

WINTERGREEN RESEARCH, INC.

**Optical Component Market Opportunities, Strategies, and
Forecasts, 2004 to 2009**

Optical Component



Picture by Susie Eustis

MOUNTAINS OF OPPORTUNITY

**WinterGreen Research, Inc.
Lexington, Massachusetts**

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CHECK OUT THESE KEY TOPICS

OPTICAL COMPONENT MARKET SHARE

OPTICAL MARKET OVERVIEW

OPTICAL COMPONENT COMPETITIVE POSITIONING

Transmission and Reception of Optical Signals

Integrated Optics

Industry Environment

PRODUCTS AS BASIC BUILDING BLOCKS

TECHNOLOGY FOR TRANSITION

OPTICAL COMPONENT CATEGORIES

MAJOR OPTICAL COMPONENT PRODUCT LINES

OPTICAL COMPONENT TECHNOLOGICAL CHALLENGES

LARGE OPTICAL COMPONENT COMPANIES

TUNABLE LASER MARKET ANALYSIS

DWDM SYSTEMS

OPTICAL NETWORKING SYSTEMS

HIGH VOLUME OPTICS MANUFACTURING

OPPORTUNITY ABOUNDS

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Optical investment has been in building core and backbone networks. To harness the power of the optical core and backbone, the metro must be built out. As carriers move into a wider acceptance of optical networks the focus shifts to delivering broadband signals.

Traffic volumes are increasing at a rapid pace. Investment dollars are shifting from the core to metro networks. Carriers that are making money keep deploying and investing in new equipment to offer new services.

As telecommunications service providers extend their networks into metro and access applications, densities diminish and the need for high volume, less expensive components and systems become critical. The amounts of space available for optical networking systems diminish in metro and access systems.

The bottleneck in the deployment of optical networks has been the availability of low cost components that can be manufactured in large scale. Unlike electronic components, optical components are connected with fibers rather than electric pins. It is essential that proper physical connection be made between the fiber connectors and the device. Otherwise, unacceptable optical power losses occur.

Products need to be designed for automated fiber alignment and attachment. Optical components have not been designed for integration within a single fiber package. The output of the component vendor is limited making manufacturing costs high.

Smaller, faster, more complex and less expensive component solutions are needed. These drive down the cost of optical systems and solve valuable real estate issues, much of the current effort has centered on the cost of large-scale production of commonly used discrete components such as Erbium Doped Fiber Amplifiers (EDFA) and wavelength multiplexers / de-multiplexers.

Optical component markets at \$1.5 billion (US) are expected to reach \$2.4 billion by 2009. The world-wide market for integrated active optical products at \$1.1 billion in 2003 will grow to \$1.5 billion in 2009. Integrated active optical components include products such as transceivers and transponders. Markets for passive optical components at \$483 million in 2003 will grow to \$871 million in 2009.

Companies Profiled

Market Leaders

JDS Uniphase

Finisar

Sumitomo Electric Industries, Ltd.

Bookham Technologies

Avanex

Market Participants

Agere Systems

Colibrys

Emcore

Mitsubishi Electric Corp.

Oki Electric Industry Co., Ltd.

Opnext

TriQuint

Agility Communications

DiCon Fiberoptics

Fujitsu

NEC

OpLink

Sin Yu Technology

WaveSplitter Technologies

Optical Component Strategies and Forecasts, 2004-2009

REPORT METHODOLOGY

THIS IS THE *TWO-HUNDRED AND FIFTEENTH* REPORT IN A SERIES OF MARKET RESEARCH REPORTS THAT PROVIDE FORECASTS IN COMMUNICATIONS, TELECOMMUNICATIONS, THE INTERNET, COMPUTER, SOFTWARE, TELEPHONE EQUIPMENT, AND ENERGY. THE PROJECT LEADERS TAKE DIRECT RESPONSIBILITY FOR WRITING AND PREPARING EACH REPORT. THEY HAVE SIGNIFICANT EXPERIENCE PREPARING INDUSTRY STUDIES. FORECASTS ARE BASED ON PRIMARY RESEARCH AND PROPRIETARY DATA BASES. FORECASTS REFLECT ANALYSIS OF THE MARKET TRENDS IN THE SEGMENT AND RELATED SEGMENTS. UNIT AND DOLLAR SHIPMENTS ARE ANALYZED THROUGH CONSIDERATION OF DOLLAR VOLUME OF EACH MARKET PARTICIPATION IN THE SEGMENT. INSTALLED BASE ANALYSIS AND UNIT ANALYSIS IS BASED ON INTERVIEWS AND AN INFORMATION SEARCH. MARKET SHARE ANALYSIS INCLUDES CONVERSATIONS WITH KEY CUSTOMERS OF PRODUCTS, INDUSTRY SEGMENT LEADERS, MARKETING DIRECTORS, DISTRIBUTORS, LEADING MARKET PARTICIPANTS, OPINION LEADERS, AND COMPANIES SEEKING TO DEVELOP MEASURABLE MARKET SHARE. OVER 200 IN DEPTH INTERVIEWS ARE CONDUCTED FOR EACH REPORT WITH A BROAD RANGE OF KEY PARTICIPANTS AND INDUSTRY LEADERS IN THE MARKET SEGMENT.

YOU MUST HAVE THIS STUDY

Optical Component Market Opportunities, Strategies, and Forecasts, 2004 to 2009

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