

FCC RF Exposure Report

FCC ID : I88EE6601-00
Equipment : Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway with SFP+
Model No. : EE6601-00
Multiple Listing : Refer to item 1.1.1 for more details
Brand Name : ZYXEL
Applicant : Zyxel Communications Corporation
Address : No.2 Industry East RD. IX, Hsinchu Science Park, Hsinchu 30075, Taiwan
Standard : 47 CFR FCC Part 2.1091
Received Date : Apr. 08, 2024
Tested Date : Apr. 25 ~ May 23, 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:

Approved by:


Along Chen / Assistant Manager


Gary Chang / Manager

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Release Record

Report No.	Version	Description	Issued Date
FA440801	Rev. 01	Initial issue	Jul. 02, 2024

1 General Description

1.1 INFORMATION

1.1.1 PRODUCT DETAILS

The following models are provided to this EUT.

Model Name	Product Name	VOIP	SFP+ cage
EE6601-00	Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway with SFP+	V	V
EE6601-01	Tri-Band Wireless BE19000 10G Ethernet VoIP Gateway	V	X
EE6600-00	Tri-Band Wireless BE19000 10G Ethernet Gateway with SFP+	X	V
EE6600-01	Tri-Band Wireless BE19000 10G Ethernet Gateway	X	X
✦ The above models, model EE6601-00 was selected as a representative one for the final test and only its data was recorded in this report.			

2 MPE EVALUATION OF MOBILE DEVICES

2.1 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

2.2 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

2.3 REFERENCE GUIDANCE

447498 D01 General RF Exposure Guidance v06

2.4 DEVIATION FROM TEST STANDARD AND MEASUREMENT PROCEDURE

None

2.5 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

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.

2.6 MPE EVALUATION RESULTS

Non-beamforming mode

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Maximum Tune Up Limit (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
2412-2462	29.70	30.0	2.33	20	0.340	1	0.340	Pass
5180-5240	29.68	30.0	4.17	20	0.520	1	0.520	Pass
5260-5320	23.88	24.0	3.46	20	0.111	1	0.111	Pass
5500-5720	23.87	24.0	4.89	20	0.154	1	0.154	Pass
5745-5825	29.88	30.0	4.15	20	0.517	1	0.517	Pass

Frequency Range (MHz)	EIRP(dBm)	Maximum Tune Up Limit (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
5925-7125	23.55	24.0	20	0.050	1	0.050	Pass

*Ratio = Power density / Limit.

Beamforming mode

Frequency Range (MHz)	Maximum Conducted Power (dBm)	Maximum Tune Up Limit (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
2412-2462	24.40	24.5	5.98	20	0.222	1	0.222	Pass
5180-5240	29.22	29.5	4.63	20	0.515	1	0.515	Pass
5260-5320	22.68	23.0	4.66	20	0.116	1	0.116	Pass
5500-5720	22.78	23.0	5.98	20	0.157	1	0.157	Pass
5745-5825	28.13	28.5	5.90	20	0.548	1	0.548	Pass

*Ratio = Power density / Limit.

Frequency Range (MHz)	EIRP(dBm)	Maximum Tune Up Limit (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	*Ratio	Pass / Fail
5925-7125	23.55	24.0	20	0.050	1	0.050	Pass

*Ratio = Power density / Limit.

2.7 MPE EVALUATION OF SIMULTANEOUS TRANSMISSION

Non-beamforming mode

Mode	Max Ratio of Each Mode
WLAN 2.4GHz	0.340
WLAN 5GHz	0.520
WLAN 6GHz	0.050
Sum	0.910
Limit	1
Pass / Fail	Pass

Beamforming mode

Mode	Max Ratio of Each Mode
WLAN 2.4GHz	0.222
WLAN 5GHz	0.548
WLAN 6GHz	0.050
Sum	0.820
Limit	1
Pass / Fail	Pass

3 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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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
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If you have any suggestion, please feel free to contact us as below information.

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