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[About Us](#)
[My Maxim](#)
[Maxim](#) > [Products](#) > [Thermal Management](#) > DS1820

## DS1820

# DS1820 Digital Thermometer Replacements

**DS1820 No Longer Available: Use Recommended Replacements**

[Overview](#)
[Technical Documents](#)
[Ordering Info](#)
[Related Products](#)
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[All](#)

## Status

Part Number	Status	Replacement	Explanation
DS1820	This product is Not Recommended for New Designs.	<b>DS18S20</b>	<p>Architecture: The DS18S20 uses a bandgap temperature sensing architecture rather than the dual-oscillator architecture used by the DS1820. This architectural difference is invisible to the user.</p> <p>Specification Differences: The primary specification difference between the two parts is the temperature conversion time: DS1820 = 500ms (max) and DS18S20 = 750ms (max).</p> <p>Software Compatibility: The DS18S20 is software compatible with the DS1820 in most applications.</p> <p>Hardware Compatibility: The DS18S20 is available in TO92 (DS18S20) and 8-pin SOIC (DS18S20Z) packages. The DS18S20 (TO92 package) replaces the DS1820 (PR35 package) since both packages are 3-pin packages with the same lead pitch. There is no replacement package for the DS1820S (16-pin SSOP); however, the DS18S20Z (8-pin SOIC) provides a smaller surface mount package option.</p>

## Application Notes

[Application Note 122 Using Dallas' 1-Wire ICs in 1-Cell Li-Ion Battery Packs With Low-Side N-Channel Safety FETs Master](#)  
[Application Note 198 Networked Temperature Monitoring](#)  
[Application Note 4377 Comparison of the DS18B20 and DS18S20 1-Wire® Digital Thermometers](#)

## Reliability Reports

Reliability Report: [DS1820.pdf](#)

## Software/Models

none

## Ordering Information

Filters: Part Number:  Package: Any Temperature: Any  Tape and Reel  Sample

**This product cannot be purchased through our web site. Contact factory for availability.**

### Notes:

- Other options and links for purchasing parts are listed at: <http://www.maxim-ic.com/sales>.
- [Didn't Find What You Need?](#) Ask our applications engineers. Expert assistance in finding parts, usually within one business day.
- Part number suffixes: T or T&R = tape and reel; + = RoHS/lead-free; # = RoHS/lead-exempt; -D = drypack; -U/+U on DS parts = cut tape. More: See [Full Data Sheet](#) or [Maxim Product Naming Conventions](#).
- \* Some packages have variations, listed on the drawing. "PkgCode/Variation" tells which variation the product uses. Note that "+", "#", "-" in the part number suffix describes RoHS status. Package drawings may show a different suffix character.

## Similar Products by Function

[DS18S20](#) 1-Wire Parasite-Power Digital Thermometer

## More Information

[Temperature Family by Product Type](#)

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### Overview

[Description](#)  
[Key Features](#)  
[Applications/Uses](#)  
[Key Specifications](#)  
[Diagram](#)  
[Notes and Comments](#)

### Technical Documents

[Data Sheet](#)  
[Application Notes](#)  
[Evaluation Kits](#)  
[Product Guides](#)  
[Reliability Reports](#)  
[Software/Models](#)

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[Samples](#)  
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[Package Information](#)  
[Lead-Free Information](#)

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[Products Used With This](#)

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