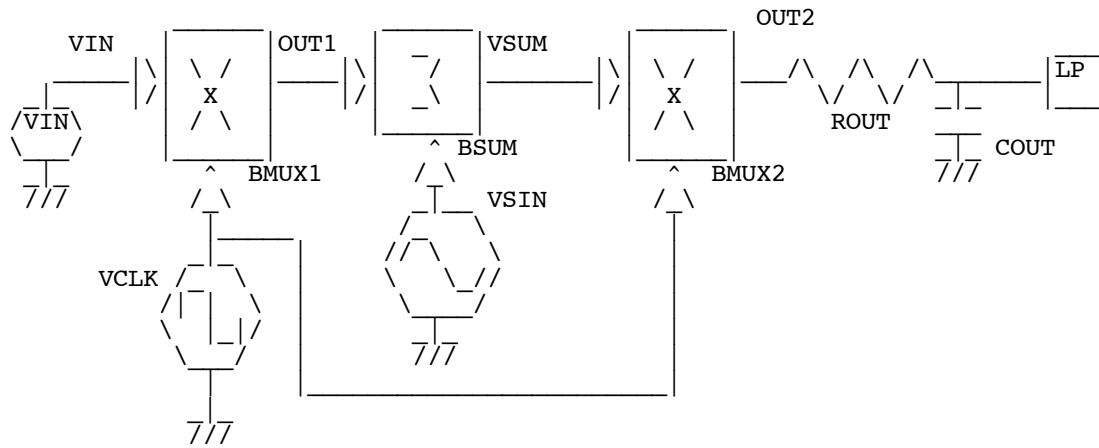
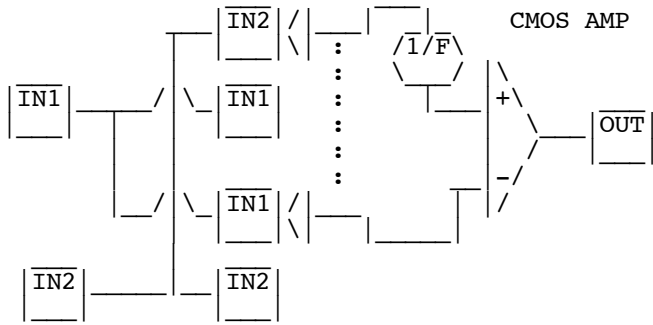


Chopper_Amp_Alias

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 * www.idea2ic.com

CMOS SWITCHES



```

VSIN      VSIN  0    SIN( 0 1.3u 4900)
VCLK      VCLK  0    PULSE( -.7 .7 1n 1n 1n .1m .2m)
VIN1      VIN1  0    DC    1.1u
BMUX1     OUT1  0    V = u(V(VCLK))*V(VIN1) -1*u(-1*V(VCLK))*V(VIN1)
BSUM      VSUM  0    V = V(OUT1) + V(VSIN)
BMUX2     OUT2  0    V = u(V(VCLK))*V(VSUM) -1*u(-1*V(VCLK))*V(VSUM)
ROUT      LP    OUT2 3k
COUT      LP    0    3u
  
```

```

.control
set pensize = 2
  
```

```
tran      1u  10m  0  1u
plot      v(vin1) v(vsin)
plot      v(vsum)
plot      v(out2)

plot      v(vin1) v(vsin) v(lp)

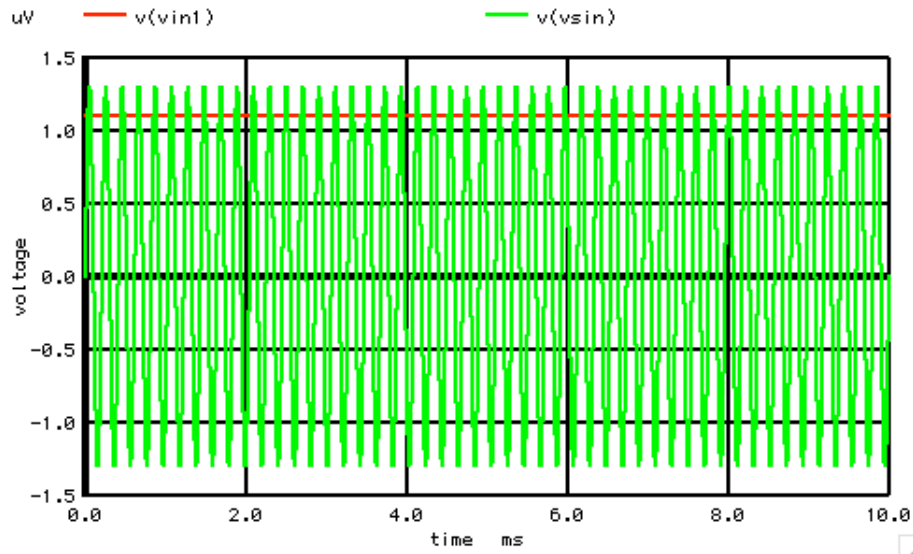
.endc

.end
```

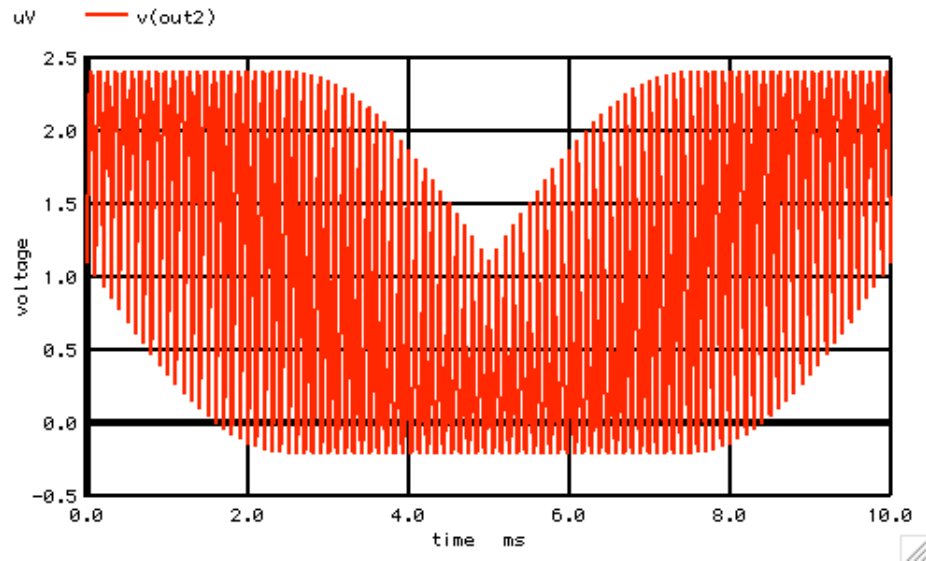
=====END_OF_SPICE=====

To Covert PDF to plain text click below
<http://www.fileformat.info/convert/doc/pdf2txt.htm>

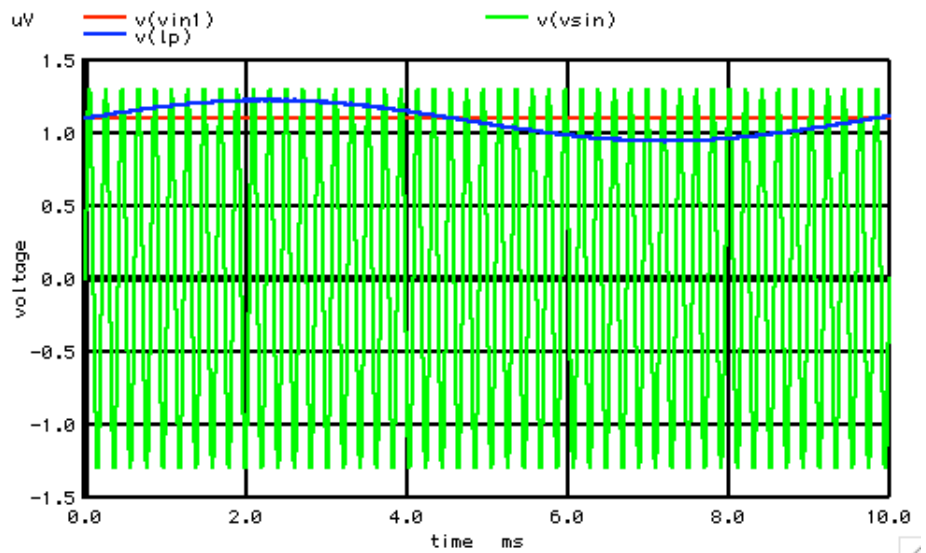
The Chopper Amplifier has an aliasing problem when there are signals present which come close to the chopping frequency.



Having a signal present at VIN which is close to the clock frequency is not good either.



In this case the VSIN signal is set to be slightly off of the clock signal. Now a little of this VSIN signal is getting aliased and is appearing at the lowpass output.



A common way avoid this problem is to spread spectrum

the clock frequency by a random signal.

