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 ~ Oct. 30, 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
FA362704-01	Rev. 01	Initial issue	Mar. 18, 2024

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

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

Where

Pd= Power density in mW/cm^2
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	3.1	26	0.240	1	0.240	Pass
5180-5240*	29.43	29.5	3.66	26	0.244	1	0.244	Pass
5260-5320	23.74	24	2.63	26	0.054	1	0.054	Pass
5500-5720	23.89	24	3.28	26	0.063	1	0.063	Pass
5745-5825	29.71	30	3.6	26	0.270	1	0.270	Pass
5925-6425	23.71	24	3.26	26	0.063	1	0.063	Pass
6425-6525	23.24	23.5	2.69	26	0.049	1	0.049	Pass
6525-6875	23.37	23.5	3.36	26	0.057	1	0.057	Pass
6875-7125	21.57	22	2.71	26	0.035	1	0.035	Pass
BT								
2402-2480* (BT-LE)	9.62	10	2.94	26	0.002	1	0.002	Pass
Thread								
2405-2480*	9.72	10	2.94	26	0.002	1	0.002	Pass

*Test results of these frequency bands are leveraged from original MPE report, report no. FA362704
**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	5.52	26	0.374	1	0.374	Pass
5180-5240	29.32	29.5	6.6	26	0.480	1	0.480	Pass
5260-5320	23.54	24	6	26	0.118	1	0.118	Pass
5500-5720	23.64	24	5.54	26	0.106	1	0.106	Pass
5745-5825	29.43	29.5	5.56	26	0.377	1	0.377	Pass
5925-6425	23.62	24	5.44	26	0.103	1	0.103	Pass
6425-6525	23.08	23.5	5.71	26	0.098	1	0.098	Pass
6525-6875	23.05	23.5	5.61	26	0.096	1	0.096	Pass
6875-7125	21.52	22	5.44	26	0.065	1	0.065	Pass

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	0.240	-	-	0.270	-	0.510	1	Pass
2	0.240	-	-	-	0.063	0.303	1	Pass
3	0.240	-	-	0.270	0.063	0.573	1	Pass
4	-	0.002	-	0.270	-	0.272	1	Pass
5	-	0.002	-	-	0.063	0.065	1	Pass
6	-	0.002	-	0.270	0.063	0.334	1	Pass
7	-	-	0.002	0.270	-	0.272	1	Pass
8	-	-	0.002	-	0.063	0.065	1	Pass
9	-	-	0.002	0.270	0.063	0.334	1	Pass

Beamforming mode

Mode	Wi-Fi 2.4G	BT	Thread	Wi-Fi 5G	Wi-Fi 6G	Sum	Limit	Pass / Fail
1	0.374	-	-	0.480	-	0.854	1	Pass
2	0.374	-	-	-	0.103	0.477	1	Pass
3	0.374	-	-	0.480	0.103	0.957	1	Pass
4	-	0.002	-	0.480	-	0.482	1	Pass
5	-	0.002	-	-	0.103	0.106	1	Pass
6	-	0.002	-	0.480	0.103	0.585	1	Pass
7	-	-	0.002	0.480	-	0.482	1	Pass
8	-	-	0.002	-	0.103	0.106	1	Pass
9	-	-	0.002	0.480	0.103	0.585	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	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No.30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan (R.O.C.)	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.)	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

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

Tel: 886-3-271-8666
Fax: 886-3-318-0345
Email: ICC_Service@icertifi.com.tw

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