OnCell G3110/G3150-HSPA Series

Industrial five-band GSM/GPRS/EDGE/UMTS/HSPA+ high performance IP gateways with VPN

- 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 tri HSPA+/UMTS frequency bands and quad GSM/GPRS/EDGE frequency bands used in Europe, the United States, and Japan, allowing seamless global roaming 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 Terminal Device Class: Class B
GPRS Multi-slot Class: Class 12
GPRS Terminal Device Class: Class B
GPRS Coding Schemes: CS1 to CS4
Tx Power:
GSM900: 2 W
UMTS/HSPA+: 0.25 W
EDGE900: 0.5 W
EDGE1800: 0.4 W
GSM1800: 1 W

LAN Interface

Number of Ports: 1
Ethernet: 10/100 Mbps, RJ45 connector, Auto MDI/MDIX
Magnetic Isolation Protection: 1.5 KV built-in

SIM Interface

Number of SIMs: 1
SIM Control: 3 V

Serial Interface

Number of Ports: 1
Serial Standards:
G3110: RS-232 (DB9 male connector)
G3150: RS-232 (DB9 male connector), RS-422/485 (5-pin terminal block connector)
ESD Protection: 15 KV
Power EFT/Surge Protection: 2 KV

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: ICMP, TCP/IP, UDP, DHCP, Telnet, DNS, SNMP, HTTP, SMTP, HTTPS, SNTP, ARP, SSL, RTSP, IPSec
Router/Firewall: NAT, port forwarding
Authentication: Local user-name and password
Security: Accessible IP list

Operation Modes: Real COM, Secure Real COM, Reverse Real COM, Secure Reverse Real COM, TCP Server, Secure TCP Server, TCP Client, Secure TCP Client, UDP, RFC2217, Ethernet Modem, SMS Tunnel
Configuration and Management Options: SNMP MIB-II, SNMP Private MIB, SNMPv1/v2c/v3, DDNS, IP Report, Web/Telnet/Serial-Console/SSH
Utilities: Provided for Windows 2000/XP/2003/Vista/7/Server 2008, Windows XP/2003/Vista/7/Server 2008 x64 Edition
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

OnCell Central Manager: Centralized management solution for accessing private IPs from the Internet

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: EN 55022 Class A, EN 55024, FCC Part 15 Subpart B Class A
Radio: FCC Part 22H, FCC Part 24E, EN 301 489-1, EN 301 489-7, EN 301 489-24, EN 301 511

Reliability

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

Warranty

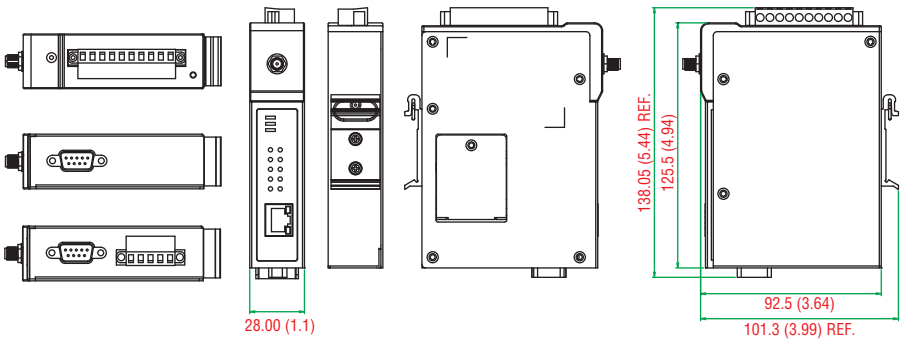
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions & Pin Assignment

Unit: mm (inch)

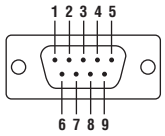
OnCell G3110-HSPA Series

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 RS-232 to GSM/GPRS/EDGE/UMTS/HSPA+ IP gateway with VPN, -30 to 55°C operating temperature
OnCell G3150-HSPA: 1-port RS-232/422/485 to GSM/GPRS/EDGE/UMTS/HSPA+ IP gateway with VPN, -30 to 55°C operating temperature
OnCell G3110-HSPA-T: 1-port RS-232 to GSM/GPRS/EDGE/UMTS/HSPA+ IP gateway with VPN, -30 to 70°C operating temperature
OnCell G3150-HSPA-T: 1-port RS-232/422/485 to GSM/GPRS/EDGE/UMTS/HSPA+ IP gateway with VPN, -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 IP gateway
- Rubber SMA antenna
- DIN-Rail kit
- Documentation and software CD
- Quick installation guide
- Warranty card