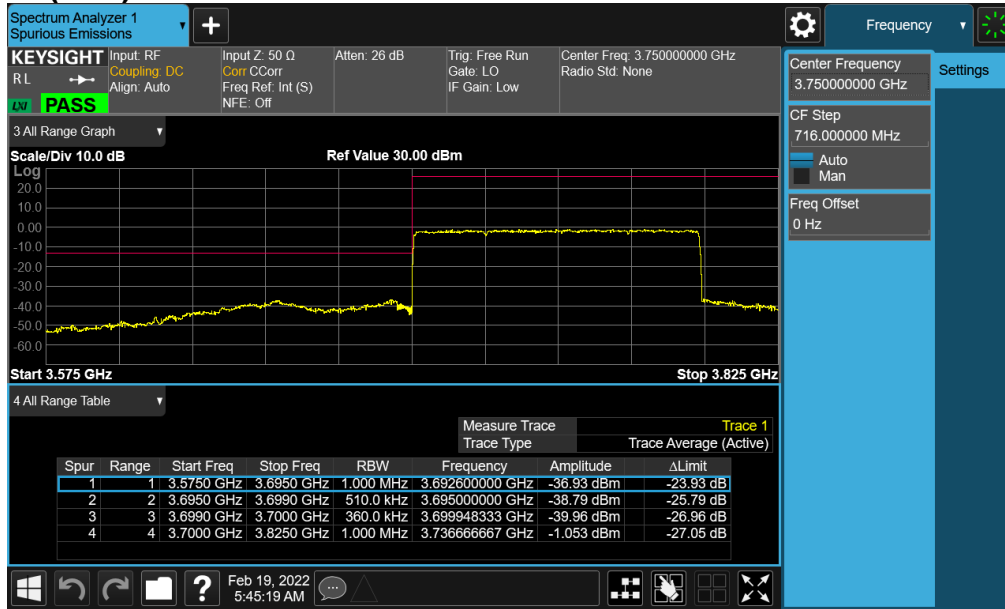
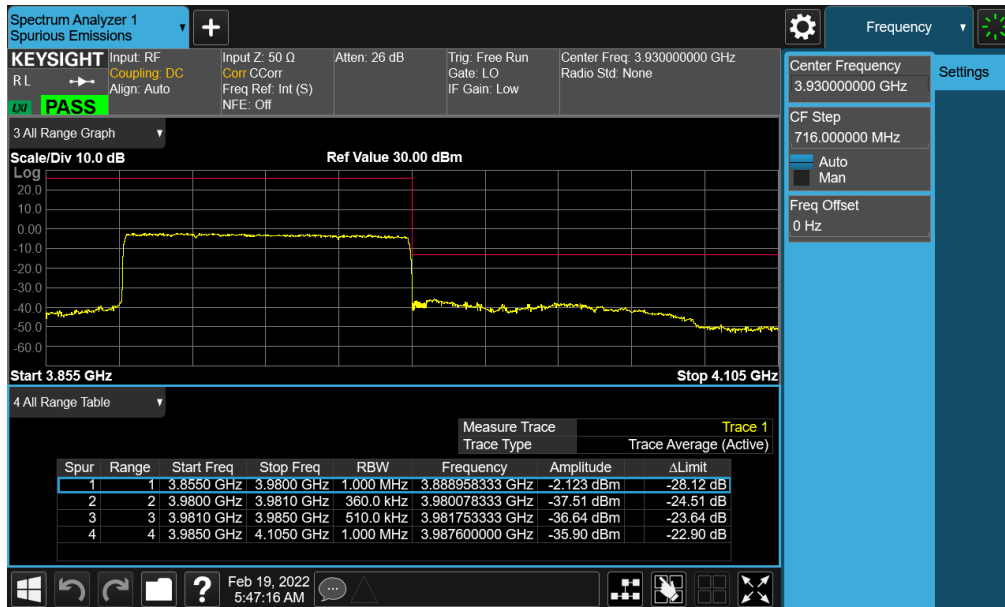


NR Band n77 (PC3) – C-Band – SRS-2 – ANT C



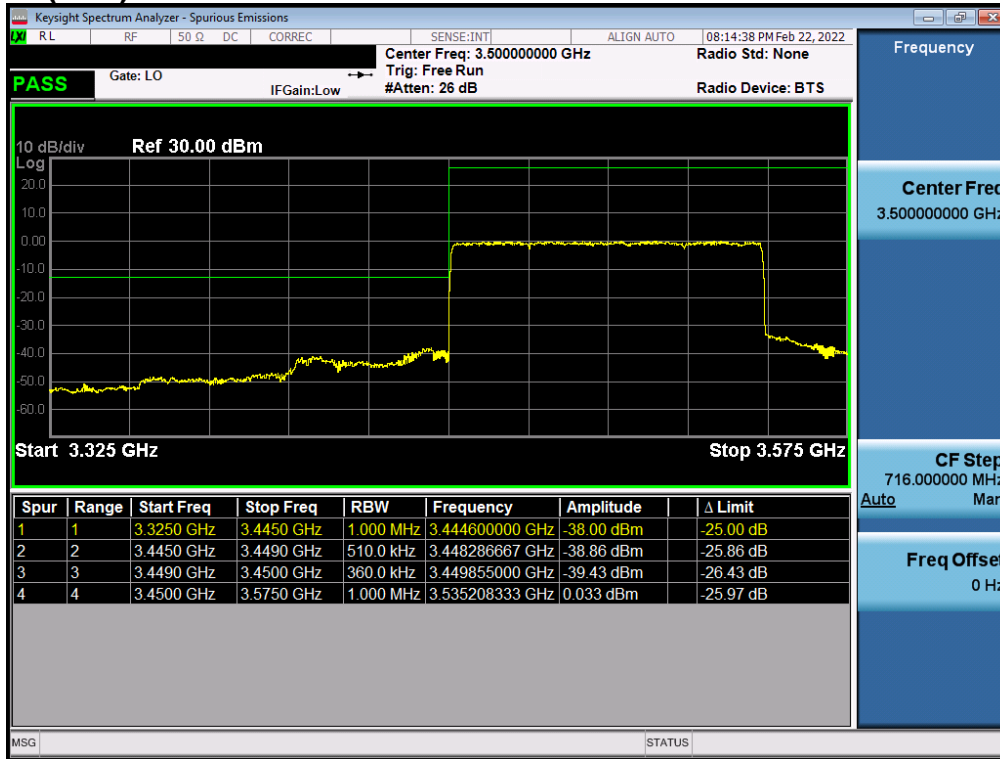
Plot 7-169. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - ANT C)



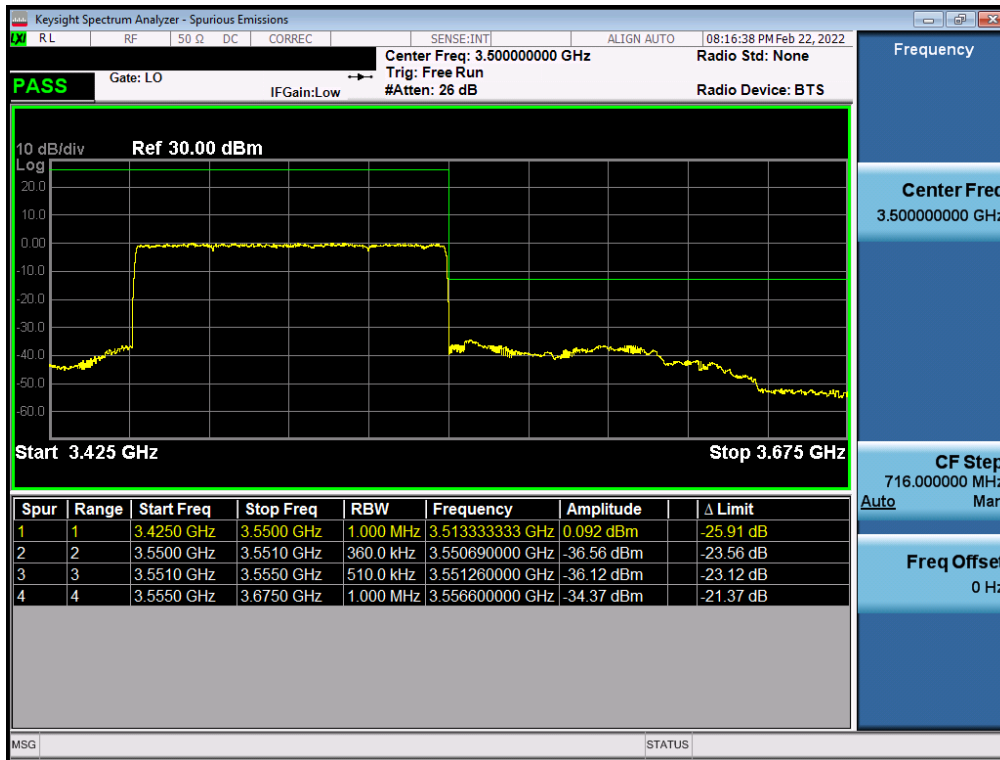
Plot 7-170. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - ANT C)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
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NR Band n77 (PC3) – DoD-Band – SRS-3 – ANT L



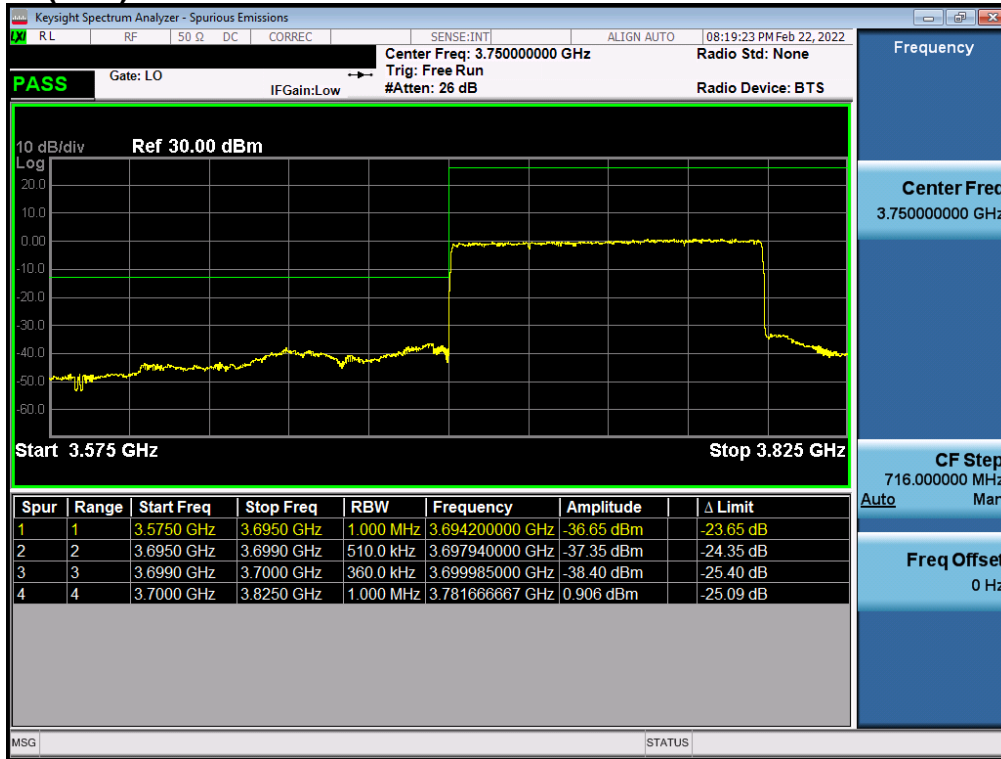
Plot 7-171. Lower ACP Plot (NR Band n77 (DoD) - 100MHz CP-OFDM-QPSK – Full RB - ANT L)



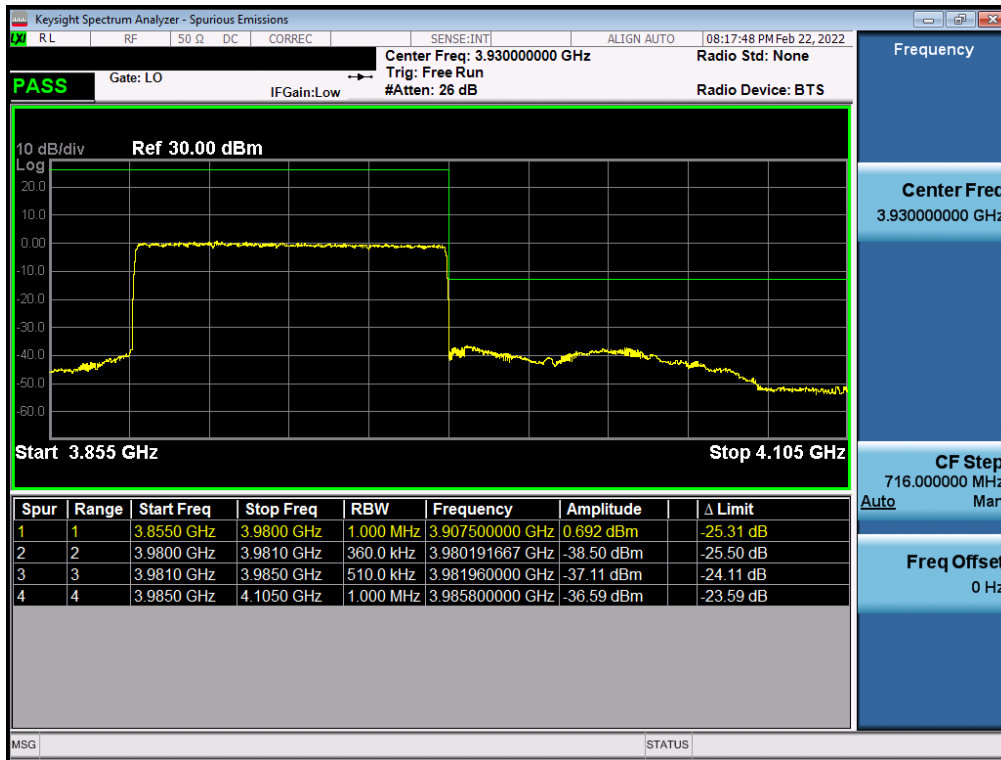
Plot 7-172. Upper ACP Plot (NR Band n77 (DoD) - 100MHz CP-OFDM-QPSK – Full RB - ANT L)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
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NR Band n77 (PC3) – C-Band – SRS-3 – ANT L



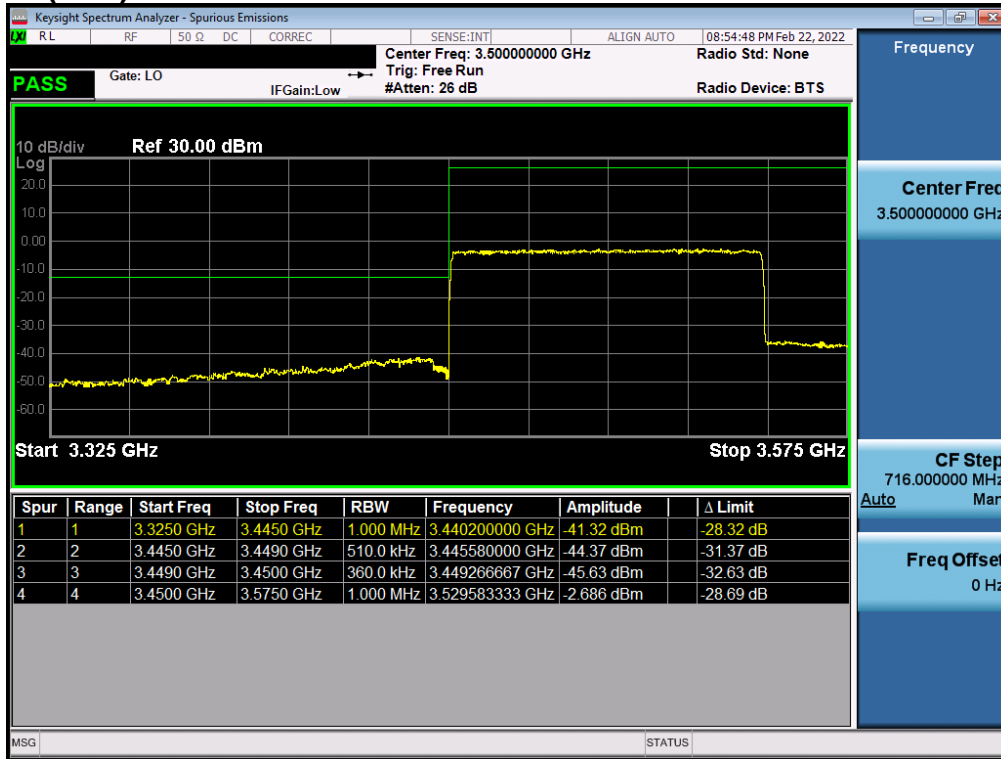
Plot 7-173. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - ANT L)



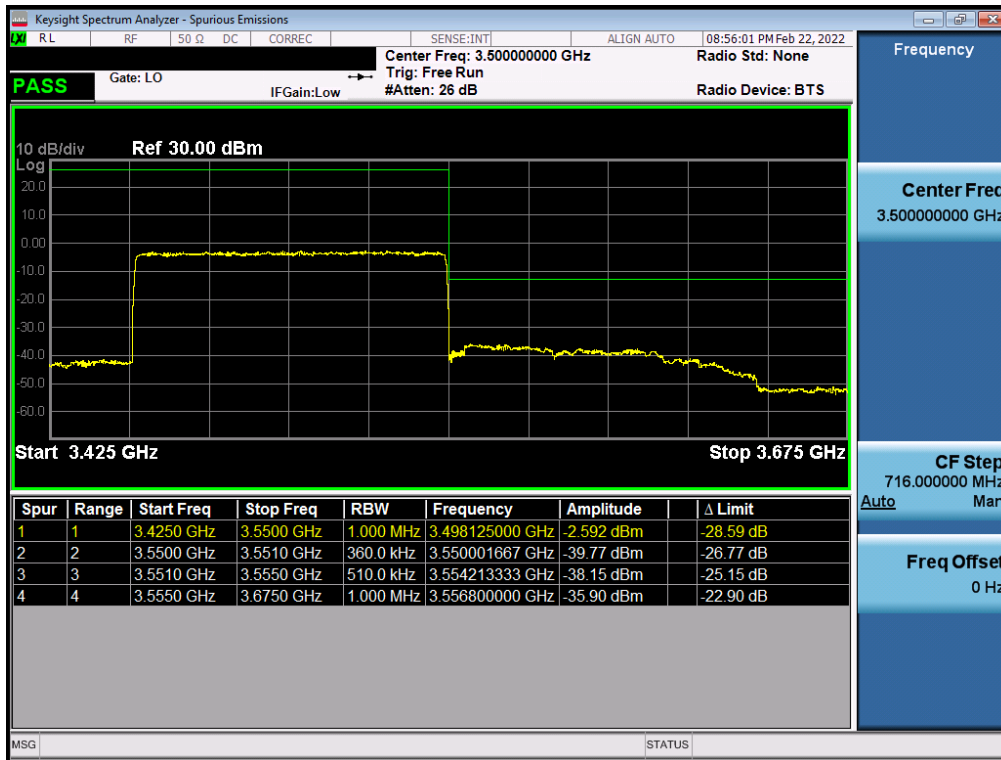
Plot 7-174. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - ANT L)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
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NR Band n77 (PC3) – DoD-Band – SRS-4 – ANT D



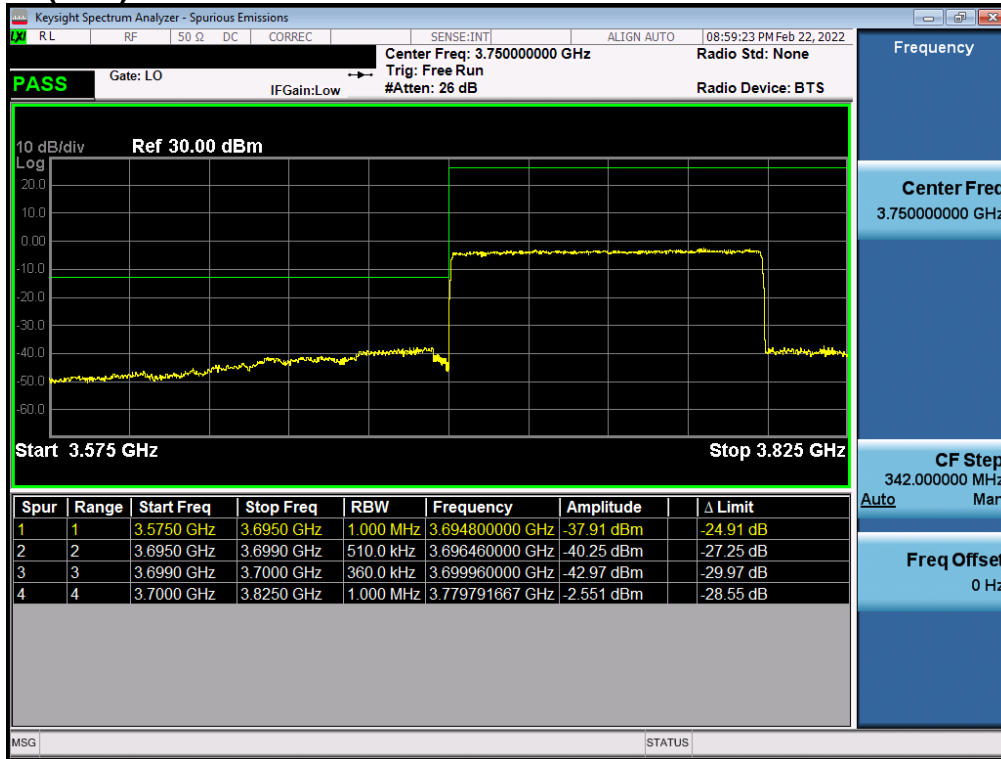
Plot 7-175. Lower ACP Plot (NR Band n77 (DoD) - 100MHz CP-OFDM-QPSK – Full RB - ANT D)



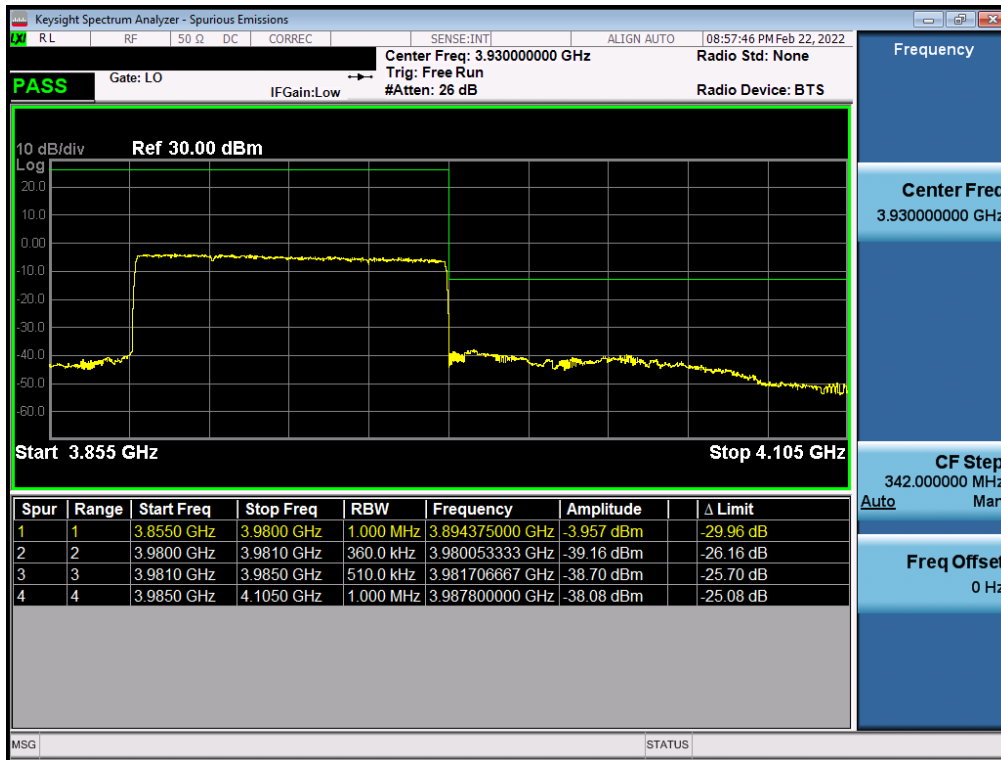
Plot 7-176. Upper ACP Plot (NR Band n77 (DoD) - 100MHz CP-OFDM-QPSK – Full RB - ANT D)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
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NR Band n77 (PC3) – C-Band – SRS-4 – ANT D



Plot 7-177. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - ANT D)



Plot 7-178. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB - ANT D)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 109 of 144

7.6 Radiated Power (EIRP)

Test Overview

Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz 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

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

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: A3LSMS908E	 PCTEST® Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
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Test Setup

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

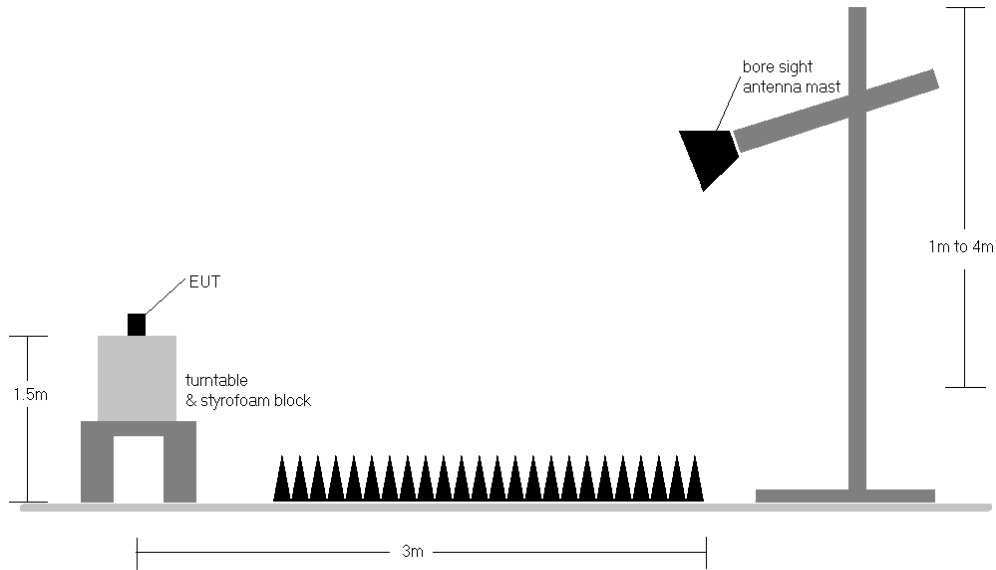


Figure 7-5. Radiated Test Setup >1GHz



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: A3LSMS908E	PART 27 MEASUREMENT REPORT CLASS II Permissive Change			Approved by: Technical Manager
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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	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	3500.01	H	108	268	7.74	1 / 136	15.39	23.13	0.205	30.00	-6.87
	QPSK	3500.01	H	108	268	7.74	1 / 136	15.41	23.15	0.206	30.00	-6.85
	16-QAM	3500.01	H	108	268	7.74	1 / 136	15.03	22.77	0.189	30.00	-7.23
90 MHz	π/2 BPSK	3495.00	H	106	267	7.72	1 / 183	14.84	22.57	0.181	30.00	-7.43
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 183	15.48	23.22	0.210	30.00	-6.78
	π/2 BPSK	3504.99	H	108	259	7.71	1 / 61	15.80	23.51	0.224	30.00	-6.49
	QPSK	3495.00	H	108	268	7.72	1 / 183	15.16	22.88	0.194	30.00	-7.12
	QPSK	3500.01	H	108	268	7.74	1 / 183	15.61	23.34	0.216	30.00	-6.66
	QPSK	3504.99	H	108	259	7.71	1 / 61	15.51	23.22	0.210	30.00	-6.78
80 MHz	16-QAM	3504.99	H	108	259	7.71	1 / 61	15.26	22.98	0.198	30.00	-7.02
	π/2 BPSK	3490.02	H	108	268	7.71	1 / 54	15.89	23.61	0.229	30.00	-6.39
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 54	15.60	23.34	0.216	30.00	-6.66
	π/2 BPSK	3510.00	H	108	259	7.68	1 / 54	15.41	23.10	0.204	30.00	-6.90
	QPSK	3490.02	H	108	268	7.71	1 / 54	15.56	23.27	0.212	30.00	-6.73
	QPSK	3500.01	H	108	268	7.74	1 / 54	15.57	23.31	0.214	30.00	-6.69
70 MHz	QPSK	3510.00	H	108	259	7.68	1 / 54	15.52	23.21	0.209	30.00	-6.79
	16-QAM	3490.02	H	108	268	7.71	1 / 54	14.97	22.68	0.185	30.00	-7.32
	π/2 BPSK	3485.01	H	108	268	7.70	1 / 47	16.02	23.72	0.235	30.00	-6.28
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 47	15.92	23.65	0.232	30.00	-6.35
	π/2 BPSK	3514.98	H	108	259	7.66	1 / 47	15.97	23.63	0.231	30.00	-6.37
	QPSK	3485.01	H	108	268	7.70	1 / 47	15.55	23.25	0.211	30.00	-6.75
60 MHz	QPSK	3500.01	H	108	268	7.74	1 / 47	15.48	23.21	0.210	30.00	-6.79
	QPSK	3514.98	H	108	259	7.66	1 / 47	15.52	23.18	0.208	30.00	-6.82
	16-QAM	3485.01	H	108	268	7.70	1 / 47	15.00	22.70	0.186	30.00	-7.30
	π/2 BPSK	3480.00	H	108	268	7.69	1 / 81	15.95	23.64	0.231	30.00	-6.36
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 81	15.87	23.60	0.229	30.00	-6.40
	π/2 BPSK	3519.99	H	108	259	7.63	1 / 81	15.91	23.54	0.226	30.00	-6.46
50 MHz	QPSK	3480.00	H	108	268	7.69	1 / 81	15.91	23.60	0.229	30.00	-6.40
	QPSK	3500.01	H	108	268	7.74	1 / 81	15.86	23.60	0.229	30.00	-6.40
	QPSK	3519.99	H	108	259	7.63	1 / 81	15.89	23.53	0.225	30.00	-6.47
	16-QAM	3480.00	H	108	268	7.69	1 / 81	15.60	23.29	0.213	30.00	-6.71
	π/2 BPSK	3475.02	H	108	268	7.68	1 / 99	15.67	23.35	0.216	30.00	-6.65
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 66	15.86	23.60	0.229	30.00	-6.40
40 MHz	π/2 BPSK	3525.00	H	108	259	7.61	1 / 66	15.84	23.45	0.221	30.00	-6.55
	QPSK	3475.02	H	108	268	7.68	1 / 99	15.80	23.48	0.223	30.00	-6.52
	QPSK	3500.01	H	108	268	7.74	1 / 66	15.70	23.44	0.221	30.00	-6.56
	QPSK	3525.00	H	108	259	7.61	1 / 66	15.77	23.38	0.218	30.00	-6.62
	16-QAM	3475.02	H	108	268	7.68	1 / 99	14.97	22.64	0.184	30.00	-7.36
	π/2 BPSK	3470.01	H	108	268	7.66	1 / 53	16.26	23.92	0.247	30.00	-6.08
30 MHz	π/2 BPSK	3500.01	H	108	268	7.74	1 / 79	15.90	23.63	0.231	30.00	-6.37
	π/2 BPSK	3529.98	H	108	259	7.58	1 / 53	16.05	23.63	0.231	30.00	-6.37
	QPSK	3470.01	H	108	268	7.66	1 / 53	16.20	23.86	0.243	30.00	-6.14
	QPSK	3500.01	H	108	268	7.74	1 / 79	15.96	23.69	0.234	30.00	-6.31
	QPSK	3529.98	H	108	259	7.58	1 / 53	15.64	23.22	0.210	30.00	-6.78
	16-QAM	3529.98	H	108	259	7.58	1 / 53	15.67	23.25	0.212	30.00	-6.75
20 MHz	π/2 BPSK	3465.00	H	108	268	7.65	1 / 39	15.51	23.16	0.207	30.00	-6.84
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 39	15.43	23.17	0.207	30.00	-6.83
	π/2 BPSK	3534.99	H	108	259	7.56	1 / 39	15.13	22.69	0.186	30.00	-7.31
	QPSK	3465.00	H	108	268	7.65	1 / 39	16.11	23.76	0.238	30.00	-6.24
	QPSK	3500.01	H	108	268	7.74	1 / 39	15.91	23.65	0.232	30.00	-6.35
	QPSK	3534.99	H	108	259	7.56	1 / 39	15.91	23.47	0.222	30.00	-6.53
15 MHz	16-QAM	3465.00	H	108	268	7.65	1 / 39	15.36	23.01	0.200	30.00	-6.99
	π/2 BPSK	3460.02	H	108	268	7.64	1 / 37	16.48	24.12	0.258	30.00	-5.88
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 25	15.83	23.56	0.227	30.00	-6.44
	π/2 BPSK	3540.00	H	108	259	7.53	1 / 37	16.07	23.60	0.229	30.00	-6.40
	QPSK	3460.02	H	108	268	7.64	1 / 37	16.43	24.07	0.255	30.00	-5.93
	QPSK	3500.01	H	108	268	7.74	1 / 25	16.05	23.79	0.239	30.00	-6.21
10 MHz	QPSK	3540.00	H	108	259	7.53	1 / 37	16.02	23.55	0.226	30.00	-6.45
	16-QAM	3460.02	H	108	268	7.64	1 / 37	15.94	23.58	0.228	30.00	-6.42
	π/2 BPSK	3457.50	H	108	268	7.63	1 / 28	16.43	24.07	0.255	30.00	-5.93
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 28	16.21	23.95	0.248	30.00	-6.05
	π/2 BPSK	3542.49	H	108	259	7.52	1 / 28	15.87	23.39	0.218	30.00	-6.61
	QPSK	3457.50	H	108	268	7.63	1 / 28	16.38	24.02	0.252	30.00	-5.98
100 MHz	QPSK	3500.01	H	108	268	7.74	1 / 28	16.19	23.93	0.247	30.00	-6.07
	QPSK	3542.49	H	108	259	7.52	1 / 28	15.88	23.40	0.219	30.00	-6.60
	16-QAM	3500.01	H	108	268	7.74	1 / 28	16.02	23.76	0.238	30.00	-6.24
	π/2 BPSK	3455.01	H	108	268	7.63	1 / 12	16.03	23.66	0.232	30.00	-6.34
	π/2 BPSK	3500.01	H	108	268	7.74	1 / 12	15.83	23.57	0.227	30.00	-6.43
	π/2 BPSK	3544.98	H	108	259	7.50	1 / 12	15.95	23.45	0.222	30.00	-6.55
100 MHz	QPSK	3455.01	H	108	268	7.63	1 / 12	16.48	24.11	0.258	30.00	-5.89
	QPSK	3500.01	H	108	268	7.74	1 / 12	16.24	23.97	0.250	30.00	-6.03
	QPSK	3544.98	H	108	259	7.50	1 / 12	16.31	23.81	0.241	30.00	-6.19
100 MHz	16-QAM	3544.98	H	108	259	7.50	1 / 12	15.86	23.37	0.217	30.00	-6.63
	QPSK (CP-OFDM)	3500.0	H	104	308	7.74	1 / 136	13.97	21.71	0.148	30.00	-8.29
	QPSK (Opposite Pol.)	3500.0	V	108	270	7.74	1 / 136	14.90	22.64	0.184	30.00	-7.36
	QPSK (WCP)	3500.0	H	119	119	7.74	1 / 136	7.86	15.60	0.036	30.00	-14.40

Table 7-2. EIRP Data (NR Band n77 (DoD) – SRS-1 – ANT F)

FCC ID: A3LSMS908E	 PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	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	3750.00	V	107	270	6.83	1 / 68	15.59	22.42	0.175	30.00	-7.58
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 136	15.85	22.32	0.171	30.00	-7.68
	π/2 BPSK	3930.00	V	128	279	6.49	1 / 136	15.73	22.22	0.167	30.00	-7.78
	QPSK	3750.00	V	107	270	6.83	1 / 68	15.64	22.47	0.177	30.00	-7.53
	QPSK	3840.00	V	101	270	6.47	1 / 136	15.90	22.37	0.173	30.00	-7.63
	QPSK	3930.00	V	128	279	6.49	1 / 136	15.77	22.26	0.168	30.00	-7.74
90 MHz	16-QAM	3750.00	V	107	270	6.83	1 / 68	14.79	21.62	0.145	30.00	-8.38
	π/2 BPSK	3745.02	V	107	270	6.81	1 / 183	15.65	22.46	0.176	30.00	-7.54
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 122	16.16	22.63	0.183	30.00	-7.37
	π/2 BPSK	3934.98	V	128	279	6.49	1 / 183	15.64	22.13	0.163	30.00	-7.87
	QPSK	3745.02	V	107	270	6.81	1 / 183	15.76	22.57	0.181	30.00	-7.43
	QPSK	3840.00	V	101	270	6.47	1 / 122	16.10	22.57	0.181	30.00	-7.43
80 MHz	QPSK	3934.98	V	128	279	6.49	1 / 183	15.96	22.45	0.176	30.00	-7.55
	16-QAM	3840.00	V	101	270	6.47	1 / 122	15.63	22.11	0.162	30.00	-7.89
	π/2 BPSK	3740.01	V	107	270	6.78	1 / 108	15.91	22.69	0.186	30.00	-7.31
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 108	16.04	22.51	0.178	30.00	-7.49
	π/2 BPSK	3939.99	V	128	279	6.48	1 / 108	16.02	22.50	0.178	30.00	-7.50
	QPSK	3740.01	V	107	270	6.78	1 / 108	15.75	22.53	0.179	30.00	-7.47
70 MHz	QPSK	3840.00	V	101	270	6.47	1 / 108	15.84	22.31	0.170	30.00	-7.69
	QPSK	3939.99	V	128	279	6.48	1 / 108	15.81	22.29	0.169	30.00	-7.71
	16-QAM	3740.01	V	107	270	6.78	1 / 108	15.70	22.48	0.177	30.00	-7.52
	π/2 BPSK	3735.00	V	107	270	6.76	1 / 141	15.74	22.50	0.178	30.00	-7.50
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 141	16.12	22.59	0.182	30.00	-7.41
	π/2 BPSK	3945.00	V	128	279	6.47	1 / 141	16.02	22.49	0.177	30.00	-7.51
60 MHz	QPSK	3735.00	V	107	270	6.76	1 / 141	15.86	22.62	0.183	30.00	-7.38
	QPSK	3840.00	V	101	270	6.47	1 / 141	15.99	22.46	0.176	30.00	-7.54
	QPSK	3945.00	V	128	279	6.47	1 / 141	16.07	22.53	0.179	30.00	-7.47
	16-QAM	3735.00	V	107	270	6.76	1 / 141	15.71	22.46	0.176	30.00	-7.54
	π/2 BPSK	3730.02	V	107	270	6.73	1 / 81	16.12	22.85	0.193	30.00	-7.15
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 81	16.26	22.74	0.188	30.00	-7.26
50 MHz	π/2 BPSK	3949.98	V	128	279	6.46	1 / 81	16.38	22.83	0.192	30.00	-7.17
	QPSK	3730.02	V	107	270	6.73	1 / 81	16.08	22.81	0.191	30.00	-7.19
	QPSK	3840.00	V	101	270	6.47	1 / 81	16.15	22.63	0.183	30.00	-7.37
	QPSK	3949.98	V	128	279	6.46	1 / 81	16.37	22.82	0.192	30.00	-7.18
	16-QAM	3949.98	V	128	279	6.46	1 / 81	16.07	22.52	0.179	30.00	-7.48
	π/2 BPSK	3725.01	V	107	270	6.71	1 / 66	16.26	22.96	0.198	30.00	-7.04
40 MHz	π/2 BPSK	3840.00	V	101	270	6.47	1 / 66	16.31	22.78	0.190	30.00	-7.22
	π/2 BPSK	3954.99	V	128	279	6.43	1 / 66	15.93	22.37	0.173	30.00	-7.63
	QPSK	3725.01	V	107	270	6.71	1 / 66	16.15	22.86	0.193	30.00	-7.14
	QPSK	3840.00	V	101	270	6.47	1 / 66	16.09	22.56	0.180	30.00	-7.44
	QPSK	3954.99	V	128	279	6.43	1 / 66	15.80	22.23	0.167	30.00	-7.77
	16-QAM	3725.01	V	107	270	6.71	1 / 66	15.31	22.02	0.159	30.00	-7.98
30 MHz	π/2 BPSK	3720.00	V	107	270	6.68	1 / 79	16.35	23.03	0.201	30.00	-6.97
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 79	16.30	22.77	0.189	30.00	-7.23
	π/2 BPSK	3960.00	V	128	279	6.41	1 / 79	16.18	22.59	0.182	30.00	-7.41
	QPSK	3720.00	V	107	270	6.68	1 / 79	16.33	23.01	0.200	30.00	-6.99
	QPSK	3840.00	V	101	270	6.47	1 / 79	16.19	22.66	0.185	30.00	-7.34
	16-QAM	3720.00	V	107	270	6.68	1 / 79	16.22	22.90	0.195	30.00	-7.10
20 MHz	π/2 BPSK	3715.02	V	107	270	6.66	1 / 39	16.77	23.43	0.220	30.00	-6.57
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 19	16.35	22.83	0.192	30.00	-7.17
	π/2 BPSK	3964.98	V	128	279	6.39	1 / 39	16.95	23.35	0.216	30.00	-6.65
	QPSK	3715.02	V	107	270	6.66	1 / 39	16.22	22.88	0.194	30.00	-7.12
	QPSK	3840.00	V	101	270	6.47	1 / 19	15.92	22.39	0.173	30.00	-7.61
	QPSK	3964.98	V	128	279	6.39	1 / 39	16.13	22.52	0.179	30.00	-7.48
15 MHz	16-QAM	3715.02	V	107	270	6.66	1 / 39	16.28	22.93	0.196	30.00	-7.07
	π/2 BPSK	3710.01	V	107	270	6.63	1 / 37	16.34	22.97	0.198	30.00	-7.03
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 25	16.77	23.24	0.211	30.00	-6.76
	π/2 BPSK	3969.99	V	128	279	6.37	1 / 25	17.30	23.67	0.233	30.00	-6.33
	QPSK	3710.01	V	107	270	6.63	1 / 37	16.43	23.06	0.203	30.00	-6.94
	QPSK	3840.00	V	101	270	6.47	1 / 37	16.27	22.75	0.188	30.00	-7.25
10 MHz	QPSK	3969.99	V	128	279	6.37	1 / 25	15.85	22.22	0.167	30.00	-7.78
	16-QAM	3710.01	V	107	270	6.63	1 / 37	16.19	22.82	0.192	30.00	-7.18
	π/2 BPSK	3707.51	V	107	270	6.62	1 / 28	16.05	22.67	0.185	30.00	-7.33
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 28	15.95	22.43	0.175	30.00	-7.57
	π/2 BPSK	3972.50	V	128	279	6.36	1 / 28	16.21	22.57	0.181	30.00	-7.43
	QPSK	3707.51	V	107	270	6.62	1 / 28	16.05	22.66	0.185	30.00	-7.34
100 MHz	QPSK	3840.00	V	101	270	6.47	1 / 28	15.88	22.35	0.172	30.00	-7.65
	QPSK	3972.50	V	128	279	6.36	1 / 28	16.09	22.45	0.176	30.00	-7.55
	16-QAM	3707.51	V	107	270	6.62	1 / 28	15.96	22.57	0.181	30.00	-7.43
	π/2 BPSK	3705.00	V	107	270	6.60	1 / 17	15.81	22.41	0.174	30.00	-7.59
	π/2 BPSK	3840.00	V	101	270	6.47	1 / 17	16.34	22.82	0.191	30.00	-7.18
	π/2 BPSK	3975.00	V	128	279	6.35	1 / 17	15.78	22.13	0.163	30.00	-7.87
100 MHz	QPSK	3705.00	V	107	270	6.60	1 / 17	16.41	23.02	0.200	30.00	-6.98
	QPSK	3840.00	V	101	270	6.47	1 / 17	16.36	22.83	0.192	30.00	-7.17
	QPSK	3975.00	V	128	279	6.35	1 / 17	16.37	22.72	0.187	30.00	-7.28
	16-QAM	3840.00	V	101	270	6.47	1 / 17	15.96	22.44	0.175	30.00	-7.56
100 MHz	QPSK (CP-OFDM)	3750.0	V	106	280	6.83	1 / 136	14.18	21.01	0.126	30.00	-8.99
	QPSK (Opposite Pol.)	3750.0	H	101	150	5.98	1 / 204	14.83	20.81	0.121	30.00	-9.19
	QPSK (WCP)	3750.0	V	146	89	6.83	1 / 136	11.54	18.37	0.069	30.00	-11.63

Table 7-3. EIRP Data (NR Band n77 (C-Band) – SRS-1 – ANT F)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turtable 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	3500.01	H	104	330	7.74	1 / 68	6.05	13.79	0.024	30.00	-16.21
	QPSK	3500.01	H	104	330	7.74	1 / 68	5.43	13.17	0.021	30.00	-16.83
	16-QAM	3500.01	H	104	330	7.74	1 / 68	5.01	12.75	0.019	30.00	-17.25
100 MHz	QPSK (CP-OFDM)	3500.0	H	100	330	7.74	1 / 204	3.72	11.46	0.014	30.00	-18.54
	QPSK (Opposite Pol.)	3500.0	V	246	92	7.16	1 / 136	2.21	9.37	0.009	30.00	-20.63
	QPSK (WCP)	3500.0	H	154	307	7.74	1 / 136	-4.63	3.11	0.002	30.00	-26.89

Table 7-4. EIRP Data (NR Band n77 (DoD) – SRS-2 – ANT C)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turtable 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	3750.00	H	101	327	5.98	1 / 68	7.02	13.00	0.020	30.00	-17.00
	$\pi/2$ BPSK	3840.00	H	116	332	6.02	1 / 204	7.12	13.14	0.021	30.00	-16.86
	$\pi/2$ BPSK	3930.00	H	109	328	5.99	1 / 204	9.32	15.31	0.034	30.00	-14.69
	QPSK	3750.00	H	101	327	5.98	1 / 68	6.40	12.38	0.017	30.00	-17.62
	QPSK	3840.00	H	116	332	6.02	1 / 204	6.51	12.53	0.018	30.00	-17.47
	QPSK	3930.00	H	109	328	5.99	1 / 204	9.05	15.04	0.032	30.00	-14.96
	16-QAM	3930.00	H	109	328	5.99	1 / 204	8.50	14.49	0.028	30.00	-15.51
100 MHz	QPSK (CP-OFDM)	3930.0	H	114	329	5.99	1 / 204	6.42	12.41	0.017	30.00	-17.59
	QPSK (Opposite Pol.)	3930.0	V	398	25	6.49	1 / 136	6.48	12.97	0.020	30.00	-17.03
	QPSK (WCP)	3930.0	H	120	192	5.99	1 / 204	0.98	6.97	0.005	30.00	-23.03

Table 7-5. EIRP Data (NR Band n77 (C-Band) – SRS-2 – ANT C)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turtable 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	3500.01	H	161	341	7.16	1 / 204	4.32	11.48	0.014	30.00	-18.52
	QPSK	3500.01	H	161	341	7.16	1 / 204	4.34	11.50	0.014	30.00	-18.50
	16-QAM	3500.01	H	161	341	7.16	1 / 204	3.20	10.36	0.011	30.00	-19.64
100 MHz	QPSK (CP-OFDM)	3500.0	V	182	340	7.16	1 / 136	1.01	8.17	0.007	30.00	-21.83
	QPSK (Opposite Pol.)	3500.0	H	329	300	7.16	1 / 136	1.99	9.15	0.008	30.00	-20.85
	QPSK (WCP)	3500.0	V	157	337	7.16	1 / 204	1.04	8.20	0.007	30.00	-21.80



Table 7-6. EIRP Data (NR Band n77 (DoD) – SRS-3 – ANT L)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turtable 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	3750.00	V	167	348	6.83	1 / 136	10.61	17.44	0.056	30.00	-12.56
	$\pi/2$ BPSK	3840.00	V	174	350	6.47	1 / 68	10.43	16.90	0.049	30.00	-13.10
	$\pi/2$ BPSK	3930.00	V	180	343	6.49	1 / 136	10.16	16.65	0.046	30.00	-13.35
	QPSK	3750.00	V	167	348	6.83	1 / 136	10.62	17.45	0.056	30.00	-12.55
	QPSK	3840.00	V	174	350	6.47	1 / 68	10.48	16.95	0.050	30.00	-13.05
	QPSK	3930.00	V	180	343	6.49	1 / 136	10.26	16.75	0.047	30.00	-13.25
	16-QAM	3750.00	V	167	348	6.83	1 / 136	9.84	16.67	0.046	30.00	-13.33
100 MHz	QPSK (CP-OFDM)	3750.0	V	164	356	6.83	1 / 136	9.22	16.05	0.040	30.00	-13.95
	QPSK (Opposite Pol.)	3750.0	H	100	306	5.98	1 / 136	9.07	15.05	0.032	30.00	-14.95
	QPSK (WCP)	3750.0	V	109	348	6.83	1 / 136	9.58	16.41	0.044	30.00	-13.59

Table 7-7. EIRP Data (NR Band n77 (C-Band) – SRS-3 – ANT L)



Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turtable 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	3500.01	V	104	358	7.16	1 / 136	7.72	14.88	0.031	30.00	-15.12
	QPSK	3500.01	V	104	358	7.16	1 / 136	7.06	14.22	0.026	30.00	-15.78
	16-QAM	3500.01	V	104	358	7.16	1 / 136	6.60	13.76	0.024	30.00	-16.24
100 MHz	QPSK (CP-OFDM)	3500.0	V	100	351	7.16	1 / 68	6.10	13.26	0.021	30.00	-16.74
	QPSK (Opposite Pol.)	3500.0	H	101	353	7.16	1 / 136	5.73	12.89	0.019	30.00	-17.11
	QPSK (WCP)	3500.0	V	226	351	7.16	1 / 136	6.33	13.49	0.022	30.00	-16.51

Table 7-8. EIRP Data (NR Band n77 (DoD) – SRS-4 – ANT D)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	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	3750.00	V	104	3	6.83	1 / 136	9.54	16.37	0.043	30.00	-13.63
	$\pi/2$ BPSK	3840.00	V	101	354	6.47	1 / 136	9.17	15.64	0.037	30.00	-14.36
	$\pi/2$ BPSK	3930.00	V	106	350	6.49	1 / 136	10.09	16.58	0.046	30.00	-13.42
	QPSK	3750.00	V	104	3	6.83	1 / 136	9.40	16.23	0.042	30.00	-13.77
	QPSK	3840.00	V	101	354	6.47	1 / 68	9.22	15.69	0.037	30.00	-14.31
	QPSK	3930.00	V	106	350	6.49	1 / 136	10.13	16.62	0.046	30.00	-13.38
100 MHz	16-QAM	3930.00	V	106	350	6.49	1 / 136	9.64	16.13	0.041	30.00	-13.87
	QPSK (CP-OFDM)	3930.0	V	101	353	6.49	1 / 204	7.83	14.32	0.027	30.00	-15.68
	QPSK (Opposite Pol.)	3930.0	H	100	327	5.99	1 / 204	7.35	13.34	0.022	30.00	-16.66
	QPSK (WCP)	3930.0	V	106	286	6.49	1 / 68	4.19	10.68	0.012	30.00	-19.32

Table 7-9. EIRP Data (NR Band n77 (C-Band) – SRS-4 – ANT D)

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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 KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as peak measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

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.

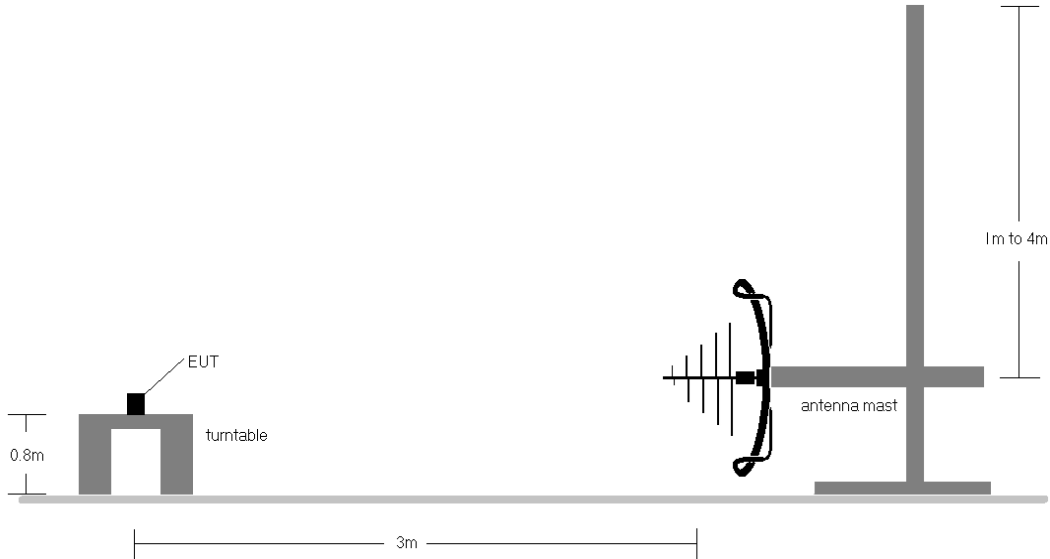


Figure 7-6. Test Instrument & Measurement Setup < 1GHz

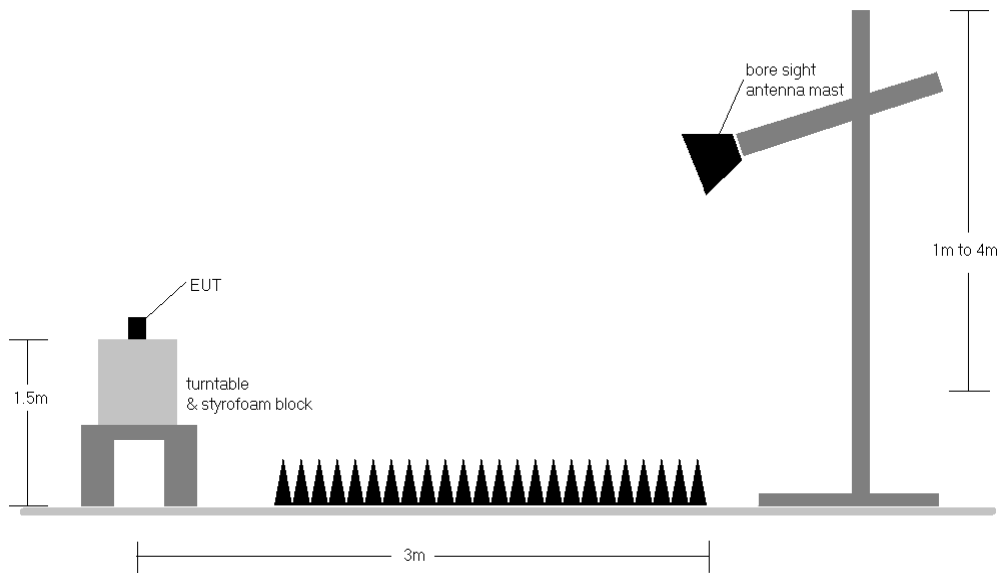




Figure 7-7. Test Instrument & Measurement Setup >1 GHz

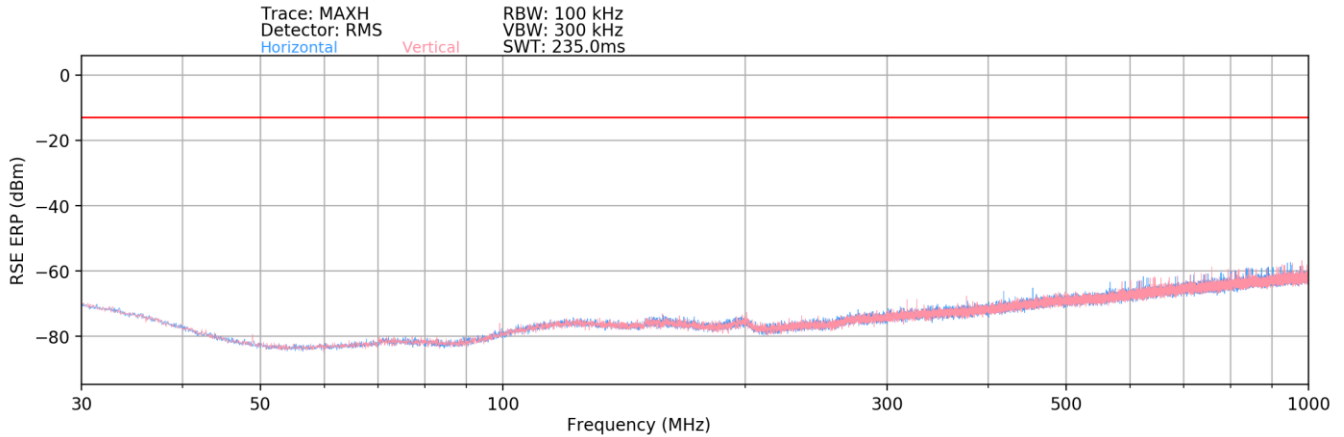
FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 117 of 144	

Test Notes

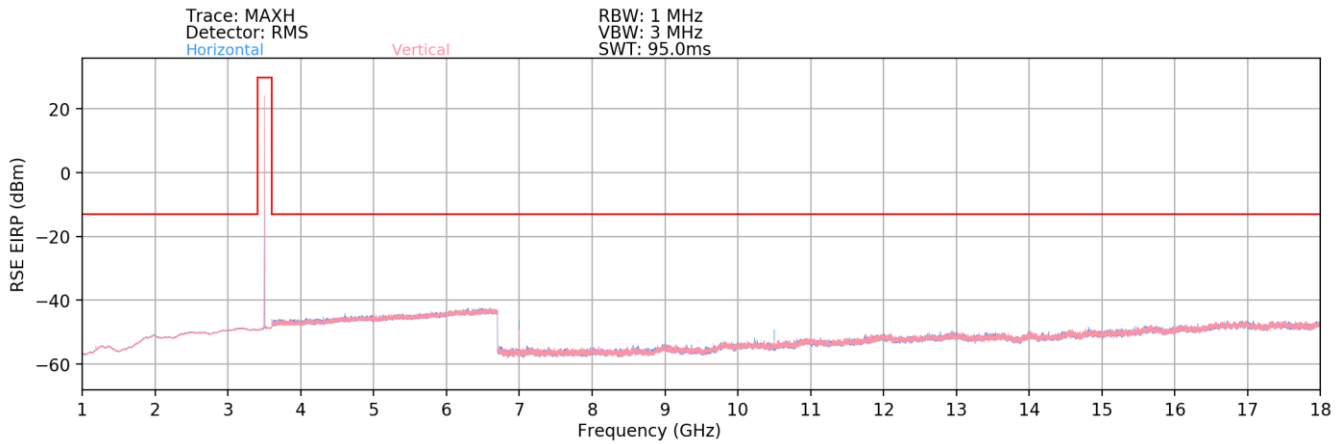
- 1) Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
 - b) $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - d) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$; 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 emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

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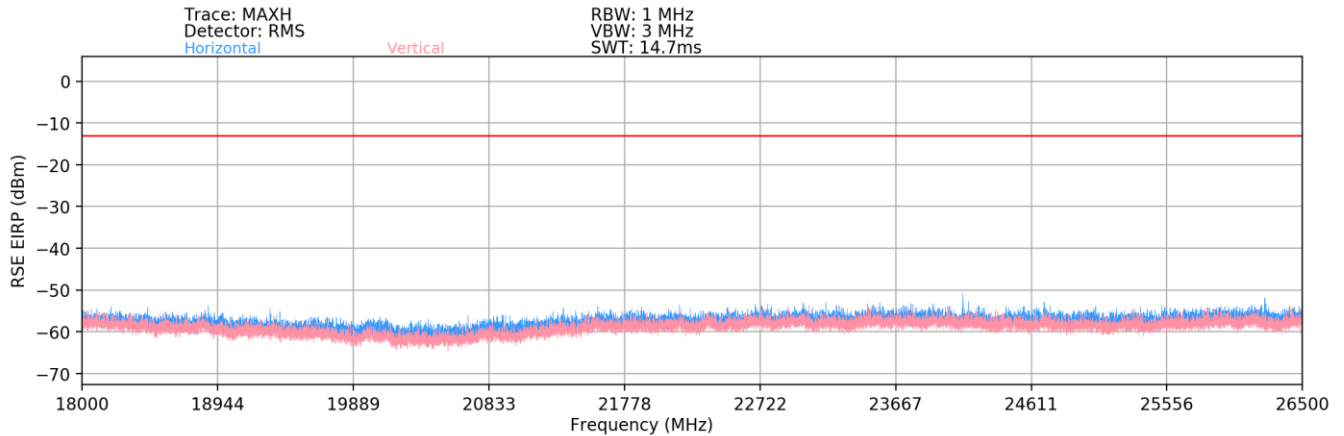
NR Band n77 (DoD-Band) – SRS-1 - Ant F






Plot 7-179. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)

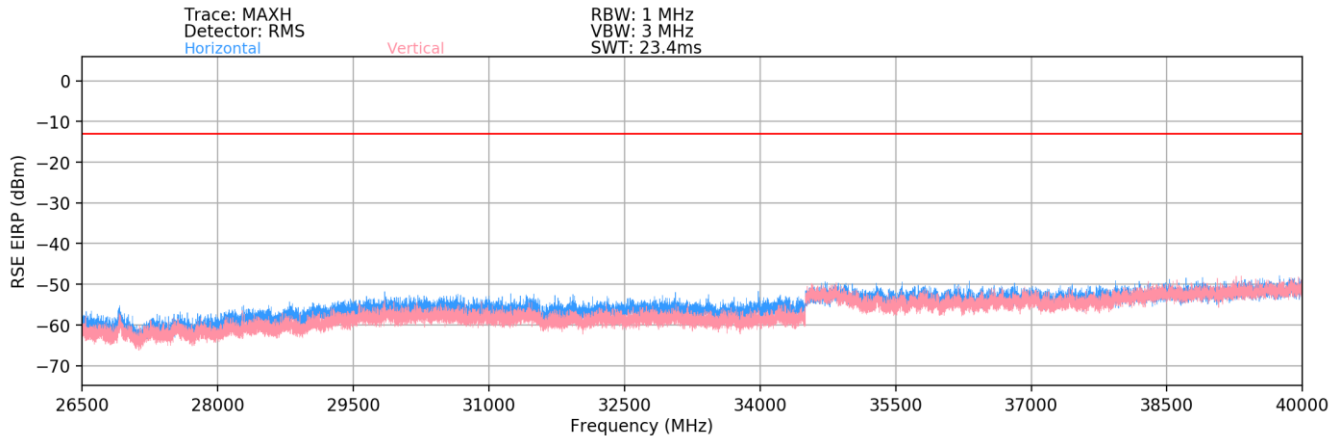


Plot 7-180. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)



Plot 7-181. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)

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Plot 7-182. Radiated Spurious Plot (NR Band n77 (DoD) – Ant F)

Bandwidth (MHz):	100
Frequency (MHz):	3500.00
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]
7000.00	H	137	294	-61.16	7.82	53.66	-41.59	-13.00	-28.59
10500.00	H	-	-	-77.12	11.39	41.27	-53.98	-13.00	-40.98
14000.00	H	-	-	-77.17	14.35	44.18	-51.08	-13.00	-38.08

Table 7-10. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant F)

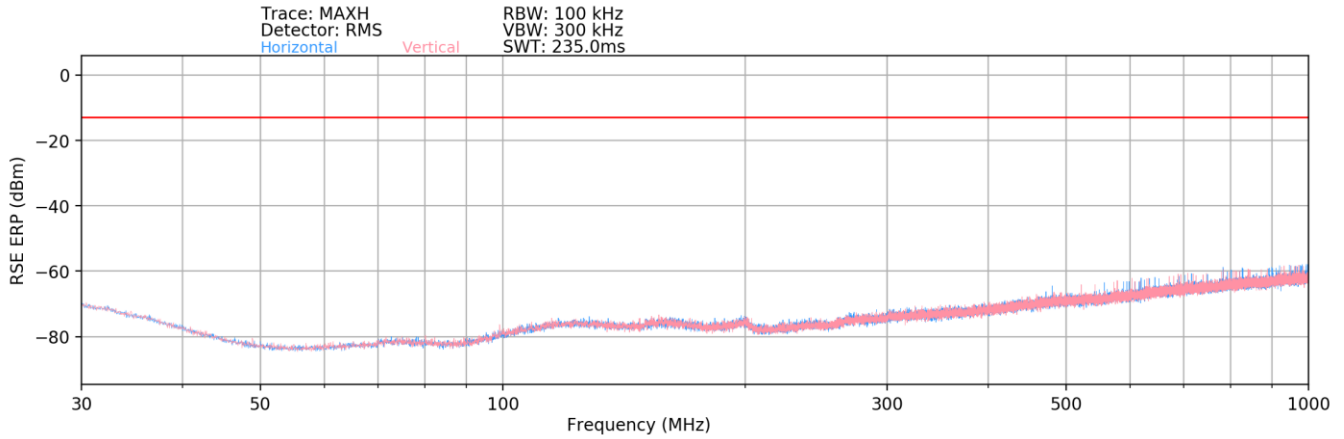
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3500.00
RB / Offset:	1 / 136
Mode:	SA

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]
7000.00	H	163	358	-62.33	7.82	52.49	-42.76	-13.00	-29.76
10500.00	H	-	-	-77.55	11.39	40.84	-54.41	-13.00	-41.41
14000.00	H	-	-	-77.25	14.35	44.10	-51.16	-13.00	-38.16

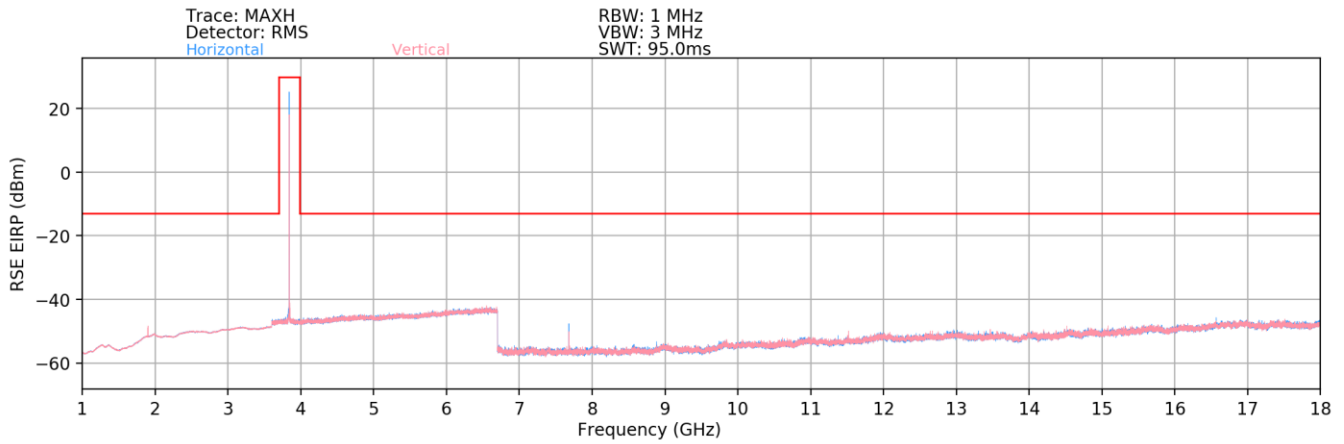
Table 7-11. Radiated Spurious Data with WCP (NR Band n77 (DoD) – Ant F)

FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 120 of 144

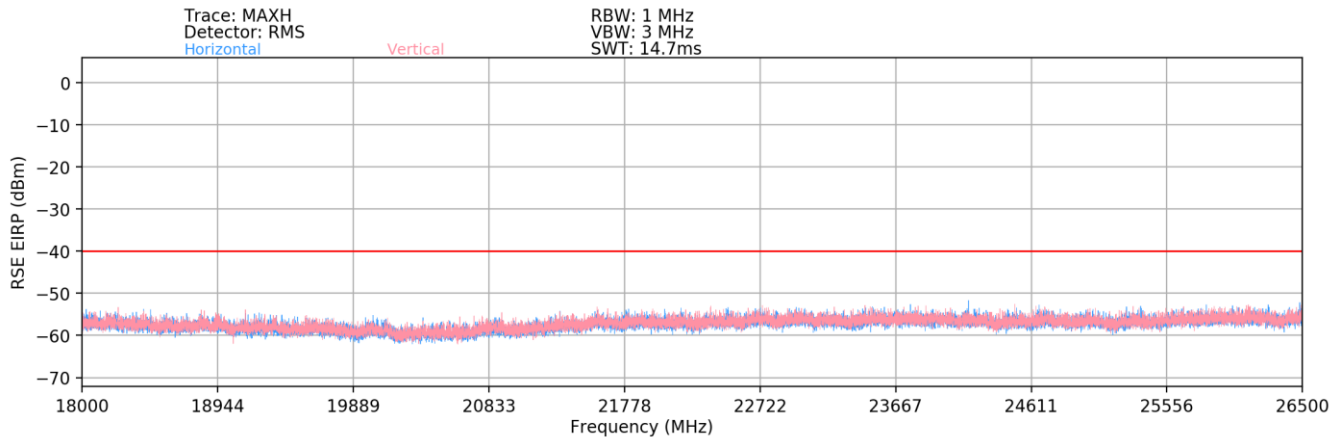
NR Band n77 (C-Band) – SRS-1 – Ant F



Plot 7-183. Radiated Spurious Plot (NR Band n77 – Ant F)

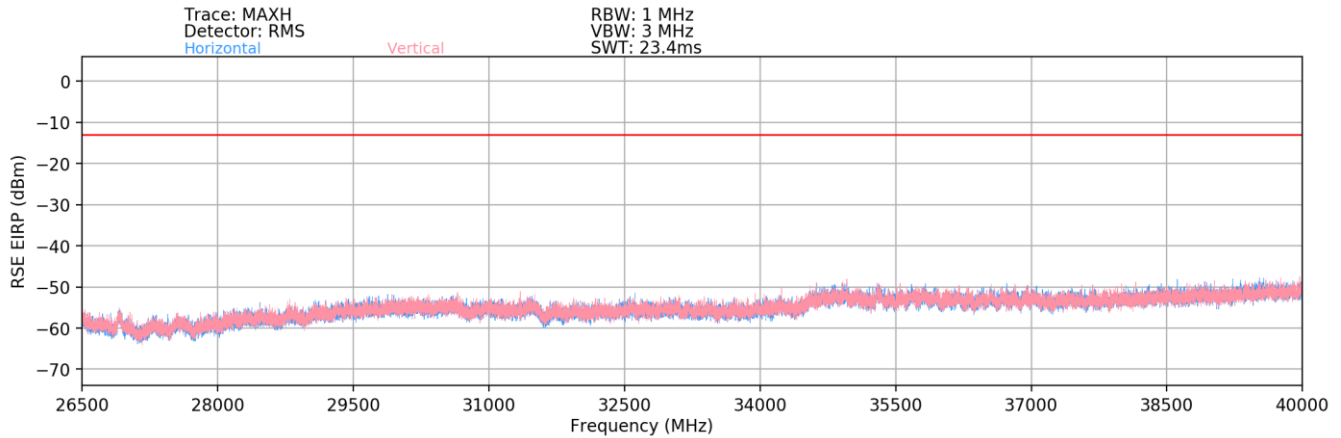


Plot 7-184. Radiated Spurious Plot (NR Band n77 – Ant F)



Plot 7-185. Radiated Spurious Plot (NR Band n77 – Ant F)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 121 of 144



Plot 7-186. Radiated Spurious Plot (NR Band n77 – Ant F)

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	281	52	-67.81	8.35	47.54	-47.72	-13.00	-34.72
11250.00	H	274	309	-72.44	12.39	46.95	-48.31	-13.00	-35.31
15000.00	H	368	337	-77.62	15.39	44.77	-50.49	-13.00	-37.49
18750.00	H	-	-	-58.57	1.27	49.70	-55.10	-13.00	-42.10
22500.00	H	-	-	-58.52	2.99	51.47	-53.33	-13.00	-40.33
26250.00	H	-	-	-57.59	3.88	53.29	-51.51	-13.00	-38.51

Table 7-12. Radiated Spurious Data (NR Band n77 – Low Channel – Ant F)

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]
7680.00	H	297	49	-63.07	7.53	51.46	-43.80	-13.00	-30.80
11520.00	H	261	308	-69.94	12.86	49.92	-45.34	-13.00	-32.34
15360.00	H	248	11	-79.77	15.97	43.20	-52.06	-13.00	-39.06
19200.00	H	-	-	-58.97	1.73	49.76	-55.04	-13.00	-42.04
23040.00	H	-	-	-58.52	2.96	51.44	-53.36	-13.00	-40.36
26880.00	H	-	-	-57.40	3.98	53.58	-51.22	-13.00	-38.22

Table 7-13. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant F)

FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 122 of 144

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	321	45	-64.17	8.10	50.93	-44.33	-13.00	-31.33
11790.00	H	260	320	-75.53	13.19	44.66	-50.60	-13.00	-37.60
15720.00	H	235	39	-79.71	17.00	44.29	-50.96	-13.00	-37.96
19650.00	H	-	-	-58.80	2.16	50.36	-54.44	-13.00	-41.44
23580.00	H	-	-	-58.28	2.95	51.67	-53.13	-13.00	-40.13
27510.00	H	-	-	-57.88	4.37	53.49	-51.31	-13.00	-38.31

Table 7-14. Radiated Spurious Data (NR Band n77 – High Channel – Ant F)

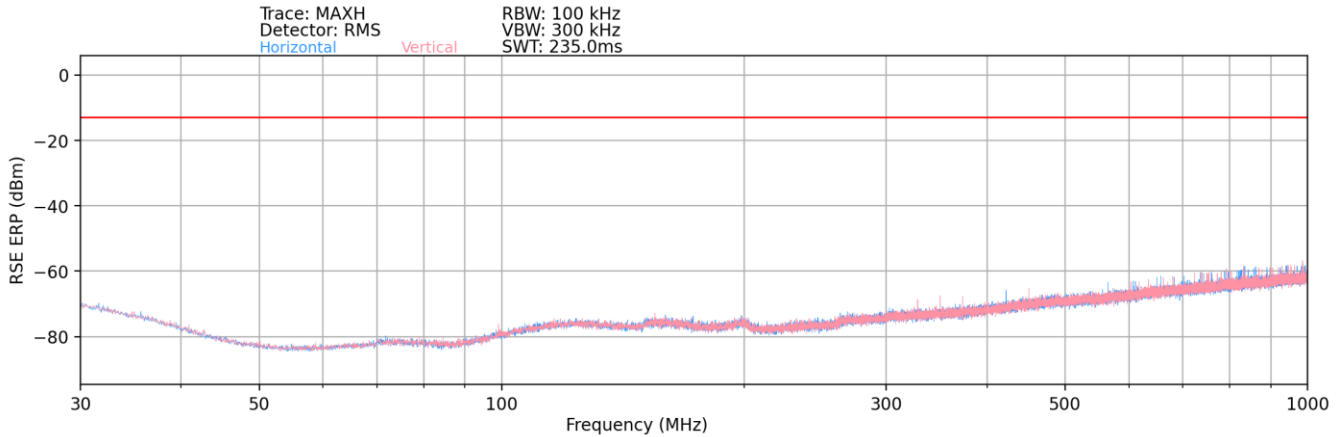
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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	134	348	-68.51	7.53	46.02	-49.24	-13.00	-36.24
11520.00	H	219	107	-71.91	12.86	47.95	-47.31	-13.00	-34.31
15360.00	H	123	4	-79.71	15.97	43.26	-52.00	-13.00	-39.00
19200.00	H	-	-	-58.56	1.73	50.17	-54.63	-13.00	-41.63
23040.00	H	-	-	-58.20	2.96	51.76	-53.04	-13.00	-40.04
26880.00	H	-	-	-56.66	3.98	54.32	-50.48	-13.00	-37.48

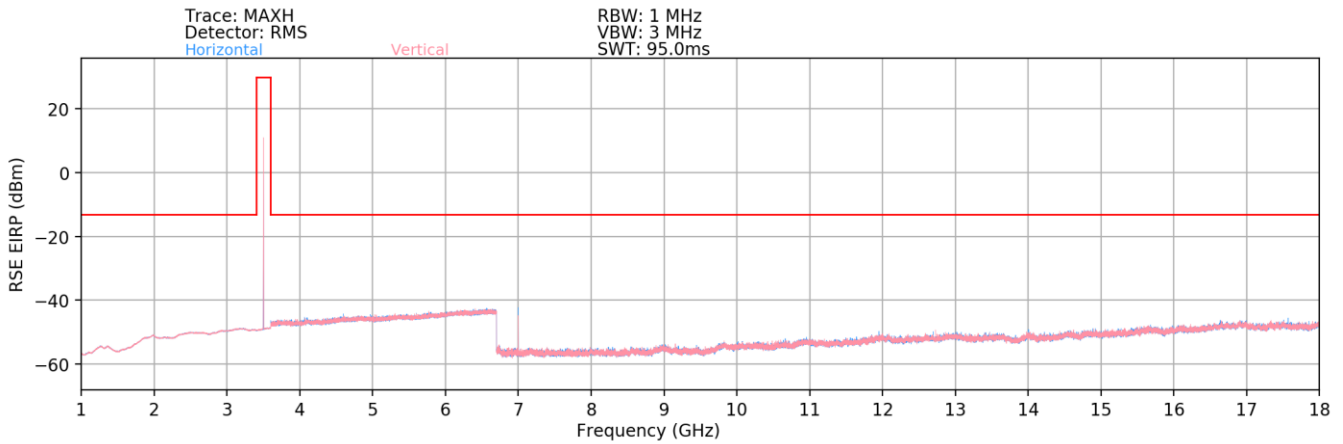
Table 7-15. Radiated Spurious Data with WCP (NR Band n77 – Ant F)

FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 123 of 144	

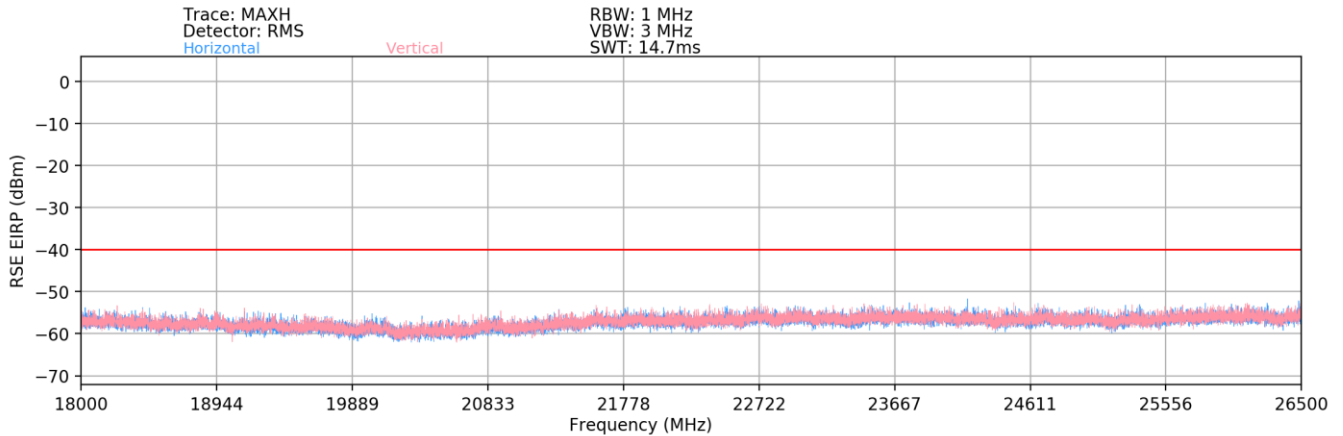
NR Band n77 (DoD-Band) – SRS-2 - Ant C






Plot 7-187. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)

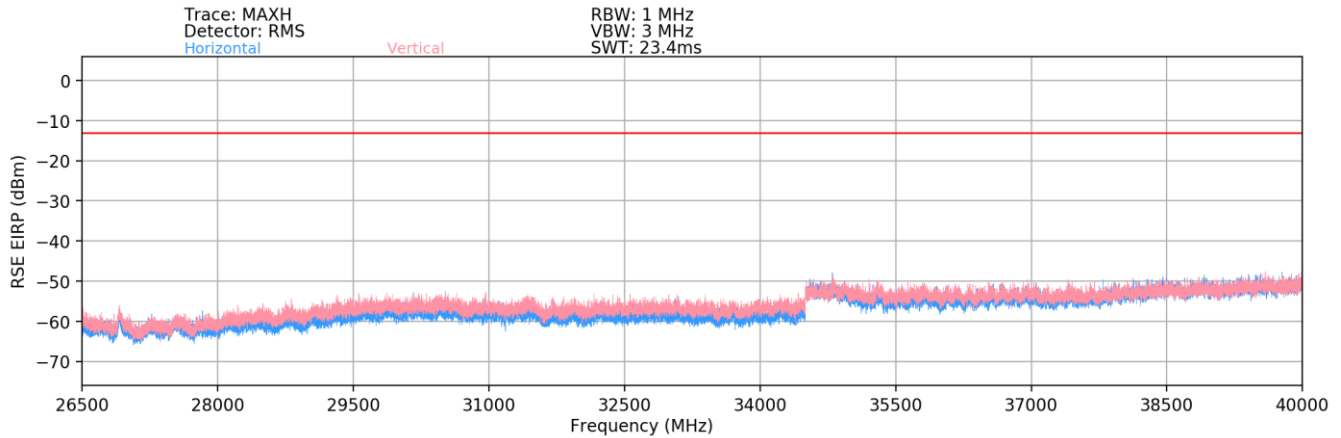


Plot 7-188. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)



Plot 7-189. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)

FCC ID: A3LSMS908E	 Proud to be part of 	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	 Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 124 of 144



Plot 7-190. Radiated Spurious Plot (NR Band n77 (DoD) – Ant C)

Bandwidth (MHz):	100
Frequency (MHz):	3500.00
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]
7000.00	H	145	298	-59.91	7.82	54.91	-40.34	-13.00	-27.34
10500.00	H	310	28	-79.81	11.39	38.58	-56.67	-13.00	-43.67
14000.00	H	199	324	-78.51	14.35	42.84	-52.42	-13.00	-39.42
17500.00	H	-	-	-79.66	17.73	45.07	-50.19	-13.00	-37.19
21000.00	H	150	173	-56.01	2.95	53.94	-50.86	-13.00	-37.86
24500.00	H	-	-	-59.39	3.36	50.97	-53.83	-13.00	-40.83
28000.00	H	-	-	-58.70	3.86	52.16	-52.64	-13.00	-39.64
31500.00	H	-	-	-56.68	6.70	57.02	-47.78	-13.00	-34.78

Table 7-16. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant C)

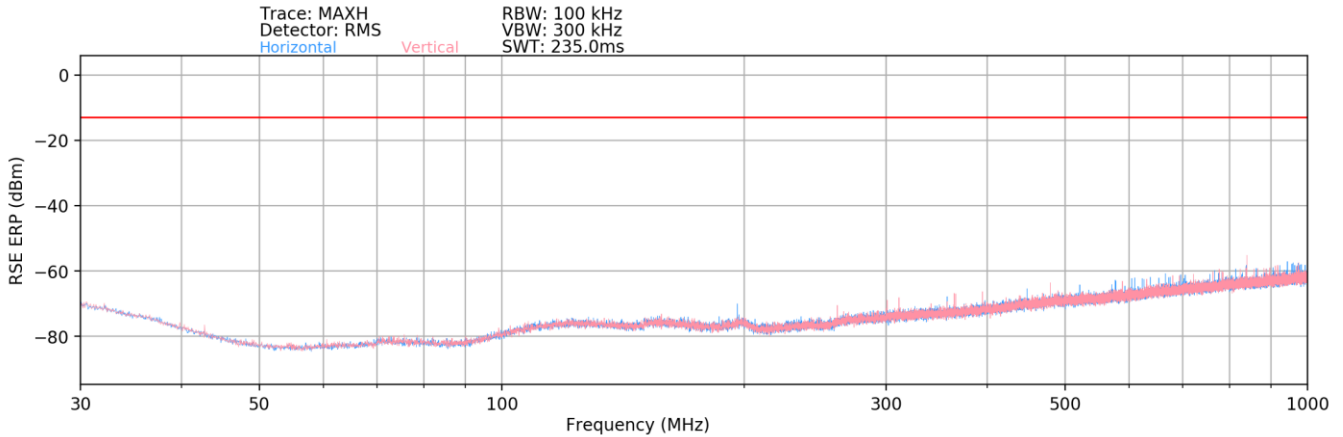
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3500.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7000.00	H	131	59	-62.89	7.82	51.93	-43.32	-13.00	-30.32
10500.00	H	-	-	-80.12	11.39	38.27	-56.98	-13.00	-43.98
14000.00	H	114	345	-79.67	14.35	41.68	-53.58	-13.00	-40.58
17500.00	H	-	-	-79.76	17.73	44.97	-50.29	-13.00	-37.29
21000.00	H	150	150	-59.36	2.95	50.59	-54.21	-13.00	-41.21
24500.00	H	-	-	-58.78	3.36	51.58	-53.22	-13.00	-40.22
28000.00	H	-	-	-58.35	3.86	52.51	-52.29	-13.00	-39.29
31500.00	H	-	-	-56.53	6.70	57.17	-47.63	-13.00	-34.63

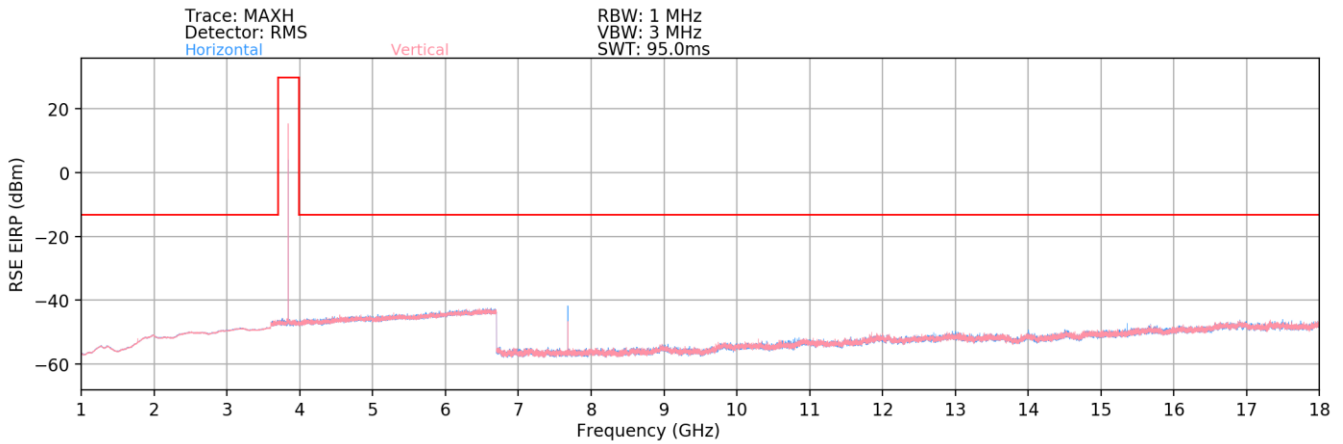
Table 7-17. Radiated Spurious Data with WCP (NR Band n77 (DoD) – Ant C)

FCC ID: A3LSMS908E		PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 125 of 144

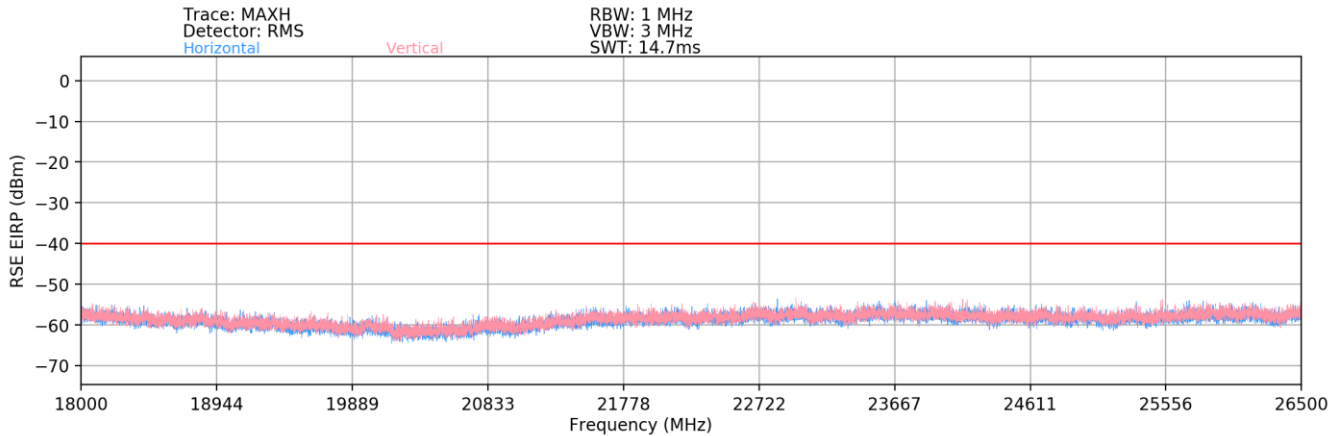
NR Band n77 (C-Band) – SRS-2 – Ant C



Plot 7-191. Radiated Spurious Plot (NR Band n77 – Ant C)

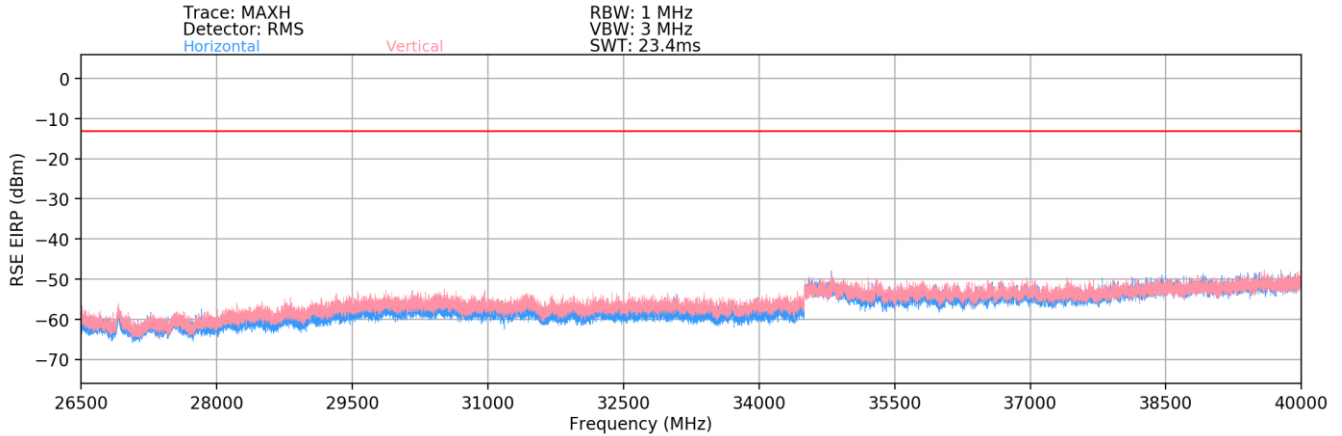


Plot 7-192. Radiated Spurious Plot (NR Band n77 – Ant C)



Plot 7-193. Radiated Spurious Plot (NR Band n77 – Ant C)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 126 of 144



Plot 7-194. Radiated Spurious Plot (NR Band n77 – Ant C)

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	137	18	-63.06	8.35	52.29	-42.97	-13.00	-29.97
11250.00	H	127	47	-78.58	12.39	40.81	-54.45	-13.00	-41.45
15000.00	H	114	22	-74.61	15.39	47.78	-47.48	-13.00	-34.48
18750.00	H	150	181	-56.75	1.27	51.52	-53.28	-13.00	-40.28
22500.00	H	-	-	-57.51	2.99	52.48	-52.32	-13.00	-39.32
26250.00	H	-	-	-56.86	3.88	54.02	-50.78	-13.00	-37.78
30000.00	H	-	-	-57.17	5.96	55.79	-49.01	-13.00	-36.01

Table 7-18. Radiated Spurious Data (NR Band n77 – Low Channel – Ant C)

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]
7680.00	H	224	9	-61.32	7.53	53.21	-42.05	-13.00	-29.05
11520.00	H	140	357	-77.99	12.86	41.87	-53.39	-13.00	-40.39
15360.00	H	203	24	-76.18	15.97	46.79	-48.47	-13.00	-35.47
19200.00	H	150	157	-56.90	1.73	51.83	-52.97	-13.00	-39.97
23040.00	H	-	-	-57.46	2.96	52.50	-52.30	-13.00	-39.30
26880.00	H	-	-	-56.74	3.98	54.24	-50.56	-13.00	-37.56
30720.00	H	-	-	-57.85	6.14	55.29	-49.51	-13.00	-36.51

Table 7-19. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant C)

FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 127 of 144	

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	122	2	-62.83	8.10	52.27	-42.99	-13.00	-29.99
11790.00	H	326	63	-76.30	13.19	43.89	-51.37	-13.00	-38.37
15720.00	H	221	24	-76.63	17.00	47.37	-47.88	-13.00	-34.88
19650.00	H	150	116	-57.45	2.16	51.71	-53.09	-13.00	-40.09
23580.00	H	-	-	-57.92	2.95	52.03	-52.77	-13.00	-39.77
27510.00	H	-	-	-57.45	4.37	53.92	-50.88	-13.00	-37.88
31440.00	H	-	-	-56.49	6.32	56.83	-47.97	-13.00	-34.97

Table 7-20. Radiated Spurious Data (NR Band n77 – High Channel – Ant C)

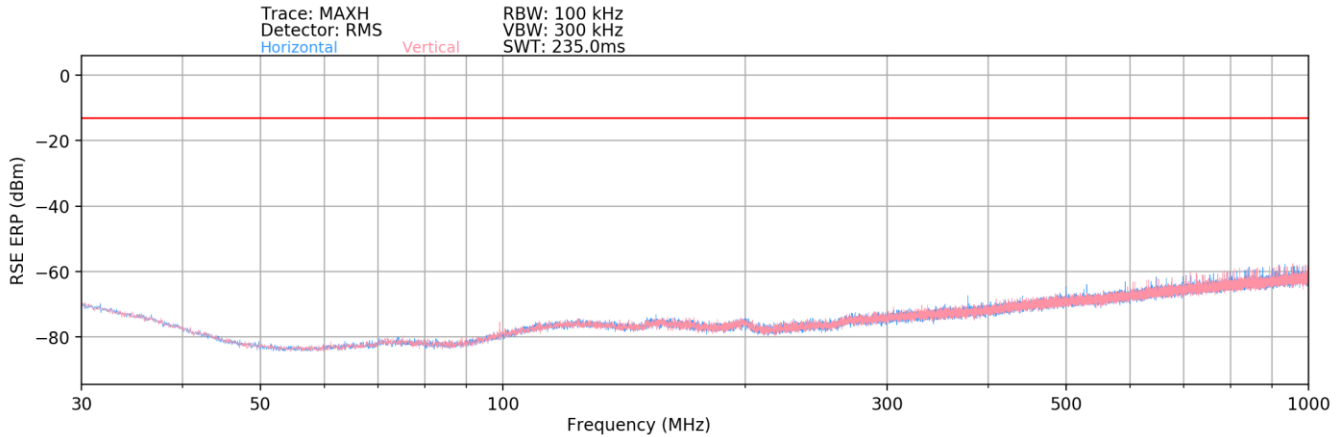
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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	142	40	-64.76	7.53	49.77	-45.49	-13.00	-32.49
11520.00	H	156	84	-79.45	12.86	40.41	-54.85	-13.00	-41.85
15360.00	H	121	5	-76.63	15.97	46.34	-48.92	-13.00	-35.92
19200.00	H	-	-	-58.56	1.73	50.17	-54.63	-13.00	-41.63
23040.00	H	-	-	-58.06	2.96	51.90	-52.90	-13.00	-39.90
26880.00	H	-	-	-57.58	3.98	53.40	-51.40	-13.00	-38.40
30720.00	H	-	-	-58.09	6.14	55.05	-49.75	-13.00	-36.75

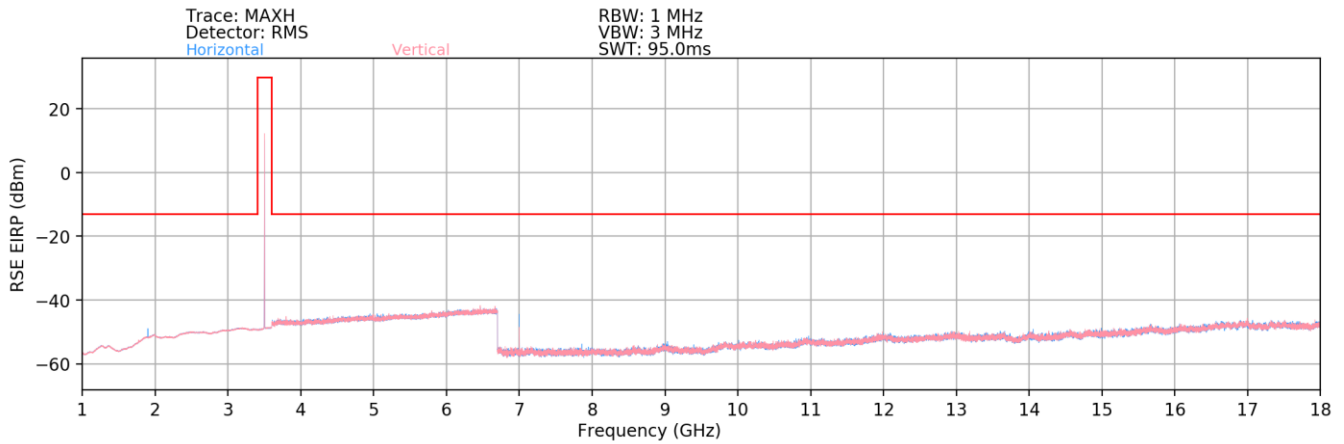
Table 7-21. Radiated Spurious Data with WCP (NR Band n77 – Ant C)

FCC ID: A3LSMS908E	 PART 27 MEASUREMENT REPORT CLASS II Permissive Change			Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 128 of 144	

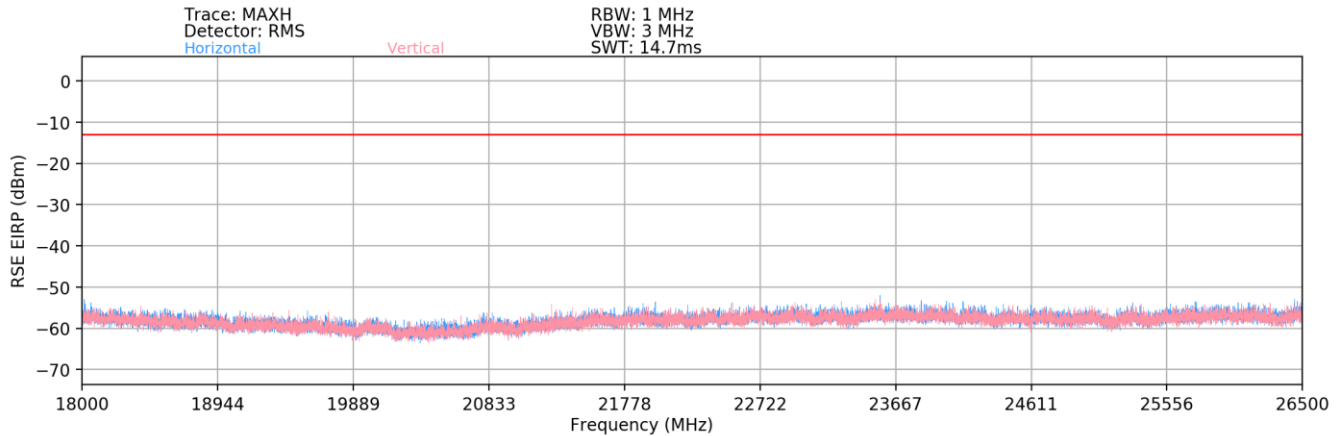
NR Band n77 (DoD-Band) – SRS-3 - Ant L



Plot 7-195. Radiated Spurious Plot (NR Band n77 (DoD) – Ant L)

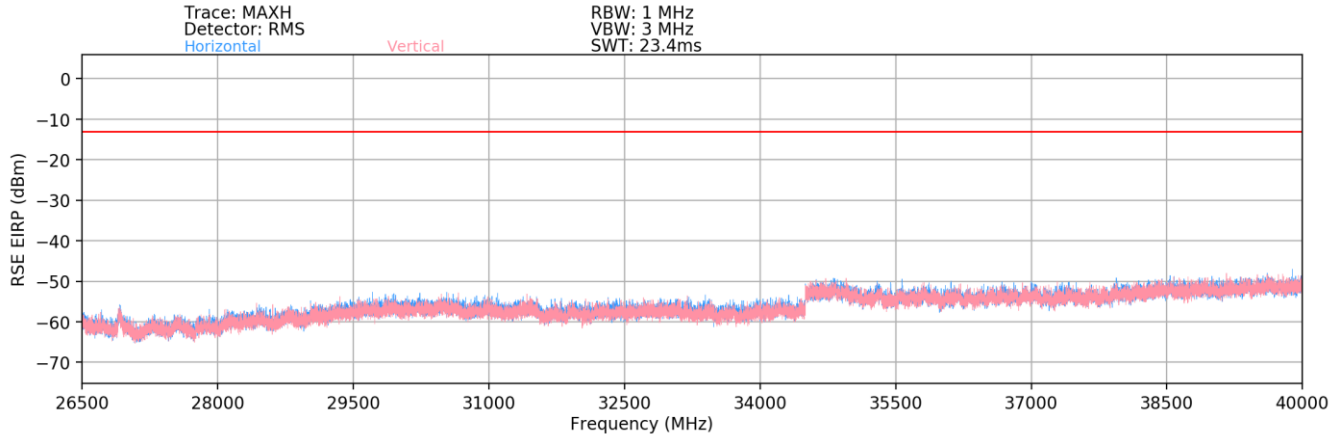


Plot 7-196. Radiated Spurious Plot (NR Band n77 (DoD) – Ant L)



Plot 7-197. Radiated Spurious Plot (NR Band n77 (DoD) – Ant L)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 129 of 144



Plot 7-198. Radiated Spurious Plot (NR Band n77 (DoD) – Ant L)

Bandwidth (MHz):	100
Frequency (MHz):	3500.00
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]
7000.00	H	145	18	-62.47	7.82	52.35	-42.90	-13.00	-29.90
10500.00	H	-	-	-79.86	11.39	38.53	-56.72	-13.00	-43.72
14000.00	H	179	20	-79.74	14.35	41.61	-53.65	-13.00	-40.65
17500.00	H	-	-	-79.73	17.73	45.00	-50.26	-13.00	-37.26
21000.00	H	-	-	-59.34	2.95	50.61	-54.19	-13.00	-41.19
24500.00	H	-	-	-58.85	3.36	51.51	-53.29	-13.00	-40.29

Table 7-22. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant L)

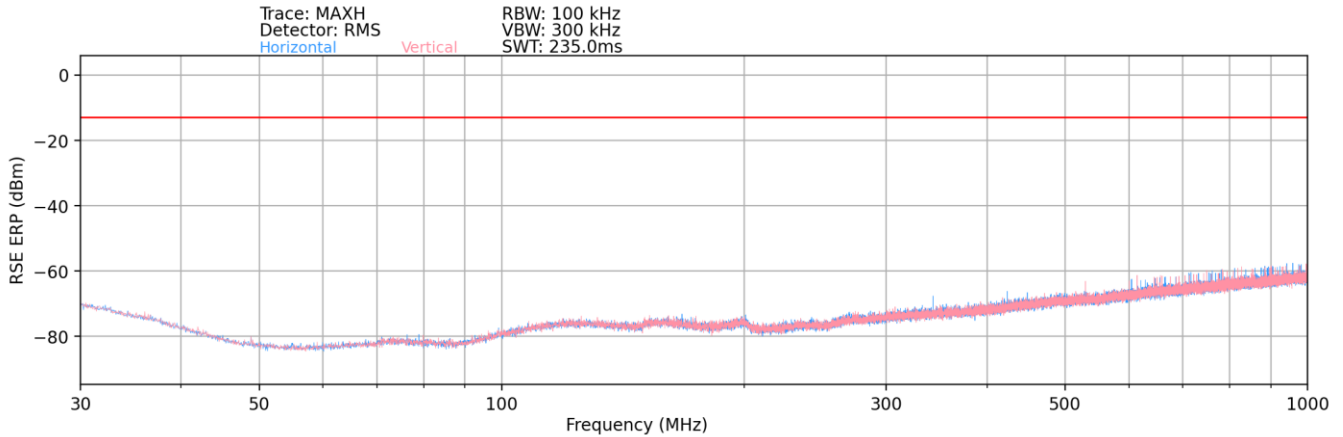
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3500.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7000.00	H	137	353	-62.86	7.82	51.96	-43.29	-13.00	-30.29
10500.00	H	-	-	-79.62	11.39	38.77	-56.48	-13.00	-43.48
14000.00	H	-	-	-79.72	14.35	41.63	-53.63	-13.00	-40.63
17500.00	H	-	-	-79.53	17.73	45.20	-50.06	-13.00	-37.06

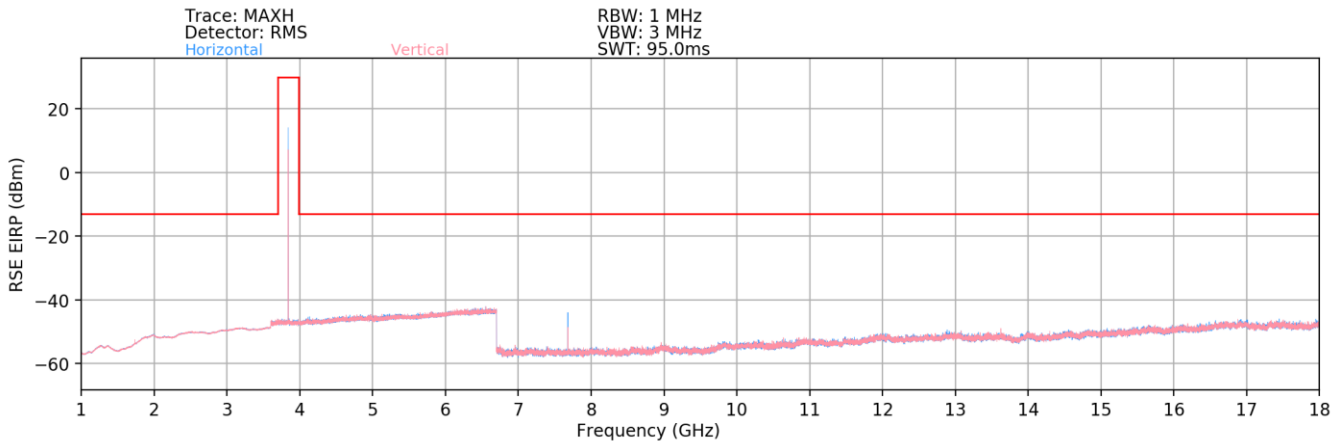
Table 7-23. Radiated Spurious Data with WCP (NR Band n77 (DoD) – Ant L)

FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 130 of 144	

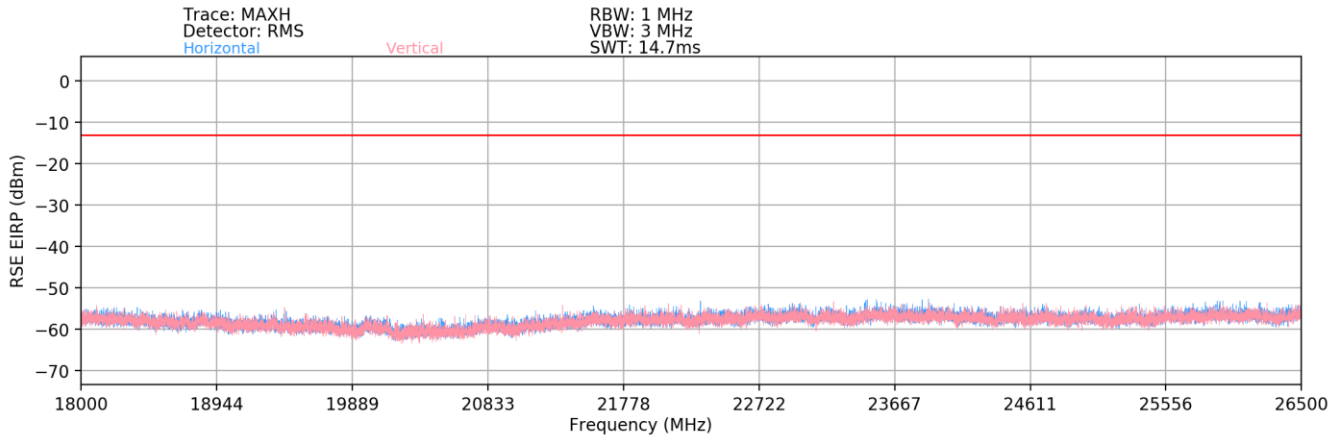
NR Band n77 (C-Band) – SRS-3 – Ant L






Plot 7-199. Radiated Spurious Plot (NR Band n77 – Ant L)

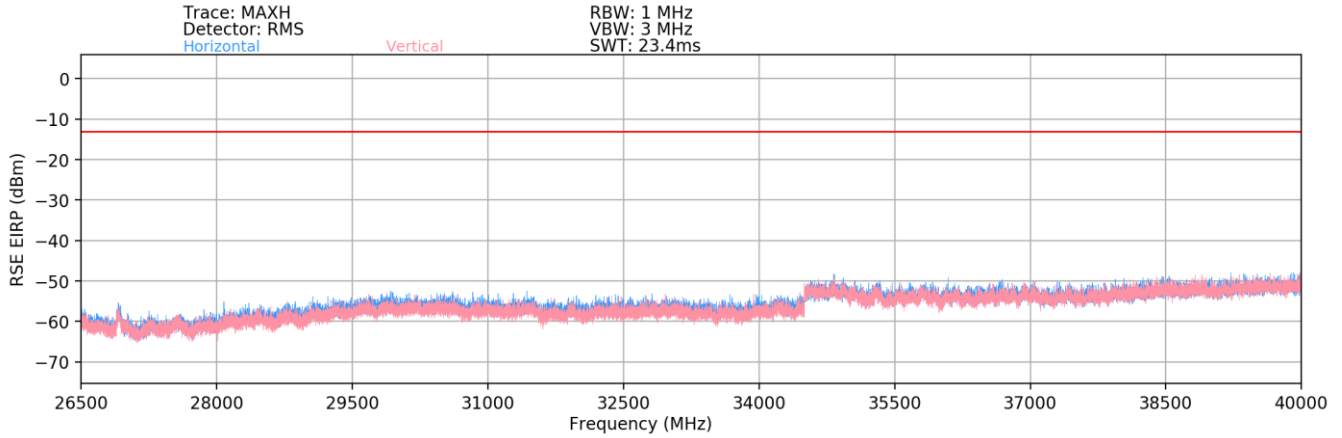


Plot 7-200. Radiated Spurious Plot (NR Band n77 – Ant L)



Plot 7-201. Radiated Spurious Plot (NR Band n77 – Ant L)

FCC ID: A3LSMS908E	 PCTEST Proud to be part of 	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 131 of 144	



Plot 7-202. Radiated Spurious Plot (NR Band n77 – Ant L)

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	132	4	-65.93	8.35	49.42	-45.84	-13.00	-32.84
11250.00	H	187	347	-79.71	12.39	39.68	-55.58	-13.00	-42.58
15000.00	H	112	17	-78.52	15.39	43.87	-51.39	-13.00	-38.39
18750.00	H	-	-	-58.64	1.27	49.63	-55.17	-13.00	-42.17
22500.00	H	-	-	-59.18	2.99	50.81	-53.99	-13.00	-40.99
26250.00	H	-	-	-57.12	3.88	53.76	-51.04	-13.00	-38.04

Table 7-24. Radiated Spurious Data (NR Band n77 – Low Channel – Ant L)

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]
7680.00	H	237	6	-63.11	7.53	51.42	-43.84	-13.00	-30.84
11520.00	H	-	-	-80.04	12.86	39.82	-55.44	-13.00	-42.44
15360.00	H	161	27	-79.72	15.97	43.25	-52.01	-13.00	-39.01
19200.00	H	-	-	-59.07	1.73	49.66	-55.14	-13.00	-42.14
23040.00	H	-	-	-58.78	2.96	51.18	-53.62	-13.00	-40.62
26880.00	H	-	-	-56.38	3.98	54.60	-50.20	-13.00	-37.20

Table 7-25. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant L)

FCC ID: A3LSMS908E	 PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 132 of 144

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 [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7860.00	H	138	5	-66.78	8.10	48.32	-46.94	-13.00	-33.94
11790.00	H	-	-	-80.01	13.19	40.18	-55.08	-13.00	-42.08
15720.00	H	152	14	-78.16	17.00	45.84	-49.41	-13.00	-36.41
19650.00	H	-	-	-59.29	2.16	49.87	-54.93	-13.00	-41.93
23580.00	H	-	-	-59.04	2.95	50.91	-53.89	-13.00	-40.89
27510.00	H	-	-	-58.34	4.37	53.03	-51.77	-13.00	-38.77

Table 7-26. Radiated Spurious Data (NR Band n77 – High Channel – Ant L)

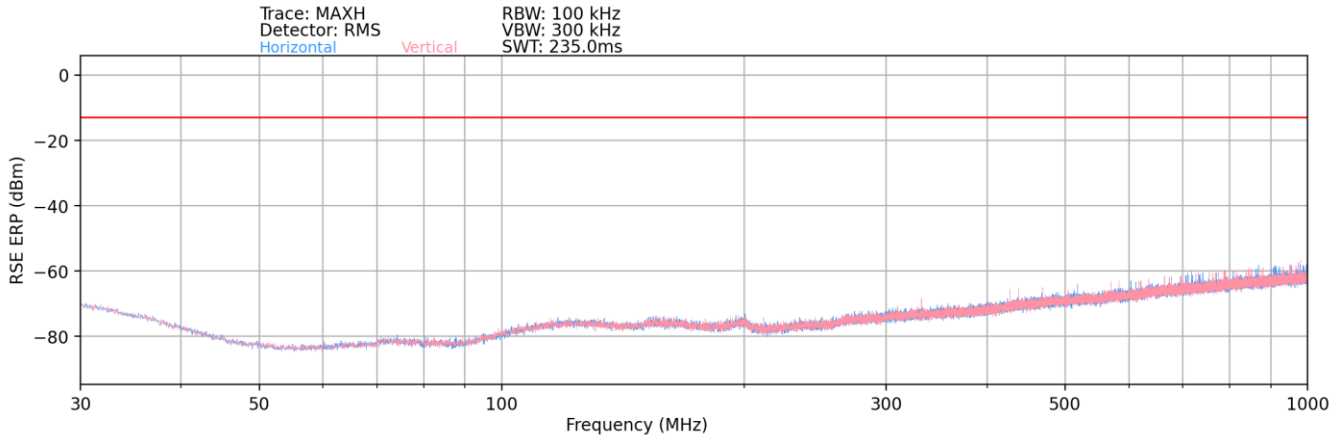
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7680.00	H	128	34	-66.61	7.53	47.92	-47.34	-13.00	-34.34
11520.00	H	-	-	-80.01	12.86	39.85	-55.41	-13.00	-42.41
15360.00	H	-	-	-80.80	15.97	42.17	-53.09	-13.00	-40.09

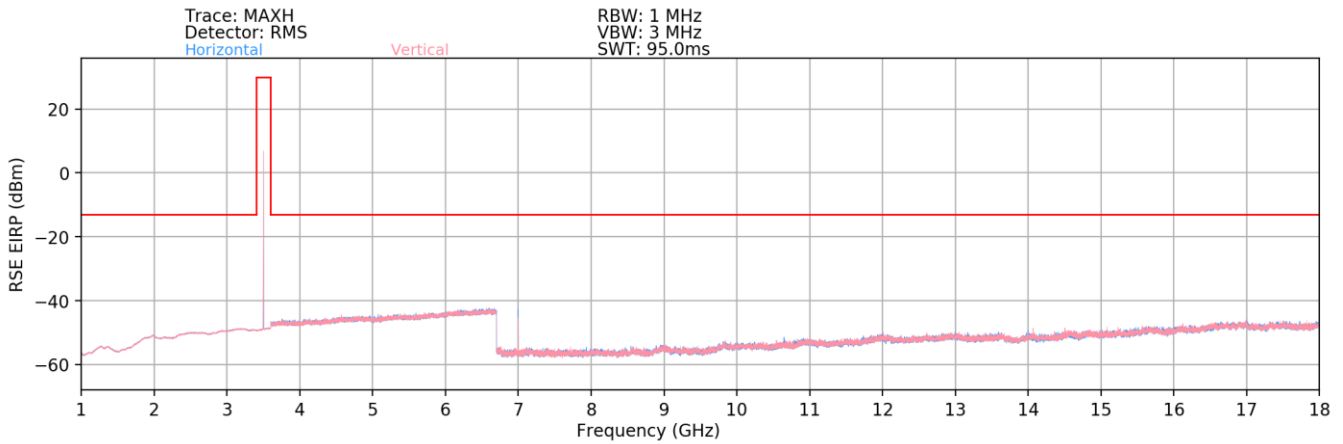
Table 7-27. Radiated Spurious Data with WCP (NR Band n77 – Ant L)

FCC ID: A3LSMS908E	 PART 27 MEASUREMENT REPORT CLASS II Permissive Change			Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 133 of 144	

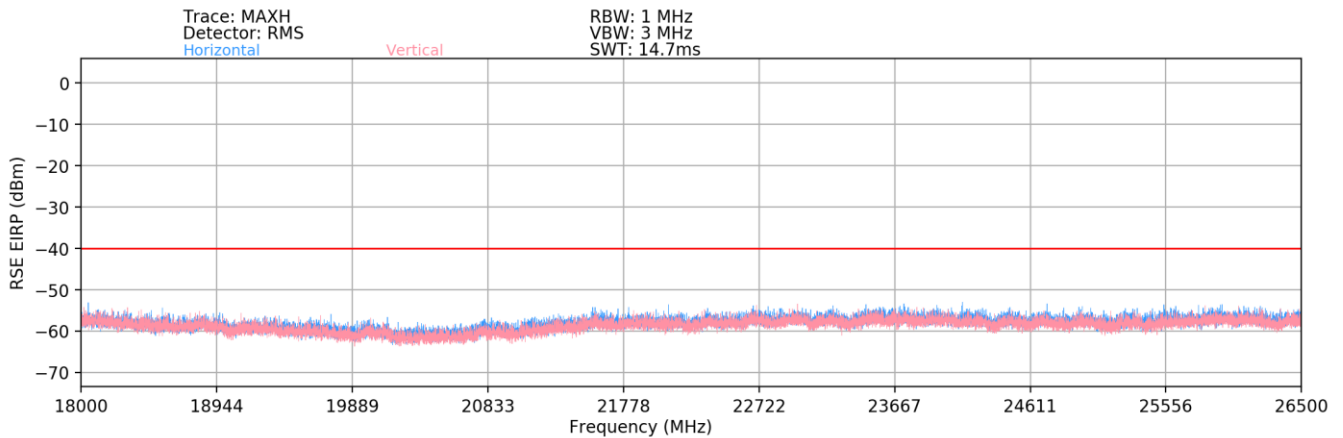
NR Band n77 (DoD-Band) – SRS-4 - Ant D



Plot 7-203. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)

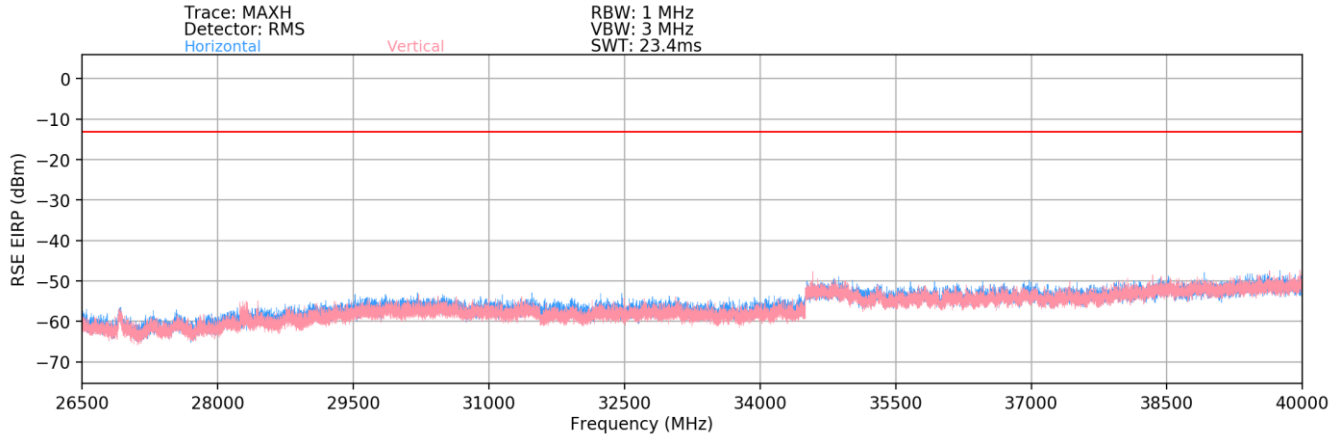


Plot 7-204. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)



Plot 7-205. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 134 of 144	



Plot 7-206. Radiated Spurious Plot (NR Band n77 (DoD) – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3500.00
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]
7000.00	H	157	308	-61.04	7.82	53.78	-41.47	-13.00	-28.47
10500.00	H	162	48	-79.81	11.39	38.58	-56.67	-13.00	-43.67
14000.00	H	137	31	-77.91	14.35	43.44	-51.82	-13.00	-38.82
17500.00	H	-	-	-79.73	17.73	45.00	-50.26	-13.00	-37.26
21000.00	H	150	348	-56.33	2.95	53.62	-51.18	-13.00	-38.18
24500.00	H	-	-	-58.79	3.36	51.57	-53.23	-13.00	-40.23
28000.00	H	-	-	-57.65	3.86	53.21	-51.59	-13.00	-38.59
31500.00	H	-	-	-55.49	6.70	58.21	-46.59	-13.00	-33.59

Table 7-28. Radiated Spurious Data (NR Band n77 (DoD) – Mid Channel – Ant D)

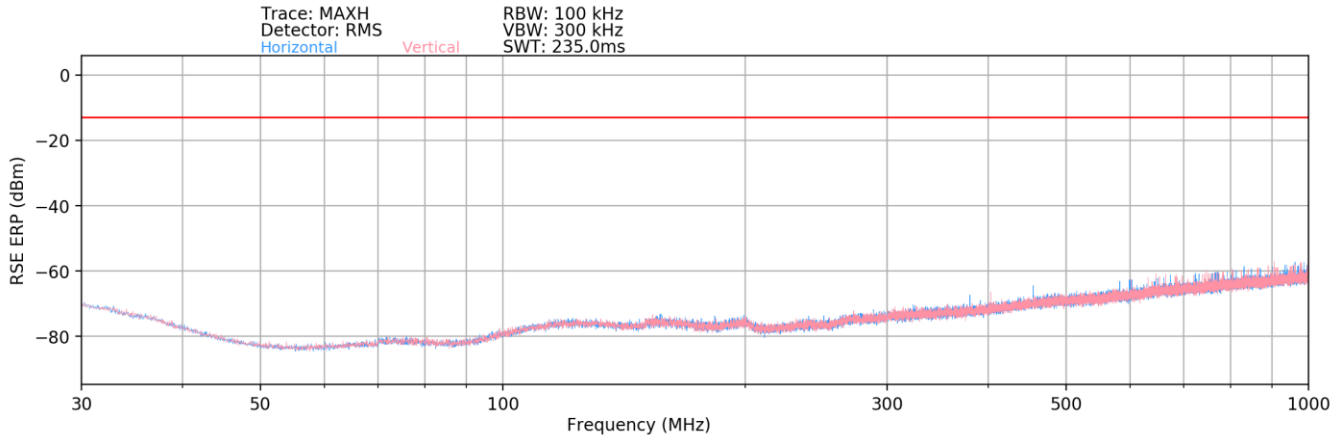
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3500.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7000.00	H	145	67	-63.71	7.82	51.11	-44.14	-13.00	-31.14
10500.00	H	-	-	-79.57	11.39	38.82	-56.43	-13.00	-43.43
14000.00	H	126	344	-79.02	14.35	42.33	-52.93	-13.00	-39.93
17500.00	H	-	-	-79.59	17.73	45.14	-50.12	-13.00	-37.12
21000.00	H	150	305	-56.75	2.95	53.20	-51.60	-13.00	-38.60
24500.00	H	-	-	-58.92	3.36	51.44	-53.36	-13.00	-40.36
28000.00	H	-	-	-57.97	3.86	52.89	-51.91	-13.00	-38.91
31500.00	H	-	-	-57.09	6.70	56.61	-48.19	-13.00	-35.19

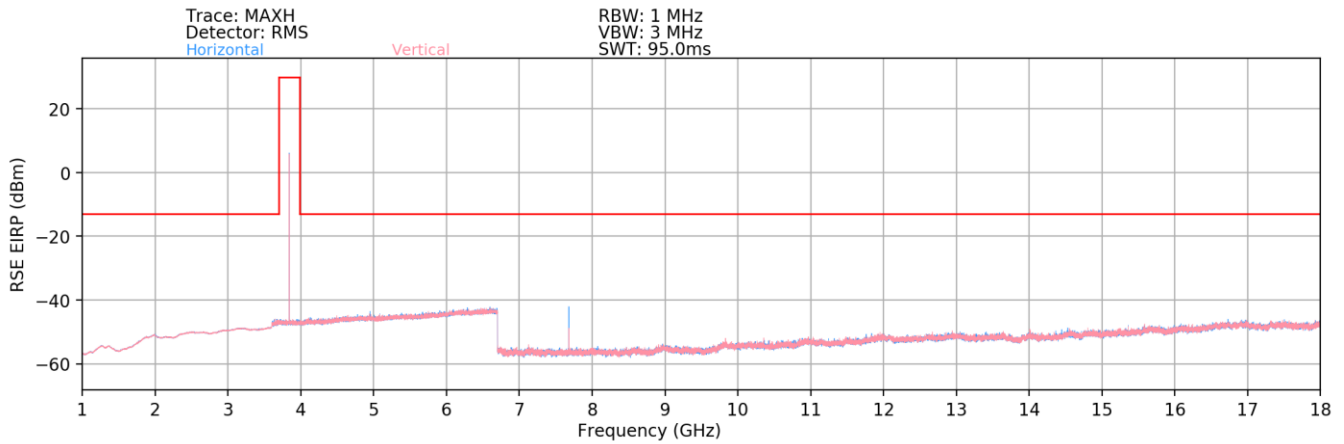
Table 7-29. Radiated Spurious Data with WCP (NR Band n77 (DoD) – Ant D)

FCC ID: A3LSMS908E	 PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 135 of 144

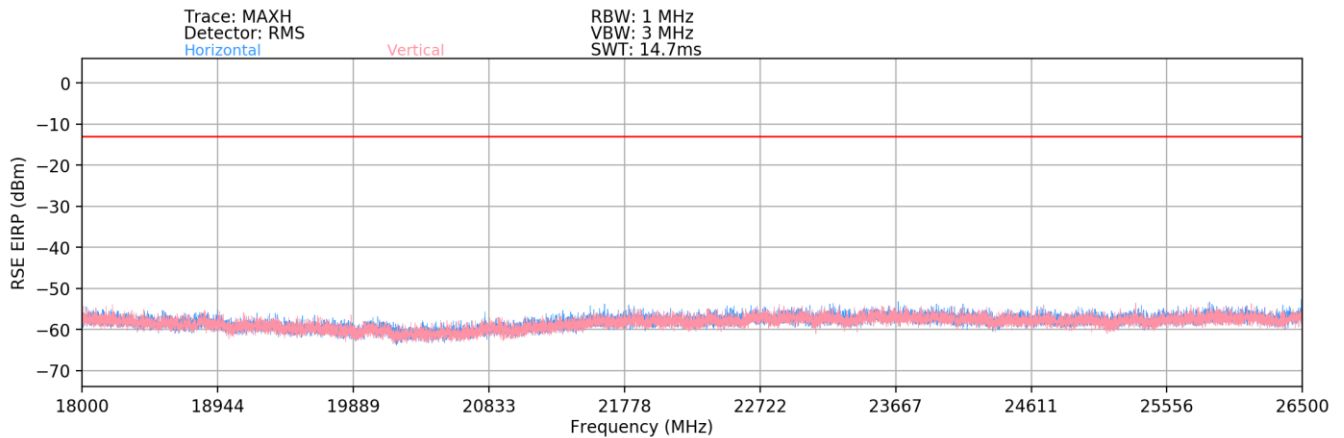
NR Band n77 (C-Band) – SRS-4 – Ant D





Plot 7-207. Radiated Spurious Plot (NR Band n77 – Ant D)

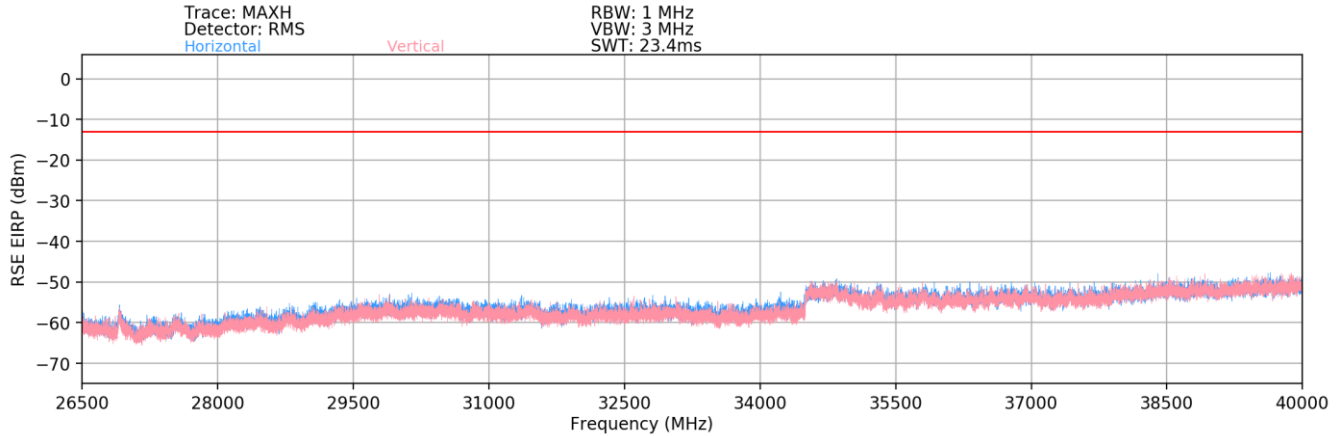


Plot 7-208. Radiated Spurious Plot (NR Band n77 – Ant D)



Plot 7-209. Radiated Spurious Plot (NR Band n77 – Ant D)

<p>FCC ID: A3LSMS908E</p>		<p>PART 27 MEASUREMENT REPORT CLASS II Permissive Change</p>	 <p>Approved by: Technical Manager</p>
<p>Test Report S/N: 1M2202030011-04.A3L</p>	<p>Test Dates: 2/02/2022 - 2/28/2022</p>	<p>EUT Type: Portable Handset</p>	<p>Page 136 of 144</p>



Plot 7-210. Radiated Spurious Plot (NR Band n77 – 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	253	19	-63.64	8.35	51.71	-43.55	-13.00	-30.55
11250.00	H	141	357	-77.98	12.39	41.41	-53.85	-13.00	-40.85
15000.00	H	111	19	-74.37	15.39	48.02	-47.24	-13.00	-34.24
18750.00	H	-	-	-59.84	1.27	48.43	-56.37	-13.00	-43.37
22500.00	H	-	-	-58.66	2.99	51.33	-53.47	-13.00	-40.47
26250.00	H	-	-	-58.49	3.88	52.39	-52.41	-13.00	-39.41

Table 7-30. Radiated Spurious Data (NR Band n77 – Low Channel – 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]
7680.00	H	222	16	-61.21	7.53	53.32	-41.94	-13.00	-28.94
11520.00	H	142	352	-78.52	12.86	41.34	-53.92	-13.00	-40.92
15360.00	H	196	25	-76.81	15.97	46.16	-49.10	-13.00	-36.10
19200.00	H	-	-	-59.28	1.73	49.45	-55.35	-13.00	-42.35
23040.00	H	-	-	-58.79	2.96	51.17	-53.63	-13.00	-40.63
26880.00	H	-	-	-57.74	3.98	53.24	-51.56	-13.00	-38.56

Table 7-31. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant D)

FCC ID: A3LSMS908E		PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset		Page 137 of 144

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 [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7860.00	H	133	5	-63.32	8.10	51.78	-43.48	-13.00	-30.48
11790.00	H	-	-	-79.98	13.19	40.21	-55.05	-13.00	-42.05
15720.00	H	186	20	-74.84	17.00	49.16	-46.09	-13.00	-33.09
19650.00	H	-	-	-59.28	2.16	49.88	-54.92	-13.00	-41.92
23580.00	H	-	-	-59.11	2.95	50.84	-53.96	-13.00	-40.96
27510.00	H	-	-	-56.61	4.37	54.76	-50.04	-13.00	-37.04

Table 7-32. Radiated Spurious Data (NR Band n77 – High Channel – Ant D)

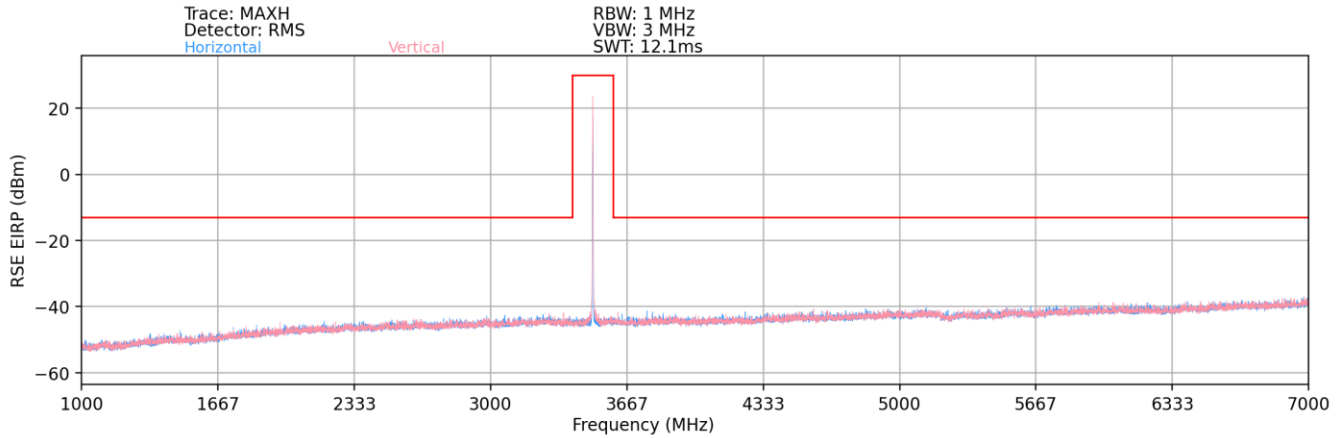
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136
Mode:	Stand Alone

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]
7680.00	H	143	53	-65.43	7.53	49.10	-46.16	-13.00	-33.16
11520.00	H	-	-	-79.91	12.86	39.95	-55.31	-13.00	-42.31
15360.00	H	257	19	-77.86	15.97	45.11	-50.15	-13.00	-37.15
19200.00	H	-	-	-59.53	1.73	49.20	-46.06	-13.00	-33.06
23040.00	H	-	-	-59.65	2.96	50.31	-54.49	-13.00	-41.49
26880.00	H	-	-	-57.35	3.98	53.63	-51.17	-13.00	-38.17

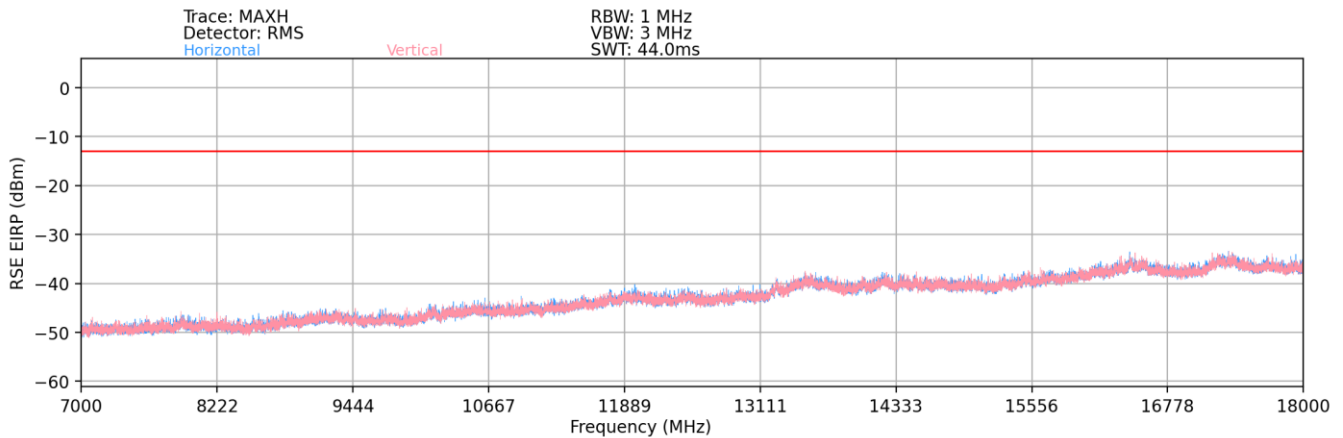
Table 7-33. Radiated Spurious Data with WCP (NR Band n77 – Ant D)

FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 138 of 144	

NR Band n77 – Band 12



Plot 7-211. Radiated Spurious Plot (NR Band n77 – B12)





Plot 7-212. Radiated Spurious Plot (NR Band n77 – B12)

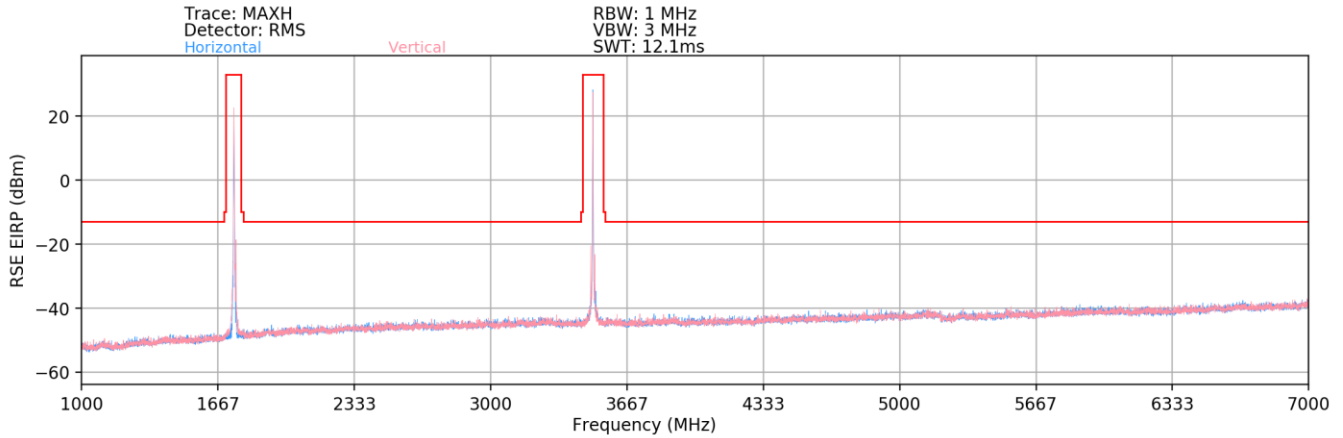
Case:	n77 + B12
Bandwidth (MHz):	100 & 10
Frequency (MHz):	3500 & 707.5
RB / Offset:	1 / 136 & 1 / 25
Mode:	EN-DC
Anchor Band:	LTE Band 12

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]
2085.00	V	-	-	-78.87	12.95	41.08	-54.17	-13.00	-41.17
4877.50	V	-	-	-80.69	18.52	44.83	-50.43	-13.00	-37.43
6292.50	V	-	-	-81.82	21.80	46.98	-48.27	-13.00	-35.27
9085.00	V	-	-	-83.56	18.81	42.25	-53.01	-13.00	-40.01

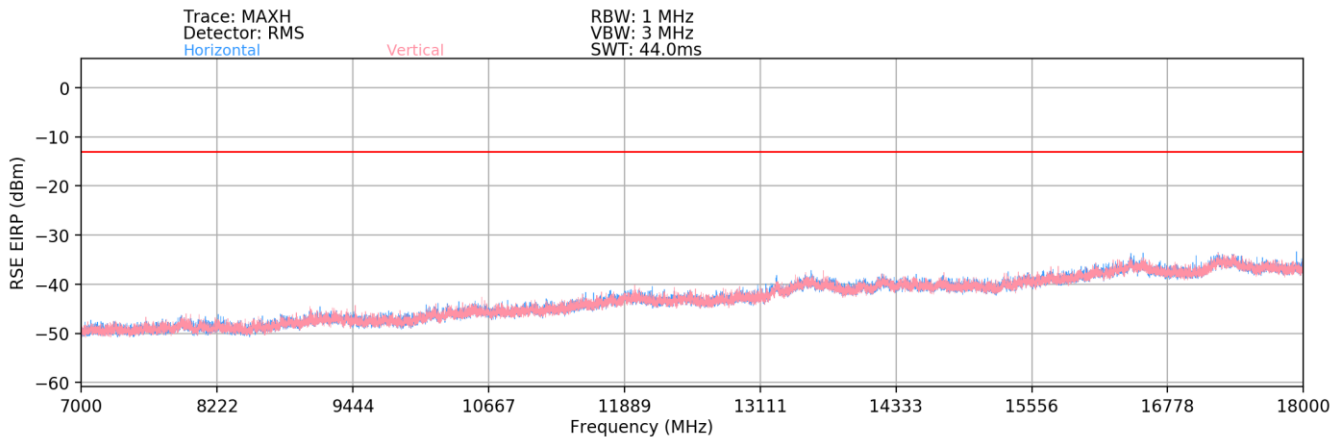
Table 7-34. Radiated Spurious Data (NR Band n77 – B12)

FCC ID: A3LSMS908E		PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 139 of 144	

NR Band n77 – Band 66



Plot 7-213. Radiated Spurious Plot (NR Band n77 – B66)





Plot 7-214. Radiated Spurious Plot (NR Band n77 – B66)

Case:	n77 + B66
Bandwidth (MHz):	100 & 20
Frequency (MHz):	3500 & 1745
RB / Offset:	1 / 136 & 1 / 50
Mode:	EN-DC
Anchor Band:	LTE Band 66

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]
1765.02	V	-	-	-78.40	10.94	39.54	-55.71	-13.00	-42.71
5255.02	V	-	-	-81.67	19.83	45.16	-50.10	-13.00	-37.10
7000.09	V	286	314	-76.05	15.65	46.60	-48.65	-13.00	-35.65
8765.00	V	-	-	-83.31	17.43	41.12	-54.14	-13.00	-41.14

Table 7-35. Radiated Spurious Data (NR Band n77 – B66)

FCC ID: A3LSMS908E	 PART 27 MEASUREMENT REPORT CLASS II Permissive Change			Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 140 of 144	

7.8 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.

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.

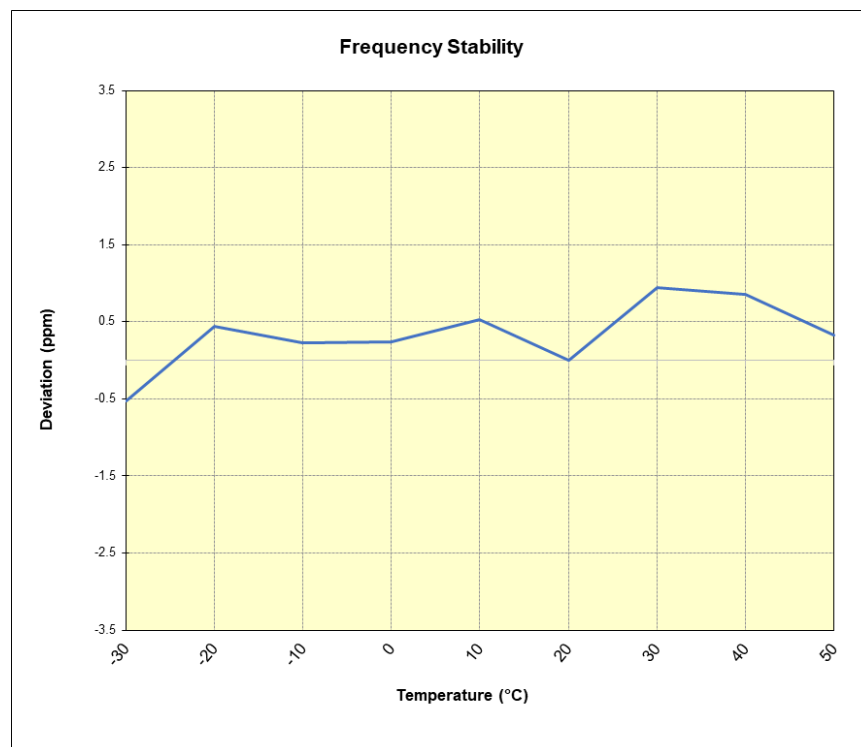
Test Notes

None



FCC ID: A3LSMS908E	 PCTEST® Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
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NR Band n77 C-Band					
Operating Frequency (Hz):		3,840,000,000			
Ref. Voltage (VDC):		4.38			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.38	- 30	3,839,976,393	-2,026	-0.0000528
		- 20	3,839,980,089	1,669	0.0000435
		- 10	3,839,979,284	865	0.0000225
		0	3,839,979,341	922	0.0000240
		+ 10	3,839,980,459	2,040	0.0000531
		+ 20 (Ref)	3,839,978,419	0	0.0000000
		+ 30	3,839,982,036	3,616	0.0000942
		+ 40	3,839,981,691	3,272	0.0000852
Battery Endpoint	3.80	+ 20	3,839,976,299	-2,120	-0.0000552

Table 7-36. NR Band n77 (C-Band) Frequency Stability Data

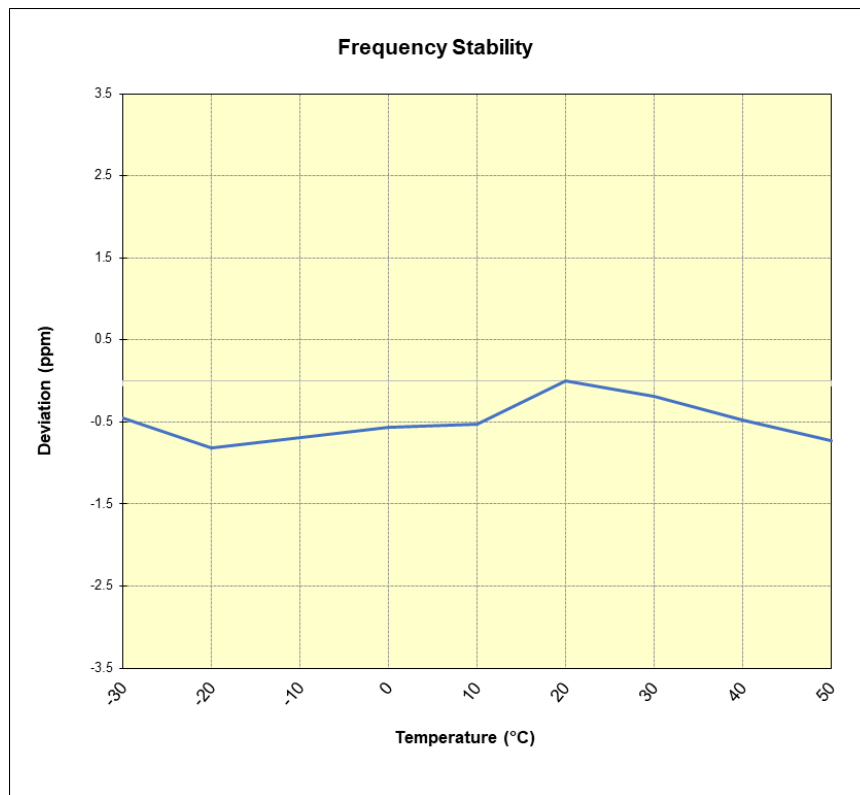


Plot 7-215. NR Band n77 (C-Band) Frequency Stability Chart



FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 142 of 144	

NR Band n77 DoD					
Operating Frequency (Hz):		3,500,000,000			
Ref. Voltage (VDC):		4.38			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.38	- 30	3,499,990,220	-1,599	-0.0000457
		- 20	3,499,988,947	-2,872	-0.0000821
		- 10	3,499,989,411	-2,408	-0.0000688
		0	3,499,989,824	-1,995	-0.0000570
		+ 10	3,499,989,958	-1,861	-0.0000532
		+ 20 (Ref)	3,499,991,819	0	0.0000000
		+ 30	3,499,991,180	-639	-0.0000183
		+ 40	3,499,990,137	-1,681	-0.0000480
Battery Endpoint	3.80	+ 20	3,499,990,928	-891	-0.0000254

Table 7-37. NR Band n77 (DoD) Frequency Stability Data





Plot 7-216. NR Band n77 (DoD) Frequency Stability Chart

FCC ID: A3LSMS908E	 PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT CLASS II Permissive Change		Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 143 of 144	

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the Samsung **Portable Handset** **FCC ID : A3LSMS908E** complies with all the requirements of Part 27 of the FCC rules.

FCC ID: A3LSMS908E	 PART 27 MEASUREMENT REPORT CLASS II Permissive Change		 Approved by: Technical Manager
Test Report S/N: 1M2202030011-04.A3L	Test Dates: 2/02/2022 - 2/28/2022	EUT Type: Portable Handset	Page 144 of 144