

Low Cost 5 REN Ringing SLIC for ISDN Modem/TA and WL

The HC55171B low cost, 5 REN ringing SLIC is designed to accommodate a wide variety of short loop applications and provides the same degree of flexibility as the high performance HC55171. The flexible features include open circuit tip to ring DC voltages, user defined ringing waveforms, ring trip detection thresholds, and loop current limits that can be tailored for many applications. Additional features of the HC55171B are complex impedance matching, pulse metering, and transhybrid balance. The HC55171B is designed for use in short loop, low cost systems where traditional ring generation is not economically feasible.

The device is manufactured in a high voltage Dielectric Isolation (DI) process. The DI process provides substrate latch up immunity, resulting in a robust system design. A thermal shutdown with an alarm output and line fault protection are also included for operation in harsh environments.

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HC55171BIM	-40 to 85	28 Ld PLCC	N28.45
HC55171BIB	-40 to 85	28 Ld SOIC	M28.3

Features

- Load Drive Capability 5 REN
- Trapezoidal, Square or Sine Wave Capability
- Ringing from -80V Battery 75V_{p-p}
- Ringing from -75V Battery 70V_{p-p}
- Ringing Current Independent of Loop Current Setting
- Ringing Crest Factor Independent of REN Loading
- Latchup Immune to Inductive Kick Back and Hot Plug
- Fax, Answering Machine and MTU Compatible
- Resistive and Complex Impedance Matching
- Programmable Loop Current Limit
- Switch Hook, Ring Trip and Ground Key Detection
- Single Low Voltage +5V Supply

Applications

- Solid State Line Interface Circuit for Hybrid Fiber Coax, Set Top Box, Voice/Data Modems
- Related Literature
 - AN9607, Impedance Matching Design Equations
 - AN9628, AC Voltage Gain
 - AN9636, Implementing an Analog Port for ISDN
 - AN549, The HC-5502/4X Telephone SLIC

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Block Diagram

