

# MITX-BYT70 Motherboard

## User Manual V2.1

Edition Statement:		
Version	Version Description	Release date
V2.0	Initial version	2017/03/27
V2.1	Delete description of Wake On Lan.	2018/03/01

## Chapter 1 Product Introduction

### 1.1 Parameters

**Platform:** Onboard Intel Bay Trail-D Celeron J1800(2.41GHz, dual-core, TDP10W)

Onboard Intel Bay Trail-D Celeron J1900(2.0GHz, quad-core , TDP10W)

**System memory:** Single channel DDR3L-1333MHz slot up to 8GB

**GPU:** Integrated Intel HD Graphics.

**Storage:** 1 x SATA2.0, 1 x mSATA.

**USB:** 8 x high-speed USB interfaces(one port supports USB3.0).

**Display:** 1 x VGA, 1 x eDP, supports dual display.

**Ethernet:** 1 x RTL8111F LAN.

**Expansion:** 1 x Mini-PCIe(supports WIFI, supports 3G/4G network with SIM card slot)

**Audio:** ALC662, supports Speaker-out, MIC-in, SPDIF and dual channel audio power amplifier.

**I/O:** IT Super I/O chip, 6 x COM, 1 x LPT.

**Other I/O interfaces:** 8 x GPIO, PS/2(KB /MS).

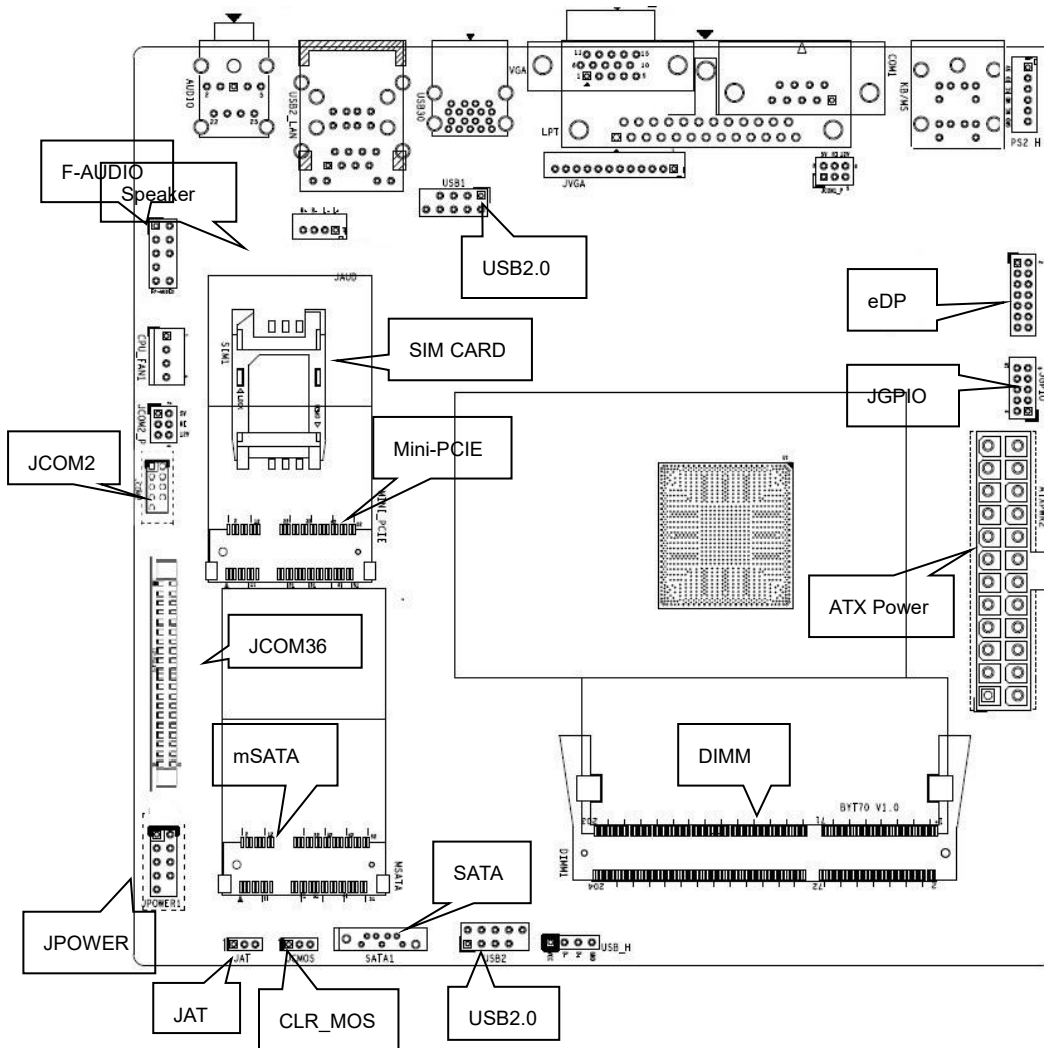
**Dimension:** 170mm x 170mm.

**Power:** ATX power.

**Temperature:** -40℃~60℃.

## Chapter 2 Hardware

### 2.1 Graphic description



**⚠** Please read this manual carefully before you connect an external connector, so as to avoid damage to the board.

**2.1.1 Jumper Function Setting**

Set jumpers according to your needs before installing hardware.

Tips about how to identify the first header of jumpers and interfaces: 1. Observe the mark beside plugs, the first header is usually marked by “1” or bold line or triangular symbol; 2. The first header is the square pad of pads on the back; 3. There is a white arrow beside the first header of all jumpers.

**2.1.2 System Memory**

There is a DDR3L-1333MHZ SO-DIMM slot on the board up to memory of 8GB and voltage is 1.35V.

**2.1.3 Internal Display Interfaces (eDP, JVGA)**

1 x 14-pin HDMI, 1 x 12-pin VGA(optional).

**JHDMI:**

Signal	Pin		Signal
EDP_TX0_DP	1	2	EDP_TX1_DP
EDP_TX0_DN	3	4	EDP_TX1_DN
GND	5	6	GND
EDP_AUXP	7	8	EDP_DETECT
EDP_AUXN	9	10	EDP_BKLON_R
GND	11	12	EDP_BKLADJ_
EDP-PANEL2	13	14	EDP_PANEL1
GND	15	16	GND
+12V	17	18	+12V

**JVGA:**

Pin	Signal
1	CRT_DDC_DATA
2	CRT_DDC_CLK
3	GND
4	VGA_B_R
5	GND
6	VGA_G_R

7	GND
8	VGA_R_R
9	GND
10	CRT_HSYNC1
11	CRT_VSYNC1
12	VGA_DVI_5V

**2.1.4 Internal USB (USB1, USB2)**

Internal USB pin is USB2.0 Port

**USB1, USB2:**

Signal	Pin		Signal
5V	1	2	5V
USB DATA-	3	4	USB DATA-
USB DATA+	5	6	USB DATA+
GND	7	8	GND
	9	10	NUL

**2.1.5 LAN**

With gigabit Ethernet chip RTL8111F, the board can support 1 x RJ45. it supports Wake On LAN.

**RJ45 LAN LED Description:**

LILED(green)	Function	ACTLED (yellow)	Function
On	Connected	Flicker	Data transmission

**2.1.6 Audio (FP\_AUDIO, JAUD, JSPIF)**

ALC662 audio control chip. The green one is Speaker-out and the pink one is Mic-in, FP\_AUDIO is for Speaker-out and MIC-in at front panel, JAUD is for amplifier output, JSPIF is for SPDIF-out.

**FP\_AUDIO:**

Signal	Pin		Signal
MIC2-L	1	2	AGND
MIC2-R	3	4	AVCC
FRO-R	5	6	MIC2-JD
F-IO-SEN(AGNG)	7	8	NC
FRO-L	9	10	LIN2-JD

**JAUD:**

Pin	Signal
1	L+
2	L-
3	R-
4	R+

**JSPIF:**

Pin	Signal
1	+5V
2	SPDIF Out
3	GND

**2.1.7 COM (COM1 , JCOM2, JCOM36, JCOM1\_P, JCOM2\_P)**

6 x RS232. COM1 is a standard interface at rear panel(DB-9). JCOM1\_P and JCOM\_2 provide voltage (5V/12V optional) for COM1 and JCOM2.

**JCOM2:**

Signal	Pin		Signal
DCD#	1	2	RXD
TXD	3	4	DTR#
GND	5	6	DSR#

RTS#	7	8	CTS#
RI#	9	10	(blank)

**JCOM36:**

Signal	Pin		Signal
DCD#	1	2	RXD
TXD	3	4	DTR#
GND	5	6	DSR#
RTS#	7	8	CTS#
RI#	9	10	(NC)
DCD#	11	12	RXD
TXD	13	14	DTR#
GND	15	16	DSR#
RTS#	17	18	CTS#
RI#	19	20	(NC)
DCD#	21	22	RXD
TXD	23	24	DTR#
GND	25	26	DSR#
RTS#	27	28	CTS#
RI#	29	30	(NC)
DCD#	31	32	RXD
TXD	33	34	DTR#
GND	35	36	DSR#
RTS#	37	38	CTS#
RI#	39	40	(NC)

**JCOM1\_P/JCOM2\_P:**

Interface	Setting	Function
1-2	Close	5V
3-4	Close	RI
5-6	Close	12V

**⚠**Do not connect three sets of COM at the same time or the board will be damaged.

**2.1.8 LPT**

1 x LPT. Customers can connect it to equipment like printer.

**2.1.9 JGPIO**

One 2x5-Pin JGPIO, 8 programmable I/O interfaces

Signal	Pin		Signal
GPI_S5_0	1	2	1.8V
GPI_S5_1	3	4	GPO_S5_6
GPI_S5_2	5	6	GPO_S5_7
GPI_S5_3	7	8	GPO_S5_8
GND	9	10	GPO_S5_9

**2.1.10 SATA and mSATA (SATA1, mSATA)**

1 x SATA2.0 and 1 x mSATA.

**2.1.11 Mini-PCIE (MINI-PCIE, SIM1)**

1 x Mini-PCIE, supports Wifi. If 3G/4G card is loaded, it will support 3G/4G network.

**2.1.12 PS/2\_H**

Onboard standard PS/2 interface, PS/2\_H is allowed to connect PS/2 equipment, but customers can not connect equipment with standard interface and PS/2\_H at the same time.

**PS/2\_H:**



Pin	Signal
1	+5V
2	KB_DATA
3	KB_CLK
4	MS_DATA
5	MS_CLK
6	GND

### 2.1.13 Front Panel Control Interface (JPOWER1)

Front panel control interface is to connect function buttons and indication lights on the front panel.

#### JPOWER1:

Signal	Pin		Signal
HDD_LED+	1	2	PWR_LED+
HDD_LED-	3	4	PWR_LED-
RSTBTN+	5	6	PWR_ON+
RSTBTN-	7	8	PWR_ON-
NUL	9	10	

### 2.1.14 Auto Power On (JAT)

Short-circuit the 1st and 2nd pin of the jumper, then it will work.

#### JAT:

Pin	Setting	Function
1-2	Close	AUTO START
2-3	Close	NC

 **Attention:** The function of the jumper is similar to that of Restore AC Power Loss in BIOS. When the

latter is set to be “power on”, the function will automatically work.

### 2.1.15 JCMOS

CMOS is powered by the button battery on the board. Clearing CMOS will permanently clear previous system setting and restore it to factory setting.

**Steps:** 1. Power the computer off;

2. Connect CLR\_MOS first and second pin via the jumper cap for 3-5 secs, and disconnect;

3. Turn the computer on, and press <Del> to enter BIOS setting, overload the best default value;

4. Save and exit.

#### JMOS:

Pin	Setting	Function
1-2	Close	CLR CMOS
2-3	Close	NC

 Do not clear CMOS when the computer is connected to power.