# DataSource CD-ROM Q4-01

## White Papers by Product

**White Papers**

### ▶ CoolRunner CPLDs

Listed below are the CoolRunner XPLA3 CPLD White Papers listed by the most recent paper.
Click on the White Paper title to review the document in PDF format.

| Number | White Paper Description | Product |
|---|---|---|
| WP138 | **Voice-Data Convergence—Voice Over IP (v1.0) 03/21/01 (359 KB)** <br><br> This paper gives an overview of voice-data convergence technologies and how Xilinx high volume programmable devices can be used to overcome some of the significant challenges facing the designers of these systems. The Xilinx products targeted at these high-volume applications include XC9500XL™ and CoolRunner™ CPLDs and Spartan™-II FPGAs. This appendix starts with an overview of voice-data convergence technologies and the benefits they bring to the users. We will then describe the product architectures that are used to implement VoIP gateways and IP phones. The final topic will be to show how Spartan-II devices can be used in these applications. | Spartan-II, XPLA3, CPLDs |
| WP122 | **Using the CoolRunner XPLA3 Timing Model (v1.0) 09/13/00 (103 KB)** <br><br> This document describes how to use the CoolRunner &#reg; XPLA3 timing model. | CoolRunner XPLA3 CPLDs |
| WP108 | **CoolRunner XPLA3 Clocking Options (v1.0) 09/13/00 (58 KB)** <br><br> This document gives a detailed description of the CoolRunner XPLA3 clocking options. | CoolRunner XPLA3 CPLDs |
| WP119 | **Fast Zero Power (FZP™) Technology  (v1.0) 08/28/00 (52 KB)** <br><br> This white paper provides an overview of the patented Fast Zero Power (FZP™) technology used in Xilinx CoolRunner CPLDs. | CoolRunner XPLA3 CPLDs |
| WP118 | **Using CoolRunner CPLDs in Smart Card Reader Applications  (v1.0) 05/18/00 (222 KB)** <br><br> This document presents the different types of smart cards and their applications and discusses the variety of smart card readers available and what functions they can perform. An illustration of the elements that form a typical smart card reader and how and where CoolRunner devices can be used to undertake some of these tasks is described herein. | CoolRunner XPLA3 CPLDs |
| WP103 | **Xilinx High Volume Programmable Logic Applications in Internet Audio Players (v1.0) 01/17/00 (120 KB)** <br><br> This paper provides an overview of Internet audio technologies and how Xilinx high-volume programmable devices can be used to overcome some of the significant challenges facing the designers of portable players. The Xilinx device families targeted at these high-volume applications include CoolRunner™ CPLDs and Spartan™ FPGAs. | CPLDs, Spartan FPGAs |

## DataSource CD-ROM Q4-01: CoolRunner White Papers

**WP107**  **Inverse Multiplexing for ATM (IMA) Solutions with Spartan-II (v1.0) 01/11/00 (87 KB)**

Spartan-II

Early deployment of IMA technology meeting the IMA v1.0 standard began in late 1997 but due to different interpretations of this specification, true multi-vendor interoperability was not really possible until the completion and acceptance of the IMA v1.1 specification in 1999. With the introduction of the Spartan-II family of devices and the IMA-8 and other Xilinx based IMA core solutions, an FPGA based IMA implementation is simple and economical.

**WP105**  **CoolRunner XPLA3 CPLD Architecture Overview (v1.0) 01/06/00 (235 KB)**

CoolRunner XPLA3 CPLDs

This document describes the CoolRunner™ XPLA3 CPLD architecture.