

### Product type designation

### SCALANCE W788-1PRO

IWLAN ACCESS POINT SCALANCE W788-1PRO, FOR USE OUTSIDE OF USA, 1 RADIO INTERFACE, IEEE 802.11B/G/A/H, INDUSTRIAL WIRELESS LAN (IWLAN) 2.4/5 GHZ, UP TO 54MBIT/S, WPA2/802.11I/11E, NOTE NATIONAL APPROVALS, POE, IP65(-20-+60 DGR C), EN50155, SCOPE OF SUPPLY: 2XANT 795-4MR, IP67 HYBRID-PLUG CONNECTOR, MOUNT. MAT., MAN. ON CD ROM AVAILABLE AS SPARE PART ONLY



### Transmission rate

<ul style="list-style-type: none"> <li>• Transfer rate / with WLAN / maximum</li> </ul>	54 Mbit/s
<ul style="list-style-type: none"> <li>• Transfer rate / for Industrial Ethernet</li> </ul>	10, 100 Mbit/s
Transfer rate / for Industrial Ethernet	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	10 Mbit/s
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	100 Mbit/s
Transfer rate / Note	Due to the simultaneous use of several radio channels, a transmission rate of 108 Mbit/s is possible (turbo mode)

### Interfaces

Number of electrical connections	
<ul style="list-style-type: none"> <li>• for network components or terminal equipment</li> </ul>	1
<ul style="list-style-type: none"> <li>• for power supply</li> </ul>	1
<ul style="list-style-type: none"> <li>• for redundant voltage supply</li> </ul>	1
Type of electrical connection	
<ul style="list-style-type: none"> <li>• for network components or terminal equipment</li> </ul>	Hybrid socket, RJ45 integrated
<ul style="list-style-type: none"> <li>• for power supply</li> </ul>	M12 interface (4-pole, A-coded), hybrid socket, PoE
design of the removable storage	

- C-PLUG
- KEY-PLUG

Yes

No

### Interfaces / wireless

Number of radio cards / permanently installed	1
Number of electrical connections / for external antenna(s)	2
Type of electrical connection / for external antenna(s)	R-SMA (socket)
Product feature / external antenna can be mounted directly on device	Yes

### Supply voltage, current consumption, power loss

Type of voltage / of the supply voltage	DC
Supply voltage / 1	
<ul style="list-style-type: none"> <li>• from M12 Power Connector (A-coded) for redundant power supply</li> </ul>	24 V
<ul style="list-style-type: none"> <li>• from IE Hybrid Cable 2x2 + 4x0.34</li> </ul>	24 V
Supply voltage / 2	
<ul style="list-style-type: none"> <li>• from M12 Power Connector (A-coded) for redundant power supply</li> </ul>	48 V
<ul style="list-style-type: none"> <li>• from IE Hybrid Cable 2x2 + 4x0.34</li> </ul>	48 V
Supply voltage	
<ul style="list-style-type: none"> <li>• from Power-over-Ethernet acc. to IEEE802.3at for type 1 and IEEE802.3af</li> </ul>	48 V
Consumed current	
<ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> </ul>	0.25 A
<ul style="list-style-type: none"> <li>• at DC / at 48 V / typical</li> </ul>	0.125 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>	0.125 A
Power loss [W]	
<ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> </ul>	7 W
<ul style="list-style-type: none"> <li>• at DC / at 48 V / typical</li> </ul>	7 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>	7 W

### Permitted ambient conditions

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 ... +70 °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 used under hazardous conditions (Zone 2), the SCALANCE W788-xPRO/RR or W74x-1PRO/RR 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	IP65
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### Design, dimensions and weight

Width / of the enclosure / without antenna	125 mm
Height / of the enclosure / without antenna	88 mm
Depth / of the enclosure / without antenna	108 mm
Net weight	1.05 kg
Mounting type	
<ul style="list-style-type: none"> <li>• S7-300 rail mounting</li> <li>• S7-1500 rail mounting</li> <li>• wall mounting</li> </ul>	<p>Yes</p> <p>No</p> <p>Yes</p>

### Wireless frequencies

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>	<p>2.41 ... 2.48 GHz</p> <p>4.9 ... 5.8 GHz</p>

### Product properties, functions, 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"> <li>• Dual Client</li> <li>• iHOP</li> <li>• iPCF Access Point</li> <li>• iPCF client</li> <li>• iPCF-MC Access Point</li> <li>• iPCF-MC client</li> </ul>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
Number of iPCF-capable radio modules	0

### Product functions / management, configuration

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>• iQoS</li> <li>• forced roaming with IWLAN</li> <li>• WDS</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>

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	Yes
• connection monitoring IP-Alive	Yes
• 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

### Product functions / Redundancy

Protocol / is supported	
• STP/RSTP	Yes

### Product functions / Security

Product function	
• ACL - MAC-based	Yes
• Management security, ACL-IP based	No
• IEEE 802.1x (radius)	Yes
• NAT/NAPT	Yes

<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

### Product functions / Time

Protocol / is supported	
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SIMATIC Time</li> </ul>	No

### Standards, specifications, approvals

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
<ul style="list-style-type: none"> <li>• for hazardous zone</li> </ul>	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>• for safety / from CSA and UL</li> </ul>	UL 60950-1 CSA C22.2 No. 60950-1
<ul style="list-style-type: none"> <li>• for hazardous zone / from CSA and UL</li> </ul>	ISA 12.12.01-2000, CSA C22.2 No. 213-M1987, CL. 1, Div. 2, GP. A,B,C,D, T4 / CL. 1, Zone 2, GP IIC, T4 / CL. 1, Zone 2, AEx nC IIC, T4
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>	Yes
<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
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>	No
<ul style="list-style-type: none"> <li>• IEEE 802.11ac</li> </ul>	No
Wireless approval	You will find the current list of countries at: <a href="http://www.siemens.de/funkzulassungen">www.siemens.de/funkzulassungen</a>
Marine classification association	

- |   |     |
|---|-----|
| • American Bureau of Shipping Europe Ltd. (ABS) | Yes |
| • Bureau Veritas (BV)                           | Yes |
| • Det Norske Veritas (DNV)                      | No  |
| • Germanische Lloyd (GL)                        | Yes |
| • Lloyds Register of Shipping (LRS)             | Yes |
| • Nippon Kaiji Kyokai (NK)                      | Yes |
| • Polski Rejestr Statkow (PRS)                  | Yes |

### Accessories

accessories	2 antennas, hybrid connector included in scope of delivery
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### Further Information / Internet Links

#### Internet-Link

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|---|---|
| • to website: 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>                                 |
| • to website: Industry Online Support         | <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>             |

### 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 updates as they occur, sign up for a product-specific newsletter. For more information, visit <http://support.automation.siemens.com>. (V3.4)

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