

Worst Case Mode:

Worst Case Transfer Rate:

Distance of Measurements:
Operating Frequency:

Channel:

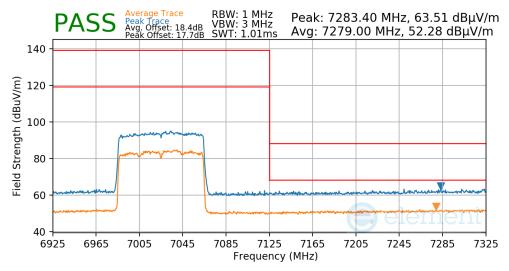
802.11ax

MCS4

3 Meters

7025MHz

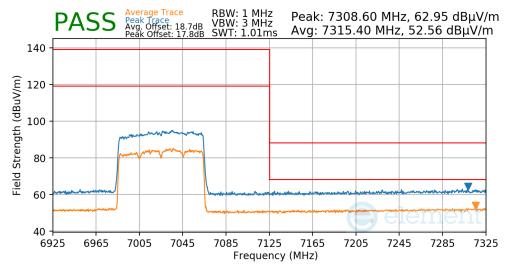
215



Plot 7-705. Antenna WF5b Radiated Upper Band Edge (Peak & Average - UNII Band 8)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS11
3 Meters
7025MHz
215



Plot 7-706. Antenna WF5b Radiated Upper Band Edge (Peak & Average - UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 254 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	raye 204 01 200



## 7.7.11 Antenna WF5b Radiated Band Edge Measurements (160MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

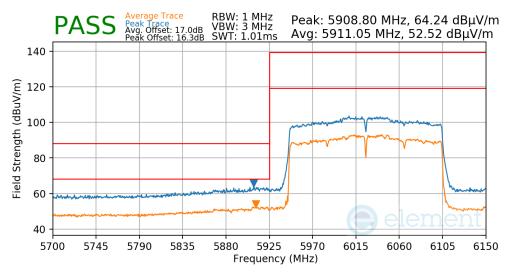
802.11ax

MCS2

3 Meters

6025MHz

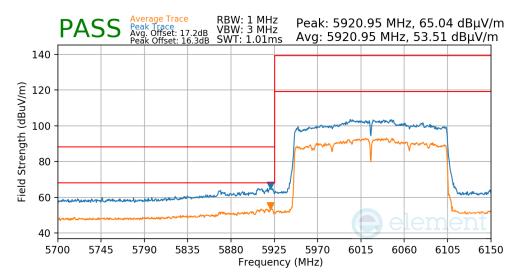
15



Plot 7-707. Antenna WF5b Radiated Lower Band Edge (Peak & Average - UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS4
3 Meters
6025MHz
15



Plot 7-708. Antenna WF5b Radiated Lower Band Edge (Peak & Average – UNII Band 5)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 255 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 255 01 260



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

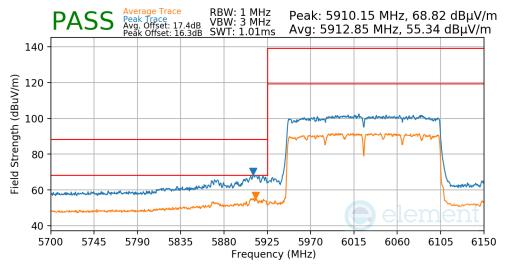
802.11ax

MCS11

3 Meters

6025MHz

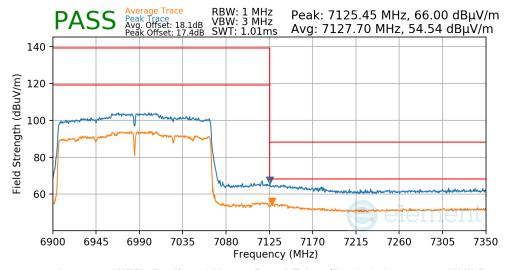
15



Plot 7-709. Antenna WF5b Radiated Lower Band Edge (Peak & Average - UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS2
3 Meters
6985MHz
207



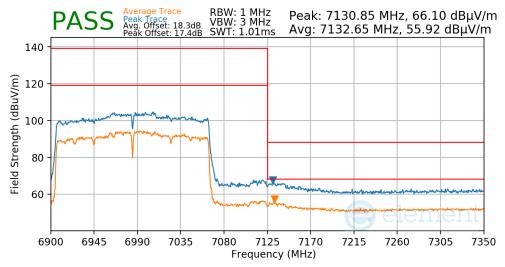
Plot 7-710. Antenna WF5b Radiated Upper Band Edge (Peak & Average - UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 256 of 290
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 256 of 280



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

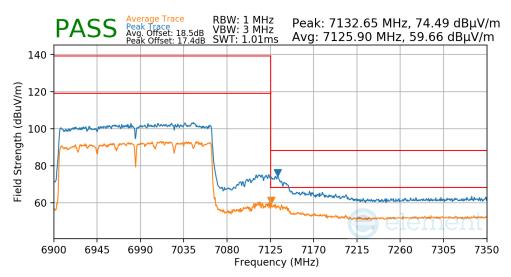
802.11ax
MCS4
3 Meters
6985MHz
207



Plot 7-711. Antenna WF5b Radiated Upper Band Edge (Peak & Average - UNII Band 8)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS11
3 Meters
6985MHz
207



Plot 7-712. Antenna WF5b Radiated Upper Band Edge (Peak & Average - UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 257 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	raye 231 01 200



### 7.7.12 SDM Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

Worst Case Mode:

Worst Case Transfer Rate:

Distance of Measurements:

Operating Frequency:

Channel:

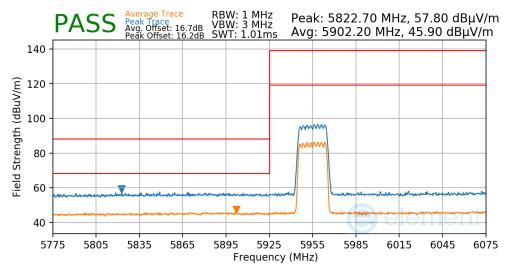
802.11ax

MCS2

3 Meters

5955MHz

1



Plot 7-713. SDM Radiated Lower Band Edge (Peak/Average - UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

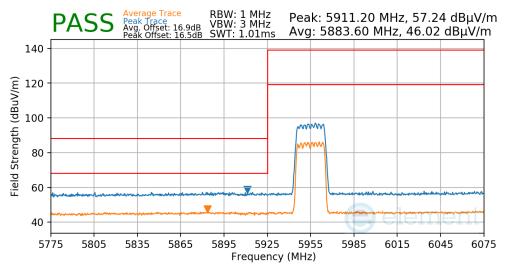
802.11ax

MCS4

3 Meters

5955MHz

1



Plot 7-714. SDM Radiated Lower Band Edge (Peak/Average - UNII Band 5)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 258 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 256 01 260



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

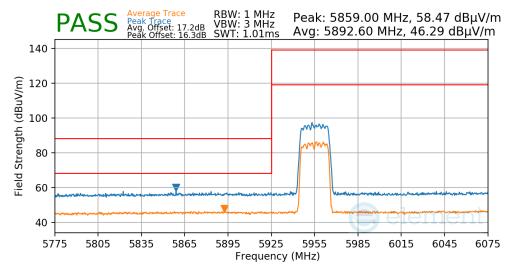
802.11ax

MCS11

3 Meters

5955MHz

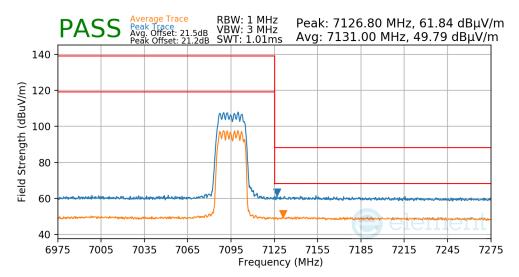
1



Plot 7-715. SDM Radiated Lower Band Edge (Peak/Average – UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS2
3 Meters
7095MHz
229



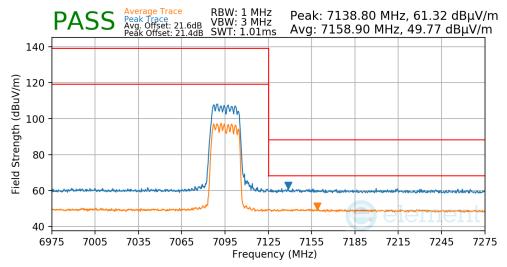
Plot 7-716. SDM Radiated Upper Band Edge (Peak/Average - UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 250 of 200
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 259 of 280



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

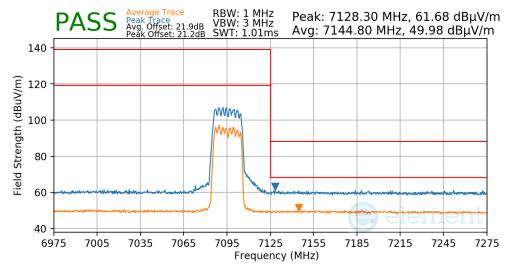
802.11ax
MCS4
3 Meters
7095MHz
229



Plot 7-717. SDM Radiated Upper Band Edge (Peak/Average - UNII Band 8)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS11
3 Meters
7095MHz
229



Plot 7-718. SDM Radiated Upper Band Edge (Peak/Average – UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 260 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	raye 200 01 200



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

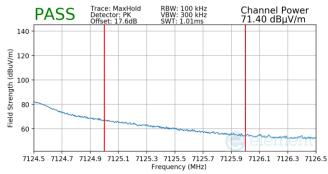
802.11ax

MCS2

3 Meters

7115MHz

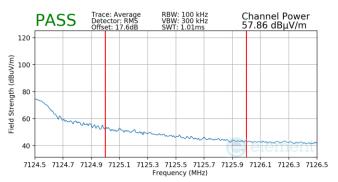
233



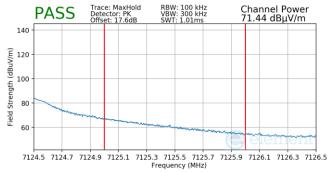
Plot 7-719. SDM Radiated Lower Band Edge (Peak – UNII Band 8)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

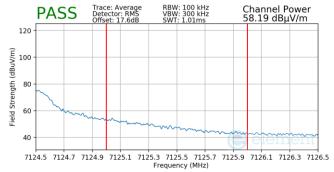
802.11ax
MCS4
3 Meters
7115MHz
233



Plot 7-720. SDM Radiated Lower Band Edge (Average – UNII Band 8)



Plot 7-721. SDM Radiated Lower Band Edge (Peak – UNII Band 8)



Plot 7-722. SDM Radiated Lower Band Edge (Average – UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 261 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Fage 201 01 280



Worst Case Mode:

Worst Case Transfer Rate:

Distance of Measurements:
Operating Frequency:

Channel:

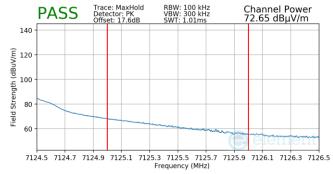
802.11ax

MCS11

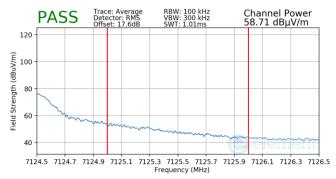
3 Meters

7115MHz

233



Plot 7-723. SDM Radiated Lower Band Edge (Peak – UNII Band 8)



Plot 7-724. SDM Radiated Lower Band Edge (Average – UNII Band 8)

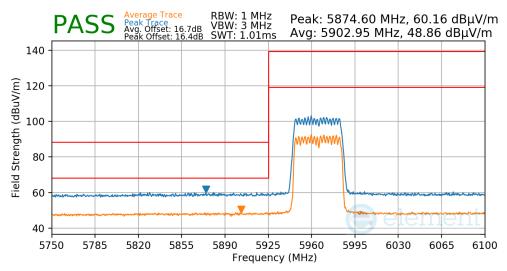
FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 262 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Fage 202 01 280



## 7.7.13 SDM Radiated Band Edge Measurements (40MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

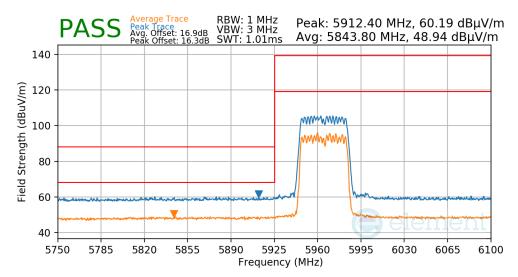
802.11ax
MCS2
3 Meters
5965MHz
3



Plot 7-725. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS4
3 Meters
5965MHz
3



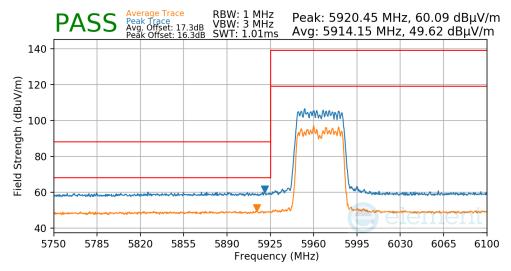
Plot 7-726. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogg 262 of 200
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 263 of 280



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

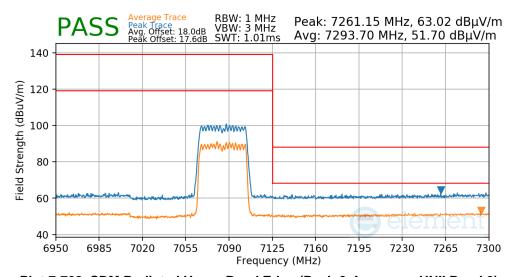
802.11ax
MCS11
3 Meters
5965MHz
3



Plot 7-727. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS2
3 Meters
7085MHz
227



Plot 7-728. SDM Radiated Upper Band Edge (Peak & Average – UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 264 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	raye 204 01 200



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

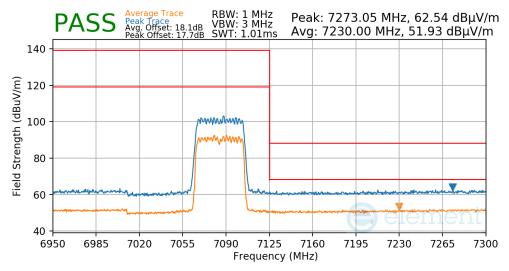
802.11ax

MCS4

3 Meters

7085MHz

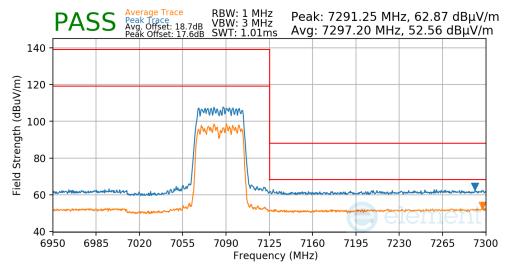
227



Plot 7-729. SDM Radiated Upper Band Edge (Peak & Average – UNII Band 8)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS11
3 Meters
7085MHz
227



Plot 7-730. SDM Radiated Upper Band Edge (Peak & Average – UNII Band 8)

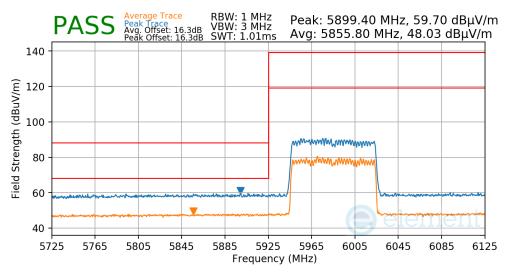
FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 265 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Fage 265 01 260



## 7.7.14 SDM Radiated Band Edge Measurements (80MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

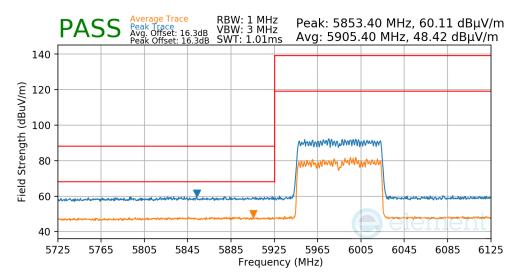
802.11ax
MCS2
3 Meters
5985MHz
7



Plot 7-731. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS4
3 Meters
5985MHz
7



Plot 7-732. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

FCC ID: BCGA2759 IC: 579C-A2759	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 266 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 200 01 200



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

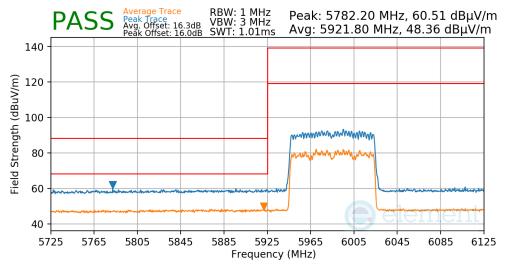
802.11ax

MCS11

3 Meters

5985MHz

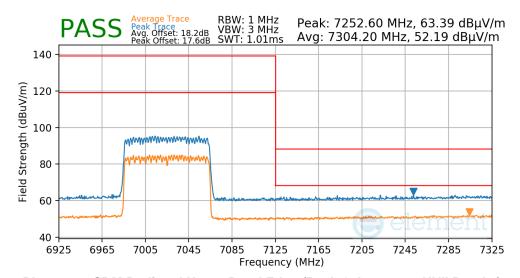
7



Plot 7-733. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS2
3 Meters
7025MHz
215



Plot 7-734. SDM Radiated Upper Band Edge (Peak & Average – UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 267 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	raye 201 01 200



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

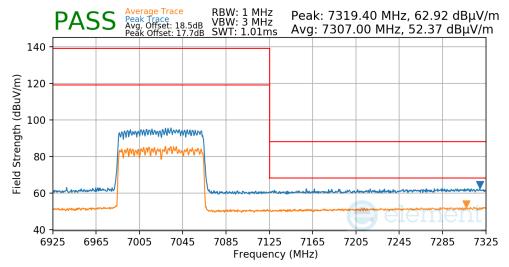
802.11ax

MCS4

3 Meters

7025MHz

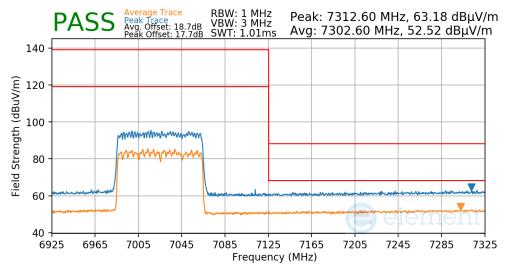
215



Plot 7-735. SDM Radiated Upper Band Edge (Peak & Average - UNII Band 8)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS11
3 Meters
7025MHz
215



Plot 7-736. SDM Radiated Upper Band Edge (Peak & Average - UNII Band 8)

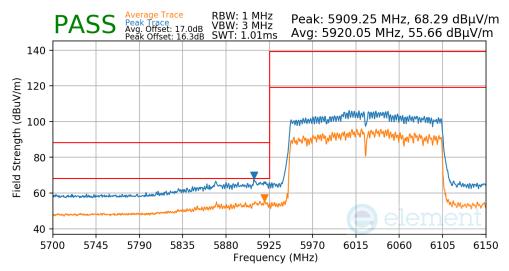
FCC ID: BCGA2759 IC: 579C-A2759	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 269 of 290
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 268 of 280



## 7.7.15 SDM Radiated Band Edge Measurements (160MHz BW) §15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

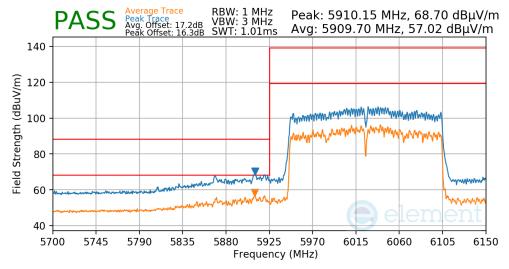
802.11ax
MCS2
3 Meters
6025MHz
15



Plot 7-737. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS4
3 Meters
6025MHz
15



Plot 7-738. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 269 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	rage 209 01 200



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

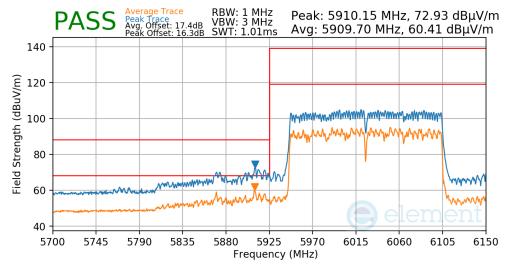
802.11ax

MCS11

3 Meters

6025MHz

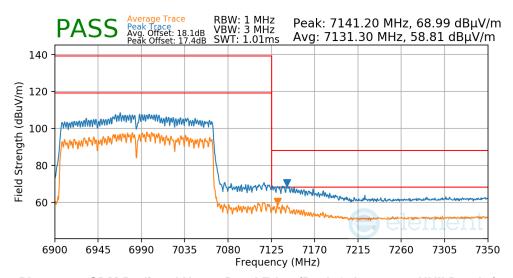
15



Plot 7-739. SDM Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS2
3 Meters
6985MHz
207



Plot 7-740. SDM Radiated Upper Band Edge (Peak & Average – UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 270 of 290
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 270 of 280



Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

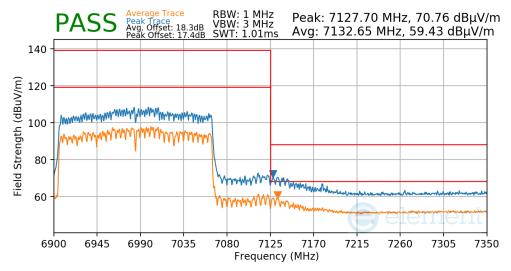
802.11ax

MCS4

3 Meters

6985MHz

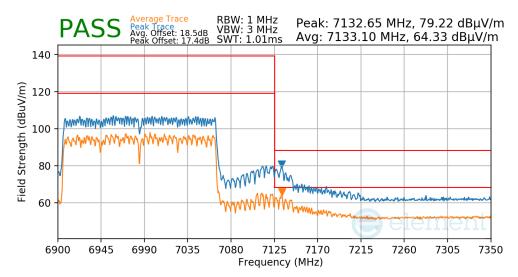
207



Plot 7-741. SDM Radiated Upper Band Edge (Peak & Average - UNII Band 8)

Worst Case Mode:
Worst Case Transfer Rate:
Distance of Measurements:
Operating Frequency:
Channel:

802.11ax
MCS11
3 Meters
6985MHz
207



Plot 7-742. SDM Radiated Upper Band Edge (Peak & Average - UNII Band 8)

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 271 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	raye 21 1 01 200



### 7.8 Radiated Spurious Emissions – Below 1GHz

§15.209; RSS-Gen [8.9]

#### **Test Overview and Limit**

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 7 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-93 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
0.009 - 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-93. Radiated Limits

#### **Test Procedures Used**

ANSI C63.10-2013

#### **Test Settings**

#### **Quasi-Peak Field Strength Measurements**

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- RBW = 120kHz (for emissions from 30MHz 1GHz)
- 3. Detector = quasi-peak
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- Trace was allowed to stabilize

#### Peak Field Strength Measurements

- Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 8. RBW = 120kHz (for emissions from 30MHz 1GHz)
- 9. VBW = 300kHz
- 10. Detector = quasi-peak
- 11. Sweep time = auto couple
- 12. Trace mode = max hold
- 13. Trace was allowed to stabilize

FCC ID: BCGA2759 IC: 579C-A2759	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 272 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Fage 272 01 280



### **Test Setup**

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

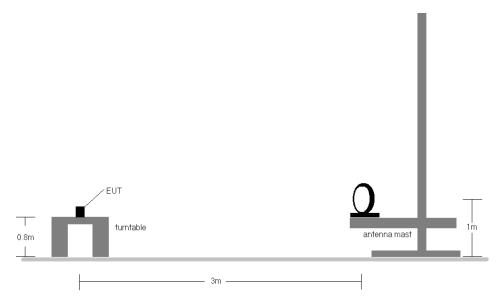


Figure 7-7. Radiated Test Setup < 30MHz

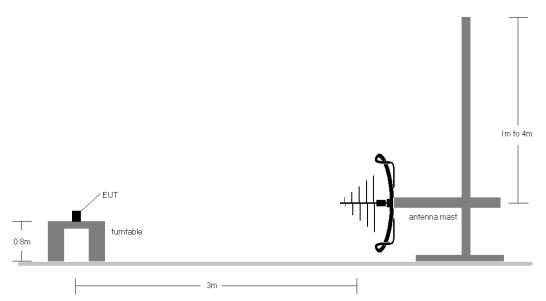


Figure 7-8. Radiated Test Setup < 1GHz

FCC ID: BCGA2759 IC: 579C-A2759	element MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 273 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 273 01 280



#### **Test Notes**

- 1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-93.
- 2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes. For below 30MHz the loop antenna was positioned in 3 orthogonal planes (X front, Y side, Z top) to determine the orientation resulting in the worst case emissions.
- 3. This unit was tested with its standard battery.
- 4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector on emissions that were within 6dB of the limit.
- 5. Emissions were measured at a 3 meter test distance.
- 6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
- 7. No spurious emissions were detected within 20dB of the limit below 30MHz.
- 8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
- 9. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz 1GHz frequency range, as shown in the subsequent plots.
- 10. Both configurations below were investigated, and the worst case has been reported.
  - a. EUT powered by AC/DC adaptor via USB-C cable with wire charger
  - b. EUT powered by host PC via USB-C cable with wire charger
- 11. All antenna configurations were investigated and only the worst case is reported.
- 12. The unit was tested with all possible modes and only the highest emission is reported.

#### **Sample Calculations**

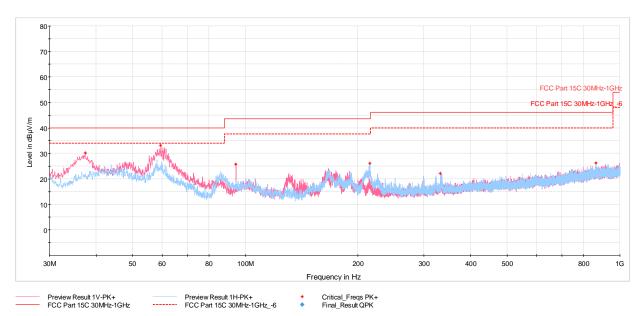
#### **Determining Spurious Emissions Levels**

- Field Strength Level [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- O AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB] Preamp Gain [dB]
- Margin [dB] = Field Strength Level [dBμV/m] Limit [dBμV/m]

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 274 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 274 01 280



# 7.8.1 SDM Primary Radiated Spurious Emissions Measurements (Below 1GHz) §15.209; RSS-Gen [8.9]



Plot 7-743. Radiated Spurious Emissions below 1GHz SDM, 802.11ax, Ch.1 with AC/DC Adapter

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
37.42	Max-Peak	V	100	28	-58.70	-18.12	30.18	40.00	-9.82
59.49	Max-Peak	V	100	61	-56.93	-16.82	33.25	40.00	-6.75
94.46	Max-Peak	V	100	227	-62.10	-19.06	25.84	43.52	-17.68
214.98	Max-Peak	Н	100	201	-63.06	-17.88	26.06	43.52	-17.46
331.91	Max-Peak	Н	100	281	-70.43	-14.32	22.25	46.02	-23.77
862.89	Max-Peak	Н	300	194	-75.91	-4.86	26.23	46.02	-19.79

Table 7-94. Radiated Spurious Emissions Measurement below 1GHz SDM, 802.11ax, Ch.1 with AC/DC Adapter

FCC ID: BCGA2759 IC: 579C-A2759	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 275 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 275 01 280



### 7.9 AC Line-Conducted Emissions Measurement

§15.407; RSS-Gen [8.8]

#### **Test Overview and Limit**

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for AC Line conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.

All conducted emissions must not exceed the limits shown in the table below, per Section 15.207 and RSS-Gen (8.8).

Frequency of emission (MHz)	Conducted Limit (dBμV)			
(IVITIZ)	Quasi-peak	Average		
0.15 – 0.5	66 to 56*	56 to 46*		
0.5 – 5	56	46		
5 – 30	60	50		

**Table 7-95. Conducted Limits** 

#### **Test Procedures Used**

ANSI C63.10-2013, Section 6.2

#### **Test Settings**

#### **Quasi-Peak Measurements**

- 1. Analyzer center frequency was set to the frequency of the spurious emission of interest
- RBW = 9kHz (for emissions from 150kHz 30MHz)
- 3. Detector = quasi-peak
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize

#### Average Measurements

- 1. Analyzer center frequency was set to the frequency of the spurious emission of interest
- 2. RBW = 9kHz (for emissions from 150kHz 30MHz)
- Detector = RMS
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 276 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 276 01 260

<sup>\*</sup>Decreases with the logarithm of the frequency.



#### **Test Setup**

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

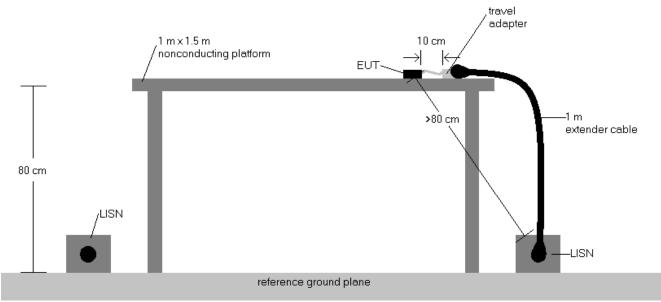


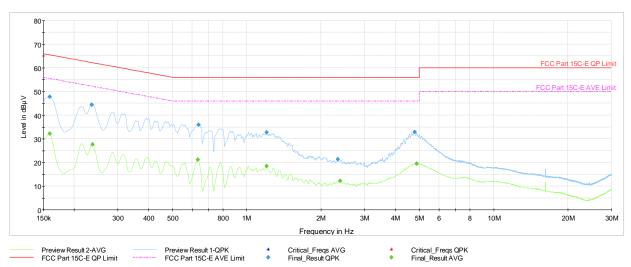
Figure 7-9. Test Instrument & Measurement Setup

### **Test Notes**

- 1. All modes of operation were investigated and the worst-case emissions are reported. The emissions found were not affected by the choice of channel used during testing.
- 2. Both configurations below were investigated, and the worst case has been reported.
  - a. EUT powered by AC/DC adaptor via USB-C cable with wire charger
  - b. EUT powered by host PC via USB-C cable with wire charger
- The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
- 4. Corr. (dB) = Cable loss (dB) + LISN insertion factor (dB)
- 5. QP/AV Level (dB $\mu$ V) = QP/AV Analyzer/Receiver Level (dB $\mu$ V) + Correction Factor (dB)
- 6. Margin (dB) = QP/AV Level (dB $\mu$ V) QP/AV Limit (dB $\mu$ V)
- 7. Traces shown in plots are made using quasi-peak and average detectors.
- 8. Deviations to the Specifications: None.
- 9. The unit was tested with all possible modes and only the highest emission is reported.

FCC ID: BCGA2759 IC: 579C-A2759	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 277 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Fage 211 01 280





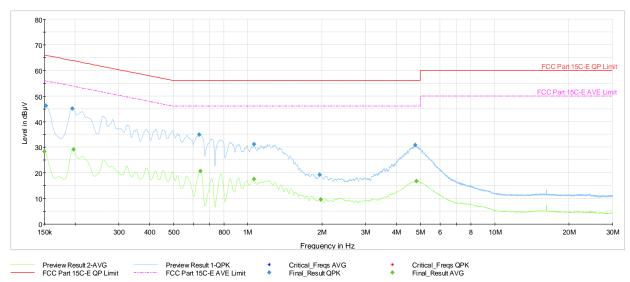
Plot 7-744. AC Line Conducted Plot with 802.11ax SDM - Ch.56 (L1), with AC/DC adapter

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.159	FINAL		32.18	55.52	-23.34	L1	GND
0.159	FINAL	47.8		65.52	-17.75	L1	GND
0.236	FINAL	44.4		62.25	-17.84	L1	GND
0.238	FINAL		27.61	52.17	-24.56	L1	GND
0.634	FINAL		21.14	46.00	-24.86	L1	GND
0.638	FINAL	36.0		56.00	-19.99	L1	GND
1.203	FINAL	32.6		56.00	-23.37	L1	GND
1.203	FINAL		18.41	46.00	-27.59	L1	GND
2.339	FINAL	21.4		56.00	-34.59	L1	GND
2.387	FINAL		12.14	46.00	-33.86	L1	GND
4.785	FINAL	32.9		56.00	-23.12	L1	GND
4.873	FINAL		19.48	46.00	-26.52	L1	GND

Table 7-96. AC Line Conducted Data with 802.11ax SDM - Ch. 56 (L1) with AC/DC adapter

FCC ID: BCGA2759 IC: 579C-A2759	element	element MEASUREMENT REPORT (CERTIFICATION)	
Test Report S/N:	Test Dates:	EUT Type:	Page 278 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Fage 276 01 280





Plot 7-745. AC Line Conducted Plot with 802.11ax SDM - Ch. 56 (N), with AC/DC adapter

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.150	FINAL		28.39	56.00	-27.61	N	GND
0.152	FINAL	46.3		65.88	-19.63	N	GND
0.195	FINAL	45.1		63.82	-18.75	N	GND
0.197	FINAL		29.17	53.73	-24.55	N	GND
0.636	FINAL	34.9		56.00	-21.15	N	GND
0.643	FINAL		20.68	46.00	-25.32	N	GND
1.059	FINAL	31.1		56.00	-24.89	N	GND
1.059	FINAL		17.49	46.00	-28.51	N	GND
1.955	FINAL	19.3		56.00	-36.68	N	GND
1.975	FINAL		9.61	46.00	-36.39	N	GND
4.763	FINAL	30.9		56.00	-25.14	N	GND
4.826	FINAL		16.68	46.00	-29.32	N	GND

Table 7-97. AC Line Conducted Data with 802.11ax SDM - Ch. 56 (N), with AC/DC adapter

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 279 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 279 01 280



#### CONCLUSION 8.0

The data collected relate only the item(s) tested and show that the Apple Tablet Device FCC ID: BCGA2759 and IC: 579C-A2759 is in compliance with Part 15 Subpart E (15.407) of the FCC Rules and RSS-247 of the Innovation, Science and Economic Development Canada Rules.

FCC ID: BCGA2759 IC: 579C-A2759	element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 280 of 280
1C2205090024-11-R2.BCG	05/27/2022 - 9/26/2022	Tablet Device	Page 260 01 260