

ECW-281B/B2 Series Fanless Embedded System with Intel® Atom™ Dual-core D525/N270 CPU



Extended Temperature



6 COM

COM2 for ECW-281B Series



Dual VGA

2nd VGA for ECW-281B2 Series

Features

- ◆ Fanless system with
 - » 1.8 GHz Intel® Atom™ D525 dual-core CPU
 - » 1.6 GHz Intel® Atom™ N270 CPU
- ◆ Supports four USB 2.0 ports and six COM ports
- ◆ Dual GbE LAN ideal for high-speed network applications
- ◆ Supports CompactFlash®, 2.5" SATA HDD and SSD storage devices
- ◆ 12 VDC and 9 VDC - 36 VDC power input models available
- ◆ Supports dual VGA display (B2 model only)



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Industrial Computing Solutions

Specifications

-20°C ~ +70°C

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Video Capture Solutions

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Embedded Computing Solutions

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Automation Control

5

ORing Network Communication

6

Power Supply/Peripherals

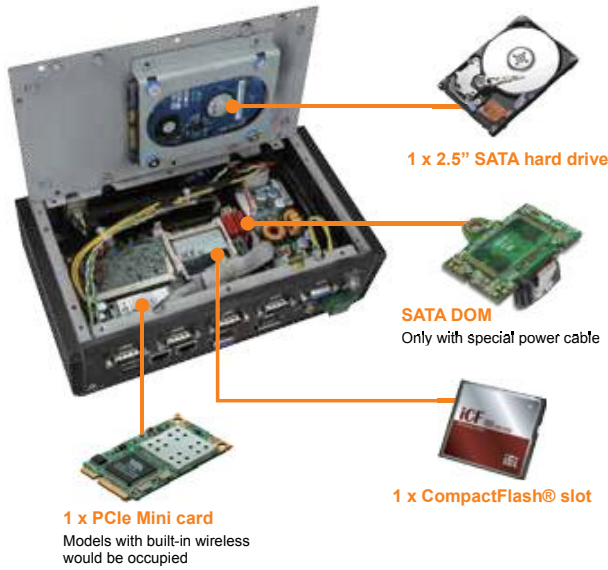
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Panel Solutions Introduction

Model Name	ECW-281B-D525 (ECW-281B2-D525)	ECW-281B-N270 (ECW-281B2-N270)	ECW-281B-N270-WT
Platform	Intel®		
Color	Black		
Dimensions (WxDxH)	229 x 132 x 64 mm		
Chassis Construction	Aluminum alloy with heavy duty metal		
Motherboard Model	WAFER-PV-D5252	WAFER-945GSE-N270	WAFER-945GSE-N270W2
Processor	Intel® Atom™ D525 1.8GHz/1MB L2 cache	Intel® Atom™ N270 1.6GHz/512KB L2 cache	
Chipset	ICH8M	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M
System Memory	1 x 204-pin 1GB DDR3 SO-DIMM (2GB for option)	1 x 200-pin 1GB DDR2 SO-DIMM (2GB for option)	1 x 200-pin 1GB DDR2 S-ODIMM (2GB for option)
Hard Drive	1 x 2.5" SATA HDD space		
CompactFlash®	1	1	1
USB 2.0	4	4	4
Ethernet	2 x Realtek RTL8111E PCIe GbE	2 x Realtek RTL8111E PCIe GbE	2 x Realtek RTL8111E PCIe GbE
RS-232	6 x RS-232 ports for ECW-281B-D525 (COM2: Default RS-232, RS422/485 optional) 5 x RS-232 ports for ECW-281B2-D525	6 x RS-232 ports for ECW-281B-N270 (COM2: Default RS-232, RS422/485 optional) 5 x RS-232 ports for ECW-281B2-N270	6 x RS-232 ports for ECW-281B-N270 (COM2: Default RS-232, RS422/485 optional) 5 x RS-232 ports for ECW-281B2-N270
Display	1 (2) x VGA	1 (2) x VGA	1 x VGA
Resolution	VGA: Up to 2048 x 1536 @ 60Hz (VGA: Up to 1024x768 @ 60Mhz)	VGA: Up to 1920 x 1200 @ 60Hz (VGA: Up to 1024x768 @ 60Mhz)	VGA: Up to 1920 x 1200 @ 60Hz
Audio	1 x Speaker out		
Wireless	1 x 802.11b/g/n	1 x 802.11b/g/n	N/A
Expansions	1 x PCIe Mini card slot (reserved for Wi-Fi)	1 x PCIe Mini card slot (reserved for Wi-Fi)	1 x PCIe Mini card slot
Power Consumption	12V@1.79A (Intel® Atom™ D525 1.8GHz with DDR3 1GB)	12V@1.25A (Intel® Atom™ N270 1.6G with 1GB DDR2)	12V@1.25A (Intel® Atom™ N270 1.6G with 1GB DDR2)
Power input	12VDC in 9-36V (WD Model)	12VDC in 9-36V (WD Model)	12VDC in
Mounting	DIN mount, VESA 75 mount, wall mount		
Operating Temperature	-20°C ~ 65°C with CF/SSD -10°C ~ 50°C with HDD	-10°C ~ 60°C with CF/SSD -10°C ~ 50°C with HDD	-20°C ~ 70°C with CF/SSD
Operating Shock	Half-sine wave 3G, 11ms 3 shocks per axis		
Operating Vibration	* MIL-STD-810F 514.5C-1 MIL-STD-810F 514.5C-2	MIL-STD-810F 514.5C-2	MIL-STD-810F 514.5C-2
Weight (Net/Gross)	2.1kg/3.9kg		

*Systems with hard drive meet MIL-STD-810F 514.5C-1 specifications. SSD/CF systems meet MIL-STD-810F 514.5C-2 specifications.

Storage & Expansions



Dual Display

The models of the ECW-281B series, either with Intel® Atom™ N270 single-core processor or D525 dual-core processor, both support dual VGA display through the optional LVDS to VGA converter module. The first VGA output signal comes from the on-board chipset and supports resolutions up to 2048x1536 (D525), while the second display output is made through the LVDS to VGA converter board (LVDS-VGA-R10) through the LVDS interface and supports resolutions up to 1024x768.



LVDS-VGA-R10
Install in ECW-281B2 series
 » Provides 2nd VGA option for Dual VGA display
 » Resolution adjustable by BIOS
 » Supports 800x600 or 1024x768
 » 18 bit LVDS to VGA Converter board

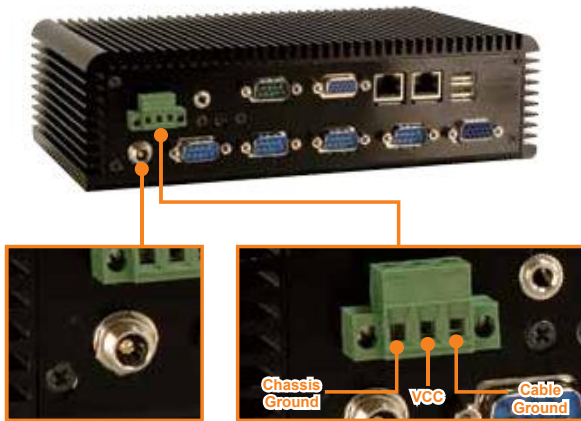


RS-232 cable
 Install in ECW-281B series



Extended Voltage Input

The ECW-281B rear panel has two types of power input connectors which support either single 12 V DC input or 9~36 VDC input depending on the power module installed in the system.



2 Pin DC Jack with Lock

3 Pin Terminal Block

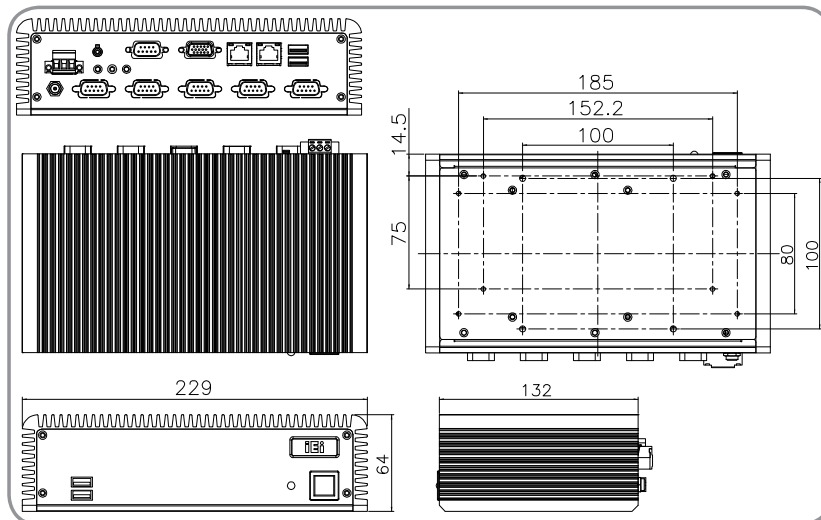


IDD-936260
 » Install in 9~36V DC in model (ECW-281B/B2WD series)
 » Input range: 9-36VDC
 » Output:
 12 V @ 3 A (Max.)
 5 V @ 10 A (Max.)
 5 VSB @ 0.5 A (Max.)



IDD-12250
 » Install in 12V DC in model (ECW-281B/B2-N270 series)
 » Input range: 12VDC
 » Output:
 12 V @ 5 A (Pass thr.)
 5 V @ 10 A (Max.)
 5 VSB @ 0.5 A (Max.)

Dimensions (Unit: mm)



Packing List

- 1 x QIG
- 1 x Screw set
- 1 x DIN mount
- 1 x Hard drive thermal pad
- 2 x Wall mount bracket
- 1 x Driver & user manual CD
- 1 x 12V 60W power adapter (optional for WD model) (Part No. : 63000-FSP060DBAB1552-RS)
- 1 x Power cord (optional for WD model)
- 1 x Wireless antenna (for wireless model)
- 1 x One Key Recovery CD



DK-84MB

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Panel Solutions Introduction

Extended Temperature

The ECW-281B series with Intel® Atom™ N270 single-core processor is a fanless system which supports a wide range of temperatures from -20°C to 70°C. The ECW-281B series industrial computer is powerful and can meet customers' needs with its various add-on functions. The table below is a model selection guide for the ECW-281B series.



Spec Comparison Table

Model	ECW-281B	ECW-281B2	ECW-281BWD	ECW-281B2WD	ECW-281B-WT
Wireless model	ECW-281BW	ECW-281B2W	ECW-281BWDW	ECW-281B2WDW	N/A
Main board	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270 WAFER-PV-D5252	WAFER-945GSE-N270W2
COM port	6	5	6	5	6
VGA display	1	2	1	2	1
Power input	12V DC in	12V DC in	9~36V DC in	9~36V DC in	12V DC in
Adapter	60W	60W	N/A	N/A	N/A

Ordering Information

D525	12VDC input	ECW-281B-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281BW-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2W-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
	9~36VDC input	ECW-281BWD-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281BWDW-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with 6 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281B2WD-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281B2WDW-R10/D525/1GB	Fanless embedded system with WAFER-PV-D5252, with dual-core Intel® Atom™ D525 1.8G, with dual VGA display and 5 serial ports, built-in 802.11b/g/n wireless, with 1GB DDR3 memory, 9-36VDC in, w/o power adapter, black, RoHS
N270	12VDC input	ECW-281B-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 1GB DDR2 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281BW-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 12VDC in, 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 1GB DDR2 memory, 12VDC in, with 60W power adapter with ERP and PSE certificates, black, RoHS
		ECW-281B2W-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 12VDC in, 60W adapter with ERP and PSE certificates, black, RoHS
	9~36VDC input	ECW-281B-WT-R30/N270/1GB	Extend temperature fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 1GB DDR2 memory, 12VDC in, w/o power adapter, -20°C ~ 70°C degree, black, RoHS
		ECW-281BWD-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281BWDW-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS
		ECW-281B2WD-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS
ECW-281B2WDW-R30/N270/1GB	Fanless embedded system with Intel® Atom™ N270 1.6GHz CPU, 945GSE, dual VGA, built-in 802.11b/g/n wireless, with 1GB DDR2 memory, 9-36VDC in, w/o power adapter, black, RoHS		
32205-003200-100-RS	Flat cable, RS-232/422/485 RS-422/485 cable, 2, 100mm, 28AWG, (A) D-SUB 9-pin male, (B) DU pont 2x7P P=2.0, female, IDIOT-PROOF, 32200-074600-RS substitute, hwalong, RoHS		

Embedded OS

ECWCF-281B-D525-XPE	Windows XP Embedded OS image, for ECW-281B-D525, with 1GB CompactFlash® memory card, RoHS
ECWCF-281B-D525-CE060	Windows CE 6.0 OS image, for ECW-281B-D525, with 128MB CompactFlash® memory card, RoHS
ECWCF-281B-945GSE-XPE	Windows XP Embedded OS image, for ECW-281B-N270, with 1GB CompactFlash® memory card, RoHS
ECWCF-281B-945GSE-CE060	Windows CE 6.0 OS image, for ECW-281B-N270, with 128MB CompactFlash® memory card, RoHS