



FSA9285A — MCPC-Compliant, USB-Port, Multimedia Switch with Auto-Detection, 12 V V_{BUS}

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 - 14.0 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 ² C
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	FSA9285AUCX

Description

The FSA9285A is a high-performance multimedia switch featuring automatic switching and accessory detection for a USB port. The FSA9285A allows sharing of a common USB port to pass audio and USB data while simultaneously charging.

In addition, the FSA9285A 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 FSA9285A can be programmed for manual or automatic switching of USB data paths based on the accessory detected. With an integrated 14 V over-voltage and 1.45 A over-current protected FET, the FSA9285A integrates common USB protection functions for V_{BUS}.

Applications

- Mobile Phones, Portable Media Players

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

22. Physical Dimensions

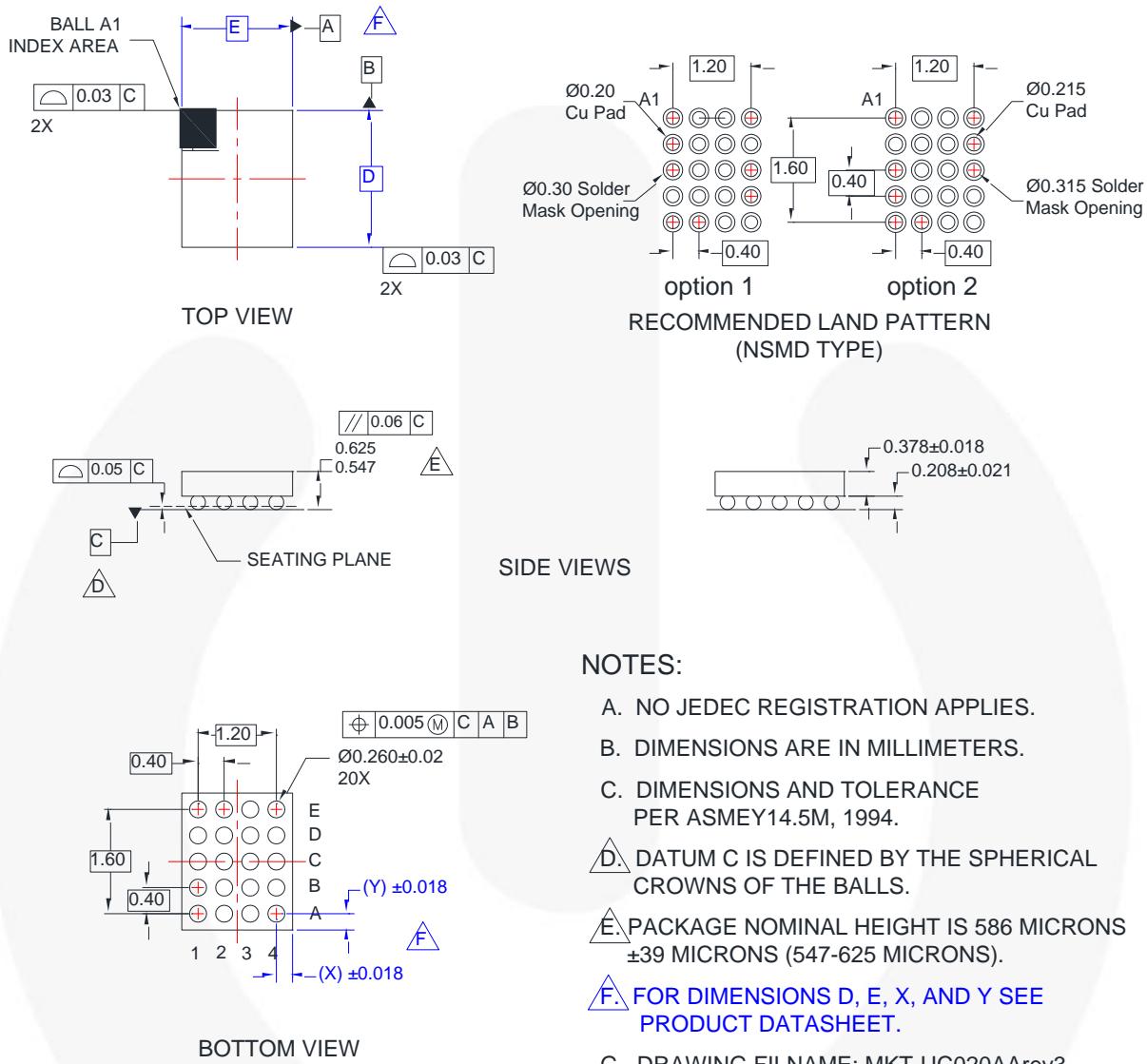


Figure 14. 20-Lead, Wafer-Level Chip-Scale Package (WLCSP)

Product-Specific Dimensions

Product	D	E	X	Y
FSA9285AUCX	2.010 mm	1.672 mm	0.236 mm	0.205 mm

Package drawings are provided as a service to customers considering Fairchild components. Drawings may change in any manner without notice. Please note the revision and/or date on the drawing and contact a Fairchild Semiconductor representative to verify or obtain the most recent revision. Package specifications do not expand the terms of Fairchild's worldwide terms and conditions, specifically the warranty therein, which covers Fairchild products.

Always visit Fairchild Semiconductor's online packaging area for the most recent package drawings: <http://www.fairchildsemi.com/dwg/UC/UC020AA.pdf>.

Part Number	Operating Temperature Range	Top Mark	Package
FSA9285AUCX	-40 to +85°C	NQ	20-Lead, WLCSP (2.010 x 1.672 x 0.625 mm, 0.4 mm Pitch)



TRADEMARKS

The following includes registered and unregistered trademarks and service marks, owned by Fairchild Semiconductor and/or its global subsidiaries, and is not intended to be an exhaustive list of all such trademarks.

AccuPower™	F-PFST™	Sync-Lock™
AX-CAP®*	FRFET®	SYSTEM GENERAL®
BitSIC™	Global Power Resource™	TinyBoost®
Build it Now™	GreenBridge™	TinyBuck®
CorePLUS™	Green FPST™	TinyCalc™
CorePOWER™	Green FPST™ e-Series™	TinyLogic™
CROSSVOLT™	Gmax™	TINYOPTO™
CTL™	GTOT™	TinyPower™
Current Transfer Logic™	IntelliMAX™	TinyPWM™
DEUXPEED®	ISOPLANAR™	TinyWire™
Dual Cool™	Making Small Speakers Sound Louder and Better™	TranSiC™
EcoSPARK®	MegaBuck™	TriFault Detect™
EfficientMax™	MICROCOUPLER™	TRUECURRENT®
ESBC™	MicroFET™	µSerDes™
	MicroPak™	μ
Fairchild®	MicroPak2™	SerDes™
Fairchild Semiconductor®	MillerDrive™	UHC™
FACT Quiet Series™	MotionMax™	Ultra FRFET™
FACT®	mWSave®	UniFET™
FAST®	OptoHIT™	VCX™
FastCore™	OPTOLOGIC®	VisualMax™
FETBench™	OPTOPLANAR®	VoltagePlus™
FPST™		XS™

* Trademarks of System General Corporation, used under license by Fairchild Semiconductor.

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION, OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support, device, or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

ANTI-COUNTERFEITING POLICY

Fairchild Semiconductor Corporation's Anti-Counterfeiting Policy. Fairchild's Anti-Counterfeiting Policy is also stated on our external website, www.fairchildsemi.com, under Sales Support.

Counterfeiting of semiconductor parts is a growing problem in the industry. All manufacturers of semiconductor products are experiencing counterfeiting of their parts. Customers who inadvertently purchase counterfeit parts experience many problems such as loss of brand reputation, substandard performance, failed applications, and increased cost of production and manufacturing delays. Fairchild is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. Fairchild strongly encourages customers to purchase Fairchild parts either directly from Fairchild or from Authorized Fairchild Distributors who are listed by country on our web page cited above. Products customers buy either from Fairchild directly or from Authorized Fairchild Distributors are genuine parts, have full traceability, meet Fairchild's quality standards for handling and storage and provide access to Fairchild's full range of up-to-date technical and product information. Fairchild and our Authorized Distributors will stand behind all warranties and will appropriately address any warranty issues that may arise. Fairchild will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. Fairchild is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative / In Design	Datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

Rev. I66