

**5.25" SBC Intel Pentium M / Celeron M CPU with
CRT, LVDS/TV out, Dual GbE, SATA and Audio**

NOVA-6612 Quick Installation Guide

Version 1.0

Jun. 10, 2006

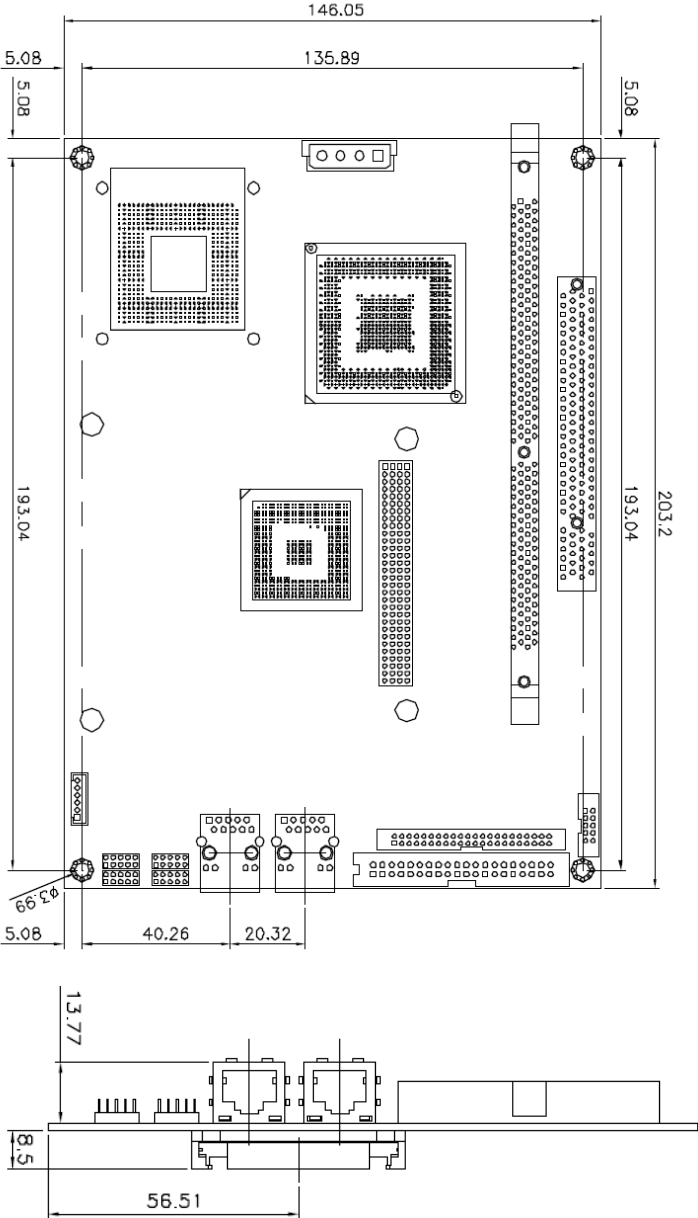
Package Contents

NOVA-6612 package includes the following items:

- 1 x NOVA-6612 single board computer
- 1 x IDE flat cable
- 1 x KB/MS cable
- 2x SATA cable
- 1x SATA Power
- 4 x RS232 cable
- 1 x Audio cable
- 1 x USB cable
- 1 x VGA cable
- 1 x mini jumper pack
- 1 x Utility CD
- 1 x QIG (quick installation guide)



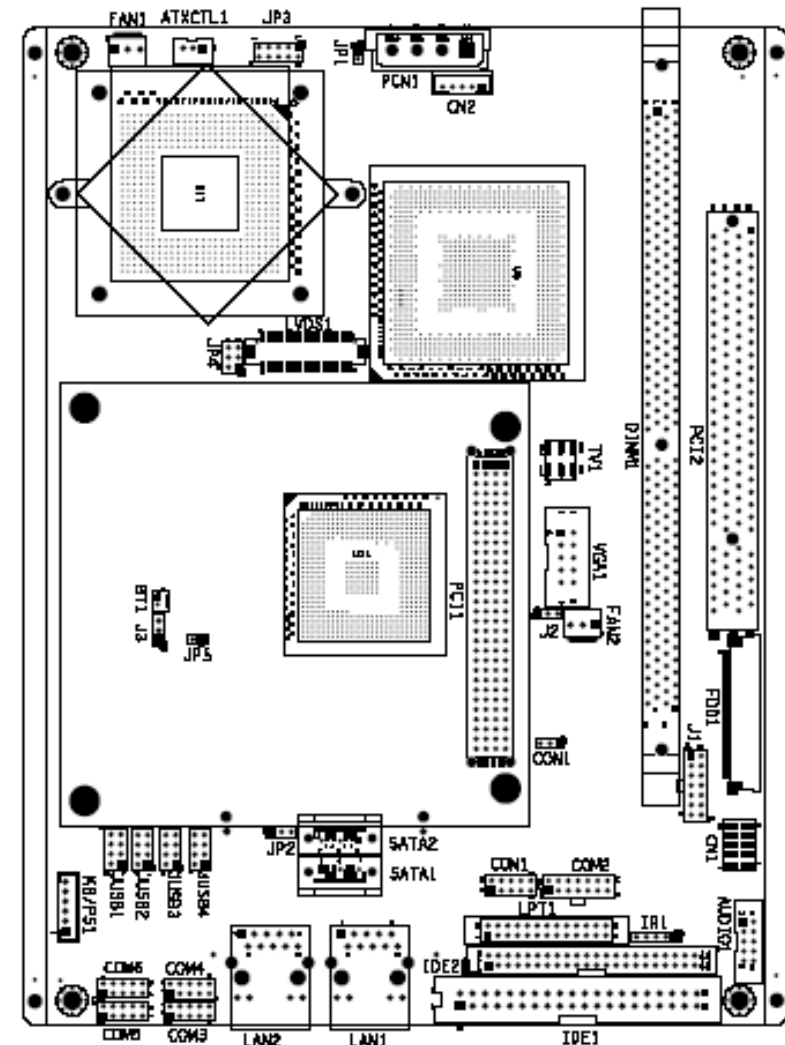
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Specifications

- CPU: Intel® Pentium® M / Celeron® M FSB 533MHz up to 2.26GHz
 - System Chipset: SiS 661CX + SiS 964
 - BIOS : AMI BIOS Label
 - System memory: 1 x 184-pin DDR400/333 SDRAM socket up to 1GB
 - Ethernet: Dual RTL8110S for GbE
 - I/O
- I/O Interface:
- 1 x CFII
 - 2 x SATA
 - 2 x IDE port
 - 1 x LPT
 - 1 x PS2 Keyboard/Mouse
 - 5 x RS-232, 1 x RS-232/422/485
 - 8 x USB 2.0 port
- Supper I/O: W83697HG
 - Display: CRT integrated in SiS 661CX
- LVDS**
Dual 24-bit LVDS integrated in SiS 302LV support dual display TV-out by SiS 302LV
- Audio: AC'97 2.3 Realtek ALC655
 - Watchdog Timer: Software programmable supports 1~255 sec. system reset
 - Power Supply:
 - +5V/ +12V, AT/ATX power support
 - Temperature: 0 ~ 60°C(32 ~ 140°F)
 - Humidity:operation: 5% ~ 95%,non-condensing
 - Dimension: 203x 146 mm

Board Layout: Jumper and Connector Locations



VGA1: 10-pin CRT Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RED	2	DDCCLK
3	GREEN	4	DDCDAT
5	BLUE	6	GROUND
7	HSYNC	8	GROUND
9	VSYNC	10	GROUND

LVDS1: LCD LVDS Interface Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	LVDS0+	4	LVDS0-
5	LVDS1+	6	LVDS1-
7	LVDS2+	8	LVDS2-
9	LVDSCLK+	10	LVDSCLK-
11	LVDS3+	12	LVDS3-
13	GND	14	GND
15	LVDSB0+	16	LVDSB0-
17	LVDSB1+	18	LVDSB1-
19	LVDSB2+	20	LVDSB2-
21	LVDSBCLK+	22	LVDSBCLK-
23	LVDSB3-	24	LVDSB3-
25	GND	26	GND
27	VCCLCD	28	VCCLCD
29	VCCLCD	30	VCCLCD

JP3: boundary scan test			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	CPU_TCK	2	GND
3	CPU_TMS	4	GND
5	CPU_TD0	6	GND
7	CPU_TDI	8	GND
9	TRST	10	NC

Ordering Information

Standard

NOVA-6612G2-R10

5.25" SBC Intel® Pentium® M / Celeron® M processor FSB 533MHz, CRT, LVDS/TV out, Dual GbE, SATA and Audio

Optional:

CPU Cooler P/N: CF-479B-RS

TV Out cable P/N: P/N: 19800-000056-RS

ATX Power cable P/N:32100-052100-RS

RS-232/422/485 cable P/N: 32200-026500-RS

Jumpers setting and Connectors

JP1:CPU Voltage Setting	
PIN	DESCRIPTION
Open	400
Close	533

JP5:CPU FSB Setting	
Pin	DESCRIPTION
Open	400
Close	533

J3: Clear CMOS Setup	
J3	DESCRIPTION
2-3	Normal Operation
1-2	Clear CMOS Setup

J2: PCI104_PLUS Voltage setup	
Pin	DESCRIPTION
1-2	5V
2-3	3V

JP2: CF card setup	
PIN	DESCRIPTION
1-2	Master
2-3	Slave

JP4: LCD voltage setup	
PIN	DESCRIPTION
1-2	3.3V
3-4	5V
5-6	12V

CON1: RS232/RS422/RS485 setup	
PIN	DESCRIPTION
1-2	RS232
2-3	RS422/RS485

J1 System Panel Connectors			
PIN	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC5	2	VCC5
3	VCC5	4	IDE_LED
5	GND	6	PWRBTN#
7	VCC5	8	GND
9	X	10	RESET#
11	X	12	GND
13	SPEAKER		X

COM1,COM3,COM4,COM5,COM6: Serial Port Connector			
PIN	DESCRIPTION	PIN NO.	DESCRIPTION
1	DCD1	6	DSR1
2	RX1	7	RTS1
3	TX1	8	CTS1
4	DTR1	9	RI1
5	GND	10	NC

COM2: Serial Port Connector			
PIN	DESCRIPTION	PIN NO.	DESCRIPTION
1	DCD2	6	DSR2
2	RX2	7	RTS2
3	TX2	8	CTS2
4	DTR2	9	RI2
5	GND	10	NC
6	TX+	13	TX-
7	RX+	14	RX-

JUSB1,JUSB2,JUSB3,JUSB4: USB Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	USBVCC1	2	GND
3	D1F-	4	D2F+
5	D1F+	6	D2F-
7	GND	8	USBVCC1

CN1: 8 BIT GPIO Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	VCC5
3	GPO0	4	GPO1
5	GPO2	6	GPO3
7	GPI0	8	GPI1
9	GPI2	10	GPI3

KB/PS1: PS/2 Keyboard & Mouse Connector	
PIN	DESCRIPTION
1	VCC5
2	MOUSE DATA
3	MOUSE CLK
4	KEYBOARD DATA
5	KEYBOARD CLK
6	GND

ATXCTL1: ATX Power connector	
PIN	DESCRIPTION
1	PSON
2	GND
3	5VSB

IR1:IR	
PIN	DESCRIPTION
1	VCC5
2	CIRRX
3	RX
4	GND
5	TX

AUDIO1:Audio Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	Line out R	2	SPKOUT R
3	GND	4	GND
5	Line out L	6	SPKOUT L
7	GND	8	GND
9	MIC in	10	NC

TV :TV1			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	IOY
3	GND	4	IOC
5	GND	6	ICCOMP

CN2: INV Interface Connector	
PIN	DESCRIPTION
1	Briness
2	GROUND
3	INV VCC
4	GROUND
5	LCDBKTCT

FAN1,FAN2 :Fan Connector	
PIN	DESCRIPTION
1	Fan Speed Detect
2	+12V
3	GND