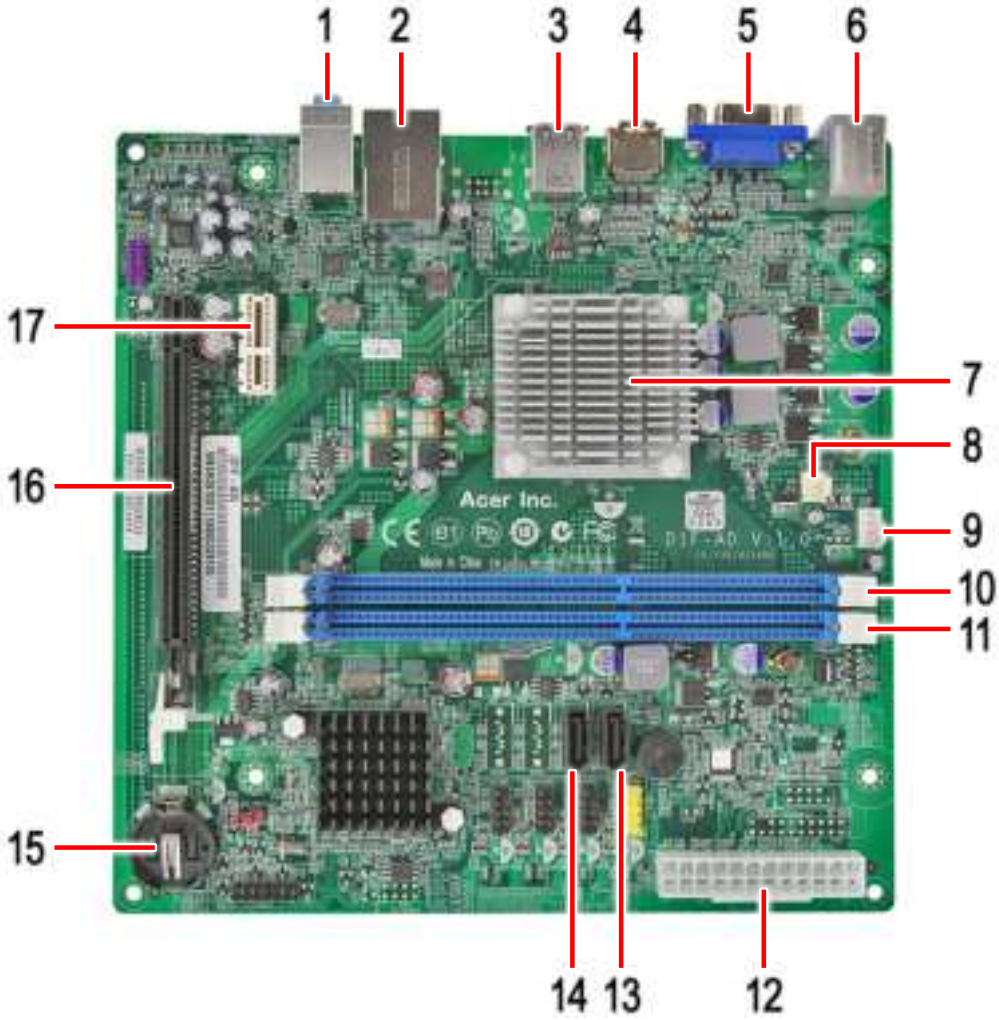
Mainboard Layout

This section shows the major mainboard components.



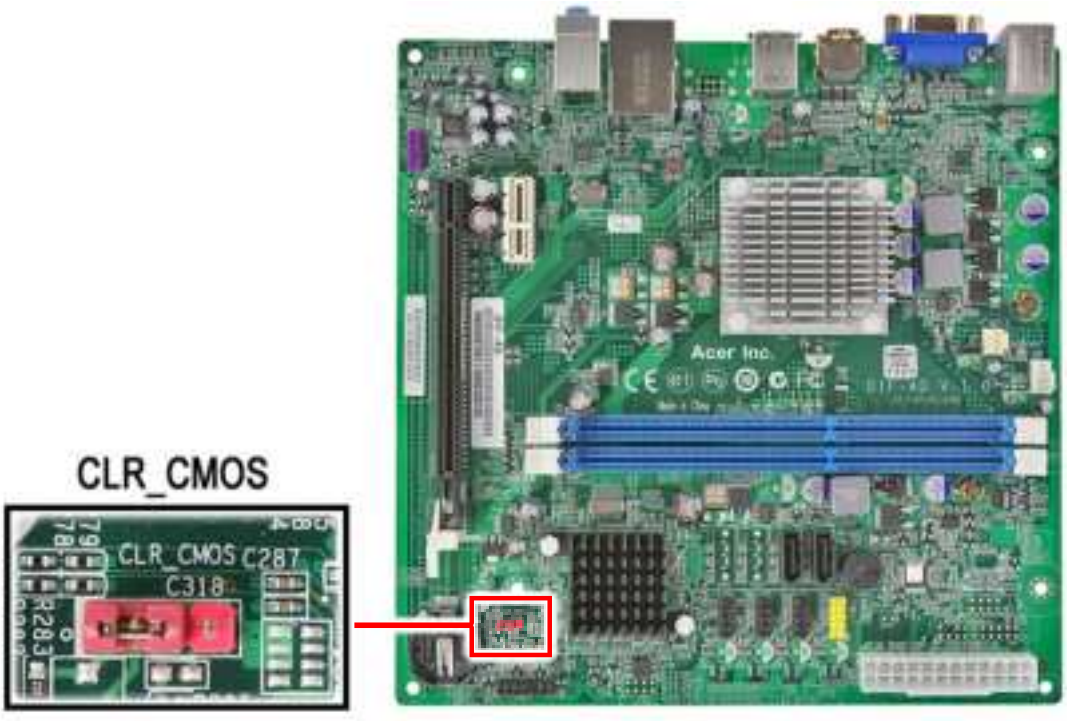
No.	Label	Description	No.	Label	Description
1	AUDF1	Front panel audio jack header	10	DIMM1	DDR3 240-pin slot 1
2	USBLAN1	RJ45+USB connectors	11	DIMM	DDR3 240-pin slot 2
3	USB2	USB connectors	12	ATX_POWER1	Standard 24-pin power connector
4	HDMI1	HDMI connector	13	SATA1	Serial ATA connector 1
5	VGA1	VGA connector	14	SATA2	Serial ATA connector 2
6	PSKM1	Keyboard and mouse connectors	15	BAT1	Battery holder
7	CPU1	Processor socket	16	PCIEX16	PCIEX16 Slot
8	CPU_FAN1	CPU cooling fan connector	17	PCIEX1	PCIEX1 36-pin slot
9	SYSFAN9	System fan connector			

Jumper Setting

This section explains how to set the jumper for correct configuration of the main board.

Jumpers with more than one pin are numbered. When setting a jumper, ensure that the jumper caps are placed on the correct pins.

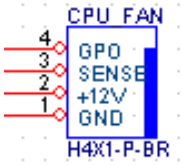
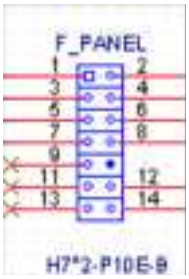
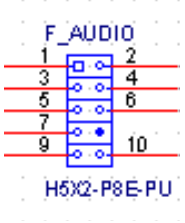
The following illustration shows the location of CLR_CMOS.



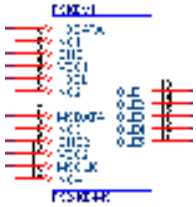
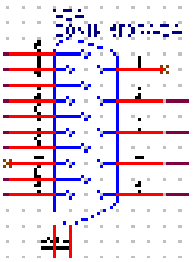
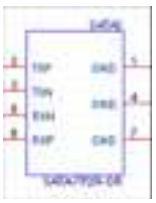
The following table shows the settings of the 3-pin CLR_CMOS jumper. Place the jumper cap on pins 1 and 2 to close or short the jumper. Place the jumper cap on pins 2 and 3 to open or clear the jumper.

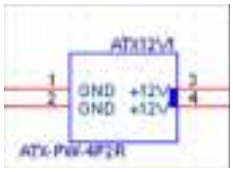
Jumper	Type	Description	Setting (default)	
CLR_CMOS	3-pin	Clear CMOS	1-2: Close (default) 2-3: Open Before clearing the CMOS, make sure to turn off the system.	

Internal header pin definition

Header Name	Function	Definition
	CPU FAN HEADER	1: GND 2: +12V 3: SENSE 4: PWM CONTROL
	FRONT PANEL HEADER	1: SATALED+ 2: ACPI_LED 3: SATALED- 4: PWR_LED 5: GND 6: PWR_SW 7: RESET 8: GND 9: NC 10: Key 11: NC 12: VCC 13: NC 14: -ACTIVE_C
	FRONT USB HEADER	1: USBVCC_1 2: USBVCC_1 3: USB0_XN 4: USB1_XN 5: USB0_XP 6: USB1_XP 7:GND 8: GND 9: KEY 10: GND
	FRONT USB HEADER	1: USBVCC_2 2: USBVCC_2 3: USB2_XN 4: USB4_XN 5: USB2_XP 6: USB4_XP 7:GND 8: GND 9: KEY 10: GND
	FRONT AUDIO HEADER	1: PORT-F_L 2: AUGND 3: PORT-F_R 4: FRONT_AUD_DET 5: PORT-E_R 6: MIC2_JD 7: AUGND 8: KEY 9: PORT-E_L 10: LINE2_JD

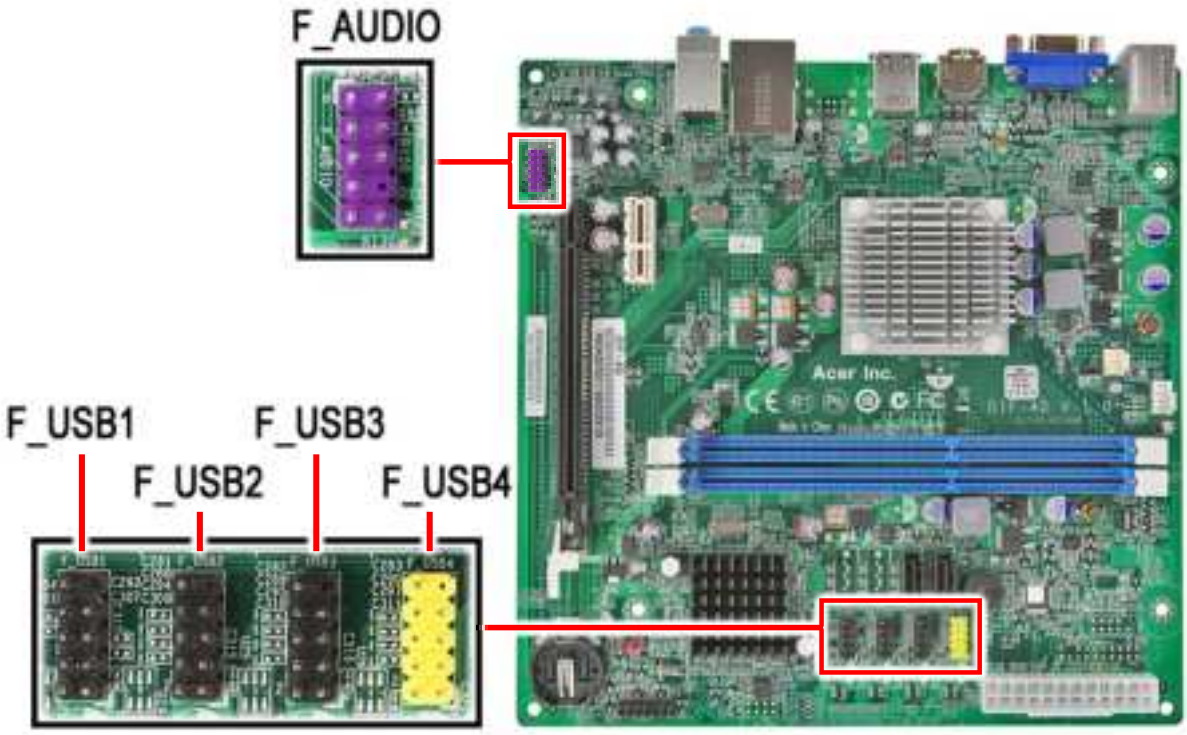
Connector pin definition

Header Name	Function	Definition
	PSKBMS CONN	1: KBDATA 2: NC 3: GND 4: KBVCCSB 5: KBCLK 6: NC 7: MSDATA 8: NC 9: GND 10: KBVCCSB 11: MSCLK 12: NC 13: GND 14: GND 15: GND 16: GND 17: GND
	VGA CONN	1: RED 2: GREEN 3: BLUE 4,11: NC 9: HDMIVCC 12: VDAC_SDAT 13: HSYNC 14: VSYNC 15: VDAC_SCLK 5,6,7,8,10,16,17: GND
	SATA CONN	1: GND 2: SATA0_TX_P 3: SATA0_TX_N 4: GND 5: SATA0_RX_N 6: SATA0_RX_P 7: GND
	SATA CONN	1: GND 2: SATA1_TX_P 3: SATA1_TX_N 4: GND 5: SATA1_RX_N 6: SATA1_RX_P 7: GND
	ATX_POWER CONN	1:VCC3 13:VCC3 2:VCC3 14:-12V 3: GND 15:GND 4:VCC 16:ATX_PSON_L 5:GND 17:GND 6:VCC 18:GND 7:GND 19:GND 8:ATX_PWRGD 20:NC 9:5VSB 21VCC 10:+12V 22:VCC 11:+12V 23:VCC 12:VCC3 24:GND

Header Name	Function	Definition
	ATX12V CONN	1: GND 2: GND 3: +12V_4P 4: +12V_4P

Connecting Optional Devices

Refer to the following for information on connecting the mainboard's optional devices:



SATA1~2: Serial ATA connectors

These connectors are used to support the new Serial ATA devices for the highest datatransfer rates (3.0 Gb/s), simpler disk drive cabling and easier PC assembly. It elimi-nates limitations of the current Parallel ATA interface. But maintains register com-patibility and software compatibility with Parallel ATA.

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

F_AUDIO: Front Panel Audio header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal Name	Pin	Signal Name
1	PORT 1L	2	AUD_GND
3	PORT 1R	4	PRESENCE#
5	PORT 2R	6	SENSE1_RETURN
7	SENSE_SEND	8	KEY
9	PORT 2L	10	SENSE2_RETURN

F_USBF1~4: Front Panel USB headers

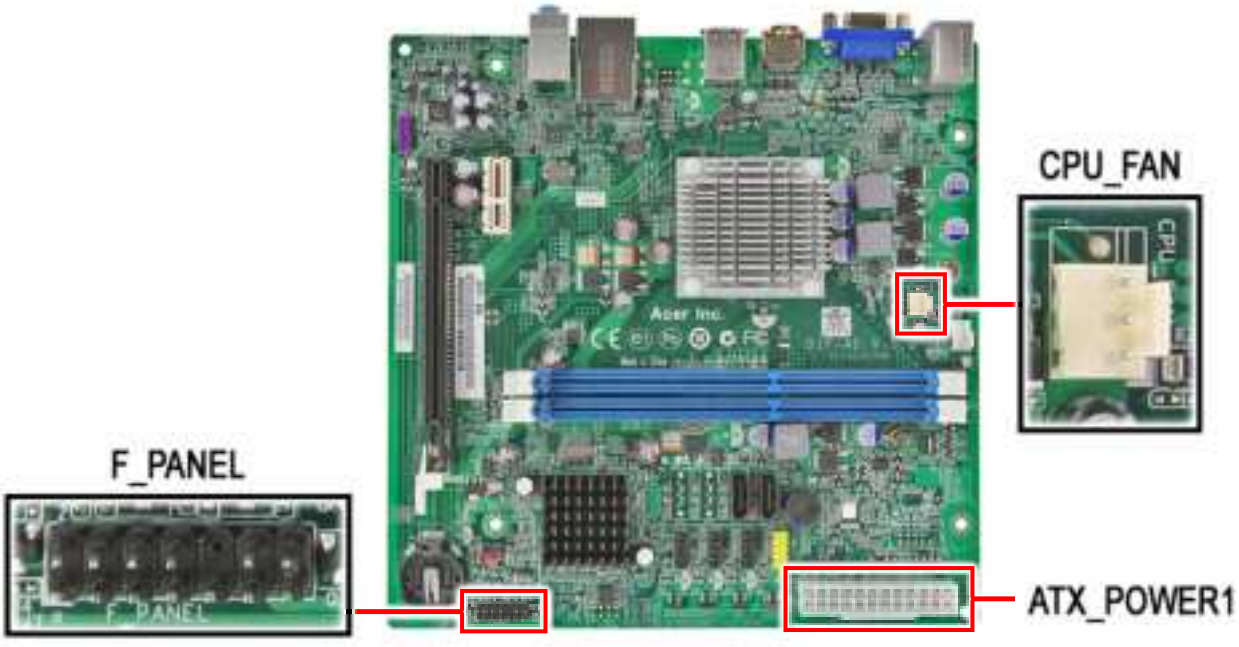
The mainboard has four USB ports installed on the rear edge I/O port array and two at the front panel. For the front panel USB ports, you have to use the auxiliary USB connector to connect the front-mounted ports to the mainboard.

Pin	Signal Name	Function
1	USBPWR	Front Panel USB Power
2	USBPWR	Front Panel USB Power
3	USB_FP_P0-	USB Port 0 Negative Signal
4	USB_FP_P1-	USB Port 1 Negative Signal
5	USB_FP_P0+	USB Port 0 Positive Signal
6	USB_FP_P1+	USB Port 1 Positive Signal
7	GND	Ground
8	GND	Ground
9	Key	No pin
10	USB_FP_OC0	Overcurrent signal

Connecting Case Components

After you have installed the mainboard into a case, you can begin connecting the mainboard components. Refer to the following:

1. Connect the CPU cooling fan cable to CPU_FAN.
2. Connect the standard power supply connector to ATX_POWER1.
3. Connect the case switches and indicator LEDs to the F_PANEL.



CPU_FAN: CPU Cooling Fan Power Connector

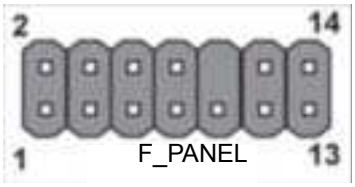
Pin	Signal Name	Function
1	GND	System ground
2	+12V	Power +12V
3	Sense	Sensor
4	PWM	PWM

ATX_POWER1: ATX 24-pin Power Connector

Pin	Signal Name	Pin	Signal Name
1	+3.3V	13	+3.3V
2	+3.3V	14	-12V
3	Ground	15	Ground
4	+5V	16	PS_ON
5	Ground	17	Ground
6	+5V	18	Ground
7	Ground	19	Ground
8	PWRGD	20	-5V
9	+5VSB	21	+5V
10	+12V	22	+5V
11	+12V	23	+5V
12	+3.3V	24	Ground

F_PANEL: Front Panel Header

The front panel header (F_PANEL) provides a standard set of switch and LED headers commonly found on ATX or micro-ATX cases. Refer to the table below for information:



Pin	Signal Name	Function	Pin	Signal Name	Function
1	VCC	Reset Switch (+)	2	GLED0	*MSG LED (+)
3	HDD_LEDN	Hard disk LED (-)	4	GLED1	*MSG LED (-)
5	GND	Reset Switch (-)	6	PWRSW	Power Switch (+)
7	HWRST_L	Reset Switch (+)	8	GND	Power Switch (-)
9	F_PANEL_DET	Reserved	10	KEY	No pin
11	NC	Reserved	12	VCC	Reset Switch (+)
13	NC	Reserved	14	F_LAN_LED	Reset Switch (+)