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FAIRCHILD SEMICONDUCTOR®

April 2008

FSA110 — Audio and Wired-OR USB2.0 Hi-Speed (480Mbps) Switch with Negative Signal Capability and Built-in Termination

Features

- 6pF Typical Switch Off Capacitance for HS USB
- 2.5Ω Typical On Resistance for Audio Signaling
- Negative-Swing-Capable Audio Channel
- Automatic USB Detection Available
- Power-Off Protection on the D+/R, D-/L Ports
- Flow-Through Pin Out Eliminates PCB Vias
- Built-In Termination on Unselected Audio Paths Inhibits Audio Pop

Applications

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

Description

The FSA110 is a Double-Pole, Single Throw (DPST) switch that combines a low-distortion audio path with low off capacitance for USB applications. This configuration is ideal for wired-OR configurations, enabling shared USB2.0 Hi-Speed (HS) and audio on a single connector. The architecture is designed to allow audio signals to swing below ground so a common USB and headphone jack can be used for personal media players and portable peripheral devices.

The FSA110 is configured for default USB transfer, which gives the user control of when the audio path is enabled. The audio path defaults to audio mute and is enabled with /OE. The FSA110 includes a power-off feature on the common port when V_{CC}=0V to guarantee signal isolation.

IMPORTANT NOTE:

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

Ordering Information

Part Number	Top Mark	Package Description
FSA110K8X	A110	8-Lead US8, JEDEC MO-187, Variation CA, 3.0mm Wide Package
FSA110UMX	GZ	10-Lead Quad, Ultrathin MLP, 1.4 x 1.8mm

All packages are lead free per JEDEC: J-STD-020B standard.

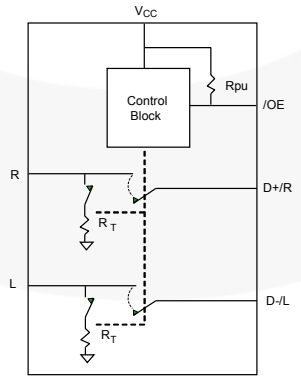


Figure 1. Analog Symbol

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Definition of Terms

Datasheet Identification	Product Status	Definition
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Preliminary	First Production	This 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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