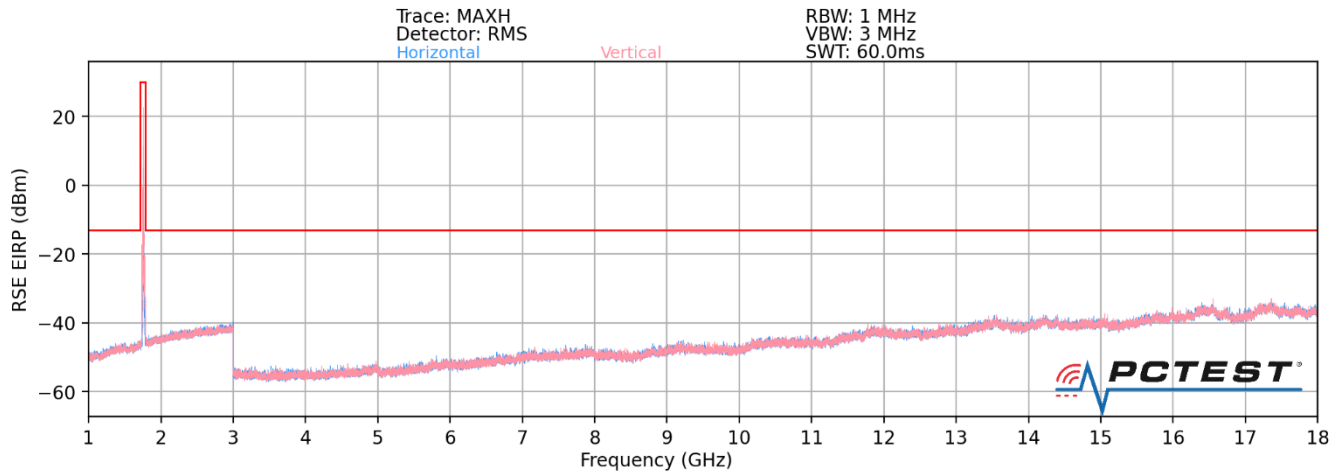
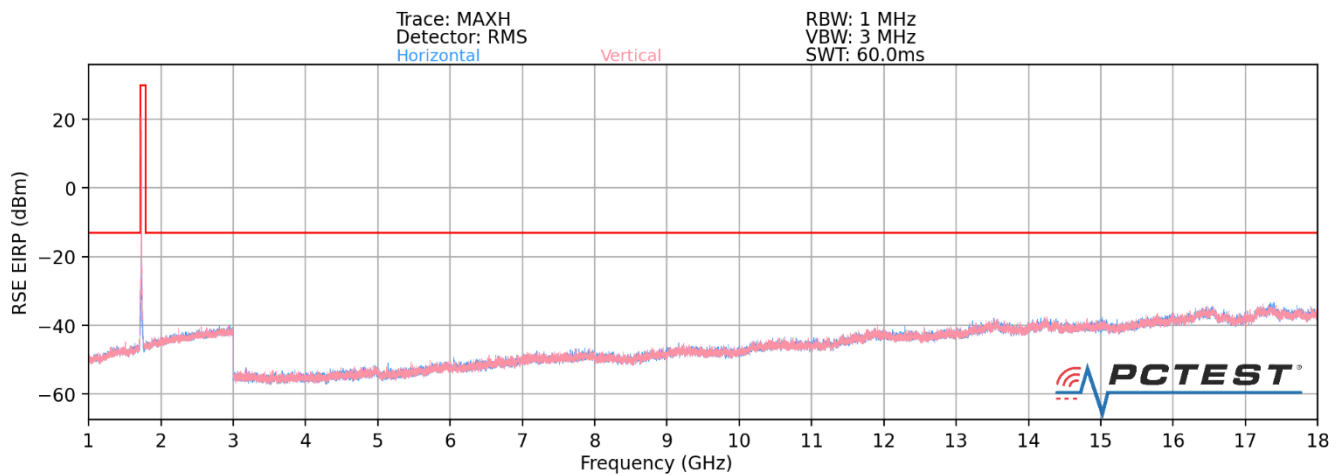
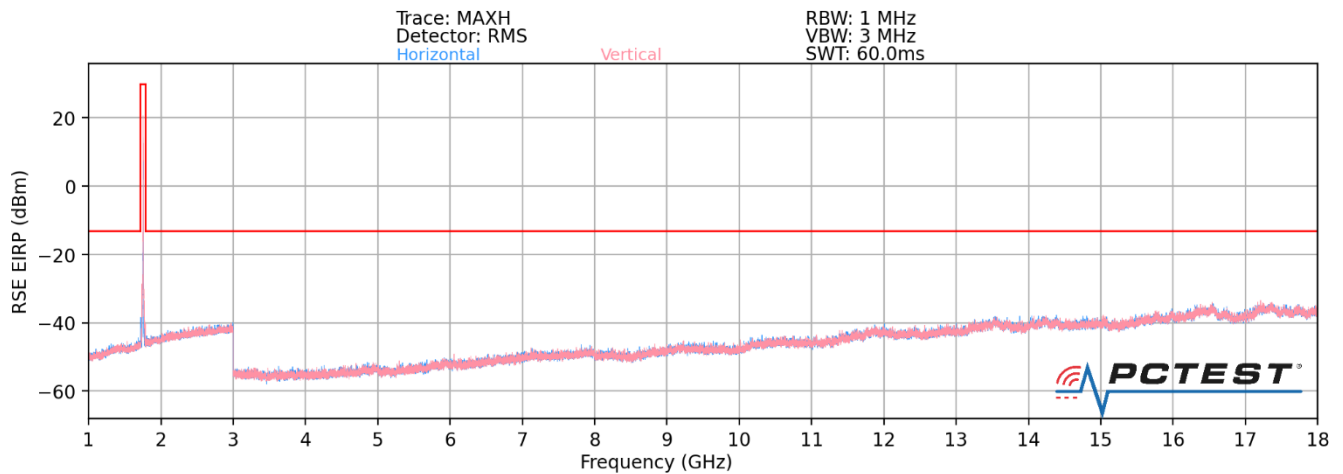




Plot 7-393. Radiated Spurious Plot (ULCA LTE Band 66 – High Channel – Open)

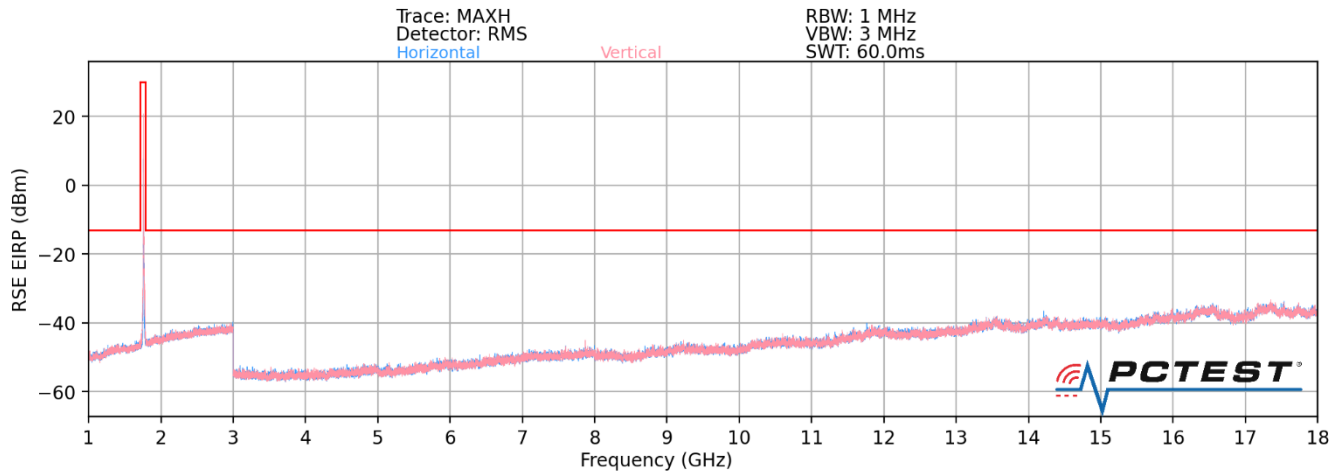


Plot 7-394. Radiated Spurious Plot (ULCA LTE Band 66 – Low Channel – Closed)



Plot 7-395. Radiated Spurious Plot (ULCA LTE Band 66 – Mid Channel – Closed)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 240 of 262



Plot 7-396. Radiated Spurious Plot (ULCA LTE Band 66 – High Channel – Closed)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	1720.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	1739.8
SCC RB / Offset:	1 / 0

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]
3440.0	V	112	177	-76.22	7.79	38.57	-56.69	-13.00	-43.69
5160.0	V	-	-	-79.86	10.62	37.76	-57.50	-13.00	-44.50
6880.0	V	-	-	-81.46	14.42	39.96	-55.30	-13.00	-42.30
8600.0	V	-	-	-82.19	17.90	42.71	-52.55	-13.00	-39.55

7-33. Radiated Spurious Data (ULCA LTE66 – Low Channel – Open)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	1745.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	1764.8
SCC RB / Offset:	1 / 0

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]
3490.0	V	155	174	-74.56	7.63	40.07	-55.19	-13.00	-42.19
5235.0	V	-	-	-79.99	10.39	37.40	-57.86	-13.00	-44.86
6980.0	V	-	-	-81.32	14.54	40.22	-55.04	-13.00	-42.04
8725.0	V	-	-	-82.10	17.61	42.51	-52.75	-13.00	-39.75

Table 7-34. Radiated Spurious Data (ULCA LTE66 – Mid Channel – Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 241 of 262

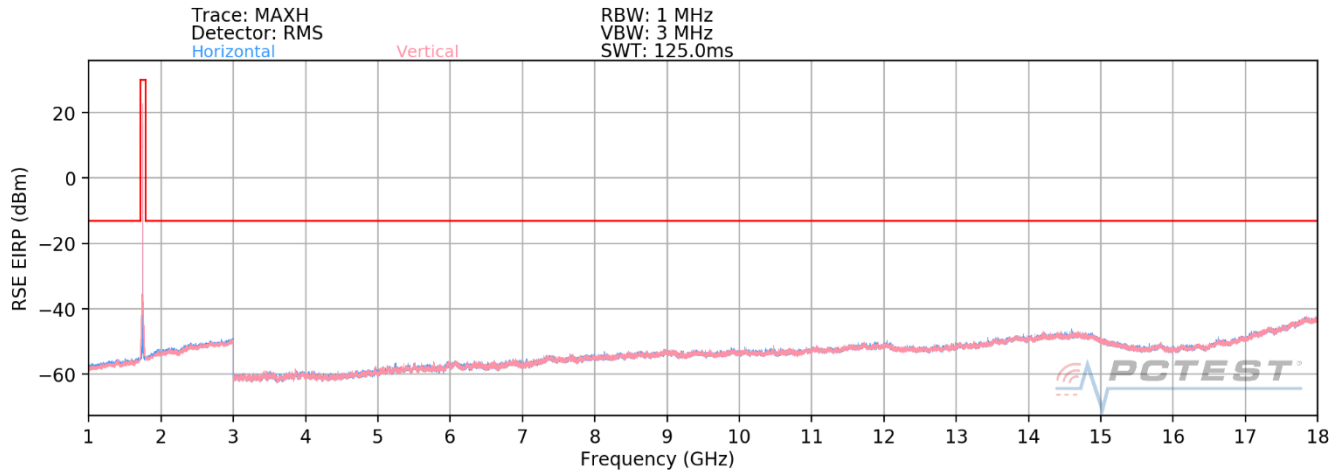
PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	1770.0
PCC RB / Offset:	1 / 0
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	1750.2
SCC RB / Offset:	1 / 99

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]
3540.0	V	100	173	-74.17	8.04	40.87	-54.38	-13.00	-41.38
5310.0	V	-	-	-81.36	11.38	37.02	-58.24	-13.00	-45.24
7080.0	V	-	-	-82.32	14.82	39.50	-55.75	-13.00	-42.75
8850.0	V	-	-	-83.39	17.23	40.84	-54.42	-13.00	-41.42

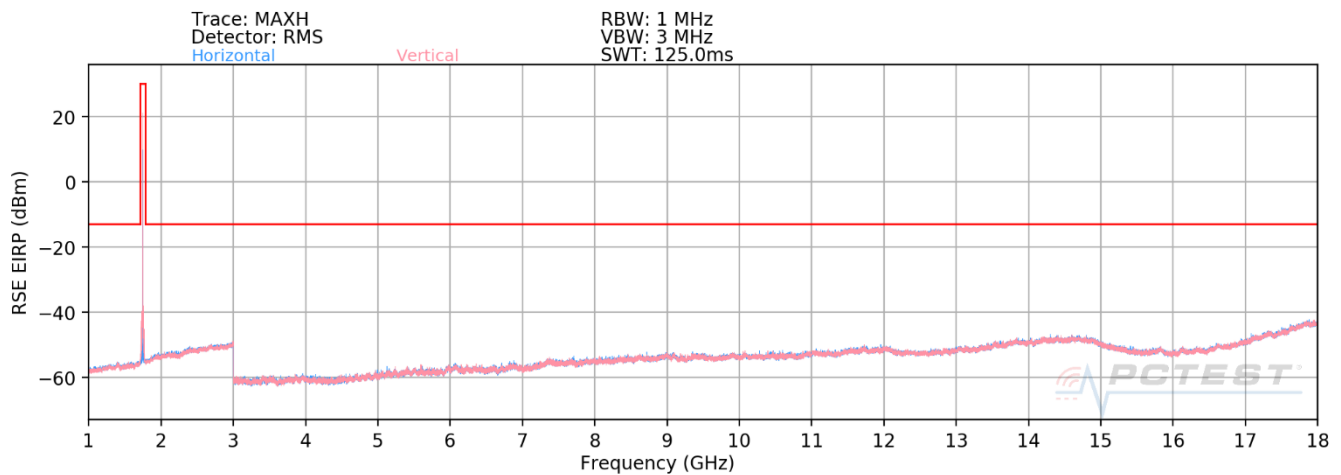
Table 7-35. Radiated Spurious Data (ULCA LTE66 – High Channel – Open)

FCC ID: A3LSMF711U1	 PART 27 MEASUREMENT REPORT 	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset
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NR Band n66 – Ant A



Plot 7-397. Radiated Spurious Plot (NR Band n66 – Open)



Plot 7-398. Radiated Spurious Plot (NR Band n66 – Closed)

Bandwidth (MHz):	40
Frequency (MHz):	1730.0
RB / Offset:	1 / 108
Mode:	SA
Anchor Band:	-

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]
3460.0	H	-	-	-77.64	1.27	30.63	-64.63	-13.00	-51.63
5190.0	H	368	332	-75.66	5.14	36.48	-58.77	-13.00	-45.77
6920.0	H	-	-	-80.39	7.77	34.38	-60.88	-13.00	-47.88
8650.0	H	-	-	-81.24	11.11	36.87	-58.39	-13.00	-45.39

Table 7-36. Radiated Spurious Data (NR Band n66 – Low Channel – Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 243 of 262

Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	1 / 108
Mode:	SA
Anchor Band:	-

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]
3490.0	H	269	2	-75.68	1.27	32.59	-62.66	-13.00	-49.66
5235.0	H	227	339	-74.74	4.93	37.19	-58.06	-13.00	-45.06
6980.0	H	-	-	-79.83	6.82	33.99	-61.27	-13.00	-48.27
8725.0	H	-	-	-80.79	10.67	36.88	-58.38	-13.00	-45.38

Table 7-37. Radiated Spurious Data (NR Band n66 – Mid Channel – Open)

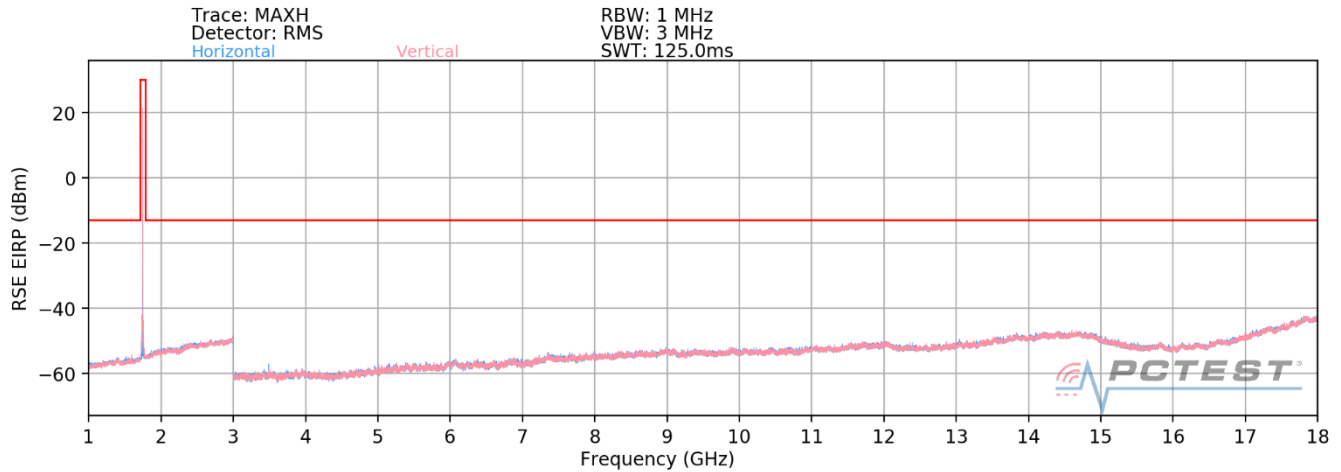
Bandwidth (MHz):	40
Frequency (MHz):	1760.0
RB / Offset:	1 / 108
Mode:	SA
Anchor Band:	-

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]
3520.0	H	382	325	-76.62	1.74	32.12	-63.14	-13.00	-50.14
5280.0	H	302	337	-74.97	4.69	36.72	-58.54	-13.00	-45.54
7040.0	H	-	-	-80.06	6.93	33.87	-61.39	-13.00	-48.39
8800.0	H	-	-	-80.88	10.75	36.87	-58.39	-13.00	-45.39

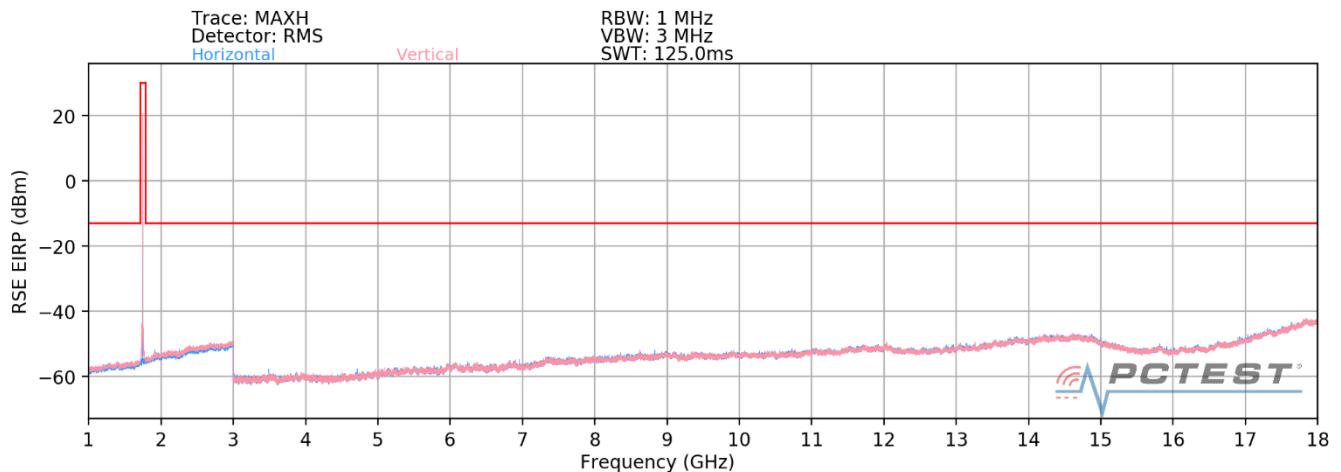
Table 7-38. Radiated Spurious Data (NR Band n66 – High Channel – Open)

FCC ID: A3LSMF711U1	 PART 27 MEASUREMENT REPORT 	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset
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NR Band n66 – Ant I



Plot 7-399. Radiated Spurious Plot (NR Band n66 – Open)



Plot 7-400. Radiated Spurious Plot (NR Band n66 – Closed)

Bandwidth (MHz):	40
Frequency (MHz):	1730.0
RB / Offset:	1 / 108
Mode:	SA
Anchor Band:	-

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]
3460.0	H	111	139	-75.73	1.27	32.54	-62.72	-13.00	-49.72
5190.0	H	-	-	-79.56	5.14	32.58	-62.67	-13.00	-49.67
6920.0	H	-	-	-80.37	7.77	34.40	-60.86	-13.00	-47.86
8650.0	H	-	-	-80.27	11.11	37.84	-57.42	-13.00	-44.42

Table 7-39. Radiated Spurious Data (NR Band n66 – Low Channel – Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 245 of 262

Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	1 / 108
Mode:	SA
Anchor Band:	-

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]
3490.0	H	122	138	-74.66	1.27	33.61	-61.64	-13.00	-48.64
5235.0	H	242	325	-75.19	4.93	36.74	-58.51	-13.00	-45.51
6980.0	H	-	-	-79.88	6.82	33.94	-61.32	-13.00	-48.32
8725.0	H	-	-	-80.89	10.67	36.78	-58.48	-13.00	-45.48

Table 7-40. Radiated Spurious Data (NR Band n66 – Mid Channel – Open)

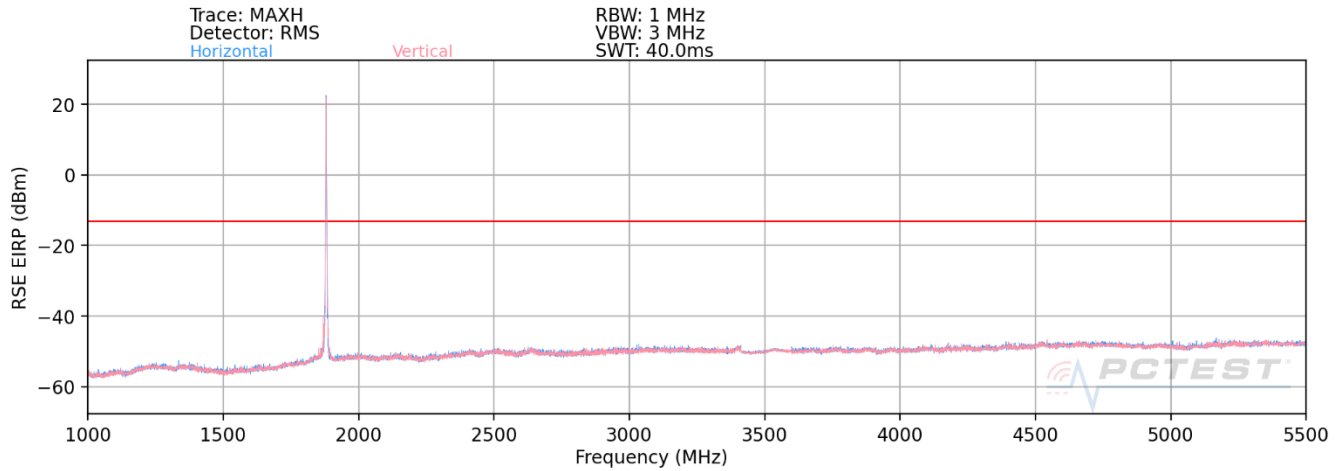
Bandwidth (MHz):	40
Frequency (MHz):	1760.0
RB / Offset:	1 / 108
Mode:	SA
Anchor Band:	-

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]
3520.0	H	372	119	-76.90	1.74	31.84	-63.42	-13.00	-50.42
5280.0	H	-	-	-79.10	4.69	32.59	-62.67	-13.00	-49.67
7040.0	H	-	-	-80.07	6.93	33.86	-61.40	-13.00	-48.40
8800.0	H	-	-	-80.95	10.75	36.80	-58.46	-13.00	-45.46

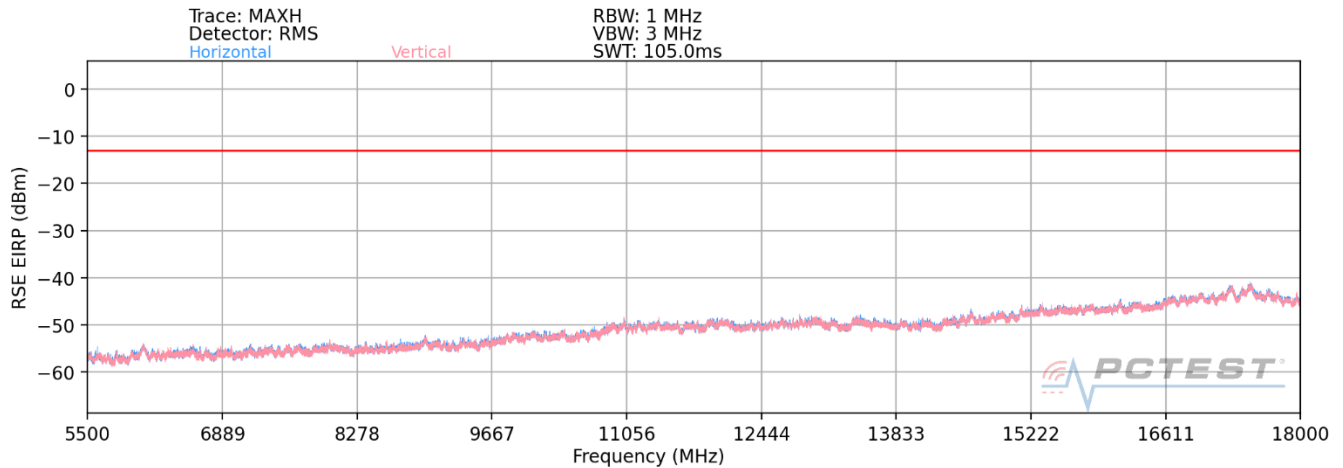
Table 7-41. Radiated Spurious Data (NR Band n66 – High Channel – Open)

FCC ID: A3LSMF711U1	 PART 27 MEASUREMENT REPORT 	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset

EN-DC n71 - B2



Plot 7-401. Radiated Spurious Plot (EN-DC n71 - B2 - Open)



Plot 7-402. Radiated Spurious Plot (EN-DC n71 - B2 - Open)

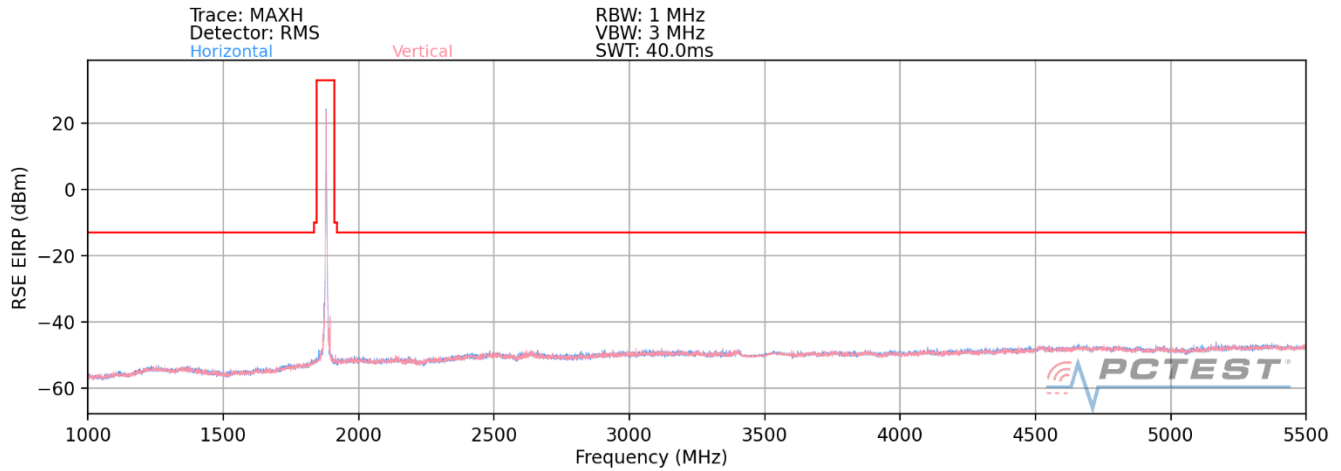
Bandwidth (MHz):	20 & 20
Frequency (MHz):	680.5 & 1880
RB / Offset:	1/53 & 1/50
Mode:	EN-DC
Anchor Band:	LTE Band 2

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]
3079.50	H	-	-	-78.06	11.97	40.91	-54.35	-13.00	-41.35
4279.00	H	-	-	-78.66	13.03	41.37	-53.88	-13.00	-40.88
5478.50	H	-	-	-79.21	15.28	43.07	-52.19	-13.00	-39.19

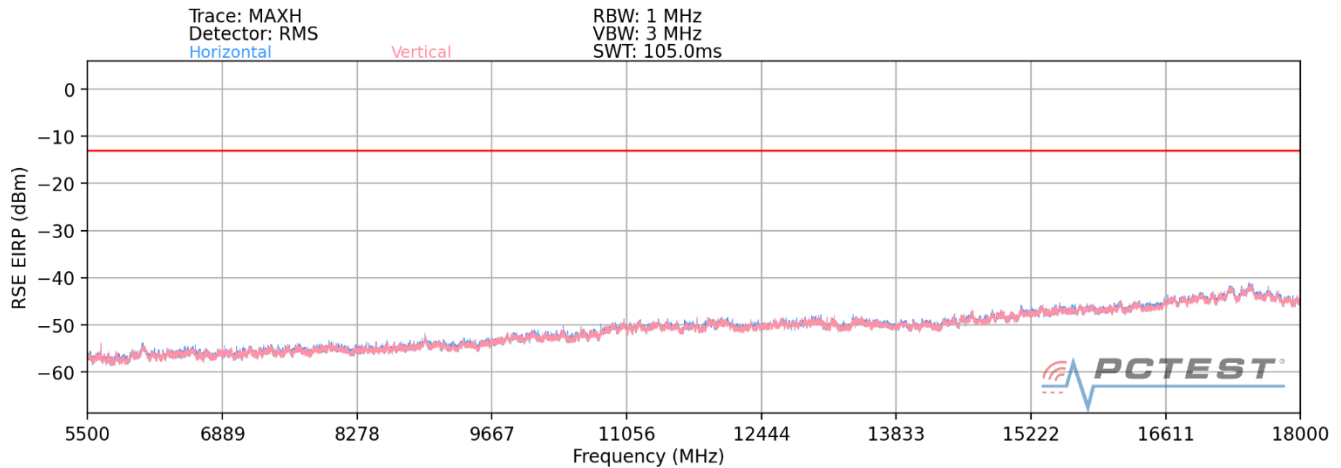
Table 7-42. Radiated Spurious Data (EN-DC n71 - B2 - Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 247 of 262

EN-DC n12 - B2



Plot 7-403. Radiated Spurious Plot (EN-DC n12 -B2 - Open)



Plot 7-404. Radiated Spurious Plot (EN-DC n12 -B2 - Open)

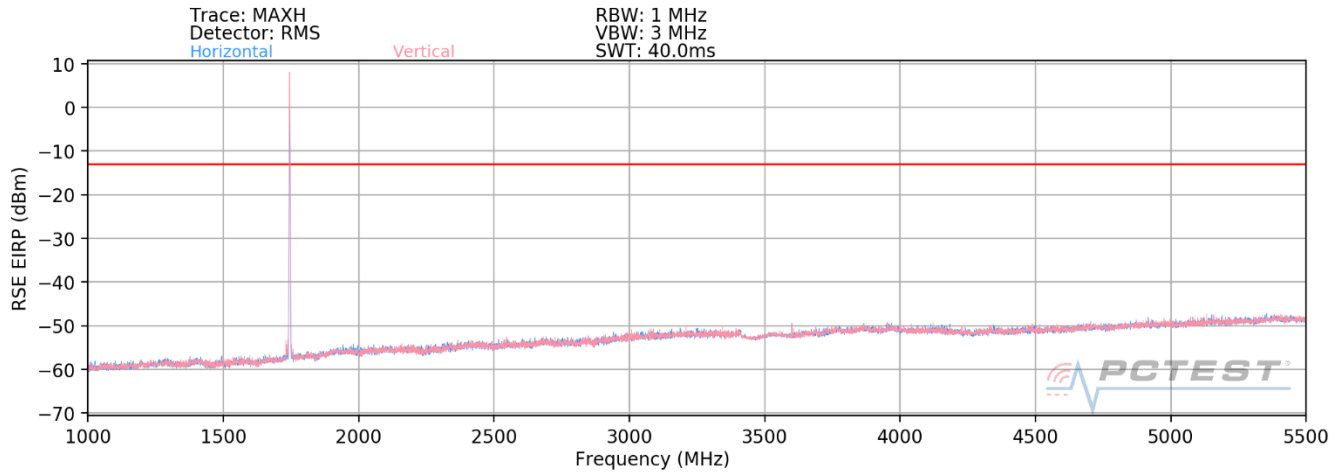
Bandwidth (MHz):	15 & 20
Frequency (MHz):	707.5 & 1880
RB / Offset:	1/39 & 1/50
Mode:	EN-DC
Anchor Band:	LTE Band 2

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]
3052.50	H	-	-	-77.54	12.02	41.48	-53.78		-53.78
4225.00	H	-	-	-78.43	12.93	41.50	-53.76		-53.76
5397.50	H	-	-	-79.44	15.38	42.94	-52.32		-52.32

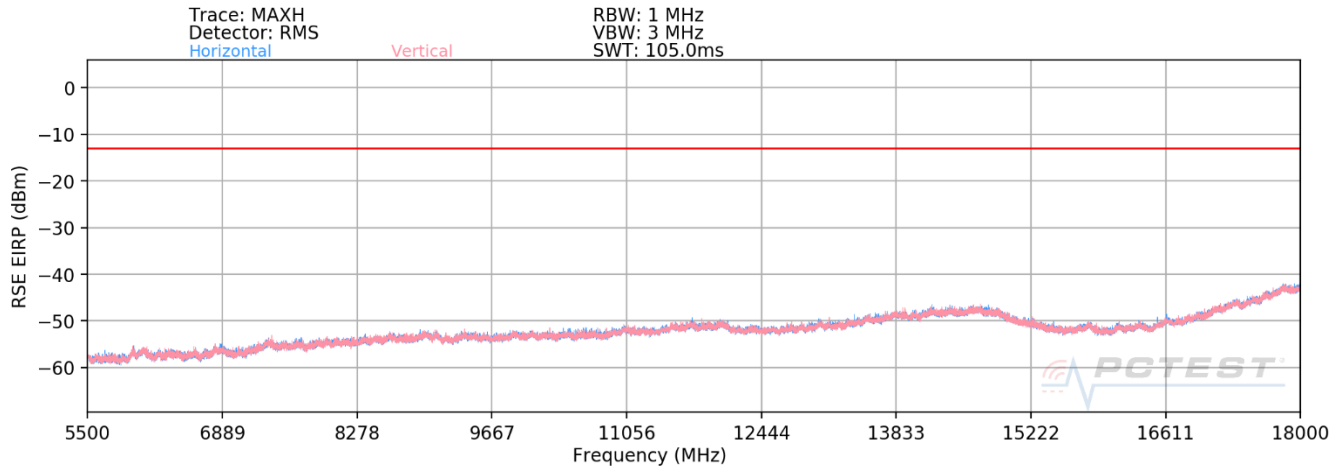
Table 7-43. Radiated Spurious Data (EN-DC n12 -B2 - Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 248 of 262

EN-DC n66 (Ant I) – B14



Plot 7-405. Radiated Spurious Plot (EN-DC n66 –B14 – Open)



Plot 7-406. Radiated Spurious Plot (EN-DC n66 –B14 – Open)

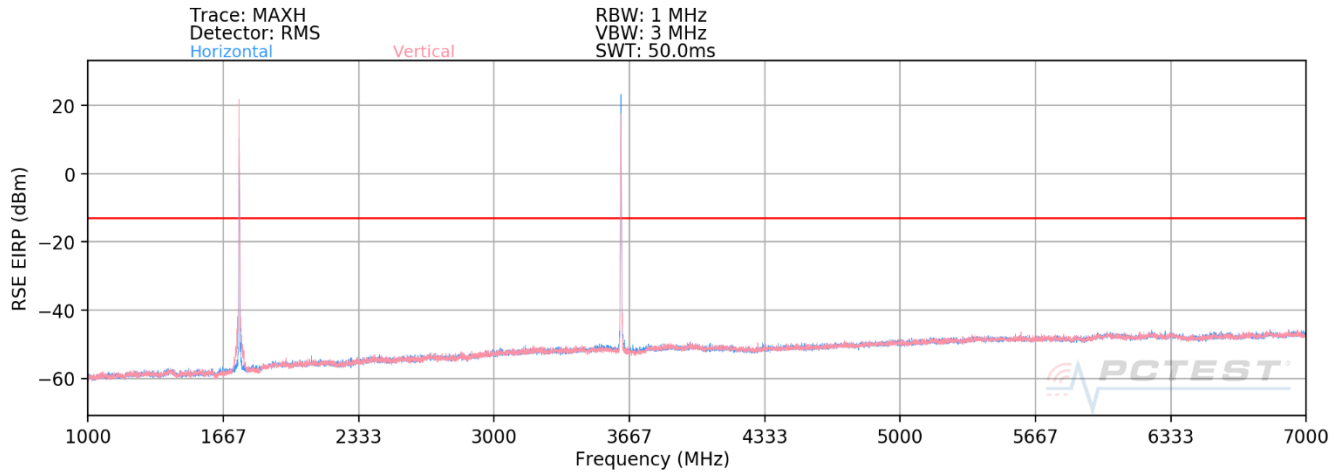
Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	2/107
Mode:	EN-DC
Anchor Band:	LTE Band 14

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]
1111.0	H	-	-	-75.89	-6.51	24.60	-70.65	-13.00	-57.65
2379.0	H	144	49	-63.36	-1.92	41.72	-53.54	-13.00	-40.54
2697.0	H	-	-	-77.16	-1.19	28.65	-66.60	-13.00	-53.60
3649.0	H	-	-	-78.05	2.00	30.95	-64.31	-13.00	-51.31

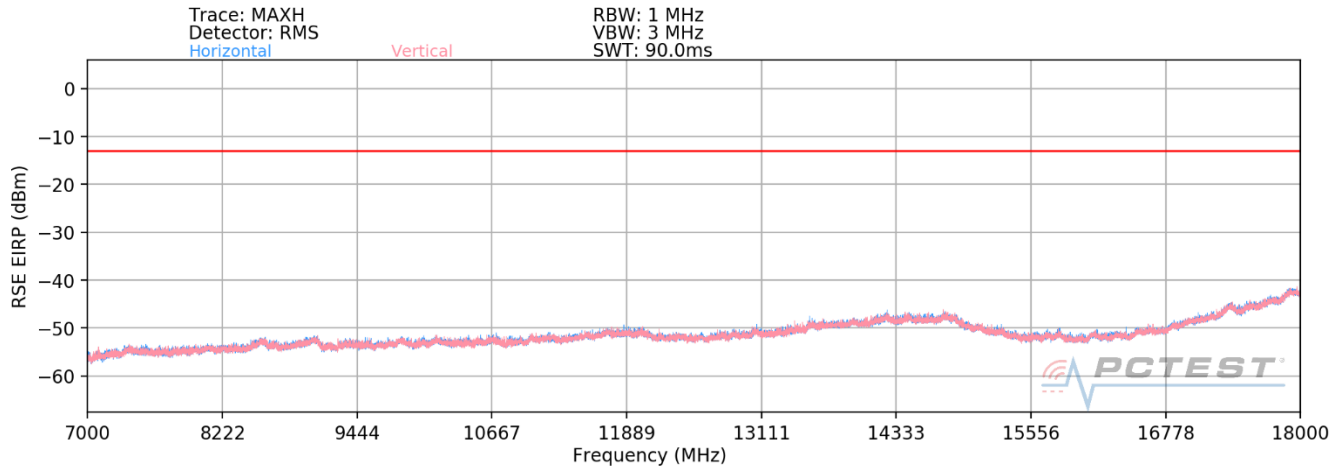
Table 7-44. Radiated Spurious Data (EN-DC n66 –B14 – Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 249 of 262

EN-DC n66 (Ant I) – B48



Plot 7-407. Radiated Spurious Plot (EN-DC n66 – B48 – Open)



Plot 7-408. Radiated Spurious Plot (EN-DC n66 – B48 – Open)

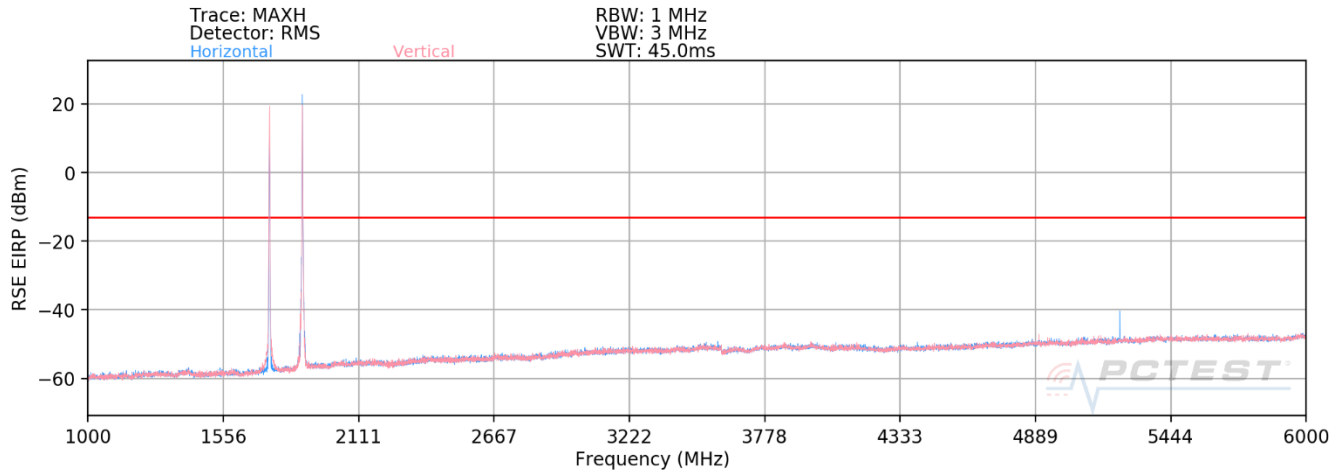
Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	2 / 107
Mode:	EN-DC
Anchor Band:	LTE Band 48

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]
2015.0	V	-	-	-76.66	-3.61	26.73	-68.52	-13.00	-55.52
5505.0	V	-	-	-79.36	6.24	33.88	-61.38	-13.00	-48.38
7385.0	V	-	-	-79.76	9.85	37.09	-58.17	-13.00	-45.17

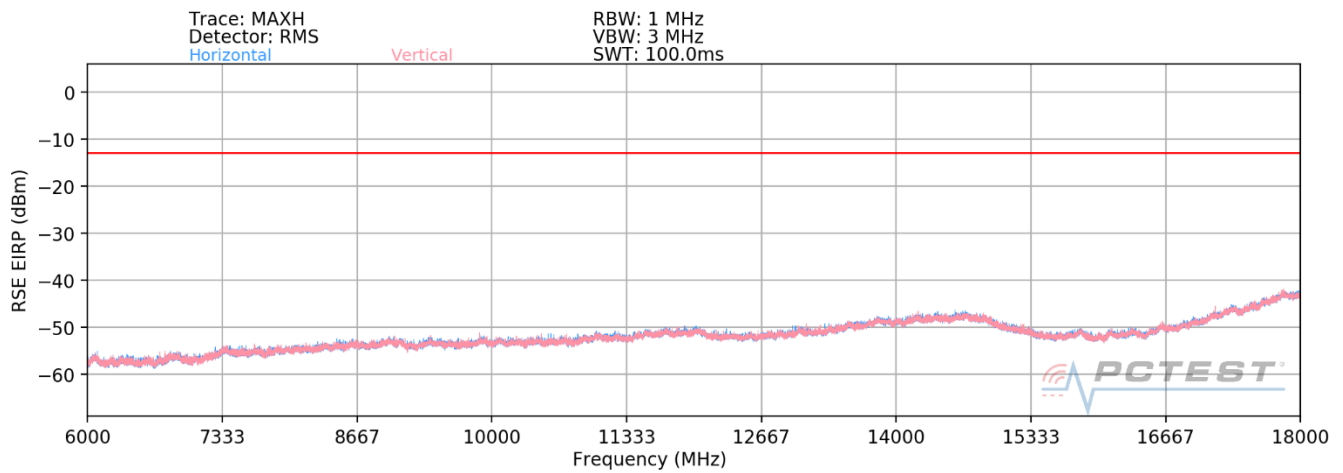
Table 7-45. Radiated Spurious Data (EN-DC n66 – B48 – Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 250 of 262

EN-DC n66 (Ant I) – B2



Plot 7-409. Radiated Spurious Plot (EN-DC n66 – B2 – Open)



Plot 7-410. Radiated Spurious Plot (EN-DC n66 – B2– Open)

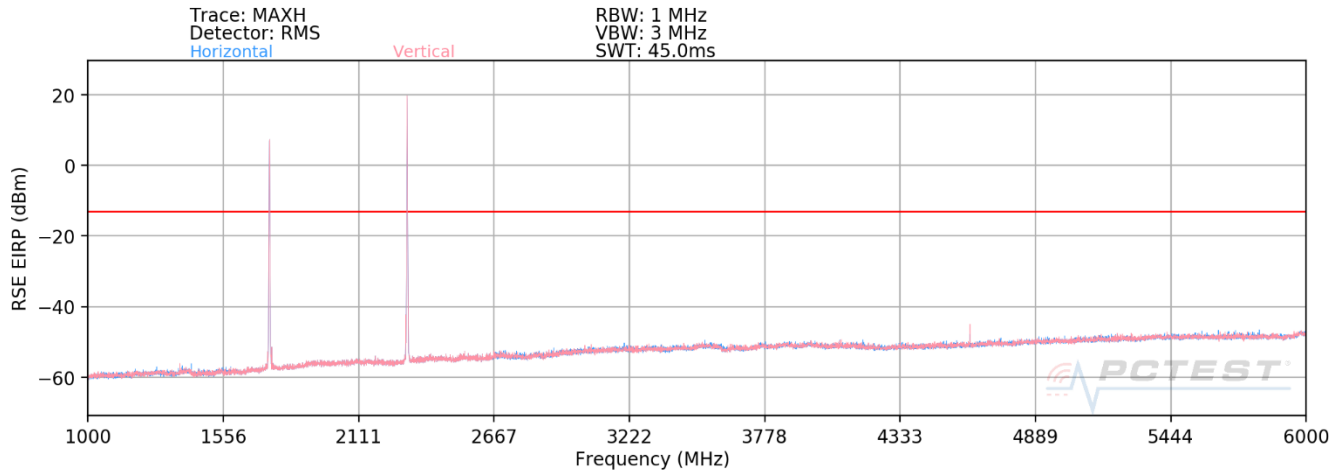
Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	2/107
Mode:	EN-DC
Anchor Band:	LTE Band 2

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]
1475.0	H	-	-	-76.38	-5.79	24.83	-70.43	-13.00	-57.43
1610.0	H	-	-	-76.13	-5.70	25.17	-70.09	-13.00	-57.09
2015.0	H	-	-	-76.56	-3.61	26.83	-68.42	-13.00	-55.42
2150.0	H	-	-	-76.55	-2.94	27.51	-67.75	-13.00	-54.75
5235.0	H	315	348	-69.34	5.00	42.66	-52.60	-13.00	-39.60

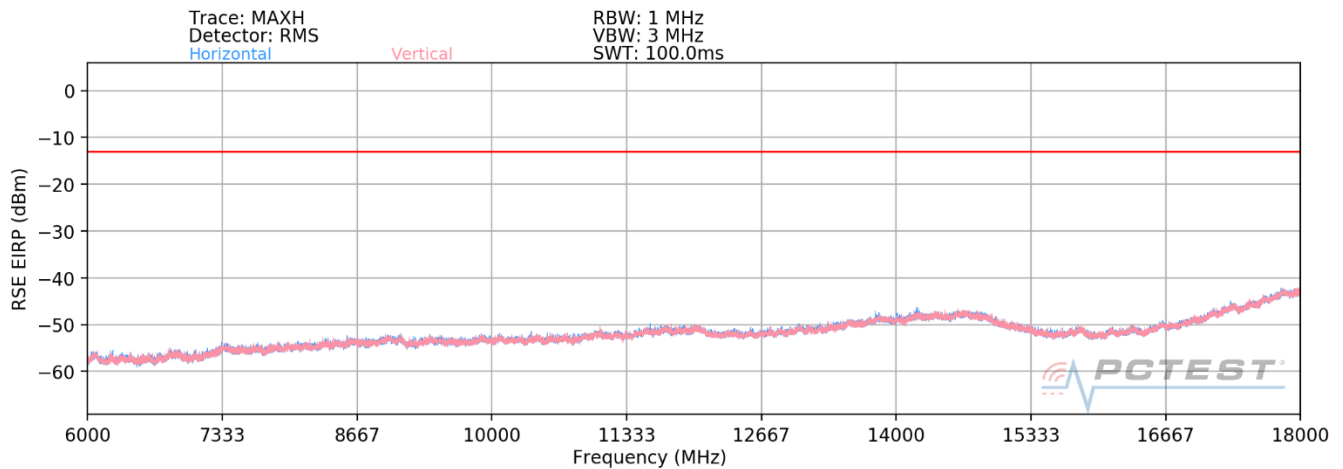
Table 7-46. Radiated Spurious Data (EN-DC n66 – B2 – Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 251 of 262

EN-DC n66 (Ant I) – B30



Plot 7-411. Radiated Spurious Plot (EN-DC n66 – B30 – Open)



Plot 7-412. Radiated Spurious Plot (EN-DC n66 – B30 – Open)

Bandwidth (MHz):	40
Frequency (MHz):	1745.0
RB / Offset:	2 / 107
Mode:	EN-DC
Anchor Band:	LTE 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]
1180.0	V	-	-	-76.22	-6.62	24.16	-71.09	-13.00	-58.09
2875.0	V	-	-	-76.71	-1.15	29.14	-66.11	-13.00	-53.11
3490.0	V	23	187	-76.31	0.59	31.28	-63.98	-13.00	-50.98
4005.0	V	-	-	-78.18	2.66	31.48	-63.78	-13.00	-50.78
4570.0	V	-	-	-78.29	2.38	31.09	-64.17	-13.00	-51.17
4620.0	V	176	20	-65.21	2.89	44.68	-50.57	-13.00	-37.57

Table 7-47. Radiated Spurious Data (EN-DC n66 – B30 – Open)

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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7.10 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 27, 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

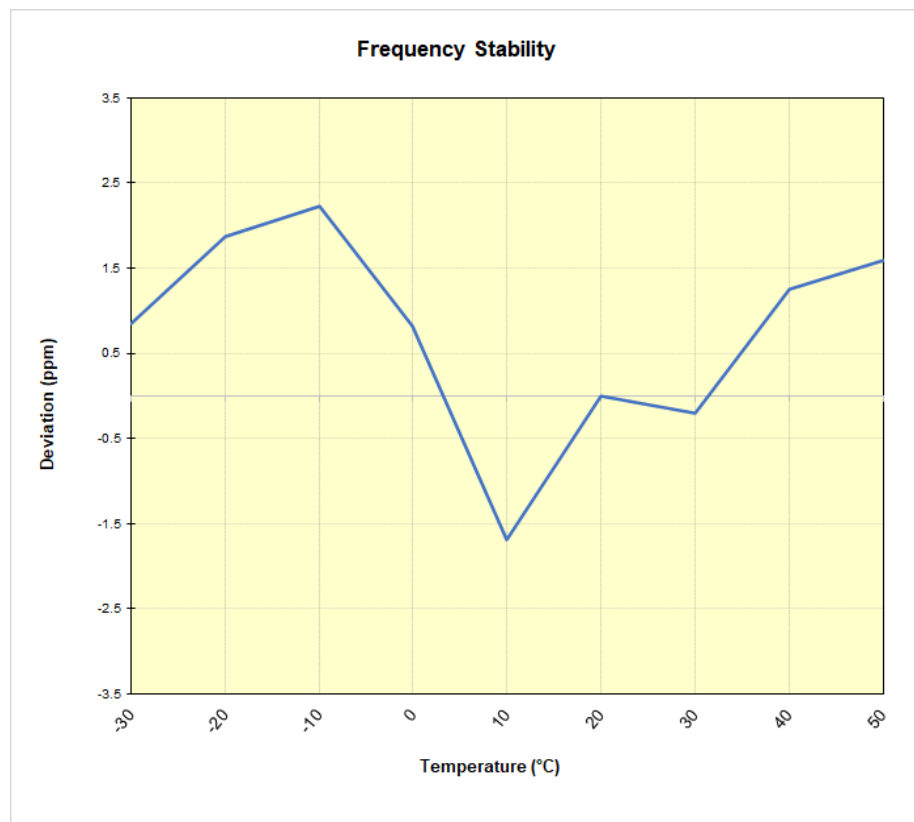
FCC ID: A3LSMF711U1	 PART 27 MEASUREMENT REPORT 	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset
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LTE Band 71

Operating Frequency (Hz):	680,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	680,506,504	579	0.0000851
		- 20	680,507,202	1,277	0.0001876
		- 10	680,507,440	1,515	0.0002227
		0	680,506,485	560	0.0000823
		+ 10	680,504,774	-1,151	-0.0001691
		+ 20 (Ref)	680,505,925	0	0.0000000
		+ 30	680,505,790	-135	-0.0000199
		+ 40	680,506,778	853	0.0001253
		+ 50	680,507,011	1,086	0.0001596
Battery Endpoint	3.36	+ 20	680,506,434	509	0.0000748

Table 7-48. LTE Band 71 Frequency Stability Data



Plot 7-413. LTE Band 71 Frequency Stability Chart

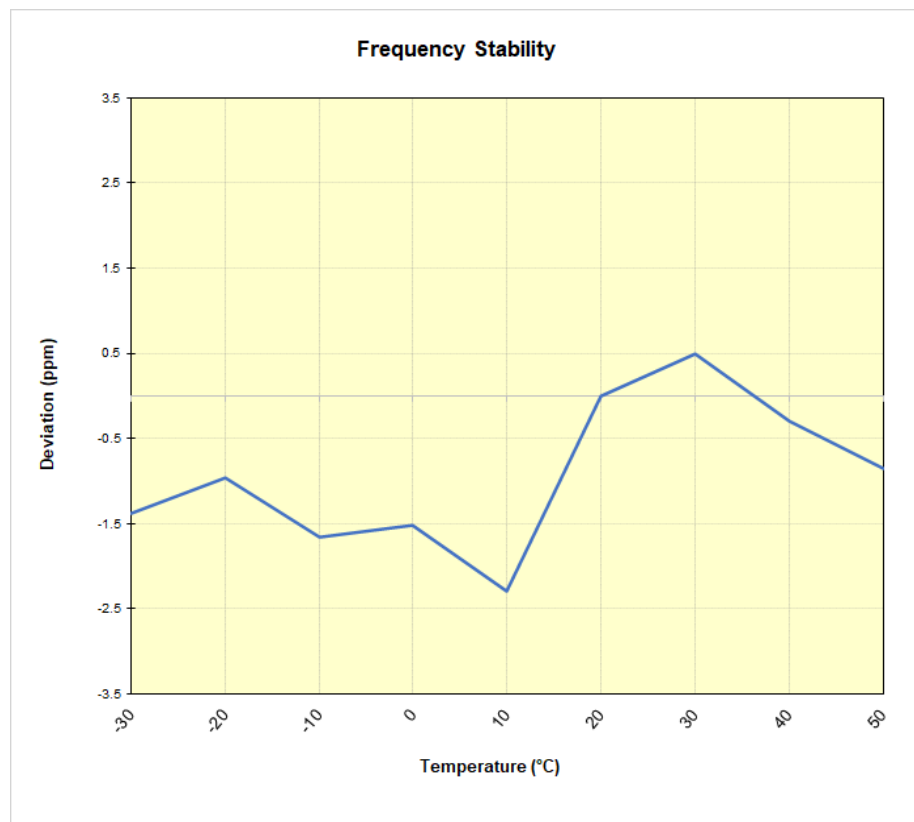
FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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LTE Band 12

Operating Frequency (Hz):	707,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	707,512,792	-972	-0.0001373
		- 20	707,513,081	-682	-0.0000965
		- 10	707,512,593	-1,171	-0.0001655
		0	707,512,687	-1,076	-0.0001521
		+ 10	707,512,148	-1,616	-0.0002284
		+ 20 (Ref)	707,513,763	0	0.0000000
		+ 30	707,514,112	349	0.0000493
		+ 40	707,513,552	-212	-0.0000299
		+ 50	707,513,157	-606	-0.0000857
Battery Endpoint	3.36	+ 20	707,513,098	-665	-0.0000940

Table 7-49. LTE Band 12 Frequency Stability Data



Plot 7-414. LTE Band 12 Frequency Stability Chart

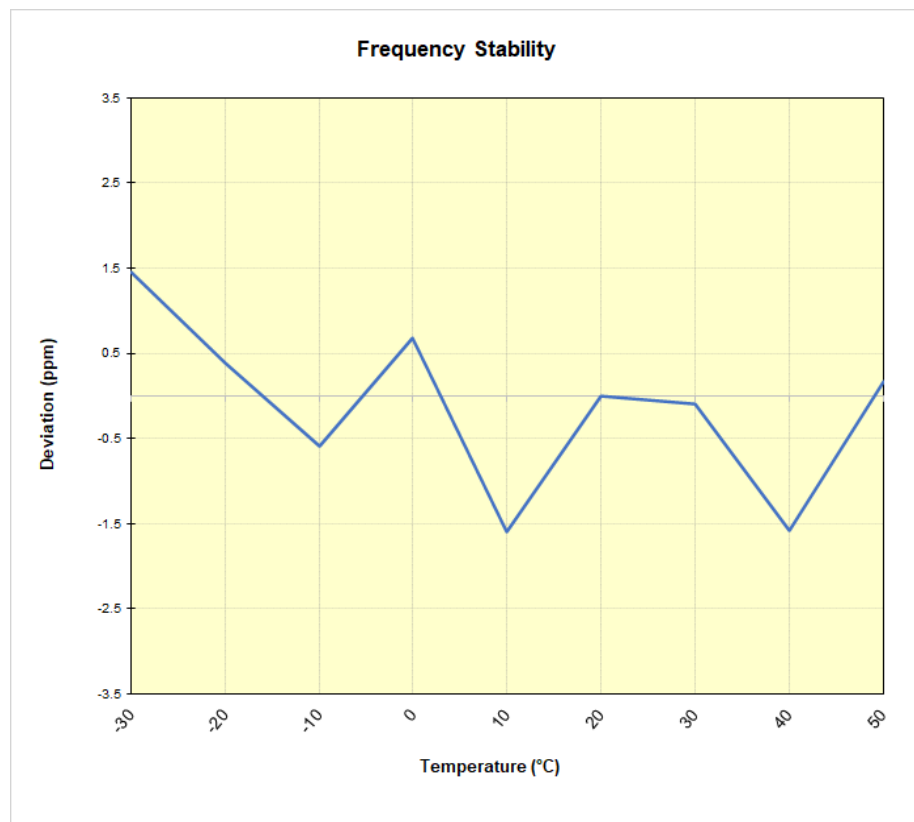
FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 255 of 262

LTE Band 13

Operating Frequency (Hz):	782,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	782,009,283	1,140	0.0001458
		- 20	782,008,445	302	0.0000386
		- 10	782,007,689	-455	-0.0000581
		0	782,008,678	535	0.0000684
		+ 10	782,006,897	-1,246	-0.0001593
		+ 20 (Ref)	782,008,143	0	0.0000000
		+ 30	782,008,073	-70	-0.0000089
		+ 40	782,006,914	-1,229	-0.0001572
		+ 50	782,008,275	132	0.0000168
Battery Endpoint	3.36	+ 20	782,008,044	-99	-0.0000127

Table 7-50. LTE Band 13 Frequency Stability Data



Plot 7-415. LTE Band 13 Frequency Stability Chart

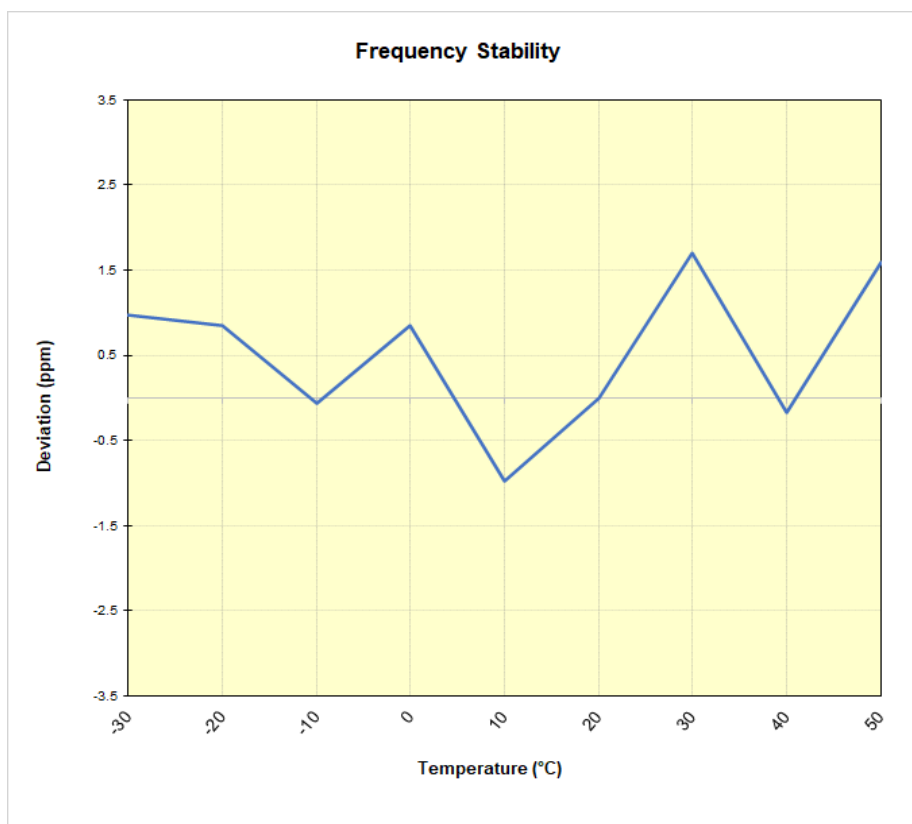
FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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NR Band n71

Operating Frequency (Hz):	680,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	680,566,920	659	0.0000968
		- 20	680,566,839	578	0.0000850
		- 10	680,566,220	-41	-0.0000061
		0	680,566,838	577	0.0000848
		+ 10	680,565,595	-666	-0.0000979
		+ 20 (Ref)	680,566,261	0	0.0000000
		+ 30	680,567,423	1,162	0.0001707
		+ 40	680,566,142	-119	-0.0000175
		+ 50	680,567,343	1,082	0.0001590
Battery Endpoint	3.36	+ 20	680,565,420	-841	-0.0001236

Table 7-51. NR Band n71 Frequency Stability Data



Plot 7-416. NR Band n71 Frequency Stability Chart

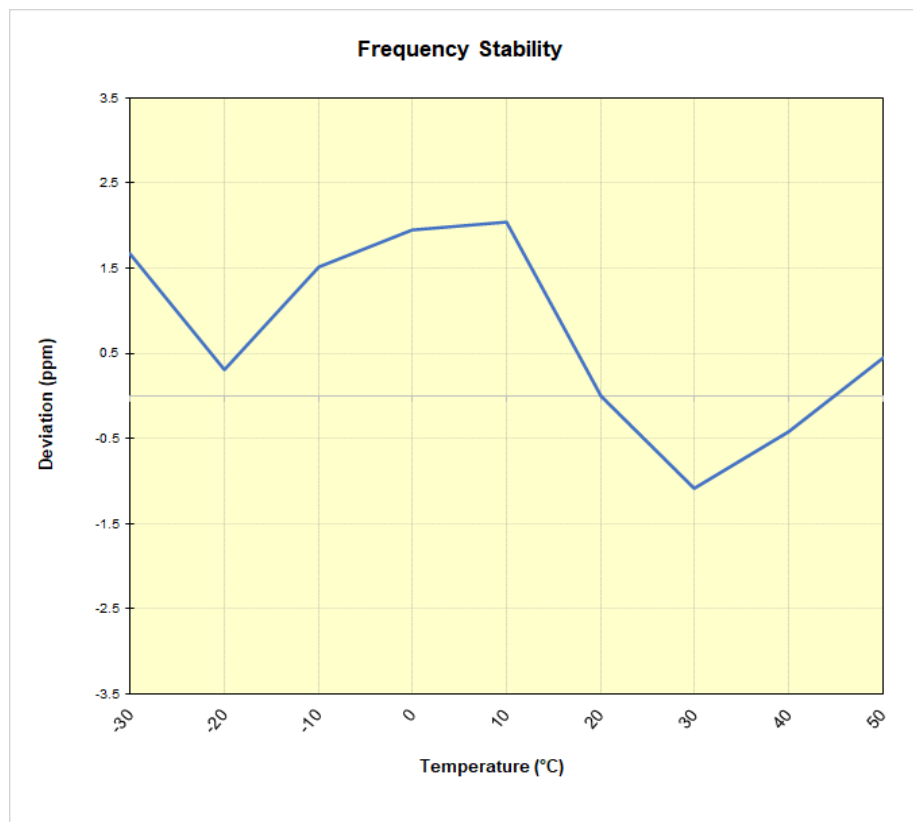
FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset		Page 257 of 262

NR Band n12

Operating Frequency (Hz):	707,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	707,491,908	1,182	0.0001671
		- 20	707,490,939	214	0.0000302
		- 10	707,491,804	1,079	0.0001525
		0	707,492,107	1,381	0.0001952
		+ 10	707,492,169	1,443	0.0002040
		+ 20 (Ref)	707,490,726	0	0.0000000
		+ 30	707,489,956	-769	-0.0001088
		+ 40	707,490,434	-292	-0.0000412
		+ 50	707,491,045	319	0.0000451
Battery Endpoint	3.36	+ 20	707,491,647	921	0.0001302

Table 7-52. NR Band n12 Frequency Stability Data



Plot 7-417. NR Band n12 Frequency Stability Chart

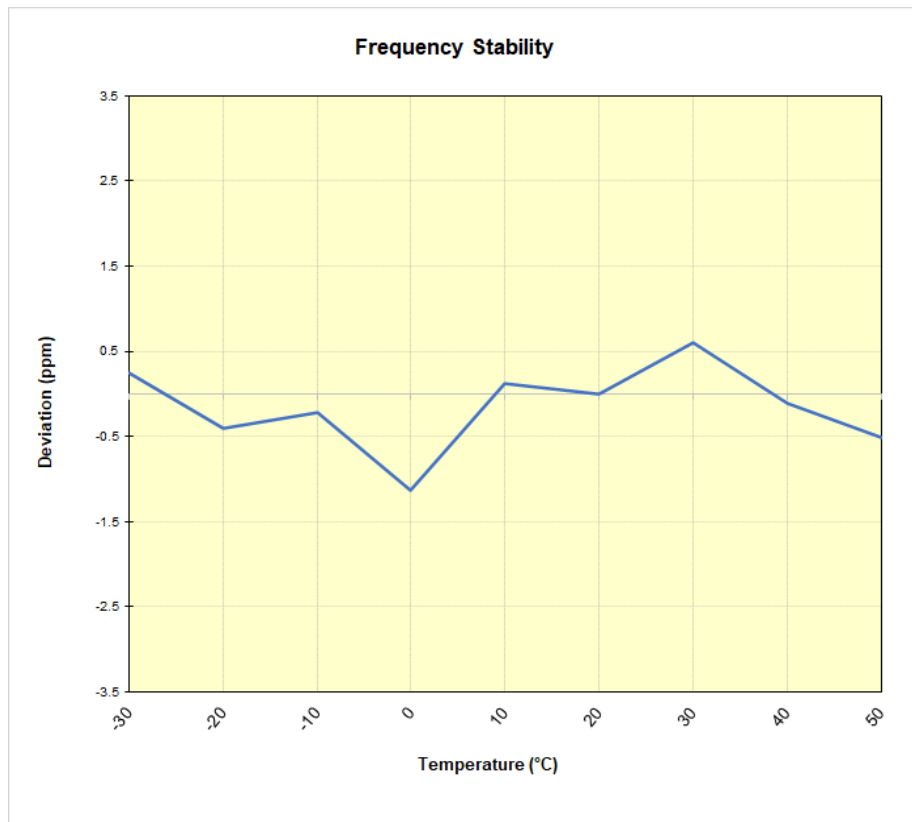
FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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WCDMA AWS

Operating Frequency (Hz):	1,732,600,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,732,592,334	418	0.0000241
		- 20	1,732,591,212	-704	-0.0000406
		- 10	1,732,591,528	-388	-0.0000224
		0	1,732,589,964	-1,952	-0.0001127
		+ 10	1,732,592,143	227	0.0000131
		+ 20 (Ref)	1,732,591,916	0	0.0000000
		+ 30	1,732,592,951	1,035	0.0000597
		+ 40	1,732,591,720	-196	-0.0000113
		+ 50	1,732,591,034	-882	-0.0000509
Battery Endpoint	3.36	+ 20	1,732,591,645	-272	-0.0000157

Table 7-53. WCDMA AWS Frequency Stability Data



Plot 7-418. WCDMA AWS Frequency Stability Chart

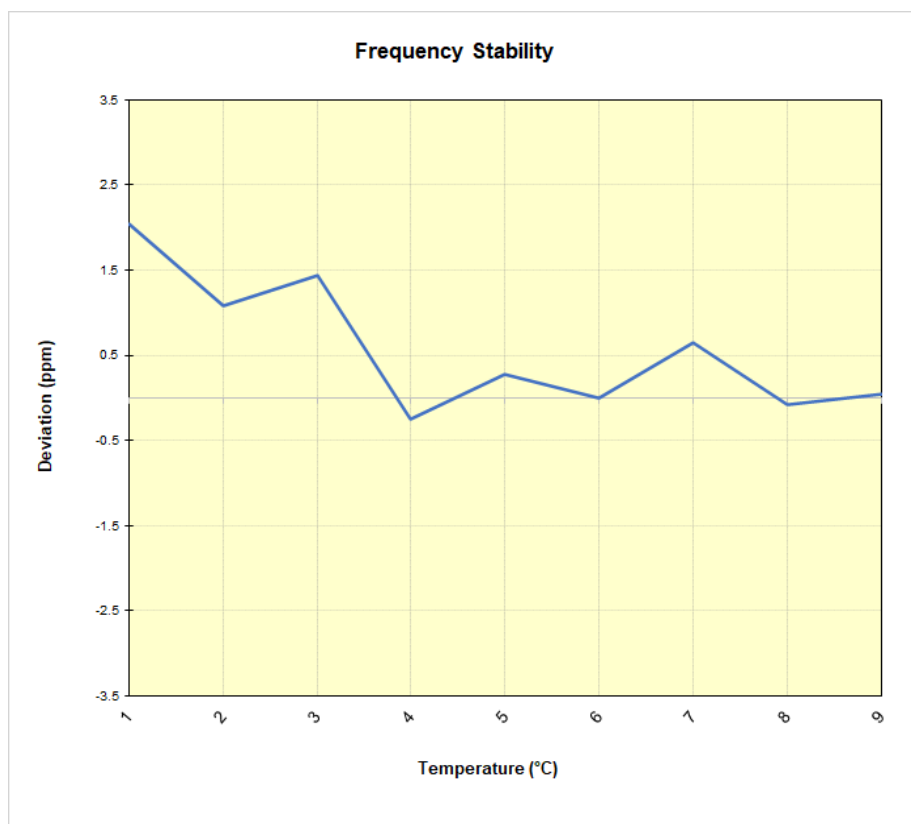
FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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LTE Band 66/4

Operating Frequency (Hz):	1,745,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,745,014,971	3,567	0.0002044
		- 20	1,745,013,286	1,882	0.0001078
		- 10	1,745,013,910	2,506	0.0001436
		0	1,745,010,958	-446	-0.0000255
		+ 10	1,745,011,893	489	0.0000280
		+ 20 (Ref)	1,745,011,404	0	0.0000000
		+ 30	1,745,012,526	1,122	0.0000643
		+ 40	1,745,011,274	-130	-0.0000075
		+ 50	1,745,011,477	73	0.0000042
Battery Endpoint	3.36	+ 20	1,745,012,411	1,007	0.0000577

Table 7-54. LTE Band 66/4 Frequency Stability Data



Plot 7-419. LTE Band 66/4 Frequency Stability Chart

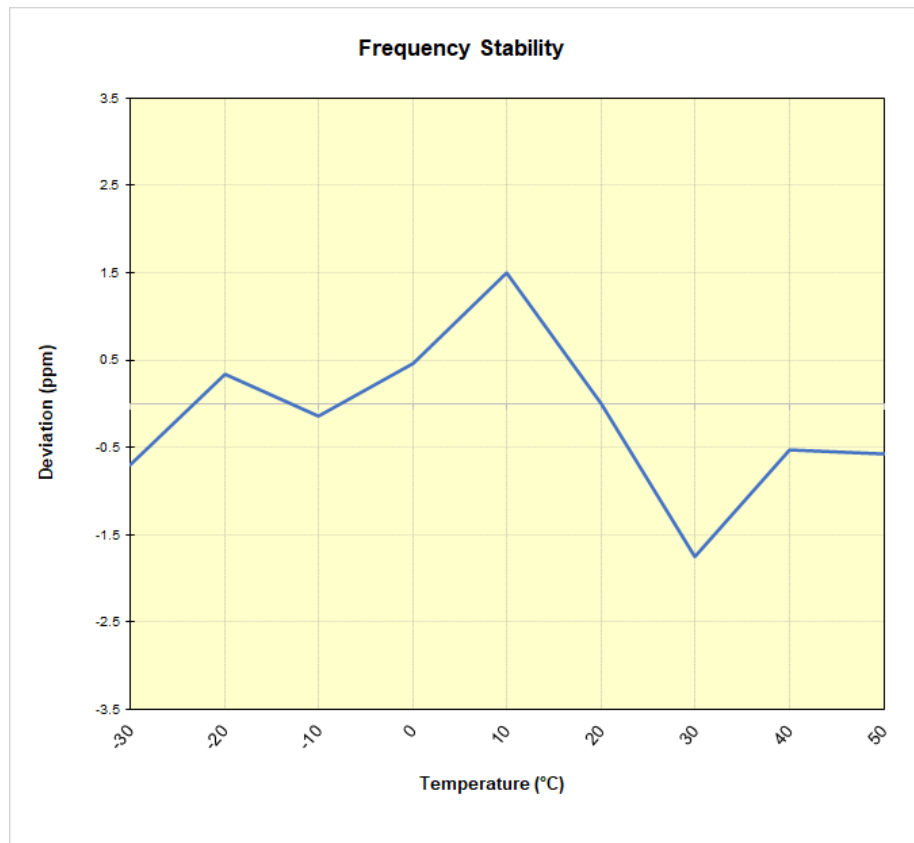
FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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NR Band n66

Operating Frequency (Hz):	1,745,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,745,071,892	-1,207	-0.0000692
		- 20	1,745,073,691	592	0.0000339
		- 10	1,745,072,847	-251	-0.0000144
		0	1,745,073,920	821	0.0000470
		+ 10	1,745,075,713	2,614	0.0001498
		+ 20 (Ref)	1,745,073,099	0	0.0000000
		+ 30	1,745,070,042	-3,057	-0.0001752
		+ 40	1,745,072,177	-922	-0.0000528
		+ 50	1,745,072,096	-1,003	-0.0000574
Battery Endpoint	3.36	+ 20	1,745,073,419	320	0.0000184

Table 7-55. NR Band n66 Frequency Stability Data



Plot 7-420. NR Band n66 Frequency Stability Chart

FCC ID: A3LSMF711U1	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	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: A3LSMF711U1** complies with all the requirements of Part 27 of the FCC rules.

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Test Report S/N: 1M2107290086-05.A3L	Test Dates: 04/12/2021 – 09/06/2021	EUT Type: Portable Handset
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