

FRAUNHOFER HEINRICH HERTZ INSTITUTE

PRESS RELEASE

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Fraunhofer HHI at ECOC 2015, 27.09.-01.10.15, Valencia, Spain

At this year's ECOC, the Fraunhofer Heinrich Hertz Institute HHI presents its latest solutions in the area of photonic components and photonic networks and systems. Meet us at our booth 412.

You find the following highlights at our booth 412:

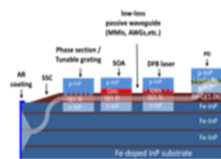
Tunable Laser with integrated Wavelength Locker - Based on Fraunhofer HHI's hybrid integration platform PolyBoard



Fraunhofer HHI's PolyBoard platform enables the hybrid integration in one chip of a Polymer/InP tunable laser, a 100-GHz reference etalon based on GRIN lenses, an air gap, and monitor photodiodes coupled by

means of 45° mirrors. Wavelength stabilization with a resolution of ± 4 GHz has been successfully demonstrated.

Foundry Services for InP PICs



Fraunhofer HHI offers photonic integrated circuits fabricated as an InP platform that integrates receivers (40GHz), transmitters (20GHz) and low-loss (1dB/cm) passive components. VPIcomponentMaker™ Photonic Circuits supports foundry-specific simulations. Our partners offer services for design work and packaging.

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1Gbit/s Visible Light Communication



LED luminaires, normally used for lighting purposes, securely transmit data at high speed and low latency even in environments where radio encounters difficulties. A standard RJ45 interface enables the fast integration into existing networks and the use for different applications like distribution of high-definition video streaming as well as two-way communication.

Latest developments cover so-called optical backhaul links based on LED-technology, allowing for point-to-point connections. Data rates up to 500 Mbit/s at 100 m distance and even higher data rates at shorter distances are possible in real-time.

100 GHz Coherent Receiver Frontend - Coherent detection of high-speed optical QPSK and m-QAM signals



High-bandwidth coherent receiver optical frontend for the detection of optical data signals with up to 100 GHz bandwidth. The receiver frontend features optical extender heads with ultra-high bandwidth to be directly connected to electrical oscilloscopes. This system frontend allows coherent detection of high-speed data signals with various modulation formats (QPSK, n-QAM) on multiple optical carriers simultaneously.

[Click here for more information.](#)

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The **Fraunhofer Heinrich Hertz Institute** is a world leader in the development of mobile and fixed broadband communication networks and multimedia systems. From photonic components and systems through fiber optic sensor systems to video coding and transmission, the Fraunhofer HHI works together with its international partners from research and industry. www.hhi.fraunhofer.de

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 66 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of nearly 24,000, who work with an annual research budget totaling more than 2 billion euros. Of this sum, around 1.7 billion euros is generated through contract research. More than 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects. International collaborations with excellent research partners and innovative companies around the world ensure direct access to regions of the greatest importance to present and future scientific progress and economic development.

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