

product type designation



W748-1 RJ45 (USA)

product announced for discontinuation; IWLAN client, SCALANCE W748-1 RJ45, 1 radio, 3 R-SMA antenna port, iFeatures support via KEY-PLUG, IEEE 802.11a/b/g/h/n, 2.4/5GHz, gross 450 Mbps per radio, 1x RJ45 max. 1 Gbps, PoE, redundant 24 V DC, joint block, IP30, temp: -20 ...+60 °C, WPA2/802.11i/e, signaling contact observe national approvals! cert ID: RAPN-W1-RJ-E3, includes: MPCIE-R1-ABGN-U3, scope of delivery: manuals on CD-ROM, German/English, 2x joint blocks; for operation in the USA.

transfer rate

transfer rate

- with WLAN / maximum
- for Industrial Ethernet

450 Mbit/s
10, 100, 1000 Mbit/s

transfer rate / for Industrial Ethernet

- minimum
- maximum

10 Mbit/s
1000 Mbit/s

interfaces

number of electrical connections

- for network components or terminal equipment
- for power supply
- for redundant voltage supply

1
1
1

type of electrical connection

- for network components or terminal equipment
- for power supply

RJ45 socket
4-pole screw terminal, PoE

design of the removable storage

- C-PLUG
- KEY-PLUG

Yes
Yes

memory

design of the removable storage

- C-PLUG
- KEY-PLUG

Yes
Yes

interfaces / wireless

number of radio cards / permanently installed

1

transmission mode / for multiple input multiple output (MIMO)

3x3

number of spatial streams

3

number of electrical connections / for external antenna(s)

3

type of electrical connection / for external antenna(s)

R-SMA (socket)

product feature / external antenna can be mounted directly on device

Yes

signal inputs/outputs

number of digital inputs

1

number of digital outputs

1

type of electrical connection / at the digital inputs/outputs

4-pole screw terminal

signal range / at digital input

24 V DC, safety extra-low voltage

signal range / at digital output

24 V DC / 1 A

supply voltage, current consumption, power loss

type of voltage / of the supply voltage

DC

supply voltage

<ul style="list-style-type: none"> • from Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af • from Power-over-Ethernet according to IEEE802.3at for type 2 	48 V
consumed current	50 V
<ul style="list-style-type: none"> • at DC / at 24 V / typical 	0.45 A
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	0.22 A
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 2 / typical 	0.21 A
power loss [W]	
<ul style="list-style-type: none"> • at DC / at 24 V / typical 	10.7 W
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	10.7 W
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 2 / typical 	10.7 W
supply voltage / 1	
<ul style="list-style-type: none"> • from terminal block 	19.2 V
supply voltage / 2	
<ul style="list-style-type: none"> • from terminal block 	28.8 V
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation 	-20 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +85 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C
relative humidity / at 25 °C / without condensation / during operation / maximum	90 %
ambient condition / for operation	When used under hazardous conditions (Zone 2), the SCALANCE W788-x or W748-x product must be installed in an enclosure. To comply with EN 50021, this enclosure must meet the requirements of at least IP 54 in compliance with EN 60529.
protection class IP	IP30
design, dimensions and weights	
width / of the enclosure / without antenna	200 mm
height / of the enclosure / without antenna	158 mm
depth / of the enclosure / without antenna	79 mm
net weight	1.7 kg
fastening method	For 35 mm DIN rail mounting an additional mounting adapter is required
<ul style="list-style-type: none"> • S7-300 rail mounting 	Yes
<ul style="list-style-type: none"> • S7-1500 rail mounting 	Yes
<ul style="list-style-type: none"> • 35 mm top hat DIN rail mounting 	Yes
<ul style="list-style-type: none"> • wall mounting 	Yes
radio frequencies	
operating frequency	
<ul style="list-style-type: none"> • for WLAN in 2.4 GHz frequency band 	2.41 ... 2.48 GHz; depending on the country approvals
<ul style="list-style-type: none"> • for WLAN in 5 GHz frequency band 	4.9 ... 5.8 GHz; depending on the country approvals
product features, product functions, product components / general	
product function / Access Point Mode	No
product function / client Mode	Yes
product function	
<ul style="list-style-type: none"> • iPCF client 	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
<ul style="list-style-type: none"> • iPCF-MC client 	No; Only in combination with 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
number of iPCF-capable radio modules	1
product function / iPRP	Yes; In combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures' only
product functions / management, configuration, engineering	
number of manageable IP addresses / in client	8
product function	
<ul style="list-style-type: none"> • CLI 	Yes
<ul style="list-style-type: none"> • web-based management 	Yes
<ul style="list-style-type: none"> • MIB support 	Yes
<ul style="list-style-type: none"> • TRAPs via email 	Yes
<ul style="list-style-type: none"> • configuration with STEP 7 	Yes

<ul style="list-style-type: none"> • configuration with STEP 7 in the TIA Portal • WDS 	Yes	
protocol / is supported	No	
<ul style="list-style-type: none"> • Address Resolution Protocol (ARP) • ICMP • Telnet • HTTP • HTTPS • TFTP • DCP • LLDP 	Yes	
identification & maintenance function	Yes	
<ul style="list-style-type: none"> • I&M0 - device-specific information • I&M1 – higher level designation/location designation 	Yes	
product functions / diagnostics		
product function		
<ul style="list-style-type: none"> • PROFINET IO diagnosis • link check • connection monitoring IP-Alive • SysLog 	Yes	
protocol / is supported	No	
<ul style="list-style-type: none"> • SNMP v1 • SNMP v2 • SNMP v3 	No	
	Yes	
	Yes	
	Yes	
product functions / VLAN		
product function		
<ul style="list-style-type: none"> • function VLAN with IWLAN 	No	
product functions / DHCP		
product function		
<ul style="list-style-type: none"> • DHCP client • DHCP server • DHCP Option 82 	Yes	
	Yes	
	Yes	
product functions / redundancy		
protocol / is supported		
<ul style="list-style-type: none"> • STP/RSTP • MSTP • RSTP 	Yes	
	Yes	
	Yes	
product functions / security		
product function		
<ul style="list-style-type: none"> • ACL - MAC-based • management security, ACL-IP based • IEEE 802.1x (radius) • NAT/NAPT • access protection according to IEEE802.11i • WPA/WPA2 • TKIP/AES 	Yes	
	Yes	
	Yes	
	Yes	
	Yes	
	Yes	
	Yes	
protocol / is supported		
<ul style="list-style-type: none"> • SSH • RADIUS 	Yes	
	Yes	
product functions / time		
protocol / is supported		
<ul style="list-style-type: none"> • NTP • SNTP • SIMATIC time synchronization (SIMATIC Time) 	Yes	
	Yes	
	Yes	
standards, specifications, approvals		
standard		
<ul style="list-style-type: none"> • for FM • for safety / from CSA and UL 	FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4	
certificate of suitability	UL 60950-1, CSA C22.2 No. 60950-1	
<ul style="list-style-type: none"> • EC Declaration of Conformity • CE marking 	Yes	
	Yes	

<ul style="list-style-type: none"> • C-Tick • E1 approval • railway application in accordance with EN 50155 • railway application in accordance with EN 50121-4 • NEMA TS2 • IEC 61375 • IEC 61850-3 • NEMA4X • Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af • Power-over-Ethernet according to IEEE802.3at for type 2 	<p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p>
standard for wireless communication	
<ul style="list-style-type: none"> • IEEE 802.11a • IEEE 802.11b • IEEE 802.11e • IEEE 802.11g • IEEE 802.11h • IEEE 802.11i • IEEE 802.11n 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
wireless approval	For operation in the USA, you will find more information under: www.siemens.de/funkzulassungen
standards, specifications, approvals / marine classification	
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • DNV GL • Korean Register of Shipping (KRS) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) • Royal Institution of Naval Architects (RINA) 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes
accessories	
accessories	24 V DC screw terminal and screw terminal for digital input and output included in the scope of delivery
further information / internet-Links	
Internet-Link	
<ul style="list-style-type: none"> • to website: TIA Selection Tool • to web page: selection aid TIA Selection Tool • to the website: IWLAN • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support 	<p>http://www.siemens.com/tia-selection-tool</p> <p>http://www.siemens.com/tia-selection-tool</p> <p>http://www.siemens.com/iwlan</p> <p>https://mall.industry.siemens.com</p> <p>http://www.siemens.com/industry/infocenter</p> <p>http://automation.siemens.com/bilddb</p> <p>http://www.siemens.com/cax</p> <p>https://support.industry.siemens.com</p>
security information	
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 http://support.automation.siemens.com . (V3.4)

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