



Reference Design Brief

***WayCool™ U400NT
Hybrid (Air + Liquid) Mesh
Integrated CPU and Peripherals Cooler***

Overview

The WayCool™ U400NT Hybrid (air+liquid) Mesh Integrated CPU and Peripherals Cooler Reference Design is a universal, 400 Watt desktop CPU plus peripherals cooler, supporting industry leading dual core and quad core CPUs



and peripherals. The WayCool™ U400NT Reference Design is a self-contained design that meets both Intel and AMD requirements for an in-system, desktop processor cooler *and* allows the thermal management of a CPU plus peripheral electronics in a single-slot configuration.

The WayCool U400NT--which can be plumbed to alternative heat sources such as graphic cards, memory, or northbridge chipsets--allows a single cooler to manage multiple heat sources on the motherboard without fans, multiple

pumps or additional loss of critical system real estate. The WayCool U400NT Reference Design is a quiet solution that addresses severe thermal issues by pumping heat from the graphic chip back to a single high capacity cooler over the CPU for aerial disbursement. For system designers looking to build smaller and more powerful gaming PCs, workstations and portable devices, the WayCool U400NT design is a cost-effective, tested and efficient solutions that can significantly accelerate time-to-market. The WayCool U400NT cooler is the only thermal management solution currently available that can cool two nVidia 8800 cards in a **single slot, fanless** configuration.

The WayCool U400NT Reference Design is a pre-defined, tested and optimized to address intense heat and improve performance for specific engineering combinations. The breakthrough thermal management architecture of the U400NT design includes the WayCool carbon technology and WayCool hybrid mesh heat transport solution. The reference design offers complete, advanced patented cooling platform comprised of:

- WayCool™ Carbon Technology for greater heat transfer capacity
- WayCool™ Quiet Fans for a quiet cooling
- WayCool™ Hybrid Mesh for advanced liquid cooling isothermicity.

Waytronx Reference Designs are available through licensing agreements.

WayCool™ U400NT Reference Design Features

- Up to 400 Watts of thermal management capacity
- Replaces heat sinks, active air fans and coolers, and liquid CPU coolers
- Intel compatibility: All LGA775 processors
- AMD Compatibility: Athlon 64 / FX / X2 / Opteron Socket AM2 processors

Key Components

- WayCool™ Carbon water block heat conductive interface to CPU
- A maintenance-free pump assembly with magnetic drive brushless DC motor
- WayCool Hybrid Mesh carrier for liquid
- WayCoolant™ de-mineralized liquid with appropriate anti-fungal additives

Benefits for Cooler and Computer OEMs/ODMs

The WayCool U400NT Reference Design gives system designers and users the maximum performance, convenience, and flexibility in a cooling solution that fits today's desktop computer environments.

- Industry-leading 400 Watt cooling capacity with an in-system solution
- Improved processor performance
- Ability to operate at lower temperatures for improved reliability
- Maximized overclocking performance
- Faster time to market
- Customizable design

Reference Design Elements Available to Licensees

- Bill of Materials
- Sources of supply for each ingredient
- Written Specification for each ingredient
- Cooler Engineering drawing
- Application Notes
- Test Results
- Samples



To find out more about WayCool technology and its integrated hybrid mesh architecture, contact our development team at (866) WAYTRNX or send us an email at techsupport@waytronx.com.

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