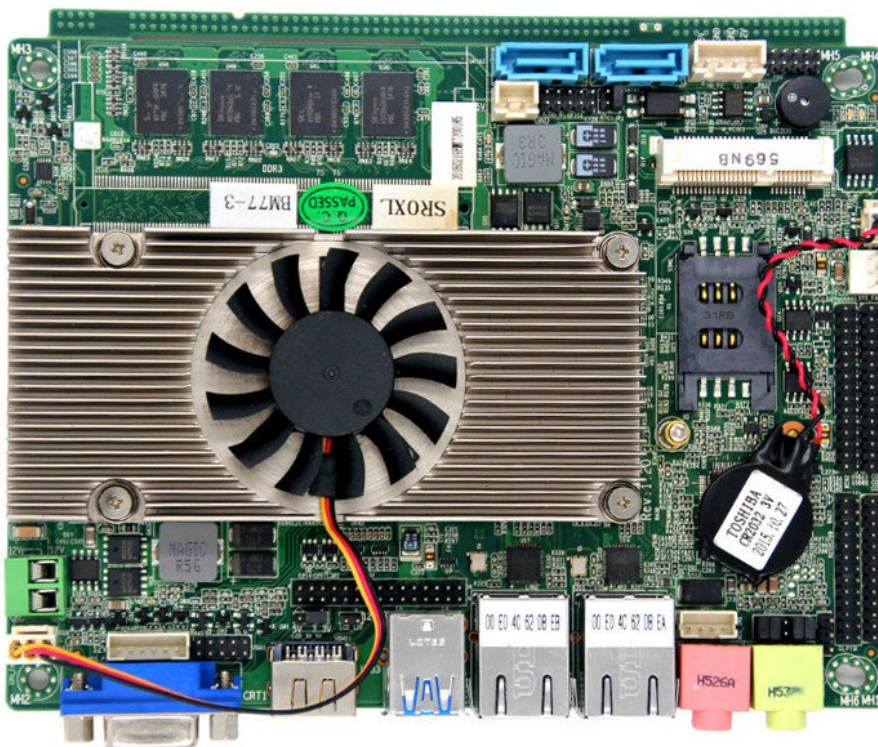**POLYHEX**

# Industrial Motherboard based on Intel HM77/HM67 Chipset, Supporting Sandy/Ivy Bridge i3/i5/i7 U Series CPU
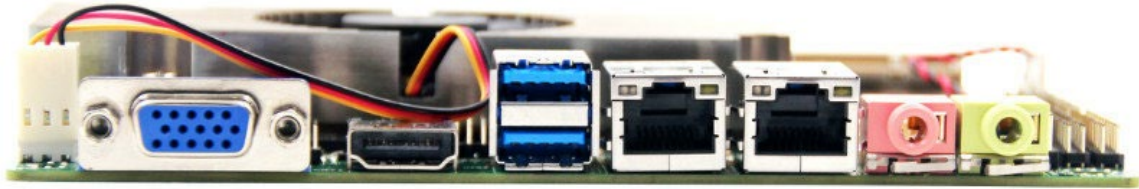
## Main Features:

· Based on Intel HM77/HM67 chipest, supporting Intel Mobile Sandy/Ivy Bridge i3/i5/i7 U series CPU

· Onboard 2GB/4GB DDR high-speed memory

· 1 x DDR3 1066/1333/1600MHz SODIMM slot up to 8GB

· Supports HDMI, LVDS and VGA display output

· 2 x Gigabit Ethernet, 1 x Mini PCIe (supports Wifi or 3G/4G module)

· 2 x SATA2.0/2 x USB3.0 /6 x USB2.0 /6 x COM /1 x Mini SATA (supports SSD)/1 x LPT
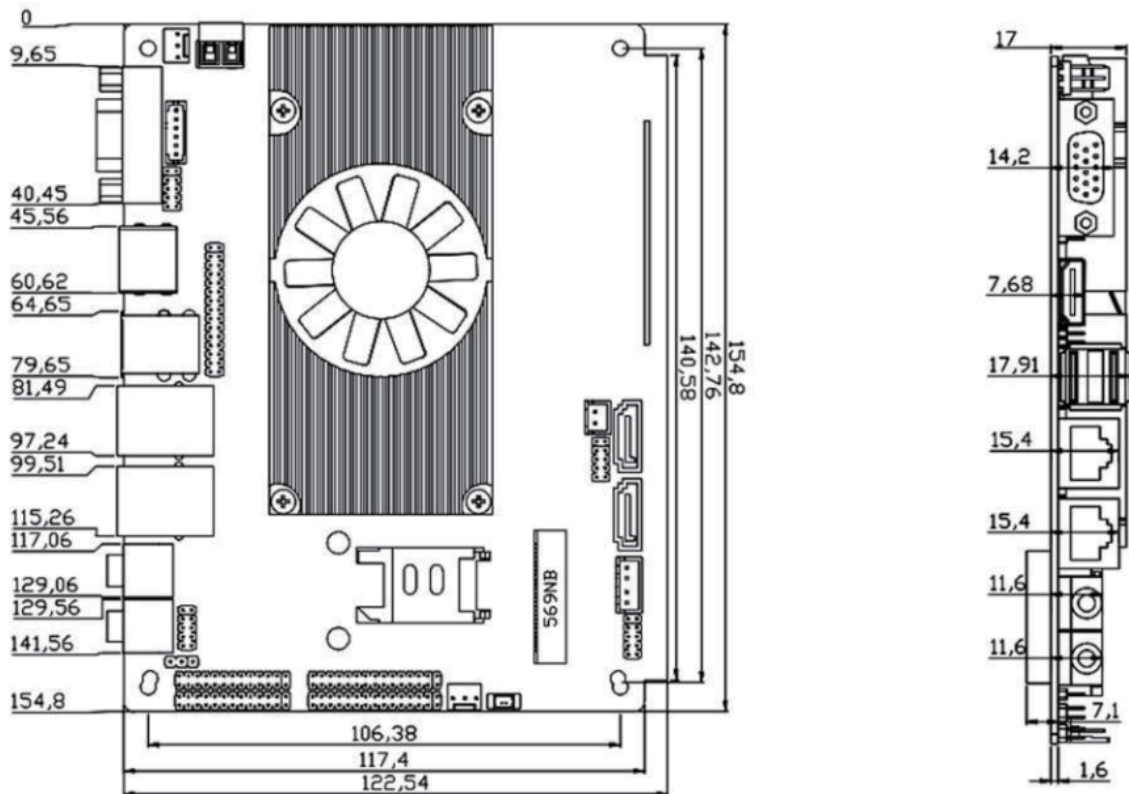
## Specification:

| | | |
|---|---|---|
| Processor System | CPU | Intel® Core™ i3-3217U 1.80GHz |
| | | Intel® Core™ i5-3337U 1.80GHz up to 2.70GHz |
| | | Intel® Core™ i7-3667U 2.0GHz up to 3.20GHz |
| | CPU Packaging | BGA |
| | Chipset | Intel® HM77(or HM76) high-speed chipset |
| | BIOS | AMI BIOS |
| Memory | Technique Architecture | Single channel DDR3 1066/1333/1600MHz |
| | Capacity | Integrated 2GB/4GB DDR3 |
| | Slot | 1 slot can be added, maximum memory expansion up to 8GB |
| Vedio | Graphics | Intel HD Graphics 4000；Graphics card model is related to CPU |
| | Dual LVDS | Supports dual channel 24bit output with resolution up to 1920 x 1200 |
| | HDMI | HDMI up to 1920 x 1200 |
| | Dual Display | LVDS＋VGA，LVDS＋HDMI，HDMI＋VGA synchronous or asynchronous display |
| Back I/O | Interfaces | 1 x VGA，1 x HDMI，2 x LAN，2 x USB3.0/1 x MIC-OUT/LINE-OUT |
| Network | Controller | 2 x RTL8111E-V Gigabit network, RJ45 interface |
| Audio | Controller | Realtek HD ALC662 audio decoding (left and right channels + microphone) |
| Super I/O | Controller | NCT6106D |
| Hardware Monitor | Watch Dog Timer | 0-255s，provides Watchdog routine |
| | Cooler | Aluminum radiator with fan |
| I/O Interfaces | USB | 2 x USB3.0 compatible with USB2.0 / 1.1，8 x USB2.0，supports up to +5V/1A |
| | Serial Ports | 5 x RS-232，1 x RS422/485 optional，RS485 supports automatic flow control |
| | PS/2 | None |
| | GPIO | 8 bit，provides routine, freely defines input/output, 3.3V@24mA electrical level |
| Expansion Bus | Mini-PCIe | 1 x Mini-PCIe slot，supports PCIe and USB devices |
| | SMBUS | |
| Storage | SATA | 2 x SATA II up to 3Gb/s |
| | M-SATA | 1 x Mini-PCIe M-SATA Scoket，supports SANDISK Protocol，up to 3Gb/s |
| Power Supply | Type | Single input DC power supply，DC12V，±5% |
| | Power Consumption | 17W（Standby），35W（Regular） |
| Environment | Operating Temp. | -20℃ ~ +60℃ |
| | Storage Temp. | -40℃ ~ +85℃ |
| | Operating Humidity | 0% ~ 90% Relative Humidity(non-condensing) |
| | Storage Humidity | 0% ~ 90% Relative Humidity(non-condensing) |
| Size | Dimensions | 154.8 x 117.4mm |
| | Weight | 0.5kg |

## I/O Interface：



## Dimension：

Unit: mm



### ABOUT POLYHEX

As a board level and system level designer and manufacturer, Polyhex, with 9 years' experience, always delivers best-in-class embedded computing solutions based on both ARM and X86 architecture, including hardware customization and software debugging etc. Partnered with silicon venders like Intel, NXP, ST, Rockchip, Allwinners and so on, we have earned trust from clients worldwide in over 30 countries. Polyhex is also certified with ISO9001 and ISO13485 for the self-owned manufacture facility.

**POLYHEX**
Beyond the Embedded Deployment