

MXE-1400 Series

Intel® Atom™ E3845 Processor-Based Fanless Embedded Computer



Introduction

ADLINK's new Matrix MXE-1400 series of rugged quad-core fanless computers, feature the latest generation of Intel® Atom™ E3845 processors, delivering outstanding performance with minimum power consumption.

The MXE-1400 series accommodates rich I/O interfaces in a compact system size, including DisplayPort, DVI-I (with both DVI and VGA signals), three GbE by Intel network interface controllers, six USB 2.0, one USB 3.0 with dedicated bandwidth, 8 isolated DI/O, and six COM ports, four of which are BIOS-configurable among RS-232/422 and 485 with auto flow. In addition, with a 2.5" SATA drive bay and CFast port, easy, versatile connection to a wide range of applications is enabled. Dual mini PCIe slots and USIM socket empower the MXE-1400 as a communications hub for a variety of wireless connections, such as BT/WiFi and 3G.

Leveraging proprietary mechanical engineering, the MXE-1400 series continues to offer all the popular features of the Matrix E series, including cable-free construction, wide operating temperature ranges, and 5 Grms vibration resistance, having undergone, like all ADLINK Matrix devices, rigorous testing for operational verification.

Combining superior processor performance, wireless capability, and rich, scalable I/O in a compact and robust package, the ADLINK MXE-1400 is an ideal choice for a wide range of applications supporting intelligent transportation, in-vehicle multimedia, and surveillance and factory automation applications.

Features

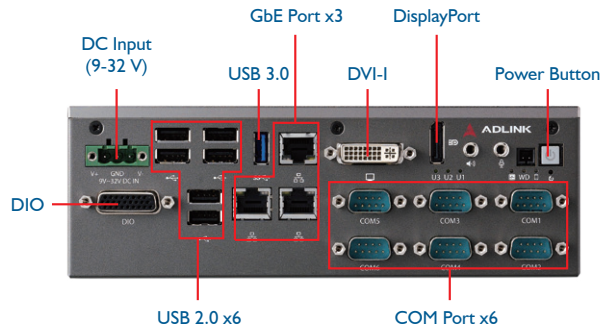
- Quad-Core Intel® Atom™ E3845 processors
- Single side I/O with easy access SATA drive bay
- Compact 210 (W) x 170 (D) x 70 (H) mm housing
- Built-in ADLINK SEMA management solution
- Rugged construction delivering fanless -40°C to 70°C operability (w/industrial SSD) *
- Rich I/O :
 - DVI-I+DisplayPort, 6x USB 2.0, 1x USB 3.0, 3x GbE ports, 6x COM ports, 8x isolated DI/O
 - 1x SATA-II (3.0 Gb/s) port, 2x mPCIe slots

Applications

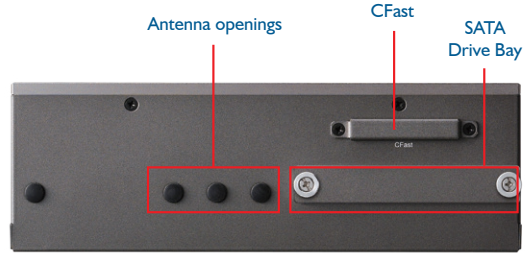
- Industrial Automation
- Machine Automation
- Railway
- In-Vehicle/Transportation
- Maritime

Software Support

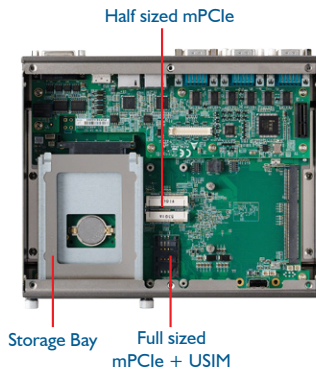
- OS Support
 - Windows® 7 professional / Embedded
 - Linux



■ MXE-1400 Series Front Panel



■ MXE-1400 Series Back Panel



■ Rich I/O Enables Seamless Interconnection



■ MXE-1400 with Antenna

* Extending operating temperature is optional and requires use of an industrial solid-state drive storage device or CFast card.

Specifications

Model Name	MXE-1401
System Core	
■ Processor	Quad-Core Intel® Atom™ SoC processor E3845
■ Memory	DDR3L1600 2 GB (up to 8 GB)
Graphic Output	
■ Display Port	1x DisplayPort
■ DVI / VGA	1x DVI-I
I/O Interface	
■ Ethernet	3x GbE (Intel® I211)
■ Serial	6x COM (2x RS-232 + 4x RS-232/422/485)
■ USB	6x USB 2.0 + 1x USB 3.0
■ DI/O	Isolated 8 DI + 8 DO
■ Audio	Mic-in / Line-out
Expansion	
■ Mini PCIe	2x PCIe mini card slot
■ USIM	1x USIM Slot
Manageability	
■ WDT	Watch Dog Timer supported
■ SEMA	SEMA support with BMC
Power Supply	
■ DC Input	9-32V _{DC}
■ AC Input	Optional 80 W AC/DC adapter
Storage Device	
■ SATA Storage	1x SATA internal
■ CompactFlash	1x CFast socket
Mechanical	
■ Dimensions	210 (W) x 170 (D) x 70 (H) mm
■ Weight	2 kg (4.42 lbs)
■ Mounting	Wallmount kit
Environmental	
■ Operating Temperature*	Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option*: -40°C~70°C (-40°F to 158°F) (w/ industrial SSD)
■ Storage Temperature	-40°C to 85°C (-40°F to 185°F)
■ Humidity	Approx. 95% @40°C (non-condensing)
■ Vibration	Operating 5Grms, 5-500 Hz, 3 axes w/ SSD; Operating 0.5Grms, 5-500 Hz, 3 axes w/ HDD
■ ESD	Contact +/- 6KV, Air +/- 10KV
■ Shock	Operating 100G, half sine 11 ms duration w/ SSD; Operating 20G, half sine 11 ms w/ HDD
■ EMC	CE & FCC Class A
■ Safety	UL[by CB]

Ordering Information

Model Name	Description	Storage Support	COM Ports	DIO	GbE	USB	Memory
MXE-1401	Intel® Atom™ E3845 Fanless Embedded Computer	2.5" SATA + CFast	6	8	3	6+1	2GB DDR3L

Optional Accessories

500 GB HDD	Factory-installed 500 GB SATA hard disk drive (0°C to 50°C, 32°F to 122°F)
32/64 GB SSD Option	Factory-installed 32/64 GB MLC SATA solid-state drive (0°C to 70°C, 32°F to 158°F)
Wireless Module Option	WiFi/BT/3G wireless modules kit
80 W AC-DC Adapter	80 W industrial grade A C -DC adapter (-20°C to 70°C, -4°F to 158°F)
Extended Temperature Option*	Optional screening service to extend the operating temperature to -40°C to 70°C (-40°F to 158°F)