TI FPD-Link III chipset streamlines video and data interface for megapixel driver assist cameras

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PR Newswire

DALLAS, Aug. 15, 2012 /PRNewswire/ -- Texas Instruments Incorporated (TI) (NASDAQ: TXN) today introduced the DS90UB913Q serializer and DS90UB914Q deserializer, the newest additions to its FPD-Link III automotive-grade chipset family. The SerDes chipset provides a seamless video and data interface to megapixel driver assist camera modules, with no software overhead and fewer wires, resulting in reduced power consumption, cost and weight. These system-level SerDes enhancements are accelerating the adoption of camera safety systems in the mid- and entry-level vehicle segments. Applications include front-view camera for collision avoidance and traffic sign/pedestrian recognition, rear-view camera for backup protection, and surround-view cameras for parking assistance. For more information and to order samples, visit www.ti.com/ds90ub913q-pr.

(Photo: http://photos.prnewswire.com/prnh/20120815/DA57364)

Camera systems have become an important automotive safety component, typically combining multiple camera modules with advanced image analysis to help drivers monitor road conditions, detect hazards and avoid collisions. Automotive safety system designers can use TI's FPD-Link III SerDes chipsets to connect cameras and displays to an electronic control unit (ECU) with thinner, more flexible cabling.

Key features and benefits of the DS90UB913Q and DS90UB914Q:
• **Smallest serializer for ultra-compact megapixel camera modules:** DS90UB913Q features 25-mm² footprint, with 10-MHz to 100-MHz pixel clock and 10- and 12-bit pixel depth.

• **Industry's first adaptive receiver EQ compensates cable loss:** DS90UB914Q automatically adapts EQ gain, compensating for dynamic and long-term changes in cable loss.

• **Fast response time increases driver safety:** Continuous, bidirectional control channel on a single twisted pair cable provides low latency for precise multi-camera synchronization.

• **Lower-cost cable assemblies:** Lower serial line rates of up to 1.4 Gbps drive down system costs.

• **System flexibility:** DS90UB914Q's integrated 2:1 multiplexer allows the ECU video processor to select content from two camera sources.

• **Supports heat-exposed installations:** The SerDes chipset operates over the -40 degrees C to 105 degrees C temperature range.

The DS90UB913Q and DS90UB914Q can be combined with other automotive vision control building blocks, including the **TMS320DM8148** (DM8148) automotive vision processor; **LM22671** 42-V, 500-mA SIMPLE SWITCHER® step-down voltage regulator; and **LP38693** 500-mA LDO regulator.

### Tools and support
The DS90UB913Q serializer and DS90UB914Q deserializer are supported by the **SERDESUB-913ROS** evaluation kit. It is available today for a suggested retail price of US$399. IBIS models for the **DS90UB913Q** and **DS90UB914Q** are also available. Engineers designing with this SerDes chipset can ask questions and get answers from TI experts in the TI E2E™ Community **High Speed Interface Forum**.

### Availability, packaging and pricing
The **DS90UB913Q** and **DS90UB914Q** are available now for a suggested retail price of US$5.36 for each device in 1,000-unit quantities. The DS90UB913Q serializer is supplied in a 32-pin, 5-mm x 5-mm QFN package, while the DS90UB914Q deserializer is offered in a 48-pin, 7-mm x 7-mm QFN package.

### Texas Instruments driving innovation in automotive applications
TI offers a full suite of reliable, state-of-the-art semiconductor products that allow manufacturers and system suppliers to deliver world-class features to the automotive market. In addition to our extensive catalog of analog power management, interface and signal chain solutions, TI offers Hercules™ TMS570 safety microcontrollers, OMAP™ processors and wireless connectivity solutions, all with excellent product documentation and qualification to strict AEC-Q100 and ISO/TS 16949 standards. Whether improving system efficiency and safety or designing a vehicle that is more informative or fun, TI helps customers achieve their quality, reliability and cost goals and succeed in today's competitive automotive marketplace. Find out [more](#) today.

### Learn more about TI's **FPD-Link III SerDes portfolio** by visiting the links below:

- Order DS90UB913Q samples, IBIS models and evaluation modules: [www.ti.com/ds90ub913q-pr](http://www.ti.com/ds90ub913q-pr).
- Order DS90UB914Q samples, IBIS models and evaluation modules: [www.ti.com/ds90ub914q-pr](http://www.ti.com/ds90ub914q-pr).
- View an automotive vision control system block diagram: [www.ti.com/visioncontrolsbdd-pr](http://www.ti.com/visioncontrolsbdd-pr).
- View TI's complete automotive and transportation portfolio: [www.ti.com/automotive-pr](http://www.ti.com/automotive-pr).
- Join the TI E2E™ Automotive Community: [www.ti.com/e2eaautomotive-pr](http://www.ti.com/e2eaautomotive-pr).

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