



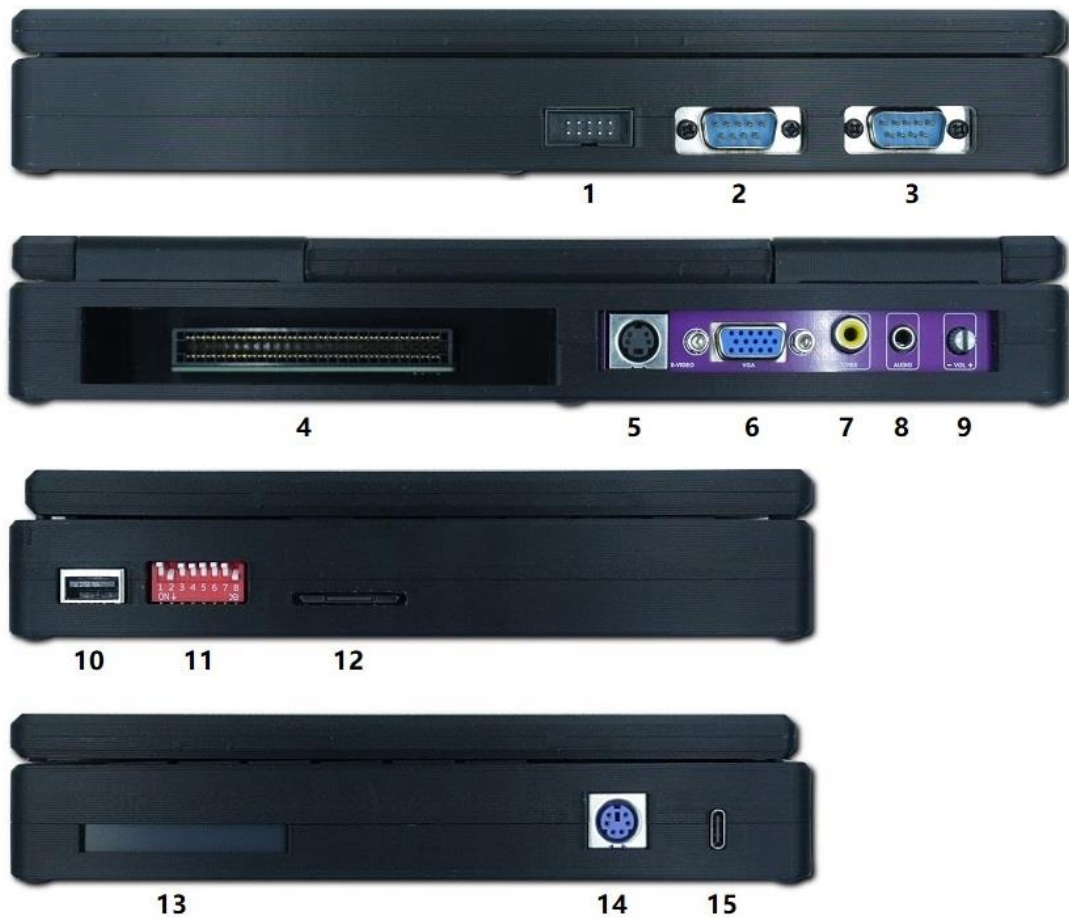
MSXBOOK

The **MSXBOOK** is an MSX2-compatible computer based on the One Chip MSX (**OCM**). It features all the capabilities of the OCM, along with a 9.7-inch LCD screen and a backlit mechanical keyboard. MSX was a standardized home computer system launched in the 1980s by ASCII Corporation and Microsoft, designed to provide a unified platform with compatible hardware and software. The MSX platform gave rise to many iconic game series, such as *Gradius*, *Metal Gear*, and *Castlevania*, and was a breeding ground for many of today's well-known game companies. While MSX systems typically come with a keyboard and use a TV as a display, the MSXBOOK is a laptop, making it more portable and easier to store.

Here are the main hardware features of the MSXBOOK: :

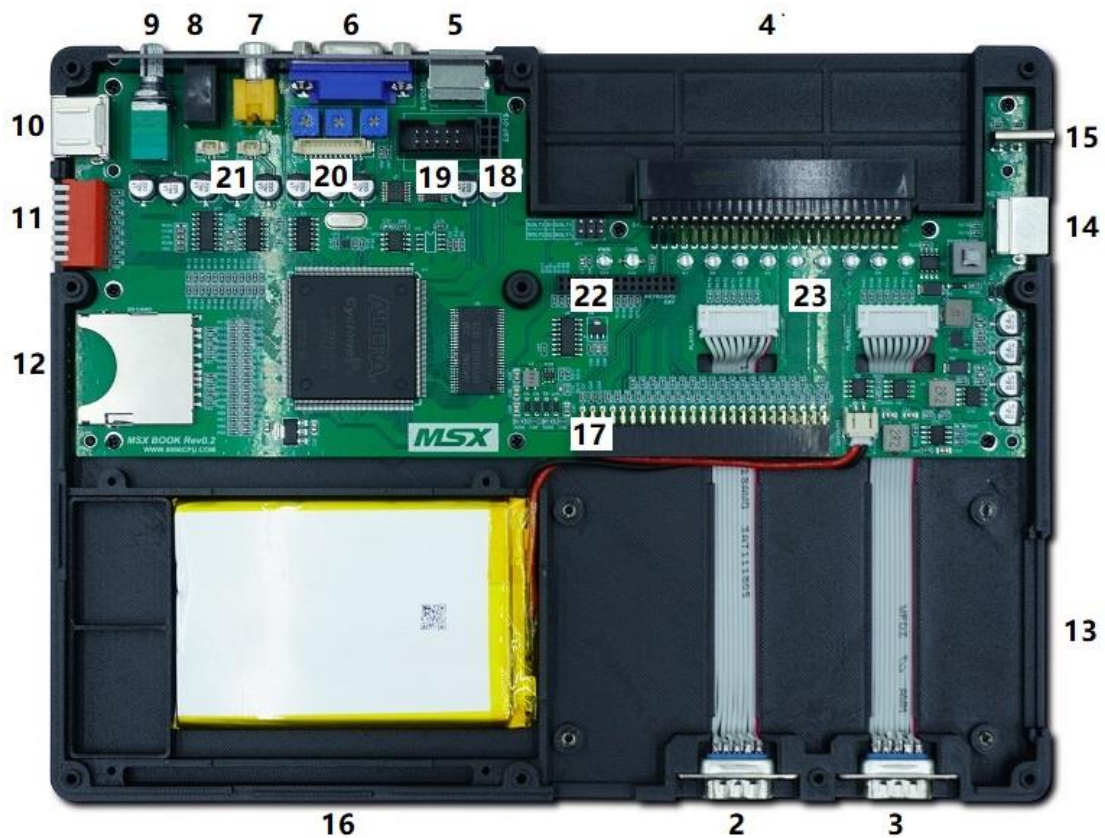
- 1024x768 resolution LCD (from iPad 2)
- Mechanical keyboard
- Built-in amplifier and dual stereo speakers, 3.5mm audio output jack.
- Type-C charging port.
- Built-in 4000mAh lithium battery (approximately 4 hours of usage)
- Built-in expansion cartridge slot*1, External expansion cartridge slot*1.
- MSX2+ Standard Compatible
- Compatible with KdL Firmwares
- Turbo 5.37/8.06 MHz
- 4GB SD Card Storage
- 2xDB9 Joystick Ports
- 2xUSB Ports
- VGA/CVBS/S-Video Output
- VGA hardware scanlines generator

Overview:



1. **Firmware download port. (Active Serial Programming)**
2. **Player1** (DB9 Joystick Port)
3. **Player2** (DB9 Joystick Port)
4. External expansion cartridge slot
5. **S-Video port**
6. **VGA port**
7. **CVBS port**
8. audio output jack
9. **Volume control knob**
10. **USB2 port**
11. **Setting switch**
12. **SD card slot**
13. **Input/output window with built-in expansion cartridge**
14. **PS/2 Keyboard port**
15. **Type-C charging port (5V-2A)**

Motherboard:



- 16. Battery compartment
- 17. Built-in expansion cartridge slot
- 18. USB1 port(Used for ESP-01S WiFi module)
- 19. Firmware download port. (Active Serial Programming)
- 20. LCD port
- 21. Speaker port
- 22. Built-in keyboard port
- 23. Status LED*9

Keyboard:

The MSXBOOK is equipped with a backlit mechanical keyboard featuring keycaps specifically designed for MSX. To maintain compatibility with OCM, the internal keyboard and external PS/2 signals are connected in parallel. Before using an external PS/2 keyboard, you can disable the internal keyboard by pressing a shortcut key combination (FN+4).



(Keyboard Backlight Demonstration)

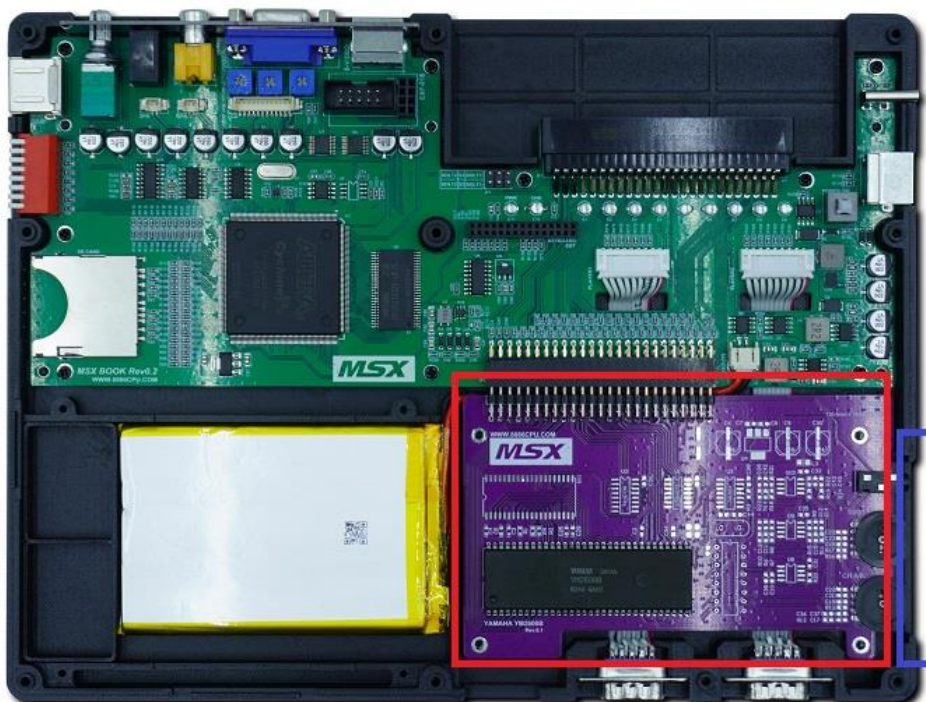
External Cartridge Slot:

The MSXBOOK has a cartridge slot on the back, allowing users to insert standard MSX cartridges.



Internal Cartridge Slot:

Users can customize a PCB of a specific size using the internal expansion slot of the MSXBOOK for long-term use with expansion cards. On the right side of the machine, there is a window where the input/output interfaces of the internal expansion card can be positioned. Below is a design demonstration of an internal expansion card, which is an OPNA sound expansion card based on the YM2608B.



Battery compartment:

The MSXBOOK comes standard with a 606090 polymer lithium battery, which has a capacity of 4000mAh and provides approximately 4 hours of battery life. In reality, the battery compartment can accommodate a 7565113 lithium battery with a maximum capacity of up to 8000mAh. If users require longer battery life, they can purchase and upgrade the battery themselves.

**7565113****606090****USB1:**

The built-in USB1# port can accommodate an ESP-01S module for connecting to a Wi-Fi network.

