

OnCell G3111/G3151-HSPA

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



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



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.

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

Specifications

Cellular Interface

Standards: GSM/GPRS/EDGE/UMTS/HSPA

Band Options:

- Five-band UMTS/HSPA 850/800, 900, 1900, and 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

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: Tx+, Tx-, Rx+, Rx-, GND

RS-422: Tx+, Tx-, Rx+, Rx-, GND

RS-485-4w: Tx+, Tx-, Rx+, Rx-, GND

RS-485-2w: Data+, Data-, GND

Software

Network Protocols: ARP, DDNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, 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: 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

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

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: 165±5 g

Dimensions: 111 x 77 x 26 mm (4.37 x 3.03 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% (30°C, non-condensing)

Power Requirements

Connector: 3-pin removable terminal block

Input Voltage: 12 to 48 VDC

Power Consumption: 12 to 48 VDC, 350 mA (idle), 900 mA (max.)

Reverse Polarity Protection: Present

Standards and Certifications

Safety: UL 60950-1

EMC: FCC Part 15 Subpart B Class A, EN 55022 Class A, EN 55024, EN 61000-6-2, EN 61000-6-4

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

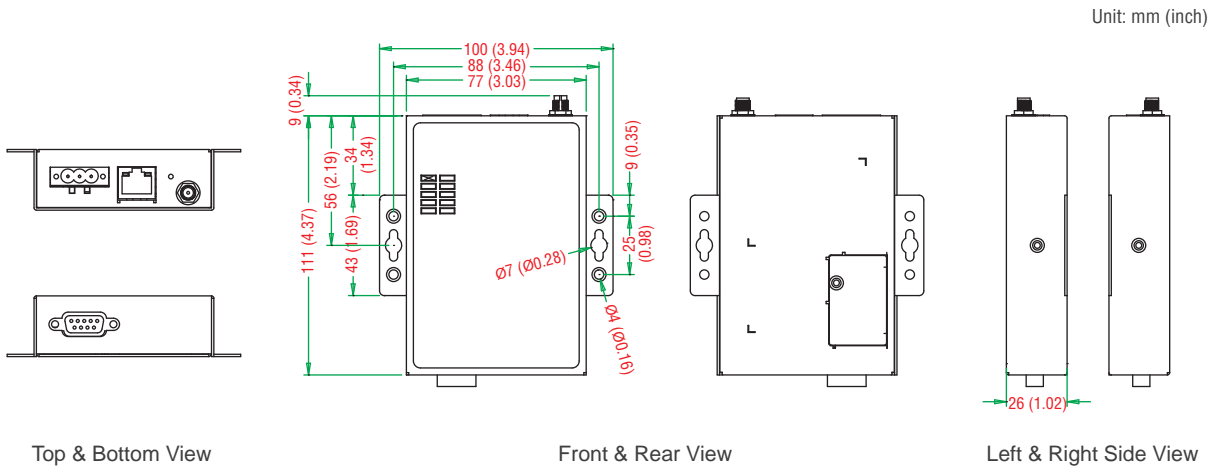
MTBF (mean time between failures): 1,815,281 hrs

Warranty

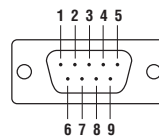
Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions



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 HSPA/UMTS IP-modem, RS-232, DB9 male, 12-48 VDC

OnCell G3151-HSPA: 1 port Five-band industrial HSPA/UMTS IP-modem, RS-232/422/485, DB9 male, 12-48 VDC

Optional Accessories (can be purchased separately)

ANT-WCDMA-AHSM-04-2.5m: Five-band GSM/GPRS/EDGE/UMTS/HSPA, 4 dBi, omni-directional 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
- Rubber SMA antenna (male)
- 3-pin terminal block
- DIN-rail kit
- Rubber stand
- Documentation and software CD
- Quick installation guide
- Warranty card