

# OnCell 5004/5104-HSDPA Series

*Industrial five-band GSM/GPRS/EDGE/UMTS/HSDPA high speed routers*



OnCell 5004-HSDPA Series

OnCell 5104-HSDPA Series

- > Universal tri-band UMTS/HSDPA 850/1900/2100 MHz
- > Quad-band GSM/GPRS/EDGE 850/900/1800/1900 MHz
- > GuaranLink and dual SIM redundancy for continuous cellular connections
- > Connect to 4 10/100BaseT(X) devices over an integrated VPN
- > Centralize private IP management with OnCell Central Manager
- > DIN-Rail and wall mountable housing
- > 2 digital inputs and 1 relay output (OnCell 5104-HSDPA only)



## Overview

The OnCell 5004/5104-HSDPA are high-performance industrial grade cellular routers that allow up to 4 Ethernet-based devices to simultaneously use a single cellular data account for primary or backup network connectivity to remote sites and devices. Both products provide the functionality of a cellular router, firewall, and switch in one device, and to ensure zero data loss and on-demand cellular communication, the OnCell 5004/5104-HSDPA are integrated with the GuaranLink function. The difference between the OnCell 5004-HSDPA and OnCell 5104-HSDPA is that the OnCell 5104-HSDPA

comes with a built-in relay output that can be configured to indicate the priority of events when notifying or warning engineers in the field, and the two digital inputs allow you to connect basic I/O devices, such as sensors, to the cellular network. The OnCell 5004-HSDPA can be placed on a desktop or wall-mounted, whereas the OnCell 5104-HSDPA has an IA design and can be attached to a DIN-rail. Both products use 12 to 48 VDC power inputs with a screw-on design for greater reliability, and the Ethernet ports come with 1.5 KV magnetic isolation protection to keep your system safe from unexpected electrical discharges.

## Specifications

### Cellular Interface (OnCell 5004/5104-HSDPA)

**Standards:** GSM/GPRS/EDGE/UMTS/HSDPA

**Band Options:**

OnCell 5004/5104-HSDPA-JPS: 2100 MHz

OnCell 5004/5104-HSDPA-JPN: 800/2100 MHz

**EDGE Multi-slot Class:** Class 10

**EDGE Terminal Device Class:** Class B

**GPRS Multi-slot Class:** Class 10

**GPRS Terminal Device Class:** Class B

**GPRS Coding Schemes:** CS1 to CS4

**Tx Power:**

GSM900: 2 W

UMTS/HSDPA: 0.25 W

EDGE900: 0.5 W

EDGE1800: 0.4 W

GSM1800: 1 W

### Cellular Interface (OnCell 5004/5104-HSDPA-JPS/JPN)

**Standards:** UMTS/HSDPA

**Band Options:** 2100 MHz

**Tx Power:** UMTS/HSDPA: 0.25 W

### WAN Interface

**Number of Ports:** 1

**Ethernet:** 10/100 Mbps, RJ45 connector, Auto MDI/MDIX

**Magnetic Isolation Protection:** 1.5 KV built-in

### LAN Interface

**Number of Ports:** 4

**Ethernet:** 10/100 Mbps, RJ45 connector, auto MDI/MDIX

**Magnetic Isolation Protection:** 1.5 KV built-in

### SIM Interface

**Number of SIMs:** 2

**SIM Control:** 3 V

### I/O Interface (OnCell 5104-HSDPA)

**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:** UDP/TCP, SNMP, ICMP, DDNS, DHCP/BOOTP,

PPPoE, PPP, DNS Relay, HTTPS, Telnet, IPsec

**Router/Firewall:** NAT, port forwarding, static routing

**Authentication:** Local user-name and password

**Security:** IP filtering

### Management Software

**OnCell Central Manager:** Centralized management solution for accessing private IPs from the Internet

### Physical Characteristics

**Housing:** Aluminum, providing IP30 protection

**Weight:**

OnCell 5004-HSDPA/5004-HSDPA-JPS/5004-HSDPA-JPN: 505±5 g

OnCell 5104-HSDPA/5104-HSDPA-JPS/5104-HSDPA-JPN: 645±5 g

**Dimensions:**

OnCell 5004-HSDPA/5004-HSDPA-JPS/5004-HSDPA-JPN: 158 x 103 x 34 mm (6.22 x 4.06 x 1.34 in)

OnCell 5104-HSDPA/5104-HSDPA-JPS/5104-HSDPA-JPN: 135 x 103 x 50.8 mm (5.32 x 4.06 x 2.00 in)

**Environmental Limits**

**Operating Temperature:** -30 to 55°C (-22 to 131°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:** 1 terminal block, 1 power jack

**Input Voltage:** 12 to 48 VDC

**Power Consumption:**

OnCell 5004-HSDPA/5004-HSDPA-JPS/5004-HSDPA-JPN: 12 to 48 VDC, 900 mA (max.)

OnCell 5104-HSDPA/5104-HSDPA-JPS/5104-HSDPA-JPN: 12 to 48 VDC, 950 mA (max.)

**Standards and Certifications (OnCell 5004/5104-HSDPA)**

**Safety:** UL 60950-1

**EMC:** EN 55022 Class A, EN 55024, FCC Part 15 Subpart B Class A

**Radio:** FCC Part 22H, FCC Part 24E, EN 301 489-1, EN 301 489-7, EN 301 489-24, EN 301 511

**Standards and Certifications (OnCell 5004/5104-HSDPA-JPS/JPN)**

**EMC:** VCCI

**Reliability**

**MTBF (mean time between failures):**

OnCell 5004-HSDPA/5004-HSDPA-JPS/5004-HSDPA-JPN: 441,000 hrs

OnCell 5104-HSDPA/5104-HSDPA-JPS/5104-HSDPA-JPN: 411,000 hrs

**Warranty**

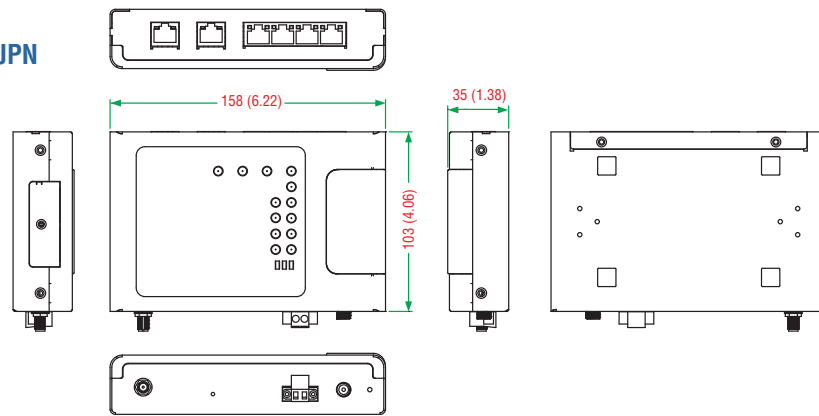
**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

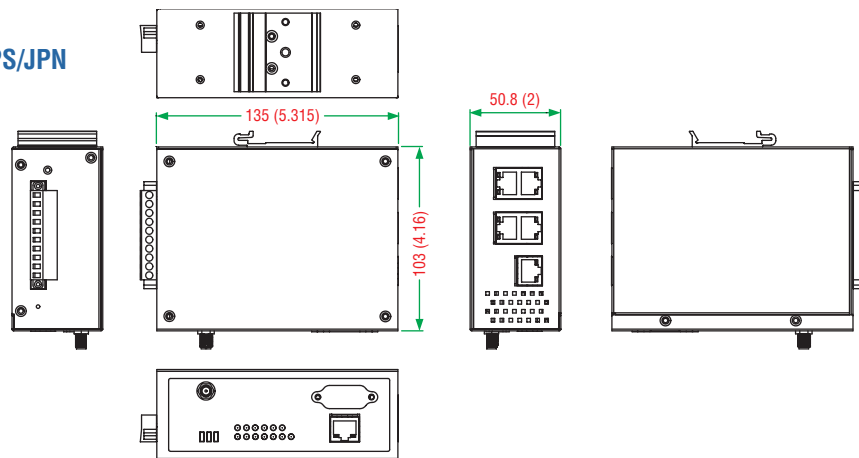
**Dimensions**

**OnCell 5004-HSDPA  
OnCell 5004-HSDPA-JPS/JPN**

Unit: mm (inch)



**OnCell 5104-HSDPA  
OnCell 5104-HSDPA-JPS/JPN**



**Ordering Information**

**Available Models**

**OnCell 5004-HSDPA:** 4-port 10/100M Ethernet to GSM/GPRS/EDGE/UMTS/HSDPA cellular router

**OnCell 5004-HSDPA-JPS:** 4-port 10/100M Ethernet to UMTS/HSDPA cellular router, Japan Softbank

**OnCell 5004-HSDPA-JPN:** 4-port 10/100M Ethernet to UMTS/HSDPA cellular router, Japan NTT DOCOMO

**OnCell 5104-HSDPA:** 4-port 10/100M Ethernet to GSM/GPRS/EDGE/UMTS/HSDPA cellular router, IA design

**OnCell 5104-HSDPA-JPS:** 4-port 10/100M Ethernet to UMTS/HSDPA cellular router, IA design, Japan Softbank

**OnCell 5104-HSDPA-JPN:** 4-port 10/100M Ethernet to UMTS/HSDPA cellular router, IA design, Japan NTT DOCOMO

**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 cellular router
- Rubber SMA antenna
- Rubber stand (OnCell 5004-HSDPA only)
- Wallmount kit (OnCell 5004-HSDPA only)
- DIN-Rail kit (OnCell 5104-HSDPA only)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card