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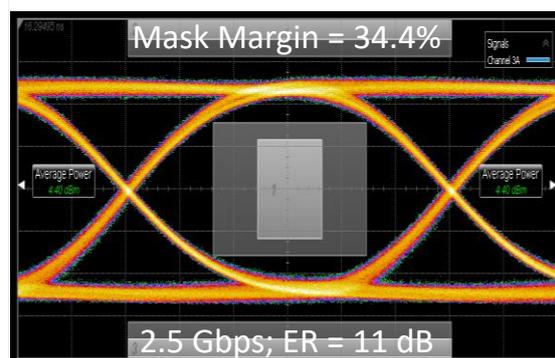
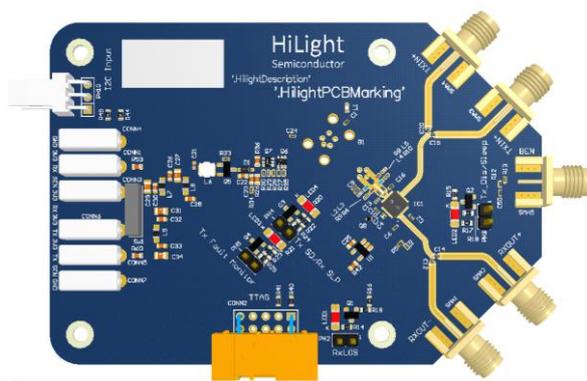
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HiLight Semiconductor announces availability of low cost 10G-PON BOSA-on-Board Reference Designs based on World's first CMOS 10G/10G chipset

Asymmetric 2-layer PCB and Symmetric 4-layer PCB RDKs available

HiLight Semiconductor, a world leader in CMOS integrated circuit chips for optical communications, today announced general availability of a high performance, low cost Reference Design Kit (RDK) for Asymmetric 10G-PON utilising HiLight's highly integrated CMOS transceiver 'Combo' IC for XG-PON and 10G-EPON ONU applications.

The RDK is targeted at the high volume 10G-PON market and brings a step-change in design cost without compromising performance by utilising a 2-layer PCB fabricated in ultra-low cost FR4 rather than the industry typical of 4-layers. The simple 2-layer PCB design is enabled by HiLight's HLC10P5 high performance 10G-PON 5-in-1 Asymmetric transceiver 'Combo' IC.



Customers can request a HLC10P5 2-layer RDK to evaluate product performance and to use as a reference for designing low cost BOSA-on-Board ONUs. Performance metrics from the HLC10P5 enabled RDK, which also utilises a BOSA containing HiLight's HLR10G1 TIA, include transmitter eye mask margin of better than 30% (OC-48 mask) and transmitter extinction ratio controlled to within 0.3 dB variation over temperature (-40°C to +85°C) using HiLight's patented Dual Loop function. Receiver sensitivities of better than -32dBm (BER 1E-3) over

temperature are achievable with the RDK when used with a commercial OLT transmitter source. The HLC10P5 Asymmetric RDK solution consumes less than 750mW across temperature.

The HLC10P5 is packaged in a 4mm x 4mm QFN32 and is pin compatible with existing PCB sockets, ensuring that customers can replace their current solution with a high performance HLC10P5 and benefit from CMOS cost efficiencies. HiLight's HLC10P5 10G-PON Combo IC and HLR10G1 10G APD TIA are already in volume production.

HiLight are also announcing the general production availability of the HLC10P6 Symmetric 10G-PON 'Combo' IC for XGS-PON and 10G-EPON 10G/10G applications. The HLC10P6 is also packaged in a 4mm x 4mm QFN32 and is pin compatible with the HLC10P5 and existing PCB socket designs providing a smooth upgrade path. HiLight can also provide customers with a reference design kit based around a symmetric 10G BOSA that implements HiLight's innovative hard connect daughter-board PCB which can replace traditional, but more expensive, flex-PCB interfaces between BOSA and main board PCB. The HLC10P6 RDK transmitter achieves mask margins (10G-EPON mask) of 45% at room temperature and over 30% mask margin across temperature whilst maintaining extinction ratios to an extremely impressive 0.3dB variation given the transmission rate of 10.3Gbps. The HLC10P6 Symmetric RDK solution consumes less than 900mW across temperature.



The HLC10P5 10G-PON BoB 2-layer PCB RDK and the HLC10P6 10G-PON BoB 4-layer PCB RDK are available generally now.

Christian Rookes, VP Marketing at HiLight, commented “This RDK demonstrates HiLight’s continuing drive to reduce costs in customers’ ONU designs. The Asymmetric 10G-PON market is expected to reach multi-million unit volumes, especially in China, for residential subscribers and now ONU vendors can reduce cost whilst maintaining performance by easily transitioning to a fully pin compatible HiLight CMOS chipset solution.”

“I’m excited to see such a compelling solution, which will be required to meet the anticipated growth in the 10G-PON market. The HLC10P5 enables the next step in 10G-PON BoB designs and with this CMOS Combo our customers can significantly reduce their costs, especially if they combine it with HiLight’s HLR10G1 TIA.” stated Dr Jess Brown, VP Sales at HiLight.

Qualified production samples are available immediately on request and interested customers should contact their local sales representative for further information.

About HiLight Semiconductor Limited:

HiLight Semiconductor Ltd. is a Venture Capital backed, Fabless chip company, founded in 2012 by veterans of several previous start-ups. Specialising in deep sub-micron CMOS, the company designs and supplies the world's highest performance PMD and PHY ICs for high speed fiber-optics based communications and networking/Datacentre applications.

The company has already shipped over 85 Million ICs to date.

HiLight is headquartered in Southampton, UK, with design offices in Bristol UK and sales and local technical support offices in China (Beijing, Chengdu, Shanghai, Shenzhen, Wuhan), Taipei and Japan.