MX57QM

Intel® Core™ i3, i5, i7 Mobile
Socket 989 Arrandale Processors Support

User's Quick Start Card Version 1.0 **http://www.bcmcom.com**

Inspect the Package:

One **MX57QM Motherboard**
One **Standard I/O Shield**
One **CPU Cooler**
Two **COM Port Cables**
Two **SATA Cables**
One **Driver CD**
One **User's Quick Start Card**

MX57QM

CPU Cooler

COM Port Cables

I/O Shield

Responsibility:

This manual is provided "As-Is" with no warranties of any kind, expressed or implied, including, but not limited to the implied warranties or conditions of this product's fitness for any particular purpose. In no event shall we be liable for any loss of profits, loss of business, loss of data, interruption of business, or indirect, special, incidental, or consequential damages of any kind, even the possibility of such damages arising from any defect or error in this manual or product. We reserve the right to modify and update the user manual without prior notice.

WARNING: CMOS Battery Damage

Replace your system's CMOS RAM battery only with the identical CR-2032 3V Lithium-Ion coin cell (or equivalent) battery type to avoid risk of personal injury or physical damage to your equipment. Improper installation might cause battery to explode. Always dispose of used batteries according to the manufacturer's instructions, or as required by the local ordinance (where applicable). The damage due to not following this warning will void your motherboard's manufacturer warranty.

Perchlorate Material- Special Handling May Apply.
See http://www.dtsc.ca.gov/hazardouswaste/perchlorate/

Additional Information:

Additional information on setting this board up can be found in the User's Manual in the provided CD or DVD ROM. The Online User's Manual and FAQ/Knowledge Base can be found on our website by visiting our website: **http://www.bcmcom.com**. If your question is not answered in our FAQ/Knowledge Base, visit our forums and post your messages or submit a new FAQ through FAQ Submittal form for us to add your question in our FAQ with our answer.

ATTENTION: Incorrect BIOS Setup

If you do not know how to handle BIOS setup or how to set it up properly, it is strongly advisable that you do not modify any of the settings than otherwise instructed in the User's Quick Start Card. Even a seemingly small incorrect adjustment or modification in the BIOS setup can render your system unstable or unusable. Incorrect BIOS setup is not covered by your motherboard's manufacturer warranty. Try Clear CMOS information when system does not boot after BIOS settings change.

WARNING: Electrostatic Sensitive Device (ESD)

Static electricity can easily damage your motherboard and will void your motherboard warranty. Keep the motherboard and other system components in their anti-static packaging until you are ready to install them. Touch a grounded surface before you remove any system component from its protective anti-static packaging. Unpacking and installation should be done on a grounded, anti-static mat. The operator should be wearing an anti-static wristband, grounded at the same points as the anti-static mat. During configuration and installation touch a grounded surface frequently to discharge any static electrical charge that may have built up in your body. Avoid touching the components when handling the motherboard or a peripheral card. Handle the motherboard and peripheral cards either by the edges or by the peripheral card case-mounting bracket.

WARNING: Misplaced Jumper Damage

Incorrect jumpers and connectors settings may lead to damage to your motherboard and will void your motherboard warranty. Please pay special attention to not connect these headers in the wrong direction. DO NOT change ANY jumpers while the motherboard has power.

Jumpers

Label	Function
PCIE_JP1	Mini PCIE Rev1.1 & 1.2 Mode Selection
COMS1	Clear CMOS Selection
JP2	Backlight Enable Selection
JP3	Backlight Power Selection
JP5	Power Mode Selection
JP6	COM3 Signal / Power Selection
JP7	COM1 Signal / Power Selection
JP8	COM2 Signal / Power Selection
JP9	COM6 Signal / Power Selection
JP10	COM4 Signal / Power Selection
JP11	COM5 Signal / Power Selection

Connectors & Headers

Label	Function
DIMM1	DDR3 Memory SO-DIMM Socket
DIMM2	DDR3 Memory SO-DIMM Socket
CPU_FAN1	CPU FAN Wafer
CHA_FAN1	SYSTEM FAN Wafer
MPCIE1	PCIE x 1 Slot
IR1	IrDA Pin Header
LVDS1	LVDS Panel Pin Header
BL1	Panel Backlight Wafer
ATXPWR1	24-pin ATX Power Input Connector
CN1	Debug port Connector
COM2	RS-232 Port 2 Box Header
COM3	RS-232 Port 3 Box Header
COM4	RS-232 Port 4 Box Header
COM5	RS-232 Port 5 Box Header
COM6	RS-232 Port 6 Box Header
SATA1	Serial ATA Connector
SATA2	Serial ATA Connector
SATA3	Serial ATA Connector
SATA4	Serial ATA Connector
SATA5	Serial ATA Connector (The fifth SATA connector signals share with Mini-PCIe slot,)
USB1	USB2.0 Port 4, 5 Pin Header
USB2	USB2.0 Port 8, 9 Pin Header
AMP_L1	Left Channel 2W Audio AMP Output Wafer
AMP_R1	Right Channel 2W Audio AMP Output Wafer
PCIE1	PCIExpress X16 Slot
SPDIF1	S/PDIF Pin Header
DIO1	16-bits DIO Connector (8-bits Input and 8-bits Output)
BZ1	Buzzer
FP1	Front Panel 1 Pin Header
FP2	Front Panel 2 Pin Header
FP3	Front Panel Audio Pin Header
CF1	CF socket

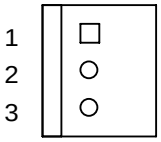
Internal Connector Pin Assignment

CPU_FAN1 CPU FAN Wafer

Pin	Signal
1	GND
2	+12V
3	FAN_CPU_TACH
4	FAN_CPU_CTRL

Pitch: 2.54mm FOXCONN HF2704E-M1

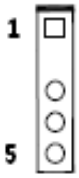
CHA_FAN1 SYSTEM FAN Wafer



Pin	Signal
1	GND
2	+12V
3	HW_FANIN1

Pitch: 2.54mm WAFER [YIMTEX 521AW1*03STR]

IR1 IrDA remote control Wafer



Pin	Signal Name
1	+5v
2	NC
3	IRRX
4	GND
5	IRTX

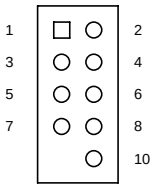
Pitch:2.54mm [YIMTEX 3321*05SAGR(6T)-02]

SATA1, SATA2, SATA3, SATA4, SATA5 Serial ATA Connector

Pin	Signal Name
1	GND
2	TX+
3	TX-
4	GND
5	RX-
6	RX+
7	GND

SATA CONNECTOR BLUE [FOXCONN LD1807V-S52U]

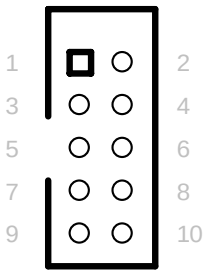
USB1,USB2 USB Pin Header



Pin	Signal Name	Pin	Signal Name
1	+5V	2	+5V
3	USB2-	4	USB3-
5	USB2+	6	USB3+
7	GND	8	GND
9	KEY	10	GND

Pitch:2.54mm [YIMTEX 3322*05SAGR(6T) -09]

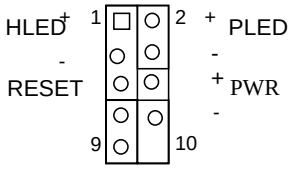
COM2,COM3,COM4,COM5,COM6 RS-232 Box Header



Pin	Signal
1	DCD, Data carrier detect
2	RXD, Receive data
3	TXD, Transmit data
4	DTR, Data terminal ready
5	GND, ground
6	DSR, Data set ready
7	RTS, Request to send
8	CTS, Clear to send
9	RI, Ring indicator
10	NC

Pitch:2.0mm WAFER [Chyao-Shiunn JS-2008A-2x05-HK]

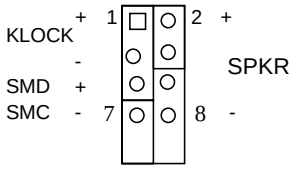
FP1 Front Panel 1 Pin Header



Pin	Signal	Pin	Signal
1	HDD LED +	2	Power LED +
3	HDD LED -	4	Power LED -
5	Reset Button +	6	Power Button +
7	Reset Button -	8	Power Button -
9		10	[KEY]

Pitch:2.54mm [YIMTEX 3322*05SAGR(6T)]

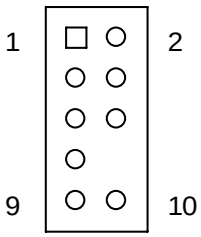
FP2 Front Panel 2 Pin Header



Pin	Signal	Pin	Signal
1	Keyboard Lock	2	Speaker +
3	GND	4	NC-
5	SMBus Data	6	NC
7	SMBus Clock	8	Speaker +

Pitch:2.54mm [YIMTEX 3322*04SAGR(6T)]

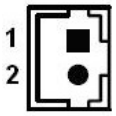
FP3 Digital Input / Output Pin Header



Pin	Signal	Pin	Signal
1	MIC_L	2	GND
3	MIC_R	4	ACZ_DET#
5	LIN_R	6	MIC_JD
7	SENSE	8	NC
9	LIN_L	10	LINE_JD

Pitch:2.54mm [YIMTEX 3322*05SAGR(6T)]

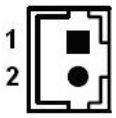
AMP_R1 Audio AMP Right Output Wafer



Pin	Signal Name
1	Speaker+
2	Speaker-

Pitch:2.0mm WAFER [YIMTEX 503PW1*02STR]

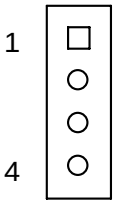
AMP_L1 Audio AMP Left Output Wafer



Pin	Signal Name
1	Speaker+
2	Speaker-

Pitch:2.0mm WAFER [YIMTEX 503PW1*02STR]

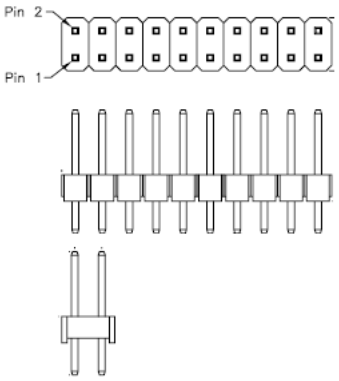
SPDIF1 S/PDIF Pin Header



Pin	Signal Name
1	S/PDIF In
2	GND
3	S/PDIF Out
4	GND

Pitch:2.54mm [YIMTEX 3321*04SAGR(6T)]

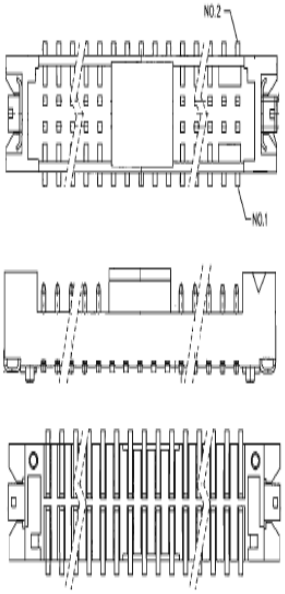
DIO1 Digital Input / Digital Output Pin Header



Pin	Signal	Pin	Signal
1	+5V	2	GND
3	DO0	4	DI0
5	DO1	6	DI1
7	DO2	8	DI2
9	DO3	10	DI3
11	DO4	12	DI4
13	DO5	14	DI5
15	DO6	16	DI6
17	DO7	18	DI7

DIP 18P 2R MALE STRAIGHT TYPE Pitch:2.54mm [PINREX 210-92-09GB01]

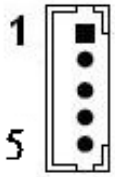
LVDS1 Channel 1 LVDS Connector



Pin	Signal Name	Pin	Signal Name
1	+3.3V	2	+5V
3	+3.3V	4	+5V
5	DDC_CLK	6	DDC_DATA
7	GND	8	GND
9	LVDS0_DATA1	10	LVDS0_DATA0
11	LVDS0_DATA#1	12	LVDS0_DATA#0
13	GND	14	GND
15	LVDS0_DATA3	16	LVDS0_DATA2
17	LVDS0_DATA#3	18	LVDS0_DATA#2
19	GND	20	GND
21	LVDS1_DATA1	22	LVDS1_DATA0
23	LVDS1_DATA#1	24	LVDS1_DATA#0
25	GND	26	GND
27	LVDS1_DATA3	28	LVDS1_DATA2
29	LVDS1_DATA#3	30	LVDS1_DATA#2
31	GND	32	GND
33	LVDS1_CLK	34	LVDS0_CLK
35	LVDS1_CLK#	36	LVDS0_CLK#
37	GND	38	GND
39	+12V	40	+12V

Pitch:1.25mm [HOMETOM WF40H6-7GJA074]

BL1 LVDS Backlight Inverter Wafer

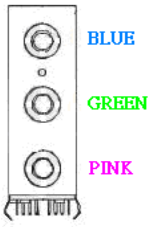


Pin	Signal Name
1	Backlight Control
2	GND
3	Backlight Power
4	Backlight Power
5	Backlight Enable

Pitch:2.0mm [YIMTEX 503PW1*05STR]

Rear Panel Connector List

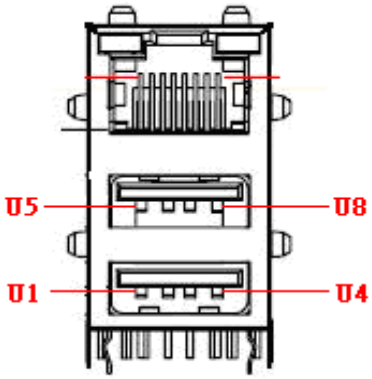
AUDIO1 Audio Phone Jack



	Signal Name
BLUE	LINE IN
GREEN	LINE OUT
PINK	MIC IN

AUDIO JACK*3 DIP Vertical [Foxconn JA33331-H11P-4F]

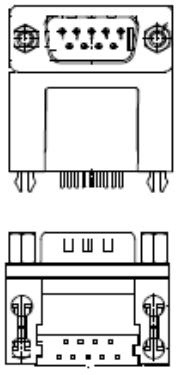
LAN1, LAN2 RJ-45 + USB Port-0&1 Connector



Pin	Signal	Pin	Signal
1	VCC	12	Yellow LED
2	D0+	13	Green LED#
3	D0-	14	Orange LED#
4	D1+	U1	USB_PWR
5	D1-	U2	USB_N0
6	D2+	U3	USB_P0
7	D2-	U4	GND
8	D3+	U5	USB_PWR
9	D3-	U6	USB_N1
10	GND	U7	USB_P1
11	Yellow LED#	U8	GND

USB*2/RJ45*1+TFM+LED(10/100/1000)22P DIP 90° [UDE RU1-161F9WGF(XB)]

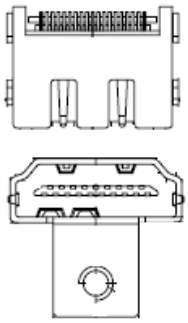
COM1 RS-232 DB-9 Connector



Pin	Signal
1	DCD, Data carrier detect
2	RXD, Receive data
3	TXD, Transmit data
4	DTR, Data terminal ready
5	GND, ground
6	DSR, Data set ready
7	RTS, Request to send
8	CTS, Clear to send
9	RI, Ring indicator

D-SUB 9P 90D (M) with HEX screw [FEN YING D20H1P00B112AE31N0]

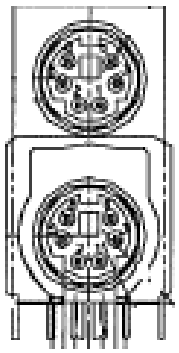
Hdmi1 Connector



Signal Name	Pin	Pin	Signal Name
TMD_DATA2+	1	2	GND
TMD_DATA2-	3	4	TMD_DATA1+
GND	5	6	TMD_DATA1-
TMD_DATA0+	7	8	GND
TMD_DATA0-	9	10	HDMI_TCLP
GND	11	12	HDMI_TCLN
NC	13	14	NC
DDC_CLK	15	16	DDC_DATA
GND	17	18	+5V
HPDET	19		

HDMI right angle with screw hole, SMD 90° 19pin [WIN WIN WHDM-19F3L1BF3U4]

PS-KBMS1 Internal PS/2 Keyboard & Mouse

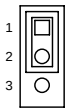


Pin	Signal Name	Pin	Signal Name
1	KB_DATA	2	NC
3	GND	4	KB_PWR
5	KB_CLK	6	NC
7	MS_DATA	8	NC
9	GND	10	KB_PWR
11	MS_CLK	12	NC
13	GND	14	GND
15	GND	16	GND

DIP 6/6P MH11061-P36-4F 90D(F) Kb/Ms for PC99 CONNECTOR [FOXCONN]

Jumper Settings

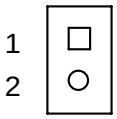
PCIE_JP1 Mini PCIE Version Selection



Jumper	Status
1-2 (Default)	MPCIE Rev1.1
2-3	MPCIE Rev1.2

Pitch: 2.0mm [YIMTEX 3291*03SAGR(6T)]

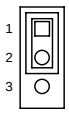
COMS1 Clear CMOS Selection



Jumper	Status
Open (Default)	Normal Operation
Short	Clear CMOS

Pitch: 2.54mm [YIMTEX 3321*02SAGR(6T)]

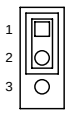
JP2 Backlight Enable Selection



Jumper	Status
1-2 (Default)	High Active
2-3	Low Active

Pitch: 2.0mm [YIMTEX 3291*03SAGR(6T)]

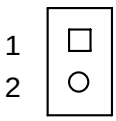
JP3 Backlight Power Selection



Jumper	Status
1-2 (Default)	+12V
2-3	+5V

Pitch: 2.0mm [YIMTEX 3291*03SAGR(6T)]

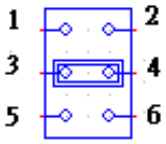
JP5 Power mode Selection



Jumper	Status
Open (Default)	ATX Mode
Short	AT Mode

Pitch: 2.54mm [YIMTEX 3321*02SAGR(6T)]

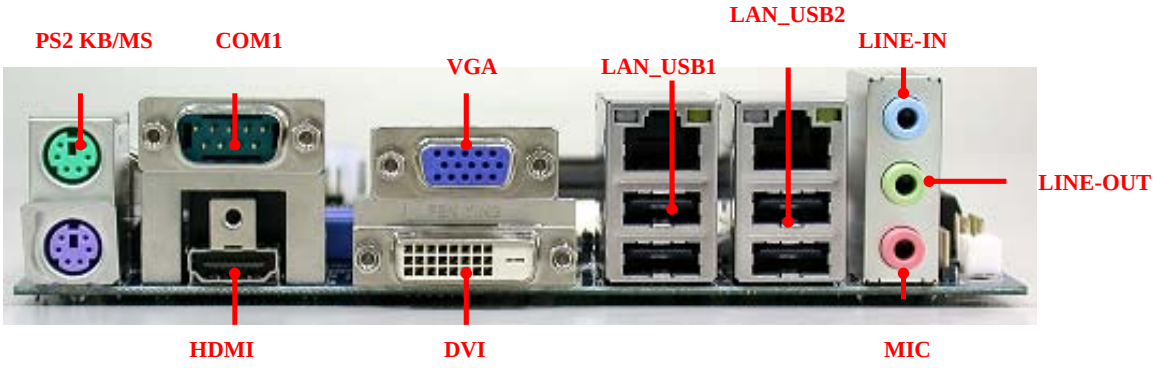
JP6 –JP11 COM1-6 Signal / Power Selection

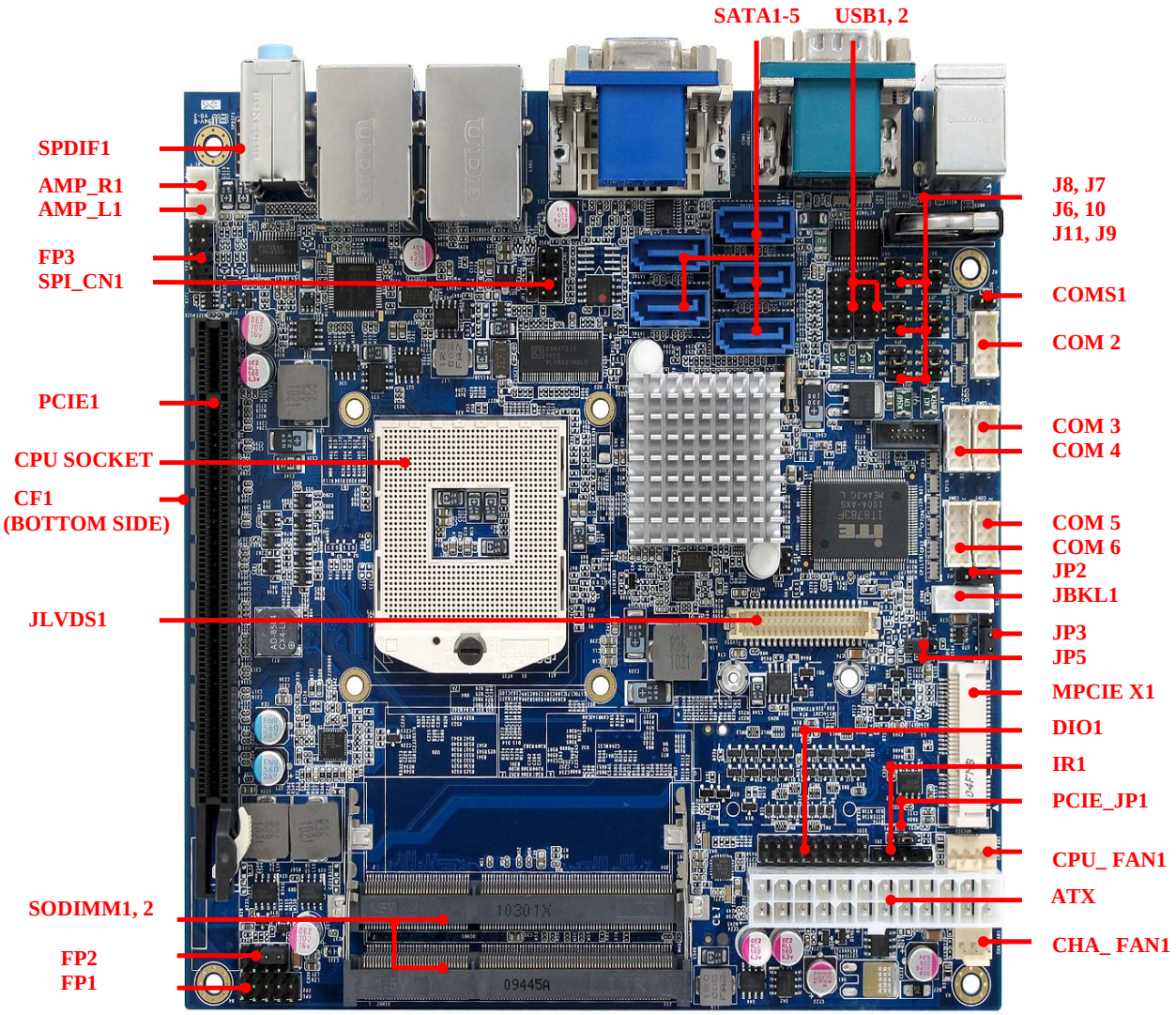


Jumper	Status
1-2	Pin 9 of COM3 = +12V
3-4 (Default)	Pin 9 of COM3 = RI
5-6	Pin 9 of COM3 = +5V

Pitch: 2.0mm [PINREX 222-97-03GBB1]

Motherboard Layout:

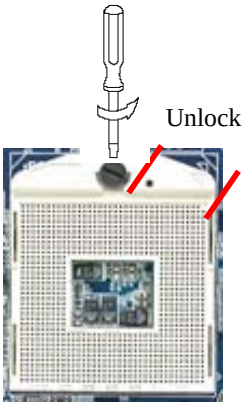


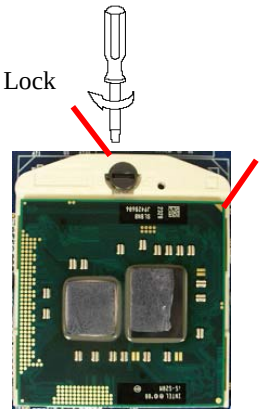


CPU Installation

This processor is intended to be professionally installed. Take proper electrostatics discharge (ESD) precautions such as using appropriate ground strips, gloves, and ESD mats.

- Insert CPU into CPU socket and turn the screw to the lock position.



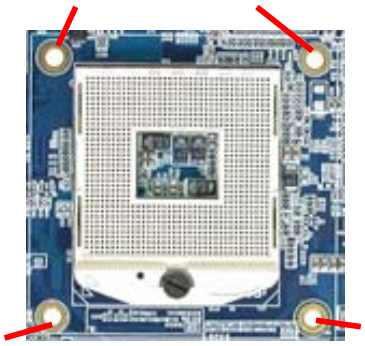


Note: Do not force the CPU into the socket. It may bend the pins and damage the CPU.

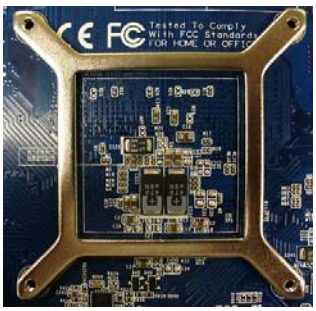
Installing the CPU Cooler

- -Insert the retention bracket through the screw hole from bottom side of motherboard.
  -Match and place CPU cooler assembly on the top of CPU and retention bracket.
  -Tighten the screws into the retention bracket.

Screw holes

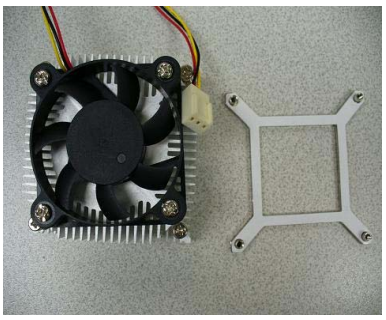


Retention bracket



(rear side)

CPU cooler & Retention bracket



Note: Make sure CPU cooler assembly and CPU top surface are in total contact to avoid CPU overheating problem which would cause the system to hang or unstable.