

## DRPC-130-AL

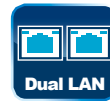
■ Fanless DIN-Rail Embedded System

■ Intel® Atom™ x5-E3930 1.3GHz (up to 1.8 GHz) Solution

**Preliminary**

### Features

- Intel® Atom™ x5-E3930 1.3GHz (up to 1.8 GHz)
- DDR3L 1.35V SO-DIMM supported
- Serial, CAN bus and digital I/O interface

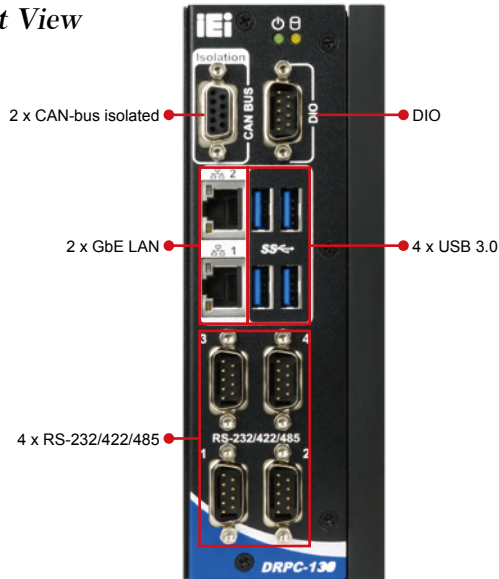


### Specifications

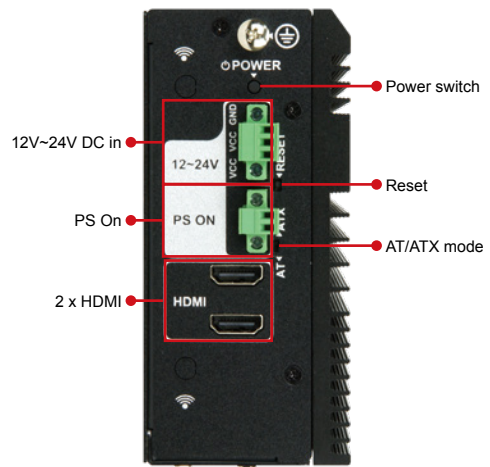
Model Name		DRPC-130-AL	
Chassis	Color	Black	
	Dimensions (WxDxH)	58.75 x 130 x 174	
	System Fan	Fanless	
	Chassis Construction	Extruded aluminum alloy	
Motherboard	CPU	Intel® Atom™ x5-E3930 1.3GHz (up to 1.8 GHz, dual core, TDP=6.5W)	
	Chipset	SoC	
	System Memory	1x 204-pin DDR3L SO-DIMM slot (system max. 8 GB) (DRPC-130-AL-E1/4GB SKU is pre-installed with 4 GB memory)	
Storage	Hard Drive	1 x 2.5" SATA 6Gb/s HDD/SSD bay	
	eMMC	1 x eMMC 5.0 support (up to 32GB, optional)	
I/O Interfaces	USB 3.0	4	
	USB 2.0	1 by pin header	
	Ethernet	2 x RJ-45 PCIe GbE by Intel® I211 controller	
	COM Port	4 x RS-232/422/485 (DB-9)	
	Digital I/O	8-bit digital I/O, 4-bit input/4-bit output (DB-9)	
	CAN Bus	1 x DB-9 w/ 2.5kV Isolation protection, supporting 2-port CAN-bus	
	Display	2 x HDMI 1.4b	
	Resolution	Up to 3840 x 2160@30Hz	
	SIM	1 x Internal on-board SIM slot (optional)	
	Wireless	1 x 802.11a/b/g/n/ac (optional)	
	TPM	1 x TPM 2.0 (2x10 pin) (optional)	
	Others	1 x Power Button 1 x Reset Button 1 x AT/ATX Switch	1 x LED for HDD (Yellow) 1 x LED for Power (Green)
	Expansions	PCIe Mini	1 x Half-size PCIe Mini slot 1 x Full-size PCIe Mini slot (supports mSATA, colay with SATA)
		Power	3-pin terminal block: 12 V ~ 24 V DC
Power	Remote PWR	PSON 2-pin terminal block	
	Power Consumption	12V @ 2.88 A (Intel® Atom™ x5-E3930 CPU with 4GB 1600 MHz DDR3L memory)	
	Mounting	DIN-rail / Wall mounting	
Reliability	Operating Temperature	-20°C ~ 60°C with air flow (SSD), 10% ~ 95%, non-condensing	
	Storage Temperature	-40°C ~ 85°C with air flow (SSD), 10% ~ 90%, non-condensing	
	Operating Shock	Half-sine wave shock 5G, 11ms, 100 shocks per axis, IEC68-2-27	
	Operation Vibration	MIL-STD-810G 514.6C-1 (SSD)	
	Weight (Net/Gross)	1.4Kg/2.5Kg	
	Safety / EMC	CE/FCC	
	Watchdog Timer	Programmable 1~255 sec/min	
	IP Level	IP40	
	OS	Supported OS	Microsoft® Windows 10 / Linux

Fully Integrated I/O

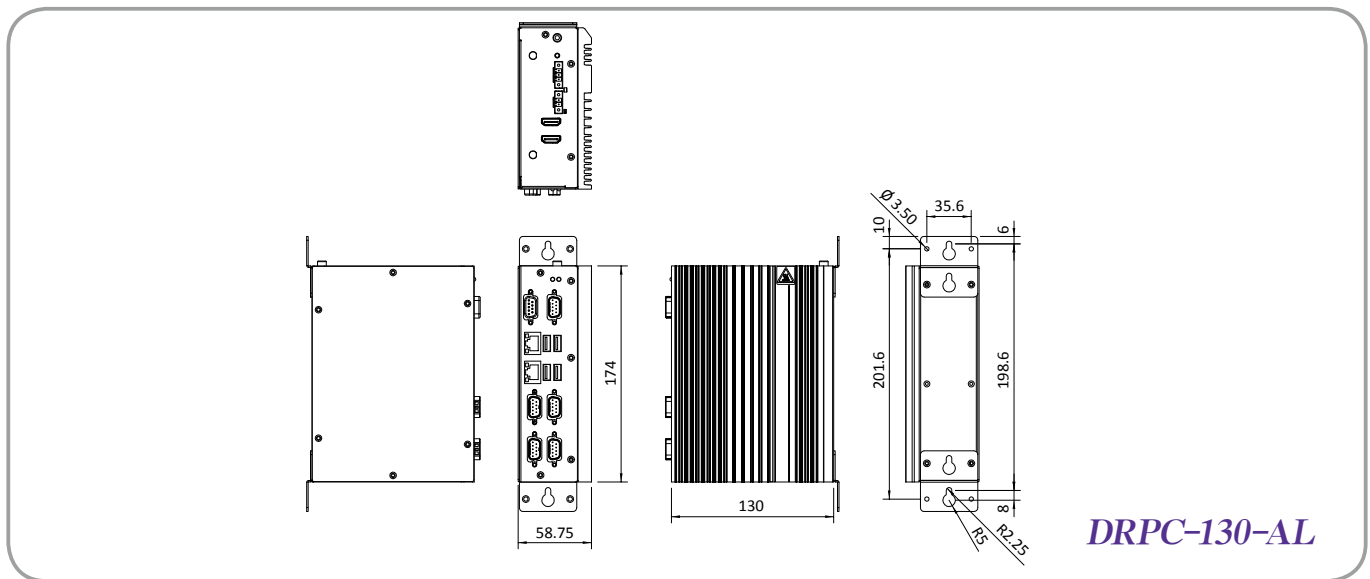
Front View



Top View



Dimensions (Unit: mm)



DRPC-130-AL

Ordering Information

Part No.	Description
DRPC-130-AL-E1-R10	Fanless embedded system, Intel®Apollo Lake x5-E3930 1.3GHz (up to 1.8GHz, dual core), two HDMI, 8 CH DIO, CAN-Bus, COM, 12~24V DC and RoHS
DRPC-130-AL-E1/4GB-R10	Fanless embedded system, Intel®Apollo Lake x5-E3930 1.3GHz (up to 1.8GHz, dual core), 4GB DDR3L pre-installed memory, two HDMI, 8 CH DIO, 12V ~ 24V DC and RoHS

Options

Item	Part No.	Description
Adapter	63040-010060-120-RS	Adapter Power; FSP; FSP060-DIBAN2; 9NA0605308; Vin: 90~264VAC; 60W; Dim: 62.0 x 110 x 31.5mm; Plug=7.5mm; Cable=1200mm; Erp(NO LOAD 0.21W); Vout: 12VDC; Φ2.5/Φ5.5/lock; CCL; RoHS
Power Cable	32102-026500-100-RS	Power cable 200mm, (A) DC jack to (B) 3-pin terminal block P=3.5
Power Cord	32702-000200-100-RS	POWER CORD; EUROPEAN CODE(VDE); 2; 1830MM; (A)PLUG:SH-005(16A 250V); (B)CONNECTOR:C13(SH-006,10A250V); Self-Man; CCL; RoHS
Wireless Kit	EMB-WIFI-KIT01-R20	1T1R Wi-Fi module kit for embedded system, IEEE802.11a/b/g/n/ac Wi-Fi with Bluetooth 4.0/3.0+HS, 1 x Wi-Fi module, 2 x 250mm RF cable, 2 x Antenna, RoHS
TPM Module	TPM-IN02-R20	20-pin Infineon TPM2.0 module, software mangement tool, firmware v5.5
DIN-Rail Mounting Kit	DK-DRPC-R10	Rugged DIN-rail mounting kit for DPRC series only
OS:Windows Embedded 10	DRPC-130-W10E64-E-R10	OS Image with Windows® 10 IoT Enterprise Entry 64-bit for DRPC-130-AL Series, with DVD-ROM, RoHS

Packing List

1 x Mounting bracket	1 x Screw kit
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## 2. Product Specifications

### 2.1 General Specifications

<b>Form Factor</b>	2.5 inch
<b>Interface</b>	SATA III 6.0Gb/s (backward compatible to 3.0Gb/s, 1.5Gb/s)
<b>Connector</b>	SATA (7 + 15 pin)
<b>NAND Flash Type</b>	MLC
<b>Capacity</b>	Standard Temp. : 32GB/64GB/128GB/256GB
	Wide Temp. : 32GB/64GB/128GB/256GB
<b>Sequential Read</b>	up to 500 MB/s
<b>Sequential Write</b>	up to 280 MB/s
<b>ECC Scheme</b>	up to 66bits / 1K Byte
<b>MTBF</b>	2,000,000 hours
<b>Terabyte Written (TBW)</b>	32GB : 31 64GB : 63 128GB : 125 256GB : 250
<b>Low Power Management</b>	DIPM / HIPM mode
<b>Supply Voltage</b>	+5V DC $\pm$ 5%
<b>Power Consumption</b>	Active mode: < 1420mW Idle mode: < 110mW
<b>Dimension (L x W x H)</b>	100.00*69.85*7.00mm
<b>Weight</b>	55 $\pm$ 1g

## 2.2 Performance

The performance was measured with below PC configuration:

- Platform: GIGABYTE GA-Z97MX-Gaming5 (Intel Z97)
- RAM: Cervoz CIR-S3DUSI1302G(DDR3 2G 1333MHz)
- Operation Systems: Windows 7 SP1
- Testing Utility: Crystal Disk Mark v3.0 x64
- SATAIII port (6.0 Gb/s) performance

Capacity	32GB	64GB	128GB	256GB
Sequential Read (max.)	255MB/s	500MB/s	500MB/s	500MB/s
Sequential Write (max.)	40MB/s	80MB/s	160MB/s	280MB/s
4KB Random Read (QD32)	45MB/s	85MB/s	110MB/s	120MB/s
4KB Random Write (QD32)	40MB/s	80MB/s	150MB/s	220MB/s

Actual performance may vary depending on use conditions and environment

## 2.3 Drive Capacity

Capacity	Cylinders	Heads	Sectors	Max LBA
32GB	16,383	16	63	62,533,296
64GB	16,383	16	63	125,045,424
128GB	16,383	16	63	250,069,680
256GB	16,383	16	63	500,118,192

## 2.5 Environmental Specifications

Type		Value
<b>Temperature</b>	Standard Temperature Operating:	0°C~70°C
	Standard Temperature Storage:	-40°C~85°C
	Wide Temperature Operating:	-40°C~85°C
	Wide Temperature Storage:	-50°C~95°C
<b>Humidity</b>	Operating & Storage	5~95%, Non-Condensing
<b>Vibration</b>	Non-Operating	20G, 10Hz~2000Hz
<b>Shock</b>	Non-Operating	1500G, 0.5ms

## 2.6 Mechanical Specifications

Type	Value
Form Factor	2.5" SATA
Length	100.00 mm +0.2 / -0.15 mm
Width	69.85 mm +0.2 / -0.15 mm
Thickness	6.90 mm ± 0.2 mm

