FAIRCHILD SEMICONDUCTOR®

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FSA321 — USB2.0 Hi-Speed (480Mbps) and Audio Switches with Negative Signal Capability and Built-in Termination on Unselected Audio Paths

Features

- Audio: 1.8Ω Typical On Resistance
- HS-USB: 8Ω Typical On Resistance
- HS-USB: 5pF Typical On Capacitance
- USB Path -3db Bandwidth: > 720MHz
- Negative Swing Capable Audio Channel
- Power-off Protection on Common D+/R, D-/L Ports
- Automatic USB Detection (Configurable)
- Power-Off Protection on all I/O Ports
- OVT on all I/O Ports
- Flow-Through Pin Out Eliminates PCB Vias
- Built-In Termination on Unselected Audio Paths to Inhibit Audio Pop

Applications

- MP3, Cell Phone, PDA, Digital Camera, and Notebook
- LCD Monitor, TV, and Set-Top Box

Description

The FSA321 is a Double-Pole, Double Throw (DPDT) multiplexer that combines a low-distortion audio and a USB2.0 High-Speed (HS) switch path. This configuration enables audio and USB data to share a common connector port. The architecture is designed to allow audio signals to swing below ground. This means a common USB and headphone jack can be used for personal media players and portable peripheral devices.

Since USB2.0 is an industry standard for shared data-path in portable devices, FSA321 can be configured for automatic V_{BUS} detection. The FSA321 includes a power-off feature as well as over-voltage tolerance to minimize current consumption when V_{SW} exceeds V_{CC}.

Typical applications involve switching in portables and consumer applications, such as cell phones, digital cameras, and notebooks with hubs or controllers.

IMPORTANT NOTE:

For additional performance information, please contact analogswitch@fairchildsemi.com.

Ordering Information

Part Number	Package Number	Top Mark	Eco Status	Package Description
FSA321UMX	MLP010A	GL	Green	10-Lead Quad, Ultrathin MLP, 1.4 x 1.8mm

For Fairchild's definition of Eco Status, please visit: http://www.fairchildsemi.com/company/green/rohs_green.html.

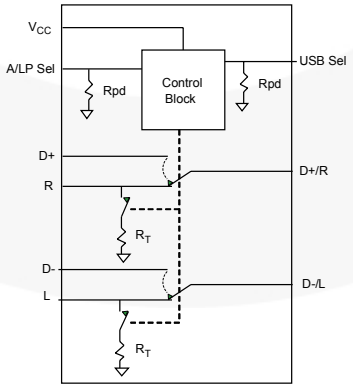


Figure 1. FSA321 Analog Symbol

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Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
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Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

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