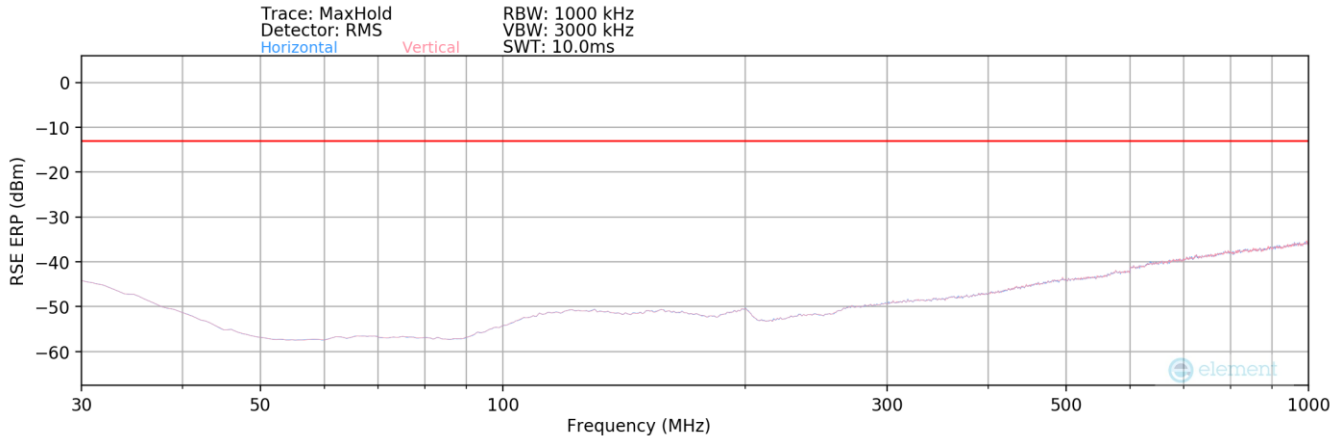
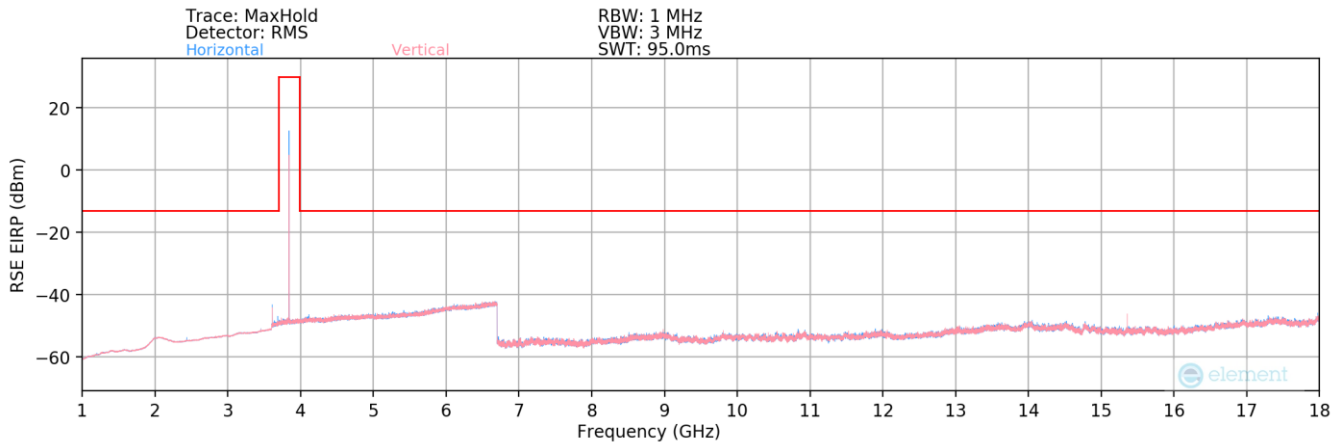


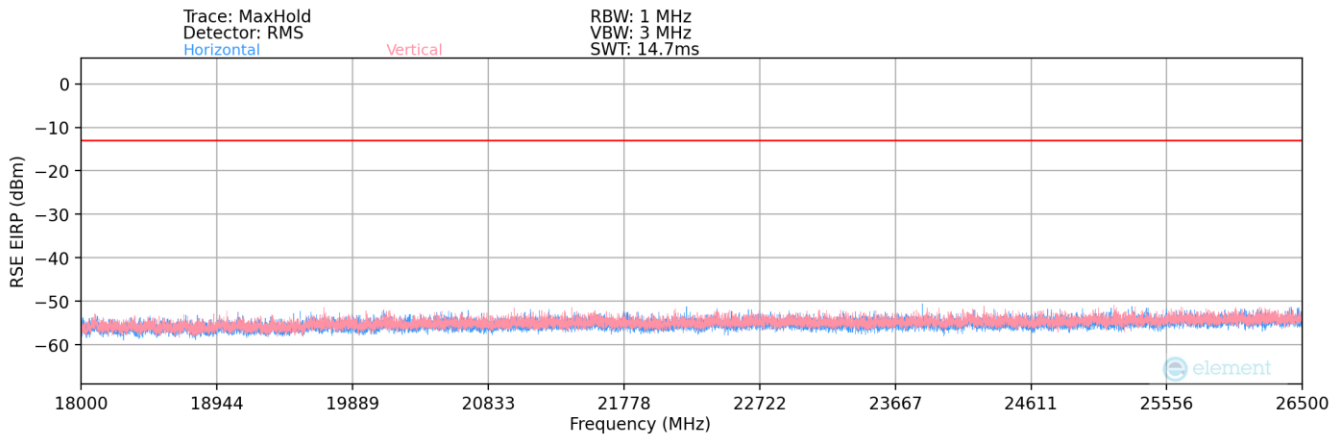
NR Band n77 – Ant D



Plot 7-125. Radiated Spurious Plot (NR Band n77 – Ant D)

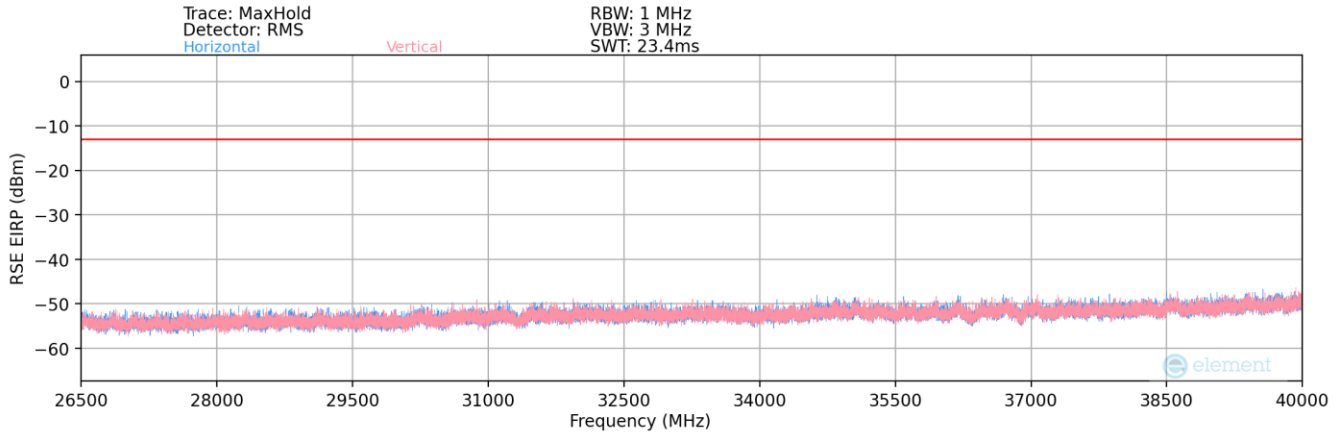


Plot 7-126. Radiated Spurious Plot (NR Band n77 – Ant D)



Plot 7-127. Radiated Spurious Plot (NR Band n77 – Ant D)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2304260063-08.A3L	Test Dates: 5/30 - 8/4/2023	EUT Type: Portable Handset	Page 115 of 129



Plot 7-128. Radiated Spurious Plot (NR Band n77 – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/136
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]
615.00	H	-	-	-83.76	27.13	50.37	-44.89	-13.00	-31.89

Table 7-33. Radiated Spurious Data (NR Band n77 – Below 1GHz – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3750.00
RB / Offset:	1/136
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]
7500.00	H	-	-	-78.29	9.72	38.43	-56.83	-13.00	-43.83
11250.00	H	-	-	-78.67	12.07	40.40	-54.86	-13.00	-41.86
15000.00	H	251.00	17.00	-68.69	14.86	53.17	-42.08	-13.00	-29.08
18750.00	H	-	-	-58.85	1.87	50.02	-54.78	-13.00	-41.78
22500.00	H	-	-	-60.02	3.97	50.96	-53.84	-13.00	-40.84
26250.00	H	-	-	-59.17	4.35	52.17	-52.63	-13.00	-39.63

Table 7-34. Radiated Spurious Data (NR Band n77 – Low Channel – Ant D)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/136
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7680.00	H	-	-	-77.41	8.49	38.08	-57.18	-13.00	-44.18
11520.00	H	-	-	-79.66	12.59	39.93	-55.33	-13.00	-42.33
15360.00	H	240.00	20.00	-62.61	14.87	59.26	-36.00	-13.00	-23.00
19200.00	H	-	-	-59.16	2.25	50.10	-54.70	-13.00	-41.70
23040.00	H	-	-	-59.74	3.99	51.25	-53.55	-13.00	-40.55
26880.00	H	-	-	-59.87	4.75	51.88	-52.92	-13.00	-39.92

Table 7-35. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant D)

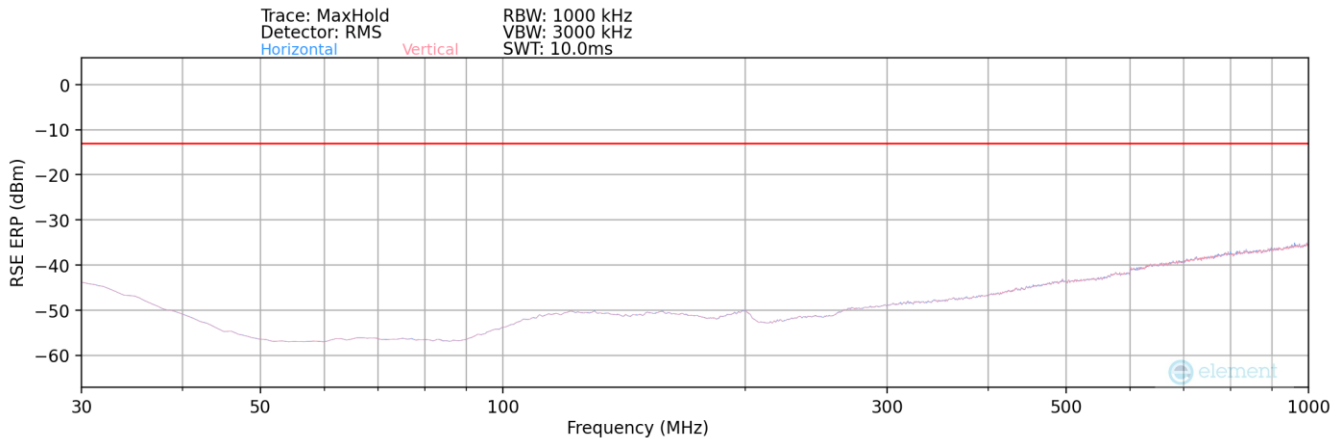
Bandwidth (MHz):	100
Frequency (MHz):	3930.00
RB / Offset:	1/136
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7860.00	H	-	-	-77.71	8.96	38.25	-57.01	-13.00	-44.01
11790.00	H	-	-	-80.08	13.13	40.05	-55.21	-13.00	-42.21
15720.00	H	269.00	33.00	-60.57	15.19	61.62	-33.64	-13.00	-20.64
19650.00	H	-	-	-59.22	2.78	50.56	-54.24	-13.00	-41.24
23580.00	H	-	-	-59.20	4.00	51.81	-52.99	-13.00	-39.99
27510.00	H	-	-	-59.12	4.62	52.50	-52.30	-13.00	-39.30

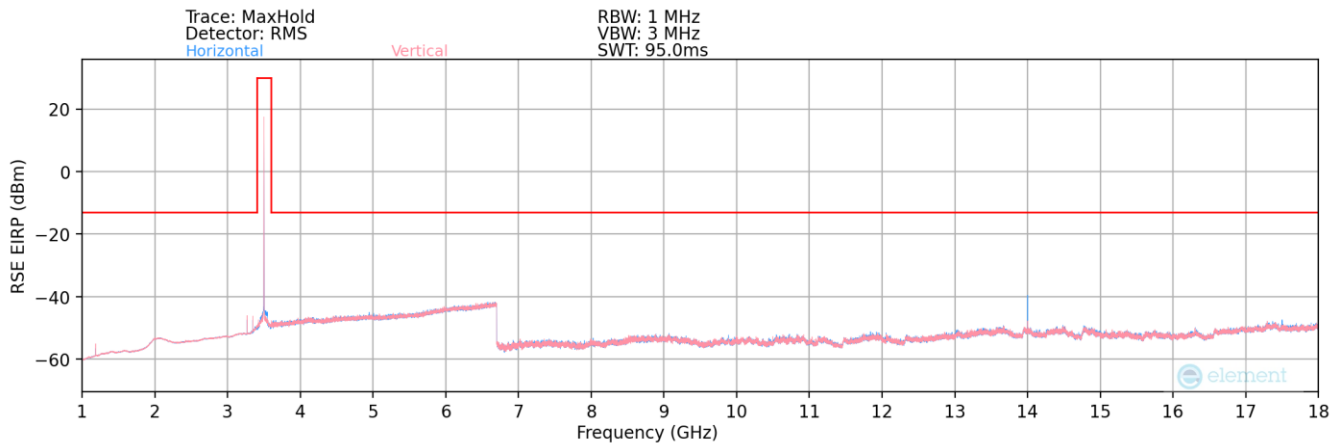
Table 7-36. Radiated Spurious Data (NR Band n77 – High Channel – Ant D)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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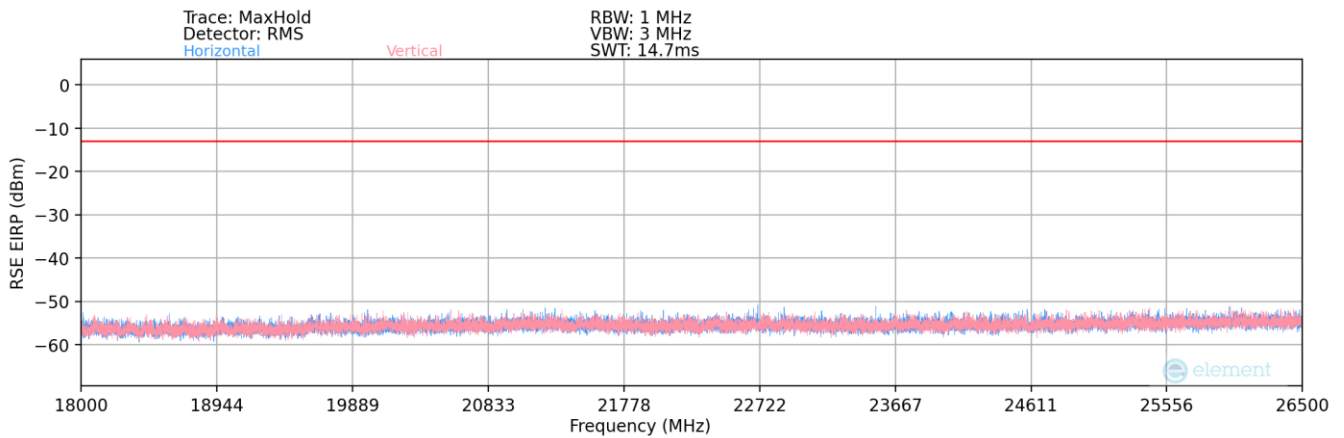
NR Band n77 (DoD Band) – Ant F



Plot 7-129. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)

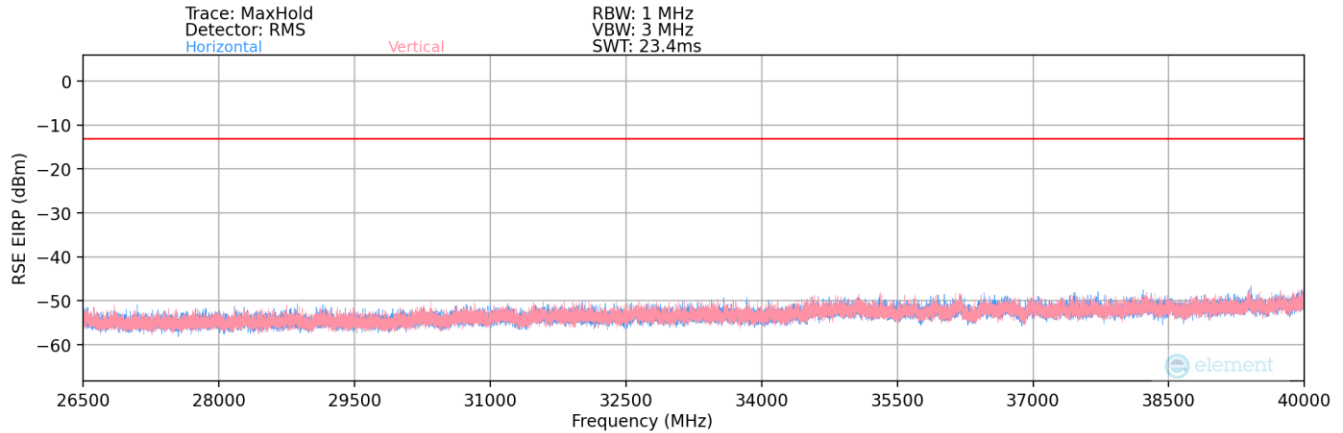


Plot 7-130. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)



Plot 7-131. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-132. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136
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]
618.75	H	-	-	-96.93	27.24	37.31	-57.94	-13.00	-44.94

Table 7-37. Radiated Spurious Data (NR Band n77 (DoD) – Below 1GHz – Ant F)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136
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]
7000.02	H	122	172	-74.88	8.71	40.83	-54.43	-13.00	-41.43
10500.03	H	201	263	-74.70	11.97	44.27	-50.99	-13.00	-37.99
14000.04	H	112	28	-64.44	15.96	58.52	-36.74	-13.00	-23.74
17500.05	H	140	15	-69.09	17.31	55.22	-40.04	-13.00	-27.04
21000.06	H	-	-	-66.11	3.66	44.55	-60.25	-13.00	-47.25
24500.07	H	-	-	-66.23	4.10	44.87	-59.93	-13.00	-46.93
28000.08	H	-	-	-66.73	4.90	45.18	-59.62	-13.00	-46.62
31500.09	H	-	-	-67.05	7.41	47.36	-57.44	-13.00	-44.44

Table 7-38. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant F)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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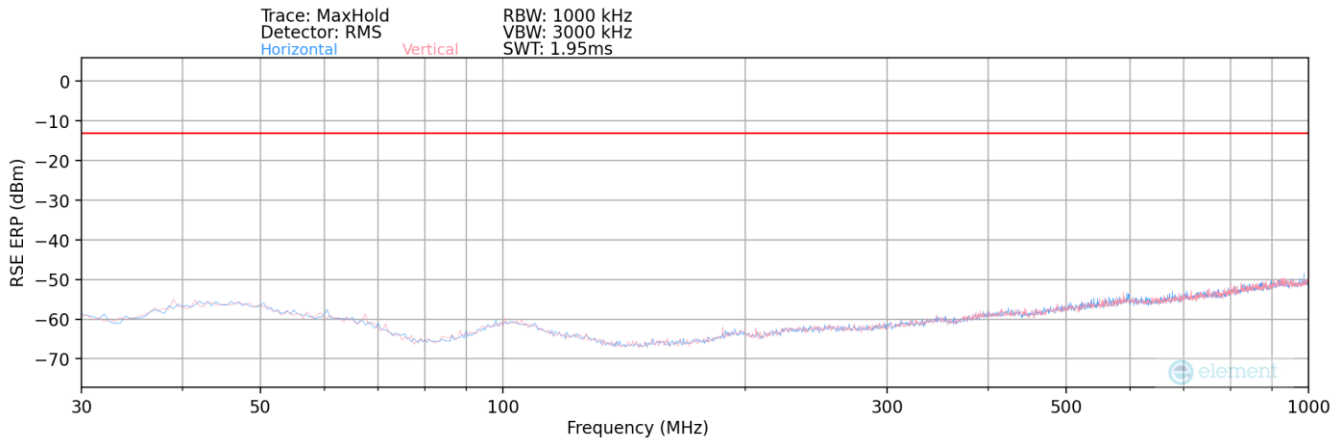
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7000.02	H	211	18	-74.91	8.71	40.80	-54.46	-13.00	-41.46
10500.03	H	109	272	-74.46	11.97	44.51	-50.75	-13.00	-37.75
14000.04	H	118	50	-66.85	15.96	56.11	-39.15	-13.00	-26.15
17500.05	H	209	350	-72.79	17.31	51.52	-43.74	-13.00	-30.74
21000.06	H	-	-	-66.54	3.66	44.12	-60.68	-13.00	-47.68
24500.07	H	-	-	-66.81	4.10	44.29	-60.51	-13.00	-47.51
28000.08	H	-	-	-66.92	4.90	44.99	-59.81	-13.00	-46.81
31500.09	H	-	-	-67.66	7.41	46.74	-58.06	-13.00	-45.06

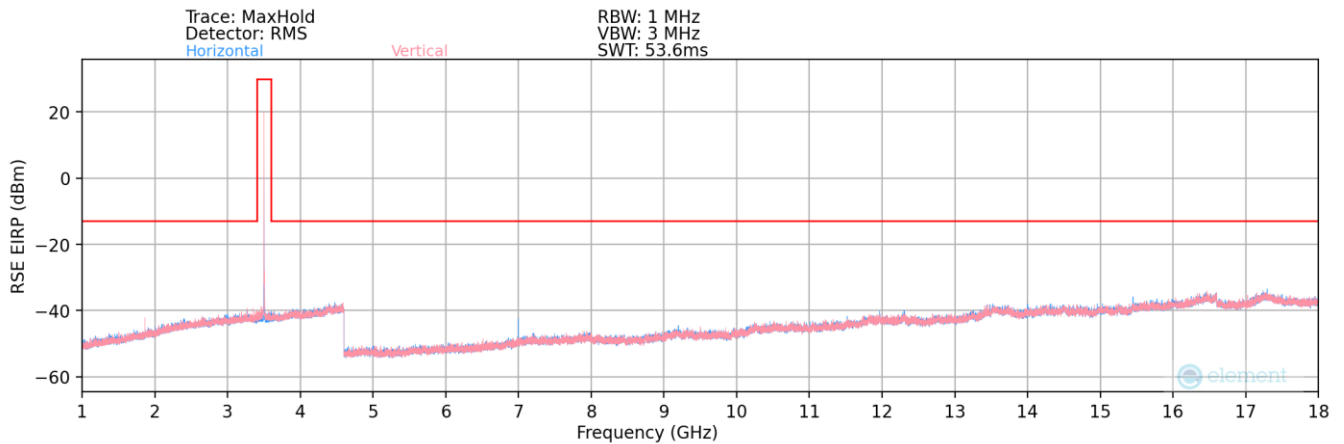
Table 7-39. Radiated Spurious Data with WCP (NR Band n77 (DoD) – Ant F)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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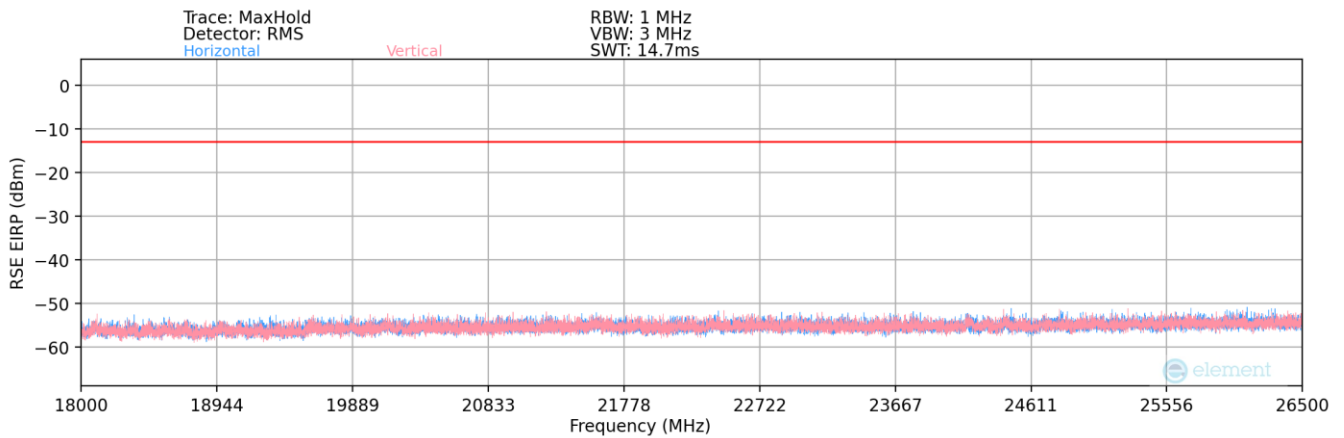
NR Band n77 (DoD Band) – Ant C



Plot 7-133. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)

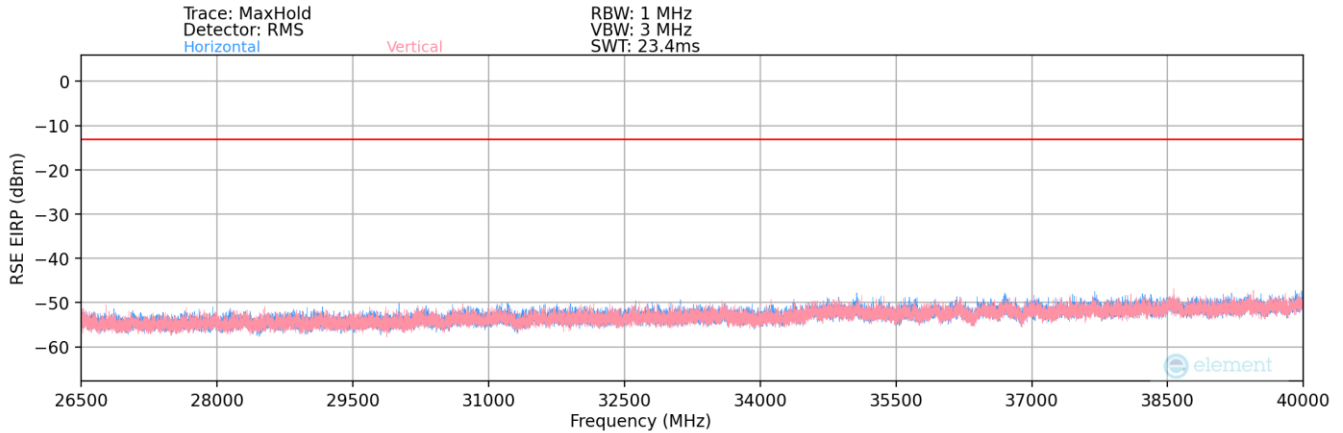


Plot 7-134. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)



Plot 7-135. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-136. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136
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]
7000.02	H	109.00	314.00	-67.18	14.78	54.60	-40.66	-13.00	-27.66
10500.03	H	-	-	-75.64	20.83	52.19	-43.07	-13.00	-30.07
14000.04	H	-	-	-74.99	26.19	58.20	-37.05	-13.00	-24.05
17500.05	H	-	-	-76.19	29.80	60.61	-34.65	-13.00	-21.65

Table 7-40. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant C)

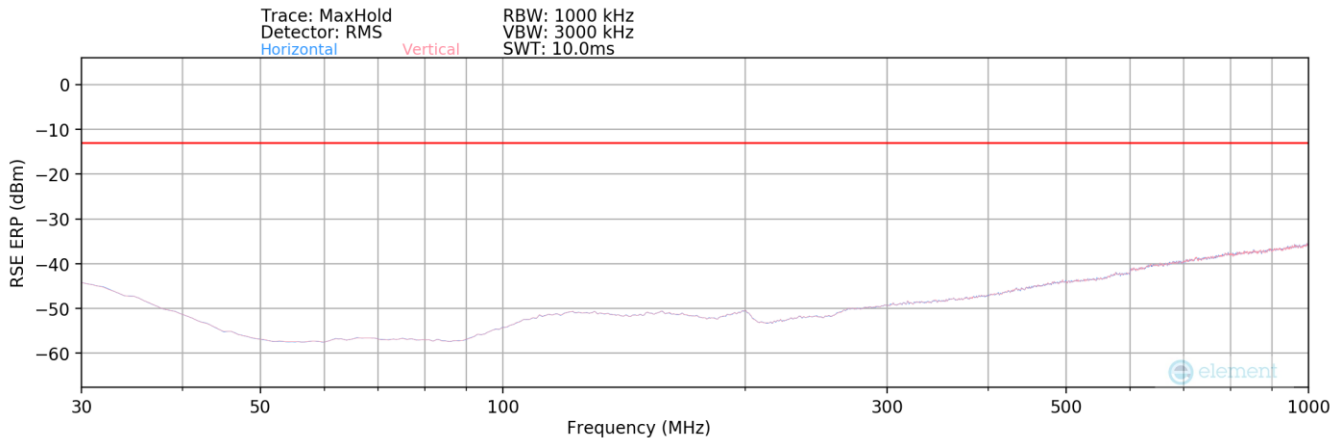
Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136
Mode:	Stand Alone

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]
599.00	H	-	-	-68.15	-2.06	36.79	-58.46	-13.00	-45.46

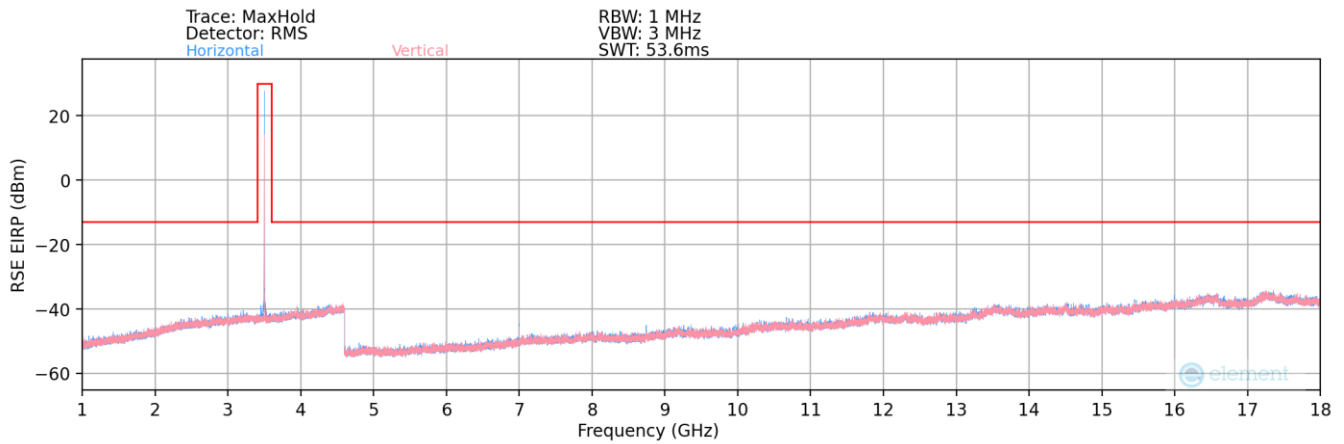
Table 7-41. Radiated Spurious Data below 1GHz (NR Band n77 (DoD) – Ant C)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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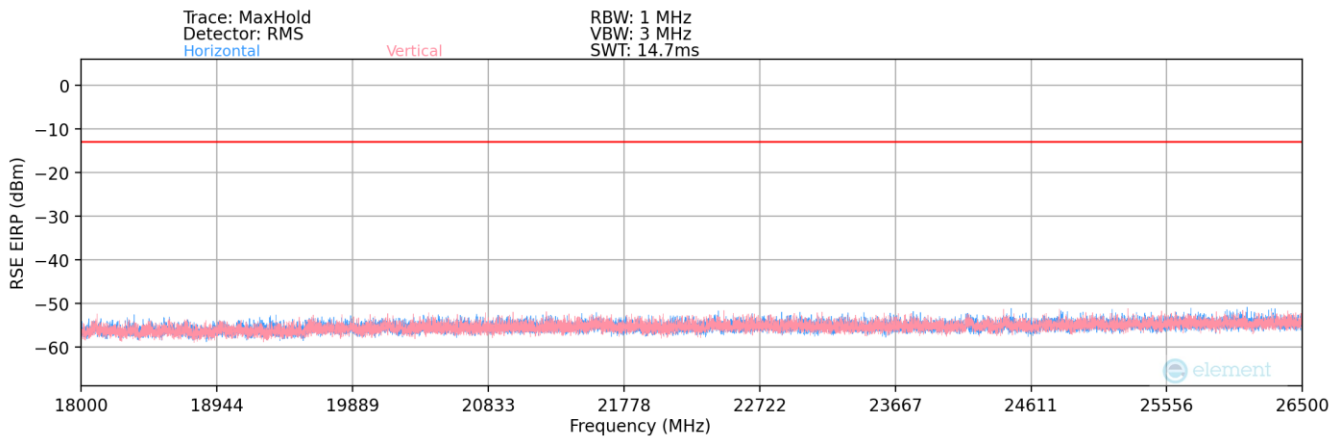
NR Band n77 (DoD Band) – Ant I



Plot 7-137. Radiated Spurious Plot (NR Band n77 (DoD) – Ant I)

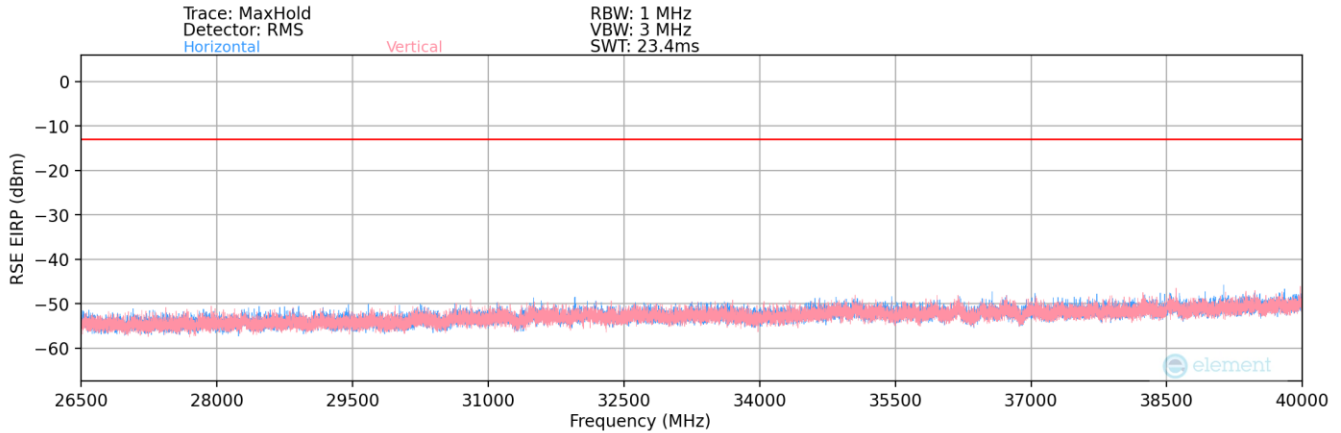


Plot 7-138. Radiated Spurious Plot (NR Band n77 (DoD) – Ant I)



Plot 7-139. Radiated Spurious Plot (NR Band n77 (DoD) – Ant I)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-140. Radiated Spurious Plot (NR Band n77 (DoD) – Ant I)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136
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]
7000.02	V	-	-	-77.24	8.71	38.47	-56.79	-13.00	-43.79
10500.03	V	-	-	-79.47	11.97	39.50	-55.76	-13.00	-42.76
14000.04	V	-	-	-80.26	15.96	42.70	-52.56	-13.00	-39.56

Table 7-42. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant I)

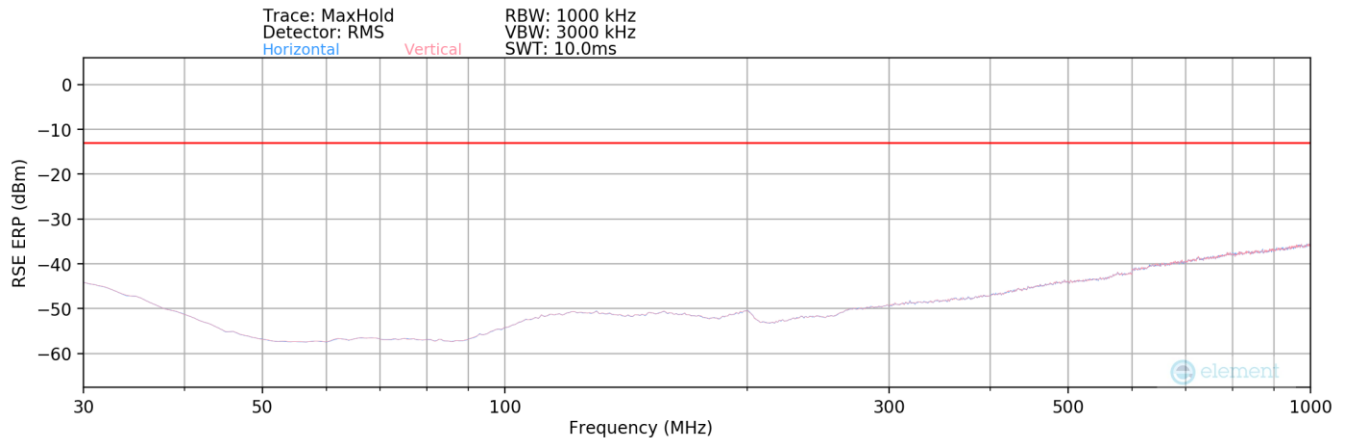
Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136
Mode:	Stand Alone

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]
425.00	V	-	-	-86.21	24.26	45.05	-50.21	-13.00	-37.21

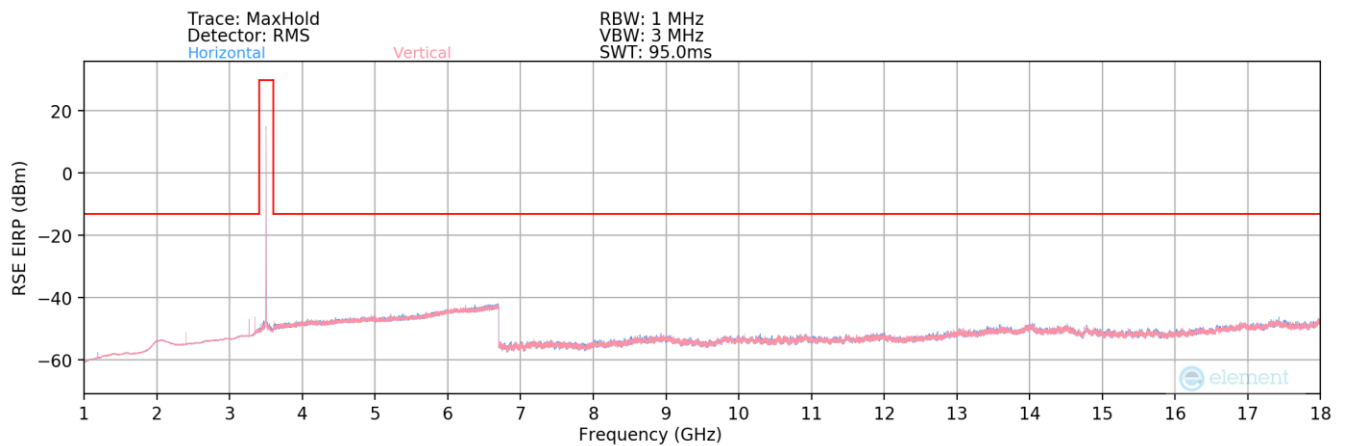
Table 7-43. Radiated Spurious Data below 1GHz (NR Band n77 (DoD) – Ant I)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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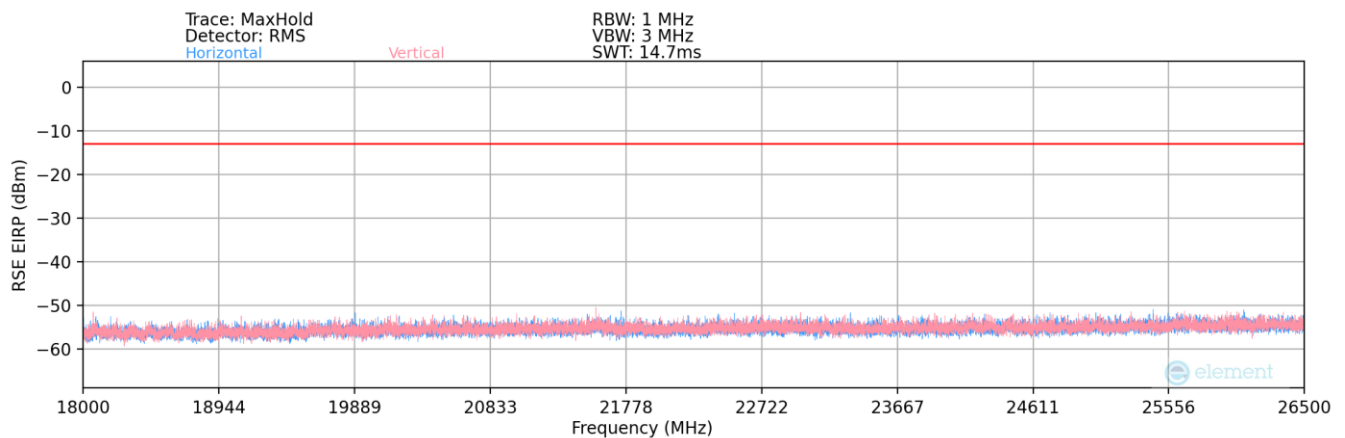
NR Band n77 (DoD Band) – Ant D



Plot 7-141. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)

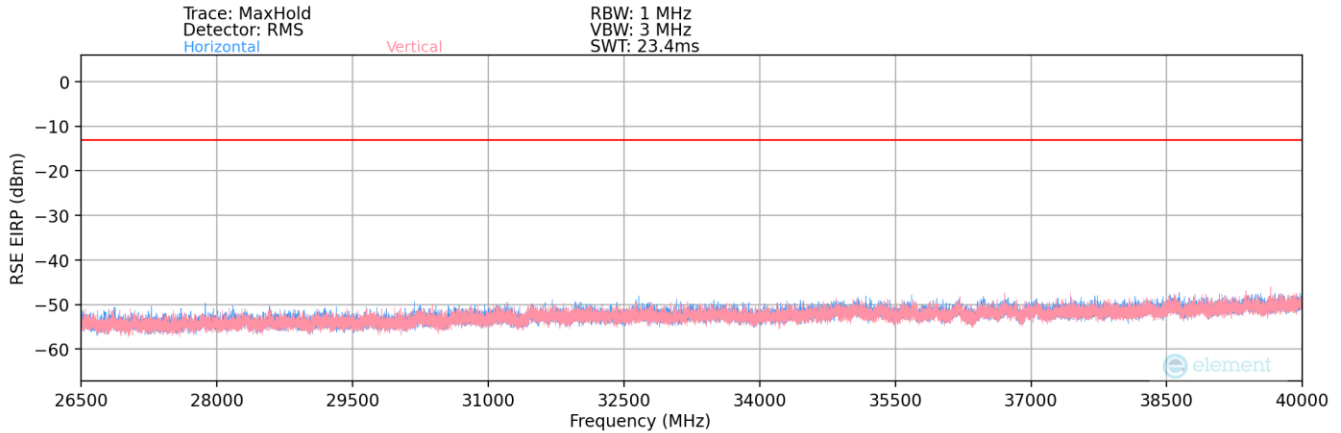


Plot 7-142. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)



Plot 7-143. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-144. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136
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]
7000.02	H	-	-	-77.25	8.71	38.46	-56.80	-13.00	-43.80
10500.03	H	-	-	-79.90	11.97	39.07	-56.19	-13.00	-43.19
14000.04	H	316.00	16.00	-68.09	15.96	54.87	-40.39	-13.00	-27.39
17500.05	H	-	-	-79.32	17.31	44.99	-50.27	-13.00	-37.27
21000.06	H	-	-	-59.81	3.66	50.85	-53.95	-13.00	-40.95
24500.07	H	-	-	-59.36	4.10	51.74	-53.06	-13.00	-40.06

Table 7-44. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136
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]
302.00	H	-	-	-84.17	21.06	43.89	-51.36	-13.00	-38.36

Table 7-45. Radiated Spurious Data below 1GHz (NR Band n77 (DoD) – Ant D)

FCC ID: A3LSMS711B	PART 27 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 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.

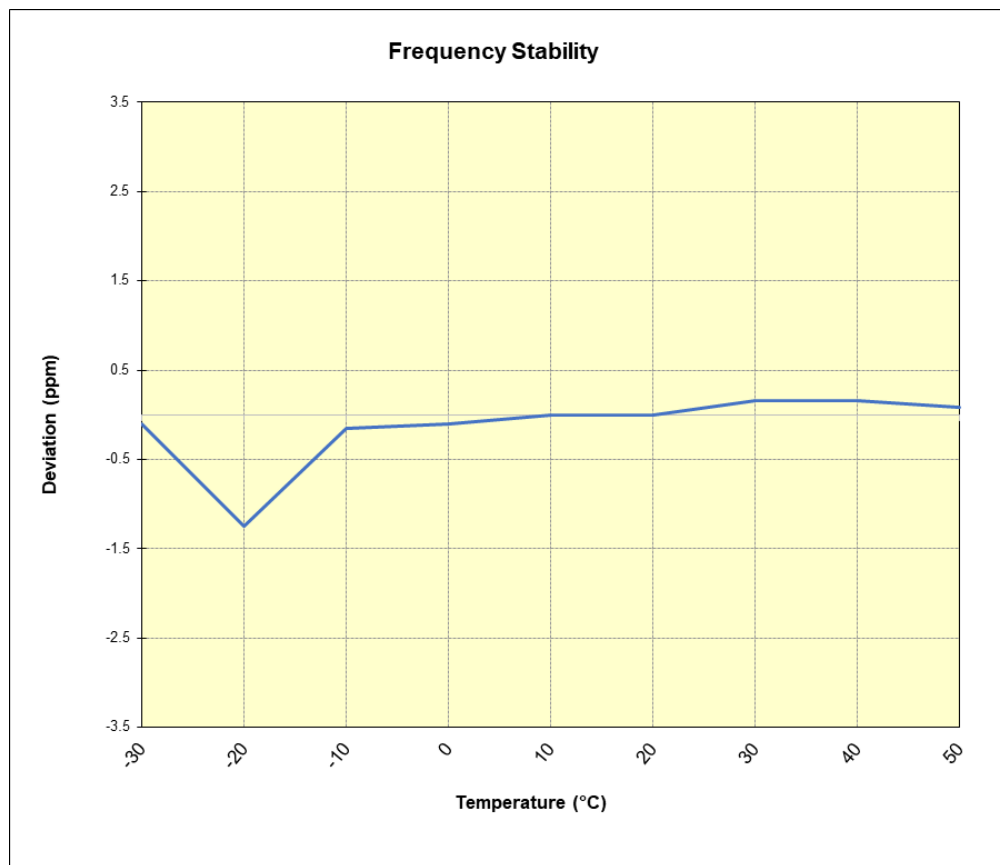
Test Notes

None

FCC ID: A3LSMS711B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77					
		Operating Frequency (Hz):		3,840,000,000	
		Ref. Voltage (VDC):		4.43	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	3,840,015,383	-365	-0.0000095
		- 20	3,840,010,963	-4,785	-0.0001246
		- 10	3,840,015,172	-576	-0.0000150
		0	3,840,015,379	-369	-0.0000096
		+ 10	3,840,015,760	12	0.0000003
		+ 20 (Ref)	3,840,015,748	0	0.0000000
		+ 30	3,840,016,354	606	0.0000158
		+ 40	3,840,016,362	614	0.0000160
		+ 50	3,840,016,072	324	0.0000084
Battery Endpoint	3.27	+ 20	3,840,022,747	6,999	0.0001823

Table 7-46. NR Band n77 Frequency Stability Data



Plot 7-145. NR Band n77 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: A3LSMS711B** complies with all the requirements of Part 27 of the FCC rules.

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