

Features	Summit* X670V*	Summit X670*	Summit X650	Summit X480	Summit X460	Summit X450a	Summit X450e	Summit X250e	Summit X350	Summit X150
Max Auto-Negotiating 10/100BASE-TX Ports	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24 (SFP available) or 48	N/A	24 or 48
Max Auto-Negotiating 10/100/1000BASE-T Ports	N/A	N/A	N/A	12 or 48	24 or 48	24 or 48	24 or 48 (PoE and non-PoE)	2	24 or 48	2
Max Gigabit Ethernet Ports (GBIC or SFP)	48	48	4	4, 24, or 48	8, 24, or 48	4	4	2	4	2
Max 10 Gigabit Ethernet Ports	48 (default), 64 (with VIM4-40G4X)	48	24 (default), 32 (with VIM1-10G8X)	2, 4, or 6	2	2	2	N/A	2	N/A
Form Factor/Footprint	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU	Fixed/1RU
Stacking Support	Yes, SummitStack-V SummitStack-V160 (with VIM4-40G4X)	Yes, SummitStack-V	Yes, SummitStack™, SummitStack256, SummitStack512, SummitStack-V, SummitStack-V160	Yes, SummitStack, SummitStack-V, SummitStack128, SummitStack-V160	Yes, SummitStack, SummitStack-V, SummitStack V80	Yes, SummitStack, SummitStack-V	Yes, SummitStack, SummitStack-V	Yes, SummitStack	No	No
Total Switching Capacity	1.28Tbps	960Gbps	488-680 Gbps	224-448 Gbps	176-328 Gbps	128-256 Gbps	128-256 Gbps	48.8-97.6 Gbps	88-176 Gbps	8.8-13.6 Gbps
Sync-E	No	No	No	No	Yes (X460-24p, X460-48x)	No	No	No	No	No
Redundant Power	Yes/Hot Swappable	Yes/Hot Swappable	Yes/Hot Swappable	Yes/Hot Swappable	Yes/Hot Swappable	Yes/External	Yes/External	Yes/External	Yes/External	Yes/External
Power over Ethernet	No	No	No	No	802.3at PoE Plus	No	802.3af	802.3af	No	Summit X150-24p (802.3af)
Wire-Speed Layer 2/Layer 3 Switching	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Routing - IPv4	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	OSPFv2, RIPv1/v2, PIM	OSPFv2, RIPv1/v2, PIM	No
Routing - IPv6	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS	RIPng, OSPF-v3	RIPng, OSPF-v3	No
MPLS/H-VPLS	Optional Feature Pack	Optional Feature Pack	No	Optional Feature Pack	Optional Feature Pack	No	No	No	No	No
Direct Attach™	Optional Feature Pack	Optional Feature Pack	Optional Feature Pack	Optional Feature Pack	Optional Feature Pack	Optional Feature Pack	No	No	No	No
Policy-Based Routing/Switching	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes/Policy-Based Switching	Yes/Policy-Based Switching
Policy-Based Quality of Service (QoS)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Network Login	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Access Control Lists	Yes, Ingress and Egress	Yes, Ingress and Egress	Yes, Ingress and Egress	Yes, Ingress and Egress	Yes, Ingress and Egress	Yes, Ingress	Yes, Ingress	Yes, Ingress	Yes, Ingress	Yes, Ingress
Identity Manager	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Universal Port	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
CLI Scripting	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Widgets	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Layer 3 Virtual Switching	Yes	Yes	Yes	Yes	Yes	No	No	No	N/A	N/A
vMANs (802.1ad)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLEAR-Flow	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
sFlow*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IPFIX	Yes	Yes	No	Yes	Yes	No	No	No	No	No
EAPS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Advanced Spanning Tree (802.1w, 802.1s, PVST+)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG	LAG
Switch Management Capabilities	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups
License - Upgrades	Core, MPLS, Direct Attach	Core, MPLS, Direct Attach	Core, Direct Attach	Core, MPLS, Direct Attach	Advanced Edge, Core, MPLS, Direct Attach	Core, MPLS, Direct Attach	Advanced Edge	Advanced Edge	N/A	N/A
License - Default	Advanced Edge	Advanced Edge	Advanced Edge	Advanced Edge	Edge	Advanced Edge	Edge	Edge	Layer 2 Edge	Layer 2 Edge

* Future availability.

Features	BlackDiamond® X8**	BlackDiamond 8810	BlackDiamond 8806
Max Auto-Negotiating 10/100/1000BASE-T Ports	N/A	784	400
Max Gigabit Ethernet Ports (SFP)	384	440	248
Max 10 Gigabit Ethernet Ports	768	136	100
Max 40 Gigabit Ethernet Ports	192	48	24
Form Factor/Footprint	Chassis/14.5RU	Chassis/14RU	Chassis/10RU
Total Switching Capacity	20.48 Tbps	1.28 Tbps	1.28 Tbps
Redundant Power	Yes	Yes	Yes
Power over Ethernet	No	802.3af	802.3af
Wire-Speed Layer 2/Layer 3 Switching	Yes	Yes	Yes
Routing - IPv4	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP	BGP4, IS-IS, OSPFv2, RIP v1/v2, PIM, MSDP
Routing - IPv6	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS	RIPng, OSPFv3, IS-IS
MPLS/H-VPLS	Optional Feature Pack	Optional Feature Pack (with selected modules)	Optional Feature Pack (with selected modules)
Direct Attach	Optional Feature Pack	Optional Feature Pack	Optional Feature Pack
Policy-Based Routing/Switching	Yes	Yes	Yes
Policy-Based Quality of Service (QoS)	Yes	Yes	Yes
Network Login	Yes	Yes	Yes
Identity Manager	Yes	Yes	Yes
Access Control Lists	Yes, Ingress and Egress	Yes, Ingress and Egress	Yes, Ingress and Egress
Universal Port	Yes	Yes	Yes
CLI Scripting	Yes	Yes	Yes
Widgets	Yes	Yes	Yes
Layer 3 Virtual Switching	Yes	Yes	Yes
vMANs (802.1ad)	Yes	Yes	Yes
CLEAR-Flow	Yes	Yes	Yes
sFlow®	Yes	Yes	Yes
IPFIX	Yes	Yes (with selected modules)	Yes (with selected modules)
EAPS	Yes	Yes	Yes
Advanced Spanning Tree (802.1w, 802.1s, PVST+)	Yes	Yes	Yes
LAG/M-LAG	LAG/M-LAG	LAG/M-LAG	LAG/M-LAG
Switch Management Capabilities	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups	SNMP, XML, Web, CLI, 4 RMON groups
License - Upgrades	Core, MPLS, Direct Attach	Core, MPLS, Direct Attach	Core, MPLS, Direct Attach
License - Default	Advanced Edge	Advanced Edge	Advanced Edge

** Future availability.

