

OnCell G3101-HSPA Series

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



Features and Benefits

- Five-band UMTS/HSPA 800/850/900/1900/2100 MHz
- Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz
- GuaranLink for reliable cellular connectivity
- Ethernet, serial, and cellular communication
- Centralized private IP management software with OnCell Central Manager
- Industrial-grade design for high device reliability

Certifications



Introduction

The OnCell G3111/G3151-HSPA Series consists of cellular IP gateways that can conveniently and transparently connect your existing Ethernet and serial devices to a 3G cellular network. With the integrated GuaranLink feature, you can be confident that your device will always stay connected or will recover from any unexpected interference. With Moxa's industrial design, higher EMS levels are tested to ensure the highest reliability for any harsh environment. The G3111/G3151-HSPA cellular IP gateways are the most compact, simple and robust industrial 3G solution.

Universal Band Support

- Five-band UMTS/HSPA 850/800, 900, 1900, 2100 MHz
- Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz

Simple, Flexible, and Reliable

- Ethernet/serial/cellular co-existence for simple and flexible communication
- OnCell Central Management for private IP communication and centralized management
- Industrial-grade design for high device reliability
- GuaranLink for reliable cellular connectivity

Specifications

Cellular Interface

Cellular Standards	GSM, GPRS, EDGE, UMTS, HSPA
Band Options	UMTS/HSPA 800 MHz / 850 MHz / 900 MHz / 1900 MHz / 2100 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
Ethernet Software Features	
Network Protocols	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
Routing	NAT, Port forwarding
Security Functions	
Firewall	WAN IP Filtering
Firewall	
Filter	ICMP
Serial Interface	
Serial Standards	OnCell G3111-HSPA: RS-232 (DB9 male connector), OnCell G3151-HSPA: RS-232/422/475 (DB9 male connector)
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Baudrate	50 bps to 921.6 kbps
Flow Control	RTS/CTS, XON/XOFF
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
Operation Modes	
Standards	Ethernet Modem mode Real COM mode Reverse Real COM RFC2217 mode TCP Client mode TCP Server mode UDP mode SMS Tunnel

Physical Characteristics

Housing	Aluminum
IP Rating	IP30
Dimensions	77 x 111 x 26 mm (3.03 x 4.37 x 1.02 in)
Weight	170 g (0.38 lb)

Environmental Limits

Operating Temperature	-30 to 55°C (-22 to 131°F)
Storage Temperature (package included)	-40 to 75°C (-40 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Power Parameters

Input Current	0.9 A @ 12 VDC, 0.23 A @ 48 VDC
Input Voltage	12 to 48 VDC
Power Connector	Terminal block
Reverse Polarity Protection	Supported

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: 3 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV IEC 61000-4-6 CS: 3 V IEC 61000-4-8 PFMF
Freefall	IEC 60068-2-31
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

MTBF

Time	380,000 hrs
Standards	Telcordia SR332

Warranty

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

Package Contents

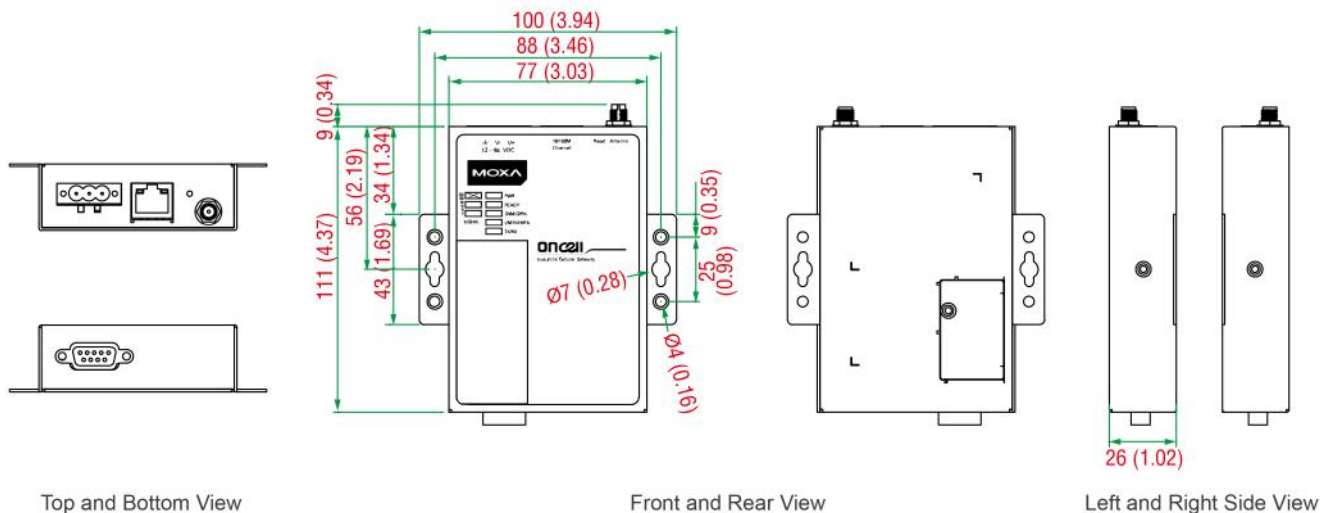
Device	1 x OnCell G3101-HSPA Series IP gateway ¹
Installation Kit	1 x DIN-rail kit

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

Antenna	1 x UMTS/HSPA
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Cellular Standard	HSPA Band	Operating Temp.	Serial Standards
OnCell G3111-HSPA	UMTS/HSPA	800/850/AWS/1900/2100 MHz	-30 to 55°C	RS-232
OnCell G3151-HSPA	UMTS/HSPA	800/850/AWS/1900/2100 MHz	-30 to 55°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

Antennas

ANT-LTEUS-ASM-01	GSM/GPRS/EDGE/UMTS/HSPA/LTE, omni-directional rubber duck antenna, 1 dBi
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Wireless Antenna Cable

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

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