



FSA3041

High-Speed 4:1 USB2.0 / MHL™ / Audio / UART Switch

Features

- Low On Capacitance: 4.2 pF / 7.5 pF MHL / USB (Typical)
- Low Power Consumption: 30 μ A Maximum
- Supports MHL Rev. 2.0
- MHL Data Rate: 3.8 Gbps
- LINOUT Swing: -1.5 V to +3.0 V (Typical)
- USB 2.0 Compliant
- 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
- Digital Cameras

Description

The FSA3041 is a bi-directional, low-power, high-speed, 4:1, USB2.0, MHL™, UART, and audio switch. Configured as a Double-Pole, Four-Throw (DP4T) switch; it is optimized for switching between high- or full-speed USB, Mobile High-Definition Link sources (MHL Rev. 2.0 specification), UART, and negative-swing capable audio. In addition, either USB 2.0 path can be used as a UART path.

The FSA3041 contains circuitry on the switch I/O pins, for applications where the V_{CC} supply is powered off ($V_{CC} = 0$ V), that allows the device to withstand an over-voltage condition. 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.

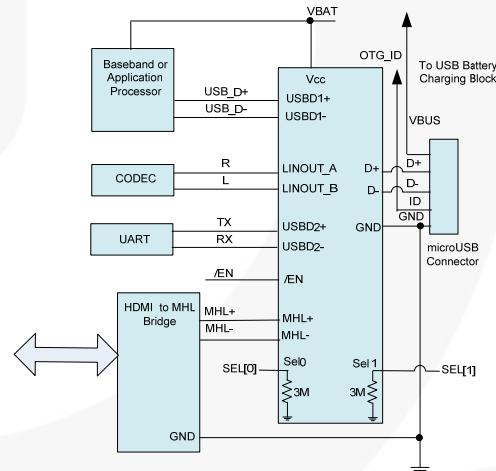


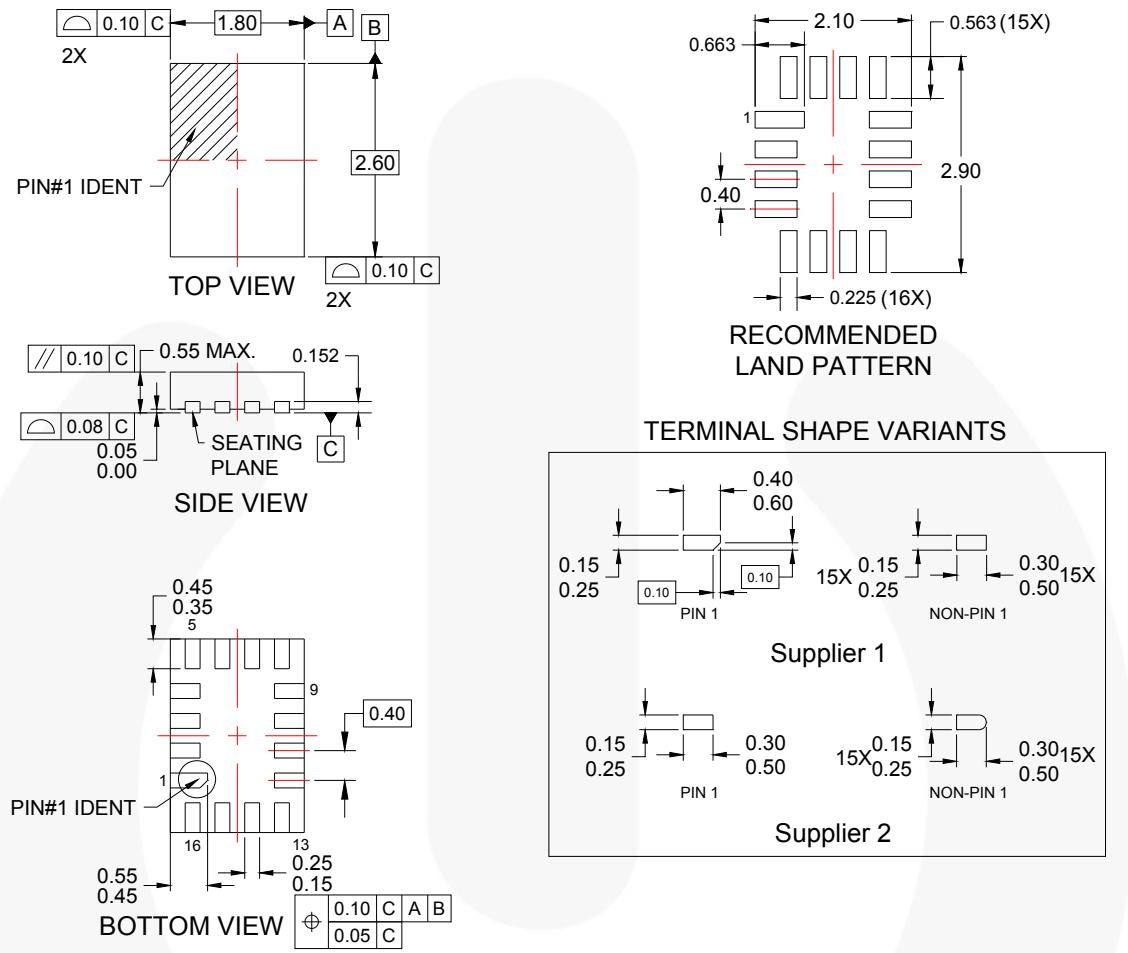
Figure 1. Typical Application

Ordering Information

Part Number	Top Mark	Operating Temperature Range	Package
FSA3041UMX	LZ	-40 to +85°C	16-Lead, Ultrathin Molded Leadless Package (UMLP), 1.8 mm x 2.6 mm

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Physical Dimensions



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.

LEAD SHAPE AT PACKAGE EDGE



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

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