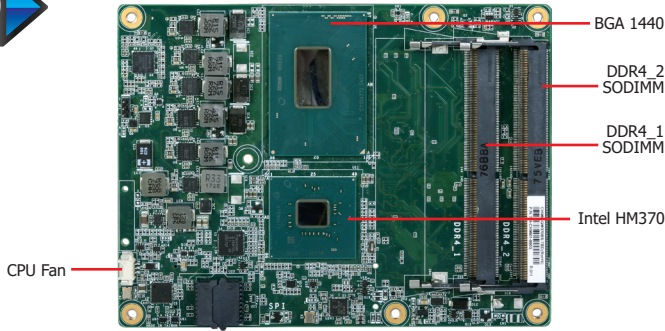


CH960-HM370

HM370



Features

- Dual channel DDR4 2666MHz SODIMM up to 64GB
- Four display ports: VGA*/DDI + LVDS*/eDP + 2 DDI Supports three independent displays
- eDP resolution supports up to 4096x2304 @ 60Hz
- Multiple expansion: 1 PCIe x16, 8 PCIe x1
- Rich I/O: 1 Intel GbE, 4 USB 3.1, 8 USB 2.0

* Populated by default

3 Displays

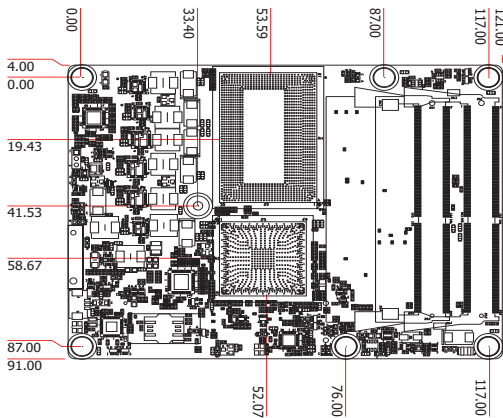
SATA 3.0

USB 3.1

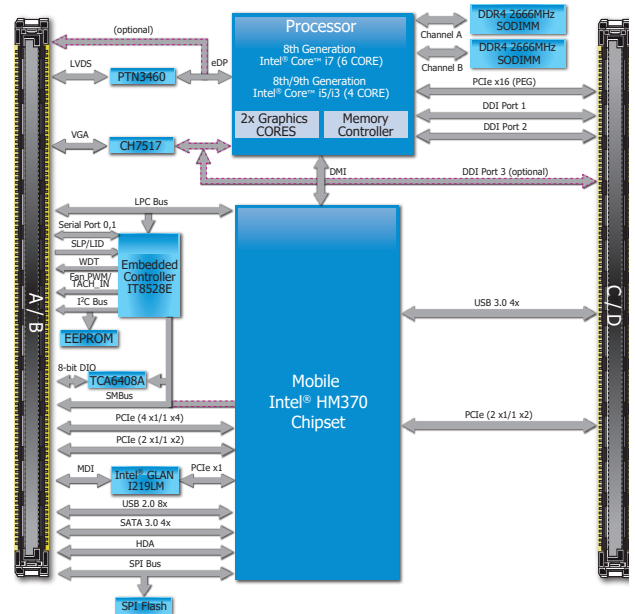
85°C
-40°C
Wide Temperature

**R2.1
Type6**

Mechanical Drawing



Block Diagram



| PCIe L0~3 | | PCIe L4~5 | | PCIe L6~7 | |
|-----------|----|-----------|----|-----------|----|
| x4 | | x4 | | x2 | |
| x2 | x2 | x2 | x2 | x1 | x1 |
| x1 | x1 | x1 | x1 | x1 | x1 |

* 8 x PCIe x1 or 2 x PCIe x4 or 4 x PCIe x2

Specifications

| | | | |
|--------------------|------------------------|---|--|
| SYSTEM | Processor | 8th/9th Generation Intel® Core™ Processors, BGA 1440 Intel® Core™ i5-8400H, 4 Cores, 8M Cache, 2.5GHz (4.2GHz), 45W (HM370) Intel® Core™ i3-8100H, 4 Cores, 6M Cache, 3.0GHz, 45W (HM370) Intel® Core™ i3-9100HL, 4 Cores, 6M Cache, 1.6GHz (2.9GHz), 25W (HM370) Intel® Celeron® G5600E, 2 Cores, 4M Cache, 3.9GHz, 35W (HM370) Intel® Celeron® G4932E, 2 Cores, 2M Cache, 1.9GHz (1.9GHz), 25W (HM370) | |
| | Chipset | Intel® HM370 Chipset | |
| | Memory | Two 260-pin SODIMM up to 64GB | Dual Channel DDR4 2666MHz |
| | BIOS | AMI SPI 128Mbit | |
| GRAPHICS | Controller | Intel® HD Graphics | |
| | Feature | OpenGL up to 4.5, DirectX 11, OpenCL 2.1 HW Decode: HEVC/H.265, H.264, M/JPEG, MPEG2, VC1/WMV9, VP8 (8-bit), VP9 (10-bit) HW Encode: HEVC/H.265, M/JPEG, MPEG2, VP8 | |
| | Display | 1 x VGA/DDI (DDI available upon request) 1 x LVDS/eDP (eDP available upon request) 2 x DDI (HDMI/DVI/DP++) | VGA: resolution up to 1920x1200 @ 60Hz LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 4096x2160 @ 30 24bpp DVI: resolution up to 1920x1200 @ 60Hz DP++/eDP: resolution up to 4096x2304 @ 60Hz |
| | Triple Displays | VGA + LVDS + DDI or VGA + DDI 1 + DDI 2 eDP + 2 DDI (available upon request) | |
| EXPANSION | Interface | 1 x PCIe x16 or 2 x PCIe x8 (Gen 3) 8 x PCIe x1 or 2 x PCIe x4 or 4 x PCIe x2 (Gen 3) 1 x LPC 1 x I ² C 1 x SMBus 2 x UART (TX/RX) | |
| | Interface | HD Audio | |
| ETHERNET | Controller | 1 x Intel® I219LM PCIe (10/100/1000Mbps) | |
| I/O | USB | 4 x USB 3.1 8 x USB 2.0 | |
| | SATA | 4 x SATA 3.0 (up to 6Gb/s) | |
| | DIO | 1 x 8-bit DIO (Default 4 inputs and 4 outputs) | |
| | WATCHDOG TIMER | Output & Interval | System Reset, Programmable via Software from 1 to 255 Seconds |
| POWER | Type | 12V, 5VSB, VCC_RTC (ATX mode) | 12V, VCC_RTC (AT mode) |
| | Consumption | Typical: 12V @ 0.85A (13.07Watt) Max.: 12V @ 5.75A (74.084Watt) | |
| OS SUPPORT | | Windows: Windows 10 IoT Enterprise 64-bit Linux | |
| ENVIRONMENT | Temperature | Operating: 0 to 60°C -40 to 85°C | Storage: -40 to 85°C |
| | Humidity | Operating: 5 to 90% RH Storage: 5 to 90% RH | |
| | MTBF | 1,360,171 hrs @ 25°C; 892,642 hrs @ 45°C; 624,277 hrs @ 60°C excluding accessories Calculation Model: Telcordia Issue 4 Environment: GB, GC – Ground Benign, Controlled | |
| MECHANICAL | Dimensions | COM Express® Basic | 95mm (3.74") x 125mm (4.9") |
| | Compliance | PICMG COM Express® R2.1, Type 6 | |

Ordering Information

| Model Name | P/N | Processor | Memory | VGA/DDI | LVDS/eDP | GbE | USB 3.0 | USB 2.0 | Power | Thermal | Temp. |
|----------------------|-----------------|-----------|----------|---------|----------|-----|---------|---------|--------|---------|-----------|
| CH960-HM370BS-8400H | 770-CH9601-400G | i5-8400H | 2 SODIMM | VGA | LVDS | 1 | 4 | 8 | ATX/AT | Cooler | 0 to 60°C |
| CH960-HM370BS-8100H | 770-CH9601-600G | i3-8100H | 2 SODIMM | VGA | LVDS | 1 | 4 | 8 | ATX/AT | Cooler | 0 to 60°C |
| CH960-HM370BS-9100HL | 770-CH9601-E00G | i3-9100HL | 2 SODIMM | VGA | LVDS | 1 | 4 | 8 | ATX/AT | Cooler | 0 to 60°C |
| CH960-HM370BS-G5600E | 770-CH9601-F00G | G5600E | 2 SODIMM | VGA | LVDS | 1 | 4 | 8 | ATX/AT | Cooler | 0 to 60°C |
| CH960-HM370BS-G4932E | 770-CH9601-H00G | G4932E | 2 SODIMM | VGA | LVDS | 1 | 4 | 8 | ATX/AT | Cooler | 0 to 60°C |

Packing List

| | |
|------------------------------|---|
| • 1 CH960-HM370 board | |
| • 1 Cooler (Height: 36.58mm) | Wide Temp: A71-111100-010G Standard: A71-111100-000G |

Optional Items

| | |
|--------------------------------|-----------------|
| • COM332-B carrier board kit | 770-CM3321-000G |
| • Heat spreader (Height: 11mm) | A71-808316-000G |