

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION,
Petitioner

v.

PACT XPP SCHWEIZ AG,
Patent Owner

**DECLARATION OF DR. PINAKI MAZUMDER UNDER 37 C.F.R. § 1.68
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 7,928,763**

TABLE OF CONTENTS

	Page
I. Introduction.....	1
II. Background and Qualifications	3
A. Educational Background	3
B. Career Background.....	6
C. Relevant Publications	9
D. Patents.....	13
III. Understanding of Patent Law	15
IV. Background.....	18
A. Technology Background	18
1. Processors (Generally)	18
2. Multiprocessor Systems	21
B. Summary of the '763 patent	33
1. The Alleged Problem in the Art.....	33
C. Summary of the Prosecution History	35
V. Level of Ordinary Skill in the Art	35
VI. Claim Construction.....	37
VII. Detailed Invalidity Analysis	37
A. Background on Prior Art References	37
1. Balmer	37
2. Wilkinson	39
3. Miyamori.....	40

Ex. 1001 - Declaration of Dr. Mazumder

4.	Nicol	42
5.	Hennessy	43
B.	Claims 1-3, 9-14, 16-20, 22, 24, 26, 30, 31-33, 39-44, 46-50, 52, 54, 56, and 60 of the '763 Patent Are Obvious In View Of Balmer	44
1.	Independent Claims 1 and 31.....	44
2.	Dependent Claims 2 and 32	65
3.	Dependent Claims 3 and 33	67
4.	Dependent Claims 9 and 39	68
5.	Dependent Claims 10 and 40	70
6.	Dependent Claims 11 and 41	71
7.	Dependent Claims 12 and 42	72
8.	Dependent Claims 13 and 43	73
9.	Dependent Claims 14 and 44	73
10.	Dependent Claims 16 and 46	76
11.	Dependent Claims 17 and 47	78
12.	Dependent Claims 18 and 48	79
13.	Dependent Claims 19 and 49	80
14.	Dependent Claims 20 and 50	81
15.	Dependent Claims 22 and 52	83
16.	Dependent Claims 24 and 54	84
17.	Dependent Claims 26 and 56	86
18.	Dependent Claims 30 and 60	88

Ex. 1001 - Declaration of Dr. Mazumder

C. Claims 21 and 51 of the '763 Patent Are Obvious In View of Balmer and Nicol.....	89
1. Dependent Claims 21 and 51	89
D. Claims 1-3, 9-14, 16-22, 24, 26, 30, 31-33, 39-44, 46-52, 54, 56, and 60 of the '763 patent Are Obvious In View Of Wilkinson in combination with Hennessy	93
1. Independent Claims 1 and 31.....	93
2. Dependent Claims 2 and 32	110
3. Dependent Claims 3 and 33	111
4. Dependent Claims 9 and 39	112
5. Dependent Claims 10 and 40	113
6. Dependent Claims 11 and 41	114
7. Dependent Claims 12 and 42	115
8. Dependent Claims 13 and 43	116
9. Dependent Claims 14 and 44	116
10. Dependent Claims 16 and 46	117
11. Dependent Claims 17 and 47	118
12. Dependent Claims 18 and 48	119
13. Dependent Claims 19 and 49	119
14. Dependent Claims 20 and 50	120
15. Dependent Claims 22 and 52	120
16. Dependent Claims 24 and 54	121
17. Dependent Claims 26 and 56	122
18. Dependent Claims 30 and 60	123

Ex. 1001 - Declaration of Dr. Mazumder

E.	Claims 1-3, 9-14, 16-20, 22, 24, 26, 30, 31-33, 39-44, 46-50, 52, 54, 56, and 60 of the '763 Patent Are Obvious in View of Wilkinson in Combination with Hennessy and Miyamori.....	125
1.	Independent Claims 1 and 31.....	125
2.	Dependent Claims 10-14 and 40-44	133
3.	Dependent Claims 2-3, 9, 16-20, 22, 24, 26, 30, 32-33, 39, 46-50, 52, 54, 56, and 60	133
4.	Motivation to Combine Wilkinson and Hennessy with Miyamori.....	133
5.	Dependent Claims 13 and 43	134
F.	Claims 21 and 51 of the '763 Patent Are Obvious in View of Wilkinson in Combination with Hennessy, Nicol, and Miyamori	135
1.	Dependent Claims 21 and 51	135
VIII.	Secondary Considerations of Non-Obviousness	138
IX.	Conclusion	138

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.