

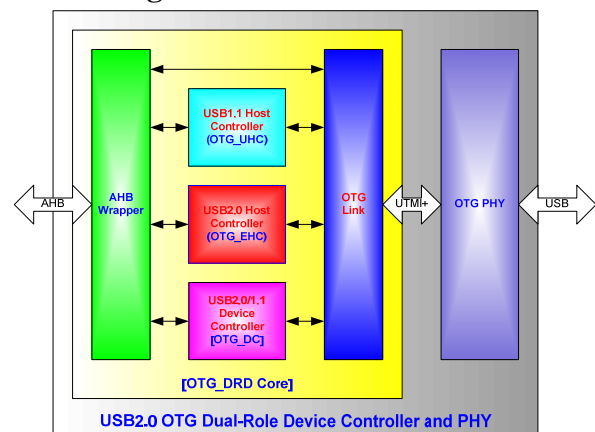
Features

- ◆ **LOGO:**
 - High-speed OTG LOGO certification
- ◆ **Compliant with:**
 - USB Specification Rev 2.0
 - On-The-Go Supplement to the USB 2.0 Specification, Rev. 1.3
 - UTMI Specification Version 1.05
 - UTMI+ Specification Revision 0.9
 - AMBA Specification Version 2.0
 - Universal Host Controller Interface Design Guide Rev 1.1
- ◆ Follow most of the Enhanced Host Controller Interface Specification for Universal Serial Bus Revision 1.0 (EHCI Spec) architecture and programming method.
- ◆ **Support one USB port.**
- ◆ **Support of AHB interface**
- ◆ **One master port and one slave port on AHB**
- ◆ **One internal DMA engine**
- ◆ **Support μ P Interrupt Request Interface**
- ◆ **Support Synchronous Circuit between UTMI clock and application clock (No Extra synchronization circuit is needed)**
- ◆ **USB OTG:**
 - Support Host Negotiation Protocol (HNP) and Session Request Protocol (SRP) for OTG dual-role devices
 - Target Peripheral List: Mass Storage class, HID class, and Hub class
- ◆ **USB Host:**
 - Support data transfer at High-speed (480 Mbit/s), Full-speed (12 Mbit/s) and

Low-speed (1.5 Mbit/s)

- Support USB transfers: control, bulk, interrupt, and isochronous
 - Support split transaction
- ◆ **USB Device:**
- Support data transfer at High-speed (480 Mbit/s) and Full-speed (12 Mbit/s)
 - Support USB transfers: control, bulk, interrupt, and isochronous
 - Support all USB standard commands
 - Support suspend mode and remote wakeup
 - Support high-speed high-bandwidth endpoint
 - Configurable architecture
 - Up to 4 Physical Interfaces by default. Can be extended to 16 by customization
 - Up to 16 alternate settings per interface
 - Up to 7 logical Endpoints by default (including Endpoint0). Can be extended to 16 Endpoints by customization
 - Support Class/Vendor commands by passing the commands to the application system

Block Diagram



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Deliverables

- **One-Page Summary**
- **Datasheet (Preliminary Technical Manual)**
- **Technical Manual**
- **Installation Guide**
- **Synthesizable RTL**
- **Synopsys Scripts**
- **Simulation Patterns & Scripts**

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