PBL 3764A/4, PBL 3764A/6 Subscriber Line Interface Circuit

Description

Note: All data is also valid for PBL 3764A/6, except maximum ratings for battery voltage. (See next page)

The PBL 3764A/4 Subscriber Line Interface Circuit (SLIC) is a bipolar integrated circuit in 90 V technology which replaces the conventional transformer based analog line interface circuit in Digital Loop Carrier, PABX and other telecommunications equipment with a modern, compact solid state design. Not only is required PCB area reduced, but lesser component weight and height result as well. The PBL 3764A/4 has been optimized for low cost and to require only a minimum of external components.

The PBL 3764A/4 is an improved version of the PBL 3764 with an internal saturation guard programming resistor.

The PBL 3764A/4 programmable, constant-current feed system can operate with battery supply voltages down to 21 V to reduce line card power dissipation.

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

Two-to four-wire and four- to two-wire voice frequency (vf) signal conversion is accomplished by the SLIC in conjunction with either a conventional CODEC/filter or with a programmable CODEC/filter (e.g. SLAC, SiCoFi, Combo II). The programmable line terminating impedance could be complex or real to fit every market.

Longitudinal line voltages are suppressed by a feedback loop in the SLIC. Longitudinal balance specifications exceed Bellcore and EIA requirements.

The PBL 3764A/4 packages are 22-pin dual-in-line or 28-pin PLCC.

The PBL 3764A/6 package is 28-pin PLCC.

Key Features

- Battery feed characteristics programmable via external resistors; feed characteristics independent of SLIC battery supply variations
- Battery supply voltage as low as 21 V for power efficient line card designs
- Ring relay driver
- Loop current, ground key and ring trip detection functions
- Programmable loop current detector threshold
- Hybrid function with all types of CODEC/filter devices
- Programmable line terminating impedance, complex or real
- On-hook transmission
- Longitudinal balance specifications in excess of Bellcore and EIA requirements
- Low 35 mW @-24 V on-hook power dissipation
- Tip-ring open circuit state for subscriber loop power denial
- -40 °C to +85 °C ambient temperature range
- -85 V battery supply voltage for ring applications (PBL 3764A/6)

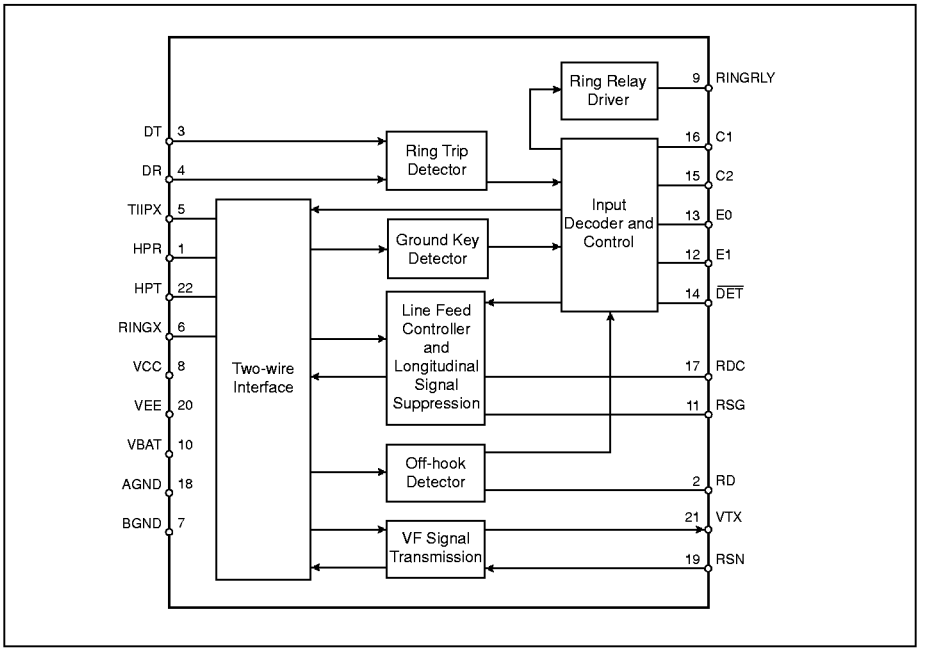
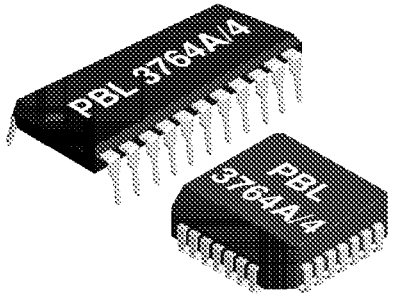


Figure 1. Block diagram.



22-pin plastic DIP
28-pin PLCC

Ordering Information

Package	Temp. Range	Part No.
PDIP Tube	-40 to 85°C	PBL3764/4NS
PLCC Tube	-40 to 85°C	PBL3764/4QNS
PLCC Tube	-40 to 85°C	PBL3764/6QNS
PLCC Tape & Reel	-40 to 85°C	PBL3764/4QNT
PLCC Tape & Reel	-40 to 85°C	PBL3764/6QNT

Specifications subject to change without notice.
1522-PBL 3764+ Uen Rev. C

This product is an original Ericsson product protected by US, European and other patents.

Ericsson Components AB
S-164 81 Kista-Stockholm, Sweden
Telephone: +46(0)8 757 50 00