

IWLAN. Reliable, rugged and secure.
For Industrial Mobile Communication



simatic net

SIEMENS

Increase Your Productivity with Industrial Mobile Communication.

Reliable, rugged and secure IWLAN

Your objectives: faster commissioning of complex plants.

Interfacing mobile controllers to a data network.

Simplifying connections to hard-to-reach locations.

Savings on maintenance costs, not on service.

Our offer: Components for IWLAN. Designed for industry.



Reliability

Industrial use of radio technology requires particularly reliable connections. A solid basis therefore is provided by the universal standard IEEE 802.11. Interference-tolerant modulation is taken into account. In order to maintain a radio link even over long distances or in the event of reflection against metal objects, the data rate is reduced in defined increments. These are all components of the IEEE 802.11.

However, the requirements for data communication in the industry area is outside the normal scope. The devices in the SCALANCE W family compliment the universal WLAN-Standard IEEE 802.11 with additional features, that justify the 'I' in IWLAN. For example IWLAN compon-

ents from Siemens which makes a defined data rate available to selected clients. IWLAN offers deterministic data traffic based on the shared WLAN medium. IWLAN supports the focused monitoring of a client's connection to the access point so that countermeasures can be initiated the moment the connection is broken or the radio cell exited.

Rugged Design

Implementation in the day-to-day world of a harsh industrial environment requires robust products, particularly when they are used outside the control cabinet. IWLAN components from SIMATIC NET have IP 65 protection, are designed

for temperatures of between -20°C with moisture condensation and +60°C, and satisfy stringent SIMATIC demands regarding vibration and shock resistance. Connectors are vibration-resistant.

Data security

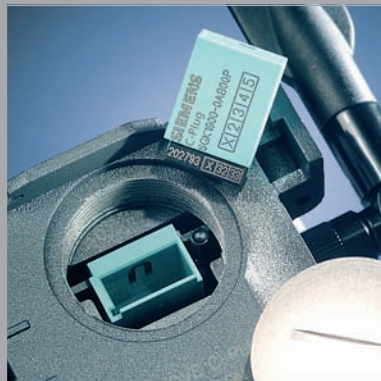
Protection against unauthorized access and data encryption are demands that apply not only to the transfer of secret recipes. Industrial WLAN adheres precisely to the specifications defined in IEEE 802.11 and Wi-Fi 802.11 in order to enable a high degree of interoperability. WPA (WiFi Protected Access) and AES (Advanced Encryption Standard) provide for the highest security measures available.

Increased plant availability. With SIMATIC NET Innovations



Dual Access Point

SCALANCE W788-2PRO Access Points makes possible to implement redundancy concepts. Unique benefit: Redundancy mode for a very reliable point-to-point connection by means of two separate radio cards.



C-PLUG

Following a fault, the times that network segments and connected Industrial Ethernet network nodes are idle can be reduced to a minimum through use of the C-PLUG. The C-PLUG enables SIMATIC NET components to be exchanged quickly and easily without having to reconfigure the replacement part or the use of programming device.



IWLAN RCoax Cable

RCoax leaky wave cables, operated as antennas of SCALANCE W access points offer a reliable radio connection in areas where conventional antenna technology could only be installed at great expense (e.g. on cranes, elevators or rail-guided vehicles). Additional advantages: Controlled emission of radio waves, low interference or mutual interference due to low transmitter power, lower costs thanks to the direct substitution of sliding contacts and trailing cables in addition with IWLAN/PB Link.

Highlights at a glance

Flexible and scalable applications

- Access points installable anywhere in the network
- Simplified infrastructure development with dynamic adaptation options for a growing number of access points and mobile users

Robust construction for use in industry

- Dust- and splash-proof housing with high resistance to vibration and shaking
- Extended temperature range (-20°C with dew to +60°C) for outdoor use

Dependable data transmission

- Cyclic data exchange (deterministic features)
- Monitoring of wireless link
- Stable wireless link
- Forced Roaming
- The opportunity to reserve a data rate for individual users with time-critical requirements
- Fast handover of mobile user with Rapid Roaming

Uncompromising security

- Integration into existing company security systems
- The latest security mechanisms for access protection
- Easy configuration

Part of Totally Integrated Automation

- Can be integrated in STEP 7
- SIMATIC iMap and SIMOTION

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