AirLink® RV50X

Compact, Rugged Low Power LTE-A Router for Industrial IoT, SCADA and Metering

Benefits

- **Connect to devices in remote locations and harsh environments**
- **Lower connectivity costs compared to fiber, landlines or private network**
- **Deploy in off-grid locations using battery or solar power**
- **Maximize ROI and longevity of remotely deployed equipment**

RV50X Product Description

The AirLink® RV50X delivers LTE broadband connectivity for critical remote fixed assets and industrial IoT infrastructure. With low power consumption, the RV50X can run on battery or solar power.
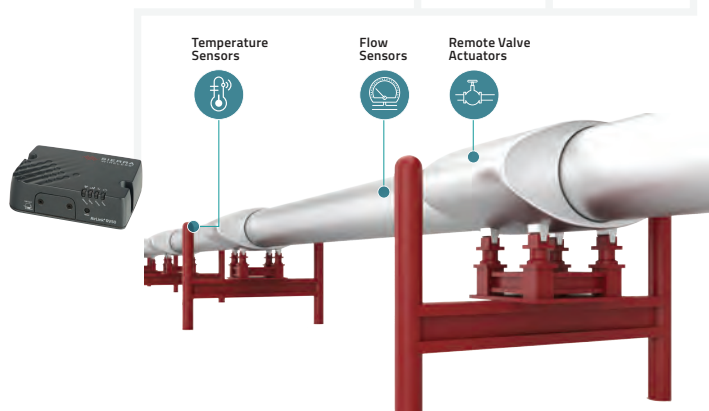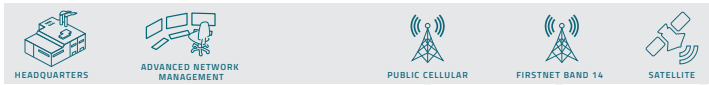
RV50X

Rugged Cat 6 LTE router capable of 300 Mbps downlink and 50 Mbps uplink speeds. Ethernet and serial connections. GNSS. Wi-Fi not available.
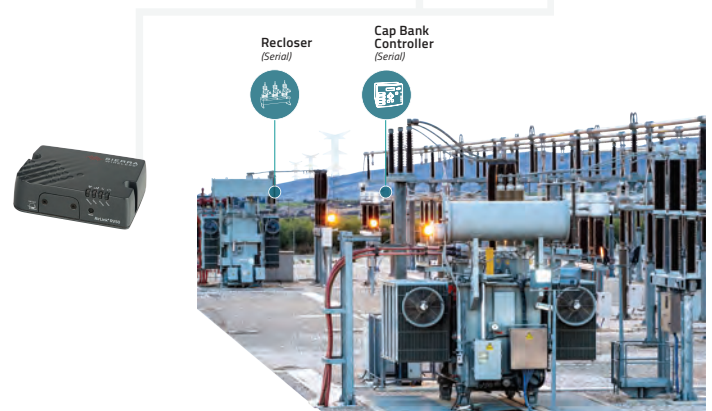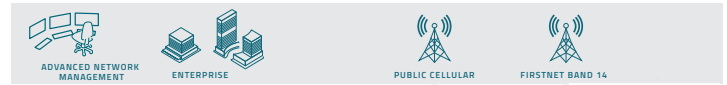
Ideal Applications

Ruggedized connectivity for fixed assets in:

- Utilities
- Oil & Gas
- Public Safety
- SCADA and Metering
- Agriculture
- Environmental monitoring
- Smart City

RV50X APPLICATION EXAMPLES

HEADQUARTERS · ADVANCED NETWORK MANAGEMENT · PUBLIC CELLULAR · FIRSTNET BAND 14 · SATELLITE

Temperature Sensors · Flow Sensors · Remote Valve Actuators

PIPELINE

ADVANCED NETWORK MANAGEMENT · ENTERPRISE · PUBLIC CELLULAR · FIRSTNET BAND 14

Recloser *(Serial)* · Cap Bank Controller *(Serial)*

GRID

sierrawireless.com

AIRLINK RV50X – PERFORMANCE SERIES ROUTER

Top Features	Device Variant	Specifications
LTE Supported	All Versions	Cat 6. LTE-A Pro (300/50 Mbps), HSPA+
Navigation	All	GNSS
Wi-Fi	All	None
Interfaces	All	Gigabit Ethernet RS-232 USB 2.0. Configurable I/O pin
Security	All	All Sierra Wireless security features including secure boot and secure firmware update. IPsec, GRE, and OpenVPN client with up to 5 concurrent tunnels.
Construction	All	Aluminum die cast housing rated to IP-64 and Mil-STD 810G. Class1 Div 2 for hazardous use.
Industry Certifications	All	Safety: IECEE Certification and SAE J1455 (Shock & Vibration) Vehicle Usage: E-Mark and SAE J1455 (Shock & Vibration) Class1 Div 2 for hazardous environments
Dimensions	All	119 mm x 85 mm x 34 mm 4.69 in x 3.35 in x 1.34 in
Warranty	All	3 years (with options for up to 5 years)
Regions and Carriers	All	North America and EMEA - Verizon, AT&T, T-Mobile USA, Southern Linc, Sprint, US Cellular, Rogers, TELUS, Bell APAC - Telstra

RV50X Services and Support

AirLink Complete: AirLink Complete is a subscription service that combines best-in-class device management software through AirLink Management Service (ALMS), industry-leading technical support and an extended warranty option. It delivers a cost-effective way to ensure your mission-critical infrastructure operates at peak efficiency. AirLink Complete is included free for 1 year with the purchase of a new RV50X.

Device Management: AirLink Management Service (ALMS) is a secure cloud-based device management solution that supports over-the-air registration, configuration and software updates. ALMS Advanced Reporting and Analytics (ALMS ARA) adds advanced historical reporting and deeper insights to data.

Professional Services: Full product life-cycle services including solution consulting and solution implementation services delivered by Sierra Wireless Network Engineers and Program Managers.

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	North America & EMEA	Asia Pacific
	LTE	
LTE CATEGORY	Cat 6	
Peak D/L	Up to 300 Mbps	
Peak U/L	Up to 50 Mbps	
4G LTE Frequency Bands*	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 700(B12), 700(B13), 800(B20), 1900(B25), 850(B26), 700(B29), TDD B41	2100(B1), 1800(B3), 850(B5), 2600(B7), 900(B8), 850(B18), 850(B19), 1500(B21), 700(B28), TDD 38, TDD 39, TDD 40, TDD 41
3G HSPA/HSPA+ Frequency Bands*	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 900(B8)	2100(B1), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19),
3G TD-SCDMA Frequency Bands*		B39
APPROVALS		
Regulatory	FCC, IC, PTCRB, R&TTE, GCF, CE	RCM, JRF/JPA, Anatel
Carrier	Verizon, AT&T, T-Mobile USA, Southern Linc, Sprint, US Cellular, Rogers, Telus, Bell	Telstra
PART NUMBERS	1103052	1103045 1103973 (China)

For carrier specific band support please refer to the hardware user guide.

	Specification
HOST INTERFACES	10/100/1000 Ethernet (RJ45)
	RS-232 serial port (DB-9)
	USB 2.0 Micro-B Connector
	3 SMA antenna connectors (primary, diversity, GPS)
	Active GPS antenna support
INPUT/OUTPUT	Configurable I/O pin on power connector
	• Digital Input ON Voltage: 2.7 to 36 VDC
	• Configurable Pull-up for dry contact input
	• Digital Open Collector Output > sinking 500 mA
	• Analog Input: 0.5-36 VDC
LAN (ETHERNET/USB)	DNS, DNS Proxy
	DHCP Server
	IP Passthrough
	VLAN
	Host Interface Watchdog
	PPPoE
SERIAL	TCP/UDP PAD Mode
	Modbus (ASCII, RTU, Variable)
	PPP
	DNP3 Interoperability

	Specification
SATELLITE NAVIGATION (GNSS)	12 Channel GPS and GLONASS Receiver
	Acquisition Time: 1 s Hot Start
	Accuracy: <2 m (50%), <5 m (90%)
	Tracking Sensitivity: -145 dBm
	Reports: NMEA 0183 V3.0, TAIP, RAP, XORA
	Multiple Redundant Servers
	Reliable Store and Forward
NETWORK MANAGEMENT	Secure network management applications available in the cloud or licensed platform in the enterprise data center
	Fleet wide firmware upgrade delivery
	Router configuration and template management
	Router staging over the air and local Ethernet connection
	Over-the-air software and radio module firmware updates
	Device Configuration Templates
	Configurable monitoring and alerting
	Remote provisioning and airtime activation (where applicable)
GATEWAY MANAGEMENT INTERFACES	ALMS
	Local web user interface
	AT Command Line Interface (Telnet/SSH/Serial)
	SMS Commands
	SNMP

	Specification			Specification
NETWORK AND ROUTING	Network Address Translation (NAT)		**POWER**	Input Voltage: 7 to 36 VDC
	Port Forwarding			LTE Idle Power: 900mW (75 mA @ 12VDC)
	Host Port Routing			Standby Mode Power: 53 mW (4.4 mA @ 12 VDC) triggered on low voltage, I/O or periodic timer
	NEMO/DMNR			Low voltage disconnect to prevent battery drain
	VRRP			Built-in protection against voltage transients including 5 VDC engine cranking and +200 VDC load dump
	Reliable Static Route			Ignition Sense with time delay shutdown
	Dynamic DNS			Configurable features and ports to optimize power consumption
	Policy Routing		**ENVIRONMENTAL**	Operating Temperature: -40°C to +70°C / -40°F to +158°F
	Verizon ANTM			Storage Temperature: -40°C to +85°C / -40°F to +185°F Humidity: 90% RH @ 60°C
	IPv6 Gateway			
VPN	IPsec, GRE, and OpenVPN Client			Military Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity
	Up to 5 concurrent tunnels			IP64 rated ingress protection
	Split Tunnel		**INDUSTRY CERTIFICATIONS**	Safety: IECEE Certification Bodies Scheme (CB Scheme), UL 60950
	Dead Peer Detection (DPD)			
	Multiple Subnets			Vehicle Usage: E-Mark (UN ECE Regulation 10.04), ISO7637-2, SAE J1455 (Shock & Vibration)
EVENTS ENGINE	Custom event triggers and reports			Hazardous Environments: Class 1 Div 2
	Configurable interface, no programming			Environmental: RoHS, REACH, WEEE
	Event Types: Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage		**SUPPORT AND WARRANTY**	Includes 1st Year AirLink Complete: • AirLink Management Service (ALMS)
	Report Types: RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV)			• Direct 24/7 Technical Support
	Event Actions: Drive Relay Output			• 3-year standard warranty; optional 2-year warranty extension
DIMENSIONS	119 mm x 34 mm x 85 mm (94 mm including connectors)			1-day Accelerated Hardware Replacement available through participating resellers
	4.69 in x 1.34 in x 3.35 in (3.70 in including connectors)			
SECURITY	Remote Authentication (LDAP, RADIUS, TACACS+)		**ACCESSORIES**	In the Box: DC Power Cable and Quick Start Guide Other Accessories (sold separately): 2000579 AC Adapter, 12VDC 6000659 DIN Rail Bracket For antenna options visit: sierrawireless.com/antennas
	DMZ			
	Inbound and Outbound Port filtering			
	Inbound and Outbound Trusted IP			
	MAC Address Filtering			
	PCI compatible			
APPLICATION FRAMEWORK	ALEOS Application Framework (AAF)			
	LUA Scripting Language			
	Eclipse-based IDE			
	Integrated with AirVantage®			
	Dual-Core Processing			

Related AirLink Products
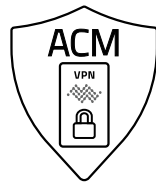
AIRLINK DEVICE MANAGEMENT SOLUTIONS

AirLink Management Service (ALMS)

- Secure, Cloud-based network and asset management
- Remotely deploy, configure, monitor and manage AirLink devices
- Carrier-grade, high availability, secure, global infrastructure

AIRLINK VPN APPLIANCE

AirLink Connection Manager

- VPN appliance built from the ground up for AirLink routers & gateways
- Simplify deployment and management of your VPN solution, extending the enterprise to the network edge for fixed and mobile endpoints
- Carrier agnostic — ACM doesn't require fixed and/or public IP
- Compatible with FIPS 140-2, and always-on VPN capability

AIRLINK ANTENNA SOLUTIONS

AirLink Antennas

- Tested and certified to provide guaranteed performance with all AirLink routers and gateways
- Accelerate deployment with always-on, end-to-end connectivity

About Sierra Wireless

Sierra Wireless (NASDAQ: SWIR) (TSX: SW) is the leading IoT solutions provider that combines devices, network and software to unlock value in the connected economy. Companies globally are adopting IoT to improve operational efficiency, create better customer experiences, improve their business models and create new revenue streams. Whether it's a solution to help a business securely connect edge devices to the cloud, or a software/API solution to help manage processes associated with billions of connected assets, or a platform to extract real-time data to make the best business decisions, Sierra Wireless will work with you to create the right industry-specific solution for your next IoT endeavor. Sierra Wireless has more than 1,300 employees globally and operates R&D centers in North America, Europe and Asia.

For more information, visit www.sierrawireless.com.