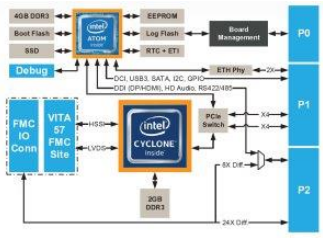
Sundance Multiprocessor Technology
embedded signal processing solutions

PRESS RELEASE

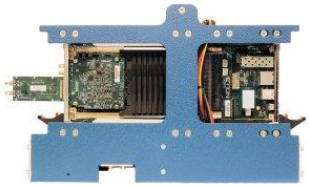
Pressemitteilung • Communiqué de Presse • Comunicato Stampa

Sundance launches the VF370 Intel-based 3U OpenVPX SBC module for SWaP applications

- **Highly flexible architecture combining Intel Atom E3900 Series embedded processors, Intel Cyclone FPGA technology and an FMC mezzanine site**
- **Ideally suited to extreme environments, enhanced reliability industrial control, automotive, mil/aero and UltraHD video and graphics processing**
- **Available in standard air-cooled and rugged conduction-cooled versions**



Block diagram of the VF370



Side-view of VF370 and VF330 inside a VT330 OpenVPX test-rack

VF370 3U OpenVPX board with Atom E39xx + FPGA

A VITA57.1 FMC on VF370 inside VT330 Open-VPX test-rack

Chesham, UK – May19, 2020. Sundance Multiprocessor Technology Ltd., an established manufacturer and supplier of embedded modules, has launched the VF370, an Intel-based 3U OpenVPX single board computer (SBC) module designed for reduced Size, Weight and Power (SWaP) requirements. Available in standard air-cooled and rugged conduction-cooled versions, the VF370 utilizes the Intel Atom E3900 Series of embedded processors combined with Intel's well-established Cyclone FPGA technology to provide a highly flexible architecture typically needed by enhanced reliability industrial control, automotive, mil/aero and UltraHD video and graphics processing applications.

The VF370 features a single, dual or quad core Intel Atom processor operating at up to 2GHz for running post-processing software. An onboard SATA SSD provides fast booting and reliable high-performance storage for demanding applications while associated onboard peripherals include 4GB of associated DDR memory, a real-time clock (RTC), elapsed time indicator (ETI), EEPROM and Flash for user configuration data and logs.

The Intel Cyclone FPGA, with scalable logic and variable-precision DSP resources, facilitates the implementation of IP cores and/or custom logic for applications requiring real-time FPGA pre-processing. Combined with 2GB of DDR3 memory, it supports algorithms with large memory size and bandwidth requirements.

The addition of a VITA 57 FMC site creates a modular processing solution that facilitates a wide range of I/O requirements through the utilization of FMC mezzanine cards. The high pin count FMC connector connects to the FPGA through four high-speed serial interface (HSSI) lanes and 58 differential LVDS/LVTTL signals while an optional FMC I/O connector routes 32 differential pairs to the P2 VPX connector for backplane or rear I/O functionality.

An integrated graphic processor running at 650MHz enables greatly enhanced video encode and playback performance with UltraHD 4K display resolution on multiple independent displays for surveillance and other video-centric applications. Intel's onboard Time Coordinated Computing Technology can synchronize

networks of devices to within 1µs, greatly improving the real-time deterministic behaviour of a system and Intel's new Trusted Execution Engine provides enhanced data and operations protection with fast cryptographic execution and secure boot features.

A configurable PCIe interface supports different OpenVPX profiles at Gen1 and Gen2 speeds equipping the VF370 with high data throughput capability. The VF370 typically operates as a VPX system controller but can also be a PCIe end-point module when plugged into a non-system slot. The VF370 Board Management supports Tier 1 IPMC functionality on the VPX Management Plane as per VITA 46.11 specification. To simplify development and system integration, USB debug interfaces are provided for the Intel Atom embedded processor and the Cyclone FPGA.

"The VF370 is a powerful 3U OpenVPX SBC module for SWaP applications and the first to combine the strengths of Intel's Atom E3900 embedded processors with Intel's well-established Cyclone FPGA technology," said Flemming Christensen, Managing Director of Sundance Multiprocessor Technology. "Available in both standard and ruggedized versions and with an integrated, high-performance graphics processor, it is ideally suited to the rapidly growing range of applications from industrial control and automotive to mil/aero and UltraHD video, that not only demands high performance but also feature reduced size and weight requirements."

# # #

About Sundance Multiprocessor Technology

Sundance designs, develops, manufactures, and markets internationally high-performance signal processing and reconfigurable systems for original equipment manufacturers in embedded applications. Leveraging its multiprocessor expertise and experience, Sundance provides OEMs with modular systems as well as data acquisition, I/O, communication and interconnectivity products that are essential to multiprocessor systems where scalability and performance are important. Sundance, founded in 1989 by the current directors, is a member of the Xilinx Alliance, Texas Instruments' Design Network and MathWorks' Connection programs. Sundance is also a member of the PC/104 Consortium, the focal point for the entire PC/104 industry including manufactures and OEMs. It provides a place for information on current specifications, product offerings, news, and events and a place to advance and develop specifications that are consistent and stable for long-term use. For more information about Sundance Multiprocessor Technology and its products, visit http://www.sundance.com.

Media contacts:

Flemming Christensen, Managing Director, Sundance Multiprocessor Technology
Tel: +44 (0)1494 793167. Email: flemming.c@sundance.com

Keith Mason, Humbug PR
Tel: +44 (0) 07931 708837. Email: keith.mason@humbugpr.com

Ref: SMT009
Words: 507

This press release and any associated images (in high-resolution compressed jpeg format) can be downloaded from www.humbugpr.com.