

PRIVATE NETWORKING – Sierra Wireless has partnered with Amdocs to simplify the adoption of private cellular networks. **Learn more** →

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 5x4 MU 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.



AirLink® XR80 5G/XR80 LTE Cat-20

Expandable 4G/5G

5x4 MU MIMO Wi-Fi 6

2x 1 Gigabit and

1x 5 Gigabit Ethernet

Single/Dual Serial

GNSS with Dead Reckoning

IP64 Rated

AirLinkOS with AirLink Complete

AirLink® XR80 – Router Specifications

KEY FEATURES

Cellular Radios	5G/LTE Cat-20 LPWA for ALMS Out of Band Managemnt
Wi-Fi	5x4 MU MIMO Wi-Fi 6
Ethernet	2x Gigabit + 1x 5 Gigabit Ethernet Port (RJ45)
Serial	Single/Dual RS-232 (DB9) with optional cables
GNSS	48 Channel GNSS with Dead Reckoning
CAN	CAN bus/OBD-II (J1979)/J1939)
I/O	5 GPIO
USB	USB 3.1 USB-C
Bluetooth	–
IP Rating	Sealed Aluminum Housing (IP64 Rated)
Services	AirLink Complete
Operating System	AirLink OS
Management System	ALMS

Region	LTE NAM	LTE Global	5G NAM	5G Global
CELLULAR				
Variant	North America	EMEA & APAC	North America	EMEA & APAC
Technology	LTE	LTE	5G	5G
Peak Downlink (Theoretical)	2 Gbps	2 Gbps	4.14 Gbps	4.14 Gbps
Peak Uplink (Theoretical)	210 Mbps	210 Mbps	660 Mbps	660 Mbps
LTE Category	Cat-20	Cat-20	5G	5G
Region	NAM	EMEA, APAC	NAM	EMEA, APAC
Radio	EM7690	EM7690	EM9190	EM9190
MIMO	4x4	4x4	4x4	4x4
RF Connectors	FAKRA	FAKRA	FAKRA	FAKRA
SIM	Dual SIM (Mini-2FF)	Dual SIM (Mini-2FF)	Dual SIM (Mini-2FF)	Dual SIM (Mini-2FF)

FREQUENCY BANDS

5G Bands	–	–	n1, n2, n3, n5, n28, n41, n66, n71, n77, n78, n79 (NSA & SA Support) Future Variant adds support for: n7, n8, n12, n20, n25, n38, n40, n48 (NSA & SA Support)	n1, n2, n3, n5, n28, n41, n66, n71, n77, n78, n79 (NSA & SA Support) Future Variant adds support for: n7, n8, n12, n20, n25, n38, n40, n48 (NSA & SA Support)
4G LTE 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, B46, B48, B66, B71	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, B46, B48, B66, B71	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, B46, B48, B66, B71 Future Variant adds support for: B43	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, B46, B48, B66, B71 Future Variant adds support for: B43
3G HSPA+ Bands	B1, B2, B4, B5, B6, B8, B9, B19	B1, B2, B4, B5, B6, B8, B9, B19	B1, B2, B4, B5, B6, B8, B9, B19	B1, B2, B4, B5, B6, B8, B9, B19
2G GPRS Bands	–	–	–	–
LPWA	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66

WIRELESS CERTIFICATION

Regulatory	FCC, IC/ISED, PTCRB	GCF, CE, RED, RCM, ESN	FCC, IC/ISED, PTCRB	GCF, CE, RED, RCM, ESN
Carrier	AT&T, FirstNet® 4G, T-Mobile, Verizon, Rogers, Telus, Bell, CBRS, C-Band	–	AT&T, FirstNet® 4G, T-Mobile, Verizon, Rogers, Telus, Bell, CBRS, C-Band	Telstra
Public Safety	FirstNet® 4G	ESN	FirstNet® 4G	ESN
Part Numbers	1104881 Base 1104879 Wi-Fi 1104757 XP 5G Cartridge (Optional)	1104880 Base 1104878 Wi-Fi 1104757 XP 5G Cartridge (Optional)	1104793 Base 1104789 Wi-Fi 1104757 XP 5G Cartridge (Optional)	1104791 Base 1104787 Wi-Fi 1104757 XP 5G Cartridge (Optional)

WI-FI (OPTIONAL)**VPN****Wi-Fi Standard** Wi-Fi 6 802.11axIntegrated with ACM VPN Server
IPsec protocol with IKEv1/IKEv2
FIPS 140-2 Level 1 compliant**Access Point** Dual (2.4 & 5GHz)**Encryption** AES128/AES192/AES256**Client (Depot/WAN)** Yes**Hashing** SHA256/SHA384/SHA512**Client & AP** Yes**Key Exchange** DHGroup14/15/16/17/18/19/20/21**Peak Throughput (Theoretical)** 2400 MbpsLAN to LAN and Host to LAN
Up to 10 concurrent tunnels per link
MOBIKE protocol
IP compression
Full/Split Tunnel
Dead Peer Detection (DPD)**MIMO** 5x4**Security** WPA2/3 Enterprise**Clients** Up to 256**ROUTER MANAGEMENT INTERFACES****SSID** 6ALMS
Local web user interface
REST API (Beta)**Output Power** 23.3 dBm per chain**Frequency** 2.4/5 GHz**RF Connectors** FAKRA (Beige)

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 @ 60°C**Military Specification** MIL-STD-810G (Shock, Vibration, Thermal Shock, Humidity)**IP Rating** IP64**EDGE COMPUTING**

Support for Edge Compute Containerized Applications (Beta)

RAM^{1,2} 200 MB**Storage (Flash)**¹ 750 MB**CPU** Quad Core ARMv8 64 bit¹ Approximation available to containers (not device total)² Depends on other enabled features**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, Electrical)**Environmental Directives** RoHS2, REACH, WEEE, Prop 65**Hazardous Environments** Class 1 Div 2 – Ambient temperatures of -30°C to +60°C**Rail Usage** EN50155/EN45545 (Rolling Stock)**AIRLINK SERVICES****Services** AirLink Complete**Support** 24/7 with current AirLink Complete subscription**Warranty** 1 year standard warranty with up to 5 years extended warranty with current AirLink Complete subscription**Device Management** ALMS with current AirLink Complete subscription**Software Updates** Unrestricted critical firmware updates

POWER		RELIABILITY	
Input Voltage	7 to 36 VDC	MTBF	Base: 23.8 years Wi-Fi: 21.3 years Using Telcordia SR-332 Issue 3 Method 1
Power Consumption	Peak: 54W (4.5A @12V) Standby: 55mW (4.5mA@12V)		
Power Modes	Built-in protection against voltage transients including 5 VDC engine cranking and +200 VDC load dump Ignition Sense with time delay shutdown		
SECURITY		ACCESSORIES	
AAA	802.1x /Radius authentication with Wi-Fi	In The Box	XR80, DC Power Cable, LPWA Antenna, Quick Start Guide, AirLink Complete Leaflet
Firewall	Stateful firewall with port forwarding, DMZ	Other Accessories (sold separately)	6001004 XR80/90/MP/LX I/O Cable
WLAN Encryption	WPA2/WPA3 Personal/Enterprise		6001192 XR80/90/MP70 J1939 Y Cable
Firmware Update	Secure Firmware Update		6001204 XR80/90/MP70 OBD-II Y Cable
			6001350 XR80/90 Mounting Bracket
			6001372 XR80/90 AC Adaptor, 24 VDC
			6001406 XR80/90 DC Power Cable
			6001409 XR80/90 RJ45 to Dual DB9
		6001410 XR80/90 RJ45 to Single DB9	
		6001433 XR80/90 DIN Rail Mounting Bracket	
		6001440 XR80/90 FAKRA Replacement Kit (8 Pieces)	
		6001456 XR80/90 to MG90 Mounting Bracket	
		1104757 XR80/90 XP-5G XR-Cartridge Global & NAM	
			For Antenna options visit: <i>here</i>

NETWORK AND ROUTING

Sierra Cognitive Wireless
 IPv4 and IPv6 Routing
 Network Address Translation (NAT)
 Port Forwarding
 DHCP Server
 IP Passthrough
 LAN Segmentation
 IPv4 Passthrough and IPv6 Prefix
 Extension
 WAN/LAN Connection Policy
 Management
 Policy-Based Routing
 Configurable MTU size
 Static Routing
 WAN Ethernet

QoS Application/Traffic Priority Queuing

WAN Monitors Connection Failure Recovery

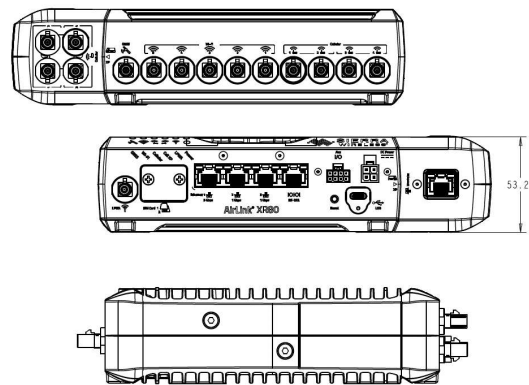
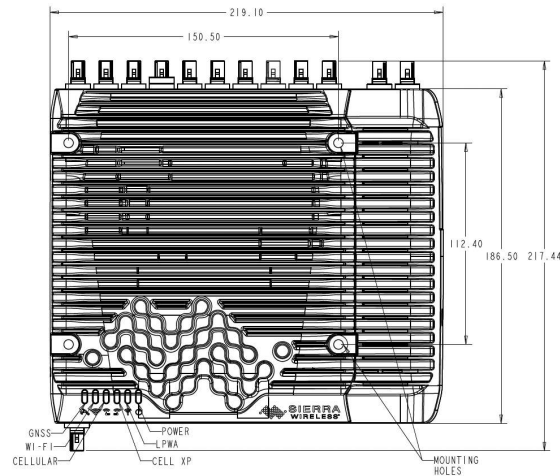
LAN (ETHERNET/USB)

USB to Ethernet

DIMENSIONS

Size Base: 220mm x 170mm x 53mm
 Base + XP: 220mm x 220mm x 53mm

Weight Base: 1.80 Kg
 Base Wi-Fi: 2.00 Kg
 Base + XP: 2.64 Kg



**For carrier specific band support please refer to the hardware user guide.*

