SIEMENS

Brochure

Edition
04/2013

Robust industrial communication

RUGGEDCOM RSG2488

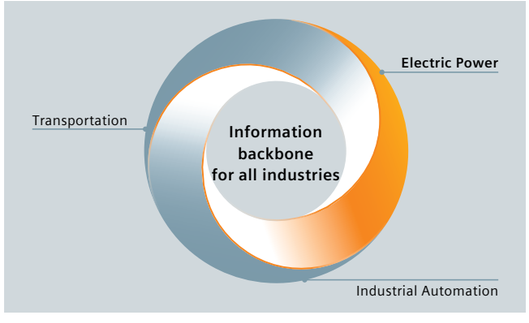
Advanced utility grade, high density Gigabit Ethernet switch

The RUGGEDCOM RSG2488 is the first utility grade, field upgradable, non blocking 28 Gigabit port layer 2 switch, designed to reduce rack space needs, cut sparing costs and minimize time-to-repair while eliminating routine maintenance and separate timing cabling, delivering increased network availability and lowest total cost of ownership.

The RSG2488 is the latest addition to Siemens' extensive portfolio of products for industrial communication in every environment. With an operating temperature range of -40°C to +85°C, a 1U form factor, extruded all-aluminum enclosure and optional conformal coating, the RSG2488 can be placed in almost any location.

The RSG2488 provides up to 28 non-blocking ports that can be configured as 10/100/1000TX copper, 100FX or 1000SX fiber. With its 1U form factor and vertical loading design, the RSG2488 provides users with the flexibility and field maintenance simplicity needed to efficiently implement, maintain and evolve a broadband local area network.

The RSG2488's RuggedRated hardware design and proven Rugged Operating System (ROS), offer improved system reliability, advanced cyber security and advanced networking features which make it ideal for creating secure Ethernet networks for mission-critical, real-time control applications.



Industrial Security

To ensure the secure operation of a plant or machine it is also necessary to take suitable preventive action and to integrate the automation and drive components into a state-of-the-art holistic industrial security concept for the entire plant or machine.
Please find further information at:
www.siemens.com/industrialsecurity

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Electric Power

Features

Extreme flexibility

- Support for up to a total of 28 non-blocking ports (6 4-port modules plus 2 2-port modules)
- Mixture of fiber optic or copper Gigabit ports with up to 28 Gig Ethernet ports
- -40 °C to +85 °C operating temperature (fanless)
- All-aluminum construction

Compact 1U form factor

- Space-saving design

Vertical loading modular design

- Allows for simple, cost effective in-field servicing and upgrading

Dual redundant smart power supplies

- Hot-swappable, cable-free
- HI voltage AC/DC: 100-300 V DC or 88-264 V AC
- Smart power supplies able to detect loss of input voltage

Fast network fault recovery

- Less than 5 ms per hop (typical)

Supports Siemens FastConnect RJ45 cabling system

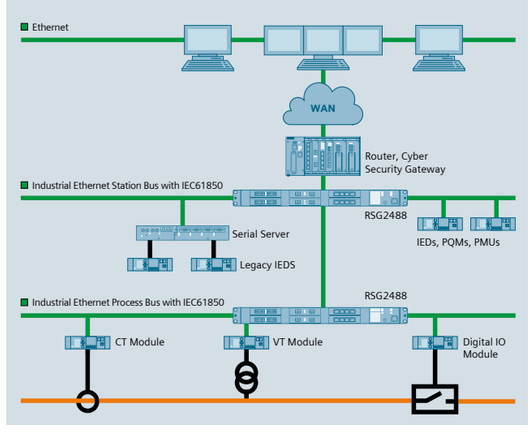
Rugged Operating System (ROS) features

- Simple plug and play operation - automatic learning, negotiation,and crossover detection
- MSTP 802.1Q-2005 (formerly 802.1s)
- RSTP (802.1w) and Enhanced Rapid SpanningTree
- eRSTP network fault recovery (< 5ms)
- Quality of service (802.1p) for real-time traffic
- Port rate limiting
- Port configuration, status, statistics, mirroring, security
- SNTP time synchronization (client and server)
- Web-based, Telnet, CLI management interfaces
- SNMP v1/v2/v3 (56-bit encryption)
- Remote monitoring (RMON)
- Rich set of diagnostics with logging and alarms

RuggedRated for reliability in harsh environments

- Immunity to EMI and heavy electrical surges
  - Zero-Packet-Loss Technology
  - Meets IEEE 1613 Class 2 (electric utility substations)(1)
  - Exceeds IEC 61850-3 (electric utility substations)
  - Exceeds IEC 61800-3 (variable speed drive systems)
  - Exceeds IEC 61000-6-2 (generic industrial)
- -40°C to +85°C operating temperature (fanless)
- Conformal coated printed circuit boards (optional)

Fiber Specifications				
Parameter	**Fiber Port Type**			
Mode	Multimode	Singlemode	Singlemode	Single-mode
Connector	LC, LC-SFP, ST	SC, LC, LC-SFP	SC, LC, LC-SFP	LC-SFP
Typical Distance	500 m	10 km	25 km	70 km
Optical Wavelength	850 nm	1310 nm	1310 nm	1550 nm
Cable Size Core / Cladding (um)	50/125 or 62.5/125	8/125 or 9/125	8/125 or 9/125	8/125 or 9/125
TX Power (Min/Max dBm)	-9.5/-4	-9.5/-3	-7/-3	0/5
RX Sensitivity (dBm)	-20	-22	-26	-23
RX Saturation (dBm)	0	-3	-3	0
Typical Budget (dBm)	14	17	19	25



(1) Requires Siemens FastConnect connectors and shielded cable

RSG2488 Order Codes				
Order Codes Example				
Slot Identifier	Slot 1	Slot 3	Slot 5	Slot 7
Order Code	Axx	Cxx	Exx	Gxx
Slot Identifier	Slot 2	Slot 4	Slot 6	Slot 8
Order Code	Bxx	Dxx	Fxx	Hxx

Code	Product Type	Product Number
Base Unit		
	Advanced utility grade, high density Ethernet switch (Export Controlled)	6GK6024-8GS2
	Advanced utility grade, high density Ethernet switch (Non-Export Controlled)	6GK6024-8GS1
Power Supply 1 (PS1)		
3	100-300 V DC or 88-264 V AC Screw terminal block	6GK6000-8PS13-1EA0
6	100-300 V DC or 88-264 V AC Pluggable terminal block	6GK6000-8PS16-1EA0
Power Supply 2 (PS2)		
3	100-300 V DC or 88-264 V AC Screw terminal block	6GK6000-8PS13-1EA0
6	100-300 V DC or 88-264 V AC Pluggable terminal block	6GK6000-8PS16-1EA0
0	No Power supply (power supply 2 only)	6GK6000-8PS20-1EA0
Mounting Options		
E	DIN and Panel Mount Kit	6GK6000-8MA20-4EA0
F	19" Rack, DIN, and Panel Mount Kit	6GK6000-8MA00-4EA0
A	No Mounting Option	6GK6000-8M000-4EA0
Future Options		
A	Future Options	
MOD: Manufacturing Modification		
0	None	
1	Conformal coating	
4 Port Modules Slots 1(Axx) to Slot 6 (Fxx)		
00	RSG2488 4 Port Blank Module	6GK6000-8AA00-4EA0
01	4 x 10/100/1000Tx RJ45	6GK6000-8CG01-4EA0
02	4 x 10/100/1000Tx FastConnect	6GK6000-8CG02-4EA0
05	4 x 1000SX - Multimode, 850 nm, LC, 500 m	6GK6000-8FG01-4EA0
06	4 x 1000LX - Singlemode, 1310 nm, SC, 10 km	6GK6000-8FG02-4EA0
07	4 x 1000LX - Singlemode, 1310 nm, LC, 10 km	6GK6000-8FG03-4EA0
08	4 x 1000LX SFP - Blank (no optical transceiver)	6GK6000-8FG50-4EA0
09	4 x 1000SX SFP - Multimode, 850 nm, LC, 500 m	6GK6000-8FG51-4EA0
10	4 x 1000LC - Singlemode SFP, LC, 10 km	6GK6000-8FG52-4EA0
11	4 x 1000LC - Singlemode, 1300 nm, SFP LC, 25 km	6GK6000-8FG53-4EA0
12	4 x 1000LC - Singlemode, 1550 nm, SFP, 70 km	6GK6000-8FG54-4EA0
13	4 x 100FX - Multimode, 1300 nm, ST, 2 km	6GK6000-8FX01-4EA0
15	4 x 100FX - Singlemode, 1310 nm, ST, 20 km	6GK6000-8FX04-4EA0
16	4 x 100FX Singlemode, 1310 nm, SC, 20 km	6GK6000-8FX05-4EA0
17	4 x 100FX Singlemode, 1310 nm, LC, 20 km	6GK6000-8FX06-4EA0
18	4 x 100FX Singlemode, 1310 nm, SC, 50 km	6GK6000-8FX07-4EA0
19	4 x 100FX – Multimode, 1300 nm, LC, 2 km	6GK6000-8FX11-4EA0
2 Port Modules Slot 7(Gxx) to Slot 8 (Hxx)		
60	2 Port Blank Module	6GK6000-8AA00-2EA0
61	2 x 10/100/1000Tx RJ45	6GK6000-8CG01-2EA0
62	2 x 10/100/1000Tx FastConnect	6GK6000-8CG02-2EA0
65	2 x 1000LX SFP - Blank (no optical transceiver)	6GK6000-8FG50-2EA0
67	2 x 1000SX SFP - Multimode, 850 nm, LC, 500m	6GK6000-8FG51-2EA0
68	2 x 1000LX SFP - Singlemode, 1310 nm, LC, 10 km	6GK6000-8FG52-2EA0
69	2 x 1000LX SFP - Singlemode, 1310 nm, LC, 25 km	6GK6000-8FG53-2EA0
70	2 x 1000LX SFP - Singlemode, 1550 nm, LC, 70 km	6GK6000-8FG54-2EA0
71	2 x 100FX SFP Multimode, 1310 nm LC 2 km	6GK6000-8FX51-2EA0

Example	Order Code:
RSG2488 with 19" rack mount, 2 – 100-300VDC power supplies (PS1 & PS2), 6 – 4 port 1000SX Multimode LC, 2 – 2 port 1000Tx RJ45 and no conformal coating	6GK6024-8GS23-3DA0-Z A05+B05+ C05+D05+E05+F05+G61+H61