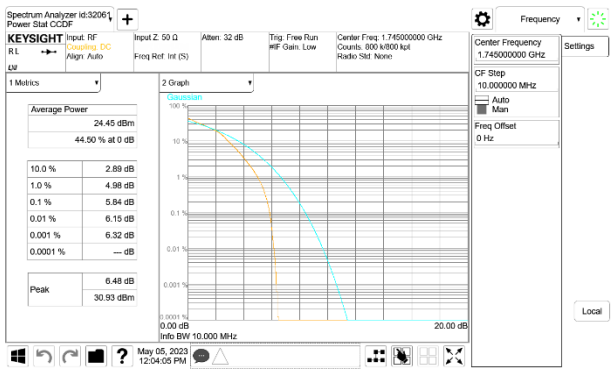
LTE B66 5MHz QPSK Middle Channel



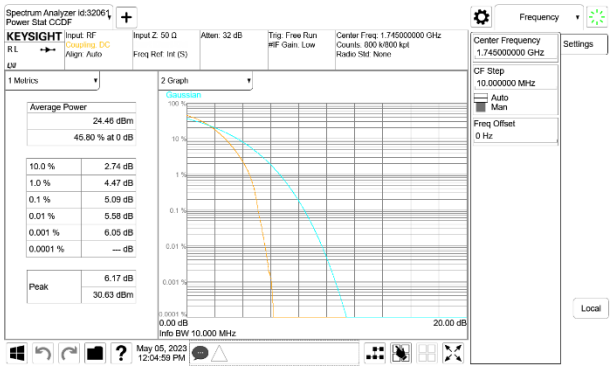
LTE B66 5MHz 16QAM Middle Channel



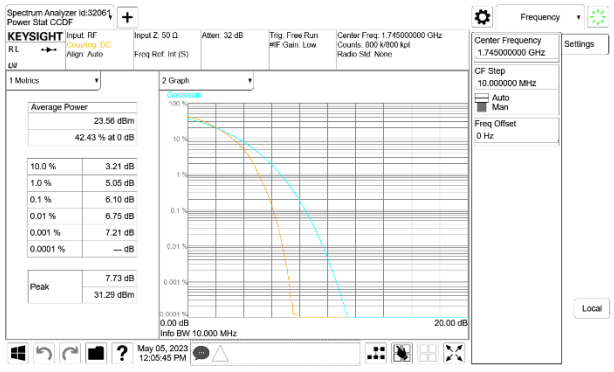
LTE B66 10MHz QPSK Middle Channel



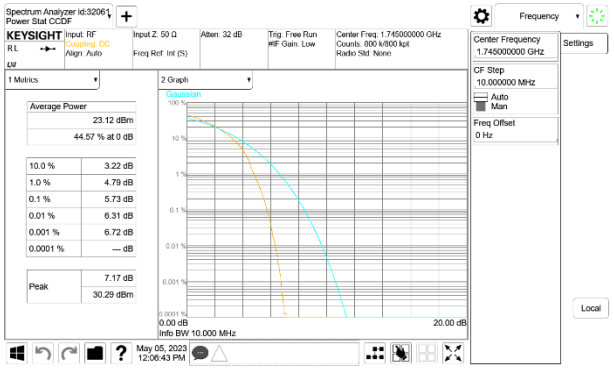
LTE B66 10MHz 16QAM Middle Channel



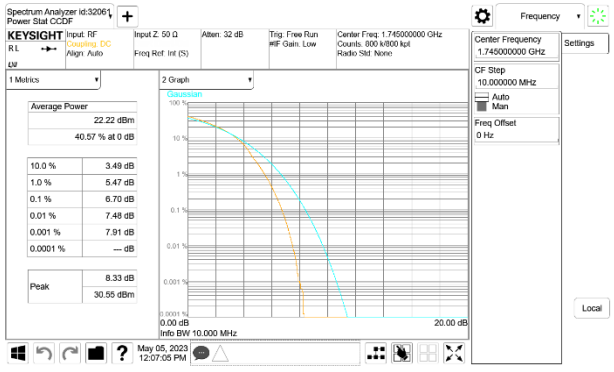
LTE B66 15MHz QPSK Middle Channel



LTE B66 15MHz 16QAM Middle Channel

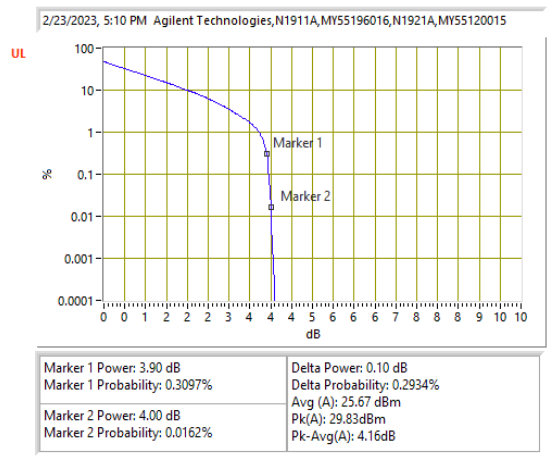


LTE B66 20MHz QPSK Middle Channel

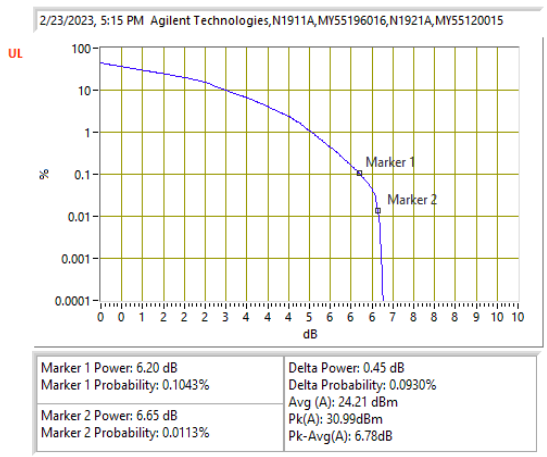


LTE B66 20MHz 16QAM Middle Channel

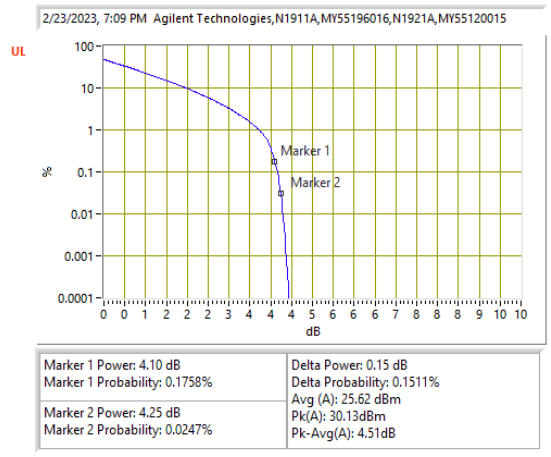
5G NR n66



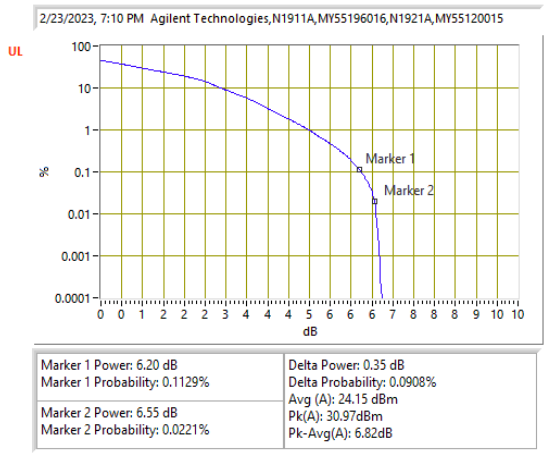
5G NR n66 5MHz BPSK Middle Channel, ID:50822



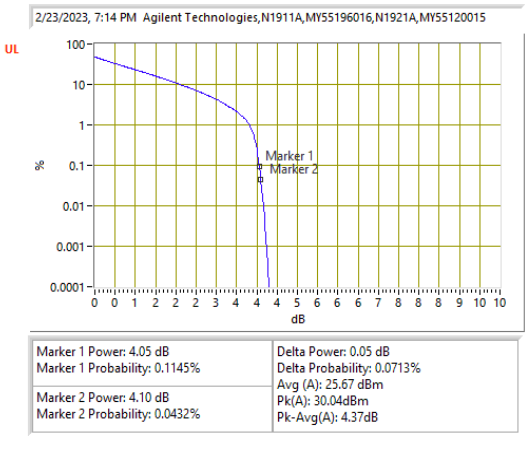
5G NR n66 5MHz 16QAM Middle Channel, ID:50822



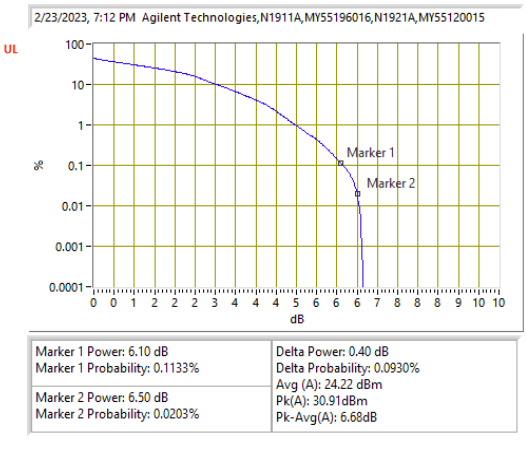
5G NR n66 10MHz BPSK Middle Channel, ID:50822



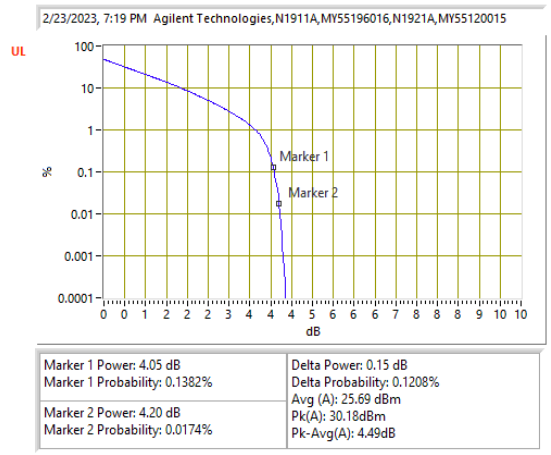
5G NR n66 10MHz 16QAM Middle Channel, ID:50822



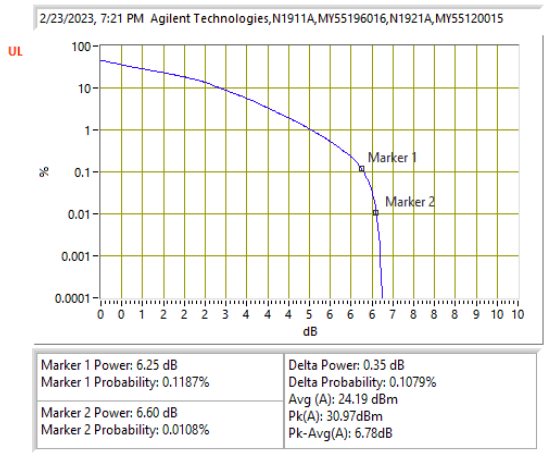
5G NR n66 15MHz BPSK Middle Channel, ID:50822



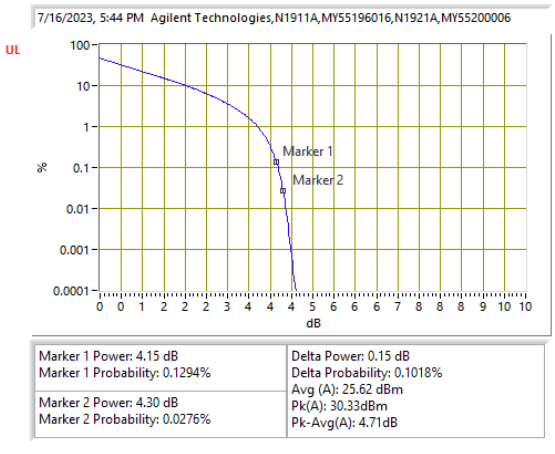
5G NR n66 15MHz 16QAM Middle Channel, ID:50822



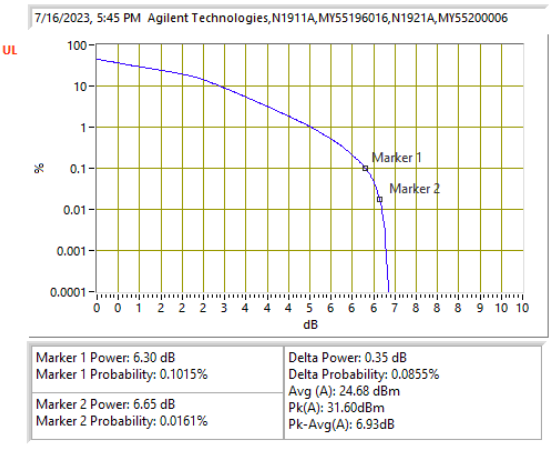
5G NR n66 20MHz BPSK Middle Channel, ID:50822



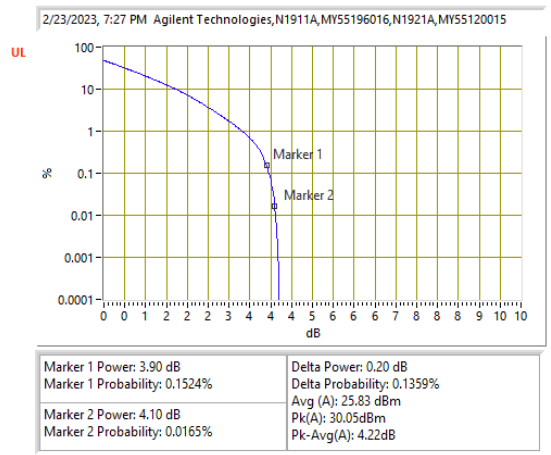
5G NR n66 20MHz 16QAM Middle Channel, ID:50822



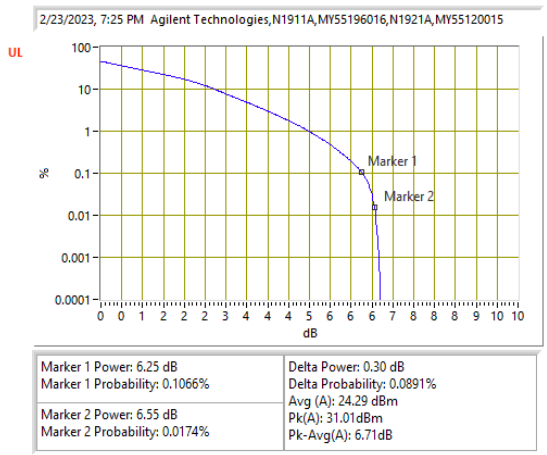
5G NR n66 25MHz BPSK Middle Channel, ID:32061



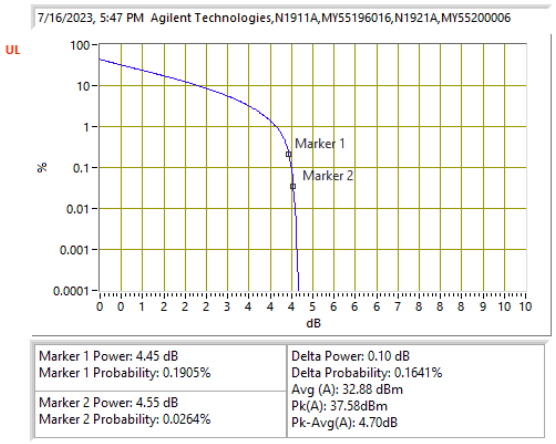
5G NR n66 25MHz 16QAM Middle Channel, ID:32061



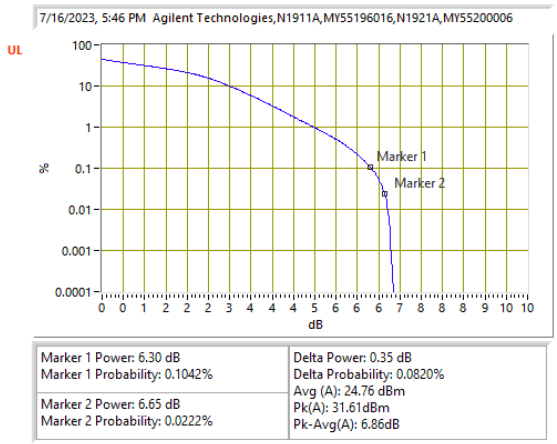
5G NR n66 30MHz BPSK Middle Channel, ID:50822



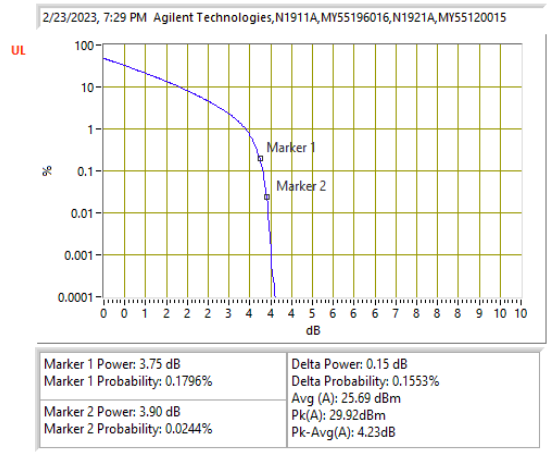
5G NR n66 30MHz 16QAM Middle Channel, ID:50822



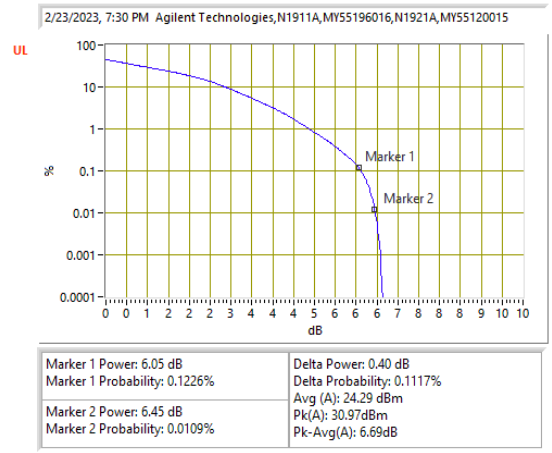
5G NR n66 35MHz BPSK Middle Channel, ID:32061



5G NR n66 35MHz 16QAM Middle Channel, ID:32061



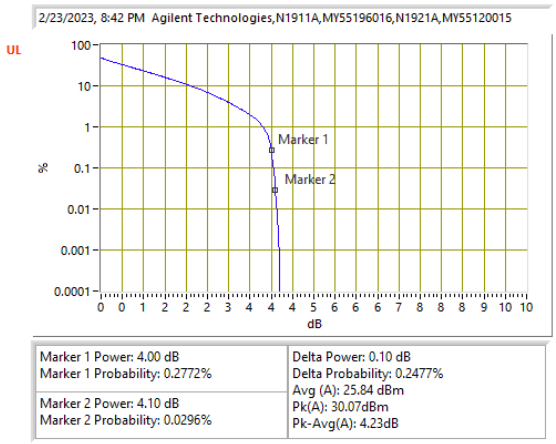
5G NR n66 40MHz BPSK Middle Channel, ID:50822



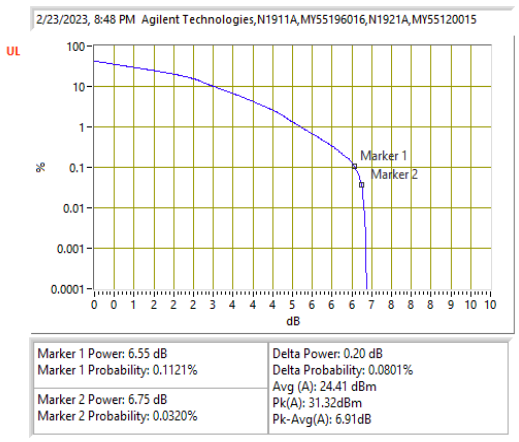
5G NR n66 40MHz 16QAM Middle Channel, ID:50822

9.5.13. 5G NR n70

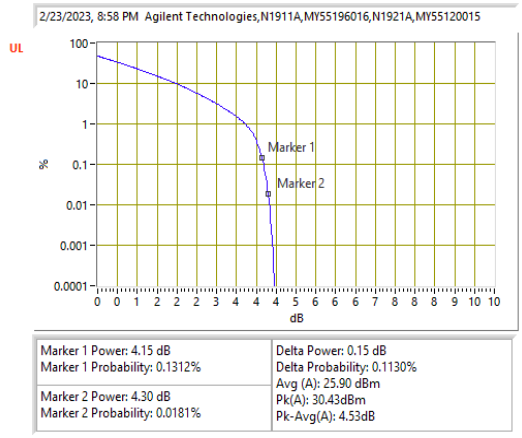
5G NR n70



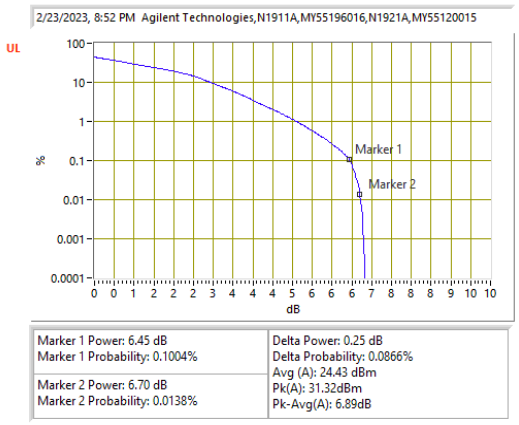
5G NR n70 5MHz BPSK Middle Channel, ID:50822



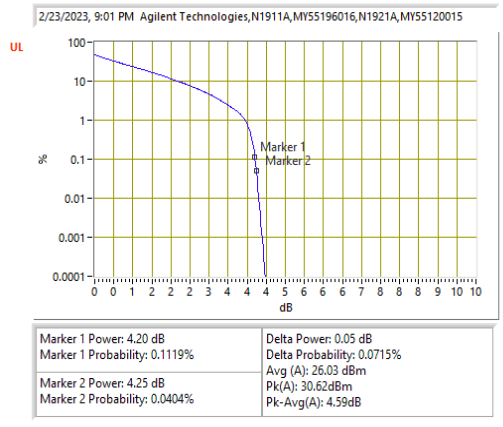
5G NR n70 5MHz 16QAM Middle Channel, ID:50822



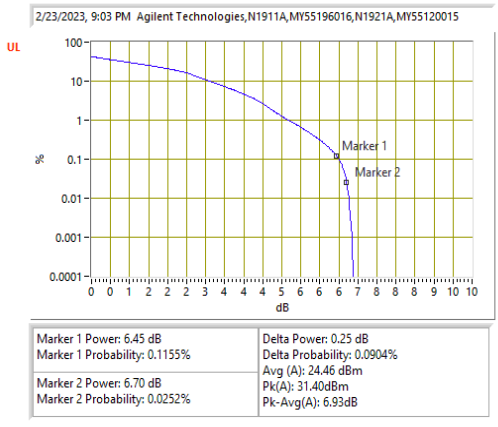
5G NR n70 10MHz BPSK Middle Channel, ID:50822



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



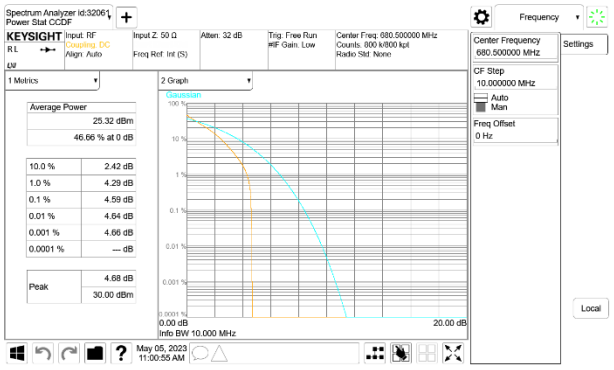
5G NR n70 15MHz BPSK Middle Channel, ID:50822



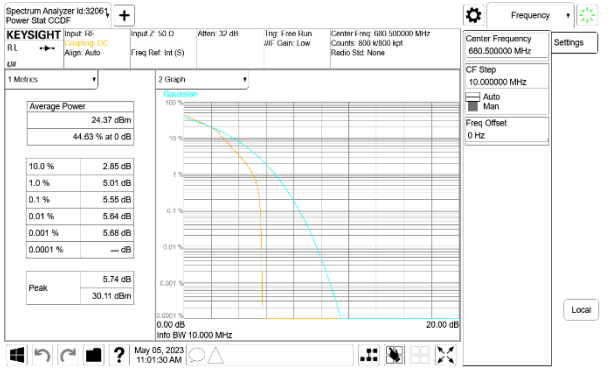
5G NR n70 15MHz 16QAM Middle Channel, ID:50822

9.5.14. LTE BAND 71 AND 5G NR n71

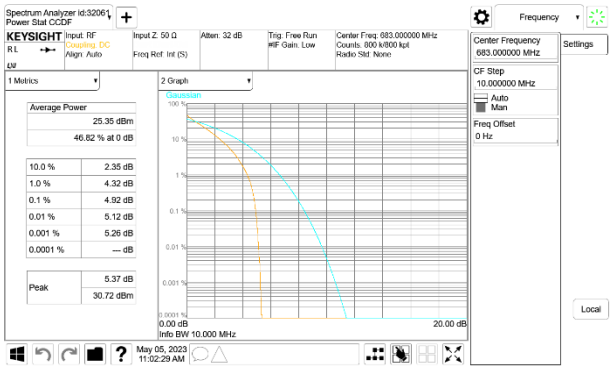
LTE BAND 71



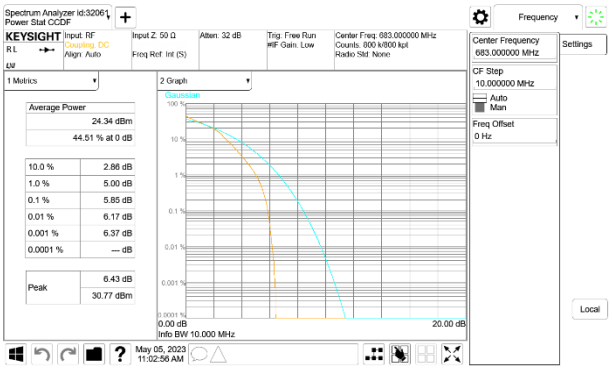
LTE B71 5MHz QPSK Middle Channel



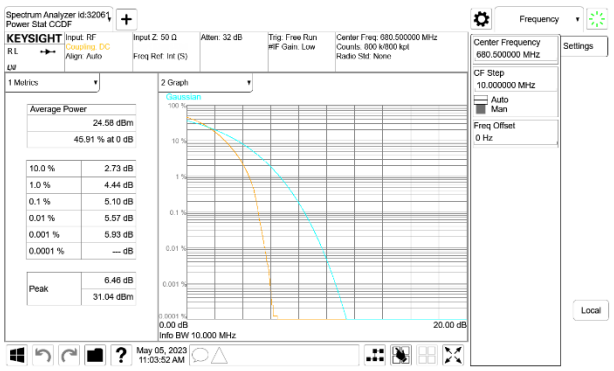
LTE B71 5MHz 16QAM Middle Channel



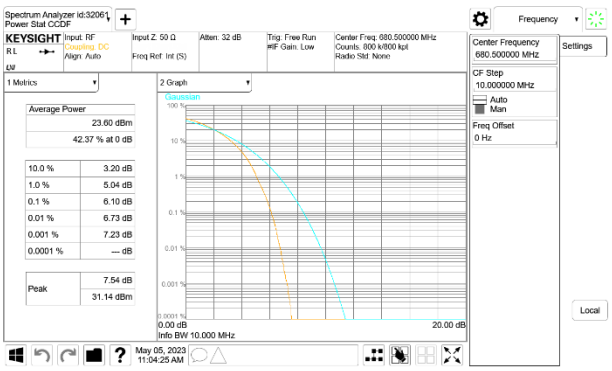
LTE B71 10MHz QPSK Middle Channel



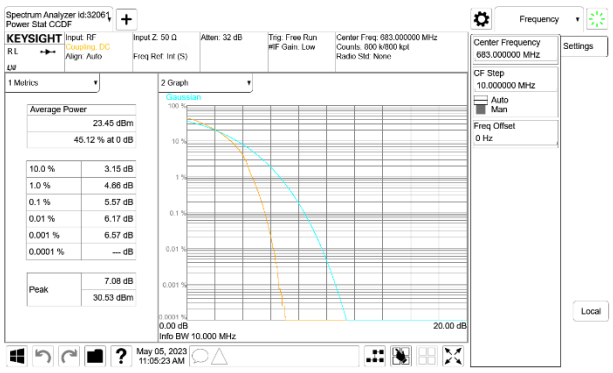
LTE B71 10MHz 16QAM Middle Channel



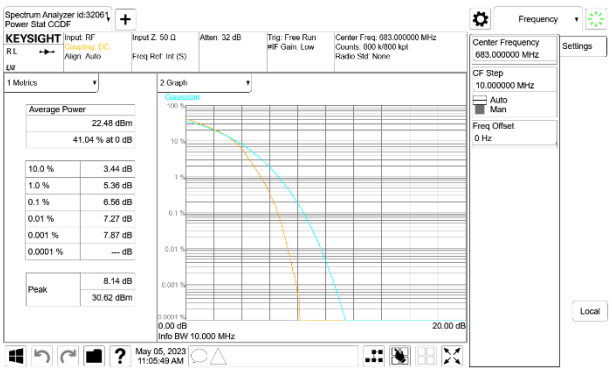
LTE B71 15MHz QPSK Middle Channel



LTE B71 15MHz 16QAM Middle Channel

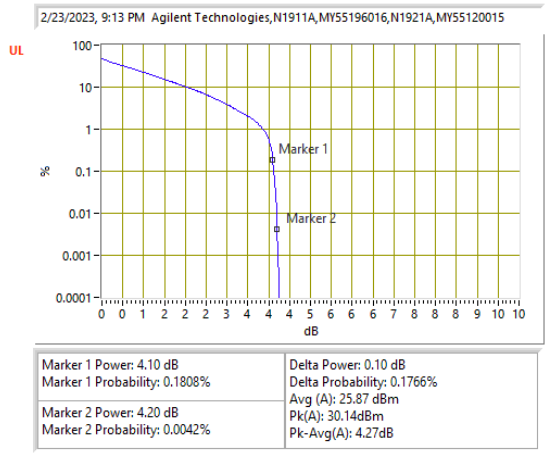


LTE B71 20MHz QPSK Middle Channel

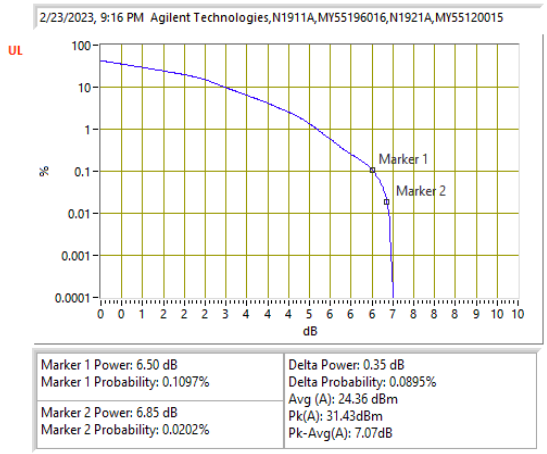


LTE B71 20MHz 16QAM Middle Channel

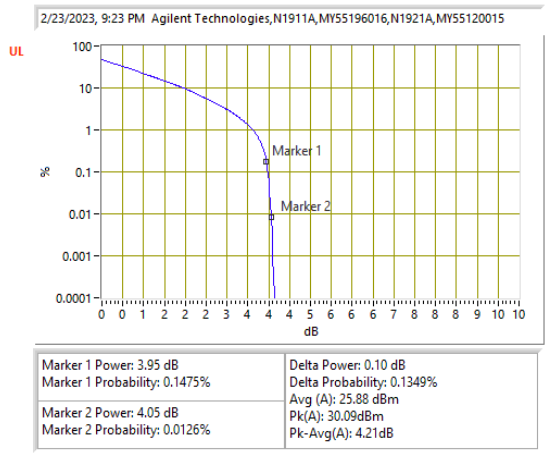
5G NR n71



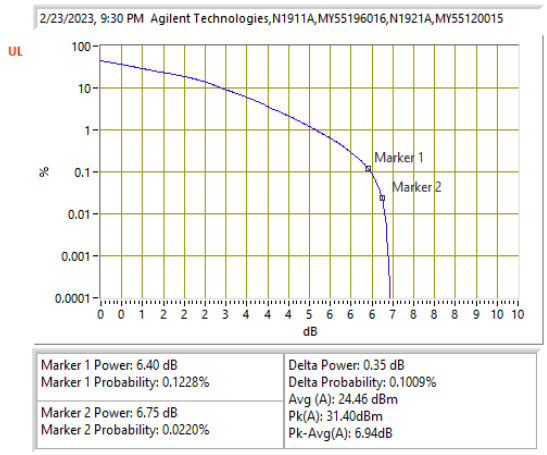
5G NR n71 5MHz BPSK Middle Channel, ID:50822



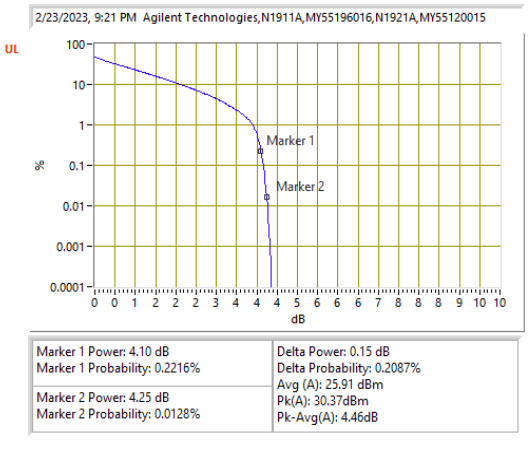
5G NR n71 5MHz 16QAM Middle Channel, ID:50822



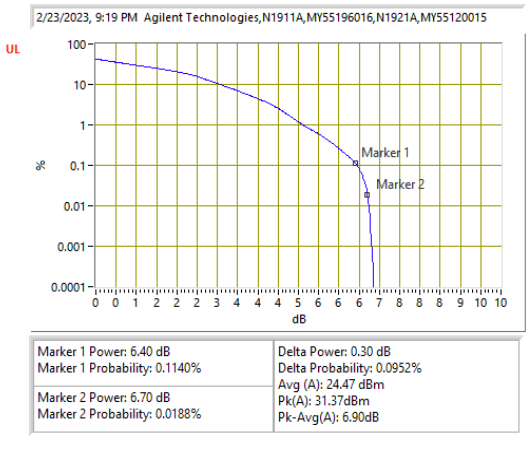
5G NR n71 10MHz BPSK Middle Channel, ID:50822



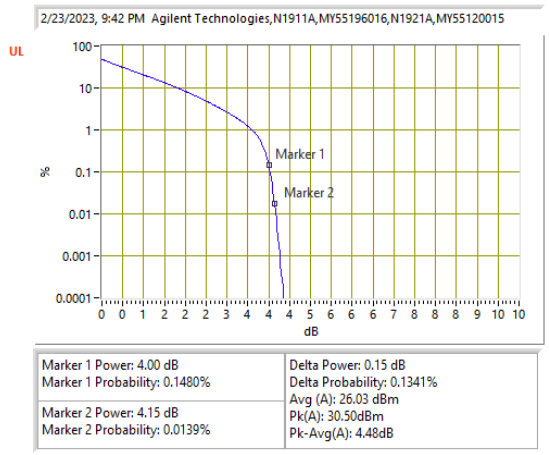
5G NR n71 10MHz 16QAM Middle Channel, ID:50822



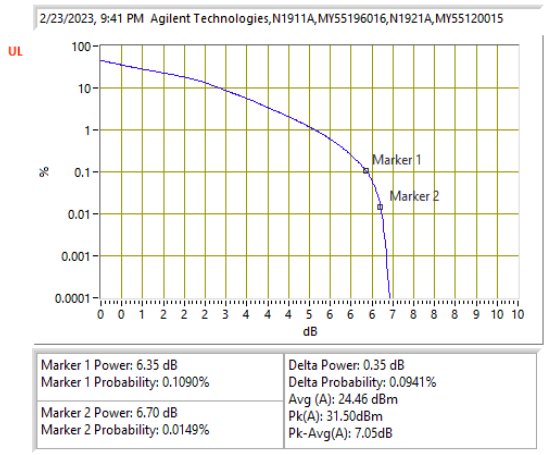
5G NR n71 15MHz BPSK Middle Channel, ID:50822



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



5G NR n71 20MHz BPSK Middle Channel, ID:50822



5G NR n71 20MHz 16QAM Middle Channel, ID:50822

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

Test Engineer ID:	50822	Test Date:	2/24/2023

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band n77 (FCC Part 27 3450-3550MHz)	10MHz	3500.0	24	0	BPSK	33.17	28.72	4.45
					16QAM	34.04	27.06	6.98
	15MHz		36	0	BPSK	32.84	28.42	4.42
					16QAM	33.83	26.95	6.88
	20MHz		50	0	BPSK	33.26	28.94	4.32
					16QAM	34.13	27.20	6.93
	30MHz		75	0	BPSK	33.39	28.99	4.40
					16QAM	34.18	27.23	6.95
	40MHz		100	0	BPSK	33.19	29.00	4.19
					16QAM	34.21	27.39	6.82
	50MHz		128	0	BPSK	32.65	28.73	3.92
					16QAM	33.68	27.15	6.53
	60MHz		162	0	BPSK	32.58	28.73	3.85
					16QAM	33.51	27.02	6.49
	70MHz		180	0	BPSK	32.83	28.69	4.14
					16QAM	33.75	27.06	6.69
	80MHz		216	0	BPSK	32.36	28.59	3.77
					16QAM	33.29	27.01	6.28
	90MHz		243	0	BPSK	32.20	28.64	3.56
					16QAM	33.07	26.97	6.10
	100MHz		270	0	BPSK	31.98	28.68	3.30
					16QAM	32.81	26.91	5.90
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)

Test Engineer ID:	50802	Test Date:	2/24/2023

Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band n77 (FCC Part 27 3700-3980MHz)	10MHz	3840.0	24	0	BPSK	32.98	28.79	4.19
					16QAM	34.14	27.30	6.84
	15MHz		36	0	BPSK	33.30	29.09	4.21
					16QAM	34.45	27.67	6.78
	20MHz		50	0	BPSK	33.14	28.97	4.17
					16QAM	34.28	27.43	6.85
	30MHz		75	0	BPSK	33.21	28.98	4.23
					16QAM	34.28	27.48	6.80
	40MHz		100	0	BPSK	33.18	28.97	4.21
					16QAM	34.12	27.36	6.76
	50MHz		128	0	BPSK	32.63	28.67	3.96
					16QAM	33.65	27.17	6.48
	60MHz		162	0	BPSK	32.67	28.70	3.97
					16QAM	33.55	27.08	6.47
	70MHz		180	0	BPSK	32.80	28.73	4.07
					16QAM	33.71	27.02	6.69
	80MHz		216	0	BPSK	32.27	28.72	3.55
					16QAM	33.30	29.09	4.21
	90MHz		243	0	BPSK	32.09	28.60	3.49
					16QAM	33.04	26.98	6.06
	100MHz		270	0	BPSK	31.75	28.70	3.05
					16QAM	32.88	26.95	5.93
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.

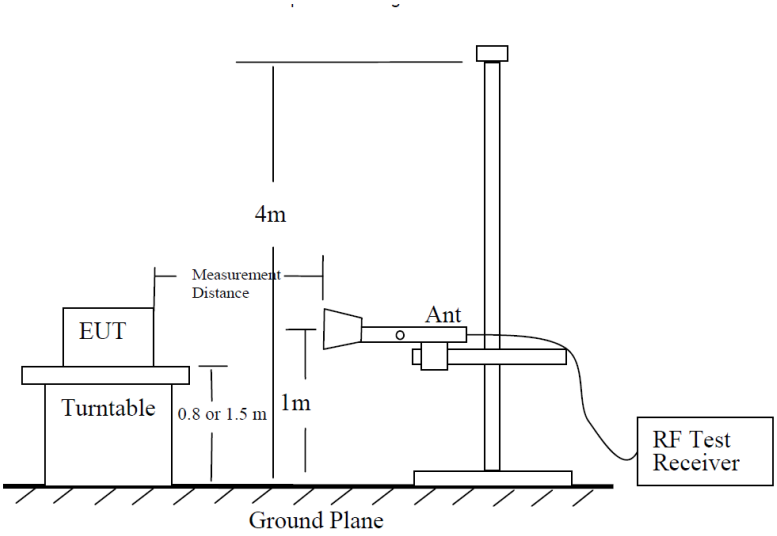


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

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

a) E (dBμV/m) = Measured amplitude level (dBμV) + Cable Loss (dB) + Antenna Factor (dB/m).

b) E (dBμV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m).

c) E (dBμV/m) = EIRP (dBm) − 20log(D) + 104.8; where D is the measurement distance (in the far field region) in m.

d) EIRP (dBm) = E (dBμV/m) + 20log(D) − 104.8; where D is the measurement distance (in the far field region) in m.

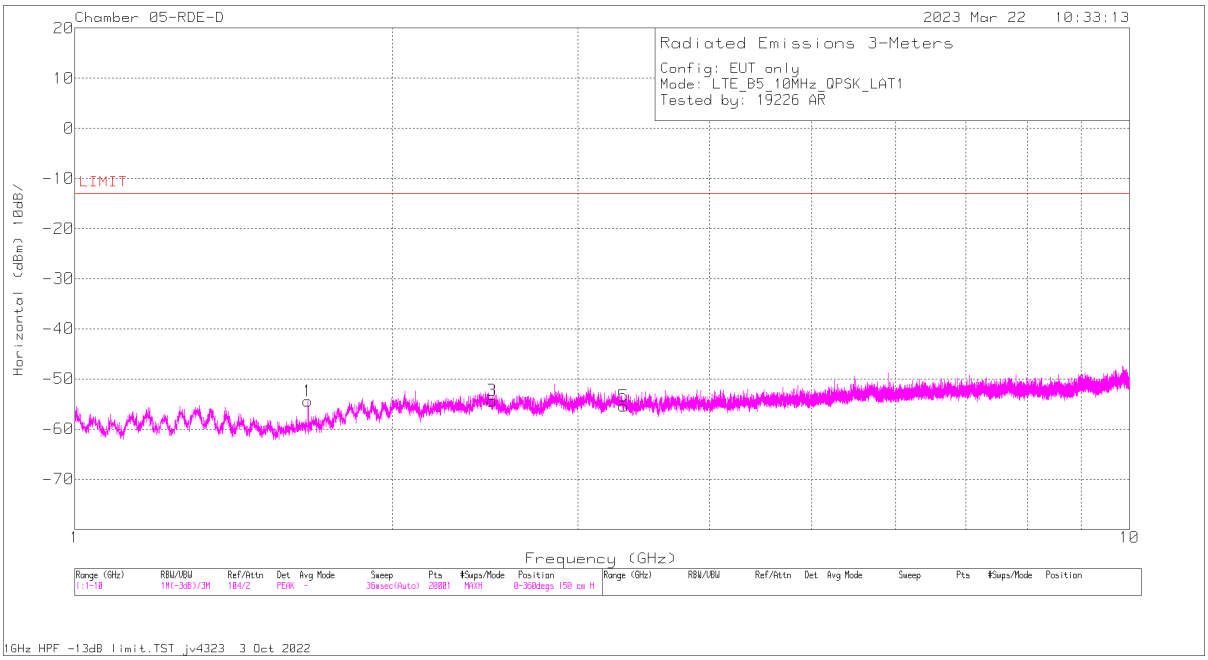
So, from d)

The measuring distance is usually at 3m, then 20*Log(3)=9.5424

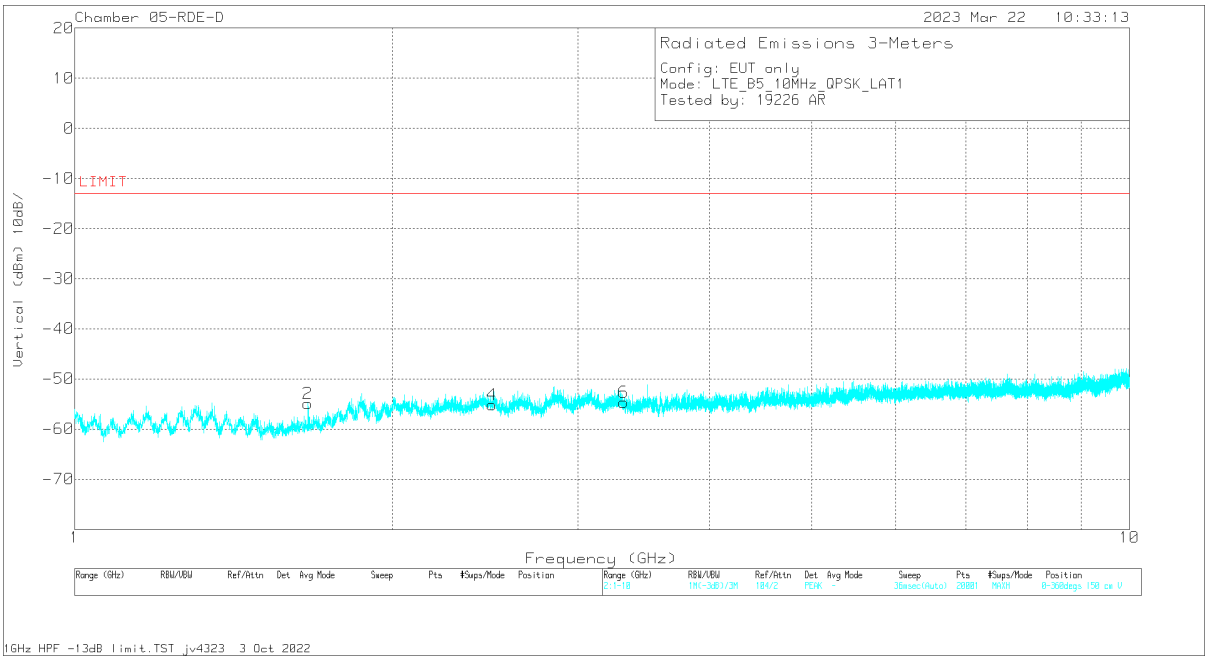
Then, EIRP (dBm) = E (dBμV/m) + 9.5424 − 104.8 = E (dBμV/m) – 95.2576

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

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
1.664314	68.83	Pk	28.3	-95.2	-49.69	-47.76	-13	-34.76	V
1.664360	66.05	Pk	28.3	-95.2	-49.69	-50.54	-13	-37.54	H
2.483795	59.95	Pk	32.5	-95.2	-49.15	-51.90	-13	-38.90	V
2.487156	60.24	Pk	32.5	-95.2	-49.07	-51.53	-13	-38.53	H
3.314724	57.52	Pk	32.9	-95.2	-47.12	-51.90	-13	-38.90	V
3.317564	57.05	Pk	32.9	-95.2	-47.07	-52.32	-13	-39.32	H

Pk - Peak detector

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 #:	4790592300
Date:	08/04/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE7 QPSK 20MHz
Chamber #:	01-RDE-B

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
Low Channel, 2510MHz										
5.034844	40.02	Pk	34.5	.7	-95.2	-31.01	-50.99	-25	-25.99	H
5.042813	39.72	Pk	34.6	.6	-95.2	-30.99	-51.27	-25	-26.27	V
7.556876	49.66	Pk	36	.3	-95.2	-27.25	-36.49	-25	-11.49	H
7.556757	50.14	Pk	36	.3	-95.2	-27.25	-36.01	-25	-11.01	V
10.021875	34.74	Pk	37.4	.6	-95.2	-24.92	-47.38	-25	-22.38	H
10.037344	35.53	Pk	37.4	.7	-95.2	-25.11	-46.68	-25	-21.68	V
Mid Channel, 2535MHz										
5.07750	40.82	Pk	34.7	.7	-95.2	-30.84	-49.82	-25	-24.82	H
5.03184	42.07	Pk	34.5	.7	-95.2	-31.05	-48.98	-25	-23.98	V
7.578394	45.49	Pk	35.9	.5	-95.2	-26.12	-39.43	-25	-14.43	H
7.631805	49.37	Pk	35.9	.4	-95.2	-27.04	-36.57	-25	-11.57	V
10.178438	34.29	Pk	37.6	.6	-95.2	-25.04	-47.75	-25	-22.75	H
10.126406	34.05	Pk	37.5	.7	-95.2	-24.96	-47.91	-25	-22.91	V
High Channel, 2560MHz										
5.110781	39.22	Pk	34.7	.8	-95.2	-30.79	-51.27	-25	-26.27	H
5.095781	40.36	Pk	34.7	.8	-95.2	-30.75	-50.09	-25	-25.09	V
7.653451	45.76	Pk	35.9	.3	-95.2	-26.4	-39.64	-25	-14.64	H
7.653272	49.19	Pk	35.9	.3	-95.2	-26.41	-36.22	-25	-11.22	V
10.251094	36.09	Pk	37.6	.7	-95.2	-25.06	-45.87	-25	-20.87	H
10.199531	34.47	Pk	37.6	.8	-95.2	-24.68	-47.01	-25	-22.01	V

BPSK 5G NR n7 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/27/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n7 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2525MHz									
5.010000	57.44	Pk	33.9	-95.2	-48.13	-51.99	-25	-26.99	V
5.019500	56.73	Pk	33.9	-95.2	-47.96	-52.53	-25	-27.53	H
7.552000	54.95	Pk	35.6	-95.2	-46.30	-50.95	-25	-25.95	H
7.555000	54.51	Pk	35.6	-95.2	-46.38	-51.47	-25	-26.47	V
10.796000	52.47	Pk	37.5	-95.2	-43.45	-48.68	-25	-23.68	V
10.813500	53.19	Pk	37.6	-95.2	-43.61	-48.02	-25	-23.02	H
Mid Channel, 2535MHz									
5.0495000	56.60	Pk	33.9	-95.2	-48.03	-52.73	-25	-27.73	V
5.0700000	56.63	Pk	34.0	-95.2	-48.24	-52.81	-25	-27.81	H
7.5750000	54.36	Pk	35.6	-95.2	-46.3	-51.54	-25	-26.54	V
7.5900000	55.27	Pk	35.6	-95.2	-46.25	-50.58	-25	-25.58	H
10.135750	56.33	Pk	37.2	-95.2	-46.28	-47.95	-25	-22.95	V
10.158500	56.42	Pk	37.2	-95.2	-45.79	-47.37	-25	-22.37	H
High Channel, 2545MHz									
5.086000	54.59	Pk	34.3	-95.2	-46.45	-52.76	-25	-27.76	H
5.111500	55.08	Pk	34.2	-95.2	-46.55	-52.47	-25	-27.47	V
7.624500	54.04	Pk	35.6	-95.2	-44.74	-50.30	-25	-25.30	V
7.663000	52.93	Pk	35.6	-95.2	-44.59	-51.26	-25	-26.26	H
10.217000	54.92	Pk	37.3	-95.2	-44.07	-47.05	-25	-22.05	H
10.221500	54.41	Pk	37.3	-95.2	-44.14	-47.63	-25	-22.63	V

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 #:	4790592300
Date:	3/22/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE12 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 704MHz									
1.405012	59.19	Pk	28.6	-95.2	-49.62	-57.03	-13	-44.03	H
1.406841	59.26	Pk	28.6	-95.2	-49.6	-56.94	-13	-43.94	V
2.112683	60.63	Pk	31.7	-95.2	-49.63	-52.5	-13	-39.50	H
2.115010	59.99	Pk	31.6	-95.2	-49.64	-53.25	-13	-40.25	V
2.817708	59.63	Pk	32.3	-95.2	-48.93	-52.20	-13	-39.20	V
2.818271	59.92	Pk	32.3	-95.2	-48.92	-51.90	-13	-38.90	H
Mid Channel, 707.5MHz									
1.418541	59.17	Pk	28.4	-95.2	-49.66	-57.29	-13	-44.29	H
1.420948	59.29	Pk	28.4	-95.2	-49.68	-57.19	-13	-44.19	V
2.122471	60.19	Pk	31.6	-95.2	-49.7	-53.11	-13	-40.11	V
2.122953	59.58	Pk	31.6	-95.2	-49.67	-53.69	-13	-40.69	H
2.834205	60.11	Pk	32.4	-95.2	-48.66	-51.35	-13	-38.35	H
2.835925	60.21	Pk	32.4	-95.2	-48.69	-51.28	-13	-38.28	V
High Channel, 711MHz									
1.415841	59.26	Pk	28.5	-95.2	-49.66	-57.10	-13	-44.10	H
1.418395	59.34	Pk	28.4	-95.2	-49.67	-57.13	-13	-44.13	V
2.123545	61.26	Pk	31.6	-95.2	-49.69	-52.03	-13	-39.03	H
2.126036	60.74	Pk	31.6	-95.2	-49.75	-52.61	-13	-39.61	V
2.831058	60.58	Pk	32.4	-95.2	-48.65	-50.87	-13	-37.87	V
2.835191	60.67	Pk	32.4	-95.2	-48.71	-50.84	-13	-37.84	H

BPSK 5G NR n12 (15.0MHZ BANDWIDTH)

Project #:	
Date:	2/29/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N12 BPSK 15MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 706.5MHz									
1.417600	58.15	Pk	28.4	-95.2	-48.34	-56.99	-13	-43.99	H
1.422100	58.08	Pk	28.4	-95.2	-48.32	-57.04	-13	-44.04	V
2.106100	57.59	Pk	31.3	-95.2	-48.61	-54.92	-13	-41.92	V
2.107900	57.63	Pk	31.3	-95.2	-48.75	-55.02	-13	-42.02	H
2.821600	58.22	Pk	32.2	-95.2	-48.24	-53.02	-13	-40.02	H
2.823400	57.79	Pk	32.2	-95.2	-48.46	-53.67	-13	-40.67	V
Mid Channel, 707.5MHz									
1.415350	57.46	Pk	28.4	-95.2	-48.25	-57.59	-13	-44.59	V
1.418950	58.39	Pk	28.4	-95.2	-48.27	-56.68	-13	-43.68	H
2.116450	56.93	Pk	31.3	-95.2	-48.82	-55.79	-13	-42.79	H
2.117350	56.91	Pk	31.3	-95.2	-48.78	-55.77	-13	-42.77	V
2.815750	57.58	Pk	32.2	-95.2	-48.54	-53.96	-13	-40.96	H
2.830150	57.11	Pk	32.2	-95.2	-48.25	-54.14	-13	-41.14	V
High Channel, 708.5MHz									
1.423000	58.12	Pk	28.4	-95.2	-48.3	-56.98	-13	-43.98	H
1.426150	58.56	Pk	28.4	-95.2	-48.31	-56.55	-13	-43.55	V
2.108800	57.86	Pk	31.3	-95.2	-48.74	-54.78	-13	-41.78	V
2.114650	56.90	Pk	31.3	-95.2	-48.79	-55.79	-13	-42.79	H
2.816650	57.56	Pk	32.2	-95.2	-48.57	-54.01	-13	-41.01	V
2.826100	57.11	Pk	32.2	-95.2	-48.48	-54.37	-13	-41.37	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 #:	4790592300
Date:	3/22/2023
Test Engineer:	31300
Configuration:	EUT only
Mode	LTE13 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.561386	60.61	Pk	27.3	-95.2	-49.71	-57.00	-40	-17.00	H
1.562616	64.04	Pk	27.3	-95.2	-49.69	-53.55	-40	-13.55	V
2.344698	63.69	Pk	32.2	-95.2	-49.93	-49.24	-13	-36.24	H
2.345111	60.06	Pk	32.2	-95.2	-49.94	-52.88	-13	-39.88	V
3.12595	58.06	Pk	33.1	-95.2	-47.14	-51.18	-13	-38.18	V
3.127093	57.77	Pk	33.1	-95.2	-47.12	-51.45	-13	-38.45	H

*** Emissions in the GPS band were wideband emissions therefore the -40dBm/MHz limit was used.**

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 #:	4790592300
Date:	2/15/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE14 QPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.582845	62.88	Pk	27.3	-95.2	-49.76	-54.78	-40	-14.78	V
1.585576	61.50	Pk	27.3	-95.2	-49.79	-56.19	-40	-16.19	H
2.381548	61.53	Pk	32.4	-95.2	-50.18	-51.45	-13	-38.45	H
2.381619	60.54	Pk	32.4	-95.2	-50.18	-52.44	-13	-39.44	V
3.170830	57.35	Pk	33.1	-95.2	-47.44	-52.19	-13	-39.19	V
3.173516	58.32	Pk	33.1	-95.2	-47.45	-51.23	-13	-38.23	H

BPSK 5G NR n14 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	7/6/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	N14 BPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	172654 HPF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz										
1.595022	41.30	Pk	27.8	.7	-95.2	-35.26	-60.66	-40	-20.66	H
1.600400	43.55	Pk	27.8	.7	-95.2	-35.20	-58.35	-40	-18.35	V
2.356222	41.70	Pk	32.0	.5	-95.2	-34.96	-55.96	-13	-42.96	V
2.366978	41.49	Pk	32.1	.5	-95.2	-34.94	-56.05	-13	-43.05	H
3.158000	41.17	Pk	32.9	.4	-95.2	-34.04	-54.77	-13	-41.77	V
3.173156	40.36	Pk	32.9	.5	-95.2	-34.03	-55.47	-13	-42.47	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 #:	4790592300
Date:	3/22/2023
Test Engineer:	31300
Configuration:	EUT only
Mode	LTE17 QPSK 10MHz
Chamber #:	05-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 709MHz									
1.419166	59.91	Pk	28.4	-95.2	-49.66	-56.55	-13	-43.55	H
1.420826	59.22	Pk	28.4	-95.2	-49.68	-57.26	-13	-44.26	V
2.124299	60.13	Pk	31.6	-95.2	-49.7	-53.17	-13	-40.17	H
2.125479	59.6	Pk	31.6	-95.2	-49.73	-53.73	-13	-40.73	V
2.835506	60.55	Pk	32.4	-95.2	-48.7	-50.95	-13	-37.95	H
2.835649	60.59	Pk	32.4	-95.2	-48.7	-50.91	-13	-37.91	V
Mid Channel, 710MHz									
1.00000	61.97	Pk	28.1	-95.2	-48.82	-53.95	-13	-40.95	H
1.41879	59.49	Pk	28.4	-95.2	-49.66	-56.97	-13	-43.97	V
2.128411	59.73	Pk	31.5	-95.2	-49.76	-53.73	-13	-40.73	V
2.130701	59.96	Pk	31.5	-95.2	-49.73	-53.47	-13	-40.47	H
2.84059	60.22	Pk	32.5	-95.2	-48.5	-50.98	-13	-37.98	V
2.842335	60.6	Pk	32.5	-95.2	-48.5	-50.6	-13	-37.60	H
High Channel, 711MHz									
1.424157	60.04	Pk	28.4	-95.2	-49.66	-56.42	-13	-43.42	H
1.424793	59.54	Pk	28.4	-95.2	-49.68	-56.94	-13	-43.94	V
2.134813	60.08	Pk	31.5	-95.2	-49.75	-53.37	-13	-40.37	V
2.135006	60.21	Pk	31.5	-95.2	-49.75	-53.24	-13	-40.24	H
2.842903	60.28	Pk	32.5	-95.2	-48.53	-50.95	-13	-37.95	H
2.845356	60.8	Pk	32.5	-95.2	-48.54	-50.44	-13	-37.44	V

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 #:	4790592300
Date:	3/23/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE 25 QPSK 20MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.720385	57.61	Pk	33.4	-95.2	-47.79	-51.98	-13	-38.98	V
3.720595	57.61	Pk	33.4	-95.2	-47.78	-51.97	-13	-38.97	H
5.551830	57.76	Pk	34.7	-95.2	-47.89	-50.63	-13	-37.63	H
5.554936	57.70	Pk	34.7	-95.2	-47.81	-50.61	-13	-37.61	V
7.439411	56.86	Pk	35.8	-95.2	-47.18	-49.72	-13	-36.72	H
7.440308	56.6	Pk	35.8	-95.2	-47.18	-49.98	-13	-36.98	V
Mid Channel, 1882.5MHz									
3.76557	57.24	Pk	33.4	-95.2	-47.72	-52.28	-13	-39.28	H
3.765886	57.64	Pk	33.4	-95.2	-47.72	-51.88	-13	-38.88	V
5.647663	57.6	Pk	34.8	-95.2	-47.75	-50.55	-13	-37.55	V
5.648959	57.35	Pk	34.8	-95.2	-47.78	-50.83	-13	-37.83	H
7.531234	56.73	Pk	35.8	-95.2	-47	-49.67	-13	-36.67	H
7.534238	56.75	Pk	35.8	-95.2	-47.09	-49.74	-13	-36.74	V
High Channel, 1905MHz									
3.809107	56.74	Pk	33.5	-95.2	-47.52	-52.48	-13	-39.48	H
3.810639	57.52	Pk	33.5	-95.2	-47.55	-51.73	-13	-38.73	V
5.688244	61.78	Pk	34.8	-95.2	-47.54	-46.16	-13	-33.16	V
5.688338	64.53	Pk	34.8	-95.2	-47.54	-43.41	-13	-30.41	H
7.619006	56.59	Pk	35.8	-95.2	-47.07	-49.88	-13	-36.88	H
7.620445	56.73	Pk	35.8	-95.2	-47.02	-49.69	-13	-36.69	V

BPSK 5G NR n25 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/28/2022
Test Engineer:	32145
Configuration:	EUT only
Mode	N25 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.728000	54.29	Pk	33.1	-95.2	-45.65	-53.46	-13	-40.46	V
3.738500	53.44	Pk	33.1	-95.2	-45.67	-54.33	-13	-41.33	H
5.634000	54.58	Pk	34.4	-95.2	-46.57	-52.79	-13	-39.79	H
5.644500	54.70	Pk	34.5	-95.2	-46.53	-52.53	-13	-39.53	V
7.466000	54.02	Pk	35.7	-95.2	-46.09	-51.57	-13	-38.57	V
7.4745000	54.81	Pk	35.7	-95.2	-45.97	-50.66	-13	-37.66	H
Mid Channel, 1882.5MHz									
3.775000	53.03	Pk	33.2	-95.2	-45.54	-54.51	-13	-41.51	V
3.776000	54.35	Pk	33.2	-95.2	-45.60	-53.25	-13	-40.25	H
5.635000	54.85	Pk	34.5	-95.2	-46.70	-52.55	-13	-39.55	V
5.655000	54.84	Pk	34.5	-95.2	-46.48	-52.34	-13	-39.34	H
7.528500	54.35	Pk	35.6	-95.2	-46.10	-51.35	-13	-38.35	H
7.537500	54.76	Pk	35.6	-95.2	-46.24	-51.08	-13	-38.08	V
High Channel, 1895MHz									
3.789000	54.34	Pk	33.2	-95.2	-45.57	-53.23	-13	-40.23	H
3.797000	53.38	Pk	33.3	-95.2	-45.87	-54.39	-13	-41.39	V
5.627418	63.32	Pk	34.4	-95.2	-46.72	-44.20	-13	-31.20	V
5.6645000	55.32	Pk	34.5	-95.2	-46.51	-51.89	-13	-38.89	H
7.5920000	55.13	Pk	35.6	-95.2	-45.90	-50.37	-13	-37.37	V
7.5925000	54.40	Pk	35.6	-95.2	-45.94	-51.14	-13	-38.14	H

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 #:	4790592300
Date:	6/2/2023
Test Engineer:	19118
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.643050	56.92	Pk	28.6	-95.2	-47.78	-57.46	-13	-44.46	H
1.645300	56.53	Pk	28.6	-95.2	-47.72	-57.79	-13	-44.79	V
2.454400	58.10	Pk	32.0	-95.2	-47.50	-52.60	-13	-39.60	V
2.465200	57.59	Pk	32.0	-95.2	-47.69	-53.30	-13	-40.30	H
3.275650	54.27	Pk	32.9	-95.2	-46.16	-54.19	-13	-41.19	H
3.277450	54.54	Pk	32.9	-95.2	-46.27	-54.03	-13	-41.03	V

BPSK 5G NR n26 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/7/2023
Test Engineer:	19118
Configuration:	EUT only
Mode	N26 BPSK 10MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.628200	57.88	Pk	28.4	-95.2	-47.66	-56.58	-13	-43.58	V
1.629550	57.73	Pk	28.4	-95.2	-47.65	-56.72	-13	-43.72	H
2.443375	58.64	Pk	31.9	-95.2	-47.43	-52.09	-13	-39.09	V
2.443600	55.83	Pk	31.9	-95.2	-47.43	-54.90	-13	-41.90	H
3.268000	55.06	Pk	32.9	-95.2	-46.11	-53.35	-13	-40.35	H
3.278800	54.39	Pk	32.9	-95.2	-46.20	-54.11	-13	-41.11	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 #:	4790592300
Date:	3/23/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE 25 QPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 831.5MHz									
1.656100	54.76	Pk	29.0	-95.2	-46.45	-57.89	-13	-44.89	V
1.663300	55.46	Pk	28.9	-95.2	-46.42	-57.26	-13	-44.26	H
2.474650	54.71	Pk	32.3	-95.2	-45.97	-54.16	-13	-41.16	V
2.485450	55.50	Pk	32.1	-95.2	-45.89	-53.49	-13	-40.49	H
3.313450	52.81	Pk	33.0	-95.2	-44.80	-54.19	-13	-41.19	V
3.333700	53.33	Pk	32.9	-95.2	-44.96	-53.93	-13	-40.93	H
Mid Channel, 836.5MHz									
1.068850	53.44	Pk	26.7	-95.2	-45.71	-60.77	-13	-47.77	V
1.661050	55.72	Pk	29.0	-95.2	-46.52	-57.00	-13	-44.00	V
1.662400	56.24	Pk	28.9	-95.2	-46.43	-56.49	-13	-43.49	H
2.507050	54.20	Pk	32.3	-95.2	-46.07	-54.77	-13	-41.77	H
2.508400	55.06	Pk	32.3	-95.2	-46.12	-53.96	-13	-40.96	V
3.324250	53.44	Pk	33.0	-95.2	-44.86	-53.62	-13	-40.62	V
High Channel, 841.5MHz									
1.659700	54.94	Pk	29.0	-95.2	-46.55	-57.81	-13	-44.81	V
1.670050	54.75	Pk	28.9	-95.2	-46.44	-57.99	-13	-44.99	H
2.537650	54.71	Pk	32.4	-95.2	-46.64	-54.73	-13	-41.73	H
2.543950	55.60	Pk	32.3	-95.2	-46.58	-53.88	-13	-40.88	V
3.372400	52.77	Pk	33.0	-95.2	-45.21	-54.64	-13	-41.64	V
3.376900	53.43	Pk	32.9	-95.2	-45.06	-53.93	-13	-40.93	H

BPSK 5G NR n26 (20.0MHZ BANDWIDTH)

Project #:	
Date:	5/3/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	N25 BPSK 40MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 834.0MHz									
1.654750	56.39	Pk	28.8	-95.2	-47.83	-57.84	-13	-44.84	V
1.671400	57.44	Pk	29.1	-95.2	-47.77	-56.43	-13	-43.43	H
2.507050	56.25	Pk	32.2	-95.2	-47.71	-54.46	-13	-41.46	V
2.516500	56.68	Pk	32.3	-95.2	-47.57	-53.79	-13	-40.79	H
3.319750	53.71	Pk	32.8	-95.2	-46.24	-54.93	-13	-41.93	H
3.322450	54.60	Pk	32.8	-95.2	-46.32	-54.12	-13	-41.12	V
Mid Channel, 836.5MHz									
1.674100	56.92	Pk	29.1	-95.2	-47.75	-56.93	-13	-43.93	H
1.686700	56.18	Pk	29.4	-95.2	-47.68	-57.30	-13	-44.30	V
2.507950	56.60	Pk	32.2	-95.2	-47.70	-54.10	-13	-41.10	H
2.509750	57.51	Pk	32.2	-95.2	-47.61	-53.10	-13	-40.10	V
3.344500	54.68	Pk	32.8	-95.2	-46.57	-54.29	-13	-41.29	V
3.350800	54.52	Pk	32.8	-95.2	-46.63	-54.51	-13	-41.51	H
High Channel, 839.0Hz									
1.676800	56.52	Pk	29.2	-95.2	-47.67	-57.15	-13	-44.15	H
1.688950	57.30	Pk	29.4	-95.2	-47.63	-56.13	-13	-43.13	V
2.524600	56.54	Pk	32.3	-95.2	-47.40	-53.76	-13	-40.76	V
2.526850	56.33	Pk	32.3	-95.2	-47.34	-53.91	-13	-40.91	H
3.344050	55.49	Pk	32.8	-95.2	-46.57	-53.48	-13	-40.48	H
3.352600	54.62	Pk	32.8	-95.2	-46.61	-54.39	-13	-41.39	V

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 #:	4790592300
Date:	3/9/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 30 QPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.611094	29.42	RMS	34.3	-95.2	-29.27	-60.75	-40	-20.75	V
4.627031	29.51	RMS	34.3	-95.2	-29.02	-60.41	-40	-20.41	H
6.93375	26.91	RMS	35.8	-95.2	-26.43	-58.92	-40	-18.92	H
6.93375	26.53	RMS	35.8	-95.2	-26.43	-59.30	-40	-19.30	V
9.243281	24.65	RMS	36.4	-95.2	-23.71	-57.86	-40	-17.86	H
9.243281	25.61	RMS	36.4	-95.2	-23.71	-56.90	-40	-16.90	V

BPSK 5G NR n30 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/5/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	N30 BPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.611094	27.65	RMS	34.3	-95.2	-29.27	-62.52	-40	-22.52	V
4.612969	27.59	RMS	34.3	-95.2	-29.19	-62.50	-40	-22.50	H
6.932813	25.10	RMS	35.7	-95.2	-26.43	-60.83	-40	-20.83	V
6.940313	25.18	RMS	35.7	-95.2	-26.47	-60.79	-40	-20.79	H
9.217500	22.89	RMS	36.1	-95.2	-23.76	-59.97	-40	-19.97	V
9.232969	22.87	RMS	36.1	-95.2	-23.71	-59.94	-40	-19.94	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 #:	4790592300
Date:	3/10/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 41 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	81886 ACF (dB)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2506MHz										
3.844688	43.53	Pk	33.8	.7	-95.2	-32.31	-49.48	-25	-24.48	H
5.002500	39.35	Pk	34.1	.8	-95.2	-30.96	-51.91	-25	-26.91	H
7.523906	36.36	Pk	36.0	.3	-95.2	-26.97	-49.51	-25	-24.51	H
7.523906	36.36	Pk	36.0	.3	-95.2	-26.97	-49.51	-25	-24.51	H
10.039219	35.01	Pk	37.3	.7	-95.2	-25.07	-47.26	-25	-22.26	H
10.039219	35.01	Pk	37.3	.7	-95.2	-25.07	-47.26	-25	-22.26	H
Mid Channel, 2593MHz										
5.163281	38.48	Pk	34.7	.7	-95.2	-30.49	-51.81	-25	-26.81	V
5.186250	38.88	Pk	34.8	.8	-95.2	-30.62	-51.34	-25	-26.34	H
7.715625	37.25	Pk	36.0	.4	-95.2	-26.84	-48.39	-25	-23.39	V
7.776094	36.44	Pk	36.0	.3	-95.2	-27.05	-49.51	-25	-24.51	H
10.230469	35.78	Pk	37.6	.8	-95.2	-25.09	-46.11	-25	-21.11	V
10.379531	34.72	Pk	37.4	.8	-95.2	-24.86	-47.14	-25	-22.14	H
High Channel, 2680MHz										
5.331563	39.21	Pk	34.5	.7	-95.2	-30.22	-51.01	-25	-26.01	V
5.362969	37.78	Pk	34.4	.5	-95.2	-30.19	-52.71	-25	-27.71	H
7.994063	36.62	Pk	35.8	.3	-95.2	-26.68	-49.16	-25	-24.16	V
8.032969	36.74	Pk	35.8	.4	-95.2	-26.57	-48.83	-25	-23.83	H
10.659375	35.90	Pk	37.7	.5	-95.2	-24.45	-45.55	-25	-20.55	V
10.713750	35.34	Pk	37.7	.5	-95.2	-24.09	-45.75	-25	-20.75	H

BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)

Project #:	
Date:	4/30/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N41 BPSK 100MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2546MHz									
5.068000	57.22	Pk	33.9	-95.2	-48.24	-52.32	-25	-27.32	V
5.080500	56.24	Pk	34	-95.2	-47.99	-52.95	-25	-27.95	H
7.658500	55.05	Pk	35.7	-95.2	-46.02	-50.47	-25	-25.47	H
7.682500	54.19	Pk	35.7	-95.2	-46.07	-51.38	-25	-26.38	V
10.202000	55.41	Pk	37.2	-95.2	-45.2	-47.79	-25	-22.79	V
10.205000	56.42	Pk	37.2	-95.2	-45.15	-46.73	-25	-21.73	H
Mid Channel, 2593MHz									
5.173500	55.46	Pk	34.1	-95.2	-47.79	-53.43	-25	-28.43	V
5.180500	55.74	Pk	34.1	-95.2	-47.69	-53.05	-25	-28.05	H
7.745500	54.39	Pk	35.7	-95.2	-46.22	-51.33	-25	-26.33	V
7.748500	55.18	Pk	35.7	-95.2	-46.1	-50.42	-25	-25.42	H
10.365500	54.09	Pk	37.3	-95.2	-45.76	-49.57	-25	-24.57	V
10.394000	54.09	Pk	37.3	-95.2	-45.47	-49.28	-25	-24.28	H
High Channel, 2640MHz									
5.307500	56.19	Pk	34.3	-95.2	-47.77	-52.48	-25	-27.48	H
5.319500	56.04	Pk	34.3	-95.2	-47.91	-52.77	-25	-27.77	V
7.913500	54.24	Pk	35.8	-95.2	-45.53	-50.69	-25	-25.69	H
7.916500	54.66	Pk	35.8	-95.2	-45.45	-50.19	-25	-25.19	V
10.544500	52.64	Pk	37.4	-95.2	-44.14	-49.3	-25	-24.30	V
10.569000	53.71	Pk	37.4	-95.2	-44.48	-48.57	-25	-23.57	H

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 #:	4790592300
Date:	3/9/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 66 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	81886 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.429375	37.81	Pk	32.7	-95.2	-33.02	-57.71	-13	-44.71	V
3.441094	37.53	Pk	32.6	-95.2	-32.98	-58.05	-13	-45.05	H
5.121563	36.82	Pk	34.6	-95.2	-30.38	-54.16	-13	-41.16	V
5.130469	38.32	Pk	34.6	-95.2	-30.41	-52.69	-13	-39.69	H
6.862500	35.07	Pk	36.0	-95.2	-26.67	-50.80	-13	-37.80	V
6.874688	33.94	Pk	36.0	-95.2	-26.52	-51.78	-13	-38.78	H
Mid Channel, 1745MHz									
3.467813	38.01	Pk	32.5	-95.2	-33.00	-57.69	-13	-44.69	V
3.494531	39.01	Pk	32.5	-95.2	-32.93	-56.62	-13	-43.62	H
5.224688	36.89	Pk	34.7	-95.2	-28.81	-52.42	-13	-39.42	V
5.237344	36.54	Pk	34.6	-95.2	-28.73	-52.79	-13	-39.79	H
6.984375	33.63	Pk	35.7	-95.2	-26.68	-52.55	-13	-39.55	H
6.984375	33.20	Pk	35.7	-95.2	-26.68	-52.98	-13	-39.98	V
High Channel, 1770MHz									
3.508125	40.37	Pk	32.7	-95.2	-32.90	-55.03	-13	-42.03	V
3.528750	40.83	Pk	33.0	-95.2	-32.81	-54.18	-13	-41.18	H
5.293125	38.12	Pk	34.5	-95.2	-29.54	-52.12	-13	-39.12	V
5.310938	37.91	Pk	34.5	-95.2	-29.99	-52.78	-13	-39.78	H
7.082344	36.03	Pk	35.9	-95.2	-26.89	-50.16	-13	-37.16	H
7.100156	36.19	Pk	35.9	-95.2	-26.72	-49.83	-13	-36.83	V

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	
Date:	6/8/2022
Test Engineer:	19118
Configuration:	EUT only
Mode	N66 BPSK 40MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.452500	55.10	Pk	32.9	-95.2	-46.08	-53.28	-13	-40.28	H
3.459500	54.73	Pk	32.9	-95.2	-46.00	-53.57	-13	-40.57	V
5.204500	53.77	Pk	34.2	-95.2	-46.07	-53.30	-13	-40.30	V
5.213000	54.68	Pk	34.1	-95.2	-46.06	-52.48	-13	-39.48	H
6.900500	53.28	Pk	35.5	-95.2	-44.49	-50.91	-13	-37.91	V
6.94500	53.21	Pk	35.5	-95.2	-44.76	-51.25	-13	-38.25	H
Mid Channel, 1745MHz									
3.487500	53.89	Pk	32.9	-95.2	-46.00	-54.41	-13	-41.41	V
3.503000	53.56	Pk	32.9	-95.2	-46.02	-54.76	-13	-41.76	H
5.240500	54.16	Pk	34.1	-95.2	-46.18	-53.12	-13	-40.12	H
5.255500	55.10	Pk	34.1	-95.2	-46.19	-52.19	-13	-39.19	V
6.962500	53.34	Pk	35.5	-95.2	-44.76	-51.12	-13	-38.12	V
7.005000	52.85	Pk	35.5	-95.2	-44.78	-51.63	-13	-38.63	H
High Channel, 1760MHz									
3.506000	54.68	Pk	32.9	-95.2	-46.23	-53.85	-13	-40.85	V
3.527000	56.31	Pk	32.9	-95.2	-46.19	-52.18	-13	-39.18	H
5.287000	56.46	Pk	34.2	-95.2	-46.23	-50.77	-13	-37.77	H
5.308000	54.22	Pk	34.2	-95.2	-46.16	-52.94	-13	-39.94	V
7.063500	52.88	Pk	35.6	-95.2	-44.74	-51.46	-13	-38.46	V
7.064500	53.02	Pk	35.6	-95.2	-44.75	-51.33	-13	-38.33	H

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 #:	4790592300
Date:	6/10/2023
Test Engineer:	19118
Configuration:	EUT only
Mode	N70 BPSK 15MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 1702.5MHz									
3.393000	55.82	Pk	32.8	-95.2	-46.32	-52.90	-13	-39.90	H
3.393500	55.06	Pk	32.8	-95.2	-46.29	-53.63	-13	-40.63	V
5.087500	55.41	Pk	34.3	-95.2	-46.20	-51.69	-13	-38.69	V
5.122000	54.95	Pk	34.2	-95.2	-46.31	-52.36	-13	-39.36	H
6.828000	52.43	Pk	35.5	-95.2	-44.07	-51.34	-13	-38.34	V
6.833500	53.69	Pk	35.5	-95.2	-44.03	-50.04	-13	-37.04	H

10.1.13. 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 #:	4790592300
Date:	6/17/2023
Test Engineer:	19118
Configuration:	EUT only
Mode	LTE 71 QPSK 20MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz									
1.356850	57.09	Pk	28.9	-95.2	-47.30	-56.51	-13	-43.51	H
1.358650	57.67	Pk	28.9	-95.2	-47.34	-55.97	-13	-42.97	V
2.019700	57.27	Pk	31.0	-95.2	-47.57	-54.50	-13	-41.50	H
2.021050	57.66	Pk	31.0	-95.2	-47.67	-54.21	-13	-41.21	V
2.680300	55.07	Pk	32.5	-95.2	-46.74	-54.37	-13	-41.37	V
2.699650	56.00	Pk	32.5	-95.2	-46.68	-53.38	-13	-40.38	H
Mid Channel, 680.5MHz									
1.354600	58.40	Pk	28.9	-95.2	-47.31	-55.21	-13	-42.21	H
1.363600	57.29	Pk	28.9	-95.2	-47.27	-56.28	-13	-43.28	V
2.030500	57.16	Pk	31.0	-95.2	-47.79	-54.83	-13	-41.83	V
2.057950	56.01	Pk	31.1	-95.2	-47.79	-55.88	-13	-42.88	H
2.713150	55.46	Pk	32.4	-95.2	-46.62	-53.96	-13	-40.96	H
2.717650	55.02	Pk	32.4	-95.2	-46.77	-54.55	-13	-41.55	V
High Channel, 688MHz									
1.364950	56.30	Pk	28.9	-95.2	-47.18	-57.18	-13	-44.18	V
1.367200	57.06	Pk	28.9	-95.2	-47.28	-56.52	-13	-43.52	H
2.063800	59.27	Pk	31.1	-95.2	-47.75	-52.58	-13	-39.58	H
2.069650	58.62	Pk	31.1	-95.2	-47.76	-53.24	-13	-40.24	V
2.758600	55.67	Pk	32.4	-95.2	-47.19	-54.32	-13	-41.32	V
2.759050	55.18	Pk	32.4	-95.2	-47.17	-54.79	-13	-41.79	H

BPSK 5G NR n71 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/31/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N71 BPSK 20MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz									
1.329850	58.45	Pk	29.1	-95.2	-48.43	-56.08	-13	-43.08	V
1.338850	58.86	Pk	29.0	-95.2	-48.37	-55.71	-13	-42.71	H
2.011600	58.68	Pk	31.5	-95.2	-49.01	-54.03	-13	-41.03	V
2.013400	58.66	Pk	31.5	-95.2	-48.97	-54.01	-13	-41.01	H
2.703250	57.58	Pk	32.3	-95.2	-48.62	-53.94	-13	-40.94	V
2.703700	58.21	Pk	32.3	-95.2	-48.59	-53.28	-13	-40.28	H
Mid Channel, 680.5MHz									
1.368550	58.13	Pk	28.8	-95.2	-48.26	-56.53	-13	-43.53	H
1.369900	57.38	Pk	28.8	-95.2	-48.2	-57.22	-13	-44.22	V
2.049850	59.07	Pk	31.5	-95.2	-48.77	-53.40	-13	-40.40	H
2.052100	58.55	Pk	31.5	-95.2	-48.66	-53.81	-13	-40.81	V
2.711800	57.10	Pk	32.3	-95.2	-48.58	-54.38	-13	-41.38	H
2.719450	56.81	Pk	32.2	-95.2	-48.54	-54.73	-13	-41.73	V
High Channel, 1760MHz									
1.012600	58.73	Pk	27.5	-95.2	-47.69	-56.66	-13	-43.66	V
1.379350	58.20	Pk	28.7	-95.2	-48.37	-56.67	-13	-43.67	V
1.382950	58.81	Pk	28.7	-95.2	-48.31	-56.00	-13	-43.00	H
2.056600	58.79	Pk	31.5	-95.2	-48.72	-53.63	-13	-40.63	V
2.062450	58.24	Pk	31.4	-95.2	-48.67	-54.23	-13	-41.23	H
2.752300	56.25	Pk	32.2	-95.2	-48.41	-55.16	-13	-42.16	V

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 #:	4790592300
Date:	3/10/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE7 QPSK 20MHz
Chamber #:	0-RDE-B

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
Low Channel, 2510MHz										
4.967813	39.62	Pk	34.1	.5	-95.2	-31.04	-52.02	-25	-27.02	V
5.010469	38.98	Pk	34.1	.8	-95.2	-30.85	-52.17	-25	-27.17	H
7.486406	37.37	Pk	36.0	.3	-95.2	-26.84	-48.37	-25	-23.37	V
7.533281	35.66	Pk	36.0	.3	-95.2	-27.14	-50.38	-25	-25.38	H
10.015781	34.37	Pk	37.3	.6	-95.2	-24.77	-47.70	-25	-22.70	V
10.041094	35.15	Pk	37.3	.7	-95.2	-25.07	-47.12	-25	-22.12	H
Mid Channel, 2535MHz										
5.056875	38.30	Pk	34.2	.6	-95.2	-30.93	-53.03	-25	-28.03	V
5.084531	38.35	Pk	34.3	.8	-95.2	-30.66	-52.41	-25	-27.41	H
7.603125	36.36	Pk	35.9	.4	-95.2	-27.23	-49.77	-25	-24.77	H
7.645313	36.49	Pk	35.9	.4	-95.2	-27.05	-49.46	-25	-24.46	V
10.178906	35.45	Pk	37.6	.6	-95.2	-25.00	-46.55	-25	-21.55	V
10.219219	37.02	Pk	37.6	.9	-95.2	-25.00	-44.68	-25	-19.68	H
High Channel, 2560MHz										
5.122500	38.58	Pk	34.6	.8	-95.2	-30.77	-51.99	-25	-26.99	V
5.124375	38.77	Pk	34.6	.8	-95.2	-30.67	-51.70	-25	-26.70	H
7.710061	38.78	Pk	36.0	.4	-95.2	-26.85	-46.87	-25	-21.87	V
7.706719	38.84	Pk	36.0	.5	-95.2	-26.83	-46.69	-25	-21.69	V
10.194375	34.83	Pk	37.6	.7	-95.2	-24.71	-46.78	-25	-21.78	V
10.222969	34.52	Pk	37.6	.9	-95.2	-25.01	-47.19	-25	-22.19	H

BPSK 5G NR n7 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/23/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n7 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2525MHz									
5.051500	56.76	Pk	33.9	-95.2	-48.06	-52.60	-25	-27.60	H
5.064000	56.43	Pk	33.9	-95.2	-48.04	-52.91	-25	-27.91	V
7.560500	54.17	Pk	35.6	-95.2	-46.27	-51.70	-25	-26.70	V
7.566500	55.52	Pk	35.6	-95.2	-46.39	-50.47	-25	-25.47	H
10.099500	56.44	Pk	37.1	-95.2	-46.45	-48.11	-25	-23.11	H
10.115500	56.94	Pk	37.2	-95.2	-46.47	-47.53	-25	-22.53	V
Mid Channel, 2535MHz									
5.039500	56.45	Pk	33.9	-95.2	-48.19	-53.04	-25	-28.04	V
5.043500	56.29	Pk	33.9	-95.2	-48.09	-53.10	-25	-28.10	H
7.597000	56.19	Pk	35.6	-95.2	-46.25	-49.66	-25	-24.66	H
7.601000	54.92	Pk	35.6	-95.2	-46.16	-50.84	-25	-25.84	V
10.149500	55.45	Pk	37.2	-95.2	-46.01	-48.56	-25	-23.56	V
10.151500	56.88	Pk	37.2	-95.2	-45.91	-47.03	-25	-22.03	H
High Channel, 2545MHz									
5.099500	56.18	Pk	34	-95.2	-48.1	-53.12	-25	-28.12	H
5.105500	57.19	Pk	34	-95.2	-47.95	-51.96	-25	-26.96	V
7.629500	54.59	Pk	35.7	-95.2	-46.06	-50.97	-25	-25.97	V
7.659500	54.44	Pk	35.7	-95.2	-45.97	-51.03	-25	-26.03	H
10.192500	55.52	Pk	37.2	-95.2	-45.51	-47.99	-25	-22.99	V
10.214000	55.14	Pk	37.2	-95.2	-44.96	-47.82	-25	-22.82	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 #:	4790592300
Date:	3/27/2022
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE12 QPSK 10MHz
Chamber #:	5-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 704MHz									
1.404209	59.39	Pk	28.7	-95.2	-48.78	-55.89	-13	-42.89	H
1.408784	58.73	Pk	28.6	-95.2	-48.70	-56.57	-13	-43.57	V
2.112945	60.10	Pk	31.7	-95.2	-48.57	-51.97	-13	-38.97	V
2.113590	61.11	Pk	31.7	-95.2	-48.50	-50.89	-13	-37.89	H
2.815210	60.33	Pk	32.3	-95.2	-47.90	-50.47	-13	-37.47	V
2.817247	59.73	Pk	32.3	-95.2	-47.92	-51.09	-13	-38.09	H
Mid Channel, 707.5MHz									
1.416644	58.59	Pk	28.5	-95.2	-48.78	-56.89	-13	-43.89	H
1.417160	59.24	Pk	28.5	-95.2	-48.85	-56.31	-13	-43.31	V
2.124325	59.89	Pk	31.6	-95.2	-48.68	-52.39	-13	-39.39	H
2.124596	59.68	Pk	31.6	-95.2	-48.68	-52.60	-13	-39.60	V
2.831198	60.03	Pk	32.4	-95.2	-47.78	-50.55	-13	-37.55	V
2.833099	60.04	Pk	32.4	-95.2	-47.88	-50.64	-13	-37.64	H
High Channel, 711MHz									
1.416250	57.15	Pk	28.4	-95.2	-47.07	-56.72	-13	-43.72	H
1.428400	62.84	Pk	28.3	-95.2	-47.16	-51.22	-13	-38.22	V
2.125450	56.31	Pk	31.2	-95.2	-47.12	-54.81	-13	-41.81	V
2.129050	56.14	Pk	31.2	-95.2	-47.15	-55.01	-13	-42.01	H
2.847700	55.30	Pk	32.1	-95.2	-46.70	-54.50	-13	-41.50	H
2.850850	55.63	Pk	32.1	-95.2	-46.75	-54.22	-13	-41.22	V

BPSK 5G NR n12 (15.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/29/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N12 BPSK 15MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 706.5MHz									
1.417150	58.56	Pk	28.4	-95.2	-48.32	-56.56	-13	-43.56	V
1.418950	58.94	Pk	28.4	-95.2	-48.27	-56.13	-13	-43.13	H
2.111950	58.19	Pk	31.3	-95.2	-48.60	-54.31	-13	-41.31	H
2.118250	57.59	Pk	31.3	-95.2	-48.76	-55.07	-13	-42.07	V
2.821600	56.49	Pk	32.2	-95.2	-48.24	-54.75	-13	-41.75	H
2.823850	57.54	Pk	32.2	-95.2	-48.53	-53.99	-13	-40.99	V
Mid Channel, 707.5MHz									
1.418950	58.29	Pk	28.4	-95.2	-48.27	-56.78	-13	-43.78	V
1.419850	58.32	Pk	28.4	-95.2	-48.27	-56.75	-13	-43.75	H
2.111050	57.24	Pk	31.3	-95.2	-48.62	-55.28	-13	-42.28	V
2.112400	57.76	Pk	31.3	-95.2	-48.62	-54.76	-13	-41.76	H
2.832850	57.57	Pk	32.2	-95.2	-48.32	-53.75	-13	-40.75	V
2.833750	57.36	Pk	32.2	-95.2	-48.29	-53.93	-13	-40.93	H
High Channel, 708.5MHz									
1.418500	57.85	Pk	28.4	-95.2	-48.31	-57.26	-13	-44.26	V
1.422100	59.02	Pk	28.4	-95.2	-48.32	-56.10	-13	-43.10	H
2.122300	57.74	Pk	31.3	-95.2	-48.86	-55.02	-13	-42.02	H
2.123650	57.36	Pk	31.3	-95.2	-48.87	-55.41	-13	-42.41	V
2.837800	56.5	Pk	32.2	-95.2	-48.14	-54.64	-13	-41.64	V
2.848600	57.04	Pk	32.2	-95.2	-48.21	-54.17	-13	-41.17	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 #:	4790592300
Date:	6/8/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE13 QPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.577800	55.89	Pk	27.8	-95.2	-46.39	-57.90	-40	-17.90	H
1.582750	55.34	Pk	27.8	-95.2	-46.46	-58.52	-40	-18.52	V
2.325700	55.27	Pk	32.7	-95.2	-46.28	-53.51	-13	-40.51	V
2.329750	54.58	Pk	32.6	-95.2	-46.22	-54.24	-13	-41.24	H
3.126250	53.80	Pk	33.2	-95.2	-45.38	-53.58	-13	-40.58	H
3.137950	53.33	Pk	33.1	-95.2	-45.28	-54.05	-13	-41.05	V

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 #:	4790592300
Date:	6/10/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE14 QPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1590.85	55.13	Pk	28	-95.2	-46.5	-58.57	-40	-18.57	V
1596.7	55.23	Pk	28.1	-95.2	-46.36	-58.23	-40	-18.23	H
2347.075	54.5	Pk	32.3	-95.2	-46.33	-54.73	-13	-41.73	V
2363.95	55.01	Pk	32.2	-95.2	-46.74	-54.73	-13	-41.73	H
3188.8	53.43	Pk	32.9	-95.2	-45.55	-54.42	-13	-41.42	V
3191.05	53.69	Pk	32.9	-95.2	-45.48	-54.09	-13	-41.09	H

BPSK 5G NR n14 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/29/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N14 BPSK 10MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.578700	58.01	Pk	28.0	-95.2	-48.72	-57.91	-40	-17.91	H
1.581850	57.73	Pk	28.0	-95.2	-48.67	-58.14	-40	-18.14	V
2.367550	59.05	Pk	31.6	-95.2	-48.96	-53.51	-13	-40.51	H
2.368450	57.65	Pk	31.6	-95.2	-48.97	-54.92	-13	-41.92	V
3.158200	56.07	Pk	32.9	-95.2	-46.86	-53.09	-13	-40.09	V
3.160450	55.31	Pk	32.9	-95.2	-46.86	-53.85	-13	-40.85	H

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 #:	4790592300
Date:	6/10/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE17 QPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 709MHz									
1.408600	56.03	Pk	28.0	-95.2	-46.09	-57.26	-13	-44.26	V
1.409500	54.78	Pk	28.0	-95.2	-46.08	-58.50	-13	-45.50	H
2.132650	55.41	Pk	31.6	-95.2	-46.35	-54.54	-13	-41.54	V
2.139850	55.84	Pk	31.6	-95.2	-46.23	-53.99	-13	-40.99	H
2.841400	54.89	Pk	32.7	-95.2	-45.94	-53.55	-13	-40.55	H
2.843650	53.35	Pk	32.7	-95.2	-46.04	-55.19	-13	-42.19	V
Mid Channel, 710MHz									
1.408600	56.03	Pk	28.0	-95.2	-46.09	-57.26	-13	-44.26	V
1.409500	54.78	Pk	28.0	-95.2	-46.08	-58.50	-13	-45.50	H
2.132650	55.41	Pk	31.6	-95.2	-46.35	-54.54	-13	-41.54	V
2.139850	55.84	Pk	31.6	-95.2	-46.23	-53.99	-13	-40.99	H
2.841400	54.89	Pk	32.7	-95.2	-45.94	-53.55	-13	-40.55	H
2.843650	53.35	Pk	32.7	-95.2	-46.04	-55.19	-13	-42.19	V
High Channel, 711MHz									
1.402300	56.77	Pk	28.3	-95.2	-46.11	-56.24	-13	-43.24	V
1.409050	55.05	Pk	28.0	-95.2	-46.09	-58.24	-13	-45.24	H
2.138050	56.08	Pk	31.6	-95.2	-46.13	-53.65	-13	-40.65	H
2.140750	55.69	Pk	31.6	-95.2	-46.25	-54.16	-13	-41.16	V
2.850400	53.72	Pk	32.8	-95.2	-46.03	-54.71	-13	-41.71	H
2.854900	53.93	Pk	32.8	-95.2	-46.15	-54.62	-13	-41.62	V

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 #:	4790592300
Date:	3/28/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE 25 QPSK 20MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.718845	57.76	Pk	33.4	-95.2	-46.97	-51.01	-13	-38.01	V
3.719933	57.74	Pk	33.4	-95.2	-46.93	-50.99	-13	-37.99	H
5.579859	56.87	Pk	34.7	-95.2	-46.77	-50.40	-13	-37.40	H
5.583804	57.14	Pk	34.7	-95.2	-46.85	-50.21	-13	-37.21	V
7.441448	56.62	Pk	35.8	-95.2	-45.98	-48.76	-13	-35.76	V
7.445242	56.30	Pk	35.8	-95.2	-46.04	-49.14	-13	-36.14	H
Mid Channel, 1882.5MHz									
3.753500	53.12	Pk	33.4	-95.2	-44.89	-53.57	-13	-40.57	V
3.776750	53.83	Pk	33.5	-95.2	-44.92	-52.79	-13	-39.79	H
5.623500	52.45	Pk	34.7	-95.2	-43.91	-51.96	-13	-38.96	V
5.660000	52.63	Pk	34.7	-95.2	-43.82	-51.69	-13	-38.69	H
7.526000	52.01	Pk	36.0	-95.2	-42.24	-49.43	-13	-36.43	H
7.531500	50.94	Pk	36.0	-95.2	-42.2	-50.46	-13	-37.46	V
High Channel, 1905MHz									
3.809282	57.34	Pk	33.5	-95.2	-46.64	-51.00	-13	-38.00	H
3.813604	57.18	Pk	33.5	-95.2	-46.79	-51.31	-13	-38.31	V
5.715696	56.36	Pk	34.8	-95.2	-46.26	-50.30	-13	-37.30	H
5.720153	55.92	Pk	34.8	-95.2	-46.13	-50.61	-13	-37.61	V
7.619689	56.60	Pk	35.8	-95.2	-45.8	-48.60	-13	-35.60	H
7.621081	56.09	Pk	35.8	-95.2	-45.71	-49.02	-13	-36.02	V

BPSK 5G NR n25 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/28/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N25 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.748500	54.39	Pk	33.2	-95.2	-45.66	-53.27	-13	-40.27	H
3.750000	53.50	Pk	33.2	-95.2	-45.64	-54.14	-13	-41.14	V
5.610500	55.28	Pk	34.4	-95.2	-46.61	-52.13	-13	-39.13	H
5.623500	55.02	Pk	34.4	-95.2	-46.65	-52.43	-13	-39.43	V
7.490000	53.96	Pk	35.7	-95.2	-46.14	-51.68	-13	-38.68	V
7.503000	54.04	Pk	35.6	-95.2	-46.14	-51.70	-13	-38.70	H
Mid Channel, 1882.5MHz									
3.771500	54.06	Pk	33.2	-95.2	-45.91	-53.85	-13	-40.85	H
3.784000	53.86	Pk	33.2	-95.2	-46.04	-54.18	-13	-41.18	V
5.639500	55.35	Pk	34.5	-95.2	-46.56	-51.91	-13	-38.91	V
5.648500	54.74	Pk	34.5	-95.2	-46.43	-52.39	-13	-39.39	H
7.519000	55.04	Pk	35.6	-95.2	-46.06	-50.62	-13	-37.62	H
7.528000	54.16	Pk	35.6	-95.2	-46.10	-51.54	-13	-38.54	V
High Channel, 1895MHz									
3.813500	54.00	Pk	33.3	-95.2	-46.03	-53.93	-13	-40.93	H
3.818500	53.59	Pk	33.3	-95.2	-45.86	-54.17	-13	-41.17	V
5.660500	55.35	Pk	34.5	-95.2	-46.54	-51.89	-13	-38.89	V
5.671000	54.54	Pk	34.5	-95.2	-46.42	-52.58	-13	-39.58	H
7.570500	53.98	Pk	35.6	-95.2	-46.04	-51.66	-13	-38.66	V
7.579000	54.61	Pk	35.6	-95.2	-46.00	-50.99	-13	-37.99	H

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 #:	4790592300
Date:	3/28/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.629309	60.31	Pk	27.8	-95.2	-48.75	-55.84	-13	-42.84	V
1.629437	63.75	Pk	27.8	-95.2	-48.75	-52.40	-13	-39.40	H
2.444025	60.25	Pk	32.4	-95.2	-48.47	-51.02	-13	-38.02	H
2.444324	60.57	Pk	32.4	-95.2	-48.45	-50.68	-13	-37.68	V
3.275899	57.85	Pk	32.9	-95.2	-46.5	-50.95	-13	-37.95	V
3.277879	57.95	Pk	32.9	-95.2	-46.47	-50.82	-13	-37.82	H

BPSK 5G NR n26 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	7/8/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N25 BPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.624600	55.18	Pk	28.8	-95.2	-46.39	-57.61	-13	-44.61	V
1.625050	54.98	Pk	28.8	-95.2	-46.38	-57.80	-13	-44.80	H
2.445400	55.85	Pk	32.5	-95.2	-46.40	-53.25	-13	-40.25	V
2.447200	55.78	Pk	32.5	-95.2	-46.43	-53.35	-13	-40.35	H
3.254500	53.47	Pk	32.9	-95.2	-45.02	-53.85	-13	-40.85	V
3.275650	53.99	Pk	32.9	-95.2	-44.94	-53.25	-13	-40.25	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 #:	4790592300
Date:	6/10/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 831.5MHz									
1.67185	54.82	Pk	28.9	-95.2	-46.44	-57.92	-13	-44.92	V
1.67500	55.73	Pk	28.9	-95.2	-46.62	-57.19	-13	-44.19	H
2.47780	55.70	Pk	32.3	-95.2	-45.99	-53.19	-13	-40.19	H
2.48275	53.79	Pk	32.2	-95.2	-45.81	-55.02	-13	-42.02	V
3.33235	53.85	Pk	32.9	-95.2	-44.87	-53.32	-13	-40.32	H
3.34450	52.74	Pk	32.8	-95.2	-44.91	-54.57	-13	-41.57	V
Mid Channel, 836.5MHz									
1.665550	56.26	Pk	28.9	-95.2	-46.46	-56.50	-13	-43.5	V
1.677700	56.18	Pk	28.9	-95.2	-46.50	-56.62	-13	-43.62	H
2.507950	54.33	Pk	32.3	-95.2	-46.11	-54.68	-13	-41.68	V
2.509750	55.15	Pk	32.3	-95.2	-46.13	-53.88	-13	-40.88	H
3.340900	53.69	Pk	32.9	-95.2	-45.00	-53.61	-13	-40.61	H
3.342250	53.33	Pk	32.8	-95.2	-45.04	-54.11	-13	-41.11	V
High Channel, 841.5MHz									
1.695700	55.47	Pk	28.8	-95.2	-46.47	-57.40	-13	-44.40	V
1.697500	55.89	Pk	28.9	-95.2	-46.62	-57.03	-13	-44.03	H
2.519650	55.26	Pk	32.2	-95.2	-46.25	-53.99	-13	-40.99	H
2.531350	54.52	Pk	32.3	-95.2	-46.64	-55.02	-13	-42.02	V
3.367450	53.59	Pk	33	-95.2	-44.97	-53.58	-13	-40.58	V
3.368350	53.34	Pk	33	-95.2	-44.93	-53.79	-13	-40.79	H

BPSK 5G NR n26 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/10/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE 26 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	172654 HPF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 834MHz										
1.649241	48.94	Pk	28.3	.7	-95.2	-35.10	-52.36	-13	-39.36	V
1.671778	43.14	Pk	28.6	.7	-95.2	-35.07	-57.83	-13	-44.83	H
2.498000	43.01	Pk	32.3	.5	-95.2	-34.77	-54.16	-13	-41.16	H
2.502400	43.18	Pk	32.3	.5	-95.2	-34.92	-54.14	-13	-41.14	V
3.320312	42.52	Pk	32.7	.5	-95.2	-33.75	-53.23	-13	-40.23	V
3.322756	42.05	Pk	32.7	.5	-95.2	-34.02	-53.97	-13	-40.97	H
Mid Channel, 836.5MHz										
1.654173	49.22	Pk	28.3	.7	-95.2	-35.20	-52.18	-13	-39.18	V
1.674711	43.23	Pk	28.6	.7	-95.2	-35.08	-57.75	-13	-44.75	H
2.515600	43.03	Pk	32.3	.5	-95.2	-34.91	-54.28	-13	-41.28	H
2.518534	42.61	Pk	32.3	.5	-95.2	-34.94	-54.73	-13	-41.73	V
3.344267	42.00	Pk	32.6	.4	-95.2	-33.81	-54.01	-13	-41.01	H
3.351600	41.95	Pk	32.6	.4	-95.2	-33.75	-54.00	-13	-41.00	V
Mid Channel, 839.0MHz										
1.659282	51.58	Pk	28.4	.7	-95.2	-35.09	-49.61	-13	-36.61	V
1.659470	51.59	Pk	28.4	.7	-95.2	-35.10	-49.61	-13	-36.61	H
2.492810	44.42	Pk	32.2	.5	-95.2	-34.90	-52.98	-13	-39.98	V
2.506800	42.87	Pk	32.3	.5	-95.2	-34.90	-54.43	-13	-41.43	H
3.363823	41.13	Pk	32.6	.5	-95.2	-33.63	-54.6	-13	-41.60	V
3.371645	41.38	Pk	32.6	.5	-95.2	-33.69	-54.41	-13	-41.41	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 #:	4790592300
Date:	3/9/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 30 QPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.635000	29.22	RMS	34.2	-95.2	-28.88	-60.66	-40	-20.66	H
4.635000	29.25	RMS	34.2	-95.2	-28.88	-60.63	-40	-20.63	V
6.874688	27.07	RMS	36.0	-95.2	-26.52	-58.65	-40	-18.65	V
6.909844	27.25	RMS	35.9	-95.2	-26.51	-58.56	-40	-18.56	H
9.180000	25.82	RMS	36.3	-95.2	-23.77	-56.85	-40	-16.85	V
9.243281	26.08	RMS	36.4	-95.2	-23.71	-56.43	-40	-16.43	H

BPSK 5G NR n30 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	7/7/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	N30 BPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.611094	28.85	RMS	34.3	-95.2	-29.27	-61.32	-40	-21.32	H
4.611563	27.25	RMS	34.3	-95.2	-29.27	-62.92	-40	-22.92	V
6.881719	24.91	RMS	35.7	-95.2	-26.47	-61.06	-40	-21.06	V
6.921563	24.56	RMS	35.7	-95.2	-26.43	-61.37	-40	-21.37	H
9.220781	22.58	RMS	36.1	-95.2	-23.77	-60.29	-40	-20.29	V
9.235313	22.59	RMS	36.1	-95.2	-23.92	-60.43	-40	-20.43	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 #:	4790592300
Date:	3/10/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 41 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	81886 ACF (dB)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2506MHz										
4.988906	39.50	Pk	34.1	.7	-95.2	-31.10	-52.00	-25	-27.00	V
4.998750	40.37	Pk	34.1	.8	-95.2	-31.04	-50.97	-25	-25.97	H
7.507031	35.98	Pk	36.0	.3	-95.2	-26.99	-49.91	-25	-24.91	V
7.508906	36.06	Pk	36.0	.3	-95.2	-26.91	-49.75	-25	-24.75	H
10.016719	34.69	Pk	37.3	.6	-95.2	-24.85	-47.46	-25	-22.46	H
10.017656	35.19	Pk	37.3	.6	-95.2	-24.87	-46.98	-25	-21.98	V
Mid Channel, 2593MHz										
5.116875	39.78	Pk	34.6	.8	-95.2	-30.91	-50.93	-25	-25.93	V
5.179219	38.55	Pk	34.8	.7	-95.2	-30.61	-51.76	-25	-26.76	H
7.716563	35.98	Pk	36.0	.4	-95.2	-26.82	-49.64	-25	-24.64	V
7.789219	35.81	Pk	36.0	.4	-95.2	-26.99	-49.98	-25	-24.98	H
10.2825	34.60	Pk	37.5	.7	-95.2	-25.04	-47.44	-25	-22.44	V
10.364063	35.06	Pk	37.4	.8	-95.2	-25.13	-47.07	-25	-22.07	H
High Channel, 2680MHz										
5.335078	38.09	Pk	34.5	.7	-95.2	-30.25	-52.16	-25	-27.16	V
5.363438	38.14	Pk	34.5	.5	-95.2	-30.22	-52.28	-25	-27.28	H
8.034844	36.21	Pk	35.8	.4	-95.2	-26.55	-49.34	-25	-24.34	V
8.041406	36.04	Pk	35.8	.4	-95.2	-26.60	-49.56	-25	-24.56	H
10.764375	34.21	Pk	37.7	.9	-95.2	-24.06	-46.45	-25	-21.45	V
10.788281	37.30	Pk	37.7	.8	-95.2	-23.84	-43.24	-25	-18.24	H

BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	7/11/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	N41 BPSK 100MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	81886 ACF (dB)	BRF 2495-2690MHz T1790 1-18GHz	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2546MHz										
5.083125	38.24	Pk	34.7	.8	-95.2	-30.73	-52.19	-25	-27.19	H
5.085938	38.35	Pk	34.7	.8	-95.2	-30.71	-52.06	-25	-27.06	V
7.632188	34.03	Pk	35.9	.4	-95.2	-27	-51.87	-25	-26.87	H
7.661719	34.38	Pk	35.9	.3	-95.2	-27.07	-51.69	-25	-26.69	V
10.203750	32.63	Pk	37.6	.8	-95.2	-24.69	-48.86	-25	-23.86	H
10.350005	35.09	Pk	37.6	.7	-95.2	-25.08	-46.89	-25	-21.89	V
Mid Channel, 2593MHz										
5.164219	38.16	Pk	34.7	.7	-95.2	-30.45	-52.09	-25	-27.09	V
5.177344	37.66	Pk	34.7	.7	-95.2	-30.69	-52.83	-25	-27.83	H
7.773281	34.48	Pk	35.9	.3	-95.2	-27.12	-51.64	-25	-26.64	H
7.792500	35.09	Pk	35.9	.4	-95.2	-26.97	-50.78	-25	-25.78	V
10.342969	33.57	Pk	37.6	.7	-95.2	-25.07	-48.40	-25	-23.40	V
10.378125	34.24	Pk	37.7	.8	-95.2	-24.86	-47.32	-25	-22.32	H
High Channel, 2640MHz										
5.288438	37.33	Pk	34.7	.4	-95.2	-30.59	-53.36	-25	-28.36	V
5.290781	37.51	Pk	34.7	.4	-95.2	-30.57	-53.16	-25	-28.16	H
7.875938	34.52	Pk	36	.4	-95.2	-26.66	-50.94	-25	-25.94	V
7.916250	34.84	Pk	36	.2	-95.2	-26.6	-50.76	-25	-25.76	H
10.506094	32.98	Pk	37.8	.6	-95.2	-24.67	-48.49	-25	-23.49	V
10.569375	33.06	Pk	37.8	.8	-95.2	-24.63	-48.17	-25	-23.17	H

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 #:	4790592300
Date:	3/29/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE 66 QPSK 20MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	81886 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.440191	56.18	Pk	32.9	-95.2	-46.44	-52.56	-13	-39.56	V
3.440504	56.11	Pk	32.9	-95.2	-46.45	-52.64	-13	-39.64	H
5.160489	57.32	Pk	34.5	-95.2	-47.25	-50.63	-13	-37.63	V
5.16126	57.59	Pk	34.5	-95.2	-47.26	-50.37	-13	-37.37	H
6.878458	55.37	Pk	35.7	-95.2	-45.06	-49.19	-13	-36.19	V
6.879871	55.17	Pk	35.7	-95.2	-45.07	-49.4	-13	-36.40	H
Mid Channel, 1745MHz									
3.489214	57.66	Pk	33	-95.2	-46.76	-51.3	-13	-38.3	H
3.489479	58.1	Pk	33	-95.2	-46.75	-50.85	-13	-37.85	V
5.234942	56.65	Pk	34.5	-95.2	-47.26	-51.31	-13	-38.31	H
5.238279	57.21	Pk	34.5	-95.2	-47.11	-50.6	-13	-37.60	V
6.977082	56.33	Pk	35.8	-95.2	-45.96	-49.03	-13	-36.03	V
6.978571	55.99	Pk	35.8	-95.2	-45.91	-49.32	-13	-36.32	H
High Channel, 1770MHz									
3.540637	57.47	Pk	32.9	-95.2	-46.49	-51.32	-13	-38.32	V
3.542585	57.15	Pk	32.9	-95.2	-46.64	-51.79	-13	-38.79	H
5.308652	57.56	Pk	34.7	-95.2	-47.06	-50.00	-13	-37.00	V
5.308839	58.05	Pk	34.7	-95.2	-47.10	-49.55	-13	-36.55	H
7.079951	55.90	Pk	35.9	-95.2	-45.84	-49.24	-13	-36.24	H
7.083237	55.64	Pk	35.9	-95.2	-45.71	-49.37	-13	-36.37	V

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	
Date:	3/30/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N66 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.455500	53.67	Pk	32.8	-95.2	-45.87	-54.60	-13	-41.60	H
3.467500	54.56	Pk	32.8	-95.2	-46.07	-53.91	-13	-40.91	V
5.191000	55.75	Pk	34.1	-95.2	-47.70	-53.05	-13	-40.05	H
5.195000	56.58	Pk	34.1	-95.2	-47.78	-52.30	-13	-39.30	V
6.905500	53.46	Pk	35.5	-95.2	-44.95	-51.19	-13	-38.19	H
6.917500	53.19	Pk	35.5	-95.2	-45.04	-51.55	-13	-38.55	V
Mid Channel, 1745MHz									
3.479000	54.32	Pk	32.8	-95.2	-46.00	-54.08	-13	-41.08	H
3.483500	53.56	Pk	32.8	-95.2	-45.90	-54.74	-13	-41.74	V
5.228000	55.53	Pk	34.2	-95.2	-47.66	-53.13	-13	-40.13	V
5.234500	56.83	Pk	34.2	-95.2	-47.86	-52.03	-13	-39.03	H
6.977000	53.06	Pk	35.5	-95.2	-44.97	-51.61	-13	-38.61	H
6.992000	52.69	Pk	35.6	-95.2	-44.88	-51.79	-13	-38.79	V
High Channel, 1760MHz									
3.530500	54.86	Pk	32.9	-95.2	-46.10	-53.54	-13	-40.54	V
3.542500	54.41	Pk	32.9	-95.2	-46.15	-54.04	-13	-41.04	H
5.298000	56.04	Pk	34.3	-95.2	-47.64	-52.50	-13	-39.50	H
5.302500	56.00	Pk	34.3	-95.2	-47.82	-52.72	-13	-39.72	V
7.023500	53.53	Pk	35.6	-95.2	-44.91	-50.98	-13	-37.98	H
7.025500	53.13	Pk	35.6	-95.2	-44.9	-51.37	-13	-38.37	V

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)

Project #:	4790592300
Date:	4/3/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N70 BPSK 15MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 1702.5MHz									
3.407000	54.32	Pk	32.8	-95.2	-46.09	-54.17	-13	-41.17	V
3.421000	53.91	Pk	32.8	-95.2	-46.06	-54.55	-13	-41.55	H
5.088500	55.87	Pk	34.0	-95.2	-48.04	-53.37	-13	-40.37	H
5.095000	56.61	Pk	34.0	-95.2	-47.91	-52.50	-13	-39.50	V
6.797000	52.33	Pk	35.5	-95.2	-44.84	-52.21	-13	-39.21	V
6.805000	52.70	Pk	35.5	-95.2	-44.70	-51.70	-13	-38.70	H

10.2.13. 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 #:	4790592300
Date:	3/6/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE 71 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz									
1.346003	61.12	Pk	29.2	-95.2	-48.55	-53.43	-13	-40.43	H
1.346161	60.91	Pk	29.2	-95.2	-48.59	-53.68	-13	-40.68	V
2.016983	61.50	Pk	31.5	-95.2	-49.00	-51.20	-13	-38.20	H
2.019831	60.88	Pk	31.5	-95.2	-49.01	-51.83	-13	-38.83	V
2.688705	59.13	Pk	32.1	-95.2	-47.56	-51.53	-13	-38.53	H
2.692749	58.89	Pk	32.1	-95.2	-47.65	-51.86	-13	-38.86	V
Mid Channel, 680.5MHz									
1.35767	60.00	Pk	29	-95.2	-48.76	-54.96	-13	-41.96	V
1.359588	58.94	Pk	29	-95.2	-48.66	-55.92	-13	-42.92	H
2.042486	60.53	Pk	31.6	-95.2	-48.83	-51.90	-13	-38.90	V
2.047240	61.29	Pk	31.6	-95.2	-48.78	-51.09	-13	-38.09	H
2.723992	58.24	Pk	32.1	-95.2	-47.28	-52.14	-13	-39.14	V
2.727751	57.46	Pk	32.1	-95.2	-47.18	-52.82	-13	-39.82	H
High Channel, 688MHz									
1.376394	58.51	Pk	28.9	-95.2	-48.67	-56.46	-13	-43.46	V
1.379171	58.57	Pk	28.8	-95.2	-48.69	-56.52	-13	-43.52	H
2.062413	60.75	Pk	31.7	-95.2	-48.67	-51.42	-13	-38.42	H
2.065284	61.01	Pk	31.7	-95.2	-48.71	-51.20	-13	-38.20	V
2.748731	58.83	Pk	32.1	-95.2	-47.78	-52.05	-13	-39.05	V
2.754699	58.02	Pk	32.2	-95.2	-47.78	-52.76	-13	-39.76	H

BPSK 5G NR n71 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/31/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N71 BPSK 20MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz									
1.331650	58.98	Pk	29.1	-95.2	-48.43	-55.55	-13	-42.55	V
1.336600	57.84	Pk	29.0	-95.2	-48.43	-56.79	-13	-43.79	H
2.007100	58.66	Pk	31.5	-95.2	-48.97	-54.01	-13	-41.01	V
2.011600	58.63	Pk	31.5	-95.2	-49.01	-54.08	-13	-41.08	H
2.701000	58.51	Pk	32.3	-95.2	-48.46	-52.85	-13	-39.85	V
2.704150	57.38	Pk	32.3	-95.2	-48.56	-54.08	-13	-41.08	H
Mid Channel, 680.5MHz									
1.346950	59.63	Pk	29.2	-95.2	-48.77	-55.14	-13	-42.14	V
1.356850	57.47	Pk	29	-95.2	-48.74	-57.47	-13	-44.47	H
2.041750	59.61	Pk	31.6	-95.2	-48.86	-52.85	-13	-39.85	V
2.048500	59.86	Pk	31.6	-95.2	-48.8	-52.54	-13	-39.54	H
2.717200	56.72	Pk	32.1	-95.2	-47.23	-53.61	-13	-40.61	V
2.727550	55.54	Pk	32.1	-95.2	-47.19	-54.75	-13	-41.75	H
High Channel, 1760MHz									
1.374400	58.13	Pk	28.8	-95.2	-48.28	-56.55	-13	-43.55	V
1.375750	58.25	Pk	28.8	-95.2	-48.28	-56.43	-13	-43.43	H
2.049850	58.72	Pk	31.5	-95.2	-48.77	-53.75	-13	-40.75	H
2.051650	58.14	Pk	31.5	-95.2	-48.68	-54.24	-13	-41.24	V
2.753200	57.50	Pk	32.2	-95.2	-48.41	-53.91	-13	-40.91	H
2.762200	56.84	Pk	32.1	-95.2	-48.56	-54.82	-13	-41.82	V

10.3. FIELD STRENGTH OF SPURIOUS RADIATION, ANT3

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

10.3.1. 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 #:	4790592300
Date:	6/11/2023
Test Engineer:	32978
Configuration:	EUT only
Mode	n7 BPSK 50MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2510MHz									
5.019000	54.25	Pk	34.2	-95.2	-45.61	-52.36	-25	-27.36	H
5.031000	54.44	Pk	34.3	-95.2	-45.47	-51.93	-25	-26.93	V
7.505500	50.77	Pk	36.0	-95.2	-42.80	-51.23	-25	-26.23	V
7.543000	51.46	Pk	35.8	-95.2	-42.70	-50.64	-25	-25.64	H
10.044000	51.12	Pk	37.5	-95.2	-41.05	-47.63	-25	-22.63	H
10.048500	52.00	Pk	37.4	-95.2	-41.07	-46.87	-25	-21.87	V
Mid Channel, 2535MHz									
5.061000	53.44	Pk	34.3	-95.2	-45.19	-52.65	-25	-27.65	V
5.064500	53.18	Pk	34.3	-95.2	-45.29	-53.01	-25	-28.01	H
7.606000	52.45	Pk	35.9	-95.2	-42.66	-49.51	-25	-24.51	V
7.615000	50.96	Pk	35.7	-95.2	-42.63	-51.17	-25	-26.17	H
9.986054	52.33	Pk	37.2	-95.2	-41.52	-47.19	-25	-22.19	V
10.127000	51.70	Pk	37.4	-95.2	-41.17	-47.27	-25	-22.27	H
High Channel, 2560MHz									
5.060500	53.64	Pk	34.3	-95.2	-45.21	-52.47	-25	-27.47	V
5.073500	53.55	Pk	34.3	-95.2	-45.16	-52.51	-25	-27.51	H
7.609000	51.74	Pk	35.8	-95.2	-42.66	-50.32	-25	-25.32	H
7.630000	50.77	Pk	35.8	-95.2	-42.54	-51.17	-25	-26.17	V
10.120500	51.04	Pk	37.4	-95.2	-41.02	-47.78	-25	-22.78	H
10.153000	51.21	Pk	37.5	-95.2	-41.56	-48.05	-25	-23.05	V

BPSK 5G NR n7 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/28/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n7 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2525MHz									
5.029500	56.30	Pk	33.9	-95.2	-48.15	-53.15	-25	-28.15	V
5.040500	56.62	Pk	33.9	-95.2	-48.15	-52.83	-25	-27.83	H
7.563500	54.48	Pk	35.6	-95.2	-46.32	-51.44	-25	-26.44	V
7.582000	53.99	Pk	35.6	-95.2	-46.34	-51.95	-25	-26.95	H
10.023500	55.60	Pk	37.1	-95.2	-46.31	-48.81	-25	-23.81	V
10.046500	57.23	Pk	37.1	-95.2	-46.58	-47.45	-25	-22.45	H
Mid Channel, 2535MHz									
5.090500	57.69	Pk	34.0	-95.2	-48.05	-51.56	-25	-26.56	H
5.095000	56.29	Pk	34.0	-95.2	-47.94	-52.85	-25	-27.85	V
7.599500	54.75	Pk	35.6	-95.2	-46.23	-51.08	-25	-26.08	V
7.615500	54.20	Pk	35.6	-95.2	-46.18	-51.58	-25	-26.58	H
10.148000	56.75	Pk	37.2	-95.2	-46.06	-47.31	-25	-22.31	H
10.168500	55.42	Pk	37.2	-95.2	-45.71	-48.29	-25	-23.29	V
High Channel, 2545MHz									
5.069000	56.07	Pk	33.9	-95.2	-48.27	-53.5	-25	-28.50	V
5.080500	55.96	Pk	34.0	-95.2	-47.99	-53.23	-25	-28.23	H
7.658000	54.14	Pk	35.7	-95.2	-46.01	-51.37	-25	-26.37	H
7.666000	54.03	Pk	35.7	-95.2	-46.10	-51.57	-25	-26.57	V
10.186000	55.85	Pk	37.2	-95.2	-45.75	-47.90	-25	-22.90	V
10.207000	55.60	Pk	37.2	-95.2	-45.12	-47.52	-25	-22.52	H

10.3.2. 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 #:	4790592300
Date:	3/27/2023
Test Engineer:	25019
Configuration:	EUT only
Mode	LTE12 QPSK 10MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 704MHz									
1.399148	57.12	Pk	28.5	-95.2	-48.20	-57.78	-13	-44.78	V
1.399396	57.47	Pk	28.5	-95.2	-48.20	-57.43	-13	-44.43	H
1.884172	60.11	Pk	31.3	-95.2	-49.20	-52.99	-13	-39.99	H
1.884404	60.55	Pk	31.3	-95.2	-49.19	-52.54	-13	-39.54	V
2.796362	58.06	Pk	32.2	-95.2	-48.74	-53.68	-13	-40.68	V
2.798313	58.44	Pk	32.2	-95.2	-48.95	-53.51	-13	-40.51	H
Mid Channel, 707.5MHz									
1.405947	58.81	Pk	28.5	-95.2	-48.16	-56.05	-13	-43.05	H
1.406234	59.50	Pk	28.5	-95.2	-48.15	-55.35	-13	-42.35	V
2.106808	59.77	Pk	31.3	-95.2	-49.41	-53.54	-13	-40.54	V
2.109111	59.52	Pk	31.3	-95.2	-49.30	-53.68	-13	-40.68	H
2.808446	58.60	Pk	32.2	-95.2	-48.75	-53.15	-13	-40.15	H
2.810431	59.34	Pk	32.2	-95.2	-48.65	-52.31	-13	-39.31	V
High Channel, 711MHz									
1.410595	59.00	Pk	28.5	-95.2	-48.16	-55.86	-13	-42.86	H
1.413604	60.29	Pk	28.5	-95.2	-48.14	-54.55	-13	-41.55	V
2.117765	60.33	Pk	31.3	-95.2	-49.34	-52.91	-13	-39.91	H
2.119144	60.48	Pk	31.3	-95.2	-49.37	-52.79	-13	-39.79	V
2.823234	58.86	Pk	32.2	-95.2	-48.71	-52.85	-13	-39.85	V
2.824812	58.84	Pk	32.2	-95.2	-48.63	-52.79	-13	-39.79	H

BPSK 5G NR n12 (15.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	7/7/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N12 BPSK 15MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 706.5MHz									
1.393750	55.59	Pk	28.5	-95.2	-46.12	-57.23	-13	-44.23	V
1.400050	56.13	Pk	28.4	-95.2	-46.14	-56.81	-13	-43.81	H
2.130850	56.36	Pk	31.6	-95.2	-46.31	-53.55	-13	-40.55	H
2.130850	55.66	Pk	31.6	-95.2	-46.31	-54.25	-13	-41.25	V
2.800450	54.27	Pk	32.4	-95.2	-45.77	-54.30	-13	-41.30	V
2.811250	54.87	Pk	32.4	-95.2	-45.79	-53.72	-13	-40.72	H
Mid Channel, 707.5MHz									
1.402300	55.42	Pk	28.3	-95.2	-46.11	-57.59	-13	-44.59	V
1.406350	55.66	Pk	28.1	-95.2	-46.04	-57.48	-13	-44.48	H
2.103850	56.56	Pk	31.8	-95.2	-46.74	-53.58	-13	-40.58	V
2.109250	55.57	Pk	31.7	-95.2	-46.70	-54.63	-13	-41.63	H
2.818900	54.61	Pk	32.5	-95.2	-45.80	-53.89	-13	-40.89	V
2.834650	54.98	Pk	32.5	-95.2	-45.91	-53.63	-13	-40.63	H
High Channel, 708.5MHz									
1.403650	56.18	Pk	28.2	-95.2	-46.1	-56.92	-13	-43.92	V
1.405450	55.54	Pk	28.2	-95.2	-46.06	-57.52	-13	-44.52	H
2.137150	56.05	Pk	31.6	-95.2	-46.12	-53.67	-13	-40.67	H
2.138500	56.31	Pk	31.6	-95.2	-46.16	-53.45	-13	-40.45	V
2.815750	54.54	Pk	32.5	-95.2	-46.00	-54.16	-13	-41.16	V
2.828800	54.42	Pk	32.5	-95.2	-46.01	-54.29	-13	-41.29	H

10.3.3. 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 #:	4790592300
Date:	3/30/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	LTE13 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.555296	59.95	Pk	27.3	-95.2	-48.75	-56.70	-40	-16.70	V
1.556639	59.61	Pk	27.3	-95.2	-48.87	-57.16	-40	-17.16	H
2.335849	59.30	Pk	32.2	-95.2	-48.71	-52.41	-13	-39.41	H
2.336162	59.05	Pk	32.2	-95.2	-48.70	-52.65	-13	-39.65	V
3.125541	56.80	Pk	33.1	-95.2	-46.08	-51.38	-13	-38.38	V
3.128733	56.73	Pk	33.1	-95.2	-46.10	-51.47	-13	-38.47	H

*** Emissions in the GPS band were wideband emissions therefore the -40dBm/MHz limit was used.**

10.3.4. 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 #:	4790592300
Date:	3/30/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE14 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.583353	60.23	Pk	27.3	-95.2	-48.76	-56.43	-40	-16.43	V
1.586045	60.44	Pk	27.3	-95.2	-48.72	-56.18	-40	-16.18	H
2.379358	60.14	Pk	32.4	-95.2	-49.10	-51.76	-13	-38.76	V
2.381809	59.65	Pk	32.4	-95.2	-49.10	-52.25	-13	-39.25	H
3.173473	57.09	Pk	33.1	-95.2	-46.70	-51.71	-13	-38.71	H
3.174554	57.24	Pk	33.0	-95.2	-46.68	-51.64	-13	-38.64	V

*** Emissions in the GPS band were wideband emissions therefore the -40dBm/MHz limit was used.**

BPSK 5G NR n14 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/10/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N14 BPSK 10MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1579.6	54.83	Pk	27.8	-95.2	-46.4	-58.97	-40	-18.97	V
1581.85	56.63	Pk	27.8	-95.2	-46.41	-57.18	-40	-17.18	H
2393.65	55.35	Pk	32.3	-95.2	-47.02	-54.57	-13	-41.57	H
2396.35	55.2	Pk	32.3	-95.2	-46.97	-54.67	-13	-41.67	V
3189.25	54.33	Pk	32.9	-95.2	-45.56	-53.53	-13	-40.53	H
3202.3	53.85	Pk	33	-95.2	-45.46	-53.81	-13	-40.81	V

*** Emissions in the GPS band were wideband emissions therefore the -40dBm/MHz limit was used.**

10.3.5. 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 #:	4790592300
Date:	6/16/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE17 QPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	172654 HPF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 709MHz										
1.417067	43.33	Pk	28.1	.9	-95.2	-35.18	-58.05	-13	-45.05	V
1.475874	50.45	Pk	27.8	.8	-95.2	-35.13	-51.28	-13	-38.28	H
2.117156	43.36	Pk	31.5	.5	-95.2	-35	-54.84	-13	-41.84	V
2.141111	42.50	Pk	31.6	.5	-95.2	-35.04	-55.64	-13	-42.64	H
2.822623	43.03	Pk	32.3	.5	-95.2	-34.55	-53.92	-13	-40.92	V
2.952178	43.61	Pk	32.6	.5	-95.2	-34.41	-52.90	-13	-39.9	H
Mid Channel, 710MHz										
1.419511	43.46	Pk	28.1	.9	-95.2	-35.25	-57.99	-13	-44.99	V
1.477980	50.82	Pk	27.8	.8	-95.2	-35.05	-50.83	-13	-37.83	H
2.124489	43.05	Pk	31.5	.5	-95.2	-35.08	-55.23	-13	-42.23	H
2.125467	43.35	Pk	31.5	.5	-95.2	-35.13	-54.98	-13	-41.98	V
2.829956	43.18	Pk	32.3	.5	-95.2	-34.54	-53.76	-13	-40.76	V
2.833378	42.49	Pk	32.3	.5	-95.2	-34.46	-54.37	-13	-41.37	H
High Channel, 711MHz										
1.415600	43.57	Pk	28.2	.9	-95.2	-35.22	-57.75	-13	-44.75	V
1.480927	49.59	Pk	27.8	.8	-95.2	-35.14	-52.15	-13	-39.15	H
2.136711	43.26	Pk	31.6	.5	-95.2	-34.98	-54.82	-13	-41.82	V
2.145511	43.92	Pk	31.6	.5	-95.2	-35.06	-54.24	-13	-41.24	H
2.830445	42.15	Pk	32.3	.5	-95.2	-34.54	-54.79	-13	-41.79	V
2.843645	41.99	Pk	32.3	.6	-95.2	-34.52	-54.83	-13	-41.83	H

10.3.6. 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 #:	4790592300
Date:	6/9/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE 25 QPSK 20MHz
Chamber #:	04-RDE-O

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.704500	53.08	Pk	33.6	-95.2	-44.71	-53.23	-13	-40.23	V
3.708500	53.31	Pk	33.6	-95.2	-44.86	-53.15	-13	-40.15	H
5.580000	53.79	Pk	34.8	-95.2	-44.12	-50.73	-13	-37.73	H
5.606688	61.67	Pk	34.8	-95.2	-43.88	-42.61	-13	-29.61	V
7.429000	51.07	Pk	35.9	-95.2	-42.35	-50.58	-13	-37.58	H
7.439000	51.48	Pk	35.8	-95.2	-42.27	-50.19	-13	-37.19	V
Mid Channel, 1882.5MHz									
3.791500	53.44	Pk	33.5	-95.2	-44.98	-53.24	-13	-40.24	H
3.795000	53.77	Pk	33.5	-95.2	-45.02	-52.95	-13	-39.95	V
5.618000	52.52	Pk	34.7	-95.2	-43.98	-51.96	-13	-38.96	H
5.674097	58.86	Pk	34.8	-95.2	-43.82	-45.36	-13	-32.36	V
7.547500	51.64	Pk	35.9	-95.2	-42.14	-49.80	-13	-36.80	H
7.548500	52.26	Pk	35.8	-95.2	-42.15	-49.29	-13	-36.29	V
High Channel, 1905MHz									
3.827500	54.05	Pk	33.8	-95.2	-44.92	-52.27	-13	-39.27	V
3.835500	53.91	Pk	33.8	-95.2	-44.95	-52.44	-13	-39.44	H
5.741500	53.27	Pk	34.9	-95.2	-43.66	-50.69	-13	-37.69	H
5.741500	53.42	Pk	34.9	-95.2	-43.66	-50.54	-13	-37.54	V
7.605000	50.09	Pk	35.9	-95.2	-42.01	-51.22	-13	-38.22	V
7.616000	51.77	Pk	35.7	-95.2	-41.97	-49.70	-13	-36.70	H

BPSK 5G NR n25 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/9/2023
Test Engineer:	19118
Configuration:	EUT only
Mode	N25 BPSK 40MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.729500	54.17	Pk	32.8	-95.2	-45.86	-54.09	-13	-41.09	H
3.767500	54.41	Pk	32.7	-95.2	-46.15	-54.24	-13	-41.24	V
5.552334	63.14	Pk	34.6	-95.2	-45.81	-43.27	-13	-30.27	V
5.617000	54.15	Pk	34.7	-95.2	-45.91	-52.26	-13	-39.26	H
7.458000	53.64	Pk	35.4	-95.2	-44.59	-50.75	-13	-37.75	H
7.493000	52.77	Pk	35.5	-95.2	-44.32	-51.25	-13	-38.25	V
Mid Channel, 1882.5MHz									
3.789500	55.11	Pk	32.8	-95.2	-46.13	-53.42	-13	-40.42	V
3.791500	54.89	Pk	32.8	-95.2	-46.14	-53.65	-13	-40.65	H
5.589929	66.07	Pk	34.6	-95.2	-45.88	-40.41	-13	-27.41	V
5.664000	54.70	Pk	34.7	-95.2	-45.76	-51.56	-13	-38.56	H
7.525000	53.38	Pk	35.5	-95.2	-43.90	-50.22	-13	-37.22	V
7.552000	53.25	Pk	35.5	-95.2	-43.91	-50.36	-13	-37.36	H
High Channel, 1895MHz									
3.777500	56.06	Pk	32.8	-95.2	-46.16	-52.50	-13	-39.50	V
3.791000	55.23	Pk	32.8	-95.2	-46.12	-53.29	-13	-40.29	H
5.627500	57.77	Pk	34.7	-95.2	-45.89	-48.62	-13	-35.62	H
5.627500	56.46	Pk	34.7	-95.2	-45.89	-49.93	-13	-36.93	V
7.559000	52.45	Pk	35.5	-95.2	-44.02	-51.27	-13	-38.27	H
7.602000	54.17	Pk	35.5	-95.2	-44.29	-49.82	-13	-36.82	V

10.3.7. 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 #:	4790592300
Date:	4/5/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-J

Frequency (GHz)	Meter Reading (dBuV)	Det	222741 ACF(dB) - 3mH	Amp/Cbl (dB)	172654 HPF (dB)	EIRP CF	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz										
1.629245	54.36	Pk	28.2	-43.2	.7	-95.2	-55.14	-13	-42.14	H
2.443734	54.68	Pk	32.1	-45.4	.6	-95.2	-53.22	-13	-40.22	H
3.277778	53.78	Pk	32.8	-45.2	.5	-95.2	-53.32	-13	-40.32	H
1.629245	51.86	Pk	28.2	-43.2	.7	-95.2	-57.64	-13	-44.64	V
2.443734	53.68	Pk	32.1	-45.4	.6	-95.2	-54.22	-13	-41.22	V
3.277778	53.06	Pk	32.8	-45.2	.5	-95.2	-54.04	-13	-41.04	V

BPSK 5G NR n26 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/5/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N26 BPSK 10MHz
Chamber #:	04-RDE-J

Frequency (GHz)	Meter Reading (dBuV)	Det	222741 ACF(dB) - 3mH	Amp/Cbl (dB)	172654 HPF (dB)	EIRP CF	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz										
1.629245	54.36	Pk	28.2	-43.2	.7	-95.2	-55.14	-13	-42.14	H
2.443734	54.68	Pk	32.1	-45.4	.6	-95.2	-53.22	-13	-40.22	H
3.277778	53.78	Pk	32.8	-45.2	.5	-95.2	-53.32	-13	-40.32	H
1.629245	51.86	Pk	28.2	-43.2	.7	-95.2	-57.64	-13	-44.64	V
2.443734	53.68	Pk	32.1	-45.4	.6	-95.2	-54.22	-13	-41.22	V
3.277778	53.06	Pk	32.8	-45.2	.5	-95.2	-54.04	-13	-41.04	V

10.3.8. 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)

QPSK LTE BAND 26 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/28/2023
Test Engineer:	12501
Configuration:	EUT only
Mode	LTE 26 QPSK 10MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 834.0MHz									
1.664650	57.83	Pk	28.3	-95.2	-48.70	-57.77	-13	-44.77	H
1.672300	58.67	Pk	28.4	-95.2	-48.67	-56.80	-13	-43.80	V
2.480500	57.81	Pk	32.5	-95.2	-48.24	-53.13	-13	-40.13	V
2.494450	57.96	Pk	32.5	-95.2	-48.26	-53.00	-13	-40.00	H
3.318400	55.86	Pk	32.9	-95.2	-46.20	-52.64	-13	-39.64	H
3.318400	55.00	Pk	32.9	-95.2	-46.20	-53.50	-13	-40.50	V
Mid Channel, 836.5MHz									
1.666000	58.14	Pk	28.3	-95.2	-48.73	-57.49	-13	-44.49	H
1.670050	58.87	Pk	28.4	-95.2	-48.74	-56.67	-13	-43.67	V
2.497600	57.87	Pk	32.6	-95.2	-48.15	-52.88	-13	-39.88	H
2.500300	58.14	Pk	32.6	-95.2	-48.06	-52.52	-13	-39.52	V
3.328300	55.56	Pk	32.9	-95.2	-45.94	-52.68	-13	-39.68	V
3.337300	55.07	Pk	32.9	-95.2	-45.91	-53.14	-13	-40.14	H
High Channel, 839.0Hz									
1.674550	58.07	Pk	28.4	-95.2	-48.70	-57.43	-13	-44.43	V
1.682200	58.12	Pk	28.5	-95.2	-48.75	-57.33	-13	-44.33	H
2.501200	58.13	Pk	32.6	-95.2	-48.01	-52.48	-13	-39.48	V
2.511100	57.73	Pk	32.6	-95.2	-47.87	-52.74	-13	-39.74	H
3.335950	55.59	Pk	32.9	-95.2	-46.07	-52.78	-13	-39.78	V
3.344500	54.75	Pk	32.9	-95.2	-45.99	-53.54	-13	-40.54	H

BPSK 5G NR n26 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/27/2023
Test Engineer:	32268
Configuration:	EUT only
Mode	N26 BPSK 20MHz
Chamber #:	05-RDE-D

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
Low Channel, 831.5MHz										
1.670311	36.74	Pk	28.5	.7	-95.2	-28.87	-58.13	-13	-45.13	H
1.677645	38.09	Pk	28.6	.7	-95.2	-28.76	-56.57	-13	-43.57	V
2.529778	36.70	Pk	32.2	.8	-95.2	-27.36	-52.86	-13	-39.86	V
2.531734	36.85	Pk	32.2	.7	-95.2	-27.38	-52.83	-13	-39.83	H
3.303689	35.81	Pk	32.7	.7	-95.2	-26.14	-52.13	-13	-39.13	H
3.310045	35.17	Pk	32.7	.7	-95.2	-26.26	-52.89	-13	-39.89	V
Mid Channel, 836.5MHz										
1.668356	37.49	Pk	28.5	.7	-95.2	-28.75	-57.26	-13	-44.26	H
1.672267	37.74	Pk	28.6	.7	-95.2	-28.81	-56.97	-13	-43.97	V
2.488223	35.87	Pk	32.2	.5	-95.2	-27.58	-54.21	-13	-41.21	V
2.493600	37.01	Pk	32.2	.6	-95.2	-27.56	-52.95	-13	-39.95	H
3.328134	34.54	Pk	32.6	.6	-95.2	-26.2	-53.66	-13	-40.66	V
3.338889	36.38	Pk	32.5	.5	-95.2	-26.31	-52.13	-13	-39.13	H
High Channel, 841.5MHz										
1.660045	37.08	Pk	28.5	.8	-95.2	-28.83	-57.65	-13	-44.65	V
1.666400	36.96	Pk	28.5	.7	-95.2	-28.80	-57.84	-13	-44.84	H
2.501911	35.50	Pk	32.2	.6	-95.2	-27.56	-54.46	-13	-41.46	H
2.502889	35.35	Pk	32.2	.6	-95.2	-27.54	-54.59	-13	-41.59	V
3.330578	36.40	Pk	32.6	.5	-95.2	-26.31	-52.01	-13	-39.01	V
3.331067	34.78	Pk	32.6	.5	-95.2	-26.32	-53.64	-13	-40.64	H

10.3.9. 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 #:	4790592300
Date:	3/9/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 30 QPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	81886 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.587188	30.62	RMS	34.1	-95.2	-29.61	-60.09	-40	-20.09	V
4.619063	29.76	RMS	34.3	-95.2	-29.07	-60.21	-40	-20.21	H
6.93375	27.26	RMS	35.8	-95.2	-26.43	-58.57	-40	-18.57	V
6.945938	26.5	RMS	35.7	-95.2	-26.46	-59.46	-40	-19.46	H
9.243281	24.96	RMS	36.4	-95.2	-23.71	-57.55	-40	-17.55	H
9.243281	25.16	RMS	36.4	-95.2	-23.71	-57.35	-40	-17.35	V

BPSK 5G NR n30 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/4/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N30 BPSK 10MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.581343	47.55	Pk	33.8	-95.2	-47.68	-61.53	-40	-21.53	V
4.592621	47.69	Pk	33.8	-95.2	-47.72	-61.43	-40	-21.43	H
6.953036	45.35	Pk	35.5	-95.2	-45.17	-59.52	-40	-19.52	H
6.959900	44.76	Pk	35.5	-95.2	-45.23	-60.17	-40	-20.17	V
9.209012	44.01	Pk	36.2	-95.2	-43.38	-58.37	-40	-18.37	V
9.245786	44.10	Pk	36.2	-95.2	-43.38	-58.28	-40	-18.28	H

10.3.10. 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 #:	4790592300
Date:	3/13/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE 41 QPSK 20MHz
Chamber #:	01-RDE-B

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
Low Channel, 2506MHz										
5.006719	37.32	Pk	34.1	.8	-95.2	-30.86	-53.84	-25	-28.84	V
5.015625	36.61	Pk	34.1	.8	-95.2	-30.73	-54.42	-25	-29.42	H
7.522031	33.84	Pk	36.0	.3	-95.2	-27.06	-52.12	-25	-27.12	H
7.522031	32.67	Pk	36.0	.3	-95.2	-27.06	-53.29	-25	-28.29	V
10.003594	31.25	Pk	37.3	.6	-95.2	-24.79	-50.84	-25	-25.84	V
10.020938	31.70	Pk	37.3	.6	-95.2	-24.98	-50.58	-25	-25.58	H
Mid Channel, 2593MHz										
5.164219	36.22	Pk	34.7	.7	-95.2	-30.45	-54.03	-25	-29.03	V
5.182031	36.81	Pk	34.8	.7	-95.2	-30.60	-53.49	-25	-28.49	H
7.758281	34.58	Pk	35.9	.3	-95.2	-27.05	-51.47	-25	-26.47	V
7.771406	34.52	Pk	36.0	.3	-95.2	-26.95	-51.33	-25	-26.33	H
10.371094	32.08	Pk	37.4	.8	-95.2	-24.99	-49.91	-25	-24.91	H
10.406719	31.87	Pk	37.4	.8	-95.2	-24.69	-49.82	-25	-24.82	V
High Channel, 2680MHz										
5.353594	35.68	Pk	34.4	.5	-95.2	-30.09	-54.71	-25	-29.71	V
5.362969	37.12	Pk	34.4	.5	-95.2	-30.19	-53.37	-25	-28.37	H
8.015625	33.93	Pk	35.7	.3	-95.2	-26.67	-51.94	-25	-26.94	V
8.043281	32.39	Pk	35.8	.4	-95.2	-26.52	-53.13	-25	-28.13	H
10.733438	31.51	Pk	37.8	.7	-95.2	-24.01	-49.20	-25	-24.20	H
10.733438	31.53	Pk	37.8	.7	-95.2	-24.01	-49.18	-25	-24.18	V

BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/4/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N41 BPSK 100MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2546MHz									
5.109000	56.39	Pk	34.0	-95.2	-47.97	-52.78	-25	-27.78	V
5.117000	56.69	Pk	34.0	-95.2	-47.96	-52.47	-25	-27.47	H
7.654000	54.20	Pk	35.7	-95.2	-46.01	-51.31	-25	-26.31	H
7.671000	54.56	Pk	35.7	-95.2	-46.14	-51.08	-25	-26.08	V
10.156000	57.82	Pk	37.2	-95.2	-45.90	-46.08	-25	-21.08	V
10.164500	56.53	Pk	37.2	-95.2	-45.60	-47.07	-25	-22.07	H
Mid Channel, 2593MHz									
5.209500	55.68	Pk	34.1	-95.2	-47.66	-53.08	-25	-28.08	V
5.212500	56.00	Pk	34.1	-95.2	-47.82	-52.92	-25	-27.92	H
7.760000	54.46	Pk	35.7	-95.2	-46.15	-51.19	-25	-26.19	V
7.785000	54.14	Pk	35.7	-95.2	-46.09	-51.45	-25	-26.45	H
10.341000	55.16	Pk	37.3	-95.2	-45.66	-48.4	-25	-23.4	V
10.363500	54.44	Pk	37.3	-95.2	-45.78	-49.24	-25	-24.24	H
High Channel, 2640MHz									
5.286500	55.41	Pk	34.3	-95.2	-47.79	-53.28	-25	-28.28	V
5.291500	55.81	Pk	34.3	-95.2	-47.83	-52.92	-25	-27.92	H
7.948500	53.68	Pk	35.8	-95.2	-45.12	-50.84	-25	-25.84	H
7.966000	53.65	Pk	35.8	-95.2	-45.06	-50.81	-25	-25.81	V
10.546000	53.94	Pk	37.4	-95.2	-44.18	-48.04	-25	-23.04	H
10.579000	53.71	Pk	37.4	-95.2	-44.47	-48.56	-25	-23.56	V

10.3.11. 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 #:	4790592300
Date:	7/7/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE 66 QPSK 20MHz
Chamber #:	04-RDE-O

Frequency (MHz)	Meter Reading (dBuV)	Det	80404_ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.461500	53.89	Pk	33	-95.2	-44.89	-53.20	-13	-40.20	H
3.474000	53.15	Pk	33	-95.2	-44.92	-53.97	-13	-40.97	V
5.138000	53.8	Pk	34.4	-95.2	-45.28	-52.28	-13	-39.28	H
5.139000	53.26	Pk	34.4	-95.2	-45.29	-52.83	-13	-39.83	V
6.850000	52.14	Pk	35.9	-95.2	-43.05	-50.21	-13	-37.21	V
6.872000	51.70	Pk	36.2	-95.2	-42.92	-50.22	-13	-37.22	H
Mid Channel, 1745MHz									
3.501000	53.18	Pk	35	-95.2	-44.90	-51.92	-13	-38.92	V
3.506500	53.39	Pk	34.4	-95.2	-44.85	-52.26	-13	-39.26	H
5.246500	53.33	Pk	34.6	-95.2	-44.96	-52.23	-13	-39.23	H
5.253000	52.61	Pk	34.6	-95.2	-44.99	-52.98	-13	-39.98	V
6.959500	51.48	Pk	35.9	-95.2	-42.88	-50.70	-13	-37.70	H
6.987500	51.04	Pk	35.8	-95.2	-42.72	-51.08	-13	-38.08	V
High Channel, 1770MHz									
3.554000	53.64	Pk	33.1	-95.2	-44.75	-53.21	-13	-40.21	V
3.560500	54.15	Pk	33.0	-95.2	-44.73	-52.78	-13	-39.78	H
5.293500	53.02	Pk	34.6	-95.2	-44.88	-52.46	-13	-39.46	V
5.313500	53.64	Pk	34.6	-95.2	-44.85	-51.81	-13	-38.81	H
7.074500	51.87	Pk	35.9	-95.2	-42.47	-49.90	-13	-36.90	H
7.085500	50.62	Pk	35.9	-95.2	-42.42	-51.10	-13	-38.10	V

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/30/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N66 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.482000	53.96	Pk	32.8	-95.2	-45.96	-54.4	-13	-41.40	H
3.485500	53.53	Pk	32.8	-95.2	-45.84	-54.71	-13	-41.71	V
5.195500	55.76	Pk	34.1	-95.2	-47.79	-53.13	-13	-40.13	V
5.210500	55.26	Pk	34.1	-95.2	-47.78	-53.62	-13	-40.62	H
6.898000	53.88	Pk	35.5	-95.2	-44.92	-50.74	-13	-37.74	V
6.926500	53.82	Pk	35.5	-95.2	-45.01	-50.89	-13	-37.89	H
Mid Channel, 1745MHz									
3.468500	54.07	Pk	32.8	-95.2	-45.93	-54.26	-13	-41.26	H
3.476500	53.30	Pk	32.8	-95.2	-46.03	-55.13	-13	-42.13	V
5.212500	56.21	Pk	34.1	-95.2	-47.74	-52.63	-13	-39.63	V
5.227000	56.39	Pk	34.2	-95.2	-47.72	-52.33	-13	-39.33	H
6.969500	53.71	Pk	35.5	-95.2	-45.00	-50.99	-13	-37.99	H
6.972500	53.3	Pk	35.5	-95.2	-45.06	-51.46	-13	-38.46	V
High Channel, 1760MHz									
3.535000	55.70	Pk	32.9	-95.2	-46.29	-52.89	-13	-39.89	H
3.541500	54.72	Pk	32.9	-95.2	-46.18	-53.76	-13	-40.76	V
5.295000	56.36	Pk	34.3	-95.2	-47.77	-52.31	-13	-39.31	H
5.306000	55.33	Pk	34.3	-95.2	-47.66	-53.23	-13	-40.23	V
7.032000	54.06	Pk	35.6	-95.2	-45.12	-50.66	-13	-37.66	H
7.047000	54.01	Pk	35.6	-95.2	-45.28	-50.87	-13	-37.87	V

10.3.12. 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)

Project #:	4790592300
Date:	4/3/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N70 BPSK 15MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 1702.5MHz									
3.389000	54.75	Pk	32.8	-95.2	-46.02	-53.67	-13	-40.67	V
3.404500	54.77	Pk	32.8	-95.2	-46.13	-53.76	-13	-40.76	H
5.115500	55.66	Pk	34	-95.2	-47.88	-53.42	-13	-40.42	V
5.125000	57.13	Pk	34	-95.2	-47.84	-51.91	-13	-38.91	H
6.816000	53.19	Pk	35.5	-95.2	-44.86	-51.37	-13	-38.37	V
6.817000	53.26	Pk	35.5	-95.2	-44.86	-51.3	-13	-38.3	H

10.3.13. 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 #:	4790592300
Date:	3/30/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	LTE 71 QPSK 20MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz									
1.347351	60.98	Pk	29.2	-95.2	-48.77	-53.79	-13	-40.79	H
1.348848	61.16	Pk	29.1	-95.2	-48.77	-53.71	-13	-40.71	V
2.018061	61.26	Pk	31.5	-95.2	-49.06	-51.5	-13	-38.50	H
2.020641	60.45	Pk	31.5	-95.2	-49.00	-52.25	-13	-39.25	V
2.691064	59.10	Pk	32.1	-95.2	-47.67	-51.67	-13	-38.67	H
2.694859	59.05	Pk	32.1	-95.2	-47.49	-51.54	-13	-38.54	V
Mid Channel, 680.5MHz									
1.360143	59.01	Pk	29	-95.2	-48.65	-55.84	-13	-42.84	H
1.364272	59.27	Pk	28.9	-95.2	-48.72	-55.75	-13	-42.75	V
2.044072	61.08	Pk	31.6	-95.2	-48.92	-51.44	-13	-38.44	H
2.044729	61.29	Pk	31.6	-95.2	-48.79	-51.1	-13	-38.10	V
2.725581	57.96	Pk	32.1	-95.2	-47.22	-52.36	-13	-39.36	V
2.725586	58.09	Pk	32.1	-95.2	-47.22	-52.23	-13	-39.23	H
High Channel, 688MHz									
1.377456	59.42	Pk	28.9	-95.2	-48.69	-55.57	-13	-42.57	H
1.378645	59.40	Pk	28.9	-95.2	-48.71	-55.61	-13	-42.61	V
1.860958	61.66	Pk	31.1	-95.2	-48.94	-51.38	-13	-38.38	V
1.862751	61.27	Pk	31.1	-95.2	-48.73	-51.56	-13	-38.56	H
2.750878	58.73	Pk	32.1	-95.2	-47.77	-52.14	-13	-39.14	H
2.752433	58.89	Pk	32.2	-95.2	-47.80	-51.91	-13	-38.91	V

BPSK 5G NR n71 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/5/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	N71 BPSK 20MHz
Chamber #:	04-RDE-J

Frequency (GHz)	Meter Reading (dBuV)	Det	222741 ACF (dB) - 3mH	Amp/Cbl (dB)	172654 HPF (dB)	EIRP CF	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz										
1.360356	51.29	Pk	28.5	-42.1	1.1	-95.2	-56.41	-13	-43.41	H
2.002267	54.26	Pk	31.2	-44.5	.6	-95.2	-53.64	-13	-40.64	H
2.707245	54.13	Pk	32.1	-45.7	.6	-95.2	-54.07	-13	-41.07	H
1.360356	51.74	Pk	28.5	-42.1	1.1	-95.2	-55.96	-13	-42.96	V
2.001778	54.24	Pk	31.2	-44.5	.6	-95.2	-53.66	-13	-40.66	V
2.708223	54.50	Pk	32.1	-45.6	.6	-95.2	-53.60	-13	-40.60	V
Mid Channel, 680.5MHz										
1.342267	52.51	Pk	28.7	-42.1	1.3	-95.2	-54.79	-13	-41.79	H
2.047734	54.00	Pk	31.4	-44.7	.6	-95.2	-53.9	-13	-40.9	H
2.714578	53.80	Pk	32.1	-45.7	.6	-95.2	-54.4	-13	-41.4	H
1.342267	51.61	Pk	28.7	-42.1	1.3	-95.2	-55.69	-13	-42.69	V
2.054578	53.80	Pk	31.4	-44.8	.6	-95.2	-54.2	-13	-41.2	V
2.710667	54.32	Pk	32.1	-45.8	.6	-95.2	-53.98	-13	-40.98	V
High Channel, 1760MHz										
1.358400	52.12	Pk	28.5	-42.1	1.1	-95.2	-55.58	-13	-42.58	H
2.055067	53.92	Pk	31.4	-44.7	.6	-95.2	-53.98	-13	-40.98	H
2.765911	53.24	Pk	32.1	-45.6	.5	-95.2	-54.96	-13	-41.96	H
1.363289	51.77	Pk	28.5	-42.0	1.1	-95.2	-55.83	-13	-42.83	V
2.060934	54.48	Pk	31.4	-44.8	.6	-95.2	-53.52	-13	-40.52	V
2.770800	54.00	Pk	32.1	-45.5	.5	-95.2	-54.10	-13	-41.10	V

10.4. FIELD STRENGTH OF SPURIOUS RADIATION, ANT4

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

10.4.1. 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 #:	4790592300
Date:	03/13/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE7 QPSK 20MHz
Chamber #:	01-RDE-B

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
Low Channel, 2510MHz										
5.003906	39.04	Pk	34.1	.8	-95.2	-31.01	-52.27	-25	-27.27	V
5.028750	39.07	Pk	34.1	.7	-95.2	-30.91	-52.24	-25	-27.24	H
7.515469	37.55	Pk	36.0	.3	-95.2	-26.94	-48.29	-25	-23.29	V
7.529531	36.86	Pk	36.0	.3	-95.2	-27.05	-49.09	-25	-24.09	H
10.023281	35.12	Pk	37.3	.6	-95.2	-25.02	-47.2	-25	-22.20	V
10.046719	35.18	Pk	37.3	.7	-95.2	-25.14	-47.16	-25	-22.16	H
Mid Channel, 2535MHz										
5.057344	40.38	Pk	34.2	.6	-95.2	-30.94	-50.96	-25	-25.96	V
5.077969	39.13	Pk	34.3	.7	-95.2	-30.8	-51.87	-25	-26.87	H
7.568438	36.20	Pk	36.0	.4	-95.2	-27.16	-49.76	-25	-24.76	V
7.609688	36.08	Pk	35.9	.4	-95.2	-27.18	-50.00	-25	-25.00	H
10.133906	35.29	Pk	37.5	.7	-95.2	-25.06	-46.77	-25	-21.77	H
10.159219	35.76	Pk	37.6	.6	-95.2	-25.09	-46.33	-25	-21.33	V
High Channel, 2560MHz										
5.090156	39.47	Pk	34.4	.8	-95.2	-30.65	-51.18	-25	-26.18	V
5.118281	39.30	Pk	34.6	.8	-95.2	-30.82	-51.32	-25	-26.32	H
7.700625	36.02	Pk	36.0	.5	-95.2	-26.88	-49.56	-25	-24.56	H
7.713750	36.33	Pk	36.0	.4	-95.2	-26.82	-49.29	-25	-24.29	V
10.257188	37.03	Pk	37.6	.7	-95.2	-24.89	-44.76	-25	-19.76	H
10.257188	34.96	Pk	37.6	.7	-95.2	-24.89	-46.83	-25	-21.83	V

BPSK 5G NR 7 (50.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/28/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n7 BPSK 50MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2525MHz									
5.040000	56.44	Pk	33.9	-95.2	-48.19	-53.05	-25	-28.05	H
5.047500	56.11	Pk	33.9	-95.2	-48.19	-53.38	-25	-28.38	V
7.551000	55.3	Pk	35.6	-95.2	-46.27	-50.57	-25	-25.57	V
7.556000	54.64	Pk	35.6	-95.2	-46.29	-51.25	-25	-26.25	H
10.073000	56.52	Pk	37.1	-95.2	-46.65	-48.23	-25	-23.23	H
10.088000	56.68	Pk	37.1	-95.2	-46.6	-48.02	-25	-23.02	V
Mid Channel, 2535MHz									
5.079500	56.03	Pk	34.0	-95.2	-48.01	-53.18	-25	-28.18	V
5.085500	57.95	Pk	34.0	-95.2	-48.14	-51.39	-25	-26.39	H
7.594000	54.43	Pk	35.6	-95.2	-46.2	-51.37	-25	-26.37	V
7.622000	54.35	Pk	35.6	-95.2	-46.03	-51.28	-25	-26.28	H
10.165000	56.08	Pk	37.2	-95.2	-45.65	-47.57	-25	-22.57	H
10.170000	55.69	Pk	37.2	-95.2	-45.73	-48.04	-25	-23.04	V
High Channel, 2545MHz									
5.096500	55.71	Pk	34.0	-95.2	-47.89	-53.38	-25	-28.38	V
5.102000	57.75	Pk	34.0	-95.2	-47.92	-51.37	-25	-26.37	H
7.6485000	54.09	Pk	35.7	-95.2	-45.99	-51.40	-25	-26.40	H
7.656000	54.14	Pk	35.7	-95.2	-46.02	-51.38	-25	-26.38	V
10.225000	55.53	Pk	37.2	-95.2	-44.86	-47.33	-25	-22.33	H
10.2505000	55.45	Pk	37.3	-95.2	-45.42	-47.87	-25	-22.87	V

10.4.2. 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 #:	4790592300
Date:	03/24/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	LTE25 QPSK 20MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.732000	53.50	Pk	33.1	-95.2	-45.61	-54.21	-13	-41.21	V
3.737000	53.49	Pk	33.1	-95.2	-45.39	-54.00	-13	-41.00	H
5.575500	55.54	Pk	34.4	-95.2	-46.93	-52.19	-13	-39.19	H
5.582500	55.69	Pk	34.4	-95.2	-46.88	-51.99	-13	-38.99	V
7.426500	54.38	Pk	35.7	-95.2	-46.06	-51.18	-13	-38.18	V
7.427000	54.81	Pk	35.7	-95.2	-46.01	-50.70	-13	-37.70	H
Mid Channel, 1882.5MHz									
3.754000	54.33	Pk	33.2	-95.2	-45.84	-53.51	-13	-40.51	H
3.761500	53.37	Pk	33.2	-95.2	-45.73	-54.36	-13	-41.36	V
5.608500	55.02	Pk	34.4	-95.2	-46.68	-52.46	-13	-39.46	V
5.626500	55.04	Pk	34.4	-95.2	-46.70	-52.46	-13	-39.46	H
7.513500	55.67	Pk	35.6	-95.2	-46.17	-50.10	-13	-37.10	H
7.519500	54.33	Pk	35.6	-95.2	-46.09	-51.36	-13	-38.36	V
High Channel, 1905MHz									
3.783000	54.10	Pk	33.2	-95.2	-46.00	-53.90	-13	-40.90	V
3.788000	54.53	Pk	33.2	-95.2	-45.71	-53.18	-13	-40.18	H
5.737000	54.26	Pk	34.6	-95.2	-46.44	-52.78	-13	-39.78	V
5.739000	54.71	Pk	34.6	-95.2	-46.36	-52.25	-13	-39.25	H
7.622500	55.12	Pk	35.6	-95.2	-45.94	-50.42	-13	-37.42	V
7.628500	54.70	Pk	35.7	-95.2	-45.98	-50.78	-13	-37.78	H

BPSK 5G NR 25 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/29/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n25 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.757500	53.64	Pk	33.2	-95.2	-45.66	-54.02	-13	-41.02	H
3.771000	53.93	Pk	33.2	-95.2	-45.96	-54.03	-13	-41.03	V
5.603000	55.88	Pk	34.4	-95.2	-46.66	-51.58	-13	-38.58	H
5.616000	54.79	Pk	34.4	-95.2	-46.44	-52.45	-13	-39.45	V
7.459000	54.84	Pk	35.7	-95.2	-46.05	-50.71	-13	-37.71	H
7.488500	55.60	Pk	35.7	-95.2	-46.08	-49.98	-13	-36.98	V
Mid Channel, 1882.5MHz									
3.773500	53.46	Pk	33.2	-95.2	-45.66	-54.20	-13	-41.20	V
3.777000	54.05	Pk	33.2	-95.2	-45.71	-53.66	-13	-40.66	H
5.673500	54.67	Pk	34.5	-95.2	-46.49	-52.52	-13	-39.52	V
5.675500	54.77	Pk	34.5	-95.2	-46.42	-52.35	-13	-39.35	H
7.499000	54.59	Pk	35.6	-95.2	-46.24	-51.25	-13	-38.25	V
7.515500	54.67	Pk	35.6	-95.2	-46.07	-51.00	-13	-38.00	H
High Channel, 1895MHz									
3.778000	54.14	Pk	33.2	-95.2	-45.74	-53.6	-13	-40.60	H
3.784000	53.61	Pk	33.2	-95.2	-46.04	-54.43	-13	-41.43	V
5.682500	54.68	Pk	34.5	-95.2	-46.55	-52.57	-13	-39.57	H
5.703500	54.33	Pk	34.5	-95.2	-46.51	-52.88	-13	-39.88	V
7.578500	55.04	Pk	35.6	-95.2	-45.99	-50.55	-13	-37.55	H
7.606000	54.36	Pk	35.6	-95.2	-46.13	-51.37	-13	-38.37	V

10.4.3. 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 #:	4790592300
Date:	3/9/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE30 QPSK 10MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	81886 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.603125	29.68	RMS	34.2	-95.2	-29.37	-60.69	-40	-20.69	V
4.619063	29.25	RMS	34.3	-95.2	-29.07	-60.72	-40	-20.72	H
6.874688	26.5	RMS	36	-95.2	-26.52	-59.22	-40	-19.22	V
6.922031	26.2	RMS	35.8	-95.2	-26.48	-59.68	-40	-19.68	H
9.211875	25.49	RMS	36.3	-95.2	-23.75	-57.16	-40	-17.16	V
9.227344	25.35	RMS	36.4	-95.2	-23.79	-57.24	-40	-17.24	H

BPSK 5G NR 30 (10.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/4/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n30 BPSK 10MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.610763	48.00	Pk	33.8	-95.2	-47.73	-61.13	-40	-21.13	V
4.630866	47.62	Pk	33.8	-95.2	-47.66	-61.44	-40	-21.44	H
6.937345	44.73	Pk	35.5	-95.2	-44.92	-59.89	-40	-19.89	H
6.941268	45.07	Pk	35.5	-95.2	-45.04	-59.67	-40	-19.67	V
9.334535	44.66	Pk	36.3	-95.2	-43.63	-57.87	-40	-17.87	V
9.353167	45.29	Pk	36.3	-95.2	-43.52	-57.13	-40	-17.13	H

10.4.4. 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 (20MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/13/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE41 QPSK 20MHz
Chamber #:	01-RDE-B

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
Low Channel, 2506MHz										
4.989844	40.75	Pk	34.1	.7	-95.2	-31.15	-50.80	-25	-25.80	V
4.998281	38.84	Pk	34.1	.8	-95.2	-31.01	-52.47	-25	-27.47	H
7.487813	36.07	Pk	36.0	.3	-95.2	-26.89	-49.72	-25	-24.72	V
7.521094	35.80	Pk	36.0	.3	-95.2	-26.98	-50.08	-25	-25.08	H
10.026094	35.47	Pk	37.3	.7	-95.2	-25.08	-46.81	-25	-21.81	H
10.095938	35.83	Pk	37.4	.6	-95.2	-25.20	-46.57	-25	-21.57	V
Mid Channel, 2593MHz										
5.186719	39.40	Pk	34.8	.8	-95.2	-30.62	-50.82	-25	-25.82	H
5.202656	39.29	Pk	34.8	.9	-95.2	-30.49	-50.70	-25	-25.70	V
7.778438	36.10	Pk	36.0	.3	-95.2	-27.06	-49.86	-25	-24.86	H
7.785469	36.72	Pk	36.0	.4	-95.2	-26.97	-49.05	-25	-24.05	V
10.320469	35.21	Pk	37.5	.6	-95.2	-25.15	-47.04	-25	-22.04	V
10.377188	35.57	Pk	37.4	.8	-95.2	-24.97	-46.40	-25	-21.40	H
High Channel, 2680MHz										
5.376563	37.24	Pk	34.5	.6	-95.2	-30.43	-53.29	-25	-28.29	H
5.892232	40.51	Pk	35.3	.4	-95.2	-29.18	-48.17	-25	-23.17	V
8.018906	36.16	Pk	35.8	.3	-95.2	-26.61	-49.55	-25	-24.55	V
8.045156	36.52	Pk	35.8	.4	-95.2	-26.50	-48.98	-25	-23.98	H
10.711875	34.16	Pk	37.7	.5	-95.2	-24.02	-46.86	-25	-21.86	V
10.716563	34.67	Pk	37.7	.6	-95.2	-24.01	-46.24	-25	-21.24	H

BPSK 5G NR n41 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	03/10/2023
Test Engineer:	27661
Configuration:	EUT only
Mode	n41 BPSK 100MHz
Chamber #:	Chamber 5-D

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2546MHz									
5.071500	57.57	Pk	34.5	-95.2	-47.88	-51.01	-25	-26.01	V
5.089500	57.10	Pk	34.5	-95.2	-47.66	-51.26	-25	-26.26	H
7.638000	54.93	Pk	35.7	-95.2	-45.65	-50.22	-25	-25.22	V
7.648500	55.40	Pk	35.7	-95.2	-45.50	-49.6	-25	-24.60	H
10.187500	53.94	Pk	37.5	-95.2	-45.24	-49.00	-25	-24.00	H
10.1875000	54.33	Pk	37.5	-95.2	-45.24	-48.61	-25	-23.61	V
Mid Channel, 2593MHz									
5.181000	55.94	Pk	34.5	-95.2	-47.21	-51.97	-25	-26.97	V
5.182000	55.64	Pk	34.5	-95.2	-47.18	-52.24	-25	-27.24	H
7.791500	53.94	Pk	35.8	-95.2	-45.42	-50.88	-25	-25.88	H
7.808500	54.39	Pk	35.7	-95.2	-45.48	-50.59	-25	-25.59	V
10.331000	54.83	Pk	37.6	-95.2	-45.05	-47.82	-25	-22.82	V
10.369000	54.48	Pk	37.6	-95.2	-44.91	-48.03	-25	-23.03	H
High Channel, 2640MHz									
5.280503	56.95	Pk	34.3	-95.2	-47.87	-51.82	-25	-26.82	H
5.281876	57.24	Pk	34.3	-95.2	-47.92	-51.58	-25	-26.58	V
7.918038	54.98	Pk	35.8	-95.2	-45.46	-49.88	-25	-24.88	V
7.920686	55.03	Pk	35.8	-95.2	-45.44	-49.81	-25	-24.81	H
10.560957	55.21	Pk	37.4	-95.2	-44.48	-47.07	-25	-22.07	V
10.561093	55.75	Pk	37.4	-95.2	-44.48	-46.53	-25	-21.53	H

10.4.5. LTE BAND 48 AND 5G NR n48

LIMITS

FCC: §96.41
(e) 3.5 GHz Emissions and Interference Limits—
(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

QPSK LTE BAND 48 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/7/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE48 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3560MHz										
7.096294	25.24	RMS	35.7	.5	-95.2	-27.26	-61.02	-40	-21.02	V
7.122731	25.50	RMS	35.7	.5	-95.2	-27.20	-60.70	-40	-20.70	H
10.667559	22.67	RMS	37.8	.6	-95.2	-24.53	-58.66	-40	-18.66	V
10.680778	22.54	RMS	37.8	.6	-95.2	-24.49	-58.75	-40	-18.75	H
14.217675	20.38	RMS	39.3	.8	-95.2	-20.11	-54.83	-40	-14.83	V
14.257331	20.22	RMS	39.3	.8	-95.2	-20.29	-55.17	-40	-15.17	H
Low Channel, 3625MHz										
7.258444	25.46	RMS	35.8	.6	-95.2	-26.85	-60.19	-40	-20.19	V
7.258444	25.47	RMS	35.8	.6	-95.2	-26.85	-60.18	-40	-20.18	V
7.268578	25.25	RMS	35.8	.6	-95.2	-26.91	-60.46	-40	-20.46	H
10.848447	23.81	RMS	37.7	.5	-95.2	-24.05	-57.24	-40	-17.24	H
10.878619	22.20	RMS	37.7	.5	-95.2	-24.10	-58.90	-40	-18.90	V
14.476763	19.65	RMS	39.7	.7	-95.2	-19.57	-54.72	-40	-14.72	H
High Channel, 3690MHz										
7.37565	25.36	RMS	35.8	.7	-95.2	-27.02	-60.36	-40	-20.36	V
7.390191	25.46	RMS	35.8	.7	-95.2	-26.95	-60.19	-40	-20.19	H
11.061478	21.95	RMS	37.8	.6	-95.2	-23.51	-58.36	-40	-18.36	V
11.075578	22.23	RMS	37.8	.7	-95.2	-23.48	-57.95	-40	-17.95	H
14.730563	19.83	RMS	40	.9	-95.2	-19.81	-54.28	-40	-14.28	V
14.774625	19.77	RMS	40.2	.8	-95.2	-20.01	-54.44	-40	-14.44	H

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/7/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	n48 BPSK 40MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3570MHz										
7.111716	24.64	RMS	35.7	.5	-95.2	-27.21	-61.57	-40	-21.57	V
7.123172	24.46	RMS	35.7	.5	-95.2	-27.23	-61.77	-40	-21.77	H
10.64685	22.77	RMS	37.8	.6	-95.2	-24.62	-58.65	-40	-18.65	H
10.654019	26.36	RMS	37.8	.6	-95.2	-24.42	-54.86	-40	-14.86	V
14.196966	20.35	RMS	39.2	.7	-95.2	-20.04	-54.99	-40	-14.99	V
14.22825	20.44	RMS	39.3	.8	-95.2	-20.28	-54.94	-40	-14.94	H
Low Channel, 3625MHz										
7.187503	24.74	RMS	35.8	.6	-95.2	-26.98	-61.04	-40	-21.04	V
7.226278	24.17	RMS	35.8	.5	-95.2	-27.13	-61.86	-40	-21.86	H
10.888313	22.11	RMS	37.7	.5	-95.2	-24.02	-58.91	-40	-18.91	H
10.924003	22.09	RMS	37.7	.6	-95.2	-23.65	-58.46	-40	-18.46	V
14.443275	19.62	RMS	39.7	.8	-95.2	-20.00	-55.08	-40	-15.08	V
14.489100	19.60	RMS	39.7	.7	-95.2	-19.71	-54.91	-40	-14.91	H
High Channel, 3680MHz										
7.388869	24.58	RMS	35.8	.7	-95.2	-27.06	-61.18	-40	-21.18	H
7.397241	24.60	RMS	35.8	.6	-95.2	-26.98	-61.18	-40	-21.18	V
10.654433	27.57	RMS	37.8	.6	-95.2	-24.43	-53.66	-40	-13.66	H
10.674609	22.58	RMS	37.8	.6	-95.2	-24.57	-58.79	-40	-18.79	V
14.729241	19.84	RMS	40.0	.9	-95.2	-19.70	-54.16	-40	-14.16	V
14.777469	19.83	RMS	40.2	.8	-95.2	-20.07	-54.44	-40	-14.44	H

10.4.6. 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 #:	4790592300
Date:	6/9/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE66 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.433125	41.73	Pk	32.6	-95.2	-32.94	-53.81	-13	-40.81	H
3.435469	41.75	Pk	32.6	-95.2	-33.01	-53.86	-13	-40.86	V
5.138906	39.48	Pk	34.8	-95.2	-30.27	-51.19	-13	-38.19	V
5.159063	40.01	Pk	34.8	-95.2	-29.59	-49.98	-13	-36.98	H
6.867656	35.43	Pk	35.7	-95.2	-26.59	-50.66	-13	-37.66	V
6.881719	37.80	Pk	35.7	-95.2	-26.47	-48.17	-13	-35.17	H
Mid Channel, 1745MHz									
3.49125	41.85	Pk	32.6	-95.2	-32.97	-53.72	-13	-40.72	V
3.495938	41.67	Pk	32.6	-95.2	-32.97	-53.90	-13	-40.90	H
5.223750	38.75	Pk	34.6	-95.2	-28.79	-50.64	-13	-37.64	V
5.236875	37.84	Pk	34.7	-95.2	-28.75	-51.41	-13	-38.41	H
6.980156	35.49	Pk	35.7	-95.2	-26.74	-50.75	-13	-37.75	V
6.995156	36.00	Pk	35.7	-95.2	-26.62	-50.12	-13	-37.12	H
High Channel, 1770MHz									
3.544219	41.49	Pk	32.8	-95.2	-32.75	-53.66	-13	-40.66	H
3.547031	42.22	Pk	32.8	-95.2	-32.84	-53.02	-13	-40.02	V
5.297344	38.89	Pk	34.7	-95.2	-29.69	-51.3	-13	-38.3	V
5.307656	38.93	Pk	34.7	-95.2	-29.84	-51.41	-13	-38.41	H
7.075313	36.02	Pk	35.7	-95.2	-26.84	-50.32	-13	-37.32	V
7.095000	35.72	Pk	35.7	-95.2	-26.7	-50.48	-13	-37.48	H

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	3/30/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n66 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.469000	55.01	Pk	32.8	-95.2	-45.84	-53.23	-13	-40.23	V
3.478000	54.18	Pk	32.8	-95.2	-45.99	-54.21	-13	-41.21	H
5.209500	55.74	Pk	34.1	-95.2	-47.72	-53.08	-13	-40.08	V
5.219500	55.99	Pk	34.1	-95.2	-47.85	-52.96	-13	-39.96	H
6.921500	53.56	Pk	35.5	-95.2	-44.92	-51.06	-13	-38.06	H
6.938500	53.83	Pk	35.5	-95.2	-44.96	-50.83	-13	-37.83	V
Mid Channel, 1745MHz									
3.483500	54.70	Pk	32.8	-95.2	-45.90	-53.60	-13	-40.60	H
3.494000	54.88	Pk	32.8	-95.2	-46.04	-53.56	-13	-40.56	V
5.226500	55.54	Pk	34.2	-95.2	-47.76	-53.22	-13	-40.22	H
5.232500	56.69	Pk	34.2	-95.2	-47.79	-52.10	-13	-39.10	V
6.983500	52.95	Pk	35.6	-95.2	-45.13	-51.78	-13	-38.78	V
7.002500	53.15	Pk	35.6	-95.2	-44.97	-51.42	-13	-38.42	H
High Channel, 1760MHz									
3.537000	54.00	Pk	32.9	-95.2	-46.18	-54.48	-13	-41.48	V
3.550500	54.12	Pk	32.9	-95.2	-46.18	-54.36	-13	-41.36	H
5.271500	57.65	Pk	34.2	-95.2	-47.88	-51.23	-13	-38.23	H
5.285000	56.29	Pk	34.3	-95.2	-47.74	-52.35	-13	-39.35	V
7.057000	53.80	Pk	35.6	-95.2	-45.10	-50.90	-13	-37.90	H
7.079500	55.60	Pk	35.6	-95.2	-45.37	-49.37	-13	-36.37	V

10.4.7. 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)

Project #:	4790592300
Date:	3/27/2023
Test Engineer:	32268
Configuration:	EUT only
Mode	N70 BPSK 15MHz
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
Mid Channel, 1702.5MHz									
3.412031	35.54	Pk	32.5	-95.2	-25.68	-52.84	-13	-39.84	H
3.419531	34.51	Pk	32.6	-95.2	-25.74	-53.83	-13	-40.83	V
5.108438	34.73	Pk	34.4	-95.2	-22.06	-48.13	-13	-35.13	H
5.111250	35.76	Pk	34.3	-95.2	-22.12	-47.26	-13	-34.26	V
6.810000	32.76	Pk	35.5	-95.2	-19.53	-46.47	-13	-33.47	V
6.815625	33.26	Pk	35.5	-95.2	-19.56	-46.00	-13	-33.00	H

10.4.8. 5G NR n77 (Part 27 3450-3550MHz)

LIMITS

FCC: §27.53
Emission limits
(n) 3.45 GHz Service. The following emission limits apply to stations transmitting in the 3450-3550 MHz band:
(2) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/4/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n77 BPSK 100MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 3500MHz									
6.994135	45.36	Pk	35.6	-95.2	-44.85	-59.09	-13	-46.09	V
7.014669	45.12	Pk	35.6	-95.2	-45.27	-59.75	-13	-46.75	H
10.505338	46.38	Pk	37.3	-95.2	-44.47	-55.99	-13	-42.99	H
10.530538	45.97	Pk	37.4	-95.2	-44.17	-56.00	-13	-43.00	V
13.978740	45.38	Pk	38.6	-95.2	-43.74	-54.96	-13	-41.96	H
14.004407	45.62	Pk	38.6	-95.2	-43.62	-54.60	-13	-41.60	V

10.4.10. 5G NR n77 (Part 27 3700-3980MHz)

LIMITS

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

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/5/2023
Test Engineer:	12491
Configuration:	EUT only
Mode	n77 BPSK 100MHz
Chamber #	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3750MHz									
7.401340	55.94	Pk	35.7	-95.2	-45.19	-48.75	-13	-35.75	V
7.401552	55.03	Pk	35.7	-95.2	-45.19	-49.66	-13	-36.66	H
11.098155	53.30	Pk	37.7	-95.2	-43.11	-47.31	-13	-34.31	H
11.100093	53.84	Pk	37.7	-95.2	-43.02	-46.68	-13	-33.68	V
14.798651	53.80	Pk	39.4	-95.2	-43.11	-45.11	-13	-32.11	V
14.800345	54.47	Pk	39.4	-95.2	-43.06	-44.39	-13	-31.39	H
Mid Channel, 3840MHz									
7.480163	55.38	Pk	35.7	-95.2	-45.82	-49.94	-13	-36.94	H
7.480705	56.46	Pk	35.7	-95.2	-45.8	-48.84	-13	-35.84	V
11.220842	53.22	Pk	37.8	-95.2	-43.24	-47.42	-13	-34.42	H
11.221061	54.15	Pk	37.8	-95.2	-43.24	-46.49	-13	-33.49	V
14.959423	53.47	Pk	39.6	-95.2	-43.10	-45.23	-13	-32.23	V
14.959544	53.48	Pk	39.6	-95.2	-43.09	-45.21	-13	-32.21	H
High Channel, 3930MHz									
7.758516	55.54	Pk	35.7	-95.2	-45.7	-49.66	-13	-36.66	H
7.759677	55.80	Pk	35.7	-95.2	-45.73	-49.43	-13	-36.43	V
11.641288	53.96	Pk	38.2	-95.2	-43.27	-46.31	-13	-33.31	H
11.641531	53.67	Pk	38.2	-95.2	-43.26	-46.59	-13	-33.59	V
15.518501	54.38	Pk	40.1	-95.2	-43.28	-44	-13	-31.00	V
15.519704	53.14	Pk	40.1	-95.2	-43.23	-45.19	-13	-32.19	H

10.5. FIELD STRENGTH OF SPURIOUS RADIATION, ANT7

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

10.5.1. LTE BAND 48 AND 5G NR n48

LIMITS

FCC: §96.41
(e) 3.5 GHz Emissions and Interference Limits—
(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

QPSK LTE BAND 48 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/6/2023
Test Engineer:	19256
Configuration:	EUT only
Mode	LTE48 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3560MHz										
7.102113	26.31	RMS	35.7	.5	-95.2	-27.24	-59.93	-40	-19.93	H
7.102209	30.92	RMS	35.7	.5	-95.2	-27.23	-55.31	-40	-15.31	V
10.665356	22.67	RMS	37.8	.6	-95.2	-24.58	-58.71	-40	-18.71	H
10.885228	22.11	RMS	37.7	.5	-95.2	-24.05	-58.94	-40	-18.94	V
14.237063	20.13	RMS	39.3	.8	-95.2	-20.33	-55.30	-40	-15.30	V
14.245434	20.13	RMS	39.3	.8	-95.2	-20.31	-55.28	-40	-15.28	H
Low Channel, 3625MHz										
7.232149	29.42	RMS	35.8	.5	-95.2	-26.98	-56.46	-40	-16.46	V
7.232447	26.50	RMS	35.8	.5	-95.2	-27.01	-59.41	-40	-19.41	H
10.875534	22.24	RMS	37.7	.5	-95.2	-24.05	-58.81	-40	-18.81	H
10.88655	22.13	RMS	37.7	.5	-95.2	-23.99	-58.86	-40	-18.86	V
14.478084	19.70	RMS	39.7	.7	-95.2	-19.56	-54.66	-40	-14.66	H
14.515978	19.58	RMS	39.7	.8	-95.2	-20.07	-55.19	-40	-15.19	V
High Channel, 3690MHz										
7.362219	28.12	RMS	35.8	.7	-95.2	-27.06	-57.64	-40	-17.64	V
7.396800	25.47	RMS	35.8	.6	-95.2	-26.99	-60.32	-40	-20.32	H
11.028431	21.56	RMS	37.8	.6	-95.2	-23.66	-58.9	-40	-18.90	V
11.058834	21.92	RMS	37.8	.6	-95.2	-23.45	-58.33	-40	-18.33	H
14.741578	19.74	RMS	40.1	.8	-95.2	-19.49	-54.05	-40	-14.05	V
14.745544	19.76	RMS	40.1	.8	-95.2	-19.50	-54.04	-40	-14.04	H

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/7/2023
Test Engineer:	19256
Configuration:	EUT only
Mode	n48 BPSK 40MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3570MHz										
7.061925	25.27	RMS	35.7	.8	-95.2	-27.33	-60.76	-40	-20.76	V
7.133747	25.09	RMS	35.7	.5	-95.2	-27.16	-61.07	-40	-21.07	H
10.654781	22.89	RMS	37.8	.6	-95.2	-24.44	-58.35	-40	-18.35	V
10.711181	22.42	RMS	37.7	.5	-95.2	-24	-58.58	-40	-18.58	H
14.192559	19.38	RMS	39.2	.7	-95.2	-20.25	-56.17	-40	-16.17	V
14.306241	19.63	RMS	39.4	.6	-95.2	-20.08	-55.65	-40	-15.65	H
Low Channel, 3625MHz										
7.212619	25.31	RMS	35.8	.6	-95.2	-27.10	-60.59	-40	-20.59	H
7.213059	26.61	RMS	35.8	.6	-95.2	-27.13	-59.32	-40	-19.32	V
10.679897	22.66	RMS	37.8	.6	-95.2	-24.48	-58.62	-40	-18.62	V
10.706334	22.44	RMS	37.7	.5	-95.2	-24.18	-58.74	-40	-18.74	H
14.226928	20.53	RMS	39.3	.8	-95.2	-20.15	-54.72	-40	-14.72	V
14.241469	20.39	RMS	39.3	.8	-95.2	-20.33	-55.04	-40	-15.04	H
High Channel, 3680MHz										
7.363313	24.09	RMS	35.8	.7	-95.2	-27.07	-61.68	-40	-21.68	V
7.391072	24.52	RMS	35.8	.7	-95.2	-26.97	-61.15	-40	-21.15	H
11.031075	21.84	RMS	37.8	.6	-95.2	-23.57	-58.53	-40	-18.53	V
11.077341	22.25	RMS	37.8	.7	-95.2	-23.41	-57.86	-40	-17.86	H
14.752594	19.81	RMS	40.1	.8	-95.2	-19.6	-54.09	-40	-14.09	V
14.762728	19.77	RMS	40.1	.8	-95.2	-20.11	-54.64	-40	-14.64	H

10.5.2. 5G NR n77 (Part 27 3450-3550MHz)

LIMITS

FCC: §27.53
Emission limits
(n) 3.45 GHz Service. The following emission limits apply to stations transmitting in the 3450-3550 MHz band:
(2) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/15/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	N77 BPSK 100MHz
Chamber #:	01-RDE-B

Frequency (MHz)	Meter Reading (dBuV)	Det	80404_ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 3500MHz									
6.989935	43.12	Pk	35.9	-95.2	-42.94	-59.12	-13	-46.12	V
6.992735	43.20	Pk	35.9	-95.2	-43.06	-59.16	-13	-46.16	H
10.465671	43.10	Pk	37.7	-95.2	-41.19	-55.59	-13	-42.59	V
10.523071	42.75	Pk	37.7	-95.2	-40.71	-55.46	-13	-42.46	H
13.996007	43.09	Pk	38.8	-95.2	-40.20	-53.51	-13	-40.51	H
14.033341	42.68	Pk	38.8	-95.2	-39.92	-53.64	-13	-40.64	V

10.5.3. 5G NR n77 (Part 27 3700-3980MHz)

LIMITS

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

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	7/7/2023
Test Engineer:	32934
Configuration:	EUT only
Mode	N77 BPSK 100MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3750MHz									
7.502000	36.21	Pk	35.9	-95.2	-26.82	-49.91	-13	-36.91	V
7.506500	35.88	Pk	35.9	-95.2	-26.88	-50.30	-13	-37.30	H
11.188000	32.21	Pk	37.8	-95.2	-22.58	-47.77	-13	-34.77	V
11.233500	32.41	Pk	37.8	-95.2	-22.47	-47.46	-13	-34.46	H
15.003500	29.53	Pk	40.4	-95.2	-19.1	-44.37	-13	-31.37	H
15.010000	29.92	Pk	40.5	-95.2	-18.94	-43.72	-13	-30.72	V
Mid Channel, 3840MHz									
7.582618	42.92	Pk	36.0	-95.2	-26.11	-42.39	-13	-29.39	V
7.582851	38.40	Pk	36.0	-95.2	-26.11	-46.91	-13	-33.91	H
11.523000	31.43	Pk	37.9	-95.2	-21.46	-47.33	-13	-34.33	H
11.532000	31.44	Pk	37.9	-95.2	-21.53	-47.39	-13	-34.39	V
15.346000	29.21	Pk	40.7	-95.2	-19.33	-44.62	-13	-31.62	V
15.374500	30.85	Pk	40.7	-95.2	-19.42	-43.07	-13	-30.07	H
High Channel, 3930MHz									
7.839000	35.46	Pk	36	-95.2	-26.28	-50.02	-13	-37.02	V
7.855500	36.24	Pk	36	-95.2	-26.32	-49.28	-13	-36.28	H
11.752500	31.66	Pk	38.3	-95.2	-21.11	-46.35	-13	-33.35	V
11.800000	31.82	Pk	38.4	-95.2	-21.42	-46.40	-13	-33.40	H
15.631500	30.70	Pk	40.8	-95.2	-18.65	-42.35	-13	-29.35	V
15.710500	30.09	Pk	40.9	-95.2	-18.36	-42.57	-13	-29.57	H

10.6. FIELD STRENGTH OF SPURIOUS RADIATION, ANT8

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.

RESULT

10.6.1. LTE BAND 48 AND 5G NR n48

LIMITS

FCC: §96.41
(e) 3.5 GHz Emissions and Interference Limits—
(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

QPSK LTE BAND 48 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/6/2023
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE 48 QPSK 20MHz
Chamber #:	01-RDE-A

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3560MHz										
7.115681	25.53	RMS	35.7	.5	-95.2	-27.20	-60.67	-40	-20.67	V
7.368426	24.96	RMS	35.8	.7	-95.2	-26.96	-60.7	-40	-20.70	H
7.368426	24.97	RMS	35.8	.7	-95.2	-26.96	-60.69	-40	-20.69	H
10.663153	22.70	RMS	37.8	.6	-95.2	-24.47	-58.57	-40	-18.57	V
10.680778	22.52	RMS	37.8	.6	-95.2	-24.49	-58.77	-40	-18.77	H
14.226928	20.27	RMS	39.3	.8	-95.2	-20.15	-54.98	-40	-14.98	H
Low Channel, 3625MHz										
7.209975	25.17	RMS	35.8	.6	-95.2	-27.06	-60.69	-40	-20.69	V
7.247428	25.32	RMS	35.8	.6	-95.2	-26.82	-60.30	-40	-20.30	H
10.890075	22.10	RMS	37.7	.6	-95.2	-23.99	-58.79	-40	-18.79	H
10.906819	21.93	RMS	37.7	.6	-95.2	-23.85	-58.82	-40	-18.82	V
14.500556	19.64	RMS	39.7	.8	-95.2	-19.94	-55.00	-40	-15.00	H
14.532281	19.37	RMS	39.8	.8	-95.2	-19.63	-54.86	-40	-14.86	V
High Channel, 3690MHz										
7.371748	25.13	RMS	35.8	.7	-95.2	-26.97	-60.54	-40	-20.54	V
7.377853	25.28	RMS	35.8	.7	-95.2	-26.94	-60.36	-40	-20.36	H
11.043319	29.14	RMS	37.8	.6	-95.2	-23.54	-51.2	-40	-11.20	H
11.043413	21.89	RMS	37.8	.6	-95.2	-23.54	-58.45	-40	-18.45	V
14.743341	19.67	RMS	40.1	.8	-95.2	-19.57	-54.2	-40	-14.20	H
14.773303	19.72	RMS	40.2	.8	-95.2	-20.14	-54.62	-40	-14.62	V

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/4/2023
Test Engineer:	25196
Configuration:	EUT only
Mode	N48 BPSK 40MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3570MHz										
7.102903	24.85	RMS	35.7	.5	-95.2	-27.15	-61.30	-40	-21.30	H
7.126256	24.50	RMS	35.7	.5	-95.2	-27.19	-61.69	-40	-21.69	V
10.65401	22.65	RMS	37.8	.6	-95.2	-24.42	-58.57	-40	-18.57	V
10.654591	24.00	RMS	37.8	.6	-95.2	-24.44	-57.24	-40	-17.24	H
14.212388	20.41	RMS	39.2	.8	-95.2	-19.95	-54.74	-40	-14.74	V
14.266144	20.33	RMS	39.3	.8	-95.2	-20.15	-54.92	-40	-14.92	H
Low Channel, 3625MHz										
7.239497	24.25	RMS	35.8	.5	-95.2	-26.94	-61.59	-40	-21.59	V
7.247869	24.40	RMS	35.8	.6	-95.2	-26.80	-61.20	-40	-21.20	H
10.851300	22.21	RMS	37.7	.5	-95.2	-24.07	-58.86	-40	-18.86	H
10.873772	22.15	RMS	37.7	.5	-95.2	-24.09	-58.94	-40	-18.94	V
14.494828	19.56	RMS	39.7	.7	-95.2	-19.87	-55.11	-40	-15.11	H
14.498794	19.54	RMS	39.7	.8	-95.2	-19.82	-54.98	-40	-14.98	V
High Channel, 3680MHz										
7.332909	25.04	RMS	35.8	.5	-95.2	-26.87	-60.73	-40	-20.73	V
7.337756	25.08	RMS	35.8	.5	-95.2	-27.01	-60.83	-40	-20.83	H
11.063681	22.24	RMS	37.8	.6	-95.2	-23.40	-57.96	-40	-17.96	H
11.078663	22.40	RMS	37.8	.7	-95.2	-23.48	-57.78	-40	-17.78	V
14.676366	18.81	RMS	40.0	.9	-95.2	-19.58	-55.07	-40	-15.07	V
14.724834	18.92	RMS	40.0	.9	-95.2	-19.74	-55.12	-40	-15.12	H

10.6.2. 5G NR n77 (Part 27 3450-3550MHz)

LIMITS

FCC: §27.53
Emission limits
(n) 3.45 GHz Service. The following emission limits apply to stations transmitting in the 3450-3550 MHz band:
(2) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	
Date:	4/4/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	N77 BPSK 100MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 3500MHz									
7.000965	55.59	Pk	35.8	-95.2	-45.68	-49.49	-13	-36.49	V
7.001846	55.58	Pk	35.8	-95.2	-45.59	-49.41	-13	-36.41	H
10.499765	56.53	Pk	37.8	-95.2	-45.04	-45.91	-13	-32.91	V
10.500978	55.96	Pk	37.8	-95.2	-45.16	-46.60	-13	-33.60	H
14.001292	55.40	Pk	38.9	-95.2	-43.9	-44.80	-13	-31.80	H
14.001462	54.76	Pk	38.9	-95.2	-43.9	-45.44	-13	-32.44	V

10.6.3. 5G NR n77 (Part 27 3700-3980MHz)

LIMITS

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

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	
Date:	4/4/2023
Test Engineer:	19226
Configuration:	EUT only
Mode	N77 BPSK 100MHz
Chamber #:	05-RDE-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3750MHz									
7.498904	55.22	Pk	35.8	-95.2	-46.07	-50.25	-13	-37.25	H
7.501530	55.58	Pk	35.8	-95.2	-46.01	-49.83	-13	-36.83	V
11.101638	54.63	Pk	37.9	-95.2	-43.72	-46.39	-13	-33.39	V
11.102982	58.78	Pk	37.9	-95.2	-43.73	-42.25	-13	-29.25	H
14.998760	54.3	Pk	39.8	-95.2	-43.01	-44.11	-13	-31.11	V
15.001496	53.75	Pk	39.8	-95.2	-42.84	-44.49	-13	-31.49	H
Mid Channel, 3840MHz									
7.681253	55.36	Pk	35.8	-95.2	-45.33	-49.37	-13	-36.37	H
7.681964	55.31	Pk	35.8	-95.2	-45.26	-49.35	-13	-36.35	V
11.37278	59.38	Pk	38.1	-95.2	-43.44	-41.16	-13	-28.16	H
11.372910	59.66	Pk	38.1	-95.2	-43.43	-40.87	-13	-27.87	V
15.357818	53.96	Pk	40.2	-95.2	-42.44	-43.48	-13	-30.48	V
15.363032	54.33	Pk	40.2	-95.2	-42.33	-43.00	-13	-30.00	H
High Channel, 3930MHz									
7.839710	53.81	Pk	35.6	-95.2	-44.74	-50.53	-13	-37.53	V
7.873170	53.21	Pk	35.6	-95.2	-44.71	-51.10	-13	-38.10	H
11.782809	54.33	Pk	38.7	-95.2	-43.51	-45.68	-13	-32.68	H
11.801132	54.46	Pk	38.7	-95.2	-43.55	-45.59	-13	-32.59	V
15.71316	54.22	Pk	40.5	-95.2	-42.41	-42.89	-13	-29.89	V
15.733475	54.83	Pk	40.5	-95.2	-42.33	-42.20	-13	-29.20	H

10.7. FIELD STRENGTH OF SPURIOUS RADIATION, ANT9

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

10.7.1. LTE BAND 48 AND 5G NR n48

LIMITS

FCC: §96.41
(e) 3.5 GHz Emissions and Interference Limits—
(2) Additional protection levels. Notwithstanding paragraph (d)(1) of this section, the conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

QPSK LTE BAND 48 (20.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/5/2022
Test Engineer:	25196
Configuration:	EUT only
Mode	LTE48 QPSK 20MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3560MHz										
7.117444	25.54	RMS	35.7	.5	-95.2	-27.18	-60.64	-40	-20.64	H
7.134071	25.35	RMS	35.7	.5	-95.2	-27.16	-60.81	-40	-20.81	V
10.670644	22.67	RMS	37.8	.6	-95.2	-24.50	-58.63	-40	-18.63	H
10.671525	22.63	RMS	37.8	.6	-95.2	-24.47	-58.64	-40	-18.64	V
14.232656	20.20	RMS	39.3	.8	-95.2	-20.20	-55.10	-40	-15.10	V
14.246316	20.18	RMS	39.3	.8	-95.2	-20.32	-55.24	-40	-15.24	H
Low Channel, 3625MHz										
7.228922	25.14	RMS	35.8	.5	-95.2	-27.10	-60.86	-40	-20.86	V
7.261088	25.39	RMS	35.8	.6	-95.2	-26.97	-60.38	-40	-20.38	H
10.819575	22.31	RMS	37.7	.6	-95.2	-24.08	-58.67	-40	-18.67	V
10.827947	22.24	RMS	37.7	.6	-95.2	-24.12	-58.78	-40	-18.78	H
14.428294	19.94	RMS	39.6	.8	-95.2	-19.87	-54.73	-40	-14.73	V
14.486016	19.77	RMS	39.7	.7	-95.2	-19.52	-54.55	-40	-14.55	H
High Channel, 3690MHz										
7.370363	25.22	RMS	35.8	.7	-95.2	-26.93	-60.41	-40	-20.41	V
7.384463	25.41	RMS	35.8	.7	-95.2	-26.98	-60.27	-40	-20.27	H
11.043158	22.43	RMS	37.8	.6	-95.2	-23.54	-57.91	-40	-17.91	V
11.064122	22.05	RMS	37.8	.6	-95.2	-23.43	-58.18	-40	-18.18	H
14.763609	19.64	RMS	40.1	.8	-95.2	-20.09	-54.75	-40	-14.75	V
14.774184	19.75	RMS	40.2	.8	-95.2	-20.06	-54.51	-40	-14.51	H

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	6/5/2022
Test Engineer:	25196
Configuration:	EUT only
Mode	N48 BPSK 40MHz
Chamber #:	01-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	200786 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3570MHz										
7.115241	24.53	RMS	35.7	.5	-95.2	-27.17	-61.64	-40	-21.64	H
7.117003	24.55	RMS	35.7	.5	-95.2	-27.17	-61.62	-40	-21.62	V
10.659188	22.79	RMS	37.8	.6	-95.2	-24.43	-58.44	-40	-18.44	V
10.691353	22.44	RMS	37.8	.5	-95.2	-24.39	-58.85	-40	-18.85	H
14.219878	20.50	RMS	39.3	.8	-95.2	-20.04	-54.64	-40	-14.64	V
14.251603	20.35	RMS	39.3	.8	-95.2	-20.20	-54.95	-40	-14.95	H
Low Channel, 3625MHz										
7.258444	24.52	RMS	35.8	.6	-95.2	-26.85	-61.13	-40	-21.13	H
7.288847	24.25	RMS	35.8	.5	-95.2	-27.01	-61.66	-40	-21.66	V
10.859231	22.29	RMS	37.7	.4	-95.2	-24.04	-58.85	-40	-18.85	V
10.867603	22.26	RMS	37.6	.4	-95.2	-24.03	-58.97	-40	-18.97	H
14.477203	19.55	RMS	39.7	.7	-95.2	-19.56	-54.81	-40	-14.81	V
14.496591	19.60	RMS	39.7	.7	-95.2	-19.89	-55.09	-40	-15.09	H
High Channel, 3680MHz										
7.258444	24.52	RMS	35.8	.6	-95.2	-26.85	-61.13	-40	-21.13	H
7.288847	24.25	RMS	35.8	.5	-95.2	-27.01	-61.66	-40	-21.66	V
10.859231	22.29	RMS	37.7	.4	-95.2	-24.04	-58.85	-40	-18.85	V
10.867603	22.26	RMS	37.6	.4	-95.2	-24.03	-58.97	-40	-18.97	H
14.477203	19.55	RMS	39.7	.7	-95.2	-19.56	-54.81	-40	-14.81	V
14.496591	19.60	RMS	39.7	.7	-95.2	-19.89	-55.09	-40	-15.09	H

10.7.2. 5G NR n77 (Part 27 3450-3550MHz)

LIMITS

FCC: §27.53
Emission limits
(n) 3.45 GHz Service. The following emission limits apply to stations transmitting in the 3450-3550 MHz band:
(2) For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/4/2023
Test Engineer:	32145
Configuration:	EUT only
Mode	n77 BPSK 100MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 3500MHz									
6.998335	45.54	Pk	35.6	-95.2	-45.07	-59.13	-13	-46.13	H
7.017469	45.11	Pk	35.6	-95.2	-45.17	-59.66	-13	-46.66	V
10.513271	45.68	Pk	37.4	-95.2	-44.47	-56.59	-13	-43.59	H
10.525871	46.15	Pk	37.4	-95.2	-44.24	-55.89	-13	-42.89	V
13.997407	45.49	Pk	38.6	-95.2	-43.72	-54.83	-13	-41.83	H
13.999740	45.37	Pk	38.6	-95.2	-43.69	-54.92	-13	-41.92	V

10.7.3. 5G NR n77 (Part 27 3700-3980MHz)

LIMITS

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

BPSK 5G NR n77 (100.0MHZ BANDWIDTH)

Project #:	4790592300
Date:	4/4/2023
Test Engineer:	12501
Configuration:	EUT only
Mode	n77 BPSK 100MHz
Chamber #:	Chamber 5-D

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3750MHz									
7.505509	54.79	Pk	35.8	-95.2	-46.06	-50.67	-13	-37.67	H
7.532595	53.41	Pk	35.8	-95.2	-45.80	-51.79	-13	-38.79	V
11.181326	52.23	Pk	38.0	-95.2	-44.05	-49.02	-13	-36.02	V
11.245856	53.06	Pk	38.1	-95.2	-43.98	-48.02	-13	-35.02	H
15.003729	52.67	Pk	39.8	-95.2	-43.39	-46.12	-13	-33.12	H
15.032409	53.01	Pk	39.8	-95.2	-43.41	-45.80	-13	-32.80	V
Mid Channel, 3840MHz									
7.666435	54.04	Pk	35.8	-95.2	-45.71	-51.07	-13	-38.07	V
7.676792	54.6	Pk	35.8	-95.2	-45.87	-50.67	-13	-37.67	H
11.513535	51.93	Pk	38.3	-95.2	-43.29	-48.26	-13	-35.26	H
11.51712	51.82	Pk	38.3	-95.2	-43.43	-48.51	-13	-35.51	V
15.369001	52.45	Pk	40.2	-95.2	-42.8	-45.35	-13	-32.35	H
15.420784	52.34	Pk	40.3	-95.2	-42.89	-45.45	-13	-32.45	V
High Channel, 3930MHz									
7.844092	54.02	Pk	35.7	-95.2	-45.95	-51.43	-13	-38.43	V
7.852058	54.7	Pk	35.7	-95.2	-45.83	-50.63	-13	-37.63	H
11.817464	52.47	Pk	38.4	-95.2	-43.35	-47.68	-13	-34.68	H
11.846143	53.21	Pk	38.5	-95.2	-43.27	-46.76	-13	-33.76	V
15.714754	53.24	Pk	40.3	-95.2	-43.16	-44.82	-13	-31.82	H
15.730687	52.83	Pk	40.4	-95.2	-43.2	-45.17	-13	-32.17	V

11. SETUP PHOTOS

Please refer to 14523778-EP1V1 for Setup Photo Report for setup photos.

END OF REPORT