FAIRCHILD SEMICONDUCTOR®

LIMITED DATASHEET

Email Analog.Switch@fairchildsemi.com to request the full datasheet.

December 2013

FSA9285 — MCPC-Compliant, USB-Port, Multimedia Switch with Auto-Detection

Features

Switch Type	Audio, FS/HS-USB, Charging
Switch Mechanism	Programmable Switching with Available Interrupt
Accessory Detection	Headsets with MIC and Send/End USB Data Cable USB Chargers (Car, CDP, DCP) USB On-The-Go (OTG) MCPC Specification Compliant Programmable Modes
USB	FS and HS 2.0 Compliant
USB Charging	Battery Charging 1.2 Compliant Integrated FET, Charger Detect, OCP (1.45 A), OVP (6.5 V - 28.0 V)
Audio	Left, Right, MIC (Negative Swing) Built-in Termination Resistors for Audio Pop Reduction
V_{BAT}	2.7 to 4.4 V
Programmability	I^2C
ESD	15 kV IEC 61000-4-2 Air Gap
Package	20-Lead, WLCSP (2.010 x 1.672 x 0.625 mm, 0.4 mm Pitch)
Ordering Information	FSA9285UCX

Description

The FSA9285 is a high-performance multimedia switch featuring automatic switching and accessory detection for a USB port. The FSA9285 allows sharing of a common USB port to pass audio and USB data while simultaneously charging.

In addition, the FSA9285 integrates detection of accessories such as headphones, headsets Mobile Computing Promotion Consortium (MCPC) with MIC and Send/End, car chargers, USB chargers, USB On-The-Go (OTG), and Accessory Charging Adapters (ACA) to use a common USB connector. The FSA9285 can be programmed for manual or automatic switching of USB data paths based on the accessory detected. With an integrated 28 V over-voltage and 1.45 A over-current protected FET, the FSA9285 integrates common USB protection functions for V_{BUS}.

Applications

- Mobile Phones, Portable Media Players

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

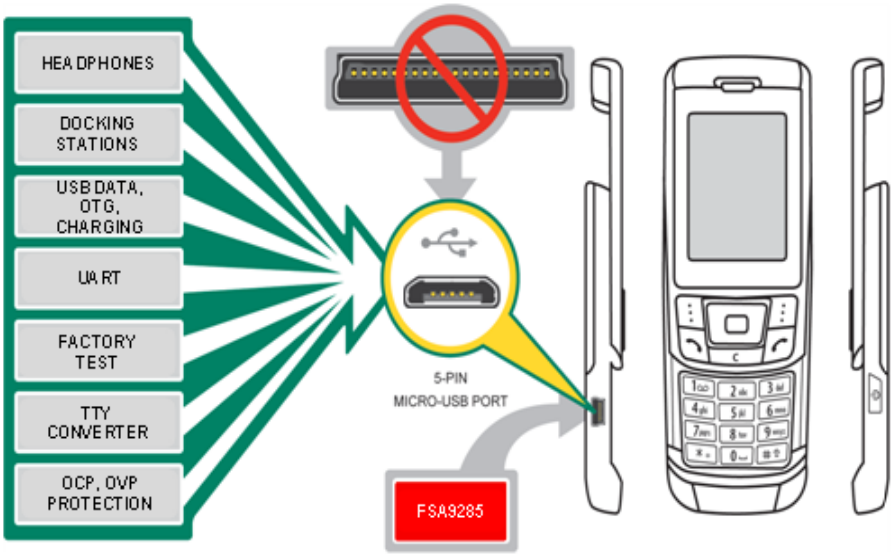


Figure 1. Typical Application

Block Diagram

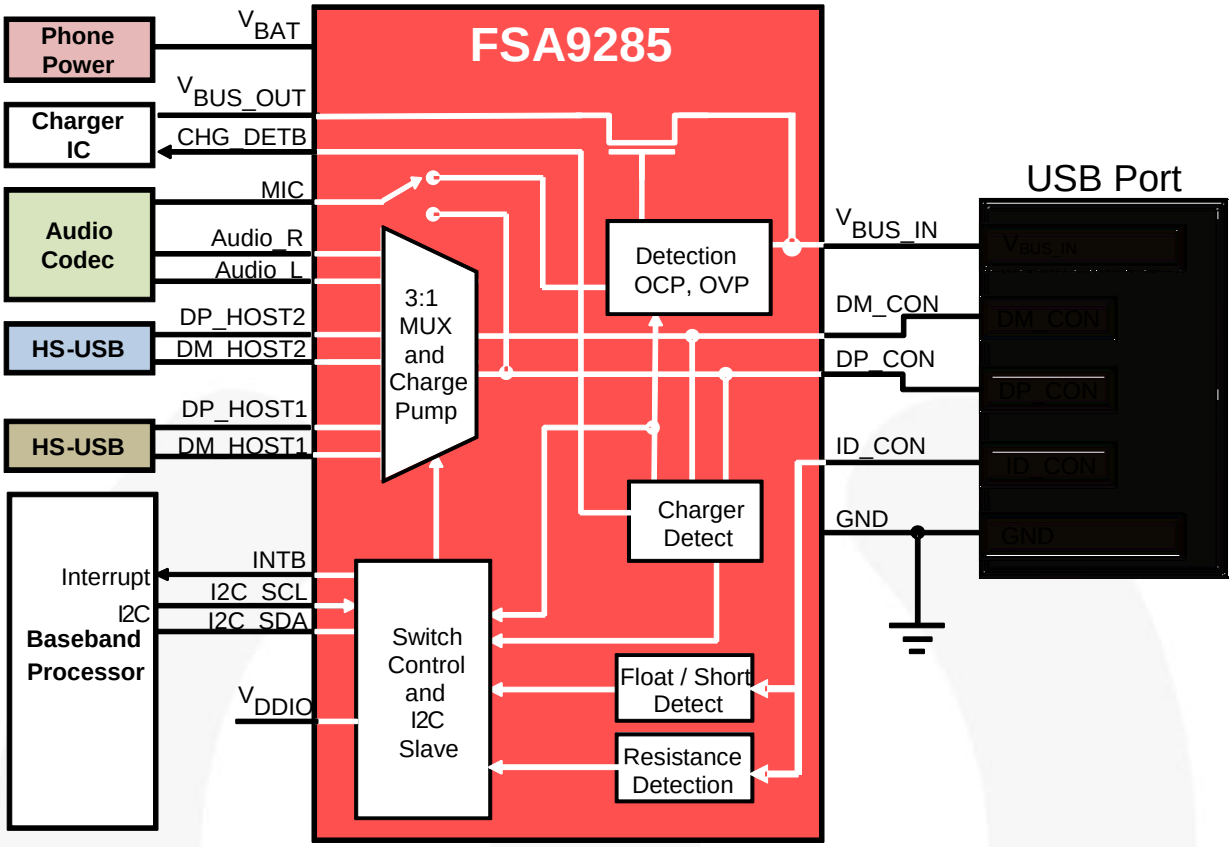


Figure 2. Block Diagram

Pin Configuration

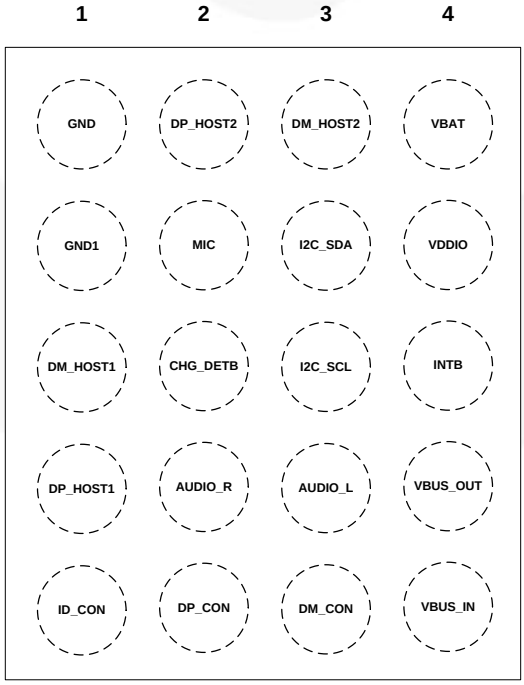
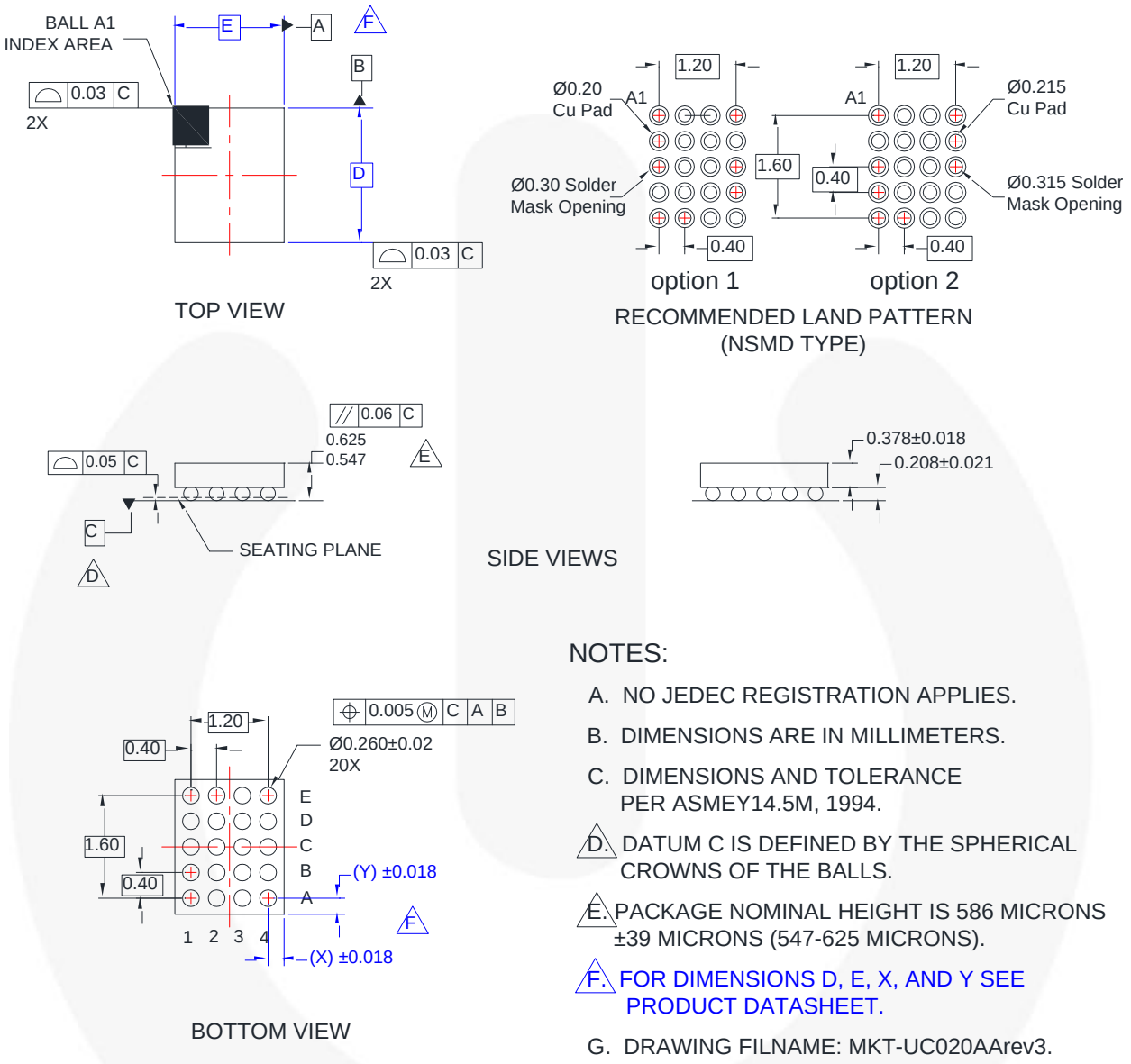


Figure 3. Pin Assignments (Top-Through View)

Physical Dimensions



NOTES:

A. NO JEDEC REGISTRATION APPLIES.

B. DIMENSIONS ARE IN MILLIMETERS.

C. DIMENSIONS AND TOLERANCE PER ASMEY14.5M, 1994.

D. DATUM C IS DEFINED BY THE SPHERICAL CROWNS OF THE BALLS.

E. PACKAGE NOMINAL HEIGHT IS 586 MICRONS ±39 MICRONS (547-625 MICRONS).

F. FOR DIMENSIONS D, E, X, AND Y SEE PRODUCT DATASHEET.

G. DRAWING FILNAME: MKT-UC020AArev3.

Figure 14. 20-Lead, Wafer-Level Chip-Scale Package (WLCSP)

Product-Specific Dimensions

Product	D	E	X	Y
FSA9285UCX	2.010 mm	1.672 mm	0.236 mm	0.205 mm

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http://www.fairchildsemi.com/dwg/UC/UC020AA.pdf.

Part Number	Operating Temperature Range	Top Mark	Package
FSA9285UCX	-40 to +85°C	NX	20-Lead, WLCSP (2.010 x 1.672 x 0.625 mm, 0.4 mm Pitch)

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