

# RF EXPOSURE EVALUATION REPORT

FCC ID : W22-ETAG15  
Equipment : Electronic Shelf Label E-paper 1.5" Display  
Brand Name : Store Intelligence Inc.  
Model Name : ETAG 150E5  
Marketing Name : ETAG 150E5 NFC LED BW (BWR)  
Applicant : Store Intelligence  
6700 Koll Center Parkway, Suite 109, Pleasanton, CA, 94566, USA  
Manufacturer : Team Precision Public Company Limited  
198 Moo 13 Suwansorn Rd. , Dong-Khee-Lek, Muang Prachinburi  
25000, Thailand  
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



Approved by: Cona Huang / Deputy Manager



**SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory**  
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



## **Table of Contents**

<b>1. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT) .....</b>	<b>4</b>
<b>2. MAXIMUM RF AVERAGE OUTPUT POWER AMONG PRODUCTION UNITS .....</b>	<b>4</b>
<b>3. RF EXPOSURE LIMIT INTRODUCTION .....</b>	<b>5</b>
<b>4. RADIO FREQUENCY RADIATION EXPOSURE EVALUATION .....</b>	<b>5</b>
4.1. Standalone Power Density Calculation .....	5



## History of this test report

Report No.	Version	Description	Issued Date
FA211101004	Rev. 01	Initial issue of report	Mar. 17, 2022

**1. Description of Equipment Under Test (EUT)**

Product Feature & Specification	
EUT Type	Electronic Shelf Label E-paper 1.5" Display
Brand Name	Store Intelligence Inc.
Model Name	ETAG 150E5
Marketing Name	ETAG 150E5 NFC LED BW (BWR)
FCC ID	W22-ETAG15
Wireless Technology and Frequency Range	2.4GHz Proprietary: 2403 MHz ~ 2469 MHz
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**

Mode	Average power (dBm)
2.4GHz Proprietary	9



### **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 <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	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 EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2.4GHz Proprietary	0.0	9.0	9.0	0.01	7.94	0.002	1.000

### **Conclusion:**

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