

Radio Exposure Evaluation Report

FCC ID : H8NRT5704W-D350

Equipment : Dynalink AXE10200 Tri-Band Mesh WiFi 6E System

Brand Name : DYNALINK

Model Name : DL-WME38

Applicant : ASKEY COMPUTER CORPORATION
10F, No. 119, Jiankang Road, Zhonghe Dist.,
New Taipei City, Taiwan

Manufacturer : ASKEY COMPUTER CORPORATION
10F, No. 119, Jiankang Road, Zhonghe Dist.,
New Taipei City, Taiwan

Standard : 47 CFR FCC Part 2 Subpart J, section 2.1091

The product was received on Oct. 19, 2021, and testing was started from Oct. 26, 2021 and completed on Nov. 17, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR FCC Part 2 Subpart J, section 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. Hsinhua Laboratory, the test report shall not be reproduced except in full.



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. Hsinhua Laboratory
No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



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Photographs of EUT V01



Summary of Test Result

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

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

None

Reviewed by: Ben Tseng

Report Producer: Amber Chiu

1 General Description

1.1 Information

1.1.1 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)
5GHz WLAN	5150-5250 5250-5350 5470-5725 5725-5850	5180-5240 5260-5320 5500-5700 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
6GHz WLAN	5925-7125	5955-7095 5965-7085 5985-7025 6025-6985	802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Support
1	inpaq	RFFPA201412IM5B701	Dipole	I-PEX	5G
2	inpaq	RFFPA201413IM5B701	Dipole	I-PEX	5G
3	inpaq	RFFPA201416IM5B701	Dipole	I-PEX	5G
4	inpaq	RFFPA201416IM5B702	Dipole	I-PEX	5G
5	inpaq	RFFPA201421IMMB701	Dipole	I-PEX	6G
6	inpaq	RFFPA201426IMMB701	Dipole	I-PEX	6G
7	inpaq	RFFPA271709IMMB701	Dipole	I-PEX	2.4G+6G
8	inpaq	RFFPA271709IMMB702	Dipole	I-PEX	2.4G+6G

Ant.	Max Peak Gain [dBi]								
	5G				6G				2.4G
	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3	U-NII-5	U-NII-6	U-NII-7	U-NII-8	
1	3.35	3.83	3.2	4.2	-	-	-	-	-
2	2.67	3.29	3.58	4.43	-	-	-	-	-
3	2.93	2.24	2.39	3.32	-	-	-	-	-
4	3.32	2.61	2.32	2.91	-	-	-	-	-
5	-	-	-	-	7.43	4.78	3.81	3.62	-
6	-	-	-	-	5.02	2.21	2.69	4.45	-
7	-	-	-	-	3.95	1.49	2.23	2.49	1.78
8	-	-	-	-	4.89	3.21	4.02	3.72	2.98

Ant.	Composite Gain[dBi]								
	5G				6G				2.4G
	U-NII-1	U-NII-2A	U-NII-2C	U-NII-3	U-NII-5	U-NII-6	U-NII-7	U-NII-8	
1	3.65	4.13	4.4	4.82	-	-	-	-	-
2					-	-	-	-	-
3					-	-	-	-	-
4					-	-	-	-	-
5	-	-	-	-	7.48	5.18	4.89	4.62	-
6	-	-	-	-					-
7	-	-	-	-					3.06
8	-	-	-	-					

Note 1: The EUT has eight antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax mode (2TX/2RX)

Ant. 7 and Ant. 8 could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac/ax mode (4TX/4RX)

Ant. 1 Ant. 2, Ant. 3 and Ant. 4 could transmit/receive simultaneously.

For 6GHz function:

For IEEE 802.11 ax mode (4TX/4RX)

Ant. 5, Ant. 6, Ant. 7 and Ant. 8 could transmit/receive simultaneously.

1.1.3 Accessories

Accessories				
AC Adapter (US Plug)	Brand Name	DYNALINK	Model Name	SYS1652-3612-W2
	Power Rating	I/P: 100 - 240Vac, 1.5A, O/P: 12.0Vdc, 3.0A		
	Power Cord	1.45 meter, non-shielded cable, w/o ferrite core		
RJ45 Cable [CAT. 5E]	Category	5E	In/Out door	Indoor
	Power Cord	1.75 meter, non-shielded cable		
RJ45 Cable [CAT. 6A]	Category	6A	In/Out door	Indoor
	Power Cord	1.75 meter, non-shielded cable		

Reminder: Regarding to more detail and other information, please refer to user manual.

1.2 Testing Location

Test Lab. : Sporton International Inc. Hsinhua Laboratory		
☒	Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.) TEL: 886-3-327-3456 FAX: 886-3-327-0973 Test site Designation No. TW3785 with FCC.
☐	Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: 886-3-318-0787 FAX: 886-3-318-0287 Test site Designation No. TW0008 with FCC.

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

Multiple Transmitters Condition

Co-location as simultaneously transmitting (co-transmitting) and the evaluation shall be consider that simultaneous transmissions from co-located devices the individual transmitters are evaluated separately. After sum of the individual value (basic restriction / reference level) are measured/calculated also have to under basic restriction / reference level.

Co-transmitting mode: WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz

2.2 MPE Calculation Method

The MPE was calculated at 20 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

WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Tune-up EIRP (W)	Distance (cm)	S (mW/cm2)	Lim (mW/cm2)	Ratio (S/Limit)
2.4G;G1D	2.98	24.08	27.06	0.50	27.56	0.57016	20	0.11343	1.00000	0.11343
5.8G;D1D	4.43	29.93	34.36	0.50	34.86	3.06196	20	0.60916	1.00000	0.60916
6.7G;D1D	4.02	22.95	26.97	0.50	27.47	0.55847	20	0.11110	1.00000	0.11110
									Sum Ratio	0.83369
									Ratio Limit	1

————THE END————