

ESRP-AWS-UNO137

Amazon IoT Greengrass Starter Kit with UNO-137



Features

- Intel® Atom® E3940 processor (1.6 GHz) with 8GB DDR3L memory
- Onboard TPM 2.0 provides hardware-based security
- Extend cloud Intelligence and analytics to edge devices
- Boosts productivity and response times with data insights
- WISE-EdgeLink supports more than 200 PLC devices

Introduction

The ESRP-AWS-UNO137 edge intelligence computer is a great solution for extending cloud intelligence and analytics to edge devices. IoT solutions, such as stream analytics, machine learning, image recognition, and other high-value AI modules can be deployed from the Amazon cloud to the edge to support diverse applications. All data are collected and delivered to the cloud by WISE-EdgeLink.

Feature Details

Extends cloud intelligence and analytics to edge devices

Stream analytics, OPC UA publisher, Modbus, and other high-value AI modules can be deployed from the cloud to the edge to support diverse applications.

Boosts productivity and response times with data insights

Local data processing enables immediate decision making and reduces bandwidth costs by minimizing the data transmitted from local devices to the cloud.

WISE-EdgeLink provides downlink and uplink support

WISE-EdgeLink supports more than 200 PLC protocol drivers for collecting data from devices and features plug-and-play functionality which reduces software development time.

Specifications

General

- **Certification** CE, FCC, UL 61010-2-201, CCC, BSMI
- **Dimensions (W x D x H)** 35 x 105 x 150 mm (1.4 x 4.1 x 5.9 in)
- **Enclosure** Aluminum housing
- **Mounting** DIN-rail
- **Weight (Net)** 0.8 kg (1.7 lb)
- **Power Requirement** 10 ~ 36 V_{DC}

System Hardware

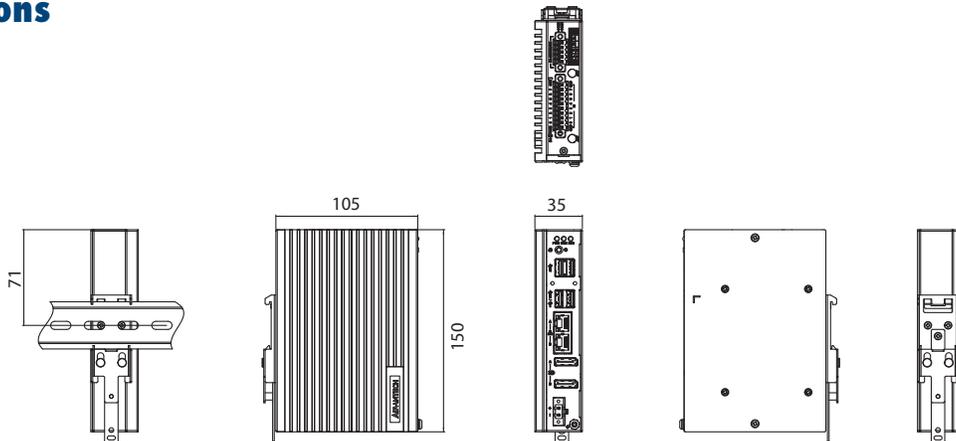
- **BIOS** AMI UEFI (128 Mbit)
- **Watchdog Timer** Programmable timer with 255 intervals (1 ~ 255 sec)
- **Hardware Security** TPM 2.0
- **Processor** Intel® Atom® E3940, 1.6 GHz
- **Memory** Built-in 8GB DDR3L
- **Graphics Engine** Intel® HD Graphics
- **Ethernet** Intel® i210-IT GbE, IEEE 802.1as, 802.3az
- **LED Indicators** 1 x Programmable LED, 1 x power LED, 1 x RTC battery LED, and LAN (active, status)
- **Storage** Built-in 128GB 2.5" SSD
1 x M.2 B-Key 2242 SSD

Software

- **Operating System** Ubuntu 18.04.1 LTS, Kernel 4.15.0-43-generic
- **Application** AWS Greengrass Core 1.10.0, AWS Greengrass Core SDK, Node.js 1.6.0, Docker engine 20.10.7, Node.js 12.x, Java 1.8.0_172, Python 3.6.7, EdgeLink-Linux v2.7.3, EdgeManager 1.0.0, AuthServer r3678, wise-agent 1.4.32.0

Dimensions

Unit: mm



I/O

- **Isolated Serial Ports** 2 x RS-232/422/485 (terminal block)
50 bps ~115.2 kbps (isolation protection: 2500 VDC)
- **LAN** 2 x 10/100/1000 Mbps IEEE 802.3u 1000 BASE-T (RJ-45)
- **USB** 3 x USB 3.2 Gen 1, 1 x USB 2.0 (Type-A)
- **Isolated DI/O** 8 x Digital input channels with 2500 V_{DC} isolation protection
 - Wet contact: Logic 0: 10 ~ 30 V_{DC}/
Logic 1: 0 ~ 3 V_{DC}
 - Dry contact: Logic 0: Shorted to GND/
Logic 1: Open
 8 x Digital output channels
 - Output voltage: 5 ~ 30 V_{DC}
 - Output capability sink: 500 mA max./channel
- **Displays** 2 x DP 1.2, up to 4096 x 2306 @ 60 Hz
- **Power Connector** 1 x 2-pin terminal block

Environment

- **Operating Temperature*** -40 ~ 70 °C / -40 ~ 158 °F with 0.7 m/s airflow, with wide-temperature (-40 ~ 85 °C / -40 ~ 185 °F) peripherals (e.g., SSD, wireless modules)
- **Storage Temperature** -40 ~ 85 °C / -40 ~ 185 °F
- **Relative Humidity** 95% RH @ 40 °C / 104 °F, non-condensing
- **Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- **Vibration Protection** Operating, IEC 60068-2-64, 4 Grms, random, 5 ~ 500 Hz, 1hr/axis (SSD)
Operating, IEC 60068-2-64, 0.3 Grms, random, 5 ~ 500 Hz, 1hr/axis (HDD)
- **Ingress Protection** IP40

*Operating temperature with M.2 SSDs should be maintained under 60 °C / 140 °F.

Installation Scenario

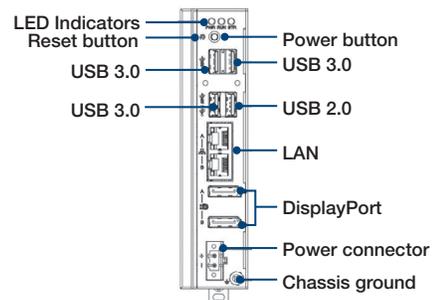
DIN-Rail Mounting Installation



Ordering Information

- **ESRP-AWS-UNO137** Amazon IoT Greengrass Starter Kit with UNO-137

Front I/O



Top I/O

