Development of a Digital Lock-in Amplifier

Status: Available

Group Members:

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Project Description

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Lock-in amplifiers are used to measure weak signals that may be buried in noise. The principle of operation is based on limiting the noise bandwidth through a system. Analog lock-in amplifiers can easily attain >120dB signal to noise ratios. However, they are difficult to adapt to different applications because of the required tuning. A digital lock-in-amplifier can simplify this process significantly.