

**Charge Pump INV/STPUP/STPDN -1.5V to -12V/1.5V to 22.8V  
45mA 8-Pin PDIP Tube**



Images are for reference only

[Inquiry](#)

<b>Manufacturer:</b>	<a href="#">Renesas Technology Corp</a>
<b>Package/Case:</b>	DIP8
<b>Product Type:</b>	Power Management ICs
<b>Lifecycle:</b>	Obsolete

## General Description

The MAX1044 and ICL7660 are monolithic, CMOS switched-capacitor voltage converters that invert, double, divide, or multiply a positive input voltage. They are pin compatible with the industry-standard ICL7660 and LTC1044. Operation is guaranteed from 1.5V to 10V with no external diode over the full temperature range. They deliver 10mA with a 0.5V output drop. The MAX1044 has a BOOST pin that raises the oscillator frequency above the audio band and reduces external capacitor size requirements. The MAX1044/ICL7660 combine low quiescent current and high efficiency. Oscillator control circuitry and four power MOSFET switches are included on-chip. Applications include generating a -5V supply from a +5V logic supply to power analog circuitry. For applications requiring more power, the MAX660 delivers up to 100mA with a voltage drop of less than 0.65V.

## Key Features

- Guaranteed Lower Max Supply Current for All Temperature Ranges
- Wide Operating Voltage Range: 1.5V to 12V
- 100% Tested at 3V
- Boost Pin (Pin 1) for Higher Switching Frequency
- Guaranteed Minimum Power Efficiency of 96%
- Improved Minimum Open Circuit Voltage Conversion Efficiency of 99%
- Improved SCR Latchup Protection
- Simple Conversion of +5V Logic Supply to ±5V Supplies
- Simple Voltage Multiplication
- Easy to Use; Requires Only Two External Non-Critical Passive Components
- Improved Direct Replacement for Industry Standard ICL7660 and Other Second Source Devices
- Pb-Free Available (RoHS Compliant)

## Application

- Data Acquisition
- EIA/TIA-232E and EIA/TIA-562 Power Supplies
- Handheld Instruments (PDAs, Palmtops)
- Op-Amp Power Supplies
- Panel Meters
- Personal Communications Equipment
- Portable Telephones



## Recommended For You

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### **ICL7660SCPAZ**

Renesas Technology Corp

DIP-8

### **ICL7660AIBA**

Renesas Technology Corp

SOP8

### **ICL7660SIBAZ**

Renesas Technology Corp

SOP8

### **ICL7660SIBAZT**

Renesas Technology Corp

SOP8

### **ICL7660CBAZ**

Renesas Technology Corp

SOP8

### **ICL7660AIBAZA-T**

Renesas Technology Corp

SOP8

### **ICL7660CPA**

Renesas Technology Corp

DIP-8

### **ICL7660SCBAZ-T**

Renesas Technology Corp

SOP8

### **ICL7660CBA**

Renesas Technology Corp

SOP-8

### **ICL7660CBAZ-T**

Renesas Technology Corp

SOP8

### **ICL7660SCBA**

Renesas Technology Corp

SOP8

### **ICL7660ACBA**

Renesas Technology Corp

SOP-8

### **ICL7660ACBAZA-T**

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### **ICL7660ACPAZ**

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