Plot 7-409. PAR Plot (NR Band n77 (C-Band) - 30MHz QPSK - Full RB - Antenna E)

Plot 7-410. PAR Plot (NR Band n77 (C-Band) - 30MHz 256-QAM - Full RB - Antenna E)

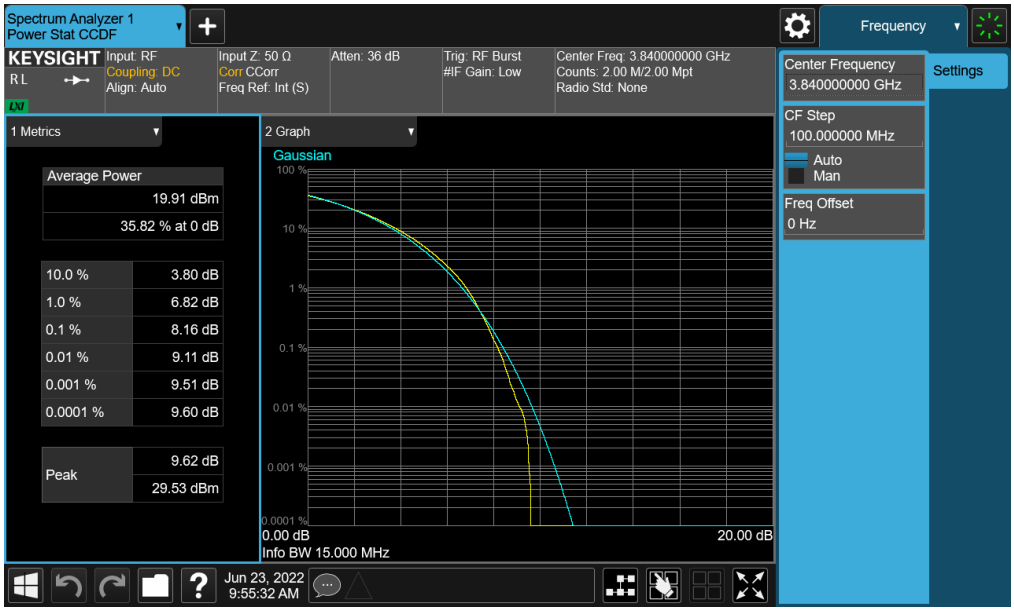
Plot 7-411. PAR Plot (NR Band n77 (C-Band) - 20MHz π/2 BPSK - Full RB - Antenna E)

Plot 7-412. PAR Plot (NR Band n77 (C-Band) - 20MHz QPSK - Full RB - Antenna E)

Plot 7-413. PAR Plot (NR Band n77 (C-Band) - 20MHz 256-QAM - Full RB - Antenna E)

Plot 7-414. PAR Plot (NR Band n77 (C-Band) - 15MHz π/2 BPSK - Full RB - Antenna E)

Plot 7-415. PAR Plot (NR Band n77 (C-Band) - 15MHz QPSK - Full RB - Antenna E)



Plot 7-416. PAR Plot (NR Band n77 (C-Band) - 15MHz 256-QAM - Full RB - Antenna E)

Plot 7-417. PAR Plot (NR Band n77 (C-Band) - 10MHz π/2 BPSK - Full RB - Antenna E)

Plot 7-418. PAR Plot (NR Band n77 (C-Band) - 10MHz QPSK - Full RB - Antenna E)

Plot 7-419. PAR Plot (NR Band n77 (C-Band) - 10MHz 256-QAM - Full RB - Antenna E)

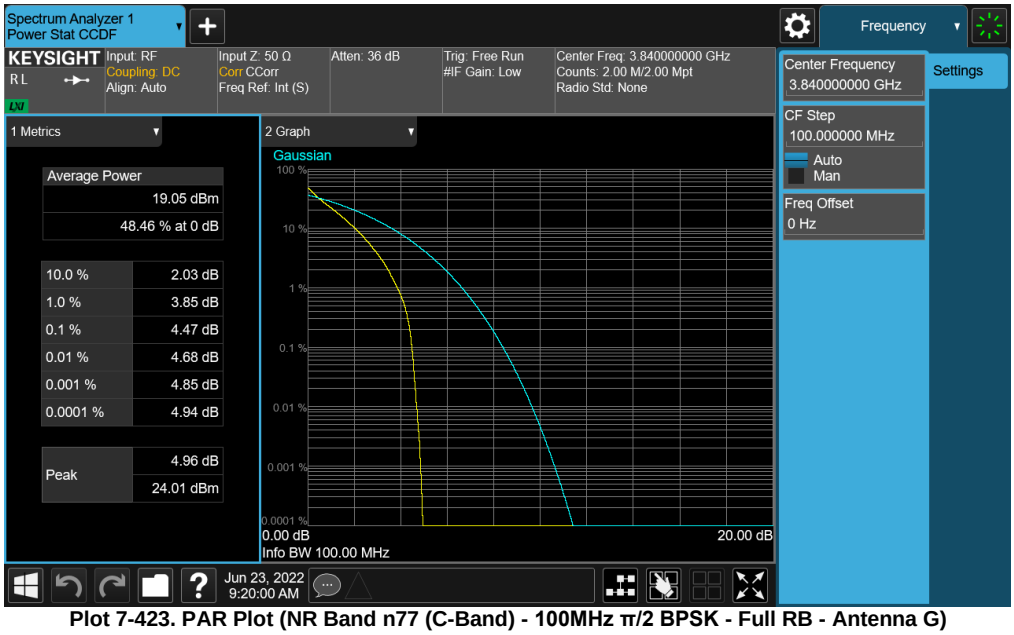
NR Band n77 – DoD – SRS-3 – Antenna G

Plot 7-420. PAR Plot (NR Band n77 (DoD) - 100MHz π/2 BPSK - Full RB - Antenna G)

Plot 7-421. PAR Plot (NR Band n77 (DoD) - 100MHz QPSK - Full RB - Antenna G)

Plot 7-422. PAR Plot (NR Band n77 (DoD) - 100MHz 256-QAM - Full RB - Antenna G)

NR Band n77 – C-Band – SRS-3 – Antenna G



Plot 7-423. PAR Plot (NR Band n77 (C-Band) - 100MHz π/2 BPSK - Full RB - Antenna G)

Plot 7-424. PAR Plot (NR Band n77 (C-Band) - 100MHz QPSK - Full RB - Antenna G)

Plot 7-425. PAR Plot (NR Band n77 (C-Band) - 100MHz 256-QAM - Full RB - Antenna G)

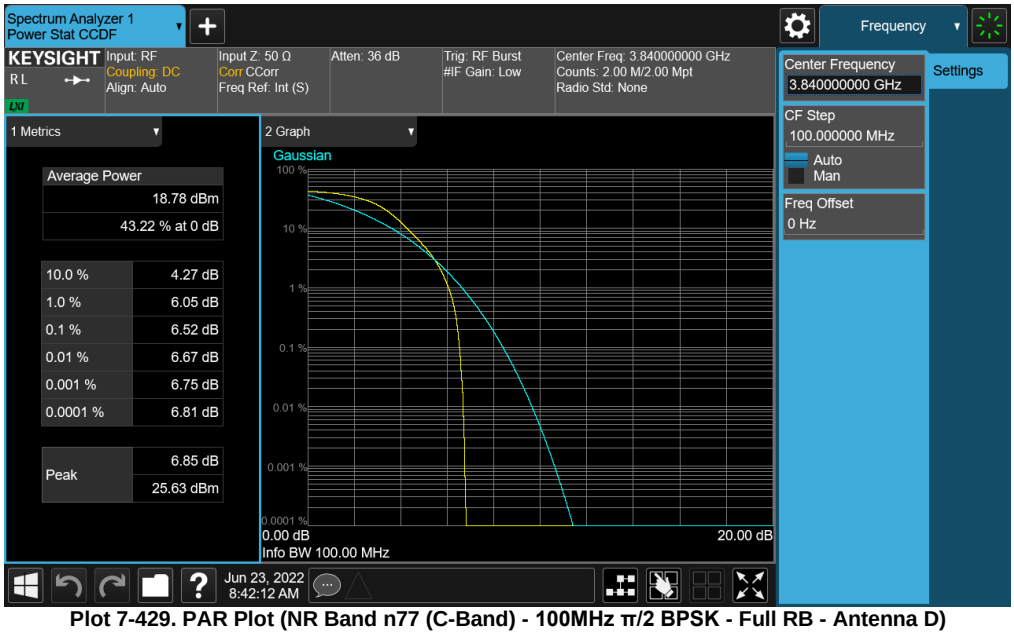
NR Band n77 – DoD – SRS-4 – Antenna D

Plot 7-426. PAR Plot (NR Band n77 (DoD) - 100MHz π/2 BPSK - Full RB – Antenna D)

Plot 7-427. PAR Plot (NR Band n77 (DoD) - 100MHz QPSK - Full RB – Antenna D)

Plot 7-428. PAR Plot (NR Band n77 (DoD) - 100MHz 256-QAM - Full RB – Antenna D)

NR Band n77 – C-Band – SRS-4 – Antenna D



Plot 7-429. PAR Plot (NR Band n77 (C-Band) - 100MHz π/2 BPSK - Full RB - Antenna D)

Plot 7-430. PAR Plot (NR Band n77 (C-Band) - 100MHz QPSK - Full RB - Antenna D)

Plot 7-431. PAR Plot (NR Band n77 (C-Band) - 100MHz 256-QAM - Full RB - Antenna D)

7.7 Radiated Power (EIRP)

Test Overview

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. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
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". Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration.
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power.
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.

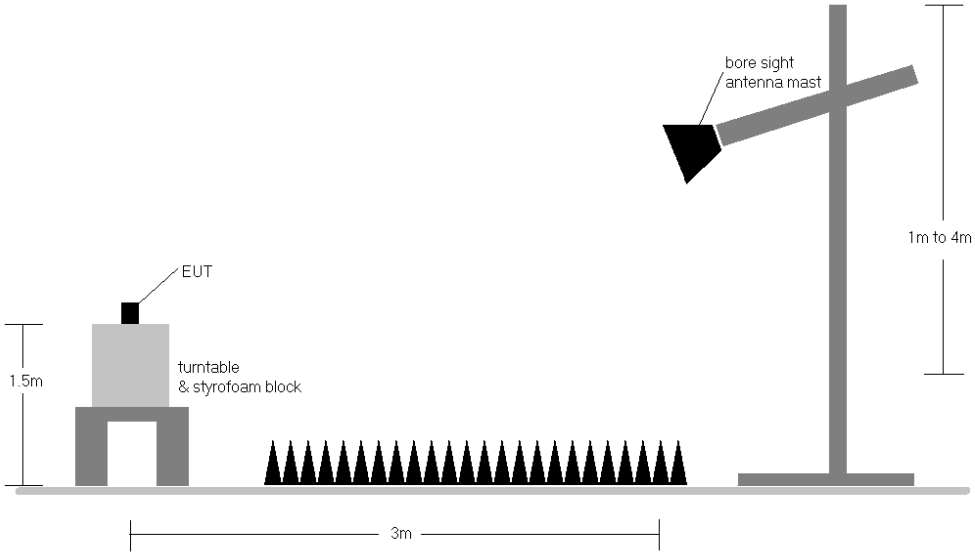


Figure 7-6. Radiated Test Setup >1GHz

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]
100 MHz	π/2 BPSK	3500.01	H	102	338	7.74	1 / 204	14.72	**22.46**	0.176	30.00	-7.54
	QPSK	3500.01	H	102	338	7.74	1 / 136	14.53	22.27	0.169	30.00	-7.73
	16-QAM	3500.01	H	102	338	7.74	1 / 204	13.76	21.50	0.141	30.00	-8.50
90 MHz	π/2 BPSK	3495.00	H	102	338	7.72	1 / 61	14.77	22.49	0.178	30.00	-7.51
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 183	15.09	**22.83**	0.192	30.00	-7.17
	π/2 BPSK	3504.99	H	102	338	7.71	1 / 183	14.71	22.42	0.175	30.00	-7.58
	QPSK	3495.00	H	102	338	7.72	1 / 183	14.41	22.14	0.164	30.00	-7.86
	QPSK	3500.01	H	102	338	7.74	1 / 61	14.81	22.55	0.180	30.00	-7.45
	QPSK	3504.99	H	102	338	7.71	1 / 183	14.60	22.31	0.170	30.00	-7.69
	16-QAM	3495.00	H	102	338	7.72	1 / 183	14.69	22.42	0.175	30.00	-7.58
80 MHz	π/2 BPSK	3490.02	H	102	338	7.71	1 / 108	14.85	22.57	0.181	30.00	-7.43
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 54	14.84	**22.58**	0.181	30.00	-7.42
	π/2 BPSK	3510.00	H	102	338	7.68	1 / 108	14.87	22.56	0.180	30.00	-7.44
	QPSK	3490.02	H	102	338	7.71	1 / 54	14.56	22.27	0.169	30.00	-7.73
	QPSK	3500.01	H	102	338	7.74	1 / 54	14.60	22.34	0.171	30.00	-7.66
	QPSK	3510.00	H	102	338	7.68	1 / 162	14.85	22.53	0.179	30.00	-7.47
	16-QAM	3500.01	H	102	338	7.74	1 / 162	14.93	**22.67**	0.185	30.00	-7.33
70 MHz	π/2 BPSK	3485.01	H	102	338	7.70	1 / 47	15.22	**22.92**	0.196	30.00	-7.08
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 94	14.65	22.38	0.173	30.00	-7.62
	π/2 BPSK	3514.98	H	102	338	7.66	1 / 141	14.98	22.64	0.184	30.00	-7.36
	QPSK	3485.01	H	102	338	7.70	1 / 94	14.34	22.04	0.160	30.00	-7.96
	QPSK	3500.01	H	102	338	7.74	1 / 47	14.43	22.17	0.165	30.00	-7.83
	QPSK	3514.98	H	102	338	7.66	1 / 141	15.17	22.83	0.192	30.00	-7.17
	16-QAM	3485.01	H	102	338	7.70	1 / 47	14.72	22.42	0.175	30.00	-7.58
60 MHz	π/2 BPSK	3480.00	H	102	338	7.69	1 / 81	14.99	22.68	0.185	30.00	-7.32
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 40	15.05	22.79	0.190	30.00	-7.21
	π/2 BPSK	3519.99	H	102	338	7.63	1 / 121	15.54	**23.17**	0.208	30.00	-6.83
	QPSK	3480.00	H	102	338	7.69	1 / 121	15.01	22.70	0.186	30.00	-7.30
	QPSK	3500.01	H	102	338	7.74	1 / 40	15.13	22.87	0.194	30.00	-7.13
	QPSK	3519.99	H	102	338	7.63	1 / 121	14.91	22.54	0.180	30.00	-7.46
	16-QAM	3519.99	H	102	338	7.63	1 / 121	14.62	22.25	0.168	30.00	-7.75
50 MHz	π/2 BPSK	3475.02	H	102	338	7.68	1 / 66	15.09	22.77	0.189	30.00	-7.23
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 66	14.91	22.65	0.184	30.00	-7.35
	π/2 BPSK	3525.00	H	102	338	7.61	1 / 66	15.21	**22.82**	0.192	30.00	-7.18
	QPSK	3475.02	H	102	338	7.68	1 / 33	14.82	22.50	0.178	30.00	-7.50
	QPSK	3500.01	H	102	338	7.74	1 / 33	14.81	22.55	0.180	30.00	-7.45
	QPSK	3525.00	H	102	338	7.61	1 / 33	14.88	22.49	0.177	30.00	-7.51
	16-QAM	3525.00	H	102	338	7.61	1 / 99	14.00	21.61	0.145	30.00	-8.39
40 MHz	π/2 BPSK	3470.01	H	102	338	7.66	1 / 26	15.22	22.88	0.194	30.00	-7.12
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 53	15.39	**23.13**	0.206	30.00	-6.87
	π/2 BPSK	3529.98	H	102	338	7.58	1 / 79	15.39	22.97	0.198	30.00	-7.03
	QPSK	3470.01	H	102	338	7.66	1 / 53	14.87	22.54	0.179	30.00	-7.46
	QPSK	3500.01	H	102	338	7.74	1 / 53	15.07	22.81	0.191	30.00	-7.19
	QPSK	3529.98	H	102	338	7.58	1 / 79	15.27	22.86	0.193	30.00	-7.14
	16-QAM	3529.98	H	102	338	7.58	1 / 79	15.35	22.93	0.197	30.00	-7.07
30 MHz	π/2 BPSK	3465.00	H	102	338	7.65	1 / 58	15.37	23.02	0.201	30.00	-6.98
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 58	15.23	22.97	0.198	30.00	-7.03
	π/2 BPSK	3534.99	H	102	338	7.56	1 / 58	15.62	**23.17**	0.208	30.00	-6.83
	QPSK	3465.00	H	102	338	7.65	1 / 58	15.34	23.00	0.199	30.00	-7.00
	QPSK	3500.01	H	102	338	7.74	1 / 58	15.25	22.98	0.199	30.00	-7.02
	QPSK	3534.99	H	102	338	7.56	1 / 19	15.45	23.00	0.200	30.00	-7.00
	16-QAM	3465.00	H	102	338	7.65	1 / 58	15.10	22.75	0.188	30.00	-7.25
20 MHz	π/2 BPSK	3460.02	H	102	338	7.64	1 / 13	14.77	22.41	0.174	30.00	-7.59
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 25	15.46	23.20	0.209	30.00	-6.80
	π/2 BPSK	3540.00	H	102	338	7.53	1 / 25	15.73	**23.26**	0.212	30.00	-6.74
	QPSK	3460.02	H	102	338	7.64	1 / 25	14.87	22.51	0.178	30.00	-7.49
	QPSK	3500.01	H	102	338	7.74	1 / 37	15.02	22.76	0.189	30.00	-7.24
	QPSK	3540.00	H	102	338	7.53	1 / 37	15.42	22.95	0.197	30.00	-7.05
	16-QAM	3540.00	H	102	338	7.53	1 / 13	15.35	22.88	0.194	30.00	-7.12
15 MHz	π/2 BPSK	3457.50	H	102	338	7.63	1 / 28	15.52	23.15	0.207	30.00	-6.85
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 28	15.32	23.06	0.202	30.00	-6.94
	π/2 BPSK	3542.49	H	102	338	7.52	1 / 9	15.76	**23.27**	0.213	30.00	-6.73
	QPSK	3457.50	H	102	338	7.63	1 / 9	14.93	22.57	0.181	30.00	-7.43
	QPSK	3500.01	H	102	338	7.74	1 / 9	14.84	22.57	0.181	30.00	-7.43
	QPSK	3542.49	H	102	338	7.52	1 / 9	15.35	22.86	0.193	30.00	-7.14
	16-QAM	3542.49	H	102	338	7.52	1 / 19	15.45	22.97	0.198	30.00	-7.03
10 MHz	π/2 BPSK	3455.01	H	102	338	7.63	1 / 6	15.09	22.72	0.187	30.00	-7.28
	π/2 BPSK	3500.01	H	102	338	7.74	1 / 6	15.22	**22.96**	0.198	30.00	-7.04
	π/2 BPSK	3544.98	H	102	338	7.50	1 / 17	15.05	22.55	0.180	30.00	-7.45
	QPSK	3455.01	H	102	338	7.63	1 / 12	14.87	22.50	0.178	30.00	-7.50
	QPSK	3500.01	H	102	338	7.74	1 / 17	15.11	22.85	0.193	30.00	-7.15
	QPSK	3544.98	H	102	338	7.50	1 / 12	15.30	22.81	0.191	30.00	-7.19
	16-QAM	3455.01	H	102	338	7.63	1 / 6	15.18	22.80	0.191	30.00	-7.20
100 MHz	QPSK (CP-OFDM)	3500.0	H	102	338	7.74	1 / 136	14.25	21.99	0.158	30.00	-8.01
	BPSK (Opposite Pol.)	3500.0	V	315	108	7.16	1 / 68	14.99	22.15	0.164	30.00	-7.85
	BPSK (Open)	3500.0	H	120	354	7.16	1 / 204	15.04	22.20	0.166	30.00	-7.80
	BPSK (WCP)	3500.0	H	269	335	7.74	1 / 204	13.18	20.92	0.123	30.00	-9.08

Table 7-13. EIRP Data (NR Band n77 (DoD) – Antenna 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]
100 MHz	π/2 BPSK	3750.0	V	315	49	6.83	1 / 204	14.76	21.59	0.144	30.00	-8.41
	π/2 BPSK	3840.0	V	327	41	6.47	1 / 136	16.47	22.94	0.197	30.00	-7.06
	π/2 BPSK	3930.0	V	327	49	6.49	1 / 68	17.82	**24.31**	0.270	30.00	-5.69
	QPSK	3750.0	V	315	49	6.83	1 / 204	14.52	21.35	0.137	30.00	-8.65
	QPSK	3840.0	V	327	41	6.47	1 / 68	16.51	22.98	0.199	30.00	-7.02
	QPSK	3930.0	V	327	49	6.49	1 / 68	17.49	23.98	0.250	30.00	-6.02
	16-QAM	3930.0	V	327	49	6.49	1 / 136	15.94	22.43	0.175	30.00	-7.57
90 MHz	π/2 BPSK	3745.02	V	315	49	6.81	1 / 183	15.01	21.82	0.152	30.00	-8.18
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 183	16.59	23.06	0.202	30.00	-6.94
	π/2 BPSK	3934.98	V	327	49	6.49	1 / 183	17.96	**24.45**	0.278	30.00	-5.55
	QPSK	3745.02	V	315	49	6.81	1 / 183	14.81	21.62	0.145	30.00	-8.38
	QPSK	3840.00	V	327	41	6.47	1 / 183	16.83	23.30	0.214	30.00	-6.70
	QPSK	3934.98	V	327	49	6.49	1 / 122	17.48	23.97	0.249	30.00	-6.03
	16-QAM	3934.98	V	327	49	6.49	1 / 122	15.21	21.69	0.148	30.00	-8.31
80 MHz	π/2 BPSK	3740.01	V	315	49	6.78	1 / 54	14.98	21.76	0.150	30.00	-8.24
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 54	16.61	23.08	0.203	30.00	-6.92
	π/2 BPSK	3939.99	V	327	49	6.48	1 / 54	18.15	**24.63**	0.290	30.00	-5.37
	QPSK	3740.01	V	315	49	6.78	1 / 108	14.79	21.57	0.144	30.00	-8.43
	QPSK	3840.00	V	327	41	6.47	1 / 162	16.62	23.10	0.204	30.00	-6.90
	QPSK	3939.99	V	327	49	6.48	1 / 108	17.59	24.07	0.255	30.00	-5.93
	16-QAM	3939.99	V	327	49	6.48	1 / 54	16.05	22.53	0.179	30.00	-7.47
70 MHz	π/2 BPSK	3735.00	V	315	49	6.76	1 / 141	14.78	21.53	0.142	30.00	-8.47
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 141	16.62	23.09	0.204	30.00	-6.91
	π/2 BPSK	3945.00	V	327	49	6.47	1 / 141	17.94	**24.41**	0.276	30.00	-5.59
	QPSK	3735.00	V	315	49	6.76	1 / 47	14.90	21.66	0.146	30.00	-8.34
	QPSK	3840.00	V	327	41	6.47	1 / 141	17.27	23.75	0.237	30.00	-6.25
	QPSK	3945.00	V	327	49	6.47	1 / 47	17.74	24.21	0.264	30.00	-5.79
	16-QAM	3945.00	V	327	49	6.47	1 / 94	15.12	21.58	0.144	30.00	-8.42
60 MHz	π/2 BPSK	3730.02	V	315	49	6.73	1 / 40	15.04	21.77	0.150	30.00	-8.23
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 40	16.58	23.05	0.202	30.00	-6.95
	π/2 BPSK	3949.98	V	327	49	6.46	1 / 40	18.14	**24.60**	0.288	30.00	-5.40
	QPSK	3730.02	V	315	49	6.73	1 / 40	15.22	21.95	0.157	30.00	-8.05
	QPSK	3840.00	V	327	41	6.47	1 / 40	17.27	23.74	0.237	30.00	-6.26
	QPSK	3949.98	V	327	49	6.46	1 / 40	17.88	24.33	0.271	30.00	-5.67
	16-QAM	3949.98	V	327	49	6.46	1 / 81	15.83	22.29	0.169	30.00	-7.71
50 MHz	π/2 BPSK	3725.01	V	315	49	6.71	1 / 66	15.12	21.83	0.152	30.00	-8.17
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 66	16.69	23.16	0.207	30.00	-6.84
	π/2 BPSK	3954.99	V	327	49	6.43	1 / 66	18.11	**24.55**	0.285	30.00	-5.45
	QPSK	3725.01	V	315	49	6.71	1 / 66	15.25	21.96	0.157	30.00	-8.04
	QPSK	3840.00	V	327	41	6.47	1 / 33	17.07	23.54	0.226	30.00	-6.46
	QPSK	3954.99	V	327	49	6.43	1 / 66	17.79	24.22	0.264	30.00	-5.78
	16-QAM	3954.99	V	327	49	6.43	1 / 33	15.96	22.40	0.174	30.00	-7.60
40 MHz	π/2 BPSK	3720.00	V	315	49	6.68	1 / 53	15.19	21.87	0.154	30.00	-8.13
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 53	16.68	23.16	0.207	30.00	-6.84
	π/2 BPSK	3960.00	V	327	49	6.41	1 / 26	18.14	**24.56**	0.286	30.00	-5.44
	QPSK	3720.00	V	315	49	6.68	1 / 79	15.26	21.95	0.157	30.00	-8.05
	QPSK	3840.00	V	327	41	6.47	1 / 79	17.06	23.53	0.225	30.00	-6.47
	QPSK	3960.00	V	327	49	6.41	1 / 53	17.97	24.38	0.274	30.00	-5.62
	16-QAM	3960.00	V	327	49	6.41	1 / 26	15.88	22.30	0.170	30.00	-7.70
30 MHz	π/2 BPSK	3715.02	V	315	49	6.66	1 / 19	15.08	21.74	0.149	30.00	-8.26
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 58	16.49	22.96	0.198	30.00	-7.04
	π/2 BPSK	3964.98	V	327	49	6.39	1 / 19	18.41	**24.80**	0.302	30.00	-5.20
	QPSK	3715.02	V	315	49	6.66	1 / 19	15.07	21.73	0.149	30.00	-8.27
	QPSK	3840.00	V	327	41	6.47	1 / 39	17.26	23.74	0.236	30.00	-6.26
	QPSK	3964.98	V	327	49	6.39	1 / 39	18.01	24.41	0.276	30.00	-5.59
	16-QAM	3964.98	V	327	49	6.39	1 / 19	15.94	22.33	0.171	30.00	-7.67
20 MHz	π/2 BPSK	3710.01	V	315	49	6.63	1 / 37	15.24	21.87	0.154	30.00	-8.13
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 37	16.44	22.91	0.195	30.00	-7.09
	π/2 BPSK	3969.99	V	327	49	6.37	1 / 13	18.34	**24.71**	0.296	30.00	-5.29
	QPSK	3710.01	V	315	49	6.63	1 / 37	15.21	21.84	0.153	30.00	-8.16
	QPSK	3840.00	V	327	41	6.47	1 / 37	17.12	23.59	0.229	30.00	-6.41
	QPSK	3969.99	V	327	49	6.37	1 / 37	17.89	24.26	0.267	30.00	-5.74
	16-QAM	3969.99	V	327	49	6.37	1 / 37	16.33	22.70	0.186	30.00	-7.30
15 MHz	π/2 BPSK	3707.52	V	315	49	6.62	1 / 28	14.91	21.53	0.142	30.00	-8.47
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 9	16.22	22.69	0.186	30.00	-7.31
	π/2 BPSK	3972.48	V	327	49	6.36	1 / 28	17.99	**24.35**	0.272	30.00	-5.65
	QPSK	3707.52	V	315	49	6.62	1 / 19	14.98	21.60	0.144	30.00	-8.40
	QPSK	3840.00	V	327	41	6.47	1 / 19	17.14	23.61	0.230	30.00	-6.39
	QPSK	3972.48	V	327	49	6.36	1 / 28	17.73	24.09	0.257	30.00	-5.91
	16-QAM	3972.48	V	327	49	6.36	1 / 9	16.09	22.45	0.176	30.00	-7.55
10 MHz	π/2 BPSK	3705.00	V	315	49	6.60	1 / 6	14.97	21.58	0.144	30.00	-8.42
	π/2 BPSK	3840.00	V	327	41	6.47	1 / 6	16.21	22.68	0.185	30.00	-7.32
	π/2 BPSK	3975.00	V	327	49	6.35	1 / 6	18.03	**24.38**	0.274	30.00	-5.62
	QPSK	3705.00	V	315	49	6.60	1 / 6	15.11	21.71	0.148	30.00	-8.29
	QPSK	3840.00	V	327	41	6.47	1 / 17	17.06	23.53	0.225	30.00	-6.47
	QPSK	3975.00	V	327	49	6.35	1 / 17	17.81	24.16	0.261	30.00	-5.84
	16-QAM	3975.00	V	327	49	6.35	1 / 12	15.88	22.22	0.167	30.00	-7.78
100 MHz	QPSK (CP-OFDM)	3930.0	V	327	49	6.49	1 / 68	17.01	23.50	0.224	30.00	-6.50
	BPSK (Opposite Pol.)	3930.0	H	147	340	5.99	1 / 136	15.86	21.85	0.153	30.00	-8.15
	BPSK (Open)	3930.0	V	228	27	6.49	1 / 136	16.42	22.91	0.196	30.00	-7.09
	BPSK (WCP)	3930.0	V	104	25	6.49	1 / 68	17.58	24.07	0.256	30.00	-5.93

Table 7-14. EIRP Data (NR Band n77 (C-Band) – Antenna 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]
100 MHz	π/2 BPSK	3500.0	V	203	358	7.74	1 / 136	12.79	20.53	0.113	30.00	-9.47
	QPSK	3500.0	V	203	358	7.74	1 / 136	13.11	**20.85**	0.122	30.00	-9.15
	16-QAM	3500.0	V	203	358	7.74	1 / 136	12.64	20.38	0.109	30.00	-9.62
90 MHz	π/2 BPSK	3495.0	H	203	358	7.72	1 / 183	12.95	20.67	0.117	30.00	-9.33
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 183	12.84	20.58	0.114	30.00	-9.42
	π/2 BPSK	3505.0	H	203	358	7.71	1 / 183	12.94	20.65	0.116	30.00	-9.35
	QPSK	3495.0	H	203	358	7.72	1 / 183	13.45	**21.18**	0.131	30.00	-8.82
	QPSK	3500.0	H	203	358	7.74	1 / 183	13.40	21.14	0.130	30.00	-8.86
	QPSK	3505.0	H	203	358	7.71	1 / 183	13.45	21.16	0.131	30.00	-8.84
	16-QAM	3500.0	H	203	358	7.74	1 / 183	12.35	20.09	0.102	30.00	-9.91
80 MHz	π/2 BPSK	3490.0	H	203	358	7.71	1 / 162	13.03	20.74	0.119	30.00	-9.26
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 162	13.02	20.76	0.119	30.00	-9.24
	π/2 BPSK	3510.0	H	203	358	7.68	1 / 162	13.21	20.89	0.123	30.00	-9.11
	QPSK	3490.0	H	203	358	7.71	1 / 162	13.38	21.10	0.129	30.00	-8.90
	QPSK	3500.0	H	203	358	7.74	1 / 162	13.52	**21.26**	0.134	30.00	-8.74
	QPSK	3510.0	H	203	358	7.68	1 / 162	13.55	21.24	0.133	30.00	-8.76
	16-QAM	3510.0	H	203	358	7.68	1 / 162	12.63	20.32	0.108	30.00	-9.68
70 MHz	π/2 BPSK	3485.0	H	203	358	7.70	1 / 141	13.55	21.25	0.134	30.00	-8.75
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 141	13.58	21.32	0.135	30.00	-8.68
	π/2 BPSK	3515.0	H	203	358	7.66	1 / 141	13.85	21.51	0.142	30.00	-8.49
	QPSK	3485.0	H	203	358	7.70	1 / 141	14.01	**21.71**	0.148	30.00	-8.29
	QPSK	3500.0	H	203	358	7.74	1 / 141	13.82	21.56	0.143	30.00	-8.44
	QPSK	3515.0	H	203	358	7.66	1 / 141	13.93	21.59	0.144	30.00	-8.41
	16-QAM	3515.0	H	203	358	7.66	1 / 141	13.60	21.26	0.134	30.00	-8.74
60 MHz	π/2 BPSK	3480.0	H	203	358	7.69	1 / 121	12.81	20.50	0.112	30.00	-9.50
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 81	13.05	20.79	0.120	30.00	-9.21
	π/2 BPSK	3520.0	H	203	358	7.63	1 / 121	13.11	20.74	0.119	30.00	-9.26
	QPSK	3480.0	H	203	358	7.69	1 / 121	13.31	21.00	0.126	30.00	-9.00
	QPSK	3500.0	H	203	358	7.74	1 / 81	13.33	21.07	0.128	30.00	-8.93
	QPSK	3520.0	H	203	358	7.63	1 / 81	13.52	**21.16**	0.131	30.00	-8.84
	16-QAM	3520.0	H	203	358	7.63	1 / 81	12.52	20.15	0.103	30.00	-9.85
50 MHz	π/2 BPSK	3475.0	H	203	358	7.68	1 / 99	12.72	20.40	0.110	30.00	-9.60
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 99	12.72	20.46	0.111	30.00	-9.54
	π/2 BPSK	3525.0	H	203	358	7.61	1 / 99	12.91	20.52	0.113	30.00	-9.48
	QPSK	3475.0	H	203	358	7.68	1 / 99	13.02	20.70	0.117	30.00	-9.30
	QPSK	3500.0	H	203	358	7.74	1 / 33	13.16	20.90	0.123	30.00	-9.10
	QPSK	3525.0	H	203	358	7.61	1 / 99	13.42	**21.03**	0.127	30.00	-8.97
	16-QAM	3525.0	H	203	358	7.61	1 / 99	12.60	20.21	0.105	30.00	-9.79
40 MHz	π/2 BPSK	3470.0	H	203	358	7.66	1 / 79	12.85	20.51	0.112	30.00	-9.49
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 79	13.10	20.84	0.121	30.00	-9.16
	π/2 BPSK	3530.0	H	203	358	7.58	1 / 79	13.53	21.11	0.129	30.00	-8.89
	QPSK	3470.0	H	203	358	7.66	1 / 79	13.30	20.97	0.125	30.00	-9.03
	QPSK	3500.0	H	203	358	7.74	1 / 79	13.48	21.22	0.132	30.00	-8.78
	QPSK	3530.0	H	203	358	7.58	1 / 79	13.88	**21.46**	0.140	30.00	-8.54
	16-QAM	3530.0	H	203	358	7.58	1 / 79	12.95	20.53	0.113	30.00	-9.47
30 MHz	π/2 BPSK	3465.0	H	203	358	7.65	1 / 58	12.90	20.55	0.114	30.00	-9.45
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 58	13.09	20.83	0.121	30.00	-9.17
	π/2 BPSK	3535.0	H	203	358	7.56	1 / 58	13.44	21.00	0.126	30.00	-9.00
	QPSK	3465.0	H	203	358	7.65	1 / 58	13.40	21.05	0.127	30.00	-8.95
	QPSK	3500.0	H	203	358	7.74	1 / 58	13.48	21.22	0.132	30.00	-8.78
	QPSK	3535.0	H	203	358	7.56	1 / 58	13.76	**21.32**	0.135	30.00	-8.68
	16-QAM	3535.0	H	203	358	7.56	1 / 58	12.88	20.44	0.111	30.00	-9.56
20 MHz	π/2 BPSK	3460.0	H	203	358	7.64	1 / 25	12.50	20.14	0.103	30.00	-9.86
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 37	12.87	20.61	0.115	30.00	-9.39
	π/2 BPSK	3540.0	H	203	358	7.53	1 / 37	13.58	21.11	0.129	30.00	-8.89
	QPSK	3460.0	H	203	358	7.64	1 / 37	13.04	20.68	0.117	30.00	-9.32
	QPSK	3500.0	H	203	358	7.74	1 / 25	13.20	20.94	0.124	30.00	-9.06
	QPSK	3540.0	H	203	358	7.53	1 / 25	13.60	**21.13**	0.130	30.00	-8.87
	16-QAM	3540.0	H	203	358	7.53	1 / 37	12.81	20.34	0.108	30.00	-9.66
15 MHz	π/2 BPSK	3457.5	H	203	358	7.63	1 / 9	12.55	20.18	0.104	30.00	-9.82
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 9	12.95	20.69	0.117	30.00	-9.31
	π/2 BPSK	3542.5	H	203	358	7.52	1 / 9	13.52	21.04	0.127	30.00	-8.96
	QPSK	3457.5	H	203	358	7.63	1 / 19	12.84	20.48	0.112	30.00	-9.52
	QPSK	3500.0	H	203	358	7.74	1 / 19	13.32	21.06	0.128	30.00	-8.94
	QPSK	3542.5	H	203	358	7.52	1 / 9	13.57	21.09	0.128	30.00	-8.91
	16-QAM	3542.5	H	203	358	7.52	1 / 19	13.78	**21.30**	0.135	30.00	-8.70
10 MHz	π/2 BPSK	3455.0	H	203	358	7.63	1 / 17	13.46	21.09	0.129	30.00	-8.91
	π/2 BPSK	3500.0	H	203	358	7.74	1 / 17	13.34	21.08	0.128	30.00	-8.92
	π/2 BPSK	3545.0	H	203	358	7.50	1 / 12	13.53	21.04	0.127	30.00	-8.96
	QPSK	3455.0	H	203	358	7.63	1 / 17	13.69	21.32	0.136	30.00	-8.68
	QPSK	3500.0	H	203	358	7.74	1 / 17	13.58	21.32	0.135	30.00	-8.68
	QPSK	3545.0	H	203	358	7.50	1 / 6	14.10	**21.61**	0.145	30.00	-8.39
	16-QAM	3545.0	H	203	358	7.50	1 / 12	13.14	20.64	0.116	30.00	-9.36
100 MHz	QPSK (CP-OFDM)	3500.0	H	203	358	7.74	1 / 136	12.10	19.84	0.096	30.00	-10.16
	QPSK (Opposite Pol.)	3500.0	V	255	87	7.16	1 / 136	13.02	20.18	0.104	30.00	-9.82
	QPSK (Open)	3500.0	H	199	353	7.74	1 / 204	12.30	20.04	0.101	30.00	-9.96
	QPSK (WCP)	3500.0	H	299	339	7.74	1 / 204	12.59	20.33	0.108	30.00	-9.67

Table 7-15. EIRP Data (NR Band n77 (DoD) – Antenna E)

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]
100 MHz	π/2 BPSK	3750.0	H	153	344	5.98	1 / 136	13.14	19.12	0.082	30.00	-10.88
	π/2 BPSK	3840.0	H	159	330	6.02	1 / 204	14.52	20.54	0.113	30.00	-9.46
	π/2 BPSK	3930.0	H	153	340	5.99	1 / 68	16.13	22.12	0.163	30.00	-7.88
	QPSK	3750.0	H	153	344	5.98	1 / 136	13.79	19.77	0.095	30.00	-10.23
	QPSK	3840.0	H	159	330	6.02	1 / 204	14.53	20.55	0.113	30.00	-9.45
	QPSK	3930.0	H	153	340	5.99	1 / 68	16.57	**22.56**	0.180	30.00	-7.44
	16-QAM	3930.0	H	153	340	5.99	1 / 136	14.85	20.84	0.121	30.00	-9.16
90 MHz	π/2 BPSK	3745.0	H	153	344	6.81	1 / 183	11.61	18.42	0.069	30.00	-11.58
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 61	13.05	19.52	0.090	30.00	-10.48
	π/2 BPSK	3935.0	H	153	340	6.49	1 / 61	13.55	20.04	0.101	30.00	-9.96
	QPSK	3745.0	H	153	344	6.81	1 / 122	12.27	19.08	0.081	30.00	-10.92
	QPSK	3840.0	H	159	330	6.47	1 / 122	13.34	19.82	0.096	30.00	-10.18
	QPSK	3935.0	H	153	340	6.49	1 / 61	13.73	**20.22**	0.105	30.00	-9.78
	16-QAM	3935.0	H	153	340	6.49	1 / 122	12.49	18.98	0.079	30.00	-11.02
80 MHz	π/2 BPSK	3740.0	H	153	344	6.78	1 / 162	12.17	18.96	0.079	30.00	-11.04
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 54	13.41	19.88	0.097	30.00	-10.12
	π/2 BPSK	3940.0	H	153	340	6.48	1 / 54	13.22	19.70	0.093	30.00	-10.30
	QPSK	3740.0	H	153	344	6.78	1 / 108	12.85	19.63	0.092	30.00	-10.37
	QPSK	3840.0	H	159	330	6.47	1 / 108	13.90	20.37	0.109	30.00	-9.63
	QPSK	3940.0	H	153	340	6.48	1 / 108	14.29	**20.77**	0.119	30.00	-9.23
	16-QAM	3740.0	H	153	344	6.78	1 / 162	12.45	19.23	0.084	30.00	-10.77
70 MHz	π/2 BPSK	3735.0	H	153	344	6.76	1 / 141	12.55	19.31	0.085	30.00	-10.69
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 94	13.58	20.05	0.101	30.00	-9.95
	π/2 BPSK	3945.0	H	153	340	6.47	1 / 94	13.28	19.74	0.094	30.00	-10.26
	QPSK	3735.0	H	153	344	6.76	1 / 141	12.95	19.70	0.093	30.00	-10.30
	QPSK	3840.0	H	159	330	6.47	1 / 94	13.68	20.15	0.104	30.00	-9.85
	QPSK	3945.0	H	153	340	6.47	1 / 141	14.05	**20.51**	0.113	30.00	-9.49
	16-QAM	3945.0	H	153	340	6.47	1 / 47	13.69	20.15	0.104	30.00	-9.85
60 MHz	π/2 BPSK	3730.0	H	153	344	6.73	1 / 81	12.45	19.18	0.083	30.00	-10.82
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 81	13.38	19.85	0.097	30.00	-10.15
	π/2 BPSK	3950.0	H	153	340	6.46	162 / 0	12.08	18.54	0.071	30.00	-11.46
	QPSK	3730.0	H	153	344	6.73	1 / 121	12.98	19.72	0.094	30.00	-10.28
	QPSK	3840.0	H	159	330	6.47	1 / 40	14.22	**20.69**	0.117	30.00	-9.31
	QPSK	3950.0	H	153	340	6.46	1 / 40	13.45	19.91	0.098	30.00	-10.09
	16-QAM	3950.0	H	153	340	6.46	1 / 81	12.39	18.85	0.077	30.00	-11.15
50 MHz	π/2 BPSK	3725.0	H	153	344	6.71	1 / 33	12.45	19.16	0.082	30.00	-10.84
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 33	14.05	20.52	0.113	30.00	-9.48
	π/2 BPSK	3955.0	H	153	340	6.43	1 / 33	16.49	22.93	0.196	30.00	-7.07
	QPSK	3725.0	H	153	344	6.71	1 / 66	13.43	20.14	0.103	30.00	-9.86
	QPSK	3840.0	H	159	330	6.47	1 / 33	14.16	20.63	0.116	30.00	-9.37
	QPSK	3955.0	H	153	340	6.43	1 / 33	16.87	**23.30**	0.214	30.00	-6.70
	16-QAM	3955.0	H	153	340	6.43	1 / 33	15.77	22.20	0.166	30.00	-7.80
40 MHz	π/2 BPSK	3720.0	H	153	344	6.68	1 / 53	12.32	19.01	0.080	30.00	-10.99
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 26	14.01	20.48	0.112	30.00	-9.52
	π/2 BPSK	3960.0	H	153	340	6.41	1 / 26	16.65	23.06	0.203	30.00	-6.94
	QPSK	3720.0	H	153	344	6.68	1 / 53	13.17	19.86	0.097	30.00	-10.14
	QPSK	3840.0	H	159	330	6.47	1 / 53	14.28	20.75	0.119	30.00	-9.25
	QPSK	3960.0	H	153	340	6.41	1 / 26	17.06	**23.47**	0.222	30.00	-6.53
	16-QAM	3960.0	H	153	340	6.41	1 / 26	15.04	21.46	0.140	30.00	-8.54
30 MHz	π/2 BPSK	3715.0	H	153	344	6.66	1 / 39	12.39	19.04	0.080	30.00	-10.96
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 39	13.82	20.30	0.107	30.00	-9.70
	π/2 BPSK	3965.0	H	153	340	6.39	1 / 19	16.23	22.62	0.183	30.00	-7.38
	QPSK	3715.0	H	153	344	6.66	1 / 39	12.81	19.46	0.088	30.00	-10.54
	QPSK	3840.0	H	159	330	6.47	1 / 39	14.32	20.79	0.120	30.00	-9.21
	QPSK	3965.0	H	153	340	6.39	1 / 39	17.29	**23.68**	0.233	30.00	-6.32
	16-QAM	3965.0	H	153	340	6.39	1 / 58	15.46	21.85	0.153	30.00	-8.15
20 MHz	π/2 BPSK	3710.0	H	153	344	6.63	1 / 25	12.23	18.86	0.077	30.00	-11.14
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 13	13.56	20.04	0.101	30.00	-9.96
	π/2 BPSK	3970.0	H	153	340	6.37	1 / 25	16.61	22.98	0.199	30.00	-7.02
	QPSK	3710.0	H	153	344	6.63	1 / 13	13.55	20.18	0.104	30.00	-9.82
	QPSK	3840.0	H	159	330	6.47	1 / 13	15.01	21.49	0.141	30.00	-8.51
	QPSK	3970.0	H	153	340	6.37	1 / 25	17.58	**23.95**	0.248	30.00	-6.05
	16-QAM	3970.0	H	153	340	6.37	1 / 13	15.06	21.43	0.139	30.00	-8.57
15 MHz	π/2 BPSK	3707.5	H	153	344	6.62	1 / 19	12.75	19.37	0.086	30.00	-10.63
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 19	14.33	20.80	0.120	30.00	-9.20
	π/2 BPSK	3972.5	H	153	340	6.36	1 / 19	16.67	23.03	0.201	30.00	-6.97
	QPSK	3707.5	H	153	344	6.62	1 / 19	13.31	19.93	0.098	30.00	-10.07
	QPSK	3840.0	H	159	330	6.47	1 / 19	14.28	20.76	0.119	30.00	-9.24
	QPSK	3972.5	H	153	340	6.36	1 / 19	17.63	**23.99**	0.251	30.00	-6.01
	16-QAM	3972.5	H	153	340	6.36	1 / 28	15.03	21.39	0.138	30.00	-8.61
10 MHz	π/2 BPSK	3705.0	H	153	344	6.60	1 / 12	13.55	20.15	0.104	30.00	-9.85
	π/2 BPSK	3840.0	H	159	330	6.47	1 / 12	15.16	21.64	0.146	30.00	-8.36
	π/2 BPSK	3975.0	H	153	340	6.35	1 / 12	17.23	23.58	0.228	30.00	-6.42
	QPSK	3705.0	H	153	344	6.60	1 / 17	12.68	19.28	0.085	30.00	-10.72
	QPSK	3840.0	H	159	330	6.47	1 / 6	14.02	20.49	0.112	30.00	-9.51
	QPSK	3975.0	H	153	340	6.35	1 / 17	17.91	**24.26**	0.267	30.00	-5.74
	16-QAM	3975.0	H	153	340	6.35	1 / 17	15.42	21.77	0.150	30.00	-8.23
100 MHz	QPSK (CP-OFDM)	3930.0	H	153	340	5.99	1 / 136	15.16	21.15	0.130	30.00	-8.85
	QPSK (Opposite Pol.)	3930.0	V	183	28	6.49	1 / 68	15.48	21.97	0.158	30.00	-8.03
	QPSK (Open)	3930.0	H	108	325	5.99	1 / 136	16.47	22.46	0.176	30.00	-7.54
	QPSK (WCP)	3930.0	H	110	319	5.99	1 / 68	16.11	22.10	0.162	30.00	-7.90

Table 7-16. EIRP Data (NR Band n77 (C-Band) – Antenna E)

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]
100 MHz	π/2 BPSK	3500.0	V	297	86	7.16	1 / 204	7.08	**14.24**	0.027	30.00	-15.76
	QPSK	3500.0	V	297	86	7.16	1 / 204	7.01	14.17	0.026	30.00	-15.83
	16-QAM	3500.0	V	297	86	7.16	1 / 68	6.83	13.99	0.025	30.00	-16.01
100 MHz	QPSK (CP-OFDM)	3500.0	V	297	86	7.16	1 / 204	6.36	13.52	0.022	30.00	-16.48

Table 7-17. EIRP Data (NR Band n77 (DoD) – Antenna G)

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]
100 MHz	π/2 BPSK	3750.0	V	330	87	6.83	1 / 204	6.73	13.56	0.023	30.00	-16.44
	π/2 BPSK	3840.0	V	324	86	6.47	1 / 204	7.97	14.44	0.028	30.00	-15.56
	π/2 BPSK	3930.0	V	322	92	6.49	1 / 204	9.77	16.26	0.042	30.00	-13.74
	QPSK	3750.0	V	330	87	6.83	1 / 204	6.80	13.63	0.023	30.00	-16.37
	QPSK	3840.0	V	324	86	6.47	1 / 68	8.03	14.50	0.028	30.00	-15.50
	QPSK	3930.0	V	322	92	6.49	1 / 204	9.81	**16.30**	0.043	30.00	-13.70
	16-QAM	3930.0	V	322	92	6.49	1 / 204	9.07	15.56	0.036	30.00	-14.44
100 MHz	QPSK (CP-OFDM)	3930.0	V	322	92	6.49	1 / 204	8.99	15.48	0.035	30.00	-14.52

Table 7-18. EIRP Data (NR Band n77 (C-Band) – Antenna G)

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]
100 MHz	π/2 BPSK	3500.0	H	114	216	7.74	1 / 204	11.42	**19.16**	0.082	30.00	-10.84
	QPSK	3500.0	H	114	216	7.74	1 / 204	11.04	18.78	0.075	30.00	-11.22
	16-QAM	3500.0	H	114	216	7.74	1 / 204	9.69	17.43	0.055	30.00	-12.57
100 MHz	QPSK (CP-OFDM)	3500.0	H	114	216	7.74	1 / 204	10.05	17.79	0.060	30.00	-12.21

Table 7-19. EIRP Data (NR Band n77 (DoD) – Antenna D)

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]
100 MHz	π/2 BPSK	3750.0	H	116	228	5.98	1 / 136	8.86	14.84	0.030	30.00	-15.16
	π/2 BPSK	3840.0	H	105	235	6.02	1 / 68	10.54	**16.56**	0.045	30.00	-13.44
	π/2 BPSK	3930.0	H	104	234	5.99	1 / 68	10.17	16.16	0.041	30.00	-13.84
	QPSK	3750.0	H	116	228	5.98	1 / 136	9.05	15.03	0.032	30.00	-14.97
	QPSK	3840.0	H	105	235	6.02	1 / 68	10.53	16.55	0.045	30.00	-13.45
	QPSK	3930.0	H	104	234	5.99	1 / 68	10.14	16.13	0.041	30.00	-13.87
	16-QAM	3840.0	H	105	235	6.02	1 / 136	9.78	**15.80**	0.038	30.00	-14.20

Table 7-20. EIRP Data (NR Band n77 (C-Band) – Antenna D)

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.

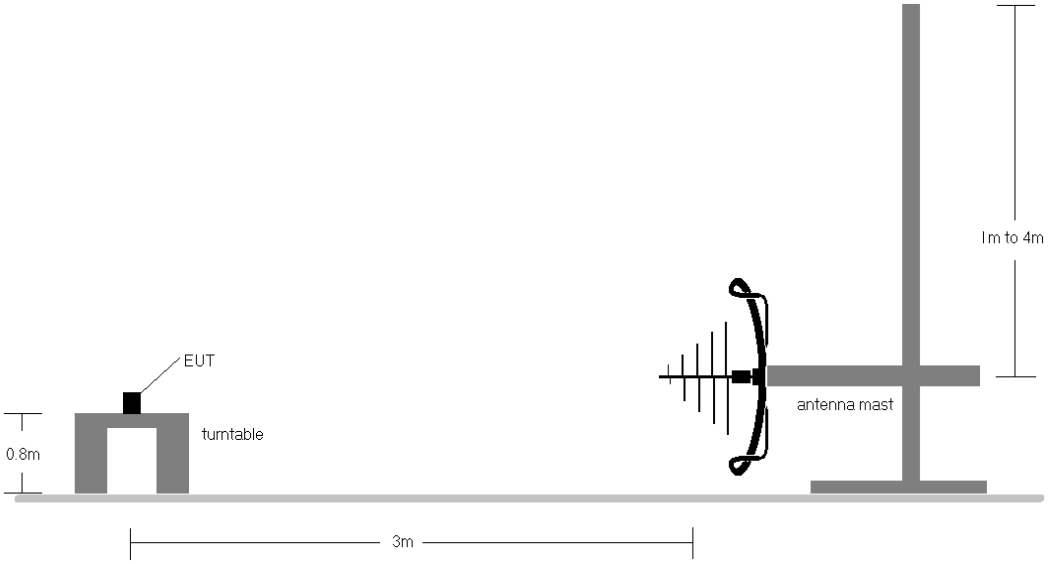


Figure 7-7. Test Instrument & Measurement Setup < 1GHz

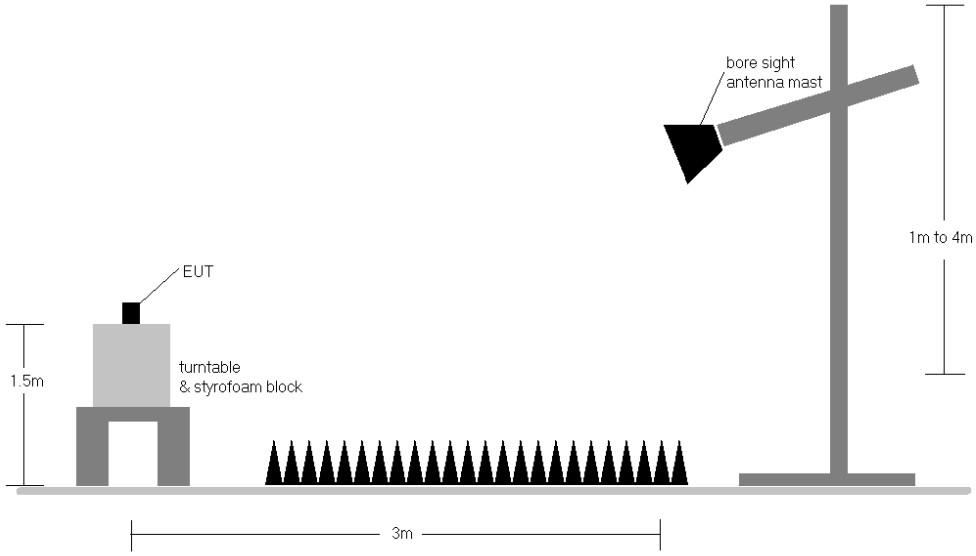


Figure 7-8. Test Instrument & Measurement Setup >1 GHz

Test Notes

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

   b) E(dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m)
   d) 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.

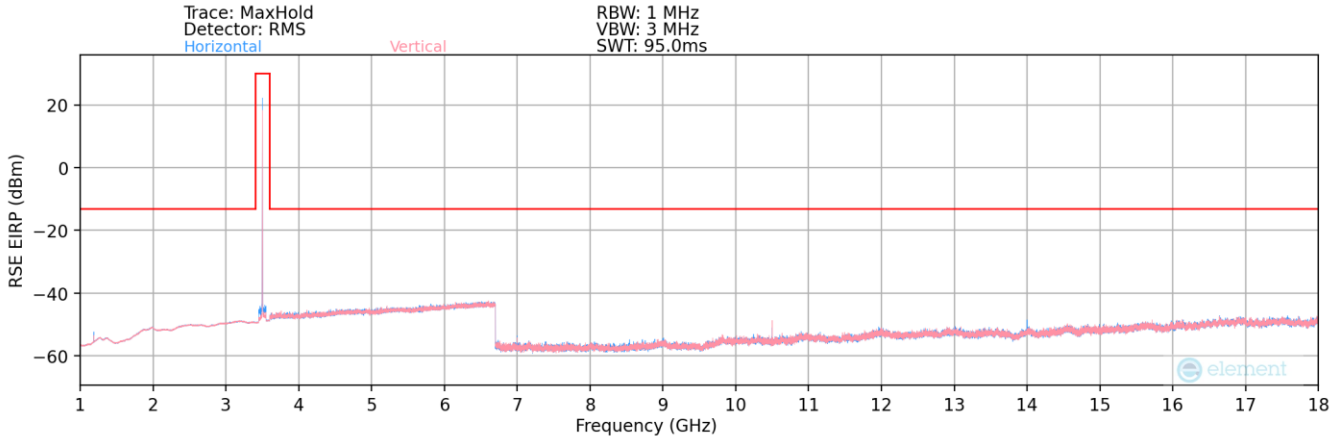
5) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.

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

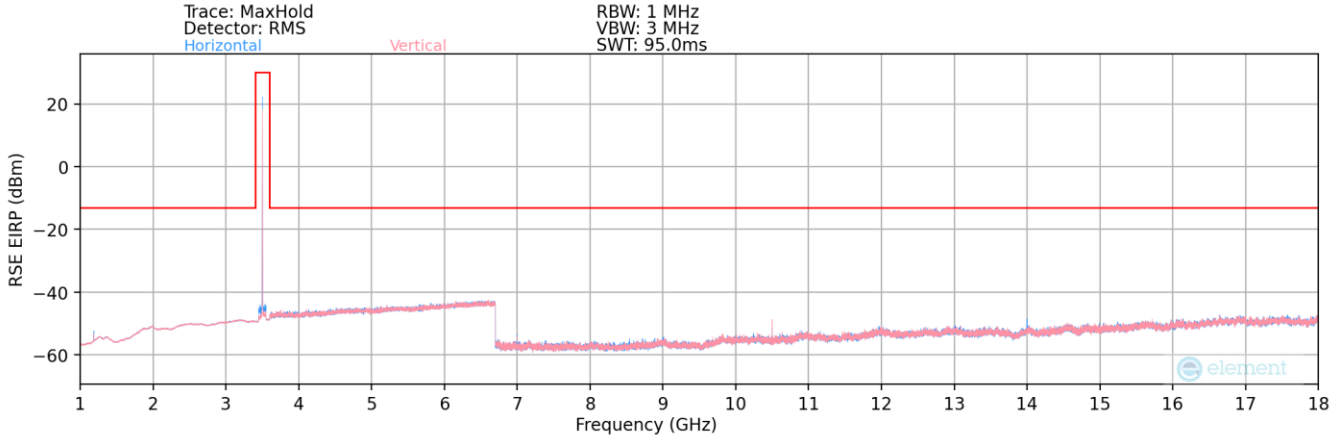
7) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst-case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

8) 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.

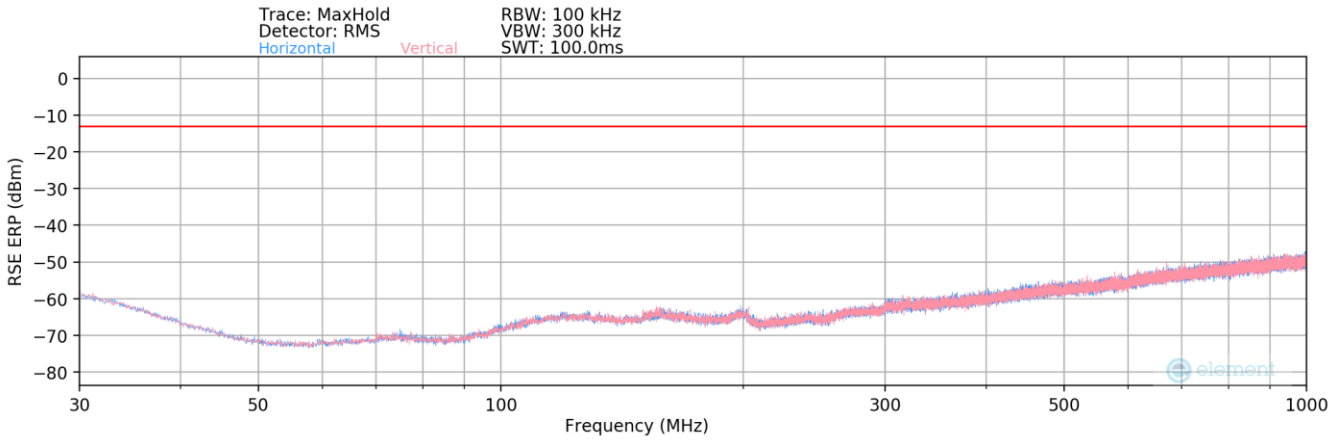
NR Band n77 (DoD Band) – Antenna F



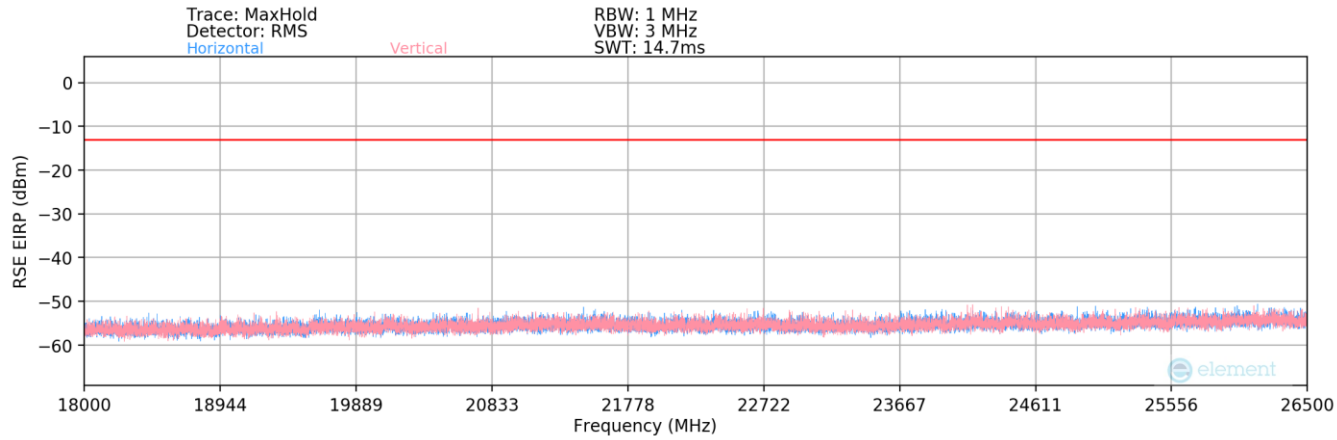
Plot 7-432. Radiated Spurious Plot (NR Band n77 (DoD) – Antenna F) – Open



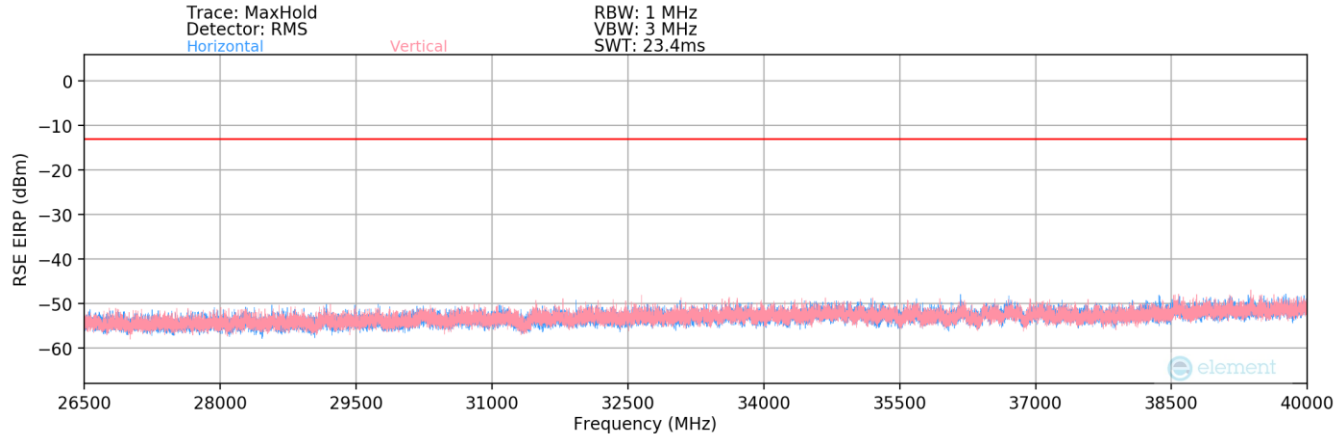
Plot 7-433. Radiated Spurious Plot (NR Band n77 (DoD) – Antenna F) – Closed



Plot 7-434. Radiated Spurious Plot <1GHz (NR Band n77 (DoD) – Antenna F) - Closed



Plot 7-435. Radiated Spurious Plot >18GHz (NR Band n77 (DoD) – Antenna F) – Closed



Plot 7-436. Radiated Spurious Plot >18GHz (NR Band n77 (DoD) – Antenna F) – Closed

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136

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]
7000.0	H	141	34	-70.30	8.23	44.93	-50.33	-13.00	-37.33
10500.0	V	133	343	-70.41	11.69	48.28	-46.98	-13.00	-33.98
14000.0	H	172	26	-71.76	14.46	49.70	-45.56	-13.00	-32.56
17500.1	V	-	-	-78.19	17.85	46.66	-48.60	-13.00	-35.60

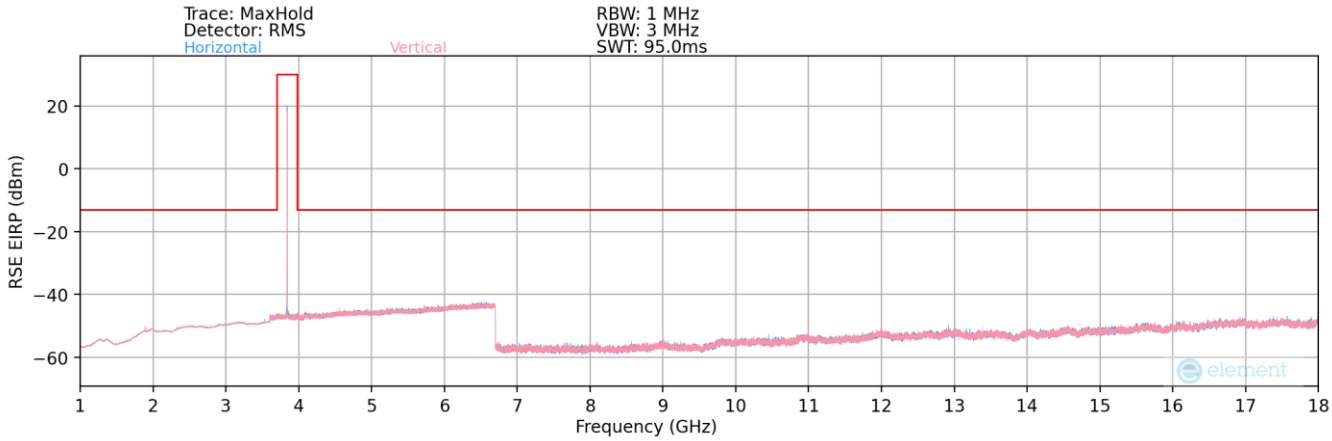
Table 7-21. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Antenna F) – Closed

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136

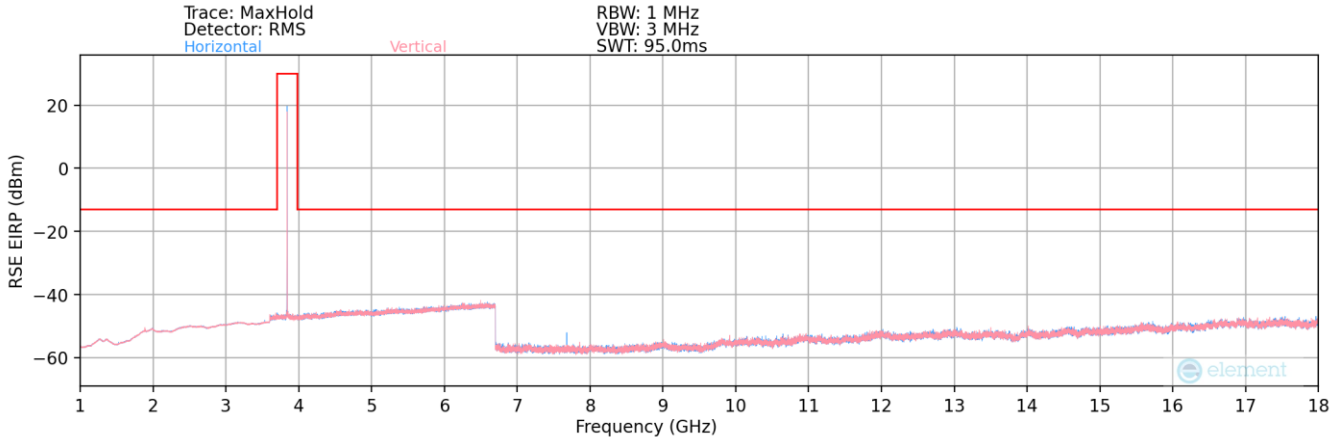
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
702.8	V	-	-	-80.82	29.00	55.18	-40.08	-13.00	-27.08
885.0	V	-	-	-80.78	31.24	57.46	-37.80	-13.00	-24.80

Table 7-22. Radiated Spurious Data (NR Band n77 (DoD) <1GHz – Antenna F) – Closed

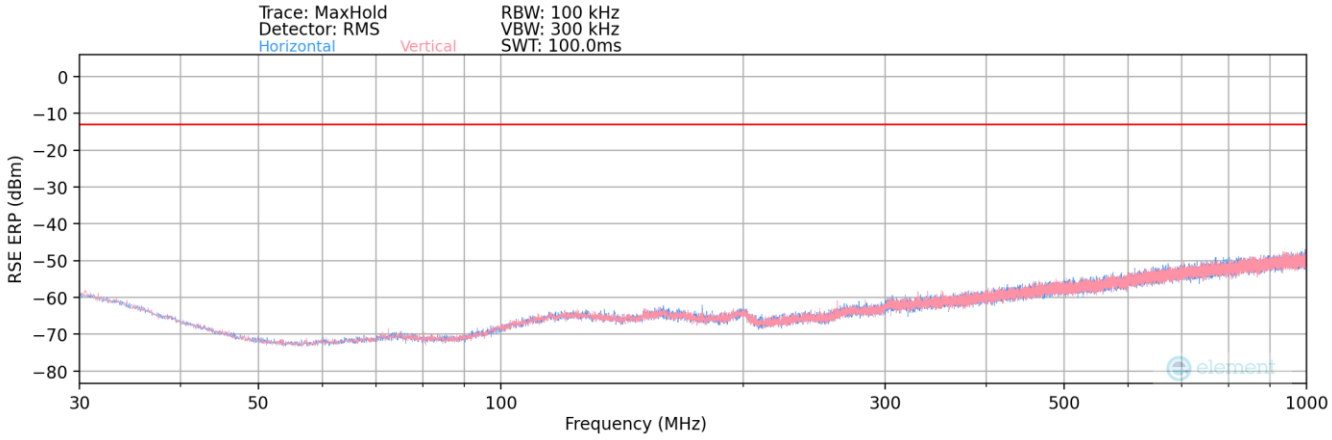
NR Band n77 (C-Band) – Antenna F



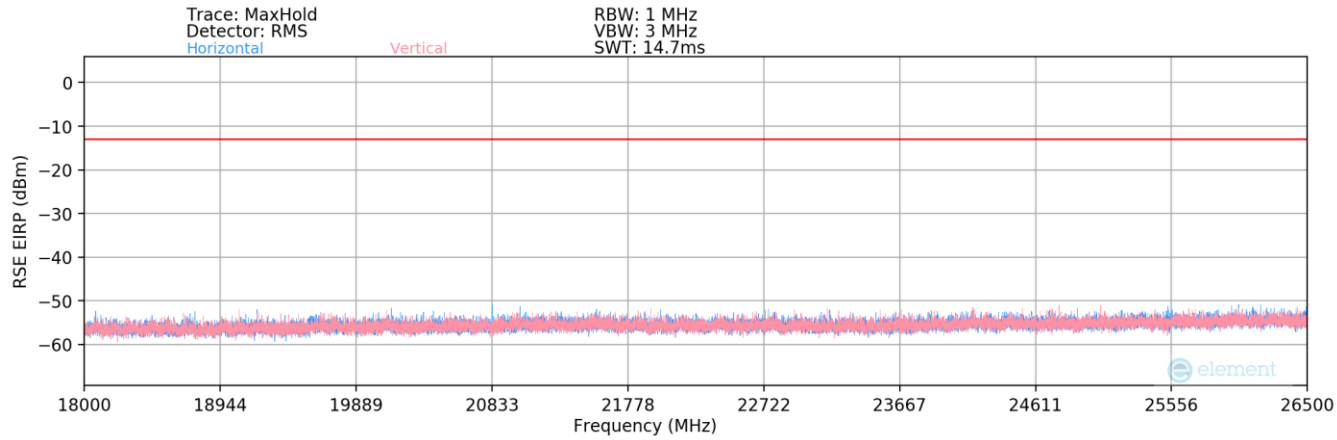
Plot 7-437. Radiated Spurious Plot (NR Band n77 (C-Band) – Antenna F) – Open



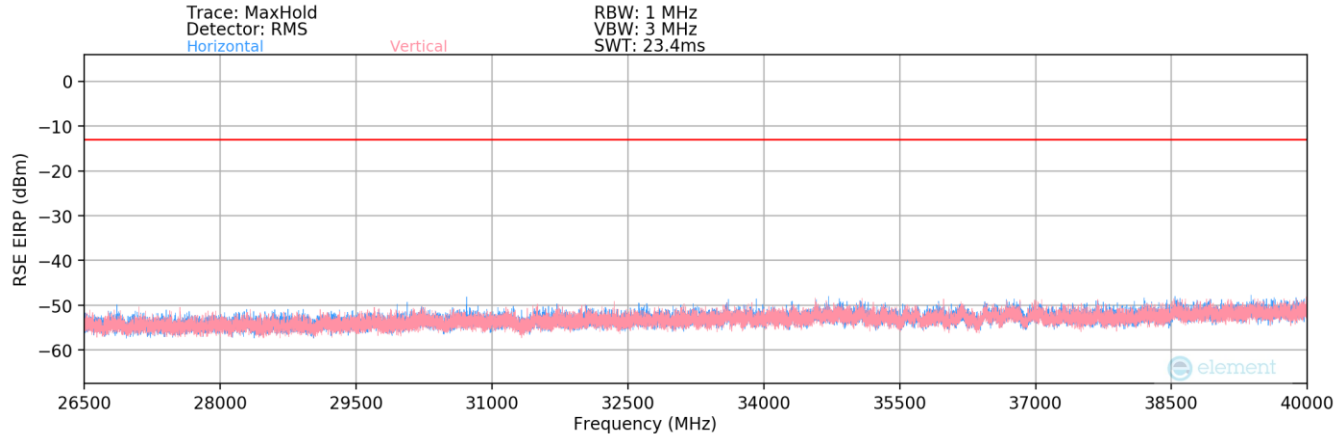
Plot 7-438. Radiated Spurious Plot (NR Band n77 (C-Band) – Antenna F) – Closed



Plot 7-439. Radiated Spurious Plot <1GHz (NR Band n77 (C-Band) – Antenna F) - Closed



Plot 7-440. Radiated Spurious Plot >18GHz (NR Band n77 (C-Band) – Antenna F) – Closed



Plot 7-441. Radiated Spurious Plot >18GHz (NR Band n77 (C-Band) – Antenna F) – Closed

Bandwidth (MHz):	100
Frequency (MHz):	3750.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7500.0	H	148	33	-69.67	8.39	45.72	-49.54	-13.00	-36.54
11250.0	H	211	46	-71.07	12.73	48.66	-46.60	-13.00	-33.60
15000.0	H	-	-	-76.25	15.87	46.62	-48.64	-13.00	-35.64

Table 7-23. Radiated Spurious Data (NR Band n77 (C-Band) – Low Channel – Antenna F) – Closed

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7680.0	H	176	342	-69.17	7.60	45.43	-49.83	-13.00	-36.83
11520.0	H	215	60	-71.37	13.33	48.96	-46.30	-13.00	-33.30
15360.0	H	-	-	-76.30	16.42	47.12	-48.14	-13.00	-35.14
19200.0	H	150	53	-51.86	2.53	57.67	-47.13	-13.00	-34.13
23040.0	H	150	352	-55.09	3.73	55.64	-49.16	-13.00	-36.16
26880.0	H	150	5	-54.32	5.05	57.73	-47.07	-13.00	-34.07
30720.0	H	150	356	-50.24	6.83	63.60	-41.20	-13.00	-28.20
34560.0	H	-	-	-58.48	7.64	56.16	-48.64	-13.00	-35.64

Table 7-24. Radiated Spurious Data (NR Band n77 (C-Band) – Mid Channel – Antenna F) – Closed

Bandwidth (MHz):	100
Frequency (MHz):	3930.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7860.0	H	124	5	-71.35	8.39	44.04	-51.22	-13.00	-38.22
11790.0	H	210	70	-73.96	13.64	46.68	-48.58	-13.00	-35.58
15720.0	H	-	-	-76.28	17.52	48.24	-47.01	-13.00	-34.01

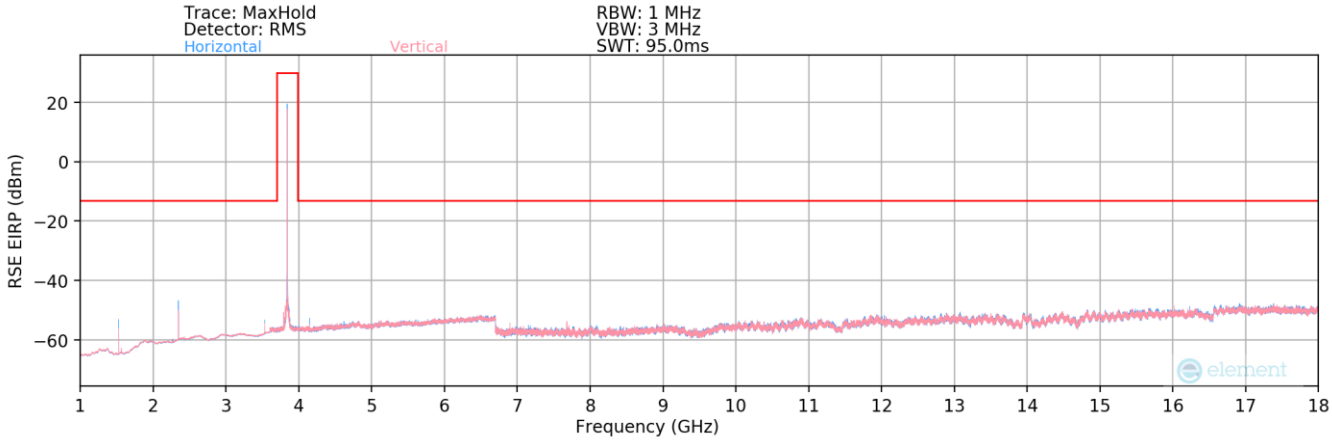
Table 7-25. Radiated Spurious Data (NR Band n77 (C-Band) – High Channel – Antenna F) – Closed

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Standalone

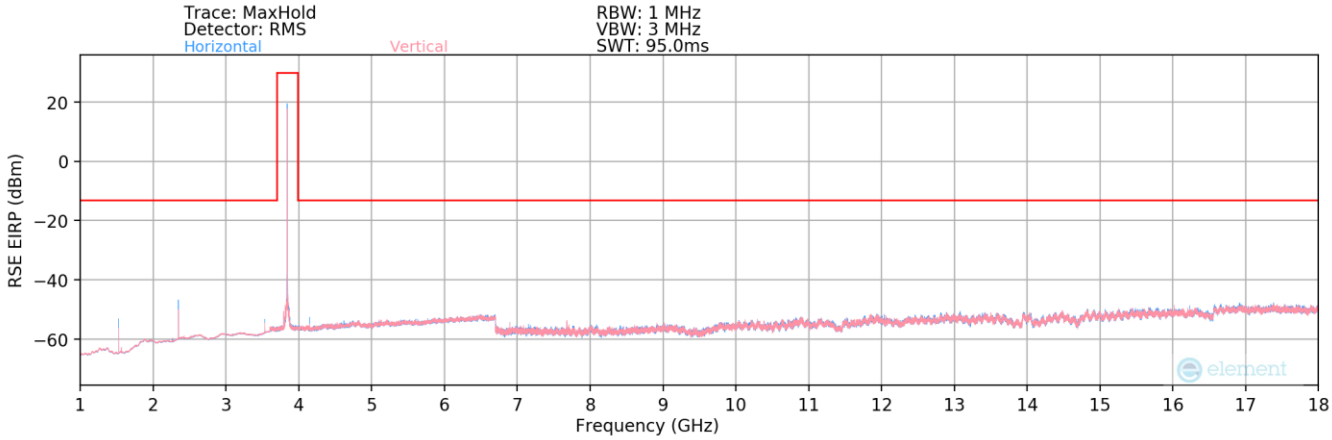
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
179.0	H	-	-	-81.22	18.37	44.15	-51.10	-13.00	-38.10

Table 7-26. Radiated Spurious Data (NR Band n77 (C-Band) <1GHz – Antenna F) – Closed

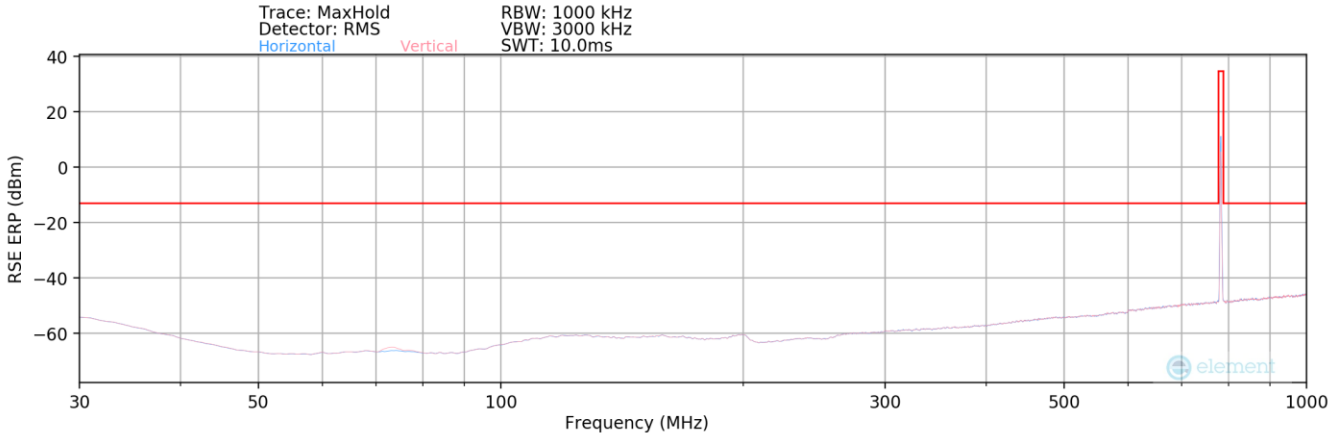
EN-DC n77 – Band 13



Plot 7-442. Radiated Spurious Plot (NR n77 – Band 13 – Open)



Plot 7-443. Radiated Spurious Plot (NR n77 – Band 13 – Closed)



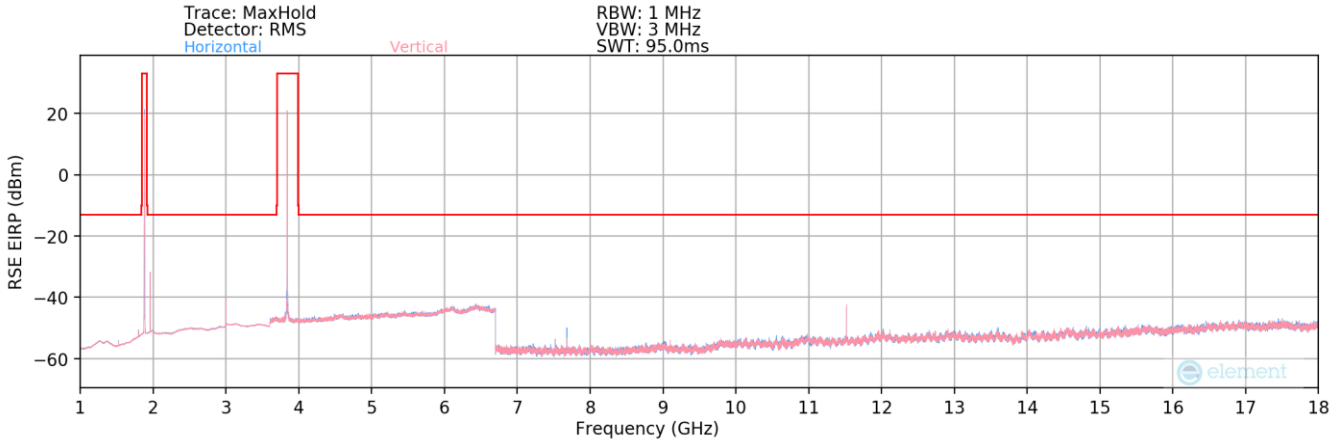
Plot 7-444. Radiated Spurious Plot (NR n77– Band 13 – <1GHz – Closed)

Case:	n77 (PC2) + B13
Bandwidth (MHz):	100 & 10
Frequency (MHz):	3840 & 782
RB / Offset:	1 / 136 & 1 / 25
Mode:	EN-DC
Anchor Band:	LTE Band 13

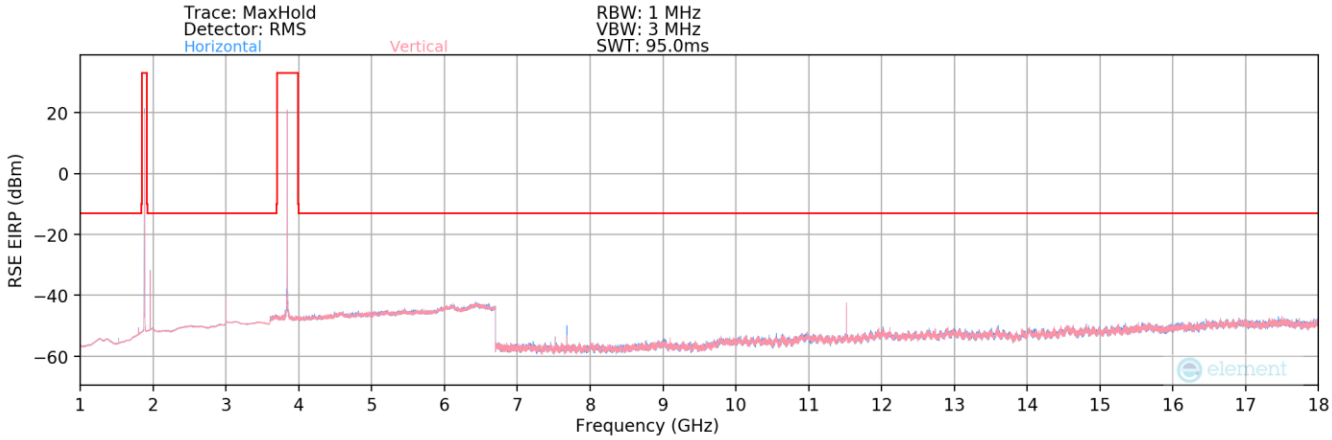
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
712.0	H	-	-	-83.41	28.97	52.56	-42.70	-13.00	-29.70
852.0	H	-	-	-83.24	31.11	54.87	-40.39	-13.00	-27.39
1564.0	H	140	212	-61.12	-3.87	42.01	-53.25	-13.00	-40.25
2276.0	H	159	248	-50.14	-0.21	56.65	-48.15	-13.00	-35.15
2346.0	H	151	219	-46.07	0.64	61.57	-43.23	-13.00	-30.23
5404.0	H	306	154	-60.41	5.08	51.67	-53.13	-13.00	-40.13
6898.0	H	368	190	-77.34	8.33	37.99	-66.81	-13.00	-53.81

Table 7-27. Radiated Spurious Data (NR Band n77 – Band 13 – Closed)

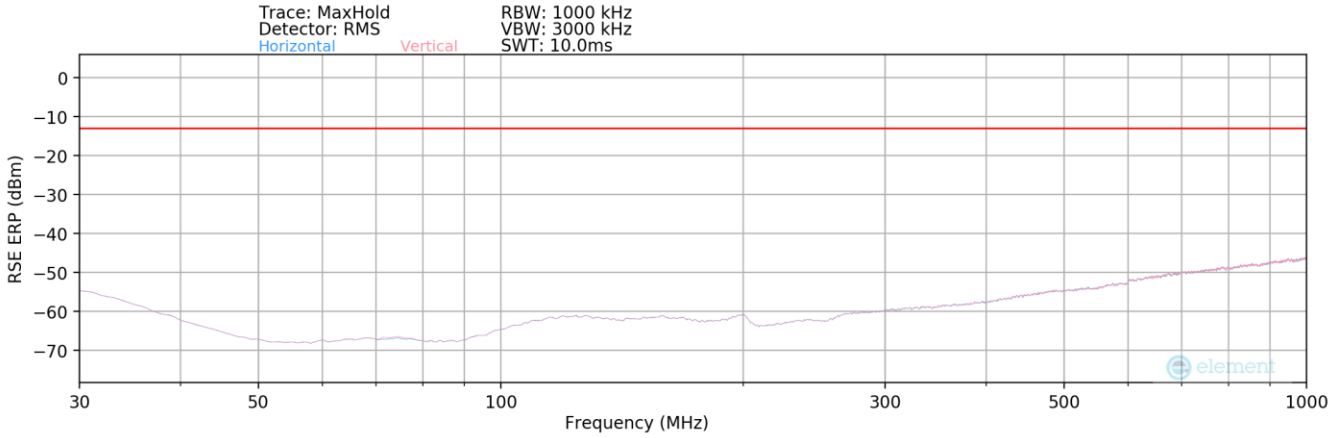
EN-DC n77 – Band 2



Plot 7-445. Radiated Spurious Plot (NR n77 – Band 2 – Open)



Plot 7-446. Radiated Spurious Plot (NR n77 – Band 2 – Closed)



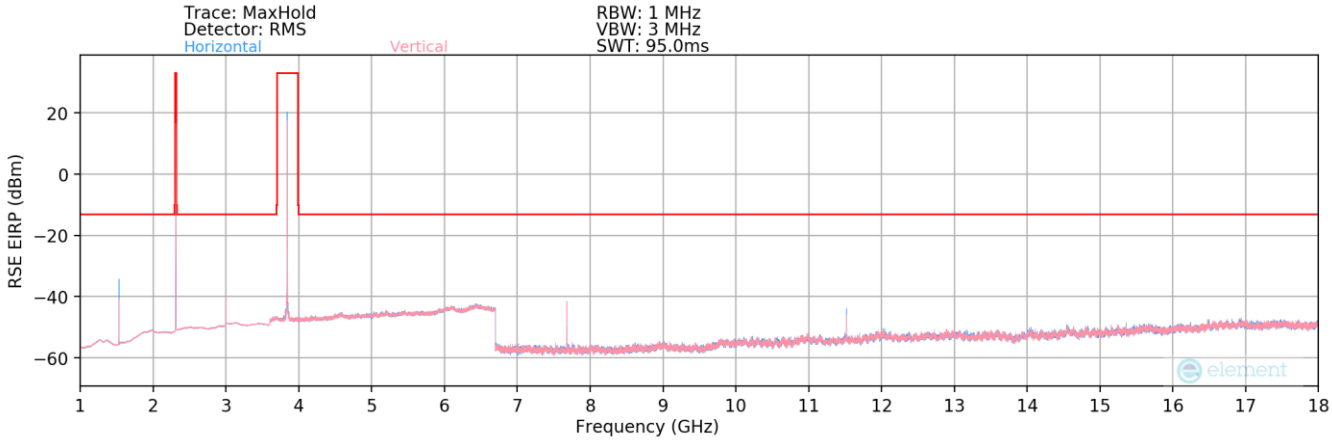
Plot 7-447. Radiated Spurious Plot (NR n77– Band 2 - <1GHz – Closed)

Case:	n77 (PC2) + B2
Bandwidth (MHz):	100 & 20
Frequency (MHz):	3840 & 1880
RB / Offset:	1 / 136 & 1 / 50
Mode:	EN-DC
Anchor Band:	LTE Band 2

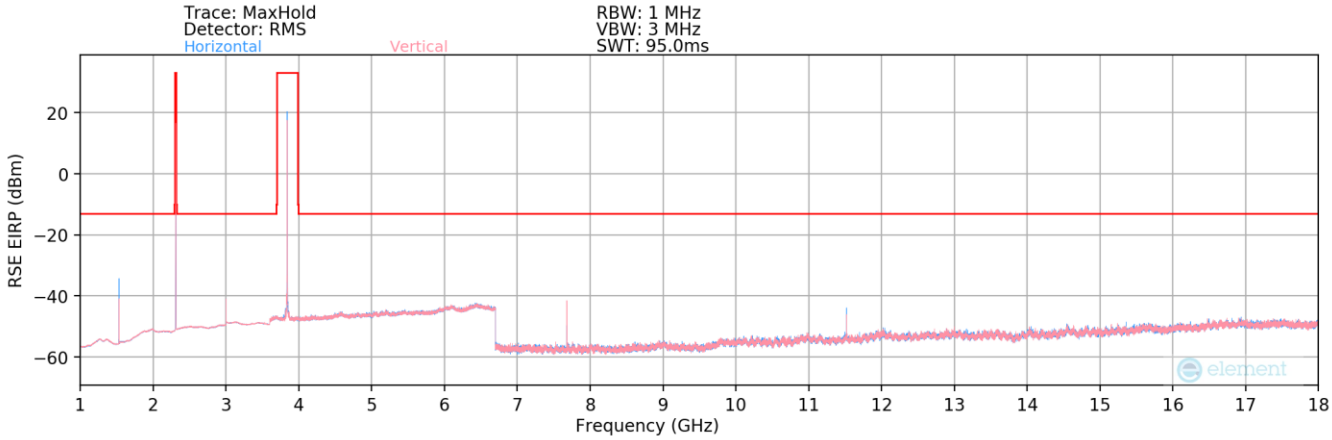
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
191.4	H	-	-	-90.30	18.69	35.39	-59.86	-13.00	-46.86
1960.0	H	152	2	-52.44	9.30	63.86	-31.40	-13.00	-18.40
3532.7	H	363	208	-70.69	2.40	38.71	-56.55	-13.00	-43.55
5640.0	H	333	170	-62.14	5.52	50.38	-54.42	-13.00	-41.42
7520.0	H	296	343	-74.93	8.43	40.50	-64.30	-13.00	-51.30
7680.0	H	291	328	-61.83	7.60	52.77	-52.03	-13.00	-39.03
7760.0	H	-	-	-78.75	8.04	36.29	-68.51	-13.00	-55.51

Table 7-28. Radiated Spurious Data (NR Band n77 – Band 2 – Closed)

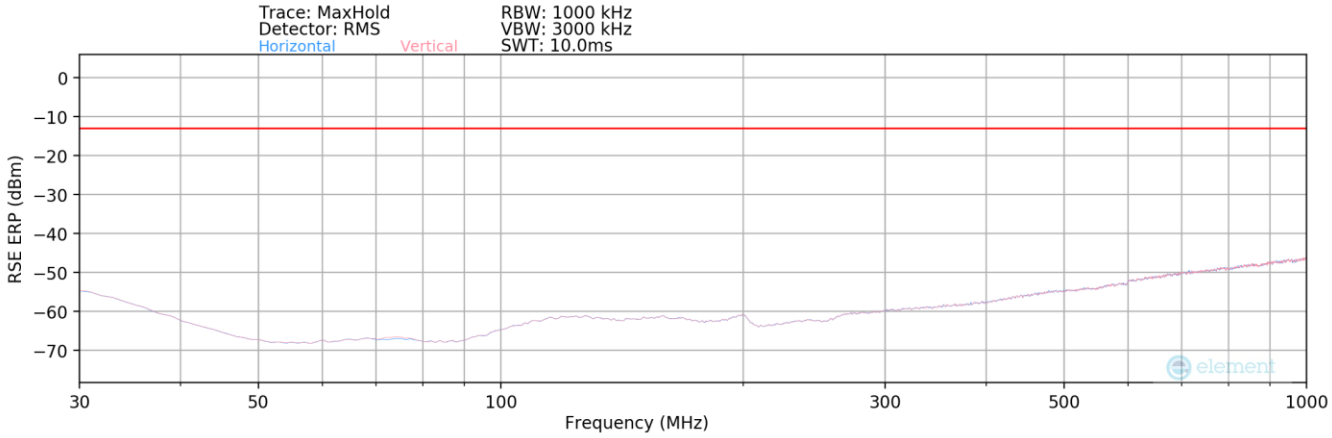
EN-DC n77 – Band 30



Plot 7-448. Radiated Spurious Plot (NR n77 – Band 30 – Open)



Plot 7-449. Radiated Spurious Plot (NR n77 – Band 30 – Closed)



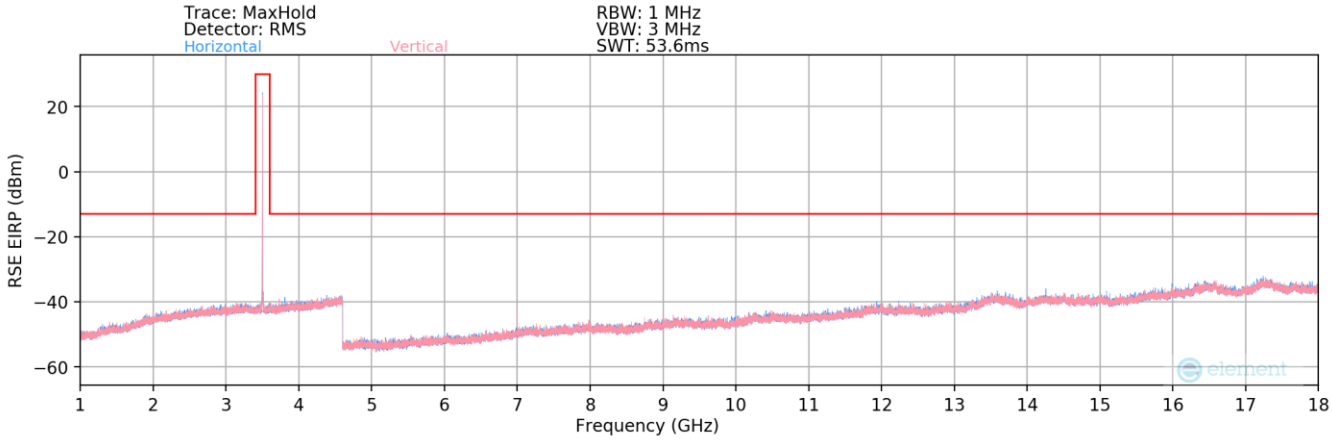
Plot 7-450. Radiated Spurious Plot (NR n77 – Band 30 - <1GHz – Closed)

Case:	n77 (PC2) + B30
Bandwidth (MHz):	100 & 10
Frequency (MHz):	3840 & 2310
RB / Offset:	1 / 136 & 1 / 25
Mode:	EN-DC
Anchor Band:	LTE Band 30

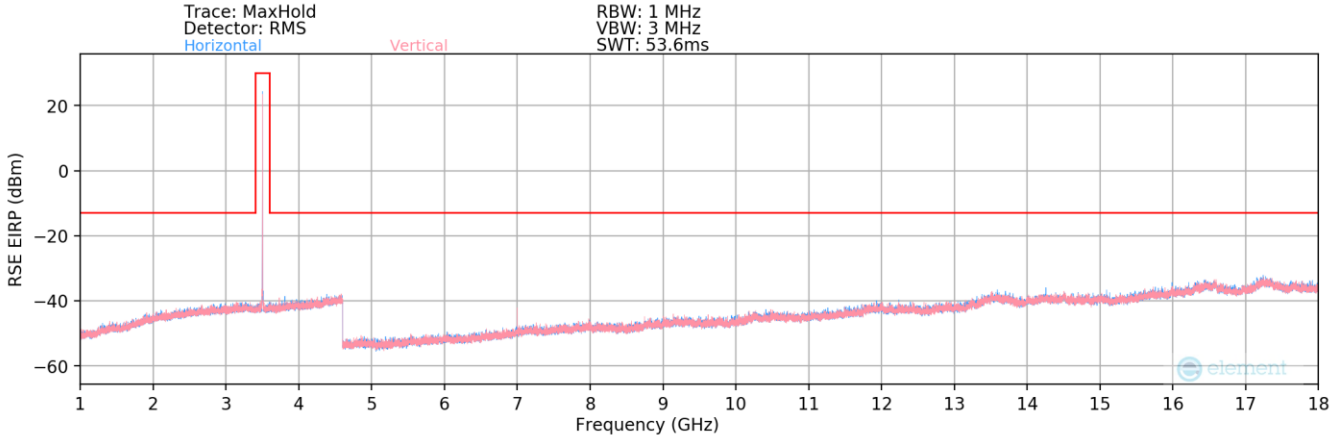
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
750.0	H	-	-	-89.72	29.62	46.90	-48.36	-13.00	-35.36
780.0	H	-	-	-89.55	29.44	46.89	-48.37	-13.00	-35.37
1530.0	H	275	341	-46.66	5.18	65.52	-29.74	-13.00	-16.74
3060.0	V	-	-	-77.09	11.42	41.33	-63.47	-13.00	-50.47
6930.0	H	249	22	-60.73	8.34	54.61	-50.19	-13.00	-37.19
8460.0	H	366	274	-64.83	8.60	50.77	-54.03	-13.00	-41.03

Table 7-29. Radiated Spurious Data (NR Band n77 – Band 30 – Closed)

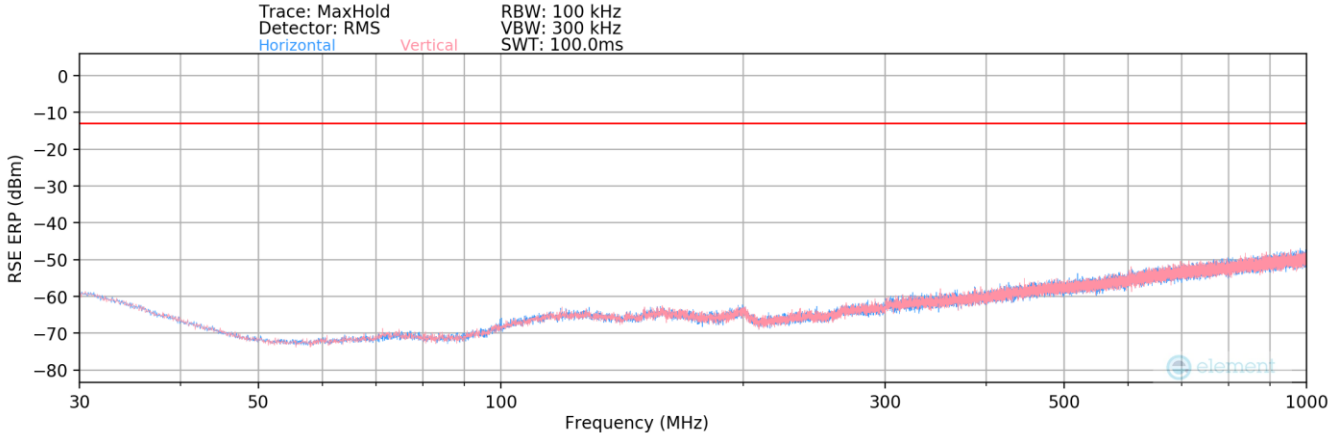
NR Band n77 (DoD Band) – Antenna E



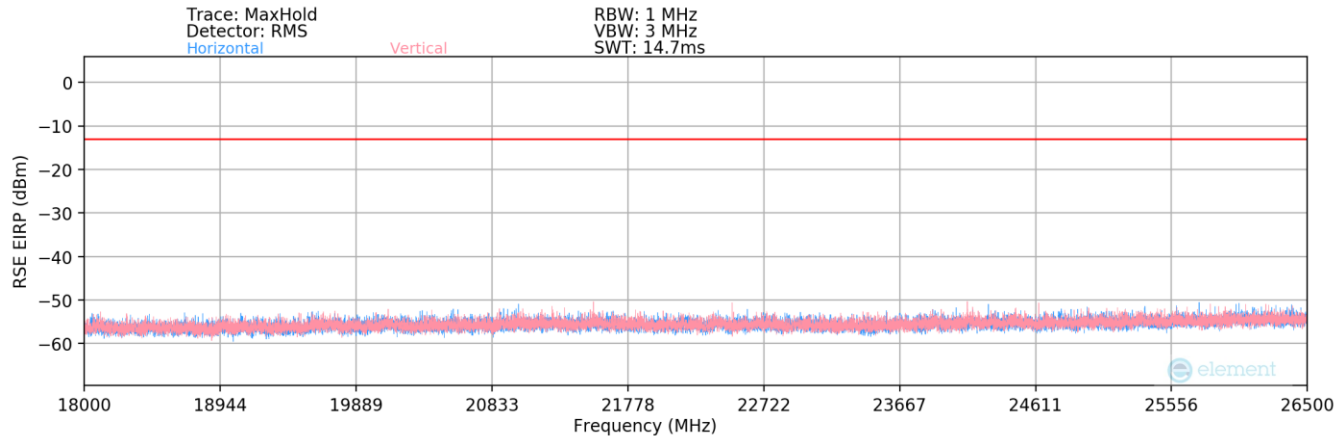
Plot 7-451. Radiated Spurious Plot (NR Band n77 (DoD) – Antenna E) – Open



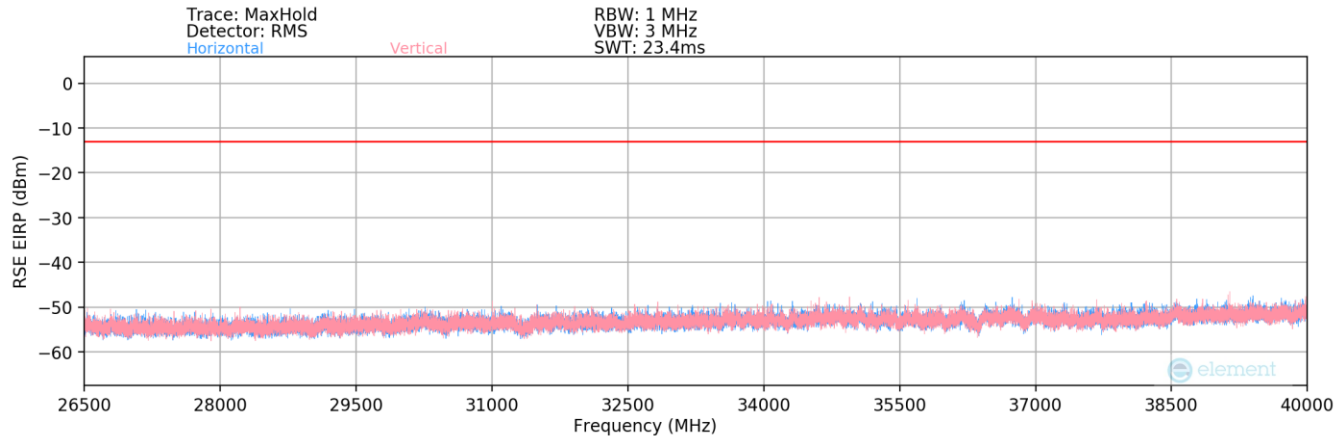
Plot 7-452. Radiated Spurious Plot (NR Band n77 (DoD) – Antenna E) – Half



Plot 7-453. Radiated Spurious Plot <1GHz (NR Band n77 (DoD) – Antenna E) – Half



Plot 7-454. Radiated Spurious Plot >18GHz (NR Band n77 (DoD) – Antenna E) – Half



Plot 7-455. Radiated Spurious Plot >18GHz (NR Band n77 (DoD) – Antenna E) – Half

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7000.0	V	112	8	-64.36	15.75	58.39	-36.87	-13.00	-23.87
10500.0	V	-	-	-75.57	20.95	52.38	-42.88	-13.00	-29.88
14000.0	V	-	-	-76.79	26.67	56.88	-38.38	-13.00	-25.38
17500.1	V	-	-	-77.65	30.91	60.26	-34.99	-13.00	-21.99

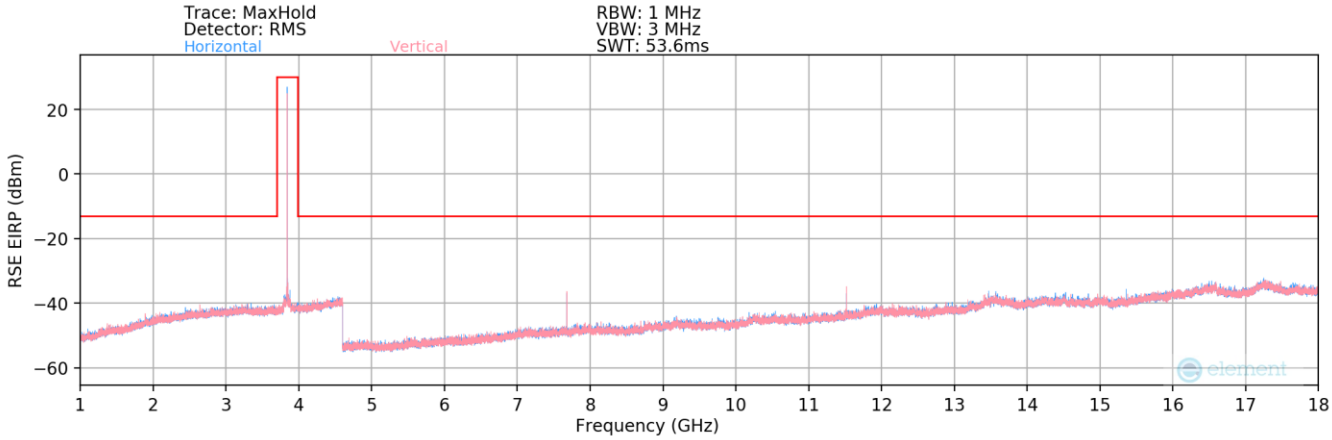
Table 7-30. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Antenna E) – Half

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136
Mode:	Stand Alone

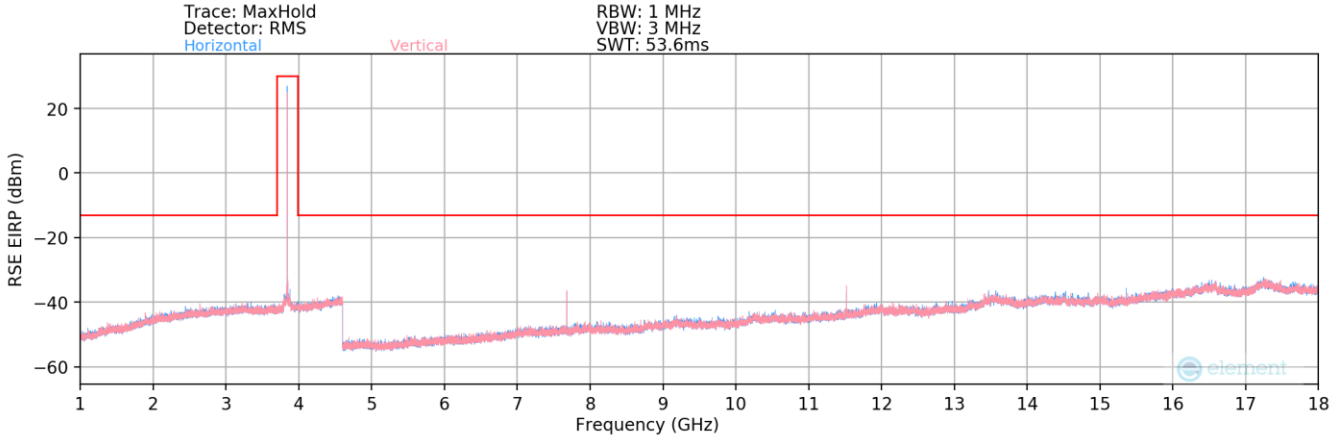
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
833.0	V	-	-	-85.08	30.54	52.46	-42.79	-13.00	-29.79

Table 7-31. Radiated Spurious Data (NR Band n77 (DoD) <1GHz – Antenna E) – Half

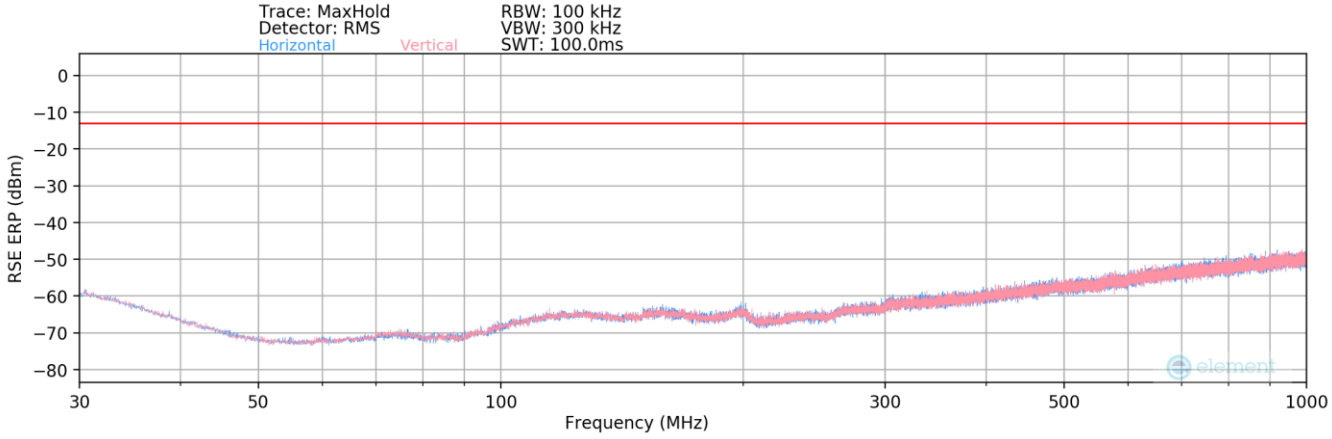
NR Band n77 (C-Band) – Antenna E



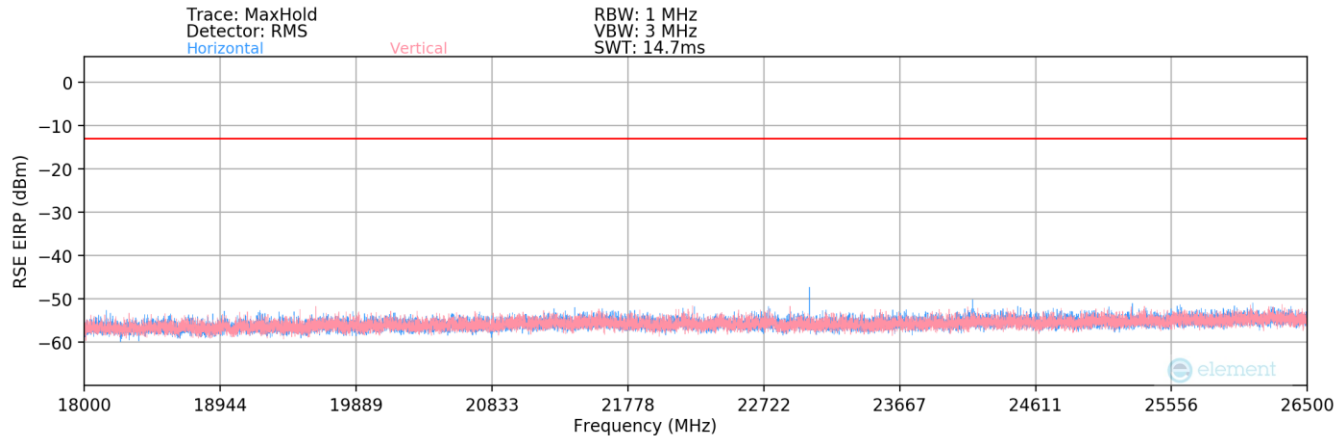
Plot 7-456. Radiated Spurious Plot (NR Band n77 (C-Band) – Antenna E) – Open



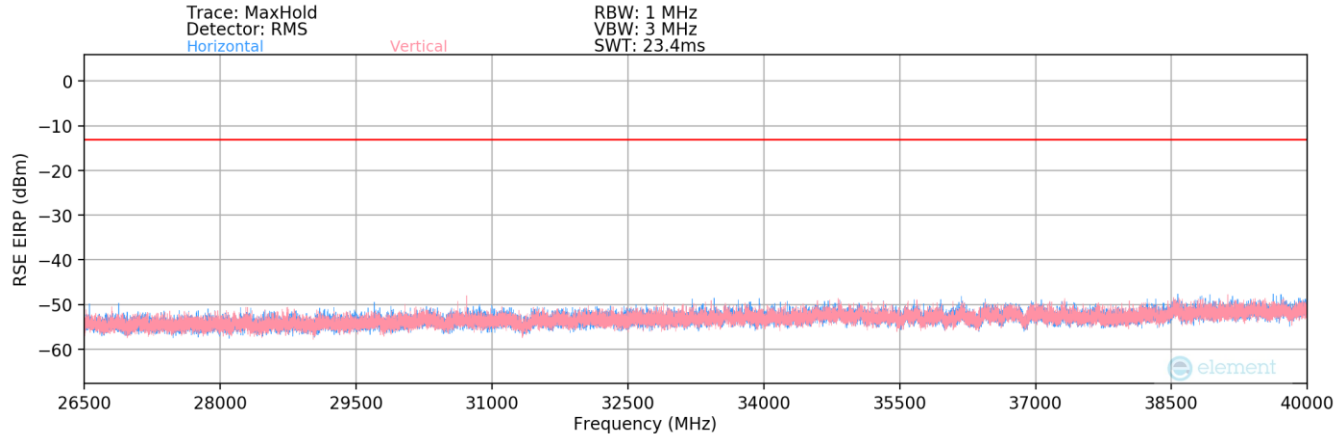
Plot 7-457. Radiated Spurious Plot (NR Band n77 (C-Band) – Antenna E) – Half



Plot 7-458. Radiated Spurious Plot <1GHz (NR Band n77 (C-Band) – Antenna E) – Half



Plot 7-459. Radiated Spurious Plot >18GHz (NR Band n77 (C-Band) – Antenna E) – Half



Plot 7-460. Radiated Spurious Plot >18GHz (NR Band n77 (C-Band) – Antenna E) – Half

Bandwidth (MHz):	100
Frequency (MHz):	3750.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7500.0	H	108	18	-58.43	16.72	65.29	-29.97	-13.00	-16.97
11250.0	H	231	60	-67.51	21.84	61.33	-33.93	-13.00	-20.93
15000.0	H	-	-	-76.38	27.58	58.20	-37.05	-13.00	-24.05

Table 7-32. Radiated Spurious Data (NR Band n77 (C-Band) – Low Channel – Antenna E) – Half

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7680.0	H	102	22	-59.00	16.78	64.78	-30.48	-13.00	-17.48
11520.0	H	230	46	-65.95	23.14	64.19	-31.07	-13.00	-18.07
15360.0	H	192	33	-75.12	28.02	59.90	-35.36	-13.00	-22.36
19200.0	H	150	30	-52.34	2.53	57.19	-47.61	-13.00	-34.61
23040.0	H	-	-	-58.03	3.73	52.70	-52.10	-13.00	-39.10
26880.0	H	150	38	-53.91	5.05	58.14	-46.66	-13.00	-33.66
30720.0	V	150	16	-49.74	6.83	64.09	-40.71	-13.00	-27.71

Table 7-33. Radiated Spurious Data (NR Band n77 (C-Band) – Mid Channel – Antenna E) – Half

Bandwidth (MHz):	100
Frequency (MHz):	3930.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7860.0	H	104	11	-64.36	16.73	59.37	-35.89	-13.00	-22.89
11790.0	H	236	61	-64.25	22.44	65.19	-30.07	-13.00	-17.07
15720.0	H	-	-	-76.41	29.50	60.09	-35.16	-13.00	-22.16

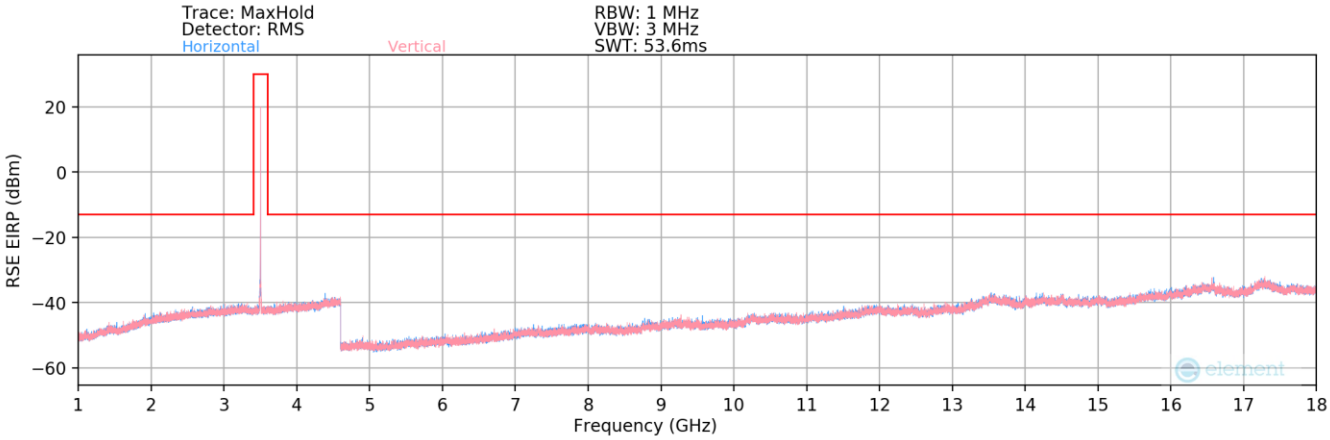
Table 7-34. Radiated Spurious Data (NR Band n77 (C-Band) – High Channel – Antenna E) – Half

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Standalone

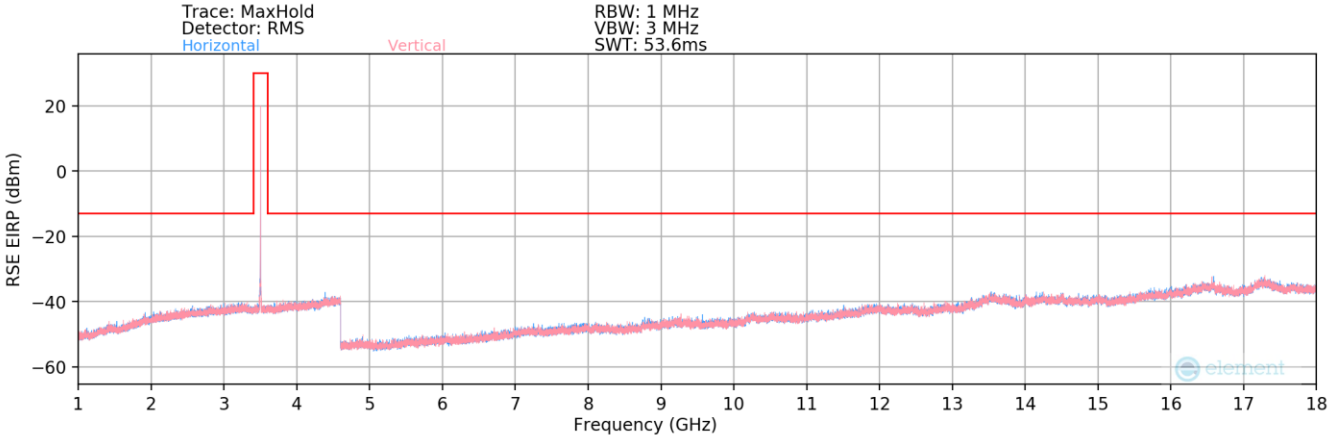
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
700.0	H	-	-	-83.42	28.98	52.56	-42.70	-13.00	-29.70

Table 7-35. Radiated Spurious Data (NR Band n77 (C-Band) <1GHzl – Antenna E) – Half

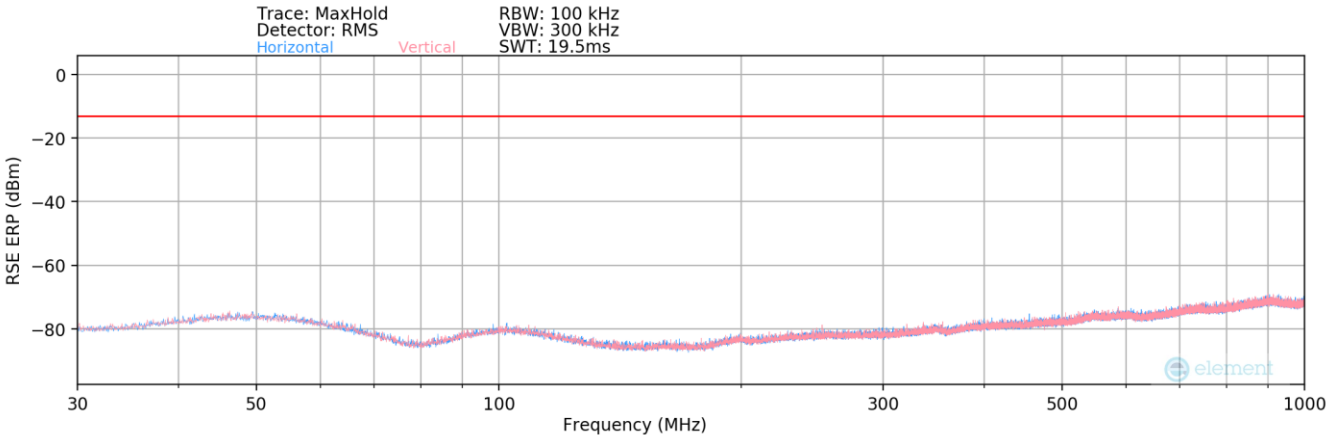
NR Band n77 (DoD Band) – Antenna G



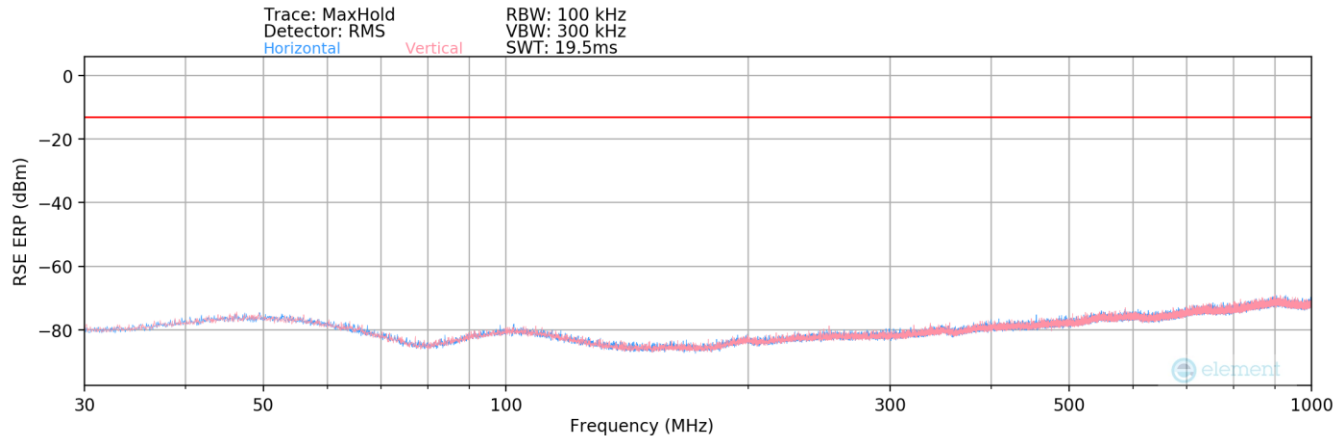
Plot 7-461. Radiated Spurious Plot (NR Band n77 (DoD) – Antenna G) – Open



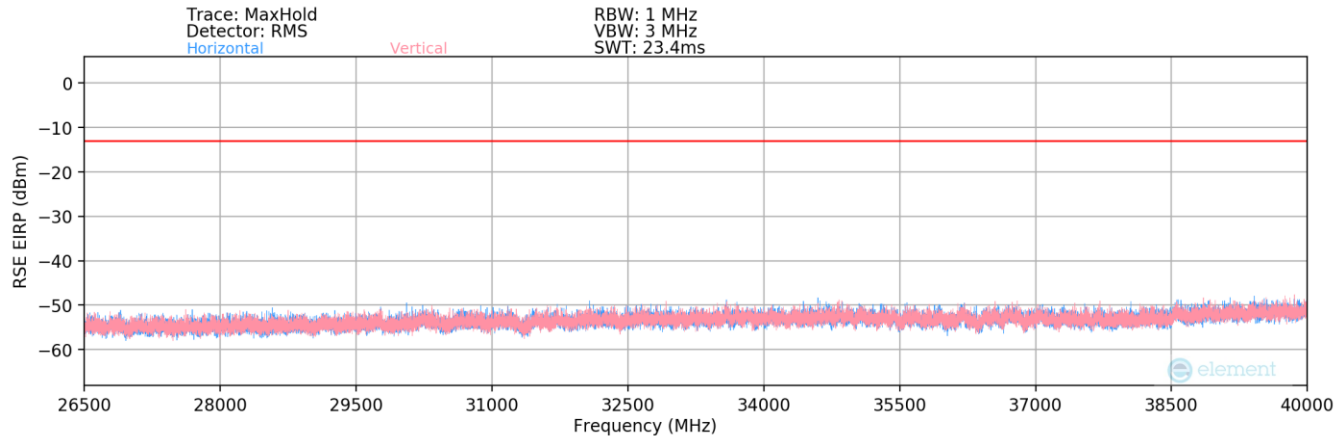
Plot 7-462. Radiated Spurious Plot (NR Band n77 (DoD) – Antenna G) – Closed



Plot 7-463. Radiated Spurious Plot <1GHz (NR Band n77 (DoD) – Antenna G) - Closed



Plot 7-464. Radiated Spurious Plot >18GHz (NR Band n77 (DoD) – Antenna G) – Closed



Plot 7-465. Radiated Spurious Plot >18GHz (NR Band n77 (DoD) – Antenna G) – Closed

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7000.0	H	-	-	-82.08	15.79	40.71	-54.55	-13.00	-41.55
10500.0	H	-	-	-83.48	21.71	45.23	-50.03	-13.00	-37.03
14000.0	H	-	-	-84.53	27.35	49.82	-45.44	-13.00	-32.44
17500.1	H	-	-	-85.32	31.61	53.29	-41.97	-13.00	-28.97
21000.1	H	-	-	-58.84	3.59	51.75	-53.05	-13.00	-40.05
24500.1	H	150	326	-50.63	4.41	60.78	-44.02	-13.00	-31.02
28000.1	H	-	-	-59.32	4.94	52.62	-52.18	-13.00	-39.18
31500.1	H	-	-	-59.82	7.06	54.24	-50.56	-13.00	-37.56

Table 7-36. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Antenna G) - Closed

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136
Mode:	Standalone

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]
101.3	H	-	-	-73.61	-16.42	16.97	-78.28	-13.00	-65.28
462.7	H	-	-	-79.65	-10.47	16.88	-78.38	-13.00	-65.38

Table 7-37. Radiated Spurious Data (NR Band n77 (DoD) <1GHz – Antenna G) - Closed