

# OnCell G3111/G3151/G3211/G3251

## Compact quad-band GSM/GPRS IP gateways



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



### Overview

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 to your existing Ethernet and serial devices 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 used on a desktop 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

**Standards:** GSM/GPRS  
**Band Options:** Quad-band 850/900 and 1800/1900 MHz  
**GPRS Multi-slot Class:** Class 10  
**GPRS Data Rate:** 85.6 Kbps DL, 43 Kbps UL  
**GPRS Terminal Device Class:** Class B  
**GPRS Coding Schemes:** CS1 to CS4

**Tx Power:**  
 GSM1800/1900: 1 W  
 EGSM850/900: 2 W

#### LAN Interface

**Number of Ports:** 1  
**Ethernet:** 10/100 Mbps, RJ45 connector, Auto MDI/MDIX

#### SIM Interface

**Number of SIMs:** 1  
**SIM Control:** 3 V

#### Serial Interface

**Number of Ports:** 1 or 2  
**Serial Standards:**  
 OnCell G3111: 1 RS-232 port, DB9 male  
 OnCell G3151: 1 RS-232/422/485 port, DB9 male  
 OnCell G3211: 2 RS-232 port, DB9 male  
 OnCell G3251: 2 RS-232/422/485 port, DB9 male

#### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8  
**Stop Bits:** 1, 1.5, 2 (when parity = None)  
**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-485-4w:** Tx+, Tx-, Rx+, Rx-, GND  
**RS-485-2w:** Data+, Data-, GND

#### Software

**Network Protocols:** ARP, DDNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, SMTP, SNMP, SSH, SSL, TCP/IP, Telnet, UDP  
**Router/Firewall:** NAT, port forwarding, WAN IP filtering  
**Authentication:** Local user-name and password  
**Cellular Connectivity:** GuaranLink  
**Serial Security:** Accessible IP list  
**Serial Operation Modes:** Real COM, Reverse Real COM, TCP Server, TCP Client, UDP, SMS Tunnel, RFC2217, Ethernet Modem  
**Windows Real COM Drivers:** Windows 2000/XP/2003/Vista/Server 2008, Windows XP/2003/Vista/Server 2008 x64

#### Management Software

**Utilities:** OnCell Search Utility  
**Configuration and Management Options:** SNMP v1/v2c/v3, Web/Telnet/Serial Console, SSH, Remote SMS Control, Auto IP Report  
**Private IP Solution:** OnCell Central Manager

#### Physical Characteristics

**Housing:** Aluminum, providing IP30 protection  
**Weight:**  
 OnCell G3111/G3151: 165±5 g  
 OnCell G3211/G3251: 185±5 g  
**Dimensions:** 111 x 77 x 26 mm (4.37 x 3.03 x 1.02 in)

### Environmental Limits

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

### Power Requirements

**Number of Power Inputs:** 1 power jack  
**Input Voltage:** 12 to 48 VDC  
**Power Consumption:** 12 to 48 VDC, 350 mA (idle), 900 mA (max.)

### Standards and Certifications

**Safety:** UL 60950-1  
**EMC:**  
 FCC Part 15 Subpart B Class A  
 EN 55022 Class A, EN 55024  
**Radio:** FCC Part 22H, FCC Part 24E, EN 301 489-1, EN 301 489-7,  
 EN 301 511, PTCRB (OnCell G3151 Only)

### Reliability

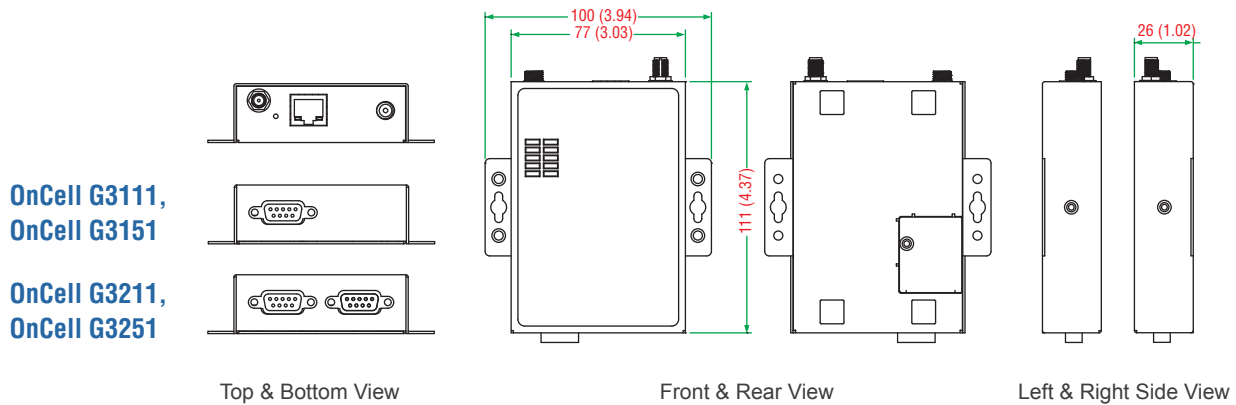
**MTBF (mean time between failures):**  
 OnCell G3111: 664,000 hrs  
 OnCell G3151: 661,000 hrs  
 OnCell G3211: 647,000 hrs  
 OnCell G3251: 642,000 hrs

### Warranty

**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions

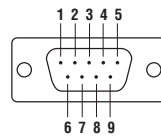
Unit: mm (inch)



**OnCell G3111,  
OnCell G3151**

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### DB9 male connector



PIN	RS-232	RS-422/485-4w	RS-485-2w
1	DCD	TxD-(A)	-
2	RxD	TxD+(B)	-
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	-	-
7	RTS	-	-
8	CTS	-	-
9	-	-	-

## Ordering Information

### Available Models

**OnCell G3111:** 1-port quad-band industrial GSM/GPRS IP-modem, RS-232, DB9 male, 12-48 VDC  
**OnCell G3151:** 1-port quad-band industrial GSM/GPRS IP-modem, RS-232/422/485, DB9 male, 12-48 VDC  
**OnCell G3211:** 2-port quad-band industrial GSM/GPRS IP-Gateway, RS-232, DB9 male, 12-48 VDC  
**OnCell G3251:** 2-port quad-band industrial GSM/GPRS IP-Gateway, RS-232/422/485, DB9 male, 12-48 VDC

**Note:** Please visit Moxa's website for a complete list of optional wireless accessories and antennas available for Moxa's wireless products.

### Package Checklist

- OnCell IP gateway
- Rubber SMA antenna
- DC power supply (screw-on type)
- DIN-rail kit
- Rubber stand
- Documentation and software CD
- Quick installation guide
- Warranty card

**Note:** An activated SIM card (not included) must be provided by a third party Cellular Service Provider