

Important thermal shutdown management feature in new BSP release (PD13.1.0) for the phyCORE-OMAP4 (PCM-049)

The information in this document is relevant for deployment of the phyCORE-OMAP4 System on Module with root part # PCM-049, as well as corresponding Rapid Development Kits with root part # KPCM-049.

Dear valued Kit-customer,

The PCM049 / phyCORE-OMAP4 is populated with LP-DDR2 memory that is only specified for case temperatures up to 85 °C. The RAM indicates the exceeding of the maximum case temperature in an internal register.

The new BSP release PD13.1.0 is able to evaluate the RAM's internal register and provides a thermal shutdown management when this temperature limit is reached. When the RAM signals a temperature above 85 °C the software will shut down the processor. Previous BSPs do not provide this thermal shutdown management precaution.

We strongly advise you to switch to the new BSP version to avoid lifetime problems of the RAM. Please consider testing your application with the new BSP in realistic use cases under the expected external temperature conditions. In comparison to older software versions, the PCM-049 will now shut down when the RAM temperature gets too hot in certain use cases.

Please contact our support on how to disable the thermal shutdown if this is needed for your operating conditions, or if you need any further information.

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We apologize for any inconveniences.

Best regards, your PHYTEC-Team