

DOCKET NO.: 2003195-00123US1 and US2

Filed By: David L. Cavanaugh, Reg. No. 36,476
Dominic E. Massa, Reg. No. 44,905
Michael H. Smith, Reg. No. 71,190
1875 Pennsylvania Ave. NW
Washington, DC 20006
Tel: (202) 663-6000
Email: David.Cavanaugh@wilmerhale.com
Dominic.Massa@wilmerhale.com
MichaelH.Smith@wilmerhale.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.
Petitioner

v.

GODO KAISHA IP BRIDGE 1
Patent Owner.

Case IPR2017-01841¹

PETITIONER'S SUR-SUR-REPLY PURSUANT TO JULY 20, 2018 ORDER

¹ Case IPR2017-01842 has been consolidated with this proceeding.

Petitioner's Sur-Sur-Reply Pursuant to July 20, 2018 Order

Claim 1 recites a transistor (MISFET) that includes conventional features such as an active region, a source, a drain, and a gate. Pet., 1, 8, 14. The Petition demonstrated how Igarashi's Fig. 12 MISFETs include these elements. Pet., 17, 23-33, 39-41. This is true whether Igarashi's Fig. 12 is viewed as having one active region or more than one active region. Pet. 24-33; Reply, 19-22. PO attempted to distinguish Igarashi by arguing "active region" requires one-to-one correspondence between a MISFET and an active region. E.g., POR, 74-75; POPR, 29-30. Agata (Ex. 1025) and Rashed (Ex. 1026) unambiguously show multiple transistors formed in an "active region," refuting PO's position. Reply, 10-13. PO does not dispute this. Sur-reply, 1-3. Likewise, Dr. Glew backed away from his prior testimony and testified he had no opinion on the term "active region." *Compare* Ex. 2007, ¶¶62-85, 148-149 *with* Ex. 1029, 46:1-47:6.

PO's sur-reply instead argues the MISFETs in Igarashi's Fig. 12 do not "include" an active region. The Board has rightly rejected this argument. DI, 9. PO's sur-reply does not alter this conclusion.

First, PO's argument that the Reply mischaracterized Dr. Glew's testimony fails. Sur-reply, 2. It did not. *Compare* Reply, 20-21 *with* Ex. 1024 at 94:13-95:7. Dr. Glew confirms that he stands by his testimony that "includes" is an open-ended term like comprises. Ex. 1029, 93:15-22; Ex. 1024 at 94:13-95:7. The term "includes" does not prevent the MISFET from including other features or prevent

other MISFETS from being formed in the same active region. Moreover, PO's supposed "one-to-one correspondence" (Sur-reply, 1-3) is directly contradicted by PO's infringement contentions. Reply, 6-7, *citing* Ex. 1021, 32. Ex. 1027, ¶11. PO's contradictory positions cannot be reconciled, nor does PO even try.

Second, Dr. Glew's inability to answer basic questions on cross shows his attempts to reconcile his testimony with Agata and Rashed are not credible. For example, when Dr. Glew's drawing of a MISFET that "includes" an active region (Ex. 1028, Fig. 1) was reproduced with the isolation regions spaced further apart (Ex. 1028, Fig. 2), Dr. Glew was unable to say whether the same MISFET still "included" an active region. Ex. 1029, 16:4-23. Similarly, when Petitioner attempted to obtain Dr. Glew's opinion of whether the MISFET would still "include" an active region if a second transistor were *added*, Dr. Glew refused to draw a second transistor and testified he had no opinion. Ex. 1029, 19:3-11.

Dr. Glew was also unable to say whether the device in Igarashi's Fig. 12 "includes" an active region, demonstrating that his attempts to distinguish Agata and Rashed are not credible. Ex. 1029, 62:5-63:9. Dr. Glew's answers on cross-examination also reveal the superficial nature of his analysis. Dr. Glew previously testified that "the active region is the region where the transistor is formed." Ex. 1024, 43:10-14. When asked on cross whether "each transistor in Figure 12

includes an area where the transistor is formed,” he testified, “[T]his is not an opinion I've given or analyzed.” Ex. 1029, 63:10-20.

Third, Dr. Glew's testimony confirms PO's position “doesn't make physical sense.” When asked whether, under his interpretation, the active region of claim 1 could be divided by isolation regions (as recited in claim 10), Dr. Glew testified that “it doesn't make physical sense.” Ex. 1029, 66:23-67:3; Ex. 1001, claim 10.

Fourth, Dr. Glew confirms that Igarashi's Fig. 12 MISFETs “include” an active region. When asked what components are in an active region, Dr. Glew testified that it “would include, at least... the source channel and drain regions for a typical transistor.” Ex. 1029, 70:5-12. There is *no dispute* that Igarashi's identified “active region” includes these same components. *See e.g.*, Petition, 16-17, 23, 39-41, *citing* Ex. 1002, ¶¶47-48, 88-90, Ex. 1004, Fig. 12, [0044], [0068].

Fifth, PO's attempt to rebut Dr. Shanfield's showing that “all functional MOSFET transistors have an active region” fails. PO has not identified a single reference that describes a MISFET as *not* including an active region—because *all* functional transistors include an active region. *E.g.*, Reply, 10-11; Pet. 7-13.

Dated: August 8, 2018

Respectfully Submitted,

/Michael Smith/

Michael H. Smith, Reg. No. 71,190

PETITIONER'S LIST OF EXHIBITS FOR
IPR2017-01841

Exhibit	Description
1001	U.S. Patent No. 7,893,501
1002	Declaration of Stanley R. Shanfield, Ph.D. Regarding U.S. Patent No. 7,893,501, Claims 1, 4, 7, 9-11, 14, 16-18, and 23-25 ("Shanfield Decl.")
1003	Applicant's Amendment and Response dated August 6, 2010
1004	U.S. Patent Publication No. 2002/0145156 to Igarashi et al. ("Igarashi")
1005	U.S. Patent No. 5,960,270 to Misra et al. ("Misra")
1006	U.S. Patent No. 6,406,963 to Woerlee et al. ("Woerlee")
1007	Notice of Allowance dated October 15, 2010
1008	J. Plummer et al., <i>Silicon VLSI Technology: Fundamentals, Practice and Modeling</i> , (1st ed. 2000)
1009	W.O. Publication No. 2002/043151 with certified English translation ("Shimizu")
1010	J. Rabaey et al., <i>Digital Integrated Circuits</i> , at 40-44 (2d ed. 2003) ("Rabaey")
1011	S. Kang and Y. Leblebici, <i>CMOS Digital Integrated Circuits: Analysis and Design</i> , (2d. ed. 2003) ("Kang")
1012	K. Maex, <i>Simply irresistible silicides</i> , <i>Physics World</i> , at 35-39 (Nov. 1995)
1013	U.S. Patent No. 6,806,584

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.