

OnCell G3150A-LTE Series

Rugged LTE serial/Ethernet-to-cellular gateways



Features and Benefits

- Dual cellular operator backup with dual-SIM
- GuaranLink for reliable cellular connectivity
- Rugged hardware design well suited for hazardous locations (ATEX Zone 2/ IECEx)
- VPN secure connection capability with IPsec, GRE, and OpenVPN protocols
- Industrial design with dual power inputs and built-in DI/DO support
- Power isolation design for better device protection against harmful electrical interference

Certifications



Introduction

The OnCell G3150A-LTE is a reliable, secure, LTE gateway with state-of-the-art global LTE coverage. This LTE cellular gateway provides a more reliable connection to your serial and Ethernet networks for cellular applications.

To enhance industrial reliability, the OnCell G3150A-LTE features isolated power inputs, which together with high-level EMS and wide-temperature support give the OnCell G3150A-LTE the highest level of device stability for any rugged environment. In addition, with dual-SIM, GuaranLink, and dual power inputs, the OnCell G3150A-LTE supports network redundancy to ensure uninterrupted connectivity.

The OnCell G3150A-LTE also comes with a 3-in-1 serial port for serial-over-LTE cellular network communication. Use the OnCell G3150A-LTE to collect data and exchange data with serial devices.

High-Speed Remote Gateway with VPN and Network Security

- Multi-band support
- Secure and reliable VPN support with NAT/OpenVPN/GRE/IPsec functionality
- Cybersecurity features based on IEC 62443

Industrial Isolation and Redundancy Design

- Dual power inputs for power redundancy
- Dual-SIM support for cellular connection redundancy
- Power isolation for power source insulation protection
- 4-tier GuaranLink for reliable cellular connectivity
- -30 to 70°C wide operating temperature

Specifications

Cellular Interface

Cellular Standards	GSM, GPRS, EDGE, UMTS, HSPA, LTE CAT-3
Band Options (EU)	LTE Band 1 (2100 MHz) / LTE Band 3 (1800 MHz) / LTE Band 7 (2600 MHz) / LTE Band 8 (900 MHz) / LTE Band 20 (800 MHz) UMTS/HSPA 2100 MHz / 1900 MHz / 850 MHz / 800 MHz / 900 MHz
Band Options (US)	LTE Band 2 (1900 MHz) / LTE Band 4 (AWS MHz) / LTE Band 5 (850 MHz) / LTE Band 13 (700 MHz) / LTE Band 17 (700 MHz) / LTE Band 25 (1900 MHz) UMTS/HSPA 2100 MHz / 1900 MHz / AWS / 850 MHz / 900 MHz Universal quad-band GSM/GPRS/EDGE 850 MHz / 900 MHz / 1800 MHz / 1900 MHz
LTE Data Rate	20 MHz bandwidth: 100 Mbps DL, 50 Mbps UL 10 MHz bandwidth: 50 Mbps DL, 25 Mbps UL
HSPA Data Rates	42 Mbps DL, 5.76 Mbps UL

EDGE Data Rates	237 kbps DL, 237 kbps UL
GPRS Data Rates	85.6 kbps DL, 42.8 kbps UL
No. of SIMs	2
Cellular Antenna Connectors	2 SMA female
Ethernet Interface	
10/100BaseT(X) Ports (RJ45 connector)	1
GPS Interface	
GPS Antenna Connector	1 SMA female, GPS (1575.42 MHz), GLONASS (1602 MHz)
Input/Output Interface	
Alarm Contact Channels	1, Resistive load: 1 A @ 24 VDC
Digital Inputs	+13 to +30 V for state 1 3 to -30 V for state 0
Buttons	Reset button
Ethernet Software Features	
Management	ARP, DDNS, DHCP server, SMTP, SNMPv1/v2c/v3, Syslog, Telnet, TCP/IP, UDP, Web Console, Serial Console, Telnet Console, Remote SMS Control, Wireless Search Utility, OnCell Central Manager, GuaranLink
Security	HTTPS
Routing	NAT, Port forwarding
Firewall	Filter: MAC, IP protocol, port-based, Access IP list
Time Management	SNTP Client
IPsec VPN	
Authentication	PSK/X.509/RSA
Encryption	DES, 3DES, AES, MD5, SHA-1, DH2, DH5
Concurrent VPN Tunnels	5
OpenVPN	
Encryption	Blowfish CBC, DES CBC, DES-EDE3 CBC, AES-128/192/256 CBC
OpenVPN	OpenVPN (client and server), Tunnel mode (routing) and TAP mode (bridge)
Concurrent VPN Tunnels	5
Serial Interface	
No. of Ports	1
Serial Standards	RS-232/422/485
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Baudrate	75 bps to 921.6 kbps

Console Port	RS-232 (RJ45)
Connector	DB9 male
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
Physical Characteristics	
Housing	Metal
IP Rating	IP30
Dimensions	126 x 30 x 107.5 mm (4.96 x 1.18 x 4.23 in)
Weight	492 g (1.08 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)
Environmental Limits	
Operating Temperature	Standard Models: 0 to 55°C (32 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	
Safety	UL 60950-1
Hazardous Locations	ATEX, IECEx
EMC	EN 61000-6-2/-6-4
EMI	CISPR 22, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 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; 150 kHz to 80 MHz IEC 61000-4-8: 30 A/m
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Radio Frequency	FCC ID N7NMC7355, EN 301 489-1, EN 301 489-7, EN 301 511
Power Parameters	
Power Connector	Terminal block
Input Voltage	Redundant dual inputs, 12 to 48 VDC
Input Current	0.7 A @ 12 VDC, 0.2 A @ 48 VDC
Reverse Polarity Protection	Supported

MTBF

Time	528,596 hrs
Standards	Telcordia SR332

Warranty

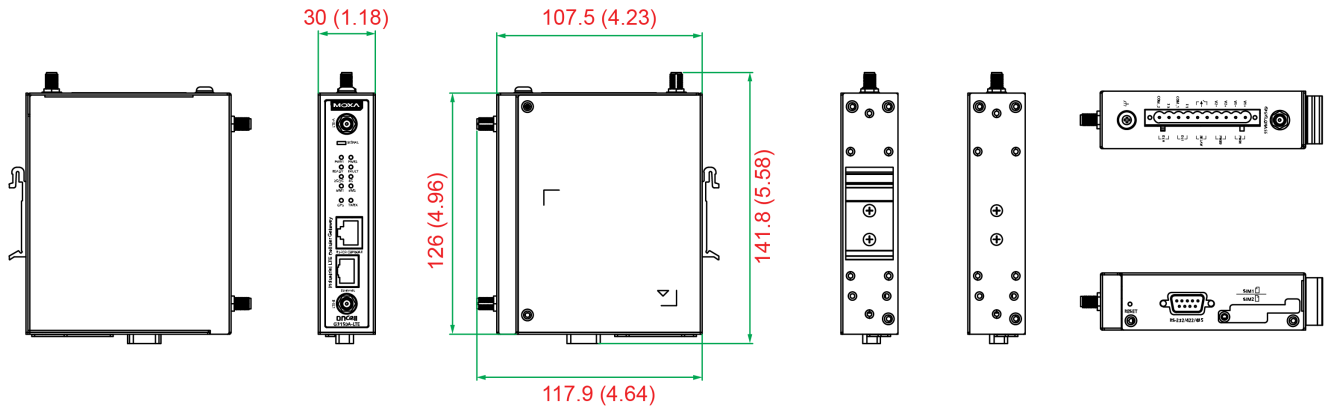
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x OnCell G3150A-LTE Series LTE cellular gateway ¹
Installation Kit	1 x DIN-rail kit
Antenna	2 x LTE
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Left Side View

Front View

Right Side View

Rear View

Top and Bottom View

Ordering Information

Model Name	Cellular Standard	LTE Band	Operating Temp.
OnCell G3150A-LTE-US	4G LTE	US Band (B2/B4/B5/B13/B17/B25)	0 to 55°C
OnCell G3150A-LTE-US-T	4G LTE	US Band (B2/B4/B5/B13/B17/B25)	-30 to 70°C
OnCell G3150A-LTE-EU	4G LTE	EU Band (B1/B3/B7/B8/B20)	0 to 55°C
OnCell G3150A-LTE-EU-T	4G LTE	EU Band (B1/B3/B7/B8/B20)	-30 to 70°C

Accessories (sold separately)

Antennas

ANT-LTEUS-ASM-01	GSM/GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 1 dBi
ANT-LTE-ASM-02	GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 2 dBi
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.

1. An activated SIM card (not included) must be provided by a third party Cellular Service Provider.

ANT-LTE-ASM-05 BK	LTE stick antenna that covers 704-960/1710-2620 MHz with a gain of 5 dBi.
ANT-LTE-ANF-04	GSM/GPRS/EDGE/UMTS/HSPA/LTE, omni-directional outdoor antenna, 4 dBi, IP66
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-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.
ANT-GPS-CSM-03-3m	Passive GPS antenna, 3 dBi, 1572 MHz
ANT-GPS-CSM-04-0.2m BK	ANT-GPS-CSM-04-0.2m BK
ANT-GPS-OSM-05-3M BK	Active GPS antenna, 26 dBi, 1572 MHz, L1 band antenna for GPS

Wireless Antenna Cables

A-CRF-SMSF-R3-100	Cellular magnetic-base SMA connector with 1-meter RF cable
CRF-SMA(M)/N(M)-300	N-type (male) to SMA (male) CFD200 cable, 3 m

Wall-Mounting Kits

WK-36-02	Wall-mounting kit, 2 plates, 6 screws, 36 x 67 x 2 mm
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