

## PRODUCT FACTS

### Extended Temperature and 24/7 Operating Mode

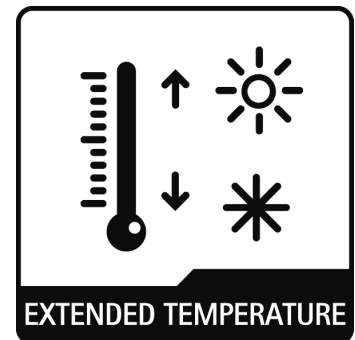
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Product Ext. Temp. 24/7 Op

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#### Brief Description

PC systems that need to meet highest reliability and longevity requirements even in extended temperature environments (e.g. in industrial and mission-critical applications) cannot be based on standard mainboards. These products are not designed for stable and enduring operation over a wide temperature range; this is true even more when 24/7 operation is planned.

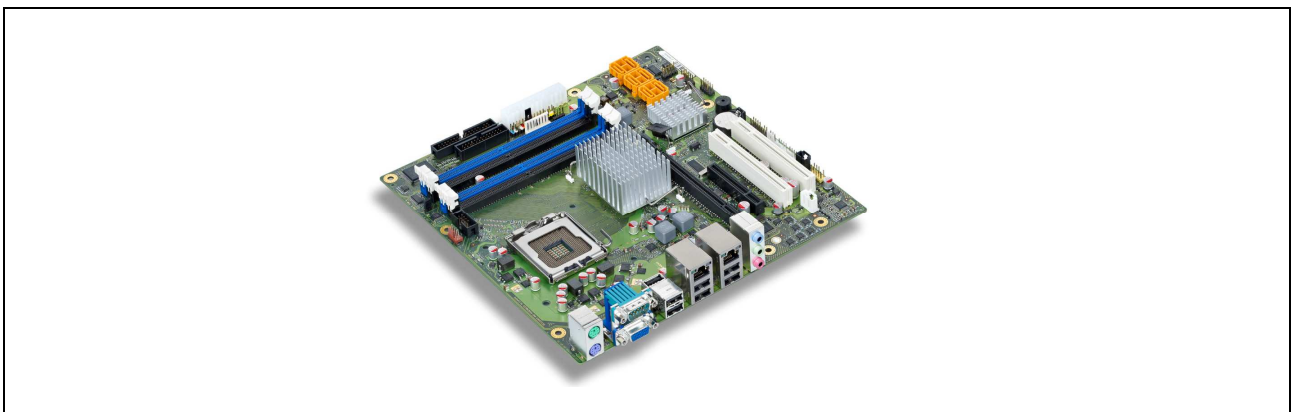
Fujitsu Technology Solutions mainboards specified for Extended Temperature and 24/7 Operating Mode are designed with these challenging conditions in mind. A careful selection of components with highest quality, combined with extensive simulations and testing under the full range of temperature specifications and under full load guarantee rock-solid function even under these tough conditions.



#### Benefits

- Excellent longevity and reliability for industrial and mission-critical PC systems with a temperature range of 0°C to 60°C (ambient air)
- Industry-grade robustness regarding climatic/temperature requirements, also under highest system loads
- Additional support from Fujitsu Technology Solutions for integrators and system builders: Detailed thermograms with max. temperatures for the mainboard components
- Manufactured in Fujitsu Technology Solutions' Augsburg (Germany) based production sites

#### Extended Temp. and 24/7 Operation Mode Mainboard (D2831-S)



## Functional Description

Standard mainboards such as products used in office or consumer PCs should not be used for PC systems that have to meet higher requirements.

Mainboards designed for office use have the following user profile:

- 8 hours/day
- 5 days/week
- Operating temperature range from 0°C to 35°C

Industrial mainboards with extended temperature range are designed for the following profile:

- Extended Temperature range of 0°C to 60°C (for ambient air)
- 24/7 operation (24 hours/day, 7 days/week, 365 days/year, 5 years)
- Constant high loads on CPU and/or graphics controllers
- Full usage of available expansion slots and connectors

Such requirements typically occur in industrial environments, e.g. machine control applications.

Fujitsu Technology Solutions has designed a series of mainboards that are capable of meeting these tough requirements. To guarantee the quality of the products, a variety of development, qualification and production efforts were performed:

- Careful selection of high-quality components with appropriate temperature and durability specifications
- Extensive simulation of signal quality (voltage and timing margins)
- Comprehensive test and qualification to guarantee reliability and longevity
- Manufactured in Fujitsu Technology Solutions' Augsburg (Germany) based production sites under strict quality monitoring

To enable successful system integration under these challenging conditions, Fujitsu Technology Solutions provides additional support for integrators and system builders: For Extended Temperature mainboards, a detailed thermogram is available on request; this thermogram also includes specified maximum temperatures on component level. Thus, integrators have a reliable data base for their own development, test and qualification procedures.

## Additional information and downloads

- General Information:  
[www.ts.fujitsu.com/mainboards](http://www.ts.fujitsu.com/mainboards)
- Documentation and downloads:  
<ftp://ts.fujitsu.com/pub/Mainboard-OEM-Sales/>

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