

UC-5100シリーズ

Arm Cortex-A8 1 GHz IIoTゲートウェイ(ワイヤレスモジュール用mini PCIe拡張スロット x 1、シリアルポート x 4、CANポート x 2、DI x 4、DO x 4)



機能とメリット

- Armv7 Cortex-A8 1000 MHzプロセッサ
- 自動検出10/100 Mbpsイーサネットポート x 2
- ソフトウェアで選択可能なRS-232/422/485ポート x 4 (すべての信号に対応)
- 産業用CAN 2.0 A/BプロトコルをサポートするデュアルCANポート
- Moxa Industrial Linuxを搭載 (10年間の長期サポート付き)
- Wi-Fi/セルラーモジュール用のmini PCIeソケット
- ストレージ拡張用のSDスロット
- -40~85°Cの広い温度範囲、-40~70°C (LTE対応)
- 過酷な産業環境に対応するIEC 61000-6-2/6-4規格に準拠

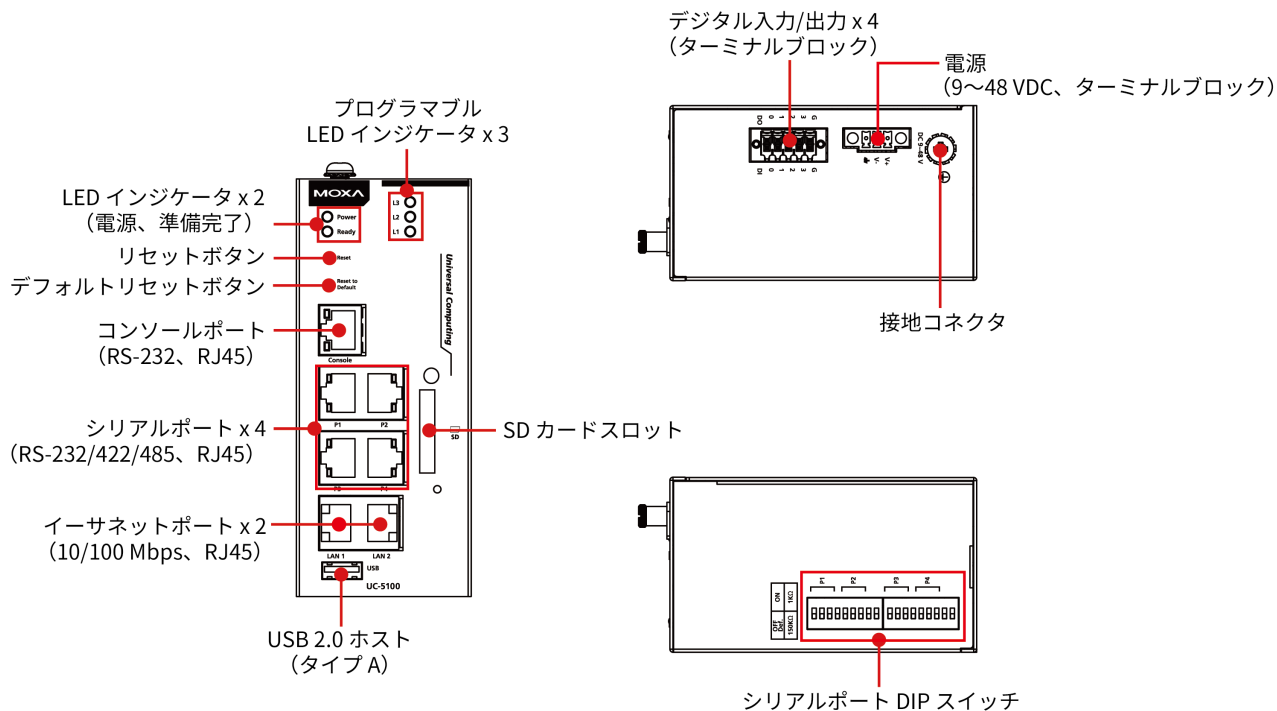
認証



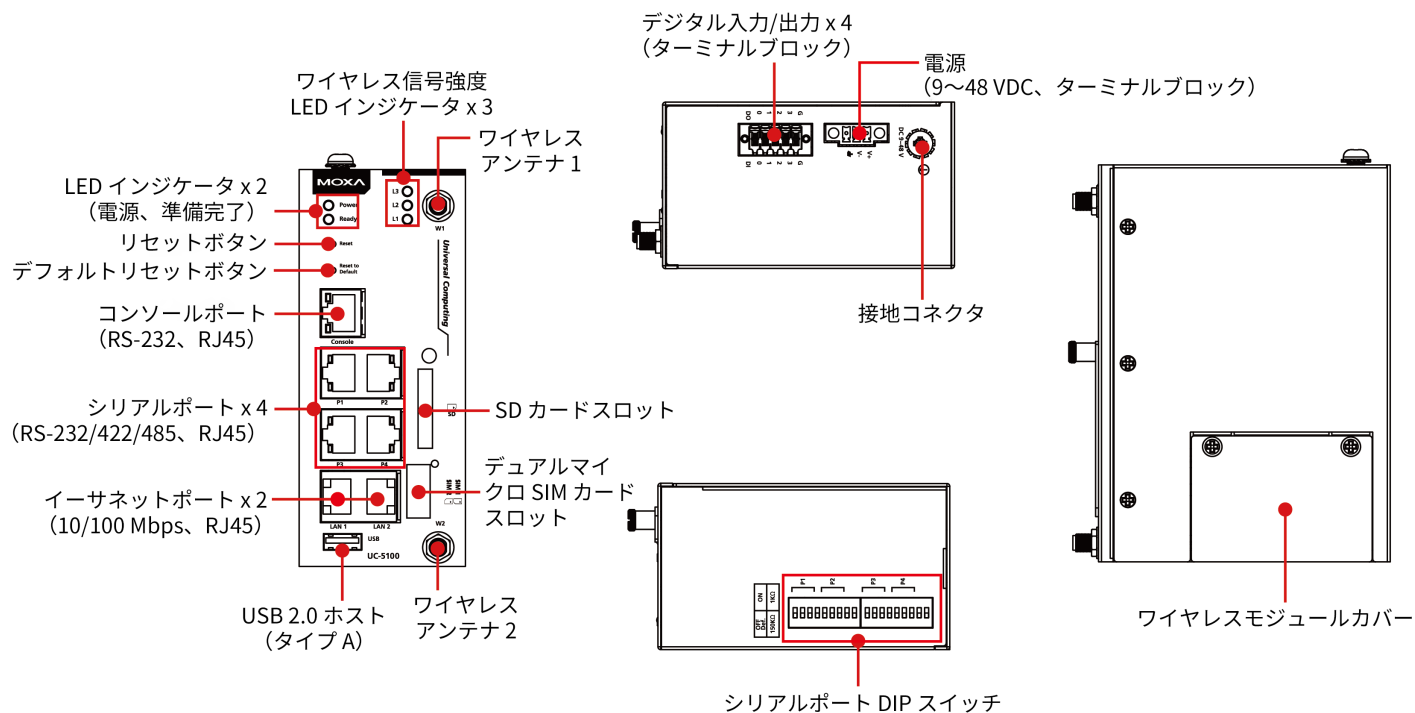
製品紹介

UC-5100シリーズ組み込みコンピュータは、産業オートメーション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、調整可能なブルアップ/ブルダウン抵抗を備えた4つのRS-232/422/485フル信号シリアルポート、2つのCANポート、2つのイーサネットポート、4つのデジタル入力チャンネル、4つのデジタル出力チャンネル、USBインターフェース、および1つのSDスロットを、1つのコンパクトなフロントエンドアクセスの筐体に装備しています。さまざまな産業アプリケーションに対応するために、UC-5100シリーズコンピューティングプラットフォームは、2つのCANポートとワイヤレス接続用のmini PCIeスロットを備えたモデルを提供し、ネットワークの冗長性を実現するデュアルSIM設計を備えています。UC-5100の垂直DINレールフォームファクタにより、小さなキャビネットにコンピュータを簡単に設置できます。また、この省スペースソリューションにより、配線も容易になるため、UC-5100は産業用アプリケーションのフロントエンド組み込みコントローラとして最適です。さらに、すべてのモデルは、10年間の長期サポートと最適化されたソフトウェア機能を備えたMoxa Industrial Linuxを搭載しています。

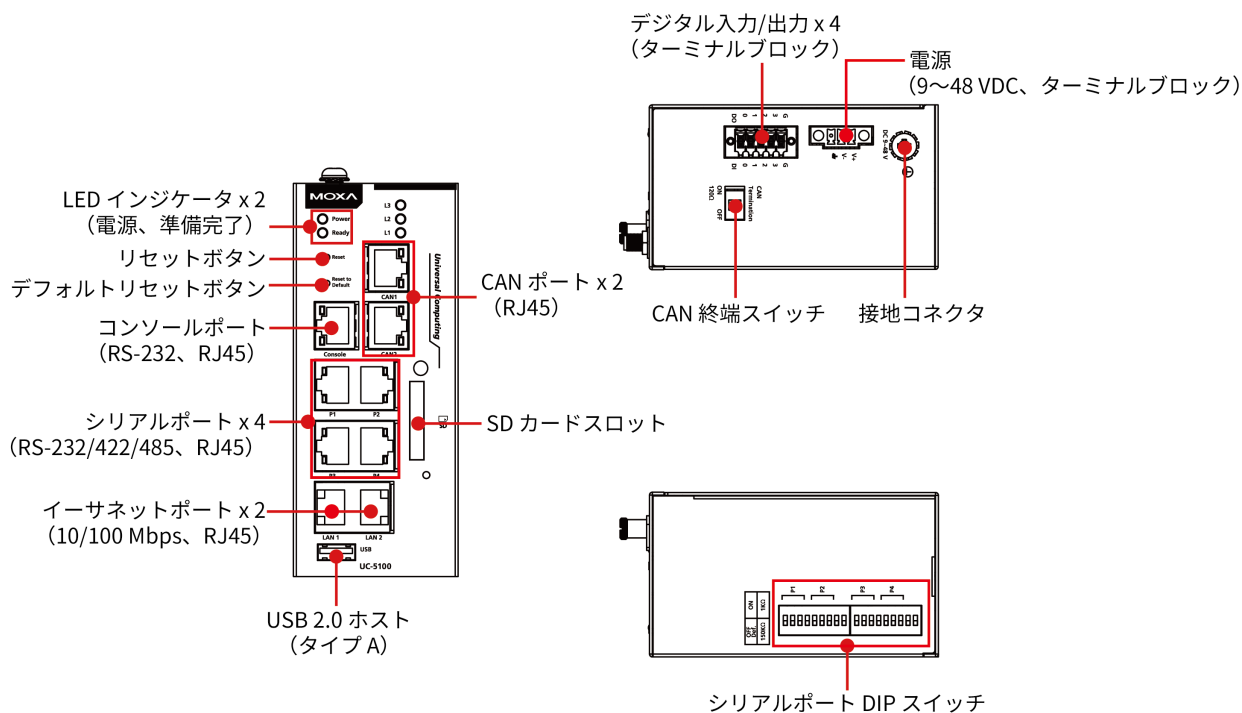
UC-5101



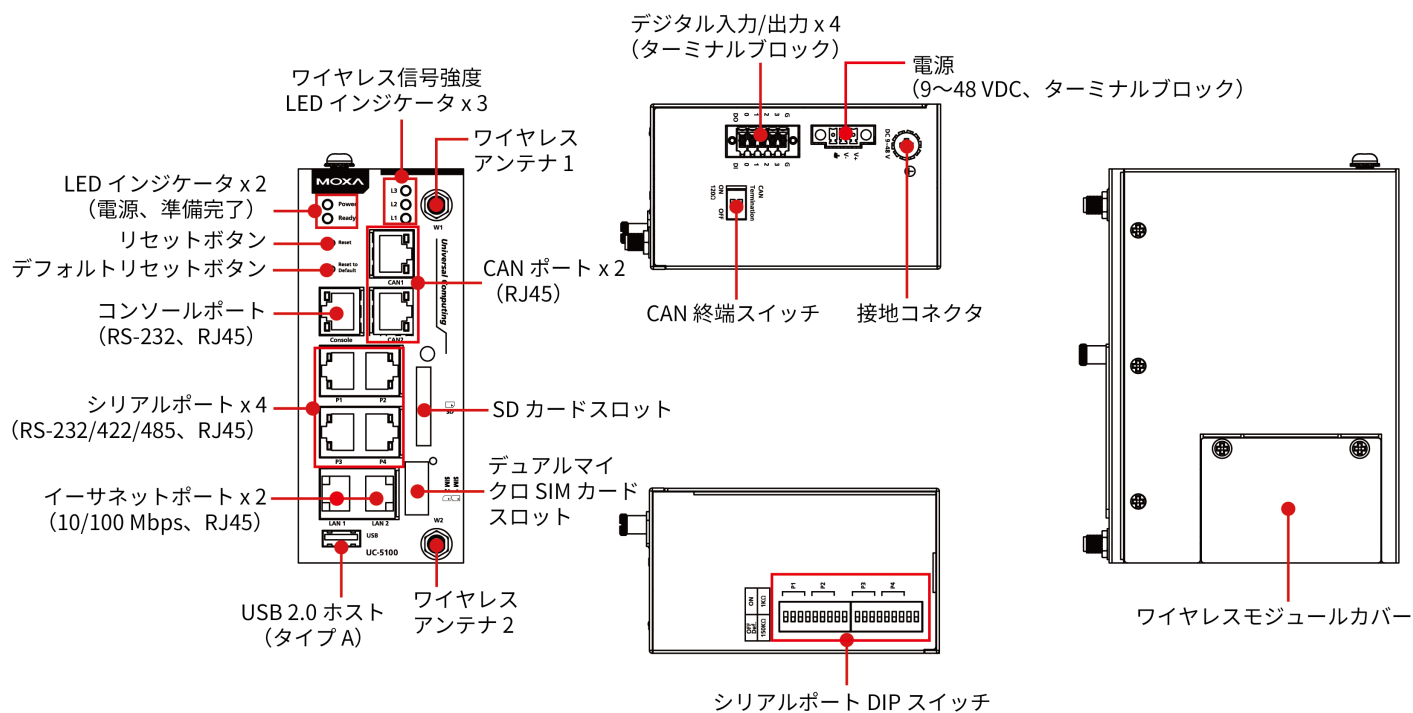
UC-5102



UC-5111



UC-5112



仕様

Computer

CPU	Armv7 Cortex-A8 1 GHz
Pre-installed OS	Linux Debian 9 kernel 4.4 (Moxa Industrial Linux)
DRAM	512 MB DDR3
Storage Pre-installed	8 GB eMMC

Storage Slot	SD slots x 1
Expansion Slots	UC-5102-LX: mPCIe slots x 1 UC-5112-LX: mPCIe slots x 1 UC-5102-T-LX: mPCIe slots x 1 UC-5112-T-LX: mPCIe slots x 1

Computer Interface

USB 2.0	USB 2.0 hosts x 1, type-A connectors
Number of SIMs	2
SIM Format	Micro
Serial Ports	RS-232/422/485 ports x 4, software selectable (RJ45)
Digital Input	DIs x 4
Digital Output	DOs x 4
Buttons	Reset button, DIP switch for serial and CAN port configuration
Console Port	RS-232 (TxD, RxD, GND), RJ45 output (115200, n, 8, 1)

Ethernet Interface

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

Serial Interface

Serial Ports	4 x RS-232/422/485
Data Bits	5, 6, 7, 8
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

CAN Interface

No. of Ports	UC-5111-LX: 2 UC-5111-T-LX: 2 UC-5112-LX: 2 UC-5112-T-LX: 2
Signals	UC-5111-LX: CAN_L, CAN_H, CAN Signal GND UC-5111-T-LX: CAN_L, CAN_H, CAN Signal GND UC-5112-LX: CAN_L, CAN_H, CAN Signal GND UC-5112-T-LX: CAN_L, CAN_H, CAN Signal GND
Terminator	UC-5111-LX: N/A, 120 ohms (by DIP) UC-5111-T-LX: N/A, 120 ohms (by DIP) UC-5112-LX: N/A, 120 ohms (by DIP) UC-5112-T-LX: N/A, 120 ohms (by DIP)

Digital Inputs

Voltage	0 to 0.8 VDC 2.0 to 5.5 VDC
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Digital Outputs

Current Rating	24 mA per channel
Voltage	0 to 0.55 VDC 2.5 to 3.3 VDC

LED Indicators

System	Power x 1 System Ready x 1
LAN	2 per port (10/100 Mbps)
Serial	2 per port (Tx, Rx)
CAN	UC-5111-LX: 2 per port (Tx, Rx), UC-5112-LX: 2 per port (Tx, Rx), UC-5111-T-LX: 2 per port (Tx, Rx), UC-5112-T-LX: 2 per port (Tx, Rx)
Wireless Signal Strength	UC-5112-LX: Cellular/Wi-Fi x 3 UC-5102-LX: Cellular/Wi-Fi x 3 UC-5102-T-LX: Cellular/Wi-Fi x 3 UC-5112-T-LX: Cellular/Wi-Fi x 3

Physical Characteristics

Housing	Metal
Weight	600 g (1.32 lb)
Dimensions	57 x 136 x 100 mm (2.24 x 5.35 x 3.94 in)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

Power Parameters

Input Voltage	9 to 48 VDC
Input Current	0.95 A @ 9 VDC, 0.23 A @ 48 VDC
Power Consumption	6 W

Environmental Limits

Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: Product only: -40 to 85°C (-40 to 185°F) With LTE accessory: -40 to 70°C (-40 to 158°F) With Wi-Fi accessory: -10 to 70°C (14 to 158°F)
Storage Temperature	UC-5101-LX: -20 to 70°C (-4 to 158°F) UC-5102-LX: -20 to 70°C (-4 to 158°F) UC-5111-LX: -20 to 70°C (-4 to 158°F) UC-5112-LX: -20 to 70°C (-4 to 158°F) UC-5101-T-LX: -40 to 85°C (-40 to 185°F) UC-5102-T-LX: -40 to 85°C (-40 to 185°F) UC-5111-T-LX: -40 to 85°C (-40 to 185°F) UC-5112-T-LX: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Vibration	2 Grms @ IEC 60068-2-64, random wave, 5-500 Hz, 1 hr per axis (without USB devices attached)
Shock	IEC 60068-2-27

Standards and Certifications

Safety	UL 60950-1, EN 60950-1, IEC 60950-1
EMC	EN 55032/24, 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 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Green Product	RoHS, CRoHS, WEEE

Reliability

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

MTBF

Time	UC-5101-LX: 728,216 hrs UC-5101-T-LX: 728,216 hrs UC-5102-LX: 704,409 hrs UC-5102-T-LX: 704,409 hrs UC-5111-LX: 584,470 hrs UC-5111-T-LX: 584,470 hrs UC-5112-LX: 568,997 hrs UC-5112-T-LX: 568,997 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

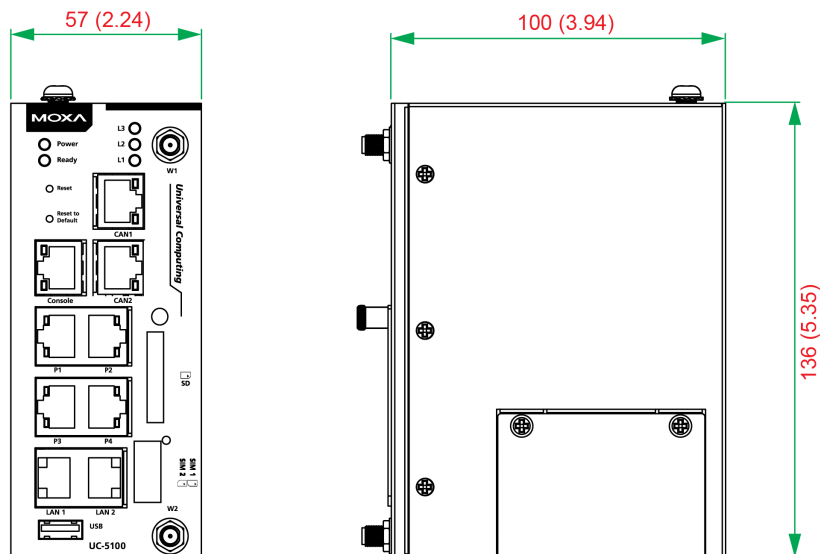
Warranty Period	5 years
Details	See www.moxa.com/jp/warranty

Package Contents

Device	1 x UC-5100 Series computer
Documentation	1 x quick installation guide 1 x warranty card
Installation Kit	1 x DIN-rail kit (preinstalled) 1 x power jack
Cable	1 x RJ45-to-DB9 console cable

寸法

単位：mm（インチ）



注文情報

Model Name	CPU	RAM	Storage	Ethernet	Serial	CAN	SD	USB	Mini PCIe	Operating Temp.
UC-5101-LX	1 GHz	512 MB	8 GB	2	4	–	1	1	–	-10 to 60°C
UC-5102-LX	1 GHz	512 MB	8 GB	2	4	–	1	1	1 (dual-SIM socket)	-10 to 60°C
UC-5111-LX	1 GHz	512 MB	8 GB	2	4	2	1	1	–	-10 to 60°C
UC-5112-LX	1 GHz	512 MB	8 GB	2	4	2	1	1	1 (dual-SIM socket)	-10 to 60°C
UC-5101-T-LX	1 GHz	512 MB	8 GB	2	4	–	1	1	–	-40 to 85°C
UC-5102-T-LX	1 GHz	512 MB	8 GB	2	4	–	1	1	1 (dual-SIM socket)	-40 to 85°C
UC-5111-T-LX	1 GHz	512 MB	8 GB	2	4	2	1	1	–	-40 to 85°C
UC-5112-T-LX	1 GHz	512 MB	8 GB	2	4	2	1	1	1 (dual-SIM socket)	-40 to 85°C

アクセサリ（別売）

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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Power Cords

PWC-C7US-2B-183	Power cord with United States (US) plug, 10A/125V, 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-C7CN-2B-183	Power cord with two-prong China (CN) plug, 1.83 m

PWC-C7AU-2B-183	Power cord with Australian (AU) plug, 2.5A/250V, 1.83 m
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Cellular Wireless Modules

UC-LTE-CAT1-EU	LTE cellular module, with 2 each of M2 and M2.5 mounting screws, for Asia and Europe bands 1, 3, 8, 20, 28
UC-LTE-CAT1-AUS	LTE cellular module, with 2 each of M2 and M2.5 mounting screws, for Australia and New Zealand bands 3, 5, 8, 28
UC-LTE-CAT4-CN	LTE cellular module, with 2 each of M2 and M2.5 mounting screws, for LTE (FDD) bands B1, B3, B8 and LTE (TDD) bands B39, B40, B41(38)

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
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Antennas

ANT-WDB-ARM-0202 plus ADP	2.4/5 GHz omni-directional antenna, 2/2 dBi, RP-SMA-type (male) connector
ANT-LTE-OSM-03-3m BK	Multi-band antenna that covers 700-2700 MHz. Specially designed for 2G, 3G, and 4G applications. Magnetic mounting is available
ANT-LTE-ASM-04 BK	LTE Stick antenna that covers 704-960/1710-2620 MHz providing omnidirectional radiation with a gain of 4.5 dBi.
ANT-LTE-ASM-05 BK	LTE stick antenna that covers 704-960/1710-2620 MHz with a gain of 5 dBi.
ANT-LTE-OSM-06-3m BK MIMO	Multi-band antenna that covers 700-2700/2400-2500/5150-5850 MHz frequencies. Screw-fastened mounting and full IP67 waterproofing are available.
SMA-Adapter	SMA adapter for UC-2104 and UC-5100 Series

DIN-Rail Mounting Kits

DK-UC-5000	DIN-rail mounting kit with screws for the UC-5000 Series
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Wall-Mounting Kits

WM-UC-5000	Wall-mounting kit with screws for the UC-5000 Series
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