

Product type designation

SCALANCE W788-2 M12 EEC

IWLAN Access Point, SCALANCE W788-2 M12 EEC, 2 radios, 6 N-CON antenna connector, iFeatures support via KEY-PLUG, IEEE 802.11a/b/g/h/n, 2,4/5GHz, brutto 450 MBit/s per radio, 1x M12 max. 1 Gbit/s, PoE, redundant DC 24 V, M12 A-coded IP65, -40...+70°C, plug slot, WPA2/802.11i/e, conformal Coating EN 50155, EN 45545
Note national approvals! CERT ID: RAPN-W2-M12-E3, contains: MPCIE-R1-ABGN-U3, scope of supply: manuals on CD, German/English, caps M12, for use outside USA/Israel



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

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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 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
Supply voltage - 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 - 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] - 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 - during operation - during storage - during transport	-40 ... +74 °C -40 ... +85 °C -40 ... +85 °C
Relative humidity / at 25 °C / without condensation / during operation / maximum	100 %
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
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
Product feature / conformal coating	Yes
Mounting type	For mounting on 35 mm DIN rail, an additional mounting adapter is required
• S7-300 rail mounting	Yes
• S7-1500 rail mounting	Yes
• 35 mm DIN rail mounting	Yes
• wall mounting	Yes
Wireless frequencies	
Operating 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	Yes
Product function / Client Mode	Yes
Number of SSIDs	16
Product function	
• iPCF Access Point	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'
• iPCF client	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
• iPCF-MC Access Point	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'
• iPCF-MC client	Yes; Only in combination with 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
Number of iPCF-capable radio modules	0
Product function / iREF	No; In combination only with 'KEY-PLUG W780 iFeatures'
Number of iREF-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 • WDS	No Yes
Protocol / is supported • Address Resolution Protocol (ARP) • ICMP • Telnet • HTTP • HTTPS • TFTP • DCP • LLDP	Yes Yes Yes Yes Yes Yes Yes Yes
Identification & maintenance function • I&M0 - device-specific information • I&M1 – higher-level designation/location designation	Yes Yes

Product functions / Diagnosis

Product function • PROFINET IO diagnosis • Link Check • connection monitoring IP-Alive • localization via Aeroscout • SysLog	Yes No No Yes Yes
Protocol / is supported • SNMP v1 • SNMP v2 • SNMP v3	Yes Yes Yes

Product functions / VLAN

Product function • function VLAN with IWLAN	Yes
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Product functions / DHCP

Product function • DHCP client • in Client Mode / DHCP server via LAN • DHCP Option 82	Yes Yes Yes
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Product functions / Redundancy

Protocol / is supported • STP/RSTP	Yes
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Product functions / Security

Product function • ACL - MAC-based	Yes
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• 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	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 hazardous zone	EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
• for safety / from CSA and UL	UL 60950-1 CSA C22.2 No. 60950-1
• for hazardous zone / from CSA and UL	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
Certificate of suitability	
• EC declaration of conformity	Yes
• CE marking	Yes
• C-Tick	Yes
• CCC	No
• E1 approval	Yes
• Railway application in accordance with EN 50155	Yes
• Railway application in accordance with EN 50121-4	Yes
• Fire protection in accordance with EN 45545-2	Yes
• NEMA TS2	Yes
• IEC 61375	No
• IEC 61850-3	No
• NEMA4X	No
• Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af	Yes
• Power-over-Ethernet according to IEEE802.3at for type 2	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	Yes
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)	Yes
• Bureau Veritas (BV)	Yes
• DNV GL	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (NK)	Yes
• Polski Rejestr Statkow (PRS)	Yes
• Royal Institution of Naval Architects (RINA)	Yes

Further Information / Internet Links

Internet-Link	
• to website: TIA Selection Tool	http://www.siemens.com/tia-selection-tool
• to the website: IWLAN	http://www.siemens.com/iwlan
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx Download Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

Security information

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