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No.08  
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## Liquid Cooling News



## Contents

<b>01</b>	Cool with Coolant	03
<b>02</b>	How LCS Works	07
<b>03</b>	SyncALL, Say “Hello TT” Customize Your RGB LCS System	14
<b>04</b>	Cool Your System with Thermaltake LCS Components	36
<b>05</b>	Meet The TT RGB PLUS Ecosystem	44



## 01 Cool with Coolant

Liquid cooling is usually better than other types of cooling when it comes to extracting heat from the computer components and keeping components within the permissible operating temperatures.

Coolant is essential for liquid cooling. Go to the next page and see how to do a coolant color mix & match.

# Coolant



When



Meets



Thermaltake  
P1000 Opaque



Thermaltake  
T1000 Opaque



Thermaltake  
C1000 Puer Clean  
Opaque Coolant



Thermaltake  
T1000 Puer Clean  
Transparent Coolant



## Be a Coolant Artist

- » Fill the reservoir with Thermaltake P1000 Pastel White Coolant, then pour in the TT Premium Concentrate.
- » The More TT Premium Concentrate you add, the stronger the color appears.
- » Thermaltake recommends using a mixture of 50ml TT Premium Concentrate and 95 ml Thermaltake P1000 Pastel White Coolant.



《 Mix With P1000 Pastel White Coolant 》



《 Mix With C1000 Pure Clear Coolant 》

## Thermaltake P1000 Pastel Coolant Series

### Formulated to Impress

#### Liquid Surface Tension Optimizer

Helps minimize the risk of an airlock; with the Liquid Surface Tension Optimizer, P1000 only takes about 5 to 10 seconds when starting the system for the first time after filling the loop.

#### Anti-Corrosive Solution

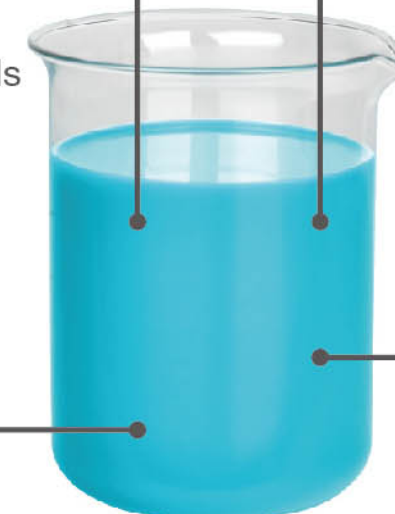
Protects copper, brass, nickel, and aluminum.

#### Low Viscosity Enabler

Low viscosity allows the P1000 Pastel Coolant to travel through the loop faster, thus dispatching the heat more effectively.

#### Antifreeze

Ensures coolant to run effectively under extreme weather.







## 02 How LCS Works



# Understanding Liquid Cooling System in Minutes !

## Step 1

Fill the reservoir with coolant no more than 80% full.



## Step 2

The pump will circulate the coolant, and from the pump carry the coolant through your heat source(s), i.e., CPU/GPU.





### Step 3

When the coolant reaches the heat source, the water block will dissipate the congested heat from the source into the coolant via the water block's micro fin-structure.



### Step 4

The coolant continues to travel to the radiator with all the dissipated heat. The radiator spreads the coolant out into the flat tubes creating a larger surface for heat extraction.





## Step 5

The radiator fans will actively cool down the coolant by sending cool air through the radiator fins and dissipating the heat into the air.



## Step 6

Then, after most of the heat is extracted from the coolant, the coolant will flow back into the reservoir and restart the cycle.





# 03

## SyncALL, Say "Hello TT" Customize Your RGB LCS System

Let's get start and see how to customize an RGB LCS System with the right components and how to light up your build with the TT RGB PLUS Ecosystem.



# 1. Choose a CPU

Generally, there are two types of CPU: single-threaded and multi-threaded.

Single-threaded CPUs are for tasks like browsing websites and word processing. Multi-threaded CPUs are better suited for gaming, photo editing, video encoding, and rendering.



9th Intel® Core™ i9

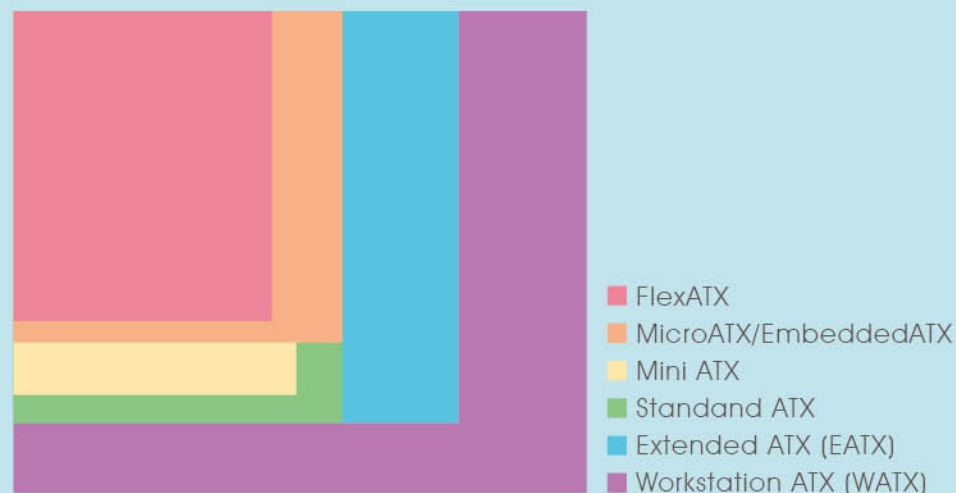


AMD® Ryzen™

# 2. Choose a Motherboard

The most common motherboard sizes come in Mini-ITX, Micro -ATX, ATX, and E-ATX. The motherboard you select should be compatible with your CPU, memory, and most of your other components.

ATX Motherboard Size Comparison



Creator TRX40



MPG Z490 GAMING PLUS

# 3. Choose a Graphic Card

There are two main types of graphic cards: gaming-oriented cards and workstation-oriented cards.

Gaming cards aim to deliver the best frame rates with the most realistic detail settings and the highest resolutions.

Meanwhile, workstation cards are made for maximum stability and precision and are specifically optimized for 3D rendering.



ASUS ROG-STRIX-RTX3070/3080/3090



## 4. Choose a Chassis

You would need a chassis to fit the components your picked, the following the chart on the right shows which chassis would better fit which motherboard. A chassis with a transparent side panel is best recommended to show off the water-cooling system.

Chassis	Motherboard
Full Tower	E-ATX
Mid-Tower	ATX
Cube Case/Micro Case/Mini Case	Micro ATX / Mini ITX



Core P8

**Open Frame Chassis**



AH T600

**Full Tower Chassis**



DistroCase™ 350P

**DistroCase™**



Divider 500 TG ARGB

**Mid Tower Chassis**

## 5. Select One or More TT RGB PLUS Synchronizable Products

TT has a wide range of selections for RGB liquid cooling components that can be synchronized via TT RGB Plus Ecosystem. We have chosen some of our latest featured components for you to consider when coloring up your builds.



- TT / Razer software only supports English.
- Amazon Alexa Voice Service supports only English.



### WaterRam RGB Liquid Cooling Memory

WaterRam is a unique designed 2-way cooling DDR4 memory module that allows users to cool down their memory with either the original heat sink design or utilizes the water block in the module to build a liquid cooling loop.



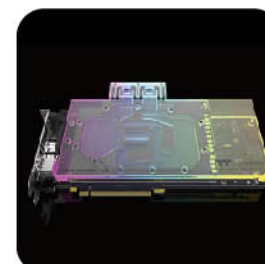
### Pacific W7 Plus CPU Water Block

Pacific W7 Plus CPU Water Block features a high-quality transparent cover design, copper base with anti-corrosive nickel plating, a built-in temperature sensor, and 12 high lumen addressable LEDs.



### Pacific MX1 Plus CPU Water Block

The Pacific MX1 Plus CPU Water Block has a top cover made of a vacuum metalizing technique, creating a mirror finish that shows a depth perception for the RGB lighting to display its unique lighting effects unlike other water blocks.



### Pacific V-RTX 3070

### Pacific V-RTX 3080 / 3090

Pacific V-RTX 3070 waterblocks can fully support Asus ROG 3070 GPUs as to Pacific V-RTX 3080/3090 can support ASUS ROG 3080 and 3090 GPUs. Both waterblocks are TT RGB Software supported which controls 1.68M RGB colors.



### Pacific CL360 Plus RGB Radiator

High performance 360mm copper radiator with high-density copper fin design, brass tank, and a software-controllable 16.8 million color LED strip.



### Pacific DP100-D5 Plus Distro-Plate with Pump Kit

Pacific DP100-D5 Plus is a distribution plate with a pre-installed D5 pump; the distro is universal and can be installed to most 360mm radiator fan mounting points.





### Riing Quad 12/14 RGB Radiator Fan

Thermaltake Riing Quad incorporates state-of-the-art technology, virtually inaudible operation and superior cooling with incredible 4-ring LED lighting. Supports TT NeonMaker and TT RGB PLUS software.



### Riing Trio 12/14 RGB Radiator Fan | Riing Trio 20 RGB Case Fan

PWM controlled fan with world's first intelligent radiator fan with 3 independent 16.8M color LED ring design, featuring 30 addressable LEDs for 12/14cm and 60 for 20cm with a long-life hydraulic bearing and compression fan blade.



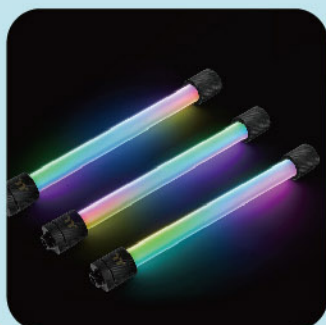
### Riing Duo 14/12 RGB Radiator Fan

PWM controlled fan with 2 independent addressable 16.8M color LED ring, featuring 18 addressable LEDs in total with a long-life hydraulic bearing and compression fan blade.



### Pacific PR32-D5 Plus Reservoir/ Pump Combo

This combo kit includes a high performance pre-installed D5 pump with a special rotatable upper reservoir lid to fit different tube angles. Two mounting brackets included to mount either to a case or radiator.



### Pacific RGB Plus G1/4 PETG Tube 16mm OD 12mm ID Fitting

16.8 million-color RGB fittings with High-Flow and Leak-Free Design.

If you don't know where to start,  
TT has an easy solution for you!

## Pacific CL360 Max D5 Hard Tube Water Cooling Kit

W5 CPU Water Block

PR22-D5 Plus Reservoir/Pump Combo

CL360 Plus RGB Radiator

T1000 Coolant Series- Pure Clear

Riing Duo 12 RGB Radiator Fans x 3

C-Pro Compression Fittings – Black x 8

Adapter Fittings - Black x 2 PETG Hard Tubes x 8





## 6. Select Your LCS Components



### Coolant

Thermaltake P1000 Pastel Coolant Series comes in various colors.

Or mix Thermaltake T1000 Transparent Coolant with TT Premium Concentrate Coolant Series to formulate unique colors for your builds.



## CPU/GPU Water blocks

Water blocks are usually installed on your CPU or GPU to achieve maximum heat extraction. Its performance is determined by the design of the base plate material and micro-channel.



## Pump & Reservoir

Choose a reservoir that fits the chassis you choose; the bigger the reservoir and the pump is, the less likely it will run dry and wear down.



## Tubing

You can choose either soft tubes or hard tubes for your build. Soft tubes are easier for beginners since bending hard tubes requires operating tools like a bending kit and heat gun. However, hard tubes provide better visual effects when creating a build. The tubes of your choice should match the outside diameter (OD) of the fittings.



## Radiators

Thermaltake provides a variety of copper radiators with high-density copper fins or double micro-fin designs. Radiators help dissipate heat through the flat tubes and allow the fans to extract heat; choose your radiators according to the fan size and your chassis.



## Fittings



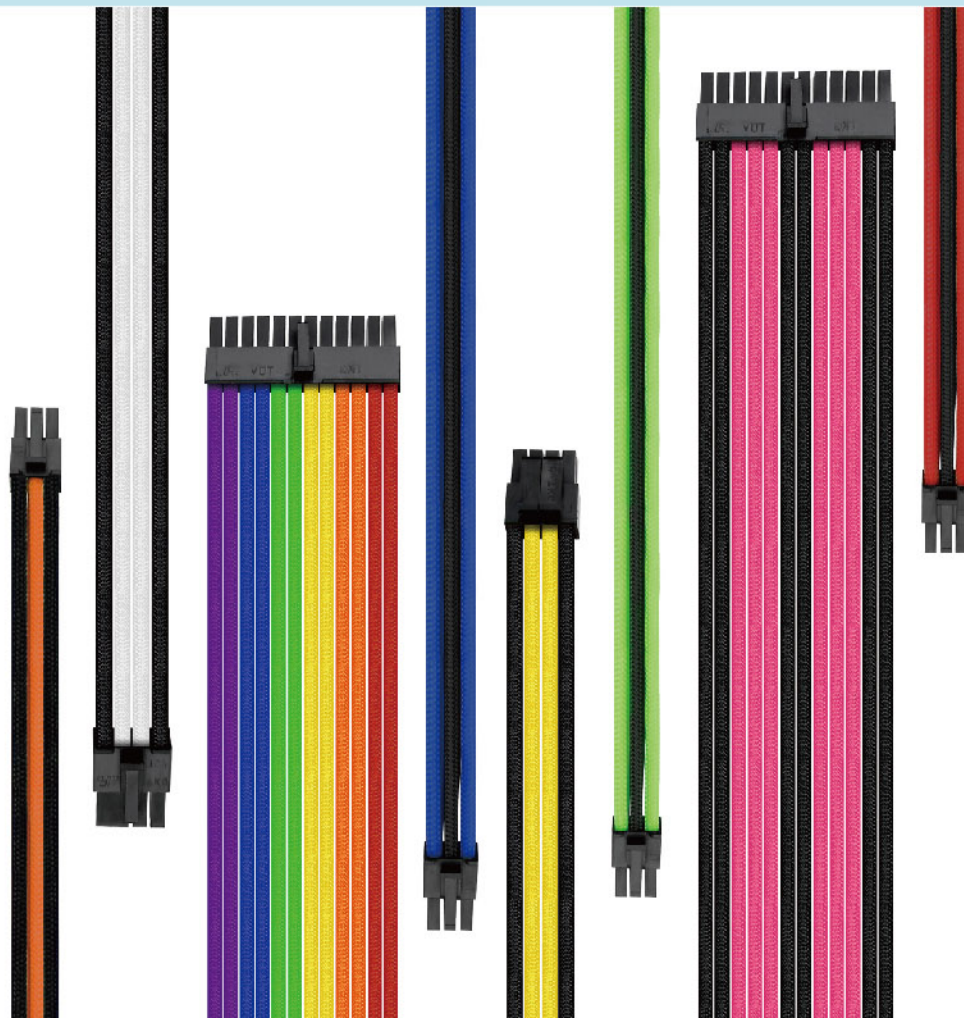
Fittings come in all shapes, sizes, and angles; they help connect components and the tubes. The most popular sizes are 16 mm OD and 12 mm OD. The outside diameter should fit the tubing of your choice.





## 7. Select A Power Supply

The power supply powers up all the components in your computer. Although some chassis has a pre-installed power supply, you would have to double-check if the power supply is sufficient to power up all the components you picked out.



## 8. Select Sleeve Cables

Pick out TtMod Sleeve Cables to enhance the look of your build. These power supply cables come in different color combinations that allow users to match up their design.

For more features, please visit:

<https://www.thermaltake.com/ttmod-sleeve-cable-cable-extension-yellow-and-black.html>

## 9. Install TT RGB PLUS Software, App, and Amazon Alexa

### Controller configuration

For starters, you would need to assign a number for each controller. All products come with a digital lighting controller is designed with a DIP switch in the back. Follow the steps on the user's manual located in all packages; then, you will be able to set a number for your controllers. You can connect up to 16 controllers to the TT RGB PLUS software.



#### TT RGB PLUS SOFTWARE



#### TT AI VOICE CONTROL



### How to download the TT RGB PLUS software

Download the software from <http://ttrgbplus.thermaltake.com/>

Alternatively, you can search "Ring Quad" on Thermaltake's product page and download the software from there.



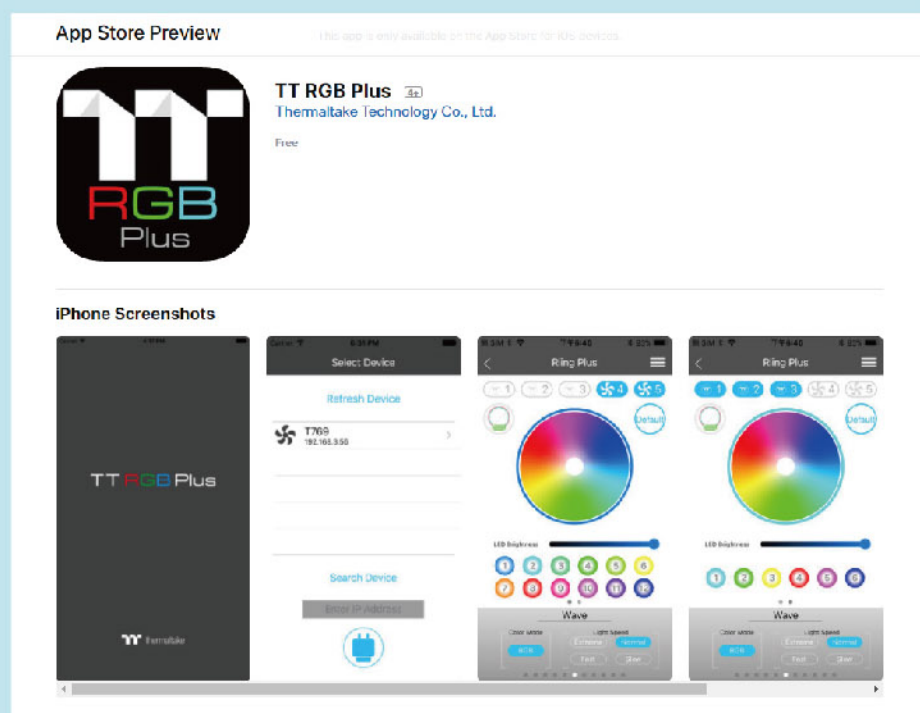
## TT RGB PLUS Software profile settings

You can customize the lighting effects and operating speed and save up to 5 temporary profiles to control up to 16 controllers.

You may choose among your controllers at the top left corner of the interface and select the top right corner profiles to save the profile and apply the settings to the controller you choose.

For More Information, please visit:

<http://ttrgbplus.thermaltake.com>



## How to download TT RGB PLUS app

The app is available on the App Store and Google Play. Type in "TT RGB PLUS" on the search column, then install the TT RGB PLUS app on your phone and get connected to the TT RGB PLUS software.

Your phone must be connected to Wi-Fi for the app and TT AI Voice Control to work. While using the app, you will find the settings menu on the side of the screen where the number of each profile and the number of each controller is displayed.

TT RGB Plus 2.0 will be available for download in the second half of 2021.

## How to set up TT RGB PLUS and Amazon Alexa

Go to the Amazon official website. Log into your Amazon account and search "Alexa Skills TT RGB Plus" to set up the program.

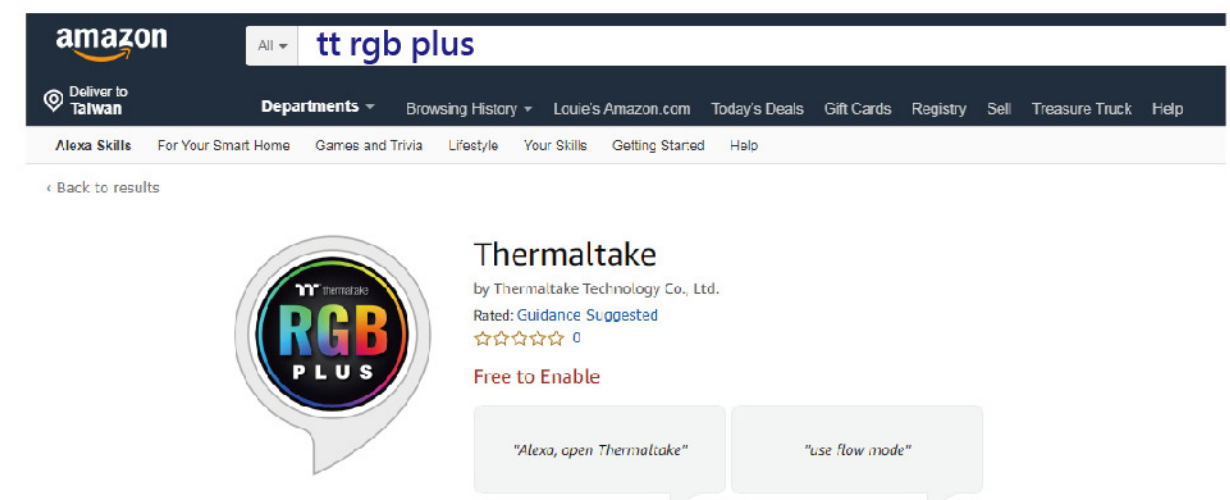
Please scan the QR Codes below for written step-by-step instructions or watch our video guide.



Written Guide



Video Guide





## Set Up Your Spectacular Lighting

NeonMaker is the new advanced editing software for RGB lighting customization. NeonMaker provides various stunning pre-set lighting effects; this allows users to edit their lighting effects on every single led. Users can customize lighting profiles and adjust the timeline and lighting directions, which grants access to further customizable lighting options.

The NeonMaker software now supports the Riing Trio fans, Floe DX AIO liquid coolers, and TOUGHRAM RGB memory series. Not only will you be able to personalize your lighting effects freely by utilizing the NeonMaker software, but you can also synchronize with the TT RGB Plus software to maximize the control of your RGB effects.





## 04 Cool Your System with Thermaltake LCS Components







## WaterRam RGB Liquid Cooling Memory

### Crafted For Excellence

WaterRam RGB Liquid Cooling Memory is a unique 2-way cooling DDR4 memory module that allows users to cool down their memory with either the original heat sink design or utilizes the water block in the module to build a liquid cooling loop. While WaterRam RGB Liquid Cooling Memory ensures excellent heat dissipation performance, it's built-in 12 high lumens addressable LEDs can show off 16.8m colors and take your system to a whole new level.



## Pacific W7 Plus CPU Water Block

Pacific W7 Plus Water Block is designed with a high-quality transparent cover and a copper base with anti-corrosive nickel plating. It also features a built-in temperature sensor that will pick up the temperature from the passing coolant and transmit it to the TT RGB Plus software. W7 Plus uses top-notch components and has 12 high lumen addressable LEDs that deliver high-quality cooling performance and stunning visual effects.



# Pacific Copper Radiator Series



Pacific CL Radiator Series    Pacific C Radiator Series    Pacific CLM Radiator Series



Pacific CLD240 Radiator    Pacific CLD360 Radiator    Pacific CLD480 Radiator

Thermaltake has four different series' or radiators for users to choose from; they come in various thicknesses, sizes, and fin designs. Here's a chart to help you pick out the right radiator for you:

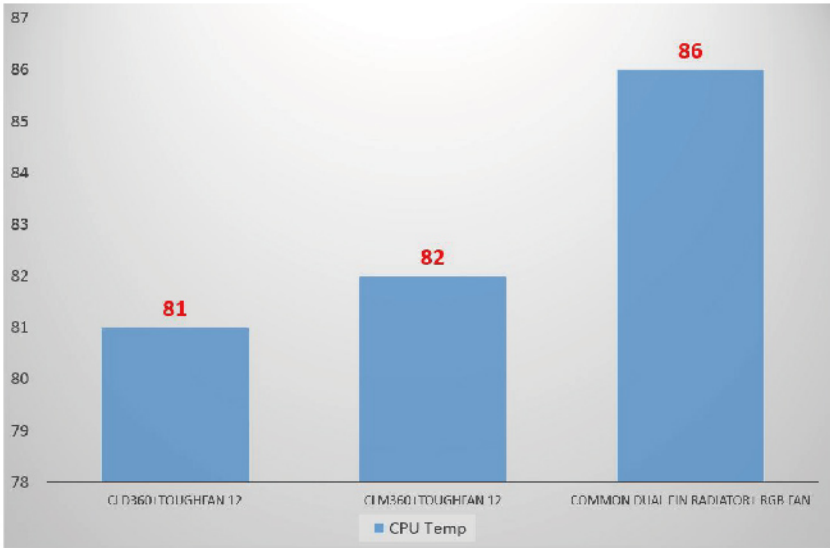
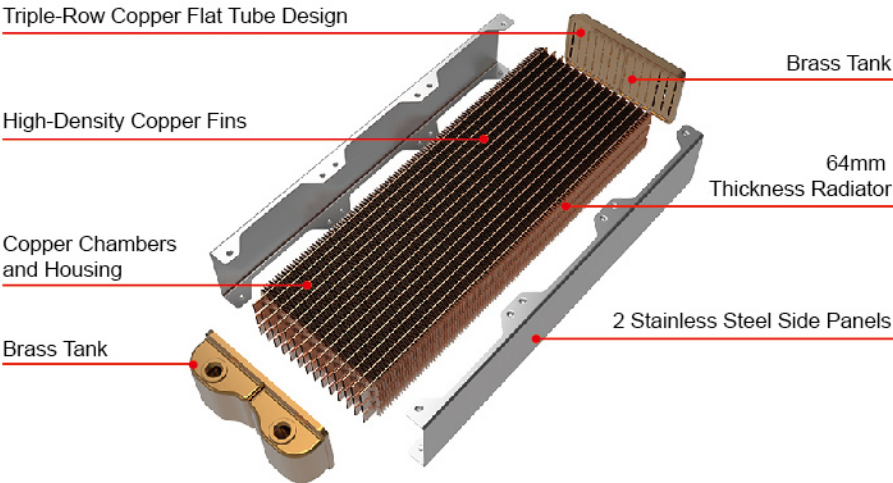
Series	Thickness/Size	240	360	420	480
CL	64mm		✓	✓	✓
C	27mm	✓	✓		
CLM	40mm	✓	✓		✓
CLD(Double Fin)	40mm	✓	✓		✓

Pacific CL, C, CLM Series Radiator are all designed with high-density copper fins, ensuring excellent heat dissipation performance.

The Pacific CLD Series Radiator, on the other hand, utilizes a highly efficient double-fin design. The CLD series is manufactured with a "reflow soldering manufacturing process," which provides exceptional cooling performance.

For more information, please visit:  
<https://www.thermaltake.com/products/custom-liquid-cooling.html?cat=172>

## High-Quality Copper Radiator Design





## V-Tubler PETG Tube Series

Manufactured with high-quality PETG, the V-Tubler comes in both 12 mm OD and 16 mm OD, which allow users to route the tubes to run exactly the way they want. Don't hesitate to pick out the 500mm 4 Pack or the 1000mm 4 Pack loop your water-cooled system.

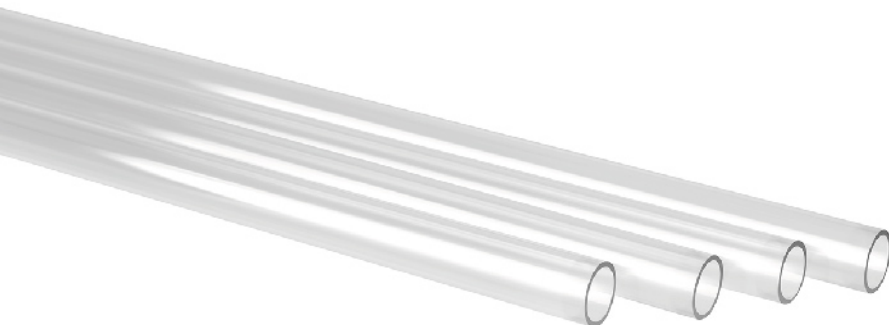
For more information, please visit:

<https://www.thermaltake.com/products/custom-liquid-cooling.html?cat=178>

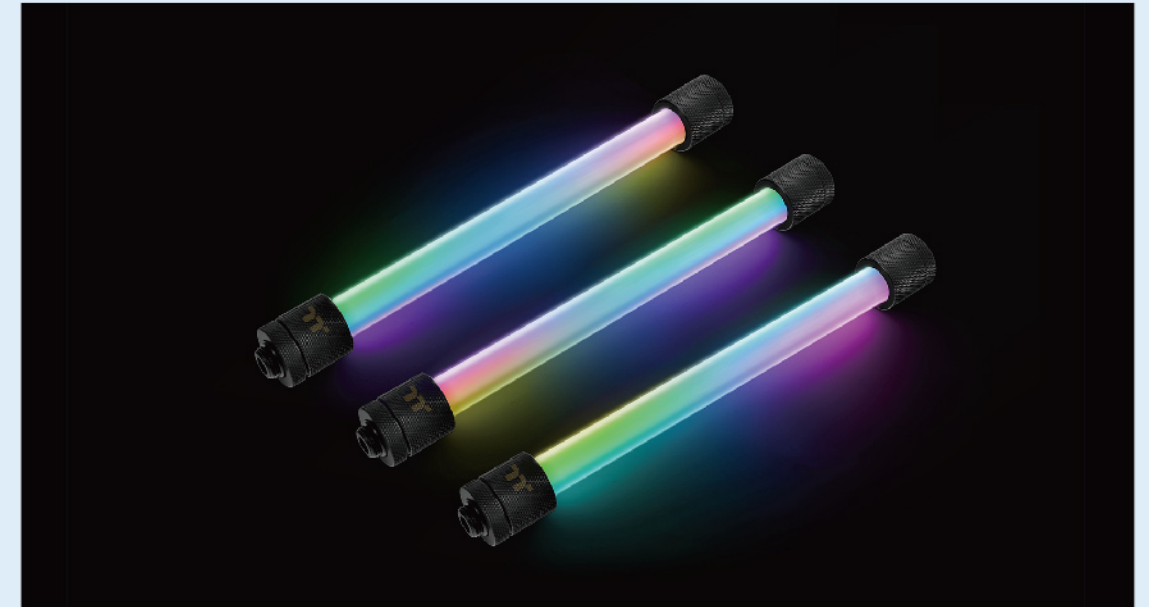
### V-Tubler PETG Tube 16mm OD



### V-Tubler PETG Tube 12mm OD 10mm ID



## Pacific RGB Plus TT Premium Edition G1/4 PETG Tube 16mm OD 12mm ID Fitting



12mm ID Fittings brings fittings to a new level associating with 6 LEDs showing 16.8 million colors that light up the tubing in all directions.



## 05 Meet The TT RGB PLUS Ecosystem

TT RGB PLUS Ecosystem allows TT RGB PLUS products to work with Thermaltake's patented TT RGB PLUS Software, Razor Chroma, and Amazon Alexa Voice Service.

## TT RGB PLUS ECOSYSTEM

SyncALL, Say "Hello TT"







## What is the TT RGB PLUS Ecosystem?

TT RGB PLUS Ecosystem is an intelligent lighting system for PCs that combines the most advanced addressable LED lighting with ThermalTAKe's patented TT RGB PLUS Software, Razer Chroma, and Amazon Alexa Voice Service. The patented TT RGB PLUS software allows users to change the light modes, colors, speeds, brightness, fan speeds via TT AI Voice Control and Amazon Alexa Voice Service.

For more information, please visit: <http://ttrgbplus.thermaltake.com>

TT RGB Plus 2.0 will be available for download in the second half of 2021.



## Fun with the TT RGB PLUS Software

ThermalTAKe's patented software to synchronize TT RGB PLUS products with addressable LEDs. Customize the lights, monitor the fan performance, and adjust the fan speeds all from your PC.

Taiwan Patent: 105216989

US Patent Applied

China Patent Applied



To get TT RGB PLUS Software, TT AI Voice Control, Amazon Alexa, or Razer Chroma, please visit:

<https://ttrgbplus.thermaltake.com/index.html>

There are also some hardware supported by TT RGB PLUS Ecosystem.

**ViewSonic®** | **ELITE**

**ZADAK**



TT Partners include: ViewSonic, ZADAK, TeamGroup

For More Info, please visit:

<https://ttrgbplus.thermaltake.com/Partner.html>



## Say "Hello TT" TT AI Voice Control

Talking to TT RGB PLUS App is an easier, faster way to set lights for your systems. You can ask it to turn the lights on or off, switch lights modes, dim the lights, change light colors, or adjust lights speeds or fan speeds. Give you full control over the TT RGB PLUS products with your voice. Just say "Hello TT".

