AXP323 PMIC For Multi-Core High-Performance System

1 Features

- 3 DCDCs

  DCDC1: 0.5~1.2V, 10mV/step,

  1.22~1.54V, 20mV/step,

  1.6~3.4V, 0. 1V/step,

  IMAX=3A@VIN=5V

  DCDC2: 0.5~1.2V, 10mV/step,

  1.22~1.54V, 20mV/step,

  IMAX=3A@VIN=5V

  DCDC3: 0.5~1.2V, 10mV/step,

  1.22~1.84V, 20mV/step,

  IMAX=3A@VIN=5V

  Efficiency: 82%@5V-0.9V-1A

  DCDC1/2/3: COT Buck Converter

  DCDC1/2 support dual phase, IMAX=5A

- 3 LDOs

  RTCLDO:1.8/2.5/2.8/3.3V,IMAX=30mA

  ALDO1: 0.5~3.5V, 0.1V/step, IMAX=300mA, Ipeak>600mA

  DLDO1: 0.5~3.5V, 0.1V/step, IMAX=500mA, Ipeak>900mA

- Support TWSI(Two Wire Serial Interface), slave address is 0x36 or 0x37(7 bits) by customization
- Internal temperature sensor and over temperature protection
- DCDC over/under voltage protection
- Customization for DCDC/LDO start up sequence and default voltage

2 Applications

- OTT box
- IPC

3 Description

AXP323 is a highly integrated power management IC targeting at applications that require multi-channel power conversion outputs. AXP323 can be used with other BMU together to provides battery management solutions for various portable devices. It can also be used in low-power battery-free solutions such as IPC and smart speakers, fully meeting the requirements of application processor systems for relatively complex and precise power control.

AXP323 supports 6 channel power outputs (including 3 channel DCDCs and 3 channel LDOs). DCDC1 and DCDC2 support dual phase for heavy current application. To ensure the security and stability of the power system, AXP323 integrates protection circuits such as over-voltage protection (OVP), under-voltage protection (UVP), over-current protection (OCP) and over temperature protection (OTP). Moreover, AXP323 features power management functions such as power on/off, sleep and wakeup, which reflects the management value of chip integration.

AXP323 supports TWSI for system to dynamically adjust output voltages, enable power outputs and configure interrupt condition.

Device Information

Part Number	Package	Body Size
AXP323	QFN-20	3mm * 3mm

Simplified Application Diagram