

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



Images are for reference only

<b>Manufacturer:</b>	<a href="#">Renesas Technology Corp</a>
<b>Package/Case:</b>	SOP8
<b>Product Type:</b>	Power Management ICs
<b>Lifecycle:</b>	Obsolete

[Inquiry](#)

## General Description

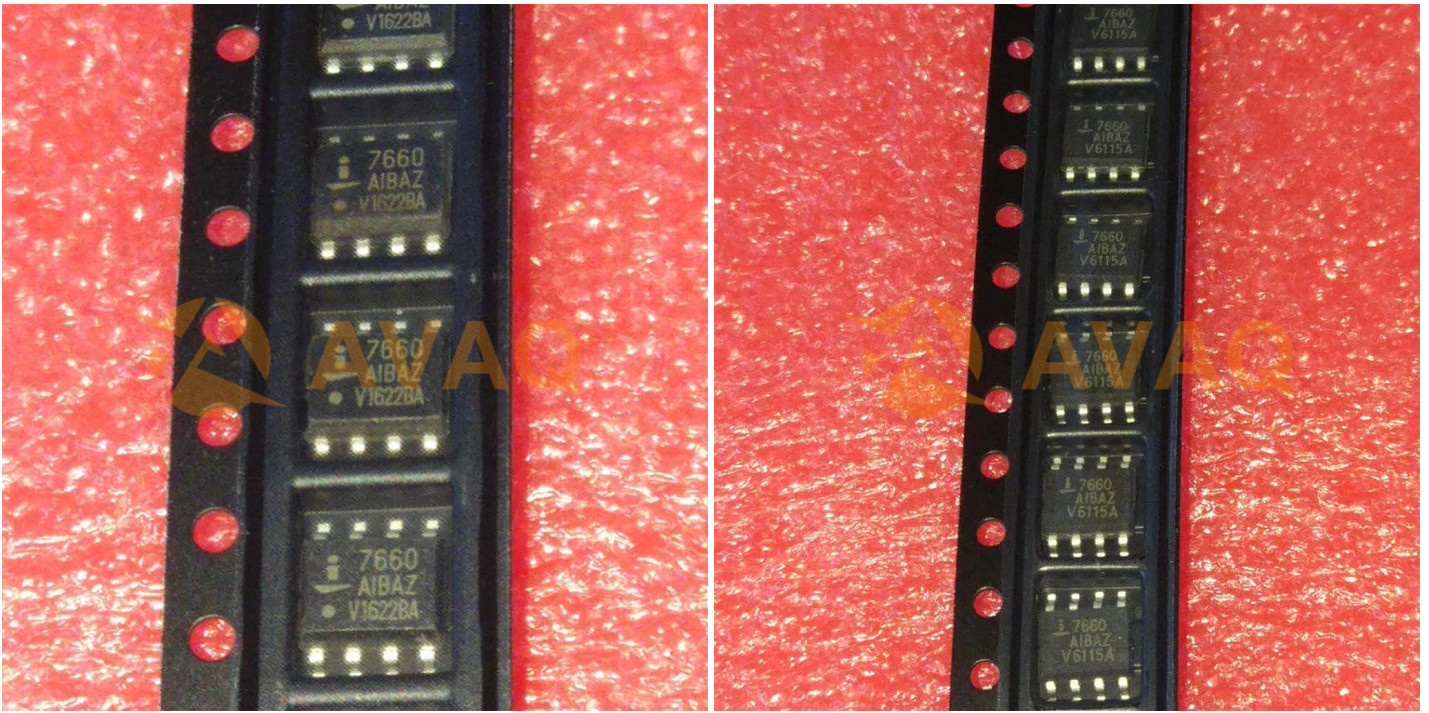
The MAX1044 and ICL7660 are monolithic, CMOS switched-capacitor voltage converters that invert, double, divide, or multiply a positive input voltage. They are pin compatible with the industry-standard ICL7660 and LTC1044. Operation is guaranteed from 1.5V to 10V with no external diode over the full temperature 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

---

### ICL7660SCPAZ

Renesas Technology Corp

DIP-8

### 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

### ICL7660SCPA

Renesas Technology Corp

DIP8

### 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

Renesas Technology Corp

SOP8

### ICL7660ACPAZ

Renesas Technology Corp

DIP8

### ICL7660ACBAZA

Renesas Technology Corp

SOP-8