FCC RF Exposure Report

FCC ID	:	**MXF-Q9500WK**
Equipment	:	**Wi-Fi AP**
Model No.	:	**Q9500WK**
Brand Name	:	**Quantum 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. 25, 2022**
Tested Date	:	**Jun. 28 ~ Jul. 14, 2022**

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**

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FA263001-01	Rev. 01	Initial issue	Oct. 13, 2022

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

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
Non-beamforming mode								
2412~2462Note1	27.42	27.5	2.29	20	0.190	1	0.190	Pass
5180~5240Note1	25.52	26.0	2.42	20	0.138	1	0.138	Pass
5745~5825Note1	27.66	28.0	3.22	20	0.263	1	0.263	Pass
5260~5320	23.90	24.0	2.58	20	0.091	1	0.091	Pass
5500~5700	23.94	24.0	3.11	20	0.102	1	0.102	Pass
2402~2480Note1	9.76	10.0	2.83	20	0.004	1	0.004	Pass
Beamforming mode								
2412~2462Note1	27.35	27.5	2.88	20	0.217	1	0.217	Pass
5180~5240Note1	25.45	25.5	3.17	20	0.146	1	0.146	Pass
5745~5825Note1	27.59	28.0	4.51	20	0.355	1	0.355	Pass
5260~5320	23.82	24.0	3.10	20	0.102	1	0.102	Pass
5500~5700	22.48	22.5	4.63	20	0.103	1	0.103	Pass

*Ratio = Power density / Limit.

Note[1]: Test results of these frequency bands are leveraged from original MPE report, report no. FA263001.

1.6 MPE EVALUATION OF SIMULTANEOUS TRANSMISSION

- **Mode 1: WLAN 2.4GHz + WLAN 5GHz Low band + WLAN 5GHz High band**
- **Mode 2: BT + WLAN 5GHz Low band + WLAN 5GHz High band**

Mode	Max Ratio of Each Mode
Non-beamforming WLAN 2.4GHz	0.190
Non-beamforming WLAN 5GHz Low	0.138
Non-beamforming WLAN 5GHz High	0.263
Beamforming WLAN 2.4GHz	0.217
Beamforming WLAN 5GHz Low	0.146
Beamforming WLAN 5GHz High	0.355
BT	0.004
Non-beamforming Sum - Mode 1	0.591
Non-beamforming Sum - Mode 2	0.405
Beamforming Sum - Mode 1	0.718
Beamforming Sum - Mode 2	0.505
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	**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.

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

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