



■ Report No.: DDT-R20112701-1E10

■ Issued Date: Apr. 10, 2021

# RF EXPOSURE REPORT

## FOR

<b>Applicant</b>	:	Infinet LLC
<b>Address</b>	:	69/75 Vavilova str., off. 425, 117997, Moscow, Russian Federation
<b>Equipment under Test</b>	:	InfiMAN Evolution
<b>Model No.</b>	:	E5-BSE/05700
<b>Trade Mark</b>	:	InfiMAN Evolution
<b>FCC ID</b>	:	2AZJ4-E5-BS
<b>Manufacturer</b>	:	Infinet LLC
<b>Address</b>	:	24 S. Deryabinoy str., off. 701, 620149, Yekaterinburg, Russian Federation

**Issued By: Dongguan Dongdian Testing Service Co., Ltd.**

**Add.:** No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City,  
Guangdong Province, China, 523808

**Tel.:** +86-0769-38826678, **E-Mail:** ddt@dgddt.com, <http://www.dgddt.com>

# REPORT

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## Test Report Declare

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**Standard Used:** KDB447498 D01 General RF Exposure Guidance v06

**We Declare:**

The equipment described above is assessed by Dongguan Dongdian Testing Service Co., Ltd and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these assess.

**After evaluation, our opinion is that the equipment In Accordance with above standard.**

<b>Report No:</b>	DDT-R20112701-1E10		
<b>Date of Receipt:</b>	Nov. 27, 2020	<b>Date of Test:</b>	Nov. 27, 2020 ~ Apr. 10, 2021

**Prepared By:**



**Ella Gong /Engineer**

**Approved By:**



**Damon Hu/EMC Manager**

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

## Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Apr. 10, 2021	

## 1. General information

### 1.1. Description of Equipment

EUT* Name	: InfiMAN Evolution
Model Number	: E5-BSE/05700
EUT function description	: Please reference user manual of this device
Power supply	: DC 55V, 1.5A from PoE
Radio Technology	: Proprietary protocol based on IEEE 802.11ac.
FCC Operation frequency	: 20 MHz: 5745MHz-5825MHz 40 MHz: 5755MHz-5795MHz 80 MHz: 5775MHz
Modulation	: BPSK, QAM
Antenna Type	: Dedicated antenna 1, maximum PK gain: 16 dBi Dedicated antenna 2, maximum PK gain: 16 dBi
Sample Type	: Series production
Serial Number	: N/A

Note : EUT is the ab. of equipment under test.

### 1.2. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: [ddt@dgddt.com](mailto:ddt@dgddt.com)

CNAS Registration No. CNAS L6451; A2LA Certificate Number: 3870.01;

FCC Designation Number: CN1182; FCC Test Firm Registration Number: 540522

Industry Canada Site Registration Number: 10288A

## 2. RF Exposure Evaluation

### 2.1. Requirement

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

#### Limits for General Population/Uncontrolled Exposure

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; \*Plane-wave equivalent power density

### 2.2. Calculation method

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } S(mW/cm^2) = \frac{E^2}{377}$$

**E** = Electric field (V/m)

**P** = Peak RF output power (mW)

**G** = EUT Antenna numeric gain (numeric)=

**d** = Separation distance between radiator and human body (m)

The formula can be changed to

We can change the formula to:

$$S = \frac{30 \times P \times G}{377 \times d^2} \quad \text{or, } d = \sqrt{\frac{30 \times P \times G}{377 \times S}}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2 m, as well as the gain of the used antenna, the RF power density can be obtained.

### 2.3. Estimation result

Worst Mode	Maximum power declared by manufacture from 1 antenna(dBm)	MIMO Output Power (Max.) (dBm)	MIMO Output power (mW)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE Values (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
5825 MHz	13	16	39.81	16	39.81	0.315	1

Note: The estimation distance is 20 cm

Conclusion: No SAR evaluation required since transmitter power is below FCC threshold

**END OF REPORT**