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Aurora PK2500

- 10 digital inputs, 2 of which can be used as level-sensitive interrupts
- 2 relays
- Four 12-bit analog inputs
- 2 lines configurable as digital inputs or as an RS-485 port
- 6 lines configurable as digital inputs or as high-current outputs
- Quick-release screw terminals

Using a serial port, the PK2500 interfaces easily to touchscreen displays such as the OP7100, page 34.



OP7100



CE

The PK2500 is a single-board computer that offers system flexibility and ease of maintenance in a space-saving package. The unit's heavy-duty enclosure helps protect its electronics from accidental damage.

The PK2500 has 22 I/O lines that provide up to 16 protected digital inputs and up to 12 high-current outputs. Eight of the I/O lines are configurable — 2 inputs can be configured as an RS-485 port, and 6 of the output lines may be configured as inputs.

The PK2500 also has four 12-bit analog inputs and 2 SPST relays with NO and COM outputs for each. Each analog channel has a conditioning op-amp, and each relay has an LED indicator. In addition, there are 2 general-purpose programmable LEDs.

The PK2500's standard quick-release screw terminals allow easy field maintenance and installation. The PK2500 can be mounted on a DIN rail.

Programming the PK2500

Software is developed for the PK2500 using the Dynamic C[®] 32 software development system described on page 6.

Aurora Tool Kit

The Aurora PK2500 Tool Kit includes all the tools needed for fast development: AC adapter, programming cable, manual with schematics, sourcing driver chip and screwdriver. International orders do not include the AC adapter unless specifically requested.

PK2500 Specifications

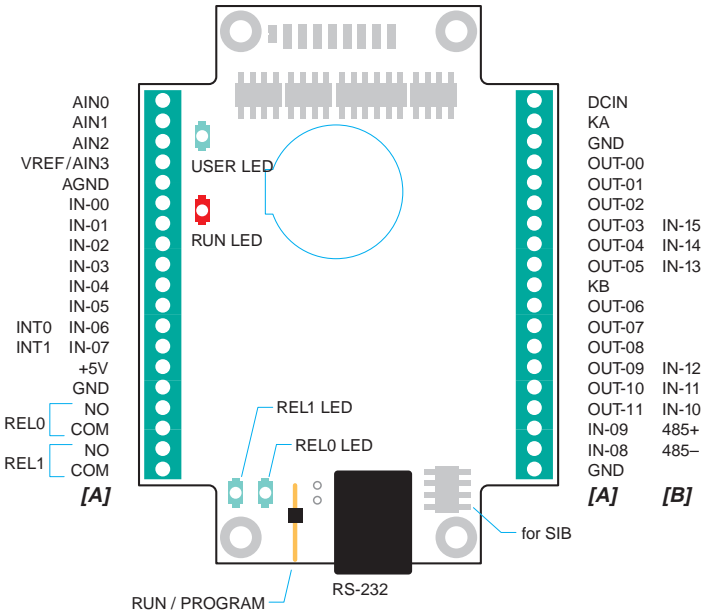
Board Size	2.82" x 3.75" x 1.18"
Enclosure Size	2.96" x 5.0" x 1.81"
Operating Temp.	-40°C to +70°C
Humidity	5-95% non-condensing
Power Requirements	9-36 V DC, 60-130 mA +30 mA/relay
Configurable I/O	8 of the 22 digital I/O lines described below are user selectable
Digital Inputs	Up to 16 inputs, protected against transients. Continuous operation from -20 V to +24 V. Factory default provides 10 inputs. 2 of these can be used as level-sensitive interrupts. 2 can be used for an RS-485 port. Up to 6 of the digital outputs can be configured as inputs
Digital Outputs	12 high-current channels, in 2 banks of 6. At 25°C, a channel sinks up to 500 mA continuously. Load limit is 48 V. Up to 6 of the outputs can be configured as inputs Sourcing outputs optional. At 25°C, a channel can source up to 250 mA continuously. Load limit is 30 V
Relays	2 non-latching SPST relays, rated 2 A at 30 V DC or 0.5 A at 120 V AC. Max switching voltage 125 V with arc suppression circuitry
Analog Inputs	Four 12-bit, factory configured for a 0-10 V range
Analog Outputs	PWM 4-6 channels using digital outputs
Processor	Z180 at 18.432 MHz
SRAM	128K, surface mount (supports 512K)
Flash EPROM	128K, surface mount (supports 256K)
Counters	Software-implementable
Serial Ports	Either 2 RS-232 or 1 RS-232 with CTS/RTS and 1 RS-485. Selected baud rates up to 57,600 bps
Watchdog/Supervisor	Yes
Time/Date Clock	Yes
Connectors	3.5 mm quick release screw terminals (19 each side). RJ-12 jack. Run/program mode jumper
Backup Battery	3 V lithium coin-type, 165 mA-h
Keypad and LCD	No
Expansion Port	No. (Can use SE1100, OP7100, and other peripherals)

Versions

- PK2500 Full-featured SBC. Specifications stated above
- PK2510 PK2500 with 9.216 MHz clock, 32K SRAM and fixed connectors

Options and Upgrades

- DIN Rail Mounting Kit.** Snap-on DIN rail mount (72 mm)
- SIB2.** Serial Interface Board. Allows programming through the special programming port on the PK2500, leaving other serial channels available. Includes programming cable
- Sourcing Driver Kit.** Provides 2 (2985) sourcing driver chips. At 25°C, a channel can source up to 250 mA continuously
- SRAM.** 128K or 512K. Factory installed
- Flash EPROM.** 256K. Factory installed

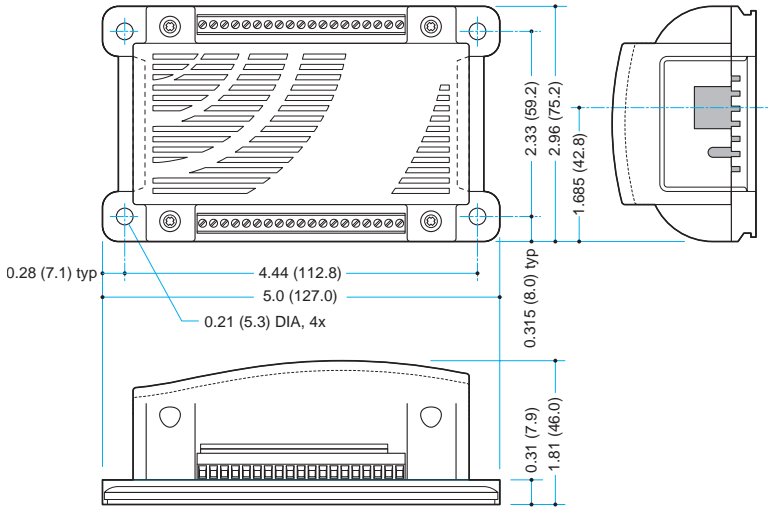


PK2500 Inputs and Outputs

Signals identified by [A] comprise the PK2500 I/O configuration as shipped. Signals identified by [B] denote alternate user configurations. You can use any combination of [A] and [B]

IN denotes protected input

OUT denotes high-current output



PK2500 Dimensions