EIS-DK10

Edge Intelligence Server and Microsoft Azure IoT Starter Kit

*Color Box is optional parts

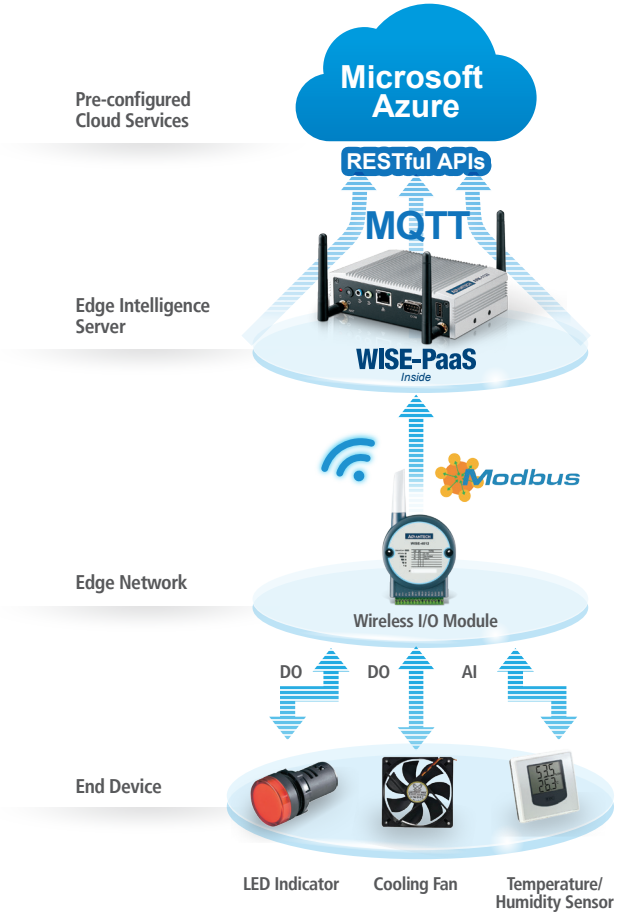
Features

- Provides a complete IoT connection solution from sensor, edge system, to cloud
- Offers a exact user scenario let customer experience IoT application like data collection, data analysis, and decision making
- Pre-integrated Advantech IoT software platform WISE-PaaS for data visualization and Node Red flow template for easy development
- Pre-configured Microsoft Azure service: Device Management Package (optional)
- Includes an edge system, temperature/humidity sensor, Modbus TCP module, LED indicator, fan, and accessories

Introduction

EIS-DK10 is a starter kit for jumpstarting IoT applications. It offers a complete solution for IoT data collection and intelligence creation from sensor, edge system, to the cloud, and provides clear system architecture based on a exact 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

All product specifications are subject to change without notice.

Last updated: 10-Apr-2018

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)

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.

昊生科技 15323776600

Packing List

Item	Description
1	EIS-D110 Edge System
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	Color Box of EIS-DK10