

# IndustrialPro® SN 6000 Cellular Routers

Sixnet® Networking Series



## ▶▶▶ Rugged High-Speed Ethernet & Serial Routers

Red Lion's Sixnet series IndustrialPro SN 6000 cellular routers with multi-carrier 4G LTE support, provide rugged, reliable communication for monitoring and controlling remote assets and processes in extreme conditions.

IndustrialPro SN 6000 industrial cellular routers offer secure and reliable wireless communication to remote assets via software selectable multi-carrier 4G LTE connectivity with fallback to 3G networks. Featuring a web-based event engine that can trigger alarms and send SMS text messages based on real-time operational data, IndustrialPro SN routers can perform reliable local control and alert personnel of critical events. With built-in Ethernet and serial, IndustrialPro SN routers easily integrate with existing equipment enabling remote monitoring and control for M2M applications in industries including oil and gas, water/wastewater, utility, transportation and mining.



### APPLICATIONS

- > Mining
- > Oil & Gas
- > Transportation
- > Utility
- > Water/Wastewater

### PRODUCT HIGHLIGHTS

- > Multi-Carrier 4G LTE Connectivity
- > Multiple Communication Ports
- > Routing Capabilities Provide Secure, Reliable Communication
- > Event Engine can Trigger Alarms and Send SMS Messages
- > Optional PoE (Powered Device) Support

### FEATURES & BENEFITS

- > Multi-Carrier 4G LTE Connectivity
  - Select the best carrier during or post deployment via software configuration
  - Reduces inventory requirements with single hardware solution
- > Multiple Communication Ports
  - One RS-232 serial port, and up to five Ethernet ports provide seamless connectivity to remote devices
- > Rugged, Industrial Design
  - Reliable operation in extreme environments
  - -40° to 75°C operating temperature\*
  - DIN-rail and panel mounting options
- > Out-Of Band Management (OOBM)
  - Secure remote CLI access via serial port
  - Pre-loaded with many console port configurations
- > Secure Ethernet Connectivity
  - Routing capabilities for reliable communication
  - Stateful firewall, SSL, GRE and VPN services reduce the risk of unwanted access
- > Advanced Event Engine Functionality
  - Easily configure control engine via drop-down menus
  - Trigger alarms and send SMS messages based on operational data

industrial  
networking



# ▶▶▶ IndustrialPro SN 6000 Multi-Carrier Specifications

## WIRELESS INTERFACE

AT&T LTE with fallback to HSPA+  
 Bell Mobility LTE with fallback to HSPA+  
 Generic LTE with fallback to HSPA+  
 Rogers LTE with fallback to HSPA+  
 TELUS LTE with fallback to HSPA+  
 Verizon LTE with fallback to EVDO

## PROGRAMMABLE PLATFORM

Configurable Events: up to 99 events can be triggered by over 200 system variable which in turn can send text messages  
 Software Development Kit (SDK)  
 C/C++/Perl

## SYSTEM PERFORMANCE

32-bit ARM9 400 MHz CPU  
 512 MB NAND  
 128 MB RAM

## TUNNELING

IPsec, GRE, OpenVPN

## Routing Protocols

OSPF, BGP, RIP

## Clustering

VRP

## IP

NAT, Port Forwarding, Dynamic DNS, DHCP  
 Stateful Inspection Firewall, IP Transparency

## Connectors

Ethernet: One (1) or five (5) 10/100Base-T RJ-45 ports  
 Serial: One (1) RS-232 (DB9) 115,200bps  
 USB: One (1) USB 2.0 (mini)  
 Antennas: Two (2) SMA connectors (antenna, diversity)

## POWER INPUT

Input Voltage: 8-30 VDC (12 or 24 VDC nominal)  
 Standby Power: 1.4W - 3.3W (typical)  
 Transmitting:  
 690x: 2.6W – 6.9W  
 6921: 4.3W – 8.7W  
 PoE Operation (EB models only)  
 IEEE 802.3af compliant  
 Powered Device (PD)  
 PoE Input: 37-57 VDC (48 VDC nominal)  
 Heat dissipation: 30 BTU/hour max

## MECHANICAL

SN-6x0x  
 Dimensions: 120 x 96 x 32 mm (4.7" x 3.77" x 1.25")  
 Weight: 453g (1 lb)  
 SN-6x21  
 Dimensions: 120 x 96 x 51 mm (4.7" x 3.77" x 2.0")  
 Weight: 500g (1.1 lbs)

## ENVIRONMENTAL

Operating Temperature: -40° to +75°C\*  
 Shock: IEC60068-2-27  
 Vibration: IEC60068-2-6  
 Humidity: 5 to 95% non-condensing  
 Ingress: IP30 protection

## CERTIFICATION

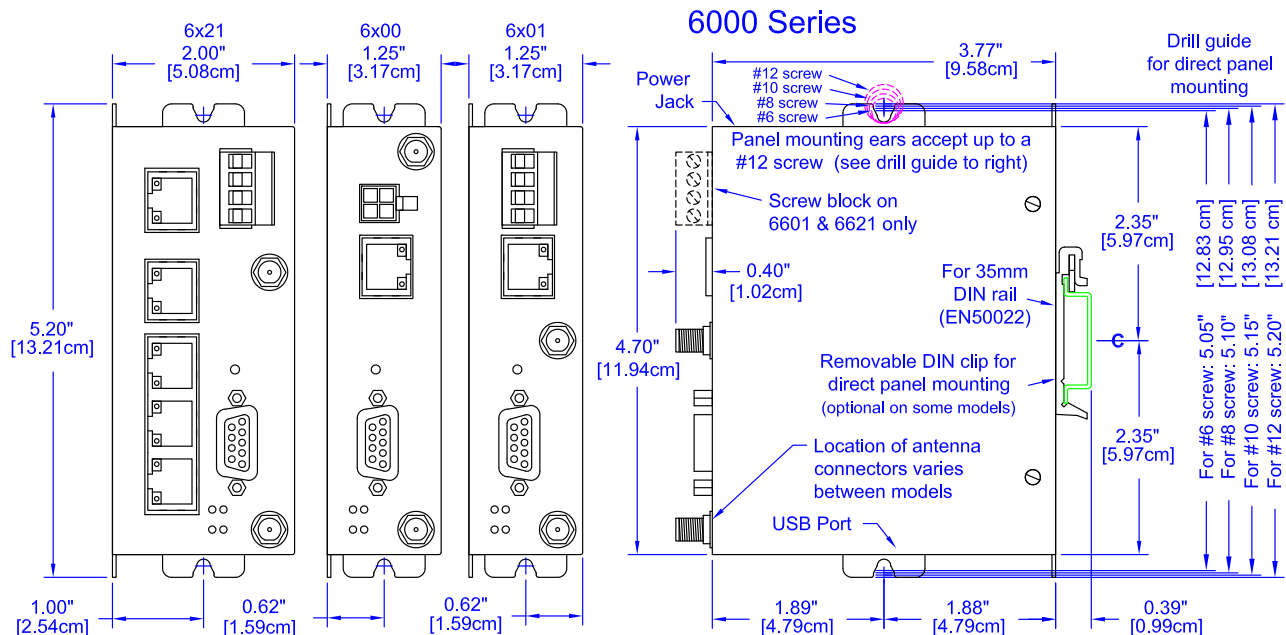
EMI/EMC:  
 Emissions: FCC, Part 15 and Industry Canada, ICES-003; Class A;  
 EN55022, IEC61000-6-4  
 Immunity: IEC61000-6-2 (EN61000-4-2,3,4,5,6,8)  
 Hazardous Locations: Class I, Div. 2, Groups A, B, C, D, ISA 12.12.01  
 Electrical safety: UL508/CSA22.2/14 (CUL); IEC61010-1  
 Carrier Specific Approvals  
 RoHS compliant

## WARRANTY

3 years on design and manufacturing defects

\* See Hardware Manual for thermal considerations.

## DIMENSIONS in inches (mm)



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## ORDER GUIDE

PART NUMBER	PRODUCT LINE	SERIAL RS-232	ETHERNET 10/100	CELLULAR	POWER CONNECTOR	DEFAULT CARRIERS**
SN-6900-(Carrier Code)	SN	1	1	4G LTE	Molex end connector cable	(AT) AT&T; (VZ) Verizon; (AM) Generic; (JP) Japan
SN-6901-(Carrier Code)	SN	1	1	4G LTE	DC powered	
SN-6901EB-(Carrier Code)	SN	1	1	4G LTE	PoE (Power Over Ethernet)	
SN-6921-(Carrier Code)	SN	1	5	4G LTE	DC powered	

\* AM (Generic) model includes Bell Mobility, TELUS and Rogers carriers or other North American carriers. JP (Japan) model only supported in Japan.

\*\* Carrier that is pre-configured on device. Carrier can be selected via software.

## FREQUENCY SPECIFICATIONS

North America Models (AT/VZ/AM)

TECHNOLOGY	BANDS	FREQUENCIES	ANTENNA CONFIGURATION
LTE	2, 4, 5, 13, 17, 25	700/850/1900 & 1700(AWS)/2100(AWS) MHz	MIMO Required
Fallback CDMA/EVDO	BC0, BC1, BC10	800/1900 MHz	Diversity Support
Fallback HSPA+	1, 2, 4, 5, 8	850/900/1900/2100 & 1700(AWS)/2100(AWS) MHz	Diversity Support
Fallback GSM/GPRS/EDGE	-	850/900/1800/1900 MHz	-

Japanese Model (JP)

TECHNOLOGY	BANDS	FREQUENCIES	ANTENNA CONFIGURATION
LTE	1, 19, 21	850/1500/1900/2100 MHz	MIMO Required
Fallback HSPA+	1, 5, 6, 19	800/850/2100 MHz	Diversity Support
Fallback GSM/GPRS/EDGE	-	850/900/1800/1900 MHz	-

All specifications are subject to change. Consult the company website for more information.



[www.redlion.net](http://www.redlion.net)

**Connect. Monitor. Control.**

**Americas**  
sales@redlion.net

**Asia-Pacific**  
asia@redlion.net

**Europe  
Middle East  
Africa**  
europe@redlion.net

**+1 (717) 767-6511**

As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our automation, Ethernet and cellular M2M technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit [www.redlion.net](http://www.redlion.net).

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