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### DFS Compliance in Bridge mode and Mesh mode

#### Introduction:

AirTight's SS-300-AT-C-55 is a dual band indoor Access Point. AirTight Networks Inc. intended to submit this AP as DUT for FCC's DFS compliance testing. During FCC's DFS compliance testing a query was raised by FCC lab officials and is quoted below as communicated by the ODM vendor Senao Networks Inc. to AirTight Networks Inc.:

"Submit an operational description exhibit of how the bridge mode and mesh mode operate and maintain DFS compliance."

This document addresses the above query.

**Target Audience:** FCC lab staff

#### Description:

In the description below, DUT is referred to as SS-300-AT-C-55 AP.

Given that:

1. DUT can be used in: WDS Bridge mode or in mesh mode or in Bridge AP mode or in NAT AP mode
2. DUT in WDS Bridge/Mesh AP mode relays the data between it's uplink and downlink neighbor over Wireless channel and doesn't allow Clients to associate with it. It may also forward the traffic between wired interface and wireless interface if it's a Root AP, in which case; the wireless interface is used to connect to the immediate next hop and wired interface is used to connect to the distribution Ethernet network.
3. DUT in NAT AP mode routes the traffic between Wireless and Wired interfaces
4. DUT in bridge AP mode, forwards data traffic between Wireless and Wired interfaces. There is nothing different in wireless operation of bridge mode.
5. WDS Bridge AP mode, Mesh AP mode, Bridge AP mode and NAT AP modes have no technical effect on DUT's ability to adhere to the DFS compliance
6. DUT in mesh AP mode is not allowed to operate on DFS channels – it is a configuration restriction from the AirTight AMC. DUT could be configured to operate on fixed non-DFS channel only.
7. DUT is able to pass FCC's DFS compliance criteria in Bridge and NAT AP mode

**Hence, we confirm that:**

- a. In all modes mentioned above, DUT is able to adhere to FCC's DFS compliance because of point #6 and #7 mentioned above.

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