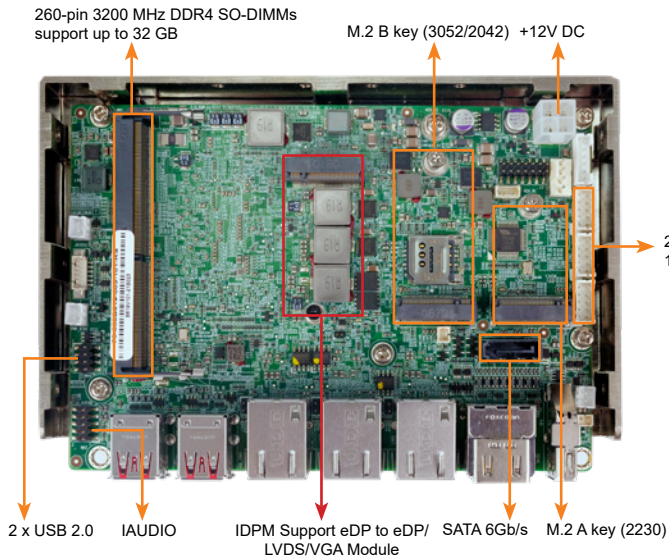
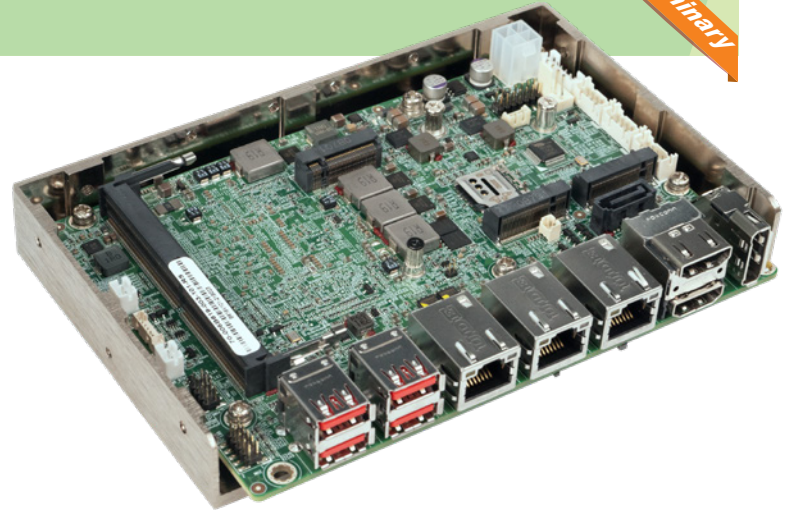


WAFER-TGL

Preliminary

3.5" SBC with 10nm 11th Gen. Intel® Tiger Lake-UP3 Core™ i7/i5/i3 Celeron® on-board SoC with HDMI,DP,IDPM,triple 2.5 GbE Lan port , USB 3.2 Gen2,M.2,SATA 6Gb/s,COM, IAUDIO and RoHS,0°C ~60°C

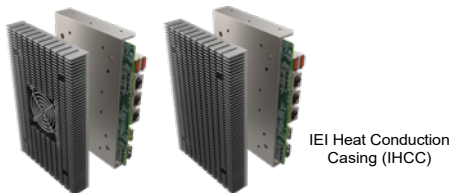


4 x USB 3.2 Gen2 3 x 2.5GbE LAN 2 x HDMI DP

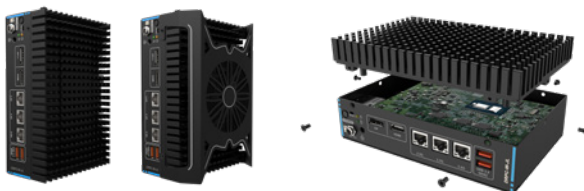


Structure Solution

IEI has developed a highly efficient thermal solution for the 3.5" motherboard - IEI Heat Conduction Casing (IHCC). With its well-design structure, the IHCC can effectively improve heat transfer performance and cut time-to-market. Completely joint with CPU for better heat transfer in 0°C~60°C operating temperature with the active cooling (PN:19XM0B619-0002001-000-RS), and in 0°C~45°C operating temperature with the passive cooling (PN:19XM0B619-0002002-000-RS).



The DRPC-W-JL-R10 is a compact embedded system and designed for 3.5" single board computers. With the two-dimensional heat conduction and low wind resistance design on the surfaced which means you don't need extra thermal solution to form the heat dissipation part. You can get higher hardness, and benefit from the reduced production cost resulting from shortening manufacturing time. Furthermore, the height of aluminum extrusion can therefore be downsized to make the product light weight.



Features



Supports Intel® Tiger Lake-UP3 processors

Equipped with Intel® 11th Gen. Core™ i7/i5/i3, Celeron® UP3 processor, high performance, can handle multitasking at the same time



Support Intel® I225V 2.5GbE network controller chip

I/O layout 2x Gigabit RJ45 network interface, based on Intel® I225V 2.5GbE network controller chip, to achieve network transmission rate up to 2.5GbE



USB 3.2 Gen1/Gen 2 interface, transfer rate up to 10Gb/s

The motherboard design is based on the USB 3.2 protocol, and the I/O layout is 4 USB 3.2 Gen 2 (10Gb/s), providing efficient data transfer rates. The motherboard also has a USB 2.0 port for wiring expansion



IEI-specific IDPM interface

IEI uniquely designs IDPM interface, which can be connected to module cards, and can freely choose to add LVDS/eDP/VGA display interface

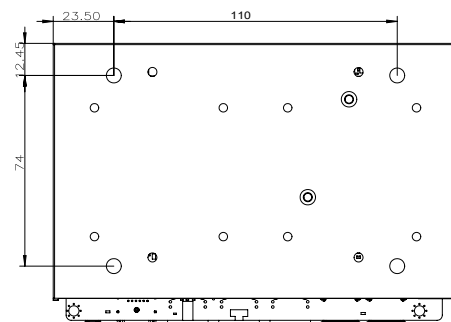
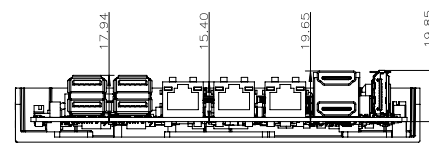
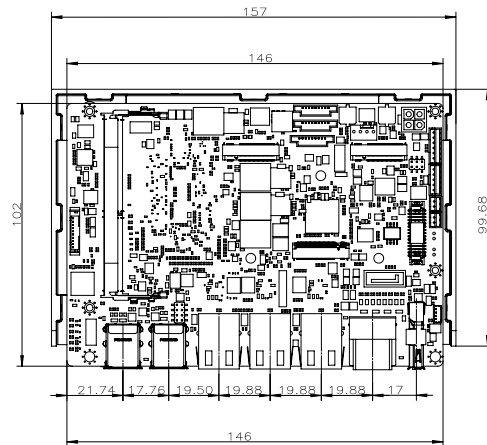
Specifications

- ◆ **SOC**
11th Gen. Intel® mobile Tiger Lake-UP3 SoC
Intel® Core™ i7-1185G7E (up to 4.8GHz, quad-core, 12M Cache, TDP=28/15/12W)
Intel® Core™ i5-1145G7E (up to 4.4GHz, quad-core, 8M Cache, TDP=28/15/12W)
Intel® Core™ i3-1115G4E (up to 4.1GHz, quad-core, 6M Cache, TDP=28/15/12W)
Intel® Celeron® 6305 (up to 1.8GHz, dual-core, 4M Cache, TDP=15W)
- ◆ **BIOS**
AMI UEFI BIOS
- ◆ **Memory**
1 x 260-pin 3200 MHz DDR4 SO-DIMMs support up to 32 GB
- ◆ **Graphics Engine**
Intel® Gen11 UHD Graphics
- ◆ **Display Output**
Four Independent Displays
2 x HDMI 1.4 (up to 4096 x 2160@30Hz)
1 x DP 1.4(up to 4096 x 2160 @60Hz)
1 x IEI IDPM 3040 slot (only for IEI eDP/LVDS/VGA module)
- ◆ **Ethernet**
LAN1: Intel® I225V 2.5GbE
LAN2: Intel® I225V 2.5GbE
LAN3: Intel® I225V 2.5GbE
- ◆ **External I/O**
4 x USB 3.2 Gen2(10Gb/s)
- ◆ **Internal I/O**
1 x SATA 6Gb/s
2 x USB 2.0 Pin Header(p=2.0)
2 x RS-232/422/485 (2 x 5 pin, P=2.0)
1 x RS-232 (2 x 5 pin, P=2.0)
- ◆ **I²C**
1 x I2C(1x4 pin)
- ◆ **Audio**
1 x IAUDIO (2x5 pin)Support IEI AC-KIT-888S kit
- ◆ **Front Panel**
1 x Power LED & HDD LED (1x6 pin P=2.0)
1 x Power button (1x2 pin P=2.0)
1 x Reset button (1x2 pin P=2.0)
- ◆ **LAN LED**
3 x LAN LED (1x2 pin)
- ◆ **Expansion**
1 x M.2 A Key for WIFI & BT (2230) (PCIe Gen3 x1/USB 2.0 signal)
1 x M.2 B key (3052/2042) w/ SIM holder (PCIe Gen3 x2/USB 2.0 signal)
- ◆ **Digital I/O**
1 x 12-bit Digital I/O(2 x 7pin,)
- ◆ **TPM**
Intel® PTT(TPM 2.0)
- ◆ **Fan Connector**
1 x System fan connector (1x4 pin)
- ◆ **Power Supply**
+12V DC input power (AT/ATX mode)
- ◆ **Watchdog Timer**
Software Programmable support 1~255 sec. System reset
- ◆ **Power Consumption**
TBD
- ◆ **Operating Temperature**
0°C ~ 60°C
- ◆ **Storage Temperature**
-20°C ~ 70°C
- ◆ **Operating Humidity**
5% ~95%, non-condensing
- ◆ **Dimension**
115mm x 165mm
- ◆ **Weight**
GW: 850g / NW: 350g
- ◆ **Certification**
CE/FCC Compliant

Optional Accessories

Part No.	Description
CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board,RoHS
32205-002700-200-RS	RS-232/422/485, 200mm, P=2.0
19XM0B619-0002001-000-RS	Cooler module, 157 mm x 100 mm x 20 mm, with pad and fan
19XM0B619-0002002-000-RS	Heatsink module, 157 mm x 100 mm x 20 mm, with pad

Dimensions (Unit: mm)



Packing List

1 x WAFER-TGL-U single board computer	1 x SATA with power cable kit
1 x Power cable for P4	1 x QIG

Ordering Information

Part No.	Description
WAFER-TGL-U-C-R10	3.5" SBC with Intel® Tiger Lake-UP3 Celeron® 6305 Processor,DDR4 SO-DIMM,12V DC input,Quad Display, Triple Intel® 2.5 GbE,SATA,USB3.2,M.2,SoC,RoHS
WAFER-TGL-U-i3-R10	3.5" SBC with Intel® Tiger Lake-UP3 Core™ i3-1115G4E Processor,DDR4 SO-DIMM,12V DC input,Quad Display,Triple M.2 with A/B key,Triple Intel® 2.5 GbE,SATA,USB3.2,SoC,RoHS
WAFER-TGL-U-i5-R10	3.5" SBC with Intel® Tiger Lake-UP3 Core™ i5-1145G7E Processor,DDR4 SO-DIMM,12V DC input,Quad Display,Triple M.2 with A/B key,Triple Intel® 2.5 GbE,SATA,USB3.2,SoC,RoHS
WAFER-TGL-U-i7-R10	3.5" SBC with Intel® Tiger Lake-UP3 Core™ i7-1185G7E Processor,DDR4 SO-DIMM,12V DC input,Quad Display,Triple M.2 with A/B key,Triple Intel® 2.5 GbE,SATA,USB3.2,SoC,RoHS



CB-USB02A-RS

AC-KIT-888S-R10

32205-002700-200-RS

19XM0B619-0002001-000-RS

19XM0B619-0002002-000-RS