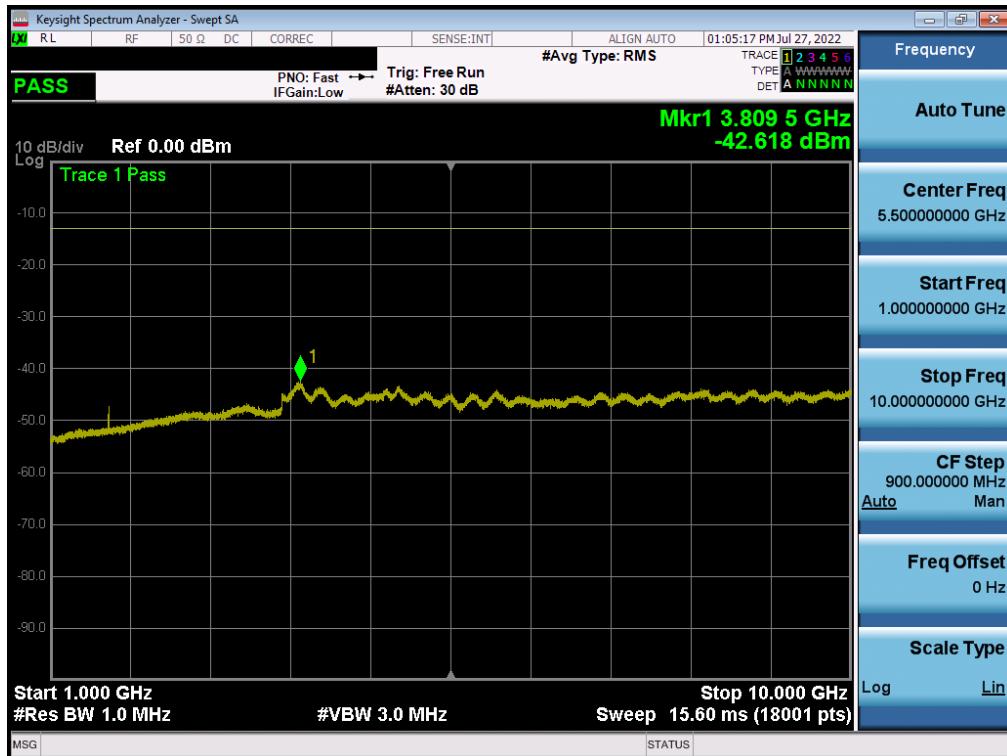
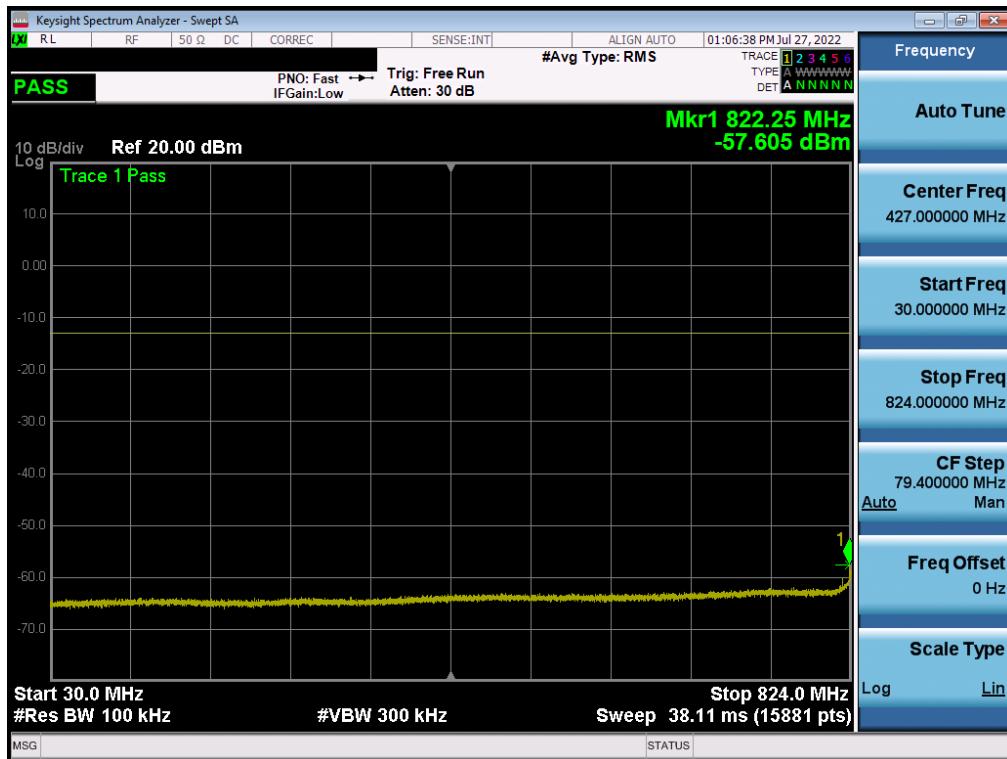


Plot 7-70. CSE (NR Band n26 - 10.0MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-71. CSE (NR Band n26 - 10.0MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 53 of 108	

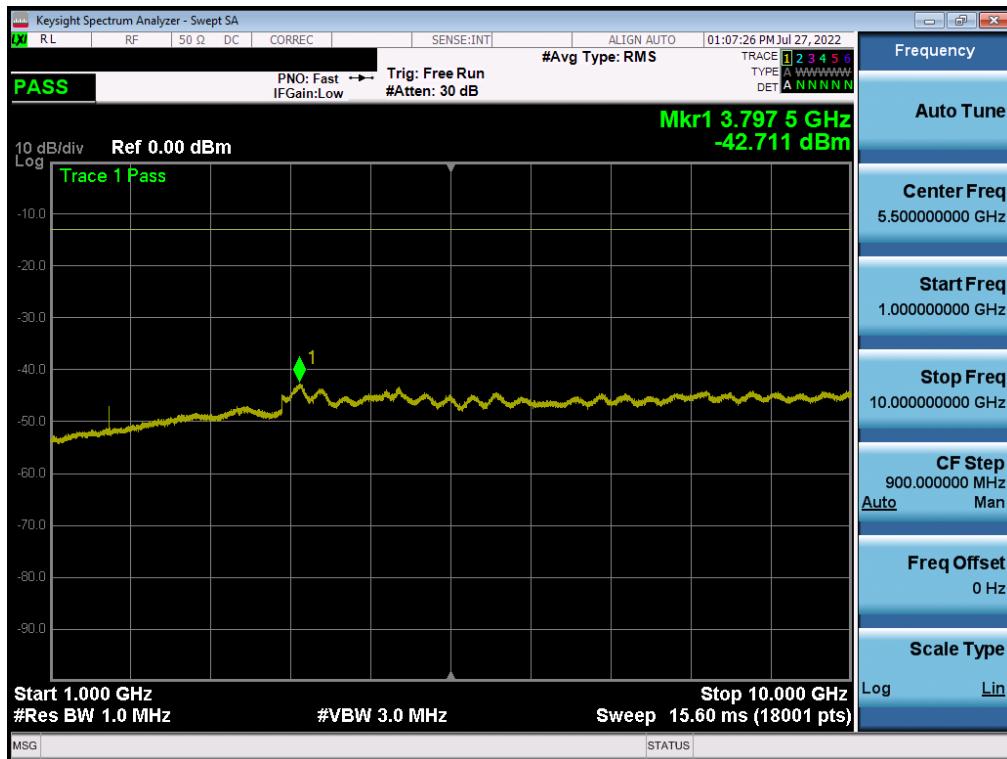


Plot 7-72. CSE (NR Band n26 - 10.0MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-73. CSE (NR Band n26 - 10.0MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - High Channel)

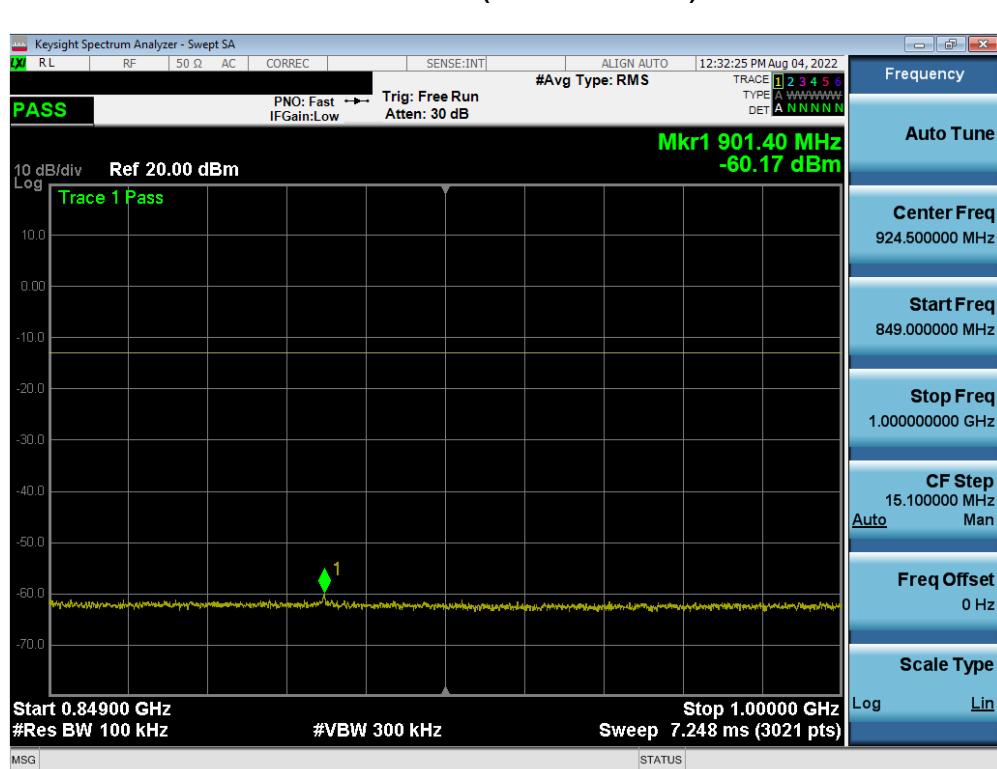
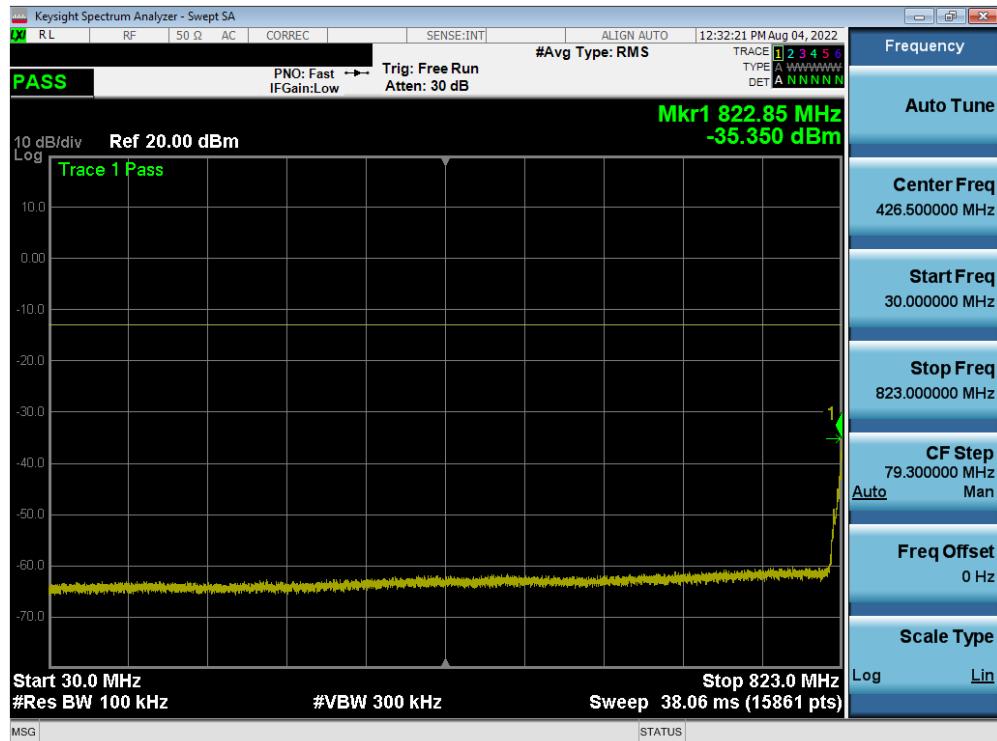
FCC ID: BCGA2435	element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 54 of 108	



Plot 7-74. CSE (NR Band n26 - 10.0MHz DFT-s-OFDM QPSK - RB Size 1, RB Offset 0 - High Channel)

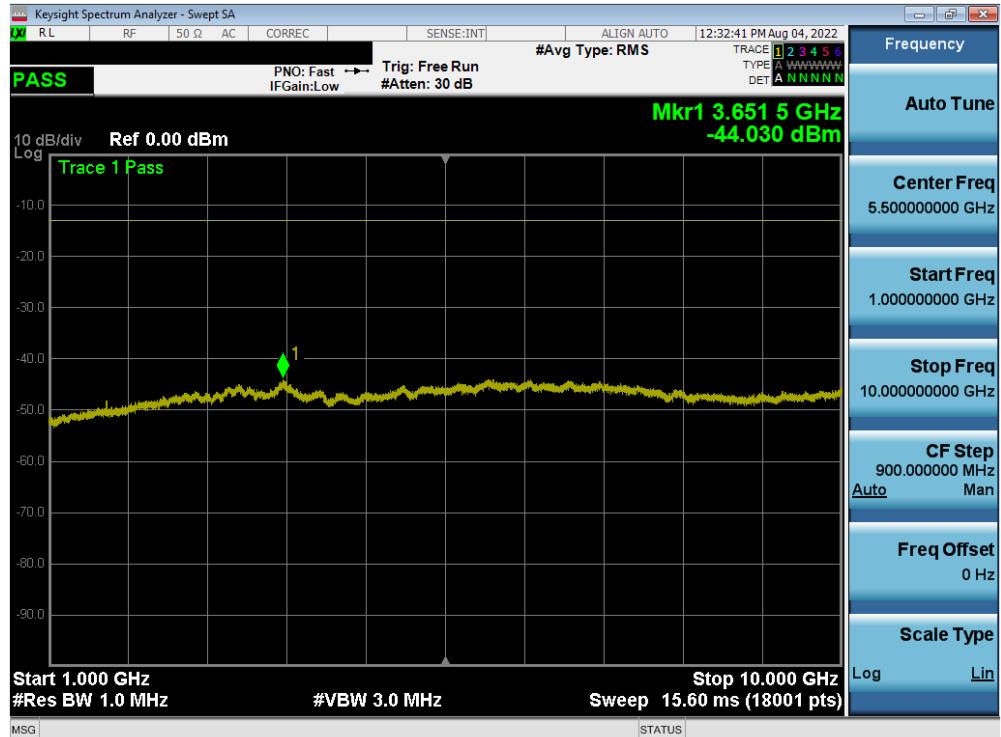
FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 55 of 108

WCDMA Cell

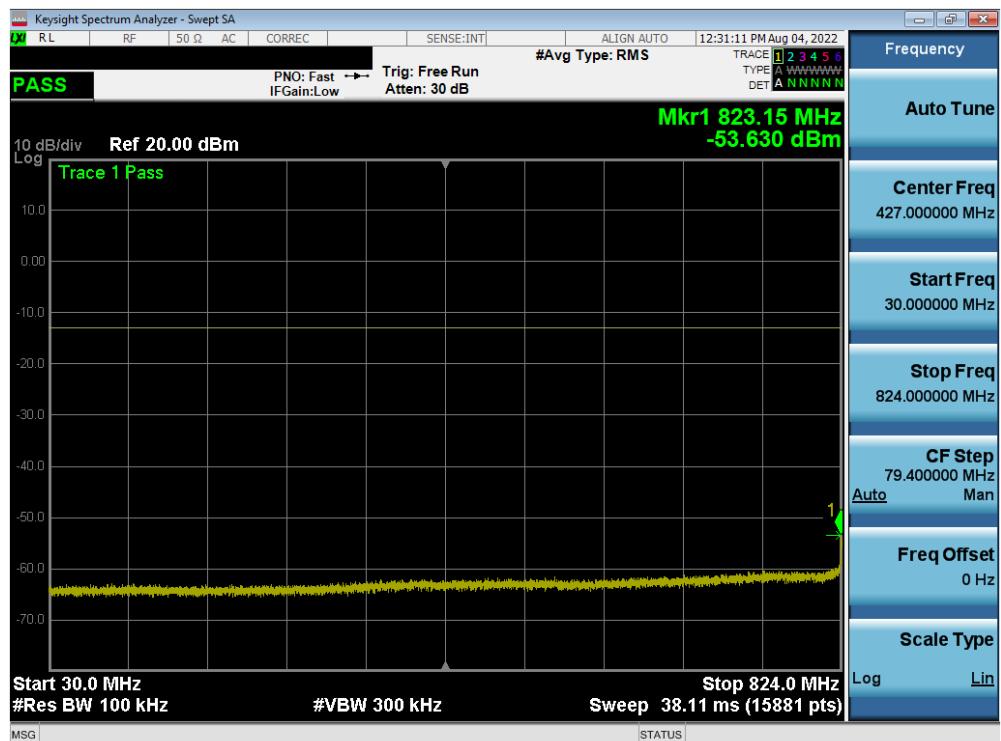


Plot 7-76. CSE (WCDMA Ch. 4132)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 56 of 108	

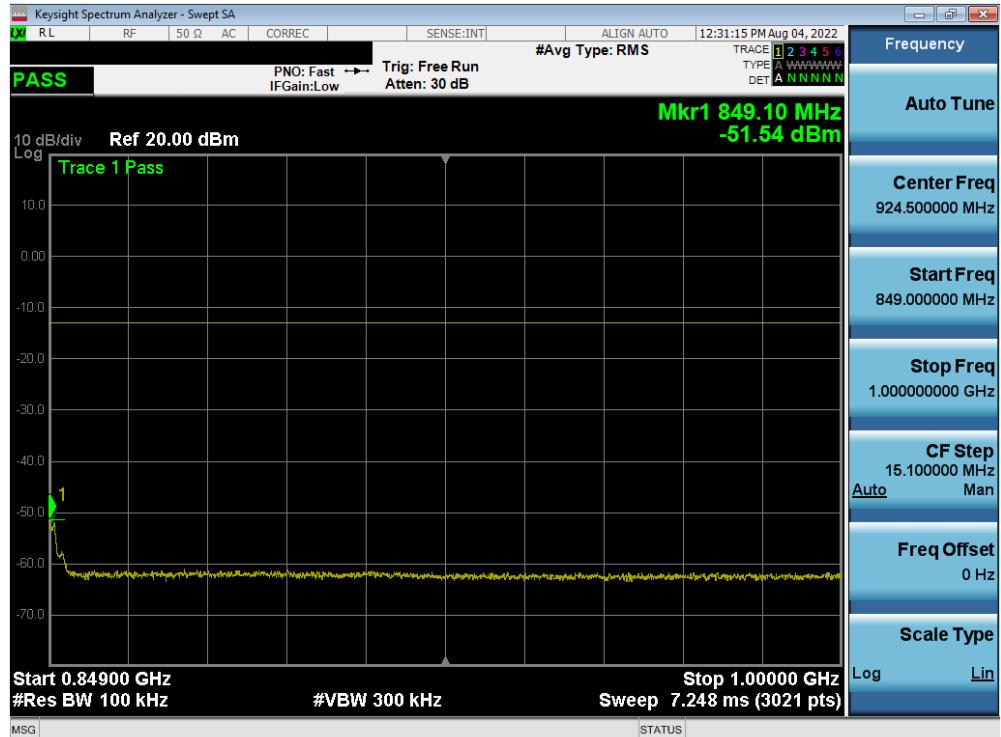


Plot 7-77. CSE (WCDMA Ch. 4132)

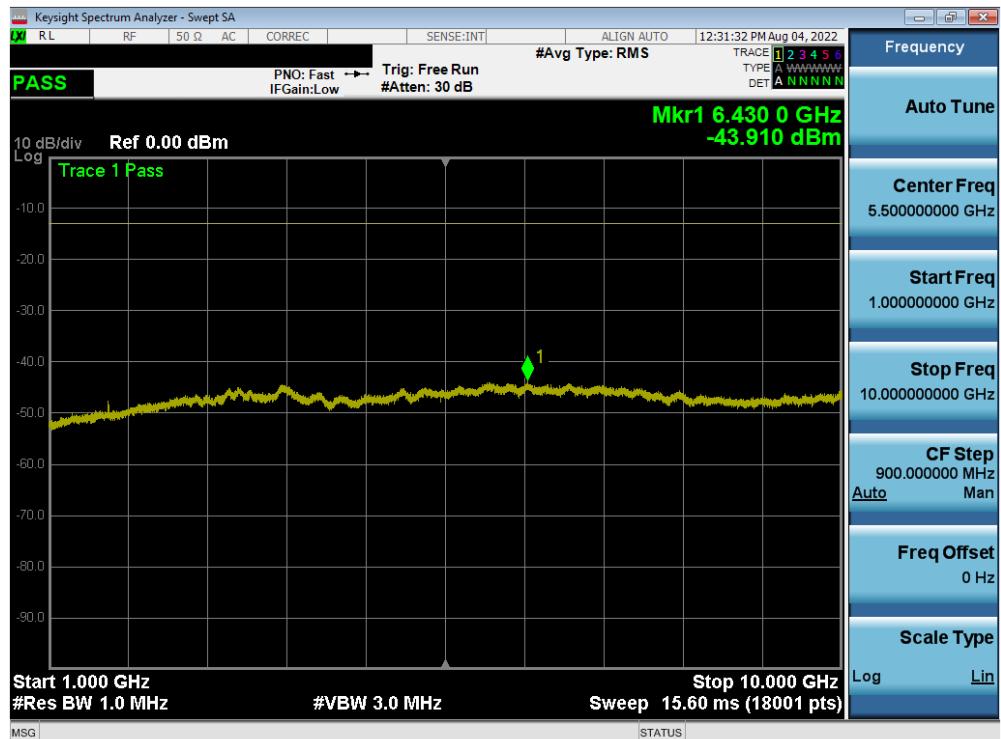


Plot 7-78. CSE (WCDMA Ch. 4183)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 57 of 108

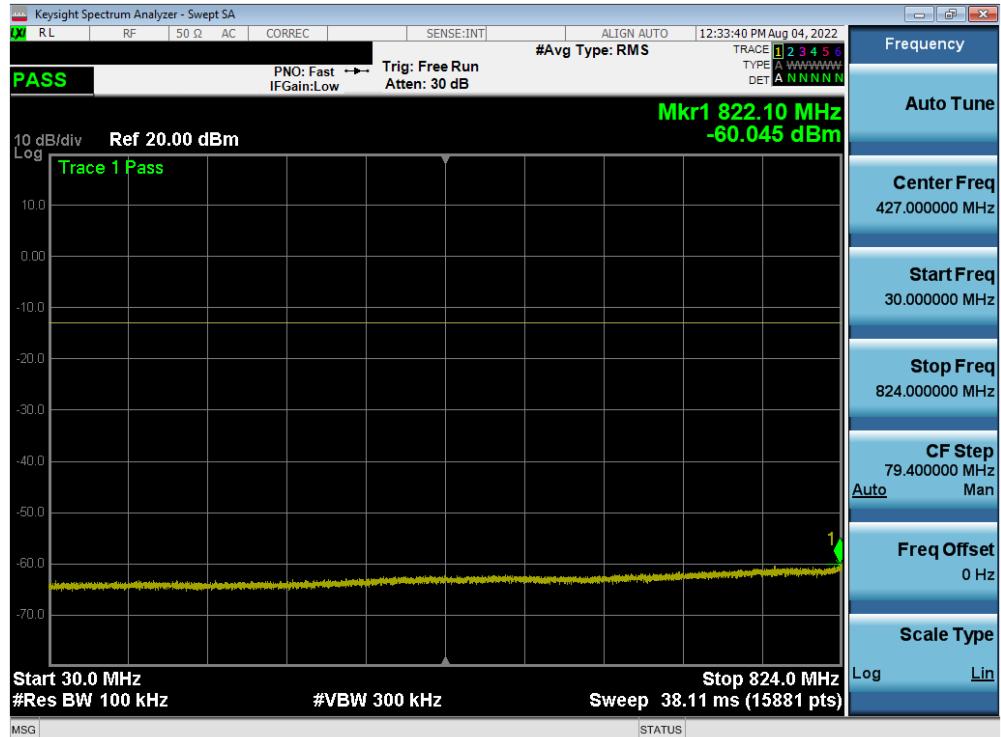


Plot 7-79. CSE (WCDMA Ch. 4183)

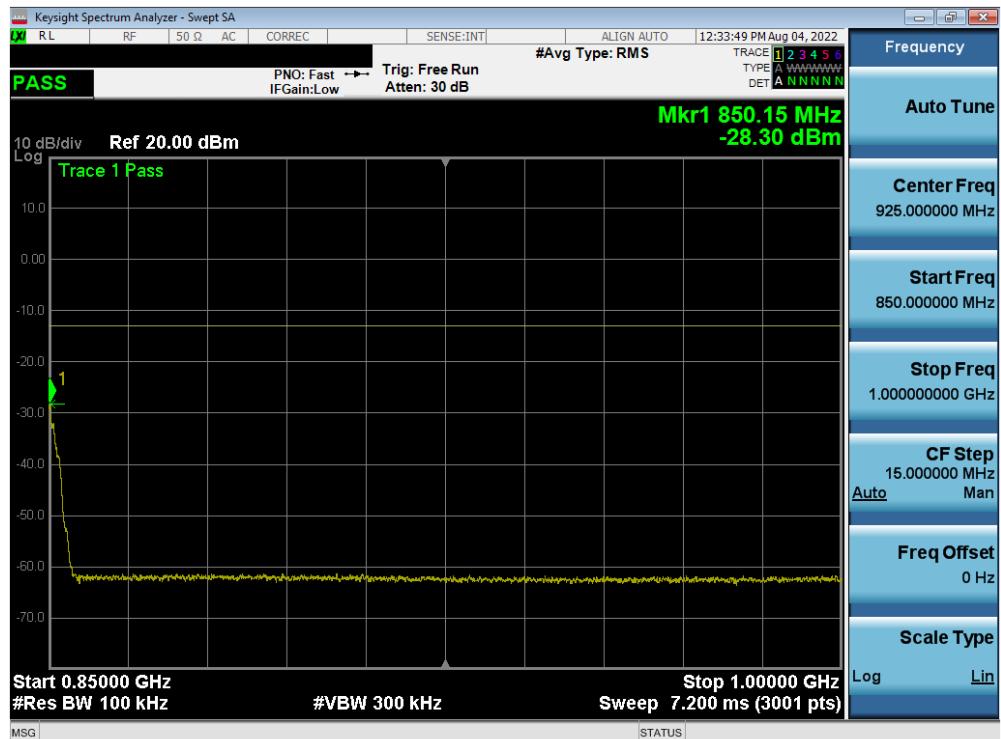


Plot 7-80. CSE (WCDMA Ch. 4183)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 58 of 108

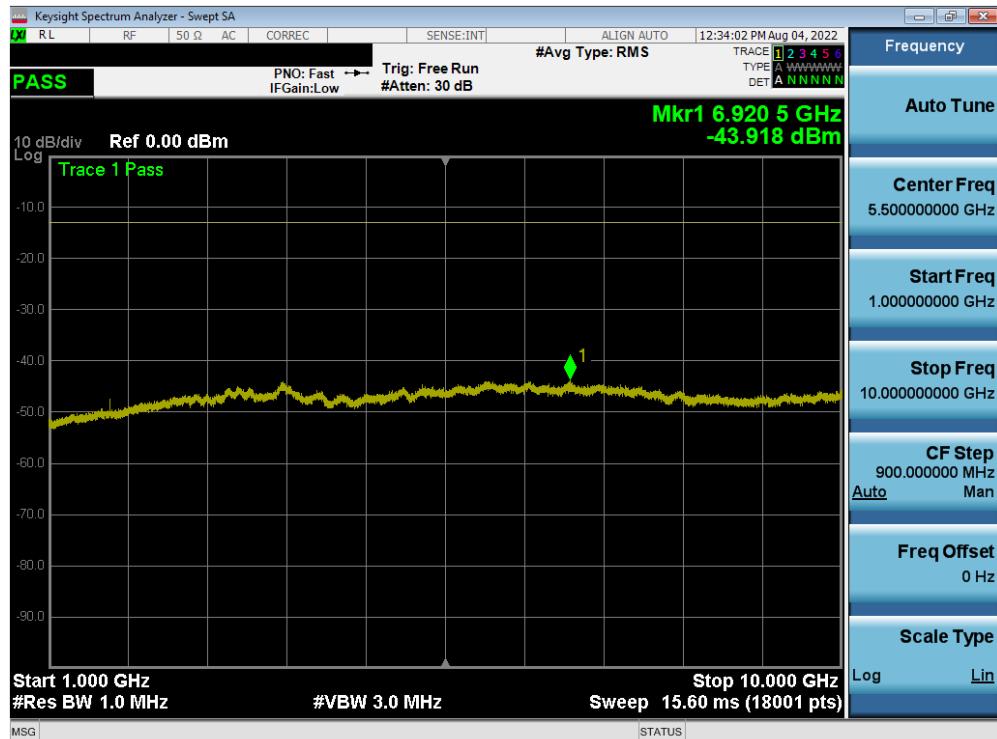


Plot 7-81. CSE (WCDMA Ch. 4233)



Plot 7-82. CSE (WCDMA Ch. 4233)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 59 of 108



Plot 7-83. CSE (WCDMA Ch. 4233)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 60 of 108

7.4 Band Edge Emissions at Antenna Terminal

§2.1051, 22.917(a)

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. All ports were tested and only the worst case data was reported.

The minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{\text{Watts}})$, where P is the transmitter power in Watts.

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

Test Setup

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

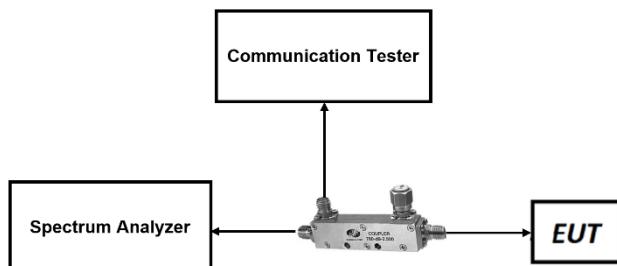


Figure 7-3. Test Instrument & Measurement Setup

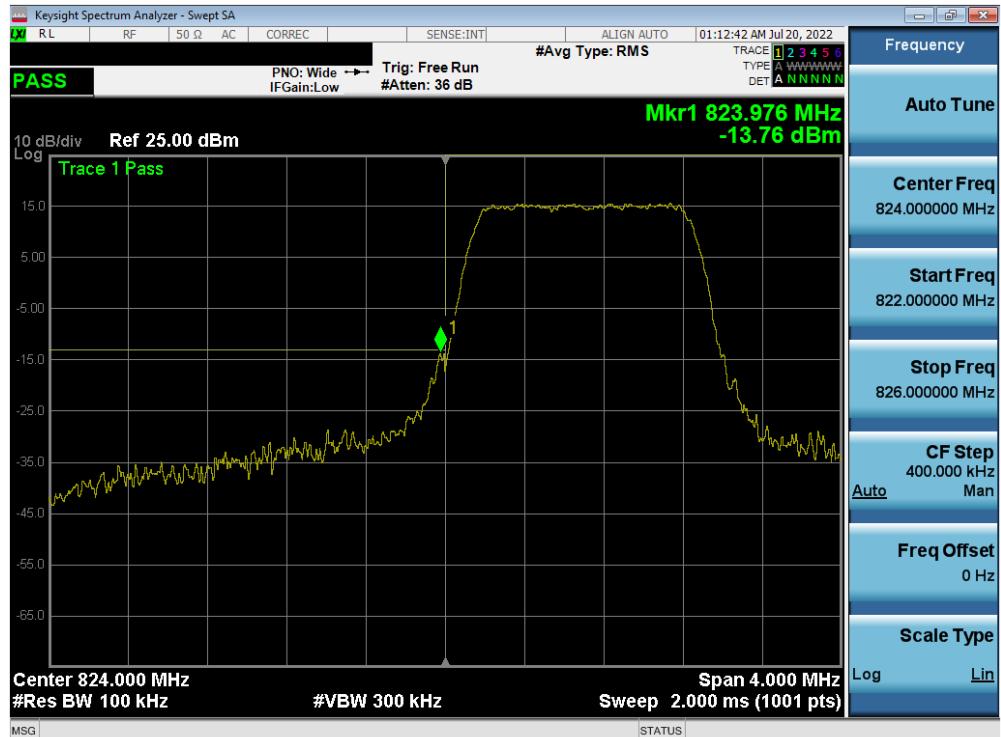
FCC ID: BCGA2435	element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 61 of 108	

Test Notes

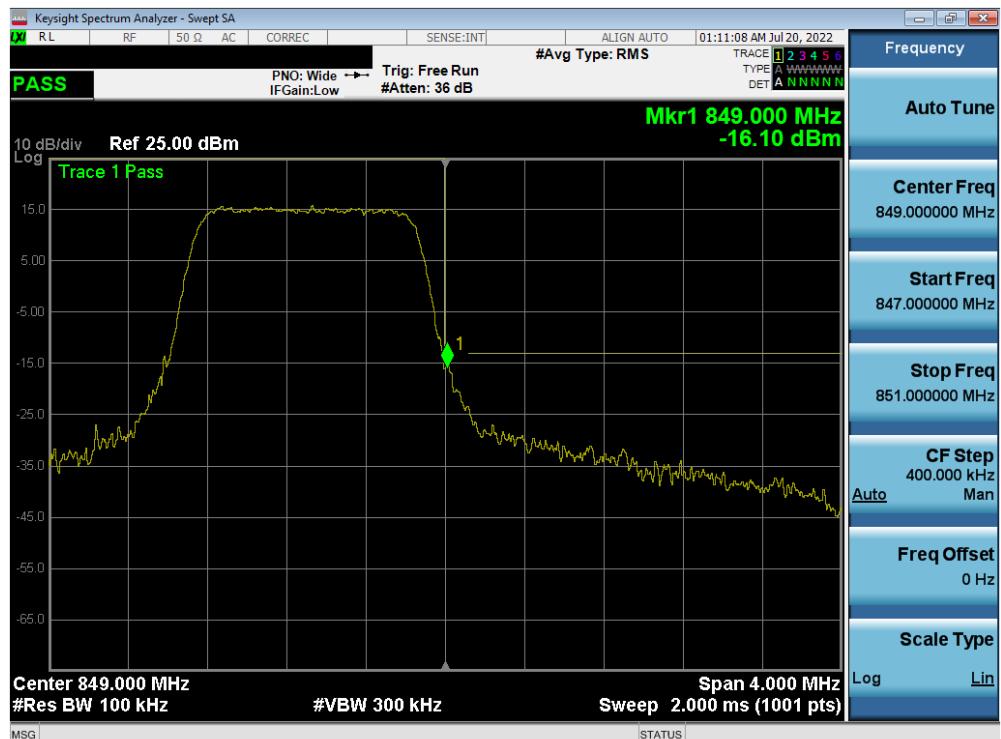
1. Per 22.917(b), in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission 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. 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: BCGA2435	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
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LTE Band 26

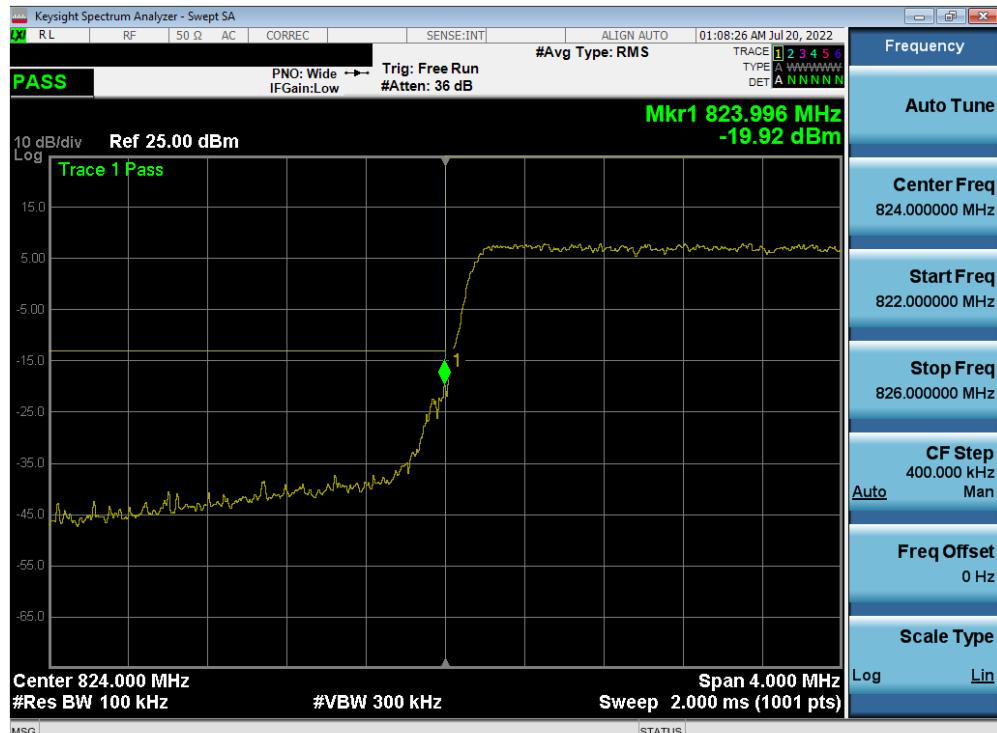


Plot 7-84. Lower BE Plot (LTE Band 26 – 1.4MHz QPSK – Full RB Configuration)

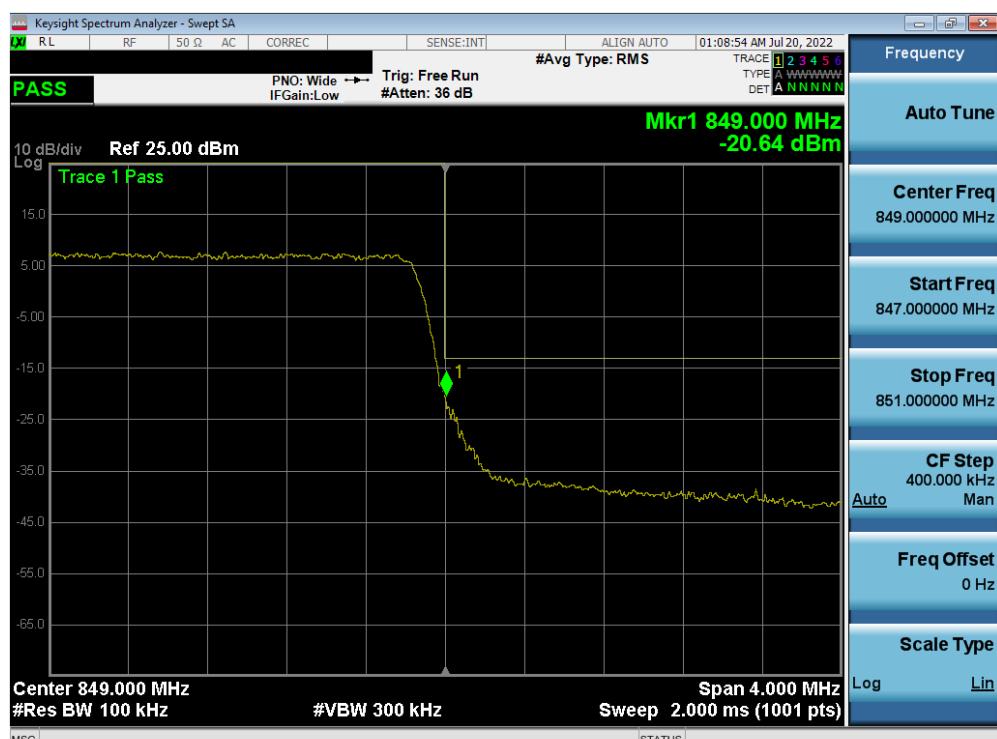


Plot 7-85. Upper BE Plot (LTE Band 26 – 1.4MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 63 of 108

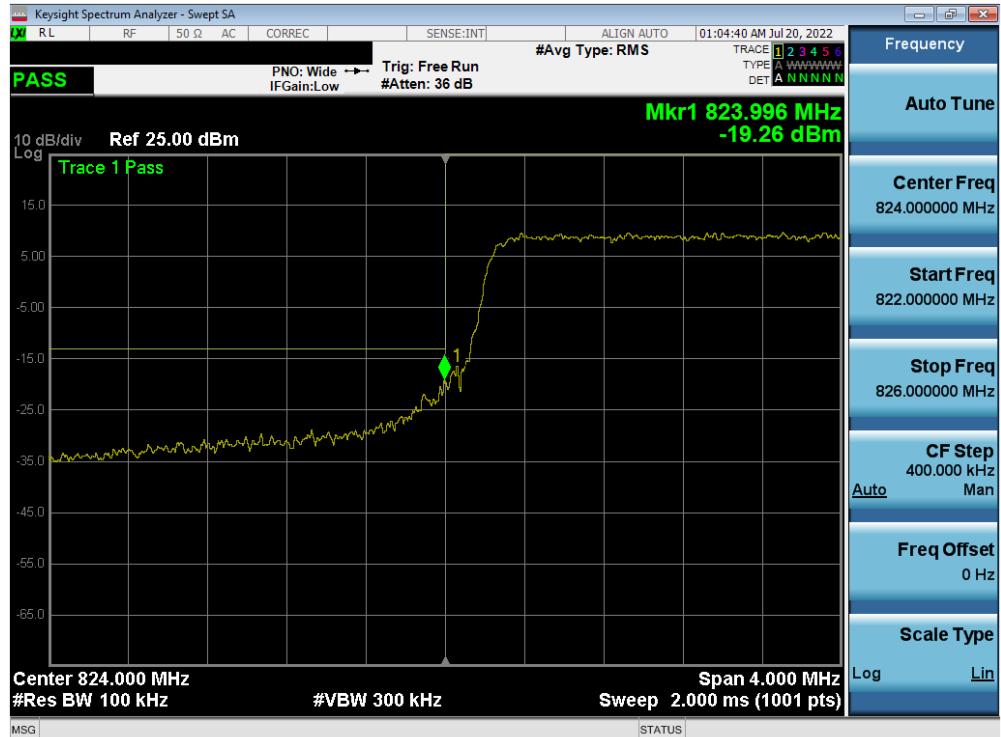


Plot 7-86. Lower BE Plot (LTE Band 26 - 3MHz QPSK – Full RB Configuration)

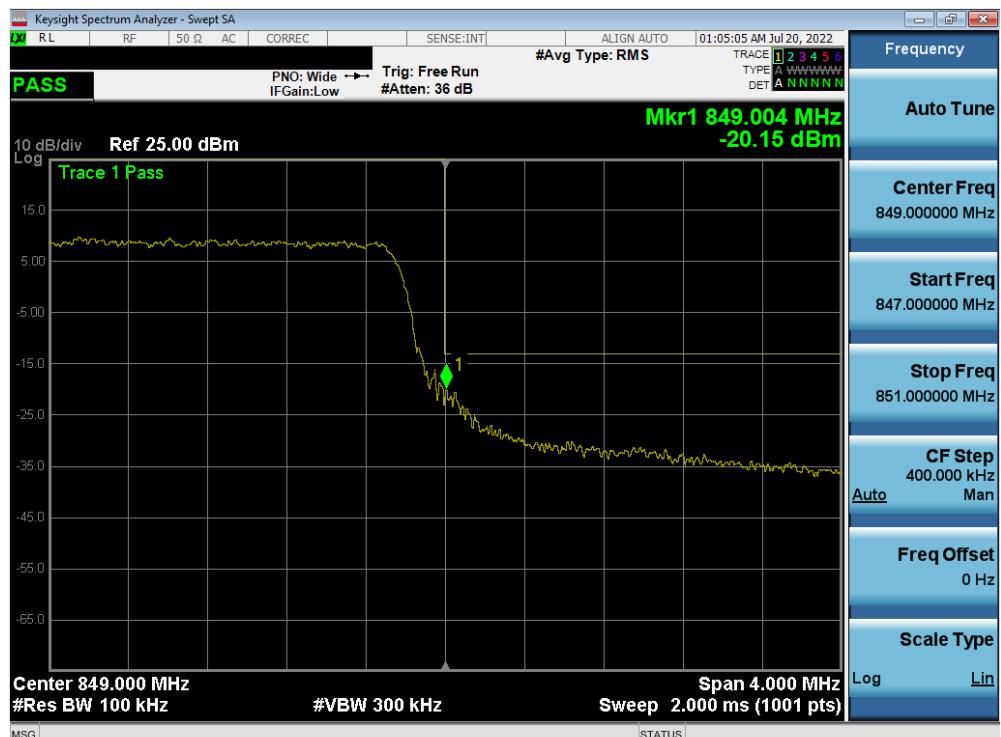


Plot 7-87. Upper BE Plot (LTE Band 26 - 3MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device	Page 64 of 108	

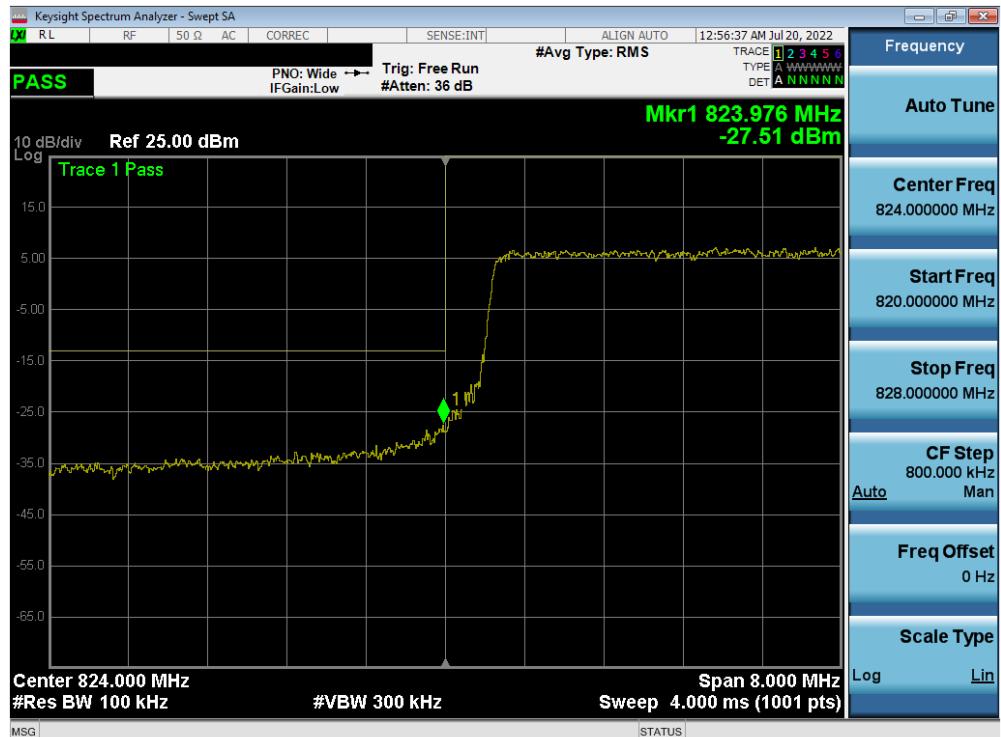


Plot 7-88. Lower BE Plot (LTE Band 26 - 5MHz QPSK – Full RB Configuration)

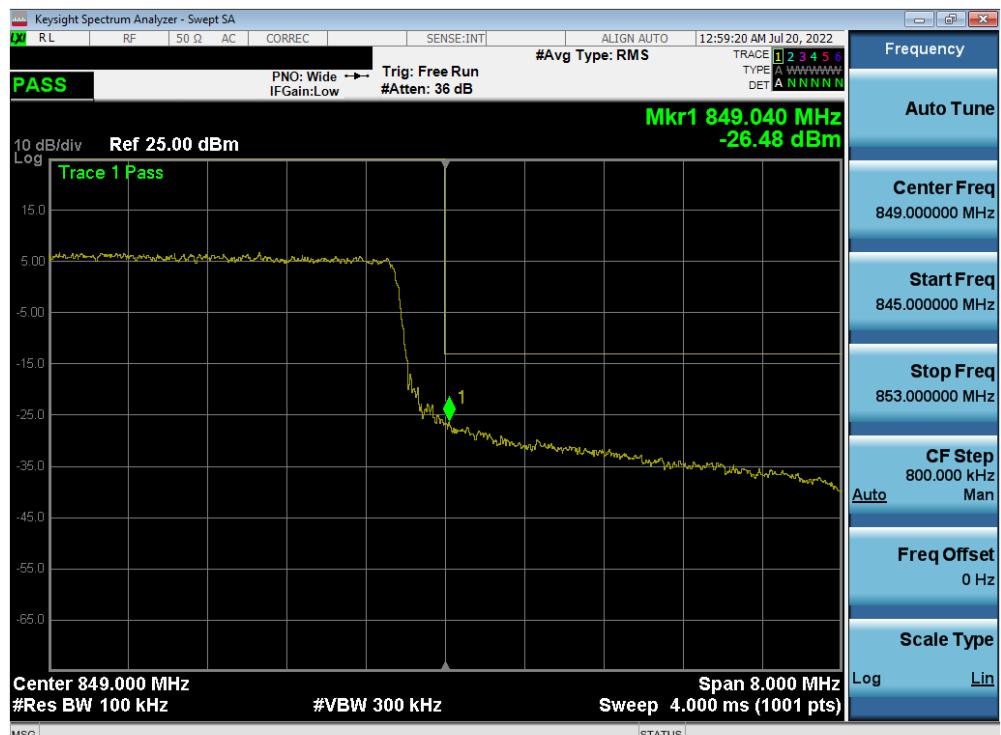


Plot 7-89. Upper BE Plot (LTE Band 26 - 5MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 65 of 108



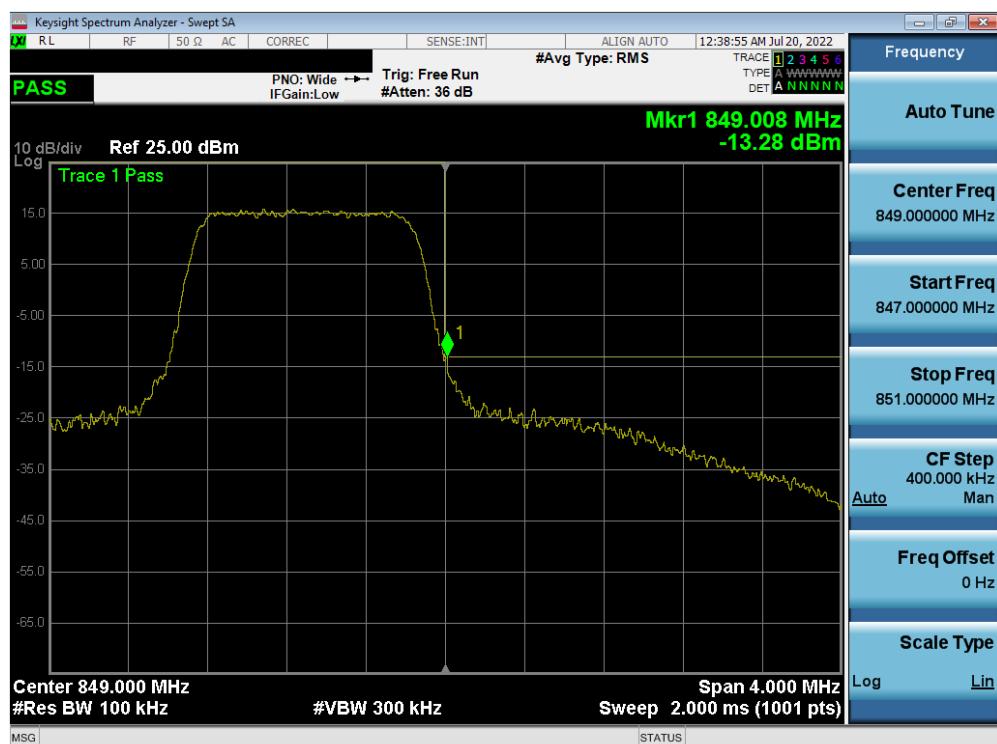
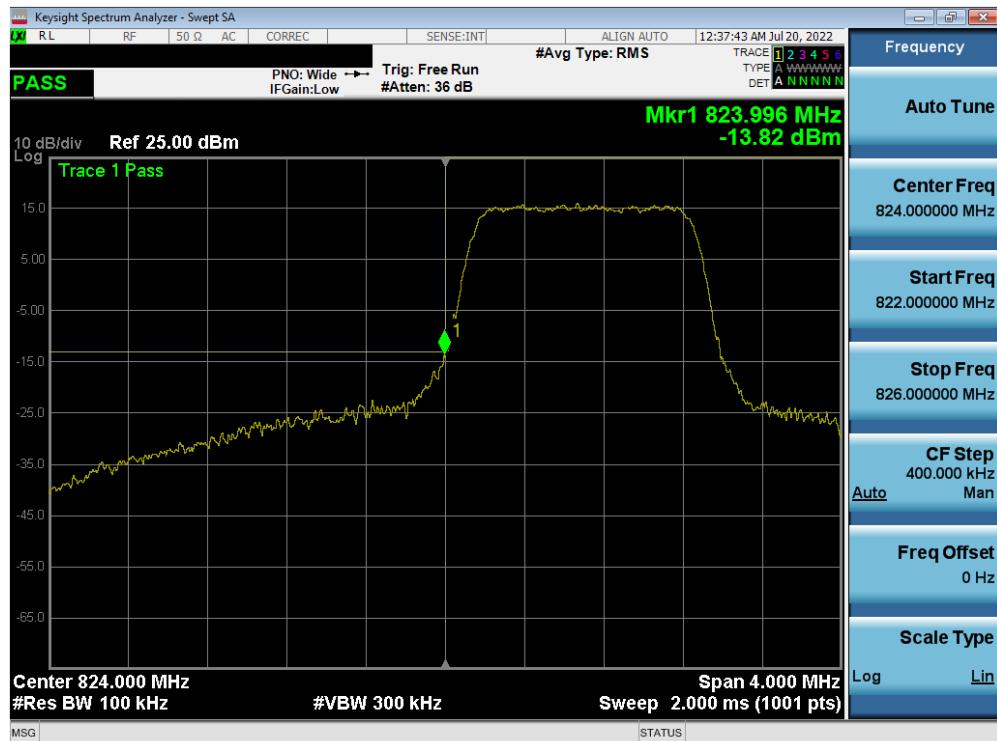
Plot 7-90. Lower BE Plot (LTE Band 26 - 10MHz QPSK – Full RB Configuration)



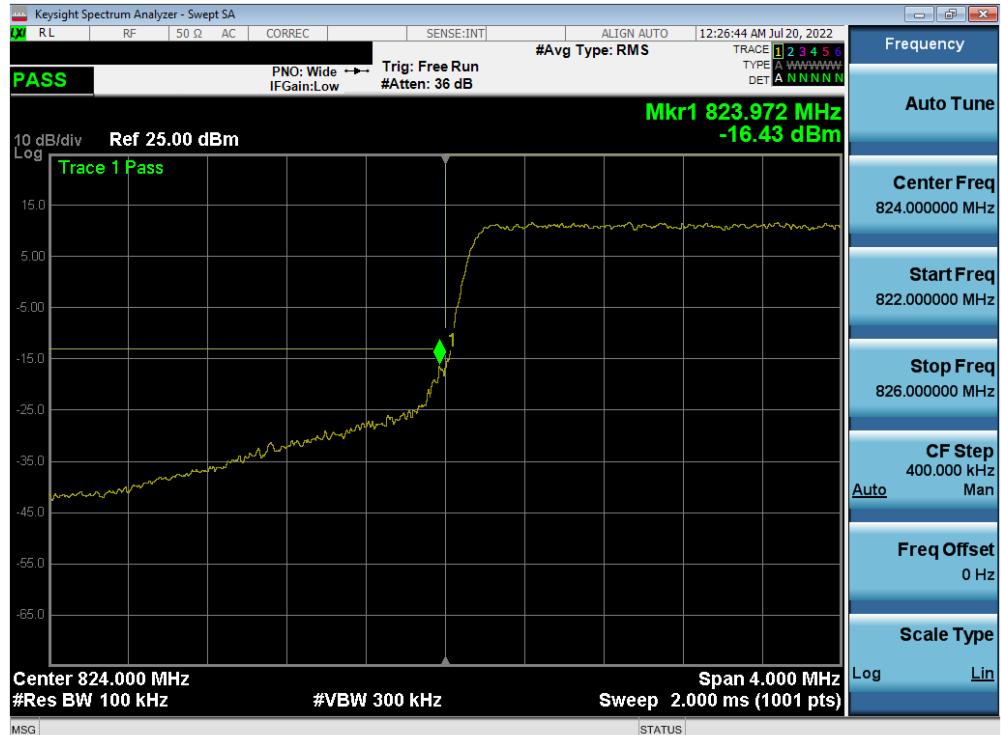
Plot 7-91. Upper BE Plot (LTE Band 26 - 10MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 66 of 108

LTE Band 5



FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 67 of 108

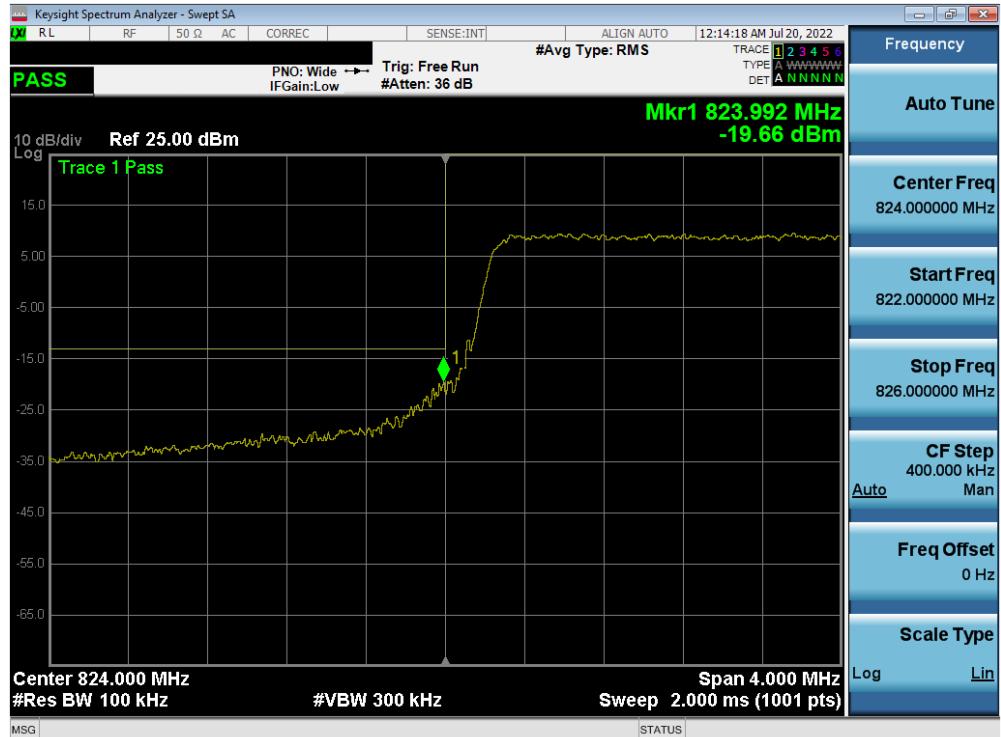


Plot 7-94. Lower BE Plot (LTE Band 5 - 3MHz QPSK – Full RB Configuration)

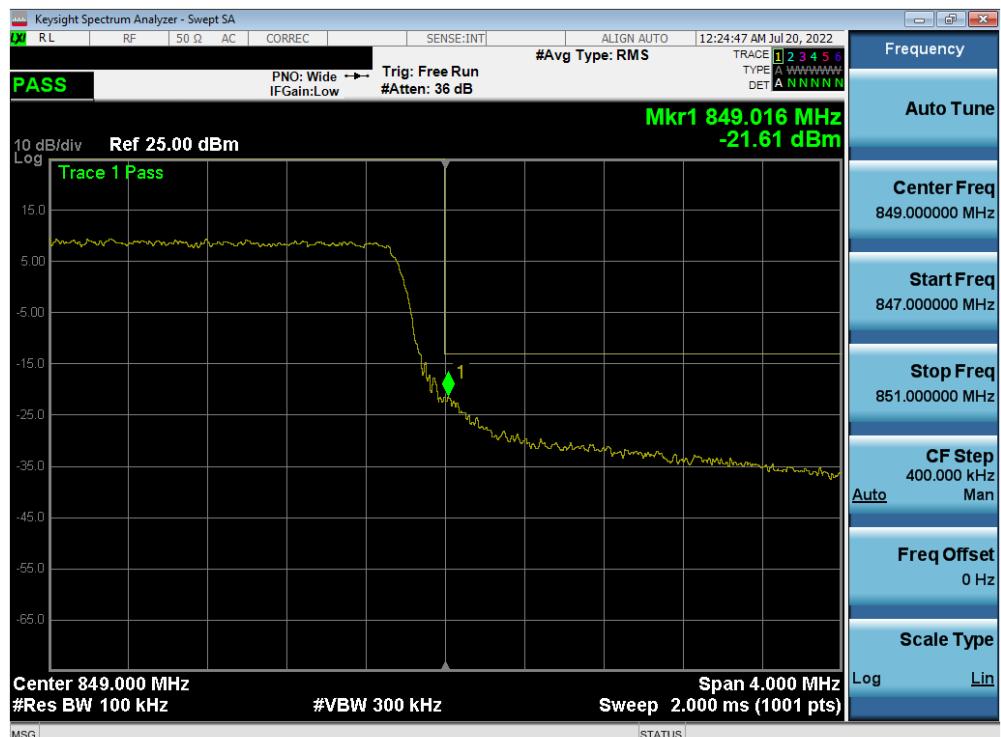


Plot 7-95. Upper BE Plot (LTE Band 5 - 3MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 68 of 108

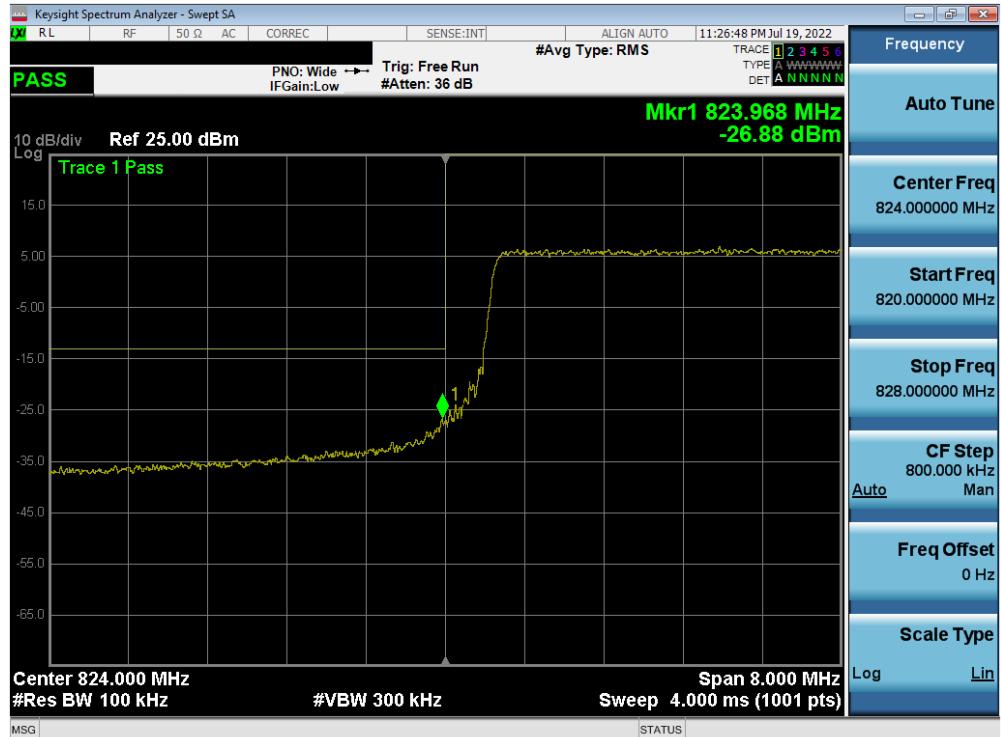


Plot 7-96. Lower BE Plot (LTE Band 5 - 5MHz QPSK – Full RB Configuration)

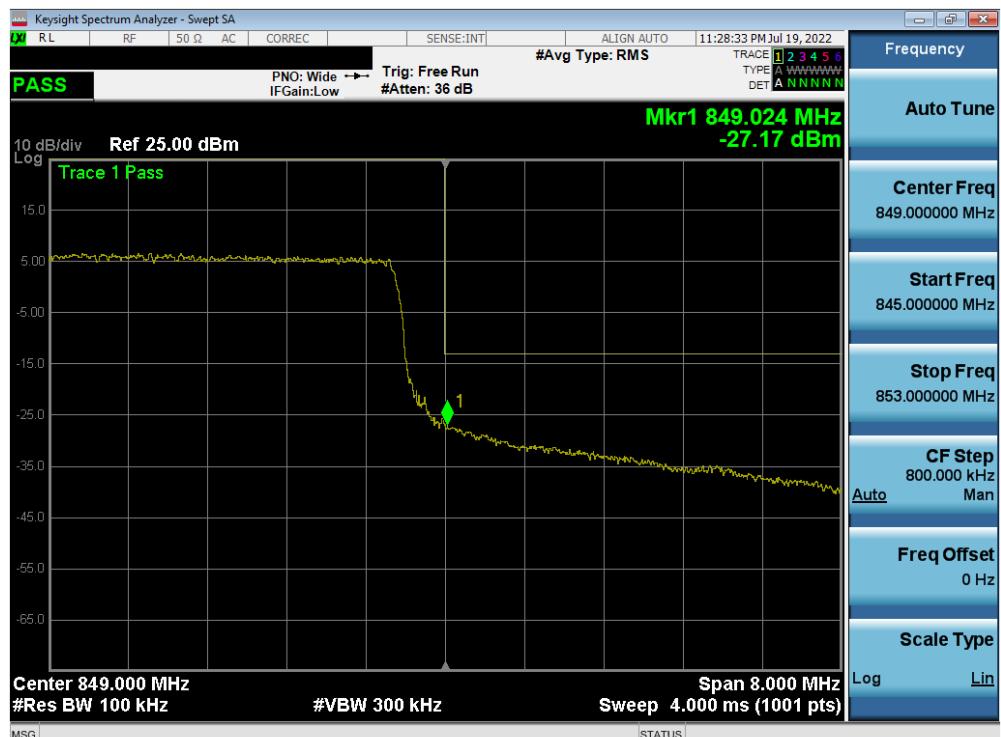


Plot 7-97. Upper BE Plot (LTE Band 5 - 5MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 69 of 108



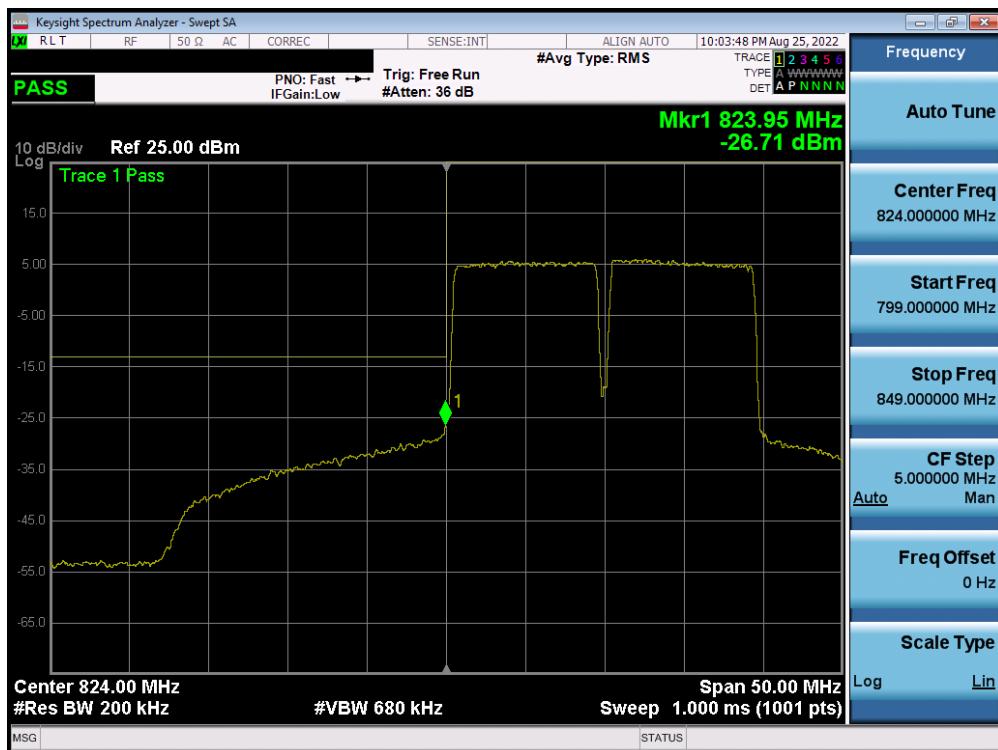
Plot 7-98. Lower BE Plot (LTE Band 5 - 10MHz QPSK – Full RB Configuration)



Plot 7-99. Upper BE Plot (LTE Band 5 - 10MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 70 of 108

ULCA - LTE Band 5



Plot 7-100. Lower BE Plot (ULCA – LTE Band 5 – (10 + 10)MHz QPSK – Full RB Configuration)



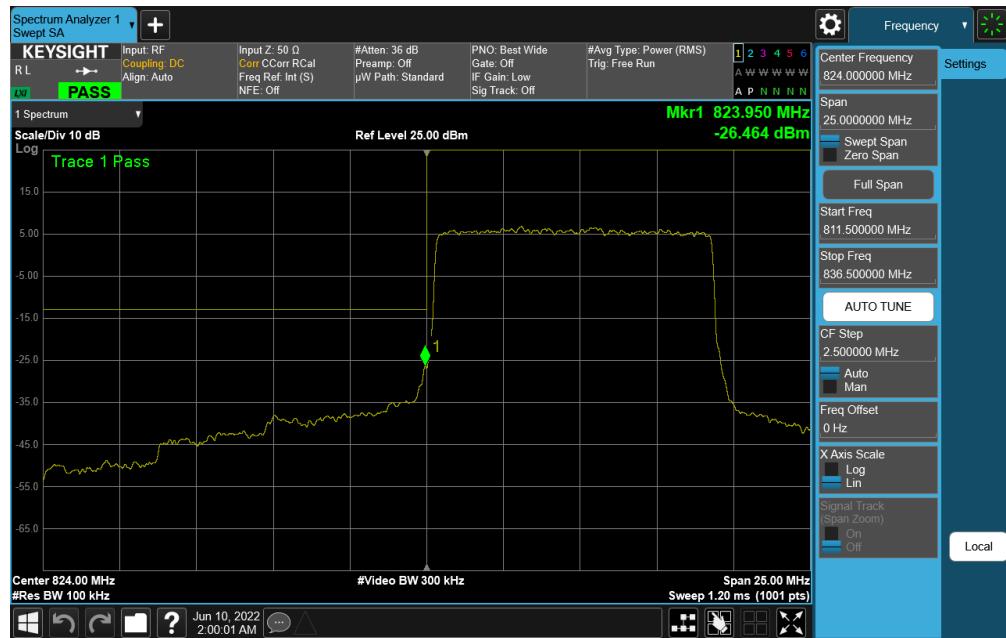
Plot 7-101. Upper BE Plot (ULCA – LTE Band 5 - (10 + 10)MHz QPSK – Full RB Configuration)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 71 of 108

NR Band n5



FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
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FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
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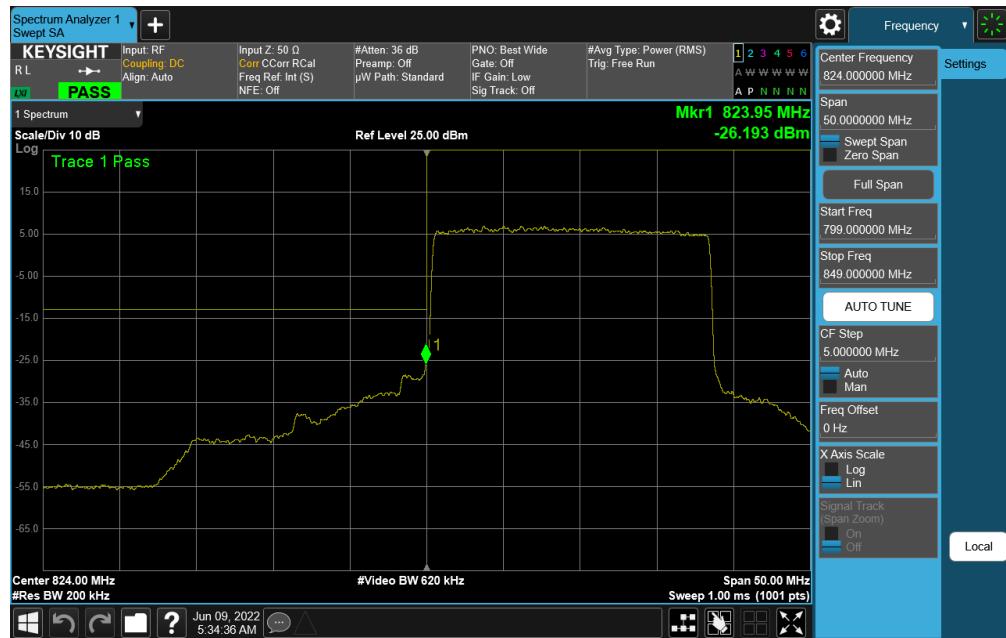


Plot 7-106. Lower BE Plot (NR Band n5 DFT-s-OFDM $\pi/2$ BPSK – 15.0MHz - Full RB)

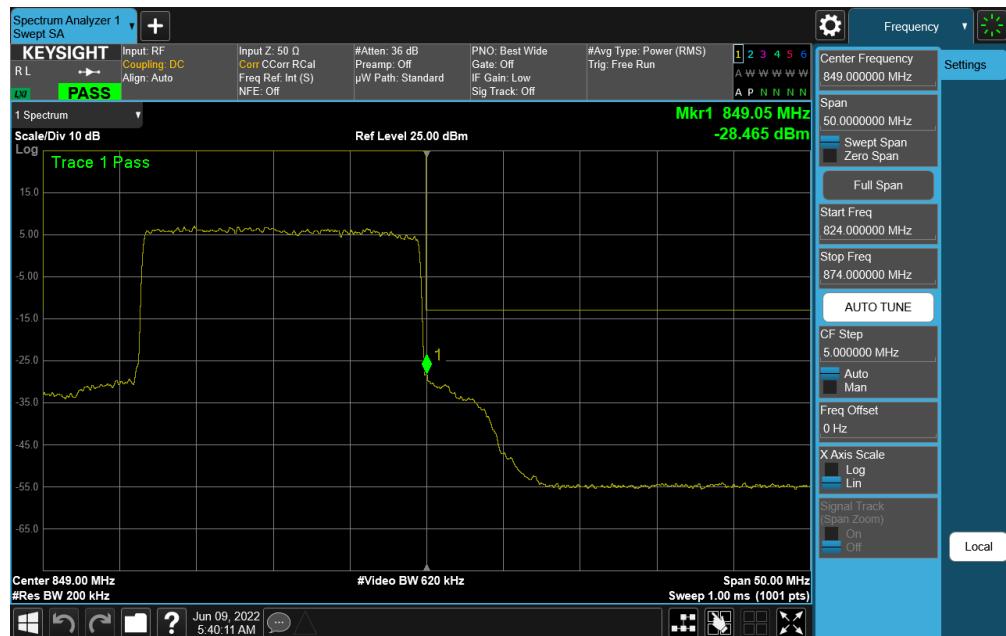


Plot 7-107. Upper BE Plot (NR Band n5 DFT-s-OFDM $\pi/2$ BPSK – 15.0MHz - Full RB)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 74 of 108



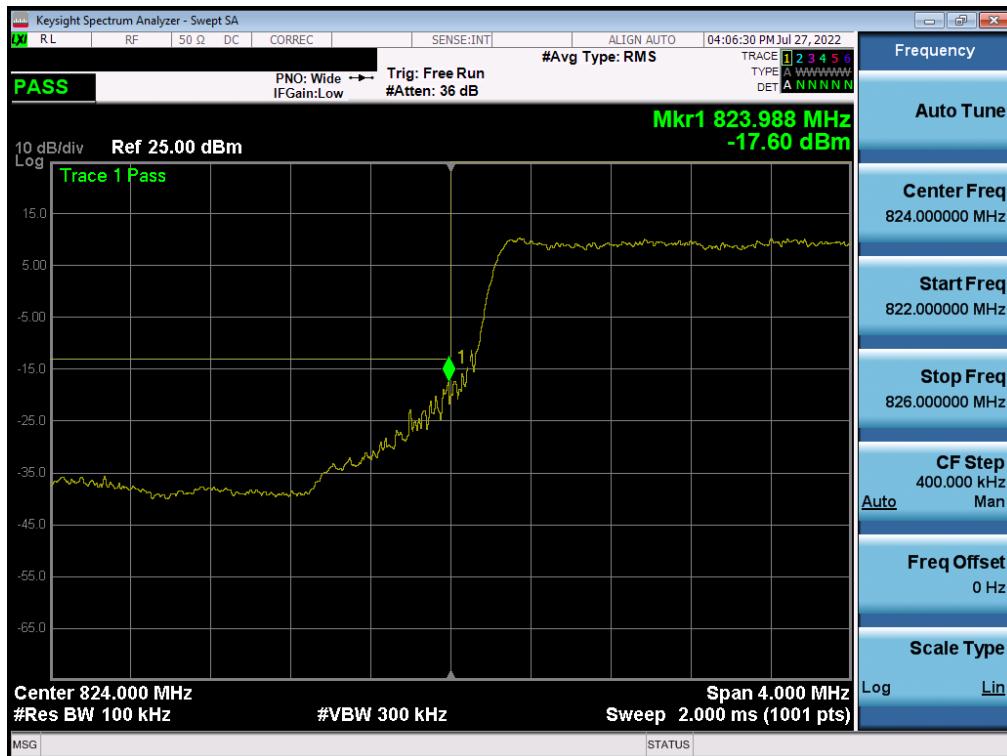
Plot 7-108. Lower BE Plot (NR Band n5 DFT-s-OFDM $\pi/2$ BPSK – 20.0MHz - Full RB)



Plot 7-109. Upper BE Plot (NR Band n5 DFT-s-OFDM $\pi/2$ BPSK – 20.0MHz - Full RB)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 75 of 108

NR Band n26

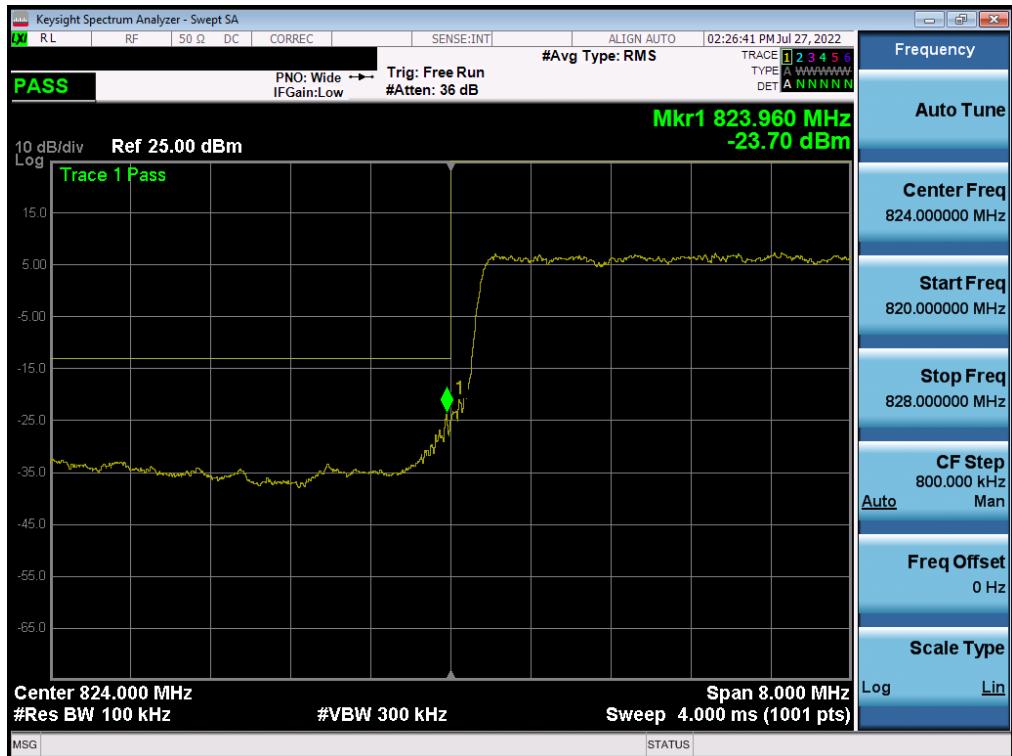


Plot 7-110. Lower BE Plot (NR Band n26 DFT-s-OFDM – 5.0MHz - Full RB)



Plot 7-111. Upper BE Plot (NR Band n26 DFT-s-OFDM – 5.0MHz - Full RB)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 76 of 108



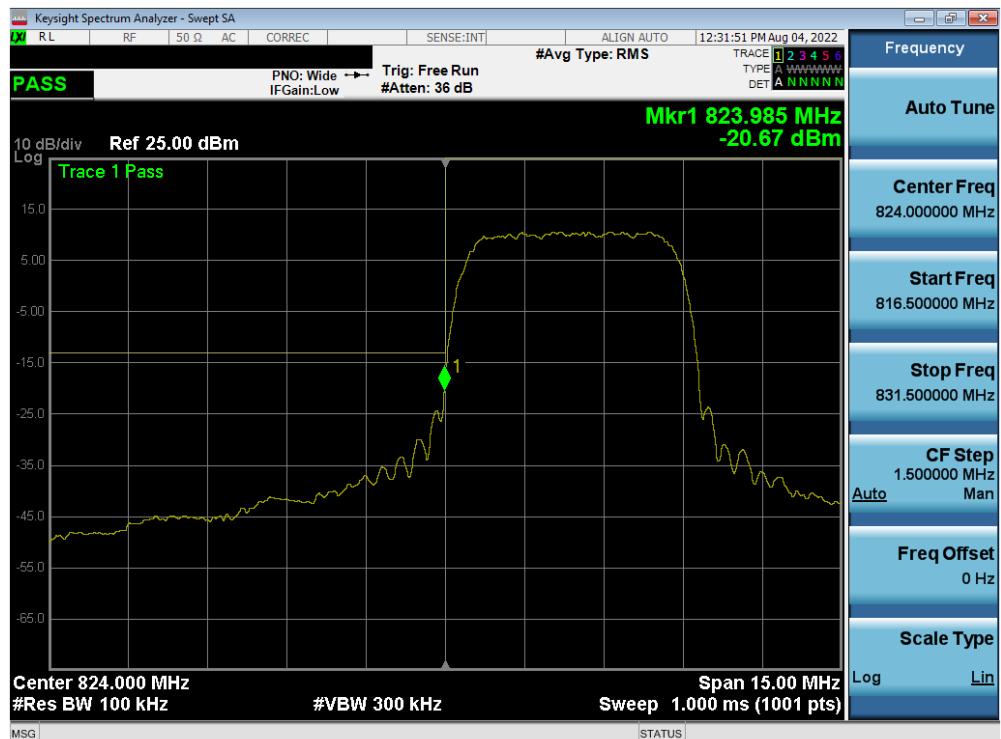
Plot 7-112. Lower BE Plot (NR Band n26 DFT-s-OFDM – 10.0MHz - Full RB)



Plot 7-113. Upper BE Plot (NR Band n26 DFT-s-OFDM – 10.0MHz - Full RB)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 77 of 108

WCDMA Cell



Plot 7-114. Lower BE Plot (WCDMA Cell – Ch. 4132)



Plot 7-115. Upper BE Plot (WCDMA Cell – Ch. 4233)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 78 of 108

7.5 Radiated Power (ERP/EIRP)

§22.913(a)(5)

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.

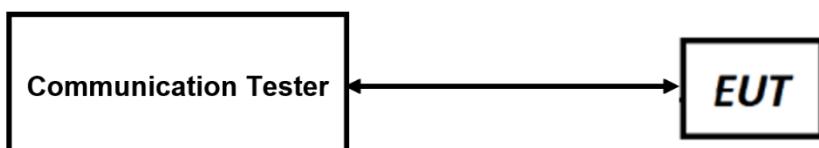


Figure 7-4. ERP/EIRP Measurement Setup

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device		Page 79 of 108

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. Uplink carrier aggregation for LTE B5 is only supported in this EUT while operating in Power Class 3.
5. Conducted power measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
6. The Ant. Gains (GT) are listed in dBi.

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
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7.5.1 Antenna 3 – ERP/EIRP

LTE Band 26

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	824.7	-1.30	1 / 5	25.62	22.17	0.165	38.45	-16.28	24.32	0.270	40.61	-16.29
		836.5	-1.30	1 / 3	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		848.2	-1.30	1 / 0	25.38	21.93	0.156	38.45	-16.52	24.08	0.256	40.61	-16.53
	16-QAM	836.5	-1.30	1 / 5	24.12	20.67	0.117	38.45	-17.78	22.82	0.191	40.61	-17.79
	64-QAM	824.7	-1.30	1 / 3	23.61	20.16	0.104	38.45	-18.29	22.31	0.170	40.61	-18.30
	256-QAM	824.7	-1.30	1 / 0	22.04	18.59	0.072	38.45	-19.86	20.74	0.119	40.61	-19.87
3 MHz	QPSK	825.5	-1.30	1 / 7	25.64	22.19	0.166	38.45	-16.26	24.34	0.272	40.61	-16.27
		836.5	-1.30	1 / 7	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		847.5	-1.30	1 / 7	25.58	22.13	0.163	38.45	-16.32	24.28	0.268	40.61	-16.33
	16-QAM	825.5	-1.30	1 / 7	24.07	20.62	0.115	38.45	-17.83	22.77	0.189	40.61	-17.84
	64-QAM	836.5	-1.30	1 / 7	23.63	20.18	0.104	38.45	-18.27	22.33	0.171	40.61	-18.28
	256-QAM	836.5	-1.30	1 / 7	22.01	18.56	0.072	38.45	-19.89	20.71	0.118	40.61	-19.90
5 MHz	QPSK	826.5	-1.30	1 / 12	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		836.5	-1.30	1 / 12	25.58	22.13	0.163	38.45	-16.32	24.28	0.268	40.61	-16.33
		846.5	-1.30	1 / 12	25.49	22.04	0.160	38.45	-16.41	24.19	0.262	40.61	-16.42
	16-QAM	826.5	-1.30	1 / 12	23.89	20.44	0.111	38.45	-18.01	22.59	0.182	40.61	-18.02
	64-QAM	836.5	-1.30	1 / 12	23.35	19.90	0.098	38.45	-18.55	22.05	0.160	40.61	-18.56
	256-QAM	836.5	-1.30	1 / 24	21.94	18.49	0.071	38.45	-19.96	20.64	0.116	40.61	-19.97
10 MHz	QPSK	829.0	-1.30	1 / 0	25.57	22.12	0.163	38.45	-16.33	24.27	0.267	40.61	-16.34
		836.5	-1.30	1 / 0	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		844.0	-1.30	1 / 25	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
	16-QAM	836.5	-1.30	1 / 0	24.08	20.63	0.116	38.45	-17.82	22.78	0.190	40.61	-17.83
	64-QAM	829.0	-1.30	1 / 0	23.53	20.08	0.102	38.45	-18.37	22.23	0.167	40.61	-18.38
	256-QAM	836.5	-1.30	1 / 0	21.97	18.52	0.071	38.45	-19.93	20.67	0.117	40.61	-19.94

Table 7-2. Antenna 3 ERP/EIRP Data (LTE Band 26)

LTE Band 5

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	824.7	-1.30	1 / 3	25.55	22.10	0.162	38.45	-16.35	24.25	0.266	40.61	-16.36
		836.5	-1.30	1 / 3	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		848.2	-1.30	1 / 0	25.65	22.20	0.166	38.45	-16.25	24.35	0.272	40.61	-16.26
	16-QAM	824.7	-1.30	1 / 3	24.83	21.38	0.137	38.45	-17.07	23.53	0.225	40.61	-17.08
	64-QAM	824.7	-1.30	1 / 3	23.81	20.36	0.109	38.45	-18.09	22.51	0.178	40.61	-18.10
	256-QAM	836.5	-1.30	1 / 3	20.94	17.49	0.056	38.45	-20.96	19.64	0.092	40.61	-20.97
3 MHz	QPSK	825.5	-1.30	1 / 7	25.66	22.21	0.166	38.45	-16.24	24.36	0.273	40.61	-16.25
		836.5	-1.30	1 / 7	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		847.5	-1.30	1 / 7	25.67	22.22	0.167	38.45	-16.23	24.37	0.274	40.61	-16.24
	16-QAM	847.5	-1.30	1 / 7	24.86	21.41	0.138	38.45	-17.04	23.56	0.227	40.61	-17.05
	64-QAM	825.5	-1.30	1 / 0	24.14	20.69	0.117	38.45	-17.76	22.84	0.192	40.61	-17.77
	256-QAM	847.5	-1.30	1 / 0	20.86	17.41	0.055	38.45	-21.04	19.56	0.090	40.61	-21.05
5 MHz	QPSK	826.5	-1.30	1 / 12	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		836.5	-1.30	1 / 12	25.58	22.13	0.163	38.45	-16.32	24.28	0.268	40.61	-16.33
		846.5	-1.30	1 / 12	25.46	22.01	0.159	38.45	-16.44	24.16	0.261	40.61	-16.45
	16-QAM	826.5	-1.30	1 / 0	24.76	21.31	0.135	38.45	-17.14	23.46	0.222	40.61	-17.15
	64-QAM	836.5	-1.30	1 / 24	23.74	20.29	0.107	38.45	-18.16	22.44	0.175	40.61	-18.17
	256-QAM	826.5	-1.30	1 / 0	20.83	17.38	0.055	38.45	-21.07	19.53	0.090	40.61	-21.08
10 MHz	QPSK	829.0	-1.30	1 / 0	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		836.5	-1.30	1 / 49	25.65	22.20	0.166	38.45	-16.25	24.35	0.272	40.61	-16.26
		844.0	-1.30	1 / 0	25.58	22.13	0.163	38.45	-16.32	24.28	0.268	40.61	-16.33
	16-QAM	829.0	-1.30	1 / 0	24.89	21.44	0.139	38.45	-17.01	23.59	0.229	40.61	-17.02
	64-QAM	836.5	-1.30	1 / 25	24.08	20.63	0.116	38.45	-17.82	22.78	0.190	40.61	-17.83
	256-QAM	836.5	-1.30	1 / 25	20.89	17.44	0.055	38.45	-21.01	19.59	0.091	40.61	-21.02

Table 7-3. Antenna 3 ERP/EIRP Data (LTE Band 5)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT						Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device						

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NR Band n5

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	826.5	-1.30	1 / 1	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		836.5	-1.30	1 / 12	25.55	22.10	0.162	38.45	-16.35	24.25	0.266	40.61	-16.35
		846.5	-1.30	1 / 12	25.50	22.05	0.160	38.45	-16.40	24.20	0.263	40.61	-16.40
	QPSK	826.5	-1.30	1 / 23	25.67	22.22	0.167	38.45	-16.23	24.37	0.273	40.61	-16.24
		836.5	-1.30	1 / 23	25.42	21.97	0.157	38.45	-16.48	24.12	0.258	40.61	-16.49
		846.5	-1.30	1 / 12	25.36	21.91	0.155	38.45	-16.54	24.06	0.255	40.61	-16.55
	16-QAM	826.5	-1.30	1 / 23	24.62	21.17	0.131	38.45	-17.28	23.32	0.215	40.61	-17.28
	64-QAM	846.5	-1.30	1 / 1	23.15	19.70	0.093	38.45	-18.75	21.85	0.153	40.61	-18.75
	256-QAM	826.5	-1.30	1 / 12	20.96	17.51	0.056	38.45	-20.94	19.66	0.092	40.61	-20.95
10 MHz	π/2 BPSK	829.0	-1.30	1 / 48	25.64	22.19	0.165	38.45	-16.26	24.34	0.271	40.61	-16.27
		836.5	-1.30	1 / 25	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		844.0	-1.30	1 / 1	25.39	21.94	0.156	38.45	-16.51	24.09	0.256	40.61	-16.52
	QPSK	829.0	-1.30	1 / 25	25.36	21.91	0.155	38.45	-16.54	24.06	0.254	40.61	-16.55
		836.5	-1.30	1 / 25	25.46	22.01	0.159	38.45	-16.44	24.16	0.261	40.61	-16.45
		844.0	-1.30	1 / 1	25.63	22.18	0.165	38.45	-16.27	24.33	0.271	40.61	-16.28
	16-QAM	829.0	-1.30	1 / 48	25.17	21.72	0.149	38.45	-16.73	23.87	0.244	40.61	-16.74
	64-QAM	829.0	-1.30	1 / 1	23.30	19.85	0.097	38.45	-18.60	22.00	0.158	40.61	-18.61
	256-QAM	829.0	-1.30	1 / 1	21.19	17.74	0.059	38.45	-20.71	19.89	0.097	40.61	-20.72
15 MHz	π/2 BPSK	831.5	-1.30	1 / 73	25.52	22.07	0.161	38.45	-16.38	24.22	0.264	40.61	-16.38
		836.5	-1.30	1 / 1	25.29	21.84	0.153	38.45	-16.61	23.99	0.251	40.61	-16.61
		841.5	-1.30	1 / 75	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
	QPSK	831.5	-1.30	1 / 73	25.50	22.05	0.160	38.45	-16.40	24.20	0.263	40.61	-16.41
		836.5	-1.30	1 / 73	25.67	22.22	0.167	38.45	-16.23	24.37	0.274	40.61	-16.23
		841.5	-1.30	1 / 1	25.52	22.07	0.161	38.45	-16.38	24.22	0.265	40.61	-16.38
	16-QAM	831.5	-1.30	1 / 1	24.96	21.51	0.142	38.45	-16.94	23.66	0.232	40.61	-16.95
	64-QAM	831.5	-1.30	1 / 75	23.63	20.18	0.104	38.45	-18.27	22.33	0.171	40.61	-18.28
	256-QAM	836.5	-1.30	1 / 1	21.68	18.23	0.066	38.45	-20.22	20.38	0.109	40.61	-20.23
20 MHz	π/2 BPSK	834.0	-1.30	1 / 1	25.42	21.97	0.157	38.45	-16.48	24.12	0.258	40.61	-16.49
		836.5	-1.30	1 / 50	25.70	22.25	0.168	38.45	-16.20	24.40	0.275	40.61	-16.21
		839.0	-1.30	1 / 50	25.29	21.84	0.153	38.45	-16.61	23.99	0.251	40.61	-16.62
	QPSK	834.0	-1.30	1 / 98	25.35	21.90	0.155	38.45	-16.55	24.05	0.254	40.61	-16.56
		836.5	-1.30	1 / 1	25.31	21.86	0.154	38.45	-16.59	24.01	0.252	40.61	-16.60
		839.0	-1.30	1 / 1	25.57	22.12	0.163	38.45	-16.33	24.27	0.268	40.61	-16.33
	16-QAM	834.0	-1.30	1 / 1	25.17	21.72	0.148	38.45	-16.74	23.87	0.244	40.61	-16.74
	64-QAM	836.5	-1.30	1 / 1	23.37	19.92	0.098	38.45	-18.53	22.07	0.161	40.61	-18.53
	256-QAM	834.0	-1.30	1 / 1	21.25	17.80	0.060	38.45	-20.65	19.95	0.099	40.61	-20.66

Table 7-4. Antenna 3 ERP/EIRP Data (NR Band n5)
NR Band n26

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	826.5	-1.30	1 / 1	25.52	22.07	0.161	38.45	-16.38	24.22	0.264	40.61	-16.39
		836.5	-1.30	1 / 23	25.18	21.73	0.149	38.45	-16.72	23.88	0.244	40.61	-16.73
		846.5	-1.30	1 / 1	25.51	22.06	0.161	38.45	-16.39	24.21	0.264	40.61	-16.40
	QPSK	826.5	-1.30	1 / 23	25.34	21.89	0.154	38.45	-16.57	24.04	0.253	40.61	-16.57
		836.5	-1.30	1 / 12	25.14	21.69	0.148	38.45	-16.76	23.84	0.242	40.61	-16.77
		846.5	-1.30	1 / 1	25.19	21.74	0.149	38.45	-16.71	23.89	0.245	40.61	-16.71
	16-QAM	846.5	-1.30	1 / 1	24.48	21.03	0.127	38.45	-17.42	23.18	0.208	40.61	-17.43
	64-QAM	826.5	-1.30	1 / 23	23.23	19.78	0.095	38.45	-18.67	21.93	0.156	40.61	-18.68
	256-QAM	826.5	-1.30	1 / 23	20.88	17.43	0.055	38.45	-21.02	19.58	0.091	40.61	-21.02
10 MHz	π/2 BPSK	829.0	-1.30	1 / 25	25.20	21.75	0.150	38.45	-16.70	23.90	0.245	40.61	-16.71
		836.5	-1.30	1 / 1	25.21	21.76	0.150	38.45	-16.69	23.91	0.246	40.61	-16.70
		844.0	-1.30	1 / 48	25.13	21.68	0.147	38.45	-16.77	23.83	0.242	40.61	-16.78
	QPSK	829.0	-1.30	1 / 25	25.35	21.90	0.155	38.45	-16.56	24.05	0.254	40.61	-16.56
		836.5	-1.30	1 / 48	25.40	21.95	0.157	38.45	-16.50	24.10	0.257	40.61	-16.51
		844.0	-1.30	1 / 1	25.51	22.06	0.161	38.45	-16.39	24.21	0.264	40.61	-16.40
	16-QAM	829.0	-1.30	1 / 25	24.68	21.23	0.133	38.45	-17.22	23.38	0.218	40.61	-17.23
	64-QAM	829.0	-1.30	1 / 25	22.73	19.28	0.085	38.45	-19.17	21.43	0.139	40.61	-19.18
	256-QAM	844.0	-1.30	1 / 48	21.27	17.82	0.061	38.45	-20.63	19.97	0.099	40.61	-20.64

Table 7-5. Antenna 3 ERP/EIRP Data (NR Band n26)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT						Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device						Page 82 of 108



ULCA - LTE Band 5

Power State	Band	Bandwidth (PCC + SCC)	PCC				SCC				ULCA Tx-Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]		
			Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency												
Max	LTE B5	10MHz + 10MHz	20450	829.0	1	49		20549	838.9	1	0	25.42	-1.30	21.97	0.157	38.45	-16.48	24.12	0.258	40.61	-16.49	
			QPSK	20475	831.5	1	49	20574	841.4	1	0	25.53	-1.30	22.08	0.161	38.45	-16.37	24.23	0.265	40.61	-16.38	
			20600	844.0	1	0		20501	834.1	1	49	25.62	-1.30	22.17	0.165	38.45	-16.28	24.32	0.270	40.61	-16.29	
			QPSK	20650	844	50	0	QPSK	20501	834.1	50	0	23.87	-1.30	20.42	0.110	38.45	-18.03	22.57	0.181	40.61	-18.04
			16-QAM	20650	844	50	0	16-QAM	20501	834.1	50	0	22.71	-1.30	19.26	0.124	38.45	-19.19	21.41	0.180	40.61	-19.20
			64-QAM	20800	844	50	0	64-QAM	20501	834.1	50	0	22.73	-1.30	19.37	0.086	38.45	-19.18	21.42	0.129	40.61	-19.19
			256-QAM	20800	844	50	0	256-QAM	20501	834.1	50	0	20.99	-1.30	17.45	0.056	38.45	-21.00	19.60	0.091	40.61	-21.01

Table 7-6. Antenna 3 ERP/EIRP Data (ULCA LTE Band 5)

WCDMA Cell

Frequency [MHz]	Mode	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
826.40	WCDMA850	25.50	-1.30	22.05	0.160	38.45	-16.40	24.20	0.263	40.61	-16.40
836.60	WCDMA850	25.57	-1.30	22.12	0.163	38.45	-16.33	24.27	0.267	40.61	-16.34
846.60	WCDMA850	25.59	-1.30	22.14	0.164	38.45	-16.31	24.29	0.268	40.61	-16.32

Table 7-7. Antenna 3 ERP/EIRP Data (WCDMA Cell)

FCC ID: BCGA2435	element	PART 22 MEASUREMENT REPORT						Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device						

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7.5.2 Antenna 1 – ERP/EIRP

LTE Band 26

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	824.7	-2.60	1 / 3	23.82	19.07	0.081	38.45	-19.38	21.22	0.132	40.61	-19.39
		836.5	-2.60	1 / 5	23.79	19.04	0.080	38.45	-19.41	21.19	0.132	40.61	-19.42
		848.2	-2.60	1 / 3	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
	16-QAM	836.5	-2.60	1 / 0	23.56	18.81	0.076	38.45	-19.64	20.96	0.125	40.61	-19.65
	64-QAM	848.2	-2.60	1 / 3	22.44	17.69	0.059	38.45	-20.76	19.84	0.096	40.61	-20.77
	256-QAM	848.2	-2.60	1 / 0	19.31	14.56	0.029	38.45	-23.89	16.71	0.047	40.61	-23.90
3 MHz	QPSK	825.5	-2.60	1 / 7	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
		836.5	-2.60	1 / 7	23.78	19.03	0.080	38.45	-19.42	21.18	0.131	40.61	-19.43
		847.5	-2.60	1 / 7	23.82	19.07	0.081	38.45	-19.38	21.22	0.132	40.61	-19.39
	16-QAM	836.5	-2.60	1 / 7	23.54	18.79	0.076	38.45	-19.66	20.94	0.124	40.61	-19.67
	64-QAM	847.5	-2.60	1 / 7	22.54	17.79	0.060	38.45	-20.66	19.94	0.099	40.61	-20.67
	256-QAM	836.5	-2.60	1 / 7	19.31	14.56	0.029	38.45	-23.89	16.71	0.047	40.61	-23.90
5 MHz	QPSK	826.5	-2.60	1 / 12	23.70	18.95	0.079	38.45	-19.50	21.10	0.129	40.61	-19.51
		836.5	-2.60	1 / 12	23.82	19.07	0.081	38.45	-19.38	21.22	0.132	40.61	-19.39
		846.5	-2.60	1 / 0	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
	16-QAM	846.5	-2.60	1 / 12	23.51	18.76	0.075	38.45	-19.69	20.91	0.123	40.61	-19.70
	64-QAM	836.5	-2.60	1 / 12	22.61	17.86	0.061	38.45	-20.59	20.01	0.100	40.61	-20.60
	256-QAM	846.5	-2.60	1 / 12	19.48	14.73	0.030	38.45	-23.72	16.88	0.049	40.61	-23.73
10 MHz	QPSK	829.0	-2.60	1 / 0	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
		836.5	-2.60	1 / 50	23.82	19.07	0.081	38.45	-19.38	21.22	0.132	40.61	-19.39
		844.0	-2.60	1 / 25	23.80	19.05	0.080	38.45	-19.40	21.20	0.132	40.61	-19.41
	16-QAM	836.5	-2.60	1 / 25	23.58	18.83	0.076	38.45	-19.62	20.98	0.125	40.61	-19.63
	64-QAM	844.0	-2.60	1 / 25	22.66	17.91	0.062	38.45	-20.54	20.06	0.101	40.61	-20.55
	256-QAM	844.0	-2.60	1 / 25	19.42	14.67	0.029	38.45	-23.78	16.82	0.048	40.61	-23.79

Table 7-8. Antenna 1 ERP/EIRP Data (LTE Band 26)

LTE Band 5

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1.4 MHz	QPSK	824.7	-2.60	1 / 0	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
		836.5	-2.60	1 / 3	23.57	18.82	0.076	38.45	-19.63	20.97	0.125	40.61	-19.64
		848.2	-2.60	1 / 3	23.83	19.08	0.081	38.45	-19.37	21.23	0.133	40.61	-19.38
	16-QAM	848.2	-2.60	1 / 3	23.24	18.49	0.071	38.45	-19.96	20.64	0.116	40.61	-19.97
	64-QAM	848.2	-2.60	1 / 0	22.49	17.74	0.059	38.45	-20.71	19.89	0.097	40.61	-20.72
	256-QAM	848.2	-2.60	1 / 0	19.16	14.41	0.028	38.45	-24.04	16.56	0.045	40.61	-24.05
3 MHz	QPSK	825.5	-2.60	1 / 7	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
		836.5	-2.60	1 / 7	23.63	18.88	0.077	38.45	-19.57	21.03	0.127	40.61	-19.58
		847.5	-2.60	1 / 7	23.78	19.03	0.080	38.45	-19.42	21.18	0.131	40.61	-19.43
	16-QAM	847.5	-2.60	1 / 14	23.32	18.57	0.072	38.45	-19.88	20.72	0.118	40.61	-19.89
	64-QAM	847.5	-2.60	1 / 14	22.44	17.69	0.059	38.45	-20.76	19.84	0.096	40.61	-20.77
	256-QAM	825.5	-2.60	1 / 7	19.45	14.70	0.030	38.45	-23.75	16.85	0.048	40.61	-23.76
5 MHz	QPSK	826.5	-2.60	1 / 0	23.73	18.98	0.079	38.45	-19.47	21.13	0.130	40.61	-19.48
		836.5	-2.60	1 / 24	23.77	19.02	0.080	38.45	-19.43	21.17	0.131	40.61	-19.44
		846.5	-2.60	1 / 0	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
	16-QAM	846.5	-2.60	1 / 0	23.55	18.80	0.076	38.45	-19.65	20.95	0.124	40.61	-19.66
	64-QAM	826.5	-2.60	1 / 0	22.37	17.62	0.058	38.45	-20.83	19.77	0.095	40.61	-20.84
	256-QAM	846.5	-2.60	1 / 0	19.40	14.65	0.029	38.45	-23.80	16.80	0.048	40.61	-23.81
10 MHz	QPSK	829.0	-2.60	1 / 0	23.68	18.93	0.078	38.45	-19.52	21.08	0.128	40.61	-19.53
		836.5	-2.60	1 / 49	23.73	18.98	0.079	38.45	-19.47	21.13	0.130	40.61	-19.48
		844.0	-2.60	1 / 25	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
	16-QAM	844.0	-2.60	1 / 25	23.39	18.64	0.073	38.45	-19.81	20.79	0.120	40.61	-19.82
	64-QAM	844.0	-2.60	1 / 25	22.50	17.75	0.060	38.45	-20.70	19.90	0.098	40.61	-20.71
	256-QAM	844.0	-2.60	1 / 25	19.36	14.61	0.029	38.45	-23.84	16.76	0.047	40.61	-23.85

Table 7-9. Antenna 1 ERP/EIRP Data (LTE Band 5)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT						Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device						

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NR Band n5

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	826.5	-2.60	1 / 1	23.42	18.67	0.074	38.45	-19.78	20.82	0.121	40.61	-19.79
		836.5	-2.60	1 / 12	23.61	18.86	0.077	38.45	-19.59	21.01	0.126	40.61	-19.60
		846.5	-2.60	1 / 12	23.24	18.49	0.071	38.45	-19.96	20.64	0.116	40.61	-19.97
	QPSK	826.5	-2.60	1 / 23	23.44	18.69	0.074	38.45	-19.76	20.84	0.121	40.61	-19.77
		836.5	-2.60	1 / 23	23.50	18.75	0.075	38.45	-19.70	20.90	0.123	40.61	-19.71
		846.5	-2.60	1 / 1	23.29	18.54	0.072	38.45	-19.91	20.69	0.117	40.61	-19.91
	16-QAM	826.5	-2.60	1 / 1	22.80	18.05	0.064	38.45	-20.40	20.20	0.105	40.61	-20.41
		836.5	-2.60	1 / 23	21.13	16.38	0.043	38.45	-22.07	18.53	0.071	40.61	-22.07
		846.5	-2.60	1 / 75	18.91	14.16	0.026	38.45	-24.29	16.31	0.043	40.61	-24.30
10 MHz	π/2 BPSK	829.0	-2.60	1 / 1	23.23	18.48	0.071	38.45	-19.97	20.63	0.116	40.61	-19.97
		836.5	-2.60	1 / 25	23.19	18.44	0.070	38.45	-20.01	20.59	0.115	40.61	-20.02
		844.0	-2.60	1 / 25	23.17	18.42	0.069	38.45	-20.04	20.57	0.114	40.61	-20.04
	QPSK	829.0	-2.60	1 / 48	23.11	18.36	0.069	38.45	-20.09	20.51	0.113	40.61	-20.10
		836.5	-2.60	1 / 48	23.21	18.46	0.070	38.45	-19.99	20.61	0.115	40.61	-20.00
		844.0	-2.60	1 / 25	23.31	18.56	0.072	38.45	-19.89	20.71	0.118	40.61	-19.90
	16-QAM	844.0	-2.60	1 / 1	22.62	17.87	0.061	38.45	-20.58	20.02	0.101	40.61	-20.58
		836.5	-2.60	1 / 48	21.16	16.41	0.044	38.45	-22.04	18.56	0.072	40.61	-22.05
		829.0	-2.60	1 / 25	19.10	14.35	0.027	38.45	-24.10	16.50	0.045	40.61	-24.10
15 MHz	π/2 BPSK	831.5	-2.60	1 / 75	23.44	18.69	0.074	38.45	-19.76	20.84	0.121	40.61	-19.76
		836.5	-2.60	1 / 75	23.48	18.73	0.075	38.45	-19.72	20.88	0.122	40.61	-19.73
		841.5	-2.60	1 / 1	23.45	18.70	0.074	38.45	-19.75	20.85	0.122	40.61	-19.76
	QPSK	831.5	-2.60	1 / 1	23.46	18.71	0.074	38.45	-19.74	20.86	0.122	40.61	-19.75
		836.5	-2.60	1 / 1	23.59	18.84	0.077	38.45	-19.61	20.99	0.126	40.61	-19.61
		841.5	-2.60	1 / 75	23.40	18.65	0.073	38.45	-19.80	20.80	0.120	40.61	-19.81
	16-QAM	841.5	-2.60	1 / 1	23.02	18.27	0.067	38.45	-20.18	20.42	0.110	40.61	-20.19
		836.5	-2.60	1 / 75	21.31	16.56	0.045	38.45	-21.89	18.71	0.074	40.61	-21.90
		256-QAM	831.5	-2.60	1 / 1	19.10	14.35	0.027	38.45	-24.10	16.50	0.045	40.61
20 MHz	π/2 BPSK	834.0	-2.60	1 / 1	23.51	18.76	0.075	38.45	-19.69	20.91	0.123	40.61	-19.70
		836.5	-2.60	1 / 50	23.32	18.57	0.072	38.45	-19.88	20.72	0.118	40.61	-19.89
		839.0	-2.60	1 / 1	23.43	18.68	0.074	38.45	-19.77	20.83	0.121	40.61	-19.78
	QPSK	834.0	-2.60	1 / 1	23.38	18.63	0.073	38.45	-19.82	20.78	0.120	40.61	-19.83
		836.5	-2.60	1 / 1	23.42	18.67	0.074	38.45	-19.79	20.82	0.121	40.61	-19.79
		839.0	-2.60	1 / 1	23.83	19.08	0.081	38.45	-19.37	21.23	0.133	40.61	-19.38
	16-QAM	836.5	-2.60	1 / 50	22.99	18.24	0.067	38.45	-20.21	20.39	0.109	40.61	-20.21
		836.5	-2.60	1 / 1	21.09	16.34	0.043	38.45	-22.11	18.49	0.071	40.61	-22.11
		256-QAM	836.5	-2.60	1 / 1	19.12	14.37	0.027	38.45	-24.08	16.52	0.045	40.61

Table 7-10. Antenna 1 ERP/EIRP Data (NR Band n5)
NR Band n26

Bandwidth	Mod.	Frequency [MHz]	Ant. Gain [dBi]	RB Size/Offset	Conducted Power [dBm]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
5 MHz	π/2 BPSK	826.5	-2.60	1 / 12	23.76	19.01	0.080	38.45	-19.44	21.16	0.131	40.61	-19.44
		836.5	-2.60	1 / 23	23.71	18.96	0.079	38.45	-19.49	21.11	0.129	40.61	-19.50
		846.5	-2.60	1 / 23	23.79	19.04	0.080	38.45	-19.41	21.19	0.131	40.61	-19.42
	QPSK	826.5	-2.60	1 / 1	23.77	19.02	0.080	38.45	-19.43	21.17	0.131	40.61	-19.43
		836.5	-2.60	1 / 1	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
		846.5	-2.60	1 / 1	23.86	19.11	0.081	38.45	-19.34	21.26	0.134	40.61	-19.35
	16-QAM	826.5	-2.60	1 / 12	23.21	18.46	0.070	38.45	-19.99	20.61	0.115	40.61	-19.99
		826.5	-2.60	1 / 23	21.62	16.87	0.049	38.45	-21.58	19.02	0.080	40.61	-21.59
		256-QAM	836.5	-2.60	1 / 1	19.29	14.54	0.028	38.45	-23.91	16.69	0.047	40.61
10 MHz	π/2 BPSK	829.0	-2.60	1 / 48	23.80	19.05	0.080	38.45	-19.40	21.20	0.132	40.61	-19.40
		836.5	-2.60	1 / 48	23.90	19.15	0.082	38.45	-19.30	21.30	0.135	40.61	-19.31
		844.0	-2.60	1 / 25	23.78	19.03	0.080	38.45	-19.42	21.18	0.131	40.61	-19.43
	QPSK	829.0	-2.60	1 / 48	23.54	18.79	0.076	38.45	-19.66	20.94	0.124	40.61	-19.66
		836.5	-2.60	1 / 1	23.80	19.05	0.080	38.45	-19.40	21.20	0.132	40.61	-19.40
		844.0	-2.60	1 / 1	23.46	18.71	0.074	38.45	-19.74	20.86	0.122	40.61	-19.75
	16-QAM	836.5	-2.60	1 / 25	23.23	18.48	0.070	38.45	-19.97	20.63	0.116	40.61	-19.98
		844.0	-2.60	1 / 1	21.32	16.57	0.045	38.45	-21.88	18.72	0.074	40.61	-21.89
		256-QAM	836.5	-2.60	1 / 25	19.40	14.65	0.029	38.45	-23.80	16.80	0.048	40.61

Table 7-11. Antenna 1 ERP/EIRP Data (NR Band n26)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT						Approved by: Technical Manager
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ULCA - LTE Band 5

Power State	Band	Bandwidth (PCC + SCC)	PCC				SCC				ULCA Tx. Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]		
			Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency												
Max	LTE B5	10MHz + 10MHz	20450	829.0	1	49		20549	838.9	1	0	23.86	-2.60	19.11	0.081	38.45	-19.34	21.26	0.134	40.61	-19.35	
			QPSK					20574	841.4	1	0	23.65	-2.60	18.90	0.078	38.45	-19.55	21.05	0.127	40.61	-19.56	
			20475	831.5	1	49		20501	834.1	1	49	23.84	-2.60	18.09	0.081	38.45	-19.36	21.24	0.133	40.61	-19.37	
			20600	844.0	1	0		20549	838.9	50	0	22.05	-2.60	17.30	0.054	38.45	-21.15	19.45	0.088	40.61	-21.16	
			20450	829.0	50	0		QPSK	20549	838.9	50	0	21.59	-2.60	18.34	0.043	38.45	-22.11	18.49	0.080	40.61	-22.12
			64-QAM	829.0	50	0		16-QAM	20549	838.9	50	0	20.07	-2.60	16.23	0.049	38.45	-22.29	18.37	0.080	40.61	-22.24
			64-QAM	20469	829.0	50	0	64-QAM	20549	838.9	50	0	18.95	-2.60	14.20	0.028	38.45	-24.25	16.35	0.043	40.61	-24.26
			256-QAM	20450	829.0	50	0	256-QAM	20549	838.9	50	0	18.95	-2.60	14.20	0.028	38.45	-24.25	16.35	0.043	40.61	-24.26

Table 7-12. Antenna 1 ERP/EIRP Data (ULCA LTE Band 5)

WCDMA Cell

Frequency [MHz]	Mode	Conducted Power [dBm]	Ant. Gain [dBi]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
826.40	WCDMA850	23.68	-2.60	18.93	0.078	38.45	-19.52	21.08	0.128	40.61	-19.53
836.60	WCDMA850	23.87	-2.60	19.12	0.082	38.45	-19.33	21.27	0.134	40.61	-19.34
846.60	WCDMA850	23.51	-2.60	18.76	0.075	38.45	-19.69	20.91	0.123	40.61	-19.70

Table 7-13. Antenna 1 ERP/EIRP Data (WCDMA Cell)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT							Approved by: Technical Manager
Test Report S/N: 1C2205090025-01.BCG	Test Dates: 05/30/2022 - 08/29/2022	EUT Type: Tablet Device							

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7.6 Radiated Spurious Emissions

§2.1053, 22.917(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 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

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Test Setup

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

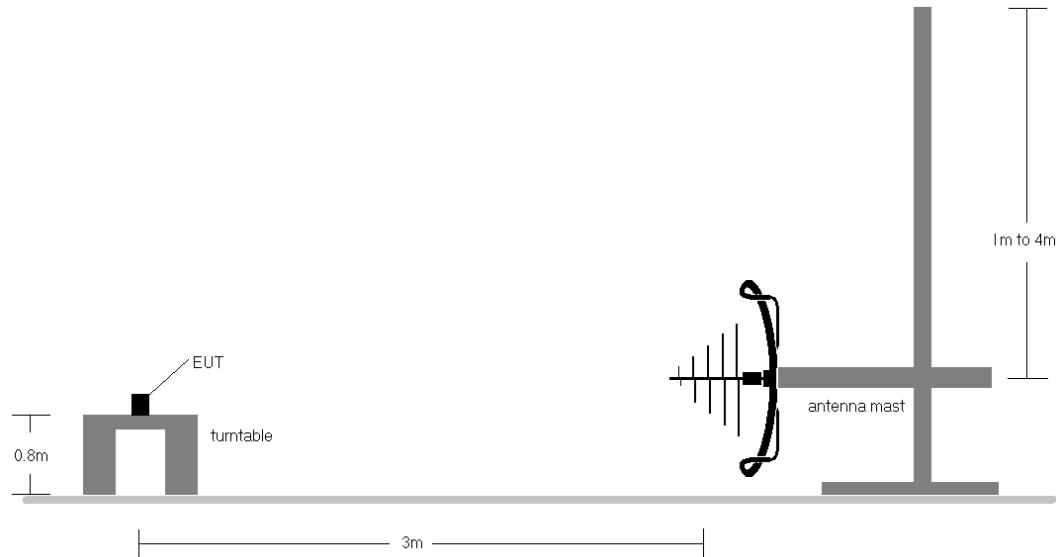


Figure 7-5. Test Instrument & Measurement Setup < 1GHz

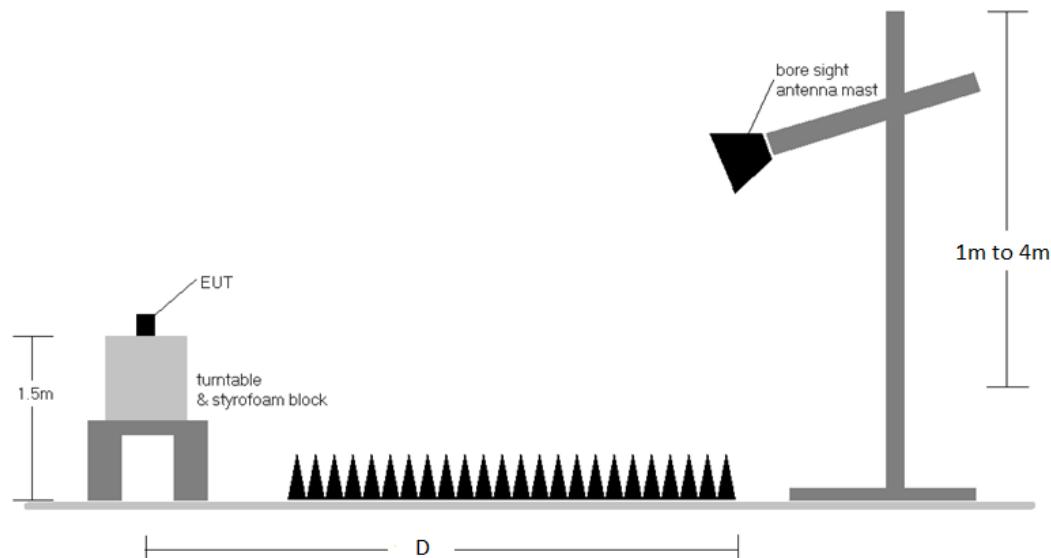


Figure 7-6. Test Instrument & Measurement Setup > 1 GHz

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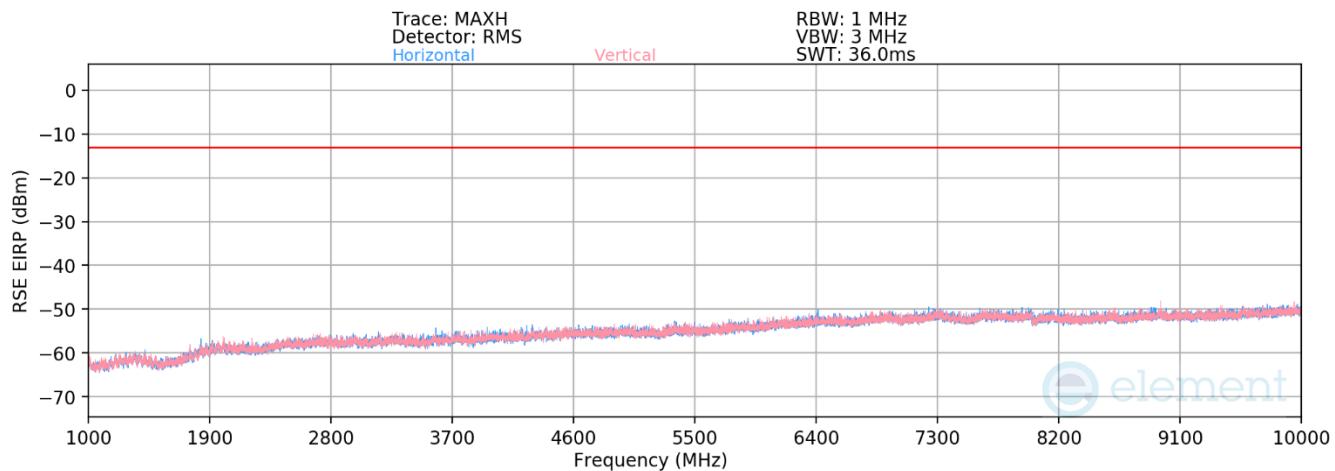
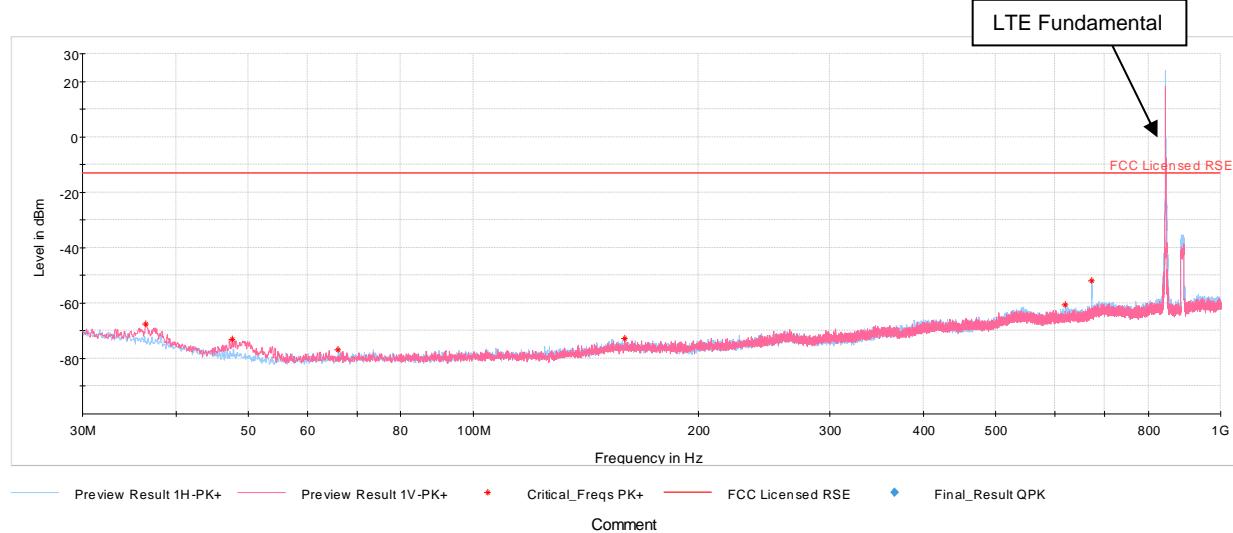
Test Notes

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. This device employs UMTS technology with WCDMA (AMR/RMC) and HSDPA capabilities. The EUT was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1".
3. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
6. D is the measurement test distance and emissions 1-18GHz were measured at a 3 meters test distance.
7. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
8. ULCA spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
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. Spurious emission in EN-DC Operating mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor) has been checked and was found to not to be the worst case.
11. Uplink carrier aggregation inter-band emission was investigated and found to not be the worst case.

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7.6.1 Antenna 3 – Radiated Spurious Emission Measurements

LTE Band 26/5



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Bandwidth (MHz):	10								
Frequency (MHz):	829.0								
RB / Offset:	1/24								
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]
1658.0	-	-	-	-77.56	-1.75	27.69	-67.56	-13.00	-54.56
2487.0	V	316	20	-76.36	2.98	33.62	-61.64	-13.00	-48.64
3316.0	V	-	-	-79.40	4.88	32.48	-62.78	-13.00	-49.78
4145.0	V	-	-	-79.50	5.72	33.22	-62.04	-13.00	-49.04
4974.0	V	-	-	-80.17	7.24	34.07	-61.19	-13.00	-48.19

Table 7-14. Antenna 3 Radiated Spurious Data (LTE Band 26/5 – Low Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	836.5								
RB / Offset:	1/24								
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]
1673.0	V	393	196	-76.84	-1.69	28.47	-66.78	-13.00	-53.78
2509.5	V	385	239	-73.23	2.79	36.56	-58.70	-13.00	-45.70
3346.0	V	-	-	-79.89	4.95	32.06	-63.20	-13.00	-50.20
4182.5	V	-	-	-79.38	5.42	33.04	-62.22	-13.00	-49.22
5019.0	V	-	-	-80.16	7.55	34.39	-60.87	-13.00	-47.87

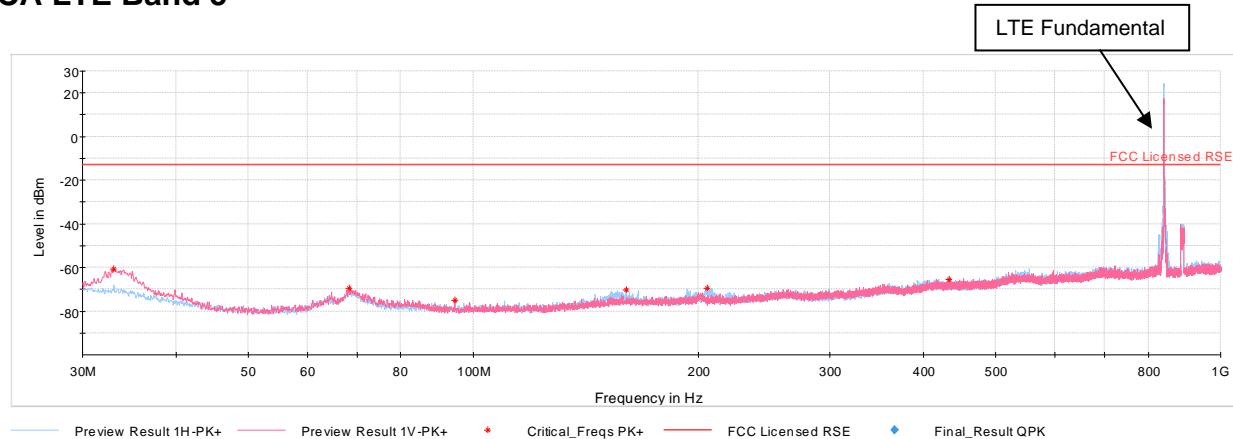
Table 7-15. Antenna 3 Radiated Spurious Data (LTE Band 26/5 – Mid Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	844.0								
RB / Offset:	1/24								
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]
1688.0	V	374	177	-74.48	-1.56	30.96	-64.30	-13.00	-51.30
2532.0	V	359	137	-70.85	2.70	38.85	-56.40	-13.00	-43.40
3376.0	V	-	-	-79.47	4.76	32.29	-62.97	-13.00	-49.97
4220.0	V	-	-	-79.39	5.64	33.25	-62.00	-13.00	-49.00
5064.0	V	-	-	-80.64	7.53	33.89	-61.37	-13.00	-48.37

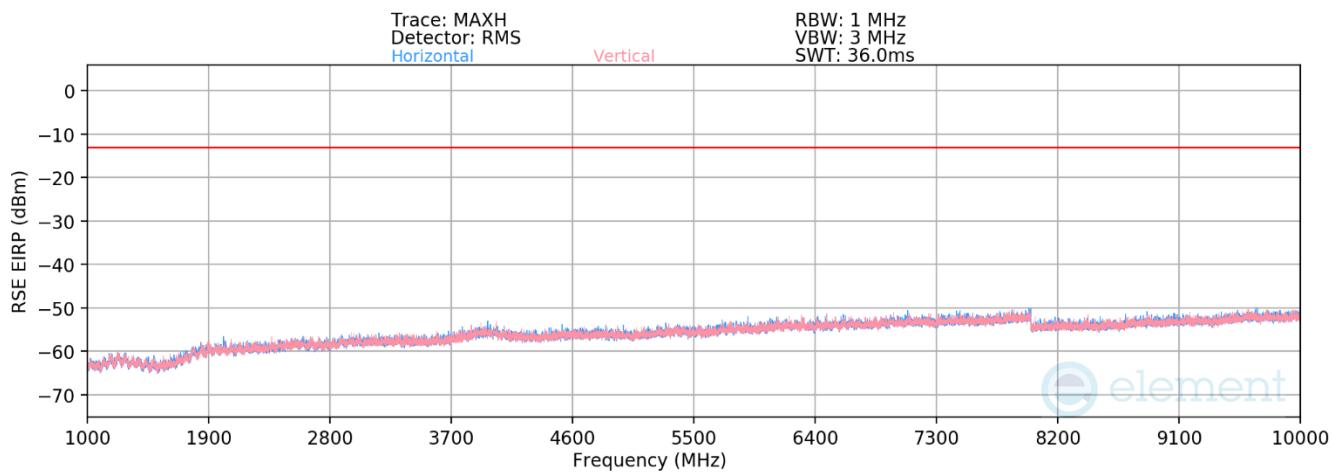
Table 7-16. Antenna 3 Radiated Spurious Data (LTE Band 26/5 – High Channel)

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ULCA LTE Band 5



Plot 7-118. Antenna 3 Radiated Spurious Plot below 1GHz (ULCA LTE Band 5)



Plot 7-119. Antenna 3 Radiated Spurious Plot above 1GHz (ULCA LTE Band 5)

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PCC Bandwidth (MHz):	10								
PCC Frequency (MHz):	829.0								
PCC RB / Offset:	1 / 49								
SCC Bandwidth (MHz):	10								
SCC Frequency (MHz):	838.9								
SCC RB / Offset:	1 / 0								
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]
1658.0	H	-	-	-75.20	-4.23	27.57	-67.68	-13.00	-54.68
2487.0	H	146	333	-74.11	0.23	33.12	-62.14	-13.00	-49.14
3316.0	H	-	-	-76.62	2.04	32.42	-62.84	-13.00	-49.84
4145.0	H	-	-	-77.00	3.28	33.28	-61.97	-13.00	-48.97
4974.0	H	-	-	-77.69	4.35	33.66	-61.60	-13.00	-48.60

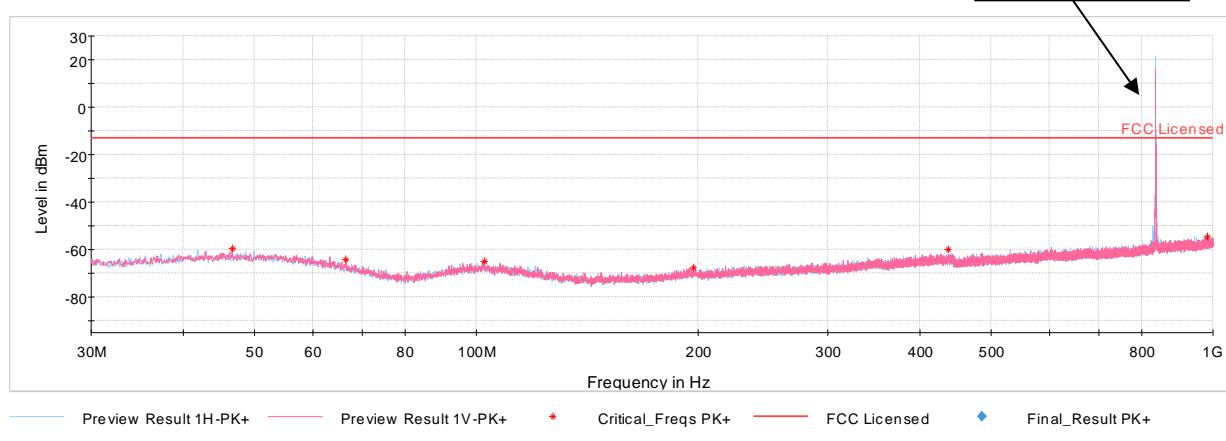
Table 7-17. Antenna 3 Radiated Spurious Data (ULCA LTE Band 5 – Low Channel)

PCC Bandwidth (MHz):	10								
PCC Frequency (MHz):	844.0								
PCC RB / Offset:	1 / 0								
SCC Bandwidth (MHz):	10								
SCC Frequency (MHz):	834.1								
SCC RB / Offset:	1 / 49								
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]
1688.0	H	-	-	-75.33	-3.79	27.88	-67.38	-13.00	-54.38
2532.0	H	146	56	-74.46	0.73	33.27	-61.98	-13.00	-48.98
3376.0	H	-	-	-76.70	1.85	32.15	-63.10	-13.00	-50.10
4220.0	H	-	-	-76.86	3.19	33.33	-61.93	-13.00	-48.93
5064.0	H	-	-	-77.76	4.20	33.44	-61.82	-13.00	-48.82

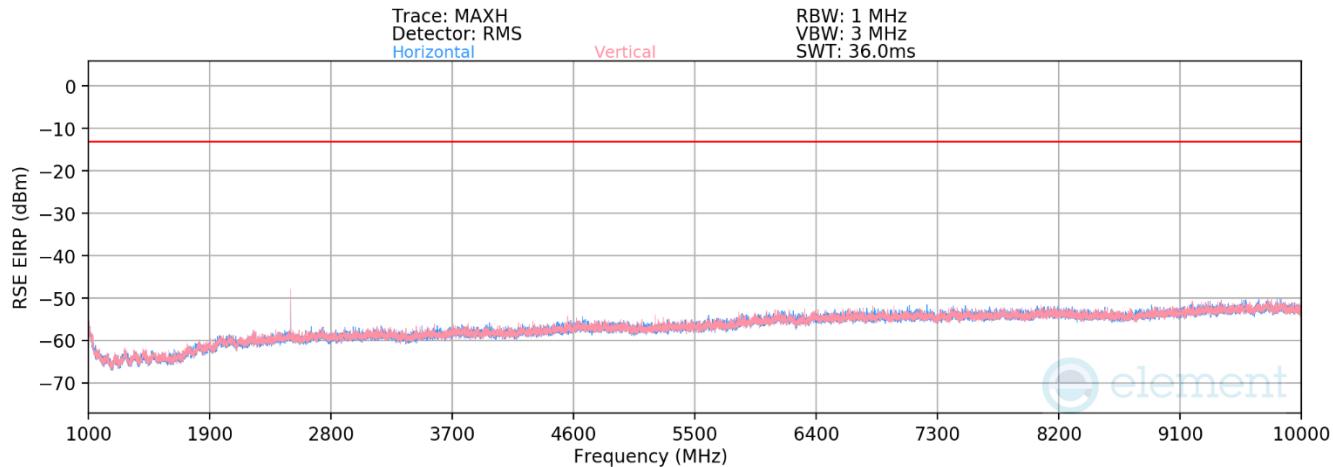
Table 7-18. Antenna 3 Radiated Spurious Data (ULCA LTE Band 5 – High Channel)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT				Approved by: Technical Manager
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NR Band n26/5



Plot 7-120. Antenna 3 Radiated Spurious Plot below 1GHz (NR Band n26/5)



Plot 7-121. Antenna 3 Radiated Spurious Plot above 1GHz (NR Band n26/5)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
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Bandwidth (MHz):	10								
Frequency (MHz):	829.0								
RB / Offset:	1/24								
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]
1658.0	H	365	169	-77.05	-3.78	26.17	-69.08	-13.00	-56.08
2487.0	V	366	335	-67.19	1.62	41.43	-53.83	-13.00	-40.83
3316.0	H	-	-	-78.31	2.31	31.00	-64.26	-13.00	-51.26
4145.0	H	-	-	-79.01	3.91	31.90	-63.36	-13.00	-50.36
4974.0	H	-	-	-79.25	5.15	32.90	-62.36	-13.00	-49.36

Table 7-19. Antenna 3 Radiated Spurious Data (NR Band n26/5 – Low Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	836.5								
RB / Offset:	1/24								
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]
1673.0	H	-	-	-77.12	-3.67	26.21	-69.05	-13.00	-56.05
2509.5	V	219	32	-70.67	1.64	37.97	-57.28	-13.00	-44.28
3346.0	H	-	-	-78.32	2.37	31.05	-64.21	-13.00	-51.21
4182.5	H	-	-	-78.98	3.91	31.93	-63.32	-13.00	-50.32
5019.0	H	-	-	-79.34	5.08	32.74	-62.51	-13.00	-49.51

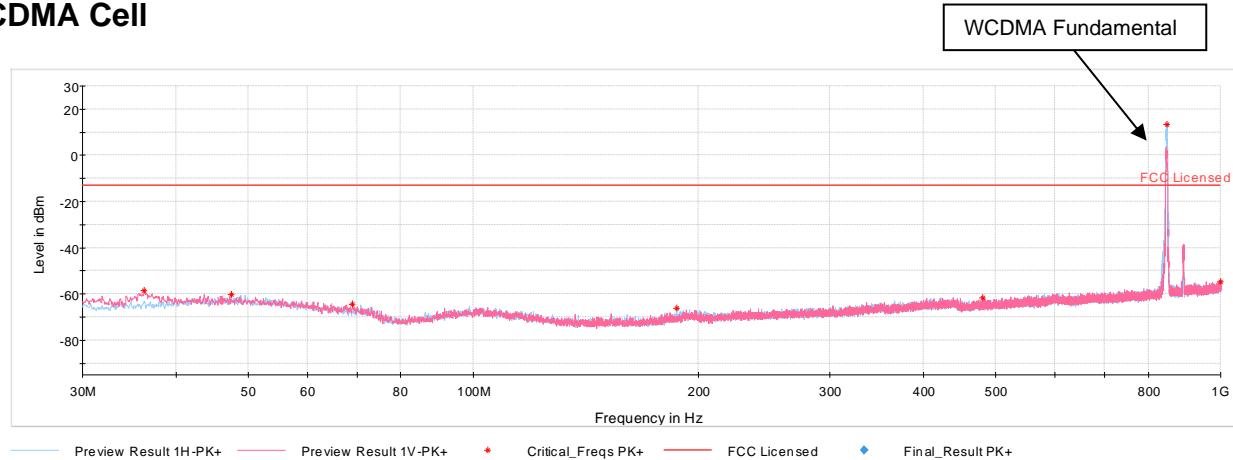
Table 7-20. Antenna 3 Radiated Spurious Data (NR Band n26/5 – Mid Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	844.0								
RB / Offset:	1/24								
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]
1688.0	H	-	-	-77.08	-3.53	26.39	-68.87	-13.00	-55.87
2532.0	V	386	199	-70.86	1.69	37.83	-57.43	-13.00	-44.43
3376.0	H	-	-	-78.39	2.43	31.04	-64.22	-13.00	-51.22
4220.0	H	-	-	-79.23	4.12	31.89	-63.37	-13.00	-50.37
5064.0	H	-	-	-79.43	4.94	32.51	-62.75	-13.00	-49.75

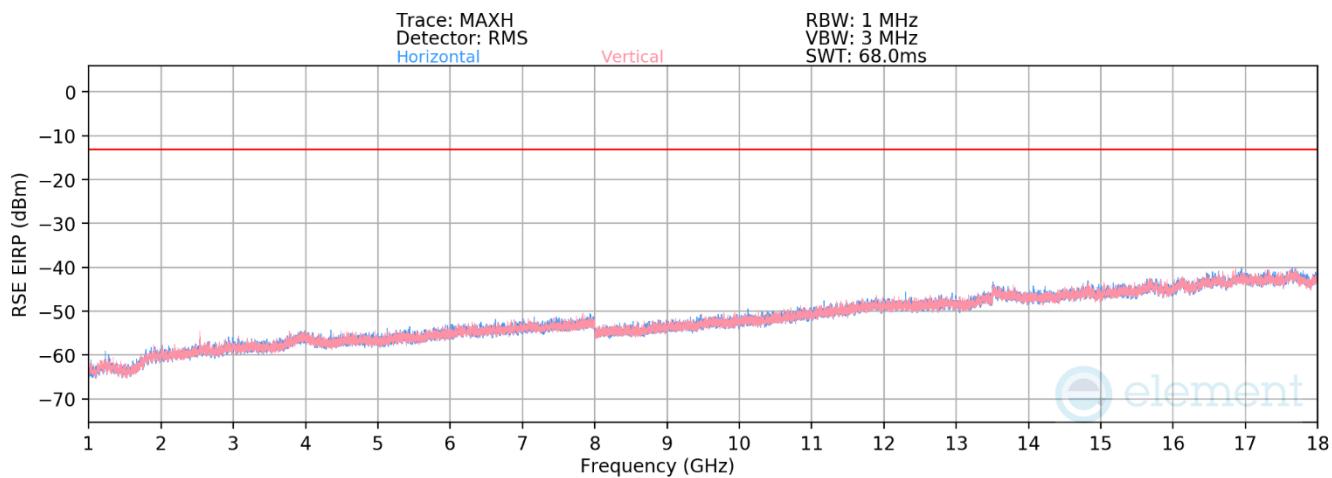
Table 7-21. Antenna 3 Radiated Spurious Data (NR Band n26/5 – High Channel)

FCC ID: BCGA2435	 element	PART 22 MEASUREMENT REPORT					Approved by: Technical Manager
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WCDMA Cell



Plot 7-122. Antenna 3 Radiated Spurious Plot below 1GHz (WCDMA Cell)



Plot 7-123. Antenna 3 Radiated Spurious Plot above 1GHz (WCDMA Cell)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT			Approved by: Technical Manager
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Mode:	WCDMA RMC								
Channel:	4132								
Frequency (MHz):	826.4								
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]
1652.8	H	-	-	-75.13	-4.32	27.55	-67.71	-13.00	-54.71
2479.2	V	311	338	-73.95	0.19	33.24	-62.02	-13.00	-49.02
3305.6	H	-	-	-76.65	2.09	32.44	-62.82	-13.00	-49.82
4132.0	H	-	-	-77.06	3.45	33.39	-61.86	-13.00	-48.86
4958.4	H	-	-	-77.64	4.34	33.70	-61.56	-13.00	-48.56

Table 7-22. Antenna 3 Radiated Spurious Data (WCDMA Cell – Low Channel)

Mode:	WCDMA RMC								
Channel:	4183								
Frequency (MHz):	836.6								
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]
1673.2	H	-	-	-75.02	-3.99	27.99	-67.27	-13.00	-54.27
2509.8	V	287	144	-72.92	0.40	34.48	-60.77	-13.00	-47.77
3346.4	H	-	-	-76.77	2.06	32.29	-62.97	-13.00	-49.97
4183.0	H	-	-	-77.02	3.65	33.63	-61.63	-13.00	-48.63
5019.6	H	-	-	-77.84	4.52	33.68	-61.57	-13.00	-48.57

Table 7-23. Antenna 3 Radiated Spurious Data (WCDMA Cell – Mid Channel)

Mode:	WCDMA RMC								
Channel:	4233								
Frequency (MHz):	846.6								
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]
1693.2	H	-	-	-75.10	-3.72	28.18	-67.08	-13.00	-54.08
2539.8	H	314	142	-71.12	0.80	36.68	-58.58	-13.00	-45.58
3386.4	H	-	-	-76.41	1.87	32.46	-62.80	-13.00	-49.80
4233.0	H	-	-	-77.25	3.19	32.94	-62.32	-13.00	-49.32
5079.6	H	-	-	-77.64	4.26	33.62	-61.63	-13.00	-48.63

Table 7-24. Antenna 3 Radiated Spurious Data (WCDMA Cell – High Channel)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT					Approved by: Technical Manager
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7.6.2 Antenna 1 – Radiated Spurious Emission Measurements

LTE Band 26/5

Bandwidth (MHz):	10															
Frequency (MHz):	829.0															
RB / Offset:	2/24															
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]							
1658.0	-	-	-	-78.52	-3.52	24.96	-70.30	-13.00	-57.30							
2487.0	-	-	-	-78.05	0.46	29.41	-65.85	-13.00	-52.85							
3316.0	-	-	-	-78.69	2.42	30.73	-64.52	-13.00	-51.52							

Table 7-25. Antenna 1 Radiated Spurious Data (LTE Band 26/5 – Low Channel)

Bandwidth (MHz):	10															
Frequency (MHz):	836.5															
RB / Offset:	1/24															
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]							
1673.0	-	-	-	-77.74	-3.30	25.96	-69.30	-13.00	-56.30							
2509.5	-	-	-	-77.79	0.54	29.75	-65.51	-13.00	-52.51							
3346.0	-	-	-	-79.23	2.62	30.39	-64.87	-13.00	-51.87							

Table 7-26. Antenna 1 Radiated Spurious Data (LTE Band 26/5 – Mid Channel)

Bandwidth (MHz):	10															
Frequency (MHz):	844.0															
RB / Offset:	1/24															
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]							
1688.0	-	-	-	-77.91	-3.06	26.03	-69.23	-13.00	-56.23							
2532.0	-	-	-	-78.29	0.73	29.44	-65.81	-13.00	-52.81							
3376.0	-	-	-	-79.20	2.71	30.51	-64.75	-13.00	-51.75							

Table 7-27. Antenna 1 Radiated Spurious Data (LTE Band 26/5 – High Channel)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT							Approved by: Technical Manager
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ULCA LTE Band 5

PCC Bandwidth (MHz):	10								
PCC Frequency (MHz):	829.0								
PCC RB / Offset:	1 / 49								
SCC Bandwidth (MHz):	10								
SCC Frequency (MHz):	838.9								
SCC RB / Offset:	1 / 0								
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]
1658.0	H	-	-	-75.52	-4.23	27.25	-68.00	-13.00	-55.00
2487.0	H	-	-	-75.84	0.23	31.39	-63.87	-13.00	-50.87
3316.0	H	-	-	-76.51	2.04	32.53	-62.73	-13.00	-49.73

Table 7-28. Antenna 1 Radiated Spurious Data (ULCA LTE Band 5 – Low Channel)

PCC Bandwidth (MHz):	10								
PCC Frequency (MHz):	844.0								
PCC RB / Offset:	1 / 0								
SCC Bandwidth (MHz):	10								
SCC Frequency (MHz):	834.1								
SCC RB / Offset:	1 / 49								
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]
1688.0	H	-	-	-75.11	-3.79	28.10	-67.16	-13.00	-54.16
2532.0	H	-	-	-76.12	0.73	31.61	-63.64	-13.00	-50.64
3376.0	H	-	-	-76.51	1.85	32.34	-62.91	-13.00	-49.91

Table 7-29. Antenna 1 Radiated Spurious Data (ULCA LTE Band 5 – High Channel)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT				Approved by: Technical Manager
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NR Band n26/5

Bandwidth (MHz):	10								
Frequency (MHz):	829.0								
RB / Offset:	1/24								
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]
1658.0	H	-	-	-77.01	-3.78	26.21	-69.04	-13.00	-56.04
2487.0	H	-	-	-78.03	1.62	30.59	-64.67	-13.00	-51.67
3316.0	H	-	-	-78.25	2.31	31.06	-64.20	-13.00	-51.20

Table 7-30. Antenna 1 Radiated Spurious Data (NR Band n26/5 – Low Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	836.5								
RB / Offset:	1/24								
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]
1673.0	H	-	-	-77.05	-3.67	26.28	-68.98	-13.00	-55.98
2509.5	H	-	-	-78.13	1.64	30.51	-64.74	-13.00	-51.74
3346.0	H	-	-	-78.29	2.37	31.08	-64.18	-13.00	-51.18

Table 7-31. Antenna 1 Radiated Spurious Data (NR Band n26/5 – Mid Channel)

Bandwidth (MHz):	10								
Frequency (MHz):	844.0								
RB / Offset:	1/24								
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]
1688.0	H	-	-	-76.95	-3.53	26.52	-68.74	-13.00	-55.74
2532.0	H	-	-	-77.95	1.69	30.74	-64.52	-13.00	-51.52
3376.0	H	-	-	-78.37	2.43	31.06	-64.20	-13.00	-51.20

Table 7-32. Antenna 1 Radiated Spurious Data (NR Band n26/5 – High Channel)

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT				Approved by: Technical Manager
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WCDMA Cell

Mode:	WCDMA RMC								
Channel:	4132								
Frequency (MHz):	826.4								
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]
1652.8	H	-	-	-75.28	-4.32	27.40	-67.86	-13.00	-54.86
2479.2	H	-	-	-76.01	0.19	31.18	-64.08	-13.00	-51.08
3305.6	H	-	-	-76.65	2.09	32.44	-62.82	-13.00	-49.82

Table 7-33. Antenna 1 Radiated Spurious Data (WCDMA Cell – Low Channel)

Mode:	WCDMA RMC								
Channel:	4183								
Frequency (MHz):	836.6								
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]
1673.2	H	-	-	-75.27	-3.99	27.74	-67.52	-13.00	-54.52
2509.8	H	-	-	-75.93	0.40	31.47	-63.78	-13.00	-50.78
3346.4	H	-	-	-76.83	2.06	32.23	-63.03	-13.00	-50.03

Table 7-34. Antenna 1 Radiated Spurious Data (WCDMA Cell – Mid Channel)

Mode:	WCDMA RMC								
Channel:	4233								
Frequency (MHz):	846.6								
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]
1693.2	H	-	-	-75.14	-3.72	28.14	-67.12	-13.00	-54.12
2539.8	H	-	-	-76.16	0.80	31.64	-63.62	-13.00	-50.62
3386.4	H	-	-	-76.54	1.87	32.33	-62.93	-13.00	-49.93

Table 7-35. Antenna 1 Radiated Spurious Data (WCDMA Cell – High Channel)

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7.7 Frequency Stability / Temperature Variation

§2.1055, 22.355

Test Overview and Limit

Frequency Tolerance testing is performed in accordance with the guidelines of ANSI C63.26-2015 and TIA-603-E-2016. All port were tested and only the worst case data were reported. The Frequency Tolerance 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 22, the Frequency Tolerance of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5 \text{ ppm}$) of the center frequency.

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

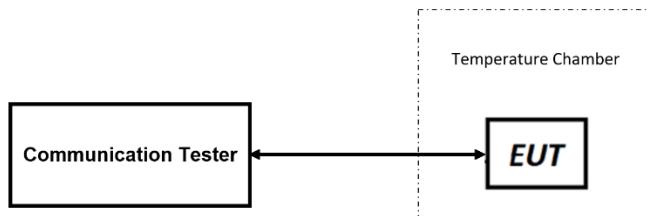


Figure 7-7. Test Instrument & Measurement Setup

Test Notes

- All port were tested and only the worst case data were reported.

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Frequency Tolerance / Temperature Variation

LTE Band 26/5					
		Operating Frequency (Hz):		836,500,000	
		Ref. Voltage (VDC):		3.80	
		Deviation Limit:		$\pm 0.00025\%$ or 2.5 ppm	
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	836,500,000	-1.00	-0.0000001
		- 20	836,499,999	-2.00	-0.0000002
		- 10	836,500,002	1.00	0.0000001
		0	836,500,000	-1.00	-0.0000001
		+ 10	836,500,001	0.00	0.0000000
		+ 20 (Ref)	836,500,000	0.00	0.0000000
		+ 30	836,499,998	-3.00	-0.0000004
		+ 40	836,500,001	0.00	0.0000000
		+ 50	836,500,003	2.00	0.0000002
Battery Endpoint	3.23	+ 20	836,499,998	-3.00	-0.0000004

Table 7-36. LTE Band 26/5 Frequency Tolerance Data

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Frequency Tolerance / Temperature Variation

NR Band n26/5					
		Operating Frequency (Hz):	836,500,000		
		Ref. Voltage (VDC):	3.80		
		Deviation Limit:	$\pm 0.00025\%$ or 2.5 ppm		
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	836,499,260	-380	-0.0000454
		- 20	836,499,238	-402	-0.0000481
		- 10	836,499,215	-425	-0.0000508
		0	836,499,214	-426	-0.0000509
		+ 10	836,499,260	-380	-0.0000454
		+ 20 (Ref)	836,500,000	0	0.0000000
		+ 30	836,499,274	-366	-0.0000438
		+ 40	836,499,284	-356	-0.0000426
		+ 50	836,499,245	-395	-0.0000472
		Battery Endpoint	3.23	+ 20	836,499,209
				-431	-0.0000515

Table 7-37. NR Band n26/5 Frequency Tolerance Data

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Frequency Tolerance / Temperature Variation

WCDMA Cellular					
		Operating Frequency (Hz):	836,600,000		
		Ref. Voltage (VDC):	3.80		
		Deviation Limit:	$\pm 0.00025\%$ or 2.5 ppm		
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	836,600,001	2.00	0.0000002
		- 20	836,599,998	-1.00	-0.0000001
		- 10	836,600,001	2.00	0.0000002
		0	836,599,998	-1.00	-0.0000001
		+ 10	836,600,001	2.00	0.0000002
		+ 20 (Ref)	836,600,000	0.00	0.0000000
		+ 30	836,599,998	-1.00	-0.0000001
		+ 40	836,600,000	1.00	0.0000001
		+ 50	836,599,998	-1.00	-0.0000001
Battery Endpoint	3.23	+ 20	836,599,998	-1.00	-0.0000001

Table 7-38. WCDMA Cell Frequency Tolerance Data

FCC ID: BCGA2435	 element	PART 22 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 **Tablet Device** **FCC ID: BCGA2435** complies with all the requirements of Part 22 of the FCC rules.

FCC ID: BCGA2435	PART 22 MEASUREMENT REPORT		Approved by: Technical Manager
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9.0 APPENDIX A

The following antenna gains provided by manufacturer.

Band	Horizontal (dBi)	Vertical (dBi)
B1	0.6	0.6
B2	1.4	0.5
B3	2.1	0.7
B5	-3.3	-1.3
B7	-3.1	-2.7
B8	-2.2	-3.2
B11	0.1	-2
B13	-2.7	-3.0
B17	-2.5	-2.3
B20	-2.6	-1.7
B21	0.2	-1.9
B28	-2.2	-1.1
B30	-4.1	-3.8
B34	-1.6	0.3
B39	1.4	0.6
B40	-5.5	-1.2
B41	-5.6	-2.7
B42	-1.5	-0.1
B48	-1.5	0.0
B66	2.3	0.8
B71	-3.1	-3.6
Band	Horizontal (dBi)	Vertical (dBi)
n41	-5.6	-2.7
n70	2.0	0.7
n77	-1.8	-0.1
n78	-1.0	0.6
n79	-2.9	-0.6

Table 9-1. Cellular Antenna 3 Gain; Type: IFA

FCC ID: BCGA2435	element		PART 22 MEASUREMENT REPORT	Approved by: Technical Manager
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Band	Horizontal (dBi)	Vertical (dBi)
B1	1.3	1.1
B2	1.5	1.3
B3	0.5	-0.5
B5	-3.1	-2.6
B7	-3.1	-0.3
B8	-1.7	-2.8
B11	-1.1	-4
B13	-1.5	-1.9
B17	-2.4	-1.9
B20	-3.4	-2.6
B21	-1.4	-3.9
B28	-2.5	-1.9
B30	-2.8	-2.1
B34	-3.1	-0.8
B39	1.5	0.8
B40	-2.6	-2.1
B41	-3.2	-0.4
B42	-1.2	-3.4
B48	-1.2	-3.5
B66	0.4	-0.9
B71	-1.9	-2.1
Band	Horizontal (dBi)	Vertical (dBi)
n41	-3.2	-0.4
n70	-1.6	-1.9
n77	-0.6	-2.6
n78	-2.9	-2.6
n79	0.1	-0.3

Table 9-2. Cellular Antenna 1 Gain; Type: IFA

FCC ID: BCGA2435	element		PART 22 MEASUREMENT REPORT	Approved by: Technical Manager
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