

AirLink® RV50X

Ultra Low Power 4G 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.

- Single Serial

GNSS

IP64 Rated

AirLink Complete
- 4G Cat-6

1x Ethernet (1 Gbps)



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 1103973 (China)
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**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***

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

INDUSTRY CERTIFICATIONS

Safety	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 Hazardous Environments: 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 through at least December 31st, 2029

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

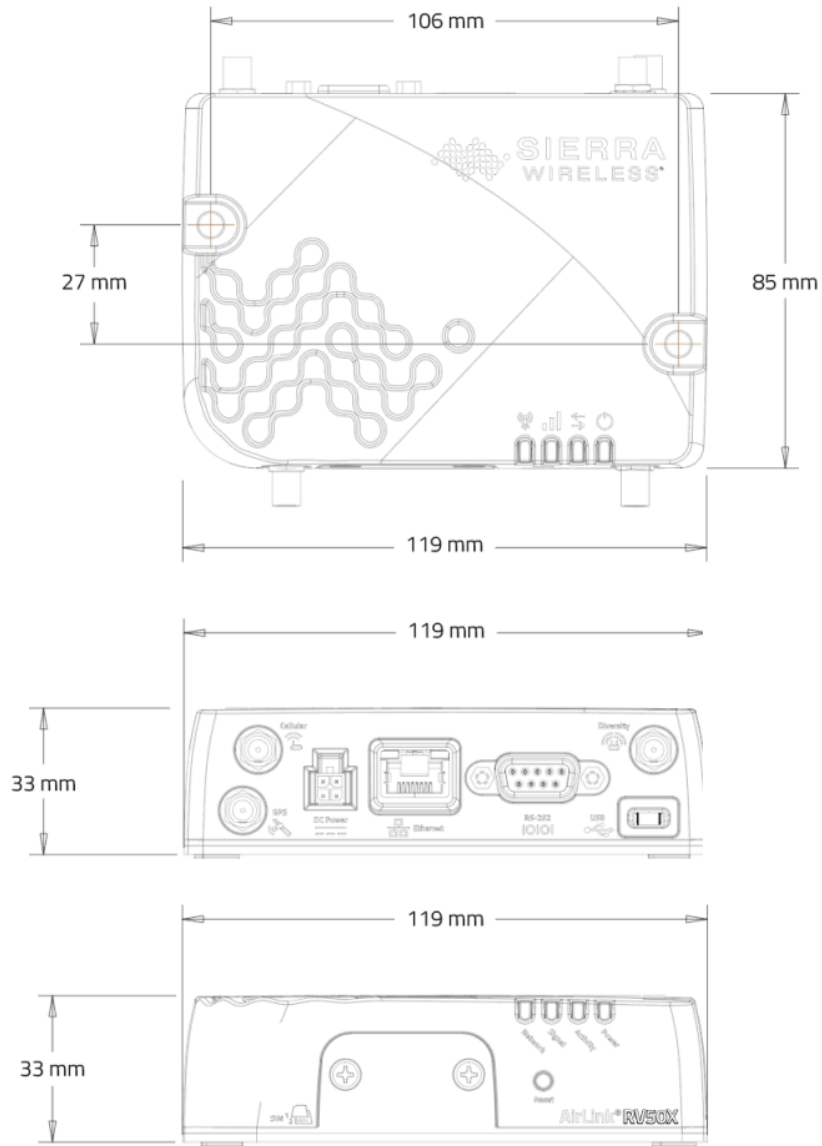
In The Box	RV50X, DC Power Cable and Quick Start Guide
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Other Accessories (Sold Separately)	2000579 AC Adapter, 12VDC 6000659 DIN Rail Bracket
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For antenna options visit: sierrawireless.com/antennas

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)



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