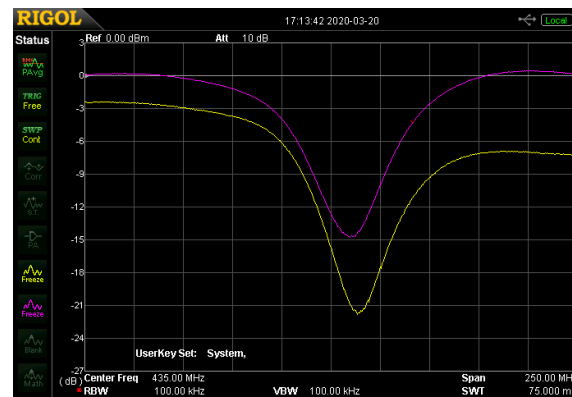
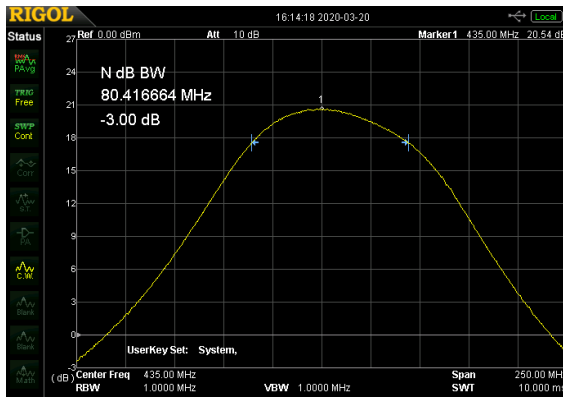




Model 70-LNA 70 cm, 0.7 dB NF Pre-Amplifier

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 low 0.7 dB** with a gain of 20 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 0.7dB. 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	0.7 dB (opt. -1), 1.7 dB (opt-2)	measured on HP-8970A
Gain, S21	20 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