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CIP Technologies Launches HyBoard™ Hybrid Photonic Integration Platform at ECOC 2008

Breakthrough PICs capability to be shown with live demonstration of 16 channel DWDM laser for WDM-PON applications

Adastral Park, Martlesham Heath, 8th September 2008 - **CIP Technologies (CIP)** has today announced the official launch of its HyBoard™ hybrid Photonic Integrated Circuit (PIC) platform. The launch will feature a live demonstration of a multichannel DWDM laser module producing 16 independent wavelengths on a 50GHz grid at the company's booth (#263), at ECOC 2008.

The hybrid integration platform enables systems integrators to offer high performance, highly functional, custom PICs at telecoms production volumes and competitive cost points. The platform provides assembly and form factor advantages over traditional multiple gold box solutions, and delivers a degree of flexibility, performance and functionality that is not possible with full monolithic integration.

"The CIP HyBoard is designed for volume manufacture and can deliver bespoke, truly scalable and cost-effective PICs, optimised to the end-user's requirements at realistic yields, as well as permitting a wide range of integrated optical functionality," said CIP VP Hybrid Integration, Graeme Maxwell. "HyBoard provides the advantages of reduced assembly cost and footprint reduction over discretised but without the yield and performance challenges of full monolithic integration; this is a game changing technology that offers all systems integrators a proven and available route to develop and deliver sophisticated custom PICs that are complementary to their own architectures."

"Recent consolidations and joint venture announcements within the optical components industry show that hybrid integration is being taken seriously as a route to next generation integrated photonic modules. Both the markets and the systems integrators recognise the advantages of photonic integration, but are agnostic about what type of integration is used as long as the device meets performance and price targets. HyBoard leverages our long experience of research, process development and manufacturing, and our extensive IPR portfolio to deliver a customisable, scalable and cost effective offering to the telecoms industry for customer driven commercial applications."

The flexibility of the CIP HyBoard photonic integration platform is to be presented in a live demonstration of a proof-of-concept multichannel DWDM laser module producing 16 independent wavelengths on a 50GHz grid. This prototype multi-wavelength laser source incorporates multiple indium phosphide (InP) optoelectronic device arrays aligned to silica planar waveguides and other passive optical elements, including an AWG located on the optical motherboard. The 16 lasers within the multi-wavelength source can each provide >0dBm output power and are individually addressable to enable channel power control and switching. This particular module, aimed at WDM-PON headends and metro WDM, is one variant of the range of compact, cost-effective hybrid integrated designs now available to systems integrators that can be realised with HyBoard.

CIP CTO David Smith adds: "The HyBoard pricepoint and value proposition offers a route for systems integrators to gain access to sophisticated integrated photonics technology and start addressing the growing gap between traffic growth and revenue. CIP has developed a range of building blocks including semiconductor optical amplifier (SOA) arrays, lasers and modulators, all designed to integrate within the HyBoard platform, providing a new and highly versatile capability to the system designer in core, metro and access applications."

HyBoard successfully brings together three main elements: InP active/passive optoelectronic device arrays, single-mode planar silica waveguides and micromachined silica submounts. These are then cost-effectively combined, as required, to create a hybrid integrated PIC with low optical losses. HyBoard can be extended to accommodate optical isolators, thin film filters and polarization elements, as well as customisable channel spacings and a wide range of different active/passive component arrays, including tunables.

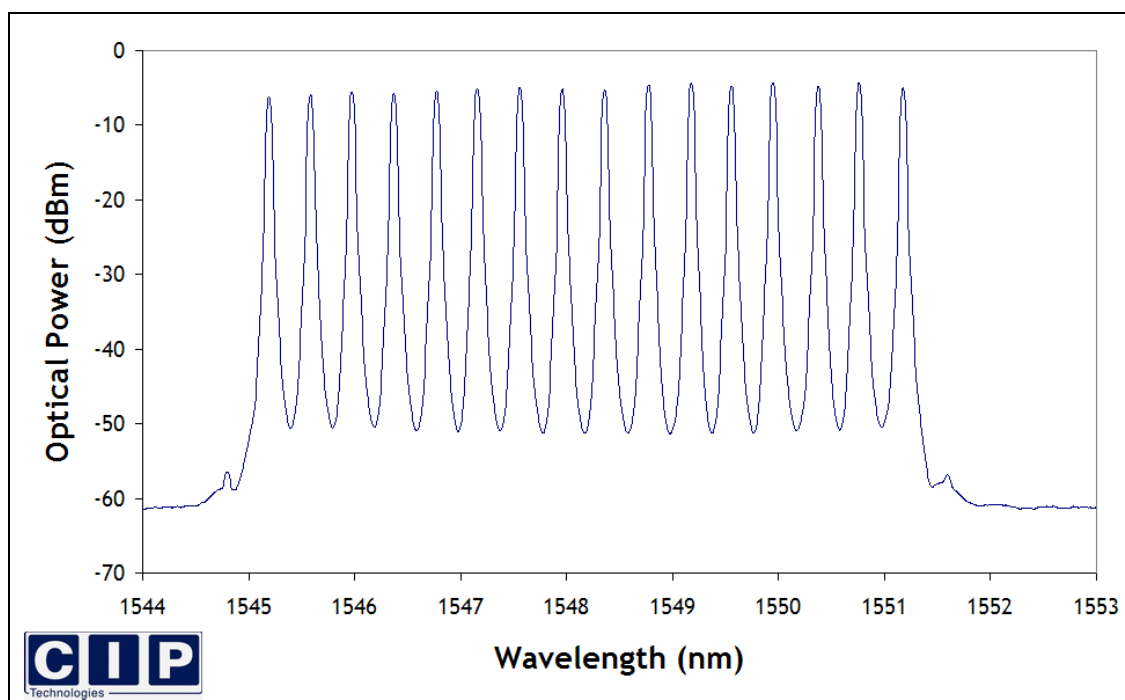
CIP is working with commercial customers to realise integrated, bespoke and application specific HyBoard modules. CIP welcomes enquiries from new customers who can use this versatile photonic integration platform to provide timely solutions to their optical equipment needs.

For further information and discussions visit www.ciphotonics.com or visit CIP Technologies at ECOC'08 Booth #263.

Also see G. Maxwell *Hybrid Integration platform facilitates photonic circuits*, Europhotonics August/September 2008 and R.P Webb *Demonstration of All-Optical Pattern Recognition at 42Gbit/s*, ECOC'08 Invited paper We.2.C.1.

About CIP Technologies:

CIP Technologies is the trading name of The Centre for Integrated Photonics Ltd, a leading manufacturer of advanced photonic hybrid integrated circuits and InP based optoelectronic chips, devices, arrays and modules for the communications and defence markets. With over 600 man-years of expertise in photonics and nearly 250 published articles and patents, CIP Technologies refines research into viable, manufacturable products based on leading edge technologies, helping customers develop the photonic products of tomorrow. CIP Technologies is a major provider of technical services and consultancy and its uniquely broad range of competencies is based on world-renowned research, incorporating III-V photonic materials, silicon micromachining, planar silica waveguides and network architecture design and analysis. With state-of-the-art, ISO9001:2000 registered, co-located fabrication, coating, test, validation and pilot production facilities, as well as strategic partnerships with volume packaging providers, CIP Technologies is able to develop and deliver exciting products based on these core competences. (www.ciphotonics.com)



Example optical spectrum of a 16 channel, 50GHz spaced multi-wavelength laser.

Notes to Editors:

Interviews with David Smith and Graeme Maxwell are available on request

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