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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC., HTC CORPORATION, HTC AMERICA, INC., SAMSUNG  
ELECTRONICS CO. LTD, SAMSUNG ELECTRONICS AMERICA, INC.,  
SAMSUNG TELECOMMUNICATIONS AMERICA, LLC AND  
AMAZON.COM, INC.  
Petitioners

v.

MEMORY INTEGRITY, LLC  
Patent Owner

U.S. Patent No. 7,296,121

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*Inter Partes* Review Case No. 2015-00159

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**PATENT OWNER MEMORY INTEGRITY, LLC'S RESPONSE TO  
PETITIONERS' MOTION FOR OBSERVATION**

**Response to Observation #1:** Petitioners’ Observation #1 is improper because rather than addressing the deponent’s testimony, Petitioners seek to clarify ambiguities in their own opposition to the motion to amend. In particular, Petitioners now argue that their opposition has an “application of the individual R10000 processor in the Origin system to the claimed ‘processing node.’” Petitioners also mischaracterize Dr. Oklobdzija’s opinions and testimony as demonstrating that such application is “valid.” Dr. Oklobdzija said nothing of the sort—he merely said either scenario could be considered. Ex. 1032 at 21:3-13. Indeed, Dr. Oklobdzija substantively addressed both scenarios—(1) where the “processing node” was limited to the SGI Origin’s processors (Ex. 2042 ¶¶ 12-15), and (2) where the “processing node” also included the local hub chip (Ex. 2042 ¶¶ 10-11). Dr. Oklobdzija’s opinions demonstrate each scenario fails to render the proposed substitute claims unpatentable.

**Response to Observation #2:** Petitioners’ Observation #2 mischaracterizes Dr. Oklobdzija’s opinions and testimony as “not consider[ing] ‘where the probe in a hub-to-hub transmission originates from.’” To the contrary, Dr. Oklobdzija testified that the probe comes from the hub chip itself. Ex. 1032 at 29:14-16, 38:10-16, 161:21-162:13. Moreover, the question’s implied suggestion that a requesting node’s hub chip’s probes must have originated from elsewhere made no sense in light of Dr. Oklobdzija’s opinions, which noted that (1) “[t]he processor in

the requesting node is connected to a hub in the requesting node via a ‘SysAD bus.’ . . . [while], the hubs in SGI Origin communicate with each other via a ‘Craylink’ interface,” (Ex. 2042 ¶ 13); (2) “the hub chip has significant logic between these interfaces, which among other things, ‘hides the processors from the rest of the world, so any other interface must only know the behavior of the PI [processor interface] and not of the processor and SysAD bus themselves,” (*id.*) (3) “in some instances, there is not even a one-to-one relationship between the processor’s outgoing messages and the outgoing messages from the hub” (*id.*), and (4) that the “processors are ignorant about” “at least some details of the cache coherent protocol” for “which the hub is responsible for implementing” (*id.*). This is consistent with Dr. Oklobdzija’s deposition testimony. Ex. 1032 at 26:25-28:7. Thus, there is no “alternative source” for a probe that need to be identified and nothing in Dr. Oklobdzija’s testimony suggests that the probes received by a home node’s hub chip are the same as sent by a processor.

**Response to Observation #3:** Petitioners mischaracterize Dr. Oklobdzija’s testimony as somehow demonstrating that “a change in a probe’s message format is not relevant to the limitations of the substitute claims.” However, just because the ’121 Patent does not describe or claim a “specific” message format, that does not imply that the format of messages (i.e. of an alleged probe) is not “relevant” in determining whether the probe received by the alleged probe filtering unit (i.e. the

hub chip of the home node) is the same probe as sent by a processor. Dr. Oklobdzija's declaration explained how "transport formats," in addition to "protocols, and speeds," relate to the claim limitation "the probe filtering unit being operable to receive probes corresponding to memory lines from the processing nodes," Ex. 2042 ¶¶ 12-13. In particular, he opined that "if the hub is not within a processing node, then the hub at the home node is not receiving probes *from the processing nodes*, it is receiving a request *from another hub*." *Id.* ¶ 12.

The discussion of message formats relate to addressing the potential counterargument that "Petitioners may argue that the hub in the home node is receiving a probe 'from the processing node' because ultimately a request sent by the requesting node's hub is due to a processor's cache miss." *Id.* ¶ 13. The questions in the cited deposition testimony wholly failed to attempt to address those opinions. Thus, there is nothing inconsistent between Dr. Oklobdzija's testimony that he was not relying on a particular message format from the '121 Patent's specification, and his discussion of message formats in the context of his opinion that, in SGI Origin, probes sent by a requesting node's processor are not the same "probe" as received by a home node's hub chip.

**Response to Observation #4:** Observation #4 is a misleading non-sequitur.

Petitioners cite testimony of Dr. Oklobdzija acknowledging that the '121 Patent allegedly describes an embodiment using different point-to-point protocols on

different point-to-point links. Petitioners conclude that this demonstrates that “a change in a probe’s message format is not relevant to the limitations of the substitute claims.” To the contrary, Dr. Oklobdzija expressly noted that it would “not necessarily” be the case that “two different point-to-point protocols” would even cause “the probe [to] change.” Ex. 1032 at 75:10-19. Moreover, Petitioners’ argument is entirely divorced from the language of the substitute claims, and improperly attempts to read in one potential embodiment into all of the claims contrary to their plain language. Dr. Oklobdzija explained in his declaration how a change in message formats was one of several factors (including protocols and speeds) that demonstrates that SGI Origin’s home node hub chip is not “operable to receive probes corresponding to memory lines from the processing nodes” (Ex. 2042 ¶¶ 12-13) and the cited testimony does not attempt to substantively discuss those opinions or the claim language upon which Dr. Oklobdzija relied.

**Response to Observation #5:** Again Petitioners mischaracterize Dr. Oklobdzija’s testimony and opinions. Rather than testifying that read requests are “passed through the hub,” Dr. Oklobdzija expressly disagreed with that characterization and testified that the PI (processor interface) “passes them to the buffers, and the buffers have coherence protocols or coherence control that keeps track of outstanding transactions and controls the flow of messages” which “indicates . . . it has perhaps a little bit of a different and more complex protocol in handling those

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