5G

SIERRA WIRELESS®

USAT
Connect What's Critical™

5G High-Performance Multi-Network Router for Public Safety, Field Service Fleets and Mission-Critical Fixed Applications

XR80 Product Description

The supercharged AirLink XR80 is optimized for fixed and mobile applications. The available dual-5G cellular radio and 4X5 MIMO Wi-Fi 6 delivers flexibility for customized configurations. The AirLink XR80 supports complete device-to-cloud security, reduces your total cost of ownership with ALMS Out-of-Band management, and with the cartridged-based design, enables long-term expandability and upgradability.

AIRLINK XR80 5G
Rugged 5G router capable of 4.14 Gbps download and 660 Mbps upload. Wi-Fi optional.

AIRLINK XR80 LTE CAT 20
Rugged LTE Cat 20 router capable of 2.0 Gbps download and 210 Mbps upload. Wi-Fi optional.

Ideal Applications

Mobile mission critical applications in public safety and field service fleets, Fixed Wireless Access, SCADA, Edge and industrial IoT.

- Ambulance/EMS
- Law Enforcement
- Utility Bucket Trucks
- Commercial Fleets
- Manufacturing

- Fixed Utility Applications
- Pipeline monitoring
- Remote Learning
- Retail, Digital Signage and Security

Benefits

- Designed for fixed and mobile mission and business-critical applications that require ultimate connectivity and reliability

- Real-time connectivity with unmatched uplink and downlink speeds using 5G, LTE Cat 20, Wi-Fi 6, and 5 Gbps Ethernet technology

- "Always-on" connectivity delivers consistent primary and backup connectivity for public and private networks using AirLink Sierra Wireless Cognitive Wireless

- Simplified set up and useability with new AirLink OS and upgraded AirLink Management Service (ALMS)

- AirLink Complete with ALMS Out-of-Band Management provides zero-touch set up and reduced service calls

- Ready for your Edge computing workloads

AirLink XR80 – Router Specifications

CELLULAR

Peak D/L	**XR80 5G –** Up to 4.14 Gbps DL, 4G LTE Cat 20 - Up to 2 Gbps DL
	XR80 LTE Cat 20 – 4G LTE Cat 20 - Up to 2 Gbps DL
Peak U/L	**XR80 5G –** Up to 660 Mbps UL, 4G LTE Cat 20 - up to 210 Mbps UL
	XR80 LTE Cat 20 – UL 4G LTE Cat 20 - up to 210 Mbps UL

5G

Frequency Bands	Sub-6 Non-standalone (NSA): n1, n2, n3, n5, n28, n41, n66, n71, n77, n78, n79 (Future Variant) Sub-6 Standalone (NSA & SA): n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79

4G LTE

Frequency Bands	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43 (future), B46, CBRS B48, B66, B71

3G WCDMA/HSPA+

Frequency Bands	B1, B2, B3, B4, B5, B6, B8, B9, B19

LPWA

Frequency Bands	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66

APPROVALS

Regulatory*	FCC, IC/ISED, PTCRB, GCF, CE, RED, RCM
Carrier*	Verizon, AT&T, T-Mobile, BT, Telstra

PART NUMBERS

North America	**XR80 5G –** XR80 Single 5G (1104793) XR80 Single 5G Wi-Fi (1104789) 5G Expansion Cartridge (Optional) (1104757)
	XR80 LTE Cat 20 – XR80 LTE Cat 20 Single 4G (1104881) XR80 LTE Cat 20 Single 4G Wi-Fi (1104879) 5G Expansion Cartridge (Optional) (1104757)
Global	**XR80 5G –** XR80 Single 5G (1104791) XR80 Single 5G Wi-Fi (1104787) 5G Expansion Cartridge (Optional) (1104757)
	XR80 LTE Cat 20 – XR80 LTE Cat 20 Single 4G (1104880) XR80 LTE Cat 20 Single 4G Wi-Fi (1104878) 5G Expansion Cartridge (Optional) (1104757)

HOST INTERFACES

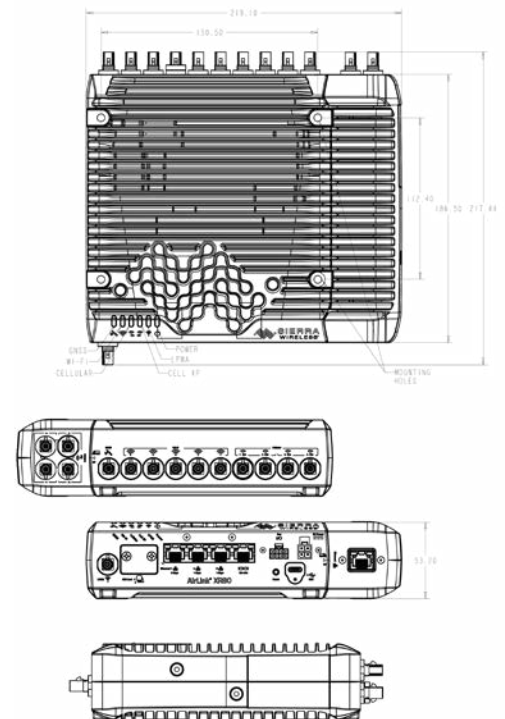|	
Main body	3x RJ-45 Ethernet ports (1x 5Gbps, 2x 1Gbps), With cartridge: 4x RJ-45 Ethernet ports (1x 5Gbps, 3x 1Gbps) LPWA ALMS Out-of-Band Management USB 3.2 Type-C port Dual RS-232 serial port on RJ-45 Aux Port (GPIO/CAN) Dual SIM Slots 11 FAKRA antenna connectors (Dual 4x4 Cellular, 5x4 Wi-Fi, GNSS, 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 (Optional)

	4x4 MIMO Wi-Fi 6 AP/STA up to 2.4Gbps 1x1 MIMO Wi-Fi 6 STA Rx only Support for 128 clients WPA2/3Enterprise Wi-Fi WAN and Wi-Fi Access Point (concurrently) High output power 23 dBm (per chain) Captive Portal (future)

ENVIRONMENTAL

Temperature	**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	Peak 54W (4.5A @12V); Standby 55mW (4.5mA@12V) Built-in protection against voltage transients including 5VDC engine cranking Ignition Sense with time delay shutdown

All approvals are either granted or in progress. Call for the latest approval status.

AirLink XR80 – Router Specifications

NETWORK AND ROUTING

	Sierra Wireless 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)

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, C1D2
Rail Usage	EN50155 (Rolling Stock)

RELIABILITY

MTBF	Dual radio: 32.8 years (Telcordia SR-332 Issue3 Method1)

SUPPORT AND WARRANTY

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

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ACCESSORIES

In the box	XR80, DC Power cable, LPWA Antenna, Quick Start Guides, **Options:** • Mounting bracket (6001350) • AC Adapter (6001372) • I/O Cable (6001004) • Antennas (See sierrawireless.com) • 5G Expansion Cartridge (1104757)

EDGE COMPUTING

	Edge Compute containerized applications (future)

DIMENSIONS

AirLink XR80 – Main Body	220mm x 170mm x 53mm (6.69in x 8.66in x 2.08in) Weight: Non Wi-Fi 1.80 Kg (4.0 Lbs) Wi-Fi 2.00 Kg (4.4 Lbs)
AirLink XR80 – Main Body with Single 5G Expansion Cartridge	220mm x 220mm x 53mm (8.66in x 8.66in x 2.08in) Weight: 2.64 Kg (5.8 Lbs)

XR80 Services and Support

AIRLINK COMPLETE

Maximize your AirLink XR80 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 XR80 router visit our *web page*

For more information contact us:

USAT | Connect What's Critical™
605 Eastowne Drive, Chapel Hill, NC 27514

Phone: (888) 550-8728
Email: info@usatcorp.com
Web: https://usatcorp.com

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.

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