

# V2406C 系列

第 7 代 Intel® Core™ CPU 鐵路電腦配備 2 個 mini PCIe 無線模組擴充插槽、2 個可熱插拔的 HDD/SSD 插槽、電源隔離保護



## 特色與優點

- Intel® Celeron®/Intel® Core™ i3/i5/i7 高效能網路錄影機，可供軌道車輛應用
- DDR4 記憶體插槽；容量可達 32GB
- 支援雙獨立顯示器（VGA 和 HDMI，具有 4K 解析度）
- 2 個 Gigabit 乙太網路連接埠，M12 X-coded 連接器
- M12 A-coded 電源連接器
- 符合所有 EN 50155 規範強制性測試項目<sup>1</sup>
- 符合 EN 50121-4 標準
- 通過 IEC 61373 防撞和抗震認證
- 提供 -40 至 70°C 寬溫度型號

## 認證



## 簡介

V2406C 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，以及兩個可熱插拔的 HDD/SSD 以供儲存空間擴充。本電腦符合 EN 50155:2017 與 EN 50121-4 標準，涵蓋操作溫度、電源輸入電壓、突波、ESD 以及震動，使其適合軌道車載以及軌旁應用。

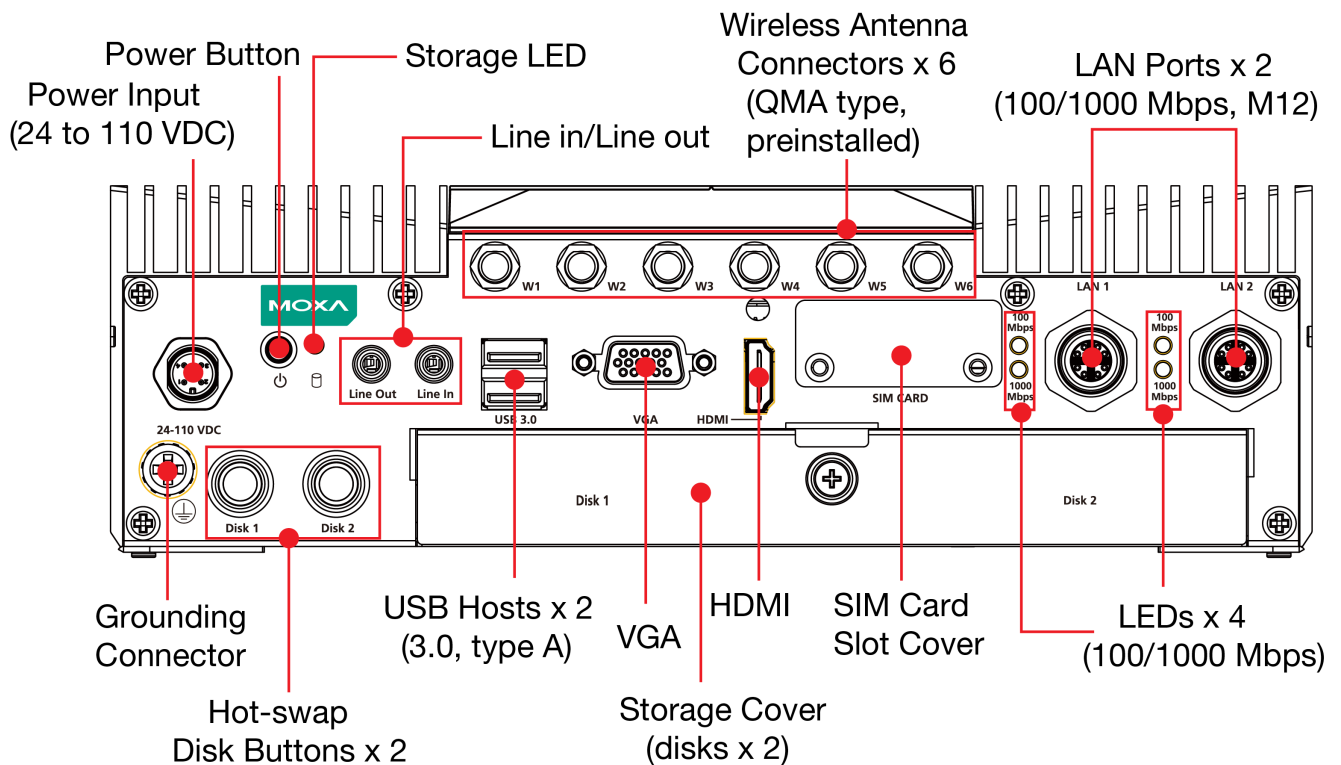
為連接車載以及軌旁系統與裝置，V2406C 電腦配備有各種豐富介面，包括 2 個 Gigabit 乙太網路連接埠、4 個 RS-232/422/485 串列埠、6 個 DI、2 個 DO 以及 4 個 USB 3.0 連接埠。此外，V2406C 電腦提供了 1 個 VGA 視訊輸出以及 1 個 HDMI 輸出，並且支援 4K 解析度。

為了在列車對地 (T2G) 應用方面提供可靠的連線，此系列電腦提供了 2 個 mPCIe 無線擴充插槽以及 4 個 SIM 卡插槽。這些設計有助於建立備援 LTE/Wi-Fi 連接，確保在高速行駛的列車以及軌旁應用之間提供可靠的雙向通訊。此外，用於無線模組預先安裝的 QMA 纜線可減少組裝工作，並且確保 RF 低洩漏。

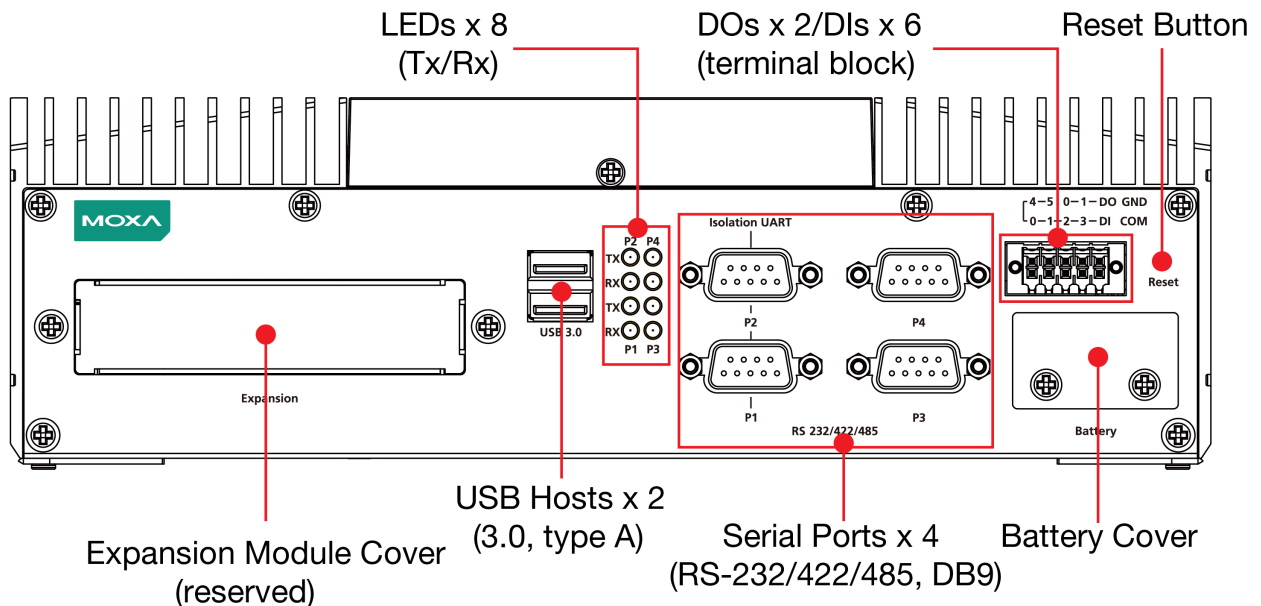
1. 此產品適用於符合 EN 50155 標準所定義的所有軌道車輛應用。按此處取得更詳細內容：[www.moxa.com/doc/specs/EN\\_50155\\_Compliance.pdf](http://www.moxa.com/doc/specs/EN_50155_Compliance.pdf)

## 外觀

### 前視圖



### 後視圖



## 規格

### Computer

CPU	V2406C-KL1-T: Intel® Celeron® 3965U processor (2M Cache, 2.2 GHz) V2406C-KL3-T: Intel® Core™ i3-7100U processor (3M Cache, 2.4 GHz) V2406C-KL5-T: Intel® Core™ i5-7300U processor (3M Cache, 2.6 GHz) V2406C-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, internal mini-PCIe socket

Supported OS	Linux Debian 9 Windows 10 Embedded IoT Ent 2019 LTSC 64-bit
System Memory Slot	SODIMM DDR4 slot x 2
DRAM	32 GB max
Graphics Controller	Intel® HD Graphics 620

### Computer Interface

Ethernet Ports	Auto-sensing 10/100/1000 Mbps ports (M12 X-coded) x 2
Digital Output	DOs x 2
Serial Ports	RS-232/422/485 ports x 4, software selectable (DB9 male)
Digital Input	DIs x 6
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	VGA x 1, 15-pin D-sub connector (female) HDMI x 1, HDMI connector (type A)

### 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 10-pin terminal block
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 921.6 kbps
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	24 to 110 VDC
Power Connector	M12 A-coded male connector
Power Consumption (Max.)	70 W (max.)

## 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	2,700 g (5.95 lb)
Installation	Wall mounting (standard)
Protection	PCB conformal coating V2406C PCB conformal coating: Available on request

## 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

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
Railway Fire Protection	EN 45545-2
EMC	EN 55032/35
Safety	EN 62368-1, IEC 62368-1, UL 62368-1

Railway	EN 50121-4, EN 50121-3-2, EN 50155:2017
Shock	IEC 60068-2-27, IEC 61373
Vibration	IEC 60068-2-64, IEC 61373

#### Declaration

Green Product	RoHS, CRoHS, WEEE
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#### MTBF

Time	394,260 hrs
Standards	Telcordia (Bellcore), GB

#### Warranty

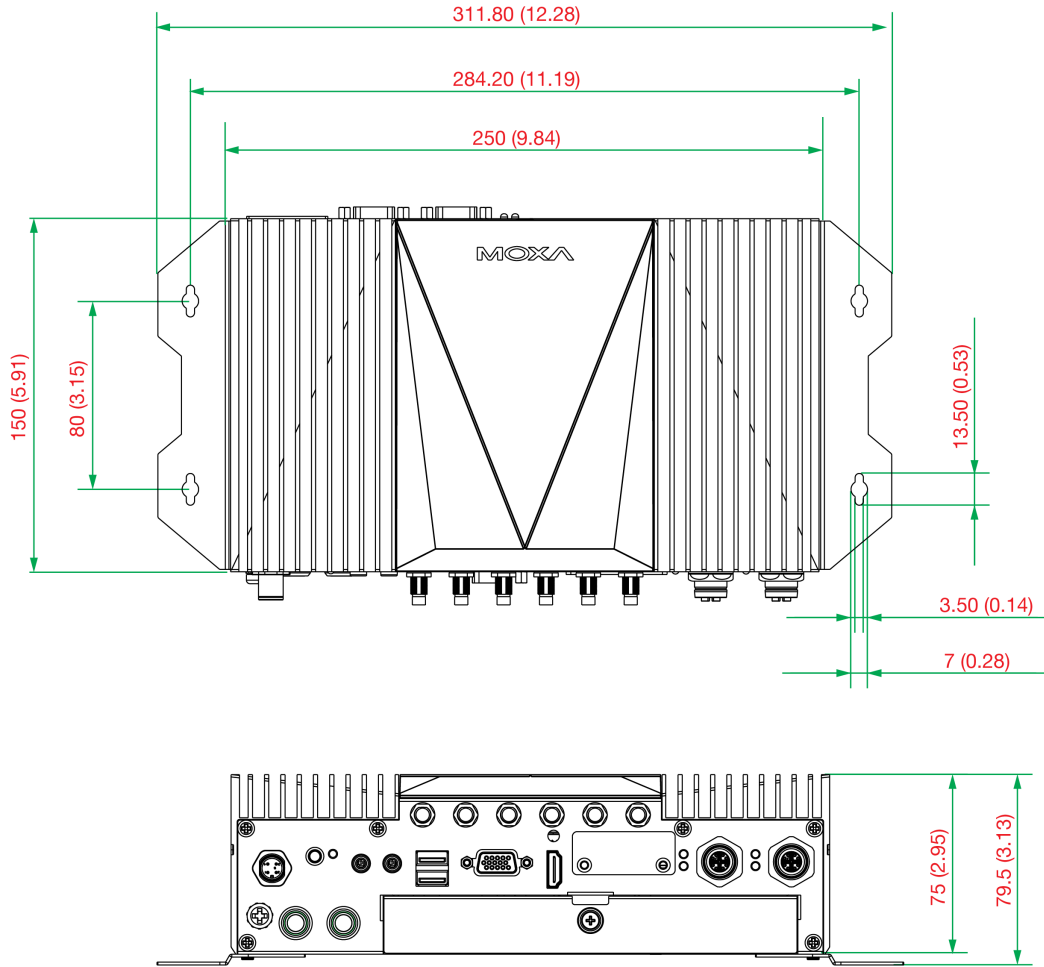
Warranty Period	3 years
Details	See <a href="http://www.moxa.com/tw/warranty">www.moxa.com/tw/warranty</a>

#### Package Contents

Device	1 x V2406C 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 (Hot Swap)	USB Ports	Power Input	Operating Temp.	Conformal Coating
V2406C-KL1-T	Intel® Celeron® 3965U	-	1	2	4 x USB 3.0 (type A)	24 to 110 VDC (M12 A-coded)	-40 to 70°C	-
V2406C-KL3-T	Intel® Core™ i3-7100U	-	1	2	4 x USB 3.0 (type A)	24 to 110 VDC (M12 A-coded)	-40 to 70°C	-
V2406C-KL5-T	Intel® Core™ i5-7300U	-	1	2	4 x USB 3.0 (type A)	24 to 110 VDC (M12 A-coded)	-40 to 70°C	-
V2406C-KL7-T	Intel® Core™ i7-7600U	-	1	2	4 x USB 3.0 (type A)	24 to 110 VDC (M12 A-coded)	-40 to 70°C	-
V2406C-KL1-CT-T	Intel® Celeron® 3965U	-	1	2	4 x USB 3.0 (type A)	24 to 110 VDC (M12 A-coded)	-40 to 70°C	P
V2406C-KL7-CT-T	Intel® Core™ i7-7600U	-	1	2	4 x USB 3.0 (type A)	24 to 110 VDC (M12 A-coded)	-40 to 70°C	P

## 配件（選購）

### Power Cords

PWC-C7AU-2B-183	Power cord with Australian (AU) plug, 2.5A/250V, 1.83 m
PWC-C7CN-2B-183	Power cord with three-prong China (CN) plug, 2.5A/250V, 1.83 m
PWC-C7EU-2B-183	Power cord with Continental Europe (EU) plug, 2.5A/250V, 1.83 m

PWC-C7UK-2B-183	Power cord with United Kingdom (UK) plug, 2.5A/250V, 1.83 m
PWC-C7US-2B-183	Power cord with United States (US) plug, 10A/125V, 1.83 m

### Battery Kits

RTC Battery Kit	Lithium battery with built-in connector
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### Cables

CBL-M12(FF5P)/OPEN-100 IP67	A-coded M12-to-5-pin power cable, IP67-rated 5-pin female M12 connector, 1 m
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### Power Adapters

PWR-24270-DT-S1	Power adapter, input voltage 90 to 264 VAC, output voltage 24 V with 2.5 A DC load
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### Wi-Fi Wireless Modules

V2400-WLAN22-AC	jjPlus JWX6058 Wi-Fi mini card with 4 black screws
V2400-LTECat4-NA	Sierra WP7610 LTE Cat. 4 mini card with 2 black screws for North America
V2400-LTECat4-EMEA	Sierra WP7607 LTE Cat. 4 mini card with 2 black screws for the EMEA region
V2406C TPM2.0 Module	SLB9665XT2.0 TPM 2.0 module

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