

MXE-210 Series

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

Features

- Equipped with Intel Atom® x7-E3950/x5-E3930 processors
- 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 or isolated 8x DI/ 8x DO
- eSIM support (by project)
- Built-in ADLINK SEMA management solution
- Railway EN50121 compliance



Introduction

ADLINK's new Matrix MXE-210 series of ultra compact embedded platforms, based on the Intel Atom® x5-E3930/x7-E3950 Processor, delivers optimum I/O design for maximum connectivity.

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.

Software Support

- Windows® 10 IoT Enterprise 64Bit
- Ubuntu Linux 16.04 LTS 64Bit
- Wind River® Pulsar™ Linux LTS 17 (Support by request)
- Debian 8.5 64Bit

Ordering Information

- **MXE-211/M2G**
Intel Atom® x7-E3950, 2GB RAM
- **MXE-212/M2G**
Intel Atom® x5-E3930, 2GB RAM
- **MXE-211-ET/M2G**
Intel Atom® x7-E3950, 2GB ET RAM, -20~70°C
- **MXE-212-ET/M2G**
Intel Atom® x5-E3930, 2GB ET RAM, -20~70°C
- **MXE-212-WT/M2G/ETT**
Intel Atom® x5-E3930, 2GB WT RAM, ETTS -40~85°C performed
- **MXE-211-S/M2G | MXE-212-S/M2G**
Intel Atom® x7-E3950/x5-E3930, 2GB RAM, 2.5" SATA kit

Optional Accessories

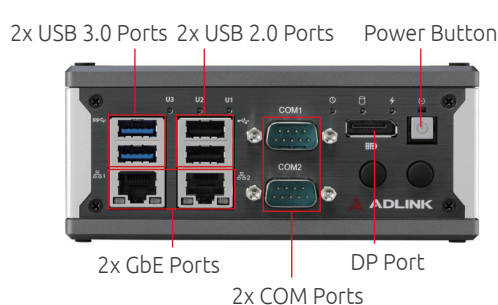
- **mSATA/ Micro SD**
- **2.5" SATA HDD/SSD Kit (P/N: 91-95223-0010)**
Extend 1x 2.5" SATA via a cable and a bracket inside MXE-210
- **Wireless Kit**
WiFi/BT/3G/4G LTE/LoRa wireless kit (w/ Antenna)
- **40/90W AC Adapter**
40W ind. grade AC-DC adapter
90W ind. grade AC-DC adapter (when 2x mPCIe w/ full loading)
- **Wall mount kit (P/N: 91-95221-0010)**



DIN Rail support



Wall Mounting support
(Optional)



Model Name	MXE-211		MXE-212	
System Core				
Processor	Intel Atom® x7-E3950 (quad-core)		Intel Atom® x5-E3930 (dual-core)	
Base Freq.	1.6 GHz		1.3 GHz	
Burst Freq.	2.0 GHz		1.8 GHz	
Video	1x DisplayPort 1.2 (Support DP++)			
Memory	1x DDR3L 1600MHz SODIMM 2 GB (up to 8GB)			
I/O Interface				
Ethernet	2x Intel® I210IT			
Serial Port	2x RS-232/422/485			
DI/O	1.5kV isolated 8x DI + 8x DO (Optional, shared location w/ 2.5" SATA)			
USB	2x USB 2.0 + 2x USB 3.0			
Audio	Mic-in, Line-out (Optional)			
Expansion				
Mini PCIe	2 x full-size			
USIM	1			
eSIM	1 (by request)			
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	Optional 40/90W AC-DC adaptor			
Storage Device				
mSATA	1x full-size			
2.5" SATA	1 (only for MXE-210-S)			
Micro SD	1			
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)			
Mounting	DIN rail (optional: wall mount)			
Other				
Device-Level Security	TPM2.0, Intel Boot Guard, UEFI Secure Boot			
Environmental				
Operating Temperature	● Standard: 0°C to 50°C (32°F to 122°F) ● Extended: -20°C to 70°C (-4°F to 158°F) w/ ind. SSD		● Standard: 0°C to 50°C (32°F to 122°F) ● Extended: -20°C to 70°C (-4°F to 158°F) w/ ind. SSD ● Wide: -40°C to 85°C (-40°F to 185°F) w/ ind. SSD and ETTS performed, RF/Function mPCIe are excluded	
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/ SSD			
ESD	Contact +/-4 KV, Air +/-8 KV			
Shock	Operating: 100 G, half sine 11 ms duration w/ SSD			
EMC	CE and FCC Class B (EN61000-6-4/-2), compliance with EN50121			
Safety	UL, CB			