

Radiation Hardened Fast Acquisition Weak Signal Tracking System and Method

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DESCRIPTION

This invention is a global positioning system receiver for use in low earth orbit. The receiver has an antenna receiving global positioning system (GPS) signals. An analog radio frequency device converts the signals from an analog to a digital format. GPS signal acquisition components connected to the device calculates a maximum vector on a data bit correlation grid. A microprocessor compares the vector with a preset correlation threshold to allow the signal to be fully acquired and tracked.

FEATURES AND BENEFITS

- The arrangement of the receiver provides optimized fast signal acquisition and weak signal tracking, thus enabling the receiver to be utilized for high altitude applications.
- The fast signal acquisition capability implements extended correlation intervals, thus reducing acquisition threshold of the receiver.

APPLICATIONS

- Aerospace
- Aviation

FOR MORE INFORMATION

If you are interested in more information or want to pursue transfer of this technology, GSC-14793-1, please contact:

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