Configure Basic Radio Settings on WAP150 and WAP361

Objective

The radio is the physical part of the Wireless Access Point (WAP) that creates a wireless network. The radio settings on the WAP control the behavior of the radio and determine what kind of wireless signals the WAP sends out. This configuration is useful if the WAP is in close proximity to other wireless sources and the frequency needs to be changed so it will not interfere with the other source.

The article explains how to configure the basic radio settings of the WAP150 and WAP361.

Applicable Devices

- 300 Series – WAP361
- 100 Series – WAP150

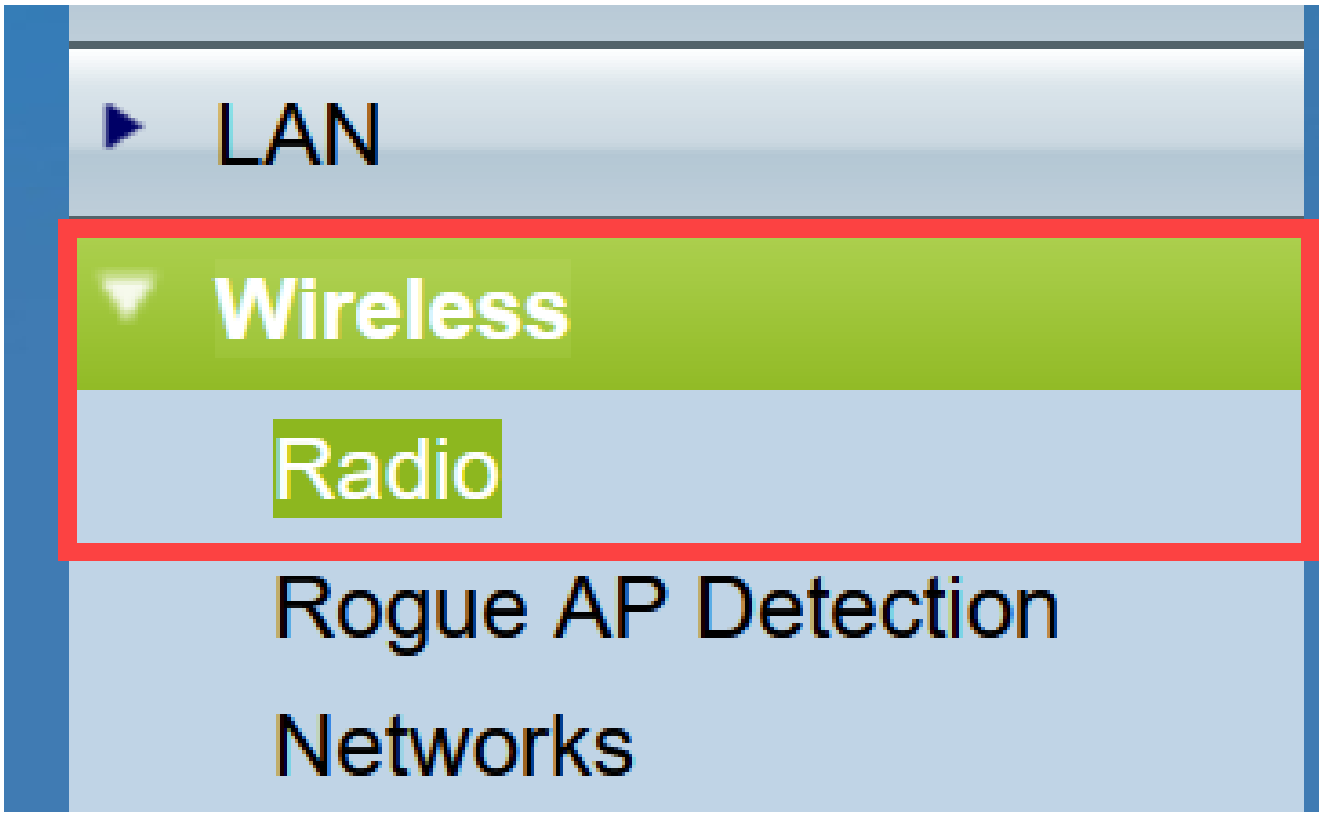
Software Version

- 1.0.0.16 – WAP361
- 1.0.0.14 – WAP150

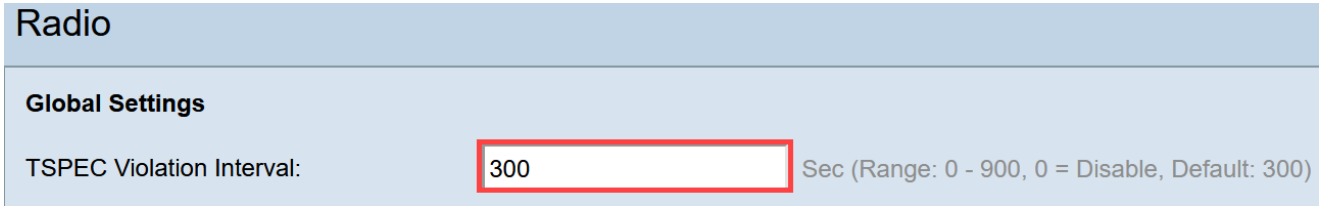
Configure Basic Radio Settings

Radio Settings Configuration

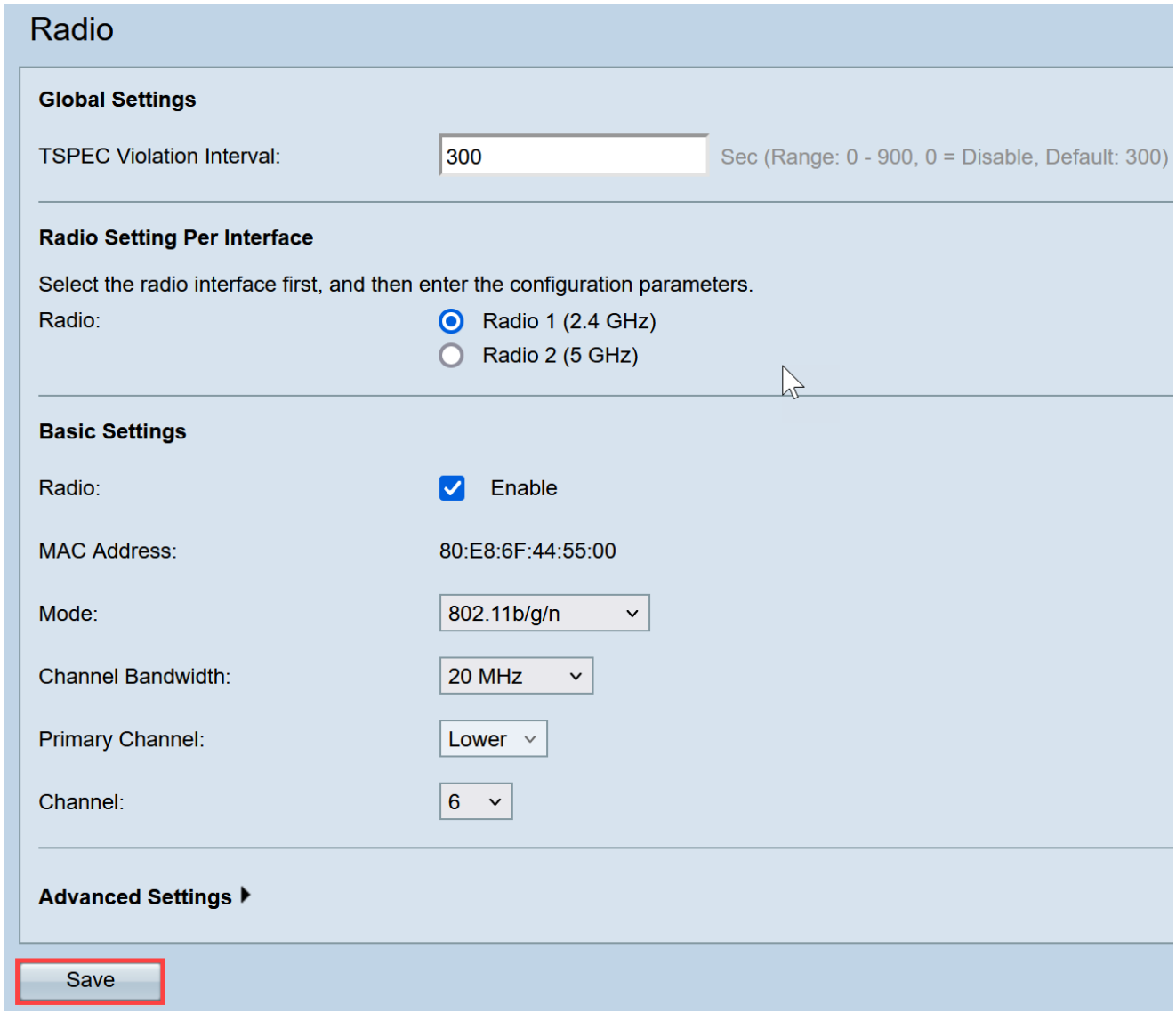
Step 1. Log in to the web-based utility and choose **Wireless > Radio**.



Step 2. Under Global settings in the *TSPEC Violation Interval* field, enter the time interval in seconds. The WAP waits before it reports the associated clients that do not adhere to mandatory admission control procedures. These reports are sent through the system log and SNMP.

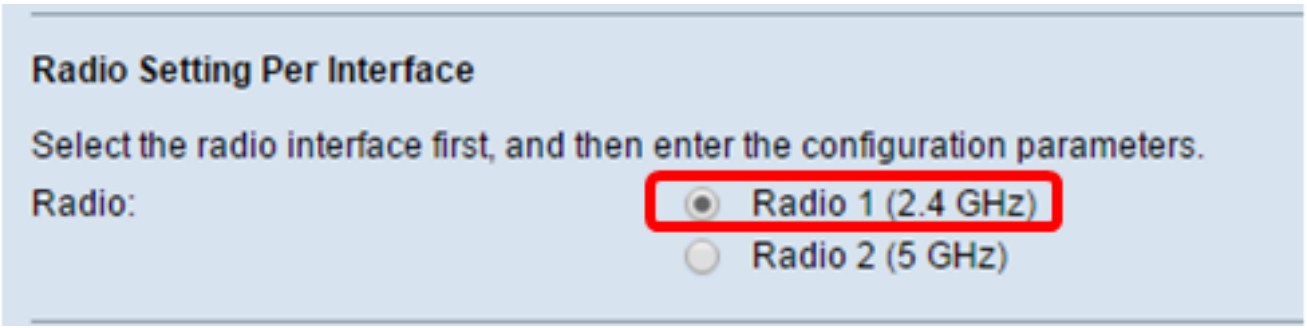


Step 3. (Optional) To save your settings so far, scroll to the bottom of the Radio page and click Save.



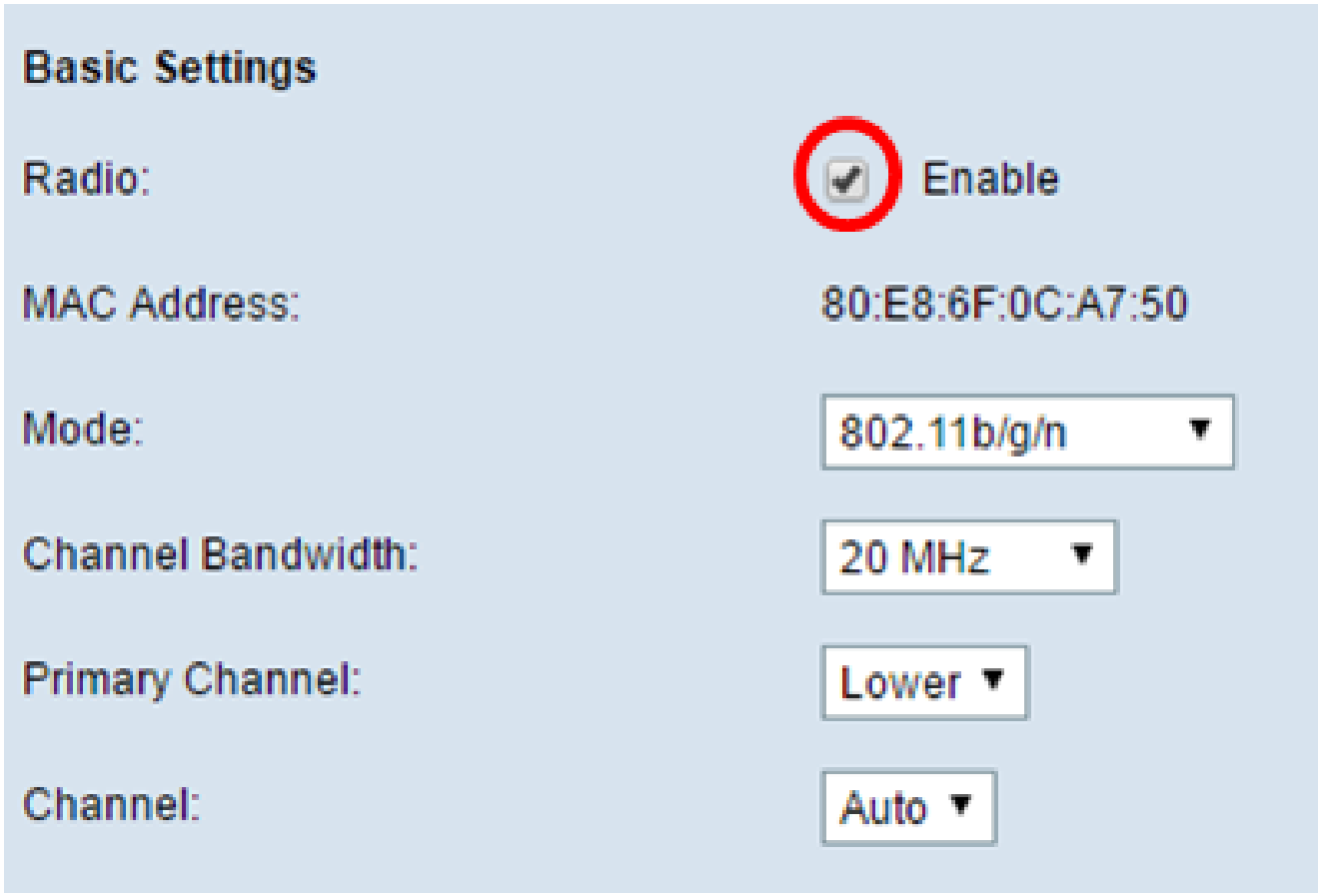
Configure Radio 1 (2.4 Ghz)

Step 1. In the *Radio Setting per Interface* area, choose Radio 1 (2.4 Ghz). The basic and advanced settings you configure are applied to this radio.



Step 2. Under the *Basic Settings* area, the radio is Enabled by default. If unchecked, check the **Enable** checkbox.

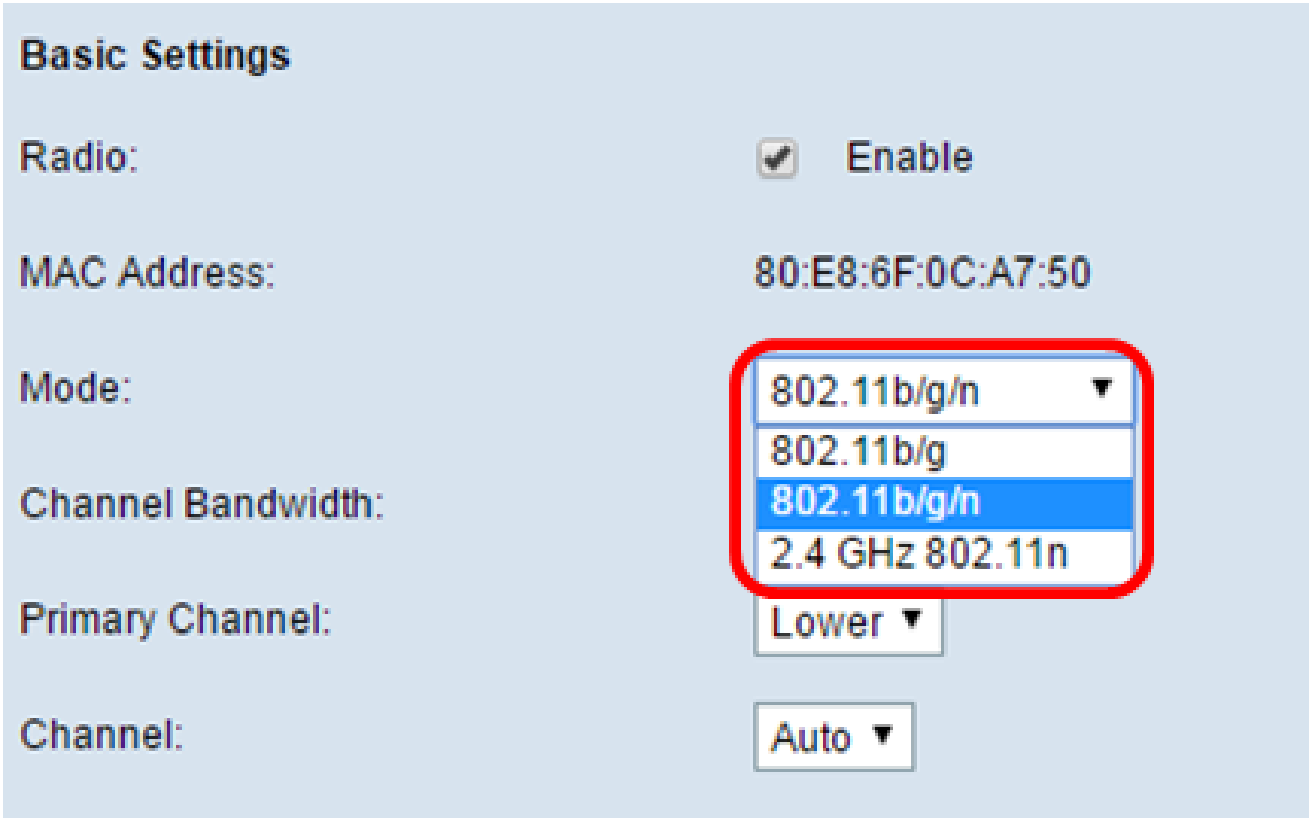
Note: The MAC Address field shows the MAC address of the radio interface.



Step 3. Choose the desired radio mode from the Mode drop-down list.

- 802.11b/g – 802.11b and 802.11g clients can connect to the WAP.
- 802.11b/g/n (default) – 802.11b, 802.11g, and 802.11n clients operating in the 2.4-GHz frequency can connect to the WAP.

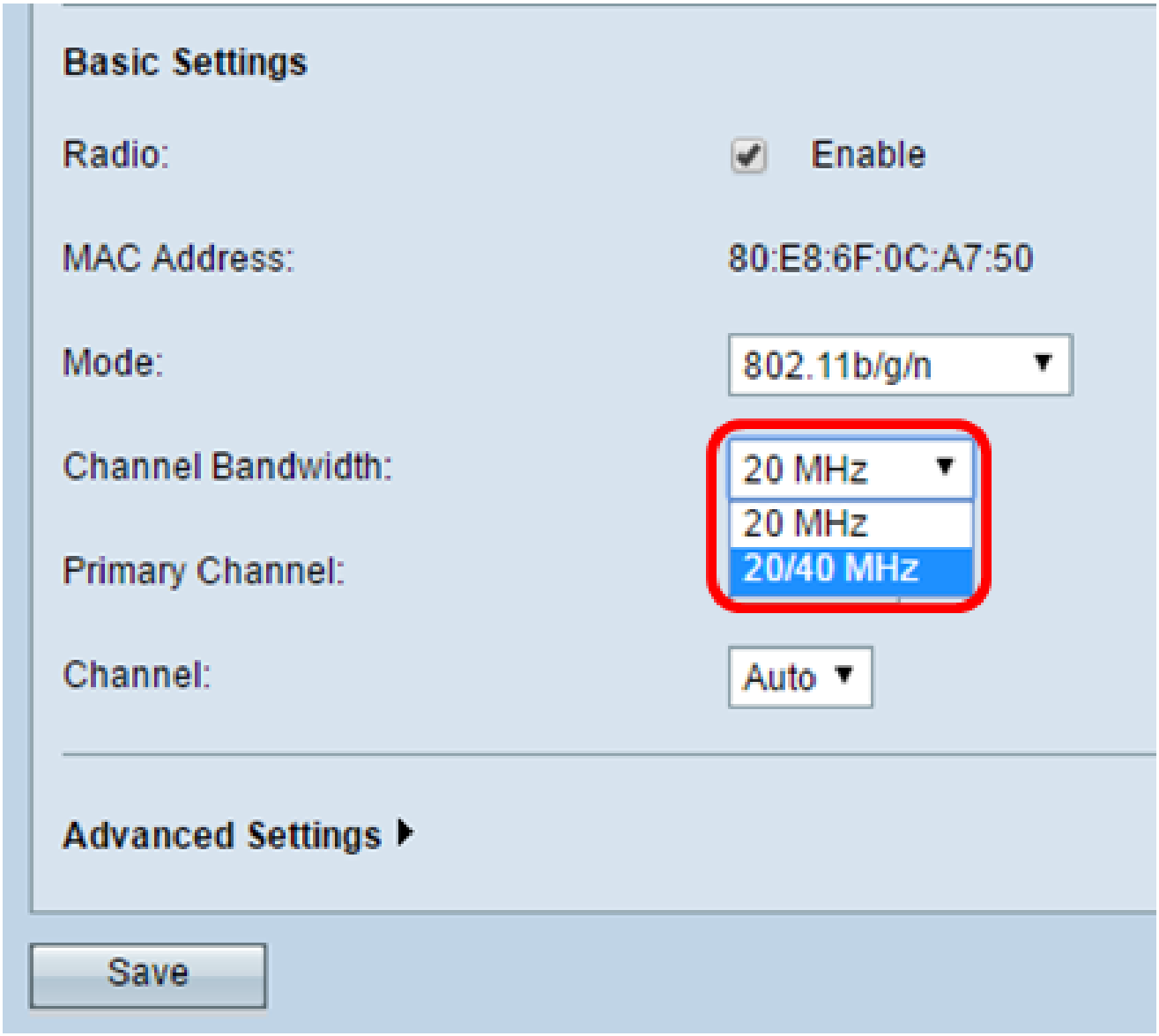
2.4 GHz 802.11n – Only 802.11n clients operating in the 2.4-GHz frequency can connect to the WAP.



Note: 802.11n is the only specification that allows a 40 MHz-wide channel. Steps 4 and 5 are only applicable if you chose a radio mode that supports 802.11n in Step 3.

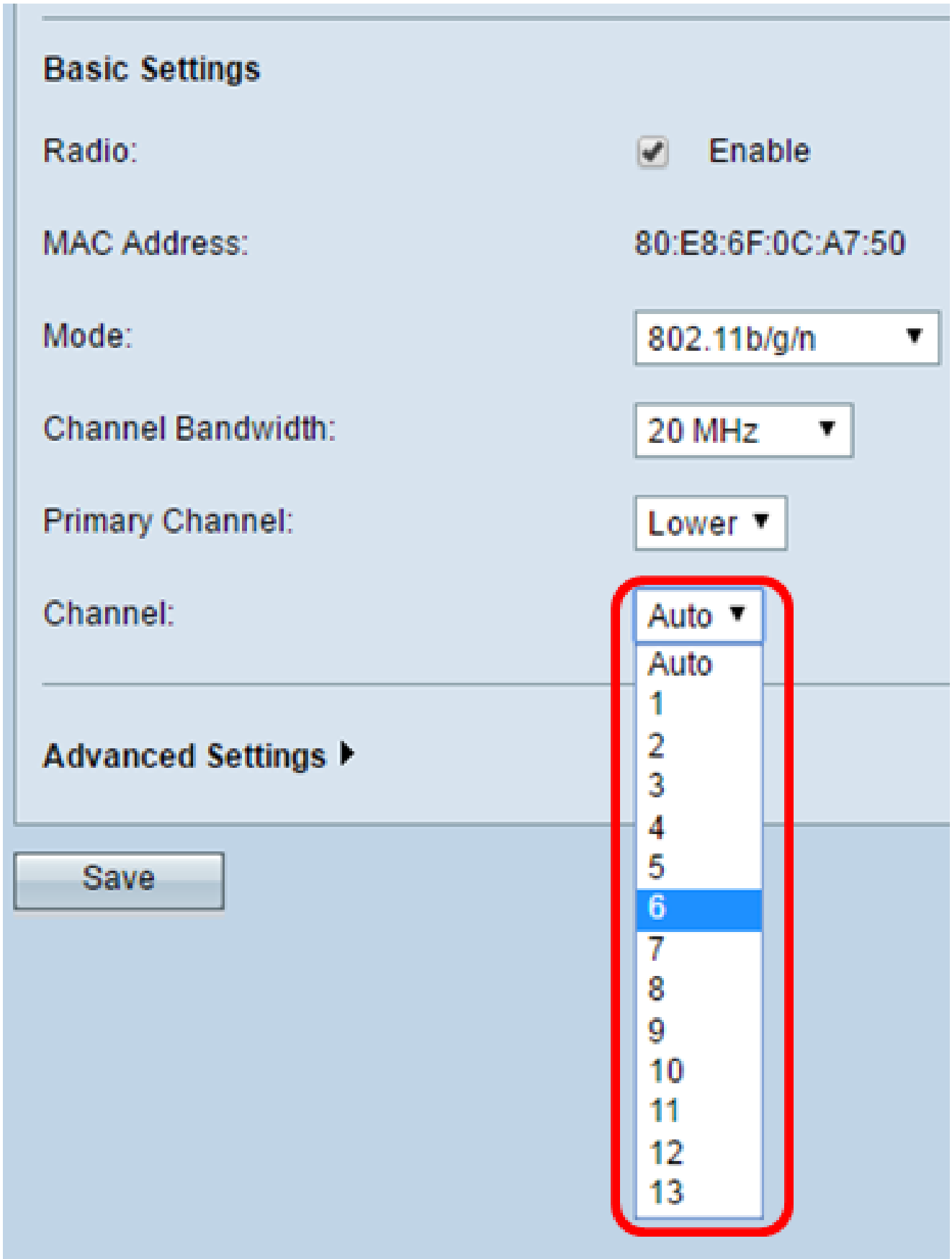
Step 4. Choose the channel bandwidth for the radio from the Channel Bandwidth drop-down list. The drop-down list has two types of bandwidth 20 MHz and 20/40 MHz. The default is 20 MHz.

Timesaver: If you choose 20 MHz, skip to Step 6.



Step 5. Choose the portion of the radio spectrum that the radio uses to transmit and receive from the *Channel* drop-down list.

Note: If auto is chosen, the WAP scans the available channels and chooses a channel where the least traffic is detected. You will also not be able to select a primary channel if auto is chosen. Skip to step 7 if you have chosen auto.

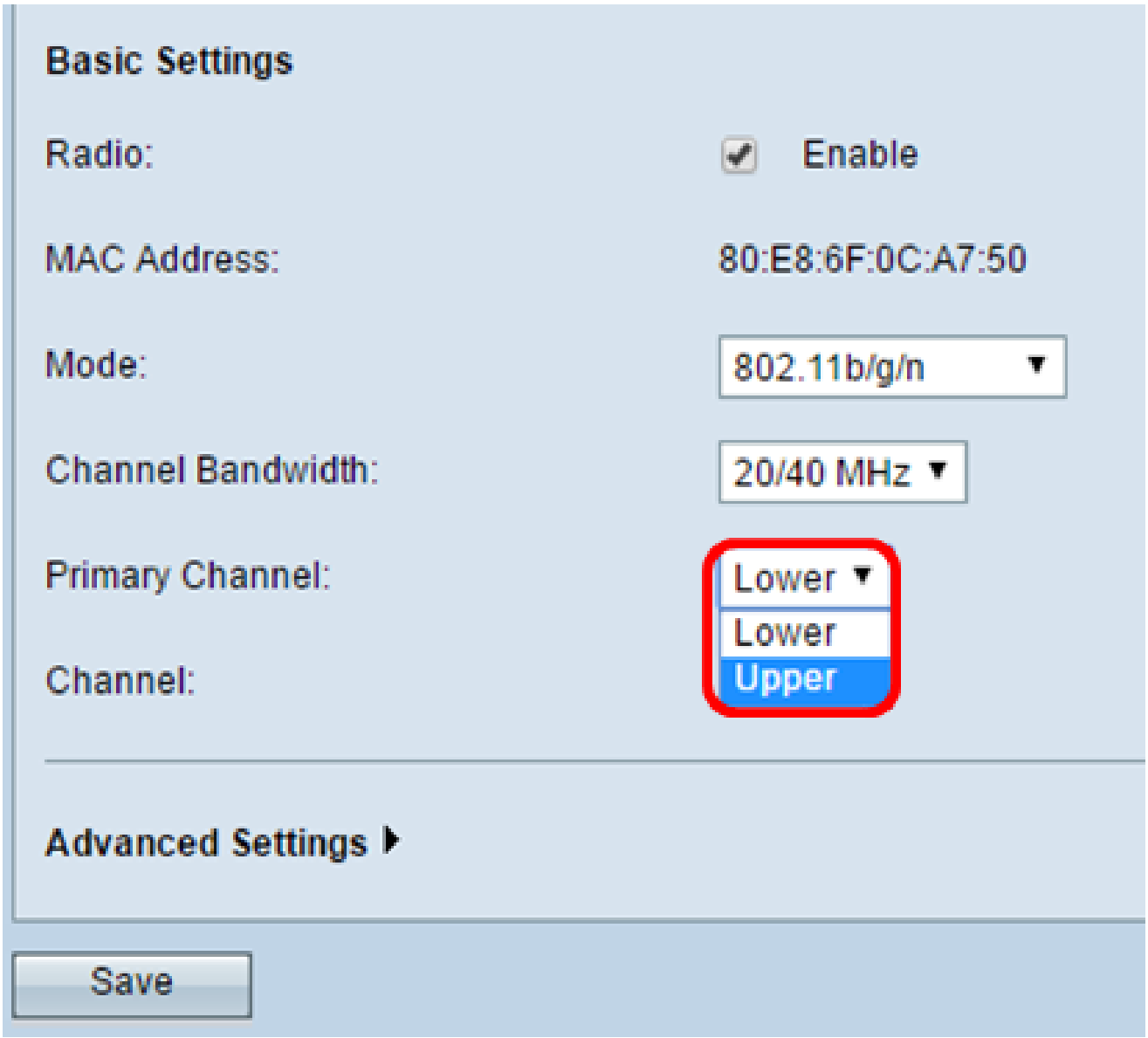


Step 6. From the Primary Channel drop-down list, choose a channel to set as primary. The primary channel is used for devices that only support 20-MHz channel bandwidth instead of the full 40-MHz channel bandwidth. The default is lower.

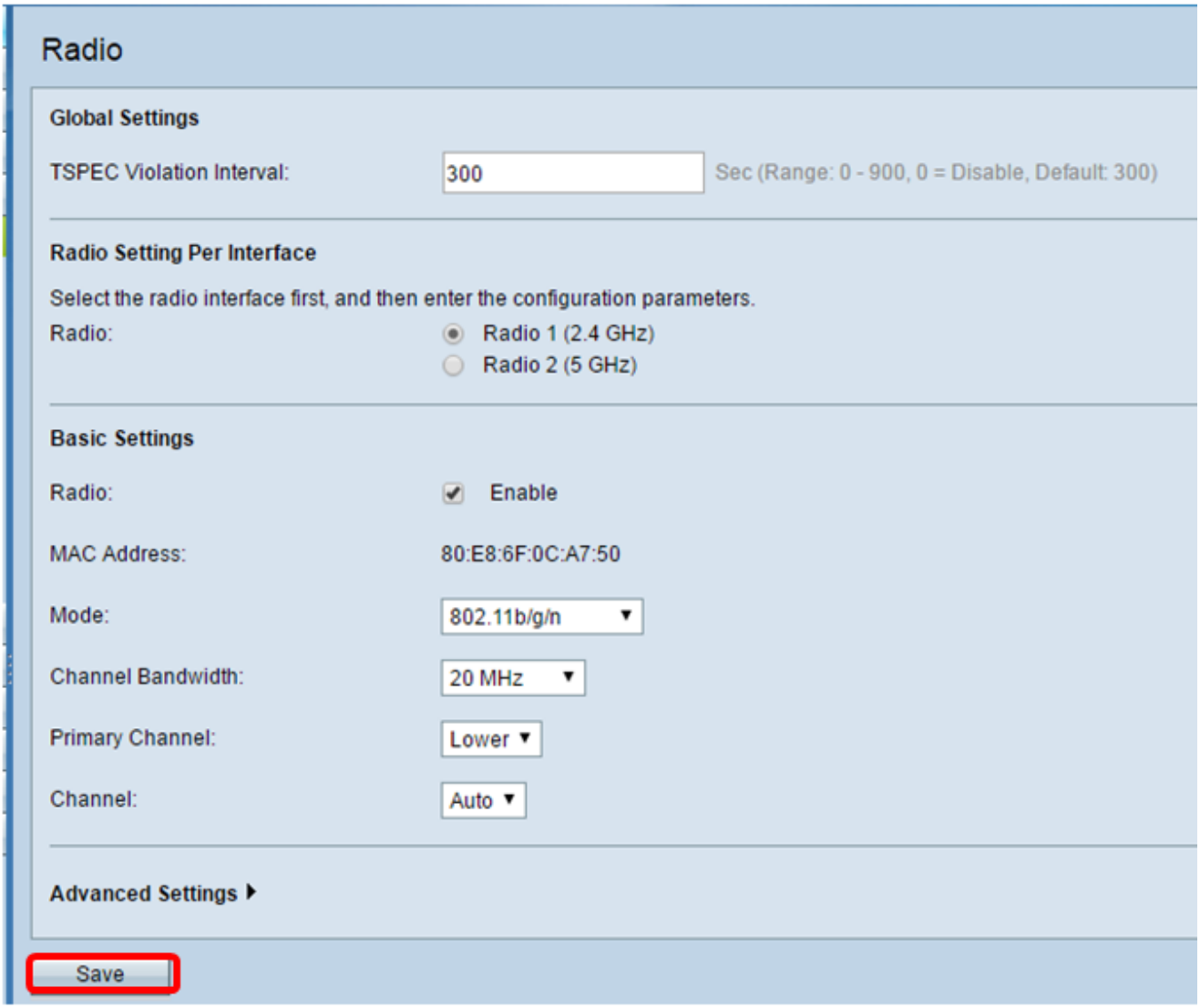
Note: The range of available channels is determined by the mode of the radio interface and the country code setting. If you select Auto for the channel setting, the WAP scans available channels and selects a channel where the least amount of traffic is detected.

Each mode offers a number of channels, depending on how the spectrum is licensed by national and transnational authorities such as the Federal Communications Commission (FCC) or the International Telecommunication Union (ITU-R).

- Upper – Sets the primary channel as the upper 20-MHz channel in the 40-MHz band.
- Lower – Sets the primary channel as the lower 20-MHz channel in the 40-MHz band. Lower is the default selection.



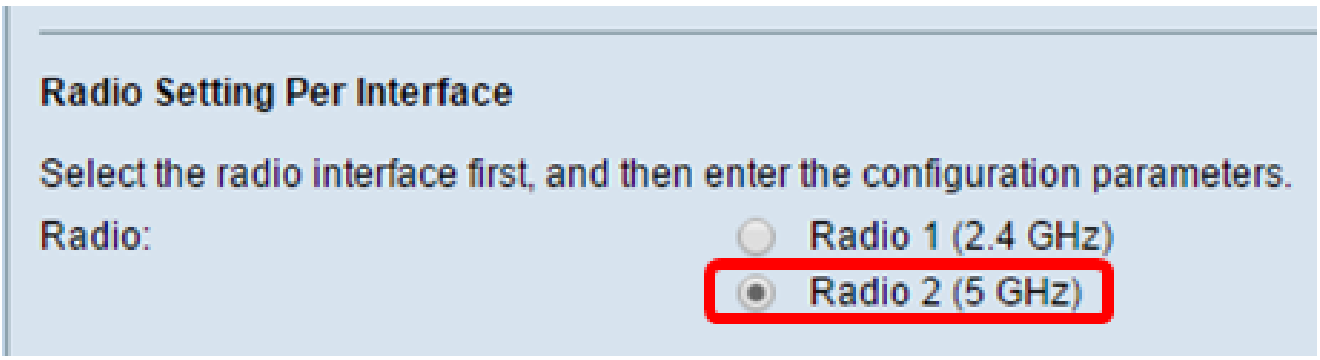
Step 7. Click **Save** to save the settings.



You have now successfully configured basic radio settings for Radio 1 (2.4 GHz).

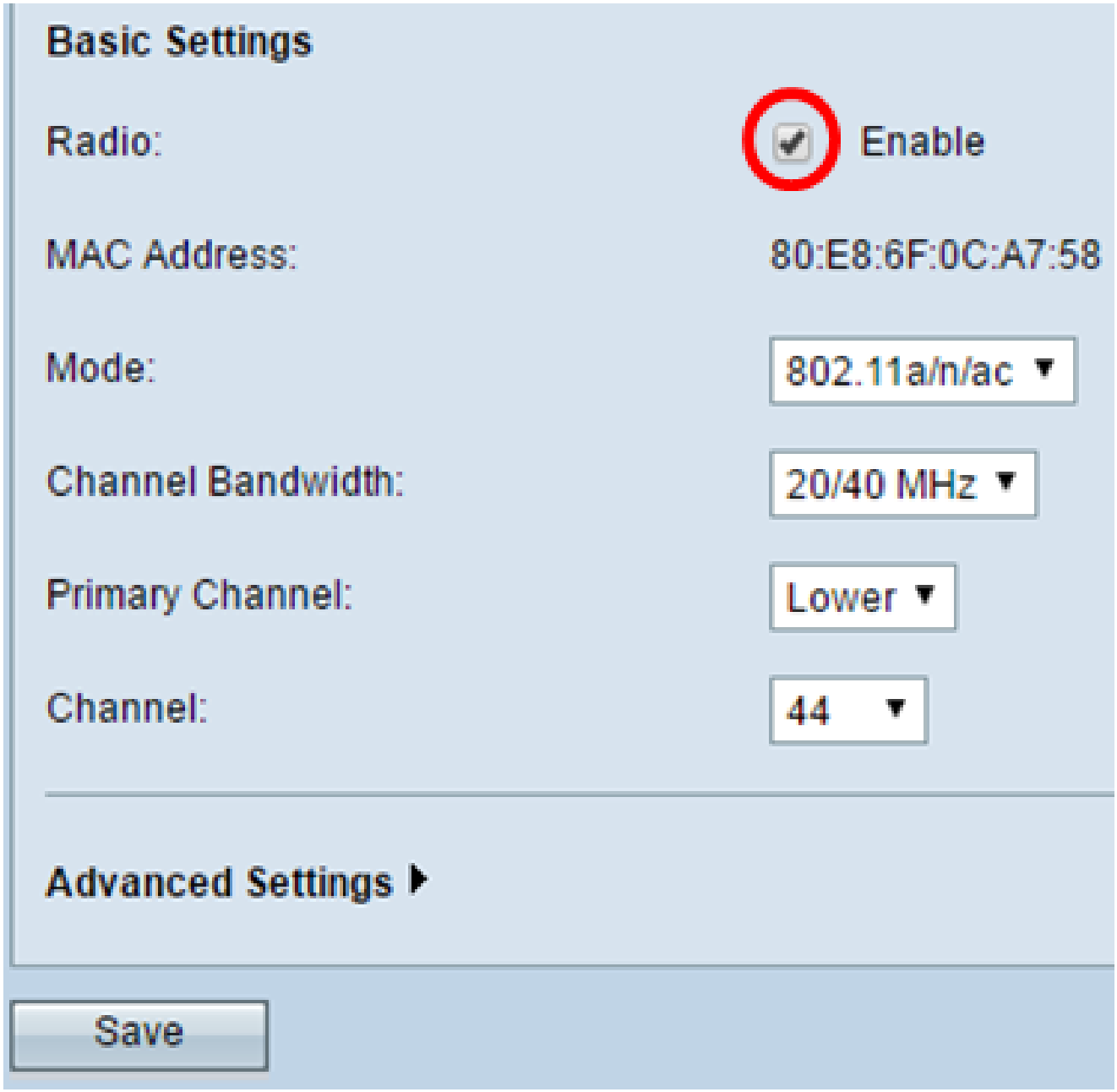
Configure Radio 2 (5 Ghz)

Step 1. In the Radio Setting per Interface area, choose Radio 2 (5Ghz).



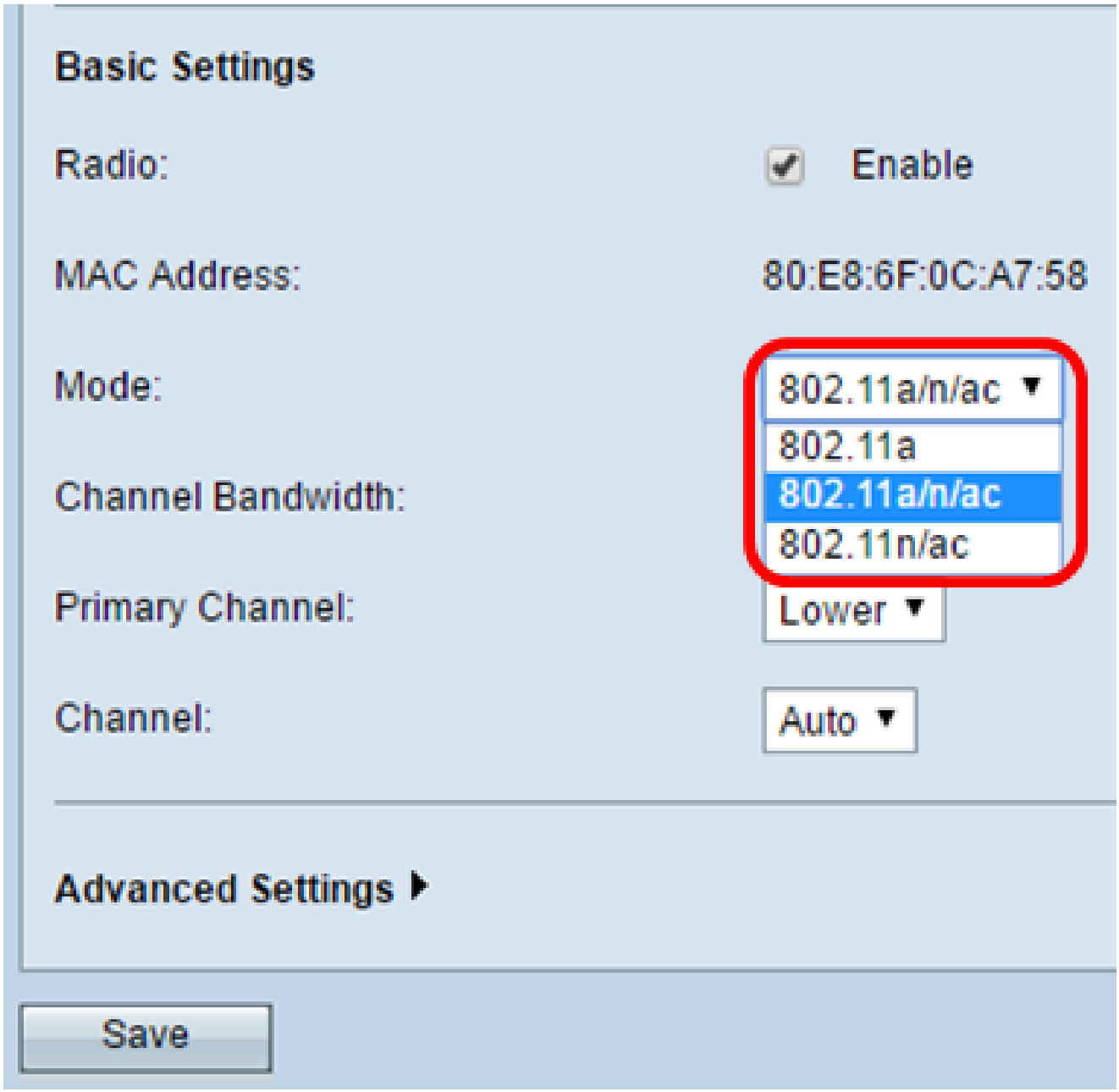
Step 2. Under the *Basic Settings* area, the **Enable** check box is enabled by default. If unchecked, check the enable checkbox to enable.

Note: The MAC Address field shows the MAC address of the radio interface.



Step 3. Choose the desired radio mode from the Mode drop-down list.

- 802.11a – Only 802.11a clients can connect to the WAP device.
- 802.11a/n/ac (default, recommended) – 802.11a clients, 802.11n, and 802.11ac clients operating in the 5-GHz frequency can connect to the WAP device.
- 802.11n/ac – 802.11n clients and 802.11ac clients operating in the 5-GHz frequency can connect to the WAP device.

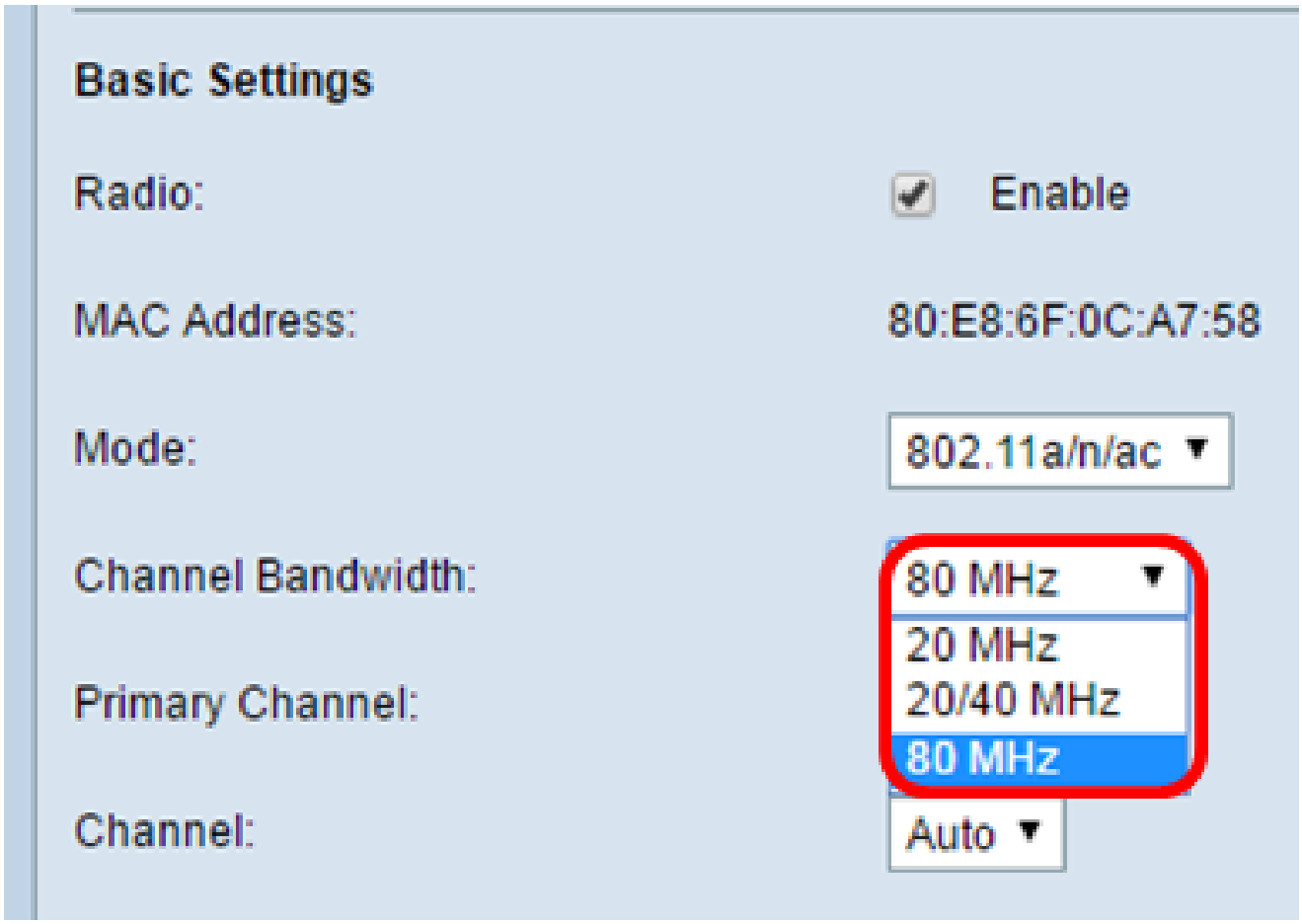


Note: 802.11n is the only specification that allows a 40 MHz-wide channel. Steps 4 and 5 are only applicable if you chose a radio mode that supports 802.11n in Step 3.

Step 4. Choose the channel bandwidth for the radio from the Channel Bandwidth drop-down list. The drop-down list has two types of bandwidth 20 MHz and 20/40 MHz. The default is 20 MHz.

Timesaver: If you chose 20 MHz, skip to Step 6.

Note: The 802.11ac specification allows an 80 MHz-wide channel in addition to the 20 MHz and 40 MHz channels. Set the field to 20 MHz to restrict the use of the channel bandwidth to a 20 MHz channel. For the 802.11ac mode, set the field to 40 MHz to prevent the radio from using the 80 MHz channel bandwidth.



Step 5. Choose the portion of the radio spectrum that the radio uses to transmit and receive from the *Channel* drop-down list.

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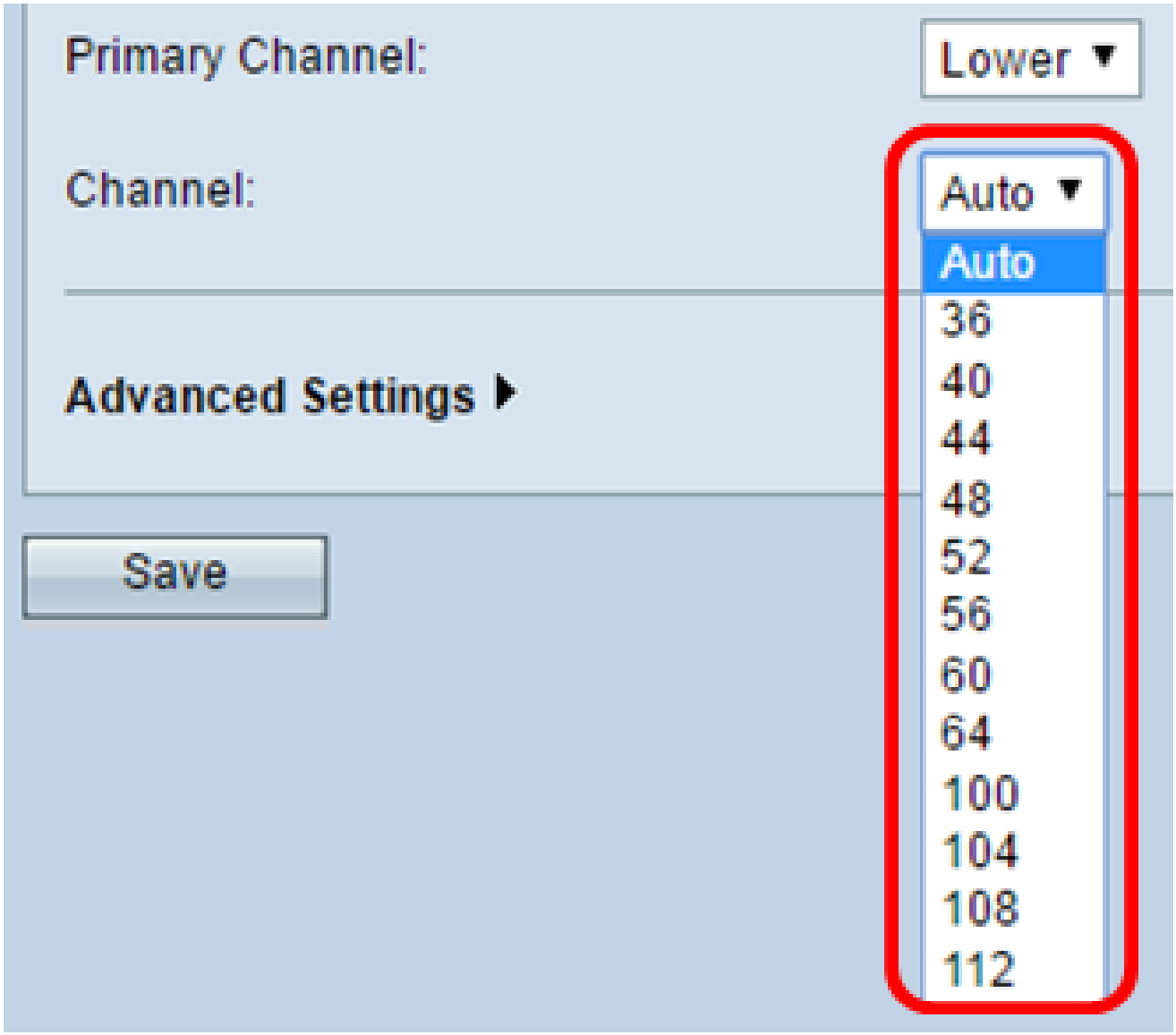

Step 6. From the Primary Channel drop-down list, choose a channel to set as primary. The primary channel is used for devices that only support 20-MHz channel bandwidth instead of the full 40-MHz channel bandwidth. The default is lower.

Note: The range of available channels is determined by the mode of the radio interface and the country code setting. If you select Auto for the channel setting, the WAP scans available channels and selects a channel where the least amount of traffic is detected.

Each mode offers a number of channels, depending on how the spectrum is licensed by national and transnational authorities such as the Federal Communications Commission (FCC) or the International Telecommunication Union (ITU-R).

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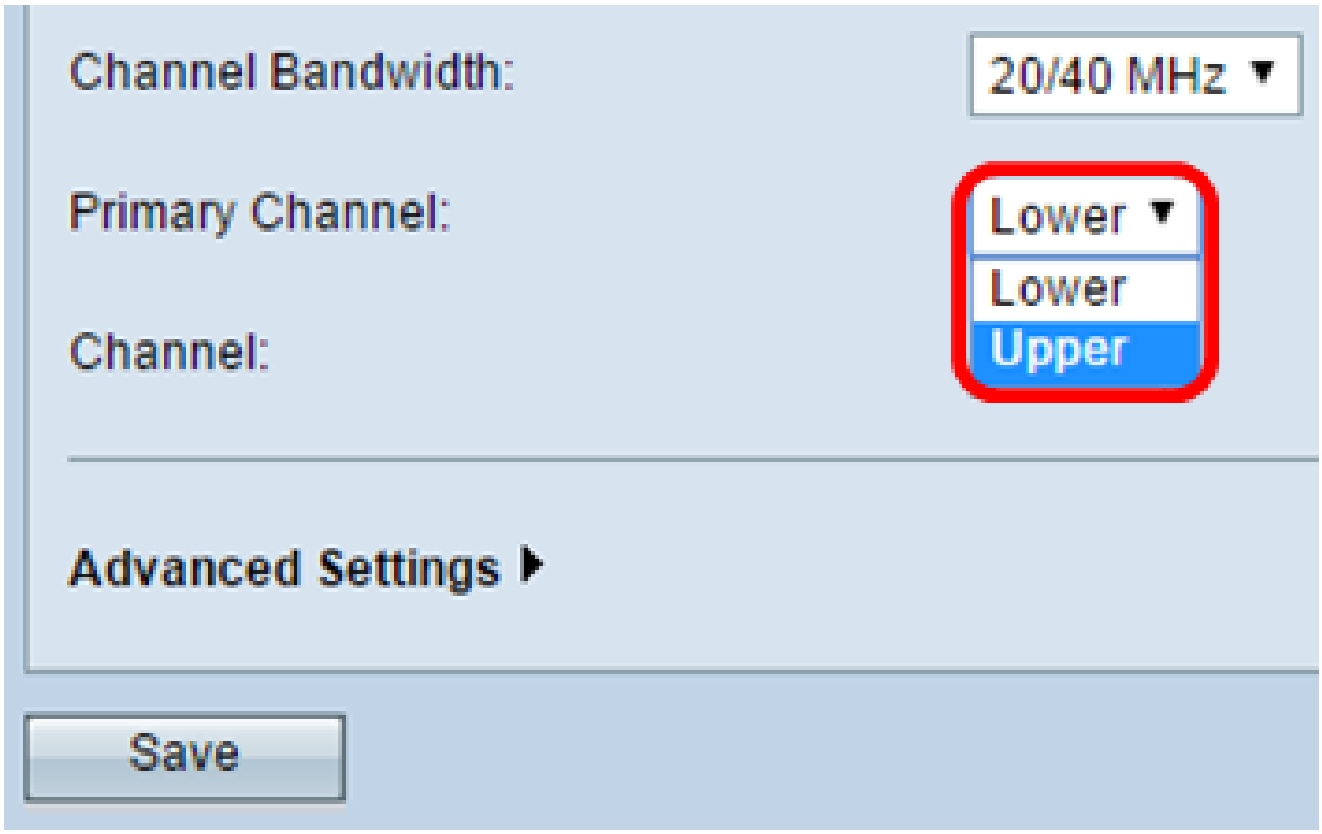
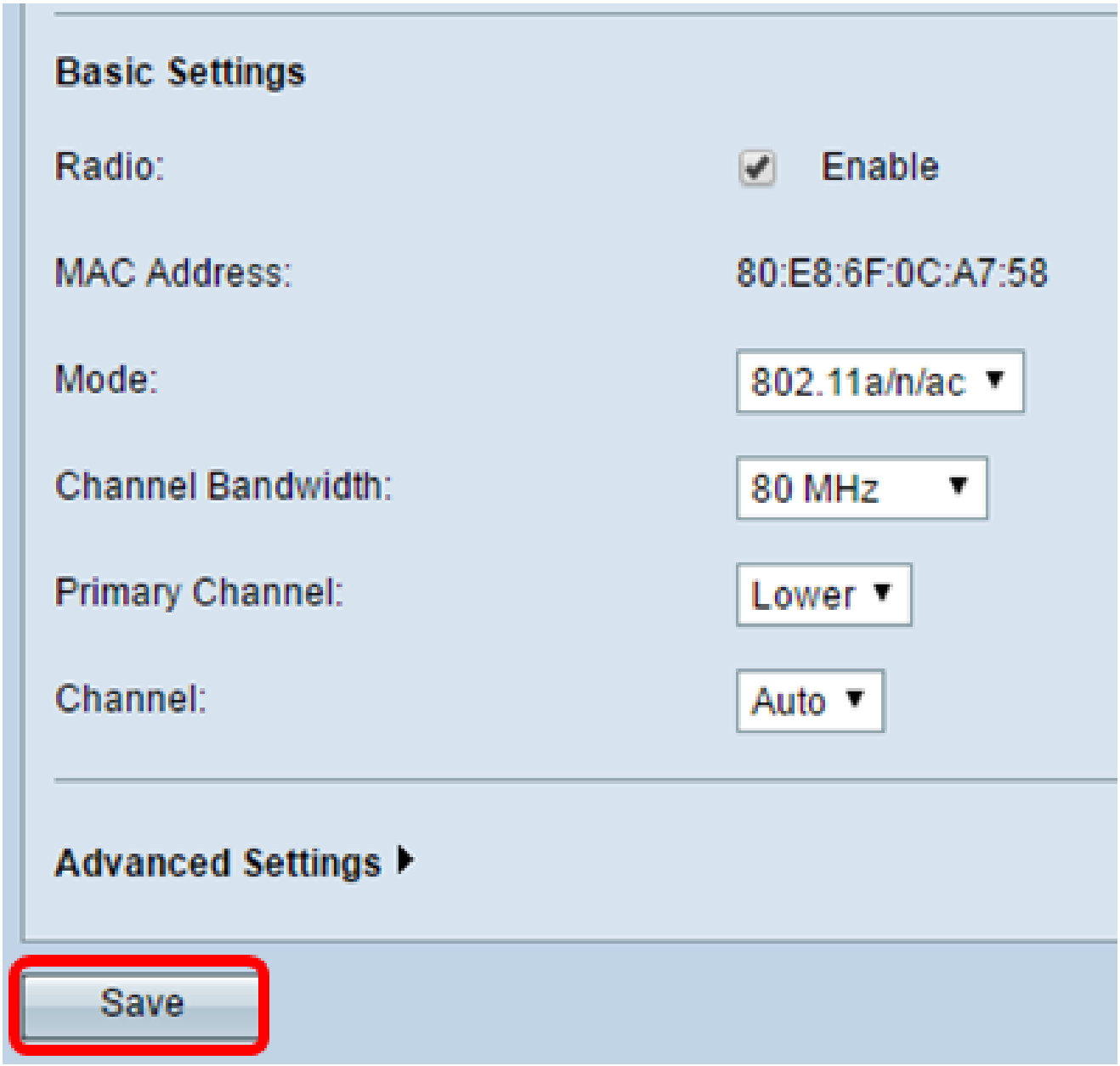


Step 7. Click **Save.**



You have now successfully configured basic radio settings for Radio 2 (5 Ghz)