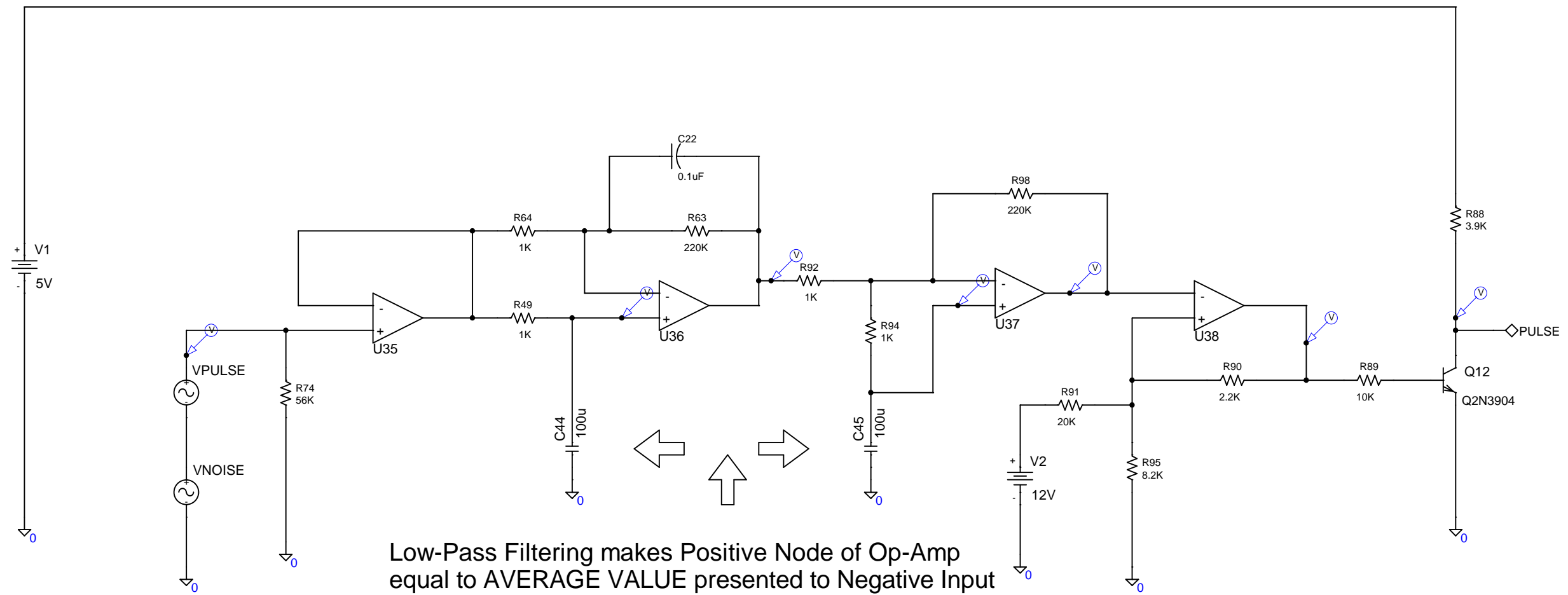


↑
EARLOBE IS
BETWEEN
LAMP AND Rphoto

CMOS or TTL
COMPATIBLE
OUTPUT
SWING

JAMES E. THOMPSON, P.E. ANALOG INNOVATIONS 824 East Cathedral Rock Drive Phoenix, AZ 85048-6300 (602) 460-2350 FAX (602) 460-2142		
Title		
EARLOBE PULSE DEVICE		
Size	Document Number	REV
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Date:	May 17, 1995	Sheet of



* Netlist *

```
R_R64      $N_0001 $N_0002 1K
R_R92      $N_0003 $N_0004 1K
R_R90      $N_0005 $N_0006 2.2K
R_R91      $N_0007 $N_0005 20K
R_R63      $N_0002 $N_0003 220K
R_R88      $N_0008 PULSE 3.9K
R_R98      $N_0004 $N_0009 220K
***
OP-AMP_U35 ***
G1_U35      0 N2_U35 N1_U35 0 1
R2_U35      N2_U35 0 {100K}
R1_U35      N3_U35 $N_0001 {100}
E2_U35      N1_U35 0 VALUE {LIMIT(V($N_0010,$N_0001),{-1}/(6.283185*1)),
+ {1/(6.283185*1)}}
C1_U35      0 N2_U35 {1/(6.283185*1*1E6)}
E1_U35      N3_U35 0 VALUE {LIMIT(V(N2_U35),{0.2},{10})}
G2_U35      N2_U35 0 N2_U35 N3_U35 1
*****
***
OP-AMP_U38 ***
G1_U38      0 N2_U38 N1_U38 0 1
R2_U38      N2_U38 0 {100K}
R1_U38      N3_U38 $N_0006 {100}
E2_U38      N1_U38 0 VALUE {LIMIT(V($N_0005,$N_0009),{-1}/(6.283185*1)),
+ {1/(6.283185*1)}}
C1_U38      0 N2_U38 {1/(6.283185*1*1E6)}
E1_U38      N3_U38 0 VALUE {LIMIT(V(N2_U38),{0.2},{10})}
G2_U38      N2_U38 0 N2_U38 N3_U38 1
*****
***
OP-AMP_U37 ***
G1_U37      0 N2_U37 N1_U37 0 1
R2_U37      N2_U37 0 {100K}
R1_U37      N3_U37 $N_0009 {100}
E2_U37      N1_U37 0 VALUE {LIMIT(V($N_0011,$N_0004),{-1}/(6.283185*1)),
+ {1/(6.283185*1)}}
C1_U37      0 N2_U37 {1/(6.283185*1*1E6)}
E1_U37      N3_U37 0 VALUE {LIMIT(V(N2_U37),{0.2},{10})}
G2_U37      N2_U37 0 N2_U37 N3_U37 1
*****
R_R74      $N_0010 0 56K
V_V1       $N_0008 0 5V
R_R95      $N_0005 0 8.2K
R_R89      $N_0006 $N_0012 10K
Q_Q12      PULSE $N_0012 0 Q2N3904
V_V2       $N_0007 0 12V
R_R94      $N_0004 $N_0011 1K
***
OP-AMP_U36 ***
G1_U36      0 N2_U36 N1_U36 0 1
R2_U36      N2_U36 0 {100K}
R1_U36      N3_U36 $N_0003 {100}
E2_U36      N1_U36 0 VALUE {LIMIT(V($N_0013,$N_0002),{-1}/(6.283185*1)),
+ {1/(6.283185*1)}}
C1_U36      0 N2_U36 {1/(6.283185*1*1E6)}
E1_U36      N3_U36 0 VALUE {LIMIT(V(N2_U36),{0.2},{10})}
G2_U36      N2_U36 0 N2_U36 N3_U36 1
*****
R_R49      $N_0001 $N_0013 1K
C_C45      0 $N_0011 100u
C_C44      0 $N_0013 100u
V_VPULSE   $N_0010 $N_0014
+SIN 1.5 10m 1.33 0 0 0
V_VNOISE   $N_0014 0 SIN 0 100m 0.02 0 0 C
```

EARPULSE SIMULATION

