



SI852A

Intel Celeron M solution

4-16 channels Video-In / Twin View / LAN

Processor :

- . Optimized for Intel Pentium M/Celeron M –Dothan processor for FSB 400/533MHz
- . 478-pin micro FC-PGA or 479-ball micro FC-BGA packag
- . Intel Ultra Low Voltage Celeron M CPU 600M /0K or 512K
- . Intel Pentium M CPU is offered 1.3/1.4/1.5/1.6/1.7/..serial GH
- . Low Voltage Intel Pentium M CPU is offered 1.1/1.2/1.3/..serial GHz
- . Ultra Low Voltage Intel Pentium M CPU is offered 900M/1.0/1.1GHz
- . Supports Intel Architecture with Dynamic Execution
- . On-die, primary 32KB instruction cache and 32KB write back data cache
- . On-die, 1/2MB second level cache with Advanced Transfer Cache Architecture
- . Streaming SIMD Extension 2 (SEE2) enable break-through level of performance in multimedia applications including 3Dgraphics ,video decoding/encoding , and speech recognition.
- . Support for MMX technology
- . Internet Streaming SIMD instructions and full compatibility with IA-32 software
- . Micro-op Fusion and Advanced Stack Management
- . Advanced branch prediction architecture
- . Double-precision floating-point instruction enhance performance
- . Voltage spec from IMVP- IV 0.700 to 1.708V provide CPU Vcore
- . 400/533MHz ,source-synchronous FSB
- . 2 x Address , 4 x Data ,12 deep in-order queue

System Chipset list :

Intel Mobile Chipset Intel 82852GM/82855GME and Intel 82801DB ICH4 System Chipset list:

- . CPU : Intel Celeron M 600MHz(FSB400MHz)FCBGA 479 L1 32KB ,L2 512K on board
- . MB chipset : Intel 82852GM and Intel 82801DB ICH4 Or Intel 82855GME and Intel 82801DB ICH4
- . Sound Chipset : AC97 Rev:2.1 Two channel SOUND
- . VGA chipset : Intel 8252GM/82855GME Integrated Graphics chipset
- . LAN : Intel 82541PI or Realtek RTL8100C/RTL8110SB three type optional
- . I/O : ITE IT 8712F IO
- . TV chipset : Chromtel CH7009B SDTV
- . Video in : Conexant BT 878A

On board CPU (Default) :

- . On board CPU Intel Celeron M 600MHz(FSB400MHz)FCBGA 479 L1 32KB ,L2 512K

Options select :

- . 78-pin micro FC-PGA for 479-pin Intel Pentium M processor Socket

Memory :

- . Supports two double-sided DIMM with un-buffered PC 1600/2100 DDR-SDRAM
- . Supports 64Mbit,128Mbit,256Mbit,512Mbit for x 8 and x 16 width devices
- . Maximum of 1Gbytes of system by using 512Mbit devices(double sided)
- . 852GM chipset Supports 266MHz DDR 64-bit data devices
- . 855GME chipset Supports 333 MHz DDR 72Bit data (ECC) device
- . Supports up to simultaneous open pages

Graphic / Video:

- . Internal Graphics Memory Up to 64MB of dynamic video memory allocation Display/render frequency up to 250 MHz
- . 3DvSetup and render engine , Zone rendering ,High-quality performance texture engine
- . 350MHz integrated 24-bit RAMDAC , Hardware color cursor support
- . Accompanying I2C and DDC channels provided through multiplexed interface.
- . Dual independent pipe for dual independent display
- . Simultaneous :Same images and native display timings on each display device.
- . Improved hardware motion compensation for MPEG2, all format decoder (18 ATSC formats) supported , Dynamic Bob and Weave support video streams.
Software DVD at 60 Fields/second and 30 frames / second full screen

LVDS Interface:

- . Intel 852GM/852GME chipset integrated Single or dual channel LVDS panel support up to UXGA panel resolution with frequency range from 25MHz to 112MHz per channel
- . Supports data format of 18 bits/36bits LVDS interface

Video Out:

- . TV output supporting up to 1024 x 768 graphics resolutions
- . Analog S-video for SDTV 10-bit video DAC outputs
- . Support for all NTSC and PAL formats

PCI Bus Master IDE:

- . Supports "Native Mode" register and interrupts
- . Independent timing of up to 4 drives, with separate primary and secondary IDE cable and secondary

IDE cable connectors

- . Ultra ATA 100/66/33, BMIDE and PIO modes
- . Tri-state modes to enable swap bay
- . One 40pin 2.54mm and One 44pin 2.0mm two type connectors
- . Support Compact Flash card type II for ATA interface

Audio:

- . AC-Link for Audio CODEC
- . Supports AC'97 2.1
- . Support for up to two channels of PCM audio out
- . CD-in / Mic-in / Line-in support

USB:

- . Includes three UHCI host controllers that supports all ports
- . Includes one EHCI high-speed USB 2.0 Host Controller that supports all ports
- . Three ports external and three or four internal ports
- . Supports Legacy keyboard / mouse software

IO function:

- . LPC (Low Pin Count) Interface
- . Supports Hardware Monitor Controller
- . Two ports 16C550 UARTs RS232 or other one port RS232/ RS422/RS485
- . Supports IrDA 1.0 / ASKIR protocol
- . Supports PS2 keyboard and PS2 mouse

LAN (Default Option 1 for Realtek 10/100Mb):

- . One LAN port on board Realtek RLT8100C 10T/100T base for server use.
- . Compliant to PCI-2.2 use RLT8100C chip set
- . Supports 10Mb/s and 100Mb/s Fast Ethernet
- . Supports Wake On LAN (PME) function
- . Supports Full Duplex Flow Control (IEEE 802.3x)
- . Supports PXE and RPL boot function

LAN (Option 2 for Realtek 10/100/Giga bit):

- . One LAN port on board Realtek RLT8110SB 10T/100T/Giga base for server use.
- . Compliant to PCI-2.2 use RLT8110SB chip set
- . Supports 10Mb/s and 100Mb/s and Giga bit /s Fast Ethernet
- . Supports Wake On LAN (PME) function
- . Supports Full Duplex Flow Control (IEEE 802.3x)
- . Supports IEEE 802.1P and 802.1Q for Qos use

LAN (Option 3 for Intel 10/100/Giga bit):

- . One LAN port on board Intel PI 10/100/1000 Mb/s
- . Integrated IEEE 802.3 10BASE-T and 100BASE-TX compatible
- . 32-bit PCI master interface
- . ACPI and PCI Power management standards compliance
- . Supports Full Duplex Flow Control (IEEE 802.x)
- . Intel 82541PI for Gigabit Ethernet controller

Video in:

- . Video decode use Conexant Fusion 878A
- . Supports Four ports Real-Time screen Capture frame or Four ports time sharing screen capture
- . NTSC / PAL video in type
- . Supports capture resolution up to 768 x 576 (full PAL)
- . Multiple YcrCb and RGB pixel formats and YUV planar
- . Performs complex clipping of Video source and VGA video overlay
- . Integrates advanced chroma and luma comb filter / scalers
- . Support UltraLock function

DIO and WDT function:

- . Hardware Watch Dog Timer support can programmable 0—255 sec
- . Hardware Digital Input Output provide 8 input and 8 output

Others function:

- . One Compact Flash Reader for IDE BUS ATA type II spec

Expend Interface:

- . One Min PCI socket for only PCI rev:2.2 interface

Front Connector Header:

- . One power switch for power on
- . One power LED
- . One HDD LED
- . One LAN LED
- . One Line-out Phone jack
- . One MIC-in Phone jack
- . One USB port

DC 12V in:

- . On board power DC +12V +-5% convert into system +3.3v/+12v/+5v
- . Provide embedded , IA , VOD ,VCR,DVR ,Video Capture server ,Security application

Back Panel Connectors:

- . One DC 12V in power mini din jack
- . One DB-15PIN VGA and PS2 Keyboard and Mouse port
- . Three layout connector for Two ports USB and one LAN RJ45
- . Two layout DB-9PIN COM ports
- . One port S-Video din connector
- . Four ports BNC or DB-25PIN for Video in connector

Internal connectors:

- . One DC-In 2pin (2.0mm)Wafer connector
- . One CPU socket-478pin or FCBGA CPU on board
- . One DDR-SDRAM 184pin DIMM socket
- . One LVDS 18Bits/36Bits connector
- . One 5pin (2.0mm) wafer LVDS invert power connector
- . Two 10pin(2.0mm) pin header for DIO
- . One 40 pin (2.54mm) IDE1 connector
- . One 44 pin (2.0mm) IDE2 connector
- . One 50pin CF socket

- . One 4 pin (2.54mm) CD-IN Header
- . One 4 pin (2.54mm) Line-in Header
- . Two FAN 3pin wafer for CPU and system FAN
- . One 5pin(1.25mm) IR Wafer connector
- . One 5pin (1.25mm) COM1 for touch pad Wafer connector
- . One 4pin(2.54mm)wafer for +12V/+5V power
- . One 4pin(1.25mm)wafer for I2C bus connector
- . One 4pin(1.25mm)wafer for TV out
- . One 124pin Mini PCI socket
- . One or Two 5pin (2.54mm)USB Header
- . Two 4pin (1.25mm)wafer for USB
- . One 2pin (2.54mm) Header JSW1 for Power switch
- . One 2pin (2.54mm) Header JPL1 for Power LED

BIOS

- . Award BIOS version 6.1
- . Support DMI 2.0 function
- . ACPI v1.0 compliant
- . APM v1.2 compliant
- . Windows 9x/ME/2000 Plug and play BIOS
- . Support wake up function :
 - 1.COM1 RI wake up
 - 2.RTC wake up
 - 3.LAN wake up(Realtek LAN only)

BIOS

- . Award BIOS version 6.1

Dimension

- . Light size 200 x 150 mm

Case for SI852A M/B

- . Neo
- . Twister
- . LIGHT

Order information:

Model Name	CPU	Video In
SI852A-4UR61	Intel Celeron M 600Mhz	4 x Video In , 4 x BT878 Chipset
SI852A-4HR61	Intel Celeron M 600Mhz	16 x Video In , 4 x BT878 Chipset
SI852A-4SR61	Intel Celeron M 600Mhz	4 x Video In , 1 x BT878 Chipset
SI852A-4URXX	CPU Socket on board	4 x Video In , 4 x BT878 Chipset
SI852A-4HRXX	CPU Socket on board	16 x Video In , 4 x BT878 Chipset
SI852A-4SRXX	CPU Socket on board	4 x Video In , 1 x BT878 Chipset

