

EDR-G902 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 WAN 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-G902 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，包括泵站、DCS、石油鑽井平台上的 PLC 系統和水處理系統。EDR-G902 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-G902 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

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	1
Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+)	1
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
LAN Ports, RJ45 port	1

Ethernet Software Features

Management	Back Pressure Flow Control, DDNS, DHCP Server/Client, HTTP, LLDP, QoS/CoS/ToS, SMTP, SNMPv1/v2c/v3, Telnet, TFTP, QoS, PPPOE, Traffic prioritization
Routing	Throughput: 25,000 packets per second (max. 300 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

Max. No. of VLANs	10
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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
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Firewall

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. 25000 packets per second (max. 300 Mbps)

IPsec VPN

Authentication	MD5 and SHA (SHA-256) RSA (key size: 1024-bit, 2048-bit) X.509 v3 certificate
Concurrent VPN Tunnels	Max. 50 IPsec VPN tunnels
Encryption	3DES, AES-128, AES-192, AES-256, DES
Protocols	IPsec, L2TP (server), PPTP (client)
Throughput	Max. 60 Mbps (Conditions: AES-256, SHA-256)

NAT

Features	1-to-1, bidirectional 1-to-1, N-to-1, Port forwarding
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OpenVPN

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)

Real-Time Firewall / VPN Event Log

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

Serial Interface

Console Port	RS-232
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Power Parameters

Connection	Removable terminal block
Input Voltage	12/24/48 VDC
Inrush Current (Max.)	0.45 A @ 24 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	51 x 152 x 131.1 mm (2.01 x 5.98 x 5.16 in)
Weight	1250 g (2.82 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

Environmental Limits

Operating Temperature	EDR-G902: 0 to 60°C (32 to 140°F) EDR-G902-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
Maritime	DNV-GL
Safety	UL 508
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

MTBF

Time	981,233 hrs
Standards	Telcordia (Bellcore), GB

Warranty

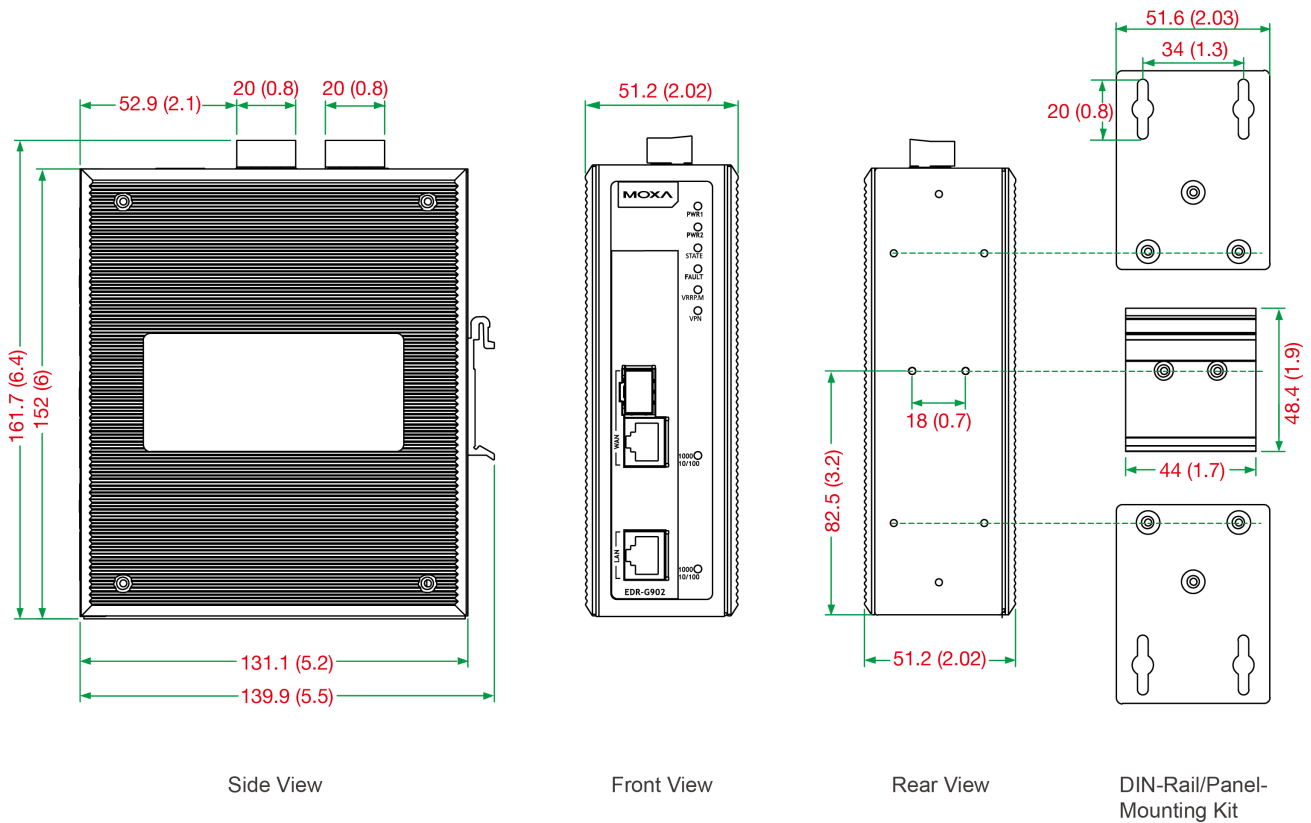
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDR-G902 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

Unit: mm (inch)



訂購資訊

Model Name	10/100/1000BaseT(X) RJ45 Connector, 100/1000Base SFP Slot Combo WAN Port	Firewall/NAT/VPN	Operating Temp.
EDR-G902	1	P	0 to 60°C
EDR-G902-T	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
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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 with LC connector for 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 1000BaseEZX port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXLC-120	SFP module with 1 1000BaseEZX 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-1GLHXLC	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 500 m transmission, 0 to 60°C operating temperature
SFP-1GLSXLC-T	SFP module with 1 1000BaseLSX port with LC connector for 500 m 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 300/550 m transmission, 0 to 60°C operating temperature
SFP-1GSXLC-T	SFP module with 1 1000BaseSX port with LC connector for 300/550 m 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

WK-51-01	Wall-mounting kit, 2 plates, 6 screws, 51.6 x 67 x 2 mm
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Rack-Mounting Kits

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

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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