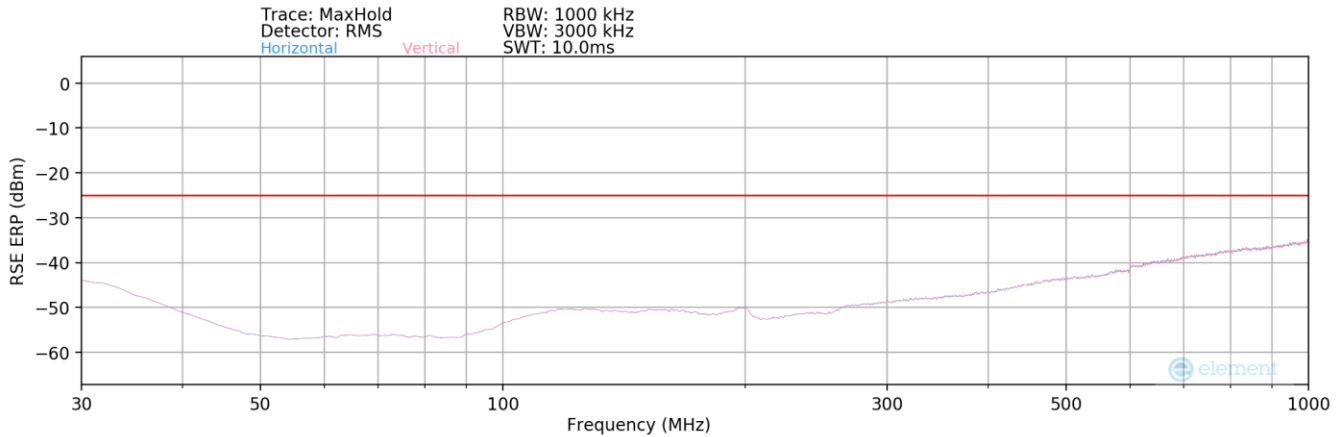
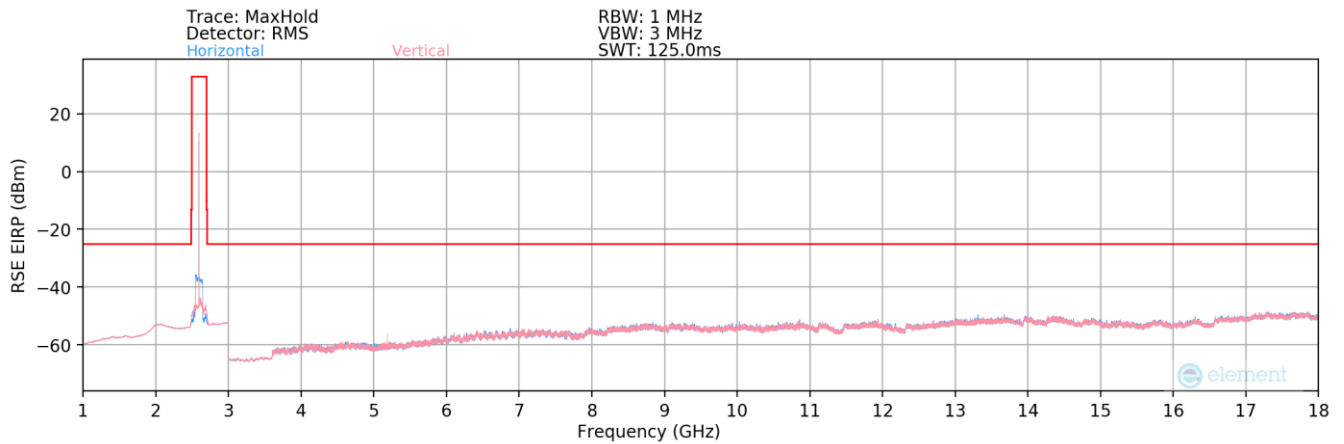


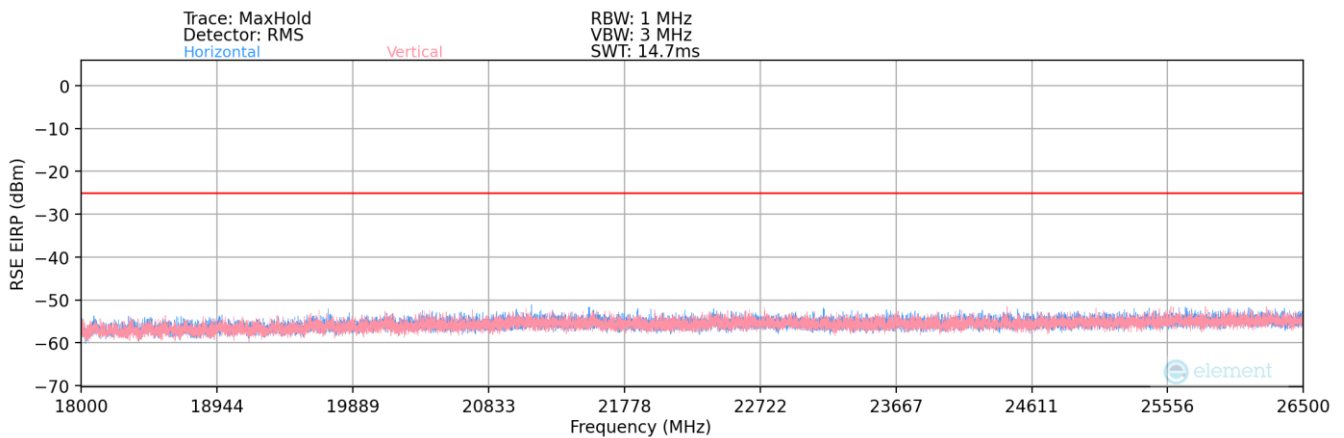
## NR Band n41 – Ant2



Plot 7-242. Radiated Spurious Plot (NR Band n41 – Ant2)



Plot 7-243. Radiated Spurious Plot (NR Band n41 – Ant2)



Plot 7-244. Radiated Spurious Plot (NR Band n41 – Ant2)

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Bandwidth (MHz):	100
Frequency (MHz):	2546.01
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]
02	V	206	42	-70.34	3.31	39.97	-55.29	-25.00	-30.29
03	V	133	18	-76.60	9.21	39.61	-55.65	-25.00	-30.65
04	V	-	-	-78.82	12.07	40.25	-55.01	-25.00	-30.01
05	V	-	-	-79.45	13.52	41.07	-54.18	-25.00	-29.18
15276.06	V	171	211	-78.82	14.17	42.35	-52.91	-25.00	-27.91
17822.07	V	-	-	-80.65	17.98	44.33	-50.93	-25.00	-25.93
20368.08	V	-	-	-57.94	3.16	52.22	-52.58	-25.00	-27.58
22914.09	V	-	-	-57.99	3.90	52.91	-51.89	-25.00	-26.89

Table 7-73. Radiated Spurious Data (NR Band n41 – Low Channel – Ant2)

Bandwidth (MHz):	100
Frequency (MHz):	2592.99
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]
98	V	173	354	-67.84	3.51	42.67	-52.59	-25.00	-27.59
97	V	267	60	-75.68	8.55	39.87	-55.39	-25.00	-30.39
96	V	-	-	-78.55	12.14	40.59	-54.67	-25.00	-29.67
95	V	-	-	-79.41	14.30	41.89	-53.37	-25.00	-28.37
15557.94	V	-	-	-79.26	13.58	41.32	-53.94	-25.00	-28.94

Table 7-74. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant2)

Bandwidth (MHz):	100
Frequency (MHz):	2640.00
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]
00	V	179	341	-62.58	3.43	47.85	-47.41	-25.00	-22.41
00	V	120	335	-75.00	9.25	41.25	-54.01	-25.00	-29.01
00	V	-	-	-79.80	12.61	39.81	-55.45	-25.00	-30.45
00	V	-	-	-79.62	14.68	42.06	-53.20	-25.00	-28.20
15840.00	V	-	-	-79.94	14.77	41.83	-53.43	-25.00	-28.43

Table 7-75. Radiated Spurious Data (NR Band n41 – High Channel – Ant2)

Bandwidth (MHz):	100
Frequency (MHz):	2592.99
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]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
00	V	-	-	-84.76	29.24	51.48	-45.93	-25.00	-20.93

Table 7-76. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant2)

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## 7.8 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 27, 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

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LTE Band 30					
Operating Frequency (Hz):		2,310,000,000			
Ref. Voltage (VDC):		4.411			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.411	- 30	2,310,041,966	-3,257	-0.0001410
		- 20	2,310,042,778	-2,445	-0.0001058
		- 10	2,310,045,057	-166	-0.0000072
		0	2,310,044,157	-1,066	-0.0000461
		+ 10	2,310,045,747	524	0.0000227
		+ 20 (Ref)	2,310,045,223	0	0.0000000
		+ 30	2,310,046,292	1,069	0.0000463
		+ 40	2,310,047,334	2,111	0.0000914
		+ 50	2,310,047,681	2,458	0.0001064
Battery Endpoint	3.593	+ 20	2,310,045,792	569	0.0000246

Table 7-9. LTE Band 30 Frequency Stability Data

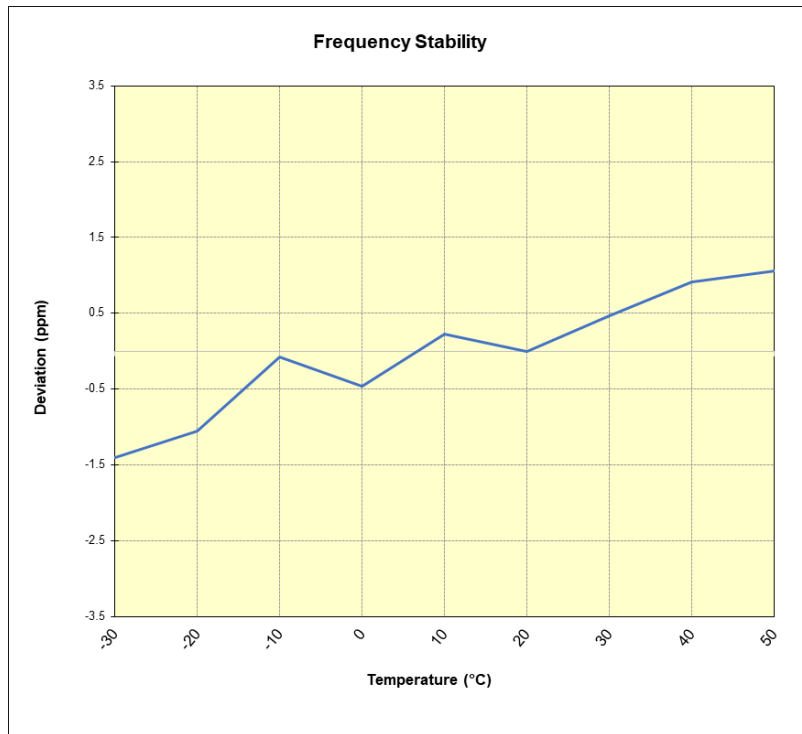


Table 7-9. LTE Band 30 Frequency Stability Chart

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LTE Band 7					
Operating Frequency (Hz):		2,535,000,000			
Ref. Voltage (VDC):		4.411			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.411	- 30	2,535,119,332	-3,127	-0.0001233
		- 20	2,535,120,104	-2,355	-0.0000929
		- 10	2,535,120,563	-1,896	-0.0000748
		0	2,535,122,134	-325	-0.0000128
		+ 10	2,535,122,716	257	0.0000101
		+ 20 (Ref)	2,535,122,459	0	0.0000000
		+ 30	2,535,123,138	679	0.0000268
		+ 40	2,535,122,814	355	0.0000140
		+ 50	2,535,124,615	2,156	0.0000850
Battery Endpoint	3.593	+ 20	2,535,123,455	996	0.0000393

Table 7-9. LTE Band 7 Frequency Stability Data

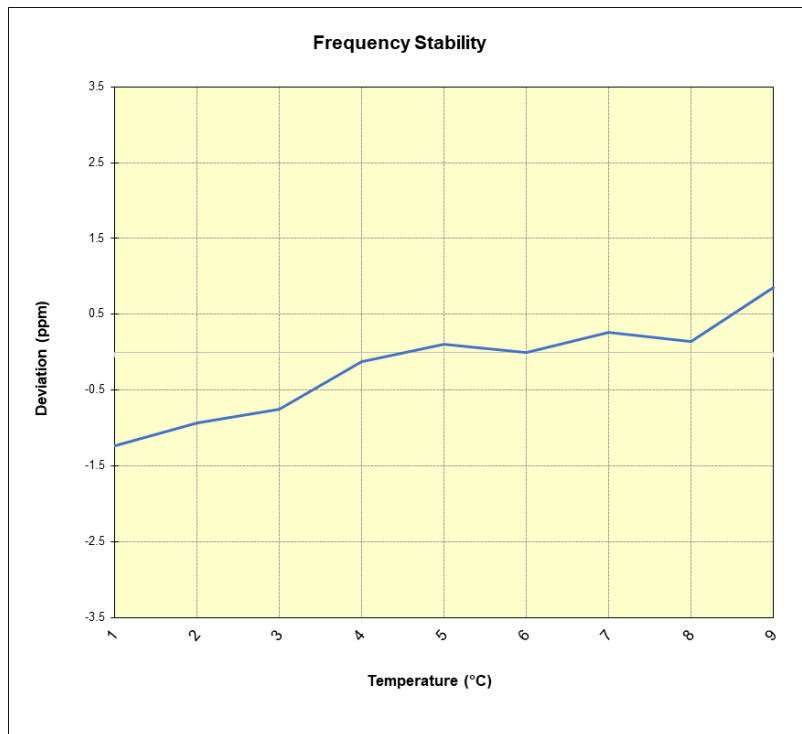


Table 7-9. LTE Band 7 Frequency Stability Chart

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LTE Band 41					
		Operating Frequency (Hz):		2,593,000,000	
		Ref. Voltage (VDC):		4.411	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.411	- 30	2,592,961,495	-2,159	-0.0000833
		- 20	2,592,962,396	-1,258	-0.0000485
		- 10	2,592,962,608	-1,046	-0.0000403
		0	2,592,963,131	-523	-0.0000202
		+ 10	2,592,963,783	129	0.0000050
		+ 20 (Ref)	2,592,963,654	0	0.0000000
		+ 30	2,592,965,798	2,144	0.0000827
		+ 40	2,592,965,143	1,489	0.0000574
		+ 50	2,592,966,131	2,477	0.0000955
Battery Endpoint	3.593	+ 20	2,592,964,658	1,004	0.0000387

Table 7-9. LTE Band 41(PC2) Frequency Stability Data

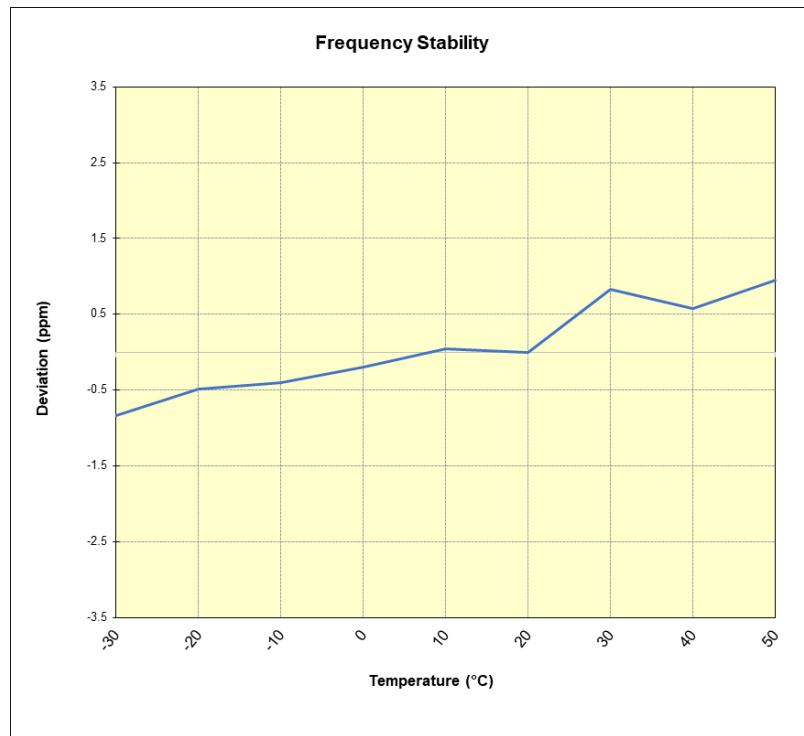


Table 7-9. LTE Band 41(PC2) Frequency Stability Chart

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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LTE Band 38					
Operating Frequency (Hz):		2,595,000,000			
Ref. Voltage (VDC):		4.411			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.411	- 30	2,595,112,480	-2,311	-0.0000891
		- 20	2,595,116,216	1,425	0.0000549
		- 10	2,595,111,580	-3,211	-0.0001237
		0	2,595,110,547	-4,244	-0.0001635
		+ 10	2,595,115,360	569	0.0000219
		+ 20 (Ref)	2,595,114,791	0	0.0000000
		+ 30	2,595,116,038	1,247	0.0000481
		+ 40	2,595,117,137	2,346	0.0000904
		+ 50	2,595,118,002	3,211	0.0001237
Battery Endpoint	3.593	+ 20	2,595,114,916	125	0.0000048

Table 7-9. LTE Band 38 Frequency Stability Data

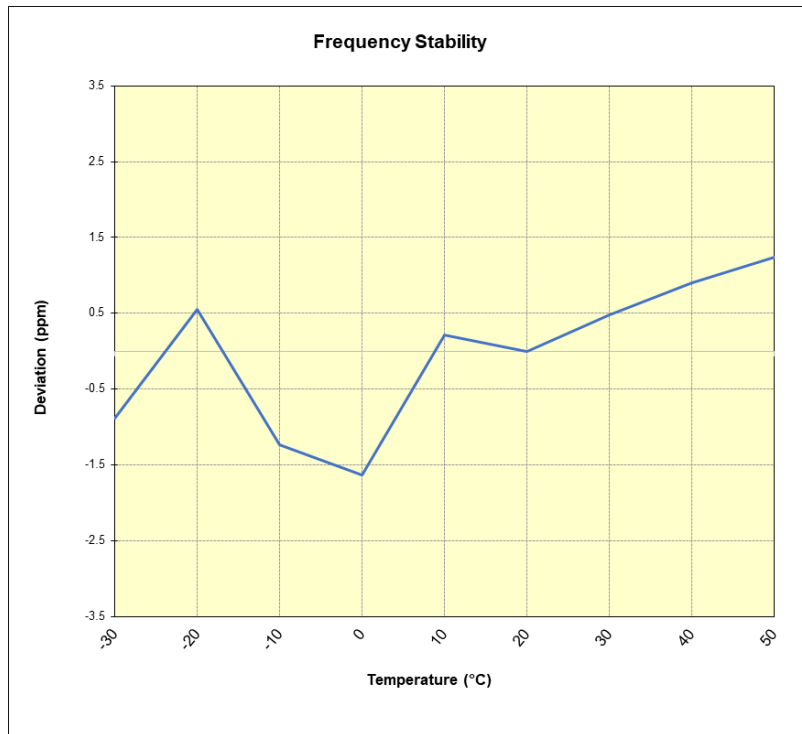


Table 7-9. LTE Band 38 Frequency Stability Chart

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n30					
Operating Frequency (Hz):		2,310,000,000			
Ref. Voltage (VDC):		4.411			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.411	- 30	2,310,084,065	1,274	0.0000552
		- 20	2,310,084,227	1,436	0.0000622
		- 10	2,310,084,754	1,963	0.0000850
		0	2,310,083,685	894	0.0000387
		+ 10	2,310,084,119	1,328	0.0000575
		+ 20 (Ref)	2,310,082,791	0	0.0000000
		+ 30	2,310,083,988	1,197	0.0000518
		+ 40	2,310,084,154	1,363	0.0000590
Battery Endpoint	3.593	+ 20	2,310,084,583	1,792	0.0000776

Table 7-9. NR Band n30 Frequency Stability Data

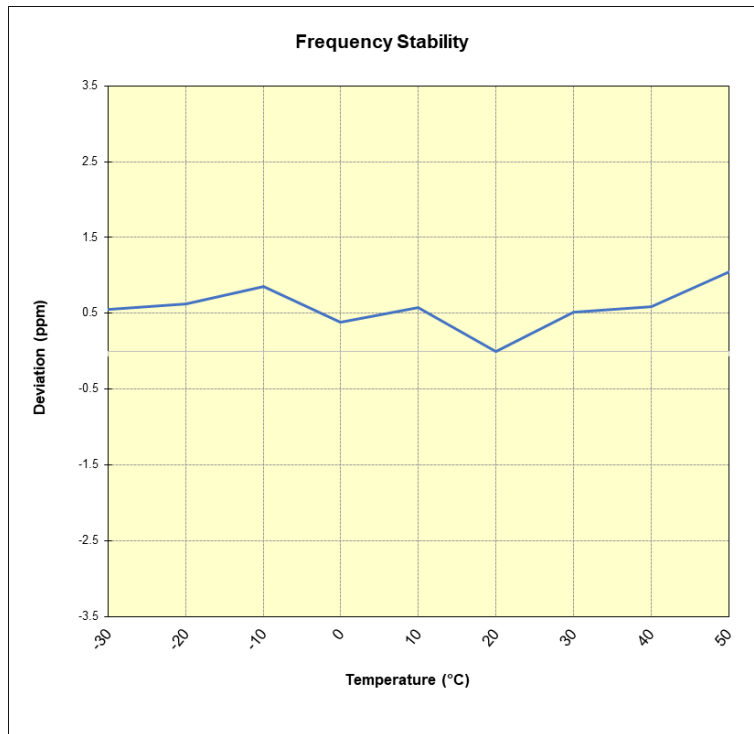


Table 7-9. NR Band n30 Frequency Stability Chart

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NR Band n41					
Operating Frequency (Hz):		2,593,000,000			
Ref. Voltage (VDC):		4.411			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.411	- 30	2,593,157,715	3,373	0.0001301
		- 20	2,593,156,848	2,506	0.0000966
		- 10	2,593,155,754	1,412	0.0000545
		0	2,593,154,871	529	0.0000204
		+ 10	2,593,154,804	462	0.0000178
		+ 20 (Ref)	2,593,154,342	0	0.0000000
		+ 30	2,593,153,948	-394	-0.0000152
		+ 40	2,593,154,759	417	0.0000161
		+ 50	2,593,155,104	762	0.0000294
Battery Endpoint	3.593	+ 20	2,593,154,159	-183	-0.0000071

Table 7-9. NR Band n41 Frequency Stability Data

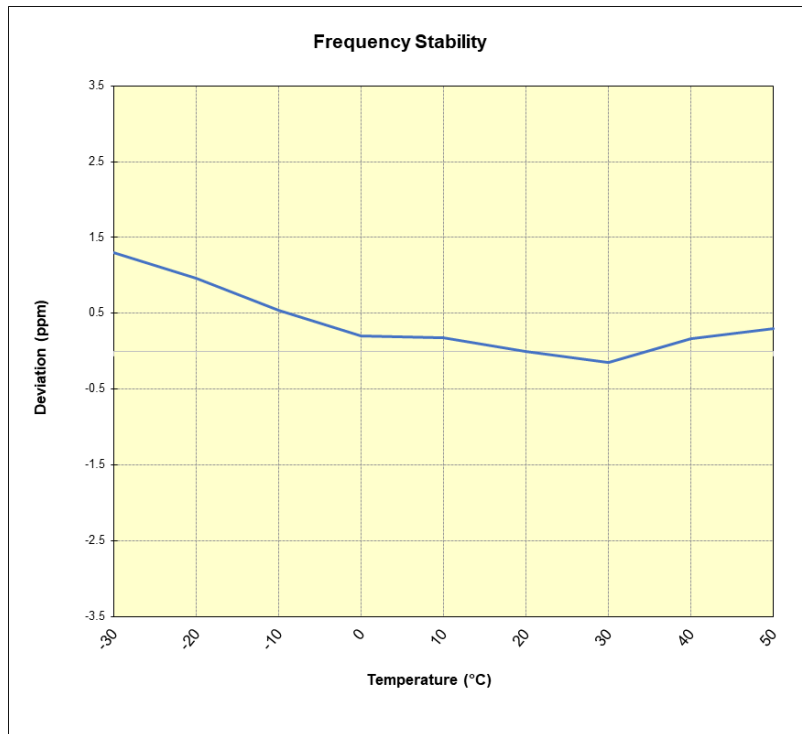


Table 7-9. NR Band n41 Frequency Stability Chart

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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: A3LSMA356U** complies with all the requirements of Part 27 of the FCC rules.

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