MAX9636AXT+T

Op Amp Single Low Power Amplifier R-R I/O 5.5V 6-Pin SC-70 T/R

Manufacturer:	Maxim Integrated
Package/Case:	SC70-6
Product Type:	Amplifier ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

MAX9636AXT+T Image

Images are for reference only

Inquiry

General Description

The MAX9636/MAX9637/MAX9638 are single-supply, CMOS input op amps featuring wide bandwidth at low quiescent current, making them suitable for a broad range of battery-powered applications such as portable medical instruments, portable media players, and smoke detectors. A combination of extremely low input bias currents, low input current noise and low input voltage noise allows interface to high-impedance sources such as photodiode and piezoelectric sensors.

The ICs feature a maximized ratio of gain bandwidth (GBW) to supply current. The devices operate from a single 2.1V to 5.5V supply at a typical quiescent supply current of 36µA. For additional power conservation, the MAX9636 and MAX9638 offer a low-power shutdown mode that reduces supply current to 1µA and places the amplifiers' outputs into a high-impedance state.

The ICs are specified over the automotive operating temperature range (-40°C to +125°C). The single is offered in a space-saving, 6-pin SC70 package, while the dual is offered in tiny, 8-pin SC70 and 10-pin UTQFN packages.

Key Features

Wide bandwidth of 1.5MHz and slew rate of 0.9V/µs

Automotive temperature range from -40°C to 125°C

Delivers low power, cost effective solution where low noise and low IBIAS are critical

Input offset voltage of 0.01mV and ultra low bias current of ±0.1pA at TA = 25°C

CMRR of 86dB (VSS < VCM < (VDD - 1.4V)) and PSRR of 100dB (VDD - VSS = 2.1V to 5.5V) at TA = 25°C

Open loop gain of 124dB (VOUT = 0.25V from rails) and 120dB (VOUT = 0.4V from rails, RL = 600 ohm)

Low input current noise density of 0.9fA/√Hz

Extends battery life and saves board space

Input offset voltage drift of 7µV/°C

0.01µA output leakage current in shutdown mode

Battery-Powered Devices; Piezoelectric Transducer Amplifiers; Portable Medical Instruments; Smoke Detectors; Tablets; Transimpedance Amplifiers

Application

Battery-Powered Devices

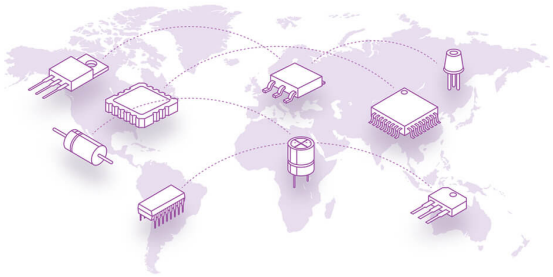
Piezoelectric Transducer Amplifiers

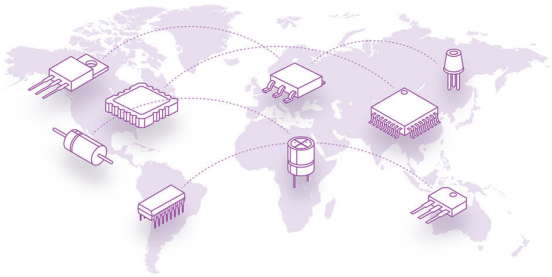
Portable Medical Instruments

Smoke Detectors

Tablets

Transimpedance Amplifiers





Recommended For You

MAX4208AUA+T
Maxim Integrated
MSOP8

MAX4462HEUT
Maxim Integrated
SOT23-6

MAX3654ETE+T
Maxim Integrated
QFN

MAX4194ESA+
Maxim Integrated
SOP8

MAX4194ESA+T
Maxim Integrated
SOP8

MAX497CSE+
Maxim Integrated
SOP-16

MAX4372TEUK+T
Maxim Integrated
SOT23-5

MAX4173TEUT+T
Maxim Integrated
SOT23-6

MAX4172ESA+
Maxim Integrated
SOP8

MAX998EUT+T
Maxim Integrated
SOT23-6

MAX44284FAUT+T
Maxim Integrated
SOT23-6

MAX4376TAUK+T
Maxim Integrated
SOT23-5

MAX5166NCCM+T
Maxim Integrated
BGA

MAX5165NCCM+T
Maxim Integrated
BGA

MAX457CSA+
Maxim Integrated
SOP-8