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#### APPLICATION NOTE 2099

# DS1847/DS1848 Online Interactive Temperature Calculator

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*Abstract: The DS1847/DS1848 dual temperature-controlled nonvolatile (NV) variable resistors consist of two 256-position linear variable resistors and a direct-to-digital temperature sensor. The device is capable of setting and temperature-compensating bias voltages and currents using minimal circuitry, which is beneficial in control applications. This application note describes and provides a link to an Excel-based calculator, which converts the DS1847/DS1848 temperature to hexadecimal. The conversion utility also converts back from hexadecimal to temperature.*

## Introduction

The accompanying calculator converts the DS1847/DS1848 temperature to hexadecimal. The conversion utility also converts back from hexadecimal to temperature. Further technical details may be found at the QuickView data sheet links below.

[DS1847 Dual Temperature-Controlled NV Variable Resistor Quick View Data Sheet](#)

[DS1848 Temperature-Controlled NV Variable Resistor & Memory Quick View Data Sheet](#)

## Using the Worksheet

All input cells have a double-lined border. The converted values are in bold. Hexadecimal inputs have an MSB and LSB input. An analog input that is out of range results in an "Overscale" display in the answer cell. The link to the calculator is below. When prompted for username and password, log on as an anonymous user.

[http://files.dalsemi.com/system\\_extension/pots/DS1847/DS1847Calc.xls](http://files.dalsemi.com/system_extension/pots/DS1847/DS1847Calc.xls)

Note: The calculator operates over the full binary range of the temperature registers in the devices. This range extends both above and below the actual operating range. It can calculate temperatures both above and below the operating range of the device. Refer to the data sheet for the actual operating range of the devices.

#### Related Parts

[DS1847](#)

Dual Temperature-Controlled NV Variable Resistor

[Free Samples](#)

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