![Microsemi logo] a **Microchip** company

LE79271

Next Generation Carrier Chipset (NGCC) Subscriber Line Interface Circuit (SLIC)

The Le79271 Next Generation Subscriber Line Interface Circuit (SLIC) device, in combination with an Le79238 SLAC device, implements a DSL friendly, high density universal telephone line interface. This enables the design of a low cost, high performance, fully software programmable line interface with worldwide applicability. All AC, DC, and signaling parameters are programmable. Additionally, the NGCC has integrated self-test and line-test capabilities to resolve faults to the line or line circuit.

Detailed Block Diagram
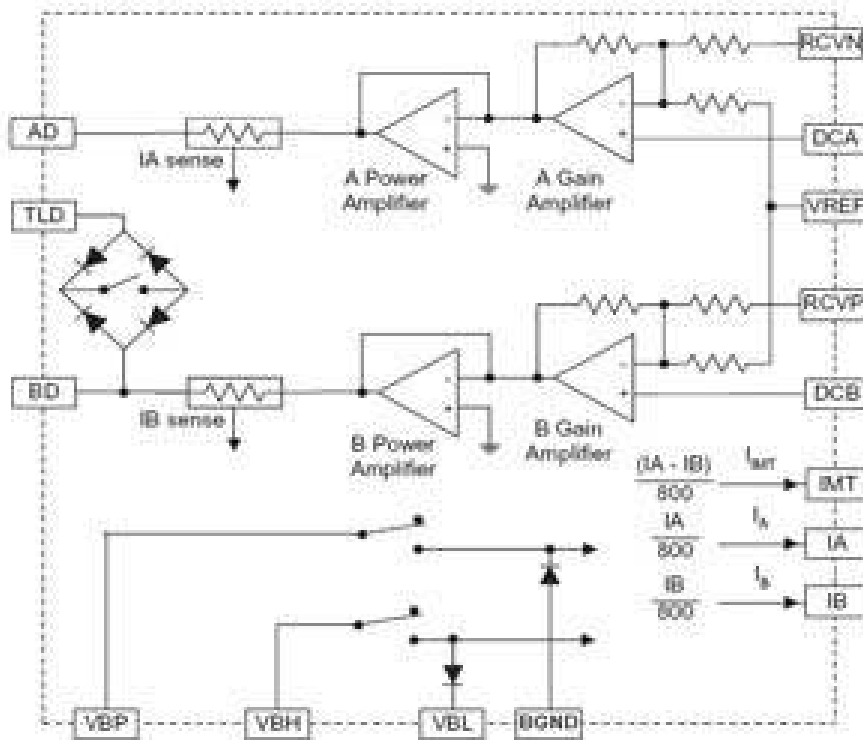
Features & Benefits

- Designed to minimize POTS transients, optimizing CRC performance for triple play applications

- Best-in-class GR-844 equivalent testing

  - Fully validated test primitives and host routines

  - Guaranteed performance parameters

- Optimized for best-in-class density

- Monitor of two-wire interface voltages and currents supports:

  - Voice transmission

  - Internal ringing generation

  - Programmable DC feed characteristic

    - Current limited and independent of battery

  - Selectable off-hook and ground-key thresholds

  - Subscriber line diagnostics

    - Leakage and loop resistance

    - Line capacitance and bell capacitance

    - Foreign voltage sensing

  - Power cross and fault detection

- Supports 85 Vrms internal ringing

  - Supports balanced and unbalanced ringing

- 3.3 V and battery supplies

  - Supports two negative and one positive battery

- Dual battery operation for system power saving

  - Automatic battery switching

  - Intelligent thermal management

- Compatible with inexpensive protection networks

- Metering capable

  - 12 kHz and 16 kHz

  - Smooth polarity reversal

- Tip-open mode supports ground start signaling

- Integrated test load switch

- 5 REN with DC offset

- Features with Le79124 VCP
  - o 72 channel call aggregation
  - o GR-844 equivalent line testing