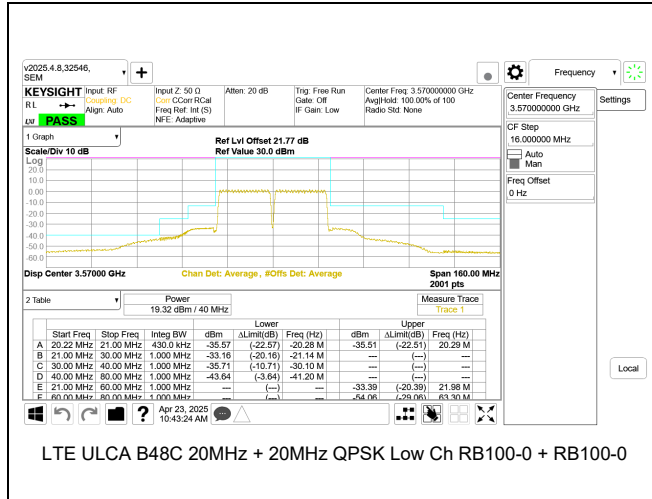
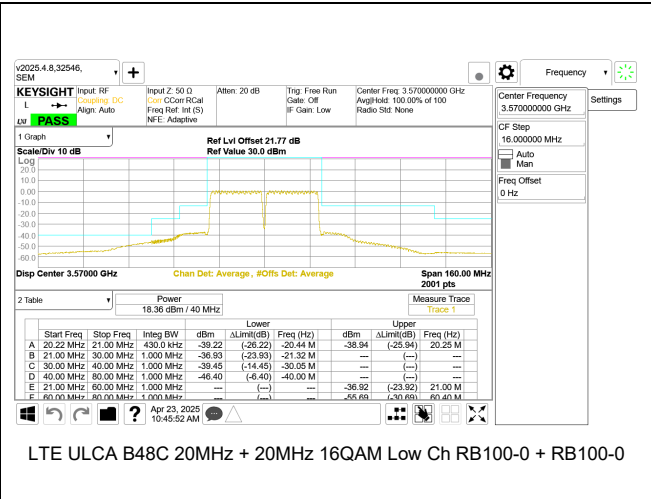
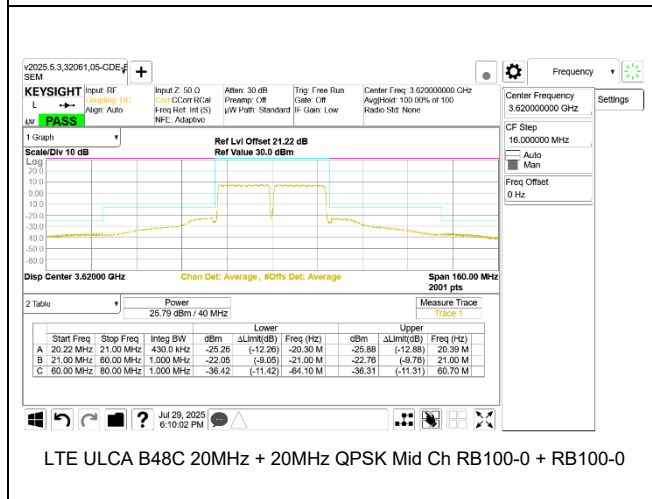




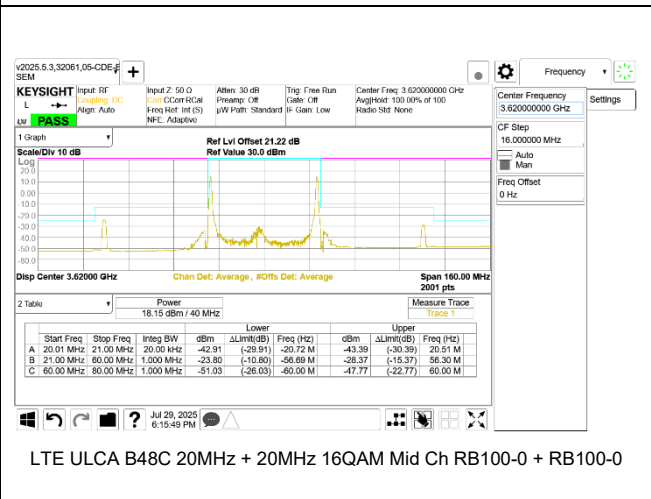
LTE ULCA B48C 20MHz + 20MHz QPSK Low Ch RB100-0 + RB100-0



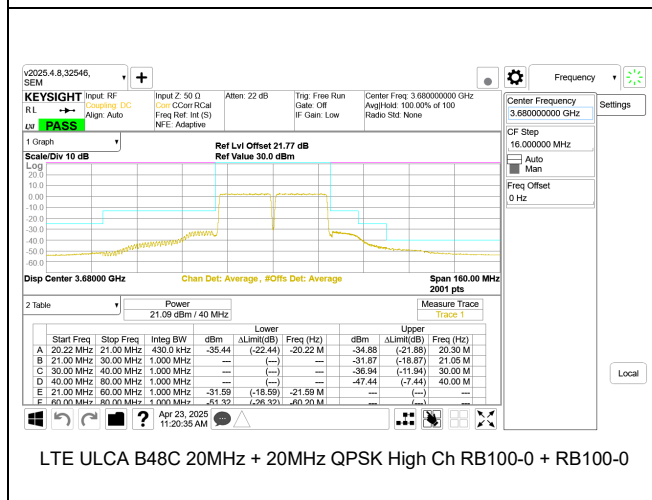
LTE ULCA B48C 20MHz + 20MHz 16QAM Low Ch RB100-0 + RB100-0



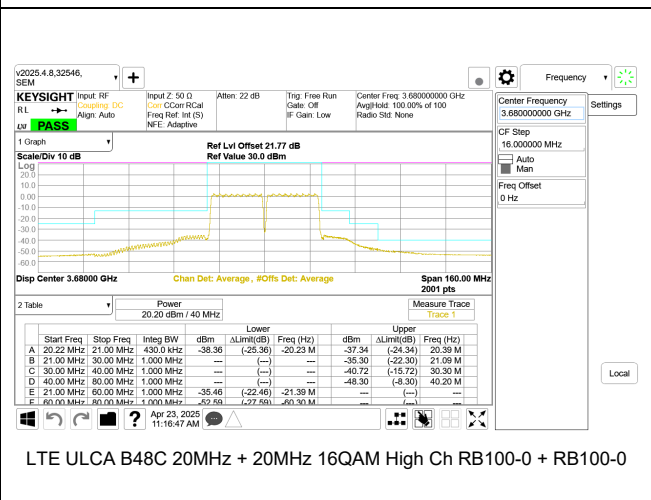
LTE ULCA B48C 20MHz + 20MHz QPSK Mid Ch RB100-0 + RB100-0



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

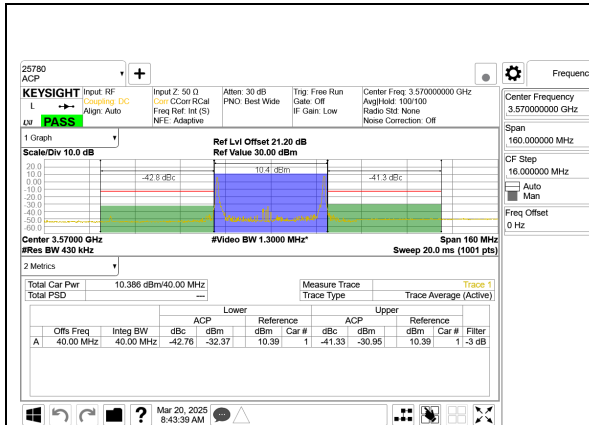


LTE ULCA B48C 20MHz + 20MHz QPSK High Ch RB100-0 + RB100-0

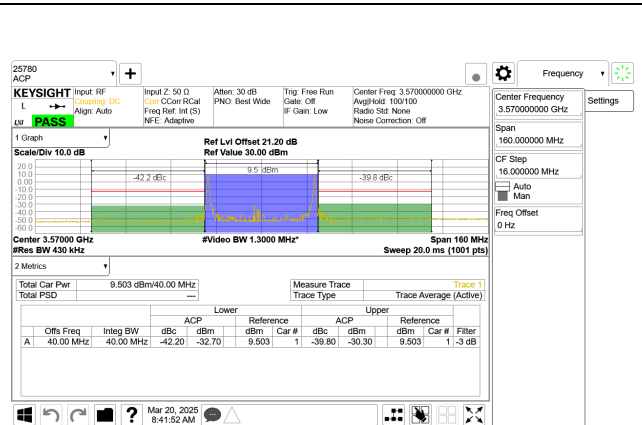


LTE ULCA B48C 20MHz + 20MHz 16QAM High Ch RB100-0 + RB100-0

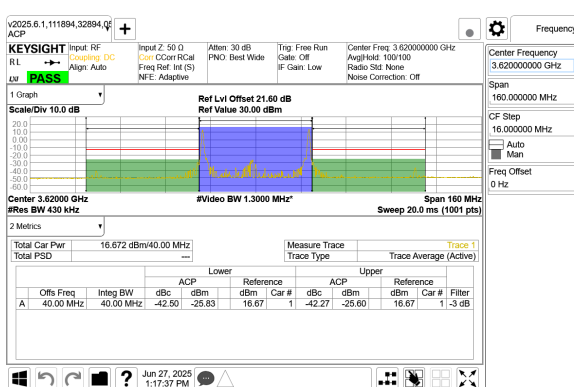
9.2.6. LTE ULCA BAND 48C ADJACENT CHANNEL POWER



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



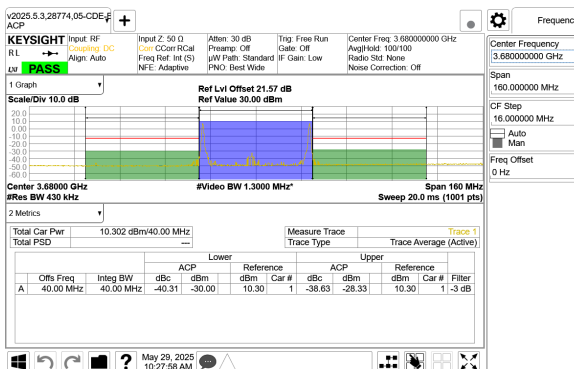
LTE ULCA B48C 20MHz + 20MHz 16QAM Low Ch RB1-0 + RB1-99



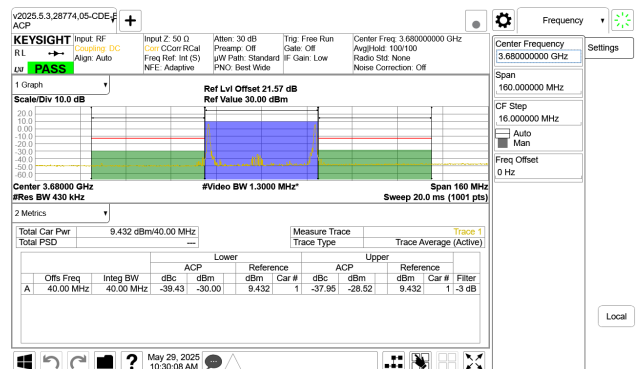
LTE ULCA B48C 20MHz + 20MHz QPSK Mid Ch RB1-0 + RB1-99



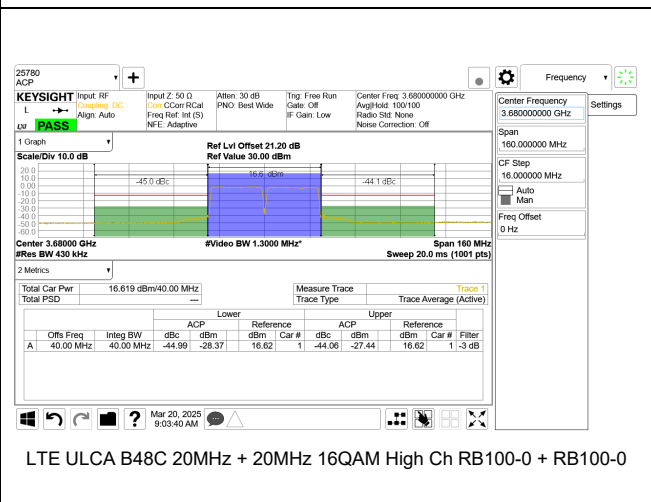
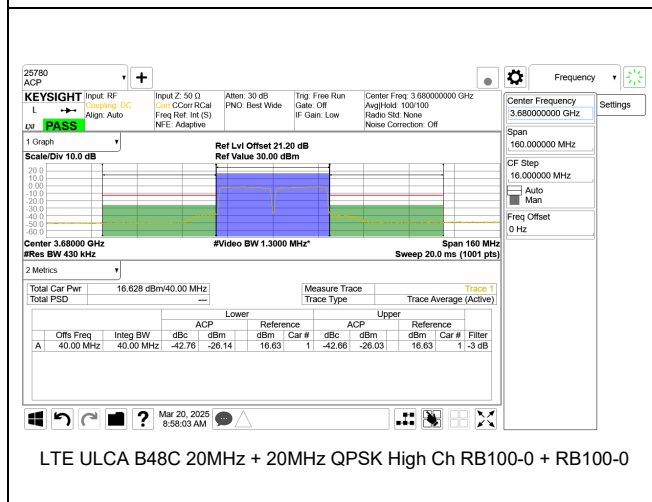
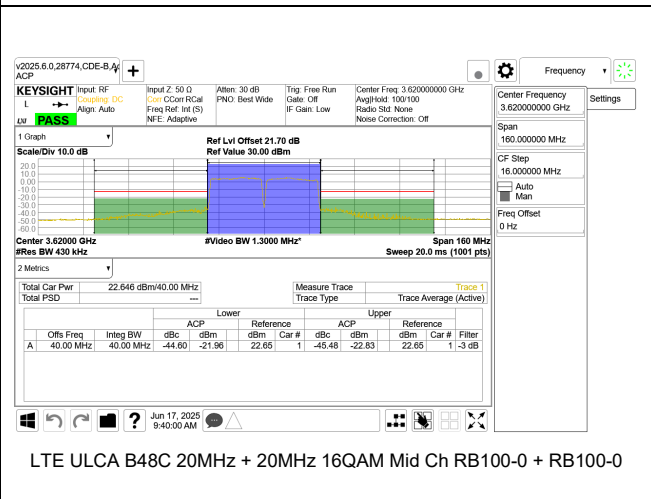
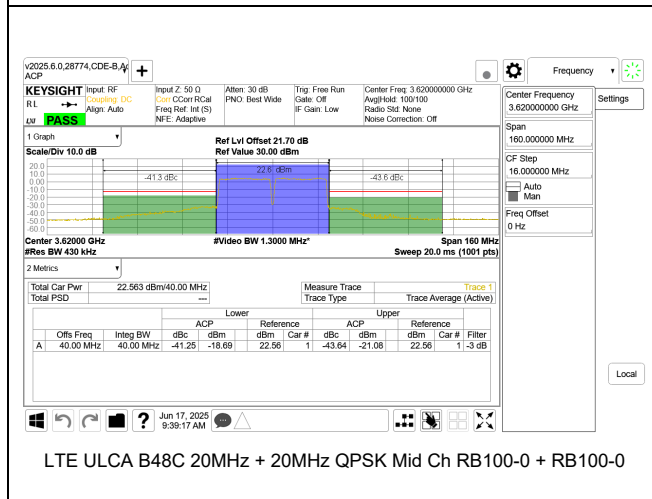
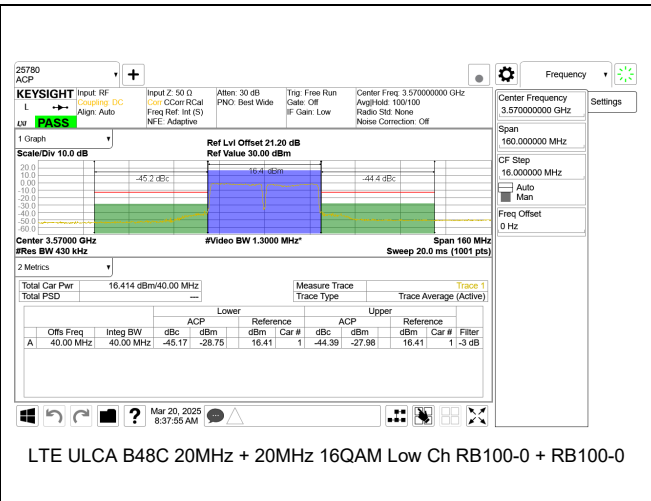
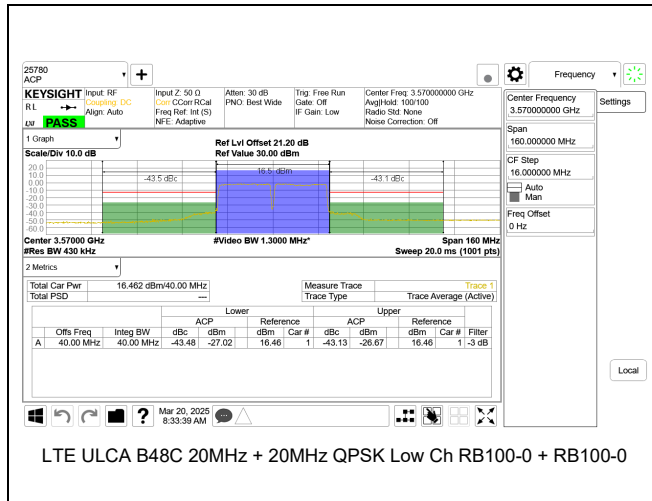
LTE ULCA B48C 20MHz + 20MHz 16QAM Mid Ch RB1-0 + RB1-99



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



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



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

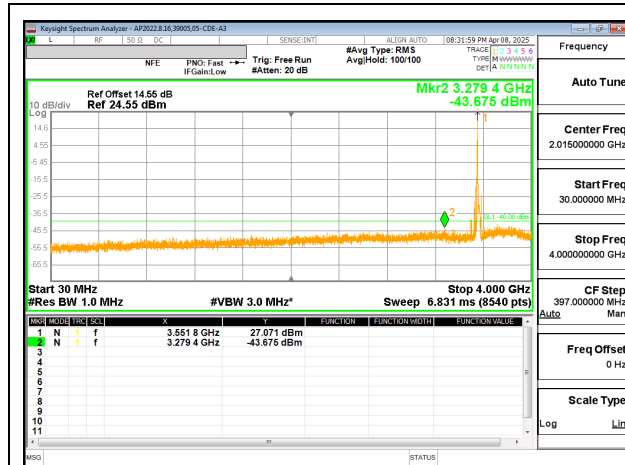
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case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

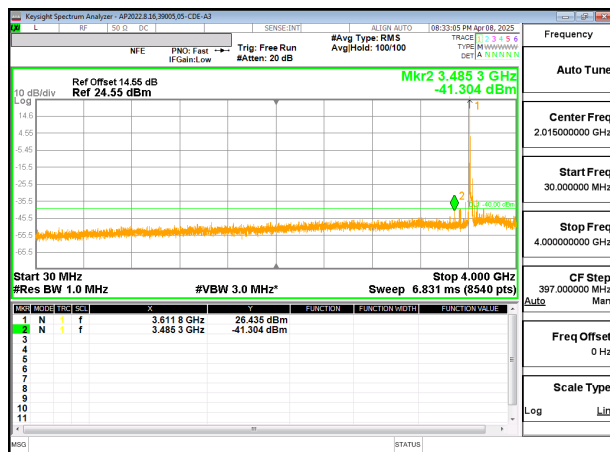
9.3.1. LTE BAND 48



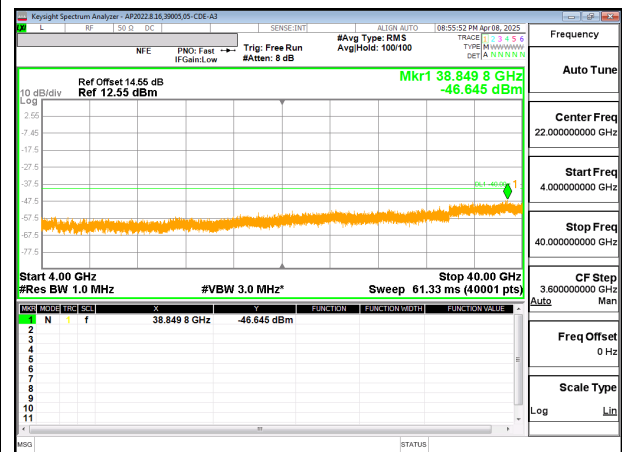
LTE B48 20MHz QPSK Low Channel RB1-0 (30MHz to 4GHz)



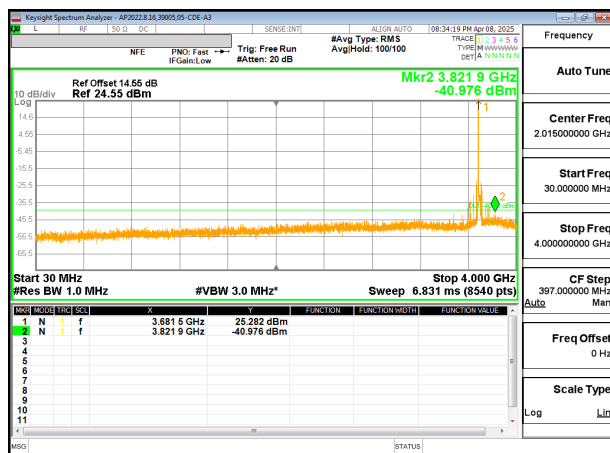
LTE B48 20MHz QPSK Low Channel RB1-0 (4GHz to 40GHz)



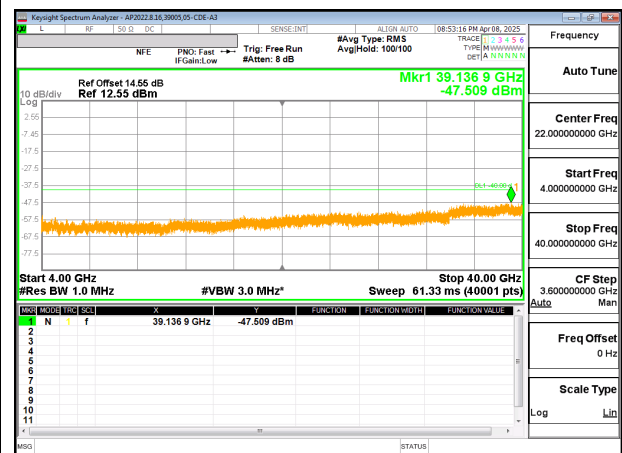
LTE B48 20MHz QPSK Mid Channel RB1-0 (30MHz to 4GHz)



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

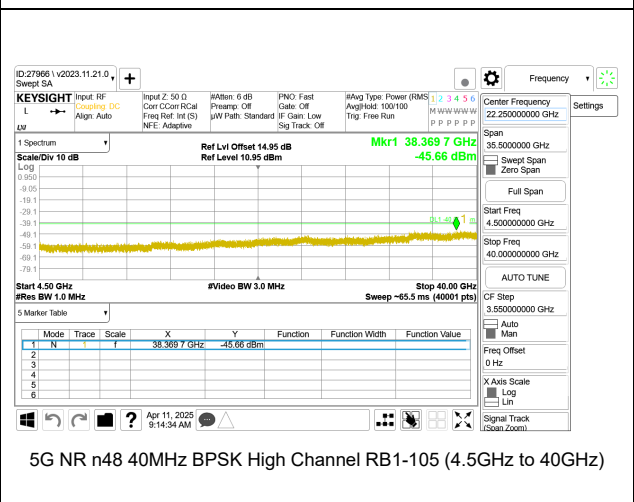
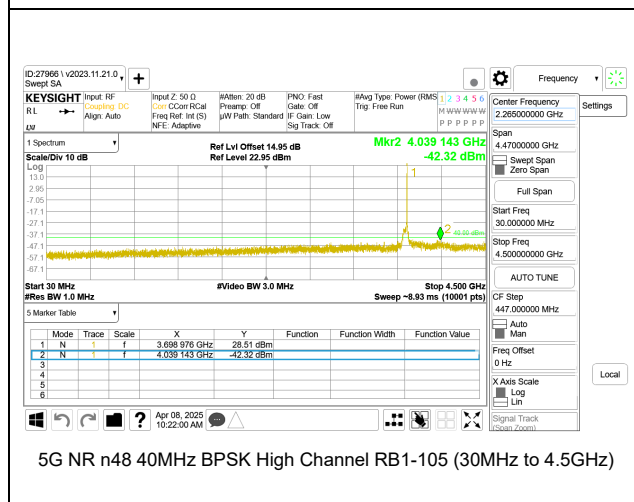
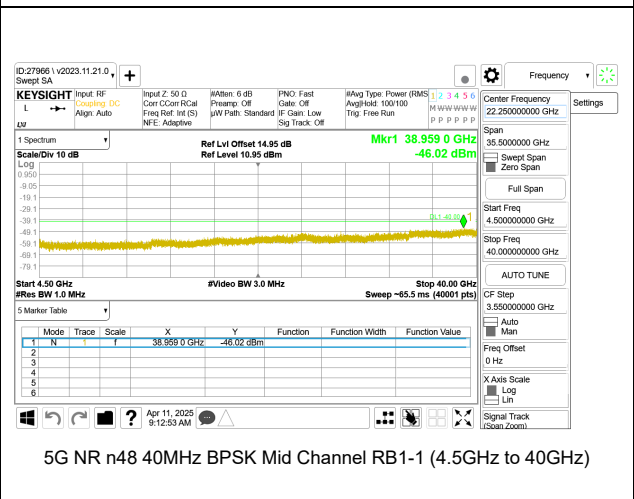
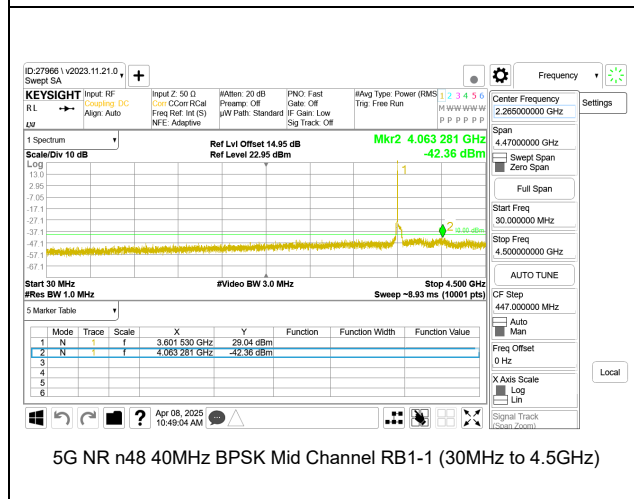
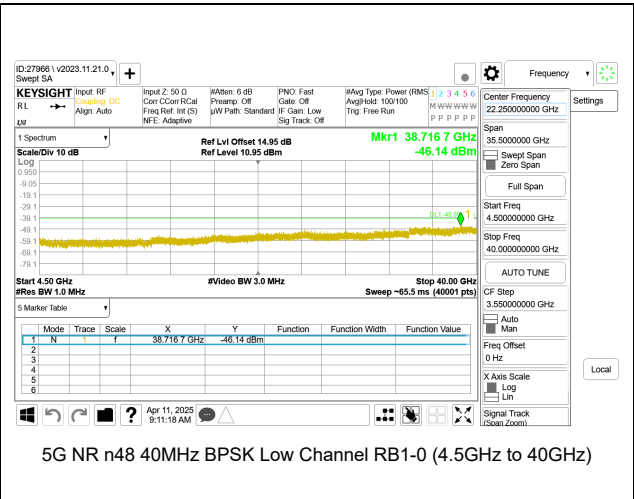
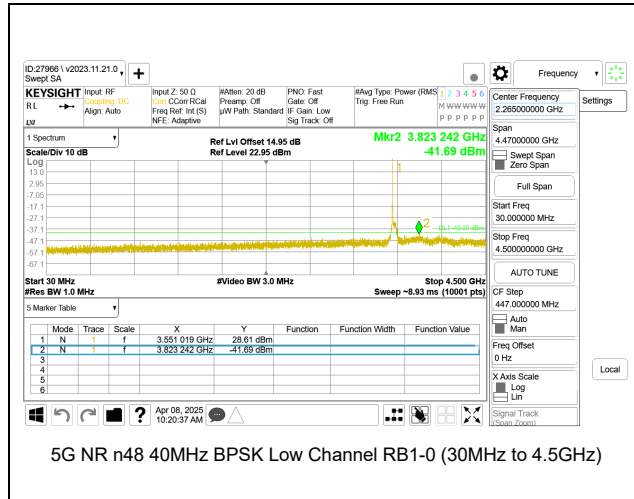


LTE B48 20MHz QPSK High Channel RB1-0 (30MHz to 4GHz)

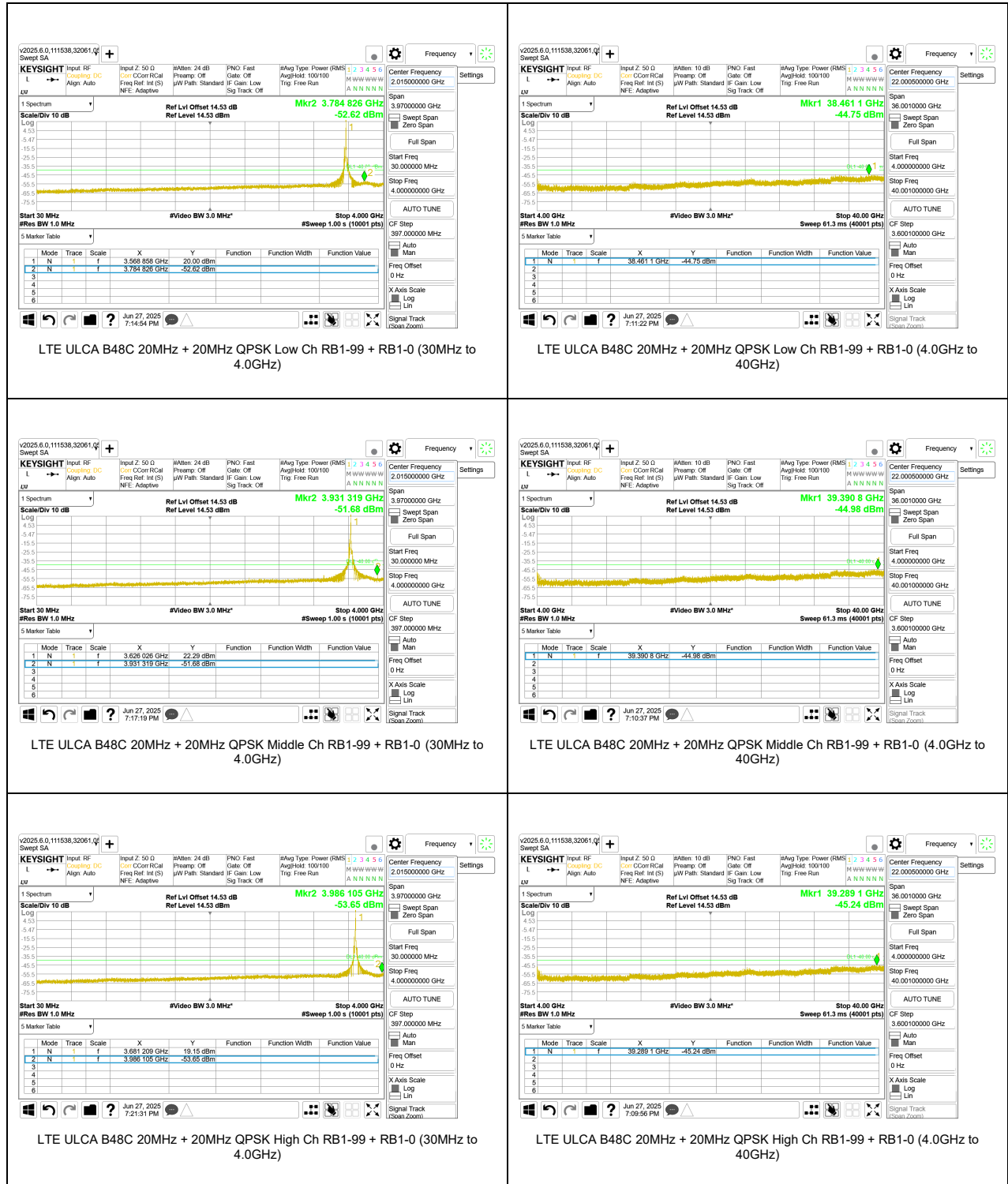


LTE B48 20MHz QPSK High Channel RB1-0 (4GHz to 40GHz)

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 $+50^{\circ}\text{C}$
- 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 $+50^{\circ}\text{C}$ 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:	32546	Test Date:	2025-04-29
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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	3550.9536	3699.2179			
Extreme (50°C)		3550.9536	3699.2179	12.8	0.004	Yes
Extreme (40°C)		3550.9536	3699.2179	16.8	0.005	Yes
Extreme (30°C)		3550.9536	3699.2179	12.7	0.004	Yes
Extreme (10°C)		3550.9536	3699.2179	-14.0	-0.004	Yes
Extreme (0°C)		3550.9536	3699.2179	11.5	0.003	Yes
Extreme (-10°C)		3550.9536	3699.2179	15.2	0.004	Yes
Extreme (-20°C)		3550.9536	3699.2179	15.6	0.004	Yes
Extreme (-30°C)		3550.9536	3699.2179	-11.2	-0.003	Yes
20°C	15%	3550.9536	3699.2179	15.8	0.004	Yes
	-15%	3550.9536	3699.2179	14.1	0.004	Yes
	End Point Voltage	3550.9536	3699.2179	13.8	0.004	Yes

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

Test Engineer ID:	32546	Test Date:	2025-04-29
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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	3550.5333	3696.9880			
Extreme (50°C)		3550.5333	3696.9880	12.6	0.003	Yes
Extreme (40°C)		3550.5333	3696.9881	15.9	0.004	Yes
Extreme (30°C)		3550.5333	3696.9881	16.3	0.004	Yes
Extreme (10°C)		3550.5333	3696.9880	-12.4	-0.003	Yes
Extreme (0°C)		3550.5333	3696.9880	11.6	0.003	Yes
Extreme (-10°C)		3550.5333	3696.9880	12.4	0.003	Yes
Extreme (-20°C)		3550.5333	3696.9881	17.9	0.005	Yes
Extreme (-30°C)		3550.5333	3696.9881	16.2	0.004	Yes
20°C	15%	3550.5333	3696.9881	13.7	0.004	Yes
	-15%	3550.5333	3696.9880	11.5	0.003	Yes
	End Point Voltage	3550.5333	3696.9880	-12.8	-0.004	Yes

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

Test Engineer ID:	32546	Test Date:	2025-04-29
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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	3550.3679	3699.8025			
Extreme (50°C)		3550.3679	3699.8025	11.8	0.003	Yes
Extreme (40°C)		3550.3679	3699.8025	-11.1	-0.003	Yes
Extreme (30°C)		3550.3679	3699.8025	13.1	0.004	Yes
Extreme (10°C)		3550.3679	3699.8025	14.9	0.004	Yes
Extreme (0°C)		3550.3679	3699.8025	11.6	0.003	Yes
Extreme (-10°C)		3550.3679	3699.8025	-9.4	-0.003	Yes
Extreme (-20°C)		3550.3679	3699.8025	-9.8	-0.003	Yes
Extreme (-30°C)		3550.3679	3699.8025	-9.1	-0.003	Yes
20°C	15%	3550.3679	3699.8025	-9.5	-0.003	Yes
	-15%	3550.3679	3699.8025	-8.6	-0.002	Yes
	End Point Voltage	3550.3679	3699.8025	8.5	0.002	Yes

9.5. PEAK-TO-AVERAGE POWER RATIO

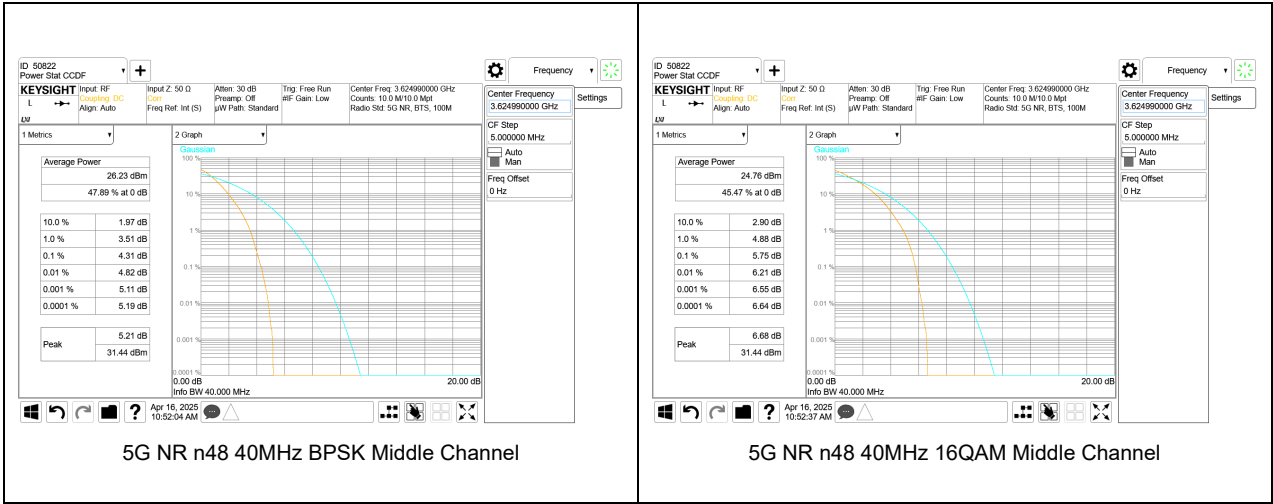
LIMIT

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 8 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.

Example Plots: FULL RB



9.5.1. LTE BAND 48

Test Engineer ID:	32061	Test Date:	2025-04-15
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Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
Band 48	5MHz	3625.0	25	0	QPSK	32.13	21.23	3.91
					16QAM	32.88	18.26	7.63
	10MHz		50	0	QPSK	31.86	19.18	5.69
					16QAM	34.64	19.41	8.24
	15MHz	3620.0	75	0	QPSK	32.58	18.73	6.86
					16QAM	33.87	17.00	9.88
	20MHz		100	0	QPSK	31.67	18.12	6.56
					16QAM	33.35	16.83	9.53
Duty Cycle Correction Factor (dB) =			6.99					
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor								

9.5.2. 5G NR n48

Test Engineer ID:	50822	Test Date:	2025-04-15
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Band	Bandwidth (MHz)	Frequency (MHz)	RB Allocation	RB OffSet	Modulation	Conducted Power (dBm)		Peak-to-Average Power Ratio (dB)
						Peak	Average	
5G NR n48	10MHz	3625.0	24	0	BPSK	30.90	26.32	4.58
					16QAM	31.06	24.84	6.22
	15MHz	3620.0	36	0	BPSK	31.02	26.46	4.56
					16QAM	31.02	24.88	6.14
	20MHz		50	0	BPSK	30.89	26.42	4.47
					16QAM	30.95	24.84	6.11
	30MHz	3625.0	75	0	BPSK	30.30	26.16	4.14
					16QAM	30.90	24.64	6.26
	40MHz	3620.0	100	0	BPSK	31.44	26.23	5.21
					16QAM	31.44	24.76	6.68
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:	27966	Test Date:	2025-04-25
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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	30.21	15.84	7.38
				16QAM	30.87	15.49	8.39
	20MHz / 5MHz	3622.5	3634.2	QPSK	29.65	15.80	6.86
				16QAM	32.62	15.61	10.02
	10MHz / 20MHz	3615.6	3630.0	QPSK	28.66	14.98	6.69
				16QAM	30.18	14.72	8.47
	20MHz / 10MHz	3620.1	3634.5	QPSK	28.54	15.22	6.33
				16QAM	32.27	14.99	10.29
	15MHz / 20MHz	3615.3	3632.4	QPSK	29.05	15.19	6.87
				16QAM	30.60	14.92	8.69
	20MHz / 15MHz	3617.6	3634.7	QPSK	28.85	15.38	6.48
				16QAM	32.86	15.16	10.71
	20MHz / 20MHz	3615.1	3634.9	QPSK	28.85	15.12	6.74
				16QAM	32.06	15.06	10.01
Duty Cycle Correction Factor (dB) =			6.99				
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor							

10. RADIATED TEST RESULTS

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.

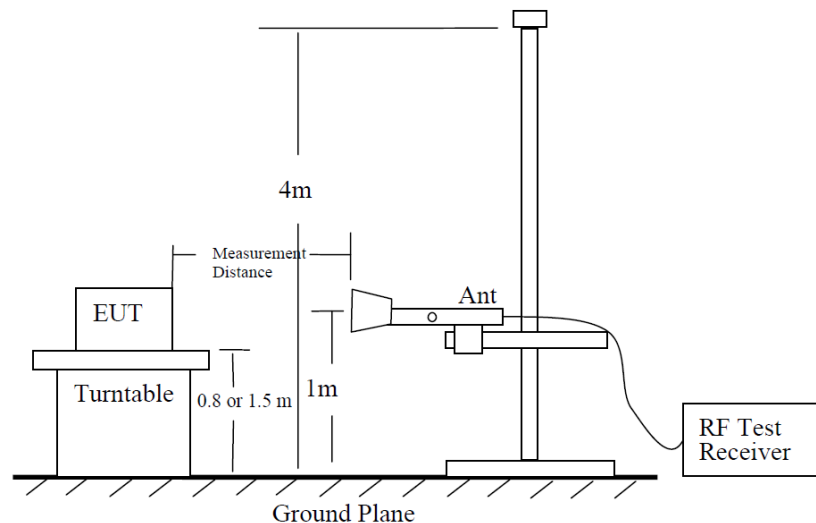


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

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.

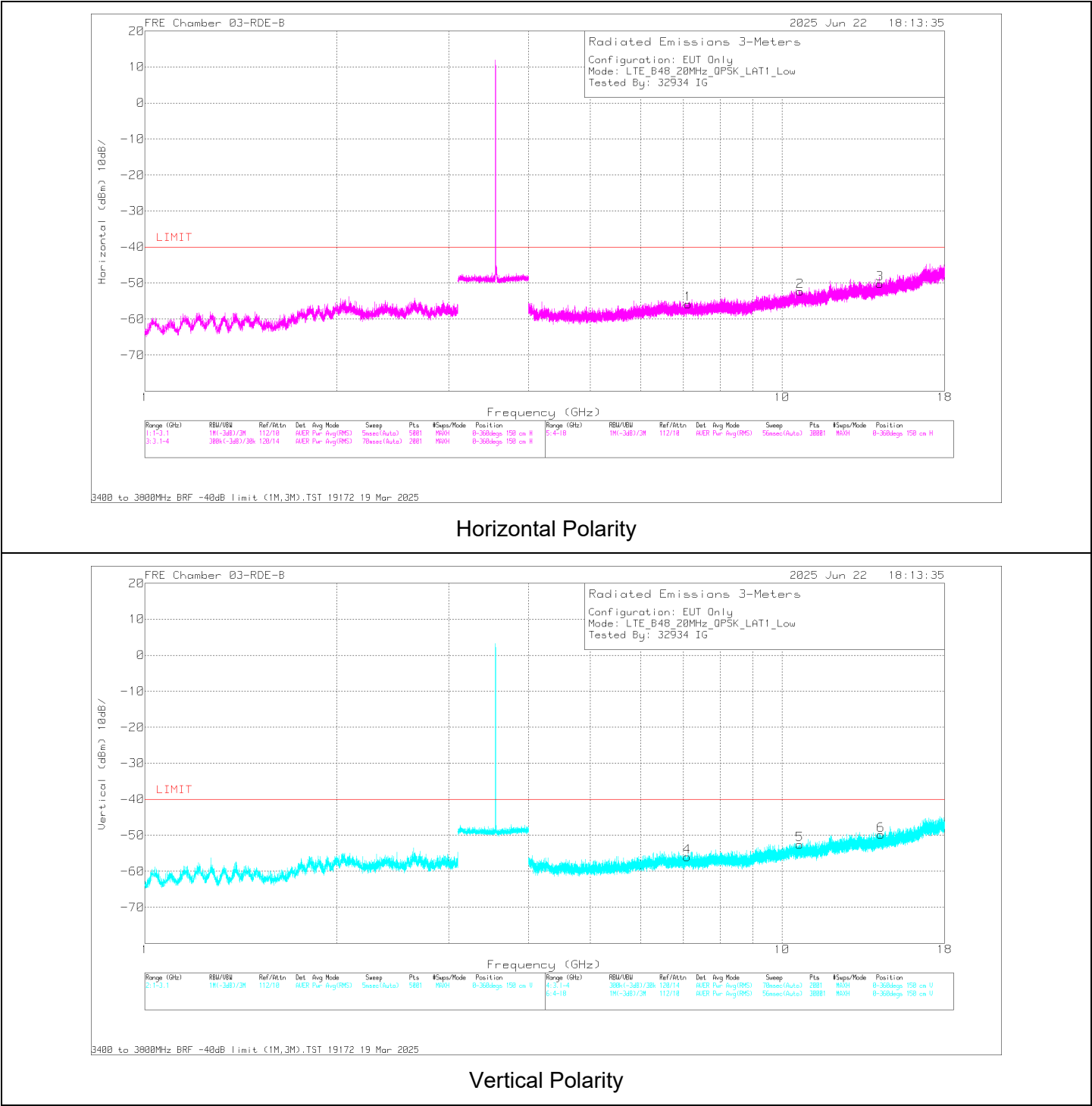
So, from d)

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



Radiated Emissions

Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity	Meter Reading (dBuV)
7.096336	50.74	RMS	35.7	-95.2	-47.27	-56.03	-40	-16.03	V
7.122469	50.73	RMS	35.7	-95.2	-47.15	-55.92	-40	-15.92	H
10.674271	52.09	RMS	37.7	-95.2	-46.90	-52.31	-40	-12.31	H
10.669605	51.83	RMS	37.7	-95.2	-46.90	-52.57	-40	-12.57	V
14.246607	51.84	RMS	39.1	-95.2	-45.90	-50.16	-40	-10.16	H
14.306341	52.16	RMS	39.1	-95.2	-45.93	-49.87	-40	-9.87	V

10.1. FIELD STRENGTH OF SPURIOUS RADIATION, ABOVE 1GHz

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 #:	15496282
Date:	2025-06-22
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.096336	50.74	RMS	35.7	-95.2	-47.27	-56.03	-40	-16.03	V
7.122469	50.73	RMS	35.7	-95.2	-47.15	-55.92	-40	-15.92	H
10.674271	52.09	RMS	37.7	-95.2	-46.90	-52.31	-40	-12.31	H
10.669605	51.83	RMS	37.7	-95.2	-46.90	-52.57	-40	-12.57	V
14.246607	51.84	RMS	39.1	-95.2	-45.90	-50.16	-40	-10.16	H
14.306341	52.16	RMS	39.1	-95.2	-45.93	-49.87	-40	-9.87	V
Mid Channel, 3620MHz									
7.207402	51.60	RMS	35.7	-95.2	-47.60	-55.50	-40	-15.50	V
7.236336	51.24	RMS	35.7	-95.2	-47.83	-56.09	-40	-16.09	H
10.881005	50.87	RMS	37.8	-95.2	-46.40	-52.93	-40	-12.93	H
10.898272	50.64	RMS	37.8	-95.2	-46.47	-53.23	-40	-13.23	V
14.570941	51.12	RMS	39.4	-95.2	-45.70	-50.38	-40	-10.38	H
14.595674	51.16	RMS	39.4	-95.2	-45.70	-50.34	-40	-10.34	V
High Channel, 3690MHz									
7.389402	51.21	RMS	35.6	-95.2	-47.80	-56.19	-40	-16.19	H
7.332469	52.07	RMS	35.6	-95.2	-47.85	-55.38	-40	-15.38	V
11.061605	50.38	RMS	37.8	-95.2	-45.90	-52.92	-40	-12.92	H
11.032205	51.51	RMS	37.9	-95.2	-46.02	-51.81	-40	-11.81	V
14.733341	52.20	RMS	39.6	-95.2	-45.63	-49.03	-40	-9.03	H
14.752474	51.90	RMS	39.6	-95.2	-45.95	-49.65	-40	-9.65	V

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

Project #:	15496282
Date:	2025-06-22
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.073936	52.10	RMS	35.7	-95.2	-47.39	-54.79	-40	-14.79	V
7.114069	51.09	RMS	35.7	-95.2	-47.10	-55.51	-40	-15.51	H
10.674738	51.72	RMS	37.7	-95.2	-46.90	-52.68	-40	-12.68	H
10.671471	51.23	RMS	37.7	-95.2	-46.85	-53.12	-40	-13.12	V
14.239607	51.73	RMS	39.1	-95.2	-45.84	-50.21	-40	-10.21	H
14.269941	51.54	RMS	39.2	-95.2	-45.90	-50.36	-40	-10.36	V
Mid Channel, 3620MHz									
7.203669	51.03	RMS	35.7	-95.2	-47.50	-55.97	-40	-15.97	V
7.241002	50.90	RMS	35.7	-95.2	-47.90	-56.50	-40	-16.50	H
10.877738	51.00	RMS	37.8	-95.2	-46.40	-52.80	-40	-12.80	H
10.848338	51.80	RMS	37.8	-95.2	-46.30	-51.90	-40	-11.90	V
14.515408	51.39	RMS	39.3	-95.2	-45.76	-50.27	-40	-10.27	H
14.571874	51.07	RMS	39.4	-95.2	-45.70	-50.43	-40	-10.43	V
High Channel, 3690MHz									
7.395936	52.18	RMS	35.6	-95.2	-47.89	-55.31	-40	-15.31	H
7.365602	51.27	RMS	35.6	-95.2	-47.80	-56.13	-40	-16.13	V
11.106405	50.41	RMS	37.9	-95.2	-45.78	-52.67	-40	-12.67	H
11.098938	49.92	RMS	37.9	-95.2	-45.70	-53.08	-40	-13.08	V
14.765074	52.52	RMS	39.6	-95.2	-46.09	-49.17	-40	-9.17	V
14.783274	53.28	RMS	39.6	-95.2	-46.10	-48.42	-40	-8.42	H

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

Project #:	15496282
Date:	2025-06-21
Test Engineer:	111411
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.101936	52.32	RMS	35.7	-95.2	-47.30	-54.48	-40	-14.48	V
7.109402	51.54	RMS	35.7	-95.2	-47.30	-55.26	-40	-15.26	H
10.673338	51.57	RMS	37.7	-95.2	-47.40	-53.33	-40	-13.33	H
10.617805	52.93	RMS	37.7	-95.2	-47.62	-52.19	-40	-12.19	V
14.218607	51.76	RMS	39.1	-95.2	-47.26	-51.60	-40	-11.60	V
14.240541	51.67	RMS	39.1	-95.2	-47.20	-51.63	-40	-11.63	H
Mid Channel, 3620MHz									
7.262002	51.61	RMS	35.6	-95.2	-48.10	-56.09	-40	-16.09	H
7.234469	52.04	RMS	35.7	-95.2	-48.00	-55.46	-40	-15.46	V
10.879605	50.65	RMS	37.8	-95.2	-47.04	-53.79	-40	-13.79	H
10.845538	50.67	RMS	37.8	-95.2	-46.85	-53.58	-40	-13.58	V
14.491607	51.05	RMS	39.4	-95.2	-47.00	-51.75	-40	-11.75	V
14.507008	52.36	RMS	39.4	-95.2	-46.90	-50.34	-40	-10.34	H
High Channel, 3690MHz									
7.358602	51.55	RMS	35.6	-95.2	-47.90	-55.95	-40	-15.95	H
7.341336	52.93	RMS	35.6	-95.2	-47.90	-54.57	-40	-14.57	V
11.063005	51.33	RMS	37.8	-95.2	-46.40	-52.47	-40	-12.47	H
11.023805	50.89	RMS	37.9	-95.2	-46.70	-53.11	-40	-13.11	V
14.754808	51.24	RMS	39.6	-95.2	-47.20	-51.56	-40	-11.56	V
14.793074	52.65	RMS	39.6	-95.2	-47.40	-50.35	-40	-10.35	H

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

Project #:	15496282
Date:	2025-06-21
Test Engineer:	111411
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz									
7.101936	52.32	RMS	35.7	-95.2	-47.30	-54.48	-40	-14.48	V
7.109402	51.54	RMS	35.7	-95.2	-47.30	-55.26	-40	-15.26	H
10.673338	51.57	RMS	37.7	-95.2	-47.40	-53.33	-40	-13.33	H
10.617805	52.93	RMS	37.7	-95.2	-47.62	-52.19	-40	-12.19	V
14.218607	51.76	RMS	39.1	-95.2	-47.26	-51.60	-40	-11.60	V
14.240541	51.67	RMS	39.1	-95.2	-47.2	-51.63	-40	-11.63	H
Mid Channel, 3620MHz									
7.262002	51.61	RMS	35.6	-95.2	-48.10	-56.09	-40	-16.09	H
7.234469	52.04	RMS	35.7	-95.2	-48.00	-55.46	-40	-15.46	V
10.879605	50.65	RMS	37.8	-95.2	-47.04	-53.79	-40	-13.79	H
10.845538	50.67	RMS	37.8	-95.2	-46.85	-53.58	-40	-13.58	V
14.491607	51.05	RMS	39.4	-95.2	-47.00	-51.75	-40	-11.75	V
14.507008	52.36	RMS	39.4	-95.2	-46.90	-50.34	-40	-10.34	H
High Channel, 3690MHz									
7.358602	51.55	RMS	35.6	-95.2	-47.90	-55.95	-40	-15.95	H
7.341336	52.93	RMS	35.6	-95.2	-47.90	-54.57	-40	-14.57	V
11.063005	51.33	RMS	37.8	-95.2	-46.40	-52.47	-40	-12.47	H
11.023805	50.89	RMS	37.9	-95.2	-46.70	-53.11	-40	-13.11	V
14.754808	51.24	RMS	39.6	-95.2	-47.20	-51.56	-40	-11.56	V
14.793074	52.65	RMS	39.6	-95.2	-47.40	-50.35	-40	-10.35	H

10.1.2. 5G NR n48

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

Project #:	15496282
Date:	2025-06-21
Test Engineer:	111411
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.170069	51.34	RMS	35.7	-95.2	-47.31	-55.47	-40	-15.47	V
7.181736	51.27	RMS	35.7	-95.2	-47.50	-55.73	-40	-15.73	H
10.742405	51.40	RMS	37.8	-95.2	-47.36	-53.36	-40	-13.36	H
10.751271	51.29	RMS	37.8	-95.2	-47.30	-53.41	-40	-13.41	V
14.218607	51.83	RMS	39.1	-95.2	-47.26	-51.53	-40	-11.53	H
14.233541	51.72	RMS	39.1	-95.2	-47.25	-51.63	-40	-11.63	V
Mid Channel, 3620MHz									
7.162602	51.56	RMS	35.7	-95.2	-47.30	-55.24	-40	-15.24	V
7.168669	51.99	RMS	35.7	-95.2	-47.30	-54.81	-40	-14.81	H
10.813805	51.26	RMS	37.8	-95.2	-46.90	-53.04	-40	-13.04	H
10.838538	51.27	RMS	37.8	-95.2	-46.80	-52.93	-40	-12.93	V
14.242407	52.05	RMS	39.1	-95.2	-47.14	-51.19	-40	-11.19	V
14.265741	51.48	RMS	39.2	-95.2	-47.20	-51.72	-40	-11.72	H
High Channel, 3680MHz									
7.136002	50.91	RMS	35.7	-95.2	-47.30	-55.89	-40	-15.89	V
7.140202	50.73	RMS	35.7	-95.2	-47.30	-56.07	-40	-16.07	H
10.818005	51.20	RMS	37.8	-95.2	-46.90	-53.10	-40	-13.10	H
10.844605	50.93	RMS	37.8	-95.2	-46.80	-53.27	-40	-13.27	V
14.252207	51.59	RMS	39.1	-95.2	-47.18	-51.69	-40	-11.69	V
14.269474	51.65	RMS	39.2	-95.2	-47.15	-51.5	-40	-11.50	H

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

Project #:	15496282
Date:	2025-06-22
Test Engineer:	112113
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.171469	51.76	RMS	35.7	-95.2	-47.40	-55.14	-40	-15.14	H
7.176602	51.24	RMS	35.7	-95.2	-47.40	-55.66	-40	-15.66	V
10.772738	51.64	RMS	37.7	-95.2	-47.10	-52.96	-40	-12.96	H
10.745671	51.22	RMS	37.8	-95.2	-47.30	-53.48	-40	-13.48	V
13.035140	50.73	RMS	39.0	-95.2	-45.90	-51.37	-40	-11.37	H
13.040273	51.22	RMS	39.0	-95.2	-45.90	-50.88	-40	-10.88	V
Mid Channel, 3625MHz									
7.409469	52.17	RMS	35.6	-95.2	-47.90	-55.33	-40	-15.33	H
7.412269	51.88	RMS	35.6	-95.2	-47.90	-55.62	-40	-15.62	V
10.734938	51.45	RMS	37.8	-95.2	-47.30	-53.25	-40	-13.25	H
10.696205	51.98	RMS	37.7	-95.2	-47.40	-52.92	-40	-12.92	V
14.255007	51.66	RMS	39.1	-95.2	-47.10	-51.54	-40	-11.54	H
14.274141	51.81	RMS	39.2	-95.2	-47.20	-51.39	-40	-11.39	V
High Channel, 3680MHz									
7.150002	50.98	RMS	35.7	-95.2	-47.30	-55.82	-40	-15.82	H
7.150469	50.69	RMS	35.7	-95.2	-47.30	-56.11	-40	-16.11	V
10.749871	52.29	RMS	37.8	-95.2	-47.30	-52.41	-40	-12.41	H
10.710671	51.34	RMS	37.7	-95.2	-47.37	-53.53	-40	-13.53	V
14.241007	52.40	RMS	39.1	-95.2	-47.20	-50.90	-40	-10.90	V
14.257807	52.02	RMS	39.2	-95.2	-47.10	-51.08	-40	-11.08	H

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

Project #:	15496282
Date:	2025-06-22
Test Engineer:	112113
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.125269	51.65	RMS	35.7	-95.2	-47.30	-55.15	-40	-15.15	H
7.126669	50.95	RMS	35.7	-95.2	-47.30	-55.85	-40	-15.85	V
10.707405	52.29	RMS	37.7	-95.2	-47.36	-52.57	-40	-12.57	H
10.702271	51.65	RMS	37.7	-95.2	-47.40	-53.25	-40	-13.25	V
14.330607	51.87	RMS	39.2	-95.2	-47.30	-51.43	-40	-11.43	H
14.332941	51.32	RMS	39.2	-95.2	-47.30	-51.98	-40	-11.98	V
Mid Channel, 3625MHz									
7.224669	51.97	RMS	35.7	-95.2	-47.90	-55.43	-40	-15.43	V
7.237736	51.59	RMS	35.7	-95.2	-48.10	-56.01	-40	-16.01	H
10.793272	51.72	RMS	37.7	-95.2	-47.10	-52.88	-40	-12.88	H
10.790005	51.11	RMS	37.7	-95.2	-47.10	-53.49	-40	-13.49	V
14.334807	52.22	RMS	39.2	-95.2	-47.30	-51.08	-40	-11.08	H
14.344607	52.15	RMS	39.2	-95.2	-47.34	-51.19	-40	-11.19	V
High Channel, 3680MHz									
7.335736	52.59	RMS	35.6	-95.2	-47.90	-54.91	-40	-14.91	H
7.336669	51.82	RMS	35.6	-95.2	-47.90	-55.68	-40	-15.68	V
10.928138	50.78	RMS	37.8	-95.2	-47.20	-53.82	-40	-13.82	H
10.932805	51.16	RMS	37.8	-95.2	-47.20	-53.44	-40	-13.44	V
14.408541	51.62	RMS	39.3	-95.2	-47.40	-51.68	-40	-11.68	V
14.439341	52.92	RMS	39.3	-95.2	-47.10	-50.08	-40	-10.08	H

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

Project #:	15496282
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 (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.211602	53.21	RMS	35.7	-95.2	-47.80	-54.09	-40	-14.09	H
7.213936	51.16	RMS	35.7	-95.2	-47.89	-56.23	-40	-16.23	V
10.673805	51.78	RMS	37.7	-95.2	-47.40	-53.12	-40	-13.12	H
10.670071	52.35	RMS	37.7	-95.2	-47.40	-52.55	-40	-12.55	V
14.267607	52.83	RMS	39.2	-95.2	-47.20	-50.37	-40	-10.37	H
14.276941	51.65	RMS	39.2	-95.2	-47.21	-51.56	-40	-11.56	V
Mid Channel, 3625MHz									
7.216736	51.53	RMS	35.7	-95.2	-47.90	-55.87	-40	-15.87	V
7.230269	52.51	RMS	35.7	-95.2	-48.00	-54.99	-40	-14.99	H
10.893138	52.47	RMS	37.8	-95.2	-47.10	-52.03	-40	-12.03	H
10.865138	50.41	RMS	37.8	-95.2	-47.00	-53.99	-40	-13.99	V
14.546208	52.32	RMS	39.4	-95.2	-47.00	-50.48	-40	-10.48	H
14.584474	51.69	RMS	39.4	-95.2	-47.10	-51.21	-40	-11.21	V
High Channel, 3680MHz									
7.349736	52.12	RMS	35.6	-95.2	-47.87	-55.35	-40	-15.35	H
7.342736	52.06	RMS	35.6	-95.2	-47.90	-55.44	-40	-15.44	V
11.030338	51.80	RMS	37.9	-95.2	-46.67	-52.17	-40	-12.17	H
11.023338	51.68	RMS	37.9	-95.2	-46.70	-52.32	-40	-12.32	V
14.707674	51.74	RMS	39.6	-95.2	-47.17	-51.03	-40	-11.03	H
14.771608	52.23	RMS	39.6	-95.2	-47.30	-50.67	-40	-10.67	V

10.1.3. LTE ULCA BAND 48B

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

Project #:	15496282
Date:	2025-06-23
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.116402	51.09	RMS	35.7	-95.2	-47.14	-55.55	-40	-15.55	V
7.121069	51.03	RMS	35.7	-95.2	-47.10	-55.57	-40	-15.57	H
10.678938	50.96	RMS	37.7	-95.2	-46.90	-53.44	-40	-13.44	H
10.619671	51.44	RMS	37.7	-95.2	-46.97	-53.03	-40	-13.03	V
14.214874	51.09	RMS	39.1	-95.2	-45.91	-50.92	-40	-10.92	V
14.261074	51.53	RMS	39.2	-95.2	-46.00	-50.47	-40	-10.47	H
Mid Channel, 3615.1MHz + 3634.9MHz									
7.234936	51.10	RMS	35.7	-95.2	-47.81	-56.21	-40	-16.21	H
7.236336	51.79	RMS	35.7	-95.2	-47.83	-55.54	-40	-15.54	V
10.835738	51.47	RMS	37.8	-95.2	-46.37	-52.30	-40	-12.30	H
10.820338	51.62	RMS	37.8	-95.2	-46.27	-52.05	-40	-12.05	V
14.484141	51.95	RMS	39.4	-95.2	-45.60	-49.45	-40	-9.45	H
14.494408	51.89	RMS	39.4	-95.2	-45.60	-49.51	-40	-9.51	V
High Channel, 3670.2MHz + 3690MHz									
7.347402	52.35	RMS	35.6	-95.2	-47.70	-54.95	-40	-14.95	H
7.330602	52.11	RMS	35.6	-95.2	-47.90	-55.39	-40	-15.39	V
11.016805	50.53	RMS	37.9	-95.2	-46.28	-53.05	-40	-13.05	H
11.002805	52.00	RMS	37.8	-95.2	-46.28	-51.68	-40	-11.68	V
14.677808	51.58	RMS	39.5	-95.2	-45.90	-50.02	-40	-10.02	V
14.682941	51.32	RMS	39.5	-95.2	-46.00	-50.38	-40	-10.38	H

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

Project #:	15496282
Date:	2025-06-23
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.203202	51.77	RMS	35.7	-95.2	-47.50	-55.23	-40	-15.23	V
7.232136	53.32	RMS	35.7	-95.2	-47.80	-53.98	-40	-13.98	H
10.696205	51.24	RMS	37.7	-95.2	-46.72	-52.98	-40	-12.98	H
10.697138	51.79	RMS	37.7	-95.2	-46.80	-52.51	-40	-12.51	V
14.213474	51.93	RMS	39.1	-95.2	-46.00	-50.17	-40	-10.17	V
14.215807	51.55	RMS	39.1	-95.2	-45.90	-50.45	-40	-10.45	H
Mid Channel, 3615.1MHz + 3634.9MHz									
7.163536	52.54	RMS	35.7	-95.2	-47.10	-54.06	-40	-14.06	V
7.228402	52.93	RMS	35.7	-95.2	-47.84	-54.41	-40	-14.41	H
10.851605	52.41	RMS	37.8	-95.2	-46.30	-51.29	-40	-11.29	H
10.851138	50.75	RMS	37.8	-95.2	-46.30	-52.95	-40	-12.95	V
14.472941	51.86	RMS	39.3	-95.2	-45.70	-49.74	-40	-9.74	H
14.430941	51.74	RMS	39.3	-95.2	-46.09	-50.25	-40	-10.25	V
High Channel, 3670.2MHz + 3690MHz									
7.346936	52.44	RMS	35.6	-95.2	-47.70	-54.86	-40	-14.86	H
7.319869	51.82	RMS	35.6	-95.2	-47.89	-55.67	-40	-15.67	V
11.009338	50.71	RMS	37.8	-95.2	-46.20	-52.89	-40	-12.89	H
10.967805	51.25	RMS	37.8	-95.2	-46.50	-52.65	-40	-12.65	V
14.644208	51.75	RMS	39.5	-95.2	-45.90	-49.85	-40	-9.85	V
14.681074	51.18	RMS	39.5	-95.2	-45.91	-50.43	-40	-10.43	H

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

Project #:	15496282
Date:	2025-06-23
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.083269	51.10	RMS	35.7	-95.2	-47.37	-55.77	-40	-15.77	V
7.114536	52.29	RMS	35.7	-95.2	-47.10	-54.31	-40	-14.31	H
10.615471	52.95	RMS	37.7	-95.2	-47.00	-51.55	-40	-11.55	H
10.653271	52.73	RMS	37.7	-95.2	-46.93	-51.70	-40	-11.70	V
14.244274	51.42	RMS	39.1	-95.2	-45.90	-50.58	-40	-10.58	H
14.253141	51.91	RMS	39.1	-95.2	-45.91	-50.10	-40	-10.10	V
Mid Channel, 3615.1MHz + 3634.9MHz									
7.199002	51.26	RMS	35.7	-95.2	-47.50	-55.74	-40	-15.74	V
7.228402	51.84	RMS	35.7	-95.2	-47.84	-55.50	-40	-15.50	H
10.841805	50.74	RMS	37.8	-95.2	-46.30	-52.96	-40	-12.96	H
10.833872	50.94	RMS	37.8	-95.2	-46.31	-52.77	-40	-12.77	V
14.481341	52.07	RMS	39.4	-95.2	-45.60	-49.33	-40	-9.33	H
14.467807	51.32	RMS	39.3	-95.2	-45.80	-50.38	-40	-10.38	V
High Channel, 3670.2MHz + 3690MHz									
7.347402	51.78	RMS	35.6	-95.2	-47.70	-55.52	-40	-15.52	H
7.328269	51.59	RMS	35.6	-95.2	-47.90	-55.91	-40	-15.91	V
11.013538	51.26	RMS	37.8	-95.2	-46.20	-52.34	-40	-12.34	H
10.980872	51.23	RMS	37.8	-95.2	-46.40	-52.57	-40	-12.57	V
14.633008	53.25	RMS	39.5	-95.2	-45.90	-48.35	-40	-8.35	V
14.666608	53.11	RMS	39.6	-95.2	-45.86	-48.35	-40	-8.35	H

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

Project #:	15496282
Date:	2025-06-23
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz + 20MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dB/m)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3560MHz + 3579.8MHz									
7.101002	51.47	RMS	35.7	-95.2	-47.20	-55.23	-40	-15.23	V
7.122469	51.24	RMS	35.7	-95.2	-47.15	-55.41	-40	-15.41	H
10.669605	52.30	RMS	37.7	-95.2	-46.90	-52.10	-40	-12.10	H
10.644405	52.94	RMS	37.7	-95.2	-47.00	-51.56	-40	-11.56	V
14.218141	52.06	RMS	39.1	-95.2	-45.89	-49.93	-40	-9.93	V
14.252674	52.07	RMS	39.1	-95.2	-45.90	-49.93	-40	-9.93	H
Mid Channel, 3615.1MHz + 3634.9MHz									
7.214869	50.97	RMS	35.7	-95.2	-47.70	-56.23	-40	-16.23	V
7.224202	52.13	RMS	35.7	-95.2	-47.70	-55.07	-40	-15.07	H
10.789072	52.85	RMS	37.7	-95.2	-46.59	-51.24	-40	-11.24	H
10.781605	51.37	RMS	37.7	-95.2	-46.64	-52.77	-40	-12.77	V
14.482274	51.6	RMS	39.4	-95.2	-45.63	-49.83	-40	-9.83	H
14.473874	51.19	RMS	39.4	-95.2	-45.70	-50.31	-40	-10.31	V
High Channel, 3670.2MHz + 3690MHz									
7.357669	51.42	RMS	35.6	-95.2	-47.80	-55.98	-40	-15.98	H
7.342736	51.41	RMS	35.6	-95.2	-47.80	-55.99	-40	-15.99	V
11.024738	51.19	RMS	37.9	-95.2	-46.17	-52.28	-40	-12.28	H
10.958005	51.36	RMS	37.8	-95.2	-46.60	-52.64	-40	-12.64	V
14.669408	51.39	RMS	39.6	-95.2	-45.84	-50.05	-40	-10.05	V
14.683874	51.59	RMS	39.6	-95.2	-45.91	-49.92	-40	-9.92	H

11. SETUP PHOTOS

Refer to 15496282-EP1 for setup photos.

END OF REPORT