NGN Firewall Advanced
IPS/IDS
Advanced VPN
Web Gateway
WAF Web Application Firewall
Load Balancer
Streaming Media

SpacerWalling E300-X Series

Spacertron E300-X Series
Cyber Security System

The SpacerWalling E300-X series delivers next generation firewall (NGFW) capabilities for mid-sized to large enterprises deployed at the campus or enterprise branch level. Protects against cyber threats with high-powered security processors for optimized network performance, security efficacy and deep visibility. SpacerWalling's Security-Driven Networking approach provides tight integration of the network to the new generation of security.

Security

- Identifies thousands of applications inside network traffic for deep inspection and granular policy enforcement
- Protects against malware, exploits, and malicious websites in both encrypted and non-encrypted traffic
- Prevents and detects against known attacks using continuous threat intelligence from AI-powered Spacertron
- security services Proactively blocks unknown sophisticated attacks in real-time with the SpacerWalling Security

Performance

Engineered for Innovation using SpacerWalling's purpose-built security processors (CPU) to deliver the industry's best threat protection performance and ultra-low latency

- Provides industry-leading performance and protection for SSL encrypted traffic

Networking

- Application aware routing with in-built VPN-WAN capabilities to achieve consistent application performance and the best user experience
- Built-in advanced routing capabilities to deliver high performance with encrypted IPSEC/SSL tunnels at scale

Management

- Includes a management console that is effective and simple to use, which provides a comprehensive network of automation & visibility
- Predefined compliance checklists analyze the deployment and highlight best practices to improve the overall security posture

Firewall	IPS	NGFW	Threat Protection	Interfaces
12-24 Gbps	2.2 Gbps	1.8 Gbps	1.2 Gbps	Multiple GE RJ45, GE SFP Slots

Refer to the specifications table for details

Features

Next Generation Firewall (NGFW)

- Reduce the complexity and maximize your ROI by integrating threat protection security capabilities into a single high-performance network security appliance, powered by SpacerWalling
- Full visibility into users, devices, applications across the entire attack surface and consistent security policy enforcement irrespective of asset location
- Protect against network exploitable vulnerabilities with industry-validated IPS that offers low latency and optimized network performance
- Automatically block threats on decrypted traffic using the Industry's highest SSL inspection performance, including the latest TLS 1.3 standard with mandated ciphers
- Proactively block newly discovered sophisticated attacks in real-time and advanced threat protection services included in the SpacerWalling Security features

Secure Web Gateway (SWG)

- Secure web access from both internal and external risks, even for encrypted traffic at high performance
- Enhanced user experience with dynamic web and video caching
- Block and control web access based on user or user groups across URL's and domains
- Prevent data loss and discover user activity to known and unknown cloud applications
- Block DNS requests against malicious domains
- Multi-layered advanced protection against zero-day malware threats delivered over the web
- Advanced WAF Web Application Firewall functionalities

Secure VPN-WAN

- Consistent business application performance with accurate detection, dynamic WAN path steering and optimization
- Multi-cloud access for faster SaaS adoption with end-to-end optimization
- Simplification with zero touch deployment and centralized management with auto-provisioning, analytics and reporting
- Strong security posture with next generation firewall and real-time threat protection

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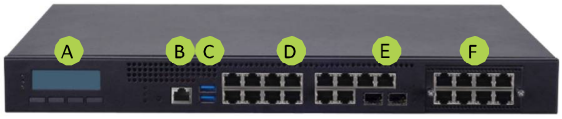
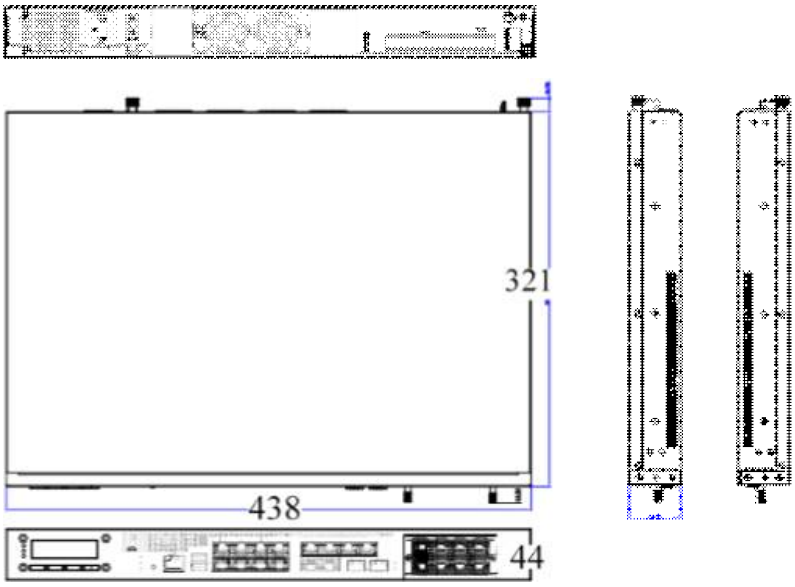
Hardware SpacerWalling E300 Series



1. Console Port (B)
2. USB Port (C)
3. 1x GE RJ45 Management/HA Ports
4. 4x GE RJ45 WAN Ports (D)
5. 20x GE RJ45 Ports (E+F)
6. 8x GE SFP Slots (D+E)



Specifications

E200-X Platform	
Form Factor	1U 19" Rackmount
Processor Options	Intel® Core™ i7/i5/i3 or Pentium® or Celeron®(Skylake/Kaby Lake)
CPU Socket	1x LGA1151
Chipset	Intel® H110 or C236
Security Acceleration	N/A
BIOS	AMI SPI Flash BIOS
System Memory	
Technology	DDR4 2400MHz ECC (by CPU for C236 only) or Non-ECC UDIMM
Max. Capacity	32GB
Socket	2 x 288-pin DIMM
Networking	
Ethernet Ports	6 x GbE RJ45 Intel® i210 2 x GbE SFP Intel® i210-IS (SKU B/C) 8 x GbE RJ45 Intel® i210 (SKU C)
Bypass	2 Pairs Gen3 (by SKU)
NIC Module Slot	1
LOM	
IO Interface	1 x RJ45 (Optional) *Share with ETH0
OPMA Slot	Yes
I/O Interface	
Reset Button	1
LED	Power/Status/Storage
Power Button	1 x ATX Power Switch
Console	1 x RJ45
USB	2 x USB 2.0
LCD Module	2 x 20 Character LCM
	4 x Keypads
Display	From OPMA Slot (Optional)
Power Input	AC Power Inlet on PSU

Storage	
HDD/SSD Support	2 x 2.5" Bay
Onboard Slots	1 x mSATA
Expansion	
PCIe	1x PCIe*8 (Default), 2x PCIe*4 (Optional)
mini-PCIe	N/A
Miscellaneous	
Watchdog	Yes
Internal RTC with Li Battery	Yes
TPM	Yes (Optional)
Cooling	
Processor	Passive CPU Heatsink
System	2x Cooling Fans with Smart Fan
Environmental Parameters	
Temperature	0~40ºC Operating -20~70ºC Non-Operating
Humidity (RH)	5~90% Operating 5~95% Non-Operating
System Dimensions	
(WxDxH)	438 x 321 x 44 mm
Weight	7.5 kg
Package Dimensions	
(WxDxH)	540 x 500 x 230 mm
Weight	8.5 kg
Power	
Type/Watts	220W ATX Single PSU
Input	AC 90~264V @47~63 Hz
Certification	
Approvals and Compliance	RoHS, CE/FCC Class A, UL

Content Processor

SpacerWalling's new, breakthrough CPU content processor works outside of the direct flow of traffic and accelerates the inspection of computationally intensive security features:

- Enhanced IPS performance with unique capability of full signature
- SSL Inspection capabilities based on the latest industry mandated cipher suites
- Encryption and decryption offloading

Network Processor

The CPU lite network processor works inline with firewall and VPN functions delivering:

- Wire-speed firewall performance for any size packets
- VPN acceleration
- Anomaly-based intrusion prevention, checksum offload, and packet defragmentation
- Traffic shaping and priority queuing

Spacertron OS

Spacertron OS is the foundation of the SpacerWalling Security —the core is Spacertron CoreOS. All security and networking capabilities across the entire Spacertron platform are controlled with one intuitive operating system. Spacertron OS reduces complexity, costs, and response times by truly consolidating next-generation security products and services into one platform.

- A truly consolidated platform with a single OS and pane-of-glass for across the entire digital attack surface.
- Leverage the latest technologies such as deception-based security.
- Control thousands of applications, block the latest exploits, and filter web traffic based on millions of real-time URL ratings in addition to true TLS 1.3 support.
- Automatically prevent, detect, and mitigate advanced attacks within minutes with an integrated AI-driven security and advanced threat protection.
- Improve and unify the user experience with innovative VPN-WAN capabilities with the ability to detect, contain, and isolate threats with automated segmentation.
- Utilize SPU hardware acceleration to boost network security performance.

Spacertron Services

Spacertron offers real-time intelligence on the threat landscape, delivering comprehensive security updates across the full range of SpacerWalling's solutions. Comprised of security threat researchers, engineers, and forensic specialists, the team collaborates with the world's leading threat monitoring and security vendor and security vendor as well as law enforcement agencies.

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Spacertron Support Services

Our Spacertron customer support team provides global technical support for all SpacerWalling products. With support staff in many different places, SpacertronCare offers services to meet the needs of enterprises of all sizes.

Specifications

	200	201
Hardware Specifications		
GE RJ45 WAN Interfaces	2	
GE RJ45 Management/HA Ports	2	
GE RJ45 Ports	14	
GE SFP Slots	4	
USB port	1	
Console (RJ45)	1	
Local Storage	—	1x 480 GB SSD
Included Transceivers	0	
System Performance — Enterprise Traffic Mix		
IPS Throughput [2]	2.2 Gbps	
NGFW Throughput [2, 4]	1.8 Gbps	
Threat Protection Throughput [2,5]	1.2 Gbps	
System Performance		
Firewall Throughput (1518/512/64 byte UDP packets)	20/20/9 Gbps	
Firewall Latency (64 byte UDP packets)	3µs	
Firewall Throughput (Packets Per Second)	13.5 Mpps	
Concurrent Sessions (TCP)	2 Million	
New Sessions/Second (TCP)	135,000	
Firewall Policies	10,000	
IPsec VPN Throughput (512 byte) [1]	7.2 Gbps	
Gateway-to-Gateway IPsec VPN Tunnels	2,000	
Client-to-Gateway IPsec VPN Tunnels	10,000	
SSL-VPN Throughput	900 Mbps	
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	500	
SSL Inspection Throughput (IPS, avg. HTTPS) [3]	820 Mbps	
SSL Inspection CPS (IPS, avg. HTTPS) [3]	1,000	
SSL Inspection Concurrent Session (IPS, avg. HTTPS) [3]	240,000	
Application Control Throughput (HTTP 64K) [2]	3.5 Gbps	
CAPWAP Throughput (1444 byte, UDP)	1.5 Gbps	
Virtual Domains (Default/Maximum)	10/10	
Maximum Number Switches Supported	64	
Maximum Number of APs (Total/Tunnel Mode)	256/128	
Maximum Number of Tokens	5,000	
High Availability Configurations	Active/Active, Active/Passive, Clustering	

Compliance	FCC Part 15B, Class A, CE, RCM, VCCI, UL/cUL CB, BSMI
Certifications	ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN; IPv6

Code Information

Product	SKU	Description
Spacertron E300-X-A	Spacertron E300-X-A	18x GE RJ45 (including 2x WAN ports, 1x Mgmt port, 1x HA port, 14x switch ports), 4x GE SFP slots. SPU NP6Lite and CP9 hardware accelerated.
Spacertron E301-X-A	Spacertron E301-X-A	18x GE RJ45 (including 2x WAN ports, 1x Mgmt port, 1x HA port, 14x switch ports), 4x GE SFP slots, SPU NP6Lite and CP9 hardware accelerated, 480GB onboard SSD storage.
Optional Accessories		
External redundant AC power supply	Spacertron-RPS-100	External redundant AC power supply for up to 4 units:

Bundles

Spacertron Bundle

Spacertron delivers a number of security intelligence services to augment the Spacertron firewall platform. You can easily optimize the protection capabilities of your Spacertron with one of these Spacertron Bundles.

Bundles	360 Protection	Enterprise Protection	Unified Threat Protection	Threat Protection
Spacertron Care	ASE [1]	24x7	24x7	24x7
Spacertron App Control Service	•	•	•	•
Spacertron IPS Service	•	•	•	•
Spacertron Advanced Malware Protection (AMP) — Antivirus, Mobile Malware, Botnet, CDR, Virus Outbreak Protection and SDS Cloud Service	•	•	•	•
Spacertron Web Filtering Service	•	•	•	
Spacertron Antispam Service	•	•	•	
Spacertron Security Rating Service	•	•		
Spacertron Industrial Service	•	•		
Spacertron IoT Detection Service [2]	•	•		
Spacertron Converter Service	•	•		
IPAMCloud [2]	•			
VPN-WAN Orchestrator Entitlement [2]	•			
VPN-WAN Cloud Assisted Monitoring	•			
VPN-WAN Overlay Controller VPN Service	•			
Spacertron Analyzer Cloud	•			
Spacertron Manager Cloud	•			

1. 24x7 plus Advanced Services Ticket Handling 2. Available when running Spacertron OS

Advanced E300-X Features

PROGRAMMABILITY

- E300-X JavaScript module for scripting and advanced configurations
- Lua scripting language
- Ansible, Chef, and Puppet integration
- Key-value store for dynamic configuration
- E300-X Plus API for managing upstream servers,
- key-value stores, and metrics
- Dynamic reconfiguration without process reloads

SECURITY CONTROLS

- Request, connection, and bandwidth limiting
- IP address access control list (ACL)
- Dual stack RSA/ECC SSL/TLS offloading
- Server-side SSL/TLS encryption
- TLS 1.3 support
- Mutual TLS termination and proxying
- Secure links
- E300-X WAF module, Advanced WAF/FW

STREAMING MEDIA

- Live: RTMP, HTTP Live Streaming (HLS), DASH
- VoD: Flash (flv), MP4
- Adaptive-bitrate VOD: HLS, Adobe HTTP Dynamic
- Streaming (HDS)
- Bandwidth controls for MP4 streaming

WEB SERVER/REVERSE PROXY

- Serve static content with low memory footprint
- Reverse proxy gRPC, HTTP, Memcached, PHP-FPM,
- SCGI, and uwsgi servers
- IP address geolocation (requires MaxMind
- GeoIP database)
- HTTP/2 termination and HTTP/2 server push

SUPPORTED ENVIRONMENTS

- Cloud
- Amazon Web Services (AWS)
- Google Cloud Platform (GCP)
- Microsoft Azure
- VMware
- Multiple Container

AUTHENTICATION

- HTTP Basic Authentication
- HTTP authentication subrequests
- X.509 client certificate authentication
- NTLM authentication
- JSON Web Token (JWT) validation
- OpenID Connect
- Single sign-on: Keycloak, Okta, OneLogin,
- Ping Identity, most IdPs

CONTENT CACHE

- Cache static and dynamic content
- Micro and byte-range caching
- Serve content when origin is unavailable; improves uptime
- Override or set Cache-Control headers
- Cache purging

HIGH AVAILABILITY

- Active-active and active-passive HA modes
- Configuration synchronization
- State sharing: sticky-learn session persistence,
- rate limiting, and key-value stores
- Easy installation with built-in script

LOAD BALANCER

- HTTP, TCP, and UDP load balancing
- Random with Two Choices, Round Robin, and
- Least Connections algorithms
- Passive health checks
- IP Hash session persistence
- IP transparency
- Direct Server Return (DSR)
- Layer 7 request routing

MONITORING

- Stub status module with 7 aggregated metrics
- Extended status with over 150 unique metrics
- Real-time graphical dashboard
- JSON output for integration with custom
- monitoring tools

Enhanced E300-X Features

APPLICATIONS
- VPN Server
- High Availability
- Load Balancing
- Traffic Shaping
- Captive Portal
- UTM Device
- Firewall / Router
- DNS / DHCP Server
- IDS / IPS
- Transparent Caching Proxy
- Web Content Filter

FEATURES
- Firewall and Router
- Stateful Packet Inspection (SPI)
- GeoIP blocking
- Anti-Spoofing
- Time based rules
- Connection limits
- Dynamic DNS
- Reverse proxy
- Captive portal guest network
- Supports concurrent IPv4 and IPv6
- NAT mapping (inbound/outbound)
- VLAN support (802.1q)
- Configurable static routing
- IPv6 network prefix translation
- IPv6 router advertisements
- Multiple IP addresses per interface
- DHCP server
- DNS forwarding
- Wake-on-LAN
- PPPoE Server

VPN
- IPsec and OpenVPN
- Site-to-site and remote access VPN support
- SSL encryption
- VPN client for multiple operating systems
- L2TP/IPsec for mobile devices
- Multi-WAN for failover
- IPv6 support
- Split tunneling
- Multiple tunnels
- VPN tunnel failover
- NAT support
- Automatic or custom routing
- Local user authentication or RADIUS/LDAP
- Intrusion Prevention System
- Snort-based packet analyzer
- Layer 7 application detection
- Multiple rules sources and categories
- Emerging threats database
- IP blacklist database
- Pre-set rule profiles
- Per-interface configuration
- Suppressing false positive alerts
- Deep Packet Inspection (DPI)
- Optional open-source packages for application blocking

ENTERPRISE RELIABILITY
- Optional multi-node High Availability Clustering
- Multi-WAN load balancing
- Automatic connection failover
- Bandwidth throttling
- Traffic shaping wizard
- Reserve or restrict bandwidth based on traffic priority
- Fair sharing bandwidth
- User data transfer quotas

USER AUTHENTICATION
- Local user and group database
- User and group-based privileges
- Optional automatic account expiration
- External RADIUS authentication
- Automatic lockout after repeated attempts

PROXY, CONTENT FILTERING
- HTTP and HTTPS proxy
- Non Transparent or Transparent caching proxy
- Domain/URL filtering
- Anti-virus filtering
- SafeSearch for search engines
- HTTPS URL and content screening
- Website access reporting
- Domain Name blacklisting (DNSBL)
- Usage reporting for daily, monthly, etc.

ADMINISTRATION, CONFIGURATION
- Web-based configuration
- Setup wizard for initial configuration
- Remote web-based administration
- Customizable dashboard
- Easy configuration backup/restore
- Configuration export/import
- Encrypted automatic backup to Netgate server
- Variable level administrative rights
- Multi-language support
- Simple updates
- Forward-compatible configuration
- Serial console for shell access and recovery options

SYSTEM SECURITY
- Web interface security protection
- CSRF protection
- HTTP Referer enforcement
- DNS Rebinding protection
- HTTP Strict Transport Security
- Frame protection
- Optional key-based SSH access

REPORTING & MONITORING

- Dashboard with configurable widgets
- Local logging
- Remote logging
- Local monitoring graphs
- Real-time interface traffic graphs
- SNMP monitoring
- Notifications via web interface, SMTP, or Growl
- Hardware monitoring
- Networking diagnostic tools