



Above 1GHz

RADIATED EMISSION TEST

LOW CH1 (802.11b Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	55.07	-3.64	51.43	74	-22.57	peak
4824	42.37	-3.64	38.73	54	-15.27	AVG
7236	53.05	-0.95	52.1	74	-21.9	peak
7236	40.78	-0.95	39.83	54	-14.17	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)	
4824	55.88	-3.64	52.24	74	-21.76	peak
4824	43.43	-3.64	39.79	54	-14.21	AVG
7236	51.66	-0.95	50.71	74	-23.29	peak
7236	40.26	-0.82	39.44	54	-14.56	AVG

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



MID CH6 (802.11b Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	53.34	-3.51	49.83	74	-24.17	peak
4874	44.41	-3.51	40.9	54	-13.1	AVG
7311	52.21	-0.82	51.39	74	-22.61	peak
7311	42.91	-0.82	42.09	54	-11.91	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)	
4874	56.39	-3.51	52.88	74	-21.12	peak
4874	42.87	-3.51	39.36	54	-14.64	AVG
7311	53.99	-0.82	53.17	74	-20.83	peak
7311	41.19	-0.82	40.37	54	-13.63	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



HIGH CH11 (802.11b Mode)/2462

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924	54.82	-3.43	51.39	74	-22.61	peak
4924	40.38	-3.43	36.95	54	-17.05	AVG
7386	52.84	-0.75	52.09	74	-21.91	peak
7386	39.89	-0.75	39.14	54	-14.86	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
4924	54.28	-3.43	50.85	74	-23.15	peak
4924	43.93	-3.43	40.5	54	-13.5	AVG
7386	51.37	-0.75	50.62	74	-23.38	peak
7386	42.15	-0.75	41.4	54	-12.6	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

(1) Measuring frequencies from 1 GHz to the 25 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.

(7) All modes of operation were investigated and the worst-case emissions of ANT.1 are reported.



LOW CH1 (802.11g Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	55.07	-3.64	51.43	74	-22.57	peak
4824	42.74	-3.64	39.1	54	-14.9	AVG
7236	52.74	-0.95	51.79	74	-22.21	peak
7236	40.16	-0.95	39.21	54	-14.79	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)	
4824	55.74	-3.64	52.1	74	-21.9	peak
4824	43.08	-3.64	39.44	54	-14.56	AVG
7236	52.06	-0.95	51.11	74	-22.89	peak
7236	41.77	-0.95	40.82	54	-13.18	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



MID CH6 (802.11g Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	53.85	-3.51	50.34	74	-23.66	peak
4874	43.23	-3.51	39.72	54	-14.28	AVG
7311	52.14	-0.82	51.32	74	-22.68	peak
7311	40.69	-0.82	39.87	54	-14.13	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)	
4874	55.21	-3.51	51.7	74	-22.3	peak
4874	41.19	-3.51	37.68	54	-16.32	AVG
7311	53.16	-0.82	52.34	74	-21.66	peak
7311	40.93	-0.82	40.11	54	-13.89	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



HIGH CH11 (802.11g Mode)/2462

Horizontal:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924	54.85	-3.43	51.42	74	-22.58	peak
4924	42.92	-3.43	39.49	54	-14.51	AVG
7386	52.25	-0.75	51.5	74	-22.5	peak
7386	41.79	-0.75	41.04	54	-12.96	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
4924	53.54	-3.43	50.11	74	-23.89	peak
4924	44.06	-3.43	40.63	54	-13.37	AVG
7386	50.47	-0.75	49.72	74	-24.28	peak
7386	42.18	-0.75	41.43	54	-12.57	AVG

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

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 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.
- (7) All modes of operation were investigated and the worst-case emissions of ANT.1 are reported.



LOW CH1 (802.11n/HT20 Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	55.32	-3.64	51.68	74	-22.32	peak
4824	43.12	-3.64	39.48	54	-14.52	AVG
7236	52.18	-0.95	51.23	74	-22.77	peak
7236	42.87	-0.95	41.92	54	-12.08	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)	
4824	55.43	-3.64	51.79	74	-22.21	peak
4824	42.89	-3.64	39.25	54	-14.75	AVG
7236	53.71	-0.95	52.76	74	-21.24	peak
7236	40.74	-0.95	39.79	54	-14.21	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



MID CH6 (802.11n/HT20 Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.00	55.91	-3.51	52.40	74.00	-21.60	peak
4874.00	42.67	-3.51	39.16	54.00	-14.84	AVG
7311.00	52.37	-0.82	51.55	74.00	-22.45	peak
7311.00	40.22	-0.82	39.40	54.00	-14.60	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)	
4874.00	53.15	-3.51	49.64	74.00	-24.36	peak
4874.00	43.83	-3.51	40.32	54.00	-13.68	AVG
7311.00	50.45	-0.82	49.63	74.00	-24.37	peak
7311.00	41.62	-0.82	40.80	54.00	-13.20	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



HIGH CH11 (802.11n/HT20 Mode)/2462

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	53.15	-3.43	49.72	74	-24.28	peak
4924	43.83	-3.43	40.4	54	-13.6	AVG
7386	50.45	-0.75	49.7	74	-24.3	peak
7386	41.62	-0.75	40.87	54	-13.13	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)	
4924	53.15	-3.43	49.72	74	-24.28	peak
4924	43.83	-3.43	40.4	54	-13.6	AVG
7386	50.45	-0.75	49.7	74	-24.3	peak
7386	41.62	-0.75	40.87	54	-13.13	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



LOW CH3 (802.11n/HT40 Mode)/2422

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4844	54.51	-3.63	50.88	74	-23.12	peak
4844	43.26	-3.63	39.63	54	-14.37	AVG
7266	52.97	-0.94	52.03	74	-21.97	peak
7266	41.85	-0.94	40.91	54	-13.09	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)	
4844	53.11	-3.63	49.48	74	-24.52	peak
4844	41.08	-3.63	37.45	54	-16.55	AVG
7266	50.01	-0.94	49.07	74	-24.93	peak
7266	40.69	-0.94	39.75	54	-14.25	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



MID CH6 (802.11n/HT40 Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	53.93	-3.51	50.42	74	-23.58	peak
4874	42.41	-3.51	38.9	54	-15.1	AVG
7311	51.42	-0.82	50.6	74	-23.4	peak
7311	41.17	-0.82	40.35	54	-13.65	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)	
4874	55.03	-3.51	51.52	74	-22.48	peak
4874	43.73	-3.51	40.22	54	-13.78	AVG
7311	51.82	-0.82	51	74	-23	peak
7311	41.49	-0.82	40.67	54	-13.33	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



HIGH CH9 (802.11n/HT40 Mode)/2452

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4904	53.05	-3.43	49.62	74	-24.38	peak
4904	44.06	-3.43	40.63	54	-13.37	AVG
7356	51.49	-0.75	50.74	74	-23.26	peak
7356	43.25	-0.75	42.5	54	-11.5	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)	
4904	55.17	-3.43	51.74	74	-22.26	peak
4904	42.31	-3.43	38.88	54	-15.12	AVG
7356	54.47	-0.75	53.72	74	-20.28	peak
7356	41.12	-0.75	40.37	54	-13.63	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 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.
- (7) All modes of operation were investigated and the worst-case emissions of MIMO are reported.



LOW CH1 (802.11ax/HT20 Mode)/2412

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824	54.61	-3.64	50.97	74	-23.03	peak
4824	55.03	-3.64	51.39	54	-2.61	AVG
7236	51.86	-0.95	50.91	74	-23.09	peak
7236	41.88	-0.95	40.93	54	-13.07	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)	
4824	53.22	-3.64	49.58	74	-24.42	peak
4824	43.85	-3.64	40.21	54	-13.79	AVG
7236	50.39	-0.95	49.44	74	-24.56	peak
7236	40.78	-0.95	39.83	54	-14.17	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



MID CH6 (802.11ax/HT20 Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874.00	53.82	-3.51	50.31	74.00	-23.69	peak
4874.00	43.25	-3.51	39.74	54.00	-14.26	AVG
7311.00	51.52	-0.82	50.70	74.00	-23.30	peak
7311.00	40.14	-0.82	39.32	54.00	-14.68	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)	
4874.00	51.53	-3.51	48.02	74.00	-25.98	peak
4874.00	43.34	-3.51	39.83	54.00	-14.17	AVG
7311.00	50.21	-0.82	49.39	74.00	-24.61	peak
7311.00	41.17	-0.82	40.35	54.00	-13.65	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



HIGH CH11 (802.11ax/HT20 Mode)/2462

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4924	53.33	-3.43	49.9	74	-24.1	peak
4924	45.15	-3.43	41.72	54	-12.28	AVG
7386	50.99	-0.75	50.24	74	-23.76	peak
7386	44.08	-0.75	43.33	54	-10.67	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)	
4924	52.53	-3.43	49.1	74	-24.9	peak
4924	44.18	-3.43	40.75	54	-13.25	AVG
7386	50.05	-0.75	49.3	74	-24.7	peak
7386	40.72	-0.75	39.97	54	-14.03	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



LOW CH3 (802.11ax/HT40 Mode)/2422

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4844	53.61	-3.63	49.98	74	-24.02	peak
4844	41.81	-3.63	38.18	54	-15.82	AVG
7266	52.03	-0.94	51.09	74	-22.91	peak
7266	40.95	-0.94	40.01	54	-13.99	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)	
4844	53.27	-3.63	49.64	74	-24.36	peak
4844	44.95	-3.63	41.32	54	-12.68	AVG
7266	52.06	-0.94	51.12	74	-22.88	peak
7266	43.15	-0.94	42.21	54	-11.79	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



MID CH6 (802.11ax/HT40 Mode)/2437

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4874	53.63	-3.51	50.12	74	-23.88	peak
4874	42.94	-3.51	39.43	54	-14.57	AVG
7311	51.69	-0.82	50.87	74	-23.13	peak
7311	41.56	-0.82	40.74	54	-13.26	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)	
4874	53.91	-3.51	50.4	74	-23.6	peak
4874	41.02	-3.51	37.51	54	-16.49	AVG
7311	51.97	-0.82	51.15	74	-22.85	peak
7311	40.16	-0.82	39.34	54	-14.66	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



HIGH CH9 (802.11ax/HT40 Mode)/2452

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4904	53.23	-3.43	49.8	74	-24.2	peak
4904	42.99	-3.43	39.56	54	-14.44	AVG
7356	50.13	-0.75	49.38	74	-24.62	peak
7356	41.97	-0.75	41.22	54	-12.78	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)	
4904	52.96	-3.43	49.53	74	-24.47	peak
4904	42.81	-3.43	39.38	54	-14.62	AVG
7356	50.42	-0.75	49.67	74	-24.33	peak
7356	40.33	-0.75	39.58	54	-14.42	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 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.
- (7) All modes of operation were investigated and the worst-case emissions of MIMO are reported.

**Test Result of Radiated Spurious at Band edges**

Operation Mode:

802.11b Mode TX CH Low (2412MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	55.26	-5.81	49.45	74	-24.55	peak
2310	/	-5.81	/	54	/	AVG
2390	53.18	-5.84	47.34	74	-26.66	peak
2390	/	-5.84	/	54	/	AVG
2400	51.87	-5.84	46.03	74	-27.97	peak
2400	/	-5.84	/	54	/	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)	
2310	55.26	-5.81	49.45	74	-24.55	peak
2310	/	-5.81	/	54	/	AVG
2390	54.08	-5.84	48.24	74	-25.76	peak
2390	/	-5.84	/	54	/	AVG
2400	52.17	-5.84	46.33	74	-27.67	peak
2400	/	-5.84	/	54	/	AVG

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



Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	55.22	-5.65	49.57	74	-24.43	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	53.17	-5.65	47.52	74	-26.48	peak
2500.00	/	-5.65	/	54	/	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)	
2483.50	54.82	-5.65	49.17	74	-24.83	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	51.69	-5.65	46.04	74	-27.96	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						



Operation Mode: 802.11g Mode TX CH Low (2412MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	56.37	-5.81	50.56	74	-23.44	peak
2310	/	-5.81	/	54	/	AVG
2390	55.24	-5.84	49.4	74	-24.6	peak
2390	/	-5.84	/	54	/	AVG
2400	52.06	-5.84	46.22	74	-27.78	peak
2400	/	-5.84	/	54	/	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)	
2310	55.41	-5.81	49.6	74	-24.4	peak
2310	/	-5.81	/	54	/	AVG
2390	53.29	-5.84	47.45	74	-26.55	peak
2390	/	-5.84	/	54	/	AVG
2400	51.77	-5.84	45.93	74	-28.07	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	54.23	-5.65	48.58	74	-25.42	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	52.88	-5.65	47.23	74	-26.77	peak
2500.00	/	-5.65	/	54	/	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)	
2483.50	54.18	-5.65	48.53	74	-25.47	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	53.69	-5.65	48.04	74	-25.96	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						



Operation Mode: 802.11n/HT20 Mode TX CH Low (2412MHz)

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

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	56.42	-5.81	50.61	74	-23.39	peak
2310	/	-5.81	/	54	/	AVG
2390	53.94	-5.84	48.1	74	-25.9	peak
2390	/	-5.84	/	54	/	AVG
2400	51.84	-5.84	46	74	-28	peak
2400	/	-5.84	/	54	/	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)	
2310	55.28	-5.81	49.47	74	-24.53	peak
2310	/	-5.81	/	54	/	AVG
2390	54.03	-5.84	48.19	74	-25.81	peak
2390	/	-5.84	/	54	/	AVG
2400	51.79	-5.84	45.95	74	-28.05	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	53.29	-5.65	47.64	74	-26.36	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	51.42	-5.65	45.77	74	-28.23	peak
2500.00	/	-5.65	/	54	/	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)	
2483.50	54.88	-5.65	49.23	74	-24.77	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	52.08	-5.65	46.43	74	-27.57	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						



Operation Mode: 802.11n/HT40 Mode TX CH Low (2422MHz)

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

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	56.41	-5.81	50.6	74	-23.4	peak
2310	/	-5.81	/	54	/	AVG
2390	54.23	-5.84	48.39	74	-25.61	peak
2390	/	-5.84	/	54	/	AVG
2400	51.87	-5.84	46.03	74	-27.97	peak
2400	/	-5.84	/	54	/	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)	
2310	53.66	-5.81	47.85	74	-26.15	peak
2310	/	-5.81	/	54	/	AVG
2390	52.09	-5.84	46.25	74	-27.75	peak
2390	/	-5.84	/	54	/	AVG
2400	50.42	-5.84	44.58	74	-29.42	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High (2452MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	55.32	-5.65	49.67	74	-24.33	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	52.46	-5.65	46.81	74	-27.19	peak
2500.00	/	-5.65	/	54	/	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)	
2483.50	55.47	-5.65	49.82	74	-24.18	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	52.19	-5.65	46.54	74	-27.46	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						



Operation Mode: 802.11ax/HT20 Mode TX CH Low (2412MHz)

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

Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310	55.11	-5.81	49.3	74	-24.7	
2310	/	-5.81	/	54	/	AVG
2390	54.18	-5.84	48.34	74	-25.66	peak
2390	/	-5.84	/	54	/	AVG
2400	52.63	-5.84	46.79	74	-27.21	peak
2400	/	-5.84	/	54	/	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
2310	56.02	-5.81	50.21	74	-23.79	
2310	/	-5.81	/	54	/	AVG
2390	55.42	-5.84	49.58	74	-24.42	peak
2390	/	-5.84	/	54	/	AVG
2400	52.17	-5.84	46.33	74	-27.67	peak
2400	/	-5.84	/	54	/	AVG

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



Operation Mode: TX CH High (2462MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	54.27	-5.65	48.62	74	-25.38	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	52.19	-5.65	46.54	74	-27.46	peak
2500.00	/	-5.65	/	54	/	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)	
2483.50	53.22	-5.65	47.57	74	-26.43	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	51.07	-5.65	45.42	74	-28.58	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						



Operation Mode: 802.11ax/HT40 Mode TX CH Low (2422MHz)

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

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	56.38	-5.81	50.57	74	-23.43	peak
2310	/	-5.81	/	54	/	AVG
2390	54.18	-5.84	48.34	74	-25.66	peak
2390	/	-5.84	/	54	/	AVG
2400	51.77	-5.84	45.93	74	-28.07	peak
2400	/	-5.84	/	54	/	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)	
2310	54.26	-5.81	48.45	74	-25.55	peak
2310	/	-5.81	/	54	/	AVG
2390	52.78	-5.84	46.94	74	-27.06	peak
2390	/	-5.84	/	54	/	AVG
2400	51.66	-5.84	45.82	74	-28.18	peak
2400	/	-5.84	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						



Operation Mode: TX CH High (2452MHz)

Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	55.23	-5.65	49.58	74	-24.42	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	52.47	-5.65	46.82	74	-27.18	peak
2500.00	/	-5.65	/	54	/	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)	
2483.50	53.07	-5.65	47.42	74	-26.58	peak
2483.50	/	-5.65	/	54	/	AVG
2500.00	51.99	-5.65	46.34	74	-27.66	peak
2500.00	/	-5.65	/	54	/	AVG
Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Level-Limit.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

Remark:

1. If the PK measured levels comply with average limit, then the average level were deemed to comply with average limit.
2. In restricted bands of operation, the spurious emissions below the permissible value more than 20dB.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



4.7. 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 15.247, 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.

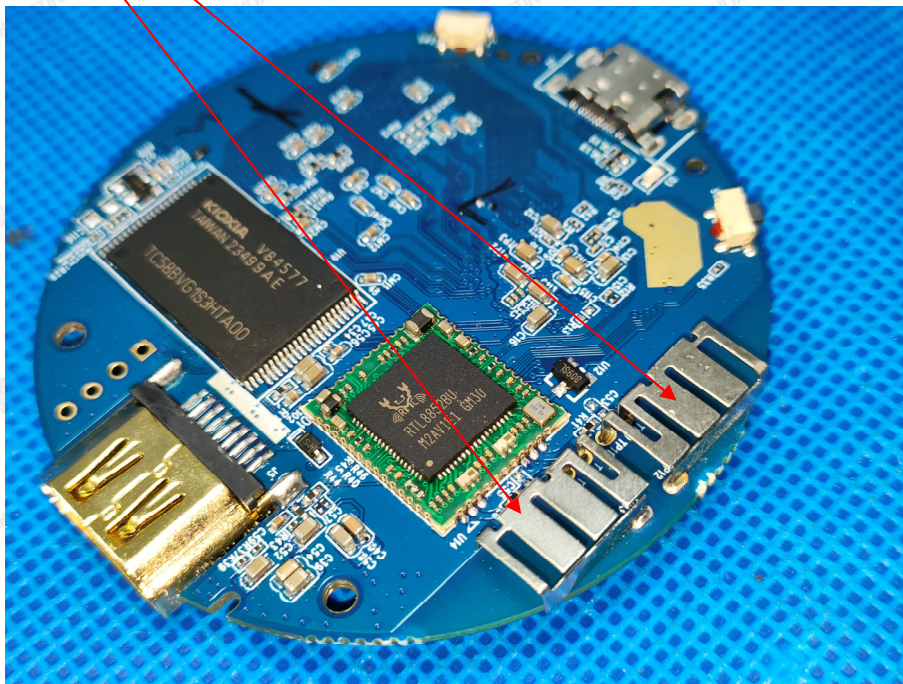
Refer to statement below for compliance.

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 Iron sheet antenna, which permanently attached. It conforms to the standard requirements. and the best case gain of the antenna is Antenna port 1:0.56dBi and Antenna port 2:0.56dBi.

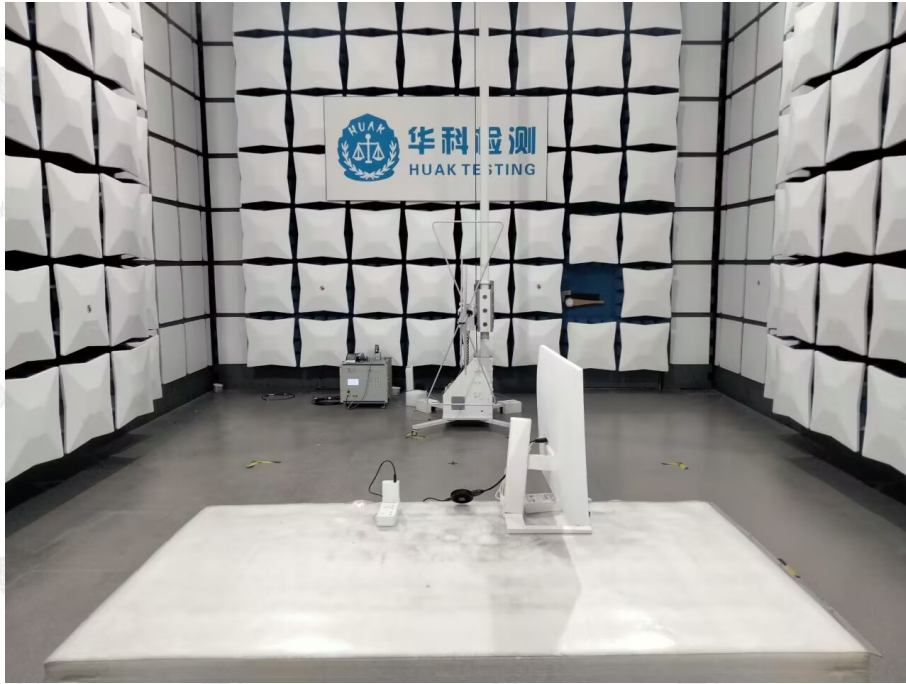
WIFI Antenna





5. Photograph of Test

Radiated Emission



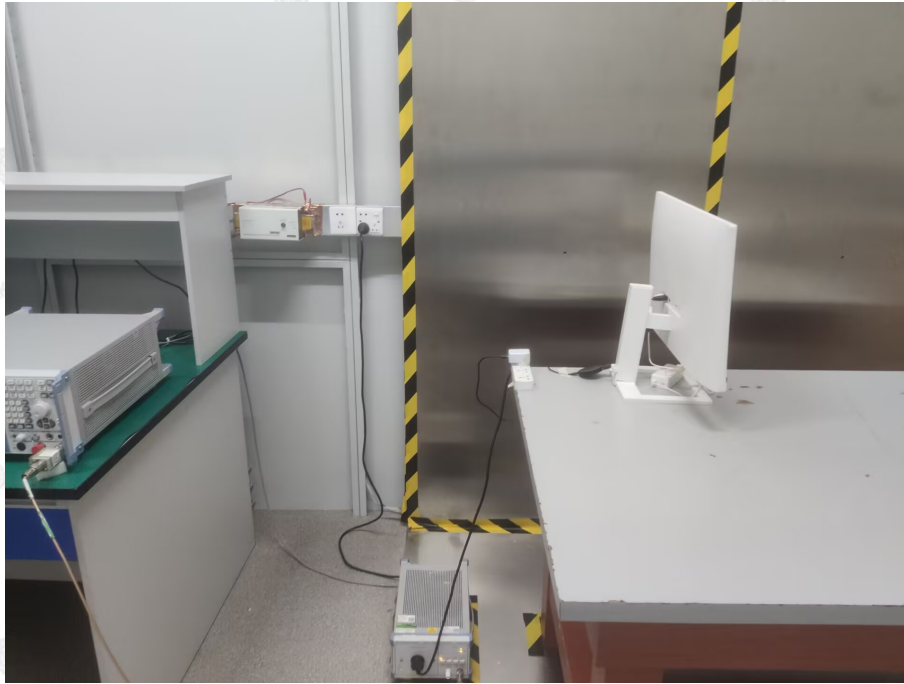
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity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

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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-----

