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## Adtron EraSure™ Technology Data Security in Flash Disks

With network-centric battlefields the focus in today's defence applications, securing mission-critical data rises to the forefront of development technologies. Information may be scattered across multiple platforms in land, sea, and air-based environments, shared by all applications to achieve a coordinated defence outcome.



Adtron's EraSure™ technology includes the most comprehensive suite of data security tools available in contemporary flash disk. Coupled with Adtron ArrayPro™ technology, EraSure technology procedures are the fastest in the industry and provide your choice between clear, sanitize and destroy secure data levels.

### EraSure Clear

EraSure Clear, the lowest level of security, performs a single erase of the data from the flash disk, after which the flash disk is completely reusable. Adtron benchmarking shows that the EraSure Clear function on a 128 GByte flash disk completes in less than 20 seconds. As a function of the NAND flash, the clear function (across a broad range of capacities) completes in 10 to 20 seconds. Claims of less than 10 seconds should be carefully evaluated for very low flash disk capacities or partial clears, which may include the flash disk directory, FAT tables, or specific files located on the flash disk.

.....Continued on page 2

## VMP3 - VME 3U PowerPC MPC8541 processor board

Kontron introduces the VMP3, a 3U VME CPU board with the PowerQUICC III MPC8541. The PowerPC board with a clock-rate of 660 MHz shows outstanding performance (1520 MIPS/ Dhrystone 2.1) with a power consumption of only 10W. It also offers two Gbit Ethernet, one Fast Ethernet and one serial port. The board is thus perfectly tailored to the demands of current applications: increasing software complexity requires ever higher computer performance, and increased networking raises the demands on network bandwidth and security. The latter is covered by the Hardware Security Engine, which is integrated into the processor and supports encryption in accordance with IPSec, DES, 3Des and AES. These features, along with the very



fast DDR-SDRAM, make the VMP3 a universal processor card for computing-intensive real-time applications.

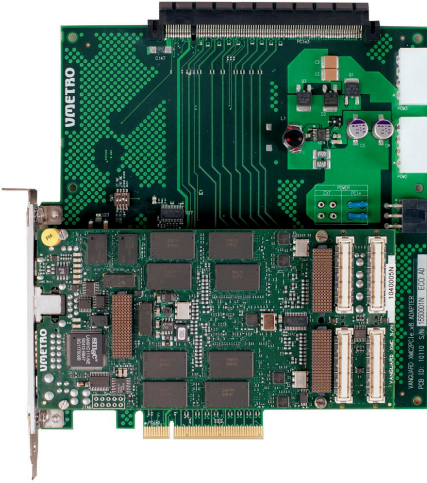
The 3U board has up to 128 MB of directly soldered DDR-SDRAM, 8 MB Flash, 1MB buffered SRAM, and E<sup>2</sup>Prom for user and configuration data. A slot for Compact Flash memory cards is optional. A JTAG/BDM interface is provided for debugging and on-board programming. Additional features are Watchdog, real-time clock, and a temperature sensor. Standard temperature range is 0°C to 60°C, and optionally available is -40°C to +85°C.

Available software support includes an operating system independent boot loader with network support, as well as a Linux and VxWorks BSPs.

Story ID 1

## Vanguard Express PCI Express Analyzer

VMETRO expands the highly successful Vanguard analyzer family with the introduction of the Vanguard Express PCI Express Protocol Analyzer.



Designed for debugging, testing and validating the PCI Express protocol, the Vanguard Express analyzer allows testing of x1, x4 and x8 PCI Express card-edge and XMC form factors.

The Vanguard Express is the only PCI Express analyzer offered for the XMC form factor. XMC is the PCI Express Mezzanine Card defined in the VITA 42.3 specification. The Vanguard Express incorporates 20 years of VMETRO bus analyzer expertise.

The Vanguard Express is designed to offer maximum flexibility for multiple form factors. In an XMC environment, a device under test is installed on top of the Vanguard Express analyzer. In the PCI Express card-edge

form factor, the Vanguard Express installs between the system slot and the device under test. These approaches allow the PCI Express device under test to function normally, while having access to the PCI Express links. This highly flexible design will be able to provide PCI Express analysis in other forms as well.

The Vanguard Express is operated via USB or Ethernet while using VMETRO's BusView 5 Graphical User Interface software running under Windows 2000 and XP. A single workstation can control multiple Vanguard analyzers for monitoring different protocols, like PCI-X/PCI, PMC, CompactPCI or VME.

The Vanguard Express supports advanced decoding of the PCI Express protocol. This decoding includes viewing the trace data in lane, packet and data views, thus making the captured data easy to read and interpret for all users, regardless of expertise and task.

Real-Time Performance Analysis is also included with the Vanguard Express Analyzer. The Vanguard Express predefined statistics include Link Utilization, PLP Distribution, TLP Distribution, DLLP Distribution and Link Transfer Rate. In addition, post processing statistics are gathered using the Trace Count feature on any acquired trace. Error detection is performed by the Vanguard Express' on-board protocol checker. Each error includes online help to aid in debugging.

Story ID 2

## Data Security in Flash Disks .....continued

Continued from page 1.....

### EraSure Sanitize

Coupled with Adtron's ArrayPro technology, EraSure Sanitize procedures deliver the fastest sanitize times of any flash disk on the market today. Each flash array inside the Adtron Flashpak™ flash disk is simultaneously erased and then overwritten multiple times using one of several pre-programmed options or a customized sanitize procedure. After a sanitize procedure the flash disk is reusable.

### EraSure Zap

In some situations, where flash disk contents could fall into unwanted hands, only complete destruction of the flash disk is acceptable. Adtron patent-pending technology, EraSure Zap, delivers a fast and efficient electrical "punch"

to destroy the flash disk to the point where it is unusable. EraSure Zap technology provides the fastest and irreversible secure erase function available on the market today. Special features have been implemented to protect against accidental initiation of each of the selected EraSure procedures.

### Write Protect and Passwords

At the most basic level of data security, hardware and software applications that require protection from viruses or hackers can employ Adtron's write protect function. This isolates the operating system, applications, or key data from corruption or infiltration by external sources. In addition, Adtron's password protection features guard against inappropriate access to data.

Story ID 3

## VORTEX Family of Data Recorders expanded with CompactPCI

VMETRO announces a new addition to their powerful High-Speed Data Recorder family with the VORTEX CompactPCI. The VORTEX CompactPCI brings 385 MB/s high performance and flexibility to the popular CompactPCI form factor. This addition also introduces a new name for the entire family of High-Speed Data Recorders, VORTEX. The products formerly known as MDR (a VME based architecture) and Marlin (an industrial PC based architecture) will now be part of the VORTEX family.

The VORTEX Data Recorders are a range of pre-programmed or customer programmable, high-speed recording products based on commercial off-the-shelf (COTS) components and open standards such as VME, CompactPCI, PCI/PCI-X, Fibre Channel, Serial FPDP and FPDP/FPDP II. The VORTEX product range can be used to implement solutions with recording and playback speeds from below 100 MB/s to several GB/s of sustained bandwidth, with storage scalable to



several Terabytes using high-performance disk drives.

In order to allow customer to easily integrate VORTEX products into their applications, either for development or deployment purposes, VMETRO offers Application Kits.

These VORTEX Application Kits provide pre-programmed functionality such as FPDP/FPDP II and Serial FPDP recording, analog recording and multi-channel recording with time stamping, and include the software and hardware required. Several VORTEX Application Kits are available with source code for maximum flexibility, adaptability and usability.

VMETRO has significant experience in tailoring Data Recorders to the customer's requirements, including integrating his hardware and software components to form a turn-key recording solution.

Story ID 4

## Dual Port Ethernet PMC Interface for AFDX/ARINC 664 Protocol

Condor Engineering announces the release of the CNIC, the first low-cost, Ethernet 10/100 network interface card (NIC) specially designed for AFDX/ARINC 664 and real-time Ethernet/IP/UDP protocols. The CNIC module is the first product to offer advanced NIC technology for testing and simulating AFDX/ARINC 664 networks, greatly reducing costs compared to proprietary, multi-processor designs. PCI and Compact-PCI form factors are also available.



"The Condor NIC (CNIC) incorporates advanced pipelined FPGA design technology and DMA-based PCI data transfers to provide high speed Ethernet frame transmission capabilities and buffered frame reception as implemented for Airbus 380 and Boeing 7E7 avionics systems," said Rick Schuh, V.P. of Con-

dor Engineering's sales team. "These same features can be used for general Ethernet/IP/UDP networks to offer true deterministic transmission and highly accurate time-tagging at full wire speed on two ports of 10/100 Ethernet." The CNIC module along with associated Windows driver and Condor's packet capture (Cpcap) and traffic generation APIs are ideal for test, simulation and communications systems where deterministic Ethernet frame transmission is a system requirement.

The CNIC module offers two independent ports for traffic monitoring, traffic generation, external triggering and analysis. It also offers high-resolution time-tagging of incoming Ethernet frames simultaneously with highly accurate traffic generation. An IRIG-B receiver/generator is included for synchronization to an external IRIG-B time source and for synchronization between multiple CNIC boards.

Story ID 5

## CP6000-V: Kontron's new Value Line 6U CompactPCI CPU Board with 1 GHz Celeron

Kontron Modular Computers recently introduced the CP6000-V, a new 6U Value Line CompactPCI-Board. It can be equipped with a 1 GHz or 800 MHz Intel® Celeron® processor, and is specially designed for price-sensitive applications. The hot-swap capable CPU board is equipped with a variety of interfaces, including four USB 2.0 ports and two Fast-Ethernet interfaces, which can be implemented so that they are accessible via the front panel or, alternatively, via the backplane in accordance with PICMG 2.16, which allows for wireless switched fabrics. In addition, there are two serial interfaces and the usual connections for keyboard, floppy, and graphics



(VGA CRT with a resolution of 2048 x 1536 pixels).

The highly integrated and compact CP6000-V offers powerful PCI-X performance to the PMC slot, an optional SATA or IDE 2.5-inch hard drive, and CompactFlash on board. Reliable RAM (ECC) delivers up to 2 GB SDRAM. The 855GME chipset's integrated graphics controller produces high-resolution images and multimedia-quality video. The controller has Intel Extreme Graphics 2 Technology (2D/3D graphics accelerator), which shows screen displays with a resolution of 2048x1536x8bit/60Hz. The CP6000-V offers a row of user-programmable LEDs on the front panel that can be used for debugging and diagnostics.

Story ID 6

## AdvancedMC—Mezzanine Boards for AdvancedTCA

AdvancedMC (AMC) modules are extra boards that can considerably extend the function of an ATCA board.

As co-author of the PICMIG.AMC standard, Schroff has now transformed the demands of the standard into high quality products. The AMC modules are inserted into the system parallel to the carrier board like 19" plug-in units. The contacts are not configured as connectors, but as pads on the board, which provides a better signal quality for high transfer speeds at the gateway between AMC and carrier board. Depending on the number of contacts, one



differing band widths.

can decide between AMC modules in half or full height as well as single or double width. The AMC architecture is very flexible and supports a number of transfer protocols with

Compared to PMC modules (PCI Mezzanine Card), which have also been taken into consideration in the AdvancedTCA standard, AMC modules fulfill some important functions which are particularly required by the telecom market. They are for instance larger and can therefore incorporate more

complex functionalities. Furthermore AMC modules can be inserted or removed during operation and the interface between module and carrier board



can be equipped with serial high speed inter connectors, whereby higher transfer speeds can be achieved.

For more information on Schroff's ACTA and AMC product range please refer to [www.a-tca.com](http://www.a-tca.com).

Story ID 7

Please email us the Story ID for more information.