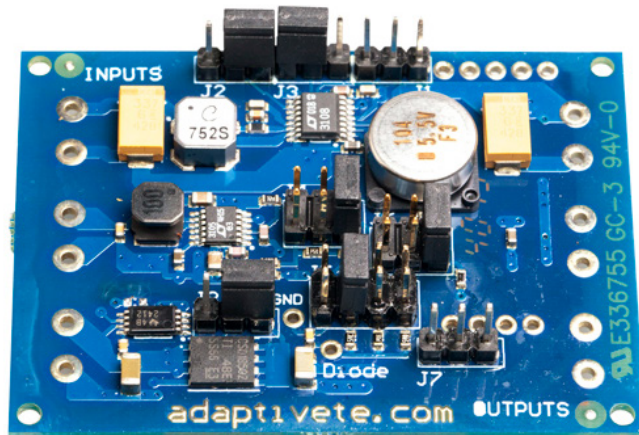


Energy Harvesting Board

ADEH-P-A



Features

- Two MPPT DC-DC converter
- Power rail controller
- Sectioned for independent operation
- High efficiency for scavenging applications

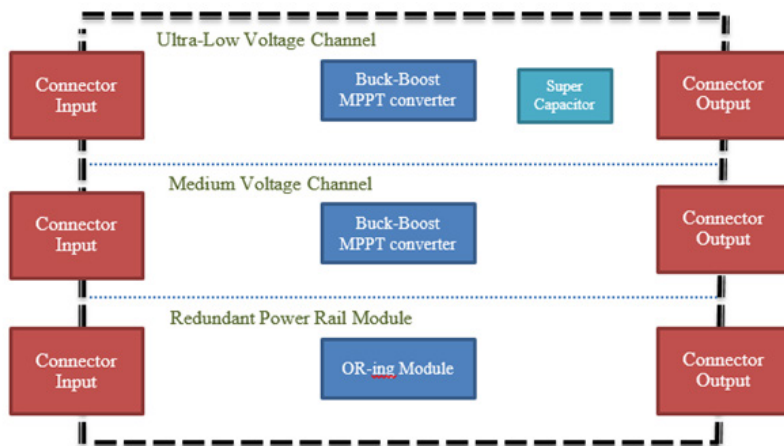
Description

The Adaptive® energy harvesting board has been designed for energy harvesting, storage and management. The board is optimised for either a very low input voltage thermoelectric generator (TEG) or a photovoltaic source. The latest maximum power point tracking (MPPT) technology and a high efficiency boost converters used for optimum operation. Easily configurable for several output voltages.

The board has been sectioned to allow for three independent functions:

1. Ultra low power TEG power harvester (Boost converter) with storage capacitor and MPPT control
2. Low power photovoltaic / thermoelectric harvester (Boost converter) with adjustable MPPT control
3. Low loss OR-ing power rail controller for redundant applications

System Architecture



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 with MPPT
- Silicon core number - LTC3108, LTC3105, TPS2412
- An alternative version of this product can be ordered separately with output voltage 1 settings (2.5, 3V, 3.7V, 4.5V) - Part Number: ADEH-P-B

For more information visit: www.adaptivete.com

