



SiS Dual DDR333 Pentium 4 Chipset
SiS655/963

Silicon Integrated Systems Corp.
Integrated Product Division
Dec, 2002

 Silicon Integrated Systems Corp.

www.DataSheet4U.com



Agenda

- **System Architecture and Key Feature**
- **Dual Memory Controller**
- **USB2.0 and IEEE1394a**
- **Advantages of SiS655**

Silicon
Integrated
Systems



SiS655/963- P4 Dual DDR333 Chipset

Universal AGP 3.0
Compliant

8X/4X Mode Support



AGP 8X/4X
Interface

Pentium 4 CPU

533MHz System Bus with 2X Address/4X Data

Dual Memory Channel DDR333/DDR266

Up to 4 DIMM Unbuffered DDR Support

Max. 1GB per DIMM

MuTIOL 1GB, 16 Bit @ 533Mhz

Dual IDE
ATA133/100/66



USB 2.0/1.1



6 PCI Master



KB / Mouse



Floppy/
Midi / Joystick

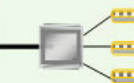


LPC ROM

LPC
S/IO

BIOS Legacy

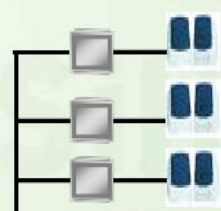
IEEE 1394a



AC97

MII

AC'97 Codec



6 channel speaker

V.90 Modem

1/10Mb HPNA

or
10/100Mb LAN

ACR

RJ45

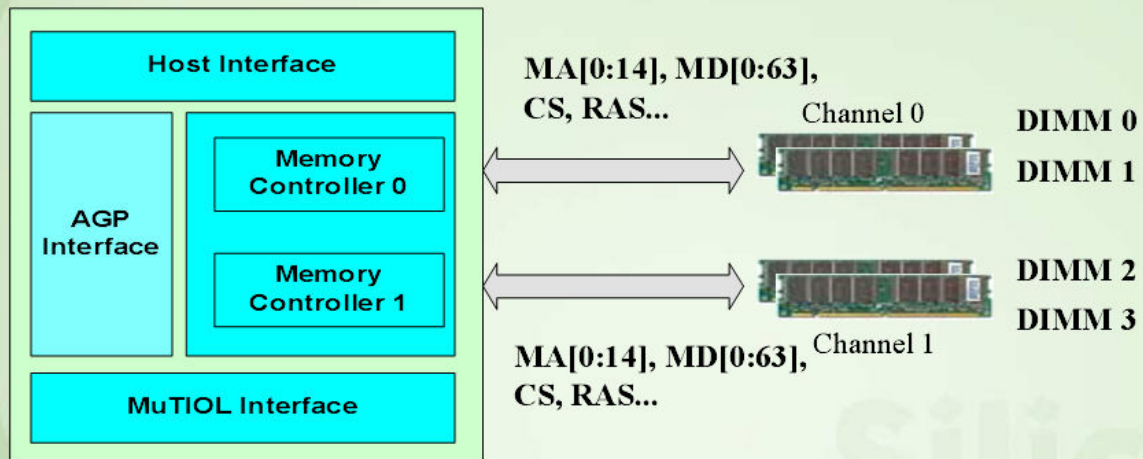
-- PC2001 Compliant --

SiS Silicon Integrated Systems Corp.



Dual Memory Controller Overview

- SiS655

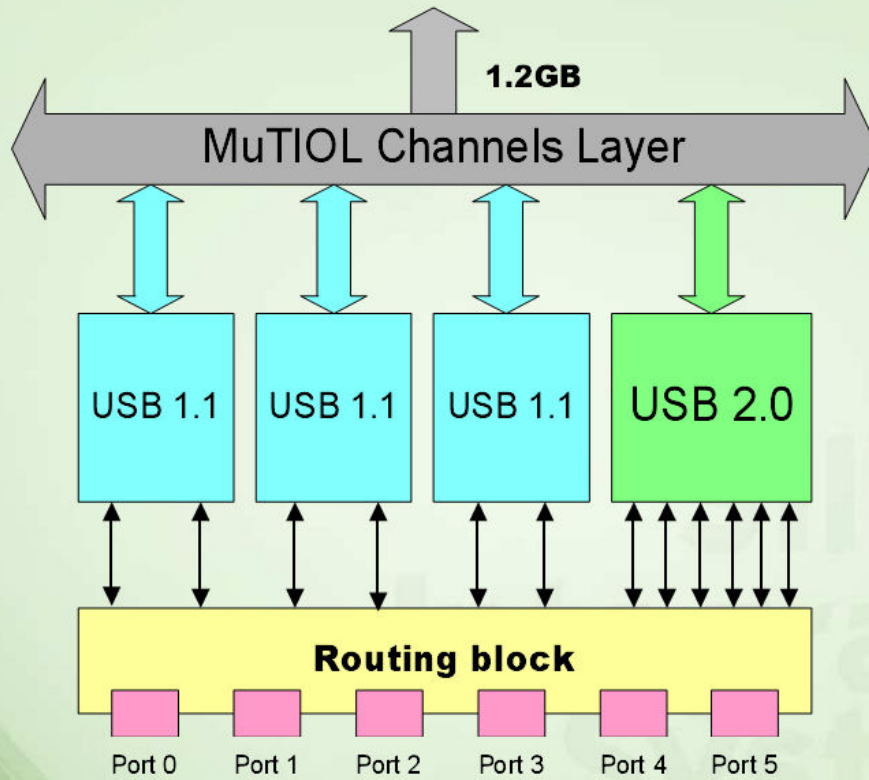


- Independent MA, MD, and control signals for each channel
- Support 128bit mode, Concurrent Dual64bit mode and Legacy single 64 bit mode.
- Auto Configuration for flexible DIMM combination Support



SiS963 -- USB2.0/1.1

Make USB Migration Smooth

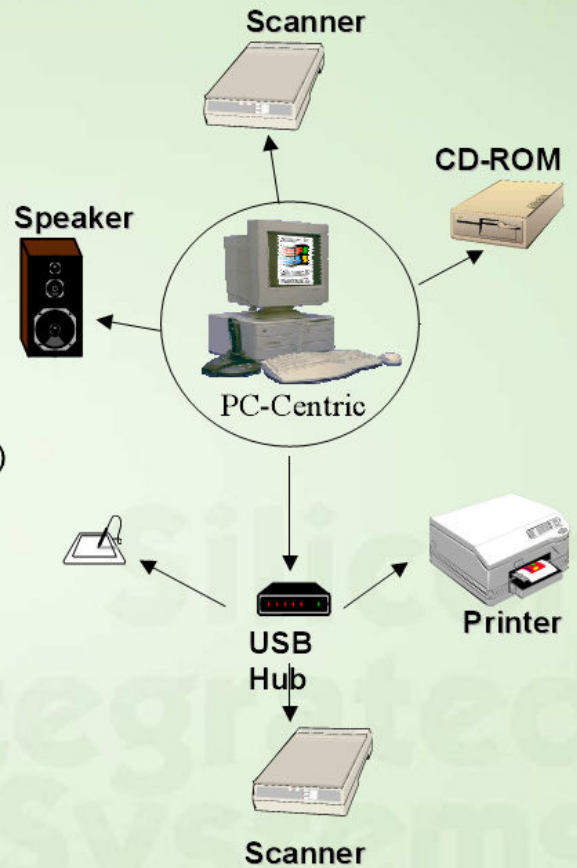


Dynamic Switching to USB1.1 or USB2.0, depends on Devices



USB2.0 - What it is?

- **Support PC-centric connection to High Speed and High Performance PC Peripherals.**
 - Support High Speed Device @480 Mb/s bandwidth = 40 times faster than USB1.1
- **Fully Backward Compatible w/ USB 1.1**
 - Support USB 1.1 Full Speed Devices (12Mb/s) and USB 1.1 Low Speed Devices (1.5Mb/s)
- **Working w/ the existing USB 1.1 connectors and cables**
 - No new connectors and cables are required.





What USB2.0 Devices Available?

USB 2.0 CD-ROM/DVD-ROM



Addonics Tech.
ACOM

USB 2.0 CD-R/RW



Plextor, SONY
Fujitsu, Yamaha..

USB 2.0 CCD/Camera



AME, Opteon



USB 2.0 MO Driver



Fujitsu..

USB 2.0 Scanner



Epson, Microtek

USB 2.0 Flash card Reader



Datafab System...

USB 2.0 HDD

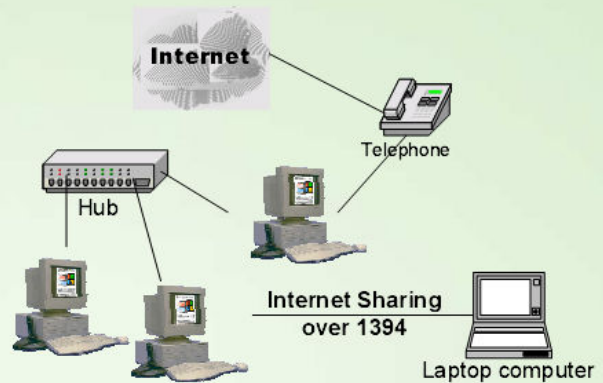


Maxtor, Fujitsu..

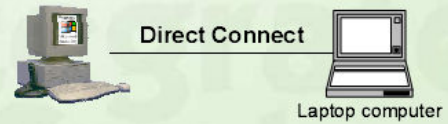


1394 TCP/IP Networking – IP over 1394

- With “IP over 1394” Support to Enabling Internet Access Sharing among Networked PCs
- With “IP over 1394” Support to Direct Connect PCs by 1394 Ports w/o Additional Hardware and Drivers
- Native “IP over 1394” Support in Windows Me and Windows XP



or





What 1394a Devices Available?

PC Peripherals and Consumer Electronics

1394 HDD



IOMEGA, LaCie
VST Tech. ..

1394 DV/D8



SONY, JVC, Sharp
Panasonic, Canon

1394 MO



Fujitsu



1394 MD Recorder



Kenwood

1394 Scanner



Epson, UMAX..

1394 Music Synthesizer



Fujitsu

1394 CD-R/RW



SONY, IOMEGA



The Advantages of SiS655

- **Host Interface**
 - Support Intel Pentium 4 CPU
 - **533MHz system bus** w/ 2X Address and 4X Data Rate and bandwidth of up to 4.2GB/s
 - 12 Outstanding Transactions support
 - Quasi-Synchronous/Asynchronous Host/DRAM Timing support
 - Support 2M/4M/8M/16M TSEG SMRAM
 - Support Dynamic Bus Inversion.
- **DRAM Controller**
 - Integrated Dual Memory Controller w/ 128bit mode and 64bitx2 concurrent access mode support
 - DDR333/DDR266Support
 - Support Up to 4 un-buffer Double-sided DIMM
 - Max. 1GB per DIMM with 512Mb tech.
- **AGP 3.0 and AGP2.0 Compliant**
 - 8X/4X/2X Mode Support
 - Fast Write Support
 - Support 1.5V interface only
- **SiS MuTIOL Technology Delivering 1GB/sec Bandwidth**



SiS963 MuTIOL Media IO

- **USB 2.0 /1.1 Support**
 - Integrated Three Independent Open HCI Controllers includes Root Hub w/ two USB 1.1 ports each
 - Integrated One EHCI Controller includes Root Hub w/six USB 2.0 ports
 - Support a maximum of 6 USB Ports. Dynamic connection to USB 1.1 or USB 2.0.
- **IEEE 1394a Controller Integrated**
 - OHCI 1394a 1.1 compliance
 - Up to three 1394a ports support w/ external 1394a Phy.
- **IDE Controller**
 - Dual Independent IDE Channels with **ATA133/100/66** support
- **Integrated MAC Controller with Standard MII Interface**
- **Integrated Audio Controller w/ AC97 2.2 Compliance Interface**
 - Support **5.1 channel of Audio output** and V.90 HSP Modem
 - Support 4 Separate SDATAIN Pins for 3 x 2 ch Audio Codec + 1 Modem Codec
- **PCI 2.2 Compliant**
 - Support up to 6 PCI Masters
- **LPC Interface 1.0 Compliance**
- **ACPI 1.0b Compliance**
- **I/O APIC Support**
- **PC2001 Compliance**
- **SiS MuTIOL Technology Delivering 1GB/sec Bandwidth**



IEEE1394a--What it is?

- Addressing Interconnection of Both PC Peripherals and Consumer Electronics.
- High Speed Bus Operating at data transfer rate of 100Mbps to 400 Mbps, depending on cable type
- Support Peer-to-peer communication
- Support TCP/IP Networking Capability
- Support Isochronous and asynchronous data transfer

