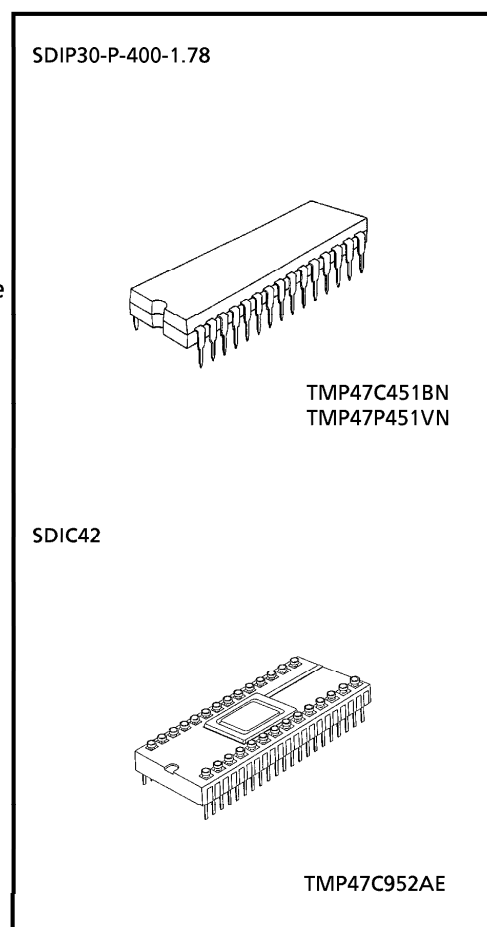## CMOS 4-BIT MICROCONTROLLER

TMP47C451BN

The 47C451B is a high performance 4-bit single chip microcomputer based on the TLCS-47 CMOS series with a DTMF generator and a large-capacity RAM for repertory dialing applications, and which is highly suitable for utilization in telephones. The 47C451B is also capable of operation with low voltages such as those supplied by telephone line.

PART No.	ROM	RAM	PACKAGE	PIGGYBACK (ADAPTER SOCKET)	OTP
TMP47C451BN	4096 × 8-bit	768 × 4-bit	SDIP30-P-400-1.78	TMP47C952AE (BM1104)	TMP47P451VN

FEATURES

- ◆4-bit single chip microcomputer
- ◆Instruction execution time : 16.7 μs (at 480kHz)
- ◆Low voltage operation : 2.2V min.
- ◆90 basic instructions
- ◆Table look-up instructions
- ◆Subroutine nesting : 15 levels max.
- ◆5 interrupt sources (External : 2, Internal : 3)

  All sources have independent latches each, and multiple interrupt control is available.
- ◆I/O port (23 pins)
  - ● Input   2ports   5pins
  - ● Output   1port   2pins
  - ● I/O   4ports   16pins
- ◆Interval Timer
- ◆Two 12-bit Timer/Counters

  Timer, event counter, and pulse width measurment mode
- ◆DTMF (Dual Tone Multi Frequency) Output
  - ● DTMF output with one instruction
  - ● Single tone output function
- ◆RAM for repertory dial : 768 × 4 bit max.
- ◆BEEP output function
- ◆Hold function
  - ● Battery/Capacitor back-up
  - ● Hold function controlled by port K0 .
- ◆Real Time Emulator :   BM47215B + BM1104

SDIP30-P-400-1.78

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