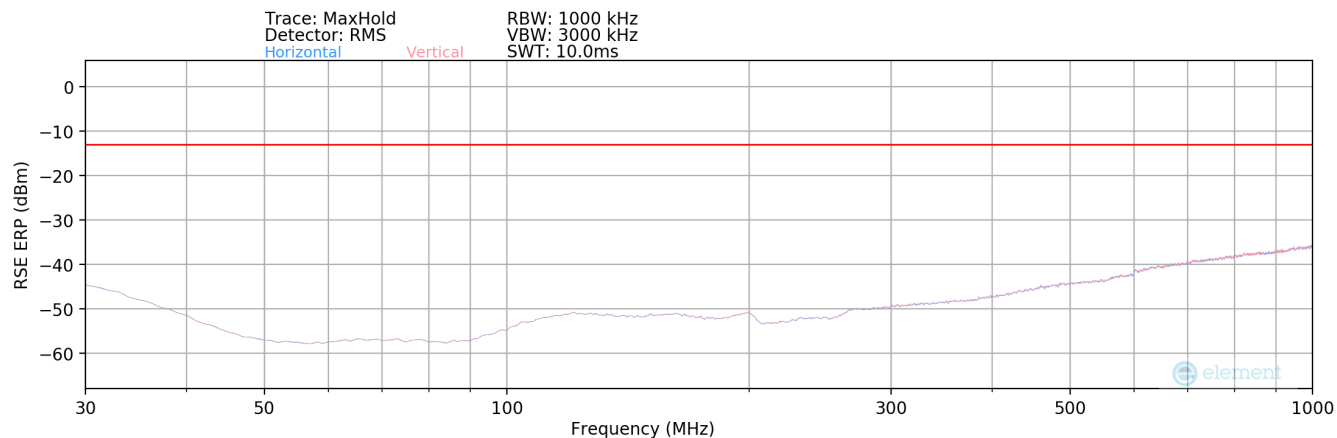
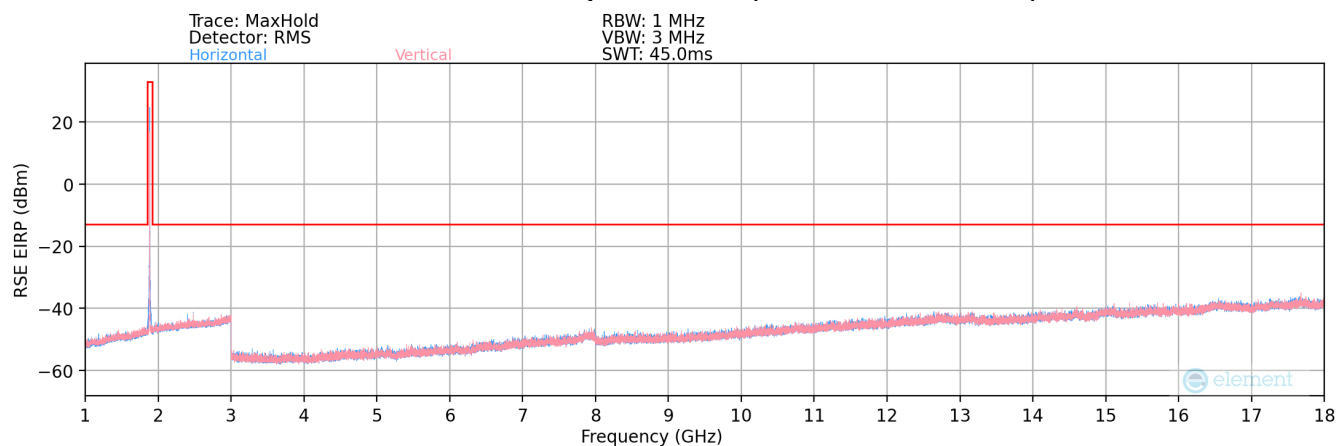


NR Band n25/2 – Ant1



Plot 7-239. Radiated Spurious Plot (NR Band n25/2 - Ant1)



Plot 7-240. Radiated Spurious Plot (NR Band n25/2 - Ant1)

Bandwidth (MHz):	40
Frequency (MHz):	1882.5
RB / Offset:	1 / 108
Mode:	Stand Alone
Anchor Band:	0

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]
142.24	H	-	-	-83.27	19.91	43.64	-53.77	-13.00	-40.77

Table 7-33. Radiated Spurious Data (NR Band n25/2 – Mid Channel - Ant1)

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT						Approved by: Technical Manager
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Bandwidth (MHz):	40
Frequency (MHz):	1870
RB / Offset:	1 / 108
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]
3740.00	H	-	-	-79.04	5.57	33.53	-61.73	-13.00	-48.73
5610.00	H	-	-	-79.64	8.20	35.56	-59.70	-13.00	-46.70
7480.00	H	-	-	-80.62	12.48	38.86	-56.39	-13.00	-43.39

Table 7-34. Radiated Spurious Data (NR Band n25/2 – Low Channel - Ant1)

Bandwidth (MHz):	40
Frequency (MHz):	1882.5
RB / Offset:	1 / 108
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]
3765.00	H	-	-	-79.30	5.53	33.23	-62.03	-13.00	-49.03
5647.50	H	-	-	-79.44	8.36	35.92	-59.34	-13.00	-46.34
7530.00	H	-	-	-80.90	12.24	38.34	-56.92	-13.00	-43.92

Table 7-35. Radiated Spurious Data (NR Band n25/2 – Mid Channel - Ant1)

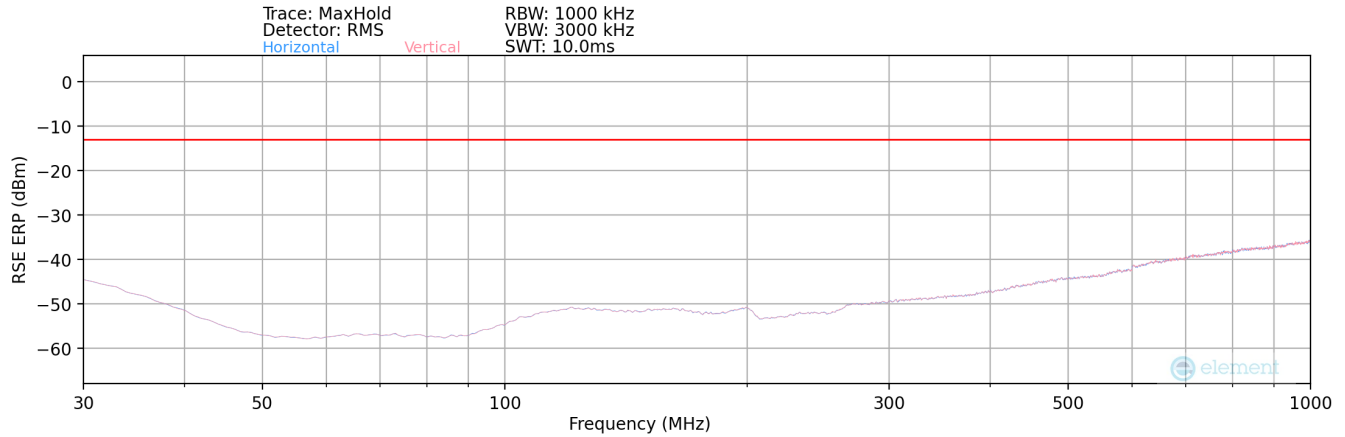
Bandwidth (MHz):	40
Frequency (MHz):	1895
RB / Offset:	1 / 108
Mode:	Stand Alone

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]
3790.00	H	-	-	-79.12	5.57	33.45	-61.80	-13.00	-48.80
5685.00	H	-	-	-79.60	8.18	35.58	-59.68	-13.00	-46.68
7580.00	H	-	-	-80.75	12.50	38.75	-56.51	-13.00	-43.51

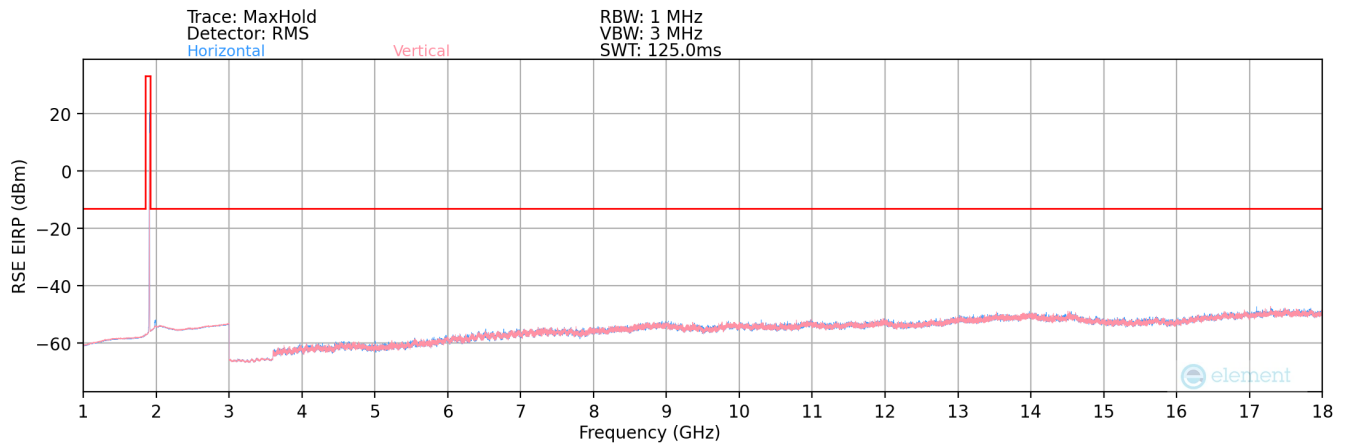
Table 7-36. Radiated Spurious Data (NR Band n25/2 – High Channel - Ant1)

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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LTE Band 25/2 – Ant2



Plot 7-241. Radiated Spurious Plot (LTE Band 25/2 - Ant2)



Plot 7-242. Radiated Spurious Plot (LTE Band 25/2 - Ant2)

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]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
86.10	V	-	-	-89.78	14.73	31.95	-65.46	-13.00	-52.46
139.94	V	-	-	-89.92	19.99	37.07	-60.34	-13.00	-47.34
194.31	V	-	-	-89.77	19.22	36.45	-60.96	-13.00	-47.96

Table 7-37. Radiated Spurious Data (LTE Band 25/2 – Mid Channel - Ant2)

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT			Approved by: Technical Manager
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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]
3720.00	V	-	-	-78.75	1.09	29.34	-65.92	-13.00	-52.92
5580.00	V	-	-	-78.96	4.54	32.58	-62.67	-13.00	-49.67
7440.00	V	-	-	-79.36	9.21	36.85	-58.41	-13.00	-45.41

Table 7-38. Radiated Spurious Data (LTE Band 25/2 – Low Channel - Ant2)

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]
3765.00	V	-	-	-78.29	1.00	29.71	-65.55	-13.00	-52.55
5647.50	V	-	-	-78.80	4.69	32.89	-62.37	-13.00	-49.37
7530.00	V	-	-	-79.73	9.28	36.55	-58.70	-13.00	-45.70

Table 7-39. Radiated Spurious Data (LTE Band 25/2 – Mid Channel - Ant2)

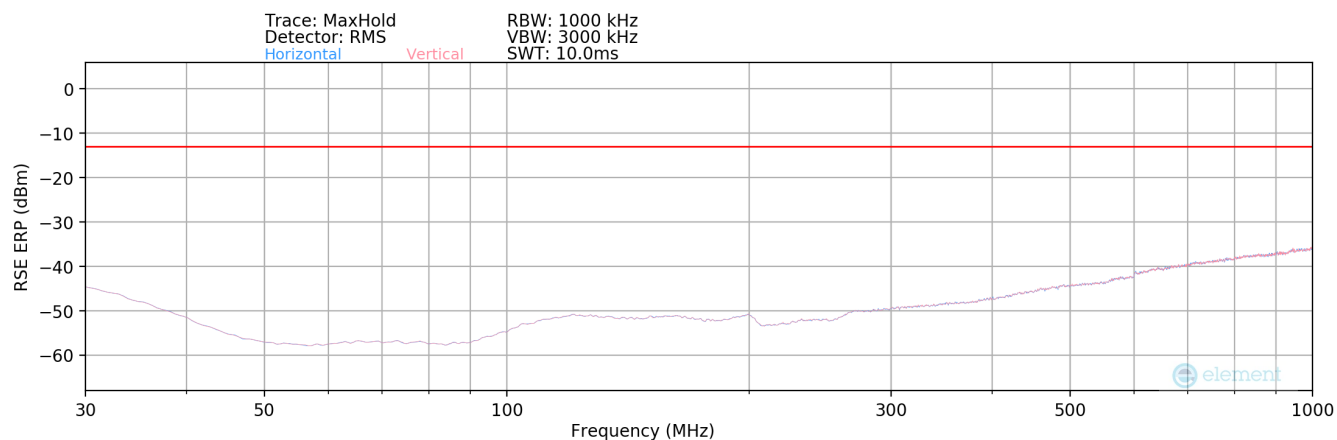
Bandwidth (MHz):	20
Frequency (MHz):	1905
RB / Offset:	1 / 50

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]
3810.00	V	-	-	-78.22	1.07	29.85	-65.41	-13.00	-52.41
5715.00	V	-	-	-78.61	4.63	33.02	-62.24	-13.00	-49.24
7620.00	V	-	-	-79.69	9.67	36.98	-58.28	-13.00	-45.28

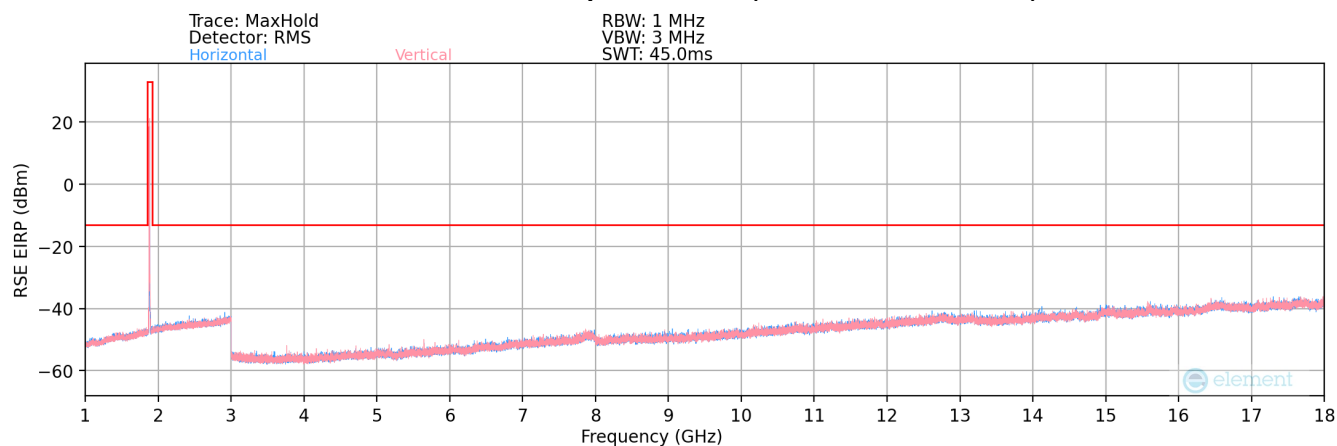
Table 7-40. Radiated Spurious Data (LTE Band 25/2 – High Channel - Ant2)

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n25/2 – Ant2



Plot 7-243. Radiated Spurious Plot (NR Band n25/2 - Ant2)



Plot 7-244. Radiated Spurious Plot (NR Band n25/2 - Ant2)

Bandwidth (MHz):	40
Frequency (MHz):	1882.5
RB / Offset:	1 / 108

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]
140.10	V	-	-	-82.96	19.95	43.99	-53.42	-13.00	-40.42

Table 7-41. Radiated Spurious Data (NR Band n25/2 – Mid Channel - Ant2)

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT						Approved by: Technical Manager
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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]
3720.00	V	137	317	-73.02	5.49	39.47	-55.79	-13.00	-42.79
5580.00	V	140	329	-73.96	8.52	41.56	-53.70	-13.00	-40.70
7440.00	V	-	-	-80.86	12.71	38.85	-56.41	-13.00	-43.41
9300.00	V	-	-	-81.89	14.46	39.57	-55.68	-13.00	-42.68
11160.00	V	-	-	-81.32	17.64	43.32	-51.93	-13.00	-38.93

Table 7-42. Radiated Spurious Data (NR Band n25/2 – Low Channel - Ant2)

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]
3765.00	V	130	316	-74.25	5.53	38.28	-56.98	-13.00	-43.98
5647.50	V	142	17	-74.97	8.36	40.39	-54.87	-13.00	-41.87
7530.00	V	-	-	-81.08	12.24	38.16	-57.10	-13.00	-44.10
9412.50	V	-	-	-81.70	14.93	40.23	-55.03	-13.00	-42.03
11295.00	V	-	-	-81.73	17.80	43.07	-52.19	-13.00	-39.19

Table 7-43. Radiated Spurious Data (NR Band n25/2 – Mid Channel - Ant2)

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]
3810.00	V	117	312	-75.10	5.46	37.36	-57.90	-13.00	-44.90
5715.00	V	120	316	-75.34	8.29	39.95	-55.31	-13.00	-42.31
7620.00	V	-	-	-80.62	12.95	39.33	-55.92	-13.00	-42.92
9525.00	V	-	-	-81.25	15.51	41.26	-54.00	-13.00	-41.00
11430.00	V	-	-	-81.51	18.03	43.52	-51.74	-13.00	-38.74

Table 7-44. Radiated Spurious Data (NR Band n25/2 – High Channel - Ant2)

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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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

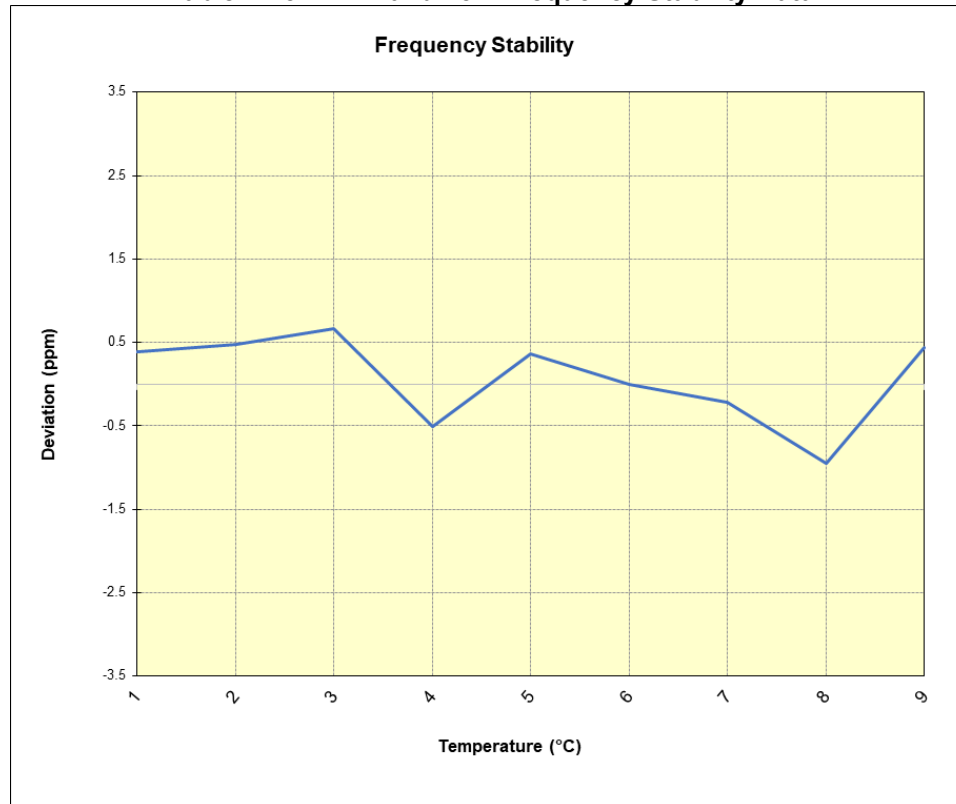
None

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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LTE Band 25/2

LTE Band 25/2					
Operating Frequency (Hz):			1,882,500,000		
Ref. Voltage (VDC):			3.85		
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	1,882,596,724	734	0.0000390
		- 20	1,882,596,883	893	0.0000474
		- 10	1,882,597,244	1,254	0.0000666
		0	1,882,595,046	-944	-0.0000501
		+ 10	1,882,596,678	688	0.0000365
		+ 20 (Ref)	1,882,595,990	0	0.0000000
		+ 30	1,882,595,589	-401	-0.0000213
		+ 40	1,882,594,196	-1,794	-0.0000953
		+ 50	1,882,596,816	826	0.0000439
Battery Endpoint	3.21	+ 20	1,882,595,633	-357	-0.0000190

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



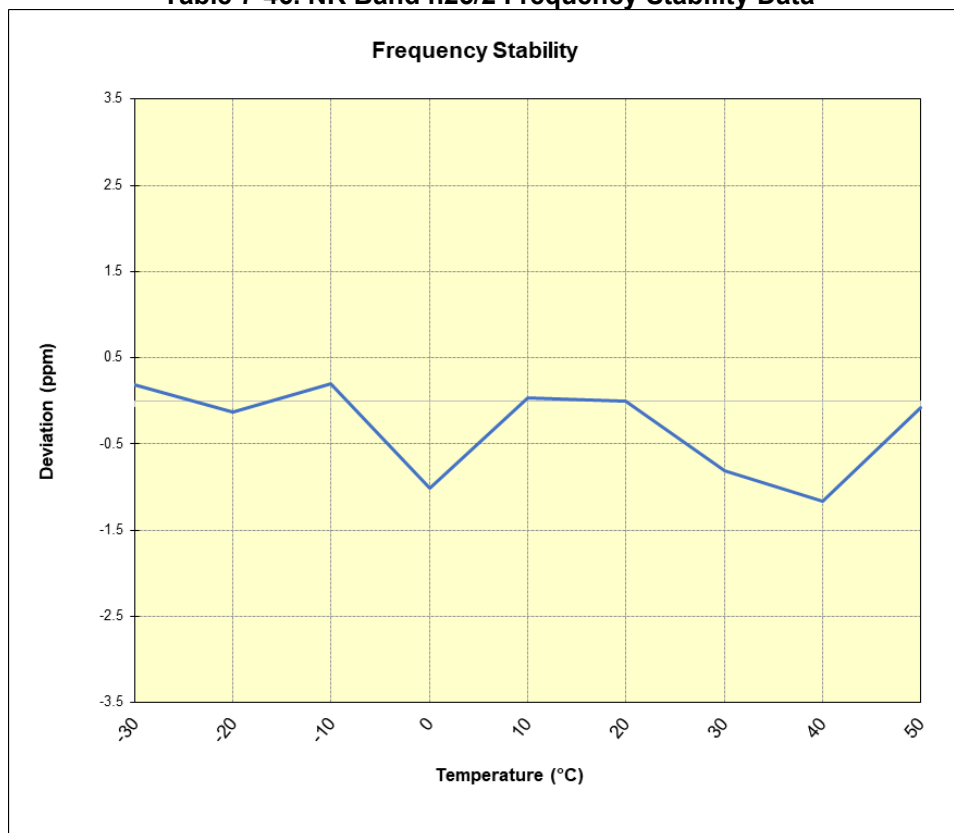
Plot 7-245. LTE Band 25/2 Frequency Stability Chart

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n25/2

NR Band n25/2					
		Operating Frequency (Hz):		1,882,500,000	
		Ref. Voltage (VDC):		3.85	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	1,882,597,273	357	0.0000190
		- 20	1,882,596,683	-233	-0.0000124
		- 10	1,882,597,283	367	0.0000195
		0	1,882,595,021	-1,895	-0.0001007
		+ 10	1,882,596,973	57	0.0000030
		+ 20 (Ref)	1,882,596,916	0	0.0000000
		+ 30	1,882,595,388	-1,528	-0.0000812
		+ 40	1,882,594,731	-2,185	-0.0001161
		+ 50	1,882,596,780	-136	-0.0000072
Battery Endpoint	3.21	+ 20	1,882,595,618	-1,298	-0.0000689

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



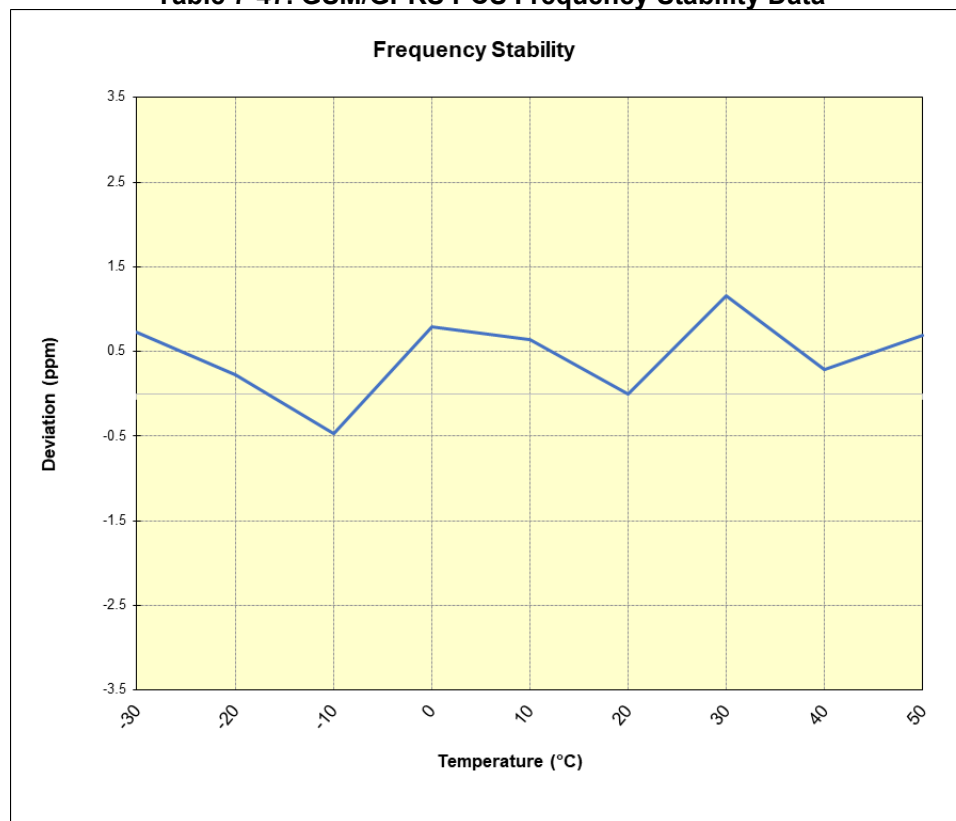
Plot 7-246. NR Band n25/2 Frequency Stability Chart

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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GSM/GPRS PCS

GSM/GPRS PCS					
		Operating Frequency (Hz):		1,880,000,000	
		Ref. Voltage (VDC):		3.85	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	1,880,002,411	1,378	0.0000733
		- 20	1,880,001,452	419	0.0000223
		- 10	1,880,000,144	-889	-0.0000473
		0	1,880,002,521	1,488	0.0000791
		+ 10	1,880,002,238	1,205	0.0000641
		+ 20 (Ref)	1,880,001,033	0	0.0000000
		+ 30	1,880,003,218	2,185	0.0001162
		+ 40	1,880,001,571	538	0.0000286
		+ 50	1,880,002,328	1,295	0.0000689
Battery Endpoint	3.21	+ 20	1,880,001,233	200	0.0000106

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



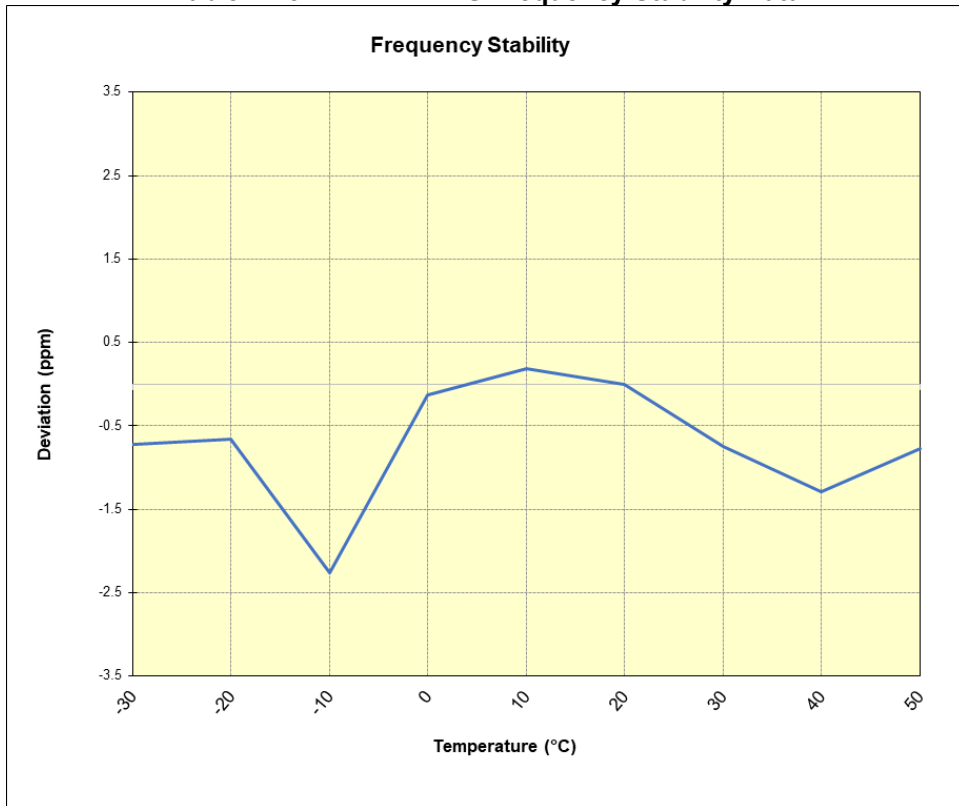
Plot 7-247. GSM/GPRS PCS Frequency Stability Chart

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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WCDMA PCS

WCDMA PCS					
		Operating Frequency (Hz):		1,880,000,000	
		Ref. Voltage (VDC):		3.85	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.85	- 30	1,880,075,224	-1,356	-0.0000721
		- 20	1,880,075,336	-1,244	-0.0000662
		- 10	1,880,072,325	-4,255	-0.0002263
		0	1,880,076,342	-238	-0.0000127
		+ 10	1,880,076,921	341	0.0000181
		+ 20 (Ref)	1,880,076,580	0	0.0000000
		+ 30	1,880,075,179	-1,401	-0.0000745
		+ 40	1,880,074,154	-2,426	-0.0001290
Battery Endpoint	3.21	+ 50	1,880,075,122	-1,458	-0.0000776
		+ 20	1,880,074,225	-2,355	-0.0001253

Table 7-48. WCDMA PCS Frequency Stability Data



Plot 7-248. WCDMA PCS Frequency Stability Chart

FCC ID: A3LSMS938U	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset** **FCC ID: A3LSMS938U** complies with all the requirements of Part 24 of the FCC rules.

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Test Report S/N: 1M2408260067-02-R1.A3L	Test Dates: 09/06 - 10/17/2024	EUT Type: Portable Handset	Page 174 of 174