

Brightsign WS103

Brightsign WS103 Wireless/Bluetooth Module User Manual

Model: WS103

Brand: Brightsign

1. INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of the Brightsign WS103 Wireless/Bluetooth Module. The WS103 module is designed to integrate wireless (Wi-Fi) and Bluetooth capabilities into compatible BrightSign Series 3 digital signage players.

1.1 Key Features

- Implements wireless (Wi-Fi) and Bluetooth functions.
- Utilizes an M.2 interface for connection.
- Supports 802.11a/b/g/n Wi-Fi protocols.
- Single antenna design, compatible with all BrightSign Series 3 players (LS3, HD3, XD3, XT3).

2. SETUP AND INSTALLATION

The Brightsign WS103 module is an internal component designed for embedded installation within compatible BrightSign Series 3 players.

2.1 Required Tools

- Small Phillips head screwdriver (for opening player chassis)
- Anti-static wrist strap (recommended for handling electronic components)

2.2 Installation Steps

1. **Power Off and Disconnect:** Ensure the BrightSign player is completely powered off and disconnected from all power sources and peripherals.
2. **Access Player Chassis:** Carefully open the BrightSign player's chassis according to the player's specific service manual. Refer to your BrightSign player's documentation for precise instructions on accessing its internal components.

3. **Locate M.2 Slot:** Identify the available M.2 interface slot on the player's mainboard.
4. **Insert WS103 Module:** Gently insert the WS103 module into the M.2 slot, ensuring it is seated correctly. Do not force the module.
5. **Secure Module:** Secure the module with the appropriate screw, if provided by the player's design.
6. **Connect Antenna:** Attach the included single antenna to the module's antenna connector. Ensure a firm, secure connection.
7. **Route Antenna:** Route the antenna cable and position the antenna for optimal signal reception, typically outside the player chassis or in a designated antenna port.
8. **Close Chassis:** Carefully close the BrightSign player's chassis, ensuring all screws are re-secured.
9. **Power On:** Reconnect power and peripherals to the BrightSign player and power it on.

Caution: Improper installation can damage the module or the BrightSign player. If you are unsure about any step, consult a qualified technician or BrightSign support.



Image: The Brightsign WS103 module, showing the M.2 card, connecting cable, and external antenna. This illustrates the components involved in the installation.

3. OPERATING INSTRUCTIONS

Once the WS103 module is physically installed, its functionality is managed through the BrightSign player's operating system and BrightAuthor software.

3.1 Wi-Fi Connectivity

1. **Access Network Settings:** In BrightAuthor or the player's local UI, navigate to the network settings.
2. **Enable Wi-Fi:** Ensure Wi-Fi is enabled. The WS103 module should be detected as an available wireless adapter.
3. **Scan for Networks:** Scan for available Wi-Fi networks.
4. **Connect to Network:** Select your desired network and enter the password if required.
5. **Verify Connection:** Confirm that the player has successfully connected to the Wi-Fi network.

3.2 Bluetooth Functionality (BrightBeacon)

The Bluetooth component of the WS103 module primarily supports BrightBeacon functionality for proximity-

based interactions.

1. **Enable Bluetooth:** Within BrightAuthor or the player's settings, enable Bluetooth.
2. **Configure BrightBeacon:** Use BrightAuthor to configure BrightBeacon settings, including UUIDs, major/minor values, and associated content or actions.
3. **Test Proximity:** Test the BrightBeacon functionality with a compatible mobile device to ensure proper detection and interaction.

For detailed instructions on configuring Wi-Fi and BrightBeacon within BrightAuthor, refer to the official BrightSign documentation and software guides available on the [BrightSign website](#).

4. MAINTENANCE

The Brightsign WS103 module is designed for reliable operation and requires minimal maintenance.

4.1 General Care

- **Keep Dry:** Ensure the BrightSign player and module are kept in a dry environment, away from moisture and humidity.
- **Temperature Control:** Operate the player within its specified temperature range to prevent overheating.
- **Cleanliness:** Keep the player's environment free from dust and debris, which can impede airflow and component performance.

4.2 Firmware Updates

Periodically check the BrightSign website for firmware updates for your BrightSign player. These updates may include improvements for wireless and Bluetooth module performance and compatibility. Follow BrightSign's instructions for firmware update procedures.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with the Brightsign WS103 module.

5.1 No Wi-Fi Networks Detected

- **Check Installation:** Verify that the WS103 module is correctly seated in the M.2 slot and the antenna is securely connected.
- **Antenna Placement:** Ensure the antenna is properly positioned and not obstructed.
- **Player Compatibility:** Confirm that your BrightSign player is a Series 3 model (LS3, HD3, XD3, XT3) and compatible with the WS103.
- **Firmware:** Ensure your BrightSign player's firmware is up to date.
- **Module Detection:** Check the player's system information to see if the module is detected. If not, re-seat the module or contact support.

5.2 Unstable Wi-Fi Connection

- **Signal Strength:** Check the Wi-Fi signal strength. Move the player closer to the access point or adjust antenna position.
- **Interference:** Identify potential sources of interference (e.g., other wireless devices, microwaves) and relocate the player or access point.
- **Network Congestion:** If many devices are on the same network, try reducing network load or using a less congested Wi-Fi channel.

- **Router Settings:** Verify router settings (e.g., channel, security protocols) are compatible.

5.3 Bluetooth (BrightBeacon) Not Functioning

- **Enable Bluetooth:** Ensure Bluetooth is enabled in the player's settings.
- **BrightBeacon Configuration:** Double-check your BrightBeacon settings in BrightAuthor for correct UUIDs, major/minor values, and associated content.
- **Device Compatibility:** Ensure the mobile device used for testing is compatible with BrightBeacon technology.
- **Proximity:** Test at close range to ensure the mobile device is within the beacon's broadcast range.

If troubleshooting steps do not resolve the issue, please contact BrightSign technical support.

6. SPECIFICATIONS

Feature	Detail
Model Number	WS103
Interface	M.2
Wireless Protocols	802.11a/b/g/n
Bluetooth	Yes (for BrightBeacon)
Antenna	Single External Antenna
Compatible Devices	BrightSign Series 3 Players (LS3, HD3, XD3, XT3)
Item Weight	0.64 ounces (approx. 18 grams)
Package Dimensions	4.6 x 2.2 x 1.1 inches
UPC	859872003165

7. WARRANTY AND SUPPORT

For information regarding the warranty of your Brightsign WS103 module, please refer to the warranty documentation provided with your BrightSign player or visit the official [BrightSign website](#).

Technical support is available through BrightSign's official channels. Contact information and support resources can be found on their website.