

product type designation



W1748-1 M12

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 Gbit/s, 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, German/English, M12 sealing caps, f. operation outside of USA/Israel

transfer rate	
transfer rate	
• with WLAN / maximum	1733 Mbit/s
• for Industrial Ethernet	10, 1000, 1000 Mbit/s
transfer rate / for Industrial Ethernet	
• minimum	10 Mbit/s
• maximum	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	
• for network components or terminal equipment	2
• for power supply	1
• for redundant voltage supply	1
type of electrical connection	
• for network components or terminal equipment	M12 interface (8-pole, X-coded), PoE
• for power supply	M12 interface (4-pole, A-coded)
design of the removable storage	
• CLP	Yes
• CLP iFeatures	Yes
memory	
design of the removable storage	
• CLP	Yes
• 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	
• from Power-over-Ethernet acc. to IEEE802.3at for	48 V

type 2	
consumed current - at DC / at 24 V / typical - with Power-over-Ethernet according to IEEE802.3at for type 2 / typical	0.375 A 0.21 A
power loss [W] - at DC / at 24 V / typical - with Power-over-Ethernet according to IEEE802.3at for type 2 / typical	10.1 W 9 W
supply voltage / 1 from M12 Power Connector (A-coded) for redundant power supply	16.8 V
supply voltage / 2 from M12 Power Connector (A-coded) for redundant power supply	31.2 V
ambient conditions	
ambient temperature - during operation - during storage - during transport	-20 ... +70 °C -40 ... +85 °C -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 - S7-300 rail mounting - S7-1500 rail mounting 35 mm top hat DIN rail mounting - wall mounting	Yes Yes Yes Yes
radio frequencies	
operating frequency - for WLAN in 2.4 GHz frequency band - for WLAN in 5 GHz frequency band	2.41 ... 2.48 GHz; depending on the country approvals 4.9 ... 5.8 GHz; depending on the country approvals
product features, product functions, product components / general	
product function / Access Point Mode	Yes
product function / client Mode	No
number of SSIDs	8
product function - iPCF Access Point - iPCF client - iPCF-MC Access Point - iPCF-MC client	No No No No
product function / iREF	Yes
product function / iPRP	Yes
product functions / management, configuration, engineering	
product function - CLI - web-based management - MIB support - TRAPs via email - configuration with STEP 7 - configuration with STEP 7 in the TIA Portal - operation with IWLAN controller - forced roaming with IWLAN	Yes Yes Yes Yes Yes Yes No Yes

• forced roaming on IP down with IWLAN	Yes
• forced roaming on link down with IWLAN	No
• WDS	Yes
protocol / is supported	
• Address Resolution Protocol (ARP)	Yes
• ICMP	Yes
• Telnet	Yes
• HTTP	Yes
• HTTPS	Yes
• TFTP	Yes
• DCP	Yes
• LLDP	Yes
identification & maintenance function	
• I&M0 - device-specific information	Yes
• I&M1 – higher level designation/location designation	Yes
product functions / diagnostics	
product function	
• PROFINET IO diagnosis	Yes
• SysLog	Yes
protocol / is supported	
• SNMP v1	Yes
• SNMP v2c	Yes
• SNMP v3	Yes
product functions / VLAN	
product function	
• function VLAN with IWLAN	Yes
product functions / DHCP	
product function	
• DHCP client	Yes
• DHCP server	Yes
• DHCP Option 82	Yes
product functions / redundancy	
protocol / is supported	
• STP/RSTP	Yes
• MSTP	Yes
• RSTP	Yes
product functions / security	
product function	
• ACL - MAC-based	No
• management security, ACL-IP based	Yes
• IEEE 802.1x (radius)	Yes
• NAT/NAPT	No
• access protection according to IEEE802.11i	Yes
• WPA/WPA2	Yes
• TKIP/AES	Yes
protocol / is supported	
• SSH	Yes
• RADIUS	Yes
product functions / time	
protocol / is supported	
• NTP	Yes
• SNTP	Yes
• SIMATIC time synchronization (SIMATIC Time)	Yes
standards, specifications, approvals	
standard	
• for FM	FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4
• for safety / from CSA and UL	IEC 62368-1
certificate of suitability	

• EC Declaration of Conformity • CE marking • C-Tick • E1 approval • IEC 61850-3 • Power-over-Ethernet according to IEEE802.3at for type 2	Yes Yes Yes Yes No Yes
standard for wireless communication • IEEE 802.11a • IEEE 802.11b • IEEE 802.11e • IEEE 802.11g • IEEE 802.11h • IEEE 802.11i • IEEE 802.11n • IEEE 802.11ac	Yes Yes Yes Yes Yes Yes Yes Yes
wireless approval	You will find the current list of countries at: www.siemens.de/funkzulassungen
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone • from CSA and UL	EN IEC 60079-0 : 2018, EN60079-7:2015 + A1 : 2018; II 3 G Ex ec IIC T4 Gc 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
accessories	
accessories	pre-assembled holder for attachment to a DIN rail
further information / internet-Links	
Internet-Link • 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	http://www.siemens.com/tia-selection-tool http://www.siemens.com/tia-selection-tool http://www.siemens.com/iwlan https://mall.industry.siemens.com http://www.siemens.com/industry/infocenter http://automation.siemens.com/bilddb http://www.siemens.com/cax https://support.industry.siemens.com
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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