

# OnCell G3110/G3150

## Advanced quad-band GSM/GPRS/EDGE IP gateways



- > Universal quad-band GSM/GPRS/EDGE-850/900/1800/1900-MHz
- > Connect to Ethernet and serial devices over an integrated VPN
- > Redundant DC power input
- > 2 digital inputs and 1 relay output
- > Centralize private IP management software with OnCell Central Manager
- > DIN-rail mounting
- > GuaranLink for reliable, consistent connectivity



### Overview

The OnCell G3110 and G3150 industrial RS-232 and RS-232/422/485 GSM/GPRS/EDGE IP gateways are designed to transmit data transparently over GSM/GPRS/EDGE cellular networks. The OnCell G3110 and G3150 can transmit data from both serial devices and Ethernet devices to a WAN interface, and come with private IP management software and VPN support for handling the IP address issue in cellular network structures. The products also come with a

built-in relay output that can be configured to indicate the priority of events when notifying or warning engineers in the field. Two digital inputs also allow you to connect basic I/O devices, and the OnCell's redundant power inputs assure non-stop operation. The OnCell G3110/G3150 series also offers wide temperature models which can withstand extreme temperature conditions.

### Specifications

#### Cellular Interface

**Standards:** GSM/GPRS/EDGE

**Band Options:** Quad-band 850/900 and 1800/1900 MHz

**EDGE Multi-slot Class:** Class 12

**EDGE Data Rate:** 237 Kbps DL, 237 Kbps UL

**EDGE Terminal Device Class:** Class B

**GPRS Multi-slot Class:** Class 12

**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

**Serial Standards:**

OnCell G3110: RS-232 (DB9 male connector)

OnCell G3150: RS-232 (DB9 male connector), RS-422/485 (5-pin terminal block connector)

#### 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

#### I/O Interface

**Alarm Contact:** 1 relay output with current carrying capacity of 1 A @ 24 VDC

**Digital Inputs:** 2 electrically isolated inputs

• +13 to +30 V for state "1" (On)

• +3 to -30 V for state "0" (Off)

#### Software

**Network Protocols:** ARP, AT Commands (Virtual Modem), DDNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, IPsec, 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:** RReal COM, Reverse Real COM, TCP Server, TCP Client, UDP, SMS Tunnel, RFC2217, Secure Real COM, Secure Reverse Real COM, Secure TCP Server, Secure TCP Client, Virtual Modem, Ethernet Modem

**Windows XP/2003/Vista/Server 2008 x64 Edition**

**Windows Real COM Drivers:** Windows 2000/XP/2003/Vista/Server 2008, Windows XP/2003/Vista/Server 2008 x64 Edition

**Fixed TTY Drivers:** SCO Unix, SCO OpenServer 5, SCO OpenServer 6, UnixWare 7, SVR4.2, 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

### 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:** 440±5 g  
**Dimensions:** 125.5 x 28.0 x 92.5 mm (4.94 x 1.10 x 3.64 in)

### Environmental Limits

**Operating Temperature:**  
 Standard Temperature: -30 to 55°C (-22 to 131°F)  
 Wide Temperature: -30 to 70°C (-22 to 158°F)  
**Storage Temperature:** -40 to 75°C (-40 to 167°F)  
**Ambient Relative Humidity:** 5 to 95% (30°C, non-condensing)

### Power Requirements

**Input Voltage:** 12 to 48 VDC  
**Power Consumption:** 12 to 48 VDC, 400 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 G3150 only)

### Reliability

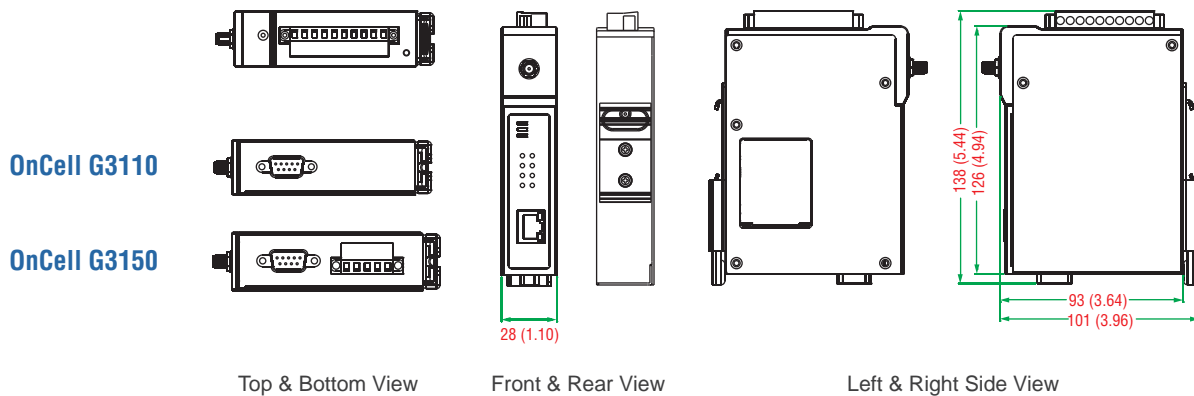
**MTBF (mean time between failures):** 339,000 hrs

### Warranty

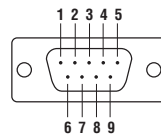
**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Dimensions & Pin Assignment

Unit: mm (inch)



### 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 G3110:** 1-port Quad-band industrial GSM/GPRS/EDGE IP-Gateway, RS-232, DB9 male, 12-48 VDC  
**OnCell G3150:** 1-port Quad-band industrial GSM/GPRS/EDGE IP-Gateway, RS-232/422/485, DB9 male, 12-48 VDC  
**OnCell G3110-T:** 1 port Quad-band industrial GSM/GPRS/EDGE IP-gateway, RS-232, DB9 male, 12-48 VDC, -30 to 70°C  
**OnCell G3150-T:** 1 port Quad-band industrial GSM/GPRS/EDGE IP-gateway, RS232/422/485, DB9 male, 12-48 VDC, -30-70°C

**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
- DIN-rail kit
- 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