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

Patent No. 6,197,696 Filing Date: March 23, 1999 Issue Date: March 6, 2001

Title: METHOD FOR FORMING INTERCONNECTION STRUCTURE

Inter Partes Review No. IPR2016-01378

PETITION FOR *INTER PARTES* REVIEW UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. § 42.100 *ET SEQ*.



Table of Contents

I.	. Preliminary Statement			1		
II.	Technological Background 1					
	A.	Integrated Circuits and Interconnections				
	B.	Sem	iconductor Etching and Photolithography	4		
III.	The	'696 I	Patent	7		
	A.	Desc	cription of the Challenged Claims	7		
	B.	Exa	mination of the '696 Patent	16		
	C.		Challenged Claims Are Not Entitled to the Benefit of eign Priority	16		
		1.	The first, second, and fourth embodiments of the '371 application do not disclose step g) of claim 13	18		
		2.	The third, variant of the third, and fourth embodiments do not disclose step h) of claim 13	19		
		3.	The third, variant of the third, and fourth embodiments do not disclose step i) of claim 13	21		
IV.	State	ement	of Precise Relief Requested for Each Claim Challenged	23		
	A.	Clai	ms for Which Review is Requested	23		
	B.	Statutory Grounds of Challenge				
	C.	Leve	el of Ordinary Skill	23		
	D.	Clai	m Construction	24		
V.	Claims 13 and 14 of the '696 Patent Are Unpatentable Over the Prior Art24					
	A.	Disclosures of the Prior Art				
		1.	<i>Grill</i> (U.S. Patent No. 6,140,226)	24		



		2.	Aoyama (U.S. Patent No. 5,592,024)	29
	B.	Grill	Anticipates Claims 13 and 14	31
		1.	Grill anticipates claim 13	31
		2.	Grill anticipates claim 14	45
	C.		Grill-Aoyama Combination Renders Claims 13 and 14 ous	46
		1.	A POSITA would have found it obvious to combine teachings of <i>Grill</i> and <i>Aoyama</i>	46
		2.	Claim 13 is obvious in view of the <i>Grill-Aoyama</i> combination	50
		3.	Claim 14 is obvious in view of the <i>Grill-Aoyama</i> combination	62
	D.	Alter	rnative Combinations for Claim 14	62
		1.	Disclosure of Wetzel (U.S. Patent No. 5,920,790)	63
		2.	A POSITA would have combined teachings of <i>Wetzel</i> with teachings of <i>Grill</i>	64
		3.	A POSITA would have combined teachings of <i>Wetzel</i> with teachings of <i>Grill</i> and <i>Aoyama</i>	65
		4.	Claim 14 is obvious in view of the <i>Grill-Wetzel</i> combination	66
		5.	Claim 14 is obvious in view of the <i>Grill-Aoyama-Wetzel</i> combination	66
VI.	Man	datory	Notices Under 37 C.F.R. §42.8	67
	A.	Real	Parties-In-Interest	67
	B.	Relat	ted Matters	67
	C.	Lead	and Back-Up Counsel	69



	D.	Service Information	69
VII.	Cer	tification Under 37 C.F.R. §42.24(d)	69
VIII.	Pay	ment of Fees	70
IX.	Tim	e for Filing Petition	70
X.	Gro	ounds for Standing	70
XI.	Con	clusion	70



Table of Authorities

Cases

Dynamic Drinkware, LLC v. Nat'l Graphics, Inc., 800 F.3d 1375 (Fed. Cir. 2015)25
Exergen Corp. v. Wal-Mart Stores, Inc., 575 F.3d 1312 (Fed. Cir. 2009)44, 54
Fiers v. Revel, 984 F.2d 1164 (Fed. Cir. 1993)
In re Ziegler, 992 F.2d 1197 (Fed. Cir. 1993)
Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc)24
Statutes
35 U.S.C. §102(e)
35 U.S.C. §103
35 U.S.C. §32123
Other Authorities
Ariosa Diagnostics, Inc. v. Illumina, Inc., IPR2014-01093, Paper 69 (Jan. 7, 2016)
Core Survival, Inc. v. S&S Precision, LLC, PGR2015-00022, Paper 8 (Feb. 19, 2016)
Rules
37 C.F.R. §42.100(b)
37 C.F.R. §42.101(b)
37 C.F.R. §42.103(a)
37 C.F.R. §42.104(a)
37 C.F.R. §42.10816
37 C.F.R. §42.15(a)



DOCKET A L A R M

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.

