

General Description

This module is build to control the human interface of the Industrial Reference Platform Hpe_IRP. User can define the activity level of buttons, switches and LEDs.

The HMI has one shared interrupt signal with two interrupt registers, one for the buttons and one for the switches. Two corresponding interrupt mask registers are available. Via the mask registers it is possible to mask interrupts not currently of interest and to determine the interrupt trigger condition for the buttons and switches.

The control register is used to turn the interrupts of the buttons and switches on and off.

Manual: GERA-HMI-IRP Manual V1.1.pdf

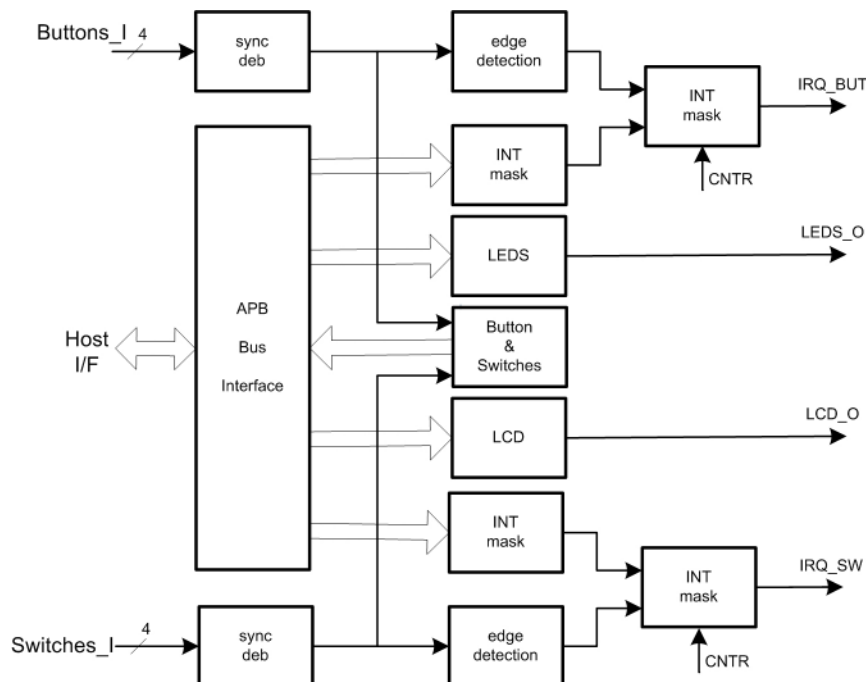
Features

- AMBA 3.0 APB compliant interface
- KS0066U LCD controller access
- Button and Switch access with input Signal synchronization and debouncing
- Interrupt capability (Button and Switch)
- LED access
- High and Low Active Signal Selection

Functional Description

The core has an AMBA APB bus communication interface and includes programmable registers that can be modified depending on the desired functionality.

Block Diagram



Device Utilisation & Performance

Technology	Device	Utilization (Average out of some different applications)	Performance
ArriaGX (Altera)	EP1AGX90EF1152C6	Logic Elements: 181 Block Memory: 0	100 MHz AHB bus clock