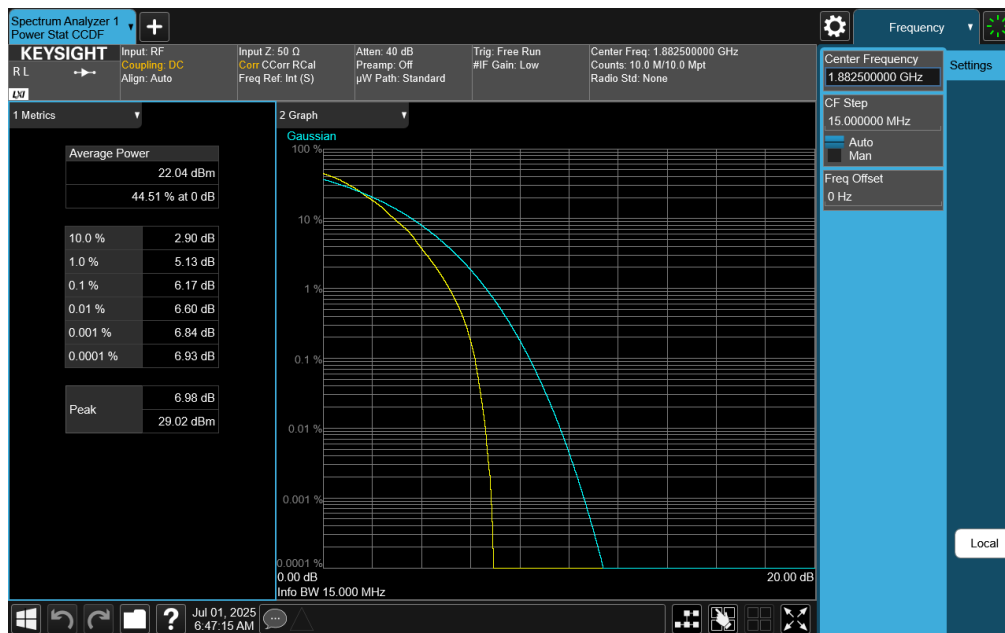



Plot 7-161. PAR Plot (NR Band n25 - 15.0MHz DFT-s-OFDM 16-QAM - Full RB)

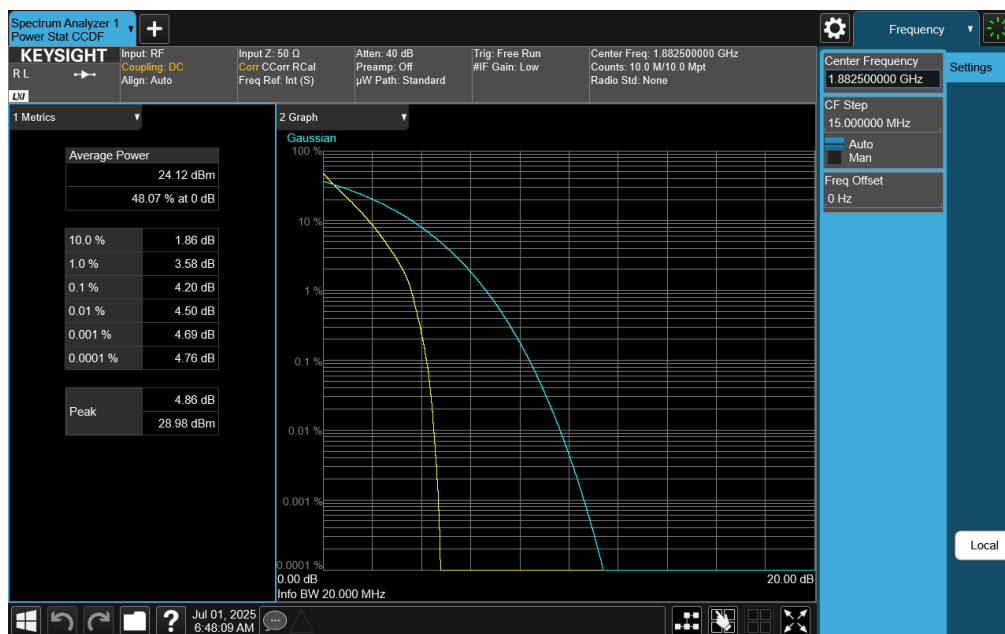


Plot 7-162. PAR Plot (NR Band n25 - 15.0MHz DFT-s-OFDM 64-QAM - Full RB)

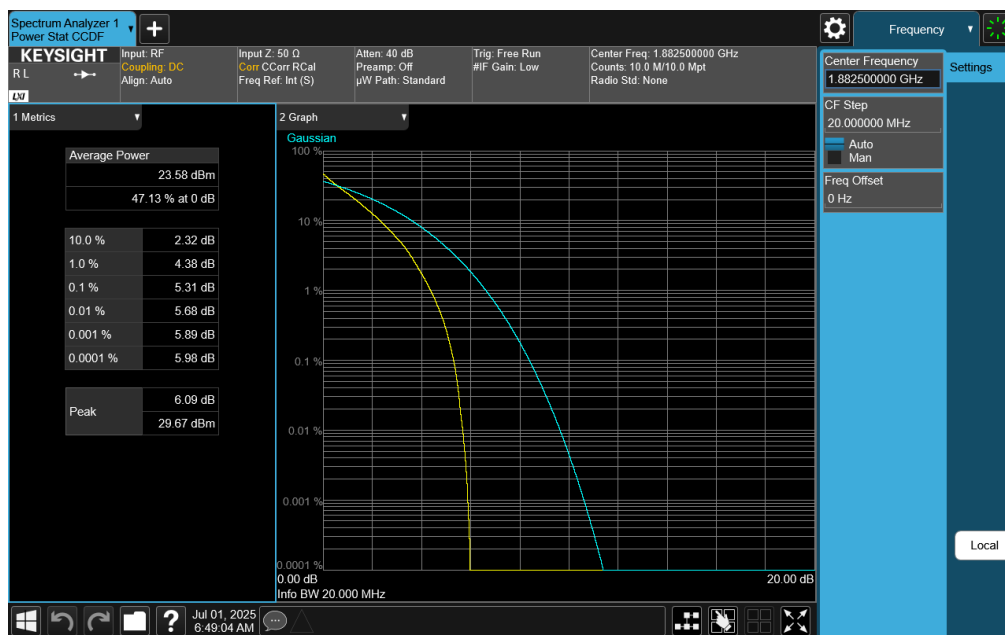
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 102 of 130

V2.2 09/07/2023


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Plot 7-163. PAR Plot (NR Band n25 - 20.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

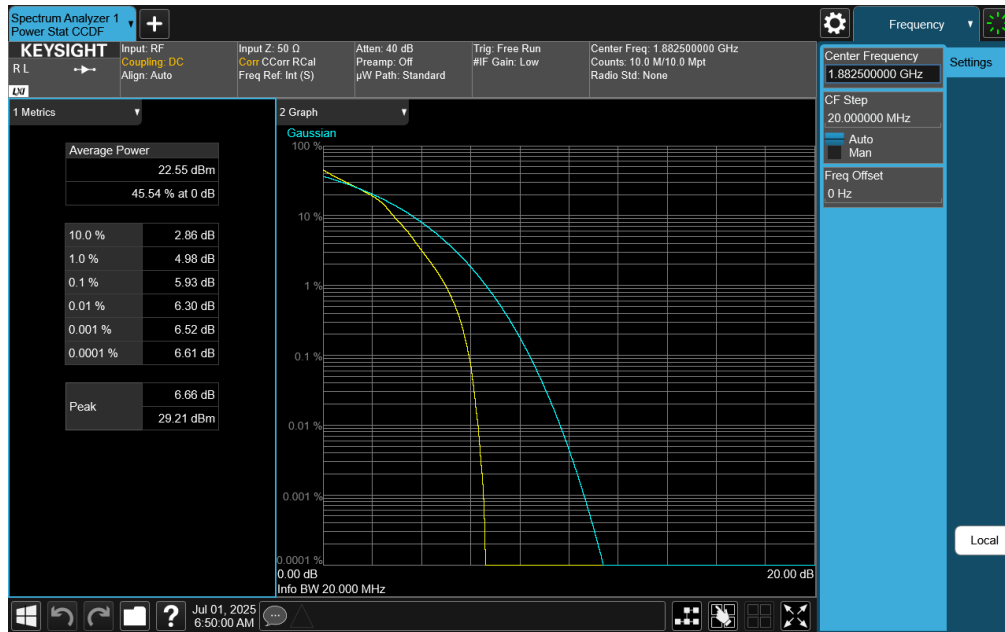


Plot 7-164. PAR Plot (NR Band n25 - 20.0MHz DFT-s-OFDM QPSK - Full RB)

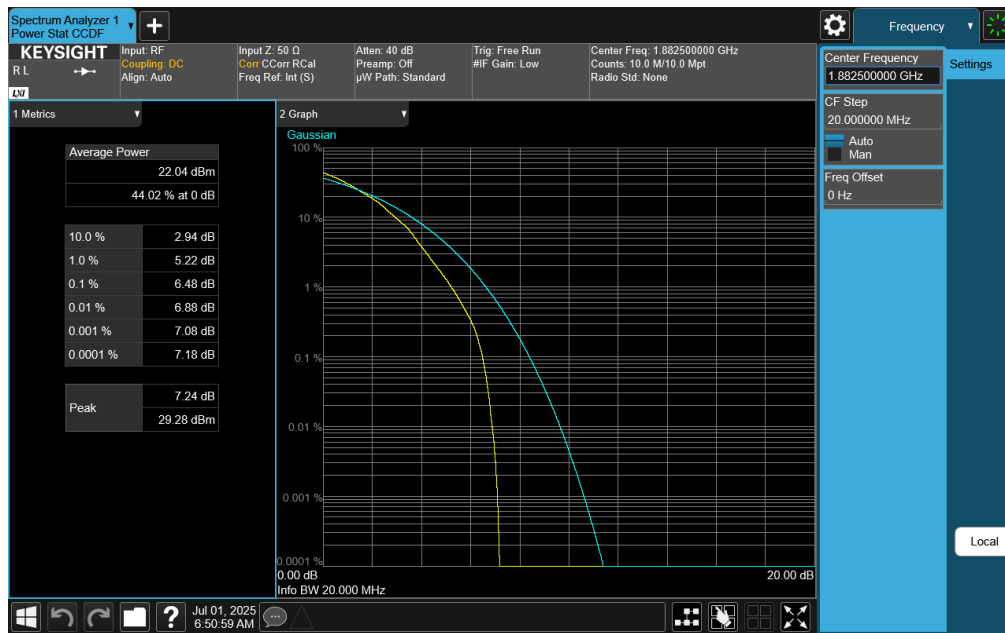
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 103 of 130

V2.2 09/07/2023


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Plot 7-165. PAR Plot (NR Band n25 - 20.0MHz DFT-s-OFDM 16-QAM - Full RB)



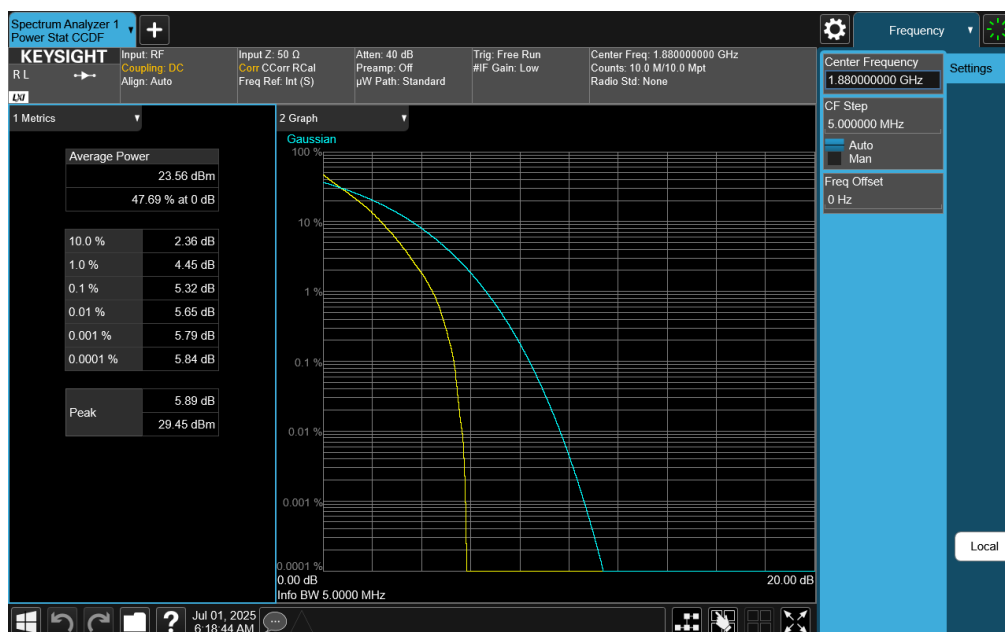
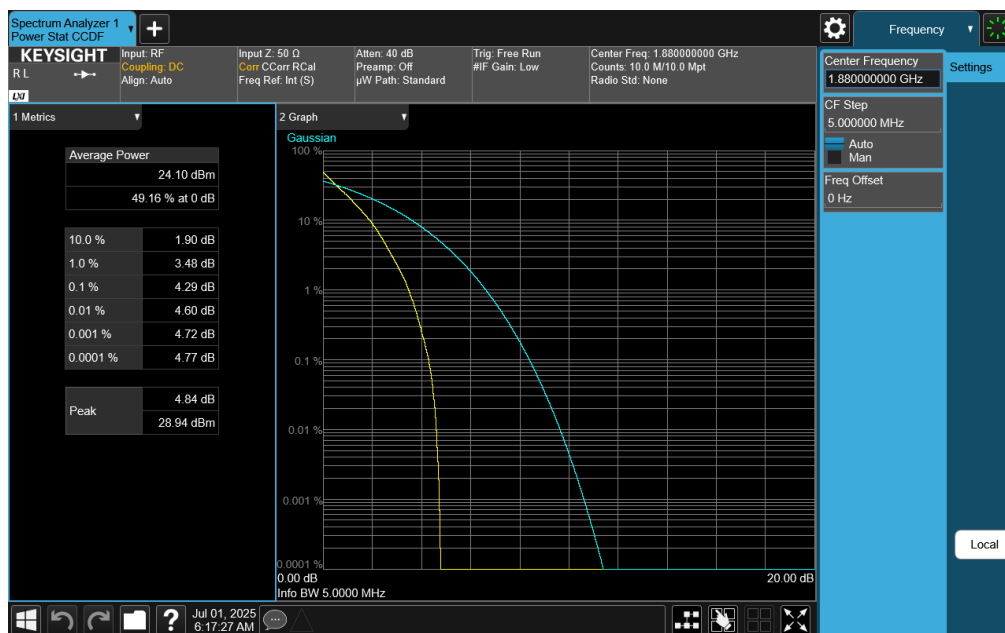
Plot 7-166. PAR Plot (NR Band n25 - 20.0MHz DFT-s-OFDM 64-QAM - Full RB)


FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 104 of 130

V2.2 09/07/2023

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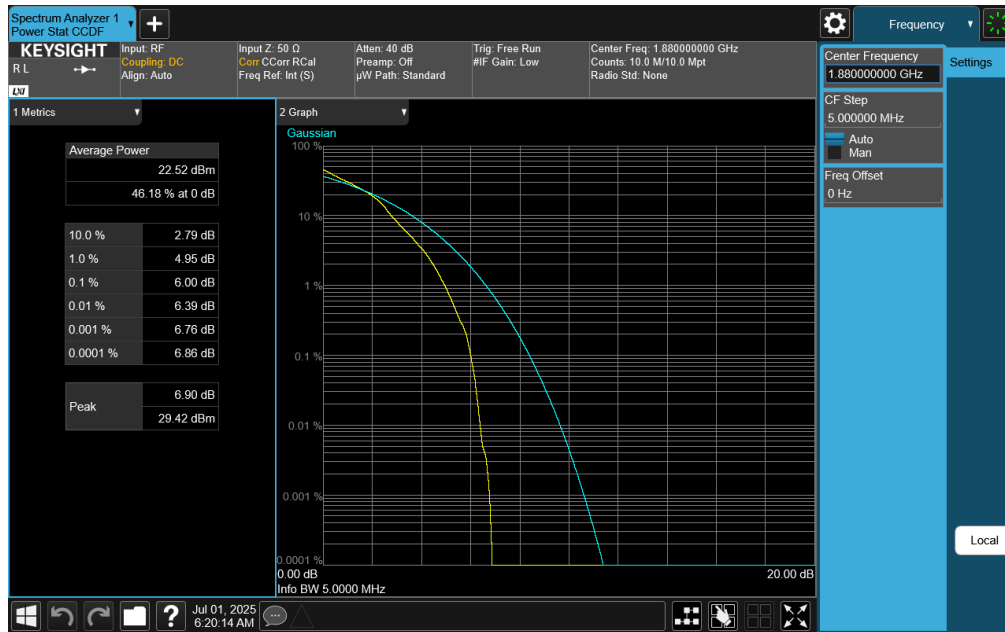
## NR Band n2



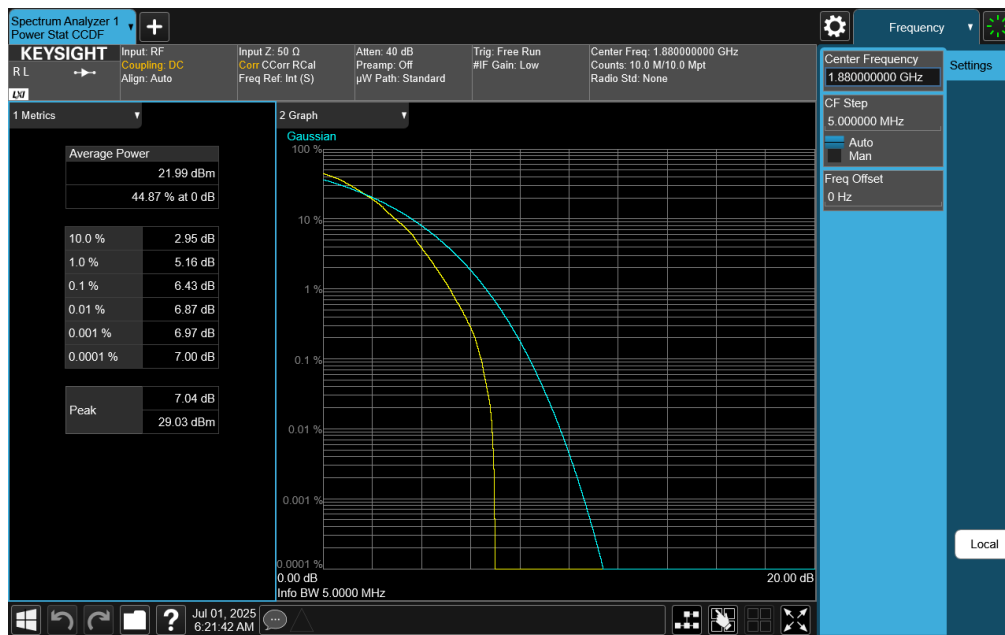
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 105 of 130

V2.2 09/07/2023


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Plot 7-169. PAR Plot (NR Band n2 - 5.0MHz DFT-s-OFDM 16-QAM - Full RB)

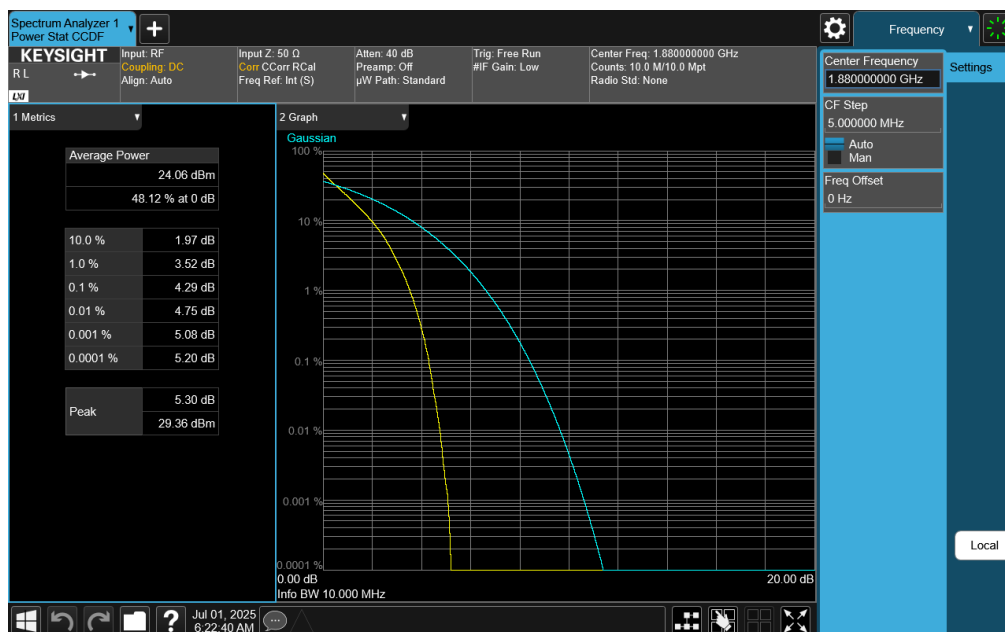


Plot 7-170. PAR Plot (NR Band n2 - 5.0MHz DFT-s-OFDM 64-QAM - Full RB)

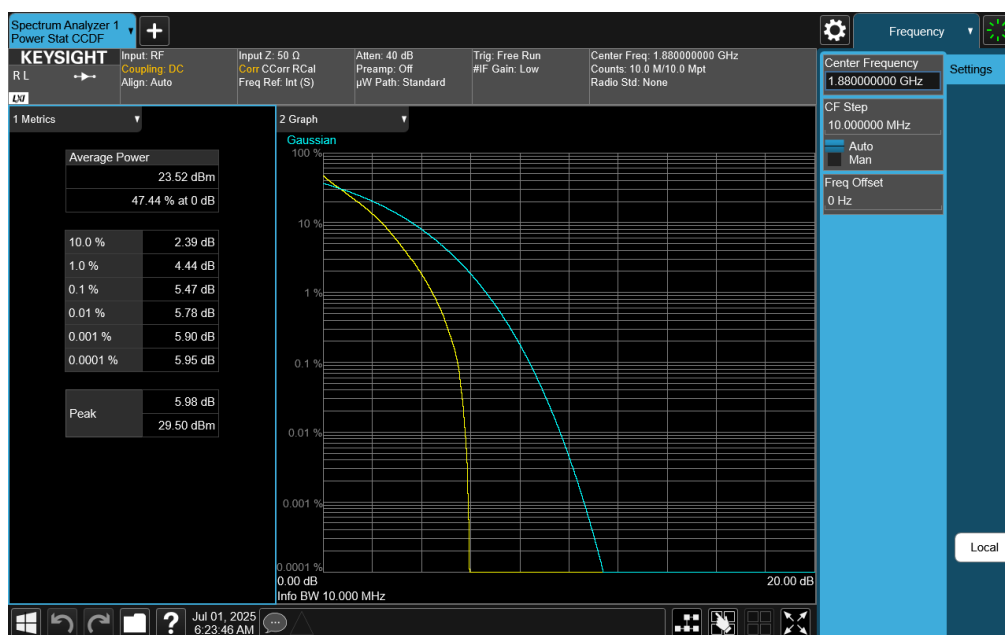
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 106 of 130

V2.2 09/07/2023


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Plot 7-171. PAR Plot (NR Band n2 - 10.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

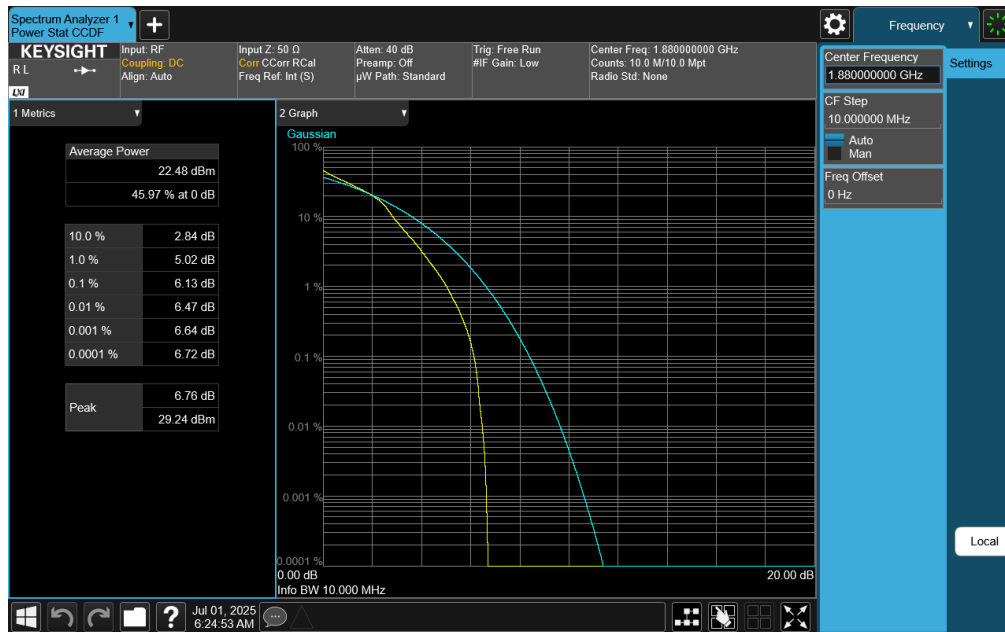


Plot 7-172. PAR Plot (NR Band n2 - 10.0MHz DFT-s-OFDM QPSK - Full RB)

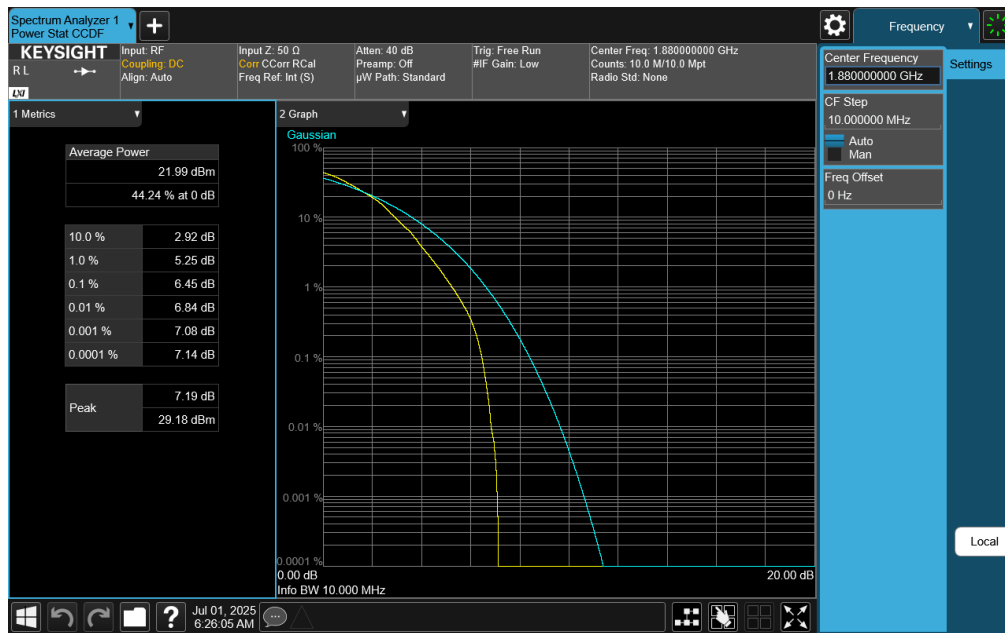
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 107 of 130

V2.2 09/07/2023


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Plot 7-173. PAR Plot (NR Band n2 - 10.0MHz DFT-s-OFDM 16-QAM - Full RB)

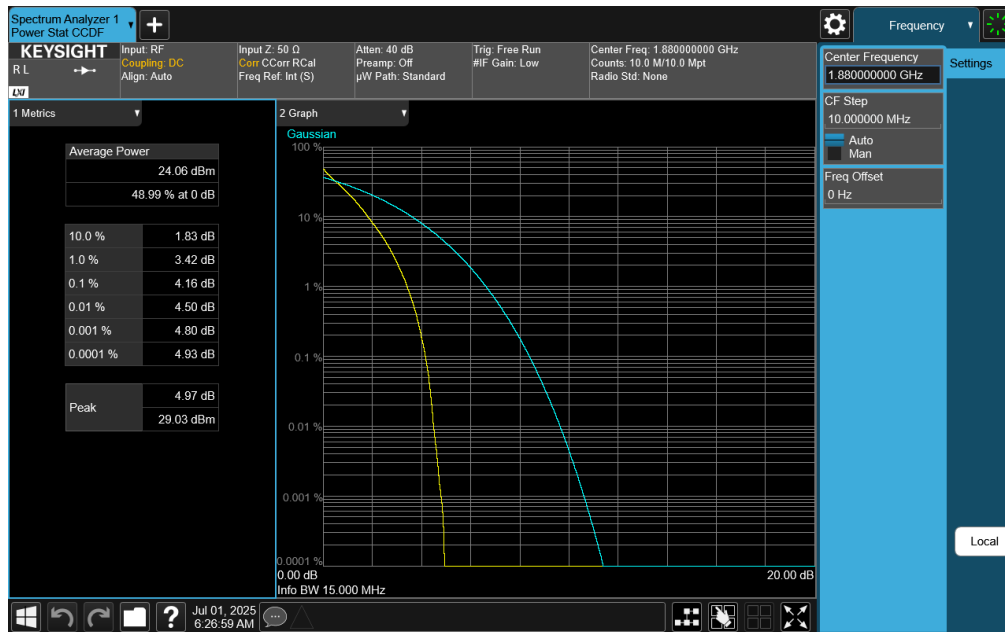


Plot 7-174. PAR Plot (NR Band n2 - 10.0MHz DFT-s-OFDM 64-QAM - Full RB)

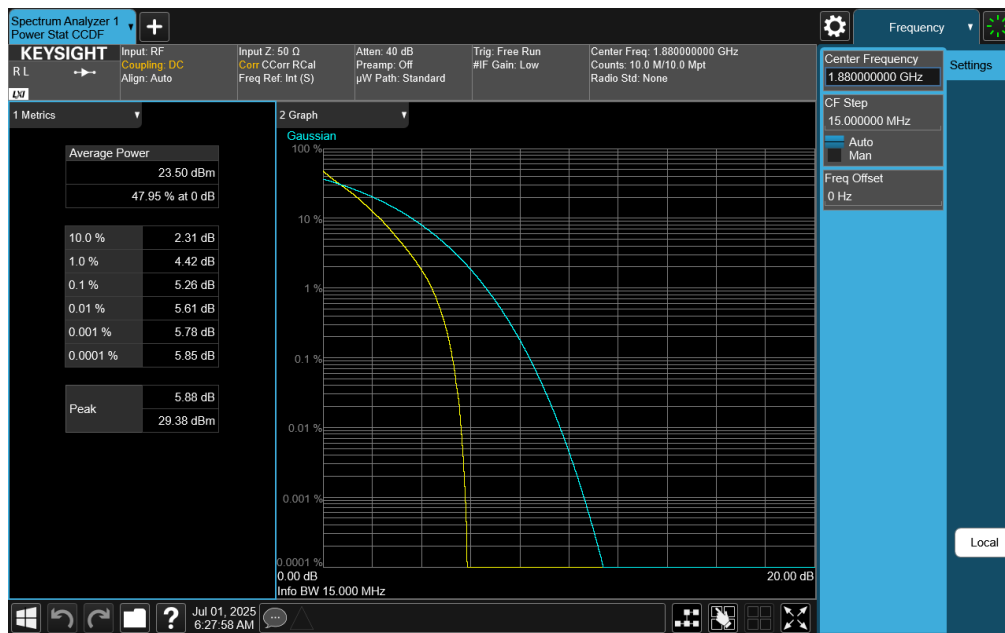
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 108 of 130

V2.2 09/07/2023


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Plot 7-175. PAR Plot (NR Band n2 - 15.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)



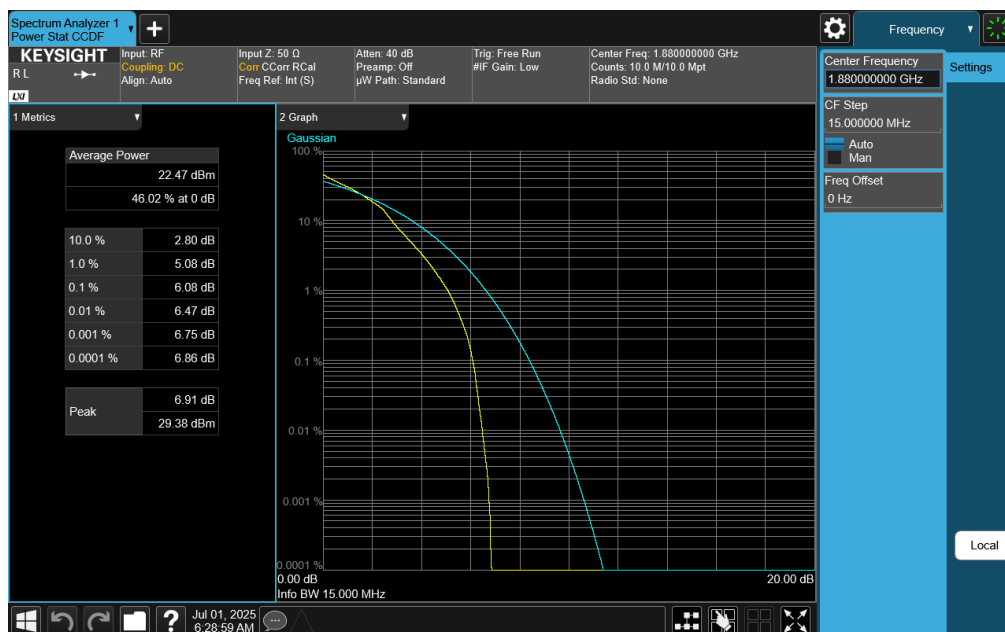
Plot 7-176. PAR Plot (NR Band n2 - 15.0MHz DFT-s-OFDM QPSK - Full RB)

FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 109 of 130

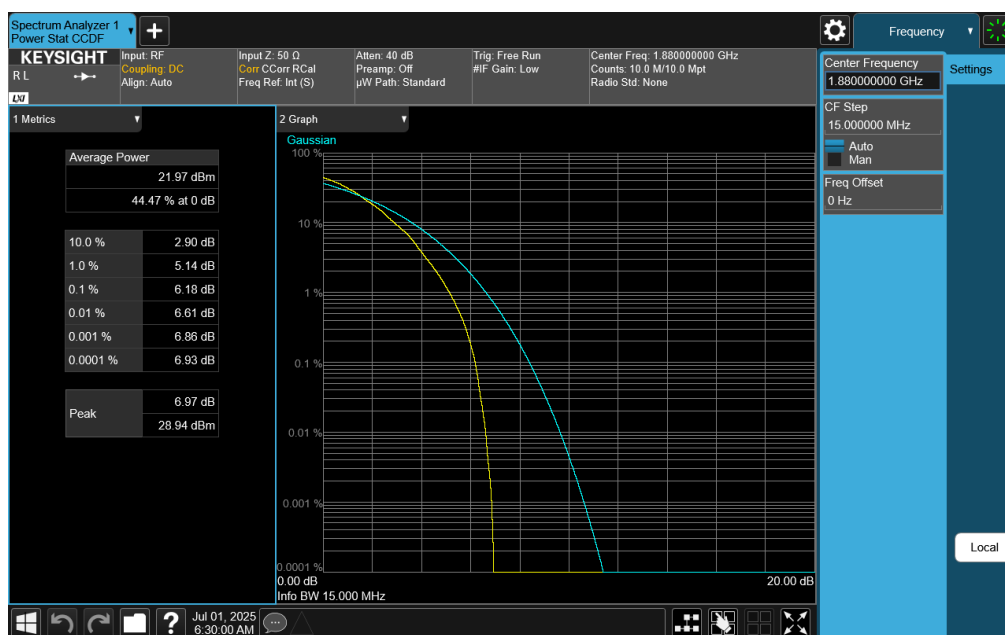
V2.2 09/07/2023

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Plot 7-177. PAR Plot (NR Band n2 - 15.0MHz DFT-s-OFDM 16-QAM - Full RB)

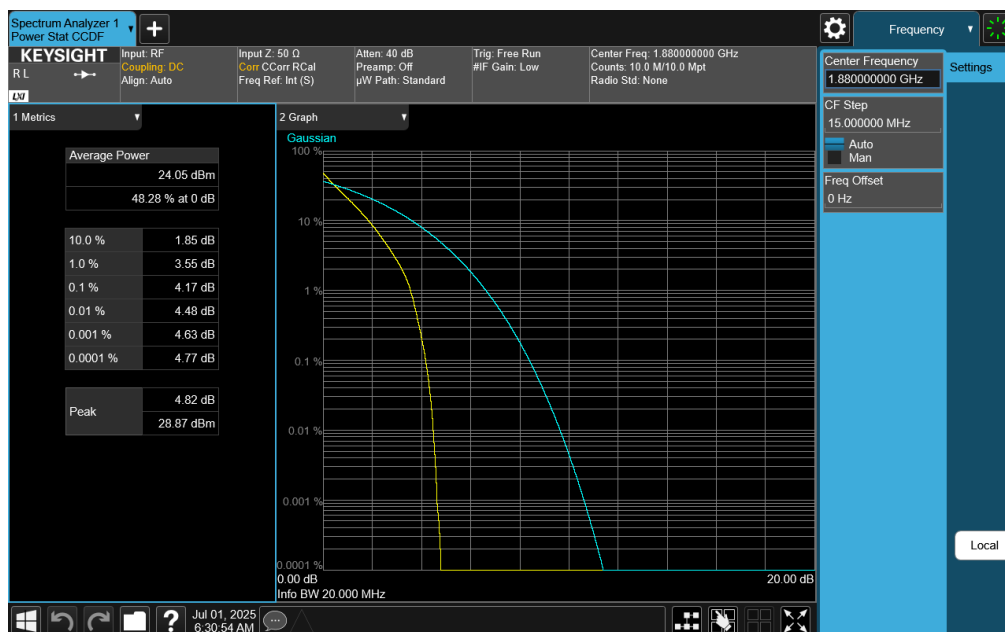


Plot 7-178. PAR Plot (NR Band n2 - 15.0MHz DFT-s-OFDM 64-QAM - Full RB)

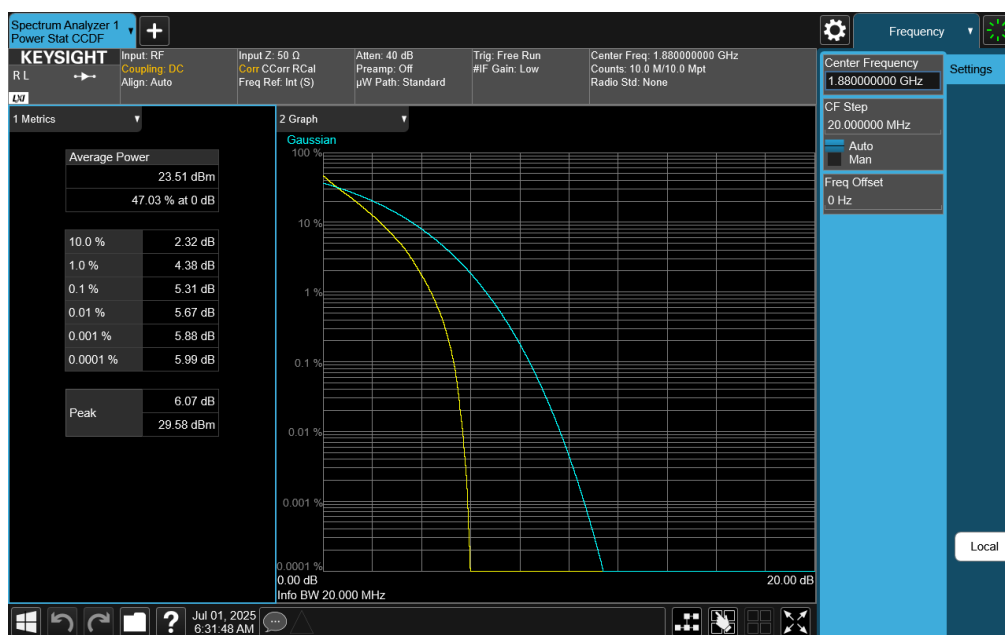
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 110 of 130

V2.2 09/07/2023


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Plot 7-179. PAR Plot (NR Band n2 - 20.0MHz DFT-s-OFDM  $\pi/2$  BPSK - Full RB)

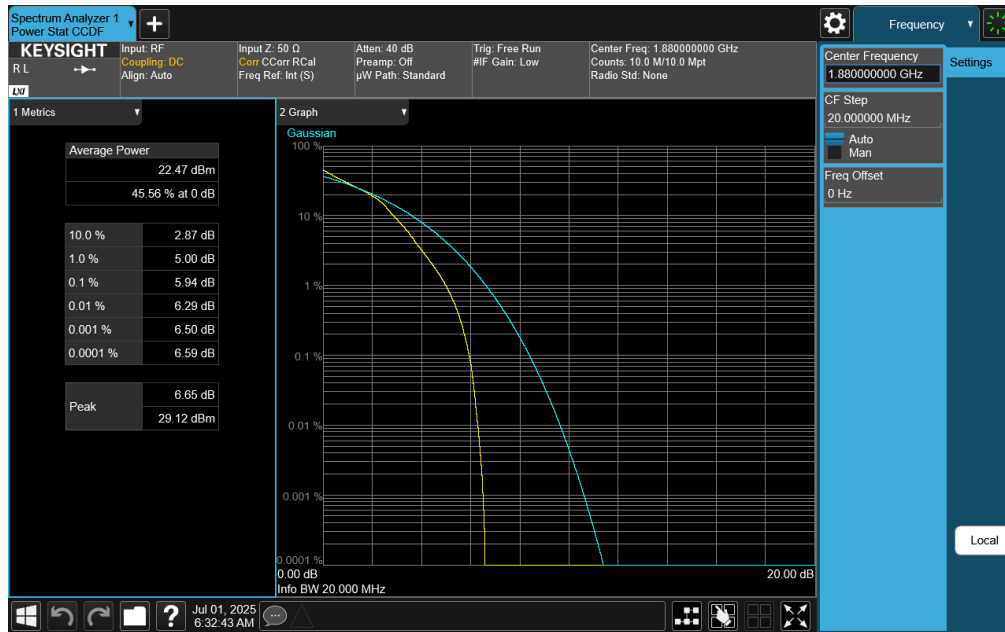


Plot 7-180. PAR Plot (NR Band n2 - 20.0MHz DFT-s-OFDM QPSK - Full RB)

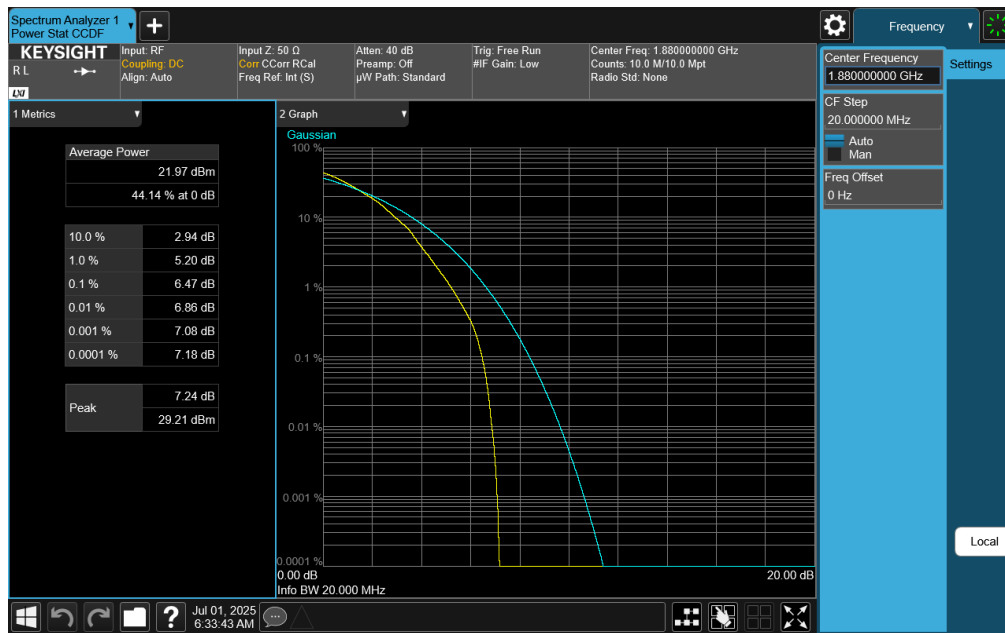
FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 111 of 130

V2.2 09/07/2023


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Plot 7-181. PAR Plot (NR Band n2 - 20.0MHz DFT-s-OFDM 16-QAM - Full RB)



Plot 7-182. PAR Plot (NR Band n2 - 20.0MHz DFT-s-OFDM 64-QAM - Full RB)

FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 112 of 130

V2.2 09/07/2023

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## 7.6 Radiated Power (EIRP)

### §24.232(c)

#### Test Overview

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 EIRP from the conducted RF output power measured is:

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

Where:

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

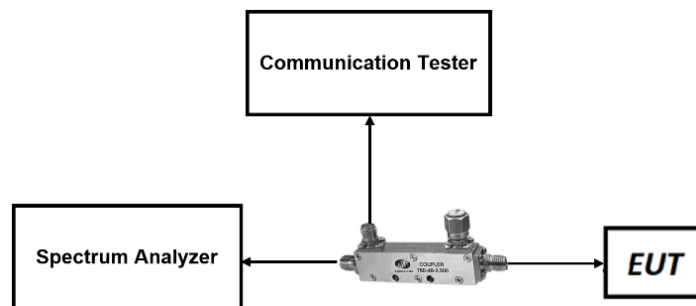
PMeas = measured transmitter output power or PSD, in dBW or dBm

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

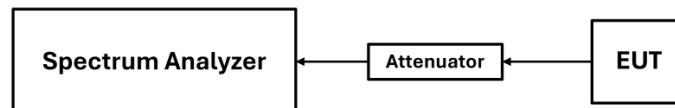
GT = gain of the transmitting antenna, in dBi (EIRP)

#### Test Setup


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



**Figure 7-9. LTE Test Instrument & Measurement Setup**




**Figure 7-10. FR1 Test Instrument & Measurement Setup**

FCC ID: BCG-A3281		PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 113 of 130

V2.2 09/07/2023

## **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.

<b>FCC ID:</b> BCG-A3281		<b>PART 24 MEASUREMENT REPORT</b>	<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1C2503270029-02.BCG	<b>Test Dates:</b> 01/17/2025 - 07/14/2025	<b>EUT Type:</b> Watch	Page 114 of 130


V2.2 09/07/2023

## 7.6.1 Antenna FCM – EIRP

### LTE Band 25

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	1850.7	-9.01	1 / 3	25.15	16.14	41.115	33.01	-16.87
		1882.5	-9.01	1 / 3	25.06	16.05	40.272	33.01	-16.96
		1914.3	-9.01	1 / 3	25.20	<b>16.19</b>	41.591	33.01	-16.82
	16-QAM	1850.7	-9.01	1 / 3	24.38	15.37	34.435	33.01	-17.64
3 MHz	QPSK	1851.5	-9.01	1 / 0	25.17	<b>16.16</b>	41.305	33.01	-16.85
		1882.5	-9.01	1 / 14	25.10	16.09	40.644	33.01	-16.92
		1913.5	-9.01	1 / 14	25.02	16.01	39.902	33.01	-17.00
	16-QAM	1851.5	-9.01	1 / 0	24.33	15.32	34.041	33.01	-17.69
5 MHz	QPSK	1852.5	-9.01	1 / 0	25.06	16.05	40.272	33.01	-16.96
		1882.5	-9.01	1 / 0	25.09	16.08	40.551	33.01	-16.93
		1912.5	-9.01	1 / 12	25.19	<b>16.18</b>	41.495	33.01	-16.83
	16-QAM	1912.5	-9.01	1 / 24	24.54	15.53	35.727	33.01	-17.48
10 MHz	QPSK	1855.0	-9.01	1 / 49	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1882.5	-9.01	1 / 0	25.03	16.02	39.994	33.01	-16.99
		1910.0	-9.01	1 / 0	25.01	16.00	39.811	33.01	-17.01
	16-QAM	1855.0	-9.01	1 / 49	24.33	15.32	34.041	33.01	-17.69
20 MHz	QPSK	1857.5	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1882.5	-9.01	1 / 0	25.12	16.11	40.832	33.01	-16.90
		1907.5	-9.01	1 / 0	25.02	16.01	39.902	33.01	-17.00
	16-QAM	1857.5	-9.01	1 / 0	24.57	15.56	35.975	33.01	-17.45
	QPSK	1860.0	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1882.5	-9.01	1 / 0	25.18	16.17	41.400	33.01	-16.84
		1905.0	-9.01	1 / 99	25.13	16.12	40.926	33.01	-16.89
	16-QAM	1905.0	-9.01	1 / 0	24.43	15.42	34.834	33.01	-17.59

**Table 7-2. Antenna FCM EIRP Data (LTE Band 25)**


FCC ID: BCG-A3281	 <b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 115 of 130

V2.2 09/07/2023

## LTE Band 2

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	1850.7	-9.01	1 / 3	25.16	16.15	41.210	33.01	-16.86
		1880.0	-9.01	1 / 3	24.97	15.96	39.446	33.01	-17.05
		1909.3	-9.01	1 / 3	25.20	<b>16.19</b>	41.591	33.01	-16.82
	16-QAM	1850.7	-9.01	1 / 3	24.43	15.42	34.834	33.01	-17.59
3 MHz	QPSK	1851.5	-9.01	1 / 14	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1880.0	-9.01	1 / 0	25.07	16.06	40.365	33.01	-16.95
		1908.5	-9.01	1 / 14	25.04	16.03	40.087	33.01	-16.98
	16-QAM	1851.5	-9.01	1 / 14	24.40	15.39	34.594	33.01	-17.62
5 MHz	QPSK	1852.5	-9.01	1 / 12	25.10	16.09	40.644	33.01	-16.92
		1880.0	-9.01	1 / 24	25.03	16.02	39.994	33.01	-16.99
		1907.5	-9.01	1 / 12	25.20	<b>16.19</b>	41.591	33.01	-16.82
	16-QAM	1907.5	-9.01	1 / 24	24.59	15.58	36.141	33.01	-17.43
10 MHz	QPSK	1855.0	-9.01	1 / 49	25.13	<b>16.12</b>	40.926	33.01	-16.89
		1880.0	-9.01	1 / 49	25.05	16.04	40.179	33.01	-16.97
		1905.0	-9.01	1 / 25	25.06	16.05	40.272	33.01	-16.96
	16-QAM	1905.0	-9.01	1 / 49	24.37	15.36	34.356	33.01	-17.65
15 MHz	QPSK	1857.5	-9.01	1 / 74	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1880.0	-9.01	1 / 74	25.08	16.07	40.458	33.01	-16.94
		1902.5	-9.01	1 / 0	25.08	16.07	40.458	33.01	-16.94
	16-QAM	1857.5	-9.01	1 / 74	24.61	15.60	36.308	33.01	-17.41
20 MHz	QPSK	1860.0	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1880.0	-9.01	1 / 99	25.17	16.16	41.305	33.01	-16.85
		1900.0	-9.01	1 / 99	25.19	16.18	41.495	33.01	-16.83
	16-QAM	1900.0	-9.01	1 / 0	24.47	15.46	35.156	33.01	-17.55

**Table 7-3. Antenna FCM EIRP Data (LTE Band 2)**


FCC ID: BCG-A3281	 <b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 116 of 130

V2.2 09/07/2023

# NR Band n25

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
5 MHz	$\pi/2$ BPSK	1852.5	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1882.5	-9.01	1 / 0	25.10	16.09	40.644	33.01	-16.92
		1912.5	-9.01	1 / 23	25.08	16.07	40.458	33.01	-16.94
	QPSK	1852.5	-9.01	1 / 23	25.07	16.06	40.365	33.01	-16.95
		1882.5	-9.01	1 / 12	25.13	16.12	40.926	33.01	-16.89
		1912.5	-9.01	1 / 0	24.91	15.90	38.905	33.01	-17.11
	16-QAM	1852.5	-9.01	1 / 0	24.13	15.12	32.509	33.01	-17.89
	64-QAM	1882.5	-9.01	1 / 0	23.10	14.09	25.645	33.01	-18.92
10 MHz	$\pi/2$ BPSK	1855.0	-9.01	1 / 25	25.14	16.13	41.020	33.01	-16.88
		1882.5	-9.01	1 / 25	24.99	15.98	39.628	33.01	-17.03
		1910.0	-9.01	1 / 0	25.04	16.03	40.087	33.01	-16.98
	QPSK	1855.0	-9.01	1 / 0	25.16	16.15	41.210	33.01	-16.86
		1882.5	-9.01	1 / 48	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1910.0	-9.01	1 / 25	25.10	16.09	40.644	33.01	-16.92
	16-QAM	1855.0	-9.01	1 / 25	24.08	15.07	32.137	33.01	-17.94
	64-QAM	1882.5	-9.01	1 / 25	23.17	14.16	26.062	33.01	-18.85
15 MHz	$\pi/2$ BPSK	1857.5	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1882.5	-9.01	1 / 0	25.17	16.16	41.305	33.01	-16.85
		1907.5	-9.01	1 / 37	25.10	16.09	40.644	33.01	-16.92
	QPSK	1857.5	-9.01	1 / 37	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1882.5	-9.01	1 / 37	24.99	15.98	39.628	33.01	-17.03
		1907.5	-9.01	1 / 37	25.20	<b>16.19</b>	41.591	33.01	-16.82
	16-QAM	1882.5	-9.01	1 / 37	24.23	15.22	33.266	33.01	-17.79
	64-QAM	1857.5	-9.01	1 / 37	23.15	14.14	25.942	33.01	-18.87
20 MHz	$\pi/2$ BPSK	1860.0	-9.01	1 / 50	25.09	16.08	40.551	33.01	-16.93
		1882.5	-9.01	1 / 0	25.10	16.09	40.644	33.01	-16.92
		1905.0	-9.01	1 / 98	24.90	15.89	38.815	33.01	-17.12
	QPSK	1860.0	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1882.5	-9.01	1 / 98	24.92	15.91	38.994	33.01	-17.10
		1905.0	-9.01	1 / 0	24.92	15.91	38.994	33.01	-17.10
	16-QAM	1860.0	-9.01	1 / 50	24.13	15.12	32.509	33.01	-17.89
	64-QAM	1882.5	-9.01	1 / 0	23.06	14.05	25.410	33.01	-18.96

Table 7-4. Antenna FCM EIRP Data (NR Band n25)

FCC ID: BCG-A3281		PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 117 of 130


V2.2 09/07/2023



## NR Band n2

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
5 MHz	$\pi/2$ BPSK	1852.5	-9.01	1 / 12	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1880.0	-9.01	1 / 23	24.99	15.98	39.628	33.01	-17.03
		1907.5	-9.01	1 / 23	25.00	15.99	39.719	33.01	-17.02
	QPSK	1852.5	-9.01	1 / 12	25.09	16.08	40.551	33.01	-16.93
		1880.0	-9.01	1 / 23	25.06	16.05	40.272	33.01	-16.96
		1907.5	-9.01	1 / 0	24.91	15.90	38.905	33.01	-17.11
	16-QAM	1880.0	-9.01	1 / 23	24.16	15.15	32.734	33.01	-17.86
	64-QAM	1880.0	-9.01	1 / 0	23.20	14.19	26.242	33.01	-18.82
10 MHz	$\pi/2$ BPSK	1855.0	-9.01	1 / 25	25.17	16.16	41.305	33.01	-16.85
		1880.0	-9.01	1 / 25	25.18	16.17	41.400	33.01	-16.84
		1905.0	-9.01	1 / 48	25.11	16.10	40.738	33.01	-16.91
	QPSK	1855.0	-9.01	1 / 0	25.04	16.03	40.087	33.01	-16.98
		1880.0	-9.01	1 / 25	25.19	16.18	41.495	33.01	-16.83
		1905.0	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
	16-QAM	1880.0	-9.01	1 / 0	24.19	15.18	32.961	33.01	-17.83
	64-QAM	1880.0	-9.01	1 / 25	23.12	14.11	25.763	33.01	-18.90
15 MHz	$\pi/2$ BPSK	1857.5	-9.01	1 / 73	24.99	15.98	39.628	33.01	-17.03
		1880.0	-9.01	1 / 37	25.10	16.09	40.644	33.01	-16.92
		1902.5	-9.01	1 / 73	25.00	15.99	39.719	33.01	-17.02
	QPSK	1857.5	-9.01	1 / 73	25.13	16.12	40.926	33.01	-16.89
		1880.0	-9.01	1 / 37	24.87	15.86	38.548	33.01	-17.15
		1902.5	-9.01	1 / 0	25.20	<b>16.19</b>	41.591	33.01	-16.82
	16-QAM	1857.5	-9.01	1 / 73	24.19	15.18	32.961	33.01	-17.83
	64-QAM	1902.5	-9.01	1 / 0	23.16	14.15	26.002	33.01	-18.86
20 MHz	$\pi/2$ BPSK	1860.0	-9.01	1 / 50	25.13	16.12	40.926	33.01	-16.89
		1880.0	-9.01	1 / 98	25.16	16.15	41.210	33.01	-16.86
		1900.0	-9.01	1 / 50	25.13	16.12	40.926	33.01	-16.89
	QPSK	1860.0	-9.01	1 / 98	25.11	16.10	40.738	33.01	-16.91
		1880.0	-9.01	1 / 98	25.20	<b>16.19</b>	41.591	33.01	-16.82
		1900.0	-9.01	1 / 0	24.98	15.97	39.537	33.01	-17.04
	16-QAM	1860.0	-9.01	1 / 98	24.16	15.15	32.734	33.01	-17.86
	64-QAM	1900.0	-9.01	1 / 0	23.10	14.09	25.645	33.01	-18.92

Table 7-5. Antenna FCM EIRP Data (NR Band n2)

FCC ID: BCG-A3281	 <b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 118 of 130

V2.2 09/07/2023

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## 7.7 Radiated Spurious Emissions

§2.1053, 24.238(a)

### Test Overview


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

### Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

### Test Settings

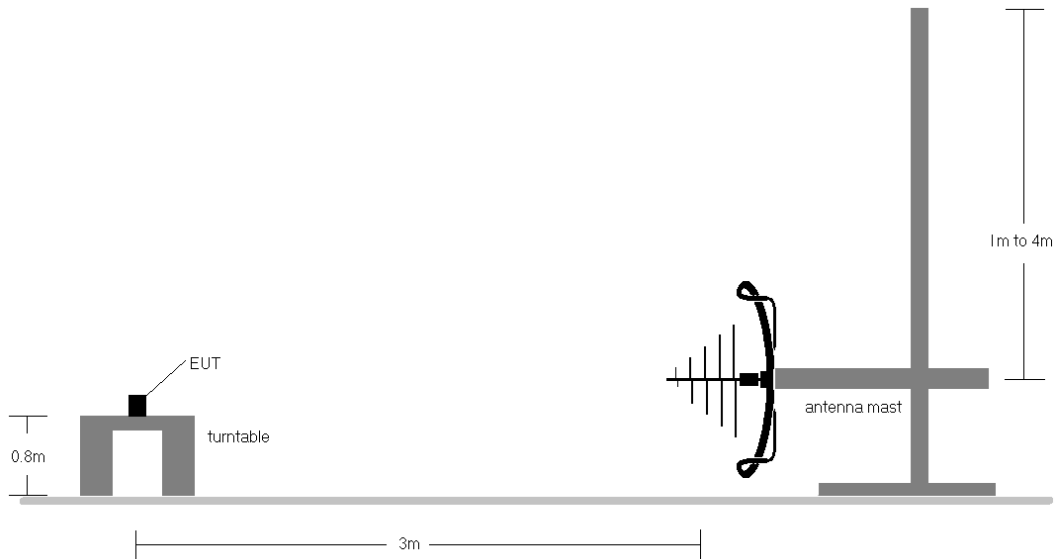
1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW  $\geq 3 \times$  RBW
3. Span = 1.5 times the OBW
4. No. of sweep points  $\geq 2 \times$  span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 119 of 130

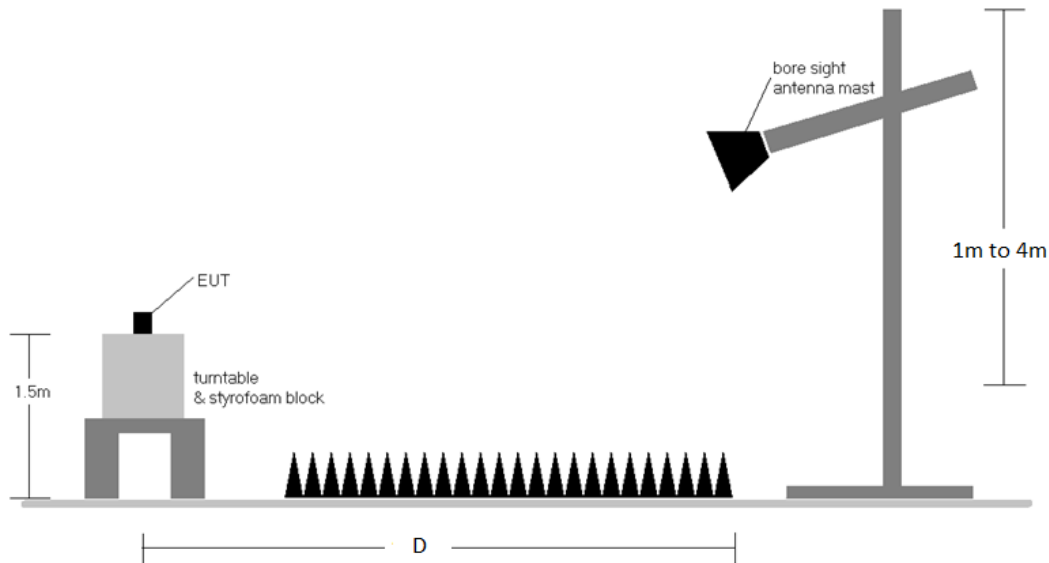
V2.2 09/07/2023

**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 >1 GHz**

FCC ID: BCG-A3281	 <b>PART 24 MEASUREMENT REPORT</b>	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 120 of 130

V2.2 09/07/2023

## Test Notes

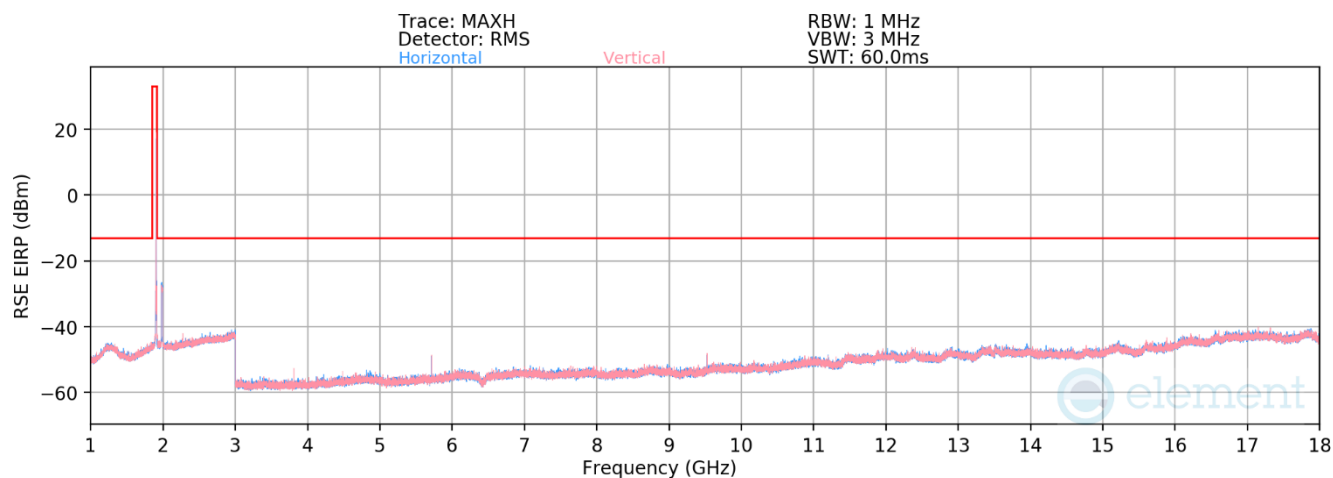
2. Field strengths are calculated using the Measurement quantity conversions in KDB 971168 D01 v03r01 Section 5.8.4.
  - a.  $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
  - b.  $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$ ; where D is the measurement distance in meters.
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. 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.
7. No significant emissions were found for below 1GHz and Above 18GHz measurement.
8. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
9. 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.
10. NR band n25 overlaps the entire frequency range of NR band 2. Therefore, the radiated emissions data of NR band n25 provided in this report covers NR band n2.

FCC ID: BCG-A3281		PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 121 of 130


V2.2 09/07/2023

## 7.7.1 Antenna FCM – Radiated Spurious Emission Measurement

### LTE Band 25/2



Plot 7-183. Radiated Spurious Plot (LTE Band 25/2)

FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 122 of 130

V2.2 09/07/2023

Bandwidth (MHz):	20
Frequency (MHz):	1860.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3720.0	V	104	324	-74.91	3.16	35.25	-60.01	-13.00	-47.01
5580.0	H	343	56	-77.99	6.74	35.75	-59.51	-13.00	-46.51
7440.0	V	-	-	-80.27	8.66	35.39	-59.87	-13.00	-46.87
9300.0	H	233	342	-78.07	9.92	38.86	-56.40	-13.00	-43.40
11160.0	V	-	-	-81.93	13.73	38.80	-56.46	-13.00	-43.46
13020.0	V	-	-	-82.32	16.26	40.94	-54.32	-13.00	-41.32
14880.0	V	-	-	-82.95	17.75	41.81	-53.45	-13.00	-40.45

**Table 7-6. Antenna FCM Radiated Spurious Data (LTE Band 25/2 – Low Channel)**

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 [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3765.0	V	126	318	-75.04	3.24	35.20	-60.06	-13.00	-47.06
5647.5	V	-	-	-79.68	6.86	34.18	-61.08	-13.00	-48.08
7530.0	V	-	-	-80.03	8.48	35.45	-59.81	-13.00	-46.81
9412.5	H	237	342	-73.97	7.26	40.29	-54.97	-13.00	-41.97
11295.0	V	-	-	-78.19	9.77	38.59	-56.67	-13.00	-43.67
13177.5	V	-	-	-79.38	13.50	41.12	-54.14	-13.00	-41.14
15060.0	V	-	-	-81.15	16.45	42.30	-52.96	-13.00	-39.96

**Table 7-7. Antenna FCM Radiated Spurious Data (LTE Band 25/2 – Mid Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1905.0
RB / Offset:	1 / 50

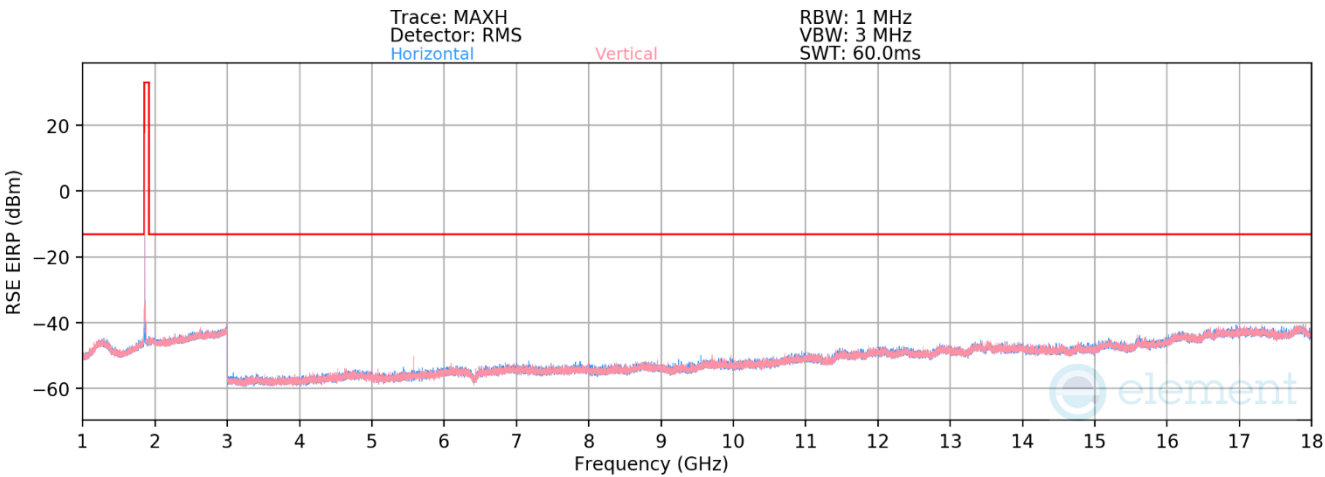
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3810.00	V	118	318	-73.32	3.32	37.01	-58.25	-13.00	-45.25
5715.00	H	385	77	-71.04	7.39	43.36	-51.90	-13.00	-38.90
7620.00	V	-	-	-80.70	8.88	35.18	-60.08	-13.00	-47.08
9525.00	H	245	332	-74.12	10.06	42.94	-52.32	-13.00	-39.32
11430.00	V	-	-	-83.26	15.79	39.53	-55.73	-13.00	-42.73
13335.00	V	-	-	-82.45	16.66	41.21	-54.05	-13.00	-41.05
15240.00	H	-	-	-83.14	19.24	43.11	-52.15	-13.00	-39.15

**Table 7-8. Antenna FCM Radiated Spurious Data (LTE Band 25/2 – High Channel)**


FCC ID: BCG-A3281		PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch	Page 123 of 130

V2.2 09/07/2023

NR Band n25/2



Plot 7-184. Radiated Spurious Plot (NR Band n25/2)

FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 124 of 130

V2.2 09/07/2023

Bandwidth (MHz):	20
Frequency (MHz):	1860.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3720.0	V	119	303	-76.60	3.40	33.79	-61.46	-13.00	-48.46
5580.0	V	107	52	-73.04	6.74	40.70	-54.56	-13.00	-41.56
7440.0	V	-	-	-80.56	8.56	35.00	-60.26	-13.00	-47.26
9300.0	H	243	343	-77.56	9.91	39.35	-55.91	-13.00	-42.91
11160.0	V	-	-	-81.60	13.20	38.60	-56.66	-13.00	-43.66
13020.0	V	-	-	-82.49	16.34	40.85	-54.40	-13.00	-41.40
14880.0	V	-	-	-82.93	17.75	41.83	-53.43	-13.00	-40.43

**Table 7-9. Antenna FCM Radiated Spurious Data (NR Band n25/2 – Low Channel)**

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 [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3765.0	V	102	318	-75.30	3.24	34.95	-60.31	-13.00	-47.31
5647.5	V	261	96	-76.35	6.91	37.57	-57.69	-13.00	-44.69
7530.0	V	-	-	-79.89	8.48	35.59	-59.67	-13.00	-46.67
9412.5	H	232	338	-78.92	9.77	37.85	-57.41	-13.00	-44.41
11295.0	V	-	-	-81.72	13.50	38.78	-56.48	-13.00	-43.48
13177.5	V	-	-	-82.46	16.45	41.00	-54.26	-13.00	-41.26
15060.0	V	-	-	-82.54	17.95	42.41	-52.85	-13.00	-39.85

**Table 7-10. Antenna FCM Radiated Spurious Data (NR Band n25/2 – Mid Channel)**

Bandwidth (MHz):	20
Frequency (MHz):	1905.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3810.0	V	100	319	-75.96	3.32	34.36	-60.89	-13.00	-47.89
5715.0	V	-	-	-80.06	7.23	34.16	-61.09	-13.00	-48.09
7620.0	V	-	-	-80.63	8.88	35.25	-60.01	-13.00	-47.01
9525.0	H	238	325	-77.37	10.06	39.68	-55.58	-13.00	-42.58
11430.0	V	-	-	-83.19	15.79	39.60	-55.65	-13.00	-42.65
13335.0	V	-	-	-82.55	16.54	40.99	-54.27	-13.00	-41.27
15240.0	V	-	-	-83.30	19.24	42.95	-52.31	-13.00	-39.31

**Table 7-11. Antenna FCM Radiated Spurious Data (NR Band n25/2 – High Channel)**

FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 125 of 130

V2.2 09/07/2023



## 7.8 Frequency Stability / Temperature Variation

\$2.1055, \$24.235

### 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 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

TIA-603-E-2016

### Test Settings

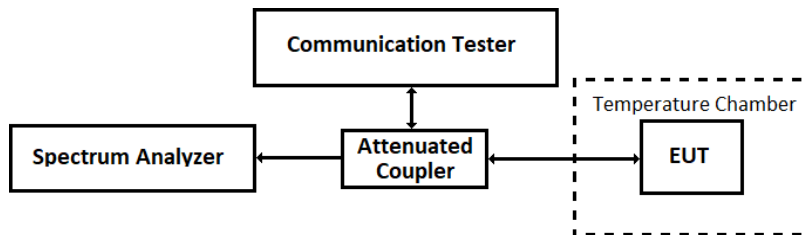
1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute 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	 <b>PART 24 MEASUREMENT REPORT</b>	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 126 of 130

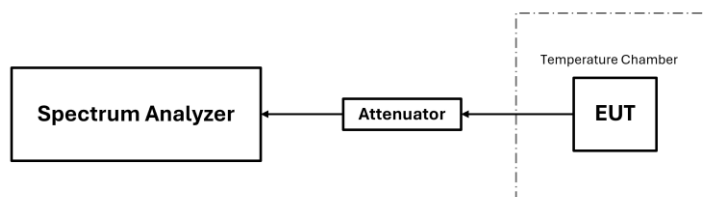
V2.2 09/07/2023

## 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

N/A

FCC ID: BCG-A3281	 PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch
		Page 127 of 130

V2.2 09/07/2023


## Frequency Stability / Temperature Variation

LTE Band 25/2				
Operating Band Lower Boundary (GHz)			1.850	
Ref. Voltage (VDC):			3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	1.85057860	-0.00057860
		- 20	1.85021460	-0.00021460
		- 10	1.85087420	-0.00087420
		0	1.85065970	-0.00065970
		+ 10	1.85022160	-0.00022160
		+ 20 (Ref)	1.85071330	-0.00071330
		+ 30	1.85070760	-0.00070760
		+ 40	1.85098190	-0.00098190
		+ 50	1.85077080	-0.00077080
Battery Endpoint	3.40	+ 20	1.85071270	-0.00071270

Table 7-12. LTE Band 25/2 Lower Boundary Frequency Stability Data

LTE Band 25/2				
Operating Band Upper Boundary (GHz)			1.915	
Ref. Voltage (VDC):			3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	1.91462830	-0.00037170
		- 20	1.91472460	-0.00027540
		- 10	1.91463590	-0.00036410
		0	1.91448970	-0.00051030
		+ 10	1.91458400	-0.00041600
		+ 20 (Ref)	1.91481540	-0.00018460
		+ 30	1.91462540	-0.00037460
		+ 40	1.91424250	-0.00075750
		+ 50	1.91425890	-0.00074110
Battery Endpoint	3.40	+ 20	1.91465530	-0.00034470

Table 7-13. LTE Band 25/2 Upper Boundary Frequency Stability Data

FCC ID: BCG-A3281		PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 128 of 130

V2.2 09/07/2023


## Frequency Stability / Temperature Variation

NR Band n25/2				
Operating Band Lower Boundary (GHz)			1.850	
Ref. Voltage (VDC):			3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	1.85010660	-0.00010660
		- 20	1.85051610	-0.00051610
		- 10	1.85070510	-0.00070510
		0	1.85062990	-0.00062990
		+ 10	1.85052160	-0.00052160
		+ 20 (Ref)	1.85056570	-0.00056570
		+ 30	1.85094960	-0.00094960
		+ 40	1.85016550	-0.00016550
		+ 50	1.85059360	-0.00059360
Battery Endpoint	3.40	+ 20	1.85023480	-0.00023480

Table 7-14. NR Band n25/2 Lower Boundary Frequency Stability Data

NR Band n25/2				
Operating Band Upper Boundary (GHz)			1.915	
Ref. Voltage (VDC):			3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	1.91433020	-0.00066980
		- 20	1.91438140	-0.00061860
		- 10	1.91450340	-0.00049660
		0	1.91466030	-0.00033970
		+ 10	1.91453420	-0.00046580
		+ 20 (Ref)	1.91424970	-0.00075030
		+ 30	1.91433970	-0.00066030
		+ 40	1.91426330	-0.00073670
		+ 50	1.91430610	-0.00069390
Battery Endpoint	3.40	+ 20	1.91487640	-0.00012360


Table 7-15. NR Band n25/2 Upper Boundary Frequency Stability Data

FCC ID: BCG-A3281		PART 24 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270029-02.BCG	Test Dates: 01/17/2025 - 07/14/2025	EUT Type: Watch		Page 129 of 130

V2.2 09/07/2023

## 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 24 of the FCC rules.

<b>FCC ID:</b> BCG-A3281	 <b>PART 24 MEASUREMENT REPORT</b>	<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1C2503270029-02.BCG	<b>Test Dates:</b> 01/17/2025 - 07/14/2025	<b>EUT Type:</b> Watch
		Page 130 of 130

V2.2 09/07/2023