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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

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)

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	
● at DC / at 24 V / typical	0.45 A
● at AC / at 230 V / typical	0.05 A
● with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical	0.22 A

6/18/2025

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 °C to +60 °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 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	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	1
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	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

6/18/2025

● 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 function / is supported / identification link	Yes; acc. to IEC 61406-1:2022

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	
● function VLAN with IWLAN	Yes

product functions / DHCP

product function	
● DHCP client	Yes
● DHCP server	Yes
● DHCP Option 82	Yes

product functions / redundancy

protocol / is supported	
● STP/RSTP	Yes
● MSTP	Yes
● RSTP	Yes

product functions / security

product function	
● ACL - MAC-based	Yes
● management security, ACL-IP based	Yes
● IEEE 802.1x (radius)	Yes
● NAT/NAPT	No
● access protection according to IEEE802.11i	Yes
● WPA/WPA2	Yes
● TKIP/AES	Yes
protocol / is supported	
● SSH	Yes
● RADIUS	Yes

product functions / time

protocol / is supported	
● NTP	Yes
● SNTP	Yes
● SIMATIC time synchronization (SIMATIC Time)	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
● for safety / from CSA and UL	UL 60950-1 E115352, CSA C22.2 No. 60950-1
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
reference code	
● according to IEC 81346-2:2019	KFE

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; GB3836.1, GB3836.8
● as marking	Ex nA IIC T4 Gc

accessories

accessories	24 V DC screw terminal included in scope of delivery

further information / internet links

internet link	
● to website: Selection guide for cables and connectors	https://support.industry.siemens.com/cs/ww/en/view/109766358
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to web page: WLAN country approval	https://www.siemens.com/wireless-approvals
● to the website: IWLAN	https://www.siemens.com/iwlan
● to website: Industrial communication	https://www.siemens.com/simatic-net
● to web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb
● to website: CAx-Download-Manager	https://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 cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and

6/18/2025

networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval

CE EG-Konf.	Declaration of Conformity	CCC	EAC	Manufacturer Declaration	China RoHS

For use in hazardous locations			Radio Equipment Type Approval Certificate	Maritime application
IECEx	ATEX	CCC-Ex	Miscellaneous	Lloyd's Register LRS

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6/18/2025