

CMOS 4-BIT MICROCONTROLLER

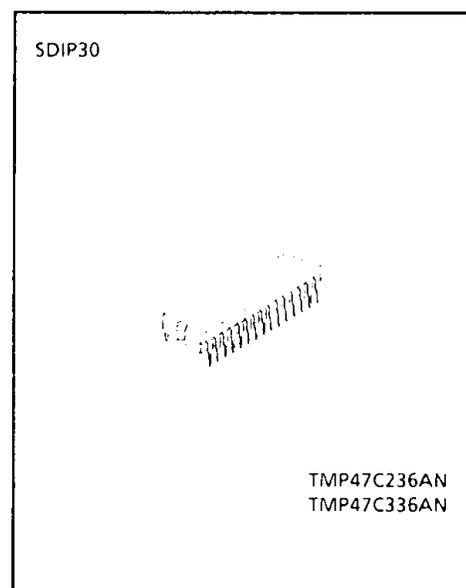
TMP47C236AN, TMP47C336AN

The 47C236A/336A are based on the TLCS-47 CMOS series. The 47C236A/336A have on-screen display circuit (OSD) to display characters and marks which indicate channel or time on TV screen, A/D converter input, D/A converter output which is suitable for application to the digital tuning system such as TV.

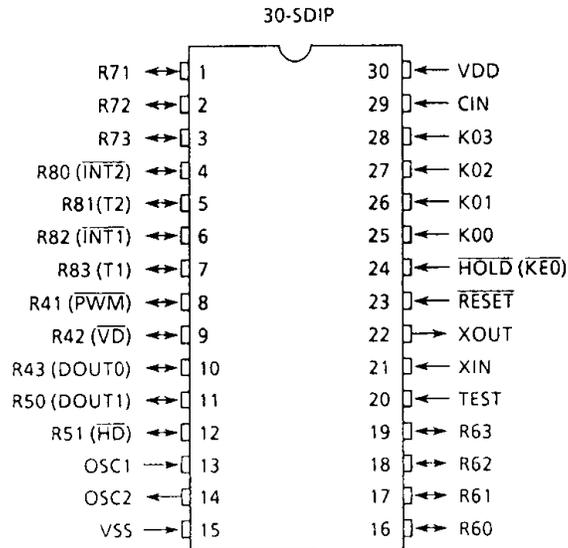
PART No.	ROM	RAM	PACKAGE
TMP47C236AN	2048 x 8-bit	128 x 4-bit	30-SDIP
TMP47C336AN	3072 x 8-bit	192 x 4-bit	

FEATURES

- ◆ 4-bit single chip microcomputer
- ◆ Instruction execution time : 1.9 μ s (at 4.2 MHz)
- ◆ 89 basic instructions
 - Table look-up instructions
- ◆ Subroutine nesting : 15 levels max.
- ◆ 6 interrupt sources (External : 2, Internal : 4)
 - All sources have independent latches, and multiple interrupt control is available
- ◆ I/O port (22 pins)
 - Input 2 ports 5 pins
 - I/O 5ports 17 pins
- ◆ Interval Timer
- ◆ Two 12-bit Timer/Counters
 - Timer, event counter, and pulse width measurement mode
- ◆ Display on screen circuit
 - Number of characters 16 kinds
 - Number of characters displayed 3 columns
 - Composition of a character 8 x 8 dots
 - Size of character 2 kinds
 - Color of character 3 kinds
 - Display position Upper right corner
 - Fadeout function
- ◆ Pulse width modulation output
 - 6-bit resolution 1 channels
- ◆ 3-bit A/D converter input
 - Auto frequency control signal (S-shaped curve) detection
- ◆ Horizontal synchronous signal is detected by timer/counter
- ◆ Remote control signal preprocessing capability
- ◆ High current outputs
 - LED direct drive capability (typ. 10mA x 4 bits)
- ◆ HOLD function
 - Battery/Capacitor back-up
- ◆ Real Time Emulator : BM47C336A



PIN ASSIGNMENT (TOP VIEW)



BLOCK DIAGRAM

