RF EXPOSURE EVALUATION REPORT

FCC ID	:	**2AEUPBHART001**
Equipment	:	**Intercom**
Brand Name	:	ring
Model Name	:	**5F34E9**
Applicant	:	**Ring LLC** **12515 Cerise Ave, Hawthorne, CA 90250, USA**
Manufacturer	:	**Ring LLC** **12515 Cerise Ave, Hawthorne, CA 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: 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. Laboratory, the test report shall not be reproduced except in full

Cona Huang

Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA250915	Rev. 01	Initial issue of report	Jul. 22, 2022

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Intercom
Brand Name	ring
Model Name	5F34E9
FCC ID	2AEUPBHART001
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2400 MHz ~ 2483.5 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz LoRa: 902MHz ~ 928 MHz
Mode	WLAN: 802.11b/g/n HT20 Bluetooth LE LoRa: DTS/FHSS
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: Daisy Peng

2. Maximum RF average output power among production units

<Bluetooth>

Band	Channel	Frequency	Data rate/BW	Tuneup (Average power)
BT5.0	CH 00	2402 MHz	1M	7.50
BT5.0	CH 19	2440 MHz	1M	7.50
BT5.0	CH 39	2480 MHz	1M	8.00

<2.4GHz WLAN>

Band	Channel	Frequency	Data rate/BW	Tuneup (Average power)
802.11b	CH 01	2412 MHz	1M	19.50
802.11b	CH 06	2437 MHz	1M	19.00
802.11b	CH 11	2462 MHz	1M	19.50
802.11b	CH 12	2467 MHz	1M	13.50
802.11b	CH 13	2472 MHz	1M	10.00
802.11g	CH 01	2412 MHz	6M	17.00
802.11g	CH 06	2437 MHz	6M	19.50
802.11g	CH 11	2462 MHz	6M	16.00
802.11g	CH 12	2467 MHz	6M	14.00
802.11g	CH 13	2472 MHz	6M	7.50
802.11n HT20	CH 01	2412 MHz	MCS 0	15.50
802.11n HT20	CH 06	2437 MHz	MCS 0	18.50
802.11n HT20	CH 11	2462 MHz	MCS 0	15.50
802.11n HT20	CH 12	2467 MHz	MCS 0	14.00
802.11n HT20	CH 13	2472 MHz	MCS 0	7.50

<LoRa>

Band	Channel	Frequency	Data rate/BW	Tuneup (Average power)
LoRa	L	902.5 MHz	500kHz	20.50
LoRa	M	914.5 MHz	500kHz	20.50
LoRa	H	926.5 MHz	500kHz	20.00
LoRa FHSS	L	902.2 MHz	125kHz	20.50
LoRa FHSS	M	915 MHz	125kHz	20.50
LoRa FHSS	H	927.8 MHz	125kHz	20.00
FSK FHSS	L	902.2 MHz	50kbps	22.00
FSK FHSS	M	915 MHz	50kbps	21.50
FSK FHSS	H	927.8 MHz	50kbps	21.00
FSK FHSS	L	902.4 MHz	150kbps	21.50
FSK FHSS	M	914.8 MHz	150kbps	21.50
FSK FHSS	H	927.6 MHz	150kbps	21.00
FSK FHSS	L	902.5 MHz	250kbps	21.50
FSK FHSS	M	915 MHz	250kbps	21.50
FSK FHSS	H	927.5 MHz	250kbps	21.00

3. RF Exposure Limit Introduction

According to Part1.1307b, Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$Pth\ (mW) = ERP_{20cm}\ (d / 20)^{x} \quad \text{for distance } d \leq 20cm$$

$$Pth\ (mW) = ERP_{20cm} \quad \text{for distance } 20cm < d \leq 40cm$$

$$x = -log10\left(\frac{60}{ERP_{20cm}\sqrt{f}}\right)$$

ERP_{20cm}(mW) 0.3 GHz ≤ f < 1.5 GHz: 2040 f
1.5 GHz ≤ f ≤ 6 GHz: 3060

4. RF Exposure Evaluation

4.1. Standalone assessment

Band	Antenna Gain (dBi)	Maximum Conducted Power (dBm)	Maximum EIRP (dBm)	Maximum ERP (dBm)	Maximum EIRP (mW)	Maximum ERP (mW)	P_{th}	P_{th} (mW)	Part1.1307 option(b) Threshold (mW)
WLAN2.4GHz Band	4.6	19.5	24.1	21.95	257.04	156.68	21.95	156.68	3060.000
Bluetooth	2.5	8.0	10.5	8.35	11.22	6.84	8.35	6.84	3060.000
LoRa	2.5	22.0	24.5	22.35	281.84	171.79	22.35	171.79	1840.080

Conclusion:

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