

# FCC RF Exposure Report

**FCC ID** : HDC-17600073  
**Equipment** : WiFi 6E Mesh AP  
**Model No.** : SDG-8632  
**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. 19, 2023  
**Tested Date** : Aug. 07 ~ Sep. 08, 2023

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:

Approved by:

  
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Along Chen / Assistant Manager

  
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Gary Chang / Manager

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## Release Record

Report No.	Version	Description	Issued Date
FA371902	Rev. 01	Initial issue	Dec. 22, 2023

# 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	27.40	27.5	3.990	32	0.110	1	0.110	Pass
5180-5240	26.69	27	3.193	32	0.081	1	0.081	Pass
5260-5320	22.05	22.5	3.314	32	0.030	1	0.030	Pass
5500-5720	23.69	24	3.984	32	0.049	1	0.049	Pass
5745-5825	28.11	28.5	4.705	32	0.163	1	0.163	Pass
5925-6425	19.87	20	3.90	32	0.019	1	0.019	Pass
6425-6525	17.78	18	4.13	32	0.013	1	0.013	Pass
6525-6875	19.82	20	4.59	32	0.022	1	0.022	Pass
6875-7125	21.01	21.5	2.96	32	0.022	1	0.022	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	26.05	26.5	9.555	32	0.313	1	0.313	Pass
5180-5240	26.36	26.5	8.996	32	0.275	1	0.275	Pass
5260-5320	20.70	21	9.137	32	0.080	1	0.080	Pass
5500-5720	20.29	20.5	9.605	32	0.080	1	0.080	Pass
5745-5825	26.14	26.5	9.748	32	0.328	1	0.328	Pass
5925-6425	19.67	20	6.48	32	0.035	1	0.035	Pass
6425-6525	17.74	18	6.16	32	0.020	1	0.020	Pass
6525-6875	19.65	20	6.55	32	0.035	1	0.035	Pass
6875-7125	20.86	21	5.19	32	0.032	1	0.032	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	32	0.0001	1	0.0001	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	0.110
WLAN 5GHz	0.163
WLAN 6GHz	0.022
BT	0.0001
Sum	0.295
Limit	1
Pass / Fail	Pass

### *Beamforming mode*

Mode	Max Ratio of Each Mode
WLAN 2.4GHz	0.313
WLAN 5GHz	0.328
WLAN 6GHz	0.035
BT	0.0001
Sum	0.676
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>.

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

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