

product type designation



W788-2 M12

IWLAN Access Point, SCALANCE W788-2 M12, 2 radios, 6 N-CON antenna port, iFeatures support via KEY-PLUG, IEEE 802.11a/b/g/h/n, 2.4/5GHz, gross 450 Mbit/s per radio, 1x M12 max. 1 Gbit/s, PoE, redundant 24 V DC, M12 A-coded IP65, -20...+60 °C, plug slot, WPA2/802.11i/e, observe national approvals! CERT. ID RAPN-W2-M12-E3, includes: MPCIE-R1-ABGN-U3, scope of delivery: Manuals on CD-ROM, German/English, M12 sealing caps, for operation outside of USA/Israel .

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	M12 interface (8-pole, X-coded), PoE
• for power supply	M12 interface (4-pole, A-coded)
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)	N-Connect (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	
• from Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af	48 V
• from Power-over-Ethernet according to IEEE802.3at for type 2	50 V
consumed current	
• at DC / at 24 V / typical	0.63 A
• with Power-over-Ethernet according to IEEE802.3at for	0.22 A

type 1 and IEEE802.3af / typical	
with Power-over-Ethernet according to IEEE802.3at for type 2 / typical	0.3 A
power loss [W]	
at DC / at 24 V / typical	15 W
with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical	10.7 W
with Power-over-Ethernet according to IEEE802.3at for type 2 / typical	15 W
supply voltage / 1	
from M12 Power Connector (A-coded) for redundant power supply	19.2 V
supply voltage / 2	
from M12 Power Connector (A-coded) for redundant power supply	28.8 V
ambient conditions	
ambient temperature	
during operation	-20 ... +60 °C
during storage	-40 ... +85 °C
during transport	-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	IP65
design, dimensions and weights	
width / of the enclosure / without antenna	200 mm
height / of the enclosure / without antenna	176 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
S7-300 rail mounting	Yes
S7-1500 rail mounting	Yes
35 mm top hat DIN rail mounting	Yes
wall mounting	Yes
radio frequencies	
operating frequency	
for WLAN in 2.4 GHz frequency band	2.41 ... 2.48 GHz; depending on the country approvals
for WLAN in 5 GHz frequency band	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	16
product function	
iPCF Access Point	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'
iPCF client	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
iPCF-MC Access Point	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures'
iPCF-MC client	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
product functions / management, configuration, engineering	
number of manageable IP addresses / in client	8
product function	
CLI	Yes
web-based management	Yes
MIB support	Yes
TRAPs via email	Yes
configuration with STEP 7	Yes

• configuration with STEP 7 in the TIA Portal • operation with IWLAN controller • operation with Enterasys WLAN controller • forced roaming on IP down with IWLAN • forced roaming on link down with IWLAN • WDS	Yes No No Yes Yes Yes
protocol / is supported • Address Resolution Protocol (ARP) • ICMP • Telnet • HTTP • HTTPS • TFTP • DCP • LLDP	Yes Yes Yes Yes Yes Yes Yes Yes
identification & maintenance function • I&M0 - device-specific information • I&M1 - higher level designation/location designation	Yes Yes
product functions / diagnostics	
product function • PROFINET IO diagnosis • link check • connection monitoring IP-Alive • localization via Aeroscout • SysLog	Yes No No Yes Yes
protocol / is supported • SNMP v1 • SNMP v2 • SNMP v3	Yes Yes Yes
product functions / VLAN	
product function • function VLAN with IWLAN	Yes
product functions / DHCP	
product function • DHCP client • DHCP server • DHCP Option 82	Yes Yes Yes
product functions / redundancy	
protocol / is supported • STP/RSTP • MSTP • RSTP	Yes Yes Yes
product functions / security	
product function • ACL - MAC-based • management security, ACL-IP based • IEEE 802.1x (radius) • NAT/NAPT • access protection according to IEEE802.11i • WPA/WPA2 • TKIP/AES	Yes Yes Yes No Yes Yes Yes
protocol / is supported • SSH • RADIUS	Yes Yes
product functions / time	
protocol / is supported • NTP • SNTP • SIMATIC time synchronization (SIMATIC Time)	Yes Yes Yes
standards, specifications, approvals	

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	Yes
railway application in accordance with EN 50121-4	Yes
fire protection in accordance with EN 45545-2	Yes
NEMA TS2	No
IEC 61375	No
IEC 61850-3	No
NEMA4X	No
Power-over-Ethernet according to 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
as marking	Ex nA IIC T4 Gc
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/bilddb
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 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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