

# 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
---------------------------------------	---

## 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
--------	------

## Operation Modes

Standards	Ethernet Modem mode Real COM mode Reverse Real COM RFC2217 mode TCP Client mode TCP Server mode UDP mode SMS Tunnel
-----------	--

## 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	826,202 hrs
Standards	Telcordia SR332

## Warranty

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

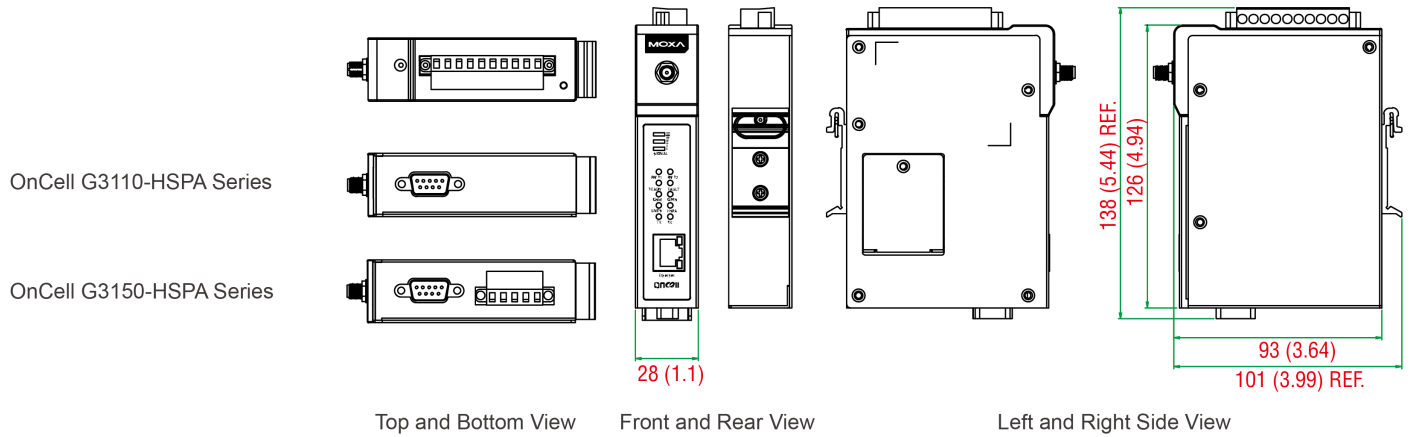
## Package Contents

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

© Moxa Inc. All rights reserved. Updated Aug 29, 2019.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.