FEMTO AMPLIFIER SELECTION GUIDE

What Kind of Application Do You Have?

- Amplification of Small Electrical Signals
  - What Will You Connect to the Amplifier Input?
    - A High Impedance or Current Source e.g. Photodiode, Photomultiplier (PMT), Charge or Ionization Detector, Faraday Cup, Capacitive Pickup, Scanning Tunneling Microscope Tip (STM), Multi Channel Plate (MCP)
      - Current (Transimpedance) Amplifier
        - Which Maximum Bandwidth Do You Require?
          - Up to 500 kHz
            - Series LCA
            - DLPVA-200
          - Up to 200 MHz
            - Series HCA
            - DHPA-100
          - Up to 2 GHz
            - Series HSA-X
            - Series HSA-Y
          - Up to 2 GHz
            - Series DUPVA
        - Voltage Amplifier
          - Which Maximum Bandwidth Do You Require?
            - Up to 500 MHz
              - Series HVA
              - Series DHPVA
            - Up to 100 kHz
              - Series HVA
              - Series DLPVA
        - Lock-In Amplifier
          - Phase Sensitive and Frequency Selective Measurement of Small Signals Potentially Buried in Noise

What Will You Connect to the Amplifier Input?

- A Low Impedance or Voltage Source e.g. Resistive Element, Coil, Thermopile, Fast Photomultiplier (PMT) or Multi Channel Plate (MCP) with 50 Ohm Termination, High Bandwidth Source

Which Maximum Bandwidth Do You Require?

- Up to 500 kHz
- Up to 200 MHz
- Up to 2 GHz
- Up to 500 MHz
- Up to 100 kHz

Series LCA
- Fixed Gain up to 10^3 V/A, Ultra Low Noise down to 0.2 fA/√Hz
- Remote Interface

Series HCA
- Variable Gain from 10^3 to 10^4 V/A, Signal Filters, Remote Interface
- Low Noise down to 270 fA/√Hz

Series HSA-X
- Fixed Gain up to 10^4 V/A, Signal Filters, Remote Interface
- Ultra Compact Package
- Variable Gain up to 40 dB (5,000 V/A), DC Monitor

Series HSA-Y
- Fixed Gain up to 60 dB (50,000 V/A), 2 Signal Outputs, DC Monitor
- Exceptional Low Noise and Flat Frequency Response

Series DUPVA
- Variable Gain up to 70 dB, Compact Package
- Exceptional Low Noise and Flat Frequency Response

Series HVA
- Fixed or Variable Gain up to 60 dB, Compact Package
- 80 dB Dynamic Range, DC Coupled

Series DHPVA
- Variable Gain up to 100 dB, Very Low Temperature Drift and Flat Frequency Response, Remote Interface
- Input Impedance up to 1 TΩ, Very Low Noise down to 0.4 nV/VHz

Series HVA
- Logarithmic Amplifier with 80 dB Dynamic Range, DC Coupled

Series DLPVA
- Variable Gain up to 45 kHz, Ultra Compact Package

Series LIA-MV-150
- Lock-In Amplifier
  - Working Frequency up to 120 kHz, Low Cost 19" Board, Ideal for Multi Channel Applications

Series LIA-BV(D)-150
- Remote Control, Signal Filters, Ideal for OEM Applications

Series LIA-MV(D)-200
- Module Housing, Remote Control, Signal Filters, Ideal for OEM Applications

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What Will You Connect to the Amplifier Input?

- Remote

Which Maximum Bandwidth Do You Require?

- Remote

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- Remote

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- Remote

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