

Product-type designation

SCALANCE W746-1



IWLAN ETHERNET CLIENT MODULE SCALANCE W746-1, FOR USE OUTSIDE OF USA 1 RADIO INTERFACE, IEEE 802.11B/G/A/H, INDUSTRIAL WIRELESS LAN (IWLAN), 2.4/5GHZ, UP TO 54 MBIT/S, 24VDC WPA2/802.11i/11E, UP TO 8 DEVICES, NAT/PAT, NOTE NATIONAL APPROVALS, POE, IP30 (-20-+60 DGR C) 2XEXT. ANTENNA CONNECTIONS SCOPE OF SUPPLY: MANUALS ON CD ROM GERMAN/ENGLISH 24VDC TERMINAL BLOCK

Transmission rate

Transfer 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

4-pole screw terminal, PoE

Version of the swap medium

- C-PLUG
- KEY-PLUG

Yes

No

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	Yes
Supply voltage, current consumption, power loss	
Type of / supply voltage	DC
Supply voltage	
• 1 / from terminal block	24 V
• 2 / from terminal block	48 V
• from Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af	48 V
Current consumed	
• at 24 V / with DC / typical	0.23 A
• at 48 V / with DC / typical	0.12 A
• with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical	0.12 A
Active power loss	
• at 24V / for DC / typical	6 W
• at 48 V / with DC / typical	6 W
• with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical	6 W
Permitted ambient conditions	
Ambient temperature	
• during operating	-20 ... +60 °C
• during storage	-40 ... +70 °C
• during transport	-40 ... +70 °C
Relative humidity / at 25 °C / without condensation / during operating / maximum	90 %
Protection class IP	IP30
Design, dimensions and weight	
Width / of enclosure / without antenna	100 mm
Height / of enclosure / without antenna	205 mm
Depth / of enclosure / without antenna	20 mm
Net weight	0.29 kg
Mounting type	
• S7-1500 rail mounting	No
• wall mounting	Yes
Mounting type	For mounting on 35 mm DIN and S7-300 mounting rail, an additional adapter 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 No
- Client Mode Yes

Product function

- Dual Client No
- iHOP No
- iPCF client 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 No
- forced roaming with IWLAN No
- WDS No

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

Product functions / Diagnosis	
Product function	
• PROFINET IO diagnosis	Yes
• Link Check	No
• connection monitoring IP-Alive	No
• localization via Aeroscout	No
• SysLog	Yes
Product functions / VLAN	
Product function / function VLAN with IWLAN	No
Product functions / DHCP	
Product function / DHCP client	Yes
Product function / in Client Mode / DHCP server via LAN	Yes
Product functions / Security	
Product function	
• ACL - MAC-based	No
• 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
Product functions / Time	
Protocol / is supported	
• SNTP	Yes
• SIMATIC Time	No
Standards, specifications, approvals	
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 (only approved in combination with an enclosure with degree of protection of at least IP 54)
• for safety / of CSA and UL	UL 60950-1 CSA C22.2 No. 60950-1
• for hazardous area / of CSA and UL	ISA 12.12.01-2000, CSA C22.2 No. 213-M1987, CL. 1, Div. 2, GP. A,B,C,D, T4 / CL. 1, Zone 2, GP IIC, T4 / CL. 1, Zone 2, AEx nC IIC, T4 (only approved in combination with an enclosure with degree of protection of at least IP 54)
Verification of suitability	
• CE mark	Yes
• EC declaration of conformity	Yes

• C-Tick	Yes
• Railway application in accordance with EN 50155	Yes
• E1 approval	Yes
• NEMA4X	No
• 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 will find the current list of countries at: www.siemens.de/funkzulassungen
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• Bureau Veritas (BV)	No
• Det Norske Veritas (DNV)	No
• Germanische Lloyd (GL)	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
• Polski Rejestr Statkow (PRS)	No
Accessories	
Accessories	24 V DC screw terminal included in scope of delivery
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