

# OnCell G3100-HSPA Series

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



## Features and Benefits

- 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
- Centralized private IP management software with OnCell Central Manager

## Certifications



## Introduction

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. A built-in relay output can be configured to indicate the priority of events when notifying or warning engineers in the field. Two digital inputs 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

Cellular Standards	GSM, GPRS, EDGE, UMTS, HSPA
Band Options	UMTS/HSPA 2100 MHz / 1900 MHz / AWS / 850 MHz / 900 MHz Universal quad-band GSM/GPRS/EDGE 850 MHz / 900 MHz / 1800 MHz / 1900 MHz
HSPA Data Rates	14.4 Mbps DL, 5.76 Mbps UL
EDGE Data Rates	237 kbps DL, 237 kbps UL
EDGE Multi-Slot Class	12
EDGE Terminal Device Class	Class B
GPRS Data Rates	85.6 kbps DL, 85.6 kbps UL
GPRS Multi-Slot Class	12
GPRS Terminal Device Class	Class B
GPRS Coding Schemes	CS1 to CS4
Cellular Antenna Connectors	1 SMA female
No. of SIMs	1
SIM Control Voltage	3 V

## Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
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## Serial Interface

No. of Ports	1
Serial Standards	OnCell G3110-HSPA/G3150-HSPA Series: RS-232 (DB9 female connector) OnCell G3150-HSPA Series: RS-232/422/485 (5-pin terminal block connector)
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2 (when parity is 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-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND

## Ethernet Software Features

Management	ARP, DDNS, DHCP Server/Client, BOOTP, DNS Relay, HTTP, SMTP, SNMPv1/v2c/v3, TCP/IP, Telnet, UDP, Web Console, Wireless Search Utility, Serial Console, Telnet Console, Remote SMS Control, OnCell Central Manager, GuaranLink
Security	HTTPS/SSL, SSH
Time Management	SNTP
Firewall	WAN IP Filtering
Routing	NAT, Port forwarding

## Firewall

Filter	ICMP
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## Operation Modes

Standards	Ethernet Modem mode Real COM mode Reverse Real COM RFC2217 mode TCP Client mode TCP Server mode UDP mode SMS Tunnel
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## Power Parameters

No. of Power Inputs	Redundant dual inputs
Input Voltage	12 to 48 VDC
Power Connector	Terminal block
Input Current	0.9 A @ 12 VDC, 0.23 A @ 48 VDC
Reverse Polarity Protection	Supported

## Physical Characteristics

Housing	Aluminum
IP Rating	IP30
Dimensions	28 x 126 x 93 mm (1.1 x 4.94 x 3.64 in)
Weight	445 g (0.98 lb)

## 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 (package included)	-40 to 75°C (-40 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

## Standards and Certifications

Safety	UL 60950-1
EMC	EN 55032/24
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: 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 PFMF
Radio Frequency	EN 301 489-1, EN 301 489-7, EN 301 489-24, EN 301 511, EN 301 908, FCC Part 22H, FCC Part 24E
Freefall	IEC 60068-2-31

## MTBF

Time	380,000 hrs
Standards	Telcordia SR332

## Warranty

Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

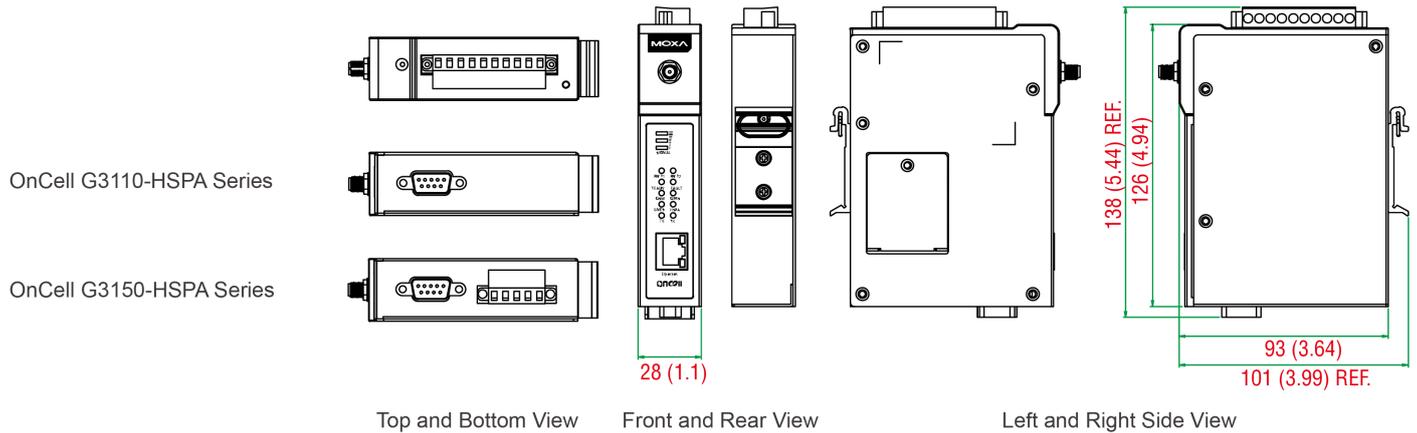
## Package Contents

Device	1 x OnCell G3100-HSPA Series IP gateway <sup>1</sup>
Installation Kit	1 x DIN-rail kit
Antenna	1 x UMTS/HSPA
Documentation	1 x quick installation guide 1 x warranty card

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

## Dimensions

Unit: mm (inch)



## Ordering Information

Model Name	Cellular Standard	Band	Operating Temp.	Serial Standards
OnCell G3110-HSPA	UMTS/HSPA	800/850/AWS/1900/2100 MHz	-30 to 55°C	RS-232
OnCell G3150-HSPA	UMTS/HSPA	800/850/AWS/1900/2100 MHz	-30 to 55°C	RS-232/422/485
OnCell G3110-HSPA-T	UMTS/HSPA	800/850/AWS/1900/2100 MHz	-30 to 70°C	RS-232
OnCell G3150-HSPA-T	UMTS/HSPA	800/850/AWS/1900/2100 MHz	-30 to 70°C	RS-232/422/485

## Accessories (sold separately)

### Antennas

ANT-WCDMA-ANF-00	GSM/GPRS/EDGE/UMTS/HSPA, omni-directional outdoor antenna, 0 dBi
ANT-WCDMA-ASM-1.5	GSM/GPRS/EDGE/UMTS/HSPA, omni-directional rubber duck antenna, 1.5 dBi
ANT-WCDMA-AHSM-04-2.5m	GSM/GPRS/EDGE/UMTS/HSPA, omni-directional magnetic base antenna, 4 dBi
ANT-LTE-ASM-02	GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 2 dBi
ANT-LTE-ANF-04	GSM/GPRS/EDGE/UMTS/HSPA/LTE, omni-directional outdoor antenna, 4 dBi, IP66
ANT-LTEUS-ASM-01	GSM/GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 1 dBi

### Wireless Antenna Cables

CRF-SMA(M)/N(M)-300	N-type (male) to SMA (male), CFD200 cable, 3 m
A-CRF-SMSF-R3-100	Cellular magnetic-base SMA connector with 1-meter RF cable

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