

SECNET 54® ETHERNET MODULE (EMOD)

PORTABLE INE SOLUTION

Type-1 secure communications

Lightweight, small form factor

*Easy-to-configure secure
browser-based management*

*Power-over-Ethernet
(PoE) compatible*

NSA CERTIFIED

**Release 2.0
New Features!**



SecNet 54® is a family of Internet Protocol (IP) communications encryption products designed to keep data, voice and video communications secure. This innovative product suite is based on a modular architecture that allows the user to accommodate a wide variety of scenarios. The SecNet 54 EMOD brings high-performance, Type-1 In-line Network Encryption (INE) capabilities to the NSA-certified SecNet 54 Cryptographic Module (CMOD). Designated as the KIV-54EM01, the SecNet 54 with Ethernet Module is small enough to function as a mobile, single-client INE, yet powerful enough to host numerous classified clients—limited only by bandwidth requirements.

Flexibility for classified network connectivity is provided by dual Red-side Ethernet interfaces and two Black-side Ethernet interfaces. The SecNet 54 EMOD 2.0 also includes new advanced, integrated features such as DHCP for client/server architecture, VPN support, NAT, NAT-T and VLAN support for highly mobile, secure networking applications. These features eliminate the need for external VPN routers and backward VLAN implementations involving Generic Routing Encapsulation (GRE) tunnels for VLAN tag pass-through.

Weighing less than one pound and significantly smaller than current “micro” INE solutions, the KIV-54EM01 will quickly set the new standard for portable, high-speed, Type-1 networking applications. Its low power consumption enables it to be powered via multiple sources, including small AC power supplies, batteries, and Power-over-Ethernet (PoE). A priority-based, smart power supply automatically senses power failures and switches to the next logical power source.

The SecNet 54 EMOD features an easy-to-use graphical user interface. This web-based tool provides rapid redeployment and reprogramming as needed. Built with rugged magnesium housing and consideration for temperature, humidity, vibration, shock, free-fall drop, and altitude based on MIL-STD-810F, the KIV-54EM01 is durable enough for rough tactical field use. From harsh environments to controlled office settings, the KIV-54EM01 is ideal for high-speed, portable, Type-1 networking requirements.

SecNet 54 is designed for use by all branches of the U.S. Department of Defense, federal and homeland security agencies, and the intelligence community. SecNet 54 products are Controlled Cryptographic Items (CCI) that can only be procured by organizations with COMSEC accounts.



SMALL. STAND-ALONE. SECURE

Specifications for the SecNet 54 Ethernet Module (EMOD)

SecNet 54 Technical Specifications	
Operating Temperature	-10° to +40°C
Storage Temperature	-25° to +70°C
Power Usage (max)	CMOD: 5.5 W EMOD: 2.5 W Total: 8.0 W
Power Supplies	<ul style="list-style-type: none"> » Auto sensing dual DC power inputs for AC adapter and battery » External AC adapter included: 120–220 VAC, 50–60 Hz » External battery input: 14-30 VDC » 802.3af PoE through RJ45 connector » Smart power selection senses power adapter, PoE and battery
Data Interfaces	» 10 Base-T/100 Base-TX wired 802.3 Ethernet
Key Management	<ul style="list-style-type: none"> » Red key fill via DS-101 interface » Over-the-Air/Over-the-Network zeroization » Mechanical “Panic” zeroization
Encryption	HAIPE 1.3.5
Size	3.18 x 6.30 x 1.13 in.
Configuration	<ul style="list-style-type: none"> » Secure Web-based access from host » Remote configuration over red network » Web-based IPsec configuration » Software upgradeable
Indicators	» Clear indication of mode and status via LEDs: 4 CMOD, 4 EMOD
TEMPEST	» Level 1 NSTISSAM TEMPEST/1-92
Environmental	» Tested to MIL-STD-810F

Key Features	
Type-1 Secure Communications	<ul style="list-style-type: none"> » Up to TOP SECRET/SCI » Fully HAIPE 1.3.5 compliant, which includes PPK and FIREFLY (FF/EFF) » NSA Type-1 Encryption
Ruggedized for tactical environments	<ul style="list-style-type: none"> » Magnesium alloy chassis » High altitude capable (15 Kft.) operating (EMOD) » Tested to -10° to +40° C operating (EMOD) » Highest ESD protection level (>8 KVolts) » Vibration and shock tested
Stealth features	<ul style="list-style-type: none"> » MAC address cloning » VPN and NAT-T » Black network duplexing/pass-through » Lightweight small form factor
Low power	<ul style="list-style-type: none"> » Battery or PoE operation (<8 watts including CMOD) » CMOD power management, auto fail-over, reverse polarity protection
Advanced User Interface	» Built-in Web page user interface

Hardware Features	
Wired and optical Red-side Ethernet connectivity	» 10 Base-T/100 Base-TX or 100 Base-FX optical
Two independent Black-side Ethernet ports	<ul style="list-style-type: none"> » 10 Base-T/100 Base-TX » Black LAN/WAN and local pass through connectivity

Software Features	
HAIPE v1.3.5 Compliant	<ul style="list-style-type: none"> » PPK and FF/EFF vector capabilities » Internet Key Exchange (IKE) » Dynamic Discovery » Red- and Black-side fragmentation » PMTU Discovery and Multicast IGMP
DHCP	<ul style="list-style-type: none"> » Server for local pass-through » Client on WAN port
VPN Tunneling	» Encapsulate HAIPE in VPN tunnels
NAT and NAT-T	<ul style="list-style-type: none"> » Apply NAT-T to VPN encapsulated packets » Apply NAT to Black local pass-through traffic
Application Management	» Secure browser-based management hosted by the CMOD



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