

POC-100 Series

Ultra-compact Atom™ D525 Fanless Embedded Controller



Features

- Ultra-compact in 150 mm x 100 mm dimension
- Intel® Atom™ D525 1.8GHz Dual-core processor
- Rugged, -20°C to 60°C fanless operation
- On-board soldered 2GB DDR3 memory
- Dual Gigabit Ethernet ports
- mSATA and 2.5" SATA HDD dual storage devices
- Up to two RS-232/422/485 ports and two RS-232 ports
- Versatile mounting design

Introduction

Take advantage of the ultra compactness of Neousys' POC-100 fanless embedded controller!

POC-100 condenses a complete computer system into the size of a 3.5" hard drive. It comprises Intel® Atom™ D525 processor, on-board soldered 2GB DDR3, dual GbE ports, COM ports and USB ports to fit general application requirements. Inside POC-100, there are SATA port, mSATA socket, mini-PCIe socket and two optional COM ports for further system configuration.

Reliability is another key advantage of POC-100. Its fan-less and cable-less mechanical design give POC-100 superior durability, while soldered DDR3 memory offers exceptional shock/vibration resistance. The aluminum-extrusion heat sink is cautiously designed to allow a -20 °C to 60 °C operating temperature range.

The compactness of POC-100 introduces a great benefit for deployment. This highly integrated controller module can be placed and replaced easily in any restricted space. Compact but delicate with full completion, POC-100 is the fitting "brain" for various machines and equipments.

Specifications

System Core		Power Supply	
Processor	Intel® Atom™ D525 1.8GHz dual-core processor	DC Input	Built-in 8~25V DC input
Chipset	Intel® ICH8-M I/O Control Hub	Input Connector	1x 2-pin pluggable terminal block for DC input (POC-100ST) 1x DC jack (ø2.5) for AC/DC adapter input (POC-100RK)
Graphics	Integrated Intel® GMA 3150	Power Consumption	14.6W (1.22@12V)
Memory	On-board soldered 2GB DDR3 800MHz SDRAM	Mechanical	
Panel I/O Interface		Dimension	149mm (W) x 105 mm (H) x 50 mm (D)
Ethernet	2x Gigabit Ethernet ports by Intel® I210	Weight	1.0 kg (including one 2.5" HDD)
Video Port	1x DB-15 connector for VGA output, supporting 2048 x 1536 resolution	Mounting	Wall-mounting (standard) or DIN-Rail mounting (optional)
Serial Port	1x software-programmable RS-232/422/485 (COM1) 1x RS-232 (COM2)	Environmental	
USB	3x USB 2.0 ports	Operating Temperature	-20°C ~ 60°C with SSD or mSATA, 100% CPU loading */** -10°C ~ 50°C with HDD, 100% CPU loading */**
Audio	1x Speaker-out	Storage Temperature	-40°C ~ 85°C
Internal I/O Interface		Humidity	10%~90% , non-condensing
Serial Port	1x optional software-programmable RS-232/422/485 (COM3) 1x optional RS-232 (COM4)	Vibration	Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, w/o add-on card, according to IEC60068-2-64)
Mini PCIe	1x mini PCI Express slot with USIM socket	Shock	Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, w/o add-on card, according to IEC60068-2-27)
LVDS	1x 18-bit LVDS output with backlight control, supporting 1366 x 768 resolution	EMC	CE/FCC Class A, according to EN 55022 & EN 55024
Storage Interface		* 100% CPU loading is applied using Intel® Thermal Analysis Tool. For detail testing criteria, please contact Neousys Technology.	
SATA HDD	1x SATA port with 2.5" HDD/SSD bracket	** For sub-zero operating temperature, a wide temperature HDD drive or Solid State Disk (SSD) is required.	
mSATA	1x mSATA socket		

Order Information

POC-100ST

Intel® Atom™ D525 ultra-compact controller module with pluggable terminal block for DC input

POC-100RK

Intel® Atom™ D525 ultra-compact controller module with DC jack for DC input

Option of additional 2x COM ports (1x RS-232/422/485 + 1x RS-232)

Option of DIN-rail mounting kit

60W AC/DC power adapter with 12V, 5A DC output