

UNO-430-E1A

All-Around IP69K/IP68 Waterproof Outdoor Gateway



Features

- Intel® Atom™ E3950 quad-core processor with 8GB DDR3L memory
- 2 x Gigabit Ethernet, 2 x isolation protected RS-422/485, 1 x RS-232 console port
- IP69K/68 rating for superior protection from water and dust
- Wide operating temperature range (-40 ~ 70 °C/-40 ~ 158 °F)
- Built-in TPM 2.0 for hardware-based security
- Expandable wireless communication with 1 x M.2 E-key, 1 x M.2 B-key socket for WiFi, LTE and GPS
- Easy maintenance and installation with front door and cable gland design

Introduction

Designed for use in harsh industrial environments, UNO-430 features all-around IP69K/68-rated ingress protection and cable gland I/O connectors to provide a truly watertight solution that can withstand the most demanding applications. The waterproof enclosure features a front door for easy access and maintenance as well as a cable gland that offers further ingress protection, reducing the need for waterproof cables and wiring. This comprehensive protection also eliminates the need for a waterproof cabinet, allowing customers to use the UNO-430 gateway as a standalone data acquisition gateway. Moreover, with the provision of standard M.2 2230 Wi-Fi and M.2 3052/3042 5G/LTE sockets, the UNO-430 gateway offers expandable wireless connectivity for remote communications and data transfers.

Specifications

General

- **Certification** CE, FCC, UL, CCC
- **Dimensions (W x D x H)** 200 x 200 x 68 mm/7.87 x 7.87 x 2.67 in
- **Form Factor** Square
- **Enclosure** Aluminum housing
- **Mount Options** Wall mount
- **Weight (Net)** 3 kg (6.61 lb)
- **Power Requirement** 10 ~ 36 V_{DC}
- **Power Consumption** 21W (typical), 27W (max.)
- **OS Support** Microsoft® Windows 10 Ent. LTSC, Advantech Linux (Ubuntu 18.04)

System Hardware

- **BIOS** AMI UEFI (64 Mbit)
- **Watchdog Timer** Programmable timer with 255 intervals (1 ~ 255 sec)
- **Hardware Security** TPM 2.0
- **Processor** Intel® Atom® E3950 quad core, 1.6GHz (up to 2GHz)
- **Memory** Built-in 8 GB of DDR3L, 1600MHz
- **Graphics Engine** Intel® HD Graphics 505
- **Ethernet** Intel® i210-IT GbE, IEEE802.1AS, 802.3az
- **LED Indicators** Power, Storage, LTE, Wi-Fi, Programmable LED
- **Storage** 1 x M.2 2242 B-key (SATA signal)
- **Communication** 1 x M.2 (E-key)(PCIe/USB2.0 signal) socket for 2230 Wi-Fi/Bluetooth module expansion
1 x M.2 (B-key)(USB2.0/USB3.0 signal) socket for 3042/3052 LTE/5G module expansion
1 x socket (USB signal) for MultiTech Dragonfly™ card
- **Cable Gland** M32 cable gland for Ethernet cable (cable size range OD 5 ~ 6.6 mm/0.19 ~ 0.25 in)
M12 cable gland for serial port and power cable (cable size range OD 4.5 ~ 6.5 mm/0.17 ~ 0.25 in)

I/O

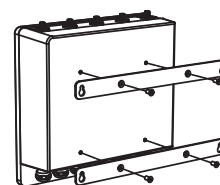
- **Serial Ports** 2 x RS-422/485, 50 ~ 115.2 kbps (isolation protection: 2500 V_{DC})
1 x RS-232, 50 ~ 115.2 kbps (console port)
- **LAN** 2 x RJ45, 10/100/1000 Mbps IEEE 802.3u, 1000BASE-T Fast Ethernet
- **Power Connector** 1 x 3-pin terminal block

Environment

- **Operating Temperature** -40 ~ 70 °C/-40 ~ 158 °F @ 5 ~ 85% RH with 0.7 m/s airflow
- **Storage Temperature** -40 ~ 85 °C/-40 ~ 185 °F
- **Relative Humidity** 10 ~ 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, 2Grms, random, 5 ~ 500Hz, 1hr/axis
- **Ingress Protection** IP69K, IP68

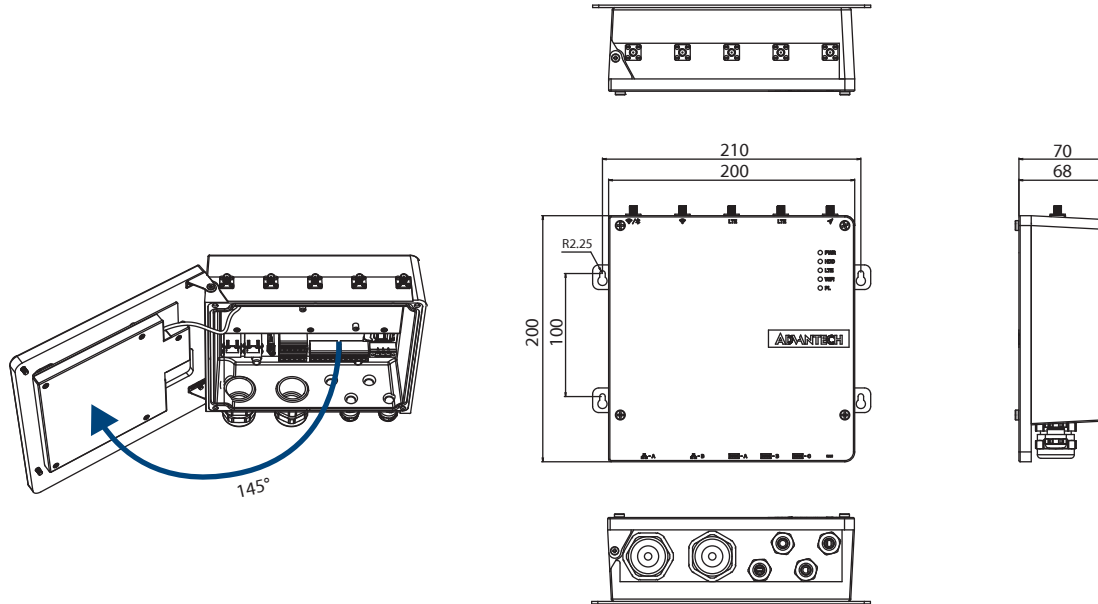
Installation Scenario

Wall Mount



Dimensions

Unit: mm



Ordering Information

- **UNO-430-E1A** Intel® Atom™ E3950, 2 GHz with 8 GB DDR3L, 2 x GbE, 3 x COM, TPM 2.0, M32/M12 waterproof cable gland

Embedded OS

- **20703WX9ES0035** WIN10 IoT Enterprise LTSC x64 v6.05 B037 for UNO-430

Optional Accessories

M.2 2240 SATA SSD

- **SQF-SM4M2-64G-SBE** 64G M.2 SSD, SQFlash 640, SATA Gen. 3 (-40~85°C)
- **SQF-SM4M2-128G-SBE** 128G M.2 SSD, SQFlash 640, SATA Gen. 3 (-40~85°C)
- **SQF-SM4M2-256G-SBE** 256G M.2 SSD, SQFlash 640, SATA Gen. 3 (-40~85°C)

Wi-Fi

- **EWM-W195M201E** M.2 2230 Wi-Fi module (802.11 a/b/g/n/ac with BT4.2) (-40~85°C)
- **1751000018-01** Dipole Antenna (2.4+5G) SMA/M-R

LTE/GPS

- **968AD00426** SIERRA EM7565 LTE Cat-12 M.2 module (Global band)
- **968AD00590** Quectel EM06-E LTE Cat-6 M.2 Module (EMEA/Brazil/APAC)
- **1751000017-01** LTE Dipole Antenna (3.2/4.4dBi) SMA/M
- **1751000044-01** GPS Antenna (SMA/M)(3dBi)

AT&T/Verizon Certified LTE Kit

- **PCM-24S24G-430** MultiTech Cat.4 LTE kit for UNO-430

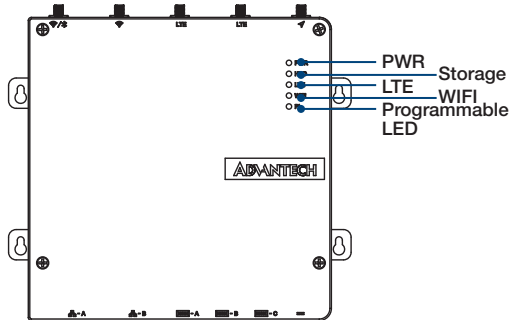
IP65 Power Supply

- **XUNO-HEP-100-24A** 100W 90~305V_{AC} Power Supply (-55~70°C)

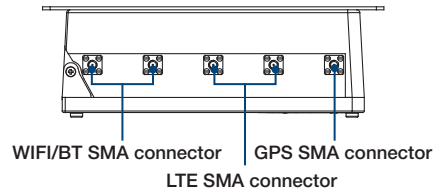
IP67 & NEMA 4X rated Power Supply

- **XDMS-TEX120-112** 96W 85~264 V_{AC} Power Supply (-40~85°C) (C1D2/ATEX certified)
- **1700031021-01** DC cable w/ Connector of TEX 120-112 (2M)
- **1700031022-01** AC Cable w/Connector of TEX 120-112 & EU Plug (2M)
- **1700031024-01** AC Cable w/ Connector of TEX 120-112 & EU Plug (15M)
- **1700031023-01** AC Cable w/ Connector of TEX 120-112 & US Plug (2M)
- **1700031025-01** AC Cable w/ Connector of TEX 120-112 & US Plug (15M)

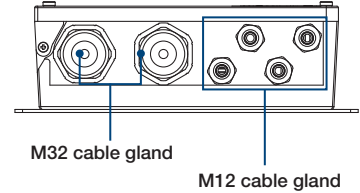
Front LED



Top I/O



Rear I/O



Internal I/O

