

# 5A Load Module - E2010 Series

- CAN BUS AND CANOPEN PROTOCOL COMPATIBLE
- ARBITRARY WAVEFORM GENERATOR ALLOWS MULTIPLE SETTINGS AND WAVEFORMS TO BE PROGRAMMED
- REMOTE SENSE FOR ACCURATE VOLTAGE MEASUREMENT OF THE UUT

The 50W DC Load module is designed for use in an E2010 test system. The unit is 261mm (6U) high, approximately 390mm deep, and fits into a 19-inch rack. This is available as an RE2010 module which is for a 6U high rack or as a 1U standalone Ethernet Instrument.

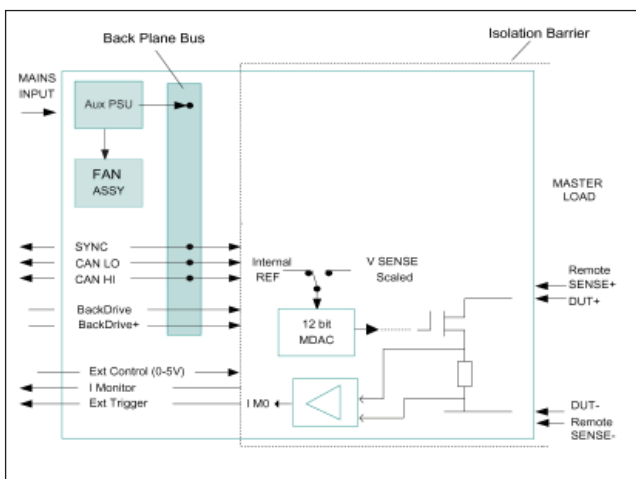
## FEATURES

- Programmable slew rate performance
- 1kV Isolation
- Analog to digital converter for on-board measurement of voltage and current to 15-bit resolution

## System Setup

The 50W Load can calculate and limit its power dissipation and has the ability to switch the rack fans to a higher speed when necessary to increase cooling.

On the system unit, a controller module, 20mm (4HP) wide, is used to communicate with the host PC over an IEEE link. In addition, the controller module relays commands and information over the internal CAN bus.



System Load Block Diagram



50 Watt DC Load

Each Load in a rack system can be addressed individually as each back plane PCB slot has a unique address.

Each load possesses local intelligence in the form of a microcontroller. This enables more efficient operation of constant voltage mode.

Each slot in a rack has a unique address read by the Load on power up. Each rack in a system has a unique rack address set by the user with DIL switches.

These two addresses combine to give the load a unique CAN ID in the system.

Intepro engineers designed the 50W DC Load to enable high slew rate performance and efficient operation of constant voltage. This DC load also boasts high resolution and greater current accuracy due to a lower current range.

# Technical Specifications

POWER	5W	50W	Operating Voltage below 1V				0.3V@2.5A / 0.15V@1.25A	
CURRENT	0-0.5A	0-5A	Min Voltage on Full Load				0.6V@5A	
VOLTAGE	1-75V	1-75V	Module Power Consumption				12V@0.4A	
	Constant I Mode		Constant V Mode					
RANGE	0-0.5A	0-5A	1-2V	1-7.5V	1-20V	1-75V		
RESOLUTION	0.125mA	1.25mA	0.5mV	2mV	5mV	20mV		
ACCURACY	± 0.15%FS	± 0.05%SET±4mA	±15mV	±20mV	±40mV	±120mV		
TEMP. COEF.	Maximum 100 PPM/°C		Maximum 100 PPM/°C					
CONSTANT R MODE	Range		Resolution	Accuracy		Temp Coefficient		
0-2V INPUT RANGE	9.35S-2.5S / 0R107-OR 4		2.36mS	±1% SET ±15mA		200 PPM/°C		
0-7.5V INPUT RANGE	2.5S-0.94S / OR4-1R067		0.63mS	±1% SET ±15mA		200 PPM/°C		
0-20V INPUT RANGE	0.94S-0.25S / 1R067- 4R		0.236mS	±1% SET ±15mA		200 PPM/°C		
0-75V INPUT RANGE	0.25S - 63µS / 4R-16K		63µS	±1% SET ±15mA		200 PPM/°C		
MEASUREMENT	Range		Resolution	Accuracy		Output		
VOLTAGE READBACK	0-2V		15bit (62.5µV)	±0.05% ACT ±5mV		N/A		
	0-7.5V		15bit (0.23mV)	±0.05% ACT ±0.1%FS		N/A		
	0-20V		15bit (0.625mV)	±0.05% ACT ±0.1%FS		N/A		
	0-75V		15bit (2.3mV)	±0.05% ACT ±0.1%FS		N/A		
CURRENT READ-BACK	0-0.5A (Low)		0.015mA (Low)	±0.05% ACT ±0.75mA		N/A		
	0-5A (High)		0.15mA (High)	±0.05% ACT ±0.25mA		N/A		
POWER READ-BACK	0-5W	0-50W	0.0625mW	0.125mW		N/A		
CURRENT MONITOR OUTPUT	0-0.5A	0-5A	N/A	±1% FS		0-5V		
SLEW RATE	2mA/µs~0.5µs for 0 to 5A operation							
EXTERNAL CONTROL	0-5V gives 0 to full-scale current (5A)							
OPERATING TEMP.	5-40°C (Note: For ambient temperatures over 35°C, power dissipation derates by 4W/°C)							
DIMENSIONS	261mm (Height) 40mm (Width) 390mm (Depth)							
ORDERING INFORMATION								
Part Number:	721-0004 (for a 6U Rack) 722-0004 (for a 1U Assembly)							
Description	5A/75V/50-Watt Load							

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SYSTEMS

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