

00:11:24 09.09.2018

**Plot 7-421. Radiated Spurious Plot 18GHz – 26.5GHz V (Band 7)**

OPERATING FREQUENCY: 2510.00 MHz  
 CHANNEL: 20850  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	H	-	-	-68.84	8.16	-60.68	-35.7
7530.00	V	-	-	-67.14	9.69	-57.45	-32.4
10040.00	H	-	-	-65.22	10.48	-54.74	-29.7

**Table 7-76. Radiated Spurious Data (Band 7 – Low Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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OPERATING FREQUENCY: 2535.00 MHz  
 CHANNEL: 21100  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	H	-	-	-68.75	8.06	-60.69	-35.7
7605.00	V	280	190	-65.34	9.66	-55.68	-30.7
10140.00	H	-	-	-64.85	10.44	-54.41	-29.4
12675.00	H	-	-	-62.18	10.87	-51.31	-26.3
15210.00	H	-	-	-60.09	11.80	-48.29	-23.3

Table 7-77. Radiated Spurious Data (Band 7 – Mid Channel)

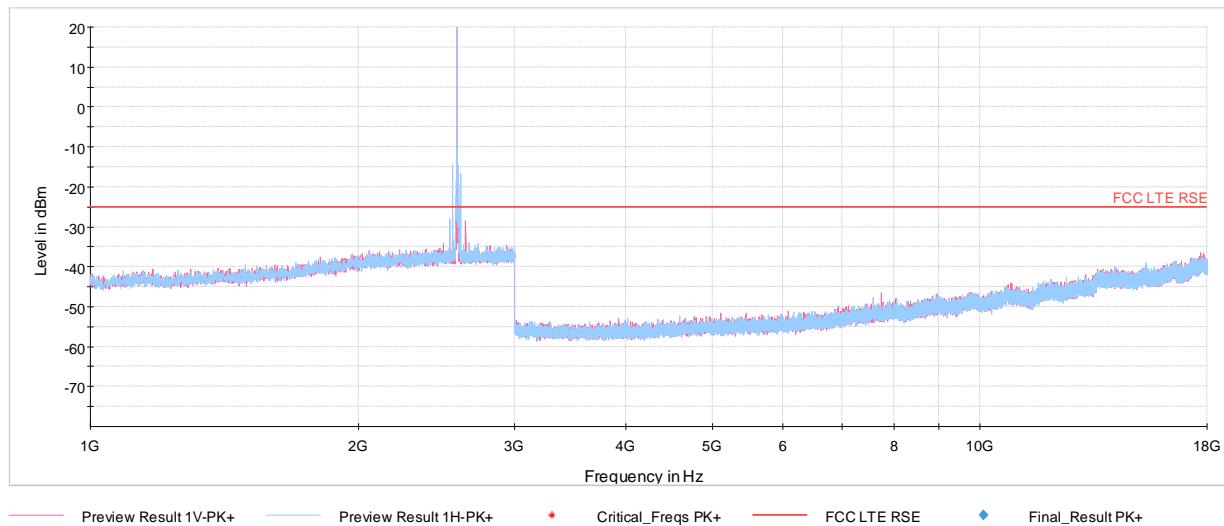
OPERATING FREQUENCY: 2560.00 MHz  
 CHANNEL: 21350  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5120.00	H	-	-	-68.96	7.96	-61.01	-36.0
7680.00	H	240	181	-66.02	9.63	-56.39	-31.4
10240.00	H	-	-	-64.89	10.40	-54.49	-29.5
12800.00	H	-	-	-62.15	10.96	-51.19	-26.2
15360.00	H	-	-	-59.70	11.62	-48.08	-23.1

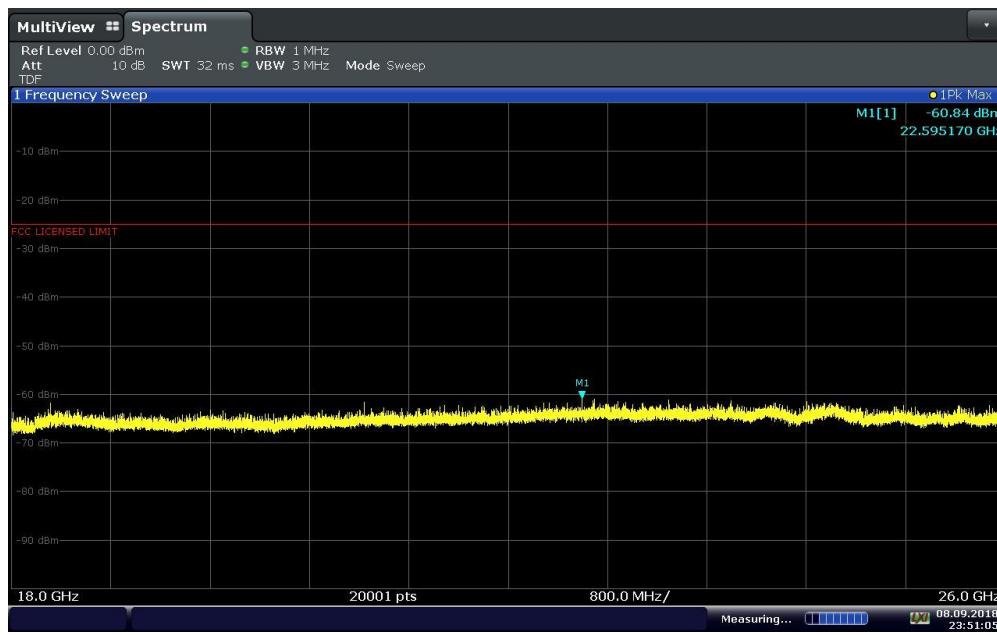
Table 7-78. Radiated Spurious Data (Band 7 – High Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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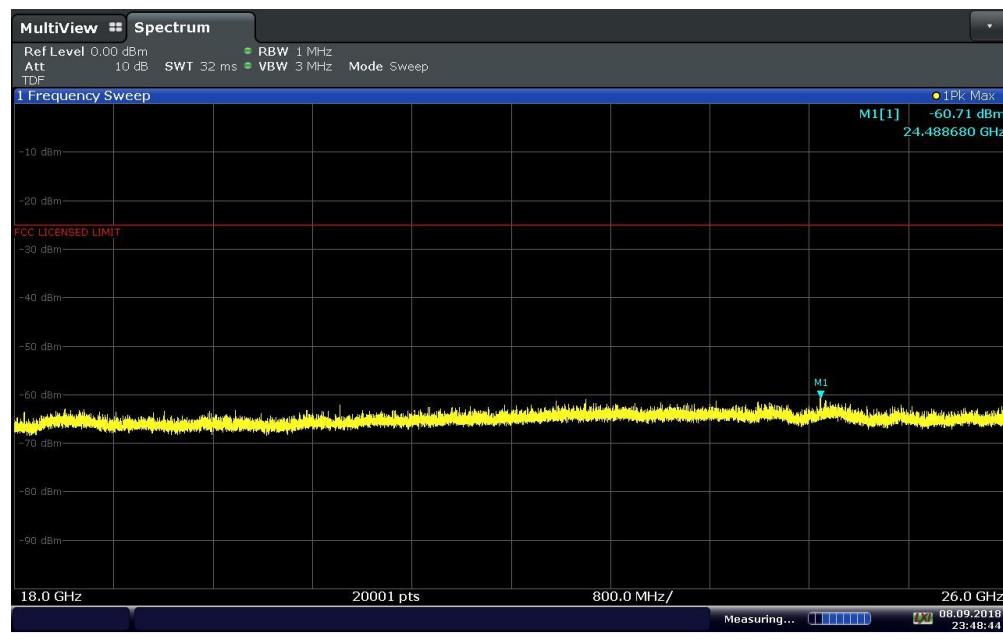
## Band 41



Plot 7-422. Radiated Spurious Plot 1GHz - 18GHz (Band 41)



FCC ID: BCGA1934		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 304 of 370



**Plot 7-424. Radiated Spurious Plot 18GHz – 26.5GHz V (Band 41)**

OPERATING FREQUENCY: 2506.00 MHz  
CHANNEL: 39750  
MODULATION SIGNAL: QPSK  
BANDWIDTH: 20.0 MHz  
DISTANCE: 3 meters  
LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turtable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	V	-	-	-59.66	8.18	-51.49	-26.5
7518.00	V	264	175	-57.46	9.69	-47.77	-22.8
10024.00	V	-	-	-56.94	10.49	-46.45	-21.5
12530.00	V	-	-	-54.86	10.81	-44.05	-19.1
15036.00	V	-	-	-51.73	11.80	-39.93	-14.9

**Table 7-79. Radiated Spurious Data (Band 41 – Low Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 305 of 370	

OPERATING FREQUENCY: 2593.00 MHz  
CHANNEL: 40620  
MODULATION SIGNAL: QPSK  
BANDWIDTH: 20.0 MHz  
DISTANCE: 3 meters  
LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	V	-	-	-58.24	7.83	-50.41	-25.4
7779.00	V	110	358	-54.75	9.66	-45.09	-20.1
10372.00	V	-	-	-55.97	10.30	-45.67	-20.7
12965.00	V	-	-	-54.33	11.16	-43.17	-18.2
15558.00	V	-	-	-51.02	11.28	-39.74	-14.7

Table 7-80. Radiated Spurious Data (Band 41 – Mid Channel)

OPERATING FREQUENCY: 2680.00 MHz  
CHANNEL: 41490  
MODULATION SIGNAL: QPSK  
BANDWIDTH: 20.0 MHz  
DISTANCE: 3 meters  
LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	V	-	-	-59.33	8.01	-51.32	-26.3
8040.00	V	-	-	-58.42	10.07	-48.35	-23.3
10720.00	V	-	-	-54.60	10.64	-43.96	-19.0

Table 7-81. Radiated Spurious Data (Band 41 – High Channel)

FCC ID: BCGA1934	 <b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 306 of 370

### 7.8.3 ANT 1 (Port-B) Radiated Spurious Emissions Measurements Band 12/17

OPERATING FREQUENCY: 704.00 MHz  
 CHANNEL: 23060  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1408.00	H	-	-	-71.84	3.84	-68.01	-55.0
2112.00	H	171	25	-68.93	4.65	-64.29	-51.3
2816.00	H	-	-	-69.53	6.03	-63.50	-50.5
3520.00	H	-	-	-70.55	7.29	-63.26	-50.3

Table 7-82. Radiated Spurious Data (Band 12/17 – Low Channel)

OPERATING FREQUENCY: 707.50 MHz  
 CHANNEL: 23095  
 MODULATION SIGNAL: QPSK  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1415.00	H	-	-	-71.85	3.90	-67.95	-55.0
2122.50	V	244	159	-69.34	4.71	-64.63	-51.6
2830.00	V	-	-	-69.52	6.03	-63.49	-50.5
3537.50	V	-	-	-70.11	7.28	-62.83	-49.8

Table 7-83. Radiated Spurious Data (Band 12/17 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 307 of 370

OPERATING FREQUENCY: 711.00 MHz  
 CHANNEL: 23130  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1422.00	H	-	-	-71.83	3.96	-67.88	-54.9
2133.00	V	321	95	-69.41	4.77	-64.65	-51.6
2844.00	H	-	-	-69.58	6.04	-63.55	-50.5
3555.00	H	-	-	-70.12	7.28	-62.84	-49.8

Table 7-84. Radiated Spurious Data (Band 12/17 – High Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 308 of 370	

## Band 13

OPERATING FREQUENCY: 779.50 MHz  
 CHANNEL: 23205  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2341.00	H	386	99	-63.21	5.48	-57.74	-44.7
3123.00	H	-	-	-69.51	6.65	-62.86	-49.9
3905.00	H	-	-	-69.97	7.64	-62.33	-49.3

Table 7-85. Radiated Spurious Data (Band 13 – Low Channel)

OPERATING FREQUENCY: 782.00 MHz  
 CHANNEL: 23230  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2346.00	H	374	178	-68.67	5.48	-63.19	-50.2
3128.00	H	-	-	-69.57	6.67	-62.90	-49.9
3910.00	H	-	-	-69.95	7.65	-62.29	-49.3

Table 7-86. Radiated Spurious Data (Band 13 – Mid Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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OPERATING FREQUENCY: 784.50 MHz  
 CHANNEL: 23255  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
2351.00	H	-	-	-69.18	5.48	-63.70	-50.7
3133.00	H	-	-	-69.76	6.70	-63.07	-50.1

Table 7-87. Radiated Spurious Data (Band 13 – High Channel)

MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.00 MHz  
 DISTANCE: 3 meters  
 NARROWBAND EMISSION LIMIT: -50 dBm  
 WIDEBAND EMISSION LIMIT: -40 dBm/MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1559.00	H	-	-	-70.99	4.55	-66.44	-66.4
1564.00	H	-	-	-71.62	4.55	-67.07	-67.1
1569.00	H	-	-	-71.39	4.54	-66.85	-66.8

Table 7-88. Radiated Spurious Data (Band 13 – 1559-1610MHz Band)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 310 of 370

## Band 26/5

OPERATING FREQUENCY: 829.00 MHz  
 CHANNEL: 20450  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1658.00	H	-	-	-72.04	4.47	-67.57	-54.6
2487.00	H	305	116	-68.65	5.59	-63.06	-50.1
3316.00	H	-	-	-69.54	7.23	-62.32	-49.3
4145.00	H	-	-	-69.78	7.72	-62.06	-49.1

Table 7-89. Radiated Spurious Data (Band 26/5 – Low Channel)

OPERATING FREQUENCY: 836.50 MHz  
 CHANNEL: 20525  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 10.0 MHz  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1673.00	H	-	-	-71.82	4.46	-67.36	-54.4
2509.50	H	305	363	-68.93	5.62	-63.32	-50.3
3346.00	H	-	-	-70.17	7.24	-62.93	-49.9
4182.50	H	-	-	-69.95	7.68	-62.27	-49.3

Table 7-90. Radiated Spurious Data (Band 26/5 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 311 of 370

OPERATING FREQUENCY: 844.00 MHz  
CHANNEL: 20600  
MODULATION SIGNAL: QPSK  
BANDWIDTH: 10.0 MHz  
DISTANCE: 3 meters  
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
1688.00	H	-	-	-71.49	4.45	-67.04	-54.0
2532.00	H	232	14	-69.28	5.65	-63.62	-50.6
3376.00	H	-	-	-70.41	7.25	-63.16	-50.2
4220.00	H	-	-	-70.15	7.64	-62.51	-49.5

Table 7-91. Radiated Spurious Data (Band 26/5 – High Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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## 7.8.4 ANT 2b (Port-B) Radiated Spurious Emissions Measurements

### Band 66/4

OPERATING FREQUENCY: 1720.00 MHz  
 CHANNEL: Low  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3440.00	V	-	-	-62.57	0.00	-62.57	-49.6
5160.00	H	-	-	-62.56	0.00	-62.56	-49.6
6880.00	H	-	-	-59.86	0.00	-59.86	-46.9

Table 7-92. Radiated Spurious Data (Band 66/4 – Low Channel)

OPERATING FREQUENCY: 1745.00 MHz  
 CHANNEL: Mid  
 MODULATION SIGNAL: QPSK  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3490.00	H	-	-	-62.88	0.00	-62.88	-49.9
5235.00	V	-	-	-61.28	0.00	-61.28	-48.3
6980.00	H	-	-	-59.17	0.00	-59.17	-46.2

Table 7-93. Radiated Spurious Data (Band 66/4 – Mid Channel)

FCC ID: BCGA1934	PCTEST ENGINEERING LABORATORY, INC.			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 313 of 370

OPERATING FREQUENCY: 1770.00 MHz  
 CHANNEL: High  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3540.00	V	-	-	-63.07	0.00	-63.07	-50.1
5310.00	H	-	-	-61.26	0.00	-61.26	-48.3
7080.00	V	-	-	-59.24	0.00	-59.24	-46.2

**Table 7-94. Radiated Spurious Data (Band 66/4 – High Channel)**

FCC ID: BCGA1934	 <b>PCTEST</b> <small>ENGINEERING LABORATORY, INC.</small>			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 314 of 370

**Band 25/2**

**OPERATING FREQUENCY:** 1860.00 MHz  
**CHANNEL:** Low  
**MODULATION SIGNAL:** QPSK  
**BANDWIDTH:** 20.0 MHz  
**DISTANCE:** 3 meters  
**LIMIT:** -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3720.00	V	-	-	-69.79	7.21	-62.58	-49.6
5580.00	V	-	-	-69.05	8.27	-60.78	-47.8
7440.00	H	-	-	-67.99	9.58	-58.41	-45.4

**Table 7-95. Radiated Spurious Data (Band 25/2 – Low Channel)**

**OPERATING FREQUENCY:** 1882.50 MHz  
**CHANNEL:** Mid  
**BANDWIDTH:** 20.0 MHz  
**DISTANCE:** 3 meters  
**LIMIT:** -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3765.00	H	-	-	-68.00	7.24	-60.75	-47.8
5647.50	V	-	-	-66.94	8.16	-58.78	-45.8
7530.00	V	-	-	-64.71	9.69	-55.02	-42.0

**Table 7-96. Radiated Spurious Data (Band 25/2 – Mid Channel)**

FCC ID: BCGA1934	 <b>PCTEST</b> ENGINEERING LABORATORY, INC.			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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OPERATING FREQUENCY: 1905.00 MHz  
CHANNEL: High  
MODULATION SIGNAL: QPSK  
BANDWIDTH: 20.0 MHz  
DISTANCE: 3 meters  
LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3810.00	H	-	-	-69.94	7.37	-62.57	-49.6
5715.00	H	-	-	-68.42	8.05	-60.37	-47.4
7620.00	H	-	-	-67.64	9.65	-57.99	-45.0

**Table 7-97. Radiated Spurious Data (Band 25/2 – High Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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## Band 30

OPERATING FREQUENCY: 2307.50 MHz  
 CHANNEL: 27865  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4615.00	H	-	-	-70.02	7.81	-62.22	-22.2
6922.50	V	-	-	-68.98	9.02	-59.97	-20.0
9230.00	H	-	-	-65.55	10.50	-55.05	-15.0

Table 7-98. Radiated Spurious Data (Band 30 – Low Channel)

OPERATING FREQUENCY: 2310.00 MHz  
 CHANNEL: 27710  
 MODULATION SIGNAL: QPSK  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4620.00	V	-	-	-69.11	7.80	-61.30	-21.3
6930.00	V	-	-	-67.24	9.03	-58.20	-18.2
9240.00	H	-	-	-65.49	10.50	-54.99	-15.0
11550.00	V	-	-	-64.17	10.78	-53.39	-13.4

Table 7-99. Radiated Spurious Data (Band 30 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 317 of 370

OPERATING FREQUENCY: 2312.50 MHz  
 CHANNEL: 27735  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4625.00	V	-	-	-69.01	7.80	-61.21	-21.2
6937.50	V	-	-	-67.48	9.05	-58.43	-18.4
9250.00	V	-	-	-65.66	10.50	-55.16	-15.2
11562.50	H	-	-	-63.91	10.77	-53.14	-13.1

Table 7-100. Radiated Spurious Data (Band 30 – High Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 318 of 370	

## Band 7

OPERATING FREQUENCY: 2510.00 MHz  
 CHANNEL: 20850  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	H	-	-	-69.23	8.16	-61.07	-36.1
7530.00	H	-	-	-67.02	9.69	-57.33	-32.3
10040.00	H	-	-	-65.21	10.48	-54.73	-29.7
15060.00	V	-	-	-60.56	11.80	-48.76	-23.8

Table 7-101. Radiated Spurious Data (Band 7 – Low Channel)

OPERATING FREQUENCY: 2535.00 MHz  
 CHANNEL: 21100  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	H	-	-	-69.40	8.06	-61.34	-36.3
7605.00	V	-	-	-66.57	9.66	-56.91	-31.9
10140.00	H	-	-	-65.22	10.44	-54.78	-29.8
12675.00	H	-	-	-63.06	10.87	-52.19	-27.2
15210.00	H	-	-	-60.72	11.80	-48.92	-23.9

Table 7-102. Radiated Spurious Data (Band 7 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 319 of 370

OPERATING FREQUENCY: 2560.00 MHz  
 CHANNEL: 21350  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5120.00	H	-	-	-69.17	7.96	-61.22	-36.2
7680.00	V	-	-	-67.15	9.63	-57.52	-32.5
10240.00	H	-	-	-65.06	10.40	-54.66	-29.7
12800.00	V	-	-	-62.43	10.96	-51.47	-26.5
15360.00	H	-	-	-59.33	11.62	-47.71	-22.7

Table 7-103. Radiated Spurious Data (Band 7 – High Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 320 of 370	

## Band 41

OPERATING FREQUENCY:	2506.00	MHz
CHANNEL:	39750	
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	H	-	-	-59.20	8.18	-51.03	-26.0
7518.00	V	-	-	-56.53	9.69	-46.84	-21.8
10024.00	H	-	-	-56.31	10.49	-45.82	-20.8

Table 7-104. Radiated Spurious Data (Band 41 – Low Channel)

OPERATING FREQUENCY:	2593.00	MHz
CHANNEL:	40620	
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-25	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	H	-	-	-59.08	7.83	-51.25	-26.3
7779.00	H	-	-	-57.68	9.66	-48.02	-23.0
10372.00	H	-	-	-56.06	10.30	-45.76	-20.8

Table 7-105. Radiated Spurious Data (Band 41 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 321 of 370

OPERATING FREQUENCY: 2680.00 MHz  
 CHANNEL: 41490  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	-	-	-57.20	8.01	-49.19	-24.2
8040.00	H	-	-	-59.19	10.07	-49.12	-24.1
10720.00	H	-	-	-55.24	10.64	-44.60	-19.6

**Table 7-106. Radiated Spurious Data (Band 41 – High Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 322 of 370	

## 7.8.5 ANT 4a (Port-C) Radiated Spurious Emissions Measurements Band 66/4

OPERATING FREQUENCY: 1720.00 MHz  
 CHANNEL: 132072  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3440.00	H	-	-	-62.20	0.00	-62.20	-49.2
5160.00	H	-	-	-61.61	0.00	-61.61	-48.6
6880.00	H	-	-	-59.04	0.00	-59.04	-46.0

Table 7-107. Radiated Spurious Data (Band 66/4 – Low Channel)

OPERATING FREQUENCY: 1745.00 MHz  
 CHANNEL: 132322  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3490.00	H	-	-	-62.39	0.00	-62.39	-49.4
5235.00	H	-	-	-61.05	0.00	-61.05	-48.0
6980.00	H	-	-	-58.97	0.00	-58.97	-46.0

Table 7-108. Radiated Spurious Data (Band 66/4 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 323 of 370

OPERATING FREQUENCY: 1770.00 MHz  
 CHANNEL: 132572  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3540.00	H	-	-	-62.57	0.00	-62.57	-49.6
5310.00	H	-	-	-60.64	0.00	-60.64	-47.6
7080.00	H	-	-	-59.07	0.00	-59.07	-46.1

Table 7-109. Radiated Spurious Data (Band 66/4 – High Channel)

FCC ID: BCGA1934	 <b>PCTEST</b> <small>ENGINEERING LABORATORY, INC.</small>			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 324 of 370

**Band 25/2**

OPERATING FREQUENCY:	1860.00	MHz
CHANNEL:	26140	
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3720.00	H	-	-	-69.37	7.21	-62.16	-49.2
5580.00	H	-	-	-68.59	8.27	-60.32	-47.3
7440.00	V	-	-	-67.23	9.58	-57.65	-44.6

**Table 7-110. Radiated Spurious Data (Band 25/2 – Low Channel)**

OPERATING FREQUENCY:	1882.50	MHz
CHANNEL:	26365	
MODULATION SIGNAL:	QPSK	
BANDWIDTH:	20.0	MHz
DISTANCE:	3	meters
LIMIT:	-13	dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3765.00	H	-	-	-69.29	7.24	-62.04	-49.0
5647.50	V	-	-	-68.38	8.16	-60.22	-47.2
7530.00	V	-	-	-66.89	9.69	-57.20	-44.2

**Table 7-111. Radiated Spurious Data (Band 25/2 – Mid Channel)**

FCC ID: BCGA1934	 <b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 325 of 370

OPERATING FREQUENCY: 1905.00 MHz  
 CHANNEL: 26590  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3810.00	H	-	-	-69.11	7.37	-61.74	-48.7
5715.00	V	-	-	-67.87	8.05	-59.82	-46.8
7620.00	H	-	-	-67.33	9.65	-57.68	-44.7

Table 7-112. Radiated Spurious Data (Band 25/2 – High Channel)

FCC ID: BCGA1934	 <b>PCTEST</b> <small>ENGINEERING LABORATORY, INC.</small>			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 326 of 370

**Band 30**

OPERATING FREQUENCY: 2307.50 MHz  
 CHANNEL: 27865  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4615.00	H	-	-	-70.49	7.81	-62.69	-22.7
6922.50	H	-	-	-69.04	9.02	-60.03	-20.0
9230.00	H	-	-	-66.45	10.50	-55.95	-15.9

**Table 7-113. Radiated Spurious Data (Band 30 – Low Channel)**

OPERATING FREQUENCY: 2310.00 MHz  
 CHANNEL: 27710  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4620.00	H	-	-	-70.73	7.80	-62.92	-22.9
6930.00	H	-	-	-69.18	9.03	-60.14	-20.1
9240.00	H	-	-	-65.79	10.50	-55.29	-15.3

**Table 7-114. Radiated Spurious Data (Band 30 – Mid Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 327 of 370	

OPERATING FREQUENCY: 2312.50 MHz  
CHANNEL: 27735  
MODULATION SIGNAL: QPSK  
BANDWIDTH: 5.0 MHz  
DISTANCE: 3 meters  
LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4625.00	H	-	-	-70.61	7.80	-62.81	-22.8
6937.50	H	-	-	-69.59	9.05	-60.54	-20.5
9250.00	H	-	-	-67.04	10.50	-56.54	-16.5

Table 7-115. Radiated Spurious Data (Band 30 – High Channel)

FCC ID: BCGA1934	 <b>PCTEST</b> ENGINEERING LABORATORY, INC.			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			

## Band 7

OPERATING FREQUENCY: 2510.00 MHz  
 CHANNEL: 20850  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	H	-	-	-69.26	8.16	-61.10	-36.1
7530.00	H	-	-	-67.01	9.69	-57.32	-32.3
10040.00	H	-	-	-65.27	10.48	-54.79	-29.8

Table 7-116. Radiated Spurious Data (Band 7 – Low Channel)

OPERATING FREQUENCY: 2535.00 MHz  
 CHANNEL: 21100  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	V	-	-	-69.32	8.06	-61.26	-36.3
7605.00	V	-	-	-66.80	9.66	-57.14	-32.1
10140.00	V	-	-	-64.72	10.44	-54.28	-29.3

Table 7-117. Radiated Spurious Data (Band 7 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 329 of 370

OPERATING FREQUENCY: 2560.00 MHz  
 CHANNEL: 21350  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5120.00	H	-	-	-69.32	7.96	-61.37	-36.4
7680.00	H	-	-	-67.50	9.63	-57.87	-32.9
10240.00	H	-	-	-63.96	10.40	-53.56	-28.6

Table 7-118. Radiated Spurious Data (Band 7 – High Channel)

FCC ID: BCGA1934	 <b>PCTEST</b> <small>ENGINEERING LABORATORY, INC.</small>			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			

## Band 41

OPERATING FREQUENCY: 2506.00 MHz  
 CHANNEL: 39750  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	H	-	-	-59.18	8.18	-51.01	-26.0
7518.00	V	-	-	-56.35	9.69	-46.66	-21.7
10024.00	V	-	-	-56.33	10.49	-45.84	-20.8

Table 7-119. Radiated Spurious Data (Band 41 – Low Channel)

OPERATING FREQUENCY: 2593.00 MHz  
 CHANNEL: 40620  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	H	-	-	-59.24	7.83	-51.41	-26.4
7779.00	V	-	-	-56.35	9.66	-46.69	-21.7
10372.00	V	-	-	-55.30	10.30	-45.00	-20.0

Table 7-120. Radiated Spurious Data (Band 41 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 331 of 370

OPERATING FREQUENCY: 2680.00 MHz  
 CHANNEL: 41490  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	-	-	-58.95	8.01	-50.94	-25.9
8040.00	H	-	-	-56.32	10.07	-46.25	-21.2
10720.00	H	-	-	-53.52	10.64	-42.88	-17.9

**Table 7-121. Radiated Spurious Data (Band 41 – High Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 332 of 370	

### 7.8.6 ANT 2a (Port-D) Radiated Spurious Emissions Measurements Band 66/4

OPERATING FREQUENCY: 1720.00 MHz  
 CHANNEL: 132072  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3440.00	H	-	-	-62.11	0.00	-62.11	-49.1
5160.00	H	-	-	-61.53	0.00	-61.53	-48.5
6880.00	H	-	-	-59.14	0.00	-59.14	-46.1

Table 7-122. Radiated Spurious Data (Band 66/4 – Low Channel)

OPERATING FREQUENCY: 1745.00 MHz  
 CHANNEL: 132322  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3490.00	H	-	-	-62.47	0.00	-62.47	-49.5
5235.00	H	-	-	-61.02	0.00	-61.02	-48.0
6980.00	H	-	-	-58.97	0.00	-58.97	-46.0

Table 7-123. Radiated Spurious Data (Band 66/4 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 333 of 370

OPERATING FREQUENCY: 1770.00 MHz  
 CHANNEL: 132572  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3540.00	H	-	-	-62.37	0.00	-62.37	-49.4
5310.00	H	-	-	-60.55	0.00	-60.55	-47.5
7080.00	H	-	-	-59.00	0.00	-59.00	-46.0

Table 7-124. Radiated Spurious Data (Band 66/4 – High Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 334 of 370	

## Band 25/2

OPERATING FREQUENCY: 1860.00 MHz  
 CHANNEL: 26140  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3720.00	V	-	-	-69.72	7.21	-62.51	-49.5
5580.00	V	-	-	-68.84	8.27	-60.57	-47.6
7440.00	V	-	-	-67.97	9.58	-58.39	-45.4

Table 7-125. Radiated Spurious Data (Band 25/2 – Low Channel)

OPERATING FREQUENCY: 1882.50 MHz  
 CHANNEL: 26365  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3765.00	H	-	-	-72.38	7.24	-65.13	-52.1
5647.50	V	-	-	-70.13	8.16	-61.97	-49.0
7530.00	V	-	-	-66.32	9.69	-56.63	-43.6

Table 7-126. Radiated Spurious Data (Band 25/2 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 335 of 370

OPERATING FREQUENCY: 1905.00 MHz  
 CHANNEL: 26590  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -13 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
3810.00	H	-	-	-70.96	7.37	-63.59	-50.6
5715.00	V	105	303	-64.69	8.05	-56.64	-43.6
7620.00	H	-	-	-66.85	9.65	-57.20	-44.2

Table 7-127. Radiated Spurious Data (Band 25/2 – High Channel)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 336 of 370	

## Band 30

OPERATING FREQUENCY: 2307.50 MHz  
 CHANNEL: 27865  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4615.00	H	-	-	-69.67	7.81	-61.87	-21.9
6922.50	H	-	-	-66.78	9.02	-57.77	-17.8
9230.00	H	-	-	-63.37	10.50	-52.87	-12.9

Table 7-128. Radiated Spurious Data (Band 30 – Low Channel)

OPERATING FREQUENCY: 2310.00 MHz  
 CHANNEL: 27710  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4620.00	V	-	-	-67.58	7.80	-59.77	-19.8
6930.00	V	-	-	-66.18	9.03	-57.14	-17.1
9240.00	H	-	-	-63.61	10.50	-53.11	-13.1

Table 7-129. Radiated Spurious Data (Band 30 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 337 of 370

OPERATING FREQUENCY: 2312.50 MHz  
 CHANNEL: 27735  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 5.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -40 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
4625.00	V	-	-	-67.56	7.80	-59.76	-19.8
6937.50	V	-	-	-66.00	9.05	-56.95	-16.9
9250.00	V	-	-	-63.38	10.50	-52.88	-12.9

**Table 7-130. Radiated Spurious Data (Band 30 – High Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 338 of 370	

## Band 7

OPERATING FREQUENCY: 2510.00 MHz  
 CHANNEL: 20850  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	H	-	-	-68.89	8.16	-60.73	-35.7
7530.00	H	-	-	-66.35	9.69	-56.66	-31.7
10040.00	H	-	-	-63.54	10.48	-53.06	-28.1

Table 7-131. Radiated Spurious Data (Band 7 – Low Channel)

OPERATING FREQUENCY: 2535.00 MHz  
 CHANNEL: 21100  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	H	-	-	-68.94	8.06	-60.88	-35.9
7605.00	H	-	-	-66.04	9.66	-56.38	-31.4
10140.00	H	-	-	-63.05	10.44	-52.61	-27.6

Table 7-132. Radiated Spurious Data (Band 7 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 339 of 370

OPERATING FREQUENCY: 2560.00 MHz  
 CHANNEL: 21350  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5120.00	V	-	-	-69.05	7.96	-61.10	-36.1
7680.00	V	-	-	-66.70	9.63	-57.07	-32.1
10240.00	V	-	-	-62.92	10.40	-52.52	-27.5

Table 7-133. Radiated Spurious Data (Band 7 – High Channel)

FCC ID: BCGA1934	 <b>PCTEST</b> <small>ENGINEERING LABORATORY, INC.</small>			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 340 of 370

## Band 41

OPERATING FREQUENCY: 2506.00 MHz  
 CHANNEL: 39750  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	H	-	-	-58.94	8.18	-50.77	-25.8
7518.00	V	-	-	-67.27	9.69	-57.58	-32.6
10024.00	V	-	-	-65.53	10.49	-55.04	-30.0

Table 7-134. Radiated Spurious Data (Band 41 – Low Channel)

OPERATING FREQUENCY: 2593.00 MHz  
 CHANNEL: 40620  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5186.00	H	-	-	-58.68	7.83	-50.85	-25.9
7779.00	V	-	-	-57.61	9.66	-47.95	-22.9
10372.00	V	-	-	-54.51	10.30	-44.21	-19.2

Table 7-135. Radiated Spurious Data (Band 41 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 341 of 370

OPERATING FREQUENCY: 2680.00 MHz  
 CHANNEL: 41490  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	-	-	-59.52	8.01	-51.51	-26.5
8040.00	H	-	-	-58.24	10.07	-48.17	-23.2
10720.00	H	-	-	-54.29	10.64	-43.65	-18.6

**Table 7-136. Radiated Spurious Data (Band 41 – High Channel)**

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 342 of 370	

## 7.9 Uplink Carrier Aggregation Radiated Measurements

§2.1053, §27.53(m)

### Test Overview

Radiated spurious emissions measurements are performed using the substitution method described in ANSI/TIA-603-D-2010 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally 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 its maximum duty cycle, at maximum power, and at the appropriate frequencies.

### Test Procedures Used

KDB 971168 D01 v02r02 – Section 5.8

ANSI/TIA-603-D-2010 – Section 2.2.12

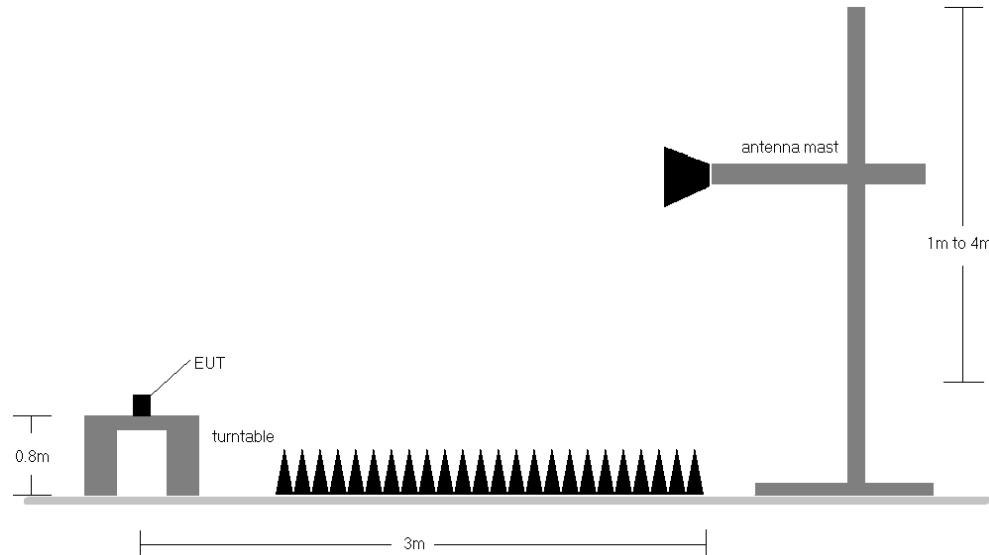
### Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW  $\geq 3 \times$  RBW
3. No. of sweep points  $\geq 2 \times$  span / RBW
4. Detector = RMS
5. Trace mode = trace average for continuous emissions, max hold for pulse emissions
6. The trace was allowed to stabilize

FCC ID: BCGA1934	 <b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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## Test Setup

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

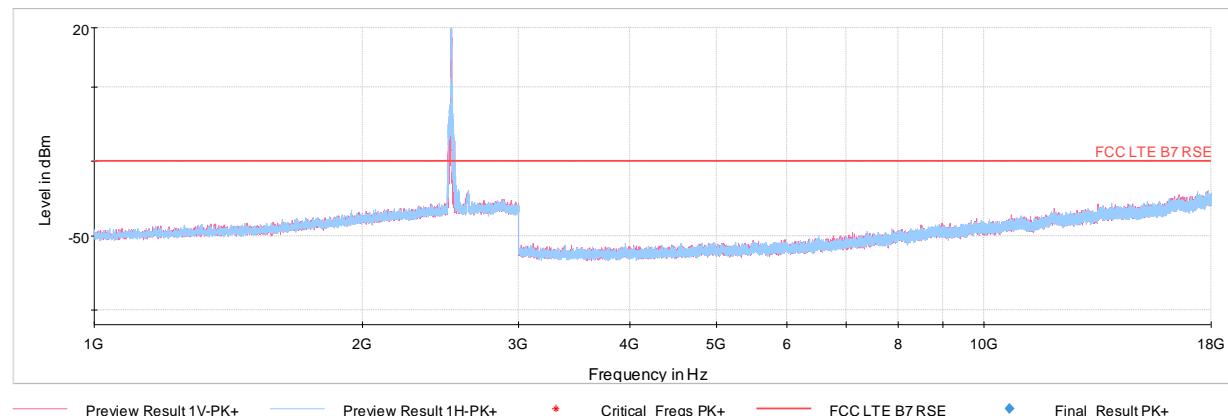


**Figure 7-8. Test Instrument & Measurement Setup**

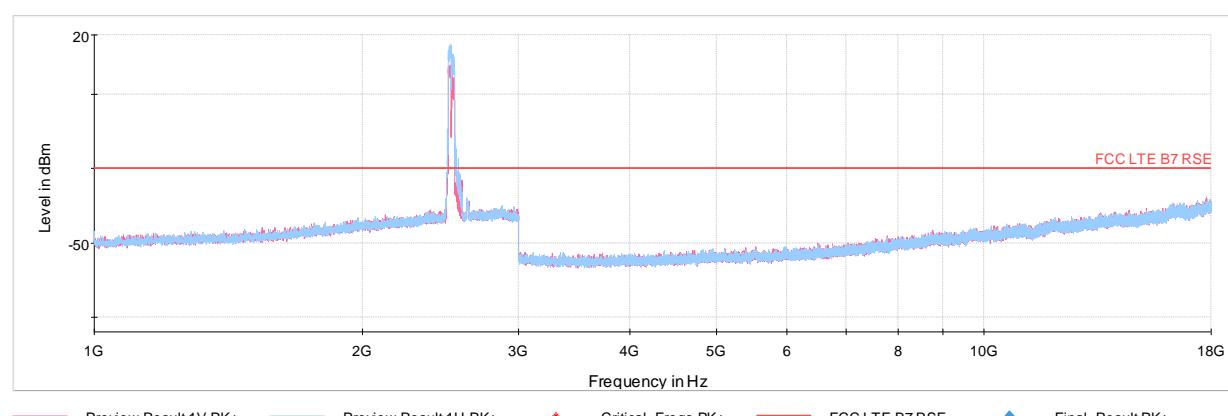
## Test Notes

- 1) 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.
- 2) This unit was tested with its standard battery.
- 3) Radiated spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. The worst case (highest) emissions were found while operating with QPSK modulation with both carriers set to transmit using 1RB.
- 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) No significant emissions were found as a result of two uplink carriers operating contiguously.

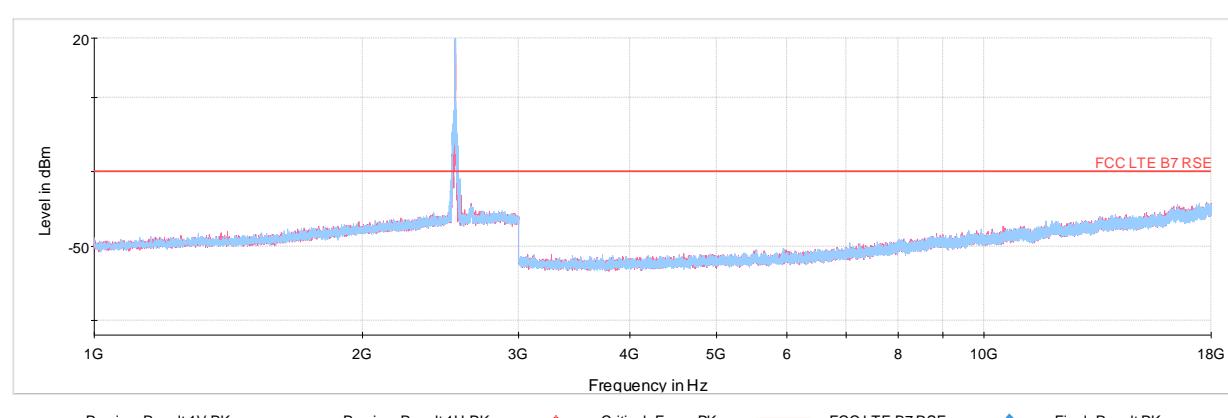
FCC ID: BCGA1934	 <b>PCTEST</b> <small>ENGINEERING LABORATORY, INC.</small>		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device		Page 344 of 370



**Plot 7-425. Radiated Spurious Plot (ULCA B7 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)**

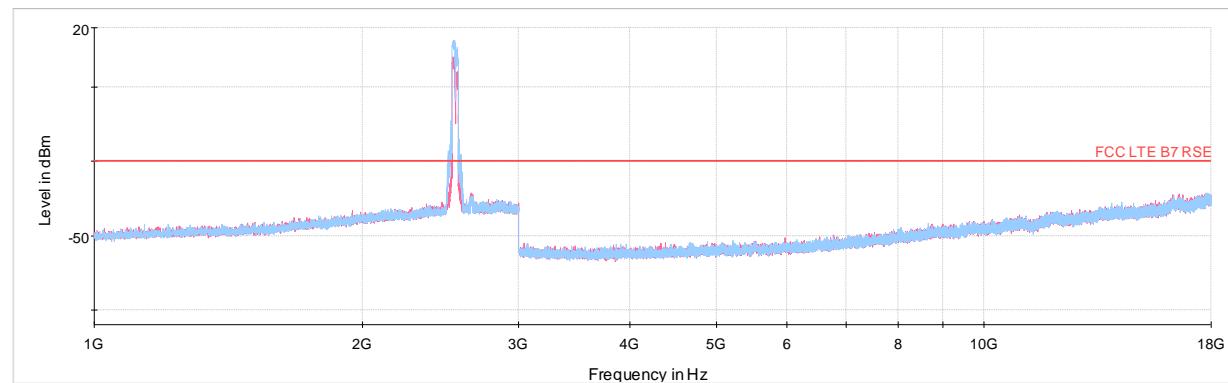


**Plot 7-426. Radiated Spurious Plot (ULCA B7 PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Low Channel)**

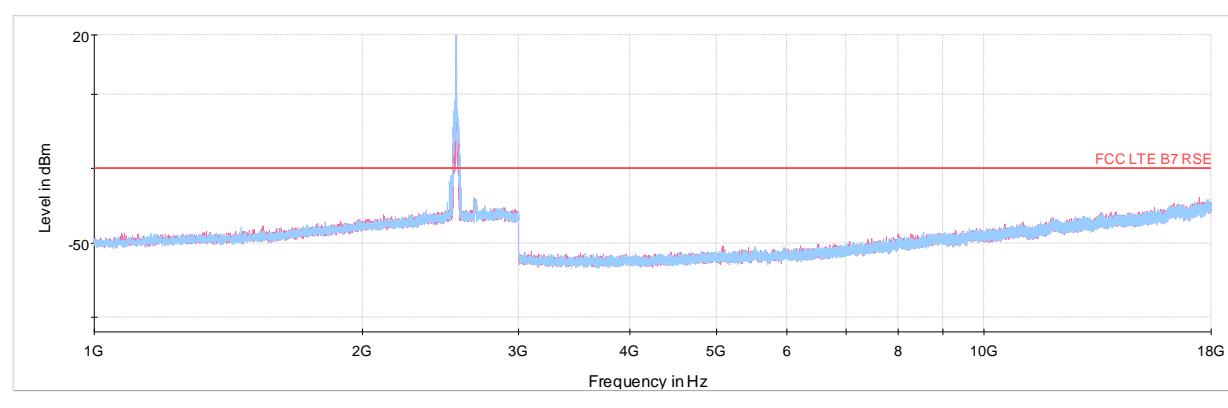


**Plot 7-427. Radiated Spurious Plot (ULCA B7 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)**

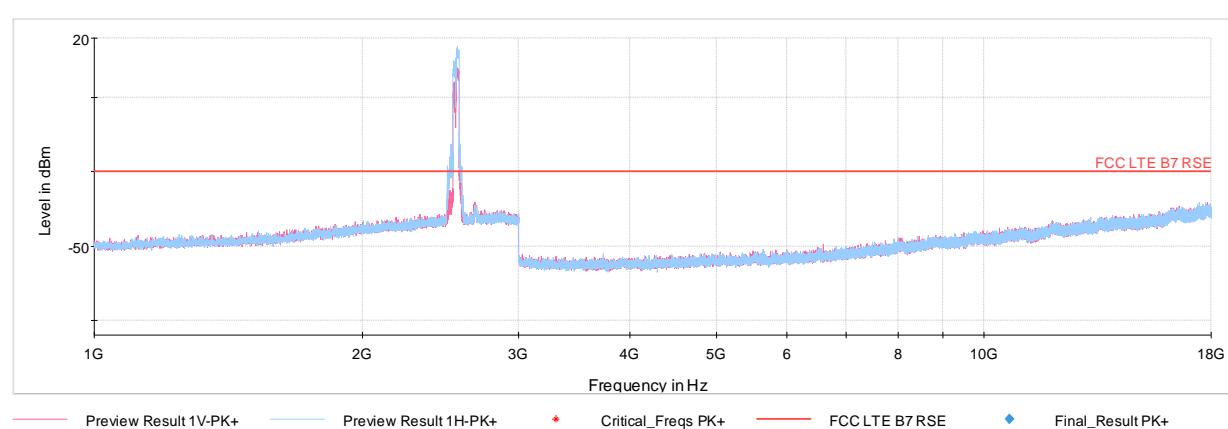
FCC ID: BCGA1934	<b>PCTEST</b> ENGINEERING LABORATORY, INC.			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 345 of 370



**Plot 7-428. Radiated Spurious Plot (ULCA B7 PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Mid Channel)**



**Plot 7-429. Radiated Spurious Plot (ULCA B7 PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)**



**Plot 7-430. Radiated Spurious Plot (ULCA B7 PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – High Channel)**

FCC ID: BCGA1934	<b>PCTEST</b> ENGINEERING LABORATORY, INC.			MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			Page 346 of 370

OPERATING FREQUENCY (PCC): 2510.00 MHz  
 OPERATING FREQUENCY (SCC): 2529.80  
 CHANNEL (PCC): 20850  
 CHANNEL (SCC): 21048  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5020.00	H	-	-	-62.58	9.79	-52.79	-52.8
7530.00	H	-	-	-59.34	11.68	-47.66	-47.7
10040.00	H	-	-	-55.96	12.21	-43.75	-43.8

Table 7-137. Radiated Spurious Data (ULCA B7 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)

OPERATING FREQUENCY (PCC): 2535.00 MHz  
 OPERATING FREQUENCY (SCC): 2554.80  
 CHANNEL (PCC): 21100  
 CHANNEL (SCC): 21298  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5070.00	H	-	-	-64.43	9.82	-54.61	-54.6
7605.00	H	-	-	-61.29	11.72	-49.57	-49.6
10140.00	H	-	-	-58.65	12.21	-46.45	-46.4

Table 7-138. Radiated Spurious Data (ULCA B7 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)

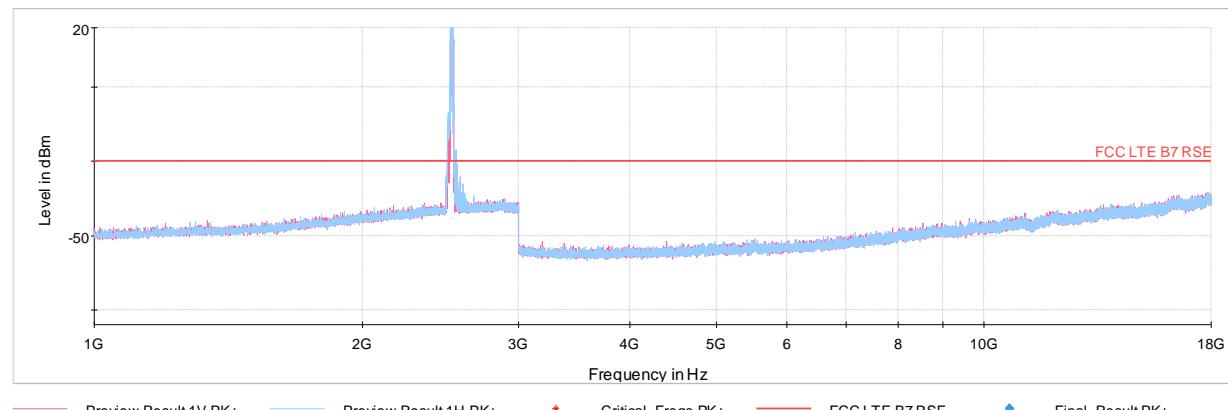
FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 347 of 370	

OPERATING FREQUENCY (PCC): 2560.00 MHz  
 OPERATING FREQUENCY (SCC): 2540.20  
 CHANNEL (PCC): 21350  
 CHANNEL (SCC): 21152  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

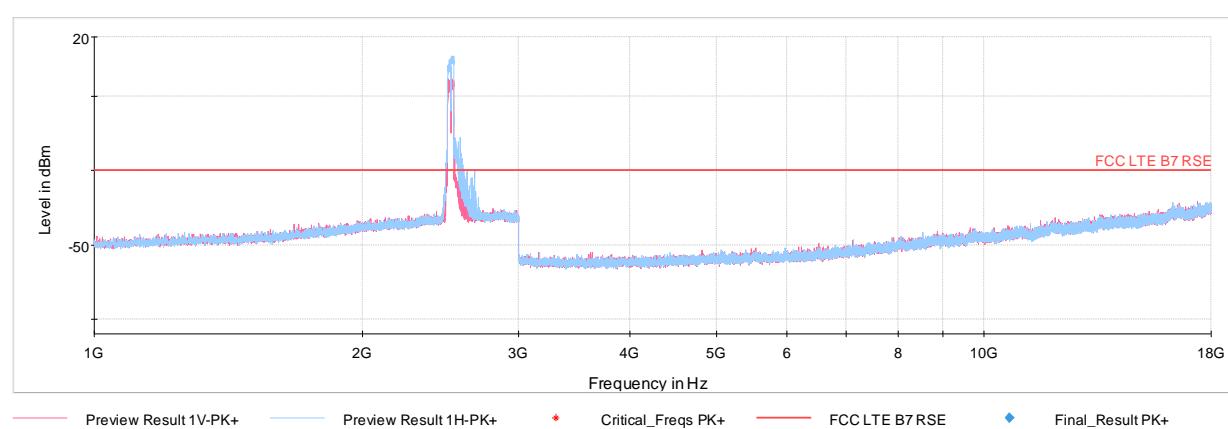
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5120.00	H	-	-	-64.44	9.81	-54.63	-54.6
7680.00	H	-	-	-61.82	11.78	-50.04	-50.0
10240.00	H	-	-	-58.31	12.21	-46.09	-46.1

Table 7-139. Radiated Spurious Data (ULCA B7 PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)

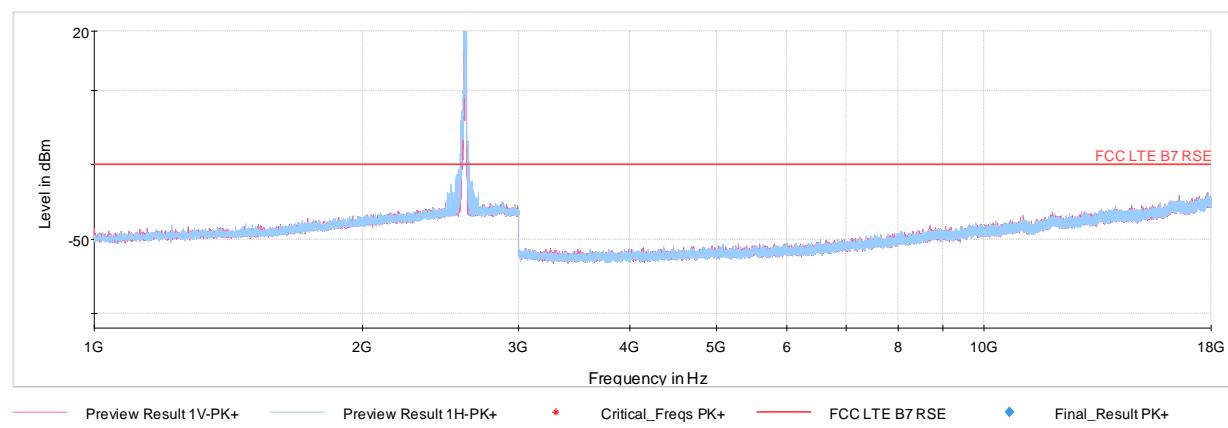
FCC ID: BCGA1934	 <b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device			



**Plot 7-431. Radiated Spurious Plot (ULCA B41 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)**

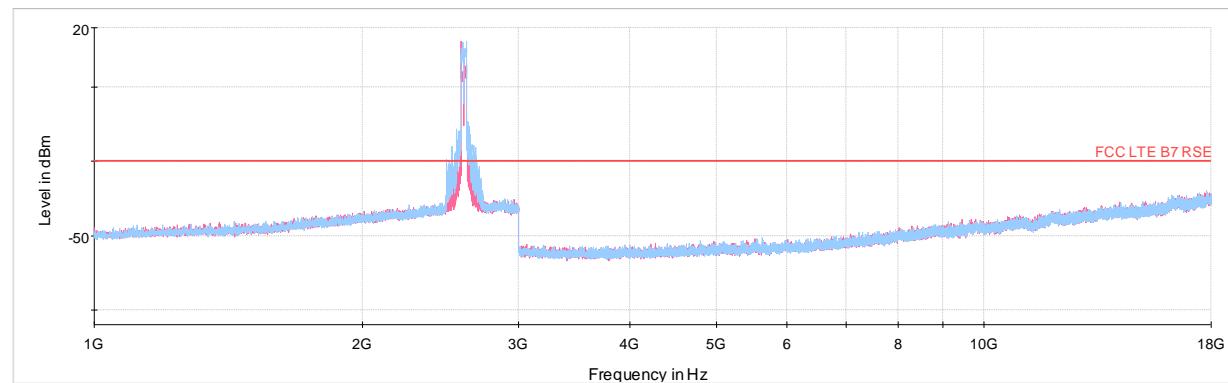


**Plot 7-432. Radiated Spurious Plot (ULCA B41 PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Low Channel)**

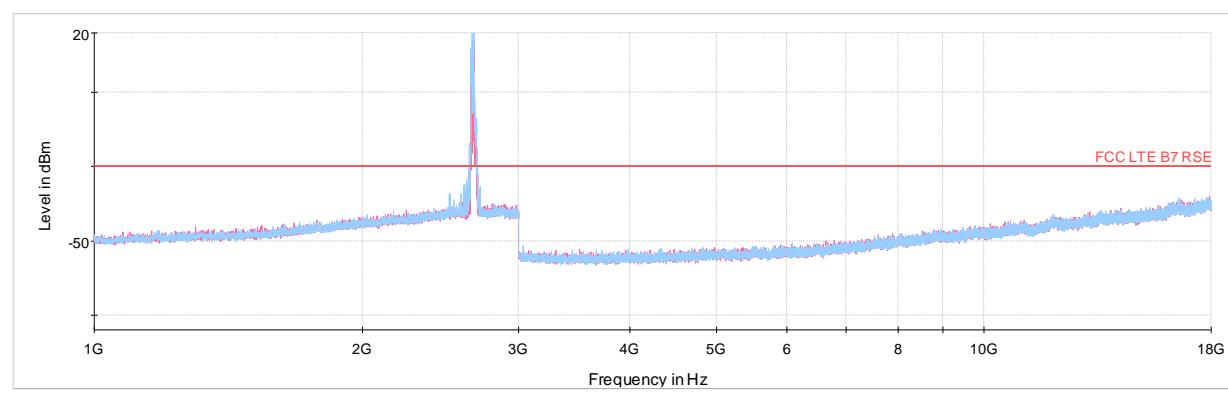


**Plot 7-433. Radiated Spurious Plot (ULCA B41 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)**

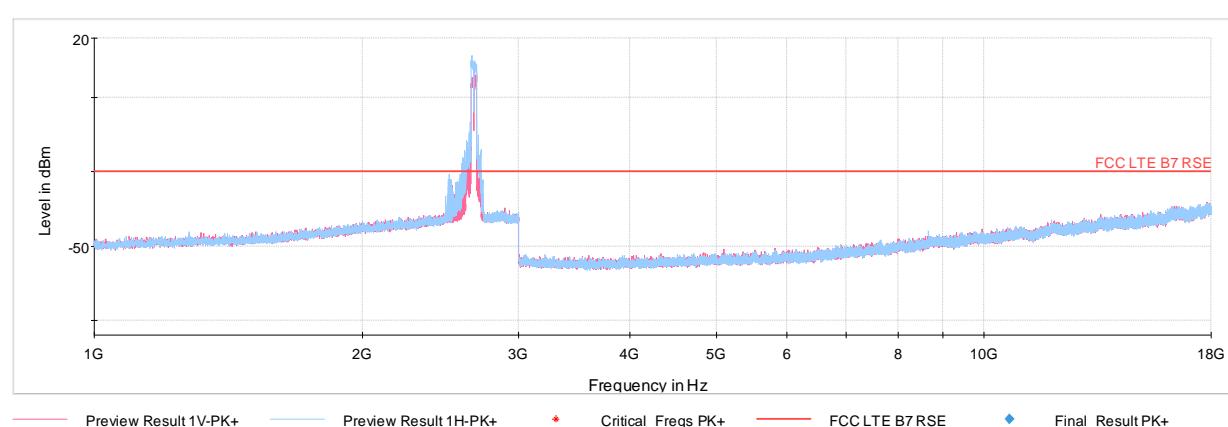
FCC ID: BCGA1934	<b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device		Page 349 of 370



**Plot 7-434. Radiated Spurious Plot (ULCA B41 PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – Mid Channel)**



**Plot 7-435. Radiated Spurious Plot (ULCA B41 PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)**



**Plot 7-436. Radiated Spurious Plot (ULCA B41 PCC: RB 100 Offset 0, SCC: RB 100 Offset 0 – High Channel)**

FCC ID: BCGA1934	<b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 350 of 370

OPERATING FREQUENCY (PCC): 2506.00 MHz  
 OPERATING FREQUENCY (SCC): 2525.80  
 CHANNEL (PCC): 39750  
 CHANNEL (SCC): 39948  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5012.00	H	-	-	-51.16	8.18	-42.98	-43.0
7518.00	H	-	-	-47.59	9.69	-37.90	-37.9
10024.00	H	-	-	-45.15	10.49	-34.66	-34.7

Table 7-140. Radiated Spurious Data (ULCA B41 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Low Channel)

OPERATING FREQUENCY (PCC): 2593.00 MHz  
 OPERATING FREQUENCY (SCC): 2612.80  
 CHANNEL (PCC): 40620  
 CHANNEL (SCC): 40818  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5330.80	H	-	-	-52.39	7.93	-44.46	-44.5
7996.20	H	-	-	-49.24	10.09	-39.15	-39.1
10661.60	H	-	-	-47.93	10.52	-37.41	-37.4

Table 7-141. Radiated Spurious Data (ULCA B41 PCC: RB 1 Offset 99, SCC: RB 1 Offset 0 – Mid Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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OPERATING FREQUENCY (PCC): 2680.00 MHz  
 OPERATING FREQUENCY (SCC): 2660.20  
 CHANNEL (PCC): 41490  
 CHANNEL (SCC): 41292  
 MODULATION SIGNAL: QPSK  
 BANDWIDTH: 20.0 MHz  
 DISTANCE: 3 meters  
 LIMIT: -25 dBm

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Level at Antenna Terminals [dBm]	Substitute Antenna Gain [dBi]	Spurious Emission Level [dBm]	Margin [dB]
5360.00	H	-	-	-51.63	8.01	-43.61	-43.6
8040.00	H	-	-	-50.72	10.07	-40.65	-40.6
10720.00	H	-	-	-46.32	10.64	-35.68	-35.7

Table 7-142. Radiated Spurious Data (ULCA B41 PCC: RB 1 Offset 0, SCC: RB 1 Offset 99 – High Channel)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device		Page 352 of 370

## 7.10 Frequency Stability / Temperature Variation

### Test Overview and Limit

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

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

***For Part 22, the frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5$  ppm) of the center frequency. For Part 24, Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.***

### Test Procedure Used

ANSI/TIA-603-E-2016

### Test Settings

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

### Test Setup

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

### Test Notes

None

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## Band 12/17 Frequency Stability Measurements

OPERATING FREQUENCY: 710,000,000 Hz  
 CHANNEL: 23090  
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	710,000,014	14	0.0000020
100 %		- 20	710,000,003	3	0.000004
100 %		- 10	710,000,005	5	0.000007
100 %		0	710,000,005	5	0.000007
100 %		+ 10	710,000,006	6	0.000008
100 %		+ 20	710,000,003	3	0.000004
100 %		+ 30	710,000,004	4	0.000006
100 %		+ 40	710,000,005	5	0.000007
100 %		+ 50	710,000,004	4	0.000005
BATT. ENDPOINT	3.40	+ 20	710,000,003	3	0.000004

Table 7-143. Frequency Stability Data (Band 12/17)

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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## Band 12/17 Frequency Stability Measurements

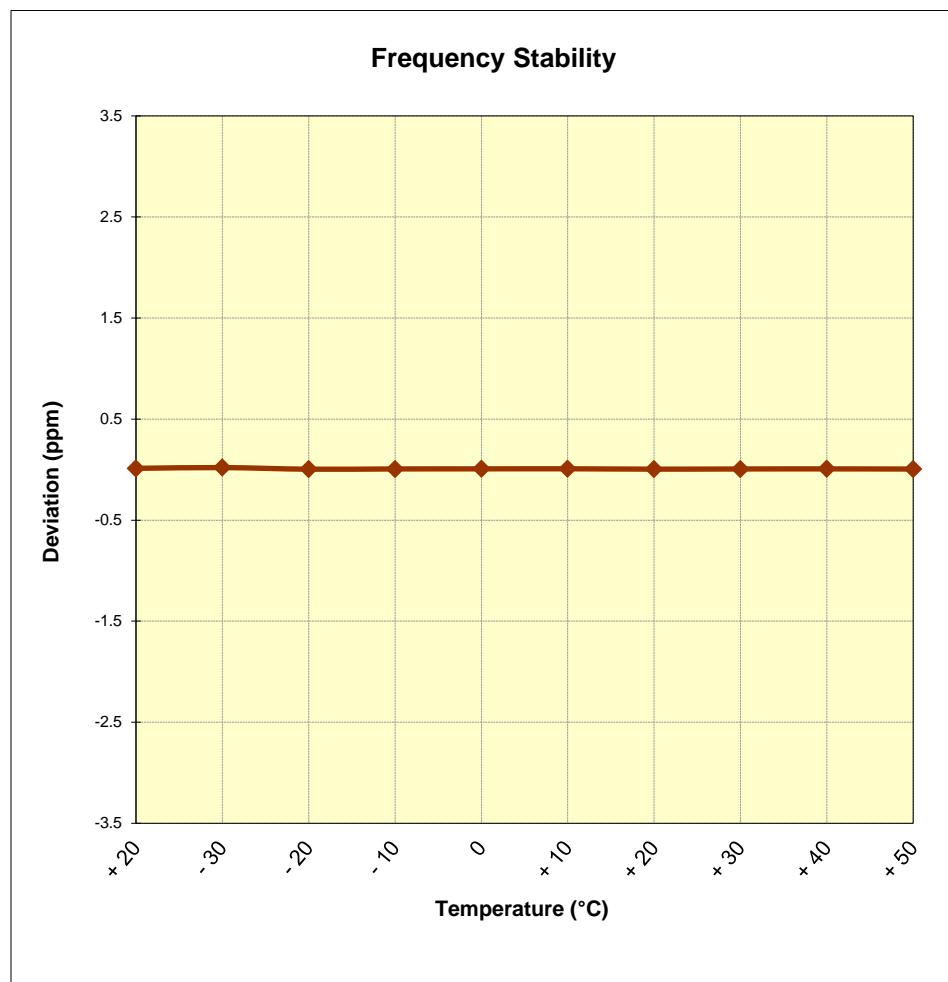


Figure 7-9. Frequency Stability Graph (Band 12/17)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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## Band 13 Frequency Stability Measurements

OPERATING FREQUENCY: 782,000,000 Hz  
 CHANNEL: 23230  
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	782,000,022	22	0.0000027
100 %		- 20	782,000,002	2	0.0000003
100 %		- 10	782,000,006	6	0.0000008
100 %		0	782,000,004	4	0.0000005
100 %		+ 10	782,000,003	3	0.0000004
100 %		+ 20	782,000,004	4	0.0000005
100 %		+ 30	782,000,003	3	0.0000004
100 %		+ 40	782,000,006	6	0.0000008
100 %		+ 50	782,000,006	6	0.0000007
BATT. ENDPOINT	3.40	+ 20	782,000,004	4	0.0000005

Table 7-144. Frequency Stability Data (Band 13)

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>			Approved by: Quality Manager
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## Band 13 Frequency Stability Measurements

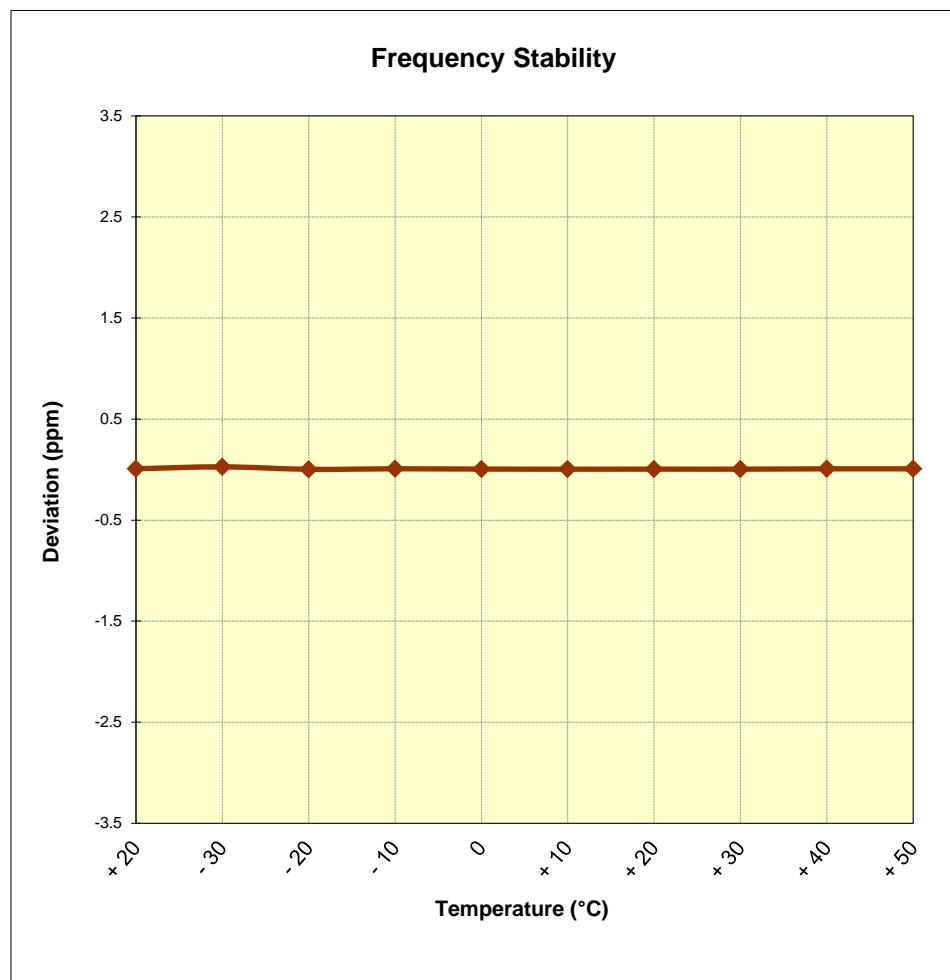


Figure 7-10. Frequency Stability Graph (Band 13)

FCC ID: BCGA1934	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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## Band 26/5 Frequency Stability Measurements

OPERATING FREQUENCY: 836,500,000 Hz  
 CHANNEL: 20525  
 REFERENCE VOLTAGE: 3.80 VDC  
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	836,500,008	8	0.0000010
100 %		- 20	836,500,006	6	0.0000007
100 %		- 10	836,500,003	3	0.0000003
100 %		0	836,500,003	3	0.0000004
100 %		+ 10	836,500,004	4	0.0000004
100 %		+ 20	836,500,006	6	0.0000007
100 %		+ 30	836,500,005	5	0.0000005
100 %		+ 40	836,500,002	2	0.0000003
100 %		+ 50	836,500,004	4	0.0000005
BATT. ENDPOINT	3.40	+ 20	836,500,005	5	0.0000006

Table 7-145. Frequency Stability Data (Band 26/5)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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## Band 26/5 Frequency Stability Measurements

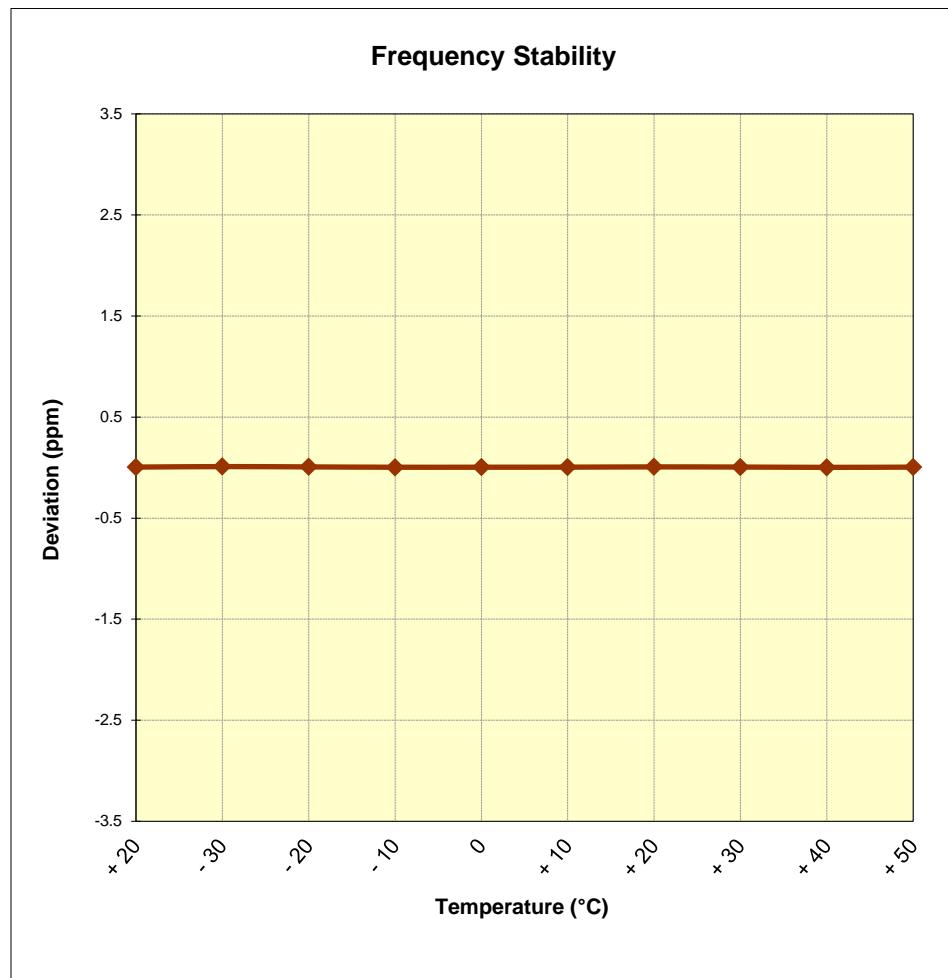


Figure 7-11. Frequency Stability Graph (Band 26/5)

FCC ID: BCGA1934	MEASUREMENT REPORT (CERTIFICATION)			Approved by: Quality Manager
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## Band 66/4 Frequency Stability Measurements

OPERATING FREQUENCY: 1,745,000,000 Hz  
 CHANNEL: 132322  
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	1,745,000,006	6	0.0000003
100 %		- 20	1,745,000,003	3	0.0000002
100 %		- 10	1,745,000,006	6	0.0000003
100 %		0	1,745,000,006	6	0.0000003
100 %		+ 10	1,745,000,005	5	0.0000003
100 %		+ 20	1,745,000,010	10	0.0000006
100 %		+ 30	1,745,000,008	8	0.0000004
100 %		+ 40	1,745,000,006	6	0.0000003
100 %		+ 50	1,745,000,005	5	0.0000003
BATT. ENDPOINT	3.40	+ 20	1,745,000,007	7	0.0000004

Table 7-146. Frequency Stability Data (Band 66/4)

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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## Band 66/4 Frequency Stability Measurements

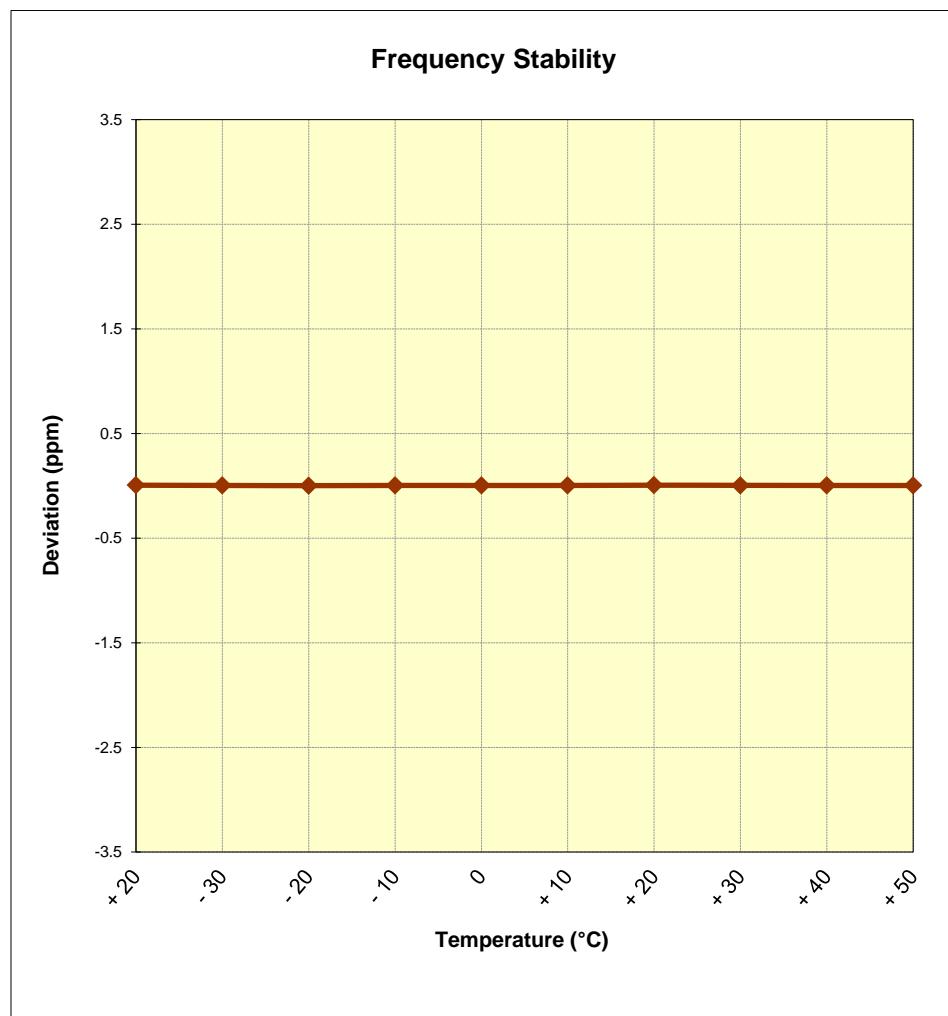


Figure 7-12. Frequency Stability Graph (Band 66/4)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
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## Band 25/2 Frequency Stability Measurements

OPERATING FREQUENCY: 1,882,500,000 Hz  
 CHANNEL: 26365  
 REFERENCE VOLTAGE: 3.80 VDC  
 DEVIATION LIMIT: ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	1,882,500,004	4	0.0000002
100 %		- 20	1,882,500,005	5	0.0000002
100 %		- 10	1,882,500,007	7	0.0000004
100 %		0	1,882,500,007	7	0.0000004
100 %		+ 10	1,882,500,007	7	0.0000004
100 %		+ 20	1,882,500,004	4	0.0000002
100 %		+ 30	1,882,500,004	4	0.0000002
100 %		+ 40	1,882,500,003	3	0.0000002
100 %		+ 50	1,882,500,002	2	0.0000001
BATT. ENDPOINT	3.40	+ 20	1,882,500,008	8	0.0000004

Table 7-147. Frequency Stability Data (Band 25/2)

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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## Band 25/2 Frequency Stability Measurements

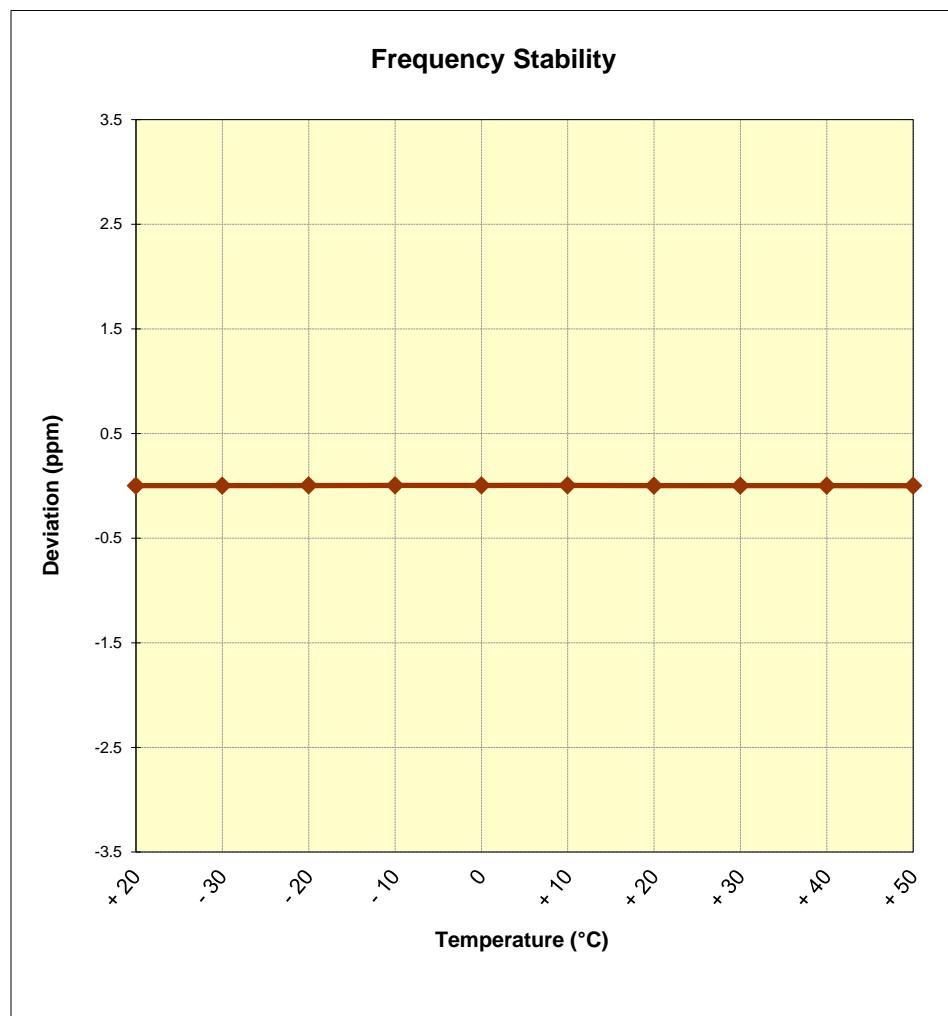


Figure 7-13. Frequency Stability Graph (Band 25/2)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
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## Band 30 Frequency Stability Measurements

OPERATING FREQUENCY: 2,310,000,000 Hz  
 CHANNEL: 27710  
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	2,310,000,006	6	0.0000002
100 %		- 20	2,310,000,003	3	0.0000001
100 %		- 10	2,310,000,003	3	0.0000001
100 %		0	2,310,000,003	3	0.0000001
100 %		+ 10	2,310,000,004	4	0.0000002
100 %		+ 20	2,310,000,003	3	0.0000001
100 %		+ 30	2,310,000,007	7	0.0000003
100 %		+ 40	2,310,000,009	9	0.0000004
100 %		+ 50	2,310,000,005	5	0.0000002
BATT. ENDPOINT	3.40	+ 20	2,310,000,004	4	0.0000002

Table 7-148. Frequency Stability Data (Band 30)

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device

## Band 30 Frequency Stability Measurements

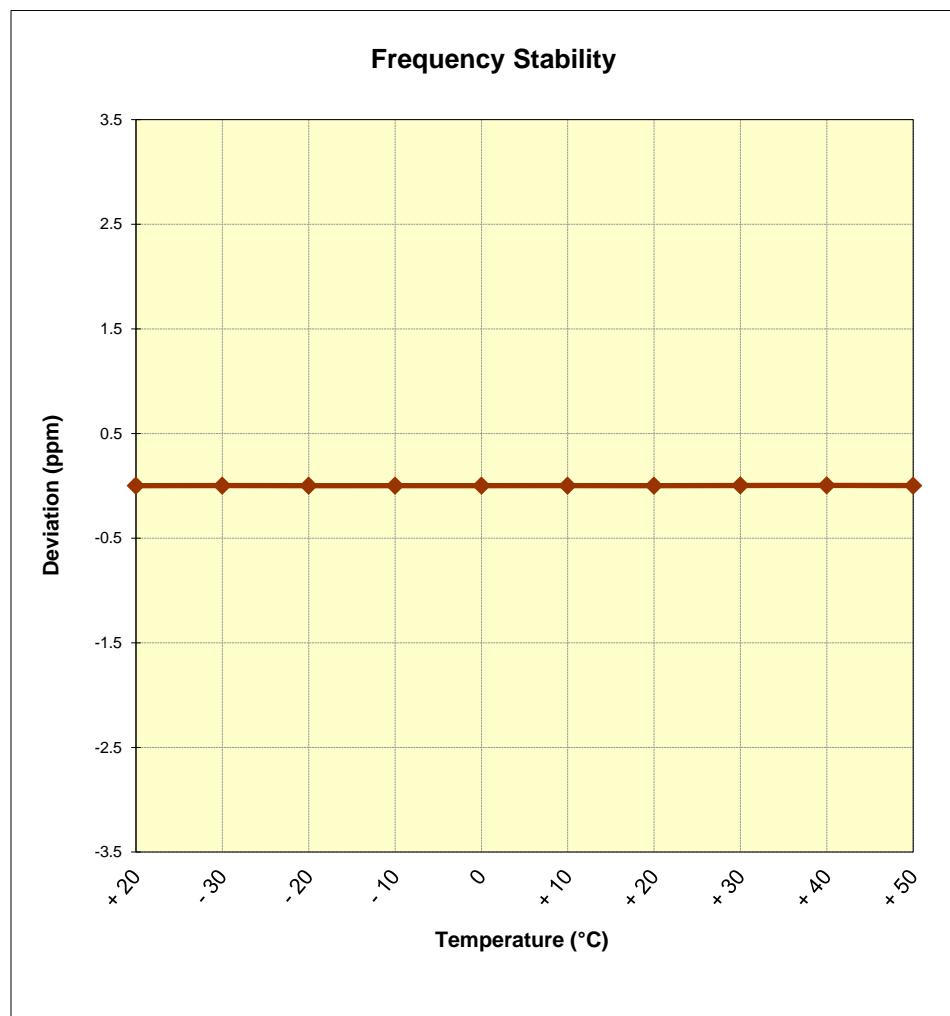


Figure 7-14. Frequency Stability Graph (Band 30)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
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## Band 7 Frequency Stability Measurements

OPERATING FREQUENCY: 2,535,000,000 Hz  
 CHANNEL: 21100  
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	2,535,000,003	3	0.0000001
100 %		- 20	2,535,000,003	3	0.0000001
100 %		- 10	2,535,000,004	4	0.0000001
100 %		0	2,535,000,005	5	0.0000002
100 %		+ 10	2,535,000,005	5	0.0000002
100 %		+ 20	2,535,000,004	4	0.0000002
100 %		+ 30	2,535,000,009	9	0.0000004
100 %		+ 40	2,535,000,003	3	0.0000001
100 %		+ 50	2,535,000,006	6	0.0000002
BATT. ENDPOINT	3.40	+ 20	2,535,000,007	7	0.0000003

**Table 7-149. Frequency Stability Data (Band 7)**

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: BCGA1934	 PCTEST ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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## Band 7 Frequency Stability Measurements

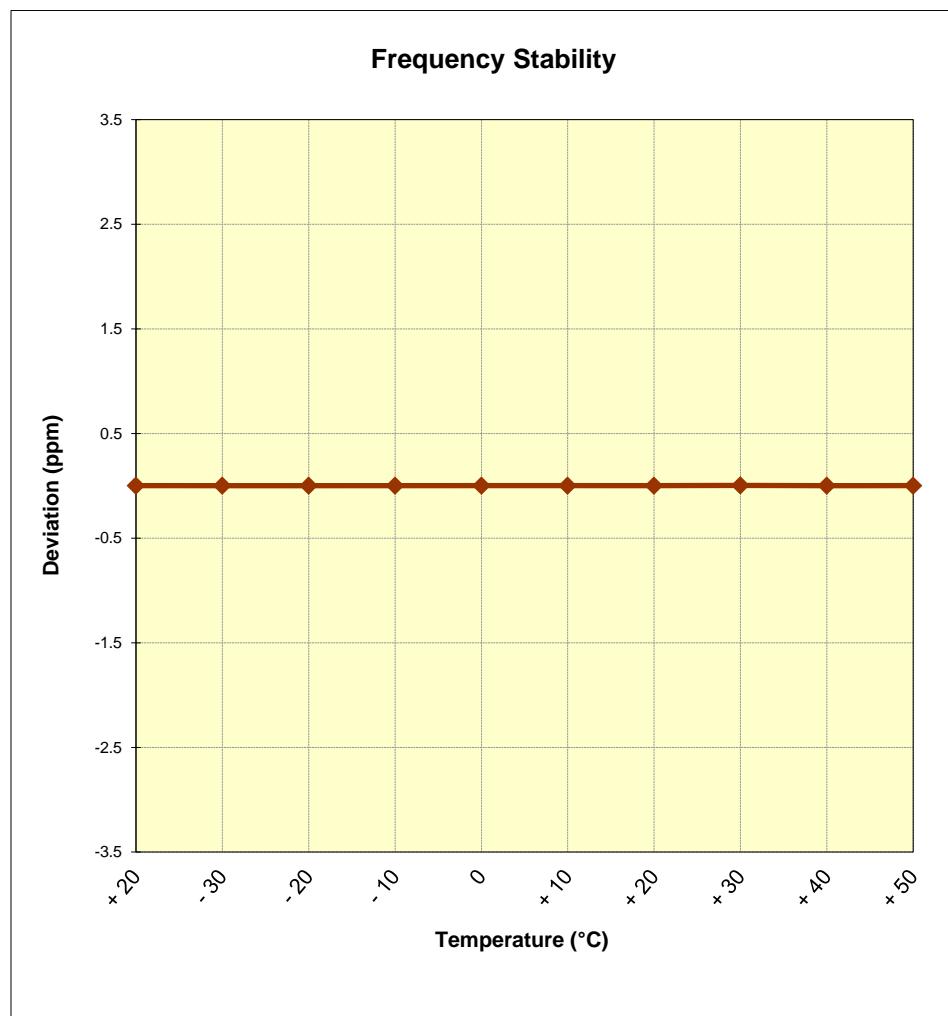


Figure 7-15. Frequency Stability Graph (Band 7)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device

## Band 41 Frequency Stability Measurements

OPERATING FREQUENCY: 2,593,000,000 Hz  
 CHANNEL: 40620  
 REFERENCE VOLTAGE: 3.80 VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	- 30	2,593,000,007	7	0.0000003
100 %		- 20	2,593,000,005	5	0.0000002
100 %		- 10	2,593,000,003	3	0.0000001
100 %		0	2,593,000,003	3	0.0000001
100 %		+ 10	2,593,000,002	2	0.0000001
100 %		+ 20	2,593,000,007	7	0.0000003
100 %		+ 30	2,593,000,007	7	0.0000003
100 %		+ 40	2,593,000,004	4	0.0000001
100 %		+ 50	2,593,000,004	4	0.0000002
BATT. ENDPOINT	3.40	+ 20	2,593,000,007	7	0.0000003

Table 7-150. Frequency Stability Data (Band 41)

**Note:**

Based on the results of the frequency stability test at the center channel the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device

## Band 41 Frequency Stability Measurements

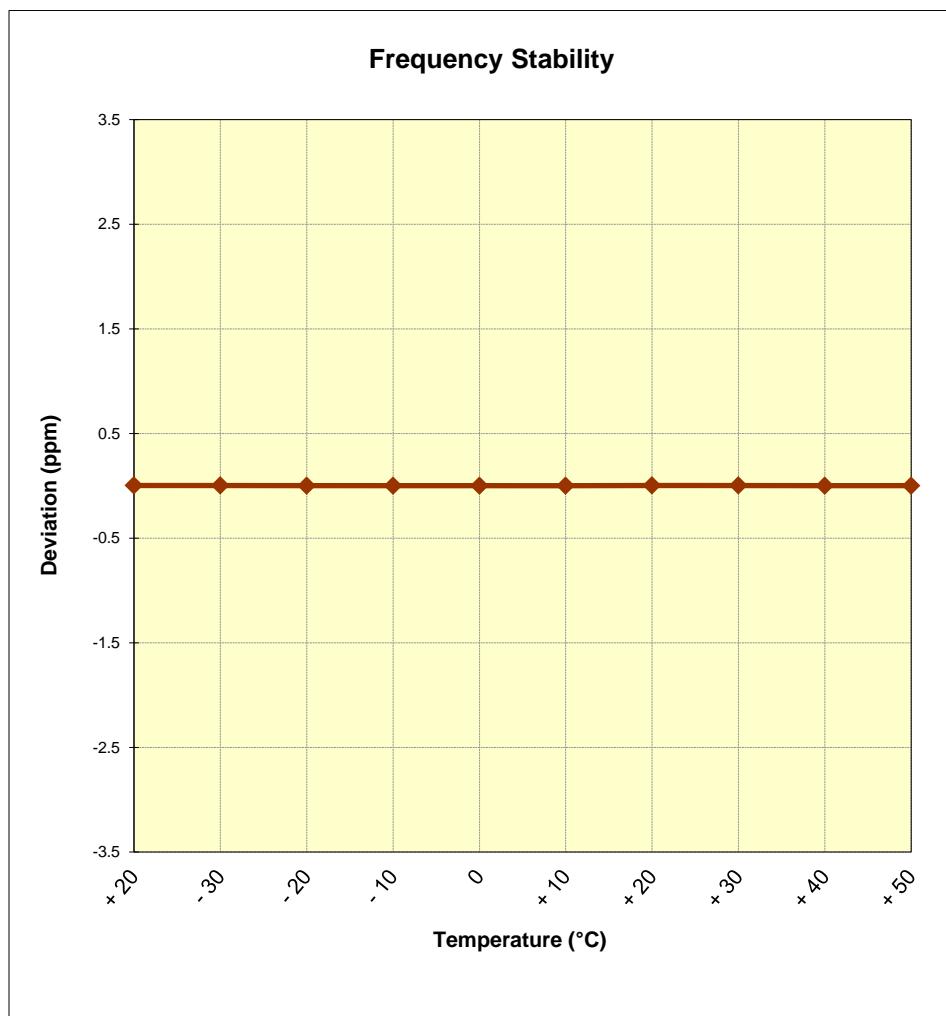


Figure 7-16. Frequency Stability Graph (Band 41)

FCC ID: BCGA1934	 <b>MEASUREMENT REPORT (CERTIFICATION)</b>		Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 369 of 370

## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Apple Tablet Device** **FCC ID: BCGA1934** complies with all the requirements of Part 22, 24, & 27 of the FCC Rules for LTE operation only.

FCC ID: BCGA1934	 <b>PCTEST</b> ENGINEERING LABORATORY, INC.	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: 1C1806220015-03.BCG	Test Dates: 07/27/2018-10/10/2018	EUT Type: Tablet Device	Page 370 of 370