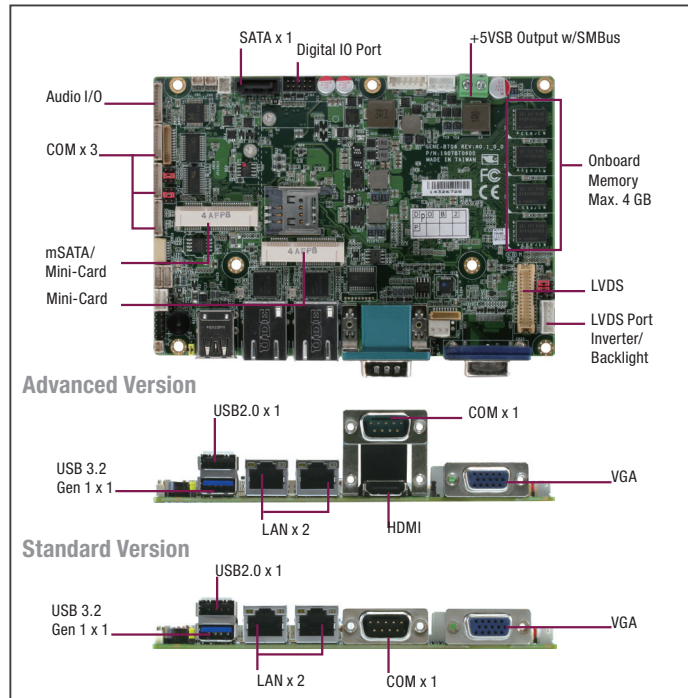


GENE-BT06

3.5" SubCompact Board with Intel® Atom™ E3845/ E3825 and Celeron® Processor SoC



Specifications

| SYSTEM | |
|-------------------|---|
| FORM FACTOR | 3.5" SubCompact Board |
| CPU | Intel® Atom™/ Celeron® Processor: Celeron® J1900 (4C/4T, 2.00GHz, up to 2.42GHz) Celeron® N2930 (4C/4T, 1.83GHz, up to 2.16GHz) Celeron® N2807 (2C/2T, 1.58GHz, up to 2.16GHz) Atom™ E3845 (4C/4T, 1.91 GHz) Atom™ E3825 (2C/2T, 1.33 GHz) |
| CPU TDP | Celeron® J1900 10W Celeron® N2930 7.5W Celeron® N2807 4.3W Atom™ E3845 10W Atom™ E3825 6.0W |
| CHIPSET | Integrated with Intel® SoC |
| MEMORY TYPE | On Board DDR3L 1066/1333MHz, up to 4GB, Non-ECC |
| BIOS | UEFI |
| WAKE ON LAN | Yes |
| WATCHDOG TIMER | 255 Levels |
| SECURITY | TPM 2.0 (BOM optional) |
| RTC Battery | Lithium Battery 3V/240mAh |
| DIMENSION (L X W) | 5.75" x 4" (146mm x 101.7mm) |
| POWER | |
| POWER REQUIREMENT | +9~24V |
| POWER SUPPLY TYPE | AT/ATX |
| CONNECTOR | Phoenix 2-pin Connector |
| POWER CONSUMPTION | Intel® E3845, DDR3L on board RAM 4GB, 2.10A @ +12V(TYPICAL) Intel® E3845, DDR3L on board RAM 4GB, 2.26A @ +12V(MAX) |
| DISPLAY | |
| CONTROLLER | Intel® HD Graphics for Intel Atom® Processor Z3700 Series |
| LVDS/eDP | LVDS Dual Channel 18/24bit x 1 |
| Display Interface | HDMI 1.4a (Optional: DP1.1a), VGA x 1 |
| Multiple Display | Up to 3 Simultaneous Displays |
| AUDIO | |
| CODEC | Realtek ALC897/892 |
| AUDIO INTERFACE | Line-in/Line-out/MIC |
| Speaker | 2W Amplifier(Optional) |
| EXTERNAL I/O | |
| ETHERNET | Intel® i210, 10/100/1000Base, RJ-45 x 2 |
| USB | USB 3.2 Gen1 x 1, USB2.0 x 1 |

Features

- Onboard DDR3L Memory Max. 4 GB
- CRT, 18/24-bit Dual-Channel LVDS LCD, HDMI (DP Sharded with HDMI/CRT, Optional)
- Mini-Card Slot x 2 (Full-size x 1, Half-size x 1)
- Wide DC Support 9~24V
- Supports TPM (Optional)
- Solder Design For System Assembly and Thermal



| SERIAL PORT | COM1(RS232) |
|-----------------------------|---|
| VIDEO | VGA x 1, HDMI 1.4a x 1(Optional) |
| INTERNAL I/O | |
| USB | USB2.0 x 2 |
| SERIAL PORT | COM2, COM3 (RS232/422/485, supports 5V/12V/RI), COM4 (RS232) |
| VIDEO | LVDS x1 |
| SATA | SATA II x 1, +5V SATA Power Connector x 1 |
| AUDIO | Audio Header x 1 |
| DIO/GPIO | 8-bit |
| SMBus/I2C | SMBus x 1 |
| Touch | 4/5/8 wire Touch Controller x 1 (Optional) |
| FAN | DC Fan x 1 (optional: Smart Fan) |
| SIM | SIM x 1 |
| Front Panel | HDD LED, PWR LED, Power Button, Buzzer, Reset |
| Others | — |
| EXPANSION | |
| Mini PCI-E/mSATA | Full-size mPCIe/USB2.0 x 1 Half-size mSATA/mPCIe x 1(BOM optional) |
| M.2 | — |
| Others | — |
| ENVIRONMENT & CERTIFICATION | |
| OPERATING TEMP | 32°F ~ 140°F (0°C ~ 60°C) or WITAS 2 -40°F ~ 185°F (-40°C ~ 85°C) |
| STORAGE TEMP | -40°F ~ 176°F (-40°C ~ 80°C) |
| OPERATING HUMIDITY | 0% ~ 90% relative humidity, non-condensing |
| MTBF (HOURS) | 403,079 |
| EMC | CE/FCC Class A |

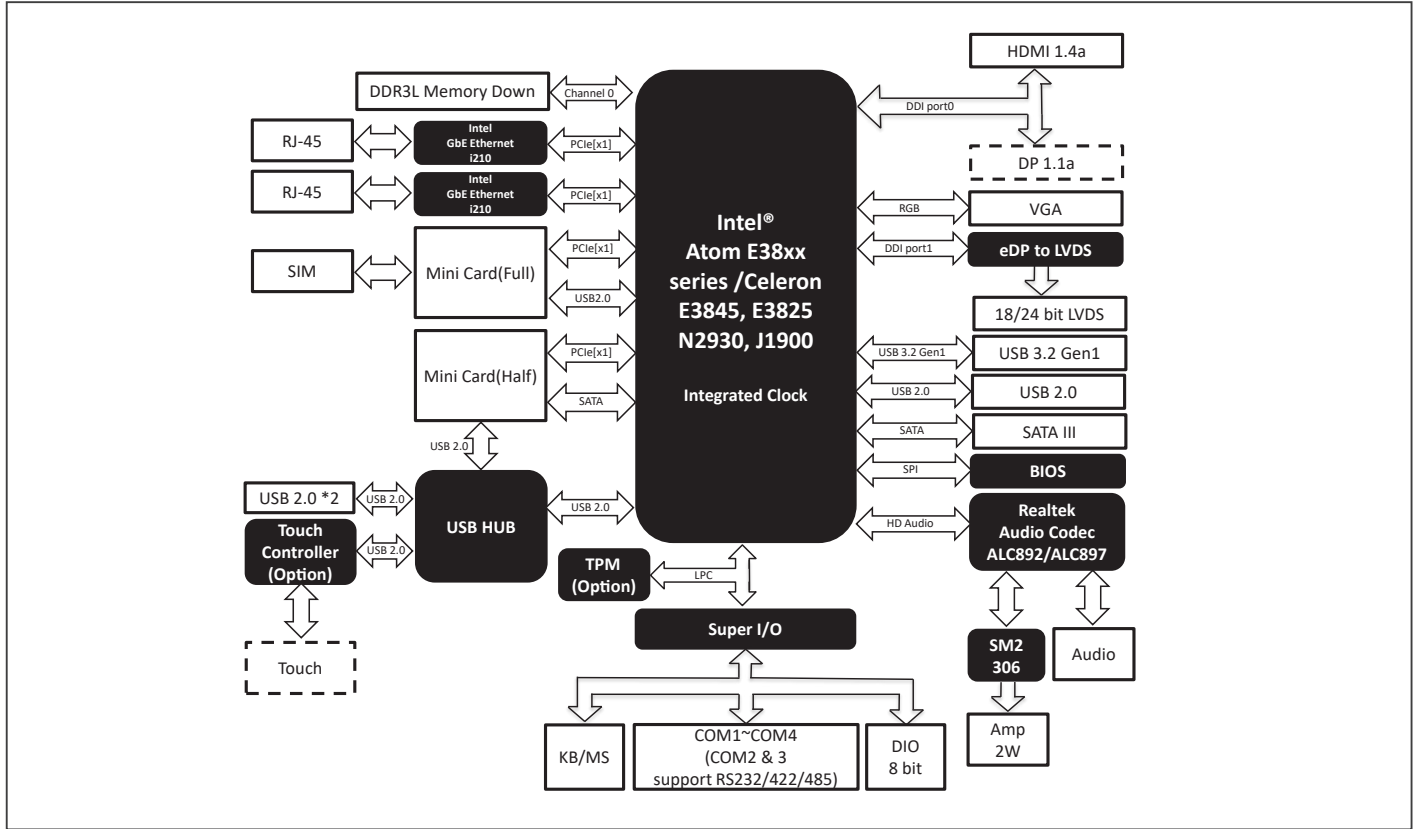
Optional Accessories

| Part Number | Description | QTY per Board |
|-------------|------------------------|---------------|
| 1700050207 | USB CABLE, 20cm | 2 |
| 1701090150 | COM Cable, 15cm | 3 |
| 1709100254 | Audio Jack Cable, 25cm | 1 |
| 1702150155 | SATA Power Cable, 15cm | 1 |
| 170220020B | ATX Power Cable, 20cm | 1 |
| 170204010R | Power Cable, 10cm | 1 |

Packing List

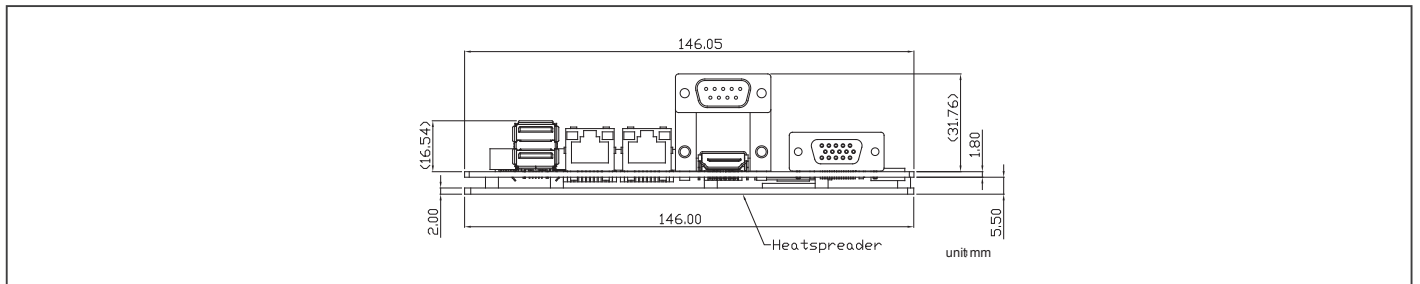
| Part Number | Description | QTY |
|-------------|---------------|-----|
| GENE-BT06 | GENE-BT06 MB | 1 |
| M10BT06010 | Heat spreader | 1 |

Block Diagram



Dimension

Unit: mm



Ordering Information

| Part Number | CPU | Memory | Display | LAN | USB | RS-232 | RS-232/422/485 | Storage | Expansion Slot | TPM | Power | Operating Temp | Others |
|----------------------|-----------------------|-------------|-----------------|---------|---------------------------|--------|----------------|-----------------------------------|---------------------|-----|-------|------------------------|-----------------------------------|
| GENE-BT06-A12-0001 | Intel® Celeron® N2930 | Onboard 4GB | VGA, LVDS, HDMI | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | 2.0 | 9~24V | 0°C ~ 60°C | Touch Controller, SIM, DIO x 8 |
| GENE-BT06-A12-0002 | Intel® Celeron® J1900 | Onboard 4GB | VGA, LVDS, HDMI | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | 2.0 | 9~24V | 0°C ~ 60°C | Touch Controller, SIM, DIO x 8 |
| GENE-BT06-A12-0003 | Intel® Atom™ E3825 | Onboard 2GB | VGA + LVDS | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | — | 9~24V | 0°C ~ 60°C | DIO x 8 |
| GENE-BT06-A12-0004 | Intel® Atom™ E3825 | Onboard 4GB | VGA, LVDS, HDMI | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | 2.0 | 9~24V | 0°C ~ 60°C | Touch Controller, SIM, DIO x 8 |
| GENE-BT06-A12-0005 | Intel® Atom™ E3845 | Onboard 2GB | VGA + LVDS | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | — | 9~24V | 0°C ~ 60°C | DIO x 8 |
| GENE-BT06-A12-0006 | Intel® Atom™ E3845 | Onboard 4GB | VGA, LVDS, HDMI | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | 2.0 | 9~24V | 0°C ~ 60°C | Touch Controller, SIM, DIO x 8 |
| GENE-BT06W2-A12-0003 | Intel® Atom™ E3825 | Onboard 2GB | VGA + LVDS | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | — | 12V | WTAS 2 (-40°C~85°C) | DIO x 8 |
| GENE-BT06W2-A12-0006 | Intel® Atom™ E3845 | Onboard 4GB | VGA, LVDS, HDMI | GbE x 2 | USB3.0 x 1 USB 2.0 x 3 | 2 | 2 | SATA x 1 mSATA x 1 (half size) | MiniCard x 1 (Full) | 2.0 | 12V | WTAS 2 (-40°C~85°C) | Touch Controller, SIM, DIO x 8 |