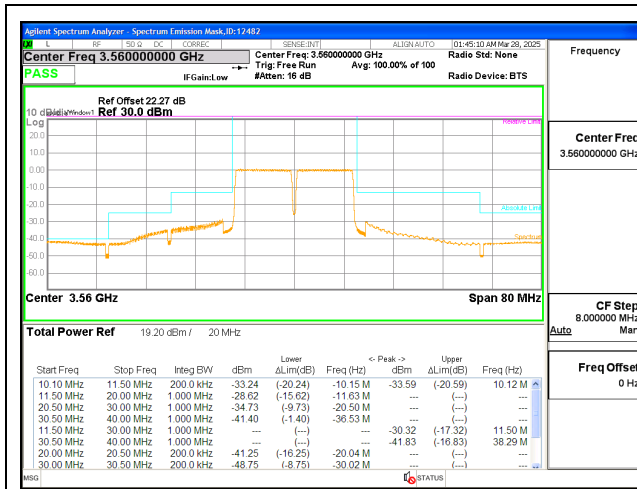
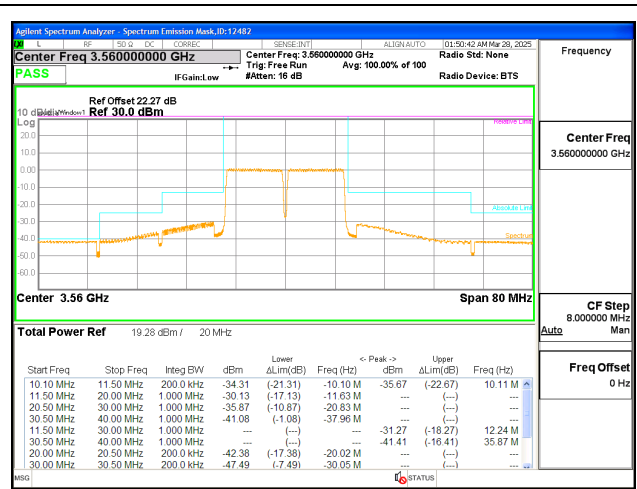
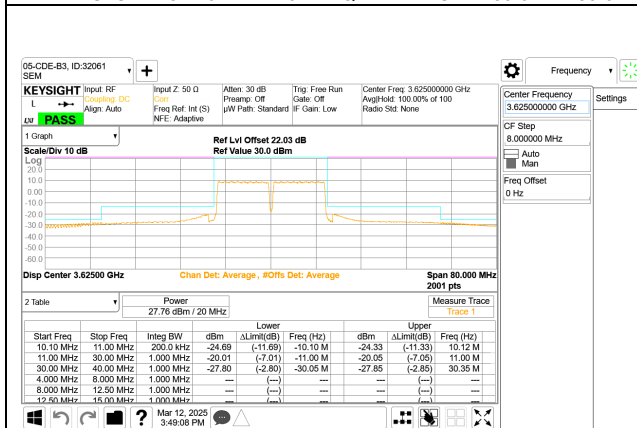




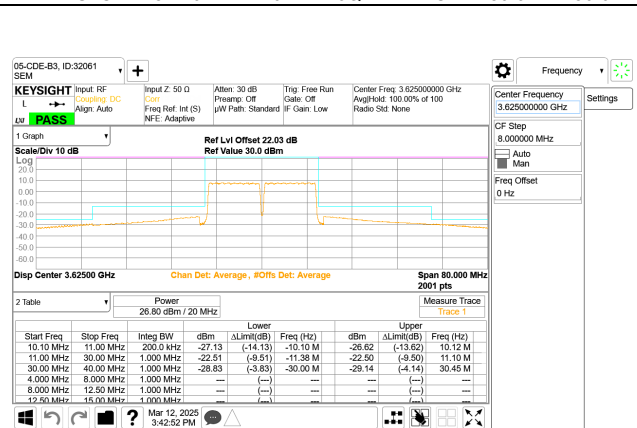
LTE ULCA B48B 10MHz + 10MHz QPSK Low Ch RB50-0 + RB50-0



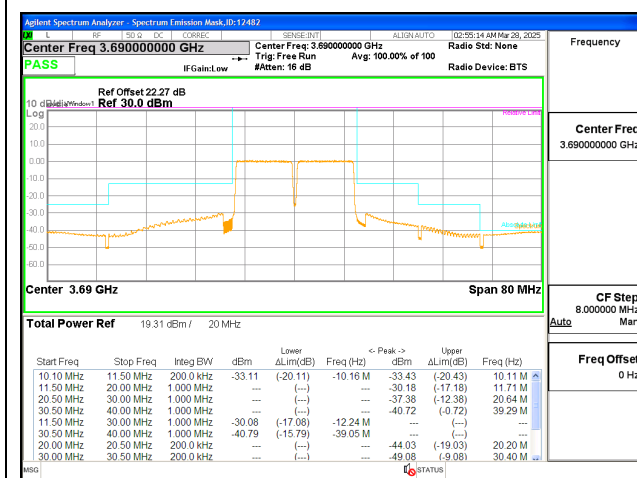
LTE ULCA B48B 10MHz + 10MHz 16QAM Low Ch RB50-0 + RB50-0



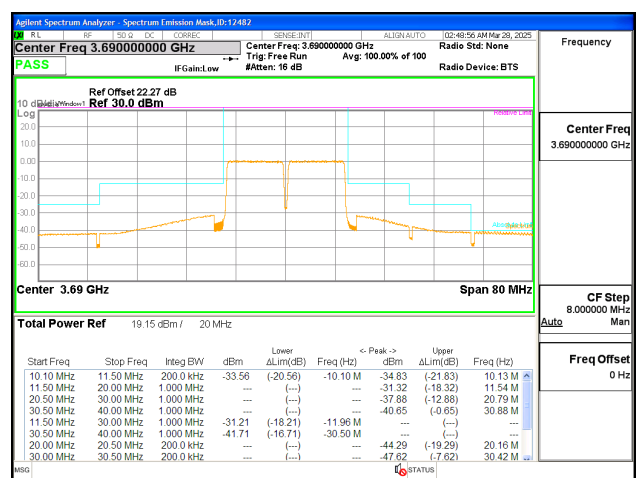
LTE ULCA B48B 10MHz + 10MHz QPSK Mid Ch RB50-0 + RB50-0



LTE ULCA B48B 10MHz + 10MHz 16QAM Mid Ch RB50-0 + RB50-0



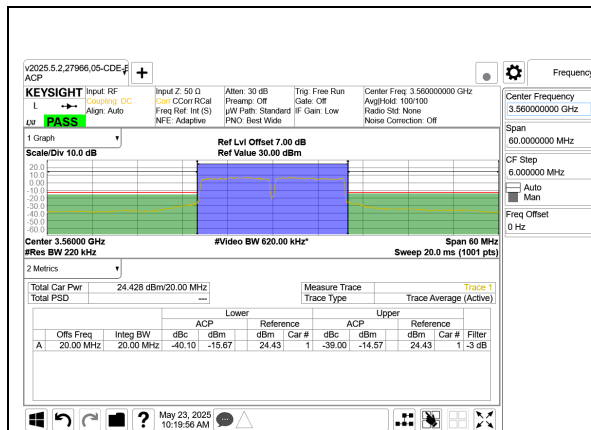
LTE ULCA B48B 10MHz + 10MHz QPSK High Ch RB50-0 + RB50-0



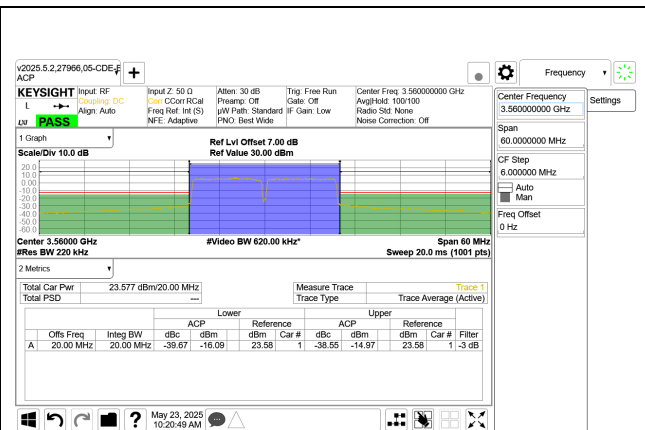
LTE ULCA B48B 10MHz + 10MHz 16QAM High Ch RB50-0 + RB50-0

9.2.6. LTE ULCA BAND 48B ADJACENT CHANNEL POWER

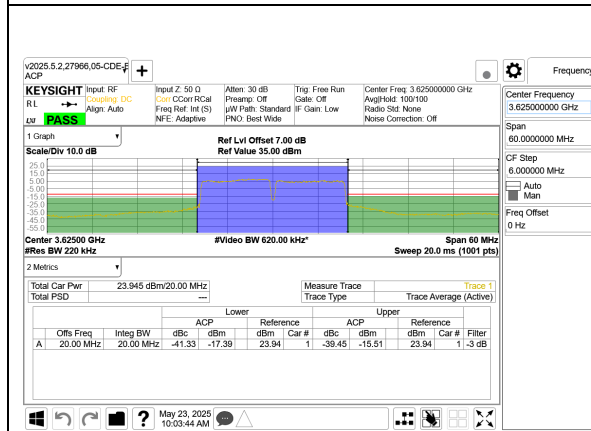




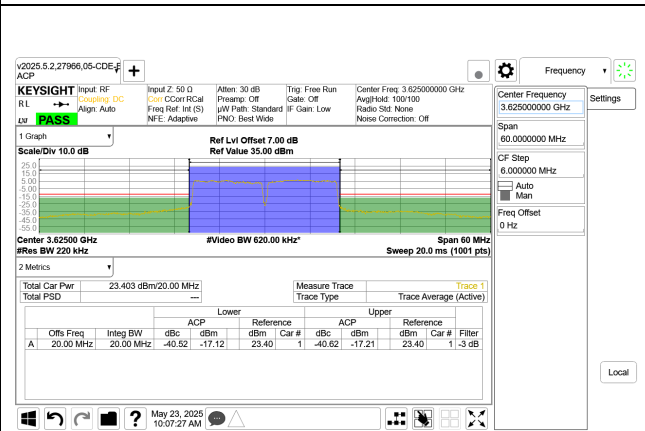
LTE ULCA B48B 10MHz + 10MHz QPSK Low Ch RB50-0 + RB50-0



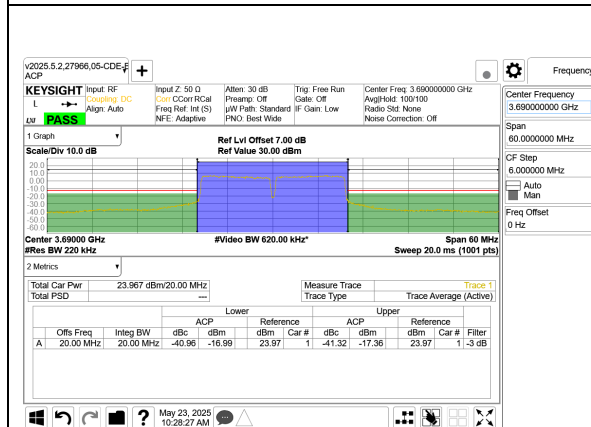
LTE ULCA B48B 10MHz + 10MHz 16QAM Low Ch RB50-0 + RB50-0



LTE ULCA B48B 10MHz + 10MHz QPSK Mid Ch RB50-0 + RB50-0



LTE ULCA B48B 10MHz + 10MHz 16QAM Mid Ch RB50-0 + RB50-0

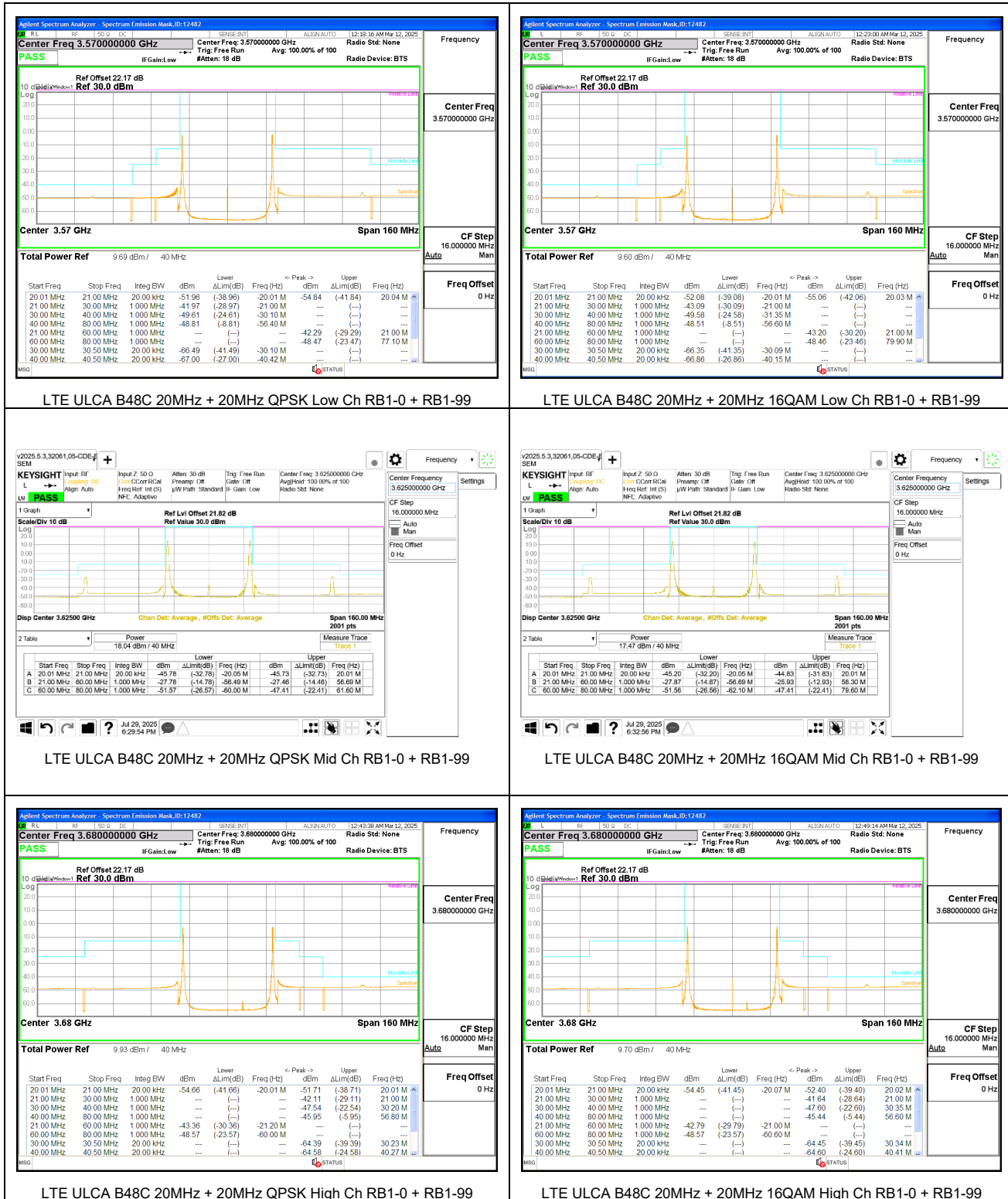


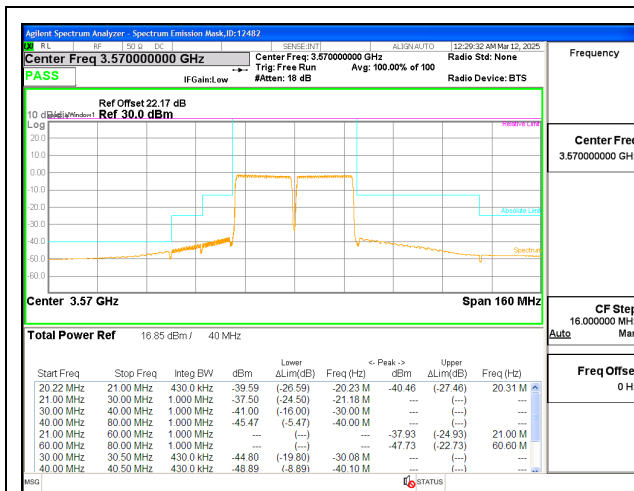
LTE ULCA B48B 10MHz + 10MHz QPSK High Ch RB50-0 + RB50-0



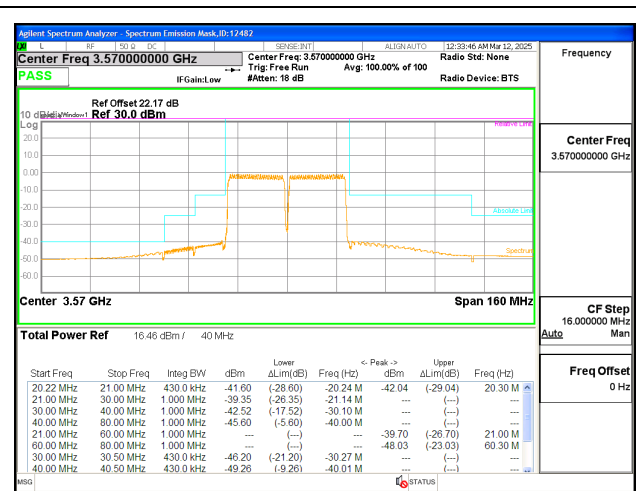
LTE ULCA B48B 10MHz + 10MHz 16QAM High Ch RB50-0 + RB50-0

9.2.7. LTE ULCA BAND 48C EMISSION MASK

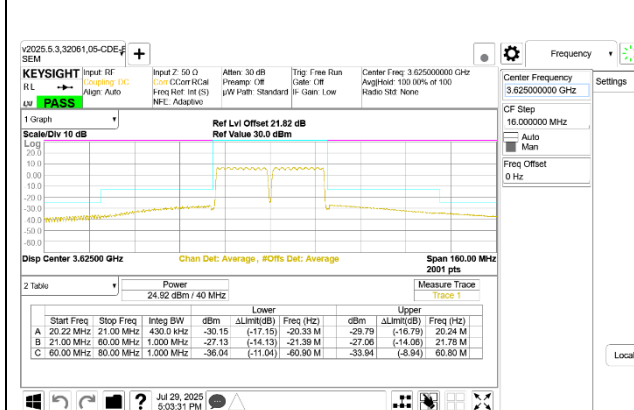




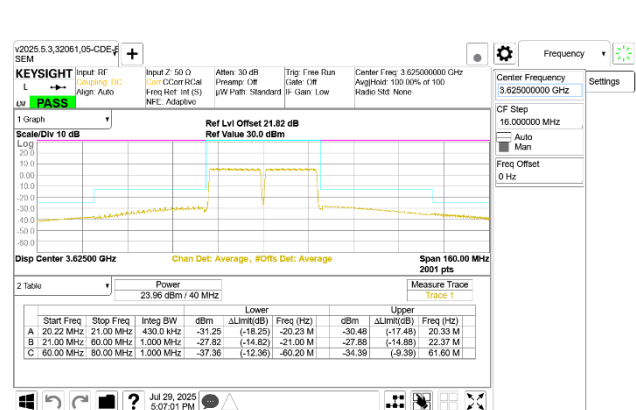
LTE ULCA B48C 20MHz + 20MHz QPSK Low Ch RB100-0 + RB100-0



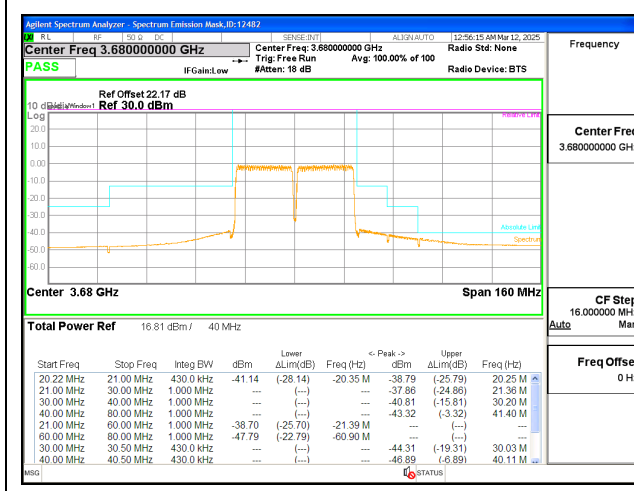
LTE ULCA B48C 20MHz + 20MHz 16QAM Low Ch RB100-0 + RB100-0



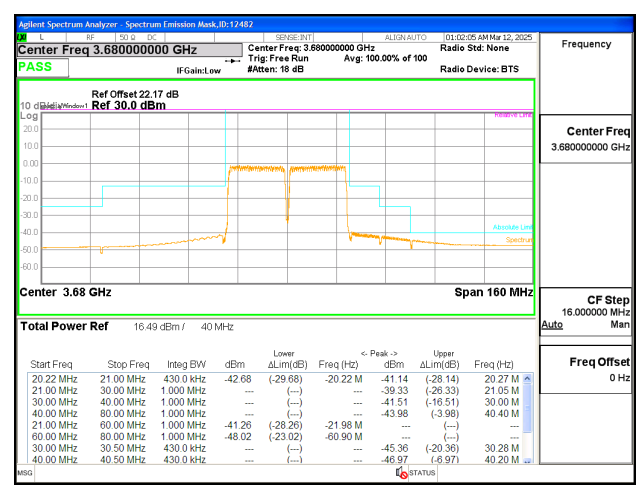
LTE ULCA B48C 20MHz + 20MHz QPSK Mid Ch RB100-0 + RB100-0



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

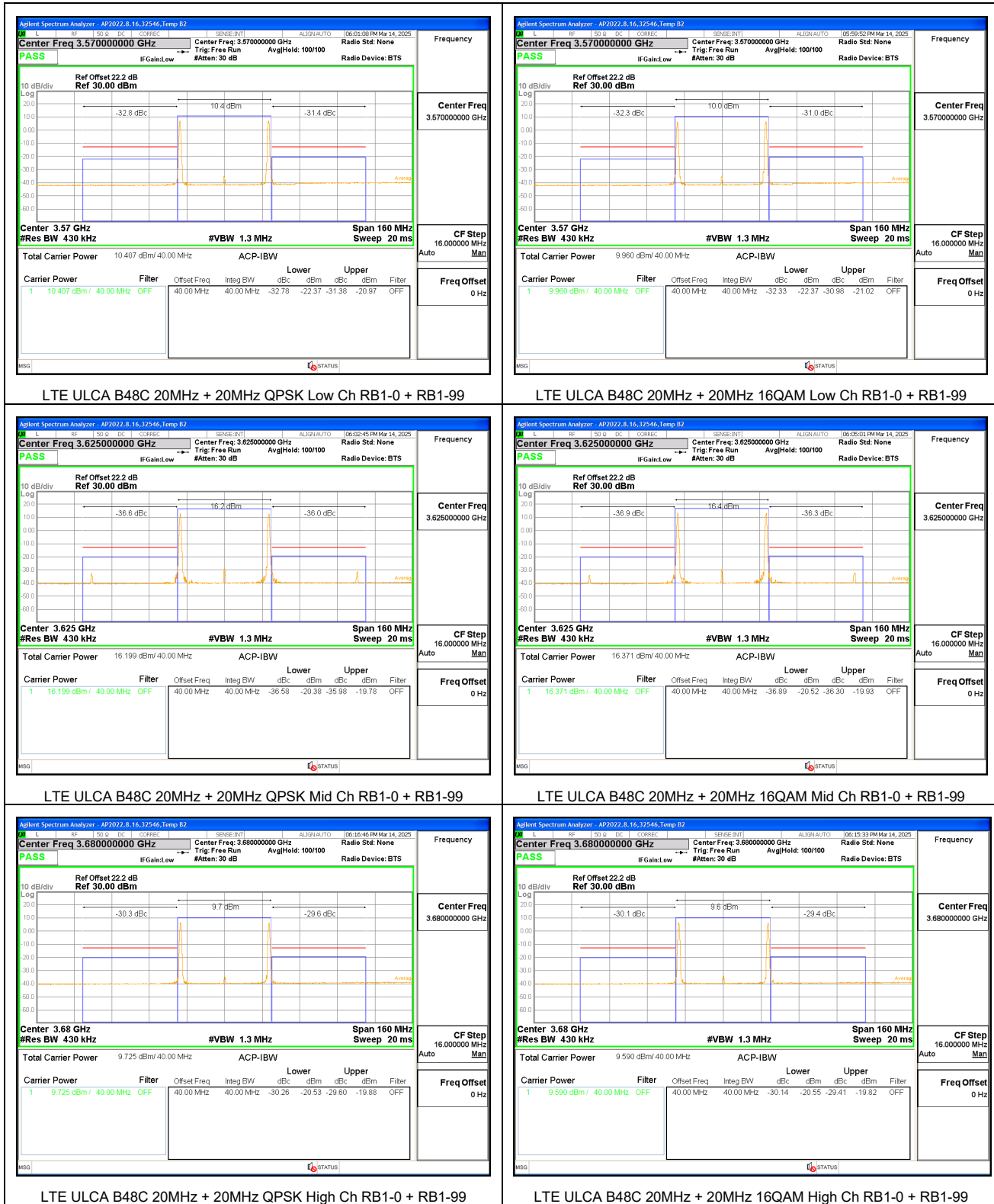


LTE ULCA B48C 20MHz + 20MHz QPSK High Ch RB100-0 + RB100-0



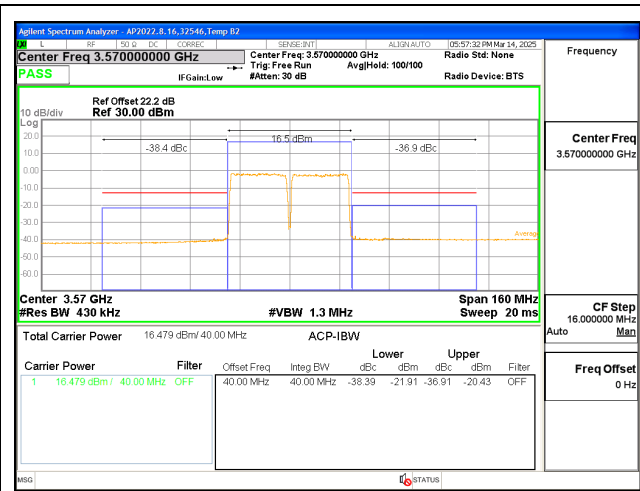
LTE ULCA B48C 20MHz + 20MHz 16QAM High Ch RB100-0 + RB100-0

9.2.8. LTE ULCA BAND 48C ADJACENT CHANNEL POWER

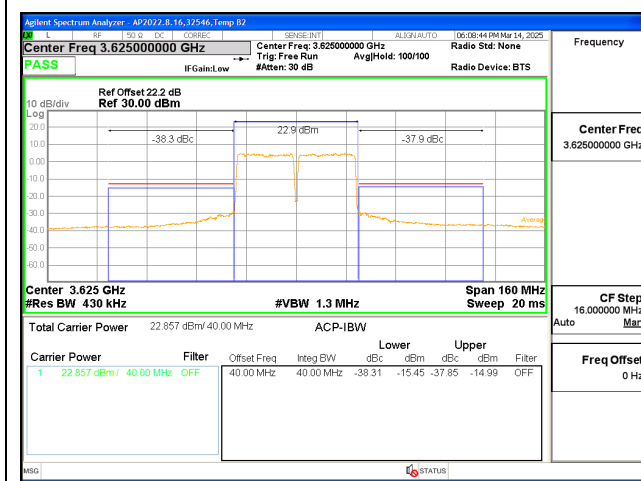




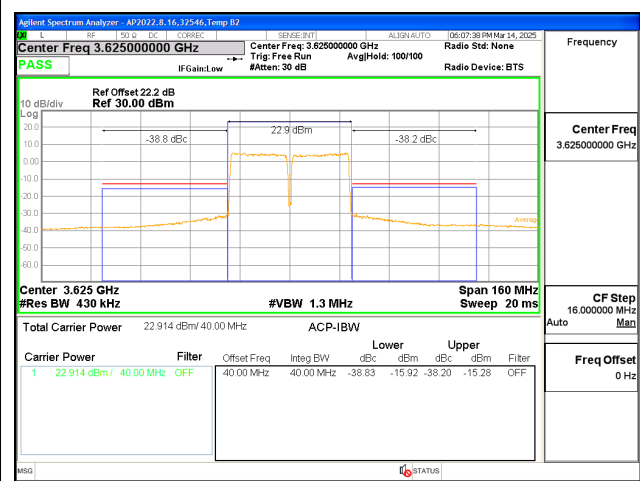
LTE ULCA B48C 20MHz + 20MHz QPSK Low Ch RB100-0 + RB100-0



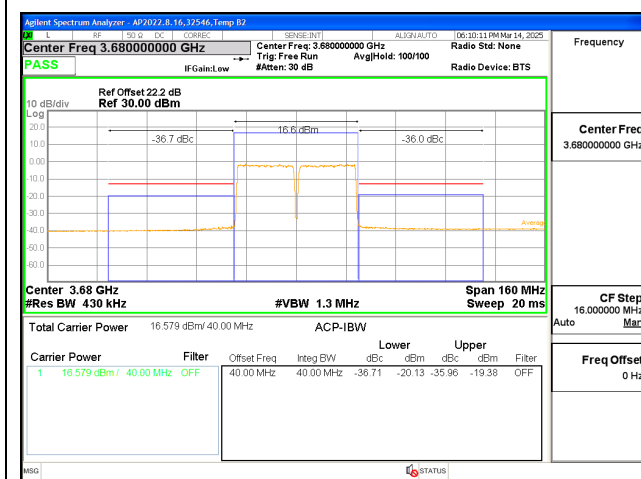
LTE ULCA B48C 20MHz + 20MHz 16QAM Low Ch RB100-0 + RB100-0



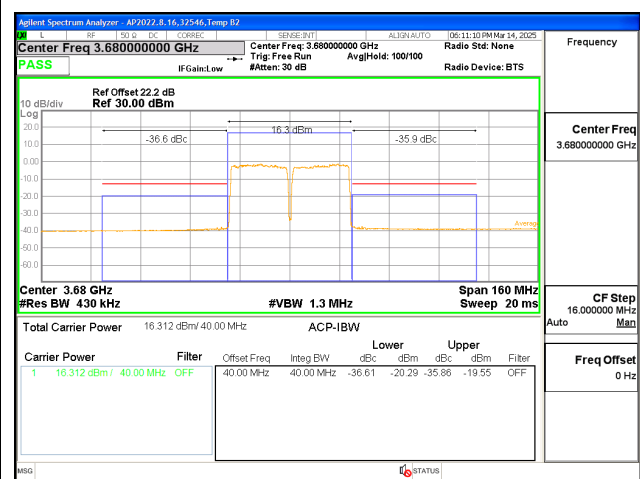
LTE ULCA B48C 20MHz + 20MHz QPSK Mid Ch RB100-0 + RB100-0



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

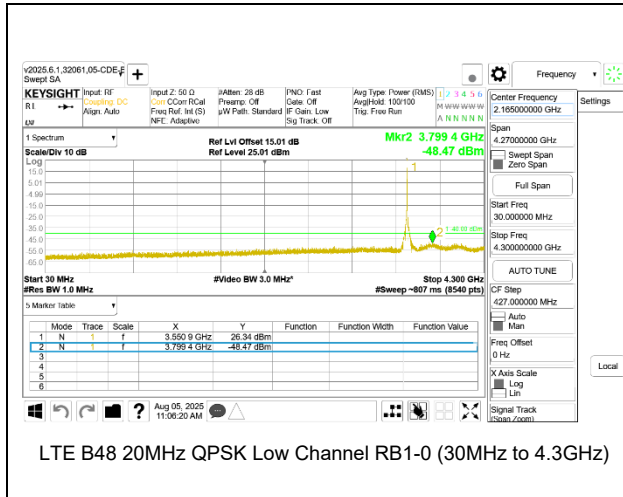
The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case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

For each out of band emissions measurement:

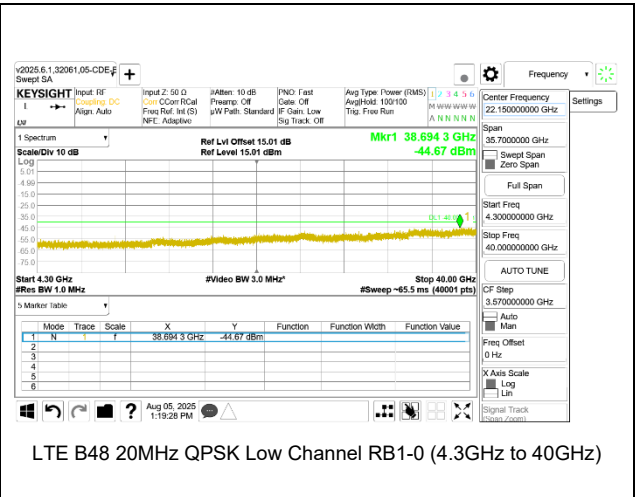
- Set display line at -13 dBm, -25dBm and -40dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.
(NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

RESULTS

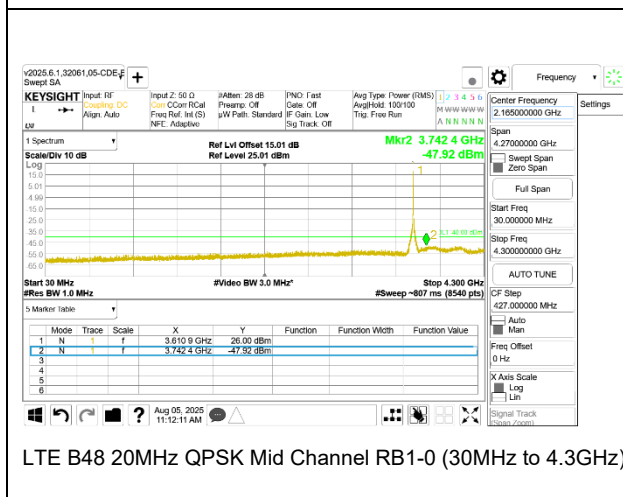
9.3.1. LTE BAND 48



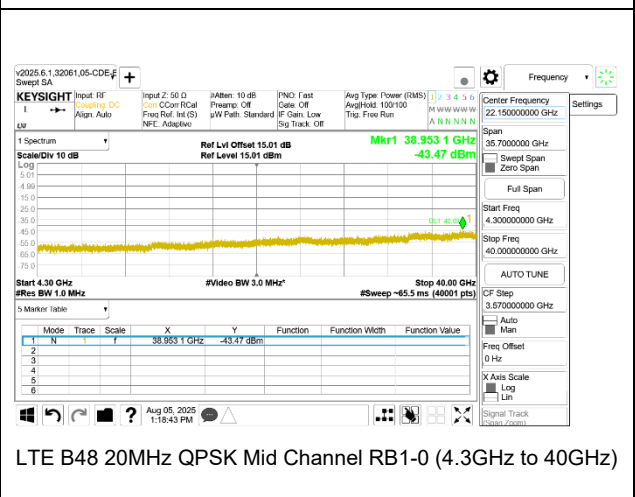
LTE B48 20MHz QPSK Low Channel RB1-0 (30MHz to 4.3GHz)



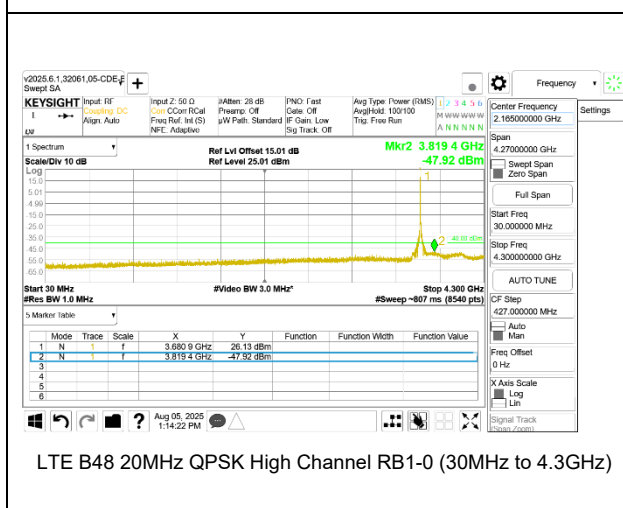
LTE B48 20MHz QPSK Low Channel RB1-0 (4.3GHz to 40GHz)



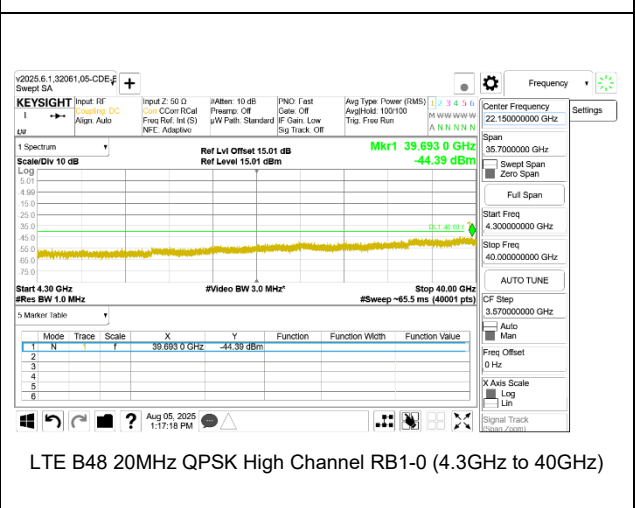
LTE B48 20MHz QPSK Mid Channel RB1-0 (30MHz to 4.3GHz)



LTE B48 20MHz QPSK Mid Channel RB1-0 (4.3GHz to 40GHz)

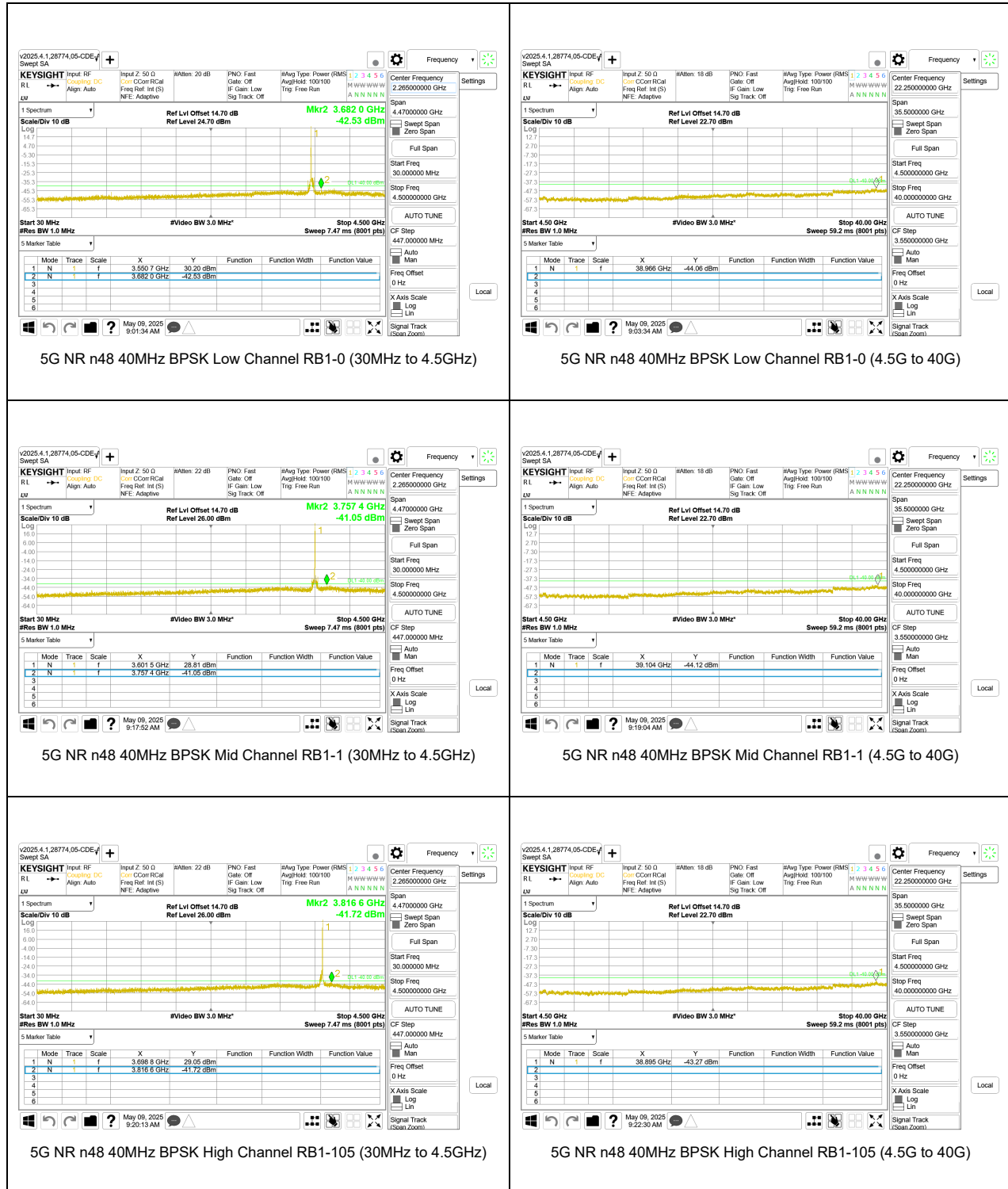


LTE B48 20MHz QPSK High Channel RB1-0 (30MHz to 4.3GHz)



LTE B48 20MHz QPSK High Channel RB1-0 (4.3GHz to 40GHz)

9.3.2. 5G NR n48



9.3.3. LTE ULCA BAND 48B



9.3.4. 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:	32546	Test Date:	2025-03-25
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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	3550.8927	3699.2134			
Extreme (50°C)		3550.8927	3699.2134	-10.6	-0.003	Yes
Extreme (40°C)		3550.8927	3699.2134	-10.0	-0.003	Yes
Extreme (30°C)		3550.8927	3699.2134	-10.5	-0.003	Yes
Extreme (10°C)		3550.8927	3699.2134	-9.8	-0.003	Yes
Extreme (0°C)		3550.8927	3699.2134	-9.5	-0.003	Yes
Extreme (-10°C)		3550.8927	3699.2134	-9.4	-0.003	Yes
Extreme (-20°C)		3550.8927	3699.2134	-10.0	-0.003	Yes
Extreme (-30°C)		3550.8927	3699.2134	-9.3	-0.003	Yes
20°C	15%	3550.8927	3699.2134	-10.4	-0.003	Yes
	-15%	3550.8927	3699.2134	-10.8	-0.003	Yes
	End Point Voltage	3550.8927	3699.2134	-10.3	-0.003	Yes

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

Test Engineer ID:	32546	Test Date:	2025-03-25
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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	3550.7797	3696.8786			
Extreme (50°C)		3550.7797	3696.8786	-14.2	-0.004	Yes
Extreme (40°C)		3550.7797	3696.8786	-12.4	-0.003	Yes
Extreme (30°C)		3550.7797	3696.8786	-12.2	-0.003	Yes
Extreme (10°C)		3550.7797	3696.8786	-13.3	-0.004	Yes
Extreme (0°C)		3550.7797	3696.8786	11.8	0.003	Yes
Extreme (-10°C)		3550.7797	3696.8786	-13.4	-0.004	Yes
Extreme (-20°C)		3550.7797	3696.8786	-11.2	-0.003	Yes
Extreme (-30°C)		3550.7797	3696.8786	-13.6	-0.004	Yes
20°C	15%	3550.7797	3696.8786	-13.7	-0.004	Yes
	-15%	3550.7797	3696.8786	11.6	0.003	Yes
	End Point Voltage	3550.7797	3696.8786	-15.2	-0.004	Yes

9.4.3. LTE ULCA BAND 48B QPSK (10MHz + 10MHz BANDWIDTH)

Test Engineer ID:	32546	Test Date:	2025-03-25
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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	3550.4423	3699.8698			
Extreme (50°C)		3550.4423	3699.8699	31.1	0.009	Yes
Extreme (40°C)		3550.4423	3699.8699	27.9	0.008	Yes
Extreme (30°C)		3550.4423	3699.8698	20.8	0.006	Yes
Extreme (10°C)		3550.4422	3699.8698	-12.6	-0.003	Yes
Extreme (0°C)		3550.4422	3699.8698	-16.9	-0.005	Yes
Extreme (-10°C)		3550.4422	3699.8698	-31.4	-0.009	Yes
Extreme (-20°C)		3550.4422	3699.8698	-37.5	-0.010	Yes
Extreme (-30°C)		3550.4422	3699.8698	-35.6	-0.010	Yes
20°C	15%	3550.4423	3699.8698	14.1	0.004	Yes
	-15%	3550.4423	3699.8698	12.4	0.003	Yes
	End Point Voltage	3550.4423	3699.8698	14.0	0.004	Yes

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

Test Engineer ID:	32546	Test Date:	2025-03-25
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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	3550.9952	3698.7978			
Extreme (50°C)		3550.9953	3698.7978	52.7	0.015	Yes
Extreme (40°C)		3550.9953	3698.7978	44.3	0.012	Yes
Extreme (30°C)		3550.9953	3698.7978	26.7	0.007	Yes
Extreme (10°C)		3550.9952	3698.7978	-13.3	-0.004	Yes
Extreme (0°C)		3550.9952	3698.7977	-45.6	-0.013	Yes
Extreme (-10°C)		3550.9952	3698.7977	-69.8	-0.019	Yes
Extreme (-20°C)		3550.9952	3698.7977	-85.2	-0.024	Yes
Extreme (-30°C)		3550.9952	3698.7977	-79.6	-0.022	Yes
20°C	15%	3550.9953	3698.7978	31.7	0.009	Yes
	-15%	3550.9953	3698.7978	29.5	0.008	Yes
	End Point Voltage	3550.9953	3698.7978	29.6	0.008	Yes

9.5. PEAK-TO-AVERAGE POWER RATIO

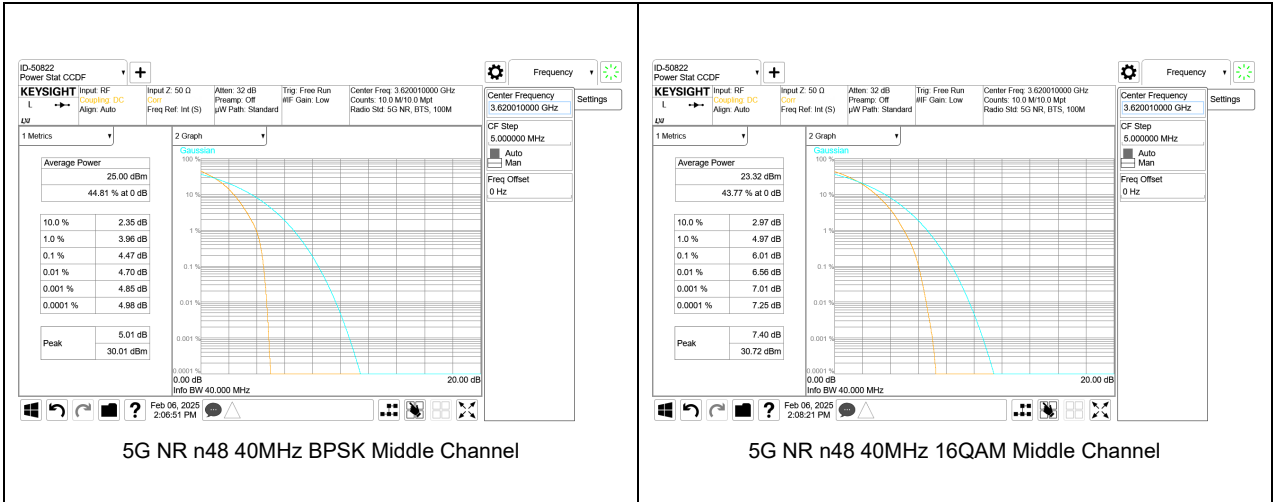
LIMIT

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 7 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:	50822	Test Date:	2025-02-05
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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	31.17	18.86	5.32
					16QAM	31.12	17.60	6.53
	10MHz	50	0	QPSK	31.46	19.00	5.47	
				16QAM	30.45	17.87	5.59	
	15MHz	3620.0	75	0	QPSK	31.58	18.00	6.59
					16QAM	30.92	16.40	7.53
	20MHz	100	0	QPSK	30.61	18.66	4.96	
				16QAM	31.96	17.14	7.83	
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:	2025-02-05
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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	28.97	24.62	4.35
					16QAM	29.95	23.38	6.57
	15MHz	3620.0	36	0	BPSK	29.48	25.08	4.40
					16QAM	30.31	23.56	6.75
	20MHz	3620.0	50	0	BPSK	29.57	25.05	4.52
					16QAM	30.28	23.39	6.89
	30MHz	3625.0	75	0	BPSK	29.18	24.74	4.44
					16QAM	29.97	23.19	6.78
	40MHz	3620.0	100	0	BPSK	30.01	25.00	5.01
					16QAM	30.72	23.32	7.40
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 48B

Test Engineer ID:	50822	Test Date:	2025-02-05
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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 48B	10MHz / 10MHz	3620.1	3630.0	QPSK	30.53	21.44	2.10
				16QAM	32.65	19.60	6.06
Duty Cycle Correction Factor (dB) =			6.99				
Peak-to-Average Power Ratio= Peak Reading - Average Reading - Duty Cycle Correction Factor							

9.5.4. LTE ULCA BAND 48C

Test Engineer ID:	50822	Test Date:	2025-02-05
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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	32.97	20.80	5.18
				16QAM	35.83	19.65	9.19
	20MHz / 5MHz	3622.5	3634.2	QPSK	31.02	19.5	4.53
				16QAM	34.58	19.34	8.25
	10MHz / 20MHz	3615.6	3630.0	QPSK	32.48	20.28	5.21
				16QAM	33.83	18.97	7.87
	20MHz / 10MHz	3620.1	3634.5	QPSK	31.08	19.46	4.63
				16QAM	30.59	17.22	6.38
	15MHz / 20MHz	3615.3	3632.4	QPSK	32.19	20.77	4.43
				16QAM	34.84	18.95	8.90
	20MHz / 15MHz	3617.6	3634.7	QPSK	31.18	19.80	4.39
				16QAM	32.44	17.57	7.88
	20MHz / 20MHz	3615.1	3634.9	QPSK	31.66	20.95	3.72
				16QAM	32.41	17.75	7.67
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.

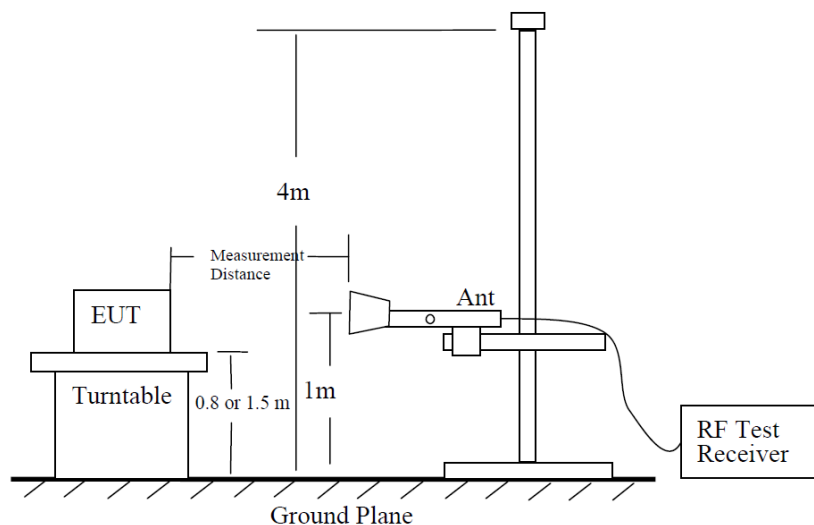


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

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.

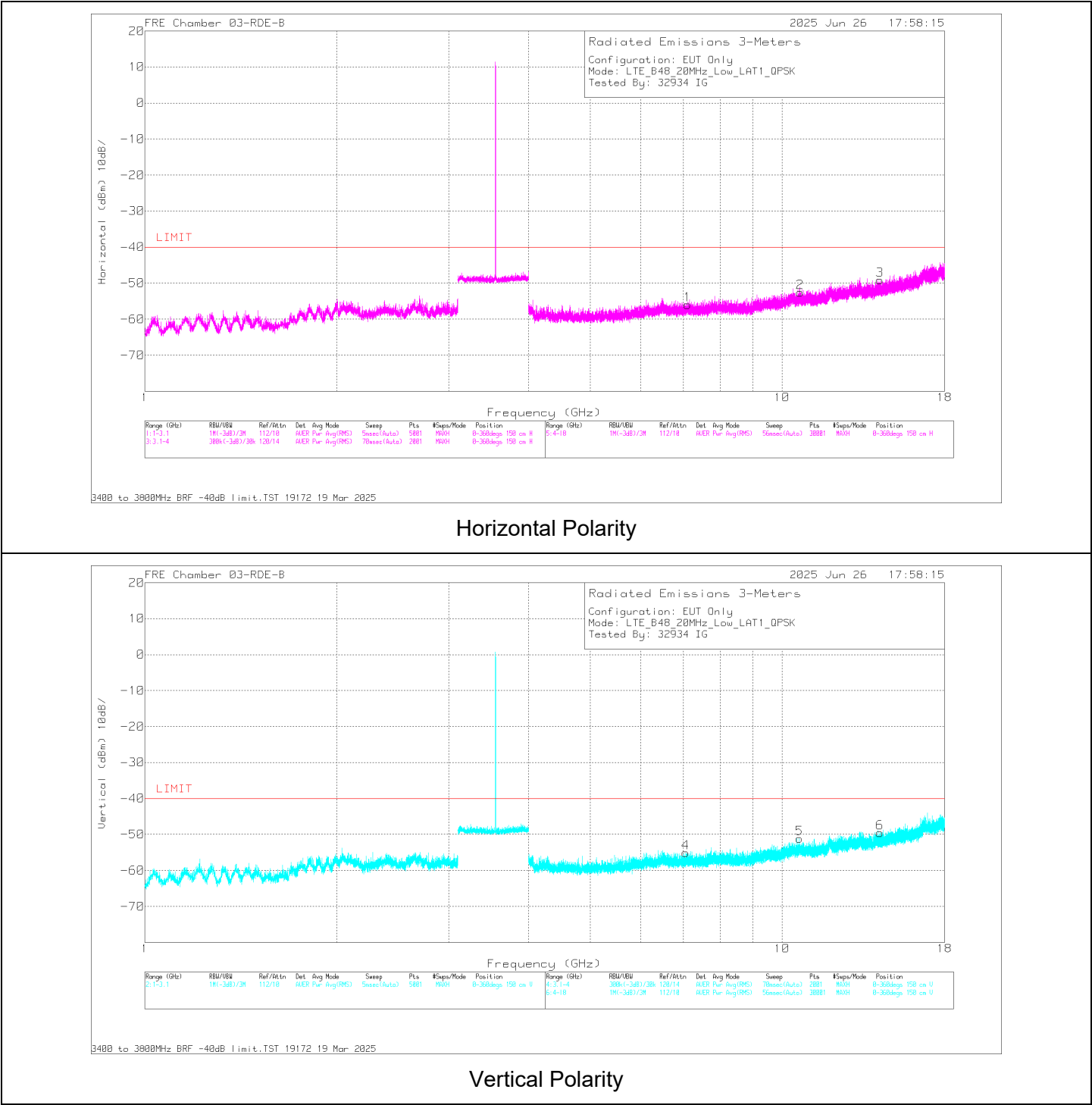
So, from d)

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

Frequency (GHz)	Meter Reading (dBuV)	Det	223084 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
7.058069	52.00	RMS	35.6	-95.2	-47.50	-55.10	-40	-15.10	V
7.115469	50.64	RMS	35.7	-95.2	-47.10	-55.96	-40	-15.96	H
10.676138	51.72	RMS	37.7	-95.2	-46.81	-52.59	-40	-12.59	H
10.652805	53.24	RMS	37.7	-95.2	-46.90	-51.16	-40	-11.16	V
14.239607	52.78	RMS	39.1	-95.2	-45.84	-49.16	-40	-9.16	H
14.256874	52.56	RMS	39.2	-95.2	-46.09	-49.53	-40	-9.53	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 #:	15496277
Date:	2025-06-26
Test Engineer:	32545
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	05-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									
7.058069	52.00	RMS	35.6	-95.2	-47.50	-55.10	-40	-15.10	V
7.115469	50.64	RMS	35.7	-95.2	-47.10	-55.96	-40	-15.96	H
10.676138	51.72	RMS	37.7	-95.2	-46.81	-52.59	-40	-12.59	H
10.652805	53.24	RMS	37.7	-95.2	-46.90	-51.16	-40	-11.16	V
14.239607	52.78	RMS	39.1	-95.2	-45.84	-49.16	-40	-9.16	H
14.256874	52.56	RMS	39.2	-95.2	-46.09	-49.53	-40	-9.53	V
Mid Channel, 3620MHz									
7.223269	51.46	RMS	35.7	-95.2	-47.77	-55.81	-40	-15.81	V
7.240536	52.37	RMS	35.7	-95.2	-47.95	-55.08	-40	-15.08	H
10.815672	50.64	RMS	37.8	-95.2	-46.30	-53.06	-40	-13.06	H
10.860472	51.20	RMS	37.8	-95.2	-46.30	-52.50	-40	-12.50	V
14.472941	51.20	RMS	39.3	-95.2	-45.70	-50.40	-40	-10.40	V
14.416941	51.45	RMS	39.3	-95.2	-46.01	-50.46	-40	-10.46	H
High Channel, 3690MHz									
7.380536	51.36	RMS	35.6	-95.2	-47.80	-56.04	-40	-16.04	H
7.367936	51.22	RMS	35.6	-95.2	-47.80	-56.18	-40	-16.18	V
11.076538	50.68	RMS	37.9	-95.2	-45.85	-52.47	-40	-12.47	H
11.048538	50.98	RMS	37.8	-95.2	-46.00	-52.42	-40	-12.42	V
14.668008	53.58	RMS	39.6	-95.2	-45.80	-47.82	-40	-7.82	H
14.674541	51.85	RMS	39.5	-95.2	-45.80	-49.65	-40	-9.65	V

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

Project #:	15496277
Date:	2025-06-26
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									
7.091202	51.37	RMS	35.7	-95.2	-47.30	-55.43	-40	-15.43	V
7.125736	51.36	RMS	35.7	-95.2	-47.13	-55.27	-40	-15.27	H
10.681271	51.64	RMS	37.7	-95.2	-46.87	-52.73	-40	-12.73	H
10.633205	52.93	RMS	37.7	-95.2	-46.90	-51.47	-40	-11.47	V
14.226541	51.85	RMS	39.0	-95.2	-46.00	-50.35	-40	-10.35	V
14.249874	51.49	RMS	39.1	-95.2	-45.80	-50.41	-40	-10.41	H
Mid Channel, 3620MHz									
7.211136	52.08	RMS	35.7	-95.2	-47.70	-55.12	-40	-15.12	V
7.247536	50.66	RMS	35.7	-95.2	-47.90	-56.74	-40	-16.74	H
10.866538	50.70	RMS	37.8	-95.2	-46.35	-53.05	-40	-13.05	H
10.883338	49.87	RMS	37.8	-95.2	-46.40	-53.93	-40	-13.93	V
14.493008	51.81	RMS	39.4	-95.2	-45.60	-49.59	-40	-9.59	V
14.506541	51.52	RMS	39.4	-95.2	-45.75	-50.03	-40	-10.03	H
High Channel, 3690MHz									
7.367469	51.98	RMS	35.6	-95.2	-47.80	-55.42	-40	-15.42	H
7.351136	51.57	RMS	35.6	-95.2	-47.70	-55.73	-40	-15.73	V
11.061605	50.54	RMS	37.8	-95.2	-45.90	-52.76	-40	-12.76	H
11.037805	51.10	RMS	37.8	-95.2	-46.00	-52.30	-40	-12.30	V
14.619941	53.68	RMS	39.5	-95.2	-45.89	-47.91	-40	-7.91	V
14.766474	52.82	RMS	39.6	-95.2	-46.00	-48.78	-40	-8.78	H

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

Project #:	15496277
Date:	2025-06-26
Test Engineer:	32934
Configuration:	EUT only
Mode	LTE B48 QPSK 20MHz
Chamber #:	05-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									
7.095869	51.77	RMS	35.7	-95.2	-47.30	-55.03	-40	-15.03	V
7.143002	50.62	RMS	35.7	-95.2	-47.10	-55.98	-40	-15.98	H
10.701338	51.24	RMS	37.7	-95.2	-46.80	-53.06	-40	-13.06	H
10.653738	53.49	RMS	37.7	-95.2	-46.97	-50.98	-40	-10.98	V
14.206007	52.17	RMS	39.1	-95.2	-45.90	-49.83	-40	-9.83	V
14.253607	52.04	RMS	39.1	-95.2	-45.96	-50.02	-40	-10.02	H
Mid Channel, 3620MHz									
7.262469	51.25	RMS	35.6	-95.2	-47.90	-56.25	-40	-16.25	H
7.228869	51.34	RMS	35.7	-95.2	-47.89	-56.05	-40	-16.05	V
10.886605	51.48	RMS	37.8	-95.2	-46.40	-52.32	-40	-12.32	H
10.865605	51.59	RMS	37.8	-95.2	-46.36	-52.17	-40	-12.17	V
14.468274	51.21	RMS	39.3	-95.2	-45.80	-50.49	-40	-10.49	V
14.505141	51.27	RMS	39.4	-95.2	-45.71	-50.24	-40	-10.24	H
High Channel, 3690MHz									
7.383336	52.01	RMS	35.6	-95.2	-47.83	-55.42	-40	-15.42	H
7.345536	52.31	RMS	35.6	-95.2	-47.75	-55.04	-40	-15.04	V
11.064872	49.90	RMS	37.8	-95.2	-45.81	-53.31	-40	-13.31	H
11.087272	50.29	RMS	37.9	-95.2	-45.73	-52.74	-40	-12.74	V
14.740808	52.75	RMS	39.6	-95.2	-45.70	-48.55	-40	-8.55	V
14.782808	52.46	RMS	39.6	-95.2	-46.10	-49.24	-40	-9.24	H

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

Project #:	15496277
Date:	2025-05-26
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									
7.073936	51.46	RMS	35.7	-95.2	-47.39	-55.43	-40	-15.43	V
7.117802	51.24	RMS	35.7	-95.2	-47.20	-55.46	-40	-15.46	H
10.653179	53.52	RMS	37.7	-95.2	-46.92	-50.90	-40	-10.90	H
10.653335	54.43	RMS	37.7	-95.2	-46.93	-50.00	-40	-10.00	V
14.238207	51.61	RMS	39.1	-95.2	-45.90	-50.39	-40	-10.39	H
14.271341	51.55	RMS	39.2	-95.2	-46.00	-50.45	-40	-10.45	V
Mid Channel, 3620MHz									
7.235869	51.33	RMS	35.7	-95.2	-47.80	-55.97	-40	-15.97	V
7.260136	52.43	RMS	35.6	-95.2	-47.99	-55.16	-40	-15.16	H
10.848338	51.01	RMS	37.8	-95.2	-46.30	-52.69	-40	-12.69	H
10.848311	53.53	RMS	37.8	-95.2	-46.30	-50.17	-40	-10.17	V
14.503741	52.67	RMS	39.4	-95.2	-45.73	-48.86	-40	-8.86	H
14.504208	51.35	RMS	39.4	-95.2	-45.70	-50.15	-40	-10.15	V
High Channel, 3690MHz									
7.348802	51.40	RMS	35.6	-95.2	-47.70	-55.90	-40	-15.90	V
7.381469	51.03	RMS	35.6	-95.2	-47.80	-56.37	-40	-16.37	H
11.043305	53.03	RMS	37.8	-95.2	-46.07	-50.44	-40	-10.44	V
11.063005	50.92	RMS	37.8	-95.2	-45.90	-52.38	-40	-12.38	H
14.681074	51.9	RMS	39.5	-95.2	-45.91	-49.71	-40	-9.71	H
14.737074	52.15	RMS	39.6	-95.2	-45.71	-49.16	-40	-9.16	V

10.1.2. 5G NR n48

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

Project #:	15496277
Date:	2025-06-27
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									
7.154669	51.28	RMS	35.7	-95.2	-47.13	-55.35	-40	-15.35	V
7.157469	52.18	RMS	35.7	-95.2	-47.15	-54.47	-40	-14.47	H
10.670071	53.03	RMS	37.7	-95.2	-46.89	-51.36	-40	-11.36	H
10.711605	51.14	RMS	37.7	-95.2	-46.80	-53.16	-40	-13.16	V
13.759874	51.55	RMS	38.8	-95.2	-45.81	-50.66	-40	-10.66	V
13.790207	53.96	RMS	38.8	-95.2	-45.92	-48.36	-40	-8.36	H
Mid Channel, 3625MHz									
7.254536	51.88	RMS	35.6	-95.2	-47.90	-55.62	-40	-15.62	H
7.247536	51.67	RMS	35.7	-95.2	-47.90	-55.73	-40	-15.73	V
10.898738	50.89	RMS	37.8	-95.2	-46.43	-52.94	-40	-12.94	H
10.880072	50.74	RMS	37.8	-95.2	-46.49	-53.15	-40	-13.15	V
14.481807	51.45	RMS	39.4	-95.2	-45.60	-49.95	-40	-9.95	H
14.529874	51.82	RMS	39.3	-95.2	-45.61	-49.69	-40	-9.69	V
High Channel, 3680MHz									
7.357202	51.65	RMS	35.6	-95.2	-47.80	-55.75	-40	-15.75	H
7.307269	52.35	RMS	35.6	-95.2	-47.77	-55.02	-40	-15.02	V
11.025672	50.94	RMS	37.9	-95.2	-46.13	-52.49	-40	-12.49	H
11.021938	50.48	RMS	37.9	-95.2	-46.20	-53.02	-40	-13.02	V
14.711874	52.28	RMS	39.6	-95.2	-45.90	-49.22	-40	-9.22	V
14.727741	52.78	RMS	39.6	-95.2	-45.70	-48.52	-40	-8.52	H

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

Project #:	15496277
Date:	2025-06-27
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									
7.112669	52.09	RMS	35.7	-95.2	-47.10	-54.51	-40	-14.51	V
7.122469	52.52	RMS	35.7	-95.2	-47.15	-54.13	-40	-14.13	H
10.737738	51.30	RMS	37.8	-95.2	-46.80	-52.90	-40	-12.90	H
10.742405	51.99	RMS	37.8	-95.2	-46.80	-52.21	-40	-12.21	V
14.264807	51.54	RMS	39.2	-95.2	-45.92	-50.38	-40	-10.38	V
14.271807	53.44	RMS	39.2	-95.2	-46.00	-48.56	-40	-8.56	H
Mid Channel, 3625MHz									
7.286736	52.08	RMS	35.6	-95.2	-48.00	-55.52	-40	-15.52	H
7.319869	51.43	RMS	35.6	-95.2	-47.89	-56.06	-40	-16.06	V
10.907605	51.20	RMS	37.8	-95.2	-46.50	-52.70	-40	-12.70	H
10.965472	50.73	RMS	37.8	-95.2	-46.50	-53.17	-40	-13.17	V
14.562074	53.97	RMS	39.4	-95.2	-45.70	-47.53	-40	-7.53	H
14.583074	51.35	RMS	39.4	-95.2	-45.79	-50.24	-40	-10.24	V
High Channel, 3680MHz									
7.358136	52.32	RMS	35.6	-95.2	-47.80	-55.08	-40	-15.08	H
7.224669	53.13	RMS	35.7	-95.2	-47.70	-54.07	-40	-14.07	V
11.006072	51.20	RMS	37.8	-95.2	-46.20	-52.40	-40	-12.40	V
11.040138	50.62	RMS	37.8	-95.2	-46.00	-52.78	-40	-12.78	H
14.735208	52.70	RMS	39.6	-95.2	-45.70	-48.60	-40	-8.60	V
14.744074	53.17	RMS	39.6	-95.2	-45.80	-48.23	-40	-8.23	H

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

Project #:	15496277
Date:	2025-05-28
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									
7.170536	51.86	RMS	35.7	-95.2	-47.20	-54.84	-40	-14.84	V
7.182669	52.11	RMS	35.7	-95.2	-47.37	-54.76	-40	-14.76	H
10.699471	51.34	RMS	37.7	-95.2	-46.80	-52.96	-40	-12.96	H
10.749405	51.13	RMS	37.8	-95.2	-46.74	-53.01	-40	-13.01	V
14.226074	51.93	RMS	39.0	-95.2	-46.00	-50.27	-40	-10.27	V
14.293274	51.94	RMS	39.2	-95.2	-45.77	-49.83	-40	-9.83	H
Mid Channel, 3625MHz									
7.290469	52.08	RMS	35.6	-95.2	-47.90	-55.42	-40	-15.42	H
7.326869	52.47	RMS	35.6	-95.2	-47.90	-55.03	-40	-15.03	V
10.853472	50.87	RMS	37.8	-95.2	-46.25	-52.78	-40	-12.78	H
10.854405	50.87	RMS	37.8	-95.2	-46.30	-52.83	-40	-12.83	V
14.495808	51.17	RMS	39.4	-95.2	-45.68	-50.31	-40	-10.31	V
14.500008	51.67	RMS	39.4	-95.2	-45.70	-49.83	-40	-9.83	H
High Channel, 3680MHz									
7.354402	52.28	RMS	35.6	-95.2	-47.70	-55.02	-40	-15.02	H
7.362802	51.42	RMS	35.6	-95.2	-47.80	-55.98	-40	-15.98	V
11.028005	50.77	RMS	37.9	-95.2	-46.10	-52.63	-40	-12.63	H
11.084938	51.43	RMS	37.9	-95.2	-45.79	-51.66	-40	-11.66	V
15.461342	53.95	RMS	40.1	-95.2	-45.20	-46.35	-40	-6.35	V
14.794941	53.98	RMS	39.6	-95.2	-46.01	-47.63	-40	-7.63	H

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

Project #:	15496277
Date:	2025-06-28
Test Engineer:	111411
Configuration:	EUT only
Mode	5G NR n48 BPSK 40MHz
Chamber #:	03-RDE-B

Frequency (GHz)	Meter Reading (dBuV)	Det	223083 ACF (dBm)	EIRP CF	Gain/Loss (dB)	Corrected Reading (dBm)	LIMIT (dBm)	Margin (dB)	Polarity
Low Channel, 3570MHz									
7.108002	51.63	RMS	35.7	-95.2	-47.10	-54.97	-40	-14.97	V
7.126202	50.78	RMS	35.7	-95.2	-47.10	-55.82	-40	-15.82	H
10.691538	52.99	RMS	37.7	-95.2	-46.75	-51.26	-40	-11.26	H
10.646738	51.92	RMS	37.7	-95.2	-46.97	-52.55	-40	-12.55	V
14.263874	51.54	RMS	39.2	-95.2	-45.99	-50.45	-40	-10.45	H
14.292341	51.27	RMS	39.2	-95.2	-45.80	-50.53	-40	-10.53	V
Mid Channel, 3625MHz									
7.275536	52.53	RMS	35.6	-95.2	-48.00	-55.07	-40	-15.07	H
7.320802	51.20	RMS	35.6	-95.2	-47.82	-56.22	-40	-16.22	V
10.880538	51.39	RMS	37.8	-95.2	-46.45	-52.46	-40	-12.46	H
10.905272	50.76	RMS	37.8	-95.2	-46.53	-53.17	-40	-13.17	V
14.432807	52.11	RMS	39.3	-95.2	-46.00	-49.79	-40	-9.79	V
14.504674	51.93	RMS	39.4	-95.2	-45.70	-49.57	-40	-9.57	H
High Channel, 3680MHz									
7.665203	51.45	RMS	35.8	-95.2	-47.50	-55.45	-40	-15.45	H
7.667069	51.45	RMS	35.8	-95.2	-47.50	-55.45	-40	-15.45	V
11.280005	51.70	RMS	38.0	-95.2	-45.70	-51.20	-40	-11.20	H
11.290739	51.89	RMS	38.0	-95.2	-45.70	-51.01	-40	-11.01	V
13.860207	51.22	RMS	38.8	-95.2	-45.80	-50.98	-40	-10.98	V
13.92134	53.51	RMS	38.9	-95.2	-45.73	-48.52	-40	-8.52	H

10.1.3. LTE ULCA BAND 48B

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

Project #:	15496277
Date:	2025-06-28
Test Engineer:	111411
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									
7.091669	50.84	RMS	35.7	-95.2	-47.30	-55.96	-40	-15.96	V
7.114536	50.90	RMS	35.7	-95.2	-47.10	-55.70	-40	-15.70	H
10.664471	51.69	RMS	37.7	-95.2	-46.95	-52.76	-40	-12.76	H
10.608938	52.06	RMS	37.7	-95.2	-47.10	-52.54	-40	-12.54	V
14.220007	51.43	RMS	39.1	-95.2	-45.80	-50.47	-40	-10.47	V
14.250807	52.09	RMS	39.1	-95.2	-45.80	-49.81	-40	-9.81	H
Mid Channel, 3615.1MHz + 3634.9MHz									
7.232602	52.46	RMS	35.7	-95.2	-47.80	-54.84	-40	-14.84	V
7.236336	51.33	RMS	35.7	-95.2	-47.83	-56.00	-40	-16.00	H
10.853472	50.52	RMS	37.8	-95.2	-46.25	-53.13	-40	-13.13	H
10.825005	52.39	RMS	37.8	-95.2	-46.30	-51.31	-40	-11.31	V
14.405274	53.03	RMS	39.3	-95.2	-46.17	-49.04	-40	-9.04	V
14.456607	53.07	RMS	39.3	-95.2	-45.90	-48.73	-40	-8.73	H
High Channel, 3670.2MHz + 3690MHz									
7.352536	51.72	RMS	35.6	-95.2	-47.70	-55.58	-40	-15.58	H
7.361869	51.37	RMS	35.6	-95.2	-47.80	-56.03	-40	-16.03	V
11.037805	51.45	RMS	37.8	-95.2	-46.00	-51.95	-40	-11.95	H
10.936538	51.17	RMS	37.8	-95.2	-46.50	-52.73	-40	-12.73	V
14.696008	53.46	RMS	39.6	-95.2	-45.90	-48.04	-40	-8.04	H
14.774874	52.24	RMS	39.6	-95.2	-46.00	-49.36	-40	-9.36	V