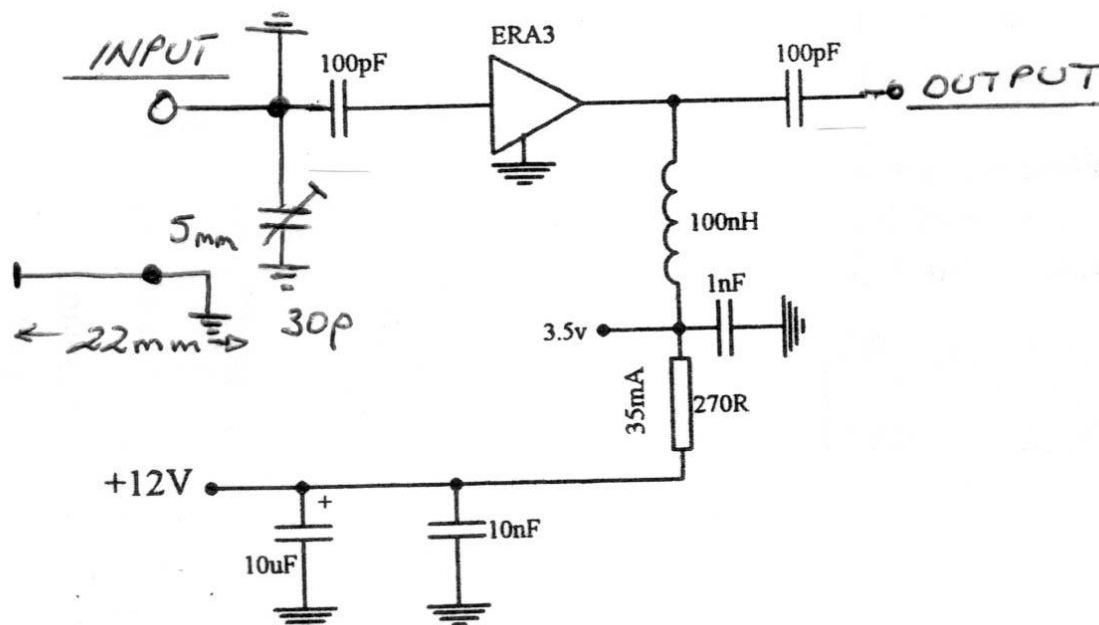


## Simple Pre-amplifier for DATV

Some set top boxes like the Jaycar XC 4914 don't have a lot of gain. However the information page is very good showing most parameters associated with the digital signal. Therefore some form of pre-amplifier may be needed. MiniKits (Aust) have one for 70cm

<http://www.minikits.com.au/electronic-kits/rf-amplifiers/rf-preamplifiers/70cm-RX-Preamplifier>

However a simple version using an ERA-3 can be used with a tuned input that works quite reasonable. The circuit is shown below and can be fitted in a small diecast box. Tuning can be done with a received signal and adjusting the trimmer for minimum noise by looking at the waveform if you have those facilities or by just using the received picture. The ERA3 has a gain of 18.7 db with a noise figure of 2.8db. The output is rated at +13dbm at 2 GHz. It requires an operating voltage of around 3.2v and this can be obtained using a 251ohm resistor from +12v. This can be made from using parallel 470 and 560 ohm resistors or a 270 ohm resistor.



Happy DATV'ing,

Richard VK4XRL