

X-Powers AXP806

PMIC for multi-core high-performance system

Bucks LDOs and Switches



Revision 1.0

Overview

AXP806 is a highly integrated PMIC targeting at 5V applications that requires multi-channel Regulator outputs. It provides up to 7.5A current output through tri-phase Buck, and can make the battery powered total solution together with the battery manage unit.

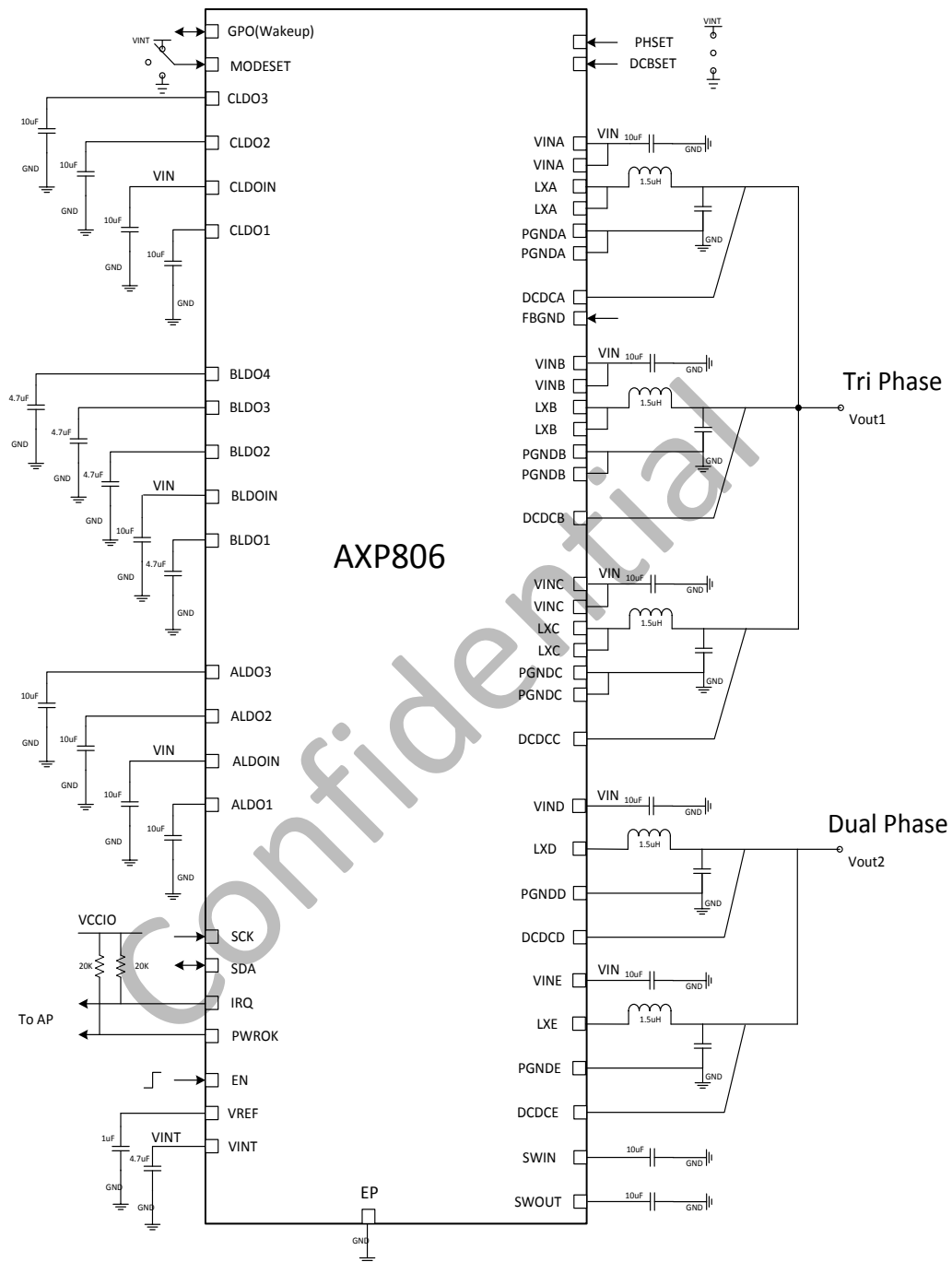
AXP806 supports 15 channels power outputs (including 5-CH Buck Bucks, 10-CH LDOs). To ensure the security and stability of the power system, AXP806 provides protection circuits such as OVP, UVP, OTP, and OCP. In addition, AXP806 embraces a fast interface for the system to dynamically adjust output voltage.

AXP806 is available in 7mm x 7mm 56-pin QFN package.

Features

LDO	<ul style="list-style-type: none">ALDO1: 0.7~3.3V, 100mV/step, 27steps, 300mA, ALDOIN Input;ALDO2: 0.7~3.3V, 100mV/step, 27steps;300mA, ALDOIN Input;ALDO3: 0.7~3.3V, 100mV/step, 27steps, 300mA, ALDOIN Input;BLDO1: 0.7~1.9V, 100mV/step, 13steps, 400mA, BLDOIN Input;BLDO2: 0.7~1.9V, 100mV/step, 13steps, 300mA, BLDOIN Input;BLDO3: 0.7~1.9V, 100mV/step, 13steps, 200mA, BLDOIN Input;BLDO4: 0.7~1.9V, 100mV/step, 13steps, 200mA, BLDOIN Input;CLDO1: 0.7~3.3V, 100mV/step, 27steps, 400mA, CLDOIN Input;CLDO2: 0.7~3.4V, 100mV/step, 28steps, 3.6~4.2V, 200mV/step, 4steps, 300mA, CLDOIN Input;CLDO3: 0.7~3.3V, 100mV/step, 27steps, 200mA, CLDOIN Input;
Switches	<ul style="list-style-type: none">SWOUT: Rds(on) 90mΩ, input from SWIN
5 DCDCs	<ul style="list-style-type: none">DCDCA: 0.6~1.1V, 10mV/step, 51steps; 1.12~1.52V, 20mV/step, 21steps;2.5ADCDCB: 1.0~2.55V, 50mV/step, 32steps, 2.5ADCDCC: 0.6~1.1V, 10mV/step, 51steps; 1.12~1.52V, 20mV/step, 21steps;2.5ADCDCD: 0.6~1.5V, 20mV/step, 46steps; 1.6~3.3V, 100mV/step, 18steps;1.5ADCDCE: 1.1~3.4V, 100mV/step, 24steps, 1.5APoly-Phase:<ul style="list-style-type: none">- DCDC A&B: Dual-phase, 5A;- DCDC A&B&C: Tri-phase, 7.5A;- DCDC D&E: Dual-phase, 3A;
Interface	<ul style="list-style-type: none">High speed RSB(Reduced Serial Bus)Flexible IRQ management
Management	<ul style="list-style-type: none">External power enableProtection (OVP/UVP/OCP/OTP)
Integration	<ul style="list-style-type: none">Internal high precision reference 0.5%Integrated regulator MOSFET

Typical Application



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