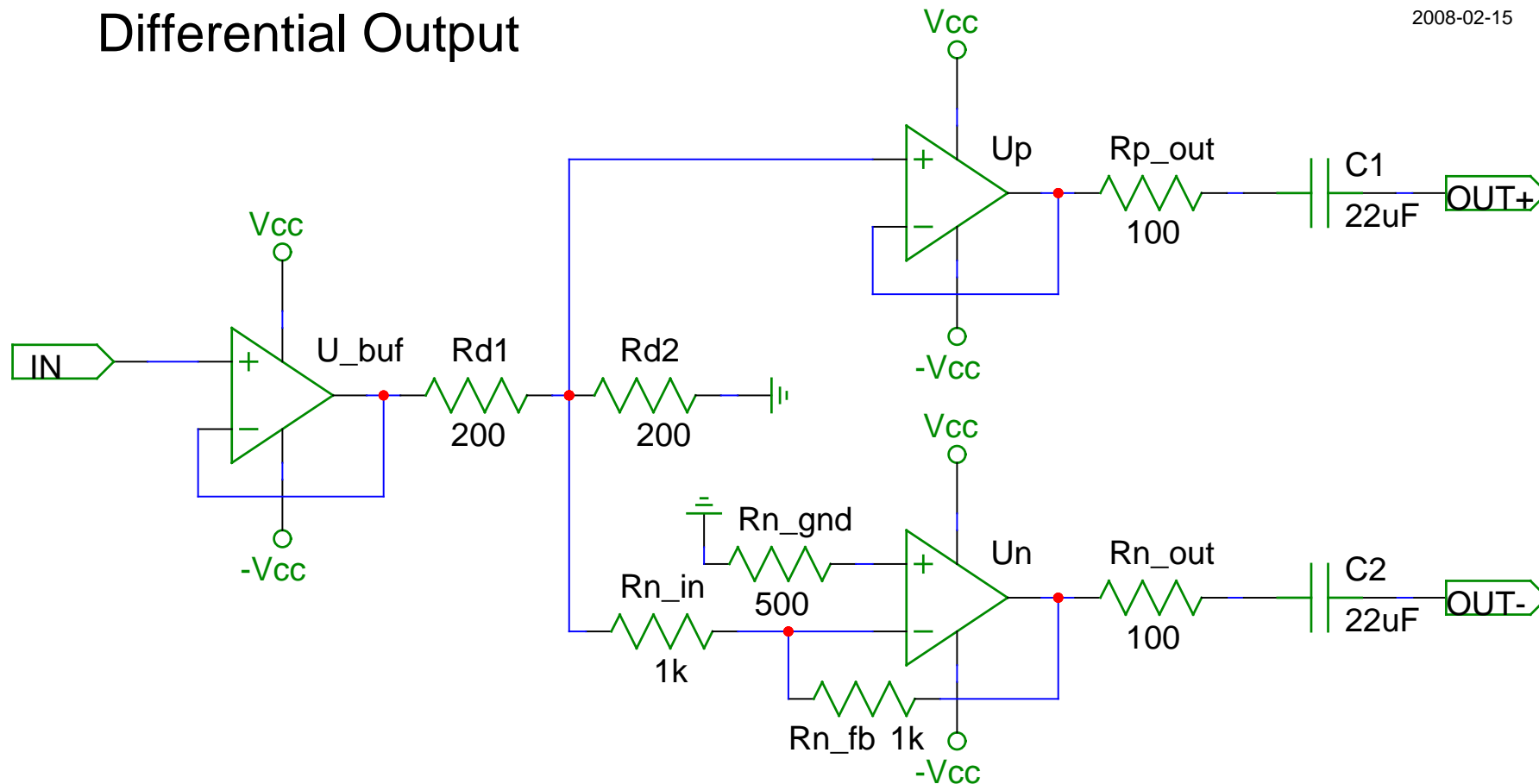


# Differential Output

2008-02-15



The signal is cut by 6db ( $R_{d1}/R_{d2}$ ) since the balanced differential will be doubled on the other end.  $U_{buf}$  is not strictly necessary but can be reconfigured into an amplifier if desired.  $R_{p\_out} + R_{n\_out}$  can be 50-600 ohms depending on the application. For long cable runs, a zobel may be desired. See my "Non-Inverting OpAmp General Design" for more details.  $C1+C2$  remove DC offset and can block phantom power if present. They may need 100k resistors to ground to help keep them from floating and causing pops on cable connects. Another design cascades the inverting input from the non-inverting output in series. While the inverting delay will be small, this should be avoided for best CMRR on the receiving end.