

## LTE Band 66



Plot 7-245. PAR Plot (LTE Band 66 - 1.4MHz QPSK - Full RB)



Plot 7-246. PAR Plot (LTE Band 66 - 1.4MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 148 of 203	



Plot 7-247. PAR Plot (LTE Band 66 - 3MHz QPSK - Full RB)



Plot 7-248. PAR Plot (LTE Band 66 - 3MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 149 of 203

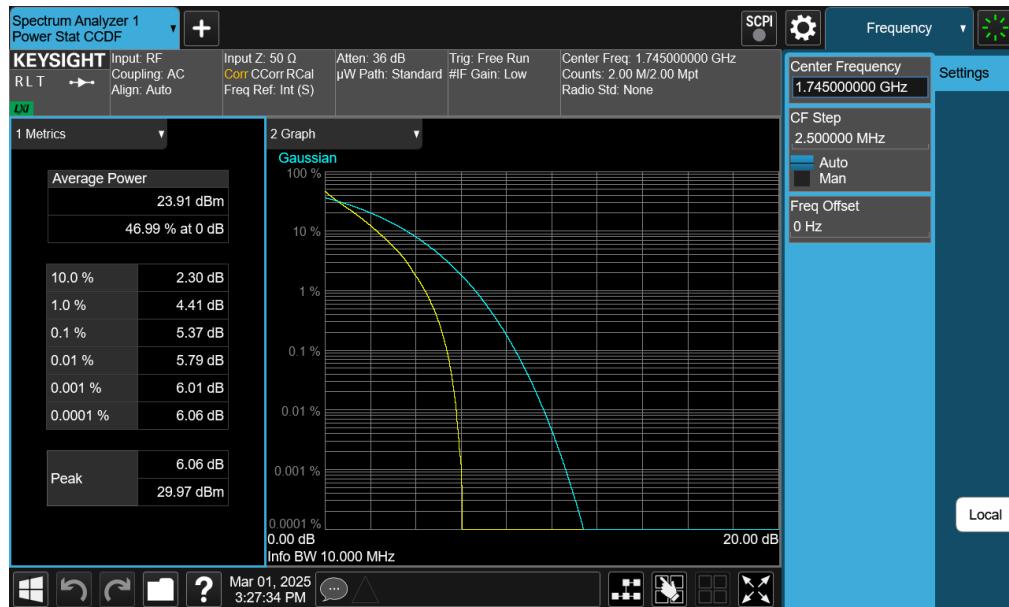


Plot 7-249. PAR Plot (LTE Band 66 - 5MHz QPSK - Full RB)

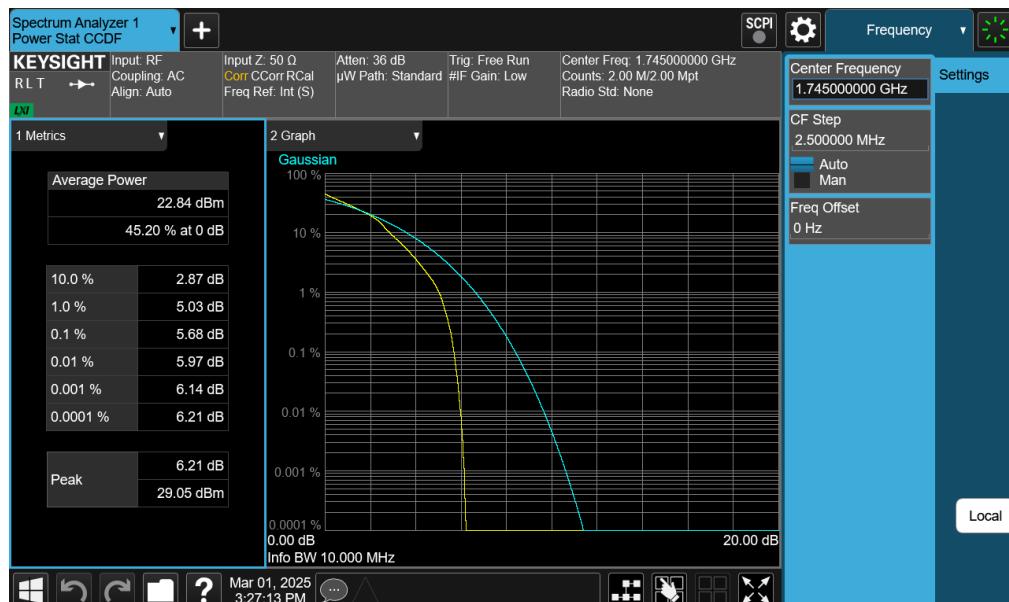


Plot 7-250. PAR Plot (LTE Band 66 - 5MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 150 of 203



Plot 7-251. PAR Plot (LTE Band 66 - 10MHz QPSK - Full RB)



Plot 7-252. PAR Plot (LTE Band 66 - 10MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 151 of 203	



Plot 7-253. PAR Plot (LTE Band 66 - 15MHz QPSK - Full RB)



Plot 7-254. PAR Plot (LTE Band 66 - 15MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 152 of 203	



Plot 7-255. PAR Plot (LTE Band 66 - 20MHz QPSK - Full RB)



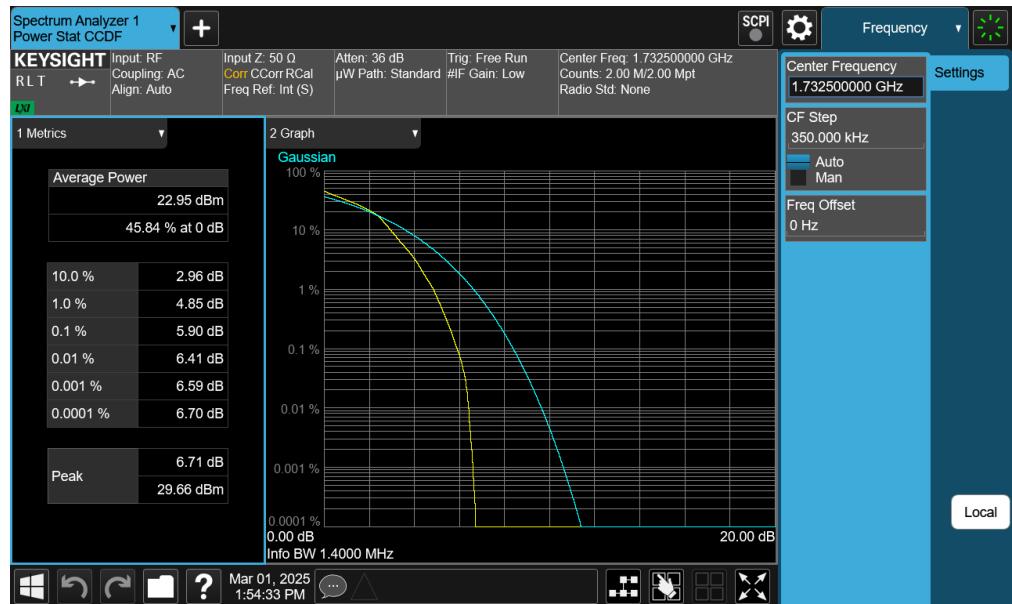
Plot 7-256. PAR Plot (LTE Band 66 - 20MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 153 of 203	

## LTE Band 4



Plot 7-257. PAR Plot (LTE Band 4 - 1.4MHz QPSK - Full RB)



Plot 7-258. PAR Plot (LTE Band 4 - 1.4MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 154 of 203



Plot 7-259. PAR Plot (LTE Band 4 - 3MHz QPSK - Full RB)



Plot 7-260. PAR Plot (LTE Band 4 - 3MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 155 of 203



Plot 7-261. PAR Plot (LTE Band 4 - 5MHz QPSK - Full RB)

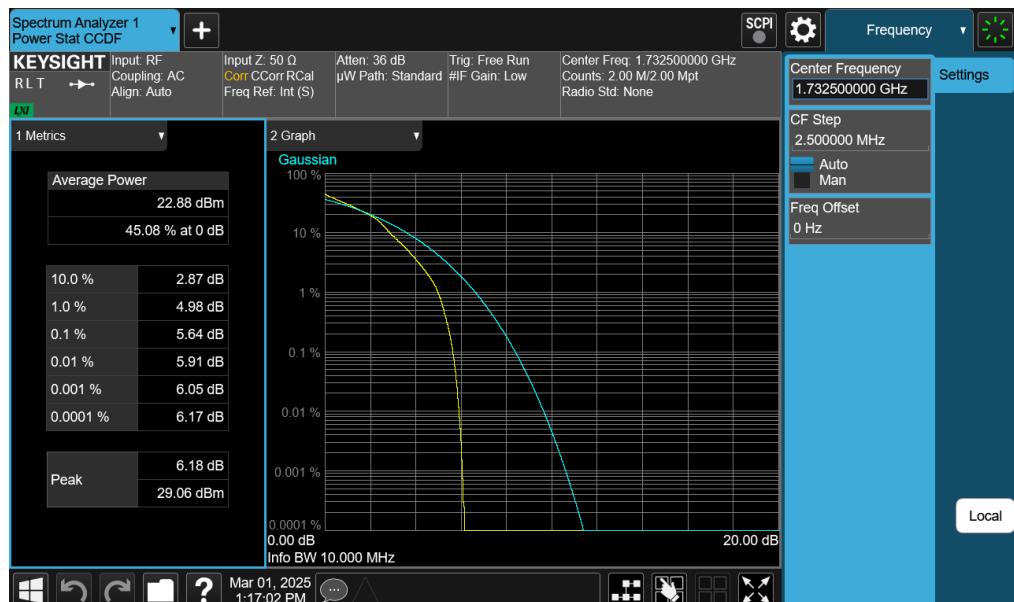


Plot 7-262. PAR Plot (LTE Band 4 - 5MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 156 of 203



Plot 7-263. PAR Plot (LTE Band 4 - 10MHz QPSK - Full RB)

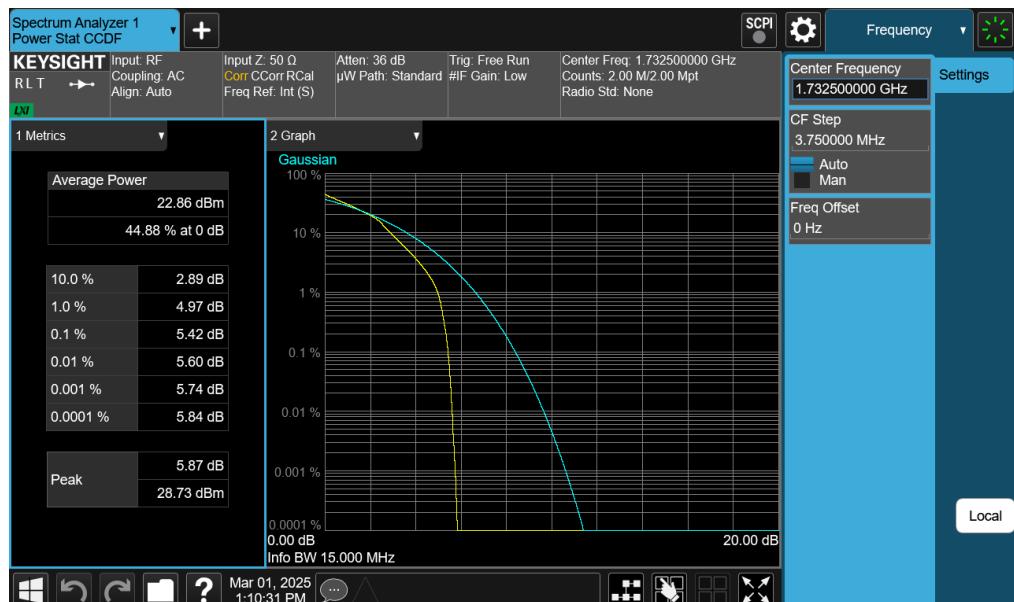


Plot 7-264. PAR Plot (LTE Band 4 - 10MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 157 of 203	



Plot 7-265. PAR Plot (LTE Band 4 - 15MHz QPSK - Full RB)



Plot 7-266. PAR Plot (LTE Band 4 - 15MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 158 of 203



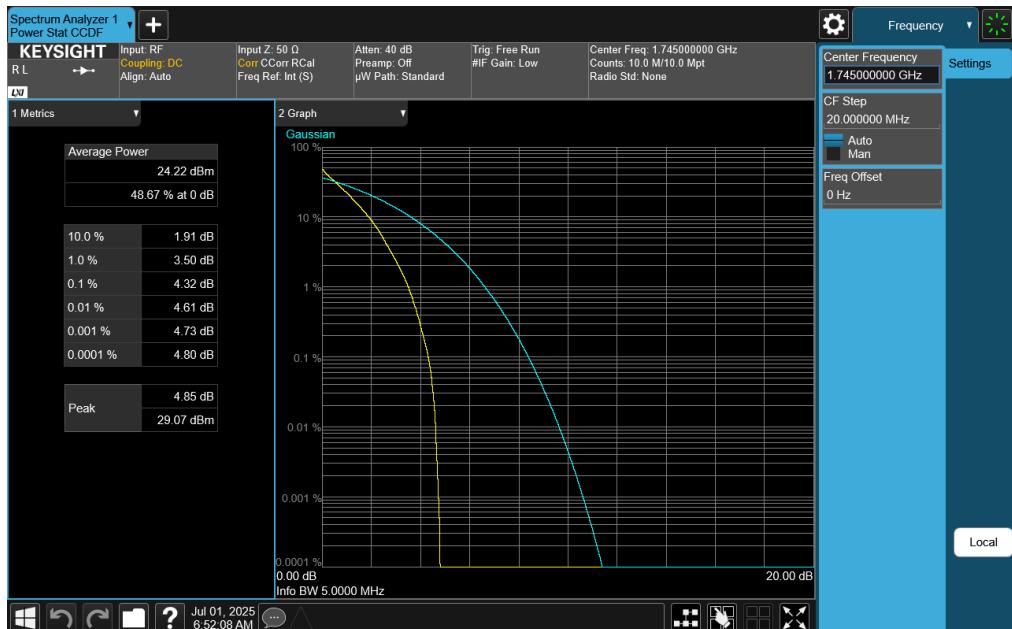
Plot 7-267. PAR Plot (LTE Band 4 - 20MHz QPSK - Full RB)



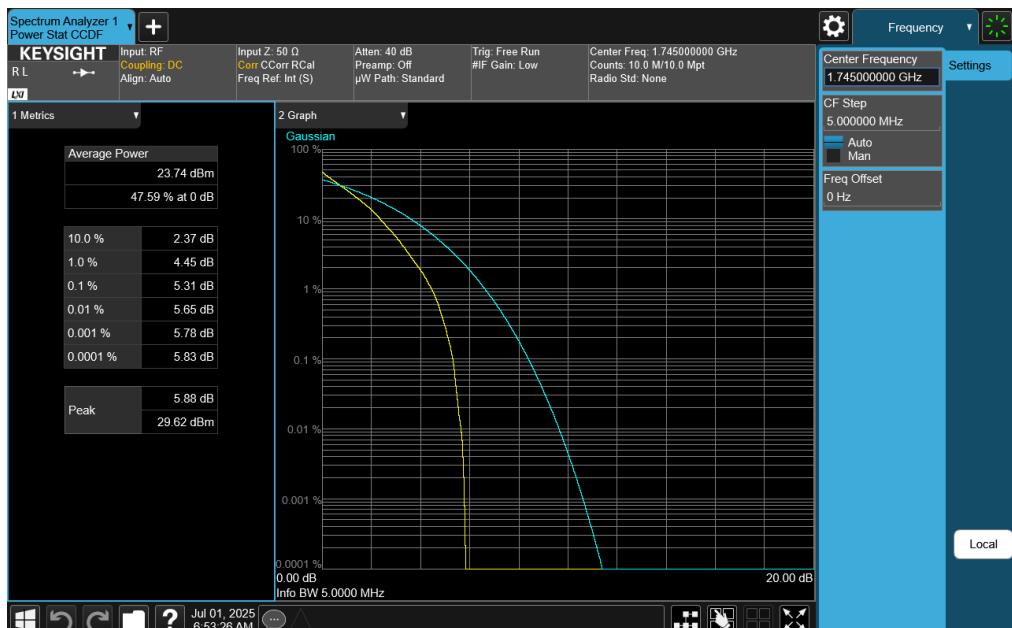
Plot 7-268. PAR Plot (LTE Band 4 - 20MHz 16-QAM - Full RB)

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 159 of 203	

## NR Band n66

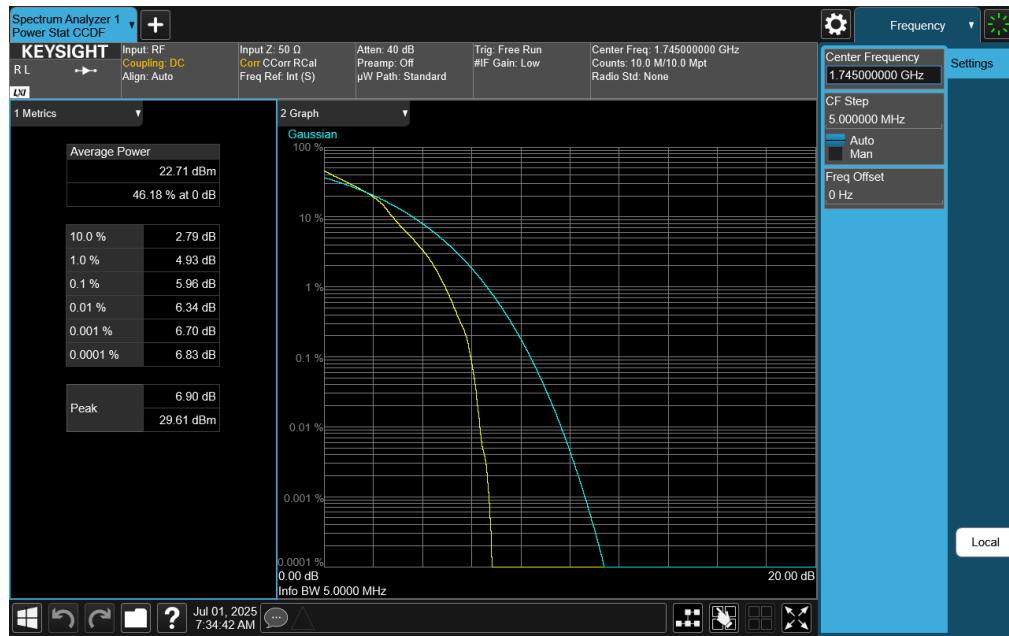


Plot 7-269. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM π/2 BPSK - Full RB)

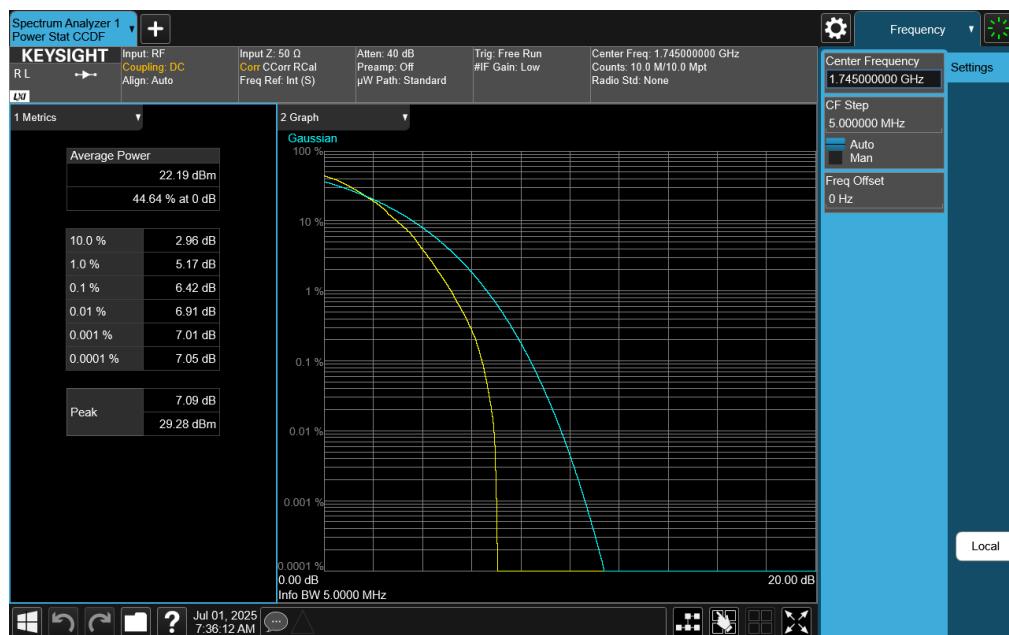


Plot 7-270. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM QPSK - Full RB)

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 160 of 203

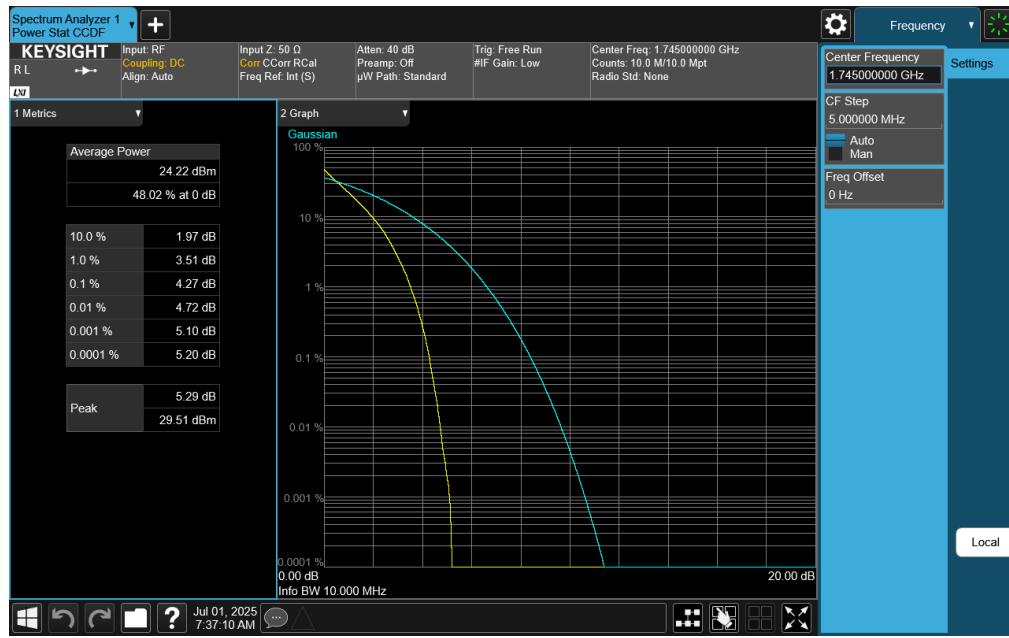


Plot 7-271. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM 16-QAM - Full RB)

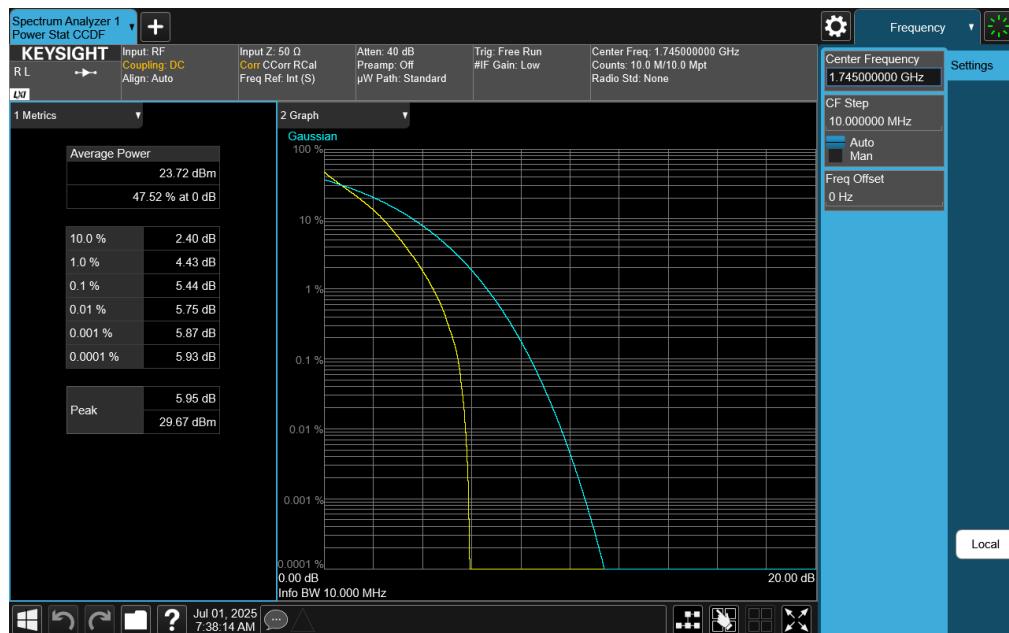


Plot 7-272. PAR Plot (NR Band n66 - 5.0MHz DFT-s-OFDM 64-QAM - Full RB)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 161 of 203

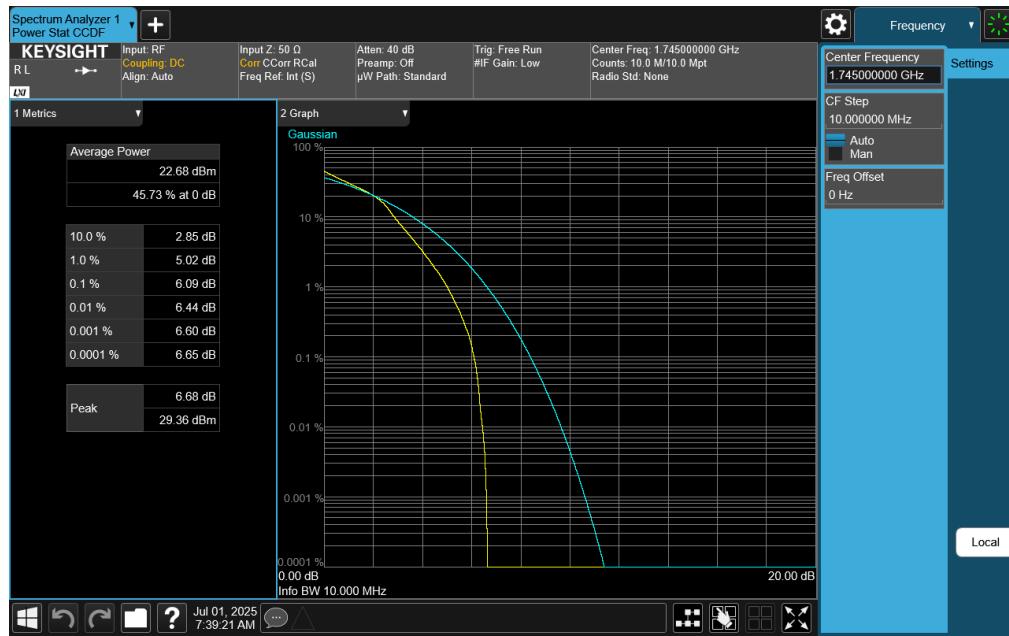


Plot 7-273. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

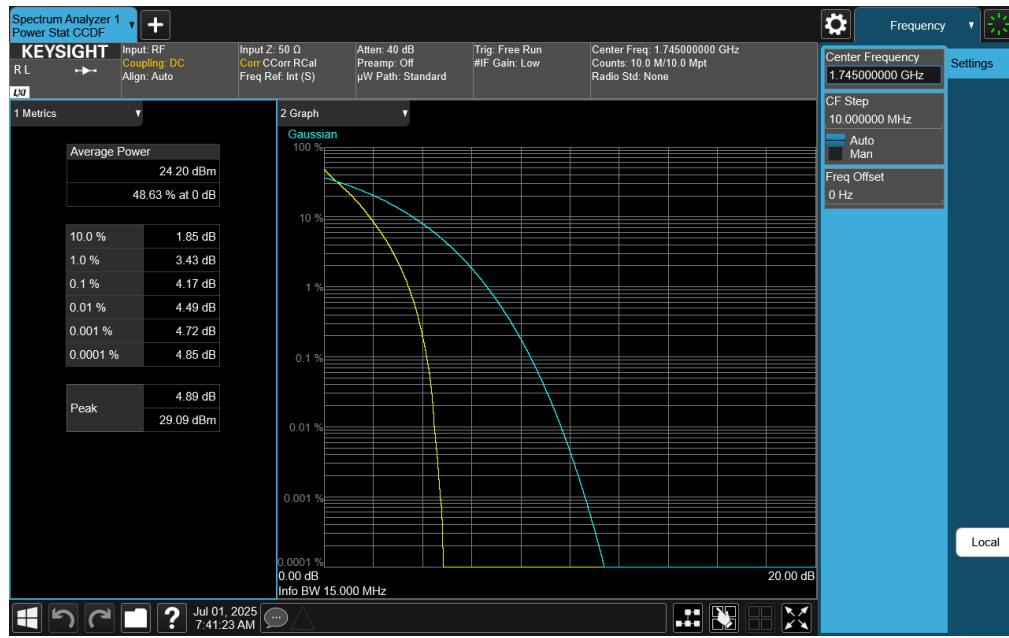


Plot 7-274. PAR Plot (NR Band n66 - 10.0MHz DFT-s-OFDM QPSK - Full RB)

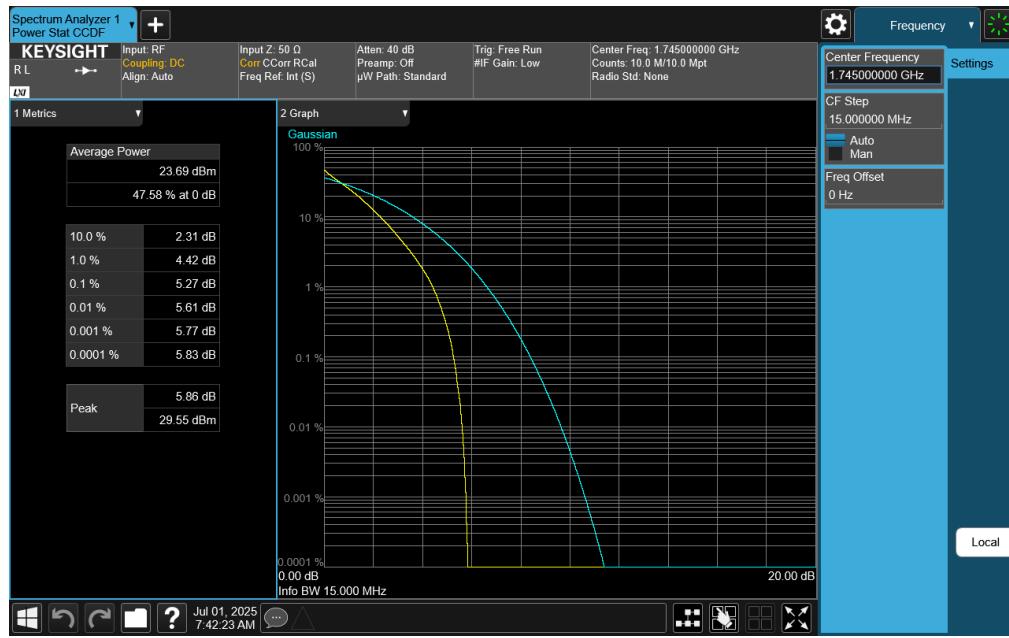
FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 162 of 203	



FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 163 of 203

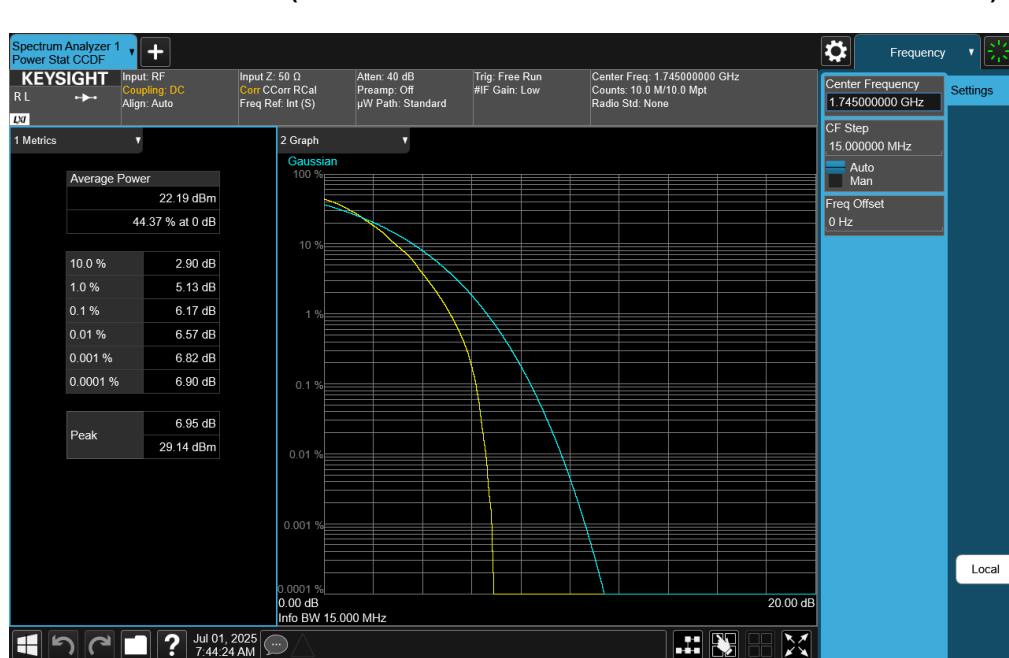
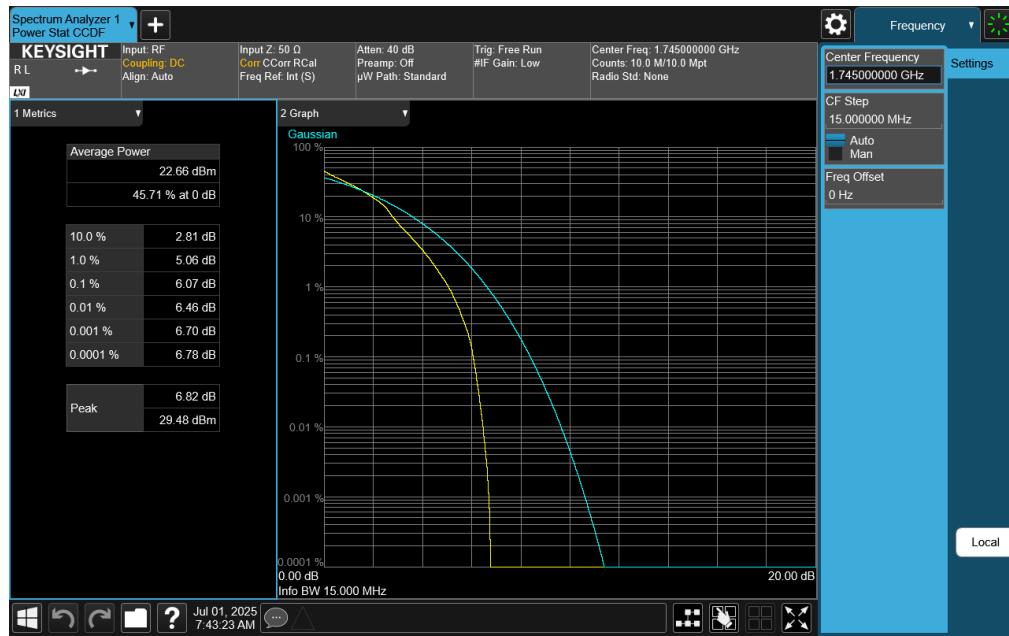


Plot 7-277. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

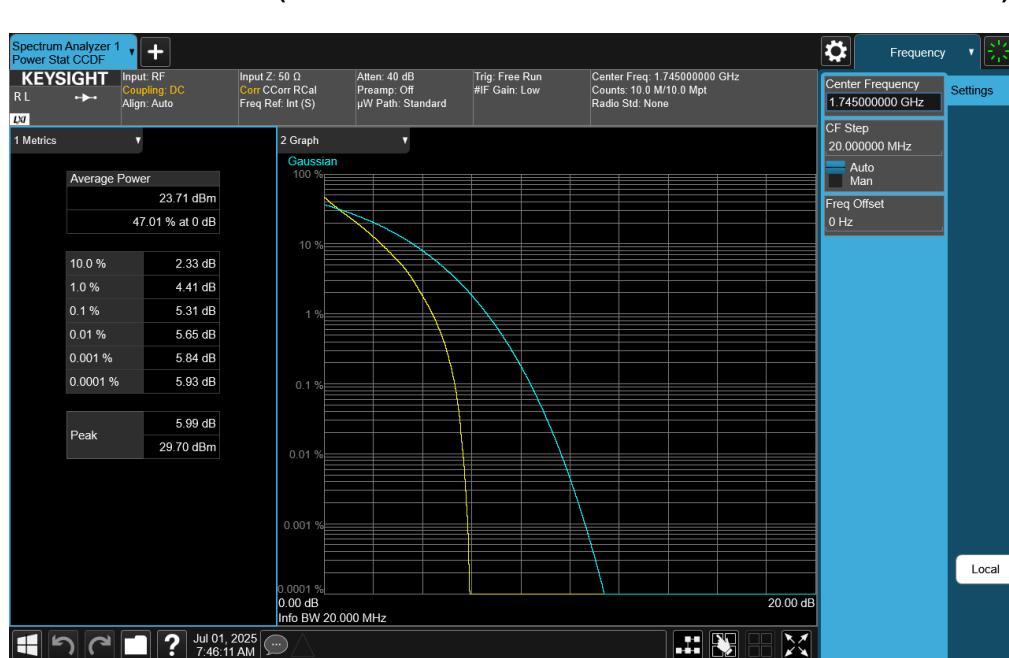
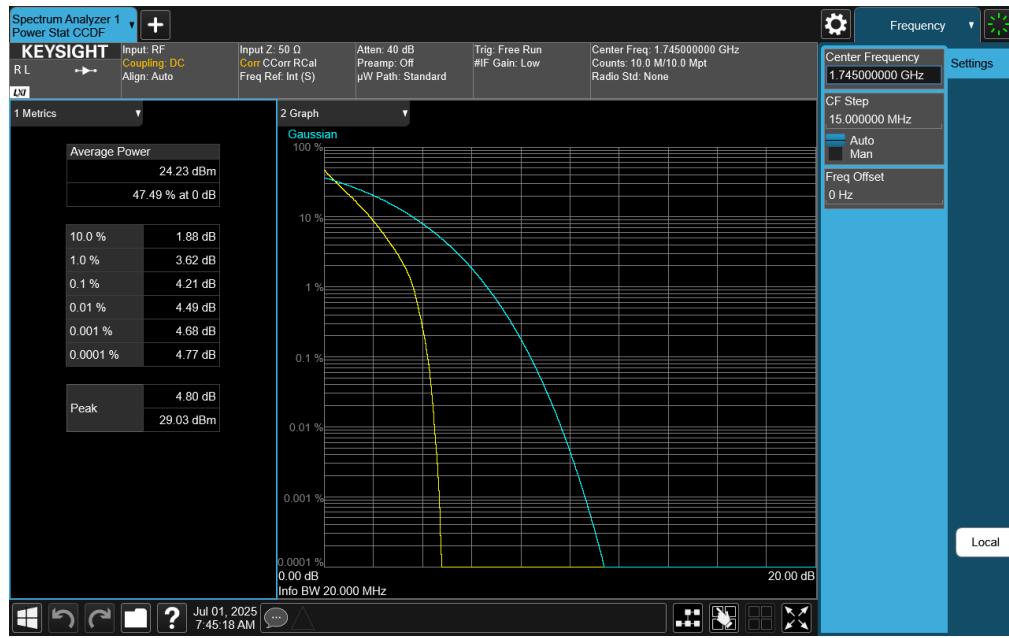


Plot 7-278. PAR Plot (NR Band n66 - 15.0MHz DFT-s-OFDM QPSK - Full RB)

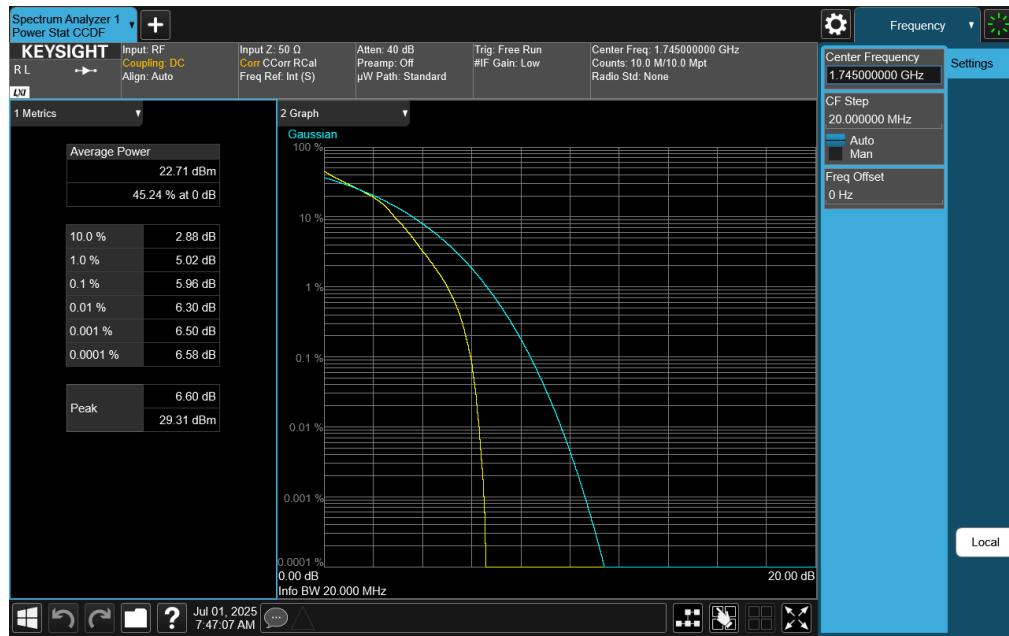
FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 164 of 203	



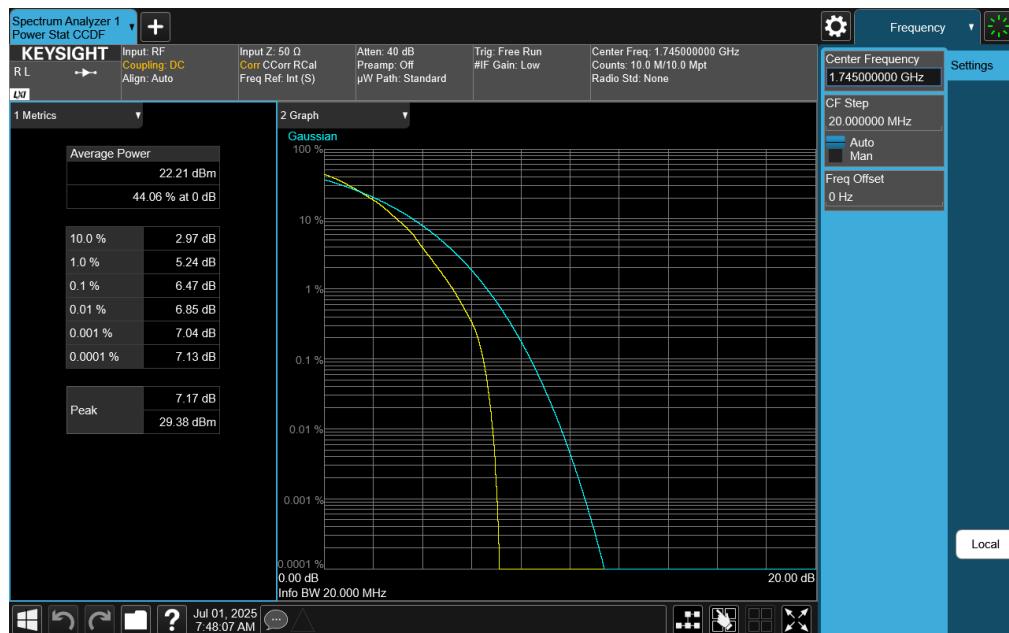
FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 165 of 203



FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 166 of 203



Plot 7-283. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM 16-QAM - Full RB)



Plot 7-284. PAR Plot (NR Band n66 - 20.0MHz DFT-s-OFDM 64-QAM - Full RB)

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 167 of 203	

## 7.6 Radiated Power (ERP/EIRP)

§27.50(b)(10), §27.50(c)(10), §27.50(d)(4)

### Test Overview

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are calculated by adding highest antenna gain to maximum measured conducted output power. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI C63.26-2015 – Section 5.2.5.5

### Test Settings

The relevant equation for determining the ERP or EIRP from the conducted RF output power measured is:

$$\text{ERP/EIRP} = \text{PMeas} - \text{LC} + \text{GT}$$

Where:

ERP/EIRP = Effective or Equivalent Isotropic Radiated Power, respectively (expressed in the same units as PMeas, typically dBW or dBm)

PMeas = measured transmitter output power or PSD, in dBW or dBm

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

### Test Setup

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

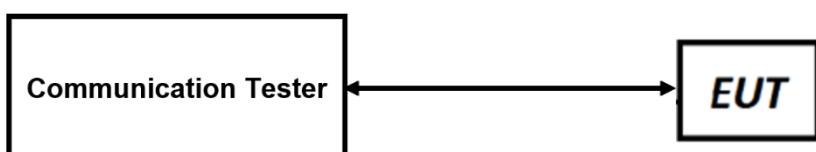


Figure 7-9. LTE ERP/EIRP Measurement Setup

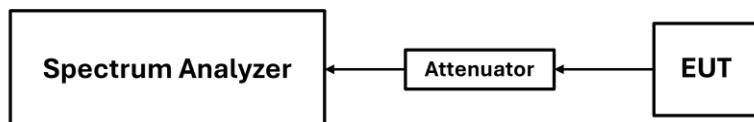


Figure 7-10. FR1 ERP/EIRP Measurement Setup

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 168 of 203

## Test Notes

1. The EUT was tested in all possible test configurations. The worst case emissions are reported with the EUT modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
2. This unit was tested with its standard battery.
3. The Level (dBm) readings in the table were taken with a correction table loaded into the base station simulator. The correction table was used to account for the signal attenuation in the connecting cable between the transmitter and antenna.
4. The Ant. Gains (GT) are listed in dBi.
5. 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: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 169 of 203

## 7.6.1 Antenna FCM – EIRP

### LTE Band 66

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	1710.7	-10.14	1 / 0	25.19	15.05	31.989	30.00	-14.95
		1745.0	-10.14	1 / 3	25.11	14.97	31.405	30.00	-15.03
		1779.3	-10.14	1 / 3	25.20	<b>15.06</b>	32.063	30.00	-14.94
	16-QAM	1710.7	-10.14	1 / 3	24.44	14.30	26.915	30.00	-15.70
3 MHz	QPSK	1711.5	-10.14	1 / 7	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 7	25.14	15.00	31.623	30.00	-15.00
		1778.5	-10.14	1 / 14	24.97	14.83	30.409	30.00	-15.17
	16-QAM	1711.5	-10.14	1 / 14	24.45	14.31	26.977	30.00	-15.69
5 MHz	QPSK	1712.5	-10.14	1 / 0	25.14	<b>15.00</b>	31.623	30.00	-15.00
		1745.0	-10.14	1 / 12	25.12	14.98	31.477	30.00	-15.02
		1777.5	-10.14	1 / 24	25.14	<b>15.00</b>	31.623	30.00	-15.00
	16-QAM	1712.5	-10.14	1 / 24	24.57	14.43	27.733	30.00	-15.57
10 MHz	QPSK	1715.0	-10.14	1 / 49	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 25	25.13	14.99	31.550	30.00	-15.01
		1775.0	-10.14	1 / 25	25.00	14.86	30.620	30.00	-15.14
	16-QAM	1715.0	-10.14	1 / 25	24.42	14.28	26.792	30.00	-15.72
15 MHz	QPSK	1717.5	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1772.5	-10.14	1 / 0	25.01	14.87	30.690	30.00	-15.13
	16-QAM	1717.5	-10.14	1 / 74	24.66	14.52	28.314	30.00	-15.48
20 MHz	QPSK	1720.0	-10.14	1 / 99	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1770.0	-10.14	1 / 0	25.05	14.91	30.974	30.00	-15.09
	16-QAM	1745.0	-10.14	1 / 50	24.48	14.34	27.164	30.00	-15.66

Table 7-2. Antenna FCM EIRP Data LTE Band 66

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 170 of 203	

**LTE Band 4**

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	1710.7	-10.14	1 / 5	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1732.5	-10.14	1 / 3	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1754.3	-10.14	1 / 3	25.20	<b>15.06</b>	32.063	30.00	-14.94
	16-QAM	1710.7	-10.14	1 / 3	24.48	14.34	27.164	30.00	-15.66
3 MHz	QPSK	1711.5	-10.14	1 / 14	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1732.5	-10.14	1 / 7	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1753.5	-10.14	1 / 14	25.02	14.88	30.761	30.00	-15.12
	16-QAM	1711.5	-10.14	1 / 14	24.47	14.33	27.102	30.00	-15.67
5 MHz	QPSK	1712.5	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1732.5	-10.14	1 / 12	25.18	15.04	31.915	30.00	-14.96
		1752.5	-10.14	1 / 12	25.14	15.00	31.623	30.00	-15.00
	16-QAM	1712.5	-10.14	1 / 24	24.65	14.51	28.249	30.00	-15.49
10 MHz	QPSK	1715.0	-10.14	1 / 25	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1732.5	-10.14	1 / 25	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1750.0	-10.14	1 / 25	25.00	14.86	30.620	30.00	-15.14
	16-QAM	1732.5	-10.14	1 / 0	24.44	14.30	26.915	30.00	-15.70
15 MHz	QPSK	1717.5	-10.14	1 / 37	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1732.5	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1747.5	-10.14	1 / 37	25.12	14.98	31.477	30.00	-15.02
	16-QAM	1717.5	-10.14	1 / 74	24.63	14.49	28.119	30.00	-15.51
20 MHz	QPSK	1720.0	-10.14	1 / 50	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1732.5	-10.14	1 / 50	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 0	25.10	14.96	31.333	30.00	-15.04
	16-QAM	1732.5	-10.14	1 / 0	24.62	14.48	28.054	30.00	-15.52

**Table 7-3. Antenna FCM EIRP Data LTE Band 4**

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT				Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch			

**NR Band n66**

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	1712.5	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 0	25.04	14.90	30.903	30.00	-15.10
		1777.5	-10.14	1 / 0	25.09	14.95	31.261	30.00	-15.05
	QPSK	1712.5	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 12	25.18	15.04	31.915	30.00	-14.96
		1777.5	-10.14	1 / 12	25.10	14.96	31.333	30.00	-15.04
	16-QAM	1745.0	-10.14	1 / 24	24.17	14.03	25.293	30.00	-15.97
		1745.0	-10.14	1 / 0	23.21	13.07	20.277	30.00	-16.93
10 MHz	π/2 BPSK	1715.0	-10.14	1 / 49	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 25	25.19	15.05	31.989	30.00	-14.95
		1775.0	-10.14	1 / 25	25.06	14.92	31.046	30.00	-15.08
	QPSK	1715.0	-10.14	1 / 49	25.10	14.96	31.333	30.00	-15.04
		1745.0	-10.14	1 / 25	25.07	14.93	31.117	30.00	-15.07
		1775.0	-10.14	1 / 49	25.04	14.90	30.903	30.00	-15.10
	16-QAM	1745.0	-10.14	1 / 0	24.22	14.08	25.586	30.00	-15.92
		1775.0	-10.14	1 / 49	23.22	13.08	20.324	30.00	-16.92
15 MHz	π/2 BPSK	1717.5	-10.14	1 / 37	25.08	14.94	31.189	30.00	-15.06
		1745.0	-10.14	1 / 37	24.91	14.77	29.992	30.00	-15.23
		1772.5	-10.14	1 / 74	24.95	14.81	30.269	30.00	-15.19
	QPSK	1717.5	-10.14	1 / 74	24.83	14.69	29.444	30.00	-15.31
		1745.0	-10.14	1 / 37	24.93	14.79	30.130	30.00	-15.21
		1772.5	-10.14	1 / 74	25.20	<b>15.06</b>	32.063	30.00	-14.94
	16-QAM	1745.0	-10.14	1 / 74	24.19	14.05	25.410	30.00	-15.95
		1717.5	-10.14	1 / 37	22.94	12.80	19.055	30.00	-17.20
20 MHz	π/2 BPSK	1720.0	-10.14	1 / 50	25.02	14.88	30.761	30.00	-15.12
		1745.0	-10.14	1 / 50	25.14	15.00	31.623	30.00	-15.00
		1770.0	-10.14	1 / 99	25.09	14.95	31.261	30.00	-15.05
	QPSK	1720.0	-10.14	1 / 0	25.20	<b>15.06</b>	32.063	30.00	-14.94
		1745.0	-10.14	1 / 0	25.19	15.05	31.989	30.00	-14.95
		1770.0	-10.14	1 / 0	25.05	14.91	30.974	30.00	-15.09
	16-QAM	1770.0	-10.14	1 / 50	24.25	14.11	25.763	30.00	-15.89
		1745.0	-10.14	1 / 99	23.18	13.04	20.137	30.00	-16.96

**Table 7-4. Antenna FCM EIRP Data NR Band n66**

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 172 of 203	

## 7.6.2 Antenna BCM – ERP

### LTE Band 71

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]
5 MHz	QPSK	665.5	-25.80	1 / 24	25.51	<b>-2.44</b>	0.570	34.77	-37.21
		680.5	-25.80	1 / 24	25.70	<b>-2.25</b>	0.596	34.77	-37.02
		695.5	-25.80	1 / 12	25.32	-2.63	0.546	34.77	-37.40
	16-QAM	680.5	-25.80	1 / 12	24.69	-3.26	0.472	34.77	-38.03
10 MHz	QPSK	668.0	-25.80	1 / 49	25.55	<b>-2.40</b>	0.575	34.77	-37.17
		680.5	-25.80	1 / 25	25.68	-2.27	0.593	34.77	-37.04
		693.0	-25.80	1 / 49	25.66	-2.29	0.590	34.77	-37.06
	16-QAM	668.0	-25.80	1 / 49	24.72	-3.23	0.475	34.77	-38.00
15 MHz	QPSK	670.5	-25.80	1 / 37	25.52	-2.43	0.571	34.77	-37.20
		680.5	-25.80	1 / 0	25.52	-2.43	0.571	34.77	-37.20
		690.5	-25.80	1 / 0	25.68	-2.27	0.593	34.77	-37.04
	16-QAM	680.5	-25.80	1 / 37	24.69	-3.26	0.472	34.77	-38.03
20 MHz	QPSK	673.0	-25.80	1 / 50	25.37	-2.58	0.552	34.77	-37.35
		680.5	-25.80	1 / 99	25.66	-2.29	0.590	34.77	-37.06
		688.0	-25.80	1 / 0	25.68	-2.27	0.593	34.77	-37.04
	16-QAM	688.0	-25.80	1 / 0	24.72	-3.23	0.475	34.77	-38.00

Table 7-5. Antenna BCM ERP Data LTE Band 71

### LTE Band 12

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	699.7	-24.30	1 / 0	25.65	<b>-0.80</b>	0.832	34.77	-35.57
		707.5	-24.30	1 / 3	25.70	<b>-0.75</b>	0.841	34.77	-35.52
		715.3	-24.30	1 / 0	25.42	-1.03	0.789	34.77	-35.80
	16-QAM	715.3	-24.30	1 / 5	24.65	-1.80	0.661	34.77	-36.57
3 MHz	QPSK	700.5	-24.30	1 / 14	25.60	<b>-0.85</b>	0.822	34.77	-35.62
		707.5	-24.30	1 / 7	25.33	-1.12	0.773	34.77	-35.89
		714.5	-24.30	1 / 0	25.53	-0.92	0.809	34.77	-35.69
	16-QAM	707.5	-24.30	1 / 0	24.72	-1.73	0.671	34.77	-36.50
5 MHz	QPSK	701.5	-24.30	1 / 0	25.43	-1.02	0.791	34.77	-35.79
		707.5	-24.30	1 / 0	25.70	<b>-0.75</b>	0.841	34.77	-35.52
		713.5	-24.30	1 / 12	25.61	-0.84	0.824	34.77	-35.61
	16-QAM	701.5	-24.30	1 / 24	24.68	-1.77	0.665	34.77	-36.54
10 MHz	QPSK	704.0	-24.30	1 / 49	25.66	-0.79	0.834	34.77	-35.56
		707.5	-24.30	1 / 49	25.70	<b>-0.75</b>	0.841	34.77	-35.52
		711.0	-24.30	1 / 49	25.67	-0.78	0.836	34.77	-35.55
	16-QAM	704.0	-24.30	1 / 0	24.72	-1.73	0.671	34.77	-36.50

Table 7-6. Antenna BCM ERP Data LTE Band 12

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT				Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch				

V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

## LTE Band 17

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]
5 MHz	QPSK	706.5	-24.30	1 / 24	25.64	<b>-0.81</b>	0.830	34.77	-35.58
		710.0	-24.30	1 / 24	25.68	<b>-0.77</b>	0.838	34.77	-35.54
		713.5	-24.30	1 / 24	25.40	-1.05	0.785	34.77	-35.82
10 MHz	16-QAM	713.5	-24.30	1 / 0	24.70	-1.75	0.668	34.77	-36.52
	QPSK	709.0	-24.30	1 / 49	25.65	-0.80	0.832	34.77	-35.57
		710.0	-24.30	1 / 0	25.39	-1.06	0.783	34.77	-35.83
	16-QAM	711.0	-24.30	1 / 49	25.70	<b>-0.75</b>	0.841	34.77	-35.52
	16-QAM	711.0	-24.30	1 / 25	24.72	-1.73	0.671	34.77	-36.50

Table 7-7. Antenna BCM ERP Data LTE Band 17

## LTE Band 13

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]
5 MHz	QPSK	779.5	-25.60	1 / 0	25.58	<b>-2.17</b>	0.607	34.77	-36.94
		782.0	-25.60	1 / 0	25.70	<b>-2.05</b>	0.624	34.77	-36.82
		784.5	-25.60	1 / 12	25.48	-2.27	0.593	34.77	-37.04
10 MHz	16-QAM	779.5	-25.60	1 / 12	24.71	-3.04	0.497	34.77	-37.81
	QPSK	782.0	-25.60	1 / 25	25.61	<b>-2.14</b>	0.611	34.77	-36.91
		782.0	-25.60	1 / 25	24.70	-3.05	0.495	34.77	-37.82

Table 7-8. Antenna BCM ERP Data LTE Band 13

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT				Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch			

V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

Page 174 of 203

**NR Band n71**

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]	
5 MHz	π/2 BPSK	665.5	-25.80	1 / 0	25.65	<b>-2.30</b>	0.589	34.77	-37.07	
		680.5	-25.80	1 / 24	25.70	<b>-2.25</b>	0.596	34.77	-37.02	
		695.5	-25.80	1 / 0	25.63	-2.32	0.586	34.77	-37.09	
	QPSK	665.5	-25.80	1 / 24	25.57	-2.38	0.578	34.77	-37.15	
		680.5	-25.80	1 / 12	25.58	-2.37	0.579	34.77	-37.14	
		695.5	-25.80	1 / 24	25.57	-2.38	0.578	34.77	-37.15	
	16-QAM	680.5	-25.80	1 / 12	24.68	-3.27	0.471	34.77	-38.04	
	64-QAM	665.5	-25.80	1 / 0	23.67	-4.28	0.373	34.77	-39.05	
	π/2 BPSK	668.0	-25.80	1 / 25	25.70	<b>-2.25</b>	0.596	34.77	-37.02	
		680.5	-25.80	1 / 0	25.68	-2.27	0.593	34.77	-37.04	
		693.0	-25.80	1 / 49	25.67	-2.28	0.592	34.77	-37.05	
10 MHz	QPSK	668.0	-25.80	1 / 25	25.51	-2.44	0.570	34.77	-37.21	
		680.5	-25.80	1 / 49	25.63	-2.32	0.586	34.77	-37.09	
		693.0	-25.80	1 / 0	25.36	-2.59	0.551	34.77	-37.36	
	16-QAM	680.5	-25.80	1 / 49	24.71	-3.24	0.474	34.77	-38.01	
	64-QAM	668.0	-25.80	1 / 0	23.57	-4.38	0.365	34.77	-39.15	
	π/2 BPSK	670.5	-25.80	1 / 0	25.60	-2.35	0.582	34.77	-37.12	
15 MHz		680.5	-25.80	1 / 37	25.69	-2.26	0.594	34.77	-37.03	
		690.5	-25.80	1 / 37	25.50	-2.45	0.569	34.77	-37.22	
QPSK	670.5	-25.80	1 / 0	25.67	-2.28	0.592	34.77	-37.05		
	680.5	-25.80	1 / 0	25.43	-2.52	0.560	34.77	-37.29		
	690.5	-25.80	1 / 0	25.70	<b>-2.25</b>	0.596	34.77	-37.02		
16-QAM	670.5	-25.80	1 / 37	24.71	-3.24	0.474	34.77	-38.01		
64-QAM	690.5	-25.80	1 / 37	23.72	-4.23	0.378	34.77	-39.00		
π/2 BPSK	673.0	-25.80	1 / 99	25.67	-2.28	0.592	34.77	-37.05		
	680.5	-25.80	1 / 50	25.48	-2.47	0.566	34.77	-37.24		
	688.0	-25.80	1 / 50	25.67	-2.28	0.592	34.77	-37.05		
20 MHz	QPSK	673.0	-25.80	1 / 50	25.66	-2.29	0.590	34.77	-37.06	
		680.5	-25.80	1 / 99	25.66	-2.29	0.590	34.77	-37.06	
		688.0	-25.80	1 / 50	25.70	<b>-2.25</b>	0.596	34.77	-37.02	
	16-QAM	673.0	-25.80	1 / 0	24.69	-3.26	0.472	34.77	-38.03	
	64-QAM	673.0	-25.80	1 / 0	23.70	-4.25	0.376	34.77	-39.02	

**Table 7-9. Antenna BCM ERP Data NR Band n71**

FCC ID: BCG-A3281	element	PART 27 MEASUREMENT REPORT				Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch				

**NR Band n12**

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [mW]	ERP Limit [dBm]	Margin [dB]	
5 MHz	π/2 BPSK	701.5	-24.30	1 / 23	25.52	<b>-0.93</b>	0.807	34.77	-35.70	
		707.5	-24.30	1 / 1	25.53	-0.92	0.809	34.77	-35.69	
		713.5	-24.30	1 / 1	25.70	<b>-0.75</b>	0.841	34.77	-35.52	
	QPSK	701.5	-24.30	1 / 23	25.58	-0.87	0.818	34.77	-35.64	
		707.5	-24.30	1 / 23	25.69	-0.76	0.839	34.77	-35.53	
		713.5	-24.30	1 / 1	25.49	-0.96	0.802	34.77	-35.73	
	16-QAM	707.5	-24.30	1 / 23	24.58	-1.87	0.650	34.77	-36.64	
	64-QAM	701.5	-24.30	1 / 23	23.70	-2.75	0.531	34.77	-37.52	
	π/2 BPSK	704.0	-24.30	1 / 1	25.41	-1.04	0.787	34.77	-35.81	
		707.5	-24.30	1 / 26	25.67	-0.78	0.836	34.77	-35.55	
		711.0	-24.30	1 / 1	25.61	-0.84	0.824	34.77	-35.61	
10 MHz	QPSK	704.0	-24.30	1 / 50	25.70	<b>-0.75</b>	0.841	34.77	-35.52	
		707.5	-24.30	1 / 26	25.53	-0.92	0.809	34.77	-35.69	
		711.0	-24.30	1 / 26	25.54	-0.91	0.811	34.77	-35.68	
	16-QAM	707.5	-24.30	1 / 26	24.72	-1.73	0.671	34.77	-36.50	
	64-QAM	707.5	-24.30	1 / 1	23.69	-2.76	0.530	34.77	-37.53	
	π/2 BPSK	706.5	-24.30	1 / 77	25.61	<b>-0.84</b>	0.824	34.77	-35.61	
15 MHz		707.5	-24.30	1 / 77	25.64	-0.81	0.830	34.77	-35.58	
		708.5	-24.30	1 / 39	25.54	-0.91	0.811	34.77	-35.68	
QPSK	706.5	-24.30	1 / 39	25.60	-0.85	0.822	34.77	-35.62		
	707.5	-24.30	1 / 77	25.70	<b>-0.75</b>	0.841	34.77	-35.52		
	708.5	-24.30	1 / 77	25.61	-0.84	0.824	34.77	-35.61		
16-QAM	706.5	-24.30	1 / 77	24.65	-1.80	0.661	34.77	-36.57		
64-QAM	708.5	-24.30	1 / 77	23.70	-2.75	0.531	34.77	-37.52		

**Table 7-10. Antenna BCM ERP Data NR Band n12**

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT				Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch			

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

V2.2 09/07/2023

## 7.7 Radiated Spurious Emissions

§2.1053, §27.53(f)

### 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 broadband hybrid antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed while the EUT is operating at maximum power and at the appropriate frequencies.

### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

ANSI C63.26 2015, TIA-603-E-2016 – Section 2.2.12

### Test Settings

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

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 177 of 203

## Test Setup

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

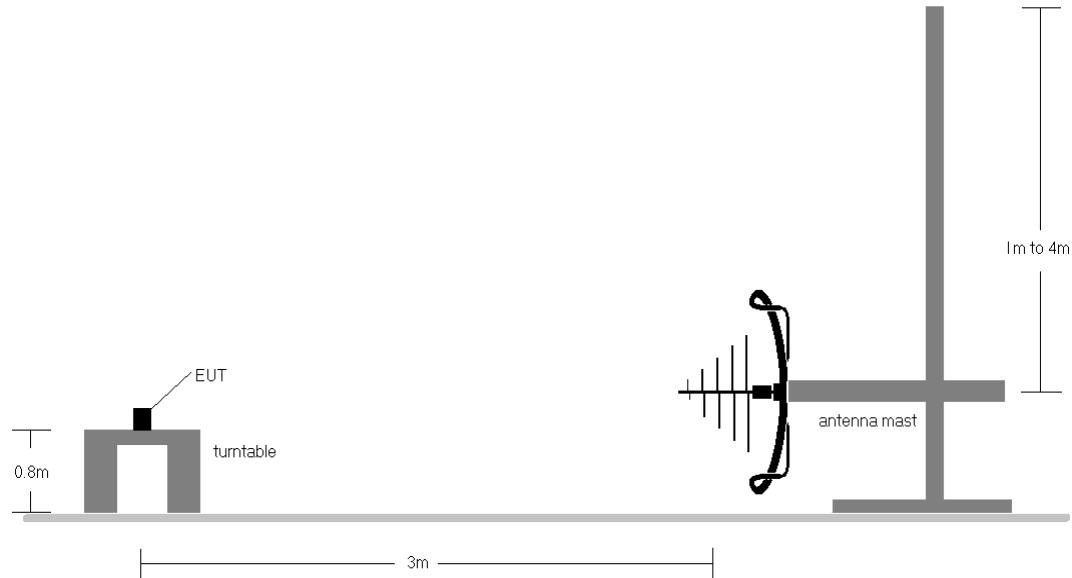


Figure 7-11. Test Instrument & Measurement Setup < 1GHz

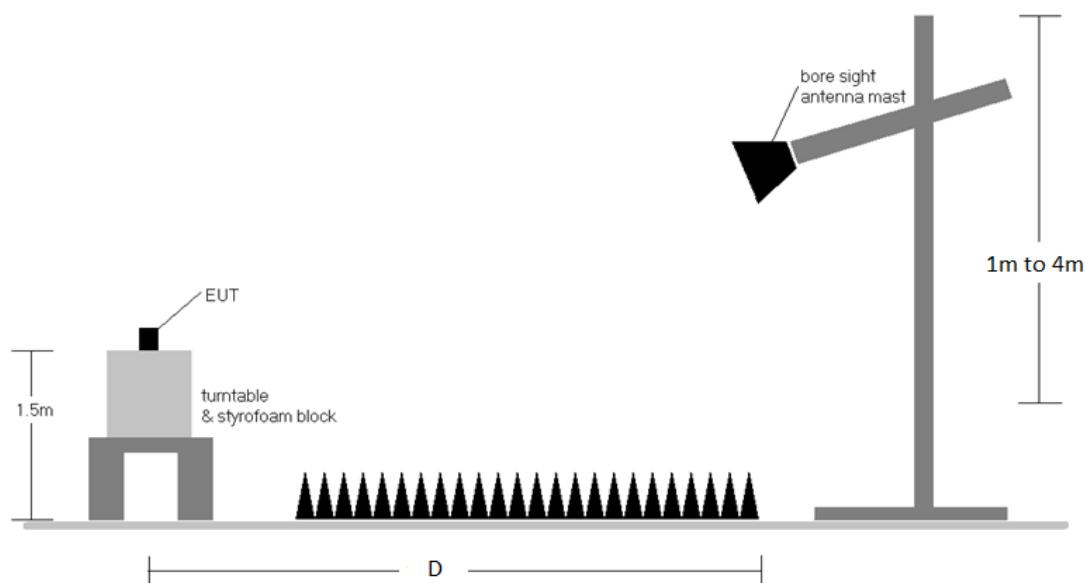


Figure 7-12. Test Instrument & Measurement Setup > 1GHz

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 178 of 203

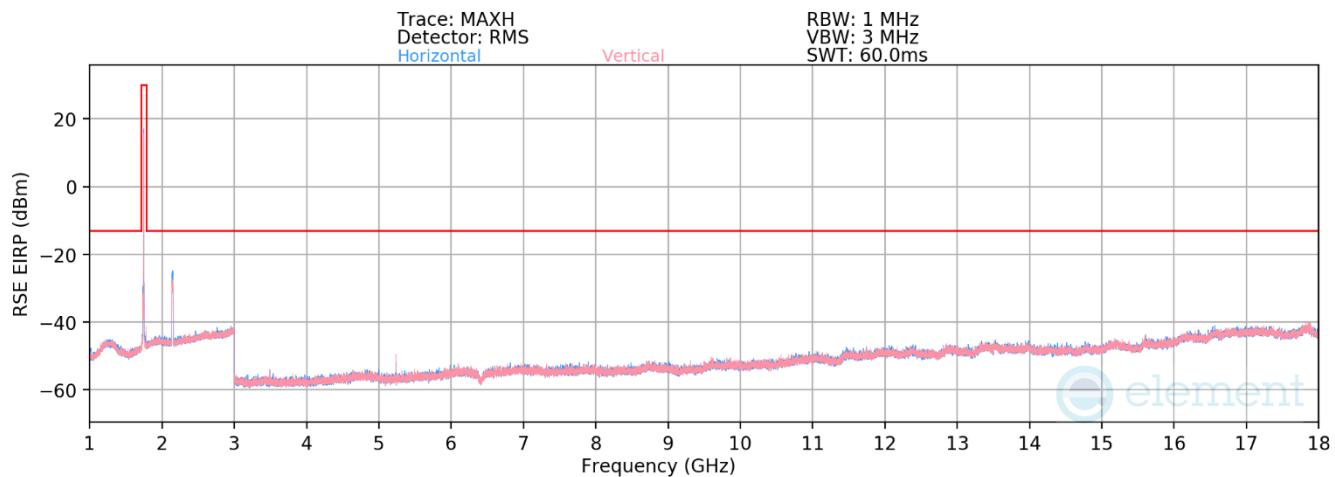
## Test Notes

1. Field strengths are calculated using the Measurement quantity conversions in KDB 971168 v03r01 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. D is the measurement test distance and emissions 1-18GHz were measured at a 3 meters test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
6. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
7. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 179 of 203

## 7.7.1 Antenna FCM – Radiated Spurious Emission Measurement

### LTE Band 66/4



Plot 7-285. Antenna FCM Radiated Spurious Emission above 1GHz (LTE Band 66/4)

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 180 of 203

Bandwidth (MHz):	20
Frequency (MHz):	1720.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.0	V	-	-	-78.27	3.85	32.58	-62.68	-13.00	-49.68
5160.0	V	387	28	-76.03	5.93	36.91	-58.35	-13.00	-45.35
6880.0	V	-	-	-80.27	8.77	35.49	-59.76	-13.00	-46.76
8600.0	V	-	-	-79.50	8.61	36.11	-59.15	-13.00	-46.15
10320.0	V	-	-	-81.67	12.29	37.62	-57.64	-13.00	-44.64

**Table 7-11. Antenna FCM Radiated Spurious Data (LTE Band 66/4 – Low Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1745.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	V	294	196	-74.37	3.37	36.00	-59.26	-13.00	-46.26
5235.0	V	396	10	-70.38	5.85	42.47	-52.79	-13.00	-39.79
6980.0	V	-	-	-80.19	8.80	35.61	-59.65	-13.00	-46.65
8725.0	V	-	-	-79.42	9.14	36.72	-58.53	-13.00	-45.53
10470.0	V	-	-	-81.68	12.08	37.41	-57.85	-13.00	-44.85

**Table 7-12. Antenna FCM Radiated Spurious Data (LTE Band 66/4 – Mid Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1770.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.0	V	-	-	-77.87	3.00	32.14	-63.12	-13.00	-50.12
5310.0	V	384	16	-77.86	3.00	32.14	-63.11	-13.00	-50.11
7080.0	H	-	-	-72.13	5.85	40.72	-54.54	-13.00	-41.54
8850.0	V	-	-	-80.16	8.75	35.59	-59.67	-13.00	-46.67
10620.0	V	-	-	-80.08	9.37	36.29	-58.97	-13.00	-45.97

**Table 7-13. Antenna FCM Radiated Spurious Data (LTE Band 66/4 – High Channel)**

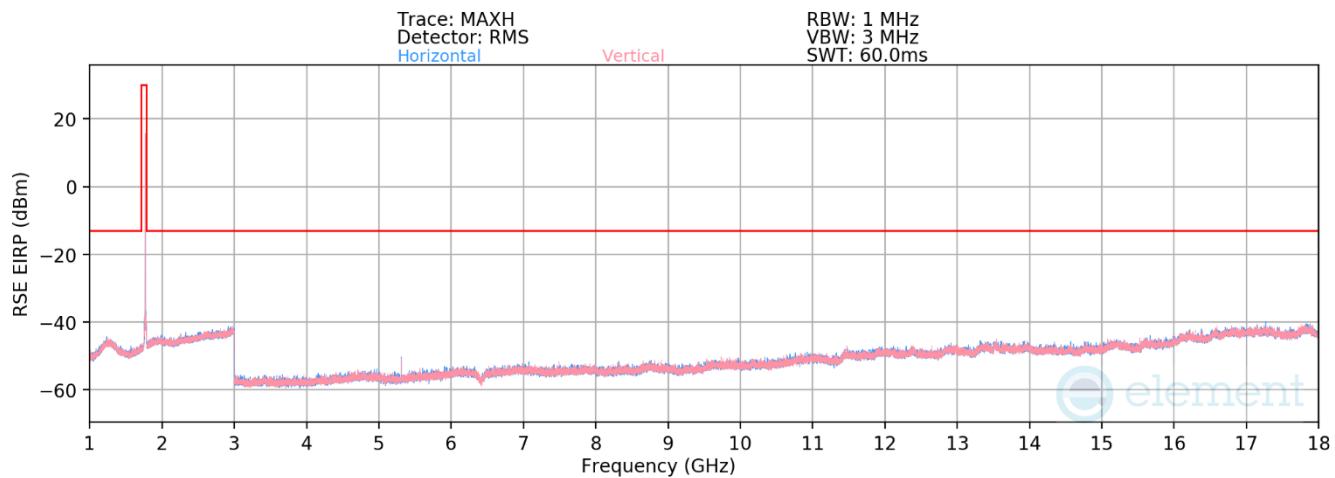
FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch					

V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

Page 181 of 203

## NR Band n66



Plot 7-286. Antenna FCM Radiated Spurious Emission above 1GHz (NR Band n66)

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 182 of 203

Bandwidth (MHz):	20
Frequency (MHz):	1720.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.0	H	-	-	-78.19	4.10	32.90	-62.35	-13.00	-49.35
5160.0	H	364	75	-76.42	5.93	36.52	-58.74	-13.00	-45.74
6880.0	H	-	-	-80.31	8.77	35.45	-59.80	-13.00	-46.80
8600.0	H	-	-	-79.45	8.61	36.16	-59.09	-13.00	-46.09
10320.0	V	-	-	-81.37	12.29	37.91	-57.35	-13.00	-44.35

**Table 7-14. Antenna FCM Radiated Spurious Data (NR Band n66 – Low Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1745.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.0	V	240	188	-75.47	3.37	34.90	-60.36	-13.00	-47.36
5235.0	H	107	326	-71.25	5.85	41.60	-53.66	-13.00	-40.66
6980.0	V	-	-	-79.99	8.34	35.36	-59.90	-13.00	-46.90
8725.0	H	-	-	-79.44	9.14	36.71	-58.55	-13.00	-45.55
10470.0	V	-	-	-81.62	12.08	37.47	-57.79	-13.00	-44.79

**Table 7-15. Antenna FCM Radiated Spurious Data (NR Band n66 – Mid Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1770.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.0	V	-	-	-77.73	2.93	32.20	-63.05	-13.00	-50.05
5310.0	V	384	17	-70.38	5.85	42.47	-52.79	-13.00	-39.79
7080.0	V	-	-	-79.98	8.75	35.77	-59.49	-13.00	-46.49
8850.0	V	-	-	-79.75	9.07	36.32	-58.94	-13.00	-45.94
10620.0	V	-	-	-81.30	12.38	38.08	-57.18	-13.00	-44.18

**Table 7-16. Antenna FCM Radiated Spurious Data (NR Band n66 – High Channel)**

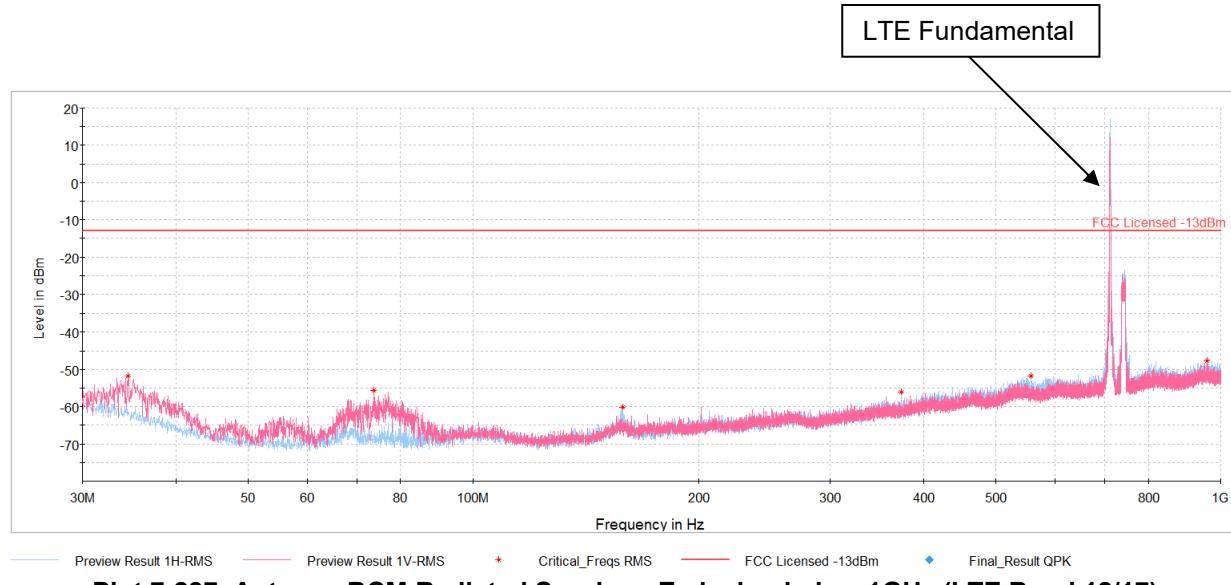
FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch					

V2.2 09/07/2023

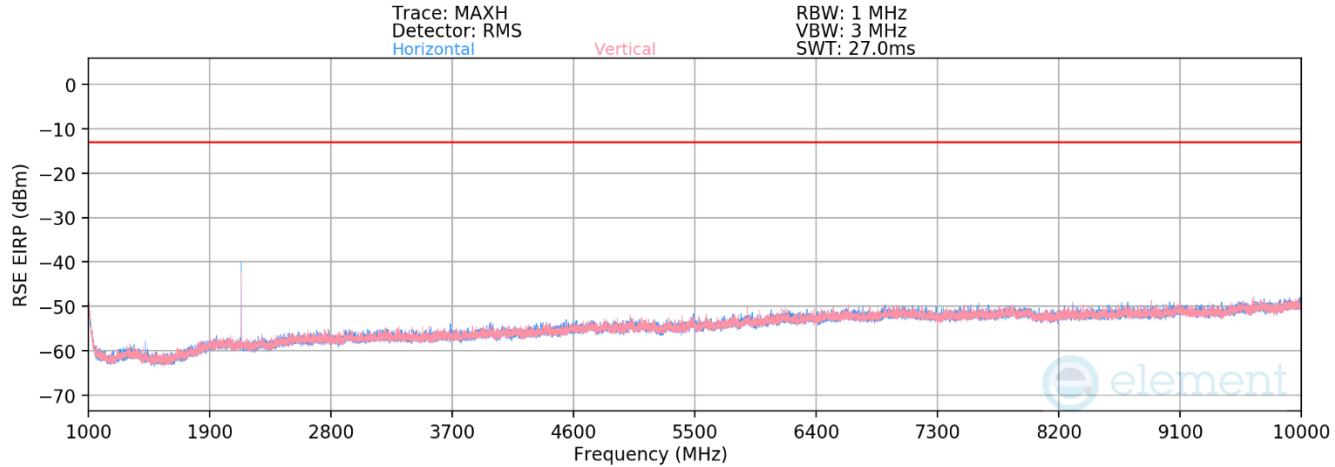
Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from Element Materials Technology. If you have any questions about this or have an enquiry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

## 7.7.2 Antenna BCM – Radiated Spurious Emission Measurement

### LTE Band 12/17



Plot 7-287. Antenna BCM Radiated Spurious Emission below 1GHz (LTE Band 12/17)



Plot 7-288. Antenna BCM Radiated Spurious Emission above 1GHz (LTE Band 12/17)

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 184 of 203	

Bandwidth (MHz):	10
Frequency (MHz):	704.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1408.0	H	152	294	-74.14	-1.98	30.88	-64.38	-13.00	-51.38
2112.0	V	380	300	-60.49	1.45	47.96	-47.30	-13.00	-34.30
2816.0	V	-	-	-78.53	3.25	31.72	-63.53	-13.00	-50.53
3520.0	V	-	-	-79.18	4.87	32.69	-62.57	-13.00	-49.57
4224.0	V	-	-	-80.44	6.58	33.13	-62.12	-13.00	-49.12

**Table 7-17. Antenna BCM Radiated Spurious Data (LTE Band 12/17 – Low Channel)**

Bandwidth (MHz):	10
Frequency (MHz):	707.5
RB / Offset:	1 / 25

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]
1415.0	H	213	293	-76.22	-1.98	28.80	-66.46	-13.00	-53.46
2122.5	H	245	279	-59.35	1.42	49.07	-46.19	-13.00	-33.19
2830.0	H	-	-	-78.59	3.26	31.67	-63.59	-13.00	-50.59
3537.5	H	-	-	-79.28	4.79	32.51	-62.75	-13.00	-49.75
4245.0	H	-	-	-80.38	6.49	33.12	-62.14	-13.00	-49.14

**Table 7-18. Antenna BCM Radiated Spurious Data (LTE Band 12/17 – Mid Channel)**

Bandwidth (MHz):	10
Frequency (MHz):	711.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.0	H	101	342	-75.55	-1.98	29.47	-65.79	-13.00	-52.79
2133.0	H	105	51	-56.16	1.42	52.25	-43.00	-13.00	-30.00
2844.0	H	-	-	-78.56	3.25	31.69	-63.57	-13.00	-50.57
3555.0	H	-	-	-79.17	4.73	32.56	-62.70	-13.00	-49.70
4266.0	H	-	-	-80.34	6.46	33.13	-62.13	-13.00	-49.13

**Table 7-19. Antenna BCM Radiated Spurious Data (LTE Band 12/17 – High Channel)**

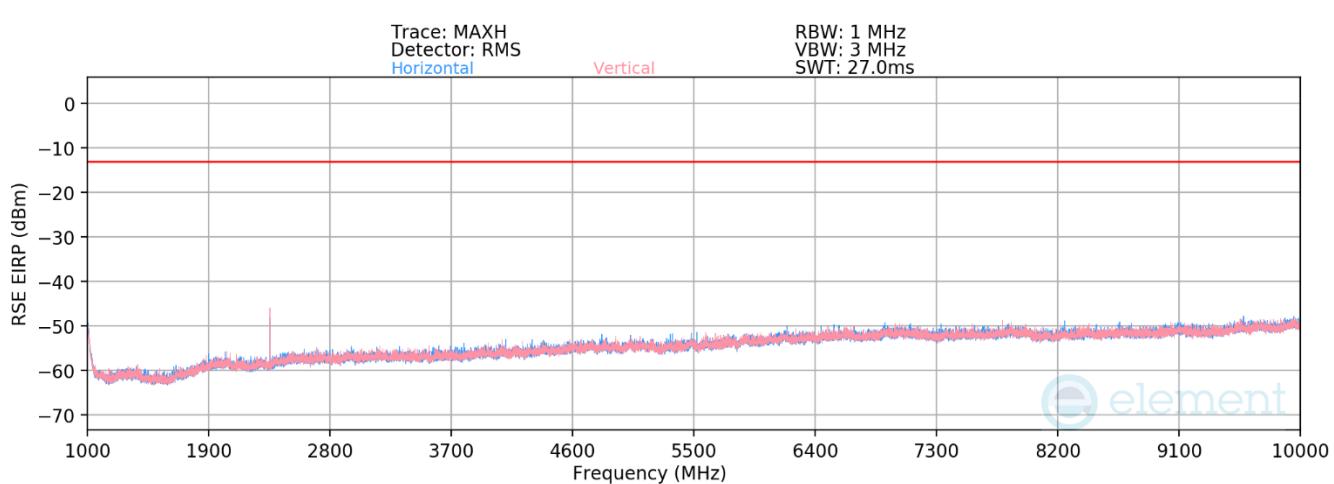
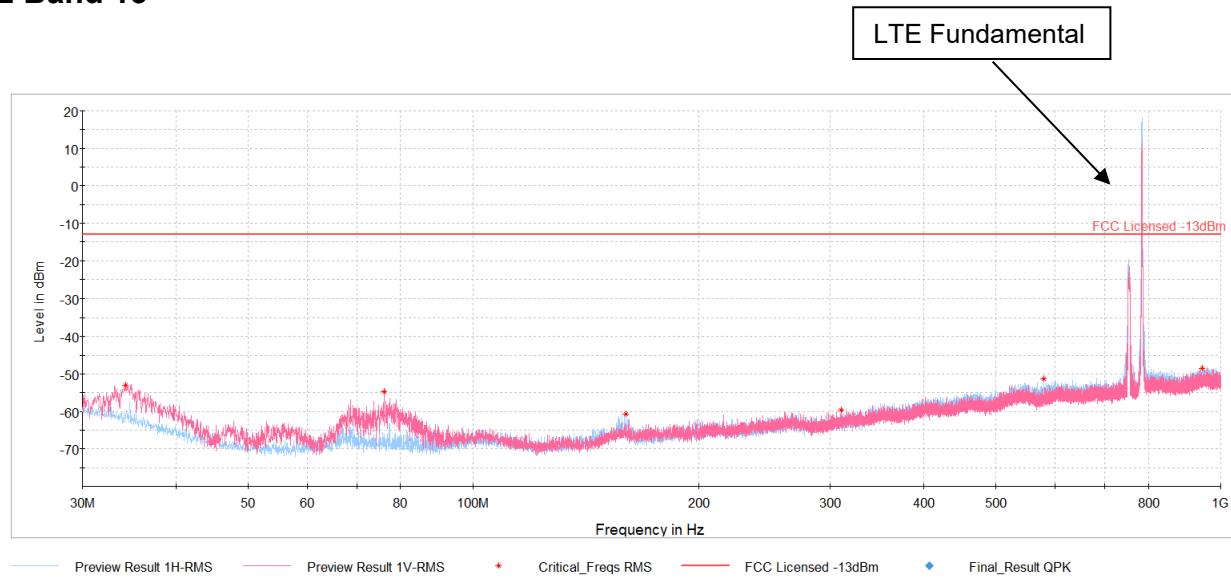
FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch					

V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

Page 185 of 203

## LTE Band 13



FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 186 of 203

Bandwidth (MHz):	5
Frequency (MHz):	779.5
RB / Offset:	1 / 12

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]
1559.0	V	-	-	-77.17	-2.44	27.38	-67.87	-40.00	-27.87
2338.5	V	261	206	-66.09	1.75	42.66	-52.60	-13.00	-39.60
3118.0	V	-	-	-78.92	4.33	32.42	-62.84	-13.00	-49.84
3897.5	V	-	-	-79.58	5.76	33.18	-62.08	-13.00	-49.08
4677.0	V	-	-	-80.33	7.46	34.12	-61.14	-13.00	-48.14

**Table 7-20. Antenna BCM Radiated Spurious Data (LTE Band 13 – Low Channel)**

Bandwidth (MHz):	10
Frequency (MHz):	782.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1564.0	V	-	-	-77.29	-2.36	27.35	-67.91	-40.00	-27.91
2346.0	V	264	199	-67.65	1.71	41.05	-54.21	-13.00	-41.21
3128.0	V	-	-	-78.62	4.12	32.50	-62.76	-13.00	-49.76
3910.0	V	-	-	-79.78	5.88	33.09	-62.16	-13.00	-49.16
4692.0	V	-	-	-80.43	7.69	34.27	-60.99	-13.00	-47.99

**Table 7-21. Antenna BCM Radiated Spurious Data (LTE Band 13 – Mid Channel)**

Bandwidth (MHz):	5
Frequency (MHz):	784.5
RB / Offset:	1 / 12

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]
1569.0	H	113	197	-77.07	-2.36	27.56	-67.69	-40.00	-27.69
2353.5	V	262	292	-67.15	1.63	41.48	-53.77	-13.00	-40.77
3922.5	V	-	-	-78.85	4.18	32.33	-62.93	-13.00	-49.93
4707.0	V	-	-	-80.04	6.10	33.06	-62.20	-13.00	-49.20
5491.5	V	-	-	-80.46	7.77	34.31	-60.95	-13.00	-47.95

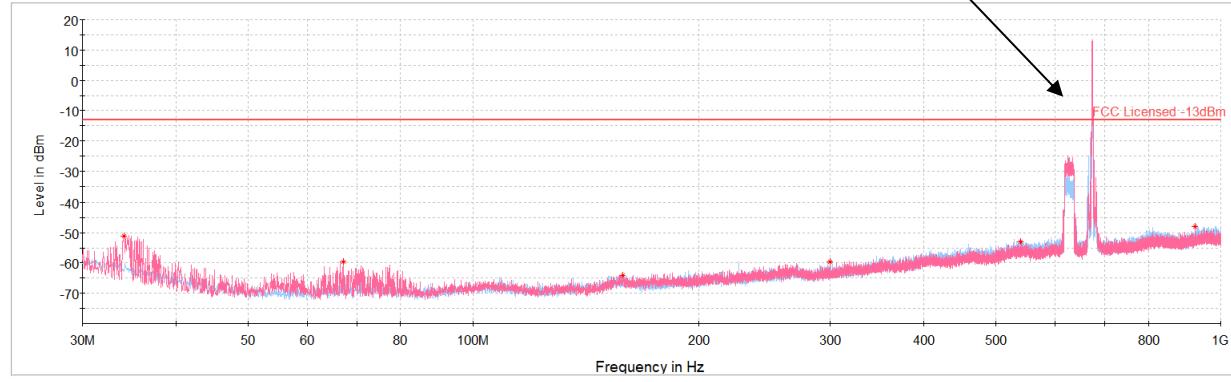
**Table 7-22. Antenna BCM Radiated Spurious Data (LTE Band 13 – High Channel)**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch					

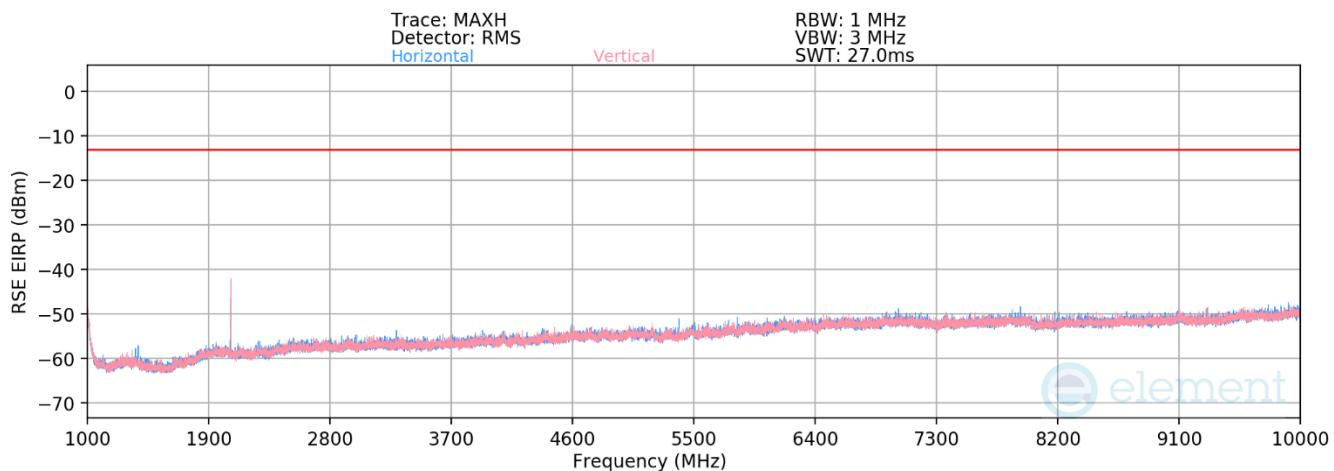
V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

## LTE Band 71



**Plot 7-291. Antenna BCM Radiated Spurious Emission below 1GHz (LTE Band 71)**



**Plot 7-292. Antenna BCM Radiated Spurious Emission above 1GHz (LTE Band 71)**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 188 of 203

Bandwidth (MHz):	20
Frequency (MHz):	673.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	H	158	291	-74.39	-1.07	31.55	-63.71	-13.00	-50.71
2019.0	H	136	351	-65.27	1.63	43.36	-47.62	-13.00	-34.62
2692.0	H	-	-	-78.44	3.27	31.83	-63.43	-13.00	-50.43
3365.0	H	-	-	-79.36	4.64	32.28	-62.97	-13.00	-49.97
4038.0	H	-	-	-80.04	6.11	33.06	-62.19	-13.00	-49.19

**Table 7-23. Antenna BCM Radiated Spurious Data (LTE Band 71 – Low Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	680.5
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]
1361.0	H	138	275	-74.57	-1.25	31.18	-64.08	-13.00	-51.08
2041.5	V	365	10	-66.01	1.83	42.82	-52.44	-13.00	-39.44
2722.0	V	-	-	-78.38	3.27	31.89	-63.37	-13.00	-50.37
3402.5	V	-	-	-79.02	4.57	32.55	-62.70	-13.00	-49.70
4083.0	V	-	-	-79.90	6.52	33.62	-61.64	-13.00	-48.64

**Table 7-24. Antenna BCM Radiated Spurious Data (LTE Band 71 – Mid Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	688.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	H	214	302	-75.42	-1.23	30.35	-64.91	-13.00	-51.91
2064.0	V	234	284	-64.75	1.65	43.90	-51.36	-13.00	-38.36
2752.0	V	-	-	-78.32	3.35	32.03	-63.23	-13.00	-50.23
3440.0	V	-	-	-79.18	4.55	32.37	-62.89	-13.00	-49.89
4128.0	V	-	-	-80.05	6.18	33.12	-62.13	-13.00	-49.13

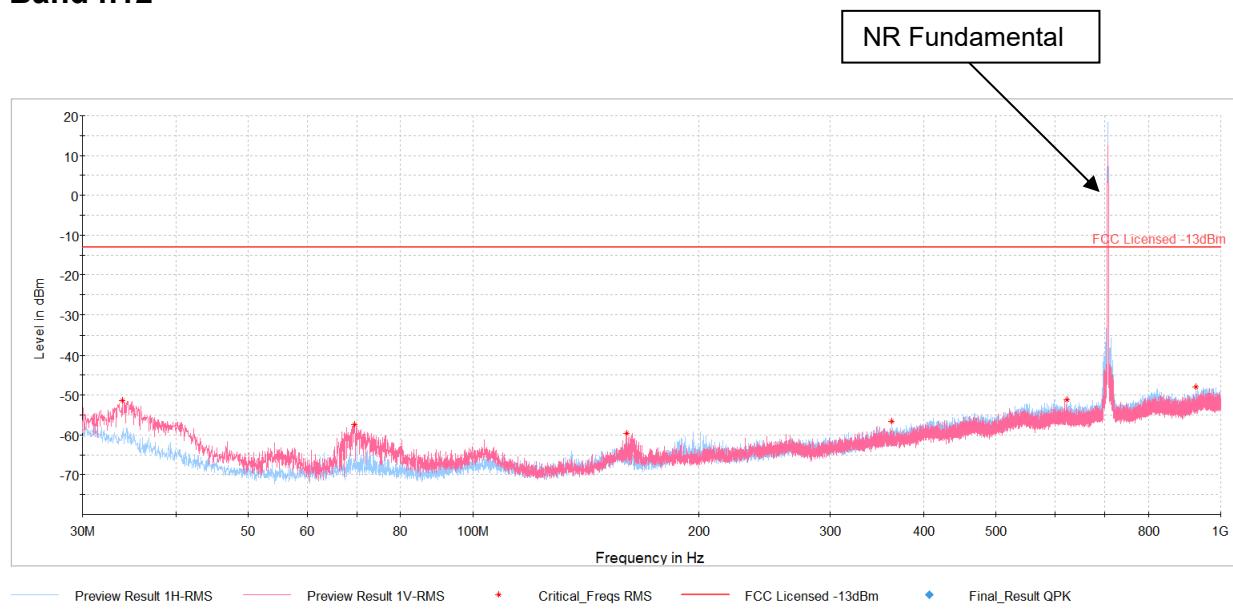
**Table 7-25. Antenna BCM Radiated Spurious Data (LTE Band 71 – High Channel)**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch					

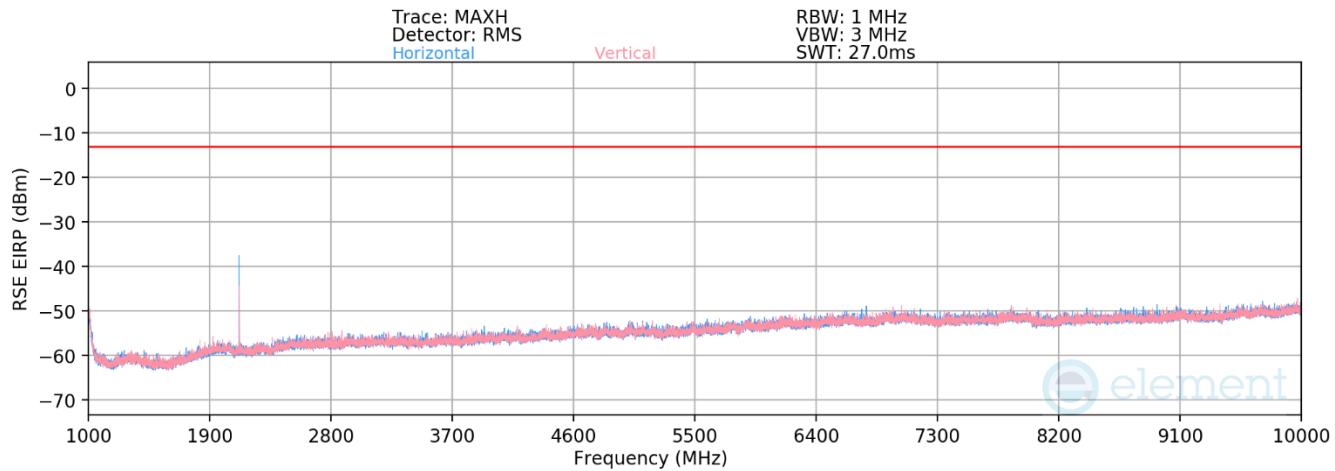
V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

## NR Band n12



**Plot 7-293. Antenna BCM Radiated Spurious Emission below 1GHz (NR Band n12)**



**Plot 7-294. Antenna BCM Radiated Spurious Emission above 1GHz (NR Band n12)**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 190 of 203	

Bandwidth (MHz):	15
Frequency (MHz):	706.5
RB / Offset:	1 / 37

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]
1413.0	H	103	305	-75.99	-1.98	29.04	-66.22	-13.00	-53.22
2119.5	H	121	360	-56.73	1.45	51.72	-43.54	-13.00	-30.54
2826.0	H	-	-	-78.36	3.25	31.89	-63.37	-13.00	-50.37
3532.5	H	-	-	-79.36	4.87	32.51	-62.74	-13.00	-49.74
4239.0	H	-	-	-80.19	6.27	33.09	-62.17	-13.00	-49.17

**Table 7-26. Antenna BCM Radiated Spurious Data (NR Band n12 – Low Channel)**

Bandwidth (MHz):	15
Frequency (MHz):	707.5
RB / Offset:	1 / 37

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]
1415.0	H	146	304	-73.04	-1.98	31.98	-63.28	-13.00	-50.28
2122.5	H	115	356	-61.96	1.45	46.48	-48.77	-13.00	-35.77
2830.0	H	-	-	-78.61	3.27	31.65	-63.60	-13.00	-50.60
3537.5	H	-	-	-79.69	4.81	32.12	-63.14	-13.00	-50.14
4245.0	H	-	-	-80.08	6.40	33.32	-61.93	-13.00	-48.93

**Table 7-27. Antenna BCM Radiated Spurious Data (NR Band n12 – Mid Channel)**

Bandwidth (MHz):	15
Frequency (MHz):	708.5
RB / Offset:	1 / 37

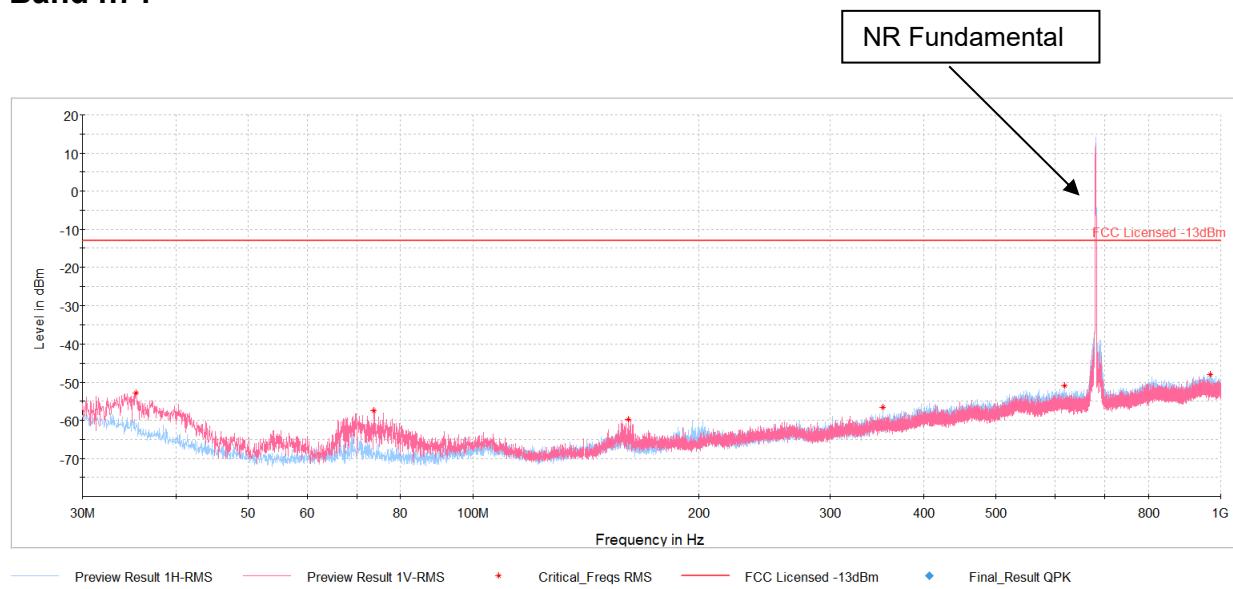
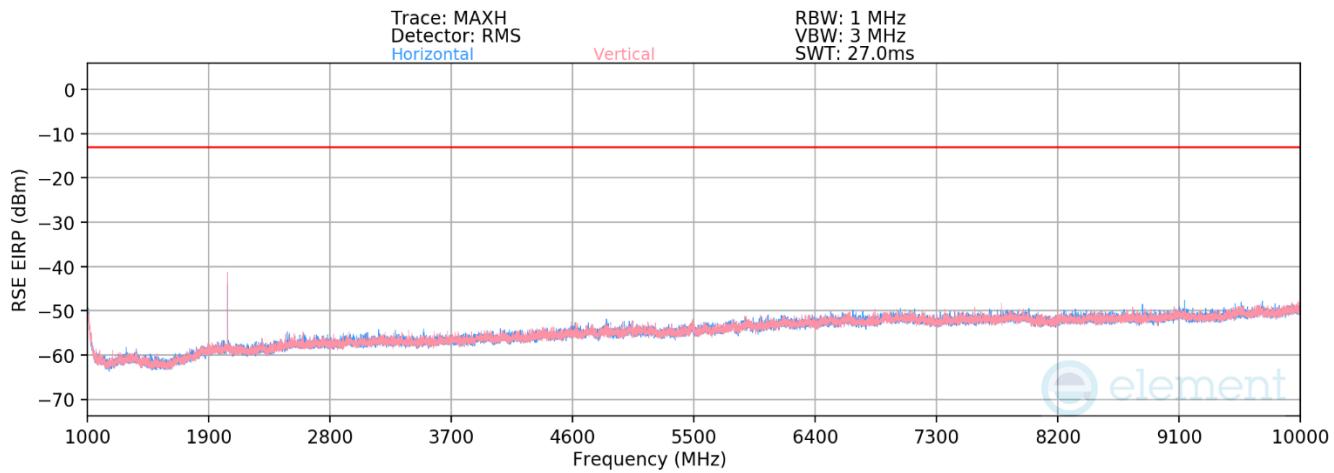
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1417.0	H	114	296	-73.22	-1.98	31.80	-63.46	-13.00	-50.46
2125.5	V	140	115	-58.74	1.42	49.67	-45.58	-13.00	-32.58
2834.0	H	-	-	-78.50	3.25	31.76	-63.50	-13.00	-50.50
3542.5	H	-	-	-79.66	4.87	32.22	-63.04	-13.00	-50.04
4251.0	H	-	-	-80.22	6.32	33.10	-62.16	-13.00	-49.16

**Table 7-28. Antenna BCM Radiated Spurious Data (NR Band n12 – High Channel)**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch					

V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

**NR Band n71**

**Plot 7-295. Antenna BCM Radiated Spurious Emission below 1GHz (NR Band n71)**

**Plot 7-296. Antenna BCM Radiated Spurious Emission above 1GHz (NR Band n71)**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 192 of 203	

Bandwidth (MHz):	20
Frequency (MHz):	673.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.0	H	156	325	-73.53	-1.07	32.40	-62.86	-13.00	-49.86
2019.0	H	119	10	-64.67	1.63	43.96	-51.30	-13.00	-38.30
2692.0	V	-	-	-78.23	3.27	32.05	-63.21	-13.00	-50.21
3365.0	H	-	-	-79.15	4.50	32.35	-62.90	-13.00	-49.90
4038.0	V	-	-	-79.99	6.11	33.12	-62.14	-13.00	-49.14

**Table 7-29. Antenna BCM Radiated Spurious Data (NR Band n71 – Low Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	680.5
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]
1361.0	H	155	309	-75.89	-1.25	29.86	-65.40	-13.00	-52.40
2041.5	H	358	18	-60.60	1.83	48.23	-47.03	-13.00	-34.03
2722.0	H	-	-	-78.45	3.27	31.82	-63.44	-13.00	-50.44
3402.5	H	-	-	-79.34	4.55	32.20	-63.05	-13.00	-50.05
4083.0	H	-	-	-79.47	6.11	33.63	-61.62	-13.00	-48.62

**Table 7-30. Antenna BCM Radiated Spurious Data (NR Band n71 – Mid Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	688.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.0	H	115	273	-74.77	-1.23	31.01	-64.25	-13.00	-51.25
2064.0	H	144	185	-72.37	1.65	36.28	-58.98	-13.00	-45.98
2752.0	V	-	-	-78.27	3.17	31.90	-63.36	-13.00	-50.36
3440.0	V	-	-	-79.16	4.55	32.39	-62.87	-13.00	-49.87
4128.0	H	-	-	-79.97	6.18	33.21	-62.05	-13.00	-49.05

**Table 7-31. Antenna BCM Radiated Spurious Data (NR Band n71 – High Channel)**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch					

V2.2 09/07/2023

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 Materials Technology. If you have any questions about this or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact [ct.info@element.com](mailto:ct.info@element.com).

## 7.8 Frequency Stability / Temperature Variation

§2.1053, §27.53

### Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015 and TIA-603-E-2016. The frequency stability of the transmitter is measured by:

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

***For Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.***

### Test Procedure Used

ANSI C63.26-2015

TIA-603-E-2016

### Test Settings

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

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 194 of 203

## Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber. For LTE testing, in addition, the EUT was connected to a communication tester via an attenuated RF coupler.

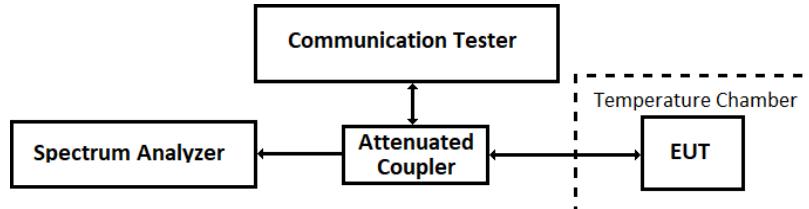


Figure 7-13. LTE Test Instrument & Measurement Setup

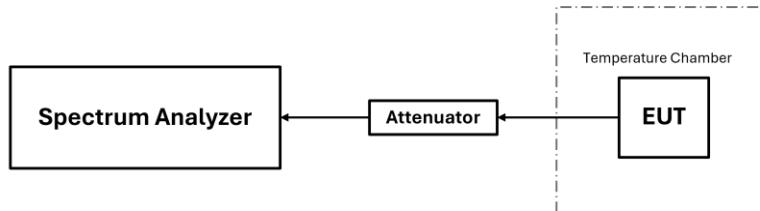


Figure 7-14. FR1 Test Instrument & Measurement Setup

## Test Notes

None

FCC ID: BCG-A3281	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 195 of 203

**Frequency Stability / Temperature Variation**

<b>LTE Band 66/4</b>				
		Operating Band Lower Boundary (GHz)	1.710	
		Ref. Voltage (VDC):	3.80	
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp (°C)</b>	<b>Measured Freq. (GHz)</b>	<b>Freq. Delta from Operating Range (GHz)</b>
100 %	3.80	- 30	1.71092340	-0.00092340
		- 20	1.71082630	-0.00082630
		- 10	1.71057980	-0.00057980
		0	1.71047480	-0.00047480
		+ 10	1.71011860	-0.00011860
		+ 20 (Ref)	1.71042490	-0.00042490
		+ 30	1.71090730	-0.00090730
		+ 40	1.71023980	-0.00023980
		+ 50	1.71035680	-0.00035680
		Battery Endpoint	3.40	+ 20
			1.71014090	-0.00014090

**Table 7-32. LTE Band 66/4 Lower Boundary Frequency Stability Data**

<b>LTE Band 66/4</b>				
		Operating Band Upper Boundary (GHz)	1.780	
		Ref. Voltage (VDC):	3.80	
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp (°C)</b>	<b>Measured Freq. (GHz)</b>	<b>Freq. Delta from Operating Range (GHz)</b>
100 %	3.80	- 30	1.77950150	-0.00049850
		- 20	1.77932420	-0.00067580
		- 10	1.77955280	-0.00044720
		0	1.77906360	-0.00093640
		+ 10	1.77975010	-0.00024990
		+ 20 (Ref)	1.77995520	-0.00004480
		+ 30	1.77970620	-0.00029380
		+ 40	1.77949740	-0.00050260
		+ 50	1.77910100	-0.00089900
		Battery Endpoint	3.40	+ 20
			1.77986380	-0.00013620

**Table 7-33. LTE Band 66/4 Upper Boundary Frequency Stability Data**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 196 of 203	

**Frequency Stability / Temperature Variation**

<b>LTE Band 71</b>				
		Operating Band Lower Boundary (GHz)	0.663	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.66377920	-0.00077920
		- 20	0.66358100	-0.00058100
		- 10	0.66347250	-0.00047250
		0	0.66372570	-0.00072570
		+ 10	0.66399060	-0.00099060
		+ 20 (Ref)	0.66312490	-0.00012490
		+ 30	0.66324440	-0.00024440
		+ 40	0.66322840	-0.00022840
		+ 50	0.66343670	-0.00043670
		Battery Endpoint	0.66337320	-0.00037320

**Table 7-34. LTE Band 71 Lower Boundary Frequency Stability Data**

<b>LTE Band 71</b>				
		Operating Band Upper Boundary (GHz)	0.698	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.69710160	-0.00089840
		- 20	0.69780890	-0.00019110
		- 10	0.69715670	-0.00084330
		0	0.69774370	-0.00025630
		+ 10	0.69747860	-0.00052140
		+ 20 (Ref)	0.69759460	-0.00040540
		+ 30	0.69779870	-0.00020130
		+ 40	0.69726380	-0.00073620
		+ 50	0.69736330	-0.00063670
		Battery Endpoint	0.69746740	-0.00053260

**Table 7-35. LTE Band 71 Upper Boundary Frequency Stability Data**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 197 of 203

**Frequency Stability / Temperature Variation**

<b>LTE Band 12/17</b>				
		Operating Band Lower Boundary (GHz)	0.699	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.69920370	-0.00120370
		- 20	0.69914140	-0.00114140
		- 10	0.69950280	-0.00150280
		0	0.69916630	-0.00116630
		+ 10	0.69916990	-0.00116990
		+ 20 (Ref)	0.69993610	-0.00193610
		+ 30	0.69904860	-0.00104860
		+ 40	0.69950790	-0.00150790
		+ 50	0.69921690	-0.00121690
		Battery Endpoint	0.69960030	-0.00160030

**Table 7-36. LTE Band 12/17 Lower Boundary Frequency Stability Data**

<b>LTE Band 12/17</b>				
		Operating Band Upper Boundary (GHz)	0.716	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.71531150	-0.00068850
		- 20	0.71580650	-0.00019350
		- 10	0.71567880	-0.00032120
		0	0.71561840	-0.00038160
		+ 10	0.71555240	-0.00044760
		+ 20 (Ref)	0.71577850	-0.00022150
		+ 30	0.71556360	-0.00043640
		+ 40	0.71566510	-0.00033490
		+ 50	0.71522180	-0.00077820
		Battery Endpoint	0.71544270	-0.00055730

**Table 7-37. LTE Band 12/17 Upper Boundary Frequency Stability Data**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 198 of 203

**Frequency Stability / Temperature Variation**

<b>LTE Band 13</b>				
		Operating Band Lower Boundary (GHz)	0.777	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.77795320	-0.00095320
		- 20	0.77758220	-0.00058220
		- 10	0.77772280	-0.00072280
		0	0.77790510	-0.00090510
		+ 10	0.77735660	-0.00035660
		+ 20 (Ref)	0.77725730	-0.00025730
		+ 30	0.77782800	-0.00082800
		+ 40	0.77737310	-0.00037310
		+ 50	0.77742670	-0.00042670
		Battery Endpoint	0.77740360	-0.00040360

**Table 7-38. LTE Band 13 Lower Boundary Frequency Stability Data**

<b>LTE Band 13</b>				
		Operating Band Upper Boundary (GHz)	0.787	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.78679090	-0.00020910
		- 20	0.78681020	-0.00018980
		- 10	0.78641750	-0.00058250
		0	0.78683460	-0.00016540
		+ 10	0.78639800	-0.00060200
		+ 20 (Ref)	0.78663500	-0.00036500
		+ 30	0.78694080	-0.00005920
		+ 40	0.78675730	-0.00024270
		+ 50	0.78623090	-0.00076910
		Battery Endpoint	0.78639980	-0.00060020

**Table 7-39. LTE Band 13 Upper Boundary Frequency Stability Data**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 199 of 203

**Frequency Stability / Temperature Variation**

<b>NR Band n66</b>				
		Operating Band Lower Boundary (GHz)	1.710	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	1.71033580	-0.00033580
		- 20	1.71083250	-0.00083250
		- 10	1.71064540	-0.00064540
		0	1.71098760	-0.00098760
		+ 10	1.71036820	-0.00036820
		+ 20 (Ref)	1.71056760	-0.00056760
		+ 30	1.71025710	-0.00025710
		+ 40	1.71072440	-0.00072440
		+ 50	1.71054630	-0.00054630
		Battery Endpoint	3.40	+ 20
			1.71024250	-0.00024250

**Table 7-40. NR Band n66 Lower Boundary Frequency Stability Data**

<b>NR Band n66</b>				
		Operating Band Upper Boundary (GHz)	1.780	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	1.77935560	-0.00064440
		- 20	1.77974430	-0.00025570
		- 10	1.77937390	-0.00062610
		0	1.77950510	-0.00049490
		+ 10	1.77953060	-0.00046940
		+ 20 (Ref)	1.77934980	-0.00065020
		+ 30	1.77968400	-0.00031600
		+ 40	1.77975610	-0.00024390
		+ 50	1.77932900	-0.00067100
		Battery Endpoint	3.40	+ 20
			1.77969930	-0.00030070

**Table 7-41. NR Band n66 Upper Boundary Frequency Stability Data**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 200 of 203

**Frequency Stability / Temperature Variation**

<b>NR Band n71</b>				
		Operating Band Lower Boundary (GHz)	0.663	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.66347520	-0.00047520
		- 20	0.66338280	-0.00038280
		- 10	0.66348470	-0.00048470
		0	0.66341410	-0.00041410
		+ 10	0.66337960	-0.00037960
		+ 20 (Ref)	0.66312250	-0.00012250
		+ 30	0.66384310	-0.00084310
		+ 40	0.66383480	-0.00083480
		+ 50	0.66320800	-0.00020800
		Battery Endpoint	0.66377000	-0.00077000

**Table 7-42. NR Band n71 Lower Boundary Frequency Stability Data**

<b>NR Band n71</b>				
		Operating Band Upper Boundary (GHz)	0.698	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.69768700	-0.00031300
		- 20	0.69759630	-0.00040370
		- 10	0.69771990	-0.00028010
		0	0.69701160	-0.00098840
		+ 10	0.69753770	-0.00046230
		+ 20 (Ref)	0.69721430	-0.00078570
		+ 30	0.69733610	-0.00066390
		+ 40	0.69734660	-0.00065340
		+ 50	0.69799610	-0.00000390
		Battery Endpoint	0.69729050	-0.00070950

**Table 7-43. NR Band n71 Upper Boundary Frequency Stability Data**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 201 of 203

**Frequency Stability / Temperature Variation**

<b>NR Band n12</b>				
		Operating Band Lower Boundary (GHz)	0.699	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.69987490	-0.00087490
		- 20	0.69987480	-0.00087480
		- 10	0.69935010	-0.00035010
		0	0.69961160	-0.00061160
		+ 10	0.69980730	-0.00080730
		+ 20 (Ref)	0.69947400	-0.00047400
		+ 30	0.69928600	-0.00028600
		+ 40	0.69952510	-0.00052510
		+ 50	0.69970640	-0.00070640
Battery Endpoint	3.40	+ 20	0.69988600	-0.00088600

**Table 7-44. NR Band n12 Lower Boundary Frequency Stability Data**

<b>NR Band n12</b>				
		Operating Band Upper Boundary (GHz)	0.716	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	0.71533160	-0.00066840
		- 20	0.71559420	-0.00040580
		- 10	0.71526410	-0.00073590
		0	0.71530760	-0.00069240
		+ 10	0.71530920	-0.00069080
		+ 20 (Ref)	0.71521920	-0.00078080
		+ 30	0.71512080	-0.00087920
		+ 40	0.71546790	-0.00053210
		+ 50	0.71535160	-0.00064840
Battery Endpoint	3.40	+ 20	0.71597900	-0.00002100

**Table 7-45. NR Band n12 Upper Boundary Frequency Stability Data**

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 202 of 203

## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Apple Watch FCC ID: BCG-A3281** complies with all the requirements of Part 27 of the FCC rules.

FCC ID: BCG-A3281	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-05.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 203 of 203