

# 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

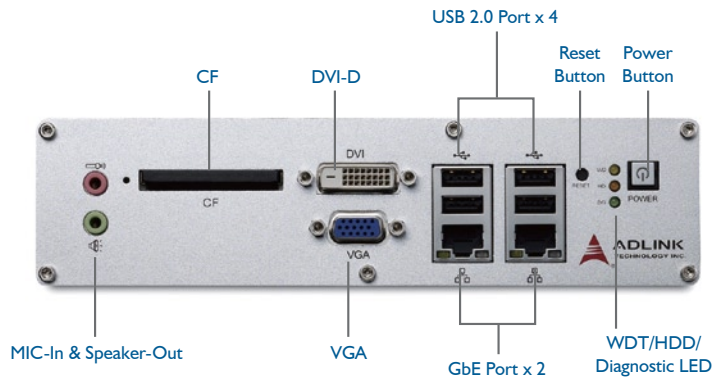
- Factory Automation / Industrial Automation
- Intelligent Transportation Systems
- Mobile Surveillance
- Facility Management
- Environment Monitoring
- SCADA / CIM

## Software Support

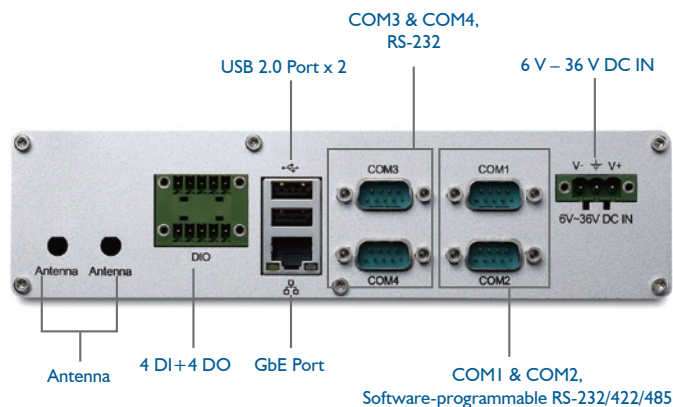
- Windows® CE7.0 / XP / XP Embedded / Embedded Standard 7 / 7, Linux\*
- \*Linux Distribution on request



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
<b>System Core</b>				
■ 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
<b>I/O Interface</b>				
■ 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			
<b>Power Supply</b>				
■ 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			
<b>Storage Device</b>				
■ 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			
<b>Mechanical</b>				
■ 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			
<b>Environmental</b>				
■ 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.