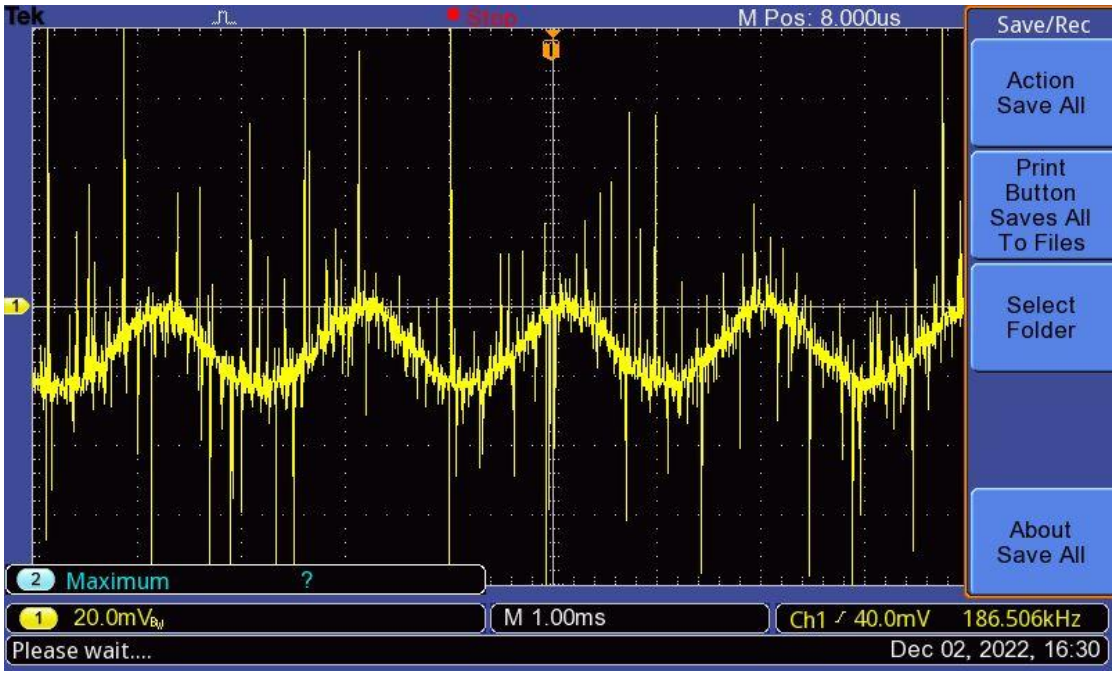
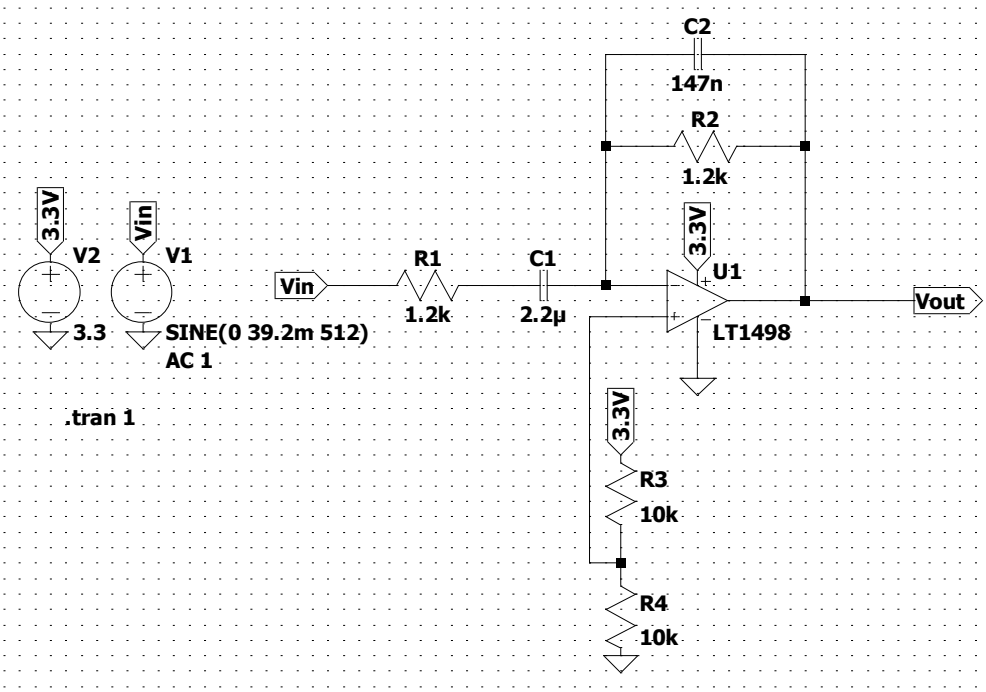
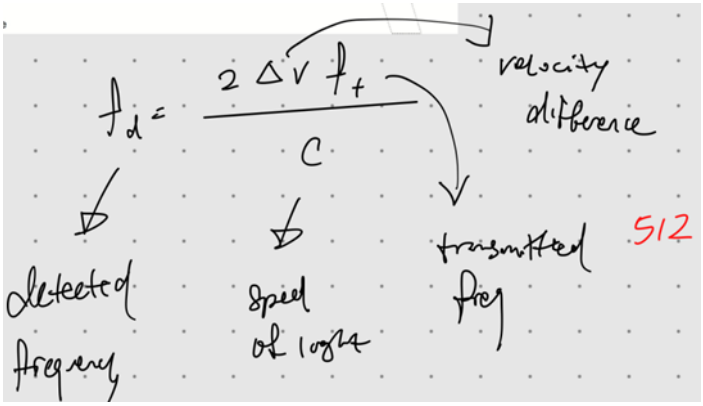
1. Doppler radar



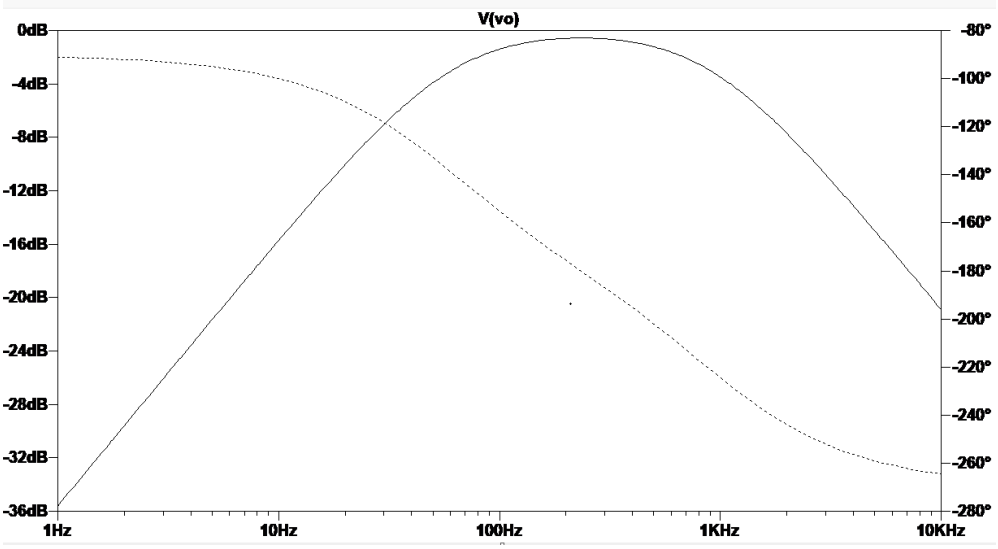
2. Filter Circuit:



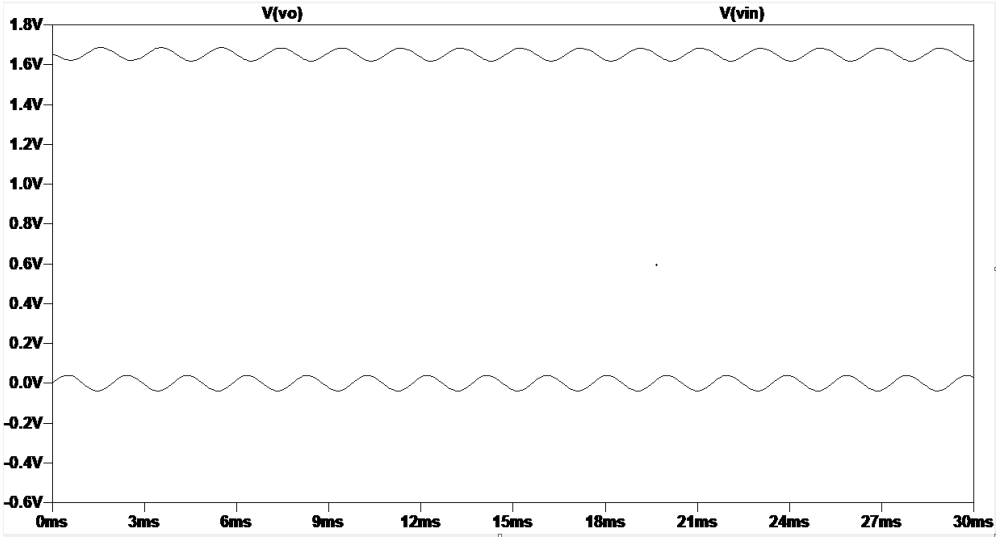


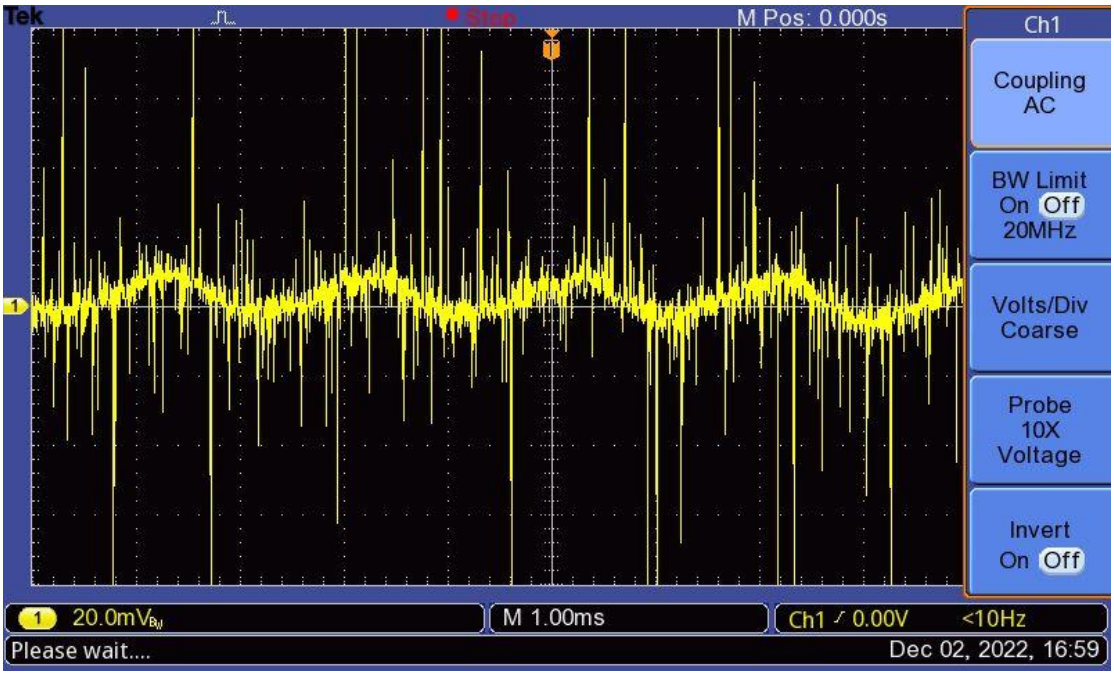
Our resistor values:
R1=R2=1.2k
C1=2.2u
C2=100n + 47n =147nF
Fcl=62.735 Hz
Fch=825.16 Hz

AC analysis

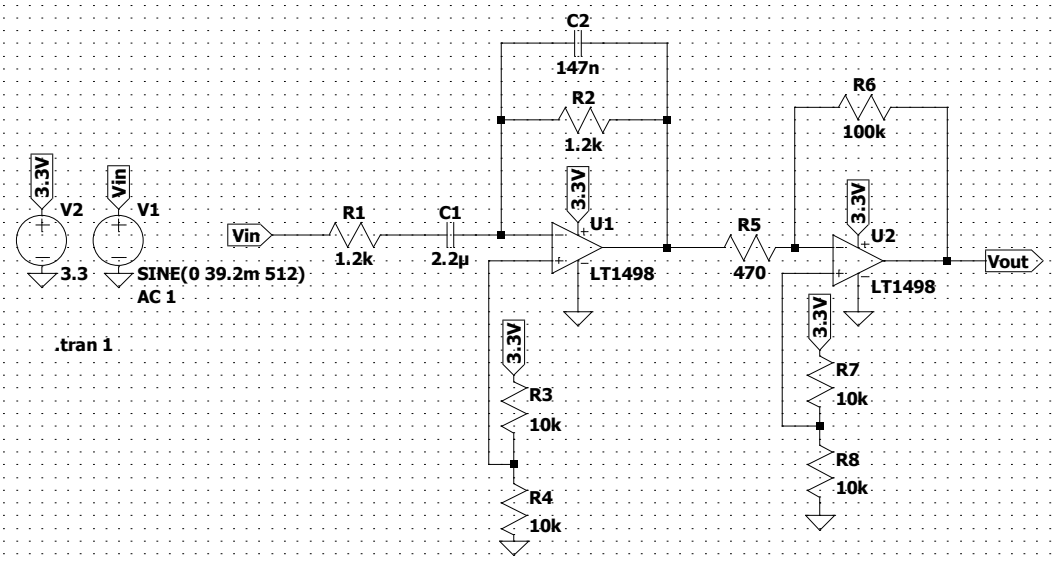


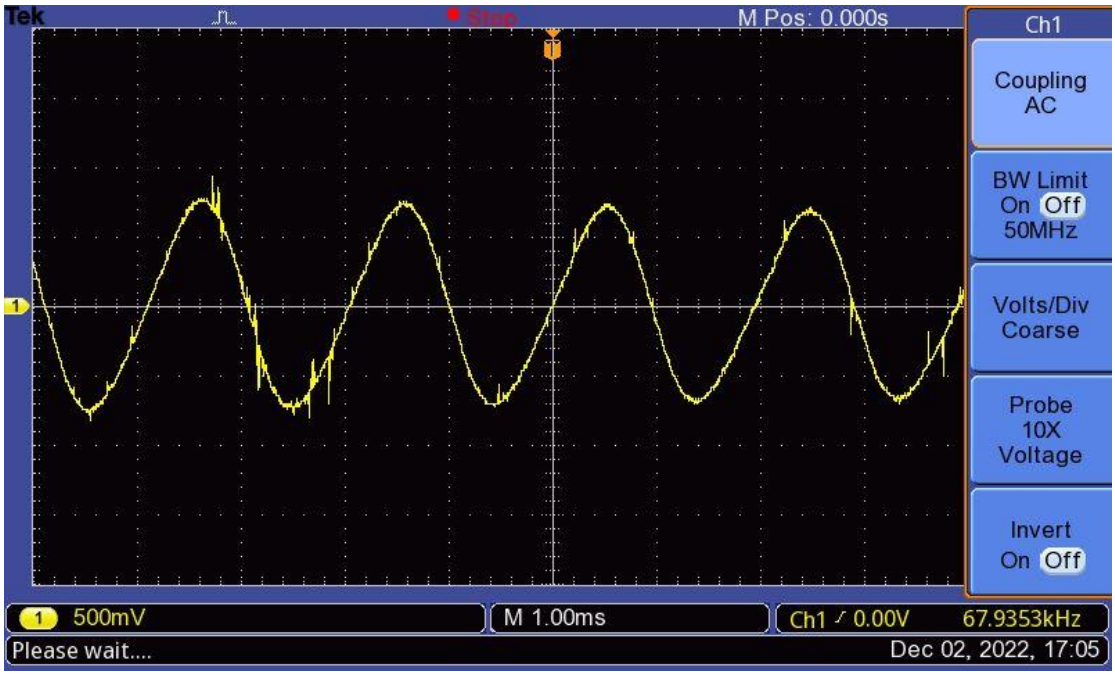
Transient analysis



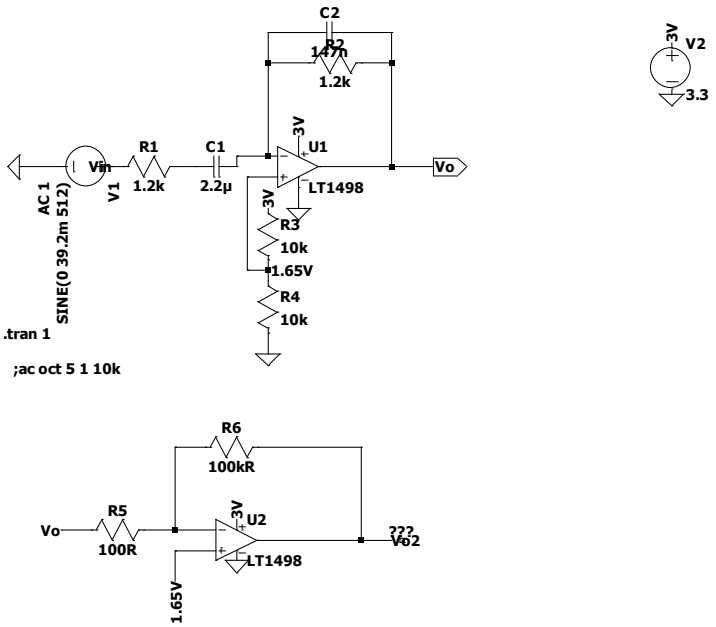


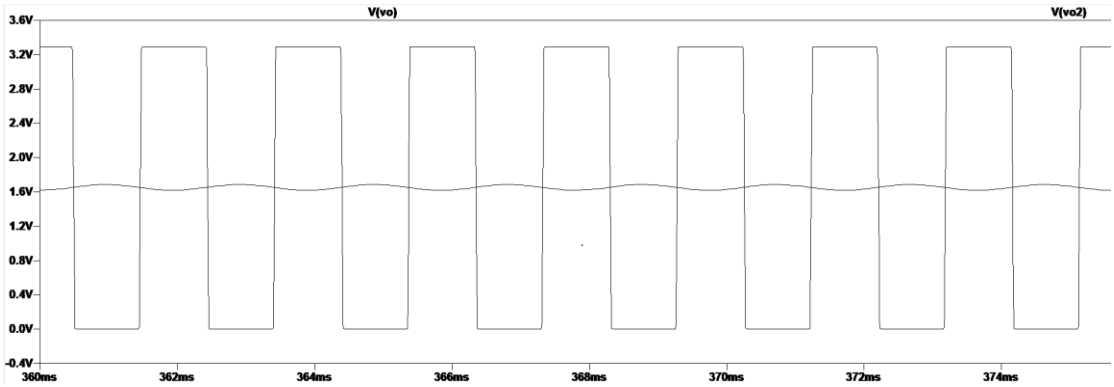
3. ADC Amplifier:

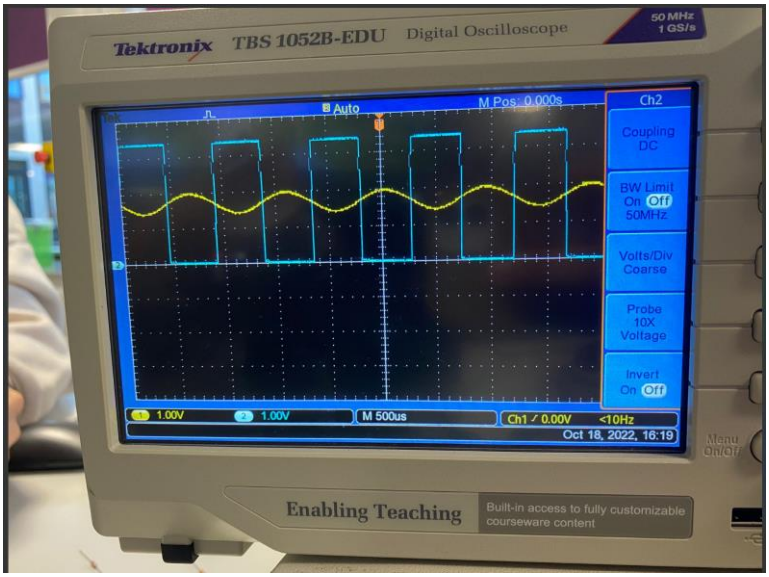


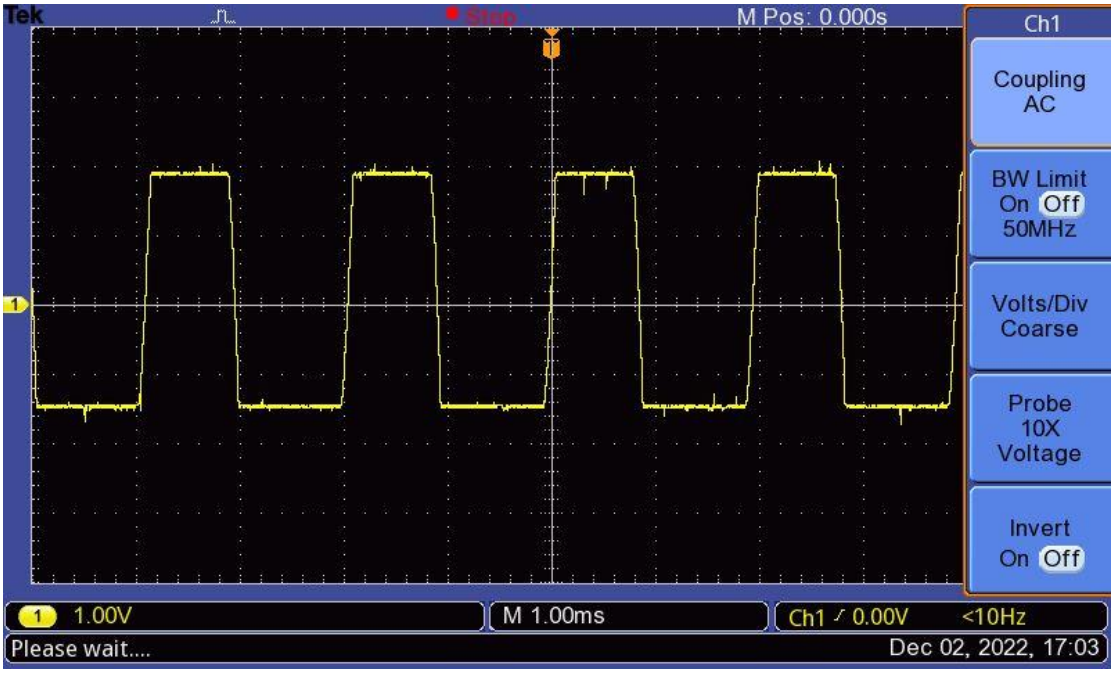


4. Comparator Amplifier

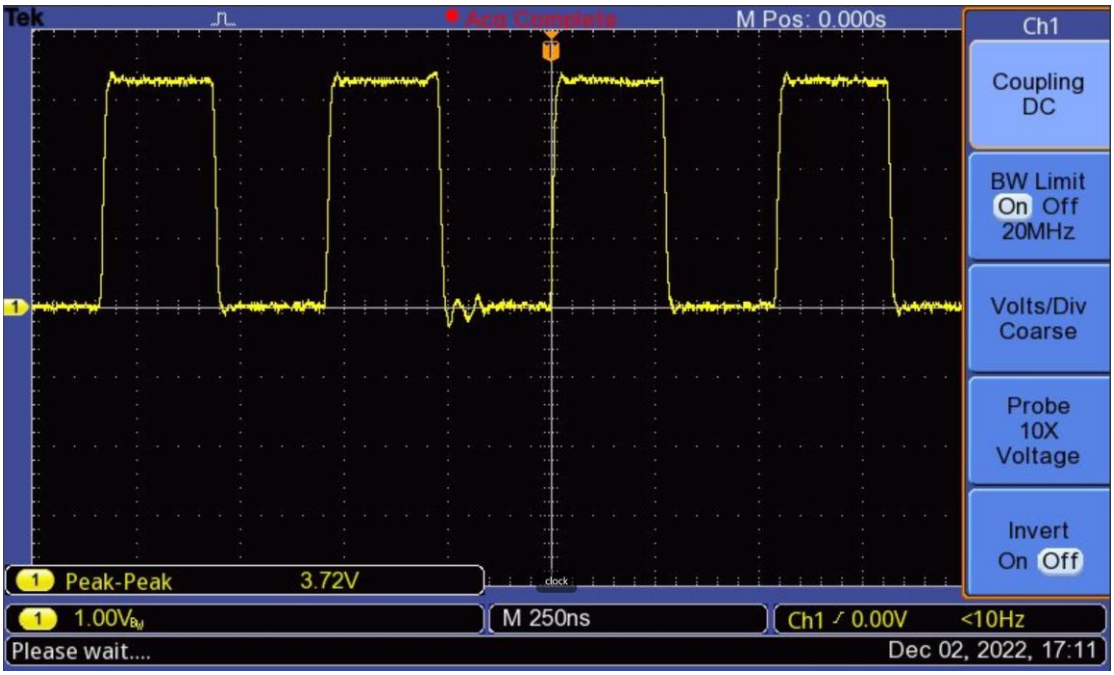



V(vo)
V(vo2)
3.6V
3.2V
2.8V
2.4V
2.0V
1.6V
1.2V
0.8V
0.4V
0.0V
-0.4V
360ms
362ms
364ms
366ms
368ms
370ms
372ms
374ms

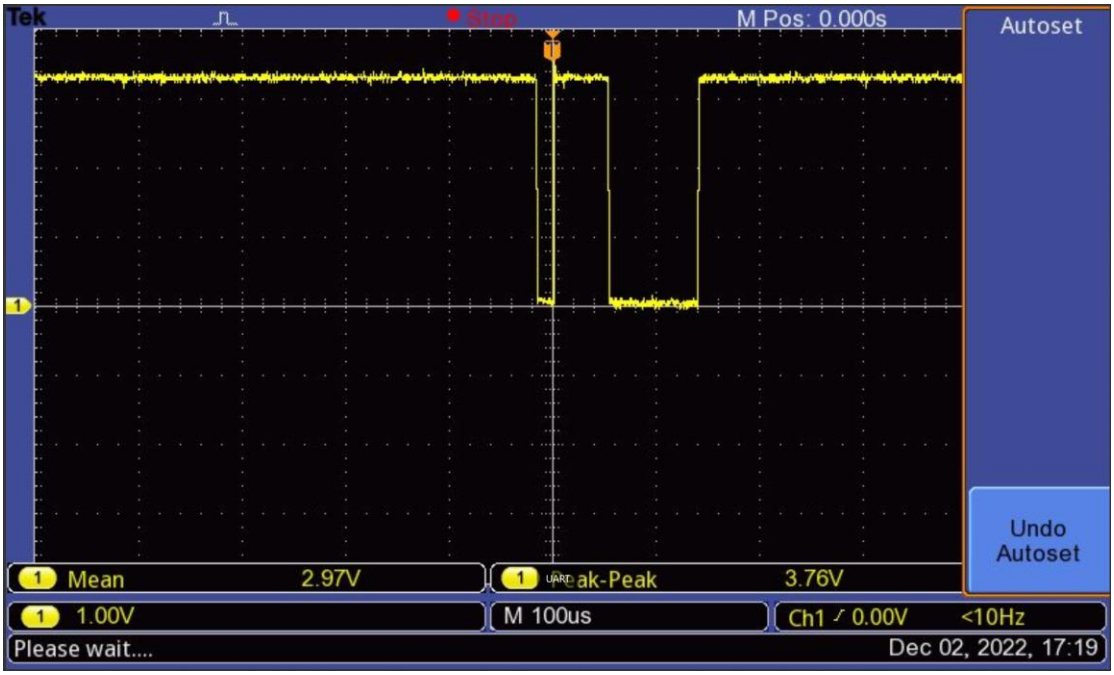

Tektronix
TBS 1052B-EDU
Digital Oscilloscope
50 MHz
1 GS/s
Auto
M Pos: 0.000s
Ch2
Coupling
DC
BW Limit
On Off
50MHz
Volts/Div
Coarse
Probe
10X
Voltage
Invert
On Off
1.00V
1.00V
M 500us
Ch1 ⟋ 0.00V
<10Hz
Oct 18, 2022, 16:19
Menu
On/Off
Enabling Teaching
Built-in access to fully customizable courseware content


Tek
Stop
M Pos: 0.000s
Ch1
Coupling
AC
BW Limit
On Off
50MHz
Volts/Div
Coarse
Probe
10X
Voltage
Invert
On Off
1
1.00V
M 1.00ms
Ch1 ⟋ 0.00V
<10Hz
Please wait....
Dec 02, 2022, 17:03

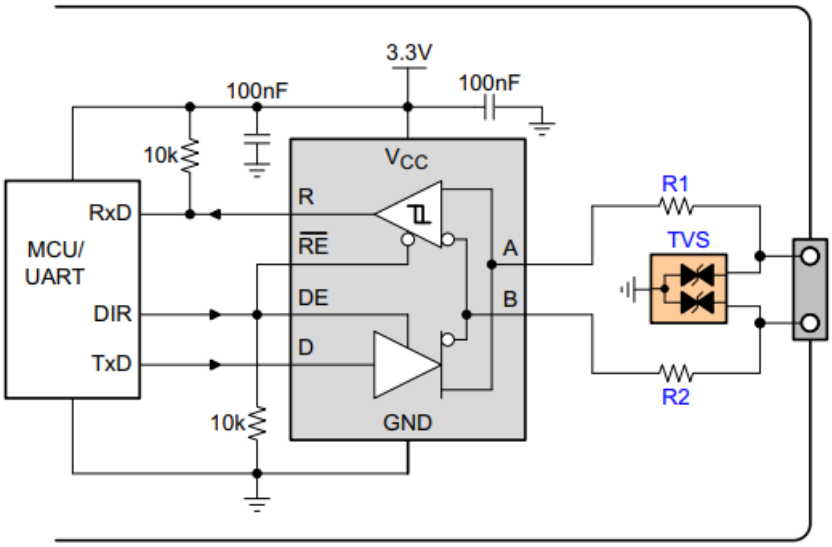
5. Clock



6. UART



7. RS485



8. Voltage Divider

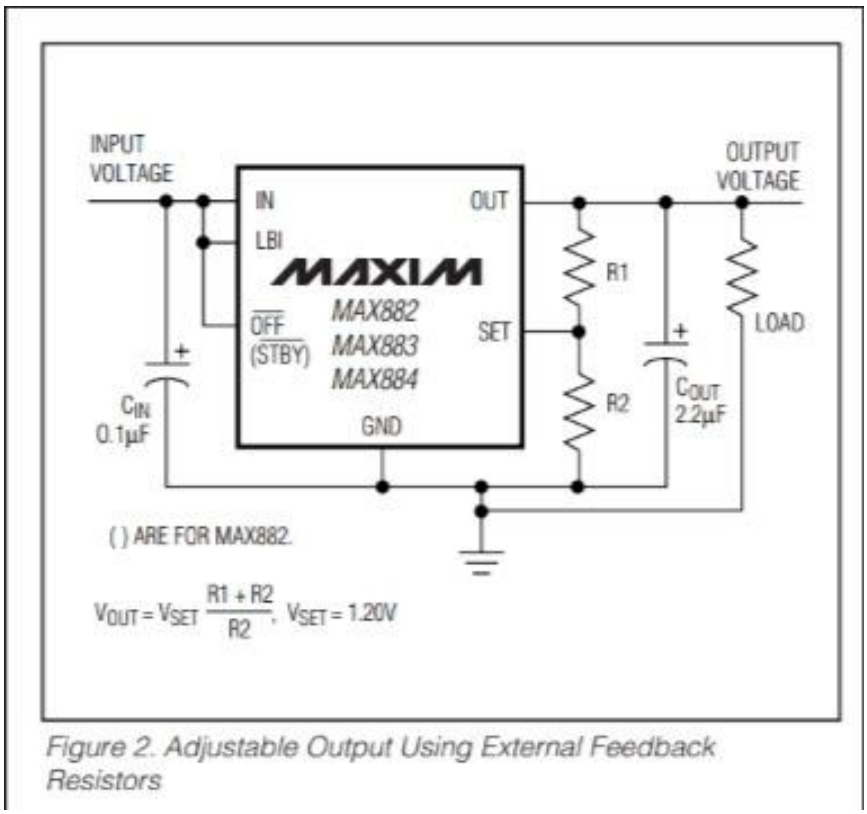
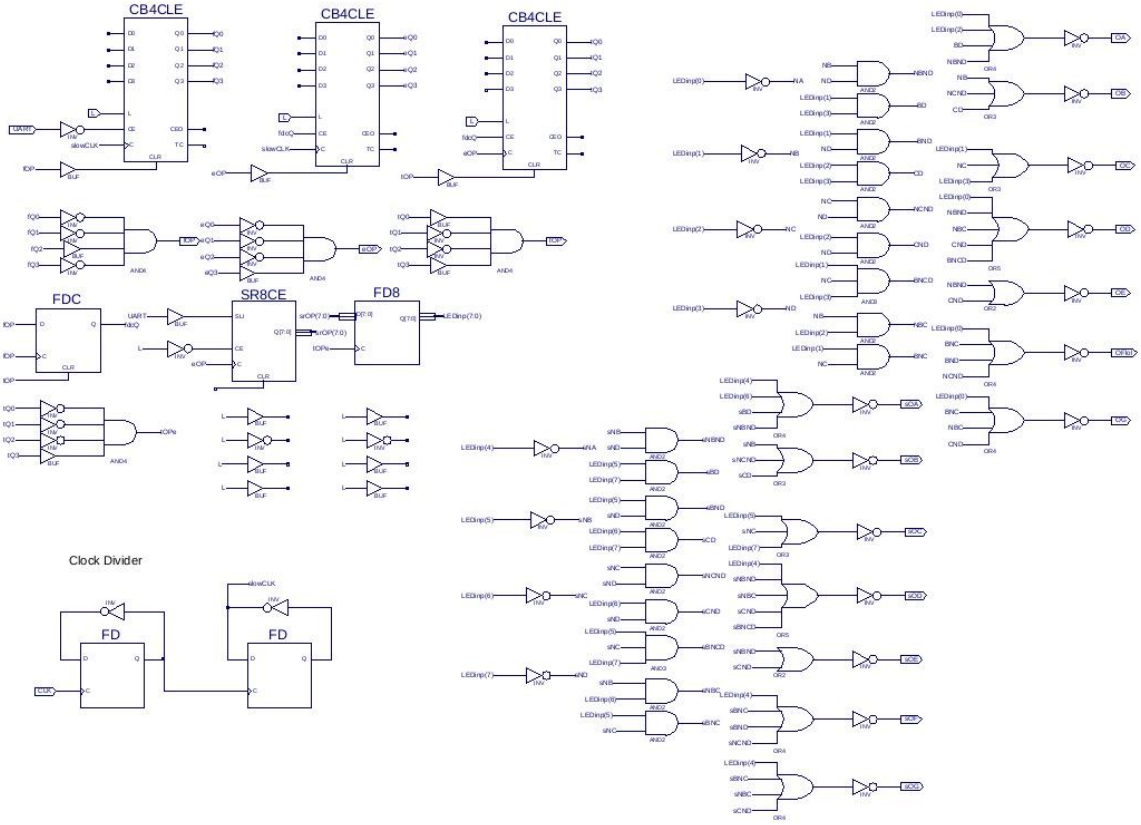


Figure 2. Adjustable Output Using External Feedback Resistors

9. CPLD


CB4CLE
CB4CLE
CB4CLE
FDC
SR8CE
FD8
Clock Divider
FD
FD