



## CI852C

### Intel Celeron-M CPU Multi-Com Ports Embedded Main Board

#### Processor :

- . Optimized for Intel Pentium M/Celeron M -Dothan processor for FSB 400MHz
- . 478-pin micro FC-PGA or 479-ball micro FC-BGA package
- . Intel Ultra Low Voltage Celeron M CPU 600M
- . Intel Ultra Low Voltage Celeron M CPU 600M /0 K
- . Intel Pentium M CPU is offered 1.3/1.4/1.5/1.6/1.7/serial GHz
- . 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, 1MB 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
- . 400MHz ,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 0K on board
- . MB chipset : Intel 82852GM and Intel 82801DB ICH4 or Intel82855GME and Intel 82801DB ICH4
- . VGA chipset : Intel 8252GM/82855 Integrated Graphics chipset
- . Sound Chipset : AC97 Rev:2.1 Two channel SOUND
- . LAN : Intel 82540EM/82541GI/Realtek RTL8100C/RTL8110SB three type optional.
- . I/O : ITE IT8712F and Fintek F81216D IO
- . LVDS2 : ITE IT8712F and Fintek F81216D IO

#### **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 200MHz and 266MHz DDR 64-bit data devices
- . 855GME chipset Supports 200MHz and 266/333 MHz DDR 72Bit data (ECC) devices
- . Supports up to simultaneous open pages

#### **On board CPU (Default) :**

- . On board CPU Intel Celeron M 600MHz(FSB400MHz)FCBGA 479 L1 32KB ,L2 0K

#### **Options select :**

- . 478-pin micro FC-PGA for 479-pin Intel Pentium M processor Socket
- . 479-ball micro FC-BGA on board package

#### **LVDS-1 Interface:**

- . Intel 852/855 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 LVDS interface

#### **LVDS -2 Interface (TBD):**

- . NS DS90C2501 Transmitter with built-in scaler for LVDS display interface.  
Complies with Open LDI and GMCH DVO specification for digital display interfaces.
- . 25 to 65MHz clock in single pixel in to single pixel out operation.
- . 50 to 130 MHz clock in single pixel in to dual pixel out operation.
- . Support 24bit/48bit color TFT LCD with conventional and non-conventional color mappings.
- . Support 16bit/32bit color TFT LCD.
- . Up scaling/panel fitting supports VGA to SXGA+ output in single pixel input Mode at 640x480 ,800x600 , 1024x768 , 1400x105

#### **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

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#### **Audio:**

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

#### **USB:**

- . Includes three UHCI host controllers that support six external ports
- . Includes one EHCI high-speed USB 2.0 Host Controller that supports all Four ports
- . Supports Legacy keyboard / mouse software.

#### **IO Function:**

- . LPC (Low Pin Count) Interface
- . Supports Hardware Monitor Controller
- . Four ports 16C550 UARTs RS232 or Three ports RS232 and one port RS232/RS422/RS485
- . Two ports provide RX/RTS/TX for RS232 signal leve In/out
- . Supports IrDA 1.0 / ASKIR protocol
- . Supports PS2 keyboard and PS2 mouse

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

- . Two or 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) :**

- . Two or 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 ) :**

- . Two or one LAN port on board Intel 82540em or 82541GI 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 82540EM / 82541GI for Gigabit Ethernet controller

#### **DIO and WDT function:**

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

#### **Expend Interface (Option function):**

- . On board Industry spec PC-104 Plus Maximum can expend to four pcs PC 104 Plus card .

#### **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

#### **Others function:**

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

#### **DC 12V in (TBD for test):**

- . On board power DC +12V +-5% convert into system +3.3v/+12v/+5v

#### **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

#### **Back Panel Connectors:**

- . One DC 12V in power mini den jack
- . One DB-15PIN VGA and PS2 Keyboard and Mouse port
- . Four or Three DB-9PIN COM ports (If have PC104 plus on board the Back Panel only Three COM ports and internal One COM port pin header)
- . Two ports USB
- . Two ports LAN RJ45 jack
- . One port Line-out Phone jack (Share to front side Line out)

#### **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 LVDS1 18Bits/36Bits connector
- . One LVDS2 24Bits/48Bits connector (TBD)
- . One 5pin (2.0mm) wafer LVDS1 invert power connector
- . One 9pin(2.54mm) pin header for COM4
- . 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 or Three 5pin (1.25mm) touch pad Wafer connector
- . One 6 pin(1.25mm) internal Keyboard / Mouse Wafer connector
- . One 4pin(2.54mm)wafer for +12V/+5V power
- . One 4pin(1.25mm)wafer for I2C bus connector
- . One 120pin PCI 104 plus socket
- . One 124pin Mini PCI socket
- . One or Two 5pin (2.54mm)USB Header
- . One 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 BIOSk
- . Support wake up function :
  - 1.COM1 RI wake up
  - 2.RTC wake up
  - 3.LAN wake up

**Dimension:**

- . Light size 200 x 150 mm

**Case for CI852A M/B**

- . Neo
- . Twister
- . LIGHT

## Order information:

Model Name	CPU	Lan Ports	PC104Plus	Serial Port
CI852C-2RP60	Celeron M 600Mhz	2 x 10/100 Realtek	Yes	3 Com Ports,1( pin head on board)
CI852C-2RN60	Celeron M 600Mhz	2 x 10/100 Realtek	No	4 Com Ports

