➤ ADLINK Embedded IoT Gateway Platform

Specifications





Starter Kit Available for MXE-202i only

System Core Processor Intel® Quark™ SoC X1021 Dual-Core Intel® Atom™ Processor E3826 Video . 1x HDMI Memory DDR3 800 1 GB DDR3L 1068 2 GB (Memory Down) I/O Interface Ethernet 2x 10/100 LAN 2x GBE LAN (Intel® [210-IT) USB 3x USB 2.0 host port 2x CDM (1x R9-232 + 1x R9-232/422/455***) 2x USB 2.0 host port + 1x USB 3.0 Sorial Ports 2x CDM (1x R9-232 + 1x R9-232/422/455***) DD Optional 4x Isolated DI + 4x isolated DO Expansions Business PCIE Mini Card Slots Descriptional Ax Isolated DI + 4x isolated DO WDT Watchdog Timer Support SEMA SEMA SEMA support with BMC Power Supply DC Input 6-38 Voc AC Input Full Attractive Market Storage Device 1x SD card slot (up to 16 GB) 1x mSATA**** 1x mSATA**** SD 1x SD card slot (up to 16 GB) 1x mSATA**** 1x Mcchanical 1x mSATA**** SD 1x SD card slot (up to 16 GB) 1x mSATA**** 1x Mcchanical 1x mSATA**** SD 1x SD card slot (up to 16 GB) 1x mSATA***** 1x mSATA*****			
Processor Intel® Quark® SoC X1021 Dual-Core Intel® Atom™ Processor E3826 Victor	Model Name	MXE-101i	MXE-202i
Video 1x HDM Memory DDR3 800 1 GB DDR3L 1086 2 GB (Memory Down) DDR3 800 1 GB DDR3L 1086 2 GB (Memory Down)	System Core		
Momory DDR3 800 1 GB	Processor	Intel® Quark™ SoC X1021	Dual-Core Intel® Atom™ Processor E3826
	Video		1x HDMI
Serial Ports	Memory	DDR3 800 1 GB	DDR3L 1066 2 GB (Memory Down)
Serial Ports 2x USB 2.0 host port 2x USB 2.0 host port + 1x USB 3.0	I/O Interface		
Serial Ports 2x COM (1x RS-232 + 1x RS-232/422/485***) Optional 4x Isolated DI + 4x isolated DO	Ethernet	2x 10/100 LAN	2x GbE LAN (Intel® I210-IT)
Popular Pop	USB	3x USB 2.0 host port	2x USB 2.0 host port + 1x USB 3.0
Optional 4x Isolated DI + 4x Isolated DO	Serial Ports	2x COM (1x RS-232 + 1x RS-232/422/485***)	
Mini PCIe 2x PCIe Mini Card Slots	DIO	•	
Manageability WDT	Expansions		
Watchdog Timer Support		2x PCIe Mini Card Slots	
Manageability Watchdog Timer Support SEMA SEMA support with BMC Power Supply DC Input 6-36 Vpc AC Input Optional 40 W AC-DC adapter Storage Device Tx SD card slot (up to 16 GB) OS Preload Wind River® IDP XT 2.0**** Mechanical Dimensions Dimensions 120 (W) x 100 (D) x 55 (H) mm (4.68" x 3.9" x 2.17") Construction Full Aluminum Alloy Weight 650 g (1.43 lbs) Mounting DIN-Rail / Wall mounting Environmental Operating Standard: 0"C to 50"C (32"F to 122"F) Extended temperature option**: -20"C to 70"C (4"F to 158"F) (w/ industrial grade SD) Storage Temperature* Storage Temperature -40"C to 85"C (-40"F to 185"F) Windustrial Poperating 5 Grms, 5-500 Hz, 3 axes W/ SD/mSATA Operating 5 Grms, 5-500 Hz, 3 axes W/ SD/mSATA Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA EMD Costact +/-4 KV, Air +/-8 KV Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA	USIM	1x USIM Slot	
Watchdog Timer Support	Manageability		
Power Supply		Watchdog Timer Support	
DC Input G-36 VDC	SEMA		
DC Input G-36 VDC	Power Supply		
Storage Device msATA		6-36 VDC	
SD	AC Input	Optional 40 W AC-DC adapter	
SD	Storage Device		
OS Preload Wind River® IDP XT 2.0**** Mechanical Dimensions 120 (W) x 100 (D) x 55 (H) mm (4.68" x 3.9" x 2.17") Construction Full Aluminum Alloy Weight 650 g (1.43 lbs) Mounting DIN-Rail / Wall mounting Environmental Opertating Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option**: -20°C to 70°C (-4°F to 158°F) (w/ industrial grade SD) Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option**: -20°C to 70°C (-4°F to 158°F) (w/industrial SD/mSATA) Storage Temperature -40°C to 85°C (-40°F to 185°F) Humidity ~95% @ 40°C (non-condensing) Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Operating 5 Grms, 5-500 Hz, 3 axes w/ SD/mSATA ESD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	mSATA		1x mSATA***
Dimensions 120 (W) x 100 (D) x 55 (H) mm (4.68" x 3.9" x 2.17") Construction Full Aluminum Alloy Weight 650 g (1.43 lbs) Mounting Environmental Operating Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option*: -20°C to 70°C (-4°F to 158°F) (w/ industrial grade SD) Storage Temperature -40°C to 85°C (-40°F to 185°F) Humidity -95% @ 40°C (non-condensing) Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G-4/EN61000-6-4/EN61000-6-2)	SD	1x SD card slot (up to 16 GB)	
Dimensions 120 (W) x 100 (D) x 55 (H) mm (4.68" x 3.9" x 2.17") Construction Full Aluminum Alloy Weight 650 g (1.43 lbs) Mounting DIN-Rail / Wall mounting Environmental Operating Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option*: -20°C to 70°C (-4°F to 158°F) (W/ industrial grade SD) Storage Temperature -40°C to 85°C (-40°F to 185°F) Humidity -95% @ 40°C (non-condensing) Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	OS Preload	Wind River® IDP XT 2.0****	
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Weight Mounting DIN-Rail / Wall mounting Environmental Opertating Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option*: -20°C to 70°C (-4°F to 158°F) (w/ industrial grade SD) option**: -20°C to 70°C (-4°F to 158°F) (w/industrial SD/mSATA) Storage Temperature -40°C to 85°C (-40°F to 185°F) Humidity -95% @ 40°C (non-condensing) Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	Dimensions	120 (W) x 100 (D) x 55 (H) mm (4.68" x 3.9" x 2.17")	
Mounting DIN-Rail / Wall mounting	Construction	Full Aluminum Alloy	
Standard: 0°C to 50°C (32°F to 122°F) Extended temperature option*: -20°C to 70°C (-4°F to 158°F) (w/ industrial grade SD) option**: -20°C to 70°C (-4°F to 158°F) (w/ industrial grade SD) option**: -20°C to 70°C (-4°F to 158°F) (w/ industrial SD/mSATA) Storage Temperature	Weight	650 g (1.43 lbs)	
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Temperature* option*: -20°C to 70°C (-4°F to 158°F) (w/ industrial grade SD) option**: -20°C to 70°C (-4°F to 158°F) (w/industrial SD/mSATA) Storage Temperature -40°C to 85°C (-40°F to 185°F) Humidity ~95% @ 40°C (non-condensing) Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Operating 5 Grms, 5-500 Hz, 3 axes w/ SD/mSATA ESD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	Environmental		
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Humidity ~95% @ 40°C (non-condensing) Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Operating 5 Grms, 5-500 Hz, 3 axes w/ SD/mSATA ESD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)		option*: -20°C to 70°C (-4°F to 158°F)(w/ industrial grade SD)	option**: -20°C to 70°C (-4°F to 158°F) (w/industrial SD/mSATA)
Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Operating 5 Grms, 5-500 Hz, 3 axes w/ SD/mSATA ESD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	Storage Temperature	-40°C to 85°C	(-40°F to 185°F)
Vibration Operating 5 Grms, 5-500 Hz, 3 axes w/ SD Operating 5 Grms, 5-500 Hz, 3 axes w/ SD/mSATA ESD Contact +/-4 KV, Air +/-8 KV Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)		The same too by the same to th	
Shock Operating 100 G, half sine 11 ms duration w/ SD Operating 100 G, half sine 11 ms duration w/ SD/mSATA EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	Vibration	Operating 5 Grms, 5-500 Hz, 3 axes w/ SD	Operating 5 Grms, 5-500 Hz, 3 axes w/ SD/mSATA
EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	ESD	Contact +/-4	KV, Air +/-8 KV
EMC CE & FCC Class A (EN-61000-6-4/EN61000-6-2)	Shock	Operating 100 G, half sine 11 ms duration w/ SD	Operating 100 G, half sine 11 ms duration w/ SD/mSATA
Safety UL by CB	EMC		
	Safety	UL by CB	

^{*} Other names and brands may be claimed as the properly of others.

Intelligent IoT Gateway Starter Kit Packing List: =

MXE-202i, Dual-Core Intel [®] Atom™ SoC processor E3826 IoT Gateway on Wind River [®] IDP XT 2.0 + 8G SD card ADLINK EdgePro IoT device & sensor management application preloaded		
40W AC-DC adapter	WiFi/BT Kit (pre-installed)	
ZigBee / 802.15.4 Modules USB Adapter	Modbus RTU module	
ZigBee wireless light sensor	ZigBee wireless siren	
Rotary control	LED array	
Ethernet cable		



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Intelligent IoT Gateway Starter Kit



Build Your Internet of Things with ADLINK

Intelligent IoT Gateway Platform, IoT Device & Sensor Management Application



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^{***} RS-232 supports Tx, Rx,CTS, and RTS signal only.

 $^{{}^{\}star\star}\text{Extending the operating temperature is optional and requires use of an industrial solid-state drive storage device or CFast.}$

^{****} mSATA shares the same slot with mPCle

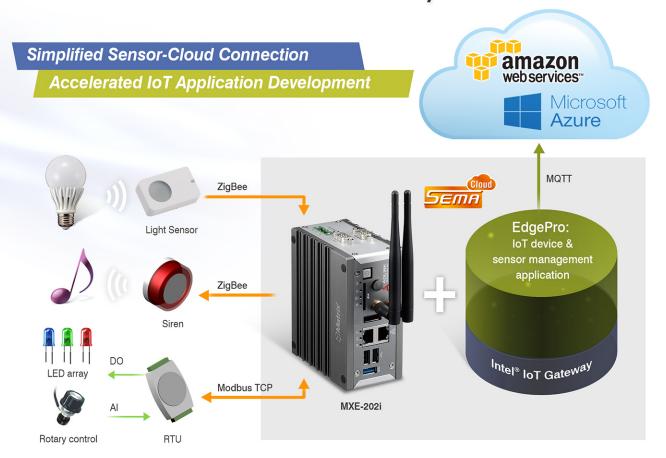
The Complete Intelligent IoT Solution

The ADLINK Intelligent IoT Gateway Starter Kit provides a complete IoT connection solution for reduced development time and quick deployment for every application environment. The IoT Gateway Starter Kit combines ADLINK's MXE-202i intelligent IoT gateway, based on Intel Atom E3826 processors, ADLINK's EdgePro IoT device & sensor management application, one light sensor and corresponding siren output, Modbus TCP module, and accessories, utilizing industrial open standard protocol with security function powered by Intel® IoT Gateway.

The ADLINK EdgePro IoT device & sensor management application runs on the Intel® IoT Gateway, integrating the Wind River Intelligent Device Platform® (IDP) XT and McAfee® Embedded Control to provide complete, pre-validated communication and security. EdgePro enables device and sensor management for plug-in(s) for field protocols including ZigBee (Home Automation Profile) and the commonly adopted fieldbus Modbus TCP for industrial automation, all easily configured with sensors or I/O nodes. Interaction across devices/sensors is accomplished by an Event Execution Engine. A user-friendly Web-based dashboard allows remote monitoring of status and actuator control, with RESTFul Web-service APIs. In addition, EdgePro enables simple configuration of reliable and secure connectivity with Amazon Web Services (AWS) and Windows Azure Cloud.

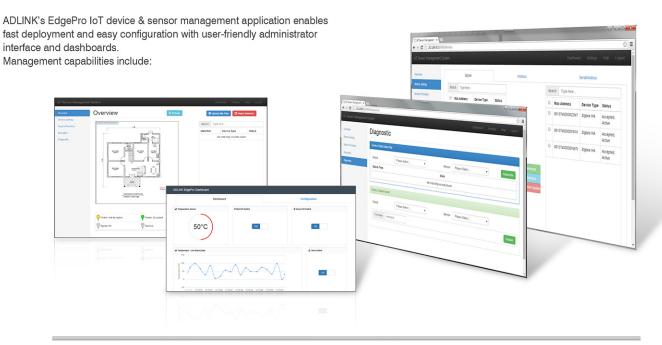
The ADLINK MXE-202i presents a sturdy aluminum housing withstanding industrial grade EMI/EMS to an EN 61000-6-4, 61000-6-2 specification, and is fully operable under even harsh conditions. The MXE-202i provides two GbE LAN, two COM, two USB 2.0 and one USB 3.0 host ports, four optional isolated DI and four isolated DO dual mini PCIe slots with one mSATA support and USIM socket support communication with connections such as WiFi, Bluetooth, and 3G cellular, to ensure interoperability between systems and maximize industrial connectivity to meet a wide variety of application requirements. The MXE-202i also includes ADLINK's proprietary SEMA application for quick setup of remote device management through SEMA Cloud, enabling monitoring and collection of system health and status information from the hardware in a timely, flexible, and precise manner.

➤ ADLINK IoT End-to-End Gateway Solution



➤ ADLINK EdgePro

IoT Device & Sensors Management Application



Device Joining:

Newly connected devices are set up for each supported protocol with no requirement for time-consuming configuration, and are immediately available to the remote server or Cloud

Device Provision:

Once detected, connected sensors and actuators are easily configured or renamed

Device Diagnostic:

When enabled, test procedures can provide readings and control, while confirming that devices and sensors are correctly

Execution:

Allows event definition based on sensor or actuator output, such as issuing an alert if temperature readout exceeds a threshold









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