



L9310 Line Interface and Line Access Circuit Full-Feature SLIC, Ringing Relay, and Test Access Device

Introduction

The L9310 is a combination full-feature, ultralow-power SLIC, solid-state ringing access relay, and line test matrix. It is part of a pin-for-pin compatible family of devices designed to serve a wide variety of applications. The L9310 is optimized for European Access applications and North American access where per-line testing and TA-909 longitudinal balance are required.

Features

SLIC

- 5 V and battery operation
- Optional automatic battery switch
- 15 operational and test modes
- Appropriate for 46 dB longitudinal balance applications
- Minimal external components required at all interfaces
- Ultralow power dissipation
- Software/hardware adjustable dc parameters and supervision thresholds
- Meter pulse compatible
- Ground start/ground key compatible

Solid-State Ring Relay

- Low impulse noise
- Current-limited switches/thermal protection

Line Test Matrix

- Single-ended or differential measurements
- Current or voltage sense
- ac or dc measurements
- Dedicated analog input and output

Applications

- Pair Gain
- Digital Loop Carrier (DLC)
- Central Office (CO)
- Fiber-in-the-Loop (FITL)

Description

The L9310 electronic line interface and line access circuit (LILAC) provides all the functions that are necessary to interface a codec to the tip and ring of a subscriber loop, integrating the battery feed and ringing access relay and line test access in one low-power, low-cost package.

The L9310 requires a 5 V and battery supply to operate. Included is an automatic battery switch. The battery feed offers forward and reverse battery, on-hook transmission, ground start, ground key, and meter pulse operational modes. It also has a low-power scan and a disconnect mode.

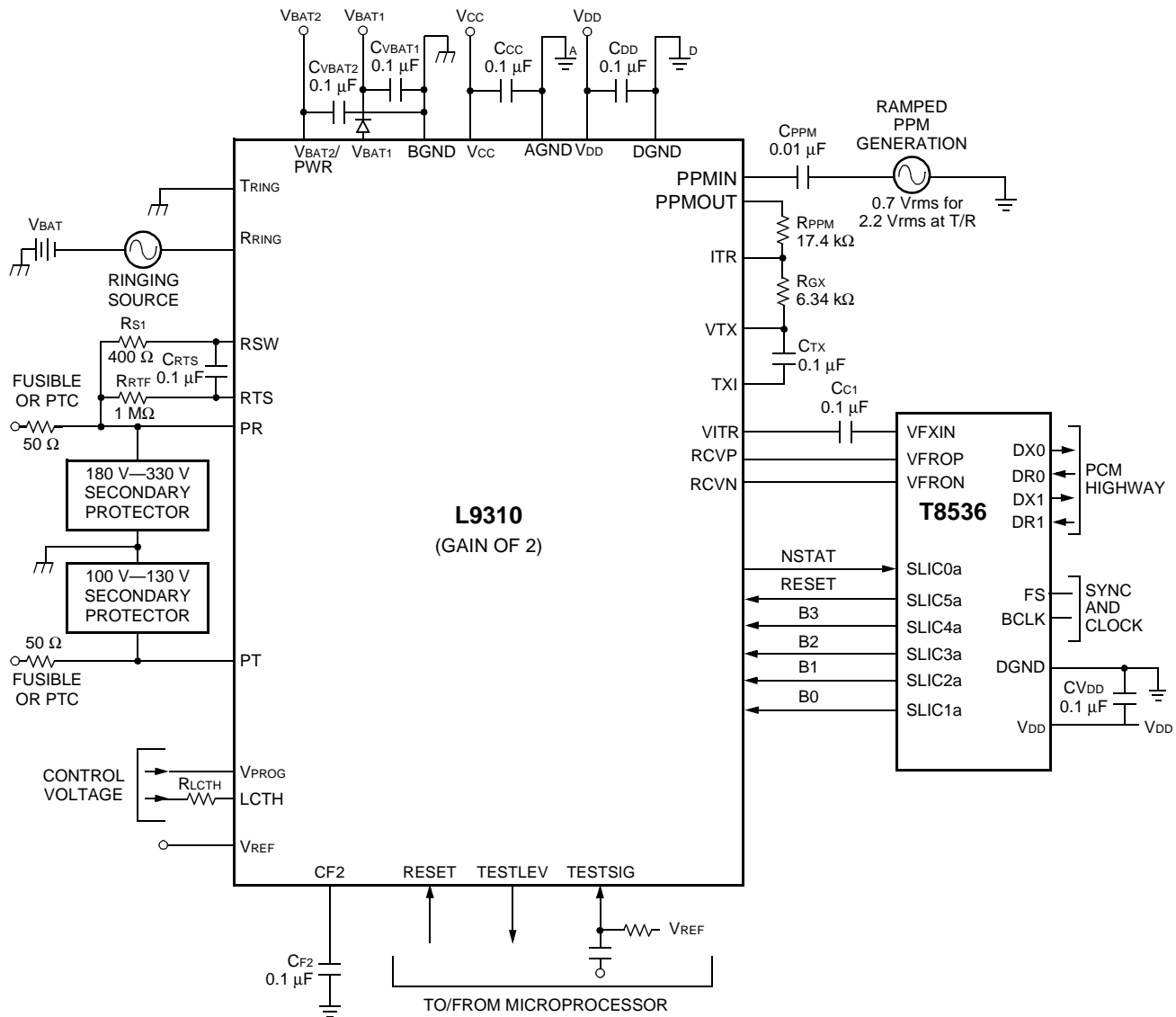
In all operating states, this IC is designed for minimal power dissipation. This device is designed to minimize the number of external components required at all interfaces.

The dc template, current limit, and overhead voltage and loop supervision threshold are programmable via an applied voltage source. The voltage source may be an external programmable voltage source or derived from the V_{REF} SLIC output.

The integrated solid-state switch offers power ringing access. Impulse noise is minimized, thus eliminating the need for external zero-cross switching circuitry.

The L9310 provides line test capability. The differential or single-ended ac and dc line voltage or current may be measured by the L9310.

Application



12-3527K(F)

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