

## Charge Pump INV/STPUP -12V to -1.5V/3V to 24V 20mA 8-Pin SOIC N Tube



Images are for reference only

[Inquiry](#)

**Manufacturer:** [Microchip Technology, Inc](#)

**Package/Case:** SOP8

**Product Type:** Power Management ICs

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active

### General Description

The TC7660S is a pin-compatible upgrade to the Industry standard TC7660 charge pump voltage converter. It converts a +1.5V to +12V input to a corresponding -1.5V to -12V output using only two low-cost capacitors, eliminating inductors and their associated cost, size and EMI. Added features include an extended supply range to 12V, and a frequency boost pin for higher operating frequency, allowing the use of smaller external capacitors. The on-board oscillator operates at a nominal frequency of 10kHz. Frequency is increased to 45kHz when pin 1 is connected to V+. Operation below 10kHz (for lower supply current applications) is possible by connecting an external capacitor from OSC to ground (with pin 1 open). The TC7660S is available in both 8-pin DIP and 8-pin small outline (SOIC) packages in commercial and extended temperature ranges.

### Key Features

- Oscillator boost from 10kHz to 45kHz
- Converts +5V Logic Supply to ±5V System
- Efficient Voltage Conversion: 99.9%
- Excellent Power Efficiency: 98%
- Low Power Supply: 80µA @ 5VIN
- Low Cost and Easy to Use — Only Two External Capacitors Required
- Improved ESD Protection-Up to 10kV
- No External Diode Required for High Voltage Operation

### Recommended For You

#### TC7660COA

Microchip Technology, Inc  
SOP8

#### TC54VC3002ECB713

Microchip Technology, Inc  
SOT-23

#### TC4428ACOA

Microchip Technology, Inc  
SOP8

**TC429CPA**

Microchip Technology, Inc  
DIP8

**TC4420EPA**

Microchip Technology, Inc  
DIP8

**TC1232CPA**

Microchip Technology, Inc  
DIP8

**TC1232COA**

Microchip Technology, Inc  
SOP-8

**TC4427AEP**

Microchip Technology, Inc  
DIP8

**TC4421CAT**

Microchip Technology, Inc  
TO220-5

**TC4420CPA**

Microchip Technology, Inc  
DIP8

**TC4422EPA**

Microchip Technology, Inc  
DIP8

**TC1232EOA**

Microchip Technology, Inc  
SOP-8

**TC1240AECTR**

Microchip Technology, Inc  
SOT23-6

**TC4421CPA**

Microchip Technology, Inc  
DIP8

**TC4420COA**

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SOP-8