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]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
266.0	V	-	-	-90.13	20.37	37.24	-60.16	-13.00	-47.16

Table 7-41. Radiated Spurious Data (WCDMA PCS – Below 1GHz – Mid Channel - Ant B – Closed)

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	V	-	-	-80.00	7.86	34.86	-60.39	-13.00	-47.39
5557.2	V	103	45	-73.40	11.79	45.39	-49.87	-13.00	-36.87
7409.6	V	-	-	-82.29	15.60	40.31	-54.95	-13.00	-41.95
9262.0	V	-	-	-83.17	18.64	42.47	-52.79	-13.00	-39.79
11114.4	V	-	-	-84.13	21.76	44.63	-50.63	-13.00	-37.63

Table 7-42. Radiated Spurious Data (WCDMA PCS – Low Channel - Ant B – Closed)

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	V	-	-	-80.34	8.17	34.83	-60.43	-13.00	-47.43
5640.0	V	108	48	-68.97	11.64	49.67	-45.59	-13.00	-32.59
7520.0	V	-	-	-82.90	16.08	40.18	-55.07	-13.00	-42.07
9400.0	V	-	-	-83.60	18.76	42.16	-53.10	-13.00	-40.10
11280.0	V	-	-	-83.98	21.65	44.67	-50.59	-13.00	-37.59

Table 7-43. Radiated Spurious Data (WCDMA PCS – Mid Channel - Ant B – Closed)

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	V	-	-	-80.60	8.31	34.71	-60.55	-13.00	-47.55
5722.8	V	105	45	-67.46	11.99	51.53	-43.73	-13.00	-30.73
7630.4	V	-	-	-83.11	16.62	40.51	-54.75	-13.00	-41.75
9538.0	V	-	-	-84.09	19.03	41.94	-53.32	-13.00	-40.32
11445.6	V	-	-	-84.36	21.95	44.59	-50.67	-13.00	-37.67

Table 7-44. Radiated Spurious Data (WCDMA PCS – High Channel - Ant B – Closed)

7.9 Frequency Stability / Temperature Variation

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. 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 C63.26-2015 – Section 5.6

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

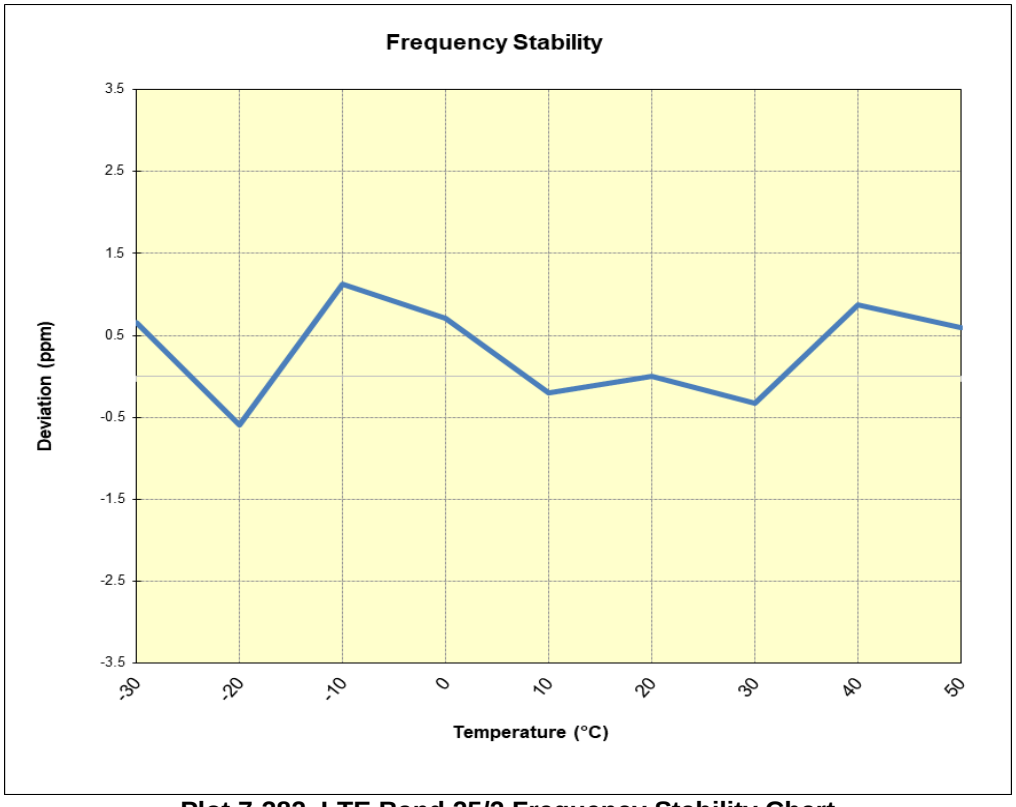
Frequency Stability / Temperature Variation

LTE Band 25

Operating Frequency (Hz):	1,882,500,000
Ref. Voltage (VDC):	4.38

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.38	- 30	1,882,502,501	1,249	0.0000663
		- 20	1,882,500,132	-1,120	-0.0000595
		- 10	1,882,503,366	2,114	0.0001123
		0	1,882,502,598	1,346	0.0000715
		+ 10	1,882,500,875	-377	-0.0000200
		+ 20 (Ref)	1,882,501,252	0	0.0000000
		+ 30	1,882,500,638	-614	-0.0000326
		+ 40	1,882,502,897	1,645	0.0000874
		+ 50	1,882,502,377	1,125	0.0000598
Battery Endpoint	3.35	+ 20	1,882,501,859	607	0.0000322

Table 7-45. LTE Band 25/2 Frequency Stability Data



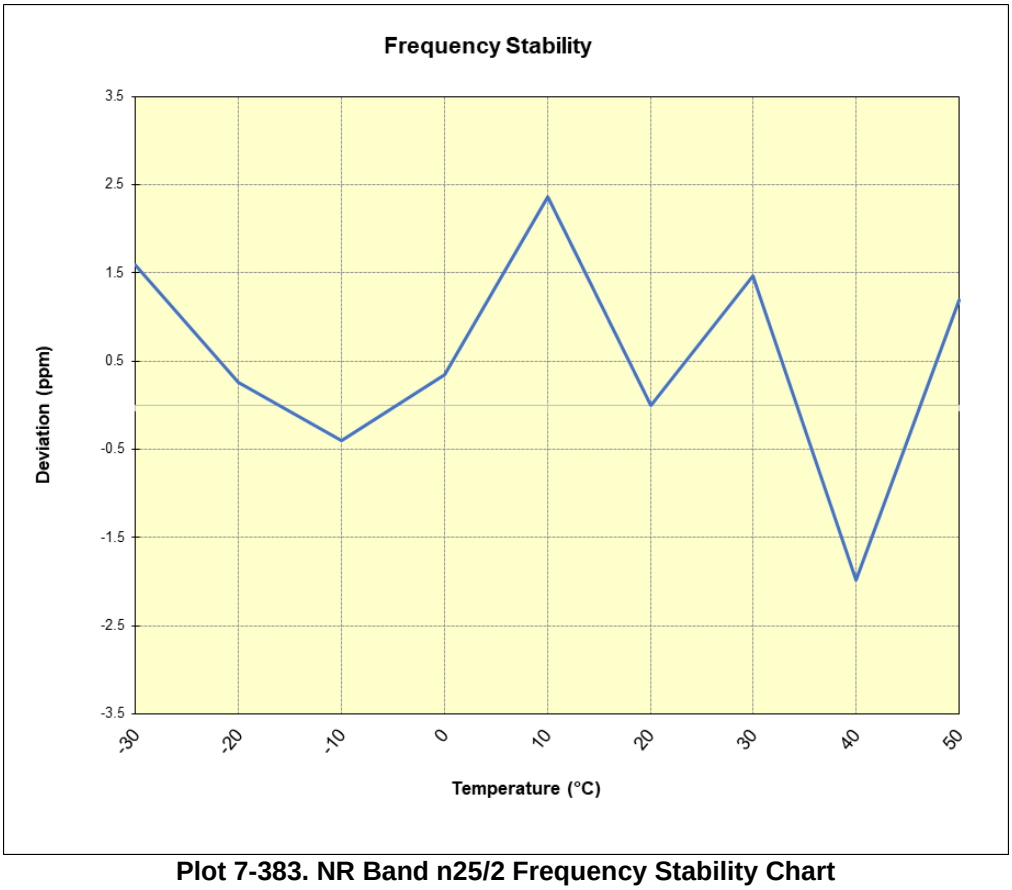
Plot 7-382. LTE Band 25/2 Frequency Stability Chart

Frequency Stability / Temperature Variation

NR Band n25/2	
Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.38

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.38	- 30	1,879,522,951	2,991	0.0001591
		- 20	1,879,520,452	492	0.0000262
		- 10	1,879,519,199	-761	-0.0000405
		0	1,879,520,603	643	0.0000342
		+ 10	1,879,524,403	4,442	0.0002364
		+ 20 (Ref)	1,879,519,960	0	0.0000000
		+ 30	1,879,522,729	2,768	0.0001473
		+ 40	1,879,516,236	-3,724	-0.0001981
		+ 50	1,879,522,197	2,237	0.0001190
Battery Endpoint	3.35	+ 20	1,879,516,660	-3,300	-0.0001756

Table 7-46. NR Band n25/2 Frequency Stability Data



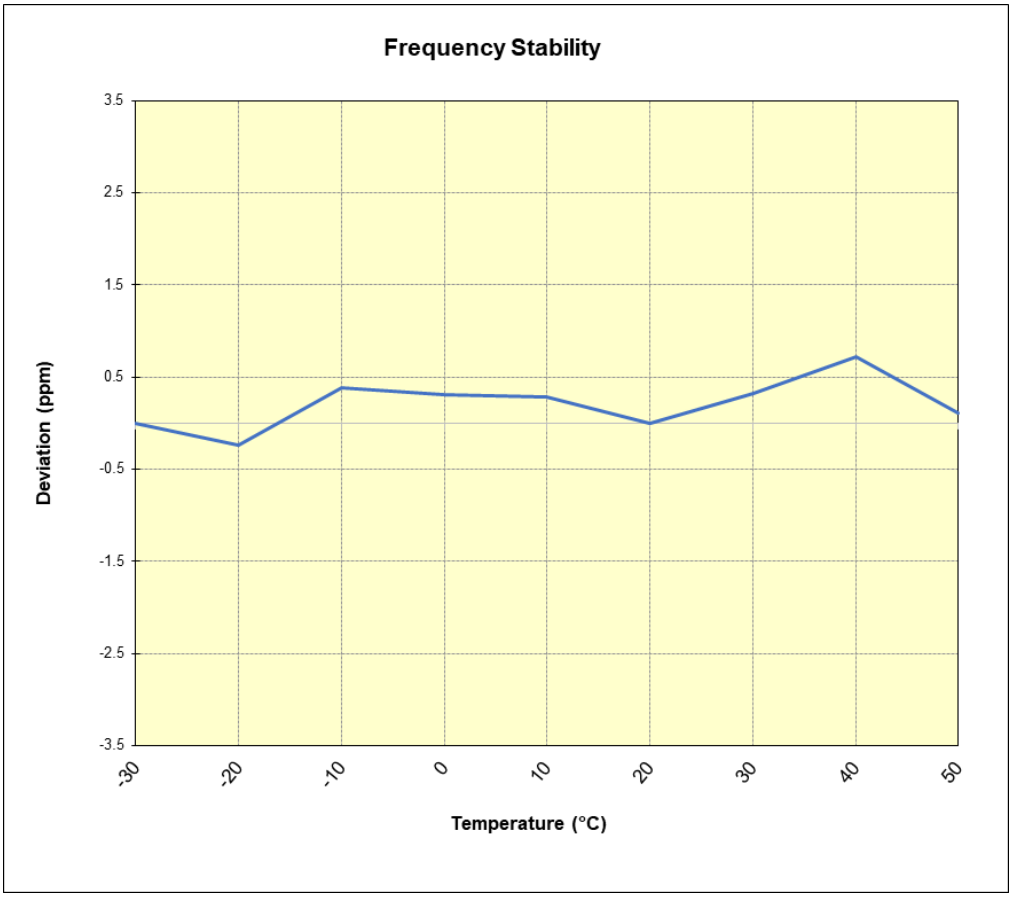
Plot 7-383. NR Band n25/2 Frequency Stability Chart

Frequency Stability / Temperature Variation

GSM/GPRS PCS	
Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.38

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.38	- 30	1,879,999,852	-11	-0.0000006
		- 20	1,879,999,421	-442	-0.0000235
		- 10	1,880,000,578	715	0.0000380
		0	1,880,000,450	587	0.0000312
		+ 10	1,880,000,404	541	0.0000288
		+ 20 (Ref)	1,879,999,863	0	0.0000000
		+ 30	1,880,000,479	616	0.0000328
		+ 40	1,880,001,210	1,347	0.0000716
		+ 50	1,880,000,062	199	0.0000106
Battery Endpoint	3.35	+ 20	1,880,001,149	1,286	0.0000684

Table 7-47. GSM/GPRS PCS Frequency Stability Data



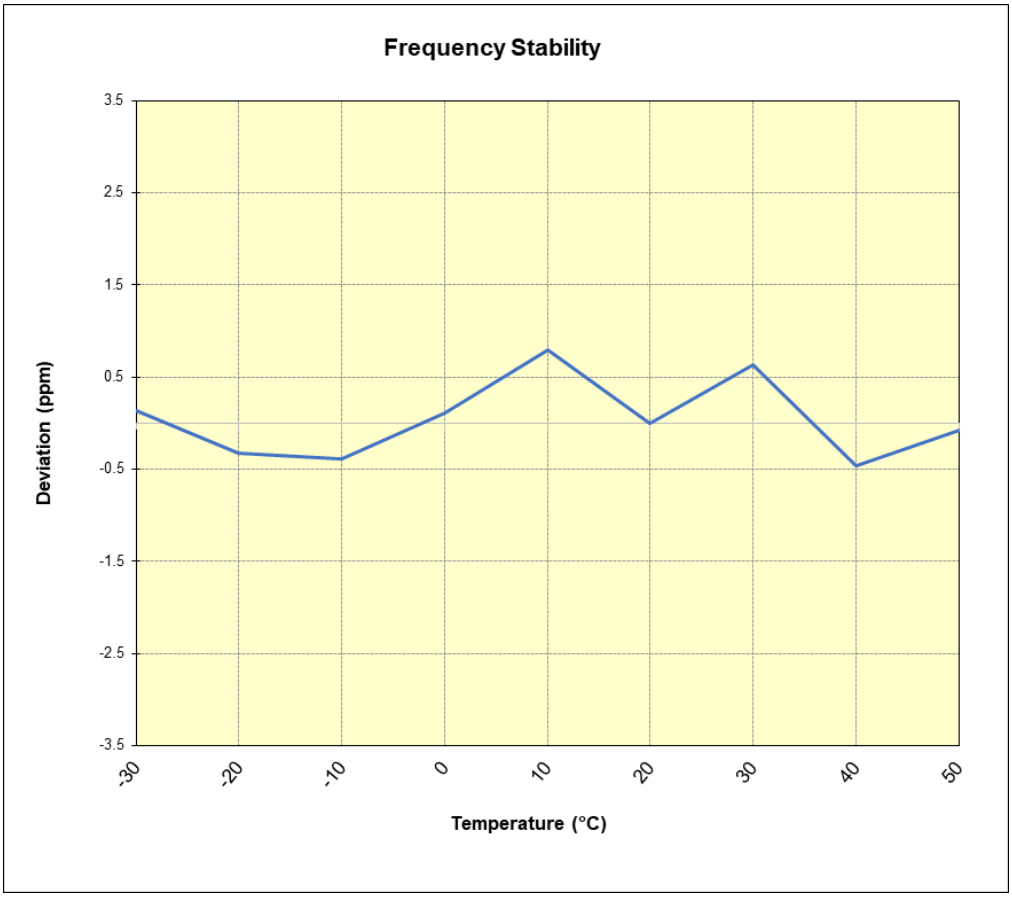
Plot 7-384. GSM/GPRS PCS Frequency Stability Chart

Frequency Stability / Temperature Variation

WCDMA PCS	
Operating Frequency (Hz):	1,880,000,000
Ref. Voltage (VDC):	4.38

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.38	- 30	1,879,999,781	250	0.0000133
		- 20	1,879,998,930	-601	-0.0000320
		- 10	1,879,998,799	-732	-0.0000389
		0	1,879,999,741	210	0.0000112
		+ 10	1,880,001,026	1,495	0.0000795
		+ 20 (Ref)	1,879,999,531	0	0.0000000
		+ 30	1,880,000,725	1,194	0.0000635
		+ 40	1,879,998,654	-877	-0.0000466
		+ 50	1,879,999,382	-149	-0.0000079
Battery Endpoint	3.35	+ 20	1,879,999,820	289	0.0000154

Table 7-48. WCDMA PCS Frequency Stability Data



Plot 7-385. 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: A3LSMF936U** complies with all the requirements of Part 24 of the FCC rules.