



IWLAN access point, SCALANCE W1788-1 M12, 1 radio, 4 N-CON antenna port, iFeatures support via CLP, IEEE 802.11a/b/g/h/n/ac, 2.4/5 GHz, gross 1733 Mbit/s per radio, 2x M12 max. 1 Gbit/s, PoE, redundant 24 V DC, M12 A-coded IP65, -20..+70 °C, CLP slot, WPA2/802.11i/e, observe national approvals! CERT ID: RAPAC-W1-M12-E4, includes: MPCIE-R1-ABGNAC-U4 Scope of delivery: Manuals on DVD, German/English, M12 sealing caps, for operation outside of USA/Israel

| Transfer rate  |                                      |
|--|--------------------------------------|
| Transfer rate  |                                      |
| <ul style="list-style-type: none"> <li>with WLAN / maximum</li> <li>for Industrial Ethernet</li> </ul>   | 1733 Mbit/s<br>10, 100, 1000 Mbit/s  |
| Transfer rate / for Industrial Ethernet  |                                      |
| <ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>   | 10 Mbit/s<br>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   |                                      |
| <ul style="list-style-type: none"> <li>for network components or terminal equipment</li> <li>for power supply</li> <li>for redundant voltage supply</li> </ul> | 2<br>1<br>1                          |
| Type of electrical connection  |                                      |
| <ul style="list-style-type: none"> <li>for network components or terminal equipment</li> </ul>   | M12 interface (8-pole, X-coded), PoE |

|  |                                 |
|--|---------------------------------|
| <ul style="list-style-type: none"> <li>• for power supply</li> </ul> | M12 interface (4-pole, A-coded) |
| design of the removable storage                                      |                                 |
| <ul style="list-style-type: none"> <li>• CLP</li> </ul>              | Yes                             |
| <ul style="list-style-type: none"> <li>• CLP iFeatures</li> </ul>    | Yes                             |

#### Interfaces / wireless

|  |                    |
|--|--------------------|
| Number of radio cards / permanently installed                        | 1                  |
| Transmission mode / for multiple input multiple output (MIMO)        | 4x4                |
| Number of spatial streams  | 4                  |
| Number of electrical connections / for external antenna(s)           | 4                  |
| Type of electrical connection / for external antenna(s)              | N-Connect (socket) |
| Product feature / external antenna can be mounted directly on device | Yes                |

#### Supply voltage, current consumption, power loss

|  |         |
|--|---------|
| Type of voltage / of the supply voltage  | DC      |
| Supply voltage / 1   |         |
| <ul style="list-style-type: none"> <li>• from M12 Power Connector (A-coded) for redundant power supply</li> </ul>          | 16.8 V  |
| Supply voltage / 2   |         |
| <ul style="list-style-type: none"> <li>• from M12 Power Connector (A-coded) for redundant power supply</li> </ul>          | 31.2 V  |
| Supply voltage   |         |
| <ul style="list-style-type: none"> <li>• from Power-over-Ethernet acc. to IEEE802.3at for type 2</li> </ul>                | 48 V    |
| Consumed current   |         |
| <ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> </ul>  | 0.375 A |
| <ul style="list-style-type: none"> <li>• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical</li> </ul> | 0.21 A  |
| Power loss [W]   |         |
| <ul style="list-style-type: none"> <li>• at DC / at 24 V / typical</li> </ul>  | 10.1 W  |
| <ul style="list-style-type: none"> <li>• with Power-over-Ethernet according to IEEE802.3at for type 2 / typical</li> </ul> | 9 W     |

#### Ambient conditions

|  |                |
|--|----------------|
| Ambient temperature  |                |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>             | -20 ... +70 °C |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>               | -40 ... +85 °C |
| <ul style="list-style-type: none"> <li>• during transport</li> </ul>             | -40 ... +85 °C |
| Relative humidity / at 25 °C / without condensation / during operation / maximum | 90 %           |
| Protection class IP  | IP65           |

#### Design, dimensions and weights

|   |        |
|---|--------|
| 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 |
| Mounting type                               |        |
| • S7-300 rail mounting                      | Yes    |
| • S7-1500 rail mounting                     | Yes    |
| • 35 mm 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                      | 8   |
| Product function                     |     |
| • iPCF Access Point                  | No  |
| • iPCF client                        | No  |
| • iPCF-MC Access Point               | No  |
| • iPCF-MC client                     | No  |
| Product function / iREF              | No  |
| Product function / iPRP              | Yes |

### Product functions / management, configuration, engineering

|   |     |
|---|-----|
| Product function                              |     |
| • CLI   | Yes |
| • web-based management                        | Yes |
| • MIB support                                 | Yes |
| • TRAPs via email                             | Yes |
| • Configuration with STEP 7                   | Yes |
| • configuration with STEP 7 in the TIA Portal | Yes |
| • operation with IWLAN controller             | No  |
| • forced roaming with IWLAN                   | Yes |
| • forced roaming on IP down with IWLAN        | Yes |
| • forced roaming on link down with IWLAN      | No  |
| • 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 |
| Protocol / is supported |     |
| • SNMP v1               | Yes |
| • SNMP v2c              | 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                            | No  |
| • Management security, ACL-IP based          | Yes |
| • IEEE 802.1x (radius)                       | Yes |
| • NAT/NAPT                                   | No  |
| • access protection according to IEEE802.11i | Yes |
| • WPA/WPA2                                   | Yes |

|  |     |
|--|-----|
| <ul style="list-style-type: none"> <li>• TKIP/AES</li> </ul> | Yes |
| Protocol / is supported                                      |     |
| <ul style="list-style-type: none"> <li>• SSH</li> </ul>      | Yes |
| <ul style="list-style-type: none"> <li>• RADIUS</li> </ul>   | Yes |

### Product functions / time

|   |     |
|---|-----|
| 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 |

### Standards, specifications, approvals

|   |   |
|---|---|
| Standard  |   |
| <ul style="list-style-type: none"> <li>• for FM</li> </ul>  | FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4   |
| 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>• C-Tick</li> </ul>  | Yes   |
| <ul style="list-style-type: none"> <li>• E1 approval</li> </ul>   | Yes   |
| <ul style="list-style-type: none"> <li>• IEC 61850-3</li> </ul>   | No  |
| <ul style="list-style-type: none"> <li>• Power-over-Ethernet according to IEEE802.3at for type 2</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   |
| Wireless approval   | You will find the current list of countries at:<br><a href="http://www.siemens.de/funkzulassungen">www.siemens.de/funkzulassungen</a> |

### accessories

|             |   |
|-------------|---|
| accessories | pre-assembled holder for attachment to a DIN rail |
|-------------|---|

### Further information / Internet-Links

|   |   |
|---|---|
| Internet-Link   |   |
| <ul style="list-style-type: none"> <li>• to website: TIA Selection Tool</li> </ul>              | <a href="http://www.siemens.com/tia-selection-tool">http://www.siemens.com/tia-selection-tool</a>   |
| <ul style="list-style-type: none"> <li>• to the website: IWLAN</li> </ul>                       | <a href="http://www.siemens.com/iwlan">http://www.siemens.com/iwlan</a>                             |
| <ul style="list-style-type: none"> <li>• to website: Industry Mall</li> </ul>                   | <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>                   |
| <ul style="list-style-type: none"> <li>• to website: Information and Download Center</li> </ul> | <a href="http://www.siemens.com/industry/infocenter">http://www.siemens.com/industry/infocenter</a> |
| <ul style="list-style-type: none"> <li>• to website: Image database</li> </ul>                  | <a href="http://automation.siemens.com/bilddb">http://automation.siemens.com/bilddb</a>             |

- to website: CAx Download Manager
- to website: Industry Online Support

<http://www.siemens.com/cax>

<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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