



**TECHNICAL SPECIFICATIONS** 

AirLink® XR90











	North America	Global			
CELLULAR					
Peak D/L	5G - Up to 4.14 Gbps DL, 4G LTE-A Pro CAT20 - Up to 2 Gbps DL				
Peak U/L	5G - Up to 660 Mbps UL, 4G LTE-A Pro CAT20 - 210 Mbps UL				
5G					
Frequency Bands	Sub-6: n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79				
4G LTE Frequency Bands	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 2600(B7), 900(B8), 700(B12), 700(B13), 700(B14), 700(B17), 850(B18), 850(B18), 850(B19), 800(B20), 1900(B25), 850(B26), 700(B28), 700(B28), 700(B28), 2300(B30), 1500(B32), TDD B38, TDD B39, TDD B40, TDD B41, TDD B42, TDD B46, CBRS B48, 1700(B66), 600(B71)				
3G WCDMA/HSPA+					
Frequency Bands	2100(B1), 1900(B2), 1800(B3), AWS(B4), 850(B5), 800(B6), 900(B8), 1700(B9), 850(B19)				
LPWA Frequency Bands	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B14, B17, B18, B19, B20, B25, B26, B27, B28, B66				
APPROVALS  Regulatory	FCC, IC, PTCRB, GCF, CE, RED, RCM				
Carrier	Verizon, AT&T, T-Mobile (pending)				
PART NUMBERS	Single 5G 1104785 Dual 5G 1104786 Optional 5G cartridge (future)	Single 5G 1104722 Dual 5G 1104723 Optional 5G cartridge (future)			

Sp	ec	пт	ca	t١	or	٦

HOST	<b>INTERFACES</b>

Single 5G: 4x RJ-45 Ethernet ports (1x5Gbps, 3x1Gbps)

Dual 5G: 5x RJ-45 Ethernet ports (1x5Gbps, 4x1Gbps)

LPWA ALMS Out-of-Band Management

USB 3.2 Type-C port

Dual RS-232 serial port on RJ-45 connector

Aux Port (GPIO/CAN)
Dual SIM Slots
Bluetooth (future)

Single 5G: 15x FAKRA antenna connectors (4x4 Cellular, Dual 4x4 Wi-Fi, GNSS,

Bluetooth, LPWA)

SECURITY

AAA: 802.1x /Radius authentication with Wi-Fi and Ethernet

Firewall: Stateful firewall with port forwarding, DMZ,

WLAN Encryption: WPA2/WPA3 Personal/Enterprise

FIPS 140-2

#### WI-FI

Dual independent 4x4 MIMO Wi-Fi 6 AP/STA up to 2.4Gbps

Support for 128 clients

WPA2/3 Enterprise

Each independently configurable as Wi-Fi WAN or Wi-Fi Access Point

High output power 21 dBm (per chain)

Captive Portal (future)

### Specification ENVIRONMENTAL Operating Temperature: -30°C to +70°C / -22°F to +158°F Storage Temperature: -40°C to +85°C / -40°F to +185°F Humidity: 95% RH @ 60C IP64 rated ingress protection MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity POWER Input/Operating Voltage: 7 to 36 VDC Power modes: Dual 5G Peak 68W (5.7A @12V); Standby 55mW (4.5mA@12V) Built-in protection against voltage transients including 5 VDC engine cranking Ignition Sense with time delay shutdown NETWORK AND ROUTING Sierra Cognitive Wireless IPv4 and IPv6 Routing Network Address Translation (NAT) LAN Segmentation IPv4 Passthrough and IPv6 Prefix Extension WAN/LAN Connection Policy Management Policy-Based Routing QoS: Application/ Traffic Priority Queuing WAN Monitors: Connection Failure Recovery Configurable MTU size Multiple LAN Support Customize transmission buffer size Static Routing WAN Ethernet Integrated with ACM VPN Server

#### Specification INDUSTRY CERTIFICATIONS Safety: IECEE Certification Bodies Scheme (CB Scheme), UL 60950 Vehicle Usage: E-Mark (72/245/EEC, 2009/19/EC), ISO7637-2, SAE J1455 (Shock & Vibration) Environmental: RoHS2, REACH, WEEE Rail Usage: EN50155 (Rolling Stock) RELIABILITY MTBF: Dual 5G: 27.5 years (Telcordia SR-332 Issue3 Method1) SUPPORT AND 3-year standard warranty; Optional 1/2-year warranty Extension Unrestricted critical firmware updates ACCESSORIES In the box: XR90, DC Power cable, LPWA Antenna. XR90 Quick Start Guide, ALMS Quick Start Guide Mounting bracket (6001350) AC Adapter (6001372) I/O Cable (6001004) Antennas (See sierrawireless.com) 5G Expansion Cartridge (future) EDGE COMPUTING Support for Edge Compute Containerized Applications (future) Azure IoT Integration (future)

AirLink XR90 - Main Body

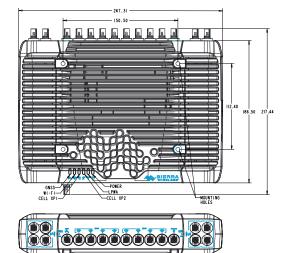
Weight: 2.06 Kg (4.5 Lbs.)

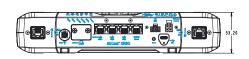
# AirLink XR90 – Main body with Single Expansion Cartridge

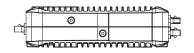
220mm x 220mm x 53mm (8.66in x 8.66in x 2.08in) Weight: 2.64 Kg (5.8 Lbs.)

220mm x 170mm x 53mm (6.69in x 8.66in x 2.08in)

AirLink XR90 - Main body with Dual Expansion Cartridge 268mm x 268mm x 53mm (10.55in x 8.66in x 2.08in) Weight: 3.22 Kg (7.1 Lbs.)







IPsec protocol with IKEv1/IKEv2

FIPS 140-2

Encryption: AES128/AES192/AES256 Hashing: SHA256/SHA384/SHA512

Key Exchange: DHGroup14/15/16/17/18/19/20/21

LAN to LAN and Host to LAN Up to 10 concurrent tunnels per link

MOBIKE protocol IP compression Full/Split Tunnel

Dead Peer Detection (DPD)

# **XR90 Services and Support**



### **AirLink Premium**

Best-in-class support services covering AirLink XR90 devices. Includes:

- AirLink Management Service (ALMS) network management and ALMS Advanced Mobility Reporting (AMA)
- 24/7/365 Tier 1 technical support from wireless experts via phone or online access
- Extended hardware warranty up to 5 years



## **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

### **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.

For more information, visit www.sierrawireless.com.

