

CORPORATE OVERVIEW

Arira Design, Inc.

Arira Design is the leading Electronic Design Services (EDS) firm, specializing in complex, high-speed board and system level design. Arira's leading edge services include:

- **System Architecture**
- **Schematic Design**
- **Signal Integrity Analysis and Simulation**
- **Board Layout**
- **Design Bring-up**
- **Programmable Logic Design**
- **Microcontroller Design**
Hardware & Software
- **Firmware**
Hardware Init, BIOS, Device Drivers

Current Projects

Arira's recent product development experience includes a variety of leading edge technologies and components. Examples of some of the components and technologies used are listed below.

- **AMD Single core & Dual Core Opteron, Broadcom SiByte, Intel Pentium-M, and various PowerPC, MIPS, and ARM based embedded processors**
- **AMD, Intel, Broadcom, Marvell, ULi, and SiS Northbridges, Southbridges, and memory controllers**
- **Broadcom BCM5704 & BCM5715 and Intel 82545, 82546 & 82571 GbE controllers**
- **Broadcom BCM7318 & BCM7401 and Sigma SMP8634 Video SOC's**
- **Broadcom BCM5692, 56304, 56504 GbE switches and Broadcom BCM5380 and Marvell 88E6095 FastE switches**
- **Broadcom BCM5670 HiGig 80Gbps switch fabric**
- **Altera Stratix FPGA w/ NIOS embedded processor and Xilinx Virtex family FPGAs**
- **ServerWorks Frodo-8, Marvell SATA II 88SX7042 SATA Controllers & LSI 1064SATA/SAS Controller**
- **Mellonox Infinihost III EXMT25208 & MT25204 HCA's**
- **Mellanox InfiniScale III twenty-four port InfiniBand switch**
- **333MHz and 400MHz DDR, DDR2**
- **PLX PCI Express 8111 & 8114 Bridges and 8524 & 8532 Switches**

Arira's clients benefit from reduced development time (faster time to market), lower total cost of ownership and lower overhead (client can focus on IP and other critical tasks).



Teamwork, Commitment, Results

Skills/Technology Experience

Processors:

AMD - Opteron & Athlon

Intel - Pentium-M, Xeon P4, Pentium II, Pentium, & 486

Broadcom - BCM1255 & BCM1480

PowerPCs IBM and Freescale - (750, 860, 7410, 440, etc.)

MIPS based embedded processors - from Philips, Toshiba, and NEC

Transmeta - Efficeon

ARM - Strong Arm

Network Processor - IXP2800 and others

Microcontrollers:

8051 series from Atmel, Dallas, and Philips

PIC series from Microchip

6805 series from Freescale

H8 Series from Renesas

Memory types:

DRAM including **DDR-400**, **DDR2**, **QDR** up to 250MHz, **SDR**, and **EDO** Fast Page

SSRAM up to 166MHz

FIFOs up to 166MHz

NAND and **NOR Flash**

Communication protocols:

InfiniBand via switch fabrics and HCA's

SONET (OC-3, OC-48, & OC-192) via FPGAs, framers, and SERDES's

XAUI via switches and switch fabrics

Ethernet (10/100BaseT, 1000BaseT, 1000Sx/Lx, and 10GbE) via embedded controllers/PHYs, switch fabrics, transceivers, and SERDES's

Fibre Channel via FPGAs, framers, and SERDES's

T1/DS1 and **T3/DS3** via discrete LIUs, framers, mappers, and M13 muxes

Signal types and rates:

SSTL to 266MHz

HSTL to 200MHz

LVDS to 1.25GHz (including CSIX, SPI4.2, HyperTransport, and others)

LVPECL to 2.488Gbps

XAUI (3.125Gbps)

AGTL to 533MHz

CML, **PECL**, **CMOS**, **LVCMS**, **TTL**

Industry standards:

AdvancedTCA (ATCA)

Compact PCI

PCI Mezzanine Card (PMC)

Advanced Mezzanine Card (AMC)

PCI Express add-in card

Hypertransport (HTX) add-in card

Peripheral interfaces:

PCI, **PCI-X**, and **PCI-E**

Firewire - IEEE 1394

SATA, **SAS**, **IDE**, & **SCSI II**

USB 1.1 & **2.0**

Serial, **Parallel ports**

Keyboard and Mouse Interfaces

VGA & **DVI**

Infrared to 115Kbps

Design packages:

OrCAD, **DXDesigner** (ePD), **Concept**, and **Design Capture**

Allegro, **SPECCTRA**, and **PADS**

Model Technology "ModelSim" simulator

Synplicity "Synplify" synthesis package

Altera Max Plus+ II & **Quartus** and **Xilinx Foundation (ISE)** place & route packages

Agile & **Arena** document control packages

HyperLynx for Signal Integrity Measurements



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