

# ESRP-CSS-UNO137

## Azure IoT Edge 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 Azure 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.

#### Secure cloud communication and edge intelligence

Includes Azure IoT Edge Security Daemon and onboard TPM.

### 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<sub>DC</sub>

#### System Hardware

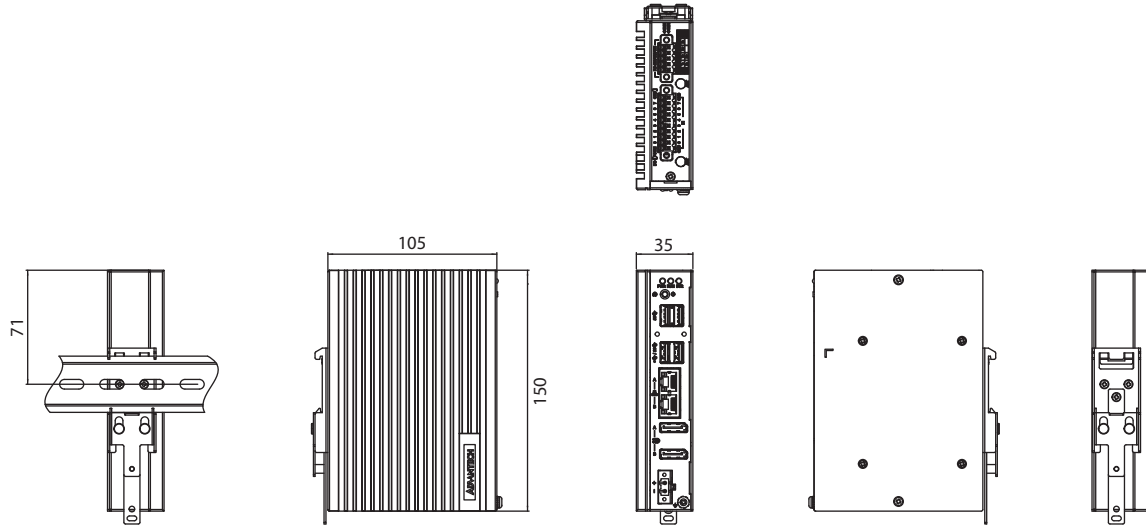
- **BIOS** AMI UEFI (128 Mbit)
- **Watchdog Timer** Programmable timer with 255 intervals (1 ~ 255 sec)
- **Hardware Security** TPM2.0
- **Processor** Intel® Atom® E3940, 1.6 GHz
- **Memory** Built-in 8 GB DDR3L, 1600 MHz (Up to 8 GB)
- **Graphics Engine** Intel® HD Graphics
- **Ethernet** Intel® i210-IT GbE, IEEE802.1AS, 802.3az
- **LED Indicators** 1 x Programmable LED, 1 x power LED, 1 x RTC battery LED, and LAN (active, status)
- **Storage** Built-in 128G 2.5" SSD  
1 x M.2 B key 2242 SSD

#### I/O

- **Isolated Serial Ports** 2 x RS-232/422/485 (terminal block)  
50bps ~115.2 kbps (isolation protection: 2500 VDC)
- **LAN** 2 x 10/100/1000 Mbps IEEE 802.3u 1000 BASE-T (RJ45)
- **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<sub>DC</sub> isolation protection
  - Wet contact: Logic 0: 10 ~ 30 V<sub>DC</sub>/  
Logic 1: 0 ~ 3 V<sub>DC</sub>
  - Dry contact: Logic 0: Shorted to GND/  
Logic 1: Open8 x Digital output channels
  - Output voltage: 5 ~ 30 V<sub>DC</sub>
  - 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

## Dimensions

Unit: mm



## Environment

- **Operating Temperature\*** -40 ~ 70 °C/-40 ~ 158 °F with 0.7m/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.

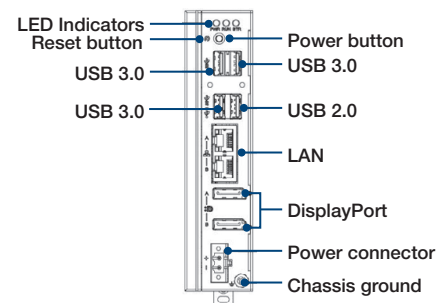
## Software

- **Operating System** Ubuntu 18.04, Kernel 4.15.0-43-generic
- **Application** AuthServer r3678, EAPI v1.0.9, EdgeLink-Linux v2.7.3, EdgeManager r3668, Moby engine v3.0.2, appupdate e71082e5, iotedge v1.0.8-2, iotedgectl r3163, wise-agent 1.4.32.0

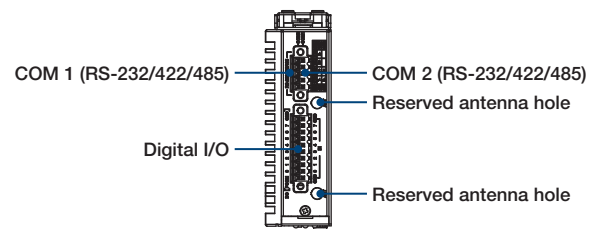
## Ordering Information

- **ESRP-CSS-UN0137** Azure IoT Edge Starter Kit with UNO-137

## Front I/O



## Top I/O



## Installation Scenario

### DIN-rail mounting installation

