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Theory of Operation Zodiac Series Radar Detectors

For FCC Part 15 Order FCC02-211 compliance.

PNI FCC file for FCC License QJ3-IFS-11428

The Zodiac line of radar detectors are two-stage superheterodyne receivers that detect the presence of speed measuring radar in the X, K and Ka bands. The local oscillator frequency in the first mixing stage is swept from 10.96 GHz to 11.22 GHz at a rate of 14.8Hz. In the second mixing stage there are three discrete frequencies used for the local oscillator. These are turned on in succession, one frequency per 1st local oscillator sweep period. The second local oscillator frequencies are 600MHz, 1350MHz and 2100MHz. An LED display shows band and signal level detection status. The Zodiac II has an additional voice synthesized detected band presence enunciator.