

The Advantage and Disadvantage of Enhanced Strobe Correlator Multipath Rejection for Code and Carrier Phase

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SUMMARY

GPS multipath effects occur when reflected satellite signals (from surfaces around or under the antenna) interfere with the direct satellite signal. Multipath causes receivers to make inaccurate measurements, or even lose lock on the signal. Multipath conditions are always present. For high precision GPS positioning, multipath is still largest source of error. There are several existing methods for reducing the effects of multipath. An even more advanced technique of Enhanced Strobe Correlation is discussed here.

In this paper, the aim of the experiment investigates the advantages and disadvantages of the Enhanced Strobe Correlator Technique. The Enhanced Strobe Correlator is the latest of the Ashtech Multipath Rejection Technologies. The method implements a C/A code and C/A carrier phase multipath error rejection. The method works well in any kind of multipath environment, specular or diffuse. The Enhanced Strobe Correlator does not degrade the overall noise performance of the receiver on the carrier phase side.

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