SIEMENS

Data sheet

6GK5786-1FC00-0AB0

product type designation



W786-1 RJ45 (USA)

product announced for discontinuation; IWLAN Access Point, SCALANCE W786-1 RJ45, 1 radio, 3 R-SMA- antenna port, iFeatures support via KEY-PLUG, IEEE 802.11a/b/g/h/n, 2.4/5GHz, gross 450 Mbps per radio, 1x RJ45 max. 1 Gbps, PoE, redundant 24 V DC, joint block, 110 - 230 V AC via PS791-2AC IP65, -40..+60 °C, plug slot, WPA2/802.11i/e, observe national approvals! cert ID: EAPN-W1-RJ-E3, includes: MPCIE-R1-ABGN-U3, scope of delivery: manuals on CD-ROM, German/English, 1x joint block; 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	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)
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	1
transmission mode / for multiple input multiple output (MIMO)	3x3
number of spatial streams	3
number of electrical connections / for external antenna(s)	3
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 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
 from optional integrable power supply 	
— at AC	100 240 V

— at DC	12 24 V
consumed current	12 24 V
at DC / at 24 V / typical	0.45 A
	0.45 A
at AC / at 230 V / typical	0.03 A
 with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	0.22 A
power loss [W]	
 at DC / at 24 V / typical 	10.7 W
 at AC / at 230 V / typical 	10.7 W
 with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical 	10.7 W
supply voltage / 1	
from terminal block	19.2 V
supply voltage / 2	
from terminal block	28.8 V
ambient conditions	
ambient temperature	
during operation	-40 +60 °C
during storage	-40 +85 °C
during transport	-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 $^\circ\text{C}$ to +60 $^\circ\text{C}$ is permissible
protection class IP	IP65
design, dimensions and weights	
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
S7-300 rail mounting	Yes
 S7-1500 rail mounting 	No
 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 / gene	eral
product function / Access Point Mode	Yes
product function / client Mode	Yes
number of SSIDs	8
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	No
• iPCF-MC client	Yes; Only in combination with 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
number of iPCF-capable radio modules	1
product function / iREF	Yes; In combination only with 'KEY-PLUG W780 iFeatures'
number of iREF-capable radio modules	
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	0
•	Vac
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	Yes
operation with IWLAN controller	No
operation with Enterasys WLAN controller	No
forced roaming on IP down with IWLAN	Yes
 forced roaming on link down with IWLAN 	Yes
• WDS	Yes
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 / diagnostics	
product function	
PROFINET IO diagnosis	Yes
• link check	No
connection monitoring IP-Alive	No
localization via Aeroscout	Yes
• SysLog	Yes
protocol / is supported	
• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	Yes
product functions / VLAN	
product function	
product function function VLAN with IWLAN 	Yes
product function • function VLAN with IWLAN product functions / DHCP	Yes
product function • function VLAN with IWLAN product functions / DHCP product function	
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client	Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server	Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82	Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy	Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported	Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP	Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP	Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP	Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP product functions / security	Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP product functions / security product functions / security	Yes Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP product functions / security product function • ACL - MAC-based	Yes Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP product functions / security product functions / security product function • ACL - MAC-based • management security, ACL-IP based	Yes Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP product functions / security product functions / security product function • ACL - MAC-based • management security, ACL-IP based • IEEE 802.1x (radius)	Yes Yes Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP product functions / security product function • ACL - MAC-based • management security, ACL-IP based • IEEE 802.1x (radius) • NAT/NAPT	Yes Yes Yes Yes Yes Yes Yes Yes Yes No
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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	Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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	Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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 Yes Yes Yes Yes Yes Yes No Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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 protocol / is supported	Yes Yes Yes Yes Yes Yes Yes Yes No Yes Yes No Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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 protocol / is supported • SSH	Yes Yes Yes Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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 protocol / is supported • SSH • RADIUS	Yes Yes Yes Yes Yes Yes Yes Yes No Yes Yes No Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP server • DHCP Option 82 protocol / is supported • STP/RSTP • MSTP • RSTP 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 protocol / is supported • SSH • RADIUS product functions / time	Yes Yes Yes Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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 protocol / is supported • SSH • RADIUS product functions / time protocol / is supported	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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 protocol / is supported • SSH • RADIUS product functions / time protocol / is supported • NTP	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
product function • function VLAN with IWLAN product functions / DHCP product function • DHCP client • DHCP option 82 product functions / redundancy protocol / is supported • STP/RSTP • MSTP • RSTP 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 protocol / is supported • SSH • RADIUS product functions / time protocol / is supported	Yes Yes Yes Yes Yes Yes Yes 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 	No
 railway application in accordance with EN 50121-4 	No
NEMA TS2	No
• IEC 61375	No
• IEC 61850-3	No
NEMA4X	Yes
 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
tandards, 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
tandards, 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
ccessories	
accessories	24 V DC screw terminal included in scope of delivery
urther 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
ecurity 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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