



IP/MPLS Routers

VCL-MX-5050-R: MPLS Router (Access)

- 4 x 10/100/1000BaseT RJ-45 • 2 x 1G Optical (SFP) interfaces
- 1 x RS-232 • 1 x GE RJ45 Secure Management Port
- 1+1 power supply options.



Throughput:

Router: 11.4 Gbps IPsec: 7.8 Gbps MPLS: 11 Gbps

VCL-MX-5010-R: MPLS Router (Edge / Access)

- 4 /8/12 x 10/100/1000BaseT RJ-45 • 2 x 10/100BaseT RJ-45
- 8/4/0 x 1G Optical Interfaces • 1 x RS-232
- 1 x GE RJ45 Secure Management Port • 1+1 power supply option.



Throughput:

Router: 22.8 Gbps IPsec: 11.3 Gbps MPLS: 20.7 Gbps

VCL-MX-5020-R: MPLS Router (Access)

- 4 x 10/100/1000BaseT RJ-45 • 2 x 1G Optical (SFP) interfaces
- 1 x RS-232 • 1 x GE RJ45 Secure Management Port
- 14 x 10/100/1000BaseT RJ-45 (Optional) • 1+1 power supply option.



Throughput:

Router: 9.5 Gbps IPsec: 5.2 Gbps MPLS: 8.7 Gbps

VCL-MX-5040-R: MPLS Router (Core / Edge)

- 0/2 x 100G Optical Interface • 0/4 x 40G Optical Interfaces
- 4/8/16 x 10G Optical Optical Interface • 4/8/16 x 1G Electrical Interface
- 40 x 1G/10G ports can be used in any combination
- 2 x USB Ports • 1+1 power supply option.



Throughput:

Router: 344.8 Gbps IPsec: 264.1 Gbps MPLS: 310.6 Gbps



IP/MPLS Routers				
Interfaces	VCL-MX-5010-R (Edge / Access)	VCL-MX-5020-R (Access)	VCL-MX-5040-R (Core / Edge)	VCL-MX-5050-R (Access)
RJ-45 (10/100BaseT)	2	2	0	0
RJ-45 (10/100/1000BaseT)	(4/8/12)*	4/14 (Optional)	(4/8/16)*	4
1G Optical (SFP)	(8/4/0)*	2/0	(4/8/16)*	2
10Gbps (SFP+) Fiber Ports	0	0	(4/8/16)*	0
40Gbps (QSFP+) Fiber Ports	0	0	0/4	0
100Gbps (QSFP28) Fiber Ports	0	0	0/2	0
RS-232	1	1	0	1
Secure Management Port	1 x 10/100/1000BaseT RJ-45	1 x 10/100/1000BaseT RJ-45	0	1 x 10/100/1000BaseT RJ-45
USB	0	0	2	0
Router Throughput	22.8 Gbps	9.5 Gbps	344.8 Gbps	11.4 Gbps
IPsec Throughput	11.3 Gbps	5.2 Gbps	264.1 Gbps	7.8 Gbps
MPLS Throughput	20.7 Gbps	8.7 Gbps	310.6 Gbps	11 Gbps
Power Options	Redundant Power AC & DC	Redundant Power AC & DC	Redundant AC	Redundant Power AC & DC
Power Consumption	< 30W @48V DC < 34W @80~240, 50/60Hz V AC	<28W @48V DC <30W @80~240, 50/60Hz V AC	600W	<28W @12V DC <30W @80~240, 50/60Hz V AC
Operating Temperature	-4°F ~ 149°F (-20°C ~ 55°C)	-4°F ~ 149°F (-20°C ~ 55°C)	32°F ~ 122°F (0°C ~ 50°C)	-4°F ~ 149°F (-20°C ~ 55°C)
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)	-40°F ~ 185°F (-40°C ~ 85°C)	-22°F ~ 167°F (-30°C ~ 75°C)	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	10%~95% relative humidity, non-condensing	10%~95% relative humidity, non-condensing	10%~95% relative humidity, non-condensing	10%~95% relative humidity, non-condensing
Storage Humidity	10%~95% @40°C; non-condensing	10%~95% @40°C; non-condensing	10%~95% @40°C; non-condensing	10%~95% @40°C; non-condensing
* Depicts Interface combinations				
Routing features				
Static Routing	Static IPv4 routing, Static IPv6 routing, VLAN based routing	Static IPv4 routing, Static IPv6 routing, VLAN based routing	Static IPv4 routing, Static IPv6 routing, VLAN based routing	Static IPv4 routing, Static IPv6 routing, VLAN based routing
Protocols	RIP, BGPv4, BGPv6, IS-IS, OSPFv2, OSPFv3, MPLS-TE (Segment Routing)	RIP, BGPv4, BGPv6, IS-IS, OSPFv2, OSPFv3, MPLS-TE (Segment Routing)	RIP, BGPv4, BGPv6, IS-IS, OSPFv2, OSPFv3, MPLS-TE (Segment Routing)	RIP, BGPv4, BGPv6, IS-IS, OSPFv2, OSPFv3, MPLS-TE (Segment Routing)
Redundancy Protocols	VRRP	VRRP	VRRP	VRRP
MPLS	Dynamic (LDP) and static	Dynamic (LDP) and static	Dynamic (LDP) and static	Dynamic (LDP) and static
Features	Supports 802.1Q VLAN	Supports 802.1Q VLAN	Supports 802.1Q VLAN	Supports 802.1Q VLAN
	IPv4 & IPv6	IPv4 & IPv6	IPv4 & IPv6	IPv4 & IPv6
	System access authentication via RADIUS/TACACS+	System access authentication via RADIUS/TACACS+	System access authentication via RADIUS/TACACS+	System access authentication via RADIUS/TACACS+
	Detailed system logging	Detailed system logging	Detailed system logging	Detailed system logging
	LLDP, NTP, PPPoE, STP, SNMP, NAT, BFD	LLDP, NTP, PPPoE, STP, SNMP, NAT, BFD	LLDP, NTP, PPPoE, STP, SNMP, NAT, BFD	LLDP, NTP, PPPoE, STP, SNMP, NAT, BFD
	Q-in-Q	Q-in-Q	Q-in-Q	Q-in-Q
	DHCPv4 and DHCPv6	DHCPv4 and DHCPv6	DHCPv4 and DHCPv6	DHCPv4 and DHCPv6
6in4 (SIT), IPIP, IPIP6, IP6IP6	6in4 (SIT), IPIP, IPIP6, IP6IP6	6in4 (SIT), IPIP, IPIP6, IP6IP6	6in4 (SIT), IPIP, IPIP6, IP6IP6	
IP Forwarding, ARP	IP Forwarding, ARP	IP Forwarding, ARP	IP Forwarding, ARP	
Security Firewall Features				
Features	Policy Based Routing	Policy Based Routing	Policy Based Routing	Policy Based Routing
	Rule Based & Zone based Firewall	Rule Based & Zone based Firewall	Rule Based & Zone based Firewall	Rule Based & Zone based Firewall
	Traffic Policy	Traffic Policy	Traffic Policy	Traffic Policy
	IPsec Site-to-Site Tunnels, GRE	IPsec Site-to-Site Tunnels, GRE	IPsec Site-to-Site Tunnels, GRE	IPsec Site-to-Site Tunnels, GRE
	Access lists, Prefix-List, Route-Map	Access lists, Prefix-List, Route-Map	Access lists, Prefix-List, Route-Map	Access lists, Prefix-List, Route-Map
	Per Frame/Per packet authentication	Per Frame/Per packet authentication	Per Frame/Per packet authentication	Per Frame/Per packet authentication
	Whitelist and Blacklist Options	Whitelist and Blacklist Options	Whitelist and Blacklist Options	Whitelist and Blacklist Options
	VPN	VPN	VPN	VPN
Technical Specifications				
Integrated Storage Drive	16GB High Performance SATA Drive	16GB High Performance SATA Drive	Internal, Onboard 500GB Performance SATA Drive	16GB High Performance SATA Drive
Additional Storage Options	M.2 SATA-256GB, 512GB, 1TB SSD	M.2 SATA-256GB, 512GB, 1TB SSD	Optional - 120GB, 240GB, 500GB and 1TB SSD	M.2 SATA-256GB, 512GB, 1TB SSD
Power Supply	Dual (1+1) Redundant Power Supply Options (AC/DC)	Dual (1+1) Redundant Power Supply Options (AC/DC)	Dual (1+1) Redundant Power Supply Options (AC)	Dual (1+1) Redundant Power Supply Options (AC/DC)
Processor	Quad Core at 2.4GHz	Dual Core at 1.6GHz	12 Cores or higher at 2.4GHz	Quad Core at 2.4GHz
RAM	4GB	4GB	16/32GB	4GB

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U.S.A.
Valcomm Technologies Inc.
4000 Ponce de Leon Blvd.,
Suite 470, Coral Gables,
FL 33146, U.S.A.
E-mail: us@valiantcom.com

U.K.
Valiant Communications (UK) Ltd
Central House Rear Office
124 High Street, Hampton Hill
Middlesex, TW12 1NS, U.K.
E-mail: gb@valiantcom.com

INDIA
Valiant Communications Limited
71/1, Shivaji Marg,
New Delhi - 110015,
India
E-mail: mail@valiantcom.com

