

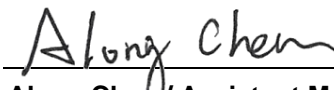
FCC RF Exposure Report

FCC ID : HDC-17600072
Equipment : WiFi 6 Mesh AP
Model No. : SDG-8622
Brand Name : Adtran
Applicant : Adtran
Address : 901 Explorer Boulevard, Huntsville, Alabama,
United States, 35806-2807
Standard : 47 CFR FCC Part 2.1091
Received Date : May 31, 2023
Tested Date : Jun. 02 ~ Jul. 05, 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:



Along Chen / Assistant Manager



Gary Chang / Manager

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Release Record

Report No.	Version	Description	Issued Date
FA353101	Rev. 01	Initial issue	Sep. 01, 2023

1 MPE EVALUATION OF MOBILE DEVICES

1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm ²)	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/cm²

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 ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
2412-2462	27.02	27.5	4.574	31	0.133	1	0.133	Pass
5180-5240	26.86	27	4.338	31	0.113	1	0.113	Pass
5260-5320	23.35	23.5	4.690	31	0.055	1	0.055	Pass
5500-5720	23.83	24	4.634	31	0.060	1	0.06	Pass
5745-5825	27.77	28	4.634	31	0.152	1	0.152	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 ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
2412-2462	26.04	26.5	9.715	31	0.346	1	0.346	Pass
5180-5240	25.91	26	9.882	31	0.321	1	0.321	Pass
5260-5320	19.42	20	10.338	31	0.090	1	0.09	Pass
5500-5720	19.46	20	10.385	31	0.090	1	0.09	Pass
5745-5825	25.44	25.5	10.365	31	0.320	1	0.32	Pass

*Ratio = Power density / Limit.

Remarks:

For 2412~2462MHz:

Directional gain = $10 \times \log((10^{3.618/20} + 10^{3.414/20} + 10^{3.099/20} + 10^{4.574/20})^2/4) = 9.715$ dBi

For 5180~5240MHz:

Directional gain = $10 \times \log((10^{3.983/20} + 10^{3.713/20} + 10^{3.385/20} + 10^{4.338/20})^2/4) = 9.882$ dBi

For 5260~5320MHz:

Directional gain = $10 \times \log((10^{3.544/20} + 10^{4.354/20} + 10^{4.633/20} + 10^{4.69/20})^2/4) = 10.338$ dBi

For 5500~5700MHz:

Directional gain = $10 \times \log((10^{4.341/20} + 10^{4.289/20} + 10^{4.634/20} + 10^{4.188/20})^2/4) = 10.385$ dBi

For 5745~5825MHz:

Directional gain = $10 \times \log((10^{4.341/20} + 10^{4.174/20} + 10^{4.634/20} + 10^{4.223/20})^2/4) = 10.365$ dBi

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 ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
2402-2480	2.2	-0.5	31	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	0.133
WLAN 5G Low	0.113
WLAN 5G High	0.152
BT	0.0001
Sum	0.398
Limit	1
Pass / Fail	Pass

Beamforming mode

Mode	Max Ratio of Each Mode
Beamforming-WLAN 2.4GHz	0.346
Beamforming- WLAN 5G Low	0.321
Beamforming- WLAN 5G High	0.320
Non-beamforming-BT	0.0001
Sum	0.987
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

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Kwei Shan

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St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

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

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