

ARS-2000 Series

7th Generation Intel® Core™ i7/i5/i3 U-series SoC (Kaby Lake/Skylake)
Compact Embedded Box PC

- Intel® Core™ i7/i5/i3 U-series SoC (Kaby Lake-U/Skylake-U)
- 3 Independent GigE LAN with 2 M12 IEEE 802.3at PoE+
- 4 USB 3.0, 2 SATA III, 2 Mini PCIe, 1 PCI/PCIe x4
- External SIM Socket for WiFi/3G/4G/LTE/GPRS/UMTS
- 4 COM RS-232/422/485 with 1 Isolated COM
- Rugged, Fanless -40°C to 75°C Operation
- Mounting : DIN Rail, Wallmount
- Supports DVI-I and DVI-D dual HD displays
- 6V to 36V DC-in with 80V Surge Protection
- 32 Isolated DIO, Ignition Power Control



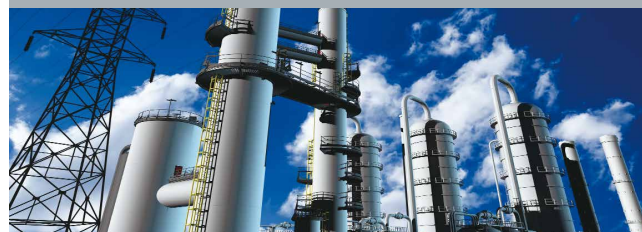
Machine Vision



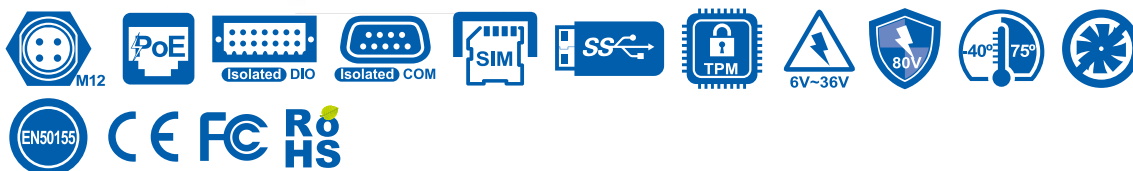
Smart Manufacturing



Factory Automation



Intelligent Control



Specifications

System

Processor	Intel® Core™ i7/i5/i3 U-series Processor (Kaby Lake-U/Skylake-U)
Chipset	Intel® SoC
BIOS	AMI
SIO	IT8786E
Memory	2 DDR4 2133MHz SO-DIMM, up to 64GB
OS	Windows 10, Windows 8.1, Windows 7, Linux (Windows 8.1 & 7 are not available for Kaby Lake)

I/O Interface

Serial	- 1 Isolated COM RS-232/422/485 (2.5kV Isolation) - 3 COM RS-232/422/485
USB	4 USB 3.0 (External)
Isolated DIO	32 Isolated DIO : 16 DI, 16 DO
LED	Power, HDD, PoE, Wireless
SIM Card	1 SIM Card Socket (External)

Expansion

Mini PCIe	2 Mini PCIe Socket : - 1 Full-size for PCIe/USB/External SIM Card - 1 Full-size for PCIe/USB/mSATA
PCI/PCIe	1 PCI/PCIe x16 Slot supports x4 Signal

Graphics

Graphics Processor	Intel® HD Graphics 620/520
Interface	- DVI-I : Up to 1920 x 1200 @ 60Hz - DVI-D : Up to 1920 x 1200 @ 60Hz

Storage

SATA	2 SATA III support 5W RAID 0, 1 : - 1 SATA III (6Gbps) - 1 SATA III co-lay with Mini PCIe (6Gbps)
mSATA	1 SATA III co-lay with SATA (Mini PCIe Type, 6Gbps)
Storage Device	- 1 CFast Socket, Push-in/Push-out Ejector - 2 2.5" SSD/HDD Bracket (Internal)

Audio

Audio Codec	Realtek ALC888S-VD, 7.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT 11.0
-------	---

PoE

LAN 2 to LAN 3	GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210 with Power On/Off Control, M12 Connector
----------------	--

Power

Power Input	6V to 36V, DC-in
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin terminal block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power

Others

TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
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.

Mechanical

Dimensions	ARS-2000M, ARS-2000 : 186.0mm x 147.0mm x 82.0mm (7.32" x 5.79" x 3.23") ARS-2000ML, ARS-2000L : 186.0mm x 147.0mm x 54.0mm (7.32" x 5.79" x 2.13")
Weight	ARS-2000M, ARS-2000 : 2.2 kg (4.85 lb) ARS-2000ML, ARS-2000L : 1.8 kg (3.97 lb)
Mounting	- Wallmount by mounting bracket (8.6" x 5.8") - Wallmount Kit (optional, 9.7" x 2.0") - DIN Rail Mount (optional)

Environment

Operating Tem.	ARS-2000M, ARS-2000 : -40°C to 75°C (-40°F to 167°F) ARS-2000ML, ARS-2000L : -40°C to 70°C (-40°F to 158°F)
Storage Tem.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 85°C
Vibration	- IEC 60068-2-27 - SSD : 50G @ wallmount, Half-sine, 11ms - IEC 60068-2-64 - SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	CE, FCC, EN50155, EN50121-3-2

* The rights of all brand names, product names and trademarks belong to their respective owners.
Copyright © 2021 Vecow Co., Ltd. All rights reserved.

Order Information

ARS Series	CPU	LAN	PoE ⁺	COM (Isolated)	USB 3.0	Isolated DIO	GPIO	PCI/PCIe
2010M -7600U	Intel® Core™ i7-7600U	3	2 M12	4 (1)	4	32	-	1 PCIe x4
2010 -7600U			2 RJ45					1 PCI
2001M -7600U			2 M12					
2001 -7600U			2 RJ45					
2000ML-7600U			2 M12					
2000L -7600U	Intel® Core™ i7-6600U	3	2 RJ45	2 (1)	4	32	-	1 PCIe x4
2010M - 600U			2 M12					1 PCI
2010 - 600U			2 RJ45					
2001M - 600U			2 M12					
2001 - 600U			2 RJ45					
2000ML- 600U	Intel® Core™ i5-6300U	3	2 M12	2 (1)	4	32	-	1 PCIe x4
2000L - 600U			2 RJ45					1 PCI
2010M - 300U			2 M12					
2010 - 300U			2 RJ45					
2001M - 300U			2 M12					
2001 - 300U	2 RJ45							
2000ML- 300U	Intel® Celeron™ 3955U	3	2 M12	4 (1)	4	32	-	1 PCIe x4
2000L - 300U			2 RJ45					1 PCI
2010M - 955U			2 M12					
2010 - 955U			2 RJ45					
2001M - 955U			2 M12					
2001 - 955U	2 RJ45							
2000ML- 955U	Intel® Celeron™ 3955U	3	2 M12	2 (1)	4	32	-	1 PCIe x4
2000L - 955U			2 RJ45					1 PCI

Accessories

DDR4 32G	Certified DDR4 32GB 2666MHz RAM
DDR4 16G	Certified DDR4 16GB 2133MHz RAM
DDR4 8G	Certified DDR4 8GB 2133MHz RAM
DDR4 4G	Certified DDR4 4GB 2133MHz RAM
PWA-280W-WT	280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-160W-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-120W	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
WALL-MOUNT	Wallmount Kit (9.7" x 2.0")
DIN-RAIL	DIN Rail Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth	Mini PCIe WiFi & Bluetooth Module with Antenna

Dimensions & Drawing

Unit : mm (inch)

