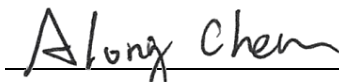


# FCC RF Exposure Report

**FCC ID** : P27LORAAAREAV2  
**Equipment** : MachineQ Area 8C V2 LoRaWAN Gateway  
**Model No.** : GII-AD-B  
**Brand Name** : Sercomm, Comcast, MachineQ  
(For marketing purpose.)  
**Applicant** : Sercomm Corporation  
**Address** : 8F, No. 3-1, YuanQu St., NanKang, Taipei 115,  
Taiwan, R.O.C.  
**Standard** : 47 CFR FCC Part 2.1091  
**Received Date** : May 15, 2024  
**Tested Date** : May 20 ~ Jun. 04, 2024

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
FA451502	Rev. 01	Initial issue	Jul. 19, 2024

## 1 MPE EVALUATION OF MOBILE DEVICES

### 1.1 LIMITS FOR GENERAL POPULATION/UNCONTROLLED EXPOSURE

Frequency Range (MHz)	Power Density (mW /cm <sup>2</sup> )	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 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

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and Explanations:</b>
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

### LTE

Frequency range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Ratio	Pass / Fail
1850~1910 LTE Band 2	23.16	23.5	4	20	0.112	1	0.112	Pass
1710~1755 LTE Band 4	23.18	23.5	3.1	20	0.091	1	0.091	Pass
824~849 LTE Band 5	23.06	23.5	2.1	20	0.072	0.549	0.131	Pass
699~716 LTE Band 12	22.96	23.0	2	20	0.063	0.466	0.135	Pass
777~787 LTE Band 13	22.97	23.0	2.1	20	0.064	0.518	0.124	Pass

### BT

Frequency range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Ratio	Pass / Fail
2402-2480	20.61	21.0	5	20	0.079	1	0.079	Pass

### LoRa

Frequency range (MHz)	Maximum Conducted Power (dBm)	Rated Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Ratio	Pass / Fail
902.3~914.9	27.27	27.5	2.3	20	0.190	0.601	0.316	Pass

## 1.7 MPE EVALUATION OF SIMULTANEOUS TRANSMISSION

Mode	Max Ratio of Each Mode
BT	0.079
LTE	0.135
LoRa	0.316
Sum BT + LTE	0.214
Sum BT + LoRa	0.395
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**

Tel: 886-2-2601-1640

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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.

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==END==