Innovative Logic Inc.

Inno-Logic
ASIC.FPGA.Embedded

Our Services

- Logic Design Implementation
- Functional Verification
- System Level Verification
- Timing Closure and Timing Analysis
- Design for Testability (DFT)
- Physical Design and Verification
- Silicon Validation & Board Bring Up
- FPGA Design and Verification
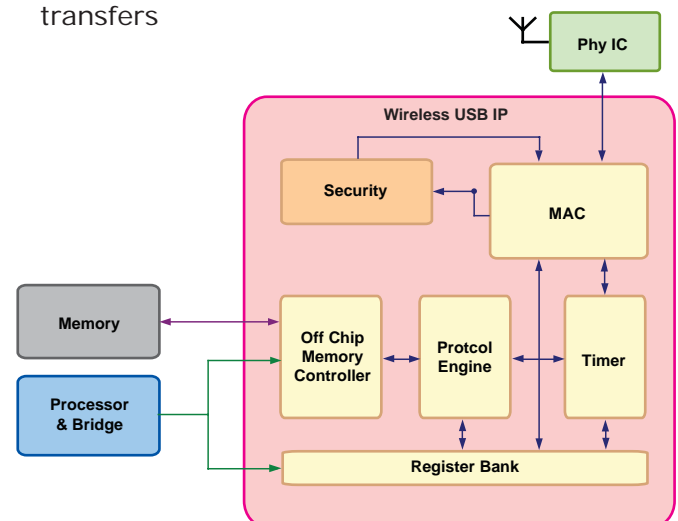- Embedded Systems Design

Your Benefits

- Increase efficiency using our expertise
- Get our reliable expertise at right time
- Focus on your core competency
- Reduce Time to Market, Cost, and Risk

Innovative Logic is a technology services company delivering the most cost-effective and reliable design services in ASIC, FPGA, Embedded Systems. Our flexible business model allows you to choose onsite, offsite, or offshore consulting. We have been serving many companies ranging from Fortune 500 companies to small startup for last 3 years.

Our Product

Wireless USB Device Controller

- Fully synthesizable RTL code using RMM guidelines
- Configurable for different parameters
- Supported for WUSB 1.0 specifications
- Supports Control, Bulk, Isochronous and interrupt transfers

Phy IC

Wireless USB IP

Security

MAC

Memory

Off Chip Memory Controller

Protcol Engine

Timer

Processor & Bridge

Register Bank

Enter

Innovative Logic Inc.

Our Services

❧ Logic Design and Verification

◆ Architecture definition/partition and RTL coding in Verilog/VHDL

◆ Verification using the latest tools such as Verilog-XL, VCS, Verilog-NC, Modelsim, etc.

◆ C++/VERA/SystemC/SystemVerilog, etc.

◆ Interfaces: PCI, PCIE, USB, WUSB, AXI/AHB, Serdes, etc.

◆ CPU: ARM7, ARM9, ARM11, x86, MIPS, ARC

◆ Formal verification and assertion based verification

❧ Timing Closure and Timing Analysis

◆ Timing closure using the industry standard synthesis tools

◆ Static timing analysis to avoid any violations

◆ Scripting using tcl language and creating a synthesis environment

◆ Work with physical synthesis tools to reduce the close the timing much faster

❧ Design for Testability

◆ Scan insertion using full, parallel, and partial scan

◆ BIST, JTAG, ATPG using industry standard tools

❧ Physical Design and Verification

◆ Physical synthesis and Floor planning

◆ DRC and LVS to check integrity of the design

◆ Timing closure and post-layout simulation

◆ Tools: Magma, Cadence, Synopsys

❧ Embedded Software/Firmware

◆ Writing Device Drivers, Protocol Stack, etc.

◆ Porting to different RTOS

◆ Firmware development including Boot Loader

◆ Embedded CPU (ARM7, ARM9, MIPS, Power PC)

Our Product

Wireless USB device controller is designed to be used in a system to provide wireless USB connectivity between the device it is being used and the wireless USB host. This IP is designed based on the wireless USB specification 1.0 and is compliant with the ECMA 369/368 UWB Phy interface standard.

Features

❧ Support all transfer types - Control, Bulk, Isochronous and Interrupt transfers

❧ Maximum of 7 endpoints. Endpoint 0 is for control transfer and rest are for data transfers

❧ Endpoints are fixed for a type of data transfer

❧ Support industry standard 32 bit bus interface - AMBA AHB/AXI or AVLON etc.

Target Applications

❧ Removable hard disks

❧ Digital camera

❧ Printer, scanner etc.

❧ Multimedia Applications

Deliverables

❧ Fully synthesizable Verlilog based RTL code

❧ Test bench covering all functional test cases

❧ Programmer's manual and Verification document

◆ **Corporate Headquarter & North America Design Center**

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