POC-200 series

Ultra-compact Atom™ Bay Trail-I Fanless Embedded Controller with PoE and USB 3.0

Features

· Ultra-compact 15 cm x 10 cm (6" x 4") footprint
· Intel® Atom™ E3845 1.91GHz quad-core processor
· Rugged, -20°C to 70°C fanless operation
· Two 802.3at (25.5W) Gigabit PoE ports
· Three USB 3.0 ports
· One 2.5" SATA HDD/SSD accommodation
· Up to two RS-232/422/485 ports and two RS-232 ports

Introduction

POC-200 is a breakthrough of Neousys' ultra-compact controller series. Inheriting the concept of favorable POC-100, POC-200 series further incorporates greater computing power and more versatile functions in its 3.5" HDD footprint.
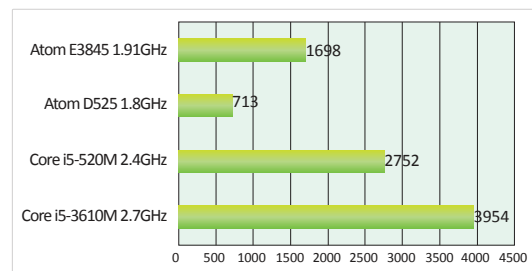
The new Intel® Atom™ Bay Trail processor brings a leaping for both arithmetic and graphics performance. With Atom™ E3845 quad-core processor, POC-200 can deliver more than 200% performance over previous D525/D2550 platform. It also feature comprehensive I/O interfaces to make use of the advance of compting power. Two Gigabit Ethernet and three USB 3.0 ports are integrated so you can connect GigE/USB3 cameras for vision applications. Its IEEE 802.3at PoE option is capable to supply 25.5W each port to power you IP camera for surveillance applications. POC-200 also features up to four COM ports and digital I/O for general-purpose industrial applications.

Size is another attractive feature of POC-200. Its 6"x4" footprint makes installation of POC-200 extremely easy. And its -20°C to 70°C operating temperature eliminates the restriction for deployment environment. Neousys provides derivative models with different CPU and I/O configuration so you can always find a fit POC-200 for your application.

Product Highlights

Leaping of Performance for Atom

Leveraging 22 nm lithography, the latest Intel® Atom™ Bay Trail processor brings significant performance advance. POC-200 utilizes quad-core Atom™ E3845 CPU and is about 240% faster than previous D525 platform. Its integrated Intel® HD Graphics engine, moreover, can offer outstanding performance for 3D and video codec.

CPU	Benchmark
Atom E3845 1.91GHz	1698
Atom D525 1.8GHz	713
Core i5-520M 2.4GHz	2752
Core i5-3610M 2.7GHz	3954

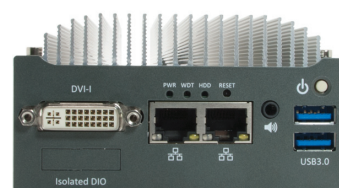*The CPU benchmark is performed using Passmark PerformanceTest 7 based on Win7 64bit OS.*

All-in-One Compact Chassis

Though POC-200 takes only a 3.5" HDD footprint, it possesses everything needed for a embedded platform. USB 3.0, COM ports, digital I/O and DVI/VGA are natively integrated on-board. It can accommodate one 2.5" HDD/SSD inside to provide larger storage capacity. For POC-212/222, an ingenious easy-swap HDD tray is provided for quick HDD installation/replacement.

Gigabit Ethernet and IEEE 802.3at PoE

POC-200 is the smallest embedded controller integrates multiple IEEE 802.3at PoE ports. As each port can supply 25.5W power, POC-200 is a turnkey platform for connecting PoE Powered Device (PD), such as GigE camera, IP camera, wireless AP and etc. This PoE capability gives great convenience for your vision or surveillance applications.

*R.O.C Patent No. M456527

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Application

1. Robot Vision
2. Object Inspection
3. Real-time Surveillance
4. Industrial Control and HMI

POC-200 Series Specifications

System Core	POC-200	POC-210	POC-212	POC-222
Processor	Intel® Atom™ E3845 1.91 GHz quad-core processor			Intel® Atom™ E3825 1.33 GHz dual-core processor
Graphics	Integrated Intel® HD Graphics			
Memory	1x SODIMM socket for DDR3L-1333, up to 8GB			
Panel I/O Interface				
Ethernet	2x Gigabit Ethernet ports by Intel® I210 GbE controller			
PoE	IEEE 802.3at PoE PSE (25.5W each GbE port)	N/A		
Video Port	1x DVI-I connector for both analog RGB and DVI/HDMI outputs			
Serial Port	2x RS-232/422/485 (COM1 & COM3) 2x RS-232 (COM2 & COM4)		1x RS-232/422/485 (COM1) 1x RS-232 (COM2)	
USB	3x USB 3.0 ports ; 1x USB 2.0 port			
Audio	1x Speaker-out			
DIO	4-CH isolated DI 4-CH isolated DO	8-CH 5V TTL GPIO (Standard) 4-CH isolated DI + 4-CH isolated DO (Optional)		
Internal I/O Interface				
Mini-PCIe	1x mini PCI Express slot with USIM socket			
Storage Interface				
SATA	1x internal SATA port for 2.5" HDD/SSD		1x internal SATA port with easy-swap HDD tray for 2.5" HDD/SSD	
eMMC	Optional 16GB/32GB on-board eMMC module			

Power Supply	POC-200	POC-210	POC-212	POC-222
DC Input	Built-in 8~35 VDC DC input			
Input Connector	2-pin pluggable terminal block for DC input			
Mechanical				
Dimension	149mm (W) x 105 mm (H) x 57 mm (D)		149mm (W) x 105 mm (H) x 53 mm (D)	
Weight				
Mounting	Wall-mount (Standard) ; DIN-rail mount (Optional)			
Environmental				
Operating Temperature	-20°C ~ 70°C with SSD, 100% CPU loading */** -10°C ~ 50°C with HDD, 100% CPU loading */**			
Storage Temperature	-40°C ~85°C			
Humidity	10%~90% , non-condensing			
Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)			
Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)			
EMC	CE/FCC Class A, according to EN 55022 & EN 55024			

* The 100% CPU loading is applied using Passmark® BurnInTest™ v7.0. For detail testing criteria, please contact Neousys Technology
** For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.

Order Information

POC-200
Intel® Atom™ E3845 ultra-compact controller with 2x 802.3at PoE ports, 3x USB 3.0 and 4x COM ports
POC-210
Intel® Atom™ E3845 ultra-compact controller with 2x GbE ports, 3x USB 3.0 and 4x COM ports
POC-212
Intel® Atom™ E3845 ultra-compact controller with 2x GbE ports, 3x USB 3.0 and 2x COM ports
POC-220
Intel® Atom™ E3825 ultra-compact controller with 2x GbE ports, 3x USB 3.0 and 2x COM ports

Option of DIN-rail mounting kit
60W AC/DC power adapter with 12V, 5A DC output

Packing List

1x POC-200 Series Unit
1x Driver CD

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Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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