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Draft Laboratory Division Publications Report

Title: DFS Client Device Requirements

Short Title: DFS Client Devices

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Keyword/Subject: Section 15E, 15.407, FCC 06-96, UNII Client Device without Radar Detection, DFS Test Report

First Category: Radio Service Rules

Second Category: Part 15 Intentional Radiators

Third Category: Unlicensed National Information Infrastructure (UNII) devices - 15.401

Question:

What additional Form 731 filing information, not specified in Section 8 (DFS Test Report Guidelines) in MO&O FCC 06-96 (DFS Order), is required in order for a DFS device to be approved as a UNII client device without radar detection capability operating in the 5.25 - 5.35 GHz and 5.45 - 5.725 GHz bands?

Answer:

Devices to be approved as UNII clients need to show compliance with the general requirements of Section 15.202 in addition to the technical requirements of Part 15E. According to the requirements of Section 15.202, a client device must rely on a master device to initiate a network if it does not have radar detection capability. Such a client device cannot initiate, or be configured to initiate, any transmissions including probes, beacons or support ad-hoc mode of operation. This also limits the operation of a device as a Group Owner for Wi-Fi Direct in the bands only where it is approved as a master according to the requirements of Section 15.202 (see KDB 594280).

In order to be approved as a client device without radar detection capability in the UNII band subject to the DFS requirements, the following Form 731 Attachments are required.

1. A complete test report is required for a client device without radar detection as described in Section 8 (DFS Test Report Guidelines) in the DFS Order (FCC 06-96).

2. A test report attachment for the client operating in an associated mode that includes documentation for the following:

   - Test results demonstrating an associated client link is established with the master on a test frequency;

   - The client and DFS-certified master device are associated, and the movie can be streamed as specified in the DFS Order for a non-occupancy period test;

   - The test frequency has been monitored to ensure no transmission of any type has occurred for 30 minutes; Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shut down (rather than moving channels), no beacons should appear;

   - An analyzer plot that contains a single 30-minute sweep on the original

3. A complete User's Manual and/or Professional Installers Manual. If the manual is not complete, upload an updated User's Manual exhibit.

4. A Statement of Conformity for the Client in Non-Associated mode is required. The Form 731 application must include a Cover Letter Attachment stating that the client software and associated drivers will not initiate any transmission on DFS frequencies. This includes transmissions for beacon ad-hoc peer-to-peer modes.

5. Submit a channel/frequency plan for this device showing the channels that have active scanning or passive scanning. Active scanning is where the device can transmit a probe (beacon) and passive scanning is where the device is can listen only with no probes.

6. For client devices that have software configuration control to operate in different modes (active scanning in some and passive scanning in others) in different bands (devices with multiple equipment classes or those that operate on non-DFS frequencies) or modular devices which configure the modes of operations through software, the application must provide software and operations description on how the software and / or hardware is implemented to ensure that proper operations modes can not be modified by end user or an installer. Include an attestation that the device complies with the requirements for software configuration control as discussed in KDB 594280