Subject: Re: Linear measurements in audio gear
Posted by Wayne Parham on Sat, 31 May 2025 14:39:47 GMT
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That's an interesting problem. My instinct is to create a series of precision equally-spaced input voltages. Then measure the output voltages for each input.

This would work great, but obviously the difficulty is in the precision of the input voltage. That would be the hard part - generating the input series and making it precise.

As DUT gain increases, input precision becomes more and more critical.

I'm thinking you might look into precision DACs. My first thought was to build a resistor-ladder DAC, but even then, you would have to "dial it in" with the resistor values, making sure each was exactly equal. I think the precision DACs from Analog Devices and Texas Instruments would give better results. A single voltage divider on the output of the DAC can allow setting the overall amplitude range.