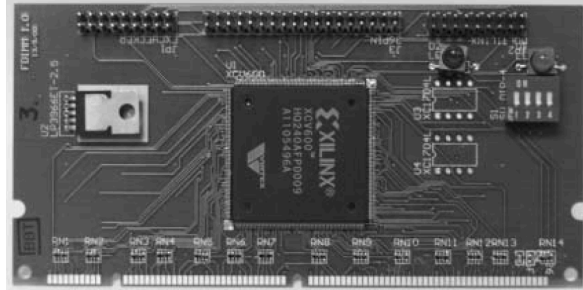


Pilchard – A Reconfigurable Computing Platform with Memory Slot Interface

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Year of publication: 2001

Area: *Architecture and Technology*



This is one of the earliest papers to report a low cost, high performance reconfigurable computer board that was made available to the field-programmable custom computing community. As the name ‘Pilchard’ suggests, this board provides a small, cheap and easily accessible platform to feed the custom computing community.

The uniqueness of this platform is its use of the 133 MHz memory bus interface instead of the then much slower PCI interface found in other platforms. The authors did not only design the hardware platform, but also provided a development environment based on the Linux operating system with easy-to-use interfaces between the host computer and the Pilchard board. Through the efforts of this team, research groups around the world working on reconfigurable computing were able to explore this technology without having to design their own platform. The paper also demonstrated the usefulness and advantages in using memory interface with an implementation a fully parallel, pipelined data encryption standard (DES) core.

There have been many papers published about reconfigurable computing platform. This paper stands out as one that is both technically excellent and promotes the ideal of sharing within the community.

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DOI: http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1420913