Product Brief
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microelectronics group

Lucent Technologies
Bell Labs Innovations

L9219A/G Low-Cost Line Interface with Reverse Battery and Dual Current Limit

Features

- Basic forward/reverse battery SLIC functionality at a low cost
- Pin compatible with Lucent L9217 and L9218 SLICs
- Low active power (typical 135 mW during on-hook transmission)
- Low-power scan mode for low-power on-hook power dissipation (55 mW typical)
- Distortion-free on-hook transmission
- Convenient operating states:
  — Forward active-low current limit
  — Forward active-high current limit
  — Reverse active-low current limit
  — Reverse active-high current limit
  — Low-power scan
  — Disconnect (high impedance)
- Minimal external components required
- Two gain options to optimize codec interface
- Adjustable supervision functions:
  — Off-hook detector with hysteresis
  — Ring trip detector
- Logic controlled high and low current limit
- Ramped rate of battery reversal
- Thermal protection with thermal shutdown indication

Description

This general-purpose electronic subscriber loop interface circuit (SLIC) is optimized for low cost, while still providing a satisfactory set of features. This part is a pin-for-pin replacement for the Lucent Technologies L9217 and L9218 SLICs.

The L9219 requires a 5 V power supply and single battery to operate. This device offers forward and reverse battery operation. The rate of battery reversal may be ramped to meet international requirements. Additionally, a low-power scan mode, wherein all circuitry except the off-hook supervision is shut down to conserve power, is available.

The dc current limit may be programmed via a single external resistor. Via the logic table, the current limit may be increased a nominal 42% above the value set by the I_{PROG} resistor, giving the user a high-low current limit option.

Device overhead is fixed and is adequate for 3.14 dBm into 900 Ω of on-hook transmission.

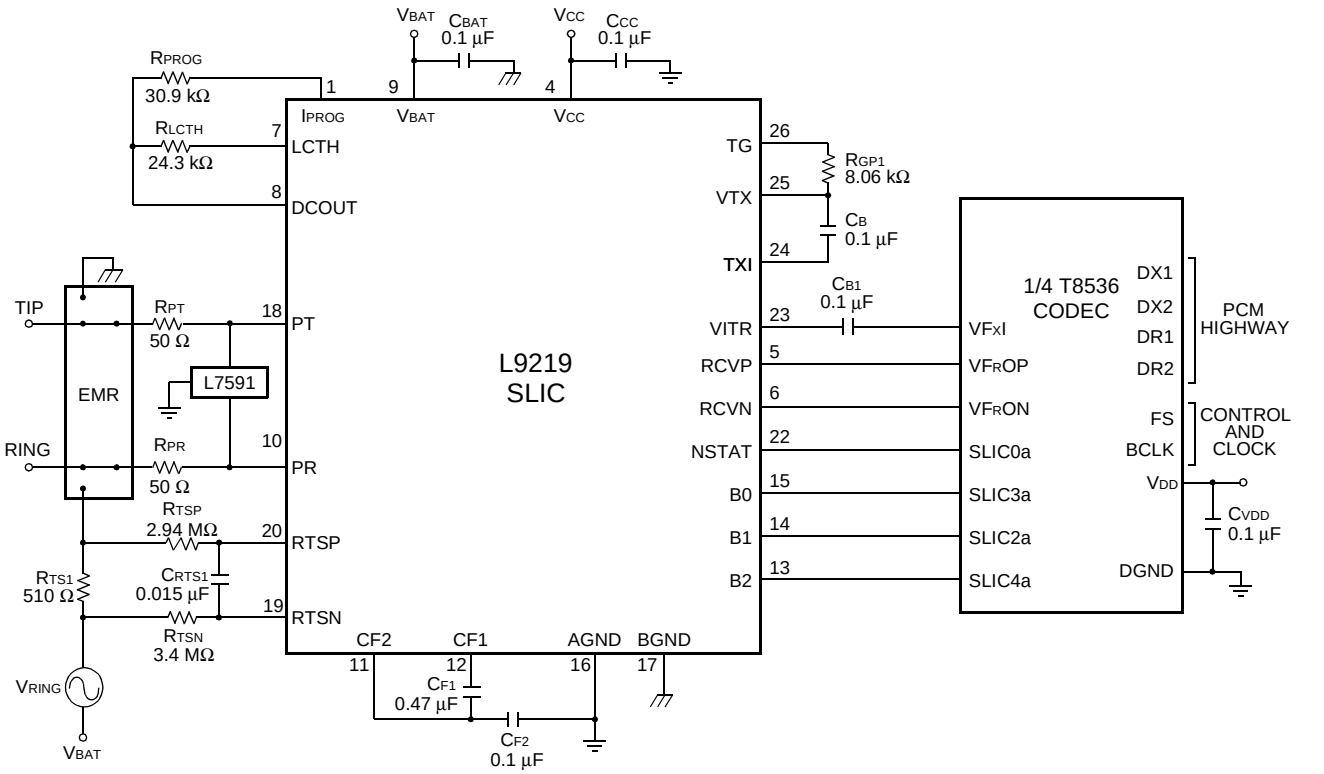
Both the loop supervision and ring trip supervision functions are offered with user-controlled thresholds via external resistors.

The L9219 is offered with a receive gain that is optimized for interface to a first-generation type codec (L9219A). It is also offered with a gain option that is optimized for interface to a third- or fourth-generation type codec (L9219G); in both cases, minimizing external components required at this interface.

Data control is via a parallel data control scheme.

The device is available in a 28-pin PLCC package. It is built by using a 90 V complementary bipolar (CBIC) process.

Application



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