# IC-NAS-VMEa

## Modular Network Attached Storage (NAS) solution

The **IC-NAS-VMEa** is the cornerstone of the new IC product family for data storage.

Designed for applications claiming for high performance storage solutions, the **IC-NAS-VMEa** allows to share critical datas between heterogeneous clients of an IP network on its Solid State drives.

The **IC-NAS-VMEa** implements an Ethernet switch which enlarges the communication capabilities usually existing on such a Server.

Based on our well proven products (**IC-De6-VMeb** and **IC-SSD-XMCa**), the **IC-NAS-VMEa** implements a NAS application (called *NASware*) providing EXT3 on RAID0 devices (other config under consideration).

The main features and protocols supported by the *NASware* are described below.
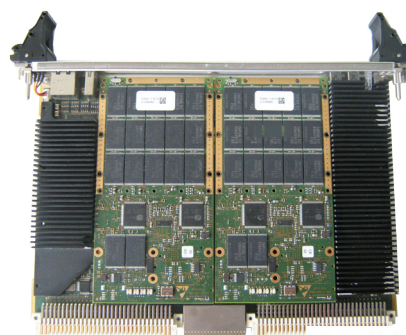
**RoHS** ✓
2002 / 95 / EC

## Description

**Board configuration :**
- ▶ Identify the board on the network
- ▶ Set system time manually
- ▶ Get system time from NTP server
- ▶ Import and export configuration by files
- ▶ Restore default configuration

**Network configuration :**
- ▶ Set a default gateway
- ▶ Set a static IP address per port
- ▶ Get an IP address with DHCP per port
- ▶ Set a network interface down/up

**Account configuration :**
- ▶ Create/delete groups and users accounts
- ▶ Grant/revoke administrator and operator privileges

**Share configuration :**
- ▶ Create/delete shared directories
- ▶ Grant/revoke SMB privileges per user and group
- ▶ Grant/revoke NFS privileges per IP address and group

**Board status :**
- ▶ Board description, PBIT results, module versions, temperature, system time, storage status...

**Management access :**
- ▶ Local access to the CLI with a serial console
- ▶ Remote plain text access to the CLI with TELNET
- ▶ Remote encrypted access to the CLI with SSH
- ▶ Remote access via SNMPv2 / SNMPv3 (coming next)

**Storage access :**
- ▶ Plain text access to the storage data with TFTP, FTP, NFSv2/v3 and/or SMB/CIFS protocols
- ▶ Encrypted access to the storage data with SFTP protocol

**Service maintenance :**
- ▶ Enable/disable all protocols singly
- ▶ Stop/start all servers singly

## Main features

**Processor Unit**
- ▶ One MPC8640 Dual Core running at 1GHz
- ▶ 2GB oF DDR2-ECC (1Gbyte per Core)

**Storage subsystem**
One or two SSD XMC(s) offering :
- ▶ 4 (1*XCM) or 8 (2*XMC) drives
- ▶ From 64GB up to 2*512GB of SLC NAND.

**Communication subsystem**
- ▶ One direct GigaEthernet port (rear P0)
- ▶ Four switched GigaEthernet ports (rear P0 *)
- ▶ One console port (front or rear)

(*) option : one of them can be available on front panel (RJ45)

The direct port and one of the switched port allows the **IC-NAS-VMEa** to comply with VITA31.1.

The **IC-NAS-VMEa** is available in standard, rugged and conduction-cooled grades.

# IC-NAS-VMEa

## On-board firmware

**UBoot**

Our basic firmware takes in charge initialization of the system. This on-board firmware, based on UBOOT, is an efficient set of software stored in a secured flash. It performs a comprehensive Power-on self tests (PBIT) with results available from the NASware.

**NASware**

The *NASware* includes most of the features/protocols required by advanced embedded applications and provides easy administration and simple configuration of the server (see above).

The *NASware* can be updated from the network allowing thus to benefit from new features. The configuration files can be imported and exported from the network.
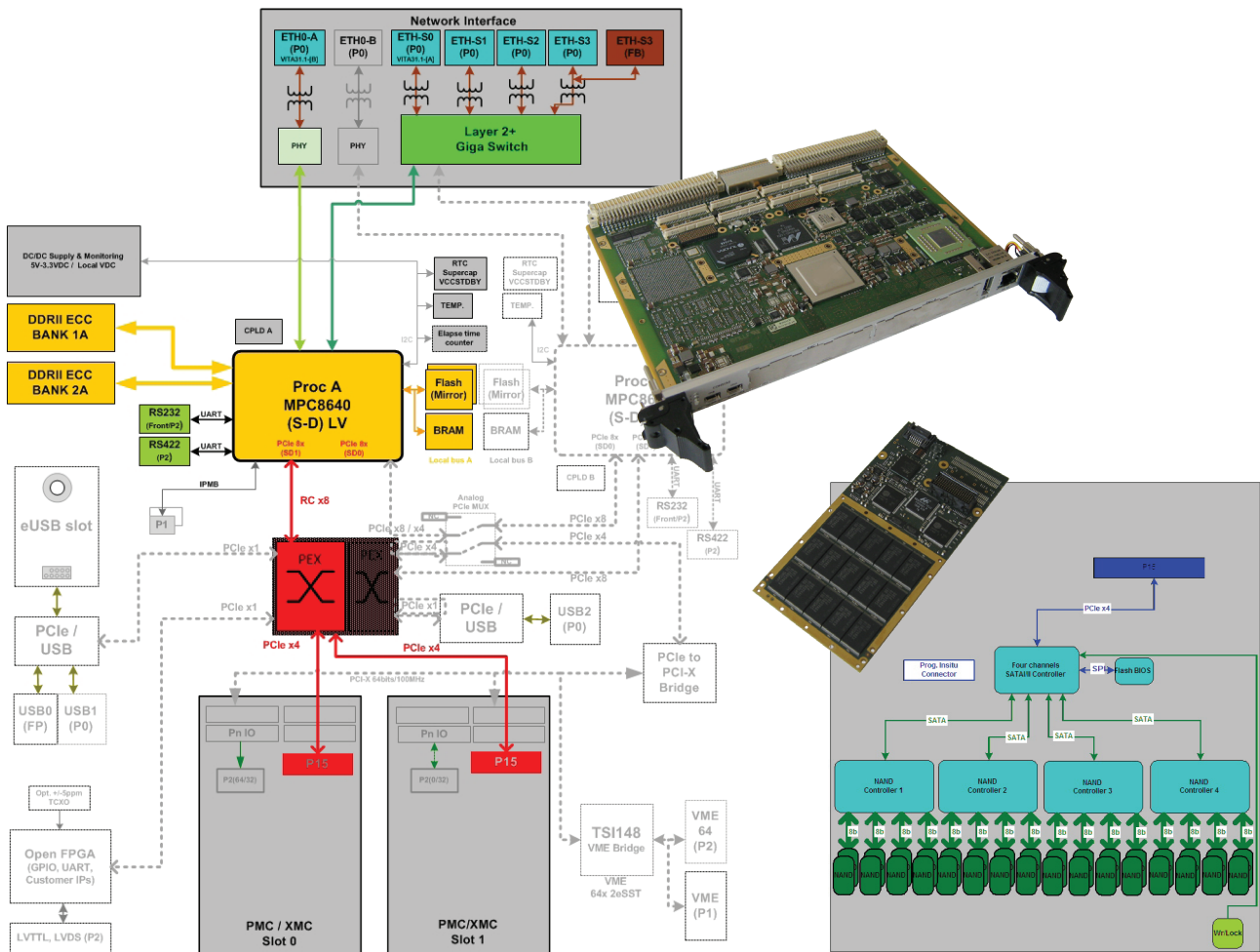
## Interface features

**Front connectors :**

► 1 * Giga Ethernet port (RJ45)
   (exclusive with one of the P0 ports of the switch)
► 1 * RS232 port
► 1 * Write protect jumper per XMC

**P0 connector**

► 2 * GigaEthernet ports compliant with VITA 31.1
   (1 * direct, 1 * switched)
► 3 * additional switched GigaEthernet ports
► 1 * RS232

## Block Diagram



## Environnement Specifications:

Please consult the **IC-NAS-VMEa** page at **www.interfaceconcept.com**. (coming next)

## Ordering Information:

Please contact our sales department : tel. **+33 (0)2 98 573 030** - email : **info@interfaceconcept.com**

*This document supersedes any earlier documentation relating to the products referred to herein. The information contained in this document is current at the date of publication. It may subsequently be updated or withdrawn without notice.*

**IC INTERFACE CONCEPT**