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Data sheet 6GK5748-1FC00-0AA0



IWLAN client, SCALANCE W748-1 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 Mbit/s per radio, 1x RJ45 max. 1 Gbit/s, PoE, redundant 24 V DC, terminal block, IP30, Temp: -20 ...+60 °C, WPA2/802.11i/e, Signaling contact observe national approvals! CERT ID: RAPN-W1-RJ-E3, includes: MPCIE-R1-ABGN-U3, scope of delivery: Manuals on CD-ROM, German/English, 2x terminal blocks; 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	RJ45 socket
• for power supply	4-pole screw terminal, PoE
design of the removable storage	
• C-PLUG	Yes
• KEY-PLUG	Yes

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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	Yes

signal inputs/outputs	
number of digital inputs	1
number of digital outputs	1
type of electrical connection / at the digital inputs/outputs	4-pole screw terminal
signal range / at digital input	24 V DC, safety extra-low voltage
signal range / at digital output	24 V DC / 1 A

supply voltage, current consumption, power loss	
type of voltage / of the supply voltage	DC
supply voltage / 1	
• from terminal block	19.2 V
supply voltage / 2	
• from terminal block	28.8 V
supply voltage	
• from Power-over-Ethernet acc. to IEEE802.3at for type 1 and IEEE802.3af	48 V
• from Power-over-Ethernet acc. to IEEE802.3at for type 2	50 V
consumed current	
• at DC / at 24 V / typical	0.45 A
• with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical	0.22 A
• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical	0.21 A
power loss [W]	
• at DC / at 24 V / typical	10.7 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	10.7 W

ambient conditions	
ambient temperature	
• during operation	-20 ... +60 °C

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• 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	IP30

design, dimensions and weights	
width / of the enclosure / without antenna	200 mm
height / of the enclosure / without antenna	158 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
• operating frequency / 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	No
product function / client Mode	Yes
product function	
• iPCF client	Yes; Only in combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
• iPCF-MC client	No; Only in combination with 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 iFeatures'
number of iPCF-capable radio modules	1
product function / iPRP	Yes; In combination with the 'KEY-PLUG W780 iFeatures' or 'KEY-PLUG W740 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
• WDS	No
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
• SysLog	Yes
protocol / is supported	
• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	Yes
product functions / VLAN	
product function	
• function VLAN with IWLAN	No
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

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product functions / security	
product function	
• ACL - MAC-based	Yes
• management security, ACL-IP based	Yes
• IEEE 802.1x (radius)	Yes
• NAT/NAPT	Yes
• 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
• for hazardous zone	EN 60079-15:2005, EN 60079-0:2006, II 3 G Ex nA II T4 KEMA 07 ATEX 0145X
• for safety / from CSA and UL	UL 60950-1, 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	No
• Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af	Yes
• Power-over-Ethernet according to IEEE802.3at for type 2	Yes

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• standard for wireless communication / IEEE 802.11a	Yes
• standard for wireless communication / IEEE 802.11b	Yes
• standard for wireless communication / IEEE 802.11e	Yes
• standard for wireless communication / IEEE 802.11g	Yes
• standard for wireless communication / IEEE 802.11h	Yes
• standard for wireless communication / IEEE 802.11i	Yes
• standard for wireless communication / IEEE 802.11n	Yes
wireless approval	You will find the current list of countries at: www.siemens.de/funkzulassungen
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

accessories

accessories	24 V DC screw terminal and screw terminal for digital input and output included in the scope of delivery

further information / internet-Links

Internet-Link	
• to website: 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

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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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