

OXU210HP, Local bus to Hi-Speed USB Host, Peripheral/OTG controller

Highlights

■ General Features

- Compatible with the USB Specification, Revision 2.0 for high-speed (480 Mb/s), full-speed (12 Mb/s), and low-speed (1.5 Mb/s) operations
- High-speed optimized host controller with transaction translator for complete backward compatibility with full-speed and low-speed products
- Two high-speed USB ports; one port remains host while the other can be configured as peripheral, host or On-The-Go (dual role)
- Simultaneous operation of both ports

■ Key Features

- Choice of 16-bit or 32-bit configurable processor interface
- Fast microprocessor access cycle and double/multi-buffering support for USB transfers
- Host interface contains support for common SoC DMA modes including bursting and slave request/acknowledge protocols
- Advanced power management controls chip clocking and PHY function for very low power consumption
- Integrated on-chip VBUS voltage comparator and 100 mA charge pump
- 72 Kbytes of single-port SRAM
- True transfer level operation, with transaction scheduling and handling (data sequence toggle, error retry, etc.), implemented in hardware
- Integrated PLL runs from a single 12-MHz crystal or an external 12-MHz clock source
- Operating temperature range: -40° to 85° C



The Oxford Semiconductor OXU210HP is a single-chip, high-speed USB host and high-speed USB peripheral controller with integrated transceivers. It is the fourth controller in the family of integrated, low-cost, high-performance, On-The-Go (OTG) controllers that have been specifically designed for embedded systems.

The OXU210HP operates up to 480 Mb/s, using a compatible EHCI-based core. It also includes an integrated transaction translator that supports full-speed (12 Mb/s) and low-speed (1.5 Mb/s) USB peripherals.

The selectable 16- and 32-bit processor interface is compatible with a variety of CPUs. A large 72-Kbyte buffer has also been integrated to reduce interrupts and minimize CPU overhead.

The OXU210HP supports all USB transfer modes (control, interrupt, bulk, and isochronous) and is supported with USB device drivers.

Product Ordering Information

Part Number	Description
OXU210HP	Local Bus to Hi-Speed USB 2.0 Host, Peripheral/OTG controller
EV-OXU210-PCI	OXU210HP Rapid Development Kit

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