



IPG Photonics Announces Enhancements to Optical Amplification Portfolio for Long-Haul Transmission

Global Leader in Optical Amplification Supports Long-Haul Transmission Market with Optimized Portfolio

OXFORD, MA, March 1, 2012 -- **IPG Photonics Corporation**, the world leader in high-power fiber lasers and amplifiers, proudly announces significant enhancements to the company's **Optical Amplification and Transmission portfolio** that enable cost effective, non-repeated ultra-long haul communication links in **DWDM**, electrical power utility, transportation, pipeline and other demanding applications. IPG develops and manufactures the key specialty components used in the Optical Amplification portfolio, including semiconductor diodes, active fibers and other high-power components. IPG's proprietary pumping technology enables the highest output power achievable at a cost point not achievable from other solutions.



IPG offers a range of optical amplification technologies, including 2nd-order, Raman-assisted, Remote-Optically-Pumped-Amplifier (ROPA) optical pumps that enable un-repeated transmission extending over 100 dB of optical budget. One of the new products that IPG is now shipping is the multi-rate transponder with G.709 FEC and a unique digital filtering scheme which extends the optical budget for telemetry links by up to 10 dB. When the transponder is paired with the Pre-amp & Booster module, up to 70 dB of optical budget is supported for the mission-critical STM 1/4 telemetry links in electric power utility, transportation and pipeline communication networks.

A stand-alone **Pre-amp & Booster chassis** has also recently been introduced that supports up to 60 dB optical budget for legacy, 3rd party optical transmission platforms. A 200 mW booster amplifier is paired with a pre-amp with -38 dBm receive sensitivity in a small 1 RU (1.75" or 43.7 mm vertical rack space) package that mounts in a 19" (478 mm) equipment rack.

IPG initiated commercial shipments of these products in the 4th quarter of 2011 to companies that engineer and install power transmission and other utility infrastructure. In the second half of 2012, IPG will release a 2 RU version of the Ultra-Long-Haul System, which has four plug-in card slots to accommodate a transponder, pre-amp/booster, Raman signal pump and ROPA pump. This compact configuration can support up to 90 dB of optical budget.

About IPG Photonics Corporation

IPG Photonics Corporation is the world leader in high-power fiber lasers and amplifiers. Founded in 1990, IPG pioneered the development and commercialization of optical fiber-based lasers for use in a wide range of applications such as materials processing, advanced applications, telecommunications and medical applications. Fiber lasers have revolutionized the industry by delivering superior performance, reliability and usability at a lower total cost of ownership compared with conventional lasers, allowing end users to increase productivity and decrease operating costs. IPG has its headquarters in Oxford, Massachusetts and has additional plants and offices throughout the world. For more information, please visit www.ipgphotonics.com.

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