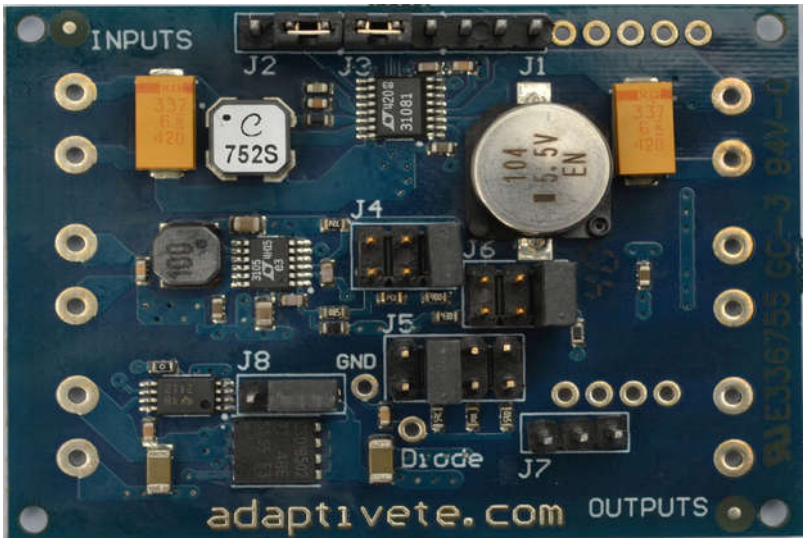
Energy Harvesting Board
ADEH-P-B



Features

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

Contents

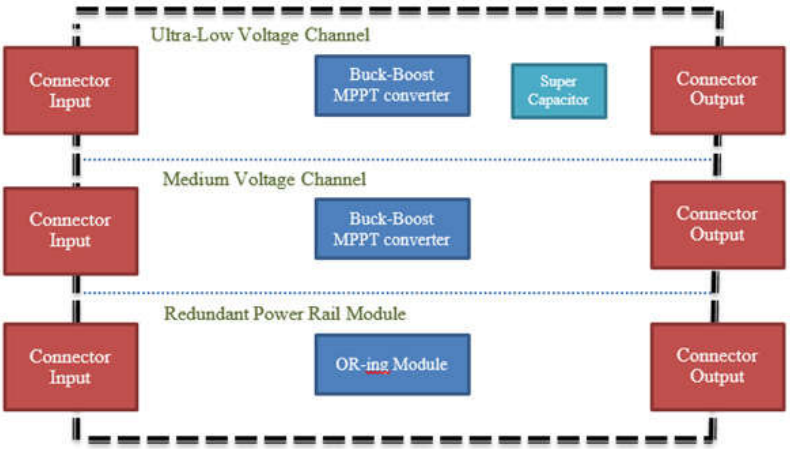
- 1x PCB

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 independant 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

Adaptive® Power Management

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Energy Harvesting Board
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Typical specifications

Input voltage range (TEG harvester)	50mV - 500mV
Output voltage 1 (TEG harvester)	Selectable: 2.5V, 3V, 3.7V, 4.5V
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 - LTC3108-1, LTC3105, TPS2412

For more information visit: www.adaptivete.com

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