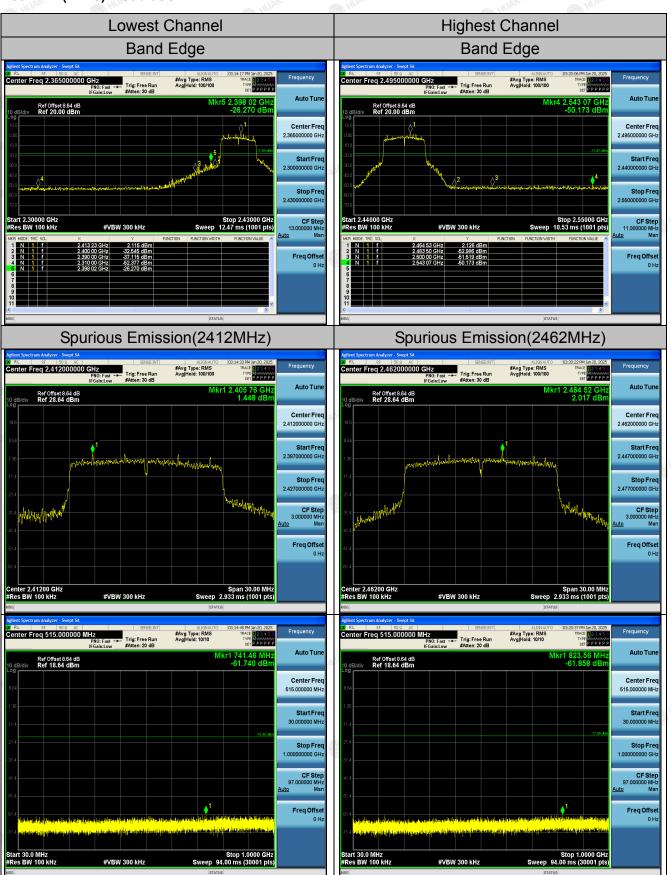
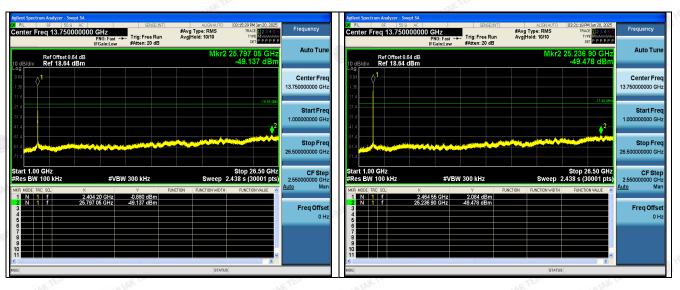
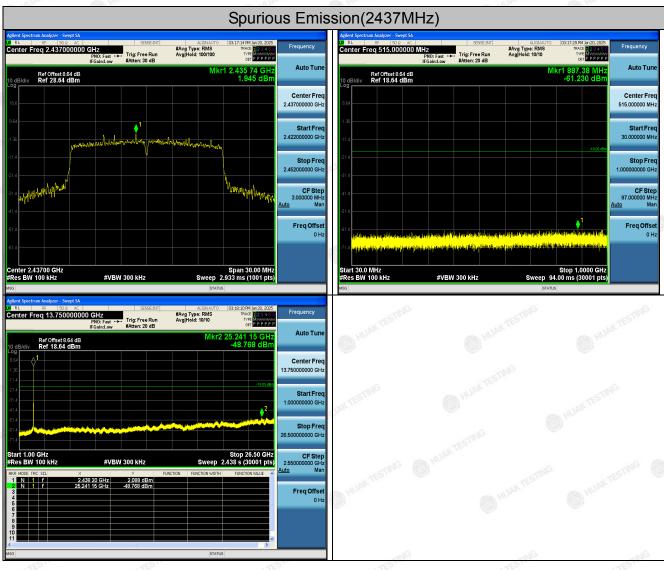
AX TESTING

# 802.11n(HT20) Modulation



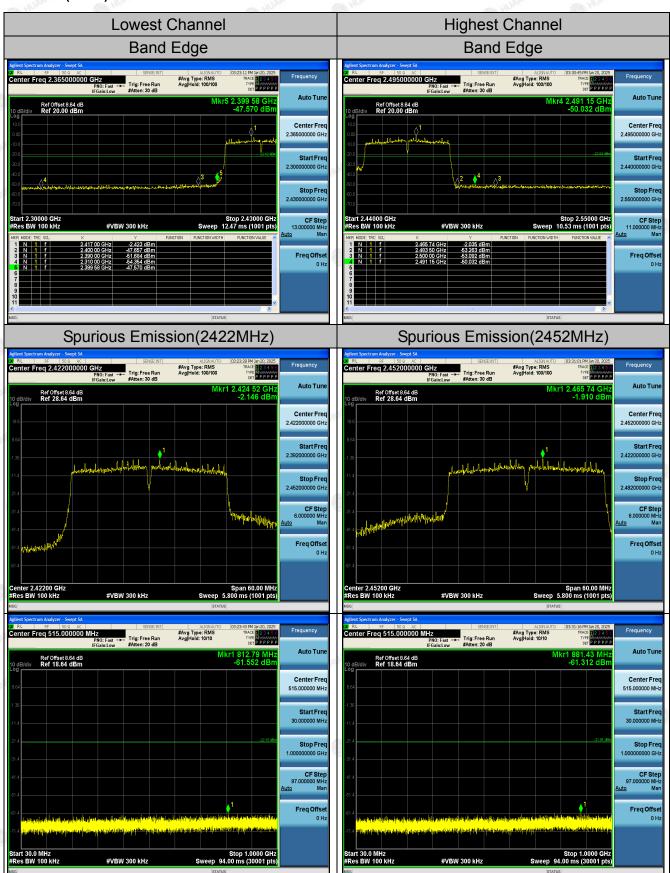
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity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





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 HUAK, this document cannont 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.

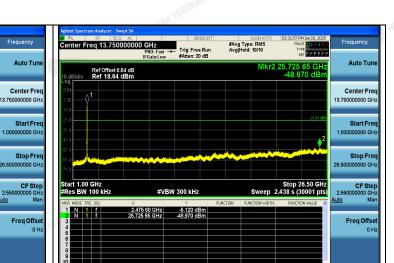
# 802.11n(HT40) Modulation



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 HUAK, 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.

ter Freq 13.750000000 GHz

Ref Offset 8.64 dB Ref 18.64 dBm



Report No.: HK2501100235-3E



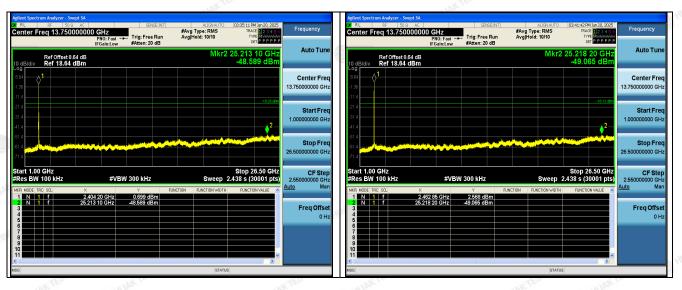
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

# 802.11ac(HT20) Modulation



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 HUAK, this document cannon 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com

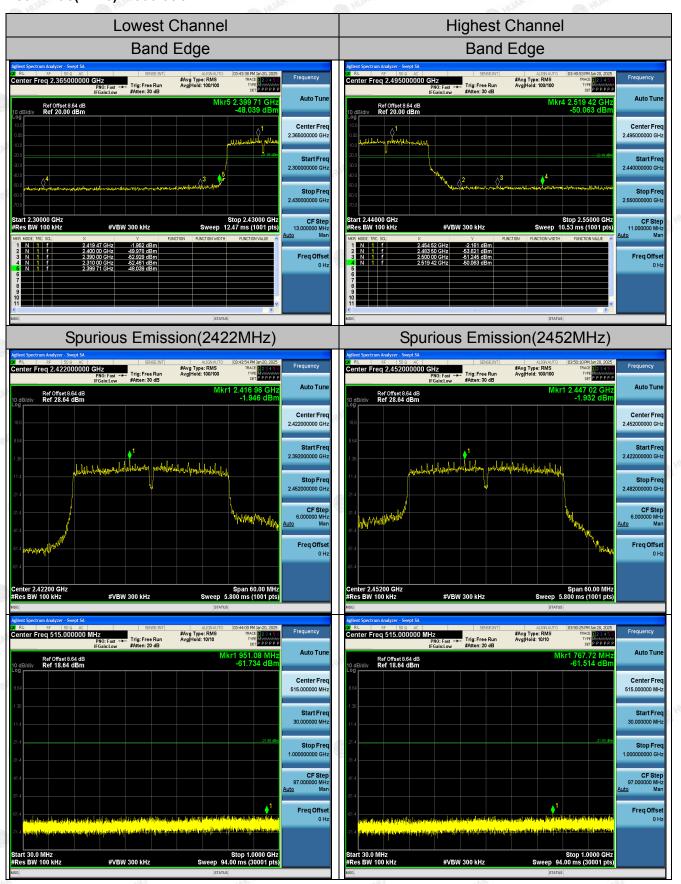




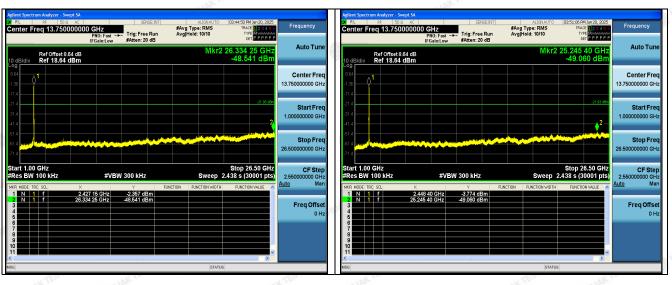
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

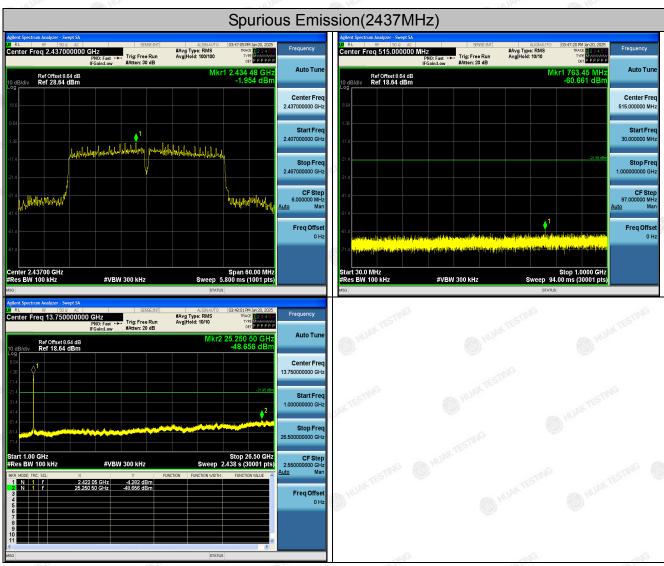
TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com

# 802.11ac(HT40) Modulation



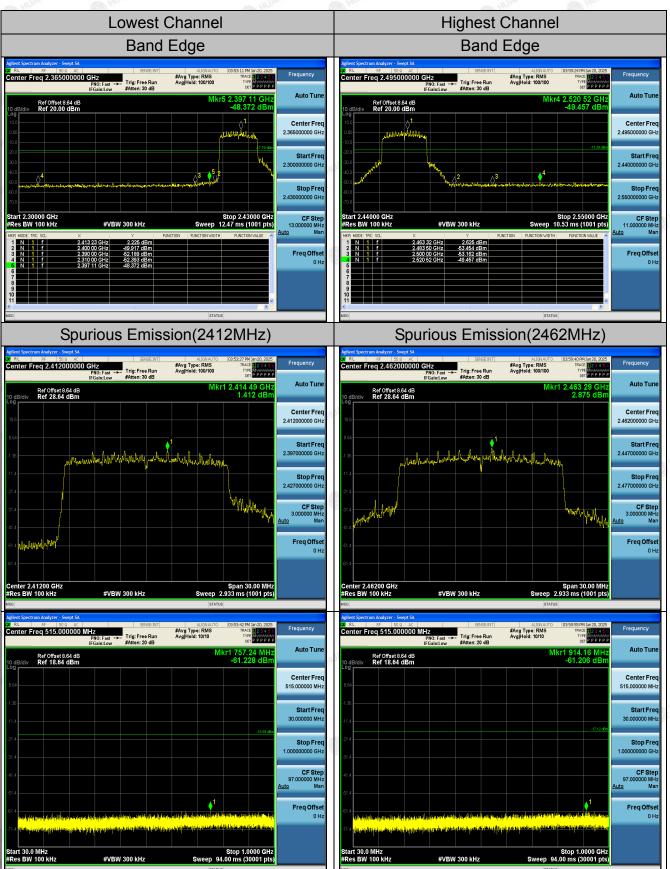
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity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



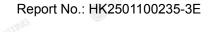


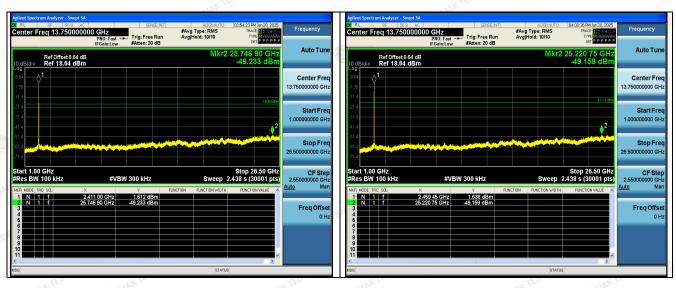
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

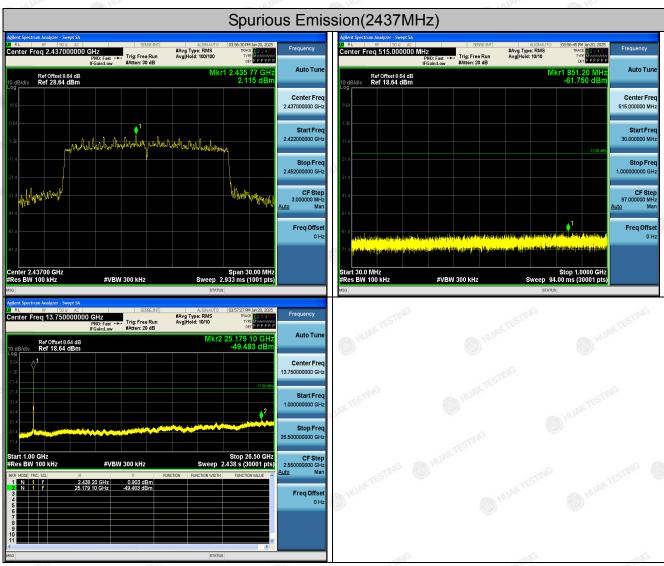
# 802.11ax(HE20) Modulation



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 HUAK, 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.

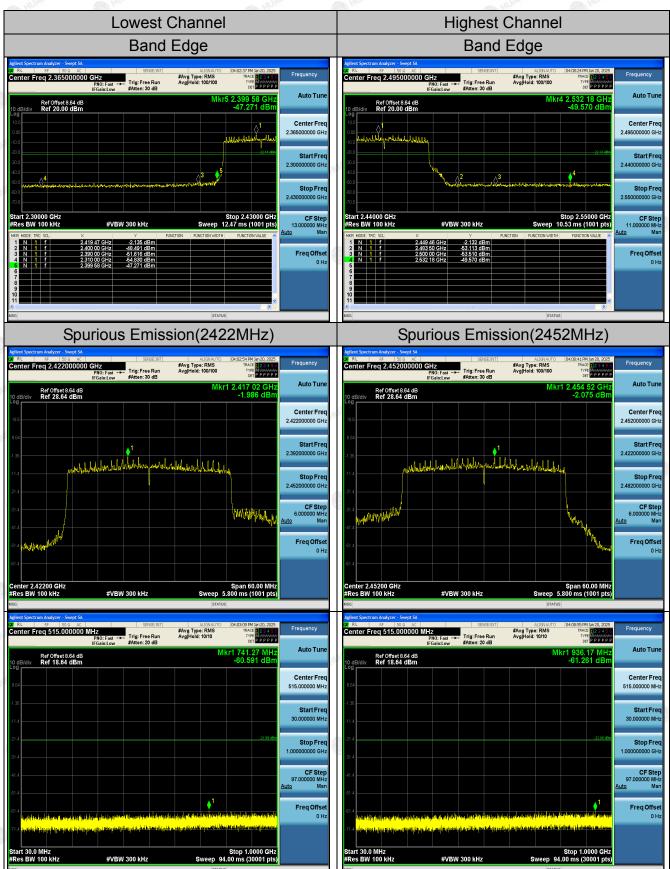






The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannon be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

# 802.11ax(HE40) Modulation

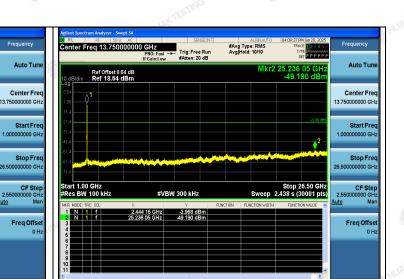


The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannon be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com

ter Freq 13.750000000 GHz

Ref Offset 8.64 dB Ref 18.64 dBm



Report No.: HK2501100235-3E



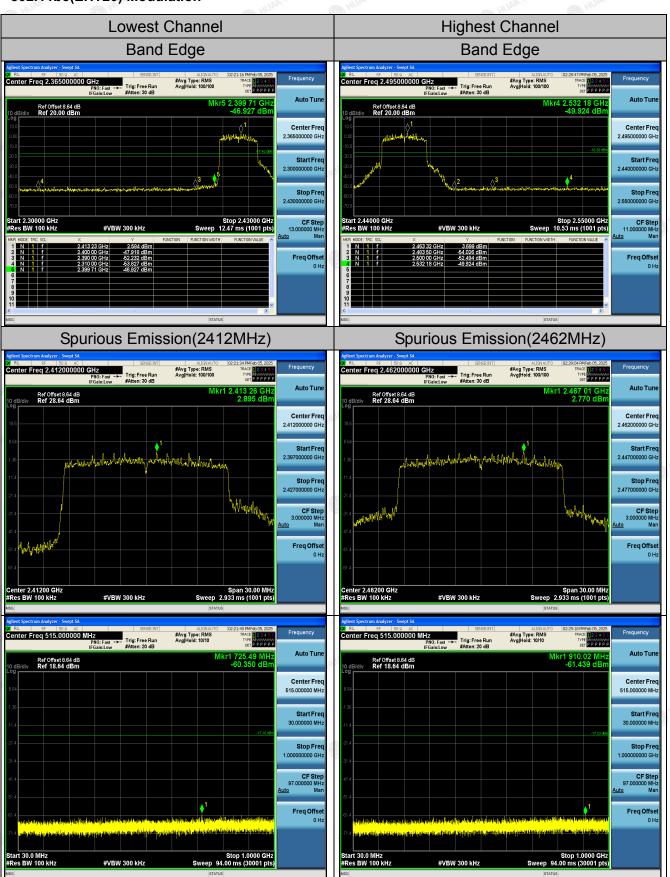
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com

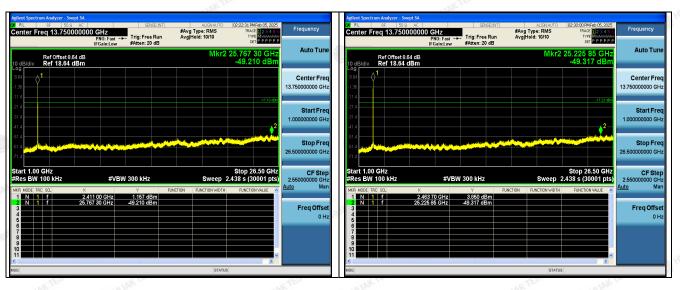
STING

Report No.: HK2501100235-3E

# 802.11be(EHT20) Modulation



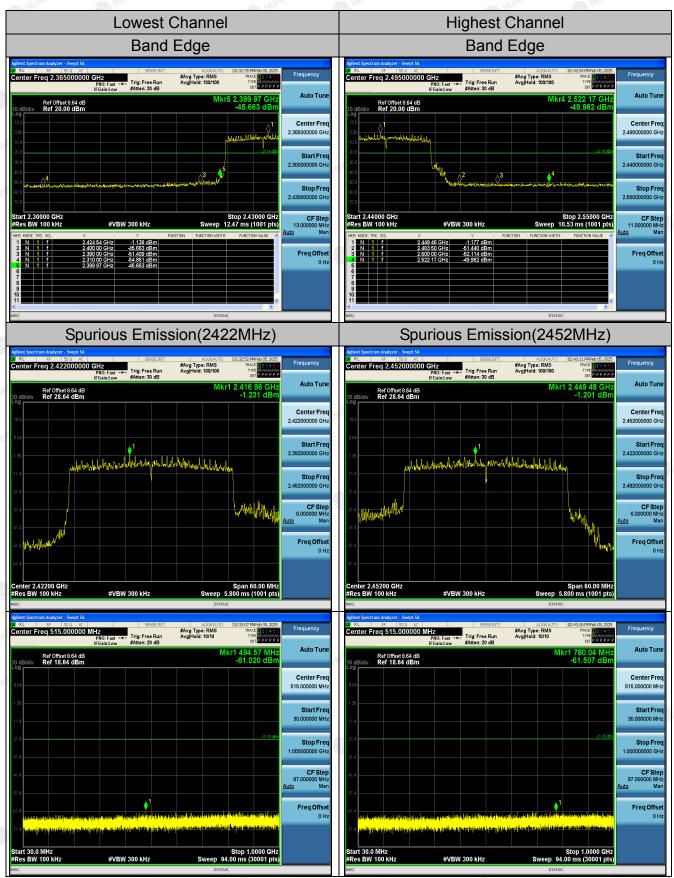
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannon be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.



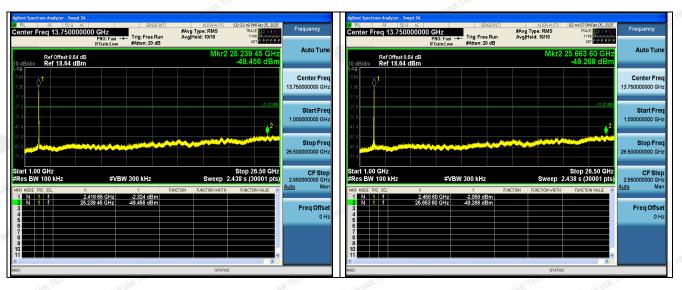


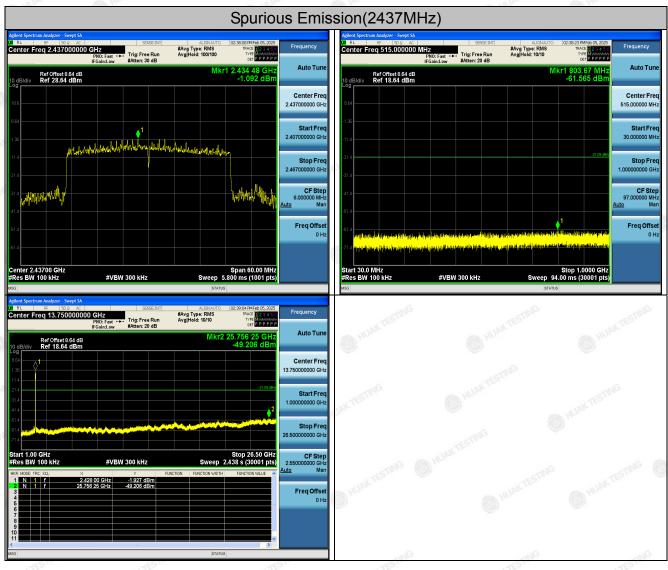
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAK, this document cannont be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at http://www.cer-mark.com.

# 802.11be(EHT40) Modulation



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 HUAK, 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.





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 HUAK, this document cannon 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.



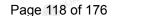
# 4.6 Radiated Spurious Emission Measurement

# 4.6.1 Test Specification

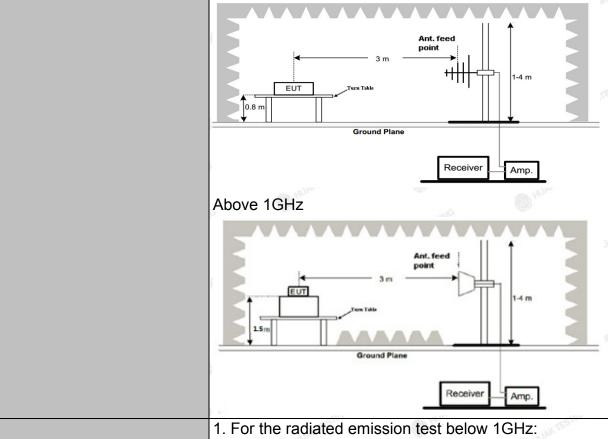
Test Requirement:	FCC Part15	C Sectio	n 15.209	9	TNG	ESTIN
Test Method:	ANSI C63.10	): 2013		HUAKIL		HUAKIL
Frequency Range:	9 kHz to 25 (	GHz		TING		
Measurement Distance:	3 m	Y TESTING	- 0	HUAKTES		V TESTING
Antenna Polarization:	Horizontal &	Vertical			0	HUPE
Operation Mode:	Transmitting	mode w	ith modu	ulation		
	Frequency 9kHz- 150kHz	Detector Quasi-pea	ak 200F	lz 1kHz		Remark si-peak Value
Receiver Setup:	150kHz- 30MHz	Quasi-pea				si-peak Value
	30MHz-1GHz	Quasi-pea Peak	ak 120K 1MH			si-peak Value Peak Value
	Above 1GHz	Peak	1MH	11/100		erage Value
	Frequen		(micro	Strength /olts/meter)	Me	easurement ance (meters)
	0.009-0.4		O/F(KHz)		300	
	0.490-1.7 1.705-3	2400	0/F(KHz) 30	(60)	30	
	30-88		100		3	
	88-216	G HUA	150	-27	3	
Limit:	216-96	1000		200	ESTING.	3
	Above 9	60		500		3
	Frequency		Field Strength (microvolts/meter)		ement ince ers)	Detector
	Above 1GHz	WALL TO A LAND WALL T	500		,	Average
	Above 10112	- (9)	5000	3		Peak
Test Setup:	For radiated	Tun I	- 3 m	RX And Receiv	<b>}</b> ↑	HUAR SETTING
	30MHz to 10	HZ				

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 HUAK, this document cannon 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com







### Test Procedure:

- 1. For the radiated emission test below 1GHz:
  The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level.
- 2. For the radiated emission test above 1GHz: Place the measurement antenna on a turntable with 1.5 meter above ground, which is away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal.

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



	The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.  3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level  4. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.  5. Use the following spectrum analyzer settings:  (1) Span shall wide enough to fully capture the emission being measured;  (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥RBW; Sweep = auto; Detector function = peak; Trace = max hold;  (3) Set RBW = 1 MHz, VBW= 3MHz for f 1 GHz for peak measurement.  6. For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Test results:	PASS

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 HUAK, this document cannont 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.



# 4.6.2 Test Instruments

	Rad	iated Emissio	n Test Site (90	66)	
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum analyzer	Agilent	N9020A	HKE-025	Feb. 20, 2024	Feb. 19, 2025
Spectrum analyzer	R&S	FSV3044	HKE-126	Feb. 20, 2024	Feb. 19, 2025
Preamplifier	EMCI	EMC051845 S	HKE-006	Feb. 20, 2024	Feb. 19, 2025
Preamplifier	Schwarzbeck	BBV 9743	HKE-016	Feb. 20, 2024	Feb. 19, 2025
Preamplifier	A.H. Systems	SAS-574	HKE-182	Feb. 20, 2024	Feb. 19, 2025
6dB Attenuator	Pasternack	6db	HKE-184	Feb. 20, 2024	Feb. 19, 2025
EMI Test Receiver	Rohde & Schwarz	ESR-7	HKE-010	Feb. 20, 2024	Feb. 19, 2025
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).

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com

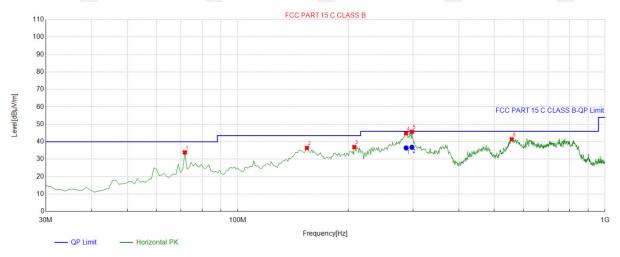


# 4.6.3 Test Data

All the test modes completed for test. Only the worst result of reported as below:

#### **Below 1GHz**

# Horizontal



QP Detector

1	Suspe	uspected List											
		Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle				
	NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity			
	1	71.751752	-17.38	51.30	33.92	40.00	6.08	100	239	Horizontal			
8	2	154.28428	-17.76	54.21	36.45	43.50	7.05	100	210	Horizontal			
9	3	207.68768	-15.09	52.03	36.94	43.50	6.56	100	68	Horizontal			
	4	287.30730	-12.28	57.09	44.81	46.00	1.19	100	201	Horizontal			
	5	297.98798	-11.79	57.52	45.73	46.00	0.27	100	218	Horizontal			
	6	557.23723	-6.48	47.87	41.39	46.00	4.61	100	129	Horizontal			

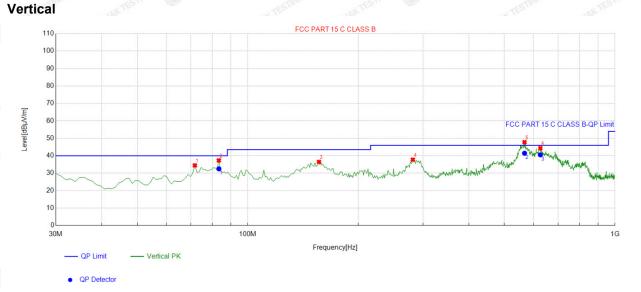
Final [	Final Data List											
NO.	Freq.	Factor	QP Reading	QP Value	QP Limit	QP Margin	Height	Angle	Polarity			
NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polanty			
1	287.3073	-12.28	48.74	36.46	46.00	9.54	100	201	Horizontal			
2	297.9879	-11.79	48.63	36.84	46.00	9.16	100	218	Horizontal			

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

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com





Suspe	Suspected List												
NO.	Freq.	Factor	Reading	Level	Limit	Margin	Height	Angle					
	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity				
1	71.751752	-17.38	51.84	34.46	40.00	5.54	100	11	Vertical				
2	83.403403	-18.05	55.38	37.33	40.00	2.67	100	122	Vertical				
3	156.22622	-17.78	54.23	36.45	43.50	7.05	100	304	Vertical				
4	281.48148	-12.59	50.33	37.74	46.00	8.26	100	145	Vertical				
5	566.94694	-6.08	53.83	47.75	46.00	-1.75	100	247	Vertical				
6	626.17617	-5.35	49.69	44.34	46.00	1.66	100	281	Vertical				

	Final [	I Data List										
		Freq.	Factor	QP Reading	QP Value	QP Limit	QP Margin	Height	Angle	5.1		
	NO.	[MHz]	[dB]	[dBµV/m]	[dBµV/m]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
3	1	83.40340	-18.05	50.57	32.52	40.00	7.48	100	122	Vertical		
	2	566.9469	-6.08	47.52	41.44	46.00	4.56	100	247	Vertical		
5	3	626.1761	-5.35	45.88	40.53	46.00	5.47	100	281	Vertical		

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

# **Harmonics and Spurious Emissions**

# Frequency Range (9 kHz-30MHz)

F	requency (MHz)	Level@3	3m (dBµV/m)	Limit@3m (dBµV/m)		
				I		
-0		.0			10	
TESTING	KTESTING	N TESTING	OK TESTING	WTESTING_	X TESTIN	
	Marie Marie	AND HOM	HUN	HOW	MO HOM	

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

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 HUAK, this document cannont 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.



# **Above 1GHz**

# Radiated Emission Test

LOW CH1 (802.11b Mode)/2412

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	54.95	-3.64	51.31	74	-22.69	peak
4824	43.28	-3.64	39.64	54	-14.36	AVG
7236	52.28	-0.95	51.33	74	-22.67	peak
7236	40.35	-0.95	39.4	54	-14.6	AVG

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

#### Vertical:

vortioai.	120	PENCH	167277	PE3522		2600000
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	55.63	-3.64	51.99	74	-22.01	peak
4824	43.51	-3.64	39.87	54	-14.13	AVG
7236	52.31	-0.95	51.36	74	-22.64	peak
7236	40.27	-0.82	39.45	54	-14.55	AVG

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

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



# MID CH6 (802.11b Mode)/2437

### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	54.54	-3.51	51.03	74	-22.97	peak
4874	44.08	-3.51	40.57	54	-13.43	AVG
7311	53.17	-0.82	52.35	74	-21.65	peak
7311	41.69	-0.82	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	56.00	-3.51	52.49	74	-21.51	peak
9 4874	43.69	-3.51	40.18	54	-13.82	AVG
7311	55.50	-0.82	54.68	74	-19.32	peak
7311	41.48	-0.82	40.66	54	-13.34	AVG

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



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 HUAK, this document cannont 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.



HIGH CH11 (802.11b Mode)/2462

#### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4924	55.58	-3.43	52.15	74	-21.85	peak
§ 4924	40.6	-3.43	37.17	54	-16.83	AVG
7386	49.62	-0.75	48.87	74	-25.13	peak
7386	41	-0.75	40.25	54	-13.75	AVG

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

#### Vertical:

	Voi tioai.		9853222	V3487		PACE 2	SARY.
	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
3	4924	54.84	-3.43	51.41	74	-22.59	peak
	4924	43.16	-3.43	39.73	54	-14.27	AVG
Ş	7386	51.52	-0.75	50.77	74 max	-23.23	peak
ſ	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.

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 HUAK, this document cannon 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



LOW CH1 (802.11g Mode)/2412

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	56.71	-3.64	53.07	74	-20.93	peak
4824	41.72	-3.64	38.08	54	-15.92	AVG
7236	51.12	-0.95	50.17	74	-23.83	peak
7236	40.44	-0.95	39.49	54	-14.51	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
4824	54.17	-3.64	50.53	74	-23.47	peak
4824	43.65	-3.64	40.01	54	-13.99	AVG
7236	52.96	-0.95	52.01	74	-21.99	peak
7236	40.78	-0.95	39.83	54	-14.17	AVG

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

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



MID CH6 (802.11g Mode)/2437

#### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874	53.7	-3.51	50.19	74	-23.81	peak
4874	42.65	-3.51	39.14	54	-14.86	AVG
7311	50.37	-0.82	49.55	74	-24.45	peak
7311	39.38	-0.82	38.56	54	-15.44	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	.∞ (dBμV/m)	(dB)	Type
4874	51.83	-3.51	48.32	74	-25.68	peak
4874	42.88	-3.51	39.37	54	-14.63	AVG
7311	49.41	-0.82	48.59	74	-25.41	peak
7311	40.04	-0.82	39.22	54	-14.78	AVG

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

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



HIGH CH11 (802.11g Mode)/2462

#### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBμV/m)	(dB)	Туре
4924	54.74	-3.43	51.31	74	-22.69	peak
4924	40.79	-3.43	37.36	54	-16.64	AVG
7386	49.61	-0.75	48.86	74	-25.14	peak
7386	39.57	-0.75	38.82	54	-15.18	AVG

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

#### Vertical:

			VICANO		\(\)		
	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
	(MHz)	(dBµV)	(dB)	(dBµV/m)	。 (dBμV/m)	(dB)	Type
J.P	4924	54.5	-3.43	51.07	74	-22.93	peak
65	4924	43.13	-3.43	39.7	54	-14.3	AVG
	7386	49.62	-0.75	48.87	74	-25.13	peak
3.	7386	40.02	-0.75	39.27	54	-14.73	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

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 HUAK, this document cannont 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



LOW CH1 (802.11n/HT20 Mode)/2412

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	53.13	-3.64	49.49	74	-24.51	peak
4824	41.45	-3.64	37.81	54	-16.19	AVG
7236	50.94	-0.95	49.99	74	-24.01	peak
7236	40.09	-0.95	39.14	54	-14.86	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type
4824	57.11	-3.64	53.47	74	-20.53	peak
4824	41.29	-3.64	37.65	54	-16.35	AVG
7236	50.06	-0.95	49.11	74	-24.89	peak
7236	40.11	-0.95	39.16	54 ESTING	-14.84	AVG

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



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 HUAK, this document cannon 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.



# MID CH6 (802.11n/HT20 Mode)/2437

### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874.00	54.57	-3.51	51.06	74.00	-22.94	peak
4874.00	42.23	-3.51	38.72	54.00	-15.28	AVG
7311.00	52.56	-0.82	51.74	74.00	-22.26	peak
7311.00	40.09	-0.82	39.27	54.00	-14.73	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874.00	51.78	-3.51	48.27	74.00	-25.73	peak
4874.00	44.57	-3.51	41.06	54.00	-12.94	AVG
7311.00	51.36	-0.82	50.54	74.00	-23.46	peak
7311.00	40.71	-0.82	39.89	54.00	-14.11	AVG

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



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 HUAK, 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.



TESTING

Report No.: HK2501100235-3E

### 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)	Detector Type
4924	54.05	-3.43	50.62	74	-23.38	peak
4924	44.09	-3.43	40.66	54	-13.34	AVG
7386	51.47	-0.75	50.72	74	-23.28	peak
7386	41.16	-0.75	40.41	54	-13.59	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)	Detector Type
4924	53.11	-3.43	49.68	74	-24.32	peak
4924	43.51	-3.43	40.08	54	-13.92	AVG
7386	51.3	-0.75	50.55	74 (m)	-23.45	peak
7386	42.65	-0.75	41.9	54	-12.1	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.

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 HUAK, this document cannont 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



LOW CH3 (802.11n/HT40 Mode)/2422

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Data star Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4844	54.77	-3.63	51.14	74	-22.86	peak
4844	44.18	-3.63	40.55	54	-13.45	AVG
7266	53.09	-0.94	52.15	74 0 HU	-21.85	peak
7266	41.65	-0.94	40.71	54	-13.29	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)	Detector Type
L Alf	4844	52.18	-3.63	48.55	74	-25.45	peak
57	4844	42.57	-3.63	38.94	54	-15.06	AVG
	7266	49.95	-0.94	49.01	74	-24.99	peak
	7266	39.26	-0.94	38.32	54	-15.68	AVG

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

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 HUAK, this document cannont 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.



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	51.76	-3.51	48.25	74	-25.75	peak
4874	42.49	-3.51	38.98	54	-15.02	AVG
7311	50.59	-0.82	49.77	74	-24.23	peak
7311	42.14	-0.82	41.32	54	-12.68	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 Turo
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4874	56.67	-3.51	53.16	74	-20.84	peak
4874	43.28	-3.51	39.77	54	-14.23	AVG
7311	52.69	-0.82	51.87	74	-22.13	peak
7311	42.5	-0.82	41.68	54	-12.32	AVG

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

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



HIGH CH9 (802.11n/HT40 Mode)/2452

#### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Torre
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4904	54.3	-3.43	50.87	74	-23.13	peak
4904	43.88	-3.43	40.45	54	-13.55	AVG
7356	51.17	-0.75	50.42	74 6 HUD	-23.58	peak
7356	43.23	-0.75	42.48	54	-11.52	AVG

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

#### Vertical:

	1000		PE2/525	10107		PS.7052.5	Name of the last o
	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
1303	4904	55.54	-3.43	52.11	74	-21.89	peak
	4904	42.43	-3.43	39	54	-15	AVG
Sp.	7356	53.77	-0.75	53.02	74	-20.98	peak
	7356	40.67	-0.75	39.92	54	-14.08	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.

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 HUAK, this document cannont 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



ESTING ESTING

Report No.: HK2501100235-3E

# LOW CH1 (802.11ac/HT20 Mode)/2412

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	54.07	-3.64	50.43	74	-23.57	peak
4824	41.12	-3.64	37.48	54	-16.52	AVG
7236	50.39	-0.95	49.44	74	-24.56	peak
7236	40.68	-0.95	39.73	54 TESTING	-14.27	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4824	52.75	-3.64	49.11	74	-24.89	peak
4824	42.88	-3.64	39.24	54	-14.76	AVG
7236	51.95	-0.95	51	74	-23	peak
7236	42.22	-0.95	41.27	54	-12.73	AVG

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

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 HUAK, 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.



# MID CH6 (802.11ac/HT20 Mode)/2437

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874.00	53.56	-3.51	50.05	74.00	-23.95	peak
4874.00	43.62	-3.51	40.11	54.00	-13.89	AVG
7311.00	52.80	-0.82	51.98	74.00	-22.02	peak
7311.00	39.75	-0.82	38.93	54.00	-15.07	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874.00	51.59	-3.51	48.08	74.00	-25.92	peak
4874.00	43.10	-3.51	39.59	54.00	-14.41	AVG
7311.00	48.82	-0.82	48.00	74.00	-26.00	peak
7311.00	41.90	-0.82	41.08	54.00	-12.92	AVG

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



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 HUAK, this document cannon 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.



### HIGH CH11 (802.11ac/HT20 Mode)/2462

#### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	- Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
4924	53.97	-3.43	50.54	74	-23.46	peak
4924	45.26	-3.43	41.83	54	-12.17	AVG
7386	52.81	-0.75	52.06	74	-21.94	peak
7386	43.52	-0.75	42.77	54	·11.23	AVG

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

#### Vertical:

	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotootor Typo
	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
L'Alf	4924	53.64	-3.43	50.21	74	-23.79	peak
	4924	40.94	-3.43	37.51	54	-16.49	AVG
6	7386	49.05	-0.75	48.3	74	-25.7	peak
	7386	39	-0.75	38.25	54	-15.75	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.

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 HUAK, this document cannont 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



LOW CH3 (802.11ac/HT40 Mode)/2422

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4844	52.38	-3.63	48.75	74	-25.25	peak
4844	42.68	-3.63	39.05	54	-14.95	AVG
7266	49.54	-0.94	48.6	74 (m) H	-25.4	peak
7266	40.10	-0.94	39.16	54	-14.84	AVG

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

# Vertical:

	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	- Detector Type
	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
L'Alt	4844	54.43	-3.63	50.8	74	-23.2	peak
5T	4844	45.45	-3.63	41.82	54	-12.18	AVG
	7266	51.03	-0.94	50.09	74	-23.91	peak
	7266	41.27	-0.94	40.33	54	-13.67	AVG

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

(

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 HUAK, this document cannon 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.



MID CH6 (802.11ac/HT40 Mode)/2437

### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Data et au Tura e
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4874	54.44	-3.51	50.93	74	-23.07	peak
4874	41.79	-3.51	38.28	54	-15.72	AVG
7311	52.86	-0.82	52.04	74	-21.96	peak
7311	42.14	-0.82	41.32	54	-12.68	AVG

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

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4874	52.01	-3.51	48.5	74	-25.5	peak
4874	42.1	-3.51	38.59	54	-15.41	AVG
7311	49.74	-0.82	48.92	74	-25.08	peak
7311	40.15	-0.82	39.33	54	-14.67	AVG

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

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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



HIGH CH9 (802.11ac/HT40 Mode)/2452

#### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Tune
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4904	52.06	-3.43	48.63	74	-25.37	peak
4904	43.32	-3.43	39.89	54	-14.11	AVG
7356	49.53	-0.75	48.78	74 🖱 HUD	-25.22	peak
7356	41.56	-0.75	40.81	54	-13.19	AVG

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

#### Vertical:

			F 8-71 W 3				
	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
Ī	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
N.	4904	52.71	-3.43	49.28	74	-24.72	peak
	4904	44.37	-3.43	40.94	54	-13.06	AVG
8	7356	49.24	-0.75	48.49	74	-25.51	peak
Ī	7356	40.91	-0.75	40.16	54	-13.84	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.

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 HUAK, this document cannont 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.



# LOW CH1 (802.11ax/HT20 Mode)/2412

# Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	。(dBμV/m)	(dB)	Туре
4824	55.42	-3.64	51.78	74	-22.22	peak
4824	41.34	-3.64	37.7	54	-16.3	AVG
7236	50.19	-0.95	49.24	74	-24.76	peak
7236	41.37	-0.95	40.42	54	-13.58	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	。(dBμV/m)	(dB)	Type
4824	53.04	-3.64	49.4	74	-24.6	peak
4824	44.07	-3.64	40.43	54	-13.57	AVG
7236	51.23 <u>- ا</u>	-0.95	50.28	74	-23.72	peak
7236	41.85	-0.95	40.9	54	-13.1	AVG

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

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 HUAK, this document cannon 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.





# MID CH6 (802.11ax/HT20 Mode)/2437

### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874.00	53.71	-3.51	50.20	74.00	-23.80	peak
4874.00	42.26	-3.51	38.75	54.00	-15.25	AVG
7311.00	51.53	-0.82	50.71	74.00	-23.29	peak
7311.00	40.10	-0.82	39.28	54.00	-14.72	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
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
4874.00	52.27	-3.51	48.76	74.00	-25.24	peak
4874.00	42.68	-3.51	39.17	54.00	-14.83	AVG
7311.00	50.37	-0.82	49.55	74.00	-24.45	peak
7311.00	41.03	-0.82	40.21	54.00	-13.79	AVG

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



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 HUAK, this document cannon 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.



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)	Detector Type
4924	54.24	-3.43	50.81	74	-23.19	peak
4924	45.38	-3.43	41.95	54	-12.05	AVG
7386	52.05	-0.75	51.3	74 (h)	-22.7	peak
7386	41.98	-0.75	41.23	54	-12.77	AVG

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

#### Vertical:

			1,11,137,7			1701389	
	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
Ī	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
13	4924	53.23	-3.43	49.8	74	-24.2	peak
	4924	41.2	-3.43	37.77	54	-16.23	AVG
(3)	7386	50.24	-0.75	49.49	74	-24.51	peak
	7386	40.15	-0.75	39.4	54	-14.6	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 MIMO are reported.



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 HUAK, this document cannont 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



# 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)	Detector Type
4844	53.86	-3.63	50.23	74	-23.77	peak
4844	40.86	-3.63	37.23	54	-16.77	AVG
7266	49.49	-0.94	48.55	74	-25.45	peak
7266	40.87	-0.94	39.93	54	-14.07	AVG

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

# Vertical:

	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
LAT	4844	54.11	-3.63	50.48	74	-23.52	peak
651	4844	44.46	-3.63	40.83	54	-13.17	AVG
	7266	51.82	-0.94	50.88	74	-23.12	peak
	7266	41.81	-0.94	40.87	54	<sub>6</sub> -13.13	AVG

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



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 HUAK, this document cannont 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.



# 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)	Detector Type
4874	52.91	-3.51	49.4	74	-24.6	peak
4874	41.76	-3.51	38.25	54	-15.75	AVG
7311	52.25	-0.82	51.43	74	-22.57	peak
7311	41.34	-0.82	40.52	54	<sub>o</sub> -13.48	AVG

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

# Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotootor Typo
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4874	51.96	-3.51	48.45	74	-25.55	peak
4874	42.6	-3.51	39.09	54	-14.91	AVG
7311	50.65	-0.82	49.83	74	-24.17	peak
7311	40.56	-0.82	39.74	54	-14.26	AVG

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



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 HUAK, this document cannont 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.

TEL: +86-755 2302 9901 FAX: +86-755 2302 9901 E-mail: service@cer-mark.com



### HIGH CH9 (802.11ax/HT40 Mode)/2452

#### Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Data atau Tura
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
4904	51.52	-3.43	48.09	74	-25.91	peak
4904	44.15	-3.43	40.72	54	-13.28	AVG
7356	49.33	-0.75	48.58	74	-25.42	peak
7356	42.08	-0.75	41.33	54	-12.67	AVG

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

#### Vertical:

			1923/245	1000		19.55.21	
	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
J P.	4904	53.23	-3.43	49.8	74	-24.2	peak
	4904	43.99	-3.43	40.56	54	-13.44	AVG
Sp.	7356	49.86	-0.75	49.11	74	-24.89	peak
	7356	41.07	-0.75	40.32	54	-13.68	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.



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 HUAK, this document cannon 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.