# Country Codes


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# Information About Country Codes

Controllers and access points are designed for use in many countries with varying regulatory requirements. The radios within the access points are assigned to a specific regulatory domain at the factory (such as -E for Europe), but the country code enables you to specify a particular country of operation within that regulatory domain (such as FR for France or ES for Spain). Configuring a country code ensures that each radio's broadcast frequency bands, interfaces, channels, and transmit power levels are compliant with country-specific regulations.

### Information About Japanese Country Codes

Country codes define the channels that can be used legally in each country. These country codes are available for Japan:

- JP: Allows only –J radios to join the controller
- J2: Allows only –P radios to join the controller
- J3: Uses the –U frequencies, but allows –U, –P, and –Q radios to join the controller
- J4: Allows 2.4G JPQU and 5G PQU to join the controller.

See the Channels and Maximum Power Settings for Cisco Aironet Lightweight Access Points document for the list of channels and power levels supported by access points in the Japanese regulatory domains.

# Prerequisites for Configuring Country Codes

- Generally, you should configure one country code per device; you configure one code that matches the physical location of the device and its access points. You can configure up to 20 country codes per device. This multiple-country support enables you to manage access points in various countries from a single device.

- When the multiple-country feature is used, all the devices that are going to join the same RF group must be configured with the same set of countries, configured in the same order.
- Access points are capable of using all the available legal frequencies. However, access points are assigned to the frequencies that are supported in their relevant domains.
- The country list configured on the RF group leader determines which channels the members will operate on. This list is independent of which countries have been configured on the RF group members.
- For devices in the Japan regulatory domain, you must have at least one access point with a -J regulatory domain joined to your device.
- You cannot delete any country code using the configuration command **wireless country country-code** if the specified country was configured using the **ap country list** command and vice-versa.

# Configure country codes (GUI)

Set the allowed country codes on wireless APs to comply with local regulations.

**Procedure**

**Step 1** Choose **Configuration** > **Wireless** > **Access Points** > **Country**.

**Step 2** On the **Country** page, check the check box for each country where your APs are installed. If you select more than one check box, a message displays that RRM channels and power levels are limited to common channels and power levels.

**Step 3** Click **Apply**.

# How to Configure Country Codes

**Procedure**

| | Command or Action | Purpose |
|---|---|---|
| **Step 1** | **enable**<br>**Example:**<br>`Device# enable` | Enters privileged EXEC mode. |
| **Step 2** | **show wireless country supported**<br>**Example:**<br>`Device# show wireless country supported` | Displays a list of all the available country codes. |
| **Step 3** | **configure terminal**<br>**Example:** | Enters global configuration mode. |

| | Command or Action | Purpose |
|---|---|---|
| | `Device# configure terminal` | |
| **Step 4** | **ap dot11 24ghz shutdown**<br>**Example:**<br>`Device(config)# ap dot11 24ghz shutdown` | Disables the 802.11b/g network. |
| **Step 5** | **ap dot11 5ghz shutdown**<br>**Example:**<br>`Device(config)# ap dot11 5ghz shutdown` | Disables the 802.11a network. |
| **Step 6** | **ap country** *country_code*<br>**Example:**<br>`Device(config)# ap country IN` | |
| **Step 7** | **end**<br>**Example:**<br>`Device(config)# end` | Returns to privileged EXEC mode. Alternatively, you can also press **Ctrl-Z** to exit global configuration mode. |
| **Step 8** | **show wireless country channels**<br>**Example:**<br>`Device# show wireless country channels` | Displays the list of available channels for the country codes configured on your device.<br>**Note**<br>Perform Steps 9 through 17 only if you have configured multiple country codes in Step 6. |
| **Step 9** | **configure terminal**<br>**Example:**<br>`Device# configure terminal` | Enters global configuration mode. |
| **Step 10** | **no ap dot11 5ghz shutdown**<br>**Example:**<br>`Device(config)# no ap dot11 5ghz shutdown` | Enables the 802.11a network. |
| **Step 11** | **no ap dot11 24ghz shutdown**<br>**Example:**<br>`Device(config)# no ap dot11 24ghz shutdown` | Enables the 802.11b/g network. |
| **Step 12** | **end**<br>**Example:**<br>`Device(config)# end` | Returns to privileged EXEC mode. Alternatively, you can also press **Ctrl-Z** to exit global configuration mode. |
| **Step 13** | **ap name** *cisco-ap* **shutdown**<br>**Example:**<br>`Device# ap name AP02 shutdown` | Disables the access point.<br>**Note**<br>Ensure that you disable only the access point for which you are configuring country codes. |

| | Command or Action | Purpose |
|---|---|---|
| **Step 14** | **ap name** *cisco-ap* **no shutdown**<br>**Example:**<br>`Device# ap name AP02 no shutdown` | Enables the access point. |

# Configuration examples for configuring country codes

## View channel list for country codes

These examples show how to display the list of available channels for the country codes on your devicedevice:

```
DeviceDevice# show wireless country channels

Configured Country........................: US - United States
KEY: * = Channel is legal in this country and may be configured manually.
     A = Channel is the Auto-RF default in this country.
     . = Channel is not legal in this country.
     C = Channel has been configured for use by Auto-RF.
     x = Channel is available to be configured for use by Auto-RF.
   (-,-) = (indoor, outdoor) regulatory domain allowed by this country.
-----------------:+-+-+-+-+-+-+-+-+-+-+-+-+-+-
802.11bg         :
Channels         :                   1 1 1 1 1
                  1 2 3 4 5 6 7 8 9 0 1 2 3 4
-----------------:+-+-+-+-+-+-+-+-+-+-+-+-+-+-
(-A ,-AB ) US    : A * * * * A * * * * A . . .
Auto-RF          : . . . . . . . . . . . . . .
-----------------:+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
802.11a          :                         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Channels         :3 3 3 4 4 4 4 4 5 5 6 6 0 0 0 1 1 2 2 2 3 3 4 4 5 5 6 6
                  4 6 8 0 2 4 6 8 2 6 0 4 0 4 8 2 6 0 4 8 2 6 0 9 3 7 1 5
-----------------:+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
(-A ,-AB ) US    : . A . A . A . A A A A A * * * * * . . . * * * A A A A*
Auto-RF          : . . . . . . . . . . . . . . . . . . . . . . . . . . . .
-----------------:+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
4.9GHz 802.11a   :
Channels         :                   1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2
                  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
-----------------:+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
US (-A ,-AB )    : * * * * * * * * * * * * * * * * * * * A * * * * * * A
Auto-RF          : . . . . . . . . . . . . . . . . . . . . . . . . . .

Device# show wireless country configured

Configured Country......................... US - United States
Configured Country Codes
US - United States 802.11a Indoor,Outdoor/ 802.11b Indoor,Outdoor/ 802.11g Indoor,Outdoor
```