

## Product List

OB37R04G1W16,  
 OB37R04G1W14,  
 OB37R04G1W10,

## Description

The OB37R04G1 is a 1T (one machine cycle per clock) single-chip 8-bit microcontroller. It has 4KB embedded program memory, and executes all ASM51 instructions fully compatible with MCS-51.

OB37R04G1 contains 128B on-chip RAM, up to 14 GPIOs, various serial interfaces and many peripheral functions as described below. It can be programmed via writers.

The high performance of OB37R04G1 can achieve complicated manipulation within short time. About one third of the instructions are pure 1T, and the average speed is 8 times of traditional 8051, the fastest one among all the 1T 51-series. Its excellent EMI and ESD characteristics are advantageous for many different applications.

## Ordering Information

OB37R04G1 ihhkL

YWW

i: process identifier { W = 2.4V ~ 5.5V }

hh: pin count

k: package type postfix {as table below }

L:PB Free identifier

{No text is Non-PB free, "P" is PB free}

Y: Year Code

WW: Week Code (01-52)

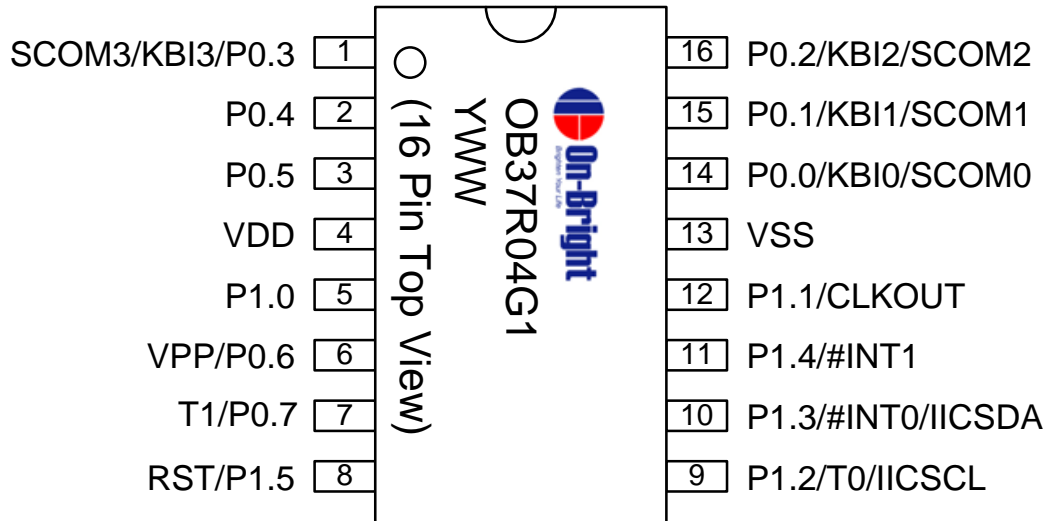
## Features

- OTP(One Time Program) process
- Operating Voltage:2.4V ~ 5.5V
- 1~8T can be switched on the fly.
- Instruction-set compatible with MCS-51.
- 24MHz Internal RC oscillator
- 4KB on-chip program memory
- 128B RAM as standard 8051
- Two 16-bit Timer/Counters. (Timer 0,1)
- 8 ~14 GPIOs(10L ~ 16L package)
- External interrupt 0,1 with four priority levels
- Programmable watchdog timer
- LCD SCOM x 4
- Keyboard interface (KBI) for four more interrupts.
- LVR
- Power management unit for IDLE and power down modes.

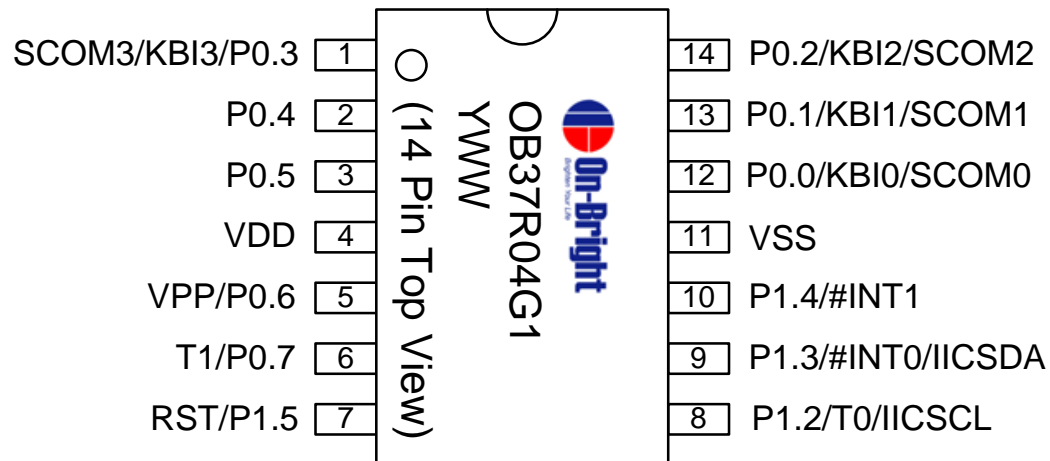
Postfix	Package
N	PDIP (300 mil)
O	SOP (150 mil)
M	MSOP

## Pin Configuration

### 16 Pin DIP/SOP



### 14 Pin DIP/SOP



**10 Pin MSOP**

