

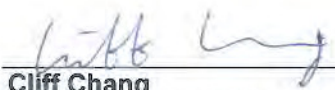


# RF Exposure Evaluation Report

**Equipment** : Norton Core Secure WiFi Router  
**Brand Name** : Norton Core  
**Model No.** : 517  
**FCC ID** : 2AI6F-517  
**Standard** : 47 CFR Part 2.1091  
**Applicant** : Symantec Corporation  
350 Ellis Street Mountain View, CA 94043 United States  
**Manufacturer** : CyberTAN Technology Inc.  
No. 99, Park Avenue III, Science-based Industrial Park, Hsinchu, 308 Taiwan

The product sample received on Aug. 16, 2017 and completely tested on Mar. 14, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with 47 CFR Part 2.1091, and pass the limit.

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Cliff Chang  
SPORTON INTERNATIONAL INC.





## **TABLE OF CONTENTS**

|                               |                                             |          |
|-------------------------------|---------------------------------------------|----------|
| <b>1</b>                      | <b>GENERAL DESCRIPTION .....</b>            | <b>4</b> |
| 1.1                           | EUT General Information .....               | 4        |
| 1.2                           | Table for Multiple Listing .....            | 4        |
| 1.3                           | Table for Class II Change.....              | 4        |
| 1.4                           | Testing Location .....                      | 4        |
| <b>2</b>                      | <b>MAXIMUM PERMISSIBLE EXPOSURE .....</b>   | <b>5</b> |
| 2.1                           | Limit of Maximum Permissible Exposure ..... | 5        |
| 2.2                           | MPE Calculation Method .....                | 5        |
| 2.3                           | Calculated Result and Limit.....            | 6        |
| <b>PHOTOGRAPHS OF EUT V01</b> |                                             |          |

## REVISION HISTORY

[illegible]

# 1 General Description

## 1.1 EUT General Information

| RF General Information |                        |                           |                                                                                                                                      |
|------------------------|------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Evaluation Mode        | Frequency Range (MHz)  | Operating Frequency (MHz) | Modulation Type                                                                                                                      |
| 2.4GHz WLAN            | 2400-2483.5            | 2412-2462                 | 802.11b: DSSS (DBPSK, DQPSK, CCK)<br>802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)<br>802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) |
| 5GHz WLAN              | 5150-5250<br>5725-5850 | 5180-5240<br>5745-5825    | 802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)<br>802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)                                      |
| Bluetooth              | 2400-2483.5            | 2402-2480                 | BR / EDR: FHSS (GFSK / $\pi/4$ -DQPSK / 8DPSK)<br>LE: DSSS (GFSK)                                                                    |

## 1.2 Table for Multiple Listing

The EUT has two exterior which are identical to each other in all aspects except for the following table:

| Brand Name  | Model Name | EUT | Color         |
|-------------|------------|-----|---------------|
| Norton Core | 517        | 1   | Granite Gray  |
|             |            | 2   | Titanium Gold |

## 1.3 Testing Location

| Testing Location                    |        |                                                                                                                               |  |
|-------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------|--|
| <input type="checkbox"/>            | HWA YA | ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.<br>TEL : 886-3-327-3456 FAX : 886-3-327-0973   |  |
| <input checked="" type="checkbox"/> | JHUBEI | ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.<br>TEL : 886-3-656-9065 FAX : 886-3-656-9085 |  |

## 2 Maximum Permissible Exposure

### 2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled 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) |
|-----------------------|-----------------------------------|-----------------------------------|------------------------------------------|------------------------------------------------------------------|
| 0.3-3.0               | 614                               | 1.63                              | (100)*                                   | 6                                                                |
| 3.0-30                | 1842 / f                          | 4.89 / f                          | (900 / f)*                               | 6                                                                |
| 30-300                | 61.4                              | 0.163                             | 1.0                                      | 6                                                                |
| 300-1500              |                                   |                                   | F/300                                    | 6                                                                |
| 1500-100,000          |                                   |                                   | 5                                        | 6                                                                |

(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 MPE Calculation Method

The MPE was calculated at 26 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

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

**P** = RF output power (W)

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

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

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$



## 2.3 Calculated Result and Limit

### Exposure Environment: General Population / Uncontrolled Exposure

Simultaneous Transmission Analysis Mode: Bluetooth+WLAN 2.4GHz +WLAN 5GHz

| Mode        | DG<br>(dBi) | Power<br>(dBm) | EIRP<br>(dBm) | EIRP<br>(W) | Distance<br>(cm) | S<br>(mW/cm <sup>2</sup> ) | S Limit<br>(mW/cm <sup>2</sup> ) | Ratio<br>(S/Limit) |
|-------------|-------------|----------------|---------------|-------------|------------------|----------------------------|----------------------------------|--------------------|
| 2.4G;D1D    | 7.52        | 28.41          | 35.93         | 3.91742     | 26               | 0.46115                    | 1.00000                          | 0.46115            |
| 5.2G;D1D    | 8.32        | 27.66          | 35.99         | 3.97192     | 26               | 0.46757                    | 1.00000                          | 0.46757            |
| 2.4G;BT-EDR | 2.54        | 7.35           | 9.89          | 0.00975     | 26               | 0.00115                    | 1.00000                          | 0.00115            |
|             |             |                |               |             |                  |                            | Sum Ratio                        | 0.92987            |
|             |             |                |               |             |                  |                            | Ratio Limit                      | 1                  |