

# Viper Memory Load Verifier

## Force Modernization through Proven Diagnostics

Flightline maintenance concepts are evolving from conventional test to integrated support.

Powerful, adaptable Portable Maintenance Aids (PMA) are required to support emerging initiatives. For more than 30 years, BAE Systems has focused flightline support equipment designs on the end user – the technician.

BAE Systems Viper Memory Loader Verifier reflects this experience, providing worldwide flightline and backshop support for load/verify of operational flight programs (OFPs), download of aircraft flight data, and subsystem enhanced fault diagnostics. This support solution uses the technician's PMA.

The PMA's flexible system architecture enables compatibility with other computer systems and diagnostic equipment, while easily permitting technology insertion. The Viper MLV-based open- architecture facilitates augmentation for applications such as memory data uploading and downloading, data recorder downloads, diagnostics data downloads and allows expansion to additional aircraft platforms. The Viper MLV provides all the capabilities of the EDNA, but in a low-cost, flexible package. Drop in compatible with more than 250 EDNA systems already fielded to U.S. Air Force and foreign customers supporting F-16, B-2 and F-117A fighter aircraft.

### [Enhancing aircraft operational availability](#)

#### Operational savings

- One person carry, single operator system
- Multiple standard and peculiar interface compatible
- Reconfigurable to meet specific MLV and data download platform requirements
- Operates with user provided standard laptop
- Open architecture
- Upgradeable
- Rugged design meets harsh (flightline) requirements
- Uses all existing EDNA cables
- Lowered software costs

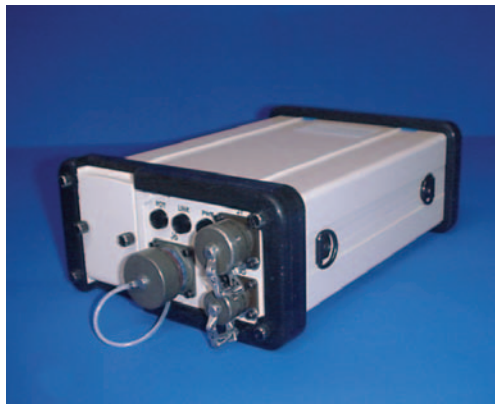


## ENVIRONMENT

Temperature	Operating: -20°C to 52°C Non-operating: -40°C to 71°C
Altitude	Operating: 15,000 feet Non-operating: 40,000 feet
Shock	Operating: 40g's for 6ms to 9ms
Vibration	20 to 1,000 Hz @ 0.04 g <sup>2</sup> /Hz 1,000 to 2,000 Hz @ 0.04 to 6 dB/OCT Loose cargo on a vehicle traversing irregular surfaces for 30 minutes
Rain	4 inches/hr @ 40 mph wind for 30 min
Salt atmosphere	Continual exposure for 48 hours
Explosive atmosphere	Operating in ambient-explosive gaseous-mixture
Sand and dust	1,750 fpm blowing dust 0.3 gr/ft <sup>3</sup> for 6 hours
EMI	MIL-STD-461D methods RE102 and RS103

### Aircraft specific application set

Each aircraft implementation requires specific interface cables or adapters, and applications software for diagnostics, memory load/verify and download functions. The Viper MLV may be applied to any aircraft. Application sets have been fielded for the F-16, F-117A, and B-2. Compatible with existing F-16 interface cables (Aircraft-Adapter Group).



## FOR MORE INFORMATION CONTACT:

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Cleared for open publication 10/04

## ELEMENTS

### Viper MLV Interface Adapter (IA)

BAE Systems Viper MLV IA is a COTS-based, rugged computer that is fully flightline qualified. Built-in standard and programmable I/O allow aircraft interface extensions for new requirements.

### Processor

- Pentium III computer

### Memory

- 256 Mb DRAM
- 512 Mb removable solid state memory

### Interface

- RS-232, RS-422
- Five channels MIL-STD-1553
- IEEE-488
- Programmable I/O peculiar bus protocols
- 10/100 Base-T ethernet

### Power

- 28 VDC

### Weight

- 6.75"W × 9.25"H × 3.25"D
- 7 pounds

### Software

- Windows XP embedded
- Built-in-test, self-test
- Application specific diagnostic and MLV

### Upgradeable

- One growth slot
- Interface connection
- Memory growth
- Processor

We Protect Those Who Protect Us®