PBL 3786/04
Voice-switched Speakerphone Circuit (Preliminary Data)

Description

The PBL 3786/04 contains all the necessary circuitry, amplifiers, detectors, comparators and control functions to implement a high-performance, voice-switched, loudspeaking, "hands-free" telephone. The gain dynamics (attenuation between channels) is continuously adjustable via a separate pin. A background noise detector in the transmit channel reduces the influence of continuous noise signals.

The PBL 3786/04 is designed for telephone line powered applications. The circuit contains a transformerless power amplifier with patented current circuitry that eliminates the need for inductors. Automatic volume attenuation extends the operating range at low line voltages.

Microphone input is designed for electret microphones. The loudspeaker output is for 25-50Ω loudspeaker depending on the available line current.

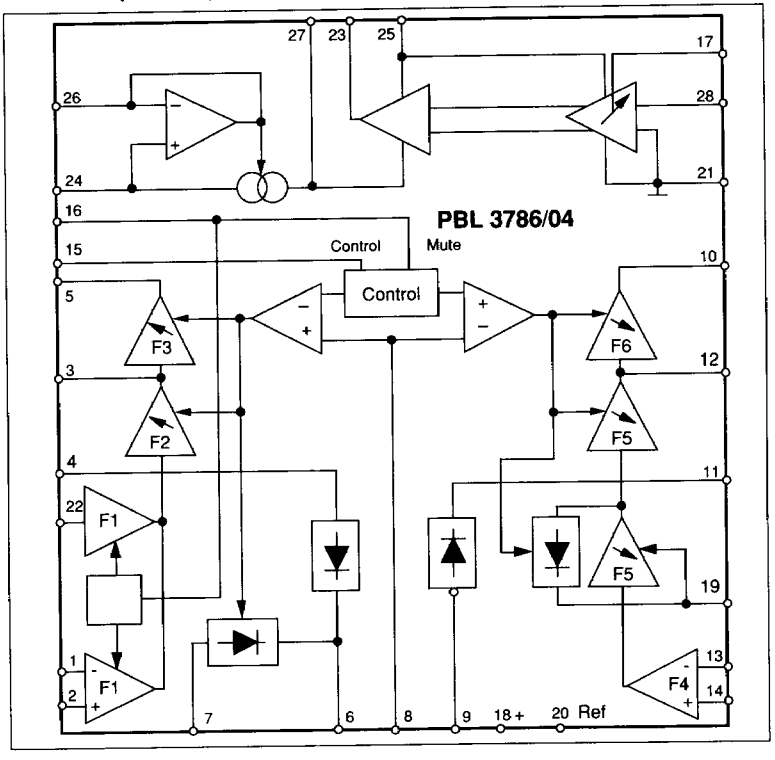
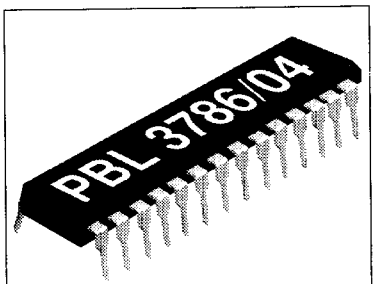


Figure 1. Block diagram.

Key features

- Adjustable gain dynamics (0 - 50 dB) and (0-25db).
- Direct telephone-line powered (patented).
- Direct drive of 25 - 50 ohm loudspeaker.
- Leveldetector signals in both channel can be filtered through external filters.
- Background noise compensation with hold in the transmitt channel.
- Low noise
- Fully accessible in- and out-puts of the channel input amplifiers.
- AGC in the receive channel with hold in transmitt mode
- Externally accesseble reference voltage
- DC-controlled volume of the power amplifier.
- Handsfree and handset mode with reduced regulation in handset mode.
- 28-pin dual in-line plastic encapsulation.



28-pin plastic dual in-line