

# AirLink® XR80 5G/XR80 LTE CAT 20 High-Performance Multi-Network Router

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 cartridge-based design, enables long-term expandability and upgradability.



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## AirLink® XR80 5G/XR80 LTE CAT 20

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

## 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

## 4G LTE

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## 3G WCDMA/HSPA+

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

## LPWA

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

## APPROVALS

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**Regulatory\*** FCC, IC/ISED, PTCRB, GCF, CE, RED, RCM, ESN

**Carrier\*** AT&T, FirstNet 5G, FirstNet 4G, T-Mobile, Verizon, BT, Telstra, CBRS

## PART NUMBERS

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### North America

**XR80 5G –**

XR80 Single 5G (1104793)  
XR80 Single 5G Wi-Fi (1104789)  
XP 5G Cartridge (Optional) (1104757)

**XR80 LTE Cat 20 –**

XR80 LTE Cat 20 Single 4G (1104881)  
XR80 LTE Cat 20 Single 4G Wi-Fi (1104879)  
XP 5G Cartridge (Optional) (1104757)

### Global

**XR80 5G –**

XR80 Single 5G (1104791)  
XR80 Single 5G Wi-Fi (1104787)  
XP 5G Cartridge (Optional) (1104757)

**XR80 LTE Cat 20 –**

XR80 LTE Cat 20 Single 4G (1104880)  
XR80 LTE Cat 20 Single 4G Wi-Fi (1104878)  
XP 5G Cartridge (Optional) (1104757)

## HOST INTERFACES

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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 WiFi, GNSS, LPWA)

## SECURITY

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**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)

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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

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**Operating Temperature** -30°C to +70°C / -22°F to +158°F

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

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**Humidity** 95% RH @ 60C

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IP64 rated ingress protection  
MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity

## POWER

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**Input/Operating Voltage** 7 to 36 VDC

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**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

## NETWORK AND ROUTING

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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

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**QoS** Application/ Traffic Priority Queuing

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**WAN Monitors** Connection Failure Recovery

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Configurable MTU size  
Multiple LAN Support  
Customize transmission buffer size  
Static Routing  
WAN Ethernet

## VPN

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## VPN

	Integrated with ACM VPN Server IPsec protocol with IKEv1/IKEv2 FIPS 140-2
<b>Encryption</b>	AES128/AES192/AES256
<b>Hashing</b>	SHA256/SHA384/SHA512
<b>Key Exchange</b>	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\*

<b>Safety</b>	IECEE Certification Bodies Scheme (CB Scheme), UL 60950
<b>Vehicle Usage</b>	E-Mark (72/245/EEC, 2009/19/EC), ISO7637- 2, SAE J1455 (Shock & Vibration)
<b>Environmental</b>	RoHS2, REACH, WEEE, C1D2

**Rail Usage** EN50155/EN45545 (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.

## ACCESSORIES

**In the Box** XR80, DC Power cable, LPWA Antenna, Quick Start Guides,

**Options**

- Mounting bracket (6001350)
- AC Adapter (6001372)
- I/O Cable (6001004)
- RJ45 to Single DB9 Serial cable (6001410)
- RJ45 to Dual DB9 Serial cable (6001409)
- XP 5G Cartridge (1104757)

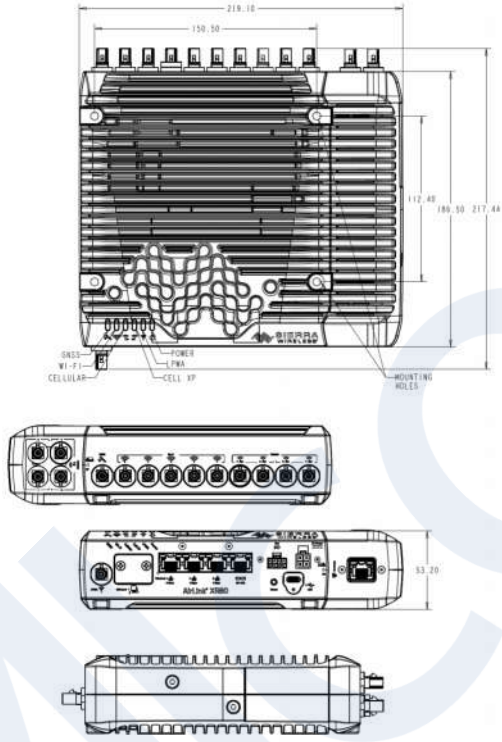
For Antenna options visit: [sierrawireless.com/antennas](http://sierrawireless.com/antennas)

## EDGE COMPUTING

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)



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