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An Investigation and Analysis of Active Filters

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AN INVESTIGATION AND ANALYSIS

OF

ACTIVE FILTERS

BY

JAMES P. PAPAGIANNIS

EET 491

SENIOR DESIGN PROJECT

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AN INVESTIGATION AND ANALYSIS
OF
ACTIVE FILTERS

ABSTRACT

Active filters can perform the same functions as passive filters providing either low-pass, high-pass, bandpass, or band-reject outputs. Their practical range of operating limits are from sub-audio to 20,000 Hz. The main advantage of active filters is that they can duplicate the frequency characteristics of typical passive RLC networks in less space, weight, and at reduced cost. They can also provide a signal gain which passive filters cannot do.