# RF EXPOSURE EVALUATION REPORT

| | | |
|---|---|---|
| **FCC ID** | : | **2AEUP5DFYA3** |
| **Equipment** | : | **Video Doorbell** |
| **Brand Name** | : | **ring** |
| **Model Name** | : | **5DFYA3** |
| **Applicant** | : | **Ring LLC<br>12515 Cerise Ave, Hawthorne, CA<br>90250, USA** |
| **Standard** | : | **47 CFR Part 2.1091** |

**We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.**
**Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) and the FCC designation No. TW3786 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. 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 |
|---|---|---|---|
| FA572903 | Rev. 01 | Initial issue of report | Sep. 18, 2025 |
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# 1. Description of Equipment Under Test (EUT)

| Product Feature & Specification | |
|---|---|
| Equipment Name | Video Doorbell |
| Brand Name | ring |
| Model Name | 5DFYA3 |
| FCC ID | 2AEUP5DFYA3 |
| Wireless Technology and Frequency Range | WLAN 2.4GHz Band: 2400 MHz ~ 2483.5 MHz<br>WLAN 5GHz Band: 5150 MHz ~ 5350 MHz, 5470 MHz ~ 5725 MHz, 5725 MHz ~ 5850 MHz<br>Bluetooth: 2400 MHz ~ 2483.5 MHz<br>Radar 24GHz: 24.06 GHz ~ 24.24 GHz |
| Mode | WLAN: 802.11a/b/g/n/ac/ax HT20/HT40/VHT20/HE20<br>Bluetooth: LE<br>Radar 24GHz: FMCW |

**Reviewed by: Jason Wang**
**Report Producer: Daisy Peng**

# 2. Maximum RF average output power among production units

| Band | Maximum Power (dBm) | Gain (dBi) |
|---|---|---|
| 2.4GHz WLAN | 20.46 | 3.50 |
| 5.2GHz WLAN | 19.78 | 4.00 |
| 5.3GHz WLAN | 19.56 | 4.00 |
| 5.5GHz WLAN | 18.87 | 4.00 |
| 5.8GHz WLAN | 17.76 | 4.50 |
| Bluetooth | 7.22 | 4.00 |
| Radar 24GHz | 4.50 | 2.00 |

## 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$^2$) | Averaging time (minutes) |
|---|---|---|---|---|
| (A) Limits for Occupational/Controlled Exposures | | | | |
| 0.3-3.0 | 614 | 1.63 | *(100) | 6 |
| 3.0-30 | 1842/f | 4.89/f | *(900/f2) | 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 | | | | |
| 0.3-1.34 | 614 | 1.63 | *(100) | 30 |
| 1.34-30 | 824/f | 2.19/f | *(180/f2) | 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 20 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 | Antenna Gain (dBi) | Maximum Power (dBm) | Maximum EIRP (dBm) | Maximum PG (mW) | Power Density at 20cm (mW/cm^2) | Limit (mW/cm^2) | Power Density / Limit |
|---|---|---|---|---|---|---|---|
| 2.4GHz WLAN | 3.50 | 20.46 | 23.96 | 248.89 | 0.050 | 1.000 | 0.050 |
| 5.2GHz WLAN | 4.00 | 19.78 | 23.78 | 238.78 | 0.048 | 1.000 | 0.048 |
| 5.3GHz WLAN | 4.00 | 19.56 | 23.56 | 226.99 | 0.045 | 1.000 | 0.045 |
| 5.5GHz WLAN | 4.00 | 18.87 | 22.87 | 193.64 | 0.039 | 1.000 | 0.039 |
| 5.8GHz WLAN | 4.50 | 17.76 | 22.26 | 168.27 | 0.033 | 1.000 | 0.033 |
| Bluetooth | 4.00 | 7.22 | 11.22 | 13.24 | 0.003 | 1.000 | 0.003 |
| Radar 24GHz | 2.00 | 4.50 | 6.50 | 4.47 | 0.001 | 1.000 | 0.001 |

## 4.2. Collocated Power Density Calculation

| WLAN Power Density / Limit | Bluetooth Power Density / Limit | Radar 24GHz Power Density / Limit | Σ(Power Density / Limit) |
|---|---|---|---|
| 0.050 | 0.003 | 0.001 | 0.054 |

**Note:**

1. ∑(Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)]
2. Based on the EIRP performance listed in the table above, the aggregated (power density/limit) is smaller than 1, and MPE of the 3 collocated transmitters is compliant.

## Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.