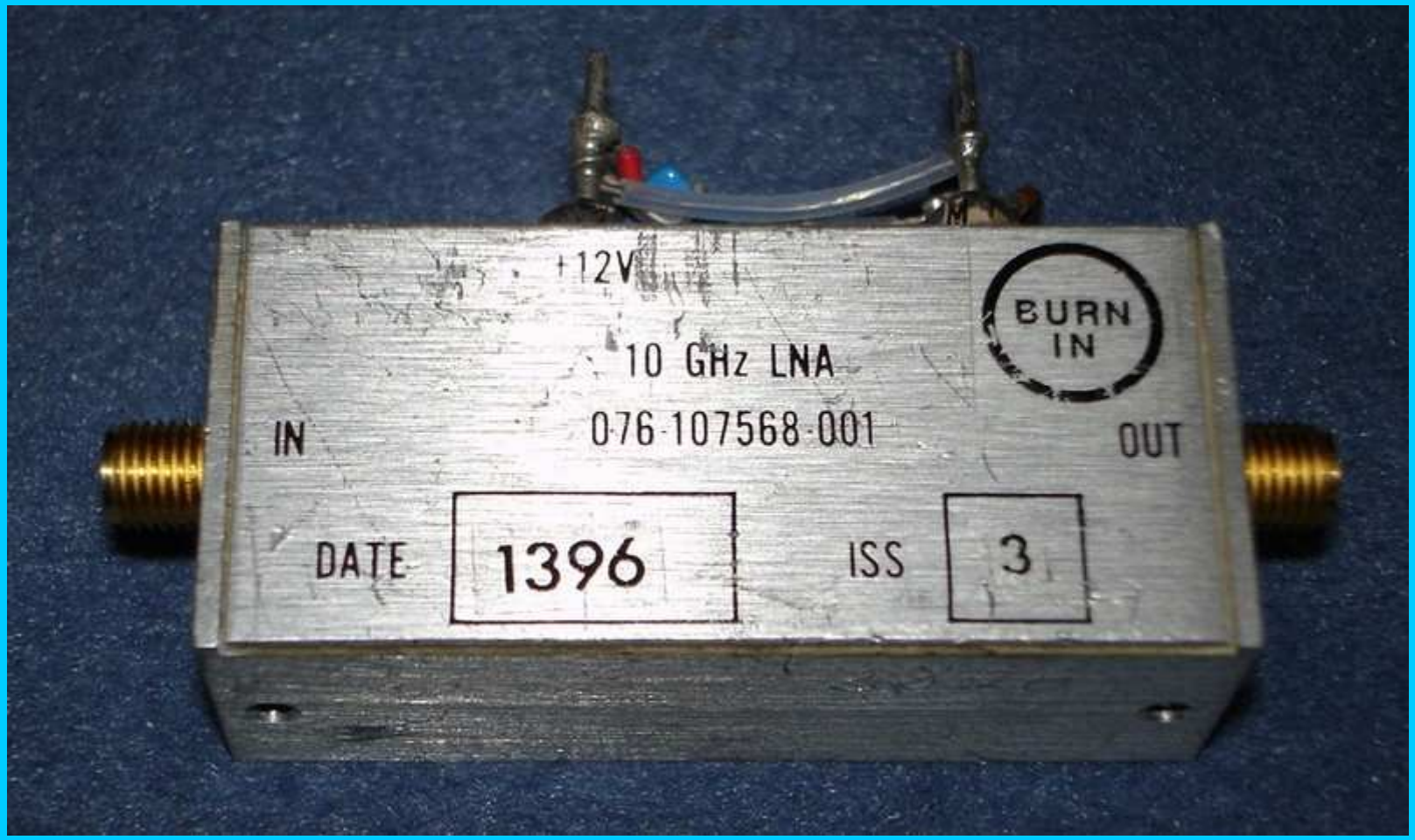
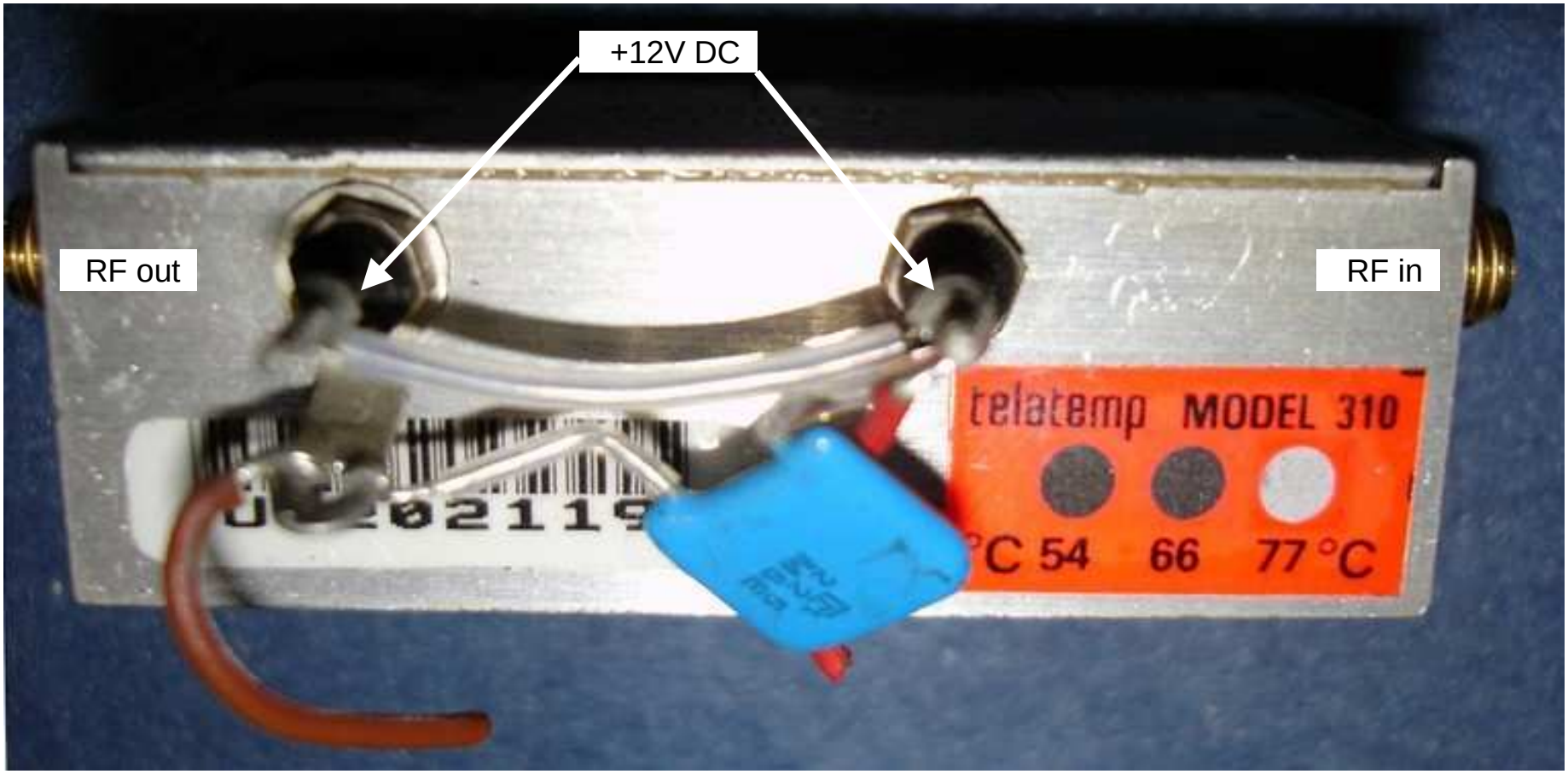
LNA Telatemp model 310



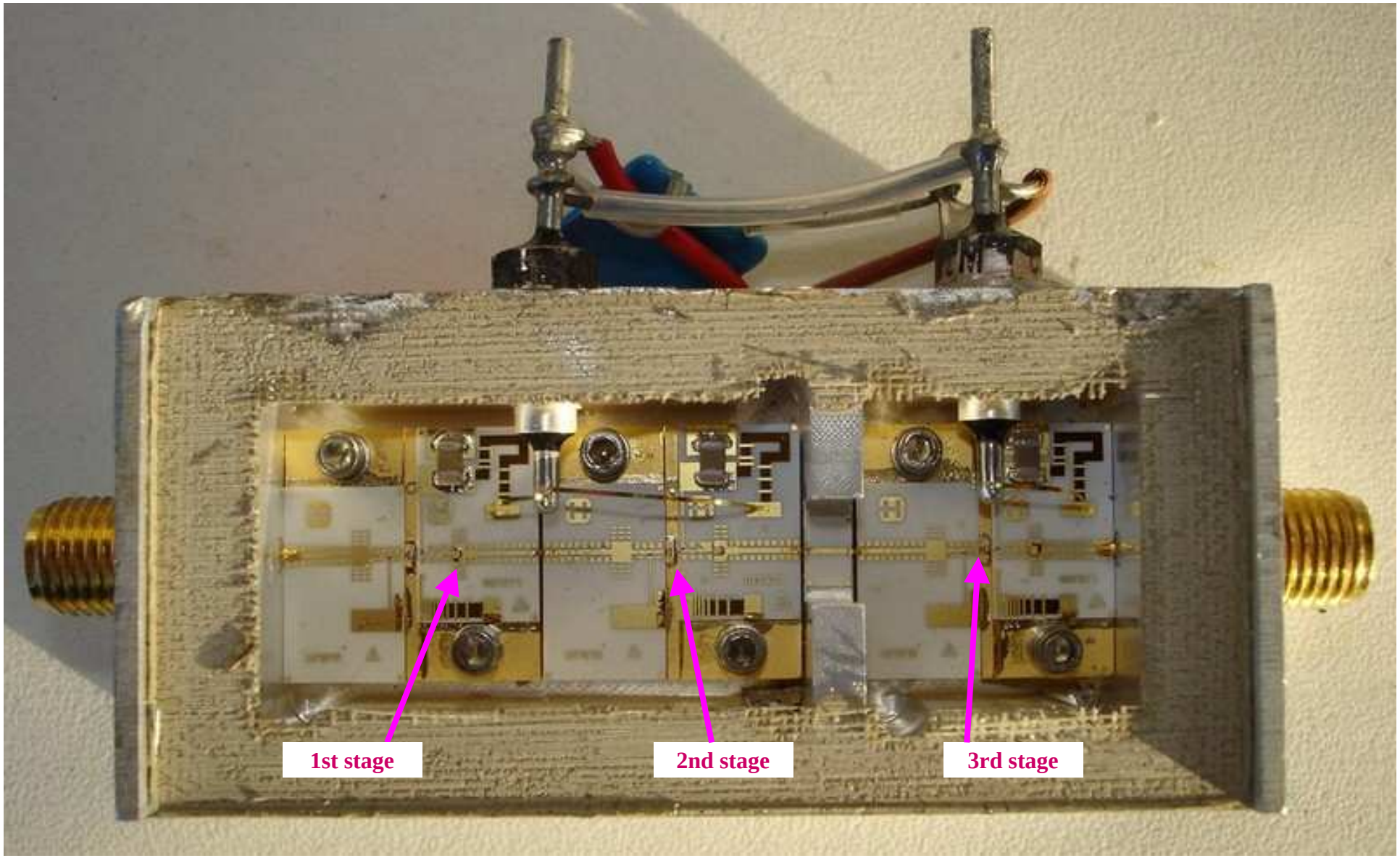
Abstract

- **External view**
- **Internal view – zoom on passive and active components**
- **Scalar broadband measurements**
- **Noise/gain measures**
- **Conclusion**

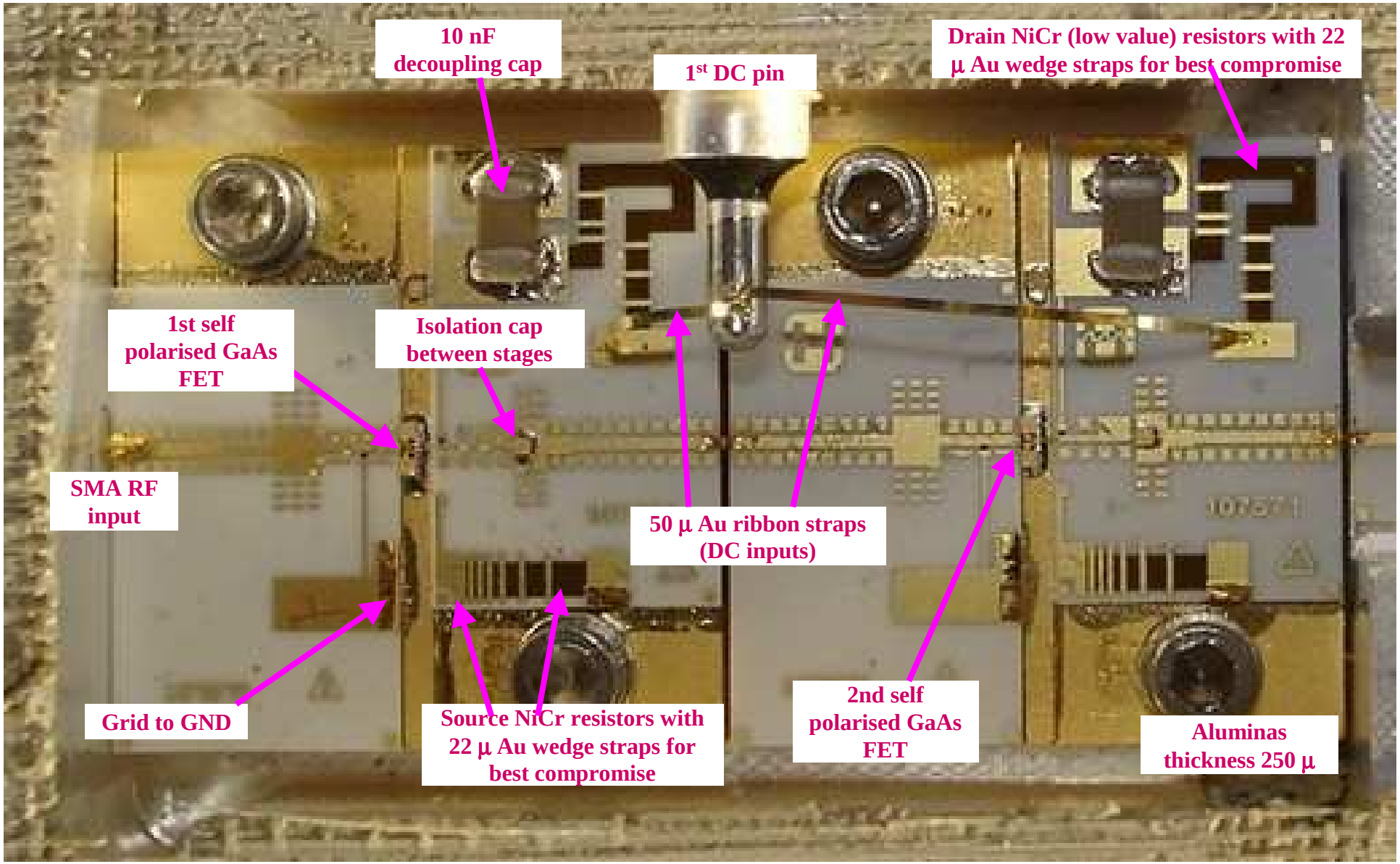
External view



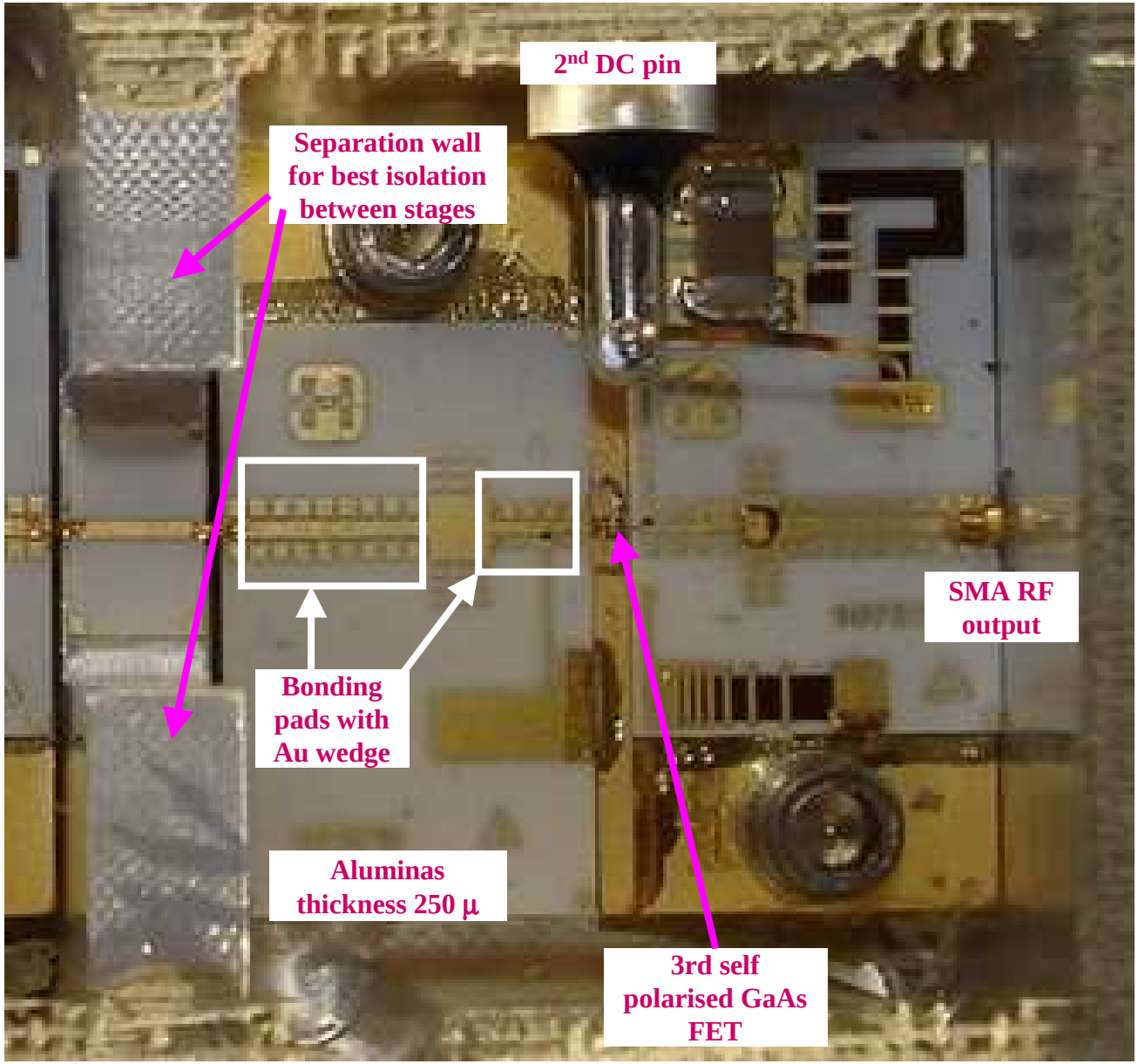
Internal view



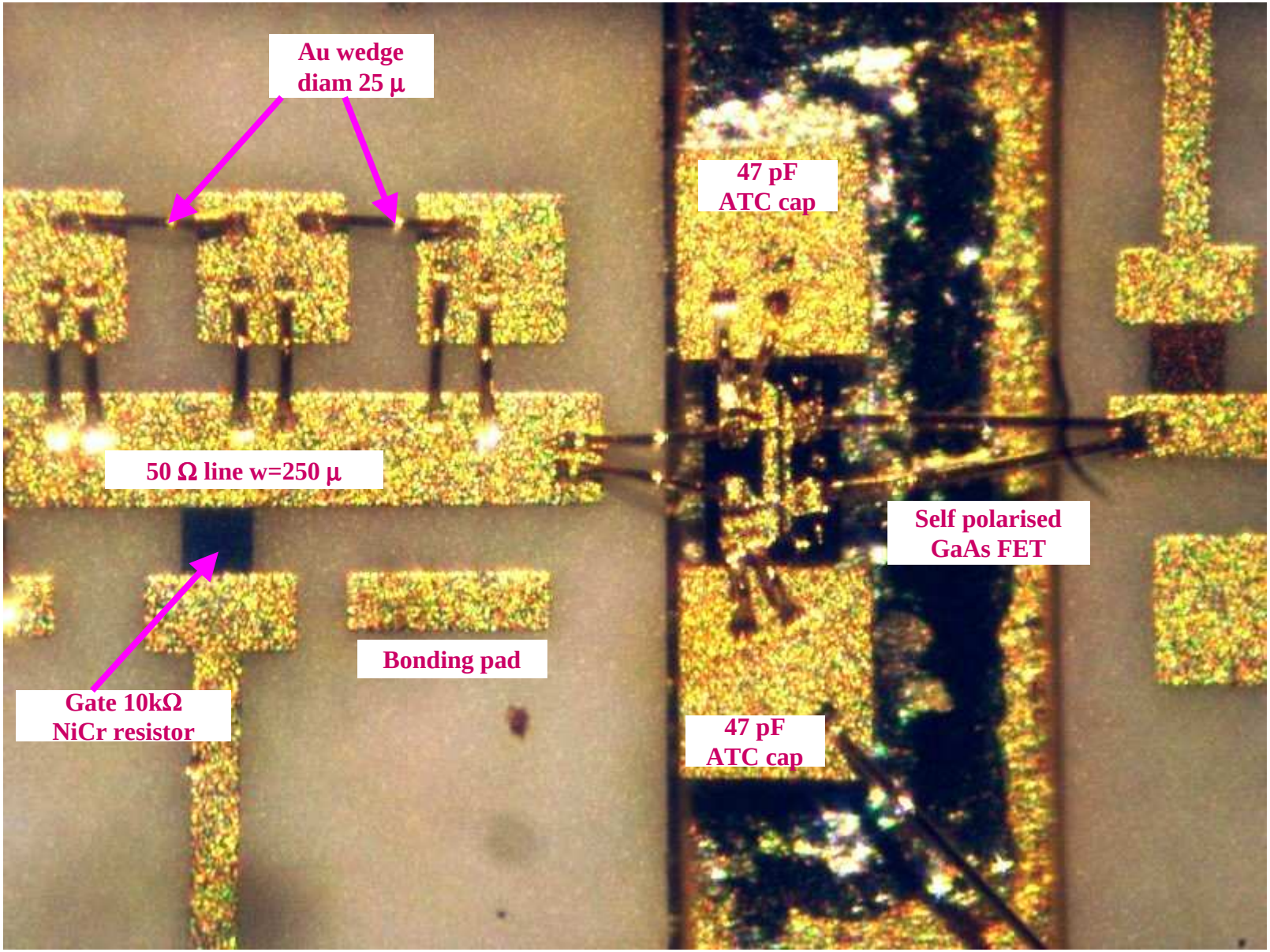
Internal view : zoom on 1st and 2nd stage



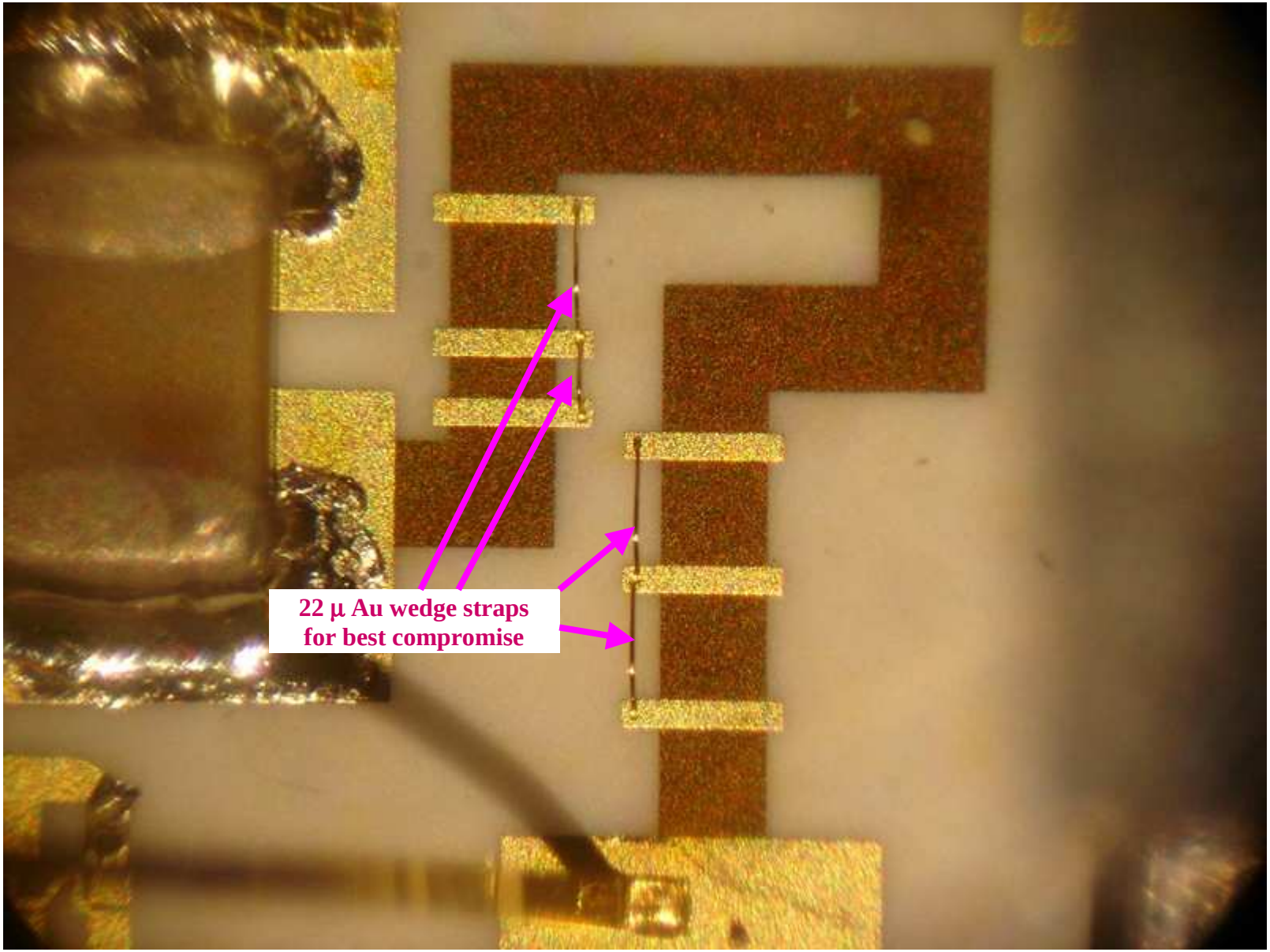
Internal view : zoom on 3rd stage



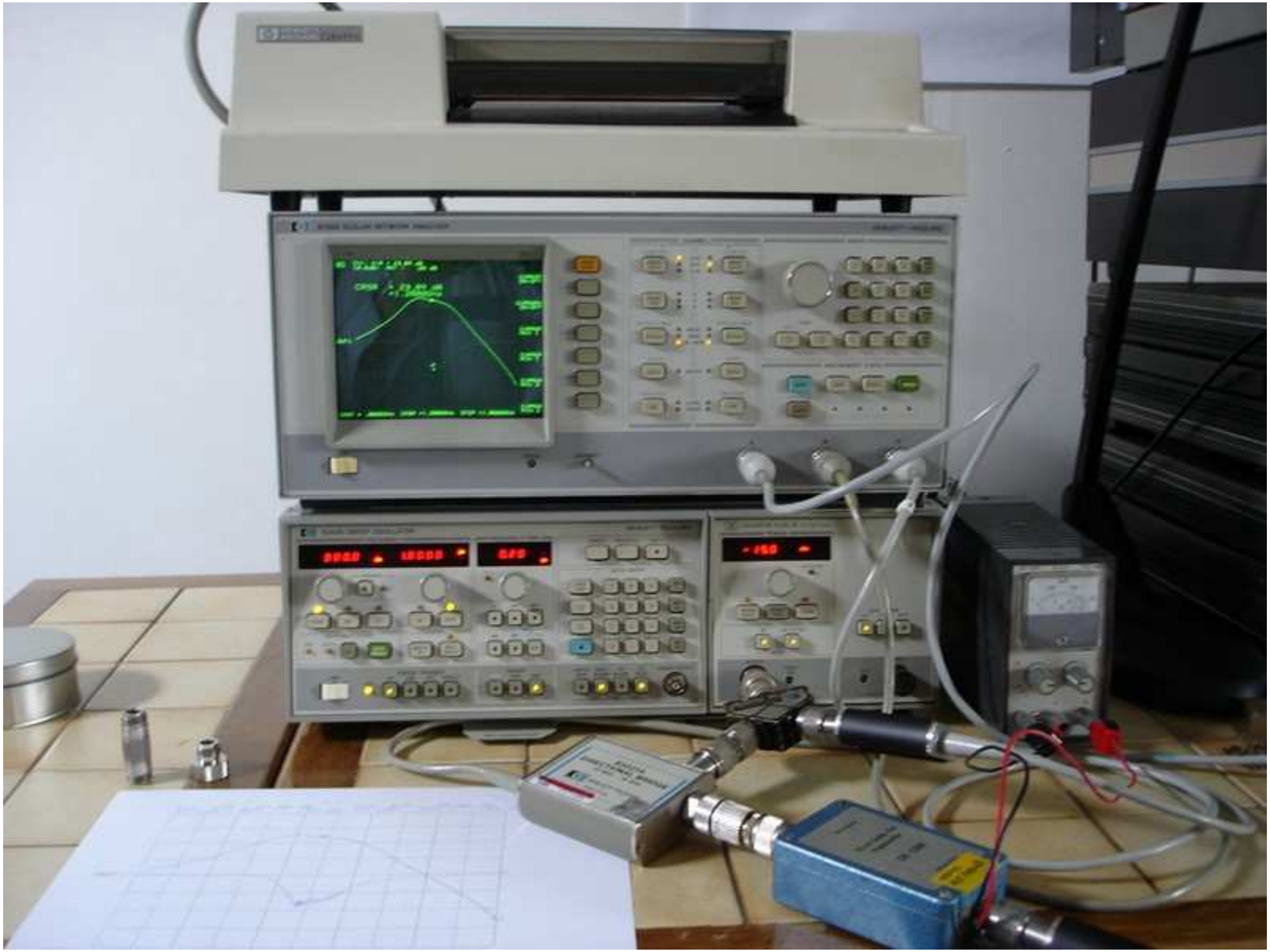
Internal view : stubing technique with bonding pads on Al2O3



Internal view : zoom on NiCr drain resistor



Scalar mesurement setup



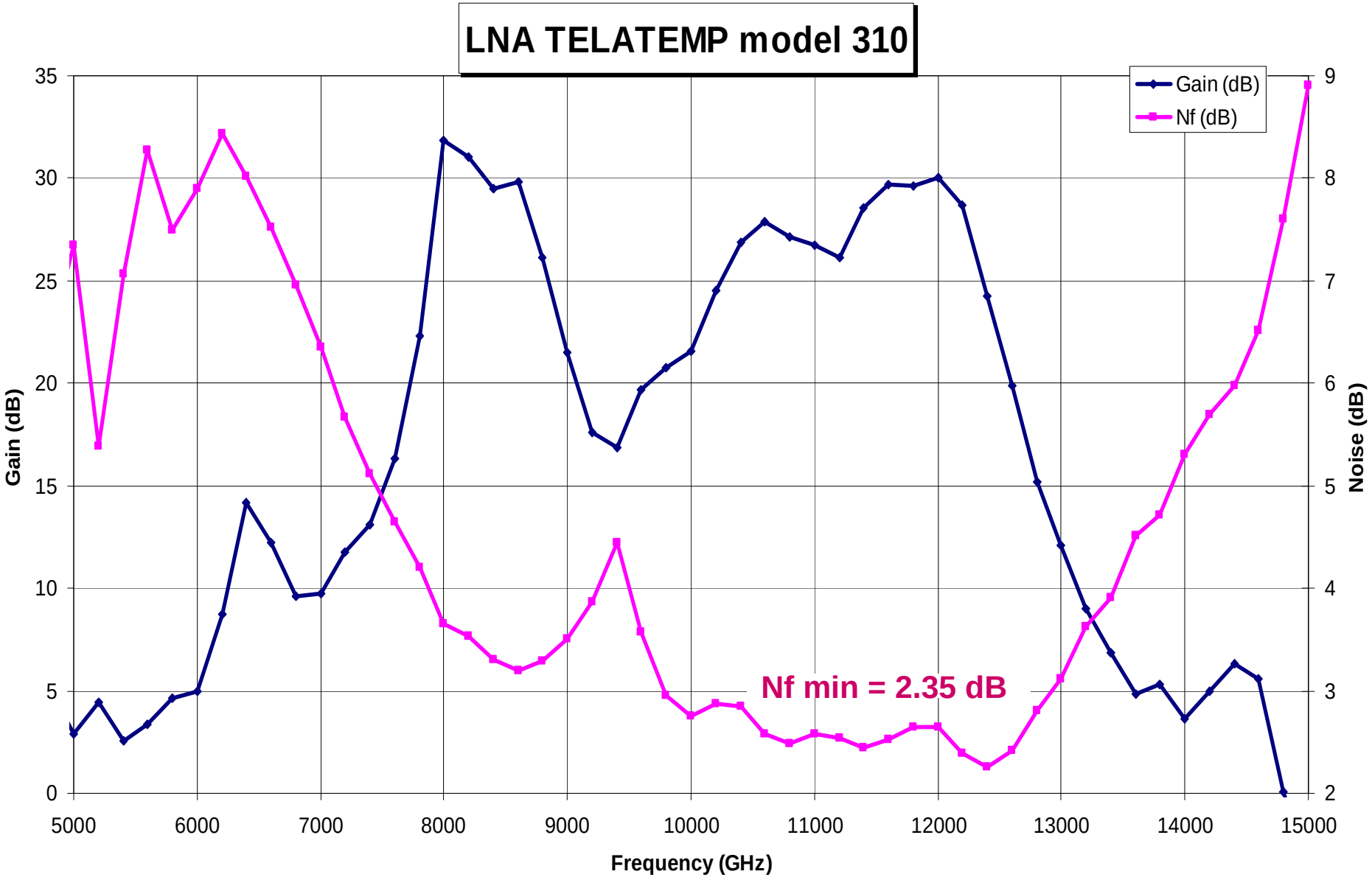
LNA Harris Telatemp 310

Scalar linear broadband curve

Linear mode if Pin<-35 dBm
S11 not marvelous !

Gain/Nf measurement setup

Gain/Noise figure measurement



Conclusion

Broadband LNA usable from :

- 7.8 to 8.8 GHz : gain > 25 dB and Nf < 3.5 dB
- 10.2 to 12.2 GHz : gain > 25 dB and Nf < 3 dB

A 10.360 GHz : gain 26.8 dB, Nf = 2.85 dB