

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

April 27, 2012

Re: FCC ID: LDK102080

Applicant: Cisco Systems Inc

Correspondence Reference Number: 41679
Form 731 Confirmation Number: EA217668
Date of Original E-mail: 04/26/2012

Thank you for your 4/21 reply to my 4/16 inquiry. Your explanation on the issue of frequency stability fails to fully address the concern that 5660 MHz operation of HT20 mode could drift into the 5600-5650 MHz band. With the 20 dB bandwidth only 100 kHz away from the prohibited band, a crystal reference oscillator needs to have 17.7 ppm or better stability. The revised Radio Theory of Operation still states that 20 ppm offset is possible. Regardless the reason of frequency drift (component variations, aging, voltage, temperature, etc.), the EUT needs to stay within the band as well as away from the prohibited band. Please clarify.

- The FCC KDB states that the channel cannot overlap the 5600- 5650 MHz band, this has been assumed we cannot place a channel where it would operate in the TDWR band 100% of the time but has not been assumed that under extreme condition one device out of several thousand might drift part of energy into this band under an extreme condition.
- 2) If the frequency would drift the center frequency would still be well within the frequency band of operation .
- 3) The drift would not result in the 99% BW energy being in the 5600- 5650 MHz band.
- 4) At this time there is no spurious emission limit for the 5600 -5650 MHz band
- 5) If the FCC is specifying a specific frequency drift for devices operating in the adjacent band to the restricted band it needs to made public via a KDB, no such discussion has occurred.
- 6) To summarize, is 15.407(g) applicable in this case?

Best Regards,

Jim Nicholson

**EMC Compliance Engineer** 

Phone: (330) 523-2094 Fax: (330) 523-2002 E-Mail: jimnicho@cisco.com