



June 26, 2002

Federal Communications Commission
Equipment Authorization Division
Application Processing Branch
7435 Oakland Mills Road
Columbia, MD 21046

Re: Ortovox X1 Avalanche Transceiver/Beacon Technical Description

Dear Sir or Madam:

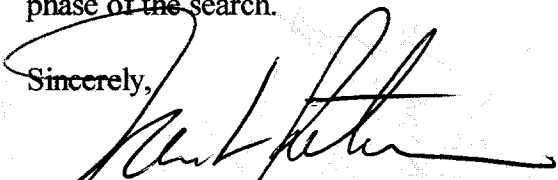
The X1 Avalanche Beacon consists of a transmitting circuit and a receiving circuit. Both circuits have an antenna. Each of these antennae is ferrit metal which works in either mode - transmitting or receiving.

The transmitter has a local x-tal-stabilized oscillator working frequency, $457\text{kHz} \pm 80\text{ Hz}$. A pulsegenerator modulates the 457 kHz oscillator such that the modulation is a type AIA pulsed carrier. On time is approximately 70 to 90 miliseconds as per the standard. An amplifier amplifies the modulated signal and drives the ferrit antennae.

The ferrit antenna(e) receives the signal from the transmitting avalanche beacon. After the 457kHz signal is amplified it is then combined with the 455kHz oscillator's signal. The demodulator's output is a 2kHz signal. The low frequency amplifier amplifies the 2kHz signal and drives the loudspeaker. The second path of the amplified 2kHz signal goes to a rectifier.

The microprocessor makes an analog-digital conversion and controls the numerical display and the left-right-center lights. The sound is either analog or digital depending on the specific phase of the search.

Sincerely,



Marcus L. Peterson
General Manager
Ortovox USA, Inc.

MLP/jkp

