



RADIO EXPOSURE TEST REPORT

FCC ID : 2BXL5-CODA6021U
Equipment : DOCSIS ULTRA 3.1 WiFi7 Gateway, DOCSIS 4.0
WiFi7 Gateway
Brand Name : Hitron
Model Name : CODA6021U, CODA6021
Applicant : Hitron Technologies Americas, Inc.
9000 E Nichols Ave, Suite 103 Centennial, CO
80112 USA
Manufacturer : Hitron Technologies Inc.
No. 1-8, Li-Hsin 1st Rd. Hsinchu Science Park,
Hsinchu 30078, Taiwan
Standard : 47 CFR Part 2.1091

The product was received on Jun. 03, 2026, and testing was started from Jul. 24, 2026 and completed on Sep. 08, 2026. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 EUT General Information	5
1.2 Antenna Information	6
1.3 Table for Multiple Listing	7
1.4 Accessories	7
1.5 Testing Location	7
2 Maximum Permissible Exposure	8
2.1 Limit of Maximum Permissible Exposure	8
2.2 MPE Calculation Method	8
2.3 Calculated Result and Limit.....	9
Photographs of EUT v01	



History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A1_1 Ver1.1

Page Number : 3 of 9
Issued Date : Sep. 29, 2026
Report Version : 01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: Wendy Pan



1 General Description

1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) VHT: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
5GHz WLAN	5150-5250 5725-5850	5180-5250 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
6GHz WLAN	5925-7125	5955-7115	802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)



1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	2.4GHz	5GHz	6GHz					
1	1	1	-	INPAQ Technology Co., Ltd.	RFPCA301816IMLB401	Dipole	I-PEX	Note 1
2	2	2	-	INPAQ Technology Co., Ltd.	RFPCA301815IMLB401	Dipole	I-PEX	
3	3	3	-	INPAQ Technology Co., Ltd.	RFPCA301812IMLB401	Dipole	I-PEX	
4	4	4	-	INPAQ Technology Co., Ltd.	RFPCA301809IMLB402	Dipole	I-PEX	
5	-	-	1	INPAQ Technology Co., Ltd.	RFPCA160808IM6B401	Dipole	I-PEX	
6	-	-	2	INPAQ Technology Co., Ltd.	RFPCA160807IM6B401	Dipole	I-PEX	
7	-	-	3	INPAQ Technology Co., Ltd.	RFPCA232307IM6B401	Alford-loop	I-PEX	
8	-	-	4	INPAQ Technology Co., Ltd.	RFPCA232307IM6B402	Alford-loop	I-PEX	
9	-	1	-	INPAQ Technology Co., Ltd.	RFPCA181117IM5B401	Dipole	I-PEX	

Note 1:

Ant.	Antenna Gain (dBi)								
	WLAN 2.4GHz	WLAN 5GHz				WLAN 6GHz			
		UNII 1	UNII 2A	UNII 2C	UNII 3	UNII 5	UNII 6	UNII 7	UNII 8
1	4.03	3.77	3.87	4.69	3.58	-	-	-	-
2	3.7	3.91	4.11	3.67	3.78	-	-	-	-
3	5.02	3.1	2.82	3.97	2.92	-	-	-	-
4	3.8	4.42	4.09	4.9	4.28	-	-	-	-
5	-	-	-	-	-	4.67	4.94	4.85	4.92
6	-	-	-	-	-	4.9	4.62	3.85	4.18
7	-	-	-	-	-	4.76	3.7	3.8	4.37
8	-	-	-	-	-	4.42	4.27	3.12	4.38
9	-	4.82	4.79	4.23	4.09	-	-	-	-

Item	Directional Gain (dBi)								
	WLAN 2.4GHz	WLAN 5GHz				WLAN 6GHz			
		UNII 1	UNII 2A	UNII 2C	UNII 3	UNII 5	UNII 6	UNII 7	UNII 8
4T1S	7.4	6.49	6.81	6.97	6.33	7.48	7.88	6.12	7.86
4T2S	5.02	4.42	4.11	4.9	4.28	4.9	4.94	4.85	4.92
4T4S	5.02	4.42	4.11	4.9	4.28	4.9	4.94	4.85	4.92

Note 2: The above information was declared by manufacturer, excluding the peak gain and directional gain.

Note 3: For 2.4GHz/5GHz/6GHz, the antenna gain and directional gain are measured which follow the procedure of KDB 662911 D03.

Note 4: The antenna 9 which has the receiving function only is used for zero wait.

**For 2.4GHz function:****For IEEE 802.11 b/g/n/VHT/ax/be (4TX/4RX):**

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

For 5GHz function:**For IEEE 802.11 a/n/ac/ax/be (4TX/4RX):**

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

For 6GHz function:**For IEEE 802.11 ax/be (4TX/4RX):**

Port 1~4 can be used as transmitting/receiving antenna.

Port 1~4 could transmit/receive simultaneously.

1.3 Table for Multiple Listing

EUT	Equipment Name	Model name	DOCSIS Chip (Location: U800)	DOCSIS 4.0 Component (Location: SW1200, U801, T801)
1	DOCSIS ULTRA 3.1 WiFi7 Gateway	CODA6021U	Brand name: MxL Model name: MXL28310	Not Supported
2	DOCSIS 4.0 WiFi7 Gateway	CODA6021	Brand name: MxL Model name: MXL28400	Supported

Note1: Based on the above, EUT 1 was selected for testing.

Note2: The above information was declared by manufacturer.

1.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1	LUCENT TRANS	1A98-LJHL	Input: 100-240V~1.6A, 50-60Hz Output: 12.0V, 5.0A, 60.0W
Adapter 2	AtechOEM	A6003PU-120050	Input: 100-240V~50-60Hz, 2.0A Output: 12.0V, 5.0A, 60.0W
Others			
RJ-45 cable*1: Non-Shielded, 1.5m			

1.5 Testing Location

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISCED.



2 Maximum Permissible Exposure

2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	*(100)	<6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1500	-	-	f/300	<6
1500-100,000	-	-	5	<6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	*(100)	<30
1.34-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	0.2	<30
300-1500	-	-	f/1500	<30
1500-100,000	-	-	1.0	<30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Method

The MPE was calculated at 27 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$



2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	Limit (mW/cm ²)	S/Limit Ratio
2.4G;D1D	7.40	28.23	35.63	0.36	35.99	27	0.43357	1.00000	0.43357
5.2G;D1D	6.49	28.65	35.14	0.50	35.64	27	0.40000	1.00000	0.4
5.8G;D1D	6.33	29.59	35.92	0.07	35.99	27	0.43357	1.00000	0.43357
6.2G;D1D	7.48	22.20	29.68	0.31	29.99	27	0.10891	1.00000	0.10891
6.4G;D1D	7.88	18.72	26.60	0.50	27.10	27	0.05598	1.00000	0.05598
6.7G;D1D	6.12	23.56	29.68	0.31	29.99	27	0.10891	1.00000	0.10891
7.0G;D1D	7.86	19.22	27.08	0.50	27.58	27	0.06253	1.00000	0.06253

Simultaneous Transmission Analysis Mode: WLAN 2.4GHz+WLAN 5GHz+WLAN 6GHz

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	Limit (mW/cm ²)	S/Limit Ratio
2.4G;D1D	7.40	28.23	35.63	0.36	35.99	27	0.43357	1.00000	0.43357
5.8G;D1D	6.33	29.59	35.92	0.07	35.99	27	0.43357	1.00000	0.43357
6.2G;D1D	7.48	22.20	29.68	0.31	29.99	27	0.10891	1.00000	0.10891
Sum S/Limit Ratio	0.97605								
Ratio Limit	1								

————THE END————