

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 55032/24, EN 61000-6-2/6-4

EMI: CISPR 32, 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: 1,080,473 hrs

Standard: Telcordia SR332

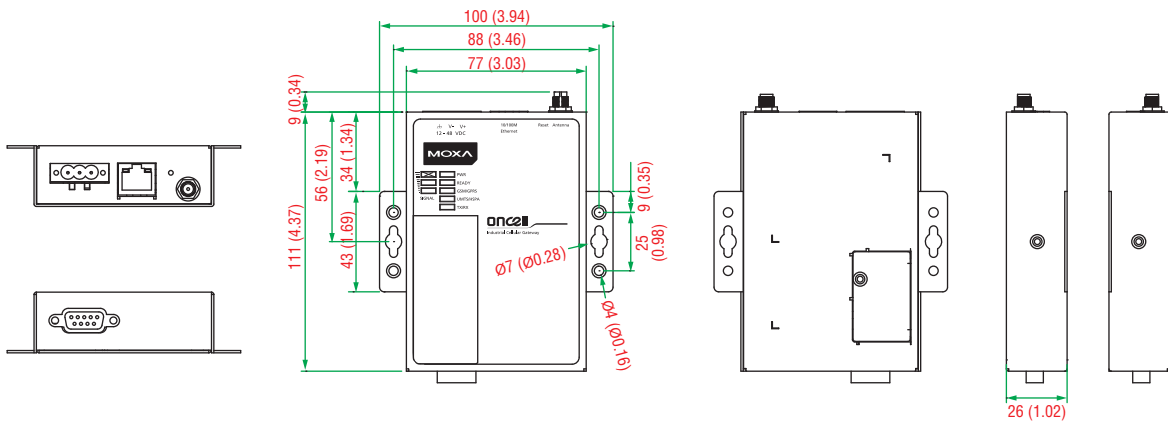
Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

Unit: mm (inch)

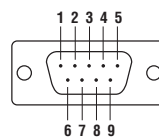


Top & Bottom View

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