

To: FCC OET Laboratory, ATTN Steve Martin

From: CURRENT Technologies

Regarding: Correspondence 31189, FCC ID TY7210-0137-0001, EA209982

The correspondence noted above raised a number of questions. These questions are listed in boldface below, with the answer directly below the questions:

**Q: Submitted installation manual does not include any operator instructions related to complying with FCC interference mitigation and avoidance requirements. Please provide sections of operator instruction manual for this EUT or for the system controller relevant to compliance with these requirements. (E.g., achieving the notch depth requirements in 15.611(c) may require masking out several carriers beyond the edge of the band to be protected. How is this information conveyed to the operator?)**

**A:** An operator document describing the notch conditions is attached to this correspondence reply.

**Q: What is the "module" for which modular approval is sought? E.g., referring to the internal photographs, is it the "main board", "daughter board", both, or more?**

**A:** The BPL module is the 'daughter board' shown in the internal photographs.

**Q: Please confirm that none of the homes used for in situ testing had aluminum or other metal siding and that none had metal jacketed wiring, such as BX electrical cable.**

**A:** None of the homes has aluminum or other metal siding or had metal jacketed wiring. The homes at 17907 Coachmans Road and 12109 Sheets Farm Road were vinyl siding and brick. The home at 12028 Coldstream Drive is all brick. None of the homes use metal jacketed wiring.

**Q: Measurement guidelines in Appendix C of FCC 04-245 specify that," In addition to testing radials around the building, testing shall be performed at three positions along the overhead line connecting to the building (i.e. the service wire)." Please provide results of such measurements.**

**A:** According to Appendix C, section 3.b(1), the requirement to test along the electric service lines only applies to overhead service lines. The site at 12028 Coldstream Drive is overhead lines, but the electric service lines in this location are insufficiently long to allow testing beginning at 10 meters as called for 3.b(1). The testing report should have listed this information as required by 3.b(1).

**Q:** Test documentation indicates that the EUT transmitted 900 byte pings every 50 ms. This implies a data rate of 18 kB/s during tests. Test guidelines in Appendix C of the report and order state that "Testing shall be performed using the maximum RF injection duty factor...", which one might expect to correspond to the highest average data rate. Can the EUT operate at a higher data rate than 18 kB/s? Please specify the maximum RF injection duty factor achievable by the device and identify the duty factor of signal injection during testing. Also, please confirm that the 20 pps burst rate necessary for use of quasi-peak detection was achieved.

**A:** The theoretical maximum duty cycle achievable by the device is just short of 50%, as the device accepts and then repeats traffic that may be bound for a different destination modem. The testing used multiple instances of the ping command shown on page 9 of Report of Measurements in order to drive the burst rate as high as possible. The 50 ms time spacing of each instance of the pings ensures that the 20 pps requirement is fully met.