



TECHNICAL SPECIFICATIONS

AirLink® XR90

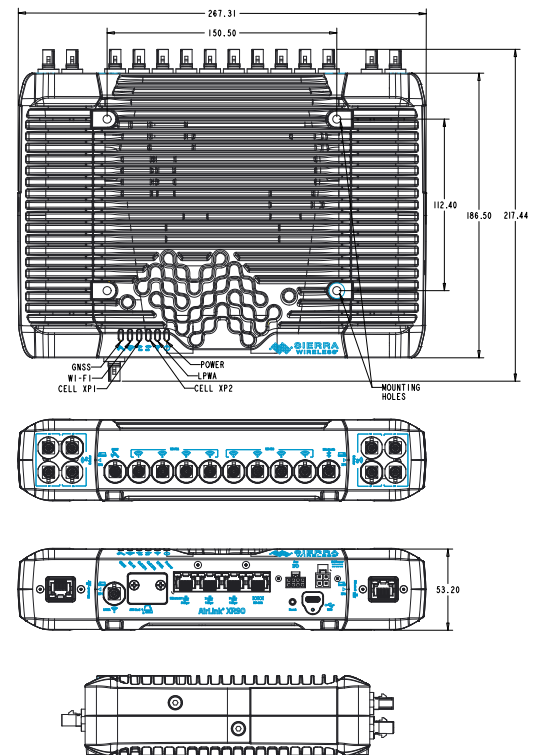


	North America	Global
CELLULAR		
Peak D/L	5G - Up to 4.14 Gbps DL, 4G LTE-A Pro CAT20 - Up to 2 Gbps DL	
Peak U/L	5G - Up to 660 Mbps UL, 4G LTE-A Pro CAT20 - 210 Mbps UL	
5G		
Frequency Bands	Sub-6: n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79	
4G LTE		
Frequency 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(B19), 800(B20), 1900(B25), 850(B26), 700(B28), 700(B29), 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)

	Specification
HOST INTERFACES	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
VPN	Integrated with ACM VPN Server 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)

	Specification
INDUSTRY CERTIFICATIONS	Safety: IECCE 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 WARRANTY	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)
DIMENSIONS	AirLink XR90 – Main Body 220mm x 170mm x 53mm (6.69in x 8.66in x 2.08in) 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.) 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.)



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.