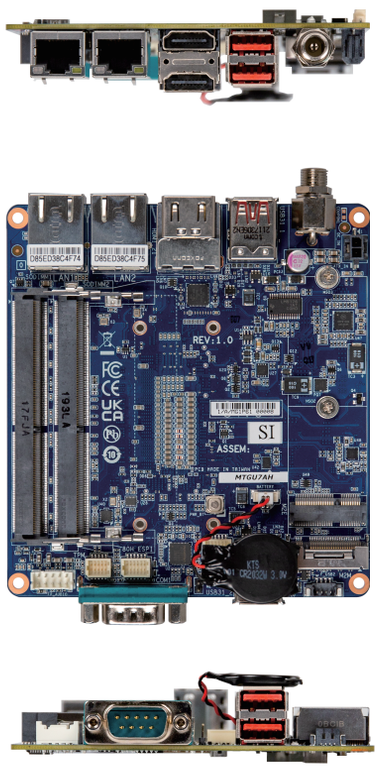
QBi-Series - 10” x 10” Embedded Compact Board

QBi-1165G7A (MTGU7AH)

Embedded Compact Board with Intel® i7-1165G7 Processor, Dual Channel DDR4 memory, 1 x COM, 5 x USB, 2 x HDMI



Features

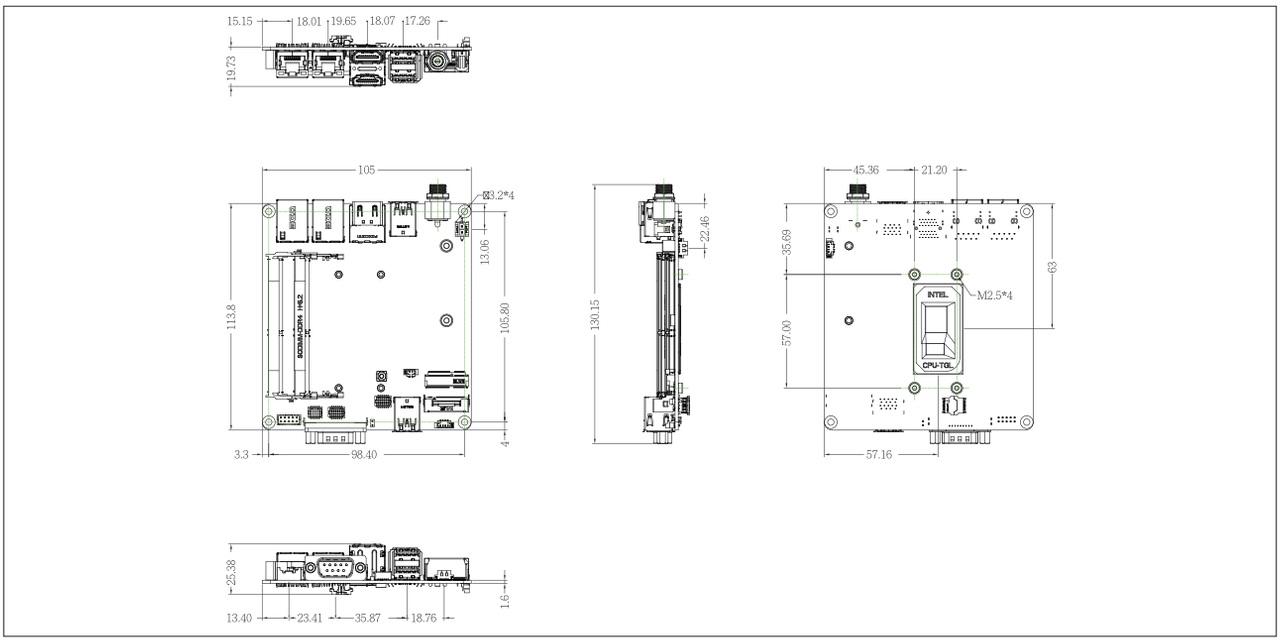
- Embedded IPC Motherboard
- Intel® Core™ i7-1165G7 Processor
- Dual Channel DDR4, 2 x SO-DIMMs
- 2 x GbE LAN Ports
- Ultra-Fast M.2 with PCIe Gen3 x4 Interface
- 2 x HDMI Ports
- 1 x COM Port (RS-232/422/485)

Specifications

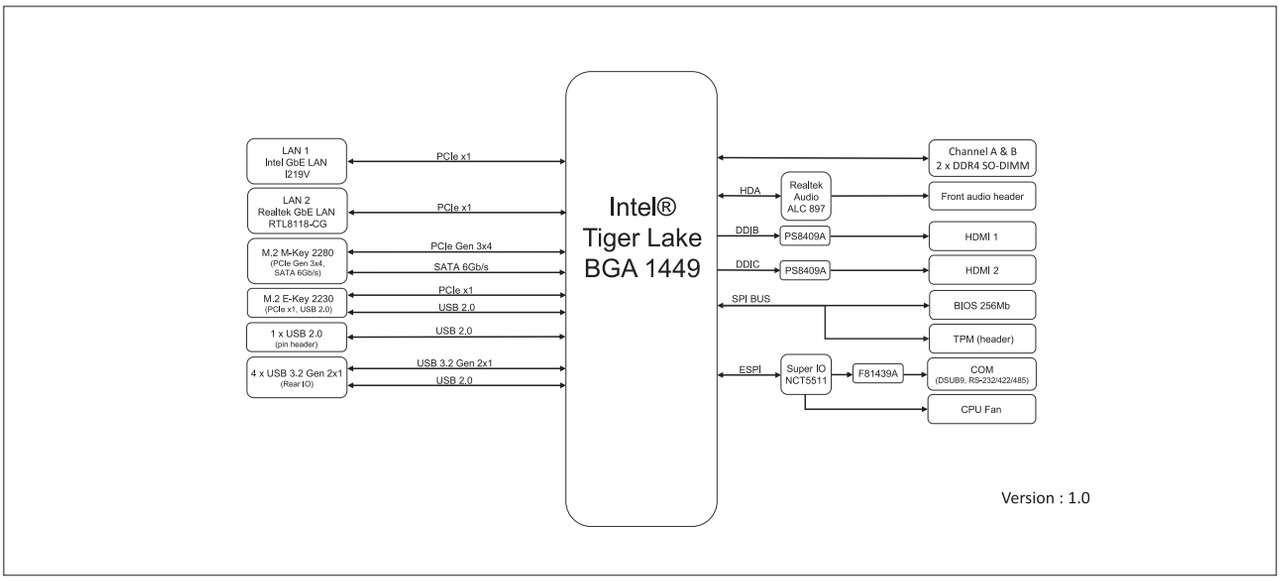
Form Factor	Embedded Compact Board 105W x 110D (mm)
CPU	Intel® Core™ i7-1165G7 Processor 10nm SuperFin, 4 cores, 8 threads, up to 4.7 GHz TDP 28W
Socket	1 x FCBGA1449
Chipset	—
Memory	2 x DDR4 SO-DIMM sockets, Max. Capacity 64 GB Support Dual Channel DDR4 3200 MHz memory modules
Ethernet	2 x GbE LAN Ports (Intel® I219V and Realtek® RTL8118-CG)
Video	Integrated Graphics Processor - Intel® Iris® Xᵉ Graphics: 2 x HDMI 2.0 port, supporting a maximum resolution of 4096x2160 @60Hz (2 independent display outputs)
Audio	Realtek® Audio Codec
Storage	—
Raid	—
Expansion Slots	1 x 2280 M.2 M-Key (PCIe x4, SATA 6Gb/s) 1 x 2230 M.2 E-Key (WiFi/BT)
Internal I/O	1 x 2-pin power connector 1 x CPU fan header 1 x Front panel header 1 x Front panel audio header 1 x USB 2.0 header
Front IO	2 x USB 3.2 Gen 2x1 1 x Power button 1 x COM Port (RS-232/422/485)
Rear IO	2 x HDMI 2 x RJ45 LAN Ports 2 x USB 3.2 Gen 2x1 1 x Screw type DC Jack (+9V~48VDC)
Side IO	—
TPM	1 x TPM header
OS Compatibility	Windows 10/11 (x64)
Operating Properties	Operating temperature: 0°C to +60°C Operating humidity: 0-90% (non-condensing) Non-operating temperature: -40°C to +85°C Non-operating humidity: 0%-95% (non-condensing)
Packing Content	Carton size: 465 x 351 x 217 (mm) Packing Capacity: 10pcs Single Box size: 221 x 178 x 65 (mm)
Order Information	9MTGU7AHMR-SI (Box packing)

Dimension (Unit: mm)

2023/04/28



Block Diagram



Optional Kit

Part No.	Description	Quantity
25ST4-113101-A7R	Fansink	1
25ST5-111500-Y0R	Heat spreader	1
9CTM010NR-00	TPM 2.0 module	1
25CRZ-100600-S9R	TPM Cable	1