

Product type designation



SCALANCE W786-1 RJ45

IWLAN Access Point, SCALANCE W786-1 RJ45, 1 radio, 3 R-SMA antenna connector, iFeatures support via KEY-PLUG, IEEE 802.11a/b/g/h/n, 2,4/5GHz, brutto 450 MBit/s per radio, 1x RJ45 max. 1 Gbit/s, PoE, redundant DC 24 V, term. block, 110 - 230 V AC via PS791-2AC IP65, -40...+60°C, plug slot, WPA2/802.11i/e, Note national approvals! CERT ID: EAPN-W1-RJ-E3, contains: MPCIE-R1-ABGN-U3, scope of supply: manuals on CD, German/English, 1x terminal block; for use in USA

Transmission rate

Transfer rate

- | | |
|---------------------------|--|
| • with WLAN / maximum | 450 Mbit/s |
| • for Industrial Ethernet | 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 | 1 |
| • for power supply | 1 |
| • for redundant voltage supply | 1 |

Type of electrical connection

- | | |
|--|--|
| • for network components or terminal equipment | RJ45 socket |
| • for power supply | 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

- | | |
|------------|-----|
| • C-PLUG | Yes |
| • KEY-PLUG | 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 • from terminal block	19.2 V
Supply voltage / 2 • from terminal block	28.8 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 • from optional integrable power supply — at AC — at DC	48 V 50 V 100 ... 240 V 12 ... 24 V
Consumed current • 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] • 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

Permitted ambient conditions

Ambient temperature • 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 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
• S7-300 rail mounting	Yes
• S7-1500 rail mounting	No
• 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	8
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	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 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
• 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	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
• in Client Mode / DHCP server via LAN	Yes
• DHCP Option 82	Yes

Product functions / Redundancy

Protocol / is supported	
• STP/RSTP	Yes

Product functions / Security

Product function	
• ACL - MAC-based	Yes
• Management security, ACL-IP based	Yes
• IEEE 802.1x (radius)	Yes

• NAT/NAPT • access protection according to IEEE802.11i • WPA/WPA2 • TKIP/AES	No Yes Yes Yes
Protocol / is supported • SSH • RADIUS	Yes Yes
Product functions / Time	
Protocol / is supported • NTP • SNTP • SIMATIC Time	Yes Yes Yes
Standards, specifications, approvals	
Standard • for FM • for hazardous zone • for safety / from CSA and UL • for hazardous zone / 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 UL 60950-1 CSA C22.2 No. 60950-1 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 • CE marking • C-Tick • CCC • E1 approval • Railway application in accordance with EN 50155 • NEMA TS2 • IEC 61375 • IEC 61850-3 • NEMA4X • Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af • Power-over-Ethernet according to IEEE802.3at for type 2	Yes Yes Yes No Yes No No No Yes Yes Yes
Standard for wireless communication • IEEE 802.11a • IEEE 802.11b • IEEE 802.11e • IEEE 802.11g	Yes Yes Yes Yes

• IEEE 802.11h	Yes
• IEEE 802.11i	Yes
• IEEE 802.11n	Yes
Wireless approval	For operation in the USA, you can find more detailed information at: www.siemens.com/simatic-net/ik-info
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

Accessories	
accessories	24 V DC screw terminal included in scope of delivery

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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