Application Scenario

How Equipment Connectivity Works in the Factory

Machine/ Cabinet



Pain Points of Global Manufacturers

Data in Black Box

To optimize equipment performance and reliability, engineering teams always make improvements through machine operation data analysis, temperature monitoring, or power consumption. However, data is sometimes contradictory due to the sensors, meters, or PLC controllers being limited in connectivity and different devices from different vendors each having their own proprietary protocols.

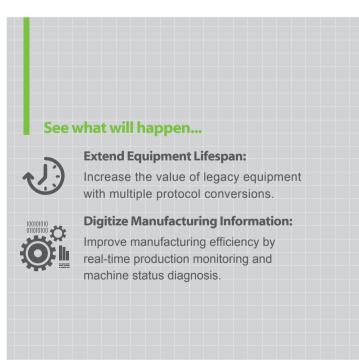
High Wall of Communication

Proprietary communications obstructing machinery data integration usually require knowledge of driver development and comprehensive coding effort to complete protocol transfer.

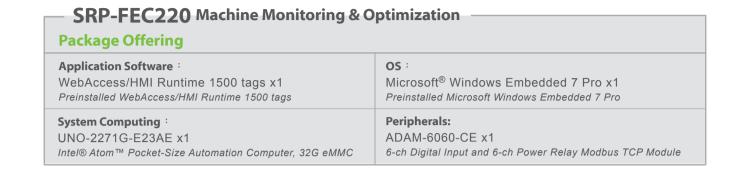
Infeasible for Analysis

Advanced data analysis is always done by IT systems with powerful computational capabilities. Nevertheless, open communications such as Modbus/ MQTT/ OPC are required for bridging devices at the OT level and system analysis at the IT level.





Ordering Configuration Table



Optional Configuration

optional configuration			
Option 100 WISE-PaaS/SaaS Software		Option 400 Add-on Accessories	
[101] WebAccess/SCADA Dongle Key V8.2 Pro. 1500 tags (WA-P82-U15HE)[102] WebAccess/SCADA Dongle Key V8.2 Pro. 5000 tags	Qty:	[401] Power Adaptor (PWR-247-CE)	Qty:
(WA-P82-U50HE)	Qty:		
Option 200 System Computing		Option 800 Training & Consulting Service	
[201] 12.1" XGA Ind. Monitor w/ Resistive TS (FPM-7121T-R3AE) *HDMI to VGA Adapter is required	Qty:	[801] 1 Hr Quick Start Phone Support	☐ Qty:
Option 300 I/O & Peripherals		Remark	
[301] Distributed Digital I/O (ADAM-6060-CE) [302] Distributed Analog I/O (ADAM-6024-A1E)	Qty:		

Order in 3 Easy Steps



ADVANTECH





US/

Enabling an Intelligent Planet

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iFactory

Equipment Connectivity Solution

Machine Data Acquisition for Monitoring & Optimization

Solution Ready Platform

SRP-FEC220







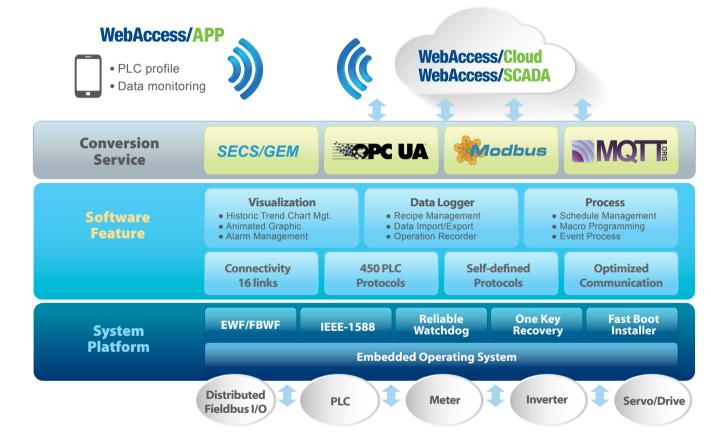


Entering a New Era of Smart Manufacturing

Introducing SRP-FEC220 Solution for Machine Monitoring & Optimization

This Solution Ready Platform allows users to easily acquire 100% of equipment data through 450 PLC drivers, self-defined communication protocols and a distributed digital I/O module. Equipment data is available for OT/IT system integration via Modbus/ OPC UA/ MQTT with visible production information, optimized production profiles and more.

Software Architecture and Key Design Features



HMI Design Features



Animated dashboard

- 1. Dynamic numerical value display
- 2. Pipeline & dynamic flow diagram 3. Bar chart/ histogram
- 4. Rich automation device icon library

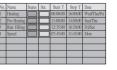


History

- 1. Historical trend chart
- 2. Historical table for search
- . Historical data export (Excel CSV)



- 1. Active alarm message
- 2. Alarm by email
- 3. Alarm history
- 4. Alarm history export (Excel CSV)



Schedule 1. Calendar chart

- 2. Weekly event schedule
- 3. Pre-schedule process parameter

System Block Diagram

WebAccess/APP



Data monitoring







- Open interface for cloud dashboard monitoring & big data analysis
- Precaution alarm for equipment preventive maintenance



SECS/GEM







WebAccess/HMI





WebAccess/HMI System Computing Distributed Digital I/O



Peripheral Devices Connectivity Comprehensive Data Acquisition

Key Advantages/ Features

100% Data Acquisition

Supports 450 PLC communication drivers and self-defined protocol to completely acquire controller status temperature, humidity and other sensor data.



Flexible Protocols Conversion

Greatly shortens engineering time through intuitive UI setting to rapidly covert protocols for a max. of 15 different branded PLCs simultane-



Easily Connect OT and IT

Supports Modbus / OPC UA/ MQTT connection to SCADA/ MES system to optimize production efficiency.



Solution-Ready-Platform Package

WebAccess/HMI **Runtime Software**

Pre-installed WebAccess/HMI Runtime 1500 tags

WebAccess/HMI

UNO-2271G-E23AE

Intel® Atom™ E3815 1.46 GHz Pocket-Size DIN-Rail PC, 4GB RAM, 32G eMMC Storage, Microsoft® Windows Embedded



ADAM-6060-CE

6-ch Digital Input and 6-ch Power Relay Modbus TCP Module



