

# ARS-1600

Compact Embedded System with Intel® Atom™ D525, 2 Gigabit LAN, 8 COM, 4 USB, PC/104-Plus, 2 CAN, 16 Isolated DIO, Fanless, Extended Temperature



## Features

- Onboard Intel® Atom™ D525 1.8GHz Processor
- Fanless, -25°C to 70°C Operating Temperature
- Supports VGA + 24-bit LVDS Dual Display
- 16V to 28V DC Power Input
- 2 GbE LAN, 8 COM, 4 USB, 2 CAN
- 1 Mini PCIe, PC/104-Plus
- 2 2.5" SSD/ HDD, 1 Front-access CFast Socket
- 16 Isolated DIO : 8 DI, 8 DO
- Programmable GPIO for 16-step Rotary Switch
- Programmable GPIO for 4-mode LED Display



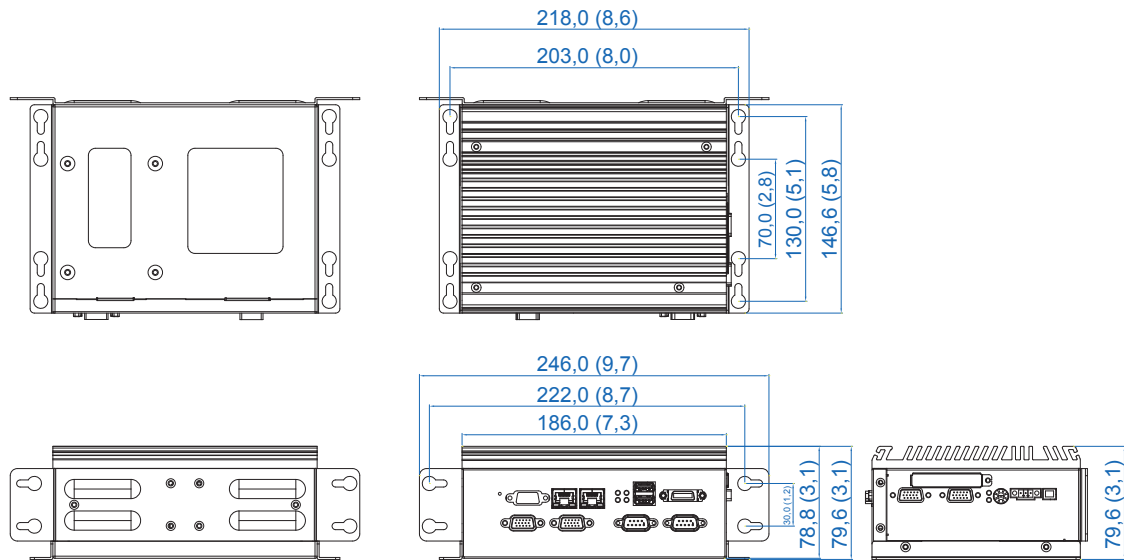
## Specifications

System	
Processor	Intel® Atom™ D525 1.8GHz Processor
Chipset	Intel® ICH8M
BIOS	Legacy
SIO	IT8783
Memory	2 DDR3 800MHz SO-DIMM, up to 4GB
I/O Interface	
Serial	<ul style="list-style-type: none"> <li>▪ 7 COM RS-232</li> <li>▪ 1 COM RS-232/ 422/ 485</li> </ul>
USB	4 USB 2.0 (2 External, 2 Internal)
Isolated DIO	16 Isolated DIO : 8 DI, 8 DO
GPIO	<ul style="list-style-type: none"> <li>▪ 16-step Rotary Switch</li> <li>▪ 4-mode LED Display</li> </ul>
LED	<ul style="list-style-type: none"> <li>▪ Power, HDD</li> <li>▪ 4 Programmable LED</li> </ul>
Others	2 CAN Port
Expansion	
Mini PCIe	1 Mini PCIe Socket for PCIe/ USB
PC/104-Plus	<ul style="list-style-type: none"> <li>▪ 1 ISA Connector (Internal)</li> <li>▪ 1 PCI Connector (Internal)</li> </ul>
Graphics	
Graphics Processor	Intel® GMA 3150
Display Memory	Shared Memory, up to 224MB
Interface	Dual Display : <ul style="list-style-type: none"> <li>▪ VGA : DB 15, up to 2048 x 1536</li> <li>▪ LVDS : Dual channel 24-bit</li> </ul>
Storage	
SATA	2 SATA II (3Gbps)
Storage Device	<ul style="list-style-type: none"> <li>▪ 1 CFast Socket, Push-in/ Push-out Ejector</li> <li>▪ 2 2.5" SSD/ HDD Bracket (Internal)</li> </ul>
Audio	
Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	<ul style="list-style-type: none"> <li>▪ 1 Mic-in (Internal)</li> <li>▪ 1 Line-out (Internal)</li> </ul>
Ethernet	
LAN 1	Gigabit LAN by Intel® 82574L
LAN 2	Gigabit LAN by Intel® 82574L

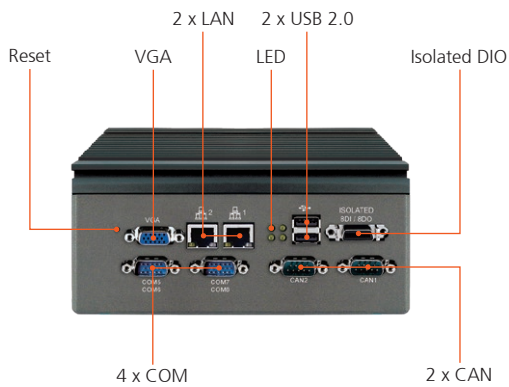
Power	
Power Input	16V to 28V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, GND
Remote Switch	2-pin Terminal Block : On, Off
Others	
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Management	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.
Software Support	
OS	Windows 7, Windows XP, Linux
Mechanical	
Dimensions (W x L x H)	186mm x 147mm x 79mm (7.3" x 5.8" x 3.1")
Weight	2.1 kg (4.6 lb)
Mounting	<ul style="list-style-type: none"> <li>▪ Wallmount by mounting bracket</li> <li>▪ DIN Rail Mount</li> </ul>
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	20% to 95% Humidity, non-condensing
Relative Humidity	95% @ 70°C
Shock	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-27</li> <li>▪ SSD : 50G @ wallmount, Half-sine, 11ms</li> </ul>
Vibration	<ul style="list-style-type: none"> <li>▪ IEC 60068-2-64</li> <li>▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis</li> </ul>
EMC	CE, FCC

## Dimensions

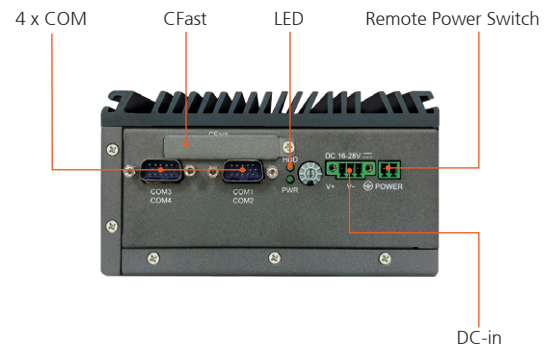
Unit : mm/ inch



## Front I/O



## Rear I/O



## Order Information

<b>ARS-1600</b>	ARS-1000 Compact Embedded System, 2 GbE LAN, 8 COM, 4 USB, PC/104-Plus, 2 CAN, Isolated DIO, Onboard Intel® Atom™ D525
<b>M340S-W28M1</b>	Vecow DDR3 4GB 1333/1066MHz RAM, Wide Temperature -40°C to +85°C
<b>PWA-60WP3</b>	60W, 24V/2.5A 100V AC to 240V AC Power Adapter for 3-pin 3.5mm Terminal Block
<b>DIN-RAIL</b>	DIN Rail Kit
<b>SCSI-20P-100</b>	20-pin SCSI Cable, 1M
<b>TMB-SCSI-20P</b>	Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting
<b>YCB-D15D9</b>	Y Cable from DB15 to Two DB9

1

High Performance Embedded System

2

Expandable Embedded System

3

Ultra Compact Embedded System

4

Multi-Touch Computer/ Display

5

Frame Grabber