

Pure  
Silence



Toughpower : 550W , 600W , 650W  
700W , 750W , 850W



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# TT LIFE

VOL.2/ summer.2006

## Ideal Home Entertainment Center - Mozart TX

The Path to Innovation ~ Designer's Talk  
XBox 360 VS. Liquid Cooling

How To Make A High Quality Power Supply  
New Product Introduction  
Exhibition!!



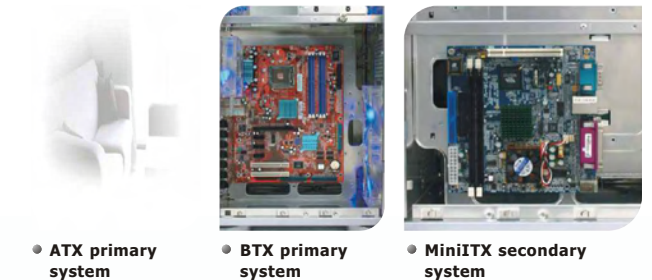




The Mozart TX is specially designed to fit two systems in one chassis. The primary system is compatible with both ATX and BTX platforms as well as Secondary Mini ITX platform. By using the BTX upgradeable kit offered by Thermaltake, this addition reserves a vent for the BTX cooler in the front panel so that the BTX single channel airflow design will be achieved. Additionally, with the recent launch of the Pentium M CPU, the Mini ITX platform in the secondary system is no longer considered the "back up" system; instead, it can provide the same process speed as a desktop PC and perform as much tasks as a laptop PC.

**I**magine yourself with a Dual PC Home Entertainment Center. Thermaltake presents the World's First Cube Tower featuring a 7" Drive Bay - a breakthrough design! Its unique reduced base size of 30x30cm and expanded upward position allows a perfect height of 70cm, which is an ideal concept when you're next to the TV or by your desk. The Mozart TX stands out from the crowded flat desktop HTPC market and provides you with a component expendable HTPC case with a thermal conscious structural design. Be the first to witness the combination of performance and entertainment, all in one!

The Mozart TX, no doubt, captures the capabilities to upgrade and better prepare for tomorrow's technology.



Now you can experience the convenience of having a Home Entertainment Center everywhere! This high tech machine with optional 7" Retractable LCD Touch Screen Monitor by Thermaltake, allows you to watch



<b>Ideal Home Entertainment Centert -Mozart TX</b>	<b>01-03</b>
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## Media LAB (Optional)



- Multi-functional IR remote control
- VFD display panel
- User friendly application software
- Control and play music, image, videos...etc.

## 7" LCD Monitor (Optional)



- Use 12V power from PSU
- Supports VGA connector input
- Touch screen with 1280 X 768 resolution
- IR remote control
- Auto retractable and angle adjustable





Home Entertainment Center  
Watch movie and surveillance system

programs on your TV while watching other programs from the LCD monitor. Let's say today you were working on producing digital animations, which is a major task and can drain the CPU; have no fear, with the Mozart TX Dual PC, you can concentrate on your work and use the secondary system to download songs from the internet or even large FTP files for other tasks. Not only are you able to watch TV but you can also hook up a surveillance system and supervise your children in the other room through the LCD monitor. Want to play online games but just don't want to miss the sports game? No problem! Having the Mozart TX is as easy as 1-2-3! Now you can get your game on and watch the sports game through the retractable 7" monitor. This optional 7" Retractable LCD Touch Screen Monitor uses 12V

power from the power supply unit. It supports VGA connector inputs and support audio out functions. It has TV reception (NTSC, PAL) and an IR Remote Controller.



Worried about overload and too much heat? It uses an Independent Thermal Chamber Technology, which divides the whole case into four sections and allows each section its own thermal solution. Each zone has at least one 12cm silent fans to dissipate heat and provide cool air. Not only that, increasing air

intake and heat exhaustion areas contain five 12cm vents for fans in the front panel, giving you a total of 720 cm<sup>2</sup> cool air intake surface area. With such an enormous amount of air flow area, even the most extreme enthusiast or gamer will be worry free from system overheating. Additionally, there is plenty of room to install a liquid cooling system. There are four 12x12cm vents at the upper rear panel of the chassis, where liquid cooling radiators can be positioned. You can choose to install two 12x24cm, one 12x24cm, or even one 12x12cm radiator fan. With plenty of space for liquid cooling radiators, say good bye to decreasing performance or annoying



noise from high speed graphic cards and CPU cooling fans.

This addition is the very first case in the world to have a built-in E-SATA connector in the front panel as well as a built in power connectors in the front panel for Thermaltake's 3.5" E-SATA enclosure. Have the ability and confidence for a faster and stable data transfer rate. The E-SATA is the next generation standard for enclosure interface! For added convenience, the USB and Intel HD Audio ports (that's right, Thermaltake is providing you with the High Definition Audio as a standard specification so you can enjoy the performance of a real multi-channel audio wherever you go!) are located on the front panel. Mozart TX comes with screw-less kits for the five 5.25" drive bays, add-on cards, and removable HDD cage for easy installation.



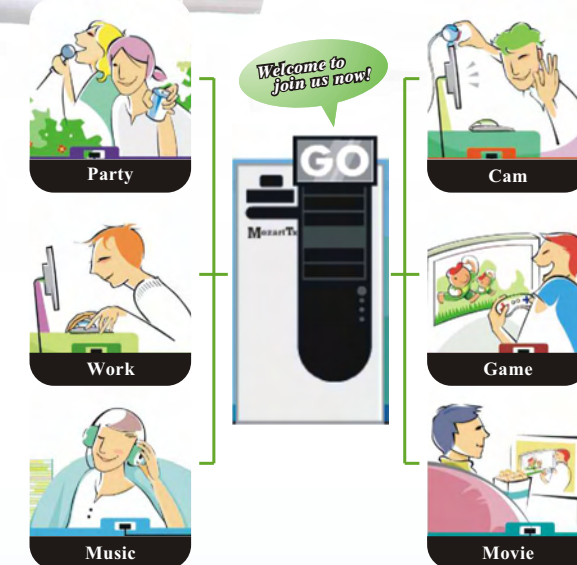
Fit two 12 X 24 cm radiator

The Mozart TX introduces a whole new outlook on a Home Entertainment System. With a Dual PC supporting Independent Thermal Chamber Technology, 7" Drive Bay to place a LCD Monitor, and the capabilities to upgrade for the next generation technology; the Mozart TX fills the need of all users who desire comfort, luxury, and added convenience.

## 7 THINGS MOZART TX CAN DO

### Website Campaign

What can Mozart TX do for you?  
Compose your in-style life,  
Post up your great ideas,  
And win the grand prize.



#### Prize-

The top seven who get most applauds can win the grand prizes

1. Mozart TX case with built in Media Lab (Value worth US\$375)
2. Mozart SX case (slim desktop) with built in Media Lab (Value worth US\$250)
3. Tribe VX external liquid cooling system (Value worth US\$215)
4. Toughpower 750W modularized power supply (Value worth US\$180)
5. Media Lab (Value worth US\$130)
6. Tide Water Plus dual graphic card liquid cooling module (Value worth US\$120)
7. Big Typhoon VX super silent heat-pipe cooler (Value worth US\$70)

Please see <http://mozarttx.ecrm.com.tw> for detail

## Mini ITX Drive Bay PSU (Optional)



P/N:A2422

- 5.25" Bay PSU for Mini ITX system
- 270W with active PFC
- Fits into any 5.25" drive bay
- Independent power on/off switch & power source
- PCI-E connector X 1; SATA connector X 2
- Power & Reset switch module
- SATA & IDE Cable (100cm)

## BTX upgrade Kit (Optional)



P/N:A2421

- Allows user to utilize Intel BTX technology
- Simple and convenient installation procedure
- SRM & BTX back plate included

## Big Water 735

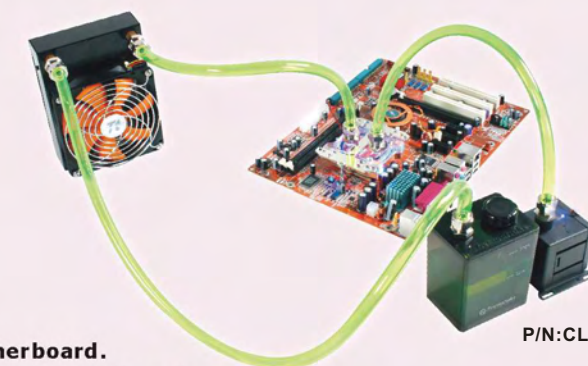
12cm Liquid Cooling System

Support ATX/BTX  
400 L/hr pump  
3/8" tube



### Features

- World 1st liquid cooling system supports ATX / BTX motherboard.
- Application for Intel P4 LGA775, Intel BTX platform and all AMD K8 series.
- Remarkable 120mm Radiator: High performance radiator with a 120mm silent VR fan (1300 ~ 2400rpm).
- Superb Liquid Pump with 400 L/hr: The ceramic bearings significantly extend the life-expectancy of the pump.
- Durable 3/8" Tube: tool-less connector design.

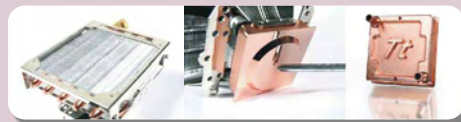


P/N:CL-W0075



### Volcano 4008 Heat Exchanger

Application for all  
Intel & AMD CPU



#### Features P/N : CL-W0043

- Integrated Radiator: The combination of source exchanger and heat exchanger maximizes the heat transfer.
- Enhanced Universal Clip for Intel P4 LGA775, 478 and AMD K8/AM2.
- Low Noise Fan: 120mm silent fan (1300~2400 RPM)
- Copper Tubing minimizes liquid evaporation.
- Braze Source Exchanger: The base of the unit is designed with brazing technology to eliminate all possibilities of leaking.
- Heat is removed instantly due to the copper tube Liquid Loop.
- Simple and quick installation.
- Supports all Thermaltake's liquid cooling accessory such as pump, radiator, VGA water block.

### TR2-R1

AMD  
Athlon 64 X2/  
Athlon 64 FX/  
Athlon 64  
(Socket AM2/ 939/754)  
Sempron  
(Socket 754)



#### Features P/N : A4022

- Perfect ratio aluminum extrusion heatsink for better heat dissipation.
- Tool-less clip, easy installation.
- Silent Solution.
- 6 years warranty.

### RX Series Mini Typhoon Value Pack

Application for  
Intel LGA775 and  
AMD K8 / AM2



#### Features P/N : CL-P0268

- Best performance, supports up to TDP 130W.  
Heatsink :
- 6 heatpipes, maximized heat transfer.
  - All copper structure, provides extremely fast heat conductivity.
  - 0.2mm thick copper fins and perfect fin rate, perfect weight-to-performance ratio.
  - Waved fins to reduce wind shearing noise.
- 3 in 1 application
- For LGA775: push pin design for faster install.
  - For K8 and latest socket M2, tool-less clip, easy to install.
- RX Type Flow
- Powerful 9238 reversed fan to reduce the noise from air-rebounding, only 18dBA

### RX Series Mini Typhoon Value Pack

Application for  
Intel LGA775 and  
AMD K8 / AM2



#### Features P/N : CL-P0343

- Universal design, application for Intel LGA775, AMD K8 & AM2.
- 6 heatpipes and all copper structure provides best performance.
- Silent RX Type Flow fan, 2200rpm, 18dBA only.
- Tool-less clip, easy to install.
- Value Pack - Satellite Fan
- Silent Blue LED Fan x 2 : 50x50x10mm, 3000rpm, 16dBA.
- 3-direction-installations for Northbridge, RAM and VRM cooling.
- Multi-positions to fix the fans.
- Rotatable fan frame x 2 , can adjust from 0 to 45 degrees.

### Extreme Spirit II Northbridge Cooler

Application for all  
Northbridge chipsets



#### Features P/N : CL-W0034

- Heatpipe technology:provide efficient cooling.
- All copper:  
Structure provides effective heat conductivity and dissipation.
- Seamless soldering process provides best contact for heat transfer.
- A universal clip: design fix all motherboard.
- Multi-direction installation:Rotatable clip can adjust to any direction for the best system air flow.
- 40x40x10mm Silent LED fan, 19dBA.



### The New Era of Video Gaming Has Arrived

Digital home entertainment giant Microsoft, officially released the Xbox 360 at the end of the year 2005. This gaming console incorporates a minimalist appearance and sleek styling while providing amazing video processing abilities. The product has already shaken the gaming and digital home entertainment industry. With such heavy demands, the Xbox 360 is here to stay. The next task is to maximize the lifespan of the Xbox 360 and make it run for as long as it can.

### The Motivation of Modification

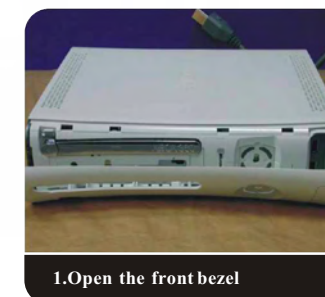
If one has not noticed, home entertainment gaming consoles tend to get very hot after extended usage. As a result, the high temperature will prohibit the unit to run at its maximum speed and the performance will be hindered. In order to prevent any performance

drops even after gaming marathons, Thermaltake is utilizing its state-of-the-art liquid cooling technology to help cool the central processing unit and the graphic processing unit of the Xbox 360. Next, with our explanation, you will understand why this will be an excellent modification.

Upon opening the Xbox 360, one would see that Microsoft has implemented heatpipes on the CPU and two 60mm fans in the rear to dissipate heat. This is a dead giveaway that the Xbox 360 produces an enormous amount of heat during usage. For gamers, the original thermal dissipation performances are very limited and will hinder the overall gaming experience after prolonged usage. Thermaltake will now turn the Xbox 360 into a liquid-cooled system and elongate the lifespan of the Xbox 360.

### Xbox 360 Modification Procedures

Please prepare the necessary tools to disassemble the Xbox 360 carefully.



1.Open the front bezel



2.Remove the sticker.

## Tribe VX

### Features:

- 4 in 1 copper waterblock: Pure copper waterblock designed with brazing technology. Applies to both Intel LGA 775/P4 and AMD AM2/K8.
- 24cm radiator: High performance radiator with dual 12 cm silent fans (1400 RPM/17dB).
- Powerful black DC 12V liquid pump with 400L/h flow rate
- Quick Install Connectors:  
Saving your time to install devices conveniently.
- Refill liquid reservoir:  
High capacity liquid tank capable of holding 800c.c. of coolant for continuous usage. Easy to refill.
- Mesh design front and rear panel for maximum ventilation







3.Remove the plate holder on top, and remove the front mesh. Repeat the same step for the other side.



4.Release the 7 tab holders around the unit.



5.Unhook the front tabs and remove the white shell.



6.Remove the optical drive.



7.Remove the fan duct as shown.



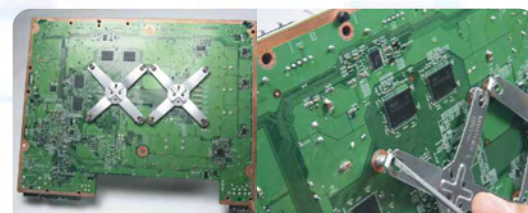
8.Remove the fans as shown.



9.Take apart the remaining outer shell.



10.Remove the LED indicators.



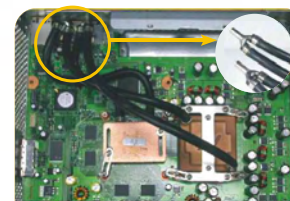
11.Remove the original retention mechanism on the back as shown.



12.Remove the heatsinks.



13.On the bottom metal cover, drill two holes. Check to see if they fit the quick connectors.



14.Place the copper Y-tube adaptor through the two holes, and connect the VGA and CPU waterblocks accordingly.



15.After the black industrial grade connectors have been connected, re-assemble all the components, and the Xbox 360 liquid cooling system is complete.

### Excellent Performance with Tribe VX

Has the abovementioned modification moved you? Now, we introduce you the main character of this liquid cooling system Tribe VX. What does that Tribe VX have that has the ability to modify your Xbox 360 and maximize its performance for the long gaming hours that are soon to follow?

The all-copper CPU waterblock and VGA waterblock can bring the heat away from the source immediately. Combined with the Tribe VX's external 240mm radiator and two 120mm blue LED fans, the heat is released into the ambient temperature with ease. The Tribe VX also features a strong water pump to continuously push the coolant through the system silently. In the

end, the gamers will be able to game without suffering from noise or decreased performance due to overheated components.

The shell of the Tribe VX is constructed of pure aluminum alloy to effectively dissipate heat. At the same time, the outer shell beautifies the Tribe VX and protects the unit from small external impacts. A convenient handlebar enables the gamers to transport the Tribe VX and the Xbox 360 easily. The attention to details and convenience goes to show how Thermaltake is dedicated to satisfy our consumer's every need.

#### Caution:

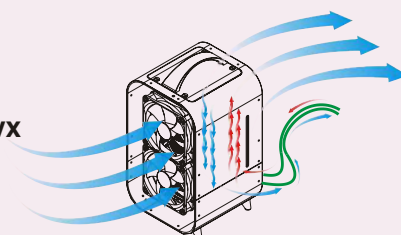
All warranty on Xbox 360 from Microsoft will be void upon any modification of the original product. Please be noted before performing the upgrade on Xbox 360.

Thermaltake does not encourage the modification of Xbox 360. This article mainly serve the purpose of information providing.

#### Specifications

- Dimension:210 (L) x 196 (W) x 361 (H)mm
- Framework material:Aluminum
- Weight:4,450g
- Cooling System:  
2x12cm silent fan (1400RPM/ 17dB)  
24 cm radiator:Aluminum material
- Liquid tank:Refill liquid easily
- Capacity of coolant:800 CC
- UV coolant:UV sensitive coolant
- Application:Intel LGA 775 / P4 AMD AM2 / K8
- Material:Pure copper waterblock designed with brazing technology
- Pump-Dimension: 75 (L) x 70 (W) x 75 (H) mm
- Bearing:Ceramic bearing
- Maximum flow rate:400L/h
- Rated voltage:12 V
- Connector:4 pin
- Noise:16 dB
- Life time:70,000 hr (MTBF)

#### Thermal Flow Chart: Thermal flow chart of Tribe VX



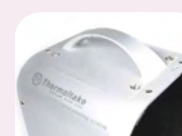
#### Detailed information:



Pure copper waterblock designed with brazing technology



2 x 1400RPM fans with blue LED(17dB)



Crescent-style aluminum handle



Giant 24 cm all aluminum radiator

### Symphony mini

P/N:CL-W077



#### Features

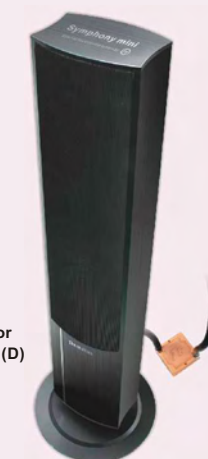
- Massive aluminum radiator:
- Added surface area to allow high heat dissipation
- Brazing copper CPU waterblock:
- Maximizes heat conductivity from heat source.
- Apply to BTX and Intel P4 Socket 775, P4 Socket 478, AMD K8/AM2, AMD K7
- Dual pump with 90L /hr flow rate:
- Liquid flow rate is increased significantly by implementing dual pump design; furthermore, it provides intense yet quiet and smooth liquid circulation.
- More silent with high performance Three 1400 RPM Ultra-Quiet 120mm fans(16dB),
- Dissipate the ambient thermal generated from the heat source



Three 1400 RPM ultra-quiet 120mm fans



All aluminum radiator 120 mm (W) x 33mm(D) x 360 mm





### AquaBay M5

Alarm System for  
Liquid Temperature and  
Liquid Level with Pump

**Features** P/N : CL-W0103

- Compatible with Thermaltakes L.C.S( Liquid Cooling System) and components Liquid temperature and liquid level monitor in the 5.25" drive bay. Built-in liquid temperature and liquid level alarm.
- Superb pump with 500L/h flow rate
- Fast response probe:
- User Friendly:The temperature probe can be put at anywhere within the LCS loop
- Quick Install Connectors:
- 1)The temperature probe connector is suitable for tubing for ID 2)6.4mm(1/4")/9.5mm(3/8")



### Aqua RX Series-R1

Memory Liquid Cooling Heatsink

**Features** P/N : CL-W0102

- Universal application for all memory modules. The standard size fits on all motherboards.
- An artful Integration of Liquid cooling and air cooler
- Aluminum heatsink dissipates the heat generated from the chipset more efficiently.
- Copper tubing transfers the heat to the liquid cooling system immediately.
- User Friendly Quick Install Connector saves you time and energy.



### Aqua T.M.G. Series - TMG1

**Features** P/N : CL-W0072

- DTT - Dimple Tube Technology swirls the coolant within the radiator to increase thermal transfer.
- 12cm Motorsports Radiator an all-aluminum radiator featuring expanded outer fins and tube style for maximum performance.
- Low noise fan 12cm silent fan(1300~2400 RPM).
- User-friendly Quick Install Connectors are simple to install and saves valuable time.



### Aqua T.M.G. Series - TMG2

**Features** P/N : CL-W0098

- DTT - Dimple Tube Technology swirls the coolant within the radiator to increase thermal transfer.
- 24cm Motorsports Radiator an all-aluminum radiator featuring expanded outer fins and tube style for maximum performance.
- Low noise fan Dual 12cm silent fan.
- User-friendly Quick Install Connectors are simple to install and saves valuable time.



Final Kandalf Chassis

In this era where the consumers are well-educated and vendors are fighting for the consumers, innovation is the key to survival for a technology company. Through innovation, a company can stay competitive and keep selling. In order for a name-brand company to stay alive and keep its value in the eyes of the consumer, innovational design is the key. The consumer electronic products today are thoroughly mature in both technology and production method. It is extremely hard to stand out and break through from the myriad of selection of products consumers can choose from. Thermaltake recognizes this situation and realize that innovational industrial design is the

only hope to create original and competitive products. Thus, Thermaltake implemented industrial design into the research and development phase of a product in 2002.

The main task for everyone in the Industrial Design department is to create a product that is of excellent design and satisfies the needs of the consumers. We are always utilizing team meetings and discussions to brainstorm and motivate every designer and their designs. Market product information and brochures are constantly reviewed for the designers to have a better grasp of the market trend. Most of the time, we try to free the minds of our designers and allow them to think outside of the box. As a result, Thermaltake's products are constantly innovational and original.

The highlight product of this issue is the Thermaltake Kandalf chassis, and its making of. This chassis is targeted towards the market of the gamers and



11 Drive Bays from Top to Bottom



Double the Front Door, Double the Flavor

### Aguila VD1000 Series Middle Tower



#### Features

- ATX/BTX compatible (BTX upgrade kit is optional)
- Fits up to standard ATX & BTX motherboard
- Dual 120mm silent front and rear fan
- Mesh design for optimal ventilation
- Color: Silver (all aluminum case) Black (SECC with aluminum front panel)
- Fits Tt liquid cooling system

### AT FAVOR VC3000 Series Middle Tower



#### Features

- ATX/BTX compatible (BTX upgrade kit is optional)
- Drive bay capacity: ATX 5.25" x 5, 3.5" x 2/4 (external/internal) BTX 5.25" x 3, 3.5" x 2/4 (external/internal)
- 120mm silent front and back fans
- Tool-free, easy to install
- Color: Silver(Aluminum) & Black(SECC)
- Fits Tt liquid cooling system



enthusiasts. In the initial development phase, our design team did not start on the product right away. The Thermaltake market and lifestyle research team surveyed and studied the needs and desires of the gamers and consumers first. We defined the specifications, advantages, and disadvantages to each aspect of the market's values. We deeply believe that a great product will satisfy the consumers' most innermost needs. Even if the consumers cannot define it clearly themselves, it is the jobs of our designers to discover what they want and help them recognize their desires. After several team discussions, we did draw out several important factors: superior cooling ability, high expandability, variation flexibility, and several styles of outer appearance.

In the arena of thermal dissipation, Thermaltake continues its tradition of combining great heatsink cooling technology into chassis design. As a result, chassis with superior airflow and optional liquid cooling system upgrades are born.

Consumers want maximum expandability and flexibility when it comes to putting together a computer system. Traditional chassis separate the 5.25" bays and the 3.5" bays, eliminating any other combination users may want to use to put together a unique system. Thermaltake has moved on from the traditional concept of having 5.25" bays and 3.5" bays separately and has now combined them

into simply drive bays". Due to the market trend towards liquid cooling systems, Thermaltake has incorporated the concept of liquid cooling systems into the latest chassis. The result is a modernized chassis that houses 11 drive bays of your choice and has relocate-able power switches.

Difficulty arrives when it comes to external styling and appearances. Through numerous meetings, the designers were trying to create a gamer chassis that simply stands out from the crowd. We understand how the consumer mind works. It is obvious that people will envision how this chassis will fit into their surrounding environment upon the first glimpse of the chassis. Everyone would want a computer chassis that fits their living environment well and not stand



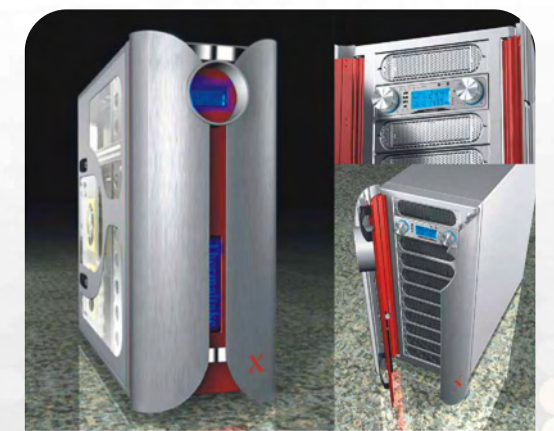
Initial 2D Design Illustrations

out like a sore thumb. Industrial designers need to incorporate this mindset into their designs and not wildly design a chassis to their own liking. If designers simply design chassis according to their own tastes, the final product is destined to be a failure.

After putting all the data on the meeting table, all the designers review their proposals and analysis of other products on the market. The relationship between the product, user, and environment are reviewed over and over. These relentless and seemingly endless discussions roam on as the Thermaltake Industrial Design department try to find the perfect curves that will catch the eyes of the consumers. In the initial 2-dimensional drawings, we started with a circle as the main focus of the chassis. Through parallel lines and simplistic curves, a front bezel starts to appear. After the ends of lines and curves start to meet, the designers get together once again to review the complete look of the chassis. The surface finish of the product is extremely important as well. Aluminum alloy became the material of choice for the Kandalf chassis. We believe that the texture of brushed aluminum finish is much classier and more reliable than resin. The reliability and construction of an aluminum front door bezel can bring the user a peace of mind, which is invaluable.

Other than a complete front panel door, we have also paid detailed attention to what is within. We want the consumers to feel that they have received more than what they paid for when the product arrives in their hands. With initial CAID (Computer Assisted Industry Design) technology, we created a prototype model. After hammering out every single detail in the chassis with the design team, we decided to add light elements to both within the circle and the inner doors of the Kandalf chassis. The goal is to create a mysterious aura around the chassis, leaving the consumers' imagination running free.

The name "Kandalf" was inspired from a righteous and responsible character from J.R.R. Tolkien's **Lord of the Ring**. Thermaltake wished for this chassis to cast a sturdy and responsible image for the consumers as well.



Prototype Model Depicted Through CAID

## ECLIPSE DV VC6000 Series Middle Tower



### Features

- Classy all aluminum case design
- Slim DVD Combo Drive included
- Sound level indicator
- Dual silent 120mm front and rear case fan
- Transparent side window (Option)
- Security lock for front & side panels

## EUREKA ALUMINUM CASE

### VC8000 Series Home Server Full Tower



### Features

- Full tower, all aluminum chassis
- Supports up to extend ATX motherboard (12"x 13")
- 120mm silent front and rear case fans
- Honeycomb see-through side panel for maximum airflow
- Pre-assemble mounting for liquid cooling system

## Kandalf LCS

Build-In Liquid Cooling System

### VD4000 Series Super Tower



### Features

- Full tower case with building liquid cooling system
- Utilize thermal concept of automobile and place radiator in front of computer chassis
- High performance 120X360mm radiator embedded in the front door
- Offers more extra space within case while radiator in the front door
- Minimize installation time with partial pre-assembled liquid cooling components
- ATX/BTX compatible (BTX upgrade kit is optional)

## ARMOR LCS VE2000 Series Super Tower



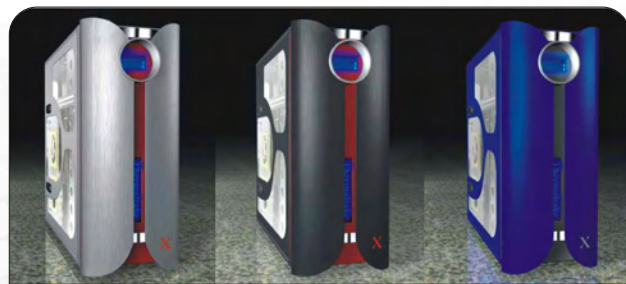
### Features

- Full tower case with building liquid cooling system
- High performance 120 x 240 mm Racing Level Radiator (Louvered Fin) with dual 120mm blue Led fan the the case front
- Dimple Tube Technology provided the high density thermal surface on the fin and greatly enhances the thermal efficiency.
- DC 12V P500 Pump -Superb Liquid Pump with 500 L/hr.
- ATX/BTX compatible (BTX upgrade kit is optional)



Finally came the time for choices of color combinations. Thermaltake's designers approached the chassis from a very conservative point of view simply because the element "nvironment" was taken into consideration. The traditional red, black, silver, and blue combinations were thrown around and the targeted audience was considered as each combination of colors was reviewed. The final decision was made to stay with silver and black combination as the concept of "sturdy and responsible" was taken into account. For example, the majority of the consumers of high-end luxurious automotive corporations such as BMW and Mercedes-Benz stay with the colors silver and black. The "environment" factor also played a great role when the decision to stay with silver and black combination was made. The majority of home theatre systems and consumer

environment better. The Thermaltake Industrial Design team had finally found a balance point between the elements product, user, and environment. Looking into the future, Thermaltake will never cease to pay attention to the needs of the market and consumers during product development. We deeply believe that a greatly designed product is born to satisfy the needs of the consumers. Thermaltake does not believe in the strategy of some corporations of telling what the consumers want. Thermaltake firmly believes in the concept of finding out what it is that the consumers want, and creating products that satisfy their desires. Through innovational designing concepts such as these, we hope to further develop great products in the future. It is our happiness to see a user smiling upon the reception of their new Thermaltake product.



Different Color Combinations

electronics today are silver and black. Having the Kandalf chassis with a silver and black scheme would simply make the chassis fit the surrounding



## Mozart Sx

Media LAB VC7000 Series Slim ATX Media PC



### Feature

- Slim type DVD style and pithy aluminum front panel design.
- Built-in Media LAB kit with hot keys module :(Optional)
  1. Media LAB Hot Keys function.
  2. Media LAB application CD and remote control.
  3. Media LAB VFD panel.
- Superb multimedia capability.
- Full ATX & Micro ATX & Mini ITX compatibility.
- Fits Standard PSII PSU.
- Front I/O ports for easy access.

### Multimedia Kit Application CD

#### Language Support :

English, Traditional, Chinese, German, French, Japanese, ...13 multi languages

#### OS Support :

Windows 98, Windows Me, Windows 2000, Windows XP

## Bach Sx

Media LAB VC9000 Series Slim BTX Media PC



### Feature

- Pithy aluminum front panel design
- Built-in Silent BTX Cooler (Optional)
- Multimedia LAB kit :(Optional)
  1. Media LAB remote control
  2. Media LAB application CD
  3. Media LAB VFD panel
- Superb multimedia capability
- Micro BTX & Nano BTX & Pico BTX compatibility
- Fits Type I cooling system
- Front I/O ports for easy access

### Multimedia Kit Application CD

#### Language Support :

English, Traditional, Chinese, German, French, Japanese, ...13 multi languages

#### OS Support :

Windows 98, Windows Me, Windows 2000, Windows XP

## Retail Products-External Storage

### MAX4 eSATA & USB2.0 COMBO 3.5"

Urban style- application for 3.5" SATA HDD

#### Features

P/N : N0003US

- Supporting eSATA & USB2.0 interface.
- Application for 3.5" SATA HDD.
- LED for power and disk activity.
- Made by Aluminum body for thermal solution.
- Transfer speed up to eSATA-3Gbps & USB2.0-480Mbps.



### Muse OTB2.5 eSATA & USB2.0 COMBO 2.5"

Graceful Aluminum Shape- application for 2.5" SATA HDD

#### Features

P/N : N0002US/N0010US

- The world 1st one touch backup 2.5" eSATA & USB combo enclosure.
- One Touch Backup & Restore function (one touch backup function only for USB interface, restore function be used by software)
- Backup software has friendly interface and including 3 main functions: Basic backup/ Scheduling backup/ Advance setting.
- Supporting eSATA & USB2.0 interface
- Lightweight and stylish aluminum external enclosure.
- Data protection by password (Only for USB interface)
- Transfer speed up to eSATA-3Gbps & USB2.0 - 480Mbps.



### Muse NAS-RAID

4bay Network Access Sever

Reliable SOHO & Home Network Storage solution- application for 3.5" SATA HDD

#### Features

P/N : N0001LN

- Network Access Sever; Easily share photos, music, video or files.
- Support RAID 0, 1, 5, 5+Spare, 10, Linear.
- Maximum transfer rate up to 1Gbps by RJ45 LAN.
- Professional Web-based management for easy setting.
- 4 Hot swap carrier design, easily replace the fail HDDs.
- Security lock design protect hard drives DATA.
- Overheat & RAID function fail active warning system.
- Update firmware from network.
- Maximize the cooling efficiency by BTX straight-line cooling concept.



### Muse LanDisk Enclosure

Connecting everyone - Application for 3.5" IDE HDD

#### Features

P/N : A2334

- Entry level NAS system, maximum support up to 400GB HDD.
- SMB and FTP server applicable.
- Smart DHCP configuration, no IP setting is required.
- LAN Disk W/3 LED Indicator (Link/10-100/USB)
- Data transfer Meter with blue backlight to indicate digital signal.
- All aluminum Fanless design.
- Silver body with graceful curve.
- Screwless clamshell design easy to install 3.5" IDE HDD without tools.





How To Make A High Quality Power Supply

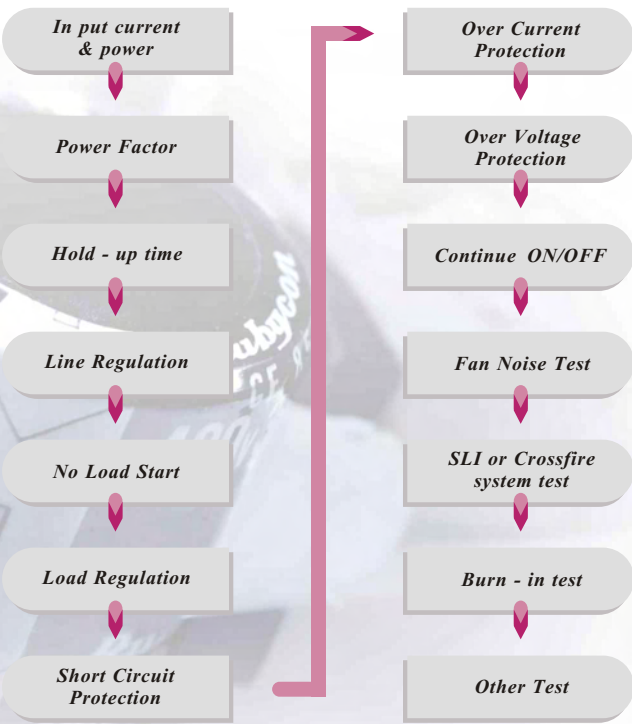


A decent power supply needs to go through strenuous testing and certification from the moment it was designed, test piloted, produced, and certified. A complete flow chart and testing protocol is extremely important on a product that takes an extremely important role such as the power supply. At Thermaltake, we use Chroma testing laboratories to test the stability and reliability of our power supplies. Through programs and testing facilities, we can also simulate the cross-loading and frequencies that we would like to test on the power supplies. As a result, no matter which area the user is using the power supply from, the differences in input voltage will not affect the performance of the power supply as everything had already been simulated before in our laboratories.

The usage of the load testing machine from Chroma

will simulate the power consumption of computer systems to test how well the power supply responds to heavy loads. This procedure will also guarantee that the power supply is working as specified on the technical specifications. The result is that no matter how demanding a user's system is, the power supply will be able to perform up to the specification requirements of the power supply design guide from Intel.

Testing Protocols Flow Chart:



Next, the power supply goes under various protection testing. For example, over-voltage, over-current, under-voltage, and short-circuit protections. After undertaking various stages of protections, the energy is provided into the computer system. Thus, if there should be any unfortunate event where the components in the power supply may be acting abnormally, these protections will help safeguard the life of the hardware components in the computer system.

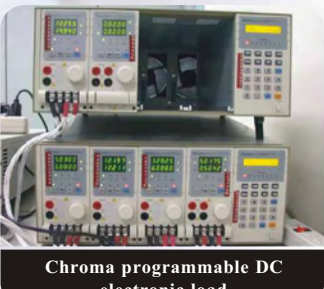
Testing Equipment

	Equipment	Function
1	Switching Power Source	Simulates different kinds of input voltage and frequencies
2	Load Tester	Loads and stresses the power supply output
3	Oscilloscope	Detects and records the frequencies, inputs, and outputs of the power supply
4	Climate Control	Creates various climate conditions for the power supply to run in

After all the hardware components of the power supply have been tested, it is time for software testing. Software testing is usually completed by implementing the power supply into a system

equipped with SLI or CrossFire platform. Benchmarks such as 3DMARK are run to determine if the power supply is stable. Usually, an underpowered power supply or an unstable power supply will falter and fail during the benchmarks.

Last but not least, is the burn-in testing procedure. Using the burn-in testers, Thermaltake will be able to determine whether or not the elements within the power supply can sustain continuous usage without any hiccups or abnormal activities. The burn-in testing is the only way to distinguish reliable components from the unreliable components or bad workmanship. For an electric product, the temperature of the working unit greatly affects the lifespan of the components within. The higher the operating temperature is, the less the lifespan of the components within the unit. The burn-in testing procedure will catalyze the process and find out if any components will stress and break under heavy loads through continuous usage.



Toughpower 600W P/N: W0103  
14cm Fan W/Active PFC(100V~240V)

Features

- Complies with ATX 12V 2.2 & EPS 12V version.
- Supports SLI, Cross-Fire, and Dual Core CPU.
- Four +12V rails supports high-end graphic card and PC system (combined loading of 48A).
- Independent Voltage Circuit.
- Active Power Factor Correction (PF>0.99) and high efficiency up to 85%.
- Superb voltage regulation ( $\pm 3\%$ )
- High reliability: MTBF>120,000 hours.
- Reliable 14cm silent ball-bearing fan.



Toughpower 650W P/N: W0104  
14cm Fan W/Active PFC(100V~240V)

Features

- Complies with ATX 12V 2.2 & EPS 12V version.
- Supports SLI, Cross-Fire, and Dual Core CPU.
- Four +12V rails supports high-end graphic card and PC system (combined loading of 52A).
- Independent Voltage Circuit.
- Active Power Factor Correction (PF>0.99) and high efficiency up to 85%.
- Superb voltage regulation ( $\pm 3\%$ )
- High reliability: MTBF>120,000 hours.
- Reliable 14cm silent ball-bearing fan.



Toughpower 700W P/N: W0105  
14cm Fan W/Active PFC(100V~240V)

Features

- Complies with ATX 12V 2.2 & EPS 12V version.
- Supports SLI, Cross-Fire, and Dual Core CPU.
- Four +12V rails supports high-end graphic card and PC system (combined loading of 56A).
- Independent Voltage Circuit.
- Active Power Factor Correction (PF>0.99) and high efficiency up to 85%.
- Superb voltage regulation ( $\pm 3\%$ )
- High reliability: MTBF>120,000 hours.
- Reliable 14cm silent ball-bearing fan.



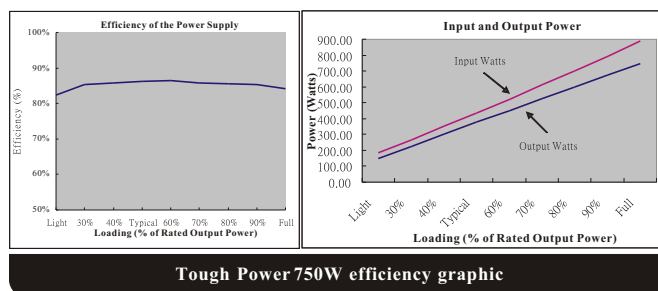
Toughpower 700W P/N: W0106  
14cm Fan W/Active PFC(100V~240V)

Features

- Complies with ATX 12V 2.2 & EPS 12V version.
- Supports SLI, Cross-Fire, and Dual Core CPU.
- Four +12V rails supports high-end graphic card and PC system (combined loading of 56A).
- Independent Voltage Circuit.
- Active Power Factor Correction (PF>0.99) and high efficiency up to 85%.
- Superb voltage regulation ( $\pm 3\%$ )
- High reliability: MTBF>120,000 hours.
- Reliable 14cm silent ball-bearing fan.
- Modularized Cable Management.







The above mentioned testing protocols and certifications are just some of the strict manufacturing protocols at Thermaltake for your reference. We will never cease to find better ways to better our products.

## How to Select a Power Supply Unit

The performance and importance of a power supply had been neglected for a long time. Before, it was all about which CPU, video card, and peripherals to get, and the power supply unit was considered last.

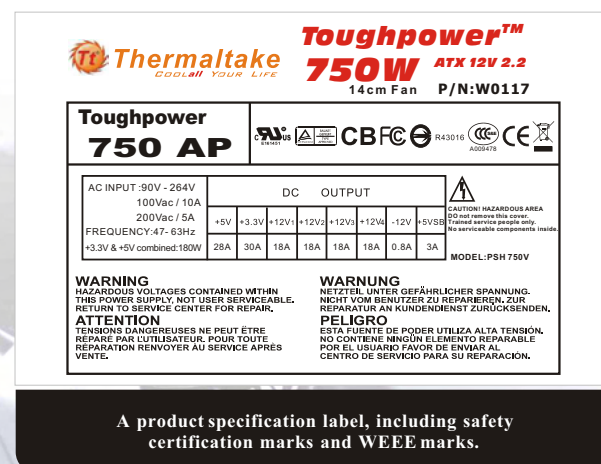
Due to the advancements in technology, CPUs are headed towards multi-core and motherboards have more functions integrated than ever. The motherboards of yesterday would only need to accommodate a CPU and a video card to run high-end games. However, modern motherboards can accommodate up to 4 video cards running simultaneously. As the hardware gets more demanding, the 250W and 400W power supplies of yesterday will not be able to satisfy these electronic

beasts. Now, selecting a quality power supply that will not falter is more important than picking out other components in the computer system, as the power supply have the ability to destroy or protect the components within.

How is one to pick a great power supply unit?

There are several things to consider:

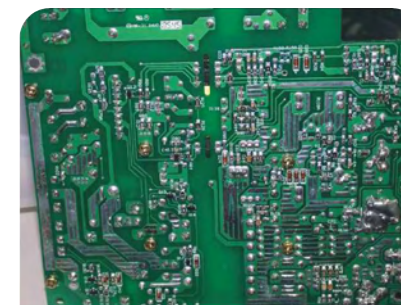
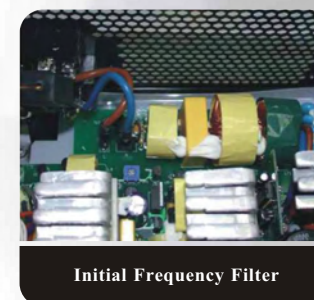
1. Safety Certifications
2. Quality Manufacturer
3. Warranty and post-sales service



First, quality power supplies unit always have several international certifications such as CE, FCC, TUV, UL, BSMI, CCC, and more. These are all professional international certifications of laboratories that are designed to test these kinds of electronic components. The goal of these certifications is to prevent any kind of damages to the user and the

equipment that are connected to the power supply units. Thus, the more certification a power supply has, the more recognition it has received. Usually, there are file numbers included along with the certification marks for consumers to understand that these are legit certification marks and not bogus.

The next step is to choose a brand name manufacturer. The only way for a manufacturer to build up its name is through the test of time by using quality components and strenuous testing protocols. A no-name manufacturer will easily use inferior and low-cost components that may go bad under load. Components such as capacitors, crystals, and transformers should always be of the highest quality. Low quality components will result in explosions and sending shockwaves throughout the whole computer system, damaging all the components the power supply is connected to.



Lastly, the warranty and post-sales service is extremely important to a power supply unit. All electrical products have a change of defect sooner or later, and the causes may be complex. How long the warranty is on a power supply unit shows how much confidence the manufacturer has in its products. Power supplies such as the Toughpower series from Thermaltake has a strict voltage regulation of  $\pm 3\%$  in order to enhance the stability of the computer system. Enormous 140mm fans are also implemented to maximize cooling capacity. Thermaltake also offers 3-year warranty on the Toughpower series, so the consumers will select the Toughpower series as the power supply of their choice without ever having to worry about power and safety issues.

**Toughpower 750W** P/N: W0117

**14cm Fan W/Active PFC(100V~240V)**

## Features

- Complies with ATX 12V 2.2 & EPS 12V version.
- Supports SLI, Cross-Fire, and Dual Core CPU.
- Four +12V rails supports high-end graphic card and PC system (combined loading of 60A).
- Independent Voltage Circuit.
- Active Power Factor Correction (PF>0.99) and high efficiency up to 85%.
- Superb voltage regulation ( $\pm 3\%$ )
- High reliability: MTBF>120,000 hours.
- Reliable 14cm silent ball-bearing fan.



**Toughpower 750W** P/N: W0116

**14cm Fan W/Active PFC(100V~240V)**

## Features

- Complies with ATX 12V 2.2 & EPS 12V version.
- Modularized Cable Management to eliminate clutter and improve airflow inside the case. SLI, Cross-Fire, and Dual Core CPU ready.
- Next generation four +12V rails supports high-end graphic card and PC system (combined loading of 60A).
- Independent Voltage Circuit.
- Active Power Factor Correction (PF>0.99) and high efficiency up to 85%.
- Extremely good voltage regulation ( $\pm 3\%$ )
- High reliability: MTBF>120,000 hours.
- Reliable 14cm silent ball-bearing fan.



## Dual Power 520W P/N: W0107/W0108

**W/Active PFC (100V~240V)**  
**W/O PFC(100V/240V)**

## Features


- Complies with ATX 12V 2.0 version.
  - Supports PCI-Express, 4 S-ATA, and 24-pin detachable main power connector.
  - Special design external aluminum housing and internal heat-sink for maximum heat dissipation.
  - Dual power output: 380W without fan, 520W with 8cm cooling fan.
  - Fanless design for ultra silent computing.
  - Three selectable fan switch for quiet computing under higher loads: 35, 45, or 50 degrees C.
  - Gold-plated connector for better conductivity.
- 



## Power Station 400W P/N: W0111/W0112

**W/Passive PFC (100V/240V)**  
**W/O PFC (100V/240V)**

## Features

- Complies with ATX 12V 2.0 version.
  - Modularized Cable Management and Power Station that allows you to arrange cables easier and smarter.
  - 5.25" P.S.T fits any 5.25" driver bay and offer various connectors for all peripheral devices.
  - Mini P.S.T offers convenient output for devices and accessories at various location.
- 





## Worldwide Exhibition



◀ Thermaltake joins CeBIT 2006 in Hannover



◀ Thermaltake joins CTS 2006 in Birmingham.



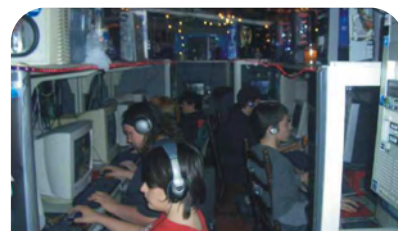
## Lanparty Events



Thermaltake sponsored Playtime Gaming about 60 gamers in United Kingdom.



Thermaltake sponsored DFW Frag about 40 gamers in Texas - U.S.A.



Thermaltake sponsored Coliseum Gaming LAN in U.S.A.



Thermaltake sponsored DesertBash 4 - Cont'd about 60 gamers in Phoenix, AZ - U.S.A.



Thermaltake sponsored WCU Online Gaming Club in Western Carolina University.



Thermaltake sponsored DFW Frag in Texas - U.S.A.

## Retail Products-Accessory

### HARDCANO 12 SE *Extreme Control all your life*

**Features** P/N : A2349

- High-tech and modern molding.
- Auto & Manual mode switch.
- 4 sets of temperature probe.
- 4 sets of alarm temperature setting.
- Available for reading both fan speed and temperature at the same time.
- To monitor and control 4 different component's fan speeds and temperature Intelligent cable sleeving.
- Blue back light LCD display.
- Precision Electronic Button Control.



### HARDCANO 15 *Liquid Cooling Detector*

Flow Rate - Water Level - Temperature - Operation Time

**Features** P/N : A2323

- Indicate two set of liquid cooling system flowing rate. (English-Metric conversion).
- Two set temperature detector. ( English-Metric conversion).
- Assign warning temperature value by user.
- Water Level Indicator - will beep and display red alert when the coolant is below "low mark".
- Seven color backlight LCD monitor.
- Strongly recommend using HARDCANO15 with our P400 & P500 pump.



### Hardcano 14 *Aluminum 3.5"HDD Clamshell Cooler* Application for 5.25"Drive Bay

**Features** P/N : A2321

- Clamshell design for easy installation.
- All Aluminum heat sink helps spreading heat.
- Wire meshes develop the airflow.
- Blue mystic LED streamer shines your system.
- The fully anti-shock protection guards your storage system.
- Application for 3.5"HDD of IDE, SCSI, SATA, SAS interface.



### iFlash12 DC Fan

**Features** P/N : A2346

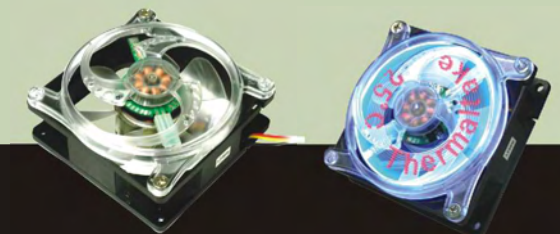
- Alternating blue, red and green LED lights create dazzling atmosphere.
- 120x120x28 Fan (1600RPM, 16dBA).
- Low speed fan with minimal noise level.
- Easy installation.



### iFlash Mini DC Fan *Application for all Intel & AMD CPU*

**Features** P/N : A2345

- 80x80x25 Fan (2000RPM, 21dBA).
- Eight Red LED shining fantastic LOGO words.
- Real-time environment temperature display.
- Rotating and dancing "Thermaltake" Logo.



### Tai-Chi M *Notebook Cooler*

All Aluminum Space-saving Folding Design

**Features** P/N : A2326

- Modernized black-silver aluminum extrusion pad.
- Space-saving Folding design for easy storing.
- Ergonomic wrist pad design for maximum comfort.
- Adapter-free design; powered by notebook's USB port.
- Two silent 7cm fans(1000RPM,14dBA) with on/off switch.
- Retractable stationery tray.





### CL-P0326

Application for  
Intel LGA775  
130W Solution



#### Features

- Application for Intel LGA775 130W Solution.
- Aluminum extrusion with Copper core inserted.
- The fourth fan pin has PWM (Pulse Width Modulation) an speed control function: decrease energy consumption, reduces acoustics noise and increase fan performance.
- Plastic back plate & spring screw.
- TIC-1000A interface material perform well.

### CL-P0327

Application for  
Intel LGA775  
130W Solution

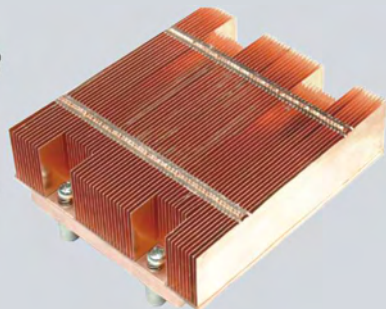


#### Features

- Application for Intel LGA775 130W Solution.
- Aluminum fin embedded with four heat-pipes.
- The fourth fan pin has PWM (Pulse Width Modulation) an speed control function: decrease energy consumption, reduces acoustics noise and increase fan performance.
- Back plate & spring screw.
- TIC-1000A interface material perform well.

### CL-P0263

Application for  
Intel Xeon 1U  
Dempsey Solution



#### Features

- Application for Intel 1U Dempsey (1066MHz FSB, socket LGA771)
- Spring Screw
- All copper, Tiny Fin Technology
- Dow Corning 5022 interface material, the best cooling performance

### CL-P0317

Application for  
AMD Opteron 1U  
Passive Socket F  
(Socket 1207)



#### Features

- Dense copper fin, copper base with seamless soldering process.
- Spring Screw design, easy to install
- Dow Corning TC-5022, perform well.
- Bundle with Tt Socket F Metal back plate.

### CL-P0165

Application for  
AMD Athlon 64 FX,  
Athlon 64 X2,  
Athlon 64, Opteron and  
Sempron  
(Socket 939/940/754)



#### Features

- 70 x 70 x 15 mm thermal control fan.
- 4 heatpipes, provide highest efficiency of heat transfer.
- High density aluminum thin fin - more surface area gives good heat dissipation
- Tool - free clip, easy installation

### CL-P0210

Application for  
AMD Opteron  
(Socket 939/940)



#### Features

- 70 x 70 x 15 mm thermal control fan.
- Heatpipe technology, provides high efficiency of heat transfer.
- High density aluminum thin fin - more surface area gives good heat dissipation
- Tool - free clip, easy installation



VIP Computers is the UK's leading components distributor in the UK and has been partnering with Thermaltake for years. VIP is responsible for launching the Thermaltake brand to the UK market and managing the channel to ensure resellers are able to secure good margins on an ongoing basis.

Thermaltake has established a strong market position in the UK, renowned for specialist, high quality cases and accessories for gamers and enthusiasts. Year on year sales growth has been achieved as more resellers are realising the benefits of using Thermaltake products, meanwhile the range has been developed extensively and manufactured to a consistently high standard.

Karin Hobbs, Sales & Marketing Director at VIP Computers outlined, We have leveraged our close relationship with Thermaltake to develop a customer base that appreciates their product innovation. Thermaltake is perceived as a high quality brand in the UK and was traditionally the product of choice of enthusiasts. Now digital home technology is becoming more mass market, Thermaltake offers UK resellers the opportunity to develop high quality, high margin solutions for more consumers than ever. Working with Thermaltake has been a pleasure and we look forward to further success in the future."

**Matthew Parrish - Product Manager**  
**VIP Computer Centre Limited**

VIP House, 4 Hardwick Grange  
Woolston, Warrington, Cheshire, WA1 4RF



## Tt in Italian style

Italians always chase a high quality life, watchful to the latest technologies and innovative design, just like what Thermaltake does.

The collaboration between IDP and Thermaltake started in middle 2004, and after almost 2 years we are proud to share our structure with the best computer case and components manufacturer in the market. Thanks to its ability of continuously renewing and finding new paths to cover, all the TT products are well distinguishable for their style and quality, and in the Country of high-fashion and design these features make Thermaltake a way of life, as their motto says: "Cool All Your Life" ... in Italian Style.

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