MXE-5000 Series

Performance Intel® Core™2 Duo Marine Grade Fanless Embedded Computer

MXE-5104M

MXE-5104

Introduction

ADLINK's MXE-5000 series is an exceptionally rugged embedded computer for operating in harsh environments. Its -20 to 70°C temperature range allows it to operate outdoors in both hot summer days and cold winter nights. The MXE-5000 can withstand 5 Grms vibration and can also be deployed in factory plants or on vehicles as. Its fanless and cable-less structure ensures extensive durability for long-term usage.

The MXE-5000 series features the Intel® Core™2 Duo P8400 2.26 GHz processor to deliver adequate performance at low-power. The MXE-5000 also integrates versatile general purpose and dedicated I/O features to support a wide variety of applications. Combing rugged design, integrated I/O functions, and IEC-60945 maritime standards compliance, the ADLINK MXE-5000 series provides a versatile choice for your applications.
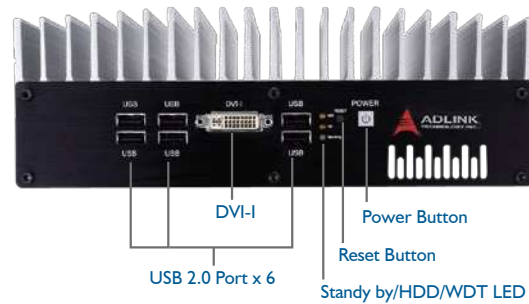
Features

- Intel® Core™2 Duo P8400 2.26 GHz processor + Intel® GM45
- Rugged, -20°C to 70°C fanless operation*
- Built-in 9 V_{DC} to 24 V_{DC} wide-range DC power input
- Up to four 1000/100/10 Mbps Ethernet ports
- Two RS-232 ports and two RS 232/422/485 ports
- Six USB 2.0 ports
- DVI-I connector combining analog CRT and DVI-D signals, supporting dual displays
- IEC-60945 maritime standards compliance (MXE-5104)
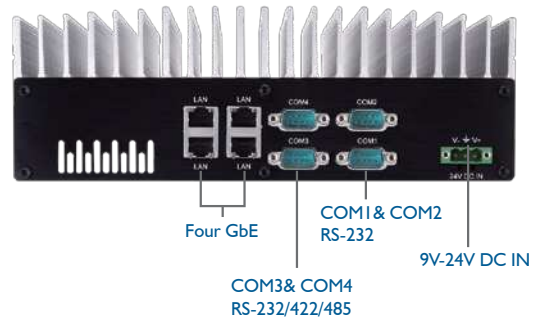
Applications

- Maritime Computer
- Facility Management
- Environment Monitoring
- Machine Automation
- Video Surveillance/Recognition
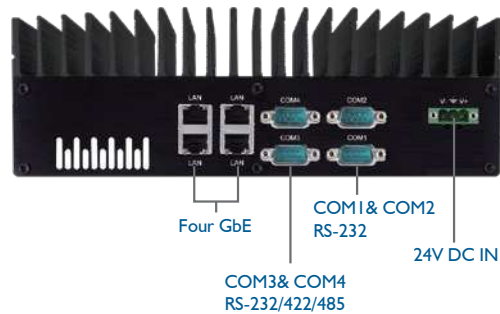- Transportation

Software Support

- Windows® XP / XP Embedded / 7, Linux*
  *Linux Distribution by Request

MXE-5104M Front Panel

MXE-5104M Back Panel

MXE-5104 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.

Specifications

Model Name	MXE-5104M	MXE-5104
System Core		
■ Processor	Intel® Core™2 Duo P8400 2.26 GHz CPU	
■ Chipset	Intel® GM45 Graphic Memory Control Hub Intel® I/O Controller Hub 9 Mobile (ICH9-M)	
■ Video	DVI-I connector Combines analog CRT and DVI-D signals, supports dual displays	
■ Memory	2 GB DDR3 SODIMM 2 sockets (supports up to 4 GB DDR3)	2G DDR3 SODIMM 1 Socket (support up to 4GB DDR3)
I/O Interface		
■ Serial Port	2 RS-232 (COM1 & COM2) via DB9 connectors 2 RS-232/422/485 (COM3 & COM4) via DB9 connectors	
■ Ethernet	4 GbE ports (2 Intel® 82574L & 2 Realtek® 8111C)	
■ USB	6 USB 2.0 ports	
Power Supply		
■ DC Input	Built-in 9-24 V_{DC} DC input 3P pluggable connector with latch (V-, GND, V+)	24V isolation DC input 3P pluggable connector with latch (V-, GND, V+)
■ AC Input	Optional 100 W external AC-DC adapter for AC input	
Storage Device		
■ SATA HDD	On-board SATA port for 2.5" HDD/SSD installation	
Mechanical		
■ Dimensions	248 mm (W) x 185 mm (D) x 85 mm (H) (9"8 x 7"3 x 3.3")	
■ Weight	3.7 kg (8.14 lbs)	
■ Mounting	Wall-mount kit	
Environmental		
■ Operating Temperature*	Standard: 0°C to 50°C (w/HDD) Extended option: -20°C to 70°C (w/industrial SSD)	
■ 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)	
■ Shock	Operating, 50 G, half sine 11 ms duration (w/ CF or SSD)	
■ EMC	CE and FCC Class A	CE, FCC Class A and IEC-60945 compliance

*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	IEC-60945 compliance	GbE	COM	USB	Memory
MXE-5104M	Intel® Core™2 Duo Fanless Embedded Computer	-	4	2 RS-232, 2 RS-232/422/485 ports	6	2 GB DDR3 SO-DIMM
MXE-5104	Intel® Core™2 Duo Maritime Fanless Embedded Computer	√	4	2 RS-232, 2 RS-232/422/485 ports	6	2 GB DDR3 SO-DIMM

Optional Accessories

4 GB DDR3 Upgrade	Upgrade to 4 GB DDR3 memory
320 GB HDD Option	Factory-installed 320 GB SATA hard disk drive (0 to 60°C)
32 GB SSD Option	Factory-installed 32 GB SATA solid-state drive (0 to 70°C)
8 GB Industrial SSD Option	Factory-installed 8 GB industrial-grade SATA solid-state drive (-40 to 85°C)
100 W AC-DC Adapter	100 W industrial-grade AC-DC adapter (-20 to 70°C)
Extended Temperature Option*	Optional Screening to extend the operating temperature of the MXE-5000 series to -20°C to 70°C

*This option guarantees cold boot of the system at -20°C and operation with 100% loading at 70°C. The industrial solid-state drive storage option is required.