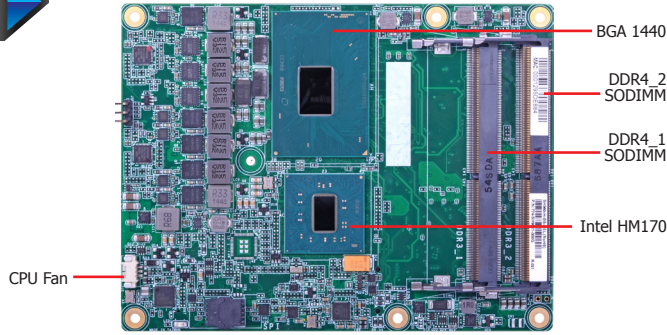




# SH960-HM170

HM170



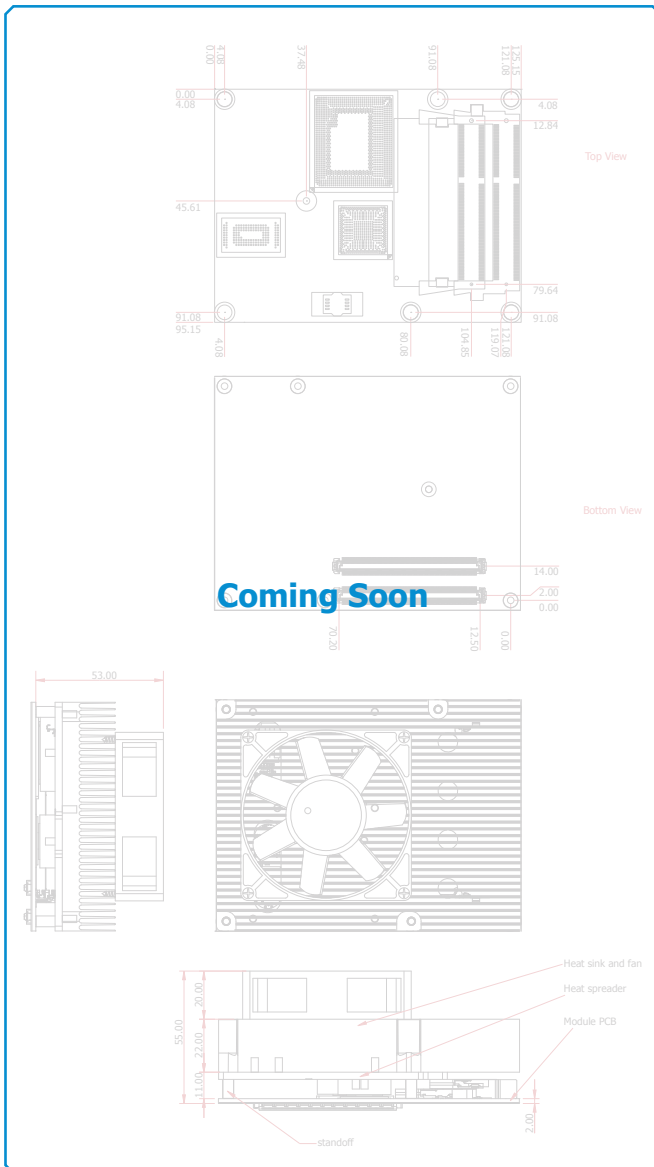
### Features

- Dual channel DDR4 2133MHz SODIMM up to 16GB
- Four display ports: DDI\*/VGA + eDP\*/LVDS + 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 3.0, 8 USB 2.0

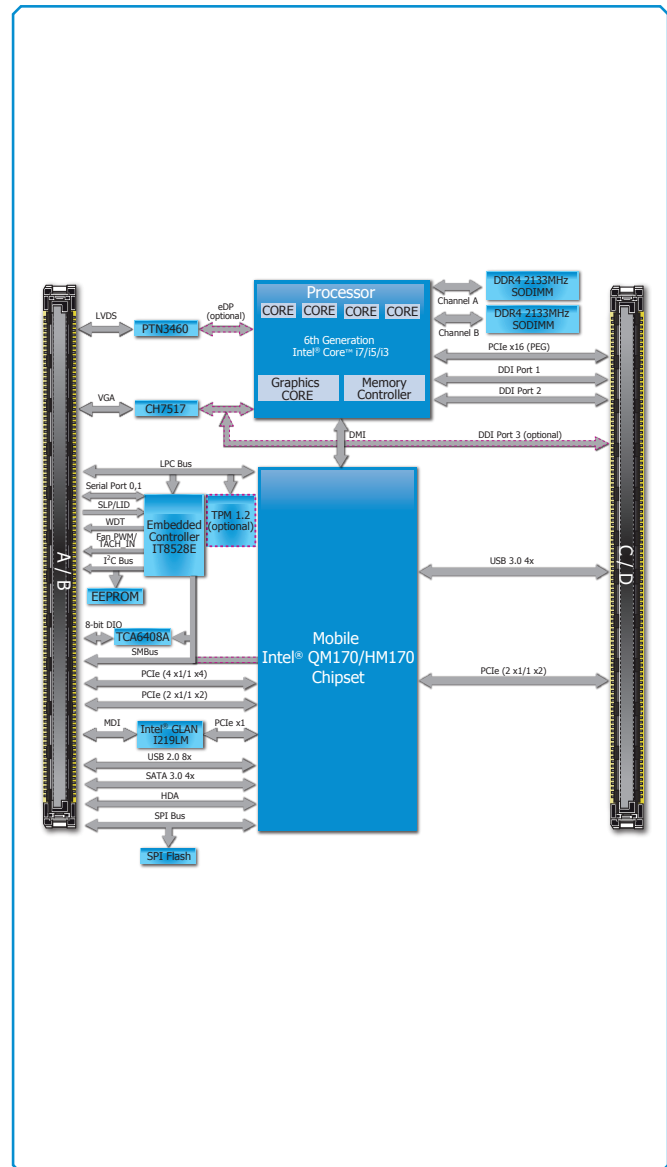
\* Populated by default



### Mechanical Drawing



### Block Diagram



## Specifications

<b>SYSTEM</b>	<b>Processor</b>	6th Generation Intel® Core™ Processors, BGA 1440 Intel® Core™ i3-6100E, Dual Core, 3M Cache, 2.7GHz, 35W Intel® Core™ i3-6102E, Dual Core, 3M Cache, 1.9GHz, 25W	
	<b>Chipset</b>	Intel® HM170	
	<b>Memory</b>	Two 260-pin SODIMM up to 16GB	Dual Channel DDR4 2133MHz
	<b>BIOS</b>	Insyde SPI 128Mbit	
<b>GRAPHICS</b>	<b>Controller</b>	Intel® HD Graphics GT Series	
	<b>Feature</b>	OpenGL 4.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: AVC/H.264, MPEG2, JPEG, HEVC/H265, VP8, VP9	
	<b>Display</b>	1 x DDI/VGA (VGA available upon request) 1 x eDP/LVDS (LVDS available upon request) 2 x DDI (HDMI/DVI/DP++)	VGA: resolution up to 2560x1600 @ 60Hz LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz HDMI: resolution up to 4096x2160 @ 24Hz or 2560x1600 @ 60Hz DVI: resolution up to 1920x1200 @ 60Hz DP++/eDP: resolution up to 4096x2304 @ 60Hz
	<b>Triple Displays</b>	eDP + 2 DDI	VGA + LVDS + DDI
<b>EXPANSION</b>	<b>Interface</b>	1 x PCIe x16 or 2 x PCIe x8 (Gen 3) 8 x PCIe x1 (Gen 2) 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 3.0 8 x USB 2.0	
	<b>SATA</b>	4 x SATA 3.0 (up to 6Gb/s)	
	<b>GPIO</b>	1 x 8-bit DIO	
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds	
<b>SECURITY</b>	<b>TPM</b>	Available Upon Request	
<b>POWER</b>	<b>Type</b>	12V, 5VSB, VCC_RTC (ATX mode)	12V, VCC_RTC (AT mode)
	<b>Consumption</b>	TBD	
<b>OS SUPPORT</b>		Windows 7 Windows 8.1 Windows 10	WES 7 WE8S
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: 0 to 60°C	Storage: -40 to 85°C
	<b>Humidity</b>	Operating: 5 to 90% RH	Storage: 5 to 90% RH
<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	DDI/VGA	eDP/LVDS	GbE	USB 3.0	USB 2.0	Power	Thermal	Temp.
SH960-HM170BS-6100E	TBD	i3-6100E	2 SODIMM	DDI	eDP	1	4	8	ATX/AT	Cooler	0 to 60°C
SH960-HM170BS-6102E	TBD	i3-6102E	2 SODIMM	DDI	eDP	1	4	8	ATX/AT	Cooler	0 to 60°C

## Packing List

• 1 SH960-HM170 board	
• 1 DVD	
• 1 QR (Quick Reference)	
• 1 Cooler (Height: TBD)	TBD

## Optional Items

• COM332-B carrier board kit	770-CM3321-000G
• Heat spreader (Height: TBD)	TBD