

# UC-2200Aシリーズ

LTE Catを内蔵したArm Cortex-A53デュアルコア64ビット1 GHz産業用コンピューター4モジュール、動作温度-40~70°C



## 機能と特長

- 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
- 簡単な設置とメンテナンスのためのプログラム可能なLEDとボタンを搭載
- Verizon/AT&T認定および産業用CE/FCC/UL認定を取得したLTE対応コンピューター
- 動作温度範囲-40~70°C
- 2031年までの長期Linuxサポート。バグ修正とセキュリティパッチを含む

## 認証



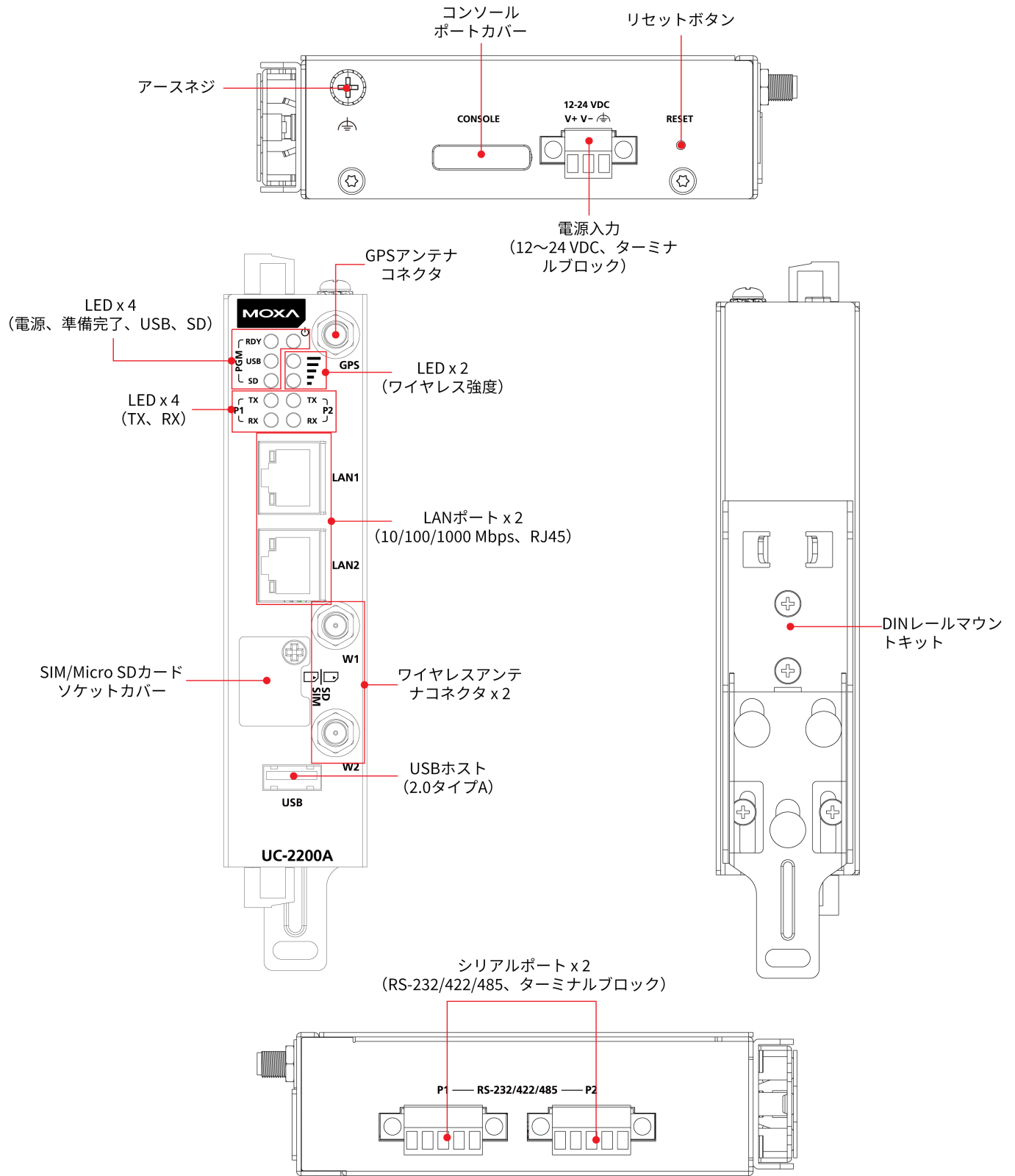
## 製品紹介

UC-2200Aのコンピューティングプラットフォームは、組み込み型の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、デュアル10/100/1000 Mbpsイーサネットポート、さらにワイヤレスモジュールをサポートするMini PCIeソケットを備えています。このように多彩な機能を備えており、ユーザーはUC-2200Aをさまざまな複雑な通信ソリューションに効率的に対応できます。

UC-2200Aはエネルギー監視システムでの使用に最適化されたCortex-A53プロセッサを搭載していますが、さまざまな産業ソリューションに幅広く適用可能です。柔軟なインターフェースオプションを備えたこの小型の組み込みコンピュータは、現場サイトでのデータ収集と処理において信頼性と安全性が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す。

広温度範囲対応モデルおよびLTE対応モデルが用意されています。すべての製品は試験室で厳密にテストされており、LTE対応モデルも幅広い温度環境で安心して使用できることを保証します。

# 外観



## 仕様

### 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 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 XON/XOFF Automatic Data Direction Control (ADDC) for RS-485 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

## Cellular Interface

Cellular Standards	LTE Cat. 4
Band Options	<p>UC-2222A-T-US: LTE Band 2 (1900 MHz) / LTE Band 4 (1700 MHz) / LTE Band 5 (850 MHz) / LTE Band 12 (700 MHz) / Band 13 (700 MHz) / Band 14 (700 MHz) / Band 66 (1700 MHz) / Band 71 (600 MHz)            UMTS/HSPA B5 (850 MHz) / B4 (1700 MHz) / B2 (1900 MHz)            Carrier Approvals: Verizon, AT&amp;T</p> <p>UC-2222A-T-EU: LTE Band 1 (2100 MHz) / LTE Band 3 (1800 MHz) / Band 7 (2600 MHz) / LTE Band 8 (900 MHz) / LTE Band 20 (800 MHz) / LTE Band 28A (700 MHz)            UMTS/HSPA B8 (900 MHz) / B3 (1800 MHz) / B1 (2100 MHz) GSM DCS (1800 MHz) / GSM 900 (900 MHz)</p> <p>UC-2222A-T-AP: LTE Band 1 (2100 MHz) / LTE Band 3 (1800 MHz) / LTE Band 5 (850 MHz) / LTE Band 8 (900 MHz) / LTE Band 9 (1800 MHz) / LTE Band 18 (800 MHz) / LTE Band 19 (800 MHz) / LTE Band 26 (850 MHz) / LTE Band 28 (700 MHz)            UMTS/HSPA B19 (800 MHz) / B8 (900 MHz) / B6 (850 MHz) / B5 (850 MHz) / B1 (2100 MHz)</p>

## GPS Interface

Receiver Types	GPS, GLONASS, Galileo
Accuracy	Position: 2.0 m @CEP50
Acquisition	Hot starts: 1.1 sec Cold starts: 29.94 sec
Sensitivity	Cold starts: -145 dBm Tracking: -160 dBm
Time Pulse	250 Hz to 10 MHz

## LED Indicators

System	Power x 1 SW ready (programmable) USB (programmable) x 1 micro SD slot (programmable) x 1 Serial Port: TX x 2, RX x 2
Wireless Signal Strength	Cellular x 2, programmable  Disconnected: None Very Poor Signal: 1 LED (blinking) Poor Signal: 1 LED Good Signal: 2 LEDs

## Power Parameters

Input Current	UC-2222A-T/2222A-T-CN: 600 mA @ 12 VDC 300 mA @ 24 VDC UC-2222A-T-US/EU/AP: 900 mA @ 12 VDC 450 mA @ 24 VDC
Input Voltage	12 to 24 VDC
Power Consumption	Models Without Built-in LTE: 4.5 W (without external USB device) 7.2 W (with external USB device attached)  Models With Built-in LTE: 7.8 W (without external USB device) 10.5 W (with external USB device)

## Reliability

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

## Physical Characteristics

Dimensions	102 x 32 x 128 mm (4.20 x 1.26 x 5.04 in)
Weight	546 g (1.2 lb)
Housing	SECC Metal
Installation	DIN-rail mounting Wall mounting (with optional kit)

## Environmental Limits

Operating Temperature	UC-2222A-T/T-CN: -40 to 75°C (-40 to 167°F) UC-2222A-T-US/EU/AP, UC-2222A-T-CN (with LTE module): -40 to 70°C (-40 to 158°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 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 IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-3 RS: 1.4 GHz to 6 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 kV IEC 61000-4-5 L-PE: 1 kV ; L -L: 0.5 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Safety	EN 62368-1 UL 62368-1
International Approval	RCM KC BSMI
Green Product	RoHS, CRoHS, WEEE

## MTBF

Time	UC-2222A-T: 924,676 hrs UC-2222A-T-CN: 914,741 hrs UC-2222A-T-US: 865,122 hrs UC-2222A-T-EU: 866,622 hrs UC-2222A-T-AP: 870,393 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

## Warranty

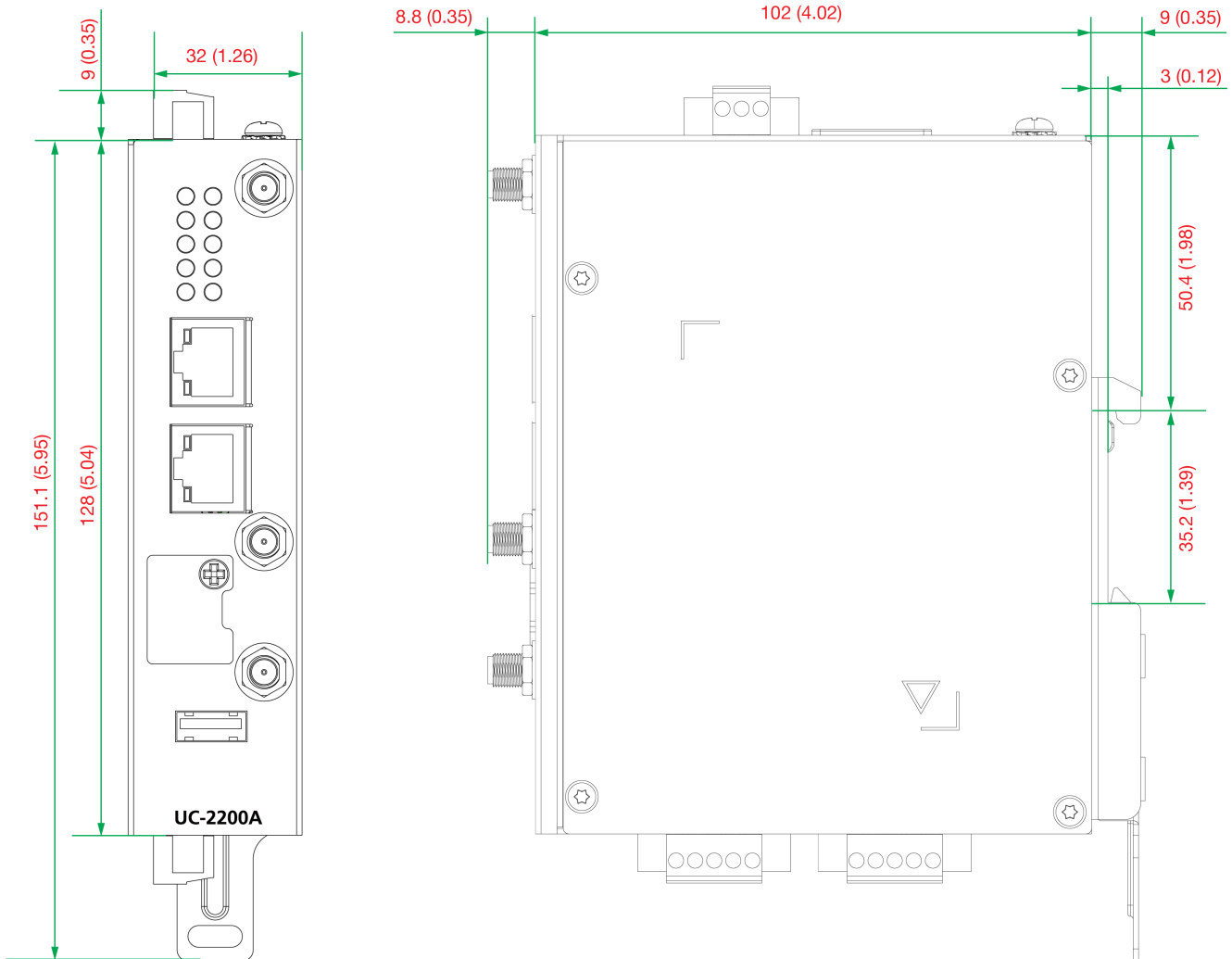
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/jp/warranty">www.moxa.com/jp/warranty</a>

## Package Contents

Device	1 x UC-2200A Series computer
Documentation	1 x quick installation guide 1 x warranty card

## 寸法

単位: mm (インチ)



## 注文情報

Model Name	CPU	RAM	Storage	Serial Ports	Ethernet Ports	USB Ports	TPM	LTE	Operating Temperature
UC-2222A-T	AM6412 Arm® Cortex®-A53, dual core, 1 GHz	2 GB	16 GB eMMC	2	2	1	Built-in	mPCIe slot x 1, reserved	-40 to 75°C
UC-2222A-T-CN	AM6412 Arm® Cortex®-A53, dual core, 1 GHz	2 GB	16 GB eMMC	2	2	1	Built-in	mPCIe slot x 1, reserved	-40 to 75°C
UC-2222A-T-EU	AM6412 Arm® Cortex®-A53, dual core 1 GHz	2 GB	16 GB eMMC	2	2	1	Built-in	European region LTE module preinstalled	-40 to 70°C

Model Name	CPU	RAM	Storage	Serial Ports	Ethernet Ports	USB Ports	TPM	LTE	Operating Temperature
UC-2222A-T-AP	AM6412 Arm® Cortex®-A53, dual core, 1 GHz	2 GB	16 GB eMMC	2	2	1	Built-in	Asia Pacific region LTE module preinstalled	-40 to 70°C
UC-2222A-T-US	AM6412 Arm® Cortex®-A53, dual core, 1 GHz	2 GB	16 GB eMMC	2	2	1	Built-in	U.S. region LTE module preinstalled	-40 to 70°C

## アクセサリ（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-0405	2.4/5 GHz 1/2 λ 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 λ 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
----------	----------------------------------------------------------------------------

© Moxa Inc. All rights reserved. 2024年2月7日更新。

Moxa Inc.の明白な許可を画面で取得しない限り、本書およびその一部の複製や使用はいかなる方法やいかなる場合でも許可されません。製品の仕様は予告なく変更されることがあります。最新の製品情報については当社のWebサイトをご覧ください。