

IEX-408E 系列

工業網管型 6 FE + 2 VDSL2 以太網路延伸器交換器



特色與優點

- VDSL2 高速長距離銅質連接；透過雙絞銅線傳輸可高達 300公尺 (100 Mbps) 以及高達 3 公里 (1 Mbps)
- 自動 CO/CPE 協商可減少配置時間
- 快速以太網路和 VDSL2 連接埠上的 Turbo Ring 和 Turbo Chain 可提供快速恢復
- VDSL2 連接埠的可控制旁路模式能夠在菊鏈拓撲中提供更高可用性
- 利用 VDSL2 連接埠的 2 pin 或是 RJ11/45 接頭完成彈性部署
- 透過網頁瀏覽器、Telnet/串列主控台、Windows 公用程式、ABC-02 和 Mxview 輕鬆管理網路

認證



EN 50121-4



簡介

IEX-408E-2VDSL2 是一款工業網管型以太網路延伸器交換器，用於透過銅製雙絞線建立長距離以太網路傳輸。IEX-408E-2VDSL2 裝置可輕易地串聯以形成長距離的多點配置，每個放置點有一台 IEX-408E-2VDSL2 裝置。理論上而言，使用 VDSL2 連線時，相鄰放置點最遠可相隔 3 公里，並達成 1 Mbps 的傳輸速度（連線距離為 300 公尺時，理論上可達成 100 Mbps 的傳輸速度）。每個 IEX-408E-2VDSL2 裝置可提供六個 10/100BaseT(X) 和兩個 DSL 連接埠，為使用者提供絕佳的彈性，能夠將相隔很遠的各種不同裝置連接在一起。

以太網路備援由 Turbo Ring、Turbo Chain、RSTP/STP 和 MSTP 提供，DSL 連接埠上可控制的旁路解決方案能夠增加系統可靠性與網路可用性。IEX-408E-2VDSL2 系列也支援進階管理和安全功能。由於能夠使用現有的銅製雙絞線部署新的網路線安裝，不僅能夠減少成本，並且能夠延伸銅製纜線網路範圍，超越以太網路通訊協定所規定的距離限制，堪稱是完美的解決方案。

寬操作溫度範圍（-40 到 75°C）以及雙電源輸入使其非常適合工業應用方面的部署，例如 ITS、軌道沿線、石油與天然氣、採礦、工廠自動化以及流程自動化應用。此外，其包括 DIN 導軌的輕巧設計使其非常適合安裝於例如櫥櫃等有空間限制的地方。

為簡化配置，IEX-408E-2VDSL2 使用 CO/CPE 自動協商（原廠預設設定）。裝置會自動將 CPE 狀態指派給每對 IEX 裝置中的其中一個。此外，可以透過 NMS 執行進階管理和監控功能，包括可藉由啟用快速故障排除以改善使用者經驗的虛擬面板。

規格

Input/Output Interface

Alarm Contact Channels	Resistive load: 1 A @ 24 VDC
Digital Inputs	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA
Buttons	Reset button

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	6 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
Combo Port, RJ-11 (RJ45 connector) or Detachable 2-Contact Terminal Block	2
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.1X for authentication IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service IEEE 802.3x for flow control IEEE 802.3ad for Port Trunk with LACP ITU G.993.2 for very high speed digital subscriber line transceivers 2

Ethernet Software Features

Filter	802.1Q VLAN, Port-based VLAN, IGMP v1/v2, GVRP, GMRP
Industrial Protocols	EtherNet/IP, Modbus TCP, PROFINET
Management	SNMPv1/v2c/v3, LLDP, Syslog, RMON, DHCP Server/Client, DHCP Option 66/67/82, Back Pressure Flow Control, BOOTP, Flow control, RARP, SMTP, SNMP Inform, Telnet, TFTP
MIB	MIB-II, Bridge MIB, Ethernet-like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, RMON MIB Groups 1, 2, 3, 9, RSTP MIB
Redundancy Protocols	STP, MSTP, RSTP, Link Aggregation, Turbo Chain, Turbo Ring v1/v2
Security	HTTPS/SSL, RADIUS, TACACS+, Port Lock, SSH, Broadcast storm protection, Sticky MAC, NTP authentication
Time Management	NTP Server/Client, SNTP

Switch Properties

IGMP Groups	256
MAC Table Size	16 K
Max. No. of VLANs	64
Packet Buffer Size	1 Mbits 1.5 Mbits for Fast Ethernet 8 kilobits for DSL
Priority Queues	4
VLAN ID Range	VID 1 to 4094

USB Interface

Storage Port	USB Type A
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LED Interface

LED Indicators	PWR1, PWR2, FAULT, STATE LINK/ACT, CO/CPE, 10/100 (Fast Ethernet port) MSTR/HEAD, CPLR/TAIL, DSL BYPASS
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Serial Interface

Console Port	USB-serial console (Type B connector)
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DIP Switch Configuration

Ethernet Interface	Turbo Ring, Master, Coupler, Reserve
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Power Parameters

Connection	IEX-408E-2VDSL2-HV Series: 1 removable 4-contact and 1 removable 5-contact terminal blocks IEX-408E-2VDSL2-LV Series: 2 removable 4-contact terminal blocks
Input Voltage	IEX-408E-2VDSL2-HV Series: 110/220 VDC/VAC (redundant dual inputs) IEX-408E-2VDSL2-LV Series: 12/24/48 VDC
Input Current	IEX-408E-2VDSL2-LV Series: 1 A @ 12 VDC, 0.48 A @ 24 VDC, 0.26 A @ 48 VDC IEX-408E-2VDSL2-HV Series: 0.097/0.05 A @ 110/220 VDC, 0.23/0.149 A @ 110/220 VAC
Operating Voltage	IEX-408E-2VDSL2-LV Series: 9.6 to 60 VDC IEX-408E-2VDSL2-HV Series: 88 to 300 VDC, 85 to 264 VAC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	74 x 111 x 135 mm (2.91 x 4.37 x 5.32 in)
Weight	IEX-408E-2VDSL2-HV Series: 1260 g (2.78 lb) IEX-408E-2VDSL2-LV Series: 1230 g (2.71 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

Environmental Limits

Altitude	2000 m
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)
Shock	IEC 60068-2-27

Standards and Certifications

Safety	UL 61010-2-201, EN 60950-1 (LVD)
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 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: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Power Substation	IEC 61850-3, IEEE 1613
Traffic Control	NEMA TS2
Railway	EN 50121-4
Freefall	IEC 60068-2-31

Vibration	IEC 60068-2-6
Environmental Testing	IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-14
Hazardous Locations	IEX-408E-2VDSL2-LV: ATEX, IEX-408E-2VDSL2-LV-T: ATEX, IEX-408E-2VDSL2-LV: IECEX, IEX-408E-2VDSL2-LV-T: IECEX

MTBF

Time	782,910 hrs
Standards	Telcordia (Bellcore), GB

Warranty

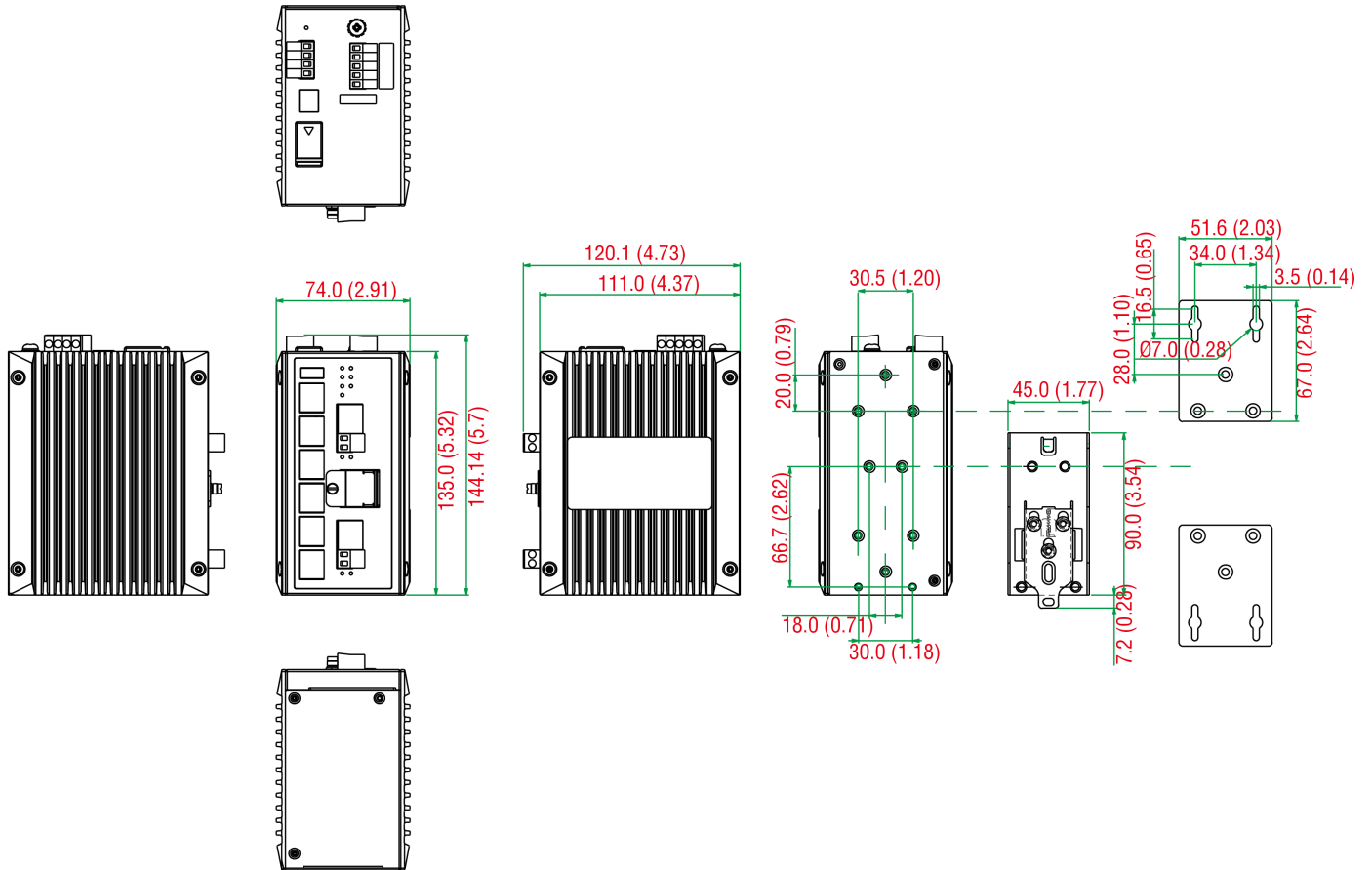
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x IEX-408E Series switch
Cable	1 x USB type A male to USB type B male
Installation Kit	4 x cap, plastic, for RJ45 port
Documentation	1 x document and software CD 1 x quick installation guide 1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x warranty card

尺寸

單位：公釐 (英吋)



訂購資訊

Model Name	ITU G.993.2 for very high speed digital subscriber line transceivers	10/100BaseT(X) Ports RJ45 Connector	Combo Port, RJ-11 (RJ45 connector) or detachable 2-contact terminal	Input Voltage	Operating Temp.
IEX-408E-2VDSL2-LV	P	6	2	12/24/48 VDC	-10 to 60°C
IEX-408E-2VDSL2-LV-T	P	6	2	12/24/48 VDC	-40 to 75°C
IEX-408E-2VDSL2-HV	P	6	2	110/220 VDC/VAC	-10 to 60°C
IEX-408E-2VDSL2-HV-T	P	6	2	110/220 VDC/VAC	-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

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
DR-120-48	120W/2.5A DIN-rail 48 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-75-48	75W/1.6A DIN-rail 48 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
DRP-240-48	DIN-rail 48 VDC power supply with 240W/5A, 85 to 264 VAC, or 120 to 370 VDC input, -10 to 70°C operating temperature
SDR-480P-48	DIN-rail 48 VDC power supply with 480W/10A, 90 to 264 VAC, or 127 to 370 VDC input, (current sharing up to 3840 W), -25 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
WK-30	Wall-mounting kit, 2 plates, 4 screws, 40 x 30 x 1 mm

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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