

# RF EXPOSURE EVALUATION REPORT

FCC ID : 2AXSZ5GMNN261  
Equipment : Verizon Auto-Certification Platform -  
5G MM 28GHz  
Brand Name : Verizon, Amantya  
Model Name : 5GTP202MMN261  
Applicant : Amantya Technologies, inc  
2803, Philadelphia Pike, Suite B 304  
Claymont, DE 19703 United States  
Standard : 47 CFR Part 1.1310  
47 CFR Part 1.1307

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part 1.1310 and 1.1307 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full



Approved by: Cona Huang / Deputy Manager



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## History of this test report

| Report No. | Version | Description             | Issued Date   |
|------------|---------|-------------------------|---------------|
| FA142801   | Rev. 01 | Initial issue of report | Jun. 17, 2021 |
| FA142801   | Rev. 02 | Update standard         | Jul. 15, 2021 |
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**1. Description of Equipment Under Test (EUT)**

| Product Feature & Specification         |                                                   |
|-----------------------------------------|---------------------------------------------------|
| EUT Type                                | Verizon Auto-Certification Platform - 5G MM 28GHz |
| Brand Name                              | Verizon, Amantya                                  |
| Model Name                              | 5GTP202MMN261                                     |
| FCC ID                                  | 2AXSZ5GMNN261                                     |
| Wireless Technology and Frequency Range | 5G NR n261 : 27.5 GHz~28.35 GHz                   |
| Mode                                    | 5G NR: CP-OFDM, QPSK, 16QAM, 64QAM                |
| HW Version                              | V08                                               |
| SW Version                              | V1.0                                              |
| EUT Stage                               | Identical Prototype                               |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

**Reviewed by: Jason Wang**

**Report Producer: Paula Chen**

## 2. Maximum RF average output power among production units

| Mode  |      | Average EIRP power(dBm) |
|-------|------|-------------------------|
| 5G NR | n261 | 49.72                   |

## 3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

| Frequency range (MHz)                                          | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|----------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| <b>(A) Limits for Occupational/Controlled Exposures</b>        |                               |                               |                                     |                          |
| 0.3-3.0                                                        | 614                           | 1.63                          | *(100)                              | 6                        |
| 3.0-30                                                         | 1842/f                        | 4.89/f                        | *(900/f <sup>2</sup> )              | 6                        |
| 30-300                                                         | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300-1500                                                       |                               |                               | f/300                               | 6                        |
| 1500-100,000                                                   |                               |                               | 5                                   | 6                        |
| <b>(B) Limits for General Population/Uncontrolled Exposure</b> |                               |                               |                                     |                          |
| 0.3-1.34                                                       | 614                           | 1.63                          | *(100)                              | 30                       |
| 1.34-30                                                        | 824/f                         | 2.19/f                        | *(180/f <sup>2</sup> )              | 30                       |
| 30-300                                                         | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300-1500                                                       |                               |                               | f/1500                              | 30                       |
| 1500-100,000                                                   |                               |                               | 1.0                                 | 30                       |

The MPE was calculated at 87 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



## **4. Radio Frequency Radiation Exposure Evaluation**

### **4.1. Standalone Power Density Calculation**

| Band | Maximum EIRP (dBm) | Maximum EIRP (W) | Average EIRP (mW) | Power Density at 87cm (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) | Power Density / Limit |
|------|--------------------|------------------|-------------------|---------------------------------------------|-----------------------------|-----------------------|
| n261 | 49.72              | 93.76            | 93756.20          | 0.986                                       | 1.000                       | 0.986                 |

### **Conclusion:**

According to 47 CFR §1.1310 and §1.1307 the RF exposure analysis concludes that the RF Exposure is FCC compliant.