



Intel® Active Thermal Solution RTS2011LC

For Intel Core processor families with LGA2011 / 1366 / 1155 / 1156 socket



Product Overview

Intel's RTS2011LC sealed liquid cooling thermal solution gives the utmost in system cooling. This extreme performance liquid cooling solution is geared for enthusiast usage models, enabling the user to unleash the power of Intel's most flexible overclocking¹ platforms.

Designed for Optimized Performance

Intel collaborated closely with Asetek, a leader in liquid cooling solutions, to design a truly optimized liquid thermal solution. Based on Asetek's industry proven design, the RTS2011LC has been further enhanced with a custom designed 120mmx25mm fan, a new higher efficiency cooler block, and a new heat exchanger, all to achieve the utmost in thermal performance.

Maximum heat dissipation: The Intel RTS2011LC features a 150mm x 118mm x 37mm radiator, which provides greater cooling performance compared to standard 1" thick radiators due to its larger surface area. The Intel RTS2011LC also features the latest in copper cold plate design using state-of-the-art ultra-efficient heat transferring microchannels. These new and improved microchannels are able to transfer heat from the CPU to the liquid more efficiently than previous generations of microchannel and pin fin cold plates. This improvement in cold plate design allows for superior heat transfer without increased pump noise or compromised reliability.



Copper cold plate for maximum heat dissipation

Substantial flow: The Intel RTS2011LC features a low profile pump that delivers higher liquid flow compared to traditional liquid cooling pump solutions. The pump, cold plate, and water block are integrated which reduces the number of connections and further improves reliability. Close coupling of the pump and cold plate enables simultaneous optimization of these two critical components to provide the best possible performance. Furthermore, this low profile pump minimizes the height and weight burden that the cooling solution exerts on CPU sockets and motherboards. The pump's low height improves access and airflow through the chassis, while the pump's low weight reduces the risk of shock damage to motherboards. In addition, the rubber tubes carry a 50,000-hour lifecycle and are easy to bend, allowing for easier tube routing and installation.

Multi-socket support³ The RTS2011LC sealed liquid cooling system is compatible with LGA2011 (socket R), LGA1366 (socket B), LGA1155 (socket H2), and LGA1156 (socket H), which provides increased flexibility for the system builder.

Cool, quiet, and striking: At equivalent acoustic levels and at full processor power (130W) the RTS2011LC can achieve a 7°C cooler CPU core temperature compared to Intel's highest performance air cooling thermal solution². In addition, the RTS2011LC runs 10 dBA quieter than the high performance air cooling solution in performance mode. Finally yet importantly, blue LED lighting effects provides striking visual effects and highlight the presence of liquid cooling through chassis windows.

Select Specifications of RTS2011LC

FAN SPEEDS	800 - 2200 RPM (4 wire PWM)
FAN DIMENSIONS	120 mm x 120 mm x 25 mm
FAN AIRFLOW	74 CFM
UNIT NOISE LEVEL	21dBA @ 800 RPM, 35dBA @ 2200 RPM
RADIATOR DIMENSIONS	150 mm x 118 mm x 37 mm
PUMP Z HEIGHT	33 mm
TOTAL THERMAL SOLUTION WEIGHT	820 grams
COOLING LIQUID	Propylene Glycol
THERMAL INTERFACE MATERIAL	TC-1996

¹ Warning: Altering clock frequency and/or voltage may (i) reduce system stability and useful life of the system and processor; (ii) cause the processor and other system components to fail; (iii) cause reductions in system performance; (iv) cause additional heat or other damage; and (v) affect system data integrity. Intel has not tested, and does not warrant, the operation

² Intel High Performance air cooling using DBX-B Base with optimized 120mm fan, and multi-socket design compatible with LGA2011 (socket R), LGA1366 (socket B), LGA1155 (socket H2), and LGA1156 (socket H)

³ RTS2011LC Multi socket support supports use with the following Intel product families: Lynnfield, Clarkdale, Sandybridge, Gulftown, Bloomfield, Sandybridge-E, Ivybridge, and Ivybridge-E.