

THUNDER CFW APPLIANCE SPECIFICATIONS

DATA CENTER FIREWALL PERFORMANCE	THUNDER 840 _{CFW}	THUNDER 1030S _{CFW}	THUNDER 3030S _{CFW}	THUNDER 3040 _{CFW}
DCFW Throughput	5 Gbps	10 Gbps	30 Gbps	30 Gbps
DCFW Layer 4 CPS	200K	300K	500K	500K
DCFW Concurrent Sessions	8 Million	16 Million	32 Million	32 Million
DCFW Rules	8K	8K	16K	16K
SECURE WEB GATEWAY PERFORMANCE¹				
SSLi Throughput (2K key)	0.5 Gbps	1.5 Gbps	2.5 Gbps	2.5 Gbps
SSLi CPS	RSA (1K): 500 RSA (2K): 300	RSA (1K): 4K RSA (2K): 3K	RSA (1K) : 8K RSA (2K): 6K	RSA: 8K ECDHE: 4.5K
IPSEC PERFORMANCE²				
IPsec Throughput	1.5 Gbps	6 Gbps	8 Gbps	N/A
IPsec Tunnels	50	100	1K	N/A
NETWORK INTERFACE				
1 GE Copper	5	6	6	6
1 GE Fiber (SFP)	0	2	2	2
1/10 GE Fiber (SFP+)	2	2	4	4
Management Ports	1 x Ethernet Mgmt port, 1 x RJ-45 console port			
HARDWARE SPECIFICATIONS				
Processor	Intel Communications Processor	Intel Xeon 4-core	Intel Xeon 4-core	Intel Xeon 4-core
Memory (ECC RAM)	8 GB	8 GB	16 GB	16 GB
Storage	SSD	SSD	SSD	SSD
Hardware Acceleration	Software	Software	Software	Software
SSL Security Processor ('S' Models)	N/A	Yes	Yes	Yes
Dimensions (inches)	1.75 (H) x 17.0 (W) x 12 (D)	1.75 (H) x 17.5 (W) x 17.45 (D)	1.75 (H) x 17.5 (W) x 17.45 (D)	1.75 (H) x 17.5 (W) x 17.45 (D)
Rack Units (Mountable)	1U	1U	1U	1U
Unit Weight	8.8 lbs	18.0 lbs/20.1 lbs (RPS)	20.1 lbs	20.6 lbs
Power Supply (DC option available)	Single 150W (AC only) 100 - 240 VAC, 50-60Hz	Single 600W*	Dual 600W RPS	Dual 600W RPS
		80 Plus Platinum efficiency, 100 - 240 VAC, 50 - 60 Hz		
Power Consumption (Typical/Max)*3	57W / 75W	98W / 108W	180W / 240W	180W / 240W
Heat in BTU/hour (Typical/Max)*3	195 / 256	334 / 369	615 / 819	615 / 819
Cooling Fan	Single Fixed Fan	Hot Swap Smart Fans		
Operating Ranges	Temperature 0° - 40° C Humidity 5% - 95%			
Regulatory Certifications	FCC Class A, UL, CE, TUV, CB, VCCI, CCC, BSMI, RCM RoHS	FCC Class A, UL, CE, TUV, CB, VCCI, CCC, KCC BSMI, RCM, FAC RoHS	FCC Class A, UL, CE, TUV, CB, VCCI, CCC, KCC, BSMI, RCM, EAC, FAC RoHS, FIPS 140-2 ^{1a}	FCC Class A, UL, CE, CB, GS ⁺ , VC, CI, CCC, KCC, BSMI, RCM RoHS
Standard Warranty	90-Day Hardware and Software			

Thunder CFW Appliance Specifications (Cont.)

	THUNDER 3230 CFW	THUNDER 3430 CFW	THUNDER 4440 CFW	THUNDER 5330 CFW
DATA CENTER FIREWALL PERFORMANCE				
DCFW Throughput	25 Gbps	38 Gbps	70 Gbps	70 Gbps
DCFW Layer 4 CPS	1.4 Million	2 Million	2.8 Million	2.8 Million
DCFW Concurrent Sessions	32 Million	64 Million	64 Million	64 Million
DCFW Rules	16K	32K	32K	32K
SECURE WEB GATEWAY PERFORMANCE¹				
SSLi Throughput (2k key)	3.5 Gbps	5.5 Gbps	8 Gbps	10 Gbps
SSLi CPS	RSA: 12.5K ECDHE: 7K	RSA: 18K ECDHE: 10K	RSA: 22K ECDHE: 10K	RSA: 30K ECDHE: 15K
IPSEC PERFORMANCE²				
IPsec Throughput	15 Gbps	30 Gbps	30 Gbps	35 Gbps
IPsec Tunnels	1K	4K	4K	4K
NETWORK INTERFACE				
1 GE Fiber (SFP)	4	4	0	0
1/10 GE Fiber (SFP+)	4	4	24	8
40 GE Fiber (QSFP+)	0	0	4	0
Management Ports	1 x Ethernet Mgmt port, 1 x RJ-45 console port			
HARDWARE SPECIFICATIONS				
Processor	Intel Xeon 4-core	Intel Xeon 6-core	Intel Xeon 6-core	Intel Xeon 10-core
Memory (ECC RAM)	16 GB	32 GB	32 GB	32 GB
Storage	SSD	SSD	SSD	SSD
Hardware Acceleration	FTA-4	FTA-4	2 x FTA-4	FTA-4
SSL Security Processor ('S' Models)	Yes	Yes	Yes	Yes
Dimensions (inches)	1.75 (H) x 17.5 (W) x 17.15 (D)	1.75 (H) x 17.5 (W) x 17.15 (D)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 17.15 (D)
Rack Units (Mountable)	1U	1U	1U	1U
Unit Weight	23 lbs	23 lbs	32.5 lbs	23 lbs
Power Supply (DC option available)	Dual 600W RPS	Dual 600W RPS	Dual 1100W RPS	Dual 600W RPS
	80 Plus Platinum efficiency, 100 - 240 VAC, 50 - 60 Hz			
Power Consumption (Typical/Max)*3	190W / 240W	210W / 260W	360W / 445W	210W / 260W
Heat in BTU/hour (Typical/Max)*3	648 / 819	717 / 887	1,229 / 1,519	717 / 887
Cooling Fan	Hot Swap Smart Fans			
Operating Ranges	Temperature 0° - 40° C Humidity 5% - 95%			
Regulatory Certifications	FCC Class A, UL, CE, TUV, CB, VCCI, CCC, KCC, BSMI, RCM, NEBS RoHS	FCC Class A, UL, CE, GS, CB, VCCI, CCC, KCC, BSMI, RCM, NEBS RoHS	FCC Class A, UL, CE, GS, CB, VCCI, CCC, KCC, BSMI, RCM RoHS, FIPS 140-2*4	FCC Class A, UL, CE, GS, CB, VCCI, CCC, BSMI, RCM, NEBS RoHS
Standard Warranty	90-Day Hardware and Software			

Thunder CFW Appliance Specifications (Cont.)

	THUNDER 5440 CFW	THUNDER 5840 CFW	THUNDER 6440 CFW	THUNDER 7440 CFW
DATA CENTER FIREWALL PERFORMANCE				
DCFW Throughput	90 Gbps	100 Gbps	150 Gbps	220 Gbps
DCFW Layer 4 CPS	3.5 Million	4.5 Million	4.5 Million	6.5 Million
DCFW Concurrent Sessions	128 Million	128 Million	256 Million	256 Million
DCFW Rules	64K	64K	128K	128K
SECURE WEB GATEWAY PERFORMANCE¹				
SSLi Throughput (2k key)	15 Gbps	20 Gbps	N/A	N/A
SSLi CPS	RSA: 35K ECDHE: 20K	RSA: 50K ECDHE: 25K	N/A	N/A
IPSEC PERFORMANCE²				
IPsec Throughput	35 Gbps	35 Gbps	N/A	N/A
IPsec Tunnels	8K	8K	20K	20K
NETWORK INTERFACE				
1/10 GE Fiber (SFP+)	24	24	48	48
40 GE Fiber (QSFP+)	4	4	4	4
Management Ports	1 x Ethernet Mgmt port, 1 x RJ-45 console port			
HARDWARE SPECIFICATIONS				
Processor	Intel Xeon 12-core	Intel Xeon 18-core	2 x Intel Xeon 10-core	2 x Intel Xeon 18-core
Memory (ECC RAM)	64 GB	64 GB	128 GB	128 GB
Storage	SSD	SSD	SSD	SSD
Hardware Acceleration	2 x FTA-4	2 x FTA-4	3 x FTA-4	3 x FTA-4
SSL Security Processor (S' Models)	Yes	Yes	Yes	Yes
Dimensions (inches)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)
Rack Units (Mountable)	1U	1U	1U	1U
Unit Weight	32.5 lbs	32.5 lbs	36 lbs	36 lbs
Power Supply (DC option available)	Dual 1100W RPS	Dual 1100W RPS	Dual 1100W RPS	Dual 1100W RPS
	80 Plus Platinum efficiency, 100 - 240 VAC, 50 - 60 Hz			
Power Consumption (Typical/Max)*3	360W / 445W	375W / 470W	480W / 550W	690W / 820W
Heat in BTU/hour (Typical/Max)*3	1,229 / 1,519	1,280 / 1,604	1,638 / 1,877	2,355 / 2,798
Cooling Fan	Hot Swap Smart Fans			
Operating Ranges	Temperature 0° - 40° C Humidity 5% - 95%			
Regulatory Certifications	FCC Class A, UL, CE, GS, CB, VCCI, CCC, BSMI, RCM RoHS	FCC Class A, UL, CE, GS, CB, VCCI, CCC, BSMI, RCM RoHS	FCC Class A, UL, CE, GS, CB, VCCI, CCC, BSMI, RCM RoHS	FCC Class A, UL, CE, GS, CB, VCCI, CCC, KCC, BSMI, RCM RoHS, FIPS 140-2**
Standard Warranty	90-Day Hardware and Software			

The specifications, performance numbers are subject to change without notice, and may vary depending on configuration and environmental conditions. As for network interface, it's highly recommended to use A10 Networks qualified optics/transceivers to ensure network reliability and stability.

*1 Tested in single appliance SSLi deployment with maximum SSL option. Cipher "TLS_RSA_WITH_AES_256_CBC_SHA" with RSA 2K keys are used for RSA cases, "TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256" with EC P-256 and RSA 2K keys are used for PFS case. | *2 With maximum SSL | *3 With base model. Number varies by SSL model | ^ Certification in process | + FIPS model must be purchased

THUNDER CFW SPE PHYSICAL APPLIANCE SPECIFICATIONS

DATA CENTER FIREWALL PERFORMANCE	THUNDER 4435 CFW	THUNDER 5435 CFW	THUNDER 6435 CFW	THUNDER 6635 CFW
DCFW Throughput	38 Gbps	76 Gbps	140 Gbps	150 Gbps
DCFW Layer 4 CPS	2.7 Million	2.8 Million	5.5 Million	5.5 Million
DCFW Concurrent Sessions	128 Million	128 Million	256 Million	256 Million
DCFW Rules	64K	64K	128K	128K
SECURE WEB GATEWAY PERFORMANCE¹				
SSLi Throughput	8 Gbps	8 Gbps	17.5 Gbps	17.5 Gbps
SSLi CPS	22K	22K	50K	50K
IPSEC PERFORMANCE²				
IPsec Throughput	20 Gbps	20 Gbps	70 Gbps	80 Gbps
IPsec Tunnels	6K	6K	20K	20K
NETWORK INTERFACE				
1/10 GE Fiber (SFP+)	16	16	16	12
40 GE Fiber (QSFP+)	0	4	4	0
100 GE Fiber (CXP)	0	0	0	4
Management Ports	1 x Ethernet Mgmt port, 1 x RJ-45 console port			
HARDWARE SPECIFICATIONS				
Processor	Intel Xeon 10-core	Intel Xeon 10-core	2 x Intel Xeon 12-core	2 x Intel Xeon 12-core
Memory (ECC RAM)	64 GB	64 GB	128 GB	128 GB
Storage	SSD	SSD	SSD	SSD
Hardware Acceleration	FTA-3+, SPE	2 x FTA-3+, SPE	4 x FTA-3+, SPE	4 x FTA-3+, SPE
SSL Security Processor ('S' Models)	Yes	Yes	Yes	Yes
Dimensions (inches)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)	1.75 (H) x 17.5 (W) x 30 (D)	5.3 (H) x 16.9 (W) x 28 (D)
Rack Units (Mountable)	1U	1U	1U	3U
Unit Weight	34.5 lbs	35.5 lbs	39 lbs	74.5 lbs / 78 lbs ²
Power Supply (DC option available)	Dual 1100W RPS	Dual 1100W RPS	Dual 1100W RPS	2+2 1100W RPS
	80 Plus Platinum efficiency, 100 - 240 VAC, 50 - 60 Hz			
Power Consumption (Typical/Max)*3	350W / 420W	400W / 480W	620W / 710W	995W / 1,150W
Heat in BTU/hour (Typical/Max)*3	1,195 / 1,433	1,365 / 1,638	2,116 / 2,423	3,395 / 3,924
Cooling Fan	Hot Swap Smart Fans			
Operating Ranges	Temperature 0° - 40° C Humidity 5% - 95%			
Regulatory Certifications	FCC Class A, UL, CE, TUV, CB, VCCI, CCC, MSIP, BSMI, RCM, EAC, NEBS RoHS	FCC Class A, UL, CE, TUV, CB, VCCI, CCC, BSMI, RCM, EAC, NEBS RoHS	FCC Class A, UL, CE, TUV, CB, VCCI, CCC, BSMI, RCM, NEBS RoHS	FCC Class A, UL, CE, TUV, CB, VCCI, EAC, FAC RoHS
Standard Warranty	90-Day Hardware and Software			

The specifications, performance numbers are subject to change without notice, and may vary depending on configuration and environmental conditions. As for network interface, it's highly recommended to use A10 Networks qualified optics/transceivers to ensure network reliability and stability.

*1 Tested in single appliance SSLi deployment with maximum SSL option. Cipher "TLS_RSA_WITH_AES_128_CBC_SHA" with RSA 2K keys are used. | *2 With maximum SSL | *3 With base model. Number varies by SSL model

vTHUNDER CFW VIRTUAL APPLIANCE

vTHUNDER CFW

Supported Hypervisors	VMware ESXi 5.5 or Higher KVM QEMU 1.0 and Higher (VirtIO, OvS with DPDK, SR-IOV) Microsoft Hyper-V on Windows Server 2008 R2 or Higher
Hardware Requirements	See Installation Guide
Standard Warranty	90-Day Software

Bandwidth Licenses	Lab	1 Gbps	4 Gbps	8 Gbps
VMware ESXi	●	●	●	●
KVM (SR-IOV OvS-DPDK)	●	●	●	●
KVM	●	●	●	●
Microsoft Hyper-V	●	●	●	●*
Feature Basis Throughput Guideline	Licenses are set based on throughput performance and maximum throughput varies depending on each feature regardless of license type. See the performance guideline table below for more details.			

Feature Basis Performance Guideline	1 Gbps License	4 Gbps License	8 Gbps License
ADC/CGN	1 Gbps	4 Gbps	8 Gbps
Data Center Firewall	1 Gbps	4 Gbps	8 Gbps
Gi Firewall	1 Gbps	4 Gbps	8 Gbps
Secure Web Gateway (SSL Insight)	500 Mbps	1.5 Gbps	3 Gbps

+ 8 Gbps license not recommended for Microsoft Hyper-V

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