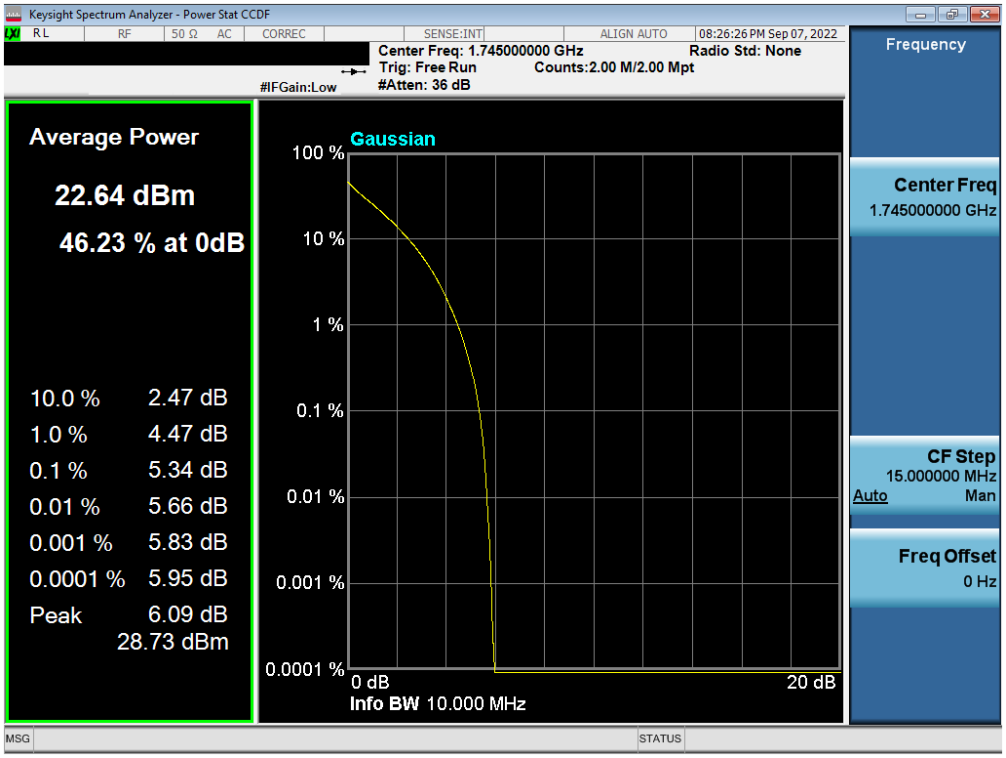
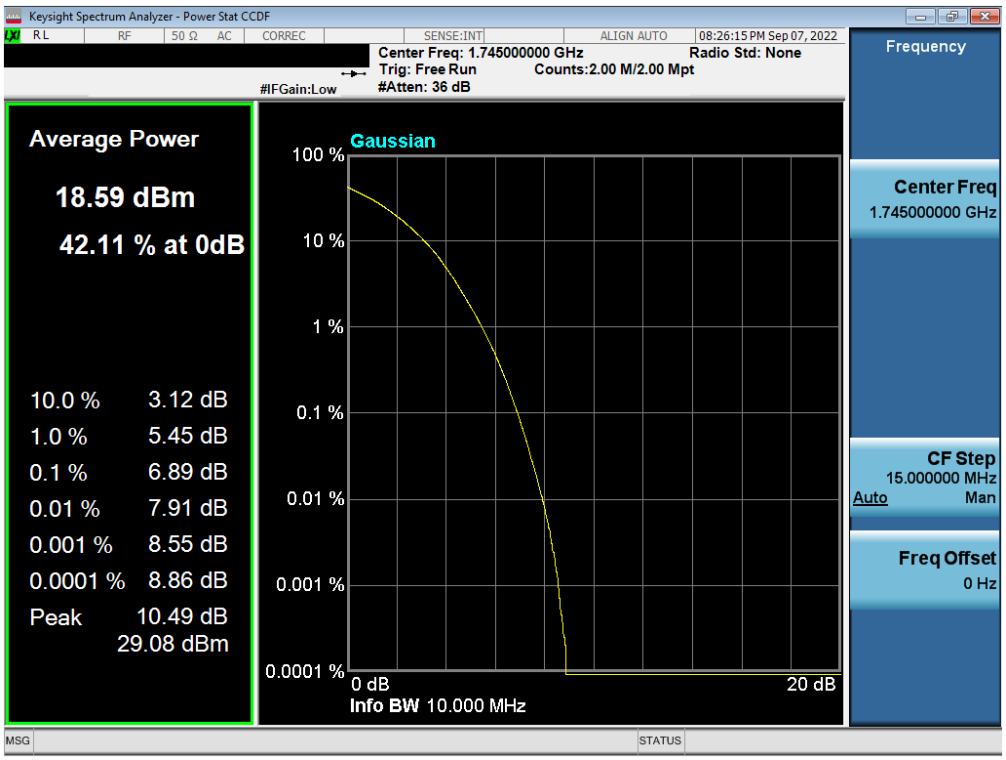
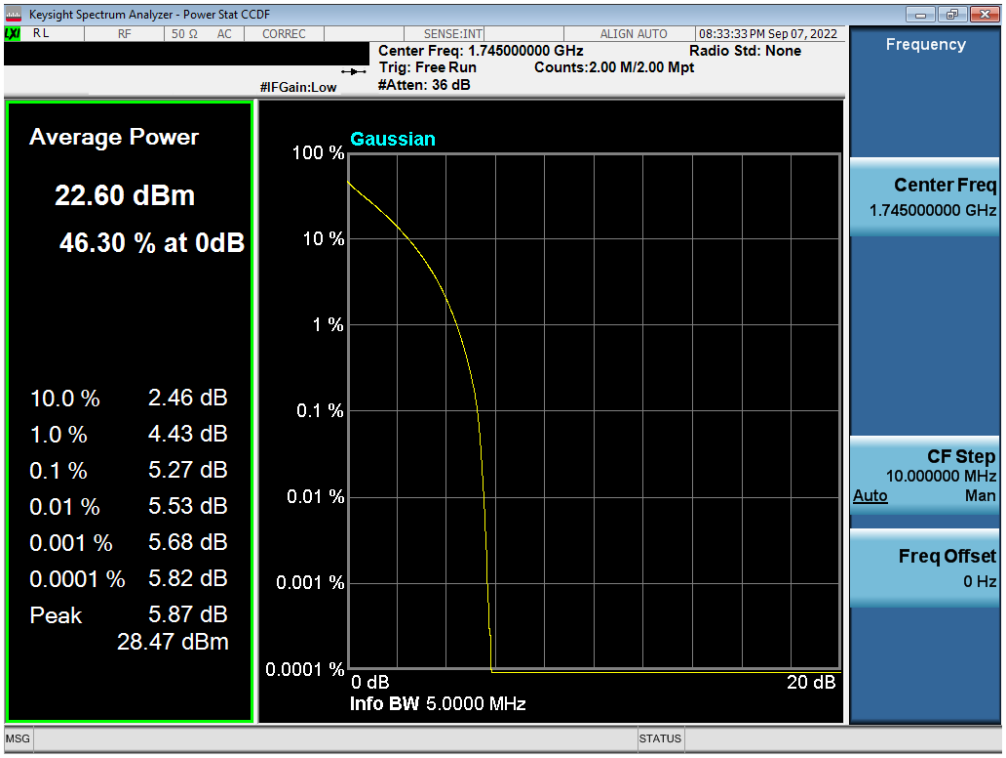


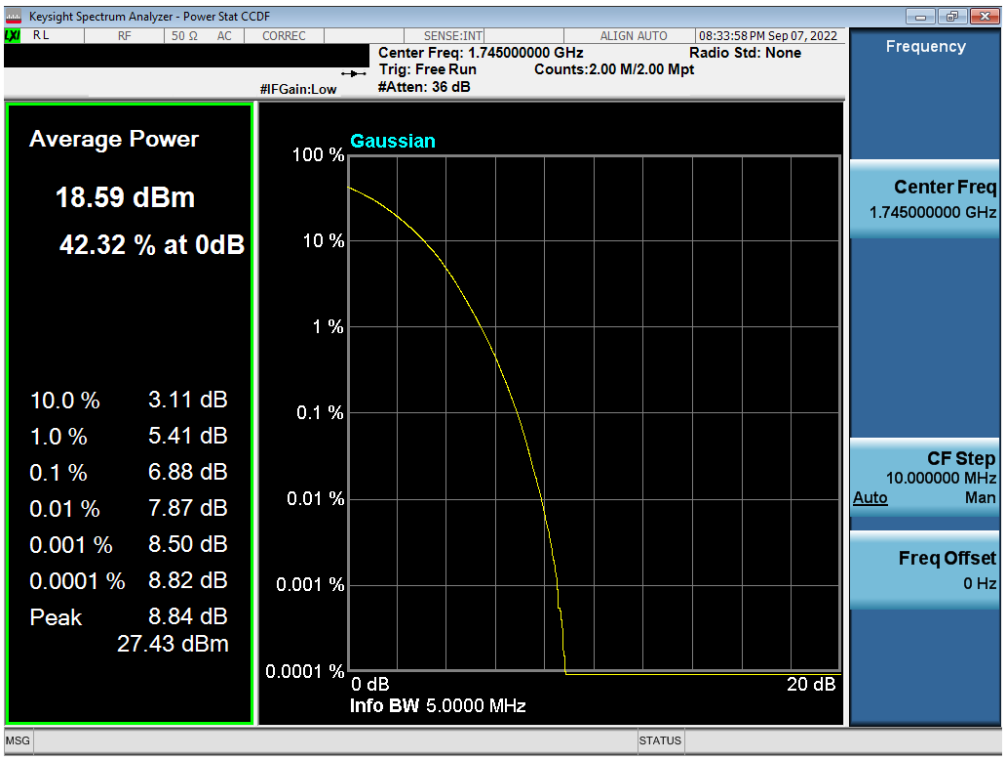
Plot 7-400. PAR Plot (LTE Band 66/4 - 10MHz QPSK - Full RB - Ant A)



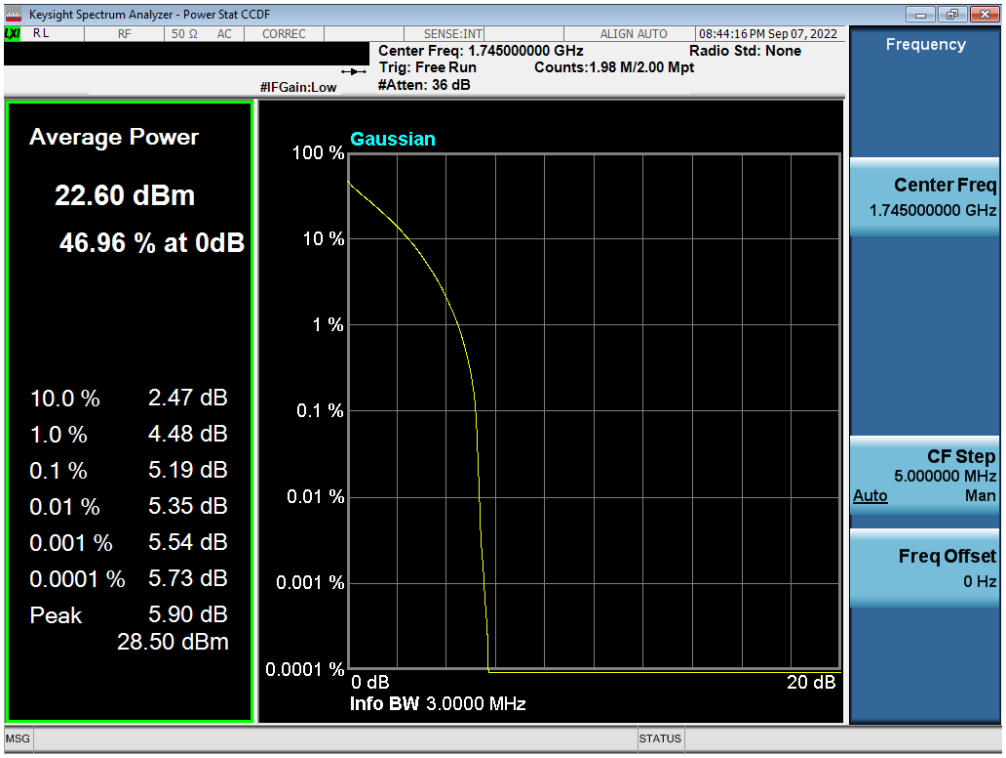
Plot 7-401. PAR Plot (LTE Band 66/4 - 10MHz 256-QAM - Full RB - Ant A)



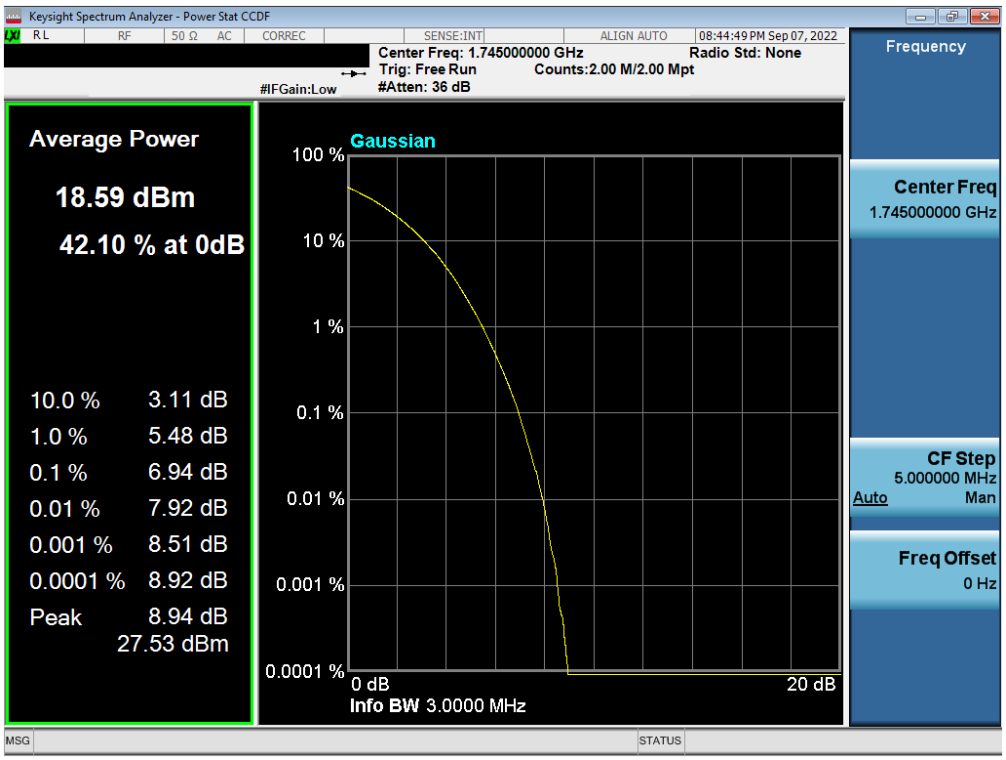
Plot 7-402. PAR Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - Ant A)



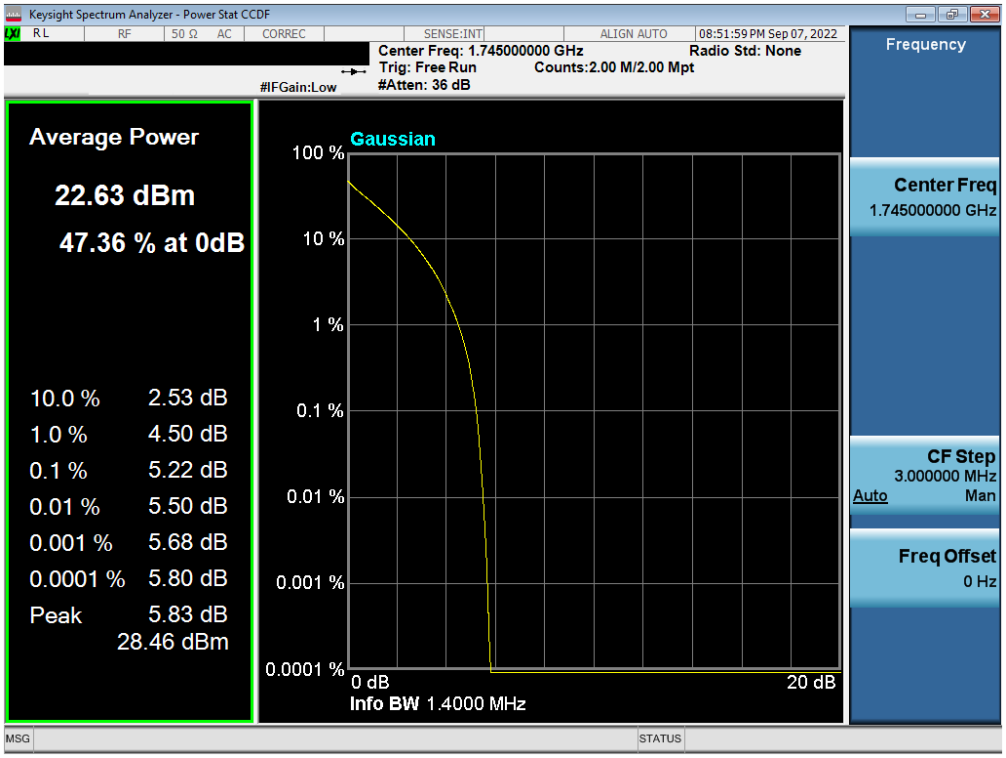
Plot 7-403. PAR Plot (LTE Band 66/4 - 5MHz 256-QAM - Full RB - Ant A)



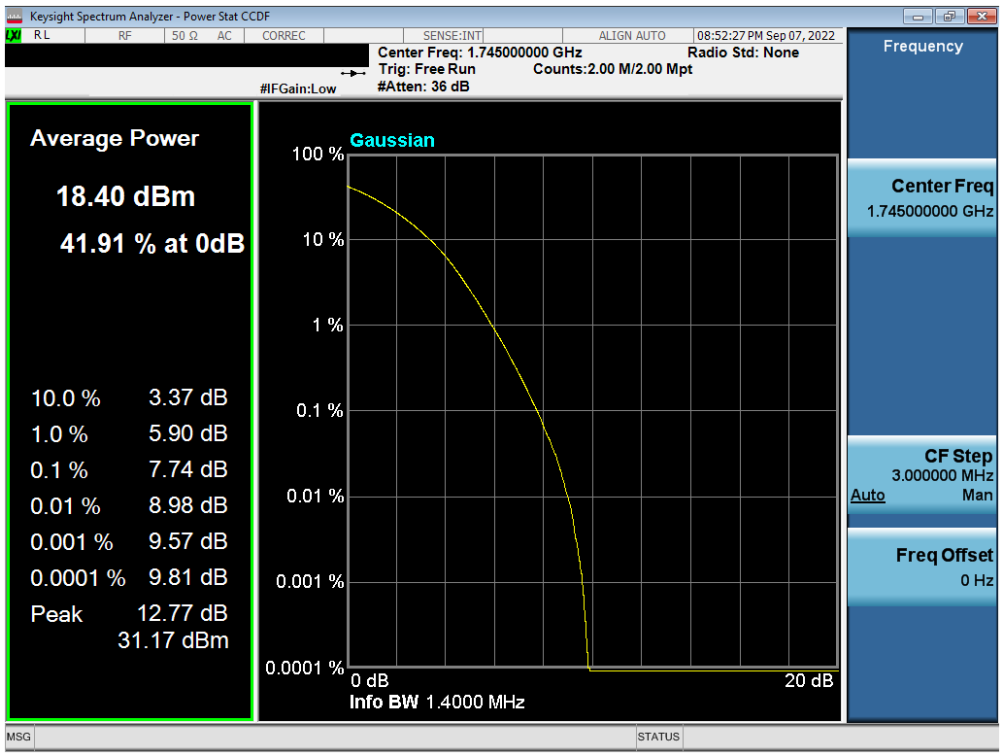
Plot 7-404. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant A)



Plot 7-405. PAR Plot (LTE Band 66/4 - 3MHz 256-QAM - Full RB - Ant A)

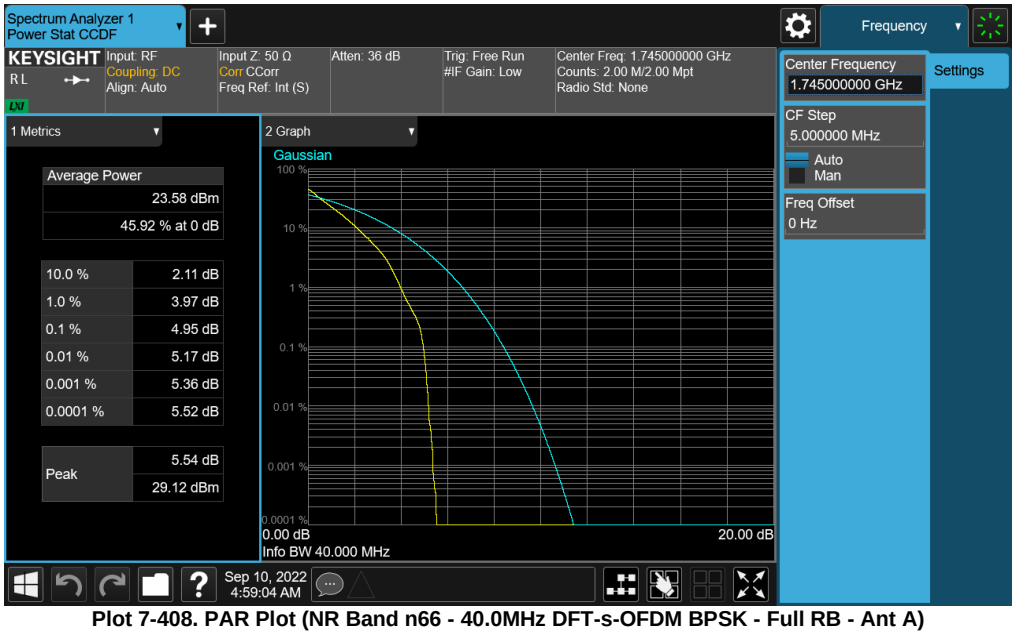


Plot 7-406. PAR Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB - Ant A)

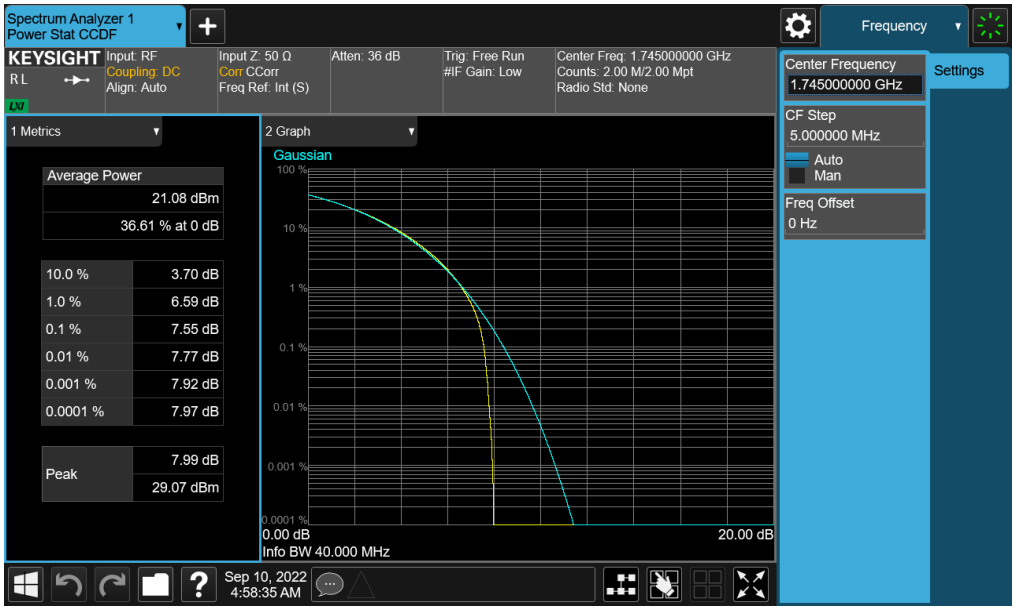


Plot 7-407. PAR Plot (LTE Band 66/4 - 1.4MHz 256-QAM - Full RB - Ant A)

NR Band n66 – Ant A

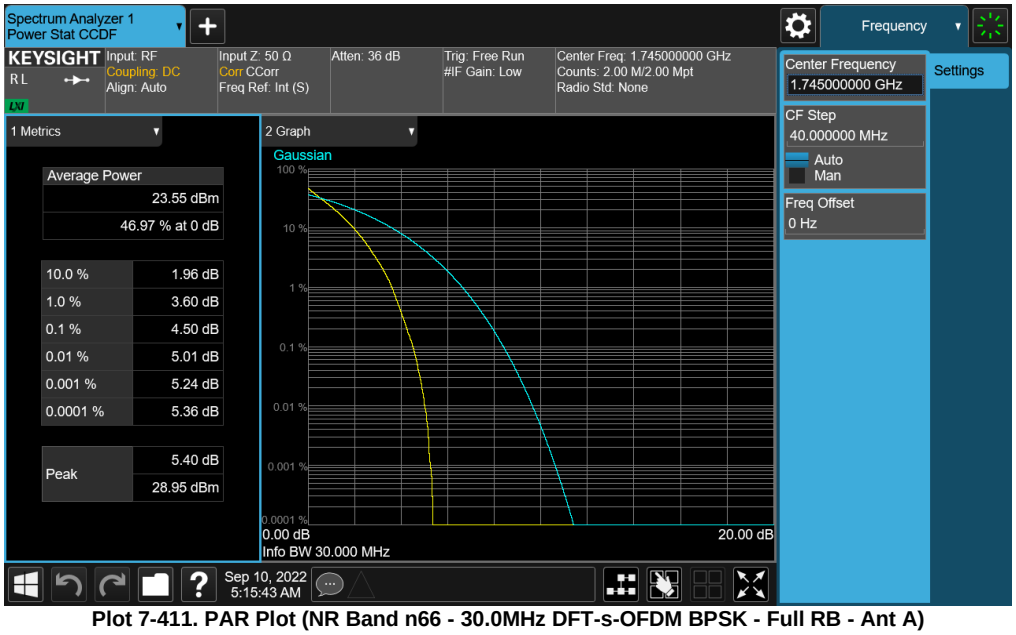


Plot 7-408. PAR Plot (NR Band n66 - 40.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)



Plot 7-409. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - Ant A)

Plot 7-410. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM 256-QAM - Full RB - Ant A)



Plot 7-411. PAR Plot (NR Band n66 - 30.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)

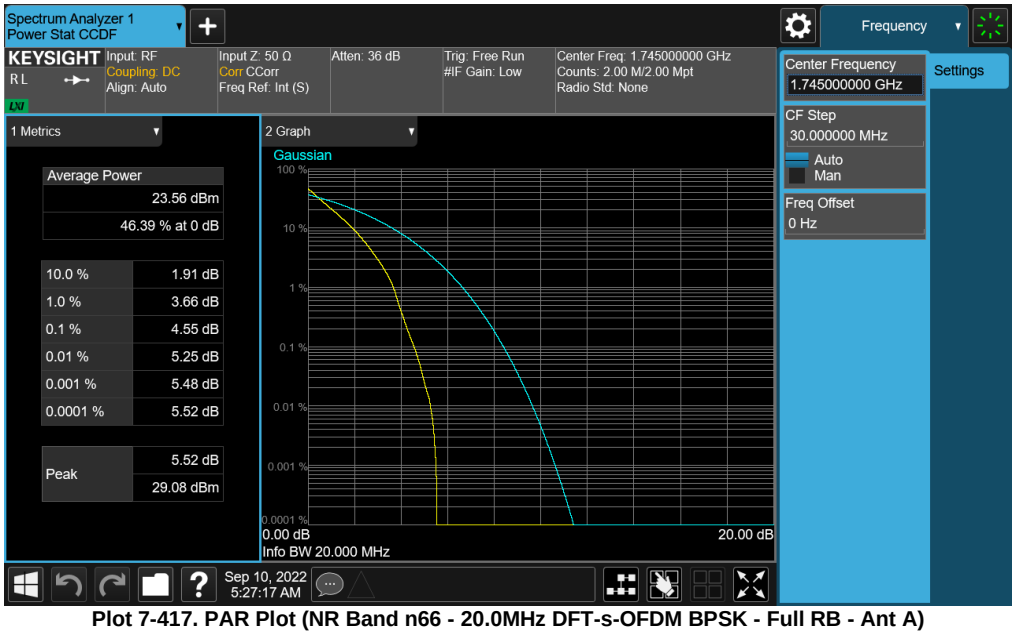
Plot 7-412. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM QPSK - Full RB - Ant A)

Plot 7-413. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM 256-QAM - Full RB - Ant A)

Plot 7-414. PAR Plot (NR Band n66 - 25.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)

Plot 7-415. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM QPSK - Full RB - Ant A)

Plot 7-416. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM 256-QAM - Full RB - Ant A)



Plot 7-417. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)

Plot 7-418. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB - Ant A)

Plot 7-419. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 256-QAM - Full RB - Ant A)

Plot 7-420. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)

Plot 7-421. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM QPSK - Full RB - Ant A)

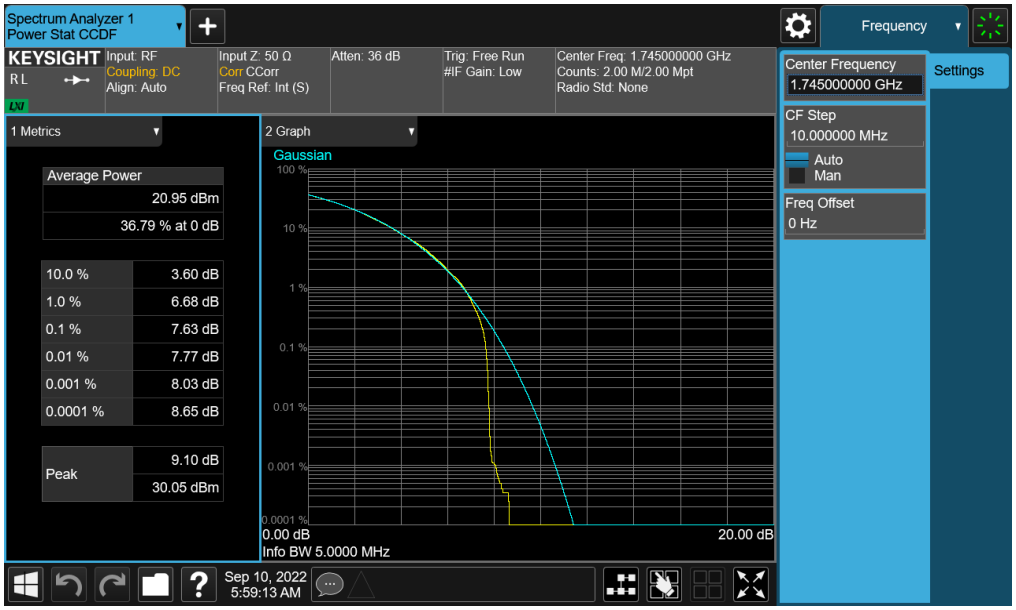
Plot 7-422. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 256-QAM - Full RB - Ant A)

Plot 7-423. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)

Plot 7-424. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM QPSK - Full RB - Ant A)

Plot 7-425. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 256-QAM - Full RB - Ant A)

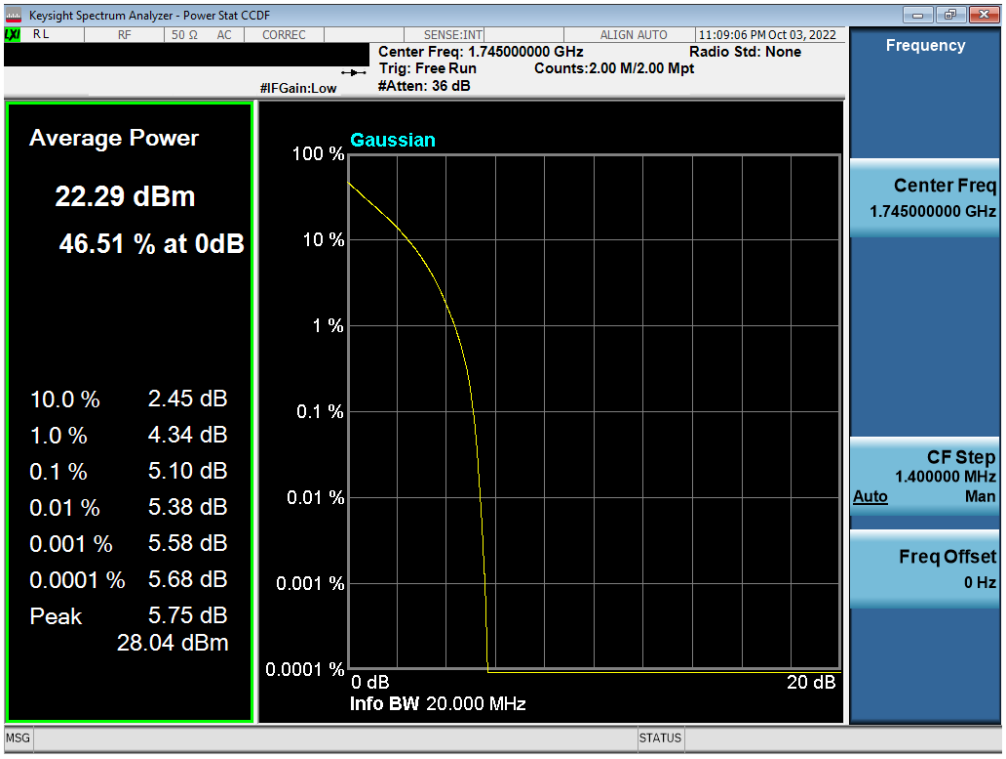
Plot 7-426. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM BPSK - Full RB - Ant A)



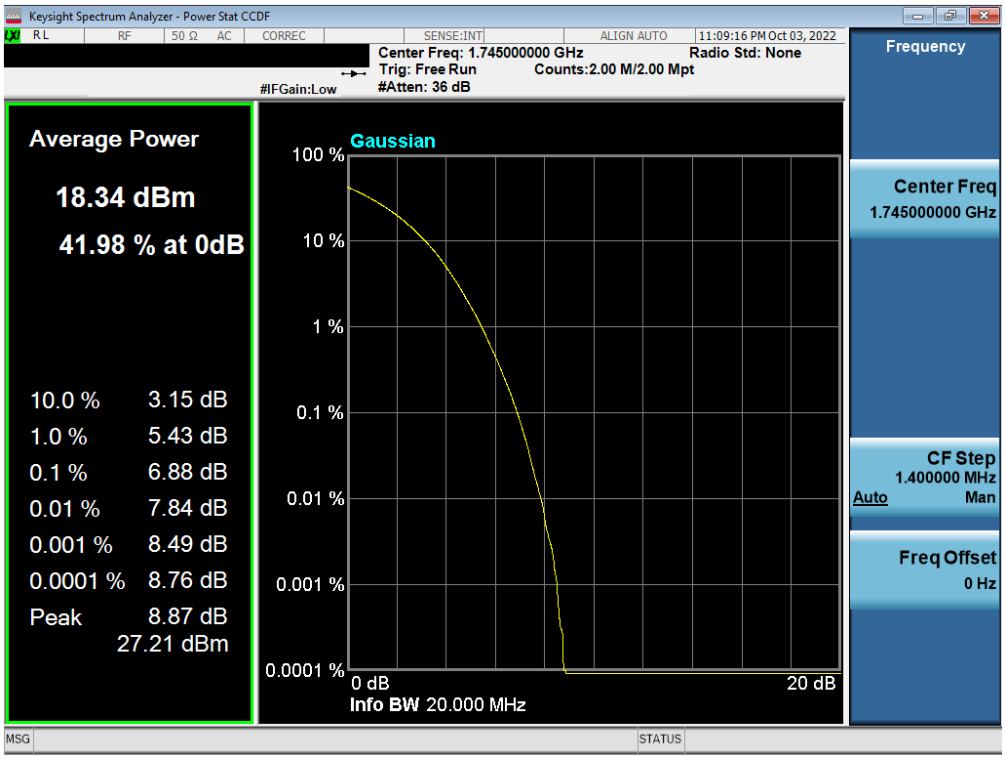
Plot 7-427. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM QPSK - Full RB - Ant A)

Plot 7-428. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM 256-QAM - Full RB - Ant A)

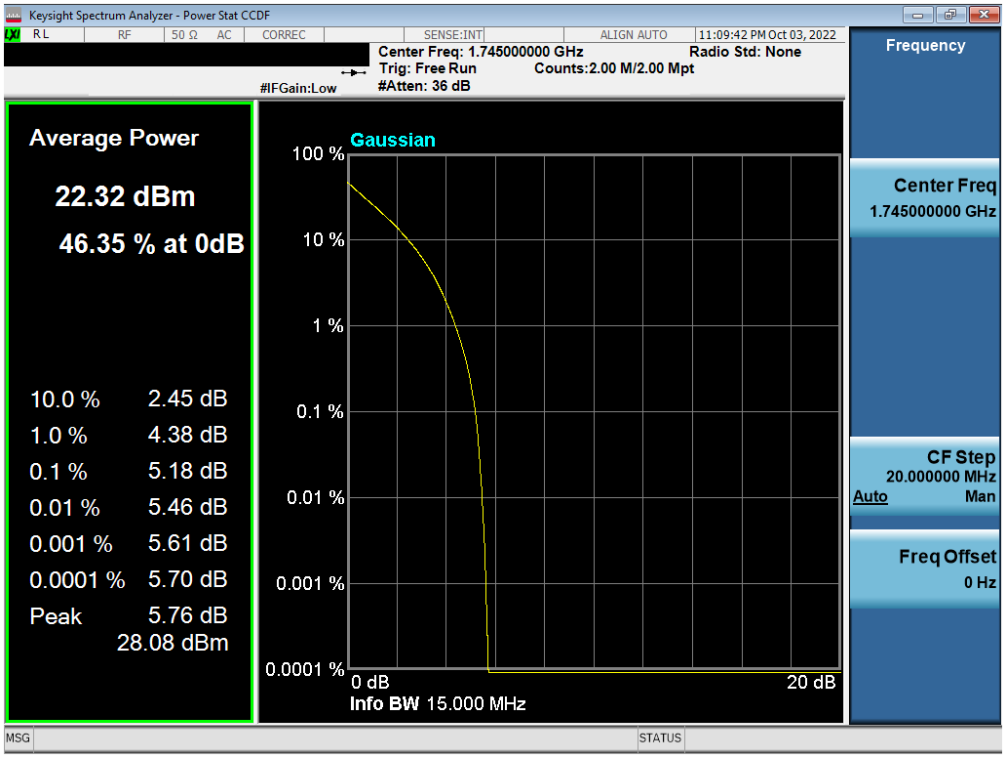
LTE Band 66/4 – Ant F



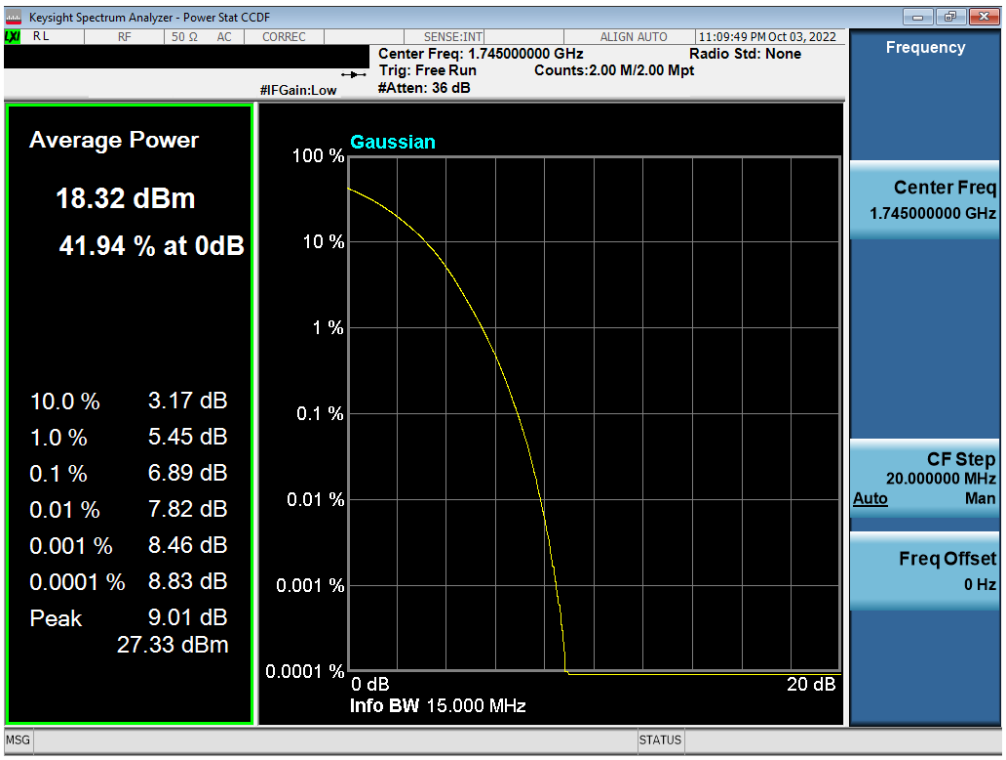
Plot 7-429. PAR Plot (LTE Band 66/4 - 20MHz QPSK - Full RB - Ant F)



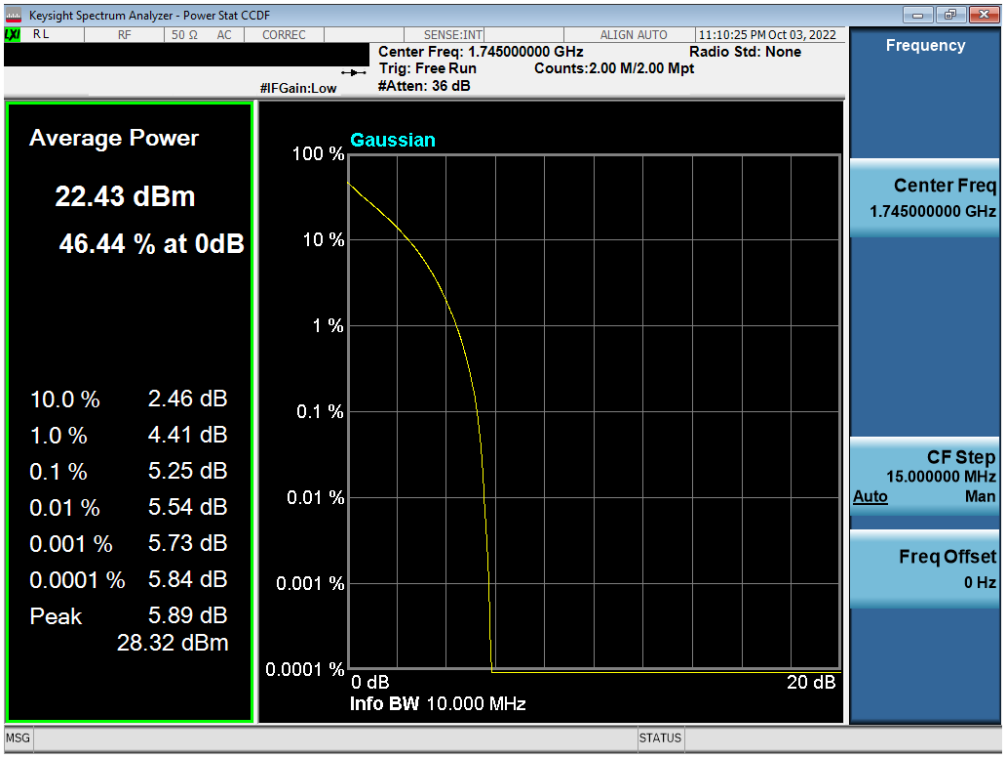
Plot 7-430. PAR Plot (LTE Band 66/4 - 20MHz 256-QAM - Full RB - Ant F)



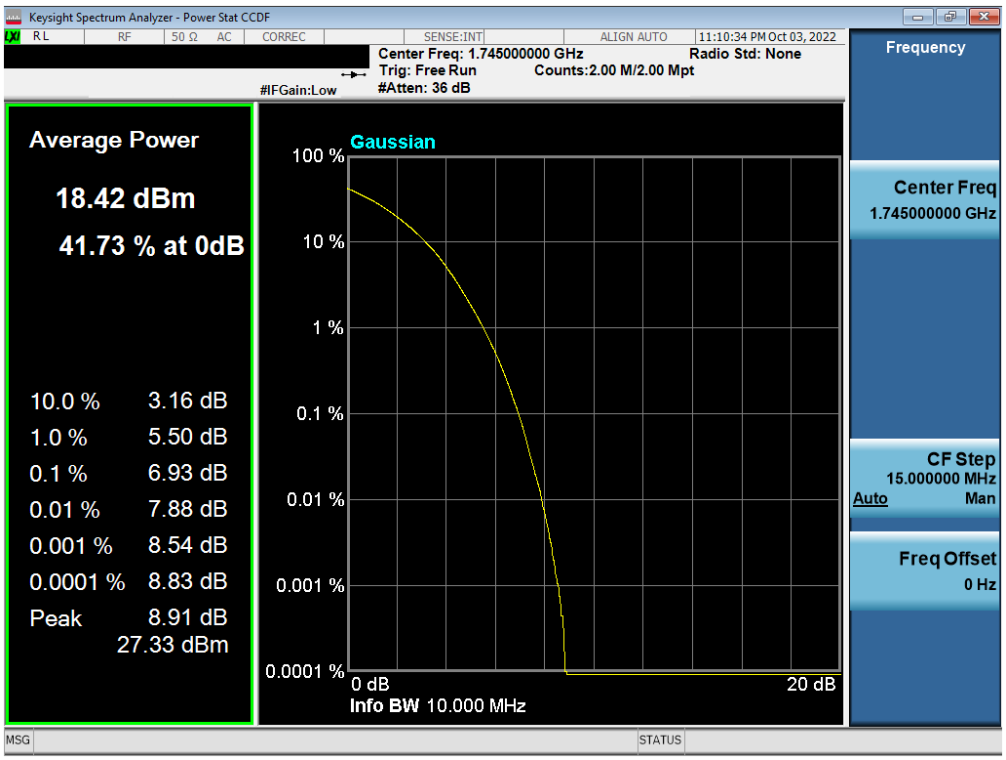
Plot 7-431. PAR Plot (LTE Band 66/4 - 15MHz QPSK - Full RB - Ant F)



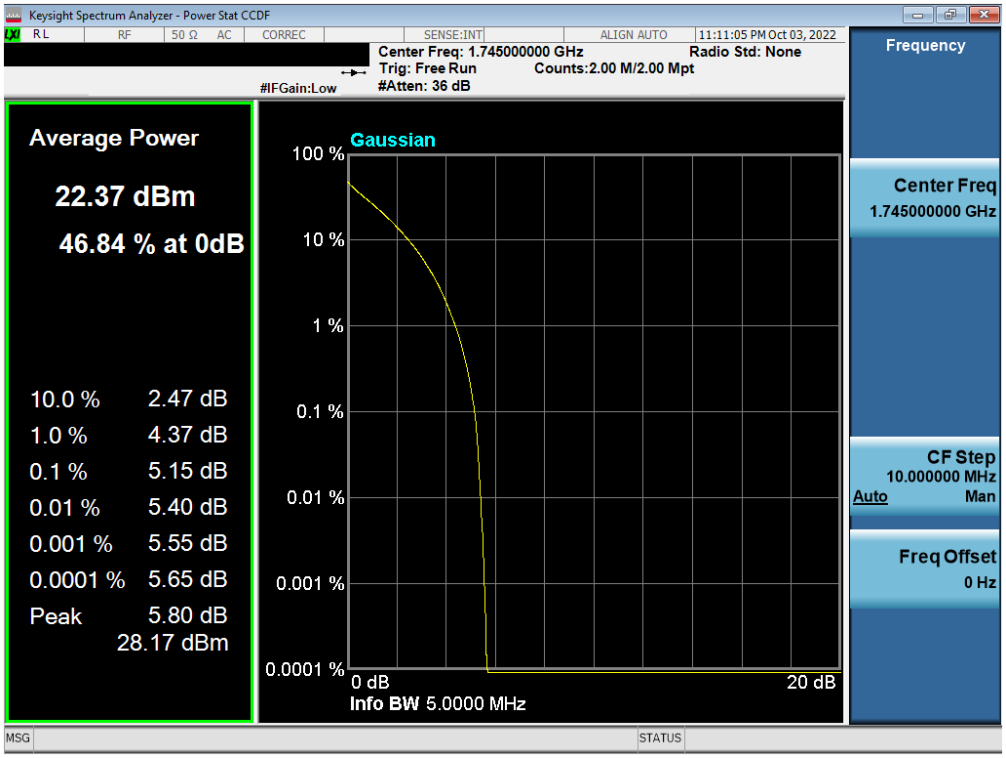
Plot 7-432. PAR Plot (LTE Band 66/4 - 15MHz 256-QAM - Full RB - Ant F)



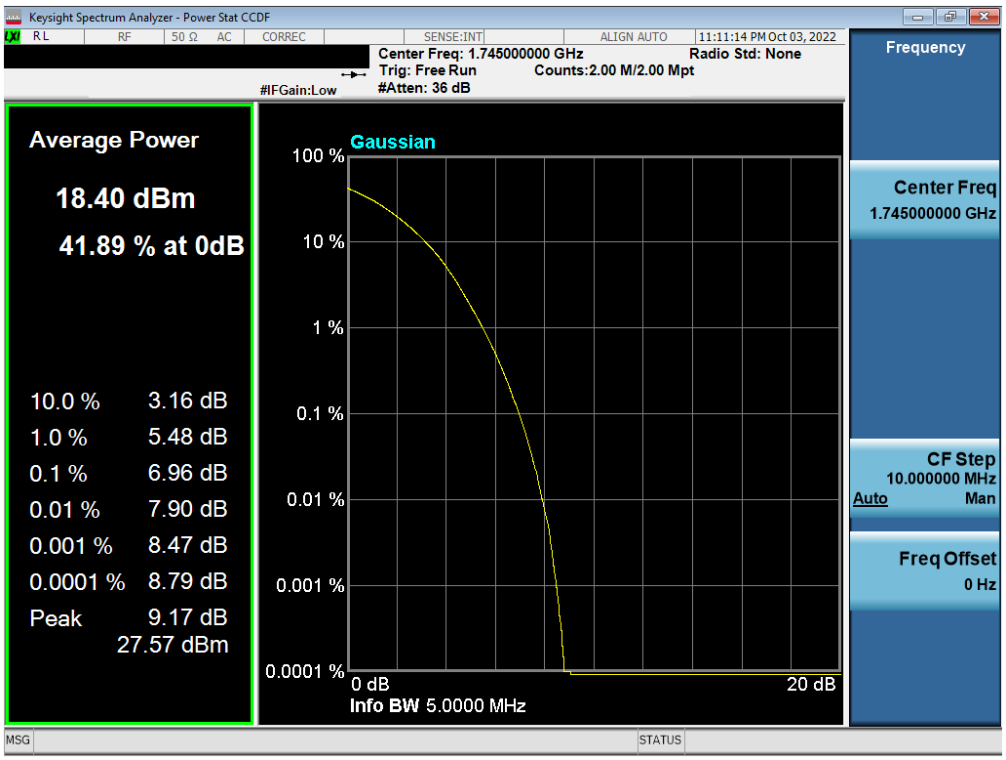
Plot 7-433. PAR Plot (LTE Band 66/4 - 10MHz QPSK - Full RB - Ant F)



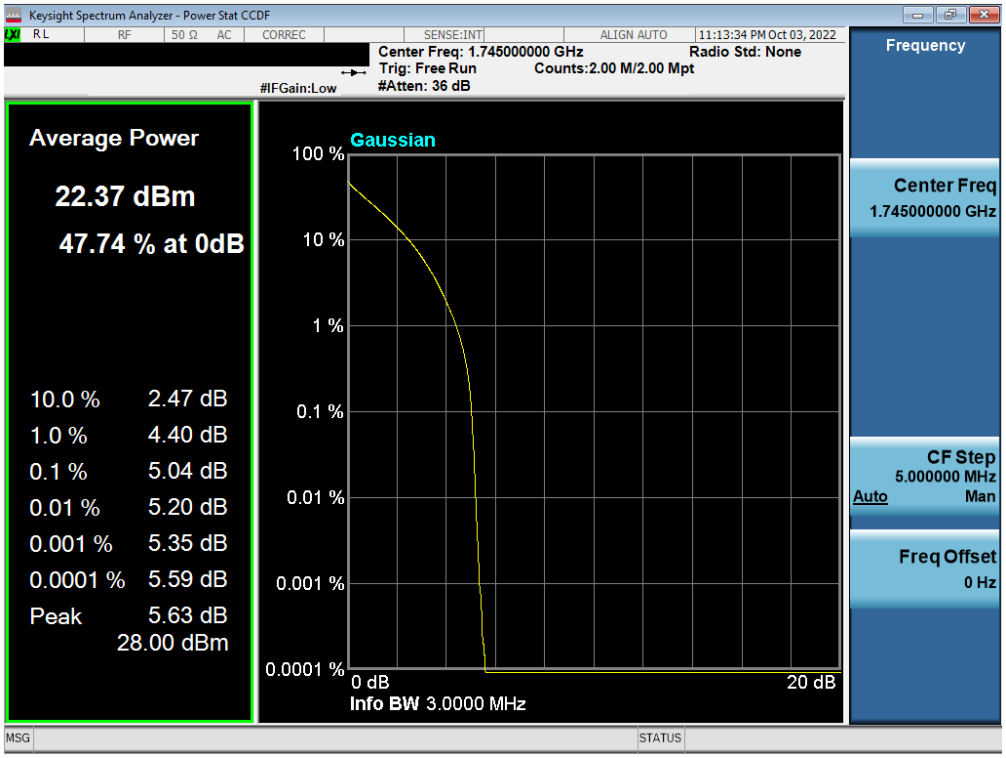
Plot 7-434. PAR Plot (LTE Band 66/4 - 10MHz 256-QAM - Full RB - Ant F)



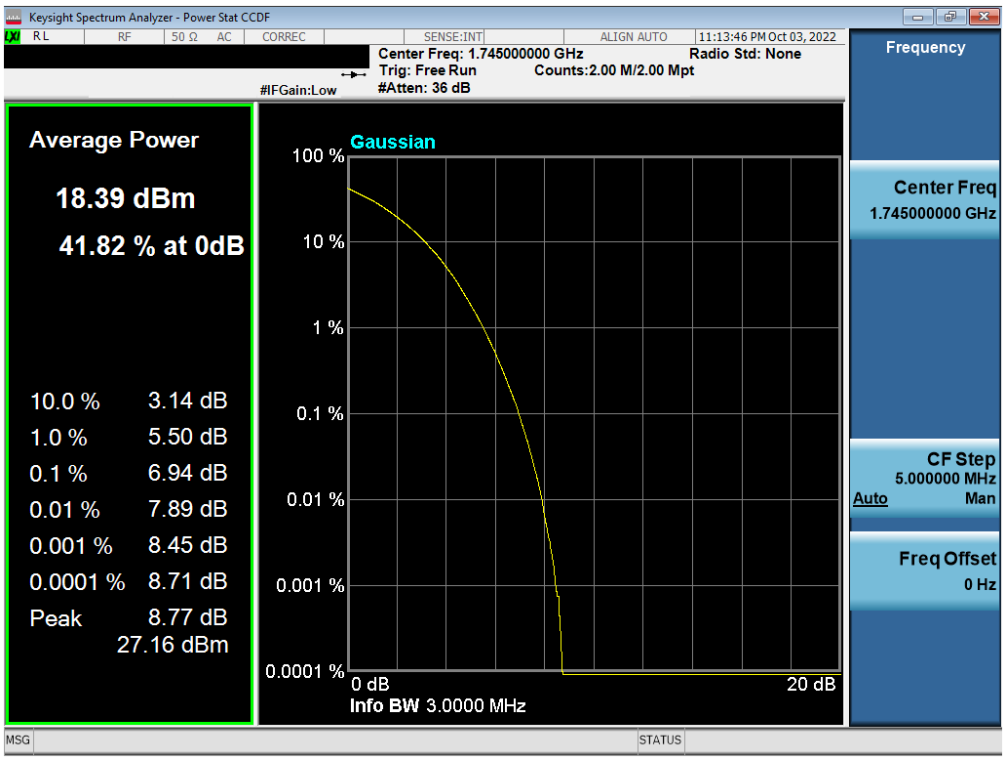
Plot 7-435. PAR Plot (LTE Band 66/4 - 5MHz QPSK - Full RB - Ant F)



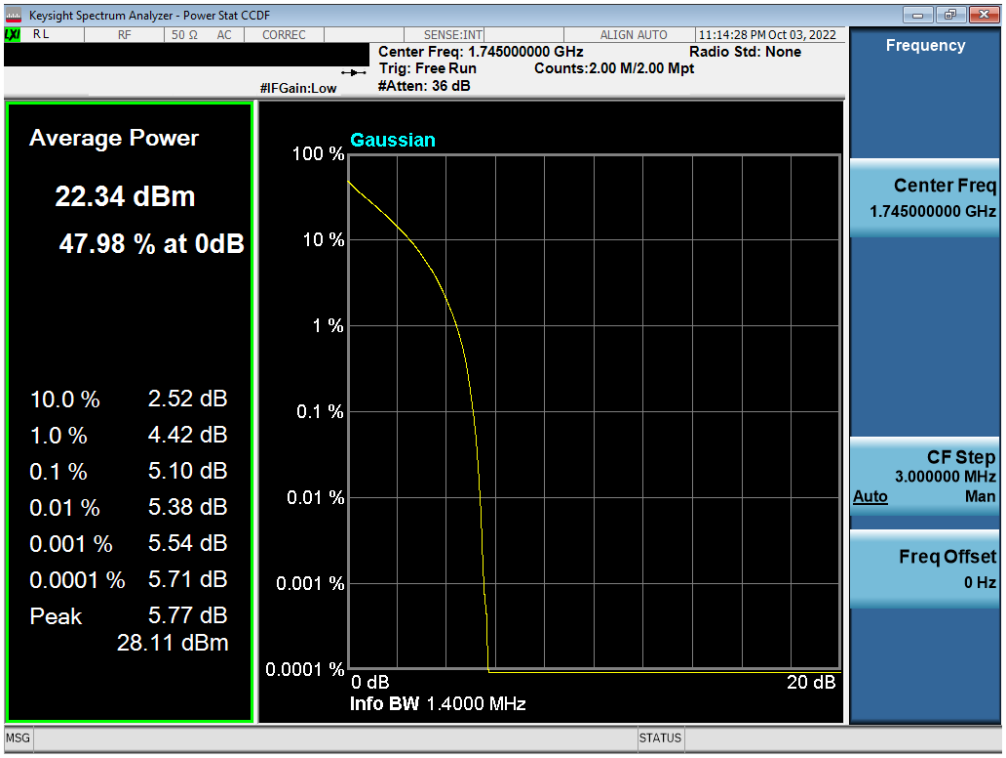
Plot 7-436. PAR Plot (LTE Band 66/4 - 5MHz 256-QAM - Full RB - Ant F)



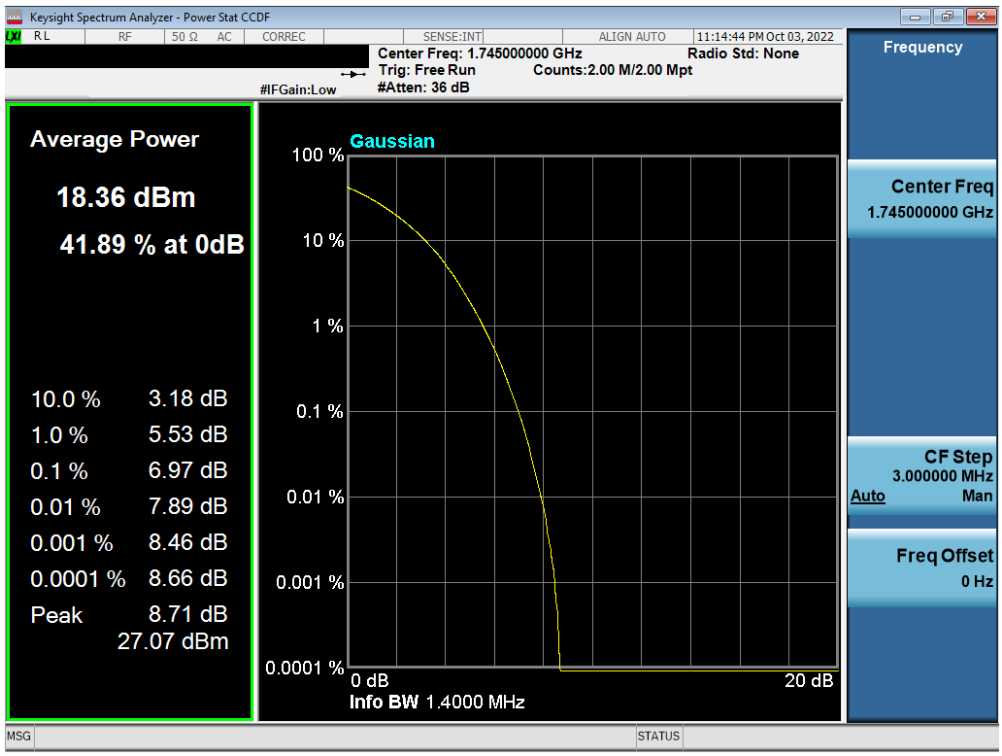
Plot 7-437. PAR Plot (LTE Band 66/4 - 3MHz QPSK - Full RB - Ant F)



Plot 7-438. PAR Plot (LTE Band 66/4 - 3MHz 256-QAM - Full RB - Ant F)



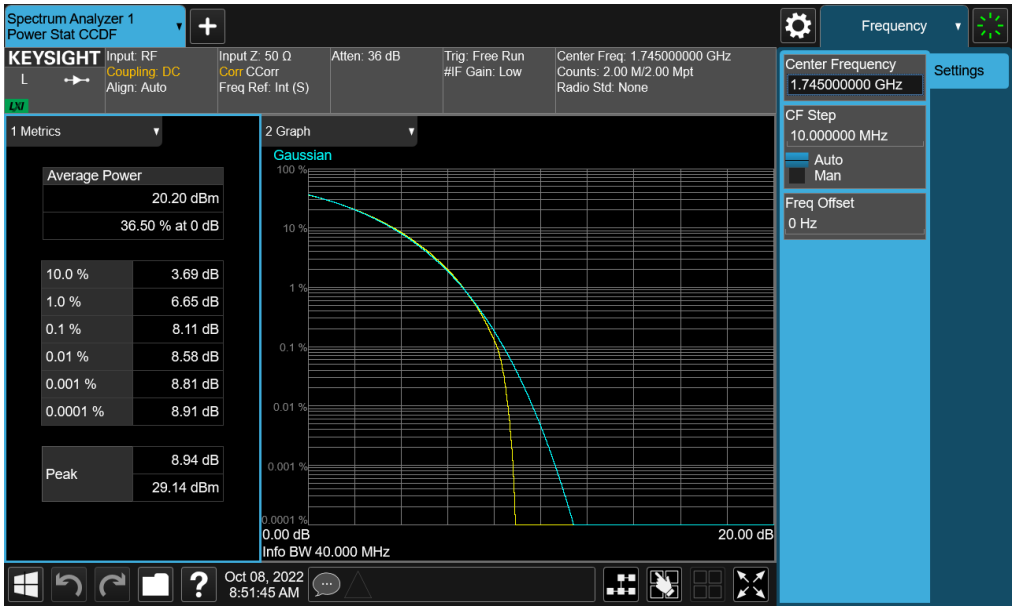
Plot 7-439. PAR Plot (LTE Band 66/4 - 1.4MHz QPSK - Full RB - Ant F)



Plot 7-440. PAR Plot (LTE Band 66/4 - 1.4MHz 256-QAM - Full RB - Ant F)

NR Band n66 – Ant F

Plot 7-441. PAR Plot (NR Band n66 - 40.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

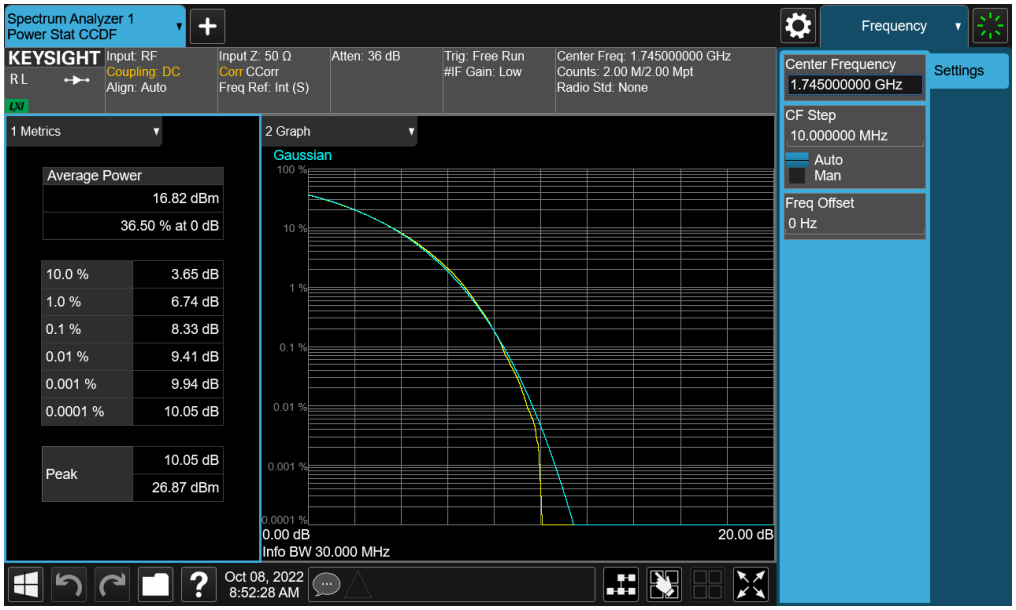


Plot 7-442. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM QPSK - Full RB - Ant F)

Plot 7-443. PAR Plot (NR Band n66 - 40.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

Plot 7-444. PAR Plot (NR Band n66 - 30.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

Plot 7-445. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM QPSK - Full RB - Ant F)



Plot 7-446. PAR Plot (NR Band n66 - 30.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

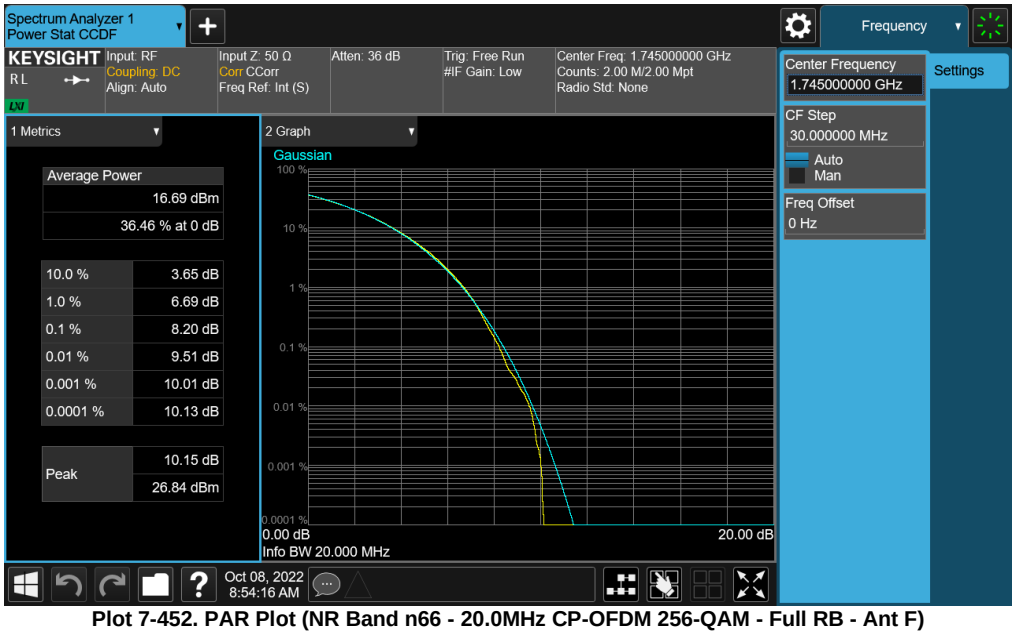
Plot 7-447. PAR Plot (NR Band n66 - 25.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

Plot 7-448. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM QPSK - Full RB - Ant F)

Plot 7-449. PAR Plot (NR Band n66 - 25.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

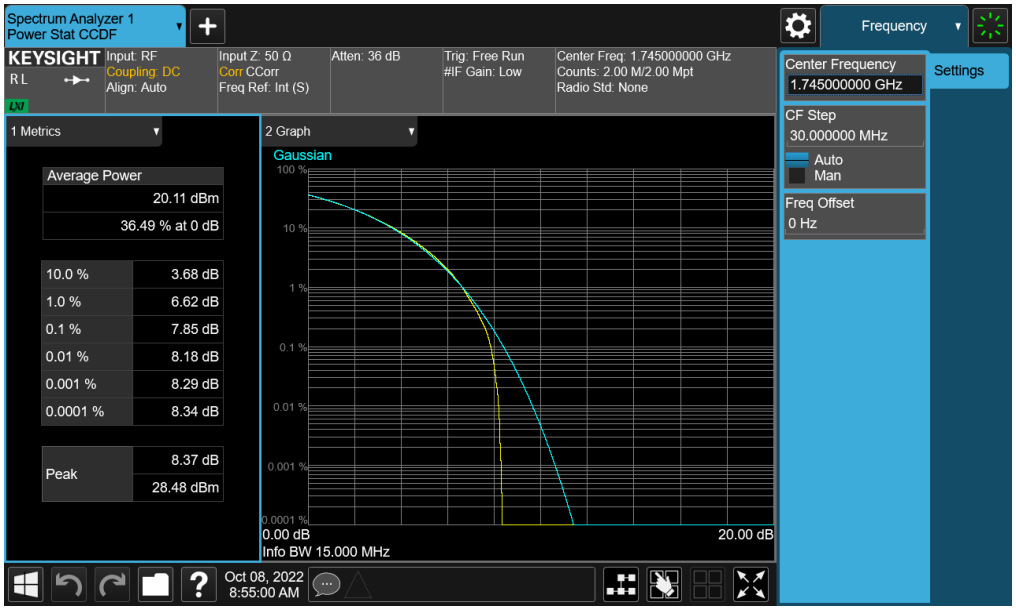
Plot 7-450. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

Plot 7-451. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM QPSK - Full RB - Ant F)



Plot 7-452. PAR Plot (NR Band n66 - 20.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

Plot 7-453. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)



Plot 7-454. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM QPSK - Full RB - Ant F)

Plot 7-455. PAR Plot (NR Band n66 - 15.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

Plot 7-456. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

Plot 7-457. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM QPSK - Full RB - Ant F)

Plot 7-458. PAR Plot (NR Band n66 - 10.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

Plot 7-459. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM BPSK - Full RB - Ant F)

Plot 7-460. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM QPSK - Full RB - Ant F)

Plot 7-461. PAR Plot (NR Band n66 - 5.0MHz CP-OFDM 256-QAM - Full RB - Ant F)

7.7 Radiated Power (ERP/EIRP)

Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.2.4.4

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points ≥ 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Setup

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

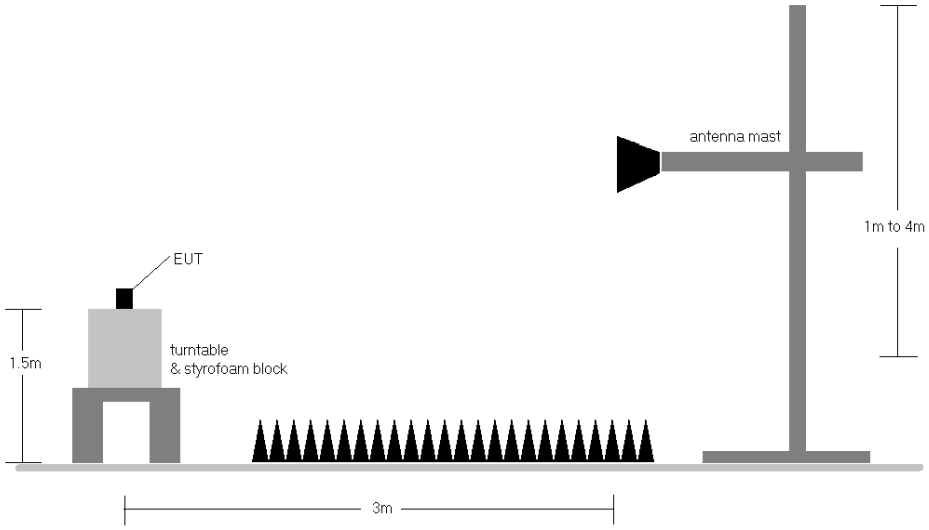


Figure 7-6. Radiated Test Setup <1GHz

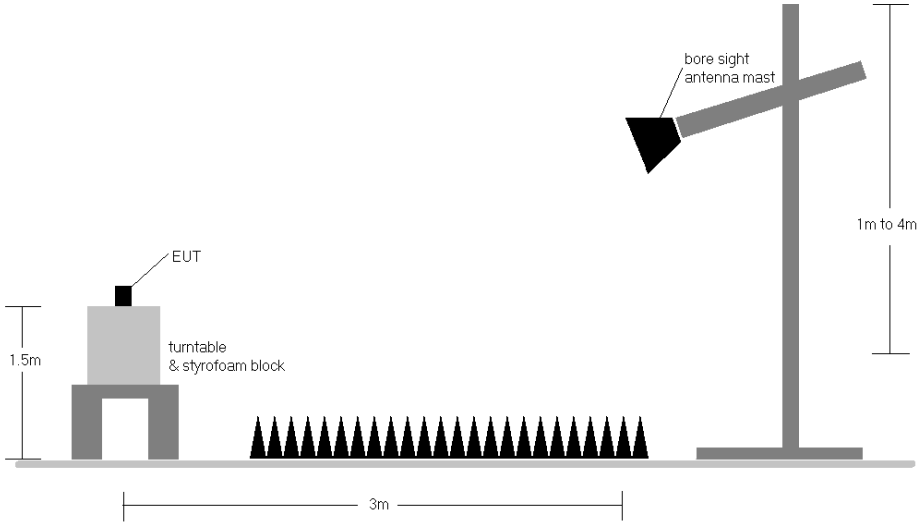


Figure 7-7. Radiated Test Setup >1GHz

Test Notes

1) 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.

2) This unit was tested with its standard battery.

3) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
20 MHz	QPSK	673.00	V	125	277	2.89	1 / 99	17.05	19.94	0.099	36.99	-17.05	17.79	0.060	34.77	-16.98
	QPSK	680.50	V	112	239	3.09	1 / 99	17.74	20.83	0.121	36.99	-16.16	18.68	0.074	34.77	-16.10
	QPSK	688.00	V	119	257	3.28	1 / 50	17.57	**20.85**	0.122	36.99	-16.14	**18.70**	0.074	34.77	-16.07
	16-QAM	688.00	V	119	257	3.28	1 / 50	17.35	20.63	0.116	36.99	-16.36	18.48	0.070	34.77	-16.29
15 MHz	QPSK	670.50	V	125	277	2.76	1 / 0	17.35	20.11	0.102	36.99	-16.88	17.96	0.062	34.77	-16.82
	QPSK	680.50	V	112	239	3.09	1 / 0	17.84	**20.93**	0.124	36.99	-16.06	**18.78**	0.075	34.77	-15.99
	QPSK	690.50	V	119	257	3.31	1 / 37	17.46	20.77	0.119	36.99	-16.22	18.62	0.073	34.77	-16.15
	16-QAM	690.50	V	119	257	3.31	1 / 37	17.40	20.71	0.118	36.99	-16.28	18.56	0.072	34.77	-16.21
10 MHz	QPSK	668.00	V	125	277	2.72	1 / 25	17.60	20.33	0.108	36.99	-16.66	18.18	0.066	34.77	-16.59
	QPSK	680.50	V	112	239	3.09	1 / 25	18.11	**21.19**	0.132	36.99	-15.80	**19.04**	0.080	34.77	-15.73
	QPSK	693.00	V	119	257	3.44	1 / 25	17.49	20.93	0.124	36.99	-16.06	18.78	0.076	34.77	-15.99
	16-QAM	693.00	V	119	257	3.44	1 / 25	17.06	20.50	0.112	36.99	-16.49	18.35	0.068	34.77	-16.42
5 MHz	QPSK	665.50	V	125	277	2.59	1 / 12	17.67	20.27	0.106	36.99	-16.72	18.12	0.065	34.77	-16.66
	QPSK	680.50	V	112	239	3.09	1 / 24	17.99	**21.08**	0.128	36.99	-15.91	**18.93**	0.078	34.77	-15.85
	QPSK	695.50	V	119	257	3.48	1 / 12	17.49	20.97	0.125	36.99	-16.02	18.82	0.076	34.77	-15.95
	16-QAM	695.50	V	119	257	3.48	1 / 12	17.56	21.03	0.127	36.99	-15.96	18.88	0.077	34.77	-15.89
20 MHz	Opposite Pol.	688.00	H	320	263	3.08	100 / 0	17.75	20.83	0.121	36.99	-16.16	18.68	0.074	34.77	-16.09
	WCP	688.00	V	313	260	3.08	1 / 99	15.84	18.92	0.078	36.99	-18.07	16.77	0.048	34.77	-18.00

Table 7-17. ERP Data (LTE Band 71 – Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	704.00	H	257	166	3.48	1 / 25	16.21	19.69	0.093	36.99	-17.30	17.54	0.057	34.77	-17.23
	QPSK	707.50	H	257	154	3.52	1 / 25	15.76	19.28	0.085	36.99	-17.71	17.13	0.052	34.77	-17.64
	QPSK	711.00	H	257	174	3.57	1 / 25	16.85	**20.42**	0.110	36.99	-16.57	**18.27**	0.067	34.77	-16.50
	16-QAM	711.00	H	257	174	3.57	1 / 25	16.28	19.85	0.097	36.99	-17.14	17.70	0.059	34.77	-17.07
5 MHz	QPSK	701.50	H	257	166	3.45	1 / 12	16.07	19.52	0.090	36.99	-17.47	17.37	0.055	34.77	-17.40
	QPSK	707.50	H	257	154	3.52	1 / 12	15.75	19.27	0.085	36.99	-17.71	17.12	0.052	34.77	-17.65
	QPSK	713.50	H	257	174	3.70	1 / 12	16.75	**20.45**	0.111	36.99	-16.54	**18.30**	0.068	34.77	-16.47
	16-QAM	713.50	H	257	174	3.70	1 / 24	16.11	19.81	0.096	36.99	-17.18	17.66	0.058	34.77	-17.11
3 MHz	QPSK	700.50	H	257	166	3.39	1 / 7	16.13	19.52	0.090	36.99	-17.47	17.37	0.055	34.77	-17.40
	QPSK	707.50	H	257	154	3.52	1 / 0	15.69	19.21	0.083	36.99	-17.78	17.06	0.051	34.77	-17.71
	QPSK	714.50	H	257	174	3.71	1 / 7	16.76	**20.47**	0.111	36.99	-16.52	**18.32**	0.068	34.77	-16.46
	16-QAM	714.50	H	257	174	3.71	1 / 0	16.17	19.88	0.097	36.99	-17.11	17.73	0.059	34.77	-17.05
1.4 MHz	QPSK	699.70	H	257	166	3.33	1 / 0	16.26	19.58	0.091	36.99	-17.41	17.43	0.055	34.77	-17.34
	QPSK	707.50	H	257	154	3.52	1 / 3	15.87	19.39	0.087	36.99	-17.59	17.24	0.053	34.77	-17.53
	QPSK	715.30	H	257	174	3.72	1 / 5	16.70	**20.42**	0.110	36.99	-16.57	**18.27**	0.067	34.77	-16.50
	16-QAM	715.30	H	257	174	3.72	1 / 5	16.09	19.81	0.096	36.99	-17.18	17.66	0.058	34.77	-17.11
10 MHz	Opposite Pol.	711.00	V	163	207	3.67	1 / 25	16.33	20.00	0.100	36.99	-16.99	17.85	0.061	34.77	-16.92
	WCP	711.00	H	257	278	3.57	1 / 49	13.61	17.18	0.052	36.99	-19.81	15.03	0.032	34.77	-19.74

Table 7-18. ERP Data (LTE Band 12 – Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	782.00	H	237	272	6.09	1 / 0	16.06	**22.15**	0.164	36.99	-14.84	**20.00**	0.100	34.77	-14.77
	16-QAM	782.00	H	237	272	6.09	1 / 0	15.22	21.31	0.135	36.99	-15.68	19.16	0.082	34.77	-15.61
5 MHz	QPSK	779.50	H	237	272	5.97	1 / 24	16.31	**22.27**	0.169	36.99	-14.72	**20.12**	0.103	34.77	-14.65
	QPSK	782.00	H	237	272	6.09	1 / 0	15.97	22.06	0.161	36.99	-14.92	19.91	0.098	34.77	-14.86
	QPSK	784.50	H	237	272	6.17	1 / 12	15.90	22.07	0.161	36.99	-14.92	19.92	0.098	34.77	-14.85
	16-QAM	779.50	H	237	272	5.97	1 / 0	15.87	21.83	0.152	36.99	-15.16	19.68	0.093	34.77	-15.09
10 MHz	Opposite Pol.	782.00	V	146	233	5.99	1 / 0	14.99	20.98	0.125	36.99	-16.01	18.83	0.076	34.77	-15.94
	WCP	782.00	H	250	270	6.09	1 / 25	12.62	18.71	0.074	36.99	-18.28	16.56	0.045	34.77	-18.21

Table 7-19. ERP Data (LTE Band 13 – Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
20 MHz	π/2 BPSK	673.00	H	137	276	2.99	1 / 53	16.55	19.54	0.090	36.99	-17.45	17.39	0.055	34.77	-17.38
	π/2 BPSK	680.50	H	137	268	3.09	1 / 53	16.86	19.95	0.099	36.99	-17.04	17.80	0.060	34.77	-16.98
	π/2 BPSK	688.00	H	152	269	3.08	1 / 79	17.60	20.68	0.117	36.99	-16.31	18.53	0.071	34.77	-16.24
	QPSK	673.00	H	137	276	2.99	1 / 79	16.60	19.59	0.091	36.99	-17.40	17.44	0.055	34.77	-17.33
	QPSK	680.50	H	137	268	3.09	1 / 79	17.00	20.09	0.102	36.99	-16.90	17.94	0.062	34.77	-16.84
	QPSK	688.00	H	152	269	3.08	1 / 79	17.78	**20.86**	0.122	36.99	-16.13	**18.71**	0.074	34.77	-16.06
	16-QAM	688.00	H	152	269	3.08	1 / 79	16.70	19.78	0.095	36.99	-17.21	17.63	0.058	34.77	-17.14
15 MHz	π/2 BPSK	670.50	H	137	276	2.96	1 / 20	16.44	19.40	0.087	36.99	-17.59	17.25	0.053	34.77	-17.52
	π/2 BPSK	680.50	H	137	268	3.09	1 / 39	16.71	19.80	0.095	36.99	-17.19	17.65	0.058	34.77	-17.12
	π/2 BPSK	690.50	H	152	269	3.11	1 / 20	17.52	20.63	0.116	36.99	-16.36	18.48	0.070	34.77	-16.29
	QPSK	670.50	H	137	276	2.96	1 / 20	16.51	19.47	0.088	36.99	-17.52	17.32	0.054	34.77	-17.45
	QPSK	680.50	H	137	268	3.09	1 / 39	16.91	20.00	0.100	36.99	-16.99	17.85	0.061	34.77	-16.92
	QPSK	690.50	H	152	269	3.11	1 / 20	17.62	**20.73**	0.118	36.99	-16.26	**18.58**	0.072	34.77	-16.19
	16-QAM	690.50	H	152	269	3.11	1 / 20	16.59	19.70	0.093	36.99	-17.29	17.55	0.057	34.77	-17.22
10 MHz	π/2 BPSK	668.00	H	137	276	2.92	1 / 26	16.44	19.36	0.086	36.99	-17.63	17.21	0.053	34.77	-17.56
	π/2 BPSK	680.50	H	137	268	3.09	1 / 13	16.44	19.53	0.090	36.99	-17.46	17.38	0.055	34.77	-17.39
	π/2 BPSK	693.00	H	152	269	3.14	1 / 38	17.30	20.45	0.111	36.99	-16.54	18.30	0.068	34.77	-16.47
	QPSK	668.00	H	137	276	2.92	1 / 26	16.67	19.60	0.091	36.99	-17.39	17.45	0.056	34.77	-17.32
	QPSK	680.50	H	137	268	3.09	1 / 13	17.13	20.21	0.105	36.99	-16.78	18.06	0.064	34.77	-16.71
	QPSK	693.00	H	152	269	3.14	1 / 38	17.71	**20.86**	0.122	36.99	-16.13	**18.71**	0.074	34.77	-16.06
	16-QAM	693.00	H	152	269	3.14	1 / 38	16.50	19.65	0.092	36.99	-17.34	17.50	0.056	34.77	-17.28
5 MHz	π/2 BPSK	665.50	H	137	276	2.94	1 / 18	16.52	19.46	0.088	36.99	-17.53	17.31	0.054	34.77	-17.46
	π/2 BPSK	680.50	H	137	268	3.09	1 / 6	16.62	19.71	0.094	36.99	-17.28	17.56	0.057	34.77	-17.21
	π/2 BPSK	695.50	H	152	269	3.18	1 / 18	17.13	20.31	0.107	36.99	-16.68	18.16	0.065	34.77	-16.62
	QPSK	665.50	H	137	276	2.94	1 / 18	16.62	19.56	0.090	36.99	-17.43	17.41	0.055	34.77	-17.36
	QPSK	680.50	H	137	268	3.09	1 / 6	17.12	20.20	0.105	36.99	-16.79	18.05	0.064	34.77	-16.72
	QPSK	695.50	H	152	269	3.18	1 / 18	17.25	**20.43**	0.110	36.99	-16.56	**18.28**	0.067	34.77	-16.49
	16-QAM	680.50	H	137	268	3.09	1 / 6	16.47	19.55	0.090	36.99	-17.44	17.40	0.055	34.77	-17.37
20 MHz	QPSK (CP-OFDM)	688.00	H	150	272	3.09	1 / 53	15.43	18.52	0.071	36.99	-18.47	16.37	0.043	34.77	-18.41
	QPSK (Opposite Pol.)	688.00	V	187	312	3.28	1 / 53	15.32	18.60	0.072	36.99	-18.39	16.45	0.044	34.77	-18.32
	QPSK (WCP)	688.00	H	150	263	3.09	1 / 53	12.45	15.54	0.036	36.99	-21.45	13.39	0.022	34.77	-21.39

Table 7-20. ERP Data (NR Band n71 – Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
15 MHz	π/2 BPSK	706.50	H	257	182	3.51	1 / 58	16.39	**19.90**	0.098	36.99	-17.09	**17.75**	0.060	34.77	-17.02
	π/2 BPSK	707.50	H	254	182	3.52	1 / 58	15.99	19.51	0.089	36.99	-17.48	17.36	0.054	34.77	-17.41
	π/2 BPSK	708.50	H	250	175	3.54	1 / 39	15.91	19.45	0.088	36.99	-17.54	17.30	0.054	34.77	-17.48
	QPSK	706.50	H	257	182	3.51	1 / 39	16.24	19.75	0.094	36.99	-17.24	17.60	0.058	34.77	-17.17
	QPSK	707.50	H	254	182	3.52	1 / 39	16.04	19.56	0.090	36.99	-17.43	17.41	0.055	34.77	-17.36
	QPSK	708.50	H	250	175	3.54	1 / 39	15.82	19.36	0.086	36.99	-17.63	17.21	0.053	34.77	-17.57
	16-QAM	706.50	H	257	182	3.51	1 / 58	15.60	19.11	0.081	36.99	-17.88	16.96	0.050	34.77	-17.81
10 MHz	π/2 BPSK	704.00	H	257	182	3.48	1 / 26	16.35	19.84	0.096	36.99	-17.15	17.69	0.059	34.77	-17.09
	π/2 BPSK	707.50	H	254	182	3.52	1 / 26	16.18	19.70	0.093	36.99	-17.29	17.55	0.057	34.77	-17.22
	π/2 BPSK	711.00	H	250	175	3.57	1 / 26	15.97	19.54	0.090	36.99	-17.45	17.39	0.055	34.77	-17.38
	QPSK	704.00	H	257	182	3.48	1 / 26	16.36	**19.84**	0.096	36.99	-17.15	**17.69**	0.059	34.77	-17.08
	QPSK	707.50	H	254	182	3.52	1 / 26	15.98	19.51	0.089	36.99	-17.48	17.36	0.054	34.77	-17.41
	QPSK	711.00	H	250	175	3.57	1 / 26	16.04	19.61	0.091	36.99	-17.38	17.46	0.056	34.77	-17.32
	16-QAM	704.00	H	257	182	3.48	1 / 26	15.64	19.12	0.082	36.99	-17.87	16.97	0.050	34.77	-17.81
5 MHz	π/2 BPSK	701.50	H	257	182	3.45	1 / 6	16.65	**20.10**	0.102	36.99	-16.89	**17.95**	0.062	34.77	-16.82
	π/2 BPSK	707.50	H	254	182	3.52	1 / 6	16.00	19.52	0.090	36.99	-17.47	17.37	0.055	34.77	-17.40
	π/2 BPSK	713.50	H	250	175	3.70	1 / 6	15.49	19.19	0.083	36.99	-17.80	17.04	0.051	34.77	-17.73
	QPSK	701.50	H	257	182	3.45	1 / 6	16.37	19.82	0.096	36.99	-17.17	17.67	0.059	34.77	-17.10
	QPSK	707.50	H	254	182	3.52	1 / 6	15.89	19.41	0.087	36.99	-17.58	17.26	0.053	34.77	-17.51
	QPSK	713.50	H	250	175	3.70	1 / 6	15.91	19.61	0.091	36.99	-17.38	17.46	0.056	34.77	-17.31
	16-QAM	701.50	H	257	182	3.45	1 / 6	15.54	18.99	0.079	36.99	-18.00	16.84	0.048	34.77	-17.93
15 MHz	QPSK (CP-OFDM)	706.50	H	256	175	3.51	1 / 39	14.91	18.42	0.070	36.99	-18.57	16.27	0.042	34.77	-18.50
	QPSK (Opposite Pol.)	706.50	V	143	183	3.61	1 / 58	15.79	19.40	0.087	36.99	-17.59	17.25	0.053	34.77	-17.52
	QPSK (WCP)	706.50	H	251	265	3.51	1 / 39	12.45	15.96	0.039	36.99	-21.03	13.81	0.024	34.77	-20.96

Table 7-21. ERP Data (NR Band n12 – Ant A)

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1712.40	WCDMA1700	V	159	310	14.27	9.47	23.74	0.237	30.00	-6.26
1732.60	WCDMA1700	V	150	309	14.58	9.15	23.73	0.236	30.00	-6.27
1752.60	WCDMA1700	V	147	323	14.81	9.05	**23.86**	**0.243**	30.00	-6.14
1752.60	WCDMA1700	H	139	186	13.43	9.46	22.89	0.195	30.00	-7.11
1752.60	WCDMA1700 (WCP)	V	148	275	-1.79	9.05	7.26	0.005	30.00	-22.74

Table 7-22. EIRP Data (WCDMA AWS – Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.00	H	114	197	9.47	1 / 0	12.06	21.53	0.142	30.00	-8.47
	QPSK	1745.00	H	127	202	9.48	1 / 99	12.78	**22.26**	0.168	30.00	-7.74
	QPSK	1770.00	H	172	173	9.39	1 / 99	12.13	21.52	0.142	30.00	-8.48
	16-QAM	1745.00	H	127	202	9.48	1 / 99	11.75	21.23	0.133	30.00	-8.77
15 MHz	QPSK	1717.50	H	114	197	9.49	1 / 0	12.14	21.64	0.146	30.00	-8.36
	QPSK	1745.00	H	127	202	9.48	1 / 37	12.86	**22.34**	0.171	30.00	-7.66
	QPSK	1772.50	H	172	173	9.36	1 / 37	12.24	21.60	0.145	30.00	-8.40
	16-QAM	1745.00	H	127	202	9.48	1 / 37	11.60	21.08	0.128	30.00	-8.92
10 MHz	QPSK	1715.00	H	114	197	9.52	1 / 49	12.12	21.64	0.146	30.00	-8.36
	QPSK	1745.00	H	127	202	9.48	1 / 25	13.02	**22.50**	0.178	30.00	-7.50
	QPSK	1775.00	H	172	173	9.34	1 / 25	12.37	21.70	0.148	30.00	-8.30
	16-QAM	1745.00	H	127	202	9.48	1 / 25	11.74	21.22	0.133	30.00	-8.78
5 MHz	QPSK	1712.50	H	114	197	9.54	1 / 24	12.09	21.63	0.146	30.00	-8.37
	QPSK	1745.00	H	127	202	9.48	1 / 24	12.87	**22.35**	0.172	30.00	-7.65
	QPSK	1777.50	H	172	173	9.31	1 / 0	12.36	21.68	0.147	30.00	-8.32
	16-QAM	1745.00	H	127	202	9.48	1 / 24	11.76	21.24	0.133	30.00	-8.76
3 MHz	QPSK	1711.50	H	114	197	9.55	1 / 7	12.21	21.76	0.150	30.00	-8.24
	QPSK	1745.00	H	127	202	9.48	1 / 7	12.99	**22.47**	0.177	30.00	-7.53
	QPSK	1778.50	H	172	173	9.30	1 / 7	12.39	21.70	0.148	30.00	-8.30
	16-QAM	1745.00	H	127	202	9.48	1 / 7	11.80	21.28	0.134	30.00	-8.72
1.4 MHz	QPSK	1710.70	H	114	197	9.56	1 / 0	12.06	21.62	0.145	30.00	-8.38
	QPSK	1745.00	H	127	202	9.48	1 / 0	12.95	**22.43**	0.175	30.00	-7.57
	QPSK	1779.30	H	172	173	9.29	1 / 3	12.29	21.58	0.144	30.00	-8.42
	16-QAM	1745.00	H	127	202	9.48	1 / 0	11.82	21.30	0.135	30.00	-8.70
20 MHz	Opposite Pol.	1745.00	V	115	307	9.03	1 / 50	11.33	20.36	0.109	30.00	-9.64
	WCP	1745.00	H	172	166	9.48	1 / 99	10.69	20.17	0.104	30.00	-9.83

Table 7-23. EIRP Data (LTE Band 66/4 – Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
40 MHz	π/2 BPSK	1730.00	V	162	307	9.20	1 / 54	13.35	**22.55**	0.180	30.00	-7.45
	π/2 BPSK	1745.00	V	149	314	9.03	216 / 0	13.32	22.35	0.172	30.00	-7.65
	π/2 BPSK	1760.00	V	152	320	9.08	1 / 54	12.34	21.42	0.139	30.00	-8.58
	QPSK	1730.00	V	162	307	9.20	1 / 54	13.03	22.23	0.167	30.00	-7.77
	QPSK	1745.00	V	149	314	9.03	1 / 54	13.03	22.06	0.161	30.00	-7.94
	QPSK	1760.00	V	152	320	9.08	1 / 54	11.75	20.83	0.121	30.00	-9.17
	16-QAM	1730.00	V	162	307	9.20	1 / 54	12.60	21.80	0.151	30.00	-8.20
30 MHz	π/2 BPSK	1725.00	V	162	307	9.26	1 / 119	12.88	22.15	0.164	30.00	-7.85
	π/2 BPSK	1745.00	V	149	314	9.03	1 / 119	13.32	**22.35**	0.172	30.00	-7.65
	π/2 BPSK	1765.00	V	152	320	9.09	1 / 40	12.23	21.32	0.136	30.00	-8.68
	QPSK	1725.00	V	162	307	9.26	1 / 119	12.19	21.45	0.140	30.00	-8.55
	QPSK	1745.00	V	149	314	9.03	1 / 119	13.14	22.17	0.165	30.00	-7.83
	QPSK	1765.00	V	152	320	9.09	1 / 40	11.73	20.82	0.121	30.00	-9.18
	16-QAM	1745.00	V	149	314	9.03	1 / 119	12.31	21.34	0.136	30.00	-8.66
25 MHz	π/2 BPSK	1722.5	V	162	307	9.30	1 / 99	13.51	**22.81**	0.191	30.00	-7.19
	π/2 BPSK	1745.0	V	149	314	9.03	1 / 99	13.63	22.66	0.184	30.00	-7.34
	π/2 BPSK	1767.5	V	152	320	9.09	1 / 99	12.31	21.40	0.138	30.00	-8.60
	QPSK	1725.0	V	162	307	9.26	1 / 99	13.20	22.47	0.176	30.00	-7.53
	QPSK	1745.0	V	149	314	9.03	1 / 99	13.14	22.18	0.165	30.00	-7.82
	QPSK	1765.0	V	152	320	9.09	1 / 99	11.63	20.72	0.118	30.00	-9.28
	16-QAM	1725.0	V	162	307	9.26	1 / 99	12.85	22.12	0.163	30.00	-7.88
20 MHz	π/2 BPSK	1720.00	V	162	307	9.33	1 / 79	13.32	**22.65**	0.184	30.00	-7.35
	π/2 BPSK	1745.00	V	149	314	9.03	1 / 26	13.35	22.38	0.173	30.00	-7.62
	π/2 BPSK	1770.00	V	152	320	9.10	1 / 79	12.13	21.23	0.133	30.00	-8.77
	QPSK	1720.00	V	162	307	9.33	1 / 26	13.07	22.40	0.174	30.00	-7.60
	QPSK	1745.00	V	149	314	9.03	1 / 26	13.07	22.11	0.162	30.00	-7.89
	QPSK	1770.00	V	152	320	9.10	1 / 79	11.59	20.68	0.117	30.00	-9.32
	16-QAM	1720.00	V	162	307	9.33	1 / 26	12.54	21.87	0.154	30.00	-8.13
15 MHz	π/2 BPSK	1717.50	V	162	307	9.38	1 / 20	13.39	**22.77**	0.189	30.00	-7.23
	π/2 BPSK	1745.00	V	149	314	9.03	1 / 20	13.40	22.43	0.175	30.00	-7.57
	π/2 BPSK	1772.50	V	152	320	9.11	1 / 20	11.44	20.55	0.114	30.00	-9.45
	QPSK	1717.50	V	162	307	9.38	1 / 20	13.03	22.40	0.174	30.00	-7.60
	QPSK	1745.00	V	149	314	9.03	1 / 20	13.17	22.20	0.166	30.00	-7.80
	QPSK	1772.50	V	152	320	9.11	1 / 20	10.94	20.05	0.101	30.00	-9.95
	16-QAM	1717.50	V	162	307	9.38	1 / 20	12.54	21.91	0.155	30.00	-8.09
10 MHz	π/2 BPSK	1715.00	V	162	307	9.42	1 / 26	13.00	22.43	0.175	30.00	-7.57
	π/2 BPSK	1745.00	V	149	314	9.03	1 / 38	13.41	**22.45**	0.176	30.00	-7.55
	π/2 BPSK	1775.00	V	152	320	9.13	1 / 13	11.98	21.11	0.129	30.00	-8.89
	QPSK	1715.00	V	162	307	9.42	1 / 26	12.72	22.14	0.164	30.00	-7.86
	QPSK	1745.00	V	149	314	9.03	1 / 38	13.15	22.19	0.165	30.00	-7.81
	QPSK	1775.00	V	152	320	9.13	1 / 13	11.46	20.59	0.115	30.00	-9.41
	16-QAM	1715.00	V	162	307	9.42	1 / 26	12.18	21.60	0.145	30.00	-8.40
5 MHz	π/2 BPSK	1712.50	V	162	307	9.47	1 / 18	12.97	**22.44**	0.175	30.00	-7.56
	π/2 BPSK	1745.00	V	149	314	9.03	1 / 12	13.34	22.38	0.173	30.00	-7.62
	π/2 BPSK	1777.50	V	152	320	9.15	1 / 18	11.85	20.99	0.126	30.00	-9.01
	QPSK	1712.50	V	162	307	9.47	1 / 18	12.87	22.34	0.171	30.00	-7.66
	QPSK	1745.00	V	149	314	9.03	1 / 12	13.09	22.13	0.163	30.00	-7.87
	QPSK	1777.50	V	152	320	9.15	1 / 18	11.45	20.60	0.115	30.00	-9.40
	16-QAM	1712.50	V	162	307	9.47	1 / 18	12.35	21.81	0.152	30.00	-8.19
40 MHz	QPSK (CP-OFDM)	1730.00	V	145	307	9.20	1 / 108	11.16	20.36	0.109	30.00	-9.64
	QPSK (Opposite Pol.)	1730.00	H	135	4	9.20	216 / 0	8.59	17.79	0.060	30.00	-12.21
	QPSK (WCP)	1730.00	H	212	186	9.20	1 / 108	10.62	19.82	0.096	30.00	-10.18

Table 7-24. EIRP Data (NR Band n66 – Ant A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.00	V	131	34	9.03	1 / 0	12.18	21.21	0.132	30.00	-8.79
	QPSK	1745.00	V	132	40	9.48	1 / 50	12.90	**22.38**	0.173	30.00	-7.62
	QPSK	1770.00	V	121	34	9.39	1 / 50	11.67	21.06	0.128	30.00	-8.94
	16-QAM	1745.00	V	132	40	9.48	1 / 50	12.25	21.73	0.149	30.00	-8.27
15 MHz	QPSK	1717.50	V	131	34	9.49	1 / 0	11.80	21.29	0.135	30.00	-8.71
	QPSK	1745.00	V	132	40	9.48	1 / 0	12.72	**22.20**	0.166	30.00	-7.80
	QPSK	1772.50	V	121	34	9.36	1 / 0	11.76	21.13	0.130	30.00	-8.87
	16-QAM	1745.00	V	132	40	9.48	1 / 0	12.30	21.78	0.151	30.00	-8.22
10 MHz	QPSK	1715.00	V	131	34	9.52	1 / 0	11.86	21.38	0.137	30.00	-8.62
	QPSK	1745.00	V	132	40	9.48	1 / 0	13.11	**22.59**	0.182	30.00	-7.41
	QPSK	1775.00	V	121	34	9.34	1 / 0	11.88	21.22	0.132	30.00	-8.78
	16-QAM	1745.00	V	132	40	9.48	1 / 0	12.21	21.69	0.148	30.00	-8.31
5 MHz	QPSK	1712.50	V	131	34	9.54	1 / 0	11.77	21.32	0.135	30.00	-8.68
	QPSK	1745.00	V	132	40	9.48	1 / 24	13.04	**22.52**	0.179	30.00	-7.48
	QPSK	1777.50	V	121	34	9.31	1 / 12	11.90	21.21	0.132	30.00	-8.79
	16-QAM	1745.00	V	132	40	9.48	1 / 24	12.38	21.86	0.153	30.00	-8.14
3 MHz	QPSK	1711.50	V	131	34	9.55	1 / 14	11.68	21.23	0.133	30.00	-8.77
	QPSK	1745.00	V	132	40	9.48	1 / 0	12.86	**22.34**	0.171	30.00	-7.66
	QPSK	1778.50	V	121	34	9.30	1 / 7	12.00	21.31	0.135	30.00	-8.69
	16-QAM	1745.00	V	132	40	9.48	1 / 0	12.38	21.86	0.153	30.00	-8.14
1.4 MHz	QPSK	1710.70	V	131	34	9.56	1 / 0	11.70	21.26	0.134	30.00	-8.74
	QPSK	1745.00	V	132	40	9.48	1 / 3	12.90	**22.38**	0.173	30.00	-7.62
	QPSK	1779.30	V	121	34	9.29	1 / 0	11.89	21.18	0.131	30.00	-8.82
	16-QAM	1745.00	V	132	40	9.48	1 / 3	12.18	21.66	0.147	30.00	-8.34
20 MHz	Opposite Pol.	1745.00	H	102	326	9.48	1 / 50	11.04	20.52	0.113	30.00	-9.48
	WCP	1745.00	V	108	325	9.03	1 / 99	9.40	18.43	0.070	30.00	-11.57

Table 7-25. EIRP Data (LTE Band 66/4 – Ant F)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
40 MHz	π/2 BPSK	1730.00	V	146	38	9.20	1 / 108	13.07	22.27	0.169	30.00	-7.73
	π/2 BPSK	1745.00	V	132	42	9.03	1 / 108	13.32	**22.35**	0.172	30.00	-7.65
	π/2 BPSK	1760.00	V	134	20	9.08	1 / 54	13.07	22.15	0.164	30.00	-7.85
	QPSK	1730.00	V	146	38	9.20	1 / 108	12.96	22.16	0.164	30.00	-7.84
	QPSK	1745.00	V	132	42	9.03	1 / 108	13.26	22.29	0.170	30.00	-7.71
	QPSK	1760.00	V	134	20	9.08	1 / 54	12.97	22.05	0.160	30.00	-7.95
	16-QAM	1730.00	V	146	38	9.20	1 / 108	12.20	21.40	0.138	30.00	-8.60
30 MHz	π/2 BPSK	1725.00	V	146	38	9.26	1 / 40	12.84	22.10	0.162	30.00	-7.90
	π/2 BPSK	1745.00	V	132	42	9.03	1 / 40	13.41	**22.44**	0.175	30.00	-7.56
	π/2 BPSK	1765.00	V	134	20	9.09	1 / 40	13.09	22.18	0.165	30.00	-7.82
	QPSK	1725.00	V	146	38	9.26	1 / 40	12.84	22.11	0.162	30.00	-7.89
	QPSK	1745.00	V	132	42	9.03	1 / 40	13.16	22.20	0.166	30.00	-7.80
	QPSK	1765.00	V	134	20	9.09	1 / 40	12.87	21.96	0.157	30.00	-8.04
	16-QAM	1745.00	V	132	42	9.03	1 / 40	12.54	21.58	0.144	30.00	-8.42
20 MHz	π/2 BPSK	1720.00	V	146	38	9.33	1 / 79	13.01	22.34	0.171	30.00	-7.66
	π/2 BPSK	1745.00	V	132	42	9.03	1 / 26	13.10	22.14	0.164	30.00	-7.86
	π/2 BPSK	1770.00	V	134	20	9.10	1 / 79	12.87	21.97	0.157	30.00	-8.03
	QPSK	1720.00	V	146	38	9.33	1 / 79	12.78	22.11	0.163	30.00	-7.89
	QPSK	1745.00	V	132	42	9.03	1 / 26	13.36	**22.39**	0.173	30.00	-7.61
	QPSK	1770.00	V	134	20	9.10	1 / 79	12.77	21.87	0.154	30.00	-8.13
	16-QAM	1745.00	V	132	42	9.03	1 / 26	12.62	21.65	0.146	30.00	-8.35
15 MHz	π/2 BPSK	1717.50	V	146	38	9.38	1 / 20	12.86	22.24	0.167	30.00	-7.76
	π/2 BPSK	1745.00	V	132	42	9.03	1 / 20	13.29	**22.32**	0.171	30.00	-7.68
	π/2 BPSK	1772.50	V	134	20	9.11	1 / 58	12.86	21.97	0.157	30.00	-8.03
	QPSK	1717.50	V	146	38	9.38	1 / 20	12.71	22.08	0.162	30.00	-7.92
	QPSK	1745.00	V	132	42	9.03	1 / 20	13.24	22.28	0.169	30.00	-7.72
	QPSK	1772.50	V	134	20	9.11	1 / 58	12.79	21.90	0.155	30.00	-8.10
	16-QAM	1745.00	V	132	42	9.03	1 / 20	12.45	21.48	0.141	30.00	-8.52
10 MHz	π/2 BPSK	1715.00	V	146	38	9.42	1 / 13	12.62	22.04	0.160	30.00	-7.96
	π/2 BPSK	1745.00	V	132	42	9.03	1 / 13	12.99	22.02	0.159	30.00	-7.98
	π/2 BPSK	1775.00	V	134	20	9.13	1 / 38	12.74	21.87	0.154	30.00	-8.13
	QPSK	1715.00	V	146	38	9.42	1 / 13	12.43	21.85	0.153	30.00	-8.15
	QPSK	1745.00	V	132	42	9.03	1 / 13	13.01	**22.04**	0.160	30.00	-7.96
	QPSK	1775.00	V	134	20	9.13	1 / 38	12.57	21.70	0.148	30.00	-8.30
	16-QAM	1745.00	V	132	42	9.03	1 / 13	12.41	21.45	0.140	30.00	-8.55
5 MHz	π/2 BPSK	1712.50	V	146	38	9.47	1 / 6	12.34	21.81	0.152	30.00	-8.19
	π/2 BPSK	1745.00	V	132	42	9.03	1 / 6	13.35	**22.39**	0.173	30.00	-7.61
	π/2 BPSK	1777.50	V	134	20	9.15	1 / 18	12.77	21.92	0.155	30.00	-8.08
	QPSK	1712.50	V	146	38	9.47	1 / 6	12.10	21.57	0.144	30.00	-8.43
	QPSK	1745.00	V	132	42	9.03	1 / 6	13.08	22.11	0.163	30.00	-7.89
	QPSK	1777.50	V	134	20	9.15	1 / 18	12.70	21.85	0.153	30.00	-8.15
	16-QAM	1745.00	V	132	42	9.03	1 / 6	12.57	21.61	0.145	30.00	-8.39
40 MHz	QPSK (CP-OFDM)	1745.00	V	133	29	9.03	1 / 108	11.36	20.39	0.109	30.00	-9.61
	QPSK (Opposite Pol.)	1745.00	H	172	319	9.48	1 / 54	11.72	21.20	0.132	30.00	-8.80
	QPSK (WCP)	1745.00	V	164	232	9.03	1 / 161	9.34	18.37	0.069	30.00	-11.63

Table 7-26. EIRP Data (NR Band n66 – Ant F)

7.8 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

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 = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

Test Setup

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

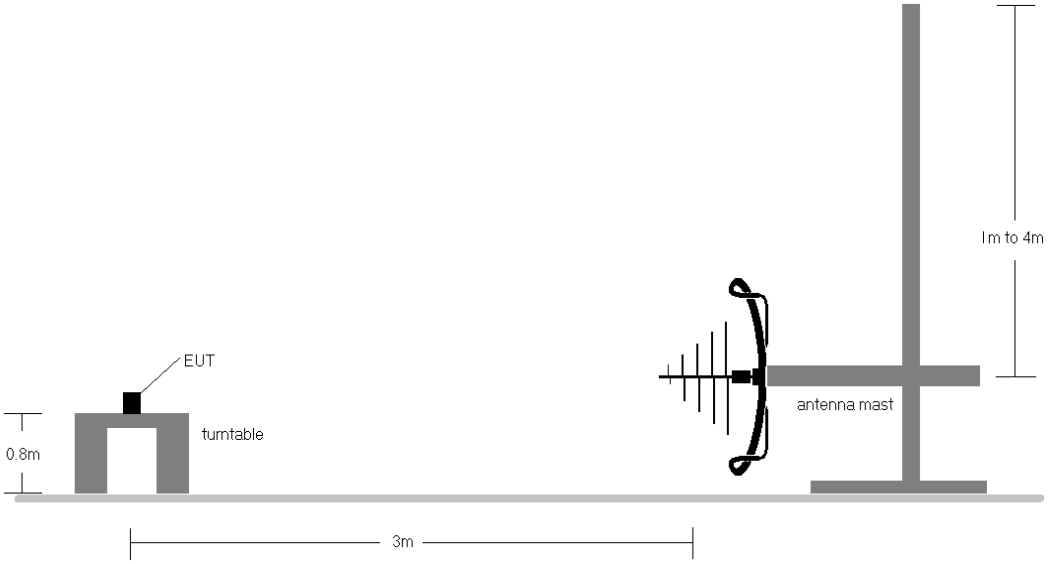


Figure 7-8. Test Instrument & Measurement Setup < 1GHz

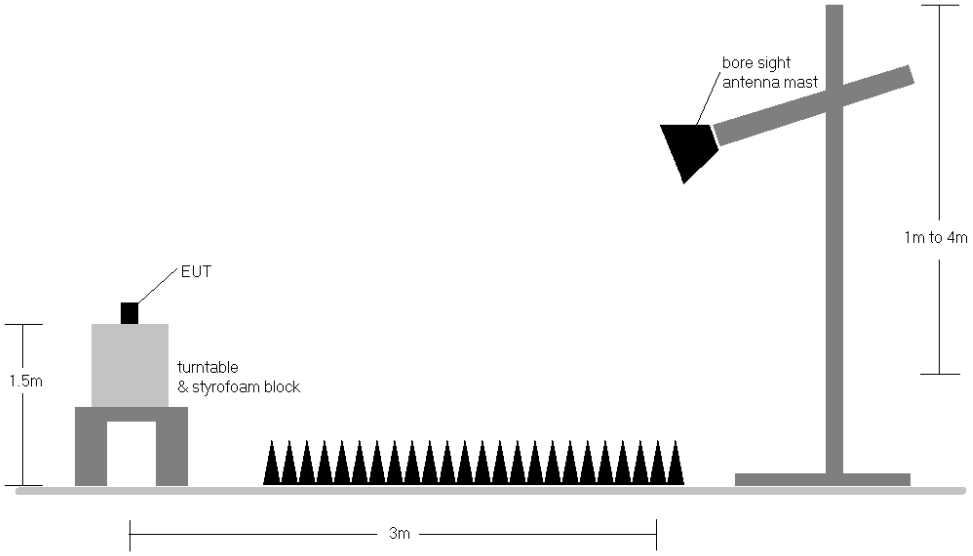


Figure 7-9. Test Instrument & Measurement Setup > 1GHz

Test Notes

1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
   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.

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) 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.

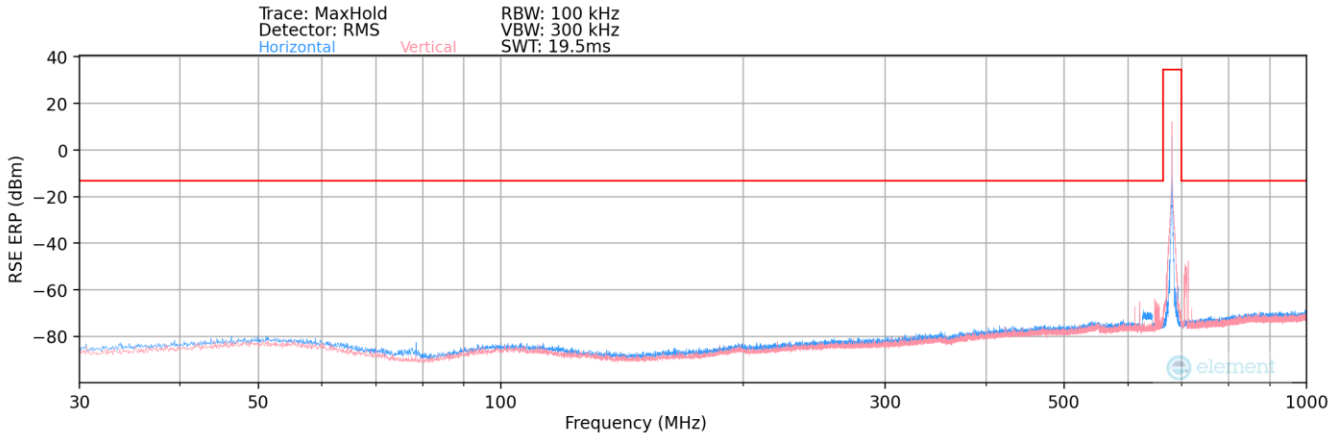
6) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

7) ULCA spurious emissions 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.

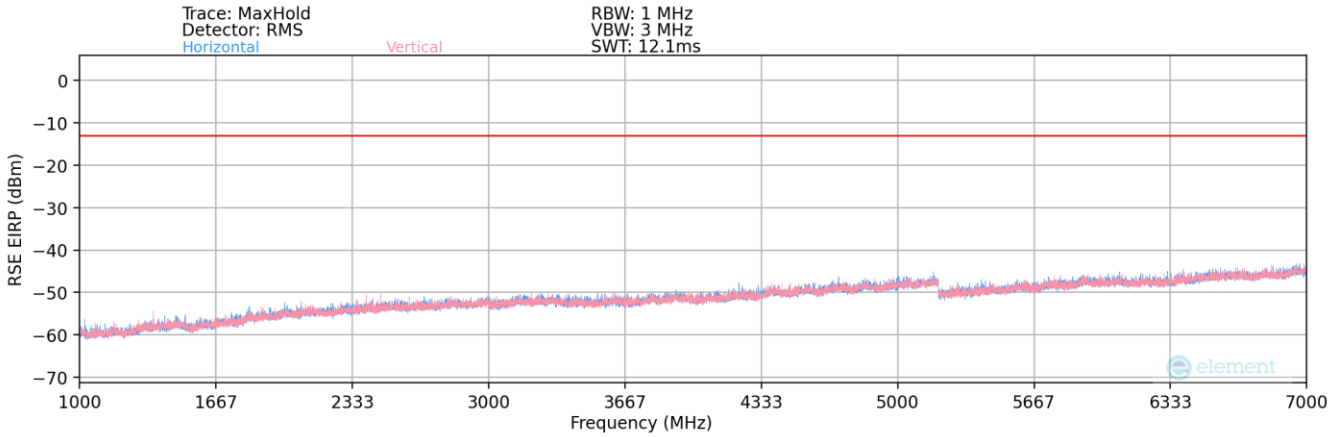
8) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

9) Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emissions caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

LTE Band 71 – Ant A



Plot 7-462. Radiated Spurious Plot (LTE Band 71 – Ant A)



Plot 7-463. Radiated Spurious Plot (LTE Band 71 – Ant A)

Mode:	Stand Alone
Channel:	133297
Frequency (MHz):	680.5
Detector / Trace Mode:	RMS / Average
RBW / VBW:	100kHz / 300kHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
606.59	V	204	190	-62.52	-7.72	36.76	-60.65	-13.00	-47.65

Table 7-27. Radiated Spurious Data (LTE Band 71 – Ant A)

Bandwidth (MHz):	20
Frequency (MHz):	673
RB / 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]	Limit [dBm]	Margin [dB]
1346.00	V	377	91	-76.01	-0.06	30.93	-64.32	-13.00	-51.32
2019.00	V	282	188	-78.02	3.74	32.72	-62.54	-13.00	-49.54
2692.00	V	-	-	-79.30	5.43	33.13	-62.13	-13.00	-49.13
3365.00	V	-	-	-79.78	6.70	33.92	-61.34	-13.00	-48.34
4038.00	V	-	-	-80.31	7.81	34.50	-60.76	-13.00	-47.76

Table 7-28. Radiated Spurious Data (LTE Band 71 – Low Channel – Ant A)

Bandwidth (MHz):	20
Frequency (MHz):	680.5
RB / 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]	Limit [dBm]	Margin [dB]
1361.00	V	294	98	-73.39	-0.12	33.49	-61.77	-13.00	-48.77
2041.50	V	372	162	-78.19	3.21	32.02	-63.24	-13.00	-50.24
2722.00	V	-	-	-79.57	5.56	32.99	-62.27	-13.00	-49.27
3402.50	V	-	-	-79.83	6.64	33.81	-61.45	-13.00	-48.45
4083.00	V	-	-	-80.58	8.00	34.42	-60.84	-13.00	-47.84

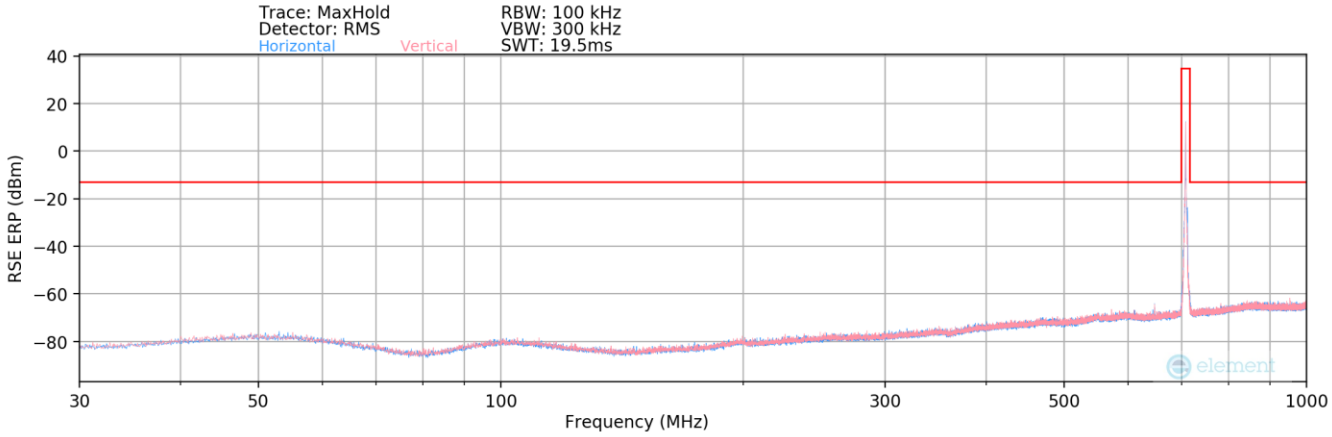
Table 7-29. Radiated Spurious Data (LTE Band 71 – Mid Channel – Ant A)

Bandwidth (MHz):	20
Frequency (MHz):	688
RB / Offset:	1 / 50

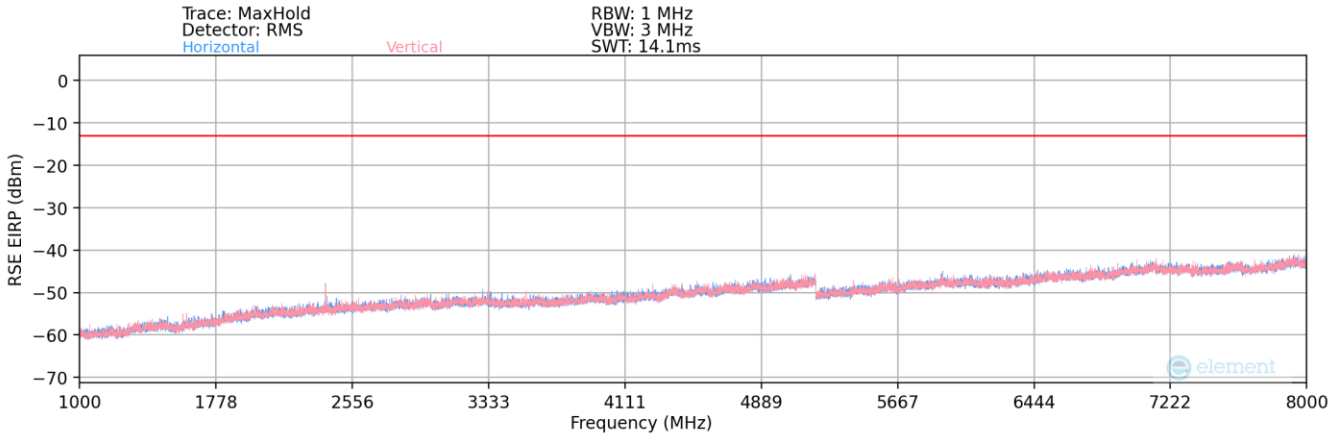
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.00	V	212	150	-72.41	-0.30	34.29	-60.97	-13.00	-47.97
2064.00	V	126	318	-77.60	3.20	32.60	-62.66	-13.00	-49.66
2752.00	V	-	-	-79.17	5.08	32.91	-62.34	-13.00	-49.34
3440.00	V	-	-	-79.86	6.95	34.09	-61.17	-13.00	-48.17
4128.00	V	-	-	-80.49	7.90	34.41	-60.85	-13.00	-47.85

Table 7-30. Radiated Spurious Data (LTE Band 71 – High Channel – Ant A)

LTE Band 12 – Ant A



Plot 7-464. Radiated Spurious Plot (LTE Band 12 – Ant A)



Plot 7-465. Radiated Spurious Plot (LTE Band 12 – Ant A)

Mode:	Stand Alone
Channel:	23060
Frequency (MHz):	704.0
Detector / Trace Mode:	RMS / Average
RBW / VBW:	100kHz / 300kHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
637.03	V	183	271	-64.91	-5.89	36.20	-61.21	-13.00	-48.21

Table 7-31. Radiated Spurious Data (LTE Band 12 – Ant A)

Bandwidth (MHz):	10
Frequency (MHz):	704
RB / Offset:	1 / 25

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]	Limit [dBm]	Margin [dB]
1408.00	V	233	262	-67.07	-0.50	39.43	-55.83	-13.00	-42.83
2112.00	V	141	259	-76.10	4.03	34.93	-60.33	-13.00	-47.33
2816.00	V	-	-	-79.57	5.72	33.15	-62.11	-13.00	-49.11
3520.00	V	-	-	-80.08	7.12	34.04	-61.22	-13.00	-48.22
4224.00	V	-	-	-80.63	8.33	34.70	-60.56	-13.00	-47.56

Table 7-32. Radiated Spurious Data (LTE Band 12 – Low Channel – Ant A)

Bandwidth (MHz):	10
Frequency (MHz):	707.5
RB / Offset:	1 / 25

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]	Limit [dBm]	Margin [dB]
1415.00	V	162	257	-69.22	-0.54	37.24	-58.02	-13.00	-45.02
2122.50	V	215	311	-77.58	4.01	33.43	-61.82	-13.00	-48.82
2830.00	V	-	-	-79.34	5.88	33.54	-61.72	-13.00	-48.72
3537.50	V	-	-	-79.85	6.99	34.14	-61.12	-13.00	-48.12
4245.00	V	-	-	-80.87	8.43	34.56	-60.70	-13.00	-47.70

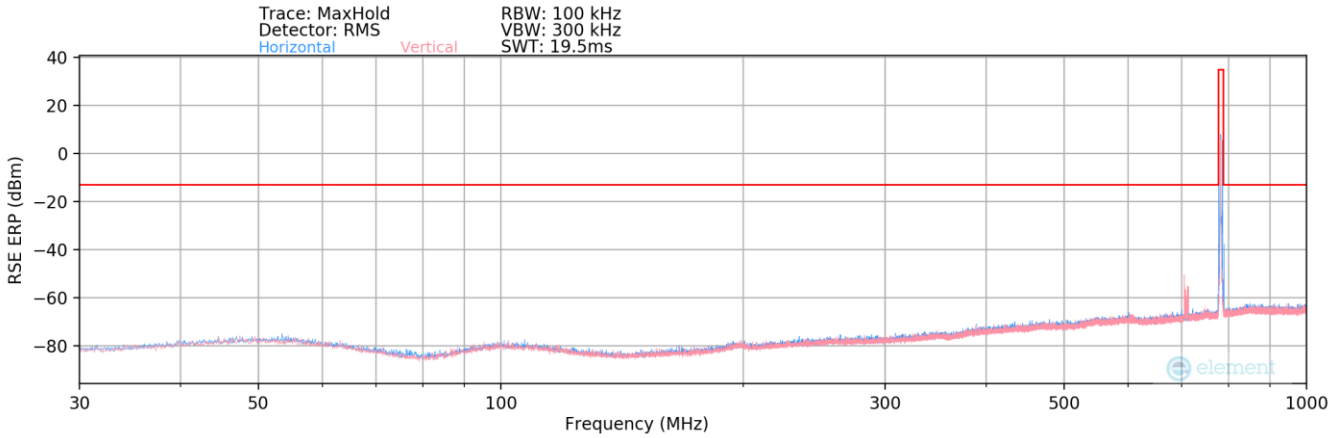
Table 7-33. Radiated Spurious Data (LTE Band 12 – Mid Channel – Ant A)

Bandwidth (MHz):	10
Frequency (MHz):	711
RB / Offset:	1 / 25

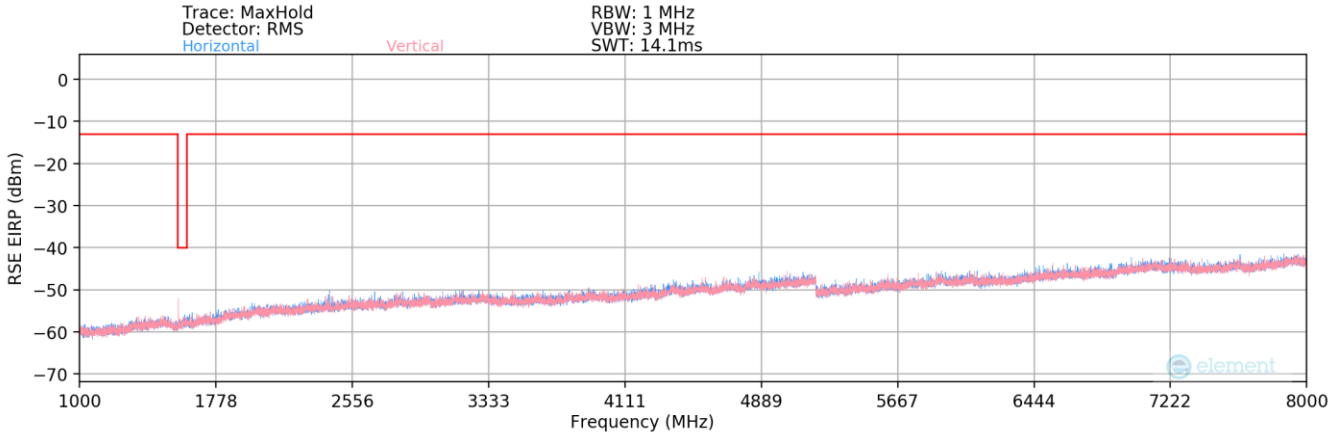
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.00	V	157	257	-69.23	-0.46	37.31	-57.95	-13.00	-44.95
2133.00	V	206	170	-77.42	3.93	33.51	-61.75	-13.00	-48.75
2844.00	V	-	-	-79.33	5.66	33.33	-61.93	-13.00	-48.93
3555.00	V	-	-	-79.95	7.07	34.12	-61.13	-13.00	-48.13
4266.00	V	-	-	-80.36	8.27	34.91	-60.35	-13.00	-47.35

Table 7-34. Radiated Spurious Data (LTE Band 12 – High Channel – Ant A)

LTE Band 13 – Ant A



Plot 7-466. Radiated Spurious Plot (LTE Band 13 – Ant A)



Plot 7-467. Radiated Spurious Plot (LTE Band 13 – Ant A)

Mode:	Stand Alone
Channel:	23230.0
Frequency (MHz):	782.0
Detector / Trace Mode:	RMS / Average
RBW / VBW:	100kHz / 300kHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
708.00	V	145	278	-64.82	-6.51	35.67	-61.74	-13.00	-48.74

Table 7-35. Radiated Spurious Data (LTE Band 13 – Ant A)

Bandwidth (MHz):	10
Frequency (MHz):	782
RB / Offset:	1 / 25

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]	Limit [dBm]	Margin [dB]
1564.00	V	311	285	-73.98	-0.28	32.74	-62.51	-40.00	-22.51
2346.00	V	-	-	-76.52	4.26	34.74	-60.52	-13.00	-47.52
3128.00	V	-	-	-77.32	6.42	36.10	-59.15	-13.00	-46.15
3910.00	V	-	-	-78.04	8.19	37.15	-58.11	-13.00	-45.11

Table 7-36. Radiated Spurious Data (LTE Band 13 – Mid Channel – Ant A)