

TECHNOLOGY PREVIEW







eVCI DESIGN

LAB RESULTS

eVCI - Revolutionary Heatsink Design

Expanding its role as a leader in high performance memory module innovation, Mushkin's new Ascent series of memory modules raises the bar for memory performance. By combining the "enhanced Vapor Chamber Interface" (eVCI) with a high conductivity 6063 aluminum alloy encasement, both conductive and convective thermal paths are optimized for the best overclocking results. The Ascent series modules provide both form and function; increasing overclocking results as much as 48MHz and reducing heat rise above ambient by as much as 48%, all in a package that will compliment any system's appearance.

- Copper enhanced Vapor Chamber Interface (eVCI) provides an extremely conductive thermal path from the DRAM (10X better than solid copper)
- Highly conductive 6063 extruded aluminum alloy encasement for effective heat exchange through convection

· Low profile and slim width design for full population of memory slots if desired. Won't interfere with most large CPU heatsinks

· Sleek and aggressive design compliments any build's appearance

Test Data

Module / Configuration	Freq	CPU Freq	Voltage	Timings	Temp (U16)	Result
Module 1/Low CFM fan (side mounted)/no heatsink	1200	2667	2.35V	5-5-5-18	67.5°C	Pass
Module 1/Low CFM fan (side mounted)/with Ascent eVCI heatsink	1200	2667	2.35V	5-5-5-18	47.3°C	Pass
Module 1/High CFM fan (top mounted)/with Ascent eVCI heatsink	1200 1245	2667 2766	2.35V 2.35V	5-5-5-18 5-5-5-18	37.1°C 37.6°C	Pass Pass
Module 2/Low CFM fan (side mounted)/no heatsink	1188	2642	2.35V	5-5-5-18	70.3°C	Pass
Module 2/Low CFM fan (side mounted)/with Ascent eVCI heatsink	1188 1224	2642 2720	2.35V 2.35V	5-5-5-18 5-5-5-18	49.4°C 49.6°C	Pass Pass
Module 2/High CFM fan (top mounted)/with Ascent eVCI heatsink	1188 1236.3	2642 2746	2.35V 2.35V	5-5-5-18 5-5-5-18	37.5°C 37.7°C	Pass Pass

Analysis

Module 1		Module 2	
Same airflow/same clocks thermal improvement	20.2°C	Same airflow/same clocks thermal improvement	20.9°C
Increased airflow/same clocks thermal improvement	30.4°C	Increased airflow/same clocks thermal improvement	32.8°C
Overclocking improvement	45MHz	Overclocking improvement	48MHz

Test Setup

EVGA 122-CK-NF68-AR BIOS 691NOP31 Intel E6700 @ 2642-2777MHz Thermocouple attached to component 16 80°F Ambient Module Configuration: MT47H64M8B6-3 : D/B62URCE (Mushkin 991525 1GB XP2-8000 Redline) RST Pro2 3 loops Jump and Helix tests only (approximately 20min test time)

