

Description

The ISL5587 Dual Ringing SLIC is a High Voltage Line Interface Device for providing POTS over Broadband applications. Two ISL5587 Dual Ringing SLICs are used together with the TP2450 Quad Programmable Codec from Texas Instruments, and a single ISL6401 Ringing SLIC power supply controller device from Intersil, to provide a complete 4 channel, ultra low power, low component count, high density chipset solution for the global access market.

Operating from a 3.3V supply, the complete solution from Intersil and Texas Instruments achieves significantly lower power than existing solutions, enabling true lifeline POTS support using network provided power or local battery back-up solutions. State of the art high leadcount power packaging allows simultaneous ringing on both SLIC channels without the need for special cadencing restrictions. With polarity reversal and Tip Open Ground Start signaling, the combined chipset is compatible with analog PBX trunks and Voice and Data Router FXS interfaces worldwide. Software control of the subscriber loop voltage waveforms via the TP2450 Codec, allows the line circuit to handle both Type 1 and Type 2 Caller ID signaling protocols.

The flexibility of the ISL5587 coupled with the software programming capability of the TP2450, allow user-defined testing of the POTS connection beyond the network interface point, enabling significant improvements in lifeline service availability. Coupled with approved protection configurations, the complete solution can meet the surge protection requirements of internal and external applications.

Key Features

- 2 channel Ringing SLIC in 44 lead PLCC and 56 lead MLFP
- Ultra low standby power (25mW/ch)
- 3.3V supply voltage operation
- Software controlled switching between loop feed and ringing batteries
- Simultaneous ringing on both channels
- Balanced or unbalanced ringing with zero crossing operation
- Software programmable loop DC feeding, thresholds and AC characteristics via TP2450
- Through SLIC test of the subscriber loop
- 2 wire analog loop back testing
- Tip open, ground start for PBX trunks
- Soft and hard polarity reversal
- Type 1 and 2 Caller ID support
- No power supply sequencing required

Applications

- 4 channel solution for voice and data systems
- Cable Set Top Boxes and Media Terminal Adapters
- Voice Over Internet Protocol (VoIP), and DSL (VoDSL)

Single Channel Block Diagram

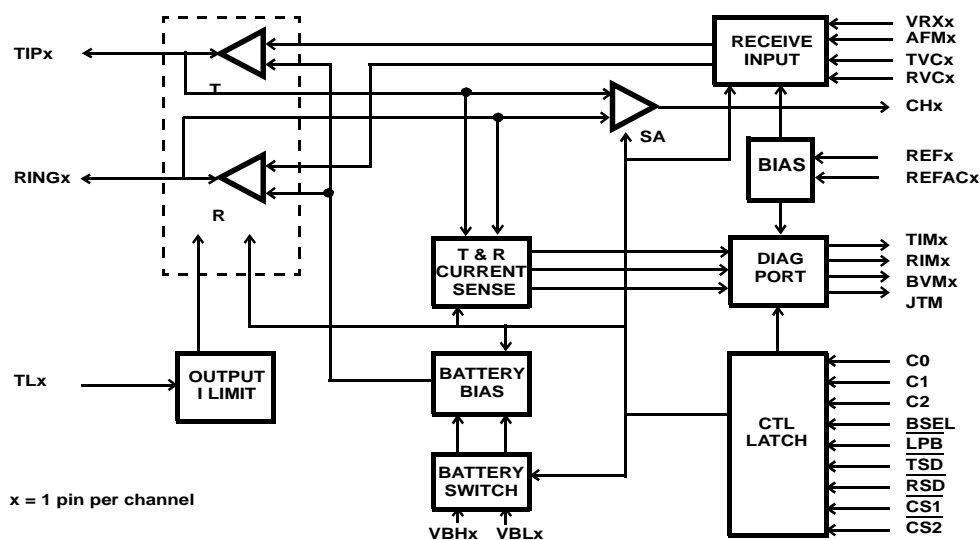
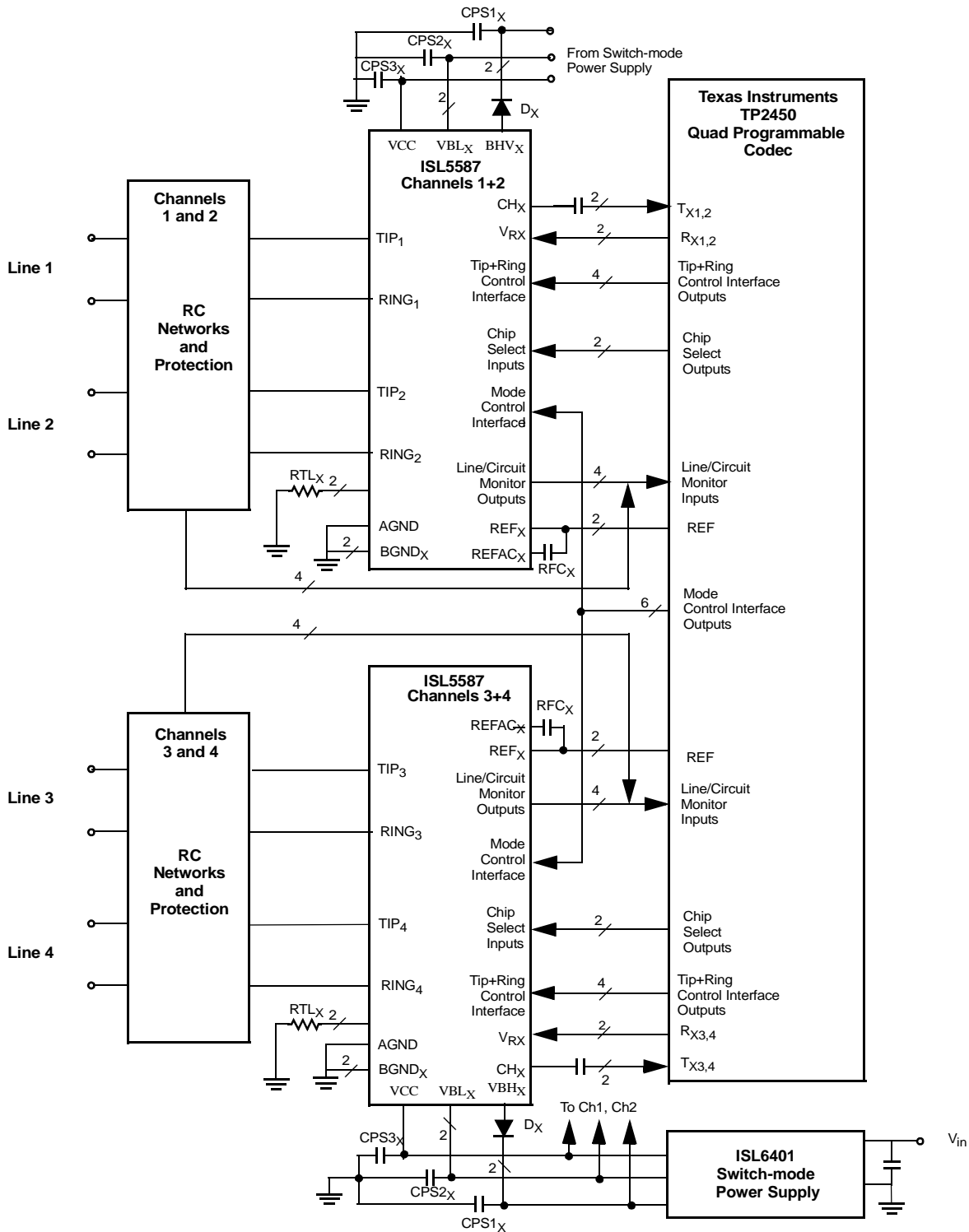


FIGURE 1.

Four Channel Block Diagram



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