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HiLight Semiconductor announces full production release of 11.3Gbps CMOS TIA optimised for APDs.

The release of the HLR10G1 low power, high-sensitivity CMOS Transimpedance Amplifier (TIA) complements HiLight's existing portfolio of CMOS TIAs and provides a complete chipset for 10G PON when used with the low power, fully-programmable, highly-integrated CMOS HLC10P1 'Combo' IC recently demonstrated at CIOE in Shenzhen.

HiLight Semiconductor today announces the full mass-production release of the HLR10G1, a 11.3Gbps CMOS TIA, providing best-in-class sensitivity performance when used with 10Gbps APDs. Measured sensitivities greater than -33dBm have been achieved at Bit Error Rates (BERs) of 1E-3, and up to -28dBm at BERs of 1E-12, across multiple APDs commercially available in the market. The HLR10G1 builds on the success and experience of the HiLight CMOS design team and complements the existing range of CMOS TIAs, detailed below, for PON and Datacom applications up to 12Gbps offered by HiLight Semiconductor.

HLR1G00 -33dBm @ 1.25Gbps BER 1E-12

HLR2G50 -28dBm (PD) and -35dBm (APD) @ 2.5Gbps BER 1E-10

HLR2S50 -31dBm @ 2.5Gbps BER 1E-10

HLR10G0 -20dBm (SM) @10.3Gbps BER 1E-12; -15dBm (MM) @10.3Gbps BER 1E-12

The **HLR10G1** key features include:

- * Optimised for use with a wide range of 10 Gbps APDs
- * Low power consumption (24mA with single 3.3V supply)
- * Suitable for wide range of limiting amplifiers and 10G-PON Combos
- * 2-bit bandwidth adjust function to optimise TIAs performance with different manufacturers' APDs
- * Compact die size enables simple, low cost, high volume optical receiver assemblies

The HLR10G1 provides a complete chipset solution with HiLight's CMOS 'Combo' offering the highest sensitivity and best performance.

Christian Rookes, VP Marketing at HiLight added "Having already reached the milestone of over 40Mu ICs shipped, we're pleased to announce another CMOS IC milestone - the full production release of the HLR10G1 10G TIA. At HiLight we are using CMOS technology to deliver high performance yet cost effective solutions to meet the economies of scale that the 10G-PON market requires. Our team has significant experience in this market having successfully deployed high volume CMOS EPON & GPON chipsets previously, so we're very excited to be enabling the 10G-PON market with a fully CMOS chipset solution that also includes the HLC10P1 Asymmetric and HLC10P0 Symmetric 10G 'Combo' ICs for ONU, in addition to the HLR10G1 TIA".

Jess Brown VP Sales at HiLight added "HiLight already has a great track record of supplying TIAs into the PON and Datacom markets and by introducing the HLR10G1 this completes the HiLight CMOS TIA portfolio for data rates and applications up to 12Gbps. The HLR10G1, manufactured on 12" wafers, is ideally positioned to meet the high volume, low cost, high performance requirements of the 10G ONU PON market, which should start to ramp in 2017 and through 2018. For each product HiLight provides a complete support package including reference designs, evaluation boards and full documentation, which make it easy for our customers to evaluate and design in."

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.

HiLight is headquartered in Southampton, UK, with design offices in Bristol UK and sales and local technical support offices in China, Taiwan and Japan.