IndustrialPro® SN 6000 Cellular Routers

Sixnet Networking Series

red lion®

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

IndustrialPro SN 6000 industrial cellular routers offer a cost-effective alternative to leased-line or dial-up networks utilizing secure 4G LTE wireless communication. Built-in Ethernet and serial interfaces provide easy communication between SCADA servers and remote RTUs, PLC/controllers and other automation devices. Convenient VPN capabilities, data encryption and stateful firewall configuration can be used to secure remote networks. Ideal for deployment in industrial M2M networks such as oil and gas, water/wastewater, utility, transportation and mining applications, our industrial cellular routers provide a reliable network extension to remote locations. The end result helps customers save wiring time, space and cost by combining separate functions into one cellular device.

APPLICATIONS

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

PRODUCT HIGHLIGHTS

> High-performance 4G LTE cellular connectivity
> Multiple communication ports
> Routing capabilities provide secure, reliable communication

FEATURES & BENEFITS

> Multiple Communication Ports
  • One RS232 serial port, and up to five Ethernet ports provide seamless connectivity to remote devices
> Rugged, High-Performance Design
  • Reliable operation in rugged environments
  • -40° to 75°C operating temperature*
> Compact Form-Factor Enclosure
  • DIN-rail mounting option
  • Deploys easily in space-constrained locations

> Out-Of Band Management (OOBM)
  • Secure remote CLI access via RS232 port
  • Pre-loaded with many console port configurations
> Secure Ethernet Connectivity
  • Routing capabilities for reliable communication
  • Stateful firewall, SSL, GRE and VPN services and deep packet inspection reduce the risk of unwanted access
> Easy Configuration Options
  • Streamlined web-browser interface

industrial networking

CE   FC   c(UL)us LISTED   RoHS compliant

WIRELESS INTERFACE
AT&T LTE with fall back to HSPA+
Bell Mobility LTE with fall back to HSPA+
Generic LTE with fall back to HSPA+
Manitoba LTE with fall back to HSPA+
Rogers LTE with fall back to HSPA+
Sprint EVDO Rev. A with fall back to 1xRTT
TELUS LTE with fall back to HSPA+
Verizon LTE with fall back to EVDO
Dual-band CDMA2000 EVDO Rev. A
    (backward compatible with 1xRTT)
GSM/HSPA+ (backward compatible with EDGE)

PROGRAMMABLE PLATFORM
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
VRRP

IP
NAT, port forwarding, dynamic DNS, DHCP
Stateful inspection firewall, IP transparency

ETHERNET INTERFACE (10/100 AUTO-SENSING)
1x or 5x RJ45

SERIAL INTERFACE
1x RS-232 serial DB9 115200bps

USB INTERFACE
1x USB 2.0 device mini

POWER INPUT
Range: 8-30 VDC (12 or 24 VDC nominal)
Standby: 1.4W - 3.3W (typical)
    Transmitting:
    6401: 2.0W – 5.0W
    6421: 3.4W – 6.4W
    660x: 2.0W – 2.9W
    6621: 3.6W – 4.5W
    680x: 2.6W – 5.0W
    6821: 4.2W – 6.6W
    670x: 2.6W – 6.9W
    6721: 4.3W – 8.7W
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
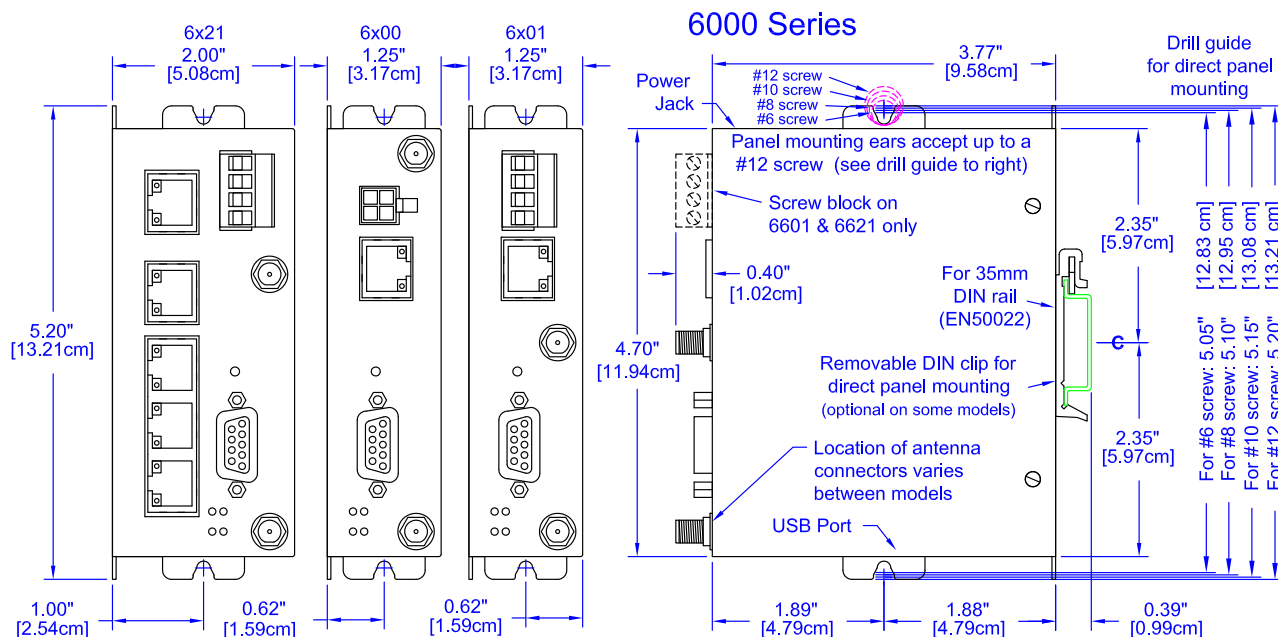
CERTIFICATION
EMI/EMC:
    Emissions: FCC, Part 15 and Industry Canada, ICES-003; Class A;
    EN55022, IEC61000-6-4
    Immunity: IEC61000-6-2 (EN61000-4-2,3,4,5,6,8)
Hazardous locations: Class I, Div. 2, Groups A, B, C, D, ISA 12.12.01
Electrical safety: UL508/CSA22.2/14 (CUL); IEC61010-1
Carrier specific approvals
RoHS compliant

WARRANTY
3 years on design and manufacturing defects

* See Hardware Manual for thermal considerations.

DIMENSIONS *in inches (mm)*

6x21 2.00" [5.08cm]
6x00 1.25" [3.17cm]
6x01 1.25" [3.17cm]
5.20" [13.21cm]
1.00" [2.54cm]
0.62" [1.59cm]
0.62" [1.59cm]

6000 Series

Power Jack
#12 screw
#10 screw
#8 screw
#6 screw

3.77" [9.58cm]
Drill guide for direct panel mounting

Panel mounting ears accept up to a #12 screw (see drill guide to right)

Screw block on 6601 & 6621 only

0.40" [1.02cm]

For 35mm DIN rail (EN50022)

4.70" [11.94cm]

Removable DIN clip for direct panel mounting (optional on some models)

Location of antenna connectors varies between models

USB Port

2.35" [5.97cm]
2.35" [5.97cm]

[12.83 cm]
[12.95 cm]
[13.08 cm]
[13.21 cm]

For #6 screw: 5.05"
For #8 screw: 5.10"
For #10 screw: 5.15"
For #12 screw: 5.20"

1.89" [4.79cm]
1.88" [4.79cm]
0.39" [0.99cm]

ORDER GUIDE

PART NUMBER	PRODUCT LINE	SERIAL RS-232	ETHERNET 10/100	CELLULAR	POWER CONNECTOR	SUPPORTED CARRIERS
SN-6600-(Carrier Code)	SN	1	1	3G/CDMA	Molex end connector cable	(SP) Sprint; (VZ) Verizon
SN-6600-(Carrier Code)-AC	SN	1	1	3G/CDMA	AC adapter	
SN-6600-(Carrier Code)-MX	SN	1	1	3G/CDMA	AC adapter/Molex end connector	
SN-6601-(Carrier Code)	SN	1	1	3G/CDMA	DC powered	
SN-6601-(Carrier Code)-AC	SN	1	1	3G/CDMA	AC adapter	
SN-6601EB-(Carrier Code)	SN	1	1	3G/CDMA	PoE (Power Over Ethernet)	
SN-6621-(Carrier Code)	SN	1	5	3G/CDMA	DC powered	
SN-6621-(Carrier Code)-AC	SN	1	5	3G/CDMA	AC adapter	
SN-6700-(Carrier Code)	SN	1	1	4G LTE	Molex end connector cable	(AT) AT&T; (BM) Bell Mobility; (GE) Generic*; (MTS) Manitoba; (RO) Rogers; (TE) TELUS; (VZ) Verizon
SN-6700-(Carrier Code)-AC	SN	1	1	4G LTE	AC adapter	
SN-6700-(Carrier Code)-MX	SN	1	1	4G LTE	AC adapter/Molex end connector	
SN-6701-(Carrier Code)	SN	1	1	4G LTE	DC powered	
SN-6701-(Carrier Code)	SN	1	1	4G LTE	AC adapter	
SN-6701EB-(Carrier Code)	SN	1	1	4G LTE	PoE (Power Over Ethernet)	
SN-6721-(Carrier Code)	SN	1	5	4G LTE	DC powered	
SN-6721-(Carrier Code)-AC	SN	1	5	4G LTE	AC adapter	
SN-6800-(Carrier Code)	SN	1	1	3G/GSM	Molex end connector cable	(AT) AT&T; (BM) Bell Mobility; (GE) Generic*; (MTS) Manitoba; (RO) Rogers; (TE) TELUS
SN-6800-(Carrier Code)-AC	SN	1	1	3G/GSM	AC adapter	
SN-6800-(Carrier Code)-MX	SN	1	1	3G/GSM	AC adapter/Molex end connector	
SN-6801-(Carrier Code)	SN	1	1	3G/GSM	DC powered	
SN-6801-(Carrier Code)-AC	SN	1	1	3G/GSM	AC adapter	
SN-6801EB-(Carrier Code)	SN	1	1	3G/GSM	PoE (Power Over Ethernet)	
SN-6821-(Carrier Code)	SN	1	5	3G/GSM	DC powered	
SN-6821-(Carrier Code)-AC	SN	1	5	3G/GSM	AC adapter	

* See Band/Frequency table for compatability

FREQUENCY SPECIFICATIONS

PART NUMBER	PRODUCT LINE
SN-66XX-SP/VZ	EVDO: 800/1900 MHz CDMA: 800/1900 MHz
SN-67XX-AT/BM/GE/MTS/RO/TE	LTE: Bands 1, 4, 17; Frequencies 700/2100MHz, AWS (1700/2100) MHz HSPA: Bands 1, 2, 5, 6; Frequencies 800/850/1900/2100 MHz GSM: 850/900MHz
SN-67XX-VZ	LTE: Band 13; Frequency 700 MHz WCDMA: 850/900/1900/2100 MHz
SN-68XX-AT/BM/GE/MTS/RO/TE	HSPA: Bands 1, 2, 5, 6, 8; Frequencies 800/850/900/1900/2100 MHz GSM: 850/900/1800/1900 MHz

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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 award-winning 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. For more information, please visit www.redlion.net. Red Lion is a Spectris company.

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