# MXE-5104

Intel® Core™2 Duo Processor-based Marine Grade Fanless Embedded Computer

MXE-5104

Introduction

ADLINK's MXE-5104 is a rugged embedded computer compliant with IEC-60945 maritime standards. It features Intel® Core™2 Duo P8400 2.26 GHz processor for ample performance with minimal power consumption. The MXE-5104 integrates versatile general purpose and dedicated I/O features to support a wide variety of applications. A -20 to 70°C (-4 to 158°F) temperature range and 5 Grms vibration resistance support operation in harsh environments, as well as factory plants or vehicles.

MXE-5104 Front Panel

Features

- Intel® Core™2 Duo P8400 2.26 GHz processor + Intel® GM45
- IEC-60945 maritime standards compliance
- Rugged, -20°C to 70°C (-4°F to 158°F) fanless operation*
- Built-in 24 V isolated 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

Software Support

- **OS Information**
  - Windows® XP / 7
  - Linux*

*Linux Distribution by Request
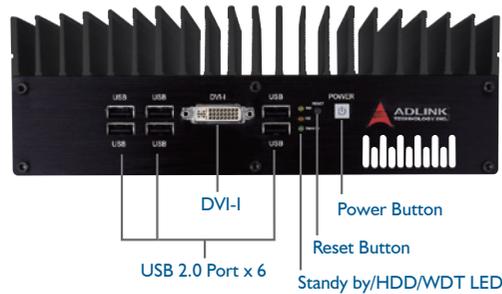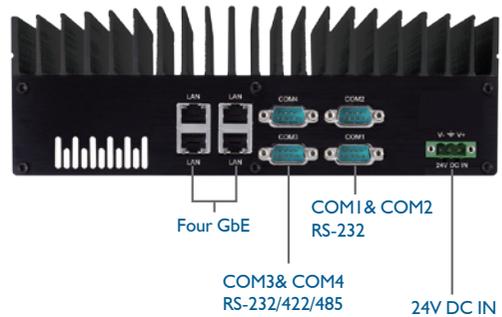
MXE-5104 Back Panel

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

▼ Specifications

Model Name	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	2G DDR3 SODIMM 1 Socket (support up to 4GB DDR3)
I/O Interface	
■ Serial Port	2 RS-232 (COM1 & COM2) + 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
■ WDT	Supports a watchdog timer
Power Supply	
■ DC Input	24V isolated 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 (32˚F to 122˚F) Extended temperature option*: -20°C to 70°C (-4˚F to 158˚F) (w/industrial SSD)
■ Storage Temperature	-40°C to 85°C (-40˚F to 185˚F) (excl. HDD/SSD/CF)
■ Humidity	~95% @ 40°C (104˚F) (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, FCC Class A and IEC-60945 compliance

▼ Ordering Information

Model Name	Description	IEC-60945 compliance	GbE	COM	USB	Memory
MXE-5104	Intel® Core™2 Duo Maritime 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
32 GB SSD Option	Factory-installed 32 GB SATA solid-state drive (0°C to 70°C, 32˚F to 158˚F)
8 GB Industrial SSD Option	Factory-installed 8 GB industrial-grade SATA solid-state drive (-40°C to 85°C, -40˚F to 185˚F)
100 W AC-DC Adapter	100 W industrial-grade AC-DC adapter (-20°C to 70°C, -4˚F to 158˚F)
Extended Temperature Option*	Optional Screening to extend the operating temperature of the MXE-5000 series to -20°C to 70°C (-4˚F to 158˚F)