



RY-LGSOTR38-14





Content

1	Overview.....	3
2	Key Features	3
3	Benefits	3
4	Specifications	4
4.1	Port Configuration	4
4.2	Hardware Performance	4
4.3	Environmental Range.....	4
4.4	Dimension, Weights, Humidity	4
4.5	Power Supply / Voltage and Frequency	4
4.6	Compliance	4
4.7	Software Features	5



1 Overview

RY-LGSOTR-38-14 switch are next-generation managed (100M/1G/2.5G/5G/10G) SFP+ fiber and (1G/2.5G/5G/10G/25G) SFP28 Multi-gigabit switch offering powerful L2 and basic L3 features with better functionality and usability. In addition to the extensive management features.

RY-LGSOTR-38-14 delivers 12 (100M/1G/2.5G/5G/10G) SFP+ and 2 (1G/2.5G/5G/10G/25G) SFP28 ports and RJ45 console port. RY-LGSOTR-38-14 provides high HW performance for aggregation/access network applications.

2 Key Features

- Fully L2 features provide easier manageability, security and QoS
- IPv4/IPv6 L3 static route
- RIP v1/v2 and OSPFv2 L3 dynamic routing

3 Benefits

Feature-rich Ethernet Switch for High Bandwidth Aggregation Applications: The switch delivers advanced functionality in this Multi-Gig Ethernet switch including L2 and L3 switch features, etc. It also enhanced security features such as IP source guard, Access Control List guard your network from unwanted or unauthorized access.



4 Specifications

4.1 Port Configuration

Total Ports	SFP+ (100M/1G/2.5G/5G/10G)	SFP28 (1G/2.5G/5G/10G/25G)	Console
14	12	2	RJ45

4.2 Hardware Performance

Forwarding Capacity	Switching Capacity	Mac Table	Jumbo Frames
252.876Mpps	340Gbps	32K	10K Bytes

4.3 Environmental Range

Operating Temperature	Storage Temperature	Altitude
0°C to 50°C	-20 to 70°C	< 3000m

4.4 Dimension, Weights, Humidity

Dimension (WxHxD)	Weight	Operating Humidity
Millimeter	Kilograms	
442 x 44 x 300	TBD	Up to 95%, non-condensing

4.5 Power Supply / Voltage and Frequency

Power Input Voltage and Frequency
Hot-swappable Dual AC PSUs / 100-250 VAC, 50~60 Hz

4.6 Compliance

EMC and Safety
• SHALL comply with European Directives for CE marking • SHALL comply with FCC Part 15 Class A • Other by Request

4.7 Software Features

Layer 2 Switching	
Spanning Tree Protocol (STP)	- Standard Spanning Tree 802.1d - Rapid Spanning Tree (RSTP) 802.1w - Multiple Spanning Tree (MSTP) 802.1s
Trunking	Link Aggregation Control Protocol (LACP) IEEE 802.3ad
VLAN	Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs) - Port-based VLAN 802.1Q tag-based VLAN - MAC-based VLAN - Management VLAN - Private VLAN Edge (PVE) - Q-in-Q (double tag) VLAN - Voice VLAN - GARP VLAN Registration Protocol (GVRP)
DHCP Relay	- Relay of DHCP traffic to DHCP server in different VLAN. - Works with DHCP Option 82
IGMP v1/v2/v3 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters. Supports 1024 multicast groups
IGMP Querier	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
IGMP Proxy	IGMP snooping with proxy reporting or report suppression actively filters IGMP packets in order to reduce load on the multicast router
MLD v1/v2 Snooping	Delivers IPv6 multicast packets only to the required receivers
Layer 3 Switching	
IPv4 Static routing	IPv4 Unicast: Static routing
IPv6 Static routing	IPv6 Unicast: Static routing
RIPv1/v2	Routing Information Protocol (RIP) protocol are the intra-domain (interior) routing protocol which is based on distance vector routing and it is used inside an autonomous system.
OSPFv2	OSPF is a link-state routing protocol. It is designed to be run internal to a single Autonomous System. Each OSPF router maintains an identical database describing the Autonomous System's topology. From this database, a routing table is calculated by constructing a shortest-path tree.
Security	
Secure Shell (SSH)	SSH secures Telnet traffic in or out of the switch, SSH v1 and v2 are supported
Secure Sockets Layer (SSL)	SSL encrypts the http traffic, allowing advanced secure access to the browser-based management GUI in the switch
IEEE 802.1X	- IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions - Supports IGMP-RADIUS based 802.1X - Dynamic VLAN assignment
Layer 2 Isolation Private VLAN Edge	PVE (also known as protected ports) provides L2 isolation between clients in the same VLAN. Supports multiple uplinks
Port Security	Locks MAC addresses to ports, and limits the number of learned MAC address



Security	
IP Source Guard	Prevents illegal IP address from accessing to specific port in the switch
RADIUS/ TACACS+	Supports RADIUS and TACACS+ authentication. Switch as a client
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
DHCP Snooping	A feature acts as a firewall between untrusted hosts and trusted DHCP servers
ACLs	Supports up to 256 entries. Drop or rate limitation based on: • Source and destination MAC, VLAN ID or IP address, protocol, port, • Differentiated services code point (DSCP) / IP precedence • TCP/ UDP source and destination ports • 802.1p priority • Ethernet type • Internet Control Message Protocol (ICMP) packets • TCP flag
Quality of Service	
Hardware Queue	Supports 8 hardware queues
Scheduling	• Strict priority and weighted round-robin (WRR) • Queue assignment based on DSCP and class of service
Classification	• Port based • 802.1p VLAN priority based • IPv4/IPv6 precedence / DSCP based • Differentiated Services (DiffServ) • Classification and re-marking ACLs
Rate Limiting	• Ingress policer • Egress shaping and rate control • Per port
Management	
DHCP Server	Support DHCP server to assign IP to DHCP clients
Remote Monitoring (RMON)	Embedded RMON agent supports RMON groups 1,2,3,9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported.
UPnP	The Universal Plug and Play Forum, an industry group of companies working to enable device-to-device interoperability by promoting Universal Plug and Play
Management	
s-Flow	The industry standard for monitoring high speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting/billing for usage, and defense against security threats
IEEE 802.1ab (LLDP)	• Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network • Support LLDP-MED extensions
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
CLI	For users to configure/manage switches in command line modes
Dual Image	Independent primary and secondary images for backup while upgrading
SNMP	SNMP version1, 2c and 3 with support for traps, and SNMP version 3 user-based security model (USM)



Firmware Upgrade	• Web browser upgrade (HTTP/ HTTPS) and TFTP • Upgrade through console port as well
Other Management	• HTTP/HTTPS; SSH • DHCP Client/ DHCPv6 Client • Cable Diagnostics • Ping • Syslog • Telnet Client • IPv6 Management
Synchronization	
IEEE 1588v2 PTP	Support IEEE 1588 v2 PTP (Precision Time Protocol)
NTP	Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Loop Protection	
ITU-T G.8031	Supports ITU-T G.8031 Ethernet Linear Protection Switching
ITU-T G.8032	Supports ITU-T G.8032 Ethernet Ring Protection Switching
Loop Detection	Supports Loop Detection and Protection