

UC-2100 系列

Arm Cortex-A8 600 MHz 掌上型 IIoT 閘道，配備 1 個 Mini PCIe 擴充插槽，可支援無線模組



特色與優點

- Armv7 Cortex-A8 600-1000 MHz 處理器
- 掌上型尺寸，50 × 80 × 28 公釐
- 支援 MXview 以進行裝置與運算狀態的集中監控
- 提供統一的 API 與推送式通訊機制，僅在需要時才擷取資料
- 1 或 2 個自動感應 10/100 Mbps 乙太網路連接埠
- 支援 Gigabit 乙太網路 (UC-2112)
- 最多支援 2 個可由軟體設定的 RS-232/422/485 全訊號串列埠
- 適用 Wi-Fi/蜂巢式網路模組的 Mini PCIe 插槽 (UC-2104)
- 提供 -40 至 75°C 寬溫度型號，並通過危險場所認證
- 提供長期 Linux 支援至 2027 年，包含錯誤修正與安全性修補程式

認證



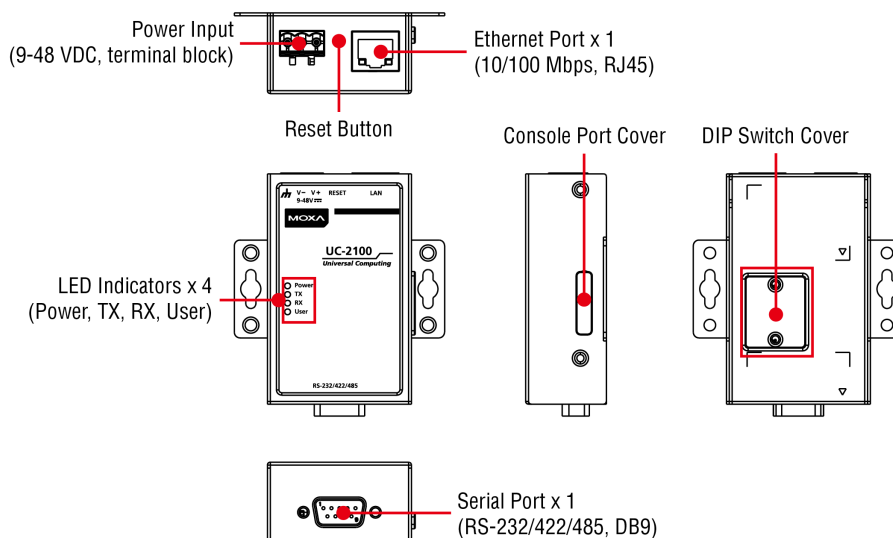
簡介

UC-2100 系列運算平台專為嵌入式資料擷取與處理應用所設計。此電腦最多配備兩個可透過軟體選擇的 RS-232/422/485 全訊號串列埠，以及單埠或雙埠乙太網路介面。這款掌上型 Arm 架構運算平台系列提供多種型號，以滿足各式介面需求，例如單或雙串列埠與乙太網路埠、Gigabit 乙太網路，以及無線連線功能。這些多用途的通訊功能讓使用者能夠有效地調整 UC-2100 以適應各類複雜的通訊解決方案。

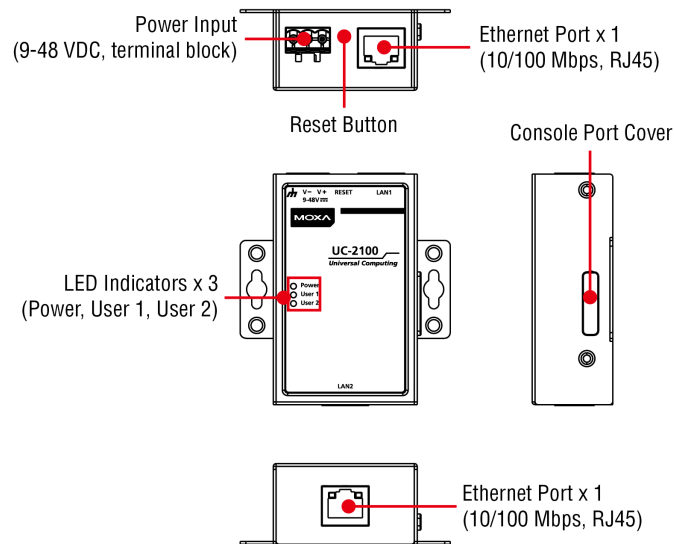
UC-2100 系列內建 Cortex-A8 架構的 Arm 處理器，並已針對各種工業解決方案進行最佳化設計。這款輕薄的嵌入式電腦是可靠且安全的閘道，具備彈性的介面選項，可協助您在現場進行資料擷取並進行處理，同時也是適用於許多其他大規模部署的實用通訊平台。提供專為寬溫度應用設計的型號，可用於如石油和天然氣產業等極端環境。此外，所有型號皆採用 Moxa Industrial Linux 平台，提供最佳化的軟體功能與長期支援。

外觀

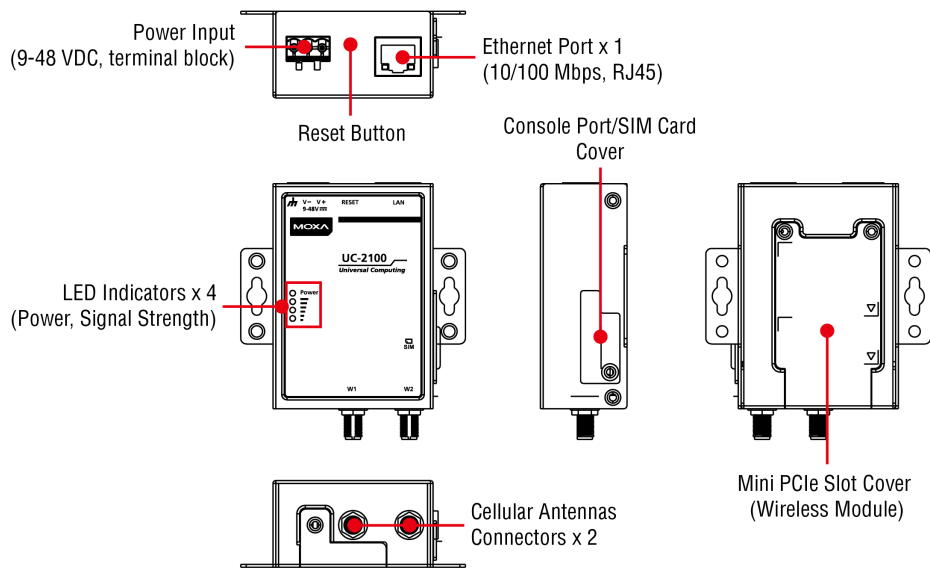
UC-2101



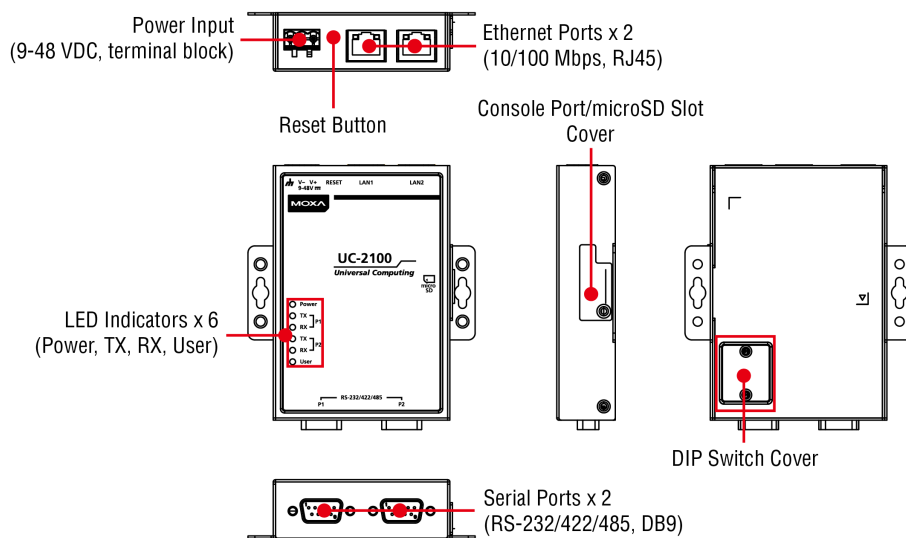
UC-2102

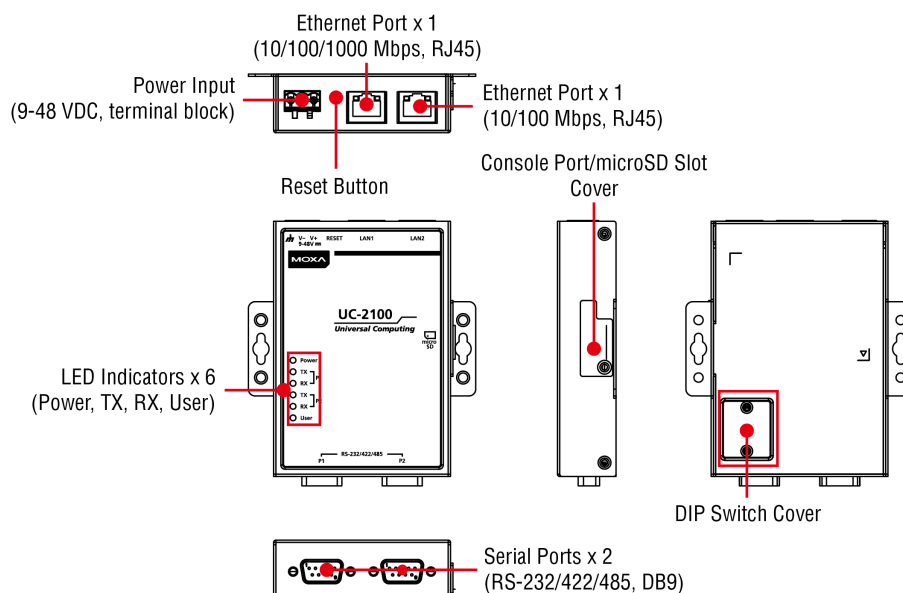


UC-2104



UC-2111





規格

Computer

CPU	UC-2101-LX/UC-2102-LX/UC-2104-LX/UC-2111-LX: Armv7 Cortex-A8 600 MHz UC-2112-LX/UC-2112-T-LX: Armv7 Cortex-A8 1 GHz
DRAM	UC-2101-LX/UC-2102-LX/UC-2104-LX: 256 MB DDR3 UC-2111-LX/UC-2112-LX/UC-2112-T-LX: 512 MB DDR3
Storage Pre-installed	8 GB eMMC
Supported OS	Moxa Industrial Linux 1 (Debian 9, kernel 4.4), 2027 EOL See www.moxa.com/MIL
Storage Slot	UC-2111-LX/UC-2112-LX/UC-2112-T-LX: Micro SD slots x 1

Computer Interface

Ethernet Ports	UC-2101-LX/UC-2104-LX: Auto-sensing 10/100 Mbps ports (RJ45 connector) x 1 UC-2102-LX/UC-2111-LX: Auto-sensing 10/100 Mbps ports (RJ45 connector) x 2 UC-2112-LX/ UC-2112-T-LX: Auto-sensing 10/100 Mbps ports (RJ45 connector) x 1, Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 1
Serial Ports	UC-2101-LX: RS-232/422/485 ports x 1, software selectable (DB9 male) UC-2111-LX/UC-2112-LX/UC-2112-T-LX: RS-232/422/485 ports x 2, software selectable (DB9 male)
Console Port	RS-232 (TxD, RxD, GND), 4-pin header output (115200, n, 8, 1)
Expansion Slots	UC-2104-LX: mPCIe slots x 1
Cellular Antenna Connector	UC-2104-LX: SMA x 2
Number of SIMs	UC-2104-LX: 1
SIM Format	UC-2104-LX: Standard
Buttons	Reset button DIP switch for serial port configuration

Ethernet Interface

Magnetic Isolation Protection	1.5 kV (built-in)
-------------------------------	-------------------

Serial Interface

Baudrate	50 bps to 921.6 kbps
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS, XON/XOFF ADDCC (automatic data direction control) for RS-485 RTS Toggle (RS-232 only)
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
ESD Protection	4 kV, for all signals

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

LED Indicators

System	Power x 1
LAN	2 per port (10/100 Mbps) UC-2112-LX, UC-2112-T-LX: 2 per port (10/100/1000 Mbps)
Serial	UC-2101-LX/UC-2111-LX/UC-2112-LX/UC-2112-T-LX: 2 per port (Tx, Rx)
User Programmable	UC-2101-LX/UC-2111-LX/UC-2112-LX/UC-2112-T-LX: User x 1 UC-2102-LX: User x 2
Wireless Signal Strength	UC-2104-LX: Cellular/Wi-Fi x 3

Physical Characteristics

Housing	Metal
Dimensions (with ears)	UC-2101-LX/UC-2102-LX: 73 x 80 x 28 mm (2.87 x 3.15 x 1.10 in) UC-2104-LX: 80 x 80 x 30.8 mm (3.15 x 3.15 x 1.21 in) UC-2111-LX/UC-2112-LX/UC-2112-T-LX: 99 x 111 x 25.5 mm (3.90 x 4.37 x 1.00 in)
Dimensions (without ears)	UC-2101-LX/UC-2102-LX: 50 x 80 x 28 mm (1.97 x 3.15 x 1.10 in) UC-2104-LX: 57 x 80 x 30.8 mm (2.24 x 3.15 x 1.21 in) UC-2111-LX/UC-2112-LX/UC-2112-T-LX: 77 x 111 x 25.5 mm (3.03 x 4.37 x 1.00 in)
Weight	UC-2101-LX/UC-2102-LX: 190 g (0.42 lb) UC-2104-LX: 220 g (0.49 lb) UC-2111-LX/UC-2112-LX/UC-2112-T-LX: 290 g (0.64 lb)
Installation	Wall mounting DIN-rail mounting (with optional kit)

Environmental Limits

Operating Temperature	UC-2101-LX/UC-2102-LX/UC-2104-LX/UC-2111-LX/UC-2112-LX: -10 to 60°C (14 to 140°F) UC-2112-T-LX: -40 to 75°C (-40 to 167°F)
Storage Temperature	UC-2101-LX/UC-2102-LX/UC-2104-LX/UC-2111-LX/UC-2112-LX: -20 to 70°C (-4 to 158°F) UC-2112-T-LX: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Shock	IEC 60068-2-27
Vibration	2 Grms @ IEC 60068-2-64, random wave, 5-500 Hz, 1 hr per axis (without USB devices attached)

Power Parameters

Input Voltage	9 to 48 VDC
Input Current	0.45 A @ 9 VDC, 0.084 A @ 48 VDC
Power Consumption	4 W

MTBF

Time	UC-2101-LX: 1,360,496 hrs UC-2102-LX: 1,652,339 hrs UC-2104-LX: 1,577,995 hrs UC-2111-LX: 985,911 hrs UC-2112-LX/UC-2112-T-LX: 982,882 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Reliability

Alert Tools	External RTC (real-time clock)
Automatic Reboot Trigger	External WDT (watchdog timer)

Standards and Certifications

EMC	EN 55032/35 UKCA VCCI BIS
EMI	FCC Part 15B Class A ICES-003 Class A EN 55032 Class A EN 61000-6-4 Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 0.5 kV; Signal: 1 kV IEC 61000-4-6 CS: 3 V IEC 61000-4-8 PFMF
Safety	IEC 60950-1 UL 60950-1
International Approval	FCC CE UKCA VCCI BIS
Hazardous Locations	UC-2112-LX, UC-2112-T-LX: Class I Division 2, ATEX Zone 2
Green Product	RoHS, CRoHS, WEEE

Warranty

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

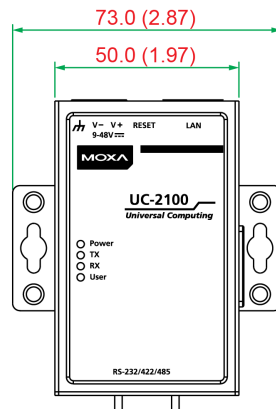
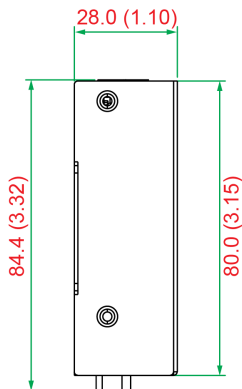
Package Contents

Device	1 x UC-2100 Series computer
Installation Kit	1 x power jack
Cable	1 x console cable
Documentation	1 x quick installation guide 1 x warranty card

尺寸

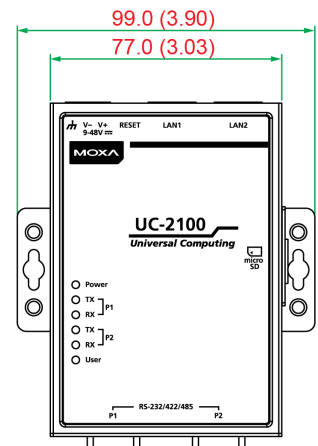
UC-2101

單位：公釐（英吋）



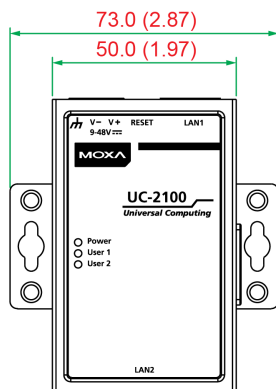
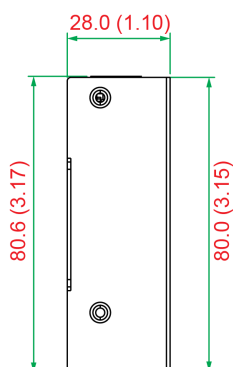
UC-2111

單位：公釐（英吋）



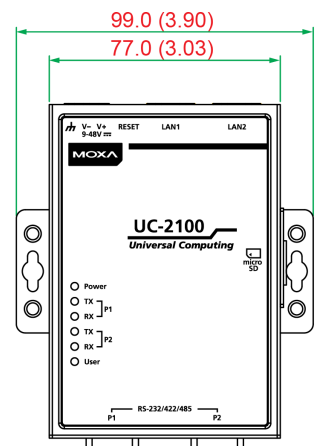
UC-2102

單位：公釐（英吋）



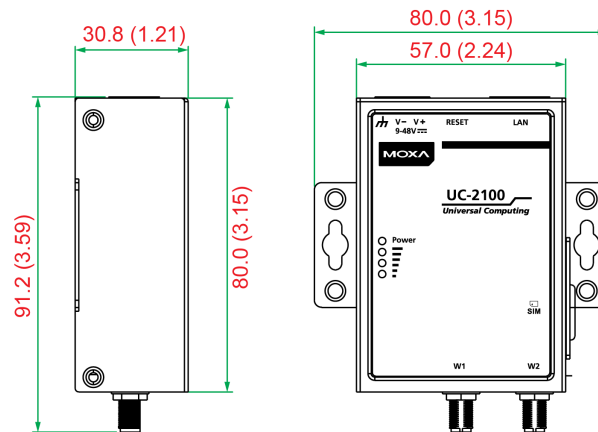
UC-2112

單位：公釐（英吋）



UC-2104

單位：公釐（英吋）



訂購資訊

Model Name	CPU	RAM	Storage	Serial	Ethernet	microSD	Mini PCIe	Operating Temp.
UC-2101-LX	Arm Cortex-A8 600 MHz	256 MB	8 GB	1	1	–	–	-10 to 60°C
UC-2102-LX	Arm Cortex-A8 600 MHz	256 MB	8 GB	–	2	–	–	-10 to 60°C
UC-2104-LX	Arm Cortex-A8 600 MHz	256 MB	8 GB	–	1	–	1	-10 to 60°C
UC-2111-LX	Arm Cortex-A8 600 MHz	512 MB	8 GB	2	2	1	–	-10 to 60°C
UC-2112-LX	Arm Cortex-A8 1000 MHz	512 MB	8 GB	2	2 (1 Giga LAN)	1	–	-10 to 60°C
UC-2112-T-LX	Arm Cortex-A8 1000 MHz	512 MB	8 GB	2	2 (1 Giga LAN)	1	–	-10 to 75°C

配件（選購）

Power Adapters

PWR-12150-USJP-SA-T	Locking barrel plug, 12 VDC 1.5 A, 100 to 240 VAC, US/JP plug, -40 to 75°C operating temperature
PWR-12150-EU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, EU plug, -40 to 75°C operating temperature
PWR-12150-UK-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, UK plug, -40 to 75°C operating temperature
PWR-12150-AU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, AU plug, -40 to 75°C operating temperature
PWR-12150-CN-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, CN plug, -40 to 75°C operating temperature

Cellular Wireless Modules

UC-LTE-CAT1-EU	LTE cellular module with 2 M2 and 2 M2.5 mounting screws for EMEA bands 1, 3, 7, 8, 20, 28A
----------------	---

Wi-Fi Wireless Modules

UC-WiFi-USB	802.11 a/b/g/n/ac, 2.4/5 GHz Wi-Fi module with 2 each of M2 and M2.5 screws
-------------	---

Antennas

ANT-WDB-ARM-0202 plus ADP	2.4/5 GHz omni-directional antenna, 2/2 dBi, RP-SMA-type (male) connector
ANT-LTE-ASM-05 BK	704-960/1710-2620 MHz, LTE stick antenna, 5 dBi
ANT-LTE-OSM-06-3m BK MIMO	Multiband antenna with screw-fastened mounting option for 700-2700/2400-2500/5150-5850 MHz frequencies

A-ADP-SM-RF Golden	SMA adapter for UC-2104 and UC-5100 Series
ANT-LTEUS-ASM-01	GSM/GPRS/EDGE/UMTS/HSPA/LTE, 1 dBi, omnidirectional rubber-duck antenna

DIN-Rail Mounting Kits

DK35A	DIN-rail mounting kit, 35 mm
-------	------------------------------

© Moxa Inc. 版權所有。2025 年 6 月 04 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。