Transmit Power and Antenna Configuration

The transmit power of an AP affects the area covered and the maximum achievable signal-to-noise ratio. Proper configuration of transmit power is important for ensuring a wireless network is operating at its highest capacity. There are two methods to configure the transmit power: Auto Power (Recommended) and Manual.

Auto Power

Auto transmit power leverages data heard by the AP to decide which power level would be best for roaming and highest performance. More information on the algorithm can be found on the Auto TX article. By default, an AP's radios are configured for Auto. By selecting “Enable Power Reduction” for the network, the APs will engage the Auto TX algorithm.

Manual Power

Each AP may be configured with a static power setting on a per-radio basis. These settings instruct the AP to tune to the user entered power. The list of powers available is generated per-band, per-regulatory domain.

There are cases where high powers are available as options but mechanisms in the AP may prevent it from achieving the configured power. See the Max Power Limitations article for more details.
Disabling 2.4Ghz

An administrator can set the 2.4Ghz radio to be turned off. This disables all client serving functions of the 2.4Ghz radio but does not prevent the 2.4Ghz radio from being used for rogue and CMX detection.

Dashboard Power and Antenna Gain

The power levels listed in dashboard are the conducted powers of the AP, so they do not include antenna gain.

Antenna Configuration

For external antenna options, the dashboard needs to have an antenna configured in order to enforce regulatory restrictions like EIRP. On the Radio Settings page, click on the AP to view the RF configuration, then select the antenna physically installed on the AP. As referenced in the install guide, two identical antennas are necessary if using a 2-port antenna on the MR84. Other APs may allow for different antennas per-band based on their antenna port configuration.

Failure to configure the correct antenna may place the AP outside of regulatory limits. The administrator is responsible for ensuring this configuration is correct.
Dashboard populates a list of certified antennas by AP model. Refer to the MR datasheets for details on which Meraki Antennas are supported by each MR.