Preco Electronics, Inc.

415 N. Maple Grove
Boise, ID 83709

May 10, 2001

Andy Leimer
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

CC: David Chernomordik
Intertek Testing Services
1365 Adams Court
Menlo Park, CA 94025

RE: FCC ID OXZPV2000A
FCC Correspondence 22819

Dear Mr. Leimer:

This letter is in response to your question about band-edge emission levels (reference your correspondence #22819).

This device has been redesigned to emit a pulse with a main lobe bandwidth of less than 150 MHz. This allows the entire main lobe to be contained within the 5725 MHz – 5875 MHz Part 15.249 band. During manufacturing of this device, each unit will be tuned to center the main lobe between the band edges. Therefore any 15.249 band edge emissions at 5725 MHz and 5875 MHz may be deemed spurious per your statements made in Correspondence #22078:

> "The emissions outside the main lobe are considered to be spurious emissions …"

Referring to Plot #5 in the revised test report submitted April 30, 2002, it can clearly be seen that the main lobe is indeed less than 150 MHz. We actually designed for a bandwidth of 145 MHz (pulsewdith of 13.8 nanoseconds). In an ideal pulse, the null is extremely narrow; i.e., on the order of a few 10's of KHz wide depending upon the pulse repetition frequency and pulsewidth used. During testing of the sample unit the markers were placed where the nulls were best estimated to be based upon the shape of the main lobe and the position of the 1st sidelobes. This is why a value of 148 MHz was "measured" instead of the actual 145 MHz bandwidth designed for.

During standard manufacturing of this product, the main lobe will be centered on each device. This is a typical center-frequency final tune-up done by a technician that is standard practice in the manufacturing of virtually all RF devices except for the simplest of circuits. Therefore all band edge emissions will be spurious only. Plot #6 clearly shows that the peak spurious emission occurs at the upper band 1st sidelobe. Plots # 7 & 8 make peak and average measurements respectively in accordance with your correspondence # 22078 mentioned above.

Best Regards,

Brian Bandhauer
Senior RF Engineer
Preco Electronics
(208) 322-4212
bbandhauer@preco.com