Monitored Ethernet Switch
16 port, SNMP, Modbus/TCP
Model SE316-T

B+B SmartWorx

Powered by ADVANTECH

SE316-T

eWorx™

ECO Friendly

Modbus   SNMP   RoHS   CE   FCC   UL

Features & Benefits

- Communicates with HMI/SCADA software via Modbus/TCP
- Integrated with iView[2] - SNMP Management Software (free download)
- Energy Efficient Ethernet (EEE), IEEE 802.3az for low energy consumption
- Wide temperature range -40 to 75℃
- DIN rail or wall/panel mountable
- Redundant dual 12 to 48VDC power inputs
- EMS Level 3 Protection
- Designed for hazardous locations: UL C1D2, ATEX Zone 2 (pending), IECEx (pending)
- Port-based QoS feature for deterministic data transmission
- Loop detection and event alarm
- Power failure indicated by a relay and LED indicator

Introduction

SE300 series is the industry's first design for Ethernet Green®, IEEE802.3az - Energy Ethernet switches that cut power usage by up to 60%, significantly saving energy usage in the field and reducing total cost of ownership over 24/7.

Advantech B+B SmartWorx SE300 series monitored switches can be used as plug-and-play unmanaged switches right out of the box. Installing the iView[2] Network Management Software gives them basic monitoring and management capabilities as well. They bridge the gap between unmanaged switches and significantly more expensive, fully managed solutions.

When enabled with iView[2], these switches provide IP address assignment, allowing for a static IP address or an address that is discoverable via DHCP in the network. Then, these switches have the ability to use Modbus/TCP to communicate with HMI/SCADA software and SNMP to communicate with NMS (Networking Management Software) at the same time. This gives full access control to both control engineers and IT managers.

Specifications

COMMUNICATIONS	
Standards	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 802.3ab
LAN	10/100Base-T(X)
Transmission Distance	Up to 100 meters
Transmission Speed	100 Mbps
INTERFACE	
Connectors	16 x RJ45 6-pin removable screw terminal (power & relay)
Ethernet	Ethernet, Auto Sensing, 10/100BaseTX, Duplex and MDIX
LED Indicators	P1, P2, P-Fail, Loop Detection 10/100T (X): Link/Activity, Speed

Basic Monitoring & Management Capabilities

iView[2] gives network managers the ability to monitor and manage eWorx SE300 series switches from a central location. It features an intuitive Graphical User Interface (GUI) that provides a real-life representation of all installed eWorx SE300 Series switches, displaying device functions, port settings, device status information and traffic statistics via SNMP.

iView[2] can also configure eWorx SE300 series switches monitoring capabilities for automation applications via the popular Modbus TCP/IP protocol. Control engineers can use existing HMI/SCADA software to integrate the network status by creating extra tags for real-time monitoring. iView[2] is a standalone software that supports multiple platforms and operating systems.

iView[2] Features for eWorx SE300 series Switches
Monitoring:

- System information (IP/MAC address)
- Port status
- Port speed
- Flow control
- Link up counter
- TX packets counter, RX packets counter
- TX error packets counter, RX error packets counter
- Firmware version
- PoE status (PoE model/s only)

Management:

- Configure IP mode
- Set IP address
- Set TCP Modbus/TCP time-out
- Create Community Strings
- Configure Traps

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Specifications - continued

SWITCH PROPERTIES	
MAC Table Size	8k
Packet Buffer Size	128K bit
Switching Capacity	3.2 Gbps
Jumbo Frame	2048 bytes
POWER	
Power Consumption	Max. 3.84W
Power Input	12~48 VDC (8.4~52.8 VDC) redundant dual inputs
Fault Output	1 Relay Output
Reverse Polarity Protection	Present
Overload Current	Present
PHYSICAL	
Dimensions (WxHxD)	74 x 120 x 84 mm
Enclosure	IP30, metal shell with solid mounting kits
Mounting	DIN-Rail, Wall

Specifications - continued

ENVIRONMENT	
Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	10 ~ 95% (non-condensing)
Storage Humidity	10 ~ 95% (non-condensing)
MTBF	4,653,552 hours
CERTIFICATIONS	
Hazardous Environments	UL Class 1 Division 2 Groups A,B,C,D; ATEX Zone 2 (pending); IECEx (pending)
Safety	UL508
EMI	FCC Part 15 Subpart B Class A, EN 55011/55022, Class A
EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3) EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3) EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

SOFTWARE	
Management	iView[2], LLDP, SNMP v1/v2c, Modbus/TCP
Configuration	Static IP address, DHCP Client
Monitoring	Port Statistics (Speed/Status), Link Up/Down counter, Error Packet counter, Loop detection
Filter	Flow control, IEEE 802.1p QoS(Strict mode), Broadcast storm protection
Industrial Profiles	Modbus/TCP profiles included - Configuration and Diagnostic via automation software tools like e.g. Wonderware InTouch, STEP7, InduSoft Web Studio

IVIEW[2] - NETWORK MANAGEMENT SOFTWARE - FREE DOWNLOAD	
Version	iView[2] Web-based Application
OS Support	32-bit/64-bit Windows XP/Vista/7, Windows Server 2003/2008/2008 R2
Operation Modes	Local Computer or Remote Server
Web Browser	Microsoft® IE, Chrome, Firefox
Protocol	SNMPv1 and SNMPv2c

Product Ordering Information

			RJ45		FIBER				
MODEL #	DESCRIPTION	OPERATING TEMPERATURE	10/100 MBPS	GIGABIT	100FX	100/1000BASE-SFP	COMBO PORT, 10/100/1000BASE-T(X) OR 100/1000BASE-SFP	TYPE	CONNECTOR
SE316-T	16-port 10/100 Mbps Monitored Ethernet Switch	-40~75°C	16	-	-	-	-	-	-

Accessories - optional

MODEL #	DESCRIPTION
MDR-40-24	DIN Rail Power supply, 24VDC 40 Watt
C5UMB3FBG	3 ft. (1 M), Gray, Category 5e UTP Patch Cord
C5UMB7FBG	7 ft. (2 M), Gray, Category 5e UTP Patch Cord

Package Checklist
Ethernet Switch, Quick Start Guide, DIN-Rail mount bracket (installed), Wall mount bracket

Warranty
Limited lifetime warranty for Advantech B+B designed and/or manufactured products.

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