

## Performance Series



		XR90	XR80
TECHNOLOGY SUPPORTED		5G, LTE-A Pro, LPWA	5G, LTE-A Pro, LPWA
MAX CELLULAR SPEED (DL/UL Mbps)		5G – Up to 4.14 Gbps DL/660 Mbps UL 4G LTE-A Pro CAT20 – Up to 2 Gbps DL/210 Mbps UL	5G – Up to 4.14 Gbps DL/660 Mbps UL 4G LTE-A Pro CAT20 – Up to 2 Gbps DL/210 Mbps UL
APPROVED CARRIERS		British Telecom Verizon, AT&T and T-Mobile - Pending	British Telecom Verizon, AT&T and T-Mobile - Pending
NAVIGATION		48 Channel Dedicated Assisted GNSS with Inertial Dead Reckoning	48 Channel Dedicated Assisted GNSS with Inertial Dead Reckoning
HOST INTERFACE		Single 5G- 4 RJ-45 Ethernet ports (1x5Gbps, 3x1Gbps) Dual 5G - 5 RJ-45 Ethernet ports (1x5Gbps, 4x1Gbps) 2 USB 3.2 type-C port 1 RS-232 serial port (RJ-45 connector) 1 Aux Port (GPIO/CAN)	Single 5G- 3 RJ-45 Ethernet ports (1x 5Gbps with PTP IEEE 1588, 2x 1Gbps) Dual 5G - 4 RJ-45 Ethernet ports (1x 5Gbps with PTP IEEE 1588, 4x 1Gbps) 2 USB 3.2 type-C port 1 RS-232 serial port (RJ-45 connector) 1 Aux Port (GPIO/CAN)
SIM SLOT (2FF)		2	2
WI-FI		Dual 4X4 MIMO Wi-Fi 6 802.11 b/g/n/ac/ax	Single 5X4 MIMO Wi-Fi 6 802.11 b/g/n/ac/ax
WI-FI CLIENTS/ SECURITY		128 Clients WPA2/3 Enterprise	128 Clients WPA2/3 Enterprise
SECURITY		FIPS 140-2 (compatible) Stateful firewall with port forwarding, DMZ MAC Address filtering AAA (802.1x/RADIUS) AAA: 802.1x/Radius authentication with Wi-Fi and Ethernet Secure Firmware Update	FIPS 140-2 (compatible) Stateful firewall with port forwarding, DMZ MAC Address filtering AAA (802.1x/RADIUS) AAA: 802.1x/Radius authentication with Wi-Fi and Ethernet Secure Firmware Update
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)	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 STANDARD	Environment	MIL-810G/IP64	MIL-810G/IP64
	Vehicle /Rail Usage	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)	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)
	Industrial	N/A	N/A
AIRLINK MOBILITY MANAGER		No	No
AIRLINK MANAGEMENT SERVICE		Yes	Yes
CUSTOMER SUPPORT		AirLink Premium	AirLink Complete
OPERATIONAL VOLTAGE		7-36VDC	7-36VDC
OPERATING TEMPERATURE		-30°C to +70°C	-30°C to +70°C
ENCLOSURE		Die-cast aluminium	Die-cast aluminium
OPTIONAL UPGRADES		Dual cellular radios	Dual cellular radios
DIMENSIONS		Dual Radio 267mm x 186mm x 53mm 10.51" x 6.69" x 2.08"	170mm x 186mm x 53mm 6.69" x 7.32" x 2.08"
WARRANTY		3 Years with 2 years extended option	3 Years with 2 years extended option
MORE INFORMATION		<a href="http://sierrawireless.com/xr90">sierrawireless.com/xr90</a>	<a href="http://sierrawireless.com/xr80">sierrawireless.com/xr80</a>



## Performance Series



	MG90/MG90 5G	MP70	RV55	RV50X
TECHNOLOGY SUPPORTED	5G, LTE-A Pro, LTE-A, HSPA+	LTE-A Pro, LTE-A, HSPA+	LTE-A Pro, HSPA+ LTE-M/NB-IOT (Global)	LTE-A, HSPA+
MAX CELLULAR SPEED (DL/UL Mbps)	5G: 2/1 Gbps LTE-A Pro: 600/150 Mbps LTE-A: 300/50 Mbps	LTE-A Pro: 600/150 LTE-A: 300/50	LTE-A Pro: 600/150 LTE-M: 300kbps/375kbps LTE-NB: 27kbps/65kbps	LTE-A: 300/50
APPROVED CARRIERS	Verizon, AT&T/FirstNet, T-Mobile, Southern Linc, Rogers, Telus, Bell	Verizon, AT&T/FirstNet, T-Mobile, Southern Linc, Rogers, Telus, Bell, Telstra	Verizon, AT&T/FirstNet	Verizon, AT&T, T-Mobile, Rogers, SaskTel, Telstra, Telus
NAVIGATION	48 Channel Dedicated GNSS with Inertial Dead Reckoning	48 Channel Dedicated GNSS with Inertial Dead Reckoning	30 Channel GNSS	30 Channel GNSS
HOST INTERFACE	5 Ethernet (10/100/1000) 1 Serial (RS232) 2 USB 3.0 5 GPIO 1 Bluetooth	4 Ethernet (10/100/1000) 1 Serial (RS232) 1 USB 2.0 (micro) 5 GPIO 1 OBD-II/J1939 (Direct Vehicle CAN Interface)	1 Ethernet (10/100/1000) 2 Serial (RS232) with accessory cable 1 USB 2.0 (micro) 1 GPIO	1 Ethernet (10/100/1000) 1 Serial (RS232) 1 USB 2.0 (micro) 1 GPIO
SIM SLOT (2FF)	4	2	2	2
WI-FI	Dual Radio 2.4/5GHz 802.11 b/g/n/ac 3x3 MIMO 4 SSIDs	2.4/5GHz (Optional) 802.11 b/g/n/ac 3x3 MIMO 4 SSIDs	Dual Radio, 2.4/5GHz (Optional) 802.11 b/g/n/ac 1x1 SISO 1 SSID per radio	N/A
WI-FI CLIENTS/ SECURITY	128 clients WPA2-Personal/Enterprise	128 clients WPA2-Personal/Enterprise	10 clients per radio WPA2 Personal/Enterprise	N/A
SECURITY	FIPS 140-2 (compatible), Port filtering AAA (802.1x/RADIUS) MAC Address filtering	FIPS 140-2 (compatible), Port filtering, IP whitelist AAA (LDAP, RADIUS, TACACS+) MAC Address filtering Secure Firmware Update	FIPS 140-2 (compatible), Port filtering, IP whitelist AAA (LDAP, RADIUS, TACACS+) MAC Address filtering Secure Firmware Update	FIPS 140-2 (compatible), Port filtering, IP whitelist AAA (LDAP, RADIUS, TACACS+) MAC Address filtering Secure Firmware Update
VPN	IPSec: IKEv1/IKEv2, Split/full tunnel, MOBIKE 10 concurrent tunnels Dead Peer Detection	IPSec: IKEv1/IKEv2, Split/full tunnel, MOBIKE, OpenVPN, GRE Tunnel, Split Tunnel, VPN failover 5 concurrent tunnels Dead Peer Detection	IPSec: IKEv1/IKEv2, Split/full tunnel, MOBIKE, OpenVPN, GRE Tunnel, Split Tunnel, VPN failover 5 concurrent tunnels Dead Peer Detection	IPSec: IKEv1/IKEv2, Split/full tunnel, MOBIKE, OpenVPN, GRE Tunnel, Split Tunnel, VPN failover 5 concurrent tunnels Dead Peer Detection
INDUSTRY STANDARD	Environment	MIL-810G/IP64	MIL-810G/IP64	MIL-810G/IP64
	Vehicle /Rail Usage	E-Mark, SAE J1455, ISO7637-2, EN50155	E-Mark, SAE J1455, ISO7637-2, EN50155	E-Mark, SAE J1455, ISO7637-2
	Industrial	N/A	Class 1 Div 2	Class 1 Div 2
AIRLINK MOBILITY MANAGER	Yes	Yes	Yes	Yes
AIRLINK MANAGEMENT SERVICE	No	Yes	Yes	Yes
CUSTOMER SUPPORT	AirLink Support	AirLink Complete	AirLink Complete	AirLink Complete
OPERATIONAL VOLTAGE	7-36VDC	7-36VDC	7-36VDC	7-36VDC
OPERATING TEMPERATURE	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-40°C to +70°C
ENCLOSURE	Die-cast aluminium	Die-cast aluminium	Die-cast aluminium	Die-cast aluminium
OPTIONAL UPGRADES	OBD-II/J1939/1708 (with Scanner Kit)	Wi-Fi OBD-II/J1939 Direct Vehicle Bus Cable	Dual Wi-Fi Dual Serial (Y cable)	N/A
DIMENSIONS	272mm x 220mm x 60mm 10.71" x 8.66" x 2.36"	190mm x 105mm x 45mm 7.48" x 4.13" x 1.77"	119 mm x 85 mm x 33 mm 4.69" x 3.35" x 1.34"	119 mm x 85 mm x 34 mm 4.68" x 3.34" x 1.34"
WARRANTY	3 Years with 2 years extended option	3 Years with 2 years extended option	3 Years with 2 years extended option	3 Years with 2 years extended option
MORE INFORMATION	<a href="http://sierrawireless.com/mg90">sierrawireless.com/mg90</a>	<a href="http://sierrawireless.com/mp70">sierrawireless.com/mp70</a>	<a href="http://sierrawireless.com/rv55">sierrawireless.com/rv55</a>	<a href="http://sierrawireless.com/rv50">sierrawireless.com/rv50</a>

# AirLink® Routers and Gateways

## Essential Series



		LX60	LX40	ES450
TECHNOLOGY SUPPORTED		LTE, HSPA+ LTE-M/NB-IoT (Global)	LTE, HSPA+ LTE-M/NB-IoT (Global)	LTE, HSPA+, EVDO, GSM
MAX CELLULAR SPEEDS (DL/UL Mbps)		LTE: 150/50 LTE-M: 300kbps/375kbps NB-IoT: 27kbps/65kbps	LTE: 150/50 LTE-M: 300kbps/375kbps NB-IoT: 27kbps/65kbps	LTE: 100/50
APPROVED CARRIERS		Verizon, AT&T	Verizon, AT&T	Verizon, AT&T, T-Mobile, US Cellular, Rogers, Bell, Telus
NAVIGATION		48 Channel Dedicated GNSS (Optional)	N/A	N/A
HOST INTERFACE		2 Ethernet (10/100/1000) 1 Serial (RS232/485) 1 USB 2.0 (micro) 5 GPIO	1 Ethernet (10/100/1000) 1 USB 2.0 (Micro) 1 GPIO PoE - Powered Device	1 Ethernet (10/100) 1 Serial (RS232) 1 USB 2.0 (micro) 1 GPIO
SIM SLOT (2FF)		1	1	1
WI-FI		2.4/5GHz (Optional) 802.11b/g/n/ac 1x1 SISO 1 SSID	2.4/5GHz (Optional) 802.11b/g/n/ac 1x1 SISO 1 SSID	N/A
WI-FI CLIENTS/ SECURITY		10 clients WPA2 Personal/Enterprise	10 clients WPA2 Personal/ Enterprise	N/A
SECURITY		FIPS 140-2 (compatible), Port filtering, IP whitelist AAA (LDAP, RADIUS, TACACS+) MAC Address filtering Secure Firmware Update	FIPS 140-2 (compatible), Port filtering, IP whitelist AAA (LDAP, RADIUS, TACACS+) MAC Address filtering Secure Firmware Update	Port filtering, IP whitelist AAA (LDAP, RADIUS, TACACS+) MAC Address filtering Secure Firmware Update
VPN		IPSec: IKEv1/IKEv2, Split/full tunnel, MOBIKE, OpenVPN, GRE Tunnel, Split Tunnel, VPN failover 5 concurrent tunnels Dead Peer Detection	IPSec: IKEv1/IKEv2, Split/full tunnel, MOBIKE, OpenVPN, GRE Tunnel, Split Tunnel, VPN failover 5 concurrent tunnels Dead Peer Detection	IPSec, OpenVPN, GRE Tunnel, Split Tunnel, VPN failover 5 concurrent tunnels Dead Peer Detection
INDUSTRY STANDARD	Environment	MIL-810G/IP21	MIL-810G/IP21	MIL-810G/IP64
	Vehicle Usage	E-Mark, SAE J1455, ISO7637-2	E-Mark, SAE J1455, ISO7637-3	N/A
	Industrial	Class 1 Div 2	Class 1 Div 2	N/A
AIRLINK MOBILITY MANAGER		Yes	Yes	Yes
AIRLINK MANAGEMENT SERVICE		Yes	Yes	Yes
CUSTOMER SUPPORT		AirLink Complete	AirLink Complete	AirLink Complete
OPERATIONAL VOLTAGE		7-36VDC	7-36VDC, PoE - Powered Device	9-36VDC
OPERATING TEMPERATURE		-30°C to +65°C	-30°C to +65°C	-20°C to +60°C
ENCLOSURE		Polycarbonate	Polycarbonate	Die Cast Aluminum
OPTIONAL UPGRADES		Wi-Fi, GNSS	Wi-Fi	N/A
DIMENSIONS		146 mm x 100 mm x 42 mm 5.74" x 3.93" x 1.65"	103 mm x 79 mm x 25 mm 4.1" x 3.1" x 1.0"	142mm x 98mm x 41 mm 5.59" x 3.86" x 1.61"
WARRANTY		3 Years with 2 years extended option	3 Years with 2 years extended option	3 Years with 2 years extended option
MORE INFORMATION		<a href="http://sierrawireless.com/lx60">sierrawireless.com/lx60</a>	<a href="http://sierrawireless.com/lx40">sierrawireless.com/lx40</a>	<a href="http://sierrawireless.com/es450">sierrawireless.com/es450</a>