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# FUSB301 — Product Brief

## Autonomous USB Type-C Controller with Super Speed Switch Control

### Features

- Fully Autonomous Type-C Controller
- Supports Type-C Version 1.1
- V<sub>DD</sub> Operating Range, 3.0 V- 5.5 V
- Low Power Operation: I<sub>CC</sub> = 5  $\mu$ A (Typical)
- Dual Role Port Mode with Optional Accessory Support
- Capable of Supporting Try.SNK and Try.SRC
- Super Speed Switch Control
- Dead Battery Support (Sink Mode Support when No Power Applied)
- 2 kV HBM ESD Protection
- Small Packaging, 10 Lead TMLP (1.6 mm x 1.2 mm x 0.375 mm)

### Description

The FUSB301 is a fully autonomous Type-C controller optimized for <15 W applications. The FUSB301 offers CC logic detection for Source Mode, Sink Mode, Dual Role Port Mode, accessory detection support, and dead battery support. The FUSB301 features an external switch pin (SS\_SW) to enable an external USB Super Speed Switch without interrupting the processor. The FUSB301 features ultra low power during operation, and an ultra thin, 10-Lead TMLP package.

### Applications

- Smartphones
- Tablets
- Notebooks
- Ultra Portable Applications

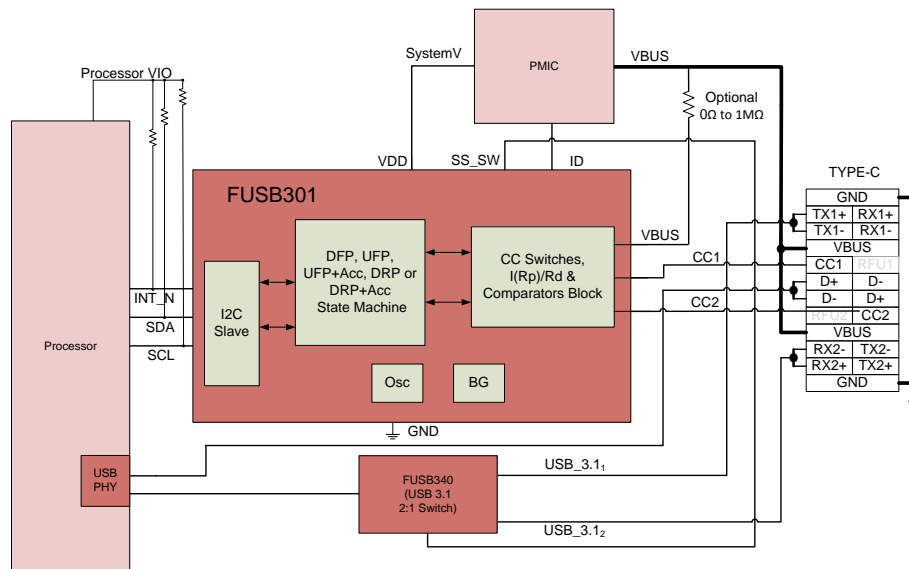


Figure 1. Typical Application

### Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
FUSB301TMX	-40 to 85°C	10-Lead Ultra-thin Molded Leadless Package (TMLP) 1.6 mm x 1.2 mm x 0.375 mm	Tape and Reel

## PRELIMINARY INFORMATION

### Pin Descriptions

Name	Type	Description
CC1, CC2	I/O	Type-C Configuration Chanel
VBUS	Input	VBUS input pin for attach and detach detection
GND	Ground	Ground
VDD	Power	Input Supply Voltage
SDA	Input	I <sup>2</sup> C serial data signal to be connected to the I <sup>2</sup> C master
SCL	Open-Drain I/O	I <sup>2</sup> C serial clock signal to be connected to the I <sup>2</sup> C master.
ID	Open Drain Output	Used to Identify if connected device is Source or Sink. The ID Pin can be used to interface with USB2.0 Input on the processor.
SS_SW	CMOS Output	External Super Speed Switch control without processor interrupt.
INT_N	Open Drain Output	Active Low open drain interrupt output used to prompt processor to read I <sup>2</sup> C register bits

PRELIMINARY INFORMATION

Physical Dimensions

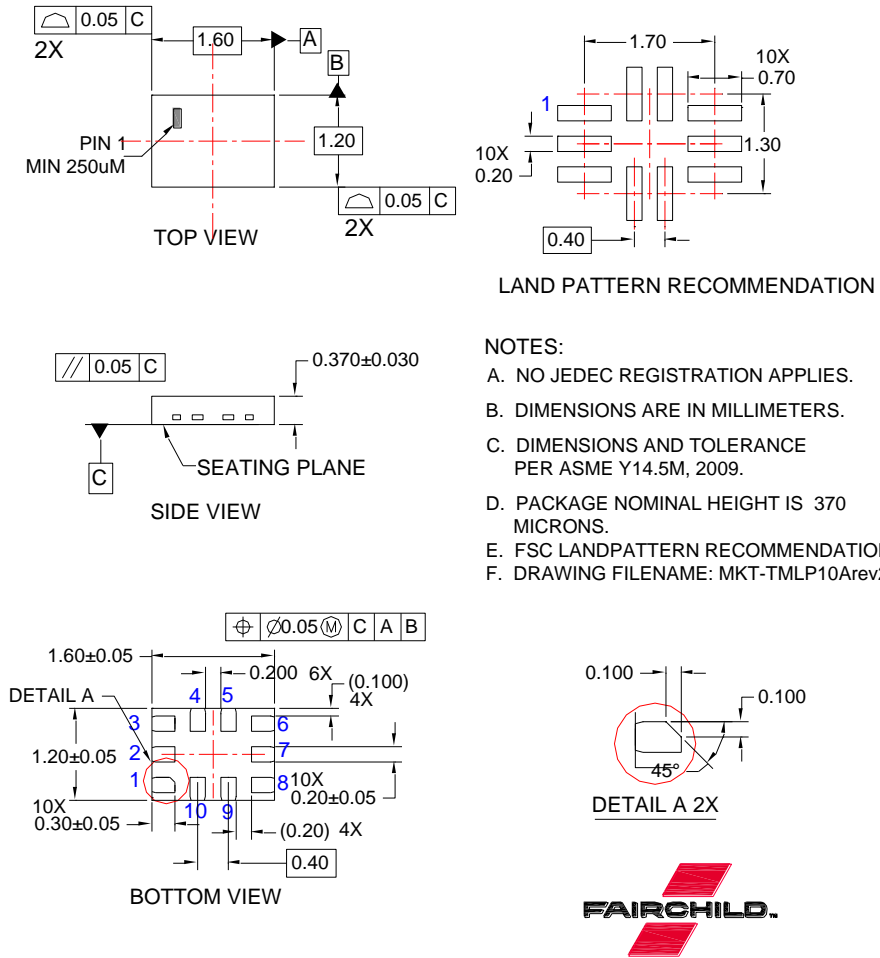


Figure 2. 10 Lead, TMLP, Quad, Ultra-Thin MLP, 1.6 mm x 1.2 mm x 0.375 mm

## PRELIMINARY INFORMATION



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