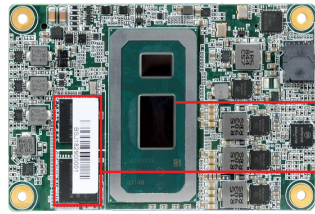




**8th Gen Intel® Core™ Processor
COM Express® Mini**



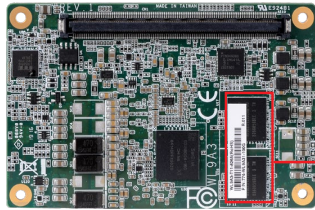
WL9A3



8th Gen Intel®
Core™ Processor

LPDDR3

TOP



LPDDR3

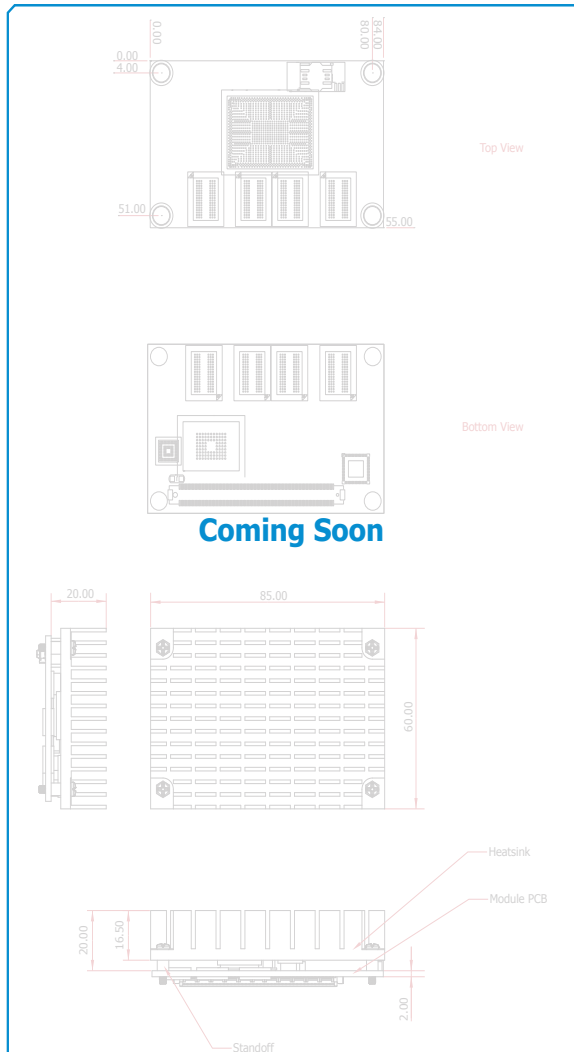
BOTTOM

Features

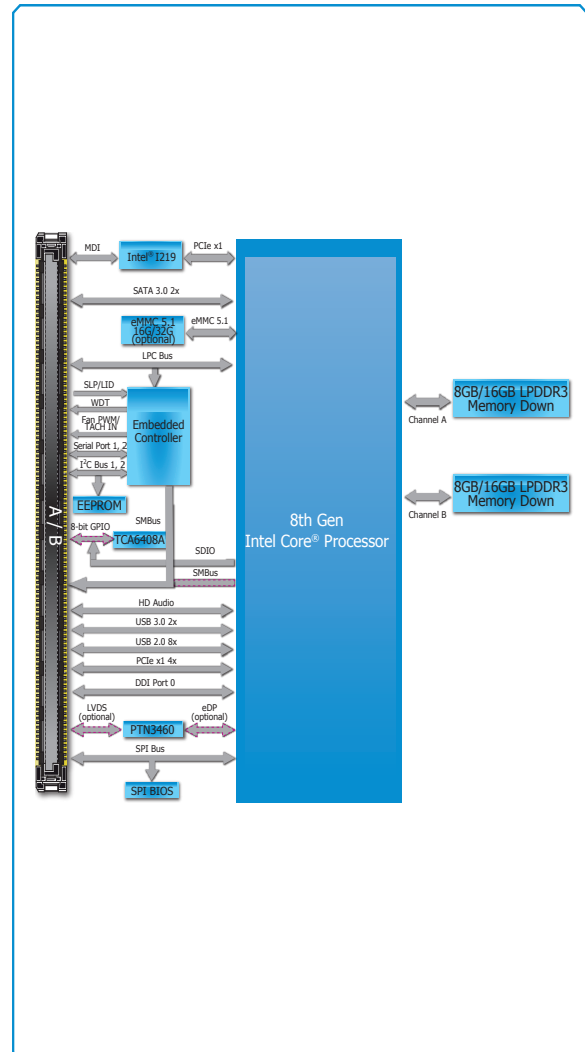
- Dual Channel LPDDR3 2133MHz Memory Down up to 16GB
- 1 LVDS/eDP, 1 DDI (HDMI/DP)
Supports dual displays: DDI + LVDS/eDP
- DP++ resolution supports up to 4096x2304 @ 60Hz
- Multiple expansions: 4 PCIe x1
- Rich I/O: 1 Intel GbE, 2 USB 3.0, 8 USB 2.0



Mechanical Drawing



Block Diagram





Specifications

SYSTEM	Processor	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	
	Memory	8GB/16GB Memory Down Dual Channel LPDDR3 2133MHz	
	BIOS	SPI 128Mbit (default supports FTPM)	
GRAPHICS	Controller	Intel® UHD Graphics 620	
	Feature	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1, WMV9, JPEG/MJPEG, HEVC/H.265, VP8, VP9, MVC HW Encode: AVC/H.264, JPEG/MJPEG, HEVC/H.265, VP8, VP9, MVC	
	Display	1 x DDI (HDMI/DP++) 1 x LVDS/eDP	LVDS: single channel 24-bit, resolution up to 1366x768 @ 60Hz HDMI: resolution up to 4096x2160 @ 30 Hz DP++: resolution up to 4096x2304 @ 60Hz eDP: resolution up to 4096x2304 @ 60Hz
	Dual Display	DDI + LVDS	DDI + eDP
EXPANSION	Interface	4 x PCIe x1 (Gen 3) 1 x SDIO 1 x LPC 2 x I ² C 1 x SMBus 1 x SPI 2 x UART (TX/RX)	
AUDIO	Interface	HD Audio	
ETHERNET	Controller	1 x Intel® I219 (10/100/1000Mbps)	
I/O	USB	2 x USB 3.0 8 x USB 2.0	
	SATA	2 x SATA 3.0 (up to 6Gb/s)	
	GPIO	1 x 8-bit GPIO	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
POWER	Type	4.75V~20V, 5VSB, VCC_RTC (ATX mode)	4.75V~20V, VCC_RTC (AT mode)
	Consumption	TBD	
OS SUPPORT (UEFI ONLY)		Windows 10 IoT Enterprise 64-bit	Ubuntu 16.04
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	TBD	
MECHANICAL	Dimensions	COM Express® Mini	84mm (3.30") x 55mm (2.16")
	Compliance	PICMG COM Express® R3.0, Type 10	

Ordering Information

Model Name	P/N	Processor	Memory	eMMC	DIO/SDIO	LVDS/eDP	GbE	USB 3.0	USB 2.0	Power	Thermal	Temp.
WL9A3-T81-8665	770-WL9A31-000G	i7-8665UE	LPDDR3 8 GB	16 GB	DIO	LVDS	1	2	8	ATX/AT	TBD	-40 to 85°C
WL9A3-T81-8365	770-WL9A31-100G	i5-8365UE	LPDDR3 8 GB	16 GB	DIO	LVDS	1	2	8	ATX/AT	TBD	-40 to 85°C
WL9A3-B81-8145	770-WL9A31-200G	i3-8145UE	LPDDR3 8 GB	16 GB	SDIO	eDP	1	2	8	ATX/AT	TBD	0 to 60°C

Packing List

• 1 WL9A3 board
• 1 DVD
• 1 Heat sink: TBD
• 1 Cooler: TBD

Optional Items

• COM100-B carrier board kit: 770-COM104-000G
• Heat spreader: TBD

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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