

MXE-210 Series

Intel Atom® Processor E3900 Family-Based Ultra Compact Embedded Platform

Features

- Equipped with Intel Atom® x7-E3950/x5-E3930 processors (code named Apollo Lake-I)
- Compact fanless design: 140(W) x 110(D) x 58(H) mm
- Rich I/O & expansion:
 - 1x DisplayPort, 2x USB 2.0, 2x USB 3.0, 2x GbE ports, 2x COM ports (RS-232/422/485)
 - 2x mPCIe slots, 1x USIM slot, 1 x mSATA, 1x Micro SD slot
- Optional
 - 1 x 2.5" SATA SSD by storage kit
 - eSIM support (by project)
- Built-in ADLINK SEMA management solution



Introduction

ADLINK's new Matrix MXE-210 series of ultra compact embedded platforms, based on the Intel Atom® SoC Processor E3950/E3930, delivers optimum I/O design for maximum connectivity. A full aluminum alloy enclosure with industry-class construction makes the MXE-210 series the embedded system of choice for industrial automation and applications demanding reliability in harsh environments.

With two GbE LAN ports, two COM ports, two USB 2.0 and two USB 3.0 host ports, and dual mPCIe slots and USIM socket support communication with connections via Wi-Fi, BT, 3G, LoRa(SX1276), and 4G LTE, the MXE-210 series enables seamless interconnection, ensuring interoperability between systems. Matrix's proven rugged construction assures operation in harsh environments with operating shock tolerance up to 100 G and extended operating temperatures of -40°C to 85°C(*) available.

The MXE-210 series presents an intelligent, robust embedded system supporting wide application development and easy service deployment, for outstanding performance in Intelligent Transportation, Facility Management, Industrial Automation, and Internet of Things (IoT) applications.



DIN Rail support



Wall Mounting support (Optional)

Software Support

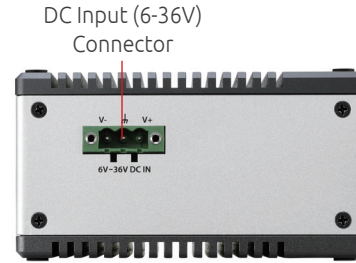
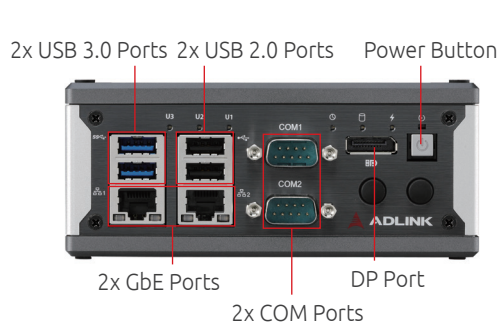
- Windows® 10 IoT Enterprise 64Bit
- Ubuntu Linux 16.04 LTS 64Bit

Ordering Information

- **MXE-211/M2G**
Intel Atom® x7-E3950, Quad Core, 2GB DDR3L
- **MXE-212/M2G**
Intel Atom® x5-E3930, Dual Core, 2GB DDR3L
- **MXE-211-ET/M2G**
Intel Atom® x7-E3950, Quad Core, 2GB DDR3L(-20°C to 70°C)
- **MXE-212-ET/M2G**
Intel Atom® x5-E3930, Dual Core, 2GB DDR3L(-20°C to 70°C)
- **MXE-212-WT/M2G**
Intel Atom® x5-E3930, Dual Core, 2GB DDR3L(-40°C to 85°C)
- **MXE-211-S/M2G | MXE-212-S/M2G**
Intel Atom® x7-E3950/x5-E3930, 2GB DDR3L, 2.5" SATA

Optional Accessories

- **4/8 GB DDR3L Upgrade**
Upgrade to 4/8 GB DDR3L memory
- **16/32/64 GB mSATA SSD Option**
Factory-installed 16/32/64 GB MLC industrial grade mSATA SSD
- **32/64/128 GB 2.5" SATA SSD Option**
Factory-installed 32/64/128 GB MLC industrial grade SATA SSD
- **Wireless Kit options**
WiFi/BT/3G/4G LTE/LoRa wireless kit (w/ Antenna)
- **40W AC Adapter**
40W industrial grade AC-DC adapter(-20°C to 70°C)(-4°F to 158°F)



Model Name	MXE-211	MXE-212
System Core		
Processor	Intel Atom® x7-E3950 quad core processor	Intel Atom® x5-E3930 dual core processor
Video	1x DisplayPort 1.2 (Support DP++)	
Memory	DDR3L 1600 1x SODIMM 2 GB (Up to 8G)	
I/O Interface		
Ethernet	2x Intel® GbE LAN	
Serial Port	2x COM (RS-232/422/485, BIOS Selectable)	
USB	2x USB 2.0 + 2x USB 3.0	
Audio	Audio, Mic-in, Line-out (Optional)	
Expansion		
Mini PCIe	2 x Full-size Mini PCIe slots	
USIM	1x USIM slot for 3G/4G LTE communication	
Manageability		
WDT	Watch Dog Timer support by SEMA	
SEMA	SEMA 3.5 support with BMC	
Power Supply		
DC Input	6-36 V _{DC}	
AC Input	40 W AC-DC power adaptor (Optional)	
Storage Device		
mSATA	1x full-size Mini PCIe slot	
SATA III	1 x 2.5" SATA by storage kit (Optional)	
Micro SD	1x Micro SD card slot (Up to 32 GB)	
Mechanical		
Dimensions	140 (W) x 110 (D) x 58 (H) mm (5.5" x 4.3" x 2.3")	
Weight	0.95 Kg (2.06 lbs)	
Construction	Full aluminum alloy construction	
Mounting	DIN rail (Standard) / Wall mounting kit (Optional)	
Other		
Device-Level Security	Trusted Platform Module (TPM) 2.0, Intel Boot Guard, UEFI Secure Boot	
Environmental		
Operating Temperature*	<ul style="list-style-type: none"> Standard temperature: 0°C to 50°C (32°F to 122°F) Extended temperature* (Optional): -20°C to 70°C (-4°F to 158°F) w/ industrial mSATA/SATA SSD 	<ul style="list-style-type: none"> Standard temperature: 0°C to 50°C (32°F to 122°F) Extended temperature* (Optional): -20°C to 70°C (-4°F to 158°F) w/ industrial mSATA/SATA SSD Wide temperature* (Optional): -40°C to 85°C (-40°F to 185°F) w/ industrial mSATA/SATA SSD
Storage Temperature	-40°C to 85°C (-40°F to 185°F)	
Humidity	approx. 95% @ 40°C (Non-condensing)	
Vibration	Operating: 5 Grms, 5-500 Hz, 3 axes w/ mSATA SSD	
ESD	Contact +/-4 KV, Air +/-8 KV	
Shock	Operating: 100 G, half sine 11 ms duration w/ mSATA SSD	
EMC	CE & FCC Class B (EN61000-6-4/EN61000-6-2) / EN 50155 EMC Compliance	
Safety	UL, CB	

(*) Maximum operating temperature depends on many variables including airflow, mounting, orientation, and software application

(*) Ambient temperature specification is based on non-airflow environment.