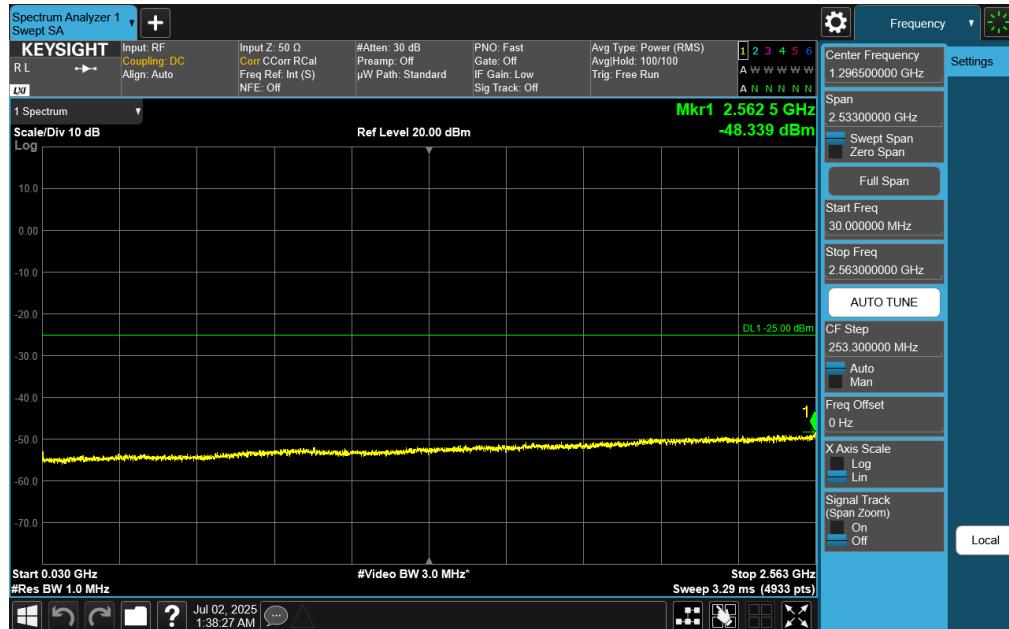
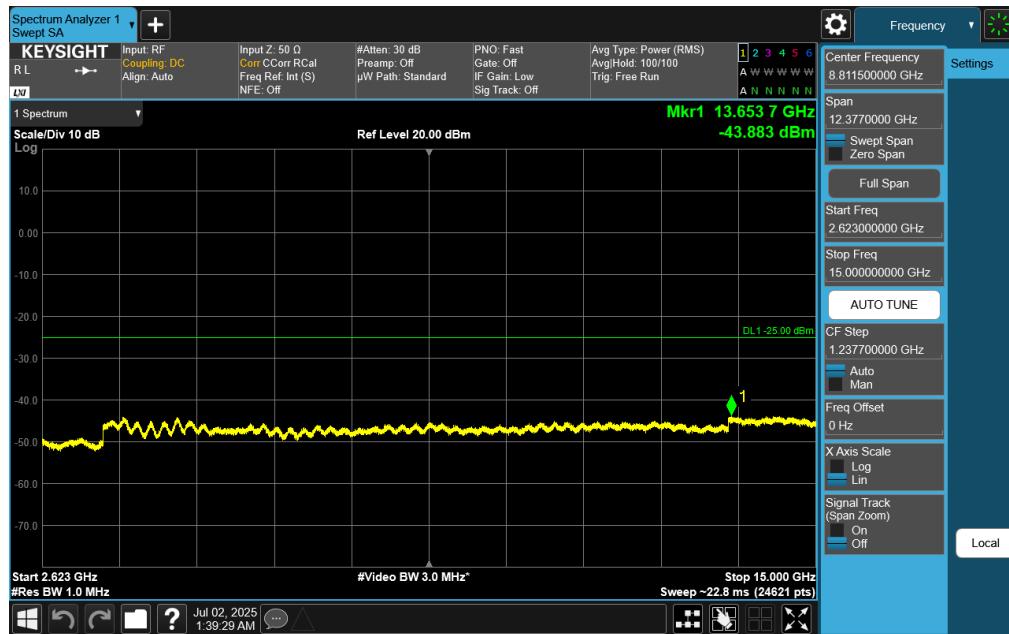


Plot 7-74. Conducted Spurious Plot (NR Band n41 - 20MHz QPSK - RB Size 1, RB Offset 25 - Low Channel)

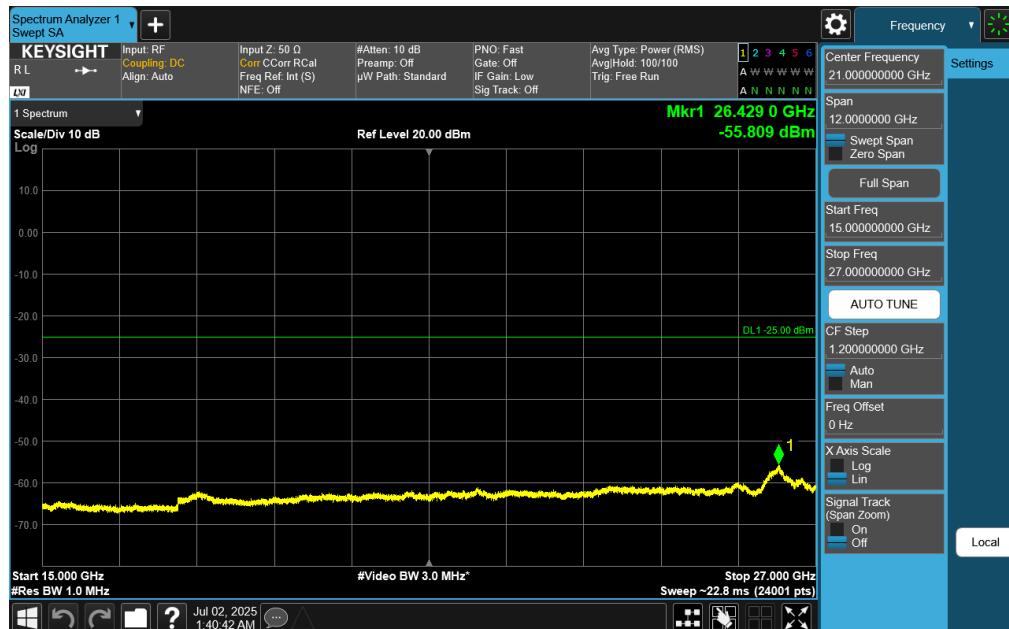


Plot 7-75. Conducted Spurious Plot (NR Band n41 - 20MHz QPSK - RB Size 1, RB Offset 25 - Mid Channel)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 55 of 110

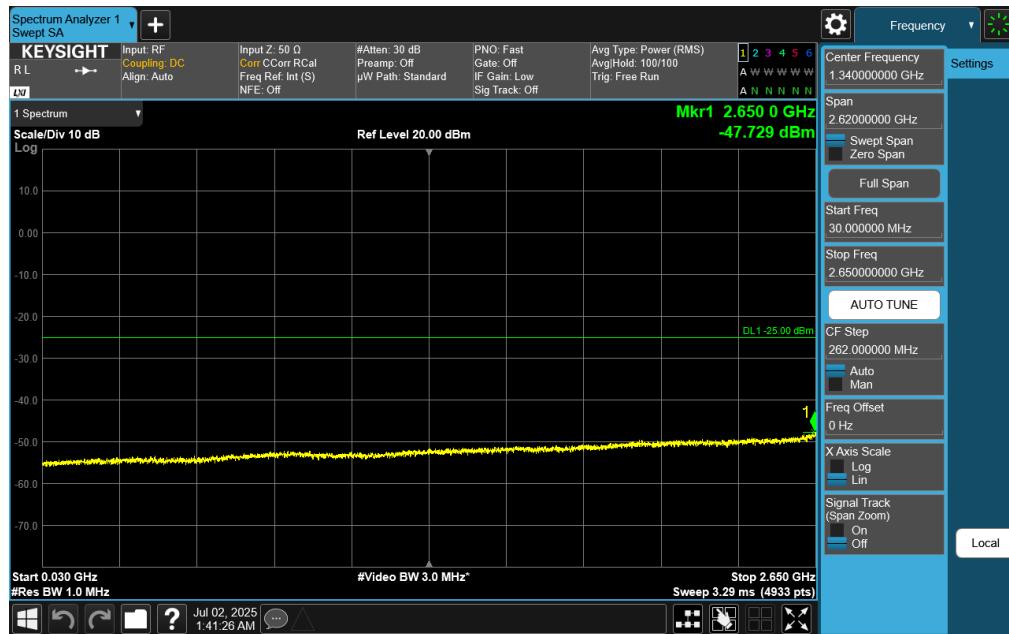


Plot 7-76. Conducted Spurious Plot (NR Band n41 - 20MHz QPSK - RB Size 1, RB Offset 25 - Mid Channel)

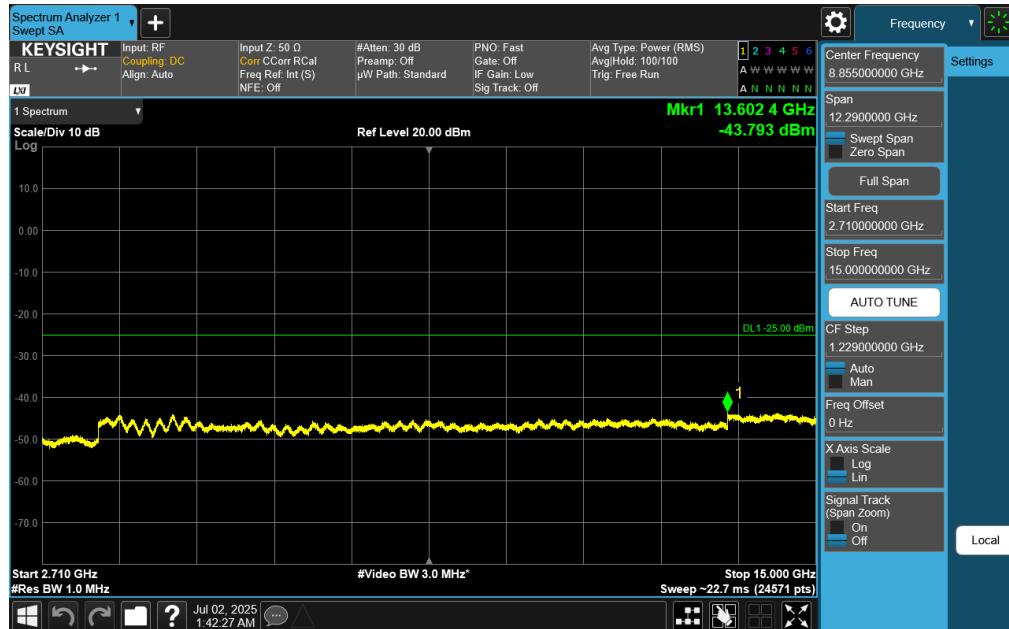


Plot 7-77. Conducted Spurious Plot (NR Band n41 - 20MHz QPSK - RB Size 1, RB Offset 25 - Mid Channel)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 56 of 110

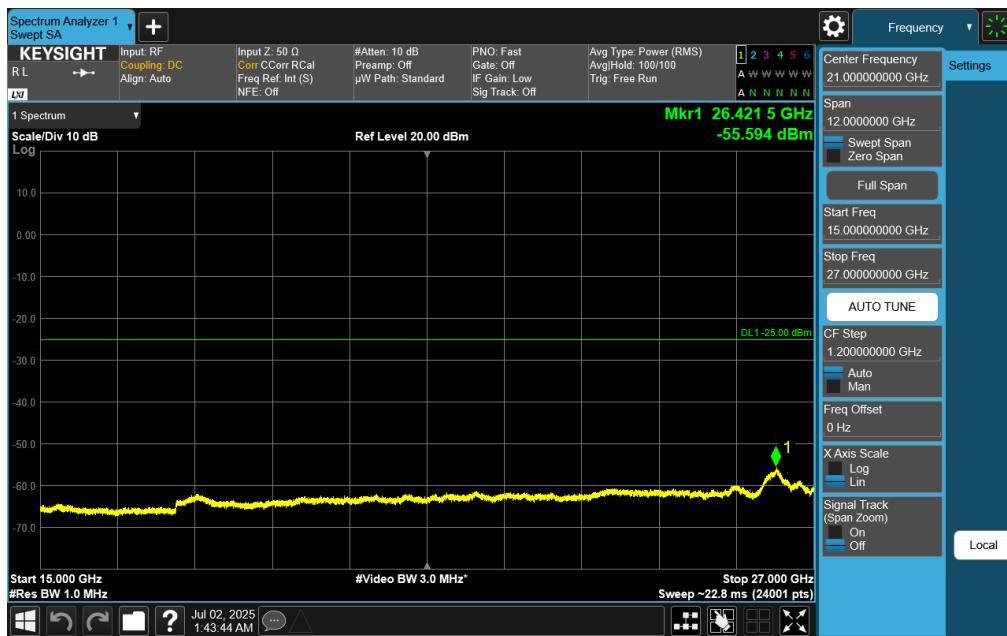


Plot 7-78. Conducted Spurious Plot (NR Band n41 - 20MHz QPSK - RB Size 1, RB Offset 25 - High Channel)



Plot 7-79. Conducted Spurious Plot (NR Band n41 - 20MHz QPSK - RB Size 1, RB Offset 25 - High Channel)

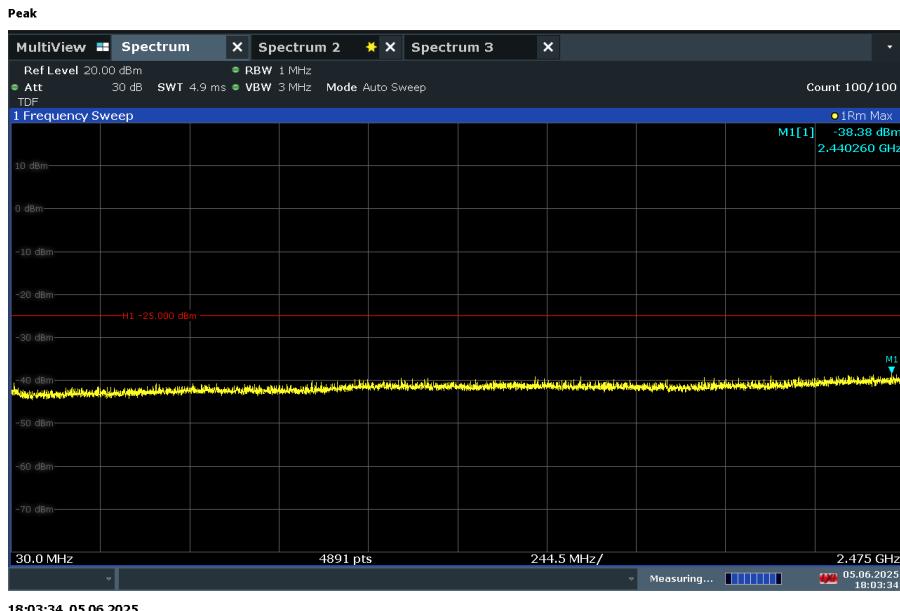
FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 57 of 110



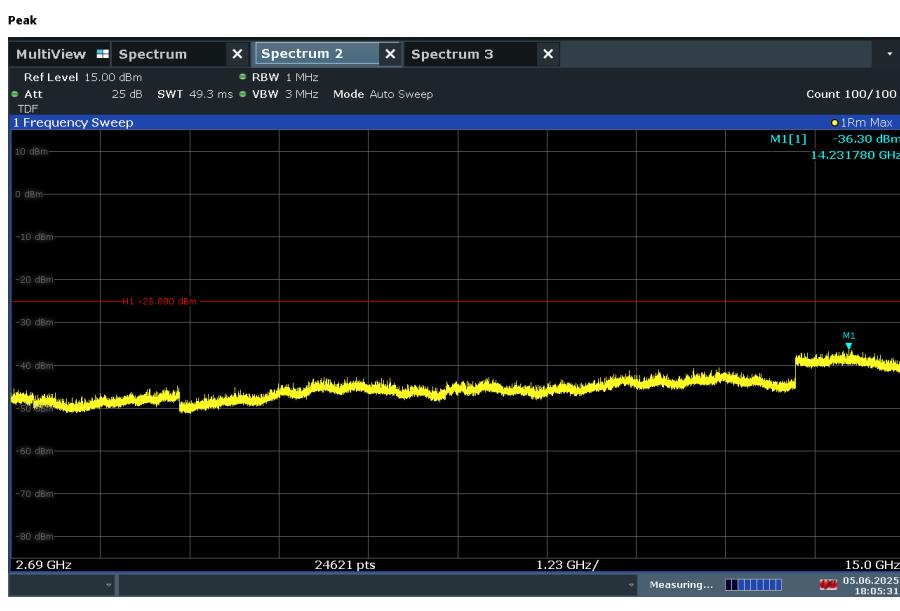
Plot 7-80. Conducted Spurious Plot (NR Band n41 - 20MHz QPSK - RB Size 1, RB Offset 25 - High Channel)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 58 of 110

Simultaneous Tx Conducted Spurious Emissions Measurements

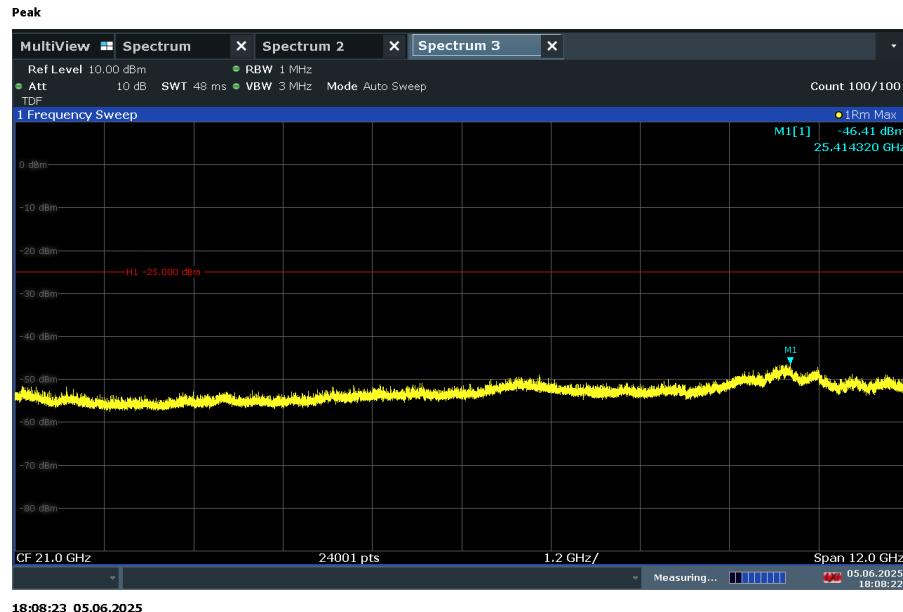


Plot 7-81. Simultaneous Tx Conducted Spurious Plot (NR Band n41 + BT)



Plot 7-82. Simultaneous Tx Conducted Spurious Plot (NR Band n41 + BT)

FCC ID: BCG-A3328	element		PART 27 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 59 of 110



Plot 7-83. Simultaneous Tx Conducted Spurious Plot (NR Band n41 + BT)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 60 of 110	

7.4 Band Edge Emissions at Antenna Terminal

§2.1051, §27.53(a), §27.53(m)

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates 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.

For LTE Bands 7, 41, and NR FR1 Band n41 the minimum permissible attenuation level is noted in the Test Notes on the following page.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW \geq 1% of the emission bandwidth
4. VBW \geq 3 x RBW
5. Detector = RMS
6. Number of sweep points \geq 2 x Span/RBW
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 61 of 110

Test Setup

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

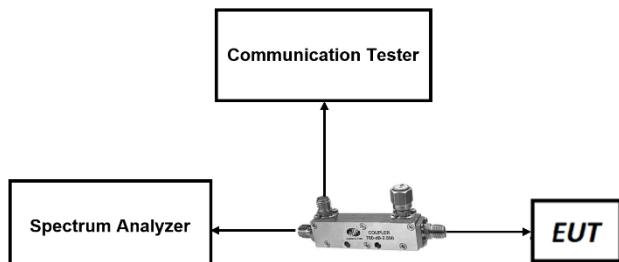


Figure 7-5. LTE Test Instrument & Measurement Setup

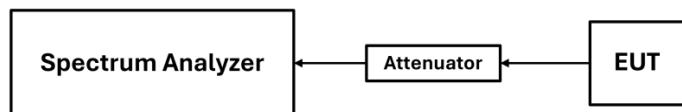


Figure 7-6. FR1 Test Instrument & Measurement Setup

Test Notes

1. Per 27.53(h), in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
2. Per 27.53(m) for operations in the BRS/EBS bands, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz.
3. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 62 of 110

LTE Band 7



Plot 7-84. Lower ACP Plot (LTE Band 7 - 5MHz QPSK – Full RB)



Plot 7-85. Middle ACP Plot (LTE Band 7 - 5MHz QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 63 of 110



Plot 7-86. Upper ACP Plot (LTE Band 7 - 5MHz QPSK – Full RB)



Plot 7-87. Lower ACP Plot (LTE Band 7 - 10MHz QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 64 of 110



Plot 7-88. Middle ACP Plot (LTE Band 7 - 10MHz QPSK – Full RB)

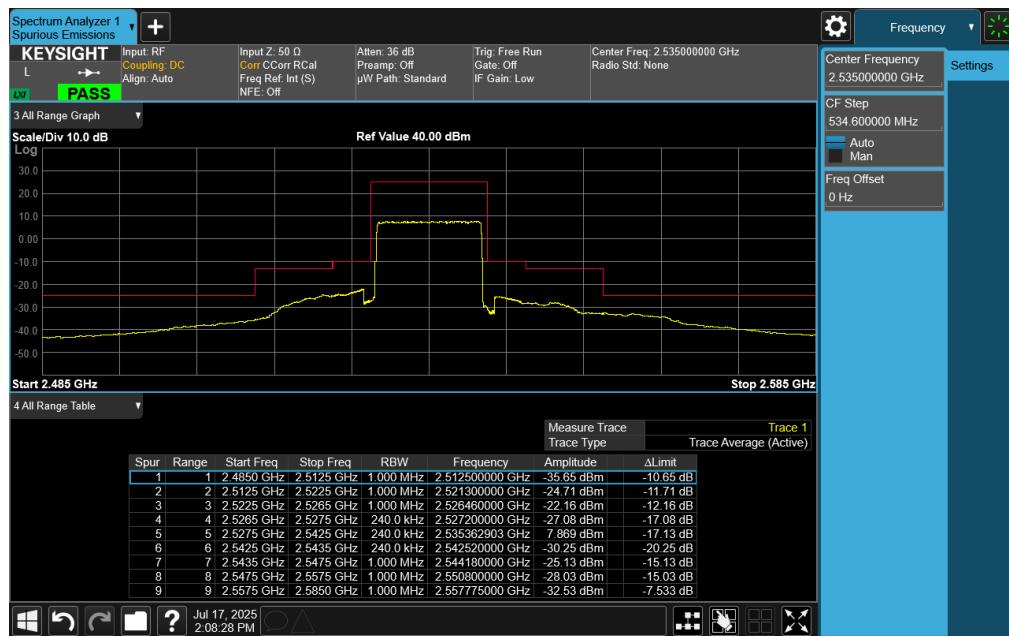


Plot 7-89. Upper ACP Plot (LTE Band 7 - 10MHz QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 65 of 110



Plot 7-90. Lower ACP Plot (LTE Band 7 - 15MHz QPSK – Full RB)



Plot 7-91. Middle ACP Plot (LTE Band 7 - 15MHz QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 66 of 110



Plot 7-92. Upper ACP Plot (LTE Band 7 - 15MHz QPSK – Full RB)

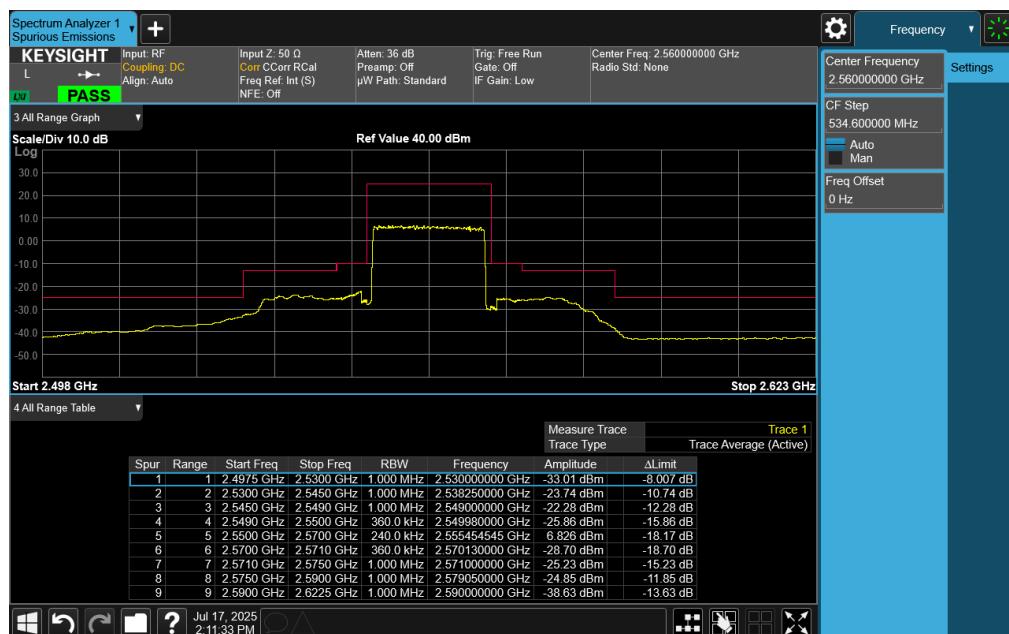


Plot 7-93. Lower ACP Plot (LTE Band 7 - 20MHz QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 67 of 110



Plot 7-94. Middle ACP Plot (LTE Band 7 - 20MHz QPSK – Full RB)



Plot 7-95. Upper ACP Plot (LTE Band 7 - 20MHz QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 68 of 110

LTE Band 41

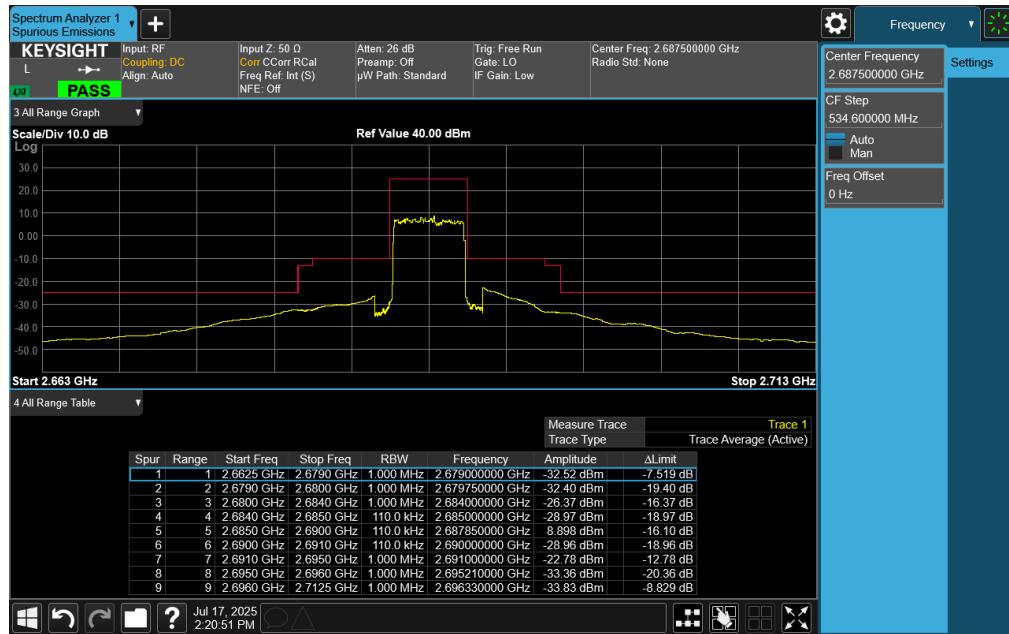


Plot 7-96. Lower ACP Plot (LTE Band 41 - 5MHz QPSK – Full RB)

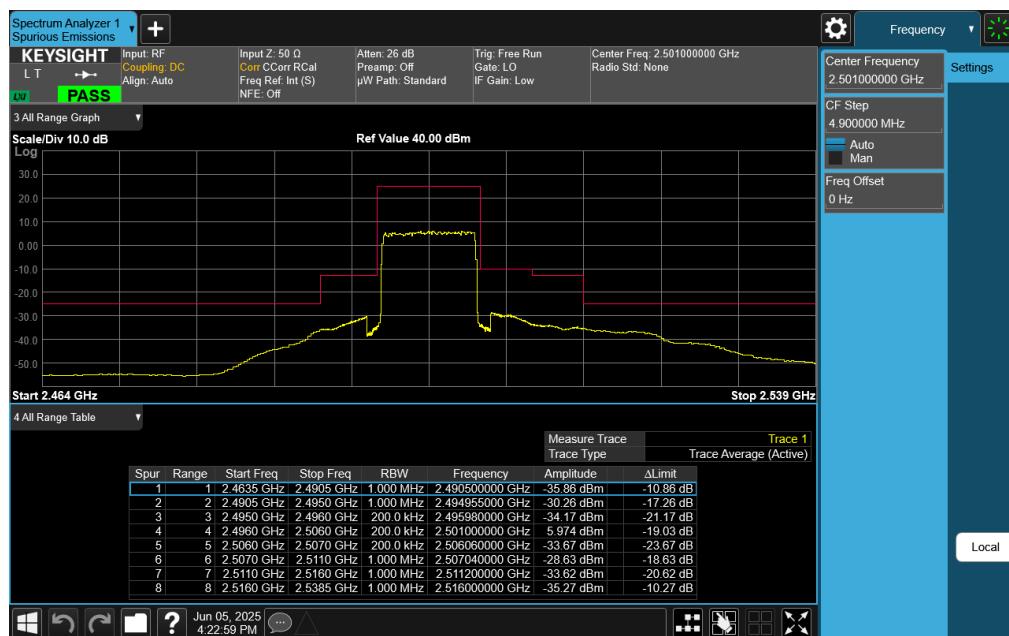


Plot 7-97. Middle ACP Plot (LTE Band 41 - 5MHz QPSK – Full RB)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 69 of 110



Plot 7-98. Upper ACP Plot (LTE Band 41 - 5MHz QPSK – Full RB)



Plot 7-99. Lower ACP Plot (LTE Band 41 - 10MHz QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 70 of 110

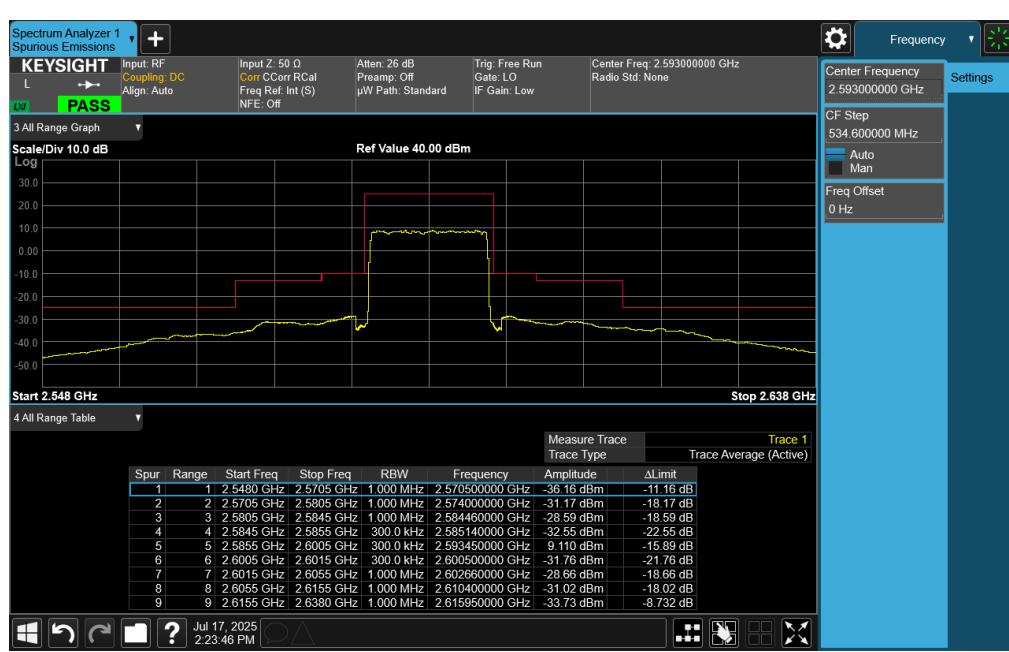
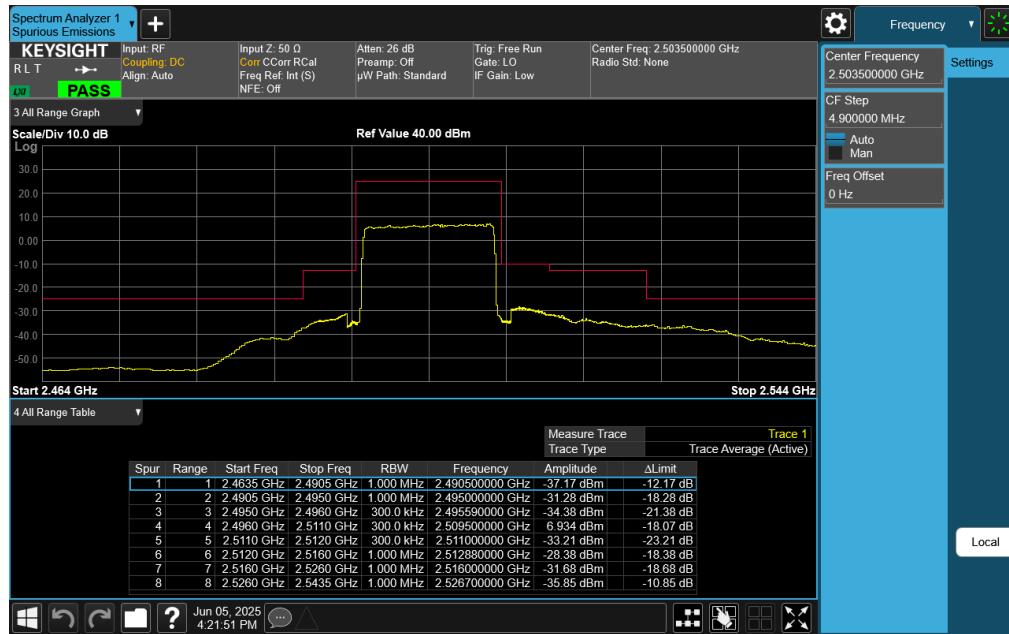


Plot 7-100. Middle ACP Plot (LTE Band 41 - 10MHz QPSK – Full RB)

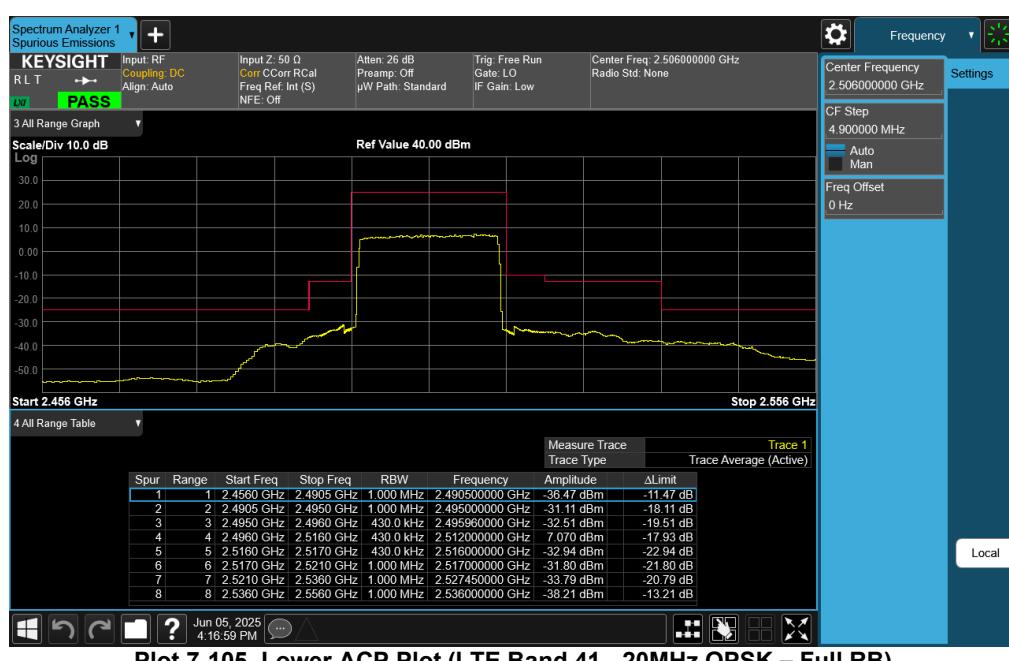
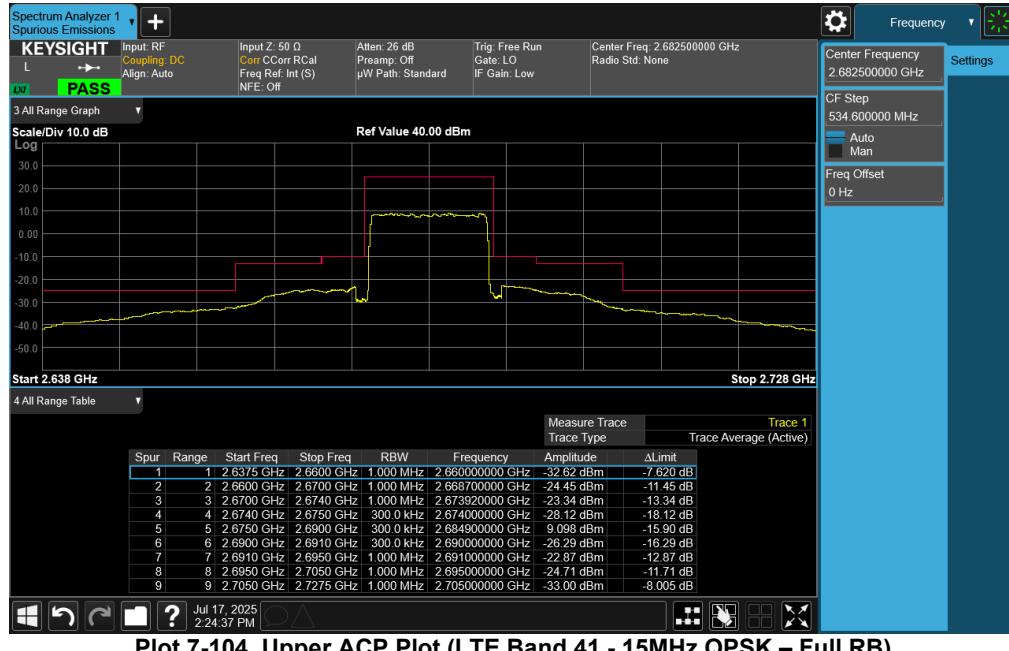


Plot 7-101. Upper ACP Plot (LTE Band 41 - 10MHz QPSK – Full RB)

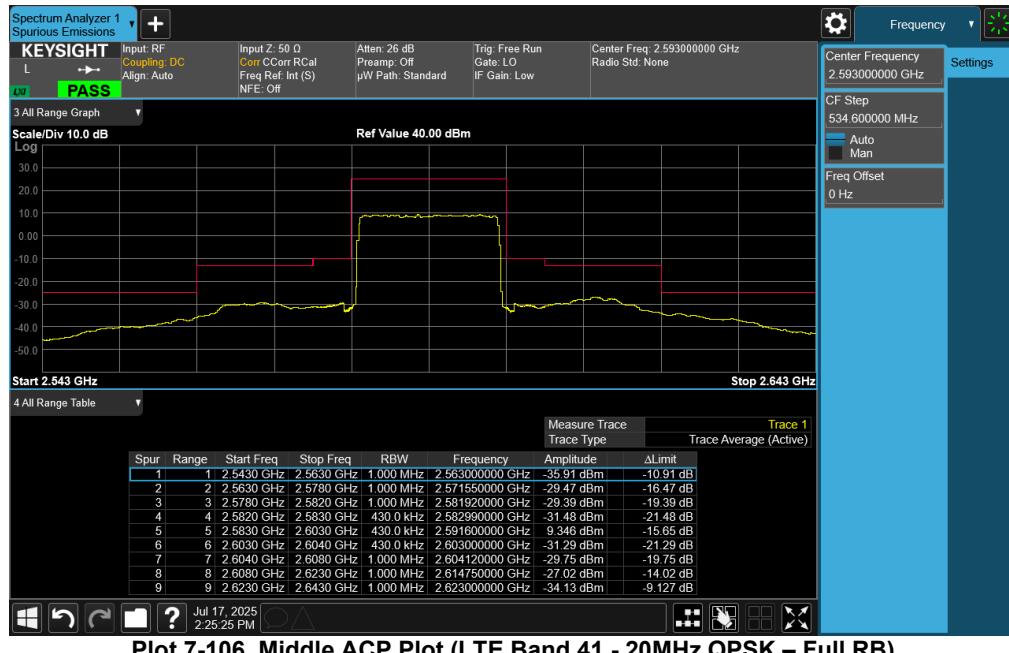
FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 71 of 110



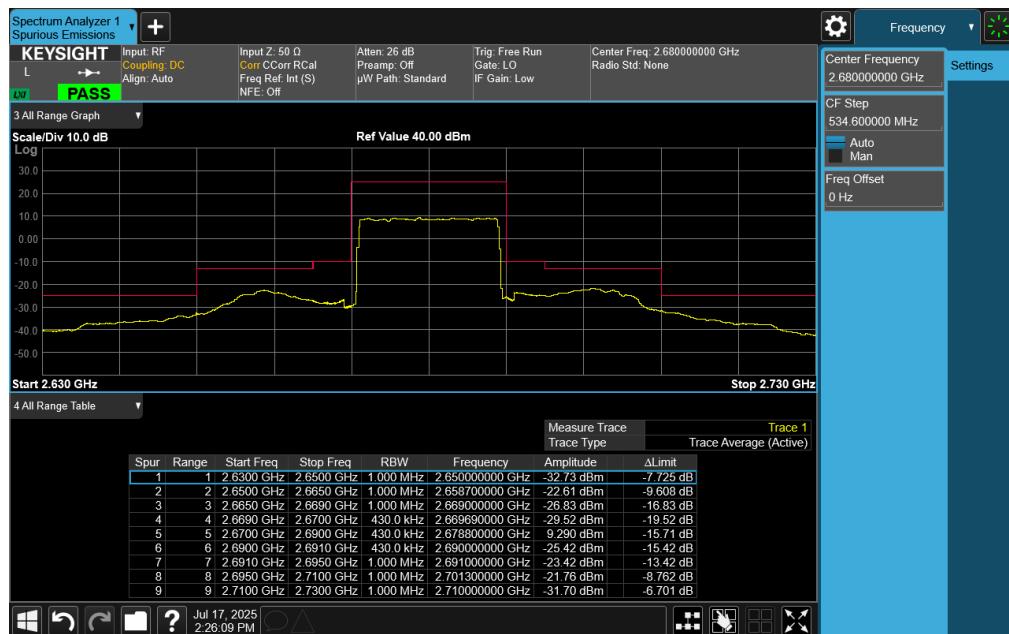
FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 72 of 110



FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 73 of 110



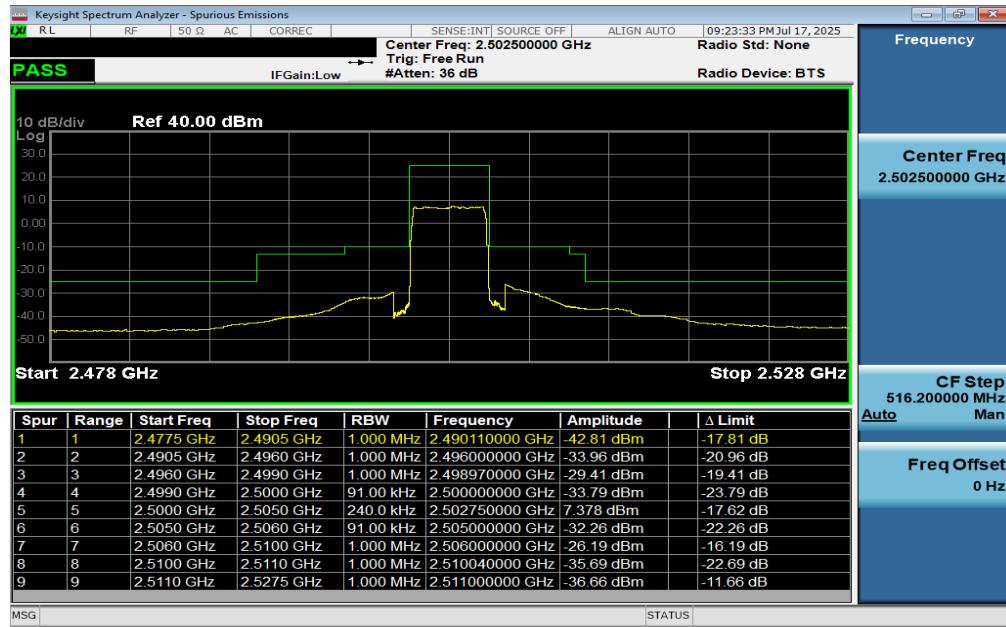
Plot 7-106. Middle ACP Plot (LTE Band 41 - 20MHz QPSK – Full RB)



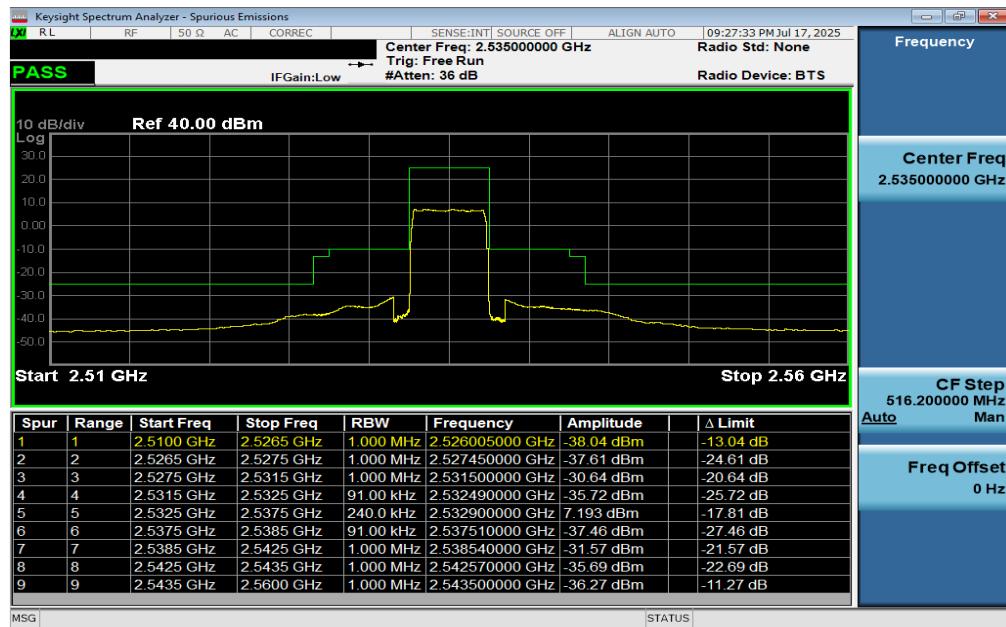
Plot 7-107. Upper ACP Plot (LTE Band 41 - 20MHz QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 74 of 110

NR Band n7



Plot 7-108. Lower ACP Plot (NR Band n7 - 5MHz DFT-s-OFDM QPSK – Full RB)

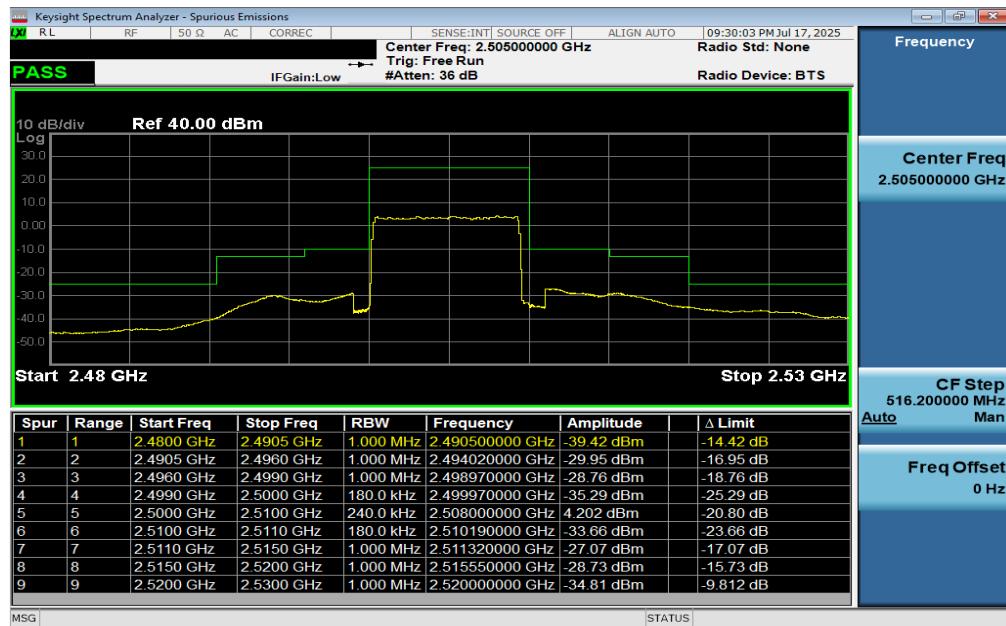


Plot 7-109. Middle ACP Plot (NR Band n7 - 5MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 75 of 110	



Plot 7-110. Upper ACP Plot (NR Band n7 - 5MHz DFT-s-OFDM QPSK – Full RB)



Plot 7-111. Lower ACP Plot (NR Band n7 - 10MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 76 of 110	



Plot 7-112. Middle ACP Plot (NR Band n7 - 10MHz DFT-s-OFDM QPSK – Full RB)



Plot 7-113. Upper ACP Plot (NR Band n7 - 10MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 77 of 110	

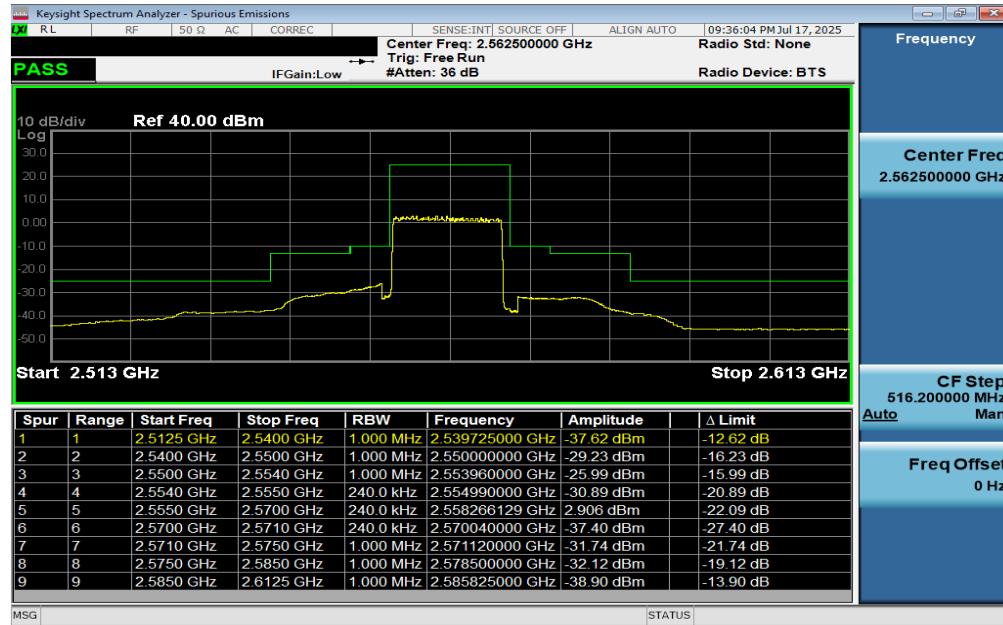


Plot 7-114. Lower ACP Plot (NR Band n7 - 15MHz DFT-s-OFDM QPSK – Full RB)

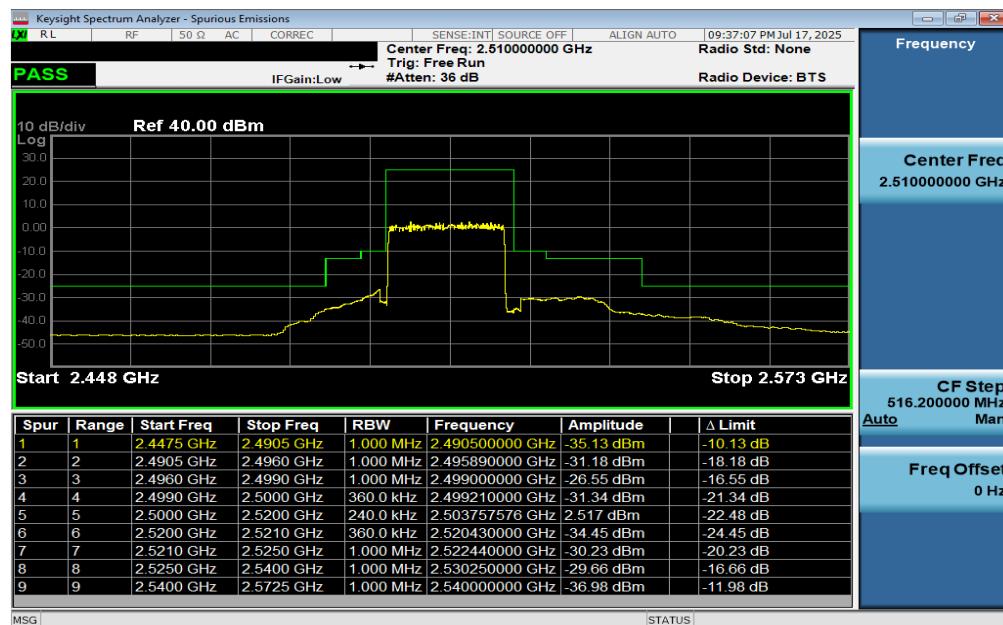


Plot 7-115. Middle ACP Plot (NR Band n7 - 15MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 78 of 110	

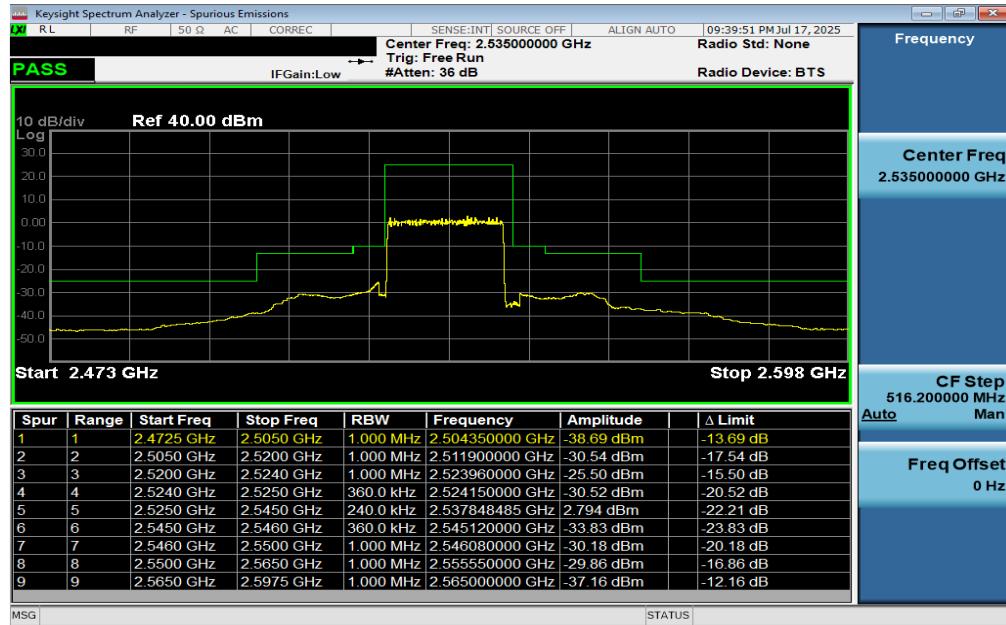


Plot 7-116. Upper ACP Plot (NR Band n7 - 15MHz DFT-s-OFDM QPSK – Full RB)

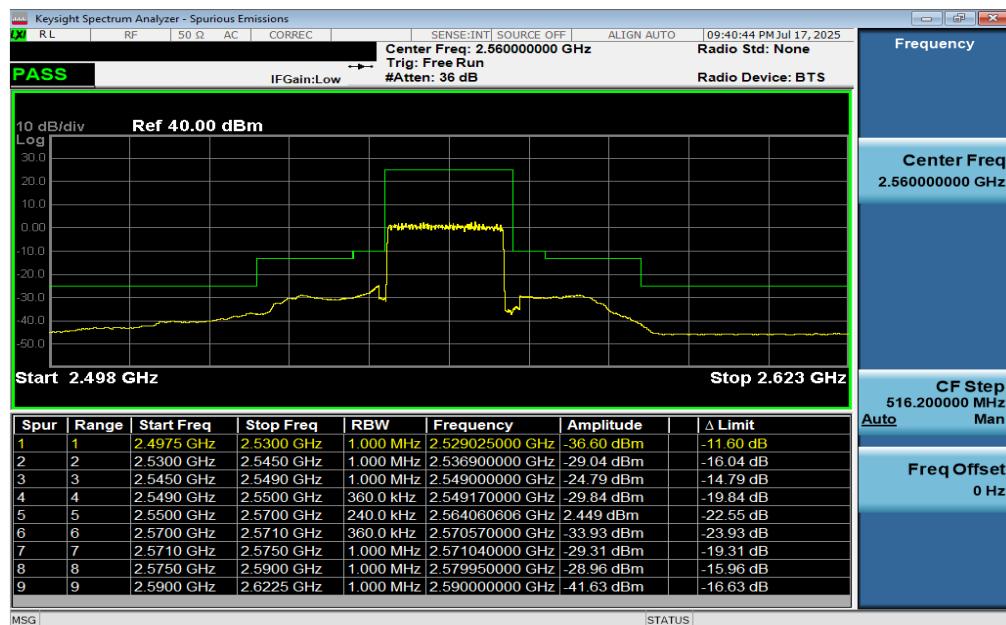


Plot 7-117. Lower ACP Plot (NR Band n7 - 20MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 79 of 110	



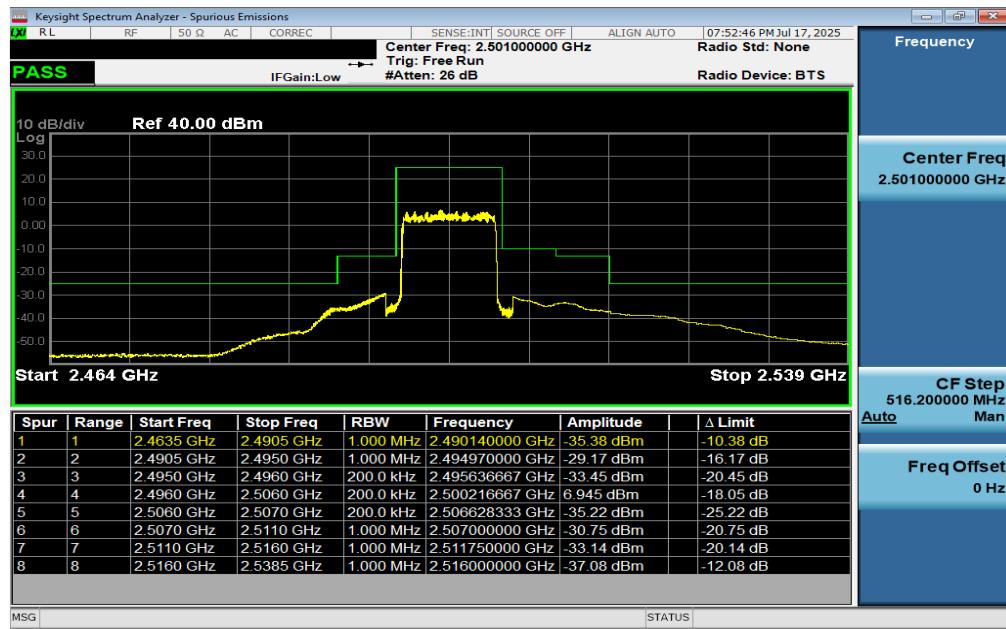
Plot 7-118. Middle ACP Plot (NR Band n7 - 20MHz DFT-s-OFDM QPSK – Full RB)



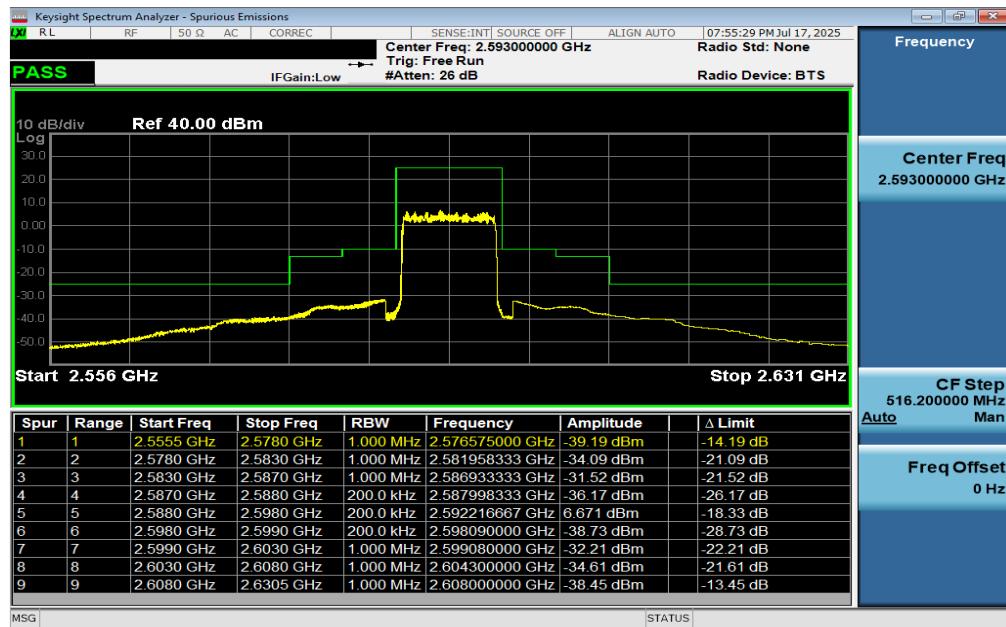
Plot 7-119. Upper ACP Plot (NR Band n7 - 20MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 80 of 110	

NR Band n41



Plot 7-120. Lower ACP Plot (NR Band n41 - 10MHz DFT-s-OFDM QPSK – Full RB)

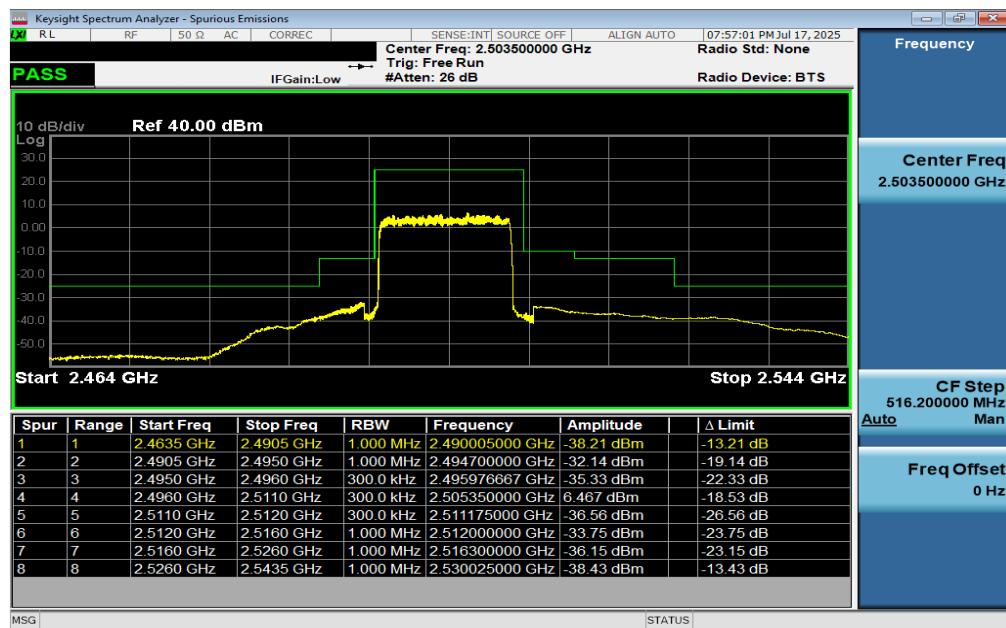


Plot 7-121. Middle ACP Plot (NR Band n41 - 10MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 81 of 110

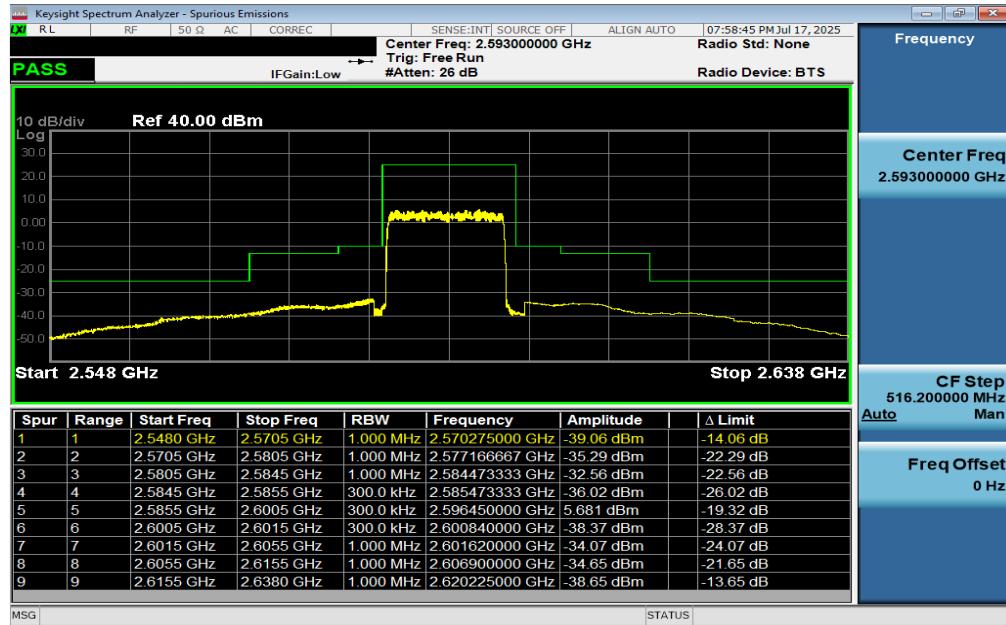


Plot 7-122. Upper ACP Plot (NR Band n41 - 10MHz DFT-s-OFDM QPSK – Full RB)



Plot 7-123. Lower ACP Plot (NR Band n41 - 15MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 82 of 110	

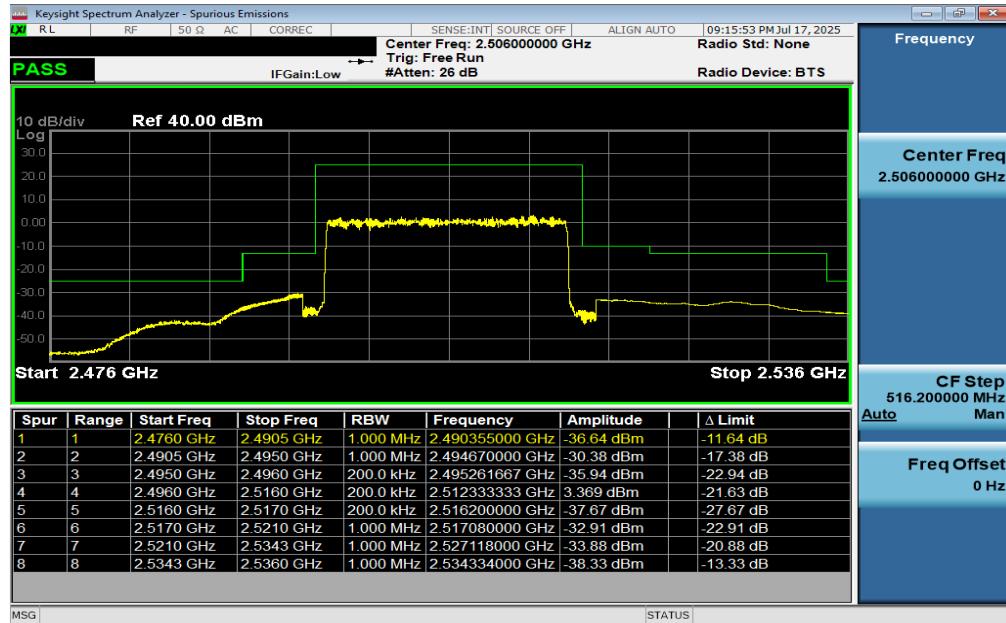


Plot 7-124. Middle ACP Plot (NR Band n41 - 15MHz DFT-s-OFDM QPSK – Full RB)

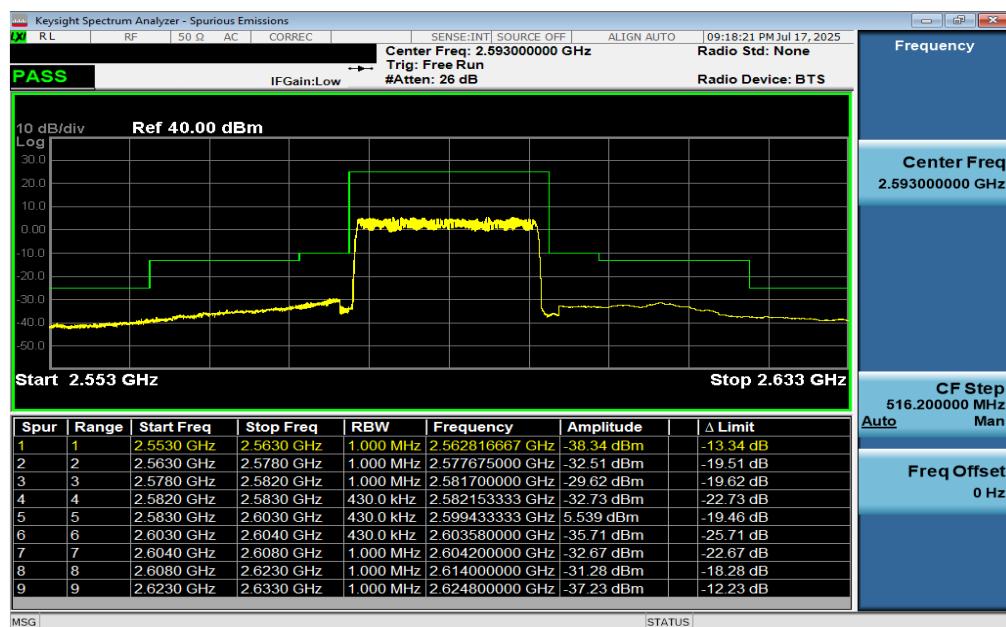


Plot 7-125. Upper ACP Plot (NR Band n41 - 15MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 83 of 110	



Plot 7-126. Lower ACP Plot (NR Band n41 - 20MHz DFT-s-OFDM QPSK – Full RB)



Plot 7-127. Middle ACP Plot (NR Band n41 - 20MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 84 of 110	



Plot 7-128. Upper ACP Plot (NR Band n41 - 20MHz DFT-s-OFDM QPSK – Full RB)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 85 of 110

7.5 Radiated Power (EIRP)

§27.50(a)(3), §27.50(h)(2)

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 ERP or EIRP from the conducted RF output power measured is:

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

Where:

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

PMes = 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.

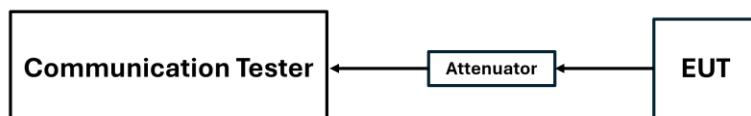


Figure 7-7. LTE EIRP Measurement Setup

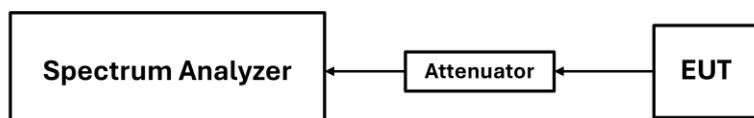


Figure 7-8. FR1 EIRP Measurement Setup

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 86 of 110

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.

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7.5.1 Antenna FCM EIRP Data

LTE Band 7

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
5 MHz	QPSK	2502.5	-7.00	1 / 24	25.09	18.09	64.417	33.01	-14.92
		2535.0	-7.00	1 / 24	25.04	18.04	63.680	33.01	-14.97
		2567.5	-7.00	1 / 12	24.94	17.94	62.230	33.01	-15.07
	16-QAM	2535.0	-7.00	1 / 0	24.63	17.63	57.943	33.01	-15.38
10 MHz	QPSK	2505.0	-7.00	1 / 0	25.01	18.01	63.241	33.01	-15.00
		2535.0	-7.00	1 / 0	24.97	17.97	62.661	33.01	-15.04
		2565.0	-7.00	1 / 49	24.91	17.91	61.802	33.01	-15.10
	16-QAM	2535.0	-7.00	1 / 0	24.31	17.31	53.827	33.01	-15.70
15 MHz	QPSK	2507.5	-7.00	1 / 37	25.18	18.18	65.766	33.01	-14.83
		2535.0	-7.00	1 / 37	25.03	18.03	63.533	33.01	-14.98
		2562.5	-7.00	1 / 37	24.94	17.94	62.230	33.01	-15.07
	16-QAM	2535.0	-7.00	1 / 37	24.37	17.37	54.576	33.01	-15.64
20 MHz	QPSK	2510.0	-7.00	1 / 0	25.20	18.20	66.069	33.01	-14.81
		2535.0	-7.00	1 / 50	24.81	17.81	60.395	33.01	-15.20
		2560.0	-7.00	1 / 50	25.10	18.10	64.565	33.01	-14.91
	16-QAM	2560.0	-7.00	1 / 99	24.61	17.61	57.677	33.01	-15.40

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

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
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LTE Band 41

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
5 MHz	QPSK	2498.5	-5.80	1 / 0	25.14	19.34	85.901	33.01	-13.67
		2593.0	-5.80	1 / 12	25.20	19.40	87.096	33.01	-13.61
		2687.5	-5.80	1 / 12	25.08	19.28	84.723	33.01	-13.73
	16-QAM	2593.0	-5.80	1 / 0	24.06	18.26	66.988	33.01	-14.75
10 MHz	QPSK	2501.0	-5.80	1 / 25	25.19	19.39	86.896	33.01	-13.62
		2593.0	-5.80	1 / 49	25.14	19.34	85.901	33.01	-13.67
		2685.0	-5.80	1 / 25	25.19	19.39	86.896	33.01	-13.62
	16-QAM	2685.0	-5.80	1 / 0	24.05	18.25	66.834	33.01	-14.76
15 MHz	QPSK	2503.5	-5.80	1 / 37	25.07	19.27	84.528	33.01	-13.74
		2593.0	-5.80	1 / 0	25.20	19.40	87.096	33.01	-13.61
		2682.5	-5.80	1 / 74	25.09	19.29	84.918	33.01	-13.72
	16-QAM	2503.5	-5.80	1 / 37	24.18	18.38	68.865	33.01	-14.63
20 MHz	QPSK	2506.0	-5.80	1 / 50	25.20	19.40	87.096	33.01	-13.61
		2593.0	-5.80	1 / 50	25.08	19.28	84.723	33.01	-13.73
		2680.0	-5.80	1 / 99	25.04	19.24	83.946	33.01	-13.77
	16-QAM	2680.0	-5.80	1 / 99	24.19	18.39	69.024	33.01	-14.62

Table 7-3. Antenna FCM EIRP Data (LTE Band 41)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 89 of 110	

NR Band n7

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	2502.5	-7.00	1 / 12	24.97	17.97	62.661	33.01	-15.04
		2535.0	-7.00	1 / 1	25.16	18.16	65.464	33.01	-14.85
		2567.5	-7.00	1 / 23	25.17	18.17	65.615	33.01	-14.84
	QPSK	2502.5	-7.00	1 / 1	25.03	18.03	63.533	33.01	-14.98
		2535.0	-7.00	1 / 23	25.20	18.20	66.069	33.01	-14.81
		2567.5	-7.00	1 / 12	25.07	18.07	64.121	33.01	-14.94
	16-QAM	2502.5	-7.00	1 / 1	24.24	17.24	52.966	33.01	-15.77
	64-QAM	2502.5	-7.00	1 / 23	23.21	16.21	41.783	33.01	-16.80
	π/2 BPSK	2505.0	-7.00	1 / 1	25.17	18.17	65.615	33.01	-14.84
		2535.0	-7.00	1 / 1	25.08	18.08	64.269	33.01	-14.93
		2565.0	-7.00	1 / 25	25.13	18.13	65.013	33.01	-14.88
10 MHz	QPSK	2505.0	-7.00	1 / 50	24.92	17.92	61.944	33.01	-15.09
		2535.0	-7.00	1 / 1	25.20	18.20	66.069	33.01	-14.81
		2565.0	-7.00	1 / 1	25.06	18.06	63.973	33.01	-14.95
	16-QAM	2535.0	-7.00	1 / 25	24.17	17.17	52.119	33.01	-15.84
	64-QAM	2535.0	-7.00	1 / 25	23.18	16.18	41.495	33.01	-16.83
	π/2 BPSK	2507.5	-7.00	1 / 37	25.16	18.16	65.464	33.01	-14.85
		2535.0	-7.00	1 / 37	25.01	18.01	63.241	33.01	-15.00
		2562.5	-7.00	1 / 73	25.15	18.15	65.313	33.01	-14.86
15 MHz	QPSK	2507.5	-7.00	1 / 1	25.20	18.20	66.069	33.01	-14.81
		2535.0	-7.00	1 / 73	25.10	18.10	64.565	33.01	-14.91
		2562.5	-7.00	1 / 37	25.12	18.12	64.863	33.01	-14.89
	16-QAM	2535.0	-7.00	1 / 37	24.28	17.28	53.456	33.01	-15.73
	64-QAM	2507.5	-7.00	1 / 37	23.27	16.27	42.364	33.01	-16.74
	π/2 BPSK	2510.0	-7.00	1 / 1	25.11	18.11	64.714	33.01	-14.90
		2535.0	-7.00	1 / 98	25.20	18.20	66.069	33.01	-14.81
		2560.0	-7.00	1 / 98	25.18	18.18	65.766	33.01	-14.83
		2510.0	-7.00	1 / 50	25.04	18.04	63.680	33.01	-14.97
		2535.0	-7.00	1 / 1	25.20	18.20	66.069	33.01	-14.81
		2560.0	-7.00	1 / 98	25.09	18.09	64.417	33.01	-14.92
20 MHz	16-QAM	2510.0	-7.00	1 / 98	24.16	17.16	52.000	33.01	-15.85
	64-QAM	2510.0	-7.00	1 / 98	23.19	16.19	41.591	33.01	-16.82

Table 7-4. Antenna FCM EIRP Data (NR Band n7)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
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NR Band n41

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	EIRP [dBm]	EIRP [mW]	EIRP Limit [dBm]	Margin [dB]
10MHz	π/2 BPSK	2501.0	-5.80	1 / 11	25.05	19.25	84.140	33.01	-13.76
		2593.0	-5.80	1 / 22	25.19	19.39	86.896	33.01	-13.62
		2685.0	-5.80	1 / 22	25.12	19.32	85.507	33.01	-13.69
	QPSK	2501.0	-5.80	1 / 22	25.06	19.26	84.333	33.01	-13.75
		2593.0	-5.80	1 / 11	25.01	19.21	83.368	33.01	-13.80
		2685.0	-5.80	1 / 1	25.18	19.38	86.696	33.01	-13.63
	16-QAM	2685.0	-5.80	1 / 1	24.21	18.41	69.343	33.01	-14.60
	64-QAM	2593.0	-5.80	1 / 1	23.17	17.37	54.576	33.01	-15.64
	π/2 BPSK	2503.5	-5.80	1 / 36	25.19	19.39	86.896	33.01	-13.62
		2593.0	-5.80	1 / 1	25.20	19.40	87.096	33.01	-13.61
		2682.5	-5.80	1 / 36	25.18	19.38	86.696	33.01	-13.63
15MHz	QPSK	2503.5	-5.80	1 / 12	25.13	19.33	85.704	33.01	-13.68
		2593.0	-5.80	1 / 1	25.20	19.40	87.096	33.01	-13.61
		2682.5	-5.80	1 / 36	24.91	19.11	81.470	33.01	-13.90
	16-QAM	2503.5	-5.80	1 / 1	24.15	18.35	68.391	33.01	-14.66
	64-QAM	2682.5	-5.80	1 / 36	23.27	17.47	55.847	33.01	-15.54
	π/2 BPSK	2506.0	-5.80	1 / 49	25.20	19.40	87.096	33.01	-13.61
		2593.0	-5.80	1 / 1	25.11	19.31	85.310	33.01	-13.70
		2680.0	-5.80	1 / 25	25.08	19.28	84.723	33.01	-13.73
20MHz	QPSK	2506.0	-5.80	1 / 25	25.14	19.34	85.901	33.01	-13.67
		2593.0	-5.80	1 / 1	25.16	19.36	86.298	33.01	-13.65
		2680.0	-5.80	1 / 49	25.15	19.35	86.099	33.01	-13.66
	16-QAM	2506.0	-5.80	1 / 49	24.20	18.40	69.183	33.01	-14.61
	64-QAM	2506.0	-5.80	1 / 1	23.21	17.41	55.081	33.01	-15.60

Table 7-5. Antenna FCM EIRP Data (NR Band n41)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT				Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch			

7.6 Radiated Spurious Emissions

§2.1053, 27.53(a), 27.53(m)

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

Test Settings

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

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Test Setup

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

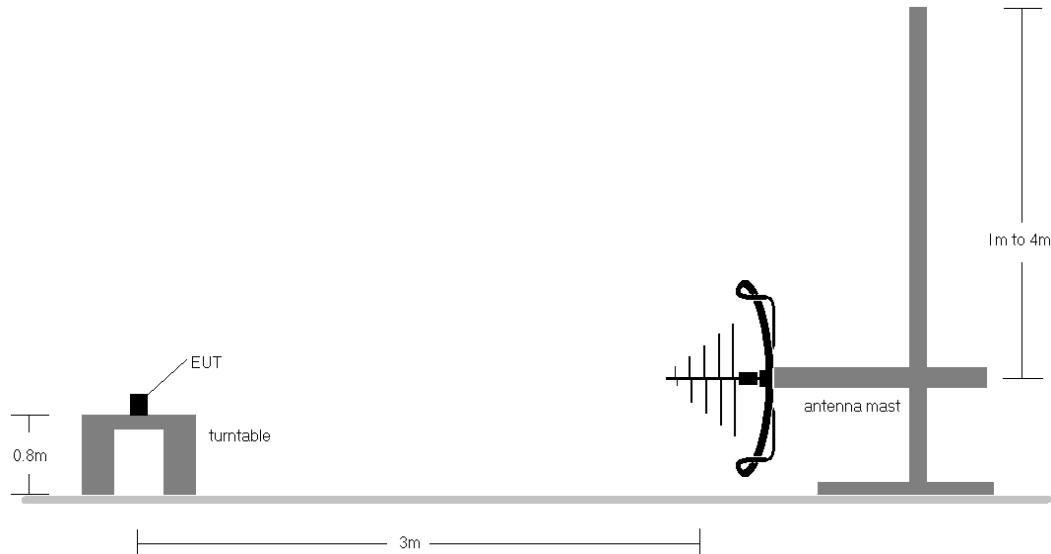


Figure 7-9. Test Instrument & Measurement Setup < 1GHz

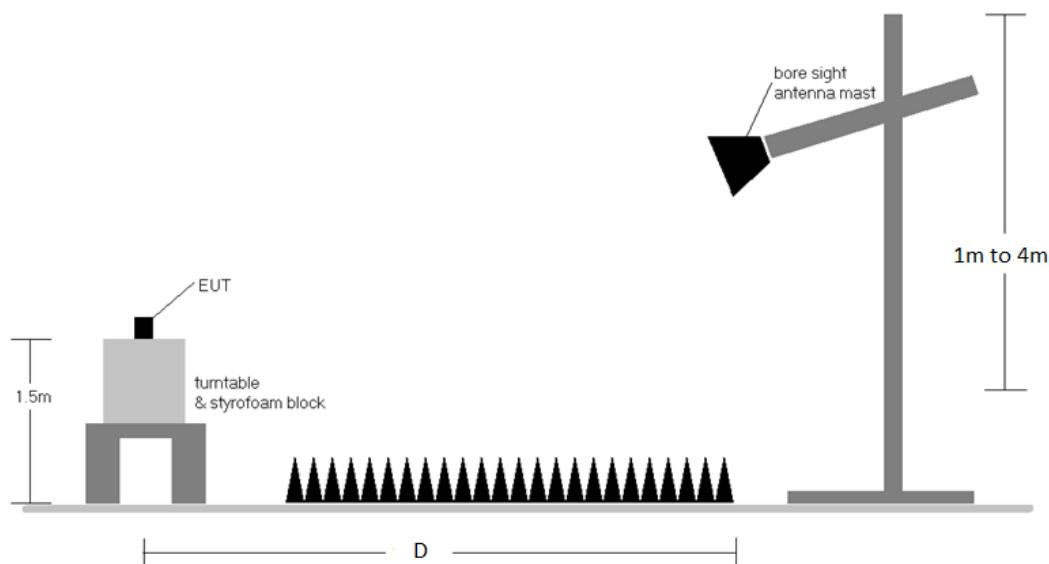


Figure 7-10. Test Instrument & Measurement Setup > 1 GHz

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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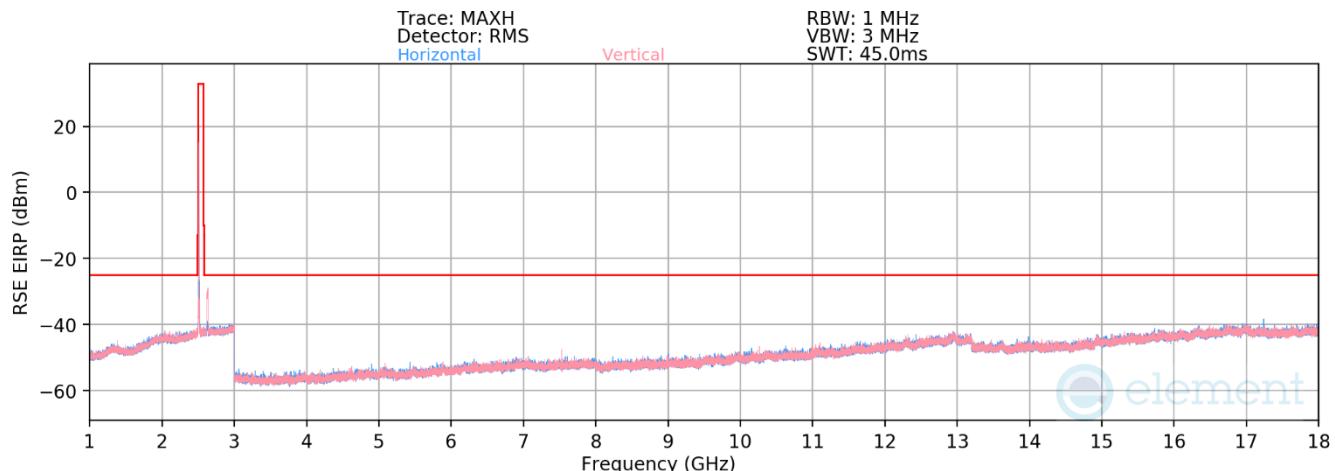
Test Notes

1. Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
 - a. $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - b. $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$; where D is the measurement distance in meters.
2. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
3. This unit was tested with its standard battery.
4. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
5. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
6. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
7. 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.

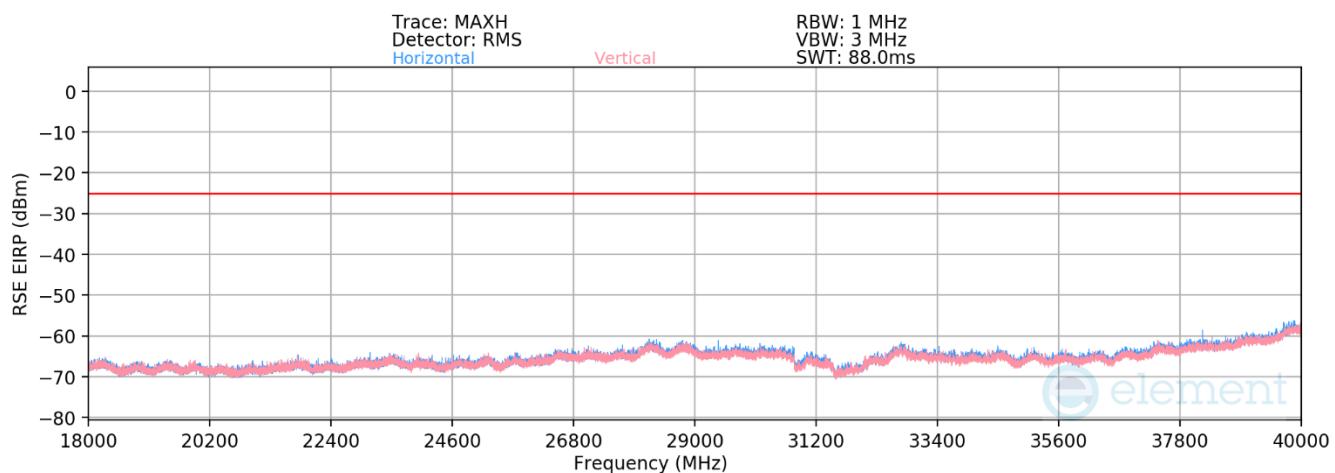
FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 94 of 110

7.6.1 Antenna FCM Radiated Spurious Emission Measurements

LTE Band 7



Plot 7-129. Antenna FCM Radiated Spurious Plot 1GHz – 18GHz (LTE Band 7)



Plot 7-130. Antenna FCM Radiated Spurious Emission above 18GHz (LTE Band 7)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
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Bandwidth (MHz):	20
Frequency (MHz):	2510.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5020.0	H	-	-	-81.12	8.69	34.56	-60.70	-25.00	-35.70
7530.0	V	228	173	-73.38	11.23	44.85	-50.40	-25.00	-25.40
10040.0	V	-	-	-82.56	14.05	38.49	-56.77	-25.00	-31.77
12550.0	H	-	-	-83.61	18.38	41.77	-53.49	-25.00	-28.49
15060.0	V	-	-	-84.10	20.67	43.57	-51.69	-25.00	-26.69

Table 7-6. Radiated Spurious Data (LTE Band 7 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2535.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5070.0	H	-	-	-81.34	8.47	34.13	-61.12	-25.00	-36.12
7605.0	V	225	181	-74.47	11.29	43.82	-51.43	-25.00	-26.43
10140.0	V	-	-	-81.79	13.87	39.08	-56.17	-25.00	-31.17
12675.0	V	-	-	-83.30	18.55	42.26	-53.00	-25.00	-28.00
15210.0	H	-	-	-83.97	20.80	43.83	-51.43	-25.00	-26.43

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

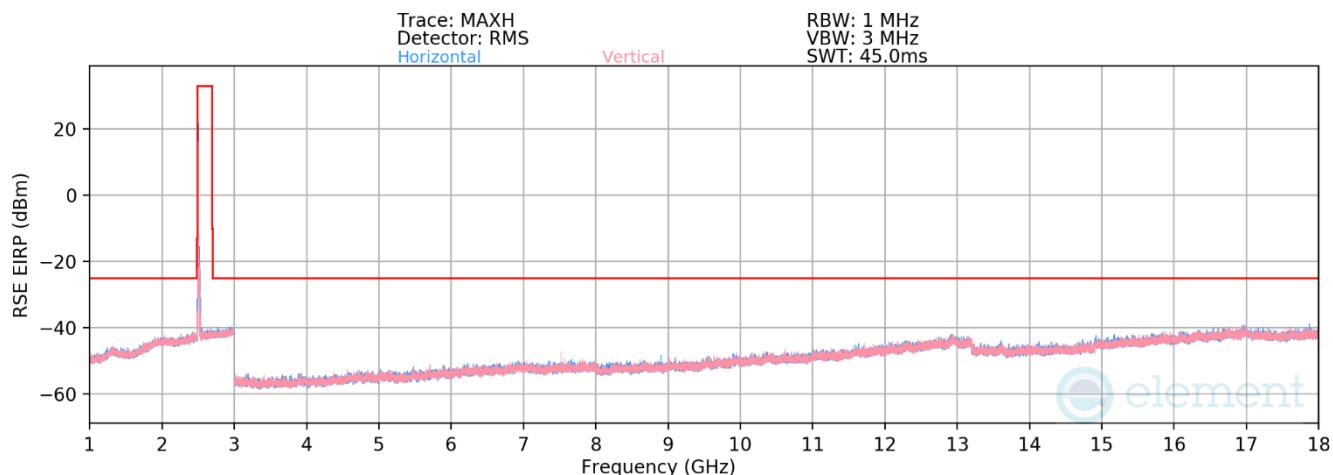
Bandwidth (MHz):	20
Frequency (MHz):	2560.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5120.00	H	-	-	-80.15	8.37	35.22	-60.03	-25.00	-35.03
7680.00	V	301	181	-74.69	11.81	44.12	-51.14	-25.00	-26.14
10240.00	V	-	-	-82.29	14.38	39.10	-56.16	-25.00	-31.16
12800.00	H	-	-	-83.25	18.56	42.31	-52.95	-25.00	-27.95
15360.00	V	-	-	-83.78	21.13	44.35	-50.91	-25.00	-25.91

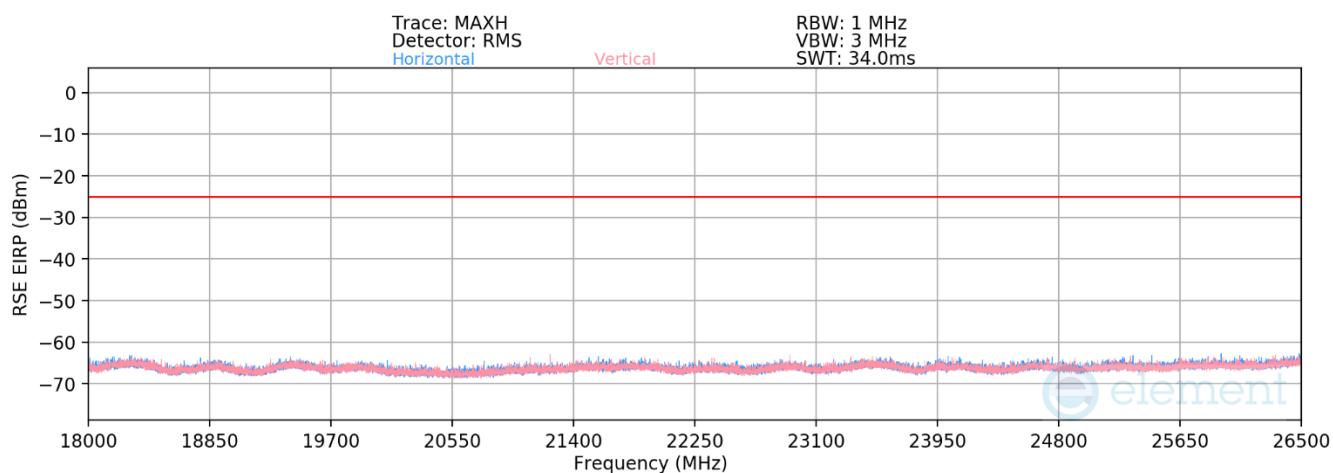
Table 7-8. Radiated Spurious Data (LTE Band 7 – High Channel)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
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LTE Band 41



Plot 7-131. Antenna FCM Radiated Spurious Plot 1GHz – 18GHz (LTE Band 41)



Plot 7-132. Antenna FCM Radiated Spurious Emission above 18GHz (LTE Band 41)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 97 of 110

Bandwidth (MHz):	20
Frequency (MHz):	2506.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5012.0	H	-	-	-78.86	8.07	36.21	-59.05	-25.00	-34.05
7518.0	V	316	178	-73.15	11.29	45.13	-50.12	-25.00	-25.12
10024.0	V	-	-	-81.78	14.05	39.27	-55.99	-25.00	-30.99
12530.0	V	-	-	-83.05	18.21	42.16	-53.09	-25.00	-28.09
15036.0	H	-	-	-83.44	20.69	44.25	-51.01	-25.00	-26.01

Table 7-9. Radiated Spurious Data (LTE Band 41 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2593.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5186.0	H	-	-	-76.39	5.77	36.38	-58.88	-25.00	-33.88
7779.0	V	280	186	-74.17	8.70	41.53	-53.72	-25.00	-28.72
10372.0	H	-	-	-80.82	11.71	37.89	-57.37	-25.00	-32.37
12965.0	H	-	-	-82.47	16.73	41.27	-53.99	-25.00	-28.99
15558.0	V	-	-	-82.81	19.53	43.72	-51.54	-25.00	-26.54

Table 7-10. Radiated Spurious Data (LTE Band 41 – Mid Channel)

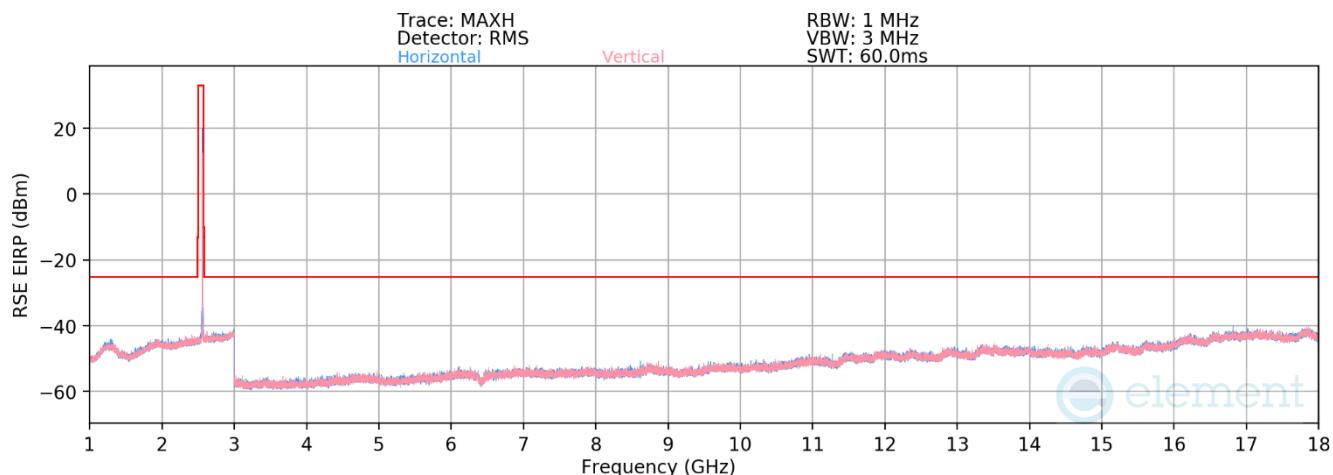
Bandwidth (MHz):	20
Frequency (MHz):	2680.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5360.0	H	-	-	-77.19	5.93	35.74	-59.52	-25.00	-34.52
8040.0	V	246	199	-73.17	8.66	42.48	-52.77	-25.00	-27.77
10720.0	V	-	-	-80.74	12.32	38.58	-56.68	-25.00	-31.68
13400.0	V	-	-	-82.46	17.18	41.72	-53.54	-25.00	-28.54
16080.0	H	-	-	-82.60	20.69	45.09	-50.17	-25.00	-25.17

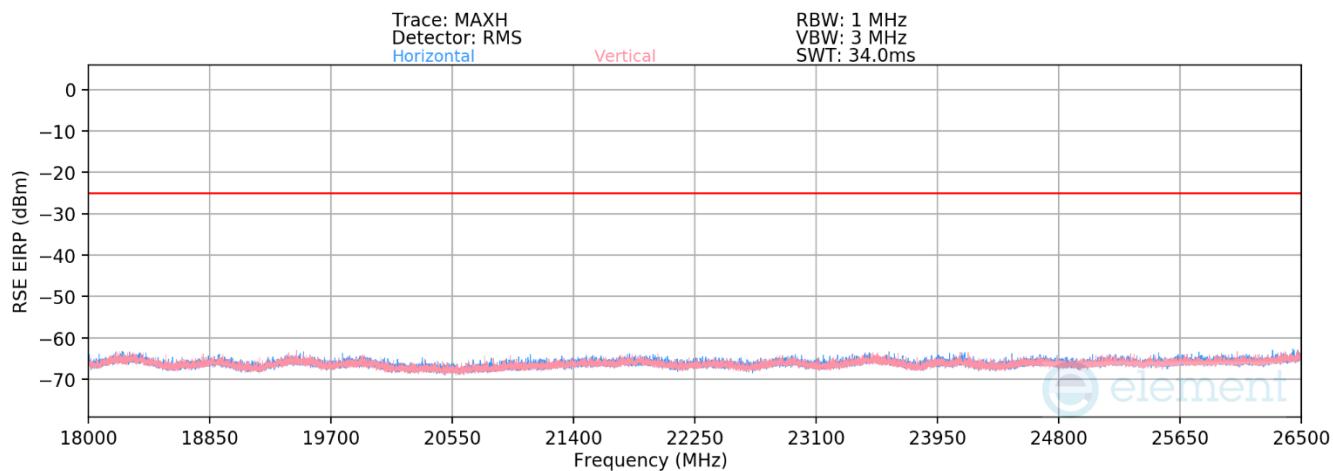
Table 7-11. Radiated Spurious Data (LTE Band 41 – High Channel)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch					Page 98 of 110

NR Band n7



Plot 7-133. Antenna 4 Radiated Spurious Plot 1GHz – 18GHz (NR Band n7)



Plot 7-134. Antenna 4 Radiated Spurious Emission above 18GHz (NR Band n7)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 99 of 110

Bandwidth (MHz):	20
Frequency (MHz):	2510.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5020.0	H	-	-	-79.27	5.64	33.37	-61.89	-25.00	-36.89
7530.0	H	-	-	-79.77	8.40	35.63	-59.63	-25.00	-34.63
10040.0	H	-	-	-81.00	10.89	36.89	-58.37	-25.00	-33.37

Table 7-12. Radiated Spurious Data (NR Band n7 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2535.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5070.0	V	-	-	-79.22	5.63	33.41	-61.85	-25.00	-36.85
7605.0	V	-	-	-80.22	8.73	35.50	-59.76	-25.00	-34.76
10140.0	V	-	-	-80.93	11.29	37.37	-57.89	-25.00	-32.89

Table 7-13. Radiated Spurious Data (NR Band n7 – Mid Channel)

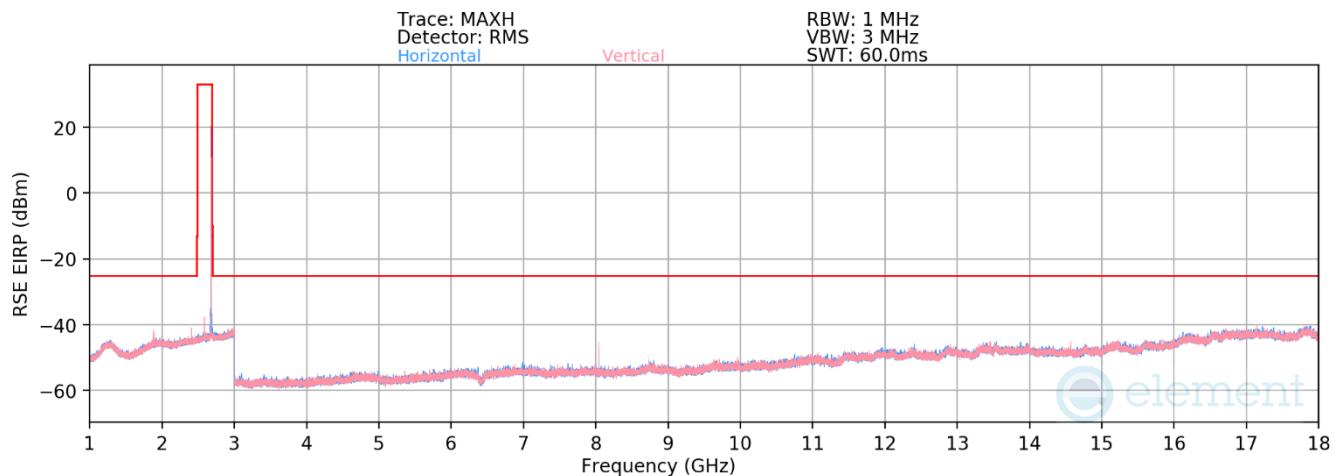
Bandwidth (MHz):	20
Frequency (MHz):	2560.0
RB / Offset:	1/50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5120.0	H	-	-	-79.55	5.77	33.23	-62.03	-25.00	-37.03
7680.0	H	-	-	-80.44	9.26	35.83	-59.43	-25.00	-34.43
10240.0	H	-	-	-80.71	11.46	37.75	-57.51	-25.00	-32.51

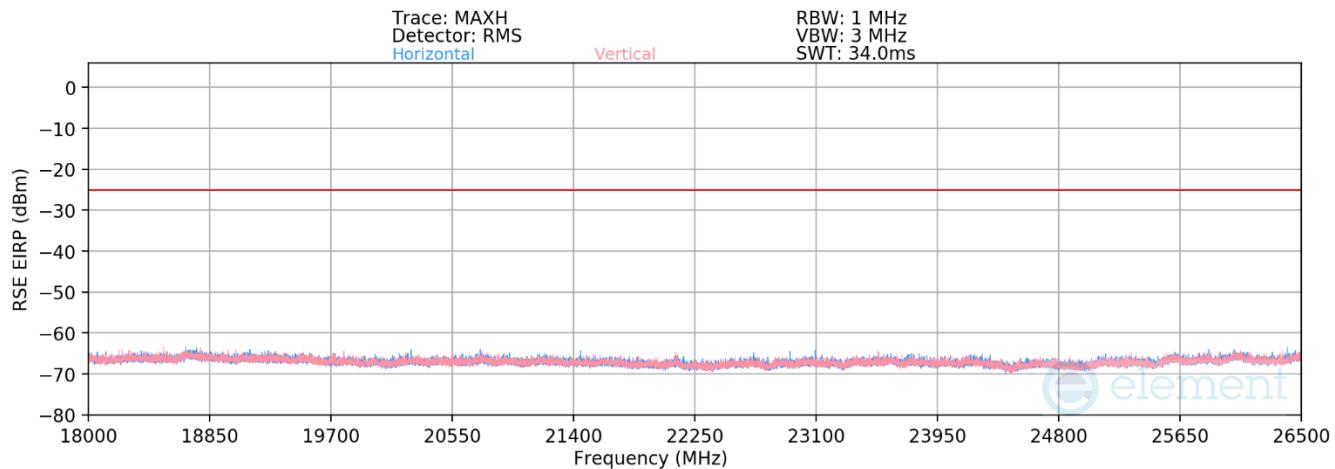
Table 7-14. Radiated Spurious Data (NR Band n7 – High Channel)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch					Page 100 of 110

NR Band n41



Plot 7-135. Antenna FCM Radiated Spurious Plot 1GHz – 18GHz (NR Band n41)



Plot 7-136. Antenna FCM Radiated Spurious Emission above 18GHz (NR Band n41)

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch		Page 101 of 110

Bandwidth (MHz):	20
Frequency (MHz):	2506.0
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 μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5012.0	V	-	-	-80.19	8.31	35.13	-60.13	-25.00	-35.13
7518.0	V	236	194	-79.18	11.29	39.10	-56.15	-25.00	-31.15
10024.0	V	-	-	-81.89	14.04	39.16	-56.10	-25.00	-31.10
12530.0	V	-	-	-83.23	18.25	42.02	-53.24	-25.00	-28.24
15036.0	H	-	-	-83.29	20.69	44.41	-50.85	-25.00	-25.85

Table 7-15. Radiated Spurious Data (NR Band n41 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2593.0
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 μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5186.0	H	282	184	-79.34	8.56	36.22	-59.04	-25.00	-34.04
7779.0	H	-	-	-80.99	11.19	37.20	-58.06	-25.00	-33.06
10372.0	H	-	-	-81.84	15.11	40.27	-54.99	-25.00	-29.99
12965.0	V	-	-	-83.23	20.26	44.03	-51.23	-25.00	-26.23
15558.0	V	-	-	-81.84	21.40	46.56	-48.70	-25.00	-23.70

Table 7-16. Radiated Spurious Data (NR Band n41 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2680.0
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 μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5360.0	H	-	-	-78.92	5.84	33.92	-61.34	-25.00	-36.34
8040.0	V	245	184	-67.56	8.66	48.10	-47.16	-25.00	-22.16
10720.0	H	-	-	-80.53	12.32	38.79	-56.47	-25.00	-31.47
13400.0	H	-	-	-82.79	17.31	41.52	-53.73	-25.00	-28.73
16080.0	H	-	-	-82.68	21.03	45.35	-49.91	-25.00	-24.91

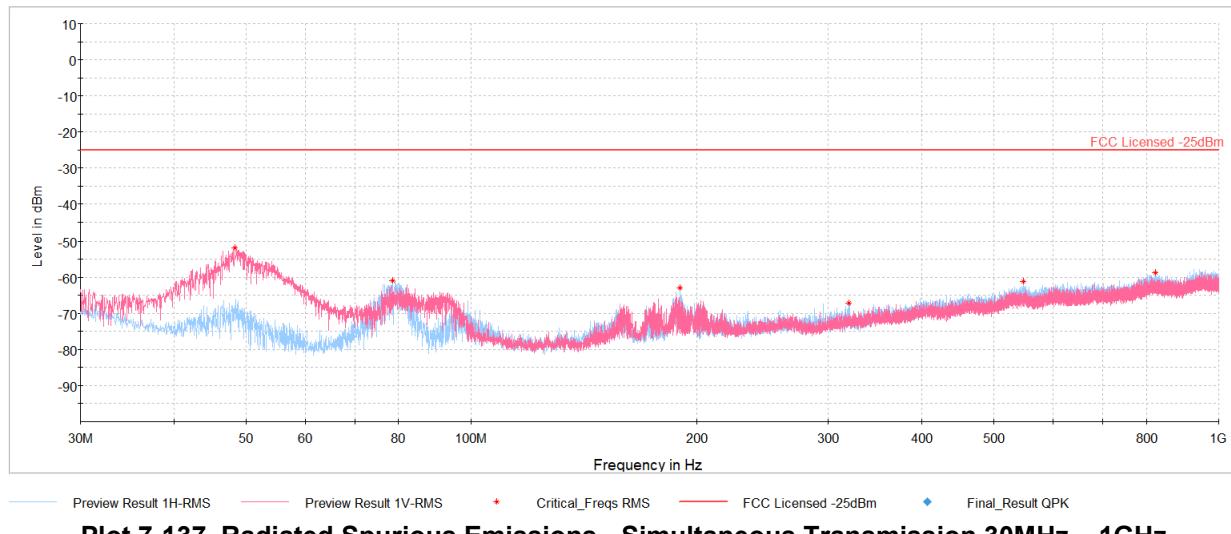
Table 7-17. Radiated Spurious Data (NR Band n41 – High Channel)

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT					Approved by: Technical Manager
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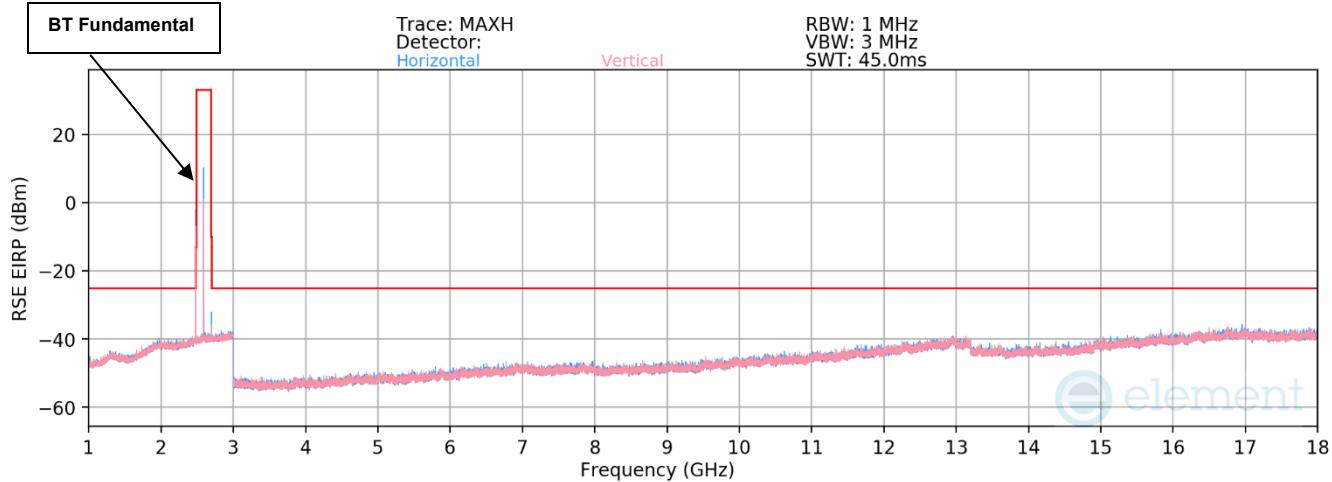
7.6.2 Simultaneous Tx Radiated Spurious Emissions Measurements

Description	Bluetooth	FR1 (Band n41)
Antenna	FCM	FCM
Channel	78	518600
Operating Frequency (MHz)	2480	2593
Mode/Modulation	GFSK ePA	QPSK/1RB/10MHz

Table 7-18. Worst Case Simultaneous Transmission Configuration

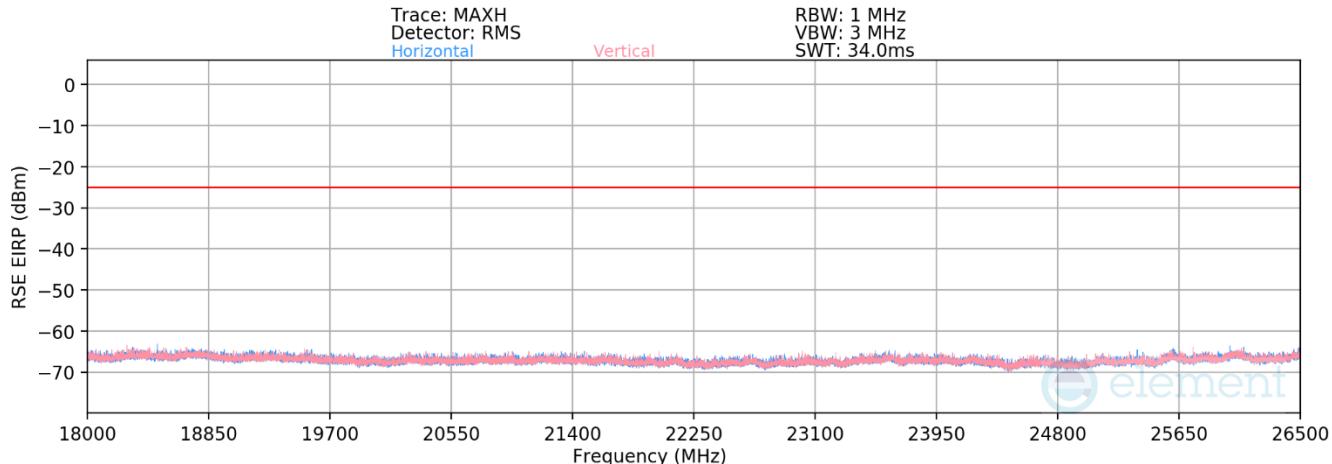


Plot 7-137. Radiated Spurious Emissions - Simultaneous Transmission 30MHz – 1GHz



Plot 7-138. Radiated Spurious Emissions - Simultaneous Transmission 1GHz – 18GHz

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
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Plot 7-139. Radiated Spurious Emissions - Simultaneous Transmission Above 18GHz

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	Limit [dB μ V/m]	Margin [dB]
4960.00	Peak	H	-	-	-69.93	8.25	45.32	73.98	-28.66
7440.00	Peak	H	-	-	-70.78	11.31	47.53	73.98	-26.45
12400.00	Peak	H	-	-	-83.08	17.79	41.71	73.98	-32.27

Table 7-19. BT Harmonics Emissions Measurements in Simultaneous Transmission Mode

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB μ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7767.00	H	-	-	-81.22	11.28	37.06	-58.20	-25.00	-33.20
10356.00	H	-	-	-81.29	14.91	40.62	-54.64	-25.00	-29.64
12945.00	H	-	-	-82.56	20.20	44.64	-50.61	-25.00	-25.61
15534.00	H	-	-	-83.33	21.52	45.19	-50.07	-25.00	-25.07
2371.00*	H	-	-	-77.62	17.63	47.01	-48.25	-25.00	-23.25
2698.00*	H	100	170	-62.24	19.48	64.24	-31.02	-25.00	-6.02

Table 7-20. NR-n41 Harmonics and Intermodulation(*) Emissions Measurements in Simultaneous Transmission Mode

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT			Approved by: Technical Manager
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7.7 Frequency Stability / Temperature Variation

§2.1055, §27.54

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:

- Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- 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

- The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
- 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.
- Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

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

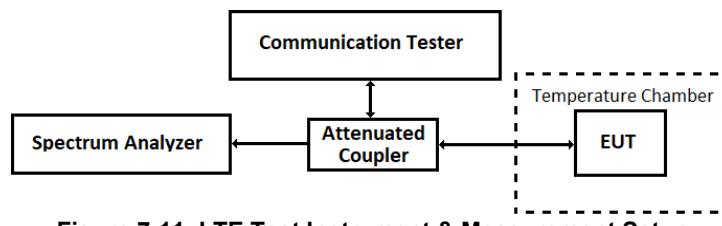


Figure 7-11. LTE Test Instrument & Measurement Setup

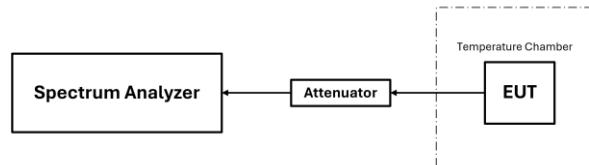


Figure 7-12. FR1 Test Instrument & Measurement Setup

Test Notes

None

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Frequency Stability / Temperature Variation

LTE Band 7				
Operating Band Upper Boundary (GHz)		2.500		
Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.5014539	-0.0014539
		- 20	2.5006570	-0.0006570
		- 10	2.5005623	-0.0005623
		0	2.5012776	-0.0012776
		+ 10	2.5005740	-0.0005740
		+ 20 (Ref)	2.5013061	-0.0013061
		+ 30	2.5007756	-0.0007756
		+ 40	2.5013673	-0.0013673
		+ 50	2.5005578	-0.0005578
		Battery Endpoint	3.40	+ 20
			2.5007675	-0.0007675

Table 7-21. Lower Boundary LTE Band 7 Frequency Stability Data

LTE Band 7				
Operating Band Upper Boundary (GHz)		2.570		
Ref. Voltage (VDC):		3.80		
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.5688015	-0.0011985
		- 20	2.5689396	-0.0010604
		- 10	2.5694812	-0.0005188
		0	2.5685144	-0.0014856
		+ 10	2.5685572	-0.0014428
		+ 20 (Ref)	2.5685462	-0.0014538
		+ 30	2.5691009	-0.0008991
		+ 40	2.5692843	-0.0007157
		+ 50	2.5692807	-0.0007193
		Battery Endpoint	3.40	+ 20
			2.5688927	-0.0011073

Table 7-22. Upper Boundary LTE Band 7 Frequency Stability Data

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Frequency Stability / Temperature Variation

LTE Band 41				
		Operating Band Lower Boundary (GHz)	2.496	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.4971011	-0.0011011
		- 20	2.4967576	-0.0007576
		- 10	2.4968565	-0.0008565
		0	2.4968776	-0.0008776
		+ 10	2.4966679	-0.0006679
		+ 20 (Ref)	2.4969373	-0.0009373
		+ 30	2.4965065	-0.0005065
		+ 40	2.4968402	-0.0008402
		+ 50	2.4973275	-0.0013275
		Battery Endpoint	3.40	+ 20
			2.4972475	-0.0012475

Table 7-23. Lower Boundary LTE Band 41 Frequency Stability Data

LTE Band 41				
		Operating Band Upper Boundary (GHz)	2.690	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.6894653	-0.0005347
		- 20	2.6892089	-0.0007911
		- 10	2.6892152	-0.0007848
		0	2.6892621	-0.0007379
		+ 10	2.6891395	-0.0008605
		+ 20 (Ref)	2.6888856	-0.0011144
		+ 30	2.6887217	-0.0012783
		+ 40	2.6890151	-0.0009849
		+ 50	2.6892185	-0.0007815
		Battery Endpoint	3.40	+ 20
			2.6892149	-0.0007851

Table 7-24. Upper Boundary LTE Band 41 Frequency Stability Data

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Frequency Stability / Temperature Variation

NR Band n7				
		Operating Band Lower Boundary (GHz)	2.500	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.5507226	-0.0507226
		- 20	2.5509018	-0.0509018
		- 10	2.5505316	-0.0505316
		0	2.5505990	-0.0505990
		+ 10	2.5504605	-0.0504605
		+ 20 (Ref)	2.5505916	-0.0505916
		+ 30	2.5504374	-0.0504374
		+ 40	2.5509534	-0.0509534
		+ 50	2.5508298	-0.0508298
Battery Endpoint	3.40	+ 20	2.5505130	-0.0505130

Table 7-25. Lower Boundary NR Band n7 Frequency Stability Data

NR Band n7				
		Operating Band Upper Boundary (GHz)	2.570	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.5691452	-0.0008548
		- 20	2.5691033	-0.0008967
		- 10	2.5691600	-0.0008400
		0	2.5693320	-0.0006680
		+ 10	2.5693891	-0.0006109
		+ 20 (Ref)	2.5692108	-0.0007892
		+ 30	2.5694677	-0.0005323
		+ 40	2.5694950	-0.0005050
		+ 50	2.5690565	-0.0009435
Battery Endpoint	3.40	+ 20	2.5690812	-0.0009188

Table 7-26. Upper Boundary NR Band n7 Frequency Stability Data

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Frequency Stability / Temperature Variation

NR Band n41				
		Operating Band Lower Boundary (GHz)	2.496	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.4965211	-0.0005211
		- 20	2.4963603	-0.0003603
		- 10	2.4964135	-0.0004135
		0	2.4965762	-0.0005762
		+ 10	2.4963753	-0.0003753
		+ 20 (Ref)	2.4965188	-0.0005188
		+ 30	2.4963202	-0.0003202
		+ 40	2.4965557	-0.0005557
		+ 50	2.4965061	-0.0005061
		Battery Endpoint	2.4963761	-0.0003761

Table 7-27. Lower Boundary NR Band n41 Frequency Stability Data

NR Band n41				
		Operating Band Upper Boundary (GHz)	2.690	
		Ref. Voltage (VDC):	3.80	
Voltage (%)	Power (VDC)	Temp (°C)	Measured Freq. (GHz)	Freq. Delta from Operating Range (GHz)
100 %	3.80	- 30	2.6895719	-0.0004281
		- 20	2.6891399	-0.0008601
		- 10	2.6895885	-0.0004115
		0	2.6894472	-0.0005528
		+ 10	2.6898014	-0.0001986
		+ 20 (Ref)	2.6896554	-0.0003446
		+ 30	2.6892170	-0.0007830
		+ 40	2.6893184	-0.0006816
		+ 50	2.6895303	-0.0004697
		Battery Endpoint	2.6895678	-0.0004322

Table 7-28. Upper Boundary NR Band n41 Frequency Stability Data

FCC ID: BCG-A3328	 element	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the Apple Watch **FCC ID: BCG-A3328** complies with all the requirements of Part 27 of the FCC rules.

FCC ID: BCG-A3328	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2503270037-04.BCG	Test Dates: 12/20/2024 - 7/19/2025	EUT Type: Watch	Page 110 of 110