

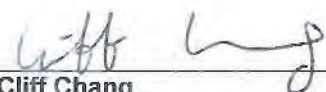


# RF Exposure Evaluation Report

**Equipment** : Dashcam  
**Brand Name** : DOD  
**Model No.** : RC500S, RC505S, RC508S, RC510S, RC400S,  
RC405S, RC408S, RC410S  
**FCC ID** : 2AF9K-RC500S  
**Standard** : 47 CFR Part 2.1091  
**Applicant** : Shenzhen DOD Technology Co.,Ltd.  
5/F Building3# Minxing Industrial Park Minkang  
Rd.Minzhi Longhua Shenzhen Guangdong China  
**Manufacturer** : Shenzhen DOD Technology Co.,Ltd.  
5/F Building3# Minxing Industrial Park Minkang  
Rd.Minzhi Longhua Shenzhen Guangdong China

The product sample received on Oct. 13, 2016 and completely tested on Mar. 20, 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.





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## 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) |

## 1.2 Table for Multiple Listing

The EUT has eight model names which are identical to each other in all aspects except for the following table:

| Brand Name | Model Name | Description                                                                                     |
|------------|------------|-------------------------------------------------------------------------------------------------|
| DOD        | RC500S     | All the models are identical, the difference model for difference served as marketing strategy. |
|            | RC505S     |                                                                                                 |
|            | RC508S     |                                                                                                 |
|            | RC510S     |                                                                                                 |
|            | RC400S     |                                                                                                 |
|            | RC405S     |                                                                                                 |
|            | RC408S     |                                                                                                 |
|            | RC410S     |                                                                                                 |

From the above models, model: RC500S was selected as representative model for the test and its data was recorded in this report.

## 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 20 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**

| Mode     | DG<br>(dBi) | Power<br>(dBm) | Tune-up 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> ) |
|----------|-------------|----------------|------------------------|---------------|-------------|------------------|----------------------------|----------------------------------|
| 2.4G;D1D | 3.00        | 20.33          | 20.83                  | 23.83         | 0.24155     | 20               | 0.04807                    | 1.00000                          |