

# 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  $\mu$ 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.

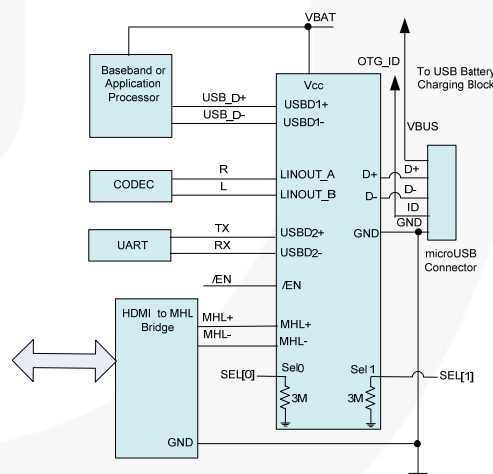


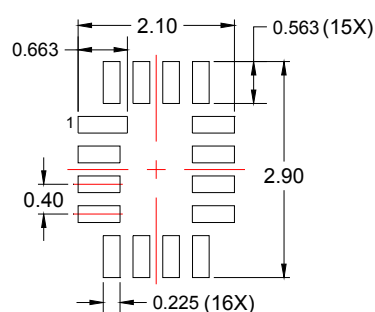
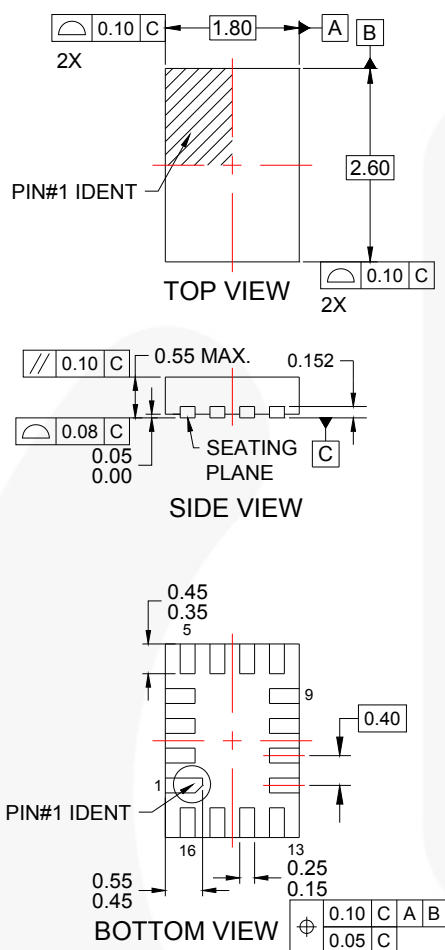
Figure 1. Typical Application

### Ordering Information

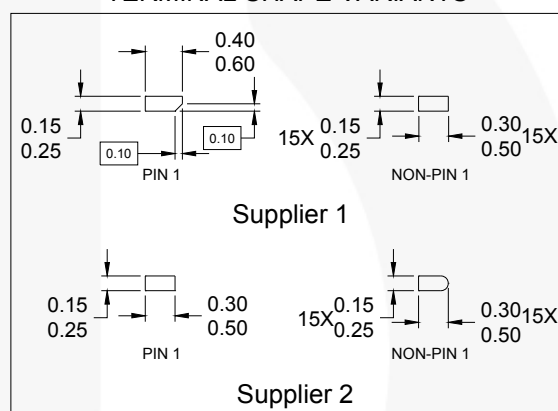
Part Number	Top Mark	Operating Temperature Range	Package
FSA3041UMX	LZ	-40 to +85°C	16-Lead, Ultrathin Molded Leadless Package (UMLP), 1.8 mm x 2.6 mm

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## Physical Dimensions



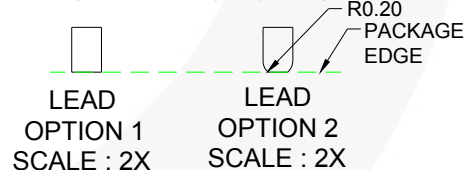
### TERMINAL SHAPE VARIANTS



### NOTES:

- PACKAGE DOES NOT FULLY CONFORM TO JEDEC STANDARD.
- DIMENSIONS ARE IN MILLIMETERS.
- DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994.
- LAND PATTERN RECOMMENDATION IS BASED ON FSC DESIGN ONLY.
- DRAWING FILENAME: MKT-UMLP16Arev4.
- 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)**




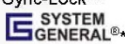
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