

Laser Power Grid (Yissum) code: 14-2006-87 <u>Aharon Agranat</u>, HUJI, School of Computer Science and Engineering, Applied Physics

Cost effective alternative to tuneable lasers for high capacity data networks

Categories	Applied Physics, Optoelectronic Computing & Optical Communication
Development Stage	Laboratory demonstration under development
Patent Status	U.S. patent WO 04070978
Market Size	\$183 million 2005 tunable lasers market to reach \$3.1 billion in 2012

Highlights

- Grid ensures fast optical communication for telecommunications and data communication applications.
- Enables burst switching and packet switching in WDM (Wavelength Division Multiplexing) networks
- Development of a lab demonstration is under way
- Alternative to electronic systems in computer networks

Our Innovation

The laser power grid consists of a laser power supply unit; an optical fiber laser distribution grid, and an optical switching network to turn the laser on where needed.

Key Features

- Increases effectiveness of complex multi-node communication and computer networks
- Significantly less expensive
- Faster
- Produces less waste heat
- Can be implemented in cabinet-to-cabinet, board- to-board or chip-to-chip configuration

Development Milestones

• The next milestone is to develop a prototype

The Opportunity

• The grid provides an alternative to electronic switching methodology for interconnecting networks and for massively parallel super-computer systems.

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