



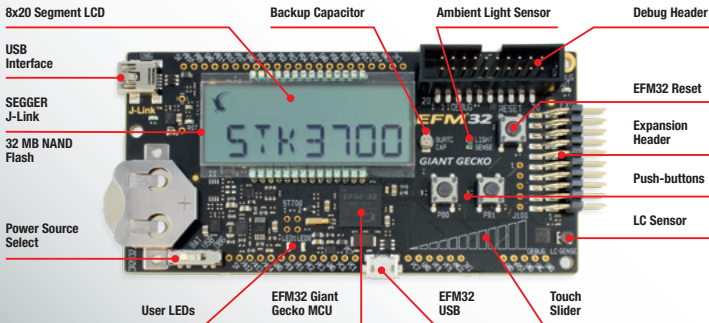
Energy Harvesting Solution To Go



- Silicon Labs' EFM32 Giant Gecko Starter Kit
- Linear Technology Multi-Source Energy Harvester
- Most efficient passive components



Silicon Labs' EFM32 Giant Gecko Starter Kit

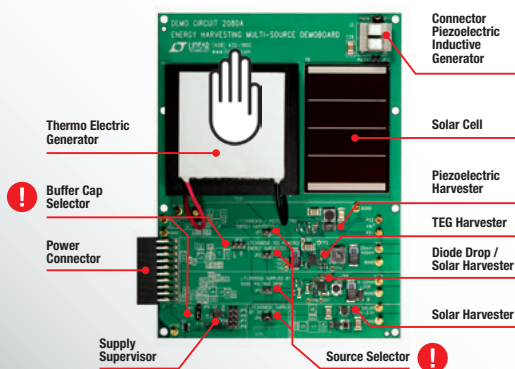


To start your energy harvesting evaluation, please

- Download and install **Simplicity Studio** (www.silabs.com/simplicity-studio)
- Download and install the **ARM Cortex-M development tools** of your choice
- Simplicity Studio includes **all tools, drivers, code and documents** you need:
 - **energyAware Commander** – MCU, kit and prototype programmer and updater
 - **energyAware Profiler** – real-time energy debugger and current monitor
 - all the free application notes and software examples in one place
 - EFM32 datasheets, kit manuals, presentations and brochures

More information on www.we-online.com/harvest

Linear Technology Multi-Source Energy Harvester



Features:

- On-board solar cell and thermo electric generator
- Connector for optional inductive or piezoelectric generator
- Four harvesters for different energy source types

Getting Started:

- Decide for your energy harvesting source
- Set the appropriate jumper JP1 to JP4 to feed the harvested source to the power connector

- **!** Optionally set jumper JP9 to ON for an extended buffer capacitance for all harvesters OR set jumper JP10 to ON for an extended buffer capacitance for the TEG harvester
- Connect your application to the power connector

! Caution:

- Only one source selector **MUST** be set at a time
- Only one buffer cap selector **MUST** be set to ON at a time

More information on www.we-online.com/harvest



Solar

Solar Cell

LTC3105 - 400mA boost converter,
MPP control, 250mV start-up
LTC3459 + LTC2935 – Micropower
monolithic booster
www.linear.com/product/LTC3105



Thermal

Peltier Element – TEG

LTC3108 - Ultralow voltage boost converter
and system manager
LTC3109 - Auto-polarity version of LTC3108
www.linear.com/product/LTC3108



Piezo

Piezo Element

LTC3588 - Piezoelectric energy harvesting
power supply
www.linear.com/product/LTC3588-1



Magnetic

Inductive Generator

LTC3588 - Inductive energy harvesting
power supply
www.linear.com/product/LTC3588-1



Silicon Labs' EFM32 Giant Gecko Starter Kit

The EFM32GG-STK3700 provides

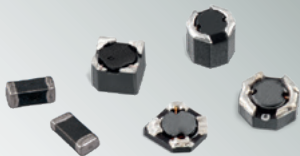
- Evaluation of the world's most energy friendly microcontroller EFM32 Gecko family
 - On board: EFM32GG990F1024 with ARM Cortex M3, 48 MHz, 1024 kB Flash, 128 kB RAM, LCD Controller, USB, Low Energy Sense, Backup Power Domain, etc.
 - 200 $\mu\text{A}/\text{MHz}$ in active mode and Deep Sleep Mode with 1.1 μA with various functions running in this mode on 1 μA level
- Debugging with a SEGGER J-Link debugger
- Energy Debugging with an integrated Advanced Energy Monitoring (AEM) and Voltage Monitoring



Würth Elektronik – more than you expect

More of our smallest inductors:

- WE-TPC SMD Shielded Tiny Power Inductors (Size 2811, 2813, 2828 and 3510)
- WE-EHPI Energy Harvesting Power Inductor
- WE-PMI Power Multilayer Inductor



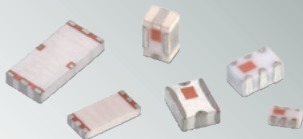
More components designed for sensor network:

- WE-KI SMD Wire Wound Ceramic Inductor
- WE-MK Multilayer Ceramic SMD Inductor



More LTCC components:

- WE-LPF Multilayer Chip Low-Pass Filter
- WE-BPF Multilayer Chip Band-Pass Filter
- WE-BAL Multilayer Chip Balun
- WE-MCA Multilayer Chip Antenna



More chip bead ferrites:

- WE-CBF Chip Bead Ferrites



More connectors:

- WERI Connectors



Würth Elektronik offers more complete solutions, such as sample kits with continuous free re-fills, EMC lab support, seminars, technical design books and much more!

Want more info about your kit? Please visit www.we-online.com/harvest