900 MHz Non-Line-of-Sight wireless radio RS232 / RS422 / RS485 serial device server for SCADA

Top "C-Key" for quick configuration Save & Restore

- 900 MHz unlicensed 600 mW radio (indoor: up to 400 m, outdoor: over 50 Km) *
- Serial RS232 / RS422 / RS485 full duplex up to 250 Kbps
- 9-36 VDC wide range power supply
- Shockproof & vibration proof IP30 metal enclosure, DIN rail or panel mounting
- Point to Point (virtual cable) & multipoint modes, virtual COM port redirector (ViP)
- TCP Client / Server, UDP & MODBUS/TCP support

WL-XR900/S

900 MHz

RoHS WEEE

5-YEAR WARRANTY

ACKSYS COMMUNICATIONS & SYSTEMS

The WL-XR900/S relies on the 900 MHz unlicensed band and utilizes an advanced noise immunity radio architecture, making it possible to operate in the harshest of environmental and noise conditions, it provides all the non line of sight range advantages of 900MHz operation while at the same time, being able to sustain hi-performance links while fighting off the strong noise inherent in the 900MHz band, while spread spectrum modulation promotes resistance to multipath fading.

WL-XR900/S gives wireless access to any serial equipment, making it possible to communicate between two distant serial equipments in a point to point or point to multipoint architecture.

The configuration of the device is achieved using the web browser installed on your computer; it also offers SNMP administration / configuration and an optional C-Key which allows quick and easy on-site replacement of the device, eliminating the need to reconfigure the replacement part or to use any other equipment.

WL-XR900/S fulfils the most severe requirements in terms of operating environment: operating temperature from -20°C to +70°C, shockproof and vibration proof according to MIL-STD-810F standard, IP30 seal rating.

* Antenna dependent

TECHNICAL CHARACTERISTICS OVERVIEW

Serial link	Full RS232 / 422 / 485 serial interface, 250 Kbps full duplex
RS signals available	RS232 mode: TxD, RxD, RTS, DTR, CTS, DCD, DSR, RI RS422/485 mode: -Tx, +Tx, -Rx, +Rx (+RX and –RX signals can be polarized with jumpers)
Cables connection	SUB D9 male connector for RS signals, 5-point removable terminal block for RS422/485
Radio characteristics	Proprietary 900 MHz advanced noise immunity radio architecture, point to point or point to multipoint architecture, single channel rapid roaming (<50 mS)
Radio data rate	Up to 54 Mbps, auto fallback DSSS: 1 Mbps, 2 Mbps, 5.5 Mbps, 11 Mbps OFDM: 6Mbps, 9Mbps, 12Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
Channels	4 channels support (907, 912, 917, 922 MHz), 20 MHz bandwidth per channel
Output power	Transmitter +28 dBm (600 mW) up to 24 Mbps, +24dBm for 54 Mbps
Sensitivity	Receiver –95 dBm at 1 Mbps, -72 dBm at 54 Mbps
Antennas	Two RP-SMA connectors, one 2 dBi antenna is supplied (2 antennas are required for the diversity mode)
Modulation	OFDM: BPSK, QPSK, 16QAM, 64QAM DSSS: DBPSK, DQPSK, CCK
Security	64/128 bits WEP, WPA-PSK, WPA2-PSK, IEEE 802.1x (RADIUS)
Modes	Support for TCP Client/Server, DHCP Client, TELNET RFC2217 extension, Telnet Server, COM port re-director (VIP), multipoint or point to point virtual link over UDP modes and MODBUS/TCP Client/Server, MODBUS/RTU & MODBUS/ASCII protocols, direct communication (ad hoc) or from access point
Administration	Thanks to its built-in WEB interface, the setup of the device is achieved using any web browser installed on your computer (Internet Explorer, Netscape, Mozilla ...), SNMP agent, ACKSYS NDM, TELNET from the serial link
Operating systems	Windows, Linux, UNIX as well as any operating system supporting TCP/IP
Signalling	Led display for power supplies, serial & WLAN activity, received radio quality
Alarms	Relay output warning: power failure, WLAN connection failure, Watchdog. 1 FORM B solid state relay, 60V 0.15A, contacts on removable clamp cage terminal
Power supply	Redundant power supply input, +9 to +36VDC
Consumption	8 Watts typical
Dimensions & weight	Shockproof & vibration proof metal enclosure (L: 110 x W: 150 x H: 120 mm), 570 g
Standards	MIL-STD-810F, 514.5 & 516.5 methods (shocks & vibrations) EN 301489-17 & EN 61000-6-2 (CEM)
Environment	Operating temperature: -20°C to +70°C (-4°F to 158°F), storage: -65°C to +100°C (-85°F to 212°F), Humidity: 5% to 95% (non-condensing), IP 30 seal rating

References to order

WL-XR900/S	900 MHz unlicensed wireless radio / RS232/RS422/RS485 device server, with Windows COM port redirector software (VIP), MODBUS/TCP data gateway, MODBUS/TCP gateway support, dual 9-36 VDC power supply, supplied with one 2 dBi antenna, additional RP-SMA connector for a second antenna (diversity mode)
C-Key_M1	Save / Restore configuration key for the WL-XR900/S
WLg-FIX-PLQ	Panel fixing metallic plate

Caution: 900 MHz ISM radio band is unlicensed in the US, Canada, Australia, Israel and parts of South America only