

Comnet RLGE2FE16R/S/12/288P RLGE2FE16R system with 8x10/100 BaseT PoE/8x 100FX SFPs/2xGE SFP/12V DC PSU

Security	
Distributed DPI Firewall	Profile based firewall
	Security roles planning per service group
	Firewall monitoring mode
	Firewall enforcement mode
	Firewall Learning Mode
	IEC 101 DPI Firewall
	IEC 104 DPI Firewall
	IEC 61850 mms DPI Firewall
	Modbus RTU DPI Firewall
	Modbus TCP DPI Firewall
	DNP3 RTU Firewall
	DNP3 TCP Firewall
	VPN
IPsec CRL server	
IPsec CA server	
IPsec Dynamic Key Exchange	
IPsec encryption AES	
IPsec encryption 3DES	
L3 IPsec VPN policy based	
L3 IPsec VPN route based	
L3 mGRE DM-VPN	
L2 VPN GRE	
Access control	SNMPv1/v2/v3 Enable/Disable port
	Port access filter per MAC / IP addresses
	IEEE 802.1x port-based authentication
	local APA (Authentication Proxy Access)
	User activity report (under local APA)
	Access Lists L2/L3/L4 Radius
	TACACS NAT - traversa
	VRF RMON
Interface	2 x 100/1000 SFP ¹ ports
	8 x 10/100Base-T(X) ports (Optional 30 W PoE)
	8 x 10/100Base-T(X) ports (Optional, No PoE)
	8 x 100FX SFP ports (Optional)
	4 x RS-232 ports (Optional)
	(600 - 115.2 Kbps Support)
	2G/3G/4G cellular modem (Optional)
Management	Console serial port
	Port management speed, auto-negotiation and Duplex
	Backup/Restore running config
	Conditioned/scheduled system reboot
	Remote management-(SSHv2,CLI/HTTPS/Telnet)
	Software upgrade via TFTP/ SFTP
	TFTP/ SFTP Client Syslog Port mirroring

Local Operation	Local USB port for emergency boot
	Discrete outputs reporting system-alarms
	Failsafe output relay reporting critical alarm
Networking	
Advanced Layer 2 feature-set	ITU-T G.8032v2 Ethernet ring
	IEEE 802.1s MSTP
	IEEE 802.1w RSTP, enhanced RSTP
	IEEE 802.3ad LAG with LACP
	IEEE 802.1q VLAN segregation
	IEEE 802.1p per port queues
	IEEE 802.3p
	IEEE 802.3x.
	DHCP Client, Server and Relay
	QOS Prioritization, shaping, Scheduling
	QOS functions: 8 queues tag, switch ports
	OAM EFM IEEE 802.3ah
	OAM CFM ITU-T Y.1731/IEEE 802.1ag
	1588v2 PTP Transparent Clock
SNTP	
Layer 3 feature-set	Static routing; OSPF, RIPv2 Routing;
	VRRP redundancy scheme
SCADA protocol handling	Transparent tunneling of serial streams
	SCADA gateway for IEC101/104, ModBus RTU/TCP and DNP3
	Terminal Server Byte/Frame mode
	Terminal Server TCP/UDP
Cellular Modem (Optional)	GPRS/UMTS or HSPA/EVDO/LTE cellular modem
	(cellular interface requires sold separately antennas)
	2 x SIM cards
System Performance	Line rate L2/L3 switching throughput
	Switching latency <10 µSec
	16K MAC addresses
	4K VLANs with port affiliation & tagging
Multicast	L2 Multicast
	IGMP snooping for traffic optimization
Mechanical	
Indicating LEDs	PWR Port Activity/Speed RUN ALM
Enclosure	Rugged - IP 30 rated, No fans
Weight	1.4 Kg (DC) – 1.8 Kg (AC)
Size, DC 8 Port Models	73 x 148 x 123 mm (2.9 x 5.8 x 4.8 in)
Size, DC 16TX Port Models	80 x 148 x 123 mm (3.1 x 5.8 x 4.8 in)
Size, DC 8TX + 8SFP Models	102 x 148 x 123 mm (4.0 x 5.8 x 4.8 in)
Size, AC Models	112 x 148 x 123 mm (4.4 x 5.8 x 4.8 in)
Mounting	DIN rail enclosure
Environmental	
MTBF	>250,000 Hours
Storage Temperature	-40° to +85°C
Operating Temperature	-40° to +85°C
Operating Humidity	5% to 95% Non-condensing ²
Power	

Power input	See Options in Ordering Information
	DC models have 2 redundant inputs
	AC models have 1 input
Power Consumption	12 W Max (plus PoE Load if PoE version)
Power Management of 8 PoE Ports	
Power Output	12 VDC: 60 W Max (30 W for two groups of 4 ports)
	24 VDC: 80 W Max (40 W for two groups of 4 ports)
	48 VDC: 120 W Max (60 W for two groups of 4 ports)
	110 VDC: 100 W Max (50 W for two groups of 4 ports)
	220 VDC: 100 W Max (50 W for two groups of 4 ports)
	VAC: 120 W Max (60 W for two groups of 4 ports)
PoE Group Division	Group 1: P1, P2, P3, P6; Group 2: P4, P5, P7, P8
Compliance	
IEC 61850-3 Electric Utility Substations	IEEE 1613 Class 2 Electric Utility Substations
EN50121-4 Vibration & Shock resistance	IEC 61000 -4
EN 60950	NEMA TS-1/TS-2