

Product type designation

SCALANCE W786-2RR

IWLAN Access Point SCALANCE W786-2RR, only for operation in USA, IEEE 802.11b/g/a/h, Industrial Wireless LAN with rapid roaming (IWLAN RR) 2.4/5 GHz, up to 54 Mbit/s, WPA2/802.11i/11E, Observe national approvals, only for USA, 48 V DC, IP65 (-40-+70°C), 4x ext. antenna connections, 2 radio interfaces, PoE, RJ45 (Twisted Pair) socket Scope of delivery: mounting hardware, Only available as spare part



Transmission rate

Transfer rate	
<ul style="list-style-type: none"> • with WLAN / maximum • for Industrial Ethernet 	54 Mbit/s 10, 100 Mbit/s
Transfer rate / for Industrial Ethernet	
<ul style="list-style-type: none"> • minimum • maximum 	10 Mbit/s 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	
<ul style="list-style-type: none"> • for network components or terminal equipment • for power supply • for redundant voltage supply 	1 1 1
Type of electrical connection	
<ul style="list-style-type: none"> • for network components or terminal equipment • for power supply 	RJ45 socket 2-pole connector (48 V DC) or optionally available power supply adapter (4-pole 12 to 24 V DC or 3-pole 100 to 240 V AC)

design of the removable storage	
<ul style="list-style-type: none"> • C-PLUG 	Yes
<ul style="list-style-type: none"> • KEY-PLUG 	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	No

Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage	DC
Supply voltage / 1	
<ul style="list-style-type: none"> • from terminal block 	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
<ul style="list-style-type: none"> • from optional integrable power supply 	
<ul style="list-style-type: none"> — at AC 	100 ... 240 V
<ul style="list-style-type: none"> — at DC 	12 ... 24 V
Consumed current	
<ul style="list-style-type: none"> • at DC / at 24 V / typical 	0.34 A
<ul style="list-style-type: none"> • at DC / at 48 V / typical 	0.17 A
<ul style="list-style-type: none"> • at AC / at 230 V / typical 	0.04 A
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	0.34 A
Power loss [W]	
<ul style="list-style-type: none"> • at DC / at 24 V / typical 	8 W
<ul style="list-style-type: none"> • at DC / at 48 V / typical 	8 W
<ul style="list-style-type: none"> • at AC / at 230 V / typical 	8 W
<ul style="list-style-type: none"> • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	8 W

Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-40 ... +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	100 %
Ambient condition / for operation	When using the power supply 100 to 240 V AC, an operating temperature of -40 °C to +60 °C is permissible
Protection class IP	IP65

Design, dimensions and weight	
Width / of the enclosure / without antenna	251 mm
Height / of the enclosure / without antenna	251 mm
Depth / of the enclosure / without antenna	72 mm
Net weight	2.24 kg
Mounting type	For mast mounting, 35 mm DIN rail mounting and S7-300 rail mounting, an additional support plate is required
<ul style="list-style-type: none"> • S7-1500 rail mounting • wall mounting 	No 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 • iHOP • iPCF Access Point • iPCF client • iPCF-MC Access Point • iPCF-MC client 	Yes Yes Yes Yes Yes Yes
Number of iPCF-capable radio modules	1

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 • iQoS • forced roaming with IWLAN • WDS 	Yes Yes Yes Yes Yes Yes No No Yes Yes Yes
Protocol / is supported	
<ul style="list-style-type: none"> • 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

<ul style="list-style-type: none"> • TKIP/AES 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • SSH 	Yes
Product functions / Time	
Protocol / is supported	
<ul style="list-style-type: none"> • SNTP 	Yes
<ul style="list-style-type: none"> • SIMATIC Time 	No
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 hazardous zone 	EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
<ul style="list-style-type: none"> • for safety / from CSA and UL 	UL 60950-1 CSA C22.2 No. 60950-1
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"> • Railway application in accordance with EN 50155 	No
<ul style="list-style-type: none"> • NEMA4X 	Yes
<ul style="list-style-type: none"> • Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af 	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 	Yes
<ul style="list-style-type: none"> • IEEE 802.11h 	Yes
<ul style="list-style-type: none"> • IEEE 802.11i 	Yes
<ul style="list-style-type: none"> • IEEE 802.11n 	No
<ul style="list-style-type: none"> • IEEE 802.11ac 	No
Wireless approval	For operation in the USA, you can find more detailed information at: www.siemens.com/simatic-net/ik-info
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	Yes
<ul style="list-style-type: none"> • Bureau Veritas (BV) 	Yes
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	No
<ul style="list-style-type: none"> • Germanische Lloyd (GL) 	Yes
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	Yes

- Nippon Kaiji Kyokai (NK)
- Polski Rejestr Statkow (PRS)

Yes

No

Accessories

accessories

48 V DC terminal block 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

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)

last modified:

08/30/2018