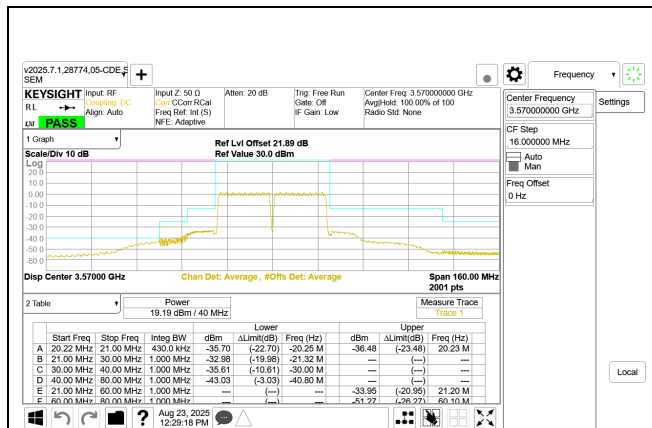
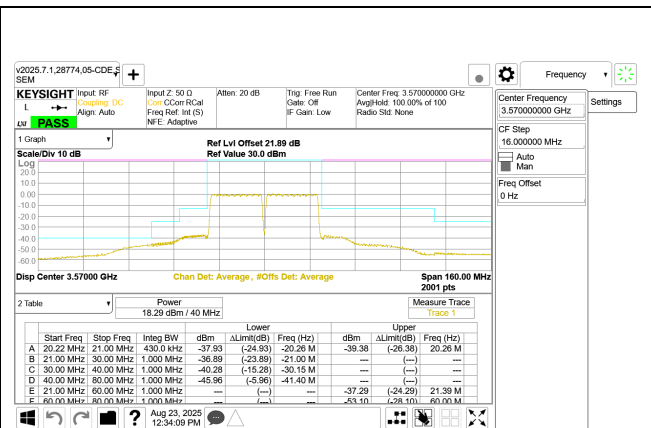


9.2.5. LTE ULCA BAND 48C EMISSION MASK

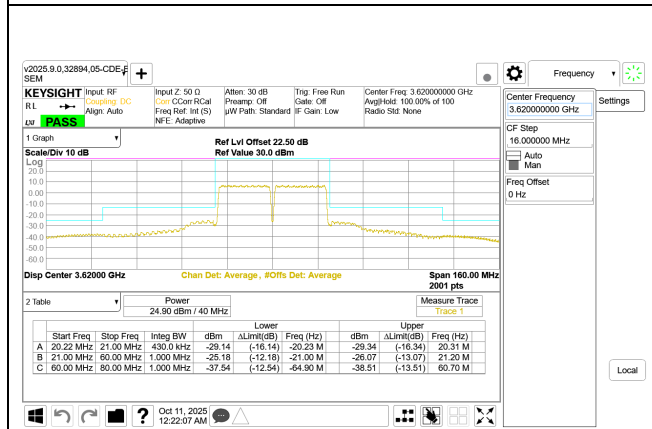




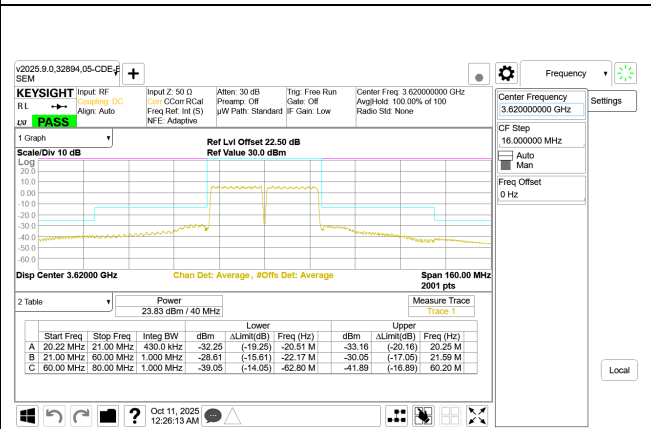
LTE ULCA B48C 20MHz + 20MHz QPSK Low Ch RB100-0 + RB100-0



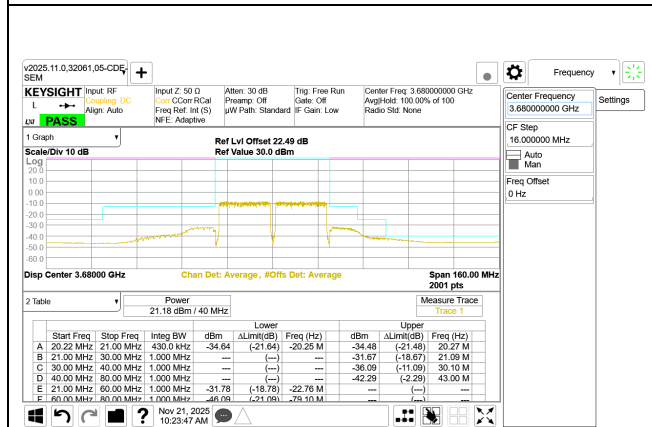
LTE ULCA B48C 20MHz + 20MHz 16QAM Low Ch RB100-0 + RB100-0



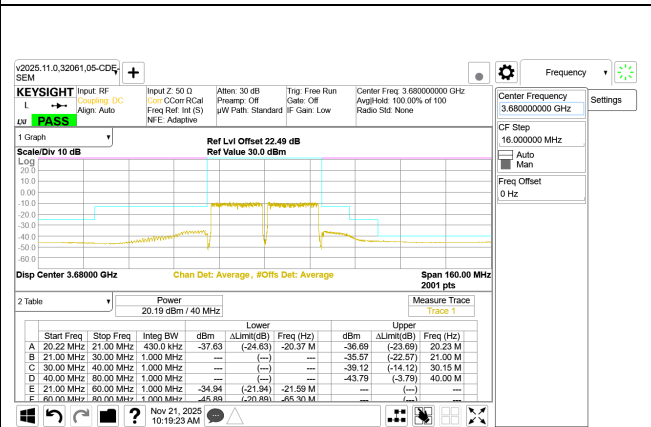
LTE ULCA B48C 20MHz + 20MHz QPSK Mid Ch RB100-0 + RB100-0



LTE ULCA B48C 20MHz + 20MHz 16QAM Mid Ch RB100-0 + RB100-0

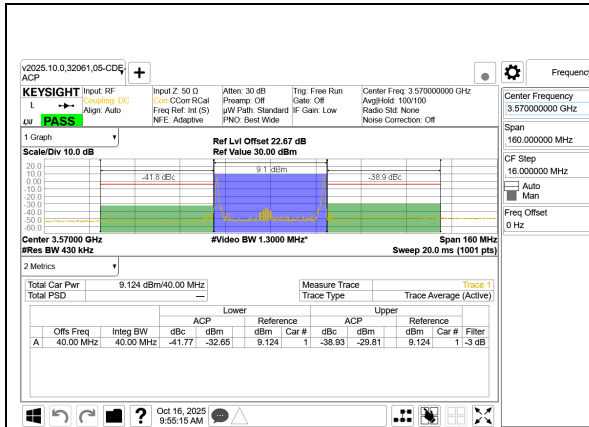


LTE ULCA B48C 20MHz + 20MHz QPSK High Ch RB100-0 + RB100-0

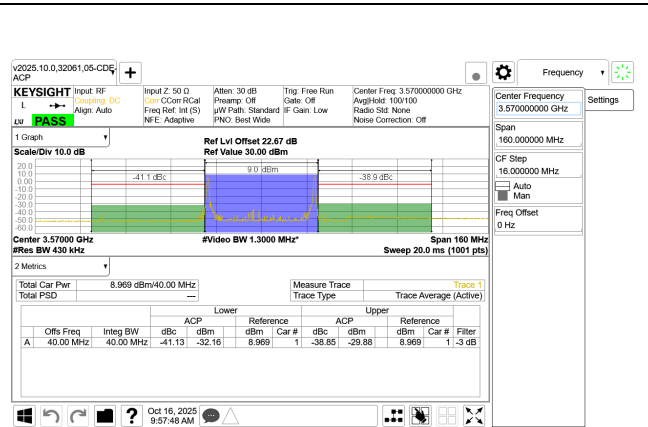


LTE ULCA B48C 20MHz + 20MHz 16QAM High Ch RB100-0 + RB100-0

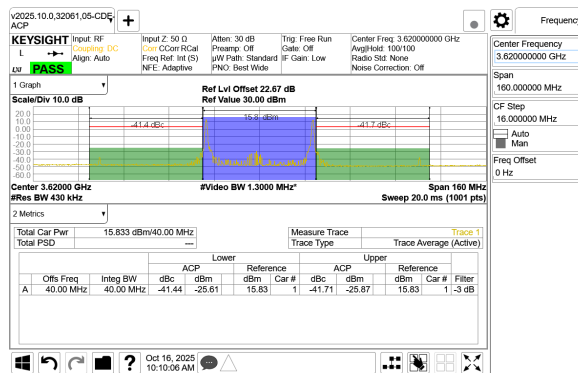
9.2.6. LTE ULCA BAND 48C ADJACENT CHANNEL POWER



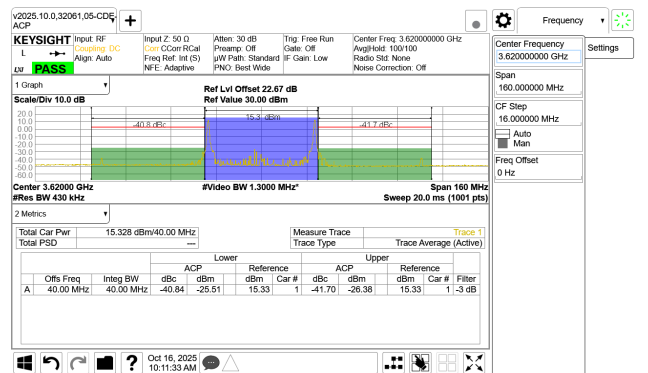
LTE ULCA B48C 20MHz + 20MHz QPSK Low Ch RB1-0 + RB1-99



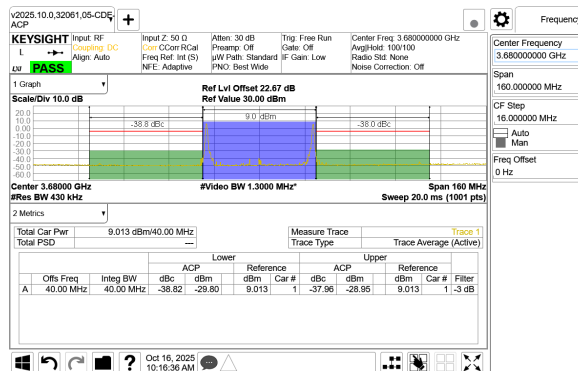
LTE ULCA B48C 20MHz + 20MHz 16QAM Low Ch RB1-0 + RB1-99



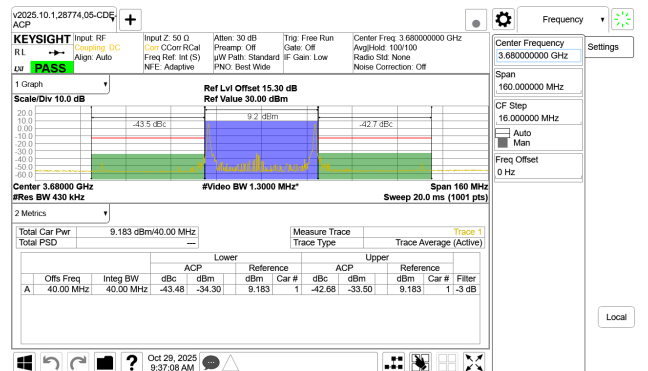
LTE ULCA B48C 20MHz + 20MHz QPSK Mid Ch RB1-0 + RB1-99



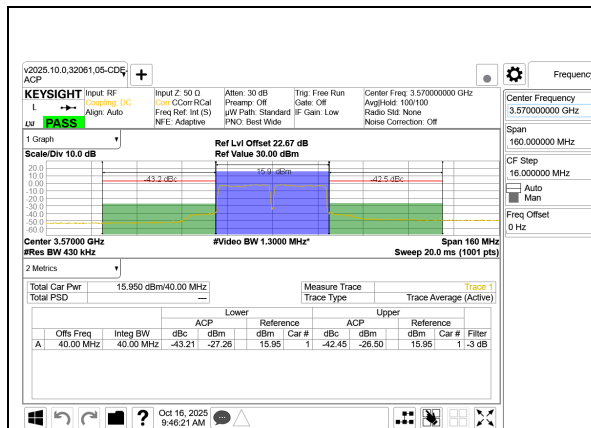
LTE ULCA B48C 20MHz + 20MHz 16QAM Mid Ch RB1-0 + RB1-99



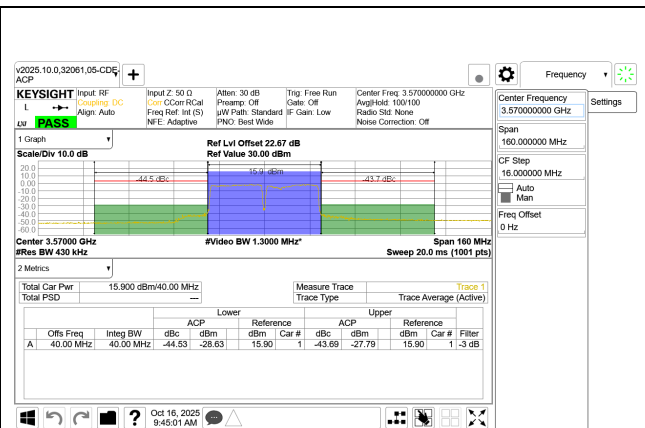
LTE ULCA B48C 20MHz + 20MHz QPSK High Ch RB1-0 + RB1-99



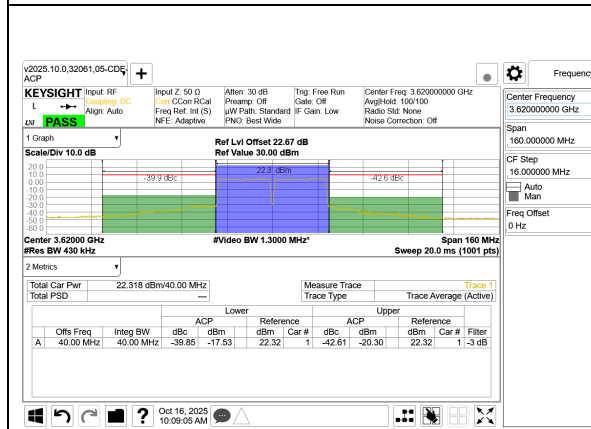
LTE ULCA B48C 20MHz + 20MHz 16QAM High Ch RB1-0 + RB1-99



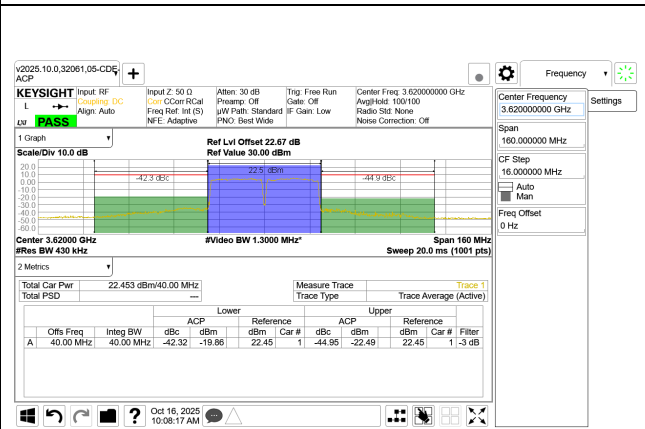
LTE ULCA B48C 20MHz + 20MHz QPSK Low Ch RB100-0 + RB100-0



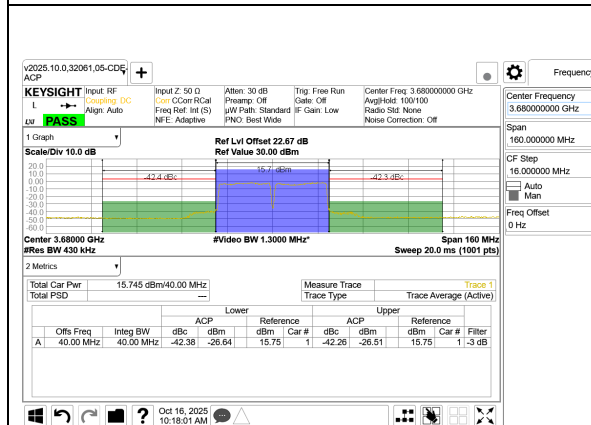
LTE ULCA B48C 20MHz + 20MHz 16QAM Low Ch RB100-0 + RB100-0



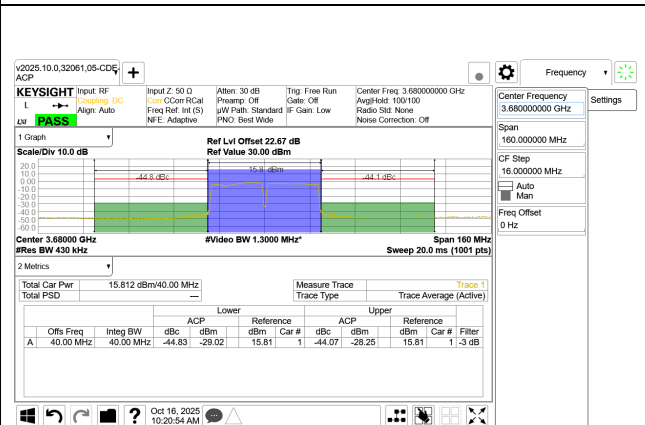
LTE ULCA B48C 20MHz + 20MHz QPSK Mid Ch RB100-0 + RB100-0



LTE ULCA B48C 20MHz + 20MHz 16QAM Mid Ch RB100-0 + RB100-0



LTE ULCA B48C 20MHz + 20MHz QPSK High Ch RB100-0 + RB100-0



LTE ULCA B48C 20MHz + 20MHz 16QAM High Ch RB100-0 + RB100-0

9.3. OUT OF BAND EMISSIONS

LIMITS

FCC: §96.41

(e) 3.5 GHz Emissions and Interference Limits—

(2) Additional protection levels. Notwithstanding paragraph (e)(1) of this section, for CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40dBm/MHz.

TEST PROCEDURE

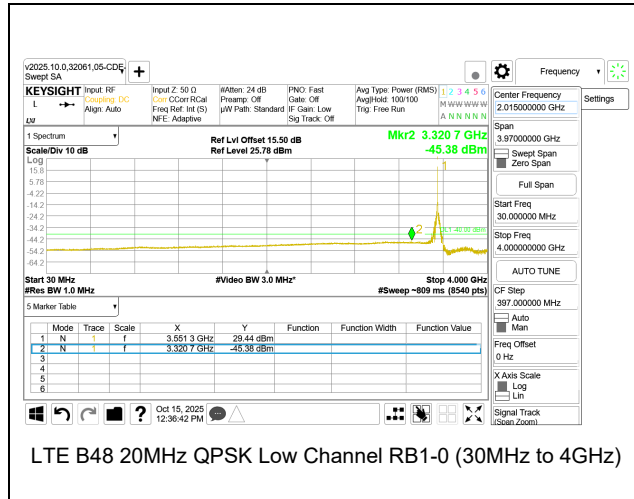
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

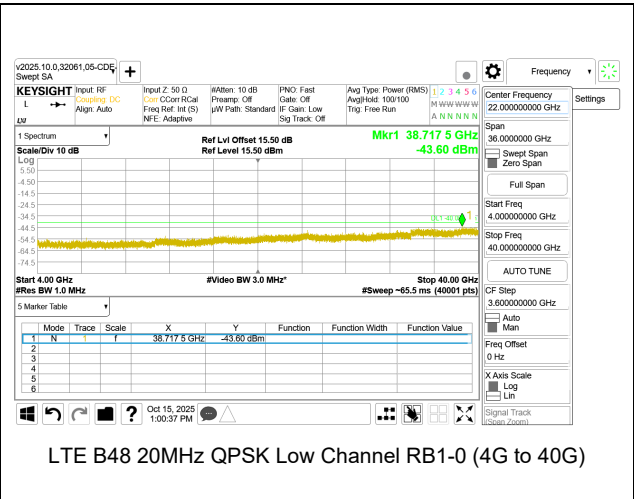
- Set display line at -13 dBm, -25dBm and -40dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.
(NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

RESULTS

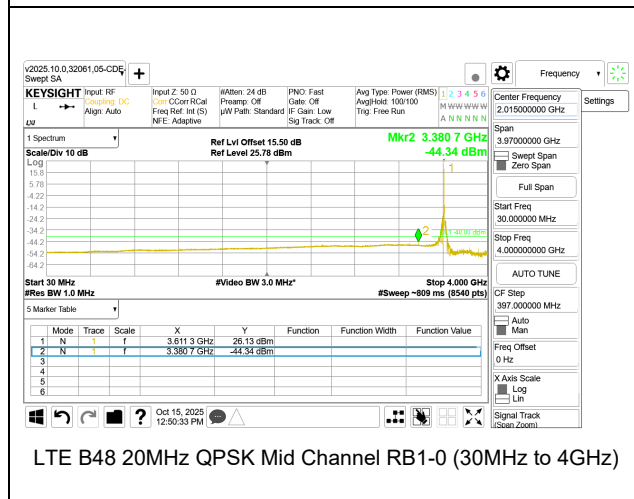
9.3.1. LTE BAND 48



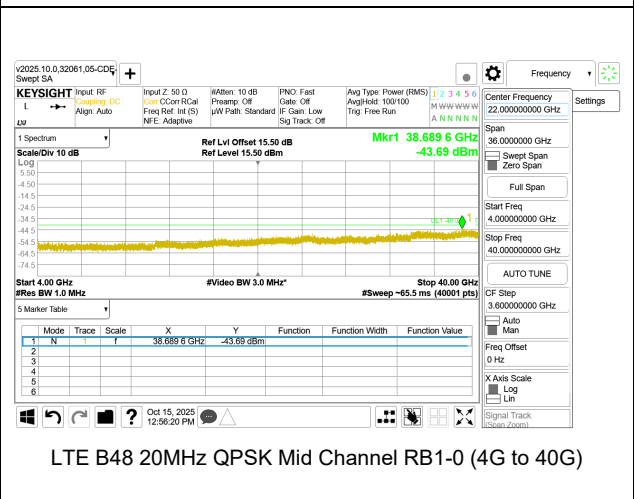
LTE B48 20MHz QPSK Low Channel RB1-0 (30MHz to 4GHz)



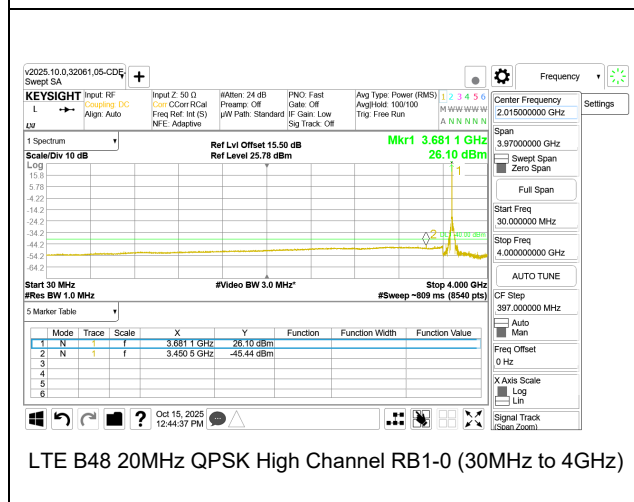
LTE B48 20MHz QPSK Low Channel RB1-0 (4G to 40G)



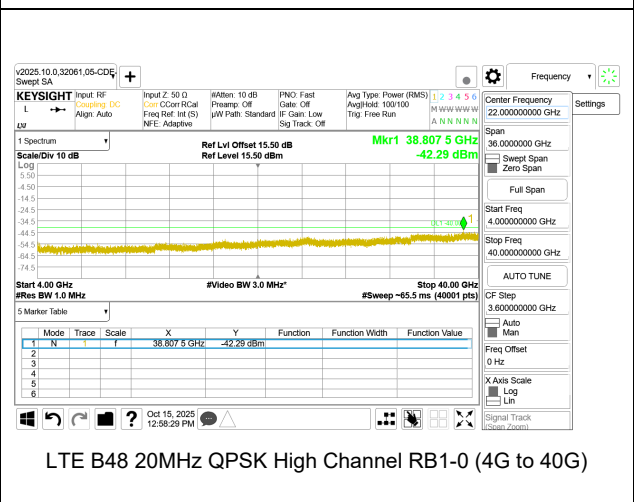
LTE B48 20MHz QPSK Mid Channel RB1-0 (30MHz to 4GHz)



LTE B48 20MHz QPSK Mid Channel RB1-0 (4G to 40G)



LTE B48 20MHz QPSK High Channel RB1-0 (30MHz to 4GHz)



LTE B48 20MHz QPSK High Channel RB1-0 (4G to 40G)

9.3.2. 5G NR n48



9.3.3. LTE ULCA BAND 48C



9.4. FREQUENCY STABILITY

TEST PROCEDURE

Use base station simulator with Frequency Error measurement capability.

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

Low voltage, 3.23VDC, Normal, 3.8VDC and High voltage, 4.37VDC.
End Voltage, 2.85VDC.

Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50°C is reached.

Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

RESULTS

See the following pages.

9.4.1. LTE BAND 48 QPSK (20MHz BANDWIDTH)

Test Engineer ID:	32188	Test Date:	2025-09-17
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Band	48	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		3550	3700			
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
Temperature	Voltage					
Normal (20°C)	Normal	3550.8037	3699.3279			
Extreme (50°C)		3550.8037	3699.3279	7.9	0.002	Yes
Extreme (40°C)		3550.8037	3699.3279	7.2	0.002	Yes
Extreme (30°C)		3550.8037	3699.3279	8.1	0.002	Yes
Extreme (10°C)		3550.8037	3699.3279	8.2	0.002	Yes
Extreme (0°C)		3550.8037	3699.3279	9.0	0.002	Yes
Extreme (-10°C)		3550.8037	3699.3279	8.7	0.002	Yes
Extreme (-20°C)		3550.8037	3699.3279	6.1	0.002	Yes
Extreme (-30°C)		3550.8037	3699.3279	8.0	0.002	Yes
20°C	15%	3550.8037	3699.3279	-7.8	-0.002	Yes
	-15%	3550.8037	3699.3279	8.5	0.002	Yes
	End Point Voltage	3550.8037	3699.3279	7.8	0.002	Yes

9.4.2. 5G NR n48 BPSK (40MHz BANDWIDTH)

Test Engineer ID:	32188	Test Date:	2025-09-17
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Band	48	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		3550	3700		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)			
Temperature	Voltage					
Normal (20°C)	Normal	3551.0335	3696.7537			
Extreme (50°C)		3551.0335	3696.7537	4.2	0.001	Yes
Extreme (40°C)		3551.0335	3696.7537	3.5	0.001	Yes
Extreme (30°C)		3551.0335	3696.7537	3.0	0.001	Yes
Extreme (10°C)		3551.0335	3696.7537	-2.9	-0.001	Yes
Extreme (0°C)		3551.0335	3696.7537	-2.2	-0.001	Yes
Extreme (-10°C)		3551.0335	3696.7537	2.7	0.001	Yes
Extreme (-20°C)		3551.0335	3696.7537	5.7	0.002	Yes
Extreme (-30°C)		3551.0335	3696.7537	1.2	0.000	Yes
20°C	15%	3551.0335	3696.7537	1.6	0.000	Yes
	-15%	3551.0335	3696.7537	2.2	0.001	Yes
	End Point Voltage	3551.0335	3696.7537	1.3	0.000	Yes

9.4.3. LTE ULCA BAND 48C QPSK (20MHz + 20MHz BANDWIDTH)

Test Engineer ID:	32188	Test Date:	2025-09-17
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Band	48	Frequency Range		Frequency Error Reading (Hz)	Limit	
Condition		3550	3700		Frequency Stability (ppm)	Within Authorized Frequency Block (Hz)
		Freq Reading @ Low End (MHz)	Freq Reading @ High End (MHz)			
Temperature	Voltage					
Normal (20°C)	Normal	3550.9374	3699.7818			
Extreme (50°C)		3550.9374	3699.7818	9.1	0.003	Yes
Extreme (40°C)		3550.9374	3699.7818	9.3	0.003	Yes
Extreme (30°C)		3550.9374	3699.7818	9.1	0.003	Yes
Extreme (10°C)		3550.9374	3699.7818	7.7	0.002	Yes
Extreme (0°C)		3550.9374	3699.7818	9.2	0.003	Yes
Extreme (-10°C)		3550.9374	3699.7818	7.0	0.002	Yes
Extreme (-20°C)		3550.9374	3699.7818	8.8	0.002	Yes
Extreme (-30°C)		3550.9374	3699.7818	8.4	0.002	Yes
20°C	15%	3550.9374	3699.7818	8.1	0.002	Yes
	-15%	3550.9374	3699.7818	10.6	0.003	Yes
	End Point Voltage	3550.9374	3699.7818	9.7	0.003	Yes

9.5. PEAK-TO-AVERAGE POWER RATIO

LIMIT

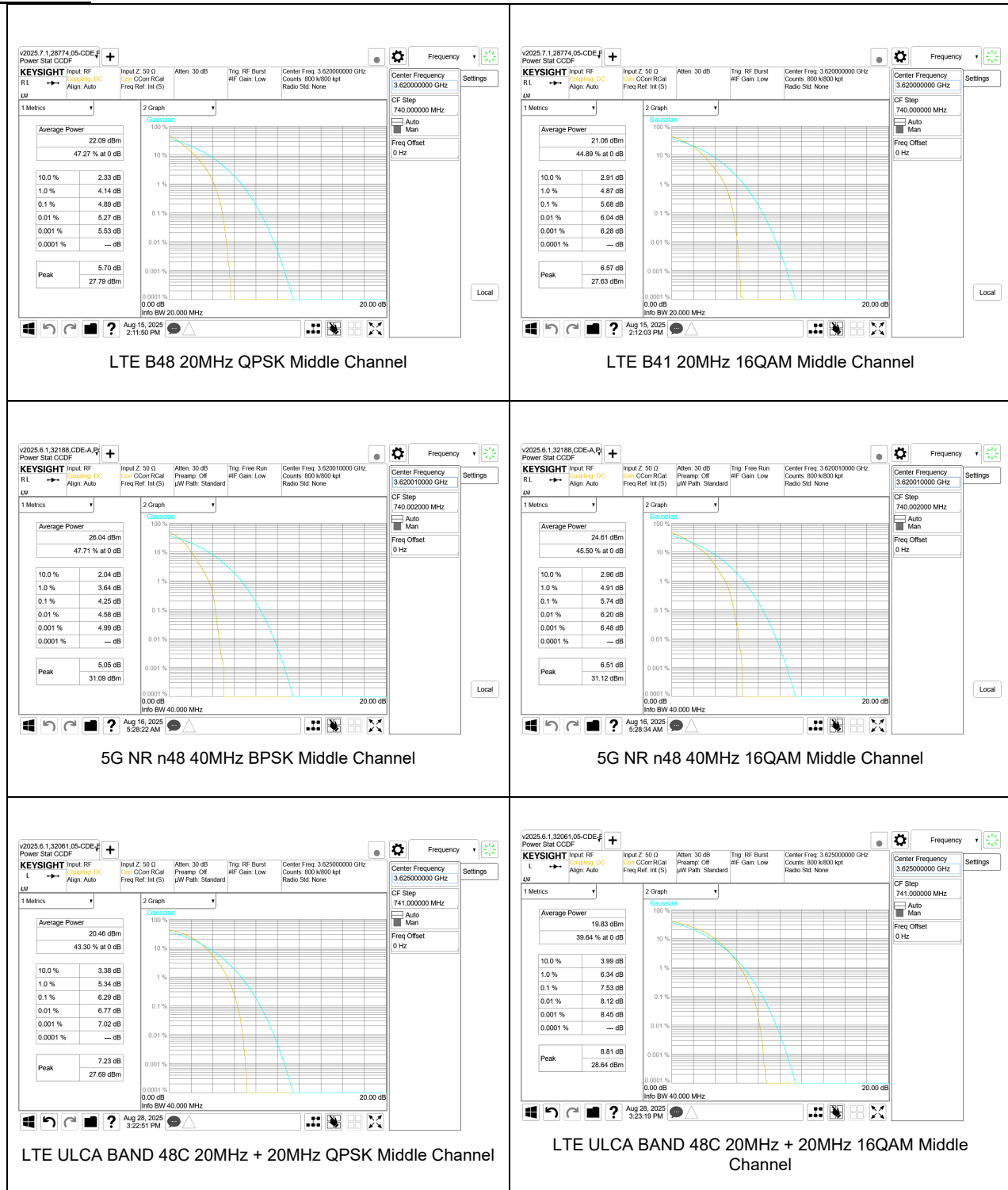
In addition, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

RESULT

Antenna 9 was used to measure as the worst case; full resource block (FRB) for each bandwidth was used to measure as the worst case. The results from all CCDF measurements are passed with 13dB peak-to-average power ratio criteria.

Note: the PAR measurements data collections are made only when the transmitter power on (Burst ON time).

Example Plots: FULL RB



9.5.1. LTE BAND 48

Test Engineer ID:		28774	Test Date:		2025-08-14			
Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band 48	5MHz	3625.0	25	0	QPSK	31.37	25.66	5.71
					16QAM	31.00	24.64	6.36
	10MHz	50	0	QPSK	31.27	25.54	5.73	
					16QAM	30.93	24.49	6.44
	15MHz	75	0	QPSK	28.98	23.28	5.70	
					16QAM	28.58	22.26	6.32
	20MHz	100	0	QPSK	27.79	22.09	5.70	
					16QAM	27.63	21.06	6.57
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.2. 5G NR n48

Test Engineer ID:		28774	Test Date:		2025-08-14			
Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
5G NR n48	10MHz	3625.0	24	0	BPSK	31.54	26.74	4.80
					16QAM	31.43	25.26	6.17
	15MHz	3620.0	36	0	BPSK	31.28	26.83	4.45
					16QAM	31.61	25.37	6.24
	20MHz	50	0	BPSK	31.11	26.54	4.57	
				16QAM	31.36	25.16	6.20	
	30MHz	3625.0	75	0	BPSK	30.69	26.23	4.46
					16QAM	30.91	24.72	6.19
	40MHz	3620.0	100	0	BPSK	31.09	26.04	5.05
					16QAM	31.12	24.61	6.51
Duty Cycle Correction Factor (dB) =			0.00					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.3. LTE ULCA BAND 48C

Test Engineer ID:	28774	Test Date:	2025-08-14
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Band	Bandwidth (MHz)	PCC f (MHz)	SCC1 f (MHz)	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
					Peak	Average	
LTE ULCA Band 48C	5MHz / 20MHz	3615.8	3627.5	QPSK	28.87	22.03	6.84
				16QAM	29.83	21.93	7.90
	20MHz / 5MHz	3622.5	3634.2	QPSK	27.91	21.13	6.78
				16QAM	28.97	21.08	7.89
	10MHz / 20MHz	3615.6	3630.0	QPSK	27.88	21.02	6.86
				16QAM	28.78	20.85	7.93
	20MHz / 10MHz	3620.1	3634.5	QPSK	27.28	20.3	6.98
				16QAM	28.33	20.4	7.93
	15MHz / 20MHz	3615.3	3632.4	QPSK	27.75	19.87	7.88
				16QAM	28.72	19.42	9.30
	20MHz / 15MHz	3617.6	3634.7	QPSK	27.47	19.71	7.76
				16QAM	28.73	19.72	9.01
	20MHz / 20MHz	3615.1	3634.9	QPSK	27.69	20.46	7.23
				16QAM	28.64	19.83	8.81
Duty Cycle Correction Factor (dB) =			0.00				
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor							

10. RADIATED TEST RESULTS

6.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.

Radiated measurement using the Field Strength Method

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

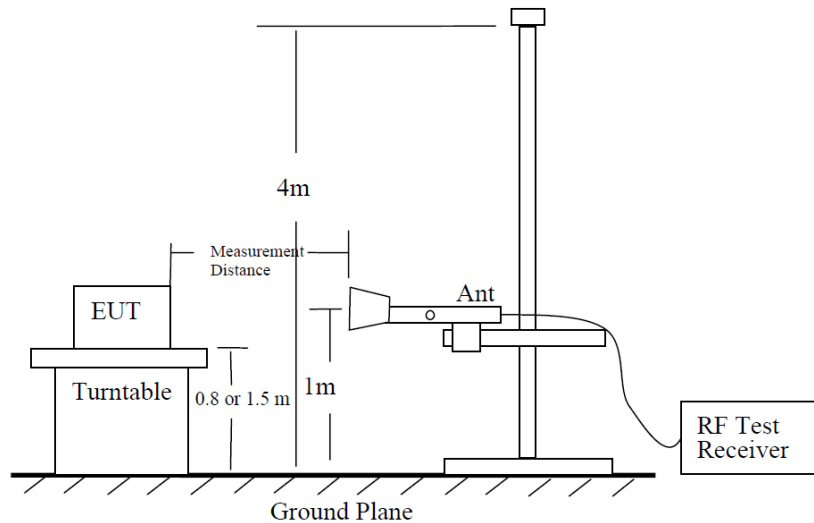


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

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

a) $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$.

b) $E \text{ (dB}\mu\text{V/m)} = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$.

c) $E \text{ (dB}\mu\text{V/m)} = \text{EIRP (dBm)} - 20\log(D) + 104.8$; where D is the measurement distance (in the far field region) in m.

d) $\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.

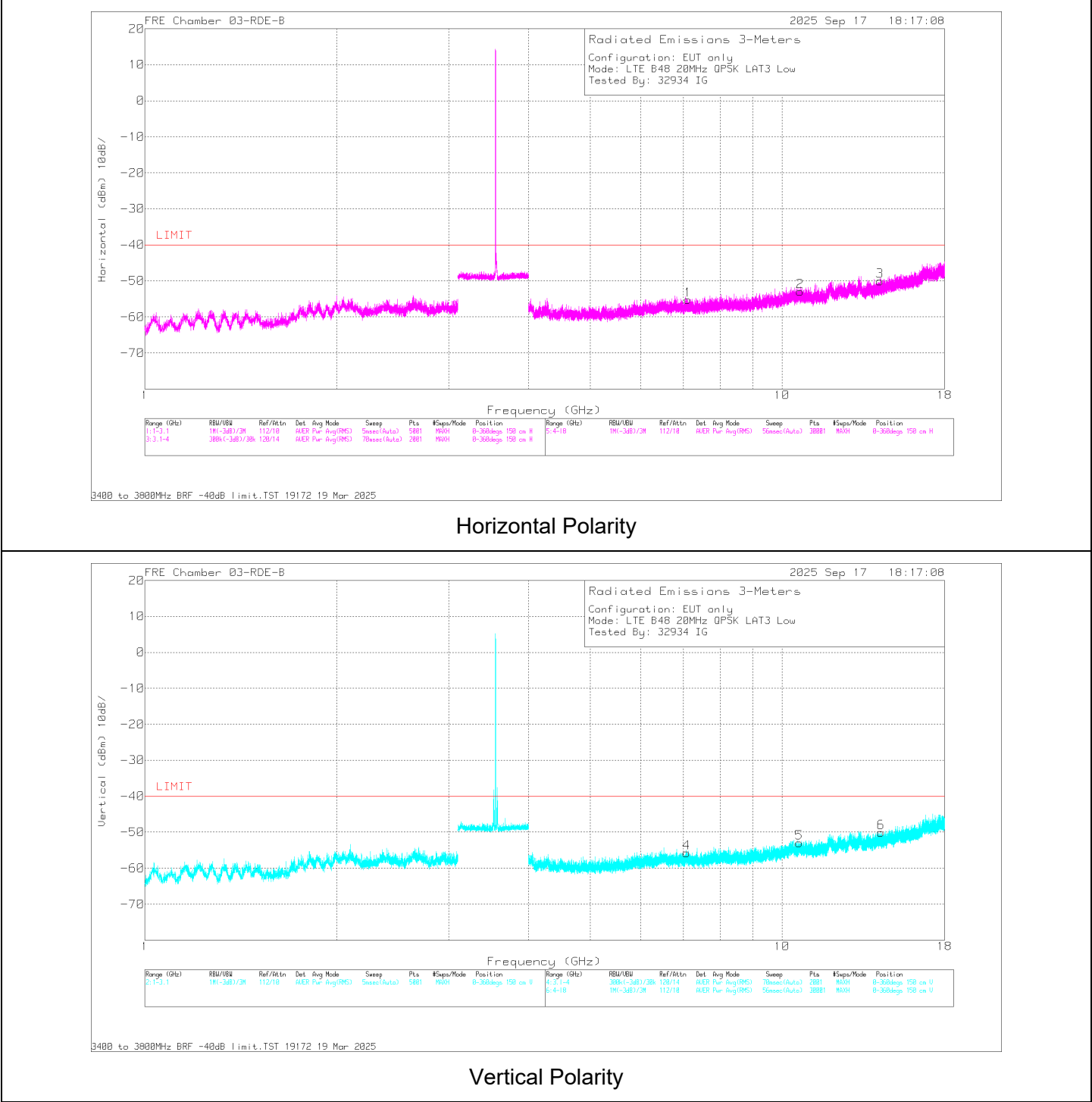
So, from d)

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

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

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

Example Plot



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF (dB)	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT	Margin (dB)	Polarity
1	7.116869	51.41	RMS	35.7	-95.2	-47.19	-55.28	-40	-15.28	H
4	7.088402	51.10	RMS	35.7	-95.2	-47.30	-55.70	-40	-15.70	V
2	10.685005	51.44	RMS	37.7	-95.2	-46.90	-52.96	-40	-12.96	H
5	10.650938	51.47	RMS	37.7	-95.2	-46.91	-52.94	-40	-12.94	V
3	14.252207	51.96	RMS	39.1	-95.2	-45.90	-50.04	-40	-10.04	H
6	14.311474	51.98	RMS	39.1	-95.2	-45.90	-50.02	-40	-10.02	V

10.1. FIELD STRENGTH OF SPURIOUS RADIATION

TEST PROCEDURE

KDB 971168 D01 /D02

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

RESULTS

10.1.1. LTE BAND 48

QPSK LTE BAND 48 (20MHz BANDWIDTH, ANT 9)

Project #:	15941282
Date:	2025-09-08
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.135069	50.54	RMS	35.7	-95.2	-47.20	-56.16	-40	-16.16	H
7.158869	50.74	RMS	35.7	-95.2	-47.10	-55.86	-40	-15.86	V
10.688271	51.94	RMS	37.7	-95.2	-46.80	-52.36	-40	-12.36	H
10.601938	52.20	RMS	37.7	-95.2	-47.20	-52.50	-40	-12.5	V
14.246141	51.77	RMS	39.1	-95.2	-45.90	-50.23	-40	-10.23	H
14.230274	51.40	RMS	39.0	-95.2	-45.90	-50.70	-40	-10.70	V
Mid Channel, 3620MHz									
7.264802	51.48	RMS	35.6	-95.2	-47.88	-56.00	-40	-16.00	H
7.223736	52.22	RMS	35.7	-95.2	-47.73	-55.01	-40	-15.01	V
10.888472	51.00	RMS	37.8	-95.2	-46.45	-52.85	-40	-12.85	H
10.904805	51.08	RMS	37.8	-95.2	-46.50	-52.82	-40	-12.82	V
14.491607	51.88	RMS	39.4	-95.2	-45.56	-49.48	-40	-9.48	H
14.497208	51.66	RMS	39.4	-95.2	-45.64	-49.78	-40	-9.78	V
High Channel, 3690MHz									
7.381469	51.35	RMS	35.6	-95.2	-47.80	-56.05	-40	-16.05	H
7.348802	51.55	RMS	35.6	-95.2	-47.70	-55.75	-40	-15.75	V
11.072338	51.30	RMS	37.8	-95.2	-45.80	-51.90	-40	-11.90	H
11.018672	52.64	RMS	37.9	-95.2	-46.27	-50.93	-40	-10.93	V
14.785608	52.24	RMS	39.6	-95.2	-46.10	-49.46	-40	-9.46	H
14.775341	51.76	RMS	39.6	-95.2	-46.00	-49.84	-40	-9.84	V

QPSK LTE BAND 48 (20MHz BANDWIDTH, ANT 4)

Project #:	15941282
Date:	2025-09-17
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.121069	51.84	RMS	35.7	-95.2	-47.10	-54.76	-40	-14.76	H
7.101936	51.24	RMS	35.7	-95.2	-47.11	-55.37	-40	-15.37	V
10.686871	52.37	RMS	37.7	-95.2	-46.81	-51.94	-40	-11.94	H
10.671471	52.55	RMS	37.7	-95.2	-46.85	-51.80	-40	-11.80	V
14.262007	52.71	RMS	39.2	-95.2	-46.00	-49.29	-40	-9.29	H
14.251274	52.10	RMS	39.1	-95.2	-45.83	-49.83	-40	-9.83	V
Mid Channel, 3620MHz									
7.232602	51.70	RMS	35.7	-95.2	-47.80	-55.60	-40	-15.60	H
7.245202	51.38	RMS	35.7	-95.2	-48.00	-56.12	-40	-16.12	V
10.856272	50.42	RMS	37.8	-95.2	-46.23	-53.21	-40	-13.21	H
10.865138	50.99	RMS	37.8	-95.2	-46.31	-52.72	-40	-12.72	V
14.454741	50.93	RMS	39.3	-95.2	-45.90	-50.87	-40	-10.87	H
14.519608	51.46	RMS	39.3	-95.2	-45.74	-50.18	-40	-10.18	V
High Channel, 3690MHz									
7.378669	51.41	RMS	35.6	-95.2	-47.80	-55.99	-40	-15.99	H
7.348802	51.90	RMS	35.6	-95.2	-47.70	-55.40	-40	-15.40	V
11.068138	50.76	RMS	37.8	-95.2	-45.89	-52.53	-40	-12.53	H
11.052738	51.26	RMS	37.8	-95.2	-46.0	-52.14	-40	-12.14	V
14.776274	52.18	RMS	39.6	-95.2	-46.03	-49.45	-40	-9.45	H
14.836008	51.80	RMS	39.6	-95.2	-45.90	-49.7	-40	-9.70	V

QPSK LTE BAND 48 (20MHz BANDWIDTH, ANT 7)

Project #:	15941282
Date:	2025-09-17
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.116869	51.41	RMS	35.7	-95.2	-47.19	-55.28	-40	-15.28	H
7.088402	51.10	RMS	35.7	-95.2	-47.30	-55.70	-40	-15.70	V
10.685005	51.44	RMS	37.7	-95.2	-46.90	-52.96	-40	-12.96	H
10.650938	51.47	RMS	37.7	-95.2	-46.91	-52.94	-40	-12.94	V
14.252207	51.96	RMS	39.1	-95.2	-45.90	-50.04	-40	-10.04	H
14.311474	51.98	RMS	39.1	-95.2	-45.90	-50.02	-40	-10.02	V
Mid Channel, 3620MHz									
7.256402	51.86	RMS	35.6	-95.2	-48.00	-55.74	-40	-15.74	H
7.213936	51.21	RMS	35.7	-95.2	-47.70	-55.99	-40	-15.99	V
10.889872	51.28	RMS	37.8	-95.2	-46.50	-52.62	-40	-12.62	H
10.891272	51.15	RMS	37.8	-95.2	-46.50	-52.75	-40	-12.75	V
14.489274	51.38	RMS	39.4	-95.2	-45.60	-50.02	-40	-10.02	H
14.479474	51.25	RMS	39.4	-95.2	-45.65	-50.20	-40	-10.20	V
High Channel, 3690MHz									
7.391736	51.03	RMS	35.6	-95.2	-47.80	-56.37	-40	-16.37	H
7.351136	51.91	RMS	35.6	-95.2	-47.70	-55.39	-40	-15.39	V
11.071872	50.84	RMS	37.8	-95.2	-45.80	-52.36	-40	-12.36	H
11.089605	49.84	RMS	37.9	-95.2	-45.70	-53.16	-40	-13.16	V
14.772541	52.50	RMS	39.6	-95.2	-46.05	-49.15	-40	-9.15	H
14.791208	52.42	RMS	39.6	-95.2	-46.10	-49.28	-40	-9.28	V

QPSK LTE BAND 48 (20MHz BANDWIDTH, ANT 8)

Project #:	15941282
Date:	2025-09-10
Test Engineer:	45258
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.120602	51.09	RMS	35.7	-95.2	-47.14	-55.55	-40	-15.55	H
7.119202	50.56	RMS	35.7	-95.2	-47.20	-56.14	-40	-16.14	V
10.678938	51.40	RMS	37.7	-95.2	-46.90	-53.00	-40	-13.00	V
10.680338	50.29	RMS	37.7	-95.2	-46.90	-54.11	-40	-14.11	H
14.238674	51.52	RMS	39.1	-95.2	-45.90	-50.48	-40	-10.48	H
14.239607	50.46	RMS	39.1	-95.2	-45.84	-51.48	-40	-11.48	V
Mid Channel, 3620MHz									
7.247536	52.29	RMS	35.7	-95.2	-47.90	-55.11	-40	-15.11	H
7.248936	51.30	RMS	35.7	-95.2	-47.81	-56.01	-40	-16.01	V
10.874938	50.00	RMS	37.8	-95.2	-46.40	-53.80	-40	-13.80	V
10.875405	49.88	RMS	37.8	-95.2	-46.40	-53.92	-40	-13.92	H
14.497674	51.21	RMS	39.4	-95.2	-45.73	-50.32	-40	-10.32	H
14.499074	50.29	RMS	39.4	-95.2	-45.79	-51.30	-40	-11.30	V
High Channel, 3690MHz									
7.380069	51.29	RMS	35.6	-95.2	-47.80	-56.11	-40	-16.11	H
7.381002	49.95	RMS	35.6	-95.2	-47.80	-57.45	-40	-17.45	V
11.070938	49.74	RMS	37.8	-95.2	-45.80	-53.46	-40	-13.46	V
11.070938	50.31	RMS	37.8	-95.2	-45.80	-52.89	-40	-12.89	H
14.760874	52.23	RMS	39.6	-95.2	-45.90	-49.27	-40	-9.27	H
14.758074	51.82	RMS	39.6	-95.2	-45.99	-49.77	-40	-9.77	V

10.1.2. 5G NR n48

BPSK 5G NR n48 (40MHZ BANDWIDTH, ANT 9)

Project #:	15941282
Date:	2025-09-19
Test Engineer:	45258
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.142536	50.08	RMS	35.7	-95.2	-47.15	-56.57	-40	-16.57	H
7.143469	50.22	RMS	35.7	-95.2	-47.15	-56.43	-40	-16.43	V
10.711138	51.52	RMS	37.7	-95.2	-46.80	-52.78	-40	-12.78	V
10.708805	50.71	RMS	37.7	-95.2	-46.72	-53.51	-40	-13.51	H
14.280674	51.65	RMS	39.2	-95.2	-45.87	-50.22	-40	-10.22	H
14.281607	51.63	RMS	39.2	-95.2	-45.96	-50.33	-40	-10.33	V
Mid Channel, 3620MHz									
7.250802	51.22	RMS	35.6	-95.2	-47.90	-56.28	-40	-16.28	H
7.253136	51.79	RMS	35.6	-95.2	-47.90	-55.71	-40	-15.71	V
10.875872	50.66	RMS	37.8	-95.2	-46.40	-53.14	-40	-13.14	V
10.872605	50.24	RMS	37.8	-95.2	-46.46	-53.62	-40	-13.62	H
14.500008	51.47	RMS	39.4	-95.2	-45.70	-50.03	-40	-10.03	H
14.501408	50.54	RMS	39.4	-95.2	-45.70	-50.96	-40	-10.96	V
High Channel, 3680MHz									
7.358136	51.52	RMS	35.6	-95.2	-47.80	-55.88	-40	-15.88	H
7.360936	50.89	RMS	35.6	-95.2	-47.80	-56.51	-40	-16.51	V
11.049005	50.66	RMS	37.8	-95.2	-46.00	-52.74	-40	-12.74	V
11.047605	50.38	RMS	37.8	-95.2	-46.00	-53.02	-40	-13.02	H
14.717474	51.34	RMS	39.6	-95.2	-45.80	-50.06	-40	-10.06	H
14.719341	51.19	RMS	39.6	-95.2	-45.80	-50.21	-40	-10.21	V

BPSK 5G NR n48 (40MHZ BANDWIDTH, ANT 4)

Project #:	15941282
Date:	2025-09-19
Test Engineer:	45258
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.142536	51.22	RMS	35.7	-95.2	-47.15	-55.43	-40	-15.43	H
7.140669	50.25	RMS	35.7	-95.2	-47.20	-56.45	-40	-16.45	V
10.711605	51.05	RMS	37.7	-95.2	-46.80	-53.25	-40	-13.25	V
10.709271	51.18	RMS	37.7	-95.2	-46.73	-53.05	-40	-13.05	H
14.284407	50.33	RMS	39.2	-95.2	-45.90	-51.57	-40	-11.57	H
14.283474	51.21	RMS	39.2	-95.2	-45.90	-50.69	-40	-10.69	V
Mid Channel, 3620MHz									
7.249869	50.63	RMS	35.7	-95.2	-47.89	-56.76	-40	-16.76	H
7.250802	50.90	RMS	35.6	-95.2	-47.9	-56.60	-40	-16.60	V
10.874938	50.55	RMS	37.8	-95.2	-46.4	-53.25	-40	-13.25	V
10.869805	50.04	RMS	37.8	-95.2	-46.4	-53.76	-40	-13.76	H
14.501874	50.50	RMS	39.4	-95.2	-45.7	-51.00	-40	-11.00	H
14.503041	50.95	RMS	39.4	-95.2	-45.8	-50.65	-40	-10.65	V
High Channel, 3680MHz									
7.360936	51.42	RMS	35.6	-95.2	-47.80	-55.98	-40	-15.98	H
7.359069	51.05	RMS	35.6	-95.2	-47.80	-56.35	-40	-16.35	V
11.039205	50.82	RMS	37.8	-95.2	-46.00	-52.58	-40	-12.58	V
11.039672	50.73	RMS	37.8	-95.2	-46.00	-52.67	-40	-12.67	H
14.720741	51.62	RMS	39.6	-95.2	-45.73	-49.71	-40	-9.71	H
14.720274	50.63	RMS	39.6	-95.2	-45.77	-50.74	-40	-10.74	V

BPSK 5G NR n48 (40MHZ BANDWIDTH, ANT 7)

Project #:	15941282
Date:	2025-09-10
Test Engineer:	30934
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.149069	50.28	RMS	35.7	-95.2	-47.19	-56.41	-40	-16.41	H
7.126669	51.39	RMS	35.7	-95.2	-47.10	-55.21	-40	-15.21	V
10.709738	50.63	RMS	37.7	-95.2	-46.77	-53.64	-40	-13.64	H
10.743338	51.04	RMS	37.8	-95.2	-46.80	-53.16	-40	-13.16	V
14.266674	51.03	RMS	39.2	-95.2	-45.83	-50.8	-40	-10.80	H
14.311474	50.87	RMS	39.1	-95.2	-45.90	-51.13	-40	-11.13	V
Mid Channel, 3620MHz									
7.250336	51.43	RMS	35.7	-95.2	-47.90	-55.97	-40	-15.97	H
7.179402	52.22	RMS	35.7	-95.2	-47.24	-54.52	-40	-14.52	V
10.881938	51.06	RMS	37.8	-95.2	-46.40	-52.74	-40	-12.74	H
10.871672	50.67	RMS	37.8	-95.2	-46.40	-53.13	-40	-13.13	V
14.522408	52.49	RMS	39.3	-95.2	-45.64	-49.05	-40	-9.05	H
14.525674	51.86	RMS	39.3	-95.2	-45.60	-49.64	-40	-9.64	V
High Channel, 3680MHz									
7.371202	51.80	RMS	35.6	-95.2	-47.80	-55.60	-40	-15.60	H
7.358602	51.52	RMS	35.6	-95.2	-47.80	-55.88	-40	-15.88	V
11.060672	50.72	RMS	37.8	-95.2	-45.90	-52.58	-40	-12.58	H
11.005605	51.07	RMS	37.8	-95.2	-46.24	-52.57	-40	-12.57	V
14.732874	51.41	RMS	39.6	-95.2	-45.60	-49.79	-40	-9.79	H
14.748741	51.76	RMS	39.6	-95.2	-45.73	-49.57	-40	-9.57	V

BPSK 5G NR n48 (40MHZ BANDWIDTH, ANT 8)

Project #:	15941282
Date:	2025-06-22
Test Engineer:	111411
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.149536	50.86	RMS	35.7	-95.2	-47.15	-55.79	-40	-15.79	H
7.120602	50.83	RMS	35.7	-95.2	-47.14	-55.81	-40	-15.81	V
10.715338	51.00	RMS	37.7	-95.2	-46.77	-53.27	-40	-13.27	H
10.694338	51.30	RMS	37.7	-95.2	-46.80	-53.00	-40	-13.00	V
14.277407	51.82	RMS	39.2	-95.2	-45.84	-50.02	-40	-10.02	H
14.331074	51.45	RMS	39.2	-95.2	-46.19	-50.74	-40	-10.74	V
Mid Channel, 3620MHz									
7.251736	50.98	RMS	35.6	-95.2	-47.90	-56.52	-40	-16.52	H
7.234936	51.18	RMS	35.7	-95.2	-47.81	-56.13	-40	-16.13	V
10.868405	50.59	RMS	37.8	-95.2	-46.34	-53.15	-40	-13.15	H
10.839472	50.47	RMS	37.8	-95.2	-46.30	-53.23	-40	-13.23	V
14.519608	52.60	RMS	39.3	-95.2	-45.74	-49.04	-40	-9.04	H
14.528941	51.46	RMS	39.3	-95.2	-45.70	-50.14	-40	-10.14	V
High Channel, 3680MHz									
7.376336	50.91	RMS	35.6	-95.2	-47.80	-56.49	-40	-16.49	H
7.349269	52.16	RMS	35.6	-95.2	-47.70	-55.14	-40	-15.14	V
11.040138	52.27	RMS	37.8	-95.2	-46.00	-51.13	-40	-11.13	H
11.040138	50.40	RMS	37.8	-95.2	-46.00	-53.00	-40	-13.00	V
14.735208	50.76	RMS	39.6	-95.2	-45.70	-50.54	-40	-10.54	H
14.724474	52.63	RMS	39.6	-95.2	-45.65	-48.62	-40	-8.62	V

10.1.3. LTE ULCA BAND 48C

QPSK LTE ULCA BAND 48B (20MHz + 20MHz BANDWIDTH, ANT 9)

Project #:	15941282
Date:	2025-09-17
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.126202	51.01	RMS	35.7	-95.2	-47.10	-55.59	-40	-15.59	H
7.108469	51.39	RMS	35.7	-95.2	-47.10	-55.21	-40	-15.21	V
10.676605	51.17	RMS	37.7	-95.2	-46.86	-53.19	-40	-13.19	H
10.708338	52.59	RMS	37.7	-95.2	-46.77	-51.68	-40	-11.68	V
14.244741	51.88	RMS	39.1	-95.2	-45.90	-50.12	-40	-10.12	H
14.219074	51.36	RMS	39.1	-95.2	-45.80	-50.54	-40	-10.54	V
Mid Channel, 3615.1MHz + 3634.9MHz									
7.233536	51.92	RMS	35.7	-95.2	-47.85	-55.43	-40	-15.43	H
7.192469	51.44	RMS	35.7	-95.2	-47.50	-55.56	-40	-15.56	V
10.855338	51.38	RMS	37.8	-95.2	-46.27	-52.29	-40	-12.29	H
10.835738	51.15	RMS	37.8	-95.2	-46.37	-52.62	-40	-12.62	V
14.484141	51.07	RMS	39.4	-95.2	-45.60	-50.33	-40	-10.33	H
14.490674	51.51	RMS	39.4	-95.2	-45.53	-49.82	-40	-9.82	V
High Channel, 3670.2MHz + 3690MHz									
7.337602	52.6	RMS	35.6	-95.2	-47.8	-54.8	-40	-14.8	H
7.346002	53.1	RMS	35.6	-95.2	-47.7	-54.2	-40	-14.2	V
11.012138	50.69	RMS	37.8	-95.2	-46.2	-52.91	-40	-12.91	H
11.031738	50.45	RMS	37.9	-95.2	-46	-52.85	-40	-12.85	V
14.670808	51.9	RMS	39.6	-95.2	-45.82	-49.52	-40	-9.52	H
14.644674	52.02	RMS	39.5	-95.2	-45.9	-49.58	-40	-9.58	V

QPSK LTE ULCA BAND 48B (20MHz + 20MHz BANDWIDTH, ANT 4)

Project #:	15941282
Date:	2025-09-10
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.138336	51.93	RMS	35.7	-95.2	-47.20	-54.77	-40	-14.77	H
7.136002	49.91	RMS	35.7	-95.2	-47.20	-56.79	-40	-16.79	V
10.711605	50.11	RMS	37.7	-95.2	-46.80	-54.19	-40	-14.19	V
10.710671	51.04	RMS	37.7	-95.2	-46.80	-53.26	-40	-13.26	H
14.285341	51.39	RMS	39.2	-95.2	-45.90	-50.51	-40	-10.51	H
14.286741	51.10	RMS	39.2	-95.2	-45.97	-50.87	-40	-10.87	V
Mid Channel, 3615.1MHz + 3634.9MHz									
7.248936	52.24	RMS	35.7	-95.2	-47.81	-55.07	-40	-15.07	H
7.250336	50.71	RMS	35.7	-95.2	-47.90	-56.69	-40	-16.69	V
10.876338	50.80	RMS	37.8	-95.2	-46.40	-53.00	-40	-13.00	V
10.874472	50.97	RMS	37.8	-95.2	-46.40	-52.83	-40	-12.83	H
14.502808	51.65	RMS	39.4	-95.2	-45.78	-49.93	-40	-9.93	H
14.496274	50.74	RMS	39.4	-95.2	-45.67	-50.73	-40	-10.73	V
High Channel, 3670.2MHz + 3690MHz									
7.360469	52.47	RMS	35.6	-95.2	-47.80	-54.93	-40	-14.93	H
7.361402	51.93	RMS	35.6	-95.2	-47.80	-55.47	-40	-15.47	V
11.040138	49.88	RMS	37.8	-95.2	-46.00	-53.52	-40	-13.52	V
11.039672	51.00	RMS	37.8	-95.2	-46.00	-52.40	-40	-12.40	H
14.718874	51.31	RMS	39.6	-95.2	-45.80	-50.09	-40	-10.09	H
14.718408	51.54	RMS	39.6	-95.2	-45.80	-49.86	-40	-9.86	V

QPSK LTE ULCA BAND 48B (20MHz + 20MHz BANDWIDTH, ANT 7)

Project #:	15941282
Date:	2025-09-09
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.127602	51.30	RMS	35.7	-95.2	-47.16	-55.36	-40	-15.36	H
7.067402	52.51	RMS	35.7	-95.2	-47.40	-54.39	-40	-14.39	V
10.671938	52.55	RMS	37.7	-95.2	-46.89	-51.84	-40	-11.84	H
10.659338	52.06	RMS	37.7	-95.2	-47.00	-52.44	-40	-12.44	V
14.261074	53.14	RMS	39.2	-95.2	-46.00	-48.86	-40	-8.86	H
14.249874	51.04	RMS	39.1	-95.2	-45.80	-50.86	-40	-10.86	V
Mid Channel, 3615.1MHz + 3634.9MHz									
7.231669	51.42	RMS	35.7	-95.2	-47.80	-55.88	-40	-15.88	H
7.185469	50.20	RMS	35.7	-95.2	-47.35	-56.65	-40	-16.65	V
10.839005	50.71	RMS	37.8	-95.2	-46.30	-52.99	-40	-12.99	H
10.778338	51.32	RMS	37.7	-95.2	-46.67	-52.85	-40	-12.85	V
14.465007	51.39	RMS	39.3	-95.2	-45.80	-50.31	-40	-10.31	H
14.455207	51.7	RMS	39.3	-95.2	-45.90	-50.10	-40	-10.10	V
High Channel, 3670.2MHz + 3690MHz									
7.350669	51.61	RMS	35.6	-95.2	-47.70	-55.69	-40	-15.69	H
7.317536	51.56	RMS	35.6	-95.2	-47.85	-55.89	-40	-15.89	V
11.004205	51.17	RMS	37.8	-95.2	-46.22	-52.45	-40	-12.45	H
10.988805	51.59	RMS	37.8	-95.2	-46.40	-52.21	-40	-12.21	V
14.684341	52.12	RMS	39.6	-95.2	-45.90	-49.38	-40	-9.38	H
14.652141	51.67	RMS	39.5	-95.2	-46.00	-50.03	-40	-10.03	V

QPSK LTE ULCA BAND 48B (20MHz + 20MHz BANDWIDTH, ANT 8)

Project #:	15941282
Date:	2025-09-12
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.127602	50.73	RMS	35.7	-95.2	-47.16	-55.93	-40	-15.93	H
7.094002	51.61	RMS	35.7	-95.2	-47.30	-55.19	-40	-15.19	V
10.679405	50.63	RMS	37.7	-95.2	-46.90	-53.77	-40	-13.77	H
10.632271	52.54	RMS	37.7	-95.2	-46.90	-51.86	-40	-11.86	V
14.251274	51.79	RMS	39.1	-95.2	-45.83	-50.14	-40	-10.14	H
14.251741	51.43	RMS	39.1	-95.2	-45.87	-50.54	-40	-10.54	V
Mid Channel, 3615.1MHz + 3634.9MHz									
7.227469	52.05	RMS	35.7	-95.2	-47.80	-55.25	-40	-15.25	H
7.190136	52.64	RMS	35.7	-95.2	-47.40	-54.26	-40	-14.26	V
10.858605	50.52	RMS	37.8	-95.2	-46.30	-53.18	-40	-13.18	H
10.856272	50.51	RMS	37.8	-95.2	-46.23	-53.12	-40	-13.12	V
14.479941	50.74	RMS	39.4	-95.2	-45.69	-50.75	-40	-10.75	H
14.501408	51.23	RMS	39.4	-95.2	-45.70	-50.27	-40	-10.27	V
High Channel, 3670.2MHz + 3690MHz									
7.345069	51.30	RMS	35.6	-95.2	-47.79	-56.09	-40	-16.09	H
7.328736	51.99	RMS	35.6	-95.2	-47.90	-55.51	-40	-15.51	V
11.004672	51.28	RMS	37.8	-95.2	-46.27	-52.39	-40	-12.39	H
11.004205	51.65	RMS	37.8	-95.2	-46.22	-51.97	-40	-11.97	V
14.671274	51.48	RMS	39.6	-95.2	-45.80	-49.92	-40	-9.92	H
14.689941	52.92	RMS	39.6	-95.2	-45.90	-48.58	-40	-8.58	V

11. SETUP PHOTOS

Refer to 15941282-EP1 for setup photos.

END OF REPORT