



# Sensor Mode

- [Introduction to Sensor Mode, on page 1](#)
- [Enabling Sensor Mode, on page 1](#)
- [Verifying Sensor Mode Configuration, on page 4](#)

## Introduction to Sensor Mode

As these wireless networks grow especially in remote facilities where IT professionals may not always be on site, it becomes even more important to be able to quickly identify and resolve potential connectivity issues ideally before the users complain or notice connectivity degradation.

To address these issues, Cisco introduced a Wireless Service Assurance and a new AP mode called **sensor** mode. For more information, see [Cisco Aironet Sensor Deployment Guide](#).

You must use **Clear** in AP mode to return the AP back to client-serving mode, for example the local mode or flexconnect mode depending on the remote site tag configuration.

## Enabling Sensor Mode

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<p><b>ap name <i>ap-name</i> mode sensor</b></p> <p><b>Example:</b></p> <pre>Device# ap name AP4001.7A39.2E12 mode sensor</pre>	<p>Enables sensor mode for the access point</p> <p>Sensor mode APs do not support the following per-AP configurations:</p> <pre>ap name &lt;ap-name&gt; [no] shutdown ap name &lt;ap-name&gt; dot11 24ghz SI ap name &lt;ap-name&gt; dot11 24ghz antenna ext-ant-gain &lt;ext-ant-gain-number&gt; ap name &lt;ap-name&gt; dot11 24ghz antenna selection [external   internal] ap name &lt;ap-name&gt; dot11 24ghz beamforming ap name &lt;ap-name&gt; dot11 24ghz channel [&lt;channel-number&gt;   auto] ap name &lt;ap-name&gt; dot11 24ghz cleanair ap name &lt;ap-name&gt; dot11 24ghz dot11n</pre>

	Command or Action	Purpose
		<pre> antenna [A   B   C   D] ap name &lt;ap-name&gt; dot11 24ghz shutdown ap name &lt;ap-name&gt; dot11 24ghz txpower [&lt;transmit-power-level&gt;   auto] ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; SI ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; antenna ext-ant-gain &lt;ext-ant-gain-number&gt; ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; antenna selection [external   internal] ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; beamforming ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; channel [&lt;channel-number&gt;   auto] ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; cleanair ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; dot11n antenna [A   B   C   D] ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; shutdown ap name &lt;ap-name&gt; dot11 24ghz slot &lt;slot-number&gt; txpower [&lt;transmit-power-level&gt;   auto] ap name &lt;ap-name&gt; dot11 5ghz txpower [&lt;transmit-power-level&gt;   auto] ap name &lt;ap-name&gt; dot11 5ghz SI ap name &lt;ap-name&gt; dot11 5ghz antenna ext-ant-gain &lt;ext-ant-gain&gt; ap name &lt;ap-name&gt; dot11 5ghz antenna mode [omni   sectorA   sectorB] ap name &lt;ap-name&gt; dot11 5ghz antenna selection [external   internal] ap name &lt;ap-name&gt; dot11 5ghz beamforming ap name &lt;ap-name&gt; dot11 5ghz channel &lt;channel-number&gt; ap name &lt;ap-name&gt; dot11 5ghz channel auto ap name &lt;ap-name&gt; dot11 5ghz channel width [160 MHz   20 MHz   40 MHz   80 MHz   80+80 MHz] ap name &lt;ap-name&gt; dot11 5ghz cleanair ap name &lt;ap-name&gt; dot11 5ghz dot11n antenna [A   B   C   D   E   F   G   H] ap name &lt;ap-name&gt; dot11 5ghz rrm channel &lt;channel-number&gt; ap name &lt;ap-name&gt; dot11 5ghz secondary-80 &lt;channel-number&gt; ap name &lt;ap-name&gt; dot11 5ghz shutdown ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; SI ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; antenna ext-ant-gain &lt;ext-ant-gain-number&gt; ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; antenna mode [omni   sectorA   sectorB] ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; antenna selection [external   internal] </pre>

	Command or Action	Purpose
		<pre> ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; beamforming ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; channel &lt;channel-number&gt; ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; channel auto ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; channel width [160 MHz   20 MHz   40 MHz   80 MHz] ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; cleanair ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; dot11n antenna [A   B   C   D   E   F   G   H] ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; rrm channel &lt;channel-number&gt; ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; shutdown ap name &lt;ap-name&gt; dot11 5ghz slot &lt;slot-number&gt; txpower [&lt;transmit-power-level&gt;   auto] ap name &lt;ap-name&gt; dot11 dual-band channel &lt;channel-number&gt; ap name &lt;ap-name&gt; dot11 dual-band channel auto ap name &lt;ap-name&gt; dot11 dual-band channel width [160W   20W   40W   80W] ap name &lt;ap-name&gt; dot11 dual-band txpower [&lt;transmit-power-level&gt;   auto] ap name &lt;ap-name&gt; dot11 dual-band antenna ext-ant-gain &lt;ext-ant-gain-number&gt; ap name &lt;ap-name&gt; dot11 dual-band band [24ghz   5ghz] ap name &lt;ap-name&gt; dot11 dual-band role {auto   manual [client-serving   monitor]} ap name &lt;ap-name&gt; dot11 dual-band cleanair ap name &lt;ap-name&gt; dot11 dual-band cleanair band [24Ghz   5Ghz] ap name &lt;ap-name&gt; dot11 dual-band dot11n antenna [A   B   C   D] ap name &lt;ap-name&gt; dot11 dual-band shutdown ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; antenna ext-ant-gain &lt;ext-ant-gain-number&gt; ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; band [24ghz   5ghz] ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; channel &lt;channel-number&gt; ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; channel auto ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; channel width [160 MHz   20 MHz   40 MHz   80 MHz] ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; cleanair ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; cleanair band [24Ghz   5Ghz] </pre>

	Command or Action	Purpose
		<pre>ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; dot11n antenna [A   B   C   D] ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; role {auto   manual [client-serving   monitor]} ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; shutdown ap name &lt;ap-name&gt; dot11 dual-band slot &lt;slot-number&gt; txpower [&lt;transmit-power-level&gt;   auto]</pre>

## Verifying Sensor Mode Configuration

Use the following **show** command to verify the mode of the AP:

```
Device# show ap dot11 dual-band summary
AP Name           Mac Address      Slot Admin   State Oper State Width Txpwr Mode Subband
channel
```

```
AP4001.7A39.2E12 7070.8b24.1ba0 0   Enabled N/A   NA   N/A   Sensor All (Sensor)
```

Use the following **show** command to verify Txpower, Channel width, Oper state and "(Sensor)" under Channel for an AP in Sensor mode:

```
Device# show ap dot11 24ghz summary
AP Name           Mac Address      Slot Admin   State Oper State Width Txpwr Channel
-----
```

```
AP4001.7A39.2E12 7070.8b24.1ba0 0   Enabled N/A   N/A   N/A   (Sensor)
AP-SIDD-3702I    80e0.1d6a.3520 0   Enabled Down   20   *1/8 (22 dBm) (11)
```

Use the following **show** command to verify Txpower, Channel width, Oper state and "(Sensor)" under Channel for an AP in Sensor mode:

```
Device# show ap dot11 5ghz summary
AP Name           Mac Address      Slot Admin   State Oper State Width Txpwr Channel
-----
```

```
AP4001.7A39.2E12 7070.8b24.1ba0 1   Enabled N/A   N/A   N/A   (Sensor)
AP-SIDD-3702I    80e0.1d6a.3520 1   Enabled Down   40   1/6   (17 dBm) (100,104)*
```