

FCC RF Exposure Report

FCC ID : MXF-W1700K
Equipment : Wi-Fi 7 Router
Model No. : W1700K
Brand Name : Q Fiber
Applicant : Gemtek Technology Co., Ltd.
Address : No. 15-1 Zhonghua Road, Hsinchu Industrial
Park, Hukou, Hsinchu, Taiwan, 30352.
Standard : 47 CFR FCC Part 2.1091
Received Date : Jun. 27, 2023
Tested Date : Jul. 18 ~ Aug. 14, 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:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager

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Release Record

Report No.	Version	Description	Issued Date
FA362704	Rev. 01	Initial issue	Sep. 19, 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 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

1.4 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.

1.5 MPE EVALUATION RESULTS

Non-beamforming mode

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
WLAN								
2412-2462	29.50	30	1.69	25	0.188	1	0.188	Pass
5180-5240	29.43	29.5	3.66	25	0.264	1	0.264	Pass
5745-5825	29.71	30	3.6	25	0.292	1	0.292	Pass
5925-6425	23.71	24	2.9	25	0.062	1	0.062	Pass
6425-6525	23.46	23.5	2.69	25	0.053	1	0.053	Pass
6525-6875	23.37	23.5	3.30	25	0.061	1	0.061	Pass
6875-7125	21.57	22	2.71	25	0.038	1	0.038	Pass
BT								
2402-2480 (BT-LE)	9.62	10	2.94	25	0.003	1	0.003	Pass
Thread								
2405-2480	9.72	10	2.94	25	0.003	1	0.003	Pass

*Ratio = Power density / Limit.

Beamforming mode

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
WLAN								
2412-2462	29.10	29.5	4.31	25	0.306	1	0.306	Pass
5180-5240	29.32	29.5	6.60	25	0.519	1	0.519	Pass
5745-5825	29.43	29.5	5.46	25	0.399	1	0.399	Pass
5925-6425	23.62	24	5.36	25	0.110	1	0.110	Pass
6425-6525	23.14	23.5	5.71	25	0.106	1	0.106	Pass
6525-6875	23.05	23.5	5.61	25	0.104	1	0.104	Pass
6875-7125	21.52	22	5.44	25	0.071	1	0.071	Pass

*Ratio = Power density / Limit.

1.6 MPE EVALUATION OF SIMULTANEOUS TRANSMISSION

Non-beamforming mode

Max Ratio of Each Mode

Mode	Wi-Fi 2.4G	BT	Thread	Wi-Fi 5G	Wi-Fi 6G	Sum	Limit	Pass / Fail
1	0.188	-	-	0.292	-	0.48	1	Pass
2	0.188	-	-	-	0.062	0.25	1	Pass
3	0.188	-	-	0.292	0.062	0.542	1	Pass
4	-	0.003	-	0.292	-	0.295	1	Pass
5	-	0.003	-	-	0.062	0.065	1	Pass
6	-	0.003	-	0.292	0.062	0.357	1	Pass
7	-	-	0.003	0.292	-	0.295	1	Pass
8	-	-	0.003	-	0.062	0.065	1	Pass
9	-	-	0.003	0.292	0.062	0.357	1	Pass

Beamforming mode

Max Ratio of Each Mode

Mode	Wi-Fi 2.4G	BT	Thread	Wi-Fi 5G	Wi-Fi 6G	Sum	Limit	Pass / Fail
1	0.306	-	-	0.519	-	0.825	1	Pass
2	0.306	-	-	-	0.110	0.416	1	Pass
3	0.306	-	-	0.519	0.110	0.935	1	Pass
4	-	0.003	-	0.519	-	0.522	1	Pass
5	-	0.003	-	-	0.110	0.113	1	Pass
6	-	0.003	-	0.519	0.110	0.632	1	Pass
7	-	-	0.003	0.519	-	0.522	1	Pass
8	-	-	0.003	-	0.110	0.113	1	Pass
9	-	-	0.003	0.519	0.110	0.632	1	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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