

# RES-1000 Series



IP67 Rugged Embedded System with Intel® Core™ i7/i5/i3 U-series Processor  
High Performance, Fanless -30°C to 70°C Extended Temperature

- Compact & Slim design, IP67 protection
- Fanless, -30°C to 70°C Operating Temperature
- 6th Generation Intel® Core™ i7/i5/i3 U-series SoC (Skylake-U)
- DDR4 2133MHz memory, up to 16GB
- Intel® HD Graphics 520 supports DirectX 12, OpenGL 4.5 and OpenCL 2.0
- Dual X-coded M12 GigE LAN, iAMT 11.0 supported
- 2 M12 COM RS-232/422/485, 1 M12 for 2-port USB
- 9V to 36V DC Power Input, M12 Waterproof Connector
- One-stop customized Design and Manufacturing Services



Smart Manufacturing



Rolling Stock



Environment Monitoring



Logging & Mining



## Specifications

### System

Processor	Intel® Core™ i7/i5/i3/Celeron® U-series Processor (Skylake-U)
Chipset	Intel® SoC (Skylake)
BIOS	AMI
SIO	IT8786E
Memory	1 DDR4 2133MHz SO-DIMM, up to 16GB
OS	Windows 10, Windows 8.1, Windows 7, Linux

### I/O Interface

Serial	2 COM RS-232/422/485, A-coded M12 Connector
USB	1 supports 2-port USB 2.0, A-coded M12 Connector
LED	Power, HDD

### Graphics

Graphics Processor	Intel® HD Graphics 520
Interface	IP67 Waterproof DVI-D Connector, up to 1920 x 1200 @60Hz

### Storage

SATA	1 SATA III (6Gbps)
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	- 1 mSATA Socket - 1 Internal 2.5" SSD/HDD Bracket (Optional)

### Ethernet

LAN 1	Intel® I219LM GigE LAN supports iAMT 11.0, X-coded M12 Connector
LAN 2	Intel® I210 GigE LAN, X-coded M12 Connector

### Power

Power Input	9V to 36V, DC-in
Power Interface	A-coded M12 Connector
Power Switch	IP67 Waterproof Power Button

### 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.

### Mechanical

Dimensions	(W) 250mm x (L) 180mm x (H) 44mm (9.8" x 7.1" x 1.7")
Weight	2.3 kg (5.07 lb)
Mounting	- Wallmount by mounting bracket - VESA Mount

### Environment

Operating Temp.	-30°C to 70°C (-22°F to 158°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 70°C
Shock	- IEC 60068-2-27 - SSD : 50G @ wallmount, Half-sine, 11ms
Vibration	- IEC 60068-2-64 - SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	CE, FCC, EN50155, EN50121-3-2

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## Order Information

Model Name	Processor	GigE LAN	COM	USB 2.0
RES-1000-600U	Intel® Core™ i7-6600U	2	2	2
RES-1000-300U	Intel® Core™ i5-6300U			
RES-1000-100U	Intel® Core™ i3-6100U			
RES-1000-955U	Intel® Celeron® 3955U			

### CPU List

Series	Processor	Base Freq. (GHz)	Cache (MB)	TDP (W)
Intel® Core™	i7-6600U	2.60	4	15
	i5-6300U	2.40	3	15
	i3-6100U	2.30	3	15
Intel® Celeron®	3955U	2.00	2	15

### Accessories

DDR4 16G	Certified DDR4 16GB 2133MHz RAM
DDR4 8G	Certified DDR4 8GB 2133MHz RAM
DDR4 4G	Certified DDR4 4GB 2133MHz RAM
2.5" SATA HDD	Certified 2.5" SATA 5400RPM HDD 500GB
2.5" SATA SSD	Certified 2.5" SATA MLC SSD 128GB
mSATA SSD	Certified mSATA MLC SSD 64GB
IP67 Rated DVI Cable	IP67 Rated DVI-D Cable (2M Length)
IP67 Rated USB Cable	IP67 Rated M12 to Dual USB Cable (2M Length)
IP67 Rated Ethernet Cable	IP67 Rated M12 to RJ45 Ethernet Cable (2M Length)
IP67 Rated COM Cable	IP67 Rated M12 to COM Cable (2M Length)

## Dimensions & Drawing

Unit : mm (inch)

