



Our technology allows liquid cooling BELOW the dew point

KEY VALUES

- 1** The patents cover the core idea of refrigerating the components and therefore any enhancements can also be patented
- 2** Provides protection from condensation with patented water barrier and condensation elimination systems
- 3** Raise data center room temperatures up by 20° or more
- 4** Eliminates the need for hot aisles and fan walls
- 5** Better utilization of space by allowing greater component density
- 5** Keep CPU temperatures stable, run at maximum efficiency and achieve 60-75% greater electrical savings

The biggest problem faced by data centers today is the ever increasing electrical costs of cooling. **Our patents directly refrigerate the parts that make the heat.** It is the only system that goes below dew point and protects from condensation.

It is the next logical step up from the IBM/Emerson Liebert and Dell's Triton System (these patents are separate and independent of those systems and could make them obsolete).

Refrigerating just the parts that make the heat allows the room temperature of the data centers to be raised up to 80-90 degrees F (26-32 degrees C) with no loss of efficiency, which can save up to 75% off of data center electrical cooling costs. The system can be applied to the whole data center, a block of server cabinets, or a single server cabinet, depending on the needs of your customers.

Our patents specifically cover the water barrier and condensation protection that is needed when using liquid cooling below the dew point. Our testing shows that we can keep CPUs with a 100% load cooled to 75.2 degrees F (24 degrees C) indefinitely.

Condensation issues resolved

Water cooling has long been known to be the most effective method, but it can only be cooled a little before condensation appears and starts dripping all over the equipment.

Our refrigeration technology solves the problem of condensation by creating a patented water barrier and system to safely remove condensation. This keeps the microprocessors running smoothly even in the most punishing of conditions, including a hot data center.

The set up is straightforward and uses existing, off the shelf refrigeration technology; a cooling unit, fluid and a pump. The refrigeration cooling fluid can be mineral oil (dielectric liquid), antifreeze, or glycol, depending on the needs of your customers.

To see how this system works,
please watch our YouTube video:

<https://youtu.be/5YbticpVPKU>

*Advanced Computer Cooling is the **only** system that resolves the condensation issues that occur when cooling liquid is chilled below the dew point.*



Business Level Advantages

Electrical costs are only going up due to an increasing need for data centers. New and upcoming technology, such as Virtual Reality, will cause electrical costs to grow exponentially.

- Our patents have the capability to be used across multiple customer needs such as robotics, military, telecom, and battery cells where heat is an issue and fan and immersion systems would be incompatible with the customer's needs.
- Our refrigerated cooling patents would allow your customers greater flexibility to fulfill their needs and requirements ranging from tower computers, single servers, multi-servers, and data centers.
- The owner of these patents has the potential to become the main provider in the server cooling market.
- The patents cover the core idea of refrigerating the components and therefore any enhancements can also be patented.

These benefits would help your company stay competitive, increase market share, and increase profits, especially over the course of many years of use.

For more information

Please use these links for more information on our refrigeration server cooling patents:

- www.AdvancedComputerCooling.com
- YouTube: <https://youtu.be/5YbticpVPKU>
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Patent #'s
7,292,437
7,551,441
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