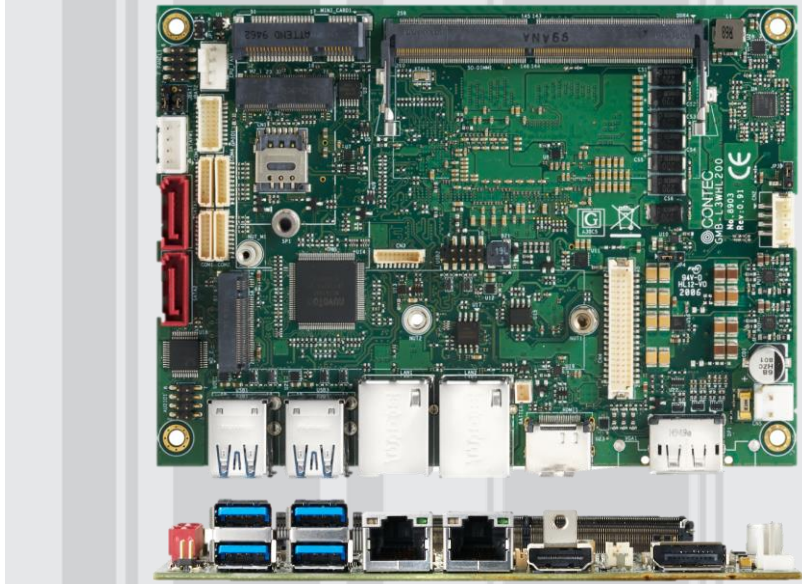


GMB-L3WHL200/300/400

Intel® 8th Gen Core™ Whiskey Lake –U Platform Processor



Heat Spreader

Features

- Intel® 8th Generation Core™ i3-8145UE/ i5- 8365UE/ i7- 8665UE Processor (whiskey Lake-U)
- 1 x DDR4-2400 Non-ECC SO-DIMM, up to 16 GB Supported
- 1 x Full-sized Mini PCIe, 1 x M.2 2280 Key M, and 1 x M.2 2230 Key E Equipped
- Triple-display, HDMI, DisplayPort, and LVDS Supported

SKU Selection Guide

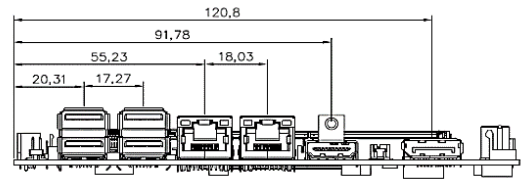
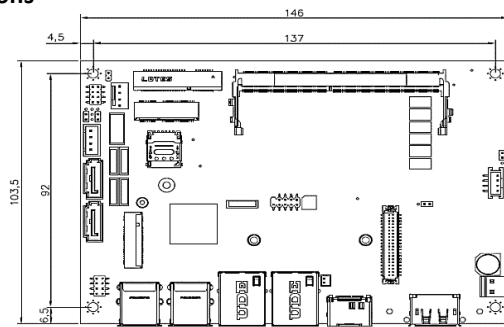
Model Name	Thermal solution	Intel® Core™		
	With heat spreader	Core i3-8145UE 2C/4T 3.9 GHz	Core i5-8365UE 4C/8T 4.1 GHz	Core i7-8665UE 4C/8T 4.4 GHz
GMB-L3WHL200		●		
GMB-L3WHL220	●	●		
GMB-L3WHL300			●	
GMB-L3WHL320	●		●	
GMB-L3WHL400				●
GMB-L3WHL420	●			●

Packing List

- 1x Motherboard
- 1x Installation CD



Mechanical Dimensions



Specifications

MODEL NAME	GMB-L3WHL200/220	GMB-L3WHL300/320	GMB-L3WHL400/420
PROCESSOR	8th Intel® Core™ i3-8145UE	8th Intel® Core™ i5-8365UE	8th Intel® Core™ i7-8665UE
CHIPSET	SoC (System on chipset)		
BIOS	AMI UEFI BIOS		
MEMORY	1 x 260-pin SO-DIMM, single-channel DDR4-2400MHz, up to 16GB		
STORAGE I/F	2 x SATAIII (6.0Gb/s) Port		
DISPLAY INTERFACE	Controller: Intel® UHD graphics 620 Triple display supported: - LVDS : Dual channel 18/24 bits (up to 1920 x 1200 @ 60Hz) - 1 x HDMI (up to 4096 x 2160 @ 30/24Hz) - 1 x Display Port (up to 4096 x 2304 @ 60Hz)		
EXPANSION INTERFACE	1 x Full-sized Mini PCIe for LTE nano-SIM holder (PCIe+USB Signal) 1 x M.2 Key M2242/ 2280 for storage (PCIe+SATA Signal) 1 x M.2 Key E 2230 for wireless LAN (PCIe+USB Signal)		
WATCHDOG TIMER	By Software Programmable		
HARDWARE MONITORING	System monitor(Voltage,Fan Speed and Temperature)		
AUDIO	Mic-In / Line-Out (internal pin header)		
ETHERNET	Dual RJ45 connector on rear I/O 2 x 10/100/1000Mbps Ethernet port Controller: 1 x Intel i219LM + 1 x Intel i210AT		
SERIAL PORT	1x RS232/422/485: by BIOS selectable (internal pin header) 3x RS232 (internal pin header)		
USB PORT	4 x USB3.2 Gen2x1 Type A Connector on rear panel 2 x USB2.0 port with internal connector		
GPIO	16-bit general purpose input/output (internal pin header)		
POWER MANAGEMENT	Power On by Ring/ Wake on LAN function (setting from BIOS)		
DIMENSIONS (L X W)	3.5" (146mm x 102mm)		
POWER SUPPLY	12-24 VDC (± 10%) ; ATX /AT Mode by jumper setting		
ENVIRONMENT	Operation Temperature: 0 to 60°C (with 0.7m/s airflow) Storage Temperature: -10 to 70°C Humidity: 10 to 90% non-condensing		
OS DRIVER SUPPORT	Windows®10 IoT Enterprise LTSC 2019 64 bit		
CERTIFICATE	CE / FCC / VCCI , RoHS2.0		

Ordering Guide

● GMB-L3WHL200	3.5-inch SBC, Intel® Whiskey Lake-U Core i3-8145UE Processor, DDR4 SDRAM
● GMB-L3WHL300	3.5-inch SBC, Intel® Whiskey Lake-U Core i5-8365UE Processor, DDR4 SDRAM
● GMB-L3WHL400	3.5-inch SBC, Intel® Whiskey Lake-U Core i7-8665UE Processor, DDR4 SDRAM
Should be Heat Spreader	
● GMB-L3WHL220	3.5-inch SBC, Intel® Whiskey Lake-U Core i3-8145UE Processor, DDR4 SDRAM
● GMB-L3WHL320	3.5-inch SBC, Intel® Whiskey Lake-U Core i5-8365UE Processor, DDR4 SDRAM
● GMB-L3WHL420	3.5-inch SBC, Intel® Whiskey Lake-U Core i7-8665UE Processor, DDR4 SDRAM

Ordering Guide

● COM port cable	● SATA & SATA power cable	● GPIO cable 16bit
● Mainboard DC-IN cable	● Audio cable	