



Date: August 22, 2003

Subject: Response to Correspondence # 25596

From: David Masucci

To: Joe Dichoso

FCC ID: Q5ZQUPID2003

This memorandum is in response to the FCC Correspondence Letter, Reference # 25596. This memorandum will provide responses to each question in the same order as presented in the initial correspondence. Questions 1 through 4, and 6 through 8 will be answered in-full at this time. Questions 5, 9, and 10 will require some additional radiated measurements to be made. A separate response generated at a later date will fulfill that requirement.

- 1) A block diagram that includes all oscillators has been uploaded as an exhibit.
- 2) Yes Vista Controls requires that only the block diagram and schematics be held as confidential. The general Theory of Operations is available as public domain information under U.S. Patent Number 6,208,248. Major exceptions to the patent are that the QUPID PRF is approximately 2.441 KHz, and the PN dither percentage is approximately 6.2%. It is for this reason that Vista Controls does not require that the Theory of Operations be held as confidential.
- 3) Photographs of all circuit card assemblies and of the antenna assembly have been uploaded as exhibits.
- 4) Photographs of the product with both FCC labels affixed in their final locations have been uploaded as exhibits.
- 5) TBD
- 6) Yes as part of the Waiver process, the GPS report was provided with the submission for authorization as requested by Mr. John Green of the FCC's Office of Engineering and Technology. Vista Controls has observed that prior GPS testing did not go down to very low PRF's such as is used in the QUPID sensor. QUPID's PRF is more than 400 (four hundred) times lower than the 1 MHz "low" PRF commonly used for UWB interference testing. Our testing indicated no perceptible interference from the QUPID product.
- 7) Yes the CP note on form 731 should not have been included.

8) Vista Controls erroneously included this frequency in the Narrowband Radiated Emissions Results table # 6. It should be noted however that the -53.3 dBm EIRP limit equates to a value of 41.96 dBuV/m at 3 meters. Even using the quasi-peak number which will be a higher value than if measured using the required RMS, the unit passes this requirement with a 3 meter reading of 41.00 dBuV/m. If measured using an RMS detector (or alternately using the Appendix F method), the result would show greater margin. If the above explanation is not acceptable, Vista Controls will schedule a retest per your requirements of this section.

9) TBD

10) TBD