

Extended Temperature Solutions for Industrial Applications



Texas Instruments offers a wide range of qualification options for industrial customers whose application must work in harsh environments. TI's Enhanced Products are qualified over extended temperatures and come with an assurance that TI, not a third party, is manufacturing the product to datasheet specifications. Qualification and reliability reports are available on line for every Enhanced Product. Industry standard packaging options are supported with Nickel-palladium lead finishes and SnPb solder balls for BGAs which eliminates "tin whisker" reliability issues. Additional packaging options can support higher temperatures with new mold compound materials and special materials sets optimized for extreme temperatures.

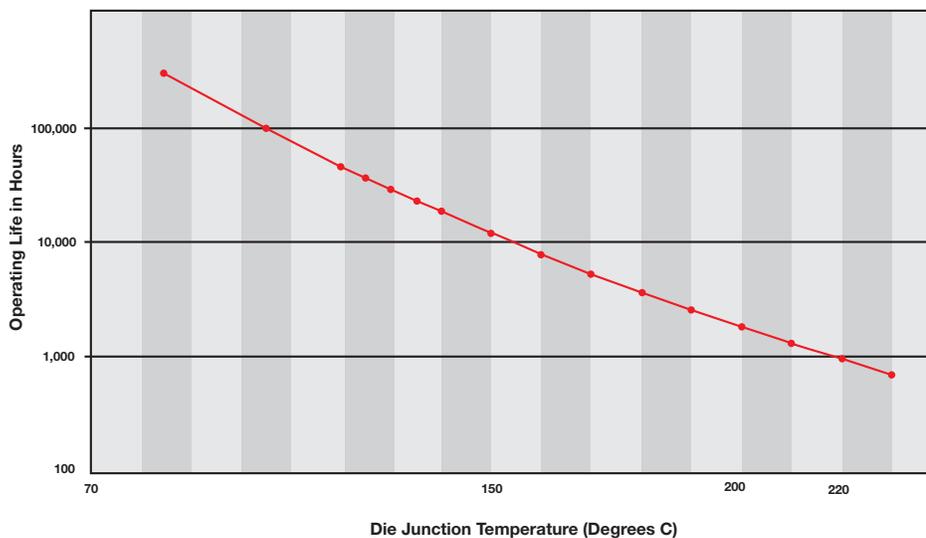
Bare die and Known Good Die are also available for integrating multiple functions in applications with severe space limitations.

Featured Product

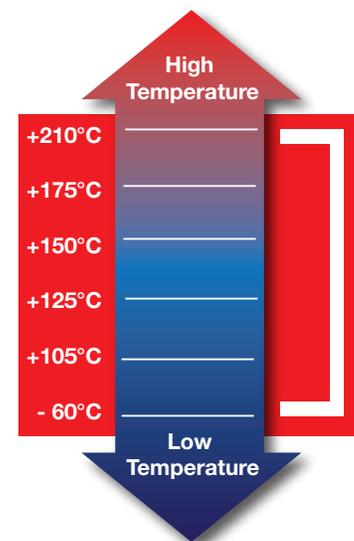
MSP430F2013-EP: 16-bit Ultra-Low-Power Microcontroller

- Low Supply Voltage Range 1.8 V to 3.6 V
- Ultra-Low Power Consumption
 - Active Mode: 220 μ A at 1 MHz, 2.2 V
- Integrated 16-Bit Sigma-Delta A/D Converter with Differential PGA Inputs and Internal Reference
- 2KB + 256B Flash Memory; 128B RAM
- Package: 16 Pin QFN
- Operating Temperature Range: -40C to +125C

IC Operating Life Curve



Supported Extended Temperature Ranges



For any questions email us at:

temperature@ti.com

For our complete listing of our extended temperature products download our new guide at www.ti.com/extendedtemperature.

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Internet

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support.ti.com

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Mexico	Phone	0800-670-7544
	Fax	+1(972) 927-6377
	Internet/Email	support.ti.com/sc/pic/americas.htm

Europe, Middle East, and Africa

Phone	
European Free Call	00800-ASK-TEXAS (00800 275 83927)
International	+49 (0) 8161 80 2121
Russian Support	+7 (4) 95 98 10 701

Note: The European Free Call (Toll Free) number is not active in all countries. If you have technical difficulty calling the free call number, please use the international number above.

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Internet	support.ti.com/sc/pic/euro.htm
Direct Email	asktexas@ti.com

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	Domestic	0120-81-0036
Internet/Email	International	support.ti.com/sc/pic/japan.htm
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Domestic	<u>Toll-Free Number</u>
Note: Toll-free numbers do not support mobile and IP phones.	
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China	800-820-8682
Hong Kong	800-96-5941
India	1-800-425-7888
Indonesia	001-803-8861-1006
Korea	080-551-2804
Malaysia	1-800-80-3973
New Zealand	0800-446-934
Philippines	1-800-765-7404
Singapore	800-886-1028
Taiwan	0800-006800
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