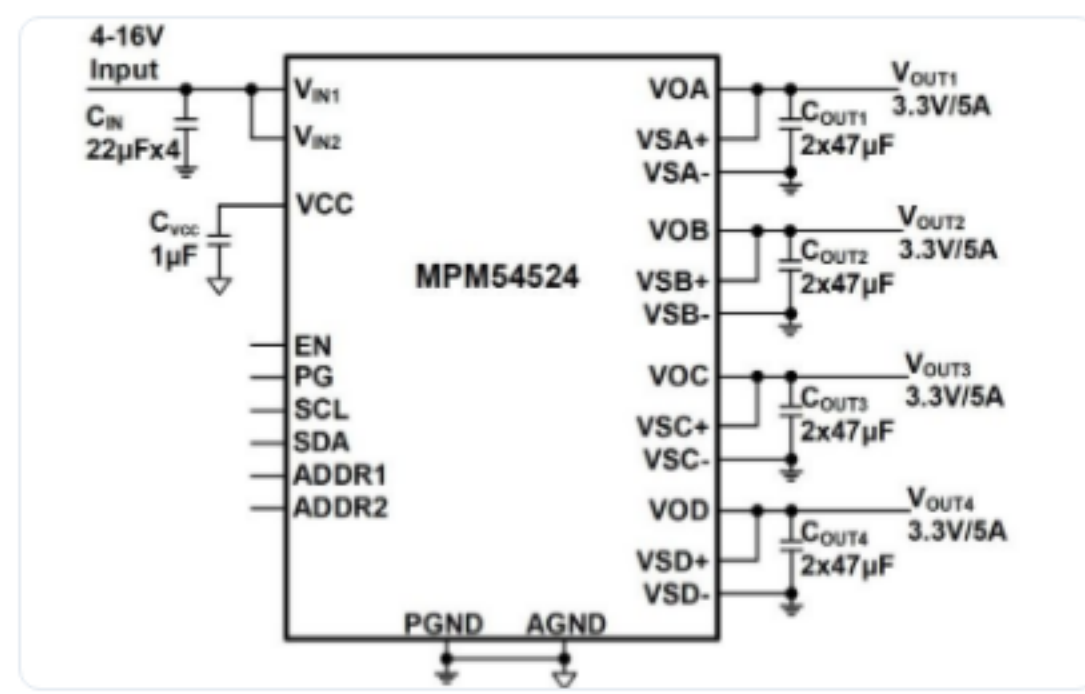


MPM54524

# MPM54524

Fully Integrated, 16V, Quad 5A Output Power Module

Pre-Release
[Datasheet](#)


## Description

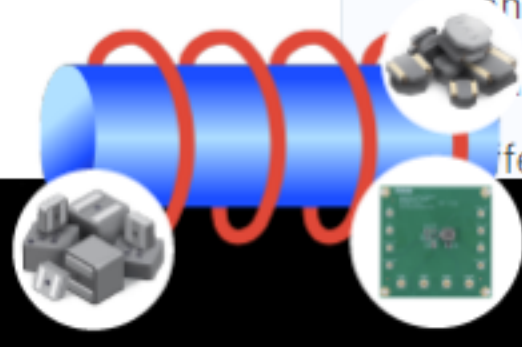
The MPM54524 is a quad 5A, integrated power module. The MPM54524 offers a complete power solution with built-in turn-on/turn-off sequencing control, configurable soft start (SS), compensation, and various protection thresholds.

Constant-on-time (COT) control provides ultra-fast transient response. The 1MHz switching frequency ( $f_{sw}$ ) greatly reduces the passive component size. The output voltage ( $V_{out}$ ) is adjustable through the digital interface as per the memory.

[Show more](#)

## Features & Benefits

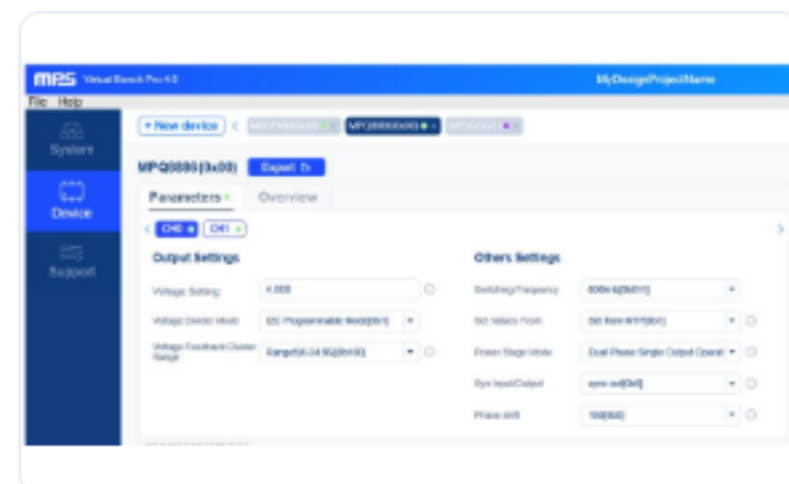
- ✓ Wide 4V to 16V Input Voltage ( $V_{in}$ ) Range
- ✓ Adaptive Constant-On-Time (COT) for Ultra-Fast Transient Response
- ✓ Channels A and B and Channels C and D Support Up to 10A of Continuous Output Current ( $I_{out}$ ) in Parallel Mode
- ✓ Configurable Active Load Line (Drop Resistance) Up to 100mΩ
- ✓ Differential Output Voltage ( $V_{out}$ ) Remote Sense
- ✓ Open-Drain Power Good (PG) Indication
- ✓ Pre-Biased Start-Up
- ✓ Over-Current Protection (OCP)
- ✓ Under-Voltage Lockout (UVLO)
- ✓ Under-Voltage Protection (UVP)
- ✓ Over-Voltage Protection (OVP)


WEBINAR [Choosing the Right Inductor for Your DC/DC Converter](#)
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**Active Part Numbers:** [MPM54524GCQ-xxxx-T](#) [MPM54524GCQ-0000-T](#) [MPM54524GCQ-xxxx-Z](#) [MPM54524GCQ-0000-Z](#)

Meaning of P &amp; Z

## Related Products



### Virtual Bench Pro 4.0 Graphical User Interface (GUI) Supported by MPS Used to Configure and Monitor Multiple MPS Digital Power Solutions with an I<sup>2</sup>C Interface

The Virtual Bench Pro 4.0 is a Graphical User Interface (GUI) supported by MPS used to configure and monitor multiple MPS digital power solutions with an I<sup>2</sup>C Interface. This GUI is an intuitive tool that can be used with MPS evaluation kits and helps assist in the evaluation and in the testing

[Learn more](#)

## MPM54524 Resources

Page 1 of 7

**OPTICAL NETWORK TERMINAL (ONT) UNITS**

APPLICATION

An optical network terminal (ONT) unit is a device that connects fiber optics cables t...

**SMALL CELL BASE STATIONS**

APPLICATION

Small cell base stations are more useful than ever with the ubiquity of smartphones,...

**OPTICAL MODULES**

APPLICATION

Optical modules are optical transceivers used for high-speed data transmission, an...

**HOW TO AVOID UNSTABLE POWER SUPPLY...**

ARTICLE

The electrical appliances we use in our daily lives — from lights to computers — typica...

**DESIGNING A HIGH-SPEED**

ARTICLE

As we navigate COVID-19, in-p interactions ha

## Design Resources

### Symbol, Footprint & 3D Model

30+ more formats

Symbols (36)

Footprint (34)

3D Models (15)

EDA model is not yet available for this part.  
Please enter your email address and we will notify you when it is released.

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# Why Choose MPS

Learn Why

## Technical Forum

### Questions answered by MPS engineers in 24h

#### MPM3630 Vcc driving capability

Can Vcc output of MPM3630 be used to power an external IC that requires up to 15 mA of current at 5V?

■ INTEGRATED INDUCTOR POWER MODULES

 Latest activity 11 hours ago 2 Comments

#### MPM3550E Low Load Ripple

Hello One question regarding MPM3550E low load ripple. We have design with MPM3550E where we apply 20V to the input and output set to 12V . With load ...

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 Latest activity a week ago 1 Comment

#### MP5416 I2C register setup

Hi Sir, I'm Hung Lin. I used MP5416, which OTP module is 0000. But I tried to use I2C read command #6 (default E0), and changed register that buck1 di...

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 Latest activity 3 weeks ago 2 Comments
Get technical support

## Quality Policy, Certificates & Reliability Reports

All MPS parts are lead-free, halogen-free and adhere to the RoHS directive. See Environmental section for details.

[SEE ALL QUALITY DOCUMENTS](#)

**Quality Policy**

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**RoHS/Lead Free Policy**

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