MXE-5300 Series

Powerful 2nd Generation Intel® Core™ i7 Processor-based Fanless Embedded Computer with High Performance Wireless Support

Features

- Intel® Core™ i7-2710QE (Quad-Core) / i5-2510E / i3-2330E Processor + Intel® QM67 chipset
- Rugged, up to -20°C to 70°C (-4˚F to 158˚F) fanless operation (w/ industrial SSD)*
- Intel® Active Management Technology 7.0 support
- Optional wireless function enhancement (WCDMA, 802.11 a/b/g/n, BT3.0, AGPS)
- 1 on-board SATA-III (6.0 Gb/s) port
- 6 USB ports (USB 3.0 port x2 + USB 2.0 port x4), 4 DI + 4 DO w/ 1.5KV isolation, 4 GbE ports
- 1 external CFast socket; 2 onboard mini PCIe card sockets
- 2 BIOS programmable RS-232/422/485 (COM1&2), 2 RS-232 (COM3&4)

Introduction

The Matrix MXE-5300 series is based on the Intel® Core™ i7-2710QE quad-core processor, boosting performance by almost 150% with minimal increase in power consumption, and offering outstanding computing power tailored to a variety of specific application needs.

Featuring a new design simplifying system component replacement and maintenance, the MXE-5300 series allows effortless access to storage, memory, and wireless modules. Leveraging proprietary mechanical engineering, the MXE-5300 series also retains all the popular features of the Matrix E series, including rugged -20 to 70°C (-4 to 158˚F) fanless operation, 5 Grms vibration resistance, and 9-32V wide range DC input.

In addition, the MXE-5300 series provides dual mini-PCIe sockets and a USIM socket supporting wireless protocols such as 3G, GPS, WiFi and Bluetooth. ADLINK's proprietary wireless enhancement technology empowers the MXE-5300 series to deliver industrial-grade wireless performance.

The MXE-5300 series accommodates Intel® Active Management 7.0, for remote system management, enabling users to easily perform maintenance, diagnostic, update, and even BIOS configuration tasks on the MXE-5300 series via Ethernet connection.

Combining superior processor performance, innovative mechanical design, superior wireless capability, and rich IO, all in a compact and robust package, the ADLINK MXE-5300 series is an idea choice for a wide range of applications.



Software Support

- Windows® XP / XP Embedded / 7
- Linux*

*Linux Distribution by Request

Applications

- Intelligent Transportation Systems
- Facility Management
- Building Automation Systems (BAS)
- Digital Surveillance
- In-vehicle Multimedia and Surveillance

Ordering Information

- **MXE-5301**
  Intel® Core™ i7-2710QE fanless embedded computer
- **MXE-5302**
  Intel® Core™ i5-2510E fanless embedded computer
- **MXE-5303**
  Intel® Core™ i3-2330E fanless embedded computer

Optional Accessories

- **8/16 GB DDR3 Upgrade**
  Upgrade to 8/16 GB DDR3 memory
- **500 GB HDD Option**
  Factory-installed 500 GB SATA hard disk drive (0 to 50°C) (32 to 122˚F)
- **8 GB/32 GB/64 GB SSD Option**
  Factory-installed of 8 GB/ 32 GB SLC type or 64 GB MLC type industrial-grade SATA solid state disk (-40 to 85 °C) (-40 to 185˚ F)
- **160 W AC-DC Adapter**
  160 W industrial-grade AC-DC adapter (-20 to 70°C) (-4 to 158˚F)
- **Wireless Module Option**
  3G/WiFi/BT/GPS wireless modules
  (3G/GPS for MXE-5301/5302/5303 only)
- **Extended Temperature Option***
  Optional screening to extend the operating temperature of the MXE-5301 to -20 to 60°C (-4 to 140˚F) and MXE-5302/5303 to -20 to 70°C (-4 to 158˚F)

Product Illustration



Specifications

Model Name	MXE-5301	MXE-5302	MXE-5303
System Core			
Processor	Intel® Core™ i7-2710QE	Intel® Core™ i5-2510E	Intel® Core™ i3-2330E
Chipset	Intel® Mobile Platform Controller Hub (QM67)		
Video	VGA+DVI dual display output by DVI-I connector Analog CRT, supports QXGA (2048 x 1536) resolution DVI output, supports up to 1920 x 1080 resolution		
Memory	4 GB DDR3 1066 MHz SODIMM module (Max. capacity 16 GB with 2 SO DIMM socket option)		
I/O Interface			
Ethernet	4 GbE ports (2 Realtek® 8111C + 1 Intel® 82574IT + 1 82579LM PHY)		
Serial Ports	2 BIOS programmable RS-232/422/485 (COM1 & COM2) 2 RS-232 (COM3 & COM4)		
USB	4 USB 2.0 ports & 2 USB 3.0 ports		
DIO	4 DIO w/ 1.5KV isolation		
Audio	1 mic-in and 1 Line-out		
KB/MS	1 PS/2 keyboard and 1 PS/2 mouse (combo)		
Mini PCIe	2 internal PCIe mini card sockets		
USIM	1 USIM socket for 3G communication (used for a 3G-mini module)		
WDT	Supports a watchdog timer		
Power Supply			
DC Input	Built-in 9-32 VDC wide-range DC input 3P pluggable connectors with latch (GND, V-, V+)		
AC Input	Optional 160 W external AC-DC adapter for AC input		
Storage Device			
SATA Storage	1 SATA-III port for 2.5" HDD/SSD installation		
CompactFlash	1 CFast slot		
eSATA	1 eSATA interface connectors on rear panel for storage expansion		
Mechanical			
Dimensions	230 mm (W) x 205 mm (D) x 75 mm (H) (9” x 8” x 2.9”)		
Weight	3.8 kg (8.39 lbs)		
Mounting	Wall-mount kit		
Environmental			
Operating Temperature*	Standard: 0°C to 50°C (32˚F to 122˚F)		
	Extended option: -20°C to 60°C (-4˚F to 140˚F) (w/industrial SSD or CFast)	Extended option: -20°C to 70°C (-4˚F to 158˚F) (w/industrial SSD or CFast)	
Storage Temperature	-40°C to 85°C (-40˚F to 185˚F) (excl. HDD/SSD/CFast)		
Humidity	~95% @ 40°C (104˚F) (non-condensing)		
Vibration	Operating, 5 Grms, 5-500 Hz, 3 axes (w/ CFast or SSD) Operating, 0.5 Grms, 5-500 Hz, 3 axes (w/ 2.5" HDD)		
ESD	Contact +/-4 KV and Air +/-8 KV		
Shock	Operating, 50 G, half sine 11 ms duration (w/ CFast or SSD)		
EMC	CE and FCC Class A		

*Extending operating temperature is optional and requires use of an industrial solid-state drive storage device or CFast card.
**Other Linux Distribution support by request

ADLINK

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