# Matrix MXE-5000 Series

## Performance Intel® Core™2 Duo Fanless Embedded Computer



#### Introduction

ADLINK's Matrix 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 Matrix 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.

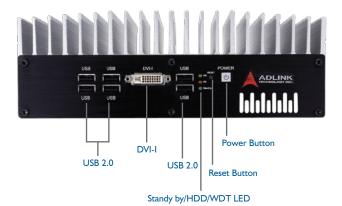
The Matrix MXE-5000 series features the Intel® Core™2 Duo P8400 2.26 GHz processor to deliver adequate performance at low-power. The MXE-5000 also integrates versatile general purpose and dedicated I/O features to support a wide variety of applications. Combing rugged design, integrated I/O functions,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

### **Features**

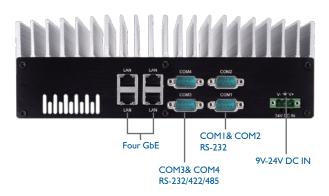
- Intel® Core™2 Duo P8400 2.26 GHz processor + Intel® GM45
- Rugged, -20°C to 70°C fanless operation\*
- Built-in 9 V<sub>DC</sub> to 24 V<sub>DC</sub> isolation wide-range DC power input
- Up to four 1000/100/10 Mbps Ethernet ports
- Two RS-232 ports and two RS 232/422/485 ports
- Six USB 2.0 ports
- DVI-I connector combining analog CRT and DVI-D signals, supporting dual displays

### **Applications**

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



MXE-5000 Series Front Panel



MXE-5000 Back Panel

<sup>\*</sup>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-5104 M				
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)				
I/O Interface					
Serial Port	2 RS-232 (COM1 & COM2) via DB9 connectors				
	2 RS-232/422/485 (COM3 & COM4) via DB9 connectors				
■ Ethernet	2 GbE ports (Intel® 82574L) on the back panel 2 GbE ports (Realtek 8111C) on the back panel				
■ USB	6 USB 2.0 ports				
Power Supply					
■ DC Input	Built-in 9-24 Vpc 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/SDD/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				

## Ordering Information

Model Name	CPU	GbE	СОМ	USB	Memory
MXE-5104 M	Intel® Core™2 Duo Fanless Embedded Computer	4	2 RS-232, 2 RS-232/422/485 ports	6	2 GB DDR3 SODIMM

## **Optional Accessories**

4 GB DDR3 Upgrade	Upgrade to 4 GB DDR3 memory
320 GB HDD Option	Factory-installation of 320 GB SATA hard disk drive (0 to 60°C)
32 GB SSD Option	Factory-installation of 32 GB SATA solid state disk (0 to 70°C)
8 GB Industrial SSD Option	Factory-installation of 8 GB industrial-grade SATA solid state disk (-40 to 85 $^{\circ}\text{C}$ )
100 W AC Adapter	100 W industrial-grade AC adapter (-20 to 60°C)
Extended Temperature Option*	Extend operating temperature of MXE-5000 series to -20°C to 70°C

<sup>\*</sup>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.



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