

### product type designation



### W786-2 SFP (USA)

IWLAN Access Point SCALANCE W786-2 SFP, 2 radios, 6 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, 2x SFP 1 Gbit/s switches, redundant 24 V DC, terminal block, 110 - 230 V AC via PS791-2AC IP65, -40..+60 °C, plug slot, Temperature range dependent on SFP WPA2/802.11i/e, observe national approvals! CERT ID: EAPN-W2-SFP-E3, includes: MPCIE-R1-ABGN-U3, scope of delivery: Manuals on CD-ROM, German/English, for operation in the USA

transfer rate	
transfer rate	
• with WLAN / maximum	450 Mbit/s
• for Industrial Ethernet	1000
transfer rate / for Industrial Ethernet	
• minimum	1000 Mbit/s
• maximum	1000 Mbit/s
interfaces	
number of electrical connections	
• for power supply	1
• for redundant voltage supply	0
type of electrical connection	
• 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)
number of optical interfaces	
• for fiber optic cable / at 1000 Mbit/s	2
design of the optical interface	
• for fiber optic cable / at 1000 Mbit/s	SFP slot
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	No
supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage	
• from optional integrable power supply	
— at AC	100 ... 240 V
— at DC	12 ... 24 V
supply voltage / 1	

<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>	-40 ... +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 ... +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
<b>design, dimensions and weights</b>	
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
fastening method	For mast mounting, 35 mm DIN rail mounting and S7-300 rail mounting, an additional support plate 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>	No
<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	No; 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> </ul>	Yes
<ul style="list-style-type: none"> <li>web-based management</li> </ul>	Yes
<ul style="list-style-type: none"> <li>MIB support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>TRAPs via email</li> </ul>	Yes
<ul style="list-style-type: none"> <li>configuration with STEP 7</li> </ul>	Yes
<ul style="list-style-type: none"> <li>configuration with STEP 7 in the TIA Portal</li> </ul>	Yes
<ul style="list-style-type: none"> <li>operation with IWLAN controller</li> </ul>	No
<ul style="list-style-type: none"> <li>operation with Enterasys WLAN controller</li> </ul>	No
<ul style="list-style-type: none"> <li>forced roaming on IP down with IWLAN</li> </ul>	Yes
<ul style="list-style-type: none"> <li>forced roaming on link down with IWLAN</li> </ul>	Yes
<ul style="list-style-type: none"> <li>WDS</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>Address Resolution Protocol (ARP)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>ICMP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Telnet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>HTTP</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• HTTPS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• LLDP</li> </ul>	Yes
identification & maintenance function	
<ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M1 - higher level designation/location designation</li> </ul>	Yes
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>• PROFINET IO diagnosis</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• link check</li> </ul>	No
<ul style="list-style-type: none"> <li>• connection monitoring IP-Alive</li> </ul>	No
<ul style="list-style-type: none"> <li>• localization via Aeroscout</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SysLog</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	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> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP server</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP Option 82</li> </ul>	Yes
<b>product functions / redundancy</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>• STP/RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RSTP</li> </ul>	Yes
<b>product functions / security</b>	
product function	
<ul style="list-style-type: none"> <li>• ACL - MAC-based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• management security, ACL-IP based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.1x (radius)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• NAT/NAPT</li> </ul>	No
<ul style="list-style-type: none"> <li>• access protection according to IEEE802.11i</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• WPA/WPA2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TKIP/AES</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SSH</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RADIUS</li> </ul>	Yes
<b>product functions / time</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SIMATIC time synchronization (SIMATIC Time)</li> </ul>	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
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>	Yes
<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> <li>• NEMA4X</li> <li>• Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af</li> <li>• Power-over-Ethernet according to IEEE802.3at for type 2</li> </ul>	No
standard for wireless communication	
<ul style="list-style-type: none"> <li>• IEEE 802.11a</li> <li>• IEEE 802.11b</li> <li>• IEEE 802.11e</li> <li>• IEEE 802.11g</li> <li>• IEEE 802.11h</li> <li>• IEEE 802.11i</li> <li>• IEEE 802.11n</li> </ul>	Yes
wireless approval	You will find the current list of countries at: <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> <li>• French marine classification society (BV)</li> <li>• DNV GL</li> <li>• Korean Register of Shipping (KRS)</li> <li>• Lloyds Register of Shipping (LRS)</li> <li>• Nippon Kaiji Kyokai (NK)</li> <li>• Polski Rejestr Statkow (PRS)</li> <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
<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 included in scope of delivery
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>• to website: TIA Selection Tool</li> <li>• to web page: selection aid TIA Selection Tool</li> <li>• to the website: IWLAN</li> <li>• to website: Industry Mall</li> <li>• to website: Information and Download Center</li> <li>• to website: Image database</li> <li>• to website: CAx-Download-Manager</li> <li>• to website: Industry Online Support</li> </ul>	<a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a> <a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a> <a href="http://www.siemens.com/iwlan">http://www.siemens.com/iwlan</a> <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a> <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a> <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>security information</b>	
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 <a href="http://www.siemens.com/industrialsecurity">http://www.siemens.com/industrialsecurity</a> . To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <a href="http://support.automation.siemens.com">http://support.automation.siemens.com</a> . (V3.4)

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