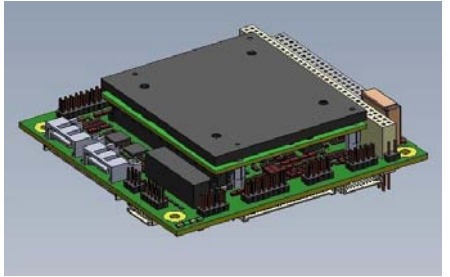
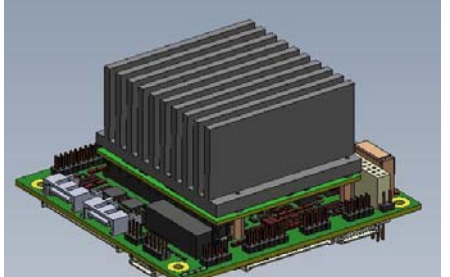


**Concerned Versions:**

All versions of the Cool LiteRunner ECO

**Description:**

 This application note describes the available heat sink solutions for the Cool LiteRunner ECO in commercial, industrial and extended temperature range. For detailed drawings or 3D files please contact our support [helpdesk@lippertembedded.com](mailto:helpdesk@lippertembedded.com)
**Solutions:**

Heat Sink Type	Part Number	Suitable for CPU / Temperature Range	Suitable for CLR-ECO part numbers	Remarks	Heat sink Measurements (l x w x h) / weight	Picture
Heat spreader	765-0028-10	<b>CPU ATOM Z510 1.1 GHz / CPU ATOM Z530 1.6 GHz /</b> Commercial temperature range 0°C to 60°C Industrial temperature range -20°C to 60°C	702-0012-10 702-0012-11 702-0012-12 702-0012-13 702-0012-14 702-0012-15  802-0012-10 802-0012-11 802-0012-12 802-0012-13 802-0012-14 802-0012-15	The size of the heat spreader is designed to fulfill requirements of the commercial and industrial temperature range without additional cooling.	measurements approx. 65 x 58 x 5 mm / weight board and heat sink approx. tbd. gr.	
Passive cooler	765-0035-10	<b>CPU ATOM Z510 1.1 GHz / CPU ATOM Z530 1.6 GHz /</b> Commercial temperature range 0°C to 60°C Industrial temperature range -20°C to 60°C extended temperature range -40°C to 85°C	702-0012-10 702-0012-11 702-0012-12 702-0012-13 702-0012-14 702-0012-15  802-0012-10 802-0012-11 802-0012-12 802-0012-13 802-0012-14 802-0012-15  902-0012-10 902-0012-11 902-0012-12 902-0012-13 902-0012-14 902-0012-15	CLR-ECO must be on top of the PC/104 stack.  The size of the heat sink is designed to fulfill requirements of the extended temperature range without additional cooling.	measurements approx. 65 x 58 x 30 mm / weight board and heat sink approx. tbd. gr.	

**Remarks:**

- All heat sinks are mounted with 8 mm spacers. Add 10 mm for the spacers plus the CPU module thickness to the measurements for the total height above the PC/104 board.
- All heat sinks are mounted without occupying the normal PC/104 mounting holes
- The CPU temperature may never exceed 100°C