# OnCell G3111/G3151/G3211/G3251

# Compact quad-band GSM/GPRS IP gateways





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







### **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 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 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 850/900/1800/1900 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

Cellular Antenna Connectors: 1, SMA (female)

Software

Network Protocols: ARP, DDNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, SMTP, SNTP, SSH, SSL, TCP/IP, Telnet, UDP Routing/Firewall: NAT. port forwarding, WAN IP filtering

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 Edition / Windows 8 / Windows 10

Fixed TTY Drivers: SCO Unix. SCO OpenServer 5, SCO OpenServer 6. UnixWare 7. SVR 4.2. QNX 4.25. QNX 6. Solaris 10. FreeBSD 5.

Linux Real TTY Drivers: Linux kernels 2.2.x, 2.4.x, 2.6.x Authentication: Local user-name and password

#### **Management Software**

Utilities: OnCell Search Utility

Configuration and Management Options: SNMP v1/v2c/v3, Web/ Telnet/Serial Console, SSH, Remote SMS Control, Caller ID, Auto IP

Centralized Device Management, Monitoring and Private IP

Solution: OnCell Central Manager

**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

#### **Physical Characteristics**

Housing: Aluminum, providing IP30 protection

Weight:

OnCell G3111/G3151: 170 g (0.38 lb) OnCell G3211/G3251: 190 g (0.42 lb)

**Dimensions:** 77 x 111 x 26 mm (3.03 x 4.37 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% (non-condensing)

#### **Power Requirements**

Number of Power Inputs: 1 power jack

Input Voltage: 12 to 48 VDC

Input Current: 0.9 A @ 12 VDC; 0.23 A @ 48 VDC

#### **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

Radio: FCC Part 22H, FCC Part 24E, EN 301 489-1, EN 301 489-7,

EN 301 511, PTCRB (OnCell G3151 only)

#### MTBF (mean time between failures)

#### Time:

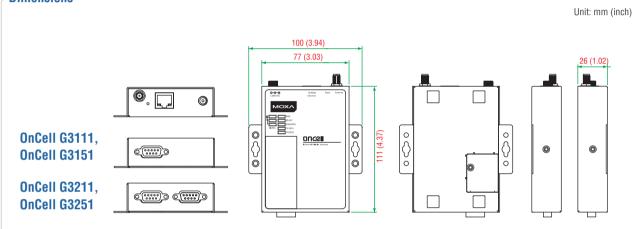
OnCell G3111: 664,000 hrs OnCell G3151: 661,000 hrs OnCell G3211: 647,000 hrs OnCell G3251: 642,000 hrs **Standard:** Telcordia SR332

#### Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

#### Dimensions



Top & Bottom View

Front & Rear View

Left & Right Side View

#### **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 gateway, RS-232, -30 to 55°C operating temperature

**OnCell G3151:** 1-port quad-band industrial GSM/GPRS IP gateway, RS-232/422/485, -30 to 55°C operating temperature

OnCell G3211: 2-port quad-band industrial GSM/GPRS IP gateway, RS-232, -30 to 55°C operating temperature

OnCell G3251: 2-port quad-band industrial GSM/GPRS IP gateway, RS-232/422/485, -30 to 55°C operating temperature

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 G3xx1 IP gateway
- 1 GSM/GPRS antenna: ANT-CQB-ASM-01
- Rubber stand
- DC power supply (screw-on type)
- DIN-rail kit
- Quick installation guide (printed)
- Warranty card

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