Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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Le9672
Dual Subscriber Line Interface Circuit
miSLIC™ Series
Product Brief

Document ID# 147601 Version 2 October 2013

Features

- **Economical, fifth-generation line interface solution for VoIP processors and SoCs**
- **Dual Channel Architecture**
- **Single port 4-wire interface control (ZSI)**
  - Compatible with numerous VoIP processors and SoC solutions
  - Less expensive isolation than multi-port control
  - Simplifies board routing
- **VoicePath SDK and VP-API-II Software available to implement FXS functions**
- **VeriVoice Professional Test Suite Software**
  - Comprehensive subscriber loop testing, including *Telcordia GR-909-CORE / TIA-1063* diagnostic testing
  - Industry leading advanced test software
- **VeriVoice Manufacturing Test Package (VVMT)**
  - Facilitates factory testing and calibration of assembled boards
- **High Voltage Tracking Ringing capability**
  - Minimized power dissipation in all states
  - 5 REN
  - Up to 140-V_{PK} open circuit ringing
  - Programmable DC offset
  - Adaptive ringing power management
- **Low cost, 2-Layer PCB Reference Designs**
- **Complete Wideband BORSCHT functionality**
- **Worldwide Programmability**
- **Per channel Narrowband or Wideband operation**

Applications

- **DSL Residential Gateways and Integrated Access Devices (IADs)**
- **Cable Embedded Multimedia Terminal Adapters (eMTAs)**
- **PON Single Family Units (SFU)**
- **Fiber-to-the-premise (FTTX) solutions**

Ordering Information

Device OPN	Device Type	Package	Packing
Le9672WQCT	SLIC, 150V-Tracker	56-pin QFN	Tape & Reel
Le9672WQC	SLIC, 150V-Tracker	56-pin QFN	Tray

These Green packages meet RoHS Directive 2002/95/EC of the European Council to minimize the environmental impact of electrical equipment.

Description

The miSLIC™ Line Circuits together with a VoIP processor or SoC, provides an economical turn-key solution for derived voice applications. The miSLIC devices are controlled by a VoIP processor or SoC through a simple, single serial interface.

The dual channel Le9672 miSLIC device uses individual Tracking Battery power supplies capable of up to 140-V_{PK} high voltage ringing combined with high efficiency to minimize power dissipation in all states. The dual channel Le9672 features wideband clarity and complete BORSCHT functionality.

Manufacturing self test and subscriber line diagnostics are available features. All AC, DC, and power parameters are programmable making the Le9672 device suitable for any application requiring SLIC functionality.

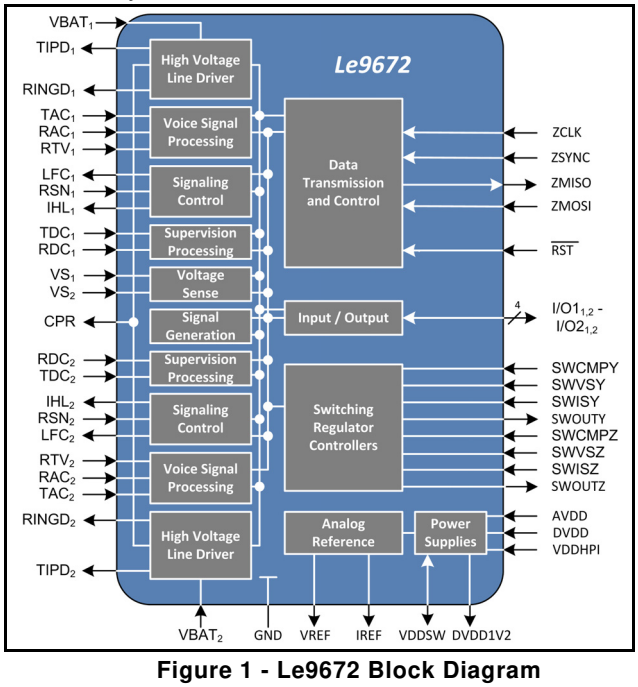
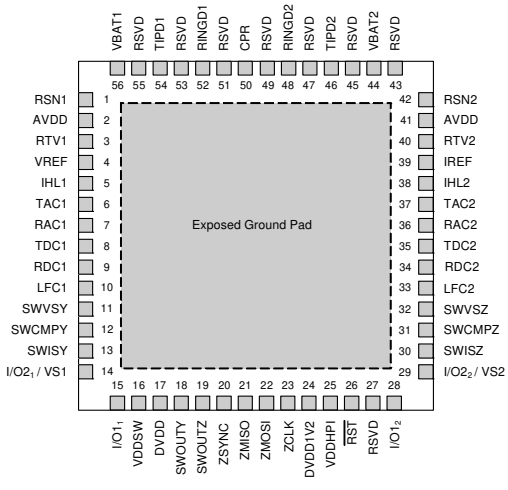


Figure 1 - Le9672 Block Diagram

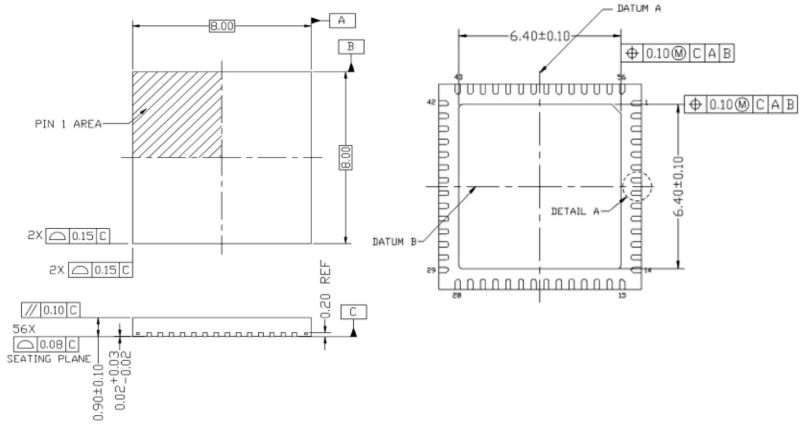
Selected Electrical Specifications

Description	Symbol	Test Conditions	Min	Typ	Max	Unit
Ambient Temperature, under Bias	T_A		-40		+85	°C
Digital and Analog Supply Voltages	DVDD, AVDD		3.135	3.3	3.465	V_{DC}
Host Port Interface Supply Voltage	VDDHPI		1.71	3.3	DVDD	V_{DC}
Battery Voltage		Active states	-150		-12	V_{DC}
Line Current	ILA		18	25	49	mA
Ringing Voltage	V_{RING}				140	V_P
Two-Wire Return Loss	R_L	200 to 3400 Hz		30		dB
Longitudinal Balance		1 kHz		58		dB
Device Power Consumption (Per Channel)	P_D	Flyback switcher				mW
Shutdown		Switchers off		6		
Disconnect				23		
Low Power Idle Mode		On-Hook		43		
Idle		On-Hook		85		
Active		OHT		194		
		Off-Hook, 300 Ω, ILA=25 mA		435		
Ringing		65 V_{RMS}, 3REN		480		
Device Power Dissipation, Continuous	$P_{D(max)}$	T_A = 85°C		2		W
Junction to Ambient Thermal Resistance	θ_{JA}			27		°C/W

Device Pinout



Package Drawings



Related Collateral

- *Le9662 Shared Battery Dual miSLIC™ Line Circuit Preliminary Data Sheet*, Document ID# 146852
- *Le9672 Tracking Battery Dual miSLIC™ Line Circuit Preliminary Data Sheet*, Document ID# 146853