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Introduction

MegaWiFi Addon is an expansion device for the Sega Mega Drive and Sega Mega Drive II that allows the console to connect to the Internet via WiFi.

The device is designed for:

- **End users** who want to use online features in their games or applications
- **Developers** who want to create software with network connectivity

MegaWiFi Addon significantly extends the original capabilities of the console by enabling modern TCP/IP communications, remote updates, and time synchronization.

Compatibility

MegaWiFi Addon can be connected to the console using:

Cartridge Connection

- EverDrive X7 USB port
- EverDrive Pro USB port

(The USB cable may vary between EverDrive versions.)



(You may need an OTG adapter to connect one end of the USB cable to the MegaWiFi Addon.)



Port 2 Connection

- MegaUSB cable
(direct connection to controller port 2)

Main Features

MegaWiFi Addon includes the following capabilities:

Network Connectivity

- 3 WiFi network configuration slots stored in memory
- HTTP connection support
- HTTPs connection support
- UDP communication
- TCP communication

Memory

- Integrated Flash memory
- Persistent configuration storage
- Remote firmware update

Security and System

- Random number generation
- Online date and time sync
- Online updates available

Device Installation

Installation via EverDrive

1. Use a USB cable to connect MegaWiFi Addon to the EverDrive cartridge USB port.
2. Connect other USB cable to power on Mega WiFi Addon.
3. Insert the cartridge into the Mega Drive.
4. Turn on the console.
5. Run software compatible with MegaWiFi.

Installation via Port 2

1. Connect the MegaUSB cable to controller port 2 of the console.
2. Connect otro cable USB para dar alimentación
3. Connect the other end to the MegaWiFi Addon.
4. Turn on the console.
5. Run compatible software.

WiFi Configuration

MegaWiFi Addon allows storing up to 3 different WiFi networks.

Each slot allows configuring:

- SSID
- Password

Configuration can be performed from:

- The compatible software menu
- Configuration tools provided by the developer

Steps

1. Scan networks
2. Select your favorite connection
3. Introduce WiFi password if it is needed.
4. Enjoy WiFi

Once connected to a WiFi network, you can set a default network. This prevents the need to reconnect to WiFi each time the device is powered on.

Network Features

HTTP and HTTPS

Allows sending requests to modern web servers, including secure TLS connections.

Examples:

- Data downloads
- Online ranking queries
- Update verification

TCP

Provides connection-oriented communication with remote servers.

Typical use:

- Online games
- Client-server communication
- Persistent services

UDP

Provides fast, connectionless communication.

Typical use:

- Real-time games

Date and Time (SNTP)

MegaWiFi can automatically synchronize date and time from SNTP servers on the Internet.

This enables:

- Save systems with real-world timestamps
- Daily events
- Time validation

Firmware Update

MegaWiFi Addon supports:

- Online version listing
- Secure remote firmware update

It is recommended to keep the firmware updated for:

- Stability improvements
- New features
- Bug fixes

Technical Specifications

- 2.4 GHz and 5 GHz WiFi connectivity
- HTTP/HTTPS support
- Full TCP/IP stack support
- UDP support
- SNTP support
- Random number generator
- Integrated Flash memory
- Remote firmware update capability

Support Software

•MegaWiFi Menu:

<https://github.com/Stephane-D/SGDK/sample/megawifi/menu>

Stephane-D/SGDK: SGDK - A free and open development kit for the Sega Mega Drive

Support

- **Randombitsonfire**

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Special Thanks

- Doragasu and MegaWiFi project.
- Stephane and SGDK framework.
- My girlfriend, for her patience and listening

RandomBitsOnFire



A project from RandomBitsOnFire™