

Wide Range I2C Power Monitor

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| Manufacturers | Analog Devices, Inc |
| Package/Case | 12-Lead QFN (3mm x 3mm x 0.75mm w/ EP) |
| Product Type | Amplifier ICs |
| RoHS | |
| Lifecycle | |



Images are for reference only

Please submit RFQ for LTC2945IUD#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The LTC2945 is a rail-to-rail system monitor that measures current, voltage, and power. It features an operating range of 2.7V to 80V and includes a shunt regulator for supplies above 80V to allow flexibility in the selection of input supply. The current measurement range of 0V to 80V is independent of the input supply. An onboard 0.75% accurate 12-bit ADC measures load current, input voltage and an auxiliary external voltage. A 24-bit power value is generated by digitally multiplying the measured 12-bit load current and input voltage data. Minimum and maximum values are stored and an overrange alert with programmable thresholds minimizes the need for software polling. Data is reported via a standard I2C interface. Shutdown mode reduces power consumption to 20 μ A.

The LTC2945 I2C interface includes separate data input and output pins for use with standard or opto-isolated I2C connections. The LTC2945-1 has an inverted data output for use with inverting opto-isolator configurations.

Features

Rail-to-Rail Input Range: 0V to 80V

Wide Input Supply Range: 2.7V to 80V

Shunt Regulator for Supplies >80V

$\Delta\Sigma$ ADC with less than $\pm 0.75\%$ Total Unadjusted Error

12-Bit Resolution for Current and Voltages

Internal Multiplier Calculates 24-Bit Power Value

Stores Minimum and Maximum Values

Alerts When Limits Exceeded

Additional ADC Input Monitors an External Voltage

Continuous Scan and Snapshot Modes

Shutdown Mode with $I_Q < 80\mu A$

Split SDA for Opto-Isolation

Available in 12-Lead 3mm \times 3mm QFN and MSOP Packages

Application

Telecom Infrastructure

Industrial

Automotive

Consumer

Related Products



[LTC1151CSW#PBF](#)

Analog Devices, Inc
SOIC-16



[LT1498CS8](#)

Analog Devices, Inc
SOP-8



[LTC2053CMS8](#)

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MSOP8



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