



Jim Nicholson
EMC Compliance Engineer
Cisco Systems, Inc.
4125 Highlander Parkway
Richfield, OH 44286

April 11, 2012

Re: FCC ID: LDK102080

Applicant: Cisco Systems Inc

Correspondence Reference Number: 41550

Form 731 Confirmation Number: EA217668

Date of Original E-mail: 04/11/2012

1. Please confirm the changes I made for you in Form 731 per your 4/9 request, including the maximum conducted power.

Thank you, I confirm the changes are correct.

2. According to Part 15.204, a list of antennas to be certified in this FCC ID application should be provided. The revised Radio Theory of Operation in Section 1.0 lists a total of 4 models which will be sharing the same FCC ID with either external or internal antenna option. Antenna types and antenna gains information should be also provided for each model. In addition, as mentioned in my 4/2 inquiry, an attestation letter is necessary to confirm that these 4 models are electrically identical. Supporting materials should also include drawings and/or photos showing PCB routing and component placement for these two antenna options, assuming they have identical schematics up to the diplexers.

The attestation that the 4 models are electrically identical can be found in Section 1.0, page 4 of the Radio Theory of Operation. Photos showing the PCB routing and component placement for the antenna options can be found in the "Internal Photos" exhibit.

3. Your statements about misplaced NII files in the DTS filing are not in agreement with the exhibits. The 3 UNII reports in the DTS filing are not duplicated and should not be simply superseded; they do not exist elsewhere and should have been uploaded to the NII filing. On the other hand, the DFS report and UNII-1 EMC report are redundant. Please add/supersede files. If you have difficulty doing it, please send in a request with a list of files to be modified and the action requested.

For NII portion, we uploaded the following exhibits into EA217668(NII), and these are correct:

2600_Series_5250_5350_Setup Photos.pdf
2600_Series_5250_5350_Test_Report.pdf
2600_Series_5470_5725_Setup Photos.pdf
2600_Series_5470_5725_Test_Report.pdf
2600_Series_Radio_Theory_of_Operation.pdf



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4. With only 0.1 MHz separation (Page 77, 5470-5725 MHz EMC report) to the prohibited 5600-5650 MHz band when operating at the center frequency of 5660 MHz, the 20 ppm frequency stability (Page 7, Radio Theory of Operation) is a concern because the energy spillover would cause interference to radars operating in the TDWR band. It is also not clear whether the 20 ppm is due to temperature alone or is the sum of both temperature and aging drifts, or if power source induced drift has been included. Please address interference concern or remove 5660 MHz from channel pool.

See the uploaded Frequency Stability Test Report. 20 is worst case spec, but is not fully realized.

5. The three NII EMC reports are missing frequency stability evaluation as required in Part 15.407(g) "emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual." Therefore, the device should be tested for frequency stability from -20 to +55 (degree C) in 1% to 90% humidity (Page 36, Getting Started Guide).

See the uploaded Frequency Stability Test Report

6. As mentioned in my 4/2 inquiry, there should be one each summary MPE report for the NII filing and DTS filing, placed in their respective "RF Exposure Info" exhibit. In addition, the Updated User Manual still contains suggested separation distance of less than 20 cm. As explained in my 4/2 inquiry, 20 cm is the minimum for mobile equipment or the device could be placed in the portable category.

See the updated RF exposure exhibit.

7. The revised Radio Theory of Operation states that at the time of the first customer shipment, the 2.4 GHz radio will only support transmission on three of the four antennas. Please clarify whether MCS24 - MCS31, which require 4 data streams, will be supported when the fourth antenna is enabled.

No, the product will only support 3 spatial streams, even when transmitting on 4 antennas.

Best Regards,

A handwritten signature in blue ink, appearing to read "Jim Nicholson".

Jim Nicholson
EMC Compliance Engineer