

# WAFER-TGL-U

3.5" SBC supports Intel® Tiger Lake-UP3 Core I™ Celeron® Processor, with HDMI™, DP, iDPM, triple 2.5 GbE Lan port, USB 3.2, M.2, SATA 6Gb/s, COM, Audio and RoHS, -10°C ~60°C



## Features

1. 3.5" SBC with Intel® Tiger Lake-UP3 on board SOC processor, support SO-DIMM DDR4-3200 memory
2. Support Quadruple independent display: 2 x HDMI™ 1.4, 1 x DP 1.4, 1 x iDPM
3. High-speed I/O interface: 4 x USB 3.2 gen 2 (10Gb/s), SATA (6Gb/s)
4. Support three Intel® I225V/I226V 2.5GbE network port
5. Support M.2 A Key, B key extension

## Specifications

| System                      |   |
|-----------------------------|---|
| CPU                         | 11th Gen. Intel® mobile Tiger Lake-UP3 on board processor                   |
|                             | Intel® Core™ i7-1185G7E (up to 4.4GHz, quad-core, 12M Cache, TDP=28/15/12W) |
|                             | Intel® Core™ i5-1145G7E (up to 4.1GHz, quad-core, 8M Cache, TDP=28/15/12W)  |
|                             | Intel® Core™ i3-1115G4E (up to 3.9GHz, dual-core, 6M Cache, TDP=28/15/12W)  |
|                             | Intel® Celeron® 6305E (up to 1.8GHz, dual-core, 4M Cache, TDP=15W)          |
| Memory                      | One 260-pin 3200 MHz DDR4 SO-DIMMs support up to 32 GB                      |
| Memory Max.                 | up to 32GB  |
| Cooling method / System Fan | 1 x System fan connector (1x4 pin, P=2.54)                                  |
| Storage                     |   |
| Storage                     | 1 x SATA : 6Gb/s with 5V SATA power connector                               |
|                             | 1 x M.2(NGFF) : B Key(2242/3052) with PCIe Gen3 x2,support NVME storage     |
| I/O Interface               |   |
| Display Output              | 2 x HDMI™ : up to 4096 x 2160@30Hz  |
|                             | 1 x Display Port : up to 4096 x 2160@60Hz                                   |
|                             | 1 x iDPM : IEI iDPM 3040 slot (only for IEI eDP/LVDS/VGA module)            |
| Ethernet                    | 3 x LAN -   |
|                             | LAN1: Intel® I225V/I226V 2.5GbE controller                                  |
|                             | LAN2: Intel® I225V/I226V 2.5GbE controller                                  |
|                             | LAN3: Intel® I225V/I226V 2.5GbE controller                                  |
| Audio                       | 1 x HD Audio : 1 x iAUDIO, support IEI AC-KIT-888S Audio Module (2 x 5 pin) |
| I/O Interface               | 1 x Internal RS-232 : 2x5 pin, P=2.0  |
|                             | 2 x Internal RS-232/422/485 : 2x5 pin, P=2.00 ,RS-485 support AFC           |
|                             | 2 x Internal USB 2.0 : 2x4 pin, P=2.00                                      |
|                             | 1 x DIO : 12-bit digital I/O (2x7 pin, P=2.0)                               |
|                             | 4 x External USB 3.2 Gen2x1 : 10Gb/s  |
| Expansion                   | 2 x M.2(NGFF) -   |
|                             | 1 x M.2 A key (2230) with PCIe Gen3 x1/USB 2.0                              |
|                             | 1 x M.2 B Key (2242/3052) for 5G with PCIe Gen3 x2/USB 2.0                  |
| Other Features              |   |
| TPM                         | Intel® PTT(TPM 2.0)   |
| Power                       |   |
| Power Supply                | +12V DC input power (AT/ATX mode)   |

|                       |                          |
|-----------------------|--------------------------|
| Environment           |                          |
| Operating Temperature | 0°C ~ 60°C               |
| Storage Temperature   | -20°C ~ 70°C             |
| Humidity              | 5% ~ 95%, non-condensing |
| Certifications        |                          |
| Safety & EMC          | CE/FCC compliant         |

## Ordering Information

|                    |  |
|--------------------|--|
| WAFER-TGL-U-i7-R11 | 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 |
| WAFER-TGL-U-i5-R11 | 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-i3-R11 | 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-CE-R11 | 3.5" SBC with Intel® Tiger Lake-UP3 Celeron 6305E 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    |

## Packing List

|                                       |                |
|---------------------------------------|----------------|
| 1 x WAFER-TGL-U single board computer | 1 x SATA cable |
| 1 x I/O shielding                     | 1 x QIG        |