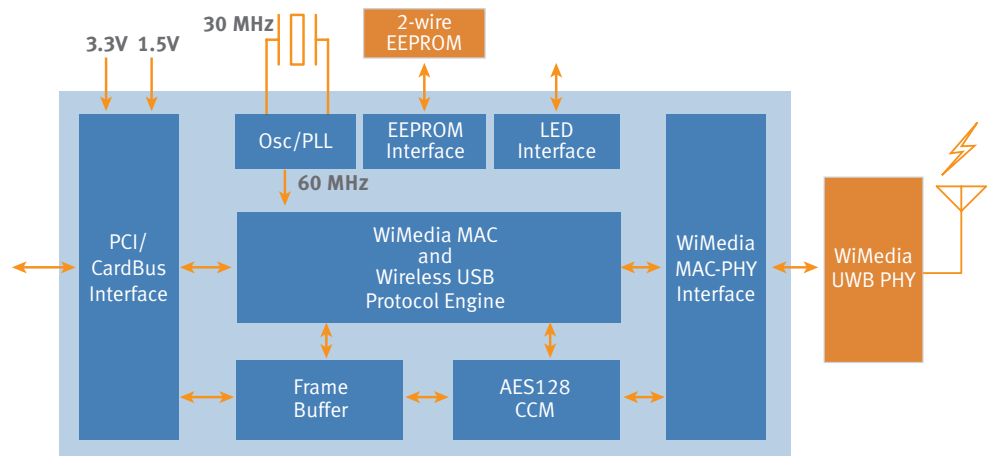


Wireless USB Host Controller with PCI Interface

Enables Wireless Data Transfer at Speeds Up to 480 Mbps

NEC Electronics' μPD720170 Wireless Universal Serial Bus (USB) host controller enables personal computers to interact wirelessly at high speed with wireless-USB-enabled devices such as printers, external storage, and digital cameras. The μPD720170 promotes new levels of wireless connectivity with data transfer rates as high as 480 megabits per second (Mbps) at a range of 3 meters—thereby eliminating the need for cumbersome wires.

The μPD720170 host controller supports eight data transfer rates from 53.3 to 480 Mbps and three data transfer types: control transfer, bulk data transfer, interrupt data transfer. The controller connects up to 32 physical devices at a time, and is compliant with the WiMedia MAC and WiMedia MAC-PHY interface specifications, as well as the wireless host controller interface (WHCI) standard promoted by Intel and other industry leaders.

Figure 1. μPD720170 Block Diagram

Features

- › Compliant with Wireless Universal Serial Bus specification
 - Eight data transfer rates: 53.3 Mbps, 80.0 Mbps, 106.7 Mbps, 160 Mbps, 200 Mbps, 320 Mbps, 400 Mbps, 480 Mbps
 - Three data transfer types: control transfer, bulk data transfer, interrupt data transfer
 - Up to 32 physical Wireless USB devices
 - AES-128 CCM
- › Compliant with Wireless USB model association guideline
- › Compliant with WiMedia MAC specification
- › Compliant with WiMedia MAC-PHY interface specification
- › Compliant with Wireless host controller interface specification

Features (continued)

- › Modular 32-bit, 33 MHz host interface compliant with PCI specification release 2.2 and PC Card standard 8.0
 - Supports PCI bus power management interface specification release 1.1
 - PCI signal input pins that have 5V-tolerant circuit
- › Operational registers direct-mapped to PCI memory space
- › Two-wire serial EEPROM interface
- › 30 MHz crystal clock source
- › 3.3 and 1.5V power supplies

Package

144-pin plastic FBGA (12 × 12mm, 0.8mm pitch)

Applications

CardBus cards, PCI boards and MiniPCI cards for PCs, and other systems with PCI cards

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