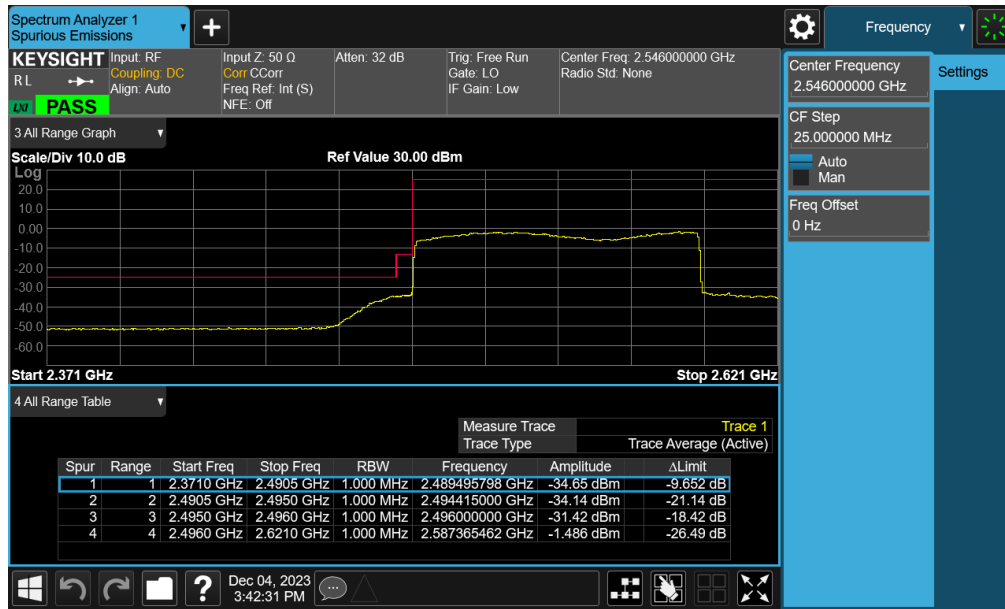
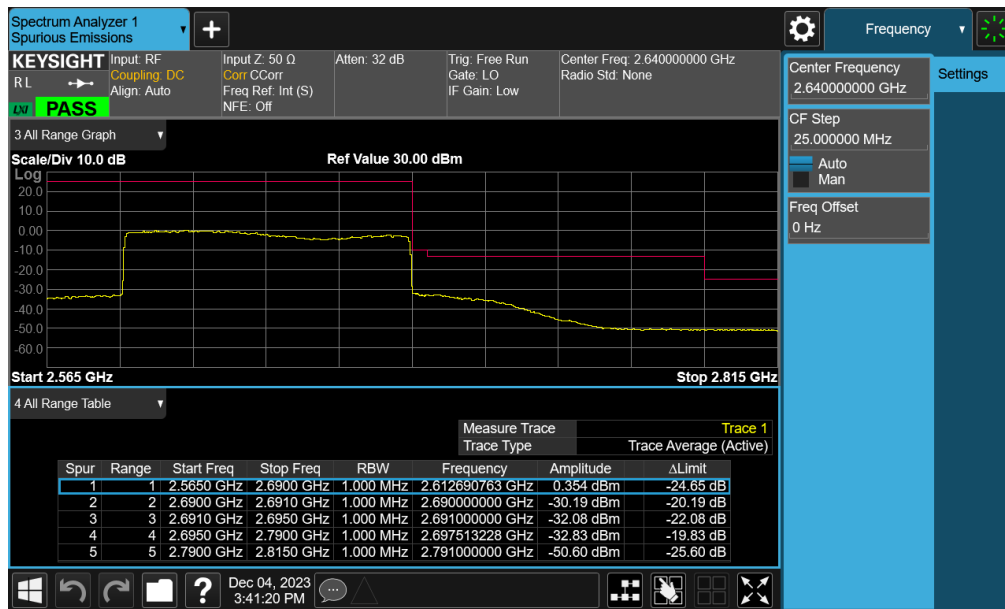


NR Band n41 – ANT2



Plot 7-74. Lower ACP Plot (NR Band n41 - 100MHz DFT-s-QPSK – Full RB Configuration)



Plot 7-75. Upper ACP Plot (NR Band n41 - 100MHz DFT-s-QPSK – Full RB Configuration)

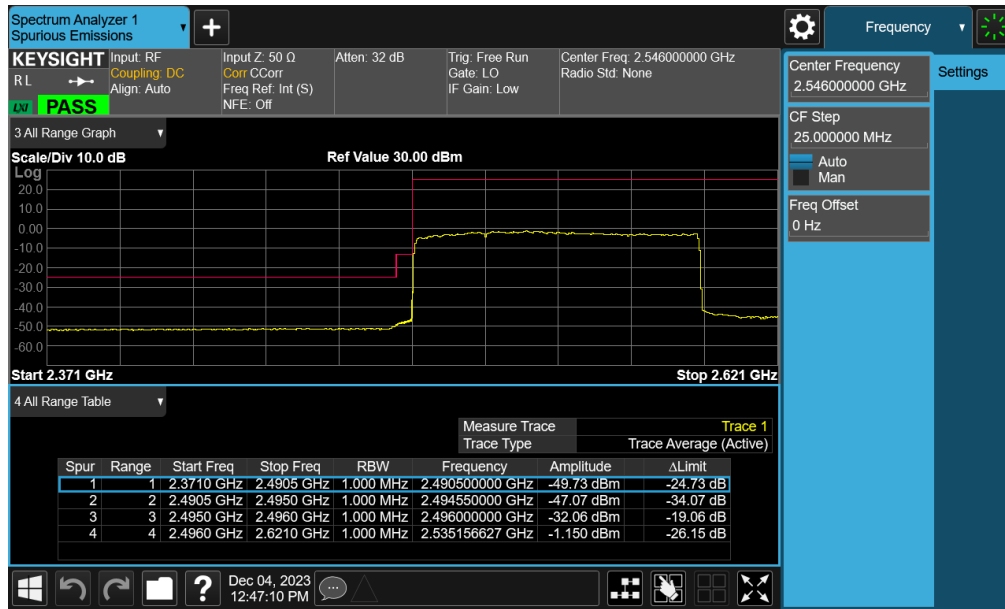
FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 67 of 98

Mode	Bandwidth	Channel	Level [dBm]	Limit [dBm]	Margin [dB]
NR n41	100 MHz	Low	-32.06	-13	-19.06
		High	-33.74	-10	-23.74

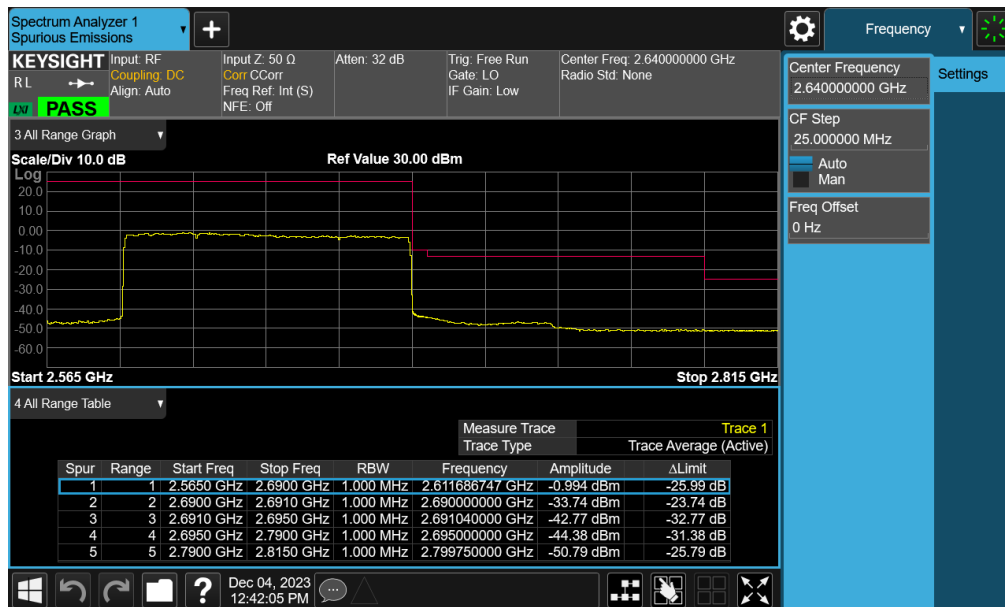
Table 7-20. Conducted Band Edge Test Results – NR – Ant3

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 68 of 98

NR Band n41 – ANT3



Plot 7-76. Lower ACP Plot (NR Band n41 - 100MHz DFT-s-QPSK – Full RB Configuration)



Plot 7-77. Upper ACP Plot (NR Band n41 - 100MHz DFT-s-QPSK – Full RB Configuration)

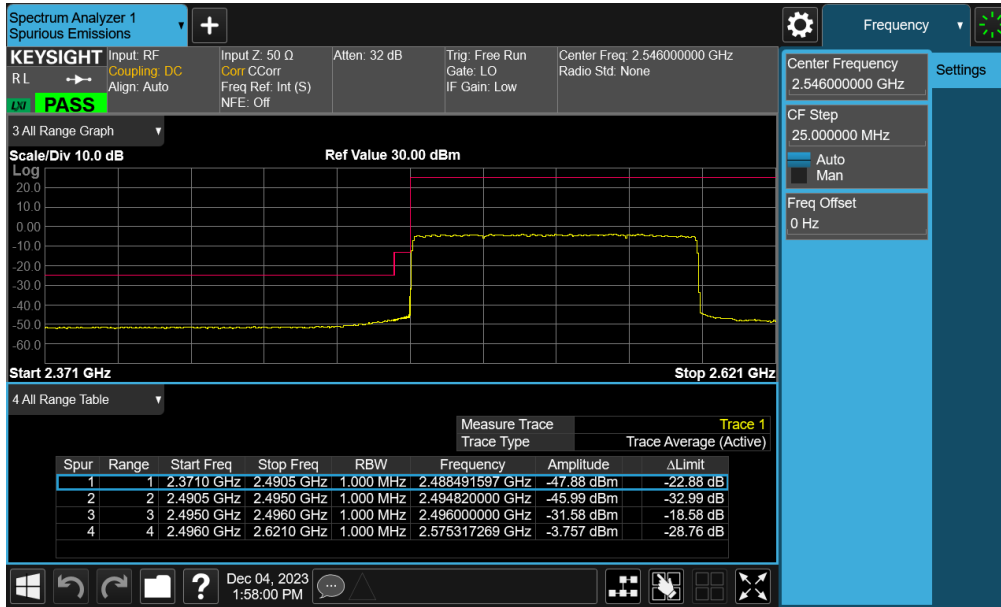
FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 69 of 98

Mode	Bandwidth	Channel	Level [dBm]	Limit [dBm]	Margin [dB]
NR n41	100 MHz	Low	-31.58	-13	-18.58
		High	-50.88	-25	-25.88

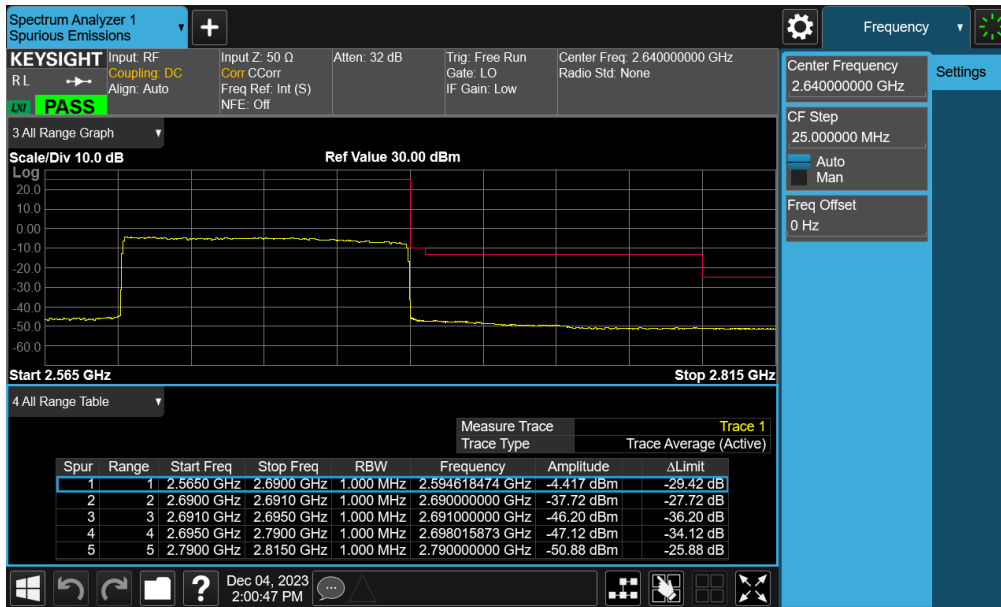
Table 7-21. Conducted Band Edge Test Results – NR – Ant4

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 70 of 98

NR Band n41 – ANT4



Plot 7-78. Lower ACP Plot (NR Band n41 - 100MHz DFT-s-QPSK – Full RB Configuration)



Plot 7-79. Upper ACP Plot (NR Band n41 - 100MHz DFT-s-QPSK – Full RB Configuration)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 71 of 98



7.6 Radiated Power (EIRP)

Test Overview

Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.2.4.4

Test Settings

1. Radiated power measurements are performed using the signal analyzer’s “channel power” measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer’s “time domain power” measurement capability is used
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW \geq 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points \geq 2 x span / RBW
6. Detector = RMS
7. Trigger is set to “free run” for signals with continuous operation with the sweep times set to “auto”. Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration.
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the “gating” function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize.

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

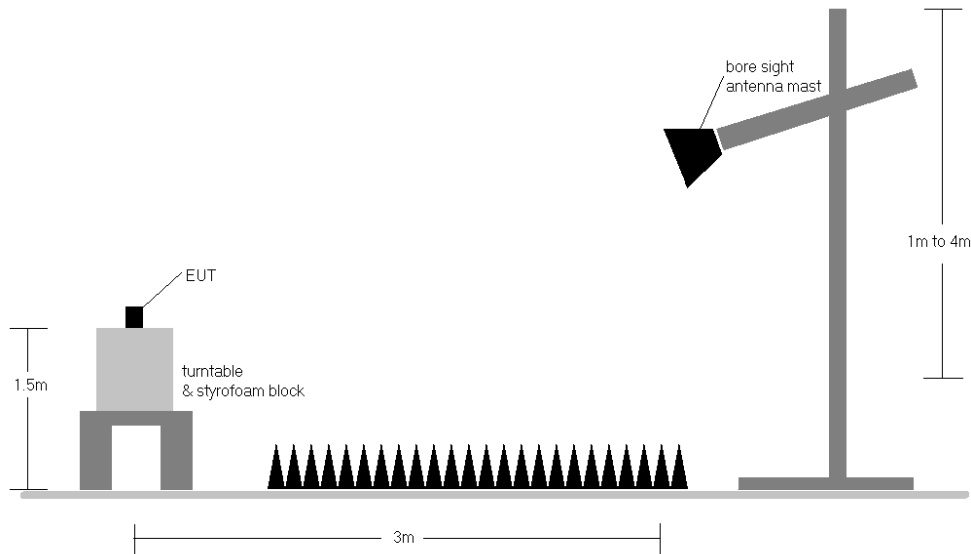


Figure 7-5. Radiated Test Setup >1GHz

Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst-case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst-case configuration. All modes of operation were investigated and the worst-case configuration results are reported in this section.

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 73 of 98



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	2506.0	H	X	152	209	4.17	1 / 50	17.61	21.78	0.151	33.01	-11.23
	QPSK	2593.0	H	X	108	214	4.00	1 / 50	17.95	21.95	0.157	33.01	-11.06
	QPSK	2680.0	H	X	108	211	4.50	1 / 50	15.96	20.46	0.111	33.01	-12.55
	16-QAM	2593.0	H	X	108	214	4.00	1 / 50	17.35	21.35	0.136	33.01	-11.66
15 MHz	QPSK	2503.5	H	X	152	209	4.17	1 / 37	17.88	22.05	0.160	33.01	-10.96
	QPSK	2593.0	H	X	108	214	4.00	1 / 37	17.96	21.96	0.157	33.01	-11.05
	QPSK	2682.5	H	X	108	211	4.51	1 / 37	16.06	20.57	0.114	33.01	-12.44
	16-QAM	2593.0	H	X	108	214	4.00	1 / 37	17.25	21.25	0.133	33.01	-11.76
10 MHz	QPSK	2501.0	H	X	152	209	4.17	1 / 0	17.71	21.88	0.154	33.01	-11.13
	QPSK	2593.0	H	X	108	214	4.00	1 / 0	17.84	21.84	0.153	33.01	-11.17
	QPSK	2685.0	H	X	108	211	4.52	1 / 0	15.88	20.40	0.110	33.01	-12.61
	16-QAM	2593.0	H	X	108	214	4.00	1 / 0	17.42	21.42	0.139	33.01	-11.59
5 MHz	QPSK	2498.5	H	X	152	209	4.16	1 / 12	17.94	22.10	0.162	33.01	-10.91
	QPSK	2593.0	H	X	108	214	4.00	1 / 12	18.00	22.00	0.158	33.01	-11.01
	QPSK	2687.5	H	X	108	211	4.53	1 / 12	15.94	20.47	0.111	33.01	-12.54
	16-QAM	2593.0	H	X	108	214	4.00	1 / 12	17.08	21.08	0.128	33.01	-11.93

Table 7-80. EIRP Data (LTE Band 41(PC3)) – Ant1

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 74 of 98



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [HV]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	π/2 BPSK	2546.01	H	X	112	186	4.19	1 / 136	17.56	21.75	0.150	33.01	-11.26
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 136	17.83	21.83	0.152	33.01	-11.18
	π/2 BPSK	2640.00	H	X	169	186	4.31	1 / 136	16.37	20.68	0.117	33.01	-12.33
	QPSK	2546.01	H	X	112	186	4.19	1 / 136	17.82	22.01	0.159	33.01	-11.00
	QPSK	2592.99	H	X	112	190	4.00	1 / 136	17.75	21.75	0.150	33.01	-11.26
	QPSK	2640.00	H	X	169	186	4.31	1 / 136	16.57	20.88	0.123	33.01	-12.13
90 MHz	16-QAM	2546.01	H	X	112	186	4.19	1 / 136	17.05	21.24	0.133	33.01	-11.77
	π/2 BPSK	2541.00	H	X	112	186	4.19	1 / 243	17.58	21.77	0.150	33.01	-11.24
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 122	17.88	21.88	0.154	33.01	-11.13
	π/2 BPSK	2644.98	H	X	169	186	4.36	1 / 1	16.27	20.62	0.115	33.01	-12.39
	QPSK	2541.00	H	X	112	186	4.19	1 / 243	17.79	21.98	0.158	33.01	-11.03
	QPSK	2592.99	H	X	112	190	4.00	1 / 122	17.82	21.82	0.152	33.01	-11.19
80 MHz	QPSK	2644.98	H	X	169	186	4.36	1 / 1	16.49	20.84	0.121	33.01	-12.17
	16-QAM	2541.00	H	X	112	186	4.19	1 / 243	16.89	21.08	0.128	33.01	-11.93
	π/2 BPSK	2536.02	H	X	112	186	4.19	1 / 215	17.41	21.60	0.145	33.01	-11.41
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 108	17.89	21.89	0.154	33.01	-11.12
	π/2 BPSK	2649.99	H	X	169	186	4.40	1 / 108	16.26	20.66	0.116	33.01	-12.35
	QPSK	2536.02	H	X	112	186	4.19	1 / 215	17.59	21.78	0.151	33.01	-11.23
70 MHz	QPSK	2592.99	H	X	112	190	4.00	1 / 108	17.82	21.82	0.152	33.01	-11.19
	QPSK	2649.99	H	X	169	186	4.40	1 / 108	16.37	20.77	0.119	33.01	-12.24
	16-QAM	2536.02	H	X	112	186	4.19	1 / 215	16.84	21.03	0.127	33.01	-11.98
	π/2 BPSK	2531.01	H	X	112	186	4.18	1 / 187	17.51	21.69	0.148	33.01	-11.32
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 94	17.92	21.92	0.156	33.01	-11.09
	π/2 BPSK	2655.00	H	X	169	186	4.42	1 / 94	16.19	20.60	0.115	33.01	-12.41
60 MHz	QPSK	2531.01	H	X	112	186	4.18	1 / 187	17.75	21.93	0.156	33.01	-11.08
	QPSK	2592.99	H	X	112	190	4.00	1 / 94	17.83	21.83	0.152	33.01	-11.18
	QPSK	2655.00	H	X	169	186	4.42	1 / 94	16.37	20.78	0.120	33.01	-12.23
	16-QAM	2531.01	H	X	112	186	4.18	1 / 187	16.85	21.03	0.127	33.01	-11.98
	π/2 BPSK	2526.00	H	X	112	186	4.18	1 / 160	17.41	21.59	0.144	33.01	-11.42
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 81	17.91	21.91	0.155	33.01	-11.10
50 MHz	π/2 BPSK	2659.98	H	X	169	186	4.43	1 / 81	16.19	20.62	0.115	33.01	-12.39
	QPSK	2526.00	H	X	112	186	4.18	1 / 160	17.63	21.81	0.152	33.01	-11.20
	QPSK	2592.99	H	X	112	190	4.00	1 / 81	17.82	21.82	0.152	33.01	-11.19
	QPSK	2659.98	H	X	169	186	4.43	1 / 81	16.38	20.81	0.121	33.01	-12.20
	16-QAM	2526.00	H	X	112	186	4.18	1 / 160	16.73	20.91	0.123	33.01	-12.10
	π/2 BPSK	2521.02	H	X	112	186	4.18	1 / 131	17.43	21.61	0.145	33.01	-11.40
40 MHz	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 66	17.89	21.89	0.154	33.01	-11.12
	π/2 BPSK	2664.99	H	X	169	186	4.45	1 / 66	16.13	20.58	0.114	33.01	-12.43
	QPSK	2521.02	H	X	112	186	4.18	1 / 131	17.61	21.79	0.151	33.01	-11.22
	QPSK	2592.99	H	X	112	190	4.00	1 / 66	17.74	21.74	0.149	33.01	-11.27
	QPSK	2664.99	H	X	169	186	4.45	1 / 66	16.33	20.78	0.120	33.01	-12.23
	16-QAM	2521.02	H	X	112	186	4.18	1 / 131	16.81	20.99	0.126	33.01	-12.02
30 MHz	π/2 BPSK	2516.01	H	X	112	186	4.18	1 / 104	17.26	21.44	0.139	33.01	-11.57
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 53	17.91	21.91	0.155	33.01	-11.10
	π/2 BPSK	2670.00	H	X	169	186	4.47	1 / 1	16.12	20.58	0.114	33.01	-12.43
	QPSK	2516.01	H	X	112	186	4.18	1 / 104	17.49	21.67	0.147	33.01	-11.34
	QPSK	2592.99	H	X	112	190	4.00	1 / 53	17.82	21.82	0.152	33.01	-11.19
	QPSK	2670.00	H	X	169	186	4.47	1 / 1	16.33	20.79	0.120	33.01	-12.22
20 MHz	16-QAM	2592.99	H	X	112	190	4.00	1 / 53	16.79	20.79	0.120	33.01	-12.22
	π/2 BPSK	2511.00	H	X	112	186	4.18	1 / 76	17.25	21.42	0.139	33.01	-11.59
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 39	17.90	21.90	0.155	33.01	-11.11
	π/2 BPSK	2674.98	H	X	169	186	4.48	1 / 1	16.09	20.57	0.114	33.01	-12.44
	QPSK	2511.00	H	X	112	186	4.18	1 / 76	17.50	21.67	0.147	33.01	-11.34
	QPSK	2592.99	H	X	112	190	4.00	1 / 39	17.77	21.77	0.150	33.01	-11.24
15 MHz	QPSK	2674.98	H	X	169	186	4.48	1 / 1	16.30	20.78	0.120	33.01	-12.23
	16-QAM	2592.99	H	X	112	190	4.00	1 / 39	16.74	20.74	0.119	33.01	-12.27
	π/2 BPSK	2506.02	H	X	112	186	4.17	1 / 1	17.19	21.36	0.137	33.01	-11.65
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 25	17.81	21.81	0.152	33.01	-11.20
	π/2 BPSK	2679.99	H	X	169	186	4.50	1 / 1	15.85	20.35	0.108	33.01	-12.66
	QPSK	2506.02	H	X	112	186	4.17	1 / 1	17.39	21.56	0.143	33.01	-11.45
10 MHz	QPSK	2592.99	H	X	112	190	4.00	1 / 25	17.70	21.70	0.148	33.01	-11.31
	QPSK	2679.99	H	X	169	186	4.50	1 / 1	16.04	20.54	0.113	33.01	-12.47
	16-QAM	2592.99	H	X	112	190	4.00	1 / 25	16.69	20.69	0.117	33.01	-12.32
	π/2 BPSK	2503.50	H	X	112	186	4.18	1 / 19	17.33	21.50	0.141	33.01	-11.51
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 36	17.80	21.80	0.151	33.01	-11.21
	π/2 BPSK	2682.48	H	X	169	186	4.48	1 / 1	15.81	20.29	0.107	33.01	-12.72
100 MHz	QPSK	2503.50	H	X	112	186	4.18	1 / 19	17.47	21.64	0.146	33.01	-11.37
	QPSK	2592.99	H	X	112	190	4.00	1 / 36	17.70	21.70	0.148	33.01	-11.31
	QPSK	2682.48	H	X	169	186	4.48	1 / 1	16.00	20.48	0.112	33.01	-12.53
	16-QAM	2592.99	H	X	112	190	4.00	1 / 36	16.70	20.70	0.117	33.01	-12.31
	π/2 BPSK	2501.01	H	X	112	186	4.17	1 / 12	17.26	21.43	0.139	33.01	-11.58
	π/2 BPSK	2592.99	H	X	112	190	4.00	1 / 22	17.80	21.80	0.151	33.01	-11.21
10 MHz	π/2 BPSK	2685.00	H	X	169	186	4.50	1 / 1	15.67	20.17	0.104	33.01	-12.84
	QPSK	2501.01	H	X	112	186	4.17	1 / 12	17.45	21.62	0.145	33.01	-11.39
	QPSK	2592.99	H	X	112	190	4.00	1 / 22	17.67	21.67	0.147	33.01	-11.34
	QPSK	2685.00	H	X	169	186	4.50	1 / 1	15.86	20.36	0.109	33.01	-12.65
	16-QAM	2592.99	H	X	112	190	4.00	1 / 22	16.64	20.64	0.116	33.01	-12.37
	100 MHz	QPSK (CP-OFDM)	2546.01	H	X	112	194	4.19	1 / 136	16.00	20.19	0.105	33.01

Table 7-81. EIRP Data (NR Band n41) – Ant1

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 75 of 98

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	2506.0	V	Y	195	35	4.15	1 / 50	14.11	18.26	0.067	33.01	-14.75
	QPSK	2593.0	V	Y	115	301	4.14	1 / 50	13.72	17.86	0.061	33.01	-15.15
	QPSK	2680.0	V	Y	146	319	4.49	1 / 50	13.89	18.38	0.069	33.01	-14.63
	16-QAM	2506.0	V	Y	195	35	4.15	1 / 50	13.23	17.38	0.055	33.01	-15.63
15 MHz	QPSK	2503.5	V	Y	195	35	4.15	1 / 37	14.61	18.76	0.075	33.01	-14.25
	QPSK	2593.0	V	Y	115	301	4.14	1 / 37	12.90	17.05	0.051	33.01	-15.97
	QPSK	2682.5	V	Y	146	319	4.50	1 / 37	13.76	18.25	0.067	33.01	-14.76
	16-QAM	2503.5	V	Y	195	35	4.15	1 / 37	13.26	17.41	0.055	33.01	-15.60
10 MHz	QPSK	2501.0	V	Y	195	35	4.15	1 / 0	14.50	18.65	0.073	33.01	-14.36
	QPSK	2593.0	V	Y	115	301	4.14	1 / 0	12.79	16.94	0.049	33.01	-16.08
	QPSK	2685.0	V	Y	146	319	4.50	1 / 0	13.71	18.20	0.066	33.01	-14.81
	16-QAM	2501.0	V	Y	195	35	4.15	1 / 0	13.40	17.55	0.057	33.01	-15.46
5 MHz	QPSK	2498.5	V	Y	195	35	4.14	1 / 24	14.49	18.63	0.073	33.01	-14.38
	QPSK	2593.0	V	Y	115	301	4.14	1 / 12	12.77	16.92	0.049	33.01	-16.10
	QPSK	2687.5	V	Y	146	319	4.50	1 / 12	13.68	18.18	0.066	33.01	-14.83
	16-QAM	2498.5	V	Y	195	35	4.14	1 / 24	13.46	17.60	0.058	33.01	-15.41

Table 7-82. EIRP Data (LTE Band 41(PC3)) – Ant2

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	2546.01	V	Y	143	312	4.13	1 / 271	11.02	15.15	0.033	33.01	-17.86
	$\pi/2$ BPSK	2592.99	V	Y	143	305	4.14	1 / 136	10.24	14.38	0.027	33.01	-18.63
	$\pi/2$ BPSK	2640.00	V	Y	145	316	4.39	1 / 1	11.51	15.90	0.039	33.01	-17.11
	QPSK	2546.01	V	Y	143	312	4.13	1 / 271	11.27	15.40	0.035	33.01	-17.61
	QPSK	2592.99	V	Y	143	305	4.14	1 / 136	10.40	14.54	0.028	33.01	-18.47
	QPSK	2640.00	V	Y	145	316	4.39	1 / 1	11.66	16.05	0.040	33.01	-16.96
	16-QAM	2640.00	V	Y	145	316	4.39	1 / 1	10.91	15.30	0.034	33.01	-17.71
100 MHz	QPSK (CP-OFDM)	2640.0	V	Y	145	316	4.39	1 / 1	10.31	14.70	0.029	33.01	-18.31

Table 7-83. EIRP Data (NR Band n41) – Ant2

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	2546.01	V	Z	288	41	4.13	1 / 136	10.37	14.50	0.028	33.01	-18.51
	$\pi/2$ BPSK	2592.99	V	Z	279	38	4.14	1 / 1	9.17	13.31	0.021	33.01	-19.70
	$\pi/2$ BPSK	2640.00	V	Z	301	46	4.39	1 / 136	8.38	12.77	0.019	33.01	-20.24
	QPSK	2546.01	V	Z	288	41	4.13	1 / 136	10.38	14.51	0.028	33.01	-18.50
	QPSK	2592.99	V	Z	279	38	4.14	1 / 1	9.37	13.51	0.022	33.01	-19.50
	QPSK	2640.00	V	Z	301	46	4.39	1 / 136	8.69	13.08	0.020	33.01	-19.93
	16-QAM	2546.01	V	Z	288	41	4.13	1 / 136	9.91	14.04	0.025	33.01	-18.97
100 MHz	QPSK (CP-OFDM)	2546.0	V	Z	288	41	4.13	1 / 136	9.71	13.84	0.024	33.01	-19.17

Table 7-84. EIRP Data (NR Band n41) – Ant3

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	2546.01	V	Y	292	75	4.13	1 / 1	7.37	11.50	0.014	33.01	-21.51
	$\pi/2$ BPSK	2592.99	V	Y	290	62	4.14	1 / 136	5.73	9.87	0.010	33.01	-23.14
	$\pi/2$ BPSK	2640.00	V	Y	296	65	4.39	1 / 136	5.66	10.05	0.010	33.01	-22.96
	QPSK	2546.01	V	Y	292	75	4.13	1 / 1	7.20	11.33	0.014	33.01	-21.68
	QPSK	2592.99	V	Y	290	62	4.14	1 / 136	5.96	10.10	0.010	33.01	-22.91
	QPSK	2640.00	V	Y	296	65	4.39	1 / 136	5.47	9.86	0.010	33.01	-23.15
	16-QAM	2546.01	V	Y	292	75	4.13	1 / 1	6.78	10.91	0.012	33.01	-22.10
100 MHz	QPSK (CP-OFDM)	#N/A	V	Y	292	75	4.13	1 / 1	6.64	10.77	0.012	33.01	-22.24

Table 7-85. EIRP Data (NR Band n41) – Ant4

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7.7 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $\geq 2 \times$ span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

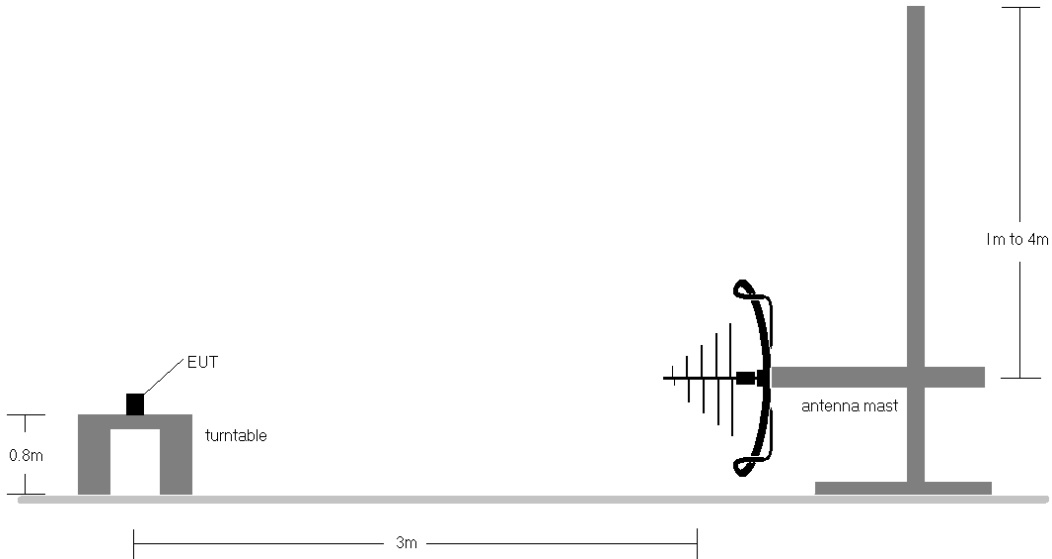


Figure 7-6. Test Instrument & Measurement Setup < 1GHz

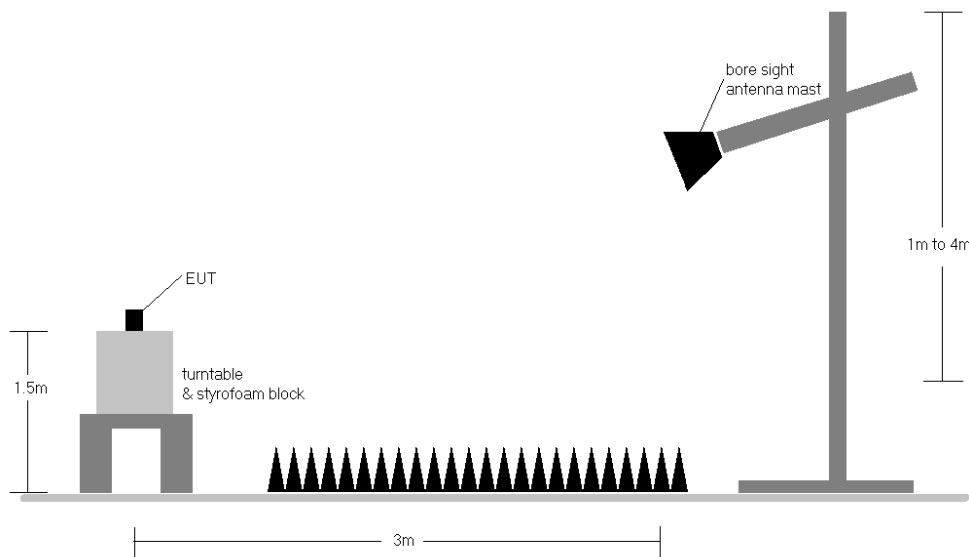


Figure 7-7. Test Instrument & Measurement Setup >1 GHz

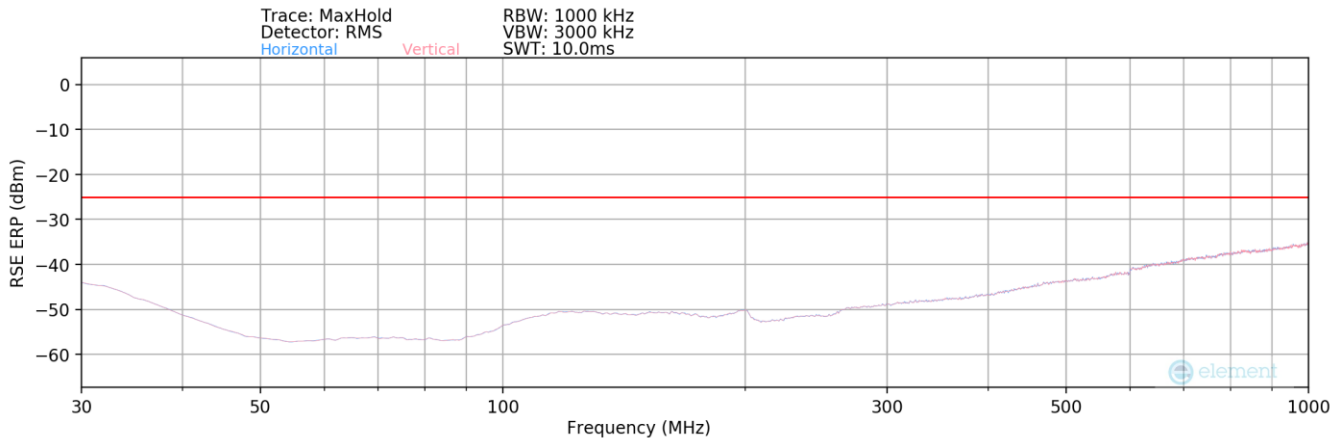
FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Test Notes

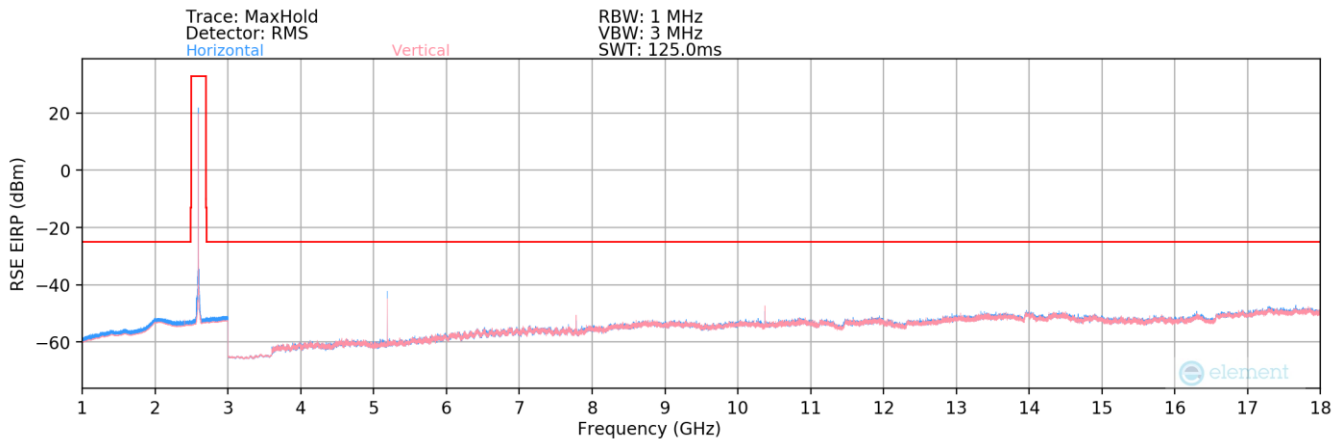
- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
 - a) $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - b) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$; where D is the measurement distance in meters.
- 2) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst-case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 3) This unit was tested with its standard battery.
- 4) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 5) Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 6) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 7) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.
- 8) Spurious emission in EN-DC Operating mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor) has been checked and was found to not to be the worst case.

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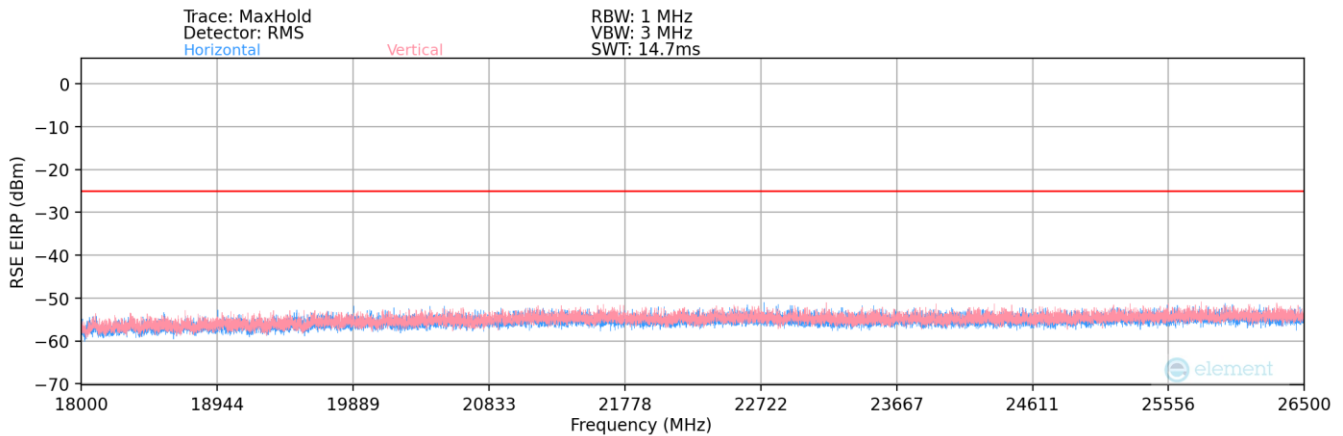
LTE Band 41(PC3) – Ant1



Plot 7-86. Radiated Spurious Plot (LTE Band 41(PC3) – Ant1)



Plot 7-87. Radiated Spurious Plot (LTE Band 41(PC3) – Ant1)



Plot 7-88. Radiated Spurious Plot (LTE Band 41(PC3) – Ant1)

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Bandwidth (MHz):	20
Frequency (MHz):	2506.0
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]
5012.00	V	110	322	-57.38	3.22	52.84	-42.41	-25.00	-17.41
7518.00	V	109	53	-70.30	9.20	45.90	-49.35	-25.00	-24.35
10024.00	V	150	338	-73.87	11.56	44.69	-50.57	-25.00	-25.57
12530.00	V	-	-	-79.08	13.01	40.93	-54.33	-25.00	-29.33
15036.00	V	-	-	-80.12	13.85	40.73	-54.53	-25.00	-29.53
17542.00	V	-	-	-78.91	16.72	44.81	-50.45	-25.00	-25.45

Table 7-22. Radiated Spurious Data (LTE Band 41(PC3) – Low Channel – Ant1)

Bandwidth (MHz):	20
Frequency (MHz):	2593.0
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]
5186.00	V	110	320	-49.17	3.51	61.34	-33.92	-25.00	-8.92
7779.00	V	112	264	-69.30	8.55	46.25	-49.01	-25.00	-24.01
10372.00	V	111	331	-69.22	12.14	49.92	-45.34	-25.00	-20.34
12965.00	V	-	-	-79.42	14.30	41.88	-53.38	-25.00	-28.38
15558.00	V	-	-	-78.72	13.58	41.86	-53.40	-25.00	-28.40
18151.00	V	-	-	-60.74	1.20	47.46	-57.34	-25.00	-32.34

Table 7-23. Radiated Spurious Data (LTE Band 41(PC3) – Mid Channel – Ant1)

Bandwidth (MHz):	20
Frequency (MHz):	2680.0
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]
5360.00	V	111	320	-52.53	3.59	58.06	-37.19	-25.00	-12.19
8040.00	V	110	268	-71.91	9.23	44.32	-50.93	-25.00	-25.93
10720.00	V	127	338	-62.94	12.79	56.85	-38.41	-25.00	-13.41
13400.00	V	-	-	-79.49	14.97	42.48	-52.78	-25.00	-27.78
16080.00	V	-	-	-79.61	14.58	41.97	-53.29	-25.00	-28.29
18760.00	V	-	-	-62.64	1.49	45.85	-58.95	-25.00	-33.95

Table 7-24. Radiated Spurious Data (LTE Band 41(PC3) – High Channel – Ant1)

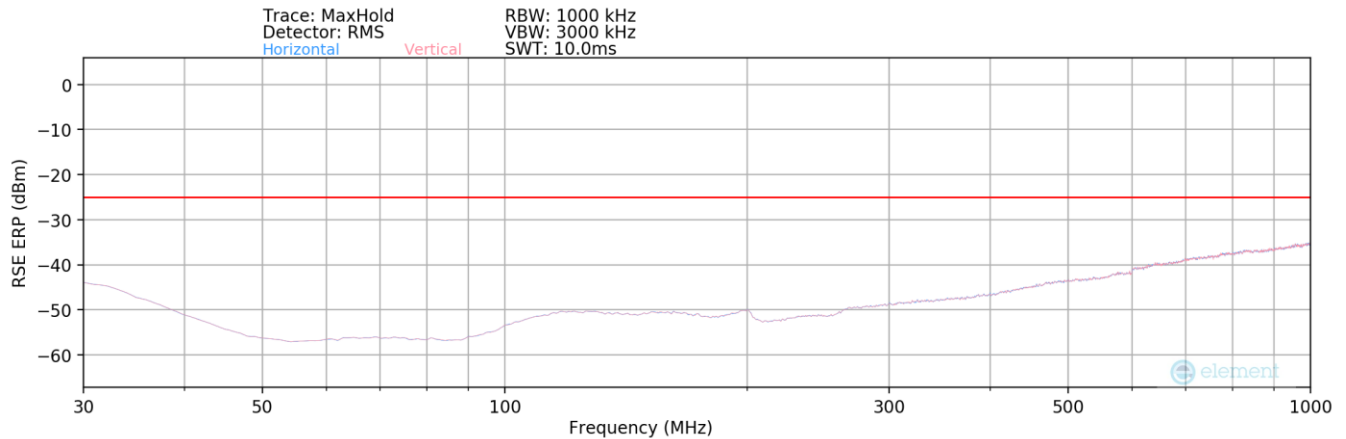
Bandwidth (MHz):	20
Frequency (MHz):	2593.0
RB / Offset:	1 / 50

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]
512.00	V	-	-	-84.34	26.24	48.90	-48.51	-25.00	-23.51

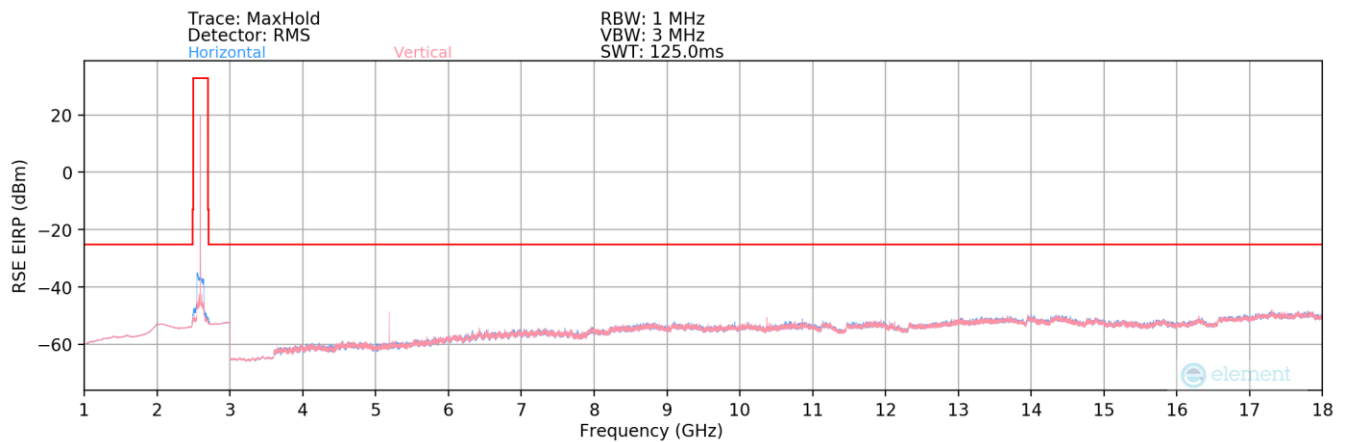
Table 7-25. Radiated Spurious Data (LTE Band 41(PC3) – Mid Channel – Ant1)

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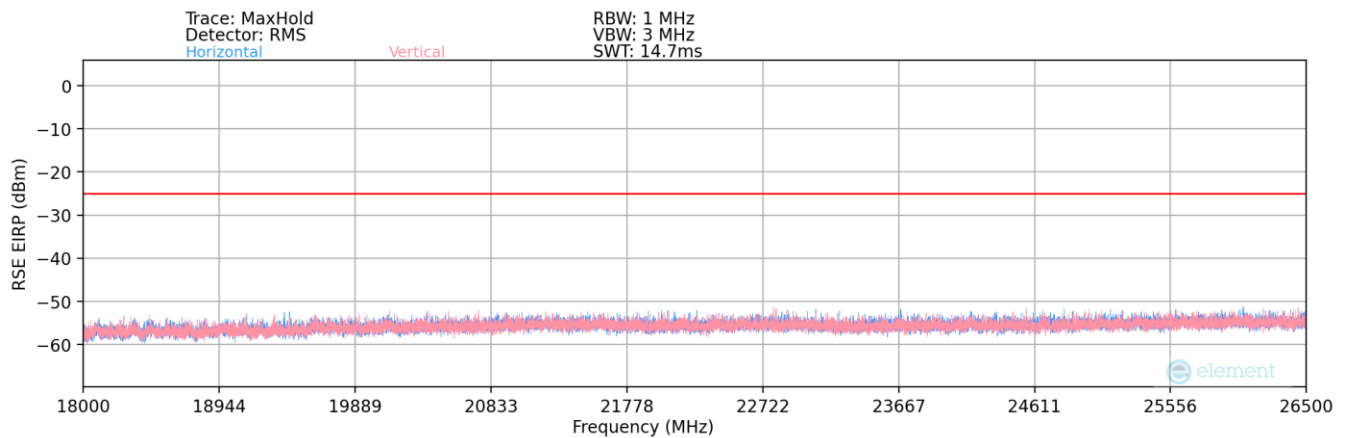
NR Band n41 – Ant1



Plot 7-89. Radiated Spurious Plot (NR Band n41 – Ant1)



Plot 7-90. Radiated Spurious Plot (NR Band n41 – Ant1)



Plot 7-91. Radiated Spurious Plot (NR Band n41 – Ant1)

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Bandwidth (MHz):	100
Frequency (MHz):	2546.01
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 [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5092.02	V	118	319	-57.05	3.31	53.26	-42.00	-25.00	-17.00
7638.03	V	-	-	-78.10	9.21	38.11	-57.15	-25.00	-32.15
10184.04	V	-	-	-78.87	12.07	40.20	-55.06	-25.00	-30.06
12730.05	V	-	-	-79.64	13.52	40.88	-54.37	-25.00	-29.37

Table 7-26. Radiated Spurious Data (NR Band n41 – Low Channel – Ant1)

Bandwidth (MHz):	100
Frequency (MHz):	2592.99
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]
5185.98	V	128	322	-52.13	3.51	58.38	-36.88	-25.00	-11.88
7778.97	V	115	272	-75.09	8.55	40.46	-54.80	-25.00	-29.80
10371.96	V	-	-	-78.68	12.14	40.46	-54.80	-25.00	-29.80
12964.95	V	-	-	-79.26	14.30	42.04	-53.22	-25.00	-28.22
15557.94	V	-	-	-79.18	13.58	41.40	-53.86	-25.00	-28.86

Table 7-27. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant1)

Bandwidth (MHz):	100
Frequency (MHz):	2640.00
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]
5280.00	V	116	312	-52.42	3.43	58.01	-37.25	-25.00	-12.25
7920.00	V	110	262	-74.70	9.25	41.55	-53.71	-25.00	-28.71
10560.00	V	-	-	-79.49	12.61	40.12	-55.14	-25.00	-30.14
13200.00	V	-	-	-79.64	14.68	42.04	-53.22	-25.00	-28.22
15840.00	V	-	-	-80.15	14.77	41.62	-53.64	-25.00	-28.64

Table 7-28. Radiated Spurious Data (NR Band n41 – High Channel – Ant1)

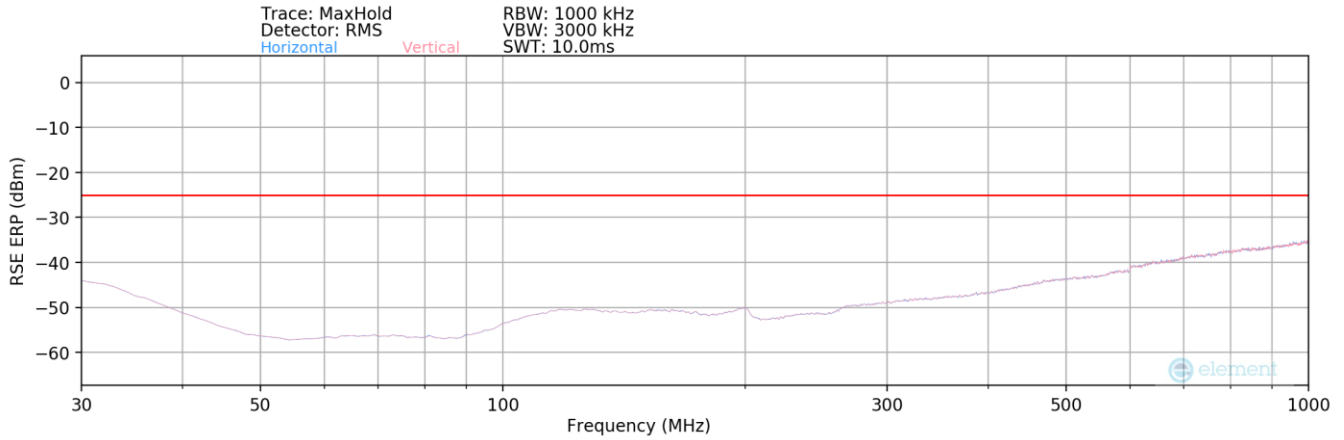
Bandwidth (MHz):	100
Frequency (MHz):	2592.99
RB / Offset:	1 / 136
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
637.00	V	-	-	-84.28	27.82	50.54	-46.87	-25.00	-21.87

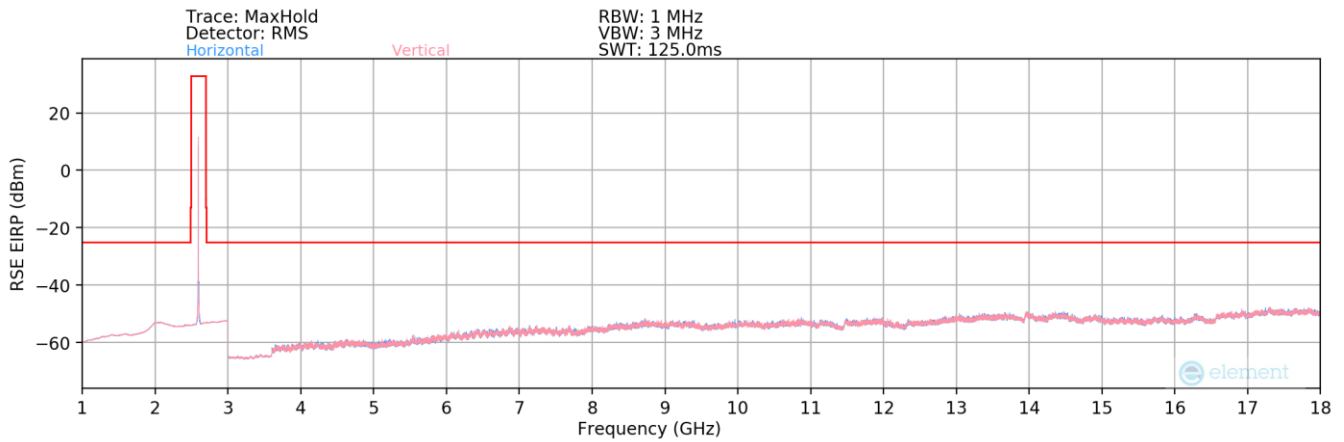
Table 7-29. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant1)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager		
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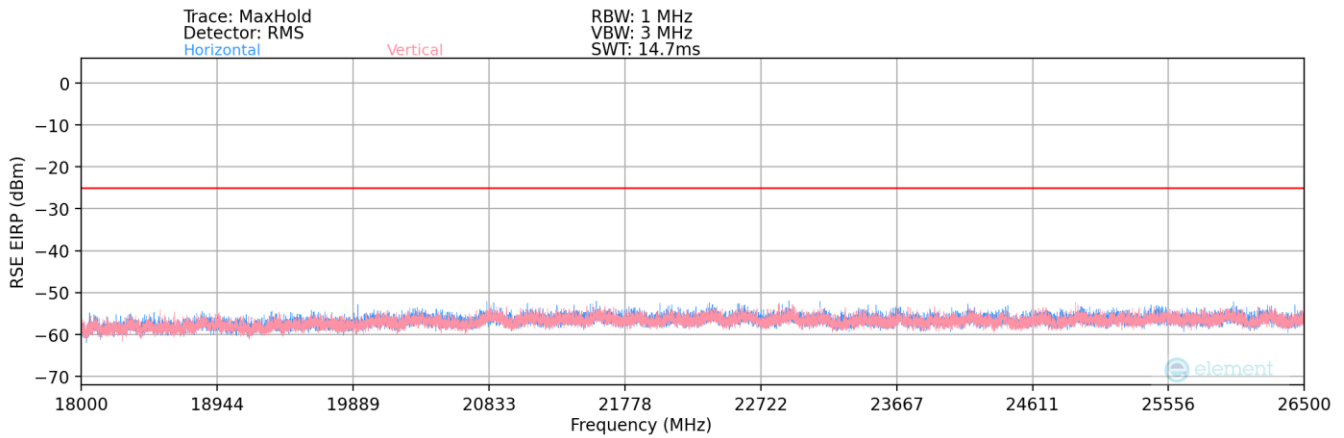
LTE Band 41(PC3) – Ant2



Plot 7-92. Radiated Spurious Plot (LTE Band 41(PC3) – Ant2)



Plot 7-93. Radiated Spurious Plot (LTE Band 41(PC3) – Ant2)



Plot 7-94. Radiated Spurious Plot (LTE Band 41(PC3) – Ant2)

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Bandwidth (MHz):	20
Frequency (MHz):	2506.0
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]
5012.00	H	109	53	-74.20	3.22	36.02	-59.23	-25.00	-34.23
7518.00	H	219	24	-73.30	9.20	42.90	-52.35	-25.00	-27.35
10024.00	H	248	98	-76.41	11.56	42.15	-53.11	-25.00	-28.11
12530.00	H	-	-	-79.36	13.01	40.65	-54.61	-25.00	-29.61
15036.00	H	239	69	-76.12	13.85	44.73	-50.53	-25.00	-25.53
17542.00	H	-	-	-78.86	16.72	44.86	-50.40	-25.00	-25.40
20048.00	H	-	-	-57.40	2.85	52.45	-52.35	-25.00	-27.35
22554.00	H	-	-	-58.35	3.84	52.50	-52.30	-25.00	-27.30

Table 7-30. Radiated Spurious Data (LTE Band 41(PC3) – Low Channel – Ant2)

Bandwidth (MHz):	20
Frequency (MHz):	2593.0
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]
5186.00	H	130	87	-76.48	3.51	34.03	-61.23	-25.00	-36.23
7779.00	H	-	-	-77.23	8.55	38.32	-56.94	-25.00	-31.94
10372.00	H	289	82	-72.68	12.14	46.46	-48.80	-25.00	-23.80
12965.00	H	-	-	-79.28	14.30	42.02	-53.24	-25.00	-28.24
15558.00	H	-	-	-78.85	13.58	41.73	-53.53	-25.00	-28.53
18151.00	H	-	-	-58.15	1.20	50.05	-45.21	-25.00	-20.21
20744.00	H	-	-	-57.88	3.31	52.43	-52.37	-25.00	-27.37

Table 7-31. Radiated Spurious Data (LTE Band 41(PC3) – Mid Channel – Ant2)

Bandwidth (MHz):	20
Frequency (MHz):	2680.0
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]
5360.00	H	272	149	-75.38	3.59	35.21	-60.04	-25.00	-35.04
8040.00	H	-	-	-77.41	9.23	38.82	-56.43	-25.00	-31.43
10720.00	H	284	69	-66.89	12.79	52.90	-42.36	-25.00	-17.36
13400.00	H	310	289	-77.73	14.97	44.24	-51.02	-25.00	-26.02
16080.00	H	-	-	-79.46	14.58	42.12	-53.14	-25.00	-28.14
18760.00	H	-	-	-58.22	1.49	50.28	-44.98	-25.00	-19.98
21440.00	H	-	-	-58.78	3.77	51.99	-52.81	-25.00	-27.81

Table 7-32. Radiated Spurious Data (LTE Band 41(PC3) – High Channel – Ant2)

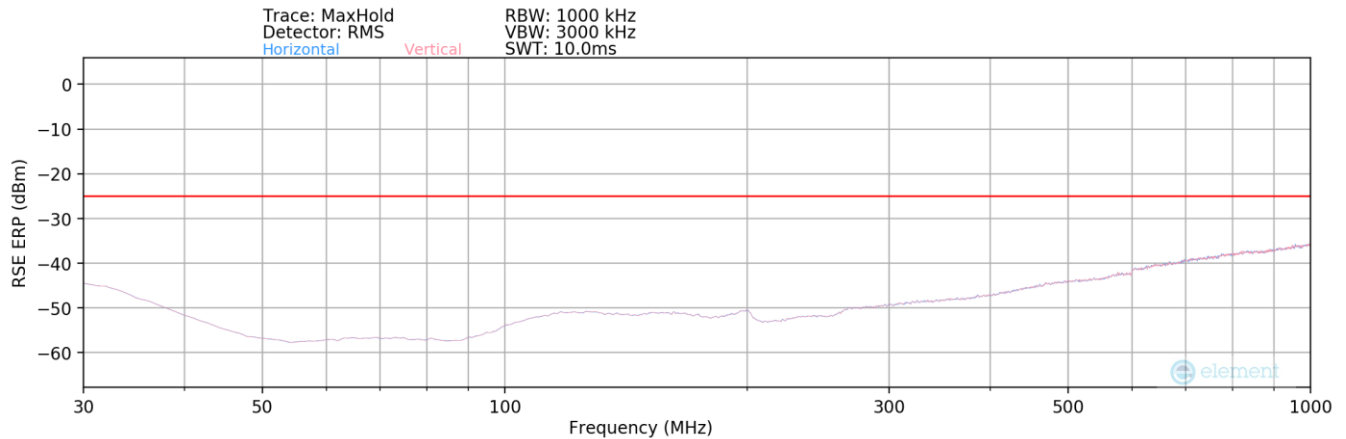
Bandwidth (MHz):	20
Frequency (MHz):	2593.0
RB / Offset:	1 / 50

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]
84.00	H	-	-	-85.93	14.18	35.25	-62.16	-25.00	-37.16

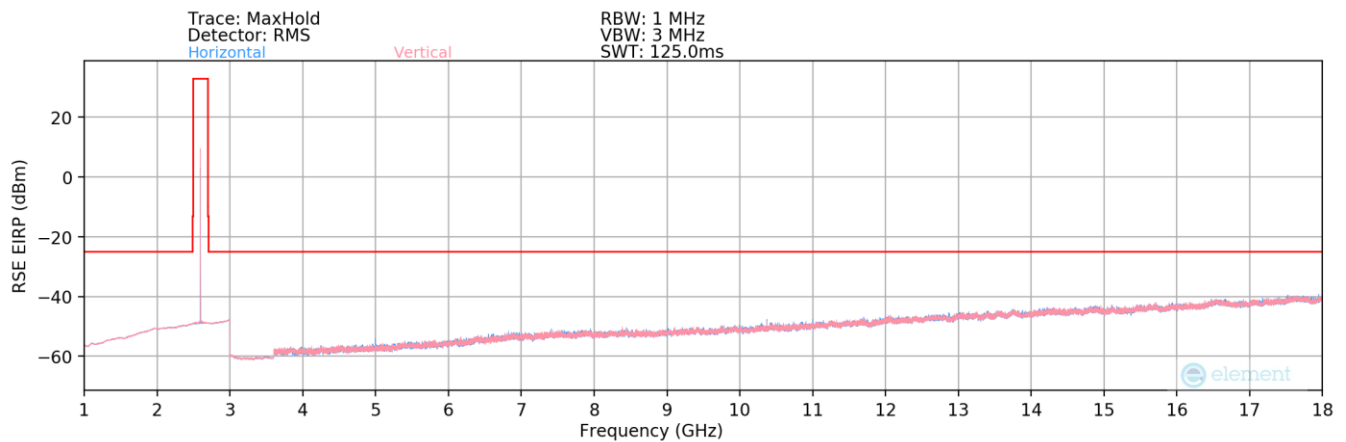
Table 7-33. Radiated Spurious Data (LTE Band 41(PC3) – Mid Channel – Ant2)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager		
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset		Page 85 of 98		

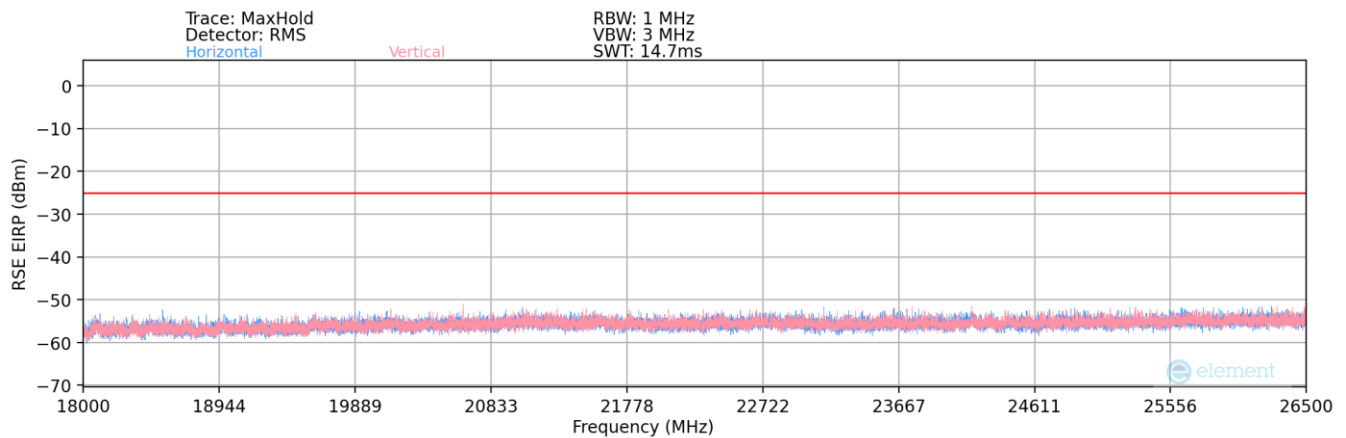
NR Band n41 – Ant2



Plot 7-95. Radiated Spurious Plot (NR Band n41 – Ant2)



Plot 7-96. Radiated Spurious Plot (NR Band n41 – Ant2)



Plot 7-97. Radiated Spurious Plot (NR Band n41 – Ant2)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 86 of 98



Bandwidth (MHz):	100
Frequency (MHz):	2546.01
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]
5092.02	H	208	24	-76.67	7.79	38.12	-57.14	-25.00	-32.14
7638.03	H	122	104	-75.38	12.80	44.42	-50.84	-25.00	-25.84
10184.04	H	108	353	-75.77	15.85	47.08	-48.18	-25.00	-23.18
12730.05	H	-	-	-79.69	20.90	48.21	-47.05	-25.00	-22.05
15276.06	H	-	-	-79.41	22.65	50.24	-45.02	-25.00	-20.02
17822.07	H	-	-	-80.51	27.20	53.69	-41.57	-25.00	-16.57
20368.08	H	-	-	-56.32	3.16	53.84	-50.96	-25.00	-25.96

Table 7-34. Radiated Spurious Data (NR Band n41 – Low Channel – Ant2)

Bandwidth (MHz):	100
Frequency (MHz):	2592.99
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]
5185.98	H	274	20	-76.13	7.63	38.50	-56.76	-25.00	-31.76
7778.97	H	153	101	-75.54	13.06	44.52	-50.74	-25.00	-25.74
10371.96	H	108	351	-73.42	16.40	49.98	-45.27	-25.00	-20.27
12964.95	H	-	-	-79.03	20.37	48.34	-46.92	-25.00	-21.92
15557.94	H	-	-	-79.41	23.57	51.16	-44.09	-25.00	-19.09
18150.93	H	-	-	-54.87	1.20	53.34	-51.46	-25.00	-26.46
20743.92	H	-	-	-56.37	3.31	53.94	-50.86	-25.00	-25.86

Table 7-35. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant2)

Bandwidth (MHz):	100
Frequency (MHz):	2640.00
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]
5280.00	H	161	25	-76.63	7.53	37.90	-57.36	-25.00	-32.36
7920.00	H	169	106	-74.87	14.56	46.69	-48.56	-25.00	-23.56
10560.00	H	399	346	-71.44	16.60	52.16	-43.10	-25.00	-18.10
13200.00	H	-	-	-79.69	21.17	48.48	-46.78	-25.00	-21.78
15840.00	H	-	-	-79.84	23.61	50.77	-44.48	-25.00	-19.48
18480.00	H	-	-	-55.91	1.65	52.74	-52.06	-25.00	-27.06
21120.00	H	-	-	-56.40	3.66	54.26	-50.54	-25.00	-25.54

Table 7-36. Radiated Spurious Data (NR Band n41 – High Channel – Ant2)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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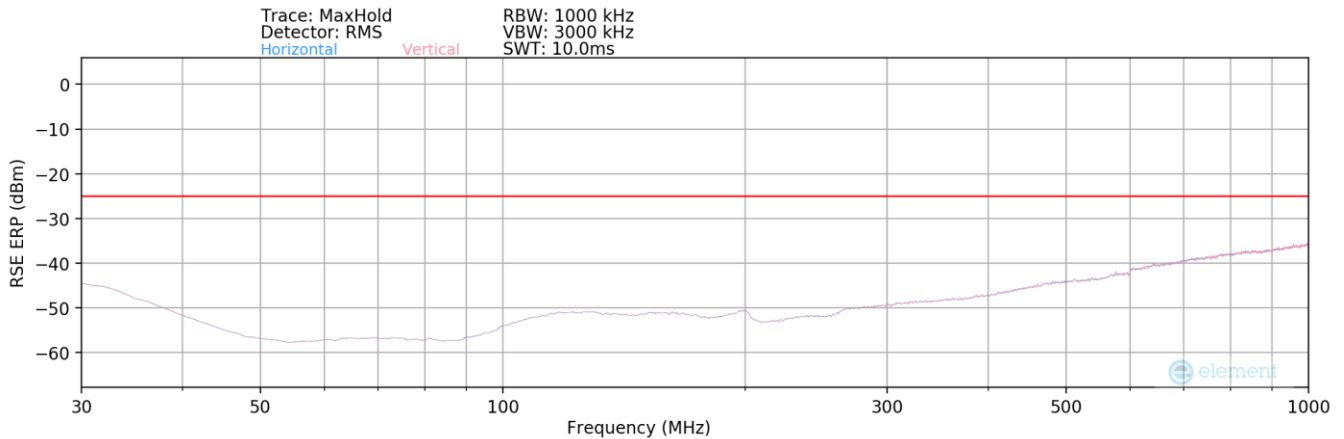
Bandwidth (MHz):	100
Frequency (MHz):	2592.99
RB / Offset:	1 / 136
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
318.00	H	-	-	-83.97	21.44	44.47	-52.94	-25.00	-27.94

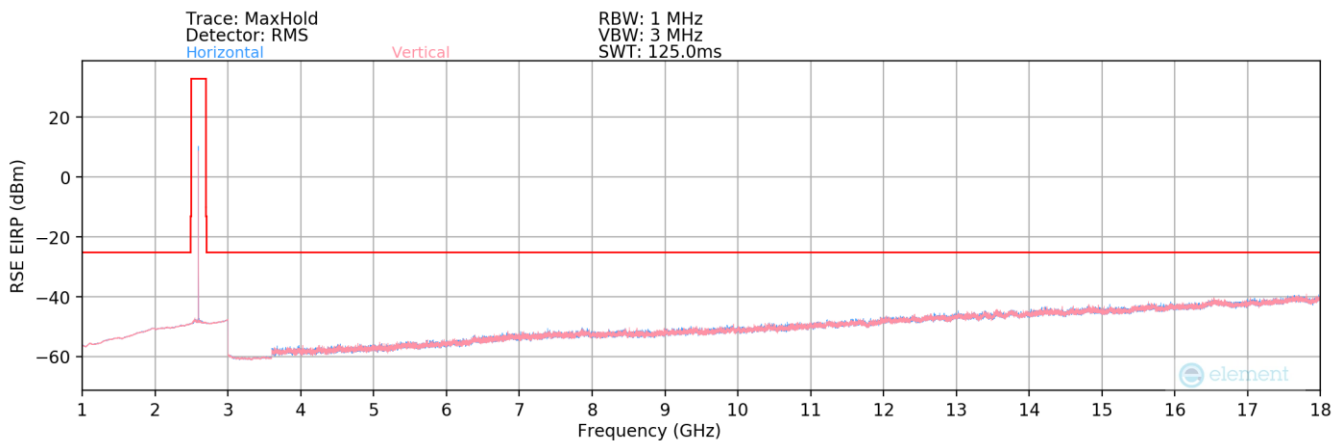
Table 7-37. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant2)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 88 of 98

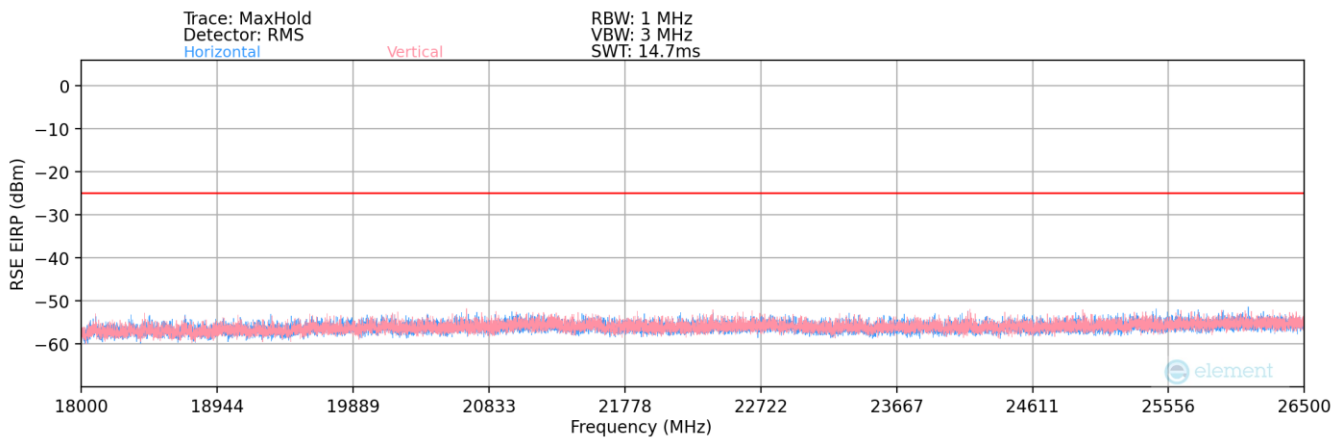
NR Band n41 – Ant3



Plot 7-98. Radiated Spurious Plot (NR Band n41 – Ant3)



Plot 7-99. Radiated Spurious Plot (NR Band n41 – Ant3)



Plot 7-100. Radiated Spurious Plot (NR Band n41 – Ant3)

FCC ID: A3LSMA356E		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset		Page 89 of 98

Bandwidth (MHz):	100
Frequency (MHz):	2546.01
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]
5092.02	V	352	86	-72.62	7.79	42.17	-53.09	-25.00	-28.09
7638.03	V	-	-	-77.43	12.80	42.37	-52.89	-25.00	-27.89
10184.04	V	146	331	-77.57	15.85	45.28	-49.98	-25.00	-24.98
12730.05	V	-	-	-79.73	20.90	48.17	-47.09	-25.00	-22.09
15276.06	V	-	-	-79.38	22.65	50.27	-44.99	-25.00	-19.99
17822.07	V	-	-	-80.71	27.20	53.49	-41.77	-25.00	-16.77
20368.08	V	-	-	-55.28	3.16	54.88	-49.92	-25.00	-24.92

Table 7-38. Radiated Spurious Data (NR Band n41 – Low Channel – Ant3)

Bandwidth (MHz):	100
Frequency (MHz):	2592.99
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]
5185.98	V	172	317	-76.55	7.63	38.08	-57.18	-25.00	-32.18
7778.97	V	-	-	-77.67	13.06	42.39	-52.87	-25.00	-27.87
10371.96	V	139	8	-73.42	16.40	49.98	-45.27	-25.00	-20.27
12964.95	V	-	-	-79.20	20.37	48.17	-47.09	-25.00	-22.09
15557.94	V	-	-	-79.52	23.57	51.05	-44.20	-25.00	-19.20
18150.93	V	-	-	-55.51	1.20	52.69	-52.11	-25.00	-27.11

Table 7-39. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant3)

Bandwidth (MHz):	100
Frequency (MHz):	2640.00
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]
5280.00	V	-	-	-76.68	7.53	37.85	-57.41	-25.00	-32.41
7920.00	V	-	-	-78.69	14.56	42.87	-52.38	-25.00	-27.38
10560.00	V	120	11	-72.67	16.60	50.93	-44.33	-25.00	-19.33
13200.00	V	-	-	-79.72	21.17	48.45	-46.81	-25.00	-21.81
15840.00	V	-	-	-79.54	23.61	51.07	-44.18	-25.00	-19.18
18480.00	V	-	-	-55.22	1.65	53.43	-51.37	-25.00	-26.37

Table 7-40. Radiated Spurious Data (NR Band n41 – High Channel – Ant3)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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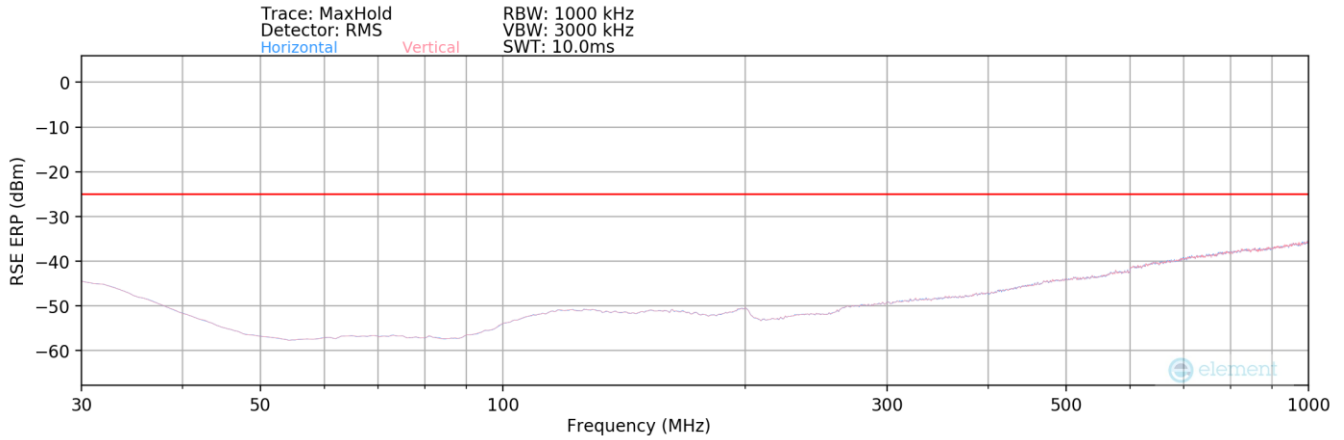
Bandwidth (MHz):	100
Frequency (MHz):	2592.99
RB / Offset:	1 / 136
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
592.00	V	-	-	-86.08	26.98	47.90	-49.51	-25.00	-24.51

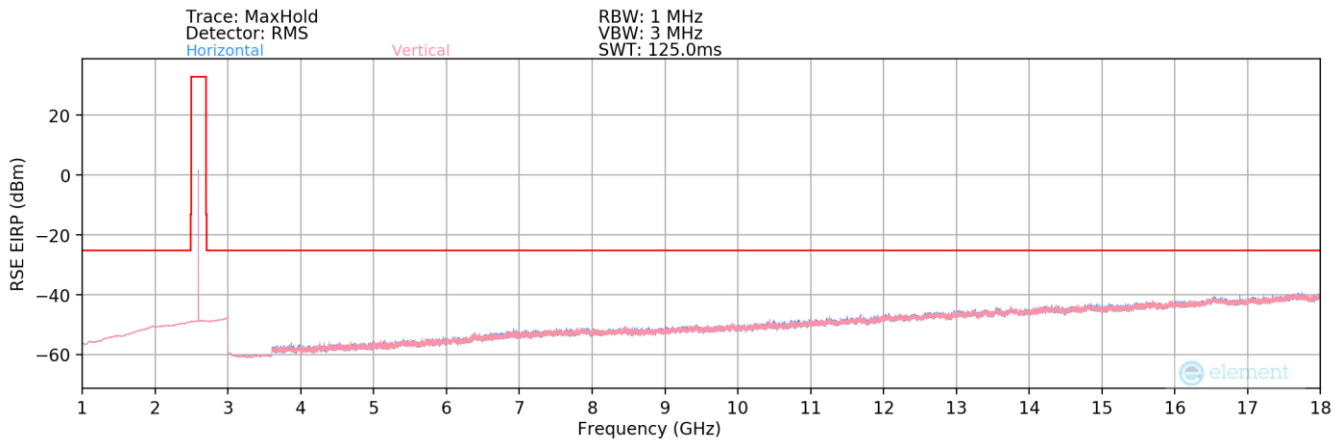
Table 7-41. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant3)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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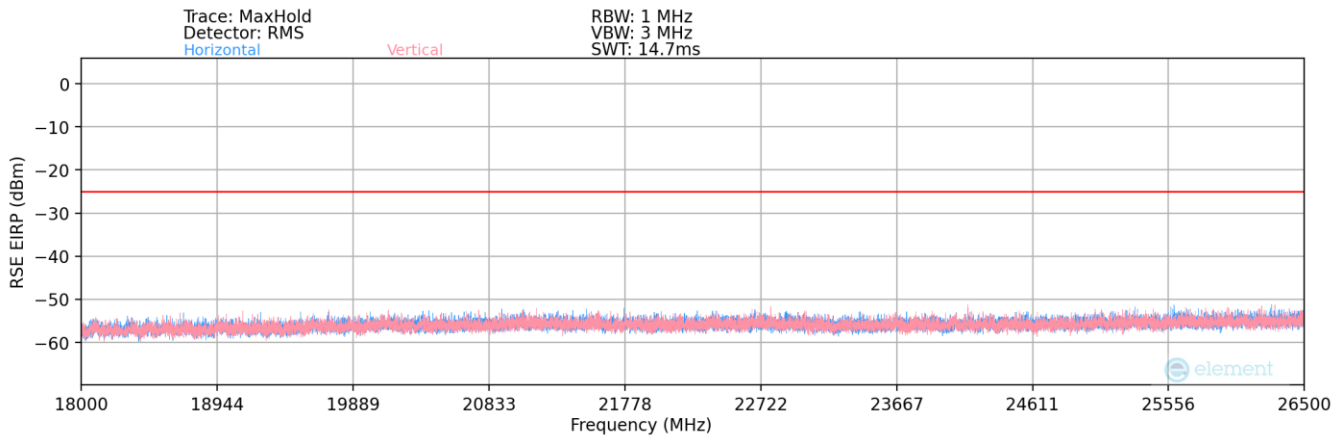
NR Band n41 – Ant4



Plot 7-101. Radiated Spurious Plot (NR Band n41 – Ant4)



Plot 7-102. Radiated Spurious Plot (NR Band n41 – Ant4)



Plot 7-103. Radiated Spurious Plot (NR Band n41 – Ant4)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 92 of 98

Bandwidth (MHz):	100
Frequency (MHz):	2546.01
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]
	V	218	347	-76.21	7.79	38.58	-56.68	-25.00	-31.68
	V	-	-	-77.28	12.80	42.52	-52.74	-25.00	-27.74
	V	150	6	-75.60	15.85	47.25	-48.01	-25.00	-23.01
	V	-	-	-79.61	20.90	48.29	-46.97	-25.00	-21.97
15276.06	V	-	-	-79.23	22.65	50.42	-44.84	-25.00	-19.84
17822.07	V	-	-	-80.23	27.20	53.97	-41.29	-25.00	-16.29
20368.08	V	-	-	-55.25	3.16	54.91	-49.89	-25.00	-24.89

Table 7-42. Radiated Spurious Data (NR Band n41 – Low Channel – Ant4)

Bandwidth (MHz):	100
Frequency (MHz):	2592.99
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]
	V	-	-	-77.04	7.63	37.59	-57.67	-25.00	-32.67
	V	155	312	-77.22	13.06	42.84	-52.42	-25.00	-27.42
	V	146	3	-75.46	16.40	47.94	-47.31	-25.00	-22.31
	V	-	-	-79.28	20.37	48.09	-47.17	-25.00	-22.17
15557.94	V	-	-	-79.50	23.57	51.07	-44.18	-25.00	-19.18
18150.93	V	-	-	-56.51	1.20	51.69	-53.11	-25.00	-28.11

Table 7-43. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant4)

Bandwidth (MHz):	100
Frequency (MHz):	2640.00
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]
	V	133	338	-76.55	7.53	37.98	-57.28	-25.00	-32.28
	V	-	-	-78.81	14.56	42.75	-52.50	-25.00	-27.50
	V	166	331	-72.54	16.60	51.06	-44.20	-25.00	-19.20
	V	-	-	-79.48	21.17	48.69	-46.57	-25.00	-21.57
15840.00	V	-	-	-79.68	23.61	50.93	-44.32	-25.00	-19.32
18480.00	V	-	-	-55.23	1.65	53.42	-51.38	-25.00	-26.38

Table 7-44. Radiated Spurious Data (NR Band n41 – High Channel – Ant4)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Bandwidth (MHz):	100
Frequency (MHz):	2592.99
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]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
74.00	V	-	-	-84.64	14.82	37.18	-60.23	-25.00	-35.23

Table 7-45. Radiated Spurious Data (NR Band n41 – Mid Channel – Ant4)

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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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 41					
		Operating Frequency (Hz):		2,593,000,000	
		Ref. Voltage (VDC):		4.414	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.414	- 30	2,592,999,893	-497	-0.0000192
		- 20	2,592,999,772	-617	-0.0000238
		- 10	2,592,999,981	-409	-0.0000158
		0	2,593,001,739	1,349	0.0000520
		+ 10	2,593,000,743	353	0.0000136
		+ 20 (Ref)	2,593,000,389	0	0.0000000
		+ 30	2,593,000,462	72	0.0000028
		+ 40	2,593,000,992	603	0.0000232
Battery Endpoint	3.774	+ 20	2,593,001,585	1,195	0.0000461

Table 7-9. LTE Band 41(PC3) Frequency Stability Data

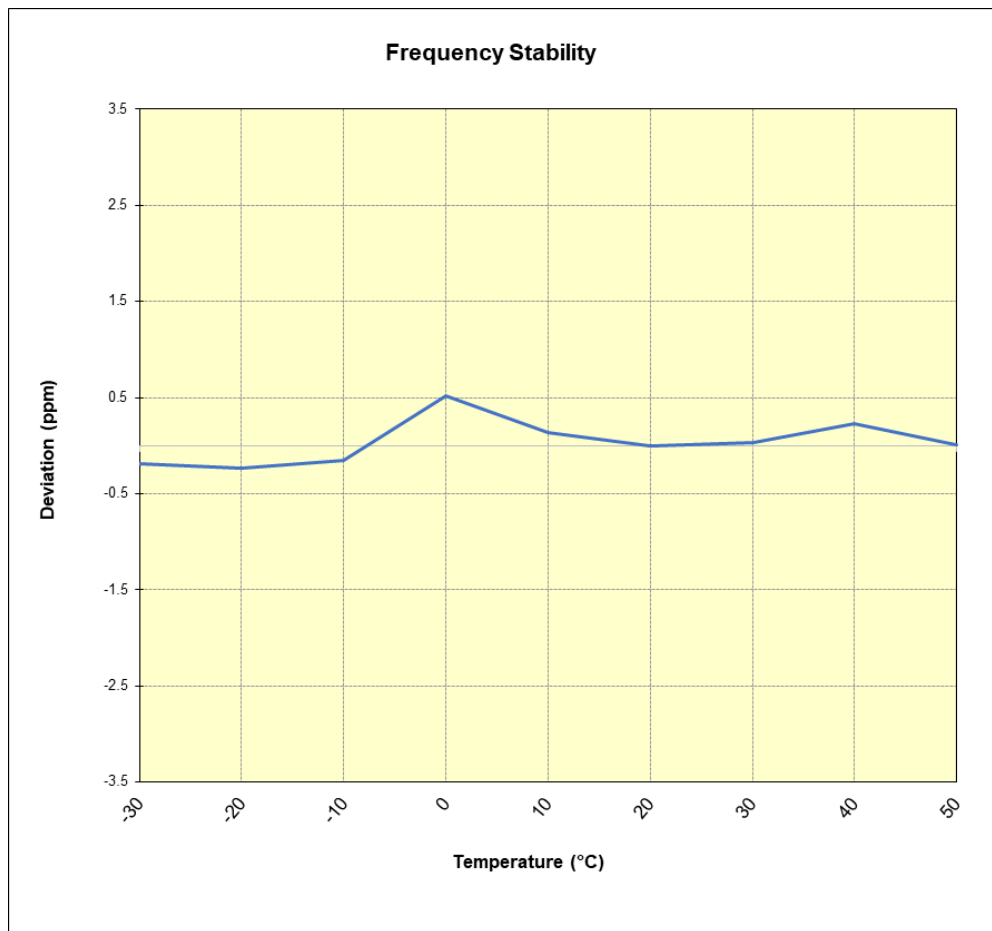


Table 7-9. LTE Band 41(PC3) Frequency Stability Chart

FCC ID: A3LSMA356E	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n41					
		Operating Frequency (Hz):		2,593,000,000	
		Ref. Voltage (VDC):		4.414	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.414	- 30	2,593,153,612	-2,858	-0.0001102
		- 20	2,593,153,196	-3,274	-0.0001263
		- 10	2,593,152,741	-3,730	-0.0001438
		0	2,593,154,781	-1,689	-0.0000651
		+ 10	2,593,153,192	-3,279	-0.0001264
		+ 20 (Ref)	2,593,156,471	0	0.0000000
		+ 30	2,593,153,505	-2,966	-0.0001144
		+ 40	2,593,152,909	-3,562	-0.0001373
Battery Endpoint	3.774	+ 20	2,593,154,312	-2,158	-0.0000832

Table 7-9. NR Band n41 Frequency Stability Data

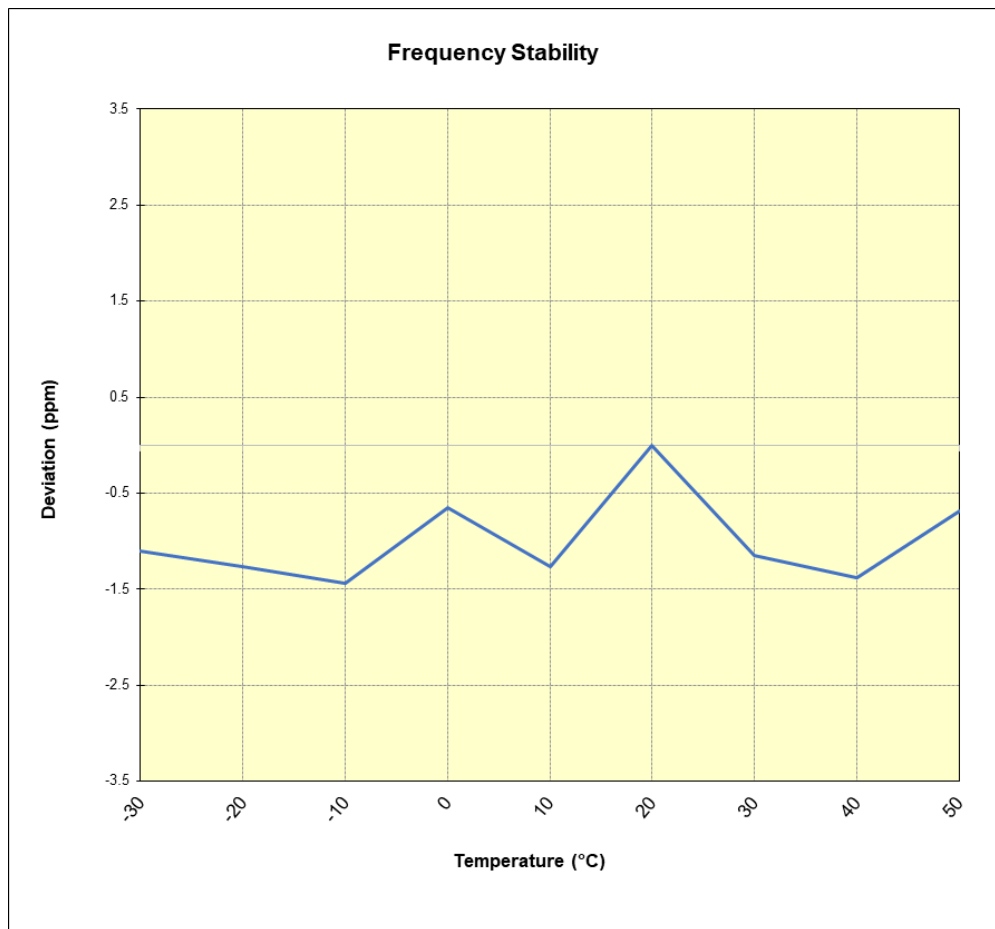


Table 7-9. NR Band n41 Frequency Stability Chart

FCC ID: A3LSMA356E	PART 27 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: A3LSMA356E** complies with all the requirements of Part 27 of the FCC rules.

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Test Report S/N: 1M2310260110-05.A3L	Test Dates: 11/30/2023 - 12/12/2023	EUT Type: Portable Handset	Page 98 of 98