GreenPAK 開発方法

- ユーザーによるデザイン
  - 開発環境を無償提供

  - Dialogによるデザインチェック

- Dialogでのデザインサポート
  - 回路図またはタイミングチャート
  - 状態遷移図
  - ピン配置
  - 動作電源電圧、温度範囲
  - 動作、待機消費電流

- 個別型番を割り当てデータシート発行

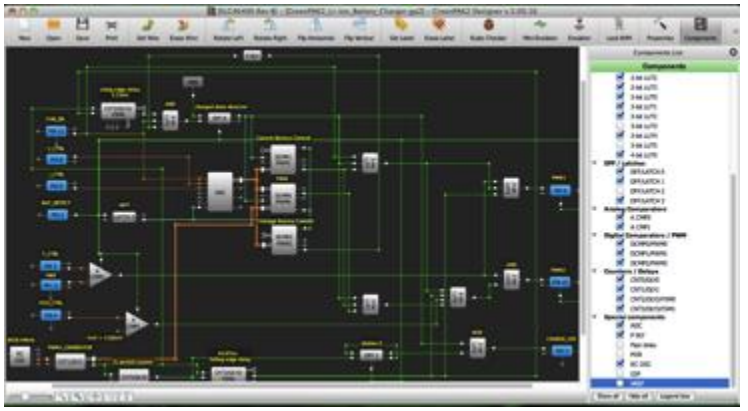
SLG46880/81

GreenPAK Programmable Mixed Signal Matrix with Asynchronous State Machine and Dual Supply

General Description

The GPAK product family is based around Dialog Semiconductor's proprietary Zero Static Power ASM (Asynchronous State Machine). This machine is fault tolerant and operates continuously over a wide voltage range with very low latency. The SLG46880/81 provides a small, low power component for commonly used mixed-signal functions. The user creates their circuit design by programming the one time Non-Volatile Memory (NVM) to configure the interconnect logic, the IO Pins and the macrocells of the SLG46880/81. This highly versatile device allows a wide variety of mixed-signal functions to be designed within a very small, low power single integrated circuit.

Key Features

- Two High Speed General Purpose Rail-to-Rail Analog Comparators (ACMPxH)
- Two Low Power General Purpose Rail-to-Rail Analog Comparators (ACMPxL)
- Two Voltage References
  - Two Vref Outputs
- Twelve Combination Function Macrocells
  - One Selectable DFF/Latch or 2-bit LUT
  - Four Selectable DFF/Latches or 3-bit LUTs
  - One Selectable Pipe Delay or Ripple Counter or 3-bit LUT
  - One Selectable Programmable Pattern Generator or 2-bit LUT
  - Four Selectable 8-bit CNT/DLYs or 3-bit LUTs
  - One Selectable 16-bit CNT/DLY or 4-bit LUT
- Asynchronous State Machine
  - Twelve States
  - Four Dynamic Memory Macrocells
  - f(1) Computation Macrocell with dedicated ACMP
- Serial Communications
  - I²C Protocol Interface
- Programmable Delay with Edge Detector Output
- Deglitch Filter or Edge Detector
- Three Oscillators
  - 2.048 kHz Oscillator
  - 2.048 MHz Oscillator
  - 25 MHz Oscillator
- Crystal Oscillator
- Analog Temperature Sensor
- Power-On Reset
- Wide Range Power Supply
  - 2.5 V (±8%) to 5 V (±10%) V_{DD}
  - 2.5 V (±8%) to 5 V (±10%) V_{DD2} ($V_{DD2} \le V_{DD}$) for SLG46880
  - 1 V (±5%) to 1.8 V (±10%) V_{DD} for SLG46881
- Operating Temperature Range: -40°C to 85°C
- RoHS Compliant / Halogen-Free
- 32-pin STQFN: 4 mm x 4 mm x 0.55 mm, 0.4 mm pitch

- デザインファイル作成