## EDS-210A Series

## 8+2G/9+1G-port Gigabit unmanaged Ethernet switches



## Features and Benefits

- Up to 2 Gigabit uplinks for high-bandwidth data aggregation
- Multiple fiber ports with up to 4 100BaseSFP port combinations for maximum flexibility
- IP30-rated metal housing
- Redundant dual 12/24/48 VDC power inputs
- -40 to $75^{\circ} \mathrm{C}$ operating temperature range ( -T models)


## Certifications

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## Introduction

The EDS-210A Series 10-port industrial Ethernet unmanaged switches provide up to 2 Gigabit Ethernet ports and are ideal for applications that require high-bandwidth data convergence. The EDS-210A-1GSFP-1SFP is equipped with 1 Gigabit fiber SFP slot, whereas the EDS-210A-1GTX-1GSFP-4SFP is equipped with 1 Gigabit fiber SFP slot and 1 Gigabit copper port.

The EDS-210A unmanaged switches are equipped with multiple 100M ports, up to 4 100BaseSFP slots, and 8 100BaseTX copper ports for added flexibility and long-distance communications.
The EDS-210A Series provides 12/24/48 VDC redundant power inputs, DIN-rail mounting, and high-level EMI/EMC capability. In addition to its compact size for space-saving installations, each EDS-210A has passed a 100\% burn-in test to ensure its quality. Moreover, the EDS-210A Series has an operating temperature range of -10 to $60^{\circ} \mathrm{C}$ with wide-temperature $\left(-40\right.$ to $\left.75^{\circ} \mathrm{C}\right)$ models also available.

All of these features make the EDS-210A ideal for applications that require high-bandwidth transmission and data converge for uplink, such as video surveillance, tolling systems, ITS, and factory automation.

## Specifications

| Ethernet Interface | EDS-210A-1GTX-1GSFP-4SFP Series: 1 |
| :--- | :--- |$|$| 10/100/1000BaseT(X) Ports (RJ45 connector) | EDS-210A-1GSFP-1SFP Series: 8 <br> EDS-210A-1GTX-1GSFP-4SFP Series: 4 |
| :--- | :--- |
| 10/100BaseT(X) Ports (RJ45 connector) | All models support: <br> Auto negotiation speed <br> Full/Half duplex mode <br> Auto MDI/MDI-X connection |
| 1000BaseSFP Slots | 1 <br> 100BaseSFP Slots <br> EDS-210A-1GSFP-1SFP Series: 1 |
| EDS-210A-1GTX-1GSFP-4SFP Series: 4 |  |

## Switch Properties

| MAC Table Size | 8 K |
| :---: | :---: |
| Packet Buffer Size | 1 Mbits |
| Processing Type | Store and Forward |
| Power Parameters |  |
| Connection | 2 removable 2-contact terminal block(s) |
| Input Current | 0.39 A @ 24 VDC |
| Input Voltage | 12/24/48 VDC, Redundant dual inputs |
| Operating Voltage | 9.6 to 60 VDC |
| Overload Current Protection | Supported |
| Reverse Polarity Protection | Supported |
| Physical Characteristics |  |
| Housing | Metal |
| IP Rating | IP30 |
| Dimensions | $45.8 \times 134 \times 105 \mathrm{~mm}(1.8 \times 5.28 \times 4.13 \mathrm{in})$ |
| Weight | EDS-210A-1GSFP-1SFP Series: $520 \mathrm{~g}(1.15 \mathrm{lb})$ <br> EDS-210A-1GTX-1GSFP-4SFP Series: 570 g ( 1.26 lb ) |
| Installation | DIN-rail mounting, Wall mounting (with optional kit) |
| Environmental Limits |  |
| Operating Temperature | Standard Models: -10 to $60^{\circ} \mathrm{C}$ (14 to $140^{\circ} \mathrm{F}$ ) Wide Temp. Models: -40 to $75^{\circ} \mathrm{C}\left(-40\right.$ to $\left.167^{\circ} \mathrm{F}\right)$ |
| Storage Temperature (package included) | -40 to $85^{\circ} \mathrm{C}\left(-40\right.$ to $\left.185{ }^{\circ} \mathrm{F}\right)$ |
| Ambient Relative Humidity | 5 to 95\% (non-condensing) |
| Standards and Certifications |  |
| EMC | EN 55032/24 |
| EMI | CISPR 32, FCC Part 15B Class A |
| EMS | IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to $1 \mathrm{MHz}: 10 \mathrm{~V} / \mathrm{m}$ IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF |
| Freefall | IEC 60068-2-32 |
| Safety | UL 508 |
| Shock | IEC 60068-2-27 |
| Vibration | IEC 60068-2-6 |

MTBF

| Time | EDS-210A-1GSFP-1SFP Series: $2,469,233$ hrs <br> EDS-210A-1GTX-1GSFP-4SFP Series: $2,485,402$ hrs |
| :--- | :--- |
| Standards | Telcordia (Bellcore), GB |
| Warranty | 5 years |
| Warranty Period | See www.moxa.com/warranty |
| Details | $1 \times$ EDS-210A Series switch |
| Package Contents | $1 \times$ quick installation guide <br> Device |
| Documentation |  |

## Dimensions

Unit: mm (inch)


## Ordering Information

| Model Name | 10/100BaseT(X) Ports RJ45 Connector | 10/100/1000BaseT(X) Ports RJ45 Connector | 10/100Base SFP Slots | 1000Base SFP Slots | Operating Temp. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| EDS-210A-1GSFP-1SFP | 8 | - | 1 | 1 | -10 to $60^{\circ} \mathrm{C}$ |
| EDS-210A-1GSFP-1SFP-T | 8 | - | 1 | 1 | -40 to $75^{\circ} \mathrm{C}$ |
| EDS-210A-1GTX-1GSFP4SFP | 4 | 1 | 4 | 1 | -10 to $60^{\circ} \mathrm{C}$ |
| EDS-210A-1GTX-1GSFP-4SFP-T | 4 | 1 | 4 | 1 | -40 to $75^{\circ} \mathrm{C}$ |

## Accessories (sold separately)

## SFP Modules

WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX $1310 \mathrm{~nm}, \mathrm{RX} 1550 \mathrm{~nm}, 0$ to $60^{\circ} \mathrm{C}$ 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 $1550 \mathrm{~nm},-40$ to $85^{\circ} \mathrm{C}$ operating temperature |
| :---: | :---: |
| SFP-1G10BLC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX $1550 \mathrm{~nm}, \mathrm{RX} 1310 \mathrm{~nm}, 0$ to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G10BLC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX $1550 \mathrm{~nm}, \mathrm{RX} 1310 \mathrm{~nm},-40$ to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G20ALC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX $1310 \mathrm{~nm}, \mathrm{RX} 1550 \mathrm{~nm}, 0$ to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G20ALC-T | WDM-type ( BiDi ) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX $1310 \mathrm{~nm}, \mathrm{RX} 1550 \mathrm{~nm},-40$ to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G20BLC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX $1550 \mathrm{~nm}, \mathrm{RX} 1310 \mathrm{~nm}, 0$ to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G20BLC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX $1550 \mathrm{~nm}, \mathrm{RX} 1310 \mathrm{~nm},-40$ to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G40ALC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX $1310 \mathrm{~nm}, \mathrm{RX} 1550 \mathrm{~nm}, 0$ to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G40ALC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX $1310 \mathrm{~nm}, \mathrm{RX} 1550 \mathrm{~nm},-40$ to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G40BLC | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX $1550 \mathrm{~nm}, \mathrm{RX} 1310 \mathrm{~nm}, 0$ to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1G40BLC-T | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX $1550 \mathrm{~nm}, \mathrm{RX} 1310 \mathrm{~nm},-40$ to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GEZXLC | SFP module with 1 1000BaseEZX port with LC connector for 110 km transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GEZXLC-120 | SFP module with 1 1000BaseEZX port with LC connector for 120 km transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLHLC | SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLHLC-T | SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLHXLC | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLHXLC-T | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLSXLC | SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLSXLC-T | SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, -40 to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLXLC | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GLXLC-T | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GSXLC | SFP module with 1 1000BaseSX port with LC connector for $300 / 550 \mathrm{~m}$ transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GSXLC-T | SFP module with 1 1000BaseSX port with LC connector for $300 / 550 \mathrm{~m}$ transmission, -40 to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GZXLC | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to $60^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GZXLC-T | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to $85^{\circ} \mathrm{C}$ operating temperature |
| SFP-1GTXRJ45-T | SFP module with 1 1000BaseT port with RJ45 connector for 100 m transmission, -40 to $75^{\circ} \mathrm{C}$ 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 $60^{\circ} \mathrm{C}$ 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 $50^{\circ}$ $C$ 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 $60^{\circ} \mathrm{C}$ 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 $70^{\circ} \mathrm{C}$ 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 $70^{\circ} \mathrm{C}$ operating temperature |

## Wall-Mounting Kits

WK-46-01 Wall-mounting kit, 2 plates, 8 screws, $46 \times 66.8 \times 2 \mathrm{~mm}$

## Rack-Mounting Kits

RK-4U
19-inch rack-mounting kit
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