

EDR-G903 系列

具備防火牆/NAT/VPN 的工業安全路由器



特色與優點

- 防火牆/NAT/VPN/路由器多功能
- 使用 VPN 保護遠端存取通道
- 狀態防火牆保護關鍵資產
- 使用 PacketGuard 技術檢查工業通訊協定
- 透過網路位址轉譯 (NAT) 輕鬆設定網路
- 透過公共網路的雙區域網路備援介面
- 支援不同介面的 VLAN
- -40 至 75°C 操作溫度範圍 (-T 型號)
- 基於 IEC 62443/NERC CIP 的安全功能

認證



簡介

EDR-G903 是高效能工業 VPN 伺服器，具備防火牆/NAT 多功能安全路由器。它是專為機密的遠端控制或監控網路所需的乙太網路安全應用而設計，提供 Electronic Security Perimeter 以保護重要的電腦及網路相關資產，例如泵站、DCS、石油鑽井平台上的 PLC 系統和水處理系統。EDR-G903 系列包括下列網路安全功能：

- 虛擬專用網路 (VPN)：虛擬私有網路 (VPN ; Virtual Private Networking) 是為了保護使用者從公開的網際網路連線至私有網路時所提供的安全通訊連線機制，利用 IPsec (IP Security) 伺服器或客戶端模式，針對該網路層的所有 IP 封包進行加密與驗證，確保機密性並驗證發送者的身份。
- 防火牆：防火牆策略控制不同信賴區域之間的網路流量。網路位址轉譯 (NAT)，用以防護內部區域網路不受來自外部主機的未授權連線。

EDR-G903 的快速自動化設定檔功能支援最常見的 Fieldbus 通訊協定，包括 EtherCAT、EtherNet/IP、FOUNDATION Fieldbus、Modbus TCP 和 PROFINET。使用者只需要按一下，即可從方便使用的網頁式 UI 輕鬆建立安全的乙太網路現場匯流排網路。此外，Moxa 的 PacketGuard 技術 (深度封包檢測) 有助於在 OSI 第 7 層篩選 Modbus TCP 指令。同時提供在危險的 -40 至 75°C 環境中可靠運作的寬溫度範圍型號。

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 | +13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA |
| Relay Channels | 1 |

Ethernet Interface

| | |
|---|--|
| Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+) | 3 |
| Standards | IEEE 802.1Q for VLAN Tagging IEEE 802.3 for 10BaseT IEEE 802.3ab for 1000BaseT(X) IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control |

| | |
|----------------------------------|--------------------------------------|
| | IEEE 802.3z for 1000BaseSX/LX/LHX/ZX |
| WAN Ports, RJ45/Fiber Combo Port | 1 |
| DMZ Ports, RJ45/Fiber Combo Port | 1 |
| LAN Ports, RJ45/Fiber Combo Port | 1 |

Ethernet Software Features

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|--------------------|--|
| Management | Back Pressure Flow Control, DDNS, DHCP Server/Client, HTTP, LLDP, QoS/CoS/ToS, SMTP, SNMPv1/v2c/v3, Telnet, TFTP |
| Routing | Throughput: 40,000 packets per second (max. 500 Mbps) |
| Routing Redundancy | VRRP |
| Security | HTTPS/SSL, SSH, IPsec, OpenVPN (client and server), UDP and TCP Tunnel mode (routing) and TAP mode (bridge), L2TP (server), RADIUS |
| Time Management | NTP Server/Client, SNTP |
| Unicast Routing | OSPF, RIPV1/V2, Static Route |

Switch Properties

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|-------------------|----|
| Max. No. of VLANs | 15 |
|-------------------|----|

DoS and DDoS Protection

| | |
|------------|---|
| Technology | ARP-Flood, FIN Scan, ICMP-Death, NEWWithout-SYN Scan, NMAP-ID Scan, NMAP-Xmas Scan, Null Scan, SYN/FIN Scan, SYN/RST Scan, SYN-Flood, Xmas Scan |
|------------|---|

Firewall

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|---------------------------|---|
| Deep Packet Inspection | Modbus TCP Modbus UDP |
| Filter | DDoS, Ethernet protocols, ICMP, IP address, MAC address, Ports |
| Quick Automation Profiles | DNP, EtherCAT, EtherNet/IP, FOUNDATION Fieldbus, FTP, HTTP, IEC 60870-104, IPsec, L2TP, LonWorks, Modbus TCP, PPTP, PROFINET, RADIUS, SSH, Telnet |
| Stateful Inspection | Router firewall Transparent (bridge) firewall |
| Throughput | Max. 40000 packets per second (max. 500 Mbps) |

IPsec VPN

| | |
|------------------------|---|
| Authentication | MD5 and SHA (SHA-256) RSA (key size: 1024-bit, 2048-bit) X.509 v3 certificate |
| Concurrent VPN Tunnels | Max. 100 IPsec VPN tunnels |
| Encryption | 3DES, AES-128, AES-192, AES-256, DES |
| Protocols | IPsec, L2TP (server), PPTP (client) |
| Throughput | Max. 150 Mbps (Conditions: AES-256, SHA-256) |

NAT

| | |
|----------|---------------------------------|
| Features | 1-to-1, N-to-1, Port forwarding |
|----------|---------------------------------|

OpenVPN

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|------------------------|---|
| Authentication | User password by MD5 and SHA1 |
| Concurrent VPN Tunnels | Client Mode: max. 2 external servers Server Mode: max. 5 external clients |
| Encryption | AES-128/192/256 CBC, Blowfish CBC, DES CBC, DES-EDE3 CBC |
| Protocols | OpenVPN (client and server), UDP, and TCP, Tunnel mode (routing) and TAP mode (bridge), Tunnel mode (routing) |

Real-Time Firewall / VPN Event Log

| | |
|------------|---|
| Event Type | Firewall event, System event, VPN event |
| Media | Local storage, SNMP Trap, Syslog server |

Serial Interface

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|--------------|---|
| Console Port | Web/Telnet/SSH/CLI, and RS-232 serial console |
|--------------|---|

Power Parameters

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|-----------------------------|--------------------------|
| Connection | Removable terminal block |
| Input Voltage | 12/24/48 VDC |
| Overload Current Protection | Supported |
| Reverse Polarity Protection | Supported |

Physical Characteristics

| | |
|--------------|---|
| Housing | Metal |
| Dimensions | 51.2 x 152 x 131.1 mm (2.02 x 5.98 x 5.16 in) |
| Weight | 1250 g (2.76 lb) |
| Installation | DIN-rail mounting |

Environmental Limits

| | |
|--|---|
| Operating Temperature | EDR-G903: 0 to 60°C (32 to 140°F) EDR-G903-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) |

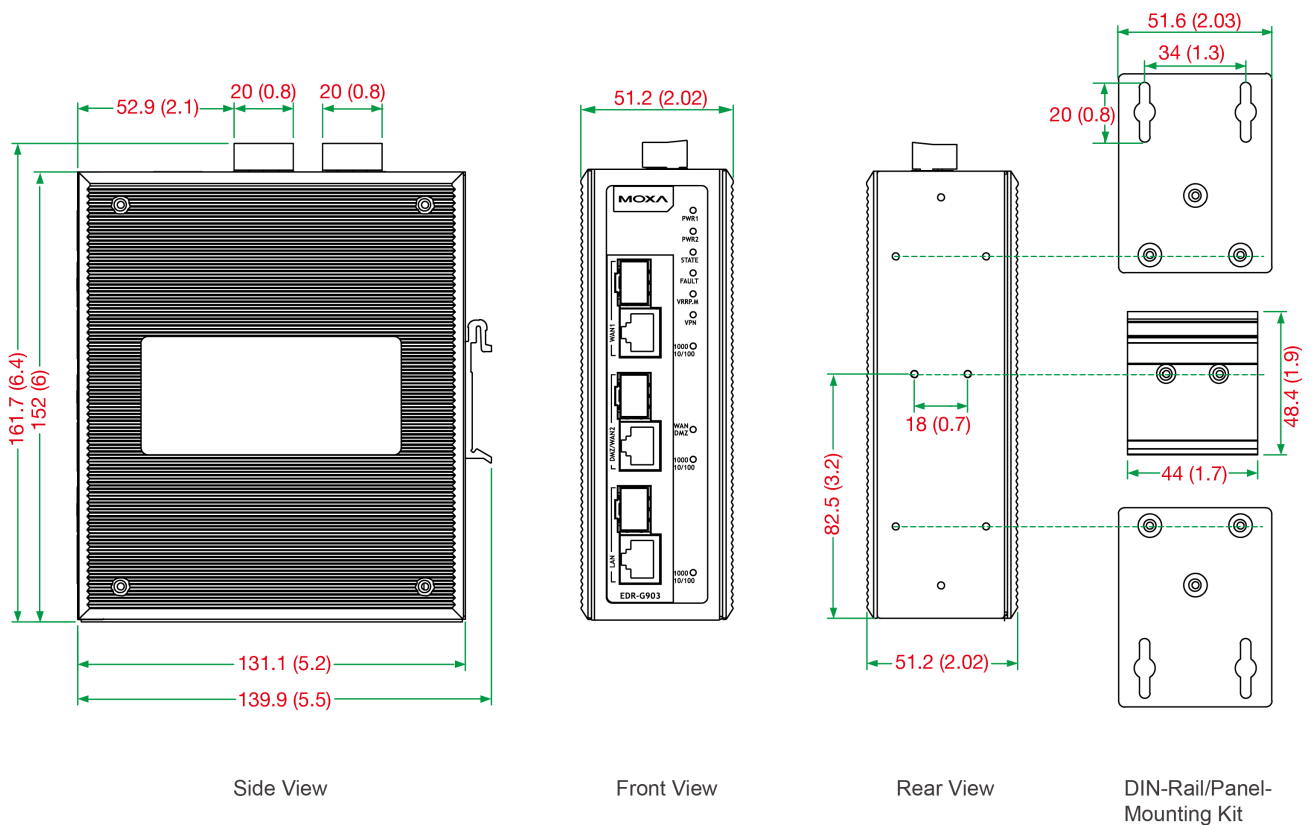
Standards and Certifications

| | |
|----------|--|
| Freefall | IEC 60068-2-32 |
| 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 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF |
| Safety | UL 508 |
| Shock | IEC 60068-2-27 |

| | |
|-------------------------|---|
| Vibration | IEC 60068-2-6 |
| Power Substation | IEC 61850-3 |
| MTBF | |
| Time | 903,311 hrs |
| Standards | Telcordia (Bellcore), GB |
| Warranty | |
| Warranty Period | 5 years |
| Details | See www.moxa.com/tw/warranty |
| Package Contents | |
| Device | 1 x EDR-G903 Series secure router |
| Cable | 1 x RJ45-to-DB9 console cable |
| Documentation | 1 x document and software CD 1 x quick installation guide 1 x warranty card |
| Note | SFP modules need to be purchased separately for use with this product. |

尺寸

單位：公釐 (英吋)



訂購資訊

| Model Name | 10/100/1000BaseT(X) RJ45 Connector, 100/1000Base SFP Slot Combo WAN Port | 10/100/1000BaseT(X) RJ45 Connector, 100/ 1000Base SFP Slot Combo WAN/DMZ Port | Firewall/NAT/VPN | Operating Temp. |
|------------|---|--|------------------|-----------------|
| EDR-G903 | 1 | 1 | P | 0 to 60°C |
| EDR-G903-T | 1 | 1 | P | -40 to 75°C |

配件 (選購)

Storage Kits

| | |
|--------|--|
| ABC-01 | Configuration backup and restoration tool for managed Ethernet switches and AWK Series wireless APs/bridges/clients, 0 to 60°C operating temperature |
|--------|--|

SFP Modules

| | |
|-----------------|--|
| SFP-1FELLC-T | SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature |
| 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-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-1GEZXLC | SFP module with 1 1000BaseEZ port with LC connector for 110 km transmission, 0 to 60°C operating temperature |
| SFP-1GEZXLC-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-1GLHXL | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature |

| | |
|---------------|---|
| SFP-1GLHXLC-T | SFP module with 1 1000BaseLHX port with LC connector for 40 km 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-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-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 |

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 |

Wall-Mounting Kits

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|----------|---|
| WK-51-01 | Wall mounting kit with 2 plates (51.6 x 67 x 2 mm) and 6 screws |
|----------|---|

Rack-Mounting Kits

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

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|-------------------|--|
| MXview-50 | Industrial network management software with a license for 50 nodes (by IP address) |
| MXview-100 | Industrial network management software with a license for 100 nodes (by IP address) |
| MXview-250 | Industrial network management software with a license for 250 nodes (by IP address) |
| MXview-500 | Industrial network management software with a license for 500 nodes (by IP address) |
| MXview-1000 | Industrial network management software with a license for 1000 nodes (by IP address) |
| MXview-2000 | Industrial network management software with a license for 2000 nodes (by IP address) |
| MXview Upgrade-50 | License expansion of MXview industrial network management software by 50 nodes (by IP address) |

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