

FSA3031 — Dual High-Speed USB2.0 with Mobile High-Definition Link (MHL™)

Features

- Low On Capacitance: 4.6 pF/6.75 pF MHL/USB (Typical)
- Low Power Consumption: 30 μ A Maximum
- Supports MHL Rev. 2.0
- Passes 1080 p/60 fps (3 Gbps) MHL Data Eye Diagram Mask Compliance
- MHL Data Rate: ≥ 4.7 Gbps with Ideal Input Source
- Packaged in 12-Lead UMLP (1.8 x 1.8 mm)
- Over-Voltage Tolerance (OVT) on all USB Ports Up to 5.25 V without External Components

Applications

- Cell Phones and Digital Cameras

IMPORTANT NOTE:

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

Description

The FSA3031 is a bi-directional, low-power, high-speed, 3:1, dual USB2.0 and MHL switch. Configured as a double-pole, triple-throw (DP3T) switch; it is optimized for switching between dual high- or full-speed USB and Mobile High-Definition Link sources (MHL™ Rev. 2.0 specification).

The FSA3031 contains special circuitry on the switch I/O pins, for applications where the V_{CC} supply is powered off ($V_{CC}=0$), 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 feature is especially valuable to 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
FSA3031UMX	LX	-40 to +85°C	12-Lead, Ultrathin Molded Leadless Package (UMLP), 1.8 mm x 1.8 mm

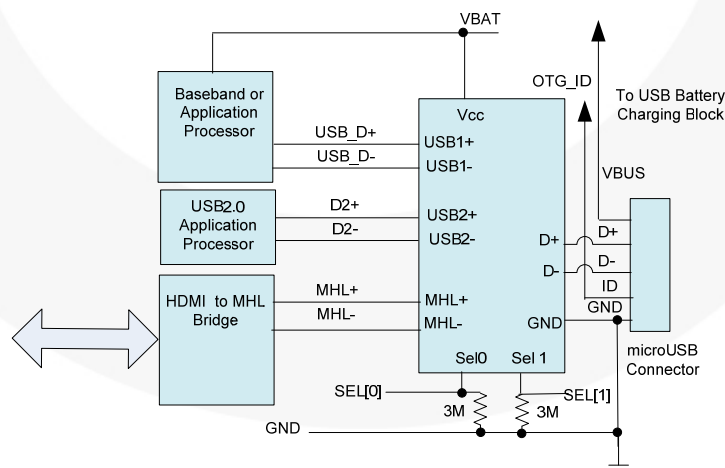


Figure 1. Typical Application

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Physical Dimensions

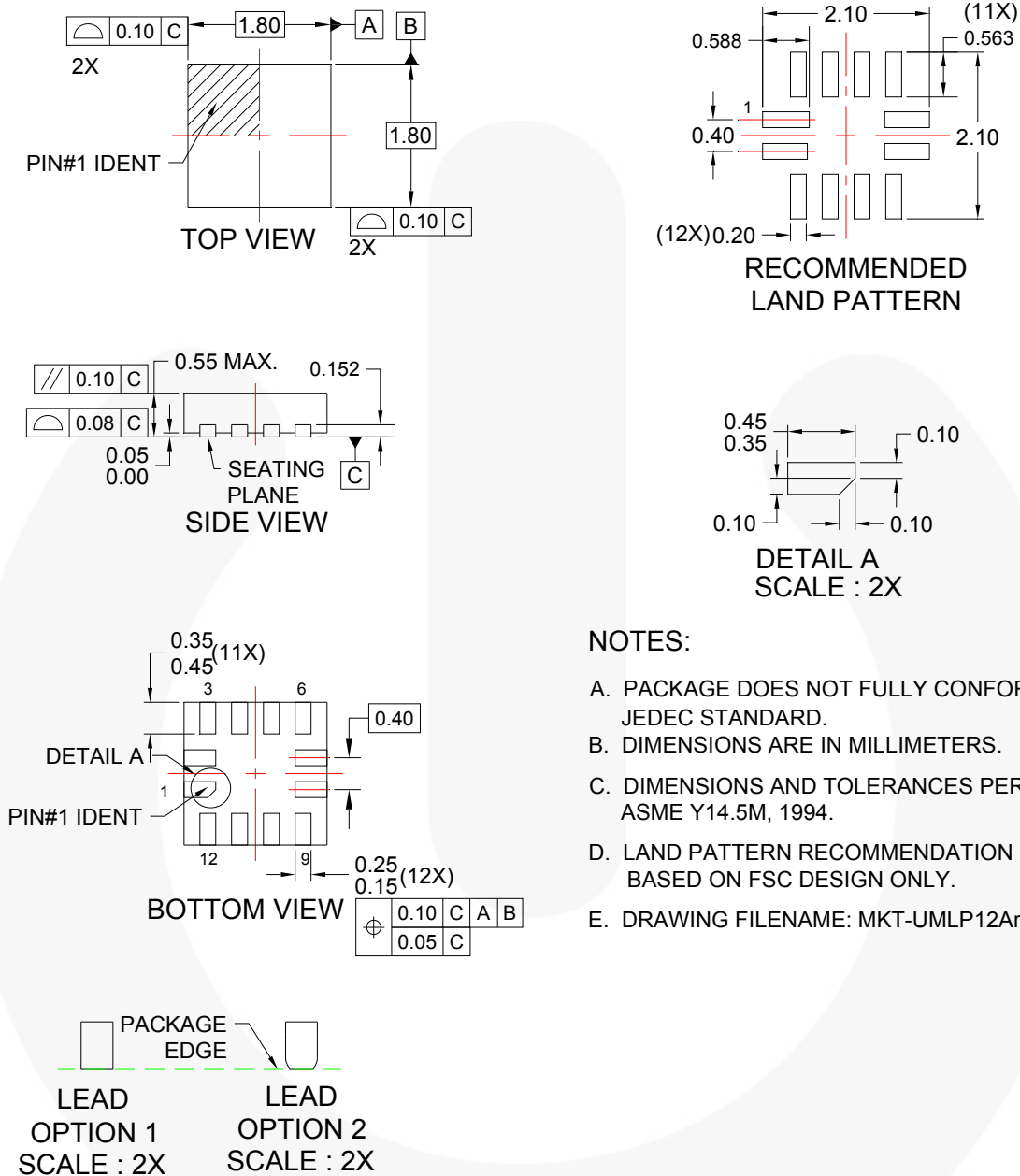


Figure 20. 12-Lead, Ultrathin Molded Leadless Package (UMLP)

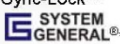
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