

product type designation



W1748-1 M12

-- spare part -- IWLAN client SCALANCE W1748-1 M12, 1 radio, 4 N-CON antenna port, iPRP support via CLP, IEEE 802.11a/b/g/h/n/ac, 2.4/5 GHz, gross 1733 Mbps per radio, 2x M12 max. 1 Gbps, PoE, redundant 24 V DC, M12 A-coded IP65, -20..+70 °C, CLP slot, WPA2/802.11i/e, observe national approvals! CERT ID: RAPAC-W1-M12-E4, includes: MPCIE-R1-ABGNAC-U4, scope of delivery: manuals on DVD, M12 sealing caps, for operation outside of USA/Israel

transfer rate	
transfer rate	
<ul style="list-style-type: none"> with WLAN / maximum 	1733 Mbit/s
<ul style="list-style-type: none"> for Industrial Ethernet 	10, 100, 1000 Mbit/s
interfaces	
number of electrical/optical connections / for network components or terminal equipment / maximum / note	2
number of electrical/optical connections / for gigabit Ethernet / maximum	2
number of electrical connections	
<ul style="list-style-type: none"> for network components or terminal equipment 	2
<ul style="list-style-type: none"> for power supply 	1
<ul style="list-style-type: none"> for redundant voltage supply 	1
type of electrical connection	
<ul style="list-style-type: none"> for network components or terminal equipment 	M12 interface (8-pole, X-coded), PoE
<ul style="list-style-type: none"> for power supply 	M12 interface (4-pole, A-coded)
memory	
design of the removable storage	
<ul style="list-style-type: none"> CLP 	Yes
<ul style="list-style-type: none"> CLP iFeatures 	Yes
interfaces / wireless	
number of radio cards / permanently installed	1
transmission mode / for multiple input multiple output (MIMO)	4x4
number of spatial streams	4
number of electrical connections / for external antenna(s)	4
type of electrical connection / for external antenna(s)	N-Connect (socket)
product feature / external antenna can be mounted directly on device	Yes
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 2 	48 V
consumed current	
<ul style="list-style-type: none"> at DC / at 24 V / typical 	0.375 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 	10.1 W
<ul style="list-style-type: none"> with Power-over-Ethernet according to IEEE802.3at for type 2 / typical 	9 W

supply voltage / 1	
<ul style="list-style-type: none"> from M12 Power Connector (A-coded) for redundant power supply 	16.8 V
supply voltage / 2	
<ul style="list-style-type: none"> from M12 Power Connector (A-coded) for redundant power supply 	31.2 V
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> during operation 	-20 ... +70 °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 %
protection class IP	IP65
design, dimensions and weights	
width	258 mm
height	258 mm
depth	80 mm
width / of the enclosure / without antenna	258 mm
height / of the enclosure / without antenna	258 mm
depth / of the enclosure / without antenna	80 mm
net weight	2.7 kg
fastening method	Accessories are required for wall mounting and mounting on a mounting rail.
<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 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
number of SSIDs	8
product function	
<ul style="list-style-type: none"> iPCF Access Point 	No
<ul style="list-style-type: none"> iPCF client 	No
<ul style="list-style-type: none"> iPCF-MC Access Point 	No
<ul style="list-style-type: none"> iPCF-MC client 	No
product function / iREF	Yes
product function / iPRP	Yes
product functions / management, configuration, engineering	
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 	Yes
<ul style="list-style-type: none"> operation with IWLAN controller 	No
<ul style="list-style-type: none"> forced roaming with IWLAN 	Yes
<ul style="list-style-type: none"> forced roaming on IP down with IWLAN 	Yes
<ul style="list-style-type: none"> forced roaming on link down with IWLAN 	No
<ul style="list-style-type: none"> WDS 	Yes
protocol / is supported	
<ul style="list-style-type: none"> Address Resolution Protocol (ARP) 	Yes
<ul style="list-style-type: none"> ICMP 	Yes
<ul style="list-style-type: none"> Telnet 	Yes
<ul style="list-style-type: none"> HTTP 	Yes
<ul style="list-style-type: none"> HTTPS 	Yes

<ul style="list-style-type: none"> • TFTP 	Yes
<ul style="list-style-type: none"> • DCP 	Yes
<ul style="list-style-type: none"> • LLDP 	Yes
identification & maintenance function	
<ul style="list-style-type: none"> • I&M0 - device-specific information 	Yes
<ul style="list-style-type: none"> • I&M1 - higher level designation/location designation 	Yes
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
product functions / diagnostics	
product function	
<ul style="list-style-type: none"> • PROFINET IO diagnosis 	Yes
<ul style="list-style-type: none"> • SysLog 	Yes
protocol / is supported	
<ul style="list-style-type: none"> • SNMP v1 	Yes
<ul style="list-style-type: none"> • SNMP v2c 	Yes
<ul style="list-style-type: none"> • SNMP v3 	Yes
product functions / VLAN	
product function	
<ul style="list-style-type: none"> • function VLAN with IWLAN 	Yes
product functions / DHCP	
product function	
<ul style="list-style-type: none"> • DHCP client 	Yes
<ul style="list-style-type: none"> • DHCP server 	Yes
<ul style="list-style-type: none"> • DHCP Option 82 	Yes
product functions / redundancy	
protocol / is supported	
<ul style="list-style-type: none"> • STP/RSTP 	Yes
<ul style="list-style-type: none"> • MSTP 	Yes
<ul style="list-style-type: none"> • RSTP 	Yes
product functions / security	
product function	
<ul style="list-style-type: none"> • ACL - MAC-based 	No
<ul style="list-style-type: none"> • management security, ACL-IP based 	Yes
<ul style="list-style-type: none"> • IEEE 802.1x (radius) 	Yes
<ul style="list-style-type: none"> • NAT/NAPT 	No
<ul style="list-style-type: none"> • access protection according to IEEE802.11i 	Yes
<ul style="list-style-type: none"> • WPA/WPA2 	Yes
<ul style="list-style-type: none"> • TKIP/AES 	Yes
protocol / is supported	
<ul style="list-style-type: none"> • SSH 	Yes
<ul style="list-style-type: none"> • RADIUS 	Yes
product functions / time	
protocol / is supported	
<ul style="list-style-type: none"> • NTP 	Yes
<ul style="list-style-type: none"> • SNTP 	Yes
<ul style="list-style-type: none"> • SIMATIC time synchronization (SIMATIC Time) 	Yes
standards, specifications, approvals	
standard	
<ul style="list-style-type: none"> • for FM 	FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4
<ul style="list-style-type: none"> • for safety / from CSA and UL 	IEC 62368-1
certificate of suitability	
<ul style="list-style-type: none"> • EC Declaration of Conformity 	Yes
<ul style="list-style-type: none"> • CE marking 	Yes
<ul style="list-style-type: none"> • C-Tick 	Yes
<ul style="list-style-type: none"> • E1 approval 	Yes
<ul style="list-style-type: none"> • IEC 61850-3 	No
<ul style="list-style-type: none"> • Power-over-Ethernet according to IEEE802.3at for type 2 	Yes
standard for wireless communication	
<ul style="list-style-type: none"> • IEEE 802.11a 	Yes
<ul style="list-style-type: none"> • IEEE 802.11b 	Yes
<ul style="list-style-type: none"> • IEEE 802.11e 	Yes

<ul style="list-style-type: none"> • IEEE 802.11g • IEEE 802.11h • IEEE 802.11i • IEEE 802.11n • IEEE 802.11ac 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
wireless approval	You will find the current list of countries at: www.siemens.de/funkzulassungen
reference code	
<ul style="list-style-type: none"> • according to IEC 81346-2:2019 	KFE
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	EN IEC 60079-0 : 2018, EN60079-7:2015 + A1 : 2018; II 3 G Ex ec IIC T4 Gc
<ul style="list-style-type: none"> • from CSA and UL 	UL121201, CAN/CSA C22.2 No.213, CL. 1, Div. 2, GP. A, B, C, D, T4 / CL. 1, Zone 2, GP IIC T4
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes; GB3836.1, GB3836.8
<ul style="list-style-type: none"> • as marking 	Ex nA IIC T4 Gc
accessories	
accessories	pre-assembled holder for attachment to a DIN rail
further information / internet links	
internet link	
<ul style="list-style-type: none"> • to website: Selection guide for cables and connectors • to web page: selection aid TIA Selection Tool • to web page: WLAN country approval • to the website: IWLAN • to website: Industrial communication • to web page: SiePortal • to website: Image database • to website: CAX-Download-Manager • to website: Industry Online Support 	<p>https://support.industry.siemens.com/cs/ww/en/view/109766358</p> <p>https://www.siemens.com/tstcloud</p> <p>https://www.siemens.com/wireless-approvals</p> <p>https://www.siemens.com/iwlan</p> <p>https://www.siemens.com/simatic-net</p> <p>https://sieportal.siemens.com/</p> <p>https://www.automation.siemens.com/bilddb</p> <p>https://www.siemens.com/cax</p> <p>https://support.industry.siemens.com</p>
security information	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry . Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert . (V4.7)

Approvals / Certificates

General Product Approval



EG-Konf.

[Declaration of Conformity](#)



[Manufacturer Declaration](#)

[China RoHS](#)



General Product Approval **For use in hazardous locations**



UL



RCM



IECEx



ATEX

[CCC-Ex](#)



UL

Radio Equipment Type Approval Certificate

[Miscellaneous](#)

[Miscellaneous](#)

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