

RFA Studies Update

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Amplifier status

- Further use of surface mount components and twisted pair signal pathway achieved frequency response out to >40MHz, which should be sufficient for resolving train passages.
- No beam related signal was detected following these modifications. Attempts to add a further gain stage met with limited success.
- A redesign of the amplifier using better op-amps should allow substantial increase in gain without compromising bandwidth or pulse response.

DC measurement

- In the mean time, we're trying a variation of the readout method used at APS.
- The grids and collectors of all three RFAs have been tied together. The cumulative current is measured across a one mega-ohm shunt resistor.
- While this approach is comparatively free of noise, current leakage from several components has been problematic. If no signal is discernible once this has been remedied, we can try a picoammeter.