



**TMPM36BFYFG**



**New standard microcontroller  
that improved basic performance and achieves low power consumption.**

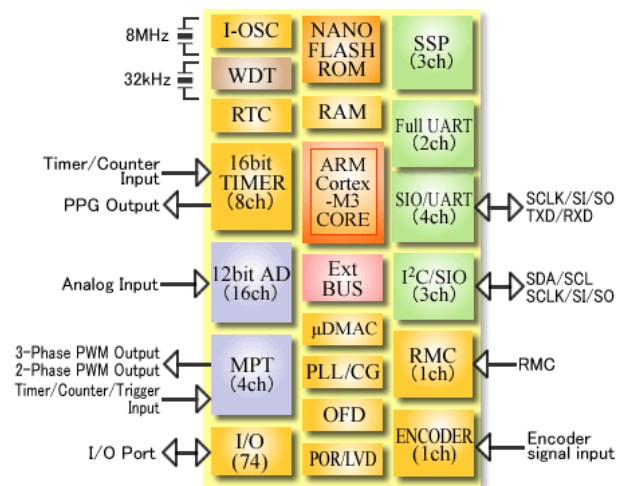
**Features**

**ARM Cortex™-M3 CPU Core**

- ▶ Operating voltage:  
2.7 to 3.6V (Single supply/on-chip regulator)
- ▶ Maximum Operating frequency:  
80 MHz
- ▶ On-chip debug circuit:  
JTAG, SWD, SWV or 4-bit trace interface
- ▶ Power saving operation  
Clock gear (for dividing clock to 1/1 to 1/16)  
Standby modes (IDLE, STOP1, STOP2)

**Built-in Functions**

- ▶  $\mu$ DMA controller : 32 channels (2 units)
- ▶ 12-bit AD converter : 16 channels  
1- $\mu$ s conversion time (@fsys = 80 MHz)
- ▶ 16-bit timer : 8 channels
- ▶ Multi-purpose timer (MPT) : 4 channels
  - Three-phase PWM output : 1 channel
  - IGBT control-timer output : 4 channels
- ▶ Encoder input : 1 channel
- ▶ I/O ports : 72 pins  
Output ports : 2 pins
- ▶ Full UART : 2 channels
- ▶ SIO/UART : 4 channels
- ▶ I<sup>2</sup>C (100 kHz, 400 kHz)/SIO : 3 channels
- ▶ SSP : 3 channels



**Flash Memory Size**

Part number	ROM (Flash)	RAM
TMPM36BFYFG**	256 Kbytes	66 Kbytes

\*\* : Under development

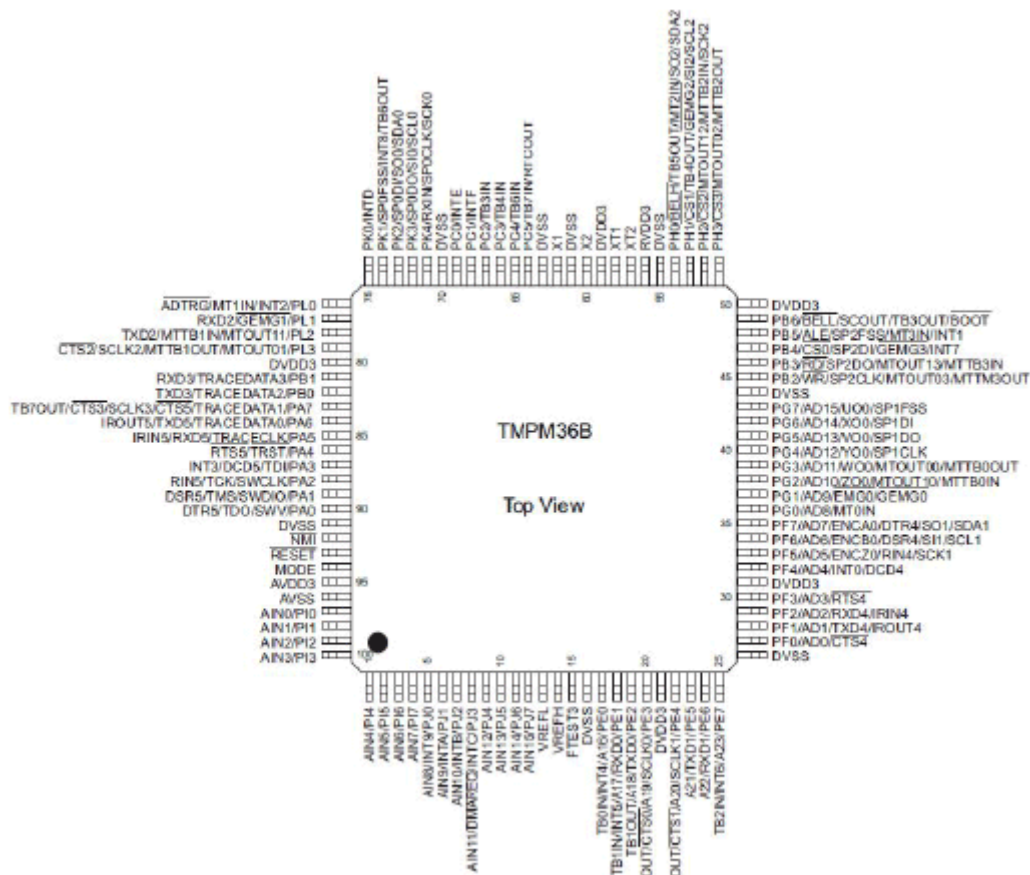
- ▶ RTC : 1 channel
- ▶ Remote control signal preprocessor : 1 channel
- ▶ External bus interface : 8/16-bit (Multiplex bus)
- ▶ Low voltage detector (LVD)
- ▶ Oscillation frequency detector (OFD)
- ▶ Power-on reset circuit (POR)

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# Package Information

## Pin Assignments



Package : LQFP100 (14 × 14 mm)

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