

EDR-G902シリーズ

ファイアウォール/NAT/VPNを備えた産業用セキュアルータ



機能とメリット

- ファイアウォール/NAT/VPN/ルータオールインワン
- VPNによる安全なリモートアクセストンネル
- ステートフルファイアウォールによる重要な資産の保護
- PacketGuard技術による産業プロトコルの検査
- ネットワークアドレス変換(NAT)を使用した簡単なネットワーク設定
- パブリックネットワークを介したデュアルWAN冗長インターフェース
- 異なるインターフェースのVLANのサポート
- -40~75°Cの動作温度範囲 (-Tモデル)
- IEC 62443/NERC CIPに基づくセキュリティ機能

認証



製品紹介

EDR-G902は、ファイアウォール/NATオールインワンセキュアルータを備えた高性能な産業用VPNサーバーです。これは、重要な遠隔制御または監視ネットワーク上のイーサネットベースのセキュリティアプリケーション用に設計されており、ポンプステーション、DCS、石油リグ上のPLCシステム、および水処理システムを含む重要なサイバー資産の保護のための電子セキュリティ周辺機器を提供します。EDR-G902シリーズには、以下のサイバーセキュリティ機能が搭載されています。

- 仮想プライベートネットワーク (VPN) : VPNは、パブリックインターネットからプライベートネットワークにアクセスするときに、ユーザーに安全な通信リンクを提供するように設計されています。ネットワーク層ですべてのIPパケットの暗号化と認証にIPsec (IPセキュリティ) サーバーまたはクライアントモードを使用して、機密性と送信者認証を確保します。
- ファイアウォール : 異なる信頼ゾーン間のネットワークトラフィックを制御します。ネットワークアドレス変換 (NAT) 。外部ホストからの不正なアクティビティから内部LANを保護します。

EDR-G902の「クイックオートメーションプロファイル」機能は、EtherCAT、EtherNet/IP、FOUNDATION Fieldbus、Modbus TCP、およびPROFINETを含む、最も一般的なフィールドバスプロトコルをサポートします。ユーザーは、シングルクリックによる使い勝手のよいWeb UIから容易にセキュアなイーサネットフィールドネットワークを作成することができます。さらに、MoxaのPacketGuard技術(Dep Packet Inspection)は、OSIレイヤ7でModbus TCPコマンドをフィルタリングするのに役立ちます。使用可能な広温度範囲モデルは、危険な-40~75°Cの環境で確実に動作します。

仕様

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
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	
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

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

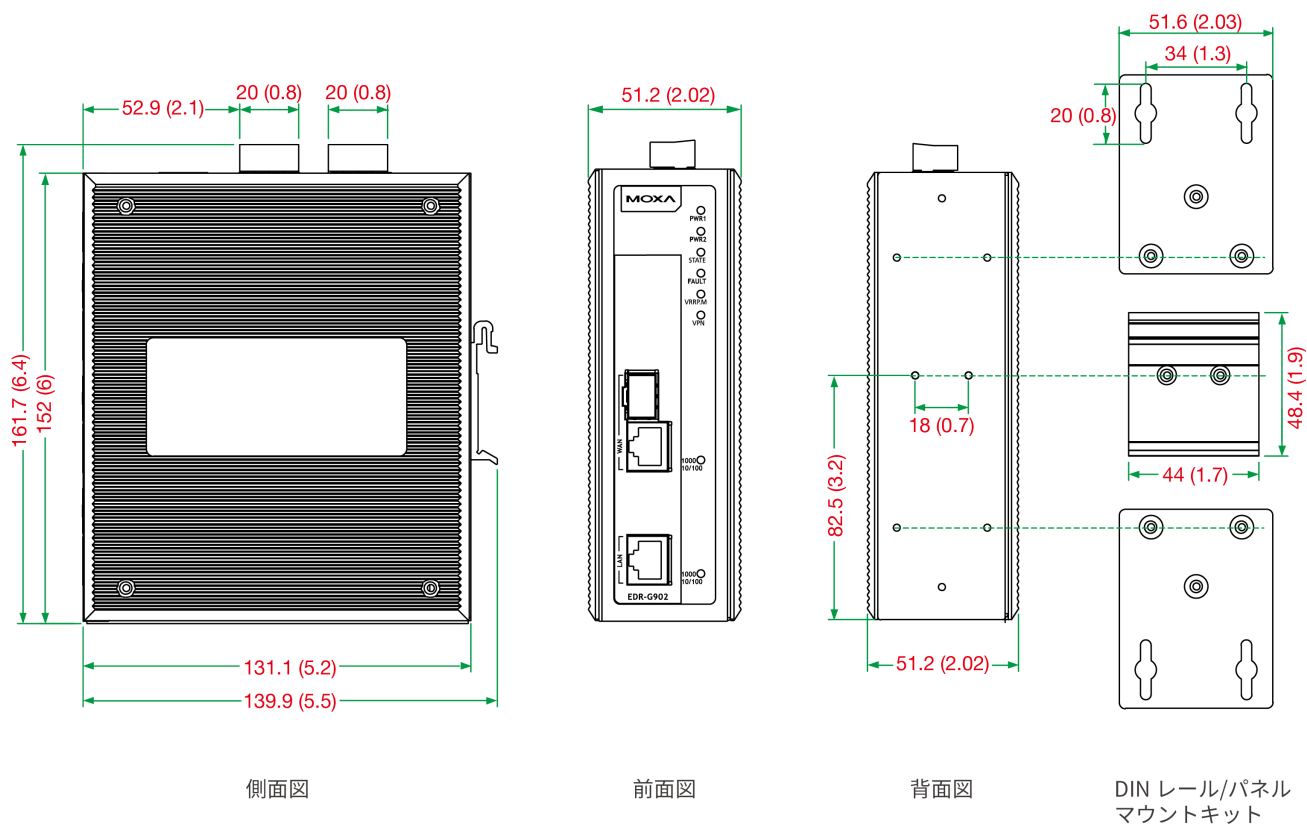
Warranty Period	5 years
Details	See www.moxa.com/jp/warranty

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.

寸法

単位：mm（インチ）



注文情報

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

アクセサリ（別売）

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-1GEZXC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXC-120	SFP module with 1 1000BaseEZXC 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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