

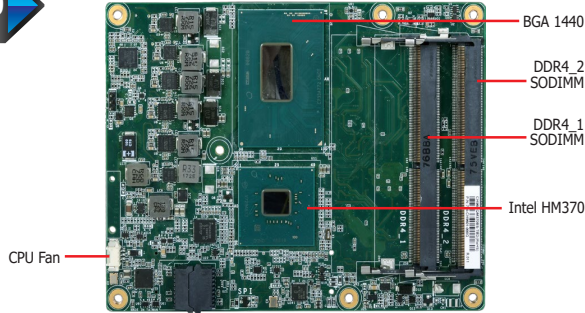


8th Gen Intel® Core™ Processor  
COM Express® Basic



# CH960-HM370

**HM370**



## Features

- Dual channel DDR4 2666MHz SODIMM up to 32GB
- 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

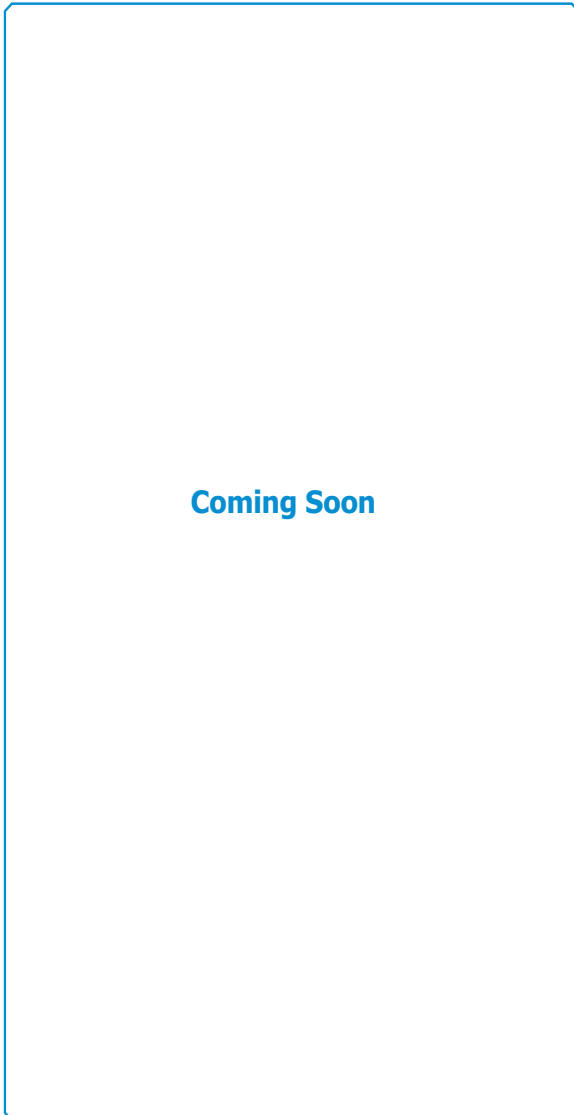
SATA 3.0

USB 3.1

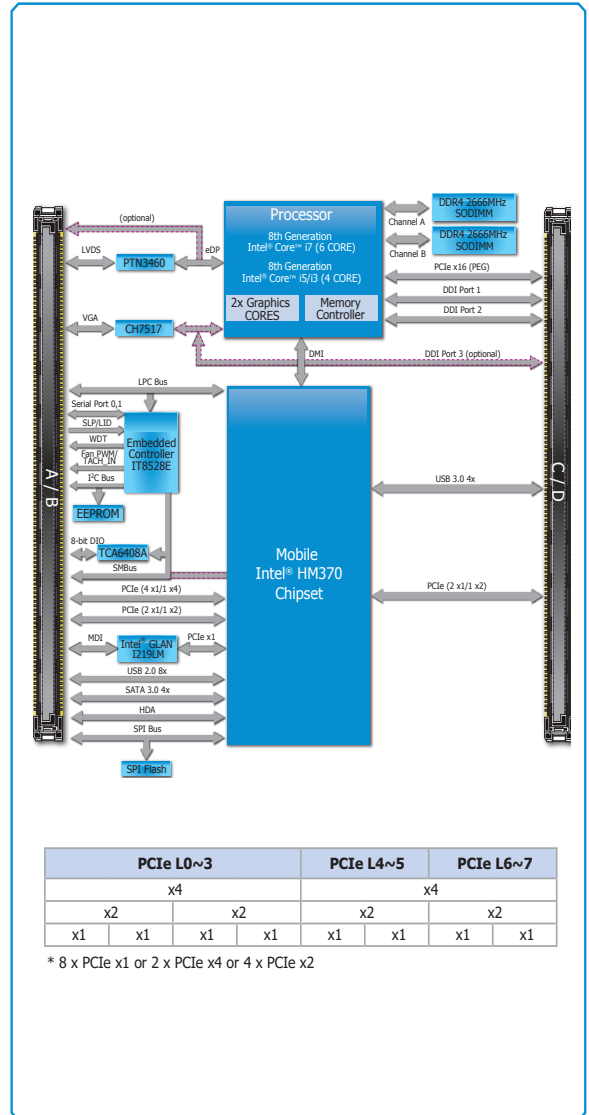
85°C  
-40°C  
Wide Temperature

**R2.1**  
Type6

## Mechanical Drawing



## Block Diagram





**Specifications**

<b>SYSTEM</b>	<b>Processor</b>	8th Generation Intel® Core™ Processors, BGA 1440 Intel® Core™ i5-8400H Processor, 4 Cores, 8M Cache, 2.5GHz (4.2GHz), 45W Intel® Core™ i3-8100H Processor, 4 Cores, 6M Cache, 3.0GHz, 45W
	<b>Chipset</b>	Intel® HM370 Chipset
	<b>Memory</b>	Two 260-pin SODIMM up to 32GB Dual Channel DDR4 2666MHz
	<b>BIOS</b>	AMI SPI 128Mbit
	<b>GRAPHICS</b>	<b>Controller</b>
	<b>Feature</b>	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
	<b>Display</b>	1 x VGA/DDI (DDI available upon request) VGA: resolution up to 1920x1200 @ 60Hz 1 x LVDS/eDP (eDP available upon request) LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz 2 x DDI (HDMI/DVI/DP++) HDMI: resolution up to 4096x2160 @ 30 24bpp DVI: resolution up to 1920x1200 @ 60Hz DP++/eDP: resolution up to 4096x2304 @ 60Hz
	<b>Triple Displays</b>	VGA + LVDS + DDI or VGA + DDI 1 + DDI 2 eDP + 2 DDI (available upon request)
<b>EXPANSION</b>	<b>Interface</b>	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 <sup>2</sup> C 1 x SMBus 2 x UART (TX/RX)
<b>AUDIO</b>	<b>Interface</b>	HD Audio
<b>ETHERNET</b>	<b>Controller</b>	1 x Intel® I219LM PCIe (10/100/1000Mbps)
<b>I/O</b>	<b>USB</b>	4 x USB 3.1 8 x USB 2.0
	<b>SATA</b>	4 x SATA 3.0 (up to 6Gb/s)
	<b>DIO</b>	1 x 8-bit DIO (Default 4 inputs and 4 outputs)
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds
<b>POWER</b>	<b>Type</b>	12V, 5VSB, VCC_RTC (ATX mode) 12V, VCC_RTC (AT mode)
	<b>Consumption</b>	Typical: 12V @ 0.85A (13.07Watt) Max.: 12V @ 5.75A (74.084Watt)
<b>OS SUPPORT</b>		Windows: Windows 10 IoT Enterprise 64-bit Linux: Ubuntu 18.04
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: 0 to 60°C Storage: -40 to 85°C -40 to 85°C
	<b>Humidity</b>	Operating: 5 to 90% RH Storage: 5 to 90% RH
	<b>MTBF</b>	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
<b>MECHANICAL</b>	<b>Dimensions</b>	COM Express® Basic 95mm (3.74") x 125mm (4.9")
	<b>Compliance</b>	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

**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

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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