MXE-5500 Series

6th Generation Intel® Core™ i7/i5/i3 Processor-Based Fanless Embedded Computer

Features

- 6th Gen Intel® Core™ i7/i5/i3 Processors and QM170 chipset
- Single-side I/O with two hot-swappable SATA drive bays for easy maintenance
- 1x DVI-I, 2x DisplayPort, 4x USB 2.0, 4x USB 3.0, 4x GbE, 6x COM ports, and 16x isolated DI/O
- Rich Storage Options, 2x 2.5" SATA III (6.0 Gb/s) drive bays, 1x M.2 2280, 1x CFast
- Versatile connection via 2x mPCIe and 2x USIM
- Rugged construction delivering fanless -20°C to 60 (70)°C operability (w/industrial SSD)
- Built-in ADLINK SEMA 3.0 management solution
- Compliant with railway EMC standard (EN50121)



Introduction

ADLINK's new Matrix MXE-5500 series of rugged quad-core fanless computers features the 6th generation Intel® Core™ i7/i5/i3 processors, delivering outstanding performance with robust construction.

The MXE-5500 series accommodates rich I/O capabilities in a compact system size, with two DisplayPort, one DVI-I (supporting both DVI and VGA signals), four GbE by Intel network interface controllers, four each USB 2.0 and USB 3.0, sixteen isolated DI/O, and six COM ports, four of which are BIOS-configurable among RS-232/422/485. In addition, with dual hot-swappable 2.5" SATA drive bays, one CFast port and one M2.2280, providing versatile storage options to a wide range of applications. Dual mini PCIe slots and USIM sockets empower the MXE-5500 as a communications hub for a variety of wireless connections, such as BT 4.0/WiFi and 3G.

Leveraging proprietary mechanical engineering, the MXE-5500 series continues to offer all the popular features of the popular Matrix E series, including cable-free construction, wide operating temperature ranges, and 5 Grms vibration resistance, having undergone, like all ADLINK Matrix devices, rigorous testing for operational verification.

Combining superior processor performance, wireless capability, and rich, scalable I/O in a compact and robust package, the ADLINK MXE-5500 is an ideal choice for a wide range of applications supporting intelligent transportation, in-vehicle multimedia & surveillance and factory automation applications.

Software Support

- Win7 Pro 64bit
  WES7E 64/32bit
  Win10 IoT Enterprise 64bit
- Linux Ubuntu 16.04 LTS x64

Ordering Information

- **MXE-5501**
  Intel® Core™ i7-6820EQ fanless embedded computer
- **MXE-5502**
  Intel® Core™ i5-6440EQ fanless embedded computer
- **MXE-5503**
  Intel® Core™ i3-6100E fanless embedded computer

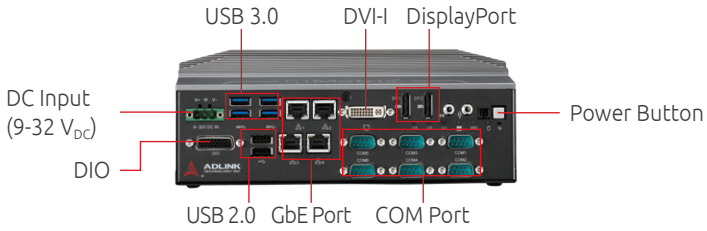
Optional Accessories

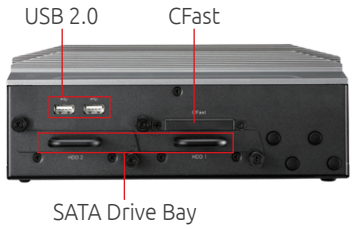
- **HDD/ SSD/ CFast/ M.2 2280 Storage**
  Factory-installed and test
- **160 W AC-DC Adapter**
  Industrial grade AC-DC adapter
- **Wireless Kit**
  WiFi/ BT/ 3G/ 4G LTE/ LoRa wireless kit (w/ Antenna)
- **Extended Temperature**
  Optional screening to extended temperature of MXE-5501 to -20 to 60°C and MXE-5502/5503 to -20 to 70°C
- **Drive Bay Bracket Kit (P/N: 91-95250-000E)**
  20pcs drive bay bracket kit

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MXE-5500 Series

Product Illustration





Specifications

Model Name	MXE-5501	MXE-5502	MXE-5503
System			
Processor	Intel® Core™ i7-6820EQ	Intel® Core™ i5-6440EQ	Intel® Core™ i3-6100E
Chipset	QM170		
# of Cores	4	4	2
Base Freq.	2.8 GHz	2.7 GHz	2.7 GHz
Max Turbo Freq.	3.5 GHz	3.4 GHz	-
Memory	4 GB DDR4 2400 MHz (up to 32 GB)		
Video	2 DisplayPort 1 DVI		
I/O Interface			
Expansion Slots	2 mPCIe + 1 m.2 2280 (USB I/F)		
USIM	2		
Ethernet	4 GbE (Intel® I210/ I219 PHY/ 2x I211)		
Serial Ports	COM1 & COM2: 2 RS-232/422/485 COM3 & COM4: 2 RS-232/422/485 COM5 & COM6: 2 RS-232		
USB	4 USB 3.0 + 4 USB 2.0		
DIO	Isolated 8x DI + 8x DO		
Audio	ALC262, Line-out/ Mic-in		
I^2C	1		
Manageability			
Watchdog Timer	√		
TPM	TPM 1.2		
SEMA	√		
Storage			
2.5" SATA	2x removable drive bays (support RAID 0/1)		
CompactFlash	1 Type II CFast		
mSATA/M.2	1 M.2 2280		
Environment			
Operating Temperature	Standard: 0 to 50°C Extended option (w/Ind. SSD): -20 to 60°C for MXE-5501; -20 to 70°C for MXE-5502/5503		
Storage Temperature	-40 to 85°C (-40 to 185°F)		
Humidity	Approx. ~95% @40°C (non-condensing)		
Vibration	With SSD: 5 Grms With HDD: 0.5 Grms		
ESD	Contact +/- 4 KV, Air +/- 8 KV		
Shock	With SSD: 100 G With HDD: 20 G		
EMC	CE and FCC Class A (EN61000-6-4/-2), compliance with EN50121		
Safety	UL by CB		
General			
Power Supply	9-32 V_{DC}		
Mechanical			
Dimensions	230 (W) x 205 (D) x 90 (H) mm (9" x 8" x 3.54")		
Weight	4 kg (8.81 lbs)		
Mounting	Wall-mount kit		

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Leading EDGE COMPUTING

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