DRPC-100-CV

Fanless Embedded DIN-Rail Mounting System with Intel® Atom™ N2800 Dual Core Processor

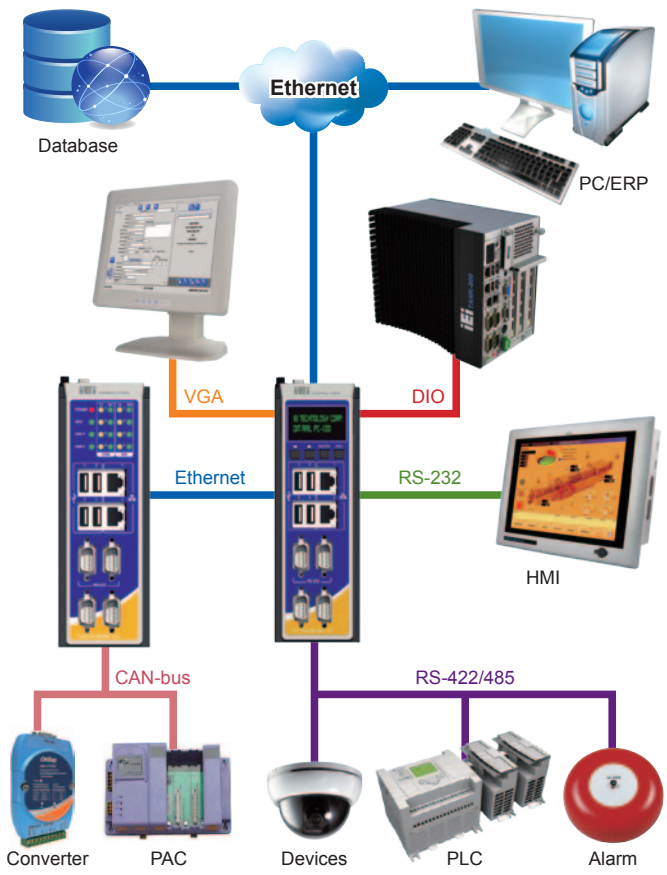
Features

- Intel® Atom™ N2800 processor supported
- Low power consumption [N2800 + NM10 (6.5w +1.5w)]
- Intel® GMA 3650 with 640 MHz and supports Blu-ray 2.0, DirectX 9, MPEG-2, H.264, C-1 and 1080p decoding
- Supports 1066 MHz DDR3 SO-DIMM (up to 4 GB)
- Supports one mSATA, one SATA DOM and one CompactFlash®
- Wide range (9V~28V) DC power input
- One PCIe Mini expansion slot for add-on function purpose
- Supports two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus and one 8-bit DIO
- Serial, CAN-bus and Digital I/O interfaces with isolation protection
- Extended temperature fanless design supports -25ºC to 65ºC (with SSD)
- Dual PCIe GbE LAN for high-speed network applications
- Programmable OLED display

The DRPC-100 is designed for harsh environment applications, such as high surge ESD automation environments, factory automation, heavy vehicle application and building automation (elevator, warehouse with air-conditioning control system and environment monitoring).

Communication Gateway

For high surge ESD automation environments, the DRPC-100 provides isolated digital IO, CAN-bus and serial communication ports.

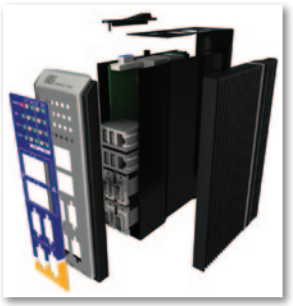


Micro Controller for Building Automation

With rich I/O ports, such as COM, USB, Ethernet, CAN-bus, DIO and VGA, the DRPC-100 is able to be like a micro controller for building automation.

Fanless

The DRPC-100 series provides the best components for generating less heat, while maintaining high system performance. With the fanless design, the DRPC-100 reduces system failure caused by fans and extends the lifetime of the device.



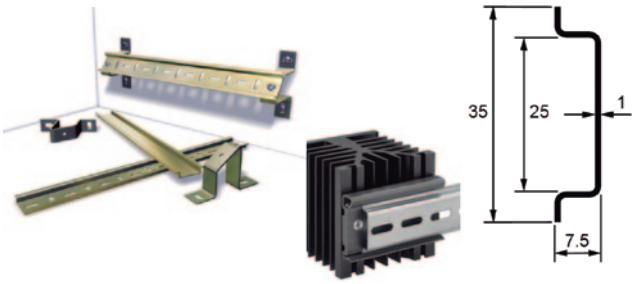
Wide Range DC Power Input

The DRPC-100 series accepts a wide range DC power input, allowing it to be powered anywhere, no matter if a 12V, 24V DC source or 19V power adapter is available.

Wide Range Temperature

The DRPC-100 series is designed to withstand wide temperature ranges. With this design, the DRPC-100 series can even be installed in a high-temperature roadside cabinet.

A DIN rail is a metal rail of a standard type widely used for mounting circuit breakers and industrial control equipment inside equipment racks. These products are typically made from cold rolled carbon steel sheet with a zinc-plated and chromated bright surface finish. The term derives from the original specifications having been published by Deutsches Institut für Normung (DIN) in Germany, which have since been adopted as European (EN) and international (ISO) standards.



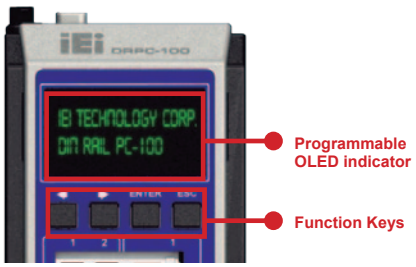
Rich I/O Function

- **Four USB Ports**
  Four USB ports can completely satisfy other USB devices or access requirements.
- **Dual GbE Ports**
  Dual GbE ports offer a diverse range of network communication options, helping users easily create an integrated industrial application that requires Ethernet protocols.
- **Serial Ports Interface with Isolation**
  The serial ports help millions of serial devices connect to the network for industrial applications. Our RS-232/422/485 serial ports provide powerful communication performance for all industrial device connectivity.
- **CAN-bus Interface with Isolation**
  Controller Area Network (CAN or CAN-bus) is a vehicle bus standard designed to communicate or detect errors with each other within a vehicle, industrial automation and medical equipment. This drastically reduces the chance of data loss and ensures system reliability and is suitable for intelligent networking I/O devices such as sensors or actuator of machines or plants.
- **8-bit Digital I/O, 4-bit input/4-bit output Interface with Isolation**
  The DIO channels are quite useful for remote controlling, such as device power on/off, LEDs on/off, counter and cash drawer control.

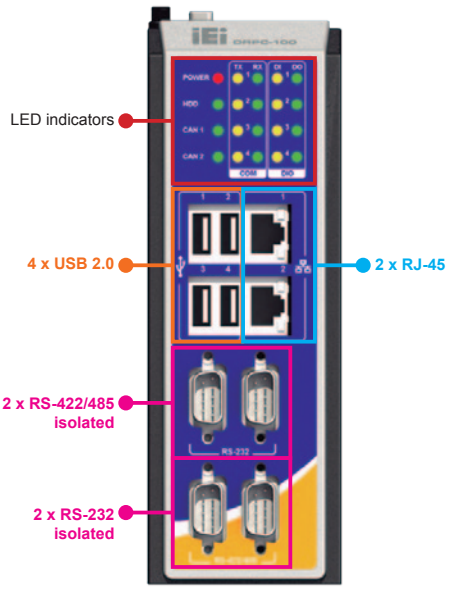
OLED Indicator Function

- **Programmable OLED Display**
  Users can program their own APIs to show any information by the OLED display.
- **Programmable Function Keys**
  Users can program the four keys to control DRPC-100 & OLED display.
- **Terminal Screen & Status Display**
  It not only shows text format but also graphics format.
- **Protocol & Demo Source Code Open**
  IEI provides the protocol & demo source code for users to program their own usage.

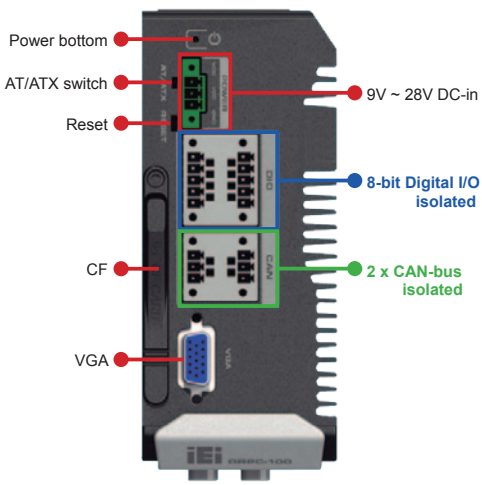
OLED indicator



DRPC-100 LED Front View



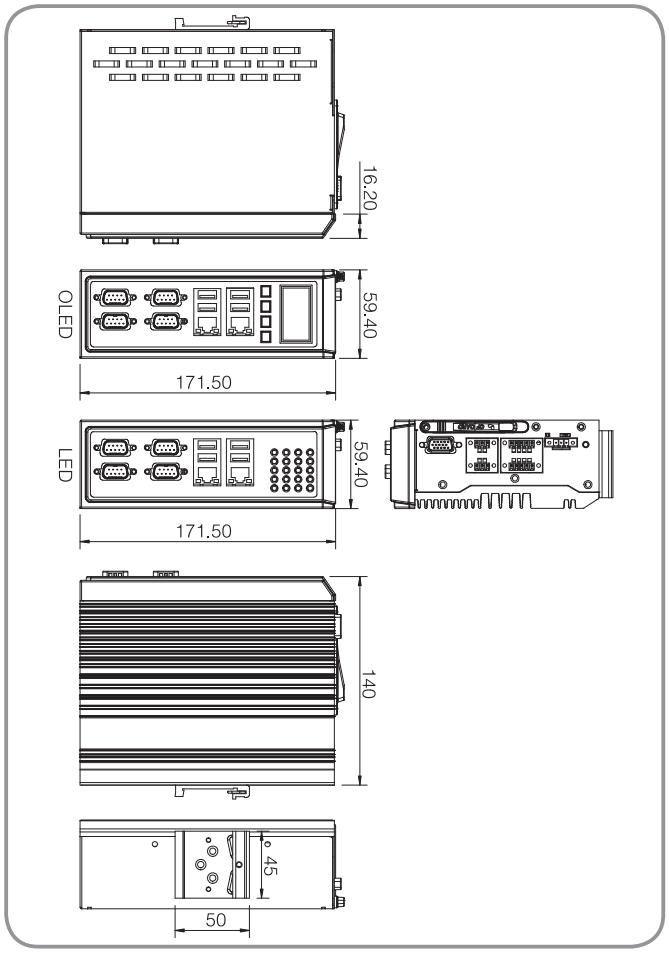
DRPC-100 OLED Front View



Specifications

Model Name		DRPC-100-CV
Chassis	Color	Black
	Dimensions (WxDxH)	59.4 x 140 x 170 mm
	System Fan	Fanless
	Chassis Construction	Extruded aluminum alloy
Motherboard	CPU	Intel® Atom™ N2800 1.86GHz
	Chipset	Intel® NM10
	System Memory	1 x 204-pin DDR3 SO-DIMM (System Max 4GB) Pre-installed 2GB
Storage	CompactFlash®	1 x CF Type II
I/O interfaces	USB 2.0	4
	Ethernet	2 x RJ-45 Realtek 8111E PCIe GbE
	RS-232	2 x DB-9 w/3KV isolation protection
	RS-422/485	2 x DB-9 w/3KV isolation protection
	Digital I/O	1 x Phoenix terminal block w/ 3KV isolation protection 8-bit Digital I/O, 4-bit input / 4-bit output
	CAN-bus	1 x Phoenix terminal block w/ 3KV isolation protection, supporting 2-port CAN-bus
	Display	1 x VGA
	Resolution	Up to 1920 x 1200 @ 60Hz
	Other	SATA DOM support
Expansions	PCIe Mini	1 x Full size (reserved for mSATA)
Power	Power Input	3-pin terminal block: 9~28V DC
	Power Consumption	12V@1.85A (Intel® Atom™ N2800 with 2GB DDR3 memory)
Reliability	Mounting	DIN-rail
	Operating Temperature	-25°C ~65°C with air flow (mSATA), 5% ~ 95%, non-condensing
	Operating Shock	Half-sine wave shock 3G, 11ms, 3 shocks per axis
	Operation Vibration	Meet MIL-STD-810F 514.5C-2
	Weight (Net/Gross)	1Kg/2Kg
	Safety / EMC	CE/FCC
OS	Supported OS	Microsoft® WES7E Microsoft® Windows® XP Embedded

Dimensions (Unit: mm)



Packing list

1 x DRPC-100
5 x terminal block (3 x 3-pin, 2 x 5pin)
1 x DIN rail mounting bracket
1 x Utility CD
1 x One Key Recovery CD

Options

Item	Part No.	Description
OS: Win XPE (4GB CF card)	DRPCCF-100-CV-XPE-R10	OS Image with XPE, for DPRC-100-CV Series, W/CompactFlash® Memory Card 4GB
OS: Win 7 embedded (4GB CF card)	DRPCCF-100-CV-WES7E-R10	OS Image with Windows Embedded Standard 7 E, for DPRC-100-CV Series, W/CompactFlash® Memory Card 4GB
OS: Win CE 7.0 (128MB CF card)	DRPCCF-100-CV-CE7-R10	OS Image with CE7.0, for DPRC-100-CV Series, W/CompactFlash® Memory Card 128MB
OS: Win Linux (2GB CF card)	DRPCCF-100-CV-LNX-R10	OS Image with LINUX, for DPRC-100-CV Series, W/CompactFlash® Memory Card 2GB

Ordering information

Part No.	Description
DRPC-100-CV-LED-R10	Extended temperture fanless embedded system with Intel® Atom™ N2800, with 2GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9V~28V DC, -20ºC to 65ºC, LED indeicators, RoHS
DRPC-100-CV-OLED-R11	Extended temperture fanless embedded system with Intel® Atom™ N2800, with 2GB DDR3 memory, two GbE, four USB 2.0, two RS-232, two RS-422/485, two CAN-bus, one 8-bit DIO, 9V~28V DC, -20ºC to 65ºC, OLED indeicators, RoHS
32102-026500-100-RS	Power cable 200mm, (A)DC JACK to (B) 3-pin terminal block P=3.5
63000-FSP036RAB610-RS	Adapter power, FSP, FSP036-RAB, Vin : 90~264VAC, 36W, Erp (NO LOAD 0.3W), Vout : 12VDC, Φ2.1/Φ5.5/lock, CCL, RoHS
32000-000002-RS	17.5cm European Standard power cord
32000-000025-RS	18.3cm American Standard power cord
IPE-5200IM-xxx	Flash disk, mSATA, SLC, 0°C ~70°C, R : 160MB/s, W : 150MB/s, 2GB~32GB
IPE-5200VM-xxx	Flash disk, mSATA, SLC, -40°C~85°C, R : 160MB/s, W : 150MB/s, 2GB~32GB