

### Product-type designation

### SCALANCE W786-1PRO



IWLAN ACCESS POINT SCALANCE W786-1PRO,  
FOR USE OUTSIDE OF USA,  
IEEE 802.11B/G/A/H,  
INDUSTRIAL WIRELESS LAN (IWLAN) 2.4/5 GHZ,  
UP TO 54MBIT/S, WPA2/802.11i/11E,  
NOTE NATIONAL APPROVALS, 48VDC,  
IP65(-40-+70 DGR C) 2XEXT. ANTENNA CONNECTIONS 1  
RADIO INTERFACE,  
POE,  
RJ45 (TWISTED PAIR) SOCKET SCOPE OF SUPPLY:  
MOUNT. MAT.,  
MANUAL ON CD-ROM GERMAN/ENGLISH;

### Transmission rate

#### Transmission rate

- with W-LAN / maximum
- with Industrial Ethernet
- note

54 Mbit/s

10 ... 100 Mbit/s

Due to the simultaneous use of several radio channels, a transmission rate of 108 Mbit/s is possible (turbo mode)

### Interfaces

#### Number of electrical connections

- for network components and terminal equipment
- for power supply
- for redundant power supply

1

1

1

#### Design of the electrical connection

- for network components and terminal equipment
- for power supply

RJ45 socket

2-pole connector (48 V DC) or optionally available power supply adapter (4-pole 12 to 24 V DC or 3-pole 100 to 240 V AC)

#### design of the removable storage / C-PLUG

Yes

### Interfaces / wireless

#### Number of radio cards / permanently installed

1

#### Number of electrical connections / for external antenna(s)

2

#### Design of the electrical connection / for external antenna(s)

R-SMA (socket)

|                                                                                          |                                                                                                              |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Product property / external antenna can be mounted directly on device                    | No                                                                                                           |
| <b>Supply voltage, current consumption, power loss</b>                                   |                                                                                                              |
| Type of / supply voltage                                                                 | DC                                                                                                           |
| Supply voltage                                                                           |                                                                                                              |
| • 1 / from terminal block                                                                | 48 V                                                                                                         |
| • from Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af              | 48 V                                                                                                         |
| • from optional integratable power supply                                                |                                                                                                              |
| • with AC                                                                                | 100 ... 240 V                                                                                                |
| • with DC                                                                                | 12 ... 24 V                                                                                                  |
| Current consumed                                                                         |                                                                                                              |
| • at 24 V / with DC / typical                                                            | 0.28 A                                                                                                       |
| • at 48 V / with DC / typical                                                            | 0.14 A                                                                                                       |
| • at 230 V / with AC / typical                                                           | 0.03 A                                                                                                       |
| • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical | 0.14 A                                                                                                       |
| Effective power loss                                                                     |                                                                                                              |
| • at 24V / for DC / typical                                                              | 6.5 W                                                                                                        |
| • at 48 V / with DC / typical                                                            | 6.5 W                                                                                                        |
| • at 230 V / with AC / typical                                                           | 6.5 W                                                                                                        |
| • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical | 6.5 W                                                                                                        |
| <b>Permitted ambient conditions</b>                                                      |                                                                                                              |
| Ambient temperature                                                                      |                                                                                                              |
| • during operating                                                                       | -40 ... +70 °C                                                                                               |
| • during storage                                                                         | -40 ... +85 °C                                                                                               |
| • during transport                                                                       | -40 ... +85 °C                                                                                               |
| Relative humidity / at 25 °C / without condensation / during operating / maximum         | 100 %                                                                                                        |
| Protection class IP                                                                      | IP65                                                                                                         |
| Ambient condition / for (standard) operation mode                                        | When using the power supply 100 to 240 V AC, an operating temperature of -40 °C to +60 °C is permissible     |
| <b>Design, dimensions and weight</b>                                                     |                                                                                                              |
| Width / of enclosure / without antenna                                                   | 251 mm                                                                                                       |
| Height / of enclosure / without antenna                                                  | 251 mm                                                                                                       |
| Depth / of enclosure / without antenna                                                   | 72 mm                                                                                                        |
| Net weight                                                                               | 2.24 kg                                                                                                      |
| Mounting type                                                                            |                                                                                                              |
| • wall mounting                                                                          | Yes                                                                                                          |
| Mounting type                                                                            | For mast mounting, 35 mm DIN rail mounting and S7-300 rail mounting, an additional support plate is required |

## Wireless frequencies

### Radio frequency

- |                                      |                   |
|--------------------------------------|-------------------|
| • for WLAN in 2.4 GHz frequency band | 2.41 ... 2.48 GHz |
| • for WLAN in 5 GHz frequency band   | 4.9 ... 5.8 GHz   |

## Product properties, functions, components / general

### Product function

- |                     |     |
|---------------------|-----|
| • Access Point Mode | Yes |
| • Client Mode       | Yes |

### Number of SSIDs

8

### Product function

- |                        |    |
|------------------------|----|
| • Dual Client          | No |
| • iHOP                 | No |
| • iPCF Access Point    | No |
| • iPCF client          | No |
| • iPCF-MC Access Point | No |
| • iPCF-MC client       | No |

### Number of iPCF-capable radio modules

0

## Product functions / management, configuration

### Number of manageable IP addresses / in client

8

### Product function

- |                                               |     |
|-----------------------------------------------|-----|
| • CLI                                         | Yes |
| • web-based management                        | Yes |
| • MIB support                                 | Yes |
| • TRAPs via email                             | Yes |
| • Configuration with STEP 7                   | Yes |
| • configuration with STEP 7 in the TIA Portal | Yes |
| • operation with IWLAN controller             | No  |
| • operation with Enterasys WLAN controller    | No  |
| • iQoS                                        | Yes |
| • forced roaming with IWLAN                   | Yes |
| • WDS                                         | Yes |

### Protocol / is supported

- |                                     |     |
|-------------------------------------|-----|
| • Address Resolution Protocol (ARP) | Yes |
| • ICMP                              | Yes |
| • Telnet                            | Yes |
| • HTTP                              | Yes |
| • HTTPS                             | Yes |
| • TFTP                              | Yes |
| • SNMP v1                           | Yes |

|                                                        |                                                                                   |
|--------------------------------------------------------|-----------------------------------------------------------------------------------|
| • SNMP v2                                              | Yes                                                                               |
| • SNMP v3                                              | Yes                                                                               |
| • DCP                                                  | Yes                                                                               |
| • LLDP                                                 | Yes                                                                               |
| Identification & maintenance function                  |                                                                                   |
| • I&M0 - device-specific information                   | Yes                                                                               |
| • I&M1 – higher level designation/location designation | Yes                                                                               |
| <b>Product functions / Diagnosis</b>                   |                                                                                   |
| Product function                                       |                                                                                   |
| • PROFINET IO diagnosis                                | Yes                                                                               |
| • Link Check                                           | Yes                                                                               |
| • connection monitoring IP-Alive                       | Yes                                                                               |
| • localization via Aeroscout                           | Yes                                                                               |
| • SysLog                                               | Yes                                                                               |
| <b>Product functions / VLAN</b>                        |                                                                                   |
| Product function / function VLAN with IWLAN            | Yes                                                                               |
| <b>Product functions / DHCP</b>                        |                                                                                   |
| Product function                                       |                                                                                   |
| • DHCP client                                          | Yes                                                                               |
| • in Client Mode / DHCP server via LAN                 | Yes                                                                               |
| <b>Product functions / Redundancy</b>                  |                                                                                   |
| Protocol / is supported / STP/RSTP                     | Yes                                                                               |
| <b>Product functions / Security</b>                    |                                                                                   |
| Product function                                       |                                                                                   |
| • ACL - MAC-based                                      | Yes                                                                               |
| • Management security, ACL-IP based                    | No                                                                                |
| • IEEE 802.1x (radius)                                 | Yes                                                                               |
| • NAT/NAPT                                             | Yes                                                                               |
| • access protection according to IEEE802.11i           | Yes                                                                               |
| • WPA/WPA2                                             | Yes                                                                               |
| • TKIP/AES                                             | Yes                                                                               |
| Protocol / is supported / SSH                          | Yes                                                                               |
| <b>Product functions / Time</b>                        |                                                                                   |
| Protocol / is supported                                |                                                                                   |
| • SNTP                                                 | Yes                                                                               |
| • SIMATIC Time                                         | No                                                                                |
| <b>Standards, specifications, approvals</b>            |                                                                                   |
| Standard                                               |                                                                                   |
| • for EMC / from FM                                    | FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4 |

|                                                                        |                                                                                                                                                |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| • for hazardous zone                                                   | EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X                                                                       |
| • for safety / of CSA and UL                                           | UL 60950-1 CSA C22.2 No. 60950-1                                                                                                               |
| • for hazardous area / of CSA and UL                                   | UL 1604, CSA C22.2 No. 213-M1987, CL. 1, Div. 2, GP. A,B,C,D, T4 / CL. 1, Zone 2, GP IIC, T4                                                   |
| Verification of suitability                                            |                                                                                                                                                |
| • CE mark                                                              | Yes                                                                                                                                            |
| • EC declaration of conformity                                         | Yes                                                                                                                                            |
| • C-Tick                                                               | Yes                                                                                                                                            |
| • Railway application in accordance with EN 50155                      | No                                                                                                                                             |
| • E1 approval                                                          | Yes                                                                                                                                            |
| • NEMA4X                                                               | Yes                                                                                                                                            |
| • Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af | Yes                                                                                                                                            |
| Standard for wireless communication                                    |                                                                                                                                                |
| • IEEE 802.11a                                                         | Yes                                                                                                                                            |
| • IEEE 802.11b                                                         | Yes                                                                                                                                            |
| • IEEE 802.11e                                                         | Yes                                                                                                                                            |
| • IEEE 802.11g                                                         | Yes                                                                                                                                            |
| • IEEE 802.11h                                                         | Yes                                                                                                                                            |
| • IEEE 802.11i                                                         | Yes                                                                                                                                            |
| • IEEE 802.11n                                                         | No                                                                                                                                             |
| Wireless approval                                                      | You can find the current list of countries at:<br><a href="http://www.siemens.com/simatic-net/ik-info">www.siemens.com/simatic-net/ik-info</a> |
| Marine classification association                                      |                                                                                                                                                |
| • American Bureau of Shipping Europe Ltd. (ABS)                        | Yes                                                                                                                                            |
| • Bureau Veritas (BV)                                                  | Yes                                                                                                                                            |
| • Det Norske Veritas (DNV)                                             | No                                                                                                                                             |
| • Germanische Lloyd (GL)                                               | Yes                                                                                                                                            |
| • Lloyds Register of Shipping (LRS)                                    | Yes                                                                                                                                            |
| • Nippon Kaiji Kyokai (NK)                                             | Yes                                                                                                                                            |
| • Polski Rejestr Statkow (PRS)                                         | No                                                                                                                                             |
| <b>Accessories</b>                                                     |                                                                                                                                                |
| Accessories                                                            | 48 V DC terminal block included in scope of delivery                                                                                           |
| <b>letzte Änderung:</b>                                                | Aug 4, 2014                                                                                                                                    |