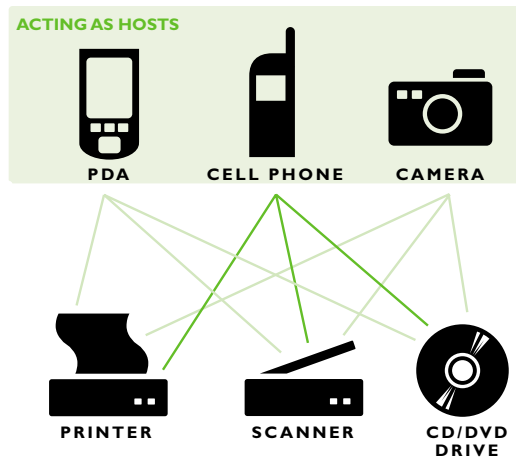


ISP1160

USB Host Controller

Powerful interconnectivity for embedded systems and peripherals



Features/Benefits

- Complies with USB Specification Rev. 2.0, supporting data transfer at full-speed (12 Mbit/s) and low-speed (1.5 Mbit/s)
- Enhanced Original USB OHCI-compliant host with two downstream facing ports
- Glueless interface to various microcontrollers and RISC processors
- 6 MHz crystal or oscillator for low EMI performance
- +3.3 V or +5 V supply voltage operation
- LQFP64 package
- Host stack written in C



Description

The ISP1160 is a Universal Serial Bus (USB) host controller that complies with USB Specification Rev. 2.0. It provides two downstream facing ports and is well-suited for embedded systems and portable devices that require a USB host.

With the ISP1160, embedded systems such as PDAs, smart phones, digital still cameras and game consoles can themselves act as USB hosts, without the intervention of a PC. For example, a system that uses the ISP1160 can be connected to a device that has an upstream facing USB port—such as a USB printer, USB camera, USB keyboard, or a USB mouse.

The data transfer rate between the system processor and the host controller can be up to 15 MB/s, allowing the system processor to maintain bandwidth in a multitasking environment.

Host Function

The ISP1160 complies with the USB Specification Rev. 2.0, supporting data transfer at full-speed (12 Mbit/s) and low-speed (1.5 Mbit/s) for host function. The host controller is an enhanced version of the Original USB OpenHCI, customized to interface directly with the system processor. It has no overhead requirements for a PCI interface or system memory control. The ISP1160 supports all four types of transfer: control, interrupt, bulk, and isochronous.

Power Consumption

The ISP1160's low suspend power consumption, along with LazyClock™ output, meets ACPI, OnNow, and USB power management requirements. The ISP1160's low operating power is a benefit for power-sensitive peripherals.

Host Stack Support

The ISP1160 host stack supports various real-time operating systems. The host stack code is written in C, and has a modular design, for easier porting to various real-time operating systems and processors. Support and maintenance are also available.

Evaluation Kits

Running on ISA, PCI and StrongARM platforms, ISP1160 evaluation kits support WinCE, µITRON, Linux, and DOS operating systems.

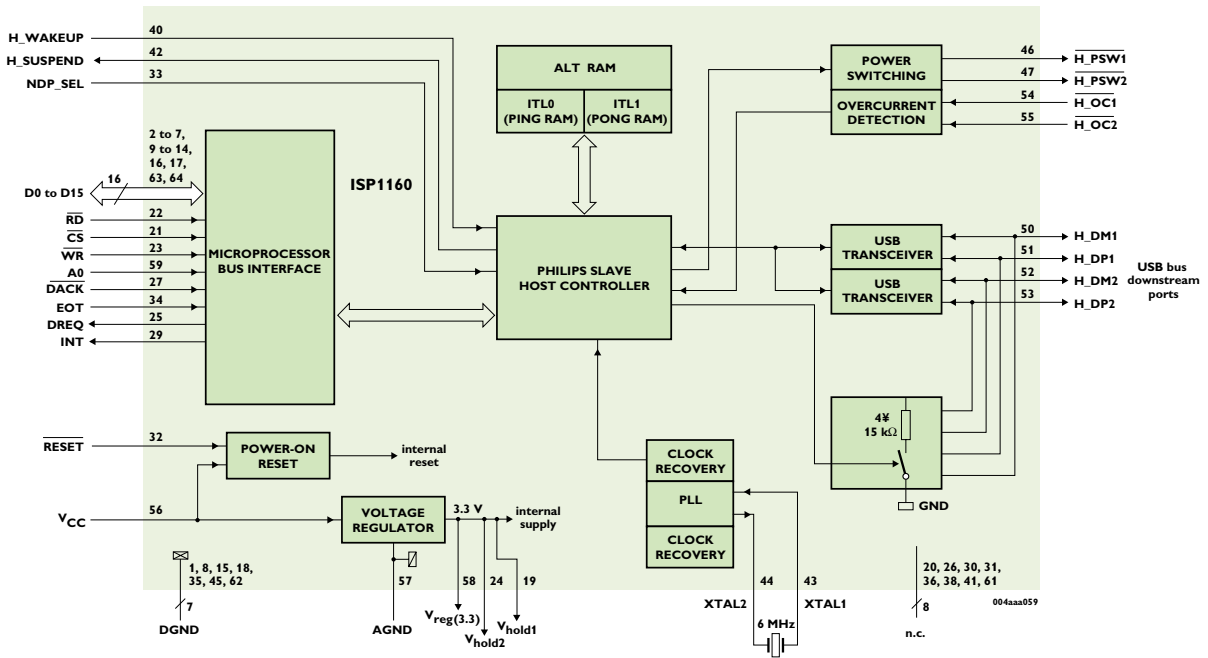
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ISP1160

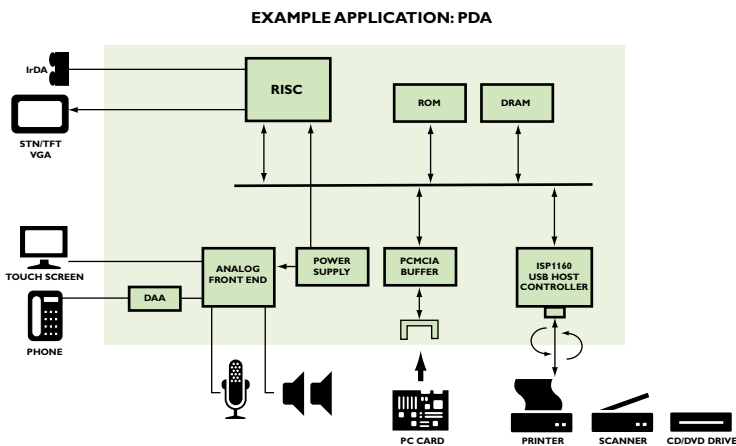
USB Host Controller



ISP1160 USB Host Controller



ISP1160 in a PDA Application



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