

product type designation

W788-1 RJ45



product announced for discontinuation; IWLAN Access Point, SCALANCE W788-1 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 Mbps per radio, 1x RJ45 max. 1 Gbps, PoE, redundant 24 V DC, joint block, IP30, -20..+60 °C, plug slot, WPA2/802.11i/e, signaling contact observe national approvals! cert ID: RAPN-W1-RJ-E3, includes: MPCIE-R1-ABGN-U3, scope of delivery: manuals on CD-ROM, German/English, 2x joint blocks; for operation outside of USA/Israel

transfer rate

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

interfaces

number of electrical connections	
<ul style="list-style-type: none"> for network components or terminal equipment 	1
<ul style="list-style-type: none"> for power supply 	1
<ul style="list-style-type: none"> for redundant voltage supply 	1
type of electrical connection	
<ul style="list-style-type: none"> for network components or terminal equipment 	RJ45 socket
<ul style="list-style-type: none"> for power supply 	4-pole screw terminal, PoE

memory

design of the removable storage	
<ul style="list-style-type: none"> C-PLUG 	Yes
<ul style="list-style-type: none"> 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	Yes

signal inputs/outputs

number of digital inputs	1
number of digital outputs	1
type of electrical connection / at the digital inputs/outputs	4-pole screw terminal
signal range / at digital input	24 V DC, safety extra-low voltage
signal range / at digital output	24 V DC / 1 A

supply voltage, current consumption, power loss

type of voltage / of the supply voltage	DC
supply voltage	
<ul style="list-style-type: none"> from Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af 	48 V
<ul style="list-style-type: none"> from Power-over-Ethernet according to IEEE802.3at for type 2 	50 V

consumed current	
<ul style="list-style-type: none"> • at DC / at 24 V / typical • with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	0.45 A 0.22 A
power loss [W]	
<ul style="list-style-type: none"> • at DC / at 24 V / typical 	10.7 W
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
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	-20 ... +60 °C -40 ... +85 °C -40 ... +85 °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 W788-x or W748-x 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 weights	
width / of the enclosure / without antenna	200 mm
height / of the enclosure / without antenna	158 mm
depth / of the enclosure / without antenna	79 mm
net weight	1.7 kg
fastening method	For 35 mm DIN rail mounting an additional mounting adapter is required
<ul style="list-style-type: none"> • S7-300 rail mounting • S7-1500 rail mounting • 35 mm top hat DIN rail mounting • wall mounting 	Yes Yes Yes Yes
radio 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; depending on the country approvals 4.9 ... 5.8 GHz; depending on the country approvals
product features, product functions, product 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"> • 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'
<ul style="list-style-type: none"> • iPCF-MC Access Point • iPCF-MC client 	No 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	
<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 	Yes Yes Yes Yes Yes Yes No No

<ul style="list-style-type: none"> • forced roaming on IP down with IWLAN • forced roaming on link down with IWLAN • WDS 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>protocol / is supported</p> <ul style="list-style-type: none"> • Address Resolution Protocol (ARP) • ICMP • Telnet • HTTP • HTTPS • TFTP • DCP • LLDP 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>identification & maintenance function</p> <ul style="list-style-type: none"> • I&M0 - device-specific information • I&M1 - higher level designation/location designation 	<p>Yes</p> <p>Yes</p>
product functions / diagnostics	
<p>product function</p> <ul style="list-style-type: none"> • PROFINET IO diagnosis • link check • connection monitoring IP-Alive • localization via Aeroscout • SysLog 	<p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p>
<p>protocol / is supported</p> <ul style="list-style-type: none"> • SNMP v1 • SNMP v2 • SNMP v3 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
product functions / VLAN	
<p>product function</p> <ul style="list-style-type: none"> • function VLAN with IWLAN 	<p>Yes</p>
product functions / DHCP	
<p>product function</p> <ul style="list-style-type: none"> • DHCP client • DHCP server • DHCP Option 82 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
product functions / redundancy	
<p>protocol / is supported</p> <ul style="list-style-type: none"> • STP/RSTP • MSTP • RSTP 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
product functions / security	
<p>product function</p> <ul style="list-style-type: none"> • ACL - MAC-based • management security, ACL-IP based • IEEE 802.1x (radius) • NAT/NAPT • access protection according to IEEE802.11i • WPA/WPA2 • TKIP/AES 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
<p>protocol / is supported</p> <ul style="list-style-type: none"> • SSH • RADIUS 	<p>Yes</p> <p>Yes</p>
product functions / time	
<p>protocol / is supported</p> <ul style="list-style-type: none"> • NTP • SNTP • SIMATIC time synchronization (SIMATIC Time) 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
standards, specifications, approvals	
<p>standard</p> <ul style="list-style-type: none"> • for FM 	<p>FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4, FM16US0205X</p>
<p>certificate of suitability</p>	

• 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	No
• 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
standards, specifications, approvals / marine classification	
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• French marine classification society (BV)	Yes
• DNV GL	Yes
• Korean Register of Shipping (KRS)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (NK)	Yes
• Polski Rejestr Statkow (PRS)	Yes
• Royal Institution of Naval Architects (RINA)	Yes
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
• from CSA and UL	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 E240480
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes; GB3836.1, GB3836.8
• as marking	Ex nA IIC T4 Gc
accessories	
accessories	24 V DC screw terminal and screw terminal for digital input and output included in the scope of delivery
further information / internet links	
internet link	
• to website: TIA Selection Tool	http://www.siemens.com/tia-selection-tool
• to web page: selection aid 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/blddb
• to website: CAx-Download-Manager	http://www.siemens.com/cax
• to website: Industry Online Support	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

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