

APB General Purpose IO (w/ interrupt)

SILVACO

Overview

The APB GPIO is a configurable module allowing the use of up to 32 scalable I/O lines. If more than 32 I/Os are required, more than one GPIO module may be instantiated.

Each line can be configured independently resulting in a very useful I/O application. The GPIO module supports a wide variety of options concerning synchronization logic and interrupt signal, which can be triggered by either a low level, high level, positive or negative edge. The GPIO is also fully compatible with the industry-standard APB bus interface.

The GPIO module is a standard APB Slave component, and has a standard APB Slave Port. The several GPIO registers are accessed through its APB interface.

Features

- General Purpose Input Output
- Software configurable
- AMBA® APB Compatible
- Scalable up to 32 I/Os
- Each I/O is independent
- Interrupt control for each I/O

Deliverables

- Verilog Source
- Complete Test Environment
- AHB Bus Functional Model

