



## A8304: Single LNB Supply and Control Voltage Regulator

The A8304 is a single channel low noise block regulator (LNB). The A8304 consists of a monolithic boost converter followed by a low-drop linear regulator. It is specifically designed to provide the power and the interface signals to an LNB down converter via coaxial cable in satellite TV receiver systems.

The A8304 requires few external components, with the boost switch and compensation circuitry integrated inside of the device. The 704 kHz switching frequency and user-controlled output current limit minimize the size of the passive filtering components.

The I<sup>2</sup>C™-compatible interface provides control capabilities for complex system requirements, as well as diagnostic capabilities for system fault reporting.

A sleep pin is available to maximize power savings and to quickly shut down the device if needed, without using I<sup>2</sup>C™ control.

The A8304 is provided in a small 3 × 3 mm QFN package with exposed pad for thermal dissipation. It is lead (Pb) free, with 100% matte tin leadframe plating.

### DATASHEETS

Contact [Allegro Marketing](#) for datasheet

### SAMPLE & BUY

Contact [Your Local Sales Rep](#)

#### FEATURES & BENEFITS

#### PACKAGING

#### TECHNICAL DOCS

#### NEWS

Integrated boost MOSFET, current sensing, and compensation  
 704 kHz switching frequency for small low-cost components  
 SLEEP pin for ultra-low power consumption mode  
 Adjustable LNB output current limit (250 to 950 mA\*) limit with shutdown timer  
 Covers wide array of application requirements  
 Minimizes component sizing to fit each application  
 For startup, reconfiguration, and continuous output  
 Boost peak current limit scales with LNB current limit  
 Optional temporary increased current limit (+25%)  
 Compatible with DiSEqC1.x control2-wire I<sup>2</sup>C™-compatible interface for control and status  
 Programmable LNB output voltage levels (2% accuracy)  
 Enable/disable output  
 Flexible 22 kHz tone generation methods  
 SINK\_DIS bit for controlling the push-pull output sink current threshold  
 Diagnostic features: PNG  
 Extensive protection features: UVLO, OCP, TSD  
 \*maximum value depends on PCB thermal design

### Product Image



### Part Number Specifications and Availability

| Part Number       | Package Type | Temperature   | RoHS Compliant | Part Composition / RoHS Data | Comments | Samples                                      | Check Distributor Stock     |
|-------------------|--------------|---------------|----------------|------------------------------|----------|----------------------------------------------|-----------------------------|
| A8304SESTR-T      | 16-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> |
| APEK8304SES-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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