SIEMENS

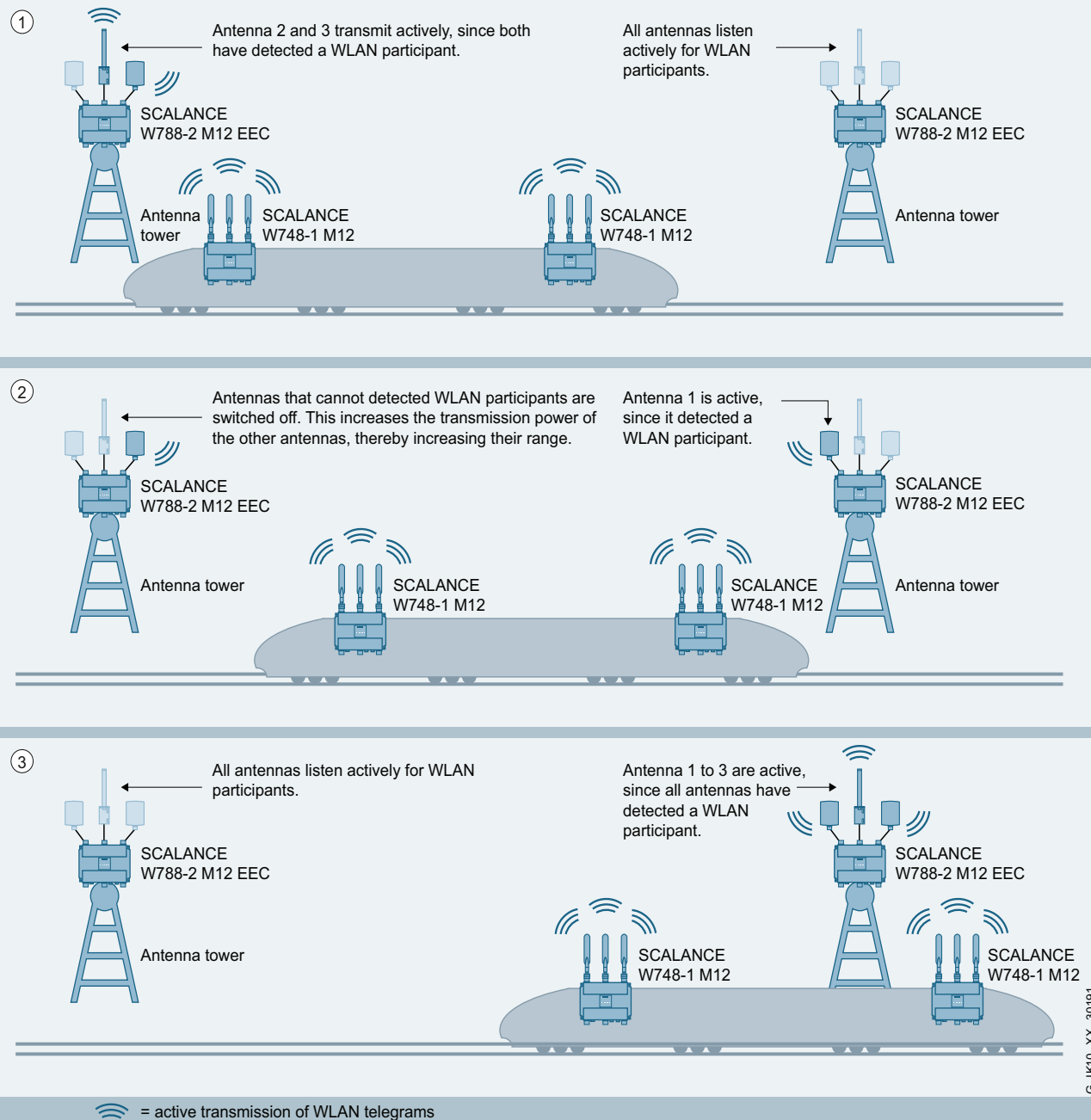## SIMATIC NET

Powerful with Industrial Wireless LAN SCALANCE W780 and W740

No matter where you are in the plant, the SCALANCE W780 Access Points and SCALANCE W740 Client Modules enable flexible wireless communication based on the IEEE 802.11n standard! Thanks to MIMO functionality, the wireless connection is extremely stable and reliable at data transfer rates of up to 450 Mbit/s. Using the KEY-PLUG W700 iFeatures, e.g. freely mobile client modules can communicate in real time across several wireless cells using PROFINET with PROFIsafe.

This opens up application areas, e.g. along rail tracks, in holiday parks, or even applications with EMERGENCY STOP function via a mobile panel – whether indoors, outdoors or in harsh environmental conditions. The SCALANCE W series is completed with an extensive range of antennas.

Answers for industry.

① Antenna 2 and 3 transmit actively, since both have detected a WLAN participant.

All antennas listen actively for WLAN participants.

SCALANCE W788-2 M12 EEC

SCALANCE W788-2 M12 EEC

Antenna tower

SCALANCE W748-1 M12

SCALANCE W748-1 M12

Antenna tower

② Antennas that cannot detected WLAN participants are switched off. This increases the transmission power of the other antennas, thereby increasing their range.

Antenna 1 is active, since it detected a WLAN participant.

SCALANCE W788-2 M12 EEC

SCALANCE W788-2 M12 EEC

Antenna tower

SCALANCE W748-1 M12

SCALANCE W748-1 M12

Antenna tower

③ All antennas listen actively for WLAN participants.

Antenna 1 to 3 are active, since all antennas have detected a WLAN participant.

SCALANCE W788-2 M12 EEC

SCALANCE W788-2 M12 EEC

Antenna tower

SCALANCE W748-1 M12

SCALANCE W748-1 M12

G_IK10_XX_30191

= active transmission of WLAN telegrams

Real-time communication on trains along rail tracks with SCALANCE W788-2 M12 EEC and W748-1 M12 with the iREF function

Advantages

- Extremely reliable data communication at transfer rates of up to 450 Mbit/s

- Flexible activation of special functions (iFeatures) to offer the right solution for every task

- Different enclosure types for different requirements, e.g. for the outdoor area or in rail applications

- Thanks to MIMO a reliable wireless communication is also possible in harsh environments

Product versions

- For the control cabinet
  - SCALANCE W788-1 RJ45,
    W788-2 RJ45 Access Points
  - SCALANCE W748-1 RJ45 Client Modules

- For the indoor area
  - SCALANCE W788-1 M12, W788-2 M12,
    W788-2 M12 EEC Access Points
  - SCALANCE W748-1 M12 Client Modules

- For the outdoor area
  - SCALANCE W786-1 RJ45, W786-2 RJ45,
    W786-2 SFP, W786-2IA RJ45 Access Points

Accessories

- C-PLUG for data storage
- KEY-PLUG W700 iFeatures for activating iFeatures

KEY-PLUG W700 iFeatures

SCALANCE W700 mobile website

As well as the Web Based Management (WBM) Interface, the mobile Web pages of the SCALANCE W are available for diagnostics. These have been optimized for the use of mobile devices such as smartphones or tablet PCs.

	SCALANCE W788 RJ45 / W748 RJ45	SCALANCE W788 M12 / W788 M12 EEC / W748 M12	SCALANCE W786 RJ45 / W786 SFP
Wireless standard	IEEE 802.11a/b/g/ n		
Supported frequencies	2.4 GHz and 5 GHz		
Max. bandwidth	450 Mbit/s (3x3:3 MIMO)		
Antenna connectors	3 x R-SMA sockets or 6 x R-SMA sockets	3 x N-Connect sockets or 6 x N-Connect sockets	3 x R-SMA sockets or 6 x R-SMA sockets or 6 x internal antennas
LAN interfaces	1 x RJ45 connection for 10/100/1000 Mbit/s	1 x M12 connection for 10/100/1000 Mbit/s	1 x RJ45 connection for 10/100/1000 Mbit/s; 2 x SFP slots for 1000 Mbit/s
Temperature range	-20°C to +60°C	-20°C to +60°C; for EEC: -40°C to +70°C	-40°C to +60°C
Degree of protection	IP30	IP65	
Enclosure material	Aluminum		Plastic / aluminum
Current	2 x 24 V DC Power-over-Ethernet in accordance with IEEE 802.3at	24 V DC Power-over-Ethernet in accordance with IEEE 802.3at	24 V DC, optional operation at 12 to 24 V DC or 100 to 240 V AC Power-over-Ethernet in accordance with IEEE 802.3at
Installation	Wall, S7-1500 profile rail, S7-300 profile rail, 35 mm cap rail		Wall or mast mounting, S7-300 profile rail or on 35 mm cap rail

Find out more:

www.siemens.com/iwlan

Get more information

Making the most of air
Industrial Wireless LAN –
flexible, plant-wide wireless infrastructure:
www.siemens.com/iwlan

IWLAN in the TIA Selection Tool:
www.siemens.com/tia-selection-tool

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates.

For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit:
http://www.siemens.com/industrialsecurity

To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit:
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