

CSAC Frequently Asked Questions

CSAC SA 45s Manufacture Discontinuance

The document answers frequently asked questions (FAQ) related to discontinuance in the manufacture of existing SA 45s CSAC parts (Part number 090-00218-XXX).

Related product discontinuation notice (PDN): 800-03824-000

Q: Which existing CSAC parts are being discontinued?

A: The Microsemi Chip Scale Atomic Clock (CSAC) SA.45s with base part number 090-00218-xxx is being discontinued due to its imminent replacement by the new CSAC parts.

Q: Why are you discontinuing current CSAC parts and introducing new CSAC parts?

A: The current CSAC parts had thermal constraints and will not reliably work beyond -10 °C to 35 °C; therefore, they will be replaced by new CSAC parts with improved thermal performance ranging from -10 °C to 70 °C.

Q: What is replacing the 090-00218-xxx?

A: The new CSAC parts SA.45s with base part number 090-02984-xxx will replace 090-00218-xxx. See PDN 800-03824-000 for a comprehensive list of affected part numbers, recommended replacements, and end-of-life support.

Q: How is the new CSAC different from the old CSAC?

A: The main difference is the operating temperature: the new CSAC performs over the range of -10 °C to 70 °C compared to -10 °C to 35 °C of the predecessor. The newer modifications to the specifications include a minor relaxation of the ADEV specification, which is not material to CSAC target applications such as holdover.

Q: How is the new CSAC similar to the old CSAC?

A: Mechanical dimensions, pinout, power consumption, software, and electrical components are identical. CSAC 090-02984-xxx is considered a drop-in replacement for CSAC 090-00218-xxx.

Q: What allows a wider temperature operation range for the new CSAC?

A: The wider temperature operation range is made possible by a refinement in the manufacturing process which has been validated as per Engineering Qualification Report* 796-00941-000. This process has precipitated from an exhaustive study of the reasons for failure at higher temperature operation.

Q: The existing CSAC once had a wider operating temperature range. What happened?

A: Tests revealed that high temperature exposure could reduce the reliability of the product; therefore Microsemi had recommended that the existing CSAC be operated at a max specified temperature of 35 °C until the problem could be rectified. See Engineering Qualification Report* 796-00941-000 for more details.

Q: Can my old CSAC be upgraded to operate over the wider temperature?

A: No. The manufacturing process that resulted in the upgraded functionality of the new CSAC cannot be applied post manufacture.

Q: Does Microsemi offer a CSAC that operates above 70 °C or below -10 °C?

A: No. CSAC 090-02984-xxx is not recommended to be operated outside the range of -10 °C to 70 °C.

Q: I have an existing order for the old part number 090-00218-xxx. What should I do?

A: Please work with your sales contact to modify any existing orders to reflect the new part numbers. Outstanding orders for the old part number may be canceled and customers will be notified.

Q: When can I order the new part number?

A: The product is slated for public release on or before September 15. Contact your sales representative for the exact date.

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Q: What is the lead time for new CSAC parts?

A: For the near-term, the target lead time will be 10 weeks. However, once the production ramps up, we hope to maintain a lead time of 4 to 6 weeks for small quantities.

Q: Where can I find the data sheet and other documentation for the new CSAC parts?

A: Documentation related to the new CSAC parts will be available at the following link on the Microsemi website in the week of September 15 2016: <http://www.microsemi.com/products/timing-synchronization-systems/embedded-timing-solutions/components/sa-45s-chip-scale-atomic-clock#overview>

***Note:** Engineering Qualification Report 796-00941-000 will be available on request to customers who have an NDA with Microsemi.

For further information, contact Technical Support:

North and South America

Microsemi, Inc.
3870 North First Street
San Jose, CA 95134-1702
Toll-free in North America: 1-888-367-7966
Telephone: 408-428-7907
Email: FTD.Support@microsemi.com
Internet: www.microsemi.com

South Asia

Microsemi, Inc.
Suite A201, 2nd Floor, West Wing,
Wisma Consplant 2, No. 7,
Jalan SS16/1, 47500 Subang Jaya,
Selangor, Malaysia
Telephone: 408-428-7907
Email: FTD.Support@microsemi.com
Internet: www.microsemi.com

Europe, Middle East, and Africa (EMEA)

Microsemi Global Services EMEA
Altlaufstrasse 42
85635 Hoehenkirchen-Siegersbrunn Germany
Telephone: +49 700 3288 6435
Fax: +49 8102 8961 533
Email: FTD.EMEASupport@microsemi.com,
FTD.Emeasales@microsemi.com
Internet: www.microsemi.com



Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Fax: +1 (949) 215-4996
Email: sales.support@microsemi.com
www.microsemi.com

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