# K-B68TP

## v1.0

1.
2.                              -20   <=            <=60       80%RH

3

4.
5.
6.                                                    ,

## K-B68TP

Intel Bay trial                               J1800/J1900 SOC
ITX              170*170mm          1    DDR3 SO-DIMM                    4GB
1080p                    HDMI Port   VGA Port                LVDS
Line out/MIC                                2W
2           SATA2              1    mSATA(co-lay
SATA      )      2    G-LAN   7    USB(4    USB Port   2    USB      )   1
Mini-PCIE         1                              GP                1    PS/2   1
LPT   6    COM            5v/12v                TTL    232
485                         DC Adapter 12V                20 Pin ATX

17*17cm
SoC        10W          <=15w
DC                    ATX
HDMI   VGA    LVDS            1080p                    1920*1080
COM       5v    12v                TTL
232                485

| | | |
|---|---|---|
| | CPU | Intel J1800/J1900 |
| | | 2.41GHz (Dual-core) or 2.0GHz (Quad-core) |
| | | 10w SMD BGA |
| | | SO-DIMM DDR3L 1333 |
| | | 4GB |
| | Bios | SPI AMI EFI bios |
| | | ACPI2.0B, APM1.2, DIM2.0, SMBIOS2.5 |
| | | Intel® HD Graphics ,Up to 792 MHz/854MHz |
| | | 1 HDMI Port 1 VGA Port |
| | | 1 24 LVDS |
| | | Realtek RTL8111F |
| | | 10/100/1000Mbps 10/100Mbps |
| | | 2 RJ45 |
| Audio | | Realtek HD ALC662 |
| | | 1 line-out 1 MIC |
| | | 1 1 2W |
| USB | | USB2.0 480Mb/s |
| | | 4 USB Port 2 USB ( 3 USB) |
| | SATA | 2 SATA2 1 Mini-PCIe mSATA |
| IO | | ITE8786E |
| | | 1 COM Port 5 COM |
| | | 1 LPT Port |
| | | 1 PS/2 Port 1 PS/2 & |
| | PCIe | 1 Mini-PCIE mSATA WIFI |
| | GPIO | 1 8 |
| | | 1 4pin DC_IN 1 20pin ATX |
| PCB | | 170*170mm 4layer |
| | Windows | Win7/Win8 |
| | | Unix/Linux |
| | | -20~60 |
| | | 5~95%RH |
| | | |
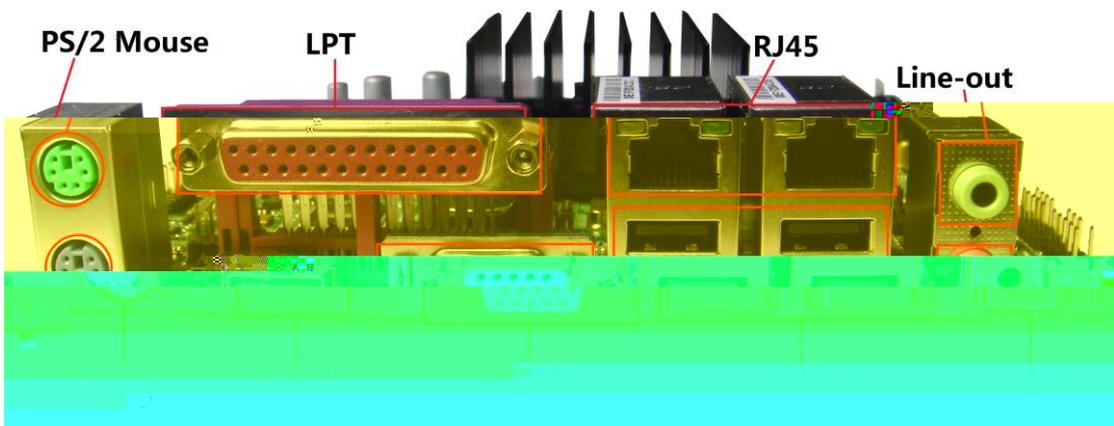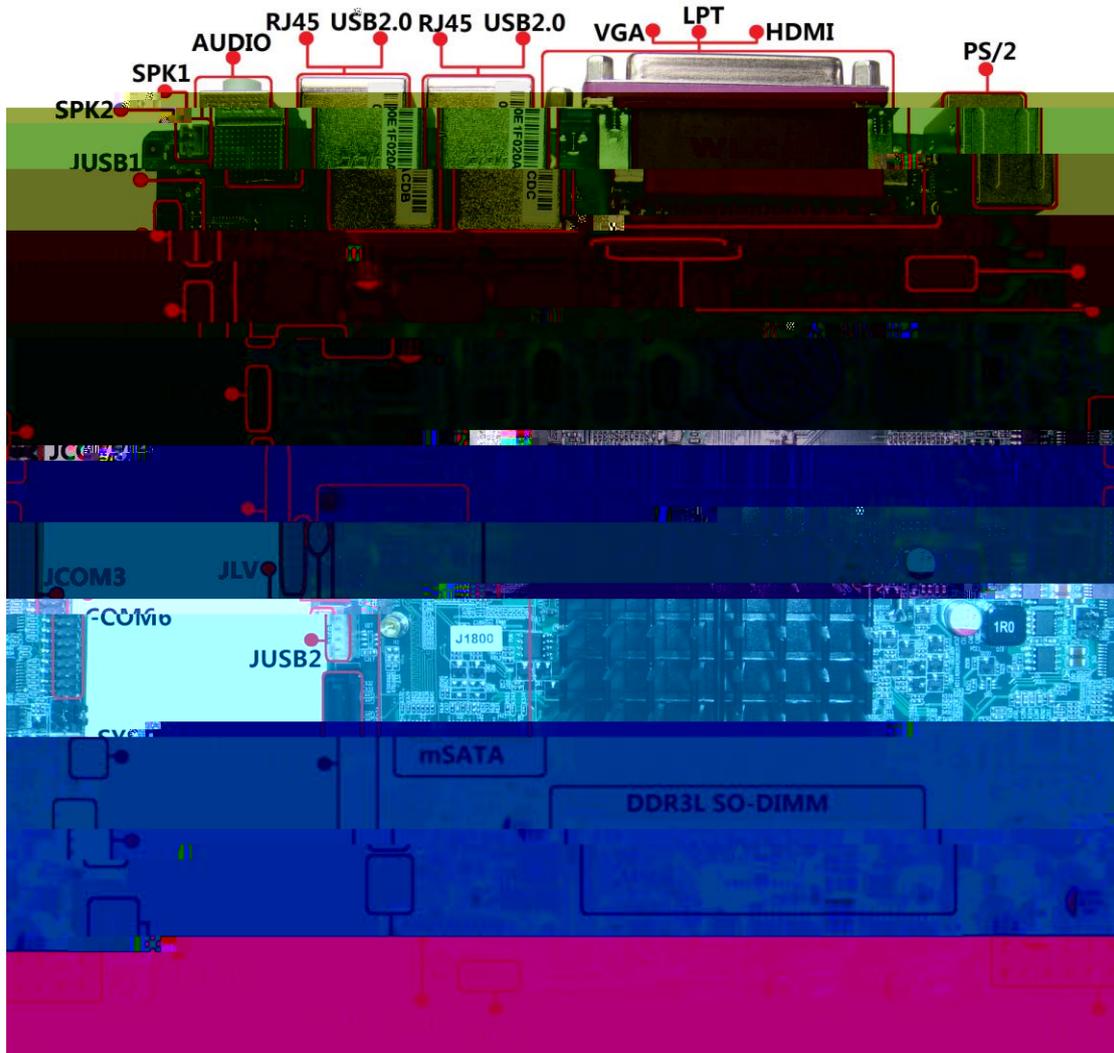
**IO**

| | |
|---|---|
| F_AUDIO | |
| F_PANEL | ---- /                    HDD/PWR LED |

| BUZZ | |
|------|--|

# 1

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|-------|------|--------|------|--------|--------|
| JCMOS | 1 | NC | | | 1-2 |
| | 2 | RTC_RST | | | 2-3    CMOS |
| | 3 | GND | | | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|-------|------|--------|------|--------|--------|
| F_Panel | 1 | HDD LED+ | 2 | PWR LED+ | |
| | 3 | HDD LED- | 4 | PWR LED- | 6-8 |
| | 5 | GND | 6 | PWRSW | 5-7 |
| | 7 | Reset | 8 | GND | |
| | 9 | NC | 10 | | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|-------|------|--------|------|--------|--------|
| JUSB1 | 1 | VCC | 2 | VCC | |
| | 3 | DT- | 4 | DT- | |
| | 5 | DT+ | 6 | DT+ | |
| | 7 | GND | 8 | GND | |
| | 9 | | 10 | GND | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|-------|------|--------|------|--------|--------|
| USBPWR | 1 | 5VSYS | | | 1-2pin  5V |
| | 2 | USBPWR | | | 2-3pin  5V |
| | 3 | 5VSB | | | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|-------|------|--------|------|--------|--------|
| F_AUDIO | 1 | MIC_L | 2 | GND | |
| | 3 | MIC_R | 4 | F_AUD_DET | |
| | 5 | R | 6 | MIC_JD | |
| | 7 | GND | 8 | NC | |
| | 9 | L | 10 | LINE_JD | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|-------|------|--------|------|--------|--------|
| JVGA | 1 | GND | | | |
| | 2 | VSYNC | | | |
| | 3 | HSYNC | | | |
| | 4 | GND | | | |
| | 5 | RED_CON | | | |
| | 6 | GND | | | |
| | 7 | GREEN_CON | | | |
| | 8 | GND | | | |
| | 9 | BLUE_CON | | | |
| | 10 | GND | | | |
| | 11 | DDC_SDA | | | |
| | 12 | DDC_SCL | | | |

# 2

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| JLV | 1 | 3. 3V | 2 | LVDS_PV | 1-2     +3.3V |
| | 3 | 5V | 4 | LVDS_PV | 3-4     +5V |
| | 5 | 12V | 6 | LVDS_PV | 5-6     +12V |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| IVCN | 1 | 12V | | | |
| | 2 | GND | | | |
| | 3 | BKLT_ON | | | |
| | 4 | BKLT_PWM | | | |
| | 5 | 5V | | | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| LVDS | 1 | VCC | 2 | VCC | |
| | 3 | VCC | | | |
| | 5 | GND | 6 | GND | |
| | 7 | TXA0- | 8 | TXA_0+ | |
| | 9 | TXA_1- | 10 | TXA_1+ | |
| | 11 | TXA_2- | 12 | TXA_2+ | |
| | 13 | GND | 14 | GND | |
| | 15 | TXA_CLK- | 16 | TXA_CLK+ | |
| | 17 | TXA_3- | 18 | TXA_3+ | |
| | 19 | TXB_0- | 20 | TXB_0+ | |
| | 21 | TXB_1- | 22 | TXB_1+ | |
| | 23 | TXB_2- | 24 | TXB_2+ | |
| | 25 | GND | 26 | GND | |
| | 27 | TXB_CLK- | 28 | TXB_CLK+ | |
| | 29 | TXB_3- | 30 | TXB_3+ | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| JCOM1 JCOM2 | 1 | DCD | 2 | RXD | |
| | 3 | TXD | 4 | DTR | |
| | 5 | GND | 6 | DSR | |
| | 7 | RTS | 8 | CTS | |
| | 9 | RT | 10 | | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| JC22 | 1 | RS232 | | | |

| | 3 | RS485 | | | |
|---|---|---|---|---|---|

# 3

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| JC34 | 1 | TTL | | | 1-2:    TTL |
| | 2 | S_IN | | | 2-3:    RS232 |
| | 3 | RS232 | | | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| JC35 | 1 | TTL | | | 1-2:    TTL |
| | 2 | S3_OUT | | | 2-3:    RS232 |
| | 3 | RS232 | | | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| JC38 | 1 | SIN3 | 2 | RS232 | 1-2:RS232 |
| | 3 | SIN3 | 4 | RS485 | 3-4:RS485 |
| | 5 | SIN3 | 6 | TTL | 5-6:TTL |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| J485 | 1 | GND | 2 | GND | 3,4:COM2    485 |
| | 3 | COM2_485+ | 4 | COM2_485- | 5,6:COM3    485 |
| | 5 | COM3_485+ | 6 | COM3_485- | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| JC51 JC61 | 1 | RI | 2 | S_RI | 1-2:Normal |
| | 3 | 5v | 4 | S_RI | 3-4:    9pin 5v |
| | 5 | 12v | 6 | S_RI | 5-6     9pin 12v |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| GPIO | 1 | 5V  NC | 2 | | |
| | 3 | GP35 | 4 | GP25 | |
| | 5 | GP24 | 6 | GP29 | |
| | 7 | GP34 | 8 | GP42 | 1pin            5v |
| | 9 | GP31 | 10 | GP43 | |
| | 11 | | 12 | GND | |

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| SYS_FAN | 1 | GND | | | |
| | 2 | 12V | | | |
| | 3 | FAN_DEC | | | |

| JP/CN | pin# | Signal | pin# | Signal | |
|---|---|---|---|---|---|
| SATA_PWR | 1 | GND | | | |
| | 2 | 5V | | | |

| | 3 | 12V | | | |
|---|---|---|---|---|---|
| | 4 | GND | | | |

# 4

| JP/CN | pin# | Signal | pin# | Signal | Remark |
|---|---|---|---|---|---|
| | 1 | DCD1 | 2 | RXD1 | |
| | 3 | TXD1 | 4 | DTR1 | |
| | 5 | GND | 6 | DSR1 | |
| | 7 | RTS1 | 8 | CTS1 | |
| | 9 | RI1 | 10 | DCD2 | |
| | 11 | RXD2 | 12 | TXD2 | |
| | 13 | DTR2 | 14 | GND | |
| | 15 | DSR2 | 16 | RTS2 | |
| | 17 | CTS2 | 18 | RI2 | |
| JCOM3-6 | 19 | DCD3 | 20 | RXD3 | |
| | 21 | TXD3 | 22 | DTR3 | |

|  | |
|---|---|
| | COM3 <br> <table><tr><th></th><th>RS232</th><th>RS485</th><th>TTL</th></tr><tr><td>**JC34**</td><td>2-3</td><td>1-2</td><td>1-2</td></tr><tr><td>**JC35**</td><td>2-3</td><td>1-2</td><td>1-2</td></tr><tr><td>**JC38**</td><td>1-2</td><td>3-4</td><td>5-6</td></tr></table> |