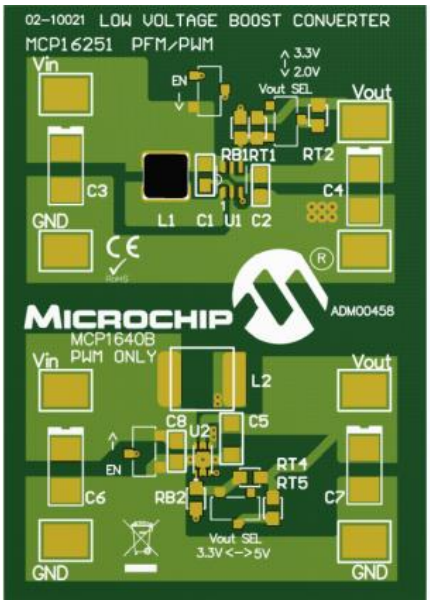
MCP16251 and MCP1640B Synchronous Boost Converters Evaluation Board

Part Number: adm00458



The MCP16251 and MCP1640B Synchronous Boost Converters Evaluation Board is used to evaluate and demonstrate Microchip Technology's MCP16251 and MCP1640B products. This board demonstrates the MCP16251/MCP1640B in two boost-converter applications with multiple output voltages. It can be used to evaluate both package options (SOT-23-6 and 2x3 mm 8-(T)DFN). The MCP16251 and MCP1640B Synchronous Boost Converters Evaluation Board was developed to help engineers reduce the product design cycle time. Three common output voltages can be selected: 2.0V, 3.3V and 5.0V. The output voltage can be changed with a mini-dip switch that changes the external resistor divider. A switch connected to the EN pin is used to enable and disable the converters. When enabled, the MCP16251/MCP1640B will regulate the output voltage; when disabled, the MCP16251/MCP1640B disconnects the path from input to output for "true-disconnect".

Devices Supported: MCP16251, MCP1640B

Features:

- It can be powered by one-cell, two-cell, or three-cell alkaline, NiCd, NiMH, one-cell Li-Ion or Li-Polymer batteries
- Input voltage range (VIN): 0.35V to 5.5V, with VIN ≤ VOUT
- Fixed output voltage: 2.0V or 3.3V and 3.3V or 5.0V, selected using a mini-dip switch on board
- Output current: typical 125 mA @ 3.3V Output, 1.5V Input or 200 mA @ 5.0V Output, 3V Input
- Start-up voltage: 0.82V (for MCP16251's Converter) or 0.65V (for MCP1640B's Converter) at VOUT = 3.3V and IOUT= 1mA, resistive load
- Automatic PFM/PWM Operation for the MCP16251 Converter
- PWM Switching Frequency = 500 kHz
- Enable state, selectable using the mini-dip switch on board
- Peak Input Current Limit (800mA for MCP1640 or 650mA for MCP16251)
- Over-temperature Protection

Package Contents:

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