

# UC-1200A 系列

Arm Cortex-A53 雙核心 64 位元 1 GHz 工業電腦，配備有 1 個 mPCIe 擴充插槽，-40 至 60°C 操作溫度範圍



## 特色與優點

- Armv8 Cortex-A53 雙核心 1 GHz 處理器
- 2 個自動感應 10/100/1000 Mbps 乙太網路連接埠
- 豐富的可程控 LED 以及可程控按鈕，可輕鬆安裝及維護
- 適用無線模組的 Mini-PCIe 插槽
- -40°C 至 60°C 操作溫度範圍
- 長期 Linux 支援至 2031 年；包括錯誤修復和安全修補

## 認證

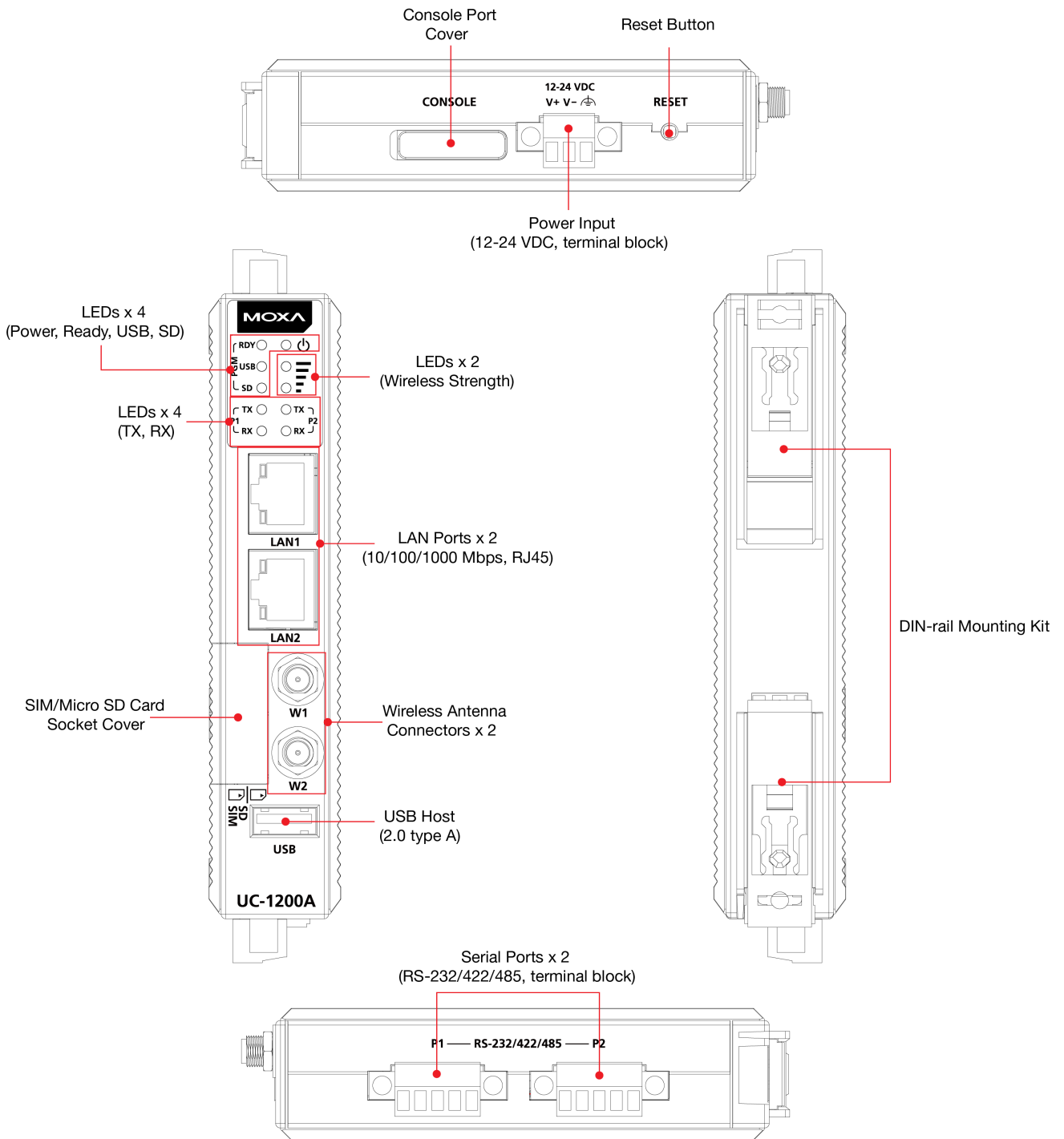


## 簡介

UC-1200A 運算平台是專為嵌入式資料擷取應用所設計。電腦配備雙 RS-232/422/485 串列埠和雙 10/100/1000 Mbps 乙太網路連接埠，以及一個 Mini PCIe 插槽以支援無線通訊模組。這些多元功能讓使用者可有效調整 UC-1200A 以適應各種複雜通訊解決方案。

UC-1200A 採用的是專為能源監視系統進行最佳化的 Cortex-A53 處理器，而該處理器目前也被廣泛地用於各種工業解決方案。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。

## 外觀



## 規格

### Computer

|                       |  |
|-----------------------|--|
| CPU                   | Armv8 Cortex-A53 dual-core 1GHz  |
| DRAM                  | 2 GB DDR4  |
| Pre-installed OS      | Moxa Industrial Linux (Debian 11, kernel 5.10), 2031 EOL<br>See <a href="http://www.moxa.com/MIL">www.moxa.com/MIL</a> |
| Storage Pre-installed | 16 GB eMMC   |
| Storage Slot          | micro SD slots x 1   |

## Computer Interface

|                 |  |
|-----------------|--|
| Ethernet Ports  | Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 2       |
| Serial Ports    | RS-232/422/485 ports x 2, software selectable (terminal block) |
| USB 2.0         | USB 2.0 hosts x 1, type-A connectors                           |
| Console Port    | RS-232 (TxD, RxD, GND), 4-pin header output (115200, n, 8, 1)  |
| Expansion Slots | mPCIe slots x 1  |
| Number of SIMs  | 1  |
| SIM Format      | Nano   |
| Buttons         | Reset button   |
| TPM             | TPM v2.0   |

## Ethernet Interface

|                               |  |
|-------------------------------|--|
| Ethernet Ports                | Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 2 |
| Magnetic Isolation Protection | 1.5 kV (built-in)  |

## Serial Interface

|              |   |
|--------------|---|
| Baudrate     | 300 bps to 921.6 kbps   |
| Data Bits    | 5, 6, 7, 8  |
| Parity       | None, Even, Odd, Space, Mark  |
| Stop Bits    | 1, 1.5, 2   |
| Flow Control | RTS/CTS<br>XON/XOFF<br>Automatic Data Direction Control (ADDC) for RS-485<br>RTS Toggle (RS-232 only) |

## Serial Signals

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

## LED Indicators

|                          |   |
|--------------------------|---|
| System                   | Power x 1<br>SW ready (programmable)<br>USB (programmable) x 1<br>Micro SD slot (programmable) x 1<br>Serial Port: TX x 2, RX x 2   |
| Wireless Signal Strength | Cellular x 2; programmable<br>Disconnected: None<br>Very Poor Signal: 1 LED (blinking)<br>Poor Signal: 1 LED<br>Good Signal: 2 LEDs |

## Power Parameters

|                   |   |
|-------------------|---|
| Input Current     | 600 mA @ 12 VDC<br>300 mA @ 24 VDC  |
| Input Voltage     | 12 to 24 VDC  |
| Power Consumption | 4.5 W (minimum; without external USB device attached)<br>7.2 W (maximum; with external USB device attached) |

## Reliability

|             |   |
|-------------|---|
| Alert Tools | External RTC (real-time clock)<br>External WDT (watchdog timer) |
|-------------|---|

## Physical Characteristics

|              |  |
|--------------|--|
| Dimensions   | 101 x 27 x 128 mm (3.98 x 1.06 x 5.04 in)              |
| Weight       | 224 g (0.5 lb)   |
| Housing      | Polycarbonate (PC)                                     |
| Installation | DIN-rail mounting<br>Wall mounting (with optional kit) |

## Environmental Limits

|  |  |
|--|--|
| Operating Temperature                  | -40 to 60°C (-40 to 140°F)   |
| Storage Temperature (package included) | -40 to 80°C (-40 to 176°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) |

## Standards and Certifications

|                        |  |
|------------------------|--|
| EMC                    | EN 55032/35<br>EN 61000-6-2/-6-4   |
| EMI                    | CISPR 32, FCC Part 15B Class A   |
| EMS                    | IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m<br>IEC 61000-4-3 RS: 1.4 GHz to 6 GHz: 3 V/m<br>IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV<br>IEC 61000-4-5 L-PE: 1 kV ; L -L: 0.5 kV; Signal: 1 kV<br>IEC 61000-4-6 CS: 10 V<br>IEC 61000-4-8 PFMF |
| Safety                 | EN 62368-1<br>UL 62368-1   |
| International Approval | RCM<br>KC<br>BSMI  |
| Green Product          | RoHS, CRoHS, WEEE  |

## MTBF

|           |                                     |
|-----------|-------------------------------------|
| Time      | 924,676 hrs                         |
| Standards | Telcordia (Bellcore) Standard TR/SR |

## Warranty

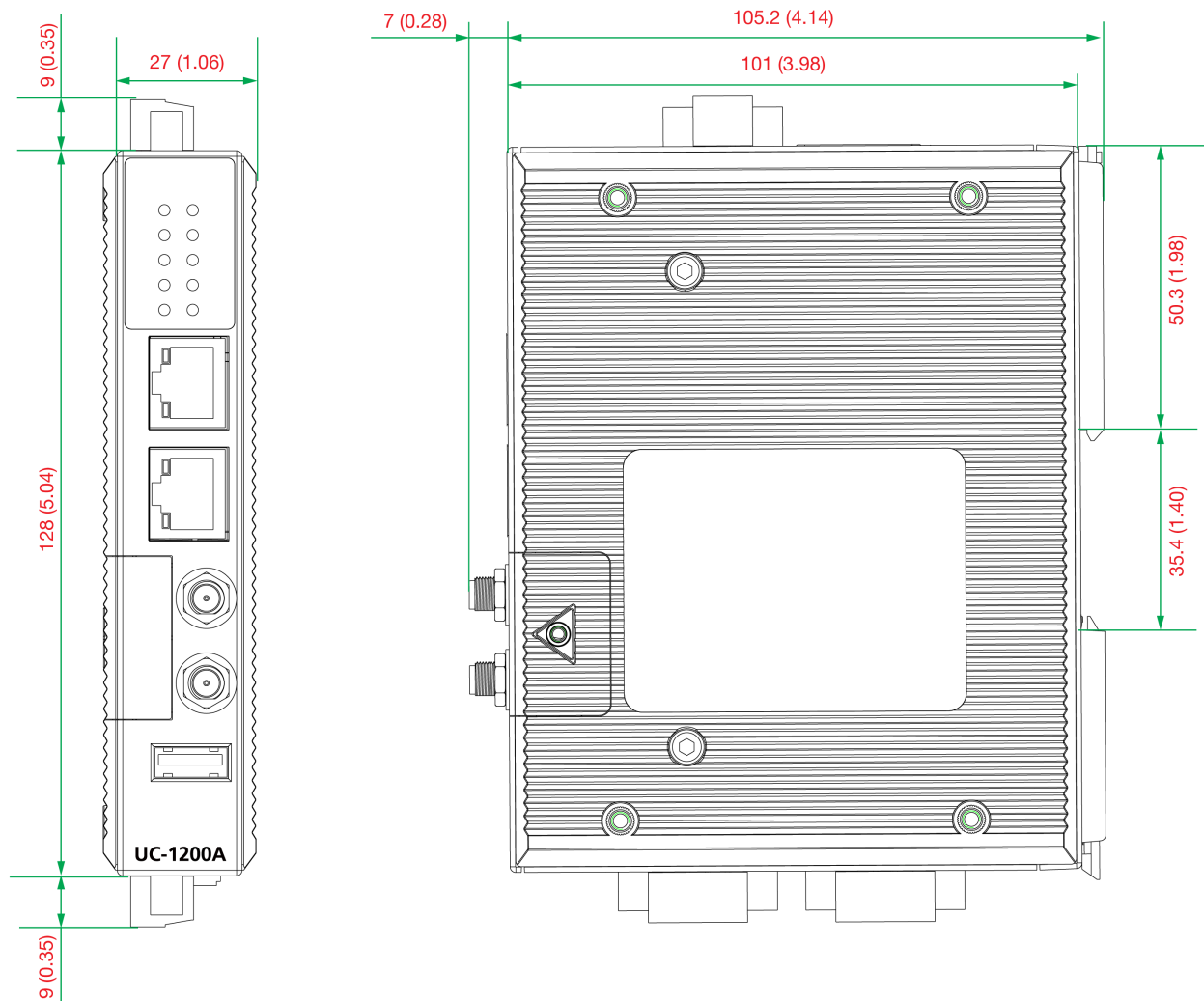
|                 |  |
|-----------------|--|
| Warranty Period | 5 years  |
| Details         | See <a href="http://www.moxa.com/tw/warranty">www.moxa.com/tw/warranty</a> |

## Package Contents

|               |   |
|---------------|---|
| Device        | 1 x UC-1200A Series computer                      |
| Documentation | 1 x quick installation guide<br>1 x warranty card |

## 尺寸

單位：公釐（英吋）



## 訂購資訊

| Model Name | CPU                                     | RAM  | Storage    | Storage Slot  | mPCIe Socket for Wireless Module | Serial Ports |
|------------|---|------|------------|---------------|----------------------------------|--------------|
| UC-1222A   | Armv8 Cortex-A53 dual-core 1GHz 300 MHz | 2 GB | 16 GB eMMC | micro SD card | 1                                | 2            |

## 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-CN-SA-T   | Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, CN 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-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   |

### Cables

|                     |  |
|---------------------|--|
| CBL-F9DPF1x4-BK-100 | Console cable with 4-pin connector, 1 m    |
| CBL-PJTB-10         | Non-locking barrel plug to bare-wire cable |

### Antennas

|                           |  |
|---------------------------|--|
| ANT-WDB-ARM-0405          | 2.4/5 GHz 1/2 $\lambda$ 4 to 5 dBi omnidirectional antenna with RP-SMA (female) connector              |
| ANT-WDB-ARM-0202          | 2 dBi at 2.4 GHz or 2 dBi at 5 GHz, RP-SMA (male), dual-band, omnidirectional antenna                  |
| ANT-LTE-ASM-05 BK         | 704-960/1710-2620 MHz, LTE stick antenna, 5 dBi  |
| ANT-LTE-ASM-04 BK         | 704 to 960/1710 to 2620 MHz, LTE omnidirectional stick antenna, 4.5 dBi                                |
| ANT-LTEUS-ASM-01          | GSM/GPRS/EDGE/UMTS/HSPA/LTE, 1 dBi, omnidirectional rubber-duck antenna                                |
| ANT-LTE-OSM-06-3m BK MIMO | Multiband antenna with screw-fastened mounting option for 700-2700/2400-2500/5150-5850 MHz frequencies |
| ANT-LTE-OSM-03-3m BK      | 700-2700 MHz, multiband antenna, specifically designed for 2G, 3G, and 4G applications, 3 m cable      |
| ANT-LTEUS-OSM-02          | 698 to 960/1710 to 2700 MHz, 1/4 $\lambda$ omnidirectional 1.5 dBi antenna with SMA (male) connector   |

### Wireless Antenna Cables

|                |  |
|----------------|--|
| A-CRF-SMIF-100 | Wireless antenna cable package with 2 100-cm cables (SMA connectors) |
|----------------|--|

### Wall-Mounting Kits

|          |  |
|----------|--|
| WK-33-01 | Wall-mounting kit with 2 plates (98.6 x 33.8 x 5 mm), 4 TMS M3 4-mm screws |
|----------|--|

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