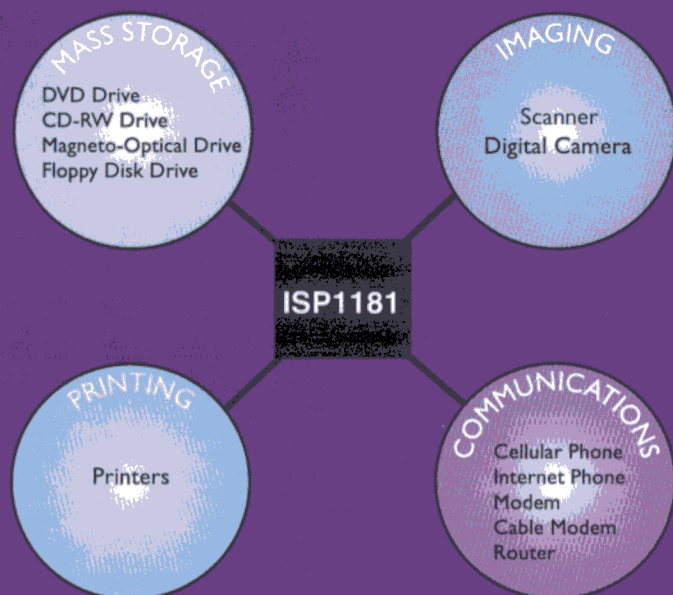


Highly integrated and offering proven Philips interoperability, the ISP1181 meets the challenges of most USB applications. Take advantage of its fast 16-bit/8-bit data I/O, large number of endpoints, and power-down capability. With the ISP1181, you can save time on interoperability tests and easily change your existing design to a USB 1.1-compliant design.



Features

- High-performance USB interface device with integrated Serial Interface Engine, FIFO memory, DMA logic, 16-bit microcontroller/microprocessor interface, transceiver, and voltage regulator on one chip
- Compliant with: Universal Serial Bus Specification Rev. 1.1, most Device Class specifications, and ACPI™, OnNow™, and USB power management requirements
- Fast (12 Mbyte/s or 85-ns read/write cycle) parallel interface
- Fourteen data endpoints configurable for Control, Bulk, Interrupt, or Isochronous pipes
- Interrupt endpoint can be configured in rate feedback mode
- Integrated multiconfiguration double-buffered FIFO memory (logical 1247 bytes, physical 2462 bytes)
- Endpoints double buffering scheme increases throughput and eases real-time data transfer
- Glueless interface with most microcontrollers and microprocessors
- Dedicated DMA for high-throughput applications
- Bus-powered capability with low power consumption and low suspend current
- Low EMI: uses a 6MHz crystal oscillator
- In-circuit ESD protection of higher than 8 kV
- TSSOP48 package

ISP1181 High-Performance Full-Speed USB Interface Device with Parallel Bus

Description

Keep your USB peripherals up to speed with the ISP1181. It's ideally suited for many applications, including printers, imaging devices such as digital cameras, mass storage devices such as portable floppy disk drives and CD-RW drives, and communications devices such as cellular phones, modems, cable modems, and routers. Bus-powered capability and a low suspend current makes the ISP1181 an attractive solution for handheld applications.

Due to its generic parallel interface with major microcontrollers and microprocessors (generic 8051, Hitachi H8, Motorola DragonBall™, Coldfire®, ...), the ISP1181 simplifies implementation of advanced USB functions and is easy to integrate into existing systems. This modular approach lets you choose the optimal microcontroller or microprocessor for your system and use existing architecture and firmware. Protect your investment while maintaining an efficient upgrade path.

High bandwidth, high-speed access time, and large FIFO memory mean excellent performance and fast response times for end users. The ISP1181 features a 16-bit parallel I/O port, a fast (12-Mbyte/s or 85-ns read/write cycle) parallel interface, and multiconfiguration double-buffered FIFO memory of 1247 logical (2462 physical) bytes. This device supports both fully autonomous, multiconfiguration DMA operation and local DMA transfer. The double buffering scheme for endpoints ensures high throughput and ease of real-time data transfer.

Compliant with the latest USB standards and forward-compatible with the upcoming USB 2.0 specification, the ISP1181 lets you add more resource-intensive applications and functions. It provides 14 programmable USB endpoints with 2 fixed control IN/OUT endpoints. Low electromagnetic interference and a high level of electrostatic discharge protection make this device excellent for consumer and communications applications.

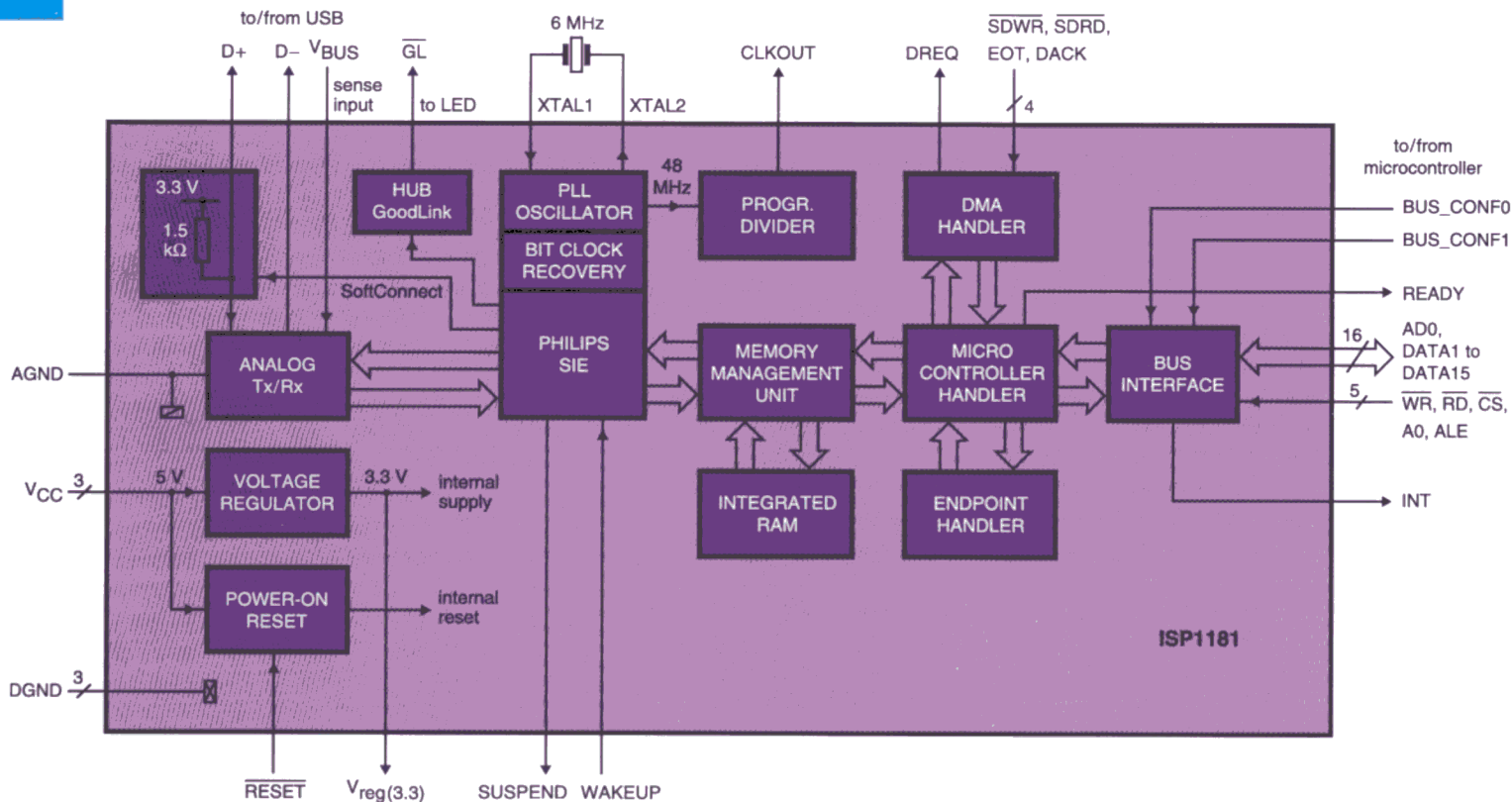
GoodLink™ allows visual USB traffic monitoring, helping reduce field support and hotline costs. SoftConnect™ provides an extra level of peripheral control to the host connection. LazyClock™ keeps a very low clock frequency during suspend mode.

An evaluation kit is available.

Let's make things better.



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