

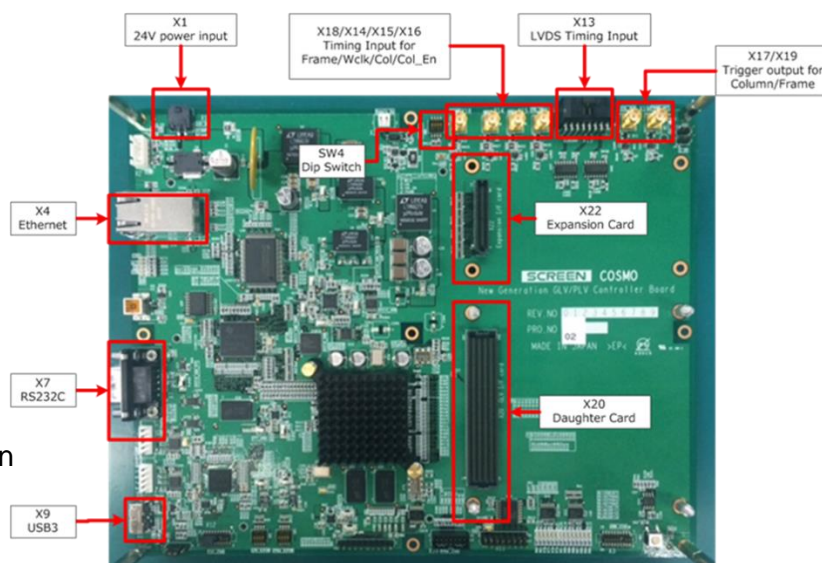


T1088-HS Cosmo Test Board

Model Number: T1088-HS

Features

- Supports evaluation & testing of High-Speed Buddy Module (F1088-HS)
- Generates multiple test patterns to the module
- Allows user to create custom test patterns
- Configures GLV Module parameters
- Operates as master or slave for synchronization of GLV images to user equipment



Description

Cosmo is a custom designed single board computer utilizing an embedded ARM processor and a FPGA. The Cosmo Board can support various GLV Modules by changing the daughter card. The T1088-HS is a Cosmo Board configured with a Pegasus Daughter Card and this will control a High-Speed Buddy Module (F1088-HS). The Cosmo/Pegasus features a LVDS interface to send pixel data to the High-Speed Buddy Module at the full maximum column rate of the module. An I2C interface allows the test board to initialize and configure the High-Speed Buddy Module for operation. An RS-232 serial interface allows the user to control the GLV Module with a PC HyperTerminal using parametrized ASCII commands. In addition, a USB-3 interface is provided that allows the user to download large custom test patterns to the Cosmo's pixel memory.

User Interfaces

- RS-232: Provides user control using parametrized ASCII commands (Baud Rate: 115,200)
- USB3: For downloading user defined pixel data to Cosmo's pixel memory
- Ethernet: Allows in-the-field firmware upgrades of the Cosmo ARM processor & FPGA
- Trigger In: Column and Frame trigger inputs
- Trigger Out: Column & Frame trigger outputs
- Power Input: Cosmo Test Board: 24 VDC; HS-Buddy Module: 5 VDC

Specifications:

- Column Rate: 350 kHz (max)
- Pixel Memory: 65,536 columns of GLV data (1088 pixels with 10 bit resolution)

Application Software

Pixel Download Program: Allows a user to define many columns of custom GLV pixel data in a spreadsheet (.csv format). The Pixel Download Program will read the pixel data from the spreadsheet and download the pixel data to memory on the Cosmo Test Board. ASCII commands can be used to control the sequencer on the Cosmo that reads the memory and sends the data to the GLV Module at up to the maximum column rate.