

# USB Type-C DFP Controller and Power Switch with Load Detection

## 1. General Description

The FA2200 is a USB Type-C Downstream Facing Port (DFP) controller with an integrated 3A power switch. The FA2200 monitors the CC lines to determine when an USB device is attached. If an Upstream Facing Port (UFP) device is attached, the FA2200 applies power to VBUS and communicates the selectable VBUS current sourcing capability to the UFP via the pass-through CC line. If the UFP is attached using an electronically marked cable, the FA2200 also applies VCONN power to the cable CC pin. The FA2200 also identifies when Type-C audio or debug accessories are attached.

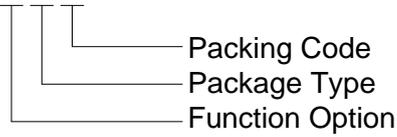
The FA2200 draws less than 1 $\mu$ A (typ.) when no device is attached. Additional system power saving is achievable in S4/S5 system power states by using the /UFP output to disable the high power 5V supply when no UFP is attached. In this mode the device is capable of running from lower 3.3V voltage supply for AUX. The FA2200 40m $\Omega$  power switch has two selectable fixed current limits that support with the Type-C current levels.

### Features

- USB Type-C Rev. 1.1 Compliant DFP Controller
- Connector Attach/Detach Detection
- STD/1.5A/3A Capability Advertisement via CC line
- Super Speed Polarity Determination
- V<sub>BUS</sub> Application and Discharge
- V<sub>CONN</sub> Application to Electronically Marked Cable
- Audio and Debug Accessory Identification
- 1 $\mu$ A (typ) I<sub>AUX</sub> When Port Unattached
- Three Input Voltage Range
  - IN1: USB Charging Supply, 4.5V~5.5V
  - IN2: V<sub>CONN</sub> Supply, 4.5V~5.5V
  - AUX: Device Power Supply, 3.0V~5.5V
- On Resistance : 40m $\Omega$  (typ)
- Programmable Current Limit Threshold
- Power Wake Supports Low Power in System Hibernate (S4) and OFF (S5) Power States
- Port Power Management Enables Power Resource Optimization Across Multi-Ports
- Package: 20-Pin QFN3x4

## Ordering Information

FA2200 □□□



### Function Option

Blank: Default Debug Accessory Mode

A: Specific Debug Accessory Mode

### Package Type

NT: QFN3x4mm<sup>2</sup>-20L

### Packing Code

R: Tape & Reel

B: Bag

## Marking Information



FA2200: Product Code

YY: Year 2017→17、2018→18

WW: Week 01~53

ZZ: Series Code