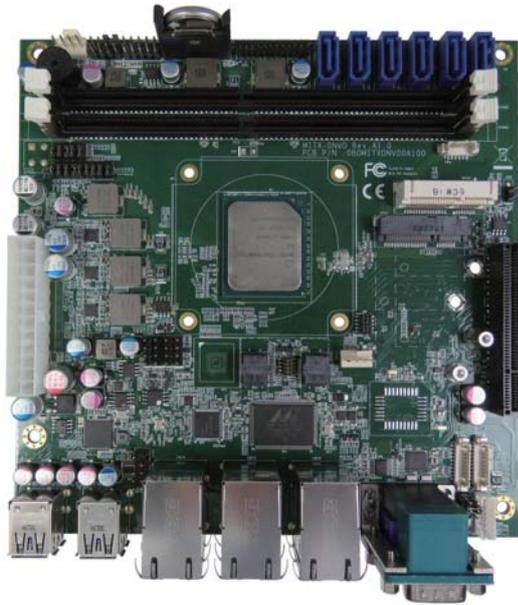# MITX-DNV0 Series

Industrial Motherboard in Mini-ITX Form Factor
with Intel® Denverton Processors

- Intel® Denverton Processor, Atom™ C3000 Series
- 2x DDR4 Long-DIMM Socket
- 1x VGA for video output
- 6x GbE LAN for Ethernet connection
- 4x USB3.0, 2x USB2.0, 2x RS-232/422/485, 1x 8-bit DIO for peripherals
- up to 6x SATA3.0, 1x mSATA, optional eMMC for storage
- 1x mPCIe, 1x PCIex8 for expansion
- TPM 2.0 support (optional)

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Product Overview

MITX-DNV0 Series is a Mini-ITX industrial motherboard equipped with Intel® Denverton SoC processors, Atom™ C3000 Series, which is specially suitable for dense low-power network, storage, and IoT applications.

It has up to six SATA3.0 sockets and one mSATA socket for HDD / SSD storage device connection as well as optional eMMC drive soldered on-baord. In addition, It also supports 6 GbE LAN ports to deliver sufficient traffic flow for huge data volumes.

MITX-DNV0 Series reserves one mPCIe slot and one PCIex8 slot, allowing users to expand specific functions such as wireless connection or additional network interface card.

Technical Information

CPU Support	
	Intel® Atom™ C3000 Series (Dual Core up to Hexadeca Core)
Memory	
	2x DDR4 Long-DIMM
Display Interfaces	
	1x VGA (on rear)
Ethernet	
	6x GbE LAN (RJ-45 on rear)
USB	
	4x USB3.0 (Type A on rear from HUB)
	2x USB2.0 (by wafer from SoC)
Serial Ports	
	2x RS-232/422/485
	(1x DB9 on rear with 5V/12V power output support, 1x by wafer)
Other I/O Ports	
	1x PS/2 Keyboard/Mouse (by wafer)
	1x 8-bit DIO (by wafer)
Storage & Expansion	
	up to 6x SATA3.0
	eMMC support (optional)
	1x mSATA
	1x mPCIe (mixed with SATA, USB2.0)
	1x PCIex8 (suppoting PCIe x1/x4/x8 depending on HSIO selection)
	1x Micro SIM Card Cage (by wafer)

Power Supply	
	2x12-pin ATX connector (DC +5V / -5V / +12V / -12V / +3.3V / 5VSB)
Firmware	
	BIOS: AMI uEFI BIOS w/ 128Mb SPI Flash
	Watchdog: Programmable WDT to generate system reset event
	H/W Monitor: Voltages, Temperatures
	Real Time Clock: SoC integrated RTC
	TPM: optional (Infineon SLB9665 TPM 2.0)
System Control & Monitoring	
	1x Header for Reset button, HDD LED & External Speaker
	1x Header for Power button, Power LED & SM bus
	1x Header for 6x LAN LED
	1x Header for mPCIe LED
Cooling	
	1x Wafer for CPU Smart Fan
	1x Wafer for System Smart Fan
Dimensions (L x W)	
	Mini-ITX (170 x 170 mm / 6.70" x 6.70")
Environmental Characteristics	
	Operation Temp.: 0°C ~ 60°C / 32°F ~ 140°F
	Storage Temp.: -20°C ~ 80°C / -4°F ~ 176°F
	Humidity: 0% ~ 95%
Certification	
	CE, FCC Class A

MITX-DNV0 Series Rear I/Os

RS-232/422/485

USB3.0   GbE LAN   VGA

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