

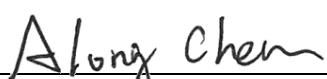


# FCC RF Exposure Report

**FCC ID** : HDC-17600079  
**Equipment** : WiFi 7 10G Mesh AP  
**Model No.** : SDG-8733A  
**Brand Name** : Adtran  
**Applicant** : Adtran  
**Address** : 901 Explorer Boulevard, Huntsville, Alabama,  
United States, 35806-2807  
**Standard** : 47 CFR FCC Part 2.1091  
**Received Date** : Jul. 12, 2024  
**Tested Date** : Sep. 20 ~ Oct. 28, 2024

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager

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## Release Record

Report No.	Version	Description	Issued Date
FA471203	Rev. 01	Initial issue	Feb. 18, 2025

## 1 MPE EVALUATION OF MOBILE DEVICES

### 1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm <sup>2</sup> )	Averaging Time (minutes)
300~1500	F/1500	30
1500~100000	1.0	30

### 1.2 MPE EVALUATION FORMULA

$$Pd = \frac{Pt}{4 * Pi * R^2}$$

Where

Pd= Power density in mW/cm<sup>2</sup>

Pt= EIRP in mW

Pi= 3.1416

R= Measurement distance

### 1.3 REFERENCE GUIDANCE

447498 D01 General RF Exposure Guidance v06

### 1.4 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

### 1.5 MEASUREMENT UNCERTAINTY

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Parameters	Uncertainty
Conducted power	±0.808 dB

#### 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:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

## 1.6 MPE EVALUATION RESULTS

### Non-beamforming mode

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Maximum Tune Up Limit (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	*Ratio	Pass / Fail
2412-2462	25.99	26.0	3.032	20	0.159	1	0.159	Pass
5180-5240	26.19	26.5	4.413	20	0.245	1	0.245	Pass
5260-5320	23.75	24.0	4.413	20	0.138	1	0.138	Pass
5500-5720	23.71	24.0	4.418	20	0.138	1	0.138	Pass
5745-5825	27.42	27.5	4.428	20	0.310	1	0.310	Pass
5925-6425	23.24	23.5	5.270	20	0.150	1	0.150	Pass
6425-6525	20.46	20.5	4.187	20	0.059	1	0.059	Pass
6525-6875	23.37	23.5	3.892	20	0.109	1	0.109	Pass
6875-7125	22.96	23.0	4.020	20	0.100	1	0.100	Pass

\*Ratio = Power density / Limit.

### Beamforming mode

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Maximum Tune Up Limit (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	*Ratio	Pass / Fail
2412-2462	24.26	24.5	3.89	20	0.137	1	0.137	Pass
5180-5240	25.89	26.0	3.98	20	0.198	1	0.198	Pass
5260-5320	23.57	24.0	3.76	20	0.119	1	0.119	Pass
5500-5720	23.67	24.0	4.12	20	0.129	1	0.129	Pass
5745-5825	26.76	27.0	4.12	20	0.257	1	0.257	Pass
5925-6425	22.98	23.0	4.08	20	0.102	1	0.102	Pass
6425-6525	20.34	20.5	3.41	20	0.049	1	0.049	Pass
6525-6875	23.13	23.5	3.63	20	0.103	1	0.103	Pass
6875-7125	22.86	23.0	3.87	20	0.097	1	0.097	Pass

\*Ratio = Power density / Limit.

The device contains one certified BT module, FCC ID: Y82-DA14531MOD.

Frequency Range (MHz)	Maximum Tune Up limit (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	*Ratio	Pass / Fail
2402-2480	2.2	-0.5	20	0.0003	1	0.0003	Pass

Note: Above output power value is from module's test report.

## 1.7 MPE EVALUATION OF SIMULTANEOUS TRANSMISSION

### *Non-beamforming mode*

Mode	Max Ratio of Each Mode
WLAN 2.4GHz	0.159
WLAN 5GHz	0.310
WLAN 6GHz	0.150
BT	0.0003
Sum	0.619
Limit	1
Pass / Fail	Pass

### *Beamforming mode*

Mode	Max Ratio of Each Mode
WLAN 2.4GHz	0.137
WLAN 5GHz	0.257
WLAN 6GHz	0.103
BT	0.0003
Sum	0.497
Limit	1
Pass / Fail	Pass

## 2 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

### Linkou

Tel: 886-2-2601-1640  
No.30-2, Ding Fwu Tsuen, Lin Kou  
District, New Taipei City, Taiwan  
(R.O.C.)

### Kwei Shan

Tel: 886-3-271-8666  
No.3-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)  
No.2-1, Lane 6, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

### Kwei Shan Site II

Tel: 886-3-271-8640  
No.14-1, Lane 19, Wen San 3rd  
St., Kwei Shan Dist., Tao Yuan  
City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

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Fax: 886-3-318-0345  
Email: ICC\_Service@icertifi.com.tw

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