

USB 2.0 Host Controller LSI for Mouse and Keyboard Use

- USB software embedded
- Easy processor connection (UART)
- Easy to use: single power supply, supports various clocks
- Support for 8- and 16-bit processor control

■ Overview

S1R72U01 is a dedicated USB 2.0 host controller for connected mouse devices or keyboards. All USB software required for a connected mouse or keyboard is embedded in the chip, which permits UART-based control and eliminates the need for special USB knowledge. Additionally, the chip supports connection and control with affordable 8- and 16-bit processors for fast, easy mouse or keyboard connections in embedded devices.

■ Features

- Easy to use No USB knowledge required—serial UART control possible
- Optimal for small systems Control possible with 8- or 16-bit processors
Compact package supports various clocks
- Mouse and keyboard support Human Interface Device class and USB Host stack built-in
* No USB software needed
- Easy connection Serial UART for easy processor connections
- Single power supply support Runs on a single 3.0–5.5 V power supply
- Compact dimensions 7 mm² 48-pin QFN, 9 mm² 48-pin QFP

■ Specifications

1) USB host functions

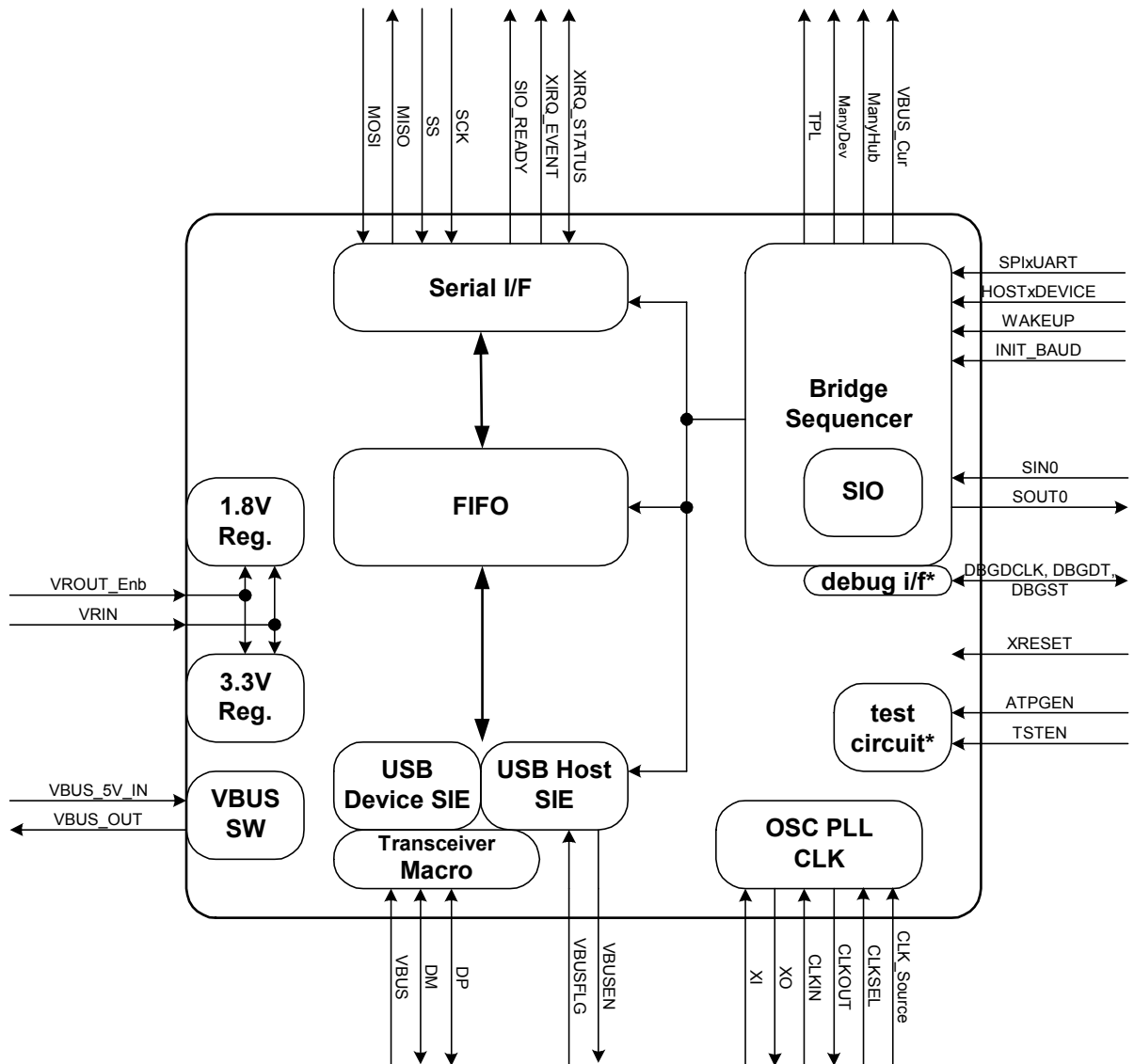
- One built-in USB host port
- Embedded USB software (USB Host stack, Human Interface Device class)
- USB Full-Speed and Low-Speed modes (12 and 1.5 Mbps)
- Built-in host termination
- VBUS supply (requires a 5 V power supply)

2) Other

- Processor interface Serial UART
- Supply voltage Single 3.0–5.5 V power supply
Processor interface: 1.8–5 V
- External clock 12 and 24 MHz quartz oscillators and ceramic resonators
* Direct 12 and 24 MHz input also supported
- Package QFN package: 7 mm² 48-pin, 0.5 mm pitch
QFP package: 9 mm² (including lead) 48-pin, 0.5 mm pitch
- Operating temperature -40–85°C

S1R72U01

■ Block Diagram



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