

DefensePro X Tech Specs



DefensePro X10 / X20		DefensePro X40		DefensePro X50 / X50HP		DefensePro X80		DefensePro X90 / X90HP		DefensePro X100 / X200		DefensePro X110 / X220 / X380		DefensePro X400 / X800	
PROGRAMMABLE MITIGATION PERFORMANCE															
On-Demand Scalable Clean Throughput Licenses	DefensePro X10-05 - 500 Mbps DefensePro X10-1 - 1 Gbps DefensePro X10-2 - 2 Gbps DefensePro X10-5 - 5 Gbps DefensePro X20-5 - 5 Gbps DefensePro X20-10 - 10 Gbps	DefensePro X40-10 - 10 Gbps DefensePro X40-20 - 20 Gbps DefensePro X40-40 - 40 Gbps	DefensePro X50-10 - 10 Gbps DefensePro X50-20 - 20 Gbps DefensePro X50-40 - 40 Gbps DefensePro X50HP-10 - 10 Gbps DefensePro X50HP-20 - 20 Gbps DefensePro X50HP-40 - 40 Gbps	DefensePro X80-10 - 10 Gbps DefensePro X80-20 - 20 Gbps DefensePro X80-40 - 40 Gbps	DefensePro X90-10 - 10 Gbps DefensePro X90-20 - 20 Gbps DefensePro X90-40 - 40 Gbps DefensePro X90HP-10 - 10 Gbps DefensePro X90HP-20 - 20 Gbps DefensePro X90HP-40 - 40 Gbps	DefensePro X100-50 - 50 Gbps DefensePro X100-60 - 60 Gbps DefensePro X200-100 - 100 Gbps	DefensePro X110-50 - 50 Gbps DefensePro X220-100 - 100 Gbps DefensePro X380-200 - 200 Gbps	DefensePro X400-200 - 200Gbps DefensePro X800-380 - 380Gbps							
Max Programmable Mitigation Throughput	10 Gbps / 20 Gbps	40 Gbps	50 Gbps	80 Gbps	90 Gbps	100 Gbps / 200 Gbps	110 Gbps / 220 Gbps / 380 Gbps	400 Gbps / 800 Gbps							
Max Attack Concurrent Sessions	Unlimited														
DDoS Flood Attack Prevention Rate	14 Mpps	35 Mpps	45 Mpps / 200 Mpps	35 Mpps	45 Mpps / 200 Mpps	142 Mpps	530 Mpps	1,119 Mpps							
Latency	< 60 microseconds														
Real-Time Signatures	Detect attacks and protect in less than 10 seconds														
SSL / TLS DECRYPTION															
SSL/TLS Connections per Second	43 KCPS (RSA 2K)	95 KCPS (RSA 2K)	100 KCPS (RSA 2K)	95 KCPS (RSA 2K)	100 KCPS (RSA 2K)	150 KCPS (RSA 2K)	110 KCPS (RSA 2K)	200 KCPS (RSA 2K)							
TLS 1.3 Perfect Forward Secrecy (PFS) HW Acceleration Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes							
BLOCKING PERFORMANCE															
Maximal DDoS Blocking Throughput	-	-	-	-	-	800 Gbps	800 Gbps	3.4 Tbps							
Maximal DDoS Blocking (PPS)	-	-	-	-	-	1.19 Billion	1.19 Billion	2.7 Billion							
INSPECTION PORTS															
10 /100/1000 Copper Ethernet	Up to 16 (2x8) - Modular	-	-	-	-	-	-	-							
1 GE / 10 GE	-	12 (SFP+)	-	12 (SFP+)	-	-	-	-							
10 GE / 25 GE	Up to 8 (2x4) (SFP+) - Modular	-	Up to 24 (8x3) (SFP+) - Modular	-	Up to 24 (8x3) (SFP+) - Modular	24 (SFP+/SFP28)	24 (SFP+/SFP28)	-							
40 GE	-	6 (QSFP+)	Up to 6 (2x3) (QSFP+) - Modular	6 (QSFP+)	Up to 6 (2x3) (QSFP+) - Modular	8 (QSFP+/QSFP28)	8 (QSFP+/QSFP28)	-							
100 GE	-	-	-	-	-	-	-	18 (QSFP28)							
400 GE¹	-	-	-	-	-	-	-	4 (QSFP-DD)							
MANAGEMENT PORTS															
10/100/1000 Copper Ethernet	2														
Management Console	RJ-45														
OPERATION MODE															
Network Operation	Transparent L2 Forwarding, IP Forwarding														
Deployment Modes	Inline, SPAN port monitoring, Copy port monitoring, Out-of-path mitigation (scrubbing center solution)														
Tunneling Protocols	VLAN Tagging, L2TP, MPLS, GRE, GTP, IPinIP														
IPv6	Yes														
Jumbo Frame	-		Supported			-			Supported						
Block Actions	Drop packet, reset (source, destination, both), suspend (source IP address, source port, destination IP address, destination port or any combination), challenge-response for TCP, HTTP and DNS suspicious traffic														
HIGH AVAILABILITY															
Fail-open/fail-close²	Internal fail-open/fail-close for modular copper ports; Internal fail-open/fail-close for fiber ports or optical transceivers (i.e., SFP+)	Internal fail-close for optical transceivers (i.e., SFP+, QSFP+)	Internal fail-open/fail-close for modular copper ports; Internal fail-open/fail-close for fiber ports or optical transceivers (i.e., SFP+)	Internal fail-close for optical transceivers (i.e., SFP+, QSFP+)	Internal fail-open/fail-close for modular copper ports; Internal fail-open/fail-close for fiber ports or optical transceivers (i.e., SFP+)	Internal fail-close for optical transceivers (e.g., SFP+, SFP28, QSFP+, QSFP28)		Internal fail-close for optical transceivers (e.g., QSFP28, QSFP-DD)							
Dual Power Supply	Yes, hot swappable														
PHYSICAL															
Dimensions (W x D x H) mm	436 x 406 x 44 mm (1U)	438 x 530 x 88 mm (2U) EIA rack or standalone: 530 mm (20.86 in)	490 x 406 x 44 mm (1U)	438 x 530 x 88 mm (2U) EIA rack or standalone: 530 mm (20.86 in)	490 x 406 x 44 mm (1U)	482 x 550 x 87 mm (2U) EIA rack or standalone: 482 mm (19 in)	482 x 550 x 87 mm (2U) EIA rack or standalone: 482 mm (19 in)	424 x 600 x 88 mm (2U) EIA rack or standalone: 482 mm (19 in)							
Weight	Single power supply: 6 kg (13.2 lbs.) Dual power supply: 6.5 kg (14 lbs.)	Single power supply: 11 kg (24.2 lbs.) Dual power supply: 12 kg (26.4 lbs.)	Single power supply: 7 kg (15.4 lbs.) Dual power supply: 7.5 kg (16.5 lbs.)	Single power supply: 11 kg (24.2 lbs.) Dual power supply: 12 kg (26.4 lbs.)	Single power supply: 7 kg (15.4 lbs.) Dual power supply: 7.5 kg (16.5 lbs.)	Dual power supply: 14.5 Kg (31.9 lbs)		Dual power supply: 14.5 Kg (31.9 lbs)		Dual power supply: 27.5 kg (60.6 lbs.)					
Power Supply (Auto-range)	80 plus certified AC:100–120V/200–240V, 47–63 Hz DC: -36 to -72V	80 plus certified AC:100–120V/200–240V, 47–63 Hz DC: -44 to -72V	80 plus certified AC:100–120V/200–240V, 47–63 Hz DC: -36 to -72V	80 plus certified AC:100–120V/200–240V, 47–63 Hz DC: -44 to -72V	80 plus certified AC:100–120V/200–240V, 47–63 Hz DC: -36 to -72V	80 plus certified AC:100-120V/200-240V, 47-63 Hz DC: -36 to -72V		80 plus certified AC:100-120V/200-240V, 47-63 Hz DC: -36 to -72V		80 plus certified AC:100–120V/200–240V, 47–63 Hz DC: -41 to -72V					
Power Consumption	Single and dual power supply: 140W	Dual power supply: 400W	Single and dual power supply: 350W	Dual power supply: 400W	Single and dual power supply: 350W	Dual power supply: 550W		Dual power supply: 550W		Dual power supply: 970W					
Heat Dissipation	Single and dual power supply: 480 BTU/h	Dual power supply: 1,364 BTU/h	Single and dual power supply: 640 BTU/h	Dual power supply: 1,364 BTU/h	Single and dual power supply: 640 BTU/h	Dual power supply: 1880 BTU/h		Dual power supply: 1880 BTU/h		Dual power supply: 3,300 BTU/h					
Operating Temperature	0°–40°C (32°–104°F)														
Humidity	5% to 95% non-condensing														
COMPLIANCE & CERTIFICATIONS															
RoHS	Compliant (EU directive 2011/65/EU, 2015/863/EU)														
ECCN	5A002.a.2														
Safety/EMC/EMI & Certifications	UL/TUV, FCC (USA), IC (Canada), CE (Europe), UKCA (UK), RCM (Australia/ NZ), VCCI (Japan), KCC (Korea), EAC (Russia), BSMI (Taiwan), Anatel (Brazil), NOM (Mexico). For more information visit: https://www.radware.com/newsroom/certifications-hardware/														
Warranty	1-year hardware and software maintenance														
Support	Certainty Support Program														

¹Requires 400G connectivity, available at additional cost.
²External fiber fail-open switch is available at additional cost.

DefensePro X Tech Specs



DefensePro XVA for Private Clouds

Hypervisor	KVM kernel 3.19, QEMU 2.0, VMware (ESX server versions: 6.0, 6.5, 6.7), OpenStack 16.1
Minimum VM requirements	2 vCPUs, 21GB RAM, 10GB storage
PERFORMANCE ¹	
On-Demand Scalable Throughput Licenses	DefensePro VA 200 Mbps, 500 Mbps, 1 Gbps, 2 Gbps, 5 Gbps, 10 Gbps, 20 Gbps ² , 40 Gbps, 100 Gbps
Max Mitigation Capacity/ Throughput	Up to 100 Gbps per DefensePro VA instance
Max Legit Concurrent Sessions	1,000,000 sessions per vCPU
Max Attack Concurrent Sessions	Unlimited
Max DDoS Flood Attack Prevention Rate	Up to 950,000 pps per vCPU
Latency	< 60 microseconds
Real-Time Signatures	Detect attacks and protect in less than 18 seconds
INSPECTION PORTS	
10 GE, 25 GE, 40 GE, 100 GE	2 (Intel® Ethernet Server Adapter X520, 10 GE; Intel® Ethernet Controller XL710, 40 GE), PCI Passthrough 4 (Intel® Ethernet Network Adapter XXV710, 10 GE, 25 GE), SRIOV 2 (Intel® Ethernet Network Controller E810 10GE, 25GE, 50GE, 100GE), SRIOV
MANAGEMENT PORTS	
Ethernet	Via virtual interface (virtio)
Management Console	KVM Virsh; VMware Serial Port
OPERATION MODE	
Network Operation	Transparent L2 Forwarding/IP Forwarding
Deployment Modes	In-line
Tunneling Protocols	VLAN Tagging, L2TP, MPLS, GRE, GTP, IPinIP
IPv6	Yes
Jumbo Frame	Up to 2KB
Block Actions	Drop packet, reset (source, destination, both), suspend (source IP address, source port, destination IP address, destination port or any combination), challenge-response for TCP, HTTP and DNS suspicious traffic
SUPPORT	
Support	Certainty Support Program

¹ Performance figures assume Intel® server-grade processor with 3 GHz
² 20 Gbps, 40 Gbps, 100Gbps Throughput License supported on KVM

DefensePro XVA for Public Clouds

Native Public Cloud support	AWS, Azure
Minimum VM requirements	2 vCPUs, 21GB RAM, 10GB storage
PERFORMANCE	
Max Mitigation Capacity/ Throughput	Up to 25 Gbps per DefensePro VA instance
Max Legit Concurrent Sessions	1,000,000 sessions per vCPU
Max Attack Concurrent Sessions	Unlimited
Max DDoS Flood Attack Prevention Rate	Up to 500,000 pps per vCPU
INSPECTION PORTS	
Ethernet	1 or 2 inspection ports for typical deployments. Additional inspection ports up to a limit supported by the instance type.
MANAGEMENT PORTS	
Ethernet	2 ports
OPERATION MODE	
Network Operation	AWS: Symmetric inspection, IP Forwarding Mode Azure: Asymmetric inspection, Destination NAT Forwarding Mode
Deployment Modes	AWS: In-VPC or Security VPC Azure: In-VPC
HIGH AVAILABILITY	
Active:Active	AWS and Azure: integration with AWS Gateway Load Balancer and Azure Load Balancer
Fail-open/fail-close	AWS: with Radware-provided Lambda function
Support	Certainty Support Program

