

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GlobalFoundries U.S. Inc.

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. *To be assigned*

**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	1
	B. Semiconductor Etching and Photolithography	4
III.	The '696 Patent	6
	A. Description of the Challenged Claims	6
	B. Examination of the '696 Patent.....	17
	C. The Challenged Claims Are Not Entitled to the Benefit of Foreign Priority	18
	1. The first, second, and fourth embodiments of the '371 application do not disclose step h) of claim 10.....	19
	2. The third, variant of the third, and fourth embodiments do not disclose step i) of claim 10.....	20
	3. The third, variant of the third, and fourth embodiments do not disclose step j) of claim 10.....	21
	4. No embodiments of the '371 application disclose step l) of claim 10.....	23
IV.	Statement of Precise Relief Requested for Each Claim Challenged	24
	A. Claims for Which Review is Requested	24
	B. Statutory Grounds of Challenge.....	24
	C. Level of Ordinary Skill	24
	D. Claim Construction	24
V.	Claims 10–12 of the '696 Patent Are Unpatentable Over the Prior Art.....	25
	A. Disclosures of the Prior Art	25
	1. <i>Grill</i> (U.S. Patent No. 6,140,226)	25
	2. <i>Aoyama</i> (U.S. Patent No. 5,592,024).....	30
	3. A POSITA would have combined teachings of <i>Grill</i> and <i>Aoyama</i>	31
	B. <i>Grill</i> Renders Claims 10 and 11 Obvious	34
	1. Claim 10 is obvious in view of <i>Grill</i>	35
	2. Claim 11 is obvious in view of <i>Grill</i>	48
	C. The <i>Grill-Aoyama</i> Combination Renders Claims 10–12 Obvious	48
	1. Claim 10 is obvious in view of the <i>Grill-Aoyama</i> combination	48
	2. Claim 11 is obvious in view of the <i>Grill-Aoyama</i> combination	59

3.	Claim 12 is obvious in view of the <i>Grill-Aoyama</i> combination	60
D.	Alternative Combinations for Claim 11	63
1.	Disclosure of <i>Wetzel</i> (U.S. Patent No. 5,920,790).....	64
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 11 is obvious in view of the <i>Grill-Wetzel</i> combination.....	66
5.	Claim 11 is obvious in view of the <i>Grill-Aoyama-Wetzel</i> combination.....	66
VI.	Mandatory Notices Under 37 C.F.R. §42.8.....	67
A.	Real Parties-In-Interest	67
B.	Related Matters	67
C.	Lead and Back-Up Counsel	68
D.	Service Information	68
VII.	Certification Under 37 C.F.R. §42.24(d).....	69
VIII.	Payment of Fees.....	69
IX.	Time for Filing Petition	69
X.	Grounds for Standing	69
XI.	Conclusion	69

Table of Authorities

CASES

<i>Ariosa Diagnostics, Inc. v. Illumina, Inc.</i> , IPR2014-01093, Paper 69 (Jan. 7, 2016).....	24
<i>Core Survival, Inc. v. S&S Precision, LLC</i> , PGR2015-00022, Paper 8 (Feb. 19, 2016).....	17
<i>Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.</i> , 800 F.3d 1375 (Fed. Cir. 2015).....	24
<i>Fiers v. Revel</i> , 984 F.2d 1164 (Fed. Cir. 1993)	17
<i>In re Ziegler</i> , 992 F.2d 1197 (Fed. Cir. 1993)	18
Petition, IPR2016-01379.....	66
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005) (en banc)	24
<i>Upsher-Smith Labs., Inc. v. PamLab L.L.C.</i> , 412 F.3d 1319 (Fed. Cir. 2005).....	34

STATUTES AND RULES

35 U.S.C.....	23
35 U.S.C. § 103.....	23, 66
35 U.S.C. §§ 311–319.....	1
35 U.S.C. § 311(c)	68

MISCELLANEOUS

37 C.F.R. § 42.8.....	66, 68
37 C.F.R. § 42.24	68
37 C.F.R. § 42.24(d)	68
37 C.F.R. § 42.100(b)	24
37 C.F.R. § 42.100 <i>et seq.</i>	1
37 C.F.R. § 42.101(b)	68
37 C.F.R. § 42.102(a).....	68
37 C.F.R. §§ 42.103(a) and 42.15(a)	68

37 C.F.R. § 42.104(a).....	68
37 C.F.R. § 42.108	17
V.B.1, <i>Grill</i>	47
Additionally, <i>Grill</i>	35
C. Akrouf et al., “A 480-MHz Microprocessor in a 0.12µm Leff CMOS Technology with Copper Interconnects,”	5
Further, <i>Grill</i>	34
<i>Grill</i> at 4:60–5:8 and 7:16–8:8.....	34
<i>Grill</i> ’s Figure 5A and Figure 21(a).....	35, 36, 37
<i>Grill</i> ’s Figure 5B and Figure 21(b).....	39
<i>Grill</i> ’s Figure 5C and Figure 21(a).....	38
<i>Grill</i> ’s Figure 5C and Figure 22(a).....	39
<i>Grill</i> ’s Figure 5D and Figure 22(b).....	40
IPR2016-01376, IPR2016-01378	66
J.N. Burghartz et al., “Monolithic Spiral Inductors Fabricated Using a VLSI Cu- Damascene Interconnect Technology and Low-Loss Substrates,”	5
Petition, <i>Grill</i>	66
Thus, <i>Grill</i>	47
U.S. Patent No. 3,617,824.....	5
U.S. Patent No. 3,838,442.....	5
U.S. Patent No. 5,592,024.....	5, 29
U.S. Patent No. 5,635,423.....	5
U.S. Patent No. 5,741,626.....	5
U.S. Patent No. 5,920,790.....	5, 63
U.S. Patent No. 6,100,184.....	5
U.S. Patent No. 6,103,616.....	5

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.