

E-1010-4



Overview

The E-1010-4 Load Simulation Board is a high-precision, highly integrated, modular programmable DC electronic load designed for integrated applications. It supports three operating modes: constant current (CC), constant resistance (CR), and constant power (CP), with overcurrent, overvoltage, and overload protection functions. Equipped with a standard CAN communication interface, this board replaces traditional power electronic loads in integrated systems, significantly saving space and costs. It is widely used in the electronics industry.

Key Features

- Multi-mode Operation: Supports CC, CR, and CP modes for diverse testing requirements.
- High-precision Control: Voltage range 0-10 V, current range 0-10 A, with high accuracy and stability.
- Multi-channel Design: 4 independent channels, each configurable for individual operation modes.
- High Power Handling: Power handling ≤ 105 W, voltage handling < 10 V.
- CAN Communication: Supports CAN/CAN FD with default baud rates of 1 Mbps (CAN) and 1-2 Mbps (CAN FD).
- Protection Functions: Overcurrent, overvoltage, and overload protections for safe operation

Voltage Range

0~10V

Current Range

0~10A

Power/Voltage Handling

≤ 105 W < 10 V

Communication

CAN/CANFD

Baud Rate

CAN: 1 Mbps (default) / CAN FD:
1-2 Mbps (default)

Power Supply

12VDC < 9 W

E-1010-4 Interface Definitions

Jz2-2x4Pin(Board-side Female Connector)

Pin	Name	Definition
1	S1-	Channel 1 Voltage Sense -
2	S1+	Channel 1 Voltage Sense+
3	S2-	Channel 2 Voltage Sense -
4	S2+	Channel 2 Voltage Sense+
5	S3-	Channel 3 Voltage Sense -
6	S3+	Channel 3 Voltage Sense +
7	S4-	Channel 4 Voltage Sense -
8	S4+	Channel 4 Voltage Sense+

Jz1-8Pin (Board-side Female Connector)

Pin	Name	Definition
1	Cur1+	Channel 1+
2	Cur1-	Channel 1-
3	Cur2+	Channel 2+
4	Cur2-	Channel 2-
5	Cur3+	Channel 3+
6	Cur3-	Channel 3-
7	Cur4+	Channel 4+
8	Cur4-	Channel 4-

Jj1-4Pin(Board-side Female Connector)

Pin	Name	Definition
1	12V	12V Input
2	GND	12V Ground
3	CANH	CAN Bus High
4	CANL	CAN Bus Low

Operation Instructions

- **Power Connection:** Connect the 12V power supply via the J1 interface, ensuring correct polarity.
- **Signal Connection:** Use J2 and Jz1 interfaces for input/output signal wiring.
- **Mode Configuration:** Set operating modes (CC/CR/CP) for each channel via CAN bus.
- **Status Monitoring:** Real-time monitoring of voltage, current, and power for each channel.

Parameter

Operating Conditions

Storage Conditions

Temperature

0°C~45°C

-20°C~70°C

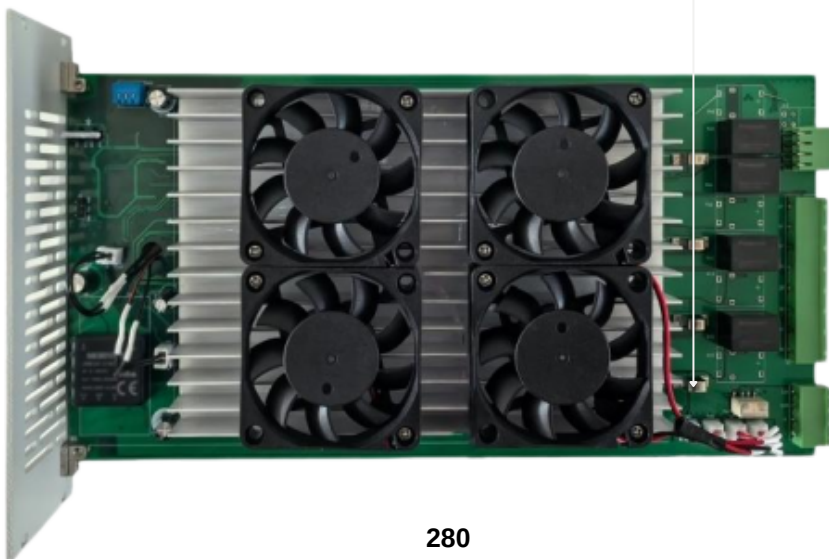
Humidity

10%~90%RH((non-condensing))

10%~90%RH (non-condensing)

Dimensions

L*W(280*144mm) (2-slot design)



backplane connectors

backplane connectors

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After-sales Service

- **Technical Support:** 24/7 online response, on-site debugging available upon request.
- **Warranty:** 1 year (includes hardware and firmware upgrades).



ART Logics (Shanghai) Testing Equipment CO., Ltd
艾驰电子检测设备技术（上海）有限公司
电话：021-61075469
中国上海程家桥路258号105室

www.art-logics.com
support@art-logics.com