

OnCell G3101/G3201 Series

Compact quad-band GSM/GPRS IP gateways



Features and Benefits

- Universal quad-band GSM/GPRS 850/900/1800/1900 MHz
- Desktop or DIN-rail installation
- Connect Ethernet and serial devices
- Centralized private IP management software with OnCell Central Manager
- Choice of configuration methods, including web console, serial console, and Telnet

Certifications



Introduction

The OnCell G3111/G3151/G3211/G3251 are cellular IP gateways that can conveniently and transparently connect up to two devices to a cellular network, allowing you to connect serial devices to your existing Ethernet with only basic configuration. To ensure zero data loss and on-demand cellular communication, OnCell devices are integrated with the GuaranLink function.

The G3111/G3151/G3211/G3251 cellular IP gateways are compact, and can be placed on a desk or mounted on a DIN rail. The products come with a 12 to 48 VDC power input and have 2 kV EFT/surge protection to allow the use of different types of field power sources. The serial ports are also protected by 15 kV ESD line protection to keep your system safe from unexpected electrical discharges.

Specifications

Cellular Interface

| | |
|-----------------------------|--|
| Cellular Standards | GSM, GPRS |
| Band Options | Quad-band GSM/GPRS 850 MHz / 900 MHz / 1800 MHz / 1900 MHz |
| GPRS Data Rates | 85.6 kbps DL, 43 kbps UL |
| GPRS Multi-Slot Class | 10 |
| GPRS Terminal Device Class | Class B |
| GPRS Coding Schemes | CS1 to CS4 |
| Cellular Antenna Connectors | 1 SMA female |
| No. of SIMs | 1 |
| SIM Control Voltage | 3 V |

Ethernet Interface

| | |
|---------------------------------------|---|
| 10/100BaseT(X) Ports (RJ45 connector) | 1 |
| Total Port Count | 1 |

Ethernet Software Features

| | |
|-----------------|--|
| Management | ARP, DDNS, DHCP/BOOTP, DNS Relay, HTTP, SMTP, SNMPv1/v2c/v3, TCP/IP, Telnet, UDP, Web Console, Wireless Search Utility, Serial Console, Telnet Console, Remote SMS Control, OnCell Central Manager, GuaranLink |
| Routing | NAT, Port forwarding, WAN IP Filtering |
| Security | HTTPS/SSL, SSH |
| Time Management | SNTP |

Firewall

| | |
|--------|------|
| Filter | ICMP |
|--------|------|

Serial Interface

| | |
|------------------|--|
| Serial Standards | OnCell G3211/G3111: RS-232 OnCell G3151/G3251: RS-232/422/485 |
| Data Bits | 5, 6, 7, 8 |
| Stop Bits | 1, 1.5, 2 |
| Parity | None, Even, Odd, Space, Mark |
| Flow Control | RTS/CTS, XON/XOFF |
| Baudrate | 50 bps to 921.6 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 |

Operation Modes

| | |
|-----------|--|
| Standards | Ethernet Modem mode Real COM mode RFC2217 mode TCP Client mode TCP Server mode UDP mode SMS Tunnel Reverse Real COM |
|-----------|--|

Power Parameters

| | |
|-----------------|---------------------------------|
| Input Voltage | 12 to 48 VDC |
| Power Connector | Power jack |
| Input Current | 0.9 A @ 12 VDC, 0.23 A @ 48 VDC |

Physical Characteristics

| | |
|------------|--|
| Housing | Aluminum |
| IP Rating | IP30 |
| Dimensions | 77 x 111 x 26 mm (3.03 x 4.37 x 1.02 in) |
| Weight | OnCell G3151/G3111: 170 g (0.38 lb) OnCell G3211/G3251: 190 g (0.42 lb) |

Environmental Limits

| | |
|--|----------------------------|
| Operating Temperature | -30 to 55°C (-22 to 131°F) |
| Storage Temperature (package included) | -40 to 75°C (-40 to 167°F) |
| Ambient Relative Humidity | 5 to 95% (non-condensing) |

Standards and Certifications

| | |
|-----------------|---|
| Safety | UL 60950-1 |
| EMC | EN 55032/24 |
| EMI | CISPR 32, 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: 4 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF |
| Radio Frequency | FCC Part 22H, FCC Part 24E, EN 301 489-1, EN 301 489-7, EN 301 511, PTCRB (OnCell G3151 only) |

MTBF

| | |
|-----------|-----------------|
| Time | 1,483,420 hrs |
| Standards | Telcordia SR332 |

Warranty

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

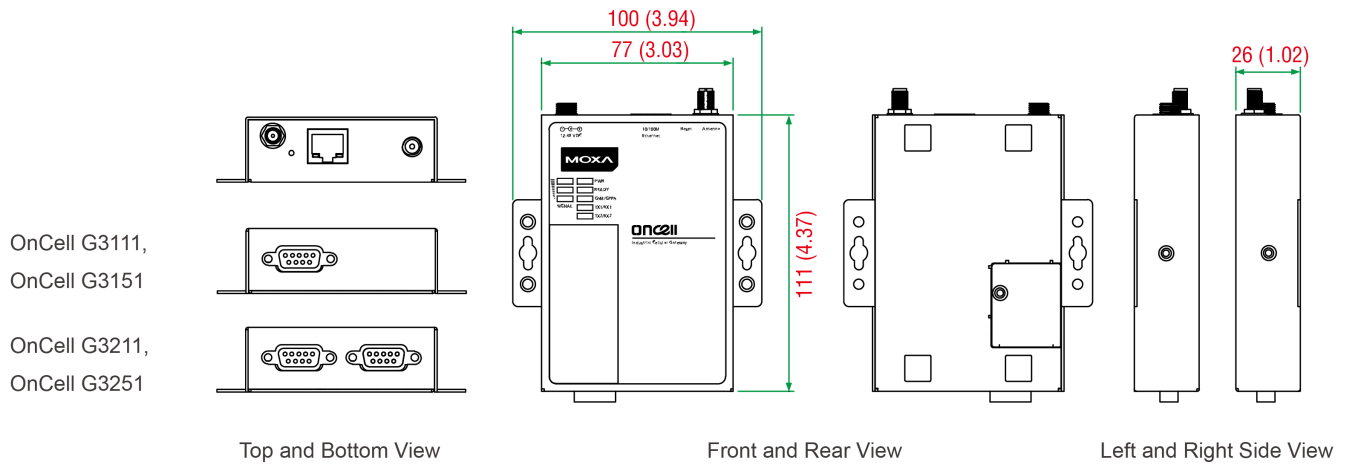
Package Contents

| | |
|------------------|---|
| Device | 1 x OnCell G3101/G3201 Series IP gateway ¹ |
| Installation Kit | 1 x DIN-rail kit 1 x rubber stand |
| Antenna | 1 x GSM/GPRS |
| Power Supply | DC power supply (screw-on type) |
| Documentation | 1 x quick installation guide 1 x warranty card |

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

Dimensions

Unit: mm (inch)



Ordering Information

| Model Name | Cellular Standard | GPRS Band | Operating Temp. | No. of Serial Ports | Serial Standards |
|--------------|-------------------|-----------------------|-----------------|---------------------|------------------|
| OnCell G3111 | GSM/GPRS | 850/900/1800/1900 MHz | -30 to 55°C | 1 | RS-232 |
| OnCell G3151 | GSM/GPRS | 850/900/1800/1900 MHz | -30 to 55°C | 1 | RS-232/422/485 |
| OnCell G3211 | GSM/GPRS | 850/900/1800/1900 MHz | -30 to 55°C | 2 | RS-232 |
| OnCell G3251 | GSM/GPRS | 850/900/1800/1900 MHz | -30 to 55°C | 2 | RS-232/422/485 |

Accessories (sold separately)

Wireless Antenna Cables

| | |
|-------------------|--|
| A-CRF-SMSF-R3-100 | Cellular magnetic-base SMA connector with 1-meter RF cable |
|-------------------|--|

© Moxa Inc. All rights reserved. Updated Aug 29, 2019.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.