

# UC-1200Aシリーズ

1つのmPCIe拡張スロット搭載、動作温度-40～60°CのArm Cortex-A53デュアルコア64ビット1 GHz産業用コンピュータ



## 機能とメリット

- Armv8 Cortex-A53デュアルコア1 GHzプロセッサ
- 自動検出10/100/1000 Mbpsイーサネットポート x 2
- 豊富なプログラマブルLEDとプログラマブルボタンにより、設置とメンテナンスを簡素化
- Moxa Industrial Linuxを搭載（10年間の超長期サポート付き）
- IEC 62443-4-2セキュリティレベル2要件に準拠
- -40～60°Cの動作温度範囲

## 認証

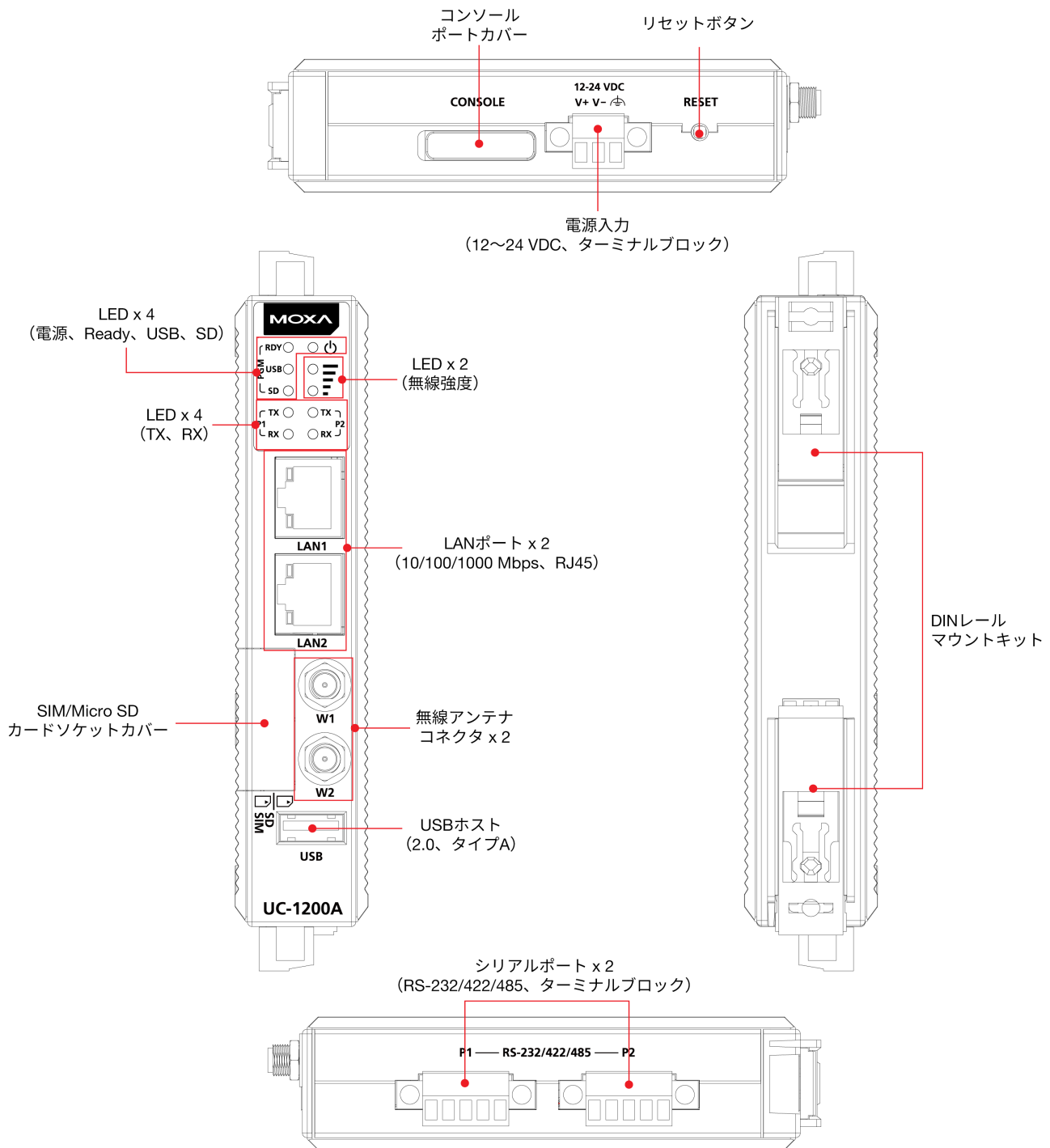


## 製品紹介

UC-1200Aコンピューティングプラットフォームは、組み込みデータ収集アプリケーション向けに設計されています。このコンピュータは、デュアルRS-232/422/485シリアルポートとデュアル10/100/1000 Mbpsイーサネットポートを備えています。これらの多用途な機能により、ユーザーはUC-1200Aをさまざまな複雑な通信ソリューションに効率的に適応させることができます。

UC-1200Aは、エネルギー監視システム向けに最適化されたCortex-A53プロセッサを搭載しており、さまざまな産業用ソリューションに広く適用可能です。柔軟なインターフェースオプションを備えたこの小型組み込みコンピュータは、現場でのデータ収集と処理向けに信頼性と安全性の高いゲートウェイであり、他の多くの大規模な導入にも有効な通信プラットフォームでもあります。

## 外観



## 仕様

### Computer

|                       |                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------|
| CPU                   | Armv8 Cortex-A53 dual-core 1 GHz                                                                                       |
| 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 Channels | RS-232/422/485 ports x 2 (software-selectable, terminal-block connector) |
| 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       |

## 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

|              |                                                        |
|--------------|--------------------------------------------------------|
| Housing      | Polycarbonate (PC)                                     |
| IP Rating    | IP30                                                   |
| Dimensions   | 101 x 27 x 128 mm (3.98 x 1.06 x 5.04 in)              |
| Weight       | 224 g (0.5 lb)                                         |
| Installation | DIN-rail mounting<br>Wall mounting (with optional kit) |

## Environmental Limits

|                           |                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------|
| Operating Temperature     | -40 to 60°C (-40 to 140°F)                                                                   |
| Storage Temperature       | -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) |

## Standards and Certifications

|                     |                                                                                                                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC                 | EN 55032/35<br>EN 61000-6-2/-6-4<br>UKCA<br>RCM<br>KC<br>BSMI                                                                                                                                                                                                                                  |
| EMI                 | FCC Part 15B Class A<br>ICES-003 Class A<br>EN 55032 Class A<br>EN 61000-6-4 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                                                                                                                                                                                                                                                                       |
| Hazardous Locations | ATEX<br>Class I Division 2                                                                                                                                                                                                                                                                     |

|                        |                                                |
|------------------------|------------------------------------------------|
| International Approval | UKCA<br>RCM<br>FCC<br>CE<br>ISED<br>KC<br>BSMI |
| Green Product          | RoHS, CRoHS, WEEE                              |

#### MTBF

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

#### Warranty

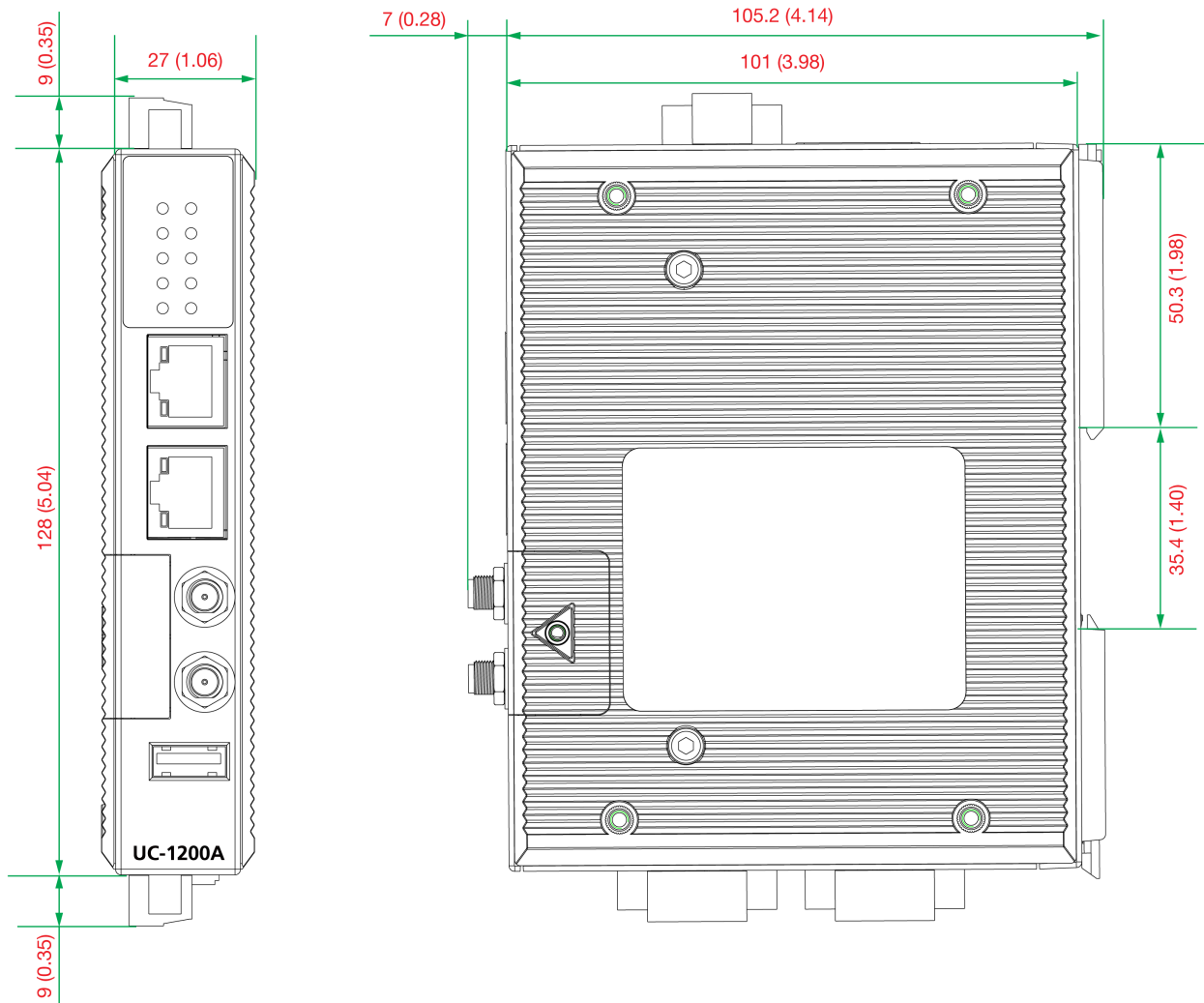
|                 |                                                                            |
|-----------------|----------------------------------------------------------------------------|
| Warranty Period | 5 years                                                                    |
| Details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

#### Package Contents

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

寸法

単位：mm（インチ）



注文情報

| Model Name | CPU                               | OS                                                                 | Storage    | Wireless                 | Operating Temperature |
|------------|-----------------------------------|--------------------------------------------------------------------|------------|--------------------------|-----------------------|
| UC-1222A   | Armv8 Cortex-A53 dual core, 1 GHz | Default: MIL3 Standard<br>Order MIL3 Secure through UC-1200A (CTO) | 16 GB eMMC | mPCIe slot x 1, reserved | -40 to 60°C           |

アクセサリー（別売）

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-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-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-5G-OSM-04             | 4 dBi LTE/5G NR dipole antenna with SMA (male) connector                                                           |
| ANT-GPS-CSM-04-3m BK      | 20 dBi at 1575 to 1605 MHz, SMA (male), right-hand circular polarization (RHCP), active GPS antenna, 3-meter cable |

## 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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