

Wideband Amplifier Herotek A152-198

Matthias, DD1US, July 21st 2017

Recently I was able to acquire some wide band amplifiers at a flea market and now found the time to characterize them. Here is the data I measured of the Herotek A152-198 device.

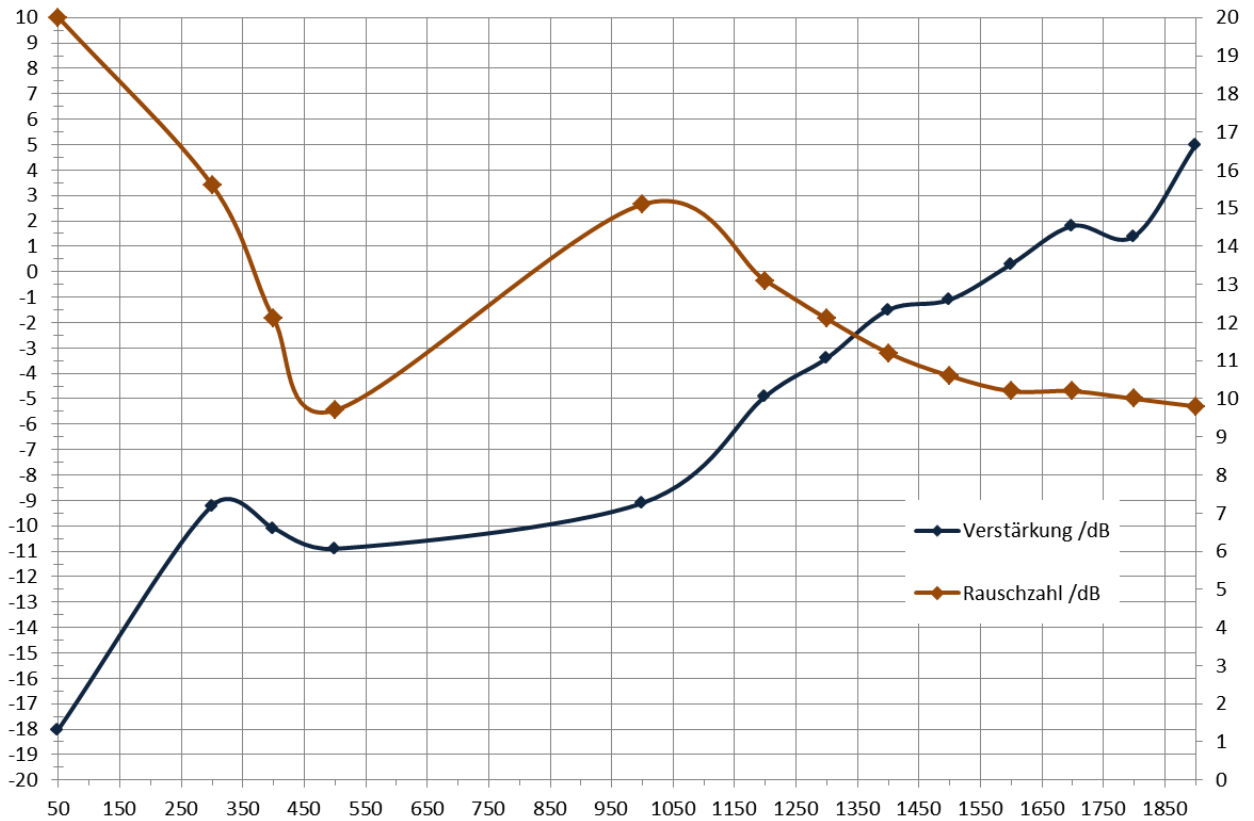
As I found no data in the internet about such a device I hope the little documentation may help others determining whether such an amplifier might be of interest for them.

Here are some pictures of the device:



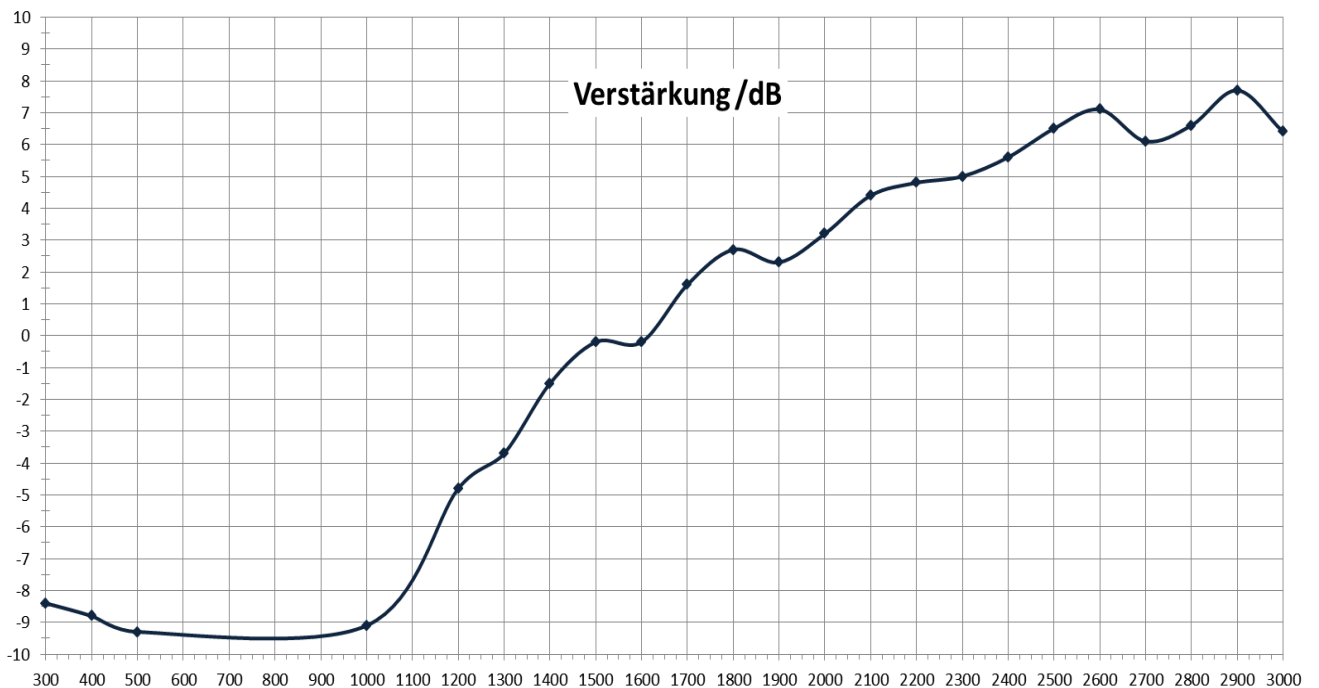
The handwritten frequency range is from the seller at the flea market. Apparently he verified that the amplifier works in the frequency range 2.5 to 12 GHz. No other data was available. The supply voltage of the amplifier is 5V and the supply current is 120mA.

First I measured the device with my noise measurement setup which covers the range 50 MHz to 1900 MHz. Here are the results:



You can see that the gain (dark blue curve “Verstärkung” with the left scale) is negative at frequencies below 1600 MHz and the noise figure (brown curve “Rauschzahl” with the right scale) at 1600 MHz and above with 10dB quite high.

The next day I measured the gain from 300 MHz up to 3 GHz using a signal generator and power meter. Here are the results:



The measured data is quite disappointing. I expected more gain and lower noise figures. If someone else has experience with such an amplifier please contact me and let me know your experience. Maybe the device is defective.

Also otherwise I am always grateful to get feedback and will be happy to answer questions.

Please direct them to the Email address which you will find below.

Best regards

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