

OnCell G3110/3150

Industrial quad-band GSM/GPRS/EDGE IP gateways



- > Connect both Ethernet and serial devices to cellular networks
- > Universal quad-band GSM/GPRS/EDGE-850/900/1800/1900-MHz
- > Choice of operation modes, including TCP Server, TCP Client, UDP, Real COM, and RFC2217
- > Secure modes for TCP Server, TCP Client, and Real COM
- > Redundant DC power input
- > 2 digital inputs and 1 relay output
- > Centralize private IP management software
- > DIN-Rail mounting



Overview

The OnCell G3110 and G3150 industrial RS-232 and RS-232/422/485 GSM/GPRS/EDGE IP gateway are designed to transmit data transparently over GSM/GPRS/EDGE cellular networks. The Real COM operation mode automatically generates a virtual COM port to match serial ports supported by the OnCell G3110/3150, allowing

you to communicate with remote serial devices. The OnCell G3100 can transmit data from both serial devices and Ethernet devices to a WAN interface. To achieve this Ethernet-to-cellular function, the OnCell G3100 works in a manner similar to a router. All Ethernet devices connected to the OnCell's LAN port will be hidden from the outside world with OnCell's NAT function.

Specifications

Cellular Interface

Standards: GSM/GPRS/EDGE
Band Options: Quad-band 850/900 and 1800/1900 MHz
EDGE Multi-slot Class: Class 12
GPRS Multi-slot Class: Class 12
GPRS Terminal Device Class: Class B
GPRS Coding Schemes: CS1 to CS4
Tx Power: 1 watt GSM 1800/1900, 2 watts EGSM 850/900

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 1A @ 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

Router/Firewall: NAT, port forwarding

Authentication: Local user-name and password

Security: Accessible IP list

Operation Modes: Real COM, Secure Real COM, TCP Server, Secure TCP Server, TCP Client, Secure TCP Client, UDP, RFC2217, Ethernet Modem, Virtual 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 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server-2008, Windows XP/2003/Vista/Server-2008 x64 Edition

Windows Real COM Drivers: Windows 95/98/ME, Windows NT, Windows 2000/XP/2003/Vista/Server 2008, Windows XP/2003/Vista/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: 28 x 126 x 93 mm (1.10 x 4.96 x 3.66 in)

Environmental Limits

Operating Temperature: -30 to 55°C (-22 to 131°F)

Operating Humidity: 5 to 95% RH

Storage Temperature: -40 to 75°C (-40 to 167°F)

Power Requirements

Input Voltage: 12 to 48 VDC

Data Link: 335 to 1185 mA (peak) @ 12 V

Regulatory Approvals

Safety:

UL: UL60950

RF:

FCC Part22H
FCC PART24E
EN301 489-1
EN301 489-7
EN301 511
PTCRB

EMC:

CE: EN55022 Class A / EN55024
FCC: FCC part 15 subpart B, Class A
EN61000-4-2 (ESD) Level 4
EN61000-4-3 (RS) Level 3
EN61000-4-4 (EFT) Level 4
EN61000-4-5 (Surge) Level 3
EN61000-4-8 Level 3
EN61000-4-12 Level 3

Reliability

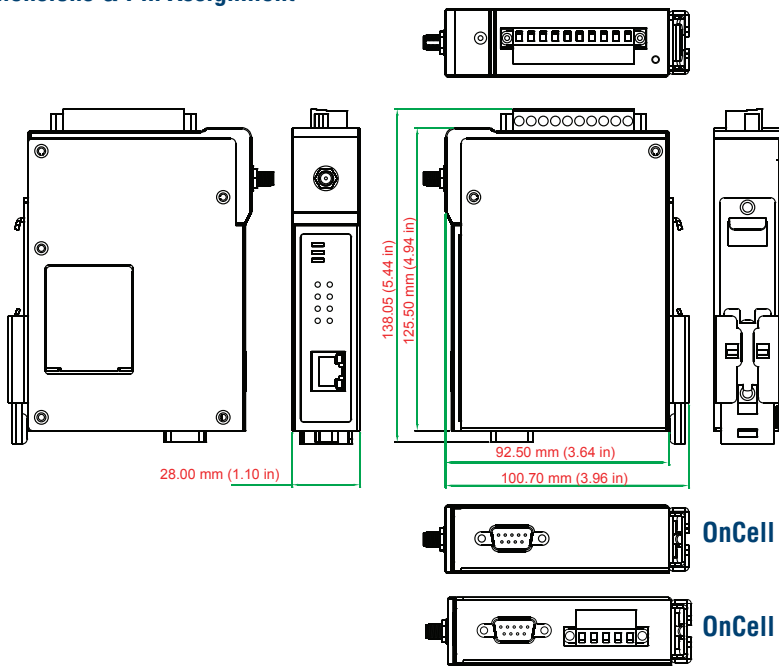
MTBF (meantime between failures): G3110/G3150: 339045 hours

Warranty

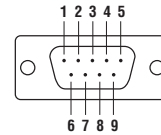
Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions & Pin Assignment



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	-	-	-

OnCell G3110

OnCell G3150

Ordering Information

Available Models

OnCell G3110: 1-port RS-232 to GSM/GPRS/EDGE IP gateway

OnCell G3150: 1-port RS-232/422/485 to GSM/GPRS/EDGE IP gateway

Optional Accessories (can be purchased separately)

DC Power Supply: See Appendix A

Power Jack to Terminal Block Cable: See Appendix A

Quad-band Antennas (impedance = 50 ohms)

ANT-CQB-AHSM-00-3m: Omni 0dBi/10cm, magnetic SMA antenna, 3 m

ANT-CQB-AHSM-03-3m: Omni 3dBi/25cm, magnetic SMA antenna, 3 m

ANT-CQB-AHSM-05-3m: Omni 5dBi/37cm, magnetic SMA antenna, 3 m

Package Checklist

- OnCell IP gateway
- Rubber SMA antenna
- DIN-Rail kit
- 5-pin terminal block (screw type)
- 10-pin terminal block (screw type)
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card