

## Conv DC-DC 3V to 6V Synchronous Step Down Single-Out 2.5V 3A 20-Pin HTSSOP EP T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>	<a href="#">TPS54315PWPR Image</a>
<b>Package/Case:</b>	HTSSOP20	Images are for reference only
<b>Product Type:</b>	Power Management ICs	<a href="#">Inquiry</a>
<b>RoHS:</b>	RoHS Compliant/Lead free 	
<b>Lifecycle:</b>	Active	

### General Description

The TPS543x is a high-output-current PWM converter that integrates low-resistance, high-side N-channel MOSFET. Included on the substrate with the listed features are a high-performance voltage error amplifier that provides tight voltage regulation accuracy under transient conditions; an undervoltage-lockout circuit to prevent start-up until the input voltage reaches 5.5 V; an internally set slow-start circuit to limit inrush currents; and a voltage feed-forward circuit to improve the transient response. Using the ENA pin, shutdown supply current is reduced to 18  $\mu$ A typically. Other features include an active-high enable, overcurrent limiting, over-voltage protection and thermal shutdown. To reduce design complexity and external component count, the TPS543x feedback loop is internally compensated. The TPS5431 is intended to operate from power rails up to 23 V. The TPS5430 regulates a wide variety of power sources including 24 Vbus.

The TPS543x device is available in a thermally enhanced, easy to use 8-pin SOIC PowerPAD package. TI provides evaluation modules and the Designer software tool to aid in quickly achieving high-performance power supply designs to meet aggressive equipment development cycles.

### Key Features

Wide Input Voltage Range:

TPS5430: 5.5 V to 36 V

TPS5431: 5.5 V to 23 V

Up to 3-A Continuous (4-A Peak) Output Current

High Efficiency up to 95% Enabled by 110-m Integrated MOSFET Switch

Wide Output Voltage Range: Adjustable Down to 1.22 V with 1.5% Initial Accuracy

Internal Compensation Minimizes External Parts Count

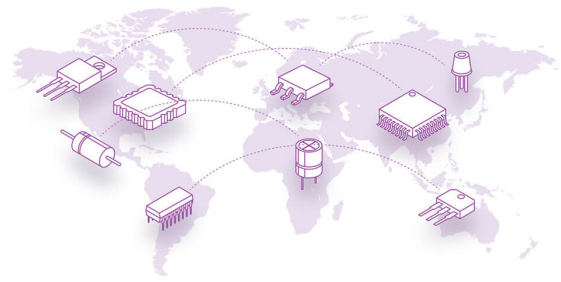
Fixed 500 kHz Switching Frequency for Small Filter Size

Improved Line Regulation and Transient Response by Input Voltage Feed Forward

System Protected by Overcurrent Limiting, Overvoltage Protection and Thermal Shutdown

Available in Small Thermally Enhanced 8-Pin SO PowerPAD Package

Create a Custom Design Using the TPS5430 With the WEBENCH Power Designer



## Recommended For You

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### **TPD3S014DBVR**

Texas Instruments, Inc

SOT23-6

### **TPS2065CDBVR**

Texas Instruments, Inc

SOT23-5

### **TPS2557DRBT**

Texas Instruments, Inc

SON8

### **TPS2042BDR**

Texas Instruments, Inc

SOP8

### **TPS2051BDR**

Texas Instruments, Inc

SOP8

### **TPL7407LPWR**

Texas Instruments, Inc

TSSOP16

### **TPS23753APWR**

Texas Instruments, Inc

TSSOP14

### **TPS2116DRLR**

Texas Instruments, Inc

SOT5X3-8

### **TPS259460ARPWR**

Texas Instruments, Inc

VQFN-10

### **TPS23751PWPR**

Texas Instruments, Inc

HTSSOP16

### **TPS65150QPWPRQ1**

Texas Instruments, Inc

HTSSOP-24

### **TPS2410PWR**

Texas Instruments, Inc

TSSOP-14

### **TPS22914BYFPR**

Texas Instruments, Inc

DSBGA4

### **TPS2115ADRBR**

Texas Instruments, Inc

VSON8

### **TPS2113ADRBR**

Texas Instruments, Inc

SON8