

### product type designation

product description



### WAM766-1 (USA)

IWLAN Access Point

IWLAN access point, SCALANCE WAM766-1, 1 radio, 2.4/5 GHz, IEEE 802.11ax (Wi-Fi 6), 2 N-Connect connections, iFeatures support via CLP, 1201 Mbps (gross) per radio, 1x 10/100/1000 Mbps M12 socket, redundant 24 V DC, M12 L-encoded, PoE, IP65, -30...+60 °C, CLP slot, DI/DQ, A-encoded, observe national approvals! CERT ID: MSAX65-W1-M12-E2, operation in Egypt and Israel. scope of supply: sealing caps for connections

Technical Product Detail Page

<https://l.siemens.com/1P6GK5766-1GE00-7DC0>

suitability for use

[www.siemens.com/iwlan](http://www.siemens.com/iwlan)

### transfer rate

transfer rate

- with WLAN / maximum
- for Industrial Ethernet

1201 Mbit/s

10, 100, 1000 Mbit/s

### interfaces

number of electrical/optical connections / for network components or terminal equipment / maximum / note

1

number of electrical/optical connections / for gigabit Ethernet / maximum

1

number of electrical connections

- for network components or terminal equipment
- for power supply
- for redundant voltage supply

1

1

1

type of electrical connection

- for network components or terminal equipment
- for redundant voltage supply

M12 interface (8-pole, X-coded), PoE

M12 interface (4-pin, L-coded)

### memory

design of the removable storage

- CLP
- CLP iFeatures

Yes

Yes

### interfaces / wireless

number of radio cards / permanently installed

2

number of radio interfaces / parallel operable

2

transmission mode / for multiple input multiple output (MIMO)

2x2

number of spatial streams

2

number of electrical connections / for external antenna(s)

2

type of electrical connection / for external antenna(s)

N-Connect (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

M12 interface (4-pin, A-coded)

input voltage / at digital input / at DC

-30 ... +30 V

output voltage / at digital output / at DC / maximum

24 V; 0,5 A

operational current / of the signaling contacts / at DC / at 30 V /

0.008 A

maximum	
<b>supply voltage, current consumption, power loss</b>	
type of voltage / of the supply voltage	Redundant 24 V DC Power Supply, M12, L-coded
supply voltage <ul style="list-style-type: none"> <li>from Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af</li> </ul>	48 V
consumed current <ul style="list-style-type: none"> <li>at DC / at 24 V</li> <li>at DC / at 24 V / sleep mode / maximum</li> <li>with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical</li> </ul>	0.55 A 0.013 A 0.27 A
power loss [W] <ul style="list-style-type: none"> <li>at DC / at 24 V</li> <li>at DC / at 24 V / sleep mode / maximum</li> <li>with Power-over-Ethernet according to IEEE802.3at for type 1 and IEEE802.3af / typical</li> </ul>	13.2 W 0.3 W 12.96 W
<b>supply voltage / 1</b> <ul style="list-style-type: none"> <li>from M12 power Connector (L-coded) for redundant voltage supply</li> </ul>	24 V
<b>supply voltage / 1 / rated value</b> <ul style="list-style-type: none"> <li>type of voltage / 1 / of the supply voltage</li> </ul>	24 V DC
<b>supply voltage / 2</b> <ul style="list-style-type: none"> <li>from M12 power Connector (L-coded) for redundant voltage supply</li> </ul>	24 V
<b>supply voltage / 2 / rated value</b> <ul style="list-style-type: none"> <li>type of voltage / 2 / of the supply voltage</li> </ul>	24 V DC
<b>supply voltage / 3 / rated value</b> <ul style="list-style-type: none"> <li>type of voltage / 3 / of the supply voltage</li> </ul>	48 V DC, PoE
<b>ambient conditions</b>	
ambient temperature <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul>	-30 ... +60 °C -40 ... +85 °C -40 ... +85 °C
relative humidity / at 25 °C / without condensation / during operation / maximum	90 %
protection class IP	IP65
<b>design, dimensions and weights</b>	
width	150 mm
height	179.5 mm
depth	45 mm
width / of the enclosure / without antenna	150 mm
height / of the enclosure / without antenna	179.5 mm
depth / of the enclosure / without antenna	45 mm
net weight	1.1 kg
fastening method <ul style="list-style-type: none"> <li>S7-300 rail mounting</li> <li>S7-1500 rail mounting</li> <li>35 mm DIN-rail mounting</li> <li>wall mounting</li> <li>VESA mounting</li> </ul>	wall mounting and assembly on VESA support 75 x 75 mm, mounting on DIN rail with separate mounting adapter. Yes Yes Yes Yes Yes; 75 x 75mm
<b>radio frequencies</b>	
operating frequency <ul style="list-style-type: none"> <li>for WLAN in 2.4 GHz frequency band</li> <li>for WLAN in 5 GHz frequency band</li> </ul>	2.41 ... 2.48 GHz; depending on the country approvals 4.9 ... 5.8 GHz; depending on the country approvals
<b>product features, product functions, product components / general</b>	
product function / Access Point Mode	Yes
product function / client Mode	Yes
number of SSIDs	8
product function <ul style="list-style-type: none"> <li>iPCF Access Point</li> </ul>	No

<ul style="list-style-type: none"> <li>• iPCF-2 access point</li> </ul>	Yes; iPCF-2 is not compatible with iPCF. See documentation for function description.
<ul style="list-style-type: none"> <li>• iPCF client</li> </ul>	No
<ul style="list-style-type: none"> <li>• iPCF-2 client</li> </ul>	Yes; iPCF-2 is not compatible with iPCF. See documentation for function description.
product function / iPRP	Yes
<b>product functions / management, configuration, engineering</b>	
number of manageable IP addresses / in client	2
product function	
<ul style="list-style-type: none"> <li>• CLI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• web-based management</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MIB support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TRAPs via email</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• configuration with STEP 7</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• configuration with STEP 7 in the TIA Portal</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• WDS</li> </ul>	No
protocol / is supported	
<ul style="list-style-type: none"> <li>• Address Resolution Protocol (ARP)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• ICMP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Telnet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTTPS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• LLDP</li> </ul>	Yes
identification & maintenance function	
<ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M1 - higher level designation/location designation</li> </ul>	Yes
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>• PROFINET IO diagnosis</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SysLog</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	Yes
<b>product functions / VLAN</b>	
product function	
<ul style="list-style-type: none"> <li>• function VLAN with IWLAN</li> </ul>	Yes
number of VLANs / maximum	24
<b>product functions / DHCP</b>	
product function	
<ul style="list-style-type: none"> <li>• DHCP client</li> </ul>	Yes
<b>product functions / redundancy</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>• STP/RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RSTP</li> </ul>	Yes
product function	
<ul style="list-style-type: none"> <li>• redundancy procedure MSTP</li> </ul>	Yes
<b>product functions / security</b>	
product function	
<ul style="list-style-type: none"> <li>• management security, ACL-IP based</li> </ul>	No
<ul style="list-style-type: none"> <li>• IEEE 802.1x (radius)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• NAT/NAPT</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• access protection according to IEEE802.11i</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• WPA/WPA2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• WPA3</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• TKIP/AES</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RADIUS client</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SSH</li> </ul>	Yes
key length	
<ul style="list-style-type: none"> <li>• with SSL</li> </ul>	4096 bit
<b>product functions / time</b>	
protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SIMATIC time synchronization (SIMATIC Time)</li> </ul>	Yes
<b>standards, specifications, approvals</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• EC Declaration of Conformity</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• E1 approval</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Power-over-Ethernet according IEEE802.3at for type 1 and IEEE802.3af</li> </ul>	Yes
standard for wireless communication	
<ul style="list-style-type: none"> <li>• IEEE 802.11a</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11b</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11e</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11g</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11h</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11i</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11n</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11ac</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11ax</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 802.11r</li> </ul>	Yes
wireless approval	You will find the current list of countries at: <a href="http://www.siemens.com/wireless-approvals">www.siemens.com/wireless-approvals</a> or directly on the device
MTBF	24 a
<ul style="list-style-type: none"> <li>• reference temperature</li> </ul>	40 °C
<b>standards, specifications, approvals / hazardous environments</b>	
standard / for hazardous zone	EN IEC 60079-0 : 2018, EN60079-7:2015 + A1 : 2018; II 3 G Ex ec IIC T4 Gc
<ul style="list-style-type: none"> <li>• from CSA and UL</li> </ul>	UL121201, CAN/CSA C22.2 No.213, Cl. 1, div. 2, GP: A, B, C, D, T4 / Cl. 1, Zone 2, GP IIC T4, UL File E240480
<b>standards, specifications, approvals / Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
<ul style="list-style-type: none"> <li>• total</li> </ul>	394.89 kg
<ul style="list-style-type: none"> <li>• during manufacturing</li> </ul>	33.7 kg
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	361 kg
<ul style="list-style-type: none"> <li>• after end of life</li> </ul>	0.19 kg
<b>further information / internet links</b>	
internet link	
<ul style="list-style-type: none"> <li>• to website: Selection guide for cables and connectors</li> </ul>	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
<ul style="list-style-type: none"> <li>• to web page: selection aid TIA Selection Tool</li> </ul>	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
<ul style="list-style-type: none"> <li>• to web page: WLAN country approval</li> </ul>	<a href="https://www.siemens.com/wireless-approvals">https://www.siemens.com/wireless-approvals</a>
<ul style="list-style-type: none"> <li>• to the website: IWLAN</li> </ul>	<a href="https://www.siemens.com/iwlan">https://www.siemens.com/iwlan</a>
<ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
<ul style="list-style-type: none"> <li>• to web page: SiePortal</li> </ul>	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
<ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
<ul style="list-style-type: none"> <li>• to website: CAX-Download-Manager</li> </ul>	<a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>
<ul style="list-style-type: none"> <li>• to website: Industry Online Support</li> </ul>	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
<b>security information</b>	
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 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](http://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	For use in hazardous locations	Radio Equipment Type Approval Certificate
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[China RoHS](#)



[Type Examination Certificate](#)

[CCC-Ex](#)



[Miscellaneous](#)

**Environment**



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