

### 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.

### transfer rate

transfer rate	
• with WLAN / maximum	450 Mbit/s
• for Industrial Ethernet	10, 100, 1000 Mbit/s
transfer rate / for Industrial Ethernet	
• minimum	10 Mbit/s
• maximum	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
design of the removable storage	
• C-PLUG	Yes
• KEY-PLUG	Yes

### 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
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"> <li>• from Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af</li> <li>• from Power-over-Ethernet according to IEEE802.3at for type 2</li> </ul>	48 V
	50 V
consumed current	
<ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> </ul>	0.63 A
<ul style="list-style-type: none"> <li>• with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical</li> </ul>	0.22 A
<ul style="list-style-type: none"> <li>• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical</li> </ul>	0.3 A
power loss [W]	
<ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> </ul>	15 W
<ul style="list-style-type: none"> <li>• with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical</li> </ul>	10.7 W
<ul style="list-style-type: none"> <li>• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical</li> </ul>	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> </ul>	-20 ... +60 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +85 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-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> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7-1500 rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• 35 mm top hat DIN rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• wall mounting</li> </ul>	Yes
<b>radio frequencies</b>	
operating frequency	
<ul style="list-style-type: none"> <li>• for WLAN in 2.4 GHz frequency band</li> </ul>	2.41 ... 2.48 GHz; depending on the country approvals
<ul style="list-style-type: none"> <li>• for WLAN in 5 GHz frequency band</li> </ul>	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> </ul>	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'
<ul style="list-style-type: none"> <li>• iPCF client</li> </ul>	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
<ul style="list-style-type: none"> <li>• iPCF-MC Access Point</li> </ul>	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'
<ul style="list-style-type: none"> <li>• iPCF-MC client</li> </ul>	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> <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 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
<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	
• NTP	Yes
• SNTP	Yes
• SIMATIC time synchronization (SIMATIC Time)	Yes
<b>standards, specifications, approvals</b>	
standard	
• for FM	FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4, FM16US0205X
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	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	For operation in the USA, you will find more information under: www.siemens.de/funkzulassungen
<b>standards, specifications, approvals / marine classification</b>	
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
<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
• 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
• as marking	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	
• to website: TIA Selection Tool	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a>
• to web page: selection aid TIA Selection Tool	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a>
• to the website: IWLAN	<a href="http://www.siemens.com/iwlan">http://www.siemens.com/iwlan</a>
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to website: Information and Download Center	<a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a>
• to website: Image database	<a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>
• to website: CAX-Download-Manager	<a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>

## security information

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