



CoolFin™ Heat Sink with Integrated Heat Pipes

37717

For use with Intel® Pentium®4 "Prescott" Processor Socket 478

Intel approved CoolFin™ heat sink from Molex achieves high performance and low noise with innovative design.

Introducing the newest style of Molex heat sinks, CoolFin. CoolFin heat sinks are made from stamped fins soldered to base plates. CoolFin technology allows for variable fin pitch, geometry, material type and thickness. They are designed to maximize thermal efficiency in the smallest and lightest weight package possible.

The 37717 series CoolFin heat sink has been designed to offer superior cooling for the Intel Pentium "Prescott" microprocessor. It is available in different speeds or can be fitted with a thermistor controlled fan for motherboards without variable speed fan technology. These fan options help the customer match cooling requirements with acoustic goals.

The 37717 series fin package has been maximized to meet thermal performance and weight requirements. In the center fin group, copper is used directly above the heat source to maximize thermal efficiency. The outer fins are made up of lighter aluminum material to save weight. The two heat pipes further increase efficiency and create 16-17% margin at the highest fan speed; this allows customers to explore lower speed fans for better acoustics. The innovative "half-moon" base design leaves tradition behind and saves weight, while achieving high performance to meet the needs of Intel's hottest new processor.

The standard heat sink comes with a 70,000 hour MTFB dual ball bearing fan, and ShinEtsu G-751 thermal interface material. Custom fans and interface are available on request.

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Features and Benefits

- Intel approved allows customers with limited testing capability to specify part with confidence
- Meets Intel .330° C/W thermal resistance target which ensures reliable system at any usage level
- At .275° C/W the 6000 RPM version offers 17% margin over Intel specification which gives customer ability to scale up to higher speed processor without upgrading heat sink
- At 31 dB-A the medium speed version meets thermal spec which offers excellent acoustics for sensitive environments
- Dual ball fan provides much higher reliability than ball/sleeve, up to 70,000 hrs MTBF
- Low weight: 435 grams (Intel max spec.= 450g) applies less stress on socket or board
- Easy to use, robust clip design is easy to assemble, ensures proper application force



SPECIFICATIONS

Reference

Packaging: Tray/Box
Fan UL File No.: Various
Fan CSA File No : Various
Mates With: Socket 478
Designed In: mm

Electrical: 37717-0001

Fan min. starting Voltage: 4 VDC
Operational voltage range: 4–12.5 VDC
Current: .35A
Connector: Molex 3 Pin 2695-03-22-01-3037

Thermal Efficiency (°C/W)

37717-0001: .275 °C/W

Mechanical

Retention Clip mating Force: 55-65 lbs total

Physical

Weight: 435g
Fan size: 70x15mm
Fan bearing type: Dual ball
Heat sink: Copper base, Copper/Aluminum fins, Copper heat pipes
Operating temp: 0 to + 85°C

Thermal Interface Material options:

ShinEtsu – G-751

Note: Custom interface or fan options available on request.

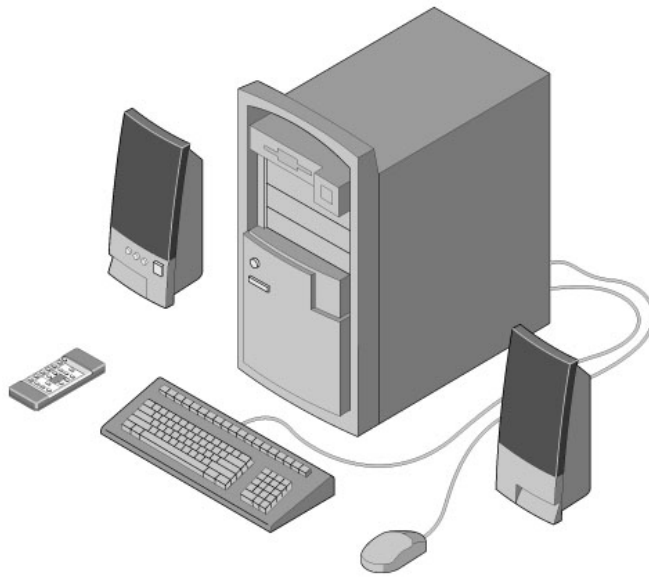
APPLICATIONS

- Desktop
- Workstation
- Distribution: wherever tray processors are sold

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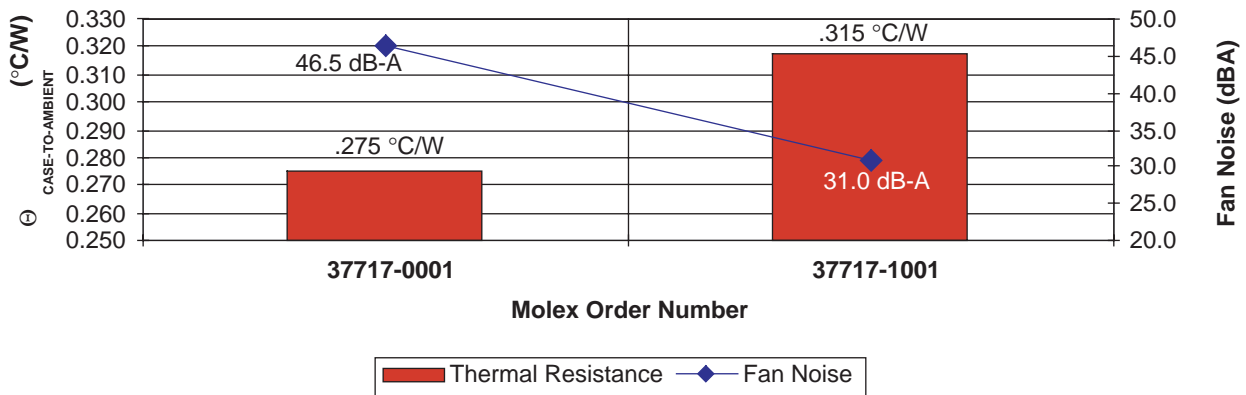
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ORDERING INFORMATION

Order No.	Fan Speed		Fan Noise (dBA)	Power (W)	T _{CASE} (°C)	T _{AMBIENT} (°C)	ΔT _{CASE-TO-AMBIENT} (°C)	Θ _{T CASE-TO-AMBIENT} (°C/W)
	RPM	CFM						
37717-0001	6000	41.95	46.5	75.0	53.6	33.0	20.6	0.275
37717-1001	3300	28.80	31.0	75.0	56.8	33.0	23.8	0.317



*Thermal efficiency or thermal resistance, expressed as "Degrees Celsius per watt (°C/W)", is an industry standard measure of heat sink performance.

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