



c-Link Systems, Inc.



cLS-FSTS-FPGA

Field Programmable Gate Array

Product Brief—Revision A

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System Highlights

- Conforms Freescale Semiconductor's Tower system
- Jumper configurable
- 32 real world I/O line connections
- 25MHz Onboard oscillator
- Secondary oscillator socket
- Onboard power converters
- 64Mbit Platform flash
- 256K x 16 SRAM
- 40K logic element FPGA (Altera Cyclone III)
- Create your own Tower interface connections
- JTAG Port

Description

The cLS-FSTS-FPGA is one of the first generic FPGA Tower System modules. An Altera Cyclone III was chosen due to their popularity and it is contained in the free download software. The module is used as a building platform for different I/O modules, custom interfaces, custom hardware processing and soft-core processors; including Coldfire V1 and Altera NIOS. The FPGA is of sufficient size to accommodate 2 NIOS processors for dual core work.



The module contains the following: SRAM chip for storage, fixed 25MHz oscillator, socket for a second oscillator, JTAG connection (test and programming), larger platform flash that doubles as boot flash for a processor, jumper configurable Tower System interface and 2 external 1x18 connectors (16 I/O and 2 grounds on each). Core voltages are generated on the module from the main power.

Card ships with all schematics, a spread sheet for pin connection quick reference and sample test program. Altera software can be downloaded from their website. An Altera USB-Blaster or an older Master Blaster will be required.

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Corporate Brief

For the past seven years c-Link Systems, Inc. has focused on industrial control/automation of process lines in metal rolling and paper mills. Out of this emerged our expertise in Industrial Robotics and high speed fiber optic communications. A previous background in mechanics, dynamics and satellite guidance systems has positioned the company to support our customers in the growing field of robotics as it relates to autonomous robotic vehicles (ARV) with numerous commercial/industrial applications.—SEA

Information

SPECIFICATIONS

Interface:

Selectable as required to conform to Tower System.

Physical Characteristics:

Freescale Tower System format .

Power Requirements:

Supply Voltage (Typical)	3.3V (3.0V—3.6V)
Current (typical)	Dependent on FPGA programming

Environmental Characteristics:

Operating Temperature:	-20°C to 90°C
Storage Temperature:	-40°C to 105°C
Relative Humidity:	0 to 90% non-Condensing

Model Numbers

cLS-FSTS-FPGA: Module with SRAM
