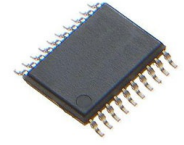


## Conv DC-DC 4.5V to 36V Synchronous Step Down Single-Out 0.8V to 7V 1.5A 20-Pin HTSSOP EP Tube



Images are for reference only

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

**Package/Case:** TSSOP20

**Product Type:** Power Management ICs

**Lifecycle:** NRND

[Inquiry](#)

### General Description

The LM3100 Synchronously Rectified Buck Converter features all functions needed to implement a highly efficient, cost effective buck regulator capable of supplying 1.5 A to loads with voltages as low as 0.8 V. Dual 40 V N-Channel synchronous MOSFET switches allow for low external component thus reducing complexity and minimizing board space. The LM3100 is designed to work exceptionally well with ceramic and other very low ESR output capacitors. The Constant ON-Time (COT) regulation scheme requires no loop compensation, results in fast load transient response, and simplifies circuit implementation. Through the use of a unique design the regulator does not rely on output capacitor ESR for stability, as do most other COT regulators. The operating frequency remains nearly constant with line and load variations due to the inverse relationship between the input voltage and the on-time. The operating frequency can be externally programmed up to 1 MHz. Protection features include VCC under-voltage lockout, thermal shutdown and gate drive under-voltage lockout. The part is available in a thermally enhanced HTSSOP-20 package

### Key Features

Input Voltage Range 4.5 V to 36 V

1.5 A Output Current

0.8 V,  $\pm 1.5\%$  Reference

Integrated 40 V, Dual N-Channel Buck Synchronous Switches

Low Component Count and Small Solution Size

No Loop Compensation Required

Ultra-Fast Transient Response

Stable With Ceramic and Other Low ESR Capacitors

Programmable Switching Frequency up to 1 MHz

Max. Duty Cycle Limited During Start-Up

Valley Current Limit

Precision Internal Reference for Adjustable Output Voltage Down to 0.8 V

Thermal Shutdown

Thermally Enhanced HTSSOP-20 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  
WSO8-12

### **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  
WSO8-10

### **LM5160QPWPRQ1**

Texas Instruments, Inc  
HTSSOP14

### **LM5576MH**

Texas Instruments, Inc  
TSSOP20

### **LMQ61460AFSQRJRRQ1**

Texas Instruments, Inc  
VQFN-14