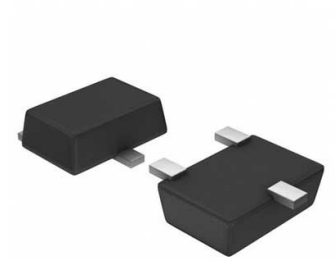


## Conv DC-DC 4V to 40V Step Down Single-Out 5V 0.6A Automotive 6-Pin TSOT-23 T/R



Images are for reference only

**Manufacturer:** [Texas Instruments, Inc](#)

**Package/Case:** SOT23-6

**Product Type:** Power Management ICs

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

[Inquiry](#)

### General Description

The LMR16006Y-Q1 is a PWM DC-DC buck (step-down) regulator. It is suitable for a wide range of application from industrial to automotive for power conditioning from an unregulated source. The regulator's standby current is 28  $\mu$ A in ECO mode, which is suitable for battery operating systems. An ultra-low 1  $\mu$ A shutdown current can further prolong battery life. Operating frequency is fixed at 2.1 MHz allowing the use of small external components while still being able to have low output ripple voltage. Soft-start and compensation circuits are implemented internally, which allows the device to be used with minimized external components. The LMR16006Y-Q1 is optimized for up to 600 mA load currents. It has a 0.765 V typical feedback voltage. The device has built-in protection features such as pulse by pulse current limit, thermal sensing and shutdown due to excessive power dissipation. The LMR16006Y-Q1 is available in a low profile SOT-6L package (2.9 mm  $\times$  1.6 mm).

## Key Features

LMR16006Y-Q1 is an Automotive Grade Product that is a AEC-Q100 Grade 1 Qualified (-40°C to +125°C Operating Junction Temperature)

Input Voltage Range 4 V to 40 V with Transient Up to 65 V

Output Current up to 600 mA

2.1 MHz Switching Frequency

Ultra Low 28  $\mu$ A Standby Current in ECO Mode

1  $\mu$ A Shutdown Current

High Duty Cycle Operation Supported

ADJ, Fixed 3.3 V and Fixed 5 V Output Option

Internal Compensation

High Voltage Enable Input

Internal Soft Start

Over Current Protection

Over Temperature Protection

Small Overall Solution Size (SOT-6L Package)

## Recommended For You

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### LM2637M

Texas Instruments, Inc  
SOP24

### LM5116MH

Texas Instruments, Inc  
TSSOP20

### LM234Z-3

Texas Instruments, Inc  
TO-92

### LM27761DSGR

Texas Instruments, Inc  
WSO8

### LM74700QDBVRQ1

Texas Instruments, Inc  
SOT23-6

### LM2991S

Texas Instruments, Inc  
TO-263

### LM74800QDRRRQ1

Texas Instruments, Inc  
WSO-12

### LMR14030SDDAR

Texas Instruments, Inc  
SOP8

### LM2940CT-12

Texas Instruments, Inc  
TO-220

### LM536035QPWPTQ1

Texas Instruments, Inc  
HTSSOP-16

### LM5575MH

Texas Instruments, Inc  
TSSOP16

### LM536013QDSXTQ1

Texas Instruments, Inc  
WSO-10

**LM5160QPWRQ1**

Texas Instruments, Inc

HTSSOP14

**LM5576MH**

Texas Instruments, Inc

TSSOP20

**LMQ61460AFSQRJRRQ1**

Texas Instruments, Inc

VQFN-14