



To: FCC, Office of Engineering and Technology  
FOA: Tho Nguyen  
Ref: FCC ID HZB-AP8100, HZB-MB83HP5  
From: Cor van de Water, Proxim Wireless.

Comments and clarifications to the FCC Inquiry related to the Jan 30, 2013 DFS verification test.  
Answers from Proxim Wireless are preceded by CvdW:

1. HZB-MB83HP5 and HZB-AP8100 are both based on Atheros platforms. Both are dual band, dual radio designs. HZB-MB83HP5 features 3T3R with 3 external antennas (standard N-connectors) while HZB-AP8100 is 2T2R with 4 internal antennas.

2. Both models presented are equipped with the US-only version software. The indoor HZB-AP8100 unit is clean in the sense that country code, power, antenna, channel are all in compliance. Please confirm that 4.9 GHz is not supported on this product.

CvdW: HZB-AP8100 will not support 4.9GHz and does not allow selection of this frequency.

3. The outdoor device HZB-MB83HP5 has some problems. Please confirm that 4.9 GHz operation is authorized.

CvdW: We have done certification testing for Part90 and the grant will be issued before this unit is released in the USA.

4. The first critical issue with HZB-MB83HP5 is that the channel wait time can be manually set in between 0 to 3600 seconds. Part 15.407 requires channel availability check time to have a minimum of 60 seconds and the minimum non-occupancy period of 30 minutes, both limits cannot be lowered.

CvdW: This issue is resolved with the Final Release version of software v2.6 The previous version 2.5.1 will not be available to the end users.  
The minimum wait time is now 60 seconds, configurable between 60-3600 seconds.

5. Channel 132 (5660 MHz) currently allows 40 MHz operation; we confirmed this with spectrum analyzer reading, which would cause emission in the forbidden 5600-5650 MHz band.

CvdW: For the current version of software, we will update the user guide to warn the End User against using channels 132 when operating at 40MHz.  
We will remove the frequency from the User Interface in software Release version v2.6.

6. Maximum EIRP can be set from 0-100 dBm, and the antenna gain can be set 0-40 dBi. This

setting neglects the conducted power and power spectral density back-off rules of 15.407(a)(1), (a)(2) and (a)(3) for antenna gain exceeding 6 dBi.

CvdW: The EIRP field may be confusing. These fields should take into account cable & connector losses. We will provide better clarification to the end user how to use these fields to configure the system to comply to legal limits:

- 1.) Web interface descriptions and clarification will be updated,
- 2.) Graphical representation of the installation will be provided to show proper deployment in the User Guide.
- 3.) FCC guidelines will be added to our documentation and published to support proper installation and conformance to FCC regulations

7. The outdoor device HZB-MB83HP5 is also previously authorized to operate in the 5150-5250 MHz band. Please clarify how do you plan to comply with the 15.407(e) indoor use rule for this clearly designed for outdoor device.

CvdW: The Outdoor device HZB-MB83HP5 does not allow selection of the 5150-5250 MHz band from the User Interface.

This frequency is not available to the user of this device.

8. Automatically power control is required per 15.407(h)(1). Furthermore, one menu selection item we saw seems to suggest that the upper and lower range of the ATPC can be manually set to be the same, thus effectively disable the ATPC.

CvdW: The ATPC Lower and Upper margins work independent of the ATPC DFS functionality. ATPC lower and upper margin only affect ATPC decision based on SNR level. It does not affect ATPC decision based on EIRP limit which is higher priority.

ATPC DFS functionality works at all time when a US DFS channel is selected.

9. The engineer claims that they have US, Japan and ROW (Rest of the World) versions. Please ensure that non-US version would not be installed and operated in the US.

CvdW: Our ordering system only allows US versions to be shipped into the USA.