Environment Data Collector

Features

- Lightweight gateways with software for uploading data from the edge to the cloud
- Supports communication with 200+ PLCs and I/O modules
- Equipment data integrated into middleware with secure data conversion
- Data backups to a database and FTP server
- Supports various different I/O ports such as serial, Ethernet, AI and DI/O
- Supports wireless interface for remote connectivity

Introduction

For facility monitoring, distributed solar power, smart factory and cloud based applications, which require total wireless and Ethernet communication solutions, Advantech released the SRP-IFS210-D36TAE, SRP-IFS420-E12TAE, SRP-IFS420-E14TAE and SRP-IFS420-E16TAE industrial communication gateways. SRP series gateways have an open platform design with Cortex A8 processor, two 10/100 Ethernet ports and operating temperature ranges of -40~70°C. With a Linux operating system and open WISE-Edgelink SDK, system integrators can easily develop applications which precisely fit their need.

Features

Data storage and transmission

SRP-IFS210-D36TAE, SRP-IFS420-E12TAE, SRP-IFS420-E14TAE and SRP-IFS420-E16TAE integrates local data storage and forwarding to ensure all useful information will be captured whenever the network is down to help reduce equipment maintenance costs.

Advanced metering infrastructure (AMI) tracks power consumption and predicts demand

AMI expands the range of time-based programs that can be offered to consumers. Smart systems such as Energy Management can make it easier for consumers to change behaviors and reduce peak periods of power consumption.

Improved maintenance efficiency via remote monitoring

With WISE-EdgeLink, SRP-IFS210-D36TAE, SRP-IFS420-E12TAE, SRP-IFS420-E14TAE and SRP-IFS420-E16TAE support a wide range of power equipment protocols, energy meters, and HVAC devices. Real-time operation and power distribution status can be synchronized to help meet energy efficiency targets.

Platform scalability with distributed management and multi service access

Unlike virtual machine access, SRP-IFS210-D36TAE, SRP-IFS420-E12TAE, SRP-IFS420-E14TAE and SRP-IFS420-E16TAE support data access to a variety of cloud platforms through the standard MQTT protocol, with distributed access control architecture for different environments.

Specifications

Part Number		SRP-IFS210-D36TAE	SRP-IFS420-E12TAE	SRP-IFS420-E14TAE	SRP-IFS420-E16TAE
Hardware Platform		ADAM-3600 ADAM-3651	ECU-1051	ECU-1251	ECU-1152
CPU		Cortex-A8, 600MHz	Cortex-A8, 600MHz	Cortex-A8, 800MHz	Cortex-A8, 800MHz
Memory		DDR3L 256MB	DDR3L 256MB	DDR3L 256MB	DDR3L 512MB
Storage		1GB SD card	1GB SD card	1GB SD card	1GB SD card
Serial Port		1 x RS232/485- DB9 2 x RS485- Terminal Block	2 x RS-232/485	4 x RS-232/485	6 x RS-232/485
Communication	Ethernet Port	2 x 10/100 Base-T RJ-45 ports			
	USB Port	1 x USB2.0	N/A*	1 x USB2.0	1 x USB2.0
	Wireless (Optional)	Interface: 1x Mini-PCIe (Full-size) Type: WIFI/Cellular/4G Signal: USB			
	DI/DO/AI/AO	8AI / 16DI / 4DO	N/A*	N/A*	N/A*
Software	Operating System	RT-Linux 3.12	RT-Linux 3.12	RT-Linux 3.12	RT-Linux 3.12
	Configuration Tool	Advantech WISE-EdgeLink Studio			
	Protocol Support	IEC-60870-101(master)/ 104(slave), Modbus/TCP, DNP3 L2, TCP/IP, DHCP, IEC104, MQTT			
	Programming	IEC-61131-3, Linux C, Python, Node-RED, Restful API, Web service API			
Certifications		CE/FCC (No RED certification)	CE, FCC (No RED certification)	CE, FCC (RED compliance)	CE, FCC (No RED certification)
Power Requirements		10 ~ 30 V_{DC}	10 ~ 30 V_{DC}	10 ~ 30 V_{DC}	10 ~ 30 V_{DC}
Operating Temperature		-40 ~ 70°C	-40 ~ 70°C	-40 ~ 70°C	-40 ~ 70°C

Legend: N/A = Not Applicable

Ordering Information

Part Number	Description
SRP-IFS210-D36TAE	Modular edge intelligent data acquisition with WISE-EdgeLink, 2 x LAN, 3 x COM, 8 x AI, 16 x DI, 4 x DO, 1GB storage
SRP-IFS420-E12TAE	Protocol gateway with WISE-EdgeLink, 2xLAN, 2xCOM, 1GB storage
SRP-IFS420-E14TAE	Protocol gateway with WISE-EdgeLink, 2xLAN, 4xCOM, 1GB storage
SRP-IFS420-E16TAE	Protocol gateway with WISE-EdgeLink, 2xLAN, 6xCOM, 1GB storage