

MXE-1300 Series

Intel® Atom™ D2550/ N2600 Fanless Embedded Computer with Rich I/O



Introduction

The Matrix MXE-1300 is the latest addition to ADLINK's Matrix line of embedded computers. Based on the Intel® Atom™ D2550/N2600 processor, the MXE-1300 provides excellent computing performance and outstanding power conservation.

Three Intel® Gigabit Ethernet ports deliver abundant support for a variety of internet/ intranet applications, and four digital I/O ports maximize flexibility for inter-device communication. An internal PCI Express Mini Card socket and USIM slot support extension functions, such as wireless connection (3G/WiFi/BT/GPS), video capture, Secure Access Modules (SAM), and others.

With its ruggedized architecture and rich I/O, the MXE-1300 is the best choice for industrial automation/ intelligent transportation systems, facility management, and applications demanding reliability in harsh environments. In addition, the MXE-1300 can meet the needs of digital surveillance with a supporting 3.5 inch HDD.

Features

- Intel® Atom™ D2550/N2600 processor + NM10 chipset
- 3.5" HDD support with internal SATA II interface (MXE-1311/ MXE-1312)
- 2 software-programmable RS-232/422/485 + 2 RS-232 ports
- 3 1000/100/10 Mbps Ethernet ports, 6 USB 2.0 ports, 4 digital input and output
- 1 external CF slot and 1 internal PCIe Mini Card socket with USIM slot
- Built-in wide-range DC power input
 - 6 VDC to 36 VDC for MXE-1301/MXE-1302
 - 9 VDC to 36 VDC for MXE-1311/MXE-1312
- Rugged, -20°C to 70°C fanless operation (w/ industrial SSD)

Applications

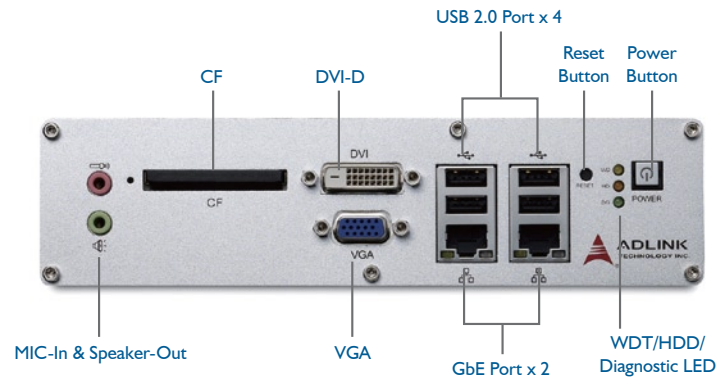
- Factory Automation / Industrial Automation
- Intelligent Transportation Systems
- Mobile Surveillance
- Facility Management
- Environment Monitoring
- SCADA / CIM

Software Support

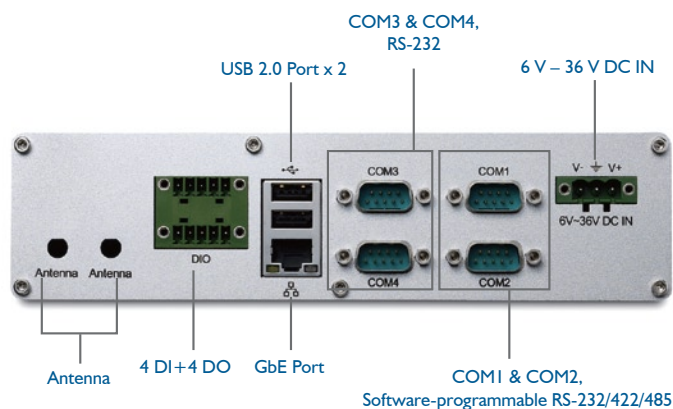
- Windows® CE7.0 / XP / XP Embedded / Embedded Standard 7 / 7, Linux*
- *Linux Distribution on request



Supports 3.5" HDD with internal SATA II interface
(MXE-1311/MXE-1312)



MXE-1300 Series Front Panel



MXE-1300 Series Back Panel

*Extending the operating temperature to -20°C to +70°C is optional and requires use of an industrial solid-state drive storage device.
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Specifications

| Model Name | MXE-1301 | MXE-1302 | MXE-1311 | MXE-1312 |
|--------------------------|--|------------------------------------|---|------------------------------------|
| System Core | | | | |
| ■ Processor | Intel® Atom™ D2550 1.86GHz CPU | Intel® Atom™ N2600 1.6GHz CPU | Intel® Atom™ D2550 1.86GHz CPU | Intel® Atom™ N2600 1.6GHz CPU |
| ■ Chipset | Intel® NM10 | Intel® NM10 | Intel® NM10 | Intel® NM10 |
| ■ Video | VGA+DVI dual display, supports 1920 x 1200 resolution | | | |
| ■ Memory | 2 GB DDR3 1066 MHz SODIMM module (Up to 4 GB support) | 2 GB DDR3 800 MHz SODIMM module | 2 GB DDR3 1066 MHz SODIMM module (Up to 4 GB support) | 2 GB DDR3 800 MHz SODIMM module |
| I/O Interface | | | | |
| ■ Ethernet | 3 GbE ports (3x Intel® 82574L) | | | |
| ■ Serial Ports | 4 COM ports (2 software-programmable RS-232/422/485, and 2 RS-232) | | | |
| ■ USB | 6 USB 2.0 ports | | | |
| ■ DI/O | 4 digital input and output | | | |
| ■ Audio | 1 mic-in and 1 line-out | | | |
| ■ Mini PCIe | 1 internal mini PCIe card socket | | | |
| ■ USIM | 1 USIM socket for 3G communication | | | |
| ■ WDT | Watchdog timer support | | | |
| Power Supply | | | | |
| ■ DC Input | Built-in 6-36 VDC wide-range DC input | | Built-in 9-36 VDC wide-range DC input | |
| ■ AC Input | Optional 80 W external AC-DC adapter for AC input | | | |
| Storage Device | | | | |
| ■ SATA Storage | 1 onboard SATA-II port for 2.5" HDD/SSD installation | | 1 onboard SATA-II port for 3.5" HDD installation | |
| ■ CompactFlash | 1 external type I CF socket, supports PIO/DMA modes | | | |
| Mechanical | | | | |
| ■ Dimensions | 210 mm (W) x 170 mm (D) x 53 mm (H) (8.3" x 6.75" x 2.1") | | 210 mm (W) x 170 mm (D) x 58 mm (H) (8.3" x 6.75" x 2.3") | |
| ■ Weight | 1.8 kg (3.98 lbs) | | 1.8 kg (3.98 lbs) | |
| ■ Mounting | VESA 100 hardware kit for wall-mounting | | | |
| Environmental | | | | |
| ■ Operating Temperature* | Standard: 0°C to 45°C (w/HDD) Extended temperature: -20°C to 70°C (w/industrial SSD or CF) | | | |
| ■ Storage Temperature | -40°C to 85°C (excl. HDD/SSD/CF) | | | |
| ■ Humidity | ~95% @ 40°C (non-condensing) | | | |
| ■ Vibration | Operating, 5 Grms, 5-500 Hz, 3 axes (w/ CF or SSD) Operating, 0.5 Grms, 5-500 Hz, 3 axes (w/ HDD) | | Operating, 5 Grms, 5-500 Hz, 3 axes (w/ CF) Operating, 0.2 Grms, 5-500 Hz, 3 axes (w/ HDD) | |
| ■ ESD | Contact +/-4 KV and Air +/-8 KV | | | |
| ■ Shock | Operating, 100 G, half sine 11 ms duration (w/ CF or SSD) | | | |
| ■ EMC | CE and FCC Class A | | | |

*Extending the operating temperature to -20°C to +70°C is optional and requires use of an industrial solid-state drive storage device.

Ordering Information

| Model Name | Description | Storage Support | COM Ports | DI/O | GbE | USB | Memory |
|------------|--|-----------------|-----------|------|-----|-----|--------|
| MXE-1301 | Intel® Atom™ D2550 fanless embedded computer | 2.5" HDD/SSD | 4 | 4 | 3 | 6 | 2 GB |
| MXE-1302 | Intel® Atom™ N2600 fanless embedded computer | 2.5" HDD/SSD | 4 | 4 | 3 | 6 | 2 GB |
| MXE-1311 | Intel® Atom™ D2550 fanless embedded computer | 3.5" HDD | 4 | 4 | 3 | 6 | 2 GB |
| MXE-1312 | Intel® Atom™ N2600 fanless embedded computer | 3.5" HDD | 4 | 4 | 3 | 6 | 2 GB |

Optional Accessories

| | |
|------------------------------|--|
| 2 TB 3.5" HDD Option | Factory-installed 2 TB 3.5" hard disk drive (0 to 60°C) (MXE-1311/MXE-1312) |
| 4 GB DDR3 Upgrade | Upgrade to 4 GB DDR3 memory (MXE-1301/MXE-1311) |
| 320 GB HDD Option | Factory-installed 320 GB SATA hard disk drive (0 to 60°C) |
| 32 GB SSD Option | Factory-installed 32 GB MLC SATA solid-state drive (0 to 70°C) |
| 8 GB Industrial SSD Option | Factory-installed 8 GB SLC industrial grade SATA solid state drive (-40 to 85°C) |
| 80 W AC-DC Adapter | 80 W industrial grade AC-DC adapter (-20 to 70°C) |
| Extended Temperature Option* | Optional screening service to extend the operating temperature of the MXE-1300 series to -20 to 70°C |

*This option guarantees system cold boot at -20°C and operation at 100% load at 70°C, with industrial solid-state drive storage option required.