

EDR-810 系列

具備交換器/防火牆/NAT/VPN 的 8+2G 多埠工業安全路由器



特色與優點

- 8+2G 多功能防火牆/NAT/VPN/路由器/交換器
- 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
- RSTP/Turbo Ring 備援通訊協定可增強網路備援
- -40 至 75°C 操作溫度範圍 (-T 型號)
- 基於 IEC 62443/NERC CIP 的安全功能
- 使用智慧 SettingCheck 功能檢查防火牆設定

認證



EN 50121-4



簡介

EDR-810 是高度整合工業多埠安全路由器，具備防火牆/NAT/VPN 和網管型 Layer 2 交換器功能。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，包括水站中的泵送處理系統、石油和天然氣應用中的 DCS 系統、和工廠自動化中的 PLC/SCADA 系統。EDR-810 系列包括下列網路安全功能：

- 防火牆/NAT：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。
- 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。

EDR-810 的「WAN 路由快速設定」為使用者提供簡易設定 WAN 和 LAN 的方式，只需要四個步驟即可建立路由功能。此外，EDR-810 的「快速自動化配置檔」 (Quick Automation Profile) 功能，讓工程人員能透過最常見的自動化協定配置防火牆的過濾功能，包括 EtherNet/IP、Modbus TCP、EtherCAT、FOUNDATION Fieldbus 和 PROFINET。使用者可以利用介面友善的網頁式 Ui，輕鬆點擊滑鼠就能創建一個安全的乙太網路，且 EDR-810 還可支援深層 Modbus TCP 檢測。此外，另有 -40 至 75°C 寬溫型號可供選用，滿足的惡劣環境應用需求。

規格

Input/Output Interface

Alarm Contact Channels	Resistive load: 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

10/100BaseT(X) Ports (RJ45 connector)	8
100/1000BaseSFP Slots	2
Standards	IEEE 802.1Q for VLAN Tagging IEEE 802.3 for 10BaseT IEEE 802.3ab for 1000BaseT(X) Static Port Trunk IEEE 802.3u for 100BaseT(X) IEEE 802.3x for flow control IEEE 802.3z for 1000BaseSX/LX/LHX/ZX

Ethernet Software Features

Broadcast Forwarding	IP directed broadcast, broadcast forwarding
Management	Back Pressure Flow Control, DDNS, DHCP Server/Client, Web Console (HTTP/HTTPS), LLDP, QoS/CoS/ToS, SNMPv1/v2c/v3, Telnet, TFTP
Multicast Routing	DVMRP, PIM-SM, PIM-SSM
Redundancy Protocols	RSTP, STP, Turbo Ring v2
Routing	Throughput: 10,000 packets per second (max. 100 Mbps)
Routing Redundancy	VRRP
Security	All models: HTTPS/SSL, SSH, L2TP (server), RADIUS EDR-810-VPN-2GSFP Series: HTTPS/SSL, SSH, IPsec, OpenVPN (client and server), UDP and TCP Tunnel mode (routing) and TAP mode (bridge), L2TP (server), RADIUS, L2TP (server), RADIUS
Time Management	NTP Server/Client, SNTP
Unicast Routing	OSPF, RIPv1/V2, Static Route
Filter	IGMP v1/v2/v3

Switch Properties

VLAN ID Range	VID 1 to 4094
IGMP Groups	256
Max. No. of VLANs	16

LED Interface

LED Indicators	STATE, PWR1, PWR2, FAULT, 10/100/1000M
----------------	--

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. 10,000 packets per second (max. 100 Mbps)

IPsec VPN

Authentication	EDR-810-VPN-2GSFP Series: MD5 and SHA (SHA-256), RSA (key size: 1024-bit, 2048-bit), X.509 v3 certificate
Concurrent VPN Tunnels	EDR-810-VPN-2GSFP Series: Max. 10 IPsec VPN tunnels
Encryption	EDR-810-VPN-2GSFP Series: DES, 3DES, AES-128, AES-192, AES-256
Protocols	EDR-810-VPN-2GSFP Series: IPsec, L2TP (server), PPTP (client)
Throughput	EDR-810-VPN-2GSFP Series: Max. 17 Mbps (Conditions: AES-256, SHA-256)

NAT

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

OpenVPN

Authentication	EDR-810-VPN-2GSFP Series: User password by MD5 and SHA1
Concurrent VPN Tunnels	EDR-810-VPN-2GSFP Series: Client Mode: max. 2 external servers Server Mode: max. 5 external clients
Encryption	EDR-810-VPN-2GSFP Series: AES-128/192/256 CBC, Blowfish CBC, DES CBC, DES-EDE3 CBC
Protocols	EDR-810-VPN-2GSFP Series: OpenVPN (client and server), UDP, and TCP Tunnel mode (routing) and TAP mode (bridge)
Throughput	EDR-810-VPN-2GSFP Series: Max. 5 Mbps

Real-Time Firewall / VPN Event Log

Event Type	All models: Firewall event EDR-810-VPN-2GSFP Series: VPN event
Media	Local storage, SNMP Trap, Syslog server

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 3-pin (115200, n, 8, 1)
--------------	---

Power Parameters

Connection	Removable terminal block
Input Voltage	12 to 48 VDC
Input Current	0.706 A @ 12 VDC, 0.353 A @ 24 VDC, 0.187 A @ 48 VDC
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
Dimensions	53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Weight	830 g (2.10 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

Environmental Limits

Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -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 508
EMC	EN 55032/24
Hazardous Locations	UL/cUL Class I Division 2 Groups A/B/C/D
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: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Railway	EN 50121-4
Traffic Control	NEMA TS2
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

MTBF

Time	981,954 hrs
Standards	Telcordia (Bellcore), GB

Warranty

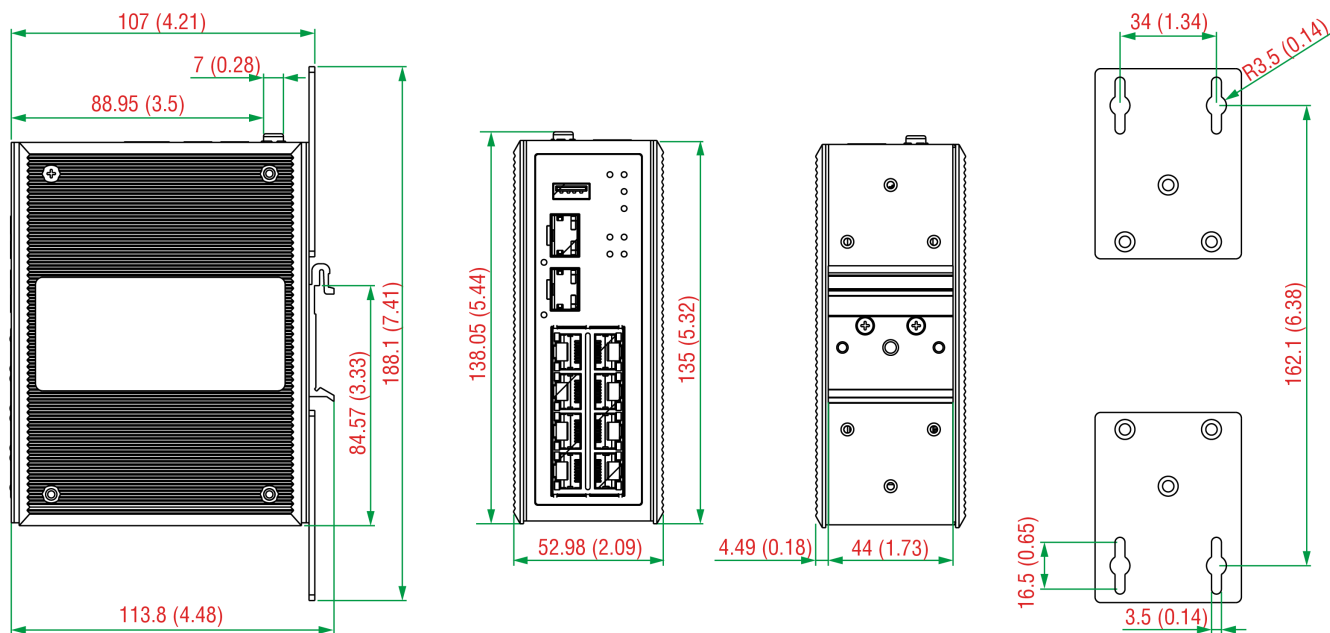
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDR-810 Series secure router
Cable	1 x DB9 female to RJ45 10-pin
Installation Kit	4 x cap, plastic, for RJ45 port 2 x cap, plastic, for SFP slot
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)



Side View

Front View

Rear View/
DIN-Rail Kit

Panel-Mounting Kit

訂購資訊

Model Name	10/100BaseT(X) Ports RJ45 Connector	100/1000Base SFP Slots	Firewall	NAT	VPN	Operating Temp.
EDR-810-2GSFP	8	2	P	P	–	-10 to 60°C
EDR-810-2GSFP-T	8	2	P	P	–	-40 to 75°C
EDR-810-VPN-2GSFP	8	2	P	P	P	-10 to 60°C
EDR-810-VPN-2GSFP-T	8	2	P	P	P	-40 to 75°C

配件 (選購)

Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
ABC-02-USB-T	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°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 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-1GLHXL	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLHXL-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GLSXL	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, 0 to 60°C operating temperature
SFP-1GLSXL-T	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, -40 to 85°C operating temperature
SFP-1GLXL	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GLXL-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXL	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, 0 to 60°C operating temperature
SFP-1GSXL-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
SFP-1GTXRJ45-T	SFP module with 1 1000BaseT port with RJ45 connector for 100 m transmission, -40 to 75°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
----------	---

Rack-Mounting Kits

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

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)

© Moxa Inc. 版權所有.2020 年 3 月 26 日更新。

未經 Moxa Inc. 明確書面許可，不得以任何方式複製或使用本文件及其任何部分。產品規格如有變更，恕不另行通知。請至本公司官網了解最新的產品資訊。