

Industrial Wireless Access Point with integrated Gigabit Ethernet Switch

- **Manageable Wireless Access Point with Gigabit Ethernet Switch, 1x 10/100/1000Base-T, 3x 10/100Base-TX and 2x 1000Base-X**
- **Wireless up to 54 Mbps according to IEEE 802.11b/g**
- **Encryption according to WEP64, WEP128, WPA and WPA2**
- **WLAN authentication according to IEEE 802.1x**
- **Optional Power-over-Ethernet according to IEEE 802.3af**



MICROSENS' Wireless Access Point for industrial environment with integrated switch can be directly integrated into the industrial Ethernet ring topologies. Both, the Gigabit Switch and the Wireless Access Point are managed by the same software platform.

Ethernet Ring Topology

The built-in Gigabit Switch has two Gigabit Ethernet fiber ports according 1000Base-SX/LX to build up fault tolerant fiber rings. The patented protection mechanism from MICROSENS offers a reconfiguration of the ring in less than 20 ms (milliseconds) if there is a failure in the ring.

Wireless is Standard

With the support of the wireless transmission standard

IEEE 802.11g it is possible to reach a wireless bandwidth of 54 Mbps. The downward compatibility guarantees the support of existing equipment with 11 Mbps according IEEE 802.11b.

The Access Point supports all actual safety standards and protects the communication against unauthorized access. Beside the older authentication and encryption standards such as WEP and WPA there is also WPA2 (802.11i) implemented. The use of a central Radius Server is supported as well.

For network participants which can not be connected via wireless, there are classical RJ-45 ports with 10/100Base-TX available.

More Applications with Power-over-Ethernet

Beside the standard version with the classical power supply input of 24 V DC, there is an extended version with Power-over-Ethernet according to IEEE 802.3af available which is supplied by 48 V DC. The maximum power of 15.4 W for each port offers the supply of all standardised end devices such as IP-telephones, IP-cameras, sensors/actors and signalisation devices.

Network Management

The Access Point can be monitored and configured by the standardised interfaces such as SNMP, Telnet, HTTP and a PC based Management Tool (MICROSENS Device Manager).

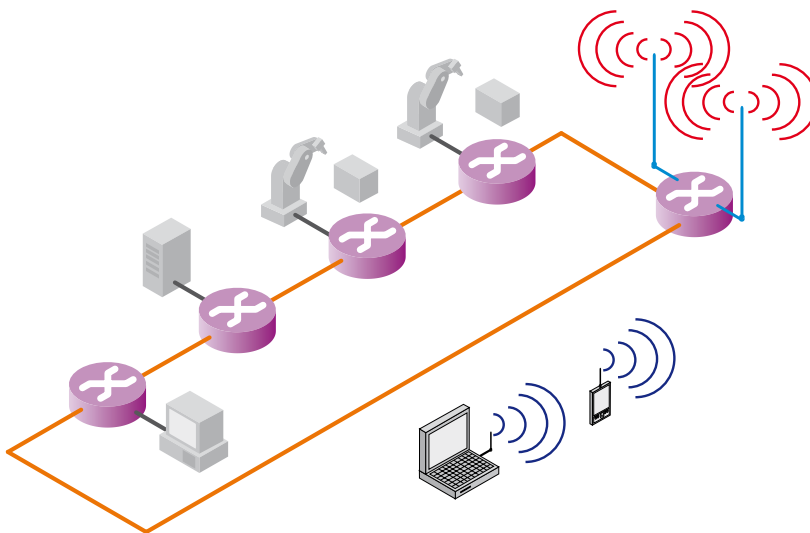
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Ring Function

The two fiber ports of the device can be used to build up a ring structure. In normal operation the ring connection is logically interrupted by the monitoring device (switch configured for Ring Master mode). In case of failure (broken connection or switch damage) the

logically interrupted connection is activated by the Ring Master.

A big advantage of this solution is, that no additional central device is necessary for the redundancy feature. Even if the ring master itself fails, the interruption of the ring stays at this location.



If one component or one connection in the ring fails, all connected devices are still accessible due to the intelligent ring topology (ultra fast ring recovery).

Order Information

Art.-No.	Description	Connectors
MS650621M	Industrial Access Point WLAN 802.11b/g 1x10/100/1000T, 3x10/100TX, 2x1000SX Multimode 850nm SC, Ring-Redundancy, VLANs, QoS, manageable	4x RJ-45 2x SC 2x R-SMA 2x power supply
MS650622M	Industrial Access Point WLAN 802.11b/g 1x10/100/1000T, 3x10/100TX, 2x1000LX Single Mode 1310nm 10km SC, Ring-Redundancy, VLANs, QoS, manageable	4x RJ-45 2x SC 2x R-SMA 2x power supply

Further products on request. Technical changes reserved.

Technical Specifications

Type

Industrial Access Point WLAN 802.11b/g with integrated switch 1x 10/100/1000Base-T, 3 x 10/100Base-TX and 2 x 1000Base-SX/LX uplink for industrial fiber ring

WLAN Module

Wireless up to 54 Mbps according to IEEE802.11b/g, Encryption according to WEP64, WEP128, WPA and WPA2, authentication according to IEEE802.1x, Transmission channels 1-13 (Europe) configurable or automatically, 3 transmission power levels, 2 R-SMA connectors for external antennas

Fiber type

Multimode 62,5/125 or 50/125µm (1000Base-SX),
Single mode 9/125µm, (1000Base-LX)

Cable type

Shielded Twisted Pair cable,
100 Ohm, Category 5,
Pinout RJ45-ports auto crossing

Data rate

10, 100 or 1000 Mbps

Optical parameters

Multimode
max. distance: 550 m (full duplex,
50/125µm)
Output power: -10 dBm
Sensitivity: -20 dBm
Wavelength: 850 nm

Single mode

max. distance: 10 km (full duplex)
Output power: -8 dBm
Sensitivity: -22 dBm
Wavelength: 1300 nm

LED displays

Port 1-4 -> For copper ports, Link (on), and activity (flashing)

G1 -> Green: ON - WLAN module active.
Flashing - Activity on WLAN.

Port 5-6 -> For fiber ports, Link (on), and activity (flashing)

P1 -> Green: Main power supply active,
ready for operation. Orange: Main power supply interrupted

P2 -> Green: Main power supply active,
Orange: Main power supply interrupted

Ring -> Switch configured for ring mode

RM -> Switch is configured as ring master.

Alarm -> Alarm contact released (missing power supply or recovery state in ring mode)

Mounting

35 mm hat rail, according DIN EN 50 022

Power supply

18 - 36 V DC (optional 48 V DC)/ max. 250 mA by external power supply connections with screw terminals, redundant port

Dimensions

50 x 108 x 116 mm (w x d x h)

Operating/storage temperature

-20°C to 60°C / -20°C to 80°C

Rel. humidity

5% to 90% non condensing

Management

- Status information via web based management (http-Server), telnet or support of SNMPv1

- Configuration via PC based management tool (Device Manager)

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