

RF Exposure Report

Project Number: 5003430**Offer Number: SUW-202109001717****Report Number: 5003430EMC08****Revision Level: 0****Client: UTEC, Inc.****Equipment Under Test: Chiller Controller Display****Model Name: PIC6.1 CONTROLLER****Model Numbers: CEPL131258-01-R & CEPL131260-01-R****Module FCC ID: 2AK6N-WG233****Applicable Standards: 47 CFR §§ 2.1091****FCC KDB 447498 D01 General RF Exposure Guidance v06****FCC OET Bulletin 65****Report issued on: 27 April 2023****Result: Compliant**

FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER: 3212.01

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1 General Information

1.1 Client Information

Company Name: UTEC, Inc.
Address: 111 E. Wayne St., Suite 800
City, State, Zip, Country: Fort Wayne, Indiana 46802, USA

1.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.3 General Information of EUT

Type of Product: Chiller Controller Display
Model Name: PIC6.1 CONTROLLER
Model Numbers: CEPL131258-01-R (7-inch Display)
CEPL131260-01-R (10-inch Display)

Frequency Ranges: 2412 – 2462 MHz
5180 – 5240 MHz (U-NII-1 Band)
5745 – 5825 MHz (U-NII-3 Band)

Data Modes: WLAN IEEE 802.11b/g/n (2.4GHz)
WLAN IEEE 802.11a/n/ac (5GHz)

Antennas: Two external antennas: MST-24/58BC-7 (7dBi)*

Max Conducted Output Power: WLAN 2.4GHz: 17.5 dBm*
WLAN 5GHz U-NII-1: 12.3 dBm*
WLAN 5GHz U-NII-3: 11.4 dBm*

**Data was not measured by SGS laboratory and therefore SGS is not responsible for accuracy. Data obtained via customer, specification sheet, previous regulatory filing or other.*

1.4 Operating Modes and Conditions

Maximum power levels were utilized for all calculations. Simultaneous transmissions are not applicable for this product.

2 RF Exposure

2.1 Test Results

Test Description	Product Specific Standard	Test Result
RF Exposure	FCC Part 1.1310	Compliant

2.2 Test Method

The formula below calculates power density.

$$S = \frac{PG}{4\pi R^2} \quad \text{Or} \quad S = \frac{EIRP}{4\pi R^2}$$

where;

S = Power density (mW/cm²)

P = Maximum sourced based average power delivered to antenna port (mW)

G = Maximum numeric power gain of antenna relative to an isotropic radiator (dBi -> linear)

R = Distance between by-stander and antenna (cm)

EIRP = Equivalent (or effective) isotropically radiated power

2.3 Single transmission RF Exposure Levels (mW/cm²)

Band of Operation		Conducted Power w/tolerance dBm	Antenna Gain	Cable Loss	Average EIRP		Distance (R) cm	Power Density EIRP _{avg} /(4πR ²) mW/cm ²	FCC mW/cm ²	% of Limit	Verdict
Type	MHz				dBm	mW					
WLAN 2.4	2400-2483.5	17.5	7.0	0.0	24.5	282	20	0.056	1.00	6%	Pass
WLAN 5 GHz (UNII-1)	5150-5250	12.3	7.0	0.0	19.3	85	20	0.017	1.00	2%	Pass
WLAN 5.8 GHz (UNII-3)	5725-5850	11.4	7.0	0.0	18.4	69	20	0.014	1.00	1%	Pass

3 Revision History

Revision Level	Description of changes	Revision Date
0	Initial Release	27 April 2023