

DA-820C 系列

第 7 代 Intel® Xeon® 和 Core™ 處理器、IEC-61850、3U 機架式電腦支援 PRP/HSR 擴充卡



特色與優點

- 符合 IEC 61850-3、IEEE 1613 及 IEC 60255 標準，適用於變電站自動化系統
- 符合 EN 50121-4 標準，適合鐵路軌旁應用
- 第 7 代 Intel® Xeon® 和 Core™ 處理器
- 2 個內建 SODIMM ECC DDR4 記憶體插槽；總容量最高可達 64 GB
- 4 個固態硬碟插槽，支援 Intel® RST RAID 0/1/5/10
- 可靠度高的設計，支援雙電源與 PRP/HSR 技術（搭配 PRP/HSR 擴充模組）
- 1 個 PCIe x 16 插槽、1 個 PCIe x 4 插槽、2 個 PCIe x 1 插槽
- 電源備援系統（100 至 240 VAC/VDC）

認證



EN 50121-4



簡介

DA-820C 系列是以第 7 代 Intel® Core™ i3、i5、i7 或 Intel® Xeon® 處理器打造的高效能的 3U 機架式工業電腦。電腦含 3 個顯示器連接埠（HDMI x 2、VGA x 1）、6 個 USB 連接埠、4 個 gigabit 區域網路連接埠、2 個 RS-232/422/485 三合一的序列埠、6 個 DI 連接埠，以及 2 個 DO 連接埠。DA-820C 還配備 4 個可熱插拔的 2.5 吋傳統 / 固態硬碟插槽，並支援 Intel® RST RAID 0/1/5/10 功能。

DA-820C 符合 IEC-61850-3 及 IEEE 1613 標準，可提供穩定可靠的系統運作，適用於電力應用。同時符合 IEC 60255 標準，可全面保護智慧變電站的電子繼電器。IEC 60255 是測試繼電器和防護設備最廣泛使用的標準之一，符合該標準即代表 DA-820C 與 IED（智慧型電子裝置）能夠在堅固的變電站自動化系統中可靠且順利地運作。

此外，DA-820C 符合 EN 50121-4 標準，因此能夠在鐵軌軌旁應用提供穩定可靠的系統運作，例如車站監控和資料採集（SCADA）系統、鐵軌軌旁災難預防、牽引動力、號誌和安全系統，讓您完整掌握智慧型鐵道配置。

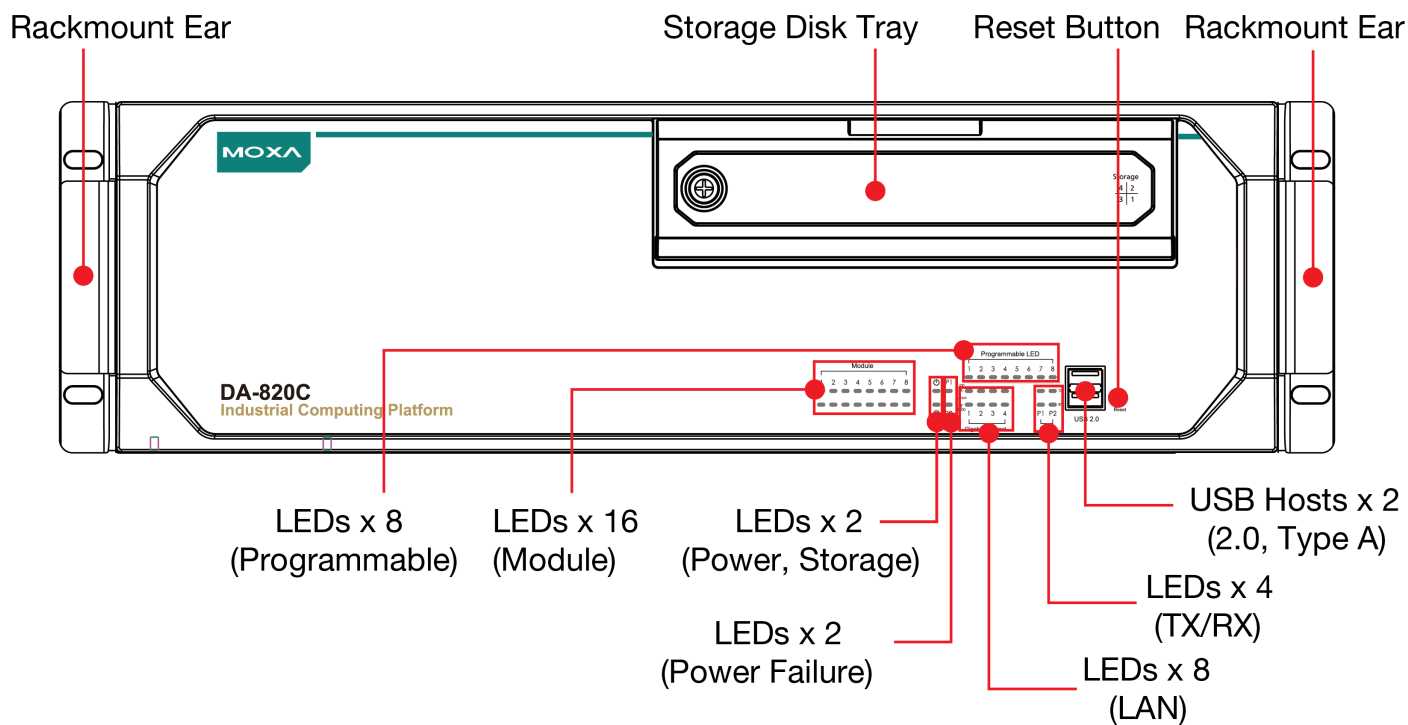
堅固耐用的機架式設計 可提供嚴密的保護，以因應各種工業環境應用的要求。

預防性監測功能

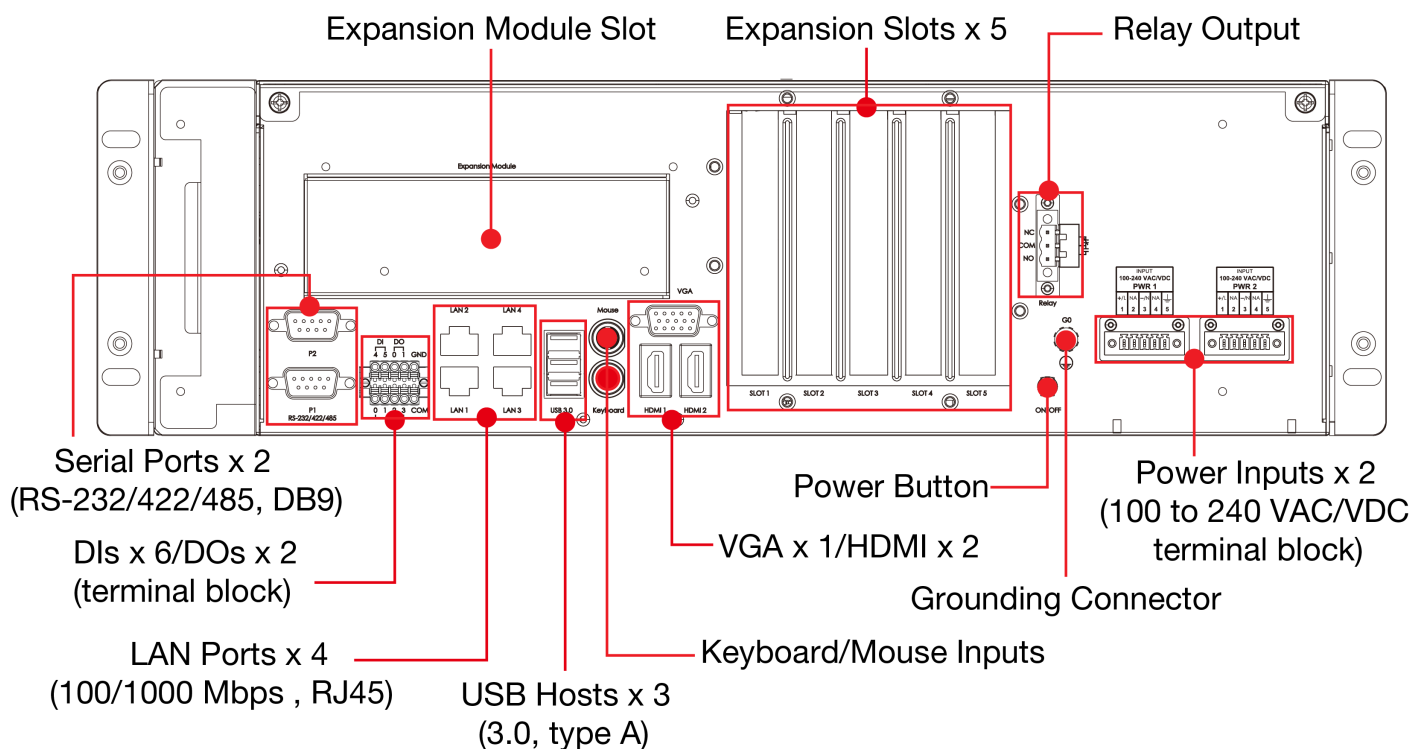
Moxa 預防性監測，是佔用極少資源且容易使用的程式，可讓使用者追蹤許多系統參數。使用者只需在使用者介面中點選參數對應的圖示，即可檢視這些關鍵元件目前的參數值。使用者定義的關鍵元件指標 (KPI) 用來監視電腦的關鍵元件。當這些 KPI 超出預設臨界值時，系統會透過繼電器或 SNMP 收集器自動觸發視覺和/或音訊警示，方便操作人員在設定預防性維護任務時，能避免系統停機的風險。

外觀

前視圖



後視圖



規格

Computer

CPU	Intel® Xeon® Processor E3-1505M v6 (8M Cache, 3.00 GHz) Intel® Xeon® Processor E3-1505L v6 (8M Cache, 2.20 GHz) Intel® Core™ i7-7820EQ Processor (8M Cache, up to 3.70 GHz) Intel® Core™ i5-7442EQ Processor (6M Cache, up to 2.90 GHz) Intel® Core™ i3-7102E Processor (3M Cache, 2.10 GHz)
System Memory Slot	SODIMM DDR4 slot x 2
DRAM	64 GB max. capacity (SODIMM x 2, each supporting 2400 MHz and 32 GB maximum per module) ECC RAM only supports i3 CPU and Xeon CPU models
Graphics Controller	Intel® Xeon® E3-1505MV6: Intel® HD Graphics P630 Intel® Xeon® E3-1505LV6: Intel® HD Graphics P630 Intel® Core™ i7-7820EQ: Intel® HD Graphics 630 Intel® Core™ i5-7442EQ: Intel® HD Graphics 630 Intel® Core™ i3-7102E: Intel® HD Graphics 630
Storage Slot	2.5-inch HDD/SSD slots x 4 mSATA slots x 1, internal mini-PCIe socket
Supported OS	Windows 10 Pro 64-bit Windows 10 Embedded IoT Ent 2019 LTSC 64-bit Linux Debian 9 Note: OS available by CTOS
Supported Driver	Windows Server 2019 Windows Server 2016

Computer Interface

Video Output	HDMI x 2, HDMI connector (type A) VGA x 1, 15-pin D-sub connector (female)
Serial Ports	RS-232/422/485 ports x 2, software selectable (DB9 male)
USB 2.0	USB 2.0 hosts x 3, type-A connectors 2 ports on the front panel, 1 port inside the computer
USB 3.0	USB 3.0 hosts x 3, type-A connectors 3 ports on the rear panel
Expansion Slots	PCIe x16 slot x 1 PCIe x4 slots x 1 PCIe x1 slots x 2 PCI slots x 1
Ethernet Ports	Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 4
TPM	TPM v2.0
Digital Input	DIs x 6
Digital Output	DOs x 2

LED Indicators

System	Power x 1 Storage x 1 Programmable x 8
Serial	2 per port (Tx, Rx)
LAN	8 per port (10/100/1000 Mbps)

Serial Interface

Baudrate	300 bps to 115.2 kbps
Connector	DB9 male
ESD	8 kV (level 4)
Isolation	2 kV
Serial Standards	RS-232/422/485
Surge	2 kV

Serial Signals

RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

Digital Inputs

Digital Input Channels	DIs x 6
Voltage	0 to 30 VDC at 25 Hz
Wet Contact (DI to COM)	On: 10 to 30 VDC

Digital Outputs

Digital Output Channels	DOs x 2
Current Rating	Max. 200 mA per channel
Voltage	24 to 30 VDC
I/O Type	Sink

Power Parameters

Power Button	Reset button (front panel) ON/OFF (rear panel)
Power Consumption	100 W (max.)

Physical Characteristics

Housing	Metal
Dimensions (without ears)	440 x 132.8 x 281.4 mm (17.3 x 5.2 x 11.1 in)
Weight	14,000 g (31.11 lb)
Installation	19-inch rack mounting

Environmental Limits

Operating Temperature	Standard Models: -25 to 55°C (-13 to 131°F) Wide Temp. Models: -40 to 70°C (-40 to 158°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

EMC	EN 61000-6-2/-6-4, EN 55032/35
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: 20 A/m IEC 61000-4-11
Power Substation	IEC 61850-3, IEEE 1613
Protection Relay	IEC 60255
Safety	IEC 60950-1, IEC 62368-1, UL 62368-1
Shock	IEC 61850-3 Edition 2.0, IEC 60068-2-27, IEC 60255-21-2

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	325,730 hrs
Standards	Telcordia SR332

Warranty

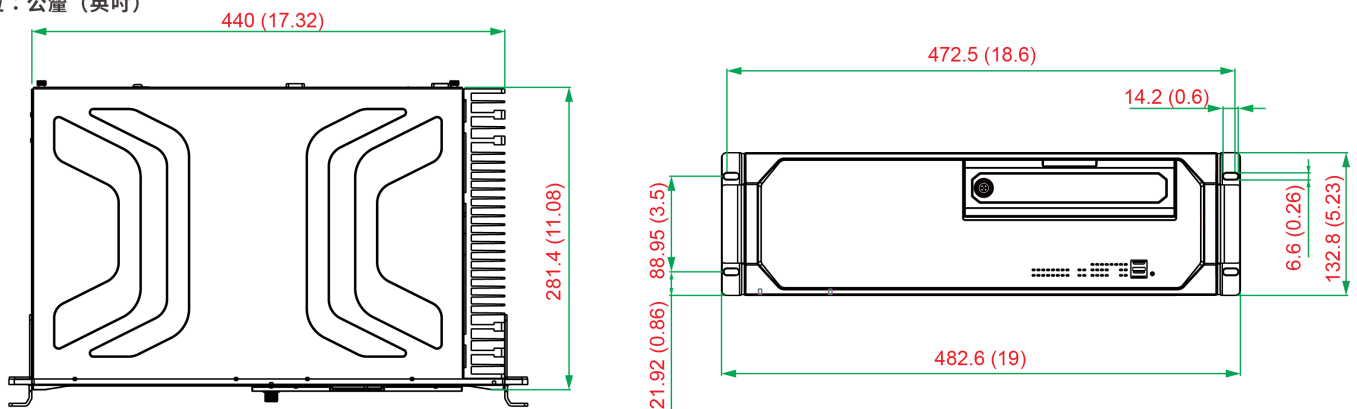
Warranty Period	3 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x DA-820C Series computer
Installation Kit	1 x rack-mounting ear
Documentation	1 x quick installation guide 1 x warranty card
Note	This product requires additional modules (sold separately) to function.

尺寸

單位：公釐（英吋）



訂購資訊

Model Name	CPU	Power Input 100-240 VAC/VDC	Operating Temp.
DA-820C-KL3-H-T	i3-7102E	Single Power	-40 to 70°C
DA-820C-KL3-HH-T	i3-7102E	Dual Power	-40 to 70°C
DA-820C-KL5-H-T	i5-7442EQ	Single Power	-40 to 70°C
DA-820C-KL5-HH-T	i5-7442EQ	Dual Power	-40 to 70°C
DA-820C-KLXL-H-T	Xeon E3-1505L v6	Single Power	-40 to 70°C
DA-820C-KLXL-HH-T	Xeon E3-1505L v6	Dual Power	-40 to 70°C
DA-820C-KL7-H	i7-7820EQ	Single Power	-25 to 55°C
DA-820C-KL7-HH	i7-7820EQ	Dual Power	-25 to 55°C
DA-820C-KLXM-H	Xeon E3-1505M v6	Single Power	-25 to 55°C
DA-820C-KLXM-HH	Xeon E3-1505M v6	Dual Power	-25 to 55°C

配件 (選購)

Expansion Modules

DA-PRP-HSR-I210	PRP/HSR expansion card with RJ45 and SFP combo port
DN-FX04	4-port 100M/1000M SFP Ethernet module
DN-LN04-RJ	4-port 10/100/1000 Mbps PCIe LAN module with RJ45 connectors
DN-SP08-I-DB	8-port software-selectable RS-232/422/485 PCIe serial module with DB9 connector
DN-SP08-I-TB	8-port software-selectable RS-232/422/485 PCIe serial module with terminal-block connector
DN-PRP-HSR-I210	PRP/HSR expansion module with RJ45 and SFP combo port
DA-IRIG-B-S-02-T	IRIG-B expansion module, PCI interface, 1 fiber IRIG-B in, 1 DB9M in/out, 1 DB9M out
DE-FX02-SFP-T	2-port 100 Mbps fiber card, SFP slot x 2, PCIe interface (SFP module excluded)

Connectors

Mini DB9F-to-TB	DB9 female to terminal block connector
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Cables

CBL-RG58AUBNCMF9-150	DB9 female to BNC male cable for the DA-IRIG-B-S-02-T and DA-IRIG-B-S-04-T, 1.5 m
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