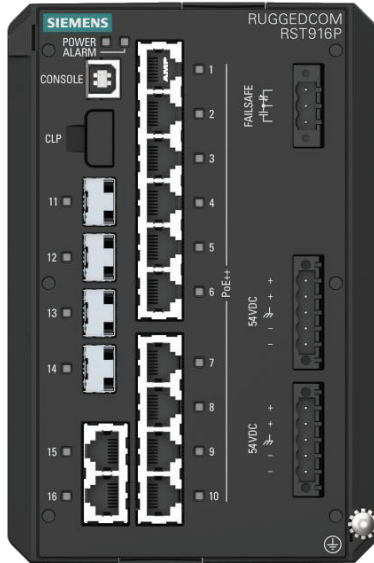


# RST916P

## DATA SHEET



### RST916P

#### 6GK6491-6PD00...

RUGGEDCOM RST916P is a 16 port, industrially hardened, PoE++ enabled, 10 Gigabit fully Managed Ethernet switch for use in harsh environments. The product has 4 x 1Gbit/10Gbit SFP+ uplinks and 12x 10/100/1000Mbit/s RJ45 Ethernet ports. Ten of the RJ45 interfaces support PoE++ up to 60 Watts per port, with a total PoE power budget of 420 Watts. -40°C to +75°C operating temperature (fanless).

Product type designation	RUGGEDCOM R ST 916P
<b>Transfer rate</b>	
Transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s, 10 Gbit/s
Number of ports / maximum	16
<b>Interfaces / for communication/Integrated</b>	
Number of electrical connections • for network components or terminal equipment	16
Number of 10/100/1000 Mbit/s RJ45 ports / Integrated	12
Number of electrical ports / with PoE / maximum	10
Number of electrical connections • for SFP+	4; Compatible with SFP (1000BASE -X) and SFP+ (10GBASE -X)
<b>Interfaces / other</b>	
Number of electrical connections • for operator console • for signaling contact • for power supply	1 1 2
Type of electrical connection • for operator console • for management purposes • for signaling contact • for power supply	USB USB 3-pole terminal block 5-pole terminal block

design of the removable storage • CLP	Yes
<b>Signal inputs/outputs</b>	
Relay design	Form-C contact relay (SP CO)
Type of relay output	Changeover contact
Number of relay outputs / as CO contact	1
Operating voltage / of the signaling contacts • at AC / maximum • at DC / maximum	440 V 300 V
Operating current / of the signaling contacts • at AC / at 440 V / maximum • at DC / at 300 V / maximum	0.12 A 0.12 A
<b>Supply voltage, current consumption, power loss</b>	
Product options / wide range powersupply	No
Type of voltage supply / redundant powerinput	Yes
Supply voltage / 1 / Rated value • Supply voltage / 1 / rated value • Type of voltage / 1 / of the supply voltage	54 V 52 ... 57 V DC
<b>Ambient conditions</b>	
Ambient temperature • during operation • during storage • during transport	-40 ... +75 °C -40 ... +85 °C -40 ... +85 °C
Relative humidity • at 25 °C / without condensation / during operation / maximum	95 %
Operating condition / fanless operation	Yes
Protection class IP	IP40
<b>Design, dimensions and weight</b>	
Design	compact
Width	116 mm
Height	177 mm
Depth	163 mm
Net weight	3.75 kg
Product feature / conformal coating	Yes; optional
Material / of the enclosure	Cast Aluminum Enclosure
Mounting type • 19-inch installation • 35 mm DIN rail mounting • wall mounting	No Yes Yes
<b>Product features, product functions, product components / general</b>	
Number of automatically learnable MAC addresses	16384
Storage capacity • of message buffer / maximum	2000 Kibyte

Storage capacity	2000 Kibyte
<ul style="list-style-type: none"> <li>• of message buffer / maximum</li> </ul>	
Switch latency period	3 $\mu$ s
Transfer rate / of the switch	58 Gbit/s
Number of priority channels	8
Number of QoS queues / per port	4
Size per QoS queues	1536 frames
Product function / QoS according to IEEE 802.1Q	Yes
Product feature	
<ul style="list-style-type: none"> <li>• Store &amp; Forward switching method</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Zero-Packet-Loss technology</li> </ul>	Yes
<b>Product functions / management, configuration, engineering</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
Product function / switch-managed	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>	Yes
<ul style="list-style-type: none"> <li>• TFTP</li> </ul>	Yes
<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
<ul style="list-style-type: none"> <li>• IGMP (snooping/querier)</li> </ul>	Yes
Number of groups / at IGMP	256
<b>Product functions / VLAN</b>	
Product function	
<ul style="list-style-type: none"> <li>• VLAN - port based</li> </ul>	Yes
Number of VLANs / maximum	255
Protocol / is supported / GVRP	Yes
<b>Product functions / DHCP</b>	
Product function	
<ul style="list-style-type: none"> <li>• DHCP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP Option 82</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP Option66</li> </ul>	No
<ul style="list-style-type: none"> <li>• DHCP Option67</li> </ul>	No
<b>Product functions / redundancy</b>	
Product function	
<ul style="list-style-type: none"> <li>• High Speed Redundancy Protocol (HRP)</li> </ul>	No

Switch latency period	3 $\mu$ s
Transfer rate / of the switch	58 Gbit/s
Number of priority channels	8
Number of QoS queues / per port	4
Size per QoS queues	1536 frames
Product function / QoS according to IEEE 802.1Q	Yes
Product feature	
• Store & Forward switching method	Yes
• Zero-Packet-Loss technology	Yes

### Product functions / management, configuration, engineering

Product function	
• CLI	Yes
• web-based management	Yes
• MIB support	Yes
• RMON	Yes
Product function / switch-managed	Yes
Protocol / is supported	
• Telnet	Yes
• HTTP	Yes
• HTTPS	Yes
• TFTP	Yes
• SNMP v1	Yes
• SNMP v2	No
• SNMP v2c	Yes
• SNMP v3	Yes
• IGMP (snooping/querier)	Yes
Number of groups / at IGMP	256

### Product functions / VLAN

Product function	
• VLAN - port based	Yes
Number of VLANs / maximum	255
Protocol / is supported / GVRP	Yes

### Product functions / DHCP

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

### Product functions / redundancy

Product function	
• High Speed Redundancy Protocol (HRP)	No
Product function	
• redundancy procedure STP	Yes

<ul style="list-style-type: none"> <li>• redundancy procedure RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• redundancy procedure MSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• eRSTP</li> </ul>	Yes
Protocol / is supported	
<ul style="list-style-type: none"> <li>• STP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• MSTP</li> </ul>	Yes
<b>Product functions / security</b>	
Product function	
<ul style="list-style-type: none"> <li>• IEEE 802.1x ( radius)</li> </ul>	Yes
Protocol / is supported	
<ul style="list-style-type: none"> <li>• RADIUS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• TACACS+</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SSH</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SS L</li> </ul>	Yes
Key length	
<ul style="list-style-type: none"> <li>• with SS L</li> </ul>	256 bit
<ul style="list-style-type: none"> <li>• with RSA</li> </ul>	3072 bit
Product function / portrate limiting	Yes
<b>Product functions / time</b>	
Product function	
<ul style="list-style-type: none"> <li>• NTP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP server</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 1588v2 transparent forwarding</li> </ul>	Yes
Protocol / is supported	
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes
Product function / hardware-supported timestamp at all ports	Yes
<b>Standards, specifications, approvals</b>	
Standard	
<ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> </ul>	cCSAus (Compliant with CSA C22.2 No. 60950, UL60950, EN60950) ; Planned
<b>Standards, specifications, approvals / CE</b>	
Certificate of suitability / CE marking	Yes ; Planned
Standard	
<ul style="list-style-type: none"> <li>• for EMC</li> </ul>	FCC Part 15 (Class A), EN5502 2 (CISPR22 Class A); Planned
<b>Standards, specifications, approvals / other</b>	
Laser protection class	Complies with 21 CFR chapter 1, subchapter J ; Planned
Certificate of suitability	
<ul style="list-style-type: none"> <li>• IEC 61850 -3</li> </ul>	Yes ; Planned
<ul style="list-style-type: none"> <li>• IEEE 1613</li> </ul>	Yes ; Planned

## Further information / Internet-Links

### Internet-Link

- to website: Industry Mall/RUGGEDCOM selector <http://ruggedcomselector.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/simaticnet>
- 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

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03/26/2020

RST916P, with DIN mount:	6GK6491-6PD00-1PN0
RST916P, with DIN and panel mount:	6GK6491-6PD00-3PN0