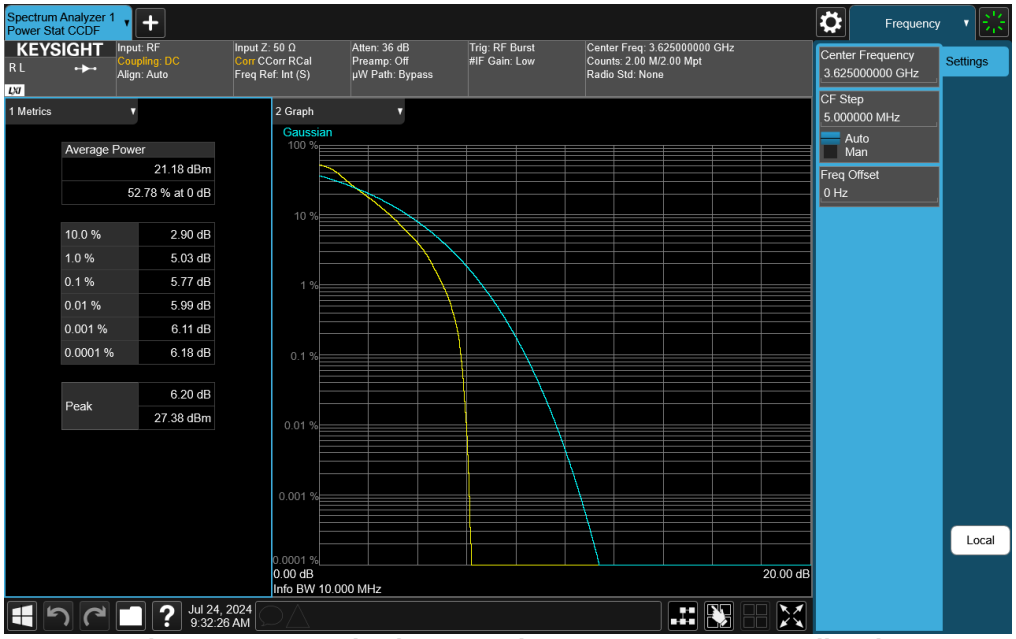
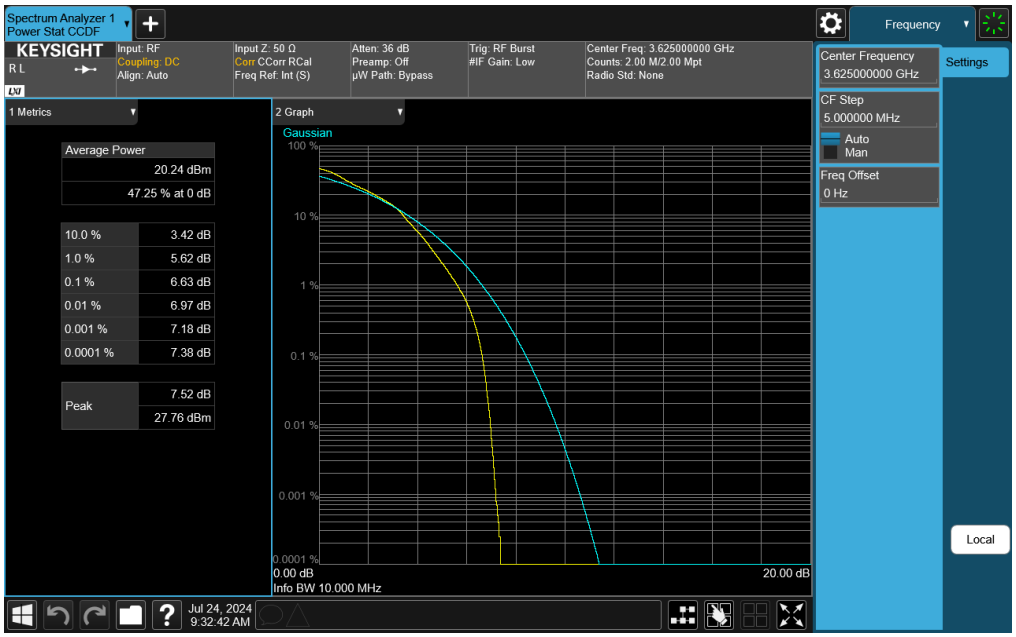


Plot 7-125. PAR Plot (LTE Band 48 - 10MHz QPSK – Full RB)



Plot 7-126. PAR Plot (LTE Band 48 - 10MHz 16-QAM – Full RB)

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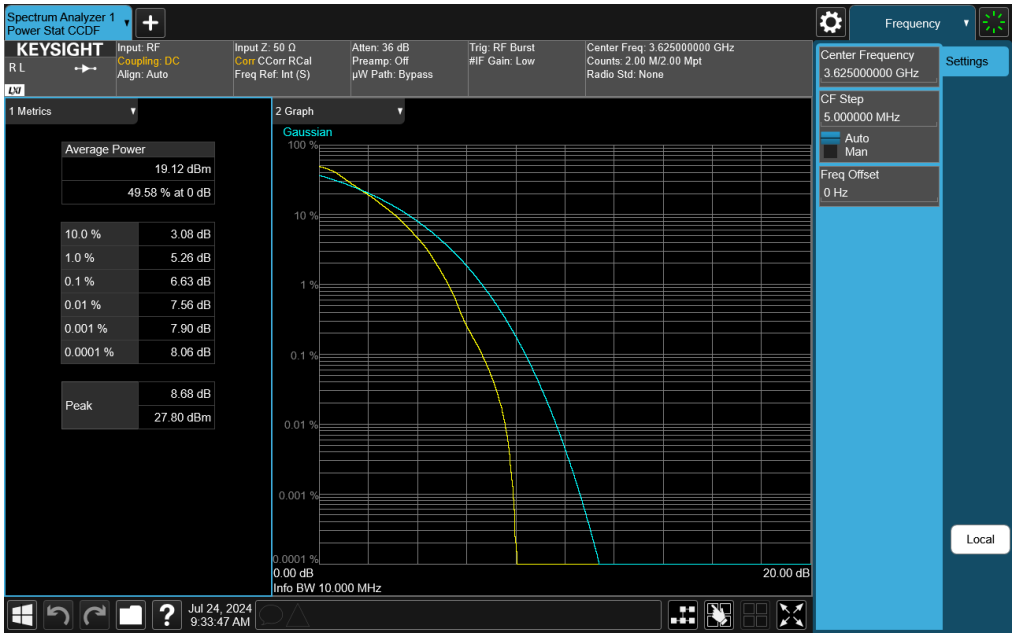
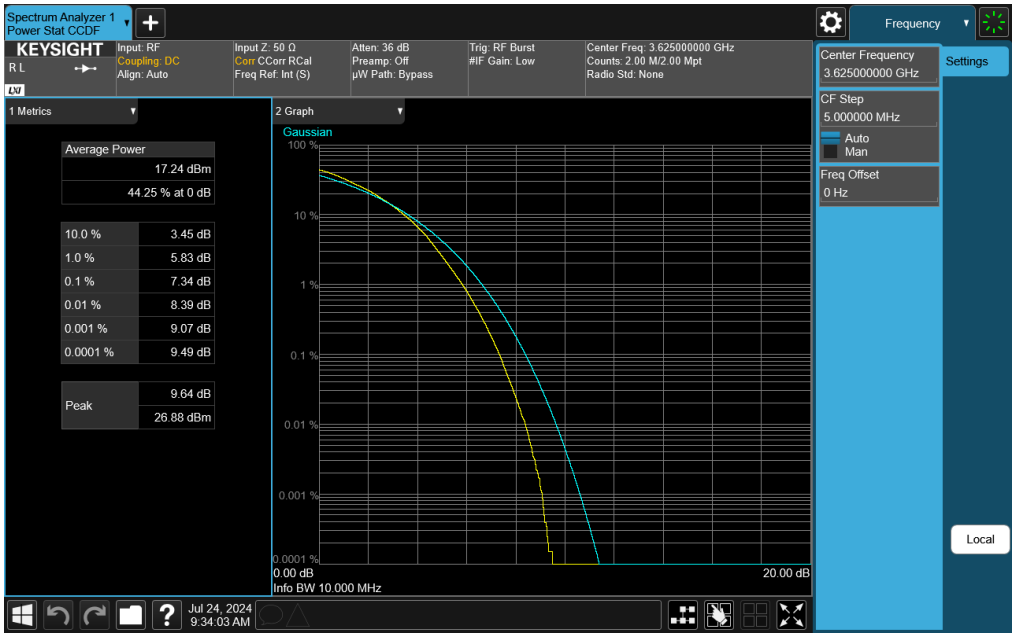


Plot 7-127. PAR Plot (LTE Band 48 - 10MHz 64-QAM – Full RB)



Plot 7-128. PAR Plot (LTE Band 48 - 10MHz 256-QAM – Full RB)

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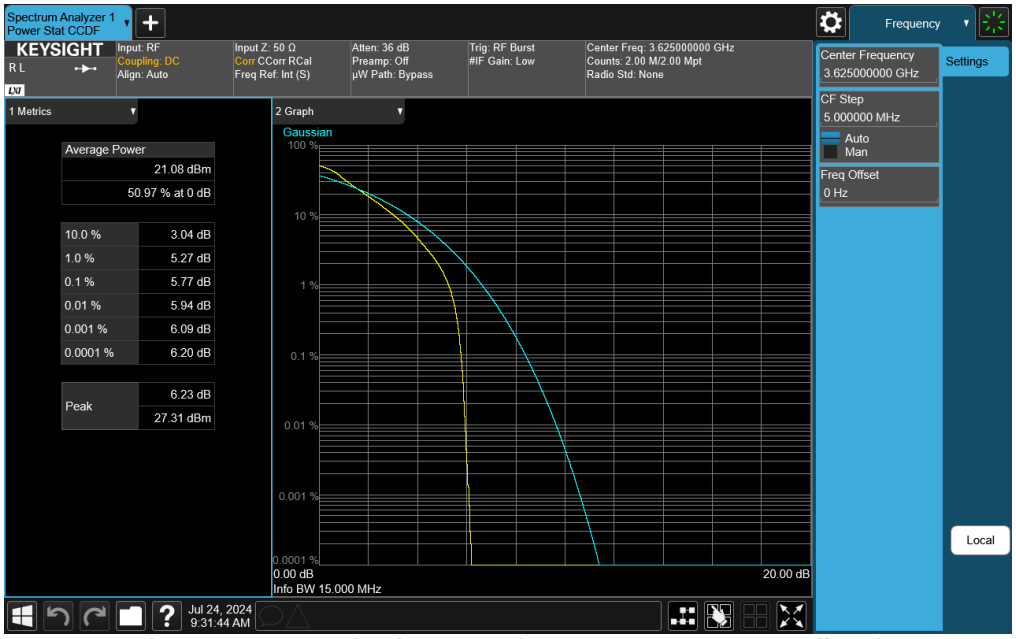
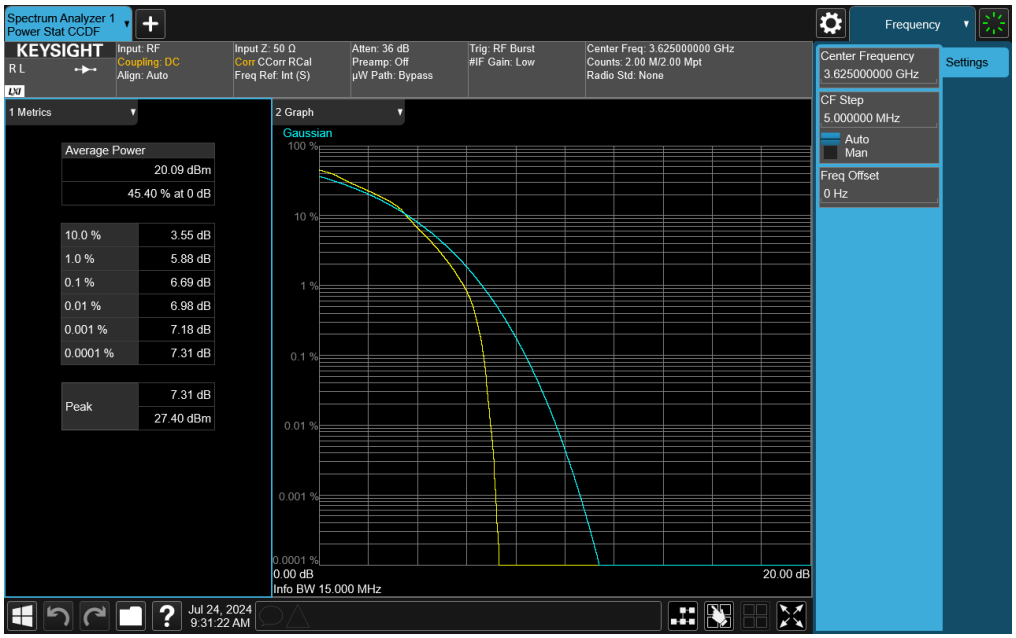


Plot 7-129. PAR Plot (LTE Band 48 - 15MHz QPSK – Full RB)



Plot 7-130. PAR Plot (LTE Band 48 - 15MHz 16-QAM – Full RB)

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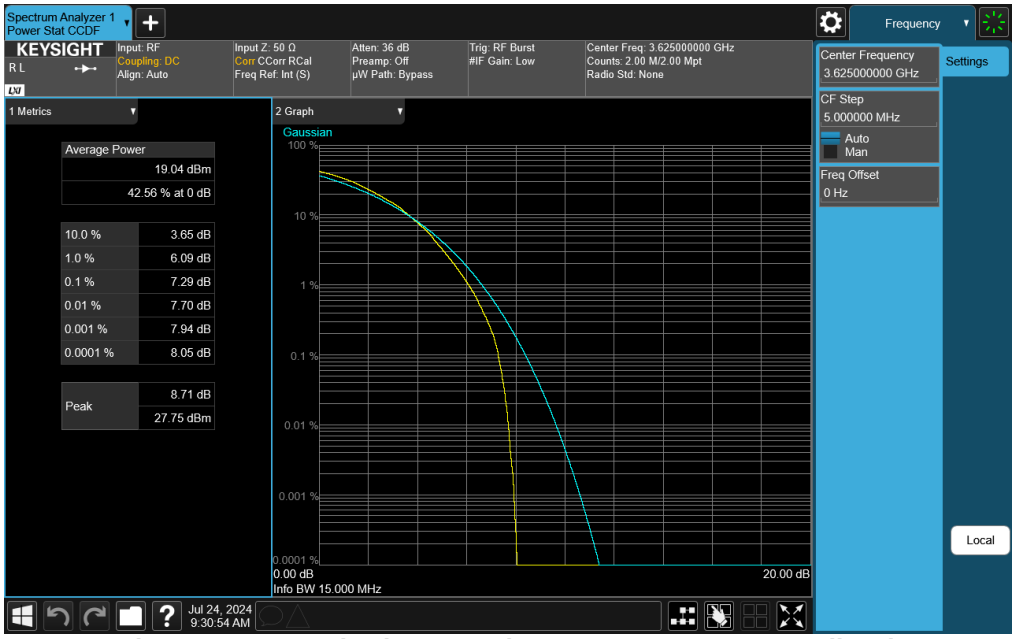
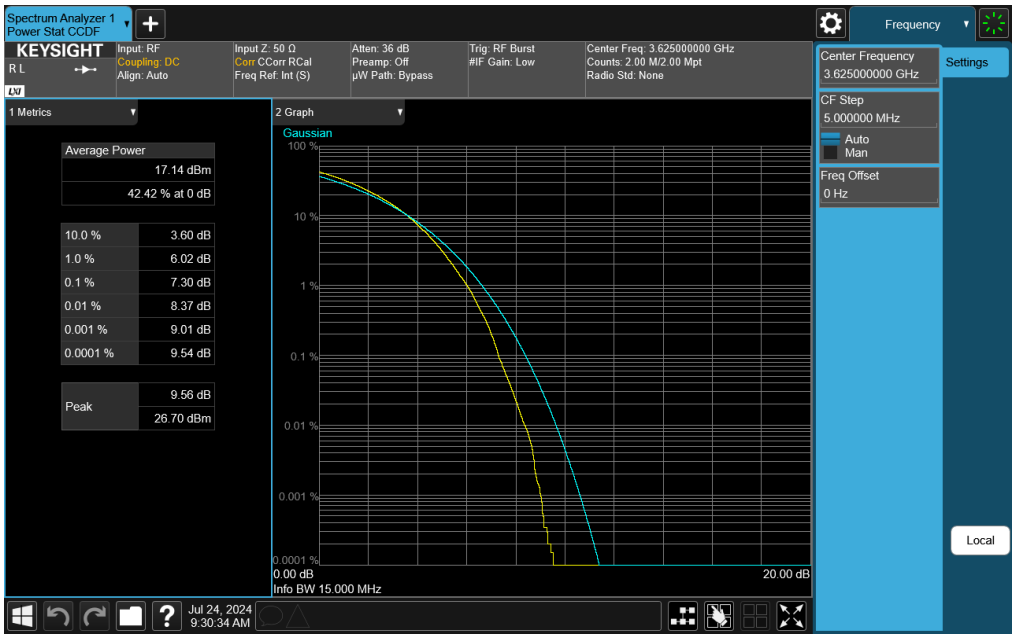


Plot 7-131. PAR Plot (LTE Band 48 - 15MHz 64-QAM – Full RB)



Plot 7-132. PAR Plot (LTE Band 48 - 15MHz 256-QAM – Full RB)

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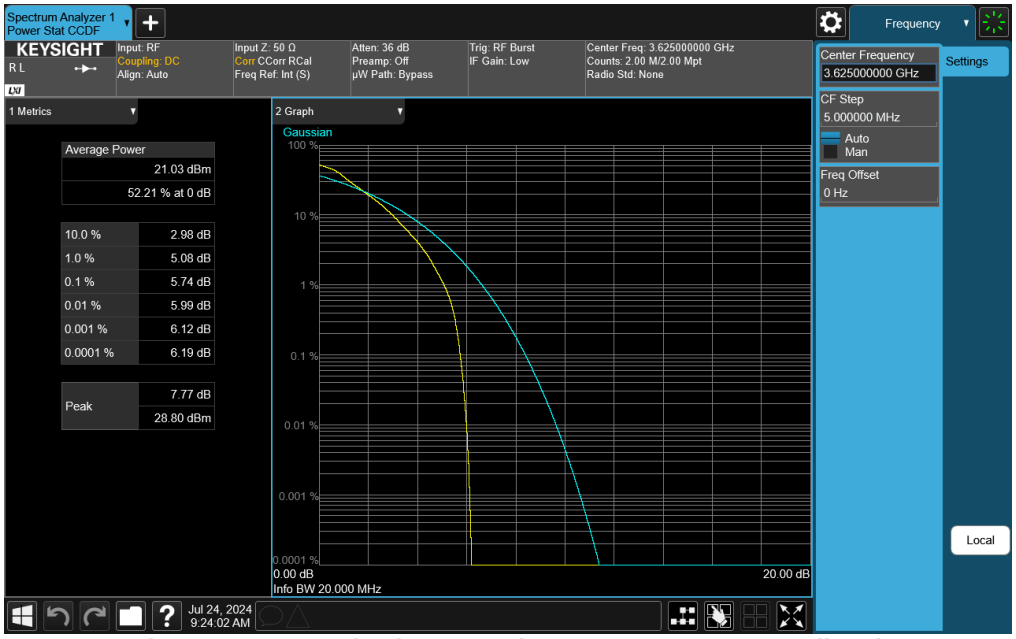
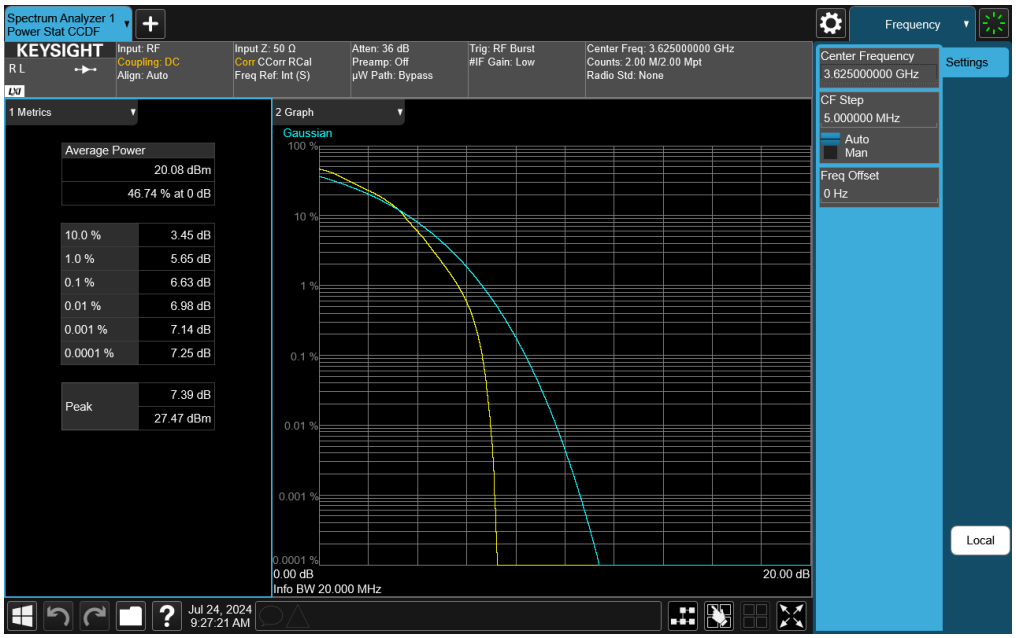


Plot 7-133. PAR Plot (LTE Band 48 - 20MHz QPSK – Full RB)



Plot 7-134. PAR Plot (LTE Band 48 - 20MHz 16-QAM – Full RB)

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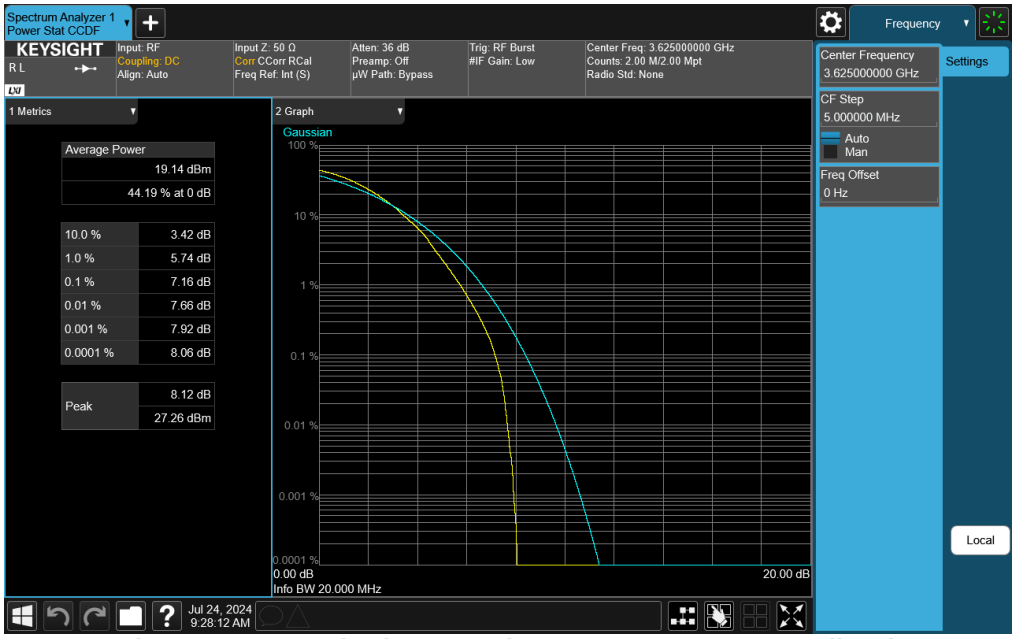
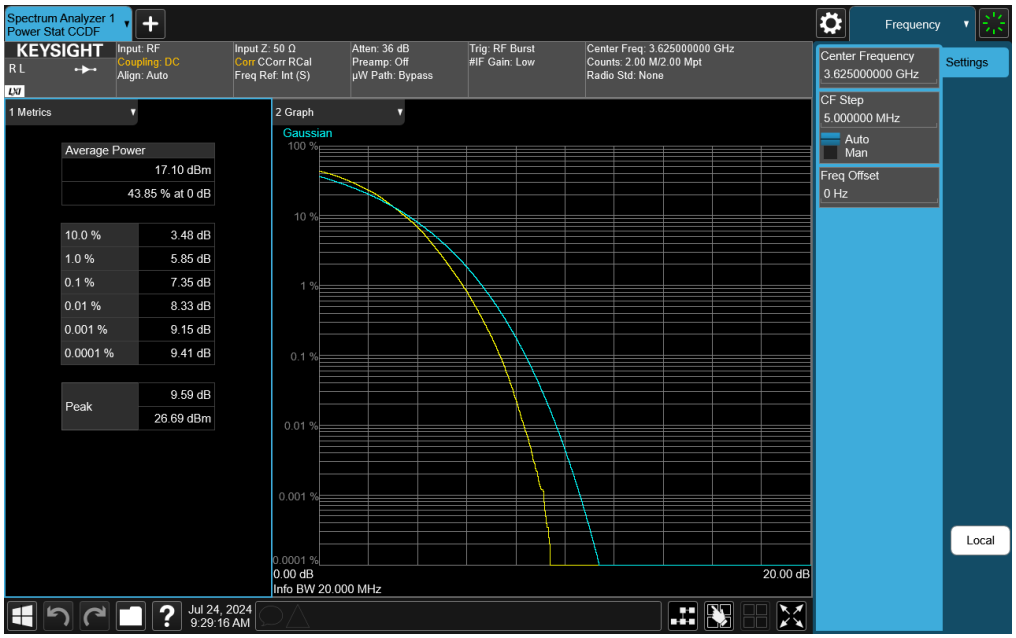


Plot 7-135. PAR Plot (LTE Band 48 - 20MHz 64-QAM – Full RB)



Plot 7-136. PAR Plot (LTE Band 48 - 20MHz 256-QAM – Full RB)

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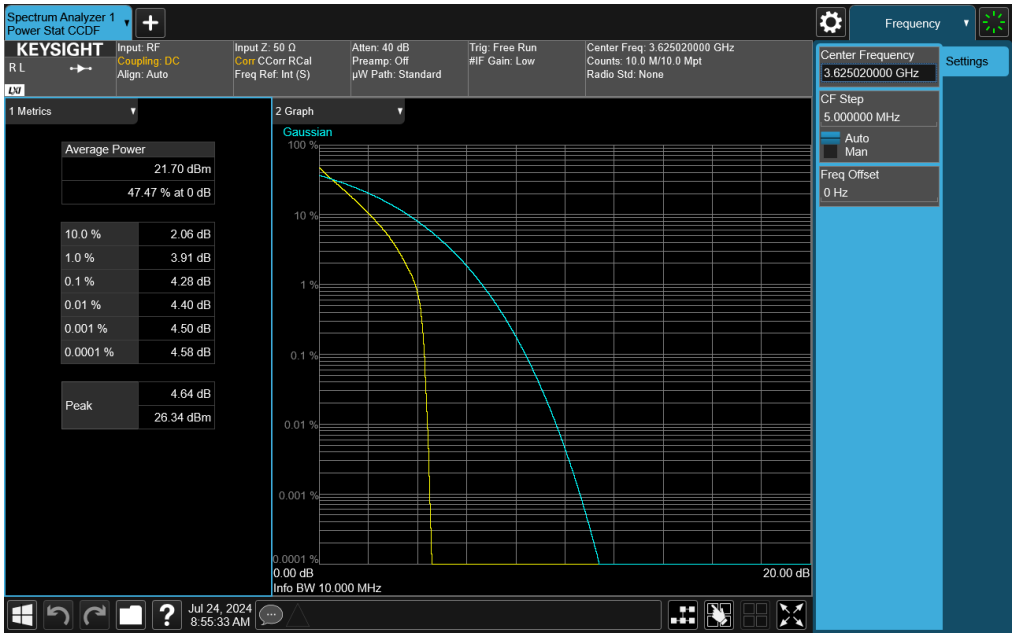
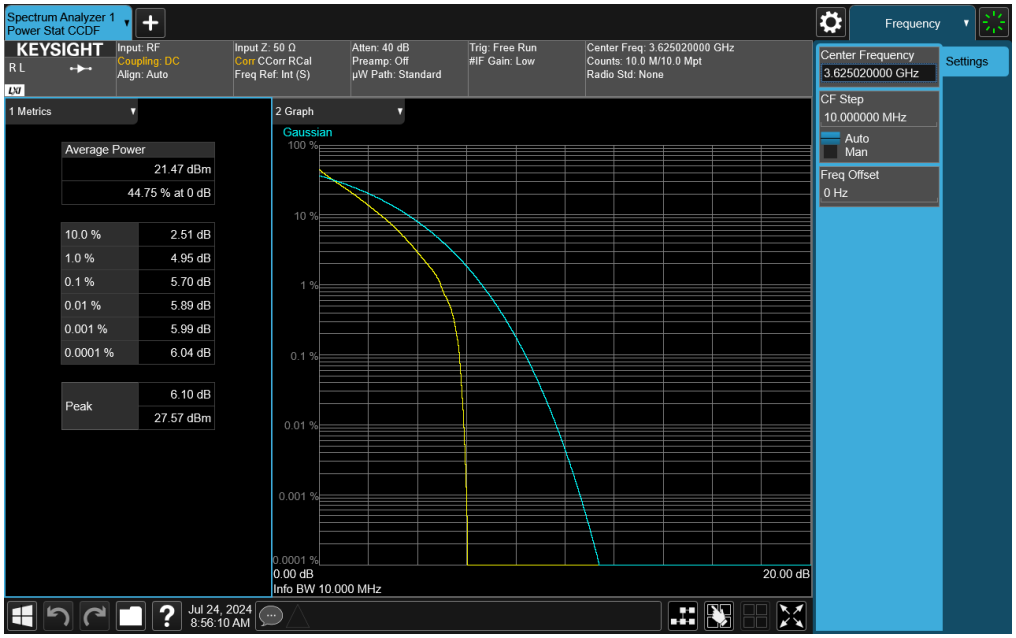
NR Band n48



Plot 7-137. PAR Plot (NR Band n48 - 10MHz DFT-s-OFDM π/2 BPSK)



Plot 7-138. PAR Plot (NR Band n48 - 10MHz DFT-s-OFDM QPSK)

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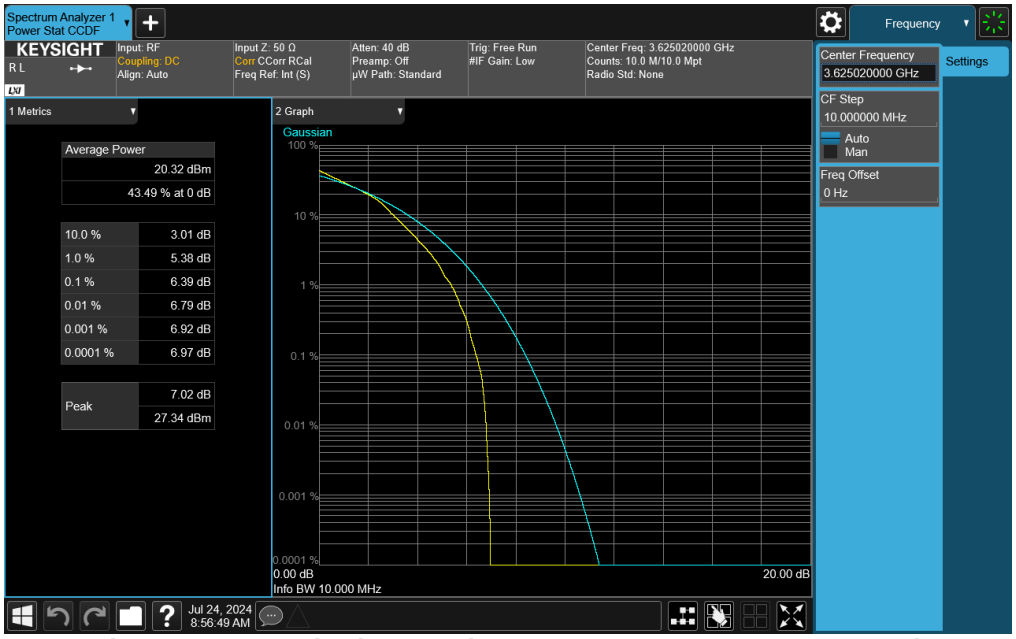
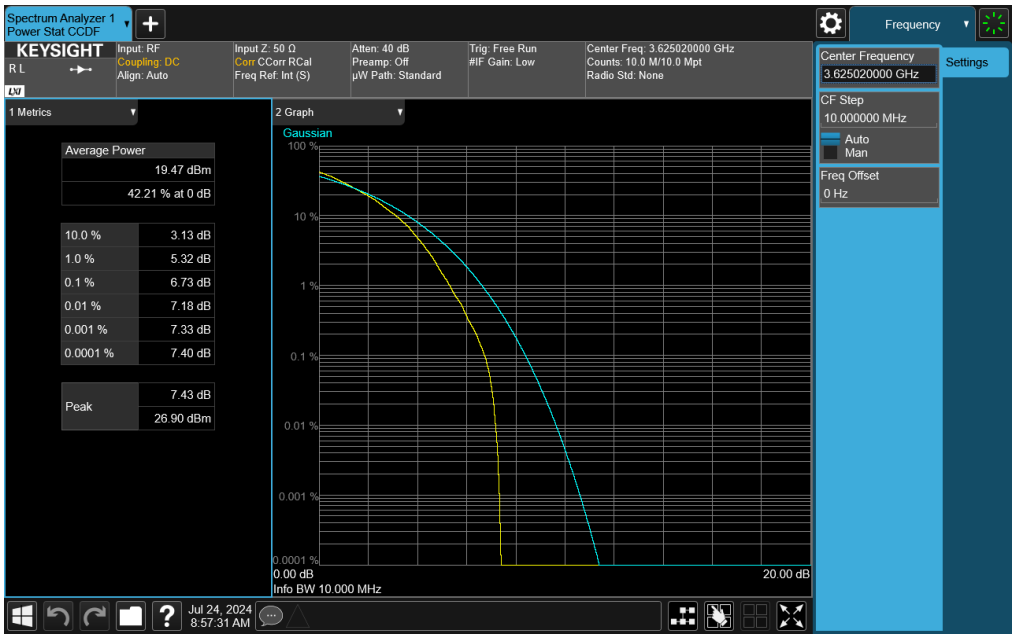


Plot 7-139. PAR Plot (NR Band n48 - 10MHz DFT-s-OFDM 16-QAM)



Plot 7-140. PAR Plot (NR Band n48 - 10MHz DFT-s-OFDM 64-QAM)

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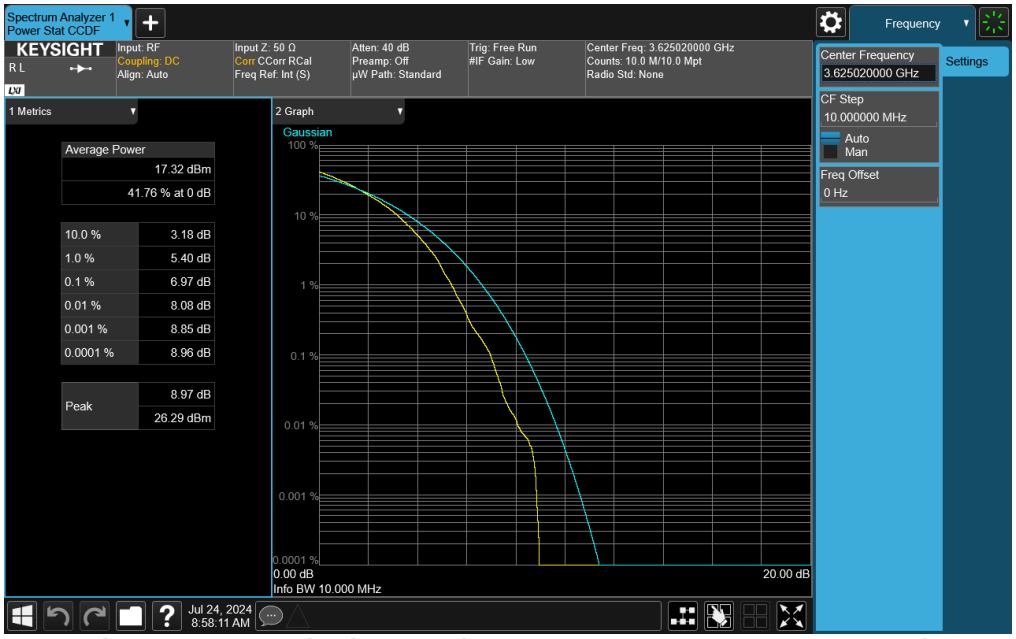
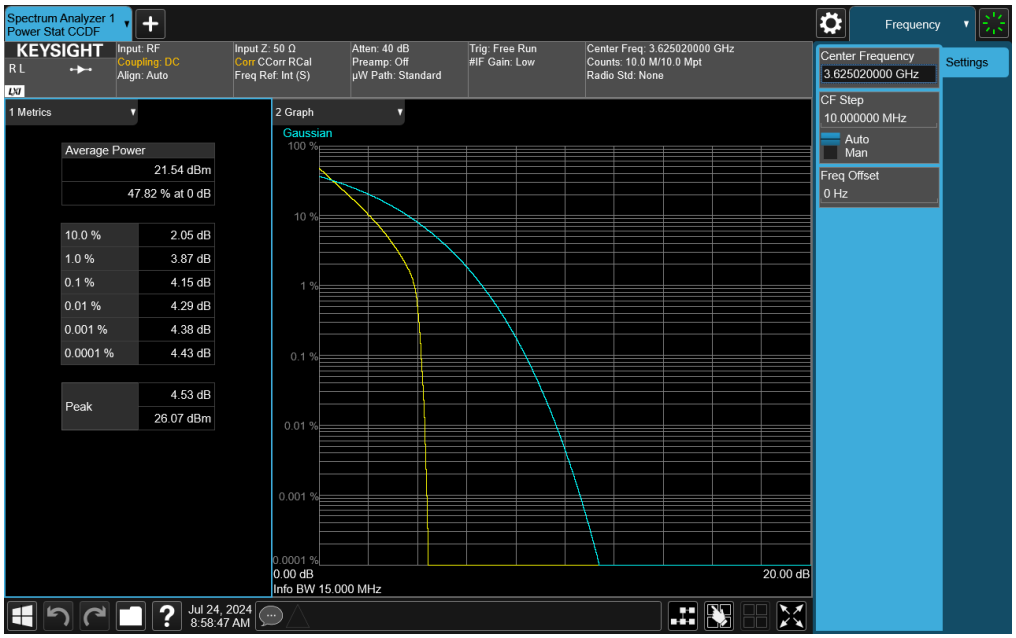


Plot 7-141. PAR Plot (NR Band n48 - 10MHz DFT-s-OFDM 256-QAM)



Plot 7-142. PAR Plot (NR Band n48 - 15MHz DFT-s-OFDM π/2 BPSK)

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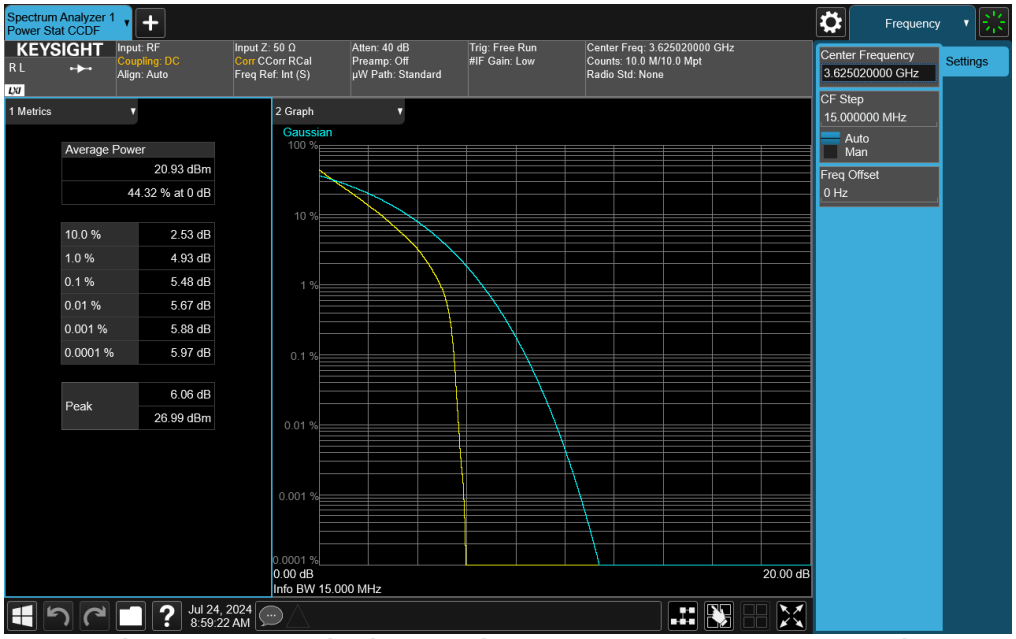
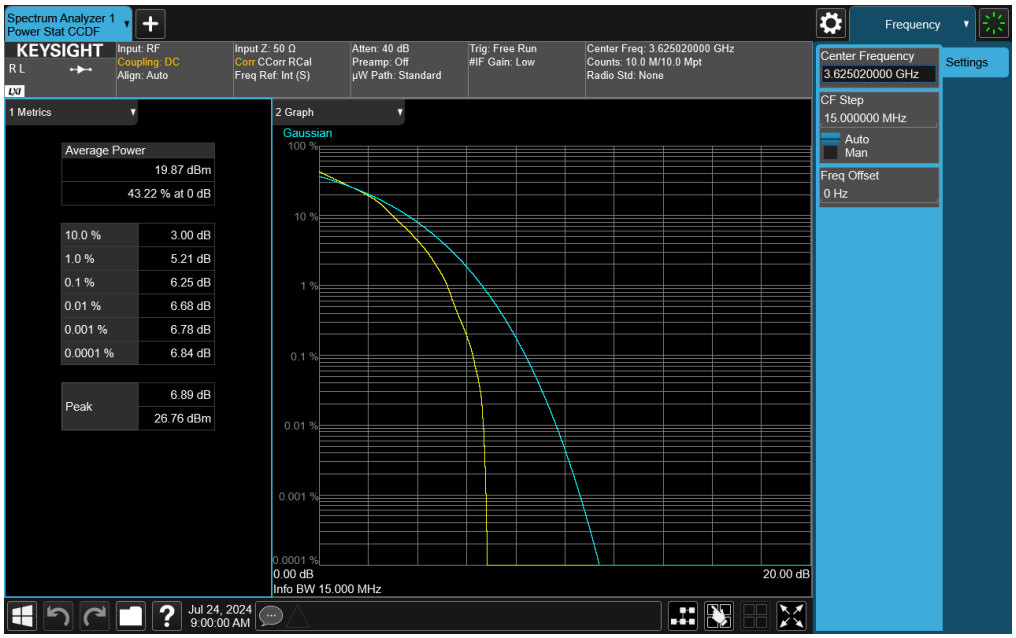


Plot 7-143. PAR Plot (NR Band n48 - 15MHz DFT-s-OFDM QPSK)



Plot 7-144. PAR Plot (NR Band n48 - 15MHz DFT-s-OFDM 16-QAM)

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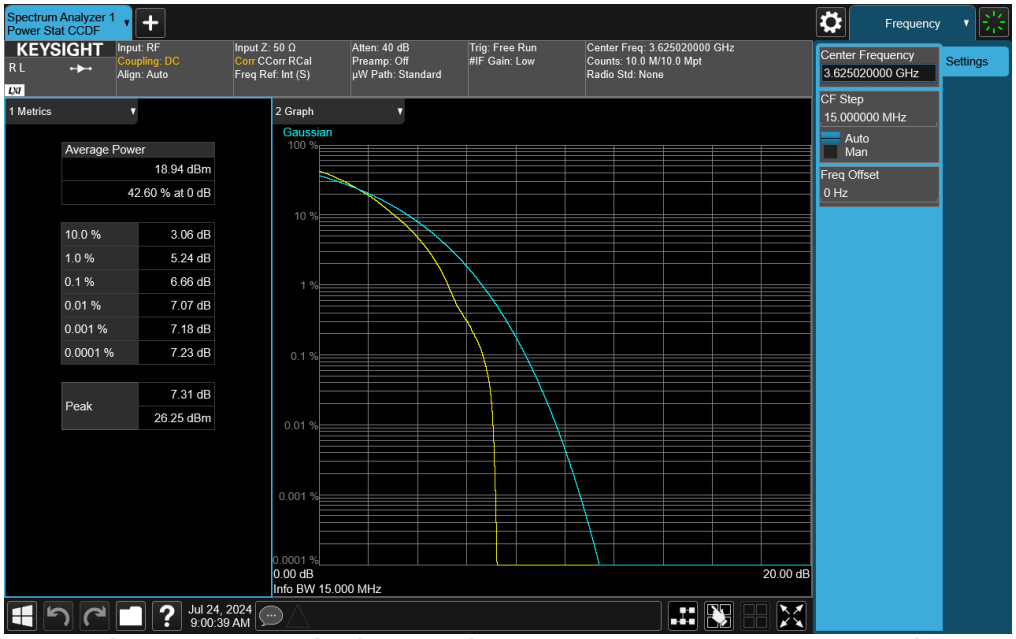
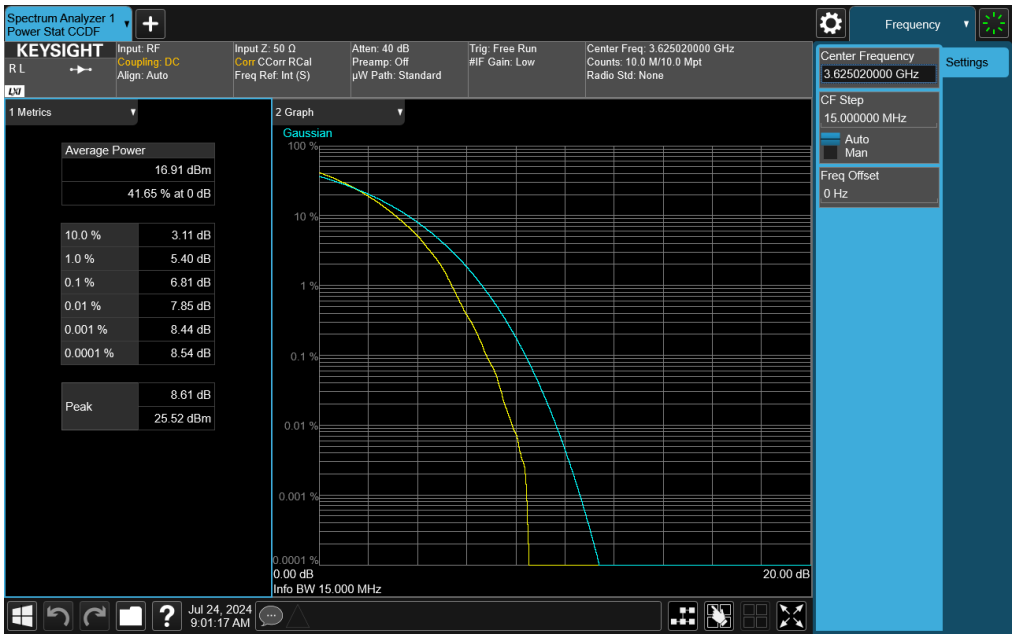


Plot 7-145. PAR Plot (NR Band n48 - 15MHz DFT-s-OFDM 64-QAM)



Plot 7-146. PAR Plot (NR Band n48 - 15MHz DFT-s-OFDM 256-QAM)

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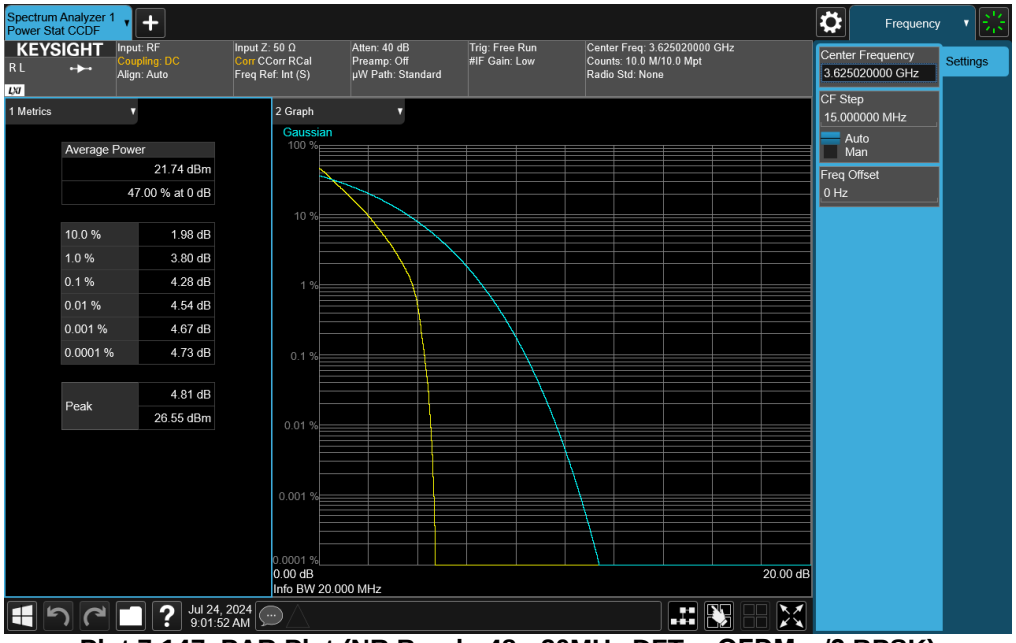
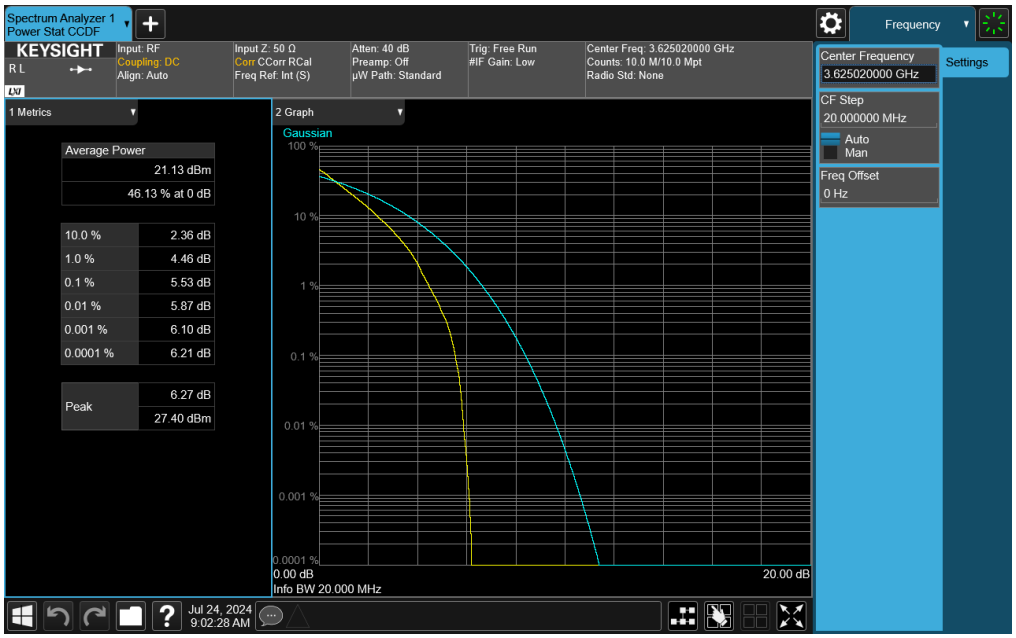


Plot 7-147. PAR Plot (NR Band n48 - 20MHz DFT-s-OFDM π/2 BPSK)



Plot 7-148. PAR Plot (NR Band n48 - 20MHz DFT-s-OFDM QPSK)

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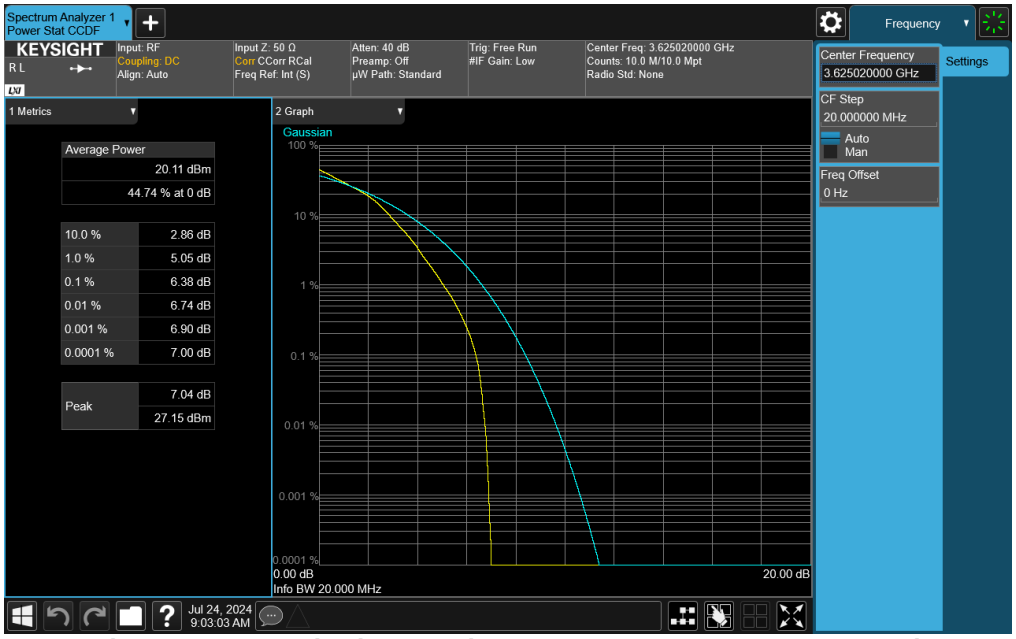
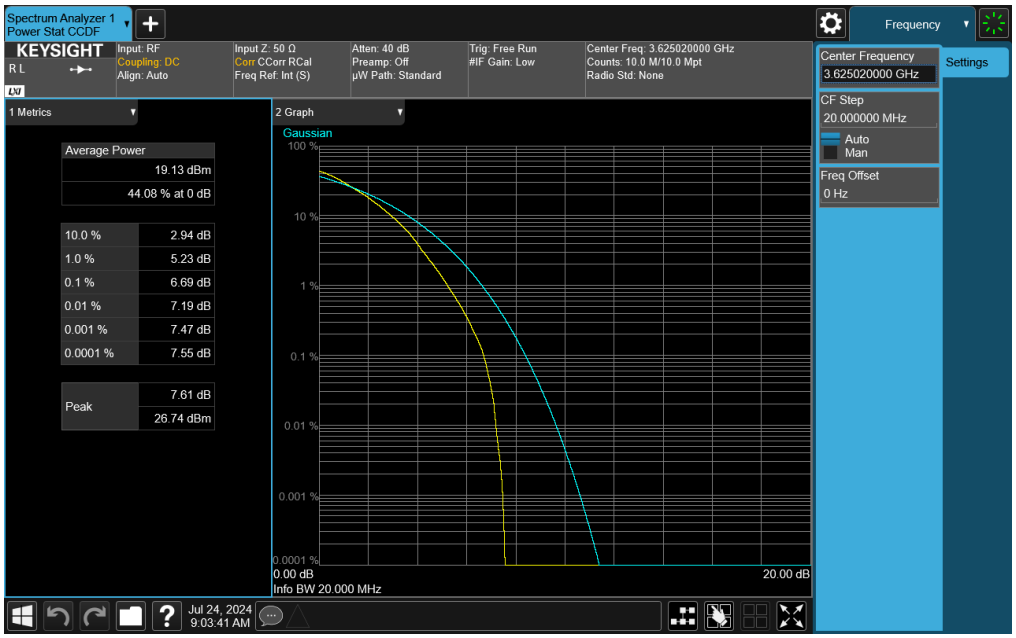


Plot 7-149. PAR Plot (NR Band n48 - 20MHz DFT-s-OFDM 16-QAM)



Plot 7-150. PAR Plot (NR Band n48 - 20MHz DFT-s-OFDM 64-QAM)

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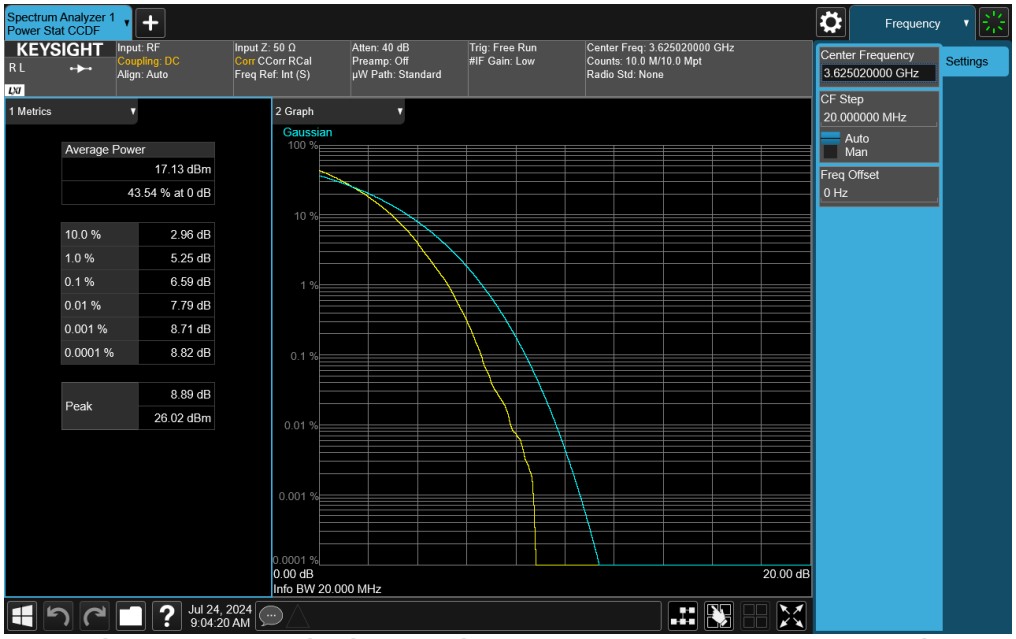
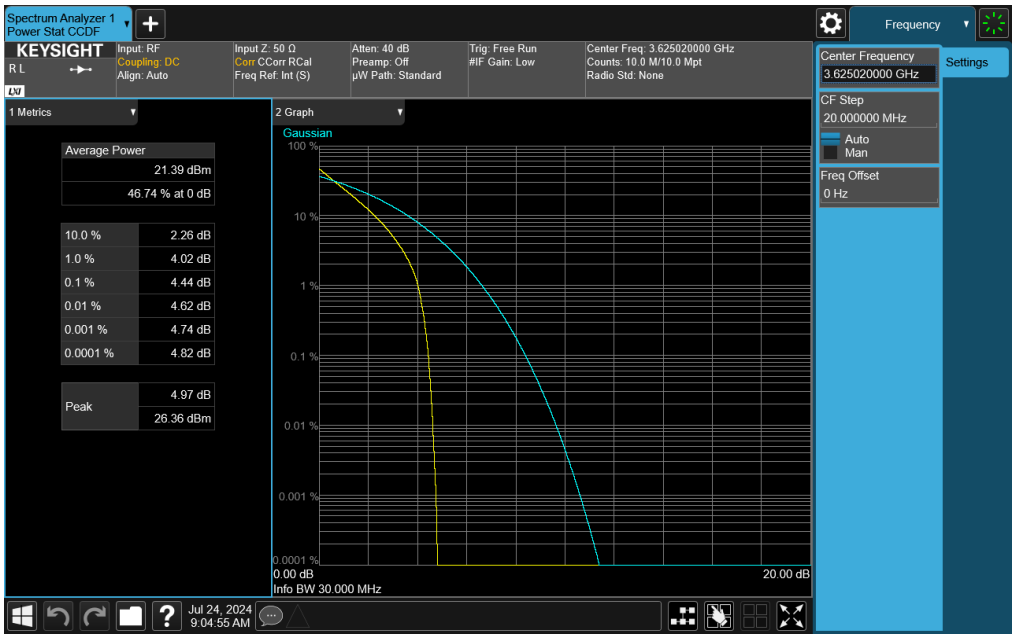


Plot 7-151. PAR Plot (NR Band n48 - 20MHz DFT-s-OFDM 256-QAM)



Plot 7-152. PAR Plot (NR Band n48 - 30MHz DFT-s-OFDM π/2 BPSK)

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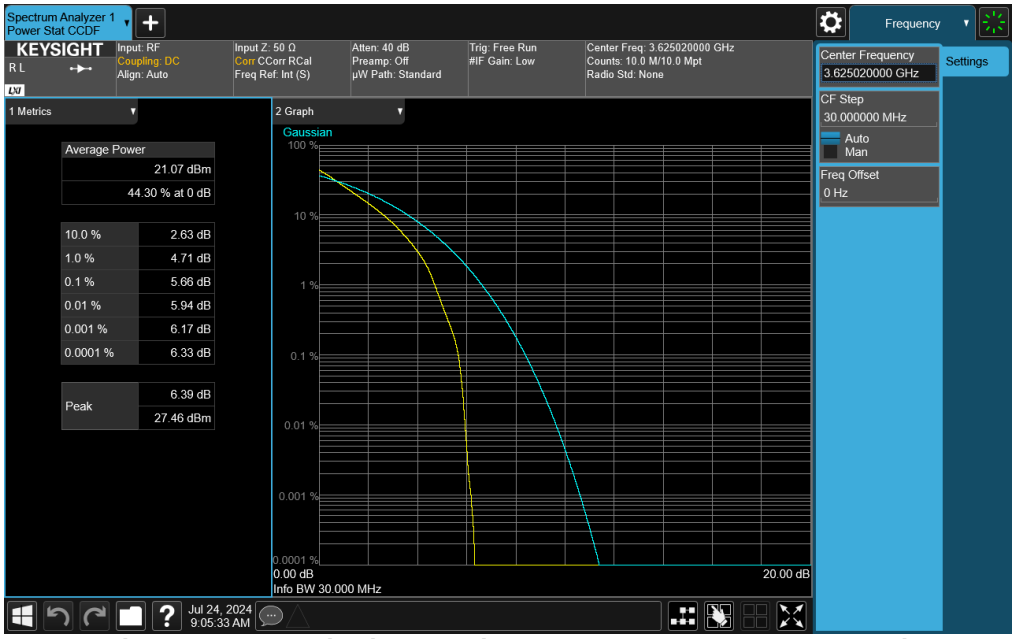
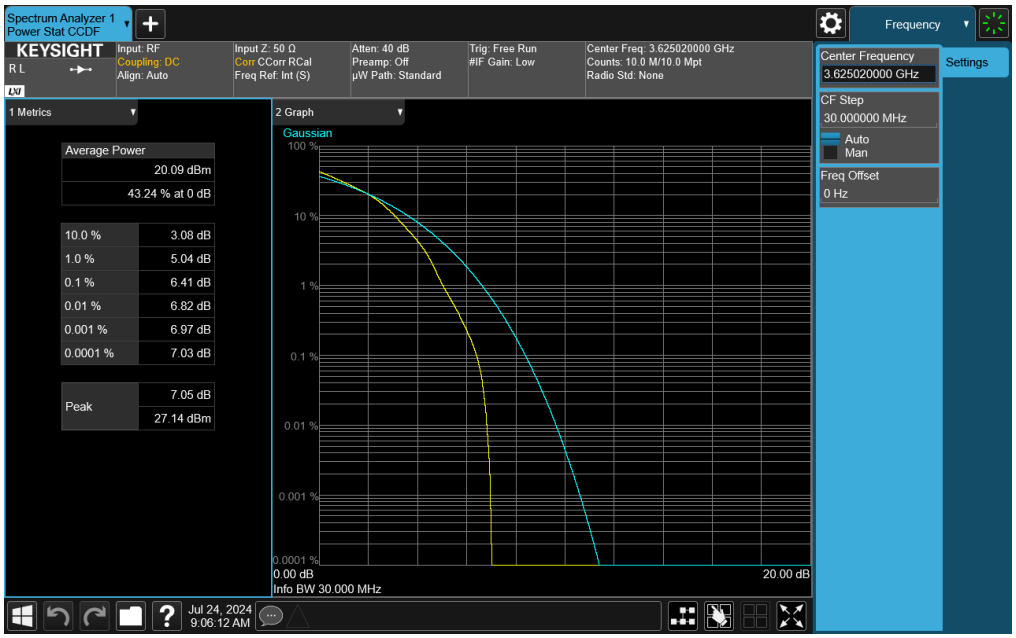


Plot 7-153. PAR Plot (NR Band n48 - 30MHz DFT-s-OFDM QPSK)



Plot 7-154. PAR Plot (NR Band n48 - 30MHz DFT-s-OFDM 16-QAM)

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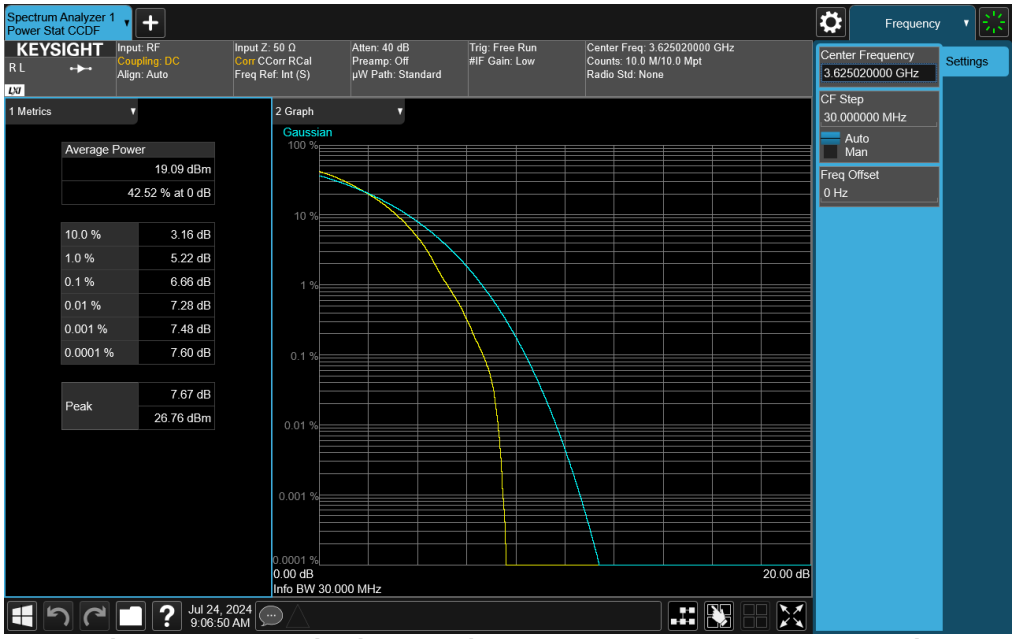
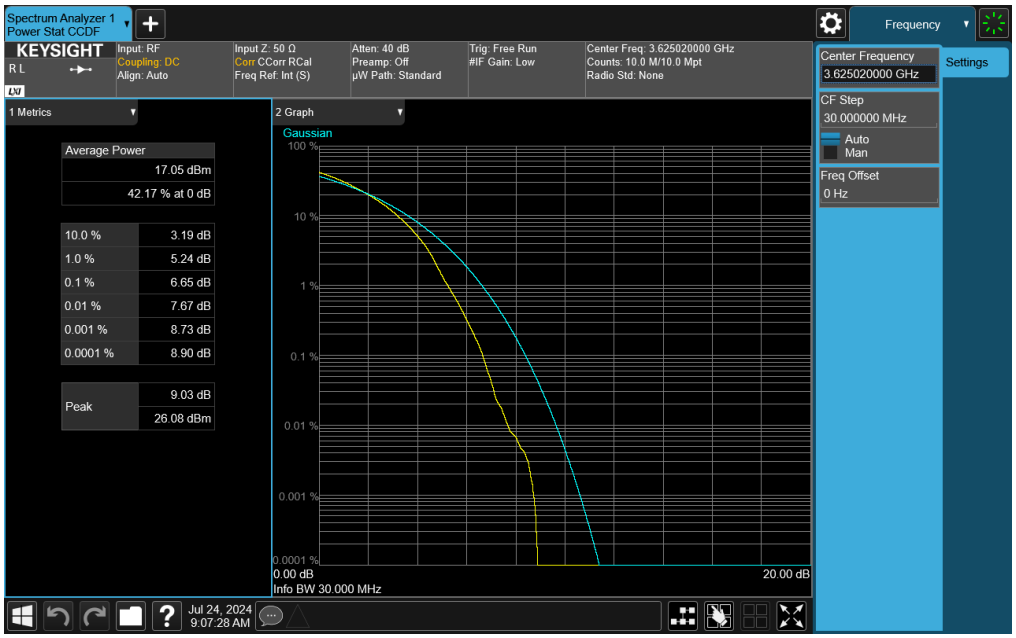


Plot 7-155. PAR Plot (NR Band n48 - 30MHz DFT-s-OFDM 64-QAM)



Plot 7-156. PAR Plot (NR Band n48 - 30MHz DFT-s-OFDM 256-QAM)

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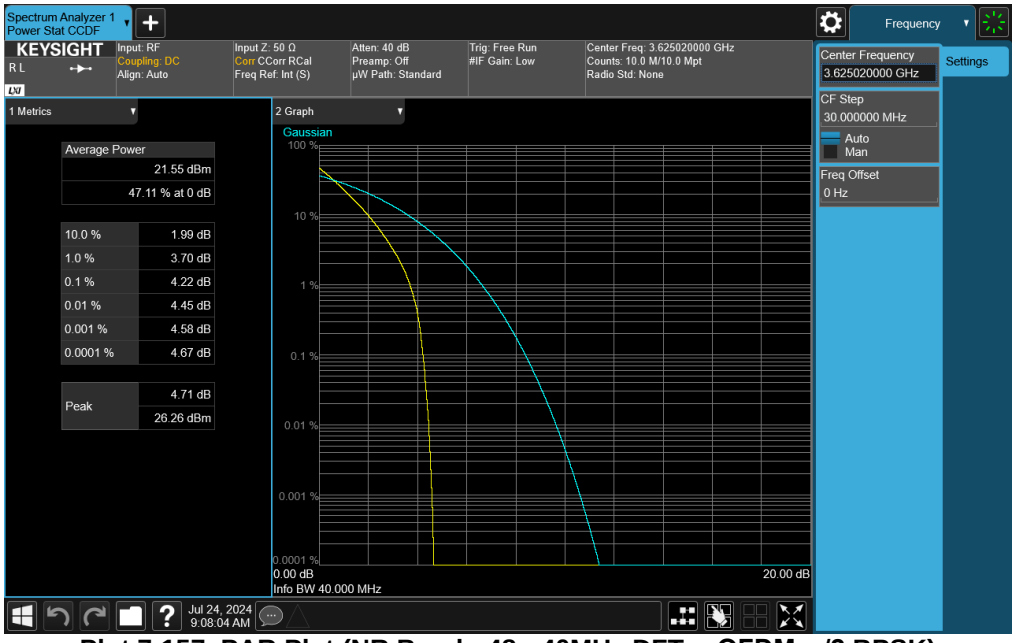
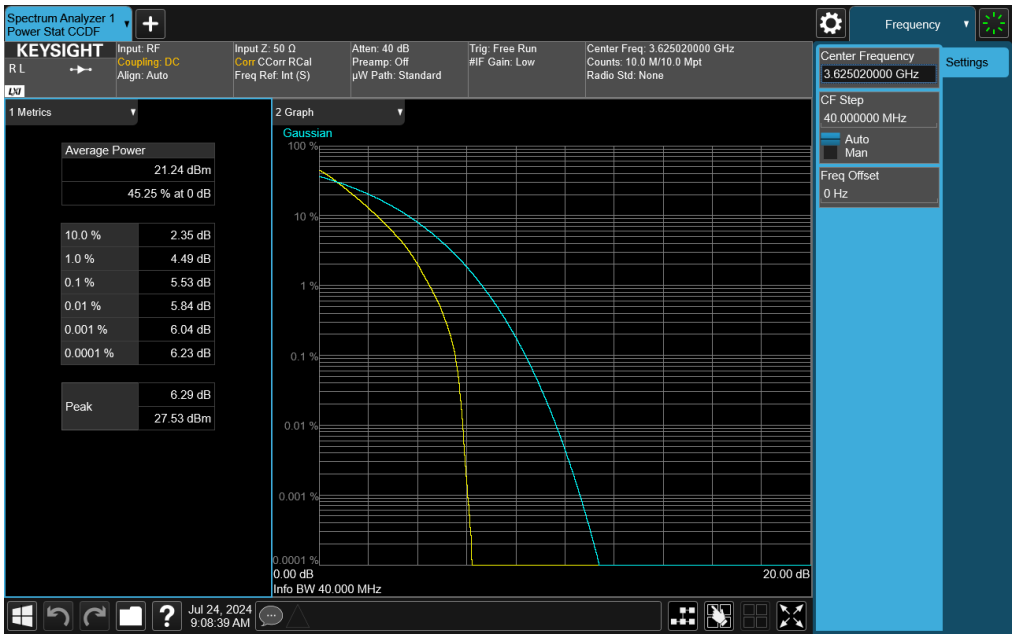


Plot 7-157. PAR Plot (NR Band n48 - 40MHz DFT-s-OFDM π/2 BPSK)



Plot 7-158. PAR Plot (NR Band n48 - 40MHz DFT-s-OFDM QPSK)

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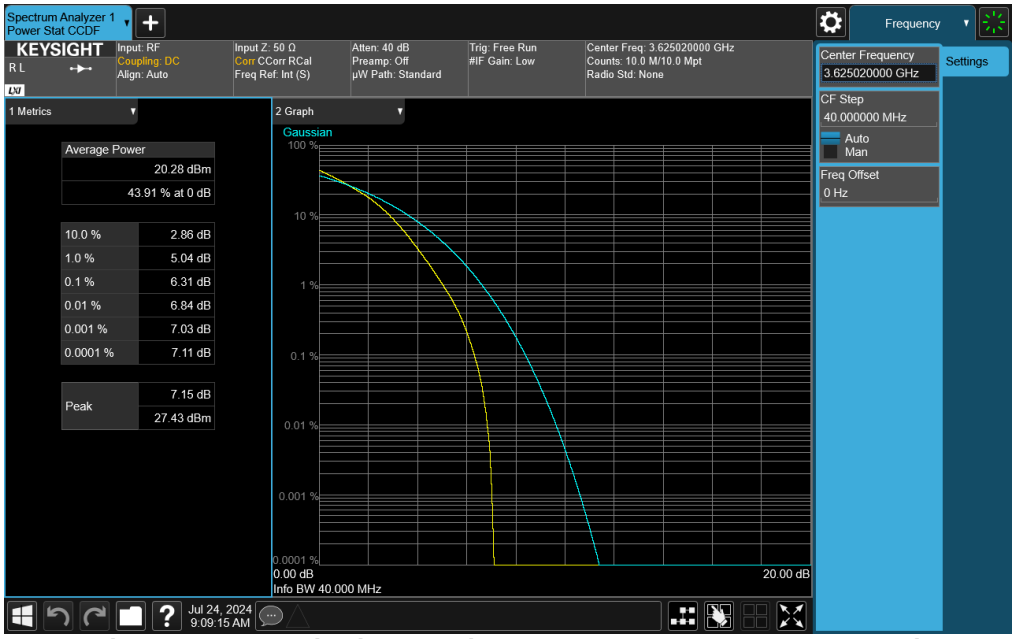
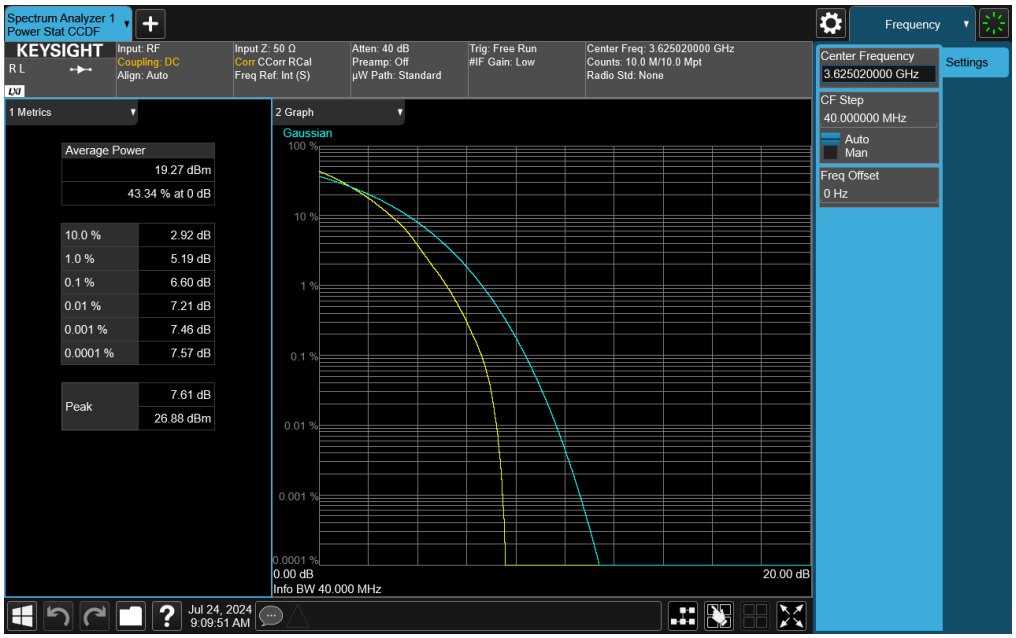


Plot 7-159. PAR Plot (NR Band n48 - 40MHz DFT-s-OFDM 16-QAM)



Plot 7-160. PAR Plot (NR Band n48 - 40MHz DFT-s-OFDM 64-QAM)

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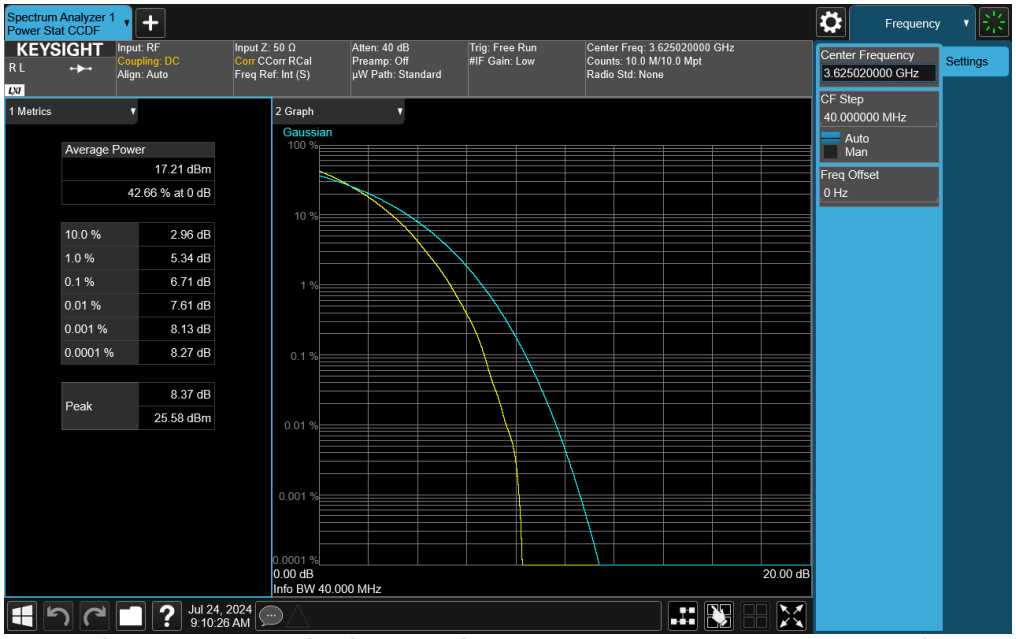

Plot 7-161. PAR Plot (NR Band n48 - 40MHz DFT-s-OFDM 256-QAM)

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7.6 Radiated Power (EIRP)

§96.41(b)

Test Overview

Equivalent Isotropic Radiated Power (EIRP) measurements are calculated by adding highest antenna gain to maximum measured conducted output power. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI C63.26-2015

Test Settings

The relevant equation for determining the EIRP from the conducted RF output power measured is:

EIRP = PMeas – LC + GT

Where:

EIRP = Equivalent Isotropic Radiated Power (expressed in the same units as PMeas, typically dBW or dBm)

PMeas = measured transmitter output power or PSD, in dBW or dBm

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

GT = gain of the transmitting antenna, in dBi (EIRP)

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

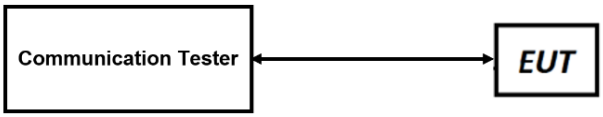

Figure 7-9. LTE EIRP Measurement Setup

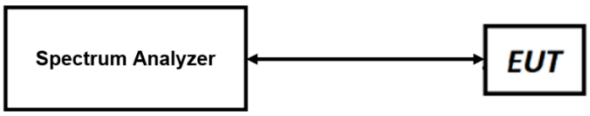

Figure 7-10. FR1 Test Instrument & Measurement Setup

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Test Notes

1) The worst case emissions are reported with the modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

2) This unit was tested with its standard battery.

3) The Level (dBm) readings in the table were taken with a correction table loaded into the base station simulator. The correction table was used to account for the signal attenuation in the connecting cable between the transmitter and antenna.

4) The worst case EIRP shown in this section is found with LTE & NR operating only using 1RB. As such, the EIRP/10MHz and full channel EIRP values will be identical since 1RB is fully contained within all available channel bandwidths for LTE Band 48 (i.e. 5, 10, 15, 20MHz) and NR FR1 Band 48 (i.e. 10, 15, 20, 30, 40MHz).

5) Uplink carrier aggregation for LTE B48 is only supported in this EUT while operating in Power Class 3.

6) For ULCA, conducted power measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.

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Antenna 3a – EIRP

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
5 MHz	QPSK	3552.5	2.00	1 / 24	20.43	22.43	0.175	23.00	-0.57
		3625.0	2.00	1 / 0	20.40	22.40	0.174	23.00	-0.60
		3697.5	2.00	1 / 24	20.50	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3552.5	2.00	1 / 24	19.50	21.50	0.141	23.00	-1.50
	64-QAM	3697.5	2.00	1 / 24	18.50	20.50	0.112	23.00	-2.50
	256-QAM	3552.5	2.00	1 / 0	15.56	17.56	**0.057**	23.00	-5.44
10 MHz	QPSK	3555.0	2.00	1 / 25	20.42	**22.42**	**0.175**	23.00	-0.58
		3625.0	2.00	1 / 0	20.42	**22.42**	**0.175**	23.00	-0.58
		3695.0	2.00	1 / 25	20.19	22.19	0.166	23.00	-0.81
	16-QAM	3695.0	2.00	1 / 0	19.50	21.50	0.141	23.00	-1.50
	64-QAM	3695.0	2.00	1 / 49	18.45	20.45	0.111	23.00	-2.55
	256-QAM	3555.0	2.00	1 / 0	15.58	17.58	**0.057**	23.00	-5.42
15 MHz	QPSK	3557.5	2.00	1 / 74	20.42	22.42	0.175	23.00	-0.58
		3625.0	2.00	1 / 37	20.49	**22.49**	**0.177**	23.00	-0.51
		3692.5	2.00	1 / 0	20.30	22.30	0.170	23.00	-0.70
	16-QAM	3625.0	2.00	1 / 0	19.39	21.39	0.138	23.00	-1.61
	64-QAM	3557.5	2.00	1 / 74	18.45	20.45	0.111	23.00	-2.55
	256-QAM	3625.0	2.00	1 / 74	15.50	17.50	**0.056**	23.00	-5.50
20 MHz	QPSK	3560.0	2.00	1 / 99	20.21	22.21	0.166	23.00	-0.79
		3625.0	2.00	1 / 0	20.41	**22.41**	**0.174**	23.00	-0.59
		3690.0	2.00	1 / 50	20.41	**22.41**	**0.174**	23.00	-0.59
	16-QAM	3560.0	2.00	1 / 0	19.49	21.49	0.141	23.00	-1.51
	64-QAM	3690.0	2.00	1 / 99	18.42	20.42	0.110	23.00	-2.58
	256-QAM	3690.0	2.00	1 / 50	15.60	17.60	**0.058**	23.00	-5.40

Table 7-1. EIRP Data (LTE Band 48)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
10 MHz	π/2 BPSK	3555.0	2.00	1 / 12	20.50	**22.50**	**0.178**	23.00	-0.50
		3625.0	2.00	1 / 22	20.50	**22.50**	**0.178**	23.00	-0.50
		3695.0	2.00	1 / 12	20.49	22.49	0.177	23.00	-0.51
	QPSK	3555.0	2.00	1 / 22	20.32	22.32	0.171	23.00	-0.68
		3625.0	2.00	1 / 22	20.43	22.43	0.175	23.00	-0.57
		3695.0	2.00	1 / 12	20.44	22.44	0.175	23.00	-0.56
	16-QAM	3555.0	2.00	1 / 22	19.49	21.49	0.141	23.00	-1.51
	64-QAM	3695.0	2.00	1 / 1	18.45	20.45	0.111	23.00	-2.55
	256-QAM	3695.0	2.00	1 / 1	15.54	17.54	**0.057**	23.00	-5.46
15 MHz	π/2 BPSK	3557.5	2.00	1 / 18	20.43	22.43	0.175	23.00	-0.57
		3625.0	2.00	1 / 18	20.20	22.20	0.166	23.00	-0.80
		3692.5	2.00	1 / 1	20.46	22.46	0.176	23.00	-0.54
	QPSK	3557.5	2.00	1 / 36	20.43	22.43	0.175	23.00	-0.57
		3625.0	2.00	1 / 18	20.50	**22.50**	**0.178**	23.00	-0.50
		3692.5	2.00	1 / 1	20.33	22.33	0.171	23.00	-0.67
	16-QAM	3557.5	2.00	1 / 1	19.44	21.44	0.139	23.00	-1.56
	64-QAM	3692.5	2.00	1 / 18	18.48	20.48	0.112	23.00	-2.52
	256-QAM	3692.5	2.00	1 / 18	15.53	17.53	**0.057**	23.00	-5.47
20 MHz	π/2 BPSK	3560.0	2.00	1 / 25	20.43	22.43	0.175	23.00	-0.57
		3625.0	2.00	1 / 49	20.11	22.11	0.163	23.00	-0.89
		3690.0	2.00	1 / 25	20.47	22.47	0.177	23.00	-0.53
	QPSK	3560.0	2.00	1 / 1	20.49	22.49	0.177	23.00	-0.51
		3625.0	2.00	1 / 25	20.20	22.20	0.166	23.00	-0.80
		3690.0	2.00	1 / 1	20.50	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3560.0	2.00	1 / 1	19.38	21.38	0.137	23.00	-1.62
	64-QAM	3625.0	2.00	1 / 1	18.43	20.43	0.110	23.00	-2.57
	256-QAM	3690.0	2.00	1 / 1	15.58	17.58	**0.057**	23.00	-5.42
30 MHz	π/2 BPSK	3565.0	2.00	1 / 1	20.50	**22.50**	**0.178**	23.00	-0.50
		3625.0	2.00	1 / 36	20.36	22.36	0.172	23.00	-0.64
		3685.0	2.00	1 / 76	20.23	22.23	0.167	23.00	-0.77
	QPSK	3565.0	2.00	1 / 1	20.45	22.45	0.176	23.00	-0.55
		3625.0	2.00	1 / 76	20.45	22.45	0.176	23.00	-0.55
		3685.0	2.00	1 / 1	20.25	22.25	0.168	23.00	-0.75
	16-QAM	3685.0	2.00	1 / 76	19.50	21.50	0.141	23.00	-1.50
	64-QAM	3625.0	2.00	1 / 1	18.55	20.55	0.114	23.00	-2.45
	256-QAM	3565.0	2.00	1 / 76	15.59	17.59	**0.057**	23.00	-5.41
40 MHz	π/2 BPSK	3570.0	2.00	1 / 1	20.33	22.33	0.171	23.00	-0.67
		3625.0	2.00	1 / 104	20.47	22.47	0.177	23.00	-0.53
		3680.0	2.00	1 / 1	20.45	22.45	0.176	23.00	-0.55
	QPSK	3570.0	2.00	1 / 104	20.50	**22.50**	**0.178**	23.00	-0.50
		3625.0	2.00	1 / 1	20.49	22.49	0.177	23.00	-0.51
		3680.0	2.00	1 / 104	20.21	22.21	0.166	23.00	-0.79
	16-QAM	3680.0	2.00	1 / 104	19.48	21.48	0.141	23.00	-1.52
	64-QAM	3680.0	2.00	1 / 50	18.40	20.40	0.110	23.00	-2.60
	256-QAM	3570.0	2.00	1 / 104	15.60	17.60	**0.058**	23.00	-5.40

Table 7-2. EIRP Data (NR Band n48)

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Power State	Band	Bandwidth (PCC + SCC)	PCC					SCC					ULCA Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
			Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset						
Max	LTE B48	20MHz + 5MHz	QPSK	55340	3560.0	1	99	QPSK	55457	3571.7	1	0	20.12	2.00	22.12	0.163	23.00	-0.88
				55990	3625.0	1	99		56107	3636.7	1	0	20.50	2.00	22.50	0.178	23.00	-0.50
				56640	3690.0	1	0		56523	3678.3	1	24	20.09	2.00	22.09	0.162	23.00	-0.91
			QPSK	55990	3625	100	0	QPSK	56107	3636.7	25	0	20.31	2.00	22.31	0.170	23.00	-0.69
			16-QAM	55990	3625	100	0	16-QAM	56107	3636.7	25	0	20.23	2.00	22.23	0.167	23.00	-0.77
			64-QAM	55990	3625	100	0	64-QAM	56107	3636.7	25	0	20.19	2.00	22.19	0.166	23.00	-0.81
			256-QAM	55990	3625	100	0	256-QAM	56107	3636.7	25	0	20.21	2.00	22.21	0.166	23.00	-0.79
Max	LTE B48	20MHz + 10MHz	QPSK	55340	3560.0	1	99	QPSK	55484	3574.4	1	0	19.35	2.00	21.35	0.136	23.00	-1.65
				55990	3625.0	1	99		56134	3639.4	1	0	20.43	2.00	22.43	0.175	23.00	-0.57
				56640	3690.0	1	0		56496	3675.6	1	49	19.42	2.00	21.42	0.139	23.00	-1.58
			QPSK	55990	3625	100	0	QPSK	56134	3639.4	50	0	20.36	2.00	22.36	0.172	23.00	-0.64
			16-QAM	55990	3625	100	0	16-QAM	56134	3639.4	50	0	20.31	2.00	22.31	0.170	23.00	-0.69
			64-QAM	55990	3625	100	0	64-QAM	56134	3639.4	50	0	20.21	2.00	22.21	0.166	23.00	-0.79
			256-QAM	55990	3625	100	0	256-QAM	56134	3639.4	50	0	20.08	2.00	22.08	0.161	23.00	-0.92
Max	LTE B48	20MHz + 15MHz	QPSK	55340	3560.0	1	99	QPSK	55511	3577.1	1	0	19.52	2.00	21.52	0.142	23.00	-1.48
				55990	3625.0	1	99		56161	3642.1	1	0	20.48	2.00	22.48	0.177	23.00	-0.52
				56640	3690.0	1	0		56469	3672.9	1	74	19.48	2.00	21.48	0.141	23.00	-1.52
			QPSK	55990	3625	100	0	QPSK	56161	3642.1	75	0	20.12	2.00	22.12	0.163	23.00	-0.88
			16-QAM	55990	3625	100	0	16-QAM	56161	3642.1	75	0	20.19	2.00	22.19	0.166	23.00	-0.81
			64-QAM	55990	3625	100	0	64-QAM	56161	3642.1	75	0	20.09	2.00	22.09	0.162	23.00	-0.91
			256-QAM	55990	3625	100	0	256-QAM	56161	3642.1	75	0	20.08	2.00	22.08	0.161	23.00	-0.92
Max	LTE B48	20MHz + 20MHz	QPSK	55340	3560.0	1	99	QPSK	55538	3579.8	1	0	20.05	2.00	22.05	0.160	23.00	-0.95
				55990	3625.0	1	99		56188	3644.8	1	0	20.47	2.00	22.47	0.177	23.00	-0.53
				56640	3690.0	1	0		56442	3670.2	1	99	20.16	2.00	22.16	0.164	23.00	-0.84
			QPSK	55990	3625	100	0	QPSK	56188	3644.8	100	0	20.25	2.00	22.25	0.168	23.00	-0.75
			16-QAM	55990	3625	100	0	16-QAM	56188	3644.8	100	0	20.19	2.00	22.19	0.166	23.00	-0.81
			64-QAM	55990	3625	100	0	64-QAM	56188	3644.8	100	0	20.16	2.00	22.16	0.164	23.00	-0.84
			256-QAM	55990	3625	100	0	256-QAM	56188	3644.8	100	0	20.09	2.00	22.09	0.162	23.00	-0.91

Table 7-3. EIRP Data (ULCA LTE Band 48)

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Antenna 2 – EIRP

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
5 MHz	QPSK	3552.5	1.60	1 / 24	20.75	22.35	0.172	23.00	-0.65
		3625.0	1.60	1 / 24	20.84	22.44	0.175	23.00	-0.56
		3697.5	1.60	1 / 24	20.89	**22.49**	**0.177**	23.00	-0.51
	16-QAM	3625.0	1.60	1 / 0	19.92	21.52	0.142	23.00	-1.48
	64-QAM	3625.0	1.60	1 / 12	18.91	20.51	0.112	23.00	-2.49
	256-QAM	3552.5	1.60	1 / 0	15.98	17.58	**0.057**	23.00	-5.42
10 MHz	QPSK	3555.0	1.60	1 / 0	20.77	22.37	0.173	23.00	-0.63
		3625.0	1.60	1 / 0	20.89	22.49	0.177	23.00	-0.51
		3695.0	1.60	1 / 49	20.90	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3695.0	1.60	1 / 25	19.90	21.50	0.141	23.00	-1.50
	64-QAM	3625.0	1.60	1 / 49	18.78	20.38	0.109	23.00	-2.62
	256-QAM	3555.0	1.60	1 / 0	16.03	17.63	**0.058**	23.00	-5.37
15 MHz	QPSK	3557.5	1.60	1 / 0	20.85	**22.45**	**0.176**	23.00	-0.55
		3625.0	1.60	1 / 37	20.73	22.33	0.171	23.00	-0.67
		3692.5	1.60	1 / 74	20.78	22.38	0.173	23.00	-0.62
	16-QAM	3625.0	1.60	1 / 0	19.89	21.49	0.141	23.00	-1.51
	64-QAM	3692.5	1.60	1 / 37	18.87	20.47	0.111	23.00	-2.53
	256-QAM	3557.5	1.60	1 / 0	16.01	17.61	**0.058**	23.00	-5.39
20 MHz	QPSK	3560.0	1.60	1 / 0	20.78	22.38	0.173	23.00	-0.62
		3625.0	1.60	1 / 50	20.87	**22.47**	**0.177**	23.00	-0.53
		3690.0	1.60	1 / 0	20.56	22.16	0.164	23.00	-0.84
	16-QAM	3690.0	1.60	1 / 99	19.87	21.47	0.140	23.00	-1.53
	64-QAM	3690.0	1.60	1 / 50	18.87	20.47	0.111	23.00	-2.53
	256-QAM	3560.0	1.60	1 / 99	16.00	17.60	**0.058**	23.00	-5.40

Table 7-4. EIRP Data (LTE Band 48)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
10 MHz	π/2 BPSK	3555.0	1.60	1 / 1	20.88	22.48	0.177	23.00	-0.52
		3625.0	1.60	1 / 1	20.80	22.40	0.174	23.00	-0.60
		3695.0	1.60	1 / 12	20.77	22.37	0.173	23.00	-0.63
	QPSK	3555.0	1.60	1 / 12	20.90	**22.50**	**0.178**	23.00	-0.50
		3625.0	1.60	1 / 22	20.76	22.36	0.172	23.00	-0.64
		3695.0	1.60	1 / 1	20.54	22.14	0.164	23.00	-0.86
	16-QAM	3555.0	1.60	1 / 22	19.86	21.46	0.140	23.00	-1.54
	64-QAM	3625.0	1.60	1 / 1	18.91	20.51	0.112	23.00	-2.49
	256-QAM	3555.0	1.60	1 / 12	15.94	17.54	**0.057**	23.00	-5.46
15 MHz	π/2 BPSK	3557.5	1.60	1 / 1	20.86	22.46	0.176	23.00	-0.54
		3625.0	1.60	1 / 36	20.84	22.44	0.175	23.00	-0.56
		3692.5	1.60	1 / 1	20.90	**22.50**	**0.178**	23.00	-0.50
	QPSK	3557.5	1.60	1 / 36	20.62	22.22	0.167	23.00	-0.78
		3625.0	1.60	1 / 36	20.77	22.37	0.173	23.00	-0.63
		3692.5	1.60	1 / 36	20.89	22.49	0.177	23.00	-0.51
	16-QAM	3625.0	1.60	1 / 18	19.90	21.50	0.141	23.00	-1.50
	64-QAM	3625.0	1.60	1 / 1	18.89	20.49	0.112	23.00	-2.51
	256-QAM	3625.0	1.60	1 / 18	15.96	17.56	**0.057**	23.00	-5.44
20 MHz	π/2 BPSK	3560.0	1.60	1 / 49	20.76	22.36	0.172	23.00	-0.64
		3625.0	1.60	1 / 25	20.89	22.49	0.177	23.00	-0.51
		3690.0	1.60	1 / 1	20.86	22.46	0.176	23.00	-0.54
	QPSK	3560.0	1.60	1 / 49	20.86	22.46	0.176	23.00	-0.54
		3625.0	1.60	1 / 49	20.90	**22.50**	**0.178**	23.00	-0.50
		3690.0	1.60	1 / 25	20.90	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3690.0	1.60	1 / 1	19.79	21.39	0.138	23.00	-1.61
	64-QAM	3625.0	1.60	1 / 1	18.92	20.52	0.113	23.00	-2.48
	256-QAM	3690.0	1.60	1 / 49	15.98	17.58	**0.057**	23.00	-5.42
30 MHz	π/2 BPSK	3565.0	1.60	1 / 36	20.55	22.15	0.164	23.00	-0.85
		3625.0	1.60	1 / 36	20.89	22.49	0.177	23.00	-0.51
		3685.0	1.60	1 / 1	20.90	**22.50**	**0.178**	23.00	-0.50
	QPSK	3565.0	1.60	1 / 1	20.90	**22.50**	**0.178**	23.00	-0.50
		3625.0	1.60	1 / 36	20.89	22.49	0.177	23.00	-0.51
		3685.0	1.60	1 / 36	20.88	22.48	0.177	23.00	-0.52
	16-QAM	3625.0	1.60	1 / 76	19.92	21.52	0.142	23.00	-1.48
	64-QAM	3625.0	1.60	1 / 76	18.91	20.51	0.112	23.00	-2.49
	256-QAM	3565.0	1.60	1 / 36	15.97	17.57	**0.057**	23.00	-5.43
40 MHz	π/2 BPSK	3570.0	1.60	1 / 1	20.90	**22.50**	**0.178**	23.00	-0.50
		3625.0	1.60	1 / 50	20.56	22.16	0.164	23.00	-0.84
		3680.0	1.60	1 / 50	20.84	22.44	0.175	23.00	-0.56
	QPSK	3570.0	1.60	1 / 1	20.90	**22.50**	**0.178**	23.00	-0.50
		3625.0	1.60	1 / 1	20.86	22.46	0.176	23.00	-0.54
		3680.0	1.60	1 / 1	20.75	22.35	0.172	23.00	-0.65
	16-QAM	3680.0	1.60	1 / 50	19.85	21.45	0.140	23.00	-1.55
	64-QAM	3570.0	1.60	1 / 104	18.90	20.50	0.112	23.00	-2.50
	256-QAM	3570.0	1.60	1 / 104	16.04	17.64	**0.058**	23.00	-5.36

Table 7-5. EIRP Data (NR Band n48)

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Power State	Band	Bandwidth (PCC + SCC)	PCC					SCC					ULCA Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
			Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset						
Max	LTE B48	20MHz + 5MHz	QPSK	55340	3560.0	1	99	QPSK	55457	3571.7	1	0	18.22	1.60	19.82	0.096	23.00	-3.18
				55990	3625.0	1	99		56107	3636.7	1	0	20.86	1.60	22.46	0.176	23.00	-0.54
				56640	3690.0	1	0		56523	3678.3	1	24	17.46	1.60	19.06	0.081	23.00	-3.94
			QPSK	55990	3625	100	0	QPSK	56107	3636.7	25	0	19.24	1.60	20.84	0.121	23.00	-2.16
			16-QAM	55990	3625	100	0	16-QAM	56107	3636.7	25	0	19.23	1.60	20.83	0.121	23.00	-2.17
			64-QAM	55990	3625	100	0	64-QAM	56107	3636.7	25	0	19.18	1.60	20.78	0.120	23.00	-2.22
			256-QAM	55990	3625	100	0	256-QAM	56107	3636.7	25	0	19.07	1.60	20.67	0.117	23.00	-2.33
Max	LTE B48	20MHz + 10MHz	QPSK	55340	3560.0	1	99	QPSK	55484	3574.4	1	0	17.12	1.60	18.72	0.074	23.00	-4.28
				55990	3625.0	1	99		56134	3639.4	1	0	20.88	1.60	22.48	0.177	23.00	-0.52
				56640	3690.0	1	0		56496	3675.6	1	49	17.06	1.60	18.66	0.073	23.00	-4.34
			QPSK	55990	3625	100	0	QPSK	56134	3639.4	50	0	18.74	1.60	20.34	0.108	23.00	-2.66
			16-QAM	55990	3625	100	0	16-QAM	56134	3639.4	50	0	18.62	1.60	20.22	0.105	23.00	-2.78
			64-QAM	55990	3625	100	0	64-QAM	56134	3639.4	50	0	18.64	1.60	20.24	0.106	23.00	-2.76
			256-QAM	55990	3625	100	0	256-QAM	56134	3639.4	50	0	18.54	1.60	20.14	0.103	23.00	-2.86
Max	LTE B48	20MHz + 15MHz	QPSK	55340	3560.0	1	99	QPSK	55511	3577.1	1	0	17.16	1.60	18.76	0.075	23.00	-4.24
				55990	3625.0	1	99		56161	3642.1	1	0	20.79	1.60	22.39	0.173	23.00	-0.61
				56640	3690.0	1	0		56469	3672.9	1	74	17.23	1.60	18.83	0.076	23.00	-4.17
			QPSK	55990	3625	100	0	QPSK	56161	3642.1	75	0	18.62	1.60	20.22	0.105	23.00	-2.78
			16-QAM	55990	3625	100	0	16-QAM	56161	3642.1	75	0	18.64	1.60	20.24	0.106	23.00	-2.76
			64-QAM	55990	3625	100	0	64-QAM	56161	3642.1	75	0	18.32	1.60	19.92	0.098	23.00	-3.08
			256-QAM	55990	3625	100	0	256-QAM	56161	3642.1	75	0	18.41	1.60	20.01	0.100	23.00	-2.99
Max	LTE B48	20MHz + 20MHz	QPSK	55340	3560.0	1	99	QPSK	55538	3579.8	1	0	18.69	1.60	20.29	0.107	23.00	-2.71
				55990	3625.0	1	99		56188	3644.8	1	0	20.82	1.60	22.42	0.175	23.00	-0.58
				56640	3690.0	1	0		56442	3670.2	1	99	18.52	1.60	20.12	0.103	23.00	-2.88
			QPSK	55990	3625	100	0	QPSK	56188	3644.8	100	0	18.65	1.60	20.25	0.106	23.00	-2.75
			16-QAM	55990	3625	100	0	16-QAM	56188	3644.8	100	0	18.48	1.60	20.08	0.102	23.00	-2.92
			64-QAM	55990	3625	100	0	64-QAM	56188	3644.8	100	0	18.56	1.60	20.16	0.104	23.00	-2.84
			256-QAM	55990	3625	100	0	256-QAM	56188	3644.8	100	0	18.55	1.60	20.15	0.104	23.00	-2.85

Table 7-6. EIRP Data (ULCA LTE Band 48)

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Antenna 4 – EIRP

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
5 MHz	QPSK	3552.5	0.70	1 / 12	21.71	**22.41**	**0.174**	23.00	-0.59
		3625.0	0.70	1 / 12	21.61	22.31	0.170	23.00	-0.69
		3697.5	0.70	1 / 24	21.52	22.22	0.167	23.00	-0.78
	16-QAM	3697.5	0.70	1 / 12	20.81	21.51	0.142	23.00	-1.49
	64-QAM	3697.5	0.70	1 / 12	19.80	20.50	0.112	23.00	-2.50
	256-QAM	3625.0	0.70	1 / 24	16.92	17.62	**0.058**	23.00	-5.38
10 MHz	QPSK	3555.0	0.70	1 / 25	21.56	22.26	0.168	23.00	-0.74
		3625.0	0.70	1 / 25	21.71	22.41	0.174	23.00	-0.59
		3695.0	0.70	1 / 25	21.80	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3625.0	0.70	1 / 49	20.75	21.45	0.140	23.00	-1.55
	64-QAM	3555.0	0.70	1 / 0	19.75	20.45	0.111	23.00	-2.55
	256-QAM	3625.0	0.70	1 / 25	16.88	17.58	**0.057**	23.00	-5.42
15 MHz	QPSK	3557.5	0.70	1 / 0	21.80	**22.50**	**0.178**	23.00	-0.50
		3625.0	0.70	1 / 74	21.76	22.46	0.176	23.00	-0.54
		3692.5	0.70	1 / 74	21.63	22.33	0.171	23.00	-0.67
	16-QAM	3557.5	0.70	1 / 74	20.83	21.53	0.142	23.00	-1.47
	64-QAM	3557.5	0.70	1 / 37	19.81	20.51	0.112	23.00	-2.49
	256-QAM	3625.0	0.70	1 / 37	16.85	17.55	**0.057**	23.00	-5.45
20 MHz	QPSK	3560.0	0.70	1 / 99	21.75	22.45	0.176	23.00	-0.55
		3625.0	0.70	1 / 0	21.80	**22.50**	**0.178**	23.00	-0.50
		3690.0	0.70	1 / 50	21.68	22.38	0.173	23.00	-0.62
	16-QAM	3690.0	0.70	1 / 0	20.70	21.40	0.138	23.00	-1.60
	64-QAM	3560.0	0.70	1 / 0	19.75	20.45	0.111	23.00	-2.55
	256-QAM	3625.0	0.70	1 / 50	16.89	17.59	**0.057**	23.00	-5.41

Table 7-7. EIRP Data (LTE Band 48)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
10 MHz	π/2 BPSK	3555.0	0.70	1 / 1	21.54	22.24	0.167	23.00	-0.76
		3625.0	0.70	1 / 22	21.50	22.20	0.166	23.00	-0.80
		3695.0	0.70	1 / 1	21.69	22.39	0.173	23.00	-0.61
	QPSK	3555.0	0.70	1 / 1	21.80	**22.50**	**0.178**	23.00	-0.50
		3625.0	0.70	1 / 1	21.74	22.44	0.175	23.00	-0.56
		3695.0	0.70	1 / 12	21.75	22.45	0.176	23.00	-0.55
	16-QAM	3695.0	0.70	1 / 1	20.79	21.49	0.141	23.00	-1.51
	64-QAM	3695.0	0.70	1 / 1	19.79	20.49	0.112	23.00	-2.51
	256-QAM	3555.0	0.70	1 / 12	16.89	17.59	**0.057**	23.00	-5.41
15 MHz	π/2 BPSK	3557.5	0.70	1 / 18	21.74	22.44	0.175	23.00	-0.56
		3625.0	0.70	1 / 1	21.62	22.32	0.171	23.00	-0.68
		3692.5	0.70	1 / 1	21.66	22.36	0.172	23.00	-0.64
	QPSK	3557.5	0.70	1 / 36	21.80	**22.50**	**0.178**	23.00	-0.50
		3625.0	0.70	1 / 18	21.76	22.46	0.176	23.00	-0.54
		3692.5	0.70	1 / 36	21.67	22.37	0.173	23.00	-0.63
	16-QAM	3557.5	0.70	1 / 1	20.78	21.48	0.141	23.00	-1.52
	64-QAM	3625.0	0.70	1 / 1	19.64	20.34	0.108	23.00	-2.66
	256-QAM	3625.0	0.70	1 / 1	16.89	17.59	**0.057**	23.00	-5.41
20 MHz	π/2 BPSK	3560.0	0.70	1 / 1	21.72	22.42	0.175	23.00	-0.58
		3625.0	0.70	1 / 49	21.53	22.23	0.167	23.00	-0.77
		3690.0	0.70	1 / 1	21.64	22.34	0.171	23.00	-0.66
	QPSK	3560.0	0.70	1 / 49	21.72	22.42	0.175	23.00	-0.58
		3625.0	0.70	1 / 1	21.80	**22.50**	**0.178**	23.00	-0.50
		3690.0	0.70	1 / 1	21.55	22.25	0.168	23.00	-0.75
	16-QAM	3560.0	0.70	1 / 1	20.83	21.53	0.142	23.00	-1.47
	64-QAM	3690.0	0.70	1 / 49	19.83	20.53	0.113	23.00	-2.47
	256-QAM	3690.0	0.70	1 / 25	16.95	17.65	**0.058**	23.00	-5.35
30 MHz	π/2 BPSK	3565.0	0.70	1 / 1	21.72	22.42	0.175	23.00	-0.58
		3625.0	0.70	1 / 76	21.78	22.48	0.177	23.00	-0.52
		3685.0	0.70	1 / 36	21.73	22.43	0.175	23.00	-0.57
	QPSK	3565.0	0.70	1 / 76	21.73	22.43	0.175	23.00	-0.57
		3625.0	0.70	1 / 76	21.80	**22.50**	**0.178**	23.00	-0.50
		3685.0	0.70	1 / 76	21.80	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3685.0	0.70	1 / 76	20.75	21.45	0.140	23.00	-1.55
	64-QAM	3565.0	0.70	1 / 36	19.64	20.34	0.108	23.00	-2.66
	256-QAM	3625.0	0.70	1 / 36	16.84	17.54	**0.057**	23.00	-5.46
40 MHz	π/2 BPSK	3570.0	0.70	1 / 50	21.80	**22.50**	**0.178**	23.00	-0.50
		3625.0	0.70	1 / 50	21.57	22.27	0.169	23.00	-0.73
		3680.0	0.70	1 / 104	21.77	22.47	0.177	23.00	-0.53
	QPSK	3570.0	0.70	1 / 104	21.73	22.43	0.175	23.00	-0.57
		3625.0	0.70	1 / 50	21.73	22.43	0.175	23.00	-0.57
		3680.0	0.70	1 / 50	21.78	22.48	0.177	23.00	-0.52
	16-QAM	3625.0	0.70	1 / 1	20.81	21.51	0.142	23.00	-1.49
	64-QAM	3570.0	0.70	1 / 104	19.79	20.49	0.112	23.00	-2.51
	256-QAM	3570.0	0.70	1 / 1	16.84	17.54	**0.057**	23.00	-5.46

Table 7-8. EIRP Data (NR Band n48)

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Power State	Band	Bandwidth (PCC + SCC)	PCC					SCC					ULCA Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
			Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset						
Max	LTE B48	20MHz + 5MHz	QPSK	55340	3560.0	1	99	QPSK	55457	3571.7	1	0	20.53	0.70	21.23	0.133	23.00	-1.77
				55990	3625.0	1	99		56107	3636.7	1	0	21.76	0.70	22.46	0.176	23.00	-0.54
				56640	3690.0	1	0		56523	3678.3	1	24	19.96	0.70	20.66	0.116	23.00	-2.34
			QPSK	55990	3625	100	0	QPSK	56107	3636.7	25	0	21.53	0.70	22.23	0.167	23.00	-0.77
			16-QAM	55990	3625	100	0	16-QAM	56107	3636.7	25	0	21.49	0.70	22.19	0.166	23.00	-0.81
			64-QAM	55990	3625	100	0	64-QAM	56107	3636.7	25	0	21.41	0.70	22.11	0.163	23.00	-0.89
			256-QAM	55990	3625	100	0	256-QAM	56107	3636.7	25	0	21.52	0.70	22.22	0.167	23.00	-0.78
Max	LTE B48	20MHz + 10MHz	QPSK	55340	3560.0	1	99	QPSK	55484	3574.4	1	0	19.55	0.70	20.25	0.106	23.00	-2.75
				55990	3625.0	1	99		56134	3639.4	1	0	21.74	0.70	22.44	0.175	23.00	-0.56
				56640	3690.0	1	0		56496	3675.6	1	49	19.64	0.70	20.34	0.108	23.00	-2.66
			QPSK	55990	3625	100	0	QPSK	56134	3639.4	50	0	21.17	0.70	21.87	0.154	23.00	-1.13
			16-QAM	55990	3625	100	0	16-QAM	56134	3639.4	50	0	21.07	0.70	21.77	0.150	23.00	-1.23
			64-QAM	55990	3625	100	0	64-QAM	56134	3639.4	50	0	20.98	0.70	21.68	0.147	23.00	-1.32
			256-QAM	55990	3625	100	0	256-QAM	56134	3639.4	50	0	20.88	0.70	21.58	0.144	23.00	-1.42
Max	LTE B48	20MHz + 15MHz	QPSK	55340	3560.0	1	99	QPSK	55511	3577.1	1	0	19.46	0.70	20.16	0.104	23.00	-2.84
				55990	3625.0	1	99		56161	3642.1	1	0	21.75	0.70	22.45	0.176	23.00	-0.55
				56640	3690.0	1	0		56469	3672.9	1	74	19.32	0.70	20.02	0.100	23.00	-2.98
			QPSK	55990	3625	100	0	QPSK	56161	3642.1	75	0	21.08	0.70	21.78	0.151	23.00	-1.22
			16-QAM	55990	3625	100	0	16-QAM	56161	3642.1	75	0	20.96	0.70	21.66	0.147	23.00	-1.34
			64-QAM	55990	3625	100	0	64-QAM	56161	3642.1	75	0	20.89	0.70	21.59	0.144	23.00	-1.41
			256-QAM	55990	3625	100	0	256-QAM	56161	3642.1	75	0	20.76	0.70	21.46	0.140	23.00	-1.54
Max	LTE B48	20MHz + 20MHz	QPSK	55340	3560.0	1	99	QPSK	55538	3579.8	1	0	20.98	0.70	21.68	0.147	23.00	-1.32
				55990	3625.0	1	99		56188	3644.8	1	0	21.76	0.70	22.46	0.176	23.00	-0.54
				56640	3690.0	1	0		56442	3670.2	1	99	21.12	0.70	21.82	0.152	23.00	-1.18
			QPSK	55990	3625	100	0	QPSK	56188	3644.8	100	0	21.12	0.70	21.82	0.152	23.00	-1.18
			16-QAM	55990	3625	100	0	16-QAM	56188	3644.8	100	0	20.96	0.70	21.66	0.147	23.00	-1.34
			64-QAM	55990	3625	100	0	64-QAM	56188	3644.8	100	0	20.86	0.70	21.56	0.143	23.00	-1.44
			256-QAM	55990	3625	100	0	256-QAM	56188	3644.8	100	0	20.99	0.70	21.69	0.148	23.00	-1.31

Table 7-9. EIRP Data (ULCA LTE Band 48)

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Antenna 1a – EIRP

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
5 MHz	QPSK	3552.5	1.70	1 / 24	20.70	22.40	0.174	23.00	-0.60
		3625.0	1.70	1 / 0	20.76	22.46	0.176	23.00	-0.54
		3697.5	1.70	1 / 0	20.78	**22.48**	**0.177**	23.00	-0.52
	16-QAM	3697.5	1.70	1 / 12	19.78	21.48	0.141	23.00	-1.52
	64-QAM	3552.5	1.70	1 / 24	18.73	20.43	0.110	23.00	-2.57
	256-QAM	3697.5	1.70	1 / 0	15.93	17.63	**0.058**	23.00	-5.37
10 MHz	QPSK	3555.0	1.70	1 / 25	20.78	**22.48**	**0.177**	23.00	-0.52
		3625.0	1.70	1 / 49	20.66	22.36	0.172	23.00	-0.64
		3695.0	1.70	1 / 49	20.53	22.23	0.167	23.00	-0.77
	16-QAM	3555.0	1.70	1 / 0	19.72	21.42	0.139	23.00	-1.58
	64-QAM	3695.0	1.70	1 / 0	18.81	20.51	0.112	23.00	-2.49
	256-QAM	3555.0	1.70	1 / 0	15.90	17.60	**0.058**	23.00	-5.40
15 MHz	QPSK	3557.5	1.70	1 / 37	20.67	22.37	0.173	23.00	-0.63
		3625.0	1.70	1 / 37	20.80	**22.50**	**0.178**	23.00	-0.50
		3692.5	1.70	1 / 0	20.65	22.35	0.172	23.00	-0.65
	16-QAM	3557.5	1.70	1 / 74	19.80	21.50	0.141	23.00	-1.50
	64-QAM	3692.5	1.70	1 / 0	18.78	20.48	0.112	23.00	-2.52
	256-QAM	3557.5	1.70	1 / 74	15.86	17.56	**0.057**	23.00	-5.44
20 MHz	QPSK	3560.0	1.70	1 / 99	20.77	22.47	0.177	23.00	-0.53
		3625.0	1.70	1 / 50	20.65	22.35	0.172	23.00	-0.65
		3690.0	1.70	1 / 0	20.78	**22.48**	**0.177**	23.00	-0.52
	16-QAM	3625.0	1.70	1 / 99	19.81	21.51	0.142	23.00	-1.49
	64-QAM	3560.0	1.70	1 / 50	18.74	20.44	0.111	23.00	-2.56
	256-QAM	3560.0	1.70	1 / 0	15.94	17.64	**0.058**	23.00	-5.36

Table 7-10. EIRP Data (LTE Band 48)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
10 MHz	π/2 BPSK	3555.0	1.70	1 / 12	20.80	**22.50**	**0.178**	23.00	-0.50
		3625.0	1.70	1 / 22	20.58	22.28	0.169	23.00	-0.72
		3695.0	1.70	1 / 12	20.71	22.41	0.174	23.00	-0.59
	QPSK	3555.0	1.70	1 / 1	20.71	22.41	0.174	23.00	-0.59
		3625.0	1.70	1 / 22	20.76	22.46	0.176	23.00	-0.54
		3695.0	1.70	1 / 12	20.80	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3555.0	1.70	1 / 12	19.83	21.53	0.142	23.00	-1.47
	64-QAM	3555.0	1.70	1 / 1	18.84	20.54	0.113	23.00	-2.46
	256-QAM	3625.0	1.70	1 / 12	15.96	17.66	**0.058**	23.00	-5.34
15 MHz	π/2 BPSK	3557.5	1.70	1 / 36	20.78	22.48	0.177	23.00	-0.52
		3625.0	1.70	1 / 1	20.80	**22.50**	**0.178**	23.00	-0.50
		3692.5	1.70	1 / 36	20.58	22.28	0.169	23.00	-0.72
	QPSK	3557.5	1.70	1 / 1	20.71	22.41	0.174	23.00	-0.59
		3625.0	1.70	1 / 1	20.67	22.37	0.173	23.00	-0.63
		3692.5	1.70	1 / 1	20.58	22.28	0.169	23.00	-0.72
	16-QAM	3625.0	1.70	1 / 1	19.83	21.53	0.142	23.00	-1.47
	64-QAM	3692.5	1.70	1 / 18	18.80	20.50	0.112	23.00	-2.50
	256-QAM	3692.5	1.70	1 / 36	15.88	17.58	**0.057**	23.00	-5.42
20 MHz	π/2 BPSK	3560.0	1.70	1 / 1	20.70	22.40	0.174	23.00	-0.60
		3625.0	1.70	1 / 25	20.68	22.38	0.173	23.00	-0.62
		3690.0	1.70	1 / 49	20.77	22.47	0.177	23.00	-0.53
	QPSK	3560.0	1.70	1 / 49	20.45	22.15	0.164	23.00	-0.85
		3625.0	1.70	1 / 49	20.45	22.15	0.164	23.00	-0.85
		3690.0	1.70	1 / 1	20.80	**22.50**	**0.178**	23.00	-0.50
	16-QAM	3560.0	1.70	1 / 25	19.70	21.40	0.138	23.00	-1.60
	64-QAM	3625.0	1.70	1 / 1	18.82	20.52	0.113	23.00	-2.48
	256-QAM	3625.0	1.70	1 / 1	15.89	17.59	**0.057**	23.00	-5.41
30 MHz	π/2 BPSK	3565.0	1.70	1 / 1	20.80	**22.50**	**0.178**	23.00	-0.50
		3625.0	1.70	1 / 36	20.79	22.49	0.177	23.00	-0.51
		3685.0	1.70	1 / 36	20.79	22.49	0.177	23.00	-0.51
	QPSK	3565.0	1.70	1 / 76	20.64	22.34	0.171	23.00	-0.66
		3625.0	1.70	1 / 36	20.78	22.48	0.177	23.00	-0.52
		3685.0	1.70	1 / 1	20.79	22.49	0.177	23.00	-0.51
	16-QAM	3685.0	1.70	1 / 36	19.74	21.44	0.139	23.00	-1.56
	64-QAM	3685.0	1.70	1 / 36	18.78	20.48	0.112	23.00	-2.52
	256-QAM	3565.0	1.70	1 / 1	15.90	17.60	**0.058**	23.00	-5.40
40 MHz	π/2 BPSK	3570.0	1.70	1 / 50	20.71	22.41	0.174	23.00	-0.59
		3625.0	1.70	1 / 50	20.71	22.41	0.174	23.00	-0.59
		3680.0	1.70	1 / 50	20.78	22.48	0.177	23.00	-0.52
	QPSK	3570.0	1.70	1 / 1	20.76	22.46	0.176	23.00	-0.54
		3625.0	1.70	1 / 104	20.80	**22.50**	**0.178**	23.00	-0.50
		3680.0	1.70	1 / 50	20.56	22.26	0.168	23.00	-0.74
	16-QAM	3570.0	1.70	1 / 104	19.90	21.60	0.145	23.00	-1.40
	64-QAM	3625.0	1.70	1 / 50	18.91	20.61	0.115	23.00	-2.39
	256-QAM	3570.0	1.70	1 / 1	16.01	17.71	**0.059**	23.00	-5.29

Table 7-11. EIRP Data (NR Band n48)

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Power State	Band	Bandwidth (PCC + SCC)	PCC					SCC					ULCA Conducted Power [dBm]	Ant. Gain [dBi]	EIRP [dBm/10MHz]	EIRP [Watts/10MHz]	EIRP Limit [dBm/10MHz]	Margin [dB]
			Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency [MHz]	UL # RB	UL RB Offset						
Max	LTE B48	20MHz + 5MHz	QPSK	55340	3560.0	1	99	QPSK	55457	3571.7	1	0	18.12	1.70	19.82	0.096	23.00	-3.18
				55990	3625.0	1	99		56107	3636.7	1	0	20.77	1.70	22.47	0.177	23.00	-0.53
				56640	3690.0	1	0		56523	3678.3	1	24	17.74	1.70	19.44	0.088	23.00	-3.56
			QPSK	55990	3625	100	0	QPSK	56107	3636.7	25	0	19.23	1.70	20.93	0.124	23.00	-2.07
			16-QAM	55990	3625	100	0	16-QAM	56107	3636.7	25	0	19.19	1.70	20.89	0.123	23.00	-2.11
			64-QAM	55990	3625	100	0	64-QAM	56107	3636.7	25	0	19.21	1.70	20.91	0.123	23.00	-2.09
			256-QAM	55990	3625	100	0	256-QAM	56107	3636.7	25	0	19.09	1.70	20.79	0.120	23.00	-2.21
Max	LTE B48	20MHz + 10MHz	QPSK	55340	3560.0	1	99	QPSK	55484	3574.4	1	0	17.21	1.70	18.91	0.078	23.00	-4.09
				55990	3625.0	1	99		56134	3639.4	1	0	20.72	1.70	22.42	0.175	23.00	-0.58
				56640	3690.0	1	0		56496	3675.6	1	49	17.12	1.70	18.82	0.076	23.00	-4.18
			QPSK	55990	3625	100	0	QPSK	56134	3639.4	50	0	18.78	1.70	20.48	0.112	23.00	-2.52
			16-QAM	55990	3625	100	0	16-QAM	56134	3639.4	50	0	18.68	1.70	20.38	0.109	23.00	-2.62
			64-QAM	55990	3625	100	0	64-QAM	56134	3639.4	50	0	18.59	1.70	20.29	0.107	23.00	-2.71
			256-QAM	55990	3625	100	0	256-QAM	56134	3639.4	50	0	18.62	1.70	20.32	0.108	23.00	-2.68
Max	LTE B48	20MHz + 15MHz	QPSK	55340	3560.0	1	99	QPSK	55511	3577.1	1	0	17.23	1.70	18.93	0.078	23.00	-4.07
				55990	3625.0	1	99		56161	3642.1	1	0	20.79	1.70	22.49	0.177	23.00	-0.51
				56640	3690.0	1	0		56469	3672.9	1	74	17.09	1.70	18.79	0.076	23.00	-4.21
			QPSK	55990	3625	100	0	QPSK	56161	3642.1	75	0	18.73	1.70	20.43	0.110	23.00	-2.57
			16-QAM	55990	3625	100	0	16-QAM	56161	3642.1	75	0	18.65	1.70	20.35	0.108	23.00	-2.65
			64-QAM	55990	3625	100	0	64-QAM	56161	3642.1	75	0	18.69	1.70	20.39	0.109	23.00	-2.61
			256-QAM	55990	3625	100	0	256-QAM	56161	3642.1	75	0	18.37	1.70	20.07	0.102	23.00	-2.93
Max	LTE B48	20MHz + 20MHz	QPSK	55340	3560.0	1	99	QPSK	55538	3579.8	1	0	18.72	1.70	20.42	0.110	23.00	-2.58
				55990	3625.0	1	99		56188	3644.8	1	0	20.76	1.70	22.46	0.176	23.00	-0.54
				56640	3690.0	1	0		56442	3670.2	1	99	18.54	1.70	20.24	0.106	23.00	-2.76
			QPSK	55990	3625	100	0	QPSK	56188	3644.8	100	0	18.64	1.70	20.34	0.108	23.00	-2.66
			16-QAM	55990	3625	100	0	16-QAM	56188	3644.8	100	0	18.52	1.70	20.22	0.105	23.00	-2.78
			64-QAM	55990	3625	100	0	64-QAM	56188	3644.8	100	0	18.49	1.70	20.19	0.104	23.00	-2.81
			256-QAM	55990	3625	100	0	256-QAM	56188	3644.8	100	0	18.46	1.70	20.16	0.104	23.00	-2.84

Table 7-12. EIRP Data (ULCA LTE Band 48)

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7.7 Radiated Spurious Emissions

§2.1053 §96.41(e)

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized broadband hybrid antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed while the EUT is operating at maximum power and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

ANSI C63.26-2015

TIA-603-E-2016 – Section 2.2.12

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW ≥ 3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points ≥ 2 x span / RBW
5. Detector = RMS
6. Trace mode = Max Hold (In cases where the level is within 2dB of the limit, the final measurement is taken using triggering/gating and trace averaging.)
7. The trace was allowed to stabilize

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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

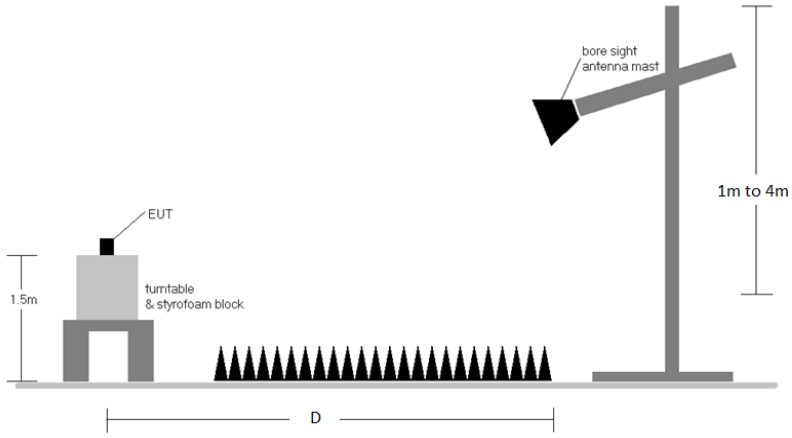

Figure 7-11. Test Instrument & Measurement Setup

Test Notes

1. Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
   a. E(dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m)
   b. EIRP (dBm) = E(dBµV/m) + 20logD – 104.8; where D is the measurement distance in meters.

2. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below. 1RB config was found and reported as a worst case RB size.

3. This unit was tested with its standard battery.

4. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.

5. No significant emissions were found for below 1GHz measurement.

6. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.

7. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

8. For pre-scans 1-18GHz, the RBW is set to 1MHz and VBW to 30kHz. For final measurements above 1GHz, the RBW is set to 1MHz and VBW to 3MHz when measuring with an RMS detector and max hold trace.

9. Uplink carrier aggregation intra-band radiated spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. The worst case (highest) emissions were found while operating with QPSK modulation with both carriers set to transmit using 1RB.

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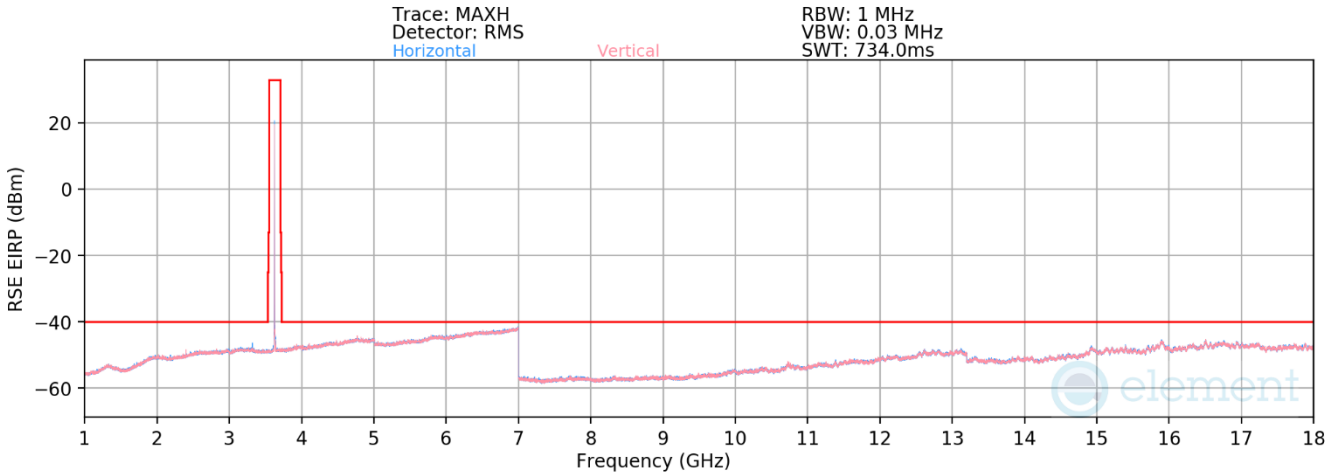
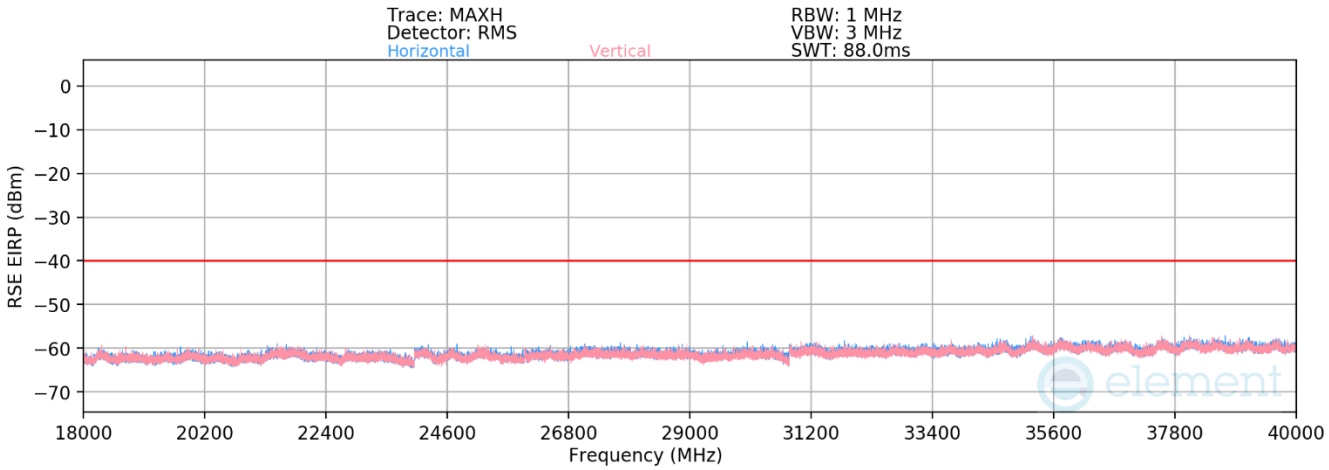
7.7.1 Antenna 3a Radiated Spurious Emissions Measurements

LTE Band 48



Plot 7-162. Radiated Spurious Plot 1 – 18GHz (LTE Band 48)



Plot 7-163. Radiated Spurious Plot 18 – 40GHz (LTE Band 48)

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Bandwidth (MHz):	20
Frequency (MHz):	3560.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3252.0	H	117	214	-74.80	15.83	48.03	-47.22	-40.00	-7.22
3867.0	H	105	207	-76.33	16.72	47.39	-47.87	-40.00	-7.87
7120.0	H	-	-	-78.00	6.00	35.00	-60.26	-40.00	-20.26
10680.0	H	-	-	-78.00	8.08	37.08	-58.17	-40.00	-18.17
14240.0	H	-	-	-80.20	13.27	40.08	-55.18	-40.00	-15.18

Table 7-13. Radiated Spurious Data (LTE Band 48 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3317.0	H	132	28	-74.50	15.91	48.41	-46.85	-40.00	-6.85
3932.0	V	274	343	-76.40	17.02	47.62	-47.64	-40.00	-7.64
7250.0	H	-	-	-77.47	5.95	35.49	-59.77	-40.00	-19.77
10875.0	H	-	-	-78.13	9.05	37.93	-57.33	-40.00	-17.33
14500.0	H	-	-	-80.35	13.28	39.93	-55.32	-40.00	-15.32

Table 7-14. Radiated Spurious Data (LTE Band 48 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3690.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3997.0	V	324	18	-76.03	17.28	48.25	-47.01	-40.00	-7.01
7380.0	H	-	-	-77.73	5.76	35.03	-60.23	-40.00	-20.23
11070.0	H	-	-	-78.41	8.75	37.34	-57.92	-40.00	-17.92
14760.0	H	-	-	-80.32	14.50	41.18	-54.07	-40.00	-14.07

Table 7-15. Radiated Spurious Data (LTE Band 48 – High Channel)

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ULCA LTE Band 48

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3560.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3579.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	H	-	-	-81.76	11.41	36.65	-58.61	-40.00	-18.61
10680.0	H	-	-	-82.47	16.57	41.10	-54.16	-40.00	-14.16
14240.0	H	-	-	-83.88	20.10	43.22	-52.03	-40.00	-12.03

Table 7-16. Radiated Spurious Data (ULCA LTE Band 48– Low Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3625.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3644.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	H	-	-	-81.50	11.14	36.64	-58.62	-40.00	-18.62
10875.0	H	-	-	-83.24	16.61	40.38	-54.88	-40.00	-14.88
14500.0	H	-	-	-84.26	20.84	43.58	-51.68	-40.00	-11.68

Table 7-17. Radiated Spurious Data (ULCA LTE Band 48– Mid Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3690.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3670.2
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	H	-	-	-81.75	11.10	36.35	-58.91	-40.00	-18.91
11070.0	H	-	-	-82.61	15.65	40.04	-55.22	-40.00	-15.22
14760.0	H	-	-	-84.13	21.30	44.17	-51.09	-40.00	-11.09

Table 7-18. Radiated Spurious Data (ULCA LTE Band 48– High Channel)

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NR Band n48

Bandwidth (MHz):	40
Frequency (MHz):	3570.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	H	-	-	-77.77	6.02	35.25	-60.00	-40.00	-20.00
10680.0	H	-	-	-78.24	8.32	37.08	-58.18	-40.00	-18.18
14240.0	H	-	-	-80.26	13.03	39.77	-55.49	-40.00	-15.49

Table 7-19. Radiated Spurious Data (NR Band n48 – Low Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	H	-	-	-77.81	5.81	35.00	-60.26	-40.00	-20.26
10875.0	H	-	-	-78.41	9.05	37.65	-57.61	-40.00	-17.61
14500.0	H	-	-	-80.65	13.34	39.69	-55.56	-40.00	-15.56

Table 7-20. Radiated Spurious Data (NR Band n48 – Mid Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3680.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	H	-	-	-77.70	5.79	35.09	-60.16	-40.00	-20.16
11070.0	H	-	-	-78.44	8.82	37.39	-57.87	-40.00	-17.87
14760.0	H	-	-	-80.83	14.30	40.47	-54.78	-40.00	-14.78

Table 7-21. Radiated Spurious Data (NR Band n48 – High Channel)

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7.7.2 Antenna 2 Radiated Spurious Emissions Measurements

LTE Band 48

Bandwidth (MHz):	20
Frequency (MHz):	3560.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3252.0	H	133	339	-76.80	15.83	46.03	-49.22	-40.00	-9.22
3867.0	V	330	14	-76.05	16.65	47.60	-47.65	-40.00	-7.65
7120.0	V	-	-	-77.77	6.00	35.23	-60.02	-40.00	-20.02
10680.0	V	-	-	-78.08	8.19	37.11	-58.15	-40.00	-18.15
14240.0	V	-	-	-80.09	13.11	40.01	-55.25	-40.00	-15.25

Table 7-22. Radiated Spurious Data (LTE Band 48 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3932.0	V	359	21	-77.01	17.02	47.01	-48.25	-40.00	-8.25
7250.0	H	-	-	-77.81	6.03	35.22	-60.04	-40.00	-20.04
10875.0	H	-	-	-78.46	9.05	37.59	-57.66	-40.00	-17.66
14500.0	H	-	-	-80.72	13.47	39.75	-55.50	-40.00	-15.50

Table 7-23. Radiated Spurious Data (LTE Band 48 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3690.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	H	-	-	-77.77	5.76	34.99	-60.27	-40.00	-20.27
11070.0	H	-	-	-78.52	8.78	37.25	-58.00	-40.00	-18.00
14760.0	H	-	-	-80.34	14.50	41.16	-54.10	-40.00	-14.10

Table 7-24. Radiated Spurious Data (LTE Band 48 – High Channel)

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ULCA LTE Band 48

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3560.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3579.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	V	-	-	-81.84	11.41	36.57	-58.68	-40.00	-18.68
10680.0	V	-	-	-82.50	16.57	41.06	-54.19	-40.00	-14.19
14240.0	V	-	-	-84.11	20.10	43.00	-52.26	-40.00	-12.26

Table 7-25. Radiated Spurious Data (ULCA LTE Band 48– Low Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3625.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3644.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	V	-	-	-81.87	11.26	36.39	-58.87	-40.00	-18.87
10875.0	V	-	-	-82.60	15.76	40.16	-55.10	-40.00	-15.10
14500.0	V	-	-	-84.43	20.84	43.41	-51.85	-40.00	-11.85

Table 7-26. Radiated Spurious Data (ULCA LTE Band 48– Mid Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3690.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3670.2
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	V	-	-	-81.69	11.10	36.40	-58.86	-40.00	-18.86
11070.0	V	-	-	-82.54	15.65	40.11	-55.15	-40.00	-15.15
14760.0	V	-	-	-84.15	21.04	43.89	-51.37	-40.00	-11.37

Table 7-27. Radiated Spurious Data (ULCA LTE Band 48– High Channel)

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NR Band n48

Bandwidth (MHz):	40
Frequency (MHz):	3570.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	V	-	-	-77.95	6.02	35.08	-60.18	-40.00	-20.18
10680.0	V	-	-	-78.35	8.35	37.00	-58.26	-40.00	-18.26
14240.0	V	-	-	-80.22	13.06	39.84	-55.42	-40.00	-15.42

Table 7-28. Radiated Spurious Data (NR Band n48 – Low Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	V	-	-	-77.83	6.03	35.20	-60.06	-40.00	-20.06
10875.0	V	-	-	-78.48	9.05	37.57	-57.69	-40.00	-17.69
14500.0	V	-	-	-80.39	13.34	39.95	-55.30	-40.00	-15.30

Table 7-29. Radiated Spurious Data (NR Band n48 – Mid Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3680.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	V	-	-	-77.21	5.54	35.33	-59.93	-40.00	-19.93
11070.0	V	-	-	-78.84	8.84	37.01	-58.25	-40.00	-18.25
14760.0	V	-	-	-80.71	14.30	40.59	-54.66	-40.00	-14.66

Table 7-30. Radiated Spurious Data (NR Band n48 – High Channel)

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7.7.3 Antenna 4 Radiated Spurious Emissions Measurements

LTE Band 48

Bandwidth (MHz):	20
Frequency (MHz):	3560.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3867.0	V	276	200	-76.76	16.65	46.89	-48.36	-40.00	-8.36
7120.0	H	-	-	-77.81	6.00	35.19	-60.07	-40.00	-20.07
10680.0	H	272	106	-76.08	8.19	39.11	-56.15	-40.00	-16.15
14240.0	H	-	-	-79.99	13.27	40.29	-54.97	-40.00	-14.97
17800.0	H	-	-	-81.19	17.23	43.03	-52.22	-40.00	-12.22

Table 7-31. Radiated Spurious Data (LTE Band 48 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3932.0	H	100	143	-75.84	14.83	45.99	-49.27	-40.00	-9.27
7250.0	H	-	-	-77.79	6.03	35.23	-60.02	-40.00	-20.02
10875.0	H	104	109	-76.85	9.06	39.21	-56.05	-40.00	-16.05
14500.0	H	-	-	-80.25	13.28	40.03	-55.22	-40.00	-15.22

Table 7-32. Radiated Spurious Data (LTE Band 48 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3690.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3997.0	V	100	143	-76.85	14.98	45.13	-50.13	-40.00	-10.13
7380.0	V	-	-	-77.75	5.68	34.93	-60.32	-40.00	-20.32
11070.0	V	-	-	-76.58	8.75	39.17	-56.08	-40.00	-16.08
14760.0	V	-	-	-80.37	14.50	41.14	-54.12	-40.00	-14.12

Table 7-33. Radiated Spurious Data (LTE Band 48 – High Channel)

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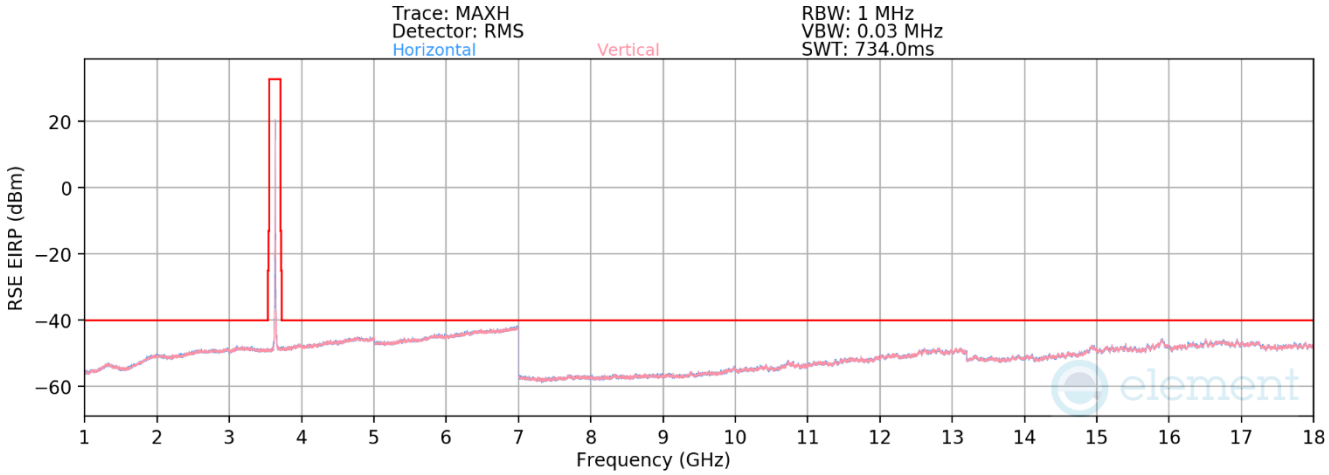
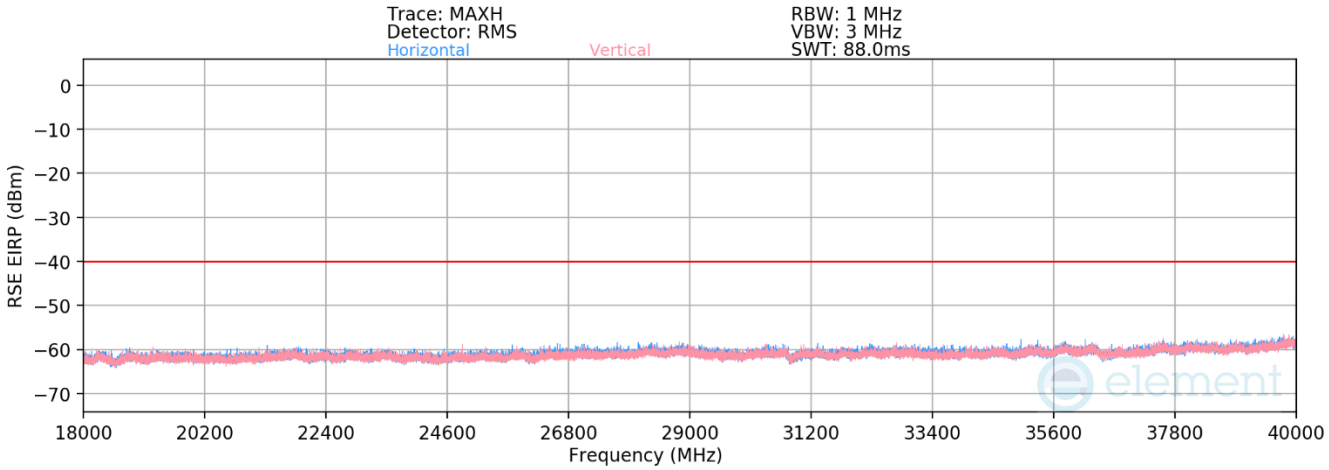
ULCA LTE Band 48



Plot 7-164. Radiated Spurious Plot 1 – 18GHz (ULCA LTE Band 48)



Plot 7-165. Radiated Spurious Plot 18 – 40GHz (ULCA LTE Band 48)

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PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3560.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3579.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	H	-	-	-81.71	11.41	36.70	-58.55	-40.00	-18.55
10680.0	H	-	-	-82.16	16.21	41.06	-54.20	-40.00	-14.20
14240.0	H	-	-	-83.82	19.82	43.00	-52.26	-40.00	-12.26

Table 7-34. Radiated Spurious Data (ULCA LTE Band 48– Low Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3625.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3644.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	H	-	-	-81.42	11.14	36.72	-58.54	-40.00	-18.54
10875.0	H	-	-	-83.52	16.61	40.09	-55.17	-40.00	-15.17
14500.0	H	-	-	-84.26	20.84	43.58	-51.68	-40.00	-11.68

Table 7-35. Radiated Spurious Data (ULCA LTE Band 48– Mid Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3690.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3670.2
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	H	-	-	-81.58	11.22	36.63	-58.62	-40.00	-18.62
11070.0	H	-	-	-82.67	15.68	40.01	-55.25	-40.00	-15.25
14760.0	H	-	-	-84.17	21.37	44.20	-51.06	-40.00	-11.06

Table 7-36. Radiated Spurious Data (ULCA LTE Band 48– High Channel)

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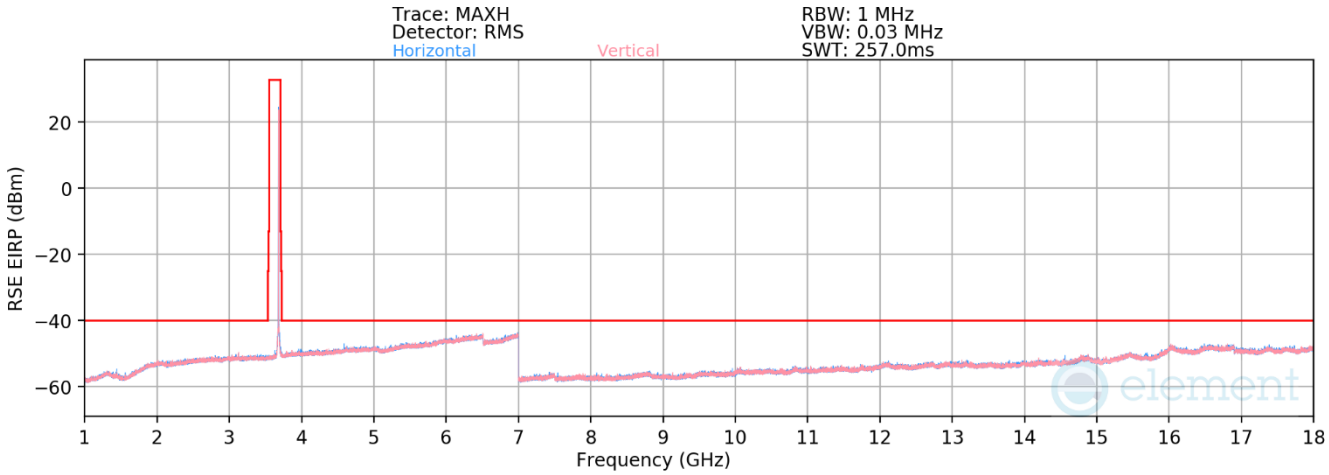
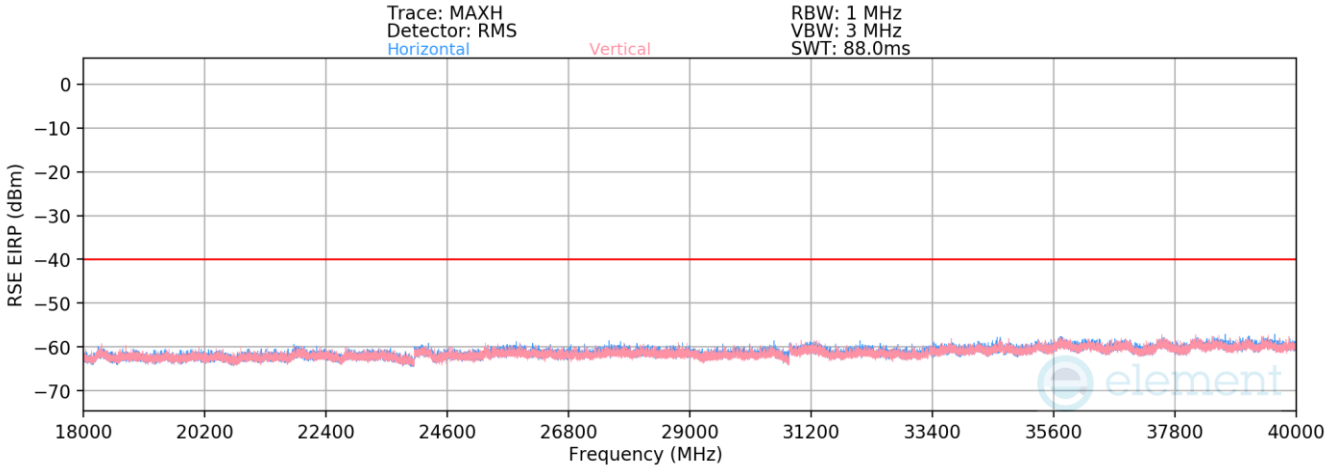
NR Band n48



Plot 7-166. Radiated Spurious Plot 1 – 18GHz (NR Band n48)



Plot 7-167. Radiated Spurious Plot 18 – 40GHz (NR Band n48)

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Bandwidth (MHz):	40
Frequency (MHz):	3570.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	H	-	-	-77.54	6.05	35.51	-59.75	-40.00	-19.75
10680.0	H	-	-	-78.14	8.52	37.38	-57.87	-40.00	-17.87
14240.0	H	-	-	-79.88	12.98	40.10	-55.16	-40.00	-15.16

Table 7-37. Radiated Spurious Data (NR Band n48 – Low Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	H	-	-	-77.49	5.82	35.32	-59.93	-40.00	-19.93
10875.0	H	-	-	-77.79	9.05	38.26	-56.99	-40.00	-16.99
14500.0	H	-	-	-80.40	13.28	39.89	-55.37	-40.00	-15.37

Table 7-38. Radiated Spurious Data (NR Band n48 – Mid Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3680.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	H	-	-	-77.09	5.54	35.45	-59.80	-40.00	-19.80
11070.0	H	266	132	-75.95	8.78	39.83	-55.43	-40.00	-15.43
14760.0	H	-	-	-80.52	14.30	40.78	-54.48	-40.00	-14.48

Table 7-39. Radiated Spurious Data (NR Band n48 – High Channel)

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7.7.4 Antenna 1a Radiated Spurious Emissions Measurements

LTE Band 48

Bandwidth (MHz):	20
Frequency (MHz):	3560.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3252.0	V	288	346	-75.27	15.70	47.43	-47.83	-40.00	-7.83
3867.0	H	110	21	-76.24	16.72	47.48	-47.78	-40.00	-7.78
7120.0	V	-	-	-77.84	6.05	35.21	-60.05	-40.00	-20.05
10680.0	V	-	-	-78.01	8.08	37.07	-58.18	-40.00	-18.18
14240.0	V	-	-	-79.89	13.18	40.28	-54.97	-40.00	-14.97

Table 7-40. Radiated Spurious Data (LTE Band 48 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3317.0	H	127	29	-75.09	15.91	47.82	-47.44	-40.00	-7.44
3932.0	V	351	354	-76.26	17.02	47.76	-47.50	-40.00	-7.50
7250.0	V	-	-	-77.35	5.82	35.46	-59.79	-40.00	-19.79
10875.0	V	-	-	-78.60	9.06	37.46	-57.80	-40.00	-17.80
14500.0	V	-	-	-80.46	13.51	40.04	-55.21	-40.00	-15.21

Table 7-41. Radiated Spurious Data (LTE Band 48 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	3690.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
3997.0	V	337	349	-76.14	17.28	48.14	-47.12	-40.00	-7.12
7380.0	V	-	-	-77.74	5.68	34.94	-60.32	-40.00	-20.32
11070.0	V	-	-	-78.38	8.84	37.46	-57.80	-40.00	-17.80
14760.0	V	-	-	-80.48	14.50	41.02	-54.24	-40.00	-14.24

Table 7-42. Radiated Spurious Data (LTE Band 48 – High Channel)

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ULCA LTE Band 48

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3560.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3579.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	V	-	-	-82.00	11.48	36.48	-58.78	-40.00	-18.78
10680.0	V	-	-	-82.63	16.57	40.94	-54.32	-40.00	-14.32
14240.0	V	-	-	-83.81	19.82	43.01	-52.24	-40.00	-12.24

Table 7-43. Radiated Spurious Data (ULCA LTE Band 48– Low Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3625.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3644.8
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	V	-	-	-81.44	11.14	36.70	-58.56	-40.00	-18.56
10875.0	V	-	-	-83.39	16.61	40.22	-55.03	-40.00	-15.03
14500.0	V	-	-	-83.82	20.21	43.39	-51.86	-40.00	-11.86

Table 7-44. Radiated Spurious Data (ULCA LTE Band 48– Mid Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	3690.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	3670.2
SCC RB / Offset:	1 / 0
Modulation Signal:	QPSK

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	V	-	-	-81.70	11.22	36.52	-58.74	-40.00	-18.74
11070.0	V	-	-	-82.48	15.65	40.17	-55.09	-40.00	-15.09
14760.0	V	-	-	-84.24	21.30	44.06	-51.20	-40.00	-11.20

Table 7-45. Radiated Spurious Data (ULCA LTE Band 48– High Channel)

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NR Band n48

Bandwidth (MHz):	40
Frequency (MHz):	3570.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7120.0	V	-	-	-77.58	6.02	35.45	-59.81	-40.00	-19.81
10680.0	V	-	-	-78.11	8.52	37.41	-57.85	-40.00	-17.85
14240.0	V	-	-	-80.23	13.06	39.83	-55.43	-40.00	-15.43

Table 7-46. Radiated Spurious Data (NR Band n48 – Low Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3625.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7250.0	V	-	-	-77.72	5.82	35.10	-60.16	-40.00	-20.16
10875.0	V	-	-	-78.32	9.06	37.74	-57.51	-40.00	-17.51
14500.0	V	-	-	-80.77	13.47	39.71	-55.55	-40.00	-15.55

Table 7-47. Radiated Spurious Data (NR Band n48 – Mid Channel)

Bandwidth (MHz):	40
Frequency (MHz):	3680.0
Modulation Signal:	QPSK
RB Config (Size / Offset):	1 / 53

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
7380.0	V	-	-	-77.38	5.54	35.16	-60.10	-40.00	-20.10
11070.0	V	-	-	-78.73	8.84	37.11	-58.15	-40.00	-18.15
14760.0	V	-	-	-80.58	14.03	40.46	-54.80	-40.00	-14.80

Table 7-48. Radiated Spurious Data (NR Band n48 – High Channel)

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7.8 Frequency Stability / Temperature Variation
§2.1055

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015 and TIA-603-E-2016. The frequency stability of the transmitter is measured by:

a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.

b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 96, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI C63.26-2015

TIA-603-E-2016

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a "standby" condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

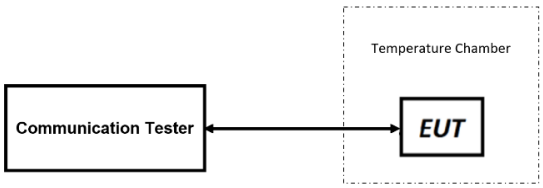

Figure 7-12. LTE Test Instrument & Measurement Setup

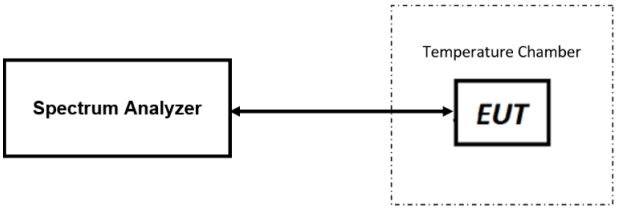

Figure 7-13. FR1 Test Instrument & Measurement Setup

Test Notes

All ports were tested and only the worst case data were reported.

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Frequency Stability / Temperature Variation

LTE Band 48				
	Operating Band Lower Boundary (GHz)		3.550	
	Ref. Voltage (VDC):		3.80	
Voltage (%)	**Power (VDC)**	**Temp (°C)**	**Measured Freq. (GHz)**	**Freq. Delta from Operating Range (GHz)**
100 %	3.80	- 30	3.55076360	-0.00076360
		- 20	3.55094829	-0.00094829
		- 10	3.55045728	-0.00045728
		0	3.55092282	-0.00092282
		+ 10	3.55080058	-0.00080058
		+ 20 (Ref)	3.55041053	-0.00041053
		+ 30	3.55008694	-0.00008694
		+ 40	3.55081734	-0.00081734
		+ 50	3.55025684	-0.00025684
Battery Endpoint	3.40	+ 20	3.55078350	-0.00078350

Table 49. LTE Band 48 Lower Boundary Frequency Stability Data

LTE Band 48				
	Operating Band Upper Boundary (GHz)		3.700	
	Ref. Voltage (VDC):		3.80	
Voltage (%)	**Power (VDC)**	**Temp (°C)**	**Measured Freq. (GHz)**	**Freq. Delta from Operating Range (GHz)**
100 %	3.80	- 30	3.69954606	-0.00045394
		- 20	3.69900245	-0.00099755
		- 10	3.69979642	-0.00020358
		0	3.69983104	-0.00016896
		+ 10	3.69957859	-0.00042141
		+ 20 (Ref)	3.69994300	-0.00005700
		+ 30	3.69922594	-0.00077406
		+ 40	3.69954004	-0.00045996
		+ 50	3.69975216	-0.00024784
Battery Endpoint	3.40	+ 20	3.69928309	-0.00071691

Table 50. LTE Band 48 Upper Boundary Frequency Stability Data

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Frequency Stability / Temperature Variation

NR Band n48				
	Operating Band Lower Boundary (GHz)		3.550	
	Ref. Voltage (VDC):		3.80	
Voltage (%)	**Power (VDC)**	**Temp (°C)**	**Measured Freq. (GHz)**	**Freq. Delta from Operating Range (GHz)**
100 %	3.80	- 30	3.55022039	-0.00022039
		- 20	3.55064259	-0.00064259
		- 10	3.55004548	-0.00004548
		0	3.55009659	-0.00009659
		+ 10	3.55079719	-0.00079719
		+ 20 (Ref)	3.55067985	-0.00067985
		+ 30	3.55094659	-0.00094659
		+ 40	3.55083020	-0.00083020
		+ 50	3.55053264	-0.00053264
Battery Endpoint	3.40	+ 20	3.55020462	-0.00020462

Table 51. NR Band n48 Lower Boundary Frequency Stability Data

NR Band n48				
	Operating Band Upper Boundary (GHz)		3.700	
	Ref. Voltage (VDC):		3.80	
Voltage (%)	**Power (VDC)**	**Temp (°C)**	**Measured Freq. (GHz)**	**Freq. Delta from Operating Range (GHz)**
100 %	3.80	- 30	3.69996709	-0.00003291
		- 20	3.69980664	-0.00019336
		- 10	3.69905730	-0.00094270
		0	3.69903120	-0.00096880
		+ 10	3.69915760	-0.00084240
		+ 20 (Ref)	3.69925212	-0.00074788
		+ 30	3.69943964	-0.00056036
		+ 40	3.69970088	-0.00029912
		+ 50	3.69983657	-0.00016343
Battery Endpoint	3.40	+ 20	3.69941697	-0.00058303

Table 52. NR Band n48 Upper Boundary Frequency Stability Data

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7.9 End User Device Additional Requirement (CBSD Protocol)

§96.47

Test Overview and Limit

End user device additional requirements (CBSD Protocol) are tested per the test procedures listed below. During testing, the EUT is connected to a certified CBSDs (AirSpan FCC ID(s): PIDAV1901 and PIDAV1500) as a companion device to show compliance with Part 96.47.

End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

Test Procedure Used

KDB 940660 D01 v03

WINNF-TS-0122 v1.0.2

Test Setup/Method

The EUT was connected via an RF cable to a certified CBSD and spectrum analyzer. The following procedure is performed by applying WINNF-TS-0122 CBRS CBSD Test Specification.

1. Run#1:
    a. Setup WINNF.PT.C.HBT.1 with 3605 – 3625MHz.
    b. Enable AP service from Ruckus Cloud management.
    c. Check EUT Tx frequency.
    d. Disable AP service from Ruckus Cloud management and check EUT stop transmission within 10s.
2. Run#2:
    a. Setup WINNF.PT.C.HBT.1 with 3615MHz – 3635MHz.
    b. Enable AP service from Ruckus Cloud management.
    c. Check EUT Tx frequency.
    d. Disable AP service from Ruckus Cloud management and check EUT stop transmission within 10s.

Test Notes

The EUT is an End User Device.

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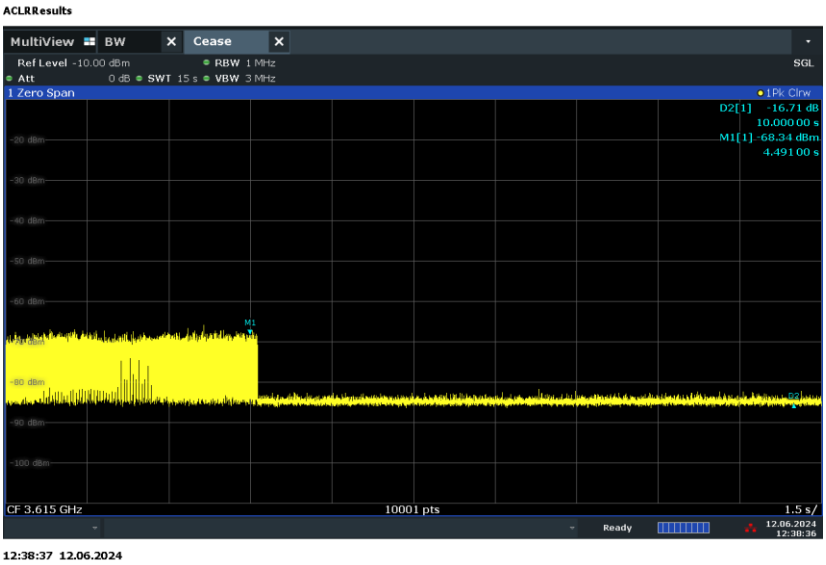
Run#1 LTE-B48:

- Tx Frequency Set: 3605 – 3625MHz
- MaxEIRP Set: 10dBm/MHz

Plot 7-168. Run#1 End User Device Frequency of Operations



Plot 7-169. Run#1 End User Device Discontinues Operations within 10s

Note:

Marker 1: CBSD sends instructions to discontinue LTE operations.
Marker 2: 10 seconds elapsed time from CBSD sending instructions to EUT.

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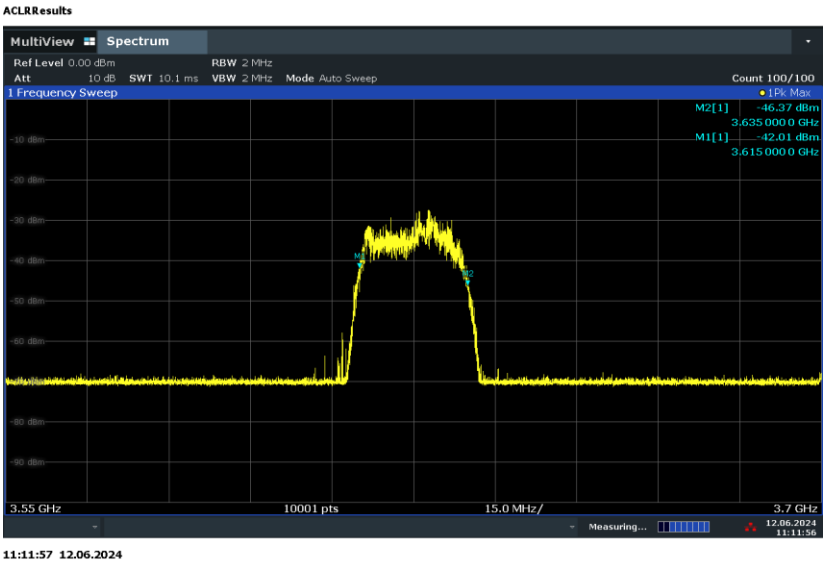
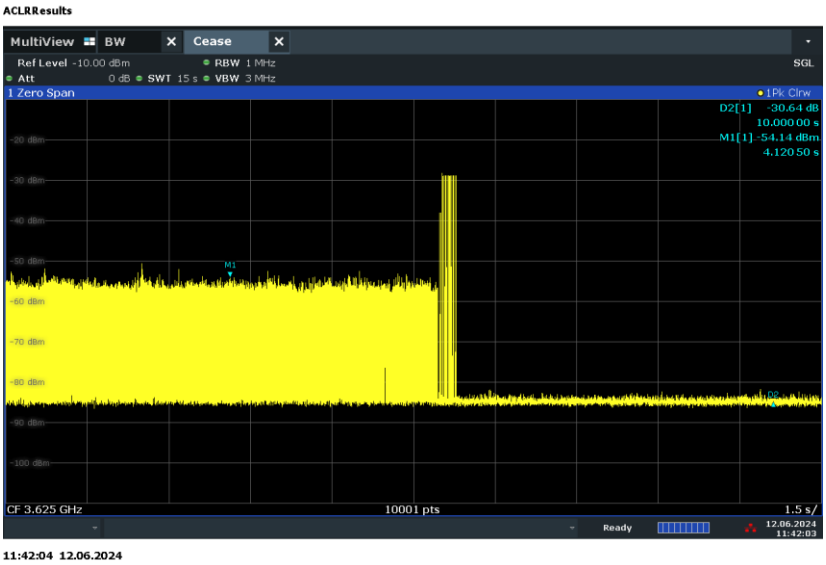
Run#2 FR1-n48:

- Tx Frequency Set: 3615 – 3635MHz
- MaxEIRP Set: 10dBm/MHz



Plot 7-170. Run#2 End User Device Frequency of Operations



Plot 7-171. Run#2 End User Device Discontinues Operations within 10s

Note:

Marker 1: CBSD sends instructions to discontinue FR1 operations.
Marker 2: 10 seconds elapsed time from CBSD sending instructions to EUT.

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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the Apple **Tablet Device FCC ID: BCGA2995** complies with all the End User Device requirements of Part 96 of the FCC Rules.

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