

# OnCell G3110/G3150-HSPA Series

*Advanced five-band GSM/GPRS/EDGE/UMTS/HSPA IP gateways*



- > Five band UMTS/HSPA 800/850/AWS/1900/2100MHz
- > Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz
- > Connect to Ethernet and serial devices over an integrated VPN
- > Centralize private IP management software with OnCell Central Manager
- > Redundant DC power inputs
- > 2 digital inputs and 1 relay output



## Overview

The OnCell G3110/G3150-HSPA series of high-speed industrial-grade IP gateways are intelligent and fully-featured wireless communication platforms that connect your Ethernet and serial devices over a cellular TCP/IP network. The OnCell G3110/G3150-HSPA series offer connectivity to all five HSPA/UMTS frequency bands and quad GSM/GPRS/EDGE frequency bands used in Europe, the United States, and Japan, allowing the most flexible global deployment on the best

available network. The OnCell G3110/G3150-HSPA come with private IP management software and support VPN for handling the IP address issue in cellular network structures. The OnCell G3110/G3150-HSPA also have 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 G3110/G3150-HSPA comes with redundant power inputs to assure non-stop operation.

## Specifications

### Cellular Interface

**Standards:** GSM/GPRS/EDGE/UMTS/HSPA

**Band Options:**

- Five-band UMTS/HSPA 800/850/AWS/1900/2100 MHz
- Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz

**HSPA Data Rate:** 14.4 Mbps DL, 5.76 Mbps UL

**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, 85.6 Kbps UL

**GPRS Terminal Device Class:** Class B

**GPRS Coding Schemes:** CS1 to CS4

**Tx Power:**

UMTS/HSPA: 0.25 W

EDGE900: 0.5 W

EDGE1800: 0.4 W

GSM1800: 1 W

GSM900: 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-HSPA: RS-232 (DB9 male connector)

OnCell G3150-HSPA: 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, DDNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, IPSec, SMTP, SNTP, 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, Secure Real COM, Secure Reverse Real COM, Secure TCP Server, Secure TCP Client, Ethernet Modem

**Windows Real COM Drivers:** Windows 2000/XP/2003/Vista/7/Server 2008, Windows XP/2003/Vista/7/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 Models: -30 to 55°C (-22 to 131°F)

Wide Temp. Models: -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**

**Number of Power Inputs:** 2 (terminal block)

**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 301 489-24, EN 301 511, EN 301 908

**Reliability**

**MTBF (mean time between failures):** 380,000 hrs

**Warranty**

**Warranty Period:** 5 years

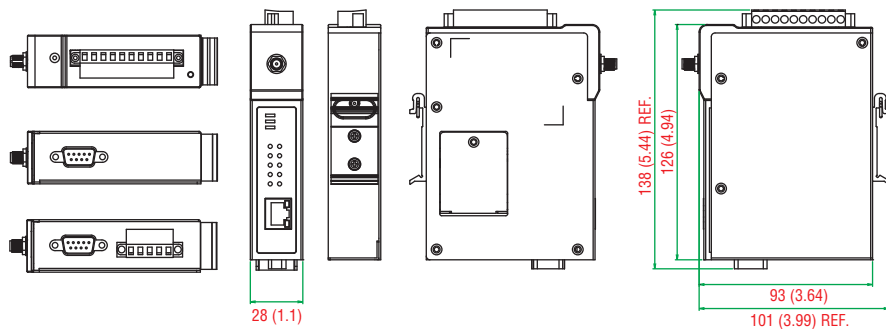
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Dimensions & Pin Assignment**

Unit: mm (inch)

**OnCell G3110-HSPA Series**

**OnCell G3150-HSPA Series**

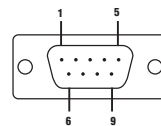


Top & Bottom View

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 G3110-HSPA:** 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232, DB9 male, 12-48 VDC

**OnCell G3150-HSPA:** 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232/422/485, DB9 male, 12-48 VDC

**OnCell G3110-HSPA-T:** 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232, DB9 male, 12-48 VDC, -30 to 70°C

**OnCell G3150-HSPA-T:** 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232/422/485, DB9 male, 12-48 VDC, -30 to 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