DATASHEET

REG5-2804-10GSFP Series

28-Port Industrial Rack-mount Managed Gigabit Ethernet Switch

Interfaces

- 24-port 10/100/1000BASE-T Gigabit Ethernet
- 4-port 1G/2.5G/10GbE SFP+ slots
- One console and USB interface

High Reliability and Availability

- G.8032 ERPS v2
- STP/ RSTP/ MSTP
- Redundant power inputs design
- Wide operating temperature from -40°C ~ 75°C

L3 Routing Protocol

- Static Route
- RIP
- OSPF
- VRRP

Versatile Management Capability

- HTTP, HTTPS
- CLI Command, Telnet and SSH
- SNMP v1/v2c/v3

Robust Security

- RADIUS, TACACS+, 802.1X Authentication
- ACL, IP Source Guard, SNMPv3

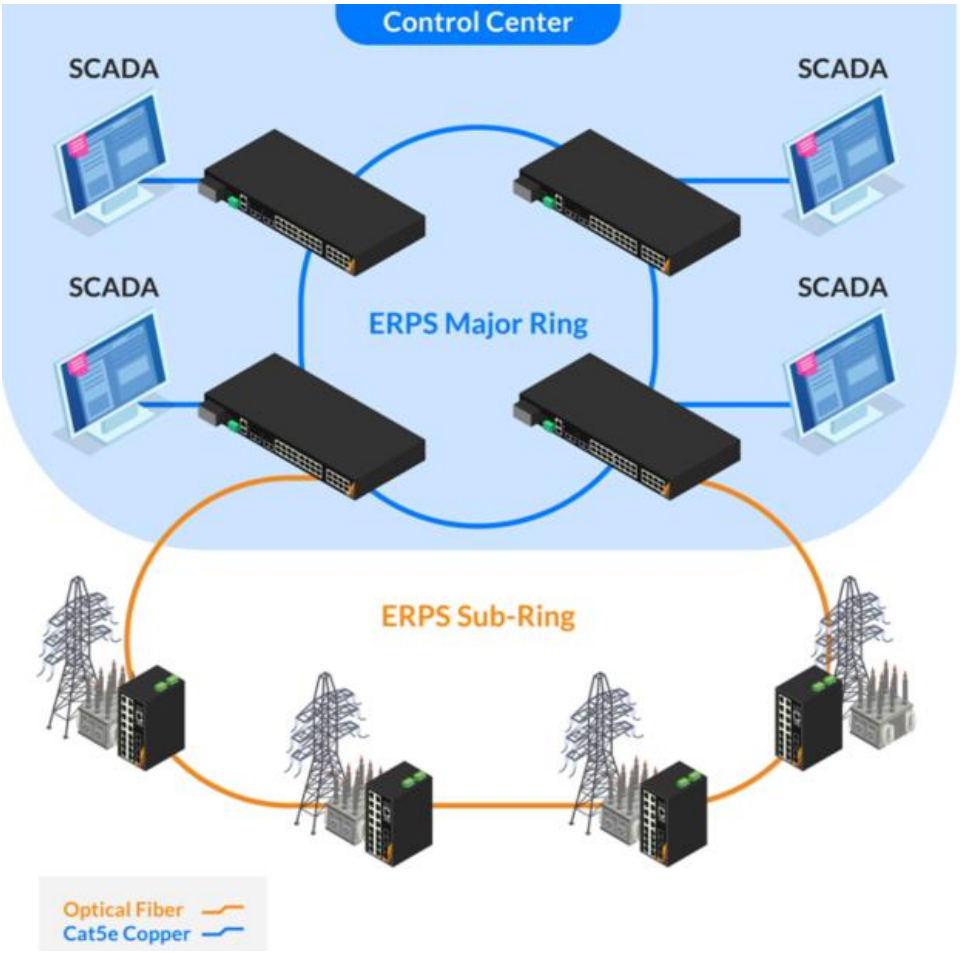
Introduction

Leonton's REG5-2804-10GSFP Series is a 28-port Industrial Rack-mount Managed Gigabit Ethernet Switch, which provides 24*10/100/1000BASE-T Gigabit Ethernet and 4*1G/2.5G/10GbE SFP+ slots. REG5-2804-10GSFP Series is full manageable Layer-2 Ethernet switch series and supporting power inputs redundancy. REG5-2804-10GSFP Series offers standardized network redundancy ITU-T G.8032 ERPS v2 (Ethernet Ring Protection Switch) protocol, providing <50ms recovery time to the network, to give user the chance to choose your Ethernet switch but not tied up with particular brand's product.

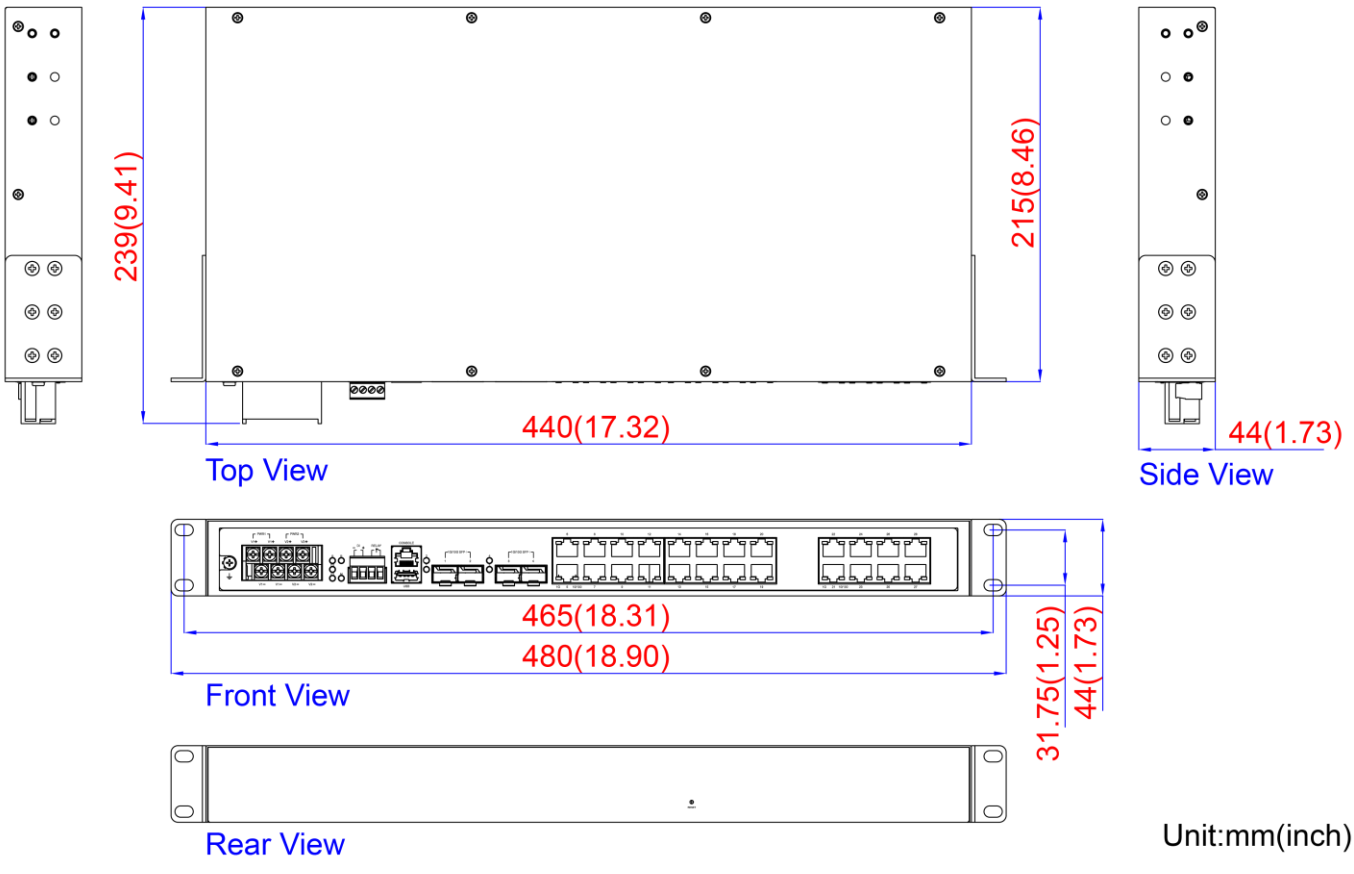
REG5-2804-10GSFP Series provides comprehensive network security and management capability by supporting Multiusers account, IGMP, GVRP, VLAN, QoS, SNMP, RADIUS, TACACS+, Aggregation(Static, LACP), SSH, SSL, IP source guard to create a highly-secured network environment.

REG5-2804-10GSFP Series as an industrial Ethernet switch product line is designed to withstand harsh and extreme environment conditions. With fan less design, REG5-2804-10GSFP Series still manages to be applied in extremely polarized temperature, from -40°C to 75°C, making it the best choice in various industrial applications.

Applications



Dimension



Unit:mm(inch)

Technical Specifications

Interface	
Copper Ports	24 x 10/100/1000BASE-T Gigabit Ethernet Auto-Negotiation, Full/Half Duplex, Auto-MDI/MDI-X
Fiber Port	4 x 1G/2.5G/10GbE SFP+ slots
Console Port	1 x RS232 in RJ45 connector, baud rate 115,200bps,8,N,1
LED Indicators	• System: Power 1, Power 2, Master (M), Ring (R), Status • Ethernet ports: Speed/Link/Active • SFP: Link/Active
Relay Contact	24 VDC, 1A resistive
DI	1 x Digital Input (DI): State 0: -30~8VDC / State 1: 10~30VDC, Max. input current: 8mA
Switch Properties	
Switching Capacity	128Gbps
Forwarding Rate	95.232Mpps
MAC Table Size	32K
Packet Buffer	32Mbits
Jumbo Frame	10Kbytes
Max. VLAN Number	4095
VLAN ID	1 to 4095
IGMP Groups	1024
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet Port 14,880,000pps for 10 Gigabit Ethernet Port
Power Requirements	
Input Voltage	Dual 12-48VDC redundant power inputs
Power Connection	1 removable 8-contact terminal block
Overload Current Protection	Present (Slow-Blow Fuse)
Reverse Polarity Protection	Present
System Power Consumption	Max. 40.5W full loading
Mechanical Characteristics	
Housing	Metal, IP30 protection
Dimensions (W x H x D)	440 x 44 x 215 - mm (17.32 x 1.73 x 8.46 inch)
Weight	Unit weight: 3.1kg (6.83 lb), Shipping weight: 4.06 kg (8.95 lb)
Mounting	Rack mounting
Environmental Limits	
Operating Temperature	• STD: -10°C ~ 65°C (14°F ~ 149°F) • EOT: -40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (non-condensing)
Software Features	
VLAN	• Private VLAN • Port-based VLAN • IP Subnet-based VLAN • GVRP • Guest VLAN • MAC-based VLAN • Protocol-based VLAN • VLAN Trucking
L2 Features	• STP • MSTP • Port Mirror • Loop Guard • BPDU Guard • MEP • RSTP • G.8032 ERPS v1/v2 • Loop Detection • LACP • Error Disable Recovery
L2 Multicast	• IGMPv1/v2/v3 Snooping • IGMP Filtering • IPMC Filtering Leave Proxy • MLDv1/v2 Snooping • IPMC Throttling
L3 Features	• ARP • NAT • OSPFv2, OSPFv3 • Static Route • RIPv2, RIPng • VRRPv2, VRRPv3

QoS	• 802.1p • Port/Queue/ACL Policer • Queue Egress Shaper • Tag Remarking	• Input Priority Mapping • Port Egress Shaper • DiffServ (DSCP) • Scheduler Mode
Power Saving	• ActiPHY • 802.3az Energy Efficient Ethernet (EEE)	• PerfectReach
Security	• SSHv2 • Port-based 802.1X • MAC-based Authentication • QoS Assignment • TACACS+ • Web/CLI Authentication • Port Security • IP Source Guard • DHCP Snooping • Secure Copy Protocol (SCP)	• IP Based Access Filter • Access Control List (ACL) • ACL for Filtering/Policing/Port Copy • VLAN Assignment • IP MAC Binding • User Privilege (15 levels) • RADIUS Authentication and Accounting • ARP Inspection • Broadcast/Multicast/Unicast Storm Control • Secure FTP
Management	• IPv4/IPv6 • LLDP / LLDP-MED • DHCP Client • DHCP Server • DNS Proxy • Syslog • Daylight Saving • RMON • Command Line Interface (CLI) • Relay Trigger • Telnet Server and Client • Dual Image Protection • Ping6 • DDMI • SMTP	• SNMP v1/v2c/v3 • HTTP / HTTPS • DHCPv6 Client • DNS Client • ICMPv6 • Time Zone • NTP Client • sFlow • Power Lost Warning • DHCP Option 82 • TFTP • Ping • USB Configuration Backup/Restore • Modbus TCP
Standards and MIBs	• IEEE 802.3 10BASE-T Ethernet • IEEE 802.3ab 1000BASE-T • IEEE 802.3ae 10 Gigabit Ethernet • IEEE 802.3x Flow Control • IEEE 802.1w RSTP (Rapid Spanning Tree Protocol) • ITU-T G.8032 / Y.1344 ERPS v1/v2 (Ethernet Ring Protection Switch) • IEEE 802.1Q Virtual Local Area Network (VLAN) • IEEE 802.1X Network Authentication • IEEE 802.3ad Link Aggregation (LACP) • RFC 2674 VLAN MIB • RFC 2819 RMON (group 1, 2, 3, and 9) • RFC 1215 TRAPS • RFC 4292 IP forwarding table • RFC 5519 multicast group membership discovery • RFC 4670 RADIUS accounting • RFC 2863 interface group MIB using SMI v2 • RFC 4133 entity MIB v3 • RFC 3414 user-based security model for SNMPv3 • RFC 2613 SMON – PortCopy • IEEE 802.3ad (LACP MIB included in a clause of the STD) • TIA 1057 LLDP-MED • (MIB is part of the STD)	• IEEE 802.3u 100BASE-TX Fast Ethernet • IEEE 802.3z 1000BASE-X Gigabit Fiber • IEEE 802.1D STP (Spanning Tree Protocol) • IEEE 802.1s MSTP (Multiple Spanning Tree Protocol) • IEEE 802.1p QoS/CoS Protocol for Traffic Prioritization • IEEE 802.1AB Link Layer Discovery Protocol (LLDP) • IEEE 802.3x flow control, back pressure flow control • IEEE-802.1Q bridge MIB 2008 • RFC 1213 MIB II • RFC 4188 bridge • RFC 4293 management information base for the Internet Protocol (IP) • RFC 4668 RADIUS auth. client • RFC 3635 Ethernet-like • RFC 3636 802.3 MAU • RFC 3411 SNMP management frameworks • RFC 3415 view-based access control model for SNMP • IEEE 802.1AB LLDP-MIB (LLDP MIB included in a clause of the STD) • IEEE 802.1X • (PAE MIB included in a clause of the STD)

Regulatory Approvals		
EMI	• FCC Part 15 Subpart B Class A, • EN61000-6-4 Class A	• CE EN55032
EMS	• CE EN55035 • IEC61000-4-2 (ESD) • IEC61000-4-4 (EFT) • IEC61000-4-6 (CS)	• EN61000-6-2 • IEC61000-4-3 (RS) • IEC61000-4-5 (Surge) • IEC61000-4-8 (Magnetic Field)
Free Fall	• IEC60068-2-32	
Shock	• IEC60068-2-27	
Vibration	• IEC60068-2-6	
Green	• RoHS Compliant	
Safety	• UL61010-1 • UL61010-2-201 • ISA12.12.01	
Compliance	• IEC-61850-3 (Pending)	
MTBF(Telcordia Issue 3, GB, 25°C)	SR-332,	176,591 hrs.
Warranty		5 Years
NOTE: Due to continuous improvement, all product specifications are subject to change without further notice.		

Packet Contents

REG5-2804-10GSFP(-T) Ethernet switch x 1
RJ45 (Male) to DB-9 RS-232 (Female) serial console cable x 1
Rack-mount installation kits x 1
Quick installation guide (printed) x 1

Comparison Table

Model Name	10/100/1000BASE-T	1G/2.5G/10GbE SFP+	Power Inputs	Operating Temperature
REG5-2804-10GSFP	24	4	12-48VDC	-10˚C ~ 65˚C
REG5-2804-10GSFP-T	24	4	12-48VDC	-40˚C ~ 75˚C

Ordering Information

REG5-2804-10GSFP	28-Port Industrial Rack-mount Managed Gigabit Ethernet Switch - 24*10/100/1000BASE-T Gigabit Ethernet + 4*1G/2.5G/10G SFP+ Slots, 12-48VDC, -10°C to 65°C
REG5-2804-10GSFP-T	28-Port Industrial Rack-mount Managed Gigabit Ethernet Switch - 24*10/100/1000BASE-T Gigabit Ethernet + 4*1G/2.5G/10G SFP+ Slots, 12-48VDC, -40°C to 75°C

Optional Accessories - Power Supply Series

30W Power Supply Series	
HDR-30-24	36W Industrial DIN-Rail Power Supply, 24VDC/1.5A, Universal 85-264VAC/120-370VDC power input, Plastic, -30°C ~ 70°C
60W Power Supply Series	
HDR-60-24	60W Industrial DIN-Rail Power Supply, 24VDC/2.5A, Universal 88-264VAC/124-370VDC power input, Plastic, -30°C ~ 70°C
MDR-60-24	60W Industrial DIN-Rail Power Supply, 24VDC/2.5A, Universal 85-264VAC/120-370VDC power input, Plastic, -20°C ~ 70°C
75W Power Supply Series	
EDR-75-48	75W Industrial DIN-Rail Power Supply, 48VDC/1.6A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 60°C
NDR-75-48	75W Industrial DIN-Rail Power Supply, 48VDC/1.6A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C

120W Power Supply Series	
EDR-120-48	120W Industrial DIN-Rail Power Supply, 48VDC/2.5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 60°C
NDR-120-24	120W Industrial DIN-Rail Power Supply, 24VDC/5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C
NDR-120-48	120W Industrial DIN-Rail Power Supply, 48VDC/2.5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C
240W Power Supply Series	
NDR-240-48	240W Industrial DIN-Rail Power Supply w/ PFC, 48VDC/5A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C
SDR-240-24	240W Industrial DIN-Rail Power Supply w/ PFC, 24VDC/10A, Universal 88-264VAC/124-370VDC power input, Metal, -25°C ~ 70°C
480W Power Supply Series	
NDR-480-48	480W Industrial DIN-Rail Power Supply w/ PFC, 48VDC/10A, Universal 90-264VAC/127-370VDC power input, Metal, -20°C ~ 70°C

OPTIONAL ACCESSORIES - SFP Transceiver Series

1Gbps Multi-mode SFP Transceiver Modules Series	
SFP-GM00	1Gbps SFP Transceiver/LC, MMF, 550M, 850nm, 0°C ~ 70°C with UPC connector
SFP-GM00-T	1Gbps SFP Transceiver/LC, MMF, 550M, 850nm, -40°C ~ 85°C with UPC connector
SFP-GM02	1Gbps SFP Transceiver/LC, MMF, 2KM, 1310nm, 0°C ~ 70°C with UPC connector
SFP-GM02-T	1Gbps SFP Transceiver/LC, MMF, 2KM, 1310nm, -40°C ~ 85°C with UPC connector
1Gbps Single-mode SFP Transceiver Modules Series	
SFP-GS10	1Gbps SFP Transceiver/LC, SMF, 10KM, 1310nm, 0°C ~ 70°C with UPC connector
SFP-GS10-T	1Gbps SFP Transceiver/LC, SMF, 10KM, 1310nm, -40°C ~ 85°C with UPC connector
SFP-GS10-WA	1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1310nm/RX: 1550nm, 0°C ~ 70°C with UPC connector
SFP-GS10-WA-T	1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1310nm/RX: 1550nm, -40°C ~ 85°C with UPC connector
SFP-GS10-WB	1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1550nm/RX: 1310nm, 0°C ~ 70°C with UPC connector
SFP-GS10-WB-T	1Gbps BiDi SFP Transceiver/LC, SMF, 10KM, TX: 1550nm/RX: 1310nm, -40°C ~ 85°C with UPC connector
SFP-GS20	1Gbps SFP Transceiver/LC, SMF, 20KM, 1310nm, 0°C ~ 70°C with UPC connector
SFP-GS20-T	1Gbps SFP Transceiver/LC, SMF, 20KM, 1310nm, -40°C ~ 85°C with UPC connector
SFP-GS40	1Gbps SFP Transceiver/LC, SMF, 40KM, 1310nm, 0°C ~ 70°C with UPC connector
SFP-GS40-T	1Gbps SFP Transceiver/LC, SMF, 40KM, 1310nm, -40°C ~ 85°C with UPC connector
SFP-GS40-WA	1Gbps BiDi SFP Transceiver/LC, SMF, 40KM, TX: 1310nm/RX: 1550nm, 0°C ~ 70°C with UPC connector
SFP-GS40-WB	1Gbps BiDi SFP Transceiver/LC, SMF, 40KM, TX: 1550nm/RX: 1310nm, 0°C ~ 70°C with UPC connector
SFP-GS60	1Gbps SFP Transceiver/LC, SMF, 60KM, 1550nm, 0°C ~ 70°C with UPC connector
SFP-GS60-T	1Gbps SFP Transceiver/LC, SMF, 60KM, 1550nm, -40°C ~ 85°C with UPC connector
SFP-GS60-WA	1Gbps BiDi SFP Transceiver/LC, SMF, 60KM, TX: 1310nm/RX: 1550nm, 0°C ~ 70°C with UPC connector
SFP-GS60-WB	1Gbps BiDi SFP Transceiver/LC, SMF, 60KM, TX: 1550nm/RX: 1310nm, 0°C ~ 70°C with UPC connector
SFP-GS80	1Gbps SFP Transceiver/LC, SMF, 80KM, 1550nm, 0°C ~ 70°C with UPC connector
SFP-GS80-T	1Gbps SFP Transceiver/LC, SMF, 80KM, 1550nm, -40°C ~ 85°C with UPC connector
SFP-GSH2	1Gbps SFP Transceiver/LC, SMF, 120KM, 1550nm, 0°C ~ 70°C with UPC connector
SFP-GSH2-T	1Gbps SFP Transceiver/LC, SMF, 120KM, 1550nm, -40°C ~ 85°C with UPC connector
10Gbps Multi-mode SFP+ Transceiver Modules Series	
SFP-XM00	10Gbps SFP+ Transceiver/LC, MMF, 300M, 850nm, 0°C ~ 70°C
SFP-XM00-T	10Gbps SFP+ Transceiver/LC, MMF, 300M, 850nm, -40°C ~ 85°C
10Gbps Single-mode SFP+ Transceiver Modules Series	
SFP-XS10	10Gbps SFP+ Transceiver/LC, SMF, 10KM, 1310nm, 0°C ~ 70°C
SFP-XS10-T	10Gbps SFP+ Transceiver/LC, SMF, 10KM, 1310nm, -40°C ~ 85°C
Copper SFP Transceiver Modules Series	
SFP-GC00-SG	SFP to 10/100/1000BASE-T copper Module, 0°C ~ 70°C
SFP-GC00-SE	SFP to 1000BASE-T copper Module, 0°C ~ 70°C