

Product type designation

SCALANCE W784-1RR

IWLAN RR Access Point SCALANCE W784-1RR, for operation outside 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, DC 24 V, IP30 (-20-+60 °C) 2x ext. antenna connections 1 radio interface, PoE, RJ45 (Twisted Pair) socket Scope of delivery: 24 V DC terminal block, 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 4-pole screw terminal, PoE
design of the removable storage	

- C-PLUG
- KEY-PLUG

Yes

No

Interfaces / wireless

Number of radio cards / permanently installed	1
Number of electrical connections / for external antenna(s)	2
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 terminal block 	24 V
Supply voltage / 2 <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
Consumed current <ul style="list-style-type: none"> • at DC / at 24 V / typical • at DC / at 48 V / typical • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	0.23 A 0.12 A 0.12 A
Power loss [W] <ul style="list-style-type: none"> • at DC / at 24 V / typical • at DC / at 48 V / typical • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	6 W 6 W 6 W

Permitted ambient conditions

Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport 	-20 ... +60 °C -40 ... +70 °C -40 ... +70 °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 W784-x/xRR or W74x-1 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	IP30

Design, dimensions and weight

Width / of the enclosure / without antenna	100 mm
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Height / of the enclosure / without antenna	205 mm
Depth / of the enclosure / without antenna	20 mm
Net weight	0.29 kg
Mounting type	For mounting on 35 mm DIN and S7-300 mounting rail, an additional adapter plate is required
<ul style="list-style-type: none"> • S7-1500 rail mounting 	No
<ul style="list-style-type: none"> • wall mounting 	Yes

Wireless frequencies

Operating frequency	
<ul style="list-style-type: none"> • for WLAN in 2.4 GHz frequency band 	2.41 ... 2.48 GHz
<ul style="list-style-type: none"> • 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	8
Product function	
<ul style="list-style-type: none"> • Dual Client 	Yes
<ul style="list-style-type: none"> • iHOP 	Yes
<ul style="list-style-type: none"> • iPCF Access Point 	Yes
<ul style="list-style-type: none"> • iPCF client 	Yes
<ul style="list-style-type: none"> • iPCF-MC Access Point 	No
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • CLI 	Yes
<ul style="list-style-type: none"> • web-based management 	Yes
<ul style="list-style-type: none"> • MIB support 	Yes
<ul style="list-style-type: none"> • TRAPs via email 	Yes
<ul style="list-style-type: none"> • Configuration with STEP 7 	Yes
<ul style="list-style-type: none"> • configuration with STEP 7 in the TIA Portal 	Yes
<ul style="list-style-type: none"> • operation with IWLAN controller 	No
<ul style="list-style-type: none"> • operation with Enterasys WLAN controller 	No
<ul style="list-style-type: none"> • iQoS 	Yes
<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 	Yes
<ul style="list-style-type: none"> • connection monitoring IP-Alive 	Yes
<ul style="list-style-type: none"> • localization via Aeroscout 	Yes
<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 	Yes
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"> • ACL - MAC-based 	Yes
<ul style="list-style-type: none"> • Management security, ACL-IP based 	No
<ul style="list-style-type: none"> • IEEE 802.1x (radius) 	Yes
<ul style="list-style-type: none"> • NAT/NAPT 	Yes
<ul style="list-style-type: none"> • access protection according to IEEE802.11i 	Yes
<ul style="list-style-type: none"> • WPA/WPA2 	Yes
<ul style="list-style-type: none"> • TKIP/AES 	Yes
Protocol / is supported	

- SSH

Yes

Product functions / Time

Protocol / is supported

- SNTP
- SIMATIC Time

Yes

No

Standards, specifications, approvals

Standard

- for FM
- for hazardous zone
- for safety / from CSA and UL

FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4

EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X (only approved in combination with an enclosure with degree of protection of at least IP 54)

UL 60950-1 CSA C22.2 No. 60950-1

Certificate of suitability

- EC declaration of conformity
- CE marking
- C-Tick
- E1 approval
- Railway application in accordance with EN 50155
- NEMA4X
- Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af

Yes

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

No

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)

Yes

Yes

No

Yes

Yes

Yes

- Polski Rejestr Statkow (PRS)

No

Accessories

accessories

24 V DC screw terminal 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)

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