



ANT 2

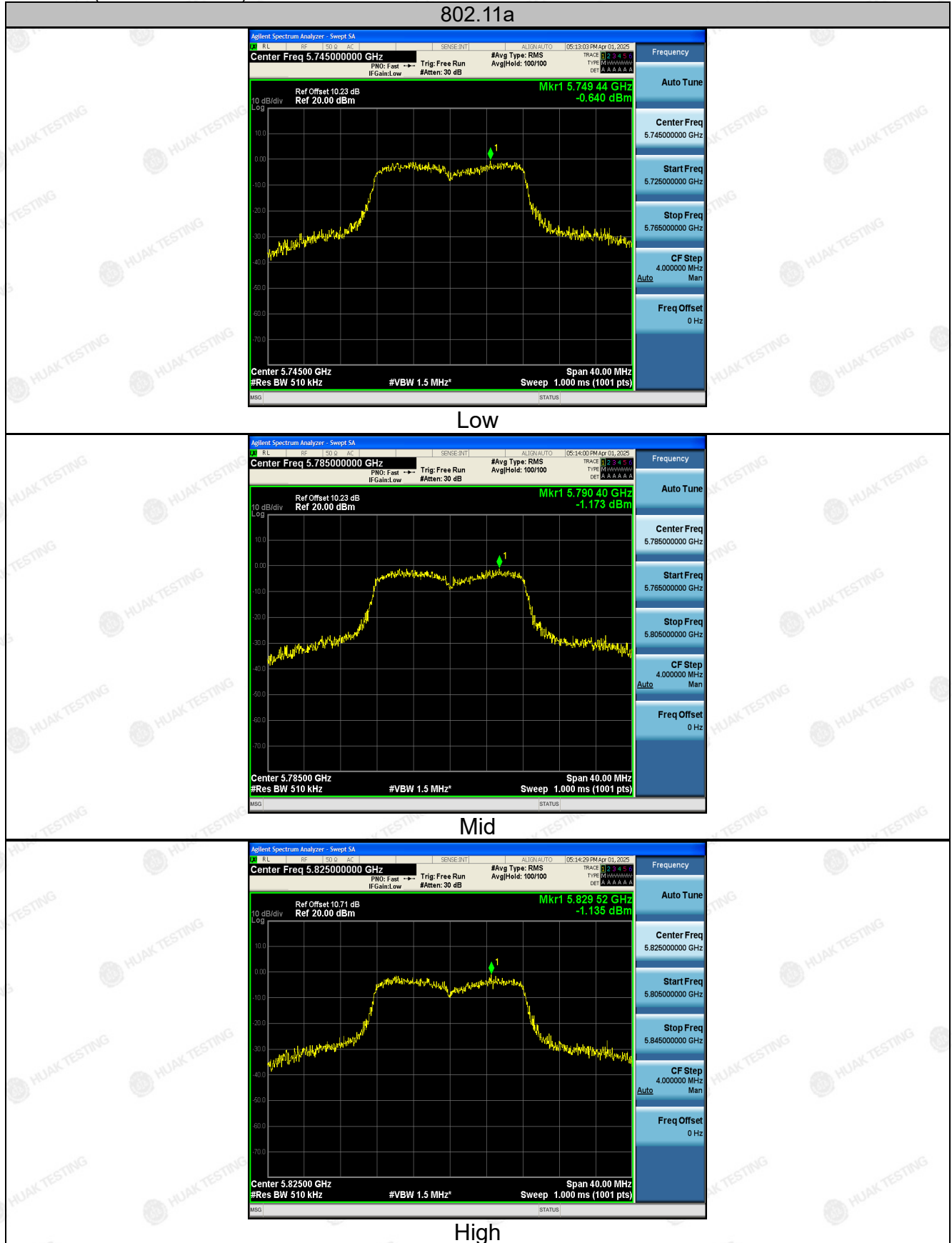
Configuration Band IV (5725 - 5850 MHz)						
Mode	Test Channel	Level [dBm/510kHz]	10log(500/510)	Power Spectral Density	Limit (dBm/500kHz)	Result
802.11a	CH149	-0.64	-0.086	-0.726	30	PASS
802.11a	CH157	-1.17	-0.086	-1.256	30	PASS
802.11a	CH165	-1.14	-0.086	-1.226	30	PASS
802.11n HT20	CH149	-1.48	-0.086	-1.566	30	PASS
802.11n HT20	CH157	-1.89	-0.086	-1.976	30	PASS
802.11n HT20	CH165	-3.62	-0.086	-3.706	30	PASS
802.11n HT40	CH151	-5.02	-0.086	-5.106	30	PASS
802.11n HT40	CH159	-3.99	-0.086	-4.076	30	PASS
802.11ac HT20	CH149	-1.67	-0.086	-1.756	30	PASS
802.11ac HT20	CH157	-1.85	-0.086	-1.936	30	PASS
802.11ac HT20	CH165	-2.91	-0.086	-2.996	30	PASS
802.11ac HT40	CH151	-4.26	-0.086	-4.346	30	PASS
802.11ac HT40	CH159	-5.49	-0.086	-5.576	30	PASS
802.11ac HT80	CH155	-5.21	-0.086	-5.296	30	PASS

Note: Power Spectral Density= Level [dBm/510kHz]+ (10log(Limit RBW/Test RBW))

Test plots as follows:



Band IV (5725-5850 MHz)



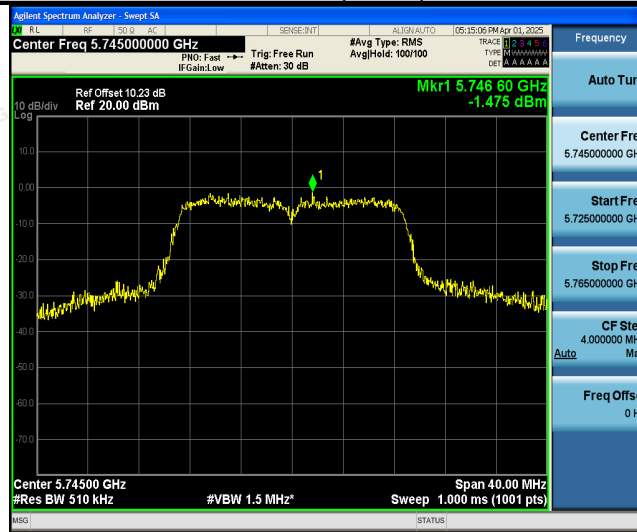
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

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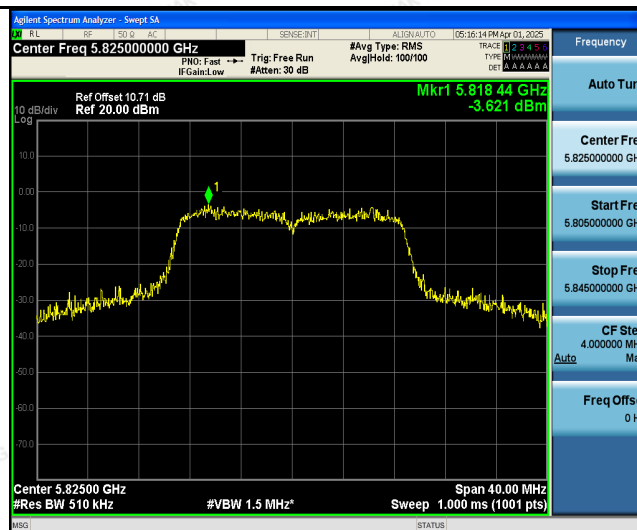
802.11n(HT20)



Low



Mid



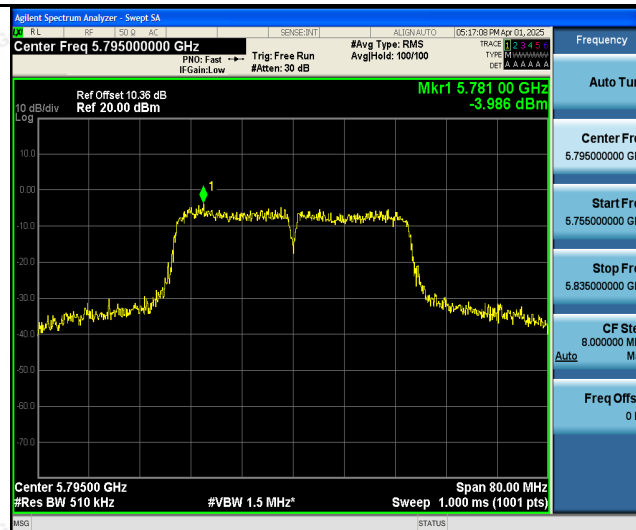
High



802.11n(HT40)

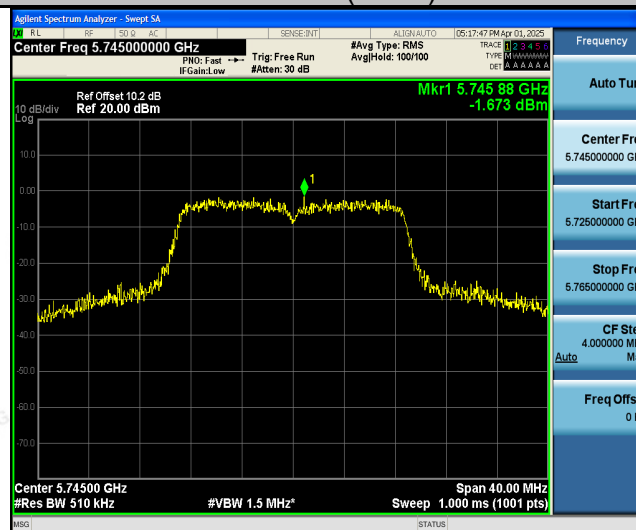


Low



High

802.11ac(HT20)



Low



Mid

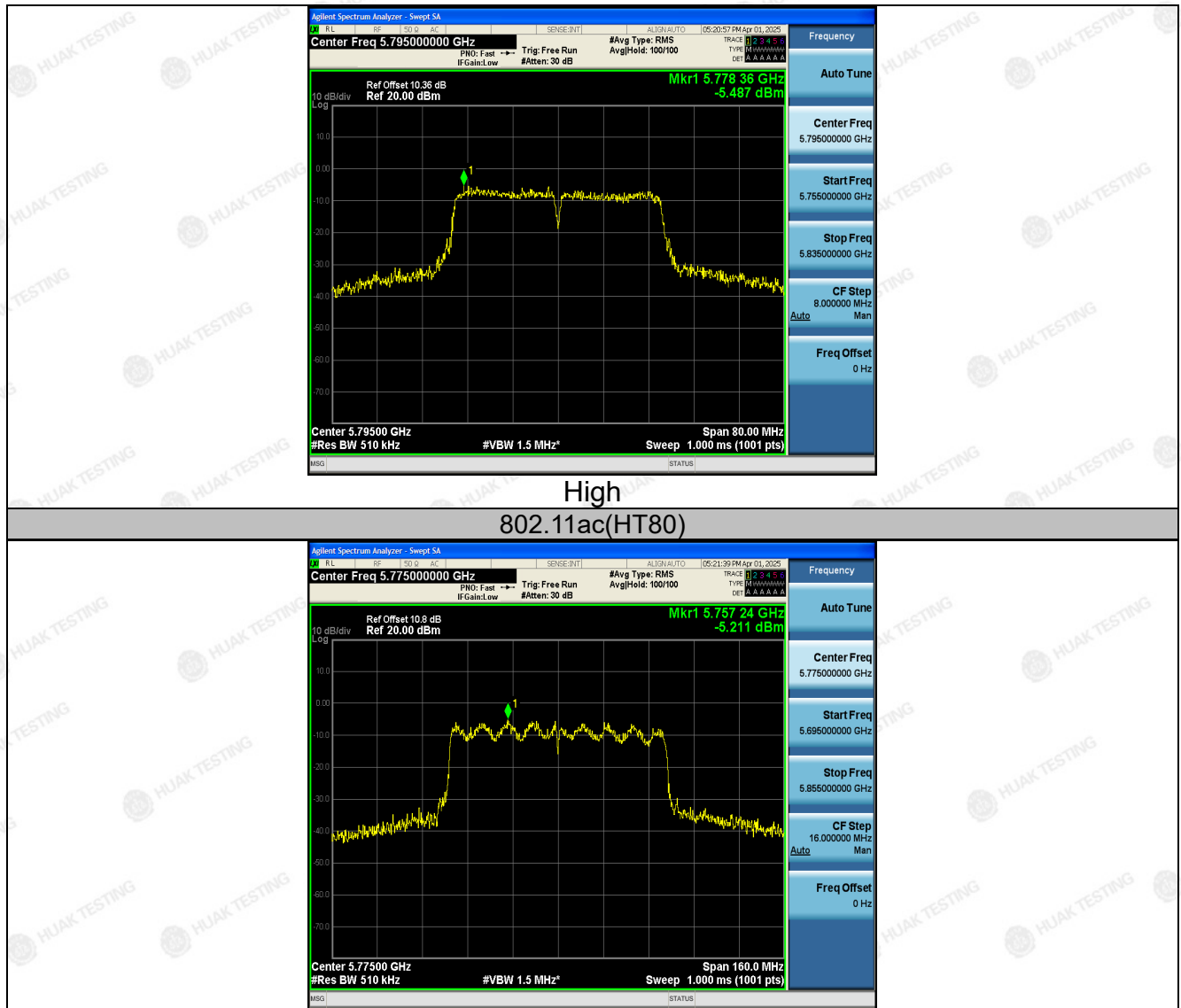


High

802.11ac(HT40)



Low





For MIMO antenna port 1+antenna port 2

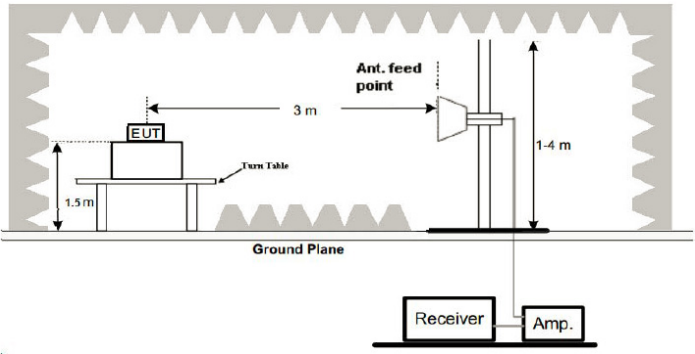
Configuration Band IV (5725 - 5850 MHz)				
Mode	Test Channel	Power Density (dBm)	Limit (dBm)	Result
802.11n(HT20)	CH149	1.35	29.44	PASS
802.11n(HT20)	CH157	0.73	29.44	PASS
802.11n(HT20)	CH161	-0.85	29.44	PASS
802.11n(HT40)	CH151	-1.89	29.44	PASS
802.11n(HT40)	CH159	-1.65	29.44	PASS
802.11ac(HT20)	CH149	1.39	29.44	PASS
802.11ac(HT20)	CH157	0.66	29.44	PASS
802.11ac(HT20)	CH161	0.03	29.44	PASS
802.11ac(HT40)	CH151	-1.21	29.44	PASS
802.11ac(HT40)	CH159	-2.89	29.44	PASS
802.11ac(HT80)	CH155	-2.53	29.44	PASS
Note: 1 According to KDB 662911, Result power = $10\log(10^{(\text{ant1}/10)} + 10^{(\text{ant2}/10)})$. 2 Result unit: W, The end result is converted to units of dBm. limit=30dBm-(direction gain-6dBi)=30-(3.55+10log2-6)=29.44dBm				

Note: This product supports antenna 1 and antenna 2 launch, but only support 802.11 n/ac for MIMO mode, not support 802.11 a for MIMO mode.



4.6. Band Edge

4.6.1. Test Specification

Test Requirement:	FCC CFR47 Part 15E Section 15.407
Test Method:	ANSI C63.10 2013
Limit:	(1) For transmitters operating in the 5.725-5.85 GHz band: (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. The limit of frequency below 1GHz and which fall in restricted bands should comply 15.209.
Test Setup:	 The diagram illustrates the test setup. An EUT (Equipment Under Test) is placed on a turn table at a height of 1.5 m. The turn table is 3 m away from an antenna feed point. The antenna is mounted on a variable-height antenna tower, with the feed point at a height of 1-4 m. The entire setup is on a ground plane. A receiver and an amplifier are connected to the antenna feed point.
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotating table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi peak or average method as specified and then reported in a data sheet.
Test Result:	PASS



4.6.2. Test Instruments

Radiated Emission Test Site (966)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 19, 2025	Feb. 18, 2026
Spectrum analyzer	R&S	FSV3044	HKE-126	Feb. 19, 2025	Feb. 18, 2026
Preamplifier	EMCI	EMC051845S	HKE-006	Feb. 19, 2025	Feb. 18, 2026
Preamplifier	Schwarzbeck	BBV 9743	HKE-016	Feb. 19, 2025	Feb. 18, 2026
Preamplifier	A.H. Systems	SAS-574	HKE-182	Feb. 19, 2025	Feb. 18, 2026
6dB Attenuator	Pasternack	6db	HKE-184	Feb. 19, 2025	Feb. 18, 2026
EMI Test Receiver	Rohde & Schwarz	ESR-7	HKE-010	Feb. 19, 2025	Feb. 18, 2026
Broadband Antenna	Schwarzbeck	VULB9168	HKE-167	Feb. 21, 2024	Feb. 20, 2026
Loop Antenna	COM-POWER	AL-130R	HKE-014	Feb. 21, 2024	Feb. 20, 2026
Horn Antenna	Schwarzbeck	9120D	HKE-013	Feb. 21, 2024	Feb. 20, 2026
EMI Test Software	Tonscend	JS32-RE 5.0.0	HKE-082	N/A	N/A
RSE Test Software	Tonscend	JS36-RSE 5.0.0	HKE-184	N/A	N/A

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

**4.6.3. Test Data****ANT 1**

Operation Mode: 802.11a Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	50.94	-2.06	48.88	68.2	-19.32	peak
5700	84.16	-1.96	82.2	105.2	-23	peak
5720	87.95	-2.87	85.08	110.8	-25.72	peak
5725	103.63	-2.14	101.49	122.2	-20.71	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.54	-2.06	50.48	68.2	-17.72	peak
5700	81.12	-1.96	79.16	105.2	-26.04	peak
5720	89.83	-2.87	86.96	110.8	-23.84	peak
5725	107.29	-2.14	105.15	122.2	-17.05	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	103.63	-1.97	101.66	122.2	-20.54	
5855	86.11	-2.13	83.98	110.8	-26.82	peak
5875	86.25	-2.65	83.6	105.2	-21.6	peak
5925	52.16	-2.28	49.88	68.2	-18.32	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	96.33	-1.97	94.36	122.2	-27.84	
5855	89.95	-2.13	87.82	110.8	-22.98	peak
5875	80.39	-2.65	77.74	105.2	-27.46	peak
5925	55.13	-2.28	52.85	68.2	-15.35	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11n/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.92	-2.06	49.86	68.2	-18.34	peak
5700	83.82	-1.96	81.86	105.2	-23.34	peak
5720	91.53	-2.87	88.66	110.8	-22.14	peak
5725	110.58	-2.14	108.44	122.2	-13.76	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.57	-2.06	51.51	68.2	-16.69	peak
5700	92.16	-1.96	90.2	105.2	-15	peak
5720	94.01	-2.87	91.14	110.8	-19.66	peak
5725	106.43	-2.14	104.29	122.2	-17.91	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	105.32	-1.97	103.35	122.2	-18.85	peak
5855	89.58	-2.13	87.45	110.8	-23.35	peak
5875	86.41	-2.65	83.76	105.2	-21.44	peak
5925	53.14	-2.28	50.86	68.2	-17.34	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	100.41	-1.97	98.44	122.2	-23.76	peak
5855	90.12	-2.13	87.99	110.8	-22.81	peak
5875	86.87	-2.65	84.22	105.2	-20.98	peak
5925	53.28	-2.28	51	68.2	-17.2	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11n/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.64	-2.06	50.58	68.2	-17.62	peak
5700	90.55	-1.96	88.59	105.2	-16.61	peak
5720	88.11	-2.87	85.24	110.8	-25.56	peak
5725	106.45	-2.14	104.31	122.2	-17.89	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	54.23	-2.06	52.17	68.2	-16.03	peak
5700	91.71	-1.96	89.75	105.2	-15.45	peak
5720	87.26	-2.87	84.39	110.8	-26.41	peak
5725	104.23	-2.14	102.09	122.2	-20.11	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.06	-1.97	100.09	122.2	-22.11	peak
5855	86.82	-2.13	84.69	110.8	-26.11	peak
5875	84.73	-2.65	82.08	105.2	-23.12	peak
5925	51.23	-2.28	48.95	68.2	-19.25	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	103.01	-1.97	101.04	122.2	-21.16	peak
5855	91.78	-2.13	89.65	110.8	-21.15	peak
5875	85.66	-2.65	83.01	105.2	-22.19	peak
5925	52.03	-2.28	49.75	68.2	-18.45	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.36	-2.06	51.3	68.2	-16.9	peak
5700	80.83	-1.96	78.87	105.2	-26.33	peak
5720	89.94	-2.87	87.07	110.8	-23.73	peak
5725	104.82	-2.14	102.68	122.2	-19.52	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	49.93	-2.06	47.87	68.2	-20.33	peak
5700	85.41	-1.96	83.45	105.2	-21.75	peak
5720	91.62	-2.87	88.75	110.8	-22.05	peak
5725	103.08	-2.14	100.94	122.2	-21.26	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	105.44	-1.97	103.47	122.2	-18.73	
5855	86.83	-2.13	84.7	110.8	-26.1	peak
5875	82.54	-2.65	79.89	105.2	-25.31	peak
5925	52.39	-2.28	50.11	68.2	-18.09	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	104.71	-1.97	102.74	122.2	-19.46	
5855	87.96	-2.13	85.83	110.8	-24.97	peak
5875	81.03	-2.65	78.38	105.2	-26.82	peak
5925	52.92	-2.28	50.64	68.2	-17.56	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.64	-2.06	51.58	68.2	-16.62	peak
5700	80.85	-1.96	78.89	105.2	-26.31	peak
5720	90.63	-2.87	87.76	110.8	-23.04	peak
5725	103.93	-2.14	101.79	122.2	-20.41	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.64	-2.06	49.58	68.2	-18.62	peak
5700	83.88	-1.96	81.92	105.2	-23.28	peak
5720	91.56	-2.87	88.69	110.8	-22.11	peak
5725	107.54	-2.14	105.4	122.2	-16.8	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	106.64	-1.97	104.67	122.2	-17.53	
5855	87.51	-2.13	85.38	110.8	-25.42	peak
5875	82.29	-2.65	79.64	105.2	-25.56	peak
5925	51.04	-2.28	48.76	68.2	-19.44	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	112.32	-1.97	110.35	122.2	-11.85	
5855	88.59	-2.13	86.46	110.8	-24.34	peak
5875	85.03	-2.65	82.38	105.2	-22.82	peak
5925	54.78	-2.28	52.5	68.2	-15.7	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT80 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	50.86	-2.06	48.8	68.2	-19.4	peak
5700	82.52	-1.96	80.56	105.2	-24.64	peak
5720	88.69	-2.87	85.82	110.8	-24.98	peak
5725	104.86	-2.14	102.72	122.2	-19.48	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.62	-2.06	51.56	68.2	-16.64	peak
5700	85.93	-1.96	83.97	105.2	-21.23	peak
5720	88.39	-2.87	85.52	110.8	-25.28	peak
5725	105.87	-2.14	103.73	122.2	-18.47	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	107.31	-1.97	105.34	122.2	-16.86	peak
5855	86.94	-2.13	84.81	110.8	-25.99	peak
5875	83.11	-2.65	80.46	105.2	-24.74	peak
5925	50.23	-2.28	47.95	68.2	-20.25	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.76	-1.97	100.79	122.2	-21.41	peak
5855	89.41	-2.13	87.28	110.8	-23.52	peak
5875	83.67	-2.65	81.02	105.2	-24.18	peak
5925	53.47	-2.28	51.19	68.2	-17.01	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

**ANT 2**

Operation Mode: 802.11a Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.48	-2.06	51.42	68.2	-16.78	peak
5700	86.25	-1.96	84.29	105.2	-20.91	peak
5720	89.43	-2.87	86.56	110.8	-24.24	peak
5725	102.23	-2.14	100.09	122.2	-22.11	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.49	-2.06	51.43	68.2	-16.77	peak
5700	84.11	-1.96	82.15	105.2	-23.05	peak
5720	88.35	-2.87	85.48	110.8	-25.32	peak
5725	101.84	-2.14	99.7	122.2	-22.5	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	104.34	-1.97	102.37	122.2	-19.83	
5855	87.32	-2.13	85.19	110.8	-25.61	peak
5875	82.65	-2.65	80	105.2	-25.2	peak
5925	50.89	-2.28	48.61	68.2	-19.59	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5850	101.67	-1.97	99.7	122.2	-22.5	
5855	88.78	-2.13	86.65	110.8	-24.15	peak
5875	81.74	-2.65	79.09	105.2	-26.11	peak
5925	50.73	-2.28	48.45	68.2	-19.75	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11n/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.45	-2.06	51.39	68.2	-16.81	peak
5700	90.74	-1.96	88.78	105.2	-16.42	peak
5720	89.21	-2.87	86.34	110.8	-24.46	peak
5725	102.06	-2.14	99.92	122.2	-22.28	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	54.27	-2.06	52.21	68.2	-15.99	peak
5700	87.66	-1.96	85.7	105.2	-19.5	peak
5720	89.09	-2.87	86.22	110.8	-24.58	peak
5725	103.26	-2.14	101.12	122.2	-21.08	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	104.75	-1.97	102.78	122.2	-19.42	peak
5855	84.26	-2.13	82.13	110.8	-28.67	peak
5875	79.33	-2.65	76.68	105.2	-28.52	peak
5925	51.31	-2.28	49.03	68.2	-19.17	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	100.25	-1.97	98.28	122.2	-23.92	peak
5855	88.87	-2.13	86.74	110.8	-24.06	peak
5875	79.78	-2.65	77.13	105.2	-28.07	peak
5925	51.52	-2.28	49.24	68.2	-18.96	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11n/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	45.09	-2.06	43.03	68.2	-25.17	peak
5700	82.85	-1.96	80.89	105.2	-24.31	peak
5720	87.31	-2.87	84.44	110.8	-26.36	peak
5725	103.08	-2.14	100.94	122.2	-21.26	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.74	-2.06	50.68	68.2	-17.52	peak
5700	89.27	-1.96	87.31	105.2	-17.89	peak
5720	86.51	-2.87	83.64	110.8	-27.16	peak
5725	99.97	-2.14	97.83	122.2	-24.37	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	101.72	-1.97	99.75	122.2	-22.45	peak
5855	88.78	-2.13	86.65	110.8	-24.15	peak
5875	85.18	-2.65	82.53	105.2	-22.67	peak
5925	51.67	-2.28	49.39	68.2	-18.81	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.69	-1.97	100.72	122.2	-21.48	peak
5855	90.62	-2.13	88.49	110.8	-22.31	peak
5875	83.43	-2.65	80.78	105.2	-24.42	peak
5925	51.26	-2.28	48.98	68.2	-19.22	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.23	-2.06	51.17	68.2	-17.03	peak
5700	82.19	-1.96	80.23	105.2	-24.97	peak
5720	89.51	-2.87	86.64	110.8	-24.16	peak
5725	106.22	-2.14	104.08	122.2	-18.12	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.31	-2.06	49.25	68.2	-18.95	peak
5700	84.54	-1.96	82.58	105.2	-22.62	peak
5720	92.34	-2.87	89.47	110.8	-21.33	peak
5725	105.26	-2.14	103.12	122.2	-19.08	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	109.44	-1.97	107.47	122.2	-14.73	peak
5855	86.83	-2.13	84.7	110.8	-26.1	peak
5875	85.62	-2.65	82.97	105.2	-22.23	peak
5925	52.14	-2.28	49.86	68.2	-18.34	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	98.92	-1.97	96.95	122.2	-25.25	peak
5855	90.31	-2.13	88.18	110.8	-22.62	peak
5875	84.22	-2.65	81.57	105.2	-23.63	peak
5925	53.01	-2.28	50.73	68.2	-17.47	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.65	-2.06	50.59	68.2	-17.61	peak
5700	82.81	-1.96	80.85	105.2	-24.35	peak
5720	87.97	-2.87	85.1	110.8	-25.7	peak
5725	101.26	-2.14	99.12	122.2	-23.08	peak

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.83	-2.06	51.77	68.2	-16.43	peak
5700	88.27	-1.96	86.31	105.2	-18.89	peak
5720	85.59	-2.87	82.72	110.8	-28.08	peak
5725	109.85	-2.14	107.71	122.2	-14.49	peak

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	101.96	-1.97	99.99	122.2	-22.21	peak
5855	86.21	-2.13	84.08	110.8	-26.72	peak
5875	81.56	-2.65	78.91	105.2	-26.29	peak
5925	54.74	-2.28	52.46	68.2	-15.74	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	104.89	-1.97	102.92	122.2	-19.28	peak
5855	88.19	-2.13	86.06	110.8	-24.74	peak
5875	80.24	-2.65	77.59	105.2	-27.61	peak
5925	54.86	-2.28	52.58	68.2	-15.62	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT80 Mode with 5.8G TX CH Low

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	52.58	-2.06	50.52	68.2	-17.68	
5700	80.74	-1.96	78.78	105.2	-26.42	peak
5720	89.36	-2.87	86.49	110.8	-24.31	peak
5725	103.18	-2.14	101.04	122.2	-21.16	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	58.55	-2.06	56.49	68.2	-11.71	
5700	84.59	-1.96	82.63	105.2	-22.57	peak
5720	86.63	-2.87	83.76	110.8	-27.04	peak
5725	99.95	-2.14	97.81	122.2	-24.39	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	103.03	-1.97	101.06	122.2	-21.14	peak
5855	91.09	-2.13	88.96	110.8	-21.84	peak
5875	88.14	-2.65	85.49	105.2	-19.71	peak
5925	50.92	-2.28	48.64	68.2	-19.56	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	101.61	-1.97	99.64	122.2	-22.56	peak
5855	85.56	-2.13	83.43	110.8	-27.37	peak
5875	85.16	-2.65	82.51	105.2	-22.69	peak
5925	51.58	-2.28	49.3	68.2	-18.9	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

**MIMO**

Operation Mode: 802.11n/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	54.76	-2.06	52.7	68.2	-15.5	peak
5700	85.42	-1.96	83.46	105.2	-21.74	peak
5720	83.71	-2.87	80.84	110.8	-29.96	peak
5725	108.91	-2.14	106.77	122.2	-15.43	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	57.22	-2.06	55.16	68.2	-13.04	peak
5700	88.19	-1.96	86.23	105.2	-18.97	peak
5720	87.97	-2.87	85.1	110.8	-25.7	peak
5725	110.72	-2.14	108.58	122.2	-13.62	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	102.52	-1.97	100.55	122.2	-21.65	peak
5855	87.71	-2.13	85.58	110.8	-25.22	peak
5875	83.56	-2.65	80.91	105.2	-24.29	peak
5925	52.34	-2.28	50.06	68.2	-18.14	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	101.03	-1.97	99.06	122.2	-23.14	peak
5855	89.68	-2.13	87.55	110.8	-23.25	peak
5875	82.76	-2.65	80.11	105.2	-25.09	peak
5925	55.06	-2.28	52.78	68.2	-15.42	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11n/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	53.55	-2.06	51.49	68.2	-16.71	peak
5700	90.27	-1.96	88.31	105.2	-16.89	peak
5720	86.11	-2.87	83.24	110.8	-27.56	peak
5725	103.35	-2.14	101.21	122.2	-20.99	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.63	-2.06	49.57	68.2	-18.63	peak
5700	92.07	-1.96	90.11	105.2	-15.09	peak
5720	91.26	-2.87	88.39	110.8	-22.41	peak
5725	103.52	-2.14	101.38	122.2	-20.82	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	98.42	-1.97	96.45	122.2	-25.75	peak
5855	91.23	-2.13	89.1	110.8	-21.7	peak
5875	81.01	-2.65	78.36	105.2	-26.84	peak
5925	53.35	-2.28	51.07	68.2	-17.13	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	104.24	-1.97	102.27	122.2	-19.93	peak
5855	89.46	-2.13	87.33	110.8	-23.47	peak
5875	81.41	-2.65	78.76	105.2	-26.44	peak
5925	53.66	-2.28	51.38	68.2	-16.82	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT20 Mode with 5.8G TX CH Low

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	55.06	-2.06	53	68.2	-15.2	
5700	90.65	-1.96	88.69	105.2	-16.51	peak
5720	85.44	-2.87	82.57	110.8	-28.23	peak
5725	104.42	-2.14	102.28	122.2	-19.92	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
5650	54.31	-2.06	52.25	68.2	-15.95	
5700	89.93	-1.96	87.97	105.2	-17.23	peak
5720	85.94	-2.87	83.07	110.8	-27.73	peak
5725	101.61	-2.14	99.47	122.2	-22.73	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	103.59	-1.97	101.62	122.2	-20.58	peak
5855	90.33	-2.13	88.2	110.8	-22.6	peak
5875	84.49	-2.65	81.84	105.2	-23.36	peak
5925	51.74	-2.28	49.46	68.2	-18.74	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	107.93	-1.97	105.96	122.2	-16.24	peak
5855	88.59	-2.13	86.46	110.8	-24.34	peak
5875	81.98	-2.65	79.33	105.2	-25.87	peak
5925	51.07	-2.28	48.79	68.2	-19.41	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT40 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	52.23	-2.06	50.17	68.2	-18.03	peak
5700	84.03	-1.96	82.07	105.2	-23.13	peak
5720	80.42	-2.87	77.55	110.8	-33.25	peak
5725	103.62	-2.14	101.48	122.2	-20.72	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	54.18	-2.06	52.12	68.2	-16.08	peak
5700	91.46	-1.96	89.5	105.2	-15.7	peak
5720	87.89	-2.87	85.02	110.8	-25.78	peak
5725	105.23	-2.14	103.09	122.2	-19.11	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	108.12	-1.97	106.15	122.2	-16.05	peak
5855	88.09	-2.13	85.96	110.8	-24.84	peak
5875	81.97	-2.65	79.32	105.2	-25.88	peak
5925	54.26	-2.28	51.98	68.2	-16.22	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	107.26	-1.97	105.29	122.2	-16.91	peak
5855	87.64	-2.13	85.51	110.8	-25.29	peak
5875	84.03	-2.65	81.38	105.2	-23.82	peak
5925	56.23	-2.28	53.95	68.2	-14.25	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: 802.11ac/HT80 Mode with 5.8G TX CH Low

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	51.11	-2.06	49.05	68.2	-19.15	peak
5700	84.37	-1.96	82.41	105.2	-22.79	peak
5720	93.23	-2.87	90.36	110.8	-20.44	peak
5725	108.85	-2.14	106.71	122.2	-15.49	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5650	50.24	-2.06	48.18	68.2	-20.02	peak
5700	91.19	-1.96	89.23	105.2	-15.97	peak
5720	83.53	-2.87	80.66	110.8	-30.14	peak
5725	104.74	-2.14	102.6	122.2	-19.6	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High with 5.8G

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	109.71	-1.97	107.74	122.2	-14.46	peak
5855	89.55	-2.13	87.42	110.8	-23.38	peak
5875	85.75	-2.65	83.1	105.2	-22.1	peak
5925	45.28	-2.28	43	68.2	-25.2	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

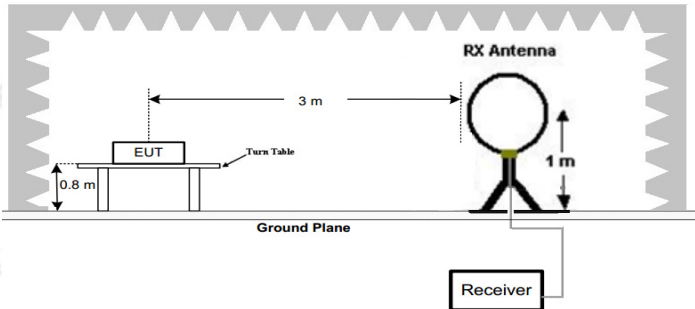
Vertical:

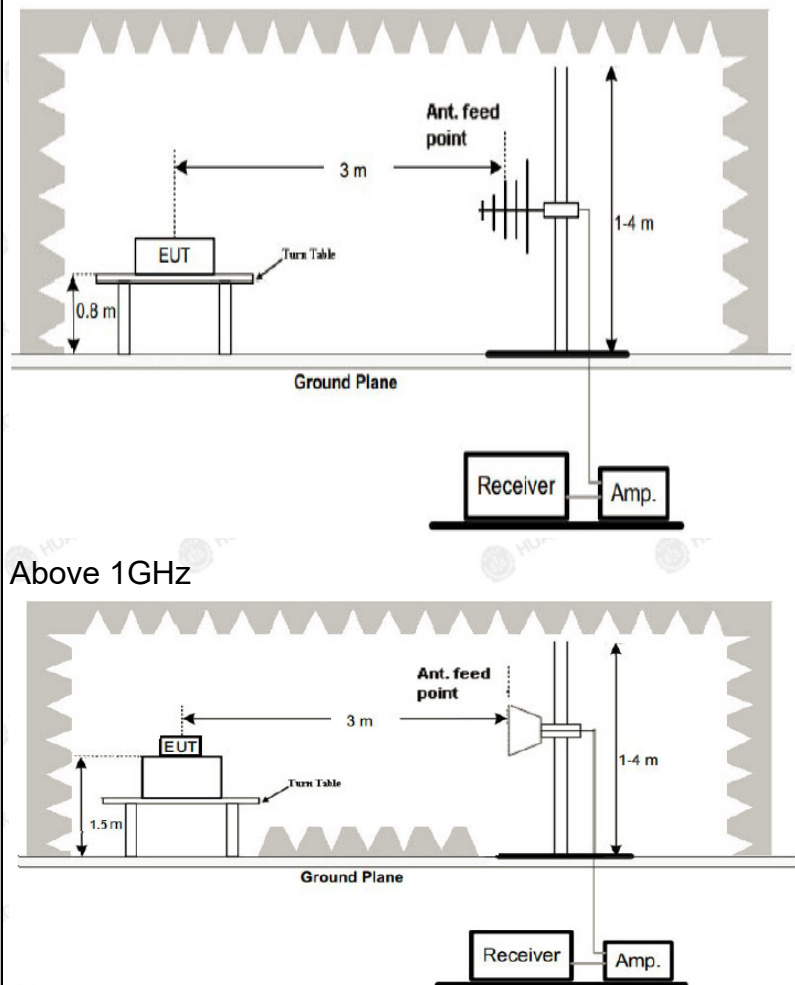
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
5850	105.18	-1.97	103.21	122.2	-18.99	peak
5855	88.39	-2.13	86.26	110.8	-24.54	peak
5875	84.04	-2.65	81.39	105.2	-23.81	peak
5925	51.58	-2.28	49.3	68.2	-18.9	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



4.7. Spurious Emission

4.7.1.1. Test Specification

Test Requirement:	FCC CFR47 Part 15 Section 15.407 & 15.209 & 15.205				
Test Method:	KDB 789033 D02 v02r01				
Frequency Range:	9kHz to 40GHz				
Measurement Distance:	3 m				
Antenna Polarization:	Horizontal & Vertical				
Operation mode:	Transmitting mode with modulation				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (4) For transmitters operating in the 5.725-5.85 GHz band: (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. The limit of frequency below 1GHz and which fall in restricted bands should comply 15.209.				
Test setup:	For radiated emissions below 30MHz  30MHz to 1GHz				

**Test Procedure:**

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



	6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test results:	PASS



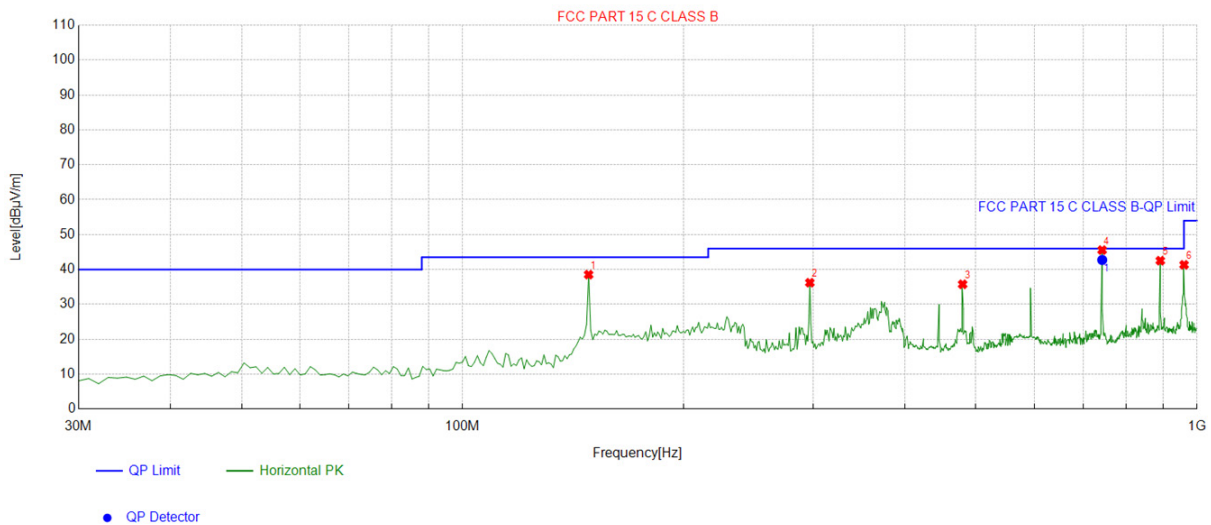
4.7.2. Test Data

Test mode: TX 802.11a 5745MHz

All the test modes completed for test. The worst case of Radiated Emission; the test data of this mode was reported.

Below 1GHz

Horizontal



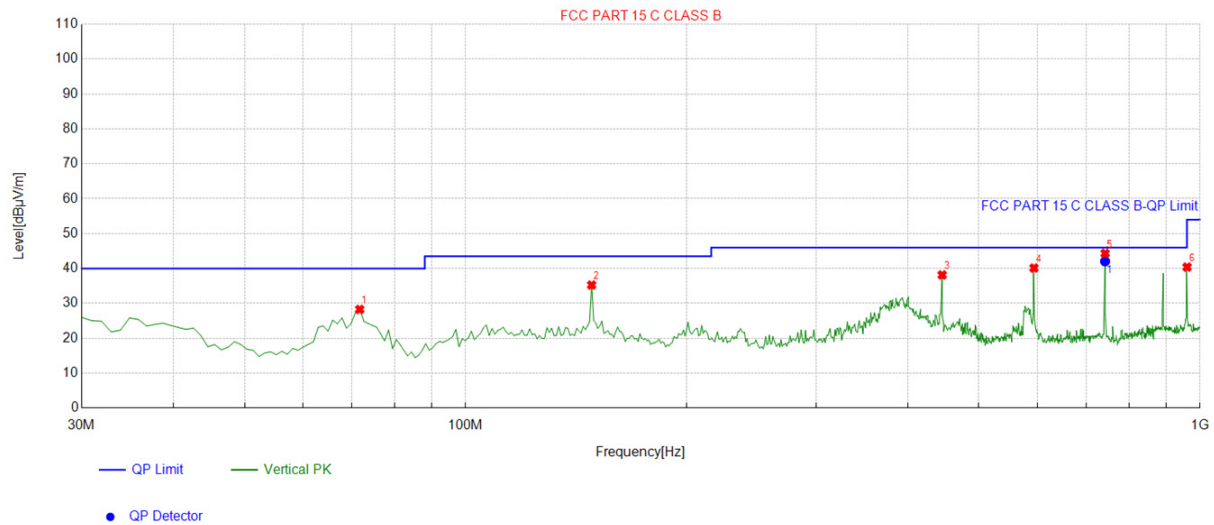
Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	148.45845	-18.14	56.66	38.52	43.50	4.98	100	181	Horizontal
2	297.01701	-11.84	48.05	36.21	46.00	9.79	100	95	Horizontal
3	479.55956	-8.27	44.02	35.75	46.00	10.25	100	298	Horizontal
4	742.69269	-3.41	48.98	45.57	46.00	0.43	100	200	Horizontal
5	891.25125	-1.49	44.01	42.52	46.00	3.48	100	349	Horizontal
6	960.19019	-0.54	41.88	41.34	54.00	12.66	100	270	Horizontal

Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBμV/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	742.6926	-3.41	46.14	42.73	46.00	3.27	100	200	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Pre-amplifier; Level = Reading + Factor; Margin = Limit – Level



Vertical



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	71.751752	-17.38	45.64	28.26	40.00	11.74	100	318	Vertical
2	148.45845	-18.14	53.41	35.27	43.50	8.23	100	261	Vertical
3	445.57557	-8.66	46.82	38.16	46.00	7.84	100	62	Vertical
4	594.13413	-5.06	45.20	40.14	46.00	5.86	100	250	Vertical
5	742.69269	-3.41	47.74	44.33	46.00	1.67	100	358	Vertical
6	960.19019	-0.54	40.95	40.41	54.00	13.59	100	198	Vertical

Final Data List									
NO.	Freq. [MHz]	Factor [dB]	QP Reading [dBμV/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	742.4164	-3.41	45.46	42.05	46.00	3.95	100	358	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level

Harmonics and Spurious Emissions

Frequency Range (9 kHz-30MHz)

Frequency (MHz)	Level@3m (dBμV/m)	Limit@3m (dBμV/m)
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--	--	--
--	--	--
--	--	--

Note: 1. Emission Level=Reading+ Cable loss-Antenna factor-Amp factor

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement.



Above 1GHz

RADIATED EMISSION TEST

LOW CH 149 (802.11 a Mode with 5.8G)/5745

All modes of operation were investigated and the worst-case of Ant 2 are reported.

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	54.24	-4.59	49.65	68.2	-18.55	peak
11096	44.28	4.21	48.49	74	-25.51	peak
11096	41.62	4.21	45.83	54	-8.17	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	55.48	-4.59	50.89	68.2	-17.31	peak
11096	46.78	4.21	50.99	74	-23.01	peak
11096	40.21	4.21	44.42	54	-9.58	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.



MID CH157 (802.11 a Mode with 5.8G)/5785

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	52.04	-4.59	47.45	68.2	-20.75	peak
10523	50.46	4.21	54.67	68.2	-13.53	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	53.46	-4.59	48.87	68.2	-19.33	peak
10523	51.36	4.21	55.57	68.2	-12.63	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



HIGH CH 165 (802.11a Mode with 5.8G)/5825

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2705	55.12	-4.59	50.53	74	-23.47	
2705	41.01	-4.59	36.42	54	-17.58	AVG
11717	52.43	4.84	57.27	74	-16.73	peak
11717	39.98	4.84	44.82	54	-9.18	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2705	53.71	-4.59	49.12	74	-24.88	
2705	46.05	-4.59	41.46	54	-12.54	AVG
11717	52.59	4.84	57.43	74	-16.57	peak
11717	40.68	4.84	45.52	54	-8.48	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 40 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) The emissions are attenuated more than 20dB below the permissible limits are not record in the report.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.



5.8G 802.11n/HT20 Mode

All modes of operation were investigated and the worst-case of MIMO are reported.

LOW CH 149

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	57.26	-4.59	52.67	68.2	-15.53	peak
11096	52.53	4.21	56.74	74	-17.26	peak
11096	40.37	4.21	44.58	54	-9.42	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	56.43	-4.59	51.84	68.2	-16.36	peak
11096	52.71	4.21	56.92	74	-17.08	peak
11096	41.37	4.21	45.58	54	-8.42	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



MID CH157

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	59.78	-4.59	55.19	68.2	-13.01	peak
10523	51.69	4.21	55.9	68.2	-12.3	peak

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	52.44	-4.59	47.85	68.2	-20.35	peak
10523	51.34	4.21	55.55	68.2	-12.65	peak

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.



HIGH CH165

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2705	55.89	-4.59	51.3	74	-22.7	
2705	42.12	-4.59	37.53	54	-16.47	AVG
11717	51.51	4.84	56.35	74	-17.65	peak
11717	40.48	4.84	45.32	54	-8.68	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2705	58.42	-4.59	53.83	74	-20.17	
2705	43.26	-4.59	38.67	54	-15.33	AVG
11717	52.01	4.84	56.85	74	-17.15	peak
11717	40.59	4.84	45.43	54	-8.57	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 40 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) The emissions are attenuated more than 20dB below the permissible limits are not record in the report.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.



5.8G 802.11n/HT40 Mode

All modes of operation were investigated and the worst-case of MIMO are reported.

LOW CH 151

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	60.13	-4.59	55.54	68.2	-12.66	peak
11096	54.38	4.21	58.59	74	-15.41	peak
11096	42.16	4.21	46.37	54	-7.63	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	59.64	-4.59	55.05	68.2	-13.15	peak
11096	51.11	4.21	55.32	74	-18.68	peak
11096	33.42	4.21	37.63	54	-16.37	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.



MID CH159

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	59.94	-4.59	55.35	68.2	-12.85	peak
10523	51.02	4.21	55.23	68.2	-12.97	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	55.19	-4.59	50.6	68.2	-17.6	peak
10523	50.94	4.21	55.15	68.2	-13.05	peak
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 40 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) The emissions are attenuated more than 20dB below the permissible limits are not record in the report.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.



5.8G 802.11ac/HT20 Mode

All modes of operation were investigated and the worst-case of MIMO are reported.

LOW CH 149

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	57.18	-4.59	52.59	68.2	-15.61	peak
11096	51.53	4.21	55.74	74	-18.26	peak
11096	42.13	4.21	46.34	54	-7.66	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	54.91	-4.59	50.32	68.2	-17.88	peak
11096	52.69	4.21	56.9	74	-17.1	peak
11096	51.63	4.21	55.84	54	1.84	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.



MID CH157

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	54.42	-4.59	49.83	68.2	-18.37	peak
10523	45.92	4.21	50.13	68.2	-18.07	peak

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3172	52.75	-4.59	48.16	68.2	-20.04	peak
10523	50.13	4.21	54.34	68.2	-13.86	peak

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.



HIGH CH165

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2705	54.65	-4.59	50.06	74	-23.94	
2705	43.81	-4.59	39.22	54	-14.78	AVG
11717	51.96	4.84	56.8	74	-17.2	peak
11717	41.67	4.84	46.51	54	-7.49	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2705	54.62	-4.59	50.03	74	-23.97	
2705	44.68	-4.59	40.09	54	-13.91	AVG
11717	52.27	4.84	57.11	74	-16.89	peak
11717	42.84	4.84	47.68	54	-6.32	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 40 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) The emissions are attenuated more than 20dB below the permissible limits are not record in the report.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.

**5.8G 802.11ac/HT40 Mode**

All modes of operation were investigated and the worst-case of MIMO are reported.

LOW CH 151**Horizontal:**

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	55.62	-4.59	51.03	68.2	-17.17	peak
11096	52.13	4.21	56.34	74	-17.66	peak
11096	40.22	4.21	44.43	54	-9.57	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	60.78	-4.59	56.19	68.2	-12.01	peak
11096	50.68	4.21	54.89	74	-19.11	peak
11096	39.54	4.21	43.75	54	-10.25	AVG

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.



5.8G 802.11ac/HT80 Mode

All modes of operation were investigated and the worst-case of MIMO are reported.

CH 155

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	55.56	-4.59	50.97	68.2	-17.23	peak
11096	51.54	4.21	55.75	74	-18.25	peak
11096	35.22	4.21	39.43	54	-14.57	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
3368	54.02	-4.59	49.43	68.2	-18.77	peak
11096	51.91	4.21	56.12	74	-17.88	peak
11096	42.68	4.21	46.89	54	-7.11	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 40 GHz.
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) The emissions are attenuated more than 20dB below the permissible limits are not record in the report.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.



4.8. Frequency Stability Measurement

4.8.1. Test Specification

Test Requirement:	FCC Part15 Section 15.407(g)
Test Method:	ANSI C63.10: 2013
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.
Test Setup:	<pre>graph LR; SA[Spectrum Analyzer] --- EUT[EUT]; EUT --- TCh[Temperature Chamber]; TCh --- P[AC/DC Power supply];</pre>
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test Result:	PASS
Remark:	N/A

**Test Result as follows:**

Mode	Voltage (V)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
5.8G Band	4.25V	5744.988	-12	5825.022	22
	5V	5745.021	21	5824.969	-31
	5.75V	5744.996	-4	5824.971	-29

Mode	Temperature (°C)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
5.8G Band	-30	5744.981	-19	5825.011	11
	-20	5745.012	12	5825.014	14
	-10	5744.979	-21	5824.987	-13
	0	5744.972	-28	5824.992	-8
	10	5744.963	-37	5825.019	19
	20	5745.017	17	5824.981	-19
	30	5744.985	-15	5824.977	-23
	40	5744.977	-23	5824.968	-32
	50	5744.969	-31	5825.006	6



4.9. Antenna Requirement

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.249, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

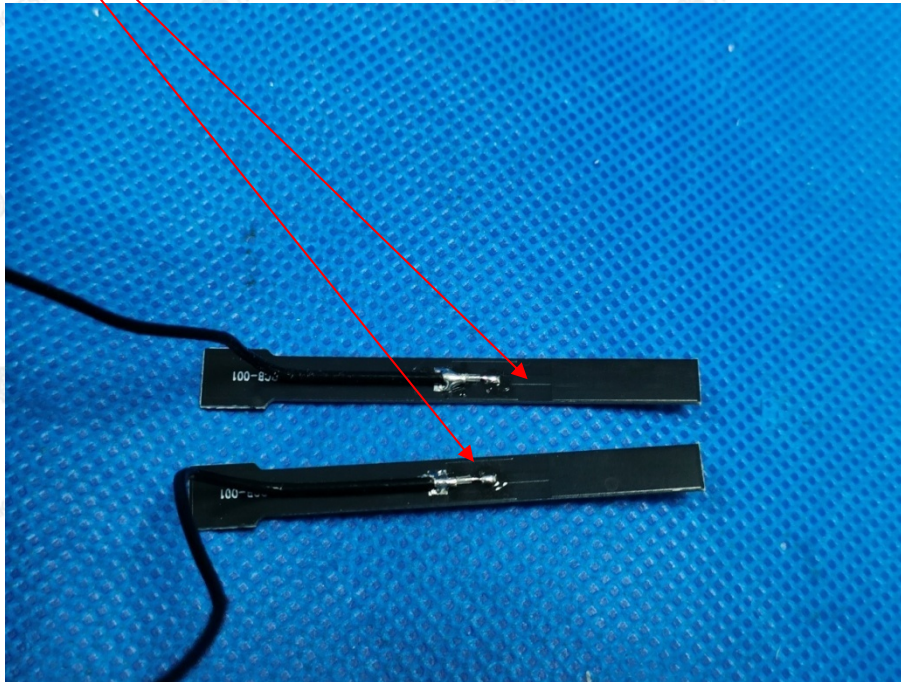
Refer to statement below for compliance.

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

The antenna used in this product is a PCB Antenna, need professional installation, not easy to remove. It conforms to the standard requirements. and the best case gain of the antenna is Antenna port 1:3.55dBi and Antenna port 2:3.55dBi.

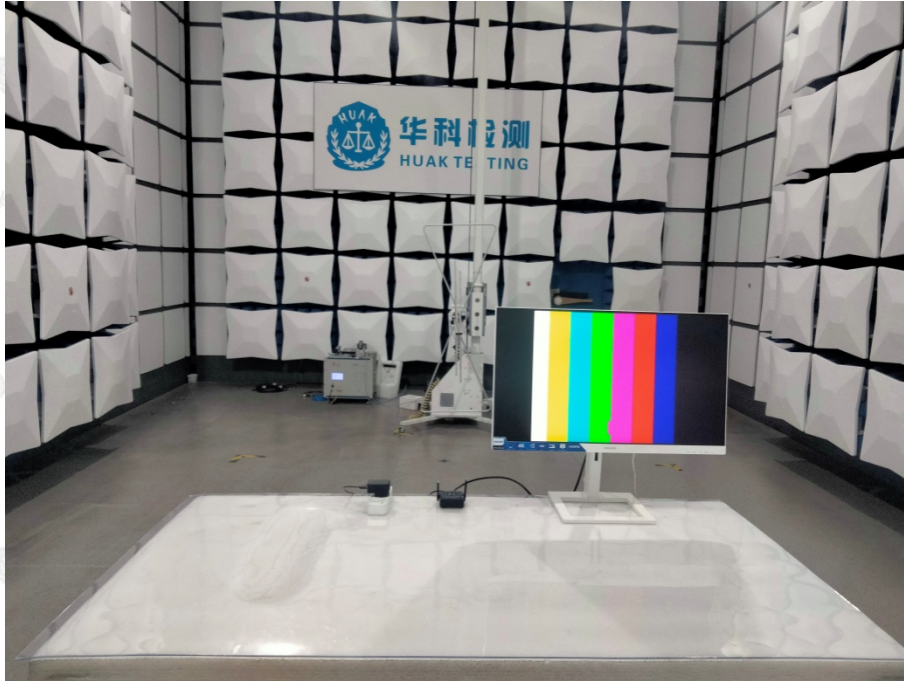
Antenna





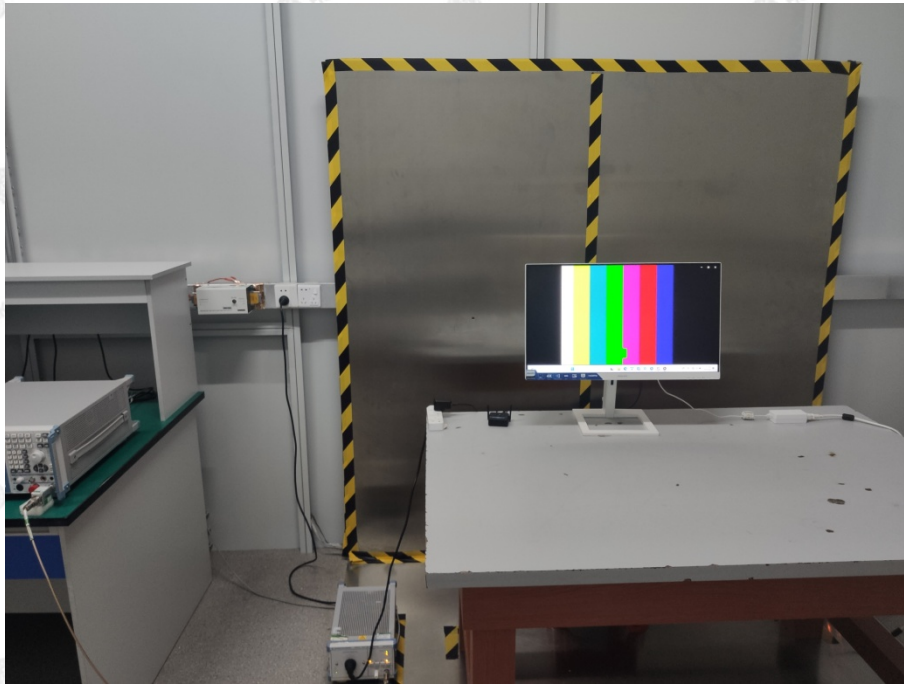
5. Test Setup Photos of the EUT

Radiated Emission





Conducted Emission





6. Photos of the EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos

-----End of test report-----