

Chris Harvey

From: Claire Hoque [choque@CCSEMC.com]
Sent: Monday, July 12, 2004 12:26 PM
To: 'Chrisharveyemc@comcast.net'
Cc: Michael Heckrotte; Mike Kuo
Subject: RE: Additional Information needed Broadcom Corporation, FCC ID: QDS-BRCM1013, Assessment NO.: AN04T4008, Notice#1

Hi Chris,

Broadcom would like to see FCC grant by 7/16, would you pls issue certificate ASAP?
Thanks,

Claire

-----Original Message-----

From: Claire Hoque
Sent: Thursday, July 08, 2004 10:22 AM
To: 'Chrisharveyemc@comcast.net'
Cc: Michael Heckrotte; Mike Kuo
Subject: FW: Additional Information needed Broadcom Corporation, FCC ID: QDS-BRCM1013, Assessment NO.: AN04T4008, Notice#1

Chris,

Here are the answers.

For the purposes of this e-mail I have assumed that the Limited Modular Approval is being filed for the Mobile-only configurations as explained throughout this e-mail. If this is not the correct assumption, please contact me.

[\[Broadcom\]](#) We are seeking Full Modular Approval for mobile configurations; Test was performed with antennas in free space .

This application has been filed for a MiniPCI WLAN Card that utilizes Notebook hinge and screen antennas. This device is considered a portable device that operates when the antennas are closer than 20cm to a person's body. The antennas are not integral to the EUT because the antennas are cables to the remote location of the host notebook. The output power of this 15.247 device exceeds 100mW. With all of this in consideration, the FCC will only allow a Limited Modular Approval for the Mobile configurations since the RF Exposure issues are required to be addressed in each host configuration. For portable configurations each unique host computer into which this EUT is installed would need to demonstrate RF Exposure compliance (SAR for Portable configurations).

[\[Michael Heckrotte\]](#) SAR reports were included in the upload

The Modular Approval Declaration indicates that the antennas are Integral PCB Antennas, however the antennas are actually cabled from the MiniPCI card to remote locations of the host device. Additionally, please rephrase the RF Exposure section of this declaration to indicate that the modular approval is for Mobile configurations where the OEM is responsible for installations and the MPE calculation shows that the specific antennas with a 20cm separation comply with the RF Exposure requirements (the grant will state "This device must be installed by Broadcom or by Broadcom authorized OEM dealers. Broadcom has to ensure that the end user has no manual instructions to remove or install the device."). Please correct these statements on the Modular Declaration. Please confirm that the application is for Limited Modular Approval for mobile configurations and not for the specific combination of EUT and host notebook in the one portable configuration documented in the application.

[\[Broadcom\]](#)

7/12/2004

1. Please see attached revised modular approval declaration;
2. We are seeking Full Modular Approval for mobile configurations; Test was performed with antennas in free space.
3. RF exposure for portable devices will be evaluated on a case by case basis;
4. Bios Lock is enabled by HP notebook. User Installation is allowed. Attached is HP User Installation Guide.

The photographs for the 'mobile configuration seem to show additional foil shielding added to the EUT. Please explain the addition of the foil shield. Please note that the test photos for portable operation show that the unit was tested inside the host computer during most tests which is appropriate only for the specific combination of EUT and host.

[Michael Heckrotte] The foil shielding was added to the extender card, not the EUT.

Please provide photographs of the antennas used with this device.

[Michael Heckrotte] Included in Antenna Specifications

Please provide a declaration of compliance with specifications as to the compliance with the antenna /connector requirements of FCC 15.203.

[Michael Heckrotte] Unique connector is I-PEX.

The Users Manual includes a statement in the RF Exposure section on page 40 of 45 that the user should keep a distance of at least 0.5cm from the EUT and antenna, which is not appropriate for the mobile configurations, but meets the requirements for the portable configurations based on the SAR measurement. Please resolve this discrepancy.

[Broadcom] Attached is the manual with revised RF warning statement.

Thanks,

Claire