SiS System on Chip Solution

SiS550 Family

Information Appliance Product Division
Silicon Integrated Systems Corp.
www.sis.com
Agenda

- IAPD Introduction
- SoC Target Products
- SiS Total Solution
- Partners Introduction
IA Product Division

• Became a Division on May 1, 2002

• Key members
  Director & GM    Yee-Wei Huang Ph.D.
  R&D              Alex Yeh
  Mkt/FAE/Sales    Jason Tsai

• Mission
  Provide premium system solutions for post-PC information appliance market
SoC Target Products

Home Gateway
WebPAD
iBOX

ScreenPhone
Stock Machine
Pocket PC / IPC

iDVD
Thin Client
POS

HDTV
Home Theater
VOD
SiS Total Solution

**Hardware**

- 551
- 550
- 552

**Software**

- Linux
- Windows
- WinCE

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**SiS Solutions**

- STB, Home Gateway
- WebPAD, Tablet, Pocket PC
- Thin Client, IPC, Car PC
- LCDPC, ScreenPhone, POS

- WWW & Email
- DVD, VCD, VOD
- CD, MP3, Game
Hardware Solution
SOC Family

HDTV
Home Theater
Car PC
VOD
iDVD
Thin Client
POS
Home Gateway
WebPAD / iBOX
ScreenPhone
Stock Machine
Pocket PC / IPC

HDTV
- X86 CPU
- 2D Graphics
- DFP / TV-out
- TFT / DSTN
- PCI / USB / IDE
- 6-Channel Audio
- LPT / CIR
- Flash ROM Interface

Home Theater
- MPEG-2 Decoder
- VIP
- Consumer Digital Audio Interface

Car PC

VOD

iDVD

Thin Client

POS

Home Gateway

WebPAD / iBOX

ScreenPhone

Stock Machine

Pocket PC / IPC

MP: now

Security

Entertainment

550 +
- SmartCard
- Memory Stick

551 +

Pin-to-Pin

552

MP: now
SoC Road Map Driving Forces

• Low Power Consumption
  – Low power process technology
  – Power management circuitry

• Enhanced Performance
  – Core frequency/architecture
  – Hardware accelerator

• Enrich functionality
  – High-level Integration
  – Chip set solution

• Product Oriented Design
  – Reference platform
SiS Hardware Advantages

**Highest Integration Level**
SiS550 integrates CPU, MPEG-2 decoder, Smart Card and many more in one SOC chip!

**Diverse Expandability**
PCI, USB, Memory Stick etc, SiS550 works with whatever device you desire!

**Low Cost, Low Power**
Lowest BOM cost, Fanless, 3.5W max. power consumption

**Versatile Adaptability**
Suitable for various products, STB, WebPAD, Thin Client, ScreenPhone.

**Compact Size**
Benefiting from integration, your device can be as compact as possible!
Software Solution
SiS Evaluation Platform - Linux
SiS Evaluation Platform - WinCE
Software Advantages

**Complete Turn-key Service**
S/W supports from ? BIOS, Linux BIOS, Drivers, OS kernels, to application.

**Immediate boot**
Boot in a **BLINK!!**

**Absolute Flexibility**
Compatible with DOM, DOC for WinCE and Linux

**Full Function, Small size**
All the functions you need within **8MB/16MB/32MB**
Design Tools

- Circuit and Layout (Evaluation Board)
- Documents (Datasheet, Design Guide)
- Drivers (Windows 98, CE, CE.NET, Linux)
- S/W Evaluation Kit (Win98, CE, CE.NET, Linux)
- Partner/Solution Coordination
Customers’ Products (1)

STB (SiS550) Satellite
- IP over DVB
- Ethernet hub/switch

CarPC (SiS550)
- GPS
- Wireless LAN
Customers’ Products (2)

Kiosk (SiS552)
• LCD PC
• Touchscreen
• DVD

Projector Gateway (SiS550)
• Connect with projector
• Immediate slide show
• Remote computer via network
Customers’ Products (3)

SOM (SiS550)
  • ETX
  • All function

IPC (SiS552)
  • PC/104
Customers’ Products (4)

Video Phone (SiS550)
- IP Base
- Web Camera
- Key Pad

ATM (SiS552)
- Financial Machine
- Smart card
Customers’ Products (5)

Thin Client (SiS550)
- Linux Base Terminal
- Data Security
- Virus resistance

Embedded Computer (SiS550)
- Network computer
- 4 Switch HUB
Customers’ Products (6)

TV BOX (SiS550)
- Connected to TV
- Compact Flash Card
- Display picture

Identify Machine (SiS550)
- Web Camera
- Feature Identify
Customers’ Products (7)

PVR (SiS630)
  • Digital recording
  • Mpeg-2 format

LCD PC (SiS630)
  • Easy to use
  • Small PC
Potential Products

Camera
PC

Web
PAD

Tablet
PC

Portable
DVD
SiS550 Partners

System Bios
AMI : BIOS provider
AWARD : BIOS provider
INSYDE : Linux BIOS & application provider
Phoenix : Linux BIOS & application provider

S/W System Integrator & Application
Animeta : Embedded Linux solution provider
Avamax : Total S/W solution for Internet access
B2C2 : Professional software solution provider
CYBERLINK : provider of digital video & audio software
Digirose : Embedded Intelligent Vision/Video solution provider
SiS550 Partners (Continued)

**E-COM**: Pioneer of information security system

**Gismosoft**: WinCE solution provider

**Intervideo**: Provider of digital video & audio software

**Redsonic**: Embedded Linux solution provider

**SPA**: WinCE & embedded Linux solution provider

**H/W Manufacturers and Vendors**

**Advantech**: Pioneer of SOM / IPC solution vendor

**Apacer**: Versatile memory solution vendor

**BCM**: Module board provider

**G-Card**: Module board provider

**ICOP**: IPC & module board provider
SiS550 Partners (Continued)

H/W Manufacturers and Vendors

M-Systems: Leading flash disk manufacturer
Sony: Memory Stick founder & developer
Tatung: IT/IA product maker

Welcome New Partners !!!!!
SiS Advantages

**FAST Time-to-Market**
Coordination for turnkey solution including H/W, S/W, Bios, applications.

**Mature PC Chip Set Experiences**
Highest level of integration of proven technologies

**Commitment**
All-out efforts and good reputation in the SOC field

**Close Partnership**
Software, hardware solution and system providers

**Low Cost**
Fab and technology
Appendix
## SIS550 VS NSGX1

<table>
<thead>
<tr>
<th></th>
<th>SiS SOC 550 200MHz</th>
<th>NS GX1 200MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPUMark99</strong></td>
<td>7.18 (135%)</td>
<td>5.82 (100%)</td>
</tr>
<tr>
<td><strong>Sandra 2001 CPU Dhrystone</strong></td>
<td>396 MIPS (175%)</td>
<td>226 MIPS (100%)</td>
</tr>
<tr>
<td><strong>Sandra 2001 FPU Whetstone</strong></td>
<td>206 MFLOPS (159%)</td>
<td>129 MFLOPS (100%)</td>
</tr>
<tr>
<td><strong>Sandra 2001 Integer MMX</strong></td>
<td>556 it/S (187%)</td>
<td>297 it/S (100%)</td>
</tr>
<tr>
<td><strong>Sandra 2001 FPU MMX</strong></td>
<td>159 it/S (289%)</td>
<td>55 it/S (100%)</td>
</tr>
<tr>
<td><strong>Wintune CPU Integer</strong></td>
<td>455 MIPS (162%)</td>
<td>281 MIPS (100%)</td>
</tr>
<tr>
<td><strong>Wintune CPU Floating Point</strong></td>
<td>198 MFLOPS (153%)</td>
<td>126 MFLOPS (100%)</td>
</tr>
</tbody>
</table>
## SIS550 VS NSGX1

<table>
<thead>
<tr>
<th></th>
<th>SiS 550 200MHz</th>
<th>NS SC1200 266MHz</th>
<th>NS GX1 300MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maths-Mark</strong></td>
<td>16.7 (145%)</td>
<td>12.0 (104%)</td>
<td>11.5 (100%)</td>
</tr>
<tr>
<td><strong>Graphics 2D-Bitmaps</strong></td>
<td>28.6 (493%)</td>
<td>6.8 (117%)</td>
<td>5.8 (100%)</td>
</tr>
<tr>
<td><strong>2D Graphics mark</strong></td>
<td>51.9 (251%)</td>
<td>19.8 (96%)</td>
<td>20.6 (100%)</td>
</tr>
<tr>
<td><strong>MMX- Mark</strong></td>
<td>23.5 (284%)</td>
<td>10.4 (116%)</td>
<td>8.9 (100%)</td>
</tr>
<tr>
<td><strong>Memory Mark</strong></td>
<td>18.5 (111%)</td>
<td>13.5 (80%)</td>
<td>16.7 (100%)</td>
</tr>
<tr>
<td><strong>3D Graphics Mark</strong></td>
<td>4.1 (107%)</td>
<td>3.6 (94%)</td>
<td>3.8 (100%)</td>
</tr>
<tr>
<td><strong>PassMark Rating</strong></td>
<td>20.0 (125%)</td>
<td>12.4 (77%)</td>
<td>15.9 (100%)</td>
</tr>
</tbody>
</table>