

**Gaudino, Roberto; De Feo, Vito; Chiaberge, M.; Sansoè, C.**

**An FPGA-based node controller for a high capacity WDM optical packet network.** (English)

[Zbl 1020.68642](#)

Glesner, Manfred (ed.) et al., Field-programmable logic and applications. Reconfigurable computing is going mainstream. 12th international conference, FPL 2002, Montpellier, France, September 2-4, 2002. Proceedings. Berlin: Springer. Lect. Notes Comput. Sci. 2438, 1139-1143 (2002).

Summary: We present architecture and experimental results for an high-speed digital node controller developed in the “RINGO” project, a demonstrator of a next-generation ultra-high capacity network based on WDM optical fiber ring. The MAC protocol and other controller functions have been developed on a high capacity FPGA, which supports efficient input queuing and multicast capabilities by handling several concurrent real time processes.

For the entire collection see [[Zbl 1010.68847](#)].

#### MSC:

**68U99** Computing methodologies and applications

**94C10** Switching theory, application of Boolean algebra; Boolean functions (MSC2010)

**Full Text:** [Link](#)