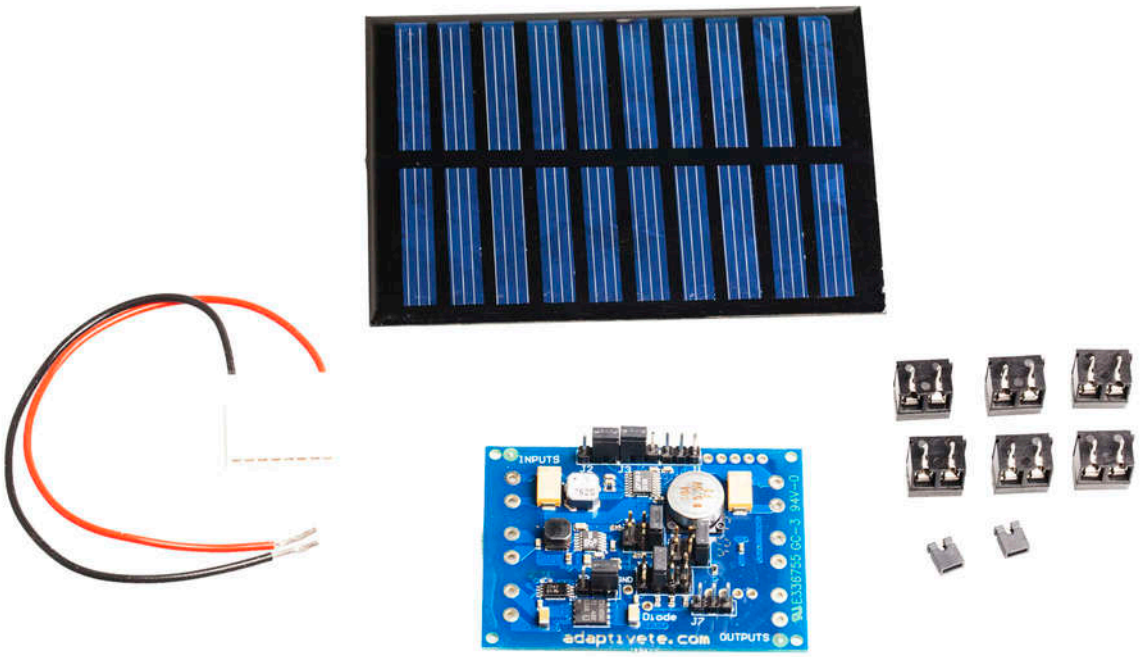
Energy Harvesting Kit
ADEH-K-A



Description

The energy harvesting kit is a complete solution for energy
harvesting, storage and management. The kit is optimised for
either a very low input voltage thermoelectric generator (TEG)
or a photovoltaic source.

Maximum power point tracking (MPPT) technology and a high efficiency boost converter have also been added to the kit
for optimum operation.

The demonstration kit has been sectioned to allow for three independent functions:

1. Ultra low power TEG power harvester with storage capacitor and MPPT control
2. Low power photovoltaic with MPPT control
3. Low loss OR-ing power rail controller

Features

- Thermoelectric and photovoltaic energy havrester
- Power rail controller
- Sectioned for three independent functions
- MPPT technology
- High efficiency boost converter

Contents

- PCB (ADEH-P-A)
- Thermoelectric generator (GM250-31-14-10)
- Solar panel (0.65W, 5V) (ADEH-PD-A)
- Terminal Blocks and Jumpers

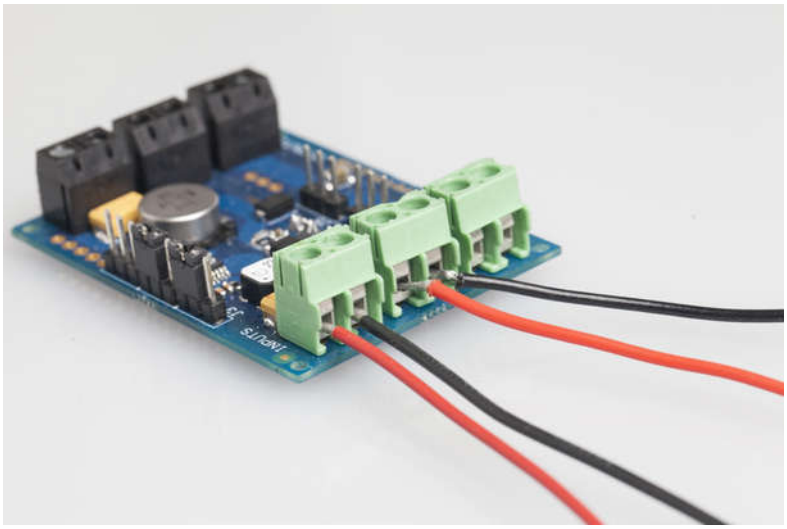
For more information visit: www.adaptivete.com

Typical specifications

Input voltage range (TEG harvester)	50mV - 500mV
Output voltage 1 (TEG harvester)	Selectable: 2.35V, 3.3V, 4.1V, 5.0V
Output Current 1 (TEG harvester)	7mA (VOUT = 0V)
Output Voltage 2 (TEG harvester)	LDO 2.2V
Output Current 2 (TEG harvester)	11mA (VLDO = 0V)
Input Voltage Range (Solar harvester)	250mV-5V
Output Voltage (Solar harvester)	Selectable: 1.8V, 3.3V, 5.0V
Output Current (Solar harvester)	500mA
Input Voltage Range (OR-ing controller)	800mV-16.5V
Output Voltage (OR-ing controller)	800mV-16.5V
Output Current (OR-ing controller)	2A

Further information

- Kit application type - Power management
- Application sub type - Step up DC/DC converter
- Silicon core number - LTC3108, LTC3105, TPS2412
- Standalone harvester board can be ordered separately with different Output Voltage 1 settings (2.5, 3V. 3.7V, 4.5V) - Part Number: ADEH-P-B



For more information visit: www.adaptivete.com