SIEMENS

Data sheet	6GK1411-6CA40-0AA0

Product type designation

IE/WSN-PA LINK

IE/WSN-PA LINK WITH INTEGRATED ANTENNA; NETWORK TRANSITION BETWEEN WIRELESS HART AND ETHERNET; ETHERNET 10/100 MBIT/S; TCP/IP, MODUS TCP; WIRELESS HART WITH 2.4 GHZ; NATIONAL APPROVAL USA, CANADA, EUROPE,EX-CERTIFICATION ZONE 2; RS 485 WITH MODBUS RTU.

Transmission rate

Transfer rate	
• at the 1st interface	10 ... 100 Mbit/s
• at the 2nd interface	10 ... 100 Mbit/s
• at interface 3	9.6 ... 57.6 kbit/s

Interfaces

Number of electrical connections	
• at the 1st interface / acc. to Industrial Ethernet	1
• at the 2nd interface / acc. to Industrial Ethernet	1
• at interface 3 / acc. to RS 485	1
• for power supply	1
Type of electrical connection	
• at the 1st interface / acc. to Industrial Ethernet	RJ45 port
• at the 2nd interface / acc. to Industrial Ethernet	RJ45 port
• at interface 3 / acc. to RS 485	2-pole terminal strip
• for power supply	3-pole terminal strip

Interfaces / wireless

Number of radio cards / permanently installed	1
Number of internal antennas	1
Number of electrical connections / for external antenna(s)	0
Type of electrical connection / for external antenna(s)	-

Supply voltage, current consumption, power loss

Type of voltage supply	DC
Supply voltage / external	24 V
Supply voltage / external	20 ... 28 V
Type of voltage / of the supply voltage	DC
Consumed current / from external supply voltage / at DC / at 24 V / maximum	0.5 A
Power loss [W] / maximum	12 W

Permitted ambient conditions

Ambient temperature	
• during operation	-40 ... +70 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
Relative humidity / at 25 °C / without condensation / during operation / maximum	90 %
Protection class IP	IP 65

Design, dimensions and weight

Width / of the enclosure	229 mm
Height / of the enclosure	
• without antenna	306 mm
• with antenna	354 mm
Depth / of the enclosure	89 mm
Net weight	4.54 kg
Mounting type	Material for mast mounting included in scope of delivery
• wall mounting	Yes
• mast mounting	Yes

Wireless frequencies

Operating frequency / for WirelessHART in 2.4 GHz frequency band	2.4 ... 2.5 GHz

Performance data / WirelessHART

Number of WirelessHART devices / usable	100
Network latency	
• at 100 field devices / for WirelessHART network / maximum	10 s
• for 50 field devices / for WirelessHART network / maximum	5 s

Transmission link / between two devices / for WirelessHART network / maximum	100 m
• Note	Values may vary in the case of radio obstacles
Protocol / is supported / HART protocol	Yes

Product properties, functions, components / general

Protocol / is supported	
• Address Resolution Protocol (ARP)	Yes
• HTTP	Yes
• HTTPS	Yes
• Modbus TCP	Yes
• Modbus TCP secure	Yes
• Modbus RTU	Yes

Product functions / management, configuration

Product function	
• web-based management	Yes
• DHCP client	Yes

Product functions / Diagnosis

Product function	
• Web-based diagnostics	Yes
• WirelessHART diagnostics via Modbus	Yes

Product functions / Redundancy

Product function / Device redundancy	No

Product functions / Security

Product function	
• Password protection - multi-level	Yes
• WirelessHART Join Key	Yes
• ACL - MAC-based	Yes
• WirelessHART Network ID	Yes
Protocol / is supported / SSL	Yes
Principle of encryption	AES 128 bit

Product functions / Time

Protocol / is supported / NTP	Yes

Standards, specifications, approvals

Standard / for WirelessHART	HART V 7.1
Standard for wireless communication / IEEE 802.15.4	Yes
Certificate of suitability	
• CE marking	Yes

• relating to CSA	CSA Division 2 & Dust Ignition-proof for Class I, Division 2, Groups A, B, C, and D. Dust Ignition-proof for Class II, Groups E, F, and G / Suitable for Class III Hazardous Locations. / Install per Siemens drawing A5E02467236A. Temperature Code: T4 (-40°C < Ta < 60°C) CSA Enclosure Type 4X
• relating to FM	FM Division 2, Non-Incendive for Class I, Division 2, Groups A, B, C, and D. Dust Ignition-proof for Class II, III, Division 1, Groups E, F, and G / Indoor and outdoor locations / NEMA Type 4X Temperature Code: T4 (-40°C < Ta < 60°C)
• relating to ATEX	ATEX type n, see note: Certificate number: Baseefa10ATEX0044X, ATEX marking: Ex II 3 G, Ex nA nL IIC T4 (-40 °C <= Ta <= 60 °C), rated voltage: 28 V, ATEX dust ignition-proof: Certificate number: Baseefa10ATEX0045X, ATEX marking: II 3 D, Ex tD A22 IP66 T135 (-40 °C <= Ta <= 60 °C), rated voltage: 28 V. Note on type n: Conditions for safe handling during installation. The device does not pass the 500 V insulation test in accordance with paragraph 6.8.1 of EN 60079-15:2005. This must be taken into account when the device is mounted.
• relating to IECEx	IECEx Type n, see note: Certificate number: IECEx BAS 10.0014X, Ex nA nL IIC T4 (-40 °C <= Ta <= 60 °C), rated voltage: 28 V, ATEX dust ignition-proof, see note: Certificate number: IECEx BAS 10.0015X, Ex tD A22 IP66 T135 (-40 °C <= Ta <= 60 °C), rated voltage: 28 V. Note on type n: Conditions for safe handling during installation. The device does not pass the 500 V insulation test in accordance with paragraph 6.8.1 of EN 60079-15:2005. This must be taken into account when the device is mounted.
Wireless approval	FCC and IC approval

Further Information / Internet Links

Internet-Link	
• to website: Selector SIMATIC NET SELECTION TOOL	http://www.siemens.com/snst
• to website: Industrial communication	http://www.siemens.com/simatic-net
• 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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