

SDS-3016 系列

工業 14 埠+2G 埠 Gigabit 智慧型乙太網路交換器



特色與優點

- 輕巧彈性的外殼設計，適合狹窄空間
- 網頁式 GUI，便於裝置配置和管理
- 使用統計資料的連接埠診斷的網頁式 GUI，可偵測和預防問題
- 多語言網頁式 GUI：英文、繁體中文、簡體中文、日文、德文和法文
- 支援 RSTP/STP，實現網路備援
- 支援基於 IEC 62439-2 的 MRP 用戶端備援，確保網路高可用性
- 支援 EtherNet/IP、PROFINET 和 Modbus TCP 工業通訊協定，因此在自動化 HMI/ SCADA 系統中輕鬆整合和監控
- IP 連接埠綁定，確保不需要重新指派 IP 位址即可快速更換關鍵裝置
- 旋轉 DIP 開關可以在不使用網頁瀏覽器的情況下執行以設定檔為基礎的設定
- 符合 IEC 62443 的資安防護功能

認證



簡介

SDS-3016 智慧型乙太網路交換器是 IA 工程師和自動化機器製造商的理想之選，能夠幫他們搭建符合工業 4.0 願景的網路。智慧型交換器可使機器和控制櫃煥發新的生機，由於組態和安裝簡便，可簡化每日的例行工作。此外，在產品的整個生命週期均可進行監控，而且維護相當簡便。

最常用的自動化通訊協定（包括 EtherNet/IP、PROFINET 和 Modbus TCP）內建於 SDS-3016 交換器中，可從自動化 HMI 控制和查看交換器，提升操作效能和彈性。另外，也支援多種實用的管理功能，包括 IEEE 802.1Q VLAN、連接埠鏡像、SNMP、由繼電器發出警告和多語言網頁式 GUI。

附加特色與優點

- 支援 IEEE 802.1D-2004 和 IEEE 802.1w STP/RSTP 而實現快速網路備援
- IEEE 802.1Q VLAN，可簡化網路規劃
- 支援 ABC-02-USB 自動備份配置器，可進行快速事件記錄和配置備份。也可以實現快速裝置切換和韌體升級
- 發生例外狀況時透過繼電器輸出自動發出警告
- 未使用的連接埠鎖定、SNMPv3 和 HTTPS，可增強網路安全
- 用於自訂管理和/或使用帳戶的角色型帳戶管理
- 本機日誌和匯出存貨檔案的功能可簡化存貨管理

規格

Input/Output Interface

| | |
|------------------------|---|
| Alarm Contact Channels | 1, Relay output with current carrying capacity of 1 A @ 24 VDC |
| Buttons | Reset button |
| Digital Input Channels | 1 |
| Digital Inputs | +13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA |

Ethernet Interface

| | |
|--|--|
| 10/100BaseT(X) Ports (RJ45 connector) | 14 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection |
| 10/100/1000BaseT(X) Ports (RJ45 connector) | 2 (SDS-3016-2GTX Series) Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection |
| 100/1000BaseSFP Ports | 2 (SDS-3016-2GSFP Series) |
| Standards | IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000BaseX IEEE 802.3x for flow control IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service |

Ethernet Software Features

| | |
|----------------------|---|
| Industrial Protocols | EtherNet/IP, Modbus TCP, PROFINET IO Device |
| Management | Back Pressure Flow Control, DHCP Client, Flow control, IPv4/IPv6, LLDP, Port Mirror, SNMP Inform, SNMPv1/v2c/v3, Syslog |
| MIB | RFC1213, Ethernet-like MIB, IF MIB, LLDP MIB, Bridge MIB, Q-BRIDGE MIB |
| Redundancy Protocols | RSTP, STP, MRP (Client) |
| Security | Broadcast storm protection, HTTPS/SSL, SNMPv3, Port Lock |
| Time Management | NTP Server/Client, SNTP |
| Filter | 802.1Q VLAN |

Rotary Switch Configuration

| | | |
|--------------------|-----------|---|
| Industrial Profile | Indicator | Mode |
| | 0 | Modbus TCP profile (Default) |
| | 1 | PROFINET profile enabled |
| | 2 | PROFINET profile and DHCP client enabled |
| | 3 | EtherNet/IP profile enabled |
| | 4 | EtherNet/IP profile and DHCP client enabled |
| | Others | Reserved (has the same behavior as Indicator 0) |

Switch Properties

| | |
|--------------------|---------------|
| MAC Table Size | 8 K |
| Max. No. of VLANs | 8 |
| VLAN ID Range | VID 1 to 4094 |
| Packet Buffer Size | 3 Mbits |

USB Interface

| | |
|--------------|------------|
| Storage Port | USB Type A |
|--------------|------------|

LED Interface

| | |
|----------------|--|
| LED Indicators | PWR1, PWR2, STATE, FAULT, 10/100M, 1000M (TP Port) |
|----------------|--|

Power Parameters

| | |
|-----------------------------|--|
| Connection | 2 removable 4-contact terminal block(s) |
| Input Voltage | 12/24/48/-48 VDC, Redundant dual inputs |
| Operating Voltage | 9.6 to 60 VDC |
| Input Current | SDS-3016-2GTX series: 12-48 VDC, 0.858 A (max.) SDS-3016-2GSFP series: 12-48 VDC, 0.99 A (max.) |
| Overload Current Protection | Supported |
| Reverse Polarity Protection | Supported |

Physical Characteristics

| | |
|--------------|---|
| Housing | Metal |
| IP Rating | IP40 |
| Dimensions | 36 x 135 x 111 mm (1.42 x 5.32 x 4.37 in) |
| Weight | 590 g (1.3 lb) |
| Installation | DIN-rail mounting |

Environmental Limits

| | |
|--|---|
| Operating Temperature | Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F) |
| Storage Temperature (package included) | -40 to 85°C (-40 to 185°F) |
| Ambient Relative Humidity | 5 to 95% (non-condensing) |

Standards and Certifications

| | |
|-----------|--|
| EMC | EN 55032/35, EN 61000-6-2/-6-4 |
| EMI | CISPR 32, FCC Part 15B Class A |
| EMS | IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF: 30 A/m |
| Safety | EN 62368-1, UL 61010-2-201 |
| Shock | IEC 60068-2-27 |
| Freefall | IEC 60068-2-32 |
| Vibration | IEC 60068-2-6 |

MTBF

| | |
|-----------|--------------------------|
| Time | 1,109,179 hrs |
| Standards | Telcordia (Bellcore), GB |

Warranty

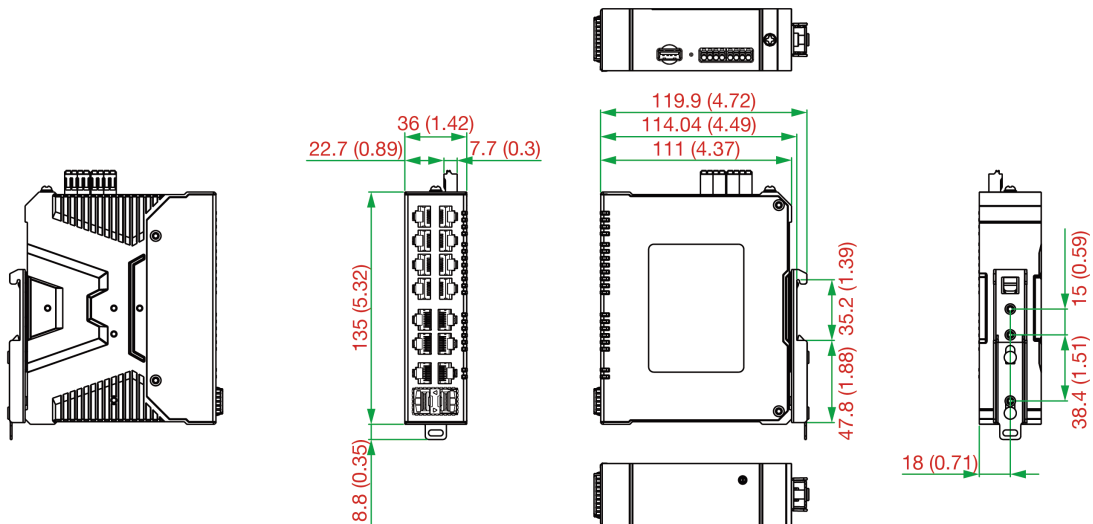
| | |
|-----------------|--|
| Warranty Period | 5 years |
| Details | See www.moxa.com/tw/warranty |

Package Contents

| | |
|------------------|---|
| Device | 1 x SDS-3016 Series switch |
| Installation Kit | 4 x cap, plastic, for RJ45 port |
| Documentation | 1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x quick installation guide 1 x warranty card |

尺寸

Unit: mm (inch)



訂購資訊

| Model Name | Layer | Total No. of Ports | 10/100BaseT(X) Ports, RJ45 Connector | 10/100/1000BaseT(X) Ports, RJ45 Connector | 100/1000BaseSFP Ports | Operating Temp. |
|------------------|-------|--------------------|--------------------------------------|---|-----------------------|-----------------|
| SDS-3016-2GTX | 2 | 16 | 14 | 2 | - | -10 to 60°C |
| SDS-3016-2GTX-T | 2 | 16 | 14 | 2 | - | -40 to 75°C |
| SDS-3016-2GSFP | 2 | 16 | 14 | - | 2 | -10 to 60°C |
| SDS-3016-2GSFP-T | 2 | 16 | 14 | - | 2 | -40 to 75°C |

配件 (選購)

SFP Modules

| | |
|--------------|--|
| SFP-1FEMLC-T | SFP module with 1 100Base multi-mode, LC connector for 2/4 km transmission, -40 to 85°C operating temperature |
| SFP-1FELLC-T | SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature |
| SFP-1FESLC-T | SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature |
| SFP-1G10ALC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature |

| | |
|----------------|--|
| SFP-1G10ALC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature |
| SFP-1G10BLC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature |
| SFP-1G10BLC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature |
| SFP-1G20ALC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature |
| SFP-1G20ALC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature |
| SFP-1G20BLC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature |
| SFP-1G20BLC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature |
| SFP-1G40ALC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature |
| SFP-1G40ALC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature |
| SFP-1G40BLC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature |
| SFP-1G40BLC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature |
| SFP-1GEZXC | SFP module with 1 1000BaseEZ port with LC connector for 110 km transmission, 0 to 60°C operating temperature |
| SFP-1GEZXC-120 | SFP module with 1 1000BaseEZ port with LC connector for 120 km transmission, 0 to 60°C operating temperature |
| SFP-1GLHLC | SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature |
| SFP-1GLHLC-T | SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature |
| SFP-1GLHXC | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature |
| SFP-1GLHXC-T | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature |
| SFP-1GLSXC | SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature |
| SFP-1GLSXC-T | SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, -40 to 85°C operating temperature |
| SFP-1GLXC | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature |
| SFP-1GLXC-T | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature |
| SFP-1GSXC | SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature |
| SFP-1GSXC-T | SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, -40 to 85°C operating temperature |
| SFP-1GZXC | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature |
| SFP-1GZXC-T | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature |
| SFP-1GTXRJ45-T | SFP module with 1 1000BaseT port with RJ45 connector for 100 m transmission, -40 to 75°C operating temperature |

Storage Kits

| | |
|------------|---|
| ABC-02-USB | Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature |
|------------|---|

| | |
|--------------|---|
| ABC-02-USB-T | Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°C operating temperature |
|--------------|---|

Power Supplies

| | |
|-----------|---|
| DR-120-24 | 120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature |
| DR-4524 | 45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature |
| DR-75-24 | 75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature |
| MDR-40-24 | DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature |
| MDR-60-24 | DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature |

Rack-Mounting Kits

| | |
|-------|---------------------------|
| RK-4U | 19-inch rack-mounting kit |
|-------|---------------------------|

© Moxa Inc. 版權所有.2021 年 3 月 29 日更新。

未經 Moxa Inc. 明確書面許可，不得以任何方式複製或使用本文件及其任何部分。產品規格如有變更，恕不另行通知。請至本公司官網了解最新的產品資訊。