

EIS-D620

RISC-based Edge Intelligence Server

NEW



WISE-PaaS/ DeviceOn



Features

- Integrated hardware plus software to build up edge-to-cloud applications
- Pre-configured system: Rockchip RK3399, Debian with 2GB/ 16GB eMMC
- WISE-PaaS/DeviceOn inside for IoT Device Operation Management
- Comprehensive developer tools and documents: Node-RED data flow logic designer, dashboard builder, protocol plug-in SDK & configuration tools

Introduction

To fulfill customer requirements in equipment connectivity, protocol conversion and data visualization applications, Advantech offers the EIS-D620 Edge Intelligence Server, which is equipped with a Rockchip RK3399 focussed on transmitting IoT data to the cloud. Supporting field protocols (MQTT/OPC/Modbus) for sensor/device data acquisition, EIS-D620 can be used with Advantech's IoT SDK for data integration. Furthermore, EIS-D620 comes pre-integrated with Advantech's WISE-PaaS/EdgeSense software solution, allowing users to incorporate sensor data aggregation, edge analytics, and cloud applications for fast and easy real-time operational intelligence. Also, the build-in WISE-PaaS/DeviceOn software provides remote access functions, like KVM and powercycle, and device management functions, like condition monitoring and auto-alert. EIS-D620 provides a range of connectivity options with excellent data handling and networking connection capabilities for various IoT applications.

Solution Block Diagram

IoT Connectivity



Edge IoT Application Development

Open Plug-in SDK and sample code for sensor and data collection and conversion.



Industrial Protocol Connectivity

Provides standard protocols (Modbus/ OPC/ MQTT) for sensor and devices data collection.



I/O and Sensor Compatibility

Integration tested with Advantech M2.COM, ADAM and WISE-4000 series.

Operation Management

WISE-PaaS/ DeviceOn



Device Management

- Automatic device registration
- One-key to dashboard
- Device security



Monitoring & Control

- Real-time operations
- Power on/off
- Remote control



Update Management

- Batch provisioning
- Firmware updates
- Software updates

Cloud Integration

Microsoft Azure Cloud Services

Pre-configured with Azure Kubernetes services to quickly integrate with other cloud modules and shorten development effort.

[Microsoft Azure](#)

Advantech WISE-PaaS/EnSaaS Cloud Services

Pre-configured WISE-PaaS/EnSaaS IoT cloud services. Quickly and easily deploy your IoT application with Advantech WISE-PaaS.

[WISE-PaaS/ EnSaaS](#)

Private Cloud

Data service server provides a scalable data management platform with Kubernetes open standard environment.

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
Remote Update (OTA)	Software(Advantech & 3rd party) update
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.

Edge System Specifications

Model Name	EIS-D620
Processor	Dual-core ARM Cortex-A72 processor + Quad-core ARM Cortex-A53 processor
Storage	1 x 16GB eMMC on board; 1 x SD card Slot (for expansion)
RAM	2GB on-board LP-DDR3L-1066
OS	Debian
Protocol	Modbus, OPC-UA
Display	HDMI x 2
I/O	USB 3.0 x 1, USB 2.0 x 1, GBE LAN x 2, Serial port x 1
Power Input	12V DC-in (AT mode)
Dimension	135 x 130 x 29 mm
Environment Temperature	0 ~ 60 °C (32 ~ 104 °F)

Ordering Information

Part Number	CPU	Memory	Storage	OS	Display	GbE	USB 3.0	Serial	Audio	Power Input	Micro SD	Operating Temperature*
EIS-D620-D1DE121	Rockchip RK3399	2 GB	16GB eMMC	Debian	2 x HDMI	2	1	1	LINE out	12 V _{DC}	1	0 ~ 60 °C (32 ~ 104 °F)

* If industrial grade memory and SSD are selected.

Packing List

Item	Description
1	EIS-D620
2	WISE-PaaS software packages
3	12V Power adapter
4	Accessory Package

Optional Items

Part Number	Description
1700001524	3-pin power cord (US)
170203183C	3-pin power cord (EU)
170203180A	3-pin power cord (UK)
1700008921	3-pin power cord with PSE (Japan)
1700019146	3-pin power cord (CCC)