

# MFTC

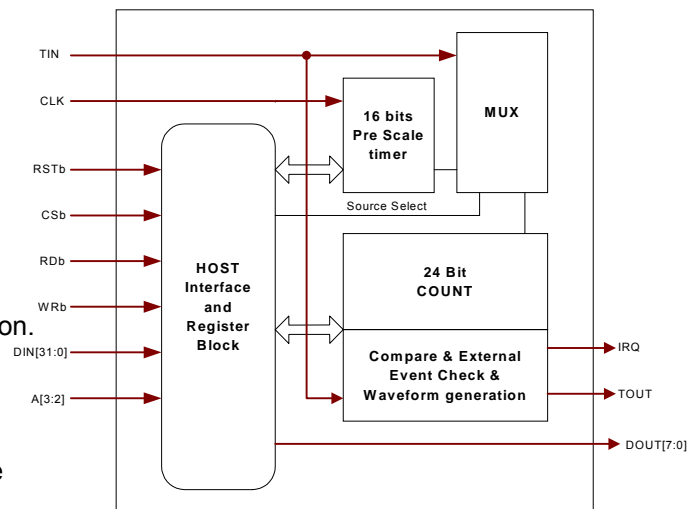
Multi- Function Timer Controller (MFTC) Intellectual Property (IP).

## Description

The timer module includes general-purpose timers, It contains a free-running 24-bit timer for use in any of three modes. One mode captures the timer value with an external event. Another mode triggers an external signal or interrupts the CPU when the timer reaches a set value, while a third mode counts external events. The timer unit has an 16-bit pre-scale that allows programming of the clock input frequency, which is derived from the system clock or an external clock input pin.

## Features

- Clock source
  - Internal : An 16-bit pre scalar output clock
  - External : Event clock.
- MFTC can be set for the following operating modes:
  - Compare match waveform output:  
0 output / 1 output / toggle output selectable.
  - Input capture function  
rising / falling / both rising and falling edge detection.
  - 24 bits Auto\_Reload Timer
  - One 24 bits Timer
- Interrupt generated when the timer reaches a set value



**Application Area** : Period system Check, Waveform Output generation, timing Check

**Available Documents** : Data Sheet, Users Guide

**Design File Formats** : EDIF File Format , VHDL Code

**Verification** : Verilog Testbench

**Simulation Tool Used** : Model Technology ModelSim™ 5.4

## For more information

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