Thesis Title

A Current Mode All-Pass Variable Phase Shifter and Oscillator

Student

Mr. Siriwat Limpaiboon

Thesis Advisor

Assoc.Prof.Dr. Kobchai Dejhan

Level of Study

Master of Engineering (Electrical Engineering)

Department

Telecommunications Faculty Of Engineering'

King Mongkut's Institute of Technology Ladkrabang

Year

1997

ABSTRACT

This thesis proposes a design of current mode variable phase-shifter that using OTA for main components in the circuit, resistor (R) capacitor (C) are the parameters for definition of phase-shifter angle. The circuit can be shifted the phase form 0° to -180° and 180° to 0° . The input impedance and output impedance of the circuit are high values and the amplifier of circuit is unity through out the frequency range. The other part of thesis is the current mode oscillator circuit the Wilson current mirror circuit, differential current mirror circuit for main component in the circuit and in the part of network are resistors (R) and capacitors (C). They are the parameters to carry out the oscillating frequency. The proposed circuit produces the frequency higher than the old type circuit.