

UC-3100 系列

Arm Cortex-A8 1 GHz IIoT 閘道器內建 LTE Cat. 1 和 Wi-Fi 模組



特色與優點

- Armv7 Cortex-A8 1000 MHz 處理器
- 整合 Wi-Fi 802.11a/b/g/n 和 LTE Cat.1 個適用於美國、歐盟和亞太地區
- 支援藍牙 4.2
- LTE 規格電腦，獲得 Verizon/AT&T 認證以及工業級 CE/FCC/UL 認證
- 支援工業 CAN 2.0 A/B 通訊協定
- -40°C 至 70°C 操作溫度範圍
- 符合工業 EMC 應用的 EN 61000-6-2 和 EN 61000-6-4 標準
- Linux 長期支援至 2027 年；包括錯誤修復和安全修補

認證



簡介

Moxa 的 UC-3100 系列電腦可作為現場的智慧閘道器，用於資料預處理和傳輸，以及其他嵌入式資料擷取應用。此系列包含多種型號的裝置，每一型號支援不同的無線選項和通訊協定。UC-3100 進階散熱設計使其適用於 -40 至 70°C 的溫度範圍。事實上，Wi-Fi 和 LTE 連接可同時用於寒冷和炎熱的環境，使您可在艱困操作環境下最大化發揮應用程序的資料預處理和傳輸力。

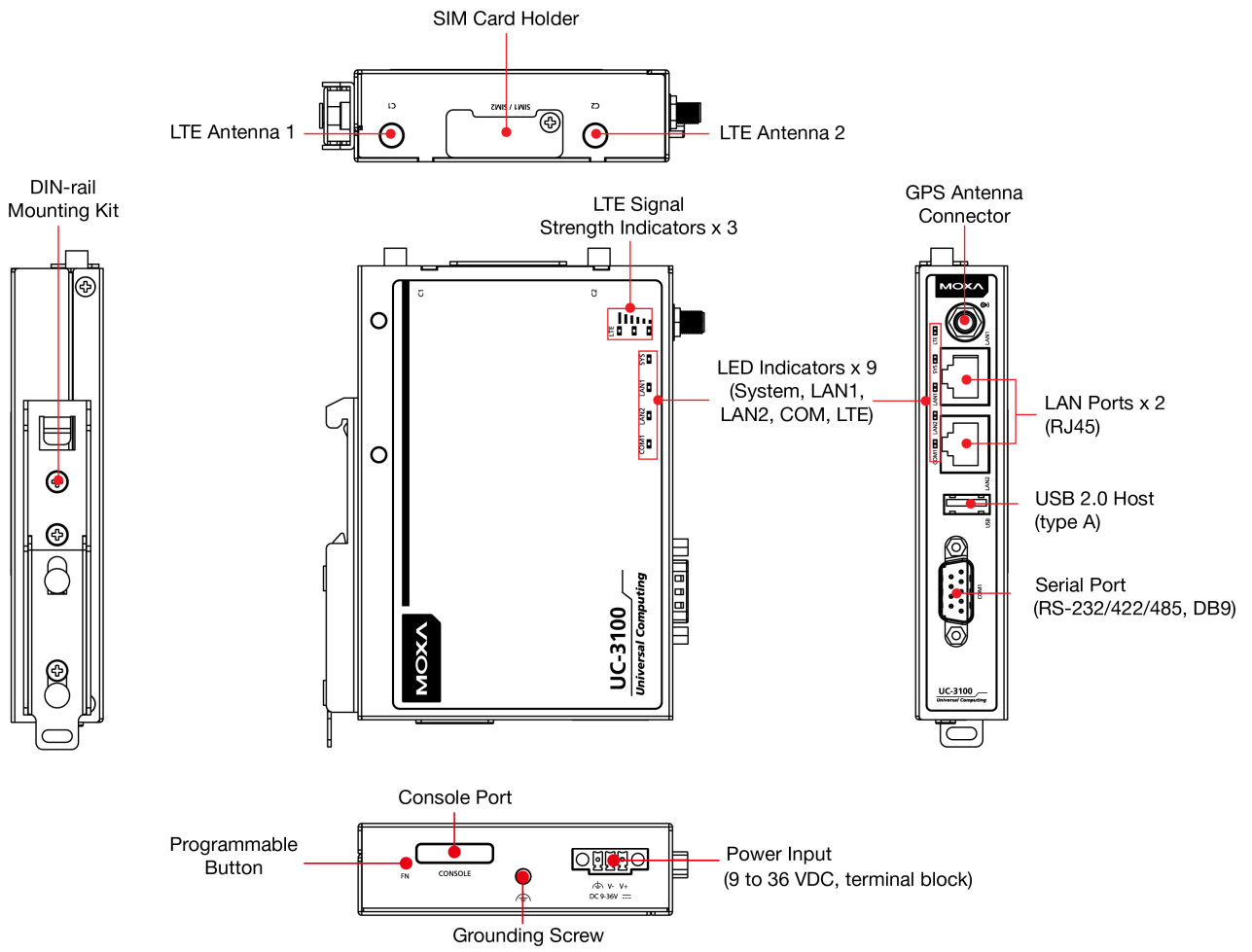
UC-3100 不僅是一個硬體解決方案。為了提供 Moxa Arm 為本的電腦有更佳的使用者體驗，UC-3100 配備了 Moxa Industrial Linux，此為由 Moxa 開發並具長期支援的高性能工業級 Linux 發行版。

應用

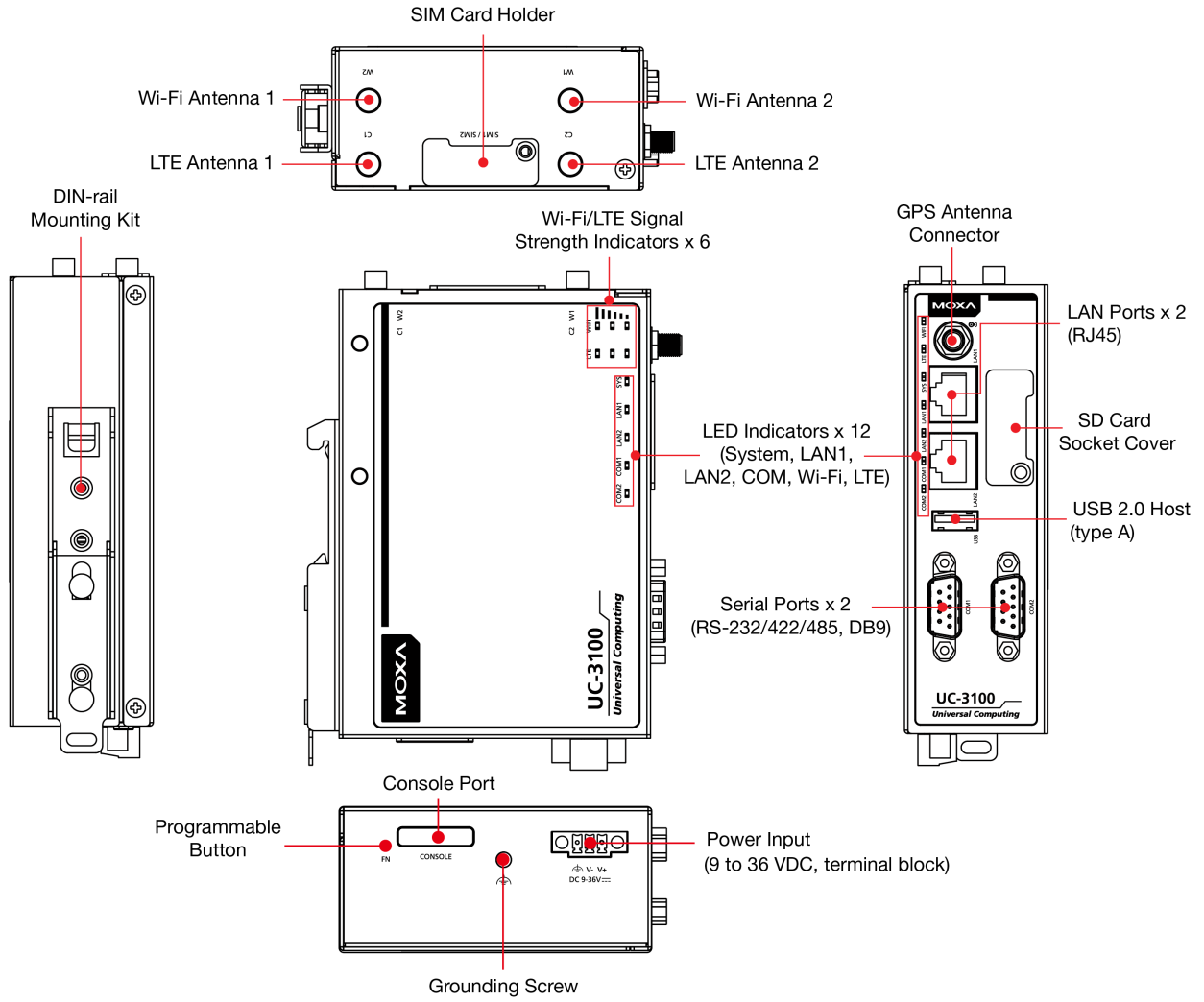
- 遠端終端裝置 (RTU)
- 資料擷取
- M2M 通訊 (智慧閘道)
- 數位看板
- 工廠自動化
- 車載監控/數據記錄器 (交通運輸)
- 可編程路由器
- 能源使用最佳化
- 預測性維護
- 資產管理

外觀

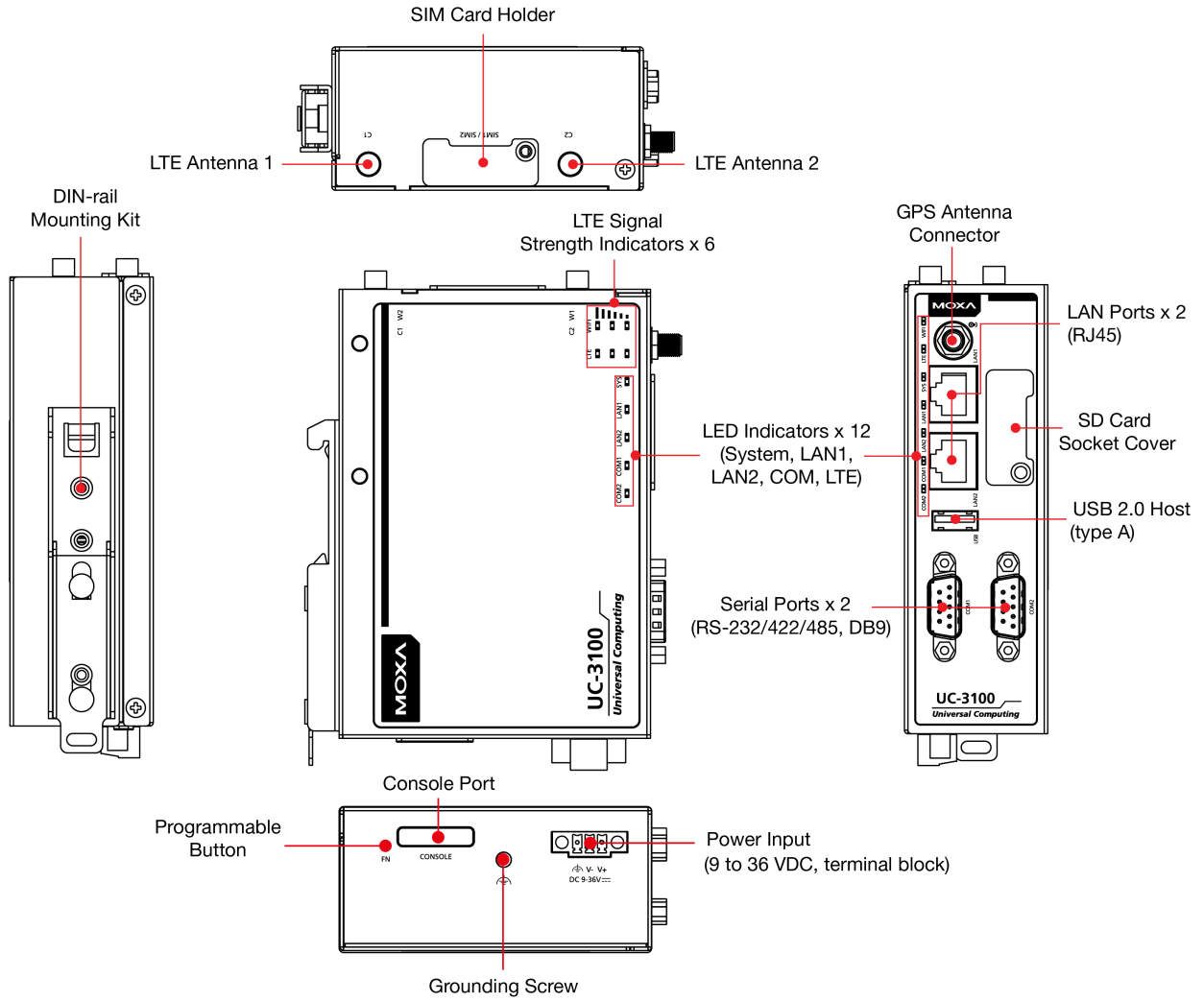
UC-3101

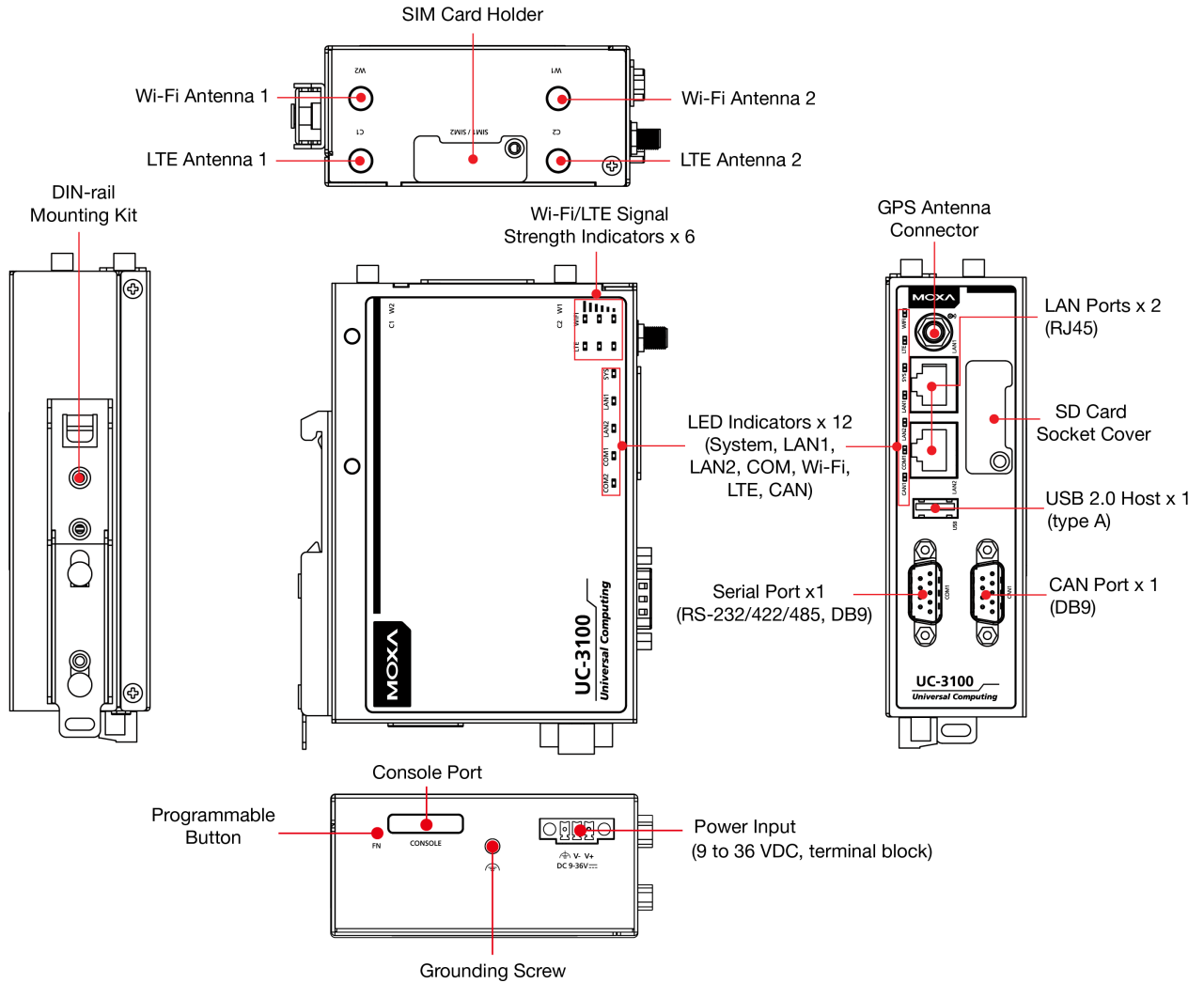


UC-3111 (非NW型號)



UC-3111 (NW 型號)





規格

Computer

DRAM	1 GB DDR3
Supported OS	Linux Debian 9 (kernel 4.4) Moxa Industrial Linux See www.moxa.com/MIL
Storage Pre-installed	8 GB eMMC
Storage Slot	UC-3111/3121 Models: SD slots x 1

Computer Interface

TPM	TPM v2.0
Ethernet Ports	Auto-sensing 10/100 Mbps ports (RJ45 connector) x 2
Serial Ports	UC-3101/3121 Models: RS-232/422/485 ports x 1, software-selectable (DB9 male) UC-3111 Models: RS-232/422/485 ports x 2, software-selectable (DB9 male)
USB 2.0	USB 2.0 hosts x 1, type-A connectors
Cellular Antenna Connector	SMA x 2

SIM Format	Nano
Number of SIMs	2
GPS Antenna Connector	SMA x 1
Wi-Fi Antenna Connector	UC-3111/UC-3121 Models: RP-SMA x 2
Console Port	RS-232 (TxD, RxD, GND), 4-pin header output (115200, n, 8, 1)

Ethernet Interface

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

Cellular Interface

Band Options	<p>US Models: LTE Bands: Band 2 (1900 MHz) / Band 4 (1700 MHz) / Band 5 (850 MHz) / Band 12 (700 MHz) / Band 13 (700 MHz) / Band 14 (700 MHz) / Band 66 (1700 MHz) / Band 71 (600 MHz) UMTS Bands: 2 (1900 MHz) / Band 4 (1700 MHz) / Band 5 (850 MHz) Carrier Approval: Verizon, AT&T</p> <p>EU Models: LTE Bands: Band 1 (2100 MHz) / Band 3 (1800 MHz) / Band 7 (2600 MHz) / Band 8 (900 MHz) / Band 20 (800 MHz) / Band 28A (700 MHz) UMTS Bands: Band 1 (2100 MHz) / Band 3 (1800 MHz) / Band 8 (900 MHz)</p> <p>AP Models: LTE Bands: Band 1 (2100 MHz) / 3 (1800 MHz) / Band 5 (850 MHz) / Band 8 (900 MHz) / Band 9 (1700 MHz) / Band 18 (850 MHz) / Band 19 (850 MHz) / Band 26 (850 MHz) / Band 28 (700 MHz) UMTS Bands: 1 (2100 MHz) / Band 5 (850 MHz) / Band 6 (800 MHz) / Band 8 (900 MHz) / Band 19 (800 MHz)</p>
--------------	---

WLAN Interface

WLAN Standards	UC-3111-T-LX/UC-3121-T-LX Models: 802.11a/b/g/n, Bluetooth 4.2 compliance
Frequency Band	UC-3111-T-LX/UC-3121-T-LX Models: 2.4 GHz/5 GHz

Serial Interface

Data Bits	5, 6, 7, 8
Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 1.5, 2
Baudrate	50 bps to 921.60 kbps

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

Baudrate	UC-3121-T-US-LX/UC-3121-T-EU-LX/UC-3121-T-AP-LX: 10 to 1000 kbps
Connector	UC-3121-T-US-LX/UC-3121-T-EU-LX/UC-3121-T-AP-LX: DB9 male
Isolation	UC-3121-T-US-LX/UC-3121-T-EU-LX/UC-3121-T-AP-LX: 2 kV (built-in)
Signals	UC-3121-T-US-LX/UC-3121-T-EU-LX/UC-3121-T-AP-LX: CAN_H, CAN_L, CAN_GND, CAN_SHLD, CAN_V+, GND

LED Indicators

System	Power x 1
CAN	UC-3121-T-US-LX/UC-3121-T-EU-LX/UC-3121-T-AP-LX: 1 per port (Tx, Rx)
Serial	1 per port (Tx, Rx)
LAN	1 per port (10/100 Mbps)
Wireless Signal Strength	UC-3101 Models: Cellular x 3 UC-3111/UC-3121 Models: Cellular x 3 and Wi-Fi x 3

Power Parameters

Input Current	500 mA @ 12 VDC
Input Voltage	9 to 36 VDC
Power Consumption	UC-3101 Models: 6 W (Max) UC-3111/UC-3121 Models: 8 W (Max)

Physical Characteristics

Housing	Metal
Installation	DIN-rail mounting Wall mounting (with optional kit)
Dimensions (without ears)	UC-3101 Models: 128.5 x 89.1 x 26 mm (5.06 x 3.51 x 1.02 in) UC-3111/UC-3121 Models: 128.5 x 89.1 x 41 mm (5.06 x 3.51 x 1.61 in)
Weight	Product only: 550 g (1.22 lb)

Environmental Limits

Operating Temperature	-40 to 70°C (-40 to 158°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Vibration	5 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

EMC	EN 61000-6-2/-6-4 EN 55032/35
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: 0.5 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Carrier Approvals	UC-3101-T-US-LX: AT&T, Verizon UC-3111-T-US-LX/-T-US-LX-NW: AT&T, Verizon UC-3121-T-US-LX: AT&T, Verizon
Cellular Standards	EN 301511 EN 301908-1 EN 62311(MPE SAR) EN 301489-1/-52 EN 301489-1/17

Radio Frequency	FCC PTCRB RCM IFETEL (UC-3111-T-US-LX) ENACOM (UC-3111-T-EU-LX) NBTC (UC-3111-T-EU-LX) SUBTEL (UC-3111-T-EU-LX)
Safety	IEC 60950-1 UL 60950-1 IEC 62368-1 UL 62368-1 NOM (UC-3111-T-US-LX)
WLAN Standards	EN 301489-1-17 EN 300328 EN 301893
Green Product	RoHS, CRoHS, WEEE
Hazardous Locations	Class I Division 2 ATEX IECEX

MTBF

Time	UC-3101-T-US-LX: 702,846 hrs UC-3101-T-EU-LX/T-AP-LX: 585,775 hrs UC-3111-T-US-LX: 465,569 hrs UC-3111-T-EU-LX/T-AP-LX: 416,081 hrs UC-3121-T-US-LX: 474,796 hrs UC-3121-T-EU-LX/T-AP-LX: 428,931 hrs
Standards	Telcordia (Bellcore) Standard

Warranty

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

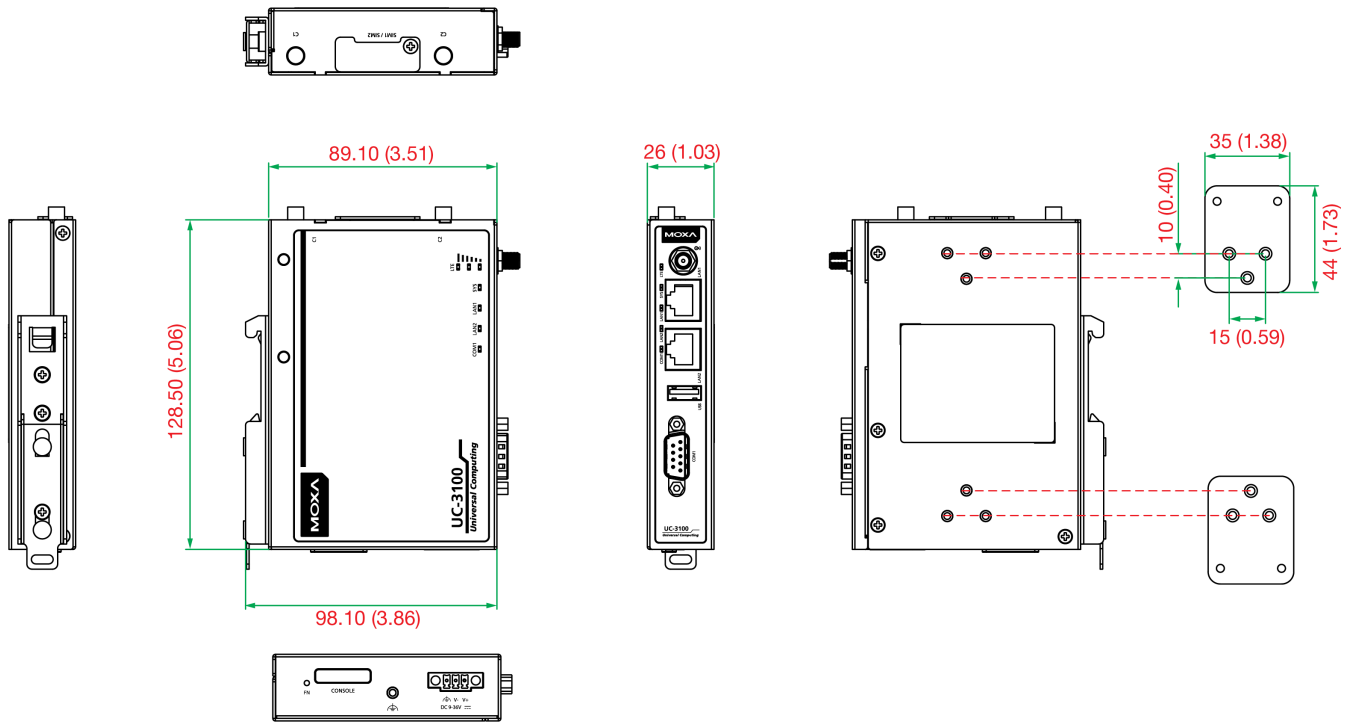
Package Contents

Device	1 x UC-3100 Series computer
Cable	1 x terminal block to power jack converter
Documentation	1 x quick installation guide 1 x warranty card

尺寸

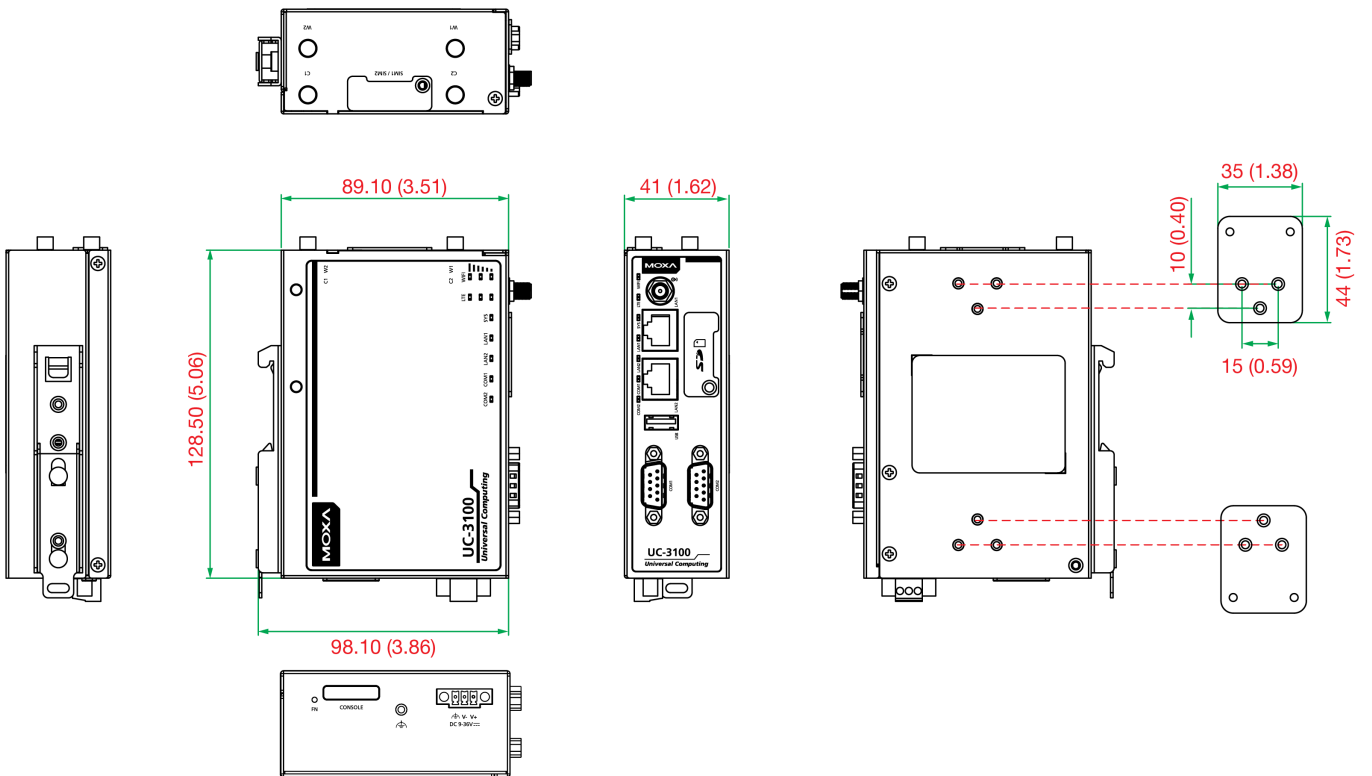
UC-3101

單位：公釐（英吋）



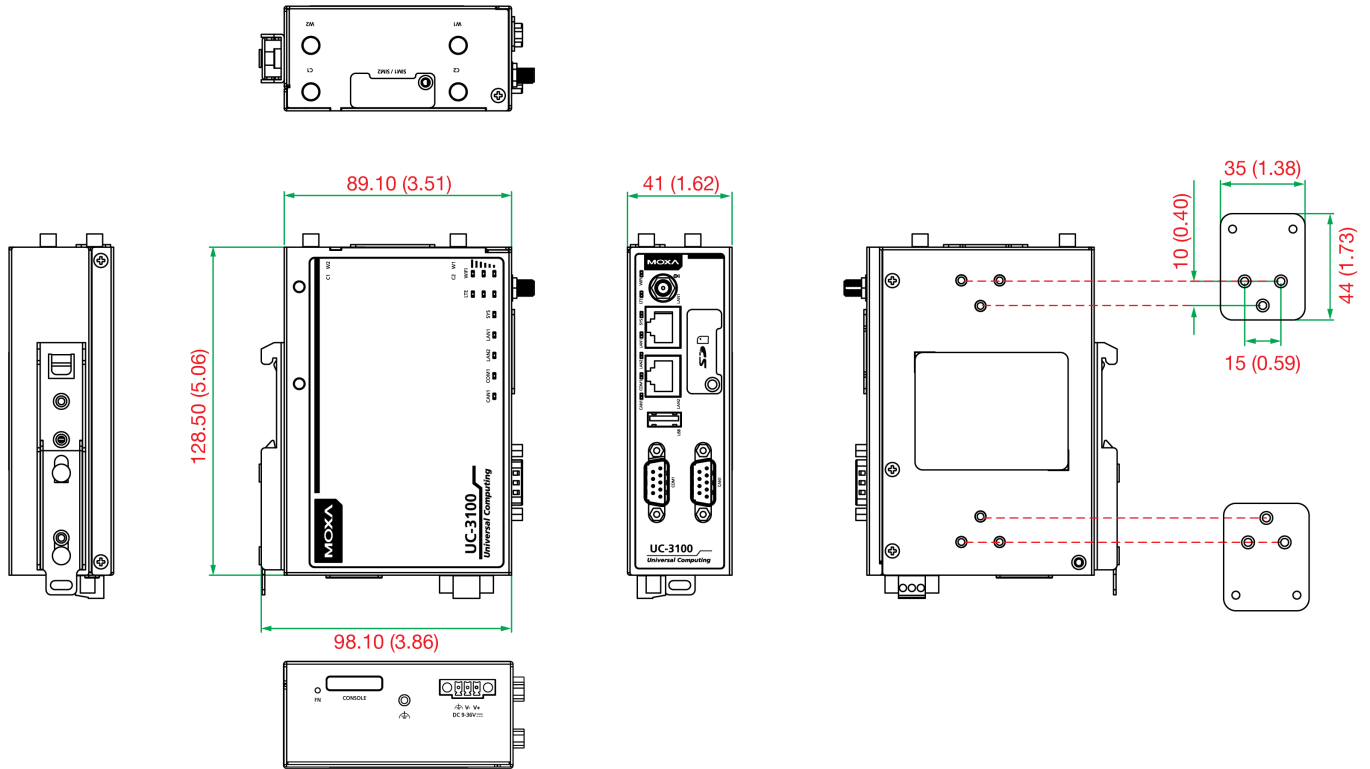
UC-3111

單位：公釐（英吋）



UC-3121

單位：公釐（英吋）



訂購資訊

Model Name	Carrier Approval	CPU	SD Slot	RAM	eMMC	Serial	TPM 2.0	CAN	LTE	Wi-Fi	BLT
UC-3101-T-US-LX	AT&T, Verizon	1 GHz	-	1 GB	8 GB	1	P	-	Cat. 1	-	-
UC-3111-T-US-LX	AT&T, Verizon	1 GHz	1	1 GB	8 GB	2	P	-	Cat. 1	P	P
UC-3111-T-US-LX-NW	AT&T, Verizon	1 GHz	1	1 GB	8 GB	2	P	-	Cat. 1	-	-
UC-3121-T-US-LX	AT&T, Verizon	1 GHz	1	1 GB	8 GB	1	P	1	Cat. 1	P	P
UC-3101-T-EU-LX	-	1 GHz	-	1 GB	8 GB	1	P	-	Cat. 1	-	-
UC-3111-T-EU-LX	-	1 GHz	1	1 GB	8 GB	2	P	-	Cat. 1	P	P
UC-3111-T-EU-LX-NW	-	1 GHz	1	1 GB	8 GB	2	P	-	Cat. 1	-	-
UC-3121-T-EU-LX	-	1 GHz	1	1 GB	8 GB	1	P	1	Cat. 1	P	P
UC-3101-T-AP-LX	-	1 GHz	-	1 GB	8 GB	1	P	-	Cat. 1	-	-
UC-3111-T-AP-LX	-	1 GHz	1	1 GB	8 GB	2	P	-	Cat. 1	P	P
UC-3111-T-AP-LX-NW	-	1 GHz	1	1 GB	8 GB	2	P	-	Cat. 1	-	-
UC-3121-T-AP-LX	-	1 GHz	1	1 GB	8 GB	1	P	1	Cat. 1	P	P

配件（選購）

Power Adapters

PWR-12150-CN-SA-T

Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, China (CN) plug, -40 to 75°C operating temperature

PWR-12150-EU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, Continental Europe (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, United Kingdom (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, Australia (AU) plug, -40 to 75°C operating temperature
PWR-12150-USJP-SA-T	Locking barrel plug, 12 VDC 1.5 A, 100 to 240 VAC, United States/Japan (US/JP) plug, -40 to 75°C operating temperature

Cables

CBL-F9DPF1x4-BK-100	Console cable with 4-pin connector, 1 m
---------------------	---

DIN-Rail Mounting Kits

UC-3100 DIN-Rail Kit	DIN-rail kit with screws
----------------------	--------------------------

Wall-Mounting Kits

UC-3100 Wall-Mounting Kit	Wall-mounting kit with screws
---------------------------	-------------------------------

Antennas

ANT-LTE-ASM-02	GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 2 dBi
ANT-WDB-ARM-02	2.4/5 GHz, omni-directional rubber duck antenna, 2 dBi, RP-SMA (male)
ANT-LTEUS-ASM-01	GSM/GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 1 dBi
UC-3100 Antenna Set	4 dBi at 1575 MHz to 1610 MHz, SMA (male), active GPS/GLONASS, adhesive-type antenna with 20-cm cable; 2 x 4 dBi at 2.4 GHz or 5 dBi at 5 GHz, RP-SMA (female), omnidirectional antennas; 2 x 1.5 dBi 698 to 960 MHz or 1710 to 2700 MHz, SMA (male), LTE, swivel-type omnidirectional portable antennas

© Moxa Inc. 版權所有.2023 年 3 月 07 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。