Fanless Embedded Computer

Onboard Intel® Atom™ processor E3826 Dual Core

Intel Atom™ Processor E3826 Dual Core Fanless System, 4GB RAM, 2.5" SATA 64GB SSD, Ambient with air flow: -20°C to 70°C + Power Adapter (Model: NVW1500)

Powered by the latest generation of Intel® Atom™ processor E3826 (formerly codenamed "Bay Trail-I"), the NVW1500 provides outstanding performance not only on computing but also on graphics, and it presents a brand new opportunity for both intelligent and industrial computing solutions. NVW1500 support ACP ThinManager that offers management solutions for the modern factory by simplifying management. NVW1500 supports up to 4G DDR3L memory and have several options on storage devices like CFast, HDD and SSD. The NVW1500 is also the 1st system in Compact NISE 100 series to support extended operating temperature from -20 to 70 degrees Celsius with wide DC input range from 9-30VDC. In addition to no cable connection on the NVW1500, it brings NVW1500 the sustainability to work in harsh environment both with temperature and vibration concern. The NVW1500 has high integration ability with optional Mini-PCIe module and 4 x COM ports, which makes it a real intelligent system for various applications such as factory automation applications (with optional PROFIBUS, ProfiNET, DeviceNET, EtherCAT, Ethernet IP master module), network applications (with optional GbE LAN, Wi-Fi, 3.5G/4G LTE module) and communication applications (with optional GPIO, RS232/422/485). NVW1500 is definitely the top choice for M2M intelligent system and factory automation platforms.

Features

- Onboard Intel® Atom™ processor E3826 dual core, 1.46GHz
- Dual Independent Display from DVI-I and HDMI
- 2 x Intel® I120IT LAN ports support WoL, Teaming and PXE
- 2 x USB 2.0, 1 x USB 3.0
- 4 x COM ports (COM1 & COM2 with RS232/422/485, jumper-free setting)

- 1 x Optional Interface for optional Wi-Fi/3.5G/Automation modules
- External RTC battery holder for easy replacement
- Support -20 to 70 degrees Celsius extended operating temperature
- Support 9-30VDC input

Specifications

CPU Support
• Onboard Intel® Atom™ processor E3826 Dual Core, 1.46GHz
• Support Intel® Atom™ E3800 processor family from Single Core E3815, Dual Core E3825/E3826/E3827 and Quad Core E3845 with difference SKUs

Main Memory
• 1 x DDR3L SO-DIMM Socket, Support DDR3L 1066/1333 4GB RAM
max., un-buffered and non-ECC

Display Option
• Dual Independent Display
-- HDMI and DVI-D
-- HDMI and VGA (via DVI-I to VGA converter)

Front I/O Interface
• ATX power on/off switch
• 1 x Power Status/1 x HDD Access/1 x Battery Low/1 x Programing LEDs
• 1 x External CFast socket
• 1 x SIM Card holder
• 2 x Intel® I210IT GbE LAN Ports, support Wake on LAN, Teaming and PXE
• 1 x DVI-I Display Output
• 1 x USB 3.0 (900mA per each)
• 1 x USB 2.0 (500mA per each)
• 2 x DB9 for COM1 & COM2, both support RS232/422/485 with auto flow control
-- Jumper-free setting on RS232/422/485
-- Support 5V/12V/Ring function by jumper setting, Ring as the default (COM2 Only)

• 1 x Remote Power ON/OFF Switch
• 1 x 2-pin DC input, support +9 to 30VDC input

I/O Interface - Rear
• 1 x USB 2.0
• 1 x HDMI
• 1 x RTC Battery
• 2 x DB9 for COM3 & COM4
-- NISE 105: support RS232 only
-- NISE 105A: support RS232/422/485 with auto flow control
1 x Mic-in & 1 x Line-out
• 2 x Antenna Holes for optional Wi-Fi/3.5G antenna
• 1 x Optional I/F for optional miniPCIe Wi-Fi/3.5G/Hilscher Automation module output

I/O Interface - Internal
• 4 x GPI and 4 GPO (5V, TTL Type)

Storage Device
• 1 x CFast (SATA 2.0)
• 1 x 2.5" HDD (SATA 2.0)
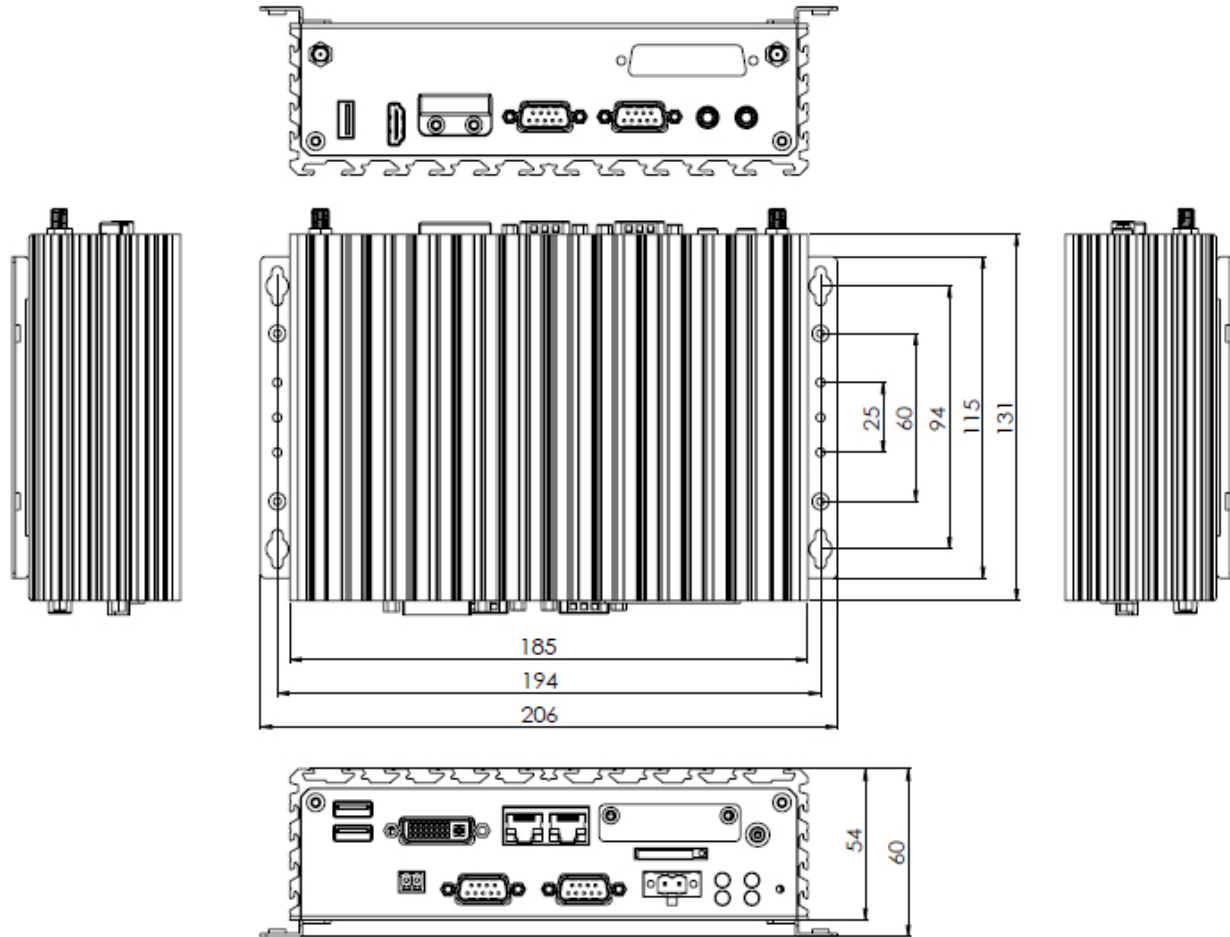• 1Mb NVRAM (on NISE105A Only)

Expansion Slot
• 1 x Mini-PCIe socket for optional Wi-Fi/3.5G/Hilscher automation modules

Power Requirement
• Power input: +9VDC to +30VDC
• 1 x optional 24V, 60W power adapter

Mechanical Drawing

Dimensions
• 185mm (W) x 131mm (D) x 54mm (H) without wall-mount bracket

Construction
• Aluminum and Metal Chassis with fanless design

Environment
• Operating Temperature:
• Ambient with air flow: -20°C to 70°C with industrial grade device (According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
• Storage Temperature: -30°C to 85°C
• Relative Humidity: 10% to 95% (non-Condensing)
• Shock Protection:
-- HDD: 20G, half sine, 11ms, IEC60068-27
-- CFast: 50G, half sine, 11ms, IEC60068-27
• Vibration Protection w/ HDD Condition:
-- Random: 0.5Grms @ 5 ~ 500Hz, IEC60068-2-64
-- Sinusoidal: 0.5Grms @ 5 ~ 500Hz, IEC60068-2-6
• Vibration Protection w/ CFast & SSD Condition:
-- Random: 2Grms @ 5 ~ 500Hz, IEC60068-2-64
-- Sinusoidal: 2Grms @ 5 ~ 500Hz, IEC60068-2-6

Certifications
• CE
• FCC Class A

OS Support Lists
• Windows 8, 32bit/64bit
• Windows Embedded Standard 8, 32bit/64bit
• Windows 7, 32bit/64bit
• Windows Embedded Standard 7, 32bit/64bit
• Windows Embedded Compact 7, 32bit
• Linux Kernel version 3.8.0
• Moon Island