





# **FCC RF Exposure Report**

FCC ID : MXF-W1701K

Equipment : Tri-Band AP

Model No. : W1701K

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 : Aug. 01 ~ Sep. 11, 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 Cheld/ Assistant Manager Gary Chang / Man

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## **Release Record**

Report No.	Version	Description	Issued Date
FA362701-01	Rev. 01	Initial issue	Mar. 18, 2024

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#### 1 MPE EVALUATION OF MOBILE DEVICES

#### 1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm²)	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 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.

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### 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/cm²)	Limit (mW/cm²)	**Ratio	Pass / Fail	
WLAN									
2412-2462*	28.20	28.5	1.09	25	0.116	1	0.116	Pass	
5180-5240*	29.71	30	2.58	25	0.231	1	0.231	Pass	
5260-5320	23.88	24	2.22	25	0.053	1	0.053	Pass	
5500-5720	23.68	24	1.79	25	0.048	1	0.048	Pass	
5745-5825*	29.89	30	2.81	25	0.243	1	0.243	Pass	
5925-6425*	24.97	25	4.01	25	0.101	1	0.101	Pass	
6425-6525*	20.18	20.5	1.29	25	0.019	1	0.019	Pass	
6525-6875*	23.98	24	2.84	25	0.062	1	0.062	Pass	
6875-7125*	23.99	24	3.03	25	0.064	1	0.064	Pass	
ВТ									
2402-2480* (BT-LE)	9.79	10	2.40	25	0.002	1	0.002	Pass	
Thread	Thread								
2405-2480*	9.79	10	2.40	25	0.002	1	0.002	Pass	

#### Beamforming mode

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm²)	*Ratio	Pass / Fail
WLAN								
2412-2462*	27.83	28	3.21	25	0.168	1	0.168	Pass
5180-5240*	29.36	29.5	5.23	25	0.378	1	0.378	Pass
5260-5320	23.67	24	4.42	25	0.088	1	0.088	Pass
5500-5720	23.64	24	3.81	25	0.077	1	0.077	Pass
5745-5825*	29.86	30	3.39	25	0.278	1	0.278	Pass
5925-6425*	24.60	25	4.20	25	0.106	1	0.106	Pass
6425-6525*	19.84	20	3.90	25	0.031	1	0.031	Pass
6525-6875*	23.70	24	5.31	25	0.109	1	0.109	Pass
6875-7125*	21.86	22	4.78	25	0.061	1	0.061	Pass

<sup>\*</sup>Test results of these frequency bands are leveraged from original MPE report, report no. FA362701

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<sup>\*\*</sup>Ratio = Power density / Limit.



#### MPE EVALUATION OF SIMULTANEOUS TRANSMISSION 1.6

# **Non-beamforming mode Max Ratio of Each Mode**

WAX RATIO OF EACH MODE									
Mode	Wi-Fi 2.4G	BT	Thread	Wi-Fi 5G	Wi-Fi 6G	Sum	Limit	Pass / Fail	
1	0.116	-	-	0.243	-	0.359	1	Pass	
2	0.116	-	-	-	0.101	0.217	1	Pass	
3	0.116	-	-	0.243	0.101	0.46	1	Pass	
4	-	0.002	-	0.243	-	0.245	1	Pass	
5	-	0.002	-	-	0.101	0.103	1	Pass	
6	-	0.002	-	0.243	0.101	0.346	1	Pass	
7	-	-	0.002	0.243	-	0.245	1	Pass	
8	-	-	0.002	-	0.101	0.103	1	Pass	
9	-	-	0.002	0.243	0.101	0.346	1	Pass	

# Beamforming mode Max Ratio of Each Mode

Mode	Wi-Fi 2.4G	ВТ	Thread	Wi-Fi 5G	Wi-Fi 6G	Sum	Limit	Pass / Fail
1	0.168	-	-	0.378	-	0.546	1	Pass
2	0.168	-	-	-	0.109	0.277	1	Pass
3	0.168	-	-	0.378	0.109	0.655	1	Pass
4	-	0.002	-	0.378	-	0.38	1	Pass
5	-	0.002	-	-	0.109	0.111	1	Pass
6	-	0.002	ı	0.378	0.109	0.489	1	Pass
7	-	ı	0.002	0.378	-	0.38	1	Pass
8	-	-	0.002	-	0.109	0.111	1	Pass
9	-	-	0.002	0.378	0.109	0.489	1	Pass

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### 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 <a href="http://www.icertifi.com.tw">http://www.icertifi.com.tw</a>.

#### 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 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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