

# R1(R1P)-SWL2B Smart L2 Ethernet Switch



R1-SW24L2B

## Product Overview

R1-and R1P-SW24L2B is a 「Smart L2 Ethernet Switch」 which serves as a 「Ethernet Workgroup switch」 at enterprise network or 「Ethernet access node」 at Ethernet based broadband access network.

Emerging new services of today requires more features beyond those of legacy Layer 2 switch to achieve stable and successful service delivery. Enterprise network requires more secure and safe network with the capability to handle various types of user traffics on the fly. Ethernet based broadband access gives favor of simple network that brings savings to service provider's installation and management cost. But at the same time, Ethernet's open and simple characteristics makes network less secure and robust. New requirements such as Service Level Agreement (SLA), blocking between subscribers, bandwidth guarantee for delay sensitive traffic and bandwidth control of multicasting traffic for Broadband IP-TV are required for these needs.

R1- and R1P-SWL2B is engineered on the top of advanced layer two packet processing engine to meet these complex requirements. Its robust QoS, advanced multicasting, improved VLAN, traffic control, standardized management, simple S/W upgrades and optimal subscriber & network management features offers effective solution for value-added service offering. Its compact form factor, full front access nature and versatile uplink options make R1- and R1P-SW more suitable entity for enterprise workgroup and small and mid-scale broadband access deployment in remote area.

R1-SWL2B has 24 10/100Base-TX ports with one uplink slot. This switch product shares common uplink modules which are pre-assembled in factory with other R1 series products. R1P-SW24L2B is differentiated from R1-SW24L2B in the number of uplink ports and hot-swappability of uplink module. R1P-SW has two built-in gigabit Ethernet uplink port and additional uplink module that brings up to four gigabit Ethernet uplinks. This additional uplink module is hot-swappable, so it can be replaced or upgraded without affecting system operation, while R1-SW does not support hot-swapping in uplink slot. R1P-SWL2B has two products-R1P-SW24L2B, 24-port 10/100Base-TX switch product and R1P-SW24FL2B, 24-port SFP 100Base-FX switch. R1P-SW24L2B, RJ45 model, is released first and R1P-SW24FL2B<sup>1)</sup> will follow.

1) Please contact CORECESS sales representative for availability and specifications of R1-SW24FL2B product.

## Key Features

### Platform for deployment everywhere within network

- Compact form factor of 1RU height and 220mm depth
- Full front access for installation, configuration & management
- Temperature hardened version in plan

### Provides standard compliant Layer 2 features

- Wire-speed performance with hardware based packet processing engine
- Port-based VLAN and IEEE 802.1q Tag VLAN support
- Supports quick fail over recovery network resiliency through fast spanning-tree convergence (RSTP)

### Excellent network security features

- Broadcast storm control and ACL based on parameters from L2, L3 and L4 headers
- DHCP Filtering to prevent damage caused by unauthorized private DHCP Server operation

### Robust QoS and IGMP snooping support for efficient multicast video and voice over packet delivery

- Multi-field classification support for policing and filtering traffics
- Congestion control by Strict Priority (SP) and Weighted Round Robin (WRR) scheduler
- Efficient multicasting stream transmission based on IGMP snooping with fast join and leave

### Wide choice of uplink options for various network environment

- Gigabit Ethernet or Gigabit EPON for fiber backhaul network

### Multiple redundant gigabit Ethernet uplink support : 2 for R1-and 4 for R1P-SW products

### Scalable role out configurations from 24 port box to mid-capacity stacking through Gigabit Copper connection

### Remote upgrade, provisioning and management capabilities through TFTP, FTP, CLI, SNMP, RMON, Telnet or ViewlinX™ EMS

- Multiple level LEDs for system and port for easily monitoring system status
- Single IP management for multiple cascaded R1-and R1P-SW products

## Specifications

### INTERFACES

- R1-SW24L2B/R1P-SW24L2B : 24 port 10/100 Base-TX L2 switch with RJ45 connectors
- Uplink : SFP gigabit Ethernet supporting fiber, RJ45 gigabit Ethernet supporting copper, SC gigabit EPON supporting fiber
- Built-in uplink (Applied only for R1P-SW24L2B): 1 port SFP 1000Base-FX and 1 port RJ45 10/100/1000Base-T

### LAYER 2 FUNCTIONALITY

- IEEE 802.1p/q, IEEE 802.1w, IEEE 802.3ad, IEEE 802.3x
- GVRP, Port mirroring, Rate limiting, IGMP snooping, NTP

### PERFORMANCE

- Line rate 24 full port 100M full duplex switching to multiple gigabit Ethernet uplink ports

### PHYSICAL SPECIFICATIONS

- R1-SW24L2B/R1P-SW24L2B: 440mm(17.3 inch) × 44mm(1.73 inch, 1 RU) × 220mm(8.66 inch)
- Power: 100 to 240 VAC (auto-ranging), 50 to 60 Hz
- Full front access
- Weight : TBD
- Slot configuration : 1 expansion slot

### MANAGEMENT FUNCTIONALITY

- SNMP v1 and v2c, RMON 4 Groups
- Telnet, FTP, TFTP
- SSH2, Radius authentication, TACTACS+ for login access control (Contact for availability)

### ENVIRONMENTAL & REGULATORY COMPLIANCE

- Operating Temperature (Commercial Version) 0°C ~ 50°C
- Operating Relative Humidity: 10 ~ 95% @40°C, Non-condensing
- MIC, VCCI, CE, UL, FCC Part 15, FCC Part 68 (All planned)

## Product Ordering

### R1-SW24L2B

- R1-SW24L2B : 24 port 10/100Base-TX switch with RJ45 connectors, 1 port serial console, 1 AC power connector and 1 expansion slot

### Expansion modules for R1-SW24L2B

- OPT-N2CS : 2 port modular SFP 1000Base-FX and RJ45 10/100/1000Base-T gigabit Ethernet combo module
- OPT-N1ES1CS : 1 port 1000Base-PX/10 SC gigabit EPON and 1 port modular SFP 1000Base-FX and RJ45 10/100/1000Base-T gigabit Ethernet combo module

### R1P-SW24L2B and Applicable Expansion modules

- R1P-SW24L2B : 24 port 10/100Base-TX switch with RJ45 connectors, 1 port modular SFP 1000Base-FX gigabit Ethernet & 1 port RJ45 10/100/1000Base-T gigabit Ethernet for uplink, 1 port serial console, 1 AC power connector and 1 hot-swappable expansion slot
- OPT-P2CS : 2 port modular SFP 1000Base-FX and RJ45 10/100/1000Base-T gigabit Ethernet combo module
- OPT-P1ES1CS : 1 port 1000Base-PX/10 SC gigabit EPON and 1 port modular SFP 1000Base-FX and RJ45 10/100/1000Base-T gigabit Ethernet combo module

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