

FCC Part 1.1310

RF Exposure Evaluation REPORT

For

FCC ID : 2ARJ5-ET0154-80

Model : ET0154-80

Report Type : Original Report

Product Name : ESL (Electronic Shelf Label)

Report Number : RXZ251216041SA01

Report Date : 2026-06-11

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**Facilities : The test site used by Bay Area Compliance Laboratories Corp. (New Taipei Laboratory)
to collect test data is located on**

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Statement of Compliance

Applicant (Certification Holder)	Suzhou Etag-Technology Corporation
	Room 236,2/F Ming De Building, No.166 Ren ai Road,Suzhou Industrial Park,Suzhou,China
Brand (Trade) Name	ETGtag
Product (Equipment) Name	ESL (Electronic Shelf Label)
Model Name	ET0154-80
Series Model Name	N/A
Model Discrepancy	N/A

Measurement Procedures and Standards Used:

- ☒ FCC Part 2.1091
- ☒ FCC Part 1.1310

The measurement results in this report were performed at Bay Area Compliance Laboratories Corp. (New Taipei Laboratory)

Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.

Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

Report Issued Date : 2026-06-11

Reviewed By : Anson Lu



Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RX251216041	RXZ251216041SA01	2026.06.11	Original Report	Anson Lu

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1. General Information

Product Description for Equipment under Test (EUT)

Product Name	ESL (Electronic Shelf Label)
Frequency Range	BLE(1M) / BLE(2M) : 2402 ~2480 MHz
Conducted Tune-Up Power (dBm)	BLE(1M) : 0.50 dBm BLE(2M) : 0.50 dBm
Modulation Technique	BLE(1M) / BLE(2M) : GFSK
Antenna Specification	PCB Antenna Gain : -1.4 dBi
Received Date	2025/12/16

**All measurement and test data in this report was gathered from production sample serial number:
RXZ251216041-1 (Assigned by BACL (New Taipei Laboratory)).*

2. RF Output Power Evaluation

Please refer to RF report no : RXZ251216041RF02

Conducted Peak Output Power

Channel	Frequency (MHz)	Conducted Peak Output Power(dBm)	Conducted Tune-up Output Power(dBm)
BLE(1M) Mode			
Low	2402	0.22	0.50
Middle	2440	0.13	0.50
High	2480	-0.18	0.50
BLE(2M) Mode			
Low	2402	0.24	0.50
Middle	2440	0.17	0.50
High	2480	-0.14	0.50

3. FCC §1.1310 - RF Exposure

Applicable Standard

According to subpart §1.1310 (a) Specific absorption rate (SAR) shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in § 1.1307(b) of this part within the frequency range of 100 kHz to 6 GHz (inclusive).

§1.1310 (d)(2) For operations within the frequency range of 300 kHz and 6 GHz (inclusive), the limits for maximum permissible exposure (MPE), derived from whole-body SAR limits and listed in Table 1 in paragraph (e)(1) of this section, may be used instead of whole-body SAR limits as set forth in paragraphs (a) through (c) of this section to evaluate the environmental impact of human exposure to RF radiation as specified in § 1.1307(b) of this part, except for portable devices as defined in § 2.1093 of this chapter as these evaluations shall be performed according to the SAR provisions in § 2.1093.

§1.1310 (d)(3) At operating frequencies above 6 GHz, the MPE limits listed in Table 1 in paragraph (e)(1) of this section shall be used in all cases to evaluate the environmental impact of human exposure to RF radiation as specified in § 1.1307(b) of this part.

For single RF sources (*i.e.*, any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section.

Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold P_{th} (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). P_{th} is given by:

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases}$$

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in

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meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation	
RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$
1.34-30	$3,450 R^2 / f^2$
30-300	$3.83 R^2$
300-1,500	$0.0128 R^2 f$
1,500-100,000	$19.2 R^2$

4. RF Exposure Evaluation Result

Band	Freq. (MHz)	Max. Output Power (dBm)	Tune-Up Power (dBm)	Ant. Gain (dBi)	Tune-Up Power (mW)	ERP (dBm)	ERP (mW)
BLE1M	2402	0.22	0.50	-1.4	1.12	-3.05	0.50
BLE1M	2440	0.13	0.50	-1.4	1.12	-3.05	0.50
BLE1M	2480	-0.18	0.50	-1.4	1.12	-3.05	0.50
BLE2M	2402	0.24	0.50	-1.4	1.12	-3.05	0.50
BLE2M	2440	0.17	0.50	-1.4	1.12	-3.05	0.50
BLE2M	2480	-0.14	0.50	-1.4	1.12	-3.05	0.50

Power = maximum time-averaged output power or ERP, whichever is greater (mW)

§ 1.1307(b)(3)(i)(A) method is not applicable.

§ 1.1307(b)(3)(i)(C)

Band	Freq. (MHz)	$\lambda/2\pi$ (mm)	ERP Limit (mW)	Result
BLE1M	2402	19.88	768.00	exempt
BLE1M	2440	19.57	768.00	exempt
BLE1M	2480	19.25	768.00	exempt
BLE2M	2402	19.88	768.00	exempt
BLE2M	2440	19.57	768.00	exempt
BLE2M	2480	19.25	768.00	exempt

Note : The smaller the frequency, the worse the result

The minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates

ERP (watts) is no more than the calculated value prescribed for that frequency

R must be at least $\lambda/2\pi$

λ is the free-space operating wavelength in meters

Note: The Tune-up output power was declared by the Applicant.

Result: Compliance.

***** END OF REPORT *****