

Success Story - A/D Conversion Module

Simultaneous 4-channel, 12-bit A/D Conversion

Using Virtex FPGAs you can now process 600 Mbytes/s of data, a previously impossible task even with today's state-of-the-art DSP Processors.

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Nallatech Ltd. has created a very high performance analog-to-digital module that provides unrivalled data conversion abilities. The "Ballyriff" module, built using the company's DIME standard (DSP and Image processing Modules for Enhanced FPGAs), can incorporate a wide range of Virtex FPGAs from the XCV400 to XCV3200E parts, giving it maximum flexibility that is further enhanced by a wide variety of input options, as illustrated in Figure 1.

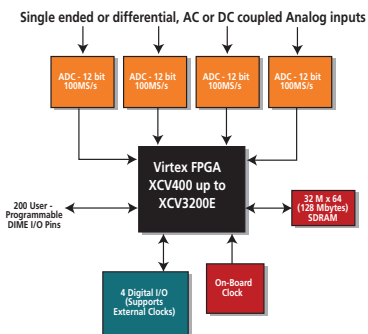


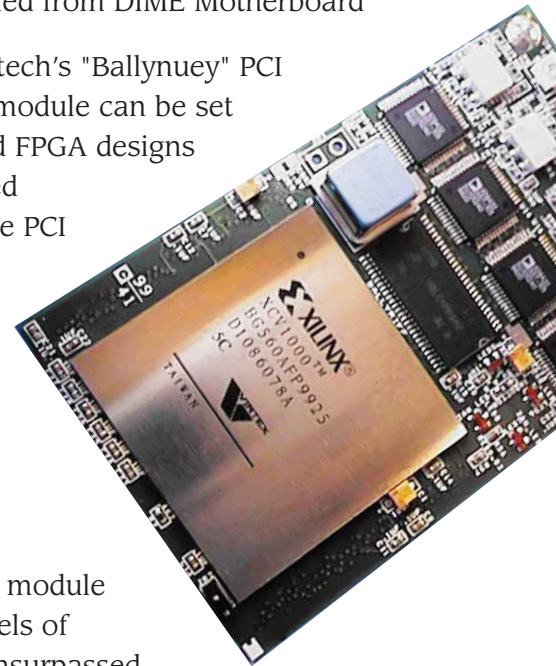
Figure 1 - Ballyriff Block Diagram

This A/D module has been meticulously planned to optimize the space available on the board, and so, Nallatech Ltd. has produced another DIME module with groundbreaking performance characteristics packed onto a few square inches.

The high-speed data conversion ability of the Ballyriff module comes from four of the very latest 12-bit, 100 Msps analog to digital converters. However, the benefits are not limited to data conversion, and include:

- Four digital input lines—for direct digital access to the Virtex FPGA, for external control and trigger functions.
- 128 Mbytes of SDRAM memory—more than any other DIME module.
- A variety of analog input options.
- A variety of clock sources—including external, on-board, and fed from DIME Motherboard

By using Nallatech's "Ballynuey" PCI Carrier Card, this module can be set up in minutes, and FPGA designs can be downloaded dynamically via the PCI bus directly, eliminating the need for PROMs or download cables.



Conclusion

The Ballyriff DIME module gives you high levels of innovation with unsurpassed performance. Other DIME modules provide video capture and display, high-speed communications, and data capture functions. For more information on Ballyriff, or other DIME modules, contact Nallatech at: www.nallatech.com. 