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Data sheet   **6GK5786-2HC00-0AB0**

product type designation	W786-2IA RJ45 (USA)

IWLAN Access Point, SCALANCE W786-2IA RJ45, 2 radios, 6 internal antennas, iFeatures support via key plug, IEEE 802.11a/b/g/h/n, 2.4/5GHz, gross 450 Mbit/s per radio, 1x RJ45 max. 1 Gbit/s, PoE, redundant 24 V DC, terminal block, 110 - 230 V AC via PS791-2AC IP65, -40..+60 °C, plug slot, WPA2/802.11i/e, observe national approvals! CERT ID: EAPN-W2-RJ-I3, includes: MPCIE-R1-ABGN-U3, scope of delivery: Manuals on CD-ROM, German/English, 1x terminal 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	2
transmission mode / for multiple input multiple output (MIMO)	3x3
number of spatial streams	3
number of internal antennas	6
antenna gain compared to spherical radiator / of the WLAN antenna	
● in the 2.4 GHz frequency band	3 dB
● in the 5 GHz frequency band	4 dB

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	

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— at AC	100 ... 240 V
— at DC	12 ... 24 V
consumed current	
● at DC / at 24 V / typical	0.63 A
● at AC / at 230 V / typical	0.07 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	15 W
● at AC / at 230 V / typical	15 W
● with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical	15 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 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	Yes; 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

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● 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	
● 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
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

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

accessories	
accessories	24 V DC screw terminal included in scope of delivery

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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