*Bin 5 Radar Calibration*

5.0 Test Procedure/Results

1. A spectrum analyzer is used as a monitor to verify that the UUT has vacated the Channel within the (Channel Closing Transmission Time and Channel Move Time, and does not transmit on a Channel during the Non-Occupancy Period after the detection and Channel move. It is also used to monitor UUT transmissions during the Channel Availability Check Time.

2. Following is the test setup used to generate the Radar Waveforms, and for all DFS tests described herein.
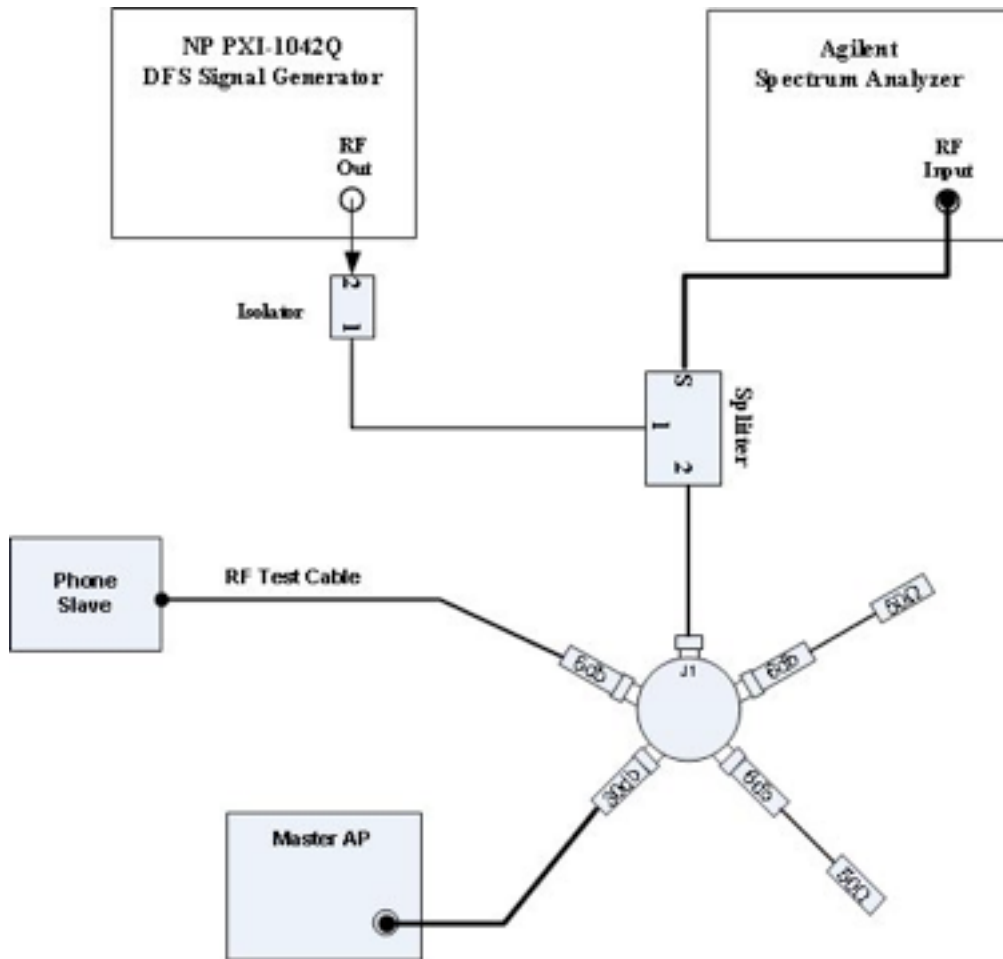
DFS Test Configuration

Conducted Setup: Radar Test Waveforms are injected into the Master
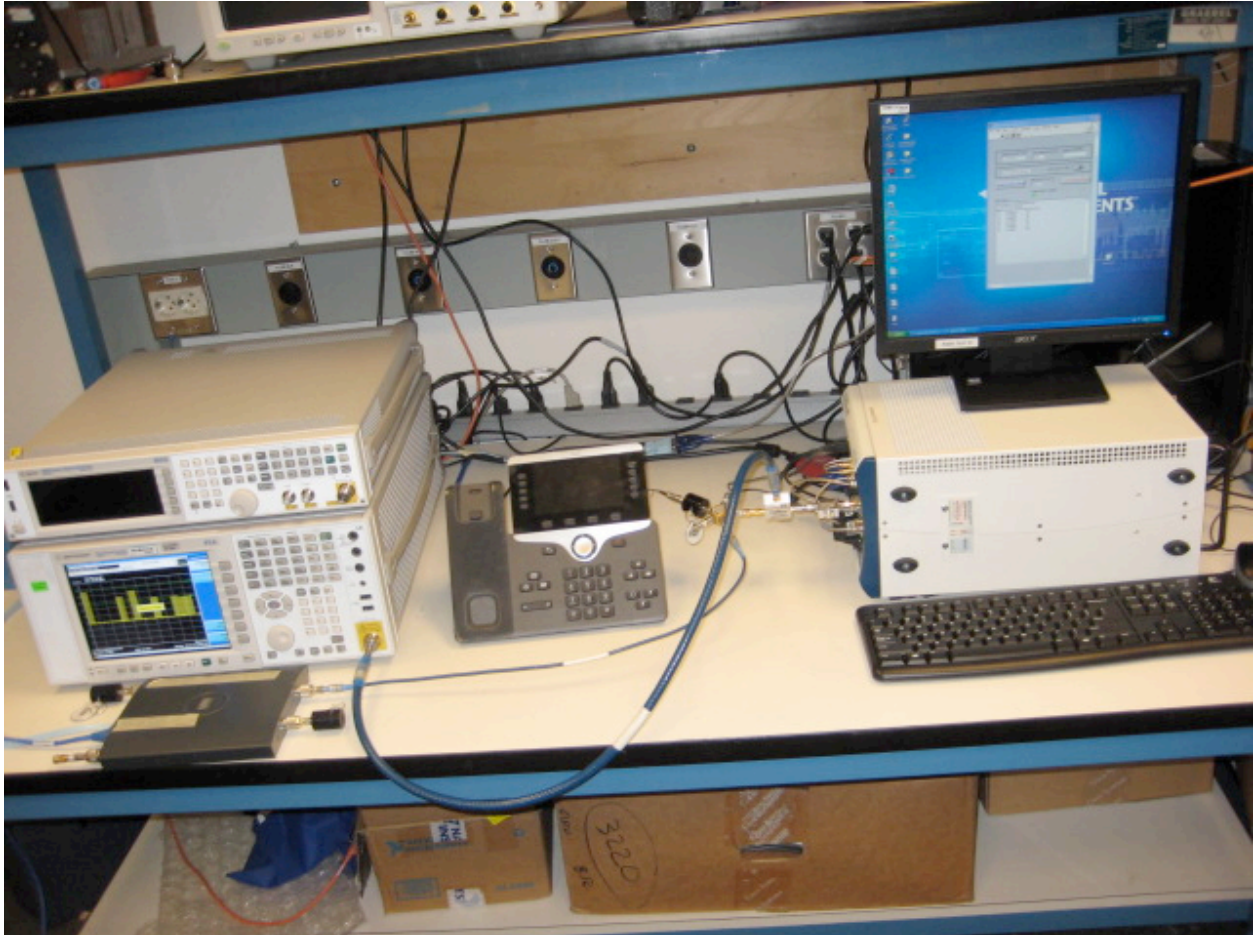
DFS Setup: Client/Slave Device (CP-8861)

The test setup is constructed of the following equipment:

Radar Test Signal Generator
   National Instruments NI PXI-1042 8-Slot 3U Chassis
   National Instruments NI PXI-5421 16-Bit 100MS/s Arbitrary Waveform Generator
   National Instruments NI PXI-5610 2.7GHz RF Upconverter
   Ascor 7206 PXI 4.9 to 6GHz Upconverter
Agilent PXA Spectrum Analyzer, Model N9030A
Mini-Circuits ZFSC-2-10G+ Splitter/Combiner (Qty. 2)
Mini-Circuits BW-S6W2 6dB Attenuator (Qty. 3)
Inmet 10W 30dB Power Attenuator 18GHz (Qty.1)
CISCO 16" RF Coaxial Cable-SMA (Qty. 2)
Murata MXGS83RK3000 Special RF Test Cable (Qty. 1)
Cisco AIR-AP1242AG-A-K9 802.11a/b/g (wireless master)
System Under Test: Cisco CP-8861 802.11a/b/g/n/ac (wireless client/slave)

The waveform parameters from within the bounds of the signal type are selected randomly using uniform distribution.

3. In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period
    These tests define how the following DFS parameters are verified during In-Service Monitoring; Channel Closing Transmission Time, Channel Move Time, and Non-Occupancy Period.

    The steps below define the procedure to determine the above mentioned parameters when a radar Burst with a level equal to the DFS Detection Threshold + 1dB (-61dBm) but a -62dBm burst was generated on the Operating Channel of the U-NII device.

    A U-NII device operating as a Client (Slave) Device will associate with the UUT (Master) at 5260MHz & 5500 MHz Stream the WAV test file from the Master Device to the Client Device on the selected Channel for the entire period of the test.

    At time T_0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at -62dBm.

    Observe the transmissions of the UUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the *DFS Response requirement values table*.

Channel Closing Transmission Time for Type 1 radar.
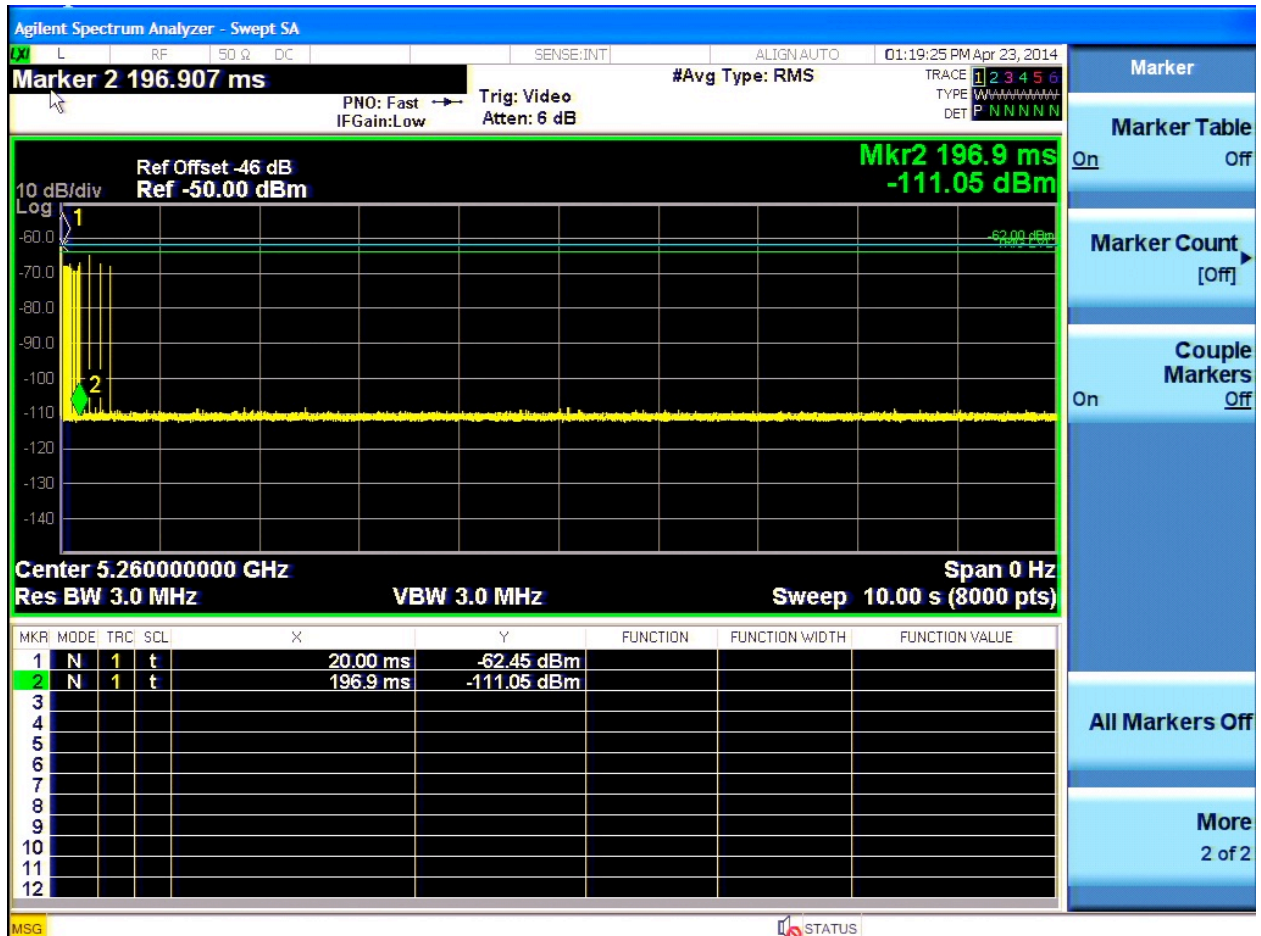
Closing Time Close up view (1second)

Channel 5260MHz

Channel Move Time, Channel Closing Transmission Time for Type 1 radar.

Channel 5260MHz

Channel Closing Transmission Time for Type 1 radar.

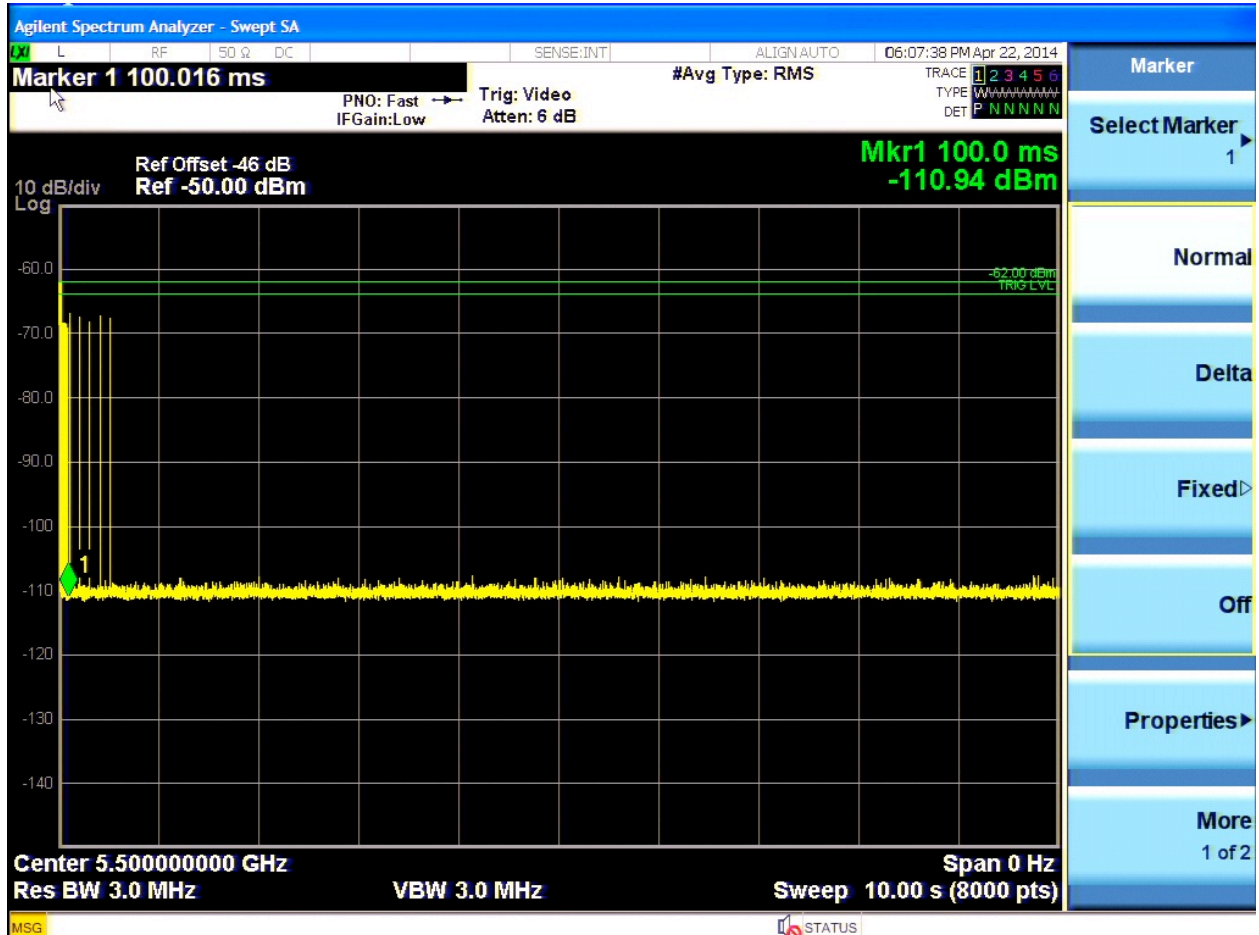**Closing Time Close up view (1second)**
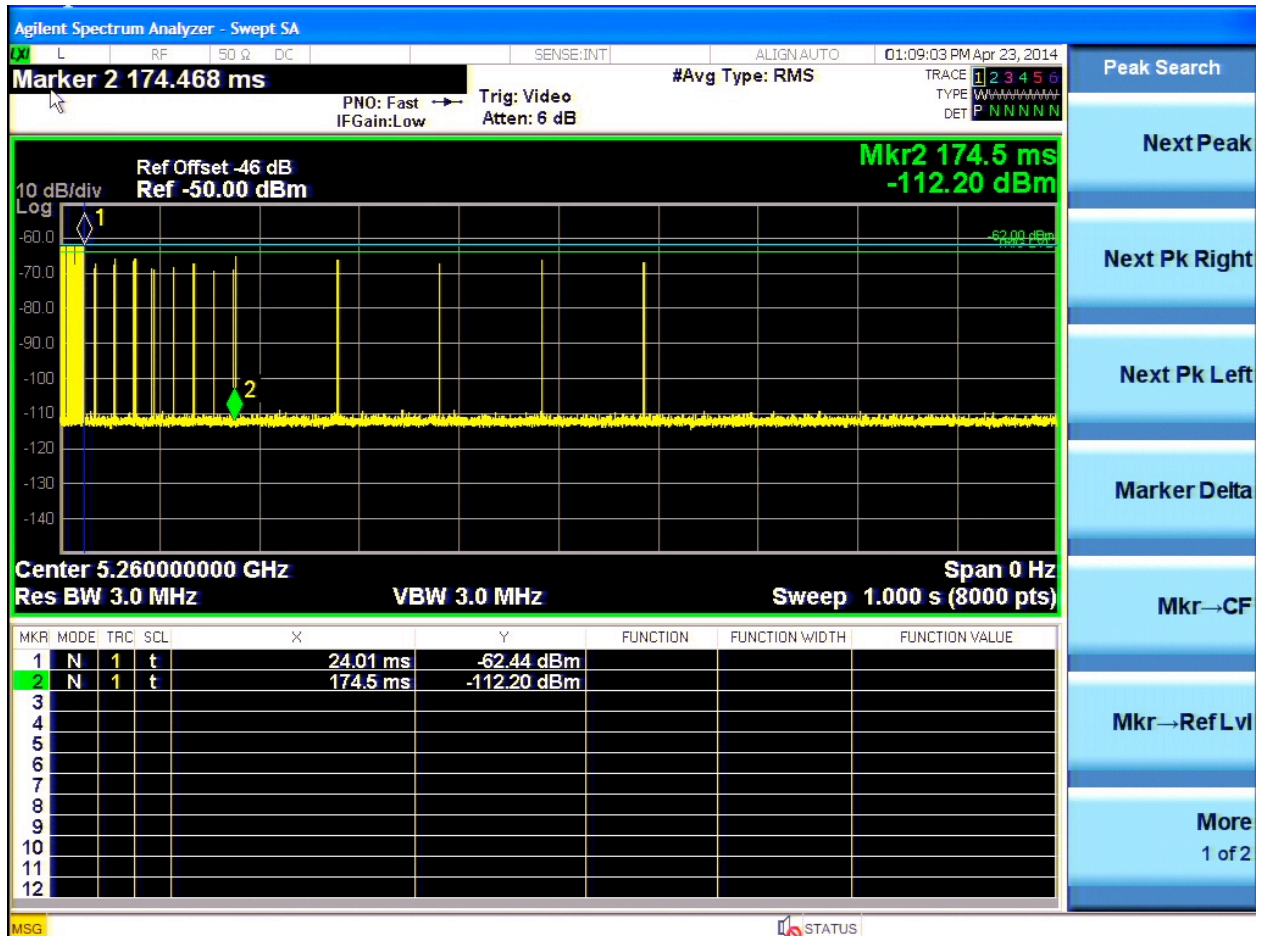
Channel 5260MHz

Channel Move Time, Channel Closing Transmission Time for Type 1 radar.

Channel 5500MHz

Channel Move Time, Channel Closing Transmission Time for Type 2 radar

Channel 5260MHz