

Product type designation

SCALANCE W786-1 RJ45

IWLAN Access Point, SCALANCE W786-1 RJ45, 1 radio, 3 R-SMA antenna port, iFeatures support via key plug, IEEE 802.11a/b/g/h/n, 2.4/5GHz, gross 450 Mbit/s per radio, 1x RJ45 max. 1 Gbit/s, PoE, redundant 24 V DC, terminal block, 110 - 230 V AC via PS791-2AC IP65, -40..+60 °C, plug slot, WPA2/802.11i/e, observe national approvals! CERT ID: EAPN-W1-RJ-E3, includes: MPCIE-R1-ABGN-U3, scope of delivery: Manuals on CD-ROM, German/English, 1x terminal block; for operation outside of USA/Israel

Transfer rate

Transfer rate	
<ul style="list-style-type: none"> with WLAN / maximum for Industrial Ethernet 	450 Mbit/s 10, 100, 1000 Mbit/s
Transfer rate / for Industrial Ethernet	
<ul style="list-style-type: none"> minimum maximum 	10 Mbit/s 1000 Mbit/s

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 (24 V DC) or optionally available power supply adapter (4-pole 24 V DC or 3-pole 110 to 230 V AC)
design of the removable storage	
<ul style="list-style-type: none"> C-PLUG KEY-PLUG 	Yes Yes

Interfaces / wireless

Number of radio cards / permanently installed	1
Transmission mode / for multiple input multiple output (MIMO)	3x3
Number of spatial streams	3
Number of electrical connections / for external antenna(s)	3
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 	19.2 V
Supply voltage / 2 <ul style="list-style-type: none"> • from terminal block 	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 • from optional integrable power supply <ul style="list-style-type: none"> — at AC — at DC 	48 V 50 V 100 ... 240 V 12 ... 24 V
Consumed current <ul style="list-style-type: none"> • at DC / at 24 V / typical • at AC / at 230 V / typical • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	0.45 A 0.05 A 0.22 A
Power loss [W] <ul style="list-style-type: none"> • at DC / at 24 V / typical • at AC / at 230 V / typical • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	10.7 W 10.7 W 10.7 W

Ambient conditions

Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport 	-40 ... +60 °C -40 ... +85 °C -40 ... +70 °C
Relative humidity / at 25 °C / without condensation / during operation / maximum	100 %
Ambient condition / for operation	When using the 100 - 240 V AC power supply, an operating temperature of -40 °C to +60 °C is permissible
Protection class IP	IP65
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 <ul style="list-style-type: none"> • S7-300 rail mounting • S7-1500 rail mounting • 35 mm DIN rail mounting 	For mast mounting, 35 mm DIN rail mounting and S7-300 rail mounting, an additional support plate is required Yes No Yes

- wall mounting

Yes

Radio frequencies

Operating frequency

- 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 features, product functions, product components / general

Product function / Access Point Mode

Yes

Product function / Client Mode

Yes

Number of SSIDs

8

Product function

- iPCF Access Point
- iPCF client

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'

- iPCF-MC Access Point

No

- iPCF-MC client

Yes; Only in combination with 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'

Number of iPCF-capable radio modules

1

Product function / iREF

Yes; In combination only with 'KEY-PLUG W780 iFeatures'

Number of iREF-capable radio modules

1

Product function / iPRP

Yes; In combination with the 'KEY-PLUG W780 iFeatures' only

Product functions / management, configuration, engineering

Number of manageable IP addresses / in client

8

Product function

- 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
- forced roaming on IP down with IWLAN
- forced roaming on link down with IWLAN
- WDS

Yes

Yes

Yes

Yes

Yes

Yes

No

No

Yes

Yes

Yes

Protocol / is supported

- Address Resolution Protocol (ARP)
- ICMP
- Telnet
- HTTP
- HTTPS
- TFTP

Yes

Yes

Yes

Yes

Yes

Yes

• DCP	Yes
• LLDP	Yes
Identification & maintenance function	
• I&M0 - device-specific information	Yes
• I&M1 – higher-level designation/location designation	Yes

Product functions / Diagnostics

Product function	
• PROFINET IO diagnosis	Yes
• Link Check	No
• connection monitoring IP-Alive	No
• 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
• DHCP server	Yes
• DHCP Option 82	Yes

Product functions / redundancy

Protocol / is supported	
• STP/RSTP	Yes
• MSTP	Yes
• RSTP	Yes

Product functions / Security

Product function	
• ACL - MAC-based	Yes
• 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 synchronization (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

- Certificate of suitability
- EC declaration of conformity Yes
 - CE marking Yes
 - C-Tick Yes
 - E1 approval Yes
 - Railway application in accordance with EN 50155 No
 - Railway application in accordance with EN 50121-4 No
 - NEMA TS2 No
 - IEC 61375 No
 - IEC 61850-3 No
 - NEMA4X Yes
 - 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)
- Bureau Veritas (BV)
- DNV GL
- Lloyds Register of Shipping (LRS)
- Nippon Kaiji Kyokai (NK)
- Polski Rejestr Statkow (PRS)
- Royal Institution of Naval Architects (RINA)

Yes
Yes
Yes
Yes
Yes
Yes
Yes

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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