



## FEATURES AND BENEFITS:

- Six buck regulators
  - Two buck regulators (1 MHz) act as buck controllers to drive external MOSFETs for higher power applications
  - Four internal MOSFET buck regulators (2 MHz)
- Dual inputs (3.3 V, 5 V, 12 V)
- 25 W nominal output power
- Integrated 35 V-compliant power backup system for mission critical data center applications
- Integrated PFI (Power Failure Indicator) buck-boost regulator to support back up systems with 4.5 V to 35.5 V
- Faults: input OVP, output OVP, OCP, UV, Soft-start, Soft-stop, Over temperature protection
- Programmable power-loss detection threshold
- I<sup>2</sup>C/SMBUS compatible interface
- 7 mm x 7 mm 56-TQFN package

IDT's P8300 multi-channel power management IC (PMIC) is optimized for enterprise solid state drives (eSSD) and designed to speed time to market and revenue. This device is a flexible, highly programmable PMIC ideal for a broad set of data center, enterprise and high-performance computing applications.

The P8300 can shorten time to market by enabling the reuse of power management subsystems across multiple protocols—SAS, SATA and PCIe®—and form factors. Its unique IP delivers an effective power backup system that's been proven in the field, as well as stability proven in SSD products.

## Output Regulator Channels Summary

Channel	Output Voltage Range (V)	Output Current with Internal FETs	Efficiency @ 100% Load	Efficiency @ 50% Load	Efficiency @ Light Load	Configurable By
CH1	2.7 to 3.6	2.9 V @ 3.5 A	81%	88%	77% @ 10 mA	Internal OTP and Register
CH2	0.7 to 1.5	1.35 V @ 2 A	77%	89%	81% @ 10 mA	Resistor Divider
CH3	1.2 to 3.6	1.8 V @ 1 A	84%	92%	78% @ 10 mA	Resistor Divider
CH4	1.2 to 1.8	1.5 V @ 1 A	82%	90%	74% @ 10 mA	Resistor Divider
CH5	1.3 to 2.0	1.8 V @ 1 A	84%	92%	77% @ 10 mA	Internal OTP and Register
CH6	1.5 to 3.3	2.1 V @ 0.5 A	93%	96%	79% @ 10 mA	Resistor Divider

To request samples, download documentation or learn more visit: [idt.com/P8300](http://idt.com/P8300)

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