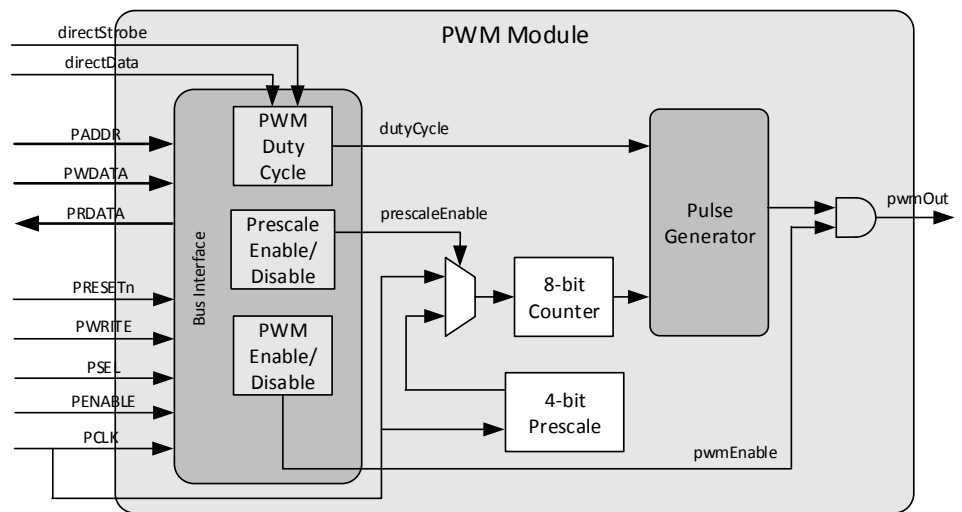


Features

- AMBA® APB Compatible
- Prescale and non-prescale modes
- 4bit prescaler
- 8bit counter/accumulator
- Strobe and Data input for synchronization



Overview

The APB PWM Module is a standard APB peripheral that generates a programmable duty cycle output signal. The frequency of the output waveform is either $PCLK/256$ or $PCLK/4096$, depending on whether a 4-bit prescaler is enabled. The duty cycle can be programmed with 8-bit resolution from either the APB interface or from an external controller interface. The output can be disabled or enabled. Disabling resets the counter to zero for the next enable.

The PWM Module provides access to the Duty Cycle register so that a simple (non-microprocessor) controller may set the duty cycle of the PWM.

The PWM module contains a 4-bit prescaler that can be selected to increase the period of the PWM signal by a factor of 16.

The PWM module contains an 8-bit counter. The counter increments either after one clock (`prescaleEnable = 1'b0`) or after 16 clocks (`prescaleEnable = 1'b1`). The output of the counter is used by the pulse generation logic to generate the output pulse.

The Pulse Generator logic uses outputs from the 8-bit counter and from the Duty Cycle Register in order to generate the PWM output pulse.

The licensed IP package includes:

Verilog Source
Complete Verilog Test Environment
Simulation and synthesis scripts

You may also be interested in:

[Low Power Subsystem](#)
[Low Power / Performance Subsystem](#)
[Custom Performance Subsystem](#)

Infrastructure Cores

AHB Multi-Matrix Fabric
AHB/AHBLite Channel
AHB Arbiter
AXI Multi-Layer Fabric
AXI to AHBLite Bridge
AXI to APB Bridge
AHB to ABP Bridge
APB Channel

AXI Cores

AXI Multi-Layer Fabric
AXI to AHBLite Bridge
AXI to APB Bridge
AXI External Bus Interface
(Memory/Flash Controller)
AXI Internal Memory Controller

AHB Cores

AHB Channel
AHB Multi-Matrix Fabric
AHB to ABP Bridge
AHB Arbiter
AHB QSPI with Execute in Place (XIP)
AHB External Bus Interface
AHB Internal SRAM Controller
AHB Interrupt Controller
AHB DMA Controller
AHB DMA 4 Channel Controller
AHB TFT LCD Controller
AHB DES/TDES Encryption/Decryption

APB Cores

APB Channel
APB Quad SPI Controller
APB General Purpose IO
APB Timer
APB UART
APB I2C (Master and Slave)
APB SPI
APB Watchdog Timer
APB Pulse Width Modulator
APB Real Time Clock
APB Parallel Port
APB Remap (for boot)

General

DES/TDES – Digital Encryption
Standard

For more information contact



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