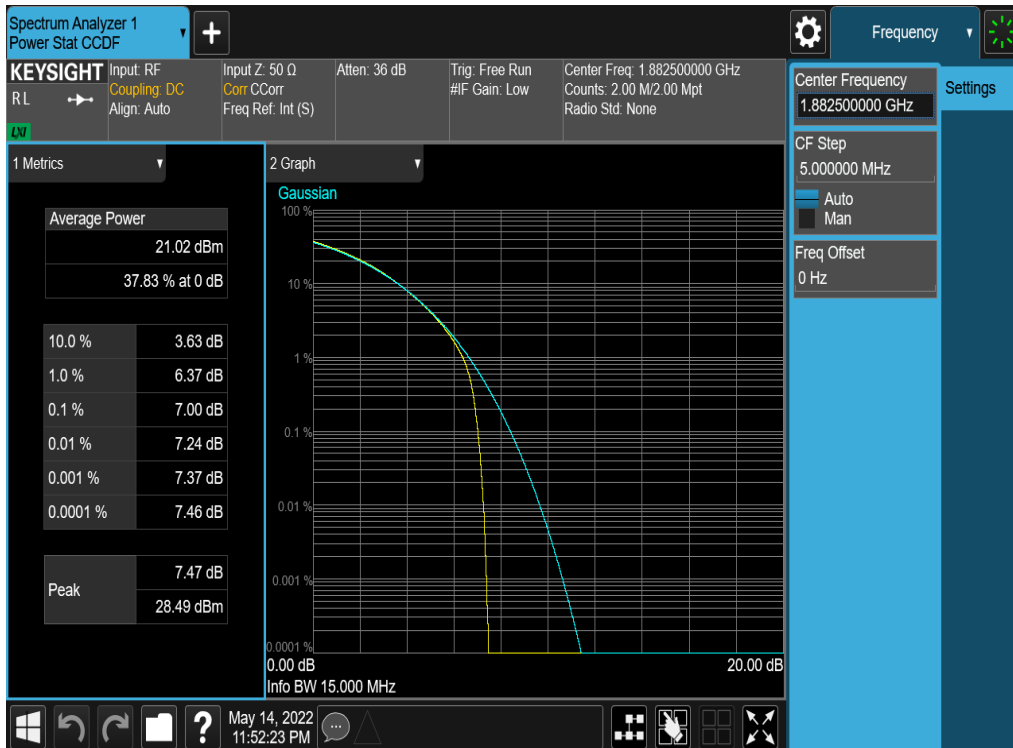
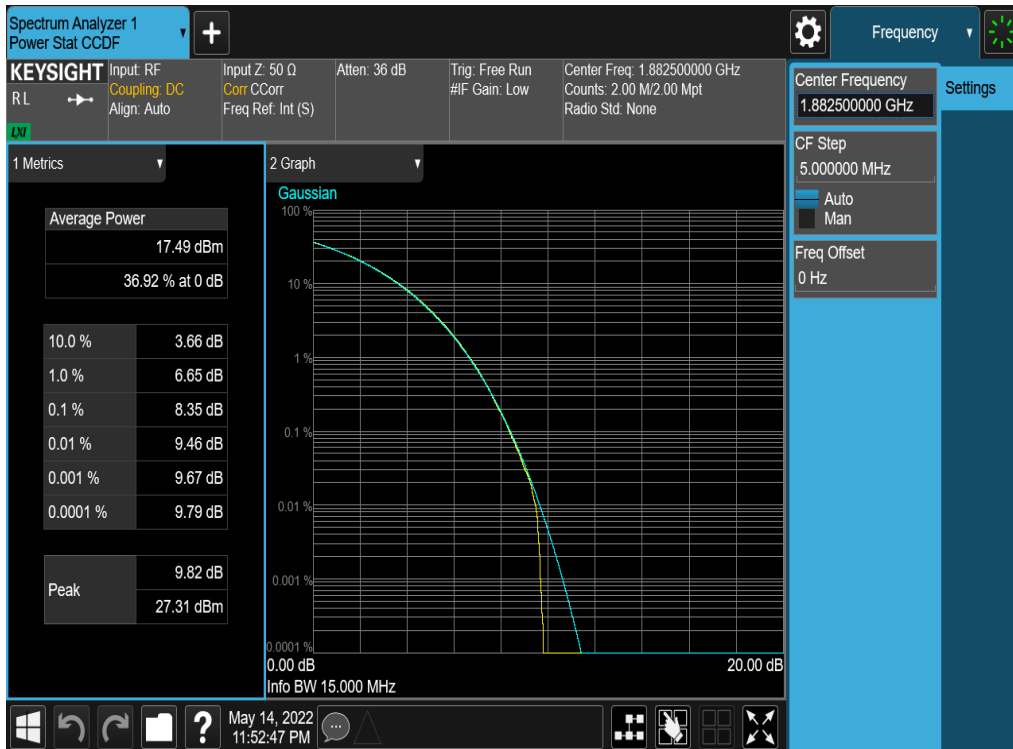


Plot 7-249. PAR Plot (NR Band n25/2 - 15.0MHz DFT-s-OFDM BPSK - Full RB - ANT4)

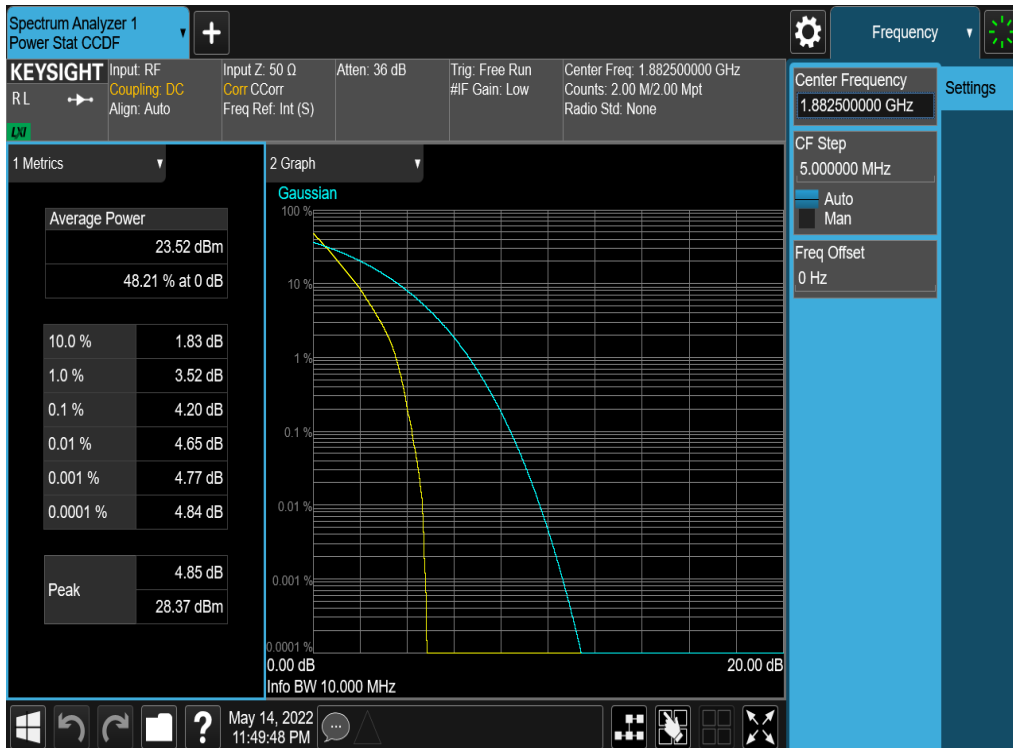


Plot 7-250. PAR Plot (NR Band n25/2 - 15.0MHz CP-OFDM QPSK - Full RB - ANT4)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 147 of 181

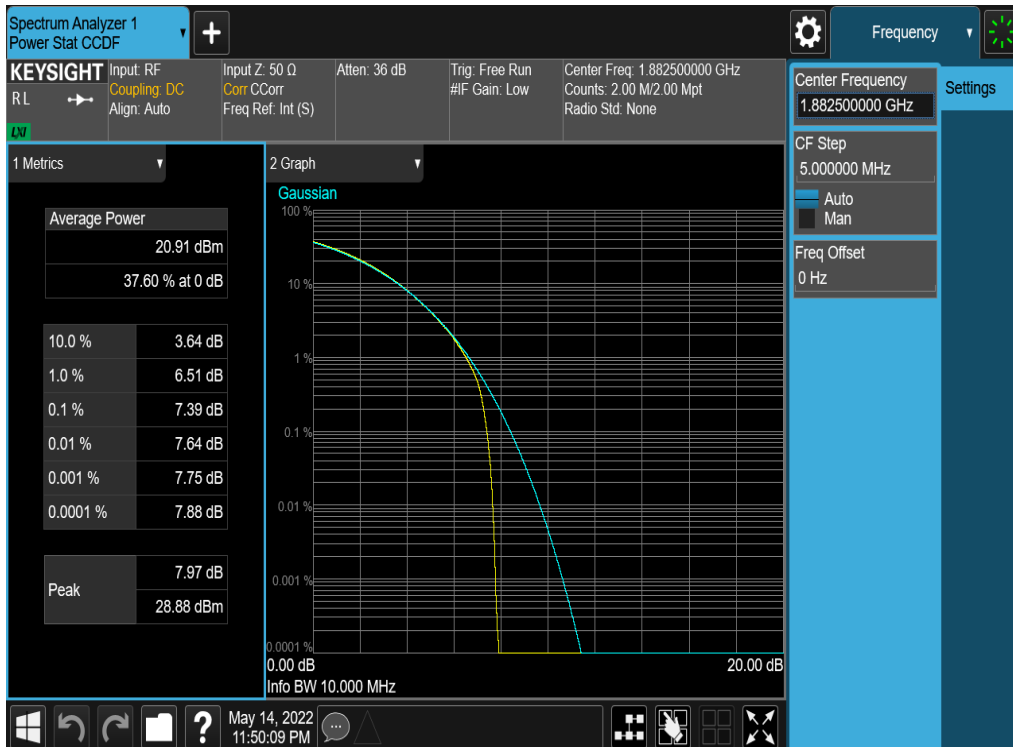


Plot 7-251. PAR Plot (NR Band n25/2 - 15.0MHz CP-OFDM 16-QAM - Full RB - ANT4)



Plot 7-252. PAR Plot (NR Band n25/2 - 10.0MHz DFT-s-OFDM BPSK - Full RB - ANT4)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 148 of 181

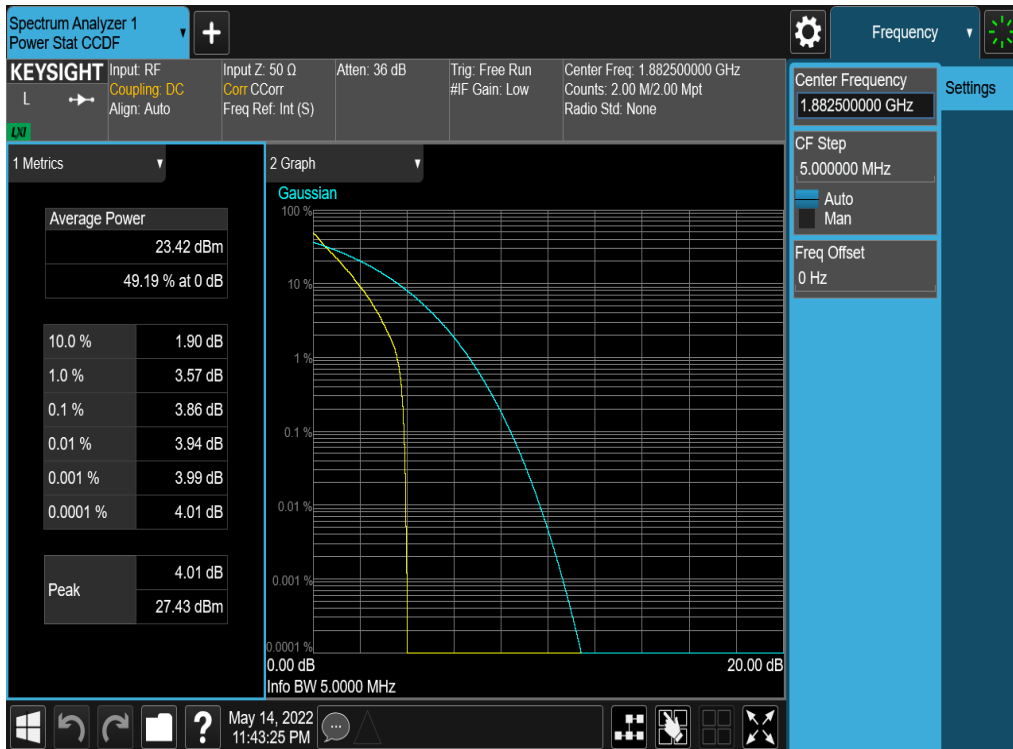


Plot 7-253. PAR Plot (NR Band n25/2 - 10.0MHz CP-OFDM QPSK - Full RB - ANT4)

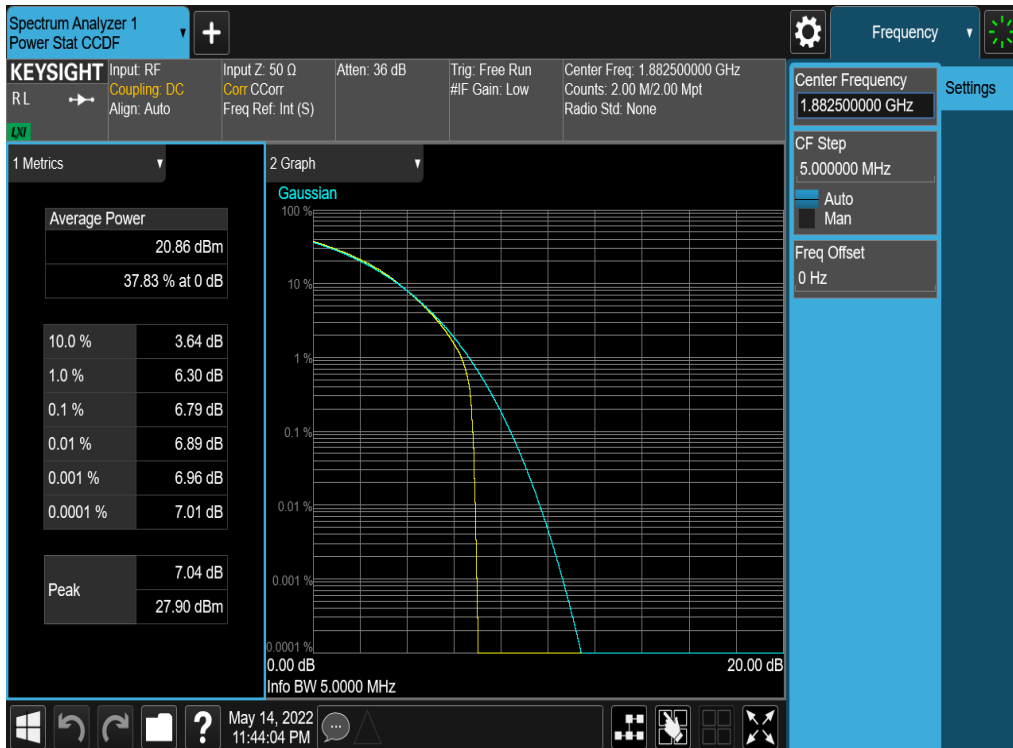


Plot 7-254. PAR Plot (NR Band n25/2 - 10.0MHz CP-OFDM 16-QAM - Full RB - ANT4)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 149 of 181

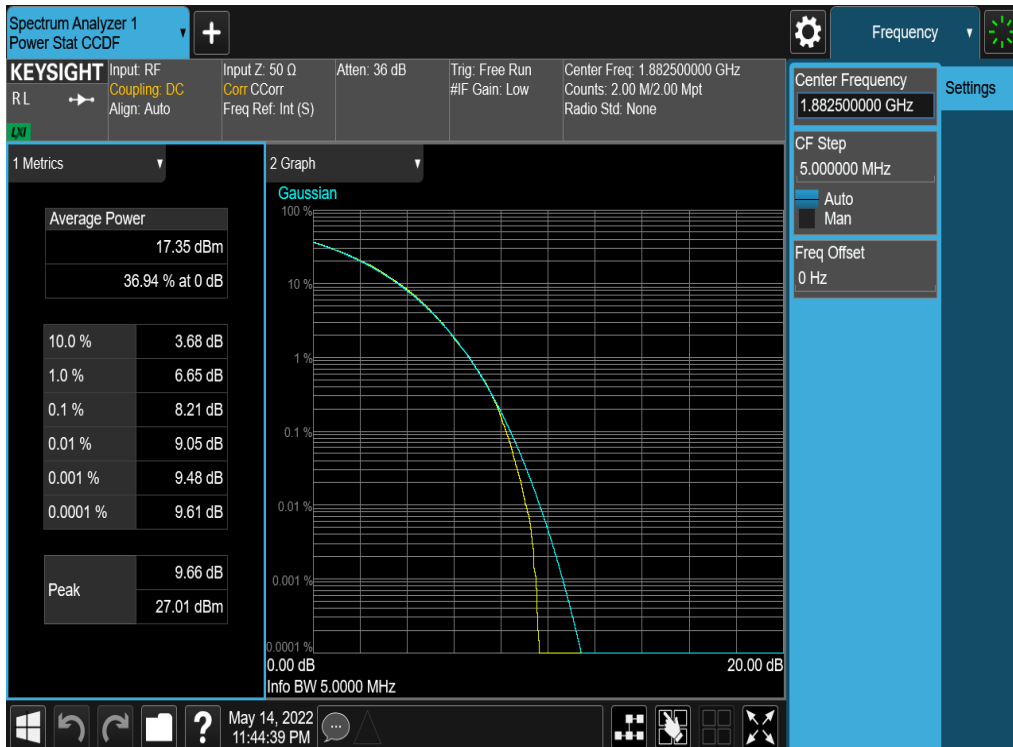


Plot 7-255. PAR Plot (NR Band n25/2 - 5.0MHz DFT-s-OFDM BPSK - Full RB - ANT4)



Plot 7-256. PAR Plot (NR Band n25/2 - 5.0MHz CP-OFDM QPSK - Full RB - ANT4)

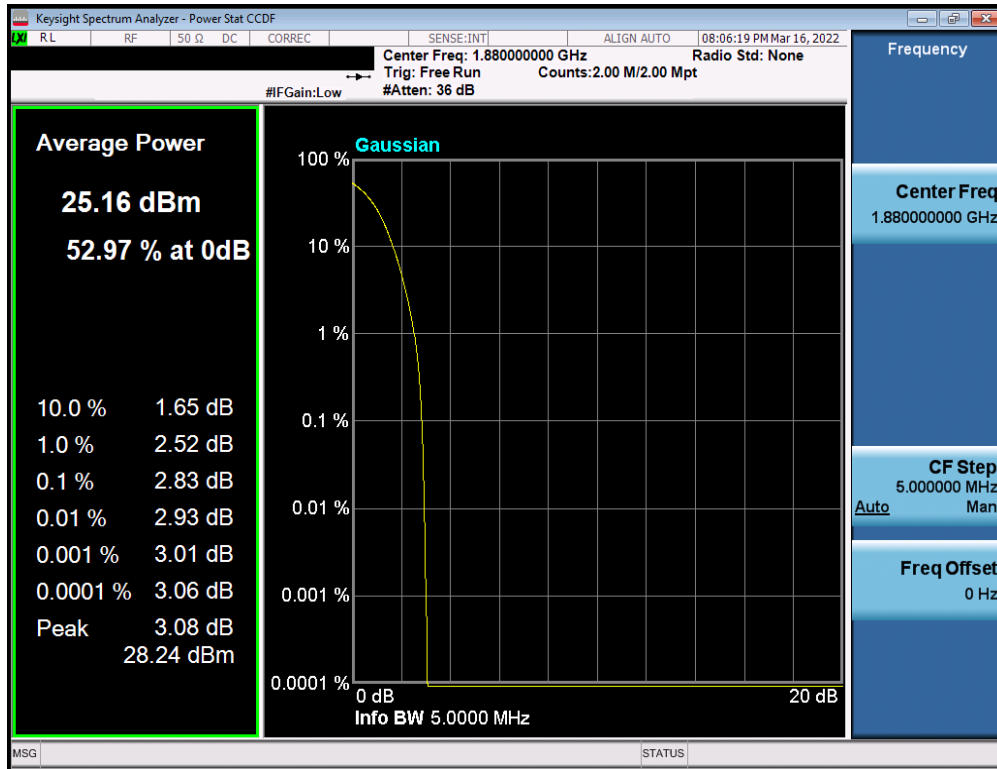
FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 150 of 181



Plot 7-257. PAR Plot (NR Band n25/2 - 5.0MHz CP-OFDM 16-QAM - Full RB - ANT4)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 151 of 181

# WCDMA PCS – Ant1



Plot 7-258. PAR Plot (WCDMA, Ch. 9400 - Ant1)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 152 of 181

V3.0 1/5/2022

## 7.7 Radiated Power (EIRP)

### Test Overview

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

### Test Procedures Used

ANSI C63.26-2015 – Section 5.2.4.4

### Test Settings

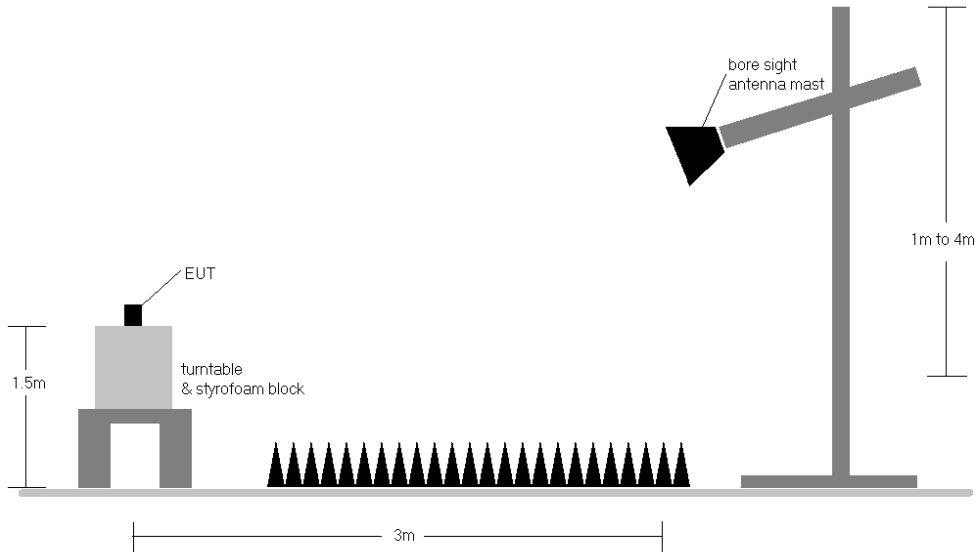
1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
2. RBW = 1 – 5% of the expected OBW, not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

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 153 of 181

V3.0 1/5/2022

**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) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest powers are reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to “1”.
- 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) 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: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 154 of 181



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	1860.0	H	151	58	9.55	1 / 99	13.32	22.87	0.194	33.01	-10.14
	QPSK	1882.5	H	150	61	9.83	1 / 0	14.22	<b>24.05</b>	0.254	33.01	-8.96
	QPSK	1905.0	H	141	68	10.16	1 / 0	13.48	23.64	0.231	33.01	-9.37
	16-QAM	1882.5	H	150	61	9.83	1 / 0	13.65	23.48	0.223	33.01	-9.53
15 MHz	QPSK	1857.5	H	151	58	9.51	1 / 74	13.32	22.83	0.192	33.01	-10.18
	QPSK	1882.5	H	150	61	9.83	1 / 0	14.22	<b>24.05</b>	0.254	33.01	-8.96
	QPSK	1907.5	H	141	68	10.21	1 / 0	13.42	23.62	0.230	33.01	-9.39
	16-QAM	1882.5	H	150	61	9.83	1 / 0	13.59	23.42	0.220	33.01	-9.59
10 MHz	QPSK	1855.0	H	151	58	9.48	1 / 0	13.23	22.70	0.186	33.01	-10.31
	QPSK	1882.5	H	150	61	9.83	1 / 25	14.16	<b>23.99</b>	0.251	33.01	-9.02
	QPSK	1910.0	H	141	68	10.25	1 / 49	13.37	23.62	0.230	33.01	-9.39
	16-QAM	1882.5	H	150	61	9.83	1 / 25	13.50	23.33	0.215	33.01	-9.68
5 MHz	QPSK	1852.5	H	151	58	9.44	1 / 12	13.33	22.77	0.189	33.01	-10.24
	QPSK	1882.5	H	150	61	9.83	1 / 12	14.24	<b>24.07</b>	0.255	33.01	-8.94
	QPSK	1912.5	H	141	68	10.28	1 / 12	13.42	23.70	0.234	33.01	-9.31
	16-QAM	1882.5	H	150	61	9.83	1 / 12	13.67	23.51	0.224	33.01	-9.51
3 MHz	QPSK	1851.5	H	151	58	9.43	1 / 14	13.26	22.69	0.186	33.01	-10.32
	QPSK	1882.5	H	150	61	9.83	1 / 7	14.27	<b>24.11</b>	0.257	33.01	-8.90
	QPSK	1913.5	H	141	68	10.29	1 / 7	13.35	23.64	0.231	33.01	-9.37
	16-QAM	1882.5	H	150	61	9.83	1 / 7	13.70	23.53	0.226	33.01	-9.48
1.4 MHz	QPSK	1850.7	H	151	58	9.42	1 / 3	13.28	22.70	0.186	33.01	-10.31
	QPSK	1882.5	H	150	61	9.83	1 / 3	14.21	<b>24.04</b>	0.254	33.01	-8.97
	QPSK	1914.3	H	141	68	10.30	1 / 3	13.28	23.58	0.228	33.01	-9.43
	16-QAM	1882.5	H	150	61	9.83	1 / 3	13.57	23.41	0.219	33.01	-9.61
20 MHz	Opposite Pol.	1882.5	V	323	125	9.99	1 / 50	12.85	22.84	0.192	33.01	-10.17

Table 7-7. EIRP Data (LTE Band 25/2 – Ant1)

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	$\pi/2$ BPSK	1870.0	H	143	320	9.66	1 / 54	13.66	23.32	0.215	33.01	-9.69
	$\pi/2$ BPSK	1882.5	H	153	315	9.83	1 / 54	13.78	<b>23.61</b>	0.230	33.01	-9.40
	$\pi/2$ BPSK	1895.0	H	134	323	10.01	1 / 108	13.34	23.35	0.216	33.01	-9.66
	QPSK	1870.0	H	143	320	9.66	1 / 54	13.10	22.76	0.189	33.01	-10.25
	QPSK	1882.5	H	153	315	9.83	1 / 54	12.68	22.51	0.178	33.01	-10.50
	QPSK	1895.0	H	134	323	10.01	1 / 108	12.09	22.10	0.162	33.01	-10.91
	16-QAM	1870.0	H	143	320	9.66	1 / 54	12.42	22.08	0.162	33.01	-10.93
30 MHz	$\pi/2$ BPSK	1865.0	H	143	320	9.61	1 / 119	13.73	23.34	0.216	33.01	-9.67
	$\pi/2$ BPSK	1882.5	H	153	315	9.83	1 / 40	13.74	<b>23.57</b>	0.228	33.01	-9.44
	$\pi/2$ BPSK	1900.0	H	134	323	10.07	1 / 119	13.28	23.35	0.216	33.01	-9.66
	QPSK	1865.0	H	143	320	9.61	1 / 119	13.92	23.53	0.225	33.01	-9.48
	QPSK	1882.5	H	153	315	9.83	1 / 40	12.69	22.53	0.179	33.01	-10.48
	QPSK	1900.0	H	134	323	10.07	1 / 119	12.04	22.10	0.162	33.01	-10.91
25 MHz	16-QAM	1865.0	H	143	320	9.61	1 / 119	13.09	22.69	0.186	33.01	-10.32
	$\pi/2$ BPSK	1862.5	H	143	320	9.58	1 / 99	13.69	23.26	0.212	33.01	-9.75
	$\pi/2$ BPSK	1882.5	H	153	315	9.83	1 / 33	13.56	23.39	0.218	33.01	-9.62
	$\pi/2$ BPSK	1902.5	H	134	323	10.11	1 / 66	13.28	<b>23.40</b>	0.219	33.01	-9.61
	QPSK	1862.5	H	143	320	9.58	1 / 99	13.52	23.10	0.204	33.01	-9.91
	QPSK	1882.5	H	153	315	9.83	1 / 33	12.33	22.16	0.165	33.01	-10.85
40 MHz	QPSK	1902.5	H	134	323	10.11	1 / 66	12.12	22.23	0.167	33.01	-10.78
	16-QAM	1862.5	H	143	320	9.58	1 / 99	12.56	22.14	0.164	33.01	-10.87
	QPSK (CP-OFDM)	1882.5	H	214	323	9.83	1 / 54	11.47	21.30	0.135	33.01	-11.71
	QPSK (Opposite Pol.)	1882.5	V	201	154	9.99	1 / 54	10.34	20.33	0.108	33.01	-12.68

Table 7-8. EIRP Data (NR Band n25 – Ant1)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 155 of 181

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	$\pi/2$ BPSK	1860.0	H	143	320	9.55	1 / 26	13.44	22.99	0.199	33.01	-10.02
	$\pi/2$ BPSK	1882.5	H	153	315	9.83	1 / 26	13.53	<b>23.36</b>	0.217	33.01	-9.65
	$\pi/2$ BPSK	1905.0	H	134	323	10.16	1 / 79	12.93	23.09	0.204	33.01	-9.92
	QPSK	1860.0	H	143	320	9.55	1 / 26	13.18	22.73	0.187	33.01	-10.28
	QPSK	1882.5	H	153	315	9.83	1 / 26	12.56	22.39	0.173	33.01	-10.62
	QPSK	1905.0	H	134	323	10.16	1 / 79	11.65	21.81	0.152	33.01	-11.20
15 MHz	16-QAM	1860.0	H	143	320	9.55	1 / 26	12.37	21.91	0.155	33.01	-11.10
	$\pi/2$ BPSK	1857.5	H	143	320	9.51	1 / 39	13.58	23.09	0.204	33.01	-9.92
	$\pi/2$ BPSK	1882.5	H	153	315	9.83	1 / 20	13.43	<b>23.27</b>	0.212	33.01	-9.74
	$\pi/2$ BPSK	1907.5	H	134	323	10.21	1 / 58	12.96	23.17	0.207	33.01	-9.84
	QPSK	1857.5	H	143	320	9.51	1 / 39	13.24	22.75	0.189	33.01	-10.26
	QPSK	1882.5	H	153	315	9.83	1 / 20	12.18	22.02	0.159	33.01	-10.99
10 MHz	QPSK	1907.5	H	134	323	10.21	1 / 58	11.60	21.81	0.152	33.01	-11.20
	16-QAM	1857.5	H	143	320	9.51	1 / 39	12.27	21.78	0.151	33.01	-11.23
	$\pi/2$ BPSK	1855.0	H	143	320	9.48	1 / 13	13.31	22.79	0.190	33.01	-10.22
	$\pi/2$ BPSK	1882.5	H	153	315	9.83	1 / 26	13.52	<b>23.35</b>	0.216	33.01	-9.66
	$\pi/2$ BPSK	1910.0	H	134	323	10.25	1 / 26	12.76	23.01	0.200	33.01	-10.00
	QPSK	1855.0	H	143	320	9.48	1 / 13	13.18	22.66	0.185	33.01	-10.35
5 MHz	QPSK	1882.5	H	153	315	9.83	1 / 26	11.37	21.20	0.132	33.01	-11.81
	QPSK	1910.0	H	134	323	10.25	1 / 26	11.74	21.99	0.158	33.01	-11.02
	16-QAM	1855.0	H	143	320	9.48	1 / 13	12.43	21.91	0.155	33.01	-11.10
	$\pi/2$ BPSK	1852.5	H	143	320	9.44	1 / 12	13.52	22.97	0.198	33.01	-10.04
	$\pi/2$ BPSK	1882.5	H	153	315	9.83	1 / 6	13.32	<b>23.15</b>	0.207	33.01	-9.86
	$\pi/2$ BPSK	1912.5	H	134	323	10.28	1 / 12	12.69	22.96	0.198	33.01	-10.05
5 MHz	QPSK	1852.5	H	143	320	9.44	1 / 12	13.61	23.05	0.202	33.01	-9.96
	QPSK	1882.5	H	153	315	9.83	1 / 6	11.75	21.58	0.144	33.01	-11.43
	QPSK	1912.5	H	134	323	10.28	1 / 12	11.23	21.51	0.142	33.01	-11.50
	16-QAM	1852.5	H	143	320	9.44	1 / 12	12.66	22.10	0.162	33.01	-10.91

Table 7-9. EIRP Data (NR Band n25/2 – Ant1)

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	$\pi/2$ BPSK	1870.0	H	141	137	9.66	1 / 108	11.39	<b>21.05</b>	0.127	33.01	-11.96
	$\pi/2$ BPSK	1882.5	H	144	138	9.83	1 / 54	10.99	20.82	0.121	33.01	-12.19
	$\pi/2$ BPSK	1895.0	H	134	137	10.01	1 / 161	10.35	20.36	0.109	33.01	-12.65
	QPSK	1870.0	H	141	137	9.66	1 / 108	11.17	20.83	0.121	33.01	-12.18
	QPSK	1882.5	H	144	138	9.83	1 / 54	11.06	20.89	0.123	33.01	-12.12
	QPSK	1895.0	H	134	137	10.01	1 / 161	10.29	20.30	0.107	33.01	-12.71
30 MHz	16-QAM	1870.0	H	141	137	9.66	1 / 108	10.71	20.37	0.109	33.01	-12.64
	$\pi/2$ BPSK	1865.0	H	141	137	9.61	1 / 40	11.24	<b>20.85</b>	0.122	33.01	-12.16
	$\pi/2$ BPSK	1882.5	H	144	138	9.83	1 / 40	10.97	20.80	0.120	33.01	-12.21
	$\pi/2$ BPSK	1900.0	H	134	137	10.07	1 / 119	10.33	20.40	0.110	33.01	-12.61
	QPSK	1865.0	H	141	137	9.61	1 / 40	11.18	20.78	0.120	33.01	-12.23
	QPSK	1882.5	H	144	138	9.83	1 / 40	10.79	20.62	0.115	33.01	-12.39
25 MHz	QPSK	1900.0	H	134	137	10.07	1 / 119	10.38	20.45	0.111	33.01	-12.56
	16-QAM	1865.0	H	141	137	9.61	1 / 40	10.62	20.22	0.105	33.01	-12.79
	$\pi/2$ BPSK	1862.5	H	141	137	9.58	1 / 66	11.27	<b>20.85</b>	0.122	33.01	-12.16
	$\pi/2$ BPSK	1882.5	H	144	138	9.83	1 / 66	10.97	20.81	0.120	33.01	-12.20
	$\pi/2$ BPSK	1902.5	H	134	137	10.11	1 / 99	10.26	20.37	0.109	33.01	-12.64
	QPSK	1862.5	H	141	137	9.58	1 / 66	11.24	20.82	0.121	33.01	-12.19
40 MHz	QPSK	1882.5	H	144	138	9.83	1 / 66	10.49	20.33	0.108	33.01	-12.68
	QPSK	1902.5	H	134	137	10.11	1 / 99	10.13	20.24	0.106	33.01	-12.77
	16-QAM	1862.5	H	141	137	9.58	1 / 66	10.75	20.33	0.108	33.01	-12.68
	QPSK (CP-OFDM)	1870.0	H	139	134	9.66	1 / 108	9.63	19.29	0.085	33.01	-13.72
40 MHz	QPSK (Opposite Pol.)	1870.0	V	144	145	9.75	1 / 161	10.90	20.65	0.116	33.01	-12.36

Table 7-10. EIRP Data (NR Band n25 – Ant4)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 156 of 181

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	$\pi/2$ BPSK	1860.0	H	141	137	9.55	1 / 26	10.56	20.11	0.103	33.01	-12.90
	$\pi/2$ BPSK	1882.5	H	144	138	9.83	1 / 53	10.85	<b>20.68</b>	0.117	33.01	-12.33
	$\pi/2$ BPSK	1905.0	H	134	137	10.16	1 / 53	9.25	19.41	0.087	33.01	-13.60
	QPSK	1860.0	H	141	137	9.55	1 / 26	10.50	20.05	0.101	33.01	-12.96
	QPSK	1882.5	H	144	138	9.83	1 / 53	10.45	20.28	0.107	33.01	-12.73
	QPSK	1905.0	H	134	137	10.16	1 / 53	9.05	19.21	0.083	33.01	-13.80
15 MHz	16-QAM	1882.5	H	144	138	9.83	1 / 53	9.78	19.61	0.091	33.01	-13.40
	$\pi/2$ BPSK	1857.5	H	141	137	9.51	1 / 20	10.53	<b>20.05</b>	0.101	33.01	-12.96
	$\pi/2$ BPSK	1882.5	H	144	138	9.83	1 / 20	10.18	20.01	0.100	33.01	-13.00
	$\pi/2$ BPSK	1907.5	H	134	137	10.21	1 / 58	9.31	19.51	0.089	33.01	-13.50
	QPSK	1857.5	H	141	137	9.51	1 / 20	10.34	19.85	0.097	33.01	-13.16
	QPSK	1882.5	H	144	138	9.83	1 / 20	10.03	19.87	0.097	33.01	-13.14
10 MHz	QPSK	1907.5	H	134	137	10.21	1 / 58	8.92	19.13	0.082	33.01	-13.88
	16-QAM	1857.5	H	141	137	9.51	1 / 20	10.03	19.54	0.090	33.01	-13.47
	$\pi/2$ BPSK	1855.0	H	141	137	9.48	1 / 38	10.47	19.94	0.099	33.01	-13.07
	$\pi/2$ BPSK	1882.5	H	144	138	9.83	1 / 13	10.11	<b>19.94</b>	0.099	33.01	-13.07
	$\pi/2$ BPSK	1910.0	H	134	137	10.25	1 / 38	9.24	19.49	0.089	33.01	-13.52
	QPSK	1855.0	H	141	137	9.48	1 / 38	10.38	19.86	0.097	33.01	-13.15
5 MHz	QPSK	1882.5	H	144	138	9.83	1 / 13	9.89	19.72	0.094	33.01	-13.29
	QPSK	1910.0	H	134	137	10.25	1 / 38	8.94	19.19	0.083	33.01	-13.82
	16-QAM	1855.0	H	141	137	9.48	1 / 38	9.92	19.40	0.087	33.01	-13.61
	$\pi/2$ BPSK	1852.5	H	141	137	9.44	1 / 18	10.55	<b>20.00</b>	0.100	33.01	-13.01
	$\pi/2$ BPSK	1882.5	H	144	138	9.83	1 / 18	10.16	19.99	0.100	33.01	-13.02
	$\pi/2$ BPSK	1912.5	H	134	137	10.28	1 / 18	9.28	19.56	0.090	33.01	-13.45
5 MHz	QPSK	1852.5	H	141	137	9.44	1 / 18	10.44	19.88	0.097	33.01	-13.13
	QPSK	1882.5	H	144	138	9.83	1 / 18	9.48	19.32	0.085	33.01	-13.69
	QPSK	1912.5	H	134	137	10.28	1 / 18	8.93	19.21	0.083	33.01	-13.80
	16-QAM	1852.5	H	141	137	9.44	1 / 18	10.26	19.71	0.094	33.01	-13.30

Table 7-11. EIRP Data (NR Band n25/2 – Ant4)

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1852.40	WCDMA1900	H	157	334	14.40	9.44	23.84	0.242	33.01	-9.17
1880.00	WCDMA1900	H	153	66	15.47	9.79	<b>25.26</b>	<b>0.336</b>	33.01	-7.75
1907.60	WCDMA1900	H	172	64	15.03	10.21	25.24	0.334	33.01	-7.77
1880.00	WCDMA1900	V	325	130	14.14	9.96	24.10	0.257	33.01	-8.91

Table 7-12. EIRP Data (WCDMA PCS – Ant1)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device		Page 157 of 181

## 7.8 Radiated Spurious Emissions Measurements

### Test Overview

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

### Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

### Test Settings

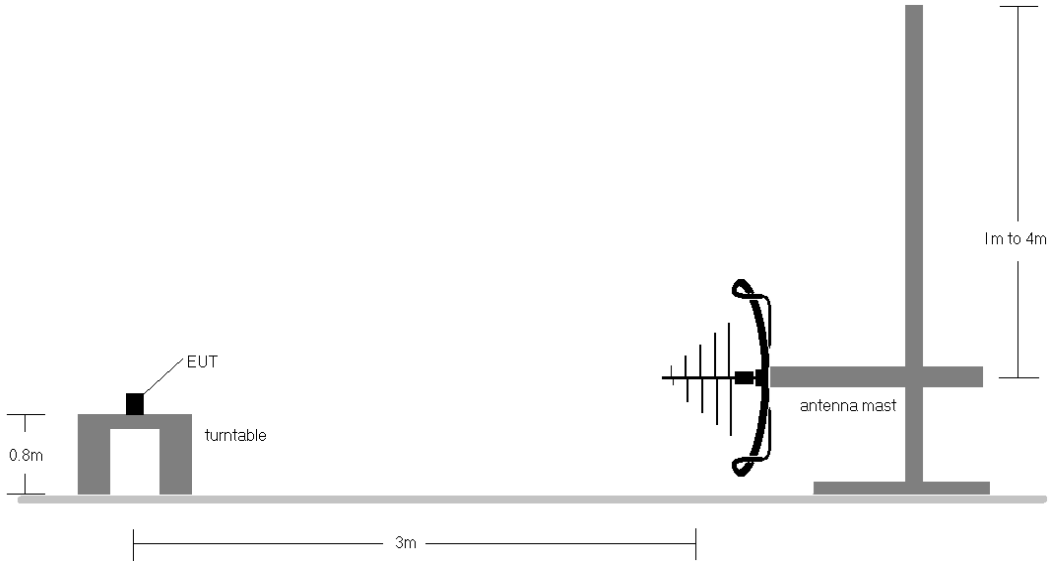
1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW  $\geq 3 \times$  RBW
3. Span = 1.5 times the OBW
4. No. of sweep points  $\geq 2 \times$  span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 158 of 181

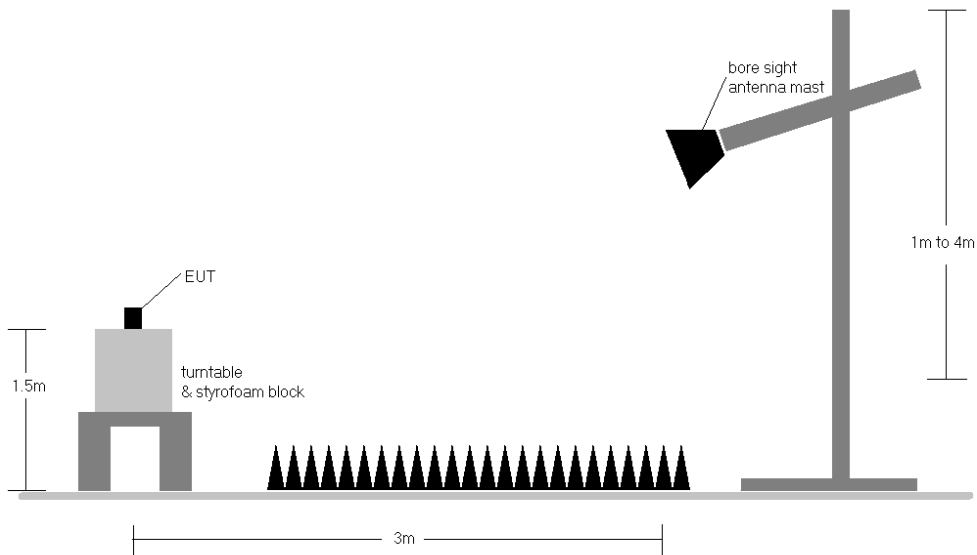
V3.0 1/5/2022

**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**

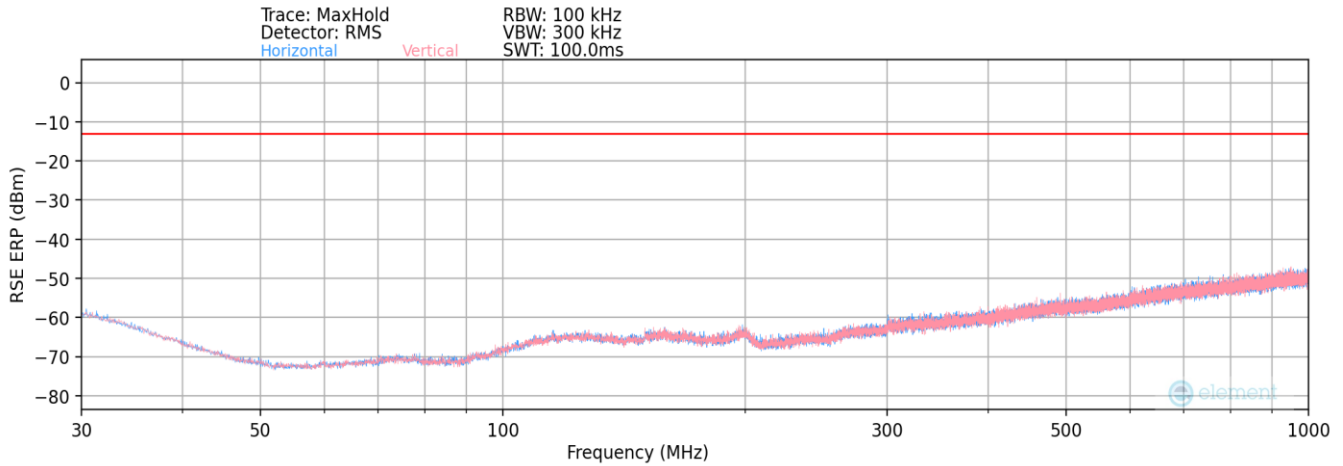
FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 159 of 181

**Test Notes**

- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
  - a)  $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
  - b)  $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$ ; where D is the measurement distance in meters.
- 2) This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest powers are reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1".
- 3) 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.
- 4) This unit was tested with its standard battery.
- 5) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 6) 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.
- 7) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 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 are subject to the rules under which the NR carrier operates. Spurious emissions caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 160 of 181

## LTE Band 25/2 – Ant1

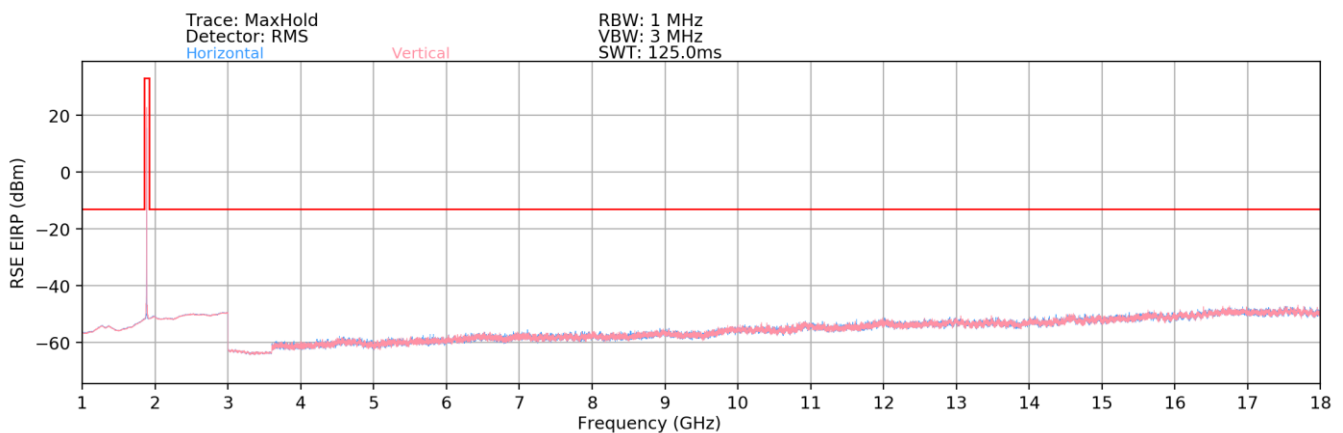


**Plot 7-259. Radiated Spurious Plot Below 1GHz (LTE Band 25/2 - Ant1)**

Bandwidth (MHz):	20
Frequency (MHz):	1882.5
RB / Offset:	1/50
Detector / Trace Mode:	RMS / Average
RBW / VBW:	100kHz / 300kHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
460.00	V	-	-	-90.26	25.29	42.03	-55.38	-13.00	-42.38
954.93	V	-	-	-89.25	31.87	49.62	-47.79	-13.00	-34.79

**Table 7-13. Radiated Spurious Data (LTE Band 25/2 –Ant1)**



**Plot 7-260. Radiated Spurious Plot Above 1GHz (LTE Band 25/2 - Ant1)**

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 161 of 181

Bandwidth (MHz):	20
Frequency (MHz):	1860
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3720.00	V	-	-	-78.76	3.26	31.50	-63.76	-13.00	-50.76
5580.00	V	-	-	-78.83	5.13	33.30	-61.96	-13.00	-48.96
7440.00	V	-	-	-79.81	7.67	34.86	-60.39	-13.00	-47.39

Table 7-14. Radiated Spurious Data (LTE Band 25/2 – Low Channel - Ant1)

Bandwidth (MHz):	20
Frequency (MHz):	1882.5
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3765.00	V	-	-	-79.17	3.17	31.00	-64.26	-13.00	-51.26
5647.50	V	-	-	-80.34	5.45	32.11	-63.15	-13.00	-50.15
7530.00	V	-	-	-79.98	7.87	34.89	-60.37	-13.00	-47.37

Table 7-15. Radiated Spurious Data (LTE Band 25/2 – Mid Channel - Ant1)

Bandwidth (MHz):	20
Frequency (MHz):	1905
RB / Offset:	1 / 50

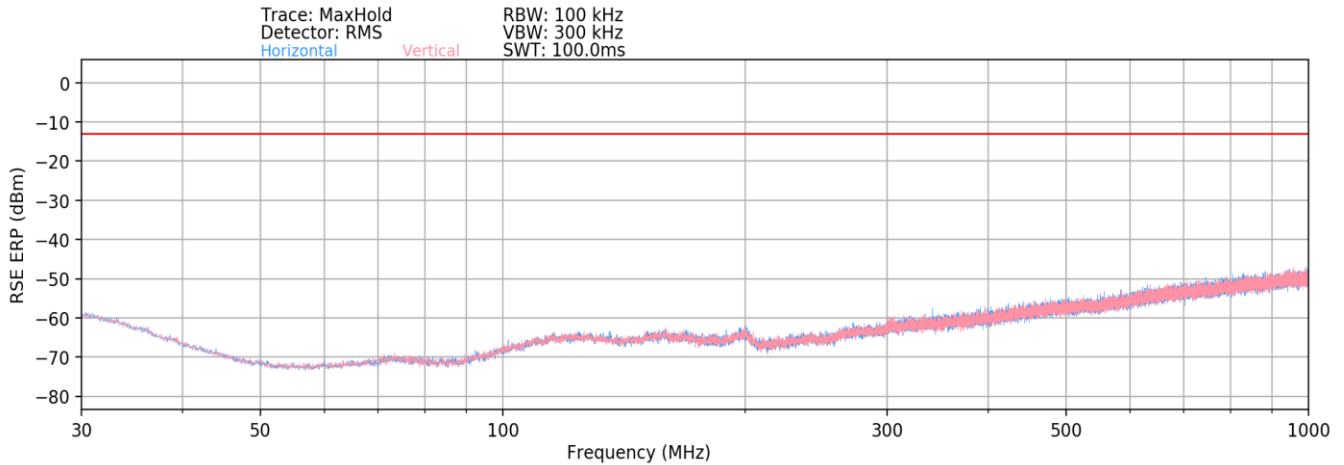
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3810.00	V	-	-	-78.51	2.96	31.45	-63.80	-13.00	-50.80
5715.00	V	-	-	-79.50	5.45	32.95	-62.30	-13.00	-49.30
7620.00	V	-	-	-80.25	8.17	34.92	-60.34	-13.00	-47.34

Table 7-16. Radiated Spurious Data (LTE Band 25/2 – High Channel - Ant1)

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 162 of 181



### NR Band n25/2 – Ant1

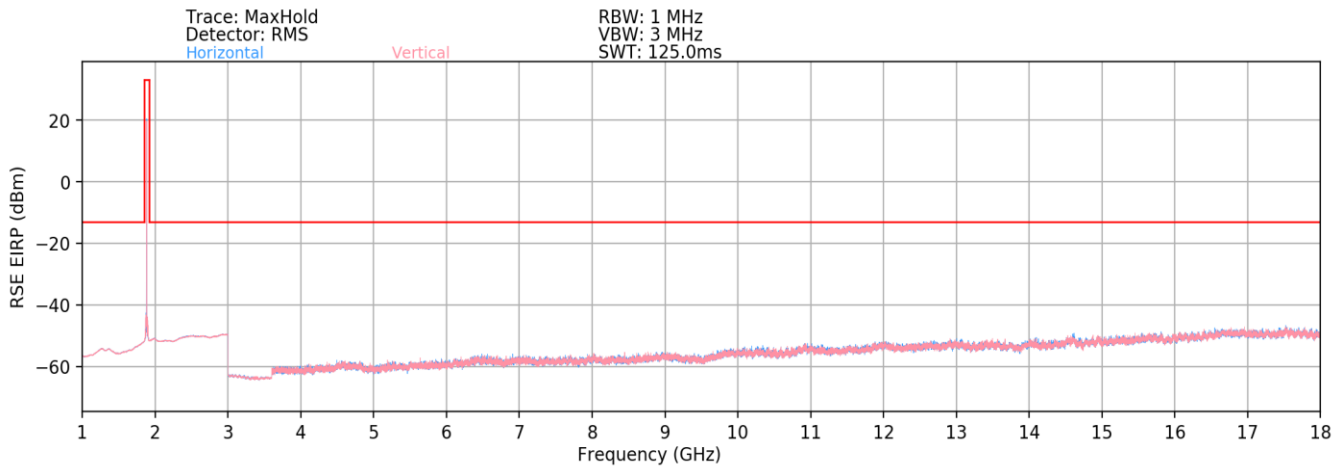


**Plot 7-261. Radiated Spurious Plot Below 1GHz (NR Band n25/2 - Ant1)**

Bandwidth (MHz):	40
Frequency (MHz):	1882.5
RB / Offset:	1/108
Mode:	Stand-alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
191.28	H	-	-	-90.31	18.63	35.32	-62.09	-13.00	-49.09
340.32	H	-	-	-90.78	21.99	38.21	-59.20	-13.00	-46.20

**Table 7-17. Radiated Spurious Data (NR Band n25/2 - Ant1)**



**Plot 7-262. Radiated Spurious Plot Above 1GHz (NR Band n25/2 - Ant1)**

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 163 of 181

Bandwidth (MHz):	40
Frequency (MHz):	1870
RB / Offset:	1 / 108
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3740.00	H	-	-	-78.75	3.12	31.37	-63.88	-13.00	-50.88
5610.00	H	-	-	-78.93	5.59	33.66	-61.60	-13.00	-48.60
7480.00	H	-	-	-79.79	7.51	34.72	-60.53	-13.00	-47.53

**Table 7-18. Radiated Spurious Data (NR Band n25/2 – Low Channel - Ant1)**

Bandwidth (MHz):	40
Frequency (MHz):	1882.5
RB / Offset:	1 / 108
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3765.00	H	-	-	-78.96	3.17	31.21	-64.05	-13.00	-51.05
5647.50	H	-	-	-79.13	5.45	33.32	-61.94	-13.00	-48.94
7530.00	H	-	-	-80.00	7.87	34.87	-60.39	-13.00	-47.39

**Table 7-19. Radiated Spurious Data (NR Band n25/2 – Mid Channel - Ant1)**

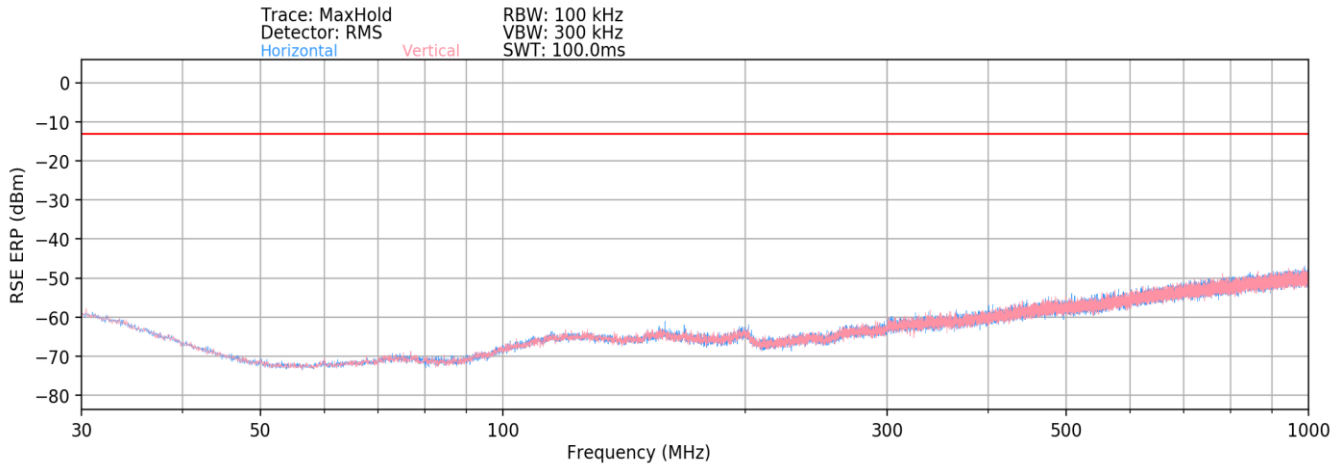
Bandwidth (MHz):	40
Frequency (MHz):	1895
RB / Offset:	1 / 108
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3790.00	H	-	-	-78.31	3.01	31.70	-63.56	-13.00	-50.56
5685.00	H	-	-	-78.55	5.49	33.94	-61.32	-13.00	-48.32
7580.00	H	-	-	-79.26	8.06	35.80	-59.46	-13.00	-46.46

**Table 7-20. Radiated Spurious Data (NR Band n25/2 – High Channel - Ant1)**

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 164 of 181

## NR Band n25/2 – Ant4

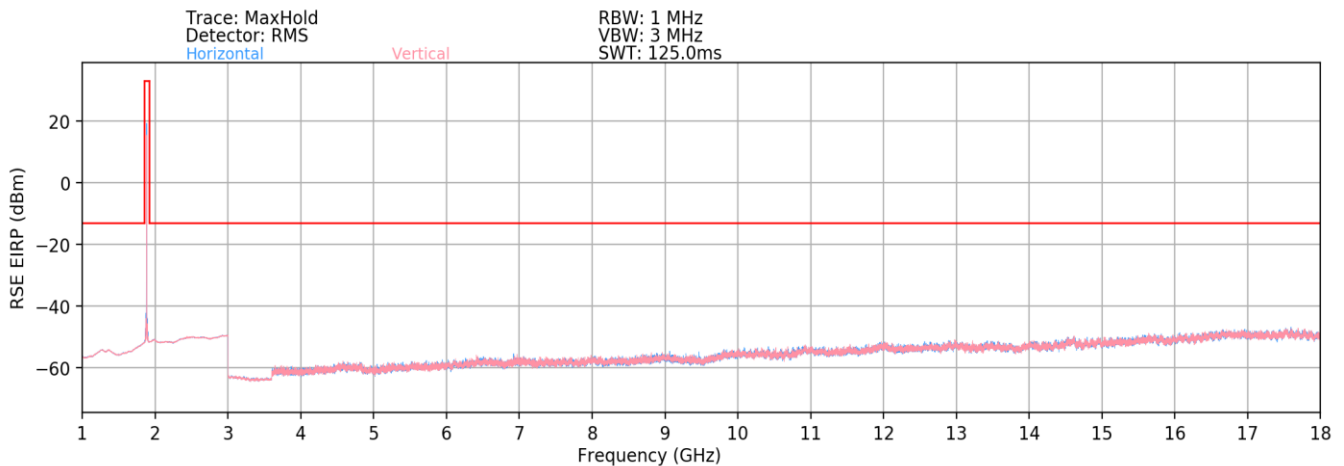


**Plot 7-263. Radiated Spurious Plot (NR Band n25/2 - Ant4)**

<b>Bandwidth (MHz):</b>	40
<b>Frequency (MHz):</b>	1882.5
<b>RB / Offset:</b>	1/108
<b>Mode:</b>	Stand-alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
176.02	H	-	-	-91.58	18.60	34.02	-63.39	-13.00	-50.39
331.79	H	-	-	-90.89	21.84	37.95	-59.46	-13.00	-46.46

**Table 7-21. Radiated Spurious Data Below 1GHz (NR Band n25/2 - Ant4)**



**Plot 7-264. Radiated Spurious Plot (NR Band n25/2 - Ant4)**

<b>FCC ID:</b> C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2204040049-05-R1.C3K	<b>Test Dates:</b> 03/15/2022- 06/24/2022	<b>EUT Type:</b> Portable Computing Device	Page 165 of 181

Bandwidth (MHz):	40
Frequency (MHz):	1870
RB / Offset:	1 / 50
Mode:	Stand-alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3740.00	H	-	-	-78.64	3.12	31.48	-63.77	-13.00	-50.77
5610.00	H	-	-	-78.92	5.59	33.67	-61.59	-13.00	-48.59
7480.00	H	-	-	-79.74	7.51	34.77	-60.48	-13.00	-47.48

**Table 7-22. Radiated Spurious Data (NR Band n25/2 – Low Channel - Ant4)**

Bandwidth (MHz):	40
Frequency (MHz):	1882.5
RB / Offset:	1 / 50
Mode:	Stand-alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3765.00	H	-	-	-78.89	3.17	31.28	-63.98	-13.00	-50.98
5647.50	H	-	-	-79.12	5.45	33.33	-61.93	-13.00	-48.93
7530.00	H	-	-	-80.19	7.87	34.68	-60.58	-13.00	-47.58

**Table 7-23. Radiated Spurious Data (NR Band n25/2 – Mid Channel - Ant4)**

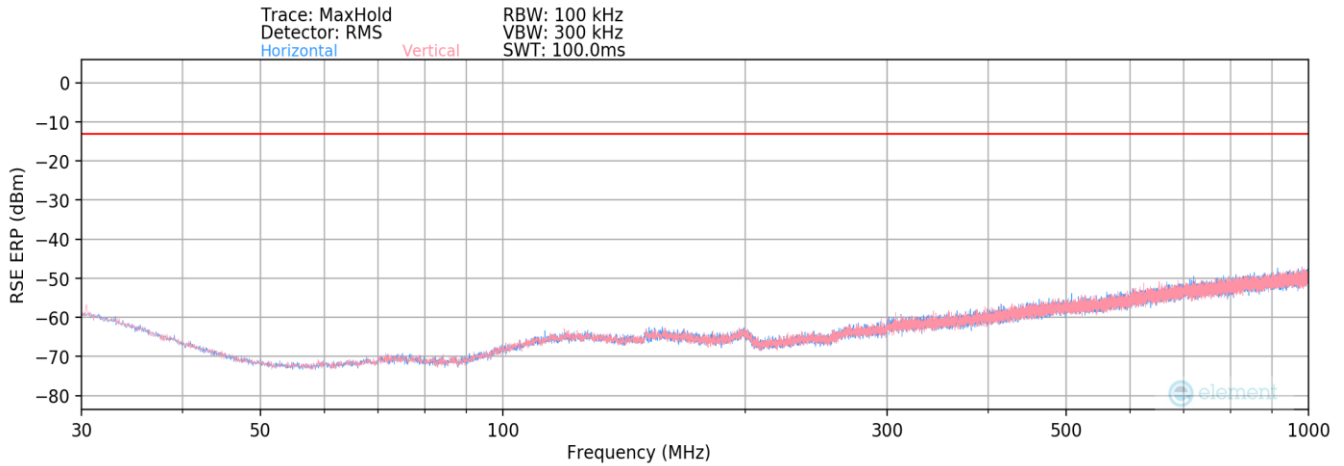
Bandwidth (MHz):	40
Frequency (MHz):	1895
RB / Offset:	1 / 50
Mode:	Stand-alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3790.00	H	-	-	-78.65	3.01	31.36	-63.90	-13.00	-50.90
5685.00	H	-	-	-79.33	5.49	33.16	-62.10	-13.00	-49.10
7580.00	H	-	-	-80.53	8.06	34.53	-60.73	-13.00	-47.73

**Table 7-24. Radiated Spurious Data (NR Band n25/2 – High Channel - Ant4)**

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 166 of 181

# WCDMA PCS – Ant1

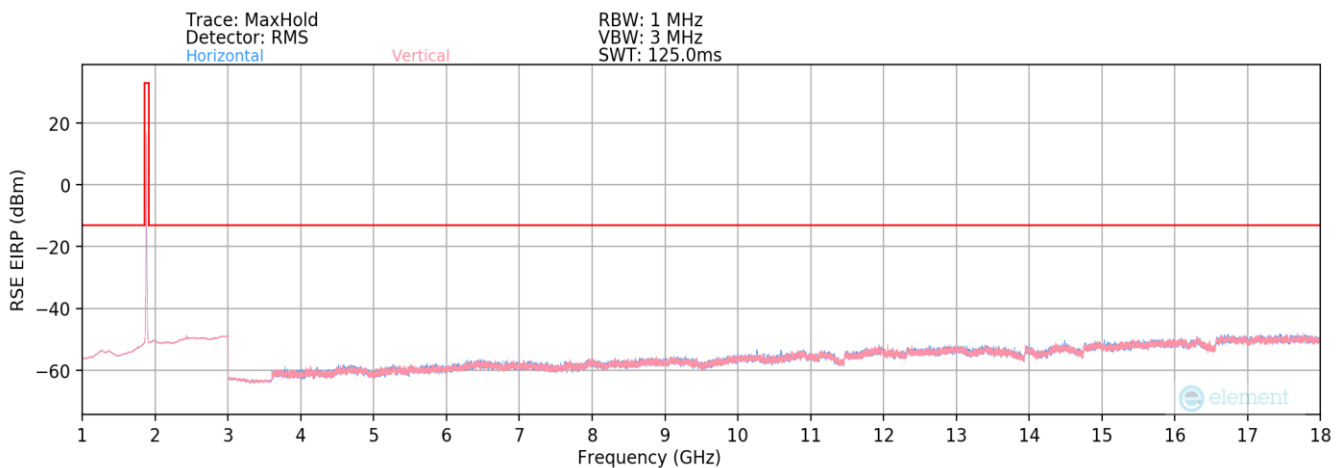


**Plot 7-265. Radiated Spurious Plot Below 1GHz (WCDMA PCS - Ant1)**

<b>Mode:</b>	WCDMA RMC
<b>Channel:</b>	4183
<b>Frequency (MHz):</b>	1880
<b>Detector / Trace Mode:</b>	RMS / Average
<b>RBW / VBW:</b>	100kHz / 300kHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
496.53	H	-	-	-89.95	25.60	42.65	-54.76	-13.00	-41.76
724.67	H	-	-	-89.96	29.10	46.14	-51.27	-13.00	-38.27

**Table 7-25. Radiated Spurious Data (WCDMA PCS –Ant1)**



**Plot 7-266. Radiated Spurious Plot Above 1GHz (WCDMA PCS - Ant1)**

<b>FCC ID:</b> C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2204040049-05-R1.C3K	<b>Test Dates:</b> 03/15/2022- 06/24/2022	<b>EUT Type:</b> Portable Computing Device	Page 167 of 181

Mode:	WCDMA RMC
Channel:	9262
Frequency (MHz):	1852.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3704.80	H	-	-	-78.90	3.50	31.60	-63.66	-13.00	-50.66
5557.20	H	-	-	-78.64	5.06	33.42	-61.84	-13.00	-48.84
7409.60	H	-	-	-79.86	7.66	34.80	-60.46	-13.00	-47.46

**Table 7-26. Radiated Spurious Data (WCDMA PCS – Low Channel - Ant1)**

Mode:	WCDMA RMC
Channel:	9400
Frequency (MHz):	1880

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3760.00	H	-	-	-79.04	3.16	31.12	-64.13	-13.00	-51.13
5640.00	H	-	-	-79.06	5.52	33.46	-61.80	-13.00	-48.80
7520.00	H	-	-	-80.08	7.83	34.75	-60.51	-13.00	-47.51

**Table 7-27. Radiated Spurious Data (WCDMA PCS – Mid Channel - Ant1)**

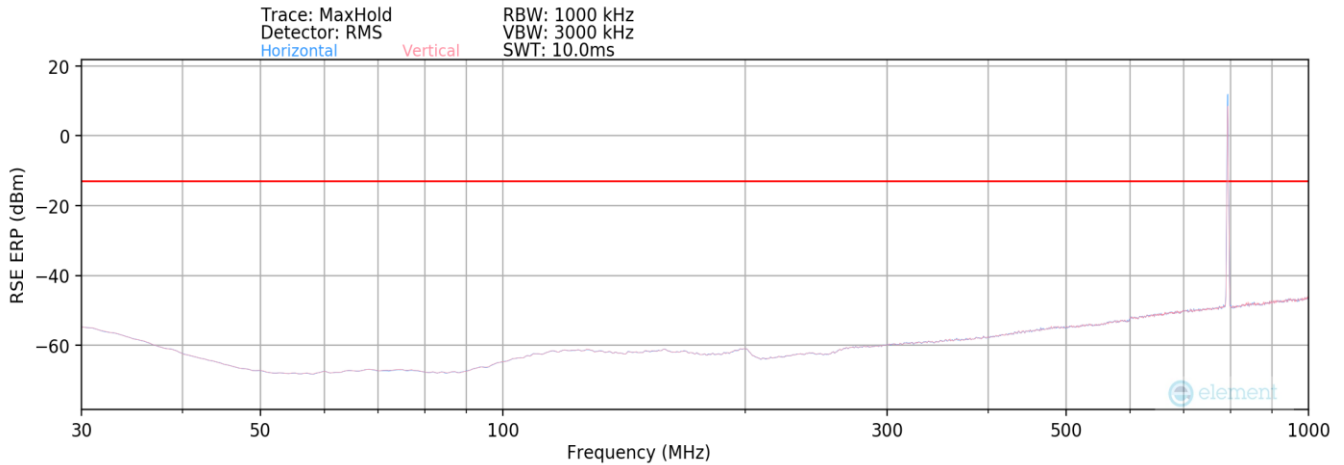
Mode:	WCDMA RMC
Channel:	9538
Frequency (MHz):	1907.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3815.20	H	-	-	-78.52	2.98	31.46	-63.79	-13.00	-50.79
5722.80	H	-	-	-79.23	5.42	33.19	-62.06	-13.00	-49.06
7630.40	H	-	-	-80.15	8.05	34.90	-60.36	-13.00	-47.36

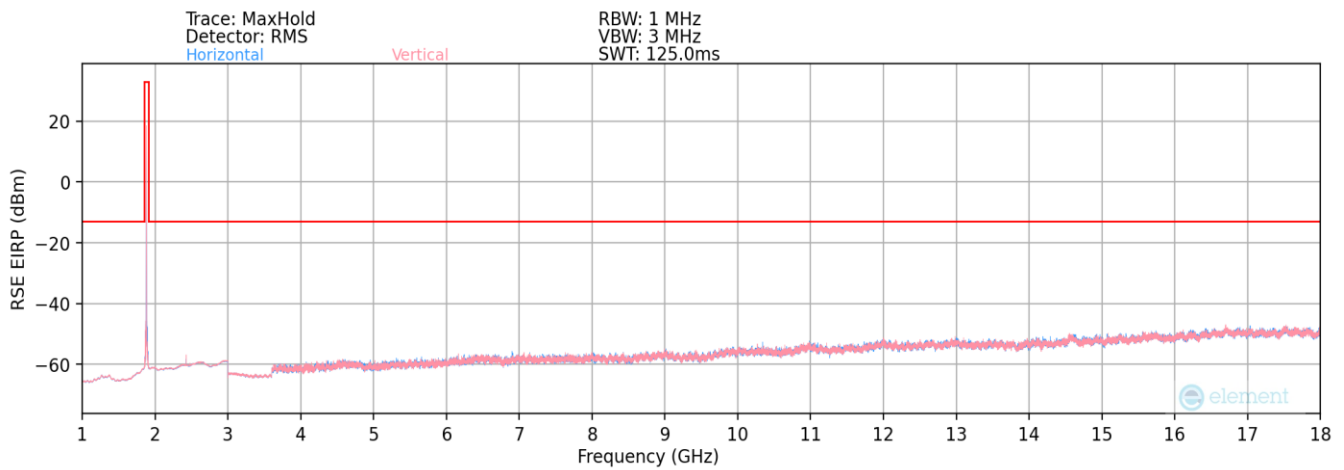
**Table 7-28. Radiated Spurious Data (WCDMA PCS – High Channel - Ant1)**

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 168 of 181

## EN-DC n2- Band 14



**Plot 7-267. Radiated Spurious Plot Below 1GHz (EN-DC n2- Band 14)**



**Plot 7-268. Radiated Spurious Plot Above 1GHz (EN-DC n2- Band 14)**

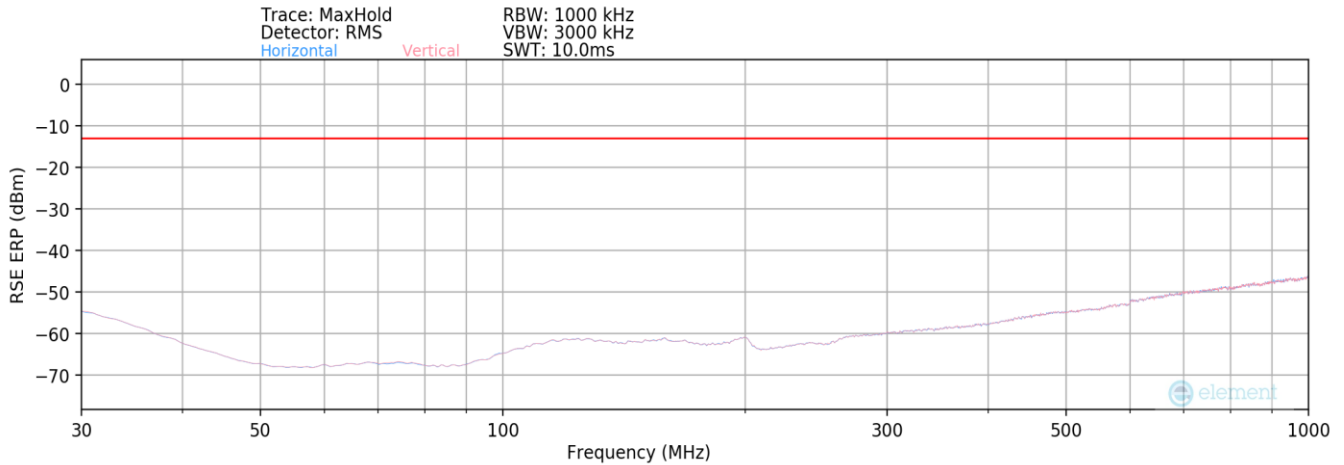
Bandwidth (MHz):	20
Frequency (MHz):	1880
RB / Offset:	1/50
Mode:	EN-DC
Anchor Band:	LTE Band 14

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
294.00	H	-	-	-91.08	21.17	37.09	-58.17	-13.00	-45.17
1381.00	H	-	-	-77.18	-2.93	26.89	-68.36	-13.00	-55.36
2468.00	H	291	241	-76.52	0.47	30.95	-64.31	-13.00	-51.31
2967.00	H	-	-	-78.03	2.22	31.19	-64.07	-13.00	-51.07
4054.00	H	-	-	-78.38	3.24	31.86	-63.40	-13.00	-50.40
10700.00	H	-	-	-81.45	11.82	37.37	-57.89	-13.00	-44.89

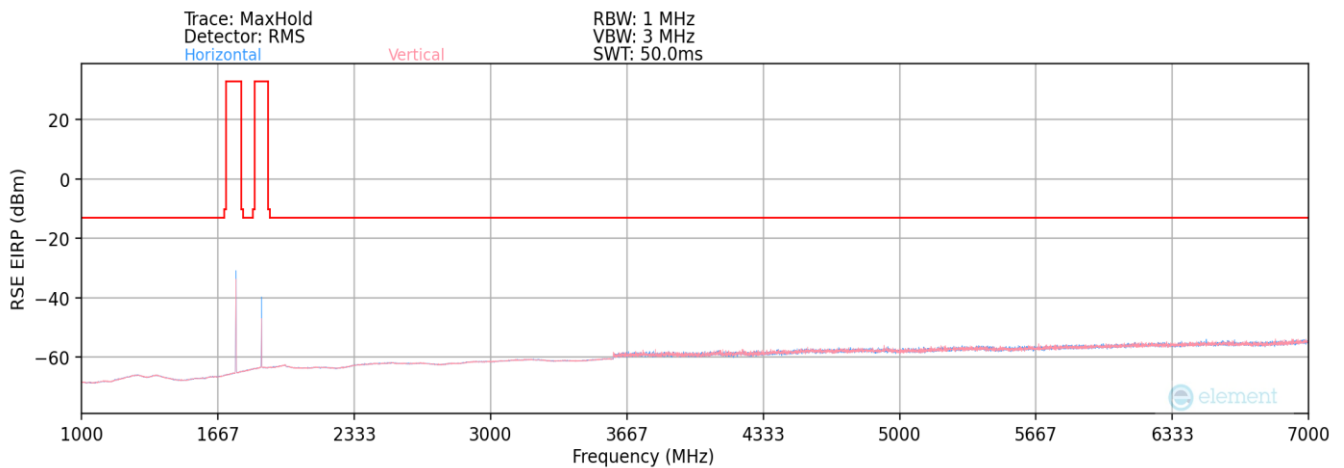
**Table 7-29. Radiated Spurious Data (EN-DC n2- Band 14)**

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 169 of 181

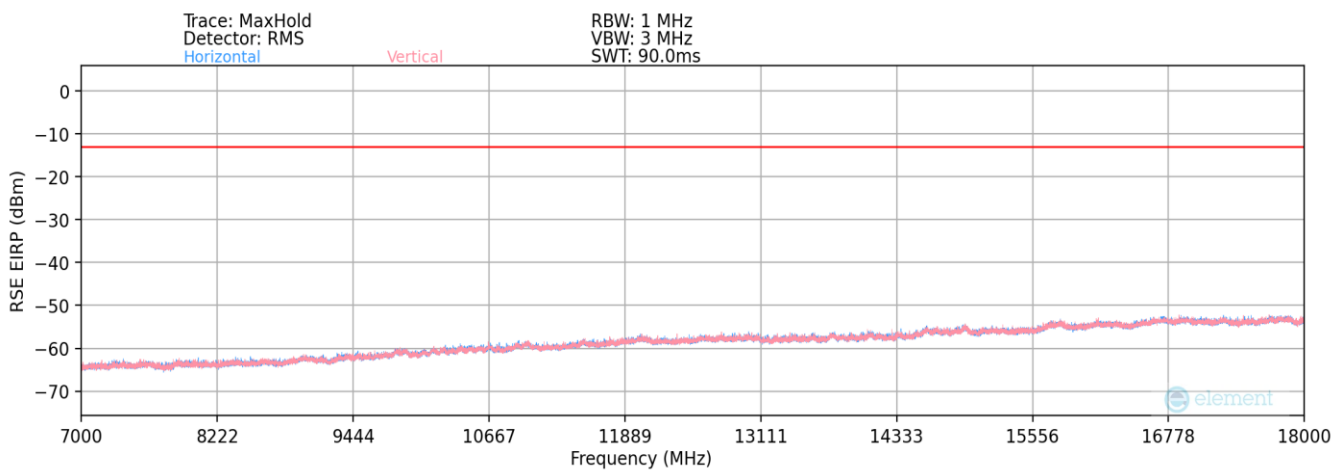
## EN-DC n2- Band 66



**Plot 7-269. Radiated Spurious Plot Below 1GHz (EN-DC n2- Band 66)**



**Plot 7-270. Radiated Spurious Plot 1-7GHz (EN-DC n2- Band 66)**



**Plot 7-271. Radiated Spurious Plot 7-18GHz (EN-DC n2- Band 66)**

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 170 of 181





<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1880
<b>RB / Offset:</b>	1/50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	LTE Band 66

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
935.00	H	-	-	-87.88	31.56	50.68	-44.58	-13.00	-31.58
1340.00	H	-	-	-82.66	6.13	30.47	-64.79	-13.00	-51.79
1475.00	H	-	-	-79.52	4.94	32.42	-62.83	-13.00	-49.83
1610.00	H	-	-	-79.45	5.63	33.18	-62.08	-13.00	-49.08
2015.00	H	-	-	-78.55	9.57	38.02	-57.24	-13.00	-44.24
2150.00	H	-	-	-78.24	9.40	38.16	-57.10	-13.00	-44.10

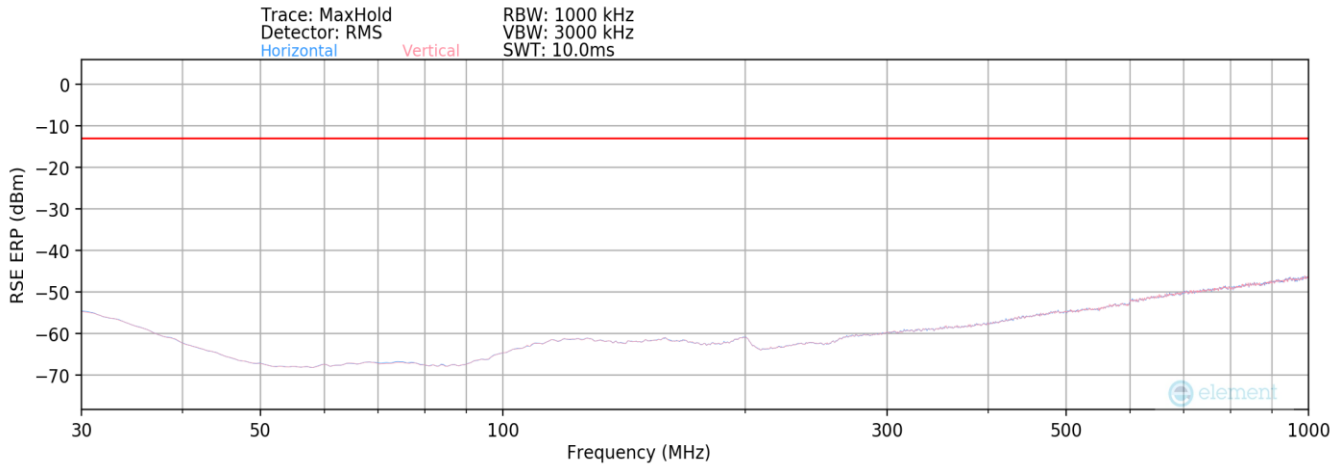
**Table 7-30. Radiated Spurious Data (EN-DC n2- Band 66)**

<b>FCC ID:</b> C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2204040049-05-R1.C3K	<b>Test Dates:</b> 03/15/2022- 06/24/2022	<b>EUT Type:</b> Portable Computing Device	Page 171 of 181

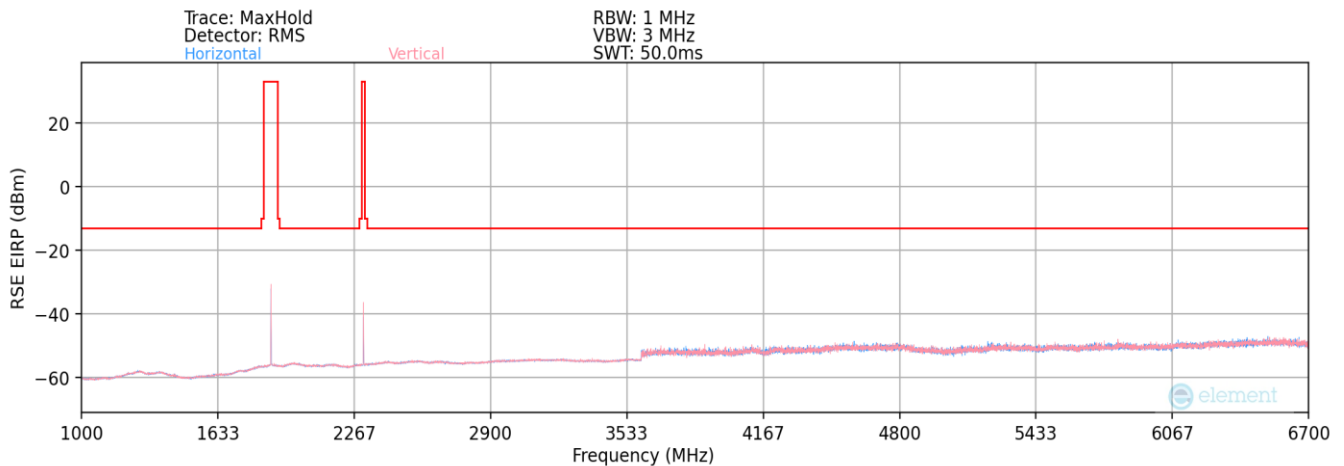
V3.0 1/5/2022

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

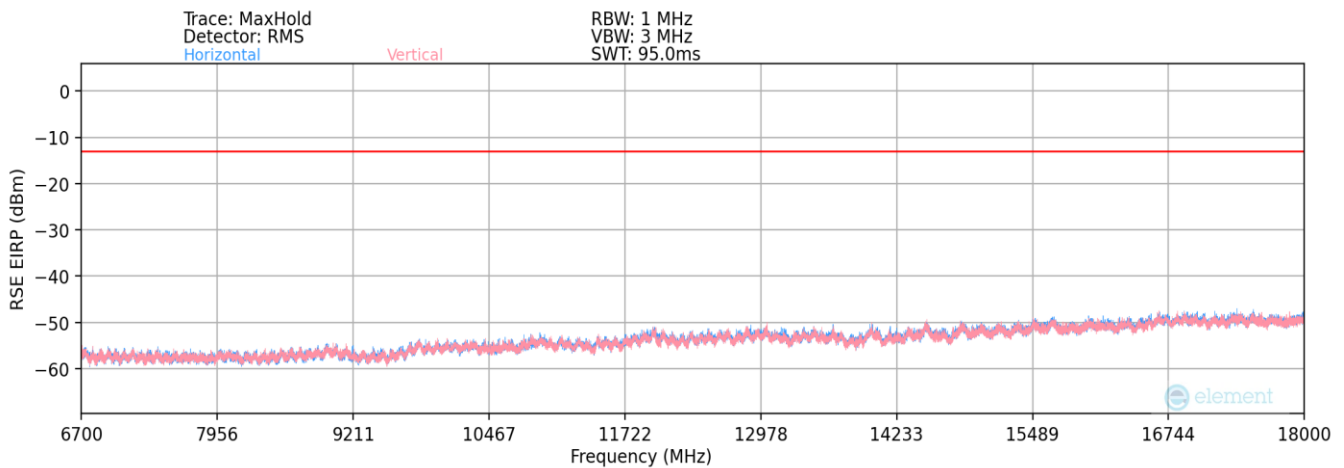
## EN-DC n2- Band 30



**Plot 7-272. Radiated Spurious Plot Below 1GHz (EN-DC n2- Band 30)**



**Plot 7-273. Radiated Spurious Plot 1-6.7GHz (EN-DC n2- Band 30)**



**Plot 7-274. Radiated Spurious Plot 6.7-18GHz (EN-DC n2- Band 30)**

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 172 of 181



<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1880
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	LTE Band 30

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1560.00	H	-	-	-89.50	28.98	46.48	-48.78	-13.00	-35.78
2740.00	H	-	-	-78.50	6.90	35.40	-59.86	-13.00	-46.86
3170.00	H	-	-	-81.46	11.87	37.41	-57.85	-13.00	-44.85

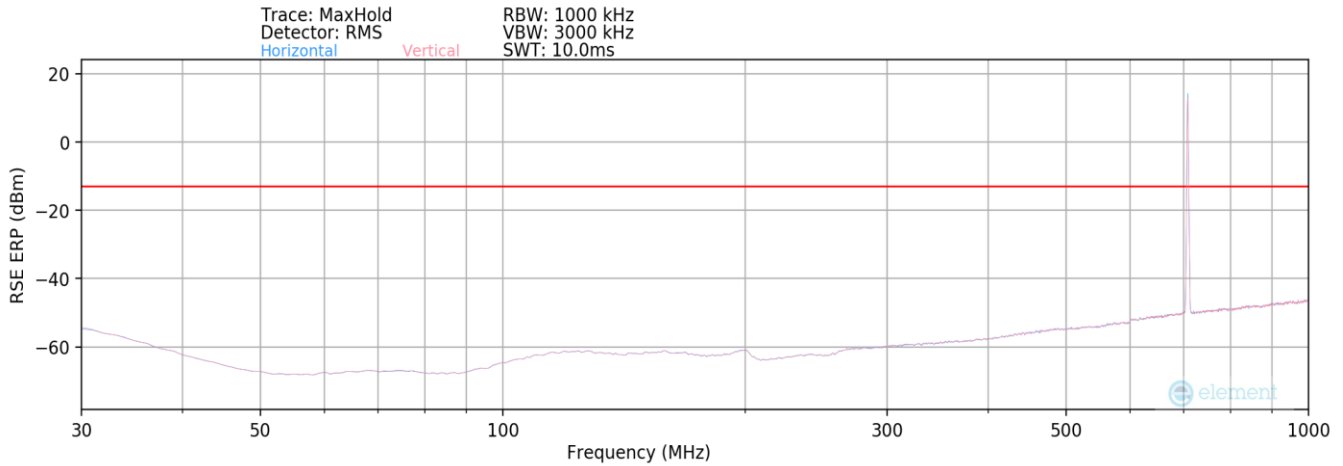
**Table 7-31. Radiated Spurious Data (EN-DC n2- Band 30)**

<b>FCC ID:</b> C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2204040049-05-R1.C3K	<b>Test Dates:</b> 03/15/2022- 06/24/2022	<b>EUT Type:</b> Portable Computing Device	Page 173 of 181

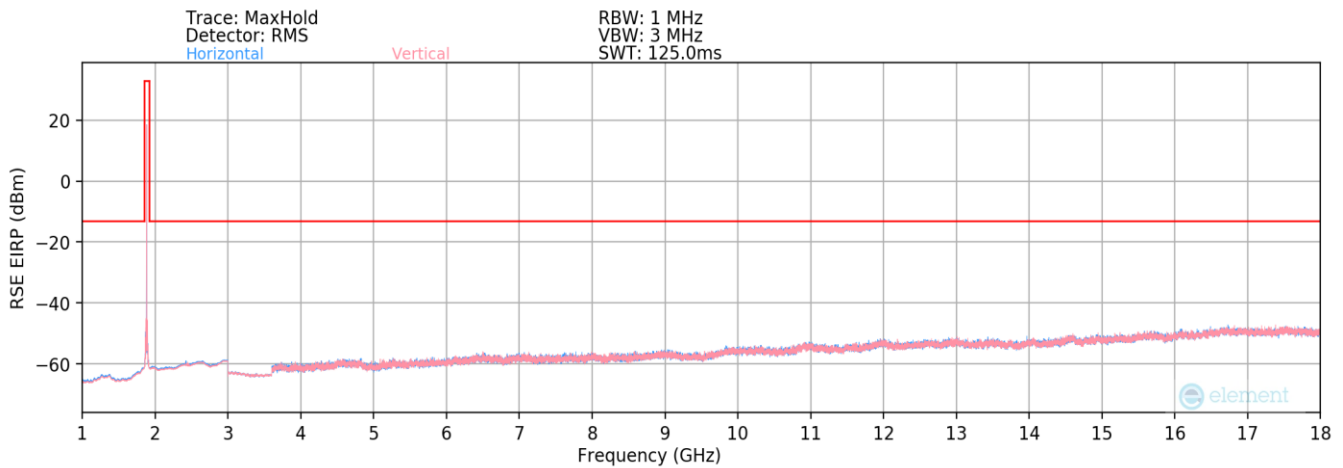
V3.0 1/5/2022

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

## EN-DC n25- Band 12



**Plot 7-275. Radiated Spurious Plot Below 1GHz (EN-DC n25- Band 12)**



**Plot 7-276. Radiated Spurious Plot Above 1GHz (EN-DC n25- Band 12)**

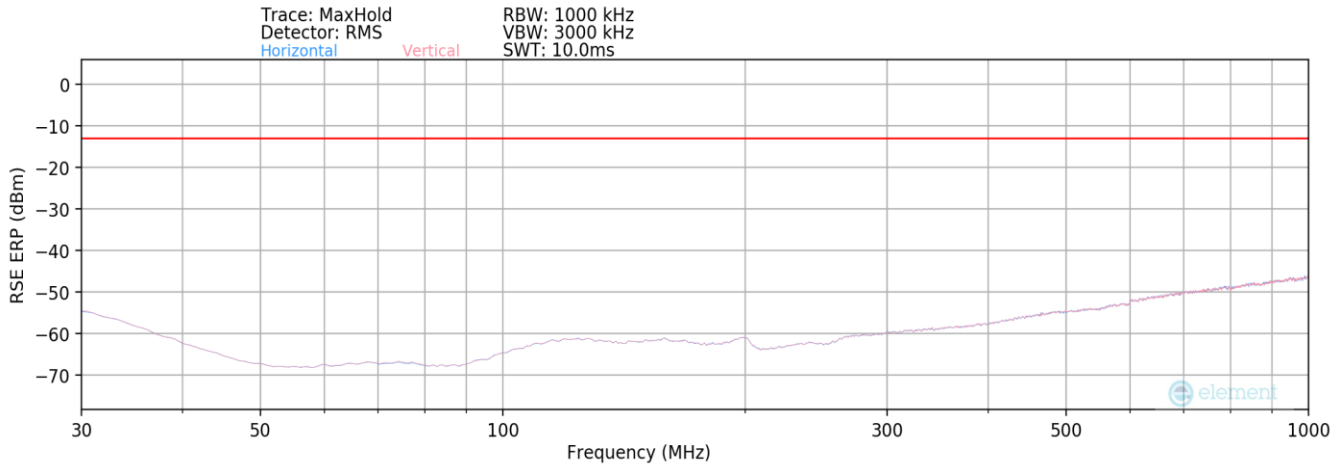
<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1882.5
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	12

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]
467.50	H	-	-	-90.65	25.37	41.72	-53.54	-13.00	-40.54
2817.50	H	-	-	-79.10	0.81	28.71	-66.55	-13.00	-53.55
3057.50	H	-	-	-79.43	3.13	30.70	-64.55	-13.00	-51.55
3992.50	H	-	-	-80.31	3.28	29.97	-65.28	-13.00	-52.28

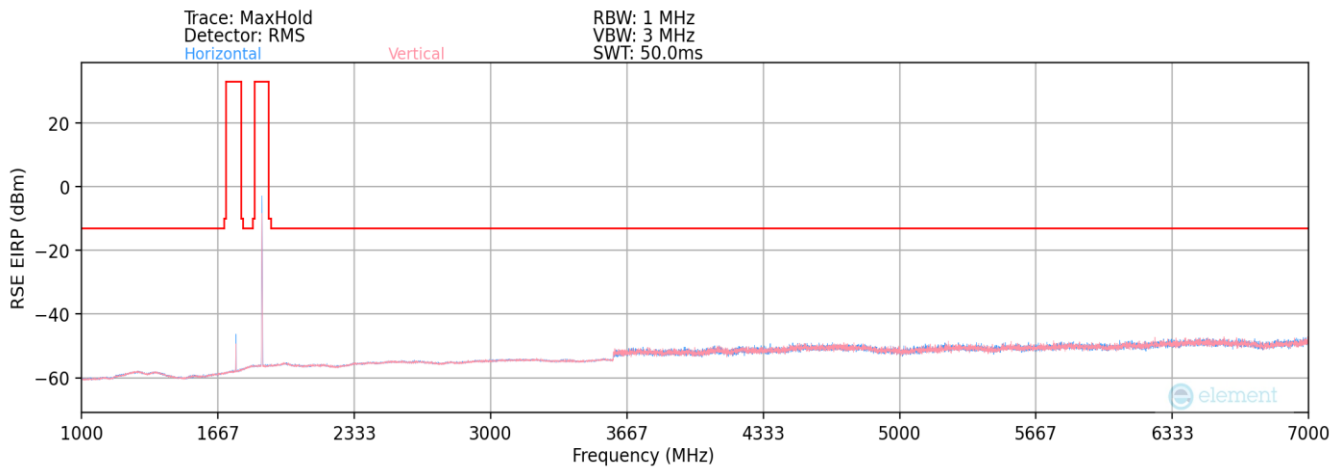
**Table 7-32. Radiated Spurious Data (EN-DC n25- Band 12)**

<b>FCC ID:</b> C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2204040049-05-R1.C3K	<b>Test Dates:</b> 03/15/2022- 06/24/2022	<b>EUT Type:</b> Portable Computing Device	Page 174 of 181

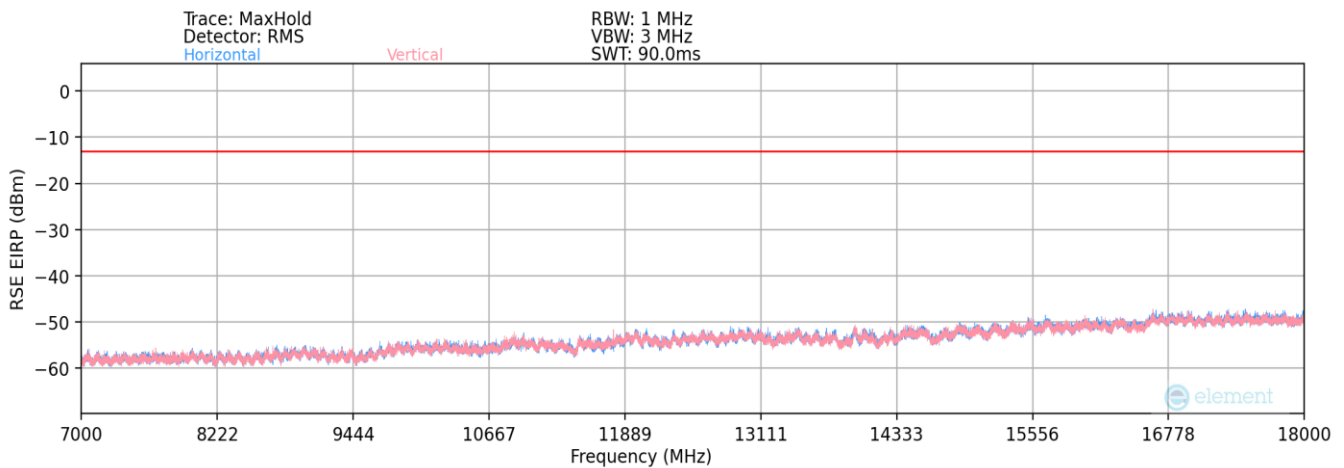
## EN-DC n25- Band 66



**Plot 7-277. Radiated Spurious Plot Below 1GHz (EN-DC n25- Band 66)**



**Plot 7-278. Radiated Spurious Plot 1-7GHz (EN-DC n25- Band 66)**



**Plot 7-279. Radiated Spurious Plot 7-18GHz (EN-DC n25- Band 66)**

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 175 of 181



<b>Bandwidth (MHz):</b>	20
<b>Frequency (MHz):</b>	1882.5
<b>RB / Offset:</b>	1 / 50
<b>Mode:</b>	EN-DC
<b>Anchor Band:</b>	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]
507.50	H	-	-	-90.62	26.00	42.38	-52.88	-13.00	-39.88
1470.00	H	-	-	-77.98	5.79	34.81	-60.45	-13.00	-47.45
1607.50	H	-	-	-77.87	7.12	36.25	-59.01	-13.00	-46.01
2157.50	H	-	-	-77.97	10.68	39.71	-55.54	-13.00	-42.54

**Table 7-33. Radiated Spurious Data (EN-DC n25- Band 66)**

<b>FCC ID:</b> C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2204040049-05-R1.C3K	<b>Test Dates:</b> 03/15/2022- 06/24/2022	<b>EUT Type:</b> Portable Computing Device	Page 176 of 181

V3.0 1/5/2022

Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element. If you have any questions about this or have an inquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

## 7.9 Frequency Stability / Temperature Variation

### Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

***For Part 24, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.***

### Test Procedure Used

ANSI C63.26-2015 – Section 5.6

### Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

### Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

### Test Notes

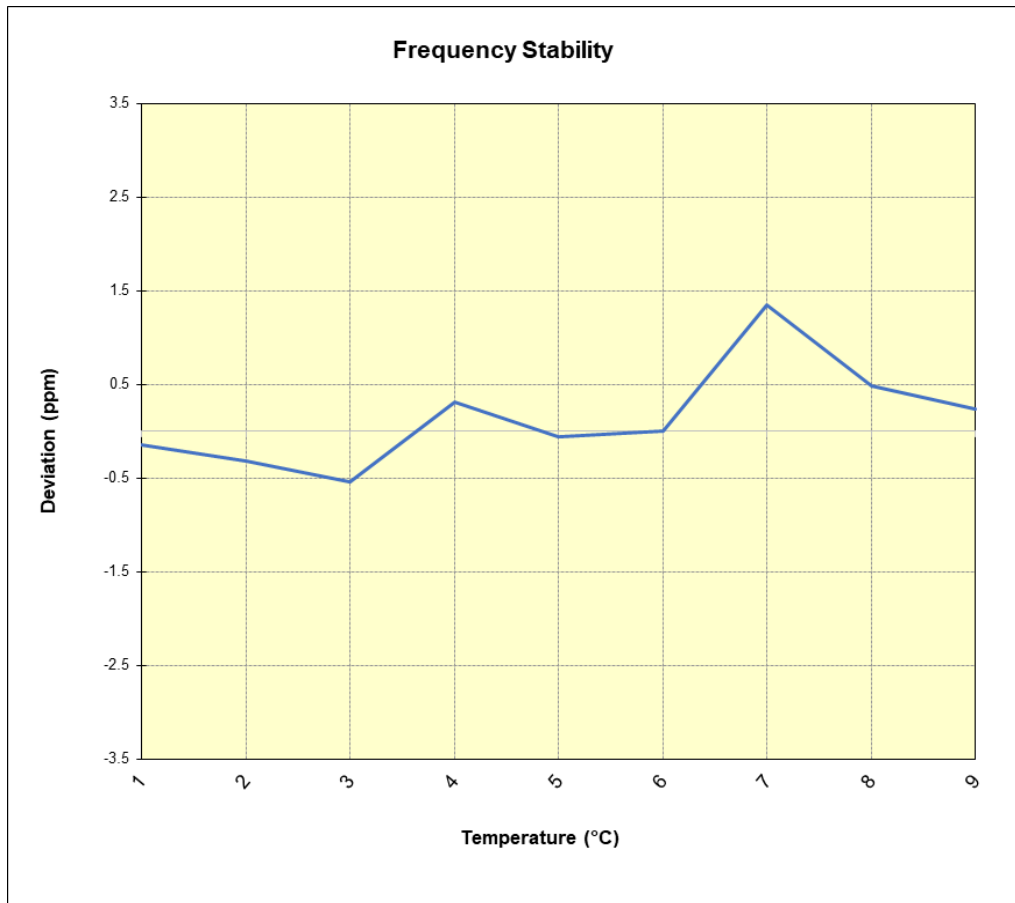
None

FCC ID: C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 177 of 181

V3.0 1/5/2022

LTE Band 25/2					
Operating Frequency (Hz):		1,882,500,000			
Ref. Voltage (VDC):		7.60			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	7.60	- 30	1,882,679,782	-279	-0.0000148
		- 20	1,882,679,462	-600	-0.0000318
		- 10	1,882,679,051	-1,010	-0.0000536
		0	1,882,680,645	583	0.0000310
		+ 10	1,882,679,955	-107	-0.0000057
		+ 20 (Ref)	1,882,680,061	0	0.0000000
		+ 30	1,882,682,607	2,546	0.0001352
		+ 40	1,882,680,975	914	0.0000485
		+ 50	1,882,680,514	453	0.0000241
Battery Endpoint	7.20	+ 20	1,882,680,321	260	0.0000138

Table 7-34. LTE Band 25/2 Frequency Stability Data



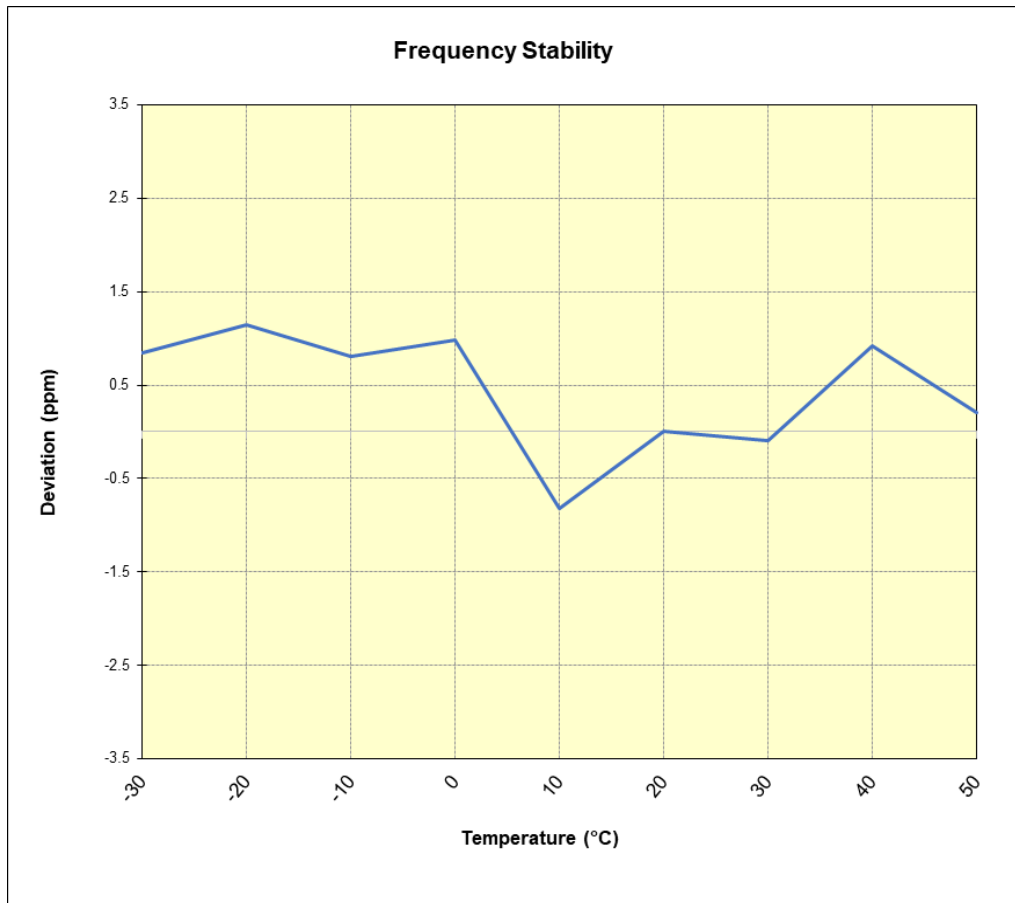
Plot 7-280. LTE Band 25/2 Frequency Stability Chart

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 178 of 181



NR Band n25/2					
		Operating Frequency (Hz):		1,882,500,000	
		Ref. Voltage (VDC):		7.60	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	7.60	- 30	1,882,582,810	1,596	0.0000848
		- 20	1,882,583,365	2,151	0.0001142
		- 10	1,882,582,722	1,507	0.0000801
		0	1,882,583,053	1,839	0.0000977
		+ 10	1,882,579,682	-1,532	-0.0000814
		+ 20 (Ref)	1,882,581,214	0	0.0000000
		+ 30	1,882,581,034	-180	-0.0000096
		+ 40	1,882,582,935	1,721	0.0000914
		+ 50	1,882,581,592	378	0.0000201
Battery Endpoint	7.20	+ 20	1,882,581,653	439	0.0000233

Table 7-35. NR Band n25/2 Frequency Stability Data

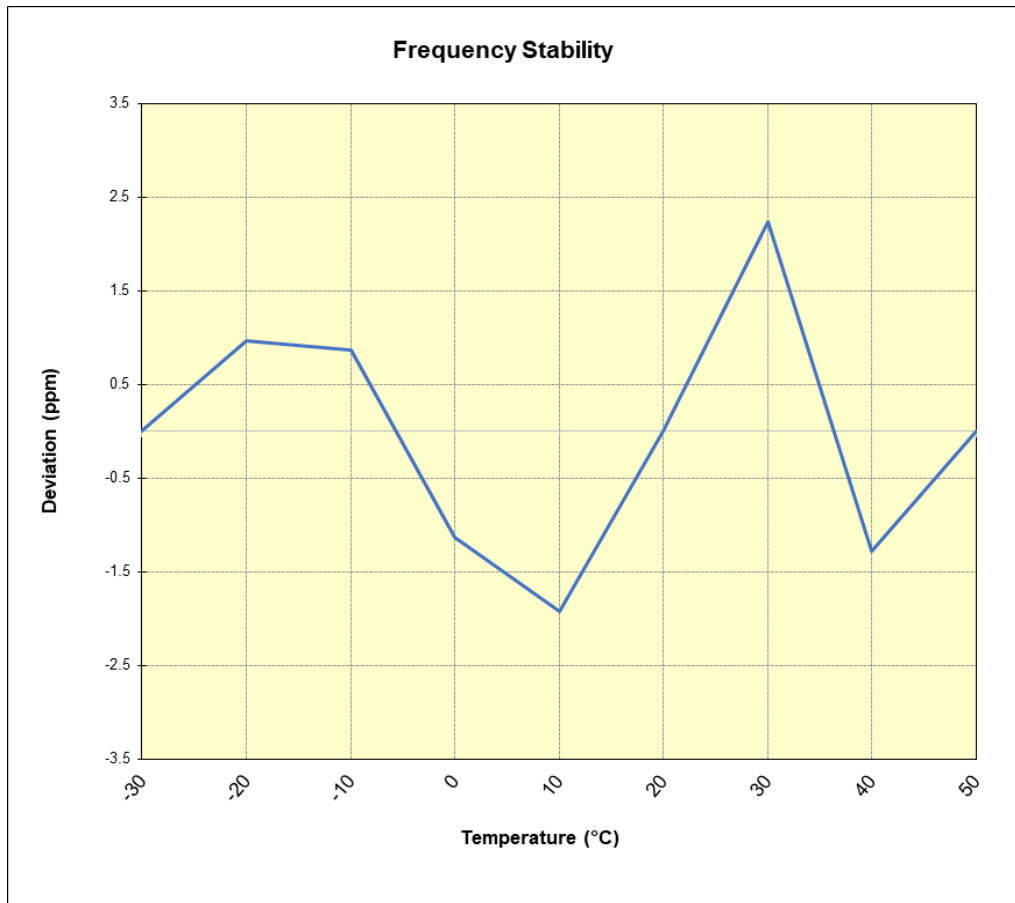


Plot 7-281. NR Band n25/2 Frequency Stability Chart

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 179 of 181

<b>WCDMA PCS</b>					
Operating Frequency (Hz):		1,880,000,000			
Ref. Voltage (VDC):		7.60			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	7.60	- 30	-	-	-
		- 20	1,879,997,837	1,816	0.0000966
		- 10	1,879,997,661	1,640	0.0000873
		0	1,879,993,889	-2,131	-0.0001134
		+ 10	1,879,992,407	-3,613	-0.0001922
		+ 20 (Ref)	1,879,996,020	0	0.0000000
		+ 30	1,880,000,247	4,226	0.0002248
		+ 40	1,879,993,608	-2,412	-0.0001283
		+ 50	-	-	-
Battery Endpoint	7.20	+ 20	1,879,995,146	-874	-0.0000465

**Table 7-36. WCDMA PCS Frequency Stability Data**



**Plot 7-282. WCDMA PCS Frequency Stability Chart**

FCC ID: C3K1997	PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2204040049-05-R1.C3K	Test Dates: 03/15/2022- 06/24/2022	EUT Type: Portable Computing Device	Page 180 of 181

## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Microsoft Corporation Portable Computing Device FCC ID: C3K1997** complies with all the requirements of Part 24 of the FCC rules.

<b>FCC ID:</b> C3K1997	<b>PART 24 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2204040049-05-R1.C3K	<b>Test Dates:</b> 03/15/2022- 06/24/2022	<b>EUT Type:</b> Portable Computing Device	Page 181 of 181

V3.0 1/5/2022