

# AirLink® RV50X: Industrial LTE Router

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.

**AirLink® RV50X**

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



## AirLink® RV50X – Router Specifications

|                  | North America & EMEA                                                                                                                    | Asia Pacific                                                                                                            |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| CELLULAR         |                                                                                                                                         |                                                                                                                         |
| Peak D/L         | Cat 6                                                                                                                                   | Cat 6                                                                                                                   |
| Peak D/L         | Up to 300 Mbps                                                                                                                          | Up to 300 Mbps                                                                                                          |
| Peak U/L         | Up to 50 Mbps                                                                                                                           | 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 WCDMA/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, Southern Linc, US Cellular, Rogers, TELUS, Bell, Anterix                                                       | Telstra                                                                                                                 |
| Part Numbers     |                                                                                                                                         |                                                                                                                         |
| Part Numbers     | 1103052                                                                                                                                 | 1103045<br>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

**Operating Temperature** -40°C to +70°C / -40°F to +158°F

**Storage Temperature** -40°C to +85°C / -40°F to +185°F

**Humidity** 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** **Input Voltage:** 7 to 36 VDC  
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

**Power modes** **LTE Idle Power:** 900mW (75 mA @ 12VDC)  
**Standby Mode Power:** 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

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\*\*\*

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| VPN***                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                             |
| INDUSTRY CERTIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                     | IPsec, GRE, and OpenVPN Client                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Up to 5 concurrent tunnels                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Split Tunnel                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Dead Peer Detection (DPD)                                                   |
| Safety                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Multiple Subnets<br>IECEE Certification Bodies Scheme (CB Scheme), UL 60950 |
| Vehicle Usage                                                                                                                                                                                                                                                                                                                                                                                                                                                               | E-Mark (UN ECE Regulation 10.04), ISO7637-2, SAE J1455 (Shock & Vibration)  |
| Environmental                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RoHS, REACH, WEEE<br><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<br>DHCP Server<br>IP Passthrough<br>VLAN<br>Host Interface Watchdog<br>PPPoE                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |
| SERIAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                             |
| TCP/U DP PAD Mode<br>Modbus (ASCII, RTU, Variable)<br>PPP<br>DNP3 Interoperability                                                                                                                                                                                                                                                                                                                                                                                          |                                                                             |
| APPLICATION FRAMEWORK                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                             |
| ALEOS Application Framework (AAF)<br>LUA Scripting Language<br>Eclipse-based IDE<br>Integrated with AirVantage®<br>Dual-Core Processing                                                                                                                                                                                                                                                                                                                                     |                                                                             |
| NETWORK MANAGEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                             |
| Secure network management applications available in the cloud or licensed platform in the enterprise data center<br>Fleet wide firmware upgrade delivery<br>Router configuration and template management<br>Router staging over the air and local Ethernet connection<br>Over-the-air software and radio module firmware updates<br>Device Configuration Templates<br>Configurable monitoring and alerting<br>Remote provisioning and airtime activation (where applicable) |                                                                             |
| ROUTER MANAGEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                             |
| ALMS<br>Local web user interface<br>AT Command Line Interface (Telnet/SSH/Serial)<br>SMS Commands<br>SNMP                                                                                                                                                                                                                                                                                                                                                                   |                                                                             |
| EVENTS ENGINE                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                             |
| Custom event triggers and reports<br>Configurable interface, no programming<br><b>Event Types:</b> Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage<br><b>Report Types:</b> RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV)<br><b>Event Actions:</b> Drive Relay Output                                                                                                                                                       |                                                                             |
| ACCESSORIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                             |

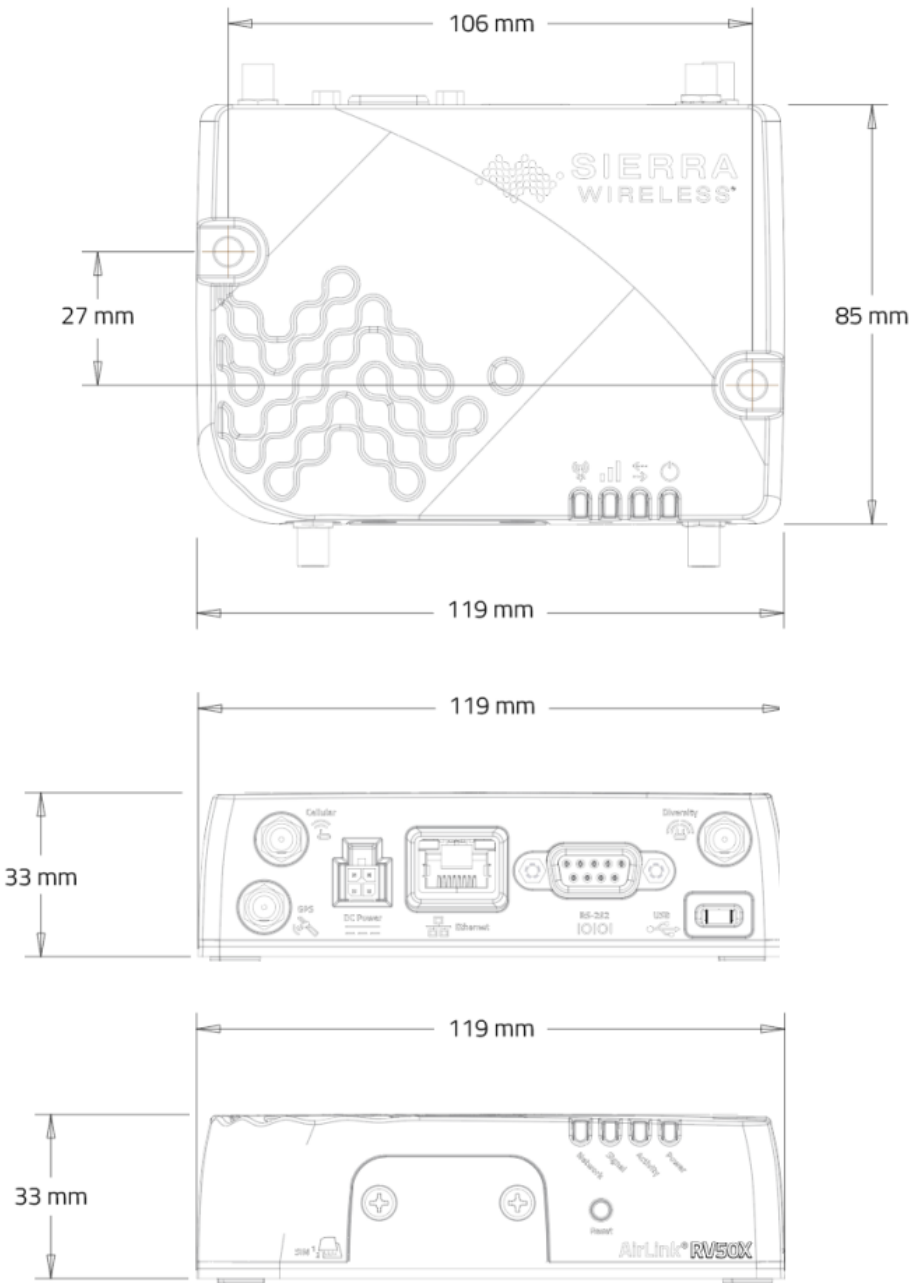
ACCESSORIES

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|                                     |                                                                                                                                                                      |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| In The Box                          | RV50X, DC Power Cable and Quick Start Guide                                                                                                                          |
| Other Accessories (Sold Separately) | 2000579 AC Adapter, 12VDC<br>6000659 DIN Rail Bracket<br><br>For antenna options visit: <a href="http://sierrawireless.com/antennas">sierrawireless.com/antennas</a> |

DIMENSIONS

|                           |                                                                                                                   |
|---------------------------|-------------------------------------------------------------------------------------------------------------------|
| AirLink RV50X – Main Body | 119 mm x 34 mm x 85 mm (94 mm including connectors)<br>4.69 in x 1.34 in x 3.35 in (3.70 in including connectors) |
|---------------------------|-------------------------------------------------------------------------------------------------------------------|



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