

Automotive Grade USB2.0 HUB Controller

■ Description

The S2R72A54 is USB hub controller LSI supporting USB 2.0 (Universal Serial Bus Specification Revision 2.0) high-speed mode. It meets the stringent quality requirements for automotive use and is capable of operating at temperatures up to 105°C. The S2R72A54 features both one upstream port and four downstream ports supporting high-speed mode. Using the S2R72A54 enables the USB host port of the main chip to be easily expanded to allow the connection of multiple USB devices such as mobile phones, audio players, or ETC devices to car navigation systems.

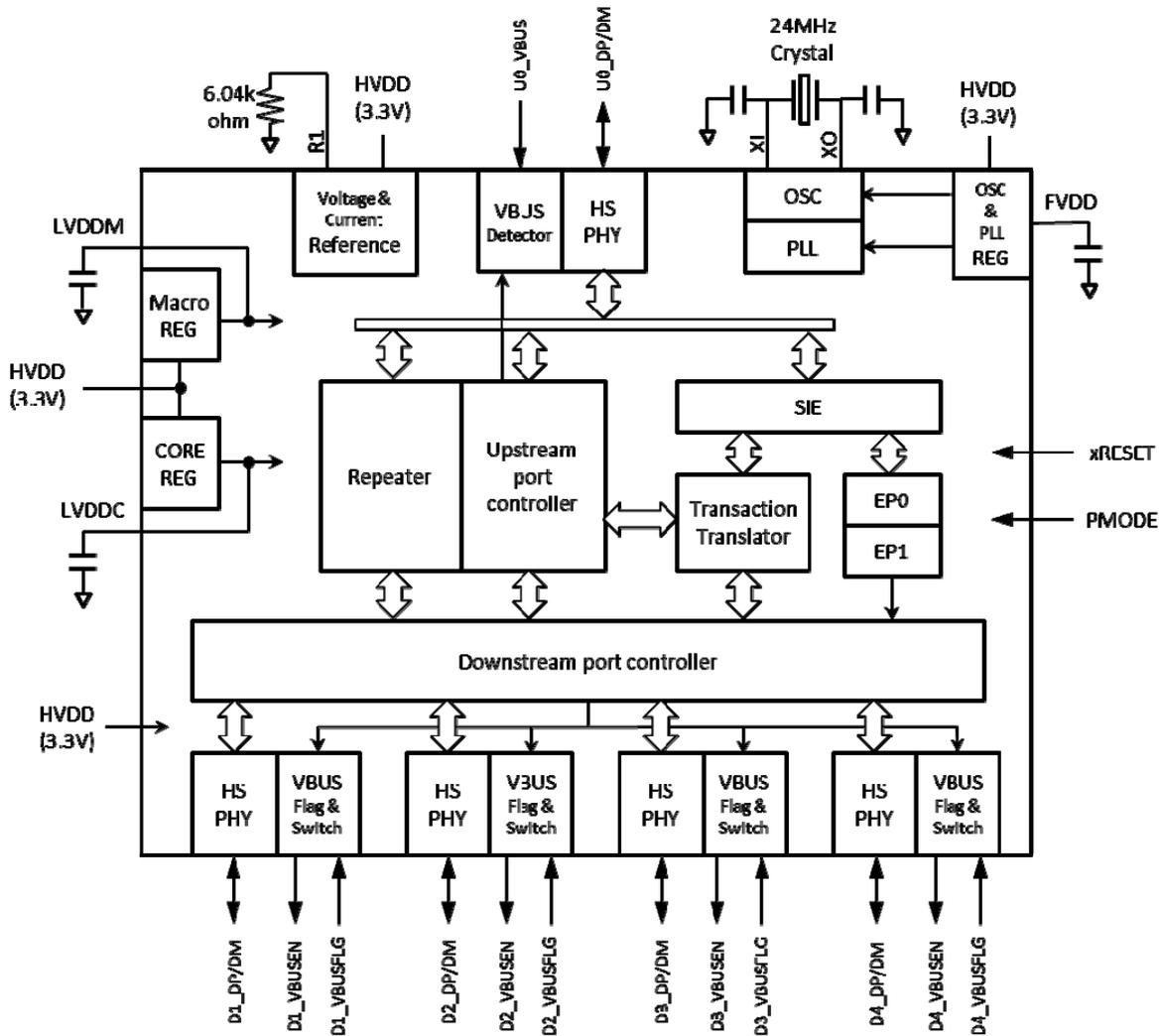
■ Strong point

- AEC-Q100 certified
- Excellent data communication characteristics
- Wide temperature range
Operating temperature range is -40°C to +105°C

■ Features

- USB
 - Upstream Facing Port**
Supports HS (480Mbps) and FS (12Mbps), and automatic detection
Built-in termination (no external resistor required)
 - Downstream Facing Port**
Supports HS (480Mbps), FS (12Mbps), LS (1.5Mbps), all 4 ports
Built-in termination (no external resistor required), all 4 ports
Built-in single transaction translator with four non-periodic buffers
Supports Gang or Individual as overcurrent control
- Other specifications
 - Supports 24MHz crystal oscillator (with built-in oscillator circuit and feedback resistor)
 - Power supply voltage : 3.3V (3.0V to 3.6V)
Built-in regulator to generate internal core voltage 1.8 V and PLL/OSC voltage 1.8 V
 - Package
 - QFP12-48 (48pin, 7mm square, 0.5mm pitch, 1.4mm thickness)
 - SQFN6-36 (36pin, 6mm square, 0.5mm pitch, 1.0mm thickness)
 - SQFN6-36-W (Wettable Flank, 36pin, 6mm square, 0.5mm pitch, 1.0mm thickness)

■ S2R72A54 Block Diagram



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