



Jim Nicholson
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April 3, 2012

Re: FCC ID: LDK102080

Applicant: Cisco Systems Inc

Correspondence Reference Number: 41503

Form 731 Confirmation Number: EA217668

Date of Original E-mail: 04/02/2012

1. Please notch out 5600-5650 MHz band on Form 731. The closest usable channels to the notched band in various operation bandwidth modes should be identified on Form 731 frequency listing.

Chen, can you update the form to show the following please? I don't believe I can revise the form once it is completed.

5500-5580 MHz

5660-5700 MHz

2. There seem to be multiple models which will share this FCC ID, for example, 2600E, 2600I, CAP/SAP 2602, 26011, 26021, 2601E, CAP/SAP 2602E have been mentioned in the documents. Please list in operational description (or a separate cover/attestation letter) all models which will be using this FCC ID and their differences, including corresponding antenna types and gains. Attestation statement is necessary to confirm whether or not they are electrically identical.

See updated Radio Theory of Operation

3. Expedited DFS review is approved. However, in the future please do not reference a model which in turn references yet another one. Pointing to the right origin would allow us to find necessary information more quickly.

Thank you, and I apologize for the confusion.

4. Please move UNII-2 (5250-5350 MHz) and UNII-Worldwide (5470-5725 MHz) EMC reports from DTS filing to the NII filing. There is no need to have the DFS report and UNII-1 EMC report in the DTS filing either, please supersede.

We uploaded both in the manner you described on 3/16, and realized the mistake right after filing the DTS application. We, sent an email to FCC on 3/16 to request FCC to remove the UNII reports from DTS app. Chen, would you be able to remove the UNII reports for us in this case?



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5. On Software Theory of Operation:

a) The regulatory domain (country code) is said to be dictated by the AP software, more specifically the variable/cookie stored on the CPU's external flash memory. Since the entire content of the NOR flash memory is overwritten after an AP software image upgrade, please describe how protection is achieved to prevent a new country code being installed. The applicant states in the Theory that "It is very difficult to write radio firmware for this system-on-a-chip." However, the applicant did just that for the Marvell 8764C SOC. On the same token, the entire AP software can be replaced by third party software.

See the reply to "Question 9" in the updated software Theory of Operation.

b) Furthermore, the Theory indicates that when there is a conflict of the domain setting between the AP cookie and the radio firmware TLV, the AP cookie would override the TLV. However, in answer to Question #3, the applicant states that "A single AP software release will cover all hardware SKUs ... permanent domain setting (installed in the radio firmware during manufacturing) are activated in the field" which contradicts the above claim. Please clarify.

See the reply to "Question 10" in the updated software Theory of Operation.

c) In addition, please elaborate on dynamic memory map (Section 5.0, Software Theory of Operation) which seems to be the main protection mechanism against the country code variable/cookie being altered.

See the reply to "Question 11" in the updated software Theory of Operation.

d) Finally, the Theory indicates that the regulatory domain is set at "ordering, configuration, and shipping." However, when the shipment has no known end customers, i.e., sold through distributor, web retailer, value-added reseller or system integrator, what would be the entry for the regulatory domain field? What control does the manufacturer have to ensure that the correct country is selected in such cases?

See the reply to "Question 12" in the updated software Theory of Operation.



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6. On MPE report: a) Please consistency between maximum powers/antenna gain in the MPE reports and those in the EMC reports. Each maximum power used in the MPE estimate should have an exact source in the EMC peak power measurement table. b) Furthermore, per 2.1091 a mobile device is defined as "generally be used in such a way that a separation distance of at least 20 cm is normally maintained" Therefore, the < 20 cm minimum distances in the User's Manual (Page 29) and the MPE reports are redundant and/or misleading. Please revise Manual and MPE report. c) Do not include one MPE report in each EMC report as an appendix. There is an exhibit type specifically for RF Exposure for each filing. Only one worst case MPE estimation for all three NII sub-bands is required; and only one MPE report for the two DTS sub-bands. This allows the public to quickly locate RF exposure information.

See the new revision of the uploaded User Guide. The distances in the tables have been changed to 20cm.

7. The applicant is reminded that when the fourth transmit antenna is enabled by software upgrade, a Class III Permissive Change may be required if the output power ratings are increased.

The test reports reflect all current and future operating modes, so no updates will be required.

Best Regards,

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

Jim Nicholson
EMC Compliance Engineer