



**MOTOROLA**

**TCA3386**

*Advance Information*

# Single chip feature phone IC

The TCA3386 is designed to be used in mid-and high-end telephone sets, associated with a microcomputer. It contains the circuitry for the D.C. mask, transmit & receive amplifiers, 2-4 wire conversion, impedance matching, sidetone balance, for a high performance speech circuit. It also contains a monitor amplifier to drive a loudspeaker, with anti-acoustic feedback. Tone generators for DTMF dial and ring signal generation are also on chip.

The DC mask, volume control, muting, dial pulse timing, DTMF frequencies and levels, ring tones, and monitor functions are all programmable/controllable through the 2-wire MCU port. Power supply and reset for the MCU are provided and the TCA3386 can be used in ring mode with the addition of the Ring Power circuit TCA3385. TCA3386 is implemented in an advanced high density bipolar process.

- MCU controlled feature telephone set with integrated loudspeaker monitor
- Software programmable DC mask (France, UK, low voltage, PABX)
- 2-4 wire conversion with programmable impedance and sidetone balance, and automatic adjustment with line length
- DTMF and ring tone generator, with timing and level controlled by MCU
- 2-wire serial MCU port, and regulated DC supply with reset for MCU
- Loudspeaker monitor with anti-howl circuit and automatic power adjustment to available line current, and facility to interface external speakerphone (MC34118)
- Uses low cost 500 KHz ceramic resonator
- Pilot and idle tones provide extra phone features.

