

**News Release from XMD-MSA on Sep. 1, 2004.**

**Leading Optical Chip and Module Manufacturers Announce 10 Gbit/s Miniature  
Device (XMD) MSA for TOSA/ROSA**

***MSA Enables Multiple Vendors to Produce Short- and  
Long- Reach TOSA/ROSA XFPs Based on a Unified Standard***

**Tokyo, Japan, September 1, 2004:** Leading Optical Manufacturers Avanex Corp., Eudyna Devices Inc., Mitsubishi Electric Corp., Oki Electric Industry Co., Ltd., Opnext, Inc., Sumitomo Electric Industries, Ltd., and TriQuint Semiconductor, Inc., today announced the release of new common specifications for long-reach optical devices based on a 10 Gbit/s Miniature Device Multi-Source Agreement (XMD-MSA). The XMD-MSA specifications are designed for applications from short-to-long reach transmission functions.

Specifications established by the XMD-MSA enables the use of optical devices from multiple suppliers. The XMD-MSA has been created to establish compatible sources of 10 Gbit/s Transmitter Optical Sub-Assembly (TOSA) and Receiver Optical Sub-Assembly (ROSA) devices embedded into the 10 Gbit/s small form factor pluggable (XFP) MSA modules. The XFP module has been designed for use in large capacity network and data storage systems. This XMD-MSA covers optical devices that comply with 10 Gbit/s interface standards, including 10 Gigabit Ethernet, 10 Gigabit Fiber Channel and SONET OC-192.

The newly available XMD-MSA specifications detail the semiconductor-based external modulator TOSA and Avalanche Photo-Diode Trans-Impedance Amplifier (APD-TIA) for long-reach (beyond 20 km) applications. XMD-MSA specifications now cover transmission applications for most optical networking systems.

These specifications for interchangeable TOSA/ROSA devices include:

- Common Mechanical Dimensions including optical connector interface that determines the design of the XFP optical head
- Common electrical interface standards using flexible printed circuit (FPC)
- Optical and electrical characteristics

This MSA enhances the XMD-MSA for direct-modulation Distributed-Feed-back (DFB) or Fabry-Perot (FP) laser TOSA, and the PIN Photodiode - Trans-Impedance Amplifier (PIN-TIA) ROSA for short-reach applications up to 20km, previously announced on June 7th, 2004.

Members of the XMD-MSA (detailed below) can provide specifications for the new multi-source agreement.

The MSA committee plans to revise TOSA/ROSA specifications issued on June 7. The revised specifications will be available on September 30 from any member of the XMD-MSA

#### **About MSA members**

##### **About Avanex Corporation**

Avanex Corporation is a leading global provider of Intelligent Photonic Solutions™ to meet the needs of fiber optic communications networks for greater capacity, longer distance transmissions, improved connectivity, higher speeds and lower costs. These solutions enable or enhance optical wavelength multiplexing, dispersion compensation, switching and routing, transmission and amplification and include Network Managed Subsystems. Avanex was incorporated in 1997 and is headquartered in Fremont, Calif. Avanex also maintains facilities in Erwin Park, N.Y.; Nozay, France; and San Donato, Italy. The facilities also are home to Avanex's Centers of Excellence for specialized research and manufacturing. To learn more about Avanex Corporation, visit:

[www.avanex.com](http://www.avanex.com).

##### **About Eudyna Devices Inc.**

Founded in 2004, Eudyna Devices Inc. is the worldwide leader in compound semiconductor device businesses. Eudyna Devices Inc. carries out every step involved in the development, manufacture and sale of optical semiconductors, microwave semiconductors, -all based on state-of-the-art technology. Eudyna Devices will continuously support its former customers of Fujitsu Quantum Devices Ltd. (FQD) and Electron Device Department of Sumitomo Electric Industries Ltd. (SEI-EDD) in terms of the products which have been supplied by those organizations. Furthermore, Eudyna Devices will provide new devices and components which can contribute to a bright, prosperous, and healthy future society, especially in expanding the broadband network community, as a result of integration of both companies' technological capabilities. More information about Eudyna Devices Inc. can be found at: <http://www.eudyna.com>

##### **About Mitsubishi Electric Corp.**

With over 80 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation (TSE: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. The company recorded consolidated group sales of 3,309 billion yen (US\$31.2 billion\*) in the year ended March 31, 2004. For more information visit: <http://global.mitsubishielectric.com>.

\*At an exchange rate of 106 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2004.

##### **About Oki Electric Industry Co., Ltd.**

Founded more than a century ago in 1881, Oki Electric Industry Co., Ltd. (TSE:6703) is Japan's first telecommunications manufacturer, with its headquarter in Tokyo, Japan. With the corporate vision, "Oki, Network Solutions for a Global Society," Oki Electric provides top-quality products, technologies and solutions to its customers through its telecommunications systems, information

systems and electronic devices segments. All three segments are integrated into one effective organization that functions as a collective force to create exciting new products and technologies, including information and telecom converged solutions. Through its business activities, Oki Electric satisfies a spectrum of customer needs in various markets. Visit Oki's global web site at <http://www.oki.com/>.

#### **About Opnext**

Opnext, Inc., pioneers the optical engines that light the world's fiber optic systems. A global leader in high-performance active optical components, Opnext offers the industry's most comprehensive optical components portfolio. Formed out of Hitachi, Opnext brings more than 30 years experience to the design, development and manufacture of high-performance components, opto devices and subsystems that power today's access communications, backbone, metro, information and industrial markets. Opnext provides world-class customer service, and has been recognized with multiple service awards. For additional information, visit [www.opnext.com](http://www.opnext.com).

#### **About Sumitomo Electric Industries, Ltd.**

Sumitomo Electric Industries, Ltd. (TSE: 5802) designs, manufactures and sells optical fiber, cable and components, advanced electronic devices, and automotive parts. Through a successful strategy of research and diversification, SEI has become one of the world's leading companies at the forefront of the revolution in information and communications. The company has operations around the world in more than 25 countries and employs 87,000 people. SEI reported group net sales of 1,542 billion yen for the year ended March 2004. [www.sei.co.jp](http://www.sei.co.jp)

#### **About TriQuint**

TriQuint Semiconductor, Inc. (Nasdaq: TQNT) is a leading supplier of high performance products for communications applications. The company focuses on the specialized expertise, materials and know-how for RF/IF and optical applications. The company enjoys diversity in its markets, applications, products, technology and customer base. Markets include wireless phones, base stations, optical networks, broadband and microwave equipment, and aerospace and defense. TriQuint provides customers with standard and custom product solutions as well as foundry services. Products are based on advanced process technologies including gallium arsenide, indium phosphide, silicon germanium, and surface acoustic wave (SAW). TriQuint customers include major communications companies worldwide. TriQuint has manufacturing facilities in Oregon, Texas, Pennsylvania and Florida, as well as production assembly plants in Costa Rica and Mexico, plus sales support offices in China and design centers in New England, Germany and Taiwan. All manufacturing and production facilities are registered to the ISO9001:2000 international quality standard.

TriQuint is headquartered at 2300 NE Brookwood Parkway, Hillsboro, OR 97124 and can be reached at (503) 615-9000 (fax (503) 615-8900). Visit the TriQuint web-site at <http://www.triquint.com>

## **For More Information Contact**

### **MSA Contacts**

#### **Avanex Corp.**

Pierre Wolkowicz  
+33.1.64.49.17.09  
E-mail: pierre\_wolkowicz@avanex.com

#### **Eudyna Devices Inc.**

Hajime Shoji  
+81-55-275-4411  
E-mail: h.shoji@eudyna.com

#### **Mitsubishi Electric Corp.**

Hitoshi Watanabe  
+81-72-780-3871  
E-mail: XMD.MSA@lsi.melco.co.jp

#### **Oki Electric Industry Co., Ltd.**

Yasunari Mizuguchi  
+81-426-62-6761  
E-mail: mizuguchi236@oki.com

#### **Opnext, Inc.**

Atsushi Takai  
+81-45-865-7161  
E-mail: xmdmsa@opnext.com

#### **Sumitomo Electric Industries, Ltd.**

Kazuhiro Tanida  
+81-45-853-7218  
E-mail: tanida@sei.co.jp

#### **TriQuint Semiconductor, Inc.**

Rolando Espindola  
+1-484-397-2748  
E-mail: respindola@tqs.com

## **Media Contacts**

### **Avanex Corp.**

Investors: Mark Weinswig, Avanex Corp.  
Phone: +1 510-897-4344  
Fax: +1 510-897-4345  
email: mark\_weinswig@avanex.com

Media: Tony Florence, Avanex Corporation

Phone: +1 510-897-4162  
Fax: +1 510-979-0198  
email: tony\_florence@avanex.com

### **Eudyna Devices Inc**

Hideyuki Tanaka  
+81-55-275-4411  
E-mail: hi.tanaka@eudyna.com

### **Mitsubishi Electric Corp.**

Oliver Cox  
+81-3-3218-2346  
Email: Oliver.Cox@hq.melco.co.jp

### **Oki Electric Industry Co., Ltd.**

Naomi Takeuchi  
+1-408-737-6479  
E-mail: press@oki.com

### **Opnext, Inc.**

Rebecca B. Andersen  
+1-732-544-3338  
E-mail: rbosco-andersen@opnext.com

### **Sumitomo Electric Industries, Ltd.**

Yoriaki Ikeda  
+81-6-6220-4119  
E-mail: www@prs.sei.co.jp

### **TriQuint Semiconductor, Inc.**

Mark Andrews  
+1-407-884-3404  
E-mail: mandrews@tqs.com