



# MP87190

## 90A, Intelli-Phase™ DrMOS Solution in TGLA-41 (5mmx6mm) Package with Quiet Switcher™ Technology and 5V PVCC

### DESCRIPTION

The MP87190 is a monolithic half-bridge with built-in internal power MOSFETs and gate drivers. It achieves up to 90A of continuous output current ( $I_{OUT}$ ) across a wide input voltage ( $V_{IN}$ ) supply range.

Quiet Switcher™ technology (QST) utilizes a proprietary circuit design that can only be achieved in a monolithic architecture to suppress voltage ringing. This technology limits the peak switching voltage to <2V above  $V_{IN}$ , improving device reliability, lowering EMI, and reducing sensitivity to PCB layout.

The MP87190 offers many features to simplify system design. This device operates with tri-state pulse-width modulation (PWM) signal controllers, and features Accu-Sense™ current sensing and temperature sensing, to monitor the inductor current ( $I_L$ ) and report the junction temperature ( $T_J$ ), respectively

The MP87190 is ideal for server and telecom applications where efficiency and small size are at a premium. The MP87190 is available in TLGA-41 (5mmx6mm) package.

### FEATURES

- Quiet Switcher™ Technology (QST) Limits Peak Switching Voltages to <2V above the Input Voltage ( $V_{IN}$ ) with Minimal Reliance on PCB Layout
- Wide 3V to 16V Operating  $V_{IN}$  Range
- 90A Output Current ( $I_{OUT}$ )
- 5V PVCC Operation
- Current Sense: Accu-Sense™
- Temperature Sense
- Accepts Tri-State Pulse-Width Modulation (PWM) Signal
- Current-Limit Protection
- Over-Temperature Protection (OTP)
- Fault Reporting
- Available in a TLGA-41 (5mmx6mm) Package

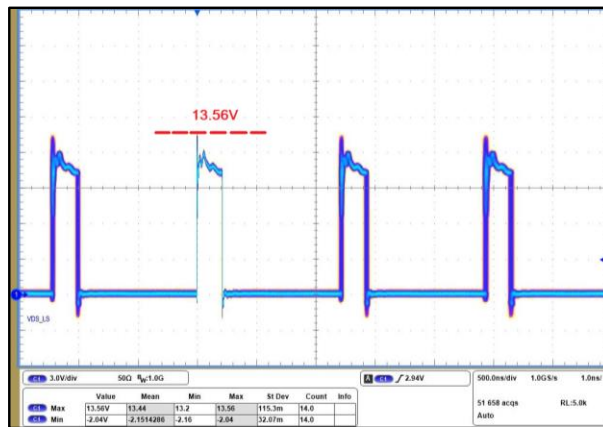
### APPLICATIONS

- Server Core Voltage
- Telecom and Networking Systems
- Power Modules

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### QUIET SWITCHER WAVEFORM

$V_{IN} = 12V$ ,  $I_{OUT} = 90A$ , products without QST reach 26.5V



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