



Fanless Embedded Computers

Powerful 2nd Generation Intel® Core™ i7 Fanless

Embedded Computer with High Performance Wireless Support



ADLINK
TECHNOLOGY INC.

Vol. S122

www.adlinktech.com



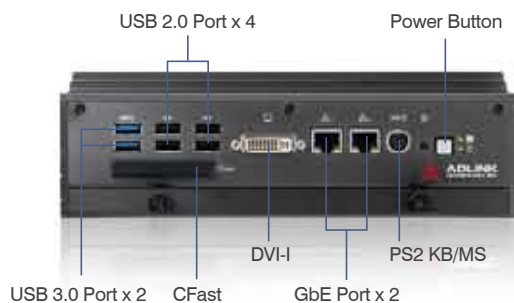
Matrix

ADLINK MATRIX MXE-5300 Series

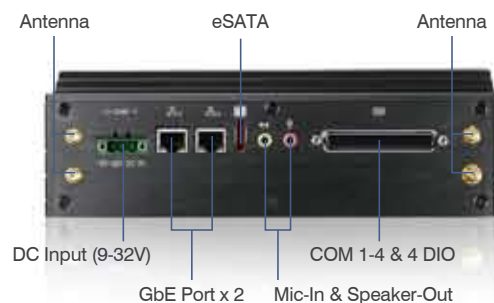
The Matrix MXE-5300 Series of rugged, quad core, fanless computers, based on the high performance 2nd Generation Intel® Core™ i7/i5/i3 processor and QM67 chipset, features top-of-the-line processor performance, outstanding wireless optimization capability, robust mechanical design, and Intel® AMT 7.0 support. The MXE-5300's combined features make it an ideal choice for intelligent transportation, in-vehicle multimedia, and surveillance and factory automation applications.



Product Highlights



MXE-5300 Front Panel

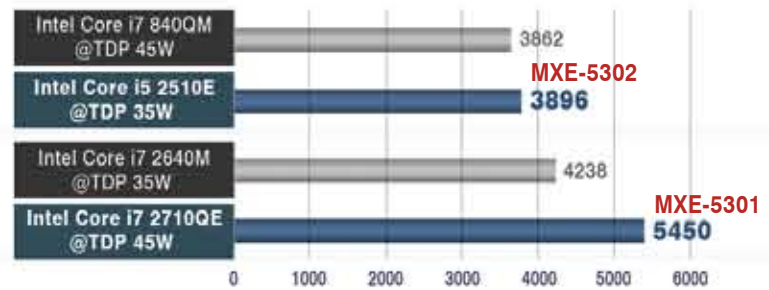


MXE-5300 Back Panel

Features

Leading Performance

With 2nd generation Intel® Core™ i architecture, the MXE-5300 features significantly improved computing performance. In addition, the new integrated Intel® HD Graphics engine also doubles graphic performance.



*The CPU benchmark is performed using PassMark Performance Test 7 based on Windows® 7 OS.

Outstanding Wireless Optimization

With the optional RF Matching Module, the MXE-5300 enhances wireless performance to support:

- HSDPA CAT.10, HSUPA CAT.6 in WCDMA communication.
- 802.11 a/b/g/n accessibility of 300M while still maintaining at least 1Mbps.
- 100M operating range of BT3.0 support.
- GPS cold start time within 25 seconds.



Rugged Design

With no fan or internal cabling, the MXE-5300 can operate from -20 to 70° C with no heat issues. Memory and storage stabilizers assist in withstanding the challenges of high-vibration environments.



Remote Control Capability

MXE-5300 supports Intel® AMT 7.0 technology, enabling remote monitoring and control of embedded devices via internet, remote system reboot in the event of OS failure, and system disconnect from the web when malicious intrusion is detected, preventing migration to other devices.



Designed for Easy Maintenance



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 (Up to 16 GB support)		
	I/O Interface		
Ethernet	4 GbE ports (2 Realtek® 8111C + 1 Intel® 82574IT + 1 82579LM PHY)		
Serial Ports	2 software-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 speaker-out		
PS/2	1 PS/2 for combo keyboard and mouse		
Mini PCIe	2 internal PCIe mini card sockets		
USIM	1 USIM socket for 3G communication (used for a 3G-mini module)		
WDT	Supports watchdog timer		
	Power Supply		
DC Input	Built-in 9-32 V _{dc} 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 HDD	1 onboard SATA-III port for 2.5" HDD/SSD installation		
CompactFlash	1 CFast slot		
eSATA	1 eSATA interface connector 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	Standard: 0° C to 50° C (w/HDD)		
Temperature	Extended Temperature: -20° C to 60° C (w/industrial SSD or CFast)	Extended Temperature: -20° C to 70° C (w/industrial SSD or CFast)	
Storage Temperature	-40° C to 85° C (excl. HDD/SSD/CFast)		
Humidity	~95% @ 40° C (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/ 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		
Software Support	Windows® XP / XP Embedded / 7, Linux (Linux Distribution on request)		

Applications

Industry-Leading Embedded Control for Intelligent Transportation



In-vehicle Multimedia and Surveillance Technologies

The Matrix MXE series utilizes powerful Intel® processors to maximize delivery of digital content while processing surveillance data received through multiple GbE Ethernet ports. With the flexibility of an internal mini PCIe module, the Matrix-E series takes full advantage of diverse wireless protocols such as 3G/GPS/WiFi and Bluetooth.

- Rugged, -20° C to 70° C fanless operation (w/ industrial SSD)
- Built-in 9 VDC to 32 VDC wide-range DC power input
- Software-programmable RS-232/422/485 ports, isolated digital input/output
- Up to four 1000/100/10 Mbps Ethernet ports
- Internal PCIe mini card sockets and USIM socket
- Supports Boost in 3G bandwidth, wireless accessibility, Bluetooth operating range and GPS start time.

A In-Vehicle Surveillance

The MXE-5300 series' rugged and fanless design is ideal for in-vehicle video surveillance. High computing power, multiple I/Os and low-noise operation fit a wide range of in-vehicle surveillance applications to enhance passenger safety.

B Traffic Surveillance

The MXE-5300 series supports embedded H.264 H/W video encoding for improved video transmission, 4 Gigabit Ethernet ports connecting IP cameras for real-time IP surveillance, and rugged design satisfying the needs of road/traffic surveillance applications.

C In-Vehicle Multimedia

The MXE-5300 series is suitable for in-vehicle multimedia systems, with enhanced wireless performance supporting 3G/GPS/WiFi and Bluetooth, providing improved quality of travel when accompanied by music, video, and even interactive internet content.

Ordering Information

MXE-5301	2nd Generation Intel® Core™ i7 fanless embedded computer, supports extended operating temperature -20~60°C *
MXE-5302	2nd Generation Intel® Core™ i5 fanless embedded computer, supports extended operating temperature -20~70°C *
MXE-5303	2nd Generation Intel® Core™ i3 fanless embedded computer, supports extended operating temperature -20~70°C *

*Extending the operating temperature to -20°C to +70°C / -20°C to +60°C is optional and requires use of an industrial solid-state drive storage device.

Accessories

8 GB DDR3 Upgrade	Upgradable to 8 GB DDR3 memory
320 GB HDD Option	Factory-installed 320 GB SATA hard disk drive (0 to 50° C)
8 GB/32 GB/64 GB SSD Option	Factory-installed 8 GB/ 32 GB SLC or 64 GB MLC industrial-grade SATA solid state disk (-40 to 85 ° C)
160 W AC-DC Adapter	160 W industrial-grade AC-DC adapter (-20 to 70° C)
Wireless Module Option	3G/WiFi/BT/GPS wireless modules
RF Matching Module	Optional 3G/WiFi/BT/GPS performance enhancement with RF Matching Module
Extended Temperature Option*	Optional screening to extend operating temperature of the MXE-5301 to -20 to 60° C and MXE-5302/MXE-5303 to -20 to 70° C

*This option guarantees system cold boot at -20° C and operation at 100% load at 70° C, with industrial solid-state drive storage option required.

Headquarters

ADLINK Technology, Inc.

9F., No.166, Jian 1st Rd., Zhonghe Dist., New Taipei City 235, Taiwan
 新北市中和區建一路166號9樓
 Tel: +886-2-8226-5877
 Fax: +886-2-8226-5729
 Email: service@adlinktech.com

Ampro ADLINK Technology, Inc.

5215 Hellyer Avenue, #110, San Jose, CA 95138, USA
 Tel: +1-408-360-0200
 Toll Free: +1-800-966-5200 (USA only)
 Fax: +1-408-360-0222
 Email: info@adlinktech.com

ADLINK Technology Singapore Pte. Ltd.

84 Genting Lane #07-02A, Cityneon Design Centre, Singapore 349584
 Tel: +65-6844-2261
 Fax: +65-6844-2263
 Email: singapore@adlinktech.com

ADLINK Technology Singapore Pte. Ltd. (Indian Liaison Office)

1st Floor, #50-56 (Between 16th/17th Cross) Margosa Plaza, Margosa Main Road, Malleswaram, Bangalore-560055, India
 Tel: +91-80-65605817, +91-80-42246107
 Fax: +91-80-23464606
 Email: india@adlinktech.com

ADLINK Technology Japan Corporation

〒101-0045 東京都千代田区神田鍛冶町3-7-4
 神田374ビル4F
 Tel: +81-3-4455-3722
 Fax: +81-3-5209-6013
 Email: japan@adlinktech.com

ADLINK Technology, Inc. (Korean Liaison Office)

서울시 서초구 서초동 1675-12 모인터빌딩 8층
 Tel: +82-2-2057-0565
 Fax: +82-2-2057-0563
 Email: korea@adlinktech.com

ADLINK Technology (Europe) GmbH

Nord Carree 3, 40477 Duesseldorf, Germany
 Tel: +49-211-495-5552
 Fax: +49-211-495-5557
 Email: emea@adlinktech.com

ADLINK Technology, Inc. (French Liaison Office)

15 rue Emile Baudot, 91300 Massy CEDEX, France
 Tel: +33 (0) 1 60 12 35 66
 Fax: +33 (0) 1 60 12 35 66
 Email: france@adlinktech.com

ADLINK Technology (China) Co., Ltd.

上海市浦东新区张江高科技园区芳春路300号 (201203)
 Tel: +86-21-5132-8988
 Fax: +86-21-5132-3588
 Email: market@adlinktech.com

ADLINK Technology Beijing

北京市海淀区上地东路1号盈创动力大厦E座801室(100085)
 Tel: +86-10-5885-8666
 Fax: +86-10-5885-8625
 Email: market@adlinktech.com

ADLINK Technology Shenzhen

深圳市南山区科技园南区高新南七道 数字技术园 A1栋2楼C区 (518057)
 Tel: +86-755-2643-4858
 Fax: +86-755-2664-6353
 Email: market@adlinktech.com



Embed ADLINK in Your Solutions
www.adlinktech.com

All products and company names listed are trademarks or trade names of their respective companies. All specifications are subject to change without further notice.

