AMAX-5570E

Modular Control Platform with 4 x LAN, 2 x USB, 2 x COM, 2-slot AMAX-5400/iDAQ-964 and Standard AMAX-5000 Expansion

Features

- Intel® Atom® quad-core x6413E processor
- 4 GB DDR4 onboard memory
- 128GB eMMC on board storage
- 2-slot AMAX-5400/iDAQ-964 PCIe expansion
- AMAX-5000 EtherCAT Slice IO expansion
- Full-size mPCIE slot for SATA storage and NVRAM
- Dual power design for DC redundancy input function
- COM port individual Isolation design
- EMC compliance for energy management and Battery Energy Storage System (IEC-61000-4 Industrial requirement)

Introduction

The AMAX-5570E is purpose-built for energy management and Battery Energy Storage Systems (BESS), meeting EMC standards at levels 3 and 4 of IEC-61000-4 testing. Powered by Intel Atom 4-core processors, onboard memory, and eMMC storage, it features an open platform that's easy to install in control cabinets. This flexible design allows IT developers and OT programmers to seamlessly implement automation solutions. Furthermore, its integration with Advantech's DeviceOn and EdgeSync enhances the user experience for a wide range of IIoT applications.

Specifications

General

- **Certification** — CE, FCC
- **Dimensions (W x D x H)** — 74.8 x 70 x 100 mm/2.9 x 2.7 x 3.9 in (w/o DIN rail kit)
- **Enclosure** — SGCC
- **Mount Options** — DIN-rail
- **Net Weight** — 0.78kg/1.3lb
- **Power Requirement** — $24V_{DC} \pm 20\%$
- **Power Consumption** — 15.8W (typical), 79.2W (max.)
- **Operating System** — Windows 10 LTSC, ADV Embedded Linux (support from Ubuntu 23.04)

System Hardware

- **BIOS** — AMI EFI X64
- **Watchdog Timer** — Programmable timer with 255 intervals (1 ~ 255 sec)
- **Processor** — Intel® Atom® x6413E quad-core, 1.5 GHz
- **Memory** — 4GB/8GB DDR4 2666 MHz onboard
- **Graphics Engine** — Intel® UHD Graphics
- **Ethernet** — 4 x Realtek RTL8119i GbE (LAN)
  1 x Realtek RTL8119i GbE (Slice IO)
- **LED Indicators** — Power, Run (programmable), LAN (Active, Status)
- **Storage** — 128 GB eMMC onboard
  mSATA shared with mPCIe slot
- **Expansion** — 1 x Full-size mPCIe slot (SATA/PCIe/USB2.0 signal)
  2 x slots AMAX-5400/iDAQ-964 module expansion
  AMAX-5000 series IO module expansion
  (Need to add AMAX-5001 as first power supply)

- **Hardware Security** — TPM2.0

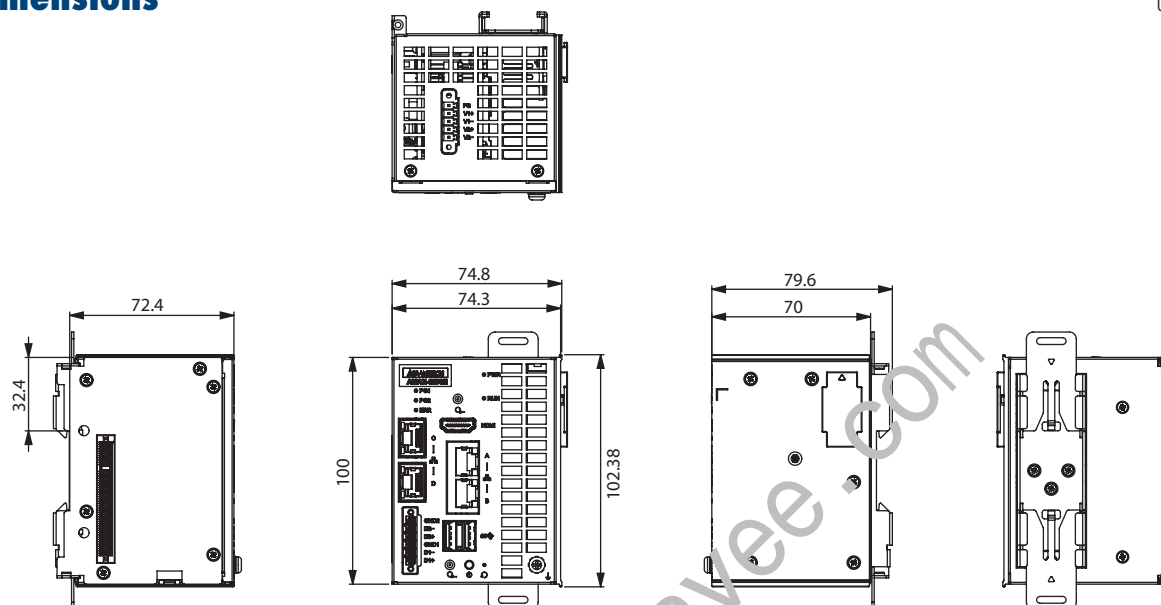### I/O Interfaces

- **LAN** — LAN A/B/C/D: RJ45, 10/100/1000Mbps
  Slice IO: GoldFinger contact, 10/100Mbps

  **<Note> Due to CPU feature, max. 2 LAN ports could be configured into 1000Mbps, rest LAN ports must run under 100Mbps to ensure system stability

- **Serial Port** — 2 x RS-485, 50bps~115.2 kbps (terminal block) Isolated voltage $2500V_{DC}$
- **USB** — 2 x USB 3.2 (Gen 1)
- **Display Output** — 1 x HDMI (1920 x 1080 @60Hz)
- **Power Input** — 1 x 5-pin terminal block (Dual power input)
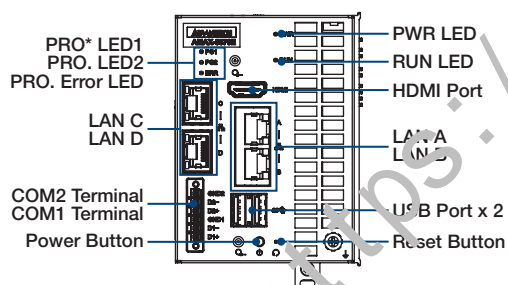
Environment

- **Operating Temperature** — -25 ~ 60°C/-13 ~ 140°F @ 5 ~ 85% RH with 0.7 m/s
- **Storage Temperature** — -40 ~ 85°C/-40 ~ 185°F
- **Relative Humidity** — Operating, 95% RH@40°C, Non-Condensing
  Non-Operating, 95% RH@60°C, Non-Condensing
- **Shock Protection** — Operating, IEC 60068-2-27, 50G, half sine, 11 ms
- **Vibration Resistance** — Operating, IEC 60068-2-64, 2 Grms, random, 5 ~ 500 Hz, 1hr/axis
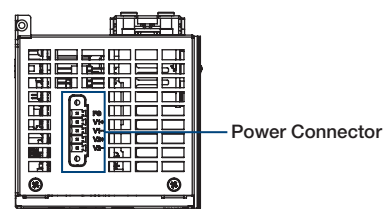
Dimensions

Unit: mm

72.4

32.4

74.8
74.3

100

102.38

79.6
70

Front I/O

PRO* LED1
PRO. LED2
PRO. Error LED

LAN C
LAN D

COM2 Terminal
COM1 Terminal

Power Button

PWR LED
RUN LED

HDMI Port

LAN A
LAN B

USB Port x 2

Reset Button

*PRO means programmable

Top I/O

Power Connector

Ordering Information

- **AMAX-5570E-0100X6A** x6413E,4G/128G,4xLAN,2xCOM,ECAT&iDAQ exp.
- **AMAX-5570E-0200X6A** x6413E,8G/128G,4xLAN,2xCOM,ECAT&iDAQ exp.

Embedded OS

- **20701WX1ES0010**   Img W10LTSC v6.09 B014 AMAX-5570(E)
- **20701U20DS0006**   Image AdvLinuxTu-IOTG_x64 V3.4.4

Optional Accessories

DIN-Rail Power Supply

- **96PSD-A120W24-MN**   A/D 100-240V 120W 24V NDR DIN RAIL

Adapters & Power Cords

- **PWR-247-DE**   100-240V 60W 24V 2.5A Power supply
- **1702002600**   Power cable US plug 1.8 M
- **1702002605**   Power cable EU plug 1.8 M
- **1702031801**   Power cable UK plug 1.8 M
- **1700000596-11**   Power cable China/Australia plug 1.8 M