SmartView

SV-2201-CE7

SV-4201-CE7

SV-6201-CE7

Features

- Cross-platform Web HMI IDE: Creator
- Industrial Automation Standard: OPC UA
- Active M2M Transmission Mechanism: MQTT
- Makes connectivity for the “internet of things” and mobile devices easily.
- Support Remote Control
- 7”/10.4”/15" LCD
- Resolution: 800 x 480 ~ 1024 x 768
- Resistive Touch Panel
- AM335x (1 GHz or 720 MHz) CPU
- Windows CE 7.0
- NEMA 4/IP65 Compliant Front Panel
- Operating Temperature: -10 ~ +60°C

Introduction

The **SmartView** series combines a RISC-based CPU board, TFT LCD touch screen and software including Web HMI, OPC UA, and MQTT to create a ruggedized, flat panel computer perfect for a variety of control and HMI applications. It provides a variety of connectives including Gigabit Ethernet, USB port, RS-232 and RS-485. The operating system is pre-installed in the on-board Flash memory. Remote I/O expansion is available using our Ethernet I/O modules, RS-485 I/O modules, Wi-Fi and ZigBee wireless I/O modules. Designed for panel mount installation, the front panel is NEMA 4/IP65 rated and can withstand sprayed water, humidity and extreme dust. Designed to operate over a wide -10°C ~ 60°C ambient temperature range, the fanless design offers the ultimate in reliability with no moving parts.

Creator: Powerful and Cross-platform Web HMI IDE

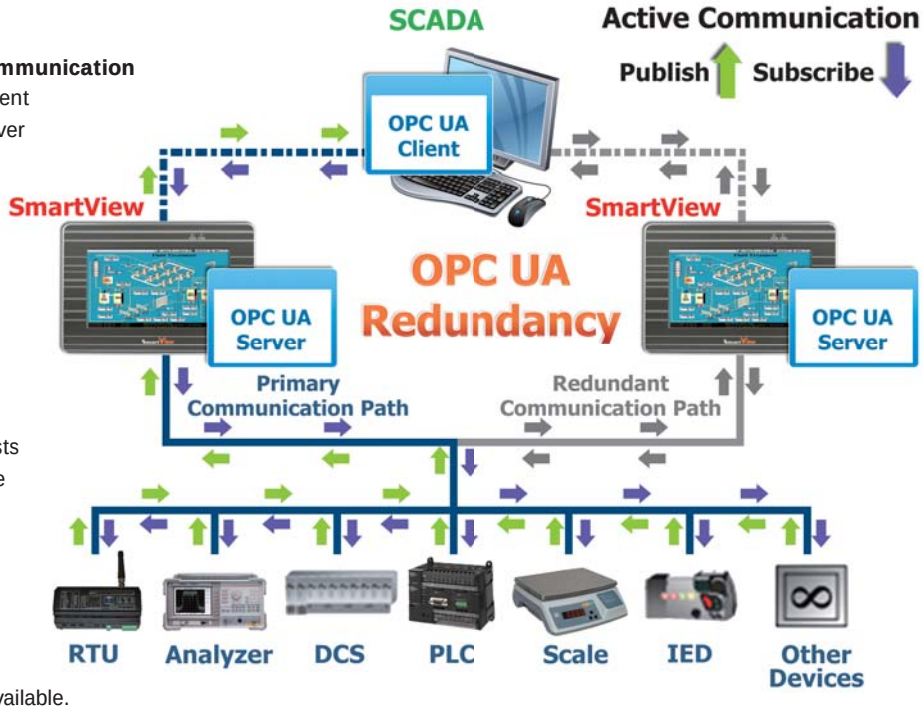
Creator is a cross-platform **Web HMI** **I**ntegrated **D**evelopment **E**nvironment (**IDE**) for designing Windows-based and Linux-based **SmartView** Panel. It provides an easy-to-use **G**raphic **U**ser **I**nterface (**GUI**) and diverse objects to integrate into HMI applications without coding for developing customized **SmartView**. With **Creator**, an application can deploy web HMI screens on the SmartView, allowing the operator to control and monitor the process in a web browser crossing multi-platform from PC, smart phone and smart pad in everywhere. On design phase, user only needs to concentrate on designing local HMI, dynamic web page can be generated by Creator automatically via creator compiler. In addition, the **Creator** also supports the new generation industrial communication standard “**OPC UA**”, “Internet of Things” transmission “**MQTT**”, 18 common protocols for communication, and I/O status simulation in designing process. Combined with these features, Creator can dramatically save development time and make the **SmartView** development more efficiently.

Key features of the Creator Software:

- Support 18 Common Protocols
- Easy To Create HMI Project Without Coding
- Diversification HMI Objects and Functions
  - Alarm, Schedule, Recipe, Data Log, Macro...
- Designed Once, Display Everywhere! (Local HMI & Web HMI)
  - Web HMI Support Smart Phone & Pad
- Update Project Through Ethernet/USB
- Support Remote Control
- Support OPC UA
- Support MQTT
- On-line/Off-line Simulation
- Support Multi-language (Traditional Chinese / Simplified Chinese / English)

OPC UA: New Generation Industrial Communication Standard

OPC UA is the interoperability standard for security, reliable multivendor, multiplatform data exchange for **Industrial Automation**. It extends the classical OPC communication protocol, enabling data acquisition and information modeling and communication between the plant floor and the enterprise reliably and securely.

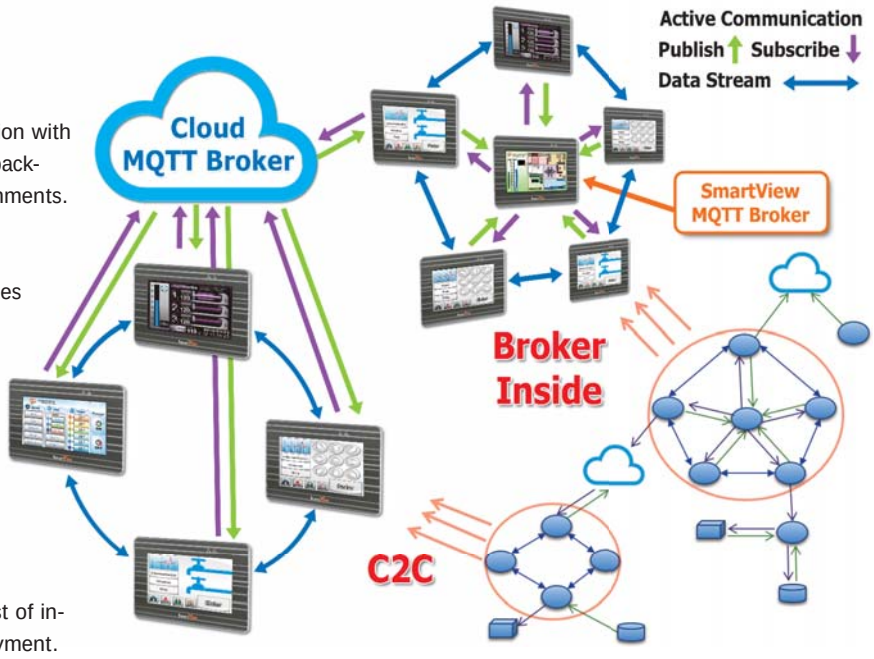


Key Features of OPC UA are:

- **Platform Independent Data Communication**
  OPC UA is designed to be independent of the platform. Using SOAP/XML over HTTP, OPC UA can be deployed on Linux, Windows XP Embedded, Windows 7, and Classical Windows platforms.
- **Unified Access**
  OPC UA integrates existing OPC specifications DA, A&E, HDA, Commands, Complex data, and Object Types in one specification. This reduces system integration costs by providing a common architecture for accessing information.
- **Standardized Communication via Firewalls and Internet**
  OPC UA uses message based security which means messages can be relayed through HTTP, UA TCP port or any other single port available.
- **Reliability & Redundancy**
  OPC UA implements a configurable timeouts, error detection, and communication failure recovery. OPC UA allows redundancy between applications from different vendors to be deployed.
- **Security**
  OPC UA is Secure-by-default, encryption enabled, and uses advanced certificate handling which includes Authentication, Authorization, Confidentiality, and Integrity.

MQTT: Active M2M Transmission Mechanism

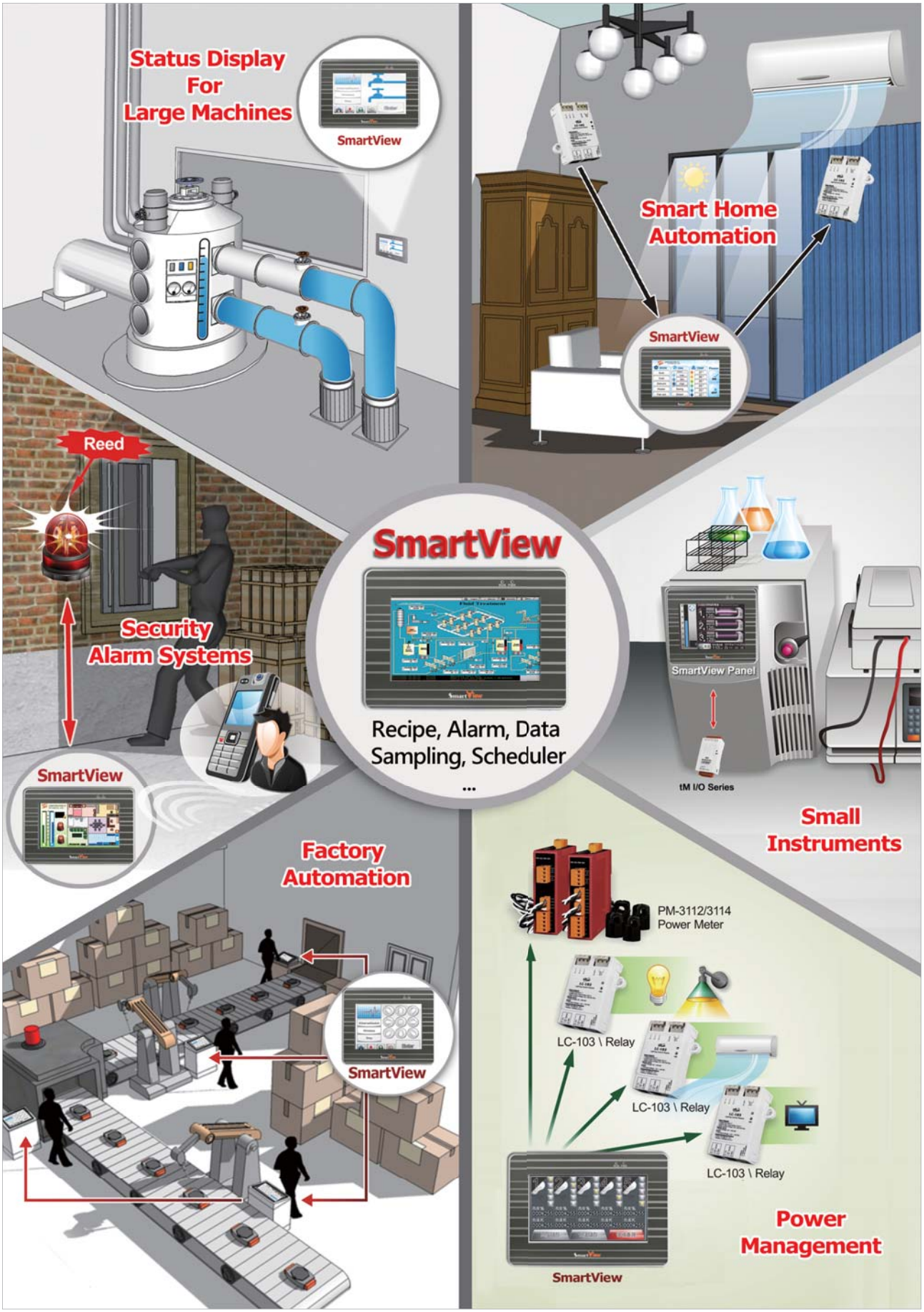
MQTT is a method of **M**achine to **M**achine (**M2M**) communication by writing and retrieving application-specific data (messages) to and from queues, without having a private, dedicated connection to link them. It simplifies and accelerates the integration of diverse applications data between SmartView under assured, secure and reliable exchange of information circumstance. Using MQTT in SmartView not only dramatically simplifies the creation and maintenance of Industrial application but also makes connectivity for the “internet of things” and mobile devices easily.



MQTT Features:

- **Rapid, seamless connectivity**
  Rapid, seamless connectivity of information with a single, robust and trusted messaging backbone for dynamic heterogeneous environments.
- **Secure, reliable message delivery**
  Secure, reliable message delivery that preserves message integrity and minimizes risk of information loss.
- **High-performance Deployment**
  High-performance and scalable message transfer to meet the demands of today’s enterprise and beyond.
- **Simplified management and control**
  Simplified management and control for better control and usability.
- **Lower cost**
  Lower cost of ownership by reducing cost of integration and accelerating time to deployment.

Applications

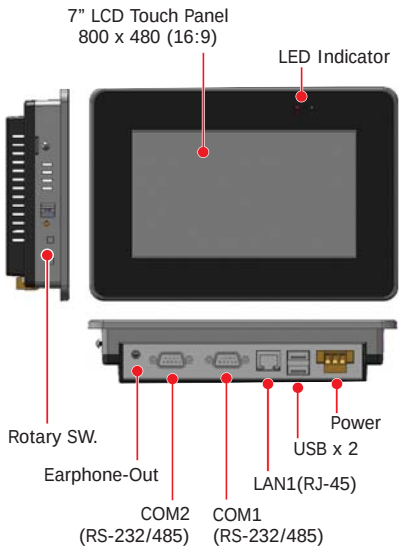


Specifications

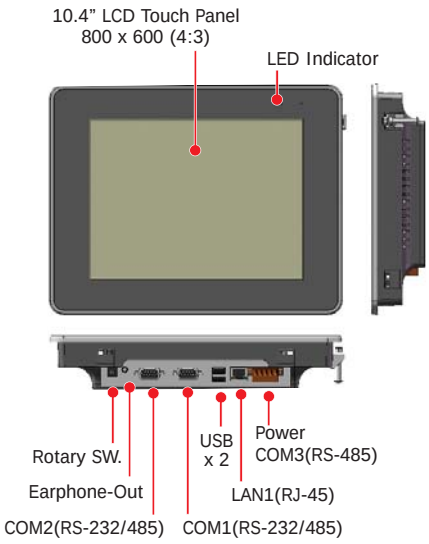
Models	SV-2201-CE7	SV-4201-CE7	SV-6201-CE7
LCD Display			
Size	7” (16:9)	10.4” (4:3)	15” (4:3)
Resolution	800 x 480	800 x 600	1024 x 768
Brightness (cd/m2)	400		
Contrast Ratio	500 : 1		
LED Backlight Life	20,000	50,000	
Touch Panel	4-wire, resistive type; light transmission: 80%	5-wire, resistive type; light transmission: 80%	
LED Indicator	2 (PWR, Run)		
CPU Module			
CPU	AM3352 (720 MHz)	AM3354 (1 GHz)	
SDRAM	512 MB		
MRAM	128 KB		
Flash	256 MB		
Memory Expansion	microSD socket (support up to 32 GB)	SD socket (support up to 32 GB)	
EEPROM	16 KB		
RTC (Real Time Clock)	Yes		
Hardware Serial Number	Yes, 64-bit Hardware Serial Number		
Rotary Switch	Yes (0~9)		
Audio	Earphone-out		
Communication Interface			
Ethernet	1x RJ-45, 10/100/1000 BaseTX		
USB 2.0 (host)	2		
COM1	RS-232/485 (DB9 connector); 2500 V_{DC} isolated		
COM2	RS-232/485 (DB9 connector); 2500 V_{DC} isolated		
COM3	-	RS-485 (Terminal Block, Data+, Data-); 2500 VDC isolated	
Mechanical			
Dimensions (W x L x H)	213 x 148 x 44 (mm)	293 x 231 x 54 (mm)	381 x 305 x 65 (mm)
Installation	Panel Mounting		
Ingress Protection	Front Panel: NEMA 4 /IP65		
Environment			
Operating Temperature	-10 ~ +60°C		
Storage Temperature	-20 ~ +70°C		
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)		
Power			
Power From Terminal Block	Yes, +12 ~ +48 VDC		
Power from PoE	Yes, IEEE 802.3af		
Isolation	-	1 kV	
Consumption	6 W	13 W	

Appearance

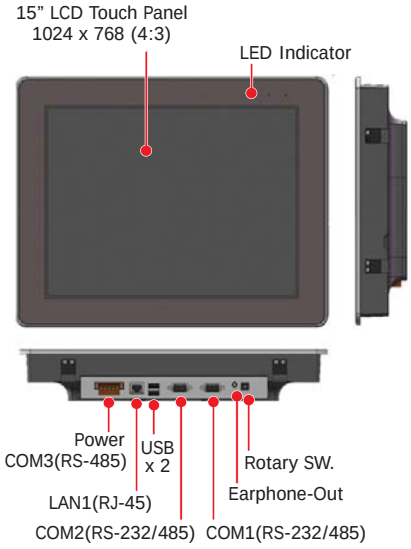
SV-2201-CE7



SV-4201-CE7



SV-6201-CE7



SmartView Selection Guide

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	LCD Size	CPU Type	I/O Slot	OS
	2: 7”	2: AM335x	0: w/o slot	CE7
	4: 10.4"			Linux
	6: 15”			Android

Ordering Information

SV-2201-CE7	7” SmartView with AM3352 CPU and WinCE7 OS
SV-4201-CE7	10.4” SmartView with AM3354 CPU and WinCE7 OS
SV-6201-CE7	15” SmartView with AM3354 CPU and WinCE7 OS

Accessories

DIN-KA52F	24 V/1.04 A, 25 W Power Supply with DIN-Rail Mounting
MDR-20-24	24 V/1 A, 24 W Power Supply with DIN-Rail Mounting
CA-0950-3W	5.0 M 3-Pin Male to Female D-sub RS-232 Cable w/Ferrite Core