

6GK6015-1CM2-.... RX1512

Technical Data

Product-type designation

RUGGEDCOM RX1512

Product description

Utility Grade Layer 2 and Router



THE RUGGEDCOM RX1512 SERIES IS A UTILITY GRADE LAYER 2 AND LAYER 3 SWITCH AND ROUTER IN A COMPACT FORM FACTOR. 1 X FIXED 10-72VDC POWER SUPPLY FIELD REPLACEABLE LINE MODULES UP TO 12 10/100BASETX, UP TO 8 GIGABIT PORTS UP TO 12 100BASEFX PORTS UP TO 8 PORTS 10FL / 100SX SC, ST, LC AND MTRJ PLUGGABLE OPTICS (SFP) UP TO 4 T1/E1 PORTS CELLULAR (EVDO / HSPA)* DDS (56K MASTER/SLAVE, 64K SLAVE) UP TO 24 RS232/422/485

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	12
<ul style="list-style-type: none"> remark 	2 LM with max. 6 Ports/LM
number of electrical/optical connections / for gigabit Ethernet / maximum	4
Number of electrical connections	
<ul style="list-style-type: none"> for network components and terminal equipment 	
<ul style="list-style-type: none"> maximum 	12
<ul style="list-style-type: none"> for gigabit Ethernet / maximum 	4
<ul style="list-style-type: none"> for serial interfaces / in accordance with RS 232/RS 422/RS 485 / maximum 	12
<ul style="list-style-type: none"> for operator console 	1
<ul style="list-style-type: none"> for management purposes 	1
Design of electrical connection	
<ul style="list-style-type: none"> for operator console 	RJ45
<ul style="list-style-type: none"> for management purposes 	RJ45
<ul style="list-style-type: none"> for power supply 	6-pole terminal block, permanently installed, screw contact

Number of optical connections / for network components or terminal equipment / maximum	12
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
Signal-Inputs/outputs	
Relay design	Form-C contact relay (SP CO)
type of the relay output	Change-over (NO/NC)
operating voltage / of the signal contact	
<ul style="list-style-type: none"> at AC maximum 	250 V
<ul style="list-style-type: none"> at DC maximum 	125 V
Operating current / of signaling contacts	
<ul style="list-style-type: none"> at AC at 250 V / maximum 	8 A
<ul style="list-style-type: none"> at DC at 30 V / maximum 	5 A
Supply voltage, current consumption, power loss	
product options / wide range power supply product characteristic	No
<ul style="list-style-type: none"> voltage supply modular 	Yes
Type of voltage / 2 / of the supply voltage	DC
Supply voltage / 2	
<ul style="list-style-type: none"> rated value 	10...72 V
Permitted ambient conditions	
Ambient temperature	
<ul style="list-style-type: none"> during operating Comment 	-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
Design, dimensions and weight	
Design	compact
Number of slots	4
Width	()
Height	()
Depth	()
Net weight	
<ul style="list-style-type: none"> Comment 	Weight is depending on the built in modules
Material / of the enclosure	Aluminum
Type of mounting	
<ul style="list-style-type: none"> Installation 19 inch 	No

<ul style="list-style-type: none"> • 35 mm DIN rail mounting 	Yes
<ul style="list-style-type: none"> • wall mounting 	Yes
Product properties, functions, components / general	
product function	
<ul style="list-style-type: none"> • RAW socket mode for any serial protocols 	Yes
number of automatically learnable MAC addresses	8192
memory capacity	
<ul style="list-style-type: none"> • of MAC-address table 	64 Kibyte
<ul style="list-style-type: none"> • of message buffer / maximum 	1 Mibyte
switch-latency period	7 μ s
transfer rate / of the switch	10 Gbit/s
number of priority channels	4
product characteristic	
<ul style="list-style-type: none"> • no head-off-line-blocking 	Yes
<ul style="list-style-type: none"> • Switching-Methode Store & Forward 	Yes
protocol / is supported / Generic Object Oriented Substation Events (GOOSE)	Yes
Product functions / management, configuration	
Product function	
<ul style="list-style-type: none"> • CLI 	Yes
<ul style="list-style-type: none"> • web-based management 	Yes
<ul style="list-style-type: none"> • MIB support 	Yes
<ul style="list-style-type: none"> • RMON 	Yes
<ul style="list-style-type: none"> • switch-managed 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • Telnet 	Yes
<ul style="list-style-type: none"> • HTTP 	Yes
<ul style="list-style-type: none"> • HTTPS 	Yes
<ul style="list-style-type: none"> • TFTP 	Yes
<ul style="list-style-type: none"> • NETCONF 	Yes
<ul style="list-style-type: none"> • IGMP (snooping/querier) 	Yes
number of groups / at IGMP	256
Protocol / is supported	
<ul style="list-style-type: none"> • SNMP v1 	Yes
<ul style="list-style-type: none"> • SNMP v2 	No
<ul style="list-style-type: none"> • SNMP v2c 	Yes
<ul style="list-style-type: none"> • SNMP v3 	Yes
product function / for MIB-support	
<ul style="list-style-type: none"> • by BRIDGE-MIB 	RFC1493
<ul style="list-style-type: none"> • by IF-MIB 	RFC2863
<ul style="list-style-type: none"> • by RMON-MIB 	RFC2819
<ul style="list-style-type: none"> • by RSTP-MIB 	draft-ietf-bridge-bridgemib-smiv2-03-RSTP-MIB
<ul style="list-style-type: none"> • by SNMPv2-MIB 	RFC1907
<ul style="list-style-type: none"> • by SNMPv2-SMI 	RFC2578

• by SNMPv2-TC	RFC2579
• by TCP-MIB	RFC2012
• by UDP-MIB	RFC2013
Product functions / Diagnosis	
Product function	
• loopback diagnostics	Yes
• real time line traces with/without decoding	Yes
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 / Routing	
Product function	
• dynamic IP routing	Yes
protocol / is supported	
• RIP v1	Yes
• RIPv2	Yes
• OSPFv2	Yes
• VRRP	Yes
• BGP	Yes
Product functions / Redundancy	
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
Product functions / Security	
product function	
• ACL - MAC-based	Yes
• IEEE 802.1x (radius)	Yes
• Broadcast/Multicast/Unicast Limiter	Yes
• blocking of communication via physical ports	Yes
protocol / is supported	
• SSH	Yes
• SSL	No

product function / port-rate-limiting	Yes
Product functions / Time	
product function	
• SNTP-client	Yes
• SNTP-server	Yes
Protocol / is supported	
• SNTP	Yes
Standards, specifications, approvals	
Standard	
• for EMC	FCC Part 15 (Class A), EN55022 (CISPR22 Class A)
• for safety / of CSA and UL	cCSAus (Compliant with CSA C22.2 No. 60950, UL60950, EN60950)
Laser protection class	Complies with 21 CFR Chapter1, Subchapter J
Verification of suitability	
• CE mark	Yes
• IEC 61850-3	Yes
product conformity	
• according to IEEE 802.3-10BaseT	Yes
• according to IEEE 802.3u-100BaseTX	Yes
• according to IEEE 802.3u-100BaseFX	Yes
• according to IEEE 802.3x-Flow Control	Yes
• according to IEEE 802.3ab-1000BaseT	Yes
• according to IEEE 802.3ad-Link Aggregation	Yes
• according to IEEE 802.1d-MAC Bridges	Yes
• according to IEEE 802.1d-STP	Yes
• according to IEEE 802.1Q-VLAN tagging	Yes
• according to IEEE 802.1Q-2005 (formerly IEEE 802.1s) MSTP	Yes
• according to IEEE 802.1w-RRST	Yes
• according to IEEE 802.1x-port based Network Access Control	Yes
product conformity	
• 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
• RFC1294-Frame Relay	Yes
• RFC1321-PPP (MD5)	Yes
• RFC1332-PPP (IPCP)	Yes
• RFC1334-PPP Authentication	Yes

• RFC1490-Frame Relay	Yes
• RFC1519-CIDR	Yes
• RFC1541-DHCP (client)	Yes
• RFC1661-PPP	Yes
• RFC2068-HTTP	Yes
• RFC2236-IGMPv2	Yes
• RFC2284-EAP	Yes
• RFC2475-Differentiated Service	Yes
• RFC2865-RADIUS	Yes
• RFC3414-SNMPv3-USM	Yes
• RFC3415-SNMPv3-VACM	Yes

Further Information / Internet Links	
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Internet link	
• to website	
• Industry Mall/RUGGEDCOM Selector	http://ruggedcom-selector.automation.siemens.com
• Siemens RUGGEDCOM	http://siemens.com/ruggedcom
• Industry Mall	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

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