



IP/MPLS Routers

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

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



Throughput:

Router : 14.8 Gbps IPsec : 10.2 Gbps MPLS : 14.4 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 : 22.6 Gbps IPsec : 14.3 Gbps MPLS : 21.8 Gbps

VCL-MX-5057-R-E1: MPLS Router (Access)

- 2 x 10/100/1000BaseT RJ-45 • 2 x 1G Optical (SFP) interfaces
- 1 x RS-232 • 1 x 100BaseT RJ45 Secure Management Port
- 4x E1 ports • 1+1 power supply option.



Throughput:

Router : 7.4 Gbps IPsec : 4.8 Gbps MPLS : 7.2 Gbps

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

- 6 x 100GE interfaces or 12 x 40G interfaces or 24 x 10/1GE interfaces or Any combination of these interfaces not exceeding 600G
- 1 x RS-232 • 1 x GE RJ45 Secure Management Port
- 1+1 power supply option.



Throughput:

Router : upto 540 Gbps IPsec : upto 384 Gbps MPLS : upto 510 Gbps





IP/MPLS Routers					
Interfaces		VCL-MX-5010-R (Edge / Access)	VCL-MX-5040-R (Core / Edge)	VCL-MX-5050-R (Access)	VCL-MX-5057 with E1
RJ45 Electrical	100BaseT	2	0	0	0
	100/1000BaseT	(4/8/12)*	(4/8/16)*	4	2
Optical	1G SFP Optical	(8/4/0)*	(4/8/16)*	4	2
	10G SFP Optical	0	(4/8/16)*	0	0
	40G SFP Optical	0	(0/2)*	0	0
	100G SFP Optical	0	(0/2)*	0	0
E1 Ports		-	-	-	4 x 2.048 Mbps
Secure Management Port (RJ45)		1 x 100/1000BaseT	1 x 100/1000BaseT	1 x 100/1000BaseT	1 x 100BaseT
USB		0	2	0	0
RS-232 Port		1	1	1	1
IP Addressing		IPv4 and IPv6 Support	IPv4 and IPv6 Support	IPv4 and IPv6 Support	IPv4 and IPv6 Support
Power Supply		AC/DC Redundant Power Supply	Hot Swappable AC Redundant Power Supply	AC/DC Redundant Power Supply	AC/DC Redundant Power Supply
Router Size		2U, 19 Inch rack mount	4U, 19 Inch rack mount	1U, 19 Inch rack mount	1U, 19 Inch rack mount
Router Throughput		up to 22.6 Gbps	up to 540 Gbps	up to 14.8 Gbps	up to 7.4 Gbps
IPSec Throughput		up to 14.3 Gbps	up to 384 Gbps	up to 9.6 Gbps	up to 4.8 Gbps
MPLS Throughput		up to 21.8 Gbps	up to 510 Gbps	up to 14.4 Gbps	up to 7.3 Gbps
Target Deployments		Edge/Access	Aggregate/Core	Access	Access
Module OIR		No	Yes	No	No
SSH remote access		Yes	Yes	Yes	Yes
MPLS		Yes	Yes	Yes	Yes
Frame size		64 to 9216 bytes	64 to 9216 bytes	64 to 9216 bytes	64 to 9216 bytes
Power Options		Redundant Power AC & DC	Redundant AC	Redundant Power AC & DC	Redundant Power AC & DC
Power Consumption		< 30W @48V DC < 34W @80~240, 50/60Hz V AC	600W	<28W @48V DC <30W @80~240, 50/60Hz V AC	< 30W @12V DC < 34W @80~240, 50/60Hz V AC
Operating Temperature		-4°F ~ 149°F (-20°C ~ 55°C)	-4°F ~ 149°F (-20°C ~ 55°C)	-4°F ~ 149°F (-20°C ~ 55°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)	-40°F ~ 185°F (-40°C ~ 85°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	Supports 802.1Q VLAN
	IPv4 & IPv6	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+	System access authentication via RADIUS/TACACS+
	Detailed system logging	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	LLDP, NTP, PPPoE, STP, SNMP, NAT, BFD
	Q-in-Q	Q-in-Q	Q-in-Q	Q-in-Q	Q-in-Q
	DHCPv4 and DHCPv6	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	6in4 (SIT), IPIP, IPIP6, IP6IP6
IP Forwarding, ARP		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	Policy Based Routing
	Rule Based & Zone based Firewall	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	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	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	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	Per Frame/Per packet authentication
	Whitelist and Blacklist Options	Whitelist and Blacklist Options	Whitelist and Blacklist Options	Whitelist and Blacklist Options	Whitelist and Blacklist Options
	VPN	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
DDR RAM		4GB	4GB	16/32GB	4GB