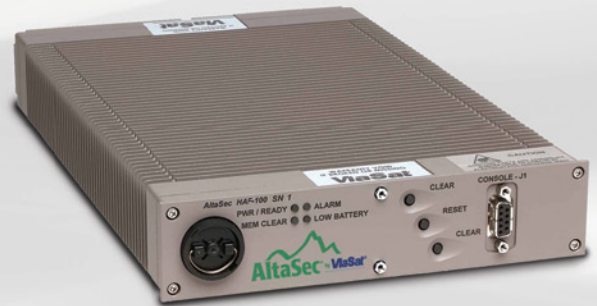


A TACTICAL CROSS DOMAIN SOLUTION —

Ruggedized, automated high-speed data flow between different security domains in tactical environments



The ViaSat AltaSec HAF-100 trusted filter is a Cross Domain Solution (CDS) product that securely permits data to pass between networks of different security classification levels. By enforcing rigid rules as defined by a “filter policy,” the HAF-100 ensures that only the desired data crosses the classification boundary.

When HAF-100s are positioned in an application network, no traffic is allowed to cross from one security domain to another without going through filter review. Message filter rules define the policy to be enforced. Fixed format messages that transit the HAF-100 are compared against the installed rule based filter policy, so that only messages with valid format and with valid ranges of values for all fields are forwarded. Messages that fail filtering on the black interface are silently discarded from the viewpoint of the sender. Messages that fail filtering on the red interface may be silently discarded or feedback can be provided to the sender. In every case, the “event” of a dropped message is recorded for audit and forwarded to a central audit server.

The HAF-100 also filters the rate at which valid messages are able to pass over the classification boundary. This feature limits the ability of an adversary to exploit valid messages.

Featuring High- and Low-side SNMP v3 support, the HAF-100 can be polled on demand to ensure the device is ready, and to provide statistics of operation. The trusted filter responds to the poll with messages which can be monitored by a standard SNMP network manager.

The HAF-100 is a high assurance, rule-based filter, based on ViaSat’s Programmable Scalable Information Assurance Model (PSIAM™) security architecture. Rule enforcement is applied in a High Assurance and tamper-protected environment. The HAF-100 can be securely upgraded with new message rule sets after the product is deployed.

ALTASEC HAF-100 AT-A-GLANCE

HIGH PERFORMANCE THROUGHPUT

- » Up to 100 Mbps throughput
- » 10/100 Mbps auto-sensing ethernet (IEEE 802.3)
- » Low latency

ROBUST NETWORKING FEATURES

- » Supports TCP, UDP, IPv4, IPv6, and ARP
- » Supports SNMP v3 monitoring

PREMIUM SECURE NETWORKING SOLUTION

- » Physical protection features
- » High-assurance design based on ViaSat’s PSIAM architecture

LIGHT WEIGHT, COMPACT SIZE

- » 1 RU high
- » Shelves available to mount one or two units side-by-side in a standard 19 in rack
- » Less than 6.5 lbs

EASY TO USE

- » Simple configuration
- » Network and power connections on rear
- » Console port on the front
- » Low cost of ownership

SPECIFICATIONS

GENERAL CHARACTERISTICS

Operating Modes Bidirectional (high-low), unidirectional (high-low or low-high)

VALIDATED RULE SETS

Networking IP, UDP, TCP

Messaging MIL-STD-188-183A (DAMA control and status); MIL-STD-6017 (VMF) (framework), link 11 (link parameter data), portable sensor data (PSD) (Army)

NETWORKING FEATURES AND PROTOCOLS

Protocols Supported TCP, UDP, IPv4, IPv6, ICMP and ARP

Management Interfaces CLI, SNMPv3

Fragmentation Support fragmentation and header options

HIGH SIDE (RED) INTERFACE - ETHERNET

Electrical/Mechanical IEEE 802.3, 100 base TX; 10/100 Mbps, copper, RJ-45

LOW SIDE (BLACK) INTERFACE - ETHERNET

Electrical/Mechanical IEEE 802.3; 100 base TX; 10/100 Mbps, copper, RJ-45

PRIME POWER SUPPLY CHARACTERISTICS

Input Voltage 90 VAC to 264 VAC auto-ranging

Input Frequency 47 Hz - 63 Hz

Output Voltage/Current +3.3 VDC from 0 to 5A; +5.0 VDC from 0 to 3A

Output Current No load to full load, no minimum load required

Output Ripple (peak to peak) 1% maximum output for all outputs

Output Regulation -0%/+15 for 3.3 VDC output, -0%/+10% for 5 VDC (line/load) output measured at O/P connector (10% minimum load on main output)

Remote Sense 3.3V main output to main specified regulation; terminated at connector pins level

PHYSICAL CHARACTERISTICS

Dimensions (WHD) 7.5 x 1.68 x 11.9 in; 190.5 x 42.7 x 302.2 mm

Racking 1RU high, 1/2 standard 19 in rack width, single or double rack shelves available

Weight 6.5 lbs; 2.9 kg

Power +5 VDC and +3.3 VDC, +3.3 VDC; -0/+0.495 VDC

Ground Chassis grounding

Over-voltage Protection MOSFET, resetting fuse

Power Dissipation, Device 31.5 watts maximum, 17 watts typical

RELIABILITY AND MAINTENANCE

Predicted MTBF 150,000 hrs (ground benign)

Predicted MTTR 15 mins

Mechanical Shock - Unit Power Off Transit drop (MIL-STD-810F, method 516.3, Unit power off procedure IV)

Vibration Up to and including 0.04g²/Hz, 4-2000 Hz, MIL-STD-810F, Method 514.5, procedure I, category 24

Mechanical Shock - Unit Power On 40g, 11 msec half sine pulse (MIL-STD-810F, unit power on method 516.4, procedure I)

Please contact ViaSat for additional vibration and shock data for the unit installed in our rugged enclosure

ENVIRONMENT

Operating Temperature 0°C to 50°C

Storage Temperature -23°C to +65°C

Operational Altitude 0 ft to 15,000 ft above sea level

Storage Altitude 0 ft to 50,000 ft above sea level

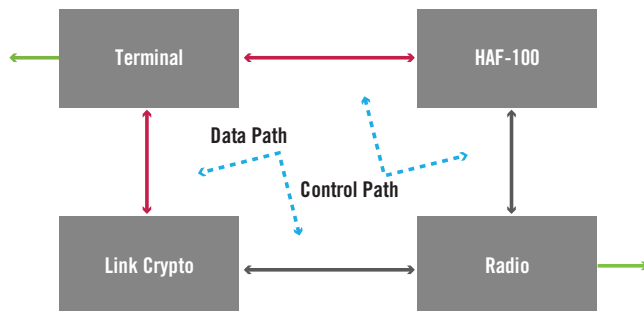
EMI/EMC MIL-STD-461

Relative Humidity 10-95% (non-condensing)

ACCESSORIES (OPTIONAL)

Dual unit 1RU rack mount adapter, single unit RU rack mount adapter, AC power supply, double shielded CAT5E cables (2, 5, 10, 25, 50, and 100 ft)

TYPICAL HAF-100 APPLICATION



- » Radio has two interfaces:
 - Classified interface for data
 - Unclassified interface for control and status
- » Trusted filter provides high assurance separation between terminal and radio elements

*Careful consideration of power sensing and voltage drift tolerance is necessary when determining an alternate type of DC prime power supply.

CONTACT

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