

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JDS UNIPHASE CORPORATION
Petitioner

v.

CAPELLA PHOTONICS, INC.
Patent Owner

Case IPR2015-00739
Patent RE42,678

**DECLARATION OF DR. ALEXANDER V. SERGIENKO
IN SUPPORT OF THE PATENT OWNER RESPONSE**

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Table of Contents

I. INTRODUCTION	1
II. QUALIFICATIONS	1
III. INFORMATION CONSIDERED FOR THIS DECLARATION.....	4
IV. OVERVIEW OF THE LAW USED FOR THIS DECLARATION	10
A. Level of Skill in the Art.....	10
B. Obviousness.....	11
C. Claim Construction	14
V. INSTITUTED GROUNDS.....	14
VI. TECHNOLOGY	15
A. General Overview of OADMs, COADMs, and ROADMs	15
B. Use of Circulators at the Time of the Invention.....	19
VII. THE '678 PATENT AND THE APPLIED REFERENCES	25
A. The '678 Patent	25
1. Reconfigurability	25
2. Scalability.....	32
3. Controllability to Couple Spectral Channels Into the Output Ports	35
4. The Claims	37
B. Bouevitch.....	38
1. Embodiments Bouevitch Calls Prior Art	39
2. Embodiments with a GRIN Lens.....	47
C. Sparks	53
D. Lin.....	56
E. Dueck.....	58

VIII. THE COMBINATION WOULD NOT HAVE BEEN OBVIOUS.....	60
A. Petitioner’s Proposed Combination Would Have Only Been Done Through Impermissible Hindsight.....	60
1. Petitioner Relies on Multiple Embodiments of Bouevitch.....	61
2. Petitioner then Relies on Sparks and Lin.....	63
3. A POSA Would Have Had No Motivation to Combine the References Absent Hindsight.....	64
4. A POSA Would Not Have Needed a Two-Axis Mirror in Bouevitch to Perform Switching and Power Control	69
B. Bouevitch Teaches Away from Misalignment for Power Control.....	70
C. Bouevitch and Sparks Use Different Methods to Control Power.....	76
D. Dueck’s Ruled Diffraction Grating is Incompatible with Bouevitch.....	79
IX. BOUEVITCH DOES NOT HAVE ALL OF THE CLAIMED PORTS	81
A. Fiber Collimators, Providing an Input Port and a Plurality of Output Ports.....	81
B. Bouevitch Does Not Teach Three Ports as Ports are Claimed in the ’678 Patent.....	85
C. The ’678 Patent’s Provisional Application is Consistent with the Construction that the Claimed Ports are Not Circulator Ports.....	96
X. PETITIONER HAS NOT SHOWN MICROMIRRORS PIVOTABLE ABOUT TWO AXES AND CONTINUOUSLY CONTROLLABLE.....	99
XI. INDUSTRY ADOPTION.....	104
A. The Industry Recognized these Advantages	104

B. Experts, Including Petitioner’s Expert, Adopted Capella’s
ROADM Configuration.....106

XII.REFERENCES IN PROSECUTION111

XIII.CONCLUSION113

I, Dr. Alexander V. Sergienko, declare as follows:

I. INTRODUCTION

1. My name is Alexander V. Sergienko. Capella Photonics, Inc. has retained me as an expert witness. I have been asked to provide my expert opinion on the validity of claims 1-4, 9, 10, 13, 17, 19-23, 27, 29, 44-46, 53, and 61-65 of U.S. Patent No. RE42,678 to Wilde *et al.* (“’678 patent”).

2. I am being compensated for my work at a rate of \$400 per hour. My compensation is not contingent upon and in no way affects the substance of my testimony.

II. QUALIFICATIONS

3. I received my Ph.D. in Physics from Moscow State University in 1987 and my Master of Science Degree in Physics from Moscow State University in 1981.

4. I am currently a full professor at Boston University where I hold joint appointments in the Photonics Center, the Department of Electrical and Computer Engineering, and the Department of Physics. My expertise and research interests include optics, photonics, quantum physics, laser physics, nonlinear optics, and precise optical measurement in telecommunication and optical engineering.

5. I have experience and familiarity with the technical areas involved in this case. With over 30 years of research experience in the field of optics, I have

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