



# Configuring Radio Antenna Settings

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The Catalyst IW9167E supports eight external antennas with eight N-type female connectors to support multiple antenna options. The antenna ports 1, 4, and 5 can support self-identifying antennas (SIA). Radio 1 connects to ports 1 to 4, and Radio 2 connects to ports 5 to 8. For more information on antennas, see [Antennas and Radios](#).

The Catalyst IW9165E supports four external antennas with Reverse-polarity SMA (RP-SMA) (f) connectors. Radio 1 connects to antenna ports 1 and 2, Radio 2 connects to antenna ports 3 and 4, and antenna ports 1 and 3 can support SIA antennas.

The Catalyst IW9165D has a built-in directional antenna and supports two external antennas with N-type (f) connectors. Radio 1 connects to the internal antenna. Radio 2 connects to antenna ports 1 and 3. Antenna port 3 can support SIA antenna.

The following sections describe the CLI commands to manage antenna port and gain on each antenna for different Radio mode:

## Configuring Antenna Gain

To configure an antenna gain, use the following CLI command:

Set the maximum antenna gain value in integer or string UNSELECTED.

For UNSELECTED, the background process automatically configures the minimum supported antenna gain.



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**Note** Once the SIA is connected, gain sets automatically without any input.

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```
Device# configure dot11radio <interface> antenna gain <gain>
gain:
<1-19> antenna gain in dBi
WORD UNSELECTED
Device# write
```

## Configuring Transmit and Receive Antennas

To configure a transmission chain, use the following CLI command:



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**Note** Catalyst IW9165 does not support abcd-antenna mode.

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```
Device# configure dot11radio <interface> antenna < A >
configure antenna chains (A) in use as follows
a-antenna - configure dot11 antenna a
ab-antenna - configure dot11 antenna ab
abcd-antenna - configure dot11 antenna abcd
Device# write
```

## Configuring Transmission Power

To configure a transmission power, use the following CLI command:

Set the maximum transmission power level. For AUTO, the background process automatically configures the maximum allowed power level one.



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**Note** Eight is the lowest power level and one is the highest power level.

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```
Device# configure dot11radio <interface> txpower-level <level>
txpower level:
<1-8> tx power level value
WORD AUTO
Device# write
```