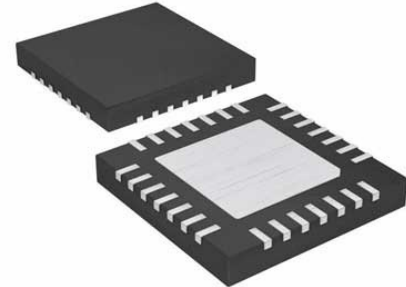


Switching Controllers PWM Controller Enhanced Power

Manufacturers	<a href="#">Microchip Technology, Inc</a>
Package/Case	QFN-28
Product Type	Integrated Circuits (ICs)
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for MCP19117T-E/MQ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The MCP19117 is a mid-voltage (4.5-42V) analog-based PWM controller with an integrated 8-bit PICTM Microcontroller. This unique product family combines the performance of a high-speed analog solution, including high-efficiency and fast transient response, with the configurability and communication interface of a digital solution. Combining these solution types creates a new family of devices that maximizes the strengths of each technology to create a more cost-effective, configurable, high-performance power conversion solution. These products allow the development of flexible power supplies that can be configured perfectly to the target application with minimal external components. In addition, these devices can be programmed to dynamically respond to measurements or events within the system, dynamically tailoring the operation to the environment, or intelligently responding to faults for robust operation. This device is similar to the MCP19114 and MCP19115, but contains additional calibration features for improved accuracy and measurement, as well as a larger flash memory for storing additional code within the device. The

MCP19117 is functionally equivalent to our MCP19116, however the MCP19117 offers more GPIO and a debugging interface. The MCP19116 and MCP19117 development tools, including both hardware and software tools, provide a convenient and powerful development platform upon which to develop and evaluate your Boost and Buck/Boost power supply design.

## Features

Current regulation accuracy with less than 5% variation across temperature, including all line, load, and system variations

Dynamically adjustable output current over a wide operating range

Wide operating voltage range: 4.5-42V

Analog peak-current mode Pulse-Width Modulation (PWM) control

Integrated 8-Bit PIC® Microcontroller

Significant configurability: adjustable output voltage, output current, MOSFET deadtime, leading edge blanking time, thermal responses, slope compensation, over-current protection, over and under voltage lockout levels

Available fixed frequency or quasi-resonant mode operation, adjustable 31 kHz to 2 MHz

I2C communication interface

12 GPIO

Integrated synchronous low-side MOSFET drivers

Integrated high voltage linear regulator, with external output

Integrated temperatures sense diode

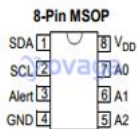
Integrated 10 bit A/D converter

Minimal external components needed

Custom algorithm support

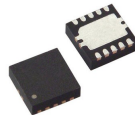
Topologies supported: Boost, SEPIC, Flyback, and Cuk

## Related Products



### [MCP9808T-E/MS](#)

Microchip Technology, Inc  
MSOP-8

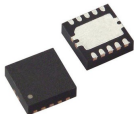


### [ATSAMC21G17A-MZTVAO](#)

Microchip Technology, Inc  
VQFN

### [MCP16502TAC-E/S8B](#)

Microchip Technology, Inc  
VQFN



### [MCP16362T-E/NMX](#)

Microchip Technology, Inc  
VDFN

### [BM64SPKS1MC1-00M2AA](#)

Microchip Technology, Inc  
SMD



### [MCP2517FDT-H/SL](#)

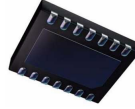
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SOIC-14





[MCP2517FD-H/SL](#)

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[MCP2517FD-H/JHA](#)

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