

OnCell G3110/G3150-HSPA Series

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



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



Overview

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

The OnCell G3110/G3150-HSPA products come with private IP management software and support VPN for handling IP addresses on cellular networks, and 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 series 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

Interface

Cellular Antenna Connectors: 1, SMA (female)

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"
- +3 to -30 V for state "0"

Software

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

Authentication: Local username and password

Management Software

Utilities: Wireless 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

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

Physical Characteristics

Housing: Aluminum, providing IP30 protection
Weight: 445 g (0.98 lb)
Dimensions: 28 x 126 x 93 mm (1.1 x 4.94 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% (non-condensing)

Power Requirements

Number of Power Inputs: 2 (terminal block), redundant dual inputs
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
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; Signal: 10 V/m
 IEC 61000-4-4 EFT: Power: 4 kV; Signal: 2 kV
 IEC 61000-4-5 Surge: Power: 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: 380,000 hrs
Standard: Telcordia SR332

Warranty

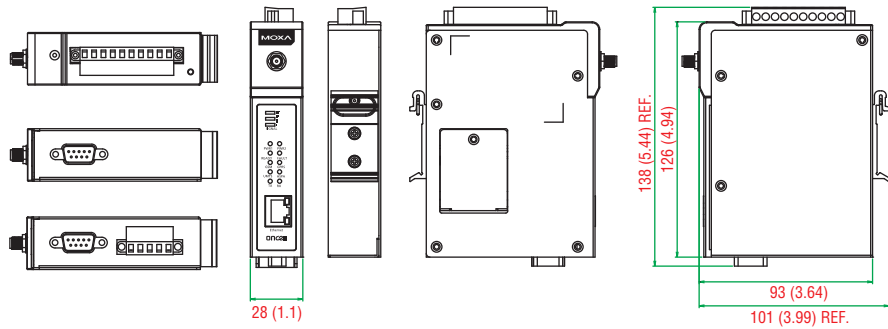
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions & Pin Assignment

Unit: mm (inch)

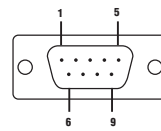
OnCell G3110-HSPA Series

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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 GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232, -30 to 55°C operating temperature
OnCell G3150-HSPA: 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232/422/485, -30 to 55°C operating temperature
OnCell G3110-HSPA-T: 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232, -30 to 70°C operating temperature
OnCell G3150-HSPA-T: 1-port five-band industrial GSM/GPRS/EDGE/UMTS/HSPA IP gateway, RS-232/422/485, -30 to 70°C operating temperature

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 G31x0-HSPA IP gateway
- 1 UMTS/HSPA antenna: ANT-WCDMA-ASM-1.5
- DIN-rail kit
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

Note: An activated SIM card (not included) must be provided by a third party Cellular Service Provider.