IndustrialPro® SN 6000 Cellular Routers

Sixnet® Networking Series

►►► Rugged Ethernet & Serial Cellular Routers

Red Lion's Sixnet series IndustrialPro SN 6000 cellular routers with 3G network 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 reliable 3G connectivity with network fallback. Featuring a web-based event engine that can trigger alarms or 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

> Reliable 3G Cellular 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

> 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

CE   FC   c(UL)us LISTED   RoHS compliant

WIRELESS INTERFACE
AT&T HSPA+ with fallback to GSM
Bell Mobility HSPA+ with fallback to GSM
Generic HSPA+ with fallback to GSM
Manitoba HSPA+ with fallback to GSM
Rogers HSPA+ with fallback to GSM
Sprint EVDO with fallback to CDMA
TELUS HSPA+ with fallback to GSM
Verizon EVDO with fallback to GSM

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
VRRP

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:
   660x: 2.0W – 2.9W
   6621: 3.6W – 4.5W
   680x: 2.6W – 5.0W
   6821: 4.2W – 6.6W
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
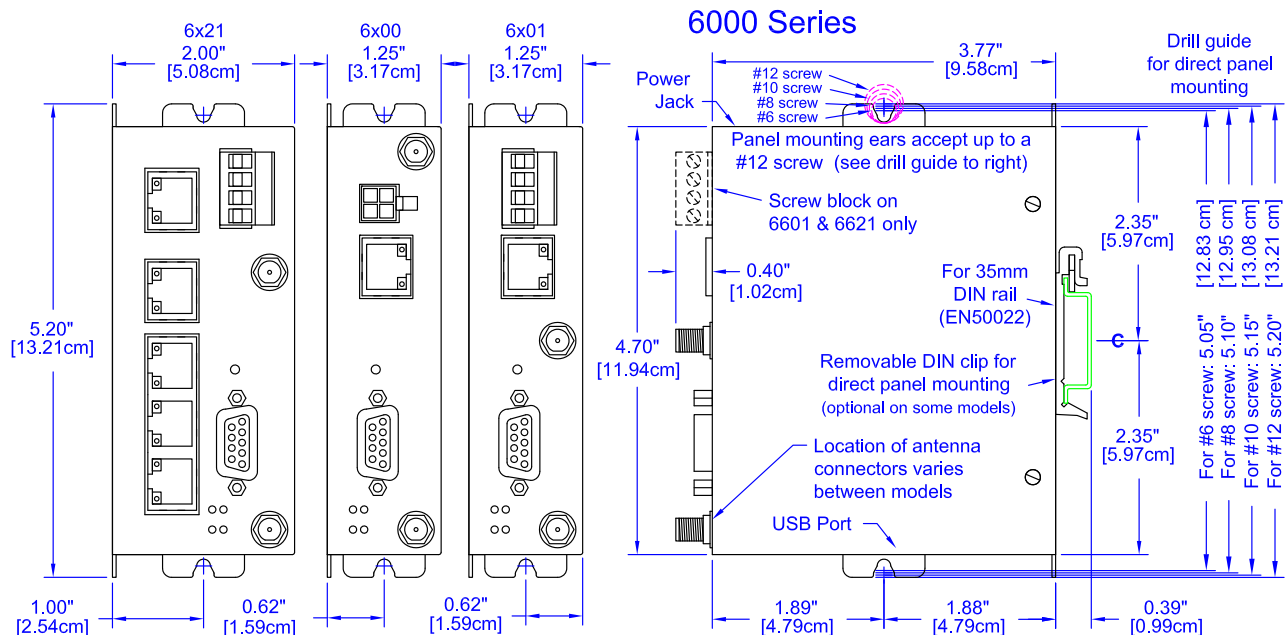
CERTIFICATION
EMI/EMC:
   Emissions: FCC, Part 15 and Industry Canada, ICES-003; Class A;
   EN55022, IEC61000-6-4
   Immunity: IEC61000-6-2 (EN61000-4-2,3,4,5,6,8)
Hazardous Locations: Class I, Div. 2, Groups A, B, C, D, ISA 12.12.01
Electrical safety: UL508/CSA22.2/14 (CUL); IEC61010-1
Carrier Specific Approvals
RoHS compliant

WARRANTY
3 years on design and manufacturing defects

* See Hardware Manual for thermal considerations.

DIMENSIONS in inches (mm)

6x21
2.00"
[5.08cm]

6x00
1.25"
[3.17cm]

6x01
1.25"
[3.17cm]

6000 Series

3.77"
[9.58cm]

Drill guide
for direct panel
mounting

Power
Jack

#12 screw
#10 screw
#8 screw
#6 screw

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)

2.35"
[5.97cm]

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

5.20"
[13.21cm]

4.70"
[11.94cm]

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

2.35"
[5.97cm]

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

Location of antenna
connectors varies
between models

USB Port

1.00"
[2.54cm]

0.62"
[1.59cm]

0.62"
[1.59cm]

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	DEFAULT 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-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	BANDS/FREQUENCIES
SN-66XX-SP/VZ	EVDO: 800/1900 MHz CDMA: 800/1900 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