

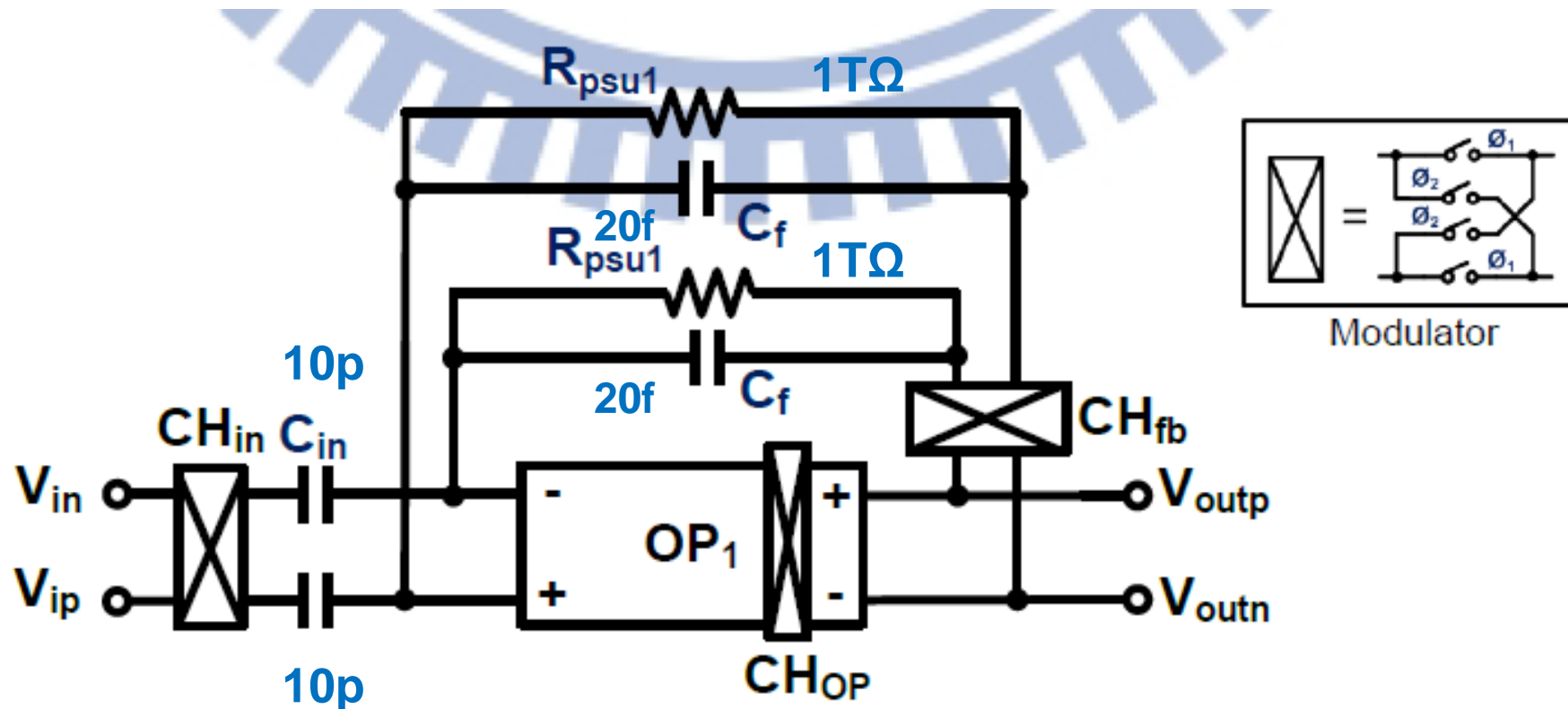
The CCCIA of an 8-Channel Analog Front-End Amplifier with chopper modulation technique in TSMC 180 nm-CMOS for EEG Recording System

專 題 生：陳靖淵 Ching-Yuan Chen

指 導 教 授：吳重雨 Chung-Yu Wu



Basic structure of CCCIA



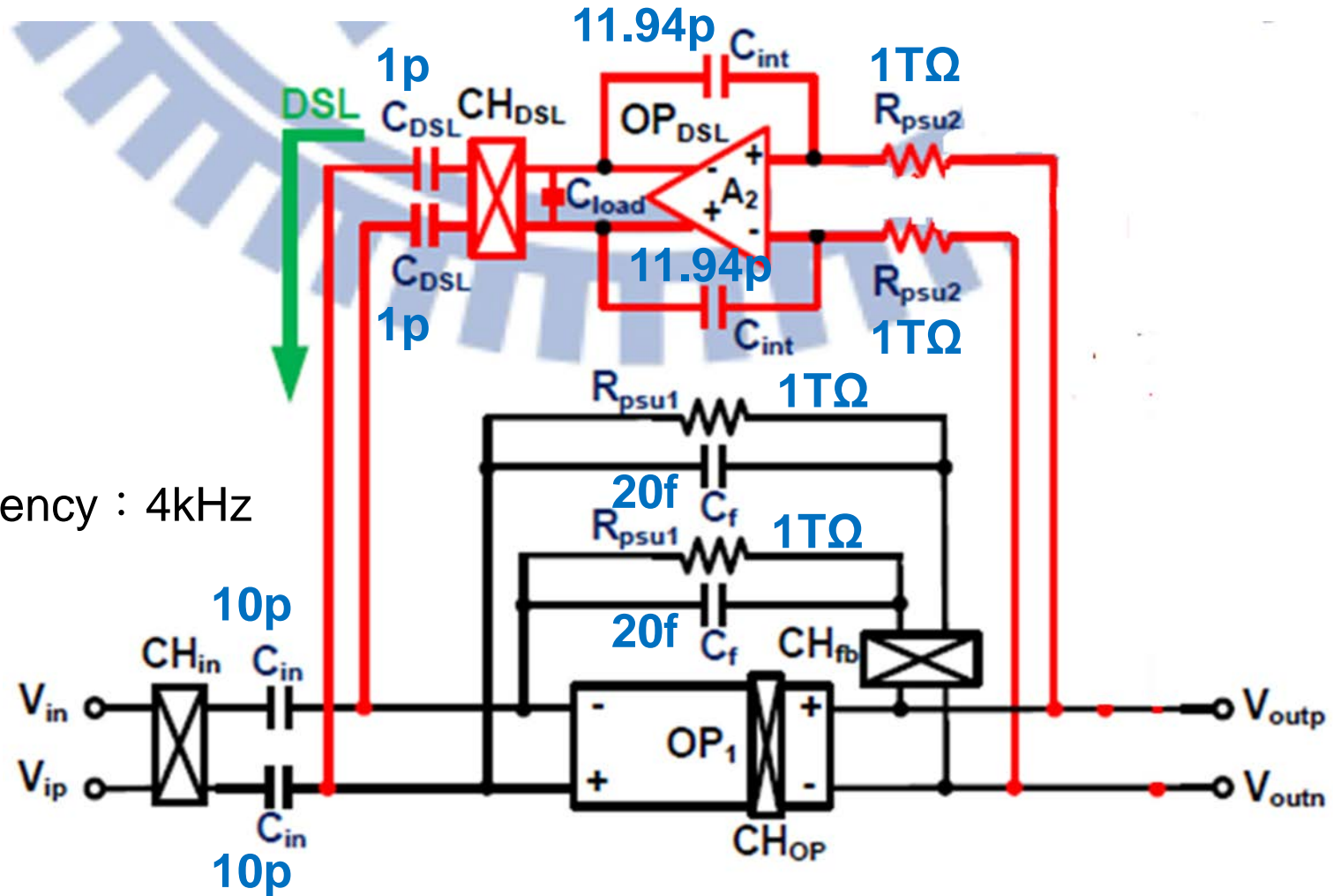
Chopper frequency : 4kHz

comparison

	家雄學長 AFEA	CCCIA
HP corner (Hz)	0.51	1 (without DSL)
LP corner (Hz)	107	114.6
CMRR(dB)	82 ~ 105	83.7
PSRR (dB)	79.4 ~ 83.3	94.2
Gain (dB)	60.4 ~ 79.8	53.56
Noise (μ Vrms)	0.815	0.394
Total power (μ W)	14.2	2.67



The structure of CCCIA with DSL



The output of CCCIA (DC offset = 50mV)

