



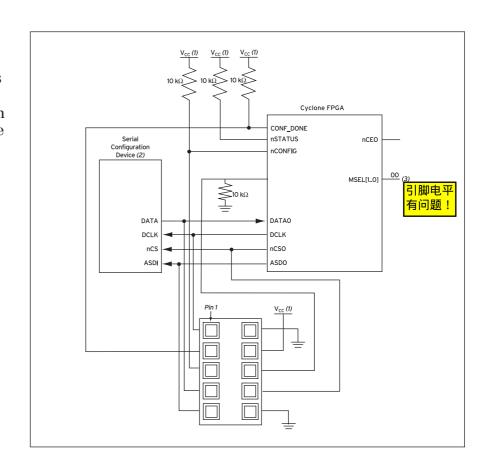
## **EPCS1 and EPCS4 Configuration Devices**

## from Altera®

The EPCS1 and the EPCS4 are new low-cost, flashbased, configuration devices for optimal configuration solutions in conjunction with Altera's Cyclone devices. The available memory density is 1 Mbit when used with EP1C3. EP1C4 and EP1C6. or 4 Mbits with any Cyclone device. The unused part of flash memory can be utilized as general-purpose memory via an easy-to-use active serial interface. EPCS devices can be programmed using the ByteBlaster II download cable, the Altera Programming Unit (APU) or programming hardware from other vendors. The diagram shows a typical configuration example. A Cyclone FPGA and the serial configuration device are connected by means of an active serial interface. The configuration device can be programmed via JTAG using the Byte-Blaster II download cable.

## **Features**

- Flash based, Low cost
- EPCS1 (1 Mbit) for EP1C3, EP1C4 and EP1C6
- EPCS4 (4 Mbits) for all Cyclone devices
- Easy-to-use 4-pin interface
- 3.3 V operation



- Low current during configuration and near zero current in standby mode
- Over 100,000 erase/ program cycles
- 8-pin SOIC package

## ByteBlaster™ II Download Cable

The new ByteBlaster II download cable is used to drive configuration data from PC to Stratix<sup>TM</sup>, APEX<sup>TM</sup> II, APEX<sup>TM</sup> 20K (including APEX

20K, APEX 20KE, and APEX 20KC), ACEX® 1K, Mercury<sup>TM</sup>, Excalibur<sup>TM</sup>, FLEX 10K® (including FLEX 10KA and FLEX 10KE), FLEX 8000, and FLEX 6000 devices, as well as programming data to MAX® 9000, MAX 7000S, MAX 7000A, MAX 7000B, MAX 3000A devices and configuration devices. Only this cable supports programming of serial configuration devices (EPCS1 and EPCS4) via the active serial configuration scheme.

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