HARRIS SEMICONDUCTOR

# HC5521

## ADVANCE INFORMATION

January 1997

**SLIC**
**Subscriber Line Interface Circuit**

### Features

- Normal and Reversed DC Feed
- 30mA Current Limit
- Ringing, Test-In, and Test-Out Relay Drivers
- Ground Key Detector with Seperate Logic Output
- Thermal Shutdown Protection with Alert Signal
- On-Hook Transmission
- Selectable Transmit and Receive Gain Setting
- Selectable 2-Wire Impedance Matching
- Zero Crossing Ring Trip Detection and Ring Relay Release
- Parallel Digital Control and Status Monitoring
- Protection Resistors inside Feedback Loop allows the use of PTC Devices without Impact on Longitudinal Balance

### Applications

- PABX/CO Line Circuits

### Description

The HC5521 is a Monolithic Subscriber Line Interface Circuit (SLIC) for Analog Subscriber Line cards in Central Office and PABX switches.

The HC5521 provides a comprehensive set of features for these applications including loop reversal, ground key detection, zero crossing ring relay operation, long loop drive and a mutually independent setting of the receive and transmit gains, and the two-wire impedance synthesis. An option is also provided for eliminating transhybrid balance on-chip. Advanced power management features combined with a small 44 lead MQFP package allow significant board space to be freed up for additional line circuits.

The HC5521 is fabricated in a Harris state of the art Bonded Wafer High Voltage process, providing freedom from traditional JI latch-up phenomena without the use of additional power supply filtering components or substrate tie connections. The very low parasitics and leakages associated with this process provide an exceptionally flat performance over frequency and temperature.

### Ordering Information

| PART NUMBER | TEMP. RANGE ($^{o}$C) | PACKAGE | PKG. NO. |
|---|---|---|---|
| HC5521CQ | 0 to 70 | 44 Ld MQFP | Q44.10x10 |
| HC5521CM | 0 to 70 | 44 Ld PLCC | N44.65 |

### Block Diagram