

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.
Petitioner

v.

DANIEL L. FLAMM
Patent Owner

Patent No. RE 40,264 E

**DECLARATION OF DR. STANLEY SHANFIELD IN SUPPORT OF
PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. RE 40,264 E**

TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	BACKGROUND AND QUALIFICATIONS	3
III.	MATERIALS REVIEWED	7
IV.	PERSON OF ORDINARY SKILL IN THE ART	8
V.	OVERVIEW OF THE '264 PATENT	9
	A. The '264 Patent	9
	B. Priority Date of the '264 Patent.....	13
VI.	CLAIM CONSTRUCTION	14
VII.	TECHNICAL BACKGROUND & PRIOR ART CONSIDERED.....	15
	A. Technical Background.....	15
	B. <i>Kadomura</i>	16
	C. <i>Matsumura</i>	18
	D. <i>Wang I</i>	23
	E. <i>Narita</i>	24
	F. <i>Wang II</i>	27
VIII.	THE PRIOR ART DISCLOSES OR SUGGESTS ALL OF THE FEATURES OF THE CHALLENGED CLAIMS	27
	A. <i>Kadomura</i> and <i>Matsumura</i> Disclose or Suggest the Features of Claims 27, 32, 37, and 40.....	27
	1. Claim 27	29
	2. Claim 32	45
	3. Claim 37	47
	4. Claim 40.....	61
	B. <i>Kadomura</i> , <i>Matsumura</i> and <i>Narita</i> Disclose or Suggest the Features of Claims 31 and 50.....	62
	1. Claim 31	64

2.	Claim 50	66
C.	<i>Kadomura, Matsumura and Wang I</i> Disclose or Suggest the Features of 27, 34, 37, 41, and 44	67
1.	Claim 27	69
2.	Claim 34	78
3.	Claim 37	79
4.	Claim 41	86
5.	Claim 44	86
D.	<i>Kadomura, Matsumura, Wang I and Wang II</i> Disclose or Suggest the Features of Claims 47 and 48	88
1.	Claim 47	90
2.	Claim 48	92
IX.	CONCLUSION.....	94

I, Stanley Shanfield, declare as follows:

I. INTRODUCTION

1. I have been retained by Samsung Electronics Co., Ltd. (“Petitioner”) as an independent expert consultant in this proceeding before the United States Patent and Trademark Office (“PTO”).

2. My retention is through Rubin/Anders Scientific, Inc. (“Rubin”). Rubin bills \$385 per hour for my services in this matter, which is my regular and customary rate.

3. My compensation is in no way contingent on the nature of my findings, the presentation of my findings in testimony, or the outcome of this or any other proceeding. I have no other interest in this proceeding.

4. I have been asked to consider whether certain references disclose or suggest the features recited in the claims of U.S. Patent No. RE 40,264 E (“the ’264 Patent”) (Ex. 1001)¹. My opinions are set forth below.

II. BACKGROUND AND QUALIFICATIONS

5. I am an independent consultant. All of my opinions stated in this declaration are based on my own personal knowledge and professional judgment.

¹ Where appropriate, I refer to exhibits I understand will be attached to the petition for *Inter Partes* Review of the ’264 patent.

In forming my opinions, I have relied on my knowledge and experience in designing, developing, and researching plasma processing systems.

6. I am over 18 years of age and, if I am called upon to do so, I would be competent to testify as to the matters set forth herein. A copy of my current curriculum vitae, which details my education and professional and academic experience, is attached as an addendum with this declaration. The following provides an overview of some of my experience that is relevant to the matters set forth in this declaration.

7. I received a B.S. in Physics from the University of California, Irvine in 1977. I received the University of California Regents Award for Outstanding Research Project for my experimental and theoretical work on rotating relativistic electron beams. Under full ERDA (DOE) scholarship, I received a Ph.D. in Physics from the Massachusetts Institute of Technology in 1981.

8. After receiving my doctorate degree, I worked at Spire Corporation in Bedford, Massachusetts from 1981-1984, where I served as a Staff Scientist, and later, a Senior Staff Scientist. At Spire, I developed new methods for low temperature deposition of plasma-assisted CVD epitaxial silicon. In addition, I built, operated, and characterized an ion-assisted deposition system for making coating for semiconductor and machine tool industries.

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.