

# eDG20\_G3 Manual

**High Frequency attenuator with a signal reduction of 20 dB in the frequency range of 10 MHz - 3000 MHz. For attenuation of field strength above the upper limit of the HF-Analyser.**

Attenuator 20dB with DC-Passthrough

This attenuator increases the upper field strength measurement range of the HF-Analysers by a factor of 100 i.e.(Decreases the signal strength 100 times). If the measurement range is set to maximum and the display indicates ("1..."), this attenuator will allow the HF-Analyzer to accurately display the higher signal strength. It is compatible with the following HF Analyzers HFE35C, HF58B, HF58B-r, HF59B and HFE59B (here incl.). This attenuator is recommended to be used on the least sensitive measurement range.

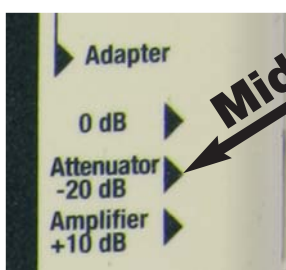
## Assembly:

The preamplifier is screwed between the antenna cable and the antenna jack of your HF-Analyser. If necessary use our snap-on tightening aid MZU0076. **CAUTION:** Tools SHOULD NOT be used for tightening the connections because over tightening can damage the threads. The filter is usually attached directly to the antenna jack. If required it can also be assembled on a 90 degree angle with the enclosed SMA elbow connector. (CAUTION: Do not fold the antenna cables!)

The HF-Analyser supplies the amplifier with power. A green light-emitting diode illuminates through the attenuator symbol on the filter. Please ensure the Low-Batt. warning on the HF-Analyzer's display is not on. The light-emitting diode still glows even if power supply is not sufficient for proper function!

## Interpreting the Displayed Measurements

HF58B, HF58B-r, HF59B, HFE59B:



When the attenuator is connected, set the "Adapter" switch of the HF-Analyzer to "Attenuator -20 dB" (See picture on left). This activates the integrated automatic conversion feature of the HF-Analyzer. The true signal strength value can be read from the display without any manipulation. The vertical line on the left side of the display indicates the correct measuring unit.

Example (HF58B, HF58B-r, HF59B, HFE59B: Attenuator connected and the "Adapter" switch set for "Attenuator -20dB):

Displayed value:  
 100  $\mu\text{W}/\text{m}^2$

True (precise) value:  
 100  $\mu\text{W}/\text{m}^2$

**HFE35C:**

The value from the display must be multiplied with a factor of 100 to get the real field strength:

Example : Displayed value:  
 100  $\mu\text{W}/\text{m}^2$

True (precise) value:  
 100  $\mu\text{W}/\text{m}^2 \times 100 = 10\,000 \mu\text{W}/\text{m}^2 = 10,0 \text{ mW}/\text{m}^2$

**Technical data:**

Transmission band: 0 Hz (DC) < 5 Ohm  
 10 MHz - 3000 MHz = 20 dB  $\pm$  0,3 dB

Return loss: 10 MHz - 3000 MHz > 13 dB

**Diagram:**

