

## USB 3.1 Device Controller

### Overview

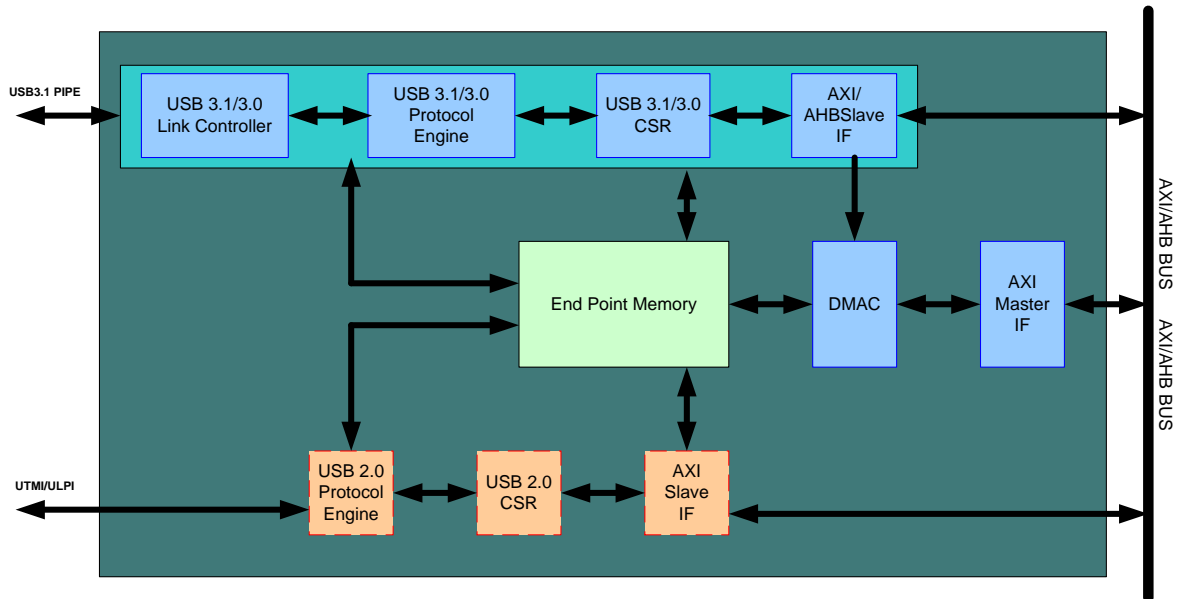
Innovative Logic USB 3.1 Device Controller IP is compliant with SuperSpeed USB 3.1 at 10 Gbps, SuperSpeed USB 3.0 at 5 Gbps and High-Speed USB (USB 2.0). Inno-Logic's USB 3.1 IP can be seamlessly used for integration into SoCs for applications such as Media Storage.

Being the leading supplier of USB IP, Inno-logic provides SoC engineers and Designers with Silicon Proven USB IP Solution that address the performance, power, and area requirements of today's enterprise/infrastructure, mobile, and consumer markets

### Features

- Supports Supports SuperSpeed USB 3.1 at 10 Gbps, SuperSpeed USB 3.0 at 5 Gbps and fully backward compatible with USB2.0.
- Optimized designed to achieve lowest power and area for portable electronics
- Supports USB3.1 PIPE and UTMI/ULPI PHY interfaces
- Configurable data buffering options to optimize performance vs area
- Integrated DMA controller
- Supports 15 IN and OUT functional endpoints
- Endpoints support Bulk/Isochronous/Interrupt transaction
- Support all power down modes
- Support AXI/AHB bus interface for easy system integration

## Block Diagram



## Deliverables

- Synthesizable RTL developed in Verilog
- Constraints for synthesis
- Test bench and Test cases developed using System Verilog
- Documentation

## Target Applications

- Removable hard disks
- Digital camera
- Printer, scanner etc
- Multimedia Applications
- Mobile phones and Tablets
- TV, DVD players, Set top Boxes