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Digital Video Infrastructure Platform

Zoom in on DVIP for VIPs with IP!

The Sundance <u>Digital Video Infrastructure Platform</u> (DVIP) is a new standalone solution built around a DSP+FPGA hybrid architecture optimized for video acquisition and image processing.

The DVIP configuration has three DSPs (a TMS320DM642 and dual TMS320C6455s) linked to three Virtex-4 FX60 FPGAs. All devices can communicate via the DSPs' SRIOs, and the Sundance Rocket-IO Serial Links to guarantee high-speed transfers.

Processing tasks can be implemented using <u>3L</u>'s excellent <u>Diamond</u> onto this network of processors and co-processors to compute in real time MPEG-4 SP/ASP/AVC or H.264 SD/HD encoding algorithms. The power of the DSPs and FPGAs combination assure that the video codecs can sustain an excellent image quality without compromising the high frame rate or resolution.

DVIP is the reference platform for Multimedia Set-Top boxes for WM9 consumer applications as well as an industrial approach for Multiple Video Security and Surveillance, Video-on-Demand and Broadcast/Broadband developments.

The brilliant Sundance DVIP is featured in <u>Texas Instruments' spotlight</u>.

Smart Wireless Communications & Technologies



ImoOn will host the first 2-day workshop for "Commercial MIMO-components and Systems" on 13-14 September in Duisburg, Germany.

International companies, R&D Laboratories and universities are invited to submit technical papers in the broad domain variety of MIMO systems, Smart Antennas, Algorithms, Testbeds and Measurements, etc...

M imoOn and Sundance, as strategic partners, will reveal the premium signal processing and reconfigurable development solution: *MIMO*². This new system includes a dual RF front-end mezzanine dedicated to all WLAN applications in the range of 2.4GHz and 5GHz ISM bands.

of course, the flexibility of the <u>Virtex-4 FPGA</u> modules will be capable of best hardware implementations for Wi-Fi and IEEE802.11 protocols.

More Details

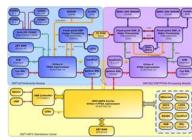
OEM Platform doesn't spare a single Virtex-4's...

Customers are starting to see the benefit of this "All-singing-and-All-Dancing" development platform that sports almost all interfaces ever created by Mankind (well, almost!). It has no less than 4 slots for expansion with more Virtex-4, like the $\underline{\text{SMT368-SX35}}$ and $\underline{\text{SMT348-SX55}}$ that host hundreds of ExtremeDSPTM resources.

The <u>SMT148-FX</u> is built around the <u>XC4VFX60</u> and <u>Spartan-3</u> FPGAs:

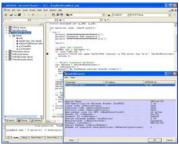
- Full-speed USB2.0 interface with an added RS-232 interface,
- 1Gbit Ethernet interface to allow FX60's MACs to run TCP/IP protocols,
- ZBT SRAM to allow the PowerPC™ cores to have external memory,
- 56 LVDS pairs for control of plasma-screen, motor-controller, etc...
- 800Mbps FireWire with the protocols handled by an Virtex-4's IP,
- 2 <u>High-speed Digital Busses</u> (up to 250MB/s) to bespoke hardware,
- RS-485 interfaces for measurement and control functions,
- Rocket-IO Serial Link to implement a PCI Express interface,
- 4 SATA interfaces to connect storage solutions or more SMT148-FXs,
- Five <u>8-bit external compatible interfaces</u> to interface legacy devices,
- 3 internal <u>Comport</u> multiplexed into 16 towards the expansion sites.

Software support is provided for the <u>USB interface</u> that gives the same level of functions as the PC-based platforms from Sundance (<u>SMT6025</u>/SMT6026). It will be enhanced with extra features when <u>Diamond PowerPCTM</u> is released (4Q2007).



SMT148-FX60

Standalone Platform



USB2.0 Driver (<u>SMT6048</u>)





