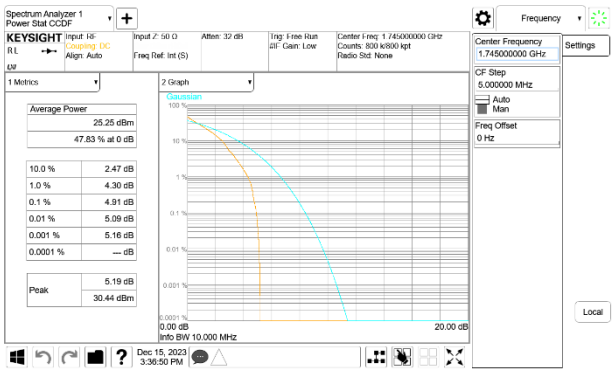
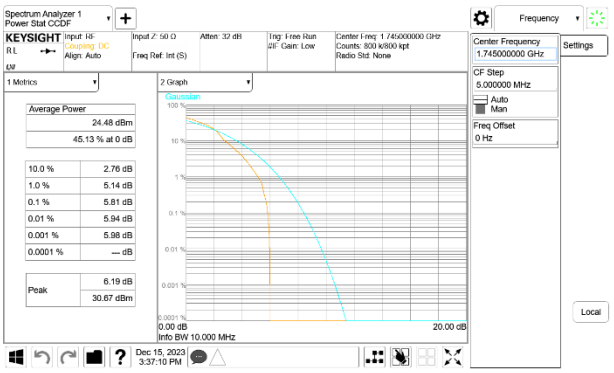
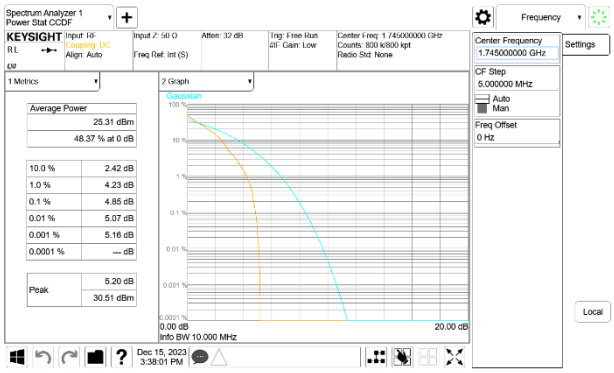


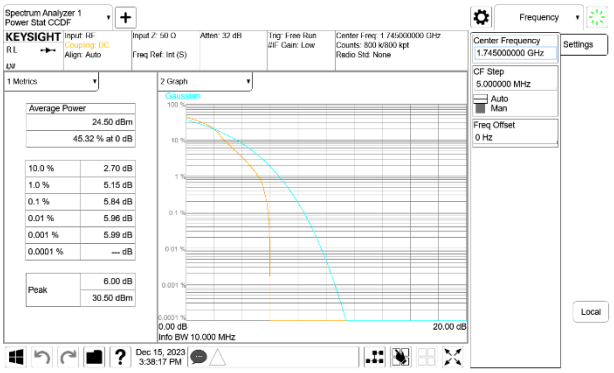
LTE B66 10MHz QPSK Middle Channel, ID:50822



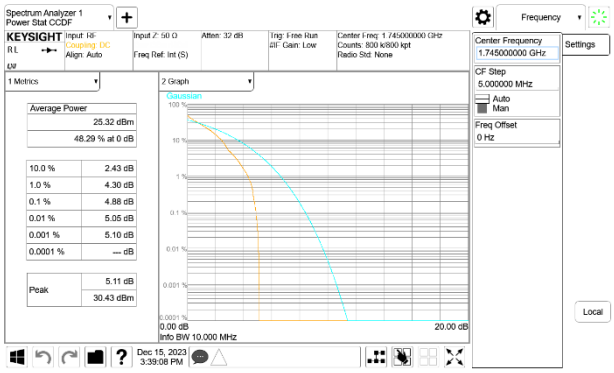
LTE B66 10MHz 16QAM Middle Channel, ID:50822



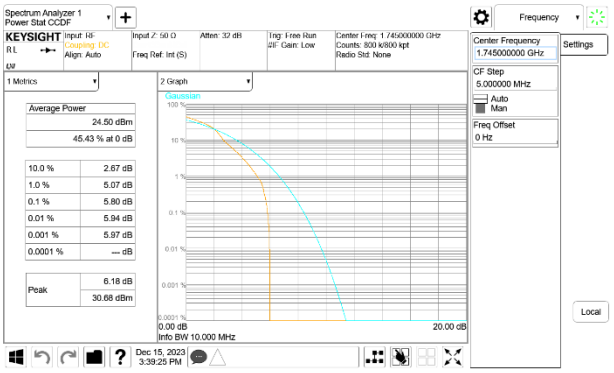
LTE B66 15MHz QPSK Middle Channel, ID:50822



LTE B66 15MHz 16QAM Middle Channel, ID:50822

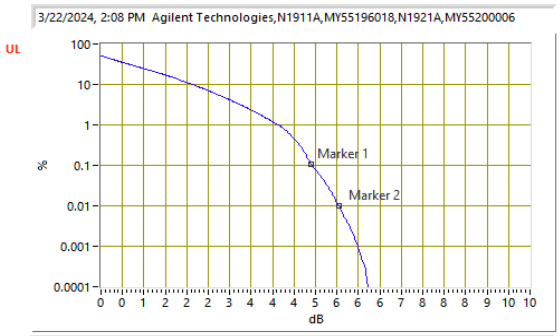


LTE B66 20MHz QPSK Middle Channel, ID:50822

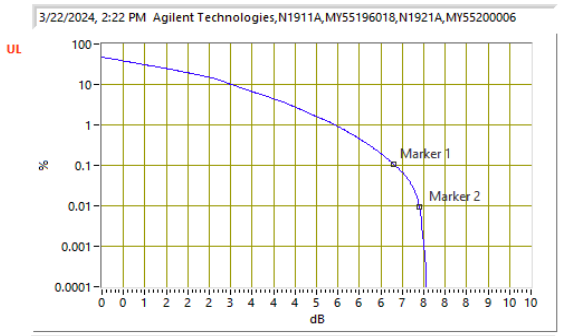


LTE B66 20MHz 16QAM Middle Channel, ID:50822

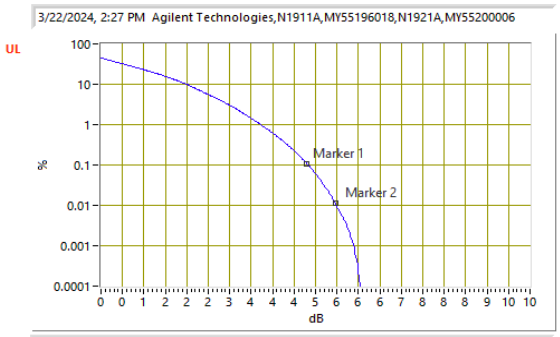
5G NR n66



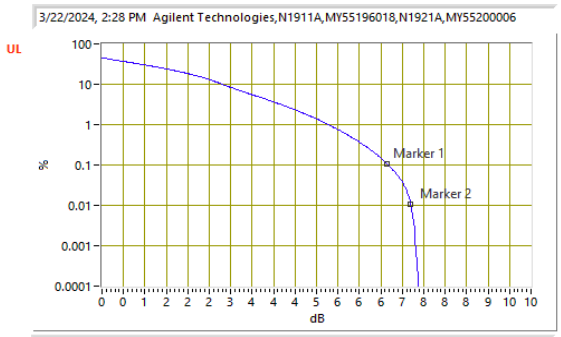
5G NR n66 5MHz BPSK Middle Channel, ID:27979



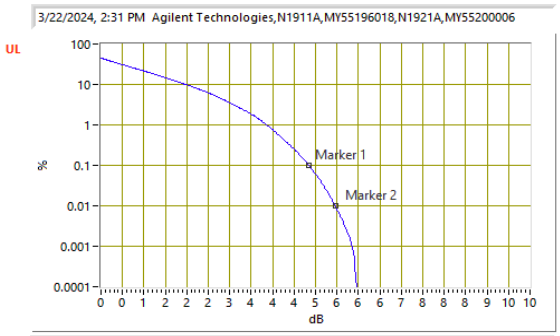
5G NR n66 5MHz 16QAM Middle Channel, ID:27979



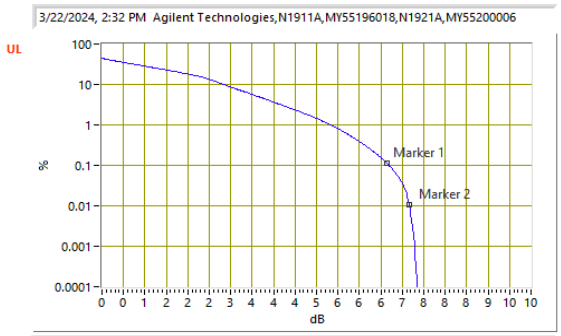
5G NR n66 10MHz BPSK Middle Channel, ID:27979



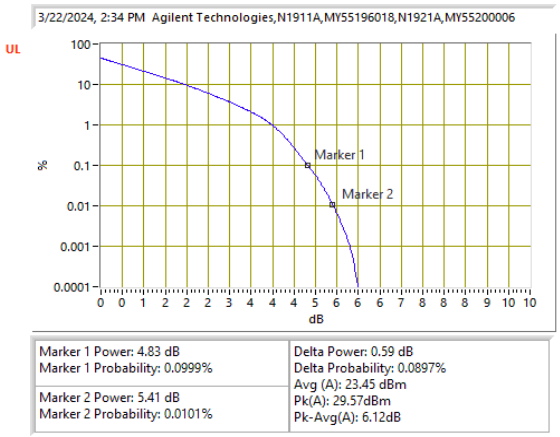
5G NR n66 10MHz 16QAM Middle Channel, ID:27979



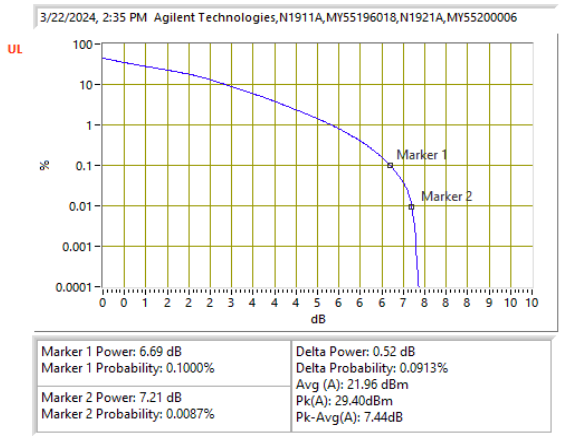
5G NR n66 15MHz BPSK Middle Channel, ID:27979



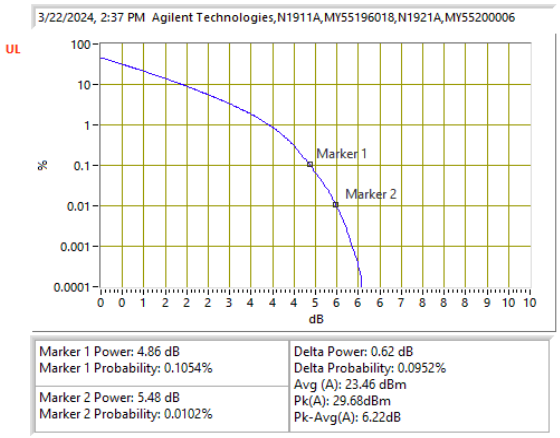
5G NR n66 15MHz 16QAM Middle Channel, ID:27979



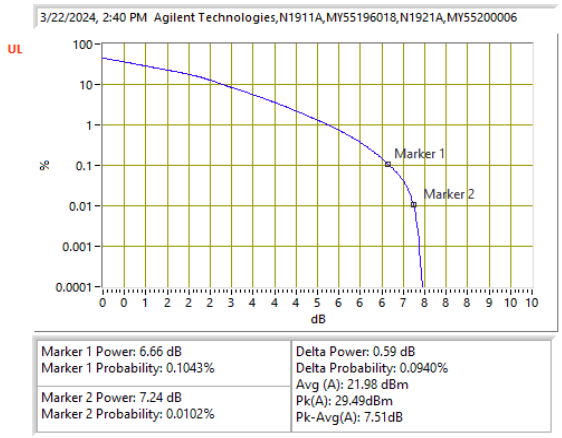
5G NR n66 20MHz BPSK Middle Channel, ID:27979



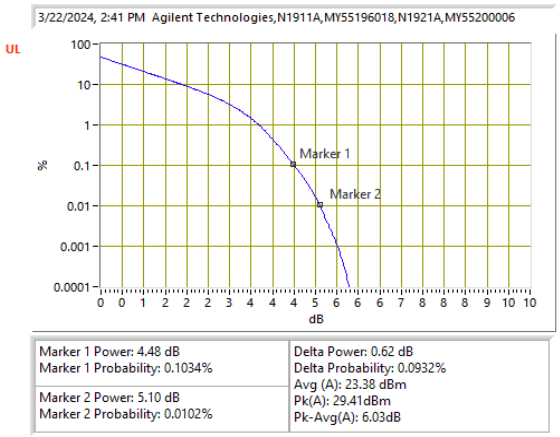
5G NR n66 20MHz 16QAM Middle Channel, ID:27979



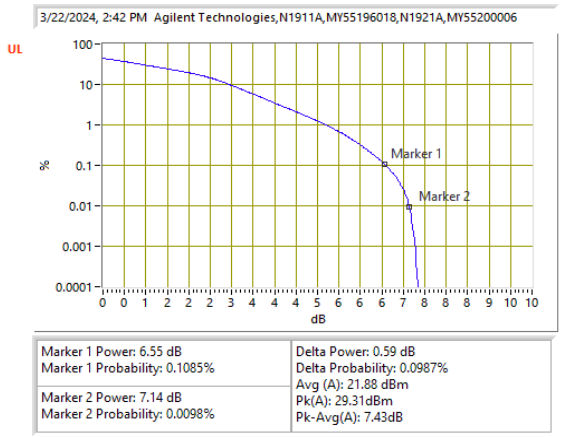
5G NR n66 25MHz BPSK Middle Channel, ID:27979



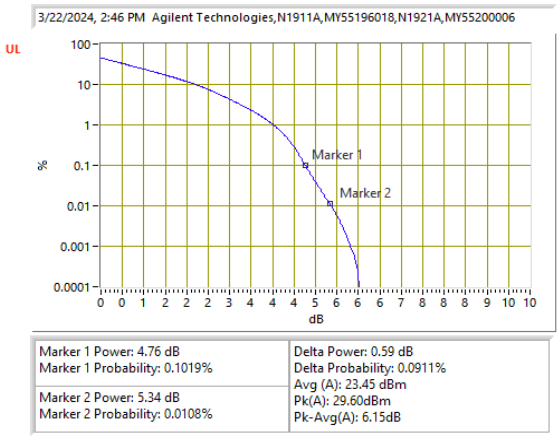
5G NR n66 25MHz 16QAM Middle Channel, ID:27979



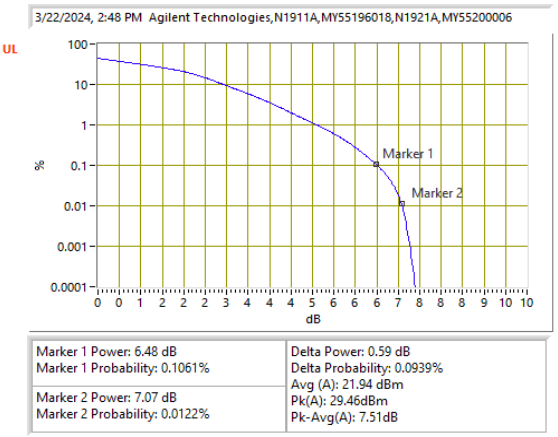
5G NR n66 30MHz BPSK Middle Channel, ID:27979



5G NR n66 30MHz 16QAM Middle Channel, ID:27979



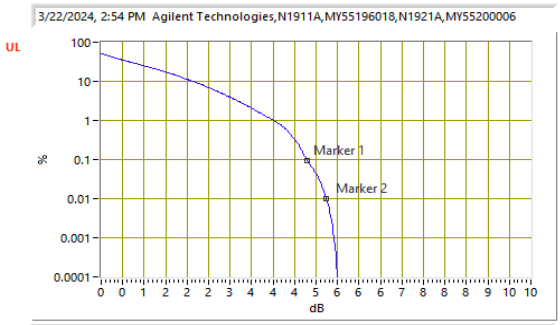
5G NR n66 40MHz BPSK Middle Channel, ID:27979



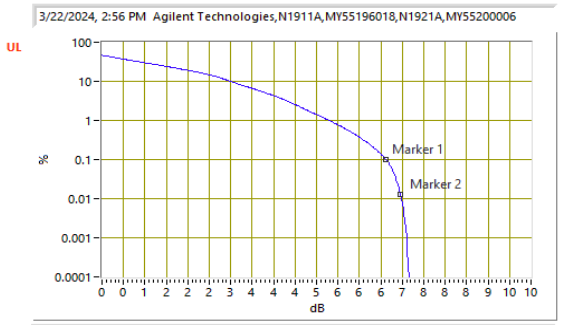
5G NR n66 40MHz 16QAM Middle Channel, ID:27979

9.5.14. 5G NR n70

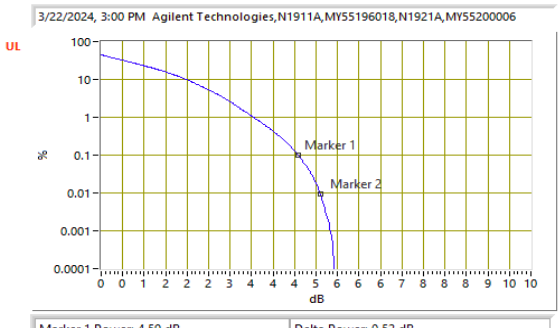
5G NR n70



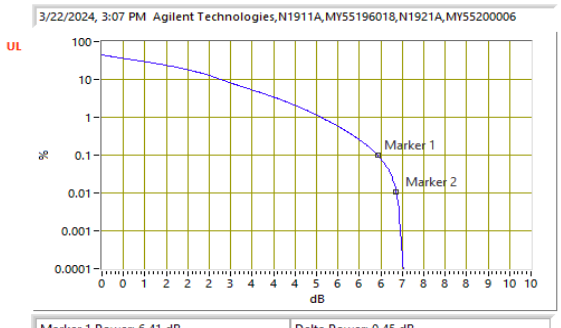
5G NR n70 5MHz BPSK Middle Channel, ID:50822



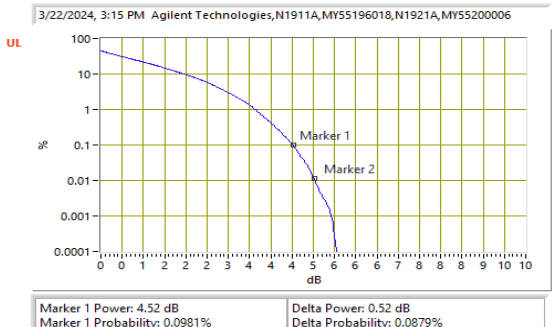
5G NR n70 5MHz 16QAM Middle Channel, ID:50822



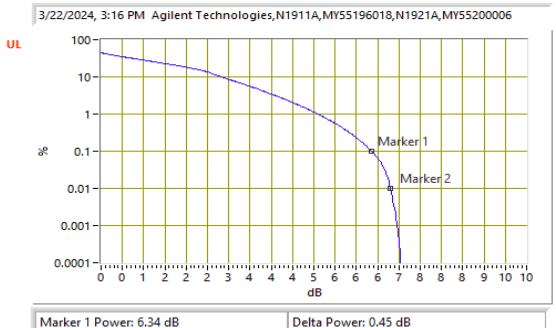
5G NR n70 10MHz BPSK Middle Channel, ID:50822



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



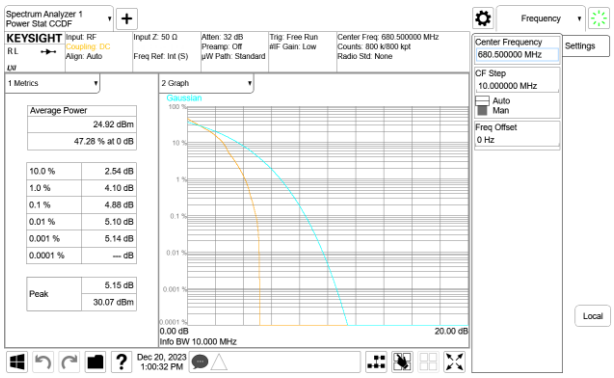
5G NR n70 15MHz BPSK Middle Channel, ID:50822



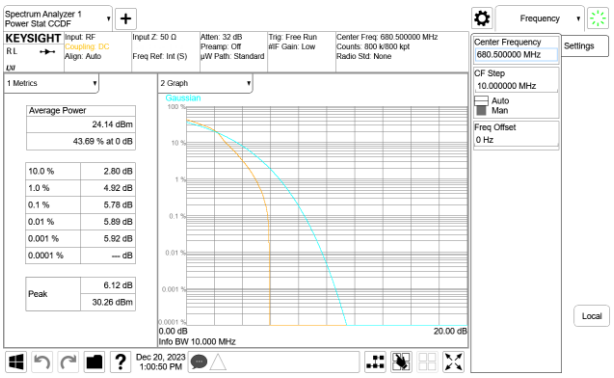
5G NR n70 15MHz 16QAM Middle Channel, ID:50822

9.5.15. LTE BAND 71 AND 5G NR n71

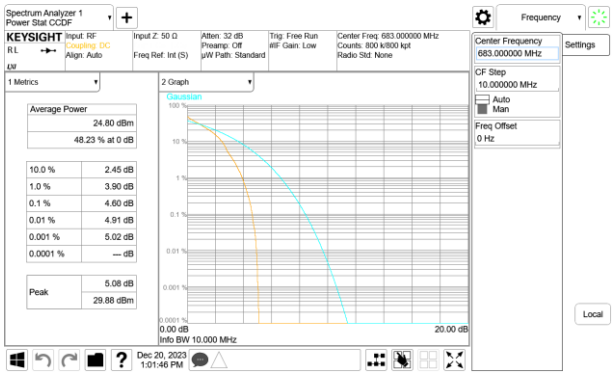
LTE BAND 71



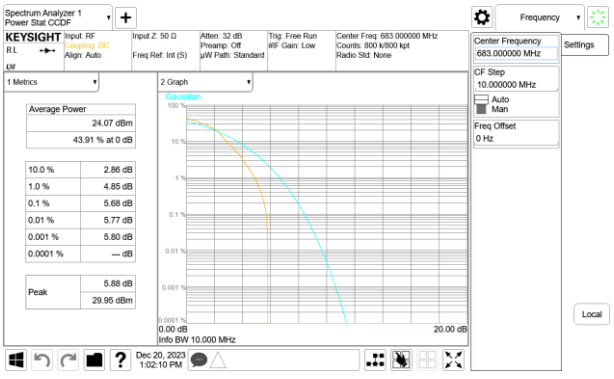
LTE B71 5MHz QPSK Middle Channel, ID:32061



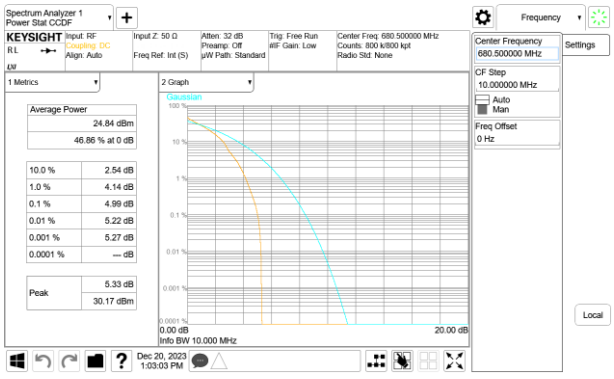
LTE B71 5MHz 16QAM Middle Channel, ID:32061



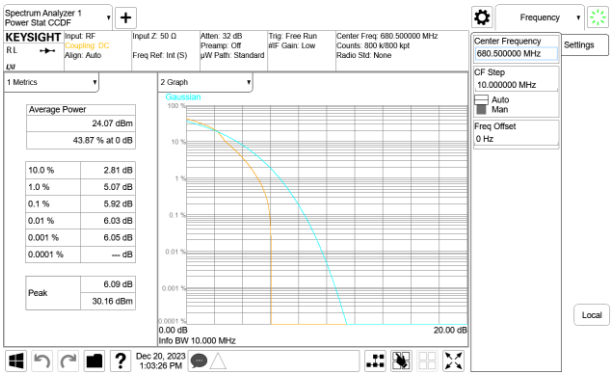
LTE B71 10MHz QPSK Middle Channel, ID:32061



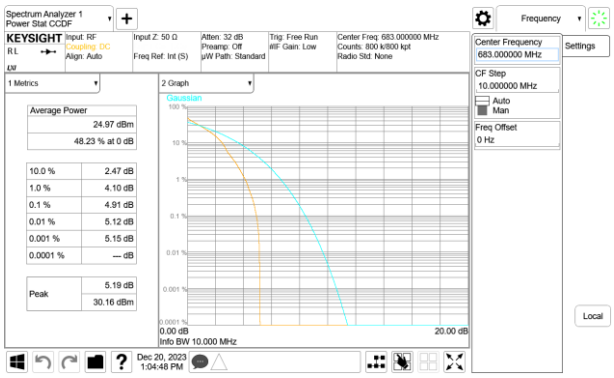
LTE B71 10MHz 16QAM Middle Channel, ID:32061



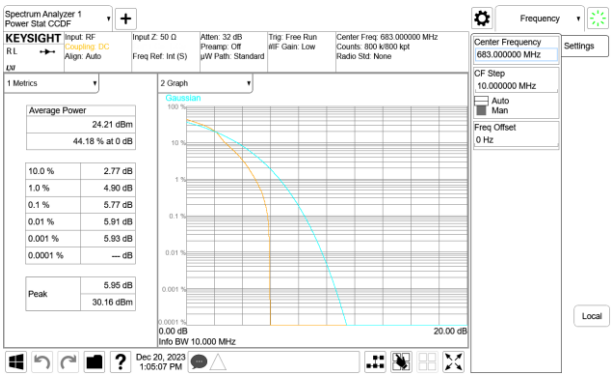
LTE B71 15MHz QPSK Middle Channel, ID:32061



LTE B71 15MHz 16QAM Middle Channel, ID:32061

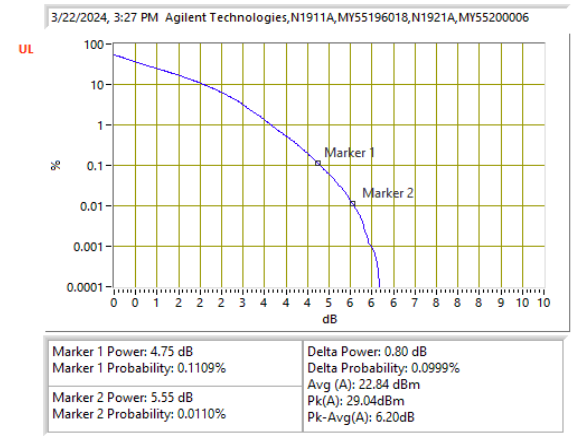


LTE B71 20MHz QPSK Middle Channel, ID:32061

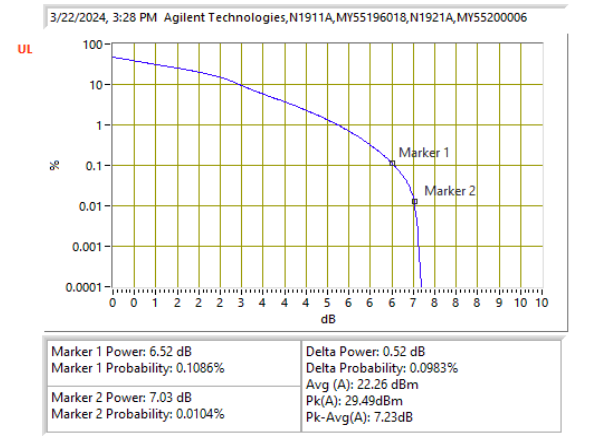


LTE B71 20MHz 16QAM Middle Channel, ID:32061

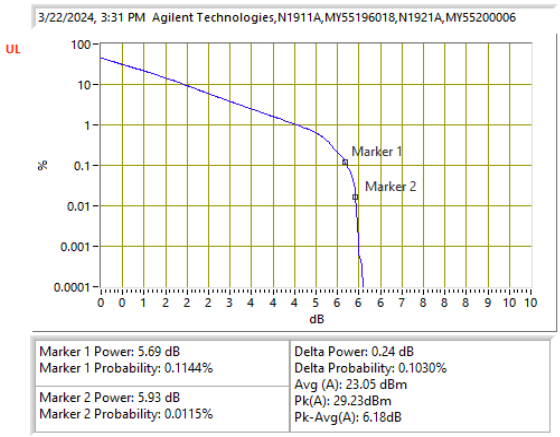
5G NR n71



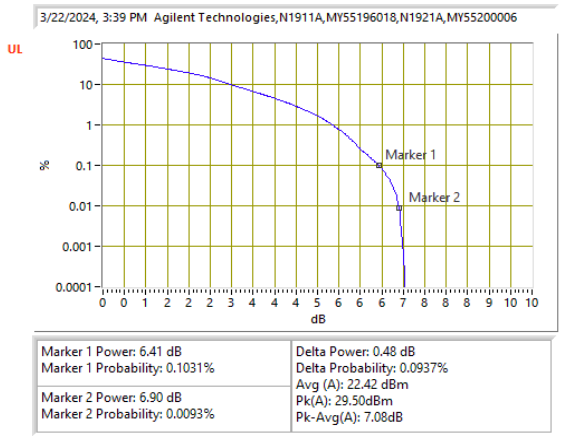
5G NR n71 5MHz BPSK Middle Channel, ID:27979



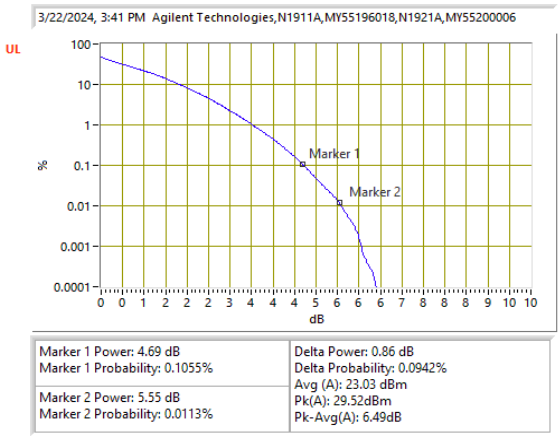
5G NR n71 5MHz 16QAM Middle Channel, ID:27979



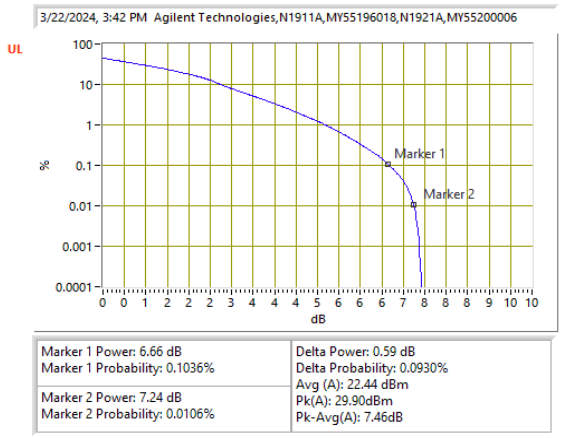
5G NR n71 10MHz BPSK Middle Channel, ID:27979



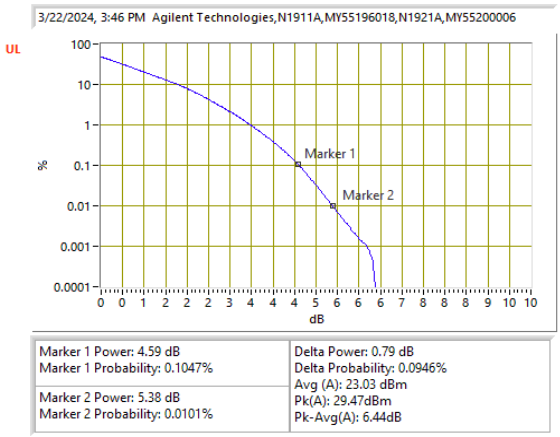
5G NR n71 10MHz 16QAM Middle Channel, ID:27979



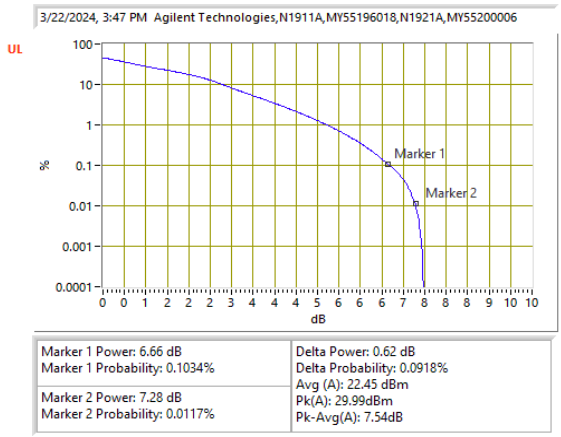
5G NR n71 15MHz BPSK Middle Channel, ID:27979



5G NR n71 15MHz 16QAM Middle Channel, ID:27979



5G NR n71 20MHz BPSK Middle Channel, ID:27979



5G NR n71 20MHz 16QAM Middle Channel, ID:27979

9.5.16. 5G NR n77 (FCC Part 27 3450-3550MHz)

Test Engineer ID:	24898 and 27966	Test Date:	2024-02-23 and 2024-04-29

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	30.32	18.40	*4.93
					16QAM	30.19	16.88	*6.32
	15MHz		36	0	BPSK	30.30	18.38	*4.93
					16QAM	30.29	16.93	*6.37
	20MHz		50	0	BPSK	30.27	18.36	*4.92
					16QAM	30.20	16.88	*6.33
	25MHz		64	0	BPSK	30.54	18.19	*5.36
					16QAM	30.25	16.87	*6.39
	30MHz		75	0	BPSK	30.48	18.41	*5.08
					16QAM	30.25	16.87	*6.39
	40MHz		100	0	BPSK	30.59	18.40	*5.2
					16QAM	30.26	16.89	*6.38
	50MHz		128	0	BPSK	30.48	18.43	*5.06
					16QAM	30.12	16.90	*6.23
	60MHz		162	0	BPSK	30.30	18.46	*4.85
					16QAM	30.02	16.91	*6.12
	70MHz		180	0	BPSK	30.30	18.45	*4.86
					16QAM	30.10	16.88	*6.23
	80MHz		216	0	BPSK	30.00	18.44	*4.57
					16QAM	29.92	16.84	*6.09
	90MHz		243	0	BPSK	29.95	18.44	*4.52
					16QAM	29.82	16.82	*6.01
	100MHz		270	0	BPSK	29.69	18.45	*4.25
					16QAM	29.78	16.83	*5.96
*Duty Cycle Correction Factor (dB) =			6.99					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.17. 5G NR n77 (FCC Part 27 3700-3980MHz)

Test Engineer ID:	27979 and 27966	Test Date:	2024-03-25 and 2024-04-29

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	30.23	17.59	*5.64
					16QAM	30.16	16.13	*7.03
	15MHz		36	0	BPSK	30.44	17.59	*5.85
					16QAM	30.14	16.07	*7.07
	20MHz		50	0	BPSK	30.33	17.59	*5.74
					16QAM	30.17	16.06	*7.11
	25MHz		64	0	BPSK	31.16	18.60	*5.56
					16QAM	31.11	17.14	*6.97
	30MHz		75	0	BPSK	30.21	17.61	*5.6
					16QAM	30.26	16.09	*7.17
	40MHz		100	0	BPSK	30.12	17.60	*5.52
					16QAM	30.08	16.08	*7
	50MHz		128	0	BPSK	30.04	17.63	*5.41
					16QAM	29.96	16.08	*6.88
	60MHz		162	0	BPSK	29.84	17.61	*5.23
					16QAM	29.83	16.06	*6.77
	70MHz		180	0	BPSK	29.63	17.60	*5.03
					16QAM	29.62	16.02	*6.6
	80MHz		216	0	BPSK	29.40	17.62	*4.78
					16QAM	29.43	16.01	*6.42
	90MHz		243	0	BPSK	29.31	17.63	*4.68
					16QAM	29.26	16.03	*6.23
	100MHz		270	0	BPSK	29.10	17.58	*4.52
					16QAM	29.10	15.97	*6.13
*Duty Cycle Correction Factor (dB) =			7.00					
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.

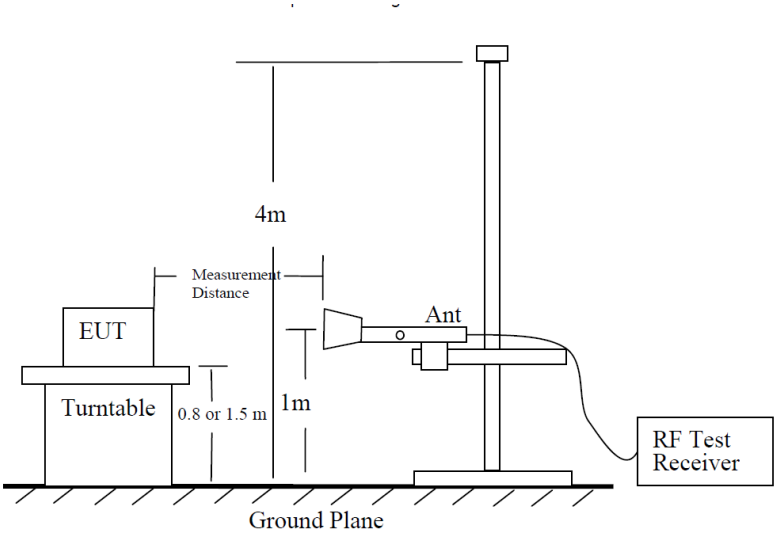


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

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.

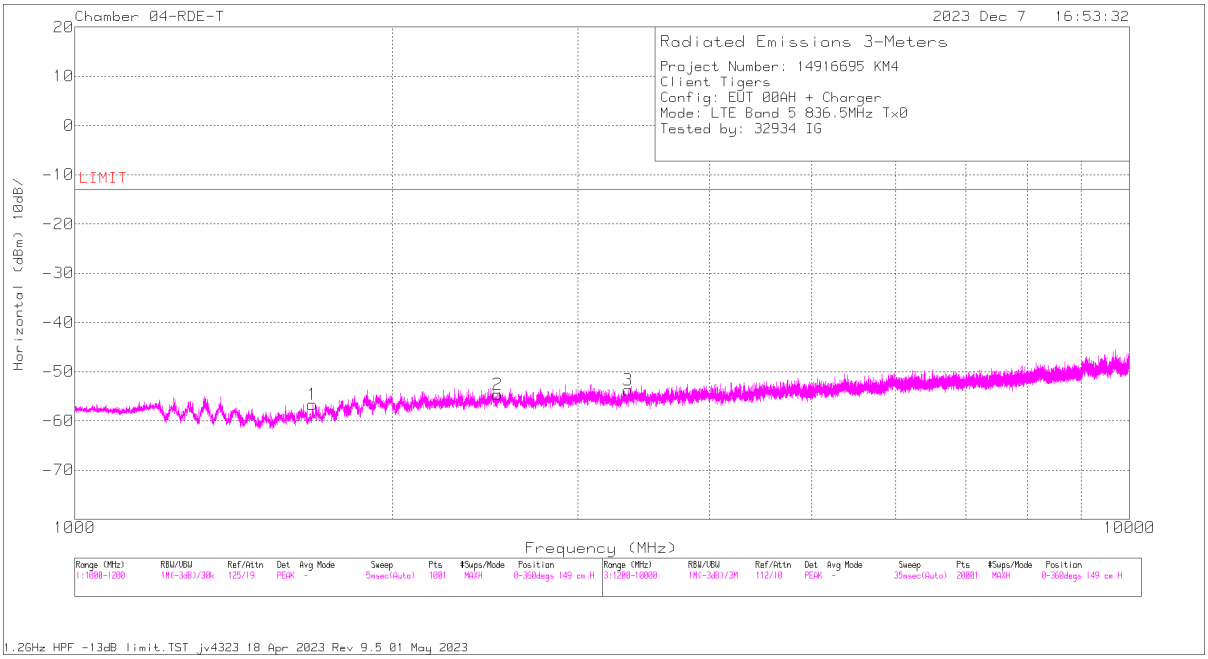
So, from d)

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

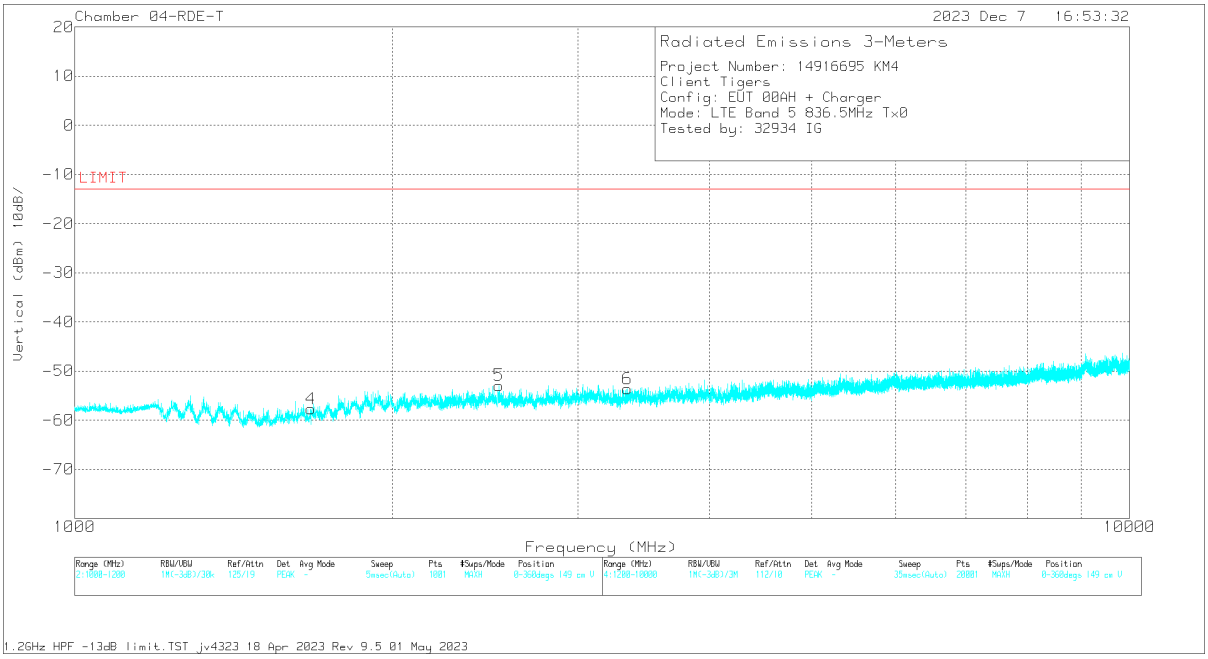
Then, EIRP (dBm) = E (dBμV/m) + 9.5424 − 104.8 = E (dBμV/m) – 95.2576

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	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
1.68048	57.54	Pk	28.8	-95.2	-47.81	-56.67	-13	-43.67	H
2.51692	56.44	Pk	32.3	-95.2	-48.19	-54.65	-13	-41.65	H
3.34852	54.12	Pk	32.7	-95.2	-45.40	-53.78	-13	-40.78	H
1.67432	56.6	Pk	28.7	-95.2	-47.76	-57.66	-13	-44.66	V
2.52572	58.01	Pk	32.3	-95.2	-48.03	-52.92	-13	-39.92	V
3.34192	54.27	Pk	32.7	-95.2	-45.37	-53.60	-13	-40.60	V

Pk - Peak detector

10.1. FIELD STRENGTH OF SPURIOUS RADIATION, ANT0

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 5 AND 5G NR n5

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 5 (10.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2023-12-7
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE5 QPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	222740 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 829MHz									
1.653200	56.57	Pk	28.5	-95.2	-47.77	-57.90	-13	-44.90	H
2.481720	57.24	Pk	32.2	-95.2	-48.49	-54.25	-13	-41.25	H
3.317280	53.44	Pk	32.7	-95.2	-45.22	-54.28	-13	-41.28	H
1.650560	58.38	Pk	28.4	-95.2	-47.76	-56.18	-13	-43.18	V
2.476000	56.89	Pk	32.2	-95.2	-48.45	-54.56	-13	-41.56	V
3.319004	53.73	Pk	32.7	-95.2	-45.30	-54.07	-13	-41.07	V
Mid Channel, 836.5MHz									
1.68048	57.54	Pk	28.8	-95.2	-47.81	-56.67	-13	-43.67	H
2.51692	56.44	Pk	32.3	-95.2	-48.19	-54.65	-13	-41.65	H
3.34852	54.12	Pk	32.7	-95.2	-45.40	-53.78	-13	-40.78	H
1.67432	56.6	Pk	28.7	-95.2	-47.76	-57.66	-13	-44.66	V
2.52572	58.01	Pk	32.3	-95.2	-48.03	-52.92	-13	-39.92	V
3.34192	54.27	Pk	32.7	-95.2	-45.37	-53.6	-13	-40.60	V
High Channel, 844MHz									
1.682680	56.89	Pk	28.8	-95.2	-47.85	-57.36	-13	-44.36	H
2.537600	56.88	Pk	32.3	-95.2	-48.11	-54.13	-13	-41.13	H
3.375800	55.76	Pk	32.7	-95.2	-45.39	-52.13	-13	-39.13	H
1.675640	57.35	Pk	28.7	-95.2	-47.88	-57.03	-13	-44.03	V
2.516040	57.17	Pk	32.3	-95.2	-48.29	-54.02	-13	-41.02	V
3.372280	54.35	Pk	32.7	-95.2	-45.49	-53.64	-13	-40.64	V

BPSK 5G NR n5 (20.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-8

Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n5 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, 834MHz									
1.649040	70.68	Pk	29.8	-95.2	-49.52	-44.24	-13	-31.24	H
2.506600	59.12	Pk	32.3	-95.2	-50.21	-53.99	-13	-40.99	H
3.319750	56.24	Pk	32.9	-95.2	-47.41	-53.47	-13	-40.47	H
1.631350	58.72	Pk	29.6	-95.2	-49.57	-56.45	-13	-43.45	V
2.502550	59.75	Pk	32.3	-95.2	-50.25	-53.4	-13	-40.40	V
3.332800	55.92	Pk	32.8	-95.2	-47.25	-53.73	-13	-40.73	V
Mid Channel, 836.5MHz									
1.653890	68.64	Pk	29.9	-95.2	-49.52	-46.18	-13	-33.18	H
2.522350	59.07	Pk	32.4	-95.2	-49.98	-53.71	-13	-40.71	H
3.335500	56.98	Pk	32.8	-95.2	-47.27	-52.69	-13	-39.69	H
1.665100	59.31	Pk	30	-95.2	-49.58	-55.47	-13	-42.47	V
2.507050	59.53	Pk	32.3	-95.2	-50.22	-53.59	-13	-40.59	V
3.328750	56.29	Pk	32.8	-95.2	-47.23	-53.34	-13	-40.34	V
High Channel, 839MHz									
1.659203	67.58	Pk	29.9	-95.2	-49.57	-47.29	-13	-34.29	H
2.505700	59.44	Pk	32.3	-95.2	-50.21	-53.67	-13	-40.67	H
3.349900	55.81	Pk	32.8	-95.2	-47.22	-53.81	-13	-40.81	H
1.659036	66.33	Pk	29.9	-95.2	-49.57	-48.54	-13	-35.54	V
2.497150	59.56	Pk	32.3	-95.2	-50.35	-53.69	-13	-40.69	V
3.331000	55.43	Pk	32.8	-95.2	-47.22	-54.19	-13	-41.19	V

10.1.2. 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 #:	15107858
Date:	2023-12-5
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	LTE 7 QPSK 20MHz
Chamber #:	05-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80402 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2510MHz									
5.026000	54.99	Pk	34.0	-95.2	-46.5	-52.71	-25	-27.71	H
7.540000	53.42	Pk	35.8	-95.2	-44.29	-50.27	-25	-25.27	H
10.07500	53.32	Pk	37.2	-95.2	-42.36	-47.04	-25	-22.04	H
4.996000	55.92	Pk	34.0	-95.2	-46.34	-51.62	-25	-26.62	V
7.491000	54.06	Pk	35.7	-95.2	-44.26	-49.7	-25	-24.70	V
10.04850	52.73	Pk	37.1	-95.2	-42.67	-48.04	-25	-23.04	V
Mid Channel, 2535MHz									
5.07100	54.69	Pk	34.1	-95.2	-46.55	-52.96	-25	-27.96	H
7.60200	53.65	Pk	35.8	-95.2	-44.18	-49.93	-25	-24.93	H
10.14100	52.93	Pk	37.2	-95.2	-41.84	-46.91	-25	-21.91	H
5.06500	55.22	Pk	34.1	-95.2	-46.6	-52.48	-25	-27.48	V
7.619500	53.44	Pk	35.8	-95.2	-44.27	-50.23	-25	-25.23	V
10.09650	53.79	Pk	37.2	-95.2	-42.65	-46.86	-25	-21.86	V
High Channel, 2560MHz									
5.135500	55.45	Pk	34.2	-95.2	-46.31	-51.86	-25	-26.86	H
7.685500	52.65	Pk	35.8	-95.2	-44.33	-51.08	-25	-26.08	H
10.251000	52.90	Pk	37.3	-95.2	-42.44	-47.44	-25	-22.44	H
5.112500	55.48	Pk	34.1	-95.2	-46.25	-51.87	-25	-26.87	V
7.683000	53.34	Pk	35.8	-95.2	-44.32	-50.38	-25	-25.38	V
10.233500	53.91	Pk	37.3	-95.2	-42.40	-46.39	-25	-21.39	V

BPSK 5G NR n7 (50.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-6
Test Engineer:	321934
Configuration:	EUT + Support Equipment
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									
5.060000	57.86	Pk	34.3	-95.2	-49.61	-52.65	-25	-27.65	H
7.501911	70.86	Pk	35.6	-95.2	-47.98	-36.72	-25	-11.72	H
10.08650	57.59	Pk	37.6	-95.2	-48.51	-48.52	-25	-23.52	H
5.064250	58.45	Pk	34.3	-95.2	-49.60	-52.05	-25	-27.05	V
7.501909	73.64	Pk	35.6	-95.2	-47.98	-33.94	-25	-8.94	V
10.08500	57.64	Pk	37.5	-95.2	-48.5	-48.56	-25	-23.56	V
Mid Channel, 2535MHz									
5.075000	57.94	Pk	34.3	-95.2	-49.57	-52.53	-25	-27.53	H
7.546912	74.31	Pk	35.6	-95.2	-48.08	-33.37	-25	-8.37	H
10.16450	57.53	Pk	37.6	-95.2	-47.80	-47.87	-25	-22.87	H
5.052000	59.09	Pk	34.3	-95.2	-49.60	-51.41	-25	-26.41	V
7.546924	67.32	Pk	35.6	-95.2	-48.08	-40.36	-25	-15.36	V
10.14300	58.28	Pk	37.6	-95.2	-48.02	-47.34	-25	-22.34	V
High Channel, 2545MHz									
5.107500	58.42	Pk	34.4	-95.2	-49.48	-51.86	-25	-26.86	H
7.591727	65.18	Pk	35.7	-95.2	-48.10	-42.42	-25	-17.42	H
10.150500	57.46	Pk	37.6	-95.2	-47.93	-48.07	-25	-23.07	H
5.115000	57.54	Pk	34.4	-95.2	-49.45	-52.71	-25	-27.71	V
7.591860	70.52	Pk	35.7	-95.2	-48.11	-37.09	-25	-12.09	V
10.191000	58.05	Pk	37.6	-95.2	-47.47	-47.02	-25	-22.02	V

10.1.3. 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 #:	15107858
Date:	2023-12-7
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE12 QPSK 10MHz
Chamber #:	05-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 704MHz									
1.420880	58.22	Pk	28.2	-95.2	-47.12	-55.90	-13	-42.90	H
2.113440	57.02	Pk	31.4	-95.2	-48.24	-55.02	-13	-42.02	H
2.826680	55.51	Pk	32.3	-95.2	-47.07	-54.46	-13	-41.46	H
1.414720	57.20	Pk	28.3	-95.2	-47.08	-56.78	-13	-43.78	V
2.110360	57.46	Pk	31.4	-95.2	-48.28	-54.62	-13	-41.62	V
2.839440	55.78	Pk	32.3	-95.2	-47.18	-54.30	-13	-41.30	V
Mid Channel, 707.5MHz									
1.414280	57.20	Pk	28.3	-95.2	-47.11	-56.81	-13	-43.81	H
2.113000	57.96	Pk	31.4	-95.2	-48.23	-54.07	-13	-41.07	H
2.817880	56.17	Pk	32.3	-95.2	-47.26	-53.99	-13	-40.99	H
1.419120	57.56	Pk	28.2	-95.2	-47.11	-56.55	-13	-43.55	V
2.096280	57.57	Pk	31.4	-95.2	-48.38	-54.61	-13	-41.61	V
2.824040	57.02	Pk	32.3	-95.2	-47.45	-53.33	-13	-40.33	V
High Channel, 711MHz									
1.423080	57.71	Pk	28.2	-95.2	-47.10	-56.39	-13	-43.39	H
2.135440	57.31	Pk	31.5	-95.2	-48.43	-54.82	-13	-41.82	H
2.848680	56.71	Pk	32.3	-95.2	-46.95	-53.14	-13	-40.14	H
1.419560	57.79	Pk	28.2	-95.2	-47.10	-56.31	-13	-43.31	V
2.130160	57.45	Pk	31.5	-95.2	-48.61	-54.86	-13	-41.86	V
2.855280	56.59	Pk	32.4	-95.2	-47.01	-53.22	-13	-40.22	V

BPSK 5G NR n12 (15.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2023-2-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment

Mode	N12 BPSK 15MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 706.5MHz									
1.398971	68.12	Pk	28.8	-95.2	-49.14	-47.42	-13	-34.42	H
2.113750	59.40	Pk	31.9	-95.2	-49.69	-53.59	-13	-40.59	H
2.824750	57.69	Pk	32.7	-95.2	-49.5	-54.31	-13	-41.31	H
1.398963	70.50	Pk	28.8	-95.2	-49.14	-45.04	-13	-32.04	V
2.113300	58.88	Pk	31.9	-95.2	-49.68	-54.10	-13	-41.1	V
2.827900	57.62	Pk	32.7	-95.2	-49.47	-54.35	-13	-41.35	V
Mid Channel, 707.5MHz									
1.401011	70.28	Pk	28.8	-95.2	-49.14	-45.26	-13	-32.26	H
2.116000	58.79	Pk	31.9	-95.2	-49.73	-54.24	-13	-41.24	H
2.819350	57.88	Pk	32.7	-95.2	-49.6	-54.22	-13	-41.22	H
1.400917	71.26	Pk	28.8	-95.2	-49.14	-44.28	-13	-31.28	V
2.107450	58.22	Pk	31.9	-95.2	-49.61	-54.69	-13	-41.69	V
2.813950	59.12	Pk	32.7	-95.2	-49.68	-53.06	-13	-40.06	V
High Channel, 708.5MHz									
1.402973	71.06	Pk	28.7	-95.2	-49.14	-44.58	-13	-31.58	H
2.113750	59.86	Pk	31.9	-95.2	-49.69	-53.13	-13	-40.13	H
2.841400	58.14	Pk	32.7	-95.2	-49.26	-53.62	-13	-40.62	H
1.402936	70.04	Pk	28.7	-95.2	-49.14	-45.60	-13	-32.60	V
2.116000	59.25	Pk	31.9	-95.2	-49.73	-53.78	-13	-40.78	V
2.846350	58.33	Pk	32.7	-95.2	-49.21	-53.38	-13	-40.38	V

10.1.4. 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 #:	15107858

Date:	2023-12-7
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE13 QPSK 10MHz
Chamber #:	05-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.566550	57.93	Pk	27.8	-95.2	-47.96	-57.43	-40	-17.43	H
2.360800	57.44	Pk	32.0	-95.2	-48.18	-53.94	-13	-40.94	H
3.124450	53.66	Pk	32.9	-95.2	-45.05	-53.69	-13	-40.69	H
1.568800	58.57	Pk	27.9	-95.2	-47.87	-56.60	-40	-16.60	V
2.345950	57.72	Pk	31.9	-95.2	-48.20	-53.78	-13	-40.78	V
3.129400	54.95	Pk	32.9	-95.2	-45.16	-52.51	-13	-39.51	V

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

10.1.5. 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 #:	15107858
Date:	2023-12-7
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE14 QPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.598500	57.62	Pk	28.0	-95.2	-47.89	-57.47	-40	-17.47	H
2.373400	56.66	Pk	32.1	-95.2	-48.08	-54.52	-13	-41.52	H
3.169900	53.07	Pk	32.8	-95.2	-44.74	-54.07	-13	-41.07	H
1.605700	57.22	Pk	28.0	-95.2	-47.66	-57.64	-40	-17.64	V
2.351350	57.02	Pk	32.0	-95.2	-48.18	-54.36	-13	-41.36	V
3.150550	53.72	Pk	32.9	-95.2	-45.12	-53.70	-13	-40.70	V

BPSK 5G NR n14 (10.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-3-19
Test Engineer:	32188
Configuration:	EUT + Support Equipment
Mode	N14 BPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.576900	57.41	Pk	28.2	-95.2	-47.92	-57.51	-40	-17.51	H
2.372050	54.32	Pk	33.2	-95.2	-48.15	-55.83	-13	-42.83	H
3.162700	52.07	Pk	32.7	-95.2	-44.94	-55.37	-13	-42.37	H
1.576892	69.15	Pk	28.2	-95.2	-47.92	-45.77	-40	-5.77	V
2.372050	55.13	Pk	33.2	-95.2	-48.15	-55.02	-13	-42.02	V
3.162700	53.05	Pk	32.7	-95.2	-44.94	-54.39	-13	-41.39	V

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

10.1.6. 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 #:	15107858
Date:	2023-12-7
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE17 QPSK 10MHz
Chamber #:	05-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 709MHz									
1.428360	57.70	Pk	28.1	-95.2	-47.16	-56.56	-13	-43.56	H
2.131040	58.36	Pk	31.5	-95.2	-48.63	-53.97	-13	-40.97	H
2.856600	55.44	Pk	32.4	-95.2	-46.88	-54.24	-13	-41.24	H
1.419120	57.58	Pk	28.2	-95.2	-47.11	-56.53	-13	-43.53	V
2.131040	57.33	Pk	31.5	-95.2	-48.63	-55.00	-13	-42.00	V
2.861292	57.17	Pk	32.4	-95.2	-47.04	-52.67	-13	-39.67	V
Mid Channel, 710MHz									
1.410760	56.90	Pk	28.3	-95.2	-47.06	-57.06	-13	-44.06	H
2.140280	57.83	Pk	31.5	-95.2	-48.46	-54.33	-13	-41.33	H
2.844280	56.32	Pk	32.3	-95.2	-47.04	-53.62	-13	-40.62	H
1.409000	57.59	Pk	28.3	-95.2	-47.17	-56.48	-13	-43.48	V
2.128840	57.55	Pk	31.5	-95.2	-48.50	-54.65	-13	-41.65	V
2.871120	55.15	Pk	32.4	-95.2	-46.97	-54.62	-13	-41.62	V
High Channel, 711MHz									
1.41912	57.45	Pk	28.2	-95.2	-47.11	-56.66	-13	-43.66	H
2.14116	57.53	Pk	31.5	-95.2	-48.45	-54.62	-13	-41.62	H
2.85088	55.50	Pk	32.3	-95.2	-46.88	-54.28	-13	-41.28	H
1.42044	57.10	Pk	28.2	-95.2	-47.11	-57.01	-13	-44.01	V
2.14864	58.06	Pk	31.5	-95.2	-48.57	-54.21	-13	-41.21	V
2.84868	56.45	Pk	32.3	-95.2	-46.95	-53.40	-13	-40.40	V

10.1.7. 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 #:	15107858
Date:	2023-12-5
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 25 QPSK 20MHz
Chamber #:	05-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.765000	54.71	Pk	33.3	-95.2	-45.28	-52.47	-13	-39.47	H
7.524500	53.05	Pk	35.7	-95.2	-44.29	-50.74	-13	-37.74	H
3.763500	54.25	Pk	33.3	-95.2	-45.31	-52.96	-13	-39.96	V
7.489500	54.23	Pk	35.7	-95.2	-44.51	-49.78	-13	-36.78	V
5.621500	54.21	Pk	34.5	-95.2	-45.44	-51.93	-13	-38.93	V
5.639500	54.00	Pk	34.5	-95.2	-45.31	-52.01	-13	-39.01	H
Mid Channel, 1882.5MHz									
3.760500	54.86	Pk	33.3	-95.2	-45.34	-52.38	-13	-39.38	H
7.525000	54.08	Pk	35.7	-95.2	-44.27	-49.69	-13	-36.69	H
3.723500	54.03	Pk	33.2	-95.2	-45.26	-53.23	-13	-40.23	V
7.521000	53.76	Pk	35.7	-95.2	-44.27	-50.01	-13	-37.01	V
5.546500	54.01	Pk	34.5	-95.2	-45.24	-51.93	-13	-38.93	V
5.547000	54.92	Pk	34.5	-95.2	-45.22	-51.00	-13	-38.00	H
High Channel, 1905MHz									
3.807250	53.42	Pk	33.4	-95.2	-45.34	-53.72	-13	-40.72	H
7.612000	53.32	Pk	35.8	-95.2	-43.66	-49.74	-13	-36.74	H
3.800000	53.83	Pk	33.4	-95.2	-45.44	-53.41	-13	-40.41	V
7.595000	53.55	Pk	35.8	-95.2	-43.78	-49.63	-13	-36.63	V
5.700000	53.99	Pk	34.5	-95.2	-45.33	-52.04	-13	-39.04	V
5.723000	54.29	Pk	34.6	-95.2	-45.18	-51.49	-13	-38.49	H

BPSK 5G NR n25 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-16

Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N25 BPSK 40MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.765000	54.93	Pk	33.4	-95.2	-45.28	-52.15	-13	-39.15	H
7.507000	53.68	Pk	35.5	-95.2	-44.34	-50.36	-13	-37.36	H
3.753500	54.57	Pk	33.3	-95.2	-45.36	-52.69	-13	-39.69	V
7.508000	53.34	Pk	35.5	-95.2	-44.39	-50.75	-13	-37.75	V
5.595500	54.28	Pk	34.8	-95.2	-45.37	-51.49	-13	-38.49	H
5.601000	54.28	Pk	34.8	-95.2	-45.33	-51.45	-13	-38.45	V
Mid Channel, 1882.5MHz									
3.772500	54.20	Pk	33.4	-95.2	-45.06	-52.66	-13	-39.66	H
7.537500	54.31	Pk	35.6	-95.2	-44.09	-49.38	-13	-36.38	H
3.782000	54.10	Pk	33.4	-95.2	-45.36	-53.06	-13	-40.06	V
7.544000	53.77	Pk	35.6	-95.2	-44.1	-49.93	-13	-36.93	V
5.601000	53.96	Pk	34.8	-95.2	-45.33	-51.77	-13	-38.77	V
5.622500	54.61	Pk	34.8	-95.2	-45.42	-51.21	-13	-38.21	H
High Channel, 1895MHz									
3.786500	54.97	Pk	33.4	-95.2	-45.38	-52.21	-13	-39.21	H
7.601000	53.47	Pk	35.6	-95.2	-43.61	-49.74	-13	-36.74	H
3.782000	54.01	Pk	33.4	-95.2	-45.36	-53.15	-13	-40.15	V
7.602000	52.64	Pk	35.6	-95.2	-43.59	-50.55	-13	-37.55	V
5.666500	53.96	Pk	34.9	-95.2	-45.35	-51.69	-13	-38.69	V
5.694500	54.26	Pk	34.9	-95.2	-45.27	-51.31	-13	-38.31	H

10.1.8. LTE BAND 26 AND 5G NR n26 (FCC 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 #:	15107858
Date:	2023-12-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.629284	69.22	Pk	28.2	-95.2	-47.90	-45.68	-13	-32.68	V
1.640440	57.40	Pk	28.3	-95.2	-47.73	-57.23	-13	-44.23	H
2.443620	65.14	Pk	32.2	-95.2	-48.56	-46.42	-13	-33.42	H
2.443767	67.48	Pk	32.2	-95.2	-48.58	-44.10	-13	-31.1	V
3.258320	53.83	Pk	32.7	-95.2	-45.31	-53.98	-13	-40.98	H
3.282080	53.10	Pk	32.7	-95.2	-45.19	-54.59	-13	-41.59	V

BPSK 5G NR n26 (10.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-9
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N26 BPSK 10MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.628650	58.96	Pk	29.6	-95.2	-49.57	-56.21	-13	-43.21	V
1.628931	68.19	Pk	29.6	-95.2	-49.58	-46.99	-13	-33.99	H
2.443247	66.18	Pk	32.1	-95.2	-50.27	-47.19	-13	-34.19	V
2.443476	72.92	Pk	32.1	-95.2	-50.27	-40.45	-13	-27.45	H
3.280600	56.04	Pk	32.9	-95.2	-47.66	-53.92	-13	-40.92	H
3.280600	56.83	Pk	32.9	-95.2	-47.66	-53.13	-13	-40.13	V

10.1.9. LTE BAND 26 AND 5G NR n26 (FCC 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 #:	15107858
Date:	2023-12-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-T

BPSK 5G NR n26 (20.0MHZ BANDWIDTH)

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 829MHz									
1.654043	71.94	Pk	28.5	-95.2	-47.75	-42.51	-13	-29.51	V
1.654159	67.78	Pk	28.5	-95.2	-47.74	-46.66	-13	-33.66	H
2.481186	66.29	Pk	32.2	-95.2	-48.46	-45.17	-13	-32.17	H
2.481377	67.69	Pk	32.2	-95.2	-48.47	-43.78	-13	-30.78	V
3.328720	53.62	Pk	32.7	-95.2	-45.19	-54.07	-13	-41.07	H
3.342800	53.33	Pk	32.7	-95.2	-45.47	-54.64	-13	-41.64	V
Mid Channel, 836.5MHz									
1.6642670	66.24	Pk	28.6	-95.2	-47.65	-48.01	-13	-35.01	H
2.4962220	67.28	Pk	32.3	-95.2	-48.33	-43.95	-13	-30.95	H
1.6641400	69.45	Pk	28.6	-95.2	-47.65	-44.8	-13	-31.8	V
2.4963010	68.09	Pk	32.3	-95.2	-48.34	-43.15	-13	-30.15	V
3.3357600	54.30	Pk	32.7	-95.2	-45.44	-53.64	-13	-40.64	H
3.3472000	53.92	Pk	32.7	-95.2	-45.36	-53.94	-13	-40.94	V
High Channel, 844MHz									
1.674131	67.10	Pk	28.7	-95.2	-47.75	-47.15	-13	-34.15	H
1.674170	66.57	Pk	28.7	-95.2	-47.75	-47.68	-13	-34.68	V
2.511223	65.81	Pk	32.3	-95.2	-48.36	-45.45	-13	-32.45	H
2.511231	65.86	Pk	32.3	-95.2	-48.36	-45.40	-13	-32.40	V
3.362600	54.12	Pk	32.7	-95.2	-45.33	-53.71	-13	-40.71	V
3.365680	54.61	Pk	32.7	-95.2	-45.45	-53.34	-13	-40.34	H

Project #:	15107858
Date:	2024-2-9
Test Engineer:	32934

Configuration:	EUT + Support Equipment
Mode	N26 BPSK 20MHz
Chamber #:	05-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 834.0MHz									
1.649048	71.85	Pk	29.8	-95.2	-49.52	-43.07	-13	-30.07	H
2.473535	73.21	Pk	32.2	-95.2	-50.48	-40.27	-13	-27.27	H
2.473766	67.10	Pk	32.2	-95.2	-50.47	-46.37	-13	-33.37	V
1.662400	58.29	Pk	30.0	-95.2	-49.55	-56.46	-13	-43.46	V
3.339100	55.91	Pk	32.8	-95.2	-47.18	-53.67	-13	-40.67	V
3.340450	56.29	Pk	32.8	-95.2	-47.17	-53.28	-13	-40.28	H
Mid Channel, 836.5MHz									
1.654123	68.86	Pk	29.9	-95.2	-49.52	-45.96	-13	-32.96	H
2.480986	66.46	Pk	32.2	-95.2	-50.47	-47.01	-13	-34.01	V
2.480990	67.95	Pk	32.2	-95.2	-50.47	-45.52	-13	-32.52	H
1.663300	58.64	Pk	30.0	-95.2	-49.56	-56.12	-13	-43.12	V
3.338650	57.43	Pk	32.8	-95.2	-47.19	-52.16	-13	-39.16	V
3.344950	55.95	Pk	32.8	-95.2	-47.18	-53.63	-13	-40.63	H
High Channel, 839.0Hz									
1.659077	69.34	Pk	29.9	-95.2	-49.57	-45.53	-13	-32.53	H
1.659345	67.21	Pk	29.9	-95.2	-49.56	-47.65	-13	-34.65	V
2.488509	71.79	Pk	32.2	-95.2	-50.42	-41.63	-13	-28.63	V
2.488538	72.29	Pk	32.2	-95.2	-50.42	-41.13	-13	-28.13	H
3.343600	56.15	Pk	32.8	-95.2	-47.16	-53.41	-13	-40.41	V
3.345400	55.73	Pk	32.8	-95.2	-47.19	-53.86	-13	-40.86	H

10.1.10. 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 #:	15107858
Date:	2024-2-19
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 30 QPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.611253	44.66	RMS	34.1	-95.2	-47.20	-63.64	-40	-23.64	H
4.588208	44.25	RMS	34.1	-95.2	-47.16	-64.01	-40	-24.01	V
6.916873	45.99	RMS	35.8	-95.2	-44.93	-58.34	-40	-18.34	V
6.950094	42.23	RMS	35.7	-95.2	-44.85	-62.12	-40	-22.12	H
9.247257	42.30	RMS	36.2	-95.2	-43.09	-59.79	-40	-19.79	V
9.250199	42.25	RMS	36.2	-95.2	-43.01	-59.76	-40	-19.76	H

BPSK 5G NR n30 (10.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-16
Test Engineer:	32188
Configuration:	EUT + Support Equipment
Mode	N30 BPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.610548	45.05	RMS	34.1	-95.2	-47.13	-63.18	-40	-23.18	H
4.611126	44.61	RMS	34.1	-95.2	-47.18	-63.67	-40	-23.67	V
6.915818	43.65	RMS	35.8	-95.2	-44.89	-60.64	-40	-20.64	H
6.916219	50.78	RMS	35.8	-95.2	-44.91	-53.53	-40	-13.53	V
9.219131	41.65	RMS	36.1	-95.2	-42.96	-60.41	-40	-20.41	V
9.222743	41.71	RMS	36.1	-95.2	-42.91	-60.30	-40	-20.30	H

10.1.11. LTE BAND 41 AND 5G NR n41 HPUE

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 #:	15107858
Date:	2024-2-19
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 41 QPSK 20MHz
Chamber #:	4-RDE-T

BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)

Frequency (GHz)	Meter Reading (dBuV)	Det	808480 ACF (dB)	EIRP CF	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2506MHz										
4.997000	44.08	RMS	34.1	-95.2	4.01	-46.36	-59.37	-25	-34.37	H
7.507500	42.45	RMS	35.5	-95.2	4.01	-43.86	-57.10	-25	-32.10	H
10.008000	41.82	RMS	37.6	-95.2	4.01	-42.73	-54.50	-25	-29.50	H
4.974500	44.32	RMS	34.1	-95.2	4.01	-46.28	-59.05	-25	-34.05	V
7.510000	42.47	RMS	35.5	-95.2	4.01	-43.77	-56.99	-25	-31.99	V
10.003000	42.07	RMS	37.6	-95.2	4.01	-42.75	-54.27	-25	-29.27	V
Mid Channel, 2593MHz										
5.198500	44.02	RMS	34.5	-95.2	3.99	-45.81	-58.50	-25	-33.50	H
7.752174	49.46	RMS	35.7	-95.2	3.99	-44.02	-50.07	-25	-25.07	H
10.379000	42.00	RMS	37.8	-95.2	3.99	-42.34	-53.75	-25	-28.75	H
5.183500	44.08	RMS	34.5	-95.2	3.99	-45.72	-58.35	-25	-33.35	V
7.752321	45.82	RMS	35.7	-95.2	3.99	-44.02	-53.71	-25	-28.71	V
10.356500	42.20	RMS	37.8	-95.2	3.99	-42.33	-53.54	-25	-28.54	V
High Channel, 2680MHz										
5.368000	43.26	RMS	34.7	-95.2	3.98	-46.04	-59.30	-25	-34.30	H
8.013321	51.88	RMS	35.8	-95.2	3.98	-43.60	-47.14	-25	-22.14	H
10.741000	42.39	RMS	38.0	-95.2	3.98	-41.77	-52.60	-25	-27.60	H
5.316000	43.19	RMS	34.6	-95.2	3.98	-46.11	-59.54	-25	-34.54	V
8.013308	50.35	RMS	35.8	-95.2	3.98	-43.60	-48.67	-25	-23.67	V
10.700500	42.56	RMS	38.0	-95.2	3.98	-41.99	-52.65	-25	-27.65	V

Project #:	15107858
Date:	2024-3-6
Test Engineer:	32188
Configuration:	EUT + Support Equipment
Mode	N41 BPSK 100MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	808480 ACF (dB)	EIRP CF	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2546MHz										
4.993617	44.06	RMS	34.3	-95.2	7.02	-46.52	-56.34	-25	-31.34	V
4.994024	44.07	RMS	34.3	-95.2	7.02	-46.5	-56.31	-25	-31.31	H
7.487624	42.98	RMS	35.5	-95.2	7.02	-45.03	-54.73	-25	-29.73	H
7.487668	43.00	RMS	35.5	-95.2	7.02	-45.03	-54.71	-25	-29.71	V
9.983020	43.01	RMS	37.1	-95.2	7.02	-44.18	-52.25	-25	-27.25	H
9.984188	43.05	RMS	37.1	-95.2	7.02	-44.16	-52.19	-25	-27.19	V
Mid Channel, 2593MHz										
5.086046	44.21	RMS	34.3	-95.2	6.99	-46.45	-56.15	-25	-31.15	V
5.087723	44.16	RMS	34.3	-95.2	6.99	-46.48	-56.23	-25	-31.23	H
7.628727	42.94	RMS	35.6	-95.2	6.99	-44.75	-54.42	-25	-29.42	H
7.631197	43.02	RMS	35.6	-95.2	6.99	-44.77	-54.36	-25	-29.36	V
10.171999	44.06	RMS	37.2	-95.2	6.99	-44.19	-51.14	-25	-26.14	H
10.173081	44.07	RMS	37.2	-95.2	6.99	-44.19	-51.13	-25	-26.13	V
High Channel, 2640MHz										
5.182407	43.62	RMS	34.2	-95.2	7.14	-46.48	-56.72	-25	-31.72	V
5.182502	43.63	RMS	34.2	-95.2	7.14	-46.48	-56.71	-25	-31.71	H
7.768437	43.09	RMS	35.6	-95.2	7.14	-44.59	-53.96	-25	-28.96	V
7.771398	43.09	RMS	35.6	-95.2	7.14	-44.53	-53.90	-25	-28.90	H
10.360669	43.58	RMS	37.4	-95.2	7.14	-44.56	-51.64	-25	-26.64	H
10.36095	43.55	RMS	37.4	-95.2	7.14	-44.55	-51.66	-25	-26.66	V

10.1.12. 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 #:	15107858
Date:	2024-12-7
Test Engineer:	23934
Configuration:	EUT + Support Equipment
Mode	LTE 66 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.435000	54.05	Pk	32.7	-95.2	-45.27	-53.72	-13	-40.72	H
5.158500	54.58	Pk	34.2	-95.2	-46.18	-52.6	-13	-39.6	H
6.883500	52.85	Pk	35.6	-95.2	-44.36	-51.11	-13	-38.11	H
3.399000	54.01	Pk	32.7	-95.2	-45.11	-53.6	-13	-40.6	V
5.117500	54.97	Pk	34.1	-95.2	-46.24	-52.37	-13	-39.37	V
6.824500	54.11	Pk	35.6	-95.2	-44.39	-49.88	-13	-36.88	V
Mid Channel, 1745MHz									
3.499500	54.18	Pk	32.8	-95.2	-45.22	-53.44	-13	-40.44	H
5.210500	55.12	Pk	34.3	-95.2	-46.09	-51.87	-13	-38.87	H
6.988000	54.27	Pk	35.6	-95.2	-43.62	-48.95	-13	-35.95	H
3.457000	54.22	Pk	32.8	-95.2	-45.3	-53.48	-13	-40.48	V
4.868658	57.79	Pk	33.9	-95.2	-46.78	-50.29	-13	-37.29	V
7.036500	53.91	Pk	35.6	-95.2	-43.61	-49.3	-13	-36.30	V
High Channel, 1770MHz									
3.547000	53.35	Pk	32.9	-95.2	-44.73	-53.68	-13	-40.68	H
5.298500	55.25	Pk	34.4	-95.2	-45.88	-51.43	-13	-38.43	H
7.065500	54.26	Pk	35.6	-95.2	-43.96	-49.30	-13	-36.30	H
3.555000	53.12	Pk	32.9	-95.2	-44.78	-53.96	-13	-40.96	V
5.279000	54.62	Pk	34.4	-95.2	-45.82	-52.00	-13	-39.00	V
7.042500	54.36	Pk	35.6	-95.2	-43.60	-48.84	-13	-35.84	V

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-8
Test Engineer:	25019

Configuration:	EUT + Support Equipment
Mode	N66 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.420500	54.27	Pk	32.8	-95.2	-46.89	-55.02	-13	-42.02	H
5.130500	55.81	Pk	34.4	-95.2	-49.20	-54.19	-13	-41.19	H
6.840500	52.15	Pk	35.6	-95.2	-46.55	-54.00	-13	-41.00	H
3.420500	54.33	Pk	32.8	-95.2	-46.89	-54.96	-13	-41.96	V
5.130500	55.45	Pk	34.4	-95.2	-49.20	-54.55	-13	-41.55	V
6.840500	52.97	Pk	35.6	-95.2	-46.55	-53.18	-13	-40.18	V
Mid Channel, 1745MHz									
3.451000	52.32	Pk	32.8	-95.2	-46.92	-57.00	-13	-44.00	H
5.175500	55.04	Pk	34.5	-95.2	-49.19	-54.85	-13	-41.85	H
6.900500	53.22	Pk	35.6	-95.2	-46.62	-53.00	-13	-40.00	H
3.451000	52.98	Pk	32.8	-95.2	-46.92	-56.34	-13	-43.34	V
5.175500	56.78	Pk	34.5	-95.2	-49.19	-53.11	-13	-40.11	V
6.900500	52.84	Pk	35.6	-95.2	-46.62	-53.38	-13	-40.38	V
High Channel, 1760MHz									
3.48100	52.83	Pk	32.8	-95.2	-47.04	-56.61	-13	-43.61	H
5.22100	55.55	Pk	34.5	-95.2	-49.21	-54.36	-13	-41.36	H
6.96100	53.32	Pk	35.7	-95.2	-46.59	-52.77	-13	-39.77	H
3.48100	52.56	Pk	32.8	-95.2	-47.04	-56.88	-13	-43.88	V
5.22100	55.68	Pk	34.5	-95.2	-49.21	-54.23	-13	-41.23	V
6.96100	53.23	Pk	35.7	-95.2	-46.59	-52.86	-13	-39.86	V

10.1.13. 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 #:	15107858
Date:	2024-2-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N70 BPSK 15MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 1702.5MHz									
3.419000	55.29	Pk	32.8	-95.2	-46.86	-53.97	-13	-40.97	H
5.111000	58.22	Pk	34.4	-95.2	-49.33	-51.91	-13	-38.91	H
6.814000	54.85	Pk	35.6	-95.2	-46.21	-50.96	-13	-37.96	H
3.411500	55.12	Pk	32.7	-95.2	-46.81	-54.19	-13	-41.19	V
5.100000	57.49	Pk	34.3	-95.2	-49.4	-52.81	-13	-39.81	V
6.816000	54.93	Pk	35.6	-95.2	-46.18	-50.85	-13	-37.85	V

10.1.14. LTE BAND 71 AND 5G NR n71

LIMITS

FCC: §27.53 (g)

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

QPSK LTE BAND 71 (20.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2023-12-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 71 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz									
1.328226	63.89	Pk	28.6	-95.2	-47.23	-49.94	-13	-36.94	H
1.992317	64.32	Pk	31.2	-95.2	-48.02	-47.70	-13	-34.70	H
2.692040	56.53	Pk	32.2	-95.2	-47.75	-54.22	-13	-41.22	H
1.328352	64.45	Pk	28.6	-95.2	-47.23	-49.38	-13	-36.38	V
1.992236	64.54	Pk	31.2	-95.2	-48.02	-47.48	-13	-34.48	V
2.710520	57.12	Pk	32.2	-95.2	-47.46	-53.34	-13	-40.34	V
Mid Channel, 680.5MHz									
1.364120	56.61	Pk	28.5	-95.2	-47.18	-57.27	-13	-44.27	H
2.712720	55.97	Pk	32.2	-95.2	-47.53	-54.56	-13	-41.56	H
2.014864	70.45	Pk	31.3	-95.2	-48.09	-41.54	-13	-28.54	H
1.369840	57.24	Pk	28.5	-95.2	-47.27	-56.73	-13	-43.73	V
2.014843	72.68	Pk	31.3	-95.2	-48.09	-39.31	-13	-26.31	V
2.701280	56.73	Pk	32.2	-95.2	-47.64	-53.91	-13	-40.91	V
High Channel, 688MHz									
1.372920	57.15	Pk	28.5	-95.2	-47.28	-56.83	-13	-43.83	H
2.037314	64.36	Pk	31.3	-95.2	-48.12	-47.66	-13	-34.66	H
2.759800	56.10	Pk	32.2	-95.2	-47.54	-54.44	-13	-41.44	H
1.372040	56.97	Pk	28.5	-95.2	-47.22	-56.95	-13	-43.95	V
2.037222	64.63	Pk	31.3	-95.2	-48.11	-47.38	-13	-34.38	V
2.756280	55.76	Pk	32.2	-95.2	-47.46	-54.70	-13	-41.70	V

BPSK 5G NR n71 (20.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-6
Test Engineer:	32934
Configuration:	EUT + Support Equipment
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									
1.368100	56.25	Pk	29	-95.2	-49.17	-59.12	-13	-46.12	H
2.059750	59.12	Pk	32.1	-95.2	-49.56	-53.54	-13	-40.54	H
2.752300	57.35	Pk	32.5	-95.2	-49.53	-54.88	-13	-41.88	H
1.378450	56.44	Pk	28.9	-95.2	-49.16	-59.02	-13	-46.02	V
2.058400	59.56	Pk	32.1	-95.2	-49.56	-53.10	-13	-40.10	V
2.761750	58.05	Pk	32.6	-95.2	-49.67	-54.22	-13	-41.22	V
Mid Channel, 680.5MHz									
1.353700	59.64	Pk	29.1	-95.2	-49.19	-55.65	-13	-42.65	H
2.052550	59.98	Pk	32.1	-95.2	-49.63	-52.75	-13	-39.75	H
2.713150	58.07	Pk	32.5	-95.2	-49.39	-54.02	-13	-41.02	H
1.341550	59.60	Pk	29.2	-95.2	-49.21	-55.61	-13	-42.61	V
2.051200	59.02	Pk	32.1	-95.2	-49.65	-53.73	-13	-40.73	V
2.710900	57.39	Pk	32.5	-95.2	-49.40	-54.71	-13	-41.71	V
High Channel, 688MHz									
1.381600	57.12	Pk	28.9	-95.2	-49.18	-58.36	-13	-45.36	H
2.064250	58.80	Pk	32.0	-95.2	-49.54	-53.94	-13	-40.94	H
2.759500	57.37	Pk	32.5	-95.2	-49.64	-54.97	-13	-41.97	H
1.386550	57.75	Pk	28.9	-95.2	-49.19	-57.74	-13	-44.74	V
2.056150	59.84	Pk	32.1	-95.2	-49.57	-52.83	-13	-39.83	V
2.758150	57.73	Pk	32.5	-95.2	-49.62	-54.59	-13	-41.59	V

10.2. FIELD STRENGTH OF SPURIOUS RADIATION, ANT1

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 5 AND 5G NR n5

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 5 (10.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2023-12-7
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	LTE5 QPSK 10MHz
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, 829MHz									
1.649211	70.28	Pk	29.8	-95.2	-49.52	-44.64	-13	-31.64	H
2.475100	59.51	Pk	32.2	-95.2	-50.48	-53.97	-13	-40.97	H
3.315700	55.31	Pk	32.9	-95.2	-47.39	-54.38	-13	-41.38	H
1.649213	70.10	Pk	29.8	-95.2	-49.52	-44.82	-13	-31.82	V
2.473788	63.84	Pk	32.2	-95.2	-50.47	-49.63	-13	-36.63	V
3.296350	56.09	Pk	32.9	-95.2	-47.57	-53.78	-13	-40.78	V
Mid Channel, 836.5MHz									
1.664046	68.48	Pk	30.0	-95.2	-49.57	-46.29	-13	-33.29	H
2.496276	68.46	Pk	32.3	-95.2	-50.36	-44.8	-13	-31.80	H
3.336400	55.48	Pk	32.8	-95.2	-47.26	-54.18	-13	-41.18	H
1.664143	68.88	Pk	30.0	-95.2	-49.57	-45.89	-13	-32.89	V
2.496427	66.11	Pk	32.3	-95.2	-50.36	-47.15	-13	-34.15	V
3.333250	55.68	Pk	32.8	-95.2	-47.25	-53.97	-13	-40.97	V
High Channel, 844MHz									
1.679107	66.26	Pk	30.1	-95.2	-49.59	-48.43	-13	-35.43	H
2.531800	58.86	Pk	32.4	-95.2	-49.91	-53.85	-13	-40.85	H
3.388600	54.96	Pk	32.7	-95.2	-47.13	-54.67	-13	-41.67	H
1.678600	60.10	Pk	30.1	-95.2	-49.59	-54.59	-13	-41.59	V
2.513800	59.43	Pk	32.3	-95.2	-50.09	-53.56	-13	-40.56	V
3.385450	55.87	Pk	32.7	-95.2	-47.09	-53.72	-13	-40.72	V

BPSK 5G NR n5 (20.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n5 BPSK 20MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 834MHz									
1.649102	69.86	Pk	29.8	-95.2	-49.52	-45.06	-13	-32.06	H
2.501650	60.08	Pk	32.3	-95.2	-50.28	-53.10	-13	-40.10	H
3.329650	55.69	Pk	32.8	-95.2	-47.21	-53.92	-13	-40.92	H
1.649350	58.78	Pk	29.8	-95.2	-49.52	-56.14	-13	-43.14	V
2.494000	59.40	Pk	32.3	-95.2	-50.39	-53.89	-13	-40.89	V
3.348100	56.04	Pk	32.8	-95.2	-47.20	-53.56	-13	-40.56	V
Mid Channel, 836.5MHz									
1.654044	68.48	Pk	29.9	-95.2	-49.52	-46.34	-13	-33.34	H
2.497150	59.39	Pk	32.3	-95.2	-50.35	-53.86	-13	-40.86	H
3.341350	56.35	Pk	32.8	-95.2	-47.16	-53.21	-13	-40.21	H
1.662850	59.49	Pk	30	-95.2	-49.55	-55.26	-13	-42.26	V
2.497600	60.25	Pk	32.3	-95.2	-50.35	-53.00	-13	-40.00	V
3.341800	56.58	Pk	32.8	-95.2	-47.15	-52.97	-13	-39.97	V
High Channel, 839MHz									
1.659050	67.53	Pk	29.9	-95.2	-49.57	-47.34	-13	-34.34	H
2.523250	58.97	Pk	32.4	-95.2	-49.97	-53.80	-13	-40.80	H
3.347650	55.66	Pk	32.8	-95.2	-47.2	-53.94	-13	-40.94	H
1.658925	65.45	Pk	29.9	-95.2	-49.57	-49.42	-13	-36.42	V
2.535400	59.12	Pk	32.4	-95.2	-49.89	-53.57	-13	-40.57	V
3.348100	55.88	Pk	32.8	-95.2	-47.2	-53.72	-13	-40.72	V

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 #:	15107858
Date:	2023-12-7
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	LTE12 QPSK 10MHz
Chamber #:	4-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 704MHz									
1.399159	71.66	Pk	28.8	-95.2	-49.14	-43.88	-13	-30.88	H
2.105200	58.19	Pk	31.9	-95.2	-49.57	-54.68	-13	-41.68	H
2.814400	58.12	Pk	32.7	-95.2	-49.67	-54.05	-13	-41.05	H
1.399217	76.27	Pk	28.8	-95.2	-49.14	-39.27	-13	-26.27	V
2.108800	58.32	Pk	31.9	-95.2	-49.63	-54.61	-13	-41.61	V
2.808550	58.68	Pk	32.7	-95.2	-49.68	-53.50	-13	-40.50	V
Mid Channel, 707.5MHz									
1.406185	74.86	Pk	28.7	-95.2	-49.13	-40.77	-13	-27.77	H
1.876014	61.32	Pk	31.8	-95.2	-49.9	-51.98	-13	-38.98	H
2.827450	58.03	Pk	32.7	-95.2	-49.48	-53.95	-13	-40.95	H
1.406203	75.78	Pk	28.7	-95.2	-49.13	-39.85	-13	-26.85	V
1.877297	64.08	Pk	31.8	-95.2	-49.89	-49.21	-13	-36.21	V
2.814850	58.63	Pk	32.7	-95.2	-49.66	-53.53	-13	-40.53	V
High Channel, 711MHz									
1.413212	74.4	Pk	28.7	-95.2	-49.16	-41.26	-13	-28.26	H
2.132200	57.77	Pk	31.9	-95.2	-50.01	-55.54	-13	-42.54	H
2.849500	58.09	Pk	32.7	-95.2	-49.18	-53.59	-13	-40.59	H
1.413266	74.41	Pk	28.7	-95.2	-49.16	-41.25	-13	-28.25	V
2.124550	58.85	Pk	31.9	-95.2	-49.88	-54.33	-13	-41.33	V
2.850850	59.07	Pk	32.7	-95.2	-49.16	-52.59	-13	-39.59	V

BPSK 5G NR n12 (15.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
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									
1.398250	59.81	Pk	28.8	-95.2	-49.14	-55.73	-13	-42.73	H
2.121400	58.19	Pk	31.9	-95.2	-49.83	-54.94	-13	-41.94	H
2.819800	57.75	Pk	32.7	-95.2	-49.58	-54.33	-13	-41.33	H
1.398970	70.28	Pk	28.8	-95.2	-49.14	-45.26	-13	-32.26	V
2.121850	58.62	Pk	31.9	-95.2	-49.83	-54.51	-13	-41.51	V
2.808100	58.78	Pk	32.7	-95.2	-49.69	-53.41	-13	-40.41	V
Mid Channel, 707.5MHz									
1.397800	60.29	Pk	28.8	-95.2	-49.14	-55.25	-13	-42.25	H
2.129050	58.61	Pk	31.9	-95.2	-49.94	-54.63	-13	-41.63	H
2.815300	58.53	Pk	32.7	-95.2	-49.66	-53.63	-13	-40.63	H
1.401012	69.09	Pk	28.8	-95.2	-49.14	-46.45	-13	-33.45	V
2.117800	58.65	Pk	31.9	-95.2	-49.78	-54.43	-13	-41.43	V
2.826100	59.18	Pk	32.7	-95.2	-49.51	-52.83	-13	-39.83	V
High Channel, 708.5MHz									
1.402750	60.48	Pk	28.7	-95.2	-49.14	-55.16	-13	-42.16	H
2.120500	58.54	Pk	31.9	-95.2	-49.82	-54.58	-13	-41.58	H
2.833750	58.50	Pk	32.7	-95.2	-49.36	-53.36	-13	-40.36	H
1.402667	68.32	Pk	28.7	-95.2	-49.14	-47.32	-13	-34.32	V
2.121400	58.42	Pk	31.9	-95.2	-49.83	-54.71	-13	-41.71	V
2.829700	58.15	Pk	32.7	-95.2	-49.44	-53.79	-13	-40.79	V

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 #:	15107858
Date:	2024-2-16
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	LTE13 QPSK 10MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 782MHz									
1.559800	55.68	Pk	27.7	-95.2	-47.42	-59.24	-40	-19.24	H
2.338750	54.90	Pk	31.5	-95.2	-48.03	-56.83	-13	-43.83	H
3.121300	54.30	Pk	32.9	-95.2	-46.63	-54.63	-13	-41.63	H
1.559800	54.90	Pk	27.7	-95.2	-47.42	-60.02	-40	-20.02	V
2.338750	55.58	Pk	31.5	-95.2	-48.03	-56.15	-13	-43.15	V
3.121300	53.49	Pk	32.9	-95.2	-46.63	-55.44	-13	-42.44	V

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

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 #:	15107858
Date:	22023-12-7
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	LTE14 QPSK 10MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.577218	69.98	Pk	28.9	-95.2	-49.50	-45.82	-40	-5.82	H
2.376100	59.48	Pk	32.0	-95.2	-49.85	-53.57	-13	-40.57	H
3.177550	56.55	Pk	32.9	-95.2	-47.69	-53.44	-13	-40.44	H
1.577123	73.30	Pk	28.9	-95.2	-49.50	-42.5	-40	-2.50	V
2.368900	58.99	Pk	31.9	-95.2	-49.89	-54.2	-13	-41.2	V
3.174850	56.14	Pk	32.9	-95.2	-47.72	-53.88	-13	-40.88	V

BPSK 5G NR n14 (10.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-3-19
Test Engineer:	32188
Configuration:	EUT + Support Equipment
Mode	N14 BPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 793MHz									
1.576900	57.41	Pk	28.2	-95.2	-47.92	-57.51	-40	-17.51	H
2.372050	54.32	Pk	33.2	-95.2	-48.15	-55.83	-13	-42.83	H
3.162700	52.07	Pk	32.7	-95.2	-44.94	-55.37	-13	-42.37	H
1.576892	69.15	Pk	28.2	-95.2	-47.92	-45.77	-40	-5.77	V
2.372050	55.13	Pk	33.2	-95.2	-48.15	-55.02	-13	-42.02	V
3.162700	53.05	Pk	32.7	-95.2	-44.94	-54.39	-13	-41.39	V

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

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 #:	15107858
Date:	2023-12-7
Test Engineer:	25916
Configuration:	EUT + Support Equipment
Mode	LTE17 QPSK 10MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 709MHz									
1.409183	73.66	Pk	28.7	-95.2	-49.14	-41.98	-13	-28.98	H
1.756679	61.42	Pk	30.7	-95.2	-49.62	-52.70	-13	-39.70	H
2.852650	58.38	Pk	32.7	-95.2	-49.14	-53.26	-13	-40.26	H
1.409207	76.06	Pk	28.7	-95.2	-49.14	-39.58	-13	-26.58	V
1.866769	62.01	Pk	31.7	-95.2	-49.88	-51.37	-13	-38.37	V
2.853100	58.08	Pk	32.7	-95.2	-49.14	-53.56	-13	-40.56	V
Mid Channel, 710MHz									
1.411253	73.01	Pk	28.7	-95.2	-49.14	-42.63	-13	-29.63	H
2.128150	57.25	Pk	31.9	-95.2	-49.93	-55.98	-13	-42.98	H
2.839600	58.08	Pk	32.7	-95.2	-49.24	-53.66	-13	-40.66	H
1.411235	75.51	Pk	28.7	-95.2	-49.14	-40.13	-13	-27.13	V
2.119600	58.39	Pk	31.9	-95.2	-49.81	-54.72	-13	-41.72	V
2.828350	58.16	Pk	32.7	-95.2	-49.46	-53.80	-13	-40.80	V
High Channel, 711MHz									
1.413151	73.89	Pk	28.7	-95.2	-49.16	-41.77	-13	-28.77	H
1.763596	61.38	Pk	30.8	-95.2	-49.60	-52.62	-13	-39.62	H
2.839150	57.16	Pk	32.7	-95.2	-49.25	-54.59	-13	-41.59	H
1.413101	62.86	Pk	28.7	-95.2	-49.16	-52.80	-13	-39.80	V
2.120104	62.98	Pk	31.9	-95.2	-49.81	-50.13	-13	-37.13	V
2.853100	58.33	Pk	32.7	-95.2	-49.14	-53.31	-13	-40.31	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 #:	15107858
Date:	2024-4-1
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 25 QPSK 20MHz
Chamber #:	05-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.719500	54.29	Pk	33.3	-95.2	-44.95	-52.56	-13	-39.56	H
7.440000	53.78	Pk	35.5	-95.2	-44.29	-50.21	-13	-37.21	H
3.724500	54.42	Pk	33.3	-95.2	-45.27	-52.75	-13	-39.75	V
7.463500	53.29	Pk	35.5	-95.2	-44.29	-50.70	-13	-37.70	V
5.553289	61.60	Pk	34.8	-95.2	-45.13	-43.93	-13	-30.93	H
5.553580	65.03	Pk	34.8	-95.2	-45.14	-40.51	-13	-27.51	V
Mid Channel, 1882.5MHz									
3.719500	54.44	Pk	33.3	-95.2	-44.95	-52.41	-13	-39.41	H
7.578500	52.86	Pk	35.6	-95.2	-43.93	-50.67	-13	-37.67	H
3.721000	54.36	Pk	33.3	-95.2	-45.12	-52.66	-13	-39.66	V
7.560500	53.24	Pk	35.6	-95.2	-44.13	-50.49	-13	-37.49	V
5.620596	60.29	Pk	34.8	-95.2	-45.43	-45.54	-13	-32.54	H
5.620728	65.27	Pk	34.8	-95.2	-45.43	-40.56	-13	-27.56	V
High Channel, 1905MHz									
3.792134	62.75	Pk	33.4	-95.2	-45.24	-44.29	-13	-31.29	H
7.624500	53.53	Pk	35.6	-95.2	-43.82	-49.89	-13	-36.89	H
3.792403	62.64	Pk	33.4	-95.2	-45.24	-44.4	-13	-31.40	V
7.623500	53.94	Pk	35.6	-95.2	-43.8	-49.46	-13	-36.46	V
5.688254	63.69	Pk	34.9	-95.2	-45.36	-41.97	-13	-28.97	H
5.688387	66.92	Pk	34.9	-95.2	-45.36	-38.74	-13	-25.74	V

BPSK 5G NR n25 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-4-1

Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N25 BPSK 40MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.732000	55.23	Pk	33.3	-95.2	-45.31	-51.98	-13	-38.98	H
5.551820	64.31	Pk	34.8	-95.2	-45.15	-41.24	-13	-28.24	H
7.478000	54.14	Pk	35.5	-95.2	-44.20	-49.76	-13	-36.76	H
3.724000	55.44	Pk	33.3	-95.2	-45.27	-51.73	-13	-38.73	V
5.551701	66.42	Pk	34.8	-95.2	-45.14	-39.12	-13	-26.12	V
7.458500	53.60	Pk	35.5	-95.2	-44.30	-50.40	-13	-37.40	V
Mid Channel, 1882.5MHz									
3.773000	53.74	Pk	33.4	-95.2	-45.04	-53.10	-13	-40.10	H
5.589324	66.87	Pk	34.8	-95.2	-45.45	-38.98	-13	-25.98	H
7.551000	53.20	Pk	35.6	-95.2	-44.15	-50.55	-13	-37.55	H
3.758000	54.68	Pk	33.3	-95.2	-45.36	-52.58	-13	-39.58	V
5.589381	71.98	Pk	34.8	-95.2	-45.45	-33.87	-13	-20.87	V
7.544500	53.47	Pk	35.6	-95.2	-44.12	-50.25	-13	-37.25	V
High Channel, 1895MHz									
3.769500	54.12	Pk	33.4	-95.2	-45.39	-53.07	-13	-40.07	H
7.607000	53.53	Pk	35.6	-95.2	-43.55	-49.62	-13	-36.62	H
3.751218	56.58	Pk	33.3	-95.2	-45.1	-50.42	-13	-37.42	V
7.617500	53.2	Pk	35.6	-95.2	-43.7	-50.1	-13	-37.1	V
5.626762	70.19	Pk	34.8	-95.2	-45.41	-35.62	-13	-22.62	V
5.627088	65.89	Pk	34.8	-95.2	-45.41	-39.92	-13	-26.92	H

10.2.7. LTE BAND 26 AND 5G NR n26 (FCC 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 #:	15107858
Date:	2023-12-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-T

BPSK 5G NR n26 (15.0MHZ BANDWIDTH)

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 819MHz									
1.628560	57.26	Pk	28.2	-95.2	-47.86	-57.60	-13	-44.60	H
2.443668	64.35	Pk	32.2	-95.2	-48.57	-47.22	-13	-34.22	H
3.282960	53.50	Pk	32.7	-95.2	-45.06	-54.06	-13	-41.06	H
1.629227	70.22	Pk	28.2	-95.2	-47.9	-44.68	-13	-31.68	V
2.443696	63.62	Pk	32.2	-95.2	-48.57	-47.95	-13	-34.95	V
3.260520	53.60	Pk	32.7	-95.2	-45.16	-54.06	-13	-41.06	V

Project #:	15107858
Date:	2024-2-9
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N25 BPSK 15MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 821.5MHz									
1.628889	67.95	Pk	29.6	-95.2	-49.58	-47.23	-13	-34.23	H
2.481400	59.31	Pk	32.2	-95.2	-50.47	-54.16	-13	-41.16	H
3.296350	56.57	Pk	32.9	-95.2	-47.57	-53.30	-13	-40.30	H
1.628200	58.64	Pk	29.6	-95.2	-49.56	-56.52	-13	-43.52	V
2.481400	59.57	Pk	32.2	-95.2	-50.47	-53.90	-13	-40.90	V
3.282850	56.31	Pk	32.9	-95.2	-47.61	-53.60	-13	-40.60	V

10.2.8. LTE BAND 26 AND 5G NR n26 (FCC 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 #:	15107858
Date:	2023-12-8

Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 26 QPSK 10MHz
Chamber #:	04-RDE-T

BPSK 5G NR n26 (20.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-9
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 26 QPSK 20MHz
Chamber #:	01-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	172654 HPF (dB)	226673 ACF (dB) 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Frequency (GHz)	**Meter Reading (dBuV)**	**Det**			**EIRP CF**	**Gain/Loss (dB)**	**Corrected Reading (dBm)**	**LIMIT**	**Margin (dB)**	**Polarity**
					Low Channel, 834MHz					
					Low Channel, 829MHz					
3.290489	58.03	Pk	32.9		-95.2	-47.66	-51.93	-13	-38.93	H
1.6541195	59.21	68.80 Pk	Pk	32.3 28.5	-95.2	-47.74 -50.36	-45.64 -54.05	-13 -13	-32.64 -41.05	H H
2.4961700										
2.4811305	57.81	66.88 Pk	Pk	32.9 32.2	-95.2	-48.47 -47.62	-54.59 -52.11	-13 -13	-41.59 -39.11	H H
3.2804450										
3.3186600	59.66	53.40 Pk	Pk	30.0 32.7	-95.2	-45.32 -49.57	-54.42 -55.11	-13 -13	-41.42 -42.11	H V
1.6664200										
2.4944450	59.35	72.80 Pk	Pk	32.3 28.5	-95.2	-47.75 -50.38	-41.65 -53.93	-13 -13	-28.65 -40.93	V V
1.6654014										
3.2846550	56.80	68.12 Pk	Pk	32.9 32.2	-95.2	-48.46 -47.59	-43.34 -53.09	-13 -13	-30.34 -40.09	V V
2.4811200										
3.313320		53.58	Pk	32.7	-95.2	-45.19	-54.11	-13	-41.11	V
					Mid Channel, 836.5MHz					
					Mid Channel, 836.5MHz					
1.668700	59.24	Pk	30.0		-95.2	-49.57	-55.53	-13	-42.53	H
1.6643330	58.65	68.05 Pk	Pk	32.3 28.6	-95.2	-47.65 -50.25	-46.26 -54.5	-13 -13	-33.26 -41.50	H H
2.4961700										
2.4861110	55.72	66.00 Pk	Pk	32.8 32.3	-95.2	-48.31 -47.2	-45.21 -53.38	-13 -13	-32.21 -40.88	H H
3.3478950										
1.6664143	58.45	72.06 Pk	Pk	30.0 28.6	-95.2	-47.65 -49.58	-42.19 -56.33	-13 -13	-29.19 -43.33	V V
1.6651100										
2.4961700	59.99	67.99 Pk	Pk	32.3 32.3	-95.2	-48.34 -50.36	-43.25 -53.27	-13 -13	-30.25 -40.27	V V
2.4962349										
2.4961700	59.99	61.60 Pk	Pk	32.3 32.3	-95.2	-48.33 -50.36	-49.63 -53.27	-13 -13	-36.63 -40.27	V V
2.4962240										
3,352480		54.33	Pk	32.7	-95.2	-45.28	-53.45	-13	-40.45	V
					Mid Channel, 839.0MHz					
					High Channel, 844MHz					
1.669150	58.99	Pk	30		-95.2	-49.58	-55.79	-13	-42.79	H
1.6742143	58.86	63.89 Pk	Pk	32.4 28.7	-95.2	-47.75 -49.97	-50.36 -53.91	-13 -13	-37.36 -40.91	H H
2.5523250										
1.6740891	57.43	69.78 Pk	Pk	32.8 28.7	-95.2	-47.75 -47.23	-44.47 -52.20	-13 -13	-31.47 -39.20	V H
3.3283000										
2.5111611	59.85	65.96 Pk	Pk	29.9 32.3	-95.2	-48.36 -49.56	-45.30 -55.01	-13 -13	-32.30 -42.01	V V
1.6583500										
2.5113351	60.77	64.77 Pk	Pk	32.3 32.3	-95.2	-48.35 -50.35	-46.48 -52.48	-13 -13	-33.48 -39.48	H V
2.4978071										
3.3749201	55.27	64.42 Pk	Pk	32.8 32.7	-95.2	-45.56 -47.23	-53.64 -54.36	-13 -13	-40.64 -41.36	H V
3.3373001										
3.385920		54.20	Pk	32.7	-95.2	-45.38	-53.68	-13	-40.68	V

10.2.9. 5G NR n41 HPUE

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.

BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-3-11
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	N41 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2546MHz										
5.101000	43.73	RMS	34.3	-95.2	7	-46.42	-56.59	-25	-31.59	H
7.642000	42.31	RMS	35.6	-95.2	7	-44.23	-54.52	-25	-29.52	H
10.175000	42.42	RMS	37.7	-95.2	7	-42.02	-50.10	-25	-25.10	H
5.105000	43.80	RMS	34.3	-95.2	7	-46.29	-56.39	-25	-31.39	V
7.641000	42.26	RMS	35.6	-95.2	7	-44.22	-54.56	-25	-29.56	V
10.174500	42.27	RMS	37.7	-95.2	7	-42.05	-50.28	-25	-25.28	V
Mid Channel, 2593MHz										
5.190553	44.02	RMS	34.5	-95.2	6.98	-45.76	-55.46	-25	-30.46	H
7.758500	41.78	RMS	35.7	-95.2	6.98	-43.94	-54.68	-25	-29.68	H
10.371000	41.79	RMS	37.8	-95.2	6.98	-42.22	-50.85	-25	-25.85	H
5.191000	44.07	RMS	34.5	-95.2	6.98	-45.72	-55.37	-25	-30.37	V
7.758500	41.76	RMS	35.7	-95.2	6.98	-43.94	-54.70	-25	-29.70	V
10.371000	41.76	RMS	37.8	-95.2	6.98	-42.22	-50.88	-25	-25.88	V
High Channel, 2640MHz										
5.273000	43.52	RMS	34.6	-95.2	7.01	-45.88	-55.95	-25	-30.95	H
7.928000	42.03	RMS	35.8	-95.2	7.01	-43.28	-53.64	-25	-28.64	H
10.516000	41.68	RMS	38	-95.2	7.01	-42.69	-51.20	-25	-26.20	H
5.276000	43.38	RMS	34.6	-95.2	7.01	-45.80	-56.01	-25	-31.01	V
7.930000	41.94	RMS	35.8	-95.2	7.01	-43.31	-53.76	-25	-28.76	V
10.516500	41.70	RMS	38	-95.2	7.01	-42.67	-51.16	-25	-26.16	V

10.2.10. 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.

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-15
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n48 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB/m)	T1792 3400-3800MHz BRF	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 3560MHz										
7.142069	42.63	RMS	35.4	-95.2	7.03	-44.52	-54.66	-40	-14.66	H
10.704605	42.74	RMS	38.0	-95.2	7.03	-42.65	-50.08	-40	-10.08	H
14.284407	42.23	RMS	39.4	-95.2	7.03	-41.65	-48.19	-40	-8.19	H
7.144402	42.66	RMS	35.4	-95.2	7.03	-44.59	-54.70	-40	-14.70	V
10.627605	42.64	RMS	38.0	-95.2	7.03	-42.22	-49.75	-40	-9.75	V
14.225607	42.47	RMS	39.4	-95.2	7.03	-41.76	-48.06	-40	-8.06	V
Low Channel, 3625MHz										
7.259202	42.56	RMS	35.4	-95.2	6.98	-44.19	-54.45	-40	-14.45	H
10.890338	41.22	RMS	37.9	-95.2	6.98	-41.45	-50.55	-40	-10.55	H
14.490674	42.94	RMS	39.5	-95.2	6.98	-41.55	-47.33	-40	-7.33	H
10.936538	41.31	RMS	37.8	-95.2	6.98	-41.75	-50.86	-40	-10.86	V
7.191069	42.37	RMS	35.3	-95.2	6.98	-44.40	-54.95	-40	-14.95	V
14.468741	42.94	RMS	39.4	-95.2	6.98	-41.78	-47.66	-40	-7.66	V
High Channel, 3690MHz										
7.365136	42.51	RMS	35.4	-95.2	6.88	-44.47	-54.88	-40	-14.88	H
11.080272	42	RMS	37.8	-95.2	6.88	-42.02	-50.54	-40	-10.54	H
14.717941	42.04	RMS	39.8	-95.2	6.88	-41.18	-47.66	-40	-7.66	H
7.345069	42.47	RMS	35.4	-95.2	6.88	-44.42	-54.87	-40	-14.87	V
11.014938	41.36	RMS	37.8	-95.2	6.88	-41.59	-50.75	-40	-10.75	V
14.651208	42.37	RMS	39.7	-95.2	6.88	-40.74	-46.99	-40	-6.99	V

10.2.11. LTE BAND 66 AND 5G NR n66

LIMITS

FCC: §27.53 (h)
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

QPSK LTE BAND 66 (20.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2023-12-15
Test Engineer:	32188
Configuration:	EUT + Support Equipment
Mode	LTE 66 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.420500	54.89	Pk	32.8	-95.2	-46.89	-54.40	-13	-41.40	H
5.133278	65.80	Pk	34.4	-95.2	-49.18	-44.18	-13	-31.18	H
6.840500	54.61	Pk	35.6	-95.2	-46.55	-51.54	-13	-38.54	H
3.420500	54.42	Pk	32.8	-95.2	-46.89	-54.87	-13	-41.87	V
5.133196	69.00	Pk	34.4	-95.2	-49.19	-40.99	-13	-27.99	V
6.840500	53.02	Pk	35.6	-95.2	-46.55	-53.13	-13	-40.13	V
Mid Channel, 1745MHz									
3.522000	58.66	Pk	32.9	-95.2	-47.17	-50.81	-13	-37.81	H
5.283299	69.10	Pk	34.6	-95.2	-49.19	-40.69	-13	-27.69	H
7.040500	53.21	Pk	35.7	-95.2	-46.7	-52.99	-13	-39.99	H
3.522000	60.42	Pk	32.9	-95.2	-47.17	-49.05	-13	-36.05	V
5.283377	66.59	Pk	34.6	-95.2	-49.19	-43.2	-13	-30.20	V
7.040500	54.35	Pk	35.7	-95.2	-46.7	-51.85	-13	-38.85	V
High Channel, 1770MHz									
3.470000	53.35	Pk	32.8	-95.2	-45.05	-54.10	-13	-41.10	H
5.205500	53.27	Pk	34.3	-95.2	-46.16	-53.79	-13	-40.79	H
6.940500	52.60	Pk	35.6	-95.2	-44.07	-51.07	-13	-38.07	H
3.469750	52.44	Pk	32.8	-95.2	-45.08	-55.04	-13	-42.04	V
5.205500	52.82	Pk	34.3	-95.2	-46.16	-54.24	-13	-41.24	V
6.940500	51.14	Pk	35.6	-95.2	-44.07	-52.53	-13	-39.53	V

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-8
Test Engineer:	25019

Configuration:	EUT + Support Equipment
Mode	N66 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.420500	51.96	Pk	32.8	-95.2	-46.89	-57.33	-13	-44.33	H
5.130500	55.48	Pk	34.4	-95.2	-49.20	-54.52	-13	-41.52	H
6.840000	52.81	Pk	35.6	-95.2	-46.54	-53.33	-13	-40.33	H
3.420500	53.52	Pk	32.8	-95.2	-46.89	-55.77	-13	-42.77	V
5.130500	56.22	Pk	34.4	-95.2	-49.20	-53.78	-13	-40.78	V
6.840000	54.00	Pk	35.6	-95.2	-46.54	-52.14	-13	-39.14	V
Mid Channel, 1745MHz									
3.450500	53.38	Pk	32.8	-95.2	-46.93	-55.95	-13	-42.95	H
5.175500	56.48	Pk	34.5	-95.2	-49.19	-53.41	-13	-40.41	H
6.900000	54.61	Pk	35.6	-95.2	-46.61	-51.60	-13	-38.60	H
3.450500	53.35	Pk	32.8	-95.2	-46.93	-55.98	-13	-42.98	V
5.175500	55.21	Pk	34.5	-95.2	-49.19	-54.68	-13	-41.68	V
6.900000	54.14	Pk	35.6	-95.2	-46.61	-52.07	-13	-39.07	V
High Channel, 1760MHz									
3.480000	54.85	Pk	32.8	-95.2	-47.07	-54.62	-13	-41.62	H
3.480000	53.27	Pk	32.8	-95.2	-47.07	-56.20	-13	-43.20	V
5.220500	55.83	Pk	34.5	-95.2	-49.22	-54.09	-13	-41.09	H
5.220500	54.39	Pk	34.5	-95.2	-49.22	-55.53	-13	-42.53	V
6.961000	53.08	Pk	35.7	-95.2	-46.59	-53.01	-13	-40.01	H
6.96100	53.21	Pk	35.7	-95.2	-46.59	-52.88	-13	-39.88	V

10.2.12. 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 #:	15107858
Date:	2023-12-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 71 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 673MHz									
1.374379	59.14	Pk	28.5	-95.2	-47.33	-54.89	-13	-41.89	H
1.992258	63.27	Pk	31.2	-95.2	-48.02	-48.75	-13	-35.75	H
2.729880	56.19	Pk	32.2	-95.2	-47.73	-54.54	-13	-41.54	H
1.886469	59.59	Pk	30.8	-95.2	-48.25	-53.06	-13	-40.06	V
1.371600	57.05	Pk	28.5	-95.2	-47.25	-56.90	-13	-43.90	V
2.734720	56.25	Pk	32.2	-95.2	-47.44	-54.19	-13	-41.19	V
Mid Channel, 680.5MHz									
1.367200	55.95	Pk	28.5	-95.2	-47.26	-58.01	-13	-45.01	H
2.719760	55.75	Pk	32.2	-95.2	-47.56	-54.81	-13	-41.81	H
1.343443	64.16	Pk	28.6	-95.2	-47.32	-49.76	-13	-36.76	V
2.711840	56.65	Pk	32.2	-95.2	-47.44	-53.79	-13	-40.79	V
2.039960	57.12	Pk	31.4	-95.2	-48.3	-54.98	-13	-41.98	V
2.046560	57.17	Pk	31.4	-95.2	-48.32	-54.95	-13	-41.95	H
High Channel, 688MHz									
1.358036	63.05	Pk	28.6	-95.2	-47.28	-50.83	-13	-37.83	H
2.037320	61.36	Pk	31.3	-95.2	-48.12	-50.66	-13	-37.66	H
2.037064	65.21	Pk	31.3	-95.2	-48.10	-46.79	-13	-33.79	H
1.358191	61.86	Pk	28.6	-95.2	-47.28	-52.02	-13	-39.02	V
2.037355	63.27	Pk	31.3	-95.2	-48.12	-48.75	-13	-35.75	V
2.036880	60.96	Pk	31.3	-95.2	-48.08	-51.02	-13	-38.02	V

BPSK 5G NR n71 (20.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-6
Test Engineer:	32934
Configuration:	EUT + Support Equipment
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									
1.350550	59.91	Pk	29.1	-95.2	-49.19	-55.38	-13	-42.38	H
1.918900	59.69	Pk	32.1	-95.2	-49.54	-52.95	-13	-39.95	H
2.697400	59.44	Pk	32.5	-95.2	-49.49	-52.75	-13	-39.75	H
1.348750	58.77	Pk	29.2	-95.2	-49.17	-56.40	-13	-43.40	V
1.919800	59.40	Pk	32.1	-95.2	-49.54	-53.24	-13	-40.24	V
2.699650	58.85	Pk	32.5	-95.2	-49.48	-53.33	-13	-40.33	V
Mid Channel, 680.5MHz									
1.351900	59.64	Pk	29.1	-95.2	-49.19	-55.65	-13	-42.65	H
2.044000	59.28	Pk	32.1	-95.2	-49.72	-53.54	-13	-40.54	H
2.713600	57.84	Pk	32.5	-95.2	-49.40	-54.26	-13	-41.26	H
1.350100	59.55	Pk	29.1	-95.2	-49.18	-55.73	-13	-42.73	V
2.042650	58.94	Pk	32.1	-95.2	-49.71	-53.87	-13	-40.87	V
2.720800	57.75	Pk	32.5	-95.2	-49.36	-54.31	-13	-41.31	V
High Channel, 1760MHz									
1.383400	56.52	Pk	28.9	-95.2	-49.18	-58.96	-13	-45.96	H
2.060650	59.32	Pk	32.0	-95.2	-49.57	-53.45	-13	-40.45	H
2.745550	57.69	Pk	32.5	-95.2	-49.47	-54.48	-13	-41.48	H
1.385650	57.9	Pk	28.9	-95.2	-49.18	-57.58	-13	-44.58	V
2.054800	58.69	Pk	32.1	-95.2	-49.60	-54.01	-13	-41.01	V
2.750050	58.85	Pk	32.5	-95.2	-49.50	-53.35	-13	-40.35	V

10.2.13. 5G NR n77 (FCC Part 27 3450-3550MHz) HPUE

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 #:	15107858
Date:	2024-03-07
Test Engineer:	32934 IG
Configuration:	EUT + Support Equipment
Mode	N77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 3500MHz										
6.902202	42.63	RMS	35.9	-95.2	7.1	-44.51	-54.08	-13	-41.08	H
10.345271	42.18	RMS	37.8	-95.2	7.1	-42.03	-50.15	-13	-37.15	H
13.989007	42.38	RMS	39.4	-95.2	7.1	-41.48	-47.8	-13	-34.80	H
6.902362	43.11	RMS	35.9	-95.2	7.1	-44.5	-53.59	-13	-40.59	V
10.353255	46.49	RMS	37.8	-95.2	7.1	-42.36	-46.17	-13	-33.17	V
14.031474	42.47	RMS	39.4	-95.2	7.1	-41.00	-47.23	-13	-34.23	V

10.2.14. 5G NR n77 (FCC Part 27 3700-3980MHz) HPUE

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 #:	15107858
Date:	2024-2-22
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3750MHz										
7.501403	42.39	RMS	35.5	-95.2	7.04	-44.38	-54.65	-13	-41.65	H
11.255739	41.80	RMS	37.7	-95.2	7.04	-41.88	-50.54	-13	-37.54	H
15.009608	41.53	RMS	40.5	-95.2	7.04	-40.73	-46.86	-13	-33.86	H
7.486469	42.59	RMS	35.5	-95.2	7.04	-44.47	-54.54	-13	-41.54	V
11.226339	41.33	RMS	37.7	-95.2	7.04	-41.96	-51.09	-13	-38.09	V
15.050208	41.37	RMS	40.6	-95.2	7.04	-40.00	-46.19	-13	-33.19	V
Mid Channel, 3840MHz										
7.658203	42.52	RMS	35.6	-95.2	7.1	-44.18	-54.16	-13	-41.16	H
11.527805	41.16	RMS	38.1	-95.2	7.1	-41.44	-50.28	-13	-37.28	H
15.382941	40.98	RMS	41.4	-95.2	7.1	-39.64	-45.36	-13	-32.36	H
7.622036	42.42	RMS	35.6	-95.2	7.1	-43.97	-54.05	-13	-41.05	V
11.476005	40.85	RMS	38.0	-95.2	7.1	-41.65	-50.9	-13	-37.90	V
15.385275	40.89	RMS	41.4	-95.2	7.1	-39.71	-45.52	-13	-32.52	V
High Channel, 3930MHz										
7.762007	46.52	RMS	35.7	-95.2	7.12	-44.14	-50.00	-13	-37.00	H
11.645782	40.67	RMS	38.5	-95.2	7.12	-41.55	-50.46	-13	-37.46	H
15.713559	40.97	RMS	41.4	-95.2	7.12	-40.11	-45.82	-13	-32.82	H
7.762033	55.93	RMS	35.7	-95.2	7.12	-44.14	-40.59	-13	-27.59	V
11.643249	42.19	RMS	38.5	-95.2	7.12	-41.65	-49.04	-13	-36.04	V
15.795217	41.15	RMS	41.3	-95.2	7.12	-39.91	-45.54	-13	-32.54	V

10.3. FIELD STRENGTH OF SPURIOUS RADIATION, ANT2

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 #:	15107858
Date:	2023-12-5
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	LTE7 QPSK 20MHz
Chamber #:	04-RDE-T

BPSK 5G NR n7 (50.0MHZ BANDWIDTH)

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									
5.026000	54.99	Pk	34	-95.2	-46.50	-52.71	-25	-27.71	H
7.540000	53.42	Pk	35.8	-95.2	-44.29	-50.27	-25	-25.27	H
10.075000	53.32	Pk	37.2	-95.2	-42.36	-47.04	-25	-22.04	H
4.996000	55.92	Pk	34	-95.2	-46.34	-51.62	-25	-26.62	V
7.491000	54.06	Pk	35.7	-95.2	-44.26	-49.70	-25	-24.70	V
10.048500	52.73	Pk	37.1	-95.2	-42.67	-48.04	-25	-23.04	V
Mid Channel, 2535MHz									
5.071000	54.69	Pk	34.1	-95.2	-46.55	-52.96	-25	-27.96	H
7.602000	53.65	Pk	35.8	-95.2	-44.18	-49.93	-25	-24.93	H
10.141000	52.93	Pk	37.2	-95.2	-41.84	-46.91	-25	-21.91	H
5.065000	55.22	Pk	34.1	-95.2	-46.60	-52.48	-25	-27.48	V
7.619500	53.44	Pk	35.8	-95.2	-44.27	-50.23	-25	-25.23	V
10.096500	53.79	Pk	37.2	-95.2	-42.65	-46.86	-25	-21.86	V
High Channel, 2560MHz									
5.135500	55.45	Pk	34.2	-95.2	-46.31	-51.86	-25	-26.86	H
7.685500	52.65	Pk	35.8	-95.2	-44.33	-51.08	-25	-26.08	H
10.251000	52.90	Pk	37.3	-95.2	-42.44	-47.44	-25	-22.44	H
5.112500	55.48	Pk	34.1	-95.2	-46.25	-51.87	-25	-26.87	V
7.683000	53.34	Pk	35.8	-95.2	-44.32	-50.38	-25	-25.38	V
10.233500	53.91	Pk	37.3	-95.2	-42.40	-46.39	-25	-21.39	V

Project #:	15107858
Date:	2024-2-6
Test Engineer:	32934

Configuration:	EUT + Support Equipment
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									
5.060000	57.86	Pk	34.3	-95.2	-49.61	-52.65	-25	-27.65	H
7.501911	70.86	Pk	35.6	-95.2	-47.98	-36.72	-25	-11.72	H
10.086500	57.59	Pk	37.6	-95.2	-48.51	-48.52	-25	-23.52	H
5.064250	58.45	Pk	34.3	-95.2	-49.60	-52.05	-25	-27.05	V
7.501909	73.64	Pk	35.6	-95.2	-47.98	-33.94	-25	-8.94	V
10.085000	57.64	Pk	37.5	-95.2	-48.50	-48.56	-25	-23.56	V
Mid Channel, 2535MHz									
5.075000	57.94	Pk	34.3	-95.2	-49.57	-52.53	-25	-27.53	H
7.546912	74.31	Pk	35.6	-95.2	-48.08	-33.37	-25	-8.37	H
10.164500	57.53	Pk	37.6	-95.2	-47.80	-47.87	-25	-22.87	H
5.052000	59.09	Pk	34.3	-95.2	-49.60	-51.41	-25	-26.41	V
7.546924	67.32	Pk	35.6	-95.2	-48.08	-40.36	-25	-15.36	V
10.143000	58.28	Pk	37.6	-95.2	-48.02	-47.34	-25	-22.34	V
High Channel, 2545MHz									
5.107500	58.42	Pk	34.4	-95.2	-49.48	-51.86	-25	-26.86	H
7.592000	58.85	Pk	35.7	-95.2	-48.11	-48.76	-25	-23.76	H
10.150500	57.46	Pk	37.6	-95.2	-47.93	-48.07	-25	-23.07	H
5.115000	57.54	Pk	34.4	-95.2	-49.45	-52.71	-25	-27.71	V
7.591500	65.85	Pk	35.7	-95.2	-48.1	-41.75	-25	-16.75	V
10.191000	58.05	Pk	37.6	-95.2	-47.47	-47.02	-25	-22.02	V

10.3.2. 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 #:	15107858
Date:	2023-12-5
Test Engineer:	25196
Configuration:	EUT + Support Equipment
Mode	LTE 25 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB) 3mH	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.765000	54.71	Pk	33.3	-95.2	-45.28	-52.47	-13	-39.47	H
7.524500	53.05	Pk	35.7	-95.2	-44.29	-50.74	-13	-37.74	H
5.639500	54.00	Pk	34.5	-95.2	-45.31	-52.01	-13	-39.01	H
3.763500	54.25	Pk	33.3	-95.2	-45.31	-52.96	-13	-39.96	V
7.489500	54.23	Pk	35.7	-95.2	-44.51	-49.78	-13	-36.78	V
5.621500	54.21	Pk	34.5	-95.2	-45.44	-51.93	-13	-38.93	V
Mid Channel, 1882.5MHz									
3.760500	54.86	Pk	33.3	-95.2	-45.34	-52.38	-13	-39.38	H
7.525000	54.08	Pk	35.7	-95.2	-44.27	-49.69	-13	-36.69	H
5.547000	54.92	Pk	34.5	-95.2	-45.22	-51.00	-13	-38.00	H
3.723500	54.03	Pk	33.2	-95.2	-45.26	-53.23	-13	-40.23	V
7.521000	53.76	Pk	35.7	-95.2	-44.27	-50.01	-13	-37.01	V
5.546500	54.01	Pk	34.5	-95.2	-45.24	-51.93	-13	-38.93	V
High Channel, 1905MHz									
3.807250	53.42	Pk	33.4	-95.2	-45.34	-53.72	-13	-40.72	H
7.612000	53.32	Pk	35.8	-95.2	-43.66	-49.74	-13	-36.74	H
5.723000	54.29	Pk	34.6	-95.2	-45.18	-51.49	-13	-38.49	H
3.800000	53.83	Pk	33.4	-95.2	-45.44	-53.41	-13	-40.41	V
7.595000	53.55	Pk	35.8	-95.2	-43.78	-49.63	-13	-36.63	V
5.700000	53.99	Pk	34.5	-95.2	-45.33	-52.04	-13	-39.04	V

BPSK 5G NR n25 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-16
Test Engineer:	32934
Configuration:	EUT + Support Equipment

Mode	BPSK n25 BPSK 40MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80403 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.765000	54.93	Pk	33.4	-95.2	-45.28	-52.15	-13	-39.15	H
5.595500	54.28	Pk	34.8	-95.2	-45.37	-51.49	-13	-38.49	H
7.507000	53.68	Pk	35.5	-95.2	-44.34	-50.36	-13	-37.36	H
3.753500	54.57	Pk	33.3	-95.2	-45.36	-52.69	-13	-39.69	V
5.601000	54.28	Pk	34.8	-95.2	-45.33	-51.45	-13	-38.45	V
7.508000	53.34	Pk	35.5	-95.2	-44.39	-50.75	-13	-37.75	V
Mid Channel, 1882.5MHz									
3.772500	54.20	Pk	33.4	-95.2	-45.06	-52.66	-13	-39.66	H
7.537500	54.31	Pk	35.6	-95.2	-44.09	-49.38	-13	-36.38	H
3.782000	54.10	Pk	33.4	-95.2	-45.36	-53.06	-13	-40.06	V
7.544000	53.77	Pk	35.6	-95.2	-44.1	-49.93	-13	-36.93	V
5.601000	53.96	Pk	34.8	-95.2	-45.33	-51.77	-13	-38.77	V
5.622500	54.61	Pk	34.8	-95.2	-45.42	-51.21	-13	-38.21	H
High Channel, 1895MHz									
3.786500	54.97	Pk	33.4	-95.2	-45.38	-52.21	-13	-39.21	H
5.694500	54.26	Pk	34.9	-95.2	-45.27	-51.31	-13	-38.31	H
7.601000	53.47	Pk	35.6	-95.2	-43.61	-49.74	-13	-36.74	H
3.782000	54.01	Pk	33.4	-95.2	-45.36	-53.15	-13	-40.15	V
5.666500	53.96	Pk	34.9	-95.2	-45.35	-51.69	-13	-38.69	V
7.602000	52.64	Pk	35.6	-95.2	-43.59	-50.55	-13	-37.55	V

10.3.3. 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 #:	15107858
Date:	2024-2-19
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 30 QPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.611253	44.66	RMS	34.1	-95.2	-47.20	-63.64	-40	-23.64	H
6.950094	42.23	RMS	35.7	-95.2	-44.85	-62.12	-40	-22.12	H
9.247257	42.30	RMS	36.2	-95.2	-43.09	-59.79	-40	-19.79	V
4.588208	44.25	RMS	34.1	-95.2	-47.16	-64.01	-40	-24.01	V
6.916873	45.99	RMS	35.8	-95.2	-44.93	-58.34	-40	-18.34	V
9.250199	42.25	RMS	36.2	-95.2	-43.01	-59.76	-40	-19.76	H

BPSK 5G NR n30 (10.0MHZ BANDWIDTH)

Project #:	15107858
Date:	32188
Test Engineer:	2024-2-16
Configuration:	EUT + Support Equipment
Mode	n30 BPSK 10MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 2310MHz									
4.610548	45.05	RMS	34.1	-95.2	-47.13	-63.18	-40	-23.18	H
6.915818	43.65	RMS	35.8	-95.2	-44.89	-60.64	-40	-20.64	H
9.222743	41.71	RMS	36.1	-95.2	-42.91	-60.3	-40	-20.30	H
4.611126	44.61	RMS	34.1	-95.2	-47.18	-63.67	-40	-23.67	V
6.916.219	50.78	RMS	35.8	-95.2	-44.91	-53.53	-40	-13.53	V
9.219131	41.65	RMS	36.1	-95.2	-42.96	-60.41	-40	-20.41	V

10.3.4. LTE BAND 41 AND 5G NR n41 HPUE

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 #:	15107858
Date:	2024-2-20
Test Engineer:	32188
Configuration:	EUT + Support Equipment
Mode	LTE 41 QPSK 20MHz
Chamber #:	04-RDE-T

BPSK LTE BAND n41 (100.0MHZ BANDWIDTH)

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2506MHz										
4.990879	44.05	RMS	34.1	-95.2	4	-46.47	-59.52	-25	-34.52	H
7.490996	44.96	RMS	35.5	-95.2	4	-44.26	-55.00	-25	-30.00	H
9.986453	41.91	RMS	37.5	-95.2	4	-42.92	-54.71	-25	-29.71	H
4.994144	44.30	RMS	34.1	-95.2	4	-46.29	-59.09	-25	-34.09	V
7.491320	58.38	RMS	35.5	-95.2	4	-44.21	-41.53	-25	-16.53	V
9.982787	42.21	RMS	37.5	-95.2	4	-43.02	-54.51	-25	-29.51	V
Mid Channel, 2593MHz										
5.164502	44.12	RMS	34.4	-95.2	4.04	-46.18	-58.82	-25	-33.82	H
7.754805	41.80	RMS	35.7	-95.2	4.04	-44.06	-57.72	-25	-32.72	H
10.331132	42.28	RMS	37.8	-95.2	4.04	-42.83	-53.91	-25	-28.91	H
5.168325	44.10	RMS	34.4	-95.2	4.04	-45.98	-58.64	-25	-33.64	V
7.752224	53.23	RMS	35.7	-95.2	4.04	-44.02	-46.25	-25	-21.25	V
10.330297	42.31	RMS	37.8	-95.2	4.04	-42.91	-53.96	-25	-28.96	V
High Channel, 2680MHz										
10.679878	42.46	RMS	38	-95.2	4.06	-42.34	-53.02	-25	-28.02	H
5.339660	43.38	RMS	34.6	-95.2	4.06	-46.02	-59.18	-25	-34.18	H
5.340497	43.35	RMS	34.6	-95.2	4.06	-46.07	-59.26	-25	-34.26	V
8.012.784	54.87	RMS	35.8	-95.2	4.06	-43.6	-44.07	-25	-19.07	H
8.013112	58.35	RMS	35.8	-95.2	4.06	-43.6	-40.59	-25	-15.59	V
10.679878	42.46	RMS	38	-95.2	4.06	-42.34	-53.02	-25	-28.02	H

Project #:	15107858
Date:	2024-3-6
Test Engineer:	32188
Configuration:	EUT + Support Equipment
Mode	n41 BPSK 100MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	84796 ACF (dB)	EIRP CF	DCCF (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 2546MHz										
4.992168	44.32	RMS	34.1	-95.2	7.07	-46.40	-56.11	-25	-31.11	H
7.492054	42.80	RMS	35.5	-95.2	7.07	-44.11	-53.94	-25	-28.94	H
9.986412	42.09	RMS	37.5	-95.2	7.07	-42.92	-51.46	-25	-26.46	H
7.490856	52.89	RMS	35.5	-95.2	7.07	-44.25	-43.99	-25	-18.99	V
4.993988	44.47	RMS	34.1	-95.2	7.07	-46.30	-55.86	-25	-30.86	V
9.985328	41.96	RMS	37.5	-95.2	7.07	-42.94	-51.61	-25	-26.61	V
Mid Channel, 2593MHz										
5.087203	44.16	RMS	34.3	-95.2	7.1	-46.47	-56.11	-25	-31.11	H
7.631993	43.27	RMS	35.6	-95.2	7.1	-44.75	-53.98	-25	-28.98	H
10.172121	44.02	RMS	37.2	-95.2	7.1	-44.19	-51.07	-25	-26.07	H
5.087968	44.5	RMS	34.3	-95.2	7.1	-46.48	-55.78	-25	-30.78	V
7.631996	47.91	RMS	35.6	-95.2	7.1	-44.75	-49.34	-25	-24.34	V
10.170825	44.03	RMS	37.2	-95.2	7.1	-44.2	-51.07	-25	-26.07	V
High Channel, 2640MHz										
5.180917	43.54	RMS	34.2	-95.2	7.09	-46.51	-56.88	-25	-31.88	H
7.773040	48.77	RMS	35.6	-95.2	7.09	-44.48	-48.22	-25	-23.22	H
10.362274	43.59	RMS	37.4	-95.2	7.09	-44.53	-51.65	-25	-26.65	H
5.181986	44.92	RMS	34.2	-95.2	7.09	-46.49	-55.48	-25	-30.48	V
7.772912	53.51	RMS	35.6	-95.2	7.09	-44.48	-43.48	-25	-18.48	V
10.360675	43.52	RMS	37.4	-95.2	7.09	-44.56	-51.75	-25	-26.75	V

10.3.5. 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 #:	15107858
Date:	2024-12-9
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 66 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673_ACF (dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.435000	54.05	Pk	32.7	-95.2	-45.27	-53.72	-13	-40.72	H
5.158500	54.58	Pk	34.2	-95.2	-46.18	-52.60	-13	-39.60	H
6.883500	52.85	Pk	35.6	-95.2	-44.36	-51.11	-13	-38.11	H
3.399000	54.01	Pk	32.7	-95.2	-45.11	-53.60	-13	-40.60	V
5.117500	54.97	Pk	34.1	-95.2	-46.24	-52.37	-13	-39.37	V
6.824500	54.11	Pk	35.6	-95.2	-44.39	-49.88	-13	-36.88	V
Mid Channel, 1745MHz									
3.499500	54.18	Pk	32.8	-95.2	-45.22	-53.44	-13	-40.44	H
5.210500	55.12	Pk	34.3	-95.2	-46.09	-51.87	-13	-38.87	H
6.988000	54.27	Pk	35.6	-95.2	-43.62	-48.95	-13	-35.95	H
3.457000	54.22	Pk	32.8	-95.2	-45.30	-53.48	-13	-40.48	V
4.868658	57.79	Pk	33.9	-95.2	-46.78	-50.29	-13	-37.29	V
7.036500	53.91	Pk	35.6	-95.2	-43.61	-49.30	-13	-36.30	V
High Channel, 1770MHz									
3.547000	53.35	Pk	32.9	-95.2	-44.73	-53.68	-13	-40.68	H
5.298500	55.25	Pk	34.4	-95.2	-45.88	-51.43	-13	-38.43	H
7.065500	54.26	Pk	35.6	-95.2	-43.96	-49.30	-13	-36.30	H
3.555000	53.12	Pk	32.9	-95.2	-44.78	-53.96	-13	-40.96	V
5.279000	54.62	Pk	34.4	-95.2	-45.82	-52.00	-13	-39.00	V
7.042500	54.36	Pk	35.6	-95.2	-43.60	-48.84	-13	-35.84	V

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-8
Test Engineer:	25019
Configuration:	EUT + Support Equipment
Mode	n66 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.420500	53.28	Pk	32.8	-95.2	-46.89	-56.01	-13	-43.01	H
5.130000	55.32	Pk	34.4	-95.2	-49.20	-54.68	-13	-41.68	H
6.840500	52.88	Pk	35.6	-95.2	-46.55	-53.27	-13	-40.27	H
3.420500	54.15	Pk	32.8	-95.2	-46.89	-55.14	-13	-42.14	V
5.130000	55.58	Pk	34.4	-95.2	-49.20	-54.42	-13	-41.42	V
6.840500	54.77	Pk	35.6	-95.2	-46.55	-51.38	-13	-38.38	V
Mid Channel, 1745MHz									
3.450000	53.08	Pk	32.8	-95.2	-46.93	-56.25	-13	-43.25	H
5.175500	54.82	Pk	34.5	-95.2	-49.19	-55.07	-13	-42.07	H
6.900500	53.00	Pk	35.6	-95.2	-46.62	-53.22	-13	-40.22	H
3.450000	54.92	Pk	32.8	-95.2	-46.93	-54.41	-13	-41.41	V
5.175500	54.79	Pk	34.5	-95.2	-49.19	-55.10	-13	-42.10	V
6.900500	53.33	Pk	35.6	-95.2	-46.62	-52.89	-13	-39.89	V
High Channel, 1760MHz									
3.480000	52.72	Pk	32.8	-95.2	-47.07	-56.75	-13	-43.75	H
3.480000	52.67	Pk	32.8	-95.2	-47.07	-56.80	-13	-43.80	V
5.221000	55.65	Pk	34.5	-95.2	-49.21	-54.26	-13	-41.26	H
5.221000	55.38	Pk	34.5	-95.2	-49.21	-54.53	-13	-41.53	V
6.961000	53.28	Pk	35.7	-95.2	-46.59	-52.81	-13	-39.81	H
6.961000	54.76	Pk	35.7	-95.2	-46.59	-51.33	-13	-38.33	V

10.3.6. 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 #:	15107858
Date:	2024-2-8
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n70 BPSK 15MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79843 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Mid Channel, 1702.5MHz									
3.414500	55.26	Pk	32.8	-95.2	-46.79	-53.93	-13	-40.93	H
5.112500	56.86	Pk	34.4	-95.2	-49.33	-53.27	-13	-40.27	H
6.823000	53.81	Pk	35.6	-95.2	-46.34	-52.13	-13	-39.13	H
3.405000	55.23	Pk	32.7	-95.2	-46.85	-54.12	-13	-41.12	V
5.110500	57.63	Pk	34.4	-95.2	-49.33	-52.50	-13	-39.50	V
6.800000	54.03	Pk	35.6	-95.2	-46.20	-51.77	-13	-38.77	V

10.4. FIELD STRENGTH OF SPURIOUS RADIATION, ANT 5

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 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 #:	15107858
Date:	2024-4-1
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 25 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 1860MHz									
3.706500	54.13	Pk	33.3	-95.2	-45.19	-52.96	-13	-39.96	H
5.553136	59.35	Pk	34.8	-95.2	-45.13	-46.18	-13	-33.18	H
7.445000	54.39	Pk	35.5	-95.2	-44.29	-49.60	-13	-36.60	H
3.692500	54.21	Pk	33.3	-95.2	-45.01	-52.70	-13	-39.70	V
5.553341	65.98	Pk	34.8	-95.2	-45.13	-39.55	-13	-26.55	V
7.448500	53.57	Pk	35.5	-95.2	-44.23	-50.36	-13	-37.36	V
Mid Channel, 1882.5MHz									
3.722500	54.63	Pk	33.3	-95.2	-45.22	-52.49	-13	-39.49	V
5.620869	64.97	Pk	34.8	-95.2	-45.43	-40.86	-13	-27.86	V
7.523000	53.44	Pk	35.6	-95.2	-44.31	-50.47	-13	-37.47	V
3.746500	54.97	Pk	33.3	-95.2	-45.19	-52.12	-13	-39.12	H
5.620885	62.98	Pk	34.8	-95.2	-45.43	-42.85	-13	-29.85	H
7.528500	53.09	Pk	35.6	-95.2	-44.23	-50.74	-13	-37.74	H
High Channel, 1905MHz									
3.790500	54.31	Pk	33.4	-95.2	-45.26	-52.75	-13	-39.75	H
5.688339	60.90	Pk	34.9	-95.2	-45.36	-44.76	-13	-31.76	H
7.599000	53.46	Pk	35.6	-95.2	-43.79	-49.93	-13	-36.93	H
3.760000	54.71	Pk	33.3	-95.2	-45.33	-52.52	-13	-39.52	V
5.688246	66.27	Pk	34.9	-95.2	-45.36	-39.39	-13	-26.39	V
7.589500	52.93	Pk	35.6	-95.2	-43.84	-50.51	-13	-37.51	V

BPSK 5G NR n25 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-4-2
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n25 BPSK 40MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80403 ACF(dB) - 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1870MHz									
3.716500	53.92	Pk	33.30	-95.2	-45.01	-52.99	-13	-39.99	H
5.551867	68.45	Pk	34.80	-95.2	-45.15	-37.10	-13	-24.10	H
7.470500	53.16	Pk	35.50	-95.2	-44.36	-50.90	-13	-37.90	H
3.701342	59.35	Pk	33.38	-95.2	-45.28	-47.83	-13	-34.83	V
5.551956	71.42	Pk	34.80	-95.2	-45.15	-34.13	-13	-21.13	V
7.471000	53.65	Pk	35.50	-95.2	-44.31	-50.36	-13	-37.36	V
Mid Channel, 1882.5MHz									
3.776500	54.53	Pk	33.4	-95.2	-45.22	-52.49	-13	-39.49	H
5.589301	69.33	Pk	34.8	-95.2	-45.45	-36.52	-13	-23.52	H
7.569000	52.41	Pk	35.6	-95.2	-44.10	-51.29	-13	-38.29	H
3.788500	54.70	Pk	33.4	-95.2	-45.29	-52.39	-13	-39.39	V
5.589347	72.61	Pk	34.8	-95.2	-45.45	-33.24	-13	-20.24	V
7.524000	52.79	Pk	35.6	-95.2	-44.30	-51.11	-13	-38.11	V
High Channel, 1895MHz									
3.773000	53.10	Pk	33.4	-95.2	-45.04	-53.74	-13	-40.74	H
5.626856	69.44	Pk	34.8	-95.2	-45.41	-36.37	-13	-23.37	H
7.638500	53.30	Pk	35.6	-95.2	-43.86	-50.16	-13	-37.16	H
3.794500	54.06	Pk	33.4	-95.2	-45.19	-52.93	-13	-39.93	V
5.626766	71.61	Pk	34.8	-95.2	-45.41	-34.20	-13	-21.20	V
7.627500	52.83	Pk	35.6	-95.2	-43.93	-50.70	-13	-37.70	V

10.4.2. 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.

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-2-15
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n48 BPSK 40MHz
Chamber #:	04-RDE-T

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										
7.143936	42.61	RMS	35.4	-95.2	6.98	-44.58	-54.79	-40	-14.79	H
10.712071	42.61	RMS	38.0	-95.2	6.98	-42.62	-50.23	-40	-10.23	H
14.263874	42.31	RMS	39.4	-95.2	6.98	-41.44	-47.95	-40	-7.95	H
7.132269	42.59	RMS	35.4	-95.2	6.98	-44.60	-54.83	-40	-14.83	V
10.726538	42.52	RMS	38.0	-95.2	6.98	-42.37	-50.07	-40	-10.07	V
14.285341	42.43	RMS	39.4	-95.2	6.98	-41.62	-48.01	-40	-8.01	V
Low Channel, 3625MHz										
7.248469	42.38	RMS	35.4	-95.2	7.03	-44.30	-54.69	-40	-14.69	H
10.888472	41.22	RMS	37.9	-95.2	7.03	-41.45	-50.50	-40	-10.50	H
14.493941	42.97	RMS	39.5	-95.2	7.03	-41.34	-47.04	-40	-7.04	H
7.207402	42.39	RMS	35.4	-95.2	7.03	-44.03	-54.41	-40	-14.41	V
10.850672	41.89	RMS	37.9	-95.2	7.03	-41.86	-50.24	-40	-10.24	V
14.510741	42.98	RMS	39.5	-95.2	7.03	-41.62	-47.31	-40	-7.31	V
High Channel, 3690MHz										
7.359536	42.61	RMS	35.4	-95.2	6.99	-44.51	-54.71	-40	-14.71	H
11.047138	41.64	RMS	37.8	-95.2	6.99	-42.04	-50.81	-40	-10.81	H
14.716074	42.13	RMS	39.8	-95.2	6.99	-41.16	-47.44	-40	-7.44	H
7.325936	42.80	RMS	35.4	-95.2	6.99	-44.56	-54.57	-40	-14.57	V
11.021472	41.40	RMS	37.8	-95.2	6.99	-41.66	-50.67	-40	-10.67	V
14.660541	42.33	RMS	39.7	-95.2	6.99	-40.87	-47.05	-40	-7.05	V

10.4.3. 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 #:	15107858
Date:	2023-12-18
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	LTE 66 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	226673 ACF (dB) 3mH	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1720MHz									
3.422384	57.24	Pk	32.7	-95.2	-45.21	-50.47	-13	-37.47	H
5.133334	67.44	Pk	34.2	-95.2	-46.29	-39.85	-13	-26.85	H
6.887500	53.30	Pk	35.6	-95.2	-44.37	-50.67	-13	-37.67	H
3.422466	56.36	Pk	32.7	-95.2	-45.20	-51.34	-13	-38.34	V
5.133221	67.85	Pk	34.2	-95.2	-46.28	-39.43	-13	-26.43	V
6.878000	53.98	Pk	35.6	-95.2	-44.42	-50.04	-13	-37.04	V
Mid Channel, 1745MHz									
3.472259	58.44	Pk	32.8	-95.2	-45.15	-49.11	-13	-36.11	H
5.221500	54.87	Pk	34.3	-95.2	-45.93	-51.96	-13	-38.96	H
6.995500	53.50	Pk	35.6	-95.2	-43.68	-49.78	-13	-36.78	H
3.472218	60.61	Pk	32.8	-95.2	-45.15	-46.94	-13	-33.94	V
5.212000	54.48	Pk	34.3	-95.2	-46.12	-52.54	-13	-39.54	V
6.987000	53.39	Pk	35.6	-95.2	-43.54	-49.75	-13	-36.75	V
High Channel, 1770MHz									
3.522023	57.87	Pk	32.8	-95.2	-45.08	-49.61	-13	-36.61	H
5.283261	61.43	Pk	34.4	-95.2	-45.85	-45.22	-13	-32.22	H
7.049500	53.36	Pk	35.6	-95.2	-43.60	-49.84	-13	-36.84	H
3.521941	59.27	Pk	32.8	-95.2	-45.08	-48.21	-13	-35.21	V
5.283293	64.26	Pk	34.4	-95.2	-45.85	-42.39	-13	-29.39	V
7.026000	53.68	Pk	35.6	-95.2	-43.78	-49.70	-13	-36.70	V

BPSK 5G NR n66 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-02-08
Test Engineer:	25189
Configuration:	EUT + Support Equipment
Mode	n66 BPSK 40MHz
Chamber #:	04-RDE-P

Frequency (GHz)	Meter Reading (dBuV)	Det	79834 ACF (dB)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
Low Channel, 1730MHz									
3.420500	54.07	Pk	32.8	-95.2	-46.89	-55.22	-13	-42.22	H
5.130500	55.46	Pk	34.4	-95.2	-49.20	-54.54	-13	-41.54	H
6.841000	53.32	Pk	35.6	-95.2	-46.55	-52.83	-13	-39.83	H
3.420500	54.18	Pk	32.8	-95.2	-46.89	-55.11	-13	-42.11	V
5.130500	55.58	Pk	34.4	-95.2	-49.2	-54.42	-13	-41.42	V
6.841000	54.57	Pk	35.6	-95.2	-46.55	-51.58	-13	-38.58	V
Mid Channel, 1745MHz									
3.450500	53.20	Pk	32.8	-95.2	-46.93	-56.13	-13	-43.13	H
5.175000	55.68	Pk	34.5	-95.2	-49.18	-54.20	-13	-41.20	H
6.900000	53.61	Pk	35.6	-95.2	-46.61	-52.60	-13	-39.60	H
3.450500	53.78	Pk	32.8	-95.2	-46.93	-55.55	-13	-42.55	V
5.175500	54.25	Pk	34.5	-95.2	-49.19	-55.64	-13	-42.64	V
6.900000	52.08	Pk	35.6	-95.2	-46.61	-54.13	-13	-41.13	V
High Channel, 1760MHz									
3.480000	53.49	Pk	32.8	-95.2	-47.07	-55.98	-13	-42.98	H
5.220500	55.60	Pk	34.5	-95.2	-49.22	-54.32	-13	-41.32	H
6.960500	52.56	Pk	35.7	-95.2	-46.61	-53.55	-13	-40.55	H
3.480000	53.39	Pk	32.8	-95.2	-47.07	-56.08	-13	-43.08	V
5.220500	55.14	Pk	34.5	-95.2	-49.22	-54.78	-13	-41.78	V
6.960500	52.68	Pk	35.7	-95.2	-46.61	-53.43	-13	-40.43	V

10.4.4. 5G NR n77 (FCC Part 27 3450-3550MHz) HPUE

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 #:	15107858
Date:	2024-2-23
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 3500MHz										
6.979669	42.32	RMS	35.6	-95.2	7.03	-43.89	-54.14	-13	-41.14	V
6.992736	42.45	RMS	35.6	-95.2	7.03	-44.03	-54.15	-13	-41.15	H
10.507205	42.22	RMS	38.0	-95.2	7.03	-41.81	-49.76	-13	-36.76	V
10.508138	42.21	RMS	38.0	-95.2	7.03	-41.76	-49.72	-13	-36.72	H
14.015607	42.24	RMS	39.4	-95.2	7.03	-41.01	-47.54	-13	-34.54	H
14.017007	42.39	RMS	39.4	-95.2	7.03	-41.01	-47.39	-13	-34.39	V

10.4.5. 5G NR n77 (FCC Part 27 3700-3980MHz) HPUE

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 #:	15107858
Date:	2024-2-23
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3750MHz										
7.499536	42.56	RMS	35.5	-95.2	6.98	-44.38	-54.54	-13	-41.54	H
11.249205	41.79	RMS	37.7	-95.2	6.98	-41.94	-50.67	-13	-37.67	H
14.994208	41.52	RMS	40.5	-95.2	6.98	-40.54	-46.74	-13	-33.74	H
7.486469	42.69	RMS	35.5	-95.2	6.98	-44.47	-54.50	-13	-41.50	V
11.219338	41.44	RMS	37.7	-95.2	6.98	-42.00	-51.08	-13	-38.08	V
14.941474	42.05	RMS	40.3	-95.2	6.98	-40.84	-46.71	-13	-33.71	V
Mid Channel, 3840MHz										
7.667069	42.35	RMS	35.6	-95.2	7.03	-44.20	-54.42	-13	-41.42	H
11.513805	41.26	RMS	38.1	-95.2	7.03	-41.61	-50.42	-13	-37.42	H
15.379675	40.88	RMS	41.4	-95.2	7.03	-39.59	-45.48	-13	-32.48	H
7.661003	42.56	RMS	35.6	-95.2	7.03	-44.19	-54.20	-13	-41.20	V
11.483005	41.12	RMS	38.0	-95.2	7.03	-41.49	-50.54	-13	-37.54	V
15.455742	40.80	RMS	41.5	-95.2	7.03	-38.64	-44.51	-13	-31.51	V
High Channel, 3930MHz										
11.788784	40.47	RMS	38.6	-95.2	7.04	-41.03	-50.12	-13	-37.12	H
15.714355	41.24	RMS	41.4	-95.2	7.04	-40.12	-45.64	-13	-32.64	H
11.821447	40.66	RMS	38.6	-95.2	7.04	-41.33	-50.23	-13	-37.23	V
15.706787	40.96	RMS	41.4	-95.2	7.04	-40.05	-45.85	-13	-32.85	V
7.762096	44.53	RMS	35.7	-95.2	7.04	-44.14	-52.07	-13	-39.07	V
7.804657	41.96	RMS	35.7	-95.2	7.04	-43.99	-54.49	-13	-41.49	H

10.5. FIELD STRENGTH OF SPURIOUS RADIATION, ANT 6

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 #:	15107858
Date:	2024-02-16
Test Engineer:	23522
Configuration:	EUT + Support Equipment
Mode	LTE48 QPSK 20MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3560MHz										
7.121871	43.08	RMS	35.6	-95.2	4.02	-44.57	-57.07	-40	-17.07	H
10.680318	44.06	RMS	37.7	-95.2	4.02	-42.26	-51.68	-40	-11.68	H
17.801869	42.27	RMS	41.6	-95.2	4.02	-38.96	-46.27	-40	-6.27	H
7.119092	42.99	RMS	35.6	-95.2	4.02	-44.62	-57.21	-40	-17.21	V
10.678917	44.11	RMS	37.7	-95.2	4.02	-42.38	-51.75	-40	-11.75	V
17.798465	42.63	RMS	41.6	-95.2	4.02	-39.08	-46.03	-40	-6.03	V
Mid Channel, 3625MHz										
7.232013	43.34	RMS	35.6	-95.2	4.04	-44.35	-56.57	-40	-16.57	H
10.848213	45.78	RMS	37.8	-95.2	4.04	-41.93	-49.51	-40	-9.51	H
14.499275	44.09	RMS	39.3	-95.2	4.04	-41.36	-49.13	-40	-9.13	H
7.232232	51.02	RMS	35.6	-95.2	4.04	-44.33	-48.87	-40	-8.87	V
10.848303	54.2	RMS	37.8	-95.2	4.04	-41.93	-41.09	-40	-1.09	V
14.499069	44.13	RMS	39.3	-95.2	4.04	-41.34	-49.07	-40	-9.07	V
High Channel, 3690MHz										
7.381226	43.03	RMS	35.5	-95.2	4.03	-44.42	-57.06	-40	-17.06	H
11.170686	43.16	RMS	38.1	-95.2	4.03	-41.97	-51.88	-40	-11.88	H
14.758495	43.98	RMS	39.0	-95.2	4.03	-41.46	-49.65	-40	-9.65	H
7.362459	43.06	RMS	35.5	-95.2	4.03	-44.53	-57.14	-40	-17.14	V
11.171782	42.99	RMS	38.1	-95.2	4.03	-42.01	-52.09	-40	-12.09	V
14.759511	43.95	RMS	39.0	-95.2	4.03	-41.43	-49.65	-40	-9.65	V

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-02-13
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n48 BPSK 40MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3570MHz										
7.134602	42.59	RMS	35.4	-95.2	7.03	-44.62	-54.80	-40	-14.80	H
10.728871	42.52	RMS	38.0	-95.2	7.03	-42.31	-49.96	-40	-9.96	H
14.282541	42.55	RMS	39.4	-95.2	7.03	-41.59	-47.81	-40	-7.81	H
7.096802	42.74	RMS	35.4	-95.2	7.03	-44.74	-54.77	-40	-14.77	V
10.707871	42.75	RMS	38.0	-95.2	7.03	-42.61	-50.03	-40	-10.03	V
14.235874	42.45	RMS	39.4	-95.2	7.03	-41.72	-48.04	-40	-8.04	V
Mid Channel, 3625MHz										
7.261536	42.6	RMS	35.4	-95.2	6.98	-44.24	-54.46	-40	-14.46	H
10.888938	41.26	RMS	37.9	-95.2	6.98	-41.44	-50.50	-40	-10.50	H
14.492541	43.17	RMS	39.5	-95.2	6.98	-41.46	-47.01	-40	-7.01	H
10.874938	41.61	RMS	37.9	-95.2	6.98	-42.08	-50.79	-40	-10.79	V
14.497674	43.05	RMS	39.5	-95.2	6.98	-41.33	-47.00	-40	-7.00	V
7.241469	42.50	RMS	35.4	-95.2	6.98	-44.28	-54.60	-40	-14.60	V
High Channel, 3680MHz										
7.368869	42.56	RMS	35.4	-95.2	6.98	-44.62	-54.88	-40	-14.88	H
11.039205	41.63	RMS	37.8	-95.2	6.98	-41.88	-50.67	-40	-10.67	H
7.345069	42.63	RMS	35.4	-95.2	6.98	-44.42	-54.61	-40	-14.61	V
11.027538	41.35	RMS	37.8	-95.2	6.98	-41.62	-50.69	-40	-10.69	V
14.633008	42.62	RMS	39.7	-95.2	6.98	-41.42	-47.32	-40	-7.32	V
14.726341	42.22	RMS	39.9	-95.2	6.98	-41.22	-47.32	-40	-7.32	H

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

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 #:	15107858
Date:	2024-2-21
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 3500MHz										
6.902202	42.63	RMS	35.9	-95.2	7.1	-44.51	-54.08	-13	-41.08	H
10.345271	42.18	RMS	37.8	-95.2	7.1	-42.03	-50.15	-13	-37.15	H
13.989007	42.38	RMS	39.4	-95.2	7.1	-41.48	-47.80	-13	-34.80	H
6.902362	43.11	RMS	35.9	-95.2	7.1	-44.50	-53.59	-13	-40.59	V
10.353255	46.49	RMS	37.8	-95.2	7.1	-42.36	-46.17	-13	-33.17	V
14.031474	42.47	RMS	39.4	-95.2	7.1	-41.00	-47.23	-13	-34.23	V

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

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 #:	15107858
Date:	2024-2-22
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	N77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3750MHz										
7.501403	42.39	RMS	35.5	-95.2	7.04	-44.38	-54.65	-13	-41.65	H
11.255739	41.80	RMS	37.7	-95.2	7.04	-41.88	-50.54	-13	-37.54	H
15.009608	41.53	RMS	40.5	-95.2	7.04	-40.73	-46.86	-13	-33.86	H
7.486469	42.59	RMS	35.5	-95.2	7.04	-44.47	-54.54	-13	-41.54	V
11.226339	41.33	RMS	37.7	-95.2	7.04	-41.96	-51.09	-13	-38.09	V
15.050208	41.37	RMS	40.6	-95.2	7.04	-40.00	-46.19	-13	-33.19	V
Mid Channel, 3840MHz										
7.658203	42.52	RMS	35.6	-95.2	7.1	-44.18	-54.16	-13	-41.16	H
11.527805	41.16	RMS	38.1	-95.2	7.1	-41.44	-50.28	-13	-37.28	H
15.382941	40.98	RMS	41.4	-95.2	7.1	-39.64	-45.36	-13	-32.36	H
7.622036	42.42	RMS	35.6	-95.2	7.1	-43.97	-54.05	-13	-41.05	V
11.476.005	40.85	RMS	38.0	-95.2	7.1	-41.65	-50.90	-13	-37.90	V
15.385275	40.89	RMS	41.4	-95.2	7.1	-39.71	-45.52	-13	-32.52	V
High Channel, 3930MHz										
7.762007	46.52	RMS	35.7	-95.2	7.12	-44.14	-50.00	-13	-37.00	H
11.645782	40.67	RMS	38.5	-95.2	7.12	-41.55	-50.46	-13	-37.46	H
15.713559	40.97	RMS	41.4	-95.2	7.12	-40.11	-45.82	-13	-32.82	H
7.762033	55.93	RMS	35.7	-95.2	7.12	-44.14	-40.59	-13	-27.59	V
11.643249	42.19	RMS	38.5	-95.2	7.12	-41.65	-49.04	-13	-36.04	V
15.795217	41.15	RMS	41.3	-95.2	7.12	-39.91	-45.54	-13	-32.54	V

10.6. FIELD STRENGTH OF SPURIOUS RADIATION, ANT 7

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 #:	15107858
Date:	2024-2-16
Test Engineer:	32186
Configuration:	EUT + Support Equipment
Mode	LTE48 QPSK 20MHz
Chamber #:	04-RDE-Q

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3560MHz										
7.121134	43.05	RMS	35.6	-95.2	4.01	-44.59	-57.13	-40	-17.13	H
10.680611	44.10	RMS	37.7	-95.2	4.01	-42.26	-51.65	-40	-11.65	H
14.238289	44.60	RMS	39.4	-95.2	4.01	-41.69	-48.88	-40	-8.88	H
7.120090	43.01	RMS	35.6	-95.2	4.01	-44.64	-57.22	-40	-17.22	V
10.678656	44.13	RMS	37.7	-95.2	4.01	-42.37	-51.73	-40	-11.73	V
14.241207	44.62	RMS	39.4	-95.2	4.01	-41.58	-48.75	-40	-8.75	V
Mid Channel, 3625MHz										
7.249375	42.85	RMS	35.5	-95.2	4.05	-44.25	-57.05	-40	-17.05	H
10.87333	43.83	RMS	37.7	-95.2	4.05	-42.10	-51.72	-40	-11.72	H
14.500335	44.11	RMS	39.3	-95.2	4.05	-41.43	-49.17	-40	-9.17	H
7.250145	42.82	RMS	35.5	-95.2	4.05	-44.21	-57.04	-40	-17.04	V
10.874427	43.76	RMS	37.7	-95.2	4.05	-42.10	-51.79	-40	-11.79	V
14.499648	44.26	RMS	39.3	-95.2	4.05	-41.40	-48.99	-40	-8.99	V
High Channel, 3690MHz										
7.359211	43.08	RMS	35.5	-95.2	4.09	-44.83	-57.36	-40	-17.36	H
11.03904	44.33	RMS	37.9	-95.2	4.09	-44.79	-53.67	-40	-13.67	H
14.720621	43.98	RMS	39.0	-95.2	4.09	-42.95	-51.08	-40	-11.08	H
7.362071	43.14	RMS	35.5	-95.2	4.09	-44.87	-57.34	-40	-17.34	V
11.040702	44.29	RMS	37.9	-95.2	4.09	-44.77	-53.69	-40	-13.69	V
14.72095	44.01	RMS	39.0	-95.2	4.09	-42.95	-51.05	-40	-11.05	V

BPSK 5G NR n48 (40.0MHZ BANDWIDTH)

Project #:	15107858
Date:	2024-02-15
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n48 BPSK 40MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3570MHz										
7.103640	42.76	RMS	35.4	-95.2	6.99	-44.72	-54.77	-40	-14.77	H
10.651900	42.87	RMS	38.0	-95.2	6.99	-42.72	-50.06	-40	-10.06	H
14.199349	42.33	RMS	39.4	-95.2	6.99	-41.57	-48.05	-40	-8.05	H
7.099472	42.77	RMS	35.4	-95.2	6.99	-44.79	-54.83	-40	-14.83	V
10.649340	42.84	RMS	38.0	-95.2	6.99	-42.68	-50.05	-40	-10.05	V
14.199.026	42.30	RMS	39.4	-95.2	6.99	-41.56	-48.07	-40	-8.07	V
Mid Channel, 3625MHz										
7.277869	42.61	RMS	35.4	-95.2	7.03	-43.99	-54.15	-40	-14.15	H
10.900138	41.25	RMS	37.9	-95.2	7.03	-41.19	-50.21	-40	-10.21	H
14.500941	42.78	RMS	39.5	-95.2	7.03	-41.40	-47.29	-40	-7.29	H
7.241936	42.47	RMS	35.4	-95.2	7.03	-44.24	-54.54	-40	-14.54	V
10.879605	41.39	RMS	37.9	-95.2	7.03	-41.95	-50.83	-40	-10.83	V
14.493941	43.06	RMS	39.5	-95.2	7.03	-41.34	-46.95	-40	-6.95	V
High Channel, 3680MHz										
7.334336	42.67	RMS	35.4	-95.2	6.99	-44.36	-54.50	-40	-14.50	H
11.036405	41.89	RMS	37.8	-95.2	6.99	-41.87	-50.39	-40	-10.39	H
14.736141	42.02	RMS	39.9	-95.2	6.99	-41.35	-47.64	-40	-7.64	H
7.278336	42.61	RMS	35.4	-95.2	6.99	-43.98	-54.18	-40	-14.18	V
10.968272	41.40	RMS	37.8	-95.2	6.99	-41.32	-50.33	-40	-10.33	V
14.720741	42.01	RMS	39.8	-95.2	6.99	-41.24	-47.64	-40	-7.64	V

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

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 #:	15107858
Date:	2024-2-21
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (MHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Mid Channel, 3500MHz										
7.010002	42.34	RMS	35.5	-95.2	7.05	-44.05	-54.36	-13	-41.36	H
10.509538	42.19	RMS	38.0	-95.2	7.05	-41.76	-49.72	-13	-36.72	H
14.025874	42.47	RMS	39.4	-95.2	7.05	-41.00	-47.28	-13	-34.28	H
6.978269	42.24	RMS	35.6	-95.2	7.05	-43.94	-54.25	-13	-41.25	V
10.502071	41.98	RMS	37.9	-95.2	7.05	-41.90	-50.17	-13	-37.17	V
14.031007	42.51	RMS	39.4	-95.2	7.05	-40.96	-47.20	-13	-34.20	V

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

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 #:	15107858
Date:	2024-2-22
Test Engineer:	32934
Configuration:	EUT + Support Equipment
Mode	n77 BPSK 100MHz
Chamber #:	04-RDE-T

Frequency (GHz)	Meter Reading (dBuV)	Det	80430 ACF (dB)	EIRP CF	DCCF (dB)	Amp/Cbl (dB)	Corrected Reading (dBm)	Harmonics limit	Margin (dB)	Polarity
Low Channel, 3750MHz										
7.517736	42.11	RMS	35.5	-95.2	7.03	-44.41	-54.97	-13	-41.97	H
11.247339	41.71	RMS	37.7	-95.2	7.03	-41.94	-50.70	-13	-37.70	H
15.012875	41.81	RMS	40.5	-95.2	7.03	-40.70	-46.56	-13	-33.56	H
7.542003	42.50	RMS	35.6	-95.2	7.03	-44.40	-54.47	-13	-41.47	V
11.203472	41.54	RMS	37.7	-95.2	7.03	-41.59	-50.52	-13	-37.52	V
14.985808	41.87	RMS	40.5	-95.2	7.03	-40.97	-46.77	-13	-33.77	V
Mid Channel, 3840MHz										
7.682936	41.93	RMS	35.6	-95.2	7.18	-44.03	-54.52	-13	-41.52	H
11.517539	41.24	RMS	38.1	-95.2	7.18	-41.61	-50.29	-13	-37.29	H
15.356808	41.33	RMS	41.4	-95.2	7.18	-40.26	-45.55	-13	-32.55	H
7.640936	42.33	RMS	35.6	-95.2	7.18	-44.07	-54.16	-13	-41.16	V
11.508672	41.24	RMS	38.1	-95.2	7.18	-41.66	-50.34	-13	-37.34	V
15.449208	40.82	RMS	41.5	-95.2	7.18	-38.58	-44.28	-13	-31.28	V
High Channel, 3930MHz										
7.872374	42.11	RMS	35.8	-95.2	7.04	-44.04	-54.29	-13	-41.29	H
11.80631	40.28	RMS	38.6	-95.2	7.04	-41.14	-50.42	-13	-37.42	H
15.712762	41.30	RMS	41.4	-95.2	7.04	-40.12	-45.58	-13	-32.58	H
7.870780	42.07	RMS	35.8	-95.2	7.04	-44.04	-54.33	-13	-41.33	V
11.821049	40.57	RMS	38.6	-95.2	7.04	-41.34	-50.33	-13	-37.33	V
15.688464	41.44	RMS	41.4	-95.2	7.04	-40.40	-45.72	-13	-32.72	V

11. SETUP PHOTOS

Please refer to 15107858-EP1 for Setup Photo Report.

END OF REPORT