

[Manuals.plus](#) /

› [Beelink](#) /

› Beelink Mini S12 Pro Mini PC User Manual

Beelink Intel MINI S12 Pro

Beelink Mini S12 Pro Mini PC User Manual

Model: Intel MINI S12 Pro

1. PRODUCT OVERVIEW

The Beelink Mini S12 Pro is a high-performance, low-power mini PC designed for a variety of uses, including office work, home entertainment, and light content creation. Its compact design saves space while delivering robust performance.



Figure 1.1: Beelink Mini S12 Pro Mini PC. This image shows the compact form factor of the device, highlighting its sleek design and front-facing USB ports and power button.

Rich interface design

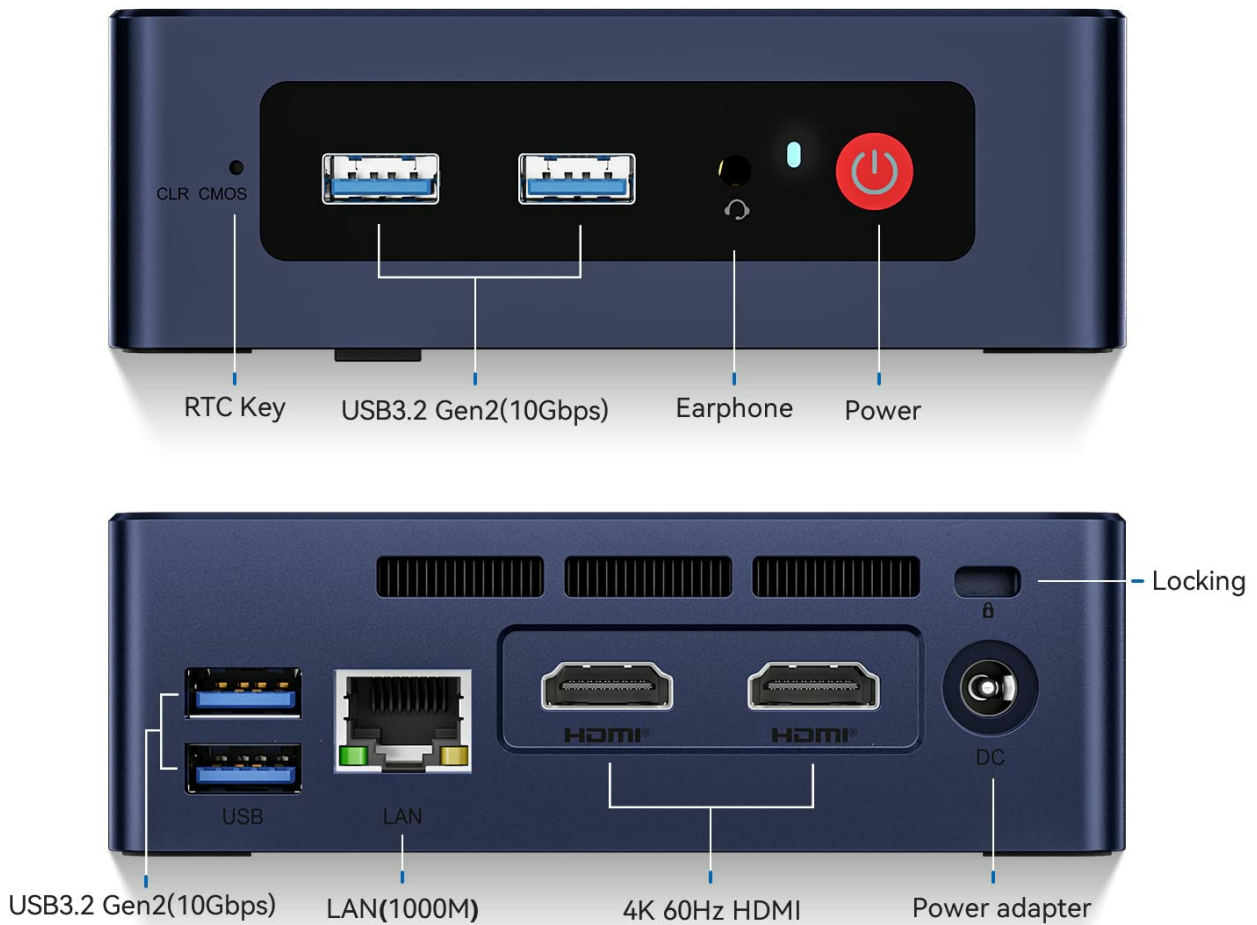


Figure 1.2: Compact Size and Internal SSD Slots. This image illustrates the small dimensions of the Mini PC and provides a view of the internal M.2 SSD slots, indicating expandability.

Key Features:

- **Processor:** 12th Gen Intel Alder Lake-N100 (4 Cores/4 Threads, up to 3.4GHz)
- **Memory:** 16GB DDR4 RAM
- **Storage:** 500GB M.2 2280 NVMe SSD (expandable)
- **Graphics:** Intel UHD Graphics with 4K Dual Display support (via 2 HDMI ports)
- **Connectivity:** WiFi 6 (802.11ax), Bluetooth 5.2, 1000Mbps LAN
- **Cooling:** Efficient and quiet cooling system

Product Video Overview

Video 1.1: Introduction to Beelink Mini S12 N100 Mini PC. This video provides a brief overview of the Beelink Mini S12 Pro, highlighting its key specifications and compact design.

2. SETUP GUIDE

2.1 Unboxing and Initial Inspection

Carefully unpack all components from the box. Ensure all items listed below are present and undamaged.

- Beelink Mini S12 Pro Mini PC
- Power Adapter
- HDMI Cables (typically 2)
- Wall-mounted Bracket
- User Manual



Mini S12 Pro N100
16G/500G

Figure 2.1: Included Accessories. This image displays the standard accessories that come with the Beelink Mini S12 Pro, including the user manual, wall-mount bracket, HDMI cables, and power adapter.

2.2 Connecting Your Mini PC

Follow these steps to connect your Mini PC to a display and peripherals:

1. **Connect to Display:** Use the provided HDMI cables to connect the Mini PC to your monitor(s) or TV. The device supports dual 4K displays.
2. **Connect Peripherals:** Plug in your USB keyboard and mouse into the available USB 3.2 Gen2 ports.
3. **Network Connection:** For a wired connection, connect an Ethernet cable to the LAN port. For wireless, ensure your WiFi network is available during initial setup.
4. **Power Connection:** Connect the power adapter to the DC-in port on the Mini PC, then plug the adapter into a power outlet.

SO-DIMM DDR4 3200MHz

High quality memory

Stable operation

Single-channel support up to 16GB(dependent on memory type),
optional single-channel 8/16GB memory.

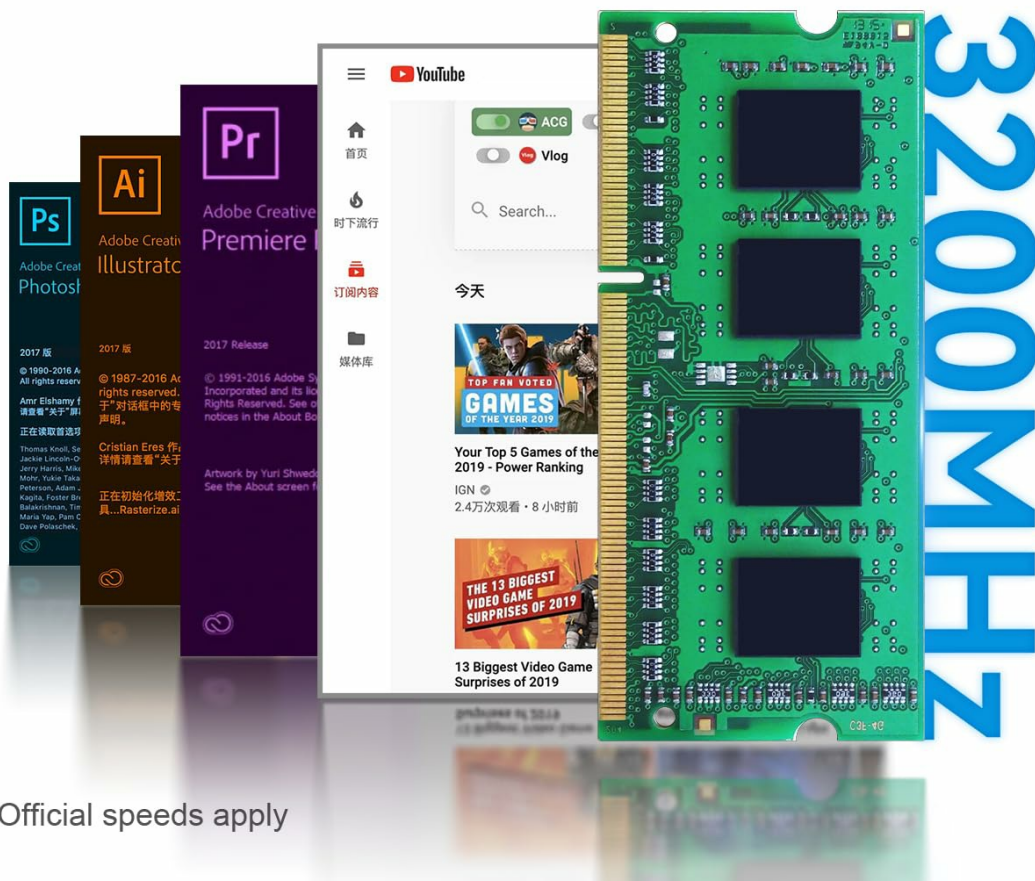


Figure 2.2: Front Interface Design. This image highlights the front ports of the Mini PC, including the RTC Key, USB 3.2 Gen2 (10Gbps) ports, earphone jack, and power button.

Dual SSD High-speed Storage

Supports M.2 2280 NVMe/SATA3 SSD, Configurable to 4TB storage.

Mini S12 Pro ships with a SATA3 SSD

Optional:256/500GB/1TB

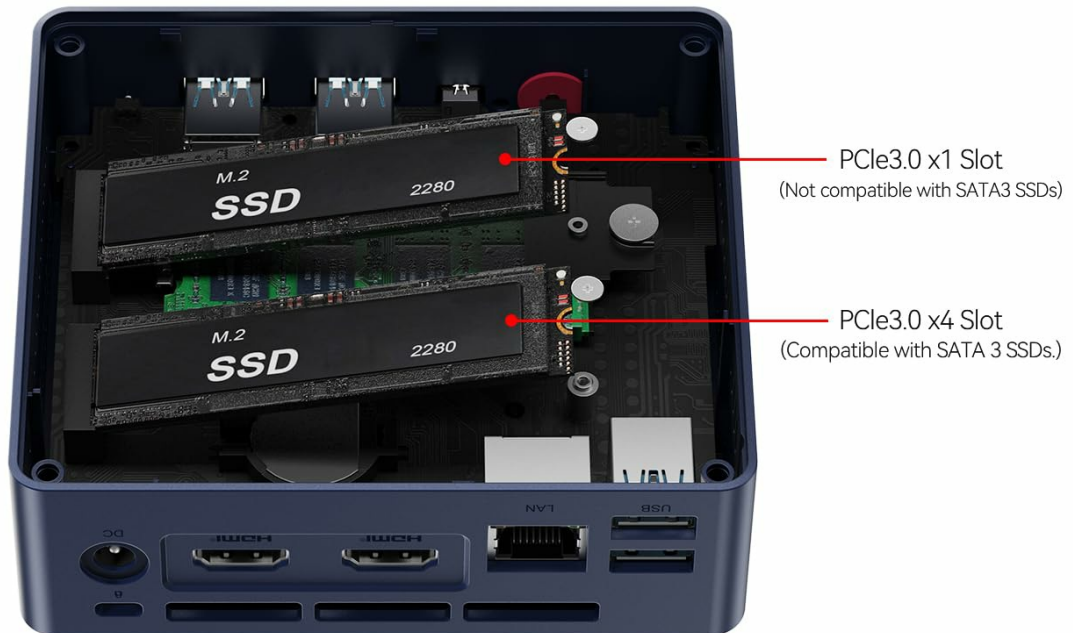


Figure 2.3: Rear Interface Design. This image displays the rear ports of the Mini PC, featuring additional USB 3.2 Gen2 (10Gbps) ports, LAN (1000M) port, two 4K 60Hz HDMI ports, and the DC power input.

2.3 First Boot and Windows Setup

After connecting all necessary cables, press the power button on the front of the Mini PC. The system will boot into Windows 11 Pro. Follow the on-screen prompts to complete the initial Windows setup, including language selection, network configuration, and user account creation.

3. OPERATING YOUR BEELINK MINI PC

3.1 Basic Operations

- **Power On/Off:** Press the power button to turn the device on. To shut down, use the standard Windows shutdown procedure (Start > Power > Shut down).
- **Network Connectivity:** The Mini PC supports high-speed WiFi 6 (802.11ax) for wireless internet access and

a 1000Mbps LAN port for stable wired connections.

- **Bluetooth:** Integrated Bluetooth 5.2 allows for seamless connection with wireless peripherals such as keyboards, mice, and headphones.

Intel Alder Lake N100/N5105 data comparison

Comparison Items	N100	N5105
Total Cores	4	4
Total Threads	4	4
Max Turbo Frequency	3.4GHz	2.9GHz
Configurable TDP-up Base Frequency	0.8GHz	2.0GHz
Configurable TDP-up	25W (Max Turbo Frequency)	15W
3DMARK11/Peformance	P1591	P1421
Cinebench 20 Running score	997	799

Figure 3.1: Wireless and Wired Connectivity. This image highlights the Mini PC's support for WiFi 6, Bluetooth 5.2, and 1000Mbps LAN, ensuring fast and stable network connections.

3.2 Dual Display Setup

The Beelink Mini S12 Pro is equipped with two HDMI 2.0 ports, enabling simultaneous connection to two 4K displays at 60Hz. This feature significantly enhances productivity for multitasking, design work, or immersive entertainment.

Meets a variety of needs in life

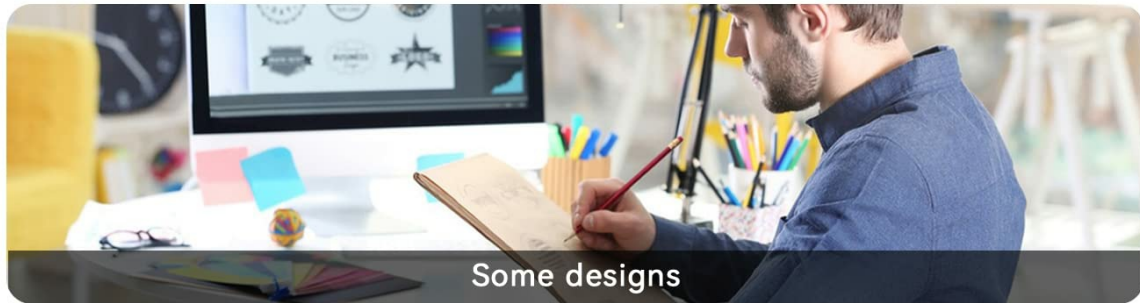
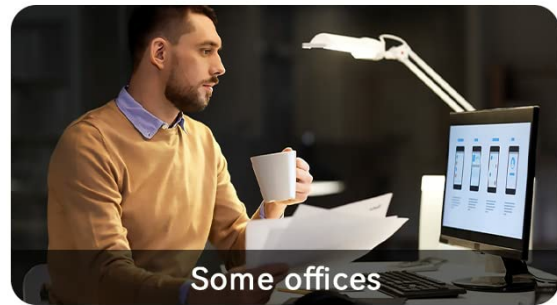


Figure 3.2: Dual Display Configuration. This image demonstrates the Mini PC connected to two monitors, showcasing its capability to support a dual-screen 4K display setup for enhanced productivity.

3.3 Storage Expansion

The Mini PC comes with a 500GB M.2 2280 NVMe SSD. For additional storage, the device supports M.2 2280 NVMe/SATA3 SSDs, configurable up to 4TB. This allows for significant expansion of your storage capacity.



AMD Ryzen 7 8845HS
32GB/1TB

Figure 3.3: Versatile Application Usage. This image illustrates various scenarios where the Mini PC can be effectively used, such as education, office tasks, design work, audio production, classroom environments, and home theater setups.

4. MAINTENANCE AND CARE

4.1 Cleaning

To ensure optimal performance and longevity, regularly clean your Mini PC. Use a soft, dry cloth to wipe down the exterior. For vents, use compressed air to remove dust buildup. Do not use liquid cleaners directly on the device.

4.2 Cooling System

The Beelink Mini S12 Pro features a high-efficiency cooling fan and a large area air duct design for effective heat dissipation. This ensures stable operation and prevents overheating. Avoid blocking the ventilation holes on the sides and top of the device.

4

Cores

Intel ALD_N N100

4

Threads

6MB Smart Cache

3.4

GHz

Max Turbo Frequency

24EUs

Intel® UHD Graphics

12TH GENERATION LOW-POWER OFFICE MINI PC

Size: 4.52*4.01*1.54 in

MINI S12 Pro



750MHz

Graphics Max Dynamic Frequency

MINI S12 Pro

WiFi 6(802.11ax)

Bluetooth5.2 /LAN (1000M)

DDR4 3200MHz

Single Channel 8/16GB

Dual SSD card slots

Optional 256/500GB/1TB

Cooling System

1. Silent fan
2. Heat pipe/Heat sink
3. SSD Cooling

Figure 4.1: CPU Silent Fan and Heat Sink. This diagram illustrates the internal cooling system of the Mini PC, showing the silent fan and heat sink designed to maintain optimal operating temperatures.

4.3 Software Updates

Regularly update your operating system (Windows 11 Pro) and device drivers to ensure security, stability, and optimal performance. Windows Update can typically manage most of these updates automatically.

5. TROUBLESHOOTING COMMON ISSUES

This section provides solutions for common issues you might encounter with your Beelink Mini PC.

Problem	Possible Cause	Solution
---------	----------------	----------

Problem	Possible Cause	Solution
Mini PC does not power on.	Power adapter not connected or faulty; power outlet issue.	Ensure power adapter is securely connected to both the PC and the outlet. Try a different power outlet.
No display on monitor.	HDMI cable loose or faulty; incorrect monitor input selected.	Check HDMI cable connections. Ensure monitor is set to the correct HDMI input. Try a different HDMI cable or monitor.
Slow performance.	Too many applications running; insufficient storage space; outdated drivers.	Close unnecessary applications. Free up disk space. Update Windows and drivers. Check cooling system for blockages.
No Wi-Fi or Bluetooth connection.	Drivers not installed; Wi-Fi/Bluetooth turned off; interference.	Check device manager for driver status. Ensure Wi-Fi/Bluetooth is enabled in Windows settings. Move away from sources of interference.

If you encounter issues not covered here, please refer to the technical support section.

6. TECHNICAL SPECIFICATIONS

Detailed specifications for the Beelink Mini S12 Pro Mini PC:

Component	Specification
Processor	Intel Alder Lake-N100 (4C/4T, up to 3.4GHz)
RAM	16GB DDR4 SDRAM
Storage	500GB M.2 NVMe SSD
Graphics	Intel UHD Graphics (Supports 4K)
Display Output	2 x HDMI 2.0 (4K@60Hz Dual Display)
Wireless Connectivity	WiFi 6 (802.11ax), Bluetooth 5.2
Wired Connectivity	1 x 1000Mbps LAN Port
USB Ports	4 x USB 3.2 Gen2 (10Gbps)
Operating System	Windows 11 Pro (pre-installed)
Dimensions	Approx. 4.52 x 4.01 x 1.54 inches
Weight	Approx. 1.57 pounds

Intel® Alder Lake-N N100 Processor

Super quiet, no degradation

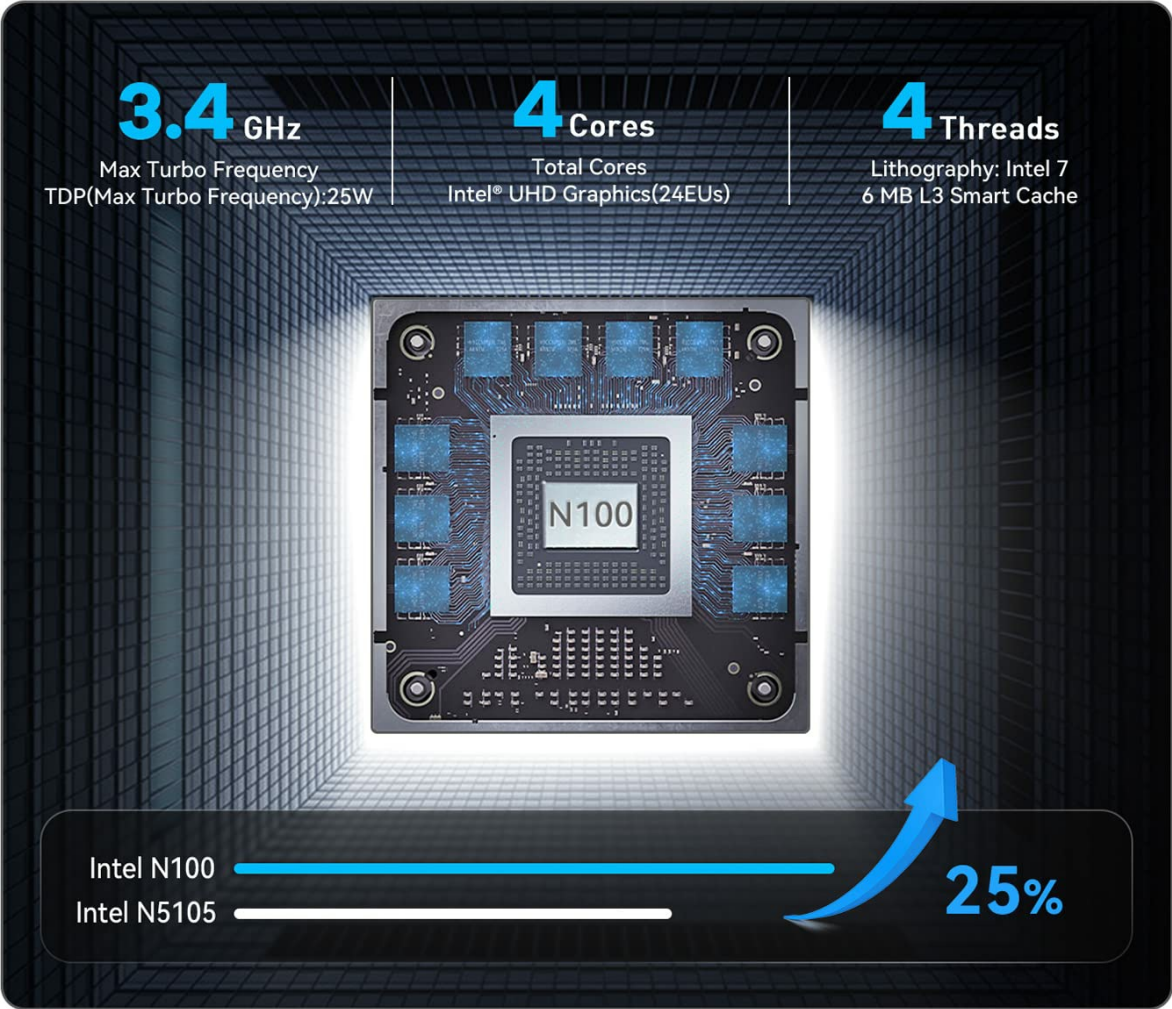


Figure 6.1: Intel Alder Lake-N N100 Processor Specifications. This image details the processor's core count, threads, max turbo frequency, and integrated Intel UHD Graphics.



Office, online courses, design and other software all run smoothly.

Configuration: Intel Alder Lake N100 Processor, Crucial 16G 3200MHz DDR4+PCIe 500G SSD

Name	Software size	Start time	Test file size	Operation response time	CPU temperature	Operation fluency (full score of five stars)
PS2020	2.60GB	7.32s	1.40GB	0.1-1.5s	52-69°C	★★★★☆
Ai2020	1.21GB	4.55s	167MB	0.1-1.0s	49-65°C	★★★★☆
DW2021	1.22GB	6.27s	15KB	0.1-0.7s	59-69°C	★★★★★
CAD2021	1.95GB	6.05s	2.13MB	0.1-1.0s	53-65°C	★★★★★
Pr2017	1.86GB	7.13s	192MB	0.1-1.5s	65-75°C	★★★★★
AE2022	3.25GB	7.72s	133MB	0.1-2.0s	67-75°C	★★★★★

*Operation smoothness (4 stars will have a slight delay, 4 and a half stars will occasionally have a slight delay, 5 stars operation smooth)

Figure 6.2: Processor Performance Comparison. This chart compares the Intel Alder Lake N100 processor with the N5105, showing performance improvements in areas like max turbo frequency and benchmark scores.

7. WARRANTY AND TECHNICAL SUPPORT

Beelink is committed to providing excellent customer service and support for your Mini PC.

7.1 Warranty Information

All Beelink products, including the Mini S12 Pro, have obtained FCC, CE, and ROHS certification. Please refer to your purchase documentation for specific warranty period details. Typically, a 1-year free maintenance service is provided.

7.2 Technical Support

Beelink offers lifetime technical support and 7 Day/24 hours customer service. For assistance, you can typically find

support options by logging into your Amazon account, navigating to 'Your Orders', and selecting 'Get Help' for your specific product.



Figure 7.1: After Sales Service. This image outlines the support services provided by Beelink, including fulfillment by Amazon, lifetime technical support, 24/7 customer service, and 1-year free maintenance.