

EIS-DK10

Edge Intelligence Server Starter Kit

NEW



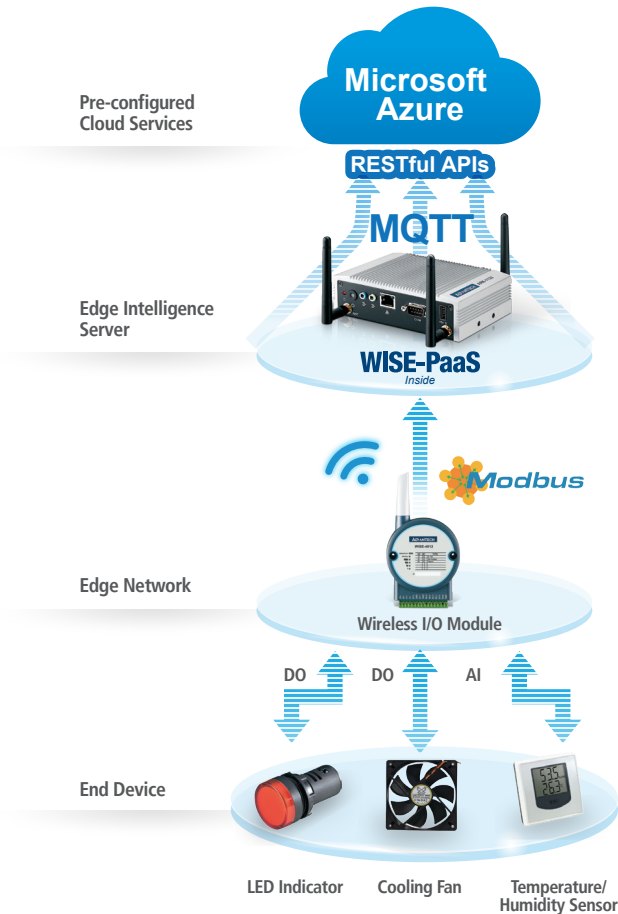
Features

- Complete IoT Connection Solutions: includes a ready-to-run edge system, IoT software platform service (WISE-PaaS), wireless I/O module, sensor, and pre-configured Microsoft Azure service
- Pre-configured system: Intel® Celeron® J1900 SoC and WES7E with 4GB Memory and 64 GB SSD
- Pre-integrated WISE-PaaS Software Package: WISE-PaaS/RMM, WISE-PaaS/OTA, WISE-PaaS/Security, WebAccess/SCADA, WebAccess/IMM, WebAccess/HMI
- Pre-configured Microsoft Azure service: Device Management Package (1 month free trial)
- Comprehensive developer tools and documents: Node-RED data flow logic designer, dashboard builder, protocol plug-in SDK & configuration tools

Introduction

EIS-DK10 is a starter kit for jumpstarting IoT applications. It offers a complete solution for IoT data collection and intelligence creation from end device, edge network, to the cloud, and provides clear system architecture based on a specific user case. EIS-DK10 is a plug & play package with short steps from device assembly to system settings that makes it quick and easy to start building applications. The package includes a ready-to-run system (Intel® Celeron® J1900 platform with WES7), built-in a series of WISE-PaaS IoT software packages, wireless I/O module, sensor, and pre-configured Microsoft Azure service. With it, you can build and land IoT Application with new innovation and easy integration solution.

Application Scenario



Edge System Specifications



| | |
|-----------------------|--|
| Processor | Intel® Celeron® J1900 Quad Core 2.0GHz SoC |
| Memory | 4GB bundled |
| Integrated O/S | WES7E |
| Operating Temperature | -20 ~ 60° C with industrial grade RAM/SSD |
| I/O Interface | HDMIx2, GbEx2, RS232/422/485x1, USB 3.0x1, USB 2.0 x2, Line-in, Line-out |
| Power Input | 12VDC in |
| Wireless Networking | Atheros AR9462 WIFI module bundled (w/ RF certification) |
| Storage | 64GB 2.5" SATA III SSD bundled |
| Dimensions | 133.8 x 43.1 x 94.2 mm (5.27" x 1.7" x 3.71") |

I/O Module Specifications



| | | |
|----------------|---|--|
| Data Input | Channels | 4 |
| | Resolution | 16-bit |
| | Sampling Rate | Analog Input 10Hz (Total) ; Digital Input 2Hz (Per Channel) |
| | Accuracy | ±0.1% of FSR (Voltage) ±0.2% of FSR (Current) |
| Analog Input | | ±150mV, ±500mV, ±1V, ±5V, ±10V, 0~150mV, 0~500mV, 0~1V, 0~5V, 0~10V, 0~20mA, 4~20mA, ±20mA |
| | Digital Input (Dry Contact) | 0: Open, 1: Close |
| Digital Output | Channels | 2 (Open collector to 30 V, 400 mA max. for resistance load) |
| | Supports High-to-Low and Low-to-High Delay Output | |
| General | WLAN | IEEE 802.11b/g/n 2.4GHz |
| | Outdoor Range | 110 m with line of sight |
| | Power Input | 10 ~ 30 V _{DC} |
| | Supported Protocols | Modbus/TCP |

Software and Cloud Service Offerings

| WISE-PaaS Software Package | |
|----------------------------|---|
| WISE-PaaS/RMM | Open & standard IoT data and device remote monitoring and management platform |
| WISE-PaaS/OTA | Remote software update, include 3rd party software (Integration version in WISE-PaaS/RMM) |
| WISE-PaaS/Security | Centralize devices, data protection and remote back-up and recovery solution (Integration version in WISE-PaaS/RMM) |
| WebAccess/SCADA | Data collection and graphical interfaces for supervisory management (Limited version with 16 point access ability) |
| WebAccess/IMM | Centralize content editor and dispatch management for interactive media player |
| WebAccess/HMI | A stand-alone, machine-level HMI to a distributed visualization solution (Integration version in WebAccess/SCADA) |

WISE-PaaS

| Pre-Configured Azure Service (Option) | |
|---|---|
| 1 month free trial with EIS-DK10 | |
| Device Management Package (40 WISE-Points/ Month) | |
| Pre-integrated WISE-PaaS/RMM Remote Monitoring and Management Software and Microsoft® Azure Virtual Machine to build cloud-based management platform easily and quickly. | |
| Microsoft® Azure Virtual Machine A 3-level virtual machine with 4-core, 7 GM memory and 120 GB storage | WISE-PaaS/RMM 100 devices connection and management ability |
| + | |
| For more services, please visit WISE-PaaS Marketplace Microsoft® Azure Services are available using WISE-Point digital currency, which applies in the WISE-PaaS Marketplace. Customers access the WISE-PaaS Marketplace and choose software packages online with their WISE-Points. | |
| marketplace.wise-paas.com | |
| WISE-Point | |

IoT Development Tools

| | |
|---------------------------------------|---|
| Node-RED Utility | Pre- integrated logic edit tool Node-RED |
| Data Collection | Receive Data to Agent and transfer to WISE-PaaS/RMM server |
| Data Conversion | Conversion data protocol to MQTT with JSON format |
| Plug-in SDK | Agent and protocol conversion plug-in SDK for developer |
| GUI Protocol Config Tool (for Modbus) | Provide Modbus GUI for quick configuration |
| Back-up and System Recovery | Acronis Hot back-up/ Recovery/ Hot-Key recovery |
| Security | McAfee white list protection |
| Remote Update (OTA) | Software(Advantech & 3rd party) update |
| Zero Downtime | Reserve edge data when lost connection and recover it when the connection is back |
| Light Analytic | Statistics and graphical representation of historical data |
| Dashboard Builder | Customizable dashboard to display sensor data with text, spark line, gauge, etc. types of widgets |

**Support depends on device type, OS and account permission.

Ordering Information

| Part Number | CPU | Memory | Storage | OS | HDMI | GbE | USB 2.0 | USB 3.0 | RS-232/422/485 | Audio | RF module | Power Input | mSATA | Operating Temperature* |
|-------------------|-------------------------|--------|----------------------|-------|------|-----|---------|---------|----------------|---------------------|----------------|--------------------|-------|------------------------|
| EISDK-ARK1123-BTO | Intel Celeron J1900 SoC | 4 GB | 64G 2.5" SATAIII SSD | WES7E | 2 | 2 | 2 | 1 | 1 | Line in Line out | Atheros AR9462 | 12 V _{DC} | 1 | -20 ~ 60° C |

* If industrial grade memory and SSD selected.

Packing List

| Item | Description |
|------|---|
| 1 | EIS-D110 Edge Computer |
| 2 | Wireless I/O Module support Modbus TCP protocol |
| 3 | Temperature/Humidity Sensor, AI, 0-10V, 12VDC in |
| 4 | Wi-Fi module, Atheros AR9462, 802.11 a/b/g/n , 2T2R (preload) |
| 5 | 12V RED LED Indicator |
| 6 | 12V Cooling FAN |
| 7 | WISE-PaaS software packages |
| 8 | 12V/36W AC to DC Adaptor |
| 9 | Quick Start Guide |
| 10 | Accessory Package (Cable Pack, 2 x Wi-Fi Antenna) |

Optional Items

| Part Number | Description |
|-------------|--------------------------------------|
| 1700001524 | Power Cable 3-pin 180cm, USA type |
| 170203183C | Power Cable 3-pin 180cm, Europe type |
| 170203180A | Power Cable 3-pin 180cm, UK type |
| 1700008921 | Power Cable 3-pin PSE Mark 183cm |
| 98R6DK10S00 | Suitcase for EIS-DK10 |