Product Quick Reference Guide

Data Center Core & Aggregation Systems

	C-Series		E-Series					Z-Series
								
Performance	**C150**	**C300**	**E300**	**E600i**	**E600i**	**E1200i**	**E1200i**	**Z9000**
Configuration	–	–	TeraScale	TeraScale	ExaScale	TeraScale	ExaScale	–
Raw Switching Capacity	768 Gbps	1.536 Tbps	400 Gbps	900 Gbps	1.75 Tbps	1.6875 Tbps	3.5 Tbps	2.5 Tbps
Slot Capacity – Half Duplex (Gbps)	96	96	25	125	125	125	125	–
Forwarding Capacity (Mpps)	476	952	196	1,042	1,042	2,083	2,083	1,904
Ports:								
Line-rate 10/100/1000Base-T	192	384	132	336	630	672	1,260	–
Total 10/100/1000Base-T	192	384	288	630	630	1,260	1,260	–
Line-rate GbE (SFP)	192	384	132	336	350	672	700	–
Total GbE (SFP)	192	384	144	336	350	672	700	–
Line-rate 10 GbE	32	64	12	28	70	56	140	128 (QSFP+ breakout)
Total 10 GbE	32	64	48	112	280	224	560	128
Line-rate 40 GbE	–	–	–	–	–	–	–	32 (40 GbE QSFP+)
Total 40 GbE	–	–	–	–	–	–	–	32
Line-rate OC-3c/OC-12c/OC-48c	–	–	–	28	–	56	–	–
Power over Ethernet (IEEE 802.3af Class 3)	192	384	–	–	–	–	–	–
Features:								
Modular FTOS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry-standard CLI (Console, Telnet, SSHv1/v2)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Max VLANs (Configured/Choices)	1K/4K	1K/4K	4K/4K	4K/4K	4K/4K	4K/4K	4K/4K	4k/4k
Max MAC Entries	256K	512K	192K	448K	784K	896K	1,568K	128K
Link Aggregation (Groups/Members)	128/8	128/8	255/16	255/16	32/64 or 255/8	255/16	32/64 or 255/8	128/8
Jumbo Frames (Bytes)	9,252	9,252	9,252	9,252	9,252	9,252	9,252	12,000
Max Routes (IPv4 / IPv6)	12K/6K	12K/6K	512K/32K	512K/32K	688K/128	512K/32K	688K/128K	16K/8K
IPv4 Routing	RIP, OSPF, BGP	RIP, OSPF, BGP	RIP, OSPF, IS-IS, BGP	RIP, OSPF, IS-IS, BGP	RIP, OSPF, IS-IS, BGP	RIP, OSPF, IS-IS, BGP	RIP, OSPF, IS-IS, BGP	RIP, OSPF, BGP
IPv6 Routing	OSPF, BGP	OSPF, BGP	OSPF, IS-IS, BGP	OSPF, IS-IS, BGP	OSPF, IS-IS, BGP	OSPF, IS-IS, BGP	OSPF, IS-IS, BGP	Static
Multicast Routing	IGMP, PIM	IGMP, PIM	IGMP, MLD, PIM, MSDP	IGMP, MLD, PIM, MSDP	IGMP, MLD, PIM, MSDP	IGMP, MLD, PIM, MSDP	IGMP, MLD, PIM, MSDP	IGMP, PIM, MSDP
MPLS Routing	–	–	–	–	RSVP-TE, LD	–	RSVP-TE, LDP	–
Chassis:								
Chassis Height (RU)	9	13	8	16	16	21/24 (DC/AC)	24 (AC/DC)	2
Line Card Slots	4	8	6	7	7	14	14	0
AC + AC Power Redundancy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC + DC Power Redundancy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Data Centers Your Way

Your data centers are the brains of your business. Whether big or small, conventional or virtual, owned or hosted in the cloud, it's all about maximizing choice and delivering uncompromising price/performance. That's the value of Open Cloud Networking — customer-driven architectures and stacks, complete and total freedom. See what Open Cloud Networking can do for you and your data centers.

Open Architectures: Choose from our multi-terabit fixed-configuration and chassis-based Z-Series or our high-density 1/10 GbE E-Series Core platforms. And choose from our top-performing 1/10 GbE and 10/40 GbE S-Series Top-of-Rack platforms, to architect the data center that is just right for your needs. Use our customer-proven, ultra-scalable, ultra-reliable Dell Force10 operating system (FTOS) to unleash maximum performance with maximum uptime. This plus a 100% standards-based, open approach freeing you to mix-and-match at every layer of the data center stack.

Open Automation: Our Open Automation Framework is purpose-built to make the complex in your data center simple. Drawing on various elements of the framework, you can greatly simplify a whole slew of data center tasks from bare-metal provisioning to virtual machine management. The framework's SmartScripts capability enables standard Perl and Python scripting to be applied to networking systems to orchestrate data center wide events. And since the software automation framework is open, it means it will work even in a mixed vendor environment every step of the way.

Open Ecosystems: are the result of Open Architectures and Open Automation and are critical for customers seeking maximum choice and true architectural freedom. Unlike competitors that have pre-selected their ecosystem or others competitors that have limited ecosystems, we believe in customer-driven open ecosystems. This allows you to develop your own customized ecosystem from a family of partners to meet the exacting needs of your data center and your business. We have technology partners, resellers and distributors around the world to meet your needs.

Product Quick Reference Guide

Top-of-Rack & Access Systems

	1/10 Gigabit Ethernet						10/40 Gigabit Ethernet
							
Performance	**S25P**	**S25N/50N**	**S25V/50V**	**S2410CP/P**	**S55**	**S60**	**S4810**
Switch Fabric Capacity	144 Gbps	144/288 Gbps	144/288 Gbps	480 Gbps	192 Gbps	176 Gbps	1.28 Tbps
Forwarding Capacity (Mpps)	95 Mpps	95/131 Mpps	95/131 Mpps	360	144	132	960
Buffer Size	2 MB	2 MB/4 MB	2 MB/4 MB	2 MB	4 MB	1.25 GB	9 MB
Latency	< 5 µs	< 5 µs	< 5 µs	300 ns (CX4)/700 ns (XFP)	< 5 µs	< 9 µs	sub 700 ns
Ports:							
10/100/1000Base-T	4 (shared)	24/48	24/48	–	44	44	–
1 GbE	24 (GbE or 100Base-FX SFP)	4 (SFP, shared)	4 (SFP, shared)	–	4 (SFP)	4 (SFP)	48
10 GbE	4 (XFP or CX4)	4 (XFP or CX4)	4 (XFP or CX4)	20 (CX4) + 4 XFP/24 (XFP)	4 (SFP+)	4 (SFP+)	64 (4xQSFP+ breakout)
40 GbE (QSFP+)	–	–	–	–	–	–	4
1/2/4/8 G Fiber Channel	–	–	–	–	–	–	–
Power over Ethernet (IEEE 802.3af Class 3)	–	–	24/48	–	–	–	–
Power and Cooling:							
Power consumption (W)	90 (ACV)/77 (DC)	102/156	102/146	225/125	130	225	280
Power	AC or DC	AC, AC+DC or DC	AC + DC	AC	AC or DC	AC or DC	AC
Hot-swappable Redundant Power/Cooling	–	–	–	–	Yes	Yes	Yes
Redundant Power	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Airflow	Side to Side	Side to Side	Side to Side	Side to Side	Front to Rear or Rear to Front	Front to Rear or Rear to Front	Front to Rear or Rear to Front
Features:							
Chassis Height (RU)	1 RU	1 RU	1 RU	1 RU	1 RU	1 RU	1 RU
Expansion Module Slots	2	2	2	–	2	2	–
Stacking (using modules)	8	8	8	–	8	12	–
User Port Stacking	–	–	–	–	–	–	3
Modular FTOS	Yes	Yes	Yes	SFTOS	Yes	Yes	Yes
Open Automation	–	–	–	–	Yes	Yes	Yes
Industry-standard CLI (Console, Telnet, SSHv1/v2)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Max L2 VLANS	1K	1K	1K	1K	4K	4K	4K
Max L3 VLANS	128	128	128	128	1K	1K	512
Max MAC Entries	16K	16K/32K	16K	16K	32K	32K	128K
Link Aggregation (Groups / Members)	128/8	128/8	128/8	12/12	128/8	128/8	128/8
Jumbo Frames (Bytes)	9,252	9,252	9,252	10,240	9,252	9,252	12K
Max Routes (IPv4 / IPv6)	4K/2,500	4K/2,500	4K/2,500	–	16K/8K	16K/8K	16K/8K
IPv4 Routing	RIP, OSPF, BGP	RIP, OSPF, BGP	RIP, OSPF, BGP	–	RIP, OSPF, BGP	RIP, OSPF, BGP	RIP, OSPF, BGP
IPv6 Routing	Static	Static	Static	–	Static	Static	Static
Multicast Routing	IGMP, PIM	IGMP, PIM	IGMP, PIM	–	IGMP, PIM	IGMP, PIM	IGMP, PIM
Expansion Module Options:							
2-port 12 Gbps Stacking	2	2	2	–	1	2	–
1-port 24 Gbps Stacking	2	2	2	–	–	2	–
2-port 10 GbE (CX4, XFP or SFP+)	(XFP or CX4)	(XFP or CX4)	(XFP or CX4)	–	(SFP+)	(SFP+)	–

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