USBSS-DEV-SS

SuperSpeed USB 3.0 Device Software Stack

The USBSS-DEV_SS Software Stack is a USB 3.0 compliant software layer aiming at supporting applications that run over an operating system or in a stand-alone basis. It provides a device Application Programming Interface (API), which allows users to develop their own software without detailed knowledge of the USB hardware.

The USBHS-DEV-SS is an ideal choice for using USB in an embedded device as it is optimized for small footprint, portability and ease of use.

Benefits

- Allows for USB application development without detailed hardware knowledge
- Minimal memory footprint (as low as 20 KB)
- Intuitive API

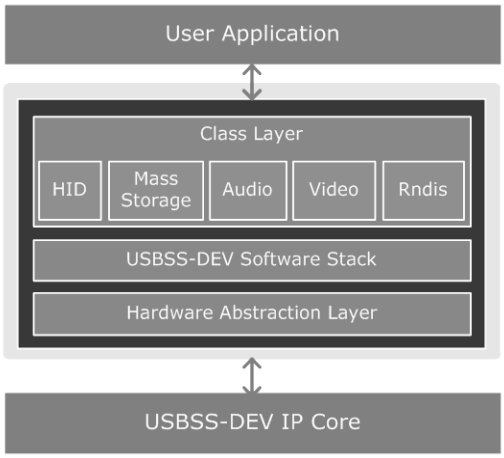
Functional Description

USBSS-DEV_SS Software Stack

It is a software layer which implements all the USB standard requests, the required state machines and the data transfers. An embedded application program does not have to access the USB peripheral via registers, it simply uses the intuitive API function calls.

Hardware Abstraction Layer

It is a platform-dependent layer, that the application developer typical implements. It abstracts hardware controller access, by encapsulating the access to the hardware registers within software functions.



Related Products

USBSS-DEV: The USBSS-DEV IP core logic provides SuperSpeed USB (5 Gbps) interface that is certified by the USB Implementers Forum to be compliant with the latest revision of the USB 3.0 specification.

Deliverables

- Software Stack C source code
- User documentation
- Example HID application

Support

The software stack as delivered is warranted against defects for ninety days from purchase. Thirty days of phone and email technical support are included, starting with the first interaction. Additional maintenance and support options are available.

Features

Support of the Super Speed USB Device Controller Core

- Compliant with the SuperSpeed USB 3.0 standard
- Full, High and Super Speed data rates
- Control, bulk, interrupt and isochronous transfers
- Support for USB multi-configuration and USB multi-interface applications

Easy to Use and Port

- Small memory footprint
- Suitable in a standalone application as well as in operating system applications
- Portable on different platforms
  - Source codes written completely in C language
- Easily configurable and scalable
- Intuitive API
- Run and debug in a SystemC environment

JumpStart Applications

- Example application of the HID mouse device
- Available Mass Storage application with the BOT protocol verified by the Command Verifier tester from the USB Implementers Forum (usb.org)
- Available Mass Storage application with the UAS protocol – tested with MCCI host driver at speeds reaching 320 MB/s

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