

Fujitsu Semiconductor Releases Interface Bridge SoC Incorporating 10 Different Interfaces

Brings together USB, Serial ATA, PCI Express, Ethernet MAC, TS and other interfaces, all on a single chip

Yokohama, Japan, October 16, 2012 – Fujitsu Semiconductor Limited today announced the development of Interface Bridge SoC “MB86E631,” which brings together a dual-core ARM® Cortex™-A9 processor and a host of different interfaces, all on a single chip. Sample quantities of the new product will begin shipping in late December 2012.

MB86E631 incorporates a total of 10 different interfaces, including USB, Serial ATA, PCI Express, Ethernet MAC, and TS. As a result, the new product is an LSI featuring performance and functionality that has been optimized for CPUs for transcoder LSI control, as well as for products requiring control of a wide variety of interfaces.

The spread of smartphones and tablets has led to the availability of Wi-Fi TV tuner products that enable TV to be viewed on customer mobile devices. Such products are equipped with transcoder LSIs for performing video format and resolution conversion, as well as Wi-Fi modules and other technologies. A number of challenges are involved in selecting a CPU for controlling these technologies. Multi-decoder LSIs used in video

recording devices and communications processors for networking products are too powerful, whereas the performance of low-cost CPUs, such as microcontrollers, is insufficient.

At the same time, customers who manufacture video recording devices, TVs with built-in recording capabilities, and other products have expressed the need for a CPU with the ability to control a variety of interfaces capable of connecting to a wide range of different equipment.

Fujitsu Semiconductor developed Interface Bridge SoC “MB86E631” as an LSI that has been optimized to meet this need for both performance and functionality.

Featuring a dual-core ARM Cortex-A9 processor (~500MHz operations) as its CPU core, MB86E631 brings together a total of 10 different interfaces—including USB2.0/3.0, Serial ATA, PCI Express, Ethernet MAC and TS—all on a single chip. Not only is the product optimal for use together with a transcoder LSI in Wi-Fi TV tuner applications SoC, but it can also be employed as a CPU for interface control in multi-tuner devices and other applications in which control of multiple interfaces is required. In addition, the new chip will lead to the development of a new market that extends beyond video delivery and recording devices to include products that require performance greater than that of microcontrollers and support for multiple interfaces.

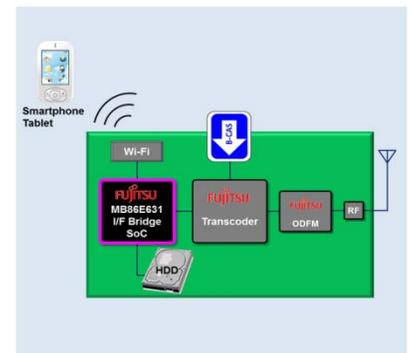


Figure 1.
Schematic Diagram of Wi-Fi TV Tuner with
MB86E631

Going forward, Fujitsu Semiconductor will continue to roll out new technologies and products, particularly in the area of video processing LSIs, while also proposing solutions for a wide range of product applications.

Product Overview

1. Incorporates 10 different interfaces

By incorporating interfaces such as USB2.0/3.0, Serial ATA, PCI Express, Ethernet MAC, TS, UART, and I2C, as well as the DDR3 and Quad Serial Flash Controller memory interfaces, the new series can be employed in a host of applications, including CPUs for transcoder LSI control and CPUs for interface control in multi-tuners that require the control of multiple interfaces.

2. Features a dual-core ARM Cortex-A9 processor

The new series employs an optimal CPU core for controlling its various embedded interfaces.

3. Enables the delivery of Wi-Fi TV tuner solutions

Fujitsu Semiconductor offers reference boards featuring MB86E631 together with the company's transcoder LSI. DLNA-compatible reference boards for Linux are also available as a solution for Wi-Fi TV tuner products, making product development easy.

Sample Release schedule

Product Name	Delivery
MB86E631	December 2012

Sales Target

100,000 pieces per month when in mass production

For More Information:

<http://jp.fujitsu.com/group/fsl/en/> (Fujitsu Semiconductor)

About Fujitsu Semiconductor

Fujitsu Semiconductor Limited designs, manufactures, and sells semiconductors, providing highly reliable, optimal solutions and support to meet the varying needs of its customers. Products and services include microcontrollers, ASICs, ASSPs, and power management ICs, with wide-ranging expertise focusing on mobile, ecological, automotive, imaging, security, and high-performance applications. Fujitsu Semiconductor also drives power efficiency and environmental initiatives. Headquartered in Yokohama, Fujitsu Semiconductor Limited (formerly named Fujitsu Microelectronics Limited) was established as a subsidiary of Fujitsu Limited on March 21, 2008. Through its global sales and development network, with sites in Japan and throughout Asia, Europe, and the Americas, Fujitsu Semiconductor offers semiconductor solutions to the global marketplace.

For more information, please see: <http://jp.fujitsu.com/fsl/en/>

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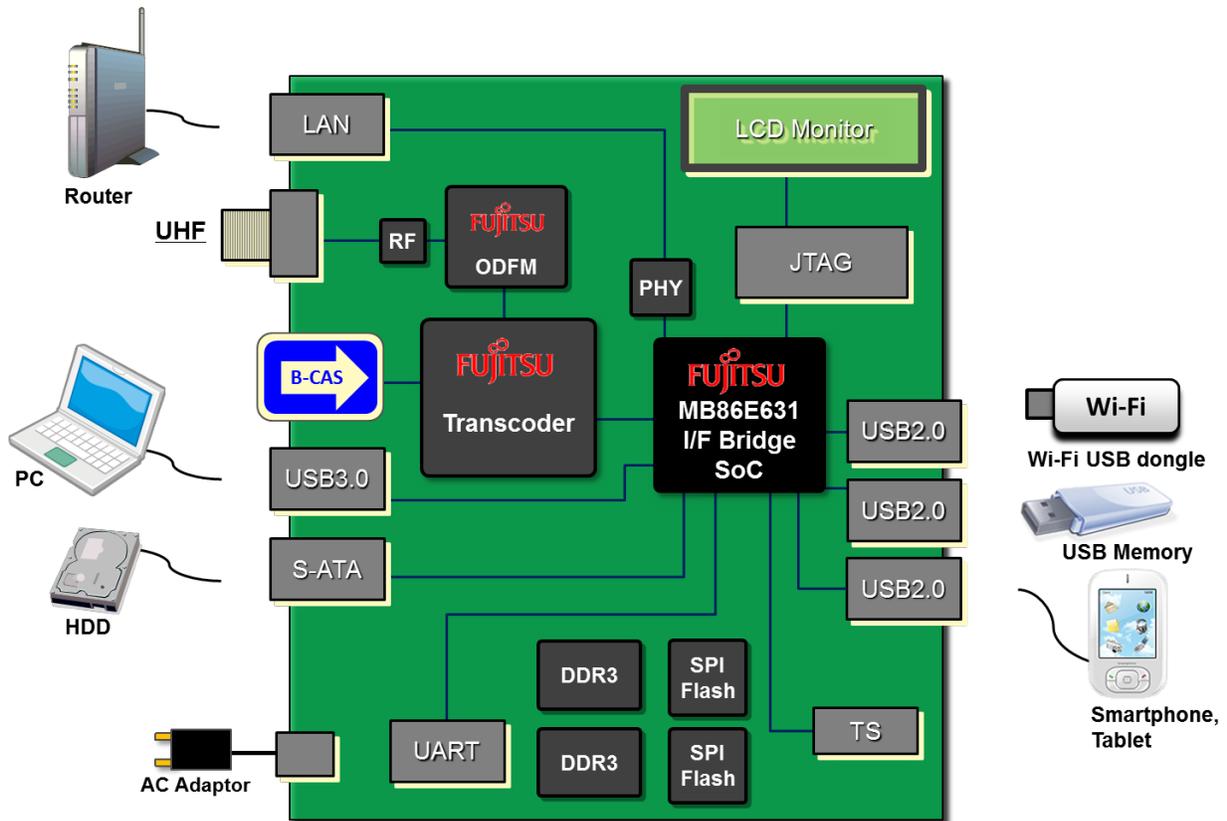
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Appendix

Key Specifications of MB86E631

Processor	Cortex™-A9 Dual Core, Max 500MHz
Interface	USB2.0 Host / Device (x3) USB2.0/3.0 Device (x1) Serial ATA Host Gen2 PCI Express Gen1 Ethernet MAC 1000/100base TS input (Serial) UART I ² C
Memory Interface	DDR3-600MHz, 16bit Quad Serial Flash Controller
Package	FBGA 426-pin (16mm x16mm), Ball Pitch 0.65mm

Reference Board Configuration



MB86E631 Sample Photo

