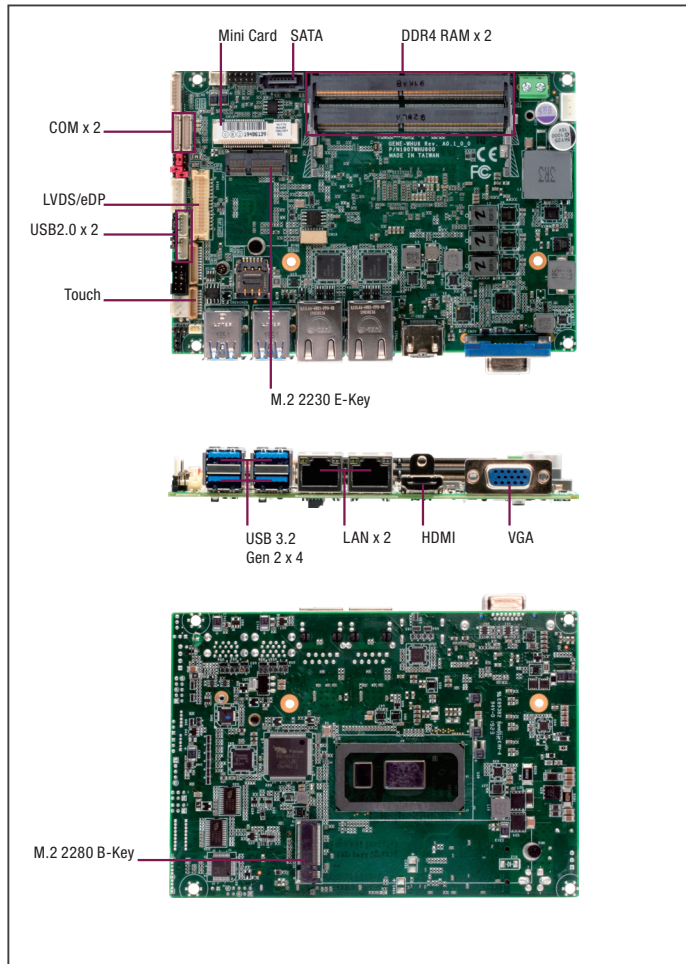


GENE-WHU6

3.5" SubCompact Board with 8th Generation Intel® Core™ i7/i5/i3/Celeron® Processor SoC



Specifications

| System | |
|-----------------------------|---|
| Form Factor | 3.5" SubCompact Board |
| CPU | Intel® 8th Generation Core™ i7/i5/i3/Celeron SoC i7-8665UE (4C, 1.7GHz, up to 4.4GHz) i5-8365UE (4C, 1.6GHz, up to 4.1GHz) i3-8145UE (2C, 2.2GHz, up to 3.9GHz) 4305UE (2C, 2GHz) |
| CPU Frequency | Up to 4.4GHz |
| Chipset | 8th Generation Intel® Processor SoC |
| Memory Type | 2400 MHz Dual Channel DDR4 (Non-ECC) SODIMM x 2 |
| Max. Memory Capacity | Up to 64GB |
| BIOS | UEFI |
| Wake on LAN | Yes |
| Watchdog Timer | 255 Levels |
| Power Requirement | +9-36V (Optional: +12V) |
| Power Supply Type | AT/ATX |
| Power Consumption (Typical) | Intel® i7-8665UE, DDR4 2400 MHz 16GB, 2.8A@ +12V |
| Dimension (L x W) | 5.75" x 4" (146mm x 101.7mm) |
| Operating Temperature | 32°F ~ 140°F (0°C ~ 60°C) |
| Storage Temperature | -40°F ~ 176°F (-40°C ~ 81°C) |
| Operating Humidity | 0% ~ 90% relative humidity, non-condensing |
| MTBF (Hours) | 354,194 |
| Certification | CE/FCC |

Features

- Intel® Core™ i7/i5/i3/Celeron Processor SoC
- Non-ECC DDR4 SODIMM Slot x 2, up to 64GB
- LVDS/eDP x 1 (Default: LVDS), VGA x 1, HDMI 2.0 x 1
- GbE x 2, SATA III x 1, DIO x 8bit
- USB 3.2 Gen 2 x 4 (Up to Gen 2), RS-232/422/485 x 2
- Full size mSATA/mPCIe Slot x 1 (With Nano-SIM)
- M.2 2280 B key x 1, M.2 2230 E key x 1
- Wide DC Input 9-36V (Optional: 12V Only)



| Display | |
|---------------------------|--|
| VGA/LCD Controller | Intel® 8th Generation Core™ i7/i5/i3/Celeron SoC |
| Video Output | LVDS/eDP x 1 (Default: LVDS), VGA x 1, HDMI 2.0 x 1 |
| Backlight inverter supply | Yes |
| I/O | |
| Ethernet | Intel® i210/i211 & i219, 10/100/1000Base, RJ 45 x2 |
| Audio | High Definition Audio Interface |
| USB Port | USB 3.2 Gen 2 x 4/2.0 x 2 (Up to Gen2) |
| Serial Port | RS-232/422/485 x 2 |
| Parallel Port | — |
| HDD Interface | SATA 3.0 x 1 +5V SATA power connector x 1 |
| FDD Interface | — |
| SSD | Full size mSATA/mPCIe x 1 with NANO-SIM (mSATA as default, select by BIOS) M.2 2280 B key (PCI-e as default, SATA select by BIOS) |
| Expansion Slot | M.2 2230 E key x 1 (For WIFI/BT, PCIe/USB signal only) SMBUS/I2C/LPC/eSPI x 1 |
| DIO | 8 Bit |
| SIM | x 1 (NANO-SIM) |
| TPM | — |
| Touch | x 1 |

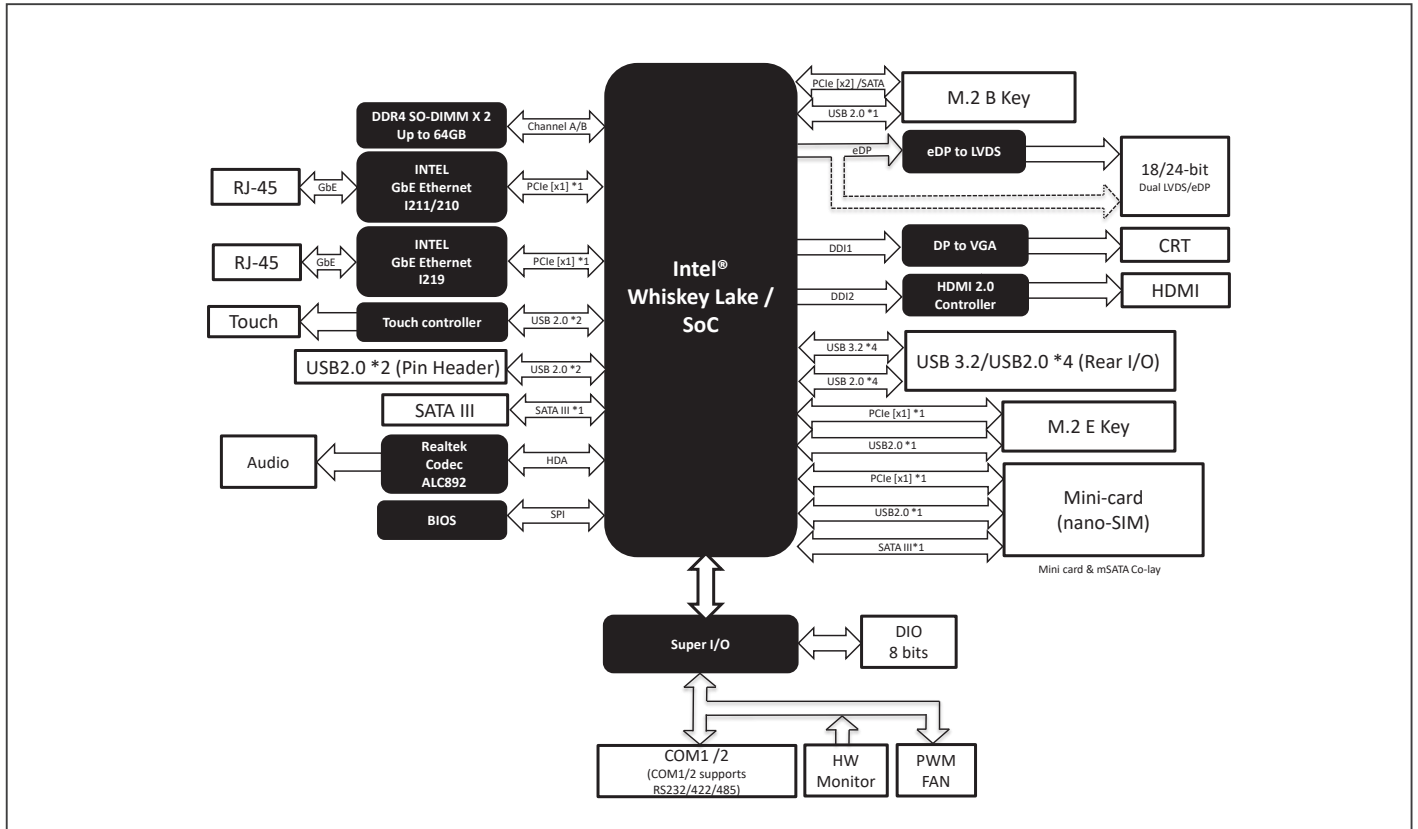
Packing List

- GENE-WHU6 with Heatspreader

Optional Accessories

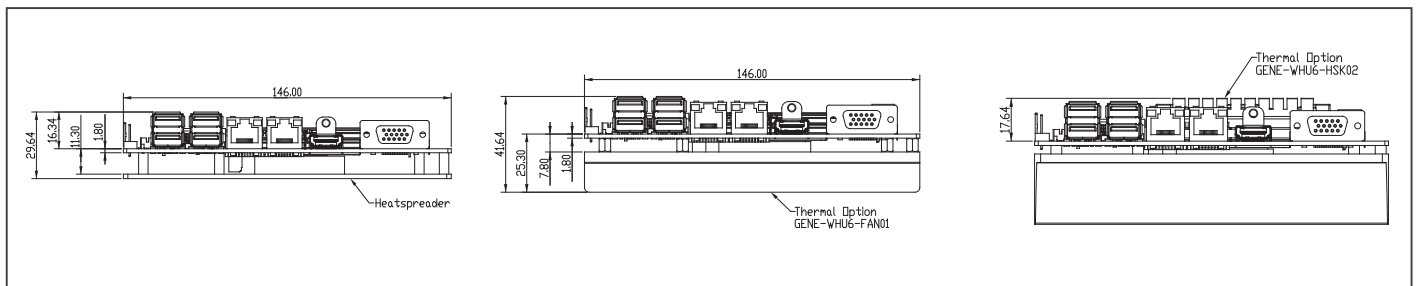
| Part Number | Description | QTY |
|-----------------|---|-----|
| 1702150155 | (TF)Power Cable.15P SATA(F).2P 2.0mm Housing(PH).15cm | 1 |
| 1709070500 | (TF)SATA CABLE.7P Pitch 1.27mm.50cm | 1 |
| 1702002010 | (TF)Power CABLE.1*2P Pitch=5.0mm Housing.10cm.for PFM-945C.(12V only) | 1 |
| 1709100254 | (TF)PHONE JACK Cable.3P AUDIO JACK.1*10P 1.25mm HOUSING(F).25cm | 1 |
| 170220020B | (TF)Power Cable.20P ATX(M).4P 5.08mm Housing(F).+3P 2.5mm Housing (XH).20cm | 1 |
| 1701090150 | (TF)Flat Cable.D-Sub 9(M).9P Housing.9P 1.25mm pitch Housing.15cm | 2 |
| 1700050207 | (TF)USB CABLE.1*5P Pitch=1.25mm Housinh.20cm.for PFM-945C | 2 |
| GENE-WHU6-FAN01 | CPU Cooler.146x78.6x23.5mm.3P.3600RPM.for GENE-WHU6 | 1 |
| GENE-WHU6-HSK01 | Heatsink.146*101.6*32.5mm.Silver. for GENE-WHU6(for i3 & Celeron) | 1 |
| GENE-WHU6-HSK02 | Heat Sink.72*28*10mm.GENE-WHU6.SODIMM DDR4 | 1 |

Block Diagram



Dimension

Unit: mm



Ordering Information

| Part Number | CPU | Fan/Fanless | Display | LVDS | Storage | LAN | USB | RS-232 | RS-232/422/485 | Expansion Slot | Power | Power Temp | Others |
|--------------------|-----------|-------------|---------------|----------------|----------------------------------|---------|-------------------|--------|----------------|--|---------|------------|-------------------------------------|
| GENE-WHU6-A10-0001 | i3-8145UE | Fanless | VGA+HDMI+LVDS | 18/24-bit, 2CH | SATA x 1 mSATA (Full size)x 1 | GbE x 2 | USB 3.2 Gen 2 x 4 | — | 2 | M.2 2280 B Key x1 M.2 2230 E Key x1 | 9 ~ 36V | 0°C ~ 60°C | DIO x 8, nano SIM, Touch Controller |
| GENE-WHU6-A10-0002 | i5-8365UE | Fanless | VGA+HDMI+LVDS | 18/24-bit, 2CH | SATA x 1 mSATA (Full size)x 1 | GbE x 2 | USB 3.2 Gen 2 x 4 | — | 2 | M.2 2280 B Key x1 M.2 2230 E Key x1 | 9 ~ 36V | 0°C ~ 60°C | DIO x 8, nano SIM, Touch Controller |
| GENE-WHU6-A10-0003 | i7-8665UE | Fanless | VGA+HDMI+LVDS | 18/24-bit, 2CH | SATA x 1 mSATA (Full size)x 1 | GbE x 2 | USB 3.2 Gen 2 x 4 | — | 2 | M.2 2280 B Key x1 M.2 2230 E Key x1 | 9 ~ 36V | 0°C ~ 60°C | DIO x 8, nano SIM, Touch Controller |