

# EDS-2018-MLシリーズ

16+2Gポートギガビットアンマネージド・イーサネット・スイッチ



## 機能と特長

- 高帯域幅データ集約のための柔軟なインターフェース設計を備えた2ギガビットアップリンク
- トラフィック量が多い環境で重要なデータを処理するためにQoSをサポート
- 電源障害およびポート切断アラームのためのリレー出力警告
- IP30金属製筐体
- 冗長デュアル12/24/48 VDC電源入力
- -40～75°Cの幅広い動作温度範囲（-Tモデル）

## 認証



## 製品紹介

産業用イーサネットスイッチのEDS-2018-MLシリーズには、16個の10/100M銅ポートと2つの10/100/1000BaseT(X)または100/1000BaseSFPのコンボポートがあり、高帯域幅のデータ統合を要求する用途に最適です。また、さまざまな産業用途に幅広く対応するため、EDS-2018-MLシリーズでは、ユーザーは、Quality of Service (QoS) 機能を有効または無効にできるだけだけでなく、外部パネルのDIPスイッチを使用してブロードキャストストーム防止、およびポート切断アラーム機能を有効または無効にすることもできます。

EDS-2018-MLシリーズには、12/24/48 VDC冗長電源入力、DINレール取り付け、高レベルEMI/EMCの機能があります。コンパクトなサイズであるだけでなく、EDS-2018-MLシリーズは100%バーンインテストに合格しており、現場での信頼性を保証できます。EDS-2018-MLシリーズは、標準動作温度範囲が-10～60°Cで、広温度モデル（-40～75°C）も利用可能です。

## 仕様

### Ethernet Interface

|   |   |
|---|---|
| 10/100BaseT(X) Ports (RJ45 connector)                 | 16<br>Auto MDI/MDI-X connection<br>Full/Half duplex mode<br>Auto negotiation speed  |
| Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+) | 2<br>Auto negotiation speed<br>Auto MDI/MDI-X connection<br>Full/Half duplex mode   |
| Standards   | IEEE 802.3 for 10BaseT<br>IEEE 802.3u for 100BaseT(X)<br>IEEE 802.3ab for 1000BaseT(X)<br>IEEE 802.3z for 1000BaseX<br>IEEE 802.3x for flow control<br>IEEE 802.1p for Class of Service |

### DIP Switch Configuration

|                    |  |
|--------------------|--|
| Ethernet Interface | Quality of Service (QoS)<br>Broadcast storm protection<br>Port break alarm |
|--------------------|--|

### Input/Output Interface

|                        |   |
|------------------------|---|
| Alarm Contact Channels | Relay output with current carrying capacity of 1 A @ 24 VDC |
|------------------------|---|

## Switch Properties

|                    |                   |
|--------------------|-------------------|
| MAC Table Size     | 8 K               |
| Packet Buffer Size | 4 Mbits           |
| Processing Type    | Store and Forward |

## Power Parameters

|                             |   |
|-----------------------------|---|
| Connection                  | 1 removable 6-contact terminal block(s) |
| Input Current               | 0.277 A @ 24 VDC                        |
| Input Voltage               | 12/24/48 VDC<br>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   | 58 x 135 x 95 mm (2.28 x 5.31 x 3.74 in)               |
| Weight       | 683 g (1.51 lb)  |
| Installation | DIN-rail mounting<br>Wall mounting (with optional kit) |

## Environmental Limits

|  |   |
|--|---|
| Operating Temperature                  | EDS-2018-ML-2GTXSFP: -10 to 60°C (14 to 140°F)<br>EDS-2018-ML-2GTXSFP-T: -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

|                     |  |
|---------------------|--|
| Safety              | UL 61010-2-201<br>EN 62368-1(LVD)  |
| EMC                 | EN 55032/35<br>EN 61000-6-2/-6-4   |
| EMI                 | CISPR 32, FCC Part 15B Class A   |
| EMS                 | IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV<br>IEC 61000-4-3 RS: 80 MHz to 1 MHz: 20 V/m<br>IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV<br>IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV<br>IEC 61000-4-6 CS: 10 V<br>IEC 61000-4-8 PFMF |
| Hazardous Locations | Class I Division 2<br>IECEX<br>ATEX  |
| Maritime            | DNV<br>LR<br>ABS<br>NK   |

|                 |                |
|-----------------|----------------|
| Railway         | EN 50121-4     |
| Traffic Control | NEMA TS2       |
| Vibration       | IEC 60068-2-6  |
| Shock           | IEC 60068-2-27 |
| Freefall        | IEC 60068-2-32 |

### MTBF

|           |                          |
|-----------|--------------------------|
| Time      | 1,776,132 hrs            |
| Standards | Telcordia (Bellcore), GB |

### Warranty

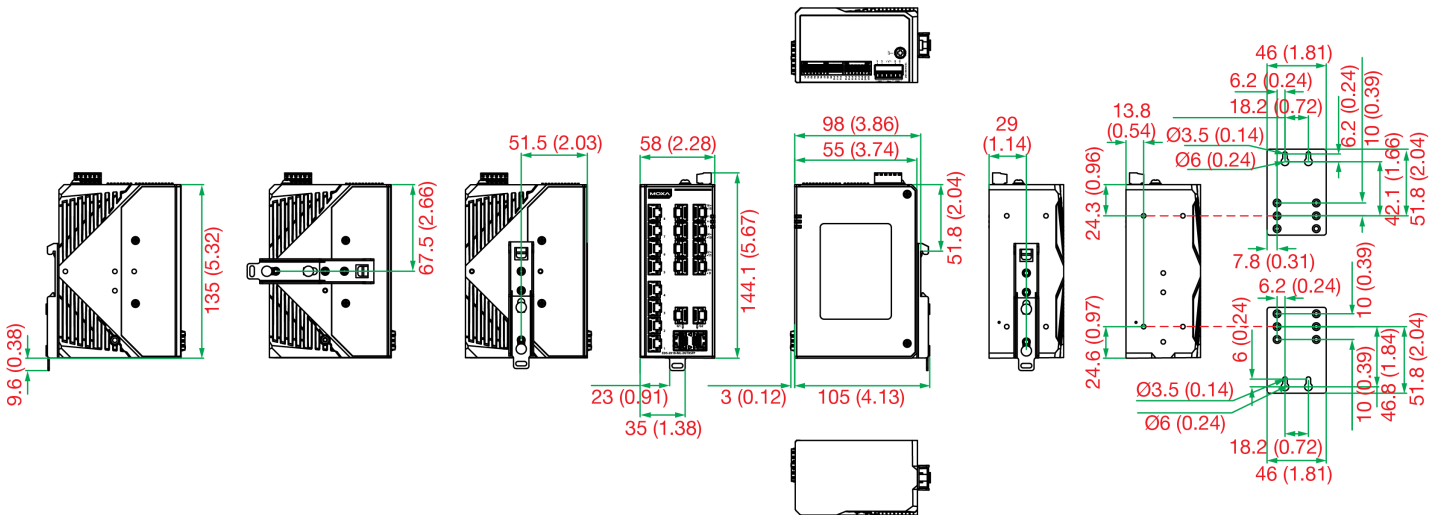
|                 |  |
|-----------------|--|
| Warranty Period | 5 years  |
| Details         | See <a href="http://www.moxa.com/jp/warranty">www.moxa.com/jp/warranty</a> |

### Package Contents

|                  |   |
|------------------|---|
| Device           | 1 x EDS-2018-ML Series switch                                     |
| Installation Kit | 2 x cap, plastic, for SFP port<br>4 x cap, plastic, for RJ45 port |
| Documentation    | 1 x quick installation guide<br>1 x warranty card                 |

## 寸法

単位: mm (インチ)



## 注文情報

| Model Name            | 10/100BaseT(X) Ports (RJ45 connector) | Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+) | Operating Temp. |
|-----------------------|---------------------------------------|---|-----------------|
| EDS-2018-ML-2GTXSFP   | 16                                    | 2   | -10 to 60°C     |
| EDS-2018-ML-2GTXSFP-T | 16                                    | 2   | -40 to 75°C     |

## アクセサリ (別売)

### 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-1FESLC-T   | SFP module with 1 100Base single-mode with LC connector for 40 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-1GTXRJ45-T | SFP module with 1 1000BaseT port with RJ45 connector for 100 m transmission, -40 to 75°C operating temperature   |
| SFP-1GSXLC     | SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature  |
| SFP-1GSXLC-T   | SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, -40 to 85°C operating temperature                                      |
| SFP-1GLSXLC    | SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature   |
| SFP-1GLSXLC-T  | SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, -40 to 85°C operating temperature                                       |
| SFP-1GLXLC     | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature  |
| SFP-1GLXLC-T   | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°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-1GLHLC     | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature   |
| SFP-1GLHLC-T   | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature   |
| SFP-1GZXLC     | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature  |
| SFP-1GZXLC-T   | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -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-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-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-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-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-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-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-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 |

### Power Supplies

|           |   |
|-----------|---|
| 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                                     |
| 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 |
| 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   |

### Wall-Mounting Kits

|          |   |
|----------|---|
| WK-46-01 | Wall-mounting kit, 2 plates, 8 screws, 46 x 66.8 x 2 mm |
|----------|---|

### Rack-Mounting Kits

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

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