

RF Exposure Evaluation Report

Product : Radar Level Meter
Trade mark : N/A
Model/Type reference : CW59L, CW59C, CW59L-LC, CW59S
Serial Number : N/A
Report Number : EED32S811060
FCC ID : 2BXSJ-EIP550
Date of Issue : September 22, 2026
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB 447498 D04 Interim General RF
Exposure Guidance v01
Test result : PASS

Prepared for:

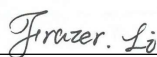
EIP ENVIRO LEVEL CONTROLS PVT LTD
B-45 Sector 8 Noida 201301 India

Prepared by:

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September 22, 2026



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2 General Information

2.1 Client Information

Applicant:	EIP ENVIRO LEVEL CONTROLS PVT LTD
Address of Applicant:	B-45 Sector 8 Noida 201301 India
Manufacturer:	EIP ENVIRO LEVEL CONTROLS PVT LTD
Address of Manufacturer:	B-45 Sector 8 Noida 201301 India
Factory:	EIP ENVIRO LEVEL CONTROLS PVT LTD
Address of Factory:	B-45 Sector 8 Noida 201301 India

2.2 General Description of EUT

Product Name:	Radar Level Meter
Model No.:	CW59L, CW59C, CW59L-LC, CW59S
Test model No.:	CW59L
Trade Mark:	N/A
Model difference:	Their electrical circuit design, layout, components used and internal wiring are identical, Only the model and appearance color are different. The circuit schematic diagram, PCB layout diagram, structure and key components of all models are identical. It will not affect the safety and EMC performance of its products

2.3 Product Specification subjective to this standard

Frequency Range:	BLE: 2402MHz~2480MHz mmWave: 76GHz to 81GHz
Modulation Type:	BLE: GFSK mmWave: FMCW(Frequency Modulated Continuous Wave)
Test Power Grade:	Default
Test Software of EUT:	N/A
Antenna Type:	BLE: PCB Antenna mmWave: Lens Antenna
Antenna Gain:	BLE: 2.72 dBi mmWave: 22.4dBi
Power Supply:	DC 12-30V
Sample Received Date:	Jul. 23, 2027
Sample tested Date:	Jul. 23, 2027 to Aug. 27, 2027

2.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164, Test Firm Registration No.: 260439

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.

2.7 Other Information Requested by the Customer

None.

3 SAR Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula

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

where

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

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

(2)According to KDB 447498 D04 Interim General RF Exposure Guidance v01,for all devices,MPE limits in § 1.1310(e)(1) - Table1.The SAR-based exemption formula of § 1.1310(e)(1),Table 1 to § 1.1310(e)(1) sets forth limits for Maximum Permissible Exposure (MPE) to radio frequency electromagnetic fields.

Table 1 to § 1.1310(e)(1)—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
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
300–1,500			f/300	<6
1,500–100,000			5	<6
(ii) 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
300–1,500			f/1500	<30
1,500–100,000			1.0	<30

f = frequency in MHz.

* = Plane-wave equivalent power density.

Friis Formula,

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$;

Where,

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.141592653589793;

R = distance between observation point and center of the radiator in cm .

General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure. For example, RF sources intended for consumer use shall be subject to the limits for general population/uncontrolled exposure in this section.

3.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3.1.3 EUT RF Exposure Evaluation

For Stand alone:

BLE:

Frequency (MHz)	Estimation distance (cm)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	MPE ratio	Result
@BLE	20	2	2.72	2.57	1.81	3060.00	0.0006	Pass

mmWave:

Working environment	Frequency (MHz)	Estimation distance (cm)	EIRP (dBm)	EIRP (mW)	Power density (mW/cm ²)	Limit (mW/cm ²)	MPE ratio	Result
Uncontrolled	76996.9	20	15.73	37.411	0.0074	1	0.0074	Pass

Note:

- ① $EIRP(mW) = 10^{(EIRP(dBm)/10)}$;
- ② The estimation distance is 20cm;
- ③ Tune-up EIRP was declared by manufacturer;
- ④ The test data of Corrected EIRP please refer to the report of EED32S811058, EED32S811059 and only the worst case data was recorded in the report.

For Simultaneous Transmission:

As MPE ratio (BLE+77GHz)=0.0006+0.0074=0.008<1, it' s deemed to fulfil the RF exposure requirement.

Statement

1. This report is considered invalid without approved signature, special seal and the seal on the perforation;
2. The Company Name shown on Report and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified;
3. The result(s) shown in this report refer(s) only to the sample(s) tested;
4. Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule stated in ILAC-G8:09/2019/CNAS-GL015:2022;
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*** End of Report ***