

Power Driver 28-Pin TSSOP

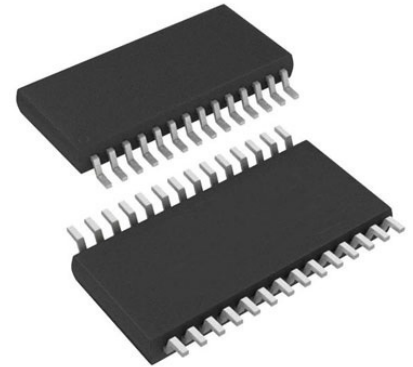
Manufacturer: [Analog Devices, Inc](#)

Package/Case: TSSOP28

Product Type: Power Management ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active



Images are for reference only

[Inquiry](#)

General Description

The MAX1968/MAX1969 are highly integrated and cost-effective, high-efficiency, switch-mode drivers for Peltier thermoelectric cooler (TEC) modules. Both devices utilize direct current control to eliminate current surges in the TEC. On-chip FETs minimize external components while providing high efficiency. A 500kHz/1MHz switching frequency and a unique ripple cancellation scheme reduce component size and noise. The MAX1968 operates from a single supply and provides bipolar $\pm 3A$ output by biasing the TEC between the outputs of two synchronous buck regulators. Bipolar operation allows for temperature control without "dead zones" or other nonlinearities at low load currents. This arrangement ensures that the control system does not hunt when the set point is very close to the natural operating point, requiring a small amount of heating or cooling. An analog control signal precisely sets the TEC current. The MAX1969 provides unipolar output up to 6A. Reliability is optimized with settable limits for both TEC voltage and current, with independently set limits for heating and cooling current. An analog output also monitors TEC current. The MAX1968/MAX1969 are available in a low-profile 28-pin TSSOP-EP package and is specified over the $-40^{\circ}C$ to $+85^{\circ}C$ temperature range. The thermally-enhanced TSSOP-EP package with exposed metal pad minimizes operating junction temperature. An evaluation kit is available to speed designs.

Key Features

High Accuracy and Adjustability Improves System Performance by Optimizing TEC Operation

Direct Current Control Prevents TEC Current Surges

Ripple Cancellation for Low Noise

No Dead-zone or Hunting at Low-output Current

1% Accurate Voltage Reference

Adjustable TEC Voltage Limit

Separately Adjustable Heating and Cooling Current Limits

ITEC Output Provides Proportional Voltage to TEC Current for Monitoring

High-efficiency Switch-mode Design

On-chip Power MOSFETs Improve Efficiency While Reducing External Components

500kHz/1MHz Switching Frequency

±3A Output Current

Application

Automated Test Equipment (ATE)

Biotech Lab Equipment

EDFA Optical Amplifiers

Fiber Optic Network Equipment

Fiber-Optic Laser Modules

Telecom Fiber Interfaces

WDM, DWDM Laser Diode Temperature Control

Recommended For You

MAX4788EXS+T

Analog Devices, Inc

SC70-4

MAX1823BEUB+

Analog Devices, Inc

MSOP10

MAX662AESA+

Analog Devices, Inc

SOP8

MAX8911LEUA+

Analog Devices, Inc

MSOP8

MAX20049DATEB/VY+T

Analog Devices, Inc

TQFN-CU

MAX850ISA+

Analog Devices, Inc

SOIC(N)

MAX1636EAP+

Analog Devices, Inc

SSOP20

MAX77950EWW+

Analog Devices, Inc

54-WLP

MAX5943DEEE+

Analog Devices, Inc

BGA

MAX20754E1MA1+

Analog Devices, Inc

QFN36

MAX1044CSA+T

Analog Devices, Inc

SOP8

MAX1694EUB+T

Analog Devices, Inc

MSOP10

MAX4211EEUE+

Analog Devices, Inc

16-TSSOP

MAX5969EEIE+

Analog Devices, Inc

TQFN-16

MAX5922CEUI-T

Analog Devices, Inc

BGA