

EPIC SBC supports Socket G1 for Intel® Core i7/i5/i3 mobile processor, Dual DVI, PCIe GbE, USB2.0, Mini PCIe, SATAII and Audio

NANO-QM57A

Quick Installation Guide

Version 1.0

JUL. 05. 2010

Package Contents

NANO-QM57A package includes the following items

- 1 x NANO-QM57A Single Board Computer
- 1 x Power Cable
- 2 x RS-232 Cable
- 1 x Audio Cable
- 1 x SATA with 5V output cable
- 1 x DVI-I to VGA adapter
- 1 x Mini Jumper Pack
- 1 x QIG(Quick Installation Guide)
- 1 x Utility CD



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Specifications

- CPU: Intel Socket G1 Arrandale and Celeron mobile processor support
- System Chipset: Intel® QM57
- BIOS: AMI BIOS
- System Memory:
One 204pin 800/1066MHz DDR3 SO-DIMM slot, up to 4GB
- Graphic: Intel Gen 5.75 with 12 Execution Units DirectX10, OpenGL 2.1
- Display Output:
Support Dual DVI Display: One DVI-I (DVI-D + VGA), One DVI-D
- Ethernet: One Intel WG82577LM PCIe LAN controller (with iAMT 6.0)
- Super I/O: Fintek F81801U
- I/O Interface:
8 x USB 2.0
2x RS-232
1 x Front Panel
2 x SATA II with RAID 0, 1 support
- Expansion:
1 x Mini PCIe card slot support
- Audio: Realtek ALC888 HD Audio Codec
- Watchdog Timer:
Software programmable supports 1~255sec System reset
- FAN Connector:
1x4pin CPU FAN Connector,
1x3pin System FAN Connector
- Power Supply:
12V only, AT/ATX support by jumper,
- Power Consumption:
12V@4.66A (Intel® Core i7-620M 2.66G, DDR3 2GB/1333MHz)
- Temperature:
Operating: -20 ~ 60°C
- Humidity: Operating: 5% ~ 95%, non-condensing
- Dimensions: 165mm x 115mm
- Weight: GW:850g, NW:350g

Ordering Information

NANO-QM57A-R10: EPIC SBC supports Socket G1 for Intel® Core i7/i5/i3 mobile CPU, Dual DVI, PCIe GbE, USB2.0, Mini PCIe, SATAII and Audio

CF-989A-RS-R11: Socket G1 Intel® Core i7/i5/i3 mobile CPU Cooler

32000-070301-RS: Dual port USB cable

32100-088600-RS: SATA Power Cable

32000-062800-RS: SATA CABLE;2; 500MM;26AWG;(A)SATA 7PIN 180°+LOCK *2

32000-112000-RS: SATA CABLE;;3;150MM;26AWG;(A)SATA7+15PIN; (B)SATA 7P 90°+LOCK; (C) JST PHR-2 P=2.0

32000-023800-RS: KB/MS CABLE;3;135MM;28AWG;(A)JST PHR-6 P=2.0;(B)MINI DIN 6P FEMALE;(C)MINI DIN 6P FEMALE

Connector /Jumper List

LABEL	FUNCTION
J_CMOS1	Clear CMOS Setup
J_ATXCTL1	ATX/AT MODE
J_AUTOPWR1	AT Auto Button
ME_RTC1	Clear ME Setup
JP1	ME Flash Descriptor Security Override
JSPI1	Update BIOS Connector
LAN1	Ethernet Connector
USB0_1 USB2_3	External USB0/1/2/3 Connectors
USB4_5 USB6	Internal USB4/5/6 Pin Headers
COM1,COM2	RS-232
VIDEO1/ VIDEO2	DVI Connector
CPU_FAN3	CPU Fan Connector
SYS_FAN1	System Fan Connector
KB_MS1	Keyboard & Mouse Connector
CN5,CN6	SATA POWER Connector
S_ATA1/S_ATA2	Serial ATA Connectors
F_PANEL1	Power button / Reset / Power LED / HDD LED
AUDIO1	Audio Connector
PWR2	Power Input Connector
BAT1	Battery Connector

J_CMOS1 :Clear CMOS Setup	
PIN	DESCRIPTION
1-2	Normal Operation
2-3	Clear CMOS Setup

J_ATXCTL1: ATX/AT MODE	
PIN	DESCRIPTION
1-2	ATX MODE
2-3	AT MODE

J_AUTOPWR1: AT Auto Button	
PIN	DESCRIPTION
open	ATX Mode
short	AT Mode

ME_RTC1:Clear ME Setup	
PIN	DESCRIPTION
1-2	Normal Operation
2-3	Clear ME Setup

JP1: ME Flash Descriptor Security Override	
PIN	DESCRIPTION
OPEN	Flash Descriptor Security effect
SHORT	Flash Descriptor Security Override

JSPI1: Update BIOS Connector Wafer 1x6pin P=1.25

PIN	DESCRIPTION	PIN	DESCRIPTION
1	+3.3V	2	SPI_CS#0_CN
3	SPI_SO0_CN	4	SPI_CLK0_CN
5	SPI_SI0_CN	6	GND
7	GND	8	GND

LAN1:Ethernet Connector

PIN	DESCRIPTION	PIN	DESCRIPTION
1	LAN1_MDI0P	2	LAN1_MDI0N
3	LAN1_MDI1P	4	LAN1_MDI1N
5	+VCT_LAN1	6	GND
7	LAN1_MDI2P	8	LAN1_MDI2N
9	LAN1_MDI3P	10	LAN1_MDI3N
11	LAN_LED_100#	12	LAN_LED_1000#
13	LAN_LED_LNK#_ACT	14	VCC
15	GND	16	GND

USB0_1 & USB2_3: USB PORT*2, 8PIN,90D

PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	5	VCC
2	DATA0/2-	6	DATA1/3 -
3	DATA0/2+	7	DATA1/3+
4	GND	8	GND

USB4_5: PIN HEADER 2*4 8PIN 180D,P=2.0mm

PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	GND
3	DATA4-	4	DATA5+
5	DATA4+	6	DATA5-
7	GND	8	VCC

USB6: PIN HEADER 2*4 8PIN 180D,P=2.0mm			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	GND
3	DATA6-	4	DATA7+
5	DATA6+	6	DATA7-
7	GND	8	VCC

COM1/COM2:RS232			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	-NDCD4/2R	2	-NDSR4/2R
3	NSIN4/2R	4	-NRTS4/2R
5	NSOUT4/2R	6	-NCTS4/2R
7	-NDTR4/2R	8	-XRI4/2R
9	GND	10	GND

VIDEO1/ VIDEO2:DVI Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	HDMI_DATA2#--2/1_L	2	HDMI_DATA2-2/1_L
3	GND	4	NC
5	NC	6	VDDCLK-1/2
7	VDDCDA-1/2	8	VSYNC-1/2
9	HDMI_DATA1#--2/1_L	10	HDMI_DATA1-2/1_L
11	GND	12	NC
13	NC	14	+V5S
15	GND	16	HDMI_HPD-2/1
17	HDMI_DATA0#--2/1_L	18	HDMI_DATA0-2/1_L
19	GND	20	NC
21	NC	22	GND
23	HDMI_CLK-2/1_L	24	HDMI_CLK#--2/1_L
25	GND	26	GND
C1	BR-1/2	C2	BG-1/2
C3	BB-1/2	C4	HSYNC-1/2
C5	GND		

CPU_FAN3:4Pin Fan Connector	
PIN NO.	DESCRIPTION
1	GND
2	+12V
3	FANIO1
4	FANOUT1

SYS_FAN1: 3Pin Fan Connector	
PIN NO.	DESCRIPTION
1	NC
2	+12V
3	GND

KB_MS1:Keyboard & Mouse 6pin JST 2.0mm Connector	
PIN NO.	DESCRIPTION
1	VCC5V
2	MSDATA
3	MSCLK
4	KBDATA
5	KBCLK
6	GND

CN5,CN6: SATA POWER Connector (WAFER 1*2 WITH FRAME,2PIN,180D,P=2.0mm)			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+5VS	2	GND

S_ATA1/2: SATA WITH FRAME,7PIN,180D			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	5	SATA_RX0/1-_C
2	SATA_TX0/1+_C	6	SATA_RX0/1+_C
3	SATA_TX0/1-_C	7	GND
4	GND		

F_PANEL1: Power button / Reset / Power LED / HDD LED

PIN	DESCRIPTION	PIN	DESCRIPTION
1	PWRBTN_SW#	2	PWR LED
3	GND	4	GND
5	SATA LED PWR	6	Reset
7	SATA_LED#	8	GND

AUDIO1

PIN	DESCRIPTION	PIN	DESCRIPTION
1	LINEOUT-R	2	LINEIN-R
3	GND	4	GND
5	LINEOUT-L	6	LINEIN-L
7	GND	8	GND
9	MIC1-R	10	MIC1-L

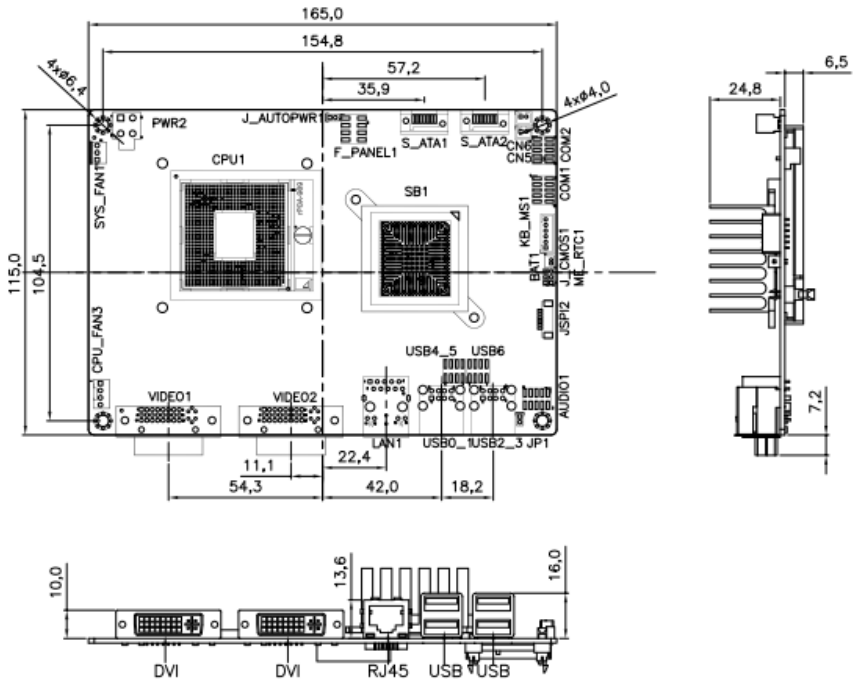
**PWR2: 4P Power Connector
ATX 2*2,4PIN,180D,P:4.2mm**

PIN NO.	DESCRIPTION
1	GND
2	GND
3	+12V
4	+12V

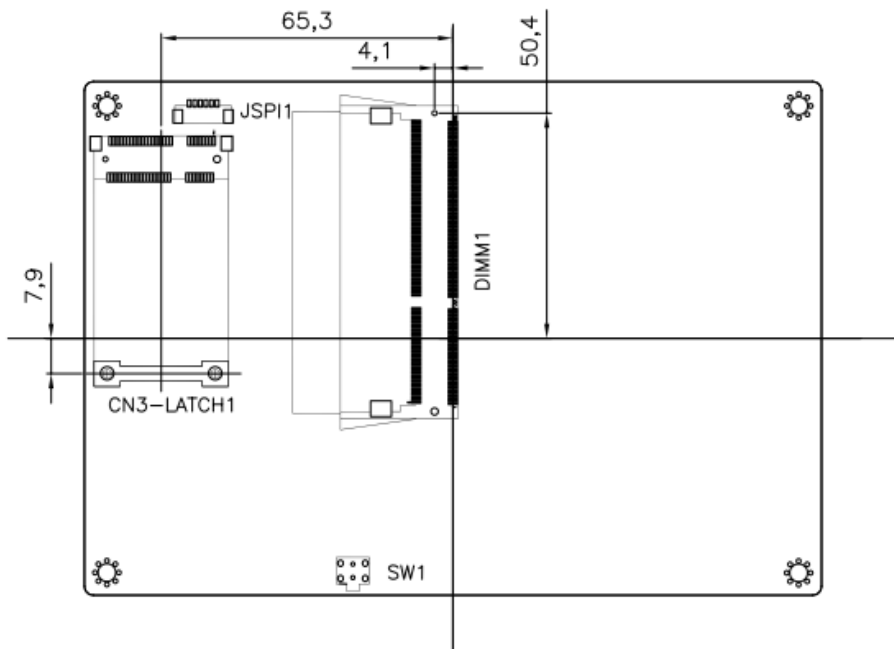
BAT1:WAFER 1*2PIN,2PIN,180D,P:1.25MM

PIN	DESCRIPTION
1	VBAT
2	GND

Board Layout: Jumper and Connector Locations (Unit: mm)



Unit: mm



Unit: mm