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, -25°C to 70°C fanless operation
- Two 802.3at (25.5W) Gigabit PoE+ ports
- Three USB 3.0 ports and One USB 2.0 port
- 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.
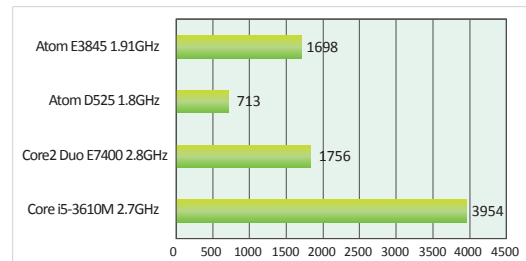
The new Intel® Atom™ Bay Trail processor brings a leaping for both arithmetic and graphics performance. With Atom™ E3845 quad-core processor, POC-200 can deliver more than 200% performance over previous D525/D2550 platform. It also features comprehensive I/O interfaces to make use of the advance of computing 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 of 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 -25°C to 70°C operating temperature eliminates the restriction for the 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
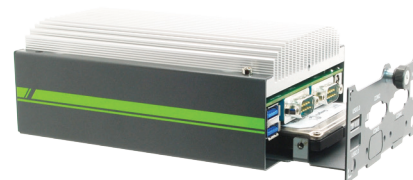
Leaping of Performance for Atom

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
Core2 Duo E7400 2.8GHz	1756
Core i5-3610M 2.7GHz	3954

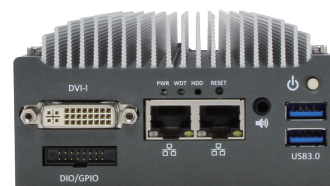*[*] The CPU benchmark is performed using Passmark PerformanceTest 7 based on Win7 64bit OS.*

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.

Applications

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

Specifications

	POC-200	POC-210	POC-212	POC-222		POC-200	POC-210	POC-212	POC-222
System Core					**Power Supply**				
Processor	Intel® Atom™ E3845 1.91 GHz quad-core processor			Intel® Atom™ E3825 1.33 GHz dual-core processor	DC Input	Built-in 8~35 VDC DC input			
					Input Connector	2-pin pluggable terminal block for DC input			
Graphics	Integrated Intel® HD Graphics				**Mechanical**				
					Dimension	105mm (W) x 58mm (D) x 149 mm (H)		105mm (W) x 53 mm (D) x 149 mm (H)	
Memory	1x SODIMM socket for DDR3L-1333, up to 8GB			DDR3L-1067, up to 4GB	Weight	1.05 kg			
Panel I/O Interface					Mounting	Wall-mount (Standard) ; DIN-rail mount (Optional)			
Ethernet	2x Gigabit Ethernet ports by Intel® I210 GbE controller				**Environmental**				
PoE	IEEE 802.3at PoE+ (25.5W each GbE port)	N/A			Operating Temperature	-25°C ~ 70°C with SSD, 100% CPU loading **/*** -10°C ~ 50°C with HDD, 100% CPU loading **/***			
Video Port	1x DVI-I connector for both analog RGB and DVI/HDMI outputs				Storage Temperature	-40°C ~85°C			
Serial Port	2x RS-232/422/485 (COM1 & COM3) 2x RS-232 (COM2 & COM4)		1x RS-232/422/485 (COM1) 1x RS-232 (COM2)		Humidity	10%~90% , non-condensing			
USB	3x USB 3.0 ports and 1x USB 2.0 port				Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)			
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)			Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)			
Internal I/O Interface					EMC	CE/FCC Class A, according to EN 55022 & EN 55024			
Mini-PCIe	1x mini PCI Express slot with USIM socket								

** 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.

	POC-200	POC-210	POC-212	POC-222
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	

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-222

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

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