

OnCell G4308-LTE4 系列

8 連接埠工業 LTE Cat.4 安全行動通訊路由器



特色與優點

- 整合式 LTE Cat.4 模組，支援全球全頻帶
- 雙 SIM 卡 GuaranLink 技術實現行動通訊連結備援
- 支援行動通訊與乙太網路間的 WAN 備援
- 支援 MRC Quick Link Ultra 技術，實現現場裝置的集中監控與遠端存取
- 支援串列 TSC (交通信號控制器) 通訊，適用於 SCATS (雪梨協調自適應交通系統)
- 支援喚醒時間排程或數位輸入訊號 (DI) 的電源管理功能，適用於車輛引擎點火系統
- 透過深度封包檢查 (DPI) 技術檢查工業通訊協定資料
- 堅固輕巧設計，適用於惡劣環境

認證



簡介

OnCell G4308-LTE4 系列是範圍涵蓋全球 LTE 的可靠及強大安全行動通訊路由器。此路由器能穩定地將序列埠與乙太網路資料傳輸至蜂巢式網路介面，並可輕鬆整合至既有或現代化應用中。透過行動通訊與乙太網路介面的 WAN 備援機制，確保系統停機時間降至最低，同時提供額外的部署彈性。為提升行動通訊連線的可靠度與可用性，OnCell G4308-LTE4 系列內建 GuaranLink 技術與雙 SIM 卡設計。此外，OnCell G4308-LTE4 系列更配備雙電源輸入、高等級 EMS 及寬溫操作範圍，可部署於嚴苛環境中。透過電源管理功能，管理員可設定排程來全面控制 OnCell G4308-LTE4 系列的用電狀態，並在閒置時將耗能降至最低以節省成本。

OnCell G4308-LTE4 系列專為強化資安防護設計，支援安全開機 (Secure Boot) 功能，可確保系統完整性、同時提供多層級防火牆政策，可管理網路存取與流量過濾，以及利用 VPN 安全遠端通訊保障遠端通訊安全。

高度整合的工業行動通訊路由器

- 整合式 LTE Cat.4 模組，支援全頻帶
- 8 個具備網管型第 2 層交換器功能的 Gigabit 連接埠
- 支援 3 合 1 RS232/422/485 連接埠，可連接序列埠裝置
- 支援 MRC Quick Link Ultra 技術，便於遠端存取與快速設定。如需更多資訊，請參閱安全遠端存取 (<https://www.moxa.com/en/products/industrial-network-infrastructure/secure-remote-access/moxa-remote-connect-suite>)。

運用先進資安功能抵禦惡意威脅

- 安全啟動機制確保系統完整性，有效防範篡改攻擊
- VPN 功能提供安全加密的資料傳輸通道
- 防火牆原則可保護內部網路免受未經授權的存取與 DoS 攻擊
- 網路位址轉換 (NAT) 技術在受信任與不受信任網路間提供 IP 隱私保護
- 深度封包檢查 (DPI) 技術可針對多種 OT 專用通訊協定，檢查網路封包的資料內容。

工業級 可靠性

- 電源備援的雙電源輸入
- GuaranLink 與雙 SIM 卡支援可靠的行動通訊連線
- -30 至 70°C 寬範圍操作溫度

MX-ROS 因應 日益嚴峻的資安威脅

Moxa 的 MX-ROS 是一款專為工業安全路由器與防火牆設計的軟體平台。該平台透過簡化的網頁及 CLI 介面，為安全路由器提供強健的資安防護與直覺化操作體驗。MX-ROS 裝置隨每個版本更新提供豐富的跨產業操作技術 (OT) 網路管理功能，全面保護您的硬體與軟體安全。

規格

Cellular Interface

Cellular Standards	LTE CAT 4, HSPA, UMTS
LTE Data Rate	20 MHz bandwidth: 150 Mbps DL, 50 Mbps UL
Band Options (GL)	GL(-T) models: LTE B1 (2100 MHz) / B2 (1900 MHz) / B3 (1800 MHz) / B4 (1700/2100 MHz (AWS)) / B5 (850 MHz) / B7 (2600 MHz) / B8 (900 MHz) / B12 (700 MHz) / B13 (700 MHz) / B14 (700 MHz) / B20 (800 MHz) / B25 (1900 MHz) / B26 (850 MHz) / B28 (700 MHz) UMTS/HSPA B1 (2100 MHz) / B2 (1900 MHz) / B4 (1700 MHz(AWS)) / B5 (850 MHz) / B6 (800MHz) / B8 (900 MHz) / B19 (800 MHz)
No. of SIMs	2 Push-eject tray type
SIM Format	Nano SIM
Cellular Antenna Connectors	2 SMA female

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	8
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GNSS Interface

GNSS Bands	GPS (1575.42 MHz) GLONASS (1597.52 MHz) Galileo (1575.42 MHz) BeiDou (1561.098 MHz)
GNSS Antenna Connectors	1 SMA female

Input/Output Interface

Digital Output Channels	1 Relay output with current carrying capacity of 1 A @ 24 VDC
Digital Input Channels	1
Digital Inputs	0 to +3 V for state 0 +9 to +36 V for state 1
Buttons	Reset button

USB Interface

No. of USB Ports	1
USB Connector	USB Type A
USB Standards	USB 2.0 ¹

Serial Interface

No. of Ports	1
Connector	DB9 male
Serial Standards	RS-232/422/485

1. 供 ABC-02 使用。

Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None Even Odd
Baudrate	300 bps to 921.6 kbps
Console Port	RS-232 (TxD, RxD, GND), USB type-C (115200, n, 8, 1) 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

Operation Modes

Standards	Real COM mode RFC2217 mode SCATS TCP Client mode TCP Server mode UDP mode
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LED Interface

LED Indicators	PWR1, PWR2, STATE, USB, SIM1, SIM2, CELL, LTE, GNSS, SERIAL, VPN
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Ethernet Software Features

Management	Back Pressure Flow Control GuaranLink LLDP Moxa Remote Connect (MRC) MXconfig MXsecurity ³ MXview One Power Management Remote SMS Control Syslog
Broadcast Forwarding	IP directed broadcast, broadcast forwarding
Configuration Options	Serial Console ² Web Console (HTTP/HTTPS) Command Line Interface (CLI) through Serial/Telnet/SSH
Network Protocols	DDNS DHCP Server/Client SMTP SNMPv1/v2c/v3 ARP Telnet TCP/IP UDP
Filter	802.1Q VLAN Port-based VLAN
Unicast Routing	Static Route

2. 我們建議使用 Moxa CBL-USBCF9-GY-150 主控台纜線，其可另外購買。
3. 將於 2025 年第 4 季推出。

Multicast Routing	Static Route
Routing Redundancy	VRRP
Time Management	NTP Server/Client SNTP

Security Functions

Hardware-based Security	Secure Boot
Password	User-level password protection
Authentication	Local database RADIUS Access Control List

Firewall

Filter	DDoS Ethernet protocols ICMP IP address MAC address Ports DPI
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NAT

Features	1-to-1 N-to-1 PAT NAT loopback Double NAT
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IPsec VPN

Authentication	MD5 and SHA (SHA-256) RSA (key size: 1024-bit, 2048-bit) Pre-shared Key or X.509 v3 certificate
Encryption	DES 3DES AES-128 AES-192 AES-256
Concurrent VPN Tunnels	Max. 15 IPsec VPN tunnels
Protocols	IPsec

OpenVPN

OpenVPN	OpenVPN (client)
Encryption	AES-128/192/256 CBC AES-128/192/256 GCM CHACHA20-POLY1305

Power Parameters

Input Current	1.16 A (max.)
Input Voltage	12 to 48 VDC
Power Consumption	47 mW at 12 V (idle) 11.05 W at 12 V (typ.) 14.28 W at 48 V (max.)

Power Connector	Screw-locked terminal block
Reverse Polarity Protection	Supported
Physical Characteristics	
Housing	Metal
Dimensions	125 x 58.2 x 100 mm (4.92 x 2.29 x 3.94 in)
Weight	707 g (1.56 lb)
Installation	DIN-rail mounting Wall mounting (with optional kit)
IP Rating	IP40 ⁴
Environmental Limits	
Operating Temperature	Standard Models: -10 to 55°C (14 to 131°F) Wide Temp. Models: -30 to 70°C (-22 to 158°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Standards and Certifications	
EMC	EN 55032/35 EN 61000-6-2/-6-4 CISPR 32/35
EMI	ICES-003, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV (level 4) ⁵ IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m (level 3); 1.8, 2.6, 3.5, 5GHz: 3V/m (level 2) IEC 61000-4-4 EFT: Power: 2 kV; IO: 1 kV (level 3) ⁵ IEC 61000-4-5 Surge: Power: 2 kV, Signal: 2 kV (level 3) ⁵ IEC 61000-4-6 CS: 0.15 MHz to 80 MHz; Signal: 10 V (level 3) IEC 61000-4-8: 30 A/m (level 4)
Freefall	IEC 60068-2-32
Radio Frequency	FCC ID RI7LE910CXWWX EN 303 413
Radio	RCM IC: 5131A-LE910CXWWX UKCA
Cellular Standards	EN 301 489-1/-19 (GPS) EN 301 489-1/-52 (WCDMA/LTE) EN 301 511 EN 301908-1/-2/-13
Safety	UL 62368-1 EN 62368-1
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
MTBF	
Time	1,533,742 hrs
Standards	Telcordia Standard SR-332

4. 蓋上橡膠 SIM 插槽蓋。
5. 此裝置展現超越認證標準要求的卓越效能。

Warranty

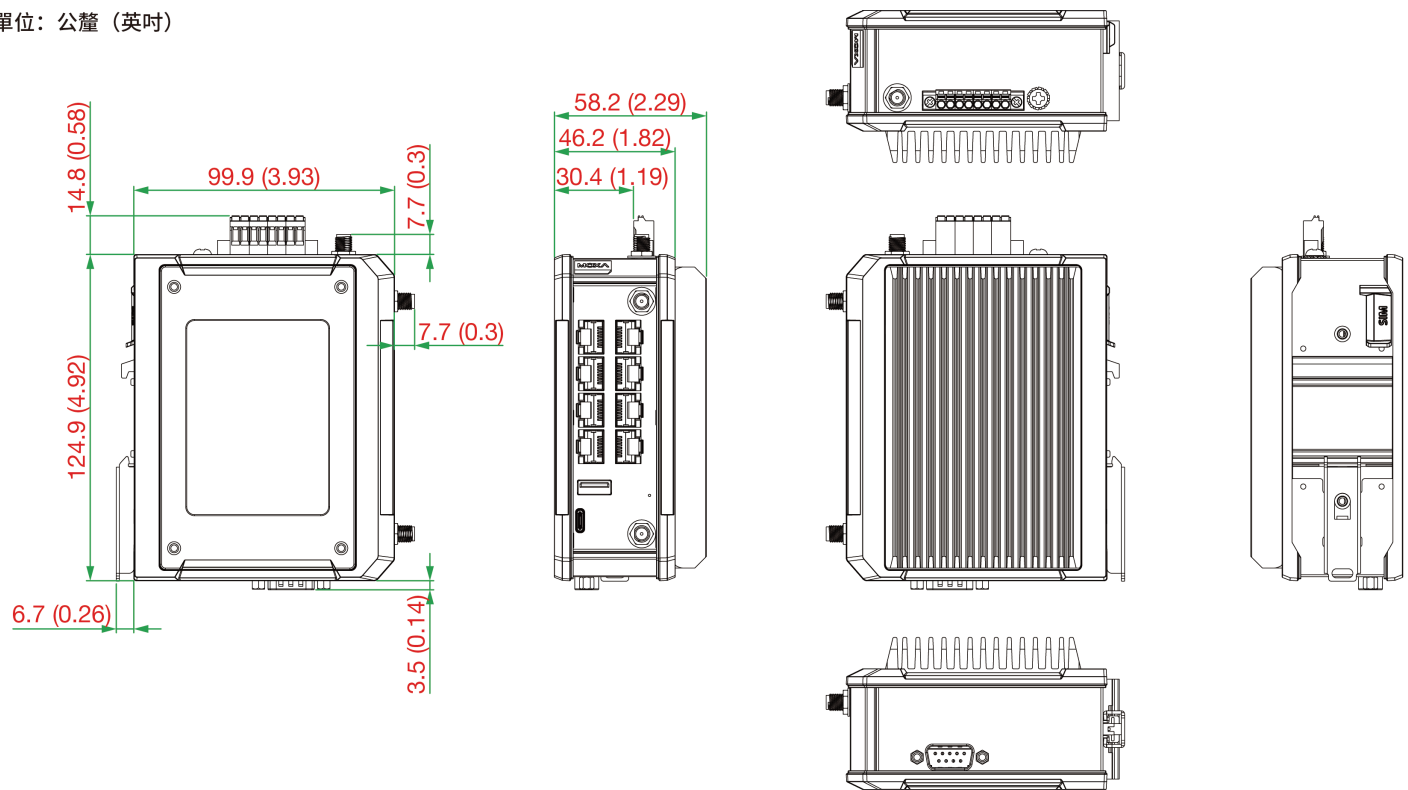
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x OnCell G4308-LTE4 Series secure cellular router
Documentation	1 x quick installation guide 1 x warranty card

尺寸

單位：公釐（英吋）



訂購資訊

Model Name	LTE Band	Operating Temp.
OnCell G4308-LTE4-GL	B1 (2100 MHz) / B2 (1900 MHz) / B3 (1800 MHz) / B4 (1700/2100 MHz (AWS)) / B5 (850 MHz) / B7 (2600 MHz) / B8 (900 MHz) / B12 (700 MHz) / B13 (700 MHz) / B14 (700 MHz) / B20 (800 MHz) / B25 (1900 MHz) / B26 (850 MHz) / B28 (700 MHz)	-10 to 55°C
OnCell G4308-LTE4-GL-T	B1 (2100 MHz) / B2 (1900 MHz) / B3 (1800 MHz) / B4 (1700/2100 MHz (AWS)) / B5 (850 MHz) / B7 (2600 MHz) / B8 (900 MHz) / B12 (700 MHz) / B13 (700 MHz) / B14 (700 MHz) / B20 (800 MHz) / B25 (1900 MHz) / B26 (850 MHz) / B28 (700 MHz)	-30 to 70°C

配件（選購）

Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
ABC-02-USB-T	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°C operating temperature

Antennas

ANT-5G-OSM-04	4 dBi LTE/5G NR dipole antenna with SMA (male) connector
MAT-5G-PA-SM-2-06-3m	6 dBi MIMO panel antenna with 2 SMA (male) connectors for cellular applications, 3 m cable
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-SMSF-R3-100	Wireless antenna cable with SMA (male) to SMA (female) connectors, magnetic base, RG-174 type, 1 m
A-CRF-SMSF-L1-300	Wireless antenna cable with SMA (male) to SMA (female) connectors, magnetic base, LMR195 type, 3 m
A-CRF-SMSF-C2-300	Wireless antenna cable with SMA (male) to SMA (female) connectors, CFD-200 type, 3 m
A-CRF-SMSF-C2-500	Wireless antenna cable with SMA (male) to SMA (female) connectors, CFD-200 type, 5 m

Mounting Kits

WK-41-01	Wall-mounting kit with 1 plate (41 x 144 x 7.5 mm)
WK-160-01	Wall-mounting kit with 1 plate (160 x 89 x 2.0 mm), 4 screws, black

Software

LIC-MXviewOne-NEW-XN-SR	MXview One node license with customizable node quantity (minimum 1 node)
LIC-MRCQL-ADD-1Y-XN-SR	1-year MRC Quick Link add-on license with customizable node quantity (minimum 1 node)

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