



## CMOS DTMF INTEGRATED RECEIVER

### Features

- Full DTMF receiver
- Less than 35mW power consumption
- Industrial temperature range
- Uses quartz crystal or ceramic resonators
- Adjustable acquisition and release times
- 18-pin DIP, 18-pin DIP EIAJ, 18-pin SOIC, 20-pin PLCC
- CM8870C
  - Power down mode
  - Inhibit mode
- CM8871C
  - Power down mode
  - Buffered oscillator output (OSC 3) to drive other devices
- CM8872C
  - Inhibit mode
  - Buffered oscillator output (OSC 3) to drive other devices

### Applications

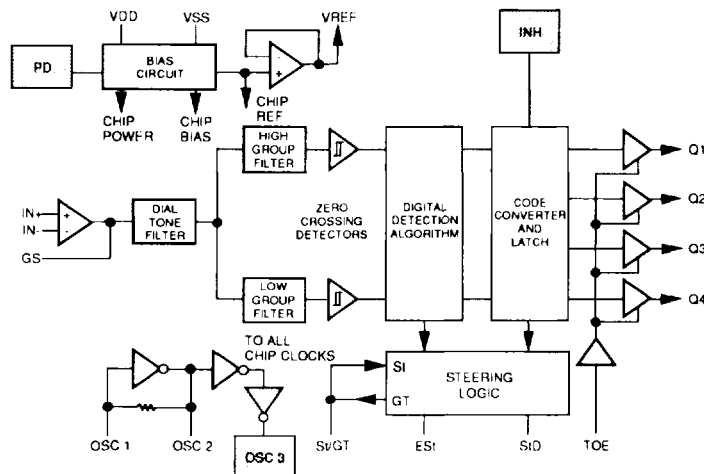
- PABX
- Central office
- Mobile radio
- Remote control
- Remote data entry
- Call limiting
- Telephone answering systems
- Paging systems

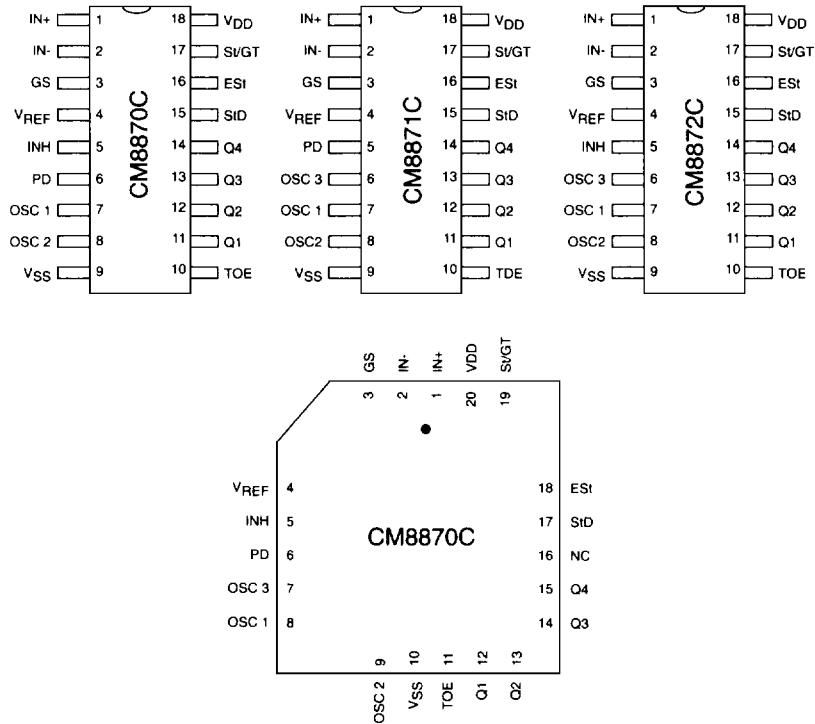
Contact factory for complete data sheet.

### Product Description

The CMD CM8870C/CM8871C/CM8872C provides full DTMF receiver capability by integrating both the bandsplit filter and digital decoder functions into a single 18-pin DIP, SOIC, or 20-pin PLCC package. The CM8870C/CM8871C/CM8872C is manufactured using state-of-the-art CMOS process technology for low power consumption (35mW, max.) and precise data handling. The filter section uses a switched capacitor technique for both high and low group filters and dial tone rejection. The CM8870C/CM8871C/CM8872C decoder uses digital counting techniques for the detection and decoding of all 16 DTMF tone pairs into a 4-bit code. This DTMF receiver minimizes external component count by providing an on-chip differential input amplifier, clock generator, and a latched three-state interface bus. The on-chip clock generator requires only a low cost TV crystal or ceramic resonator as an external component.

### Block Diagram



**Pin Assignments****Ordering Information****Example:****CM8870C/71C/72C****P****I****Product Identification Number****Package**

- P — Plastic DIP (18)
- F — Plastic DIP EIAJ (18)
- PE — PLCC (20)
- S — SOIC (18)

**Temperature/Processing**

- None — 0°C to +70°C, ±5% P.S. Tol.
- I — -40°C to +85°C, ±5% P.S. Tol.