

Product: **Toucan**

Title: **Heat sink solutions for COM Express Module Toucan**




**Concerned Versions:**

All versions of the COM Express Module Toucan.

**Description:**

This application note describes the available heat sink solutions for the COM Express Module Toucan in standard and extended temperature range.

**Solutions:**

Heat Sink Type	Part Number	Suitable for CPU / Temperature Range	Qualified for Toucan version (part no.)	Remarks	Measurements (l x w x h) / weight	Picture
Heat spreader	865-0012-10	All CPU frequencies /  Standard temperature range -20°C to 60°C	On customer request only	Additional passive or active cooling is necessary by mounting the heat spreader to a metal enclosure or by mounting an extra heat sink or heat pipe on the heat spreader.	Measurements approx. 125 x 95 x 11 mm (including bolts) /weight CPU and heat sink approx. 350 gr.	
Passive cooler	865-0013-10	Celeron M 423 up to <b>1.06 GHz</b> /  Standard temperature range -20°C to 60°C	809-0003-10	The size of the heat sink is designed to fulfill requirements of the standard temperature range without additional cooling.	Measurements approx. 125 x 95 x 25 mm / weight CPU and heat sink approx. 560 gr.	
Active cooler with integrated fan	865-0014-10	Intel CORE DUO L2400 / T2500 up to <b>1.67 GHz / 2.0 GHz</b>  Standard temperature range -20°C to 60°C	809-0001-10 809-0002-10	The size of the heat sink is designed to fulfill requirements of the standard temperature range without additional cooling.	Measurements approx. 125 x 95 x 35 mm / weight CPU and heat sink approx. 680 gr.	




# APPLICATION NOTE

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Active cooler with integrated fan	865-0014-10	Celeron M 423 up to <b>1.06 GHz</b> /  <i><b>Extended temperature range -40°C to 85°C</b></i>	909-0003-10	The size of the heat sink is designed to fulfill requirements of the extended temperature range without additional cooling.	Measurements approx. 125 x 95 x 35 mm / weight CPU and heat sink approx. 680 gr.	
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