IP Leaflet

USB2.0 Peripheral Controller IP Core

Overview

The Renesas USB2.0 Peripheral Controller IP is compliant with the Universal Serial Bus (USB) 2.0 Specification. This IP is based on the proven controller R8A66597 adopted many products around the world. The system interface of this IP is AHB(AMBA®3 AHB-Lite) and the PHY interface is UTMI+(Level-3). This IP supports High Speed (480 Mbps), Full Speed (12Mbps) transfer.

Key Features

General

- Compliant with Universal Serial Bus Specification Revision 2.0.
- Compliant with AMBA®3 AHB-Lite Protocol v1.0 Specification.
- Compliant with UTMI+ Specification Rev 1.0 Level-3.

USB function

- Supports Control, Bulk, Interrupt and Isochronous transfers.
- Supports Battery Charging Specification Rev 1.2.
- Maximum of 15 PIPE (PIPE0 not included) can be used (configurable)

AHB I/F

- Conforms to AMBA®3 AHB-Lite.
- Data bus width: 32 bits
- Supports big endian and little endian.
- Provides master interface and slave interface.
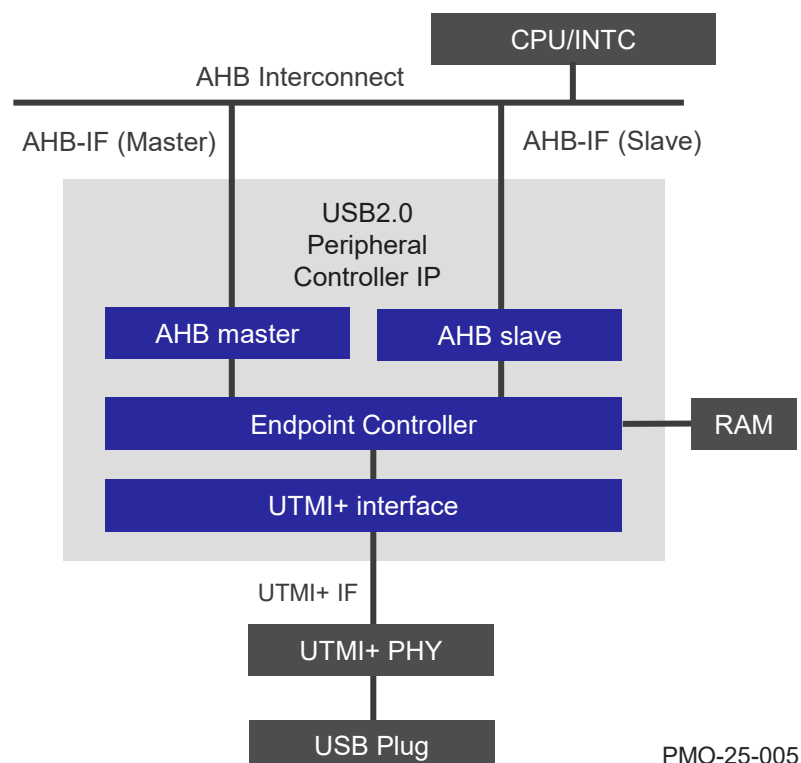- Supports the AHB-Lite specification.

RAM interface

- 64-bit 1-port SRAM interface for the buffer memory outside. The memory size is up to 16KByte.

UTMI+ interface

- Supports UTMI+ level-3 interface for High / Full speed interface.

Related Products

- R8A66597 : USB2.0 host/peripheral controller
- This core obtained USB-IF's certification as R8A66597BG.

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