

# 900 MHz Non-Line-of-Sight wireless radio AP, 2-port Ethernet Bridge & Repeater for SCADA



- 900 MHz unlicensed 600 mW radio (indoor: up to 400 m, outdoor: over 50 Km) \*
- Security : WEP, WPA-PSK, WPA2-PSK & IEEE 802.1x RADIUS
- Web based configuration, SNMP administration
- 2-port Ethernet auto-sensing 10/100 Base TX network interface
- Dual DC power supply input (+9VDC to +36VDC) & POE IEEE 802.3af
- Shockproof & vibration proof IP30 metal enclosure, DIN rail or panel mounting

## WL-XR900/NP



The WL-XR900/NP 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.



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.

5-YEAR WARRANTY



WL-XR900/NP 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

<b>Ethernet link</b>	2-port Ethernet 10/100 auto-sensing; RJ45 connectors; plug & play mode & auto MDI/MDIX cross-over
<b>Radio characteristics</b>	Proprietary 900 MHz advanced noise immunity radio architecture, point to point or point to multipoint architecture, single channel rapid roaming (<50 mS)
<b>Radio data rate</b>	Up to 54 Mbps, auto fallback DSSS: 1 Mbps, 2 Mbps, 5.5 Mbps, 11 Mbps OFDM: 6Mbps, 9Mbps, 12Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
<b>Channels</b>	4 channels support (907, 912, 917, 922 MHz), 20 MHz bandwidth per channel
<b>Output power</b>	Transmitter +28 dBm (600 mW) up to 24 Mbps, +24dBm for 54 Mbps
<b>Sensitivity</b>	Receiver -95 dBm at 1 Mbps, -72 dBm at 54 Mbps
<b>Antenna</b>	Two RP-SMA connectors, one 2 dBi antenna is supplied (2 antennas are required for the diversity mode)
<b>Modulation</b>	OFDM: BPSK, QPSK, 16QAM, 64QAM DSSS: DBPSK, DQPSK, CCK
<b>Security</b>	64/128 bits WEP, WPA-PSK, WPA2-PSK, IEEE 802.1x (RADIUS supplicant & authenticator), MAC addresses filtering, SSID broadcast control
<b>Modes</b>	Access point to build a 900 MHz radio network infrastructure, Bridge to connect any Ethernet equipments to this network and MODBUS/TCP wireless gateway, repeater (WDS), infrastructure, AD-HOC, bridge router & rapid roaming (less than 50 mS) modes are supported
<b>Administration</b>	Built-in WEB interface; SNMP V2c agent; ACKSYS NDM (Networking Device Manager). ACKSYS unique "C-Key" allows for quick and easy on-site replacement of the WLg-IDA unit, eliminating the need to reconfigure the replacement part or to use any other equipment (optional)
<b>Operating systems</b>	Windows, Linux, UNIX as well as any operating system supporting TCP/IP
<b>Protocols</b>	Ethernet TCP/IP & UDP, MODBUS/TCP, Ethernet/IP, PROFINET ...
<b>Signalling</b>	Led display for power supplies, LAN on each port & WLAN activity, radio receive level
<b>Alarms</b>	Relay output warning: power failure, LAN or WLAN connection failure, Watchdog. 1 FORM B solid state relay, 60V 0.15A, contacts on removable clamp cage terminal
<b>Power supply</b>	Dual input, +9 to +36VDC, removable clamp cage terminal, POE IEEE 802.3af
<b>Consumption</b>	8 Watts typical
<b>Dimensions &amp; weight</b>	Shockproof & vibration proof metal enclosure (L: 110 x W: 120 x H: 50 mm), 570 g
<b>Standards</b>	MIL-STD-810F, 514.5 & 516.5 methods (shocks & vibrations) EN 301489-17 & EN 61000-6-2 (EMC)
<b>Environment</b>	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

## Reference to order

WL-XR900/NP	900 MHz unlicensed wireless radio: Access Point, 2-port Ethernet Bridge & Repeater, dual 9-36 VDC power supply with POE, supplied with one 2 dBi Omni directional antenna, additional RP-SMA connector for a second antenna (diversity mode)
C-Key_M1	Save / Restore configuration key for the WLg-IDA/N
WLg-FIX-PLQ	Panel fixing metallic plate
CAB-RJ45-1M	1 meter Ethernet RJ45 cable, straight

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

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