Press Release

Silicon Line Announces Availability of the World’s First MIPI M-PHY
Optical Media Converter ICs for Mobile Phones

Munich, Germany, 19 September 2011:

Silicon Line GmbH, a leading provider of ultra-low power analog ICs, today announced that it has brought to market the SL82027 and SL82017 optical media converter (OMC) ICs targeted at mobile and smart phones using the latest MIPI® Alliance based M-PHY™ standard. The ICs are used to optically connect cameras, displays and application processors and enable the replacement of traditional electrical connectors with optical connectors.

Strong consumer demand for full HD video cameras, 3D cameras, high resolution and 3D displays is driving the data rates inside a phone ever higher. These extremely high data rates not only generate significant EMI when traditional electrical cables are used to transport the data but also are reaching the limits of the capabilities of electrical cables. Recognizing these challenges, the standard creating organization within the mobile phone industry, the MIPI Alliance, has defined a high speed physical layer called M-PHY and has created a standard for how to transport M-PHY signals optically.

Silicon Line already has a broad portfolio of ultra-low power high speed optical link interface ICs including products for MIPI D-PHY based mobile phones. The SL82027 and SL82017 are the latest additions to the portfolio and are the first products compliant with the M-PHY specification. These world’s first M-PHY optical media converter ICs enable Silicon Line to support higher performance applications in more sophisticated mobile and smart phones.

“The latest generation of Full HD / 3D camera modules demand the extremely high data rates which M-PHY provides”, says Ian Jackson, Senior Manager Sales and Marketing at Silicon Line. “Optical transport of these signals solves the EMI challenges which these data rates create as well as enabling small and thin form factor designs”, he added.

“The M-PHY standard is ideal for high data rate applications in mobile devices, and we are pleased to see the strong demand for this specification,” said Joel Huloux, Chairman of the Board for MIPI Alliance. “Products such as these optical media converter ICs will enable OEMs to leverage the high speed physical layer and deliver an improved customer experience.”

An SL82027 and SL82017 based OMC can be used to connect an application processor to a camera module in order to transmit high speed image data to the application processor using the future MIPI Alliance CSI-3 (Camera Serial Interface) standard. Such an OMC can also be used to transmit image data from the application processor to the display using the future MIPI next generation display interface standard.

The SL82027 vertical cavity surface emitting laser (VCSEL) driver and the SL82017 transimpedance amplifier (TIA) together with appropriate photonics are used to implement a MIPI compliant Basic OMC for transporting M-PHY signals. Both devices include special circuits which handle the M-PHY specific protocol and process both the high speed and low speed signals. Data transmission is done optically over a fiber in the case of high speed data and low speed data is transmitted over an auxiliary galvanic interconnect.

The devices support both the MIPI M-PHY defined low speed PWM-BURST mode up to PWM Gear 7 and also the high speed HS-BURST mode up to Gear 2. The ultra-low power consumption of the SL82027 and the SL82017 make them ideally suited for use within mobile phones and smart phones.

The SL82027 and SL82017 are available as bare die and are sampling now.

About Silicon Line GmbH
Silicon Line is a fabless analog IC company designing and providing physical layer technologies that enable ultra-low power, low cost optical links at multi-gigabit rates for mobile and consumer platforms. Silicon Line is located at Elsenheimerstrasse 48, D-80687 Munich, Germany. Additional information is available at www.silicon-line.com.

About MIPI Alliance

MIPI Alliance is a global, collaborative organization comprised of companies that span the mobile ecosystem and are committed to defining and promoting interface specifications for mobile devices. MIPI Specifications establish standards for hardware and software interfaces which drive new technology and enable faster deployment of new features and services. For more information, go to www.mipi.org

MIPI® Alliance is a registered mark of MIPI Alliance, Inc.

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