

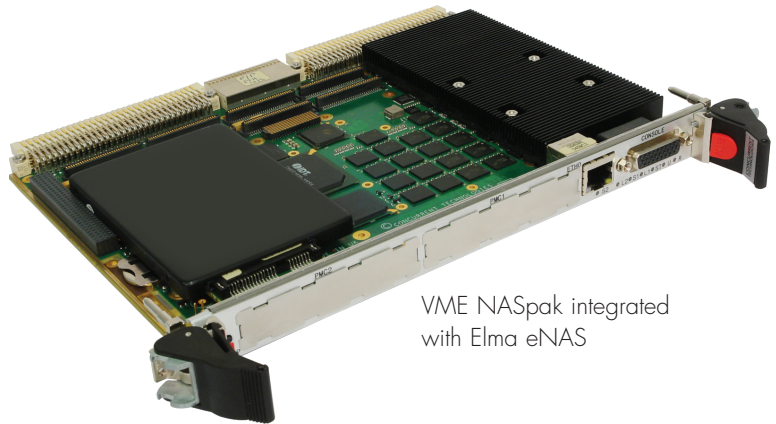
NETWORK ATTACHED STORAGE

NASpak INTEGRATED STORAGE SOLUTIONS

DESCRIPTION

State of the art electronic systems in today's defense applications communicate in a net-centric architecture via Ethernet links. Network attached storage (NAS) leverages that existing network infrastructure to enable multi-client access to critical data. NAS solutions eliminate the need for local storage thereby reducing system SWaP, reducing costs and increasing MTBF while improving data protection when custom RAID overlays are applied.

Elma's NASpaks are network attached storage solutions which integrate our Linux-based eNAS proprietary software with any board form factor capable of supporting current Intel CPUs for the embedded space. eNAS organizes and manages network services, file systems, and device management implemented within Linux, presenting a supervisory interface that greatly simplifies the setting up, utilization, and maintenance of the NAS.



VME NASpak integrated with Elma eNAS

eNAS Features

- File sharing via NFS, CIFS, HTTP, FTP, SCP and TFTP
- Accessible via Ethernet fabric and external connections
- Remotely managed with autonomous start up and operation
- Management via Ethernet and serial port
- Customizable from factory to exact customer specs
- May be integrated into any embedded board form factor

NASpak integrated single slot 6U VME base platform with integral CFast memory includes:

- Intel® Quad Core™ i7-4700EQ 3.4Gz CPU
- 1TB, 2.5" SATA III solid state drive
- Dual 1000Base-T Ethernet ports with addressing set statically (CLI) or dynamically (DHCP)
- eNAS software
- Integral CFast system disk

APPLICATIONS

Network attached storage is ideal for defense and industrial installations requiring multi-client remote data access. File serving, data storage and boot operations are provided for a range of applications.

Benefits

- Eliminates the need for local direct-attached storage
- Integrates disks, file handling, networking, and management
- Occupies a single chassis slot
- Versatile platform supports access by Windows, Linux and RTOS
- Ease of use eliminates need for IT support or Linux sysadmin
- Enables drive technology upgrades including NVMe
- Alleviates contention over compute space and storage capacity
- Provides slot-to-slot and external sharing of data-at-rest
- Addresses trends to consolidate OS stores

RELATED PRODUCTS



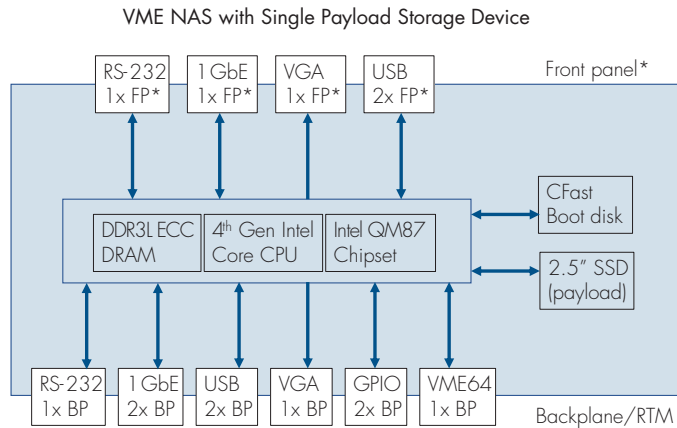
- Full range of electronic packaging
- COTS Embedded board products including SBCs, storage, Ethernet switches, carrier cards, I/O cards and power supplies

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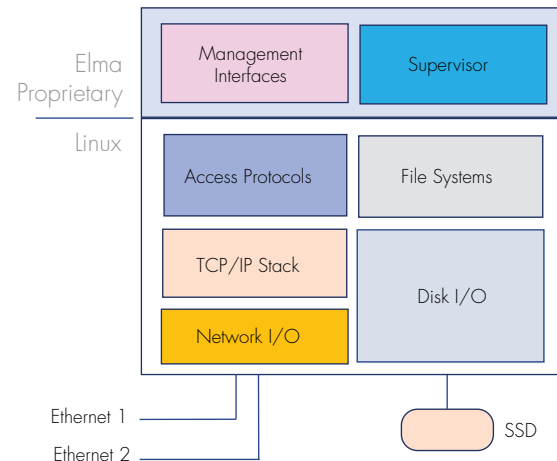
BLOCK DIAGRAMS

VME Hardware Block Diagram



*Front panel I/O may not be present for conduction-cooled NAS platform

NAS System Block Diagram



eNAS INTEGRATION OPTIONS

eNAS may be integrated with any board form factor capable of supporting current Intel CPUs including; OpenVPX, VME, cPCI, cPCI Serial, PCI/104, COM Express and others. For information contact Elma at sales@elma.com to speak with a sales manager or applications engineer who will work with you to configure a system that meets your requirements.

Inquire about these additional NAS feature options supporting system management, data redundancy and data security and more including:

- RAID 0 data striping for higher data rates
- RAID 1 or RAID 5 for data redundancy
- Built-in test (PBIT as well as IBIT/CBIT)
- DHCP service and PXE support (the latter requires the former)
- Discrete (GPIO) initiated quick erase, shutdown
- Time/date synchronization across Ethernet (NTP et al.)

ORDER INFORMATION *(contact Elma regarding other configurations)*

Description	Model Number
Single slot 6U VME form factor with integral CFast boot disk	APVI6FXNYLNOY-NAS1TM
Integrated with eNAS network attached storage software	
Based on Concurrent VP F1x/msd, N Series SBC	
Intel® Quad Core™ i7-4700EQ 3.4Gz CPU	
1TB, 2.5" SATA III solid state drive for dedicated NAS storage	
Dual 1000Base-T Ethernet ports	
Operating temp -25°C to +70°C	
Convection cooled	

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