

V2403C 系列

搭載Intel® 第 7 代 Core™/Celeron® 工業物聯網內嵌式電腦，並配備電源Ignition開/關控制、2 個無線 Mini PCIe 擴充插槽、SMA 連接器



特色與優點

- Intel® Celeron®/Intel® Core™ i3/i5/i7 高效能網路錄影機，適用於軌道沿線及車載應用
- 多介面：雙顯示 (HDMI、DP)、4 個串列埠、4 個 GbE 連接埠、4 個 DI、4 個 DO、4 個 USB 及 2 個無線 Mini PCIe 插槽
- 電源Ignition開/關延遲管理 (外部旋轉開關)
- 符合 E1 標示、ISO 7637-2 與 MIL-STD-810G 標準
- 符合 EN 50121-4 標準

認證



EN 50121-4

簡介

V2403C 系列嵌入式電腦搭載 Intel® Core™ i7/i5/i3 或 Intel® Celeron® 高效能處理器，並且配備高達 32 GB 記憶體、一個 mSATA 插槽，以及兩個 HDD/SSD 以供儲存空間擴充。電腦符合 EN 50121-4、E1 標示與 ISO-7637-2 標準，是軌道沿線與車內 (火車 除外) 應用的理想之選。

V2403C 電腦配備有各種豐富介面，包括 4 個 gigabit 乙太網路連接埠、4 個 RS-232/422/485 串列埠、4 個 DI、2 個 DO 以及 4 個 USB 3.0 連接埠。此外，它們還提供 1 個 DisplayPort 輸出與 1 個 HDMI 輸出，以及 4K 解析度。

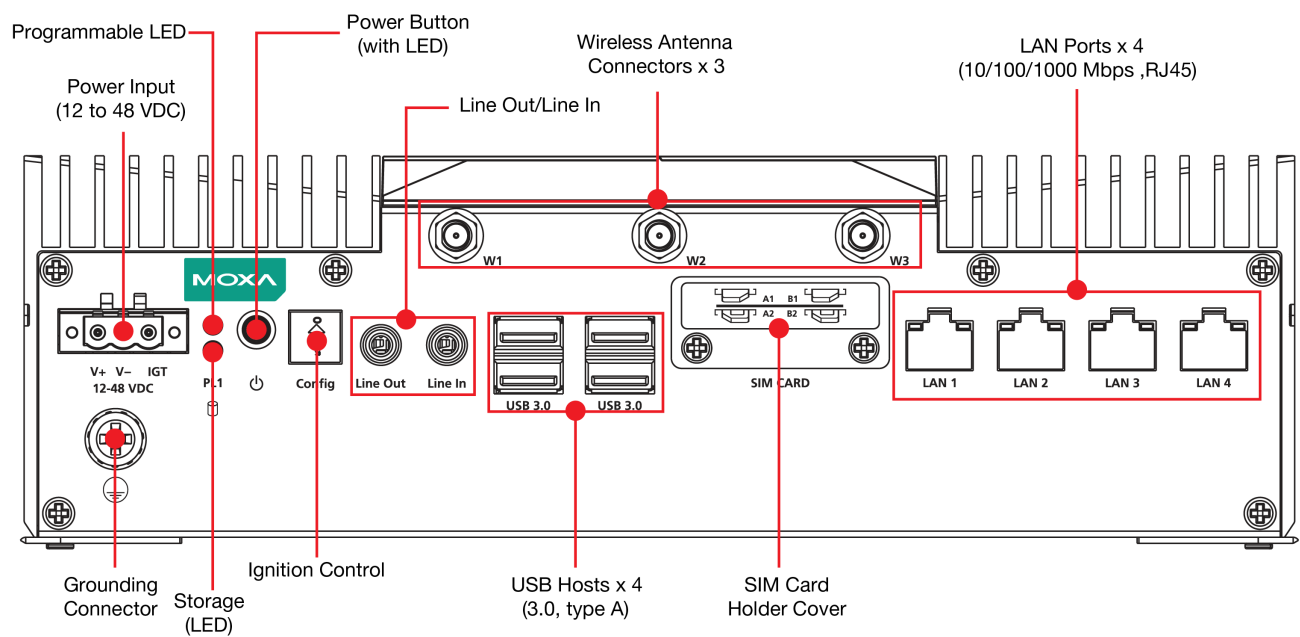
可靠的連接與良好的電源管理是車內應用的關鍵。電腦提供 2 個 mPCIe 無線擴充插槽與 4 個 SIM 卡插槽來建立備援 LTE/Wi-Fi 連線能力。在電源管理方面，開機與關機延遲機制可協助避免系統故障與損壞。

電源Ignition管理開關

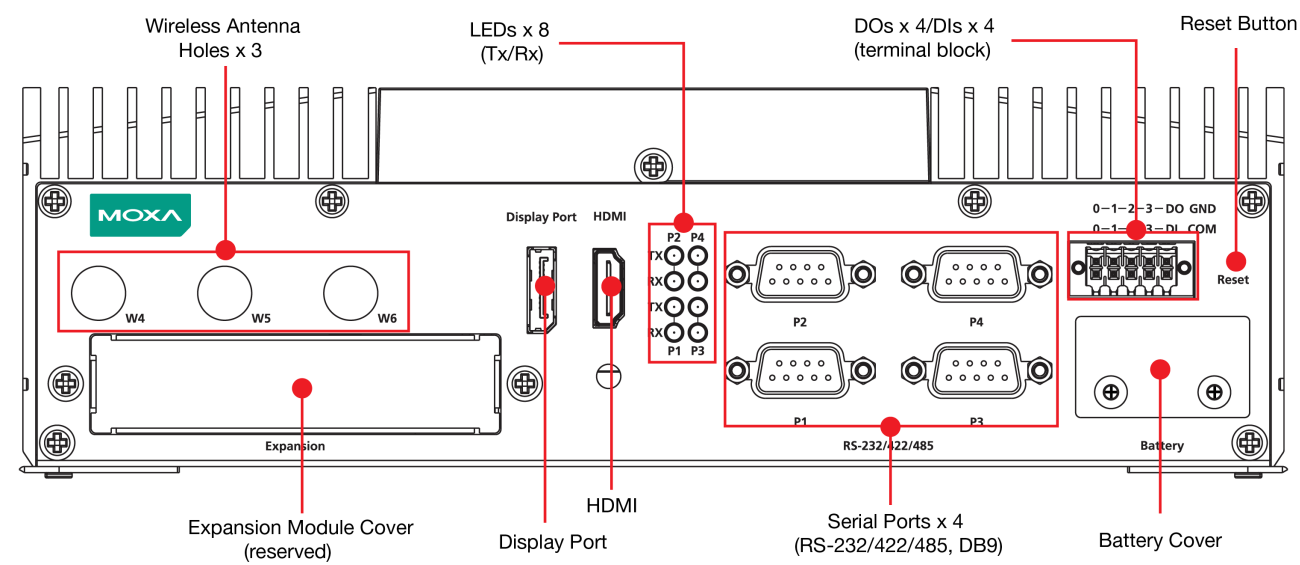
V2403C 電腦提供電源管理功能，使用前面板上的外部旋轉開關。您可以針對車內應用，使用開關來設定電腦的電源Ignition開/關延遲。此功能對於保護電腦避免高/低脈衝與波形至關重要，可延長電池壽命，並在非計畫關機之前完成資料保存。

外觀

前視圖



後視圖



規格

Computer

CPU	V2403C-KL1-T: Intel® Celeron® 3965U processor (2M Cache, 2.2 GHz) V2403C-KL3-T: Intel® Core™ i3-7100U processor (3M Cache, 2.4 GHz) V2403C-KL5-T: Intel® Core™ i5-7300U processor (3M Cache, 2.6 GHz) V2403C-KL7-T: Intel® Core™ i7-7600U processor (4M Cache, 2.8 GHz)
Storage Slot	2.5-inch HDD/SSD slots x 2 mSATA slots x 1
Supported OS	Windows 10 Embedded IoT Ent 2019 LTSC 64-bit

	Windows 10 Embedded IoT Ent 2021 LTSC 64-bit Linux Debian 9 image Linux Debian 11/Ubuntu 20.04/CentOS 7.9 drivers
System Memory Slot	SODIMM DDR4 slot x 2
DRAM	32 GB max
Graphics Controller	Celeron Model: Intel HD Graphics 610 i3/i5/i7 Models: Intel HD Graphics 620

Computer Interface

Ethernet Ports	Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 4
Serial Ports	RS-232/422/485 ports x 4, software selectable (DB9 male)
Digital Output	DOs x 4
Digital Input	DIs x 4
USB 3.0	USB 3.0 hosts x 4, type-A connectors
Audio Input/Output	Line in x 1, Line out x 1, 3.5 mm phone jack
Video Output	HDMI x 1, HDMI connector (standard) DP x 1, DisplayPort connector (standard)
Wi-Fi Antenna Connector	RP-SMA x 3
Cellular Antenna Connector	SMA x 2 (optional)
GPS Antenna Connector	SMA x 1 (optional)
Expansion Slots	mPCIe slots x 2
SIM Format	Micro
Number of SIMs	4

Digital Inputs

Connector	Screw-fastened Euroblock terminal
I/O Mode	DI
Isolation	3k VDC
Sensor Type	Wet contact (NPN or PNP) Dry contact
Dry Contact	Logic 0: Short to GND Logic 1: Open
Wet Contact (DI to COM)	Logic 0: 0 to 3 VDC Logic 1: 10 to 30 VDC

Digital Outputs

Connector	Screw-fastened Euroblock terminal
Current Rating	200 mA per channel
I/O Type	Sink

Voltage	0 to 30 VDC
Isolation	3k VDC
LED Indicators	
System	Power x 1 Storage x 1
LAN	2 per port (10/100/1000 Mbps)
Serial	2 per port (Tx, Rx)
Serial Interface	
Baudrate	50 bps to 115.2 kbps
Connector	DB9 male
ESD	Contact: 6 kV; Air: 8 kV (level 3)
Isolation	2 kV
Data Bits	5, 6, 7, 8
Flow Control	RTS/CTS, XON/XOFF, ADDC® (automatic data direction control) for RS-485, RTS Toggle (RS-232 only)
Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 1.5, 2
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
Power Parameters	
Input Voltage	12 to 48 VDC
Power Connector	Terminal block
Power Consumption (Max.)	70 W (max.)
Power Ignition Control	
Switch Type	Rotary (front panel)
Switch Settings	Setting 0: IGT function disabled Setting 1: PWR ON delay: 0.5 sec; PWR OFF delay: 30 sec Setting 2: PWR ON delay: 1 sec; PWR OFF delay: 30 sec Setting 3: PWR ON delay: 1 sec; PWR OFF delay: 60 sec Setting 4: PWR ON delay: 2 sec; PWR OFF delay: 60 sec Setting 5: PWR ON delay: 2 sec; PWR OFF delay: 90 sec Setting 6: PWR ON delay: 3 sec; PWR OFF delay: 90 sec Setting 7: PWR ON delay: 3 sec; PWR OFF delay: 150 sec Setting 8: PWR ON delay: 4 sec; PWR OFF delay: 180 sec Setting 9: PWR ON delay: 5 sec; PWR OFF delay: 180 sec
Physical Characteristics	
Housing	Aluminum
IP Rating	IP20

Dimensions (without ears)	250 x 75 x 150 mm (9.84 x 2.95 x 5.91 in)
Weight	2,500 g (5.51 lb)
Installation	Wall mounting (standard)

Environmental Limits

Operating Temperature	-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 55032/35
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: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Safety	EN 62368-1 IEC 62368-1 UL 62368-1
Railway	EN 50121-4
Shock	IEC 60068-2-27, IEC 61373, MIL-STD-810G
Vibration	IEC 60068-2-64, IEC 61373, MIL-STD-810G

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	464,506 hrs
Standards	Telcordia (Bellcore), GB

Warranty

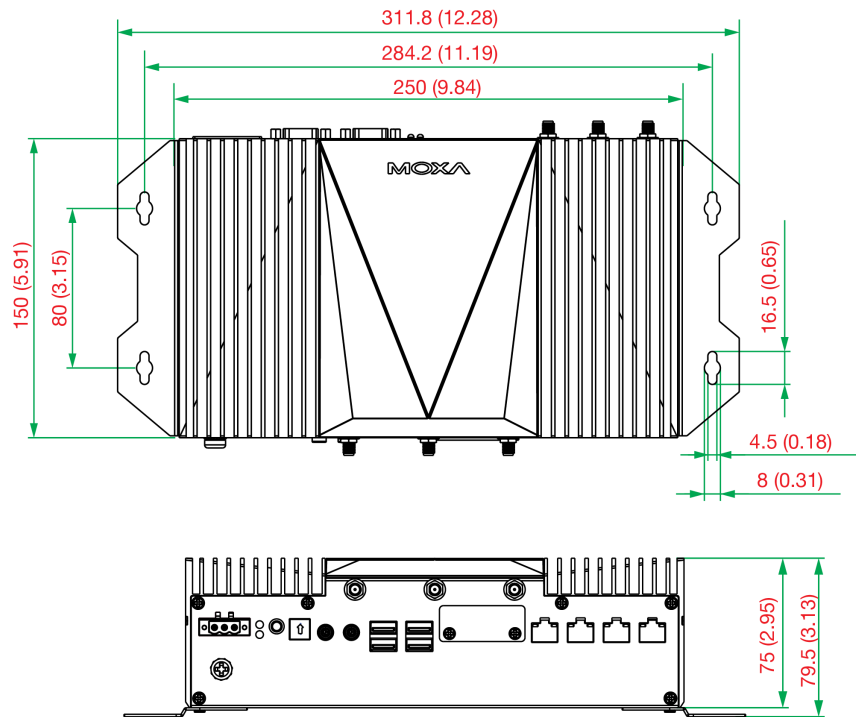
Warranty Period	3 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x V2403C Series computer
Installation Kit	2 x SSD/HDD trays 1 x clamp for HDMI cable 1 x wall-mounting kit
Documentation	1 x quick installation guide 1 x warranty card

尺寸

單位：公釐（英吋）



訂購資訊

Model Name	CPU	Memory (built-in)	Optional OS Storage (mSATA)	Optional SSD/HDD	USB Ports	Power Input	Operating Temp.	Conformal Coating
V2403C-KL1-T	Intel® Celeron® 3965U	–	1	2	4 x USB 3.0 (type A)	12 to 48 VDC (- Terminal Block)	-40 to 70°C	–
V2403C-KL3-T	Intel® Core™ i3-7100U	–	1	2	4 x USB 3.0 (type A)	12 to 48 VDC (- Terminal Block)	-40 to 70°C	–
V2403C-KL5-T	Intel® Core™ i5-7300U	–	1	2	4 x USB 3.0 (type A)	12 to 48 VDC (- Terminal Block)	-40 to 70°C	–
V2403C-KL7-T	Intel® Core™ i7-7600U	–	1	2	4 x USB 3.0 (type A)	12 to 48 VDC (- Terminal Block)	-40 to 70°C	–

配件（選購）

Cables

CBL-PJTB-10	Non-locking barrel plug to bare-wire cable
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Wi-Fi Wireless Modules

V2400-WLAN22-AC	SparkLAN WPEQ-261ACNI (BT) Wi-Fi mini card, 4 black screws
V2400 Cover-DB9	Dual DB9 expansion cover, 4 male hex standoff spacer pillars
V2406C TPM2.0 Module	SLB9665XT2.0 TPM 2.0 module without conformal coating

Cellular Wireless Modules

V2403C-LTECat4-AP	Telit LE910C4 LTE Cat. 4 mini card for the Asia-Pacific region, 3 SMA antenna cables
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V2403C-LTECat4-EU	Telit LE910C4 LTE Cat. 4 mini card for Europe, 3 SMA antenna cables
V2403C-LTECat4-NF	Telit LE910C4 LTE Cat. 4 mini card for North America, 3 SMA antenna cables

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