OnCell G3110/G3150-HSPA Series

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

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 five HSPA/UMTS frequency bands and quad GSM/GPRS/EDGE frequency bands used in Europe, the United States, and Japan, allowing the most flexible global deployment 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 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

**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:** 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: TxA, TxB, 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:** ARP, DNS, DHCP/BOOTP, DNS Relay, HTTP, HTTPS, ICMP, IPSec, 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, Secure Real COM, Secure Reverse Real COM, Secure TCP Server, Secure TCP Client, Ethernet Modem

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
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: 440±5 g
Dimensions: 125.5 x 28.0 x 92.5 mm (4.94 x 1.10 x 3.64 in)

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Dimensions & Pin Assignment

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: FCC Part 15 Subpart B Class A, EN 55022 Class A, EN 55024
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): 380,000 hrs

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

OnCell Search Utility
OnCell Central Manager
RS-232, RS-422/485-4w, RS-485-2w

Ordering Information
Available Models
OnCell G3110-HSPA: 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232, DB9 male, 12-48 VDC
OnCell G3150-HSPA: 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232/422/485, DB9 male, 12-48 VDC
OnCell G3110-HSPA-T: 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232, DB9 male, 12-48 VDC, -30 to 70°C
OnCell G3150-HSPA-T: 1 port Five-band industrial HSPA+/UMTS IP-gateway, RS-232/422/485, DB9 male, 12-48 VDC, -30 to 70°C

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

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