



# Hillstone NETWORKS A-Series Next Generation Firewall Owner’s Manual

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## Hillstone NETWORKS A-Series Next Generation Firewall



### Product Information

The Hillstone A-Series Next-Generation Firewall offers advanced threat detection and protection to enhance efficiency while reducing network latency. It features high-performance hardware architecture, excellent access

capability, and storage expansion options.

Specifications

| Model           | Fire wall Throughput | NGFW Throughput | Threat Protection Throughput | Maximum Concurrent Sessions | New Sessions/s | IPS Throughput | AV Throughput | IPsec VPN Throughput | Virtual Systems (Default/Max) | Firewall Policy Number | SSL VPN Users (Default/Max) | IPsec Tunnel Number |
|-----------------|----------------------|-----------------|------------------------------|-----------------------------|----------------|----------------|---------------|----------------------|-------------------------------|------------------------|-----------------------------|---------------------|
| SG-6000-A200-IN | 1 Gbps               | 400 Mbps        | 200 Mbps                     | 450,000                     | 14,000         | 610 Mbps       | 550 Mbps      | 0.59 Gbps            | N/A                           | 4000                   | 8/128                       | 2,000               |

Features:

- Attack Defense
- URL Filtering
- Anti-Spam
- Cloud-Sandbox for sandboxing and AV for SSL proxy decrypted traffic of SMTPS/POP3S/IMAPS and SMB
- Session Protection with various encryption and authentication options for IPsec VPNs
- IPv6 support
- VSYS (only available on rackmount models)
- High Availability with twin-mode HA available on specific models
- LDAP integration
- Netflow forwarding via CloudView for IoT Security

Product Usage Instructions

- **Deployment:**  
The Hillstone A-Series Next-Generation Firewall can be deployed in various network configurations as needed. Ensure proper connectivity and configuration based on your network requirements.
- **Configuration:**  
To configure the firewall settings, access the management interface using a web browser and log in with the appropriate credentials. Follow the on-screen instructions to set up firewall policies, VPN tunnels, and other security features.
- **Maintenance:**  
Regularly update the firmware of the firewall to ensure it has the latest security patches and features. Monitor system logs for any suspicious activity and perform regular backups of your configuration.

FAQ

Q: Can I expand the storage on the Hillstone A-Series Next-Generation Firewall?

A: Yes, some models offer expansion options for additional storage, including SSD options for increased capacity.

Q: How can I ensure high availability with the Hillstone A-Series firewall?

A: Specific models support twin-mode HA for high availability, allowing for redundancy and failover in case of hardware or network failures.

Q: What is the default SSL VPN user limit on the Hillstone A-Series firewall?

A: The default limit is 2000 SSL VPN users, but this can be adjusted based on your licensing and hardware capabilities.

The Hillstone A-Series next-generation firewall features high-security performance, expansion as needed, complete advanced threat detection and prevention, and smart and automated policy operation. This future-ready NGFW series is based on a brand-new hardware architecture that offers industry-leading application layer performance to meet real-world network security needs. High-density ports ensure excellent access capability and large storage options offer better visibility and analytics. As part of the ZTNA solution, A-Series NGFW granularly controls the application access with eliminated implicit trust and continuous verification. The Hillstone A-Series NGFW offers complete, advanced defences against known and unknown threats, coupled with smart, automated and efficient policy operation that makes security operations easy.

## Product Highlights

### Advanced Threat Detection and Protection

The Hillstone A-Series NGFW includes a full arsenal of mechanisms to provide real-time detection and protection across the full lifecycle of network attacks and malware. Before a breach can even occur, proactive protections like IPS block the vulnerability's exploitation. IP reputation services block requests from risky sites potentially involved in malware and spamming. URL filtering prevents users from inadvertently accessing sites associated with phishing, malware downloads and other exploits. Anti-virus detects and blocks known malware at the network level with an advanced signature database that is continuously updated. Anti-spam provides real-time spam classification and prevention for both inbound and outbound traffic.

During a breach, anti-virus plays an important role as well by continuing to detect and block known malware. A cloud sandbox provides sophisticated detection and prevention of malicious files through static analysis and pre-processing, followed by behavioural analysis that includes detection of evasive maneuvers. Cloud intelligence then identifies and blocks malicious files, generates logs and reports, and shares threat intelligence back to the cloud.

Completing protections across the full threat lifecycle, the A-Series continues to defend even after a breach has occurred. Hillstone's advanced Botnet C&C prevention feature prevents communication to the control channel, and detects and blocks bots within the intranet as well.

In addition, A-Series NGFW leverages machine learning technology for intelligent security protection against known and unknown threats, such as intelligent DDoS, DGA, and encrypted traffic detection without decryption. Further, the system's unified threat detection and analytics engine coordinates across all built-in security

mechanisms to dramatically enhance efficiency while reducing network latency.

### **High-Performance Hardware Architecture**

The future-ready A-Series features a compact form factor and a powerful computing foundation that ensures high performance with uncompromising security. A-Series NGFWs offer robust performance for firewall throughput, concurrent and new sessions, and blazing fast performance for the application layer, which is critical in meeting the needs of current security environments. Powered with Hillstone's proprietary hardware acceleration engine, A-Series NGFW high-end models enable fast packet forwarding with high throughput and ultra-low latency by traffic offloading. It also offers a friendly software ecology for third-party integration to support additional security features if desired. All rackmount models feature front and rear ventilation to assist in heat dissipation, which is a concern in networks of almost any size.

### **Excellent Access Capability and Storage Expansion**

The Hillstone A-Series offers high I/O port density, allowing the NGFW to act as a switch or router as needed, lowering deployment and management costs. In addition, expansion slots are available for several A-Series models to further increase performance. Bypass pairs on most A-Series models help ensure business continuity. All models, including the desktop versions, include a large onboard storage and have expansion options for very-large hard disk storage up to 2 TB.

With more storage the system can save more logs and data for a longer time, enabling deeper analysis. In addition, the expanded storage allows the system to provide richer reports with far more information, including visualized results and actionable recommendations. Further, with deeper threat analysis the WebUI can display much richer threat detection information, which in turn gives admins better visibility. The increased visibility lets admins quickly zero in on anomalies and other suspicious network events or traffic, analyze them and respond.

### **Smart Policy Operation**

The A-Series includes intelligent management and operation across the full policy lifecycle, from deployment to management, optimization and operation. The system features automated user policy deployment using RADIUS dynamic authorization. Policy management is made far more efficient through policy groupings based on business requirements. In addition, policies can be aggregated to allow a set of policies to act as a single policy. An innovative policy assistant analyzes traffic patterns and recommends refined policies for faster, easier and more accurate policy management. Policy operation is made more efficient and precise through policy redundancy checks, which identify redundant policies for deactivation or deletion, and policy hit count analysis, which helps further refine and adjust policies.

## **Features**

### **Network Services**

- Dynamic routing (OSPF, OSPFv3, BGP with graceful restart, RIPv2)
- Static and policy-based routing
- Route controlled by the application
- Built-in DHCP, NTP, DNS Server and DNS proxy
- Tap mode – connects to SPAN port
- Interface modes: sniffer, port aggregated, loopback, VLANS (802.1Q and Trunking)
- L2/L3 switching & routing
- Multicast(PIM-SSM)
- Virtual wire (Layer 1) transparent inline deployment

### **Firewall**

- Operating modes: NAT/route, transparent (bridge), and mixed mode

- Policy objects: predefined, custom, aggregate policy, object grouping
- Security policy based on application, role and geo-location
- Application Level Gateways and session support: MSRPC, PPTP, RAS, RSH, SIP, FTP, TFTP, HTTP, dcerpc, dns-tcp, DNS-udp, H.245 0, H.245 1, H.323, tcp full proxy
- NAT and ALG support: NAT46, NAT64, NAT444, SNAT, DNAT, PAT, Full Cone NAT (IPv4 and IPv6), STUN
- NAT configuration: per policy and central NAT table
- VoIP: SIP/H.323/SCCP NAT traversal, RTP pin holing
- Global policy management view
- Security policy redundancy inspection, policy group, policy configuration rollback, aggregate policy
- Policy Assistant for service base or application-based policy recommendation
- Policy analyzing and invalid policy cleanup
- Comprehensive DNS policy
- Schedules: one-time and recurring
- Support policy import and export
- Support NAT redundancy detection

## **Intrusion Prevention**

- Protocol anomaly detection, rate-based detection, custom signatures, manual, automatic push or pull signature updates, integrated threat encyclopedia
- IPS Actions: default, monitor, block, reset (attackers IP or victim IP, incoming interface) with expiry time
- Packet logging option
- Filter Based Selection: severity, target, OS, application or protocol
- IP exemption from specific IPS signatures
- IDS sniffer mode
- Predefined prevention configuration
- IPS threat packet capture (with expansion storage only)

## **Antivirus**

- Manual, automatic push or pull signature updates
- Manually add or delete the MD5 signature to the AV database
- MD5 signature supports uploading to the cloud sandbox, and manually adding or deleting on the local database
- Flow-based antivirus: protocols include HTTP, SMTP, POP3, IMAP, FTP/SFTP, SMB
- Compressed file virus scanning

## **Attack Defense**

- Abnormal protocol attack defence
- Flood attack defence, including ICMP flood, UDP flood, DNS query flood, recursive DNS query flood, DNS reply flood, SYN flood, SIP flood
- ARP spoofing and ND spoofing defense
- Scan and spoof defence, including IP address spoof, IP address sweep, port scan
- Intelligent DoS/DDoS defence with ML-based baseline establishment, including ping of death attack, teardrop

attack, IP fragment, IP option, Smurf or Fragile attack, Land attack, large ICMP packet, WinNuke attack

- Allow list for destination IP address
- Active bypass with bypass interfaces
- Support protection of brute force attacks including VNC, RDP, SSH, LDAP, IMAP, SMB
- Support protection of sensitive file scanning attack
- Support reverse shell detection

## **URL Filtering**

- Flow-based web filtering inspection
- Manually defined web filtering based on URL, web content and MIME header
- Dynamic web filtering with cloud-based real-time categorization database: over 140 million URLs with 64 categories (8 of which are security-related)
- Additional web filtering features:
  - Filter Java Applet, ActiveX or cookie
  - Block HTTP Post
  - Log search keywords
  - Exempt scanning encrypted connections on certain categories for privacy
- Web filtering profile override: allows the administrator to temporarily assign different profiles to user/group/IP
- Web filter local categories and category rating override
- Support URL allow list and block list

## **Anti-Spam(1)**

- Real-time Spam Classification and Prevention
- Confirmed Spam, Suspected Spam, Bulk Spam, Valid Bulk
- Protection Regardless of the language, format, or content of the message
- Support both SMTP and POP3 email protocols
- Inbound and outbound detection
- White lists to allow emails from trusted domains

## **Cloud-Sandbox**

- Upload malicious files to the cloud sandbox for analysis
- Support protocols including HTTP/HTTPS, POP3, IMAP, SMTP, FTP and SMB
- Support file types including PE, ZIP, RAR, Office, PDF, APK, JAR, SWF and Script
- File transfer direction and file size control
- Provide complete behaviour analysis report for malicious files
- Global threat intelligence sharing, real-time threat blocking
- Support detection-only mode without uploading files
- URL allow/block list configuration

## **Botnet C&C Prevention**

- Discover intranet botnet host by monitoring C&C connections and block further advanced threats such as botnet and ransomware
- Regularly update the botnet server addresses
- Prevention for C&C IP, domain name and URL
- Support TCP, HTTP, and DNS traffic detection
- Allow and block list based on IP address, domain name, and URL
- Support DGA and DNS tunnel detection
- Support DNS sinkhole

## **IP Reputation**

- Identify and filter traffic from risky IPs such as botnet hosts, spammers, Tor nodes, breached hosts, and brute force attacks
- Logging, dropping packets, or blocking for different types of risky IP traffic
- Periodical IP reputation signature database upgrade

## **SSL Decryption**

- Application identification for SSL-encrypted traffic
- IPS enablement for SSL-encrypted traffic
- AV enablement for SSL-encrypted traffic
- URL filter for SSL-encrypted traffic
- SSL encrypted traffic whitelist
- SSL proxy offload mode
- SSL proxy supports IP whitelist and predefined whitelist
- SSL proxy supports session re-use
- Support AD/LDAP server connection via SSL encryption
- Support TLS v1.2 to TLS v1.3
- Support application identification, DLP, IPS sandbox, AV for SSL proxy decrypted traffic of SMTPS/POP3S/IMAPS

## **Endpoint Identification and Control**

- Support to identify endpoint IP, endpoint quantity, on-line time, off-line time, and on-line duration
- Support 10 operating systems including Windows, iOS, Android, etc.
- Support query based on IP, endpoint quantity, control policy and status etc.
- Support the identification of accessed endpoints quantity across layer 3, logging and interference on overrun IP
- Redirect page display after custom interference operation
- Supports blocking operations on overrun IP
- User identification and traffic control for remote desktop services of Windows Server

## **Data Security**

- File transfer control based on file type, size and name

- File protocol identification, including HTTP, FTP, SMTP, POP3 and SMB
- File signature and suffix identification for over 100 file types
- Content filtering for HTTP-GET, HTTP-POST, FTP and SMTP protocols
- Content filtering for predefined keywords and file contents
- IM identification and network behaviour audit
- Filter files transmitted by HTTPS using SSL Proxy and SMB

## **Application Control**

- Over 6,000 applications that can be filtered by name, category, subcategory, technology and risk
- Each application contains a description, risk factors, dependencies, typical ports used, and URLs for additional reference
- Actions: block, reset session, monitor, traffic shaping
- Identify and control cloud applications in the cloud
- Provide multi-dimensional monitoring and statistics for cloud applications, including risk category and characteristics

## **Quality of Service (QoS)**

- Max/guaranteed bandwidth tunnels or IP/user basis
- Tunnel allocation based on security domain, interface, address, user/user group, server/server group, application/app group, TOS, VLAN
- Bandwidth allocated by time, priority, or equal bandwidth sharing
- Type of Service (TOS) Differentiated Services (DiffServ) and traffic-class support
- Prioritized allocation of remaining bandwidth
- Maximum concurrent connections per IP
- Bandwidth allocation based on URL category
- Bandwidth limit by delaying access for user or IP
- Automatic expiration cleanup and manual cleanup of user-used traffic

## **Server Load Balancing**

- Weighted hashing, weighted least-connection, and weighted round-robin
- Session protection, session persistence and session status monitoring
- Server health check, session monitoring and session protection

## **Link Load Balancing**

- Bi-directional link load balancing
- Outbound link load balancing: policy-based routing including ECMP, time, weighted, and embedded ISP routing; Active and passive real-time link quality detection and best path selection
- Inbound link load balancing supports SmartDNS and dynamic detection
- Automatic link switching based on bandwidth, latency, jitter, connectivity, application etc.
- Link health inspection with ARP, PING, and DNS



## VPN

- IPsec VPN
  - IPsec Phase 1 mode: aggressive and main ID protection mode
  - Peer acceptance options: any ID, specific ID, ID in dialup user group
  - Supports IKEv1 and IKEv2 (RFC 4306)
  - Authentication method: certificate and pre-shared key
  - IKE mode configuration support (as server or client)
  - DHCP over IPsec
  - Configurable IKE encryption key expiry, NAT traversal keep alive frequency
  - Phase 1/Phase 2 Proposal encryption: DES, 3DES, AES128, AES192, AES256
  - Phase 1/Phase 2 Proposal authentication: MD5, SHA1, SHA256, SHA384, SHA512
  - IKEv1 support DH groups 1,2,5,18,19,20,21,24
  - IKEv2 support DH groups 1,2,5,14,15,16,18,19,20,21,24
  - XAuth as server mode and for dialup users
  - Dead peer detection
  - Replay detection
  - Autokey keep-alive for Phase 2 SA
- IPsec VPN realm support: allows multiple custom SSL VPN logins associated with user groups (URL paths, design)
- IPsec VPN supports the configuration guide. Configuration options include: route-based or policy-based
- IPsec VPN deployment modes: gateway-to-gateway, full mesh, hub-and-spoke, redundant tunnel, VPN termination in transparent mode
- IPsec supports custom ports
- IPsec VPN supports DPD On-Demand mode
- LLB and failover support over IPsec tunnels
- One-time login prevents concurrent logins with the same username
- SSL portal concurrent users limiting
- SSL VPN port forwarding module encrypts client data and sends the data to the application server
- Supports clients that run iOS, Android, Microsoft Windows, MacOS and Linux
- Host integrity checking and OS checking before SSL tunnel connections
- MAC host check per portal
- Cache cleaning option before ending SSL VPN session
- L2TP client and server mode, L2TP over IPsec, and GRE over IPsec
- View and manage IPsec and SSL VPN connections
- PnVPN
- VTEP for VxLAN static unicast tunnel

## IPv6

- Management over IPv6, IPv6 logging, HA and HA peer mode, twin-mode AA and AP
- IPv6 tunneling: DNS64/NAT64, IPv6 ISATAP, IPv6 GRE, IPv6 over IPv4 GRE, 6RD
- IPv6 routing including static routing, policy routing, ISIS, RIPng, OSPFv3 and BGP4+
- IPv6 support on LLB

- IPS, Application identification, URL filtering, Antivirus, Access control, ND attack defence, iQoS, SSL VPN
- IPv6 jumbo frame support
- IPv6 Radius and sso-radius supports
- IPv6 is supported in Active Directory whitelist
- IPv6 support on the following ALGs: TFTP, FTP, RSH, HTTP, SIP, SQLNETv2, RTSP, MSRPC, SUNRPC
- IPv6 support on distributed QoS
- Track address detection

### **VSYS (only available on rackmount models)**

- System resource allocation to each VSYS
- CPU virtualization
- Non-root VSYS support firewall, IPsec VPN, SSL VPN, IPS, URL filtering, app monitoring, IP reputation, QoS
- VSYS monitoring and statistics, app monitoring, IP reputation, AV, QoS

### **High Availability**

- Redundant heartbeat interfaces
- Active/Active peer mode with Hillstone Virtual Redundancy Protocol (HSVRP) support, and Active/Passive mode
- Standalone session synchronization
- HA reserved management interface
- **Failover:**
  - Port, local & remote link monitoring
  - Stateful failover
  - Sub-second failover
  - Failure notification
- **Deployment options:**
  - HA with link aggregation
  - Full mesh HA
  - Geographically dispersed HA
  - Dual HA data link ports

### **Twin-mode HA (only available on A2715, A2815, A3000 and above models)**

- High availability mode among multiple devices
- Multiple HA deployment modes
- Configuration and session synchronization among multiple devices

### **User and Device Identity**

- Local user database
- Remote user authentication: TACACS+, LDAP, Radius, Active Directory, OAuth2
- Single-sign-on: Windows AD

- 2-factor authentication: 3rd party support, integrated token server with physical and SMS
- User and device-based policies
- User group synchronization based on AD and LDAP
- Support for 802.1X, SSO Proxy
- WebAuth: page customization, force crack prevention, IPv6 support
- Interface based authentication
- Agentless ADSSO (AD Polling)
- Use authentication synchronization based on SSO-monitor
- Support IP-based and MAC-based user authentication
- Radius server issues user security policy via CoA message

## **Administration**

- Management access: HTTP/HTTPS, SSH, telnet, console, RestfulAPI, NETCONF
- Central Management: Hillstone Security Manager (HSM), web service APIs
- System Integration: SNMP, Syslog, alliance partnerships
- Rapid deployment: USB auto-install, local and remote script execution
- Dynamic real-time dashboard status and drill-in monitoring widgets
- Language support: English
- Administrator authentication: Active Directory and LDAP

## **Logs & Reporting**

- Logging facilities: local storage; up to 6 months log storage with expansion storage (SSD hard drive), Syslog server, Hillstone HSM or HSA
- Encrypted logging and log integrity with HSA scheduled batch log uploading
- Reliable logging using TCP option (RFC 3195)
- Detailed traffic logs: forwarded, violated sessions, local traffic, invalid packets, URL etc.
- Comprehensive event logs: system and administrative activity audits, routing & networking, VPN, user authentications, Wi-Fi-related events
- IP and service port name resolution option
- Brief traffic log format option
- Three predefined reports: Security, Flow and Network reports
- User-defined reporting
- Reports can be exported in PDF, Word and HTML via Email and FTP
- Support policy configuration auditing

## **Statistics and Monitoring**

- Application, URL, threat events statistics and monitoring
- Real-time traffic statistics and analytics
- System information such as concurrent session, CPU, memory and temperature
- iQOS traffic statistics and monitoring, link status monitoring
- Support traffic information collection and forwarding via Netflow (v9.0)

## Zero Trust Network Access(ZTNA)

- Support end-user access with a Zero-Trust principle
- ZTNA tags support account password and terminal status
- Support Zero-Trust policy configuration based on ZTNA tags and application resources, with optional security protection and data security
- Support application resource management
- Support application resource configuration based on domain name
- Support dynamic adjustment of authorization in policy when the endpoint state changes
- Support application publishing, and displaying authorized applications to end-users over the ZTNA portal
- Support single packet authentication(SPA)
- Support domain name-level permission management
- Support auto-selection of the optimal gateway
- Support the smooth transition the from current SSL VPthe N to ZTNA solution
- Support operating systems including iOS, Android, Microsoft Windows, MacOS and Linux
- Support centralized ZTNA management by HSM, including uploading monitoring data and statistics, and accept the configuration delivered

## CloudView

- Cloud-based security monitoring
- 24/7 access from the web or mobile application
- Device status, traffic and threat monitoring
- Cloud-based log retention and reporting

## IoT Security

- Identify IoT devices such as IP Cameras and Network Video Recorders
- Support query of monitoring results based on filtering conditions, including device type, IP address, status, etc.
- Support customized whitelists

## Specifications

SG-6000-A200-IN



SG-6000-A200W-IN



SG-6000-A1000-IN



SG-6000-A1100-IN



SG-6000-A2000-IN



SG-6000-A2600-IN



|                                   |          |          |          |          |          |          |
|-----------------------------------|----------|----------|----------|----------|----------|----------|
| Firewall Throughput (2)           | 1 Gbps   | 1 Gbps   | 4 Gbps   | 5 Gbps   | 5 Gbps   | 5 Gbps   |
| NGFW Throughput (3)               | 400 Mbps | 400 Mbps | 1.5 Gbps | 1.7 Gbps | 1.7 Gbps | 2.5 Gbps |
| Threat Protection T hroughput (4) | 200 Mbps | 200 Mbps | 800 Mbps | 800 Mbps | 800 Mbps | 2 Gbps   |



| Form Factor                    | Desktop               | Desktop               | Desktop               | Desktop               | Rackmount, 1U         | Rackmount, 1U         |
|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Dimensions (W × D × H, mm)     | 180 × 110 × 28        | 180 × 110 × 28        | 270 × 160 × 44        | 270 × 160 × 44        | 436 × 320 × 44        | 436 × 320 × 44        |
| Dimensions (W × D × H, inches) | 7.1 × 4.3 × 1.1       | 7.1 × 4.3 × 1.1       | 10.6 × 6.3 × 1.7      | 10.6 × 6.3 × 1.7      | 17.2 × 12.6 × 1.7     | 17.2 × 12.6 × 1.7     |
| Weight                         | 2.2 lb (0.6 kg)       | 2.2 lb (0.6 kg)       | 3.1 lb (1.4 kg)       | 3.1 lb (1.4 kg)       | 8.6 lb (3.9 kg)       | 8.6 lb (3.9 kg)       |
| Working Temperature            | 32-104°F (0-40°C)     | 32-104°F (0-40°C)     | 32-104°F (0-40°C)     | 32-104°F (0-40°C)     | 32-104°F (0-40°C)     | 32-104°F (0-40°C)     |
| Relative Humidity              | 10-95% non-condensing | 10-95% non-condensing | 10-95% non-condensing | 10-95% non-condensing | 10-95% non-condensing | 10-95% non-condensing |

**SG-6000-A2700-IN**



**SG-6000-A2715-IN**



**SG-6000-A2800-IN**



**SG-6000-A2815-IN**



|                                  |             |             |             |             |
|----------------------------------|-------------|-------------|-------------|-------------|
| Firewall Throughput (2)          | 10 Gbps     | 10 Gbps     | 16 Gbps     | 16 Gbps     |
| NGFW Throughput (3)              | 4 Gbps      | 4.5 Gbps    | 5 Gbps      | 5 Gbps      |
| Threat Protection Throughput (4) | 2.5 Gbps    | 2.5 Gbps    | 2.8 Gbps    | 2.8 Gbps    |
| Maximum Concurrent Sessions (5)  | 2.2 Million | 2.2 Million | 2.4 Million | 2.4 Million |
| New Sessions/s (6)               | 130,000     | 130,000     | 130,000     | 130,000     |
| IPS Throughput (7)               | 8 Gbps      | 9 Gbps      | 9 Gbps      | 9 Gbps      |
| AV Throughput (8)                | 4.5 Gbps    | 4.5 Gbps    | 4.5 Gbps    | 4.5 Gbps    |
| IPsec VPN Throughput (9)         | 5 Gbps      | 5.2 Gbps    | 5.5 Gbps    | 5.3 Gbps    |
| Virtual Systems (Default/Max)    | 1/5         | 1/5         | 1/5         | 1/5         |
| SSL VPN Users (Default/Max)      | 8/4,000     | 8/4,000     | 8/4,000     | 8/4,000     |
| IPsec Tunnel Number              | 6,000       | 6,000       | 6,000       | 6,000       |
| Firewall Policy Number           | 12,000      | 12,000      | 12,000      | 12,000      |

|                                       |   |   |   |   |
|---------------------------------------|---|---|---|---|
| Management Ports                      | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45) | 1 × Console port, 2 × USB3.0 ports, 1 × HA port (RJ45), 1 × MGT port (RJ45) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45) | 1 × Console port, 2 × USB3.0 ports, 1 × HA port (RJ45), 1 × MGT port (RJ45) |
| Fixed I/O Ports (10)                  | 2 × SFP+, 8 × SFP, 8 × GE                               | 8 × SFP, 8 × GE (including 2 bypass pairs)                                  | 2 × SFP+, 8 × SFP, 8 × GE                               | 8 × SFP, 8 × GE (including 2 bypass pairs)                                  |
| Wi-Fi/ 4G Dongle                      | 4G Dongle   | 4G Dongle   | 4G Dongle   | 4G Dongle   |
| Available Slots for Expansion Modules | N/A   | 1   | N/A   | 1   |
| Expansion Module Option               | N/A   | IOC-A-F-4SFP+-IN I<br>OC-A-F-8SFP+-IN I<br>OC-A-F-8GE-IN                    | N/A   | IOC-A-F-4SFP+-IN I<br>OC-A-F-8SFP+-IN I<br>OC-A-F-8GE-IN                    |
| Twin-mode HA                          | N/A   | Yes   | N/A   | Yes   |
| Local Storage                         | 8 GB  | 8 GB  | 8 GB  | 8 GB  |
| Expansion Storage Options             | 480GB / 960GB / 1.92TB SSD                              | 480GB / 960GB / 1.92TB SSD  | 480GB / 960GB / 1.92TB SSD                              | 480GB / 960GB / 1.92TB SSD  |
| Power Specification                   | 50W, Single AC (default), Dual AC (optional)            | 60W, Single AC (default), Dual AC (optional)                                | 50W, Single AC (default), Dual AC (optional)            | 60W, Single AC (default), Dual AC (optional)                                |
| Power Supply                          | AC 100-240V, 50/60 Hz                                   | AC 100-240V, 50/60 Hz   | AC 100-240V, 50/60 Hz                                   | AC 100-240V, 50/60 Hz   |
| Form Factor                           | Rackmount, 1U   | Rackmount, 1U   | Rackmount, 1U   | Rackmount, 1U   |
| Dimensions (W × D × H, mm)            | 440 x 320 x 44  | 440 × 340 × 44.4  | 440 x 320 x 44  | 440 × 340 × 44.4  |
| Dimensions (W × D × H, inches)        | 17.3 x 12.6 x 1.7                                       | 17.3 × 13.4 × 1.75  | 17.3 x 12.6 x 1.7                                       | 17.3 × 13.4 × 1.75  |
| Weight                                | 9 lb (4.1 kg)   | 10.0 lb (4.55 kg)   | 9 lb (4.1 kg)   | 10.0 lb (4.55 kg)   |
| Working Temperature                   | 32-104°F (0-40°C)                                       | 32-104°F (0-40°C)   | 32-104°F (0-40°C)                                       | 32-104°F (0-40°C)   |
| Relative Humidity                     | 10-95% non-condensing                                   | 10-95% non-condensing   | 10-95% non-condensing                                   | 10-95% non-condensing   |

SG-6000-A3000-IN



SG-6000-A3600-IN



SG-6000-A3615-IN



SG-6000-A3700-IN



SG-6000-A3800-IN



SG-6000-A3815-IN



|                                       |   |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|---|
| Firewall Throughput (2)               | 20 Gbps   | 20 Gbps   | 20 Gbps   | 20/30 Gbps  | 20/30 Gbps  | 20 Gbps   |
| NGFW Throughput (3)                   | 5.5 Gbps  | 5.5 Gbps  | 5.5 Gbps  | 6 Gbps  | 12 Gbps   | 13 Gbps   |
| Threat Protection Throughput (4)      | 3 Gbps  | 3 Gbps  | 2.95 Gbps   | 3.1 Gbps  | 6 Gbps  | 6.5 Gbps  |
| Maximum Concurrent Sessions (5)       | 3 Million   | 4.5 Million   | 4.5 Million   | 7 Million   | 8 Million   | 8 Million   |
| New Sessions/s (6)                    | 135,000   | 135,000   | 135,000   | 140,000   | 310,000   | 310,000   |
| IPS Throughput (7)                    | 10 Gbps   | 10 Gbps   | 10 Gbps   | 10 Gbps   | 16 Gbps   | 14 Gbps   |
| AV Throughput (8)                     | 5 Gbps  | 5.0 Gbps  | 5 Gbps  | 5.2 Gbps  | 9.4 Gbps  | 10 Gbps   |
| IPsec VPN Throughput (9)              | 6 Gbps  | 6 Gbps  | 6 Gbps  | 6.5 Gbps  | 12 Gbps   | 12 Gbps   |
| Virtual Systems (Default/Max)         | 1/50  | 1/100   | 1/100   | 1/250   | 1/250   | 1/250   |
| SSL VPN Users (Default/Max)           | 8/4,000   | 8/8,000   | 8/8,000   | 8/10,000  | 8/10,000  | 8/10,000  |
| IPsec Tunnel Number                   | 8,000   | 10,000  | 10,000  | 20,000  | 20,000  | 20,000  |
| Firewall Policy Number                | 20,000  | 20,000  | 20,000  | 20,000  | 40,000  | 40,000  |
| Management Ports                      | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA Port (RJ45) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA Port (RJ45) | 1 × Console port, 2 × USB3.0 ports, 1 × HA port (RJ45), 1 × MGT port (RJ45) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA Port (RJ45) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA Port (RJ45) | 1 × Console port, 2 × USB3.0 ports, 1 × HA port (RJ45), 1 × MGT port (RJ45) |
| Fixed I/O Ports (10)                  | 2 × SFP+, 8 × SFP, 16 × GE (including 2 bypass pairs)                       | 2 × SFP+, 8 × SFP, 16 × GE (including 2 bypass pairs)                       | 8 × SFP, 8 × GE (including 2 bypass pairs)                                  | 2 × SFP+, 8 × SFP, 16 × GE (including 2 bypass pairs)                       | 2 × SFP+, 8 × SFP, 16 × GE (including 2 bypass pairs)                       | 8 × SFP, 8 × GE (including 2 bypass pairs)                                  |
| Wi-Fi/ 4G Dongle                      | 4G Dongle   | 4G Dongle   | 4G Dongle   | 4G Dongle   | 4G Dongle   | 4G Dongle   |
| Available Slots for Expansion Modules | N/A   | N/A   | 2   | 1   | 1   | 2   |



|                                |   |   |   |  |  |   |
|--------------------------------|---|---|---|--|--|---|
| Expansion Module Option        | N/A   | N/A   | IOC-A-F-4SFP+-IN IOC-A-F-8SFP+-IN IOC-A-F-8GE-IN IOC-A-4SFP+-IN IOC-A-2QSFP+-IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN | IOC-A-4SFP+-IN, IOC-A-2MM-BE-IN, IOC-A-2SM-BE-IN IOC-A-2QSFP+-IN | IOC-A-4SFP+-IN, IOC-A-2MM-BE-IN, IOC-A-2SM-BE-IN IOC-A-2QSFP+-IN | IOC-A-F-4SFP+-IN IOC-A-F-8SFP+-IN IOC-A-F-8GE-IN IOC-A-4SFP+-IN IOC-A-2QSFP+-IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN |
| Twin-mode HA                   | Yes   | Yes   | Yes   | Yes  | Yes  | Yes   |
| Local Storage                  | 8 GB  | 8 GB  | 8 GB  | 8 GB   | 8 GB   | 8 GB  |
| Expansion Storage Options      | 480GB / 960GB / 1.92TB SSD                    | 480GB / 960GB / 1.92TB SSD                    | 480GB / 960GB / 1.92TB SSD  | 480GB / 960GB / 1.92TB SSD                                       | 480GB / 960GB / 1.92TB SSD                                       | 480GB / 960GB / 1.92TB SSD  |
| Power Specification            | 100W, Single AC (default), Dual AC (optional) | 100W, Single AC (default), Dual AC (optional) | 75W, Single AC (default), Dual AC (optional)  | 100W, Single AC (default), Dual AC (optional)                    | 100W, Dual AC (default), Dual DC (optional)                      | 90W, Dual AC (default), Dual DC (optional)  |
| Power Supply                   | AC 100-240V 50/60 Hz                          | AC 100-240V 50/60 Hz                          | AC 100-240V, 50/60 Hz   | AC 100-240V 50/60 Hz   | AC 100-240V 50/60 Hz   | AC 100-240V, 50/60 Hz   |
| Form Factor                    | Rackmount, 1U                                 | Rackmount, 1U                                 | Rackmount, 1U   | Rackmount, 1U  | Rackmount, 1U  | Rackmount, 1U   |
| Dimensions (W × D × H, mm)     | 436 × 437 × 44                                | 436 × 437 × 44                                | 436 × 459.5 × 44.4  | 436 × 437 × 44   | 436 × 437 × 44   | 436 × 459.5 × 44.4  |
| Dimensions (W × D × H, inches) | 17.2 × 17.2 × 1.7                             | 17.2 × 17.2 × 1.7                             | 17.2 × 18.1 × 1.75  | 17.2 × 17.2 × 1.7  | 17.2 × 17.2 × 1.7  | 17.2 × 18.1 × 1.75  |
| Weight                         | 13.2 lb (6 kg)                                | 13.2 lb (6 kg)                                | 13.7 lb (6.2 kg)  | 13.4 lb (6.1 kg)   | 15 lb (6.8 kg)   | 19.8 lb (8.98 kg)   |
| Working Temperature            | 32-104°F (0-40°C)                             | 32-104°F (0-40°C)                             | 32-104°F (0-40°C)   | 32-104°F (0-40°C)  | 32-104°F (0-40°C)  | 32-104°F (0-40°C)   |
| Relative Humidity              | 10-95% non-condensing                         | 10-95% non-condensing                         | 10-95% non-condensing   | 10-95% non-condensing  | 10-95% non-condensing  | 10-95% non-condensing   |

SG-6000-A5100-IN



SG-6000-A5155-IN



SG-6000-A5200-IN



SG-6000-A5255-IN



SG-6000-A5500-IN



SG-6000-A5555-IN



|                                       |  |  |  |  |  |  |
|---------------------------------------|--|--|--|--|--|--|
| Firewall Throughput (2)               | 25/50 Gbps   | 25/50 Gbps   | 32/65 Gbps   | 32/65 Gbps   | 40/80 Gbps   | 40/80 Gbps   |
| NGFW Throughput (3)                   | 20 Gbps  | 20 Gbps  | 20 Gbps  | 22 Gbps  | 25 Gbps  | 27 Gbps  |
| Threat Protection Throughput (4)      | 10 Gbps  | 11 Gbps  | 12 Gbps  | 14 Gbps  | 15 Gbps  | 17 Gbps  |
| Maximum Concurrent Sessions (5)       | 9 Million  | 9 Million  | 15 Million   | 15 Million   | 18 Million   | 18 Million   |
| New Sessions/s (6)                    | 480,000  | 490,000  | 600,000  | 650,000  | 700,000  | 700,000  |
| IPS Throughput (7)                    | 20/30 Gbps   | 21/30 Gbps   | 25/35 Gbps   | 27/35 Gbps   | 30/40 Gbps   | 32/40 Gbps   |
| AV Throughput (8)                     | 15 Gbps  | 15 Gbps  | 20 Gbps  | 20 Gbps  | 25 Gbps  | 25 Gbps  |
| IPsec VPN Throughput (9)              | 15 Gbps  | 18 Gbps  | 20 Gbps  | 25 Gbps  | 28 Gbps  | 30 Gbps  |
| Virtual Systems (Default/Max)         | 1/250  | 1/250  | 1/250  | 1/250  | 1/250  | 1/250  |
| SSL VPN Users (Default/Max)           | 8/10,000   | 8/10,000   | 8/10,000   | 8/10,000   | 8/10,000   | 8/10,000   |
| IPsec Tunnel Number                   | 20,000   | 20,000   | 20,000   | 20,000   | 20,000   | 20,000   |
| Firewall Policy Number                | 40,000   | 40,000   | 40,000   | 40,000   | 60,000   | 60,000   |
| Management Ports                      | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 2 × HA ports (SFP+) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA port (SFP) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 2 × HA ports (SFP+) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA port (SFP) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 2 × HA ports (SFP+) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA port (SFP) |
| Fixed I/O Ports (10)                  | 6 × SFP+, 16 × SFP, 8 × GE(including 2 bypass pairs)                         | 2 × QSFP+, 16 × SFP+, 8 × GE(including 4 bypass pairs)                     | 6 × SFP+, 16 × SFP, 8 × GE(including 2 bypass pairs)                         | 2 × QSFP+, 16 × SFP+, 8 × GE(including 4 bypass pairs)                     | 6 × SFP+, 16 × SFP, 8 × GE(including 2 bypass pairs)                         | 2 × QSFP+, 16 × SFP+, 8 × GE(including 4 bypass pairs)                     |
| Wi-Fi/ 4G Dongle                      | 4G Dongle  | 4G Dongle  | 4G Dongle  | 4G Dongle  | 4G Dongle  | 4G Dongle  |
| Available Slots for Expansion Modules | 1  | 1  | 1  | 1  | 1  | 1  |

|                                |   |  |   |  |   |  |
|--------------------------------|---|--|---|--|---|--|
| Expansion Module Option        | IOC-A-4SFP+-IN I<br>OC-A-2QSFP<br>P+-IN IOC-<br>A-2MM-BE-I<br>N IOC-A-2S<br>M-BE-IN | IOC-A-4SFP<br>+-IN IOC-A-<br>2QSFP+-IN I<br>OC-A-2MM-<br>BE-IN IOC-A<br>-2SM-BE-IN | IOC-A-4SFP+-IN I<br>OC-A-2QSFP<br>P+-IN IOC-<br>A-2MM-BE-I<br>N IOC-A-2S<br>M-BE-IN | IOC-A-4SFP<br>+-IN IOC-A-2<br>QSFP+-IN IO<br>C-A-2MM-BE<br>-IN IOC-A-2S<br>M-BE-IN | IOC-A-4SFP<br>+-IN IOC-A-<br>2QSFP+-IN<br>IOC-A-2MM<br>-BE-IN IOC-<br>A-2SM-BE-I<br>N | IOC-A-4SFP+<br>-IN IOC-A-2Q<br>SFP+-IN IOC<br>-A-2MM-BE-I<br>N IOC-A-2SM<br>-BE-IN |
| Twin-mode HA                   | Yes   | Yes  | Yes   | Yes  | Yes   | Yes  |
| Local Storage                  | 64 GB   | 64 GB  | 64 GB   | 64 GB  | 64 GB   | 64 GB  |
| Expansion Storage Options      | 480GB /<br>960GB /<br><br>1.92TB SSD  | 480GB / 960<br>GB /<br><br>1.92TB SSD  | 480GB /<br>960GB /<br><br>1.92TB SSD  | 480GB / 960<br>GB /<br><br>1.92TB SSD  | 480GB / 960<br>GB /<br><br>1.92TB SSD   | 480GB / 960<br>GB /<br><br>1.92TB SSD  |
| Power Specification            | 280W, Dual<br>AC (default),<br>Dual DC (op<br>tional)                               | 300W, Dual<br>AC (default),<br>Dual DC (opt<br>ional)                              | 280W, Dual<br>AC (default),<br>Dual DC (op<br>tional)                               | 300W, Dual A<br>C (default), D<br>ual DC (optio<br>nal)                            | 280W, Dual<br>AC (default),<br>Dual DC (op<br>tional)                                 | 300W, Dual A<br>C (default), D<br>ual DC (optio<br>nal)                            |
| Power Supply                   | AC 100-240<br>V, 50/60 Hz<br>DC -36~-72<br>V  | AC 100-<br>240V, 50/60<br>Hz DC -36~-<br>72 V                                      | AC 100-240<br>V, 50/60 Hz<br>DC -36~-72<br>V  | AC 100-240V<br>, 50/60 Hz D<br>C -36~-72 V   | AC 100-240<br>V, 50/60 Hz<br>DC -36~-72<br>V  | AC 100-240V,<br>50/60 Hz DC<br>-36~-72 V   |
| Form Factor                    | Rackmount,<br>1U  | Rackmount,<br>1U   | Rackmount,<br>1U  | Rackmount,<br>1U   | Rackmount,<br>1U  | Rackmount, 1<br>U  |
| Dimensions (W × D × H, mm)     | 436 × 437 ×<br>44   | 436 × 437 ×<br>44  | 436 × 437 ×<br>44   | 436 × 437 × 4<br>4   | 436 × 437 ×<br>44   | 436 × 437 × 4<br>4   |
| Dimensions (W × D × H, inches) | 17.2 × 17.2<br>× 1.7  | 17.2 × 17.2 ×<br>1.7   | 17.2 × 17.2<br>× 1.7  | 17.2 × 17.2 ×<br>1.7   | 17.2 × 17.2<br>× 1.7  | 17.2 × 17.2 ×<br>1.7   |
| Weight                         | 18.7 lb (8.5<br>kg)   | 18.7 lb (8.5 k<br>g)   | 18.7 lb (8.5<br>kg)   | 18.7 lb (8.5 k<br>g)   | 18.7 lb (8.5<br>kg)   | 18.7 lb (8.5 k<br>g)   |
| Working Temperature            | 32-104°F (0<br>-40°C)   | 32-104°F (0-<br>40°C)  | 32-104°F (0<br>-40°C)   | 32-104°F (0-<br>40°C)  | 32-104°F (0-<br>40°C)   | 32-104°F (0-4<br>0°C)  |
| Relative Humidity              | 10-95% non<br>-condensing   | 10-95% non-<br>condensing  | 10-95% non<br>-condensing   | 10-95% non-<br>condensing  | 10-95% non<br>-condensing   | 10-95% non-<br>condensing  |

SG-6000-A5600-IN



SG-6000-A5800-IN



SG-6000-A6800-IN



SG-6000-A7600-IN



|                            |            |            |          |              |
|----------------------------|------------|------------|----------|--------------|
| Firewall Throughput<br>(2) | 60/85 Gbps | 80/95 Gbps | 200 Gbps | 280/320 Gbps |
|----------------------------|------------|------------|----------|--------------|

|                                       |  |  |  |  |
|---------------------------------------|--|--|--|--|
| NGFW Throughput (3)                   | 35 Gbps  | 40 Gbps  | 55 Gbps  | 55 Gbps  |
| Threat Protection Throughput (4)      | 20 Gbps  | 20 Gbps  | 30 Gbps  | 30 Gbps  |
| Maximum Concurrent Sessions (5)       | 25 Million   | 30 Million   | 35 Million   | 42 Million   |
| New Sessions/s (6)                    | 900,000  | 1,000,000  | 900,000  | 900,000  |
| IPS Throughput (7)                    | 35 Gbps  | 45/80 Gbps   | 70 Gbps  | 70 Gbps  |
| AV Throughput (8)                     | 30 Gbps  | 32 Gbps  | 35 Gbps  | 35 Gbps  |
| IPsec VPN Throughput (9)              | 36 Gbps  | 45 Gbps  | 45 Gbps  | 45 Gbps  |
| Virtual Systems (Default/Max)         | 1/500  | 1/500  | 1/500  | 1/500  |
| SSL VPN Users (Default/Max)           | 8/10,000   | 8/10,000   | 8/10,000   | 8/10,000   |
| IPsec Tunnel Number                   | 20,000   | 20,000   | 20,000   | 20,000   |
| Firewall Policy Number                | 60,000   | 80,000   | 80,000   | 80,000   |
| Management Ports                      | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA port (SFP) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA port (SFP) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA port (SFP) | 1 × Console Port, 2 × USB3.0 Ports, 1 × MGT Port (RJ45), 1 × HA port (SFP) |
| Fixed I/O Ports (10)                  | 2 × QSFP+, 16 × SFP+, 8 × GE (including 4 bypass pairs)                    | 2 × QSFP+, 16 × SFP+, 8 × GE (including 4 bypass pairs)                    | 4 × QSFP28 (or 2 × QSFP+, 2 × QSFP28), 12 × SFP+, 8 × SFP+/SFP             | 4 × QSFP28 (or 2 × QSFP+, 2 × QSFP28), 12 × SFP+, 8 × SFP+/SFP             |
| Wi-Fi/ 4G Dongle                      | 4G Dongle  | 4G Dongle  | N/A  | N/A  |
| Available Slots for Expansion Modules | 1  | 1  | 1  | 1  |
| Expansion Module Option               | IOC-A-4SFP+-IN, IOC-A-2QSFP+-IN, IOC-A-2MM-BE-IN, IOC-A-2SM-BE-IN          | IOC-A-4SFP+-IN, IOC-A-2QSFP+-IN, IOC-A-2MM-BE-IN, IOC-A-2SM-BE-IN          | IOC-A-4SFP+-IN IOC-A-2QSFP+-IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN             | IOC-A-4SFP+-IN IOC-A-2QSFP+-IN IOC-A-2MM-BE-IN IOC-A-2SM-BE-IN             |
| Twin-mode HA                          | Yes  | Yes  | Yes  | Yes  |

|                                |   |   |   |   |
|--------------------------------|---|---|---|---|
| Local Storage                  | 64 GB                                       | 64 GB                                       | 64 GB                                       | 64 GB                                       |
| Expansion Storage Options      | 480GB / 960GB / 1.92TB SSD                  | 480GB / 960GB / 1.92TB SSD                  | 480GB / 960GB / 1.92TB SSD                  | 480GB / 960GB / 1.92TB SSD                  |
| Power Specification            | 300W, Dual AC (default), Dual DC (optional) | 300W, Dual AC (default), Dual DC (optional) | 310W, Dual AC (default), Dual DC (optional) | 310W, Dual AC (default), Dual DC (optional) |
| Power Supply                   | AC 100-240V, 50/60 Hz DC -36~-72 V          | AC 100-240V, 50/60 Hz DC -36~-72 V          | AC 100-240V, 50/60 Hz DC -36~-72 V          | AC 100-240V, 50/60 Hz DC -36~-72 V          |
| Form Factor                    | Rackmount, 1U                               | Rackmount, 1U                               | Rackmount, 1U                               | Rackmount, 1U                               |
| Dimensions (W × D × H, mm)     | 436 × 437 × 44                              | 436 × 437 × 44                              | 436 × 542 × 44                              | 436 × 542 × 44                              |
| Dimensions (W × D × H, inches) | 17.2 × 17.2 × 1.7                           | 17.2 × 17.2 × 1.7                           | 17.2 × 21.3 × 1.7                           | 17.2 × 21.3 × 1.7                           |
| Weight                         | 18.7 lb (8.5 kg)                            | 18.7 lb (8.5 kg)                            | 20.3 lb (9.2 kg)                            | 20.3 lb (9.2 kg)                            |
| Working Temperature            | 32-104°F (0-40°C)                           | 32-104°F (0-40°C)                           | 32-104°F (0-40°C)                           | 32-104°F (0-40°C)                           |
| Relative Humidity              | 10-95% non-condensing                       | 10-95% non-condensing                       | 10-95% non-condensing                       | 10-95% non-condensing                       |

## Module Options

**IOC-A-4SFP+-IN**



**IOC-A-2MM-BE-IN**



**IOC-A-2SM-BE-IN**



**IOC-A-2QSFP+-IN**



|                |                                       |  |   |  |
|----------------|---------------------------------------|--|---|--|
| Names          | 4SFP+ Expansion Module for Back Panel | 4SFP Multi-mode Bypass Expansion Module for Back Panel | 4SFP Single-mode Bypass Expansion Module for Back Panel | 2QSFP+ Expansion Module for Back Panel |
| I/O Ports (10) | 4 × SFP+, SFP+ module not included    | 4 × SFP, MM bypass (2 pairs of bypass ports)           | 4 × SFP, SM bypass (2 pairs of bypass ports)            | 2 × QSFP+                              |
| Dimension      | 1U                                    | 1U   | 1U  | 1U                                     |
| Weight         | 2.09 lb (0.96 kg)                     | 2.09 lb (0.96 kg)                                      | 2.09 lb (0.96 kg)                                       | 2.09 lb (0.96 kg)                      |

**IOC-A-F-4SFP+-IN**



**IOC-A-F-8SFP+-IN**



**IOC-A-F-8GE-IN**



|                |  |  |   |
|----------------|--|--|---|
| I/O Ports (10) | 4SFP+ Expansion Module for Front Panel | 8SFP+ Expansion Module for Front Panel | 8GE (including 4 bypass pairs) Expansion Module for Front Panel |
| Dimension      | 1U                                     | 1U                                     | 1U  |
| Weight         | 0.55 lb (0.25 kg)                      | 0.62 lb (0.28 kg)                      | 0.6 lb (0.27 kg)  |

**NOTES:**


1. Anti-Spam feature is not available on SG-6000-A200-IN and SG-6000-A200W-IN;
2. Firewall throughput data is obtained under UDP traffic with a 1518-byte packet size. The firewall throughput for A3700-IN/A3800-IN can be increased to 30 Gbps via an additional IOC-A-4SFP+-IN or IOC-A-2QSFP+-IN expansion module. The firewall throughput for A5100-IN/A5155-IN/A5200-IN/A5255-IN/A5500-IN/A5555-IN/A5600-IN/A5800-IN/A7600-IN can be increased to 50/50/65/65/80/80/85/95/320 Gbps via additional IOC-A-2QSFP+-IN expansion module;
3. NGFW throughput data is obtained under 64 Kbytes HTTP traffic with application control and IPS enabled;
4. Threat protection throughput data is obtained under 64 Kbytes HTTP traffic with Application Control, IPS, AV and URL filtering enabled;
5. Maximum concurrent sessions is obtained under HTTP traffic;
6. New sessions/s are obtained under HTTP traffic;
7. IPS throughput data is obtained under bi-direction HTTP traffic detection with all IPS rules being turned on;
8. AV throughput data is obtained under HTTP traffic with file attachment;
9. IPsec throughput data is obtained under Preshared Key AES256+SHA-1 configuration and 1400-byte packet size;
10. SFP+ ports support SFP+ 10Gbps optical module, SFP 1000Mbps optical module and SFP 1000Mbps copper module; QSFP+ ports support 40GE 1×40Gbps module and can be split to 4 × 10Gbps tunnel.

All perimeter of A2715-IN/A2815-IN/A3615-IN/A3815-IN is obtained with additional IOC-A-F-4SFP+-IN or IOC-A-F-8SFP+-IN front panel expansion module. Unless specified otherwise, all performance, capacity and functionality are based on StoneOS 5.5R10. Results may vary based on the StoneOS® version and deployment.

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**Documents / Resources**

|   |  |
|---|--|
|  | <p><a href="#">Hillstone NETWORKS A-Series Next Generation Firewall</a> [pdf] Owner's Manual<br/>A-Series, A-Series Next Generation Firewall, Next Generation Firewall, Firewall</p> |
|---|--|

## References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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