Test Notes

1) This device employs GSM, GPRS, and EDGE capabilities. The EUT was tested under all configurations and the highest powers is reported in GPRS mode while transmitting with one slot active.

2) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to “1”.

3) 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.

4) This unit was tested with its standard battery.

5) 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]
20 MHz	QPSK	1860.0	V	154	329	9.68	1 / 0	14.22	23.90	0.245	33.01	-9.11
	QPSK	1882.5	V	124	334	9.99	1 / 50	14.50	**24.49**	0.281	33.01	-8.52
	QPSK	1905.0	V	193	357	10.18	1 / 0	14.30	24.48	0.281	33.01	-8.53
	16-QAM	1882.5	V	124	334	9.99	1 / 50	14.16	24.15	0.260	33.01	-8.86
15 MHz	QPSK	1857.5	V	154	329	9.66	1 / 37	14.31	23.97	0.249	33.01	-9.04
	QPSK	1882.5	V	124	334	9.99	1 / 37	14.44	24.43	0.277	33.01	-8.58
	QPSK	1907.5	V	193	357	10.19	1 / 0	14.39	**24.58**	0.287	33.01	-8.43
	16-QAM	1882.5	V	124	334	9.99	1 / 0	14.29	24.27	0.268	33.01	-8.74
10 MHz	QPSK	1855.0	V	154	329	9.64	1 / 25	14.31	23.95	0.248	33.01	-9.06
	QPSK	1882.5	V	124	334	9.99	1 / 25	14.50	24.48	0.281	33.01	-8.53
	QPSK	1910.0	V	193	357	10.20	1 / 25	14.39	**24.59**	0.288	33.01	-8.42
	16-QAM	1882.5	V	124	334	9.99	1 / 25	14.55	24.54	0.285	33.01	-8.47
5 MHz	QPSK	1852.5	V	154	329	9.63	1 / 12	14.32	23.95	0.248	33.01	-9.06
	QPSK	1882.5	V	124	334	9.99	1 / 12	14.58	24.57	0.286	33.01	-8.44
	QPSK	1912.5	V	193	357	10.21	1 / 12	14.39	**24.59**	0.288	33.01	-8.42
	16-QAM	1882.5	V	124	334	9.99	1 / 12	14.50	24.49	0.281	33.01	-8.52
3 MHz	QPSK	1851.5	V	154	329	9.62	1 / 14	14.26	23.88	0.244	33.01	-9.14
	QPSK	1882.5	V	124	334	9.99	1 / 14	14.58	**24.56**	0.286	33.01	-8.45
	QPSK	1913.5	V	193	357	10.21	1 / 14	14.34	24.55	0.285	33.01	-8.46
	16-QAM	1882.5	V	124	334	9.99	1 / 14	14.12	24.11	0.257	33.01	-8.90
1.4 MHz	QPSK	1850.7	V	154	329	9.61	1 / 0	14.26	23.88	0.244	33.01	-9.13
	QPSK	1882.5	V	124	334	9.99	1 / 0	14.49	24.48	0.281	33.01	-8.53
	QPSK	1914.3	V	193	357	10.21	1 / 3	14.30	**24.51**	0.283	33.01	-8.50
	16-QAM	1882.5	V	124	334	9.99	1 / 0	14.31	24.30	0.269	33.01	-8.71
20 MHz	Opposite Pol.	1882.5	H	137	211	9.83	1 / 0	13.95	23.78	0.239	33.01	-9.23

Table 7-5. EIRP Data (LTE Band 25/2)

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	1870.0	V	117	335	9.75	1 / 161	15.21	24.96	0.314	33.01	-8.05
	π/2 BPSK	1882.5	V	121	334	9.99	1 / 108	15.14	25.13	0.326	33.01	-7.88
	π/2 BPSK	1895.0	V	105	334	10.12	1 / 54	15.10	25.22	0.333	33.01	-7.79
	QPSK	1870.0	V	117	335	9.75	1 / 161	15.17	24.92	0.311	33.01	-8.09
	QPSK	1882.5	V	121	334	9.99	1 / 108	15.33	25.32	0.340	33.01	-7.69
	QPSK	1895.0	V	105	334	10.12	1 / 54	15.24	**25.36**	0.344	33.01	-7.65
	16-QAM	1895.0	V	105	334	10.12	1 / 54	14.47	24.59	0.288	33.01	-8.42
30 MHz	π/2 BPSK	1865.0	V	117	335	9.72	1 / 40	15.25	24.96	0.313	33.01	-8.05
	π/2 BPSK	1882.5	V	121	334	9.99	1 / 119	15.14	25.13	0.326	33.01	-7.88
	π/2 BPSK	1900.0	V	105	334	10.16	1 / 80	15.06	25.22	0.333	33.01	-7.79
	QPSK	1865.0	V	117	335	9.72	1 / 40	15.24	24.95	0.313	33.01	-8.06
	QPSK	1882.5	V	121	334	9.99	1 / 119	15.33	**25.32**	0.340	33.01	-7.69
	QPSK	1900.0	V	105	334	10.16	1 / 80	15.03	25.19	0.331	33.01	-7.82
	16-QAM	1882.5	V	121	334	9.99	1 / 119	14.52	24.51	0.282	33.01	-8.50
25 MHz	π/2 BPSK	1862.5	V	117	335	9.70	1 / 66	15.28	24.98	0.315	33.01	-8.03
	π/2 BPSK	1882.5	V	121	334	9.99	1 / 33	15.03	25.02	0.317	33.01	-7.99
	π/2 BPSK	1902.5	V	105	334	10.17	1 / 33	14.98	25.16	0.328	33.01	-7.85
	QPSK	1862.5	V	117	335	9.70	1 / 66	15.16	24.85	0.306	33.01	-8.16
	QPSK	1882.5	V	121	334	9.99	1 / 66	15.36	**25.34**	0.342	33.01	-7.67
	QPSK	1902.5	V	105	334	10.17	1 / 33	14.99	25.16	0.328	33.01	-7.85
	16-QAM	1862.5	V	117	335	9.70	1 / 66	15.20	24.90	0.309	33.01	-8.11
40 MHz	QPSK (CP-OFDM)	1895.0	V	105	334	9.99	1 / 54	13.63	23.62	0.230	33.01	-9.39
	QPSK (Opposite Pol.)	1895.0	H	176	185	9.83	1 / 108	14.83	24.66	0.293	33.01	-8.35
	QPSK (WCP)	1895.0	V	109	280	9.99	1 / 161	13.62	23.61	0.229	33.01	-9.40

Table 7-6. EIRP Data (NR Band n25 – 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	π/2 BPSK	1860.0	V	117	335	9.68	1 / 79	15.26	24.93	0.312	33.01	-8.08
	π/2 BPSK	1882.5	V	121	334	9.99	1 / 26	15.17	25.16	0.328	33.01	-7.85
	π/2 BPSK	1905.0	V	105	334	10.18	1 / 79	14.98	25.16	0.328	33.01	-7.85
	QPSK	1860.0	V	117	335	9.68	1 / 79	15.22	24.90	0.309	33.01	-8.11
	QPSK	1882.5	V	121	334	9.99	1 / 26	15.41	**25.40**	0.346	33.01	-7.61
	QPSK	1905.0	V	105	334	10.18	1 / 79	15.19	25.37	0.344	33.01	-7.64
	16-QAM	1860.0	V	117	335	9.68	1 / 79	14.95	24.62	0.290	33.01	-8.39
15 MHz	π/2 BPSK	1857.5	V	117	335	9.66	1 / 58	15.32	24.98	0.315	33.01	-8.03
	π/2 BPSK	1882.5	V	121	334	9.99	1 / 58	15.10	25.09	0.323	33.01	-7.92
	π/2 BPSK	1907.5	V	105	334	10.19	1 / 58	14.96	25.15	0.327	33.01	-7.86
	QPSK	1857.5	V	117	335	9.66	1 / 58	15.34	25.00	0.316	33.01	-8.01
	QPSK	1882.5	V	121	334	9.99	1 / 58	15.44	**25.43**	0.349	33.01	-7.58
	QPSK	1907.5	V	105	334	10.19	1 / 58	14.98	25.18	0.329	33.01	-7.83
	16-QAM	1857.5	V	117	335	9.66	1 / 58	15.00	24.66	0.292	33.01	-8.35
10 MHz	π/2 BPSK	1855.0	V	117	335	9.64	1 / 26	15.33	24.97	0.314	33.01	-8.04
	π/2 BPSK	1882.5	V	121	334	9.99	1 / 38	15.15	25.14	0.327	33.01	-7.87
	π/2 BPSK	1910.0	V	105	334	10.20	1 / 13	15.06	25.26	0.336	33.01	-7.75
	QPSK	1855.0	V	117	335	9.64	1 / 26	15.34	24.98	0.315	33.01	-8.03
	QPSK	1882.5	V	121	334	9.99	1 / 38	15.42	**25.41**	0.348	33.01	-7.60
	QPSK	1910.0	V	105	334	10.20	1 / 13	15.10	25.30	0.339	33.01	-7.71
	16-QAM	1882.5	V	121	334	9.99	1 / 38	14.61	24.60	0.288	33.01	-8.41
5 MHz	π/2 BPSK	1852.5	V	117	335	9.63	1 / 12	15.33	24.96	0.313	33.01	-8.05
	π/2 BPSK	1882.5	V	121	334	9.99	1 / 6	15.14	25.13	0.326	33.01	-7.88
	π/2 BPSK	1912.5	V	105	334	10.21	1 / 18	15.03	25.24	0.334	33.01	-7.77
	QPSK	1852.5	V	117	335	9.63	1 / 12	15.16	24.78	0.301	33.01	-8.23
	QPSK	1882.5	V	121	334	9.99	1 / 6	15.43	**25.42**	0.348	33.01	-7.59
	QPSK	1912.5	V	105	334	10.21	1 / 18	15.16	25.37	0.344	33.01	-7.64
	16-QAM	1882.5	V	121	334	9.99	1 / 6	14.52	24.51	0.282	33.01	-8.50

Table 7-7. EIRP Data (NR Band n25/2 – 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	1870.0	H	150	53	9.66	1 / 161	12.08	21.74	0.149	33.01	-11.27
	π/2 BPSK	1882.5	H	151	54	9.83	1 / 108	11.97	21.80	0.151	33.01	-11.21
	π/2 BPSK	1895.0	H	149	53	10.01	1 / 54	11.99	22.00	0.158	33.01	-11.01
	QPSK	1870.0	H	150	53	9.66	1 / 161	11.97	21.63	0.146	33.01	-11.38
	QPSK	1882.5	H	151	54	9.83	1 / 108	12.21	22.04	0.160	33.01	-10.97
	QPSK	1895.0	H	149	53	10.01	1 / 54	12.15	**22.16**	0.164	33.01	-10.85
	16-QAM	1882.5	H	151	54	9.83	1 / 108	11.28	21.11	0.129	33.01	-11.90
30 MHz	π/2 BPSK	1865.0	H	150	53	9.61	1 / 40	12.30	21.90	0.155	33.01	-11.11
	π/2 BPSK	1882.5	H	151	54	9.83	1 / 119	12.07	21.90	0.155	33.01	-11.11
	π/2 BPSK	1900.0	H	149	53	10.07	1 / 40	11.99	22.05	0.160	33.01	-10.96
	QPSK	1865.0	H	150	53	9.61	1 / 40	12.17	21.78	0.151	33.01	-11.23
	QPSK	1882.5	H	151	54	9.83	1 / 119	12.53	**22.36**	0.172	33.01	-10.65
	QPSK	1900.0	H	149	53	10.07	1 / 40	12.12	22.19	0.166	33.01	-10.82
	16-QAM	1882.5	H	151	54	9.83	1 / 119	11.24	21.07	0.128	33.01	-11.94
25 MHz	π/2 BPSK	1862.5	H	150	53	9.58	1 / 99	12.59	22.16	0.165	33.01	-10.85
	π/2 BPSK	1882.5	H	151	54	9.83	1 / 33	12.15	21.98	0.158	33.01	-11.03
	π/2 BPSK	1902.5	H	149	53	10.11	1 / 66	12.13	22.24	0.168	33.01	-10.77
	QPSK	1862.5	H	150	53	9.58	1 / 99	12.58	22.15	0.164	33.01	-10.86
	QPSK	1882.5	H	151	54	9.83	1 / 33	12.46	**22.29**	0.169	33.01	-10.72
	QPSK	1902.5	H	149	53	10.11	1 / 66	11.87	21.98	0.158	33.01	-11.03
	16-QAM	1882.5	H	151	54	9.83	1 / 33	11.43	21.26	0.134	33.01	-11.75
40 MHz	QPSK (CP-OFDM)	1895.0	H	151	52	9.83	1 / 6	10.63	20.46	0.111	33.01	-12.55
	QPSK (Opposite Pol.)	1895.0	V	122	20	10.12	1 / 6	10.86	20.98	0.125	33.01	-12.03
	QPSK (WCP)	1895.0	H	151	54	9.83	1 / 6	11.12	20.95	0.125	33.01	-12.06

Table 7-8. EIRP Data (NR Band n25 – Ant I)

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	π/2 BPSK	1860.0	H	150	53	9.55	1 / 79	12.30	21.85	0.153	33.01	-11.16
	π/2 BPSK	1882.5	H	151	54	9.83	1 / 79	11.89	21.72	0.149	33.01	-11.29
	π/2 BPSK	1905.0	H	149	53	10.16	1 / 79	11.77	21.93	0.156	33.01	-11.08
	QPSK	1860.0	H	150	53	9.55	1 / 79	12.25	21.80	0.151	33.01	-11.21
	QPSK	1882.5	H	151	54	9.83	1 / 79	12.23	22.06	0.161	33.01	-10.95
	QPSK	1905.0	H	149	53	10.16	1 / 79	12.01	**22.17**	0.165	33.01	-10.84
	16-QAM	1882.5	H	151	54	9.83	1 / 79	10.62	20.46	0.111	33.01	-12.55
15 MHz	π/2 BPSK	1857.5	H	150	53	9.51	1 / 58	12.27	21.79	0.151	33.01	-11.23
	π/2 BPSK	1882.5	H	151	54	9.83	1 / 20	12.06	21.89	0.155	33.01	-11.12
	π/2 BPSK	1907.5	H	149	53	10.21	1 / 39	11.71	21.92	0.156	33.01	-11.09
	QPSK	1857.5	H	150	53	9.51	1 / 58	12.11	21.63	0.145	33.01	-11.38
	QPSK	1882.5	H	151	54	9.83	1 / 20	12.31	**22.15**	0.164	33.01	-10.86
	QPSK	1907.5	H	149	53	10.21	1 / 39	11.64	21.85	0.153	33.01	-11.16
	16-QAM	1882.5	H	151	54	9.83	1 / 20	11.22	21.05	0.127	33.01	-11.96
10 MHz	π/2 BPSK	1855.0	H	150	53	9.48	1 / 38	12.54	22.02	0.159	33.01	-10.99
	π/2 BPSK	1882.5	H	151	54	9.83	1 / 26	11.95	21.79	0.151	33.01	-11.23
	π/2 BPSK	1910.0	H	149	53	10.25	1 / 38	11.84	22.09	0.162	33.01	-10.92
	QPSK	1855.0	H	150	53	9.48	1 / 38	12.52	22.00	0.158	33.01	-11.01
	QPSK	1882.5	H	151	54	9.83	1 / 26	12.38	22.22	0.167	33.01	-10.79
	QPSK	1910.0	H	149	53	10.25	1 / 38	12.01	**22.26**	0.168	33.01	-10.75
	16-QAM	1882.5	H	151	54	9.83	1 / 26	11.39	21.22	0.132	33.01	-11.79
5 MHz	π/2 BPSK	1852.5	H	150	53	9.44	1 / 12	12.35	21.80	0.151	33.01	-11.21
	π/2 BPSK	1882.5	H	151	54	9.83	1 / 12	12.01	21.84	0.153	33.01	-11.17
	π/2 BPSK	1912.5	H	149	53	10.28	1 / 12	11.72	22.00	0.159	33.01	-11.01
	QPSK	1852.5	H	150	53	9.44	1 / 12	12.47	21.92	0.155	33.01	-11.09
	QPSK	1882.5	H	151	54	9.83	1 / 12	12.34	**22.18**	0.165	33.01	-10.83
	QPSK	1912.5	H	149	53	10.28	1 / 12	11.73	22.01	0.159	33.01	-11.00
	16-QAM	1882.5	H	151	54	9.83	1 / 12	11.05	20.89	0.123	33.01	-12.12

Table 7-9. EIRP Data (NR Band n25/2 – Ant I)

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]
1850.2	GPRS1900	H	100	352	17.89	9.41	27.30	0.537	33.01	-5.71
1880.0	GPRS1900	H	107	195	17.86	9.79	27.65	0.583	33.01	-5.36
1909.8	GPRS1900	H	100	197	17.55	10.25	27.80	0.602	33.01	-5.21
1909.8	GPRS1900	V	236	354	19.00	10.20	**29.20**	**0.832**	33.01	-3.81
1909.8	EDGE1900	H	100	197	17.41	10.25	**27.66**	0.583	33.01	-5.35
1909.8	GPRS1900 (WCP)	H	232	185	17.90	10.25	28.15	0.653	33.01	-4.86

Table 7-10. EIRP Data (GPRS PCS)

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]
1852.4	WCDMA1900	V	130	219	14.08	9.63	23.71	0.235	33.01	-9.31
1880.0	WCDMA1900	V	131	332	13.93	9.96	23.89	0.245	33.01	-9.12
1907.6	WCDMA1900	V	241	356	13.77	10.19	**23.96**	**0.249**	33.01	-9.05
1907.6	WCDMA1900	H	113	8	13.61	10.19	23.80	0.240	33.01	-9.21
1907.6	WCDMA1900 (WCP)	V	102	290	12.98	10.19	23.17	0.208	33.01	-9.84

Table 7-11. EIRP Data (WCDMA PCS)

7.8 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole 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

KDB 971168 D01 v03r01 – Section 5.8

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.

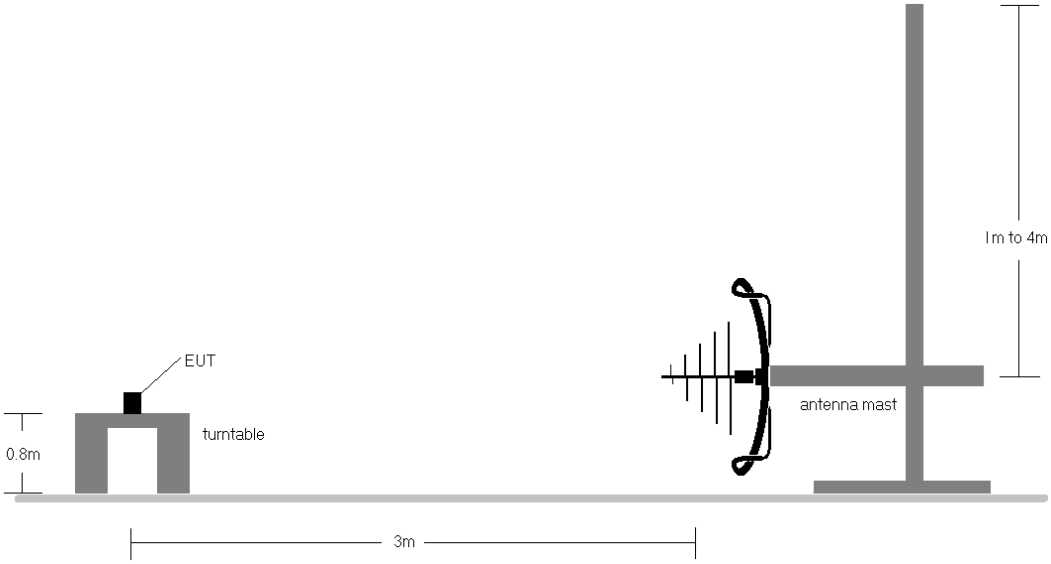


Figure 7-7. Test Instrument & Measurement Setup < 1GHz

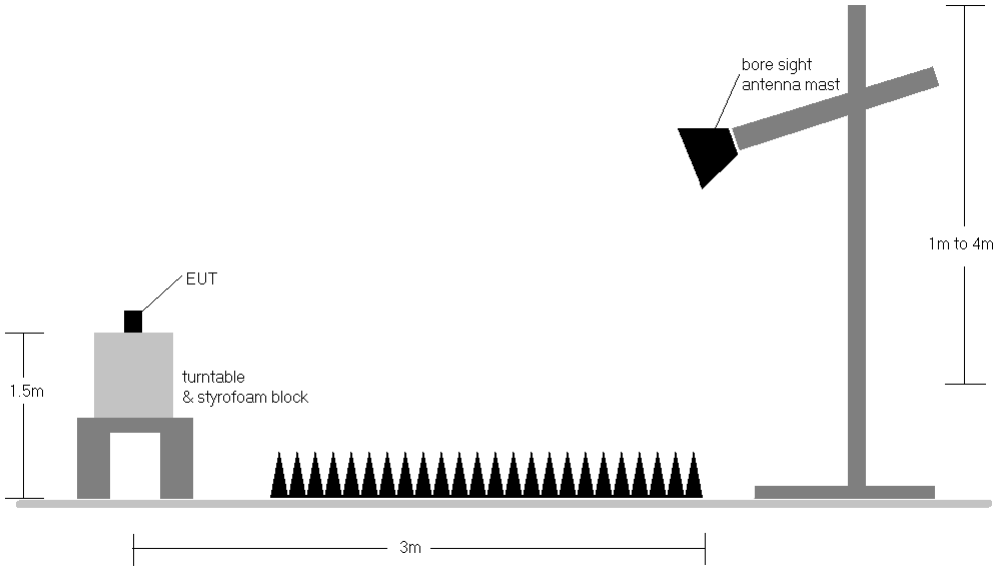


Figure 7-8. Test Instrument & Measurement Setup >1 GHz

Test Notes

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

2) This device employs GSM, GPRS, and EDGE capabilities. The EUT was tested under all configurations and the highest powers is reported in GPRS mode while transmitting with one slot active.

3) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1".

4) 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.

5) This unit was tested with its standard battery.

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

7) 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.

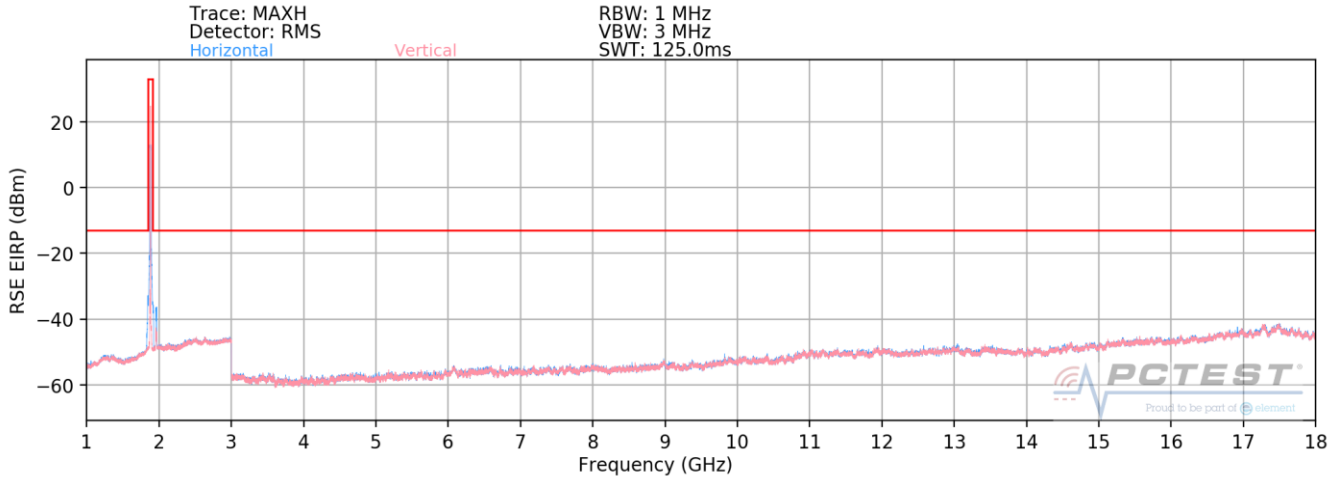
8) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

9) 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.

10) 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 emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

11) Spurious emissions measurements are included in this section to address compliance of the NR FR1 ULCA capability. The EUT was set to transmit at the widest bandwidth and on the middle channel of each band.

LTE Band 25/2



Plot 7-274. Radiated Spurious Plot (LTE Band 25/2)

Bandwidth (MHz):	20
Frequency (MHz):	1860
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]
3720.0	H	-	-	-75.79	3.18	34.39	-60.87	-13.00	-47.87
5580.0	H	111	54	-75.16	6.25	38.09	-57.17	-13.00	-44.17
7440.0	H	-	-	-76.49	7.58	38.09	-57.17	-13.00	-44.17
9300.0	H	-	-	-76.71	9.18	39.47	-55.79	-13.00	-42.79
11160.0	H	-	-	-77.37	13.26	42.89	-52.37	-13.00	-39.37

Table 7-12. Radiated Spurious Data (LTE Band 25/2 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1882.5
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]
3765.0	H	-	-	-75.97	4.19	35.22	-60.03	-13.00	-47.03
5647.5	H	288	65	-71.42	5.94	41.52	-53.74	-13.00	-40.74
7530.0	H	-	-	-76.95	7.95	38.00	-57.25	-13.00	-44.25
9412.5	H	-	-	-77.72	10.32	39.60	-55.66	-13.00	-42.66
11295.0	H	-	-	-77.21	13.98	43.77	-51.49	-13.00	-38.49

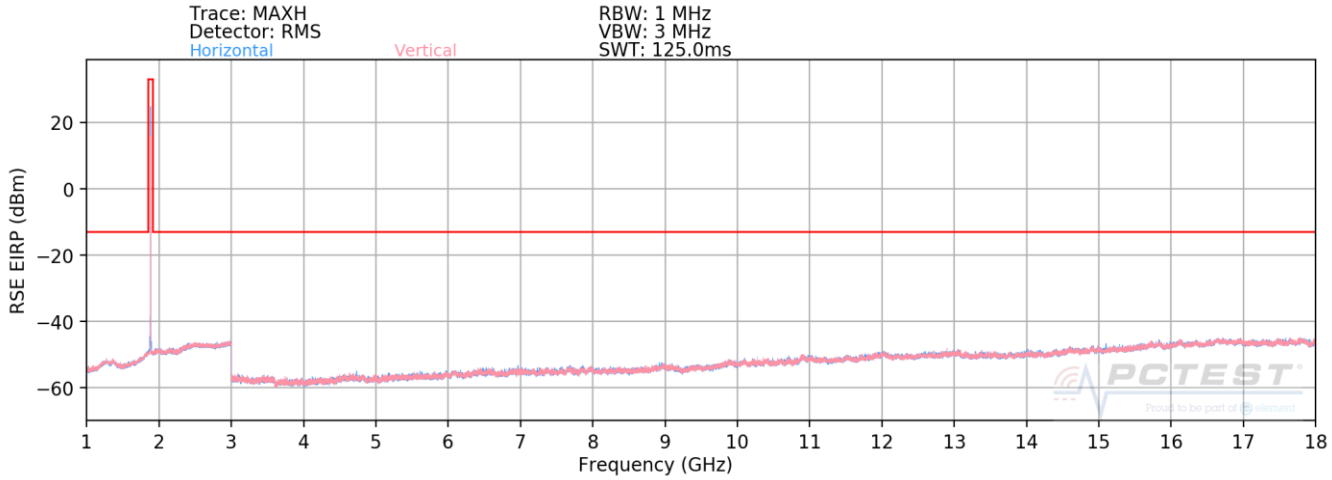
Table 7-13. Radiated Spurious Data (LTE Band 25/2 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1905
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]
3810.0	H	-	-	-75.34	3.25	34.91	-60.35	-13.00	-47.35
5715.0	H	245	58	-75.11	6.17	38.06	-57.20	-13.00	-44.20
7620.0	H	-	-	-76.77	7.99	38.22	-57.04	-13.00	-44.04
9525.0	H	-	-	-77.04	9.50	39.46	-55.80	-13.00	-42.80
11430.0	H	-	-	-77.15	14.04	43.89	-51.37	-13.00	-38.37

Table 7-14. Radiated Spurious Data (LTE Band 25/2 – High Channel)

NR Band n25/2 – Ant A



Plot 7-275. Radiated Spurious Plot (NR Band n25/2)

Bandwidth (MHz):	20
Frequency (MHz):	1860
RB / Offset:	1 / 53
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]
3720.0	H	-	-	-78.36	4.25	32.89	-62.37	-13.00	-49.37
5580.0	H	-	-	-78.42	6.77	35.35	-59.91	-13.00	-46.91
7440.0	H	-	-	-79.21	8.61	36.40	-58.86	-13.00	-45.86
9300.0	H	-	-	-79.97	10.32	37.35	-57.91	-13.00	-44.91

Table 7-15. Radiated Spurious Data (NR Band n25/2 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1882.5
RB / Offset:	1 / 53
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]
3765.0	H	-	-	-78.24	4.29	33.05	-62.21	-13.00	-49.21
5647.5	H	322	6	-76.12	6.85	37.73	-57.52	-13.00	-44.52
7530.0	H	-	-	-79.76	8.68	35.92	-59.34	-13.00	-46.34
9412.5	H	-	-	-80.53	10.35	36.82	-58.44	-13.00	-45.44
11295.0	H	-	-	-80.43	12.64	39.21	-56.05	-13.00	-43.05

Table 7-16. Radiated Spurious Data (NR Band n25/2 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1905
RB / Offset:	1 / 53
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]
3810.0	H	-	-	-77.98	4.15	33.17	-62.08	-13.00	-49.08
5715.0	H	272	31	-77.19	6.81	36.62	-58.63	-13.00	-45.63
7620.0	H	-	-	-79.54	8.78	36.24	-59.02	-13.00	-46.02
9525.0	H	-	-	-80.27	10.90	37.63	-57.63	-13.00	-44.63
11430.0	H	-	-	-81.01	12.71	38.70	-56.56	-13.00	-43.56

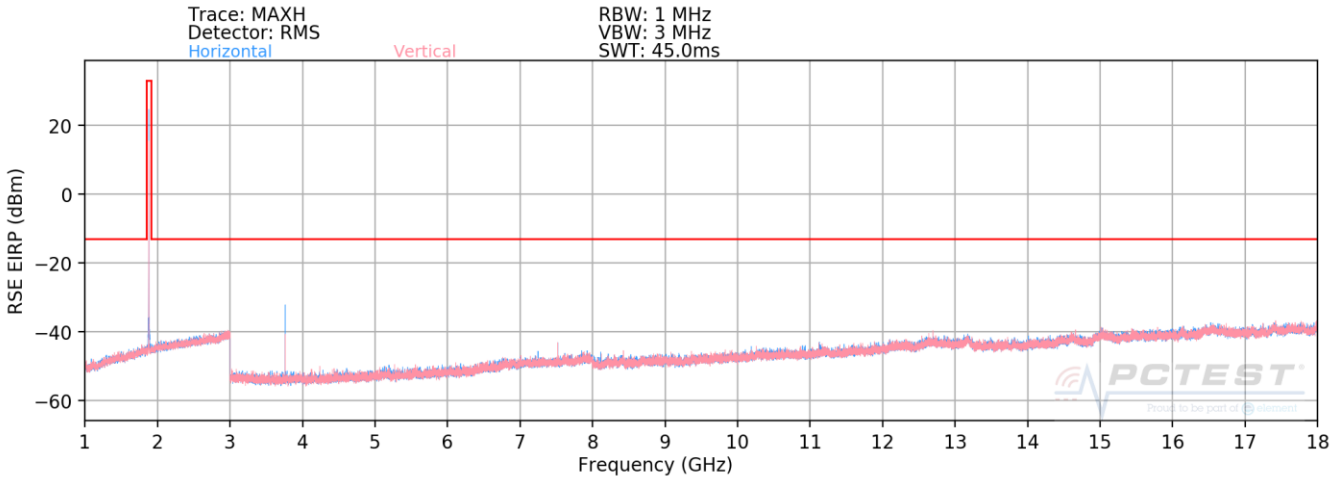
Table 7-17. Radiated Spurious Data (NR Band n25/2 – High Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1882.5
RB / Offset:	1 / 53
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]
3765.0	H	-	-	-78.11	4.29	33.18	-62.08	-13.00	-49.08
5647.5	H	-	-	-78.83	6.85	35.02	-60.23	-13.00	-47.23
7530.0	H	-	-	-79.91	8.68	35.77	-59.49	-13.00	-46.49
9412.5	H	-	-	-80.54	10.35	36.81	-58.45	-13.00	-45.45

Table 7-18. Radiated Spurious Data with WCP (NR Band n25/2)

NR Band n25/2 – Ant I



Plot 7-276. Radiated Spurious Plot (NR Band n25/2)

Bandwidth (MHz):	20
Frequency (MHz):	1860
RB / Offset:	1 / 53
Mode:	SA

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]
3720.0	H	209	29	-54.66	7.26	59.60	-35.66	-13.00	-22.66
5580.0	H	-	-	-79.35	9.89	37.54	-57.72	-13.00	-44.72
7440.0	H	136	302	-73.00	13.91	47.91	-47.35	-13.00	-34.35
9300.0	H	-	-	-81.10	15.18	41.08	-54.18	-13.00	-41.18
11160.0	H	-	-	-81.27	17.67	43.40	-51.86	-13.00	-38.86
13020.0	H	-	-	-81.84	19.67	44.83	-50.43	-13.00	-37.43

Table 7-19. Radiated Spurious Data (NR Band n25/2 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1880
RB / Offset:	1 / 53
Mode:	SA

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]
3760.0	H	262	15	-57.23	7.95	57.72	-37.54	-13.00	-24.54
5640.0	H	-	-	-79.45	9.90	37.45	-57.80	-13.00	-44.80
7520.0	H	136	311	-74.67	13.83	46.16	-49.10	-13.00	-36.10
9400.0	H	-	-	-81.67	16.00	41.33	-53.93	-13.00	-40.93
11280.0	H	-	-	-81.54	17.75	43.21	-52.05	-13.00	-39.05
13160.0	H	-	-	-82.23	21.09	45.86	-49.40	-13.00	-36.40

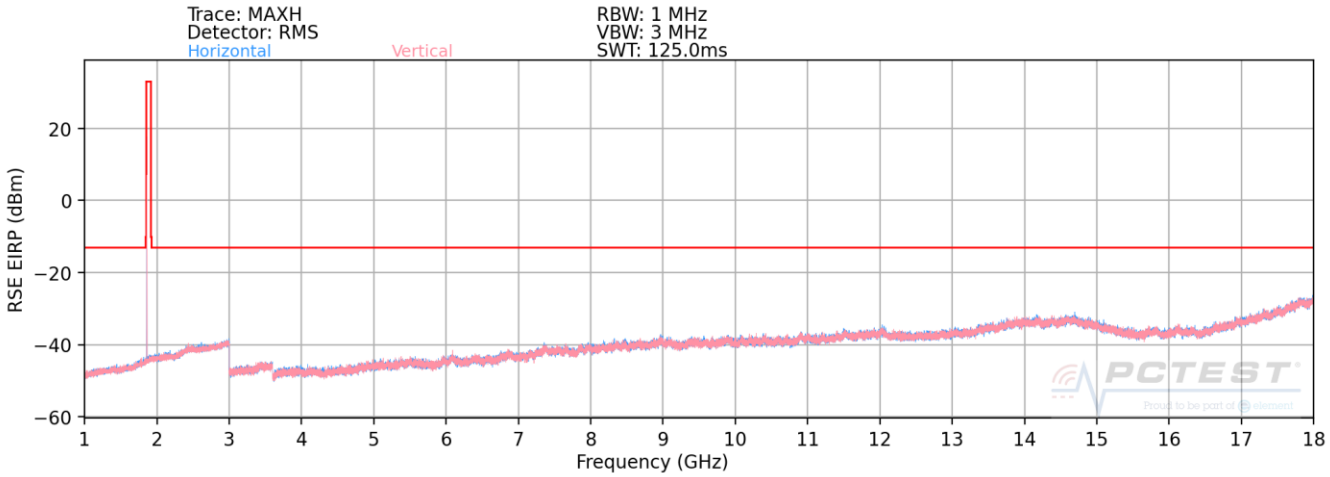
Table 7-20. Radiated Spurious Data (NR Band n25/2 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1900
RB / Offset:	1 / 53
Mode:	SA

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]
3800.0	H	256	24	-58.51	7.68	56.17	-39.09	-13.00	-26.09
5700.0	H	-	-	-78.93	9.85	37.92	-57.33	-13.00	-44.33
7600.0	H	172	298	-73.70	14.04	47.34	-47.92	-13.00	-34.92
9500.0	H	-	-	-81.07	15.86	41.79	-53.46	-13.00	-40.46
11400.0	H	-	-	-81.64	17.81	43.17	-52.09	-13.00	-39.09
13300.0	H	-	-	-82.10	20.48	45.38	-49.87	-13.00	-36.87

Table 7-21. Radiated Spurious Data (NR Band n25/2 – High Channel)

EN-DC n25 (Ant A) – Band 12



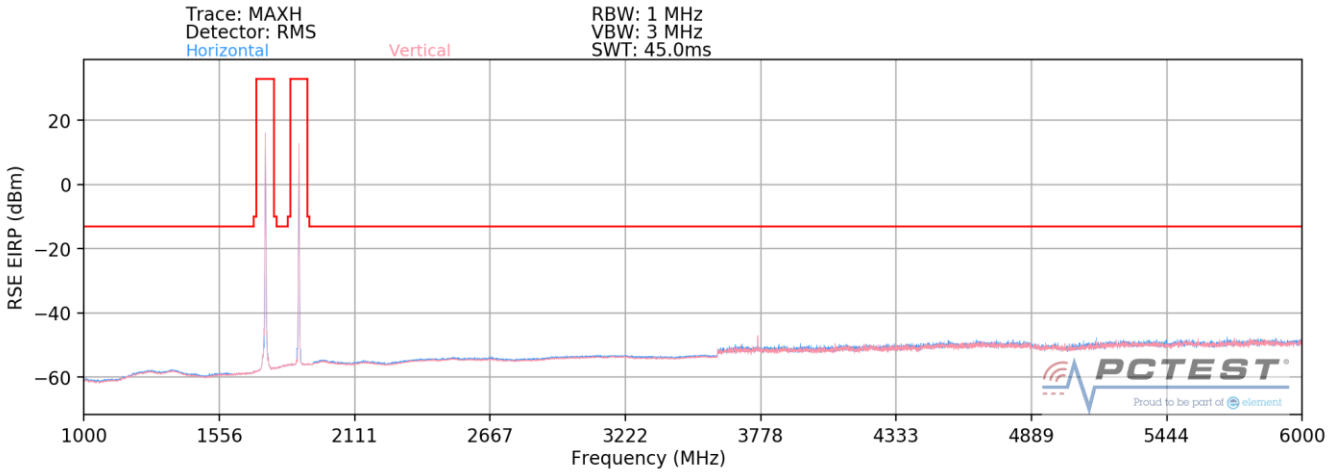
Plot 7-277. Radiated Spurious Plot (ENDC n25 – B12)

Bandwidth (MHz):	20
Frequency (MHz):	1882.5
RB / Offset:	1 / 53
Mode:	EN-DC
Anchor Band:	12

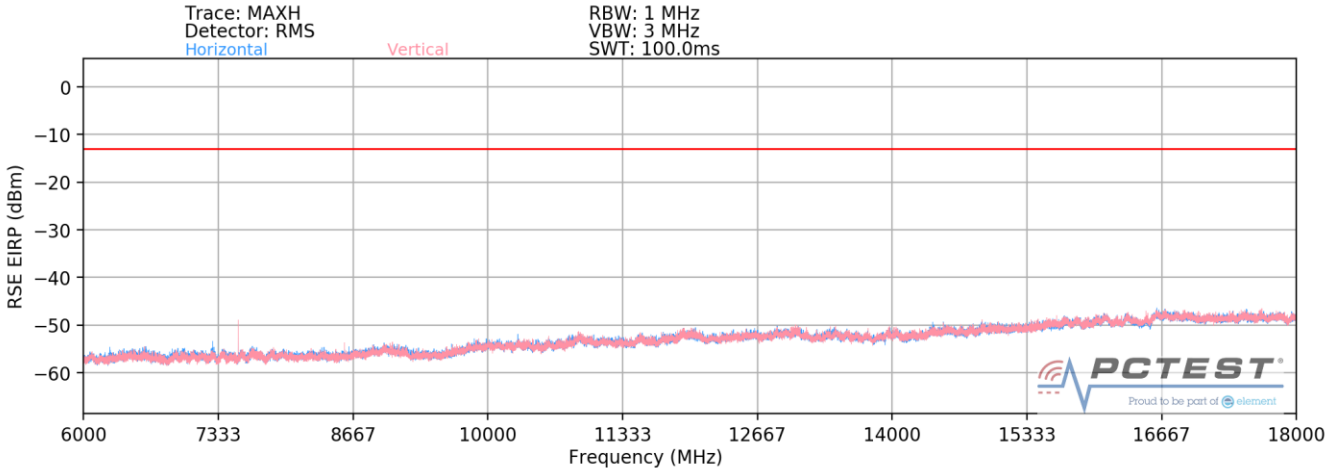
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1408.2	H	-	-	-67.70	-5.11	34.19	-61.07	-13.00	-48.07
2112.4	H	-	-	-67.72	-2.35	36.93	-58.33	-13.00	-45.33
2816.3	H	-	-	-67.20	-0.69	39.11	-56.15	-13.00	-43.15

Table 7-22. Radiated Spurious Data (EN-DC n25 – B12)

EN-DC n25 (Ant I) – Band 66



Plot 7-278. Radiated Spurious Plot (ENDC n25 – B66)



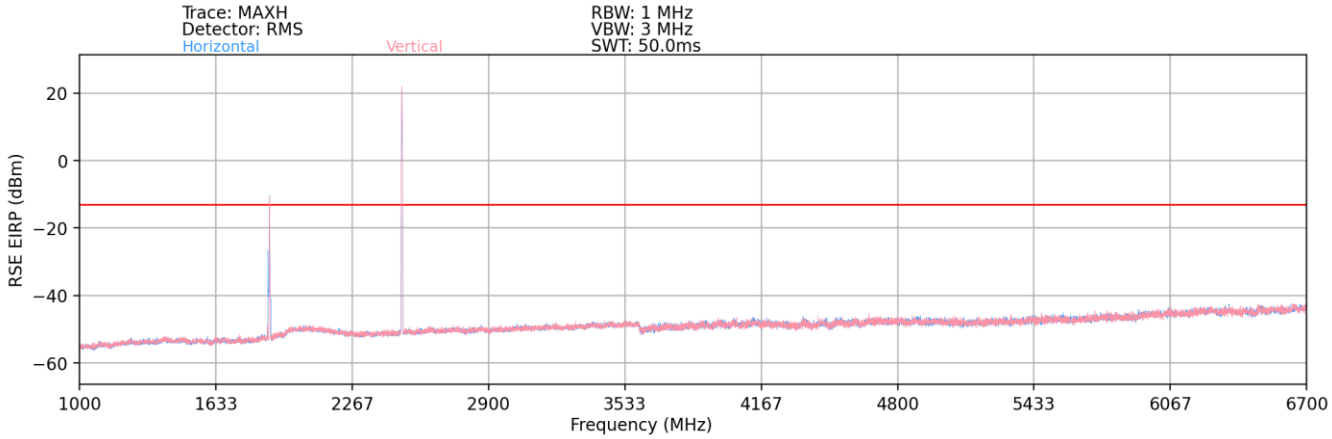
Plot 7-279. Radiated Spurious Plot (ENDC n25 – B66)

Bandwidth (MHz):	20
Frequency (MHz):	1882.5
RB / Offset:	1 / 53
Mode:	EN-DC
Anchor Band:	66

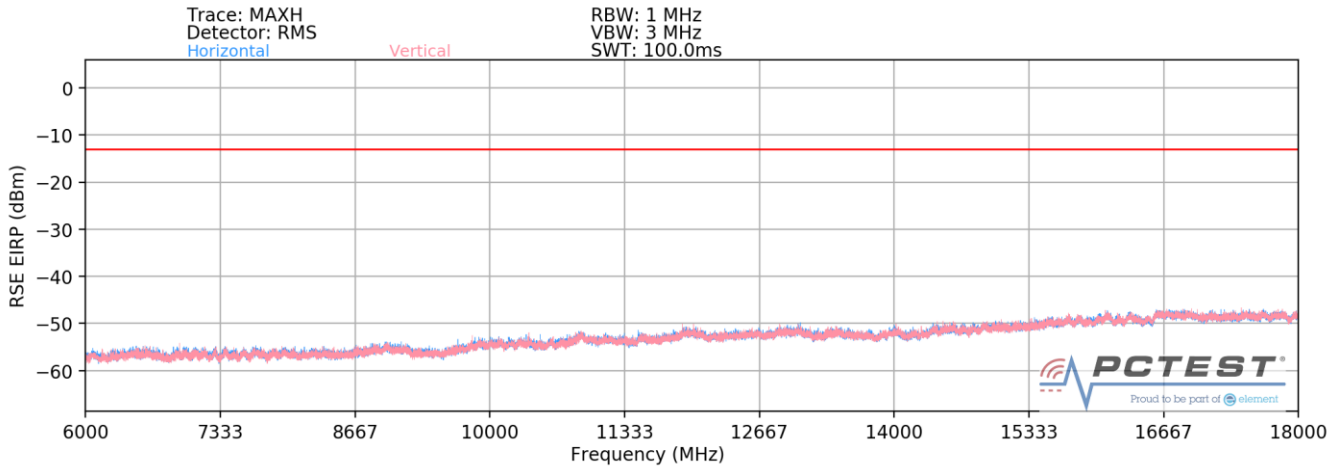
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3441.2	H	-	-	-53.31	2.56	56.25	-39.01	-13.00	-26.01
5161.8	H	-	-	-58.06	5.86	54.80	-40.45	-13.00	-27.45
6882.4	H	-	-	-57.95	9.08	58.13	-37.13	-13.00	-24.13

Table 7-23. Radiated Spurious Data (EN-DC n25 – B66)

NR FR1 ULCA: NR n25 – n41



Plot 7-280. Radiated Spurious Plot (NR n25 – n41)



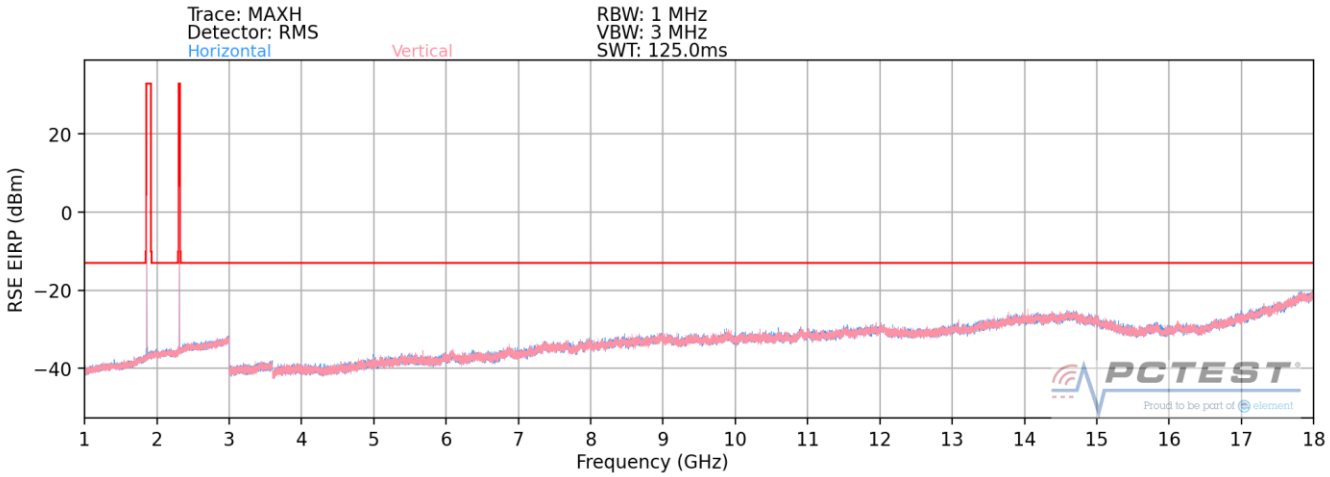
Plot 7-281. Radiated Spurious Plot (NR n25 – n41)

PCC Bandwidth (MHz):	40
PCC Frequency (MHz):	1870.0
PCC RB / Offset:	1/108
SCC Bandwidth (MHz):	100
SCC Frequency (MHz):	2546.0
SCC RB / Offset:	1/108
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

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]
3064.00	H	-	-	-71.29	1.04	36.75	-58.51	-13.00	-45.51
4416.00	H	-	-	-73.95	4.05	37.10	-58.16	-13.00	-45.16
5250.00	H	-	-	-70.90	7.33	43.43	-51.83	-13.00	-38.83
6286.00	H	-	-	-74.87	9.18	41.31	-53.95	-13.00	-40.95
6962.00	H	-	-	-75.22	12.36	44.14	-51.12	-13.00	-38.12

Table 7-24. Radiated Spurious Data (NR n25 – n41)

EN-DC n2 (Ant I) – Band 30



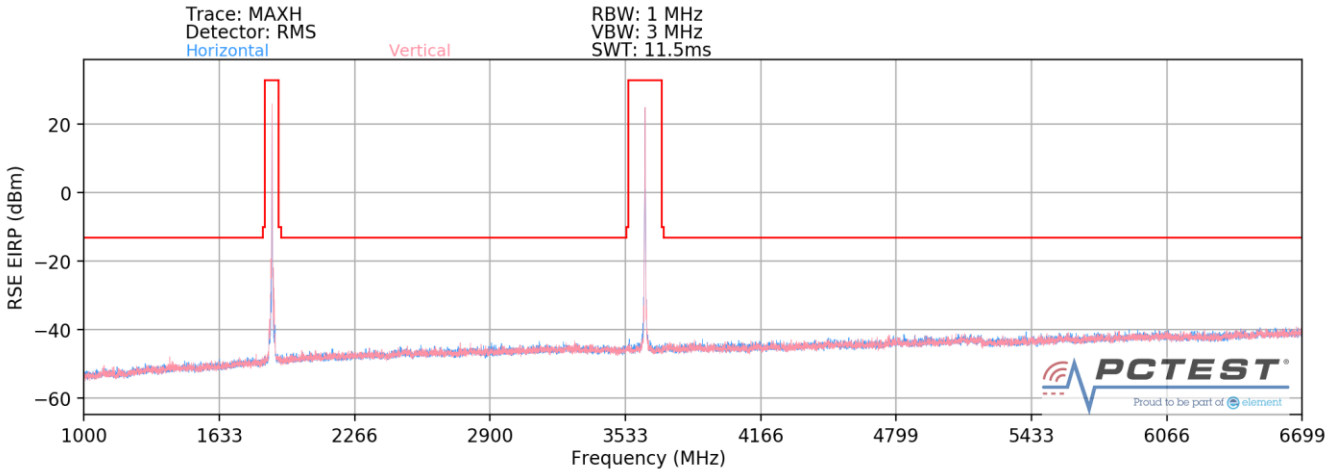
Plot 7-282. Radiated Spurious Plot (ENDC n2 – B30)

Bandwidth (MHz):	20
Frequency (MHz):	1880.0
RB / Offset:	1 / 53
Mode:	EN-DC
Anchor Band:	30

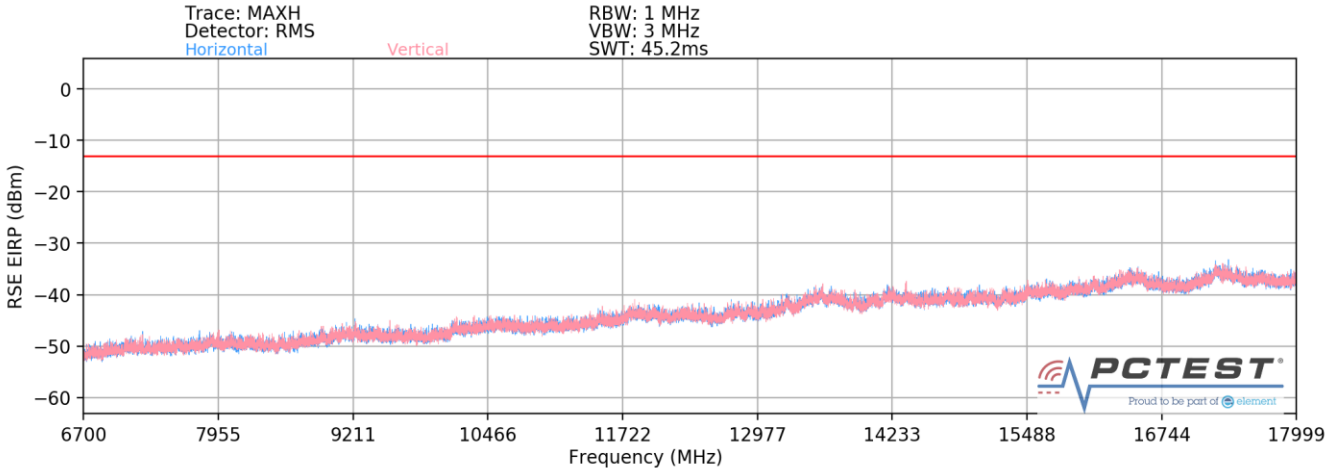
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1450.0	V	-	-	-49.53	2.46	59.93	-35.33	-13.00	-22.33
2740.0	V	-	-	-48.09	7.37	66.28	-28.97	-13.00	-15.97
4620.0	V	-	-	-52.27	4.31	59.04	-36.22	-13.00	-23.22

Table 7-25. Radiated Spurious Data (EN-DC n2 – B30)

EN-DC n2 (Ant A) – Band 48



Plot 7-283. Radiated Spurious Plot (ENDC n2 – B48)



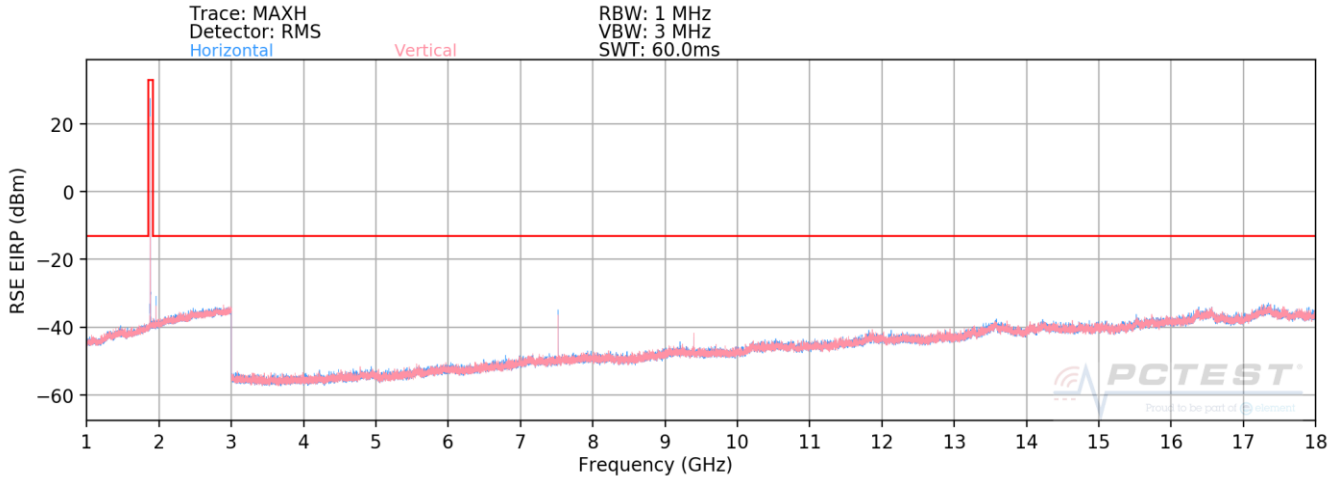
Plot 7-284. Radiated Spurious Plot (ENDC n2 – B48)

Bandwidth (MHz):	20
Frequency (MHz):	1880.0
RB / Offset:	1 / 53
Mode:	EN-DC
Anchor Band:	48

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]
1745.0	H	-	-	-46.57	3.99	64.42	-30.84	-13.00	-17.84
3760.0	H	-	-	-50.72	11.65	67.93	-27.33	-13.00	-14.33
5580.0	H	198	43	-57.49	14.72	64.23	-31.03	-13.00	-18.03
7121.6	H	-	-	-52.32	16.97	71.65	-23.61	-13.00	-10.61

Table 7-26. Radiated Spurious Data (EN-DC n2 – B48)

GSM/GPRS PCS



Plot 7-285. Radiated Spurious Plot (GPRS PCS)

Mode:	GPRS 1 Tx Slot
Channel:	512
Frequency (MHz):	1850.2

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]
3700.4	H	-	-	-69.59	7.70	45.11	-50.15	-13.00	-37.15
5550.6	H	362	55	-70.90	11.59	47.69	-47.57	-13.00	-34.57
7400.8	H	176	311	-60.21	15.73	62.52	-32.74	-13.00	-19.74
9251.0	H	130	24	-68.34	18.50	57.16	-38.09	-13.00	-25.09
11101.2	H	-	-	-73.42	21.52	55.10	-40.15	-13.00	-27.15
12951.4	H	-	-	-74.26	24.50	57.24	-38.02	-13.00	-25.02

Table 7-27. Radiated Spurious Data (GPRS PCS – Low Channel)

Mode:	GPRS 1 Tx Slot
Channel:	661
Frequency (MHz):	1880

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]
3760.0	H	-	-	-68.99	7.98	45.99	-49.26	-13.00	-36.26
5640.0	H	122	222	-69.56	10.95	48.39	-46.87	-13.00	-33.87
7520.0	H	152	310	-59.48	15.74	63.26	-32.00	-13.00	-19.00
9400.0	H	115	285	-68.94	18.88	56.94	-38.32	-13.00	-25.32
11280.0	H	-	-	-73.51	21.37	54.86	-40.40	-13.00	-27.40
13160.0	H	-	-	-73.33	24.76	58.43	-36.82	-13.00	-23.82

Table 7-28. Radiated Spurious Data (GPRS PCS – Mid Channel)

Mode:	GPRS 1 Tx Slot
Channel:	810
Frequency (MHz):	1909.8

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]
3819.6	H	-	-	-69.78	8.15	45.37	-49.89	-13.00	-36.89
5729.4	H	344	242	-69.65	11.53	48.88	-46.37	-13.00	-33.37
7639.2	H	130	291	-60.23	15.92	62.69	-32.57	-13.00	-19.57
9549.0	H	104	279	-69.86	18.76	55.90	-39.36	-13.00	-26.36
11458.8	H	-	-	-73.46	21.80	55.34	-39.92	-13.00	-26.92
13368.6	H	-	-	-74.01	25.18	58.17	-37.09	-13.00	-24.09

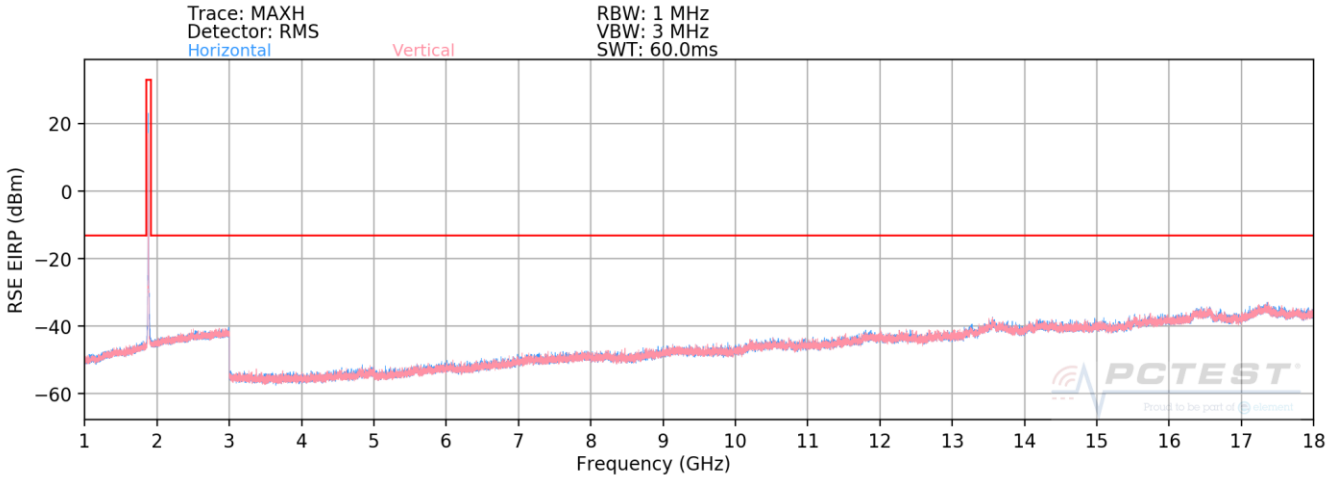
Table 7-29. Radiated Spurious Data (GPRS PCS – High Channel)

Mode:	GPRS 1 Tx Slot
Channel:	661
Frequency (MHz):	1880

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]
3760.0	H	113	24	-67.92	7.98	47.06	-48.19	-13.00	-35.19
5640.0	H	115	183	-70.44	10.95	47.51	-47.75	-13.00	-34.75
7520.0	H	163	282	-60.98	15.74	61.76	-33.50	-13.00	-20.50
9400.0	H	119	360	-70.44	18.88	55.44	-39.82	-13.00	-26.82
11280.0	H	-	-	-73.20	21.37	55.17	-40.09	-13.00	-27.09
13160.0	H	-	-	-73.29	24.76	58.47	-36.78	-13.00	-23.78

Table 7-30. Radiated Spurious Data with WCP (GPRS PCS – Mid Channel)

WCDMA PCS



Plot 7-286. Radiated Spurious Plot (WCDMA PCS)

Mode:	WCDMA RMC
Channel:	9262
Frequency (MHz):	1852.4

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]
3704.8	H	-	-	-80.78	7.78	34.00	-61.26	-13.00	-48.26
5557.2	H	-	-	-82.33	12.05	36.72	-58.53	-13.00	-45.53
7409.6	H	-	-	-82.85	15.49	39.64	-55.61	-13.00	-42.61

Table 7-31. Radiated Spurious Data (WCDMA PCS – Low Channel)

Mode:	WCDMA RMC
Channel:	9400
Frequency (MHz):	1880

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]
3760.0	H	-	-	-80.65	7.98	34.33	-60.92	-13.00	-47.92
5640.0	H	-	-	-81.90	10.95	36.05	-59.21	-13.00	-46.21
7520.0	H	-	-	-82.84	15.74	39.90	-55.36	-13.00	-42.36

Table 7-32. Radiated Spurious Data (WCDMA PCS – Mid Channel)

Mode:	WCDMA RMC
Channel:	9538
Frequency (MHz):	1907.6

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]
3815.2	H	-	-	-80.86	8.12	34.26	-61.00	-13.00	-48.00
5722.8	H	-	-	-82.04	11.50	36.46	-58.80	-13.00	-45.80
7630.4	H	-	-	-83.14	16.06	39.92	-55.34	-13.00	-42.34

Table 7-33. Radiated Spurious Data (WCDMA PCS – High Channel)

7.9 Frequency Stability / Temperature Variation

Test Overview and Limit

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

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

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

For Part 24, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI/TIA-603-E-2016

Test Settings

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

Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

Test Notes

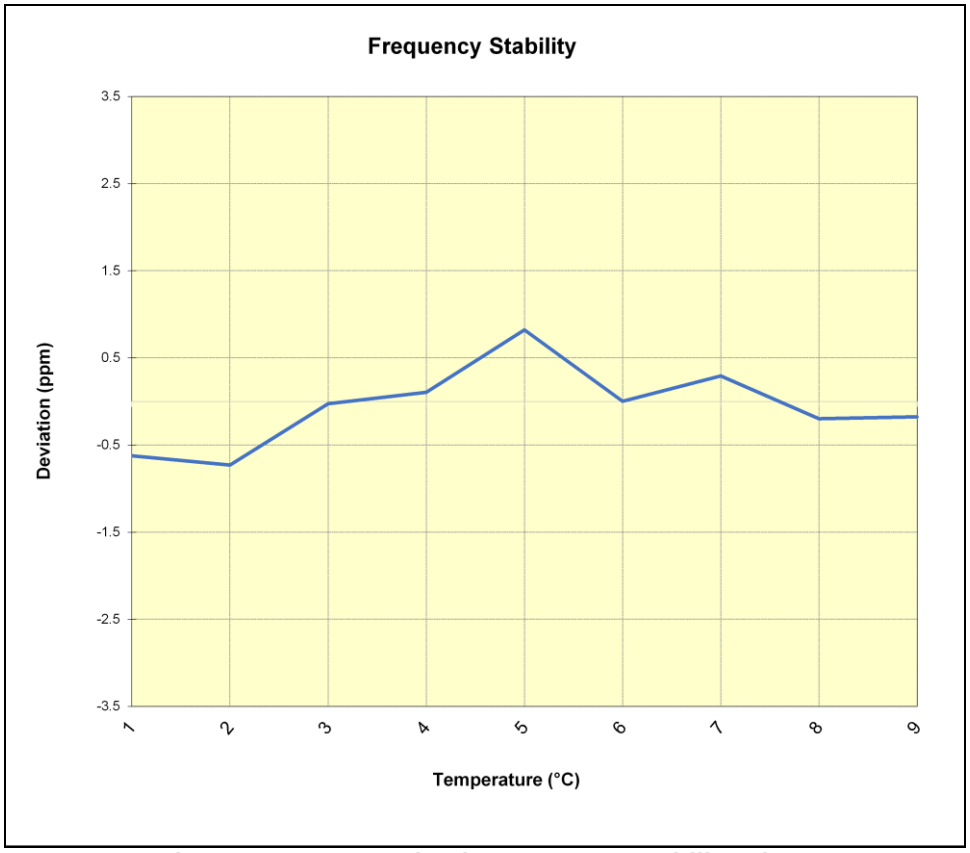
None

LTE Band 25/2

	Operating Frequency (Hz):	1,882,500,000
	Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,882,532,269	-1,173	-0.0000623
		- 20	1,882,532,067	-1,375	-0.0000730
		- 10	1,882,533,389	-53	-0.0000028
		0	1,882,533,642	200	0.0000106
		+ 10	1,882,534,989	1,547	0.0000822
		+ 20 (Ref)	1,882,533,442	0	0.0000000
		+ 30	1,882,533,995	553	0.0000294
		+ 40	1,882,533,071	-371	-0.0000197
		+ 50	1,882,533,109	-333	-0.0000177
Battery Endpoint	3.36	+ 20	1,882,533,819	377	0.0000200

Table 7-34. LTE Band 25/2 Frequency Stability Data



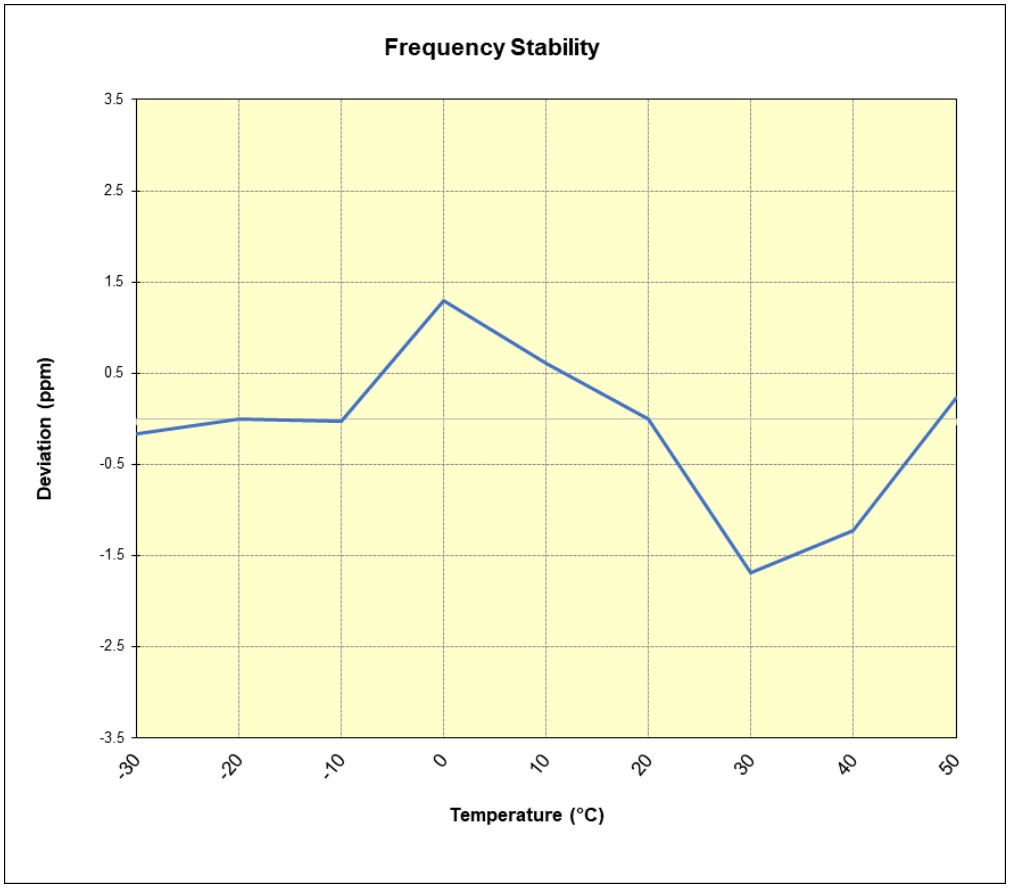
Plot 7-287. LTE Band 25/2 Frequency Stability Chart

NR Band n25/2

Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,882,492,523	-309	-0.0000164
		- 20	1,882,492,822	-10	-0.0000005
		- 10	1,882,492,788	-44	-0.0000023
		0	1,882,495,266	2,434	0.0001293
		+ 10	1,882,493,992	1,161	0.0000617
		+ 20 (Ref)	1,882,492,832	0	0.0000000
		+ 30	1,882,489,650	-3,182	-0.0001690
		+ 40	1,882,490,539	-2,292	-0.0001218
		+ 50	1,882,493,280	448	0.0000238
Battery Endpoint	3.36	+ 20	1,882,493,008	177	0.0000094

Table 7-35. NR Band n25/2 Frequency Stability Data



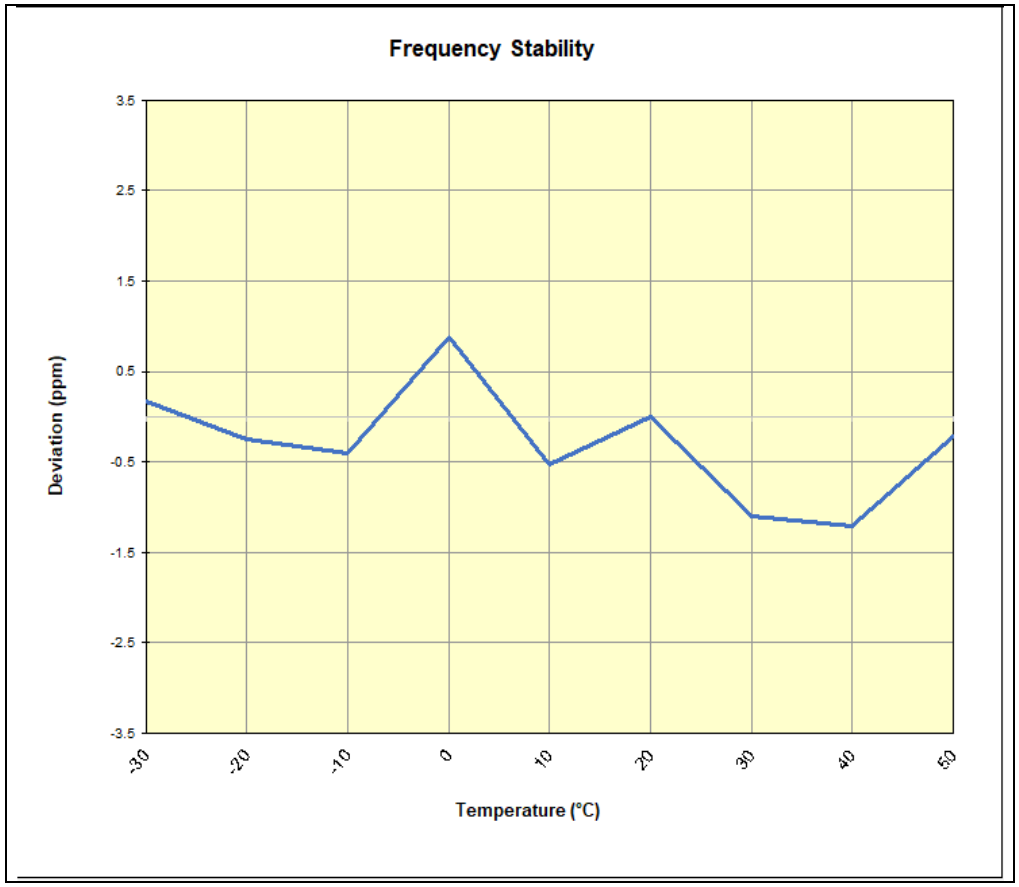
Plot 7-288. NR Band n25/2 Frequency Stability Chart

GSM/GPRS PCS

Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,879,999,157	330	0.0000175
		- 20	1,879,998,370	-457	-0.0000243
		- 10	1,879,998,056	-771	-0.0000410
		0	1,880,000,476	1,649	0.0000877
		+ 10	1,879,997,834	-993	-0.0000528
		+ 20 (Ref)	1,879,998,827	0	0.0000000
		+ 30	1,879,996,766	-2,061	-0.0001096
		+ 40	1,879,996,544	-2,283	-0.0001214
		+ 50	1,879,998,420	-407	-0.0000216
Battery Endpoint	3.36	+ 20	1,879,997,666	-1,161	-0.0000618

Table 7-36. GSM/GPRS PCS Frequency Stability Data



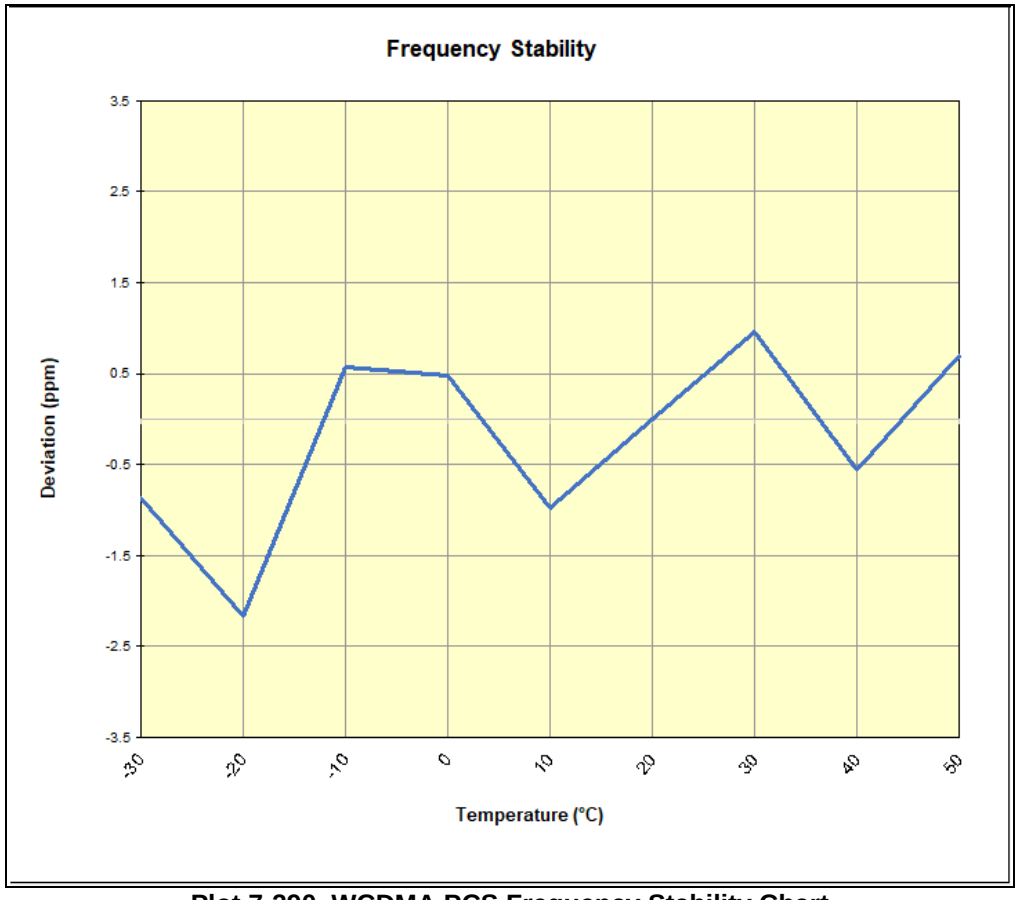
Plot 7-289. GSM/GPRS PCS Frequency Stability Chart

WCDMA PCS

Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,879,966,289	-1,622	-0.0000863
		- 20	1,879,963,834	-4,077	-0.0002169
		- 10	1,879,968,988	1,077	0.0000573
		0	1,879,968,823	911	0.0000485
		+ 10	1,879,966,086	-1,825	-0.0000971
		+ 20 (Ref)	1,879,967,911	0	0.0000000
		+ 30	1,879,969,719	1,808	0.0000962
		+ 40	1,879,966,852	-1,059	-0.0000564
		+ 50	1,879,969,211	1,300	0.0000691
Battery Endpoint	3.36	+ 20	1,879,967,842	-69	-0.0000037

Table 7-37. WCDMA PCS Frequency Stability Data



Plot 7-290. WCDMA PCS Frequency Stability Chart

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the Samsung **Portable Handset FCC ID: A3LSMS906U** complies with all the requirements of Part 24 of the FCC rules.