L-WLAN Wireless LAN Interface

LWLAN-800

Datasheet #89032818

The L-WLAN Interface expands a LOYTEC device with a wireless LAN connection. The wireless LAN Interface LWLAN-800 can be used with L-INX Automation Servers, L-ROC Room Controllers, L-DALI Controllers, the L-GATE Universal Gateways, L-IP Routers of the series ECTC, NIC709-IP3E100C Remote Network Interfaces, and with most L-VIS Touch Panels. The L-WLAN Interface only needs to be connected to the USB port. Due to the USB bus, the L-WLAN device is energy supplied and detected automatically.

The L-WLAN Interface uses the protocol IEEE 802.11n improvements which significantly increase connection speed, is backward compatible to IEEE 802.11b & IEEE 802.11g, offers a link speed up to 150 Mbps, and an operation frequency/channel:

- USA (FCC)   11 Channels: 2.412 GHz ~ 2.462 GHz
- Europe (ETSI) 13 Channels: 2.412 GHz ~ 2.472 GHz
- Japan   13 Channels: 2.412 GHz ~ 2.472 GHz

After attaching an LWLAN-800 Interface to the USB port of the corresponding LOYTEC device, it is possible to connect it to an existing WLAN Access Point, create a WLAN Access Point, or build up a Mesh network (IEEE 802.11s). The relatively new and emerging standard for Mesh networks offers numerous advantages. A major benefit of a Mesh network is its autonomy. Mesh point configured devices unite autonomously to one network in which Mesh points communicate via other Mesh points. To encrypt a WLAN network the encryption methods WEP, WPA, and WPA2 are available. The Mesh network is encrypted via simultaneous authentication of equals (SAE), comparable to WPA2.

The supplied antennas have a radial gain of up to +2 dBi and have to be mounted outside any metallized housing. To avoid any interferences, please keep a minimum distance of 0.5 m to any electronic devices which also operate with high-frequency signals such as of transformers, ballasts, computers, etc.

Features

- Configuration through web interface
- Increased range through MIMO (multiple-input and multiple-output) – exploiting multipath propagation
- Two external 2.4 GHz antennas included
- Possibility for connecting external antennas via 2 SMA sockets (50 Ω)
- Supports Mesh networking according to IEEE 802.11s
- Supports encryption WEP, WPA, and WPA2

Specifications

Type	**LWLAN-800**
Dimensions (mm)	27 x 89 x 60 (L x W x H), DIM038, Antenna DIM043
Installation	DIN rail mounting following DIN 43880, top hat rail EN 50022 The WLAN antennas have to be installed outside any metallized housing.
Power supply	Via the USB 2.0 bus connection
Operating conditions	0 °C to 50 °C, 10 – 90 % RH, non condensing, degree of protection: IP40, IP20 (terminals)
Installation	Connected with a standard USB 2.0 cable, max. 5 m
Interfaces	1 x SMA 50 Ohm, RX Antenna 2.4 GHz 1 x SMA 50 Ohm, TX/RX Antenna 2.4 GHz 2 x WLAN antenna magnetic base, cable length = 1 m 1 x USB 2.0 Type B
Frequency	2.4 GHz band
Standard	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11s
RF Output Power	18 dBm (63 mW) ±2 dBm
Tools	Configuration via web interface
For use with	L-INX Automation Servers, L-GATE Gateways, L-ROC Room Controllers, L-DALI Controllers, LVIS-3ME7-Gx, LVIS-3ME12-Ax, LVIS-3ME15-Ax, LVIS-3ME15-Gx, LIP-xECTC, NIC709-IP3E100C

Order number	Product description
LWLAN-800	Wireless LAN Interface IEEE 802.11bgn