

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Cisco Systems, Inc.
Petitioner

v.

Capella Photonics, Inc.
Patent Owner

Patent No. RE42,678
Filing Date: June 15, 2010
Reissue Date: September 6, 2011

Title: RECONFIGURABLE OPTICAL ADD-DROP MULTIPLEXERS WITH
SERVO CONTROL AND DYNAMIC SPECTRAL POWER MANAGEMENT
CAPABILITIES

Inter Partes Review No. 2014-01276

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List of Exhibits Cited in this Reply

- Exhibit 1049: June 30, 2015, Deposition Transcript of Dr. Alexander V. Sergienko (“S. Tr.”)
- Exhibit 1050: Abdul Al-Azzawi, *Fiber Optics: Principles and Practices* (CRC Press 2006). (“Al-Azzawi”) (containing additional excerpts to the copy produced by Patent Owner at Ex. 2020)
- Exhibit 1051: U.S. Patent No. 6,950,609 to Marom (“Marom ‘609”)
- Exhibit 1052: Rajiv Ramaswami & Kumar N. Sivarajan, *Optical Networks: A Practical Perspective* (Morgan Kaufmann Publishers 2000). (“Ramaswami”)
- Exhibit 1053: FiberStore.com, Optical Circulators (listed under WDM Optical Network->Passive Optical Components->Optical Circulator)
- Exhibit 1054: The American Heritage College Dictionary, Houghton Mifflin Co. (1997 3d. Ed.)
- Exhibit 1055: Clifford Holliday, *Components for R-OADMs ’05* (B & C Consulting Services & IGI Consulting Inc. 2005). (“Updated Holliday R-OADMs”) (containing additional excerpts to the copy produced by Patent Owner at Ex. 2009)
- Exhibit 1056: Clifford Holliday, *Switching the Lightwave: OXC’s – The Centerpiece of All Optical Network* (IGI Consulting Inc. & B & C Consulting Services 2001). (“Updated Holliday OXC”) (containing additional excerpts to the copy produced by Patent Owner at Ex. 2011)
- Exhibit 1057: Webster’s New World Dictionary (1994 3d. Ed.)
- Petitioner also incorporates herein all exhibits from the IPR2014-01276 petition.

I. INTRODUCTION

The PO has provided nothing to warrant altering the Board's determination that Petitioner should prevail on all of the challenged claims.

II. RESPONSES TO PATENT OWNER'S (PO'S) ARGUMENTS

A. Petitioner does not "conflate two disparate embodiments of Bouevitch" [Corresponds to Response § III.A]

PO argues that Petitioner "appears to rely on" the beam modifying means of Bouevitch Fig. 5 in addition to Fig. 11. Ex. 2004, ¶ 122. PO contends (1) that Fig. 5 is incompatible with Fig. 11 and Smith, and (2) that "[a]lthough not explicit in the Petition, Petitioner places modifying means 150 [of Fig. 5] into the configuration shown in Figure 11." Resp., 21. Neither contention is accurate. Fig. 5 has nothing to do with the Petition or with the instituted grounds, and Petitioner does not place Fig. 5 into Fig. 11 or otherwise rely on Fig. 5.

Instead, the instituted combination of Bouevitch and Smith places only the 2-axis MEMS modifying means of Smith into Bouevitch Fig. 11. In that combination, Fig. 11 discloses a COADM using MEMS mirrors that tilt in *one* axis for switching. Smith discloses mirrors that tilt in *two* axes as a substitute for one-axis mirrors for both switching and power control in COADMs. Pet., 31-35.

It was obvious to replace Bouevitch's 1-axis mirrors with Smith's 2-axis mirrors in part because both references use the same operating principles for both optical switching and power control. Those principles are (1) tilting mirrors at

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