# Anchor Chips Single-Chip EZ-Link (AN2720SC)

Features

- Tiniest completely integrated solution in the market
- 32 PQFP
- Only requires crystal for full implementation
- Meets difficult suspend current of 500 uA for both hosts
- 2K data buffer for maximum speed transfer
- Greater than 4 Mbps data transfer rate
- Low power – Less than 100 mW power

Overview

The Anchor Chips AN2720SC provides a single-chip solution for networking two computers via their USB ports. In a USB system, the PC acts as a host, which initiates all USB traffic. USB devices act as slaves, which respond to host requests. It is inherently incompatible to connect two PCs together via a simple USB cable, since a master (host) cannot talk to another master (host). A master can talk only to one or more slave devices.

The AN2720SC overcomes this "peer-to-peer" incompatibility by providing two USB devices, one for each PC. Two independent Serial Interface Engines (SIE) exchange data through a 2 kilobyte FIFO. Thus, USB data transmitted by one computer is made available to the other computer through the AN2720SC. The connection is full duplex– data can be transferred in both directions simultaneously.
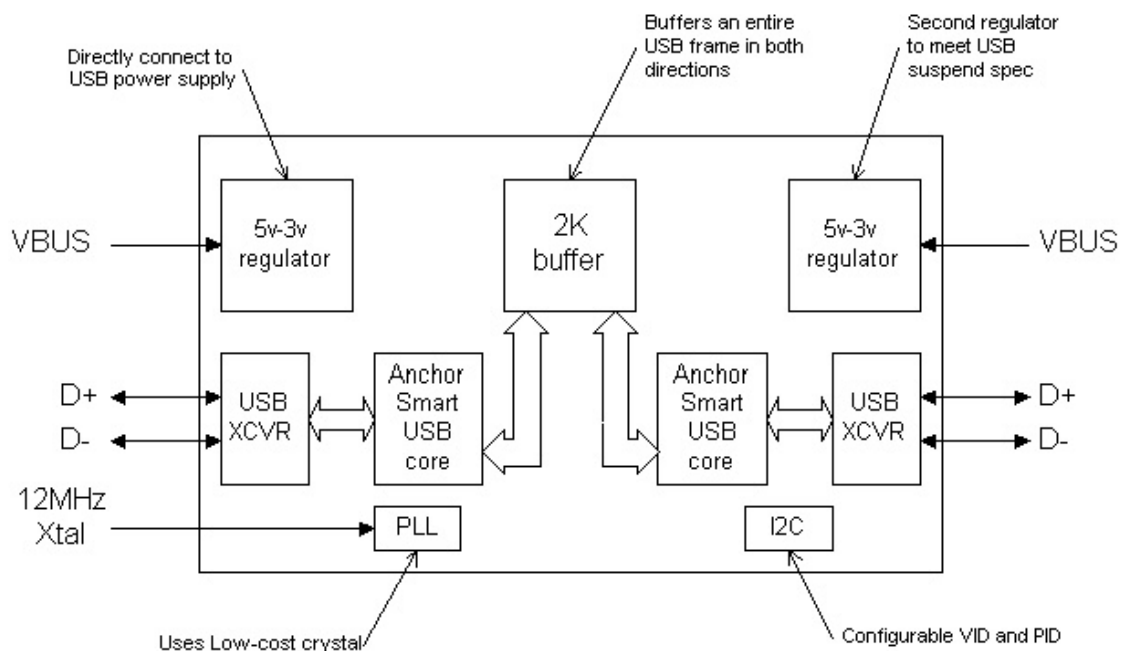
AN2720SC Block Diagram System Application

Applications and Markets

The use of the AN2720SC and special network driver software provided by Anchor Chips allows very simple and efficient networking between PCs. The "plug-and-play" nature of USB makes connecting two computers (even when powered) very simple. With the AN2720SC, simple networking can be provided in numerous form factors including:

- USB standalone hubs
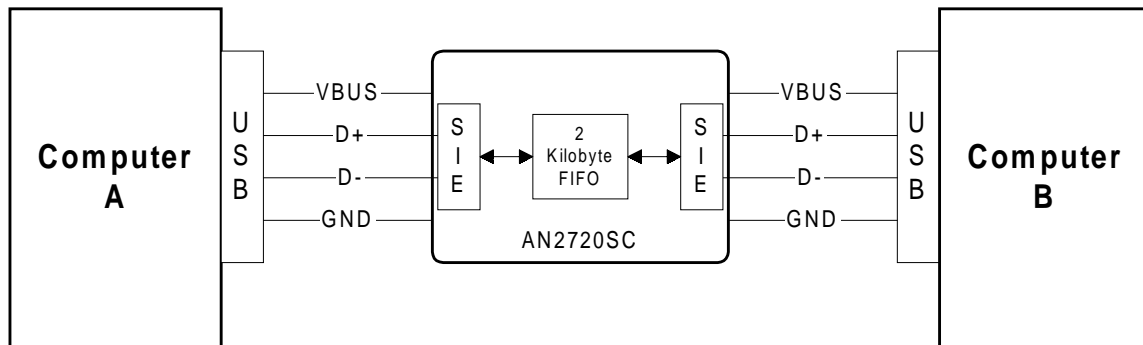- Computer monitors with USB hubs
- Standalone USB cable

Depending on the driver set used, the AN2720SC can perform the following functions:

- USB networking
- File transfer
- Windows CE synchronization
- Printer sharing

Software

The software provided by Anchor Chips runs on Windows 95 and Windows 98 and is a miniport device driver software which emulates a network interface connector. It manages the USB protocol and the PC-to-PC data flow. The EZ-Link Ethernet device driver is written to the NDIS (Network Driver Interface Specification) standard and provides a standard Windows interface to the resources of the hardware. To the end user, EZ-Link appears and behaves like an Ethernet card even though no physical network interface card is present. Thus, users can use standard Windows interface such as Windows Explorer, Network Neighborhood and standard file sharing security features. Bridging software that allows users to access corporate LANs will be available in first quarter1999.

System Diagram

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