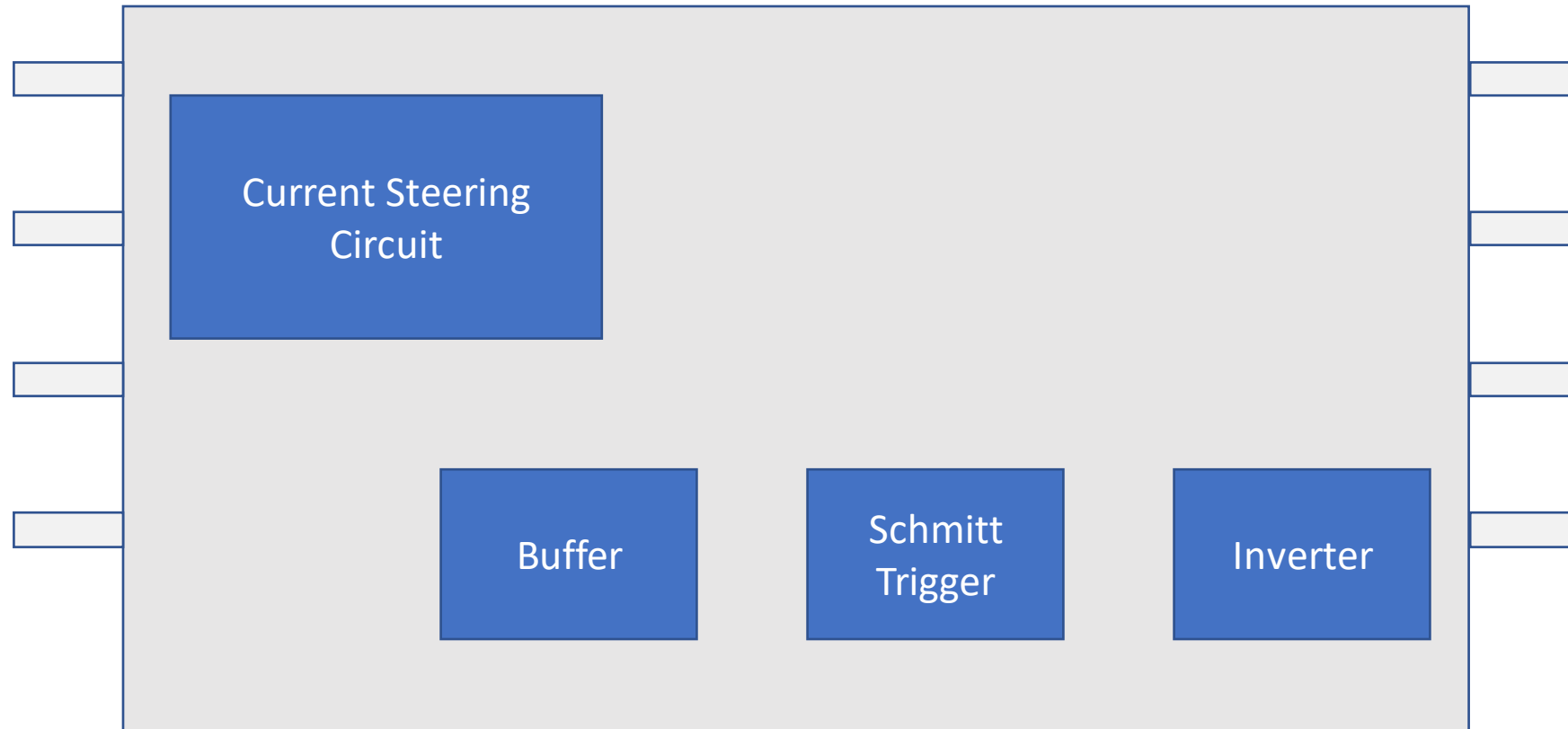


Design of Two Stage CMOS OP AMP

R.V.Rohinth Ram

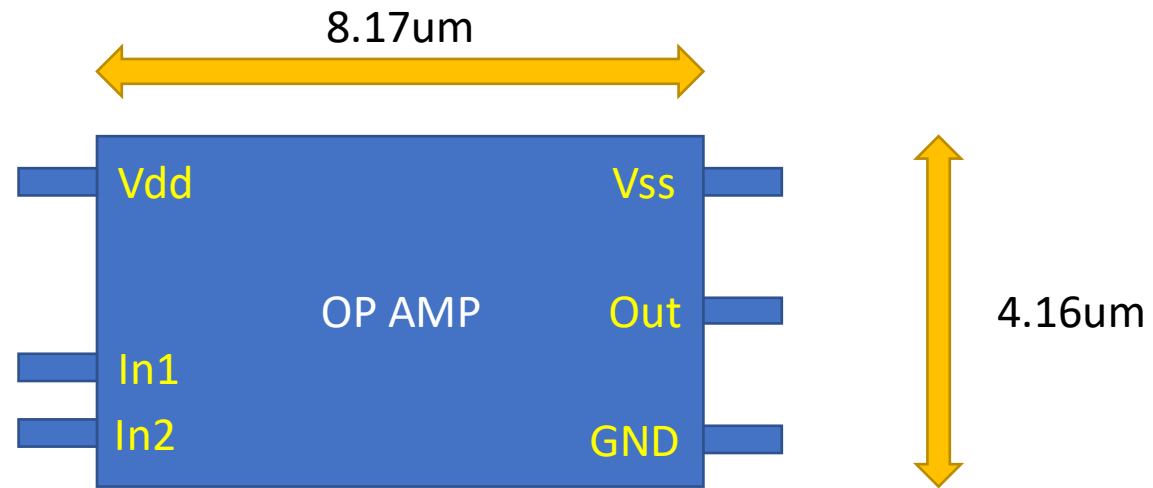
Application Note for Two Stage CMOS OP AMP

Voltage Controlled Oscillator



****Buffer, Schmitt Trigger and Inverter all use Operational Amplifier**

Dimensions



$$10 \cdot 130 \cdot 3 + 1 \cdot 130 \cdot 3 = 4.16 \mu\text{m}$$

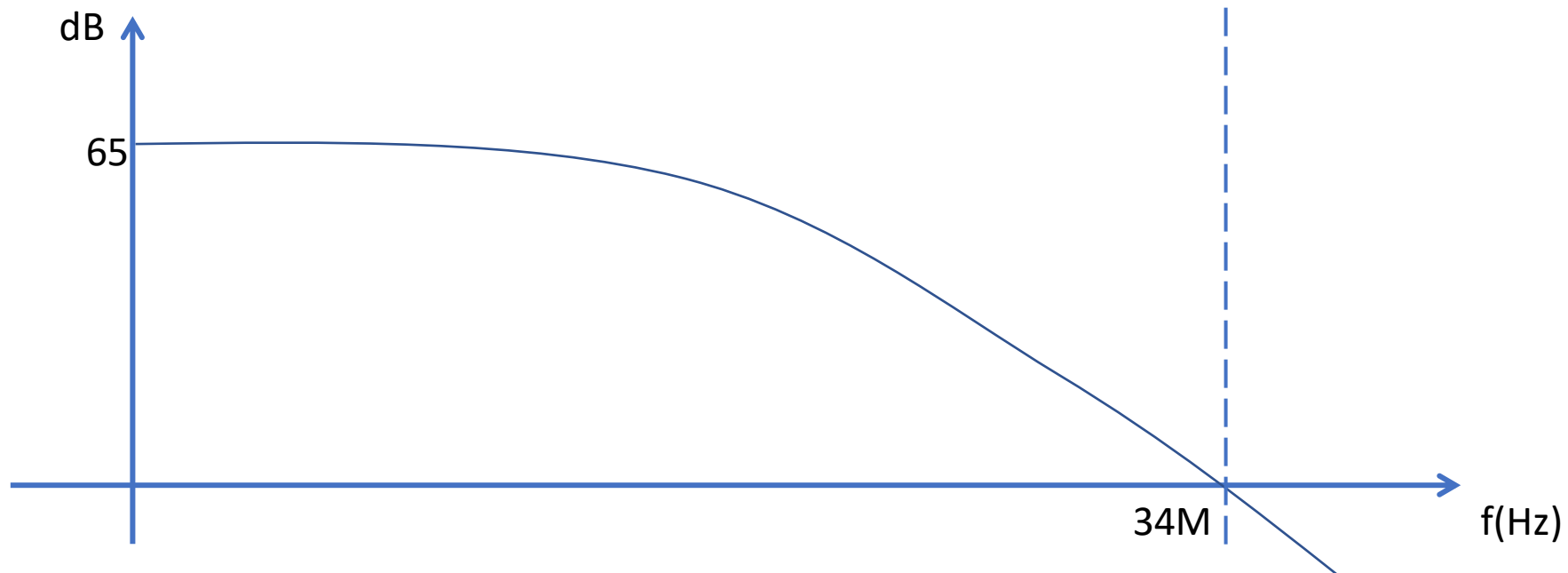
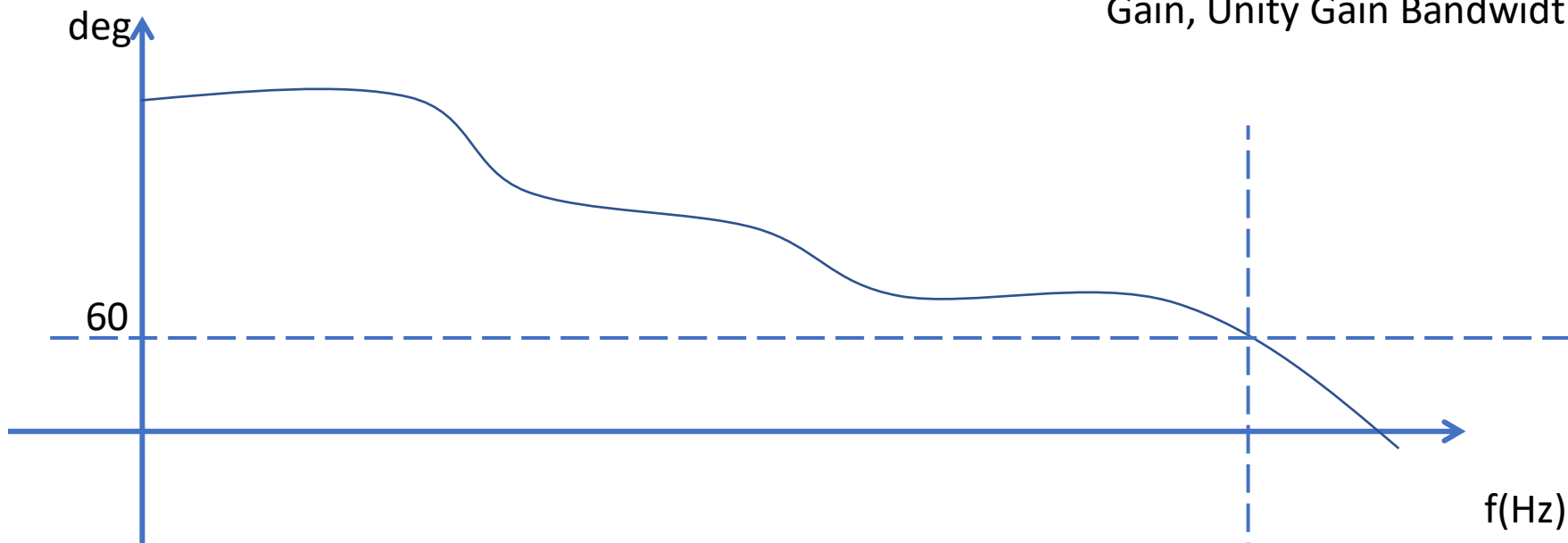
$$62.83 \cdot 130 = 8.17 \mu\text{m}$$

Operating Mode

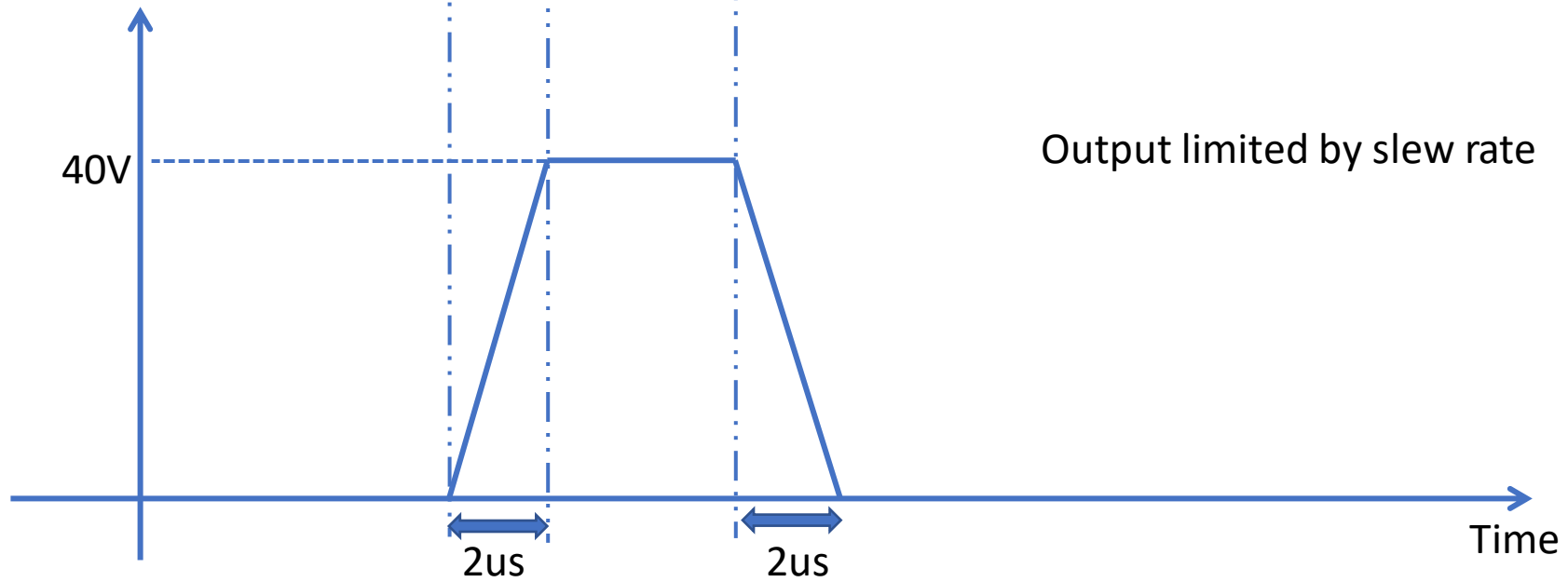
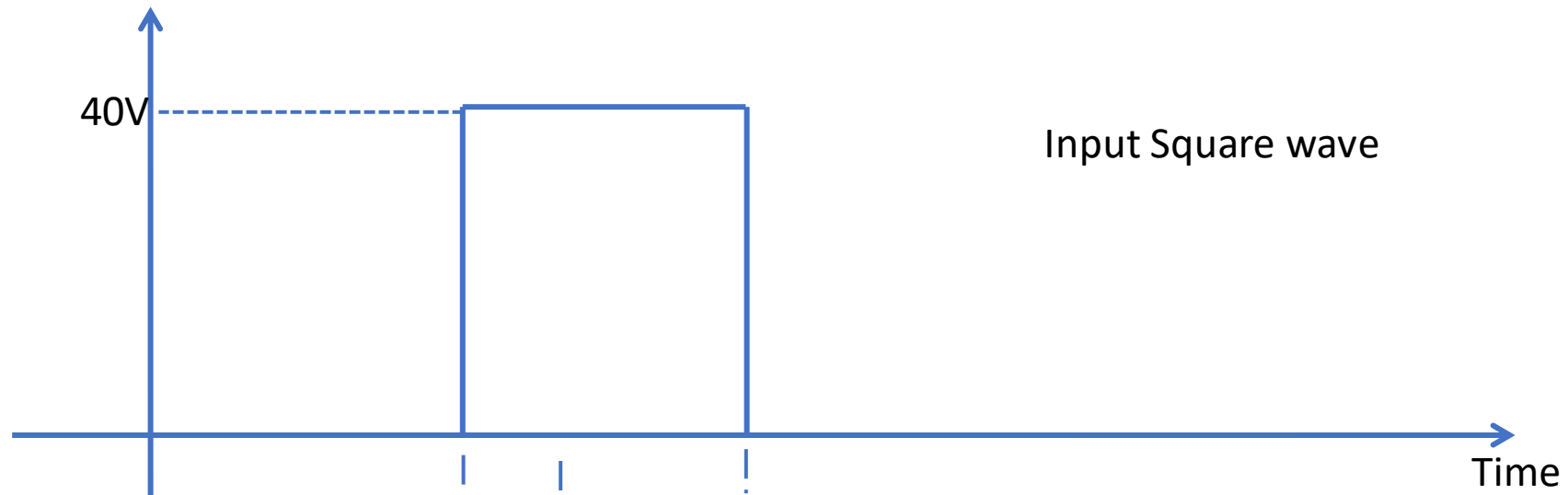


Target Waveforms

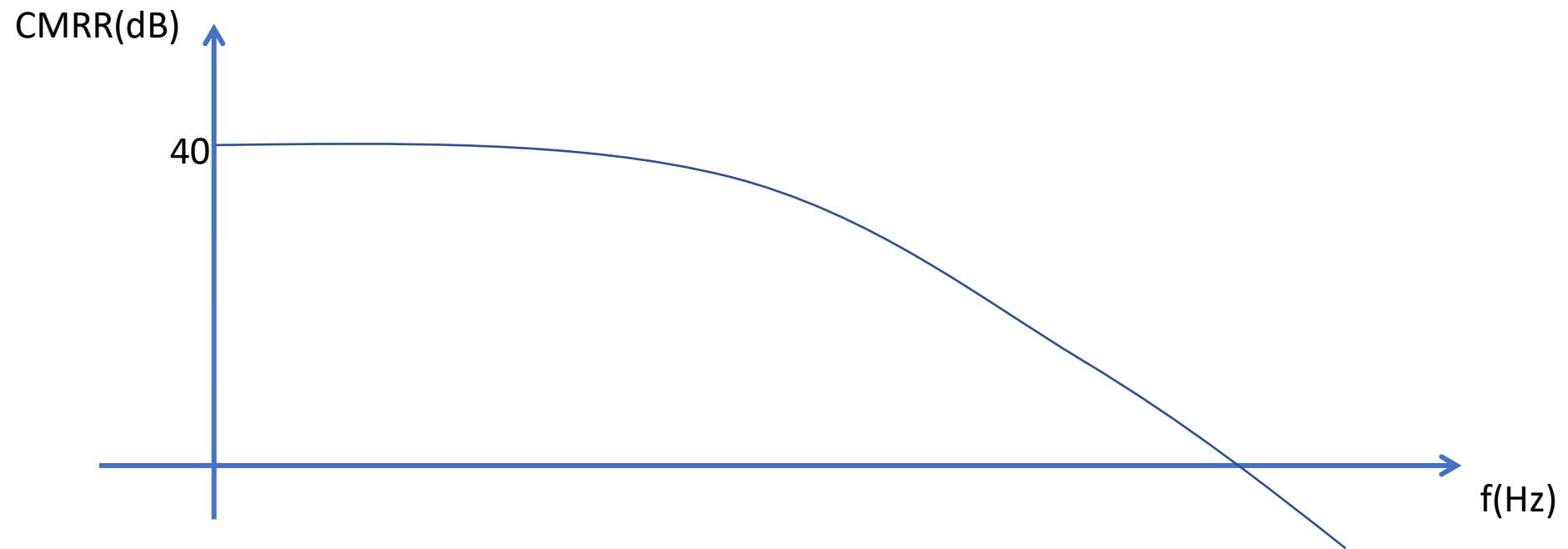
Gain, Unity Gain Bandwidth, Phase Margin



Slew rate = $20\text{V}/\mu\text{s}$



Common Mode Rejection Ratio = 40dB



Power Dissipation = 301uW

Power Dissipation(uW)

