

MANUFACTURER DOCUMENT PACKAGE

# Manufacturer's Manual

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SIEMENS SCALANCE

## 6GK5876-4AA00-2BA2

SCALANCE W INDUSTRIAL WIRELESS CLIENT

Applicable product family: SCALANCE W industrial wireless LAN

OFFICIAL SOURCE

6GK5876-4AA00-2BA2.pdf

The following pages are selected from the supplied manufacturer document and retain their original page content.

Product type designation

**SCALANCE M876-4 LTE (EU)**  
SCALANCE M876-4 4G router; for the wireless IP communication from Ethernet-based Programmable controllers via LTE (4G) mobile radio optimized for use in Europe, VPN, Firewall, NAT; 4-port switch; 2x SMA antennas, MIMO Technology; 1x digital input, 1x digital output; observe national approvals!



| Transfer rate                                       |                       |
|-----------------------------------------------------|-----------------------|
| Transfer rate                                       | 10 Mbit/s, 100 Mbit/s |
| Transfer rate                                       |                       |
| • for GPRS transmission / with downlink / maximum   | 85.6 kbit/s           |
| • for GPRS transmission / with uplink / maximum     | 85.6 kbit/s           |
| • with eGPRS transmission / with downlink / maximum | 236.8 kbit/s          |
| • with eGPRS transmission / with uplink / maximum   | 236.8 kbit/s          |
| • with UMTS transmission / with downlink / maximum  | 14.4 Mbit/s           |
| • with UMTS transmission / with uplink / maximum    | 5.76 Mbit/s           |
| • for LTE transmission / with downlink / maximum    | 100 Mbit/s            |
| • for LTE transmission / with uplink / maximum      | 50 Mbit/s             |
| Interfaces                                          |                       |
| Number of electrical connections                    |                       |

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| • for internal network           | 4                                            |
| • for external network           | 2                                            |
| Number of electrical connections |                                              |
| • for power supply               | 2                                            |
| Type of electrical connection    |                                              |
| • for internal network           | RJ45 port (10/100 Mbit/s, TP, autocrossover) |
| • for external network           | SMA antenna socket (50 ohms)                 |
| • for power supply               | Terminal strip                               |

#### Signal inputs/outputs

|                                  |                |
|----------------------------------|----------------|
| Number of electrical connections |                |
| • for digital input signals      | 1              |
| • for digital output signals     | 1              |
| Type of electrical connection    |                |
| • for digital input signals      | Terminal block |
| • for digital output signals     | Terminal block |

#### WAN connection

|                                                |                                                |
|------------------------------------------------|------------------------------------------------|
| Type of mobile network / is supported          | GSM, UMTS, LTE                                 |
| Type of mobile wireless service / is supported | GPRS, eGPRS, HSPA+                             |
| Operating frequency / for GSM transmission     | 900 MHz, 1800 MHz                              |
| Operating frequency / with UMTS transmission   | 900 MHz, 1800 MHz, 2100 MHz                    |
| Operating frequency / for LTE transmission     | 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2600 MHz |

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

|                                                      |               |
|------------------------------------------------------|---------------|
| Supply voltage / Rated value                         | 24 V          |
| Supply voltage / rated value                         | 10.8 ... 28.8 |
| Type of voltage / of the supply voltage              | DC            |
| Consumed current / at rated supply voltage / maximum | 330 mA        |
| Power loss [W]                                       |               |
| • maximum                                            | 8 W           |

#### Ambient conditions

|                                                           |                |
|-----------------------------------------------------------|----------------|
| Ambient temperature                                       |                |
| • during operation                                        | -20 ... +70 °C |
| • during storage                                          | -40 ... +85 °C |
| Relative humidity / at 25 °C / during operation / maximum | 95 %           |
| Protection class IP                                       | IP20           |
| Design                                                    | compact        |
| Mounting type                                             |                |
| • 35 mm DIN rail mounting                                 | Yes            |
| • S7-300 rail mounting                                    | Yes            |
| • S7-1500 rail mounting                                   | Yes            |

- wall mounting

Yes

## Product features, product functions, product components / general

### Product function

- DynDNS client
- no-ip.com client

Yes

Yes

## Product functions / management, configuration, engineering

### Product function

- CLI
- web-based management
- MIB support
- TRAPs via email

Yes

Yes

Yes

Yes

### Protocol / is supported

- Telnet
- HTTP
- HTTPS

Yes

Yes

Yes

### Type of configuration

Web-based management

## Product functions / Diagnostics

### Protocol / is supported

- SNMP v1
- SNMP v2
- SNMP v2c
- SNMP v3

Yes

Yes

Yes

Yes

### Product function

- Statistics Packet Size
- Statistics packet type
- Error statistics
- SysLog
- Packet Filter Log

No

No

No

Yes

Yes

## Product functions / DHCP

### Product function

- DHCP client
- DHCP server - internal network

Yes

Yes

## Product functions / Routing

### Router function

- NAT (IP masquerading)
- Port forwarding
- NAT traversal
- 1:1 NAT
- DNS cache

Yes

Yes

Yes

Yes

Yes

## Product functions / Security

|                                                                                                                                                                                                                                                                                                      |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Suitability for operation / Virtual Private Network                                                                                                                                                                                                                                                  | Yes                                      |
| Firewall version                                                                                                                                                                                                                                                                                     | Statefull Inspection                     |
| Product function <ul style="list-style-type: none"> <li>• Password protection</li> <li>• packet filter</li> <li>• Broadcast/Multicast/Unicast Limiter</li> </ul>                                                                                                                                     | Yes<br>Yes<br>No                         |
| Product function <ul style="list-style-type: none"> <li>• broadcast blocking</li> <li>• with VPN connection</li> </ul>                                                                                                                                                                               | No<br>IPsec, OpenVPN (as Client)         |
| Number of possible connections / with VPN connection                                                                                                                                                                                                                                                 | 20                                       |
| Type of authentication / with Virtual Private Network / PSK                                                                                                                                                                                                                                          | Yes                                      |
| Protocol / is supported <ul style="list-style-type: none"> <li>• IPsec tunnel and transport mode</li> </ul>                                                                                                                                                                                          | Yes                                      |
| Key length <ul style="list-style-type: none"> <li>• 1 / with IPsec AES / with Virtual Private Network</li> <li>• 2 / with IPsec AES / with Virtual Private Network</li> <li>• 3 / with IPsec AES / with Virtual Private Network</li> <li>• with IPsec 3DES / with Virtual Private Network</li> </ul> | 128 bit<br>192 bit<br>256 bit<br>168 bit |
| Type of Internet key exchange / with Virtual Private Network <ul style="list-style-type: none"> <li>• main mode</li> <li>• quick mode</li> </ul>                                                                                                                                                     | Yes<br>Yes                               |
| Type of packet authentication / with Virtual Private Network                                                                                                                                                                                                                                         | MD5, SHA-1, SHA-256, SHA-384, SHA-512    |
| IETF profile / with Virtual Private Network / X.509v3 certificate                                                                                                                                                                                                                                    | Yes                                      |

## Product functions / time

|                                                                                                 |            |
|-------------------------------------------------------------------------------------------------|------------|
| Protocol / is supported <ul style="list-style-type: none"> <li>• NTP</li> <li>• SNTP</li> </ul> | Yes<br>Yes |
|-------------------------------------------------------------------------------------------------|------------|

## Standards, specifications, approvals

|                                                                                                    |                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standard <ul style="list-style-type: none"> <li>• for EMC</li> <li>• for hazardous zone</li> </ul> | ETSI EN 301 489-1, ETSI EN 301 489-7, ETSI EN 301 489-24,<br>EN 61000-6-2, EN 61000-6-4<br>EN 60079-15, EN 60079-0, II 3 G Ex nA IIC T4 Gc, KEMA<br>07ATEX0145 X |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                         |                                                                        |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• for emitted interference</li> </ul>                            | ETSI EN 301 489-1, ETSI EN 301 489-7, ETSI EN 301 489-24, EN 61000-6-4 |
| <ul style="list-style-type: none"> <li>• for interference immunity</li> </ul>                           | ETSI EN 301 489-1, ETSI EN 301 489-7, ETSI EN 301 489-24, EN 61000-6-2 |
| Certificate of suitability                                                                              |                                                                        |
| <ul style="list-style-type: none"> <li>• CE marking</li> </ul>                                          | Yes                                                                    |
| <ul style="list-style-type: none"> <li>• Railway application in accordance with EN 50121-3-2</li> </ul> | Yes                                                                    |
| <ul style="list-style-type: none"> <li>• Railway application in accordance with EN 50121-4</li> </ul>   | Yes                                                                    |
| <ul style="list-style-type: none"> <li>• Railway application in accordance with EN 50155</li> </ul>     | Yes; no coated printed circuit boards                                  |
| <ul style="list-style-type: none"> <li>• railway application in accordance with EN 61373</li> </ul>     | Yes; cat. 1, cl.A and cl. B                                            |
| <ul style="list-style-type: none"> <li>• Fire protection in accordance with EN 45545-2</li> </ul>       | Yes                                                                    |

## Further information / Internet-Links

|                                                                                                     |                                                                                                     |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Internet-Link                                                                                       |                                                                                                     |
| <ul style="list-style-type: none"> <li>• to website: Selector for cables and connectors</li> </ul>  | <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>                               |
| <ul style="list-style-type: none"> <li>• to website: Selector SIMATIC NET SELECTION TOOL</li> </ul> | <a href="http://www.siemens.com/snst">http://www.siemens.com/snst</a>                               |
| <ul style="list-style-type: none"> <li>• to website: Industrial communication</li> </ul>            | <a href="http://www.siemens.com/simatic-net">http://www.siemens.com/simatic-net</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>             |
| <ul style="list-style-type: none"> <li>• to website: CAx Download Manager</li> </ul>                | <a href="http://www.siemens.com/cax">http://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>             |

## Security information

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Security information | <p>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 <a href="http://www.siemens.com/industrialsecurity">http://www.siemens.com/industrialsecurity</a>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <a href="http://support.automation.siemens.com">http://support.automation.siemens.com</a>. (V3.4)</p> |
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