5 REN Ringing SLIC for ISDN Modem/TA and WLL

The HC55171 is backward compatible to the HC5517 with the added capability of driving 5 REN loads. The HC55171 is ideal for any modem or remote networking access application that requires plain old telephone service POTS, capability. The linear amplifier design allows a choice of Sinusoidal, Square wave or Trapezoidal ringing. The voltage feed architecture eliminates the need for a high current gain node achieving improved system noise immunity, an advantage in highly integrated systems.

The device is manufactured in a high voltage Dielectric Isolation (DI) process with an operating voltage range from -16V, for off-hook operation and -80V for ring signal injection. The DI process provides substrate latch up immunity, resulting in a robust system design.

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HC55171IM	-40 to 85	28 Ld PLCC	N28.45
HC55171CM	0 to 75	28 Ld PLCC	N28.45
HC55171IB	-40 to 85	28 Ld SOIC	M28.3
HC55171CB	0 to 75	28 Ld SOIC	M28.3

Features

- 5 REN Thru SLIC Ringing Capability to $75V_{PEAK}$
- Trapezoid, Square and Sinusoid Ringing Capability
- Bellcore Compliant Ringing Voltage Levels
- Lowest Component Count Trapezoidal Solution
- Single Additional +5V Supply
- Pin For Pin Compatible With HC5517
- DI Provides Latch-Up Immunity

Applications

- ISDN Internal/External Modems
- ISDN Terminal Adapters/Routers
- Wireless Local Loop Subscriber Terminals
- Cable Telephony Set-Top Boxes
- Digital Added Main Line
- Integrated LAN/PBX
- Related Literature
  - AN9606, Operation of the HC5517/171 Evaluation Board
  - AN9607, Impedance Matching Design Equations
  - AN9628, AC Voltage Gain
  - AN9608, Implementing Pulse Metering
  - AN9636, Implementing an Analog Port for ISDN Using the HC5517
  - AN549, The HC-5502X/4X Telephone Subscriber Line Interface Circuits (SLIC)

Block Diagram