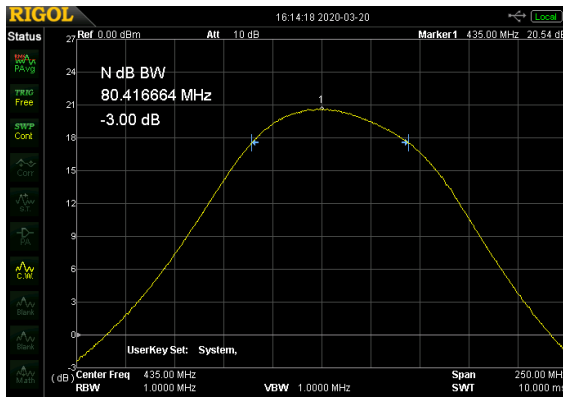




Model 70-LNA 70 cm, 0.5 dB NF Pre-Amplifier

The KH6HTV VIDEO Model 70-LNA is a low noise Pre-Amplifier for the 70 cm (420-450 MHz) amateur radio band. **The noise figure is a very low 0.5 dB** with a gain of 21 dB and high output, -1dB gain compression of +21 dBm. This amplifier has decent return loss on both input and output. It is offered in two options. Option -1 has the lowest noise figure of 0.5dB. It has a low loss, 90 MHz high-pass filter on it's input and a 70cm band-pass filter on it's output. Option -2 is for those situations where more RFI protection on the input is required. It has the 70 cm band-pass filter on it's input and thus has a higher noise figure of 1.7 dB



S21 Gain (left photo) & **Return Loss** (right photo) **S11** = yellow trace, **S22** = magenta trace
center freq = 435 Mz, 250 MHz span, 3 dB/div & 25 MHz/div.

| PARAMETER | Typical Performance | Notes |
|-------------------------|----------------------------------|------------------------------------|
| Frequency Range | 420-450 MHz | 70 cm amateur radio band |
| Noise Figure | 0.5 dB (opt. -1), 1.7 dB (opt-2) | measured on HP-8970A |
| Gain, S21 | 21 dB | |
| Bandwidths | 80 MHz & 135 MHz | -3 dB & -10 dB BW |
| Max. Output Power | +21 dBm | at -1 dB gain compression |
| Input Return Loss, S11 | > -10 dB | |
| Output Return Loss, S22 | > -10 dB | |
| DC Supply Voltage | +12 Vdc, nominal at 100 mA | 11-15 Vdc range |
| RF Connectors | SMA (f) | |
| DC Power Connector | Feed-Thru, By-Pass Capacitor | Optional -- DC feed via RF output |
| Dimensions | 1.5" x 3.6" x 1.25" | fully shielded, die-cast enclosure |
| Test Report | included | includes S21, S11, S22 & NF |