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## **Freedom Photonics Awarded SBIR Phase I Award to Develop a High-Power Optical Transceiver for Use in Long-Term Satellite Missions**

**Santa Barbara, California, March 16, 2011** – Freedom Photonics, LLC today announced that it has been granted an award to develop enabling technology for new intra satellite/FSO links. This development will deliver extremely high link bandwidths, widely directional beams, high link security, while decreasing size, power and launch costs.

### **AFRL SBIR Phase I – High-Power Satellite Communications Optical Transceiver**

This is an opportunity to evaluate programmable optical transceiver design options which lead to enhanced output power and reliability. We will investigate an optical transmitter that meets specifications by simulating operation over the full range of radiation and temperature environments. We will develop a high-power integrated advanced modulation format transmitter with high output power which operates in the 1450-1500nm window. The process will leverage our current Indium Phosphide integration platform of 1550nm to demonstrate this wavelength range. A combination of a widely tunable DBR laser, a high-speed advanced modulation format optical modulator, and a high-power SOA booster will be integrated in one monolithic chip.

### **About Freedom Photonics**

Freedom Photonics is a privately owned limited liability company, organized in California in 2005. The company operates from its own 3100 square foot facilities, which contain 4 laboratories (photonics, electronics and packaging) and company offices. The company currently has 14 employees and several long-term consultants. Our core technical staff has a combined 40 years of experience in all aspects of photonic integration, epitaxial laser and PIC structure design, fabrication, testing, module design and production. By utilizing a fabless business model, clients are able to reduce the risk of technology development and investment, retain a competitive edge in the global photonics market, and reduce costs. Freedom Photonics is able to allow clients to bridge the gap to product commercialization. Additionally, due to FP's nimble/small size we can offer a short cycle time. The Freedom Photonics team includes very experienced chip designers, who will assist in developing the solutions to meet your requirements. In addition, FP leverages our proximity to UCSB's world-class research and development infrastructure.