

Product type designation

SCALANCE M875 UMTS ROUTER

SCALANCE M875-0 UMTS router; for wireless IP communication from Ethernet- based automation devices via UMTS mobile radio HSDPA and HSUPA support Security features: IPsec, Firewall; for mobile applications with approvals for railway and vehicles; 1x digital input, 1x digital output; observe national approvals!

Transfer rate

Transfer rate	10 Mbit/s, 100 Mbit/s
Transfer rate	
<ul style="list-style-type: none"> • for GSM transmission 	9600 bit/s
<ul style="list-style-type: none"> • for GPRS transmission / with downlink / maximum 	85.6 kbit/s
<ul style="list-style-type: none"> • for GPRS transmission / with uplink / maximum 	42.8 kbit/s
<ul style="list-style-type: none"> • with eGPRS transmission / with downlink / maximum 	236.8 kbit/s
<ul style="list-style-type: none"> • with eGPRS transmission / with uplink / maximum 	118 kbit/s
<ul style="list-style-type: none"> • with UMTS transmission / with downlink / maximum 	14.4 Mbit/s
<ul style="list-style-type: none"> • with UMTS transmission / with uplink / maximum 	5.76 Mbit/s

Interfaces

Number of electrical connections	
<ul style="list-style-type: none"> • for internal network 	2
<ul style="list-style-type: none"> • for external network 	2
Number of electrical connections	
<ul style="list-style-type: none"> • for power supply 	1
Type of electrical connection	
<ul style="list-style-type: none"> • for internal network 	RJ45 port (10/100 Mbit/s, TP, autocrossover)
<ul style="list-style-type: none"> • for external network 	SMA antenna socket (50 ohms)
<ul style="list-style-type: none"> • for power supply 	Terminal strip

WAN connection

Type of mobile network / is supported	GSM, UMTS
Type of mobile wireless service / is supported	GPRS, eGPRS, HSPA+
Operating frequency / for GSM transmission	850 MHz, 900 MHz, 1800 MHz, 1900 MHz
Operating frequency / with UMTS transmission	800 MHz, 850 MHz, 900 MHz, 1900 MHz, 2100 MHz

Supply voltage, current consumption, power loss

Supply voltage / Rated value	24 V
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Supply voltage / rated value	12 ... 30
Type of voltage / of the supply voltage	DC
Consumed current / at rated supply voltage / maximum	450 mA
Power loss [W]	
• typical	4 W

Ambient conditions

Ambient temperature	
• during operation	-40 ... +75 °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	No
• S7-1500 rail mounting	No
• wall mounting	No

Product features, product functions, product components / general

Product function	
• DynDNS client	Yes

Product functions / management, configuration, engineering

Product function	
• CLI	No
• web-based management	Yes
• MIB support	No
• TRAPs via email	No
Protocol / is supported	
• Telnet	No
• HTTP	No
• HTTPS	Yes
Type of configuration	Web-based management

Product functions / Diagnostics

Product function	
• Statistics Packet Size	No
• Statistics packet type	No
• Error statistics	No
• SysLog	Yes
• Packet Filter Log	Yes

Product functions / DHCP

Product function	
• DHCP client	Yes
• DHCP server - internal network	Yes

Product functions / Routing

Router function	
• NAT (IP masquerading)	Yes
• Port forwarding	Yes
• NAT traversal	Yes
• 1:1 NAT	Yes
• DNS cache	Yes

Product functions / Security

Suitability for operation / Virtual Private Network	Yes
Firewall version	Statefull Inspection
Product function	
• Password protection	Yes
• packet filter	Yes
• Broadcast/Multicast/Unicast Limiter	No
Product function	
• broadcast blocking	No
• with VPN connection	IPSec
Number of possible connections / with VPN connection	10
Type of authentication / with Virtual Private Network / PSK	Yes
Protocol / is supported	
• IPsec tunnel and transport mode	Yes
Key length	
• with IPsec DES / with Virtual Private Network	56 bit
• 1 / with IPsec AES / with Virtual Private Network	128 bit
• 2 / with IPsec AES / with Virtual Private Network	192 bit
• 3 / with IPsec AES / with Virtual Private Network	256 bit
• with IPsec 3DES / with Virtual Private Network	168 bit
Type of Internet key exchange / with Virtual Private Network	
• main mode	Yes
• quick mode	Yes
Type of packet authentication / with Virtual Private Network	MD5, SHA-1

IETF profile / with Virtual Private Network / X.509v3 certificate	Yes
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Product functions / time

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

Standards, specifications, approvals

Standard	
<ul style="list-style-type: none"> • for safety / from CSA and UL • for emitted interference • for interference immunity 	<p>yes</p> <p>EN55022 Class A</p> <p>EN 61000-6-2</p>
Certificate of suitability	EN 61000-6-2
<ul style="list-style-type: none"> • CE marking • E1 approval • E1 approval • Railway application in accordance with EN 50121-3-2 • Railway application in accordance with EN 50155 • railway application in accordance with EN 61373 	<p>Yes</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes; no coated printed circuit boards</p> <p>Yes; cat. 1, cl. B</p>

Further information / Internet-Links

Internet-Link	
<ul style="list-style-type: none"> • to website: Selector for cables and connectors • to website: Selector SIMATIC NET SELECTION TOOL • to website: Industrial communication • to website: Industry Mall • to website: Information and Download Center • to website: Image database • to website: CAx Download Manager • to website: Industry Online Support 	<p>http://www.siemens.com/snst</p> <p>http://www.siemens.com/snst</p> <p>http://www.siemens.com/simatic-net</p> <p>https://mall.industry.siemens.com</p> <p>http://www.siemens.com/industry/infocenter</p> <p>http://automation.siemens.com/bilddb</p> <p>http://www.siemens.com/cax</p> <p>https://support.industry.siemens.com</p>

Security information

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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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