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, 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
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, Auto IP Report
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

MOXA®

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 55022/24
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: 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
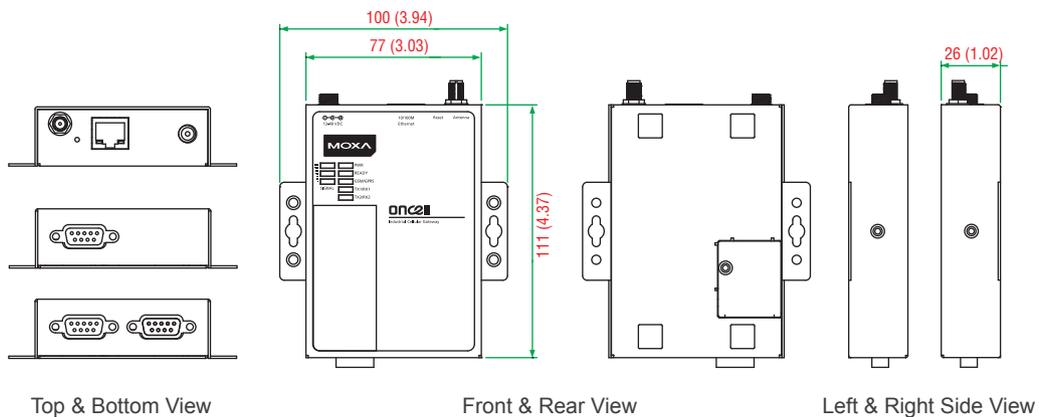**Standard:** Telcordia SR332

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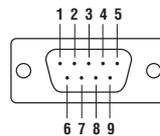**Warranty Period:** 5 years
Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)

OnCell G3111, OnCell G3151

OnCell G3211, OnCell G3251

Top & Bottom View

100 (3.94)
77 (3.03)
111 (4.37)
26 (1.02)

Front & Rear View

Left & Right Side View

DB9 male connector

1 2 3 4 5
6 7 8 9

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
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

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