



RF EXPOSURE EVALUATION REPORT

FCC ID : 2AP6E-PROXYPRO-01
Equipment : Proxy Reader Pro
Brand Name : Proxy
Model Name : Proxy Reader Pro
Applicant : Proxy Technologies, Inc.
500 3rd St, San Francisco, CA 94107
Manufacturer : Wistron NeWeb Corp.
20 Park Avenue II, Hsinchu Science Park, Hsinchu 308,
Taiwan,R.O.C
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated in accordance with 47 CFR Part 2.1091 for the device and pass the limit.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERTIONAL 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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1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Proxy Reader Pro
Brand Name	Proxy
Model Name	Proxy Reader Pro
FCC ID	2AP6E-PROXYPRO-01
Wireless Technology and Frequency Range	WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	802.11b/g/n HT20 Bluetooth LE NFC:ASK
HW Version	1.0.04
SW Version	1.6.2.1708+f38fae8
EUT Stage	Production Unit
Remark: 1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description. 2. There are two modules were integrated into this host: (a) The Communication module (Brand Name: Murata, Model Name: Type1LD, FCC ID: VPYLB1LD) is integrated into this host and the rated output power results were taking into this report, which can be referred to Intertek Japan K.K. Matsuda Laboratory Report, Report No: 17040026JMA-001. (b) The BLE Module (Brand Name: WNC, Model Name: XRBH-1, FCC ID: NKR-XRBH-1) is integrated into this host and the tune-up power results were taking into this report, which can be referred to International Standards Laboratory Report, Report No: ISL-17LR085FC-R1.	

Reviewed by: Jason Wang

Report Producer: Daisy Peng



2. Maximum RF average output power among production units

<For Type1LD>

Band / Mode	Average Power (dBm)	
	LE	
	GFSK	
Bluetooth	7	

Band / Channel / Frequency (MHz)	IEEE 802.11 Average Power (dBm)		
	11b	11g	HT20
2.4GHz WLAN	17	17	17

<For XRBH-1>

Band / Mode	Average Power (dBm)	
	LE	
	GFSK	
Bluetooth	5	



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/f ²)	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/f ²)	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

<For Type1LD>

Table with 10 columns: Band, Frequency (MHz), Antenna Gain (dBi), Maximum Power (dBm), Maximum EIRP (dBm), Maximum EIRP (W), Average EIRP (mW), Power Density at 20cm (mW/cm^2), Limit (mW/cm^2), Power Density / Limit. Rows include 2.4GHz WLAN and Bluetooth.

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band

<For XRBH-1>

Table with 10 columns: Band, Frequency (MHz), Antenna Gain (dBi), Maximum Power (dBm), Maximum EIRP (dBm), Maximum EIRP (W), Average EIRP (mW), Power Density at 20cm (mW/cm^2), Limit (mW/cm^2), Power Density / Limit. Row includes Bluetooth.

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band

4.2. Collocated Power Density Calculation

Table with 3 columns: Type1LD Power Density / Limit, XRBH-1 Power Density / Limit, Σ (Power Density / Limit) of Type1LD + XRBH-1. Values: 0.010326, 0.000615, 0.010941.

Note:

- 1. Σ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for Type1LD + XRBH-1
2. Considering the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 2 collocated transmitters is compliant

Conclusion:

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