

## A8307: Single Wire Multiswitch (SWM) Regulator

The A8307 single wire multiswitch regulator (SWMR) is a monolithic linear and switching voltage regulator, specifically designed to provide power to single wire multiswitches in satellite TV systems via coaxial cable. The A8307 requires few external components, with the boost switch and compensation circuitry integrated inside of the device.

The integrated boost switch has been optimized to minimize both switching and static losses. To further enhance efficiency and thermal performance, the voltage drop across the tracking regulator is minimized.

A comprehensive set of fault registers are provided, which comply with all the common standards, including: overcurrent, thermal shutdown, undervoltage, and power not good. Furthermore, design methodology and structure ensure the highest level of robustness against transients and component failures. The device uses a 2-wire bidirectional serial interface, compatible with the I<sup>2</sup>C™ standard, that operates up to 400 kHz.

The A8307 is provided in a 4 × 4 mm QFN package with exposed pad for enhanced thermal dissipation. It is lead (Pb) free, with 100% matte tin leadframe plating.

### DATASHEETS

Contact [Allegro Marketing](#) for datasheet

### SAMPLE & BUY

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If this is not your local representative, [find your local sales rep here](#).

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#### FEATURES & BENEFITS

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- Meets single wire multiswitch power requirements
- Integrated boost MOSFET, current sensing, and compensation
- Adjustable output current limit (0.5 to 1 A) with shutdown delay timer
- Boost pulse by pulse current limit scales with output current limit
- 4-output voltage settings to accommodate possible external voltage drops
- Tracking boost converter minimizes power dissipation
- Output slew rate control using external soft start pin
- Low output reverse current, even including during shutdown
- High voltage ratings to support "surge-to-failure" requirements
- 2-wire I<sup>2</sup>C-compatible interface
- Diagnostic and protection features: UVLO, OCP, TSD, PNG and CPOK

### Product Image



Click the image to view larger



### Part Number Specifications and Availability

Part Number	Package Type	Temperature	RoHS Compliant	Part Composition / RoHS Data	Comments	Samples	Check Distributor Stock
A8307SESTR-T	20-lead QFN	-20°C to 85°C	Yes	<a href="#">View Data</a>		<a href="#">Contact your local sales rep</a>	<a href="#">Check Stock</a>
APEK8307SES-01-MH	DEMO BOARD	-20°C to 85°C	No	--		<a href="#">Contact your local sales rep</a>	<a href="#">Check Stock</a>

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