

### product type designation



### W1788-2IA M12

-- spare part -- IWLAN access point, SCALANCE W1788-2IA M12, 2 radios, 8 internal antennas, iFeatures support via CLP, IEEE 802.11a/b/g/h/n/ac, 2.4/5 GHz, gross 1733 Mbps per radio, 2x M12 max. 1 Gbps, PoE, redundant 24 V DC, M12 A-coded IP65, -20...+70 °C, CLP slot, WPA2/802.11i/e, observe national approvals! CERT ID: RAPAC-W2-M12-I4, includes: MPCIE-R1-ABGNAC-U4, scope of delivery: 1x joint block; for operation outside of USA/Israel .

### transfer rate

transfer rate	
• with WLAN / maximum	1733 Mbit/s
• for Industrial Ethernet	10, 100, 1000 Mbit/s

### interfaces

number of electrical/optical connections / for network components or terminal equipment / maximum / note	2
number of electrical/optical connections / for gigabit Ethernet / maximum	2
number of electrical connections	
• for network components or terminal equipment	2
• for power supply	1
• for redundant voltage supply	1
type of electrical connection	
• for network components or terminal equipment	M12 interface (8-pole, X-coded), PoE
• for power supply	M12 interface (4-pole, A-coded)

### memory

design of the removable storage	
• CLP	Yes
• CLP iFeatures	Yes

### interfaces / wireless

number of radio cards / permanently installed	2
transmission mode / for multiple input multiple output (MIMO)	4x4
number of spatial streams	4
number of internal antennas	8
type of electrical connection / for external antenna(s)	N-Connect (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 2	48 V
consumed current	
• at DC / at 24 V / typical	0.7 A
• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical	0.385 A
power loss [W]	
• at DC / at 24 V / typical	16.8 W

<ul style="list-style-type: none"> <li>• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical</li> </ul>	18.5 W
<b>supply voltage / 1</b> <ul style="list-style-type: none"> <li>• from M12 Power Connector (A-coded) for redundant power supply</li> </ul>	16.8 V
<b>supply voltage / 2</b> <ul style="list-style-type: none"> <li>• from M12 Power Connector (A-coded) for redundant power supply</li> </ul>	31.2 V
<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>	-20 ... +70 °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	258 mm
height	258 mm
depth	80 mm
width / of the enclosure / without antenna	258 mm
height / of the enclosure / without antenna	258 mm
depth / of the enclosure / without antenna	80 mm
net weight	2.7 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> </ul>	Accessories are required for wall mounting and mounting on a mounting rail. Yes Yes Yes Yes
<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	16
product function <ul style="list-style-type: none"> <li>• iPCF Access Point</li> <li>• iPCF client</li> <li>• iPCF-MC Access Point</li> <li>• iPCF-MC client</li> </ul>	No No No No
product function / iREF	No
product function / iPRP	Yes
<b>product functions / management, configuration, engineering</b>	
product function <ul style="list-style-type: none"> <li>• CLI</li> <li>• web-based management</li> <li>• MIB support</li> <li>• TRAPs via email</li> <li>• configuration with STEP 7</li> <li>• configuration with STEP 7 in the TIA Portal</li> <li>• operation with IWLAN controller</li> <li>• forced roaming with IWLAN</li> <li>• forced roaming on IP down with IWLAN</li> <li>• forced roaming on link down with IWLAN</li> <li>• WDS</li> </ul>	Yes Yes Yes Yes Yes Yes No Yes Yes No Yes
protocol / is supported <ul style="list-style-type: none"> <li>• Address Resolution Protocol (ARP)</li> <li>• ICMP</li> </ul>	Yes Yes

<ul style="list-style-type: none"> <li>• Telnet</li> <li>• HTTP</li> <li>• HTTPS</li> <li>• TFTP</li> <li>• DCP</li> <li>• LLDP</li> </ul>	Yes Yes Yes Yes Yes Yes
identification & maintenance function <ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> <li>• I&amp;M1 - higher level designation/location designation</li> </ul>	Yes 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
protocol / is supported <ul style="list-style-type: none"> <li>• SNMP v1</li> <li>• SNMP v2c</li> <li>• SNMP v3</li> </ul>	Yes Yes Yes
<b>product functions / VLAN</b>	
product function <ul style="list-style-type: none"> <li>• function VLAN with IWLAN</li> </ul>	Yes
<b>product functions / DHCP</b>	
product function <ul style="list-style-type: none"> <li>• DHCP client</li> <li>• DHCP server</li> <li>• DHCP Option 82</li> </ul>	Yes Yes Yes
<b>product functions / redundancy</b>	
protocol / is supported <ul style="list-style-type: none"> <li>• STP/RSTP</li> <li>• MSTP</li> <li>• RSTP</li> </ul>	Yes Yes Yes
<b>product functions / security</b>	
product function <ul style="list-style-type: none"> <li>• ACL - MAC-based</li> <li>• management security, ACL-IP based</li> <li>• IEEE 802.1x (radius)</li> <li>• NAT/NAPT</li> <li>• access protection according to IEEE802.11i</li> <li>• WPA/WPA2</li> <li>• TKIP/AES</li> </ul>	No Yes Yes No Yes Yes Yes
protocol / is supported <ul style="list-style-type: none"> <li>• SSH</li> <li>• RADIUS</li> </ul>	Yes Yes
<b>product functions / time</b>	
protocol / is supported <ul style="list-style-type: none"> <li>• NTP</li> <li>• SNTP</li> <li>• SIMATIC time synchronization (SIMATIC Time)</li> </ul>	Yes Yes Yes
<b>standards, specifications, approvals</b>	
standard <ul style="list-style-type: none"> <li>• for FM</li> <li>• for safety / from CSA and UL</li> </ul>	FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4, FM16US0205X IEC 62368-1, UL 60950-1 E115352-A6001
certificate of suitability <ul style="list-style-type: none"> <li>• EC Declaration of Conformity</li> <li>• CE marking</li> <li>• C-Tick</li> <li>• E1 approval</li> <li>• IEC 61850-3</li> <li>• Power-over-Ethernet according to IEEE802.3at for type 2</li> </ul>	Yes Yes Yes Yes No 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
• IEEE 802.11ac	Yes
wireless approval	You will find the current list of countries at: <a href="http://www.siemens.de/funkzulassungen">www.siemens.de/funkzulassungen</a>
<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
• from CSA and 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, E240480
certificate of suitability / CCC / for hazardous zone according to GB standard	Yes; GB3836.1, GB3836.8
• as marking	Ex nA IIC T4 Gc
<b>accessories</b>	
accessories	pre-assembled holder for attachment to a DIN rail
<b>further information / internet links</b>	
internet link	
• to website: Selection guide for cables and connectors	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to web page: WLAN country approval	<a href="https://www.siemens.com/wireless-approvals">https://www.siemens.com/wireless-approvals</a>
• to the website: IWLAN	<a href="https://www.siemens.com/iwlan">https://www.siemens.com/iwlan</a>
• to website: Industrial communication	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
• to web page: SiePortal	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
• to website: Image database	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
• to website: CAX-Download-Manager	<a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>
• to website: Industry Online Support	<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 <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7)

#### Approvals / Certificates

##### General Product Approval



[Declaration of Conformity](#)



[Manufacturer Declaration](#)

[China RoHS](#)



General Product Approval

For use in hazardous locations



[CCC-Ex](#)



## Radio Equipment Type Approval Certificate

[Miscellaneous](#)

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