

GL3521



USB 3.0 MTT Hub Controller

Worldwide No.1 USB 3.0 Hub Controller with Ensured Compatibility and Advanced Fast-Charging

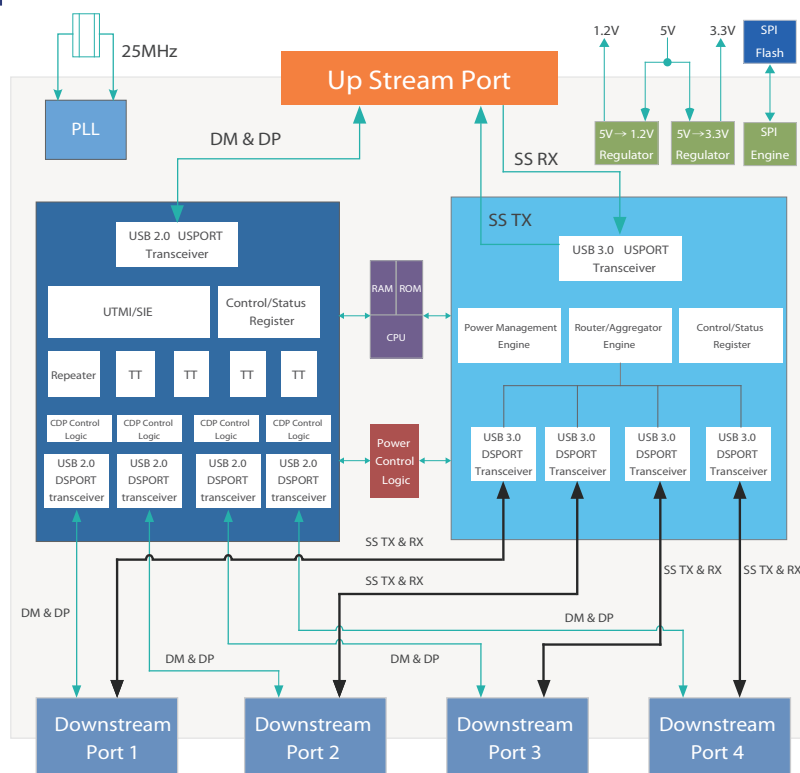
Overview

GL3521 is a 4-port, highly cost-effective, and configurable USB 3.0 hub controller. It is compliant with the USB3.0 specification, and fully backward-compatible with HS/FS/LS hosts and devices. GL3521 USB 3.0 hub controller achieves the industry-leading 0.94W power consumption while four downstream ports have SuperSpeed devices operating. It integrates 5V to 3.3V and 5V to 1.2V regulators, which saves total BOM cost for customers. In addition, it equips with advanced 4-port fast-charging, supporting Battery Charging v1.2, Apple and Samsung devices. Beyond these features, GL3521 incorporates patented Smart Power Management that can dynamically switch the mode of downstream ports to ensure the quality of flow. Its firmware is upgradable and configurable based on customers' needs for features such as fast-charging support, non-removable, and port number setting. With USB-IF and WHCK certification, GL3521 solidifies its status as the best of breed among USB 3.0 hub controllers on the market and is well-suited for the performance-intensive and power-efficient markets, such as high-performance PC peripherals.

Features and Advantages

- USB-IF certified 
- Windows 8 Hardware Certification certified 
- Native 4-port fast-charging, support USB Battery Charging Revision v1.2, Apple and Samsung devices
- Lowest power consumption among USB 3.0 Hub controllers
- USB 2.0 MTT architecture, configurable 4/3/2 downstream ports
- Support USB 3.0 U0/U1/U2/U3 power management states
- Support USB 2.0 LPM power management states
- Firmware upgradable by SPI flash and EEPROM
- Support both individual and gang modes of power management and over-current detection for downstream ports
- Automatic switching between self-powered and bus-powered modes
- Support slew-rate control for EMI reduction
- Internal power-fail detection for ESD recovery
- 25MHz reference input clock
- Available Package:
 - 4 SS downstream ports in QFN 88 (10x10mm)
 - 2 SS downstream ports in QFN 48 (7x7mm)

Block Diagram



GENESYS
LOGIC

Genesys Logic, Inc. 12F., No. 205, Sec. 3, Beixin Rd., Xindian Dist. 231, New Taipei City, Taiwan Tel : 886-2-89131888 Fax : 886-2-89131688
Sales Contact : sales@genesyslogic.com.tw Technical Support : support@genesyslogic.com.tw Website : www.genesyslogic.com