

# PBL 3766, PBL 3766/6 Subscriber Line Interface Circuit

## Description

The PBL 3766 Subscriber Line Interface Circuit (SLIC) is a monolithic integrated circuit, manufactured in 75 V bipolar technology. The PBL 3766 SLIC facilitates the design of cost effective, high performance on-premises (ONS) analog line interface cards for PABX systems and terminal adapters. Small package size and few required external components result in a miniaturized design.

The PBL 3766 programmable, constant current loop feed system can operate with battery supply voltages between -24 V and -58 V.

The SLIC incorporates loop current and ring trip detection functions as well as a ring relay driver.

The two- to four-wire and four- to two-wire voice frequency (vf) signal conversion, i.e. the hybrid function, is provided by the SLIC in conjunction with either a conventional or a programmable CODEC/filter.

The PBL 3766 package is a 22 pin, plastic dual-in-line (batwing) or a 28-pin, plastic j-leaded chip carrier (PLCC).

The differences between PBL 3766 and PBL 3766/6 are the specifications for balance, output offset voltage, and insertion loss.

## Key Features

- Low cost
- Few external components
- Programmable, constant current loop feed
- Line feed characteristics independent of battery supply variations
- -24 V to -58 V battery supply voltage range
- Detectors
  - programmable loop current detector
  - ring trip detector
- Ring relay driver
- Hybrid function with conventional or programmable CODEC/filters
- Line terminating impedance, complex or real, set by a simple external network or controlled by a programmable CODEC/filter
- Idle noise typ. -83 dBmp, typ. 7 dBnrc
- Low on-hook power dissipation: 20 mW @ -28 V, 35 mW @ -48 V
- Tip-ring open circuit state for subscriber loop power denial
- On-hook transmission

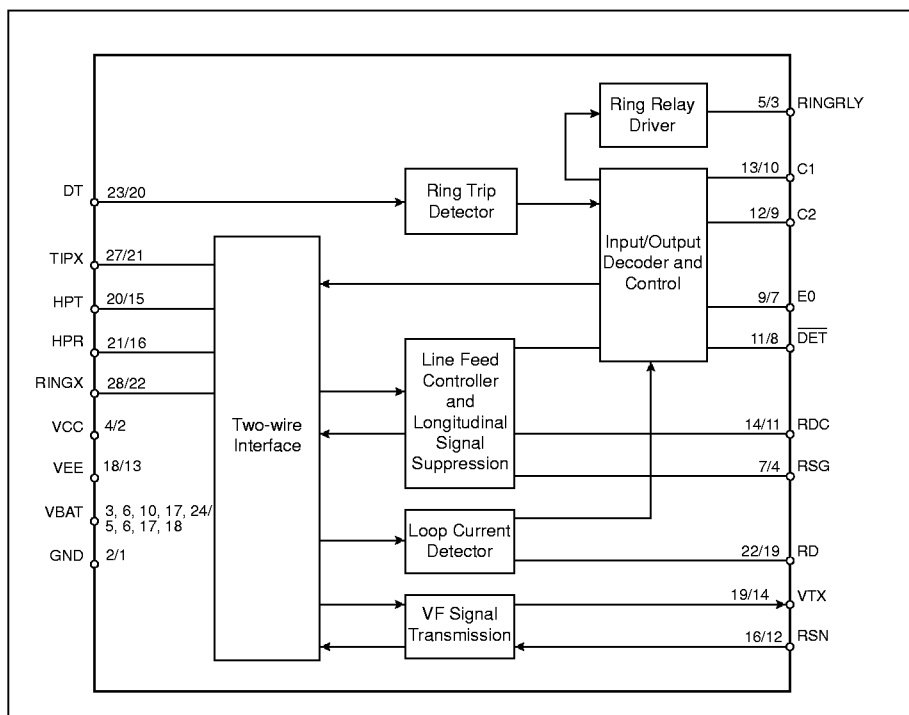
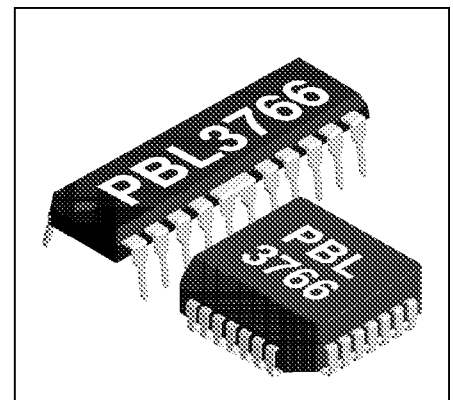


Figure 1. Block diagram. Pin numbers PLCC/DIP.



**Ordering Information**

| <b>Package</b>          | <b>Temp. Range</b> | <b>Part No.</b> |
|-------------------------|--------------------|-----------------|
| Plastic DIP 22 pin Tube | 0 °C to 70 °C      | PBL 3766/1NS    |
| Plastic DIP 22 pin Tube | 0 °C to 70 °C      | PBL 3766/6NS    |
| PLCC 28 pin Tube        | 0 °C to 70 °C      | PBL 3766/1QNS   |
| PLCC 28 pin Tube        | 0 °C to 70 °C      | PBL 3766/6QNS   |
| PLCC 28 pin Tape & Reel | 0 °C to 70 °C      | PBL 3766/1QNT   |
| PLCC 28 pin Tape & Reel | 0 °C to 70 °C      | PBL 3766/6QNT   |

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