

### product type designation



### W788-2 RJ45 (USA)

IWLAN Access Point, SCALANCE W788-2 RJ45, 2 radios, 6 R-SMA antenna port, iFeatures support via KEY-PLUG, IEEE 802.11a/b/g/h/n, 2.4/5 GHz, 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-W2-RJ-E3, includes: MPCIE-R1-ABGN-U3, FCC ID: LYHMPICIE1V1 scope of delivery: manuals on CD-ROM, German/English, 2x joint blocks; only for operation in the USA.

Technical Product Detail Page

<https://i.siemens.com/1P6GK5788-2FC00-0AB0>

### transfer rate

transfer rate	
• with WLAN / maximum	450 Mbit/s
• for Industrial Ethernet	10, 100, 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	4-pole screw terminal, PoE

### memory

design of the removable storage	
• C-PLUG	Yes
• KEY-PLUG	Yes

### interfaces / wireless

number of radio cards / permanently installed	2
transmission mode / for multiple input multiple output (MIMO)	3x3
number of spatial streams	3
number of electrical connections / for external antenna(s)	6
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
input voltage / at digital input / at DC	24 V; safety extra-low voltage
output voltage / at digital output / at DC / maximum	24 V; 1A

### supply voltage, current consumption, power loss

type of voltage / of the supply voltage	DC
supply voltage	
• from Power-over-Ethernet according to IEEE802.3af for type 1 and IEEE802.3af	48 V
• from Power-over-Ethernet according to IEEE802.3af for type 2	50 V
consumed current	

<ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> <li>• with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical</li> <li>• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical</li> </ul>	0.63 A
	0.22 A
	0.3 A
power loss [W]	
<ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> <li>• with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical</li> <li>• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical</li> </ul>	15 W
	10.7 W
	15 W
<b>supply voltage / 1</b>	
<ul style="list-style-type: none"> <li>• from terminal block</li> </ul>	19.2 V
<b>supply voltage / 2</b>	
<ul style="list-style-type: none"> <li>• from terminal block</li> </ul>	28.8 V
<b>ambient conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	-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
<b>design, dimensions and weights</b>	
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"> <li>• S7-300 rail mounting</li> <li>• S7-1500 rail mounting</li> <li>• 35 mm DIN-rail mounting</li> <li>• wall mounting</li> </ul>	Yes
	Yes
	Yes
	Yes
<b>radio frequencies</b>	
operating frequency	
<ul style="list-style-type: none"> <li>• for WLAN in 2.4 GHz frequency band</li> <li>• for WLAN in 5 GHz frequency band</li> </ul>	2.41 ... 2.48 GHz; depending on the country approvals
	4.9 ... 5.8 GHz; depending on the country approvals
<b>product features, product functions, product components / general</b>	
product function / Access Point Mode	Yes
product function / client Mode	Yes
number of SSIDs	16
product function	
<ul style="list-style-type: none"> <li>• iPCF Access Point</li> <li>• iPCF client</li> <li>• iPCF-MC Access Point</li> <li>• iPCF-MC client</li> </ul>	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'
	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'
	Yes; Only in combination with 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
number of iPCF-capable radio modules	2
product function / iREF	Yes; In combination only with 'KEY-PLUG W780 iFeatures'
number of iREF-capable radio modules	2
product function / iPRP	Yes; In combination with the 'KEY-PLUG W780 iFeatures' only
<b>product functions / management, configuration, engineering</b>	
number of manageable IP addresses / in client	8
product function	
<ul style="list-style-type: none"> <li>• CLI</li> <li>• web-based management</li> <li>• MIB support</li> </ul>	Yes
	Yes
	Yes

<ul style="list-style-type: none"> <li>• TRAPs via email</li> <li>• configuration with STEP 7</li> <li>• configuration with STEP 7 in the TIA Portal</li> <li>• operation with IWLAN controller</li> <li>• operation with Enterasys WLAN controller</li> <li>• forced roaming on IP down with IWLAN</li> <li>• forced roaming on link down with IWLAN</li> <li>• WDS</li> </ul>	Yes Yes Yes No No Yes Yes Yes
protocol / is supported <ul style="list-style-type: none"> <li>• Address Resolution Protocol (ARP)</li> <li>• ICMP</li> <li>• Telnet</li> <li>• HTTP</li> <li>• HTTPS</li> <li>• TFTP</li> <li>• DCP</li> <li>• LLDP</li> </ul>	Yes Yes Yes Yes Yes Yes Yes Yes
identification & maintenance function <ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> <li>• I&amp;M1 - higher level designation/location designation</li> </ul>	Yes Yes
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
<b>product functions / diagnostics</b>	
product function <ul style="list-style-type: none"> <li>• PROFINET IO diagnosis</li> <li>• link check</li> <li>• connection monitoring IP-Alive</li> <li>• localization via Aeroscout</li> <li>• SysLog</li> </ul>	Yes No No Yes Yes
protocol / is supported <ul style="list-style-type: none"> <li>• SNMP v1</li> <li>• SNMP v2</li> <li>• SNMP v3</li> </ul>	Yes Yes Yes
<b>product functions / VLAN</b>	
product function <ul style="list-style-type: none"> <li>• function VLAN with IWLAN</li> </ul>	Yes
<b>product functions / DHCP</b>	
product function <ul style="list-style-type: none"> <li>• DHCP client</li> <li>• DHCP server</li> <li>• DHCP Option 82</li> </ul>	Yes Yes Yes
<b>product functions / redundancy</b>	
protocol / is supported <ul style="list-style-type: none"> <li>• STP/RSTP</li> <li>• MSTP</li> <li>• RSTP</li> </ul>	Yes Yes Yes
<b>product functions / security</b>	
product function <ul style="list-style-type: none"> <li>• ACL - MAC-based</li> <li>• management security, ACL-IP based</li> <li>• IEEE 802.1x (radius)</li> <li>• NAT/NAPT</li> <li>• access protection according to IEEE802.11i</li> <li>• WPA/WPA2</li> <li>• TKIP/AES</li> </ul>	Yes Yes Yes No Yes Yes Yes
protocol / is supported <ul style="list-style-type: none"> <li>• SSH</li> <li>• RADIUS</li> </ul>	Yes Yes
<b>product functions / time</b>	
protocol / is supported	

<ul style="list-style-type: none"> <li>• NTP</li> <li>• SNTP</li> <li>• SIMATIC time synchronization (SIMATIC Time)</li> </ul>	Yes Yes Yes
<b>standards, specifications, approvals</b>	
standard	
<ul style="list-style-type: none"> <li>• for FM</li> </ul>	FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4, FM16US0205X
<ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> </ul>	UL 60950-1 E115352, CSA C22.2 No. 60950-1
certificate of suitability	
<ul style="list-style-type: none"> <li>• EC Declaration of Conformity</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• C-Tick</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• E1 approval</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• railway application in accordance with EN 50155</li> </ul>	No
<ul style="list-style-type: none"> <li>• railway application in accordance with EN 50121-4</li> </ul>	No
<ul style="list-style-type: none"> <li>• NEMA TS2</li> </ul>	No
<ul style="list-style-type: none"> <li>• IEC 61375</li> </ul>	No
<ul style="list-style-type: none"> <li>• IEC 61850-3</li> </ul>	No
<ul style="list-style-type: none"> <li>• NEMA4X</li> </ul>	No
<ul style="list-style-type: none"> <li>• Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Power-over-Ethernet according to IEEE802.3at for type 2</li> </ul>	Yes
standard for wireless communication	
<ul style="list-style-type: none"> <li>• IEEE 802.11a</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11b</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11e</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11g</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11h</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11i</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11n</li> </ul>	Yes
wireless approval	For operation in the USA, you will find more information under: <a href="http://www.siemens.de/funkzulassungen">www.siemens.de/funkzulassungen</a>
<b>standards, specifications, approvals / marine classification</b>	
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DNV GL</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Korean Register of Shipping (KRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Nippon Kaiji Kyokai (NK)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Polski Rejestr Statkow (PRS)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Royal Institution of Naval Architects (RINA)</li> </ul>	Yes
<b>standards, specifications, approvals / hazardous environments</b>	
standard / 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"> <li>• from CSA and UL</li> </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
<ul style="list-style-type: none"> <li>• as marking</li> </ul>	Ex nA IIC T4 Gc
<b>accessories</b>	
accessories	24 V DC screw terminal and screw terminal for digital input and output included in the scope of delivery
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
<ul style="list-style-type: none"> <li>• to web page: WLAN country approval</li> </ul>	<a href="https://www.siemens.com/wireless-approvals">https://www.siemens.com/wireless-approvals</a>
<ul style="list-style-type: none"> <li>• to the website: IWLAN</li> </ul>	<a href="https://www.siemens.com/iwlan">https://www.siemens.com/iwlan</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to web page: SiePortal</li> </ul>	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>

- to website: Image database
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://www.automation.siemens.com/bilddb>  
<https://www.siemens.com/cax>  
<https://support.industry.siemens.com>

## security information

### security information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit [www.siemens.com/cybersecurity-industry](http://www.siemens.com/cybersecurity-industry). Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <https://www.siemens.com/cert>. (V4.7)

## Approvals / Certificates

### General Product Approval



[Declaration of Con-  
formity](#)



[Manufacturer Declara-  
tion](#)

[China RoHS](#)

### For use in hazardous locations

### Radio Equipment Type Approval Certi- ficate

### Maritime application



[FM](#)

[CCC-Ex](#)

[Miscellaneous](#)



### Maritime application



[NK / Nippon Kaiji Ky-  
okai](#)



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