

VIPRION PLATFORMS

Each VIPRION system consists of a chassis and one to eight blades.



SPECIFICATIONS	VIPRION 4800 Chassis	VIPRION 4480 Chassis
Dimensions:	27.8" (70.6 cm) H x 17.4" (44.2 cm) W x 21.25" (54.0 cm) D 16U industry standard rack-mount chassis	12.2" (30.9 cm) H x 17.4" (44.2 cm) W x 21" (53.3 cm) D 7U industry standard rack-mount chassis
Weight:	126 lbs. (57.2 kg) (2 power supplies, 2 fan trays, 8 blanks)	87 lbs. (39.5 kg) (4 power supplies, 1 fan tray, 3 blanks)
Power Supply:	One to four 200 VAC to 240 VAC (2600W) auto ranging (80+ Gold Efficiency) (2 power supplies included) 18A per input (max) DC power (option) One to four 2600W -44 to -72 VDC 80A per input maximum per supply Note: Please refer to the Platform Guide: VIPRION 4800 on askf5.com for the latest specific AC power ratings.	One to four 90 VAC (1200W) to 240 VAC (2000W) auto ranging 20A per input line (max) DC power (option) One to four 1200W -36 to -72 VDC 10 to 40A maximum per supply Note: Please refer to the Platform Guide: VIPRION 4400 on askf5.com for the latest specific AC power ratings.
Operating Temperature:	32° to 104° F (0° to 40° C)	32° to 104° F (0° to 40° C)
Relative Humidity:	5 to 85% at 104° F (40° C)	5 to 85% at 104° F (40° C)
Safety Agency Approval:	UL 60950 (UL1950-3) CSA-C22.2 No. 60950-00 (bi-national standard with UL 60950) CB test certification to IEC 950 EN 60950	UL 60950 (UL1950-3) CSA-C22.2 No. 60950-00 (bi-national standard with UL 60950) CB test certification to IEC 950 EN 60950
Certifications/Susceptibility Standards	EN55022 1998 Class A EN55024 1998 Class A FCC Part 15B Class A VCCI Class A	EN55022 1998 Class A EN55024 1998 Class A FCC Part 15B Class A VCCI Class A NEBS Certified
Dimensions:	27.8" (70.6 cm) H x 17.4" (44.2 cm) W x 21.25" (54.0 cm) D 16U industry standard rack-mount chassis	12.2" (30.9 cm) H x 17.4" (44.2 cm) W x 21" (53.3 cm) D 7U industry standard rack-mount chassis



SPECIFICATIONS	VIPRION 4450 Blade	VIPRION 4340N/4300 Blade
Intelligent Traffic Processing:	5M L7 requests per second 2.9M L4 connections per second 180M max L4 concurrent connections 140 Gbps L4/L7 4.8 Gbps included compression 80 Gbps max hardware compression Included RSA SSL TPS: 24,000 (2K keys) Max RSA SSL TPS: 160,000 (2K keys) Included ECDSA P-256 TPS: 24,000 Max ECDSA P-256 TPS: 80,000 Bulk crypto (RSA): 80 Gbps	2M L7 requests per second (B4340N) 2.5M L7 requests per second (B4300) 1.1M L4 connections per second (B4340N) 1.4M L4 connections per second (B4300) 14M L4 HTTP requests per second 36M max L4 concurrent connections (B4300) 72M max L4 concurrent connections (B4340N) 80 Gbps L4, 40 Gbps L7 1.2 Gbps included compression 20 Gbps max hardware compression Included SSL TPS: 12,000/blade Max SSL TPS: 30,000 (2K keys) Bulk crypto: 20 Gbps
	Note: Compression and SSL resources are allocated evenly across the number of vCMP guests set up.	
Hardware DDoS Protection:	Support for over 100 different vectors Hardware SYN cookies: 115M SYN cookies per second	Hardware SYN cookies: 80M SYN cookies per second
Software Architecture:	64-bit TMOS	64-bit TMOS
Virtualization (Max Number of vCMP Guests):	48 in a 4480 chassis, 96 in a 4800 chassis (12 per blade)*	24 in a 4480 chassis, 48 in a 4800 chassis (6 per blade)
Processors:	2 Intel 12-core processors (48 hyperthreaded logical processor cores total)	2 Intel hex 6-core processors (total 24 hyperthreaded logical processor cores)
Memory:	256 GB	96 GB (4340N), 48 GB (4300)
Hard Drive Capacity:	1.2 TB SSD	600 GB hard drive
Network Interfaces:	One 10/100/1,000 Mbps Ethernet management port Six 40 Gbps QSFP+ ports Optional 40 Gbps QSFP+ SR4 (up to 100m) transceivers Optional 40 Gbps QSFP+ LR4 (up to 10km) transceivers Each QSFP+ port can convert to four 10 Gbps with QSFP+ breakout or AOC cables Two 100 Gbps QSFP28 ports Optional 100 Gbps QSFP28 SR4 (up to 70m) transceiver Optional 100 Gbps QSFP28 LR4 (up to 10km) transceiver	One 10/100/1,000 Mbps Ethernet management port Eight 1 Gbps/10 Gbps SFP+ ports Two 10GBASE-SR 850nm transceivers included Optional 1 Gbps SFP fiber SX or LX or copper RJ45 transceivers Optional 10 Gbps SFP+ fiber SR or LR or copper direct attach transceivers Two 40 Gbps QSFP+ ports Optional 40 Gbps QSFP+ SR4 (up to 100m) transceivers Optional 40 Gbps QSFP+LR4 (up to 10km) transceivers Each QSFP+ port can convert to four 10 Gbps with QSFP+ breakout or AOC cables
Power Consumption and Heat Output:	Please refer to Platform Guide: Viprion 4800 or Viprion 4400 for the latest specific power ratings.	
Weight:	19.2 lbs. (8.71 kg)	18.5 lbs. (8.39 kg)

Note: Only optics provided by F5 are supported

*Requires running TMOS v13+



SPECIFICATIONS	VIPRION 2400 Chassis	VIPRION 2200 Chassis
Dimensions:	6.89" (17.5 cm) H x 17.64" (44.8 cm) W x 21.18" (53.8 cm) D 4U industry standard rack-mount chassis	3.4" (8.6 cm) H x 17.3" (44.0 cm) W x 24.5" (62.2 cm) D 2U industry standard rack-mount chassis
Weight:	42.5 lbs. (19.3 kg) (3 blank line cards, 0 power supplies, 0 blades, 1 fan tray)	31.0 lbs. (14.1 kg) (1 blank line card, 0 power supplies, 0 blades, 1 fan tray)
Power Supply:	AC power supply One to two 100-127 VAC (1200W)/200-240 VAC (1400W) auto ranging (80+ Gold Efficiency) 17A per input line (max) DC power supply (option) One to two 1400W 44 to 65 VDC 44A per input (max) Note: Please refer to the Platform Guide: VIPRION 2400 on askf5.com for the latest specific power ratings.	AC power supply One to two 100-240 VAC (800W) 50/60 Hz auto ranging 10A per input line (max) DC power supply (option) Note: Please refer to the Platform Guide: VIPRION 2200 on askf5.com for the latest specific power ratings.
Operating Temperature:	32° to 104° F (0° to 40° C)	32° to 104° F (0° to 40° C)
Relative Humidity:	5 to 85% at 104° F (40° C)	5 to 85% at 104° F (40° C)
Safety Agency Approval:	EN 60950-1:2006, 2nd Edition Evaluated to all CB Countries UL 60950-1, 2nd Edition, CSA C22.2 No. 60950-1-03	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 IEC 60950-1:2005, A1:2009 CSA 60950-1-07, Including Amendment 1:2011 ANSI/UL 60950-1-2011 Evaluated to all CB Countries
Certifications/Susceptibility Standards	FCC Part 15 Class A VCCI Class A EN 300 386 V1.3.2 (2003-05) EN 55022:2006 + C1:2006 EN 61000-3-2:2000 EN 61000-3-3:1995 +A1:2000 EN 55022:2006 + C1:2006 Class A EN 61000-3-3:1995 +A1:2000+ A2:2005 EN 55024:1998 +A1: 2001 +A2:2003	FCC Part 15 Class A VCCI Class A ETSI EN 300 386 V1.5.1 (2010) EN 55022:2010 Class A EN 61000-3-2:2006 A1:2009+A2:2009 EN 61000-3-3:2008 EN 55024:2010 EN 55022:2010 Class A EN 61000-3-2:2006 A1:2009+A2:2009 EN 61000-3-3:2008



SPECIFICATIONS	VIPRION 2250 Blade	VIPRION 2150 Blade
Intelligent Traffic Processing:	2M L7 requests per second 1M L4 connections per second 14M L4 HTTP requests per second 48M max L4 concurrent connections 80 Gbps L7/L4 throughput (C2400) 155* Gbps L4, 80 Gbps L7 throughput (C2200) 1 Gbps included compression 40 Gbps maximum hardware compression Included SSL TPS: 10,000 TPS (2K keys) Maximum SSL TPS: 44,000 TPS (2K keys) Bulk crypto: 36 Gbps Note: Compression and SSL resources are allocated evenly across the number of vCMP guests set up.	1M L7 requests per second 400K L4 connections per second 7M L4 HTTP requests per second 24M max L4 concurrent connections 40 Gbps L4, 18 Gbps L7 400 Mbps included compression 10 Gbps maximum hardware compression Included SSL TPS: 4,000/Blade Maximum SSL TPS: 10,000 TPS (2K keys) Bulk crypto: 9 Gbps Note: Compression and SSL resources are allocated evenly across the number of vCMP guests set up.
Hardware DDoS Protection:	Hardware SYN cookies: 60M SYN cookies per second	Hardware SYN cookies: 40M SYN cookies per second
Software Architecture:	64-bit TMOS	64-bit TMOS
Virtualization (Max Number of vCMP Guests):	80 (4 B2250 blades, 20 per blade)	32 (4 B2150 blades, 8 per blade)
Processors:	Single Intel 10-core Xeon processor (total 20 hyperthreaded logical processor cores)	Single Intel quad core Xeon processor (total 8 hyperthreaded logical processor cores)
Memory:	64 GB	32 GB (B2150)
Hard Drive Capacity:	One 800 GB solid state drive	400 GB solid state drive (B2150)
Network Interfaces:	One 10/100/1,000 Mbps Ethernet management port Four 40 Gigabit (or sixteen 10 Gigabit) fiber ports (QSFP+) (QSFP+ 40GBASE-SR4 100m transceivers sold separately) (QSFP+ optical breakout cable assemblies available to convert to 10 Gigabit ports) Note: Only optics provided by F5 are supported.	One 10/100/1,000 Mbps Ethernet management port Eight 1,000 Mbps/10 Gbps SFP+ ports (2 ea. 10GBASE-SR – 850nm transceivers included) (Optional 1G SFP fiber SX or LX) or copper RJ45 transceivers, 10G SFP+ SR or LR, 10G copper direct attach) Note: Only optics provided by F5 are supported.
Power Consumption and Heat Output:	Note: Please refer to the Platform Guide: VIPRION 2400 or Platform Guide: VIPRION 2200 on askf5.com for the latest relevant blade power ratings.	Note: Please refer to the Platform Guide: VIPRION 2400 or Platform Guide: VIPRION 2200 on askf5.com for the latest relevant blade power ratings.
Weight:	10.0 pounds (4.5 kg)	9.5 lbs. (4.3 kg)

*Requires TMOS v11.6 and selecting L4 Performance Optimized FPGA firmware configuration option (see BIG-LTM Manual on askf5.com for specific instructions).