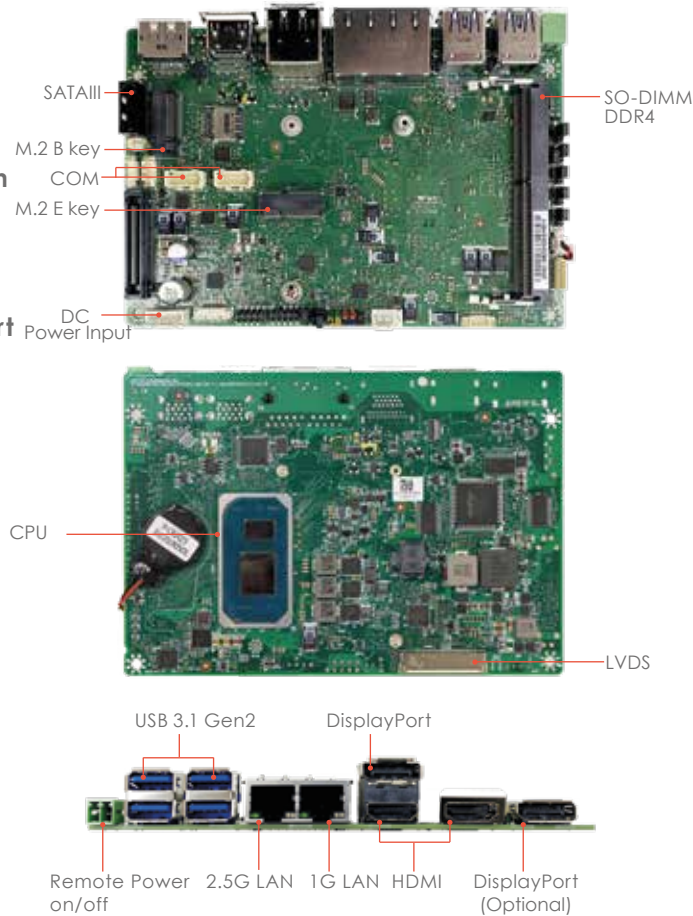
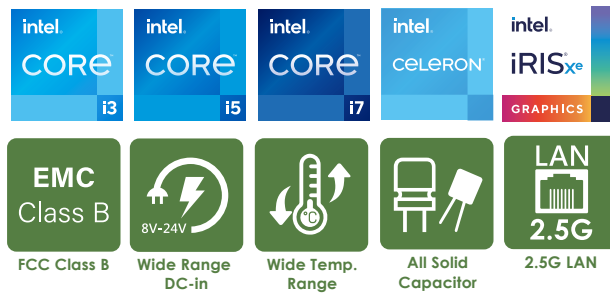


# PD11TGS

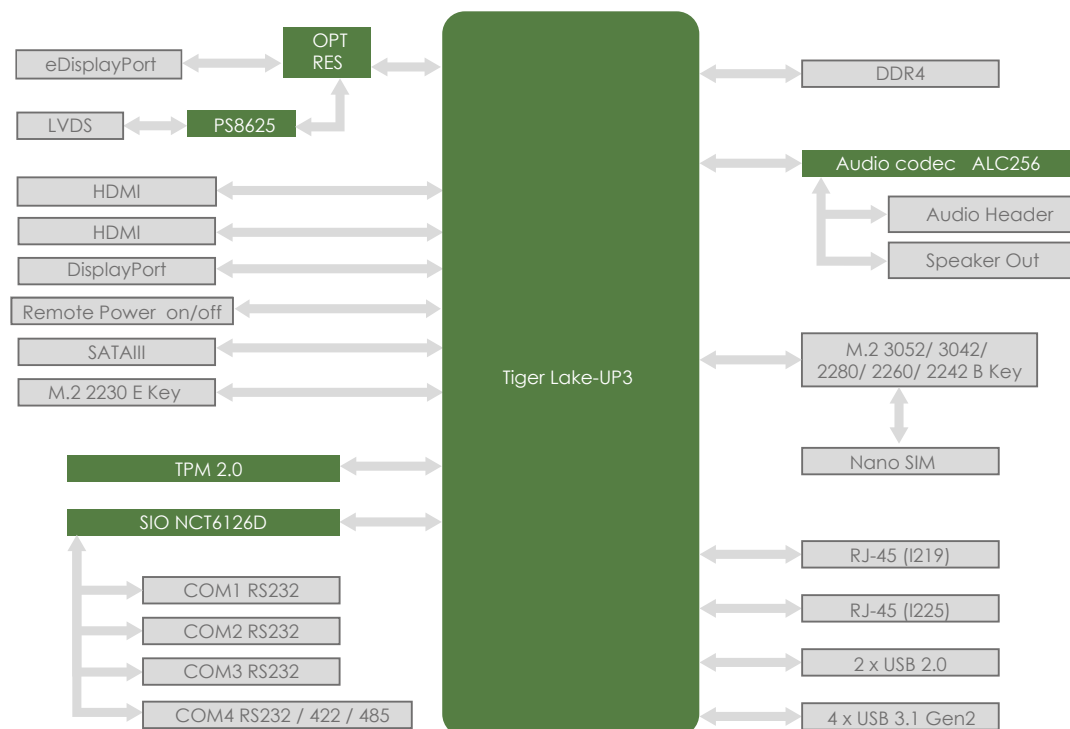
**3.5" SBC Form Factor**  
**Tiger Lake UP3 (Intel® Core™ and Celeron® TDP up to 28W)**

## Features

- Intel® Tiger Lake UP3 Core i7/i5/i3 / Celeron ULV processors
- Outstanding graphic computing capability with Integrated Intel® Iris Xe graphics
- Intel® vPro technology support
- 1 x DDR4 SO-DIMM and support up to 32GB
- Support quadruple display for HDMI, DisplayPort and LVDS / eDP
- 1 x SATA III
- 1 x Intel® 1G + 2.5G LAN port
- 2 x USB 2.0, 4 x USB 3.1 Gen2 and 4 x COM
- 8V~24V wide voltage power input



## Block Diagram



## PD11TGS 3.5" SBC

| MECHANICAL            |                                                                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor           | 3.5" SBC Embedded: 4" x 5.8" (102mm x 147mm)                                                                                                                     |
| SYSTEM                |                                                                                                                                                                  |
| Processor             | 11th Gen Intel® Tiger Lake-UP3 i3-1115G4E (Dual Core, 6MB Cache, up to 3.90 GHz)<br>option: 11th Gen Tiger Lake-UP3 Celeron 6305E / i5-1145G7E / i7-1185G7E      |
| Chipset               | Intel® SoC Integrated                                                                                                                                            |
| Memory                | DDR4 3200MHz / 1 x 260-pin SO-DIMM / Max. 32GB (Non-ECC)                                                                                                         |
| Graphics              | Intel® Iris Xe Graphics                                                                                                                                          |
| Ethernet              | Intel® I219LM Giga LAN + I225LM 2.5G                                                                                                                             |
| Audio                 | Realtek® ALC256                                                                                                                                                  |
| I/O Chipset           | Nuvoton NCT6126D                                                                                                                                                 |
| TPM                   | Nuvoton NPCT750AABYX TPM2.0                                                                                                                                      |
| Expansion Slot        | Storage / LTE / 5G: M.2 2242 / 2260 / 2280 / 3042 / 3052 B Key (USB2.0/*PCIex1/SATAIII)<br>Wireless: M.2 2230 E KEY (PCIe / USB) *Not support M.2 M Key NVMe SSD |
| BIOS                  | AMI BIOS                                                                                                                                                         |
| H / W Monitor         | Temperature Monitor, Voltage Monitor, Fan Monitor                                                                                                                |
| Watchdog Timer        | 1~255 Steps by Software Program                                                                                                                                  |
| Smart Fan Control     | CPU Fan                                                                                                                                                          |
| GRAPHICS              |                                                                                                                                                                  |
| HDMI 2.0b             | Up to 4K (4096 x 2160) @60 Hz                                                                                                                                    |
| HDMI 2.0b             | Up to 4K (4096 x 2160) @60 Hz                                                                                                                                    |
| DisplayPort 1.4       | Up to 5120 x 3200 @60 Hz                                                                                                                                         |
| LVDS                  | Up to 1920 x 1200 @60 Hz                                                                                                                                         |
| eDP (Option)          | Up to 5120 x 3200 @60 Hz                                                                                                                                         |
| REAR I/O              |                                                                                                                                                                  |
| USB                   | 4 x USB 3.1 Gen2                                                                                                                                                 |
| Display I/O           | 2 x HDMI 2.0b, 1 x DisplayPort 1.4                                                                                                                               |
| Audio I/O             | —                                                                                                                                                                |
| LAN I/O               | 2 x RJ-45                                                                                                                                                        |
| Serial Port           | —                                                                                                                                                                |
| PS/2 Port             | —                                                                                                                                                                |
| Others                | 1 x 2-pin Remote Power ON/OFF Terminal Block Connector                                                                                                           |
| INTERNAL CONNECTORS   |                                                                                                                                                                  |
| Storage               | 1 x SATAIII                                                                                                                                                      |
| USB                   | 2 x USB2.0                                                                                                                                                       |
| Display I/O           | 1 x LVDS (colay eDP)<br>1 x Backlight Connector                                                                                                                  |
| Audio I/O             | 1 x Audio Header Supporting System Stereo Speaker<br>1 x Audio Header (Front Panel Mic-in & Line-out)                                                            |
| Serial Port           | 4 x RS232 (One Supports RS232/422/485)                                                                                                                           |
| PS/2 Port             | —                                                                                                                                                                |
| Parallel Port         | —                                                                                                                                                                |
| GPIO                  | —                                                                                                                                                                |
| Fan                   | 1 x 4-pin CPU Fan Header                                                                                                                                         |
| Power                 | 1 x 8~24V 4-pin Power Connector, 1 x AT/ATX Mode Select Jumper                                                                                                   |
| Others                | 1 x Front IO Header (PWR ON/RESET/PWR LED/HDD LED)<br>1 x Nano SIM slot, 1 x Buzzer                                                                              |
| POWER REQUIREMENT     |                                                                                                                                                                  |
| Power Input           | 8~24V Wide Range DC Input w/ 4-pin Power Header (Pitch: 2.5mm)                                                                                                   |
| ENVIRONMENTAL         |                                                                                                                                                                  |
| Operating Temperature | 15W TDP: -40 ~ 60°C (-40 ~140°F)<br>28W TDP: -40 ~ 50°C (-40 ~122°F)<br>with 0.7m/s Air Flow and Wide Temperature Memory/Storage                                 |
| Storage Temperature   | -40 ~ 85°C (-40 ~185°F)                                                                                                                                          |
| Operating Humidity    | 10% ~ 95% R/H, non-condensing                                                                                                                                    |
| Certification         | CE & FCC Class B                                                                                                                                                 |
| OS                    |                                                                                                                                                                  |
| OS Support            | Windows® 10 64bit, Linux (support by request)                                                                                                                    |

## Ordering Information

| Model Number        | Processor     | HS Configuration | Model Number        | Processor  | HS Configuration |
|---------------------|---------------|------------------|---------------------|------------|------------------|
| PD11TGS-6305E-HSK   | Celeron 6305E | MB + Heatsink    | PD11TGS-1145G7E-HSK | i5-1145G7E | MB + Heatsink    |
| PD11TGS-1115G4E-HSK | i3-1115G4E    | MB + Heatsink    | PD11TGS-1185G7E-HSK | i7-1185G7E | MB + Heatsink    |

\*5G card support is by BOM option. Please check with sales about the M.2 B Key 3052 5G card spec if you have any request

\*Option 1 / 2 : eDP / with 2nd DP without LVDS/eDP,

## Packing List

| Packing           |                       |                   |                             |
|-------------------|-----------------------|-------------------|-----------------------------|
| • 1 x Motherboard | • 1 x 50cm SATA Cable | • 1 x Quick Guide | • 1 x 45cm SATA Power Cable |