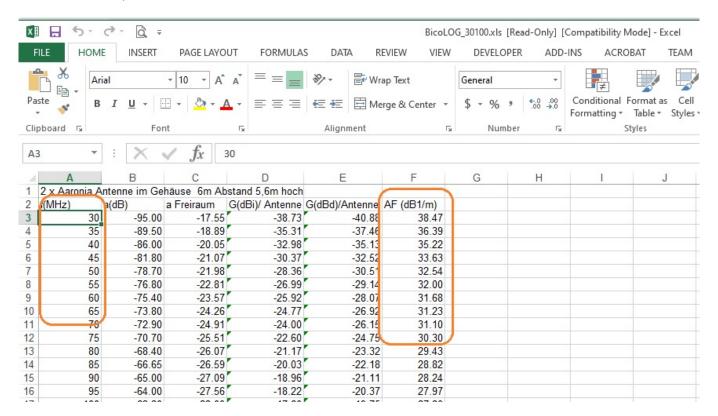**ƧSIGLENT**®

Which values do I enter for antenna correction factors on my spectrum analyzer?
December 27, 2019

If you have an antenna with calibration data, chances are it includes a number of columns of data. One column should be the frequency being tested. The others can include free-range performance, gain, and more.

For reference, **Antenna Factor** (or correction factor) is defined as the ratio of the incident Electromagnetic Field to the output voltage from the antenna and the output connector.

Here is an example of antenna correction data from a German antenna manufacturer:

The most useful entry is the AF, or antenna factor data. This data has positive values and typically has units of dB/m (decibels per meter) and can be directly entered into a spectrum analyzers correction table. This data mathematically corrects the incoming data and "removes" the antenna characteristics from the measurement.

NOTE: Correction factors on the SSA can also be used for cabling, attenuation, and any in-line circuit element that affects the signal being measured as well as antenna correction factors. The units of loss or gain for most of these elements are in dB but antenna factors are given in dB/m. The SSA correction factor units are shown in dB. For antenna corrections, please enter the dB/m values as shown and assume they are "dB/m"

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