

RAM® 6000 Cellular RTUs

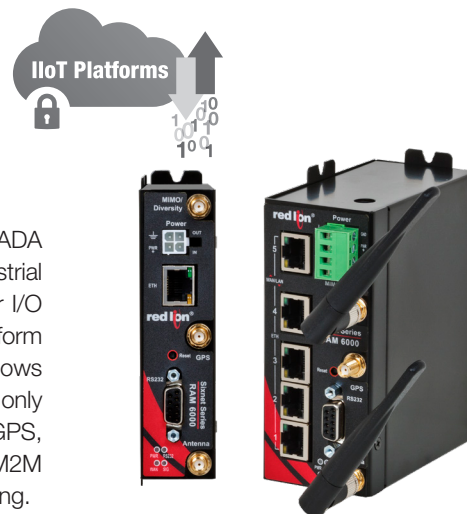
Sixnet® Networking Series



▶▶▶ Multi-Carrier RTUs with GPS and Local Control

Red Lion's Sixnet series RAM 6000 cellular RTUs with multi-carrier 4G LTE support, provide advanced control and communication in IIoT applications for remote assets and processes in extreme conditions.

RAM 6000 industrial cellular RTUs seamlessly connect Modbus and DNP3 enabled SCADA equipment via software selectable multi-carrier 4G LTE to remote networks or select Industrial Internet of Things (IIoT) Cloud platforms. Featuring a web-based event engine that can trigger I/O or send SMS text messages based on real-time operational data, RAM cellular RTUs can perform advanced local edge control and alert personnel of critical events. A built-in I/O concentrator allows the RAM to collect sensor data and optimize cellular data consumption by optionally reporting only on an exception or only transmitting relevant data points. With built-in Ethernet, serial, I/O and GPS, RAM RTUs 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
- > Natively Supports Modbus & DNP3 Protocols
- > Cloud Connectivity to IIoT Cloud Platforms
- > Routing Capabilities Provide Secure, Reliable Communication
- > Active GPS Receiver Tracks Device Location
- > Event Engine can Trigger I/O or Send SMS Messages
- > Optional PoE (Powered Device) Support

SUPPORTED IIOT PLATFORMS*

- Amazon® — AWS™ IoT
- AT&T® — M2X
- Autodesk® — Fusion Connect
- Cumulocity
- Inductive Automation's Ignition SCADA
- LEC — IQ Web SCADA
- Microsoft — Azure®
- Nokia — IMPACT
- Set-Point Control — IPwebcontrol
- Skkyne® — SkkyHub™
- Telenor — Connexion Cloud Connect
- Telit® — deviceWISE®

FEATURES & BENEFITS

- > Multi-Carrier 4G LTE Connectivity
 - Select the best carrier during or post deployment via software configuration
- > 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 70°C operating temperature**
- > Modbus and DNP3 Support
 - Easily communicates with SCADA equipment with native protocols
- > Cloud Connectivity to IIoT Cloud Platforms
 - Allows for seamless communication with leading IIoT cloud platforms using MQTT messaging protocol
- > 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 I/O, alarms and send SMS messages based on operational data

industrial
networking



- GPS antenna connectors (only on certain models)

▶▶▶ RAM 6000 LTE Multi-Carrier Specifications

ORDERING GUIDE

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

Notes: 1. See Band/Frequency table for compatibility.

2. Carrier Code indicates the carrier pre-configured on the device. Alternate carrier can be selected via software.

3. AM (Generic) model includes Bell Mobility, TELUS and Rogers carriers or other North American carriers.

EU (Europe/Asia) model is not supported in North America. JP (Japan) model only supported in Japan.

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	-

Rest of World Model (EU)

TECHNOLOGY	BANDS	FREQUENCIES	ANTENNA CONFIGURATION
LTE	1, 3, 7, 8, 20	800/900/1800/2100/2600 MHz	MIMO Required
Fallback HSPA+	1, 2, 5, 8	850/900/1900/2100 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.



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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 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.

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