

Product type designation

SCALANCE W788-2 M12

IWLAN ACCESS POINT, SCALANCE W788-2 M12, FOR USE OUTSIDE OF USA, 2 RADIOS, 6 N-CON. ANT.CONNECT. IEEE 802.11A/B/G/H/N, 2.4/5GHZ, BRUTTO 450 MBIT/S PRO RADIO, 1 X M12 (MAX. 1 GBIT/S), POE, 24VDC, IP65 (-20-+60 GRD C), POE, WPA2/802.11I/E, PLEASE NOTE NATIONAL APPROVALS! (CERT ID: RAPN-W2-M12-E3) Contains MPCIE-R1-ABGN-U3 SCOPE OF SUPPLY:MANUALS ON CD, GERMAN/ENGLISH.



Transmission rate

Transfer rate

- with WLAN / maximum
- for Industrial Ethernet

450 Mbit/s

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

M12 interface (8-pole, X-coded), PoE

M12 interface (4-pole, A-coded)

design of the removable storage

- C-PLUG
- KEY-PLUG

Yes

Yes

Interfaces / wireless

Number of radio cards / permanently installed

2

Transmission mode / for multiple input multiple output (MIMO)	3x3
Number of spatial streams	3
Number of electrical connections / for external antenna(s)	6
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 / 1 <ul style="list-style-type: none"> from M12 Power Connector (A-coded) for redundant power supply 	19.2 V
Supply voltage / 2 <ul style="list-style-type: none"> from M12 Power Connector (A-coded) for redundant power supply 	28.8 V
Supply voltage <ul style="list-style-type: none"> from Power-over-Ethernet acc. to IEEE802.3at for type 1 and IEEE802.3af from Power-over-Ethernet acc. to IEEE802.3at for type 2 	48 V 50 V
Consumed current <ul style="list-style-type: none"> at DC / at 24 V / typical with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical with Power-over-Ethernet according to IEEE802.3at for type 2 / typical 	0.63 A 0.22 A 0.3 A
Power loss [W] <ul style="list-style-type: none"> at DC / at 24 V / typical with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical with Power-over-Ethernet according to IEEE802.3at for type 2 / typical 	15 W 10.7 W 15 W

Permitted ambient conditions

Ambient temperature <ul style="list-style-type: none"> during operation during storage during transport 	-20 ... +60 °C -40 ... +85 °C -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	IP65
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Design, dimensions and weight

Width / of the enclosure / without antenna	200 mm
Height / of the enclosure / without antenna	176 mm
Depth / of the enclosure / without antenna	79 mm
Net weight	1.7 kg
Mounting type	For mounting on 35 mm DIN rail, an additional mounting adapter is required
<ul style="list-style-type: none"> • S7-300 rail mounting • S7-1500 rail mounting • wall mounting 	Yes Yes Yes

Wireless frequencies

Operating frequency	
<ul style="list-style-type: none"> • for WLAN in 2.4 GHz frequency band • for WLAN in 5 GHz frequency band 	2.41 ... 2.48 GHz 4.9 ... 5.8 GHz

Product properties, functions, components / general

Product function / Access Point Mode	Yes
Product function / Client Mode	Yes
Number of SSIDs	16
Product function	
<ul style="list-style-type: none"> • Dual Client • iPCF Access Point • iPCF client • iPCF-MC Access Point • iPCF-MC client 	No Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures' Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' Yes; Only in combination with 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
Number of iPCF-capable radio modules	2
Product function / iREF	No; In combination only with 'KEY-PLUG W780 iFeatures'
Number of iREF-capable radio modules	2

Product functions / management, configuration

Number of manageable IP addresses / in client	8
Product function	
<ul style="list-style-type: none"> • 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 • operation with Enterasys WLAN controller 	Yes Yes Yes Yes Yes Yes No No

<ul style="list-style-type: none"> • forced roaming with IWLAN 	Yes
<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 functions / Diagnosis

Product function	
<ul style="list-style-type: none"> • PROFINET IO diagnosis 	Yes
<ul style="list-style-type: none"> • Link Check 	No
<ul style="list-style-type: none"> • connection monitoring IP-Alive 	No
<ul style="list-style-type: none"> • localization via Aeroscout 	No
<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 v2 	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"> • in Client Mode / DHCP server via LAN 	No

Product functions / Redundancy

Protocol / is supported	
<ul style="list-style-type: none"> • STP/RSTP 	Yes

Product functions / Security

Product function	
<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 • access protection according to IEEE802.11i • WPA/WPA2 • TKIP/AES 	<p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Protocol / is supported <ul style="list-style-type: none"> • SSH 	<p>Yes</p>

Product functions / Time	
Protocol / is supported <ul style="list-style-type: none"> • SNTP • SIMATIC Time 	<p>Yes</p> <p>Yes</p>

Standards, specifications, approvals	
Standard <ul style="list-style-type: none"> • for FM • for hazardous zone • for safety / from CSA and UL • for hazardous zone / from CSA and UL 	<p>FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4</p> <p>EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X</p> <p>UL 60950-1 CSA C22.2 No. 60950-1</p> <p>ANSI/ISA 12.12.01-2013, CAN/CSA C22.2 No.213-M1987, CL. 1, Div. 2, GP. A,B,C,D, T4 / CL. 1, Zone 2, GP IIC</p>
Certificate of suitability <ul style="list-style-type: none"> • EC declaration of conformity • CE marking • C-Tick • CCC • E1 approval • Railway application in accordance with EN 50155 • Fire protection in accordance with EN 45545-2 • 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>Yes</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</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 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>

<ul style="list-style-type: none"> • IEEE 802.11i • IEEE 802.11n 	<p>Yes</p> <p>Yes</p>
Wireless approval	You will find the current list of countries at: www.siemens.de/funkzulassungen
Marine classification association <ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • Bureau Veritas (BV) • Det Norske Veritas (DNV) • Germanische Lloyd (GL) • Lloyds Register of Shipping (LRS) • Nippon Kaiji Kyokai (NK) • Polski Rejestr Statkow (PRS) 	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>

Further Information / Internet Links

Internet-Link <ul style="list-style-type: none"> • to website: 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/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>
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Security information

Security information	<p>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)</p>
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last modified: 13.06.2016