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## FEMTO Amplifier Bias Details

4/4/13

The bias option is different for almost all FEMTO amplifiers. Here some basic information:

The bias option is available for the DDPCA-300, DHPCA-100, DLPCA-200 and for the HCA-series amplifier.

DDPCA-300, DLPCA-200 and the DHPCA-100 offer +/-10 V Bias voltage range. Important! The DLPCA-200 and the DHPCA-100 supply the bias voltage via the outer BNC connector and the DDPCA-300 bias voltage is supplied on the inner BNC connector.

For the HCA-Series the bias voltage range is +/-12 V and here the amplifier has a separate bias pin.

How precise is the adjustment? Using the trimpot the bias can be controlled within  $\pm 10$  mV.

DLPCA-200 and DHPCA-100 can only be adjusted by the trimpot.

The DDPCA-300 has the option to use the "Ext." control feature. A voltage is supplied to pin 8 of the 25-pin D-SUB, to control the bias. This would be a custom solution for the DHPCA-100 and the DLPCA-200.

FEMTO can also supply (custom solution) a lower voltage range to make the adjustment more precise. For example +/- 1V.

Devices that need bias:

Transistors

PbS & PbSe Detectors

MCT Detectors

Devices that do not need Bias:

UV and Si Photodiodes

InGaAs Photodiodes