


## DUAL CONTROL CIRCUITS

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	SOP
<b>Product Type:</b>	Power Management ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

## General Description

The TL1451A incorporates on a single monolithic chip all the functions required in the construction of two pulse-width-modulation (PWM) control circuits. Designed primarily for power-supply control, the TL1451A contains an on-chip 2.5-V regulator, two error amplifiers, an adjustable oscillator, two dead-time comparators, undervoltage lockout circuitry, and dual common-emitter output transistor circuits.

The uncommitted output transistors provide common-emitter output capability for each controller. The internal amplifiers exhibit a common-mode voltage range from 1.04 V to 1.45 V. The dead-time control (DTC) comparator has no offset unless externally altered and can provide 0% to 100% dead time. The on-chip oscillator can be operated by terminating RT and CT. During low  $V_{CC}$  conditions, the undervoltage lockout control circuit feature locks the outputs off until the internal circuitry is operational.

The TL1451AC is characterized for operation from -20°C to 85°C. The TL1451AQ is characterized for operation from -40°C to 125°C. The TL1451AM is characterized for operation from -55°C to 125°C.

## Key Features

Complete PWM Power Control Circuitry

Completely Synchronized Operation

Internal Undervoltage Lockout Protection

Wide Supply Voltage Range

Internal Short-Circuit Protection

Oscillator Frequency...500 kHz Max

Variable Dead Time Provides Control Over Total Range

Internal Regulator Provides a Stable 2.5-V Reference Supply

Available in Q-Temp Automotive  
HighRel Automotive Applications  
Configuration Control / Print Support  
Qualification to Automotive Standards

## Recommended For You

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### **TL2843P**

Texas Instruments, Inc  
DIP8

### **TL431CP**

Texas Instruments, Inc  
DIP8

### **TL7705ACDR**

Texas Instruments, Inc  
SOP8

### **TL3843P**

Texas Instruments, Inc  
DIP8

### **TL497ACN**

Texas Instruments, Inc  
DIP14

### **TL3845P**

Texas Instruments, Inc  
DIP8

### **TL494CD**

Texas Instruments, Inc  
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### **TL431IDBVR**

Texas Instruments, Inc  
SOT23-5

### **TL494CN**

Texas Instruments, Inc  
DIP

### **TL431CDBVR**

Texas Instruments, Inc  
SOT23-5

### **TL7705ACP**

Texas Instruments, Inc  
DIP8

### **TL3842P**

Texas Instruments, Inc  
DIP8

### **TLV73325PDBVT**

Texas Instruments, Inc  
SOT23-5

### **TLV73333PDBVR**

Texas Instruments, Inc  
SOT23-5

### **TL431BIDBZT**

Texas Instruments, Inc  
SOT23-3