A HIGH SPEED Platform for Dynamically Reconfigurable Logic

5 Gbytes/sec digital I/O DIME Module now supports DRL technologies.

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Nallatech Ltd. recently announced another new addition to its DIME Standard family, a revolutionary new module named "Ballyderl" that provides an intelligent, dynamically reconfigurable platform with high speed off-board communication. Based upon the DIME plug-and-play capability, this module harnesses the Virtex system-level features and enables you to quickly build multiple FPGA systems.

Using the latest data transmission technologies, you can attain clocking rates over 311 MHz, collectively allowing a data transmission and reception rate of 2.4 Gbytes per second. This complements the 2.5 Gbytes/sec capability that is currently available on other DIME modules.

DIME: DSP and Image Processing Module for Enhanced FPGAs.

The Ballyderl module incorporates a wide range of Virtex and Virtex-E FPGAs, from the XCV600 to the XCV2000E, giving maximum flexibility that is further enhanced by a variety of digital I/O transmission options and two independent 64 Mbytes banks of SDRAM, as illustrated in Figure 1.

The module features two build options for transmitting and receiving the 64 digital I/O signals:

• Low Voltage Differential Signaling (LVDS). This option allows you to pass your data over long distances at high rates while maintaining
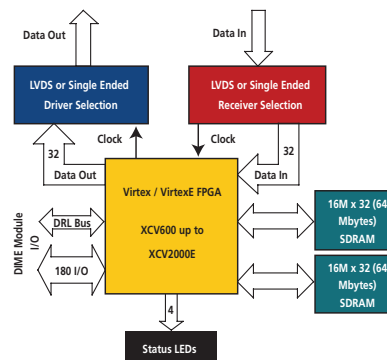

Figure 1 - Ballyderl block diagram.

low power consumption and low susceptibility to common mode noise and EMI effects.

• Single ended. This option allows you to interface with standard LVTTL (TTL for Virtex build) enabling this module to communicate with other systems that do not support LVDS.

If you need 5-V tolerance or support for the current Xilinx DRL technologies such as JBits and XVPI, you can also specify a standard Virtex device, instead of a Virtex-E device.

Conclusion

The easy to use Ballyderl DIME module allows you to configure designs in minutes, and provides high performance reconfigurable computing and data processing with unrivalled efficiency. Σ

For more information on Ballyderl, or other DIME products, contact Nallatech at: www.nallatech.com.

Other DIME Modules include:
Ballyblue: Dual 2 million VirtexE DIME Module.
Ballyvision: Analog video I/O DIME Module.
Ballysharc: VirtexE, Dual Hammerhead SHARC DSP DIME Module.
Ballyriff: 4 Channel 105MSPs 12bit ADCs, VirtexE DIME Module.