Plot 7-91. PAR Plot (LTE Band 25/2 - 5MHz QPSK - Full RB)

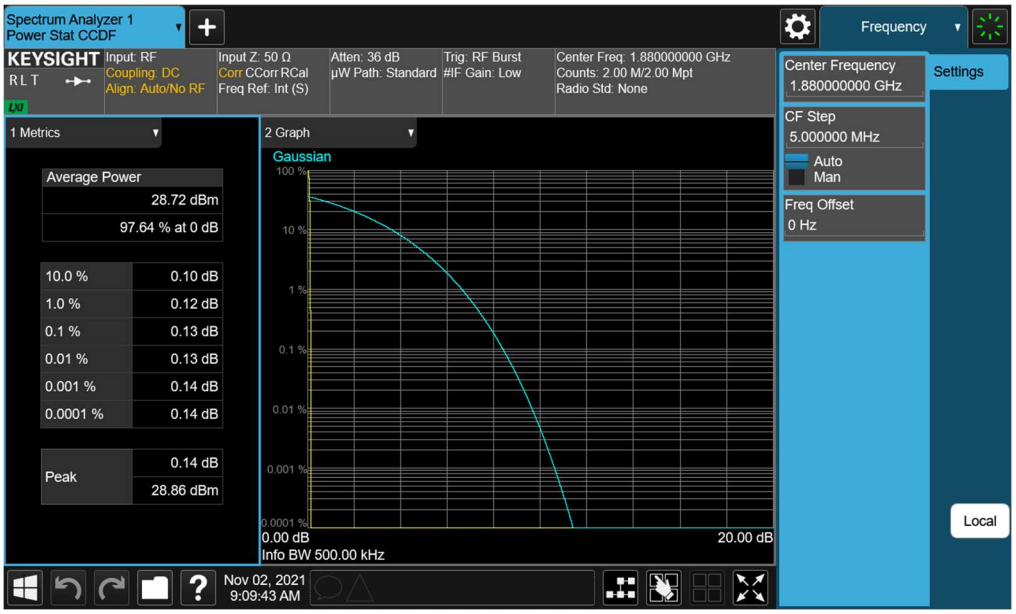
Plot 7-92. PAR Plot (LTE Band 25/2 - 5MHz 256-QAM - Full RB)

Plot 7-93. PAR Plot (LTE Band 25/2 - 3MHz QPSK - Full RB)

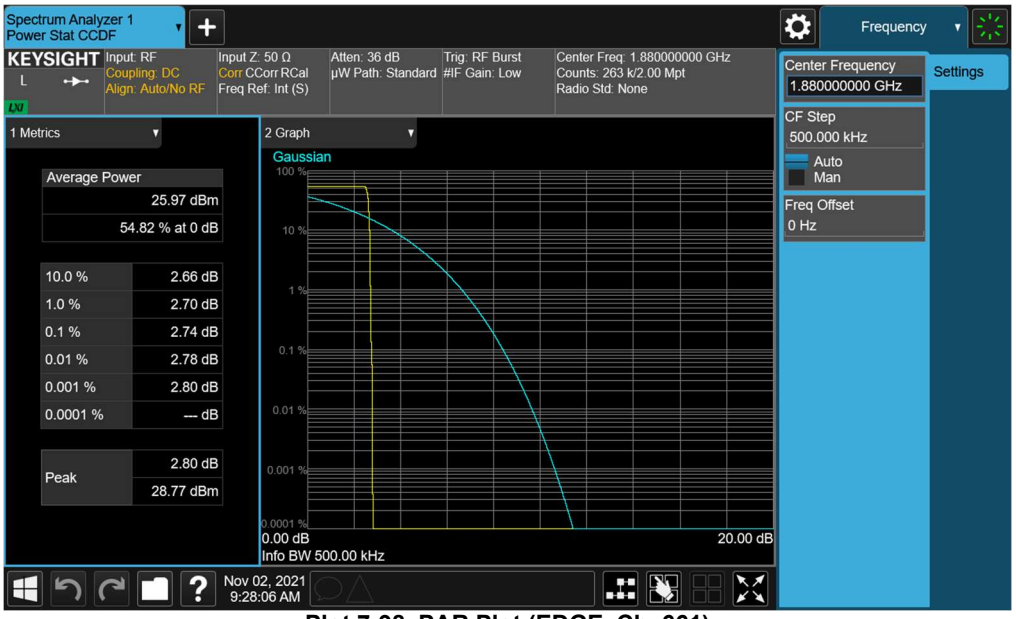
Plot 7-94. PAR Plot (LTE Band 25/2 - 3MHz 256-QAM - Full RB)

Plot 7-95. PAR Plot (LTE Band 25/2 - 1.4MHz QPSK - Full RB)

Plot 7-96. PAR Plot (LTE Band 25/2 - 1.4MHz 256-QAM - Full RB)



Plot 7-97. PAR Plot (GPRS, Ch. 661)



Plot 7-98. PAR Plot (EDGE, Ch. 661)

WCDMA PCS

Plot 7-99. PAR Plot (WCDMA, Ch. 9400)

7.6 Radiated Power (ERP/EIRP)

Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally 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 average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

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.

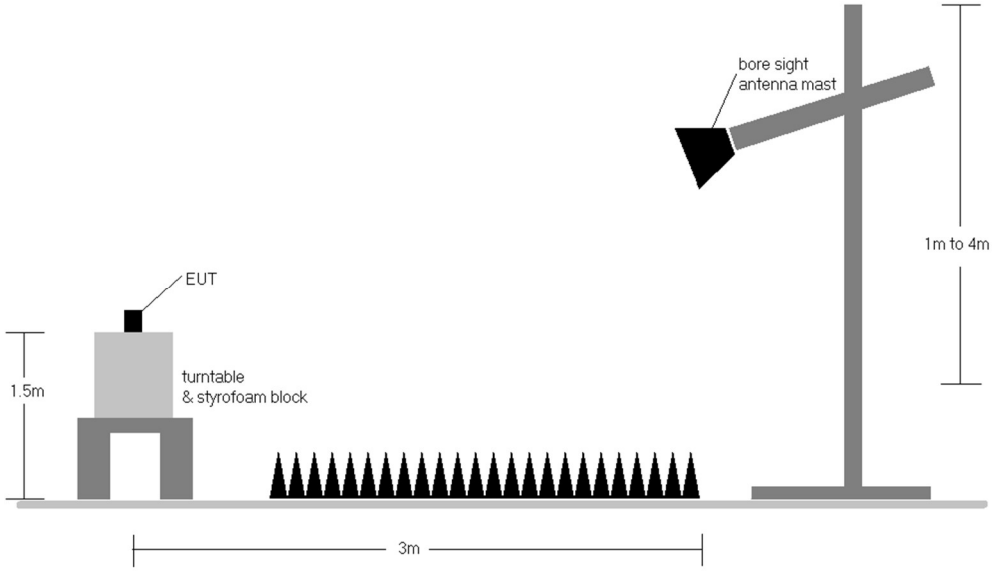


Figure 7-5. Radiated Test Setup >1GHz

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.

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	H	153	190	8.28	1 / 0	14.64	22.92	0.196	33.01	-10.09
	QPSK	1882.5	H	151	192	8.29	1 / 0	14.93	**23.22**	0.210	33.01	-9.79
	QPSK	1905.0	H	142	214	8.33	1 / 50	14.49	22.82	0.191	33.01	-10.19
	16-QAM	1882.5	H	151	192	8.29	1 / 0	14.14	22.43	0.175	33.01	-10.58
15 MHz	QPSK	1857.5	H	153	190	8.28	1 / 37	14.63	22.91	0.195	33.01	-10.10
	QPSK	1882.5	H	151	192	8.29	1 / 0	14.72	**23.01**	0.200	33.01	-10.00
	QPSK	1907.5	H	142	214	8.34	1 / 74	14.06	22.40	0.174	33.01	-10.61
	16-QAM	1857.5	H	153	190	8.28	1 / 37	13.97	22.25	0.168	33.01	-10.76
10 MHz	QPSK	1855.0	H	153	190	8.28	1 / 0	14.88	**23.16**	0.207	33.01	-9.85
	QPSK	1882.5	H	151	192	8.29	1 / 25	14.75	23.04	0.202	33.01	-9.97
	QPSK	1910.0	H	142	214	8.35	1 / 0	14.26	22.61	0.182	33.01	-10.40
	16-QAM	1882.5	H	151	192	8.29	1 / 25	14.11	22.40	0.174	33.01	-10.61
5 MHz	QPSK	1852.5	H	153	190	8.27	1 / 12	15.09	**23.36**	0.217	33.01	-9.65
	QPSK	1882.5	H	151	192	8.29	1 / 0	14.77	23.06	0.202	33.01	-9.95
	QPSK	1912.5	H	142	214	8.36	1 / 12	14.37	22.73	0.188	33.01	-10.28
	16-QAM	1852.5	H	153	190	8.27	1 / 12	14.50	22.77	0.189	33.01	-10.24
3 MHz	QPSK	1851.5	H	153	190	8.27	1 / 7	15.18	**23.45**	0.221	33.01	-9.56
	QPSK	1882.5	H	151	192	8.29	1 / 7	14.94	23.23	0.211	33.01	-9.78
	QPSK	1913.5	H	142	214	8.37	1 / 7	14.43	22.80	0.190	33.01	-10.21
	16-QAM	1851.5	H	153	190	8.27	1 / 7	14.47	22.74	0.188	33.01	-10.27
1.4 MHz	QPSK	1850.7	H	153	190	8.27	1 / 5	15.26	**23.53**	0.226	33.01	-9.48
	QPSK	1882.5	H	151	192	8.29	1 / 3	15.03	23.32	0.215	33.01	-9.69
	QPSK	1914.3	H	142	214	8.37	1 / 5	14.34	22.71	0.187	33.01	-10.30
	16-QAM	1850.7	H	153	190	8.27	1 / 5	14.32	22.59	0.182	33.01	-10.42
1.4 MHz	Opposite Pol.	1850.7	V	124	321	8.27	1 / 0	15.08	23.35	0.216	33.01	-9.66
	WCP	1850.7	H	146	163	8.27	1 / 3	11.96	20.23	0.106	33.01	-12.78

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

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]
1850.20	GPRS1900	V	123	304	20.08	8.27	28.35	0.684	33.01	-4.66
1880.00	GPRS1900	V	121	327	20.12	8.29	**28.41**	**0.694**	33.01	-4.60
1909.80	GPRS1900	V	100	318	18.97	8.35	27.32	0.539	33.01	-5.69
1880.00	GPRS1900	H	140	172	19.48	8.29	27.77	0.599	33.01	-5.24
1880.00	EDGE1900	V	121	327	15.84	8.29	**24.13**	0.259	33.01	-8.88
1880.00	GPRS1900 (WCP)	V	110	300	18.07	8.29	26.36	0.433	33.01	-6.65

Table 7-3. 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]
1852.40	WCDMA1900	H	147	189	15.26	8.27	23.53	0.226	33.01	-9.48
1880.00	WCDMA1900	H	150	194	15.27	8.29	**23.56**	**0.227**	33.01	-9.45
1907.60	WCDMA1900	H	137	196	14.67	8.34	23.01	0.200	33.01	-10.00
1880.00	WCDMA1900	V	117	327	14.88	8.29	23.17	0.208	33.01	-9.84
1880.00	WCDMA1900 (WCP)	H	121	219	14.33	8.29	22.62	0.183	33.01	-10.39

Table 7-4. EIRP Data (WCDMA PCS)

7.7 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.

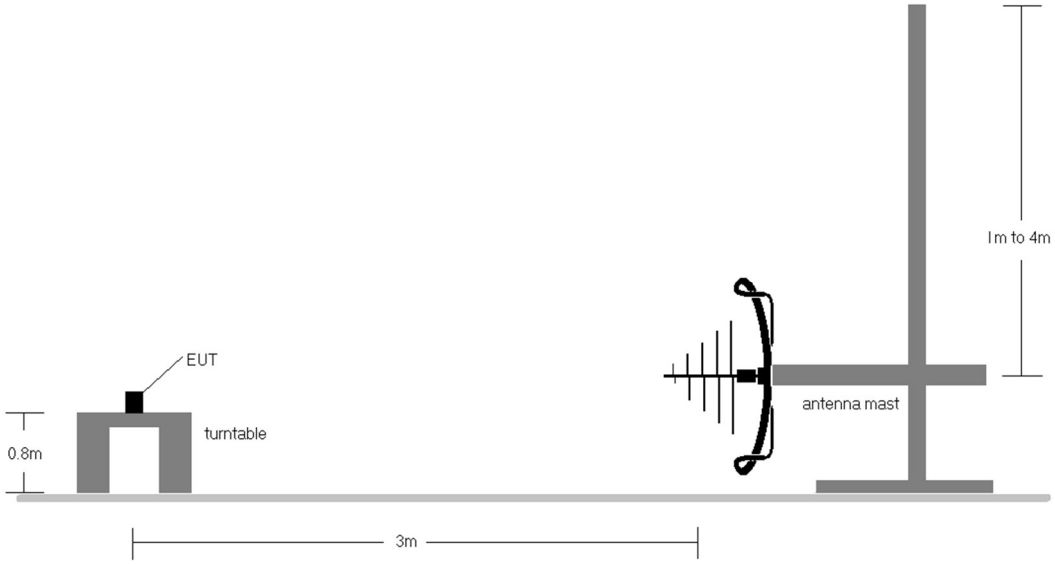


Figure 7-6. Test Instrument & Measurement Setup < 1GHz

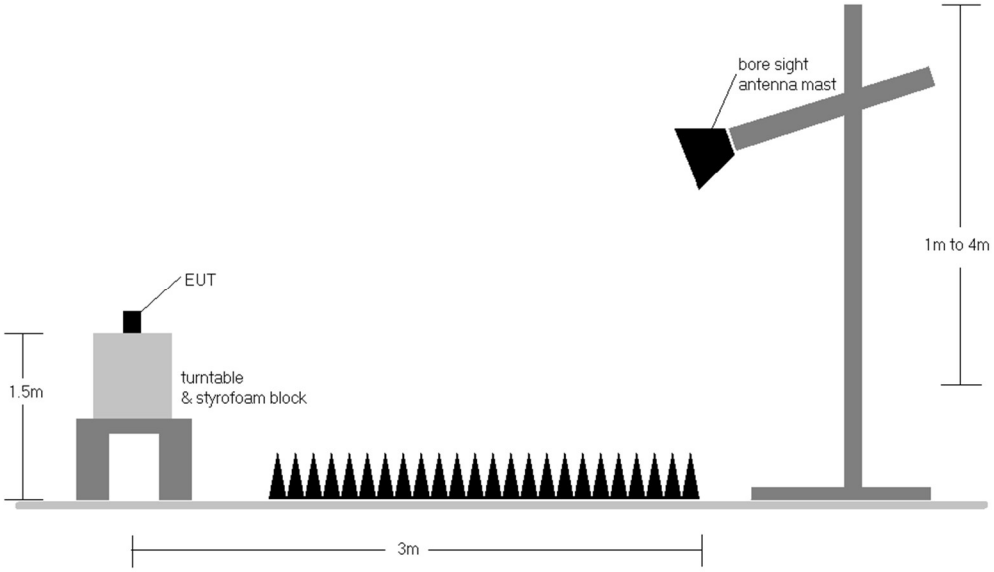


Figure 7-7. Test Instrument & Measurement Setup >1 GHz

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.

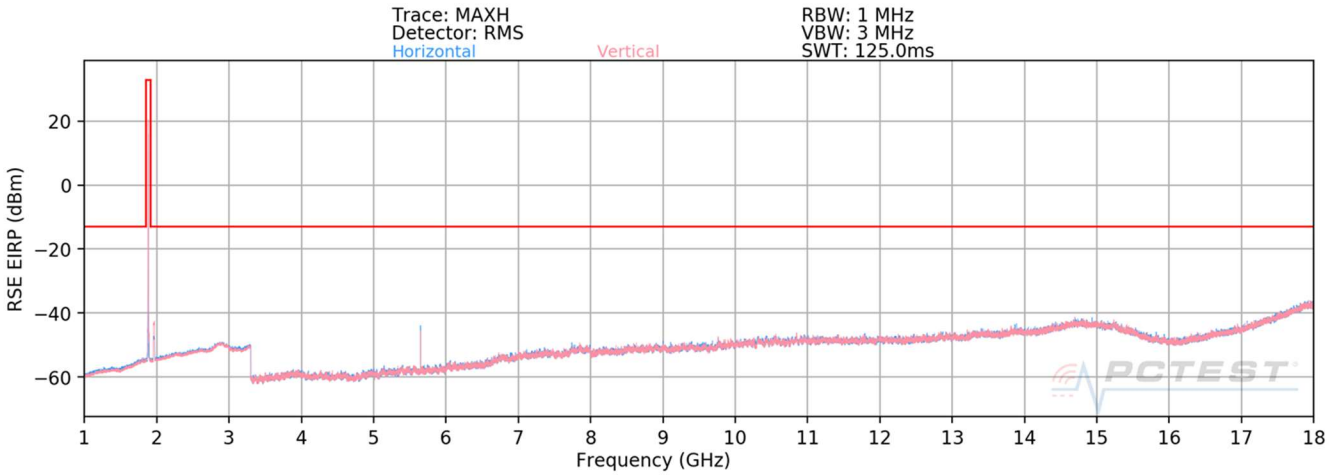
5) This unit was tested with its standard battery.

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.

LTE Band 25/2



Plot 7-100. Radiated Spurious Plot (LTE Band 25/2)

Bandwidth (MHz):	1.4
Frequency (MHz):	1850.7
RB / Offset:	1 / 3

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]
3701.40	H	102	346	-76.87	-0.23	29.90	-65.36	-13.00	-52.36
5552.10	H	104	317	-74.90	3.90	36.00	-59.26	-13.00	-46.26
7402.80	H	-	-	-78.84	8.54	36.70	-58.56	-13.00	-45.56
9253.50	H	-	-	-78.93	11.93	40.00	-55.26	-13.00	-42.26
11104.20	H	-	-	-79.00	13.39	41.39	-53.87	-13.00	-40.87
12954.90	H	-	-	-79.14	16.32	44.18	-51.07	-13.00	-38.07

Table 7-5. Radiated Spurious Data (LTE Band 25/2 – Low Channel)

Bandwidth (MHz):	1.4
Frequency (MHz):	1882.5
RB / Offset:	1 / 3

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]
3765.00	H	106	343	-77.42	0.32	29.90	-65.36	-13.00	-52.36
5647.50	H	108	318	-74.43	3.31	35.88	-59.38	-13.00	-46.38
7530.00	H	-	-	-79.20	8.57	36.37	-58.89	-13.00	-45.89
9412.50	H	-	-	-79.32	11.91	39.59	-55.67	-13.00	-42.67
11295.00	H	-	-	-79.29	13.46	41.17	-54.08	-13.00	-41.08
13177.50	H	-	-	-79.89	16.21	43.32	-51.94	-13.00	-38.94

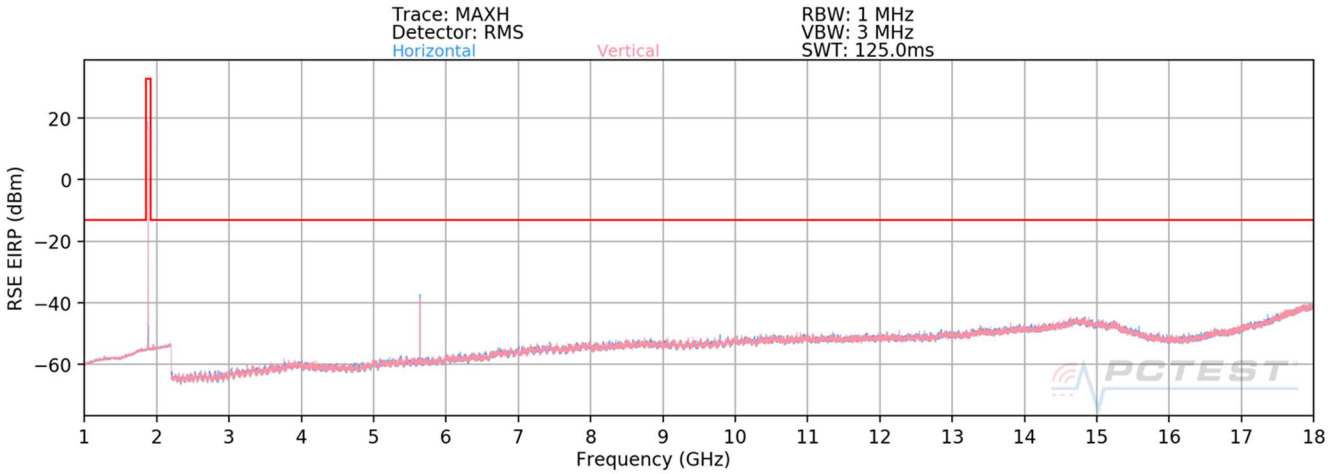
Table 7-6. Radiated Spurious Data (LTE Band 25/2 – Mid Channel)

Bandwidth (MHz):	1.4
Frequency (MHz):	1914.3
RB / Offset:	1 / 3

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]
3828.60	H	-	-	-76.49	1.35	31.86	-63.39	-13.00	-50.39
5742.90	H	107	325	-75.63	4.27	35.64	-59.61	-13.00	-46.61
7657.20	H	-	-	-78.98	8.84	36.86	-58.39	-13.00	-45.39
9571.50	H	-	-	-79.22	11.96	39.74	-55.52	-13.00	-42.52
11485.80	H	-	-	-79.52	14.05	41.53	-53.72	-13.00	-40.72
13400.10	H	-	-	-79.72	17.33	44.61	-50.64	-13.00	-37.64

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

GSM/GPRS PCS



Plot 7-101. 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]
3700.40	H	135	151	-67.06	-0.23	39.71	-55.55	-13.00	-42.55
5550.60	H	163	121	-56.62	3.88	54.26	-41.00	-13.00	-28.00
7400.80	H	-	-	-70.46	8.54	45.08	-50.18	-13.00	-37.18
9251.00	H	-	-	-70.11	11.93	48.82	-46.44	-13.00	-33.44
11101.20	H	-	-	-69.46	13.38	50.92	-44.34	-13.00	-31.34
12951.40	H	-	-	-69.13	16.25	54.12	-41.14	-13.00	-28.14

Table 7-8. 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]
3760.00	H	133	144	-67.57	0.35	39.78	-55.48	-13.00	-42.48
5640.00	H	144	121	-54.21	3.16	55.95	-39.31	-13.00	-26.31
7520.00	H	-	-	-70.44	8.45	45.01	-50.25	-13.00	-37.25
9400.00	H	-	-	-69.94	11.95	49.01	-46.25	-13.00	-33.25
11280.00	H	-	-	-69.89	13.41	50.52	-44.74	-13.00	-31.74
13160.00	H	-	-	-70.62	16.25	52.63	-42.62	-13.00	-29.62

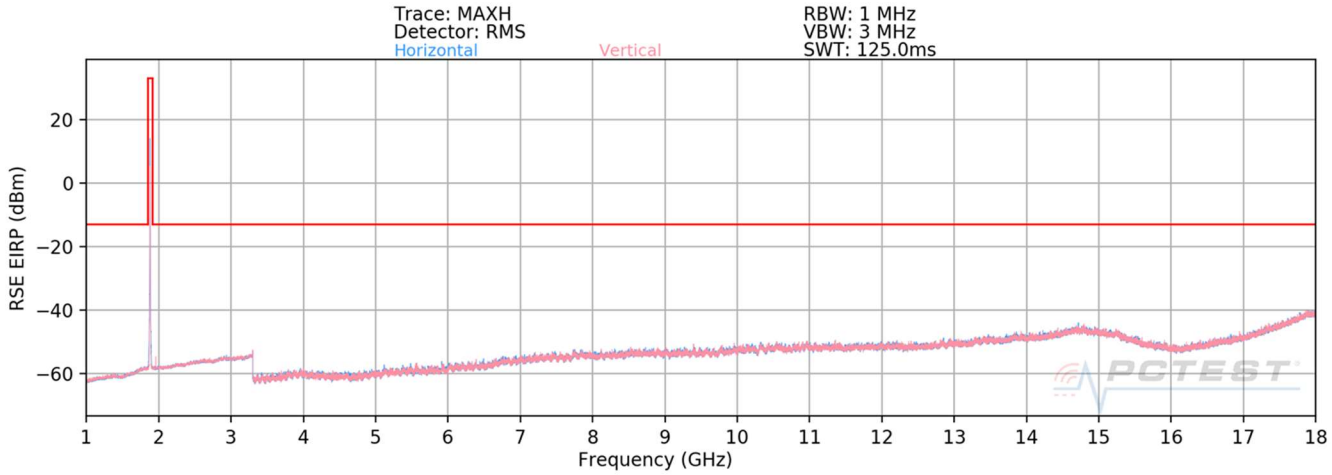
Table 7-9. Radiated Spurious Data (GPRS PCS – Mid Channel)

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]
3819.60	H	123	105	-67.76	1.25	40.49	-54.76	-13.00	-41.76
5729.40	H	154	115	-58.93	3.85	51.92	-43.34	-13.00	-30.34
7639.20	H	-	-	-69.78	8.63	45.85	-49.41	-13.00	-36.41
9549.00	H	-	-	-70.60	11.85	48.25	-47.01	-13.00	-34.01
11458.80	H	-	-	-70.10	14.09	50.99	-44.26	-13.00	-31.26
13368.60	H	-	-	-70.51	17.03	53.52	-41.74	-13.00	-28.74

Table 7-10. Radiated Spurious Data (GPRS PCS – High Channel)

WCDMA PCS



Plot 7-102. 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]
3704.80	H	-	-	-76.25	-0.24	30.51	-64.75	-13.00	-51.75
5557.20	H	-	-	-77.15	3.95	33.80	-61.46	-13.00	-48.46
7409.60	H	-	-	-78.37	8.55	37.18	-58.08	-13.00	-45.08
9262.00	H	-	-	-77.75	11.92	41.17	-54.09	-13.00	-41.09
11114.40	H	-	-	-77.24	13.43	43.19	-52.07	-13.00	-39.07
12966.80	H	-	-	-78.22	16.57	45.35	-49.91	-13.00	-36.91

Table 7-11. 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]
3760.00	H	-	-	-76.78	0.35	30.57	-64.69	-13.00	-51.69
5640.00	H	163	115	-74.62	3.16	35.54	-59.72	-13.00	-46.72
7520.00	H	-	-	-78.55	8.45	36.90	-58.36	-13.00	-45.36
9400.00	H	-	-	-77.81	11.95	41.14	-54.12	-13.00	-41.12
11280.00	H	-	-	-77.87	13.41	42.54	-52.72	-13.00	-39.72
13160.00	H	-	-	-78.41	16.25	44.84	-50.41	-13.00	-37.41

Table 7-12. 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]
3815.20	H	-	-	-76.36	1.21	31.85	-63.40	-13.00	-50.40
5722.80	H	-	-	-77.47	3.66	33.19	-62.07	-13.00	-49.07
7630.40	H	-	-	-78.06	8.50	37.44	-57.82	-13.00	-44.82
9538.00	H	-	-	-78.22	11.86	40.64	-54.62	-13.00	-41.62
11445.60	H	-	-	-78.10	14.32	43.22	-52.04	-13.00	-39.04
13353.20	H	-	-	-78.09	17.08	45.99	-49.26	-13.00	-36.26

Table 7-13. Radiated Spurious Data (WCDMA PCS – High Channel)

7.8 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.

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.

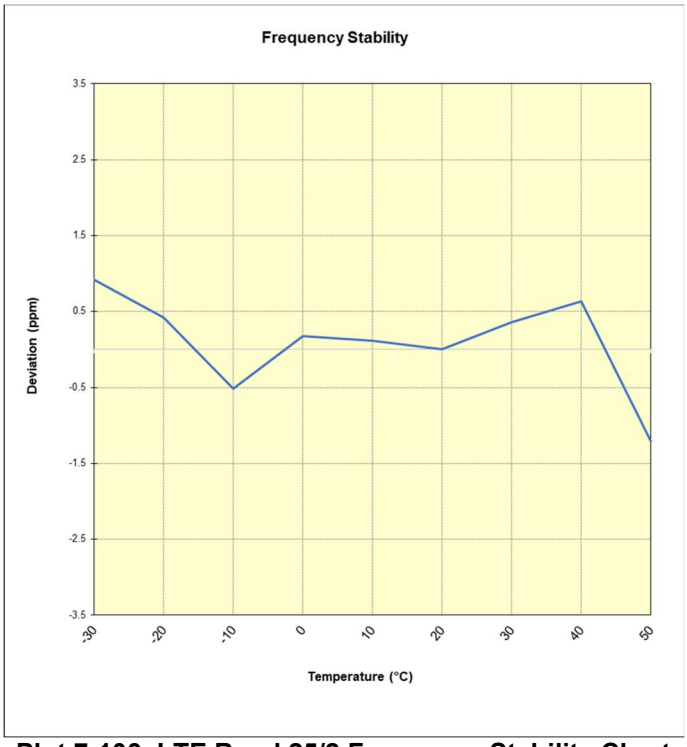
Test Notes

None

LTE Band 25/2	
Operating Frequency (Hz):	1,882,500,000
Ref. Voltage (VDC):	4.39

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.39	- 30	1,882,499,830	1,736	0.0000922
		- 20	1,882,498,894	800	0.0000425
		- 10	1,882,497,123	-971	-0.0000516
		0	1,882,498,430	336	0.0000178
		+ 10	1,882,498,312	218	0.0000116
		+ 20 (Ref)	1,882,498,094	0	0.0000000
		+ 30	1,882,498,780	686	0.0000364
		+ 40	1,882,499,285	1,191	0.0000633
		+ 50	1,882,495,821	-2,274	-0.0001208
Battery Endpoint	3.80	+ 20	1,882,498,271	177	0.0000094

Table 7-14. LTE Band 25/2 Frequency Stability Data



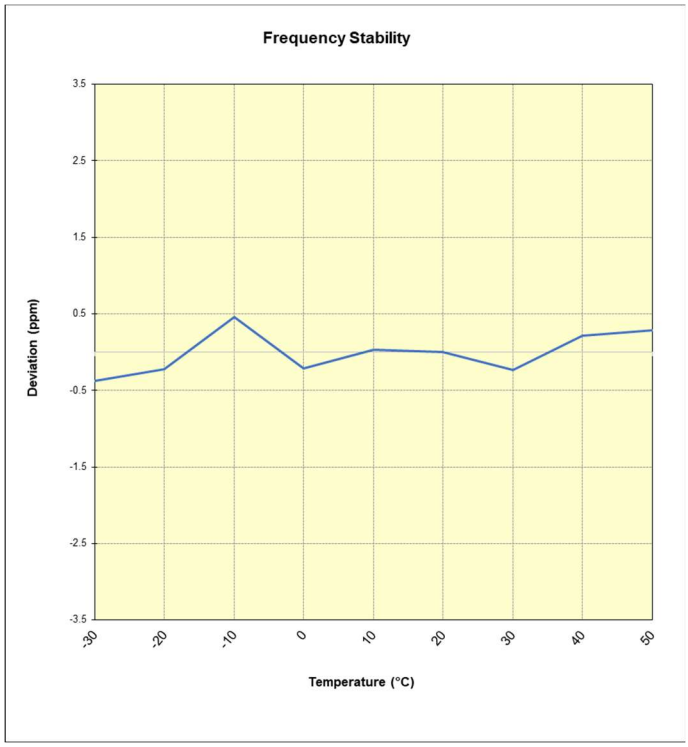
Plot 7-103. LTE Band 25/2 Frequency Stability Chart

GSM/GPRS PCS

Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.39

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.39	- 30	1,879,999,570	-704	-0.0000374
		- 20	1,879,999,849	-425	-0.0000226
		- 10	1,880,001,140	867	0.0000461
		0	1,879,999,868	-406	-0.0000216
		+ 10	1,880,000,341	68	0.0000036
		+ 20 (Ref)	1,880,000,274	0	0.0000000
		+ 30	1,879,999,829	-445	-0.0000236
		+ 40	1,880,000,674	401	0.0000213
		+ 50	1,880,000,818	545	0.0000290
Battery Endpoint	3.80	+ 20	1,880,000,212	-62	-0.0000033

Table 7-15. GSM/GPRS PCS Frequency Stability Data



Plot 7-104. GSM/GPRS PCS Frequency Stability Chart

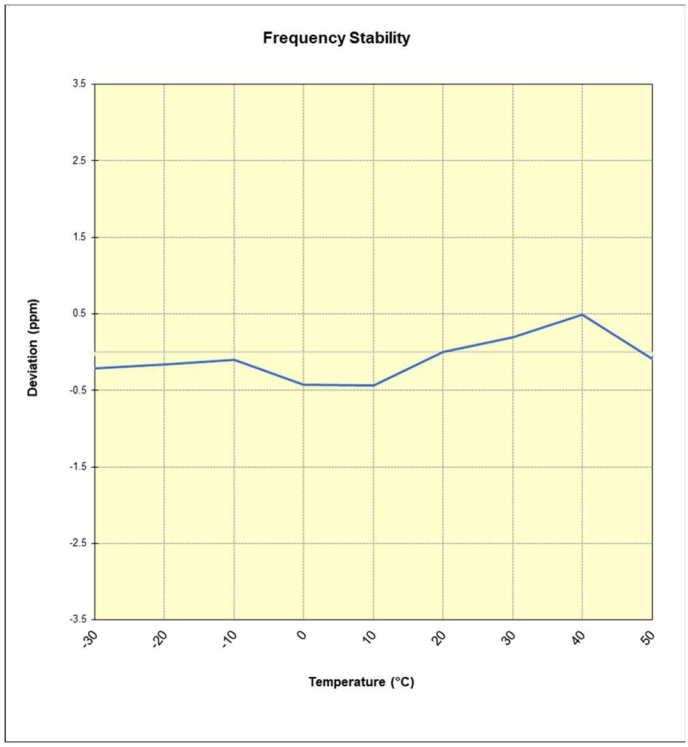
WCDMA PCS

WCDMA PCS

Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.39

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.39	- 30	1,879,999,532	-406	-0.0000216
		- 20	1,879,999,632	-306	-0.0000163
		- 10	1,879,999,749	-189	-0.0000101
		0	1,879,999,136	-802	-0.0000427
		+ 10	1,879,999,124	-814	-0.0000433
		+ 20 (Ref)	1,879,999,938	0	0.0000000
		+ 30	1,880,000,300	362	0.0000193
		+ 40	1,880,000,862	924	0.0000491
		+ 50	1,879,999,768	-170	-0.0000090
Battery Endpoint	3.80	+ 20	1,879,999,984	46	0.0000024

Table 7-16. WCDMA PCS Frequency Stability Data



Plot 7-105. 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: A3LSMS906E** complies with all the requirements of Part 24 of the FCC rules.