

## CMOS Integrated DTMF 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
  - Buffered OSC3 output (PLCC package only)
- CM8870C is fully compatible with CM8870 for 18-pin devices by grounding pin 5 and pin 6.

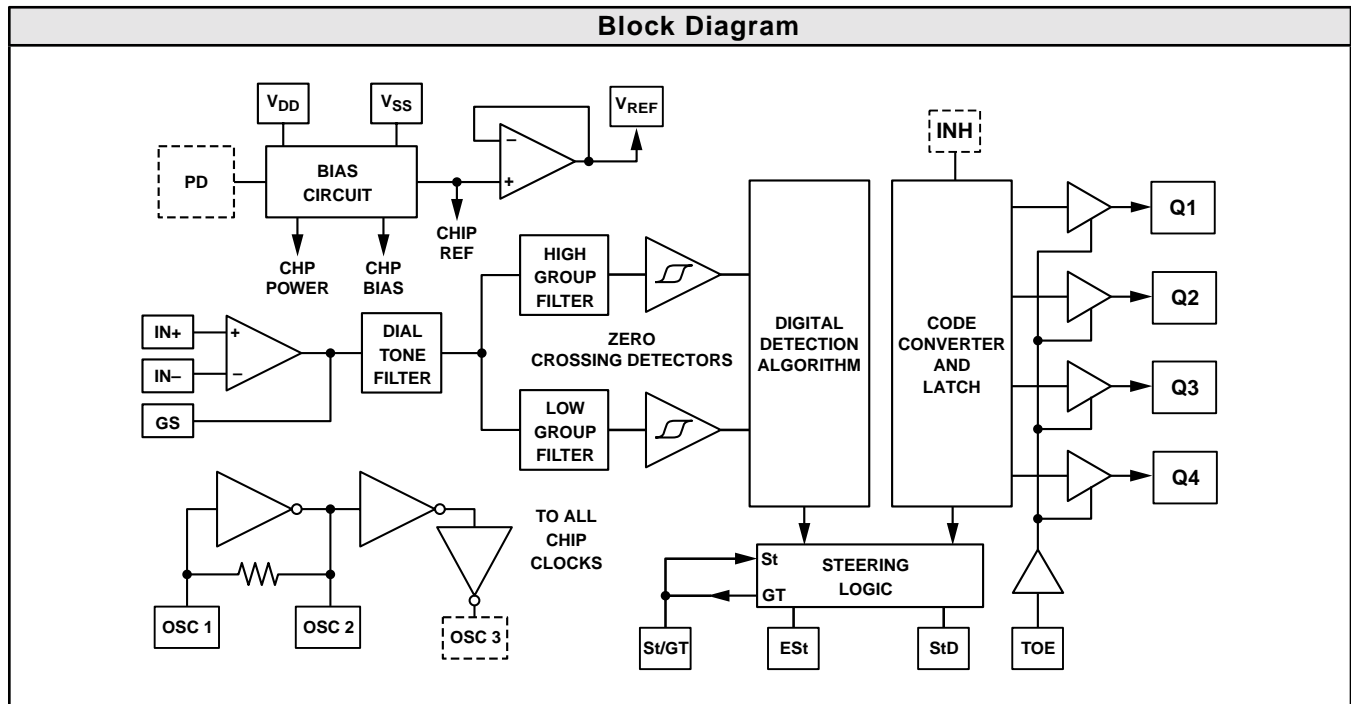
### Applications

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

### Product Description

The CAMD CM8870/70C provides full DTMF receiver capability by integrating both the band-split filter and digital decoder functions into a single 18-pin DIP, SOIC, or 20-pin PLCC package. The CM8870/70C 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 CM8870/70C 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.







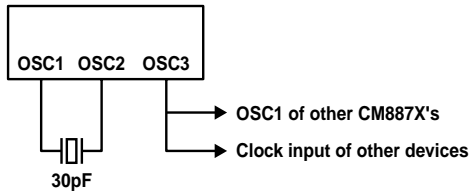




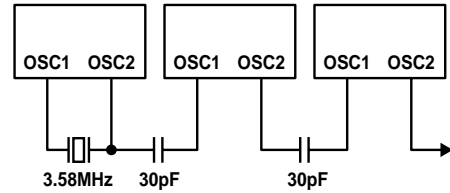






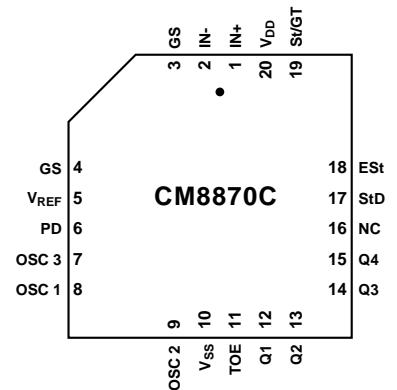
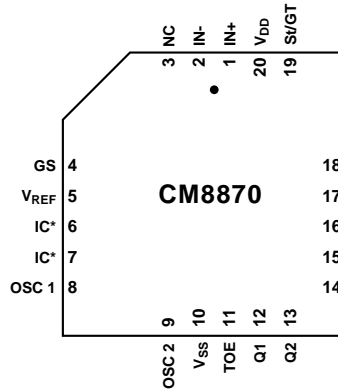
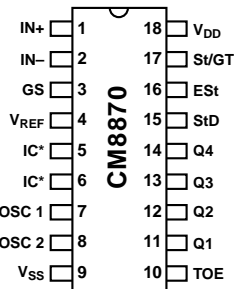
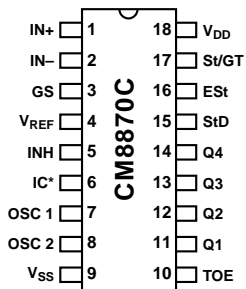


**Figure 7. CM8870C Crystal Connection (PLCC Package Only)**



**Figure 8. CM8870/70C Crystal Connection**

**Pin Assignments**



- P – Plastic DIP (18)
- F – Plastic SOP EIAJ (18)
- S – SPIC (18)

- PE – PLCC (20)
- \* – Connected to V<sub>SS</sub>

- PE – PLCC (20)

**Ordering Information**

