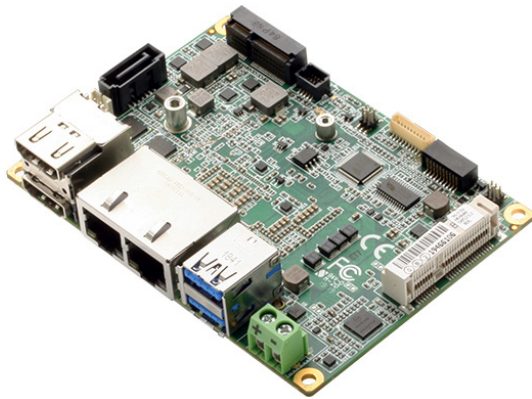


Embedded Single Board for OEM/ODM

# ONYX PICO-WHU4

Pico-ITX Board with 8th Generation Intel® Core™ i7/i5/i3/Celeron® U-Series Processor



## Features

- 8th Intel® Core™ i7/i5/i3/Celeron Processor SoC
- Non-ECC DDR4 SODIMM Slot x 1, up to 16GB
- Dual HDMI ports (HDMI 1.4b)
- GbE x 2, SATA 6.0 Gb/s x 1, GPIO x 4
- USB3.2 Gen2 x 2 (Rear), USB 2.0 x 2 Pin header, RS-232/422/485 x 2
- Full size mSATA/mPCIe x 1 (Select by BIOS), M.2 2230 (E key) x 1
- 12V Only (Terminal block and DC barrel co-design)



## Specifications

### System

|                       |   |
|-----------------------|---|
| Form Factor           | Pico-ITX  |
| CPU                   | Intel® 8th Generation Core™ i7/i5/i3/Celeron SoC<br>i7-8665UE (4C, 1.7GHz, up to 4.4GHz)<br>i5-8365UE (4C, 1.6GHz, up to 4.1GHz)<br>i3-8145UE (2C, 2.2GHz, up to 3.9GHz)<br>4305UE (2C, 2GHz) |
| CPU Frequency         | Up to 4.4 GHz   |
| Chipset               | Intel® Whiskey-U SoC Processor  |
| Memory Type           | DDR4 2400MHz SODIMM x 1, Max. 16 GB   |
| Memory Capacity       | Up to 16GB  |
| BIOS                  | UEFI only   |
| Wake on LAN           | Yes   |
| Watchdog Timer        | 255 Levels  |
| Power Requirement     | +12V AT/ATX (default)   |
| Power Supply Type     | Lockable & phoenix Terminal co-lay  |
| Power Consumption     | TBD   |
| System Cooling        | Heat-spreader, cooler optional  |
| Dimension (L x W)     | 3.94" x 2.84" (100 mm x 72 mm)  |
| Gross Weight          | TBD   |
| Operating Temperature | 32°F ~ 140°F (0°C ~ 60°C)   |
| Storage Temperature   | -40°F ~ 176°F (-40°C ~ 80°C)  |
| Operating Humidity    | 0% ~ 90% relative humidity, non-condensing  |
| MFTB (Hours)          | TBD   |
| Certification         | CE / FCC  |

### Display

|               |   |
|---------------|---|
| Chipset       | Intel® 8th Generation Core™ i7/i5/i3/Celeron SoC<br>i7-8665UE (4C, 1.7GHz, up to 4.4GHz)<br>i5-8365UE (4C, 1.6GHz, up to 4.1GHz)<br>i3-8145UE (2C, 2.2GHz, up to 3.9GHz)<br>4305UE (2C, 2GHz) |
| Resolution    | HDMI 1.4b up to 3840 x 2160 x 2   |
| LCD Interface | —   |

### I/O

|                |   |
|----------------|---|
| Storage / SSD  | mini-PCIe(Full) x 1 ( PCIe[x1]x1), USB 3.2 Gen 1/2.0,(SATA)<br>SATA 6.0Gb/s x 1, (5V Power) |
| Ethernet       | Realtek 8111G*2 10/100/1000Mbps   |
| USB Port       | USB 3.2 Gen 2 x 2 (Rear)<br>USB 2.0 x 2 Pin header  |
| Serial Port    | RS-232/422/485 x 2  |
| DIO            | 4-bit   |
| Expansion Slot | M.2 2230 E key x 1 (For WIFI/BT, PCIe/USB signal only)<br>SMBUS/I2C/LPC/eSPI x 1            |