

From: Michael Heckrotte,
COMPLIANCE CERTIFICATION SERVICES
Michael.Heckrotte@CCSEMC.COM
Date: April 11, 2007
To: Andrew Leimer
Andrew.Leimer@fcc.gov
FCC Equipment Authorization Branch
Applicant: Broadcom Corporation
FCC ID: QDS-BRCM1025
Correspondence Reference Number: 32834
731 Confirmation Number: EA880580
Date of Original E-Mail: 4/6/2007
Subject: Preliminary Review

- 1) The DFS test report was for the device operating as a master. This is a proprietary system that can operate as a master and a client. As such, this device should also be tested in the client mode. Please submit an addendum to the DFS test report with data for the client mode.
<CCS Answer:> The device is only a master, it does not operate as a slave.
- 2) Please submit expanded plots for the channel transmission closing time demonstrating that the device vacates the channel in the required 200 ms. these plots should not have a sweep greater than 600 ms.
<CCS Answer:> We will be happy to furnish the 600 msec sweep time plot for applications submitted on or after February 28, as that is the date I was notified of this reporting requirement.
- 3) This is a MIMO device. Explain how MIMO might effect the receive time for detection of radar. How does the MIMO configurations impact the antenna gain? Do both receive antennas operate at the same time. If so, this might create a receive antenna pattern. How was the device oriented so that maximum coupling is achieved between the radar antenna and the receive antennas?
<CCS Answer:> This is only a MIMO device. It does not operate in any other mode. The MIMO configuration has no impact on antenna gain, as the antenna gain is determined by the physical dimensions of the antennas and the materials utilized in their construction. Yes, both receive antennas operate at the same time. There is no such receive pattern, the highest-amplitude received signal is used, in a manner similar to traditional diversity systems. For preliminary radiated tests, the device was oriented so that both antennas are vertical.
- 4) Verify that this device only operates with one BW: 40 MHz.
<CCS Answer:> The device only operates on the 40 MHz bandwidth.
- 5) How is the user prevented from disabling DFS and/or transmitting in frequencies not authorized in United States?
<CCS Answer:> There are no such preventative measures. The GUI is an engineering-level interface. The product is for compliance test purposes only. The applicant is happy to accept the following limitations, as documented in the Professional Installation Manual, as Grant conditions for this device:

The general public is prohibited from operating the device. Operation of the access point must be performed by the installer. Operation of the access point is limited to testing purposes only, for use as a peripheral support Master Device for DFS testing of Slave Devices.

Should you wish to propose additional or different Grant conditions, please advise us. The applicant is willing to modify the Installation Manual as required to be consistent with any other Grant conditions that still allow for the intended use of this device.

- 6) Per FCC-TCB guidance, separate exhibits should be submitted where applicable for the different types / folders in e-filing system. This filing has MPE estimate in (EMC) Test Report - please submit separate pages in RF Exposure folder.
<CCS Answer:> Please see attached file.

- 7) If not in MPE estimate already, please revise to account for 2 x 2 MIMO antenna configuration
<CCS Answer:> This device only operates in the 2x2 MIMO mode.