

## Application Scenario

### How Process Visualization Works in the Factory

#### Pain Points of Global Manufacturers

##### No Response in Real Time

Unexpected downtimes often happen during changing conditions, which might take a long time to trouble shoot at great cost. Since it is nearly impossible for engineering teams to be on standby during every line change, they are ready to find a convenient method to view field information remotely and respond to faults in real time.

##### Decisions without Verifiable Data

As factories target not only higher production rates but also diverse product offerings, the management of complex processes becomes much more critical. Managers are looking for a single simple interface which is able to summarize the results of multiple processes and visually show the performance/ efficiency of each task in real time on a dashboard. Furthermore, management decisions need to be made quickly based on both the experience of senior employees and on real-time data analysis.

##### Traceability for Consistent Quality

Market demands require more rapid access and diverse offerings, consistency of quality and compliance, as well as the need for traceability. Traceability involves tracking and tracing the history and details of all aspects of production as well as the authentication of manufacturing such as serial numbers linking back to the production chain. To achieve these advanced metrics, manufacturers require full transparency over the entire production process and full integration with their MES systems.



### See what will happen...



#### Data-driven Decision Making

Data is collected accurately and automatically and the visualized information ties management decision making into analytical insight.



#### Enhanced Mobility of Supervisor

Overview across complex production process and implementation of action on mobile terminals.

## Ordering Configuration Table

### SRP-FPV220 MES Optimization & Environmental Monitoring

#### Package Offering

<b>Application Software :</b> WebAccess/SCADA V8 Pro. Runtime 1500 tags x1 <i>Preinstalled WebAccess/SCADA V8 Pro. Runtime 1500 tags</i>	<b>OS :</b> Microsoft® Windows Embedded 7 Pro x1 <i>Preinstalled Microsoft Windows Embedded 7 Pro</i>
<b>System Computing :</b> UNO-2483G-434AE x1 <i>Intel® Core™ i3 Fanless Automation Computer, 128G SSD</i>	<b>Peripherals:</b> WISE-4012-AE x1 <i>4-ch DI/ 2-ch DO IoT Wireless I/O Module</i>

#### Optional Configuration

Option 100 WISE-PaaS/SaaS Software	Option 400 Add-on Accessories
[101] WebAccess/Cloud License (Preliminary) <input type="checkbox"/> Qty: ____	[401] Power Adaptor (96PSA-A150W24T2) <input type="checkbox"/> Qty: ____
Option 200 System Computing	Option 800 Training & Consulting Service
[201] 43" FHD Display (Preliminary) <input type="checkbox"/> Qty: ____	[801] 1 Hr Quick Start Phone Support <input type="checkbox"/> Qty: ____
Option 300 I/O & Peripherals	Remark
[301] Wireless Universal Input/DO Modul (WISE-4012-AE) <input type="checkbox"/> Qty: ____	
[302] Wireless Digital Input & RS-485 Module (WISE-4051-AE) <input type="checkbox"/> Qty: ____	

## Order in 3 Easy Steps



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**ADVANTECH**

Enabling an Intelligent Planet



SRP-FPV220  
 Online Catalog

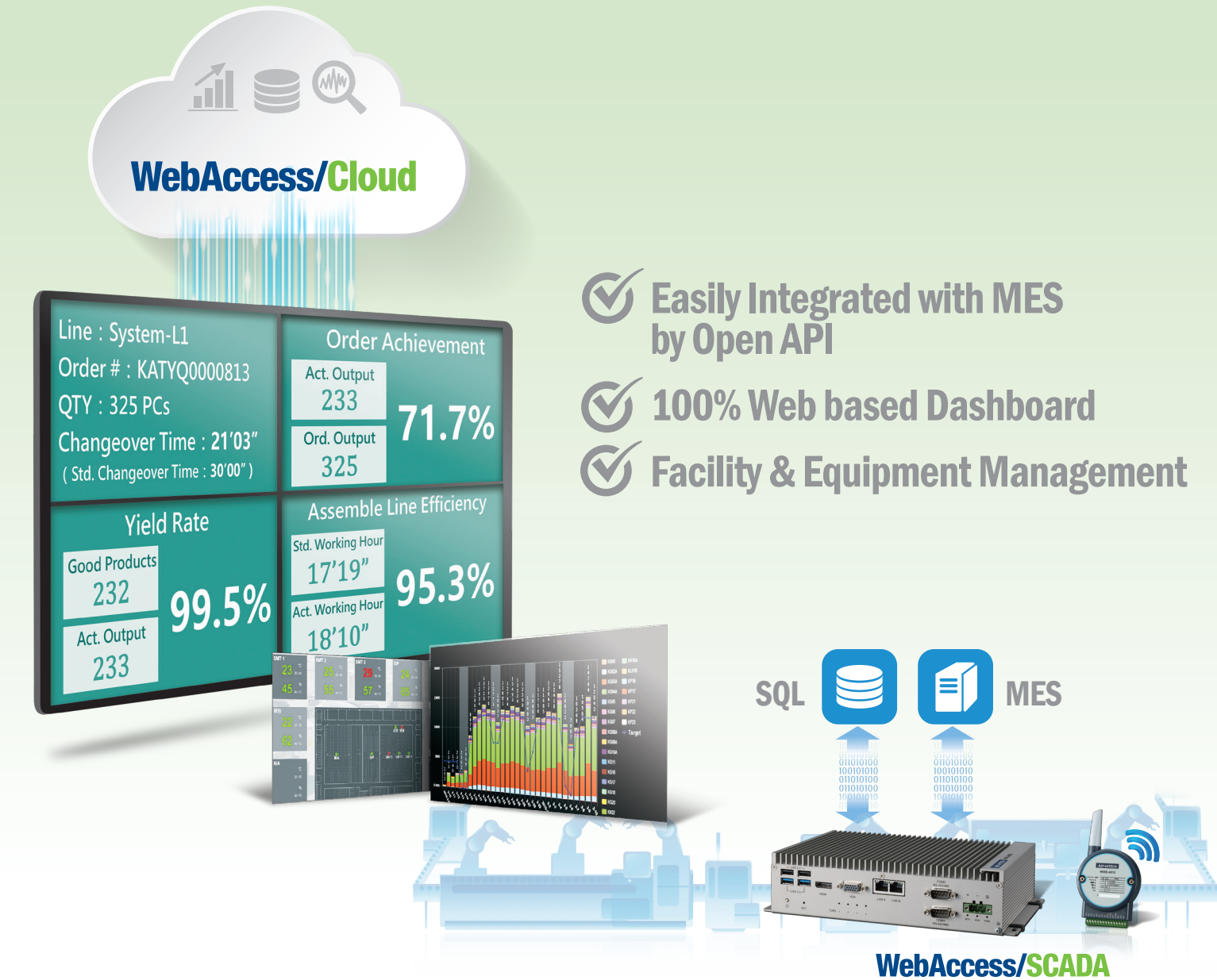
## iFactory

Solution  
 Ready  
 Platform

# Process Visualization Solution

Charting & MES Analyzing Data for Production Optimization

SRP-FPV220



- Easily Integrated with MES by Open API
- 100% Web based Dashboard
- Facility & Equipment Management

**ADVANTECH**

Enabling an Intelligent Planet

**ADVANTECH**  
**WISE-PaaS**  
 IoT Software Platform



More on SRP-FPV220 website

# Entering a New Era of Smart Manufacturing

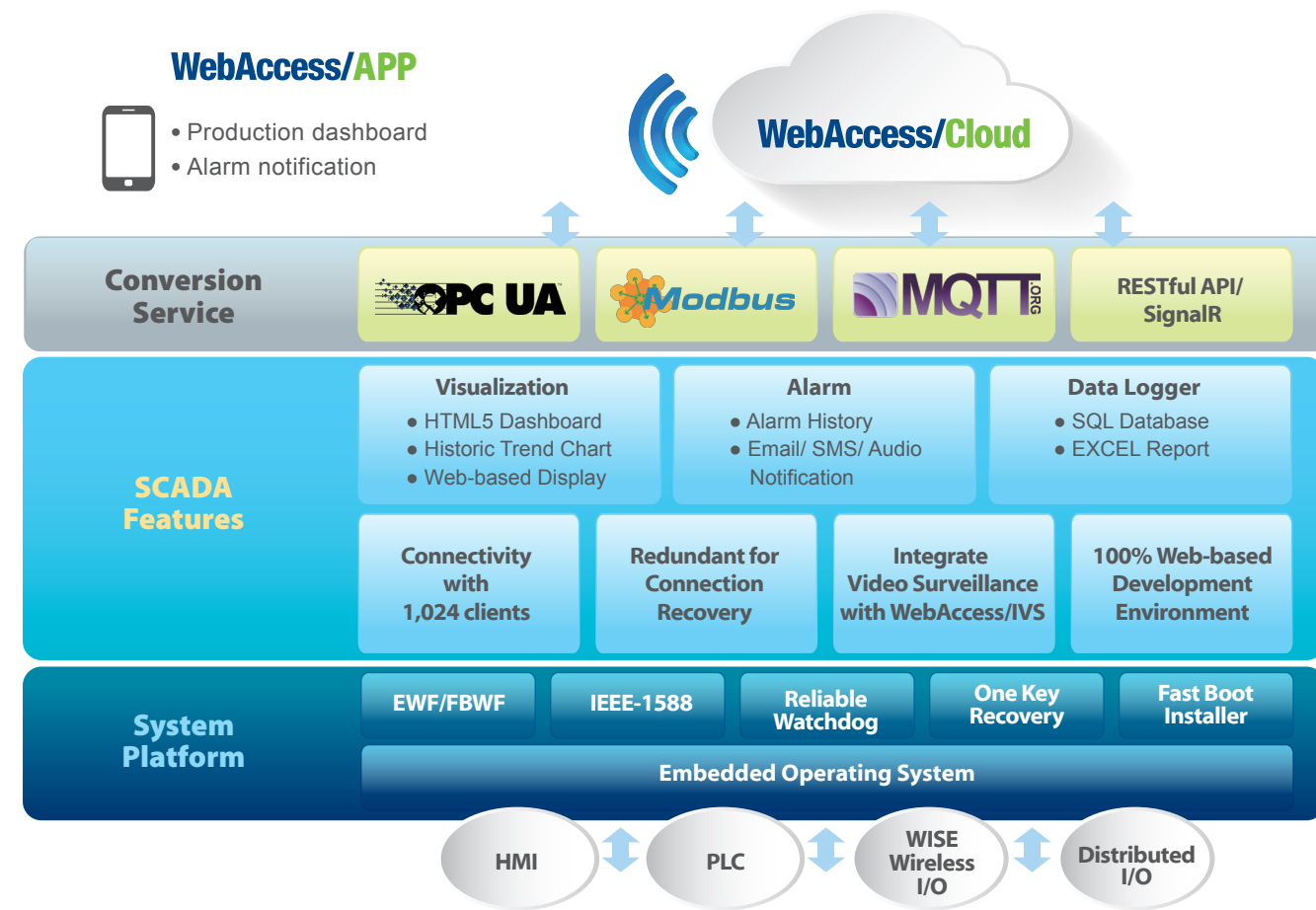
## Introducing SRP-FPV220 Solution for MES Integration & Production Optimization

This Solution Ready Platform allows users to easily collect data from shop-floor devices via multiple communications such as Modbus, OPC UA, and MQTT and automatically generates Excel reports of production activities. A 100% web-based dashboard allows users to view visual production information such as yield rate trends, equipment utilization or downtime alarms, available anytime on any mobile device supporting HTML5 browsers. Valuable information about field equipment, energy consumption and the environment can also be integrated within the MES system via open interfaces including SQL database and RESTful/ SignalR API's to help optimize production planning and provide efficiency analysis improvements.

## System Block Diagram



## Software Architecture and Key Design Features



## Dashboard Design Features

- HTML 5 Dashboard**
1. HTML5-based for any modern browser
  2. Trends/ Bars/ Alarm summary/ Map widgets
  3. Widget builder for customized dashboard
  4. Supports up to 1,024 clients

- Video Surveillance**
1. Embedded video from IP cameras into Web page.
  2. Support motion detection with WebAccess/IVS Software.

- Automated Excel Report**
1. Import self-defined EXCEL Template.
  2. Automatically generate on-demand or daily/ weekly/ monthly/ yearly report.
  3. Accessible via web browser

- Alarm**
1. Active alarm message
  2. E-mail/ SMS notification
  3. Alarm History
  4. Prompt alarm on screen

## Key Advantages/ Features

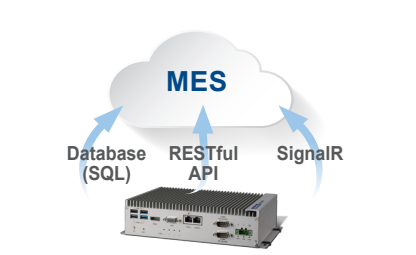
**Shop-floor Information Visualization**  
Collect equipment and environmental data from wireless shop-floor devices and automatically generate Excel charts & report/dashboard of production activities.



**Mobility of Production Monitoring with Dashboard**  
The HTML5-based dashboard allows users to view real-time production information such as yield rates trends, equipment utilization and downtime alarms on any mobile device.



**Easily Integrated with MES System by Open API**  
Valuable information of field equipment and the environment can be integrated with MES via open interfaces to optimize production plan and efficiency analysis.



## Solution-Ready-Platform Package

**WebAccess/SCADA Runtime Software**  
Preinstalled WebAccess/SCADA Pro. Runtime 1500 tags

**WebAccess/SCADA**

**UNO-2483G-434AE**  
Intel® Core™ i3 Regular-Size Automation Computer, 8GB RAM, 128G SSD, Microsoft® Windows Embedded 7 Pro.



**WISE-4012-AE**  
4-ch Universal Input and 2-ch Digital Output IoT Wireless I/O Module

