

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 Manager
- > 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

Interface

Cellular Antenna Connectors: 1, SMA (female)

Software

Network Protocols: ARP, DDNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, SMTP, SNMP, 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, FreeBSD 6
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 Report
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

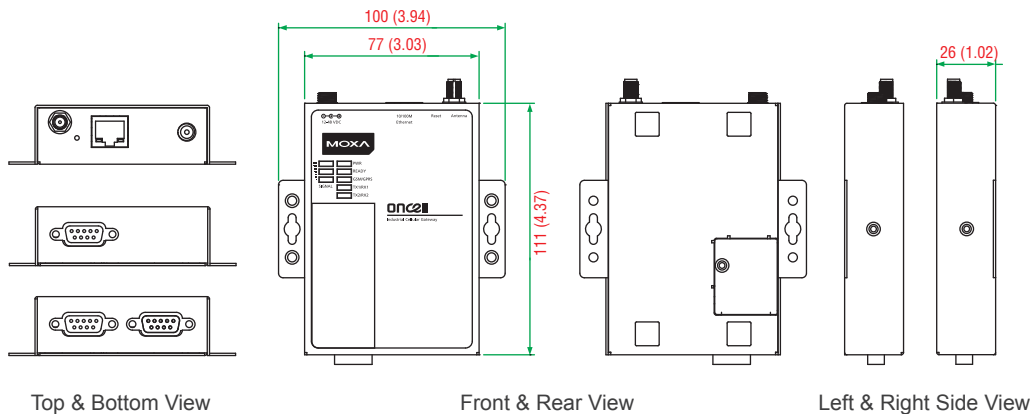
Details: See www.moxa.com/warranty

Dimensions

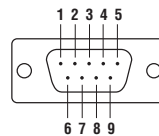
Unit: mm (inch)

OnCell G3111,
OnCell G3151

OnCell G3211,
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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 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.