



The AG604-89 can be used for CATV driver amplifier applications from 50 – 900 MHz in both 50 Ω or 75 Ω systems for single-ended or push-pull applications. This application note focuses on a **50 Ω single-ended application**. In the examples shown below, a +6 V supply voltage is used. A larger supply voltage can also be used. The only modification would be to change the value for R2 to be  $R2 = (Vs - 5.16)/.075$ .

The AG604-89 does not require any matching for operation between 50 – 900 MHz. To achieve broadband performance, a wirewound 560 nH inductive RF choke is recommended. Data measured in an evaluation board is shown below.

To achieve improved gain flatness and return loss performance, a simple parallel R-C equalization network can be inserted at the input of the amplifier. The gain flatness from 50 – 900 MHz can be improved from  $\pm 0.9$  dB to  $\pm 0.2$  dB.

