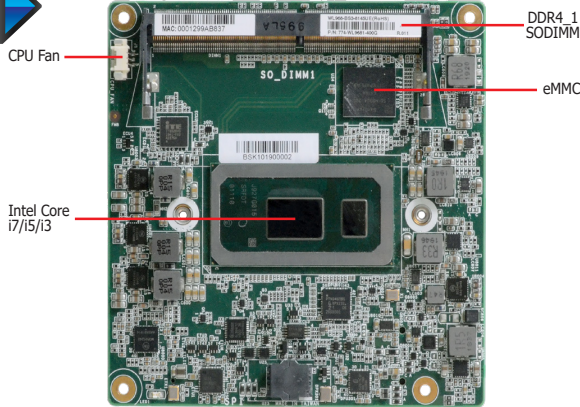




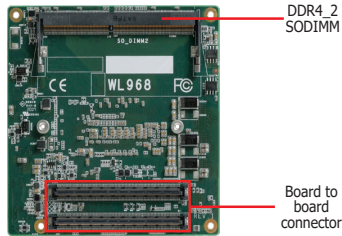
**8th Gen Intel® Core™ Processor  
COM Express® Compact**



**WL968**



Front View



Bottom View

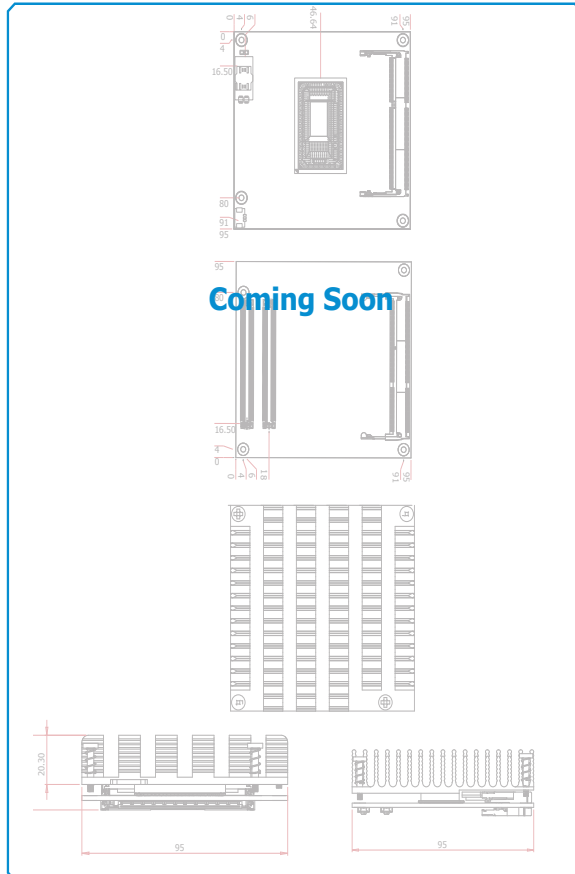
**Features**

- Dual Channel DDR4 2400MHz SODIMM up to 64GB
- Three independent displays: VGA\*/DDI + LVDS\*/eDP + DDI
- DP++ supports 4K x 2K resolution
- Multiple expansion: 8 PCIe x1, 1 LPC, 1 I<sup>2</sup>C, 1 SMBus
- Rich I/O: 1 Intel GbE, 4 USB 3.0, 8 USB 2.0

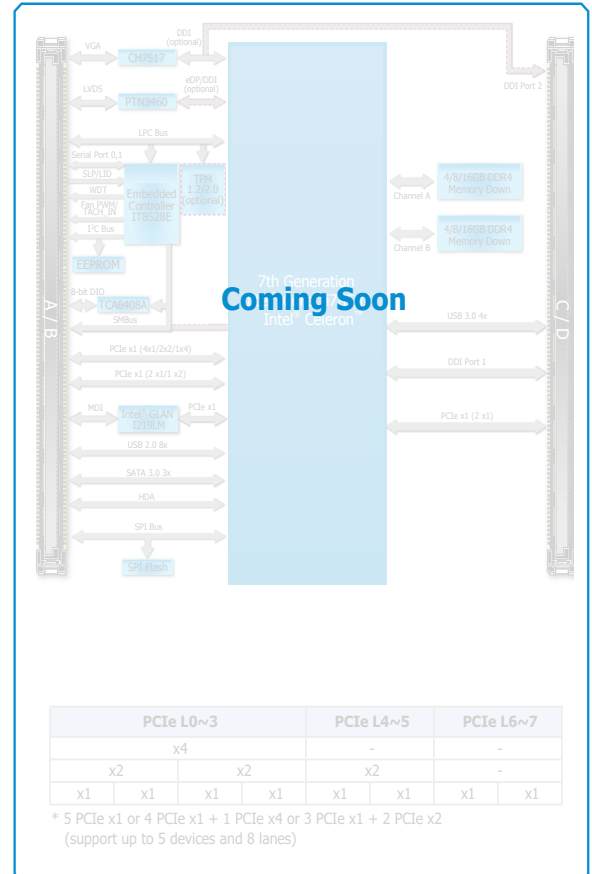
\* Populated by default



**Mechanical Drawing**



**Block Diagram**





**Specifications**

<b>SYSTEM</b>	<b>Processor</b>	8th Gen Intel® Core™ Processor, FCBGA1528 Intel® Core™ i7-8665UE Processor, Quad Core, 8M Cache, 1.7GHz (4.4GHz), 15W Intel® Core™ i5-8365UE Processor, Quad Core, 6M Cache, 1.6GHz (4.1GHz), 15W Intel® Core™ i3-8145UE Processor, Dual Core, 4M Cache, 2.1GHz (3.9GHz), 15W Intel® Celeron® Processor 4305UE, Dual Core, 2M Cache, 2.0GHz (2.0GHz), 15W	
	<b>Memory</b>	Two 204-pin SODIMM up to 64GB	Dual Channel DDR4 2400MHz
	<b>BIOS</b>	AMI SPI 128Mbit	
<b>GRAPHICS</b>	<b>Controller</b>	Intel® HD Graphics	
	<b>Feature</b>	OpenGL 5.0, 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 VGA/DDI (DDI available upon request) 1 x LVDS/eDP (eDP available upon request) 1 x DDI	VGA: resolution up to 1920x1200 @ 60Hz LVDS: dual channel 24-bit, resolution up to 1920x1200 @ 60Hz eDP: resolution up to 4096x2304 @ 60Hz HDMI: resolution up to 4096x2160 @ 30Hz DP++: resolution up to 4096x2304 @ 60Hz
	<b>Triple Displays</b>	VGA + LVDS + DDI	DDI + eDP + DDI
<b>EXPANSION</b>	<b>Interface</b>	5 PCIe x1 or 4 PCIe x1 + 1 PCIe x4 or 3 PCIe x1 + 2 PCIe x2 (support up to 5 devices and 8 lanes) 1 x LPC 1 x I <sup>2</sup> C 1 x SMBus 2 x UART (TX/RX)	
	<b>eMMC</b>	1 x 8GB/16GB/32GB/64GB/128GB eMMC 5.1 (available upon request)	
<b>AUDIO</b>	<b>Interface</b>	HD Audio	
<b>ETHERNET</b>	<b>Controller</b>	1 x Intel® I219LM with iAMT11.0 PCIe (10/100/1000Mbps)	
<b>I/O</b>	<b>USB</b>	4 x USB 3.0 8 x USB 2.0	
	<b>SATA</b>	3 x SATA 3.0 (up to 6Gb/s)	RAID 0/1/5
	<b>DIO</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: Windows 10 IoT Enterprise 64-bit	Ubuntu 18.04
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: 0 to 60°C -40 to 85°C (with heat spreader)	Storage: -40 to 85°C
	<b>Humidity</b>	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	<b>MTBF</b>	TBD	
<b>MECHANICAL</b>	<b>Dimensions</b>	COM Express® Compact	95mm (3.74") x 95mm (3.74")
	<b>Compliance</b>	PICMG COM Express® R3.0, Type 6	
<b>STANDARDS AND CERTIFICATIONS</b>	<b>Certification</b>	CE, FCC, RoHS	

**Packing List**

• 1 WL968 board	
• 1 CPU Cooler (for -40 to 85°C, H=35.2mm)	A71-108124-000G
• 1 Heat sink (for 0 to 60°C, H=26.8mm)	A71-008137-000G

**Optional Items**

• COM332-B carrier board kit	770-CM3321-000G
• Heatspreader (H=11mm)	A71-808324-000G

## 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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