

November 2012

Email <u>Analog.Switch@fairchildsemi.com</u> to request the full datasheet.

FSA3341 — High-Speed 4:1 USB2.0 / MHL™ Switch

Features

- Low On Capacitance: 4.2 pF / 5 pF MHL / USB (Typical)
- Low Power Consumption: 30 µA Maximum
- Supports MHL Rev. 2.0
- Three USB2.0 Paths
- MHL Data Rate: 4.0 Gbps
- Packaged in 16-Lead UMLP (1.8 x 2.6 mm)
- Over-Voltage Tolerance on All USB Ports: Up to 5.25 V without External Components

Applications

Cell Phones and Digital Cameras

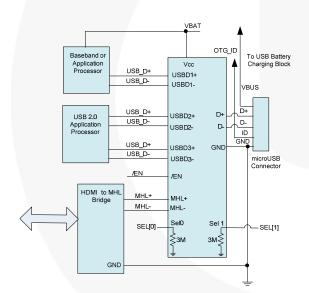


Figure 1. Typical Application

Description

The FSA3341 is a bi-directional, low-power, high-speed, 4:1, USB2.0 and MHL™ switch. Configured as a Double-Pole, Four-Throw (DP4T) switch; it is optimized for switching between high- or full-speed USB and Mobile High-Definition Link sources (MHL Rev. 2.0 specification). In addition, the USB2.0 paths can be used as UART paths.

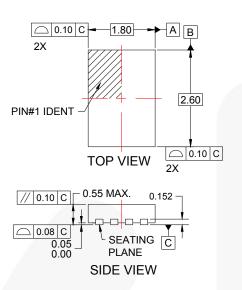
The FSA3341 contains circuitry on the switch I/O pins that allows the device to withstand an over-voltage condition for applications where the V_{CC} supply is powered off ($V_{\text{CC}}=0$ V). This switch is designed to minimize current consumption even when the control voltage applied to the control pins is lower than the supply voltage (V_{CC}). This is especially valuable in mobile applications, such as cell phones, allowing direct interface with the general-purpose I/Os of the baseband processor. Other applications include switching and connector sharing in portable cell phones, digital cameras, and notebook computers.

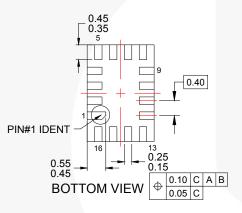
Ordering Information

Part Number	Top Mark	Operating Temperature Range	Package
FSA3341UMX	LY	-40 to +85°C	16-Lead, Ultrathin Molded Leadless Package (UMLP), 1.8 mm x 2.6 mm

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Physical Dimensions





0.40 0.60 0.15 15X 0.15 0.25 0.10 0.50 0.25 0.10 PIN 1 NON-PIN 1 Supplier 1 15X $^{0.15}_{0.25}$ 0.30 0.15 0.30₁₅X 0.50 0.25 0.50 NON-PIN 1 Supplier 2

RECOMMENDED

LAND PATTERN

TERMINAL SHAPE VARIANTS

0.663

0.40

0.563 (15X)

2.90

NOTES:

- A. PACKAGE DOES NOT FULLY CONFORM TO JEDEC STANDARD.
- B. DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994.
- D. LAND PATTERN RECOMMENDATION IS BASED ON FSC DESIGN ONLY.
- E. DRAWING FILENAME: MKT-UMLP16Arev4.
- F. TERMINAL SHAPE MAY VARY ACCORDING TO PACKAGE SUPPLIER, SEE TERMINAL SHAPE VARIANTS.

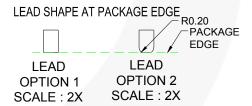


Figure 20. 16-Lead, Ultrathin Molded Leadless Package (UMLP)

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