

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

CARNEGIE MELLON UNIVERSITY,	)	
	)	
Plaintiff,	)	
v.	)	Civil Action No. 09-290
	)	
MARVELL TECHNOLOGY GROUP, LTD.,	)	
and MARVELL SEMICONDUCTOR, INC.,	)	
	)	
Defendants.	)	

**VERDICT FORM**

Based on the evidence admitted at trial and in accordance with the instructions as given by the Court, we, the jury, unanimously agree to the answers to the following questions:

**A. QUESTIONS AS TO DIRECT INFRINGEMENT**

**1. Has CMU proven by a preponderance of the evidence that Marvell's MNP-Type chips literally infringe Claim 4 of the '839 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES     ✓                        NO     \_\_\_\_\_    

Proceed to Question #2.

**2. Has CMU proven by a preponderance of the evidence that Marvell's MNP-Type simulators literally infringe Claim 4 of the '839 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES     ✓                        NO     \_\_\_\_\_    

Proceed to Question #3.

- 3. Has CMU proven by a preponderance of the evidence that Marvell's NLD-Type chips literally infringe Claim 4 of the '839 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #4.

- 4. Has CMU proven by a preponderance of the evidence that Marvell's NLD-Type simulator literally infringes Claim 4 of the '839 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #5.

- 5. Has CMU proven by a preponderance of the evidence that Marvell's Kavcic-Viterbi simulator literally infringes Claim 4 of the '839 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #6.

- 6. Has CMU proven by a preponderance of the evidence that Marvell's MNP-Type chips literally infringe Claim 2 of the '180 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #7.

- 7. Has CMU proven by a preponderance of the evidence that Marvell's MNP-Type simulators literally infringe Claim 2 of the '180 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #8.

**8. Has CMU proven by a preponderance of the evidence that Marvell's NLD-Type chips literally infringe Claim 2 of the '180 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #9.

**9. Has CMU proven by a preponderance of the evidence that Marvell's NLD-Type simulator literally infringes Claim 2 of the '180 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #10.

**10. Has CMU proven by a preponderance of the evidence that Marvell's Kavcic-Viterbi simulator literally infringes Claim 2 of the '180 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES  NO

Proceed to Question #11.

**B. QUESTIONS AS TO INDIRECT INFRINGEMENT**

**11. Has CMU proven by a preponderance of the evidence that Marvell has induced at least one of its customers or an end user to infringe Claim 4 of the '839 Patent in the United States with the following products?**

"Yes" finds for CMU and "No" finds for Marvell.

MNP-Type chips	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
NLD-Type chips	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

Proceed to Question #12.

**12. Has CMU proven by a preponderance of the evidence that Marvell has contributed to the infringement, by at least one of its customers or an end user, of Claim 4 of the '839 Patent in the United States with the following products?**

"Yes" finds for CMU and "No" finds for Marvell.

MNP-Type chips	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
NLD-Type chips	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>

Proceed to Question #13.

**13. Has CMU proven by a preponderance of the evidence that Marvell has induced at least one of its customers or an end user to infringe Claim 2 of the '130 Patent in the United States with the following products?**

"Yes" finds for CMU and "No" finds for Marvell.

MNP-Type chips	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
NLD-Type chips	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>

Proceed to Question #14.

**14. Has CMU proven by a preponderance of the evidence that Marvell has contributed to the infringement, by at least one of its customers or an end user, of Claim 2 of the '180 Patent in the United States with the following products?**

"Yes" finds for CMU and "No" finds for Marvell.

MNP-Type chips	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>
NLD-Type chips	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>

If you answered "Yes" to any of Questions 1 through 14, proceed to Question #15. If you answered "No" to all of Questions 1 through 14, skip the remaining questions (leave them blank) and proceed to the instructions on Page 9.

**C. QUESTIONS AS TO INVALIDITY**

**15. Has Marvell proven by clear and convincing evidence that CMU's asserted patent claims are invalid because they are anticipated by prior art?**

"Yes" finds for Marvell and "No" finds for CMU.

Claim 4 of the '839 Patent

YES \_\_\_\_\_

NO ✓

Claim 2 of the '180 Patent

YES \_\_\_\_\_

NO ✓

Proceed to Question#16.

**16. Has Marvell proven by clear and convincing evidence that CMU's asserted patent claims are invalid because they would have been obvious at the time the invention was made?**

"Yes" finds for Marvell and "No" finds for CMU.

Claim 4 of the '839 Patent

YES \_\_\_\_\_

NO ✓

Claim 2 of the '180 Patent

YES \_\_\_\_\_

NO ✓

\*If you answered "Yes" to Question #15 and/or Question #16 and have found that both Claim 4 of the '839 Patent and Claim 2 of the '180 Patent are invalid, skip the remaining questions (leave them blank) and move to the instructions on Page 9.

**D. QUESTIONS AS TO DAMAGES**

**17. If you find that Marvell infringed either Claim 2 of the '180 Patent, or both Claim 4 of the '839 Patent and Claim 2 of the '180 Patent, and you found the infringed claim or claims to be valid, what amount of damages do you award CMU for the use of the patented methods?**

\$ 1,169,140,271

\*If you have answered Question #17, skip Question #18 (leave it blank) and proceed to Question #19. If you did not answer Question #17, move to Question #18.

**18. If you find that Marvell infringed only Claim 4 of the '839 Patent, and you found that claim to be valid, what amount of damages do you award CMU for the use of the patented method? In answering this question, you must take into account that CMU cannot collect damages from before its filing of this lawsuit on March 6, 2009 for the '839 Patent.**

\$ \_\_\_\_\_

\*If you awarded damages in response to either Question #17 or Question #18, move to Question #19. If you did not award any damages in response to either Question #17 or Question #18, skip the remaining questions (leave them blank) and move to the instructions on Page 9.

**E. QUESTIONS AS TO WILLFULNESS**

**19. Did Marvell have actual knowledge of the '180 Patent prior to commencement of this lawsuit (in other words, prior to March 6, 2009)?**

YES   ✓   NO \_\_\_\_\_

\*If you answered NO, skip Questions #20 and #21 (leave them blank) and move to Question #22. Otherwise, proceed to Question #20.

**20. If Marvell learned of the '180 Patent and prior to commencement of this lawsuit, did Marvell have an objectively reasonable defense to CMU's claim of infringement?**

"Yes" finds for Marvell and "No" finds for CMU.

YES \_\_\_\_\_ NO       ✓      

\*If you answered NO, proceed to Question #21. Otherwise, skip Question #21 (leave it blank) and move to Question #22.

**21. If Marvell learned of the '180 Patent, do you find clear and convincing evidence that Marvell actually knew or should have known that its actions would infringe Claim 2 of the '180 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES       ✓       NO \_\_\_\_\_

Proceed to Question #22.

**22. Did Marvell have actual knowledge of the '839 Patent prior to commencement of this lawsuit (in other words, prior to March 6, 2009)?**

YES       ✓       NO \_\_\_\_\_

\*If you answered NO, skip the remaining questions (leave them blank) and move to the instructions on Page 9. Otherwise, proceed to Question #23.

**23. If Marvell learned of the '839 Patent and prior to commencement of this lawsuit, did Marvell have an objectively reasonable defense to CMU's claim of infringement?**

"Yes" finds for Marvell and "No" finds for CMU.

YES \_\_\_\_\_ NO       ✓      

\*If you answered NO, proceed to Question #24. Otherwise, skip the remaining question (leave it blank) and move to the instructions on Page 9.

**24. If Marvell learned of the '839 Patent, do you find clear and convincing evidence that Marvell actually knew or should have known that its actions would infringe Claim 4 of the '839 Patent?**

"Yes" finds for CMU and "No" finds for Marvell.

YES



NO

\*Please proceed to the instructions on Page 9.



You have now reached the end of the verdict form and should review it to ensure it accurately reflects your unanimous determination.

All jurors should sign and date the verdict form in the spaces below and notify the Bailiff that you have reached a verdict.

The Foreperson should retain possession of the verdict form and bring it to the courtroom when the jury is brought back into the courtroom.

X Jimmy Bergendy Jr Foreperson

X Carl J. DeHri

X Alanna Williams

X Richard J. Hopkins

X Dan Fisher

X Vicki Komar

X Heather East

X Ben J. Snellett

X Timothy

DATED: DEC 26, 2012