Sundance Multiprocessor Technology

embedded signal processing solutions



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Dear Customer,

What many will have forgotten – possibly because some of you were still in primary school - is that TI introduced their floating-point TMS320C40 DSP in 1991. Sundance introduced a range of TIM-40s (Texas Instrument Modules for TMS320C40) in 1993. Among them were the SMT303 and SMT304 Video/Graphics Modules. They were scalable, modular and enabled a "Rapid Prototyping" platform and were supported by 3L Diamond.



Sundance sold massive Parallel DSP Processing farms, one particular customer having a system with many hundreds of such TIM Modules.

Historically Sundance have sold and provided pre/post sales support for a specific and bespoke version of the <u>3L Diamond tools</u>, as our DSP + FPGA hardware used propriety technology to make the systems scalable and compatible with older DSPs. Currently we have over 240 active users of the Diamond suite of software.

We have since worked closely with <u>3L</u> <u>Ltd</u> to support the ever-growing range of DSP Modules from Sundance, but the burden of keeping everything compatible has finally broken the camel's back... – We had to change the winning formula before we lost the plot!

The arrival of the new <u>TMS320C6472</u> MultiCore DSP with six internal DSP Cores and standard interfaces to the Real World, such as the super-fast Serial Rapid IO and the de-facto Industry standard Ethernet, enabled Sundance to build an open-standard, embedded platform – The <u>EVP6472</u> - which offers more performance than ever before, at a lower cost and less power (you have no doubt heard that claim a million times...) - but at a fantastic **starting price of USD2,000!** – and it's still scalable, but not using any Sundance hardware tricks!

Flemming Christensen

3L Diamond for Multiprocessor systems

What will happen then? Questions and Answers



Sundance will continue to sell, supply and support the current version of the <u>Diamond tool</u> (3.2) which work with all TIMs before the EVP6472. The EVP6472 is not supported by Diamond 3.2.

No new update/upgrade contracts will be sold by Sundance and current customers of Diamond 3.x will have support as normal by the Sundance/3L Teams.

3L will directly sell, supply and support the new Diamond tools (4.x) that have been

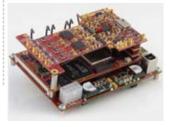
specifically targeted to the TMS320C6472 DSP. This enables 3L to target a common DSP platform that matches the inherited benefit of the Diamond software structure and the same Inter-processor interfaces that can be used to interface to non-Sundance hardware and also work on competitors' (we might soon have one... – smile!) hardware.

Reducing the duplication of sales and support efforts (*Read = Sundance no longer needs a margin!*) has enabled 3L to reduce the overall cost of ownership of the software. Contact <u>3L@3L.com</u> for more details.

- Q: I want to stay with Diamond 3.x, but want to use Code Composer Studio 4.x
- A: Not possible. Not really beneficial either, as CCS4.x does not offer any benefits for TI DSPs prior to the TI MultiCore DSPs.
- Q: I currently have a maintenance contract with 3L. Will I get a Diamond 4.x?
- **A**: **No**. Diamond 4.x is mainly targeted and developed towards MultiCore DSPs, so does not offer any benefits to previous modules and systems.
- Q: I would like to continue to use Diamond 3.x and CCS3.x. Will I get support?
- A: Yes. If you have a current maintenance contract, but Diamond 3.x will only have bug-fixes.
- Q: Can I add a Sundance MultiCore Module to my current DSP hardware platform?
- A: Possible:
 - 1. Buy the Diamond 4.x and the Diamond TCP/IP for Diamond and use Ethernet as interface between old and new DSPs.
 - 2. Purchase a Diamond V4 Premium Licence and create your own custom extension to Diamond supporting your own hardware.
 - 3. Contact 3L and persuade them to make a Diamond 4.x that would work on your specific hardware platform.

Multicore for Software Defined Radio applications

EVP6472-943 for baseband signal applications



- Two 500MHz C6472 Multicore DSPs
- Virtex-5 FX30T FPGA w. PPC440
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- Two 16-bit, 800MSPS D/A channels
- Standalone and Modular kit
- Full board support package
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