

## AUDIO & VOICE

- ▶ Audio Processing
- ▶ Voice Line Circuits (SLICs)
  - ▶ miSLIC Series – High Performance Line Circuits
  - ▶ ZL880 - Enhanced Dual Channel Wideband FXS Line Interfaces
  - ▶ VE950 - General Purpose Ringing SLIC
  - ▶ MeLT792 - Metallic Line Test Chipset (MeLT)
  - ▶ VE792 - Next Generation Carrier Chipset (NGCC)
  - ▶ VE880 - Single and Dual Channel FXS and FXO Line Interfaces
  - ▶ VE890 - Integrated FXS/FXO Line Interface
    - LE89156
    - **VE8901**
    - VE8910
    - VE8910-HV
    - VE8911
    - VE8911-HV
    - VE8921
  - ▶ VE580 - General Purpose Subscriber Line Interface Circuits (SLICs) and Codecs
  - ▶ VE790 - High Performance Programmable Chipset with Line Test
  - ▶ VE770 - Dual Channel SLIC/Codecs with Dual-tone multi-frequency (DTMF)
  - ▶ VE750 - Line Card Access Switches
  - ▶ Integrated Fixed Companding Codecs
- ▶ Telephony
- ▶ Electret Condenser Microphone (ECM) Analog Pre-amplifiers
- ▶ Line Echo Cancellation

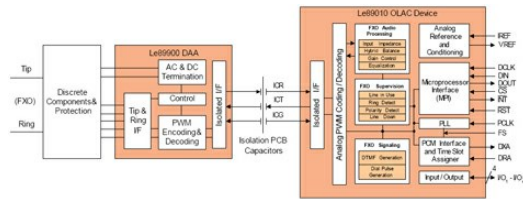
# VE8901

## Single Channel FXO Chip Set

The VE8901 chip set is a highly integrated, low-cost, 1FXO chip set which provides an interface to the Public Switched Telephone Networks (PSTN). The VE8901 chip set utilizes patented low value PCB capacitors, resulting in best in class DAA performance in both common mode and RF immunity. The VE8901 chip set performs all the necessary voice telephony functions, from sensing the high voltage line to DSP codec functions. All AC, DC, and signaling parameters are fully programmable via the Microprocessor Interface (MPI). The chip set can be programmed in software to meet worldwide requirements with a single hardware design.

The VE8901 chip set is a member of the VE890 Series, which also features the VE8910 (1FXS), VE8911 (1FXS + 1FXO) and the VE8921 (2FXS + 1FXO). Designers can mix multiple members of the VE890 Series or VE880 Series and have a solution with the correct number of FXS and FXO interfaces. Product variants are easily supported due to the modularity in the hardware building blocks as well as a common software API.

## Detailed Block Diagram



## Features & Benefits

- High-performance FXO chip set optimized for residential and enterprise VoIP applications
- Single line interface with software support for worldwide operation
- Standard loop-start or optional ground-start operation
- Optional E911/CAMA trunk signaling
- Meets or exceeds the requirements of TIA 968-A, ETSI ES 203-021, JATE, Austel, CCC, and Korea Telecom
- Best in class common mode and RF immunity performance
- Typical 10 kV isolation barrier with no cost PCB capacitors
- Transmit power of up to +6 dBm into 600 Ω
- Supports TBR21 current limit for legacy applications
- Supports On-Hook and Off-Hook Caller ID
- Performs all PSTN interface functions with software programmable parameters:
  - DC mask and AC impedance
  - TX and RX signal equalization
  - DTMF and pulse dialing
  - Ring detection
- FXO line and event monitoring:
  - On-hook voltage, off-hook current
  - Ringing, polarity reversal, Caller ID, disconnect, line in use, and parallel phone off-hook
- Echo-free adaptive hybrid balance with DSL filter support
- VoicePath API-II software
  - Significantly reduces development and testing time
  - Enables modular product design with multiple combinations of FXS and FXO channels
  - Supported by SDK, development board and reference designs