

THREE-AXIS ATTITUDE SENSING ON ATS-F/G SPACECRAFT

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Abstract

This paper describes the evolution of an R. F. microwave attitude, three axis, sensor specifically designed for the stringent angular accuracies and five-year longevity requirements of advanced Communications capabilities.

The achieved instrument, is based upon the interferometric principle, however, with high angular accuracy (3 sigma  $3 \times 10^{-4}$  radians), stability, and with an inherent capability of uprating by one or more orders of accuracy for Earth Resources and Meteorologigal applications.