

**EPIC with Inter® Core Duo/Solo Processor, SATAII, Dual
PCIe GbE,CFII, IDE, USB 2.0 and Audio**

NANO-9452

Quick Installation Guide

Version 1.0

Sep. 21, 2007

Package List

NANO-9452 package includes the following items:

- 1 x NANO-9452 single board computer
- 2 x RS-232 Cable
- 1 x IDE Cable
- 1 x SATA Power cable
- 2 x SATA cable
- 1 x Power cable
- 1 x KB/MS cable
- 1 x mini jumper pack
- 1 x Utility CD
- 1 x QIG (quick installation guide)



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Specifications

- CPU: Socket 479 Intel® Core™ 2 Duo, Core™ Duo/Solo with 667 MHz FSB
Intel celeron M 533MHz FSB(Yonah core)
- System Chipset: Intel® 945GM + ICH7M
- BIOS: AMI BIOS
- System memory
 - 1x 200-pin SO-DIMM DDR2 400/533/667 MHz up to 1GB
- Ethernet: Dual PCIe Broadcom BCM5787 GbE chipsets with ASF2.0 remote control support
- I/O
 - 6 x USB 2.0
 - 2 x SATAII
 - 1 x IDE
 - 3 x RS-232
 - 1 x RS-232/422/485
 - 1 x PS/2 for KB/MS
 - 1 x LPT
 - 1 x CFII
- Expansion: 1 x PCI-104 (PCI Bus)
- Super I/O: IT8712F
- Digital I/O: 8 bit digital I /O,4-bit input/ 4 output by super I/O
- Audio
 - 5.1 channel audio kit with Realtek ALC655 AC'97 codec
 - 7.1 channel HD audio kit with Realtek ALC883 codec supports dual audio streams
- Display Integrated
 - VGA Integrated in Intel® 945GM
 - NTSC/ PAL TV Out
 - 480p/720p/1080i/1080p HDTV-out
 - 18 bit dual channel LVDS
- WDT: Software programmable 1-255 sec. by super I/O
- Power supply: 12V only, AT/ATX support

- Power Consumption
+12V@3.01A
(Intel Core 2 Duo 2.0GHz, 1GB 533MHz DDRII)
- Temperature: Operation:0~60°C(32~140°F)
- Humidity: Operation:5%~95% non-condensing
- Dimension: 165mm x 115mm

Ordering Information

NANO-9452-R10

EPIC SBC Intel® Core 2 Duo, Core Duo/ Core Solo FSB 667MHz with VGA/LVDS/HDTV-out,Daul PCIe GbE ,SATAII and Audio

32000-044300-RS: USB Cable

32100-052100-RS: ATX Power cable

32200-000077-RS: RS-232/422/485 Cable

32200-000017-RS: LPT Cable

32000-083701-RS: HDTV Cable

CF-479B-RS: CPU cooler

AC-KIT-883HD: 7.1 Channel HD Audio Kit with Realtek ALC883 Support
Daul Audio Streams

AC-KIT08R: 5.1 Channel Audio Kit with Realtek ALC655

Jumpers setting and Connectors

J_CMOS1 : Clear CMOS Setup	
J_CMOS1	DESCRIPTION
1-2 (default)*	Keep CMOS Setup (Normal Operation)
Short 2-3	Clear CMOS Setup

JCF1 : configure CF Card type	
JCF1	DESCRIPTION
OFF (default)	Slave
Short 1-2	Master

JP1 : configure COM2 Mode	
JP1	DESCRIPTION
Short 1-2 (default)	RS - 232
Short 3-4	RS - 422
Short 5-6	RS - 485

J_VLVDS1 : Set The Panel Voltage	
J_VLVDS1	DESCRIPTION
1-2 (default)*	Set The Voltage Level Of Panel To VCC3
Short 2-3	Set The Voltage Level Of Panel To VCC

JP2 : VIO Voltage select	
JP2	DESCRIPTION
Short 1-2	VCC
Short 2-3	VCC3

CPU_FAN1 : CPU Fan Connector	
PIN	DESCRIPTION
1	Rotation Signal
2	+12V
3	Ground

INVERTER1: Panel Power Supply	
PIN	DESCRIPTION
1	BRIGHTNESS
2	GND1
3	12V
4	GND2
5	BL_EN

ATXCTL1 : ATX Connector	
PIN	DESCRIPTION
1	GND
2	PS_ON#
3	5VSB

COM2 : Internal Serial Port Connector ‘		
PIN	DESCRIPTION	
1	DATA CARRIER DETECT	(DCD)
2	DATA SET READY	(DSR)
3	RECEIVE DATA	(RXD)
4	REQUEST TO SEND	(RTS)
5	TRANSMIT DATA	(TXD)
6	CLEAR TO SEND	(CTS)
7	DATA TERMINAL READY	(DTR)
8	RING INDICATOR	(RI)
9	GND	(GND)
10	N/C	
11	TXD485+	
12	TXD485#	
13	RXD485+	
14	RXD485#	

JP3 : VIO Voltage select	
JP3	DESCRIPTION
OFF	None
Short 1-2	Support

IR1: IrDA connector	
PIN	DESCRIPTION
1	VCC
2	NC
3	IR-RX
4	GND
5	IR-TX

LPT1 : Parallel Port Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	STROBE#	14	AUTO FORM FEED #
2	DATA0	15	ERROR#
3	DATA1	16	INITIALIZE#
4	DATA2	17	PRINTER SELECT LN#
5	DATA3	18	GND
6	DATA4	19	GND
7	DATA5	20	GND
8	DATA6	21	GND
9	DATA7	22	GND
10	ACKNOWLEDGE#	23	GND
11	BUSY	24	GND
12	PAPER EMPTY	25	GND
13	PRINTER SELECT	26	N/C

COM3 & COM4 : Internal Serial Port Connectors		
PIN	DESCRIPTION	
1	DATA CARRIER DETECT	(DCD)
2	DATA SET READY	(DSR)
3	RECEIVE DATA	(RXD)
4	REQUEST TO SEND	(RTS)
5	TRANSMIT DATA	(TXD)
6	CLEAR TO SEND	(CTS)
7	DATA TERMINAL READY	(DTR)
8	RING INDICATOR	(RI)
9	GND	(GND)
10	N/C	

LVDS1: LVDS Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND1	2	GND2
3	A_Y0	4	A_Y0#
5	A_Y1	6	A_Y1#
7	A_Y2	8	A_Y2#
9	A_CK	10	A_CK#
11	N.C.	12	N.C.
13	GND3	14	GND4
15	B_Y0	16	B_Y0#
17	B_Y1	18	B_Y1#
19	B_Y2	20	B_Y2#
21	B_CK	22	B_CK#
23	N.C.	24	N.C.
25	GND5	26	GND6

USB01, USB23: Internal USB Connector			
USB01, USB23			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	GND
3	DATA-	4	DATA+
5	DATA+	6	DATA-
7	GND	8	VCC

KB1: 6-pin Mini-DIN Keyboard/Mouse Connector	
PIN	DESCRIPTION
1	VCC
2	Mouse Data
3	Mouse Clock
4	Keyboard Data
5	Keyboard Clock
6	GND

CN1 & CN2 : +12V MAIN POWER Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	GND
3	+12V	4	+12V

CN3 : +5V Power Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	GND

J_AUDIO1 : Audio Source Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	AC97_SYNC	2	AC97_BITCLK
3	AC97_SDOUT	4	AC97_PCBEEP
5	AC97_SDIN	6	AC97_RST#
7	AC97_VCC	8	AC97_GND
9	AC97_12V	10	AC97_GND

TV1: Video output for television			
S-Video Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	AGREEN_Y
3	GND	4	ARED_C
RCA Connector (only video signal)			
5	GND	6	ABLUE_CVBS

DIO1 : Digital Input / Output Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	Ground	2	VCC
3	Output 3	4	Output 2
5	Output 1	6	Output 0
7	Input 3	8	Input 2
9	Input 1	10	Input 0

IR1: IrDA connector	
PIN	DESCRIPTION
1	VCC
2	NC
3	IR-RX
4	GND
5	IR-TX

F_PANEL1 : PWR & RST Buttons and Indicators panel					
	PIN	DESCRIPTION	PIN	DESCRIPTION	
PWRBTN	1	PWRBTSW-	2	VCC	Power LED
	3	GROUND	4	GROUND	
HDD LED	5	VCC	6	SYSRST-	RESET
	7	-HDLED	8	Ground	

Board Layout: Jumper and Connector Locations



