

Product type designation



SCALANCE W788-2RR

IWLAN DUAL ACCESS POINT SCALANCE W788-2RR, FOR USE OUTSIDE OF USA 2 RADIO INTERFACES, IEEE 802.11 B/G/A/H, INDUSTRIAL WIRELESS LAN WITH RAPID ROAMING (IWLAN RR), 2.4/5 GHZ, UP TO 54MBIT/S, WPA2/802.11I/11E, ALTERNATIVE OPERATION WITH HIPATH WIRELESS CONTROLLER, NOTE NATIONAL APPROVALS, POE, IP65(-20-+60 DGR C), EN50155, SCOPE OF SUPPLY:2XANT 795-4MR, IP67 HYBRID PLUG CONNECTOR, MOUNT. MAT., MAN. ON CD ROM AVAILABLE AS SPARE PART ONLY

Transmission rate

• Transfer rate / with WLAN / maximum	54 Mbit/s
• Transfer rate / for Industrial Ethernet	10, 100 Mbit/s
Transfer rate / for Industrial Ethernet	
• minimum	10 Mbit/s
• maximum	100 Mbit/s
Transfer rate / Note	Due to the simultaneous use of several radio channels, a transmission rate of 108 Mbit/s is possible (turbo mode)

Interfaces

Number of electrical connections	
• for network components or terminal equipment	1
• for power supply	1
• for redundant voltage supply	1
Type of electrical connection	
• for network components or terminal equipment	Hybrid socket, RJ45 integrated
• for power supply	M12 interface (4-pole, A-coded), hybrid socket, PoE
design of the removable storage	

- C-PLUG
- KEY-PLUG

Yes

No

Interfaces / wireless

Number of radio cards / permanently installed	2
Number of electrical connections / for external antenna(s)	4
Type of electrical connection / for external antenna(s)	R-SMA (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 	24 V
<ul style="list-style-type: none"> • from IE Hybrid Cable 2x2 + 4x0.34 	24 V
Supply voltage / 2	
<ul style="list-style-type: none"> • from M12 Power Connector (A-coded) for redundant power supply 	48 V
<ul style="list-style-type: none"> • from IE Hybrid Cable 2x2 + 4x0.34 	48 V
Supply voltage	
<ul style="list-style-type: none"> • from Power-over-Ethernet acc. to IEEE802.3at for type 1 and IEEE802.3af 	48 V
Consumed current	
<ul style="list-style-type: none"> • at DC / at 24 V / typical 	0.295 A
<ul style="list-style-type: none"> • at DC / at 48 V / typical 	0.15 A
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	0.15 A
Power loss [W]	
<ul style="list-style-type: none"> • at DC / at 24 V / typical 	9 W
<ul style="list-style-type: none"> • at DC / at 48 V / typical 	9 W
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	9 W

Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-20 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +70 °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-xPRO/RR or W74x-1PRO/RR 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	125 mm
Height / of the enclosure / without antenna	88 mm
Depth / of the enclosure / without antenna	108 mm
Net weight	1.05 kg
Mounting type	
• S7-300 rail mounting	Yes
• S7-1500 rail mounting	No
• 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	
• Dual Client	Yes
• iHOP	Yes
• iPCF Access Point	Yes
• iPCF client	Yes
• iPCF-MC Access Point	Yes
• iPCF-MC client	Yes
Number of iPCF-capable radio modules	1
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	No
• iQoS	Yes
• forced roaming with IWLAN	Yes
• 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 / Diagnosis

Product function	
• PROFINET IO diagnosis	Yes
• Link Check	Yes
• connection monitoring IP-Alive	Yes
• localization via Aeroscout	Yes
• SysLog	Yes
Protocol / is supported	
• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	Yes

Product functions / VLAN

Product function	
• function VLAN with IWLAN	Yes

Product functions / DHCP

Product function	
• DHCP client	Yes
• in Client Mode / DHCP server via LAN	Yes

Product functions / Redundancy

Protocol / is supported	
• STP/RSTP	Yes

Product functions / Security

Product function	
• ACL - MAC-based	Yes
• Management security, ACL-IP based	No
• IEEE 802.1x (radius)	Yes
• NAT/NAPT	Yes

• access protection according to IEEE802.11i	Yes
• WPA/WPA2	Yes
• TKIP/AES	Yes
Protocol / is supported	
• SSH	Yes

Product functions / Time

Protocol / is supported	
• SNTP	Yes
• SIMATIC Time	No

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	ISA 12.12.01-2000, CSA C22.2 No. 213-M1987, CL. 1, Div. 2, GP. A,B,C,D, T4 / CL. 1, Zone 2, GP IIC, T4 / CL. 1, Zone 2, AEx nC IIC, T4
Certificate of suitability	
• EC declaration of conformity	Yes
• CE marking	Yes
• C-Tick	Yes
• E1 approval	Yes
• Railway application in accordance with EN 50155	Yes
• NEMA4X	No
• Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af	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	No
• IEEE 802.11ac	No
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)
- Bureau Veritas (BV)
- Det Norske Veritas (DNV)
- Germanische Lloyd (GL)
- Lloyds Register of Shipping (LRS)
- Nippon Kaiji Kyokai (NK)
- Polski Rejestr Statkow (PRS)

Yes
Yes
No
Yes
Yes
Yes
Yes

Accessories

accessories

2 antennas, hybrid connector included in scope of delivery

Further Information / Internet Links

Internet-Link

- 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

<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

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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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