



RI521-C MPLS Switch



RI521-C

With the constantly rising of user bandwidth, operators also put forward higher demands for the port bandwidth and performance of aggregator. Rikom RI521 series are next-generation carrier-class pre-aggregation and aggregation products that provide high performance, high reliability and high densities 1GE, 10GE, 25GE, 40GE and 100GE port types in a compact standard 1U enclosure, flexibly adapting to diversified operator's network bandwidth requirements. They support rich Layer 2 and Layer 3 features, with advanced QoS features, customers' services at different levels can be flexibly and finely scheduled, and support various VPN services over MPLSTP, IP/MPLS, SR-MPLS and SRv6 networks, to implement services isolation through network virtualization, greatly improved network capacity and utilization, and help customers build a powerful next-generation packet transport network.



RI521-2C-24



RI521-4C-24



RI521-6C-48

Key Features>>

Ethernet Service	• Ethernet VPN • Jumbo frame up to 12288 Bytes • 4,094 VLANs, IEEE802.1Q VLAN, IEEE802.1ad QinQ • Layer 2 control protocol (L2CP) handling • Super VLAN • Private VLAN (PVLAN) with primary, community and isolated type
IP Service	• IP static routing • RIP, OSPFv2, ISISv4 and BGP4 • PMTU support • VRF Lite • DHCP server, client, relay, snooping
MPLS Service	• MPLS L2VPN: VPWS, VPLS, H-VPLS, MS-PW • MPLS L3VPN • BGP-LU • Static CR-LSP, LDP, CSPF, RSVP-TE, tunnel policy • Inter-AS MPLS L2VPN Option A, C • Inter-AS MPLS L3VPN Option A, C
Multicast	• IGMP v1, v2, v3 • IGMP Snooping, MVR, VLAN copy, Proxy • MLD V1, V2* • MLD Snooping* • PIM-SM and PIM-SSM IPv4/V6* • NG-MVPN • MSDP • mLDP in-Band MVPN*

QoS	- Flexible traffic classification based on MAC, IP, port, VLAN, CoS, DSCP, etc. - Traffic policing with color-aware and color-blind mode, two-rate three-color marker - Hierarchical CAR 8 local priority, 8 queues per port - WRED - Traffic shaping per queue/port - SP/WRR/SP+WRR queue scheduling 3 Level H-QOS
Reliability	- IEEE802.1ax Link aggregation group, manual, LACP - MC-LAG - Switchport backup - STP, RSTP, MSTP, MRSTP - ITU-T G.8032 ERPS based on port or CFM, Switch over time less than 50 ms. - Loop detection - Ethernet fault propagation, MPLS PW fault propagation - ULDP - IP ECMP - Static/dynamic IP FRR, TE/LDP/VPN/EVPN FRR - VRRP - MPLS PW redundancy, MPLS TE hot-standby
OAM	- IEEE 802.3ah EFM-OAM - IEEE 802.1ag/ITU-T Y.1731 CFM - ITU-T Y.1731 performance monitoring (LM, DM) for Ethernet and MPLS L2VPN - SAT: RFC2544, Y.1564 - TWAMP-Lite for Ethernet, IP, MPLS L3VPN, 6PE/6VPE* - Layer 2 loopback with MAC swap - MPLS Ping and Traceroute - VCCV Ping and Traceroute - BFD for interface, static routing, RIP, OSPF, ISIS, BGP, LDP, LSP, CR-LSP*, PW,MS-P FRR, PIM - L2/L3 Dying Gasp in case of power failure
Security	- CPU CAR - CPU anti-attack for Land, Ping of death, ICMP unreachable/redirecting/forward, Tear drop, Smurf, Fraggle, WinNuke, TCP malformed - DHCP v4/v6 Snooping - ARP filter, DA - IPSG v4/v6 - ACL based on VLAN, CoS, MAC, Ethernet Type, IP or user-define - RADIUS, TACACS+, DOT1X - Storm control (broadcast, multicast, DLF) - Port-security MAC - URPF - TCP and UDP Small Servers disabled by default

Maintenance and Management	• Zero-touch provisioning • SNMP v1/v2/v3 based GUI management • Netconf, Telemetry • CLI management by local CONSOLE, Telnet and SSHv2 • KeepAlive, RMON, LLDP, Syslog • SFP digital diagnostic management (DDM) • CPU, memory monitoring • Voltage and temperature monitoring • Telnet Client, Telnet Server • SSHv2 Client, SSHv2 Server
Synchronization	• NTP, SNTP • SyncE • IEEE1588 v2 TC

* Features that will be available in future release

Model	RI521-2C-24	RI521-4C-24	RI521-6C-48
Switching capacity	880Gbps / 800Gbps	2Tbps / 4.8Tbps	2.88Tbps / 4.8Tbps
	NOTE: device's switching capability / chip's switching capability		
Management interface	1 x CONSOLE (USB TYPE-A) 1 x NEG management port (RJ-45)		
Service Interface	2x100G/40G QSFP28/QSFP+ 24x10G/1G/100M SFP+/SFP	4x100G/40GQSFP28/QSFP+ 24 x 25G/10G/1GSF P28/SFP+/SFP	6 x 100G/40G QSFP28/QSFP+ 24 x 25G/10G/1G SFP28/SFP+/SFP 24 x 10G/1G SFP+/SFP
Power Supplies	2 hot-swappable AC/DC power supplies provide 1+1 redundancy AC:220V, 100~240VAC DC: -48V, -36~-72V		
Power consumption	≤ 73W	≤ 300W	≤ 339W
Operating Temperature (Below altitude 1800m)	-5~55°C*	-10~55°C*	

Humidity	10~90% non-condensing		
Dimension (mm)	1RU: 440(W) x 360(D) x 44(H)	1RU: 442(W) x 360(D) x 44(H)	
Weight	4.47kg	8.095kg	8.625kg
SRv6	SRv6 BE	SRv6 BE, SRv6 TE	
Flex-E	○	●	
H-QoS	2-level	3-level	

Ordering Information >>

Part No.	Description
RI521-2C-24	Standard 1U, 19" standalone IP/MPLS pre-aggregation device, 2 x 100G/40G QSFP28/QSFP+ for uplink, 24 x 10G/1G/100M SFP+/SFP for downlink, CONSOLE and SNMP ports for management -AC/D: dual hot-swappable AC power supply -AC/S: single hot-swappable AC power supply -DC/D: dual hot-swappable DC power supply -DC/S: single hot-swappable DC power supply -AC_DC: one hot-swappable AC power supply and one hot-swappable DC power supply
RI521-4C-24	Standard 1U, 19" standalone IP/MPLS pre-aggregation device, 4 x 100G/40G QSFP28/QSFP+ for uplink, 24 x 10G/1G/100M SFP+/SFP for downlink, CONSOLE and SNMP ports for management -AC/D: dual hot-swappable AC power supply -AC/S: single hot-swappable AC power supply -DC/D: dual hot-swappable DC power supply -DC/S: single hot-swappable DC power supply -AC_DC: one hot-swappable AC power supply and one hot-swappable DC power supply
RI521-6C-48	Standard 1U, 19" standalone IP/MPLS pre-aggregation device, 6 x 100G/40G QSFP28/QSFP+ for uplink, 48 x 10G/1G/100M SFP+/SFP for downlink, CONSOLE and SNMP ports for management -AC/D: dual hot-swappable AC power supply -AC/S: single hot-swappable AC power supply -DC/D: dual hot-swappable DC power supply -DC/S: single hot-swappable DC power supply -AC_DC: one hot-swappable AC power supply and one hot-swappable DC power supply