

THEESIS TITTLE LOGARITHMIC AND EXPONENTIAL AMPLIFIERS
BASED ON SAMPLING TECHNIQUES

STUDENT MR.MANACHAI LUANGCHARUTHORN

THESES ADVISOR ASSOC.PROF.WIWAT KIRANON

LEVEL OF STUDY MASTER OF ENGINEERING IN ELECTRICAL ENGINEERING
KING MONGKUT'S INSTITUTE OF TECHNOLOGY
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Abstract

In this thesis, logarithmic and exponential amplifiers based on sampling techniques are proposed. The responses of the circuits are derived from the discharging rate of capacitors. They have high accuracies because of theirs less temperature sensitivity, in comparison with conventional circuits which using diodes or transistors. The proposed amplifiers can easily be modified to the switched capacitors versions. Therefore the presented circuits are superior to those of an easier system in so many aspect.

The circuits are established for experiments. The experimental results are obviously agreed with the theoretical principles.