

# OnCell G3111/G3151-HSPA Series

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



- > Five-band UMTS/HSPA 800/850/900/1900/2100 MHz
- > Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz
- > GuaranLink support for a reliable cellular connectivity
- > Ethernet, serial, and cellular communication
- > Centralize private IP management software with OnCell Central Manager
- > Industrial-grade design for high device reliability



## Introduction

The OnCell G3111/G3151-HSPA are cellular IP gateways that can conveniently and transparently connect your existing Ethernet and serial devices to a 3G cellular network. With the integrated GuaranLink feature, you can be confident that your device will always stay connected or recovered from any unexpected interference. With Moxa's industrial design, higher EMS level are tested to ensure the highest reliability for any harsh environment. The G3111/G3151-HSPA cellular IP gateways are the most compact, simple and robust industrial 3G solution.

## Specifications

### Cellular Interface

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

**Band Options:**

- Five-band UMTS/HSPA 800/850/900/1900/2100 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

### 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/7/Server 2008, Windows XP/2003/Vista/7/Server 2008 x64 / Windows 8 / Windows 10

### Universal Band Support

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

### Simple, Flexible, and Reliable

- Ethernet/serial/cellular co-existence for simple and flexible communication
- OnCell Central Management for private IP communication and centralized management
- Industrial-grade design for high device reliability
- GuaranLink for reliable cellular connectivity

**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:** Wireless 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

**Serial Standards:**

OnCell G3111-HSPA: 1 RS-232 port, DB9 male

OnCell G3151-HSPA: 1 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:** 170 g (0.38 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 (terminal block)  
**Input Voltage:** 12 to 48 VDC  
**Input Current:** 0.9 A @ 12 VDC; 0.23 A @ 48 VDC  
**Reverse Polarity Protection:** Present

### Standards and Certifications

**Safety:** UL 60950-1  
**EMC:** EN 55022/24, EN 61000-6-2/6-4

**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: 3 V/m  
 IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV  
 IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV  
 IEC 61000-4-6 CS: 3 V  
 IEC 61000-4-8

**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

### MTBF (mean time between failures)

**Time:** 1,815,281 hrs

**Standard:** Telcordia SR332

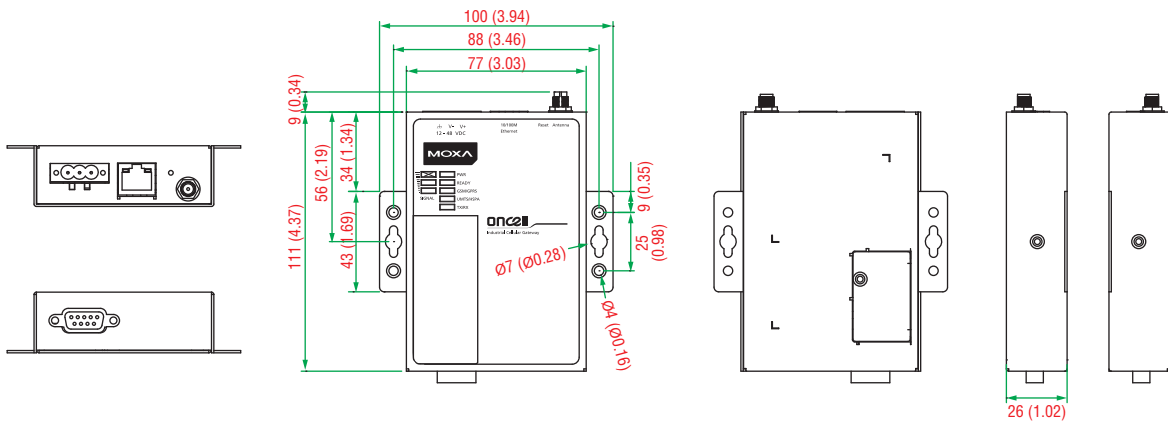
### Warranty

**Warranty Period:** 5 years

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

### Dimensions

Unit: mm (inch)

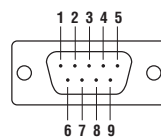


Top & Bottom View

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-HSPA:** 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232, -30 to 55°C operating temperature

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

### Optional Accessories (can be purchased separately)

**ANT-WCDMA-AHSM-04-2.5m:** Five-band GSM/GPRS/EDGE/UMTS/HSPA, 4 dBi, omnidirectional magnetic-based antenna

**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 G31x1-HSPA IP gateway
- 1 UMTS/HSPA antenna: ANT-WCDMA-ASM-1.5
- Rubber stand
- 3-pin terminal block
- DIN-rail kit
- Quick installation guide (printed)
- Warranty card