

The RUGGEDCOM RX5000 is an high port density routing and switching platform. Up to 96 10/100TX + 2 10/100/1000T copper ports Up to 48 100FX optical ports Up to 2 Gigabit Ethernet ports Long-haul optics allow distances up to 90km Multiple connector types (ST, MTRJ, LC, SC)



Figure similar

Product type designation	RUGGEDCOM RUGGEDCOM RX5000
Transmission rate	
Transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s, 10 Gbit/s
Interfaces / others	
Number of electrical connections	
<ul style="list-style-type: none"> • for serial interfaces / acc. to RS 232/RS 422/RS 485 / maximum 	48
<ul style="list-style-type: none"> • for operator console 	1
<ul style="list-style-type: none"> • for management purposes 	1
Type of electrical connection	
<ul style="list-style-type: none"> • for operator console 	RS232
<ul style="list-style-type: none"> • for management purposes 	RJ45
<ul style="list-style-type: none"> • for power supply 	3-pole terminal block, permanently installed
Signal-Inputs/outputs	
Relay design	Form-C contact relay (SP CO)
Type of relay output	Changeover contact

Operating voltage / of the signaling contacts	
<ul style="list-style-type: none"> • at AC / maximum • at DC / maximum 	150 V 125 V
Operating current / of the signaling contacts	
<ul style="list-style-type: none"> • at AC / at 250 V / maximum • at DC / at 30 V / maximum 	2 A 2 A

Supply voltage, current consumption, power loss

Product options / wide range power supply	Yes
Product feature	
<ul style="list-style-type: none"> • Modular power supply • Hot-swappable power supply 	Yes Yes
Supply voltage / 3 / Rated value	
<ul style="list-style-type: none"> • Supply voltage / 3 / rated value • Type of voltage / 3 / of the supply voltage 	88 ... 300 V DC
Supply voltage / 4 / Rated value	
<ul style="list-style-type: none"> • Supply voltage / 4 / rated value • Type of voltage / 4 / of the supply voltage 	85 ... 264 V AC
Power loss [W]	
<ul style="list-style-type: none"> • maximum 	100 W

Permitted ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation • Note 	-40 ... +85 °C A maximum operating temperature of +85 °C is permissible for a duration of 16 hours
Operating condition / fanless operation	Yes
Protection class IP	IP40

Design, dimensions and weight

Design	19" rack
Number of slots	6
Width	454.66 mm
Height	175.26 mm
Depth	302.006 mm
Net weight	Weight is depending on the built in modules
Product feature / conformal coating	optional
Material / of the enclosure	18 AWG galvanized steel enclosure
Mounting type	
<ul style="list-style-type: none"> • 19-inch installation • 35 mm DIN rail mounting • wall mounting 	Yes No Yes

Product properties, functions, components / general

Product function	
------------------	--

• RAW socket mode for any serial protocols	Yes
Number of automatically learnable MAC addresses	98304
Switch latency period	10.5 µs
Transfer rate / of the switch	88 Gbit/s
Number of priority channels	4
Product feature	
• no head-off-line-blocking	Yes
• Store & Forward switching method	Yes
• Zero-Packet-Loss technology	Yes

Product functions / management, configuration

Product function	
• CLI	Yes
• web-based management	Yes
• MIB support	Yes
• RMON	Yes
• switch-managed	Yes
Protocol / is supported	
• Telnet	Yes
• HTTP	Yes
• HTTPS	No
• TFTP	Yes
• NETCONF	Yes
• SNMP v1	Yes
• SNMP v2	No
• SNMP v2c	Yes
• SNMP v3	Yes
• IGMP (snooping/querier)	Yes
Number of groups / at IGMP	256
Product function	
• for MIB support / by BRIDGE-MIB	RFC1493
• for MIB support / by IF-MIB	RFC2863
• for MIB support / by RMON-MIB	RFC2819
• for MIB support / by RSTP-MIB	draft-ietf-bridge-bridgemib-smiv2-03-RSTP-MIB
• for MIB support / by SNMPv2-MIB	RFC1907
• for MIB support / by SNMPv2-SMI	RFC2578
• for MIB support / by SNMPv2-TC	RFC2579
• for MIB support / by TCP-MIB	RFC2012
• for MIB support / by UDP-MIB	RFC2013

Product functions / VLAN

Product function	
• VLAN - port based	Yes

Number of VLANs / maximum	255
VLAN identification number	1 ... 4094
Protocol / is supported / GVRP	Yes

Product functions / DHCP

Product function	
• DHCP client	Yes
• DHCP Option 82	No
• DHCP Option 66	No
• DHCP Option 67	No

Product functions / Routing

Product function	
• dynamic IP routing	Yes
Protocol / is supported	
• RIP v1	Yes
• RIPv2	Yes
• OSPFv2	Yes
• VRRP	No
• BGP	Yes

Product functions / Redundancy

Product function	
• redundancy procedure STP	Yes
• redundancy procedure RSTP	Yes
• redundancy procedure MSTP	Yes
• eRSTP	Yes
Protocol / is supported	
• STP	Yes
• RSTP	Yes
• MSTP	Yes

Product functions / Security

Product function	
• ACL - MAC-based	Yes
• ACL-Role based	Yes
• IEEE 802.1x (radius)	Yes
• Blocking of communication via physical ports	Yes
Protocol / is supported	
• SSH	Yes
Product function / port-rate-limiting	Yes

Product functions / Time

Protocol / is supported	
• NTP	Yes

• SNTP	Yes
Type of time synchronization	NTP
Standards, specifications, approvals	
Standard	
• for safety / from CSA and UL	cTUVus (Compliant to UL 60950-1:2007, CAN/CSA-C22.2 No. 60950-1-07, EN 60950-1:2006)
Standards, specifications, approvals / CE	
Certificate of suitability / CE marking	Yes
Standard	
• for EMC	FCC Part 15 (Class A), EN55022 (CISPR22 Class A)
Standards, specifications, approvals / miscellaneous	
Laser protection class	Complies with 21 CFR chapter 1, subchapter J
Certificate of suitability	
• IEC 61850-3	Yes
Standards, specifications, approvals / product conformity	
Product conformity	
• acc. to IEEE 802.3-10BaseT	Yes
• acc. to IEEE 802.3u-100BaseTX	Yes
• acc. to IEEE 802.3u-100BaseFX	Yes
• acc. to IEEE 802.3ab-1000BaseT	Yes
• acc. to IEEE 802.3z-1000BaseLX	Yes
• acc. to IEEE 802.3ad-Link Aggregation	Yes
• acc. to IEEE 802.3x-Flow Control	Yes
• acc. to IEEE 802.1d-MAC Bridges	Yes
• acc. to IEEE 802.1d-STP	Yes
• acc. to IEEE 802.1p-class of service	Yes
• acc. to IEEE 802.1Q-VLAN tagging	Yes
• acc. to IEEE 802.1Q-2005 (formerly IEEE 802.1s) MSTP	Yes
• acc. to IEEE 802.1w-RRST	Yes
• RFC768-UDP	Yes
• RFC783-TFTP	Yes
• RFC791-IP	Yes
• RFC792-ICMP	Yes
• RFC793-TCP	Yes
• RFC826-ARP	Yes
• RFC854-Telnet	Yes
• RFC894-IP over Ethernet	Yes
• RFC1112-IGMPv1	Yes
• RFC1519-CIDR	Yes

- | | |
|----------------------------------|-----|
| • RFC2030-SNTP | Yes |
| • RFC2068-HTTP | Yes |
| • RFC2236-IGMPv2 | Yes |
| • RFC2475-Differentiated Service | No |

Accessories

Further Information / Internet Links

Internet-Link

- | | |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| • to website: Industry Mall/RUGGEDCOM selector | http://ruggedcom-selector.automation.siemens.com |
| • to website: Siemens RUGGEDCOM | http://siemens.com/ruggedcom |
| • to website: Selector for cables and connectors | http://www.siemens.com/snst |
| • to website: Industrial communication | http://www.siemens.com/simatic-net |
| • to website: Industry Mall | https://mall.industry.siemens.com |
| • to website: Information and Download Center | http://www.siemens.com/industry/infocenter |
| • to website: Image database | http://automation.siemens.com/bilddb |
| • to website: CAx Download Manager | http://www.siemens.com/cax |
| • to website: Industry Online Support | 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)

last modified:

04/19/2018