

Chris Harvey

From: Trinh Tien-Waite (ttienwai) [ttienwai@cisco.com]
Sent: Wednesday, January 23, 2008 3:11 PM
To: charvey-tcb@ccsemc.com
Cc: Jim Nicholson (jimnicho); Claire Hoque
Subject: RE: Cisco Systems, Inc., FCC ID: LDK102066, Assessment NO.: AN08T7518, Notice#1
Attachments: AIR-AP1242G-A-K9_FCC_Test_Report.pdf; ant2410Y_2.4GHz_10dBi_yagi.pdf; AIR-AP1242G-A and AIR-LAP1242G-A-K9 internal Photos.pdf; 1240hig3.pdf

Hi Chris,

It might help to provide some background on this project. This product was approved a number of years ago as a dual-band access point, AIR-AP1242AG-A-K9, under FCC ID: LDK102056 and IC: 2461B-102055. We are now removing the 5GHz radio, cabling, and connectors, and offering this product as a 2.4GHz-only product, AIR-AP1242G-A-K9, under FCC ID: LDK102066 and IC: 2461B-102066. We are using the data for the 2.4GHz radio from the original test report, and simply removing the 5GHz data.

Please see below for response and let me know if you have further questions.

Thanks,
Trinh

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

From: charvey-tcb@ccsemc.com [mailto:charvey-tcb@ccsemc.com]
Sent: Wednesday, January 23, 2008 10:12 AM
To: Trinh Tien-Waite (ttienwai)
Cc: charvey-tcb@ccsemc.com
Subject: Cisco Systems, Inc., FCC ID: LDK102066, Assessment NO.: AN08T7518, Notice#1

Dear Trinh Waite,

You are listed as the Technical Contact for the above referenced TCB application. The following item(s) need(s) to be resolved before the review can be continued:

This application has been submitted as a 2.4GHz band only application for DTS operation. There are several exhibits that reference operation in the 5GHz bands, which are causing confusion. If there is a co-located 5GHz module, please provide the FCC ID number of that Module and address the co-location (MPE) issues in this application.

1. Please provide additional photos (or update the internal photo exhibit) showing the internal construction, including cabling and connectors and board/enclosure placement, as well as showing each side of this device. It is unclear if this device has only 2 RF connectors as shown in the external photos, or 4 RF connectors as shown in the Test Setup Photos.

[TW] Device has 2 RF connectors. I have updated the internal photo (attached)

2. The Schematic Diagrams show a Gamma (2.4GHz, 802.11b/g) radio and an Alpha (5GHz, 802.11a) radio, but the application has only been submitted for the 2.4GHz radio. Please explain and update exhibits as needed to be clear. If this device is capable of operating in the 5GHz UNII Band(s), please either submit an additional application to cover that portion of this device, or provide evidence of compliance with the FCC requirements.

[TW] As detailed on the first page of the schematic, there are multiple BOM populations covered by this schematic. The 5GHz components are not populated on the 2.4GHz version

2/1/2008

3. The test report implies some testing per 15.407, where this device appears not to contain any portions that are subject to 15.407. Please remove the potentially confusing references to 15.407 (recent FCC policy).

[TW] You might have had the wrong version of report. Please see attached the correct one.

4. The Users Manual indicates, on page B-2 (or 86 of 124 in the pdf), that the FCC ID for this device is LDK102056, where the application is submitted for LDK102066. If this is the wrong manual, please replace the manual with the correct one. If this is a typographical error, please submit a corrected one. Please note that this manual also includes information about the 5GHz UNII bands, which are not part of this application and will cause confusion with the FCC if left in this manual.

[TW] Please see attached the correct one.

5. The test report documents the use of several specific antennas which do not agree with the antenna specification exhibits submitted:

Test Report

specifications	Exhibits provided
AIR-ANT1728 2.4GHz 5.2dBi, omni Dipole	AIR-ANT1728
AIR-ANT2506 2.4GHz 5.2dBi, omni	AIR-ANT2506
AIR-ANT3213 2.4GHz 5.2dBi Diversity Omni	
AIR-ANT4941 2.4GHz 2.2dBi Dipole	AIR-ANT4941
AIR-ANT5959 2.4GHz 2.0dBi Diversity Omni Ceiling Patch	AIR-ANT5959
AIR-ANT3549 2.4GHz 9.0dBi Patch	
AIR-ANT2012 2.4GHz 6.5dBi Diversity Patch	
AIR-ANT1729 2.4GHz 6.0dBi Patch	
AIR-ANT2410Y-R 2.4GHz 10dBi Yagi	
2.4GHz 6.0dBi Patch	AIR-ANT2406P
2.4GHz 6.5dBi Diversity Patch	AIR-ANT2465
2.4GHz 8.5dBi Patch	AIR-ANT2485

Please clarify which antennas are to be included in the application for this device. Also, please confirm if the Yagi antenna type is to be included as there are no antenna specification exhibits in the current application.

[TW] There are 8 antennas to be included for this application; please see attached the Yagi specification

AIR-ANT1728	2.4 GHz 5.2 dBi Omnidirectional
AIR-ANT2506	2.4 GHz 5.2 dBi Omnidirectional
AIR-ANT4941	2.4 GHz 2.2 dBi Dipole
AIR-ANT5959	2.4 GHz 2.0 dBi Diversity Omnidirectional
AIR-ANT2485P-R	2.4 GHz 8.5 dBi Patch
AIR-ANT2465P-R	2.4 GHz 6.5 dBi Diversity Patch
AIR-ANT2460P-R	2.4 GHz 6.0 dBi Patch
AIR-ANT2410Y-R	2.4 GHz 10.0 dBi Yagi

6. The Peak Transmit Power appears to have been measured using a 1MHz RBW, which would not be acceptable for a signal that has an emission bandwidth that is (much) wider than 1MHz (bandwidth limiting). Please provide the measurement procedure for these tests to ensure that it complies with FCC requirements.

[TW] Method 1 of DA 02-2138 was used.

7. the Test Report indicates that the measurement facilities are accredited to ANSI C63.4:2001. The FCC Currently requires measurement facilities and tests to be in compliance with ANSI C63.4:2003. Please review the facility accreditation and the test report to ensure conformance with the requirements in ANSI C63.4:2003, and update the exhibits accordingly.

[TW] All tests was performed in April, 2005 as per the prior explanation. However, all accreditations for Cisco labs are current.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase

processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.

Best regards,

Chris Harvey
Charvey-tcb@ccsemc.com