



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

### 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

### 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

## AirLink RV50X – Router Specifications

CELLULAR	
Peak D/L	<b>RV50X LTE</b> – Cat 6, Peak D/L Up to 300 Mbps
Peak U/L	Up to 50 Mbps
4G LTE	
Frequency Bands*	
North America & EMEA	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
Asia Pacific	<b>RV50X LTE</b> – 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 WCDMA/HSPA+	
Frequency Bands*	
North America & EMEA	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 900(B8)
Asia Pacific	2100(B1), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)
3G TD-SCDMA	
Frequency Bands*	
Asia Pacific	B39
APPROVALS	
Regulatory	
North America & EMEA	FCC, IC, PTCRB, R&TTE, GCF, CE
Asia Pacific	RCM, JRF/JPA, Anatel
Carrier	
North America & EMEA	Verizon, AT&T, T-Mobile, Southern Linc, US Cellular, Rogers, TELUS, Bell, Anterix
Asia Pacific	Telstra
PART NUMBERS	
North America & EMEA	1103052
Asia Pacific	1103045, 1103973 (China)

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

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
SECURITY	
	Remote Authentication (LDAP, RADIUS, TACACS+) DMZ Inbound and Outbound Port filtering Inbound and Outbound Trusted IP MAC Address Filtering PCI compatible
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
ENVIRONMENTAL	
Temperature	<b>Operating Temperature:</b> -40°C to +70°C / -40°F to +158°F <b>Storage Temperature:</b> -40°C to +85°C / -40°F to +185°F <b>Humidity:</b> 90% RH @ 60°C
	Military Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity IP64 rated ingress protection
POWER	
Input/Operating Voltage	<b>Input Voltage:</b> 7 to 36 VDC Configurable I/O pin on power connector <ul style="list-style-type: none"> <li>Digital Input ON Voltage: 2.7 to 36 VDC</li> <li>Configurable Pull-up for dry contact input</li> <li>Digital Open Collector Output &gt; sinking 500 mA</li> <li>Analog Input: 0.5-36 VDC</li> </ul>
Power modes	<b>LTE Idle Power:</b> 900mW (75 mA @ 12VDC) <b>Standby Mode Power:</b> 53 mW (4.4 mA @ 12 VDC) triggered on low voltage, I/O or periodic timer Low voltage disconnect to prevent battery drain Built-in protection against voltage transients including 5 VDC engine cranking and +200 VDC load dump Ignition Sense with time delay shutdown Configurable features and ports to optimize power consumption

## AirLink RV50X – Router Specifications

### NETWORK AND ROUTING

Network Address Translation (NAT)  
 Port Forwarding  
 Host Port Routing  
 NEMO/DMNR  
 VRRP  
 Reliable Static Route  
 Dynamic DNS  
 Policy Routing  
 Verizon ANTM  
 IPv6 Gateway

### VPN\*\*\*

IPsec, GRE, and OpenVPN Client  
 Up to 5 concurrent tunnels  
 Split Tunnel  
 Dead Peer Detection (DPD)  
 Multiple Subnets

### INDUSTRY CERTIFICATIONS

<b>Safety</b>	IECEE Certification Bodies Scheme (CB Scheme), UL 60950
<b>Vehicle Usage</b>	E-Mark (UN ECE Regulation 10.04), ISO7637-2, SAE J1455 (Shock & Vibration)
<b>Environmental</b>	RoHS, REACH, WEEE <b>Hazardous Environments:</b> Class 1 Div 2

### SUPPORT AND WARRANTY

1 year standard warranty with up to 5 years extended warranty with current AirLink Complete subscription. Unrestricted critical firmware updates.

### 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

### APPLICATION FRAMEWORK

ALEOS Application Framework (AAF)  
 LUA Scripting Language  
 Eclipse-based IDE  
 Integrated with AirVantage®  
 Dual-Core Processing

### 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)

### ROUTER MANAGEMENT

ALMS  
 Local web user interface  
 AT Command Line Interface (Telnet/SSH/Serial)  
 SMS Commands  
 SNMP

### EVENTS ENGINE

Custom event triggers and reports Configurable interface, no programming  
**Event Types:** Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage  
**Report Types:** RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV)  
**Event Actions:** Drive Relay Output

### ACCESSORIES

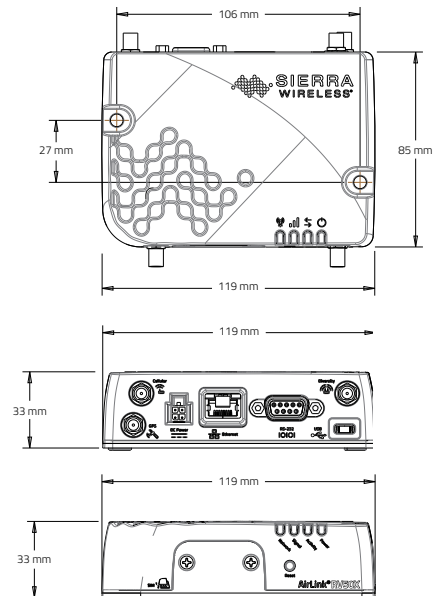
**In the box** RV50X, DC Power Cable and Quick Start Guide  
 Other Accessories (sold separately):

- 2000579 AC Adapter, 12VDC
- 6000659 DIN Rail Bracket

For antenna options visit: [sierrawireless.com/antennas](http://sierrawireless.com/antennas)

### DIMENSIONS

**AirLink RV50X – Main Body** 119 mm x 34 mm x 85 mm (94 mm including connectors)  
 4.69 in x 1.34 in x 3.35 in (3.70 in including connectors)



## RV50X Services and Support



### AIRLINK COMPLETE

Maximize your AirLink RV50X hardware investment and ensure your applications operate at peak efficiency by subscribing to our best-in-class service and support including:

- AirLink Management Service (ALMS) network management
- Optional Advanced Mobility Reporting (AMR)
- 24/7/365 Tier 1 technical support from wireless experts via phone or online access
- Extended hardware warranty – up to 5 years
- For more information on AirLink Complete visit our [web page](#)



### PROFESSIONAL SERVICES

Our [Professional Services](#) experts are well-versed in the latest enterprise networking and security standards. Harvesting experience and lessons-learned over thousands of customer deployments, our best practices are expertly tailored to help you architect and deploy your cutting-edge AirLink solutions.



### 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 ANTENNAS

- Tested and certified to provide guaranteed performance with all AirLink routers and gateways
- Accelerate deployment with always-on, end-to-end connectivity
- For more information on antennas specific to the RV50X router visit our [web page](#)

### About Sierra Wireless

Sierra Wireless (NASDAQ: SWIR) (TSX: SW) is a world leading IoT solutions provider that combines devices, network services, and software to unlock value in the connected economy. Companies globally are adopting 4G, 5G, and LPWA solutions to improve operational efficiency, create better customer experiences, improve their business models, and create new revenue streams. Sierra Wireless works with its customers to develop the right industry-specific solution for their IoT deployments, whether this is an integrated solution to help connect edge devices to the cloud, a software/API service to manage processes with billions of connected assets, or a platform to extract real-time data to improve business decisions. With more than 25 years of cellular IoT experience, Sierra Wireless is the global partner customers trust to deliver them their next IoT solution.

For more information, visit [www.sierrawireless.com](http://www.sierrawireless.com).