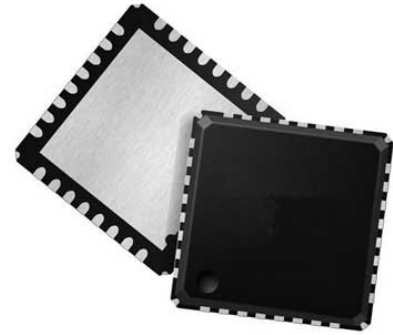


Thermoelectric Cooler Controller, 5.5V-2.7V supply, 225 kHz, QFN-32

Manufacturers	Analog Devices, Inc
Package/Case	32QFN
Product Type	PMIC - Power Management - Specialized
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for LTC1923EUH#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC1923 is a pulse width modulator intended for thermoelectric cooler (TEC) or heater applications requiring either unidirectional or bidirectional drive circuits. All of the necessary control circuitry and two sets of complementary output drivers are integrated into the LTC1923 to drive a full bridge, providing an efficient means of bidirectional current flow to the TEC. An accurate temperature control loop to stabilize the temperature of a laser diode system is easily achieved with the addition of just a few external components. Typical temperature setpoint accuracy of 0.1°C is achievable with the LTC1923. Adding an instrumentation amplifier front end allows setpoint stability of 0.01°C.

The part features independent adjustable heating and cooling pulse-by-pulse current limit, current soft-start for controlled start-up, output slew rate control to reduce system noise, differential current sense and voltage amplifiers and a host of auxiliary circuits to protect the laser and provide redundant system monitoring.

Features

High Efficiency, Low Noise Topology

Adjustable Output Slew Rate Reduces EMI

Full-Bridge Controller for Bidirectional Current Control

Adjustable Pulse-by-Pulse Bidirectional TEC Current Limit

Open/Shorted Thermistor Indication

Solution Footprint in Less Than 0.6" x 0.8"(Double-Sided PCB)

Available in 5mm x 5mm QFN and 28-Pin SSOP Packages

TEC Voltage Clamping

TEC Current, Voltage and Heat/Cool Status Outputs

Adjustable/Synchronizable Oscillator Frequency Reduces Filter Component Size and System Noise

2.5V Reference Voltage Output

2.7V Minimum Operating Voltage

Application

Laser-Based Fiber Optic Links

Medical Instruments

CPU Temperature Regulators

Related Products



[LT3763EFE](#)

Analog Devices, Inc
TSSOP28



[LT1038CK](#)

Analog Devices, Inc
TO-3



[LTC4417IUF](#)

Analog Devices, Inc
QFN-24



[LTC3440EMS](#)

Analog Devices, Inc
MSOP10



[LTC1966CMS8#PBF](#)

Analog Devices, Inc
MSOP-8P



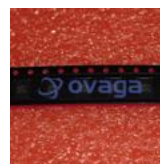
[LTC2990IMS#PBF](#)

Analog Devices, Inc
10MSOP



[LTM8045EY#PBF](#)

Analog Devices, Inc
BGA40



[LT4295IUFD#PBF](#)

Analog Devices, Inc
28-WFQFN