

**6GK6094-0GS1.-.... RUGGEDCOM RS940GNC**

Technical Data

**Product-type designation**

**RUGGEDCOM RS940GNC**

**Product description**



**8-Port Managed Gigabit Ethernet Switch, 56-bit Encryption**

RUGGEDCOM RS940GNC IS AN INDUSTRIALLY HARDENED, FULLY MANAGED ETHERNET SWITCH PROVIDING 6 OR 8 PORTS OF GIGABIT ETHERNET. 6 10/100/1000BASETX TRIPLE SPEED COPPER PORTS ARE STANDARD; 2 GIGABIT FIBER OR COPPER PORTS CAN BE ADDED. 56-BIT ENCRYPTION; 6-10/100/1000BASETX TRIPLE SPEED COPPER PORTS STANDARD; OPTIONAL 2 ADDITIONAL 1000LX SFP PLUGGABLE GIGABIT FIBER; 2-10/100/1000BASETX COPPER PORTS;

**Transmission rate**

Transfer rate / 1	10 Mbit/s
Transfer rate / 2	100 Mbit/s
Transfer rate / 3	1000 Mbit/s

**Interfaces**

Number of electrical/optical connections / for network components or terminal equipment / maximum	8
<ul style="list-style-type: none"> <li>remark</li> </ul>	6 Standard Copper Ports + alternatively 2 Copper or Fiber Ports
number of electrical/optical connections / for gigabit Ethernet / maximum	2
Number of electrical connections	
<ul style="list-style-type: none"> <li>for network components and terminal equipment</li> </ul>	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	8
<ul style="list-style-type: none"> <li>for gigabit Ethernet / maximum</li> </ul>	8
<ul style="list-style-type: none"> <li>for operator console</li> </ul>	1
<ul style="list-style-type: none"> <li>for management purposes</li> </ul>	0
Design of electrical connection	
<ul style="list-style-type: none"> <li>for operator console</li> </ul>	RS232
<ul style="list-style-type: none"> <li>for signaling contact</li> </ul>	3-pole terminal block, screwable
<ul style="list-style-type: none"> <li>for power supply</li> </ul>	5-pole terminal block, screwable
Number of optical connections / for network	2

components or terminal equipment / maximum	
Range / at the optical interface / depending on the optical fiber used	2...90 km
operating distance / of optical interface / depending of used optical fiber / at gigabit	0.5...70 km
<b>Signal-Inputs/outputs</b>	
Relay design	Form-C contact relay (SP CO)
type of the relay output	Change-over (NO/NC)
Operating current / of signaling contacts	
<ul style="list-style-type: none"> <li>at DC</li> <li>at 30 V / maximum</li> </ul>	1 A
<b>Supply voltage, current consumption, power loss</b>	
product options / wide range power supply	Yes
<b>Type of voltage / 1 / of the supply voltage</b>	DC
Supply voltage / 1	
<ul style="list-style-type: none"> <li>rated value</li> <li>rated value</li> </ul>	24 V 10...36 V
Current consumed / 1 / at rated value of supply voltage / max.	0.4 A
<b>Type of voltage / 2 / of the supply voltage</b>	DC
Supply voltage / 2	
<ul style="list-style-type: none"> <li>rated value</li> <li>rated value</li> </ul>	48 V 36...72 V
Current consumed / 2 / at rated value of supply voltage / max.	0.2 A
<b>Type of voltage / 3 / of the supply voltage</b>	DC
Supply voltage / 3	
<ul style="list-style-type: none"> <li>rated value</li> </ul>	88...300 V
<b>Type of voltage / 4 / of the supply voltage</b>	AC
Supply voltage / 4	
<ul style="list-style-type: none"> <li>rated value</li> </ul>	85...264 V
Power loss	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	18 W
<b>Permitted ambient conditions</b>	
Ambient temperature	
<ul style="list-style-type: none"> <li>during operating</li> <li>Comment</li> </ul>	-40...+85 °C A maximum operating temperature of +85 °C is permissible for a duration of 16 hours
Coating	Conformal Coating optional
operating condition / fanless operation	Yes
Protection class IP	IP40
<b>Design, dimensions and weight</b>	
Design	compact
Width	66 mm ( 2.6 in )
Height	188 mm ( 7.4 in )
Depth	127 mm ( 5 in )

Net weight	1.22 kg
Material / of the enclosure	20 AWG galvanized steel enclosure
Type of mounting	
<ul style="list-style-type: none"> <li>• Installation 19 inch</li> </ul>	No
<ul style="list-style-type: none"> <li>• 35 mm DIN rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• wall mounting</li> </ul>	Yes
<b>Product properties, functions, components / general</b>	
number of automatically learnable MAC addresses	8192
memory capacity	
<ul style="list-style-type: none"> <li>• of MAC-address table</li> </ul>	32 Kibyte
<ul style="list-style-type: none"> <li>• of message buffer / maximum</li> </ul>	2 Mibyte
switch-latency period	7 µs
transfer rate / of the switch	16 Gbit/s
number of priority channels	4
product characteristic	
<ul style="list-style-type: none"> <li>• no head-off-line-blocking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Switching-Methode Store &amp; Forward</li> </ul>	Yes
<b>Product functions / management, configuration</b>	
Product function	
<ul style="list-style-type: none"> <li>• CLI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• web-based management</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MIB support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RMON</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• switch-managed</li> </ul>	Yes
Protocol / is supported	
<ul style="list-style-type: none"> <li>• Telnet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• HTTPS</li> </ul>	No
<ul style="list-style-type: none"> <li>• TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IGMP (snooping/querier)</li> </ul>	Yes
number of groups / at IGMP	256
Protocol / is supported	
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v2</li> </ul>	No
<ul style="list-style-type: none"> <li>• SNMP v2c</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	Yes
product function / for MIB-support	
<ul style="list-style-type: none"> <li>• by BRIDGE-MIB</li> </ul>	RFC1493
<ul style="list-style-type: none"> <li>• by IF-MIB</li> </ul>	RFC2863
<ul style="list-style-type: none"> <li>• by RMON-MIB</li> </ul>	RFC2819
<ul style="list-style-type: none"> <li>• by RSTP-MIB</li> </ul>	draft-ietf-bridge-bridgemib-smiv2-03-RSTP-MIB
<ul style="list-style-type: none"> <li>• by SNMPv2-MIB</li> </ul>	RFC1907
<ul style="list-style-type: none"> <li>• by SNMPv2-SMI</li> </ul>	RFC2578

• by SNMPv2-TC	RFC2579
• by TCP-MIB	RFC2012
• by UDP-MIB	RFC2013
<b>Product functions / VLAN</b>	
Product function	
• VLAN - port based	Yes
Number of VLANs / maximum	255
VLAN-Identification number	1...4094
Protocol / is supported / GVRP	Yes
<b>Product functions / DHCP</b>	
Product function	
• DHCP client	Yes
• DHCP Option 82	Yes
• DHCP Option 66	No
• DHCP Option 67	No
<b>Product functions / Redundancy</b>	
Product function	
• redundancy procedure STP	Yes
• RSTP redundancy protocol	Yes
• redundancy procedure MSTP	Yes
• eRSTP	Yes
Protocol / is supported	
• STP	Yes
• RSTP	Yes
• MSTP	Yes
<b>Product functions / Security</b>	
product function	
• IEEE 802.1x (radius)	Yes
protocol / is supported	
• TACACS+	Yes
• SSH	No
• SSL	Yes
key length	
• at SSL	56 bit
• at RSA	1024 bit
product function / port-rate-limiting	Yes
adjustable port-rate-limitation	128 kbit/s...8 Mbit/s
<b>Product functions / Time</b>	
product function	
• SNTP-client	Yes
• SNTP-server	Yes
Protocol / is supported	
• SNTP	Yes
<b>Standards, specifications, approvals</b>	
Standard	
• for EMC	FCC Part 15 (Class A), EN55022

	(CISPR22 Class A)
<ul style="list-style-type: none"> <li>for safety / of CSA and UL</li> </ul>	cCSAus (Compliant with CSA C22.2 No. 60950, UL60950, EN60950)
Laser protection class	Complies with 21 CFR Chapter1, Subchapter J
Verification of suitability	
<ul style="list-style-type: none"> <li>CE mark</li> </ul>	Yes
<ul style="list-style-type: none"> <li>IEC 61850-3</li> </ul>	Yes
product conformity	
<ul style="list-style-type: none"> <li>according to IEEE 802.3-10BaseT</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.3u-100BaseTX</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.3u-100BaseFX</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.3x-Flow Control</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.3ab-1000BaseT</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.3ad-Link Aggregation</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.1d-MAC Bridges</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.1d-STP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.1p-class of service</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.1Q-VLAN tagging</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.1Q-2005 (formerly IEEE 802.1s) MSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.1w-RRST</li> </ul>	Yes
<ul style="list-style-type: none"> <li>according to IEEE 802.1x-port based Network Access Control</li> </ul>	Yes
product conformity	
<ul style="list-style-type: none"> <li>RFC768-UDP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC783-TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC791-IP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC792-ICMP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC793-TCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC826-ARP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC854-Telnet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC894-IP over Ethernet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC1112-IGMPv1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC1519-CIDR</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC1541-DHCP (client)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC2068-HTTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC2236-IGMPv2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC2284-EAP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC2475-Differentiated Service</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC2865-RADIUS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC3414-SNMPv3-USM</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RFC3415-SNMPv3-VACM</li> </ul>	Yes
<b>Further Information / Internet Links</b>	
Internet link	
<ul style="list-style-type: none"> <li>to website</li> </ul>	
<ul style="list-style-type: none"> <li>Industry Mall/RUGGEDCOM Selector</li> </ul>	<a href="http://ruggedcom-">http://ruggedcom-</a>

- Siemens RUGGEDCOM
- Industry Mall

[selector.automation.siemens.com](http://selector.automation.siemens.com)

<http://siemens.com/ruggedcom>

<http://www.siemens.com/industrial-controls/mall>

- selection instrument cables and connectors

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

- CAx-Download-Manager

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

- industrial communication

<http://www.siemens.com/simatic-net>

- Information und Download Center

<http://www.siemens.com/automation/net/catalog>

- image database

<http://automation.siemens.com/bilddb>

- Industry Online Support

<http://support.automation.siemens.com>

**letzte Änderung:**

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