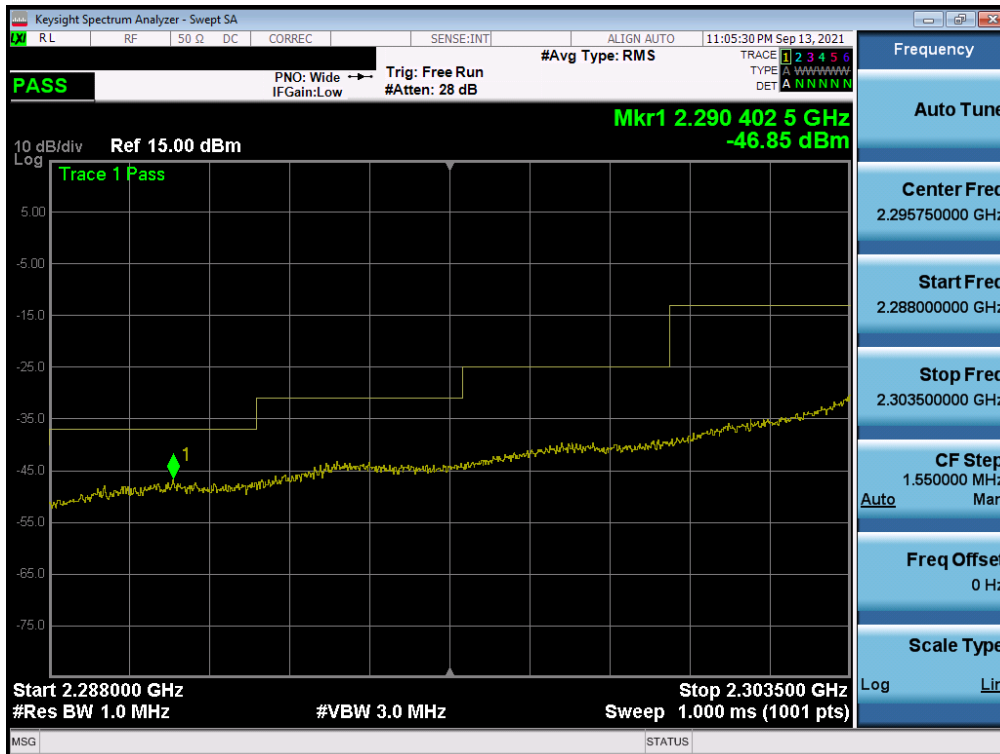


Plot 7-199. Lower Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant A)

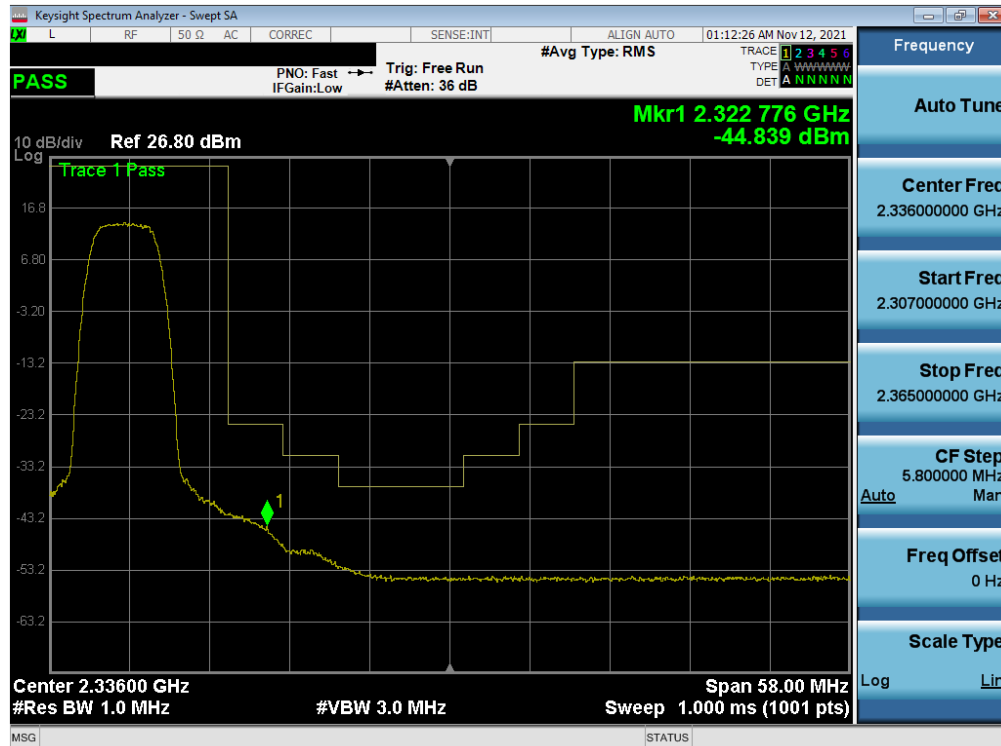


Plot 7-200. Extended Lower Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant A)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 130 of 200



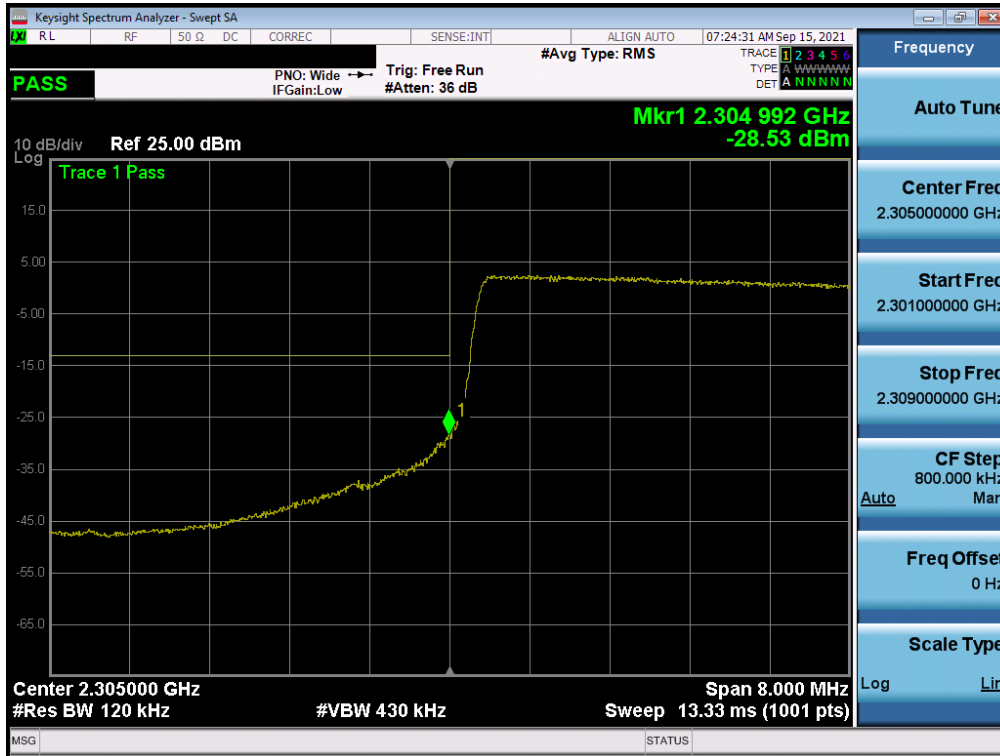
Plot 7-201. Upper Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant A)



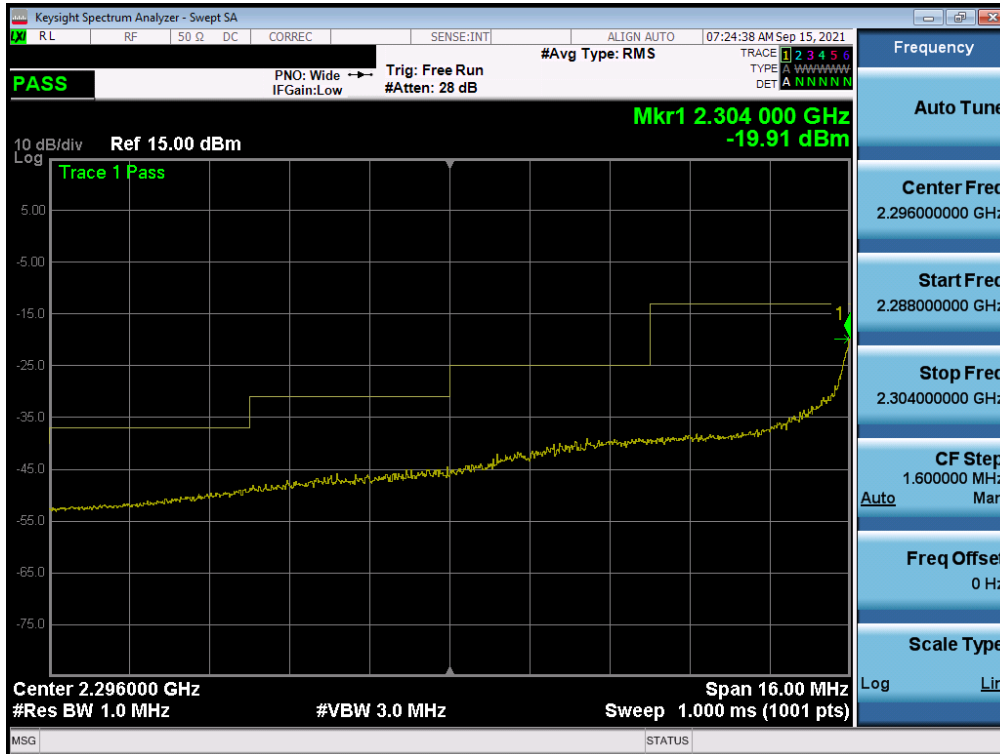
Plot 7-202. Extended Upper Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant A)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 131 of 200

NR Band n30 – Ant I



Plot 7-203. Lower Band Edge Plot (NR Band n30 - 10MHz CP-OFDM-QPSK – Full RB - Ant I)

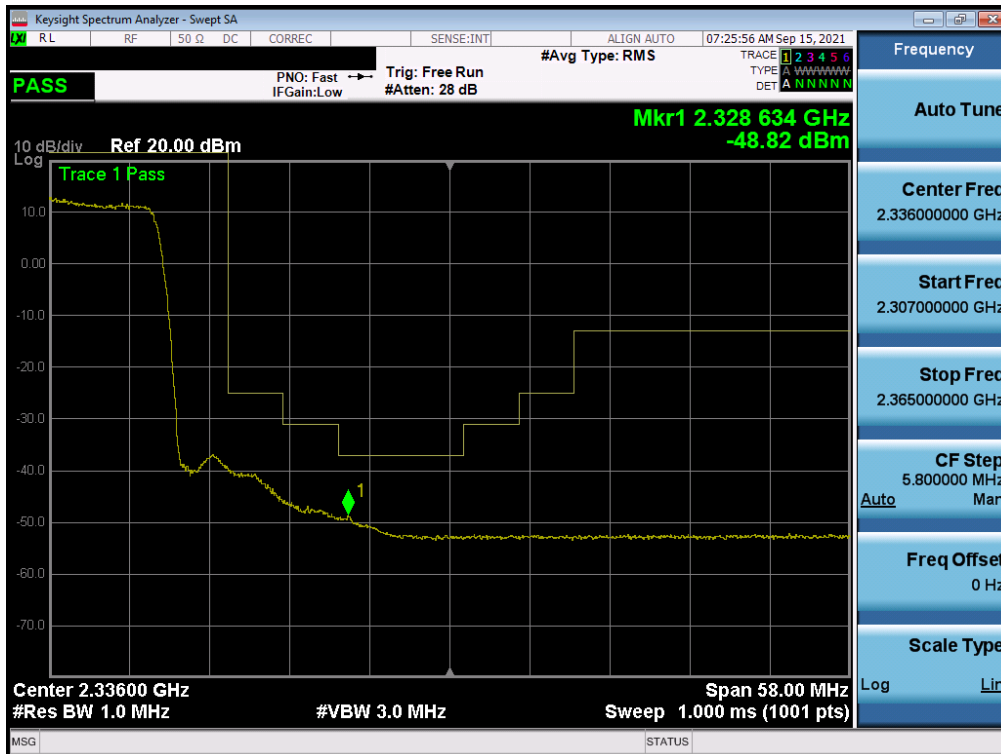


Plot 7-204. Extended Lower Band Edge Plot (NR Band n30 - 10MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 132 of 200

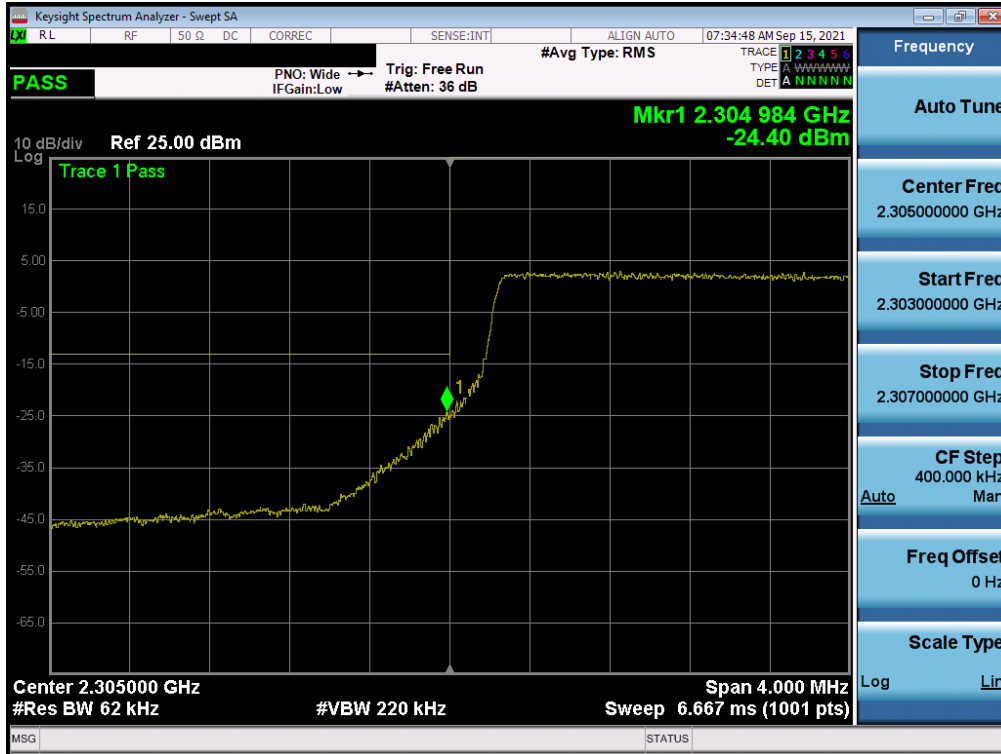


Plot 7-205. Upper Band Edge Plot (NR Band n30 - 10MHz CP-OFDM-QPSK – Full RB - Ant 1)



Plot 7-206. Extended Upper Band Edge Plot (NR Band n30 - 10MHz CP-OFDM-QPSK – Full RB - Ant 1)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 133 of 200



Plot 7-207. Lower Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant I)



Plot 7-208. Extended Lower Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 134 of 200



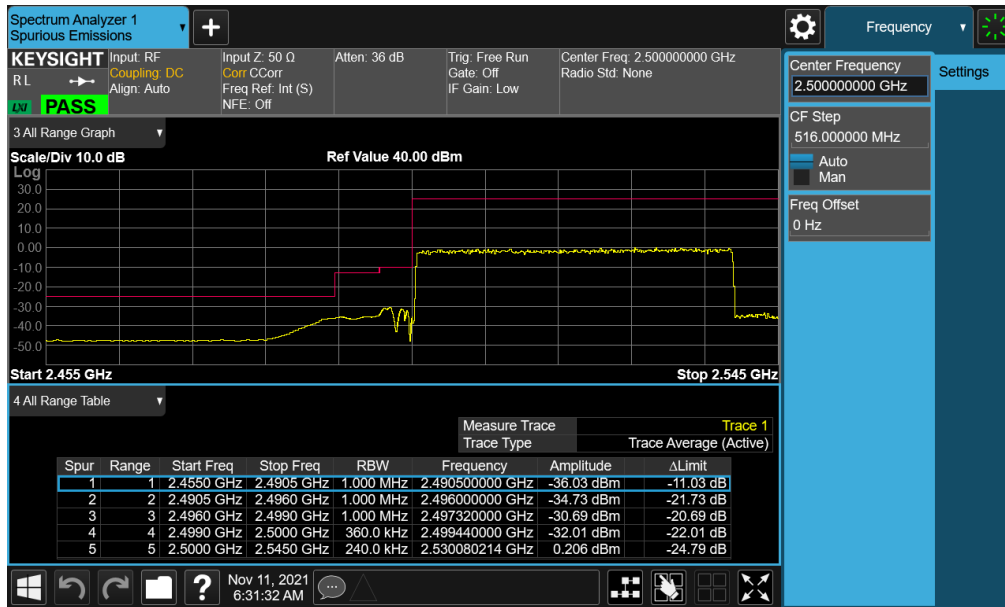
Plot 7-209. Upper Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant I)



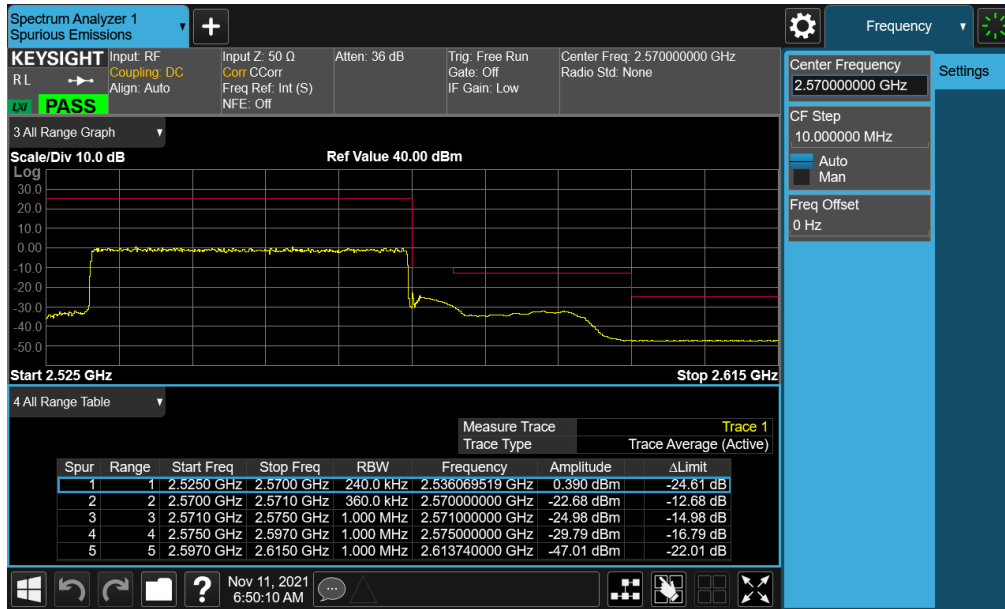
Plot 7-210. Extended Upper Band Edge Plot (NR Band n30 - 5MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 135 of 200

NR Band n7 – Ant B

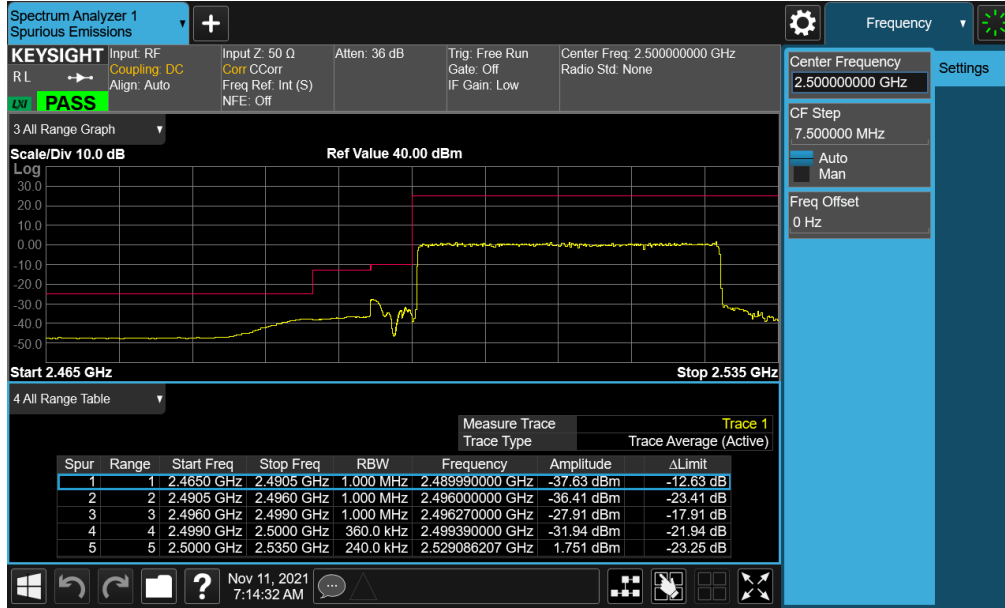


Plot 7-211. Lower Band Edge Plot (NR Band n7 - 40MHz CP-OFDM-QPSK – Full RB - Ant B)

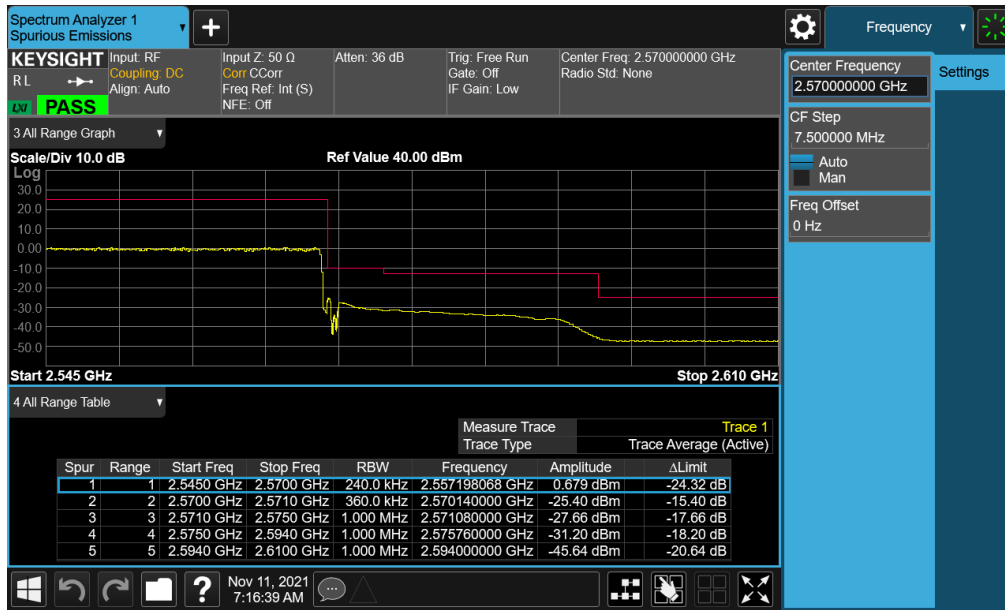


Plot 7-212. Upper Band Edge Plot (NR Band n7 - 40MHz CP-OFDM-QPSK – Full RB - Ant B)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 136 of 200

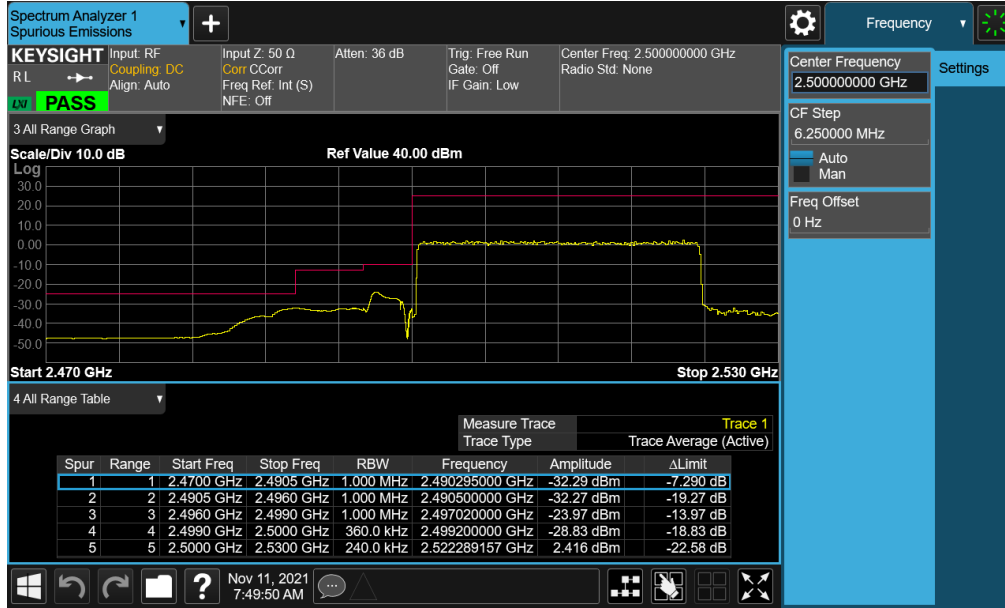


Plot 7-213. Lower Band Edge Plot (NR Band n7 - 30MHz CP-OFDM-QPSK – Full RB - Ant B)

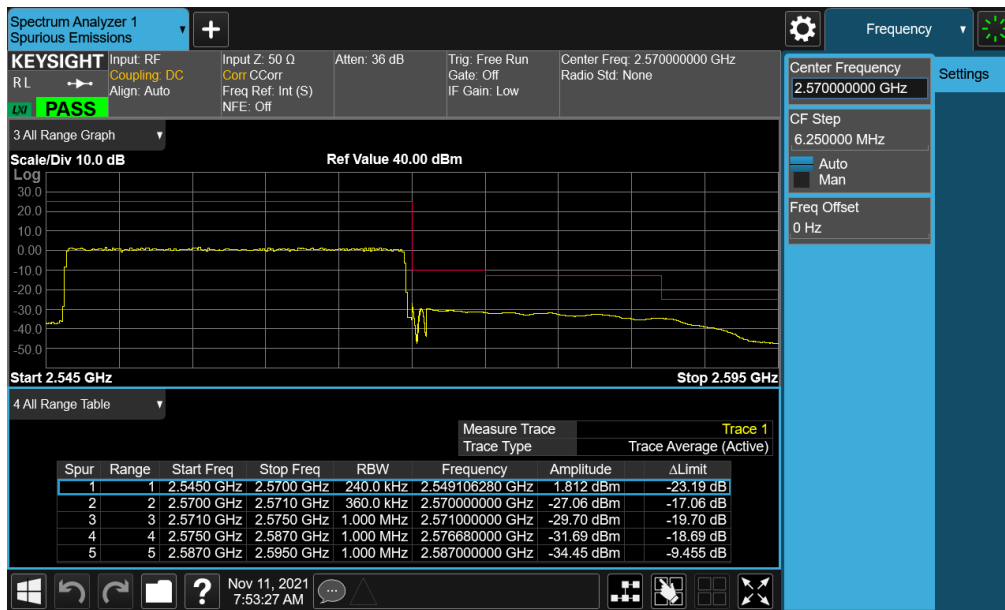


Plot 7-214. Upper Band Edge Plot (NR Band n7 - 30MHz CP-OFDM-QPSK – Full RB - Ant B)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 137 of 200

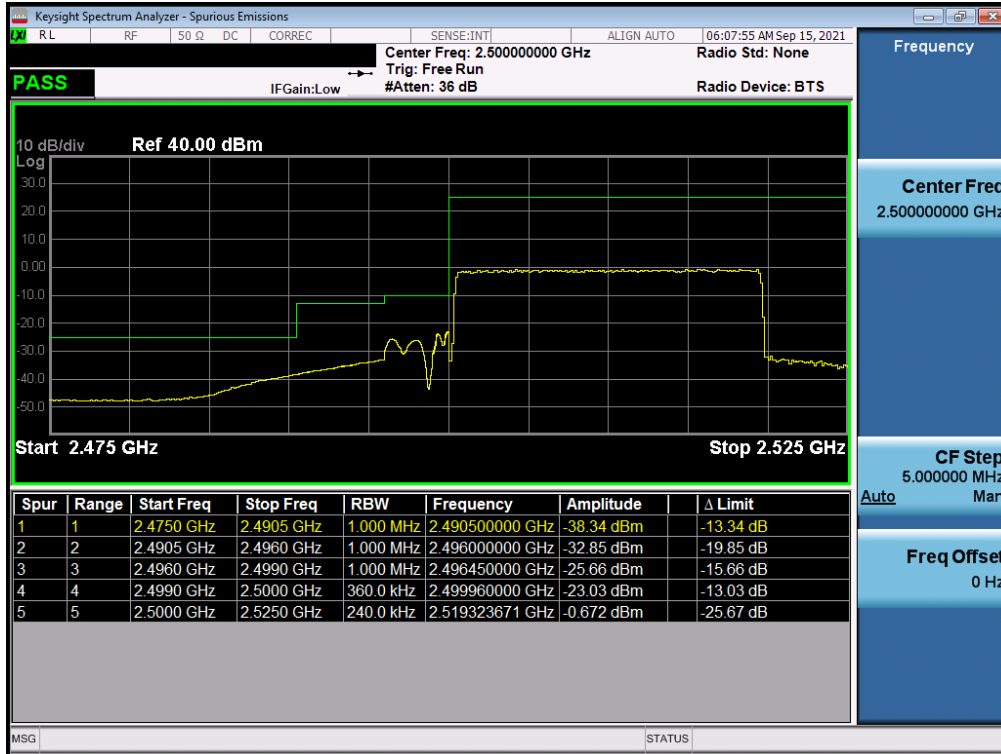


Plot 7-215. Lower Band Edge Plot (NR Band n7 - 25MHz CP-OFDM-QPSK – Full RB - Ant B)

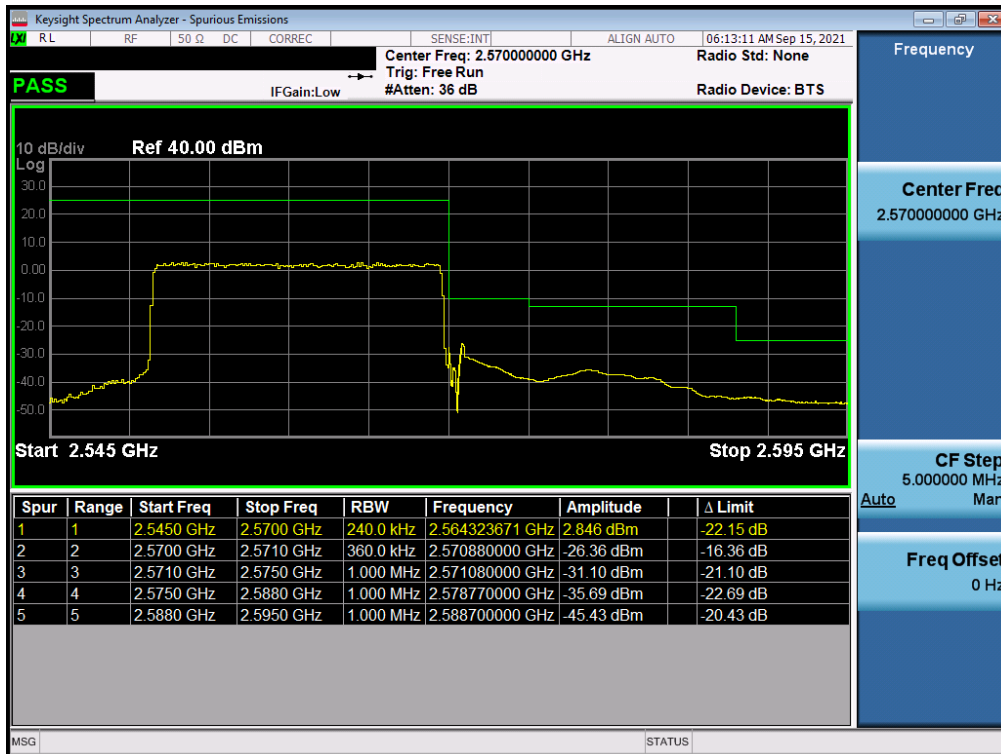


Plot 7-216. Upper Band Edge Plot (NR Band n7 - 25MHz CP-OFDM-QPSK – Full RB - Ant B)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 138 of 200

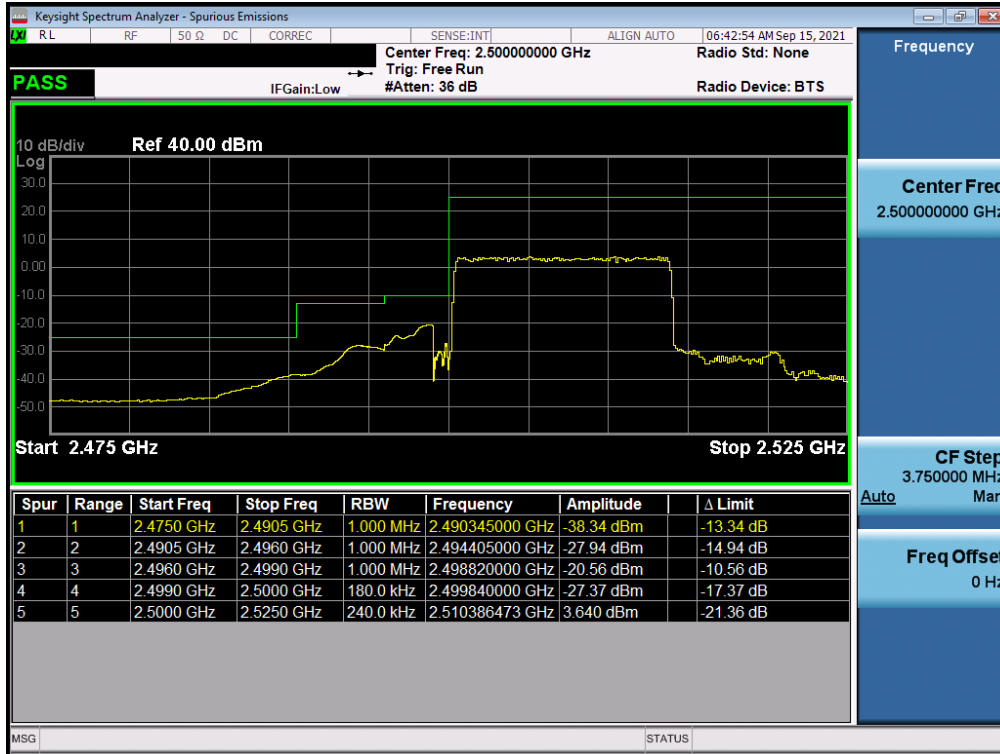


Plot 7-217. Lower Band Edge Plot (NR Band n7 - 20MHz CP-OFDM-QPSK – Full RB - Ant B)

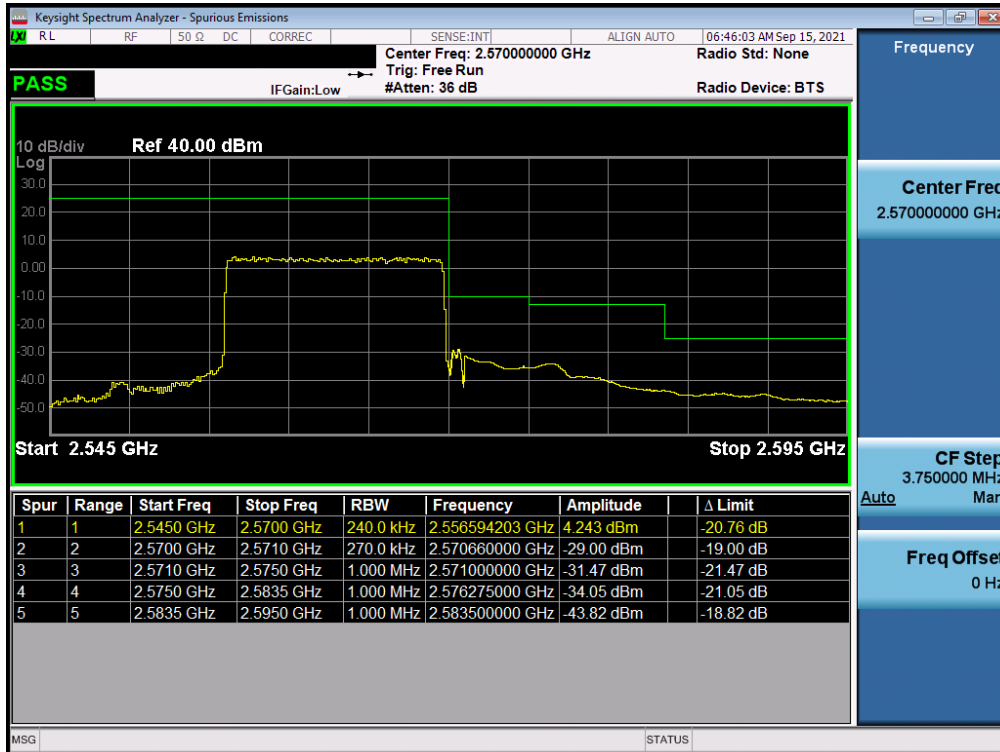


Plot 7-218. Upper Band Edge Plot (NR Band n7 - 20MHz CP-OFDM-QPSK – Full RB - Ant B)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 139 of 200

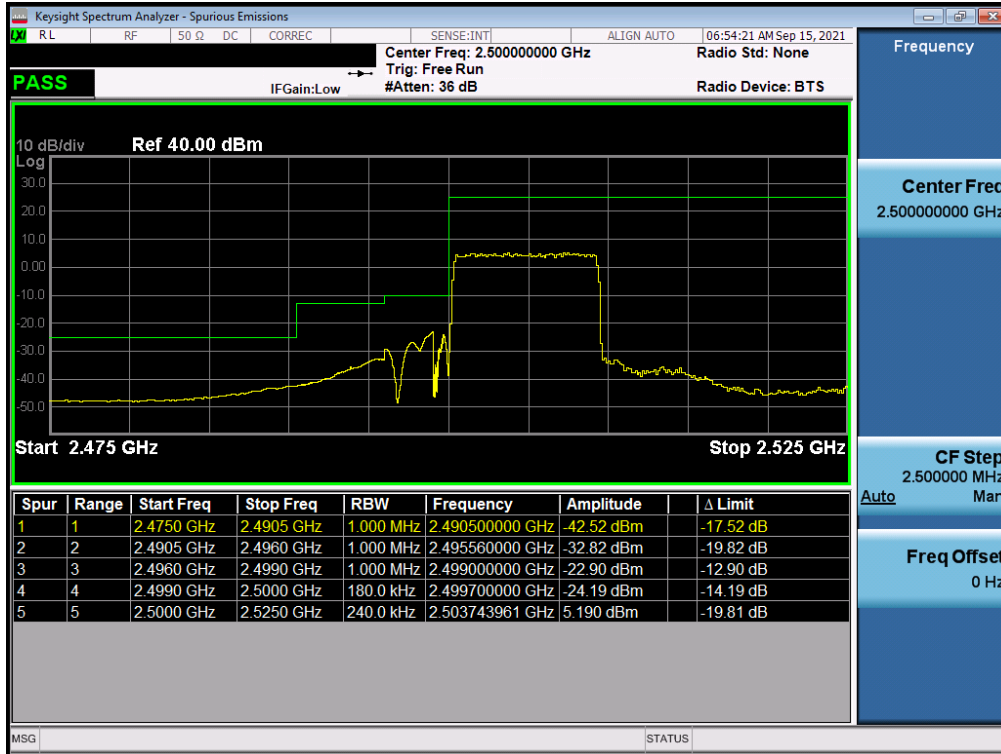


Plot 7-219. Lower Band Edge Plot (NR Band n7 - 15MHz CP-OFDM-QPSK – Full RB - Ant B)

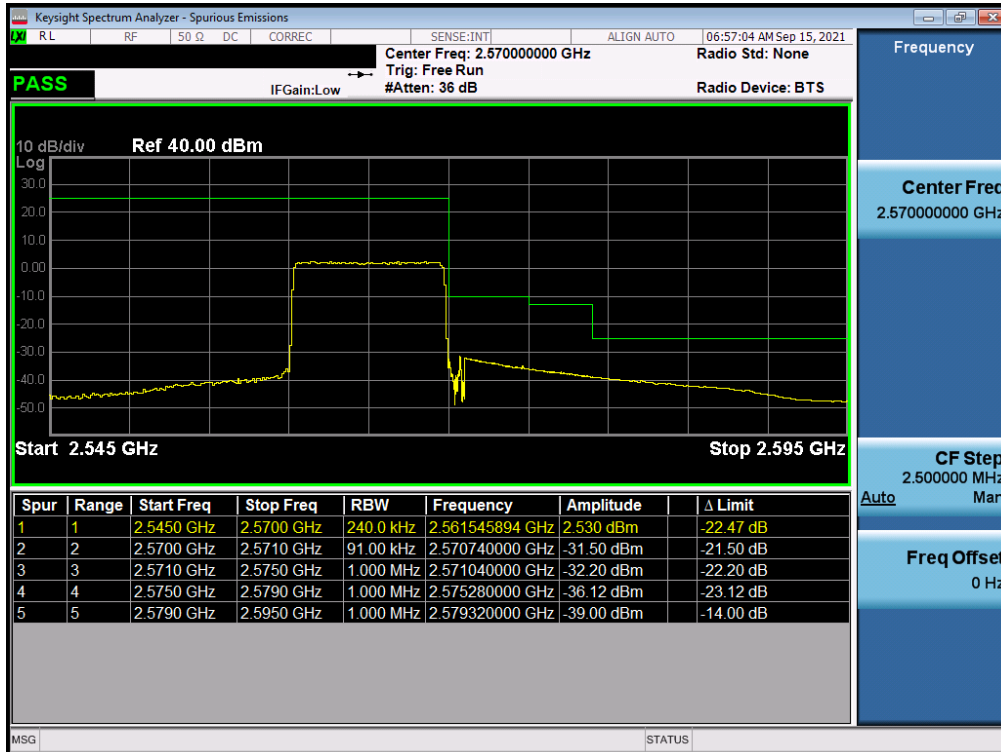


Plot 7-220. Upper Band Edge Plot (NR Band n7 - 15MHz CP-OFDM-QPSK – Full RB - Ant B)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 140 of 200

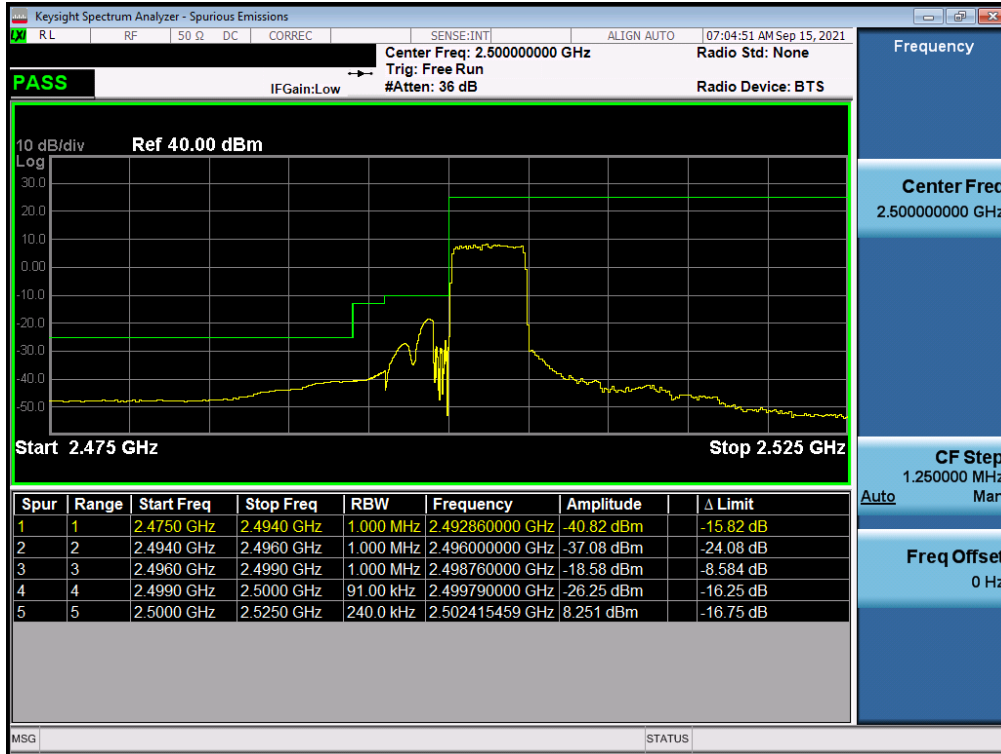


Plot 7-221. Lower Band Edge Plot (NR Band n7 - 10MHz CP-OFDM-QPSK – Full RB - Ant B)

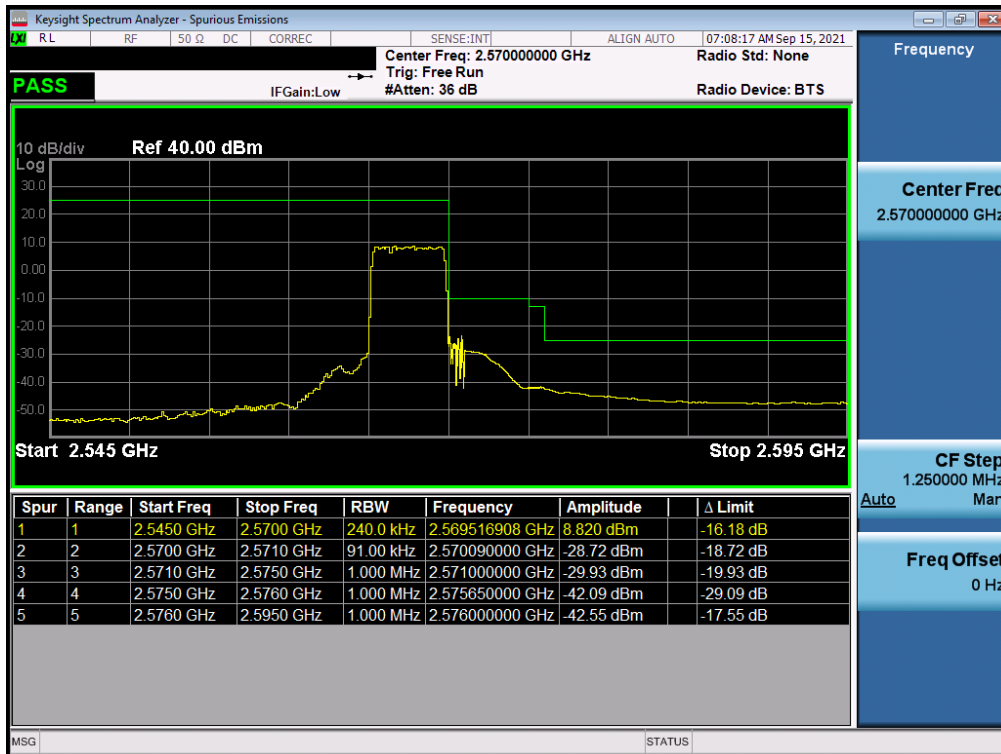


Plot 7-222. Upper Band Edge Plot (NR Band n7 - 10MHz CP-OFDM-QPSK – Full RB - Ant B)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 141 of 200



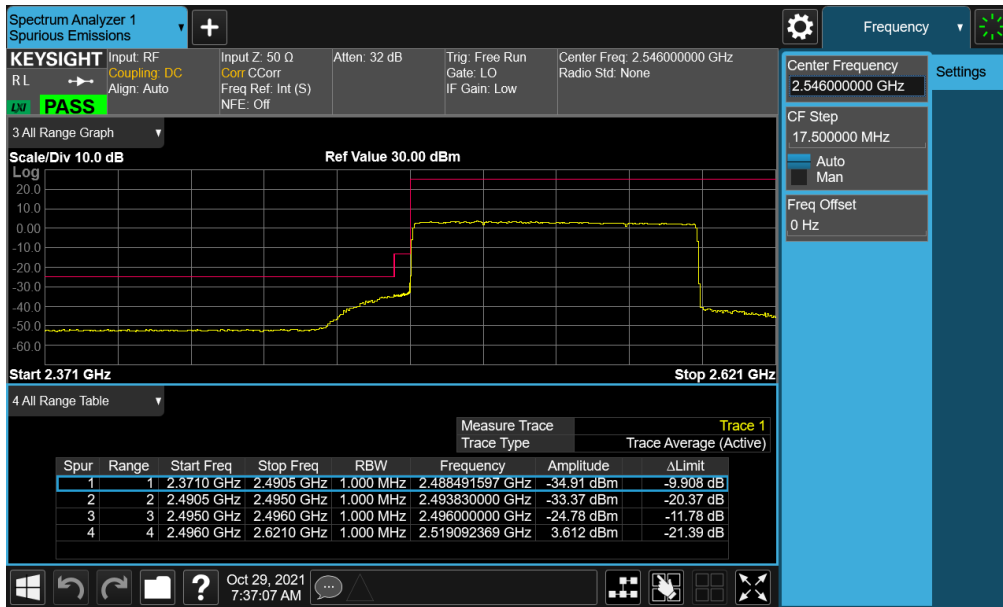
Plot 7-223. Lower Band Edge Plot (NR Band n7 - 5MHz CP-OFDM-QPSK - Full RB - Ant B)



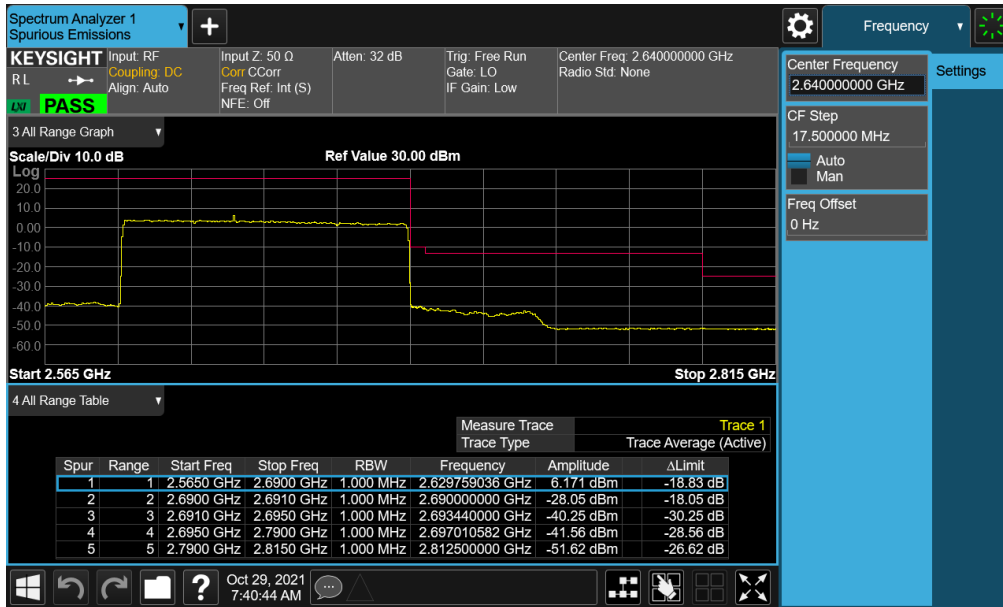
Plot 7-224. Upper Band Edge Plot (NR Band n7 - 5MHz CP-OFDM-QPSK - Full RB - Ant B)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 142 of 200

NR Band n41 (PC2) – SRS-1 – Ant I

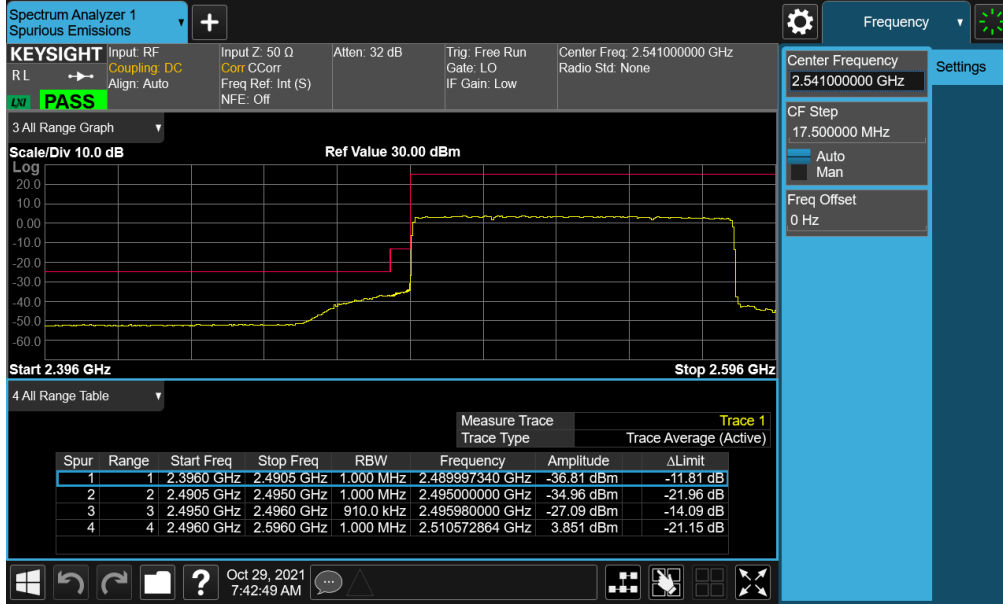


Plot 7-225. Lower ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB - Ant I)

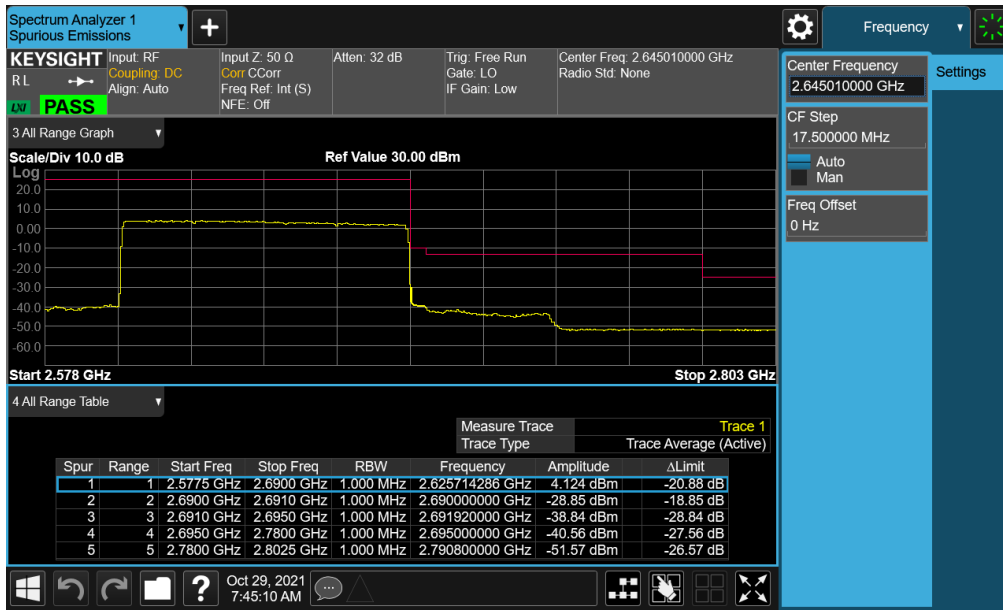


Plot 7-226. Upper ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 143 of 200

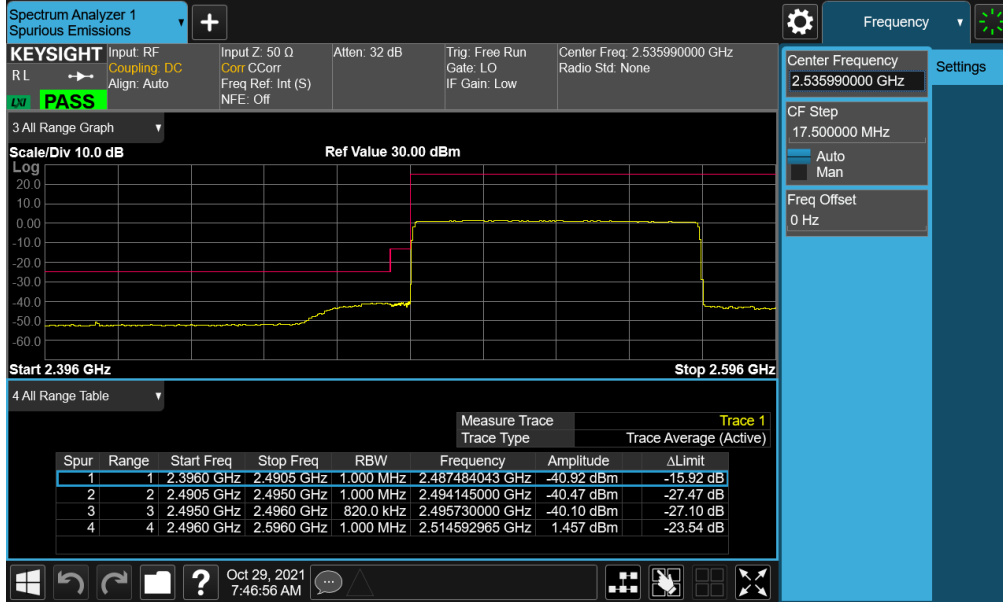


Plot 7-227. Lower ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB - Ant I)

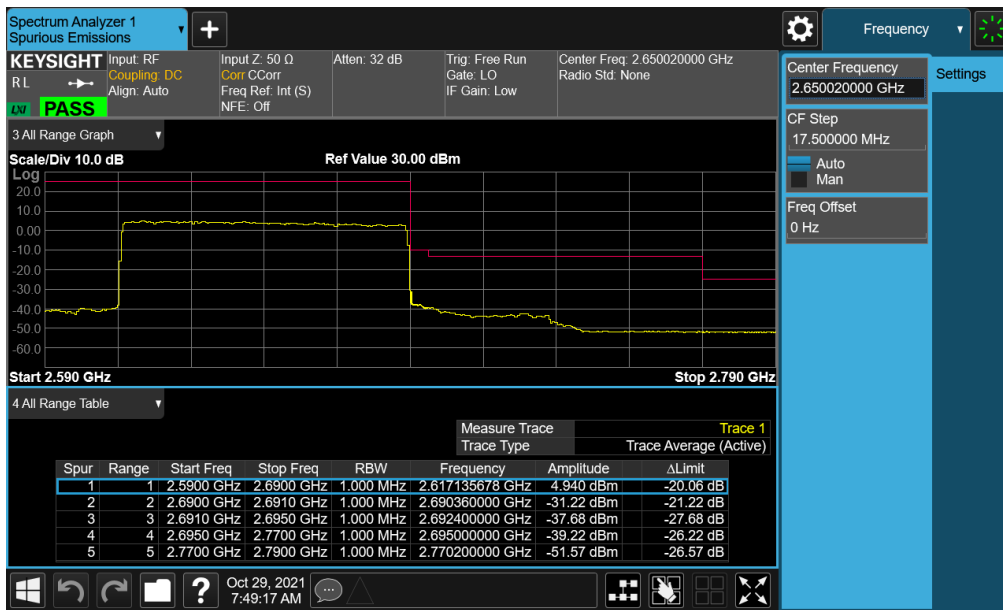


Plot 7-228. Upper ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 144 of 200

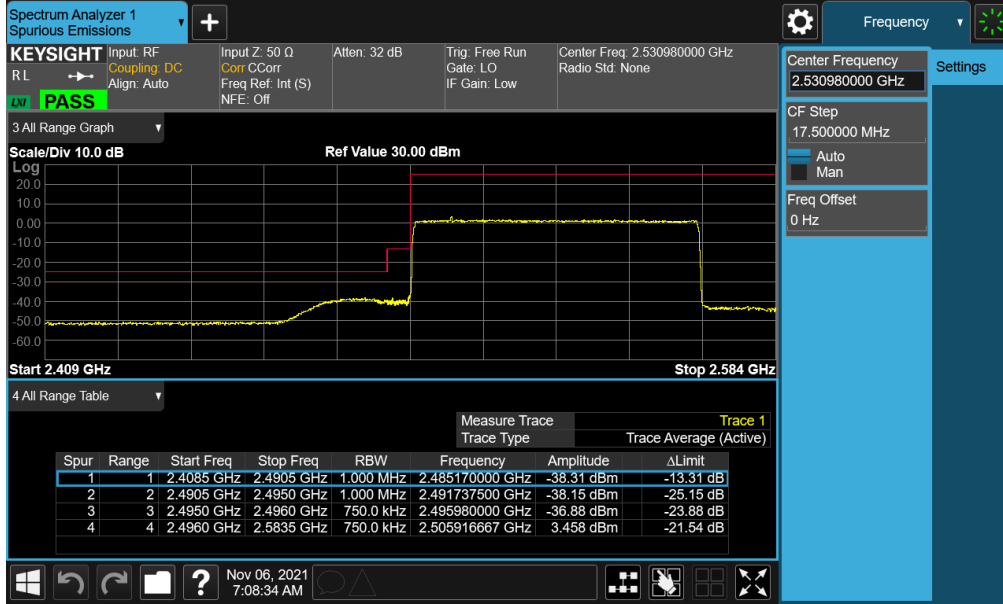


Plot 7-229. Lower ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK - Full RB - Ant I)

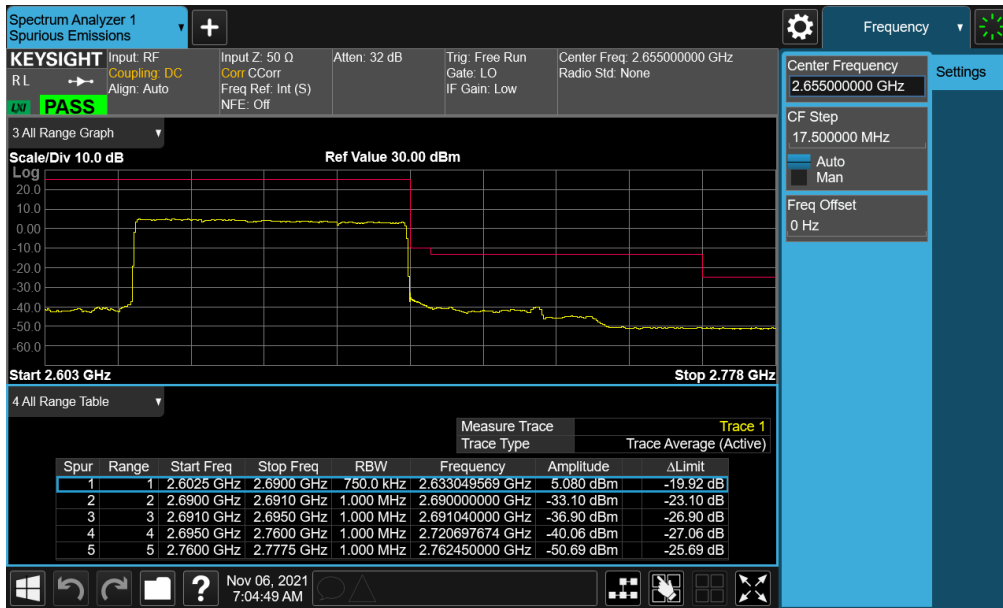


Plot 7-230. Upper ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK - Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 145 of 200

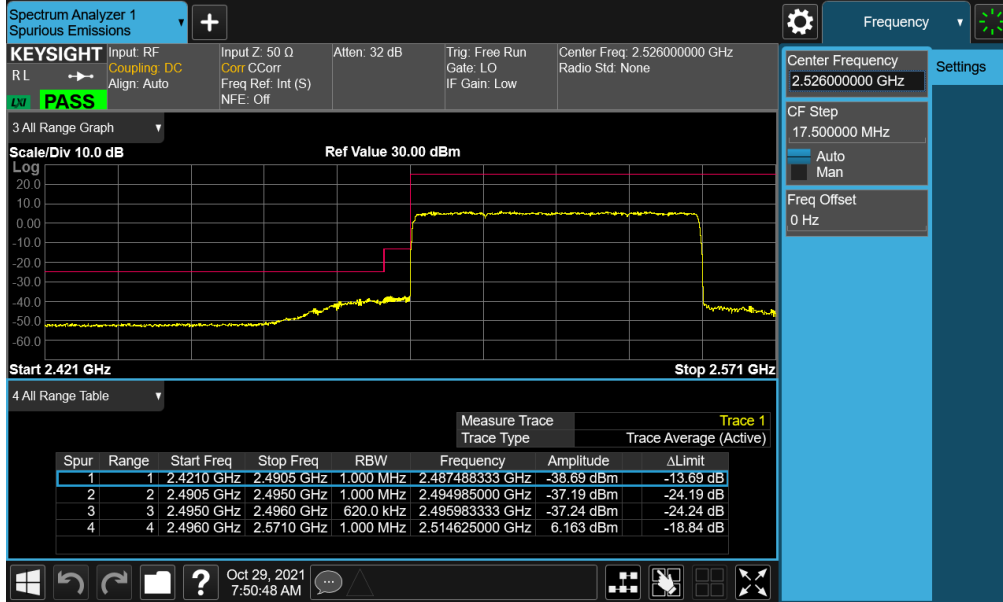


Plot 7-231. Lower ACP Plot (NR Band n41 - 70MHz CP-OFDM-QPSK – Full RB - Ant I)

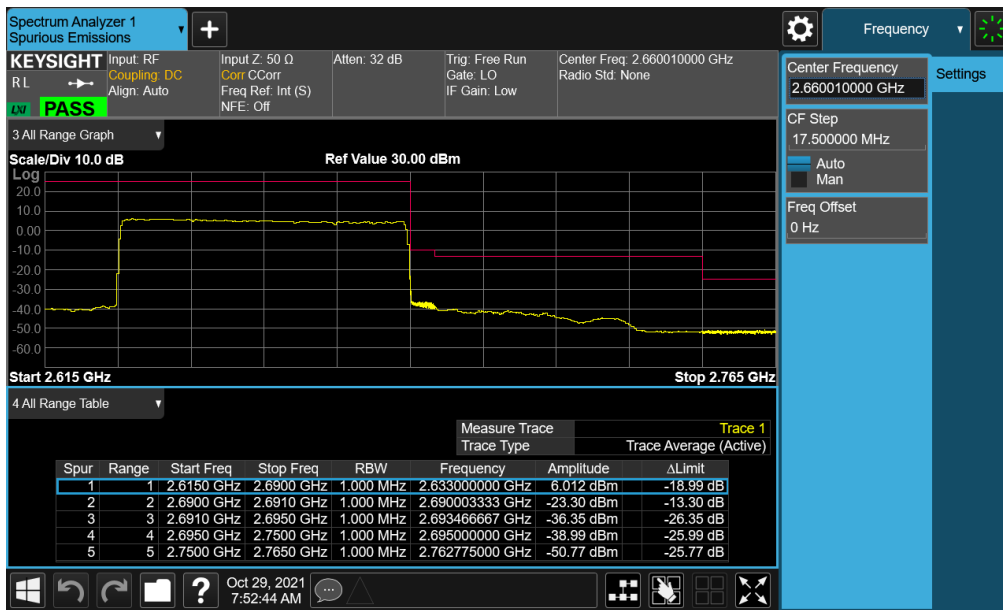


Plot 7-232. Upper ACP Plot (NR Band n41 - 70MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 146 of 200

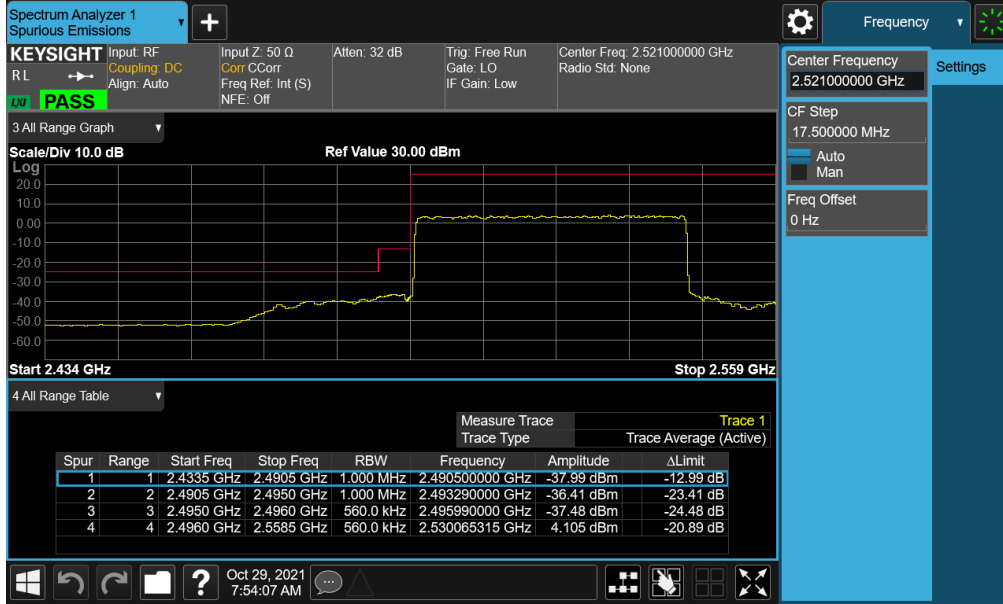


Plot 7-233. Lower ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK – Full RB - Ant I)

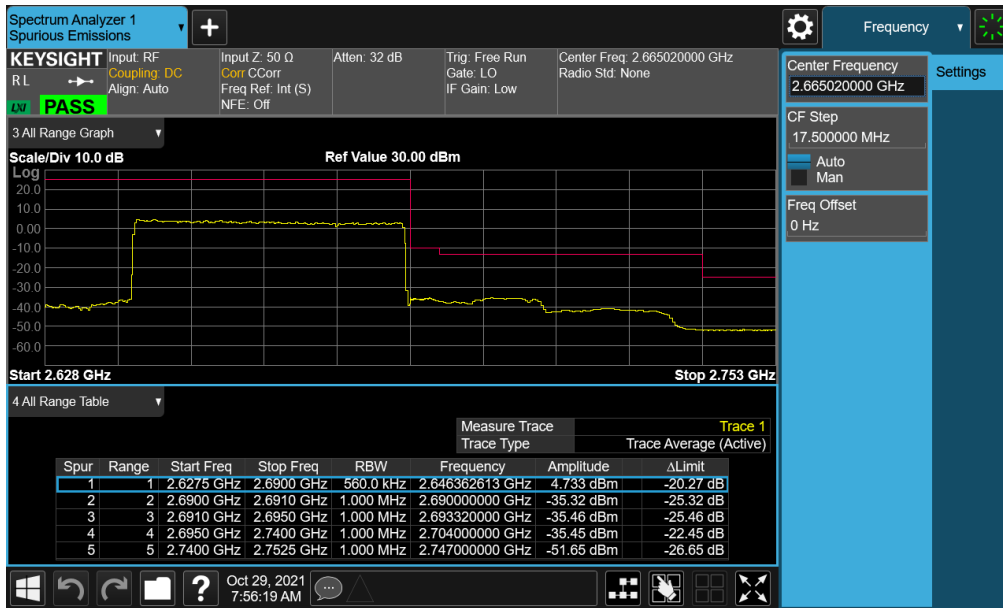


Plot 7-234. Upper ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 147 of 200

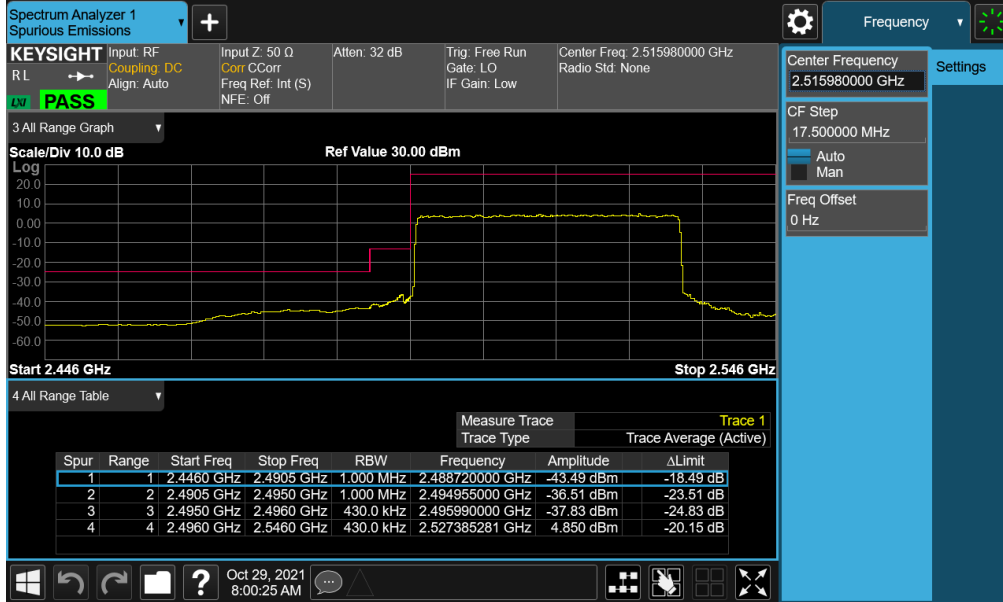


Plot 7-235. Lower ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB - Ant I)

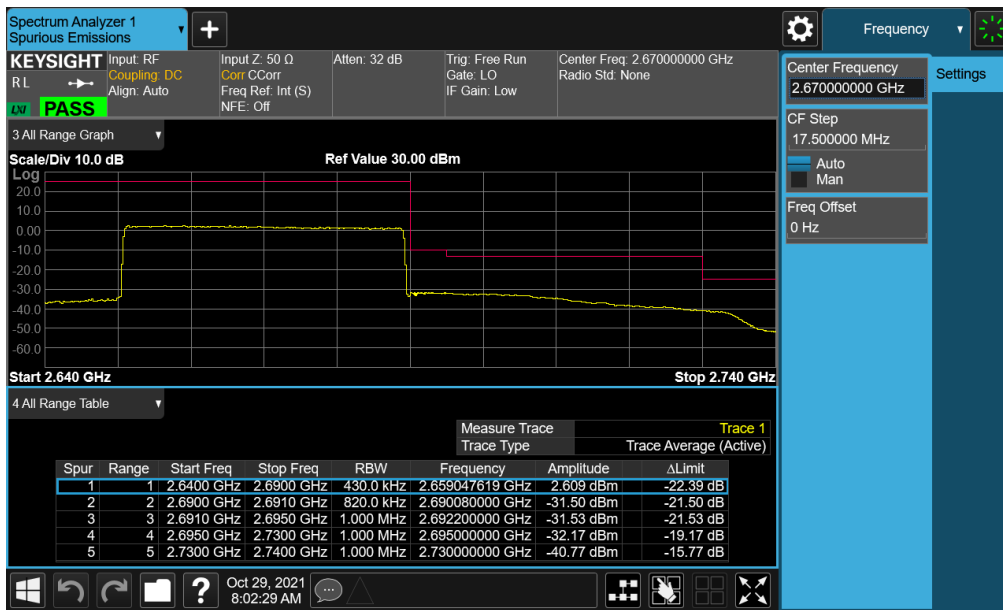


Plot 7-236. Upper ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 148 of 200

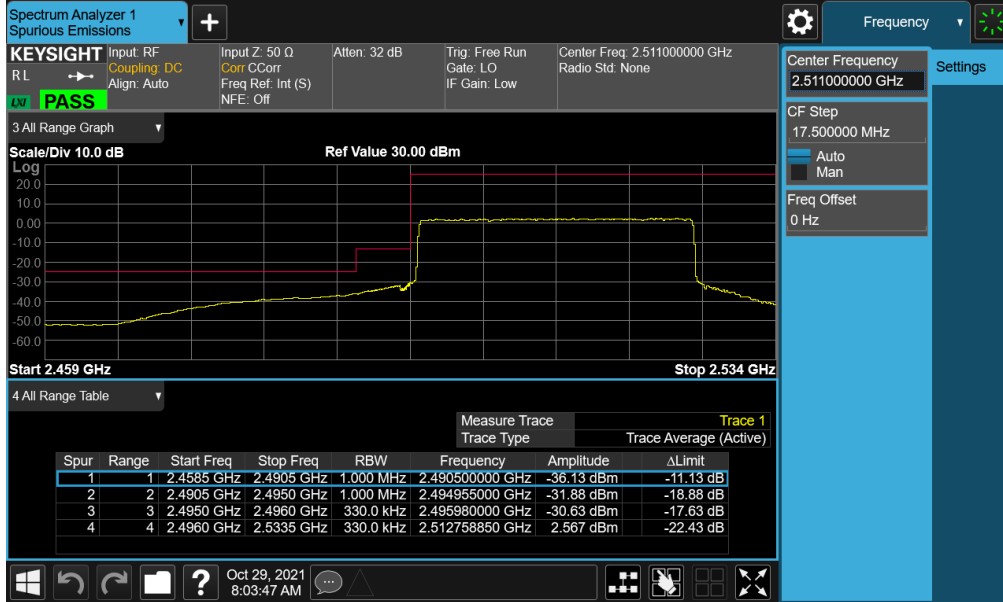


Plot 7-237. Lower ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB - Ant I)

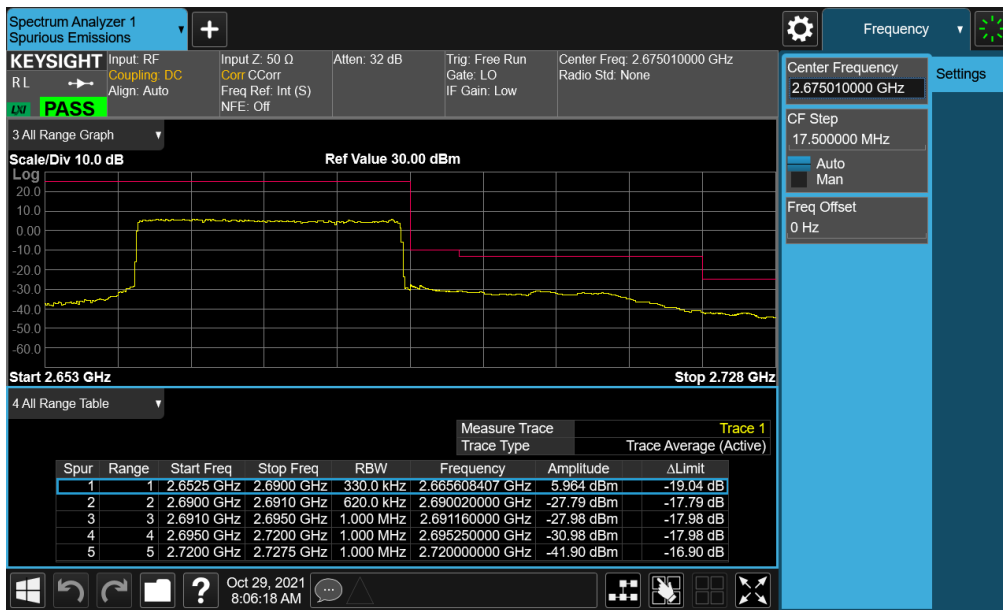


Plot 7-238. Upper ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 149 of 200

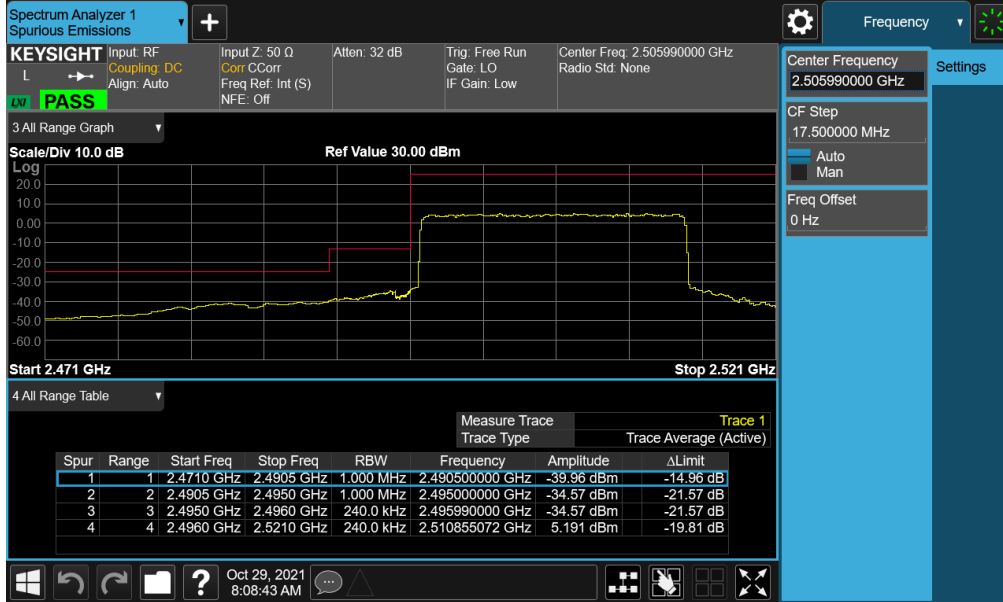


Plot 7-239. Lower ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK – Full RB - Ant I)

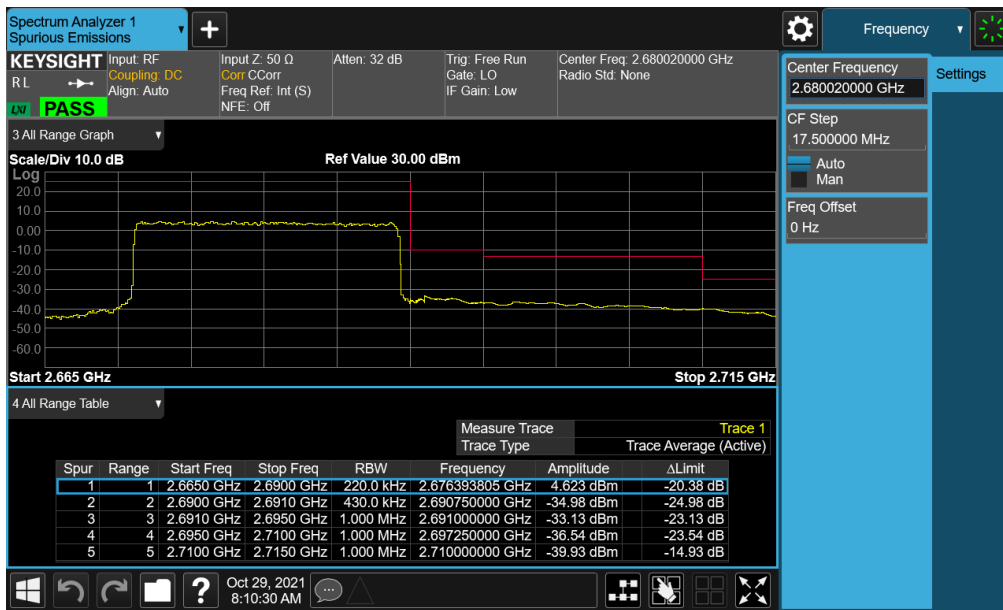


Plot 7-240. Upper ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK – Full RB - Ant I)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 150 of 200



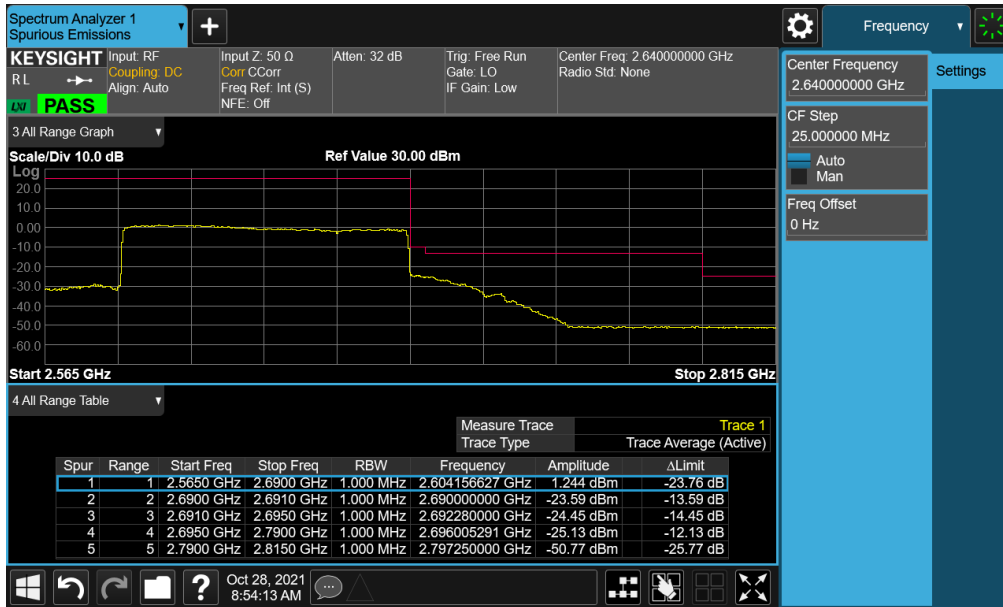
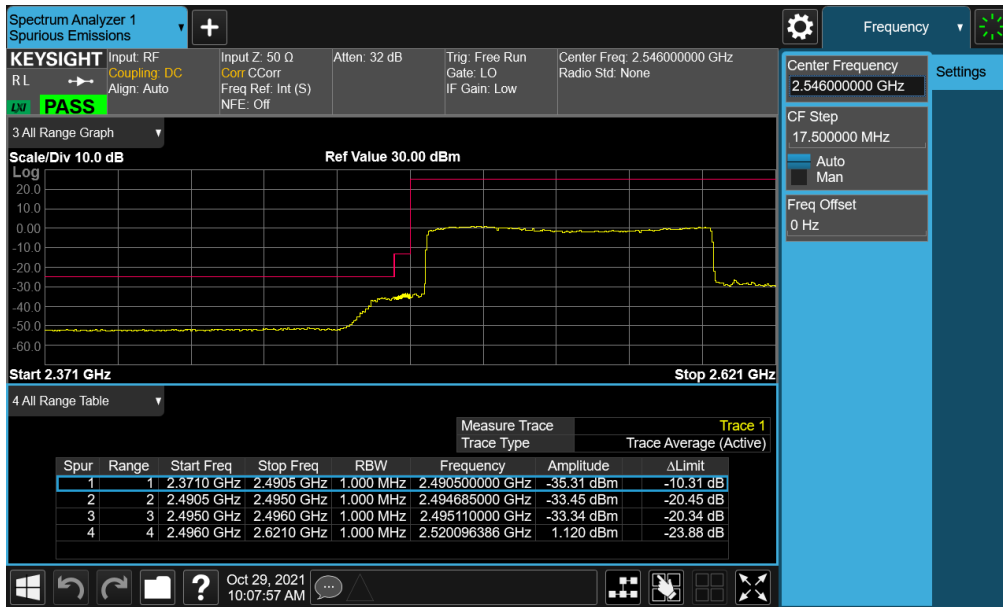
Plot 7-241. Lower ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK – Full RB - Ant I)



Plot 7-242. Upper ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK – Full RB - Ant I)

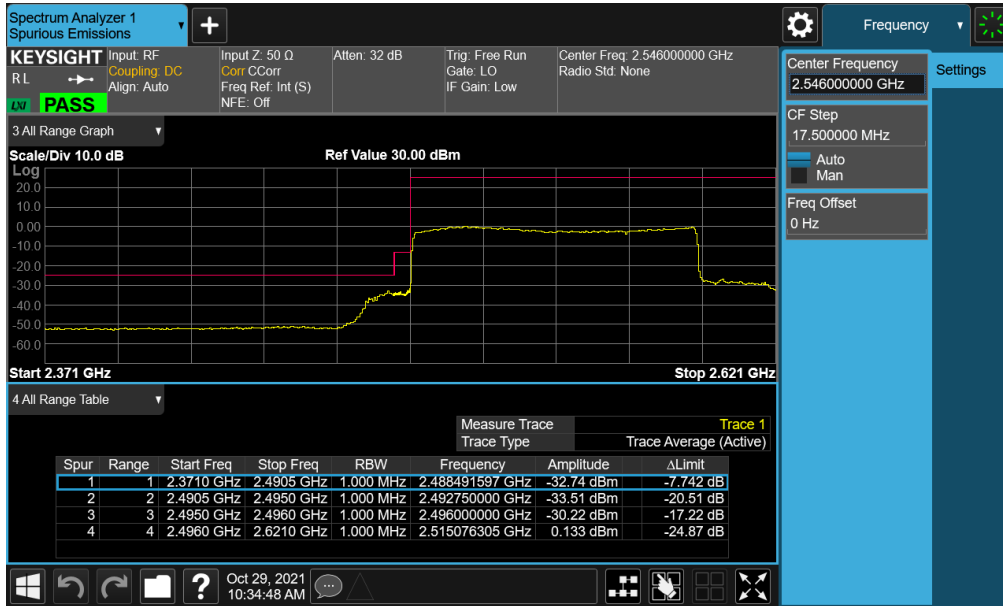
FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 151 of 200

NR Band n41 (PC2) SRS-2 – Ant B



FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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NR Band n41 (PC2) – SRS-3 – Ant E



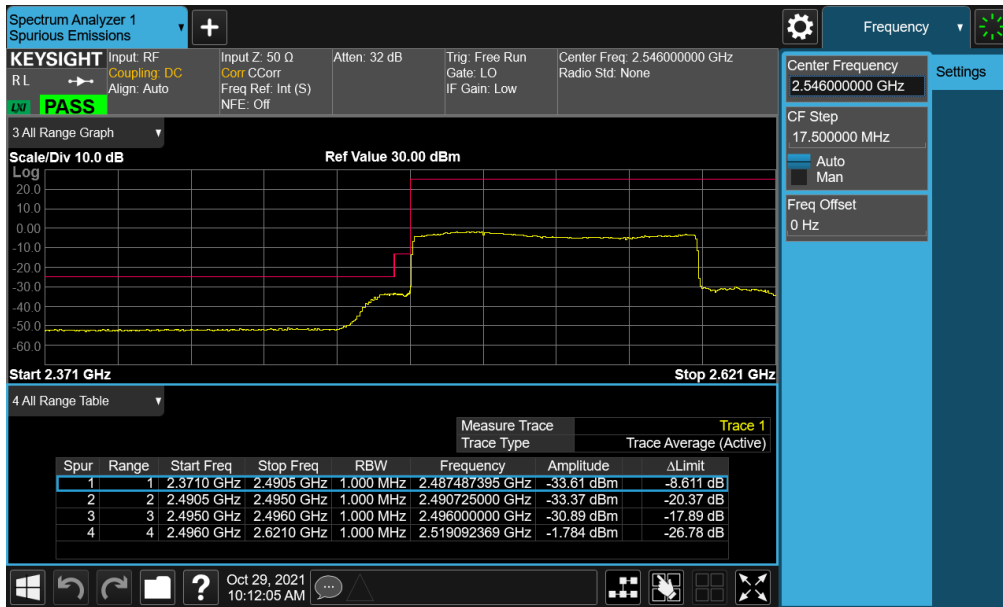
Plot 7-245. Lower ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB – Ant E)



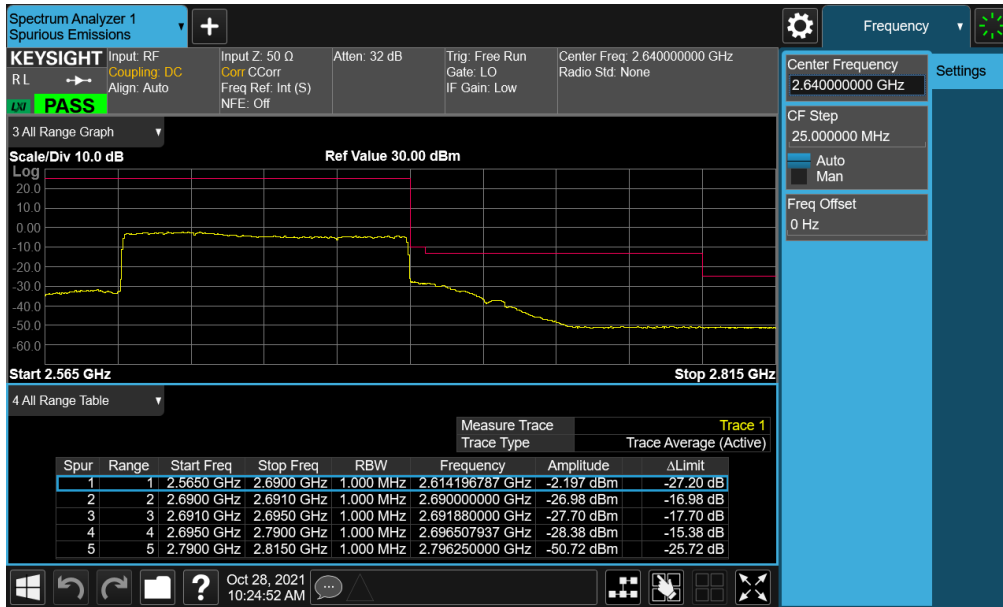
Plot 7-246. Upper ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB – Ant E)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 153 of 200

NR Band n41 (PC2) – SRS-4 – Ant D



Plot 7-247. Lower ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB – Ant D)



Plot 7-248. Upper ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB – Ant D)

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset		Page 154 of 200

7.7 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

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Test Setup

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

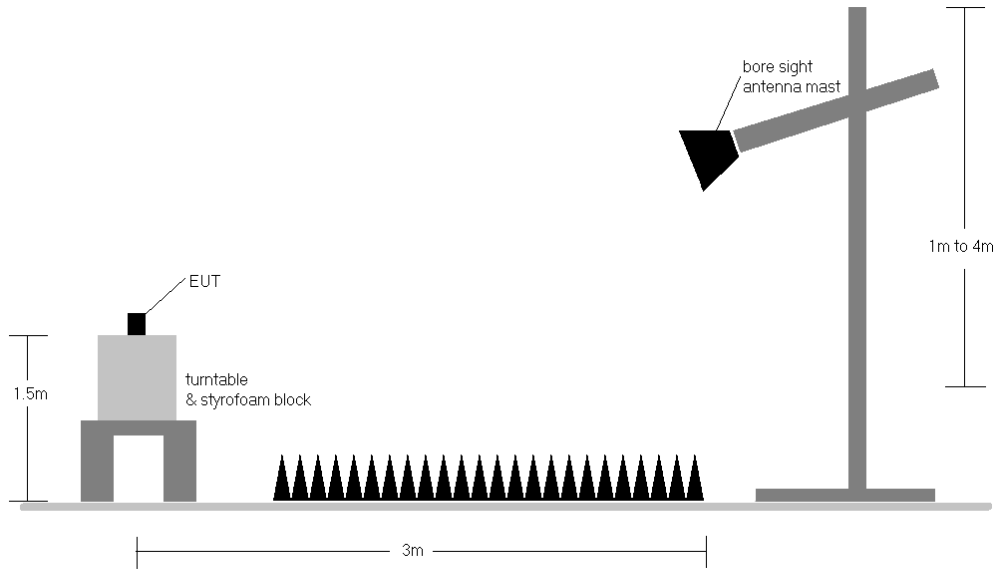


Figure 7-6. Radiated Test Setup >1GHz

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.

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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]
10 MHz	QPSK	2310.0	H	118	195	10.55	1 / 49	11.73	22.28	0.169	23.98	-1.70
	16-QAM	2310.0	H	118	195	10.55	1 / 49	10.96	21.51	0.141	23.98	-2.47
5 MHz	QPSK	2307.5	H	118	186	10.52	1 / 12	11.89	22.41	0.174	23.98	-1.57
	QPSK	2310.0	H	112	176	10.55	1 / 0	11.25	21.80	0.151	23.98	-2.18
	QPSK	2312.5	H	115	186	10.56	1 / 12	11.65	22.21	0.166	23.98	-1.77
	16-QAM	2307.5	H	118	186	10.52	1 / 12	11.16	21.68	0.147	23.98	-2.30
5 MHz	Opposite Pol.	2307.5	V	214	188	10.37	1 / 25	10.34	20.71	0.118	23.98	-3.27
	WCP	2307.5	H	113	13	10.55	1 / 25	10.56	21.11	0.129	23.98	-2.87



Table 7-10. EIRP Data (LTE Band 30)

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]
20 MHz	QPSK	2510.0	V	151	262	9.54	1 / 50	12.17	21.71	0.148	33.01	-11.30
	QPSK	2535.0	V	195	289	9.49	1 / 50	11.80	21.29	0.135	33.01	-11.72
	QPSK	2560.0	V	150	259	9.40	1 / 50	11.65	21.05	0.127	33.01	-11.96
	16-QAM	2510.0	V	151	262	9.54	1 / 50	11.10	20.64	0.116	33.01	-12.37
15 MHz	QPSK	2507.5	V	151	262	9.54	1 / 0	12.08	21.63	0.145	33.01	-11.38
	QPSK	2535.0	V	195	289	9.49	1 / 74	10.92	20.41	0.110	33.01	-12.60
	QPSK	2562.5	V	150	259	9.41	1 / 74	11.14	20.55	0.113	33.01	-12.46
	16-QAM	2507.5	V	151	262	9.54	1 / 37	10.86	20.40	0.110	33.01	-12.61
10 MHz	QPSK	2505.0	V	151	262	9.54	1 / 0	12.29	21.83	0.152	33.01	-11.18
	QPSK	2535.0	V	195	289	9.49	1 / 49	11.18	20.67	0.117	33.01	-12.34
	QPSK	2565.0	V	150	259	9.42	1 / 49	11.20	20.61	0.115	33.01	-12.40
	16-QAM	2505.0	V	151	262	9.54	1 / 25	10.93	20.47	0.111	33.01	-12.54
5 MHz	QPSK	2502.5	V	164	253	9.55	1 / 12	12.46	22.01	0.159	33.01	-11.01
	QPSK	2535.0	V	195	289	9.49	1 / 24	11.31	20.80	0.120	33.01	-12.21
	QPSK	2567.5	V	150	259	9.42	1 / 12	11.29	20.71	0.118	33.01	-12.30
	16-QAM	2502.5	V	164	253	9.55	1 / 12	11.19	20.74	0.119	33.01	-12.27
5 MHz	Opposite Pol.	2502.5	H	112	215	9.51	1 / 12	10.88	20.39	0.109	33.01	-12.62
	WCP	2502.5	V	107	301	9.54	1 / 12	10.71	20.25	0.106	33.01	-12.76

Table 7-11. EIRP Data (LTE Band 7)

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]
20 MHz	QPSK	2506.0	V	169	108	9.54	1 / 50	14.49	24.03	0.253	33.01	-8.98
	QPSK	2593.0	V	387	100	9.46	1 / 50	14.79	24.25	0.266	33.01	-8.76
	QPSK	2680.0	V	101	278	9.51	1 / 50	13.43	22.94	0.197	33.01	-10.07
	16-QAM	2593.0	V	387	100	9.46	1 / 50	13.81	23.27	0.212	33.01	-9.74
15 MHz	QPSK	2503.5	V	169	108	9.54	1 / 0	14.53	24.07	0.255	33.01	-8.94
	QPSK	2593.0	V	387	100	9.46	1 / 74	14.75	24.21	0.264	33.01	-8.80
	QPSK	2682.5	V	101	278	9.51	1 / 74	13.27	22.78	0.190	33.01	-10.23
	16-QAM	2593.0	V	387	100	9.46	1 / 0	13.67	23.13	0.206	33.01	-9.88
10 MHz	QPSK	2501.0	V	169	108	9.55	1 / 25	14.53	24.07	0.255	33.01	-8.94
	QPSK	2593.0	V	387	100	9.46	1 / 49	14.86	24.32	0.270	33.01	-8.69
	QPSK	2685.0	V	101	278	9.52	1 / 25	13.36	22.88	0.194	33.01	-10.13
	16-QAM	2593.0	V	387	100	9.46	1 / 0	13.99	23.45	0.221	33.01	-9.56
5 MHz	QPSK	2498.5	V	169	108	9.53	1 / 12	14.34	23.88	0.244	33.01	-9.13
	QPSK	2593.0	V	387	100	9.46	1 / 24	14.77	24.23	0.265	33.01	-8.78
	QPSK	2687.5	V	101	278	9.52	1 / 12	13.26	22.79	0.190	33.01	-10.22
	16-QAM	2593.0	V	387	100	9.46	1 / 0	13.90	23.36	0.217	33.01	-9.65
20 MHz	Opposite Pol.	2593.0	H	100	223	9.46	1 / 50	6.79	16.25	0.042	33.01	-16.76
	WCP	2593.0	V	232	149	9.46	1 / 50	11.99	21.45	0.140	33.01	-11.56

Table 7-12. EIRP Data (LTE Band 41 (PC2))



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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]
10 MHz	$\pi/2$ BPSK	2310.0	H	144	167	10.55	1 / 13	12.37	22.92	0.196	23.98	-1.06
	QPSK	2310.0	H	144	167	10.55	1 / 13	12.27	22.82	0.191	23.98	-1.16
	16-QAM	2310.0	H	144	167	10.55	1 / 13	11.54	22.09	0.162	23.98	-1.89
5 MHz	$\pi/2$ BPSK	2307.5	H	144	167	10.52	1 / 12	12.18	22.70	0.186	23.98	-1.28
	$\pi/2$ BPSK	2310.0	H	144	167	10.55	1 / 6	12.25	22.79	0.190	23.98	-1.19
	$\pi/2$ BPSK	2312.5	H	144	167	10.56	1 / 12	12.16	22.72	0.187	23.98	-1.26
	QPSK	2307.5	H	144	167	10.52	1 / 12	12.05	22.57	0.181	23.98	-1.41
	QPSK	2310.0	H	144	167	10.55	1 / 6	12.02	22.57	0.181	23.98	-1.41
	QPSK	2312.5	H	144	167	10.56	1 / 12	12.04	22.60	0.182	23.98	-1.38
	16-QAM	2310.0	H	144	167	10.55	1 / 6	11.62	22.17	0.165	23.98	-1.81
10 MHz	QPSK (CP-OFDM)	2310.0	H	147	167	10.55	1 / 13	10.48	21.03	0.127	23.98	-2.95
	Opposite Pol.	2310.0	V	128	267	10.37	1 / 13	12.30	22.67	0.185	23.98	-1.31
	WCP	2310.0	H	158	204	10.55	1 / 13	10.75	21.30	0.135	23.98	-2.68

Table 7-13. EIRP Data (NR Band n30 – Ant A)



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]
10 MHz	$\pi/2$ BPSK	2310.0	H	100	25	10.55	1 / 13	8.71	19.26	0.084	23.98	-4.72
	QPSK	2310.0	H	100	25	10.55	1 / 13	8.28	18.83	0.076	23.98	-5.15
	16-QAM	2310.0	H	100	25	10.55	1 / 13	7.53	18.08	0.064	23.98	-5.90
5 MHz	$\pi/2$ BPSK	2307.5	H	100	25	10.52	1 / 6	9.06	19.57	0.091	23.98	-4.40
	$\pi/2$ BPSK	2310.0	H	100	25	10.55	1 / 6	8.16	18.71	0.074	23.98	-5.27
	$\pi/2$ BPSK	2312.5	H	100	25	10.56	1 / 6	7.83	18.39	0.069	23.98	-5.59
	QPSK	2307.5	H	100	25	10.52	1 / 6	8.40	18.92	0.078	23.98	-5.06
	QPSK	2310.0	H	100	25	10.55	1 / 6	7.75	18.29	0.068	23.98	-5.69
	QPSK	2312.5	H	100	25	10.56	1 / 18	7.10	17.66	0.058	23.98	-6.32
	16-QAM	2307.5	H	100	25	10.52	1 / 6	7.60	18.12	0.065	23.98	-5.86
10 MHz	QPSK (CP-OFDM)	2310.0	H	100	25	10.55	1 / 13	6.60	17.15	0.052	23.98	-6.83
	Opposite Pol.	2310.0	V	100	86	10.37	1 / 13	8.76	19.13	0.082	23.98	-4.85
	WCP	2310.0	H	290	23	10.55	1 / 13	7.85	18.40	0.069	23.98	-5.58

Table 7-14. EIRP Data (NR Band n30 – Ant I)

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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]
40 MHz	π/2 BPSK	2520.0	V	319	267	9.51	1 / 108	12.00	21.51	0.142	33.01	-11.50
	π/2 BPSK	2535.0	V	199	256	9.49	1 / 108	11.76	21.25	0.133	33.01	-11.76
	π/2 BPSK	2550.0	V	400	231	9.35	1 / 108	11.67	21.02	0.126	33.01	-11.99
	QPSK	2520.0	V	319	267	9.51	1 / 108	12.18	21.69	0.148	33.01	-11.32
	QPSK	2535.0	V	199	256	9.49	1 / 108	11.91	21.40	0.138	33.01	-11.61
	QPSK	2550.0	V	400	231	9.35	1 / 108	11.85	21.20	0.132	33.01	-11.81
16-QAM	2520.0	V	319	267	9.51	1 / 108	10.98	20.49	0.112	33.01	-12.52	
30 MHz	π/2 BPSK	2515.0	V	319	267	9.53	1 / 80	11.90	21.43	0.139	33.01	-11.58
	π/2 BPSK	2535.0	V	199	256	9.49	1 / 80	11.78	21.27	0.134	33.01	-11.74
	π/2 BPSK	2555.0	V	400	231	9.38	1 / 80	11.82	21.19	0.132	33.01	-11.82
	QPSK	2515.0	V	319	267	9.53	1 / 80	12.52	22.04	0.160	33.01	-10.97
	QPSK	2535.0	V	199	256	9.49	1 / 80	11.78	21.28	0.134	33.01	-11.73
	QPSK	2555.0	V	400	231	9.38	1 / 80	11.94	21.32	0.135	33.01	-11.69
16-QAM	2535.0	V	199	256	9.49	1 / 80	11.16	20.65	0.116	33.01	-12.36	
25 MHz	π/2 BPSK	2512.5	V	319	267	9.54	1 / 80	11.69	21.22	0.133	33.01	-11.79
	π/2 BPSK	2535.0	V	199	256	9.49	1 / 80	11.58	21.07	0.128	33.01	-11.94
	π/2 BPSK	2557.5	V	400	231	9.39	1 / 80	11.60	20.99	0.126	33.01	-12.02
	QPSK	2512.5	V	319	267	9.54	1 / 80	12.09	21.62	0.145	33.01	-11.39
	QPSK	2535.0	V	199	256	9.49	1 / 80	11.60	21.09	0.129	33.01	-11.92
	QPSK	2557.5	V	400	231	9.39	1 / 80	11.88	21.27	0.134	33.01	-11.75
16-QAM	2535.0	V	199	256	9.49	1 / 80	10.71	20.20	0.105	33.01	-12.81	
20 MHz	π/2 BPSK	2510.0	V	319	267	9.54	1 / 53	11.52	21.06	0.128	33.01	-11.95
	π/2 BPSK	2535.0	V	199	256	9.49	1 / 53	11.35	20.84	0.121	33.01	-12.17
	π/2 BPSK	2560.0	V	400	231	9.40	1 / 53	11.33	20.73	0.118	33.01	-12.28
	QPSK	2510.0	V	319	267	9.54	1 / 26	11.84	21.38	0.138	33.01	-11.63
	QPSK	2535.0	V	199	256	9.49	1 / 26	11.30	20.80	0.120	33.01	-12.22
	QPSK	2560.0	V	400	231	9.40	1 / 26	11.46	20.86	0.122	33.01	-12.15
16-QAM	2535.0	V	199	256	9.49	1 / 79	10.55	20.04	0.101	33.01	-12.97	
15 MHz	π/2 BPSK	2507.5	V	319	267	9.54	1 / 58	11.39	20.94	0.124	33.01	-12.07
	π/2 BPSK	2535.0	V	199	256	9.49	1 / 20	11.29	20.78	0.120	33.01	-12.23
	π/2 BPSK	2562.5	V	400	231	9.41	1 / 58	11.34	20.75	0.119	33.01	-12.26
	QPSK	2507.5	V	319	267	9.54	1 / 20	11.81	21.36	0.137	33.01	-11.65
	QPSK	2535.0	V	199	256	9.49	1 / 39	11.31	20.81	0.120	33.01	-12.20
	QPSK	2562.5	V	400	231	9.41	1 / 58	11.35	20.75	0.119	33.01	-12.26
16-QAM	2535.0	V	199	256	9.49	1 / 58	10.48	19.97	0.099	33.01	-13.04	
10 MHz	π/2 BPSK	2505.0	V	319	267	9.54	1 / 13	11.72	21.27	0.134	33.01	-11.74
	π/2 BPSK	2535.0	V	199	256	9.49	1 / 26	11.52	21.01	0.126	33.01	-12.00
	π/2 BPSK	2565.0	V	400	231	9.42	1 / 38	11.59	21.01	0.126	33.01	-12.00
	QPSK	2505.0	V	319	267	9.54	1 / 38	11.98	21.52	0.142	33.01	-11.49
	QPSK	2535.0	V	199	256	9.49	1 / 38	11.46	20.95	0.125	33.01	-12.06
	QPSK	2565.0	V	400	231	9.42	1 / 38	11.64	21.06	0.128	33.01	-11.95
16-QAM	2535.0	V	199	256	9.49	1 / 38	10.54	20.03	0.101	33.01	-12.98	
5 MHz	π/2 BPSK	2502.5	V	319	267	9.55	1 / 18	11.56	21.11	0.129	33.01	-11.90
	π/2 BPSK	2535.0	V	199	256	9.49	1 / 18	11.44	20.94	0.124	33.01	-12.07
	π/2 BPSK	2567.5	V	400	231	9.42	1 / 6	11.59	21.01	0.126	33.01	-12.00
	QPSK	2502.5	V	319	267	9.55	1 / 6	11.94	21.48	0.141	33.01	-11.53
	QPSK	2535.0	V	199	256	9.49	1 / 18	11.48	20.98	0.125	33.01	-12.03
	QPSK	2567.5	V	400	231	9.42	1 / 18	11.65	21.08	0.128	33.01	-11.93
16-QAM	2567.5	V	400	231	9.42	1 / 6	10.67	20.09	0.102	33.01	-12.92	
40 MHz	QPSK (CP-OFDM)	2520.0	V	319	264	9.51	1 / 79	10.57	20.08	0.102	33.01	-12.93
	QPSK (Opposite Pol.)	2520.0	H	147	192	9.45	1 / 79	11.82	21.27	0.134	33.01	-11.74
	QPSK (WCP)	2520.0	V	100	297	9.51	1 / 79	11.20	20.71	0.118	33.01	-12.30

Table 7-15. EIRP Data (NR Band n7 – Ant B)

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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	2546.0	H	137	33	9.38	1 / 204	14.12	23.50	0.224	33.01	-9.51
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 204	14.91	24.40	0.275	33.01	-8.61
	$\pi/2$ BPSK	2640.0	H	131	40	9.89	1 / 204	13.84	23.73	0.236	33.01	-9.28
	QPSK	2546.0	H	137	33	9.38	1 / 204	13.33	22.71	0.187	33.01	-10.30
	QPSK	2593.0	H	141	41	9.49	1 / 204	14.06	23.55	0.227	33.01	-9.46
	QPSK	2640.0	H	131	40	9.89	1 / 204	13.17	23.06	0.202	33.01	-9.95
90 MHz	16-QAM	2593.0	H	141	41	9.49	1 / 204	12.46	21.95	0.157	33.01	-11.06
	$\pi/2$ BPSK	2541.0	H	137	33	9.39	1 / 61	14.07	23.46	0.222	33.01	-9.55
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 183	14.62	24.11	0.258	33.01	-8.90
	$\pi/2$ BPSK	2645.0	H	131	40	9.91	1 / 61	13.57	23.48	0.223	33.01	-9.53
	QPSK	2541.0	H	137	33	9.39	1 / 61	13.47	22.86	0.193	33.01	-10.15
	QPSK	2593.0	H	141	41	9.49	1 / 183	13.85	23.34	0.216	33.01	-9.67
80 MHz	QPSK	2645.0	H	131	40	9.91	1 / 61	13.11	23.03	0.201	33.01	-9.99
	16-QAM	2645.0	H	131	40	9.91	1 / 61	12.41	22.33	0.171	33.01	-10.68
	$\pi/2$ BPSK	2536.0	H	137	33	9.40	1 / 54	14.03	23.43	0.220	33.01	-9.58
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 162	14.85	24.34	0.271	33.01	-8.67
	$\pi/2$ BPSK	2650.0	H	131	40	9.93	1 / 162	13.84	23.78	0.239	33.01	-9.23
	QPSK	2536.0	H	137	33	9.40	1 / 54	13.93	23.33	0.216	33.01	-9.68
70 MHz	QPSK	2593.0	H	141	41	9.49	1 / 162	13.73	23.22	0.210	33.01	-9.79
	QPSK	2650.0	H	131	40	9.93	1 / 162	12.98	22.91	0.195	33.01	-10.10
	16-QAM	2536.0	H	137	33	9.40	1 / 54	13.05	22.45	0.176	33.01	-10.56
	$\pi/2$ BPSK	2531.0	H	137	33	9.40	1 / 94	15.59	24.99	0.316	33.01	-8.02
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 47	15.91	25.40	0.347	33.01	-7.61
	$\pi/2$ BPSK	2655.0	H	131	40	9.93	1 / 47	15.06	24.99	0.316	33.01	-8.02
60 MHz	QPSK	2531.0	H	137	33	9.40	1 / 94	14.73	24.13	0.259	33.01	-8.88
	QPSK	2593.0	H	141	41	9.49	1 / 47	15.10	24.59	0.288	33.01	-8.42
	QPSK	2655.0	H	131	40	9.93	1 / 47	14.32	24.26	0.267	33.01	-8.75
	16-QAM	2655.0	H	131	40	9.93	1 / 47	13.65	23.58	0.228	33.01	-9.43
	$\pi/2$ BPSK	2526.0	H	137	33	9.43	1 / 81	14.31	23.74	0.237	33.01	-9.27
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 40	14.57	24.06	0.255	33.01	-8.95
50 MHz	$\pi/2$ BPSK	2660.0	H	131	40	9.85	1 / 81	13.68	23.53	0.225	33.01	-9.48
	QPSK	2526.0	H	137	33	9.43	1 / 81	13.53	22.96	0.198	33.01	-10.05
	QPSK	2593.0	H	141	41	9.49	1 / 40	13.86	23.35	0.216	33.01	-9.66
	QPSK	2660.0	H	131	40	9.85	1 / 81	13.24	23.09	0.204	33.01	-9.92
	16-QAM	2660.0	H	131	40	9.85	1 / 81	12.51	22.36	0.172	33.01	-10.65
	$\pi/2$ BPSK	2521.0	H	137	33	9.45	1 / 33	14.61	24.06	0.254	33.01	-8.95
40 MHz	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 33	14.49	23.98	0.250	33.01	-9.03
	$\pi/2$ BPSK	2665.0	H	131	40	9.84	1 / 66	14.37	24.20	0.263	33.01	-8.81
	QPSK	2521.0	H	137	33	9.45	1 / 33	13.48	22.93	0.196	33.01	-10.08
	QPSK	2593.0	H	141	41	9.49	1 / 33	13.54	23.03	0.201	33.01	-9.98
	QPSK	2665.0	H	131	40	9.84	1 / 66	12.95	22.78	0.190	33.01	-10.23
	16-QAM	2521.0	H	137	33	9.45	1 / 33	13.29	22.74	0.188	33.01	-10.27
30 MHz	$\pi/2$ BPSK	2516.0	H	137	33	9.48	1 / 26	15.44	24.92	0.310	33.01	-8.09
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 79	16.42	25.91	0.390	33.01	-7.10
	$\pi/2$ BPSK	2670.0	H	131	40	9.82	1 / 26	15.61	25.43	0.349	33.01	-7.58
	QPSK	2516.0	H	137	33	9.48	1 / 26	14.82	24.29	0.269	33.01	-8.72
	QPSK	2593.0	H	141	41	9.49	1 / 79	15.59	25.08	0.322	33.01	-7.93
	QPSK	2670.0	H	131	40	9.82	1 / 26	14.70	24.52	0.283	33.01	-8.49
20 MHz	16-QAM	2516.0	H	137	33	9.48	1 / 26	13.68	23.16	0.207	33.01	-9.85
	$\pi/2$ BPSK	2511.0	H	137	33	9.50	1 / 19	15.53	25.03	0.318	33.01	-7.98
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 19	15.96	25.45	0.351	33.01	-7.56
	$\pi/2$ BPSK	2675.0	H	131	40	9.85	1 / 19	15.63	25.47	0.353	33.01	-7.54
	QPSK	2511.0	H	137	33	9.50	1 / 19	15.20	24.71	0.296	33.01	-8.30
	QPSK	2593.0	H	141	41	9.49	1 / 19	15.62	25.11	0.324	33.01	-7.90
100 MHz	QPSK	2675.0	H	131	40	9.85	1 / 19	14.67	24.52	0.283	33.01	-8.49
	16-QAM	2675.0	H	131	40	9.85	1 / 19	13.44	23.29	0.213	33.01	-9.72
	$\pi/2$ BPSK	2506.0	H	137	33	9.50	1 / 37	15.37	24.87	0.307	33.01	-8.14
	$\pi/2$ BPSK	2593.0	H	141	41	9.49	1 / 37	16.16	25.65	0.367	33.01	-7.36
	$\pi/2$ BPSK	2680.0	H	131	40	9.87	1 / 37	15.84	25.71	0.372	33.01	-7.30
	QPSK	2506.0	H	137	33	9.50	1 / 37	15.09	24.59	0.288	33.01	-8.42
100 MHz	QPSK	2593.0	H	141	41	9.49	1 / 37	15.34	24.83	0.304	33.01	-8.18
	QPSK	2680.0	H	131	40	9.87	1 / 37	14.92	24.79	0.301	33.01	-8.22
	16-QAM	2680.0	H	131	40	9.87	1 / 37	14.05	23.92	0.247	33.01	-9.09
100 MHz	QPSK (CP-OFDM)	2593.0	H	366	38	9.49	1 / 68	11.90	21.39	0.138	33.01	-11.62
	QPSK (Opposite Pol.)	2593.0	V	135	266	9.46	1 / 68	11.22	20.68	0.117	33.01	-12.33
	QPSK (WCP)	2593.0	H	122	245	9.49	1 / 68	10.19	19.68	0.093	33.01	-13.33

Table 7-16. EIRP Data (NR Band n41 (PC2) – SRS-1 - ANT I)

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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	2546.0	H	118	238	9.38	1 / 68	11.97	21.35	0.136	33.01	-11.66
	$\pi/2$ BPSK	2593.0	H	100	239	9.49	1 / 136	10.06	19.55	0.090	33.01	-13.46
	$\pi/2$ BPSK	2640.0	H	103	237	9.89	1 / 136	8.79	18.68	0.074	33.01	-14.33
	QPSK	2546.0	H	118	238	9.38	1 / 68	11.78	21.16	0.131	33.01	-11.85
	QPSK	2593.0	H	100	239	9.49	1 / 136	9.94	19.43	0.088	33.01	-13.58
	QPSK	2640.0	H	103	237	9.89	1 / 136	8.78	18.67	0.074	33.01	-14.34
	16-QAM	2546.0	H	118	238	9.38	1 / 68	10.58	19.96	0.099	33.01	-13.05
100 MHz	QPSK (CP-OFDM)	2546.0	H	118	238	9.38	1 / 68	8.55	17.93	0.062	33.01	-15.08



Table 7-17. EIRP Data (NR Band n41 (PC2) – SRS-2 - ANT B)

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	2546.0	H	101	226	9.38	1 / 68	5.85	16.23	0.033	33.01	-17.78
	$\pi/2$ BPSK	2593.0	H	114	230	9.49	1 / 136	2.69	12.18	0.017	33.01	-20.83
	$\pi/2$ BPSK	2640.0	H	101	225	9.89	1 / 68	1.12	11.01	0.013	33.01	-22.00
	QPSK	2546.0	H	101	226	9.38	1 / 68	5.70	15.08	0.032	33.01	-17.93
	QPSK	2593.0	H	114	230	9.49	1 / 136	2.51	12.00	0.016	33.01	-21.01
	QPSK	2640.0	H	101	225	9.89	1 / 68	0.77	10.66	0.012	33.01	-22.35
	16-QAM	2546.0	H	101	226	9.38	1 / 68	4.41	13.79	0.024	33.01	-19.22
100 MHz	QPSK (CP-OFDM)	2546.0	H	101	226	9.38	1 / 68	2.56	11.94	0.016	33.01	-21.07

Table 7-18. EIRP Data (NR Band n41 (PC2) – SRS-3 - ANT E)

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	2546.0	H	104	51	9.38	1 / 68	3.45	12.83	0.019	33.01	-20.18
	$\pi/2$ BPSK	2593.0	H	100	56	9.49	1 / 204	0.14	9.63	0.009	33.01	-23.38
	$\pi/2$ BPSK	2640.0	H	102	57	9.89	1 / 204	-0.02	9.87	0.010	33.01	-23.14
	QPSK	2546.0	H	104	51	9.38	1 / 68	3.24	12.62	0.018	33.01	-20.39
	QPSK	2593.0	H	100	56	9.49	1 / 204	-0.40	9.09	0.008	33.01	-23.92
	QPSK	2640.0	H	102	57	9.89	1 / 204	-0.82	9.07	0.008	33.01	-23.94
	16-QAM	2546.0	H	104	51	9.38	1 / 68	2.00	11.38	0.014	33.01	-21.63
100 MHz	QPSK (CP-OFDM)	2546.0	H	104	51	9.38	1 / 68	0.29	9.67	0.009	33.01	-23.34

Table 7-19. EIRP Data (NR Band n41 (PC2) – SRS-4 - ANT D)

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7.8 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 RMS 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.

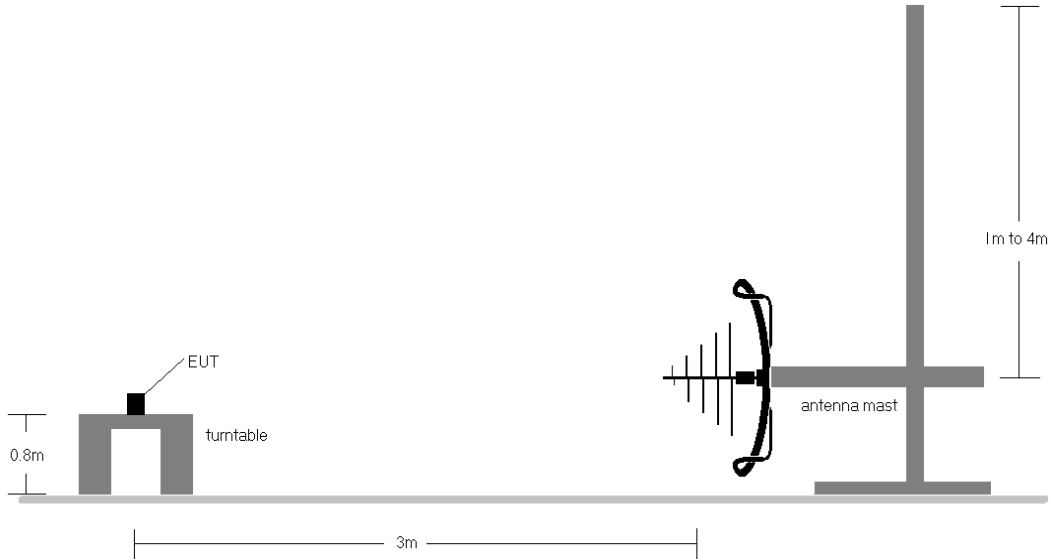


Figure 7-7. Test Instrument & Measurement Setup < 1GHz

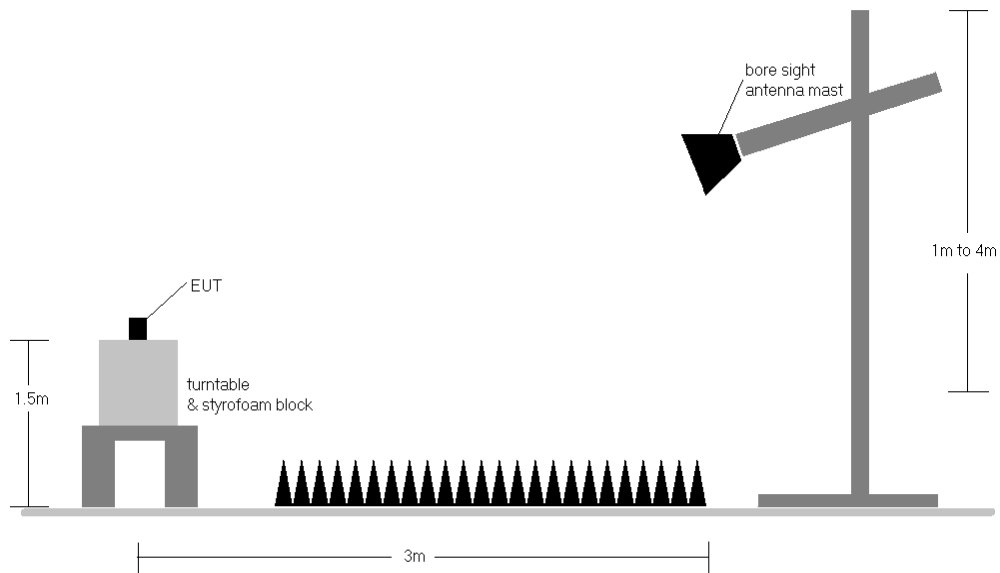




Figure 7-8. Test Instrument & Measurement Setup >1 GHz

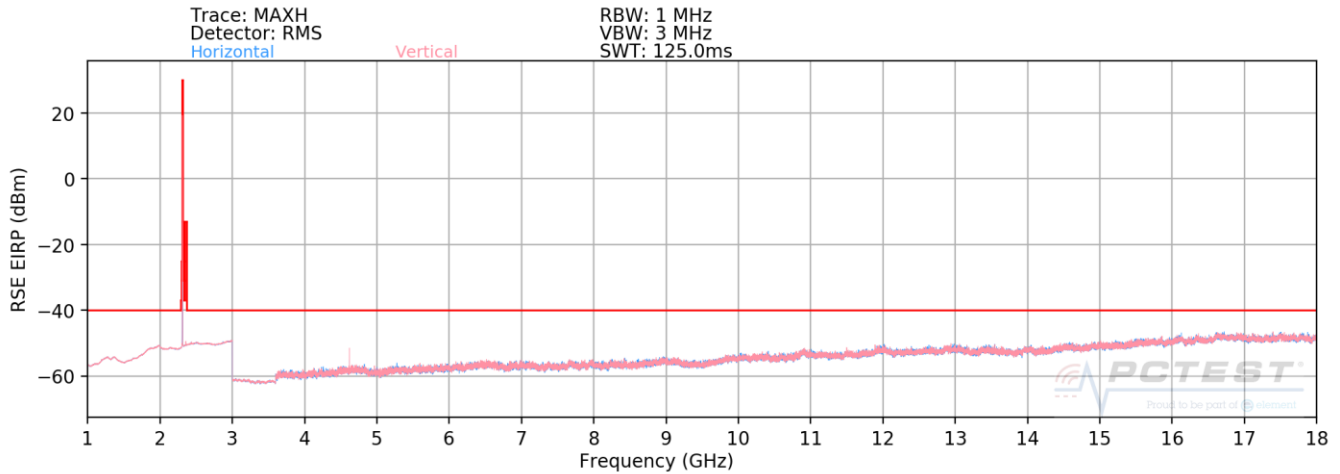
FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Test Notes

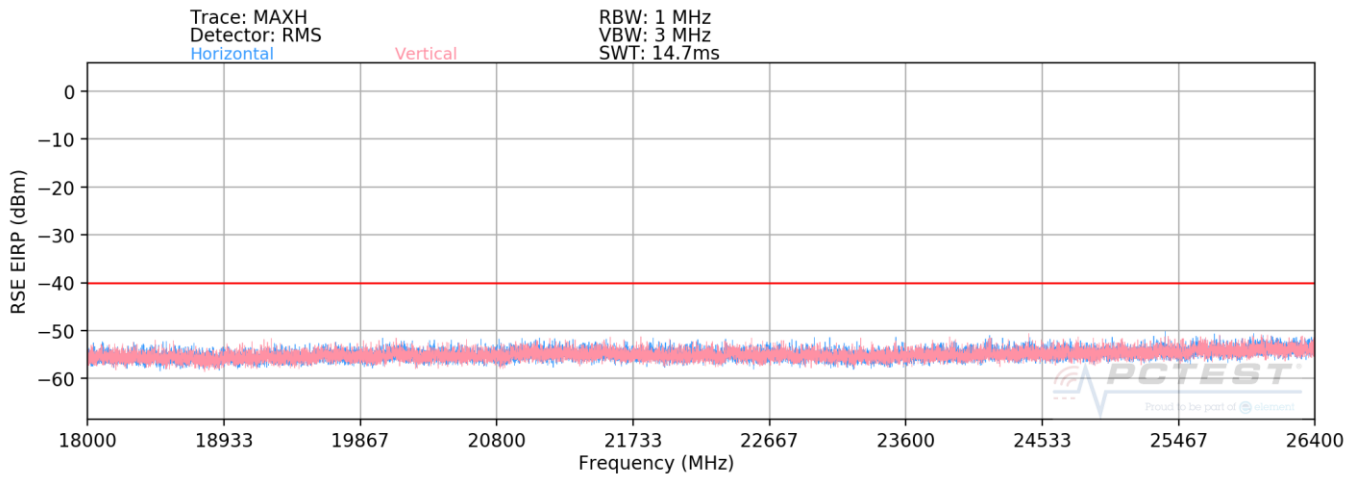
- 1) Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
 - a) $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - b) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$; 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) ULCA spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
- 8) 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.
- 9) 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.
- 10) Spurious emissions measurements are included in this section to address compliance of the NR FR1 ULCA capability. The EUT was set to transmit at the widest bandwidth and on the middle channel of each band.

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LTE Band 30



Plot 7-249. Radiated Spurious Plot – 1-18 GHz (LTE Band 30)



Plot 7-250. Radiated Spurious Plot – 18-26.4 GHz (LTE Band 30)

Bandwidth (MHz):	10
Frequency (MHz):	2310.0
RB / Offset:	1 / 25

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]
4620.0	V	116	5	-69.33	5.64	43.31	-51.95	-40.00	-11.95
6930.0	V	236	340	-76.70	8.21	38.51	-56.74	-40.00	-16.74
9240.0	V	196	30	-78.40	9.33	37.93	-57.33	-40.00	-17.33
11550.0	V	-	-	-80.60	13.56	39.96	-55.30	-40.00	-15.30
13860.0	V	-	-	-81.10	14.92	40.82	-54.43	-40.00	-14.43
16170.0	V	-	-	-81.50	17.98	43.48	-51.77	-40.00	-11.77



Table 7-20. Radiated Spurious Data (LTE Band 30)

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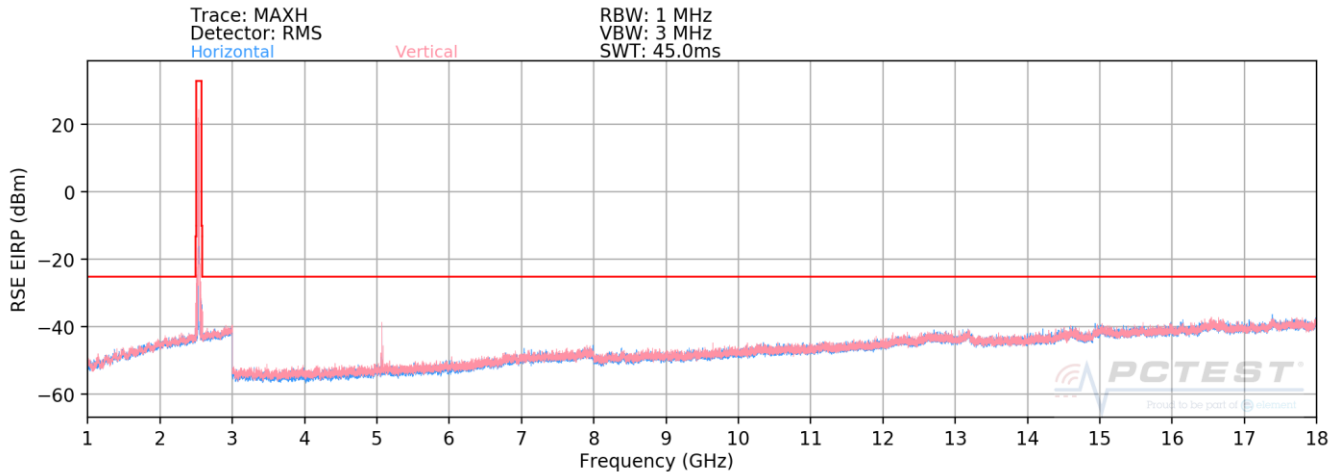
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	10
Frequency (MHz):	2310.0
RB / Offset:	1/25

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]
4620.0	V	167	85	-71.40	5.64	41.24	-54.02	-40.00	-14.02
6930.0	V	268	15	-75.46	8.21	39.75	-55.50	-40.00	-15.50
9240.0	V	-	-	-79.49	9.33	36.84	-58.42	-40.00	-18.42
11550.0	V	-	-	-80.65	13.56	39.91	-55.35	-40.00	-15.35
13860.0	V	-	-	-80.96	14.92	40.96	-54.29	-40.00	-14.29

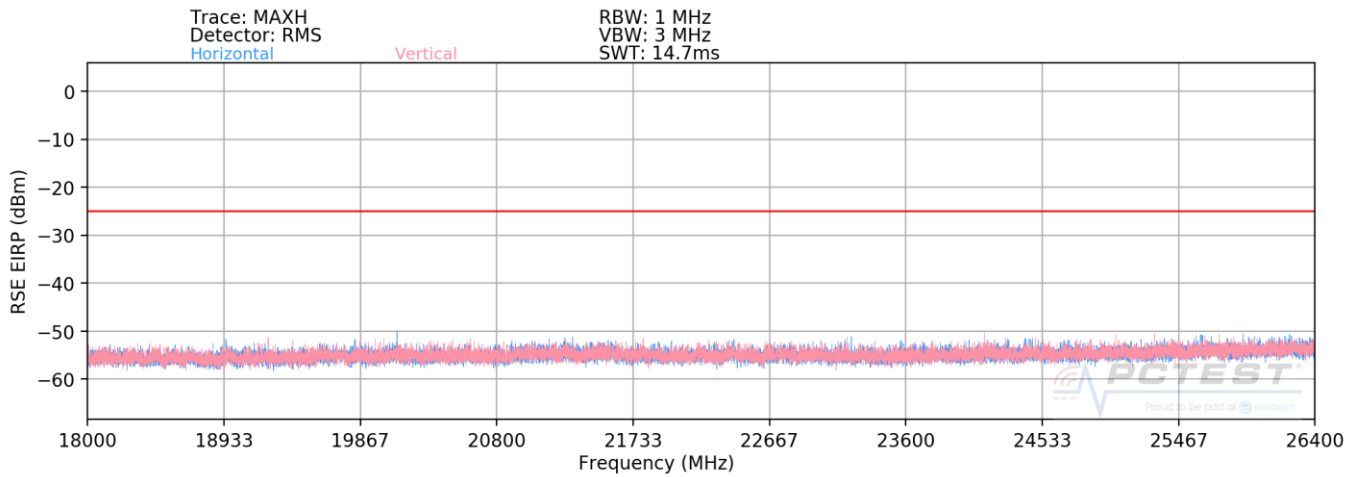
Table 7-21. Radiated Spurious Data with WCP (LTE Band 30)

FCC ID: A3LSMS906U	 PART 27 MEASUREMENT REPORT 	Approved by: Technical Manager
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LTE Band 7



Plot 7-251. Radiated Spurious Plot – 1-18 GHz (LTE Band 7)



Plot 7-252. Radiated Spurious Plot – 18-26.4 GHz (LTE Band 7)

Bandwidth (MHz):	20
Frequency (MHz):	2510.0
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]
5020.0	V	115	328	-61.31	9.19	54.88	-40.38	-25.00	-15.38
7530.0	V	-	-	-80.23	13.87	40.64	-54.62	-25.00	-29.62
10040.0	V	208	353	-79.89	16.28	43.39	-51.87	-25.00	-26.87
12550.0	V	-	-	-81.80	19.28	44.48	-50.78	-25.00	-25.78
15060.0	V	-	-	-81.84	22.52	47.68	-47.57	-25.00	-22.57
17570.0	V	-	-	-82.00	26.14	51.14	-44.12	-25.00	-19.12
20080.0	V	-	-	-66.54	4.30	44.77	-60.03	-25.00	-35.03
22590.0	V	-	-	-66.43	4.73	45.30	-59.50	-25.00	-34.50

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

FCC ID: A3LSMS906U	PCTEST Proud to be part of element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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Bandwidth (MHz):	20
Frequency (MHz):	2535.0
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]
5070.0	V	102	326	-66.82	9.08	49.26	-46.00	-25.00	-21.00
7605.0	V	-	-	-82.79	14.10	38.31	-56.95	-25.00	-31.95
10140.0	V	323	355	-82.09	16.04	40.95	-54.31	-25.00	-29.31
12675.0	V	-	-	-84.91	19.88	41.97	-53.29	-25.00	-28.29
15210.0	V	-	-	-85.35	22.49	44.14	-51.12	-25.00	-26.12
17745.0	V	-	-	-84.94	26.05	48.11	-47.15	-25.00	-22.15
20280.0	V	-	-	-66.48	4.25	44.77	-60.03	-25.00	-35.03
22815.0	V	-	-	-66.78	4.69	44.92	-59.88	-25.00	-34.88

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

Bandwidth (MHz):	20
Frequency (MHz):	2560.0
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]
5120.0	V	147	325	-64.97	9.41	51.44	-43.82	-25.00	-18.82
7680.0	V	-	-	-79.91	13.54	40.63	-54.62	-25.00	-29.62
10240.0	V	314	347	-78.85	16.36	44.51	-50.75	-25.00	-25.75
12800.0	V	-	-	-82.11	20.01	44.90	-50.36	-25.00	-25.36
15360.0	V	-	-	-81.75	22.17	47.42	-47.84	-25.00	-22.84
17920.0	V	-	-	-83.49	26.15	49.66	-45.60	-25.00	-20.60
20480.0	V	-	-	-66.77	4.38	44.61	-60.19	-25.00	-35.19
23040.0	V	-	-	-66.47	4.70	45.22	-59.58	-25.00	-34.58

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

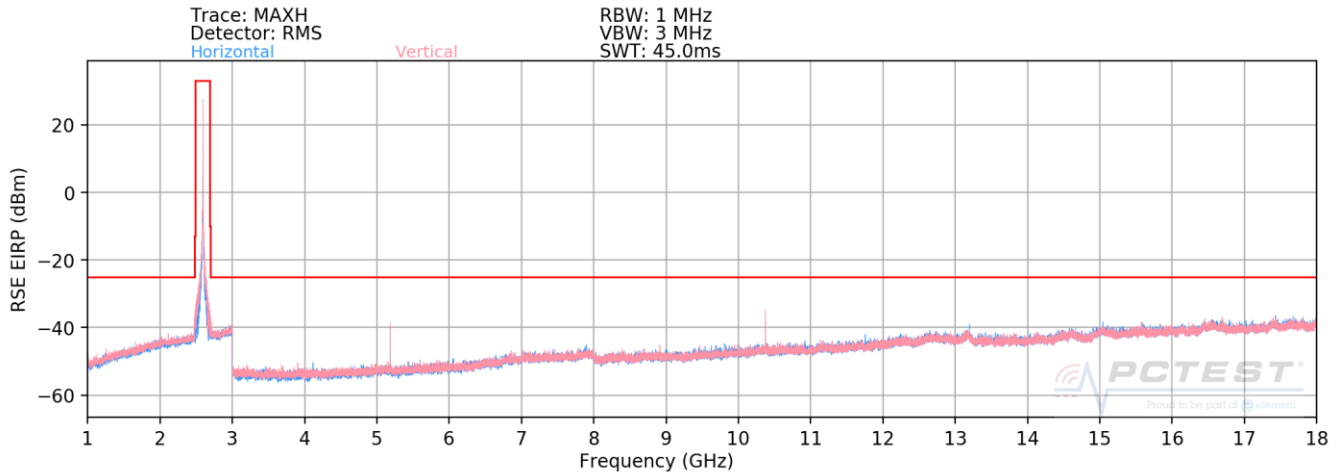
Case:	w/ Wireless Charging Pad
Bandwidth (MHz):	20
Frequency (MHz):	2510.0
RB / Offset:	1/50

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]
5020.0	V	144	283	-59.48	9.19	56.71	-38.55	-25.00	-13.55
7530.0	V	-	-	-81.43	13.87	39.44	-55.82	-25.00	-30.82
10040.0	V	116	351	-80.30	16.28	42.98	-52.28	-25.00	-27.28
12550.0	V	-	-	-81.62	19.28	44.66	-50.60	-25.00	-25.60
15060.0	V	-	-	-81.80	22.52	47.72	-47.53	-25.00	-22.53
17570.0	V	-	-	-83.09	26.14	50.05	-45.21	-25.00	-20.21
20080.0	V	-	-	-66.23	4.30	45.08	-50.18	-25.00	-25.18
22590.0	V	-	-	-66.36	4.73	45.36	-49.89	-25.00	-24.89

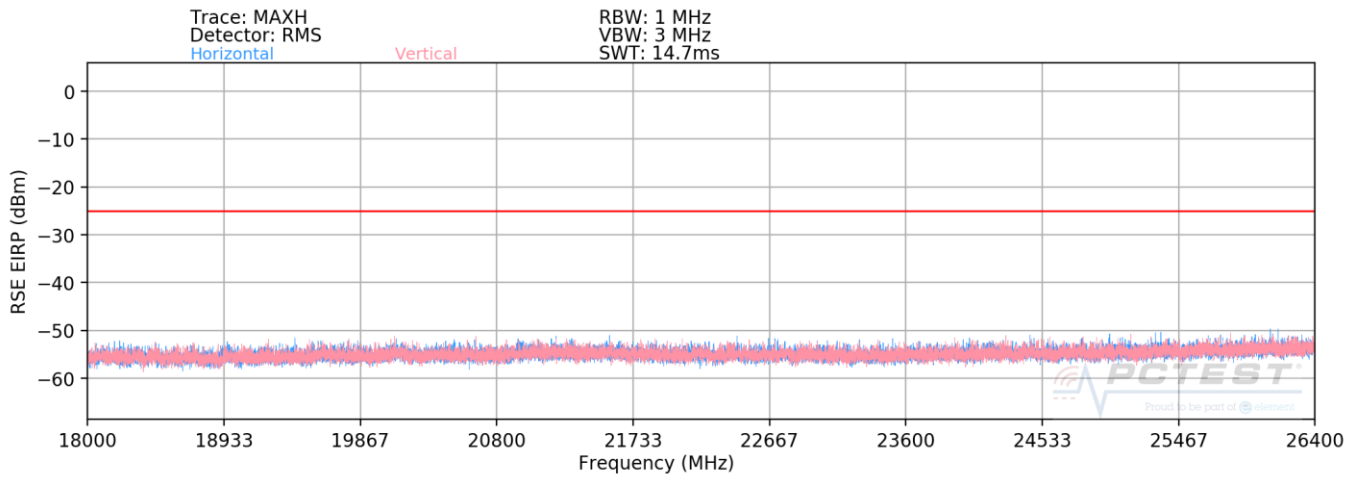
Table 7-25. Radiated Spurious Data with WCP (LTE Band 7)

FCC ID: A3LSMS906U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset	Page 168 of 200

LTE Band 41(PC2)



Plot 7-253. Radiated Spurious Plot – 1-18 GHz (LTE Band 41 (PC2))





Plot 7-254. Radiated Spurious Plot – 18-26.4 GHz (LTE Band 41 (PC2))

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]
5012.0	V	118	41	-55.69	9.11	60.42	-34.83	-25.00	-9.83
7518.0	V	244	9	-63.69	13.82	57.13	-38.13	-25.00	-13.13
10024.0	V	277	4	-61.46	16.14	61.68	-33.58	-25.00	-8.58
12530.0	V	100	343	-70.51	19.25	55.74	-39.52	-25.00	-14.52
15036.0	V	-	-	-70.58	22.45	58.87	-36.39	-25.00	-11.39
17542.0	V	-	-	-71.88	26.06	61.18	-34.08	-25.00	-9.08

Table 7-26. Radiated Spurious Data (LTE Band 41 (PC2) – Low Channel)

FCC ID: A3LSMS906U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset	Page 169 of 200

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]
5186.0	V	144	41	-58.57	8.85	57.28	-37.98	-25.00	-12.98
7779.0	V	-	-	-68.96	13.73	51.77	-43.48	-25.00	-18.48
10372.0	V	400	1	-60.58	16.67	63.09	-32.17	-25.00	-7.17
12965.0	V	-	-	-70.29	19.61	56.32	-38.93	-25.00	-13.93
15558.0	V	-	-	-71.38	23.25	58.87	-36.39	-25.00	-11.39

Table 7-27. Radiated Spurious Data (LTE Band 41 (PC2) – Mid Channel)

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]
5360.0	V	102	157	-62.47	9.83	54.36	-40.90	-25.00	-15.90
8040.0	V	-	-	-69.64	13.67	51.03	-44.23	-25.00	-19.23
10720.0	V	347	15	-63.46	16.98	60.52	-34.74	-25.00	-9.74
13400.0	V	372	357	-70.82	20.64	56.82	-38.44	-25.00	-13.44
16080.0	V	295	324	-70.40	23.85	60.45	-34.81	-25.00	-9.81

Table 7-28. Radiated Spurious Data (LTE Band 41 (PC2) – High Channel)

Case:	w/ Wireless Charging Pad
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]
5186.0	V	102	287	-58.32	8.85	57.53	-37.73	-25.00	-12.73
7779.0	V	-	-	-68.89	13.73	51.84	-43.41	-25.00	-18.41
10372.0	V	101	351	-63.19	16.67	60.48	-34.78	-25.00	-9.78
12965.0	V	-	-	-70.16	19.61	56.45	-38.80	-25.00	-13.80
15558.0	V	288	58	-71.74	23.25	58.51	-36.75	-25.00	-11.75

Table 7-29. Radiated Spurious Data with WCP (LTE Band 41 (PC2))

FCC ID: A3LSMS906U	 PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2109090103-05-R1.A3L	Test Dates: 09/10/2021 - 11/12/2021	EUT Type: Portable Handset	Page 170 of 200