Data Sheet

Notch + Low frequency amplifier

NLFA

The NLFA device is designed to allow the correct Syncronization of PDSolver - PDBase - PDCheck equipment when resonant test are performed.

The NLFA gets the required energy from an external power supply or from a standard 12 V battery.

Characteristics

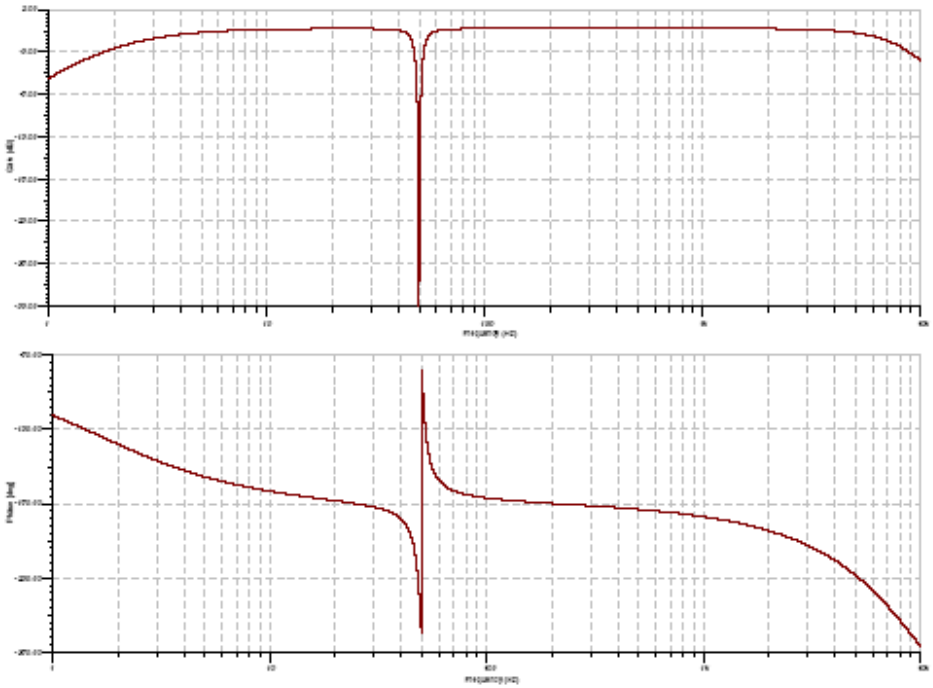
The NLFA is a multiple element device allowing several useful field configurations. The three internal elements,one low frequency amplifier, two notch amplifier each with the cut off freq. of 50Hz (or 60Hz for a specific version) can be used as independent ones or combined together to increase the notch function. The effect of the cascade of two notches is the increasing of the signal attenuation for the notch frequency. In the case, both amplifier and a notch section are required, the amplifier must be connected upstream of the notch. In this specific configuration, the maximum input signal of the amplifier is reduced to 0.5V instead of 1.0V.
The amplifier must be used whenever the synchronization signal (from Current Transformer , PQ Quadrupole, or Capacitive Divider signal), is expected to be too low to directly drive the syncro input of a PD Acquisition System.
The amplifier section of the NLFA must be matched to a high impedance load (>1K Ohm) with a coaxial cable (preferably a double-shielded type) up to 30 meters long.

Notch Section Specifications

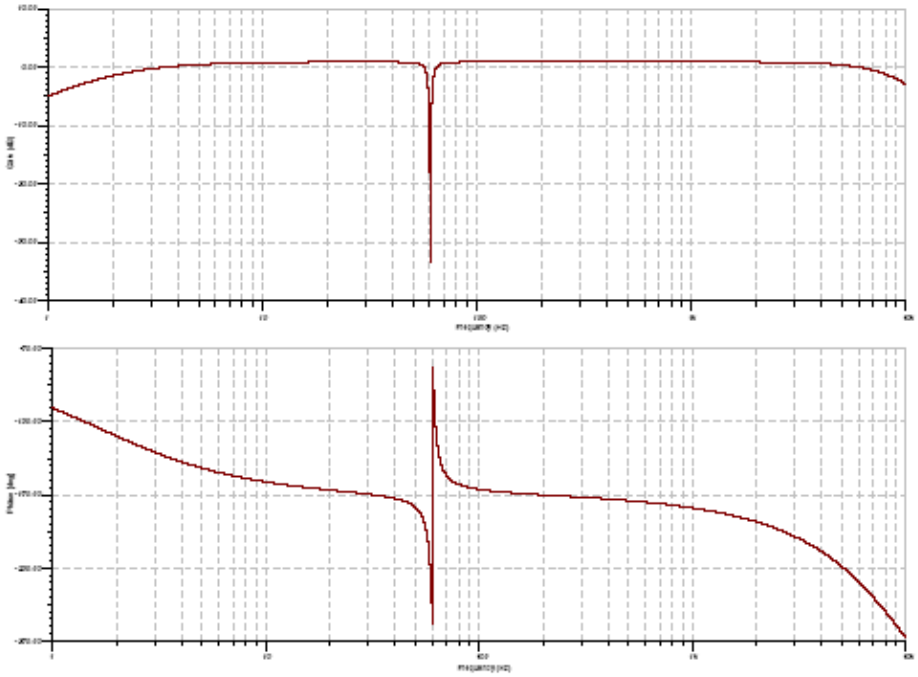
Bandwidth -3dB	1.6Hz – 9KHz
Notch Frequencies	50Hz ± 0.1Hz / 60Hz ± 0.1Hz
Attenuation (at the cut off freq.)	Typically >30dB
Input impedance	100Kohm
Output impedance	10 ohm
Gain	1V/V (0dB)
Max Vin (Vout)	10Vpp
Power supply	12VDC @ 500mA

NLFA – Notch + Low Frequency Amplifier

Notch 50 Hz Transfer Functions
in Frequency domain



Notch 60 Hz Transfer Functions
in Frequency domain

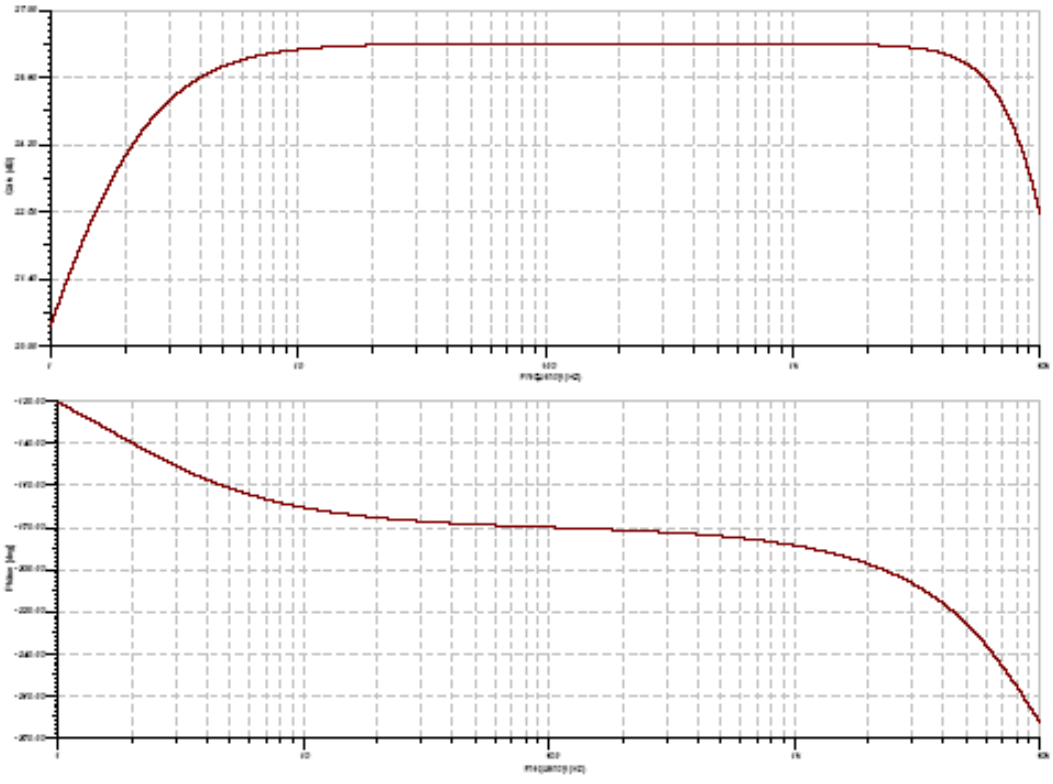


NLFA – Notch + Low Frequency Amplifier

Amplifier Section Specifications

Bandwidth -3dB	1.6Hz – 9KHz
Input impedance	100Kohm
Output impedance	10 ohm
Gain	20V/V (26dB)
Max Vin	1Vpp
Max Vout	20Vpp
Power supply	12VDC @ 500mA

Low Frequency Amplifier Transfer Functions in Frequency domain



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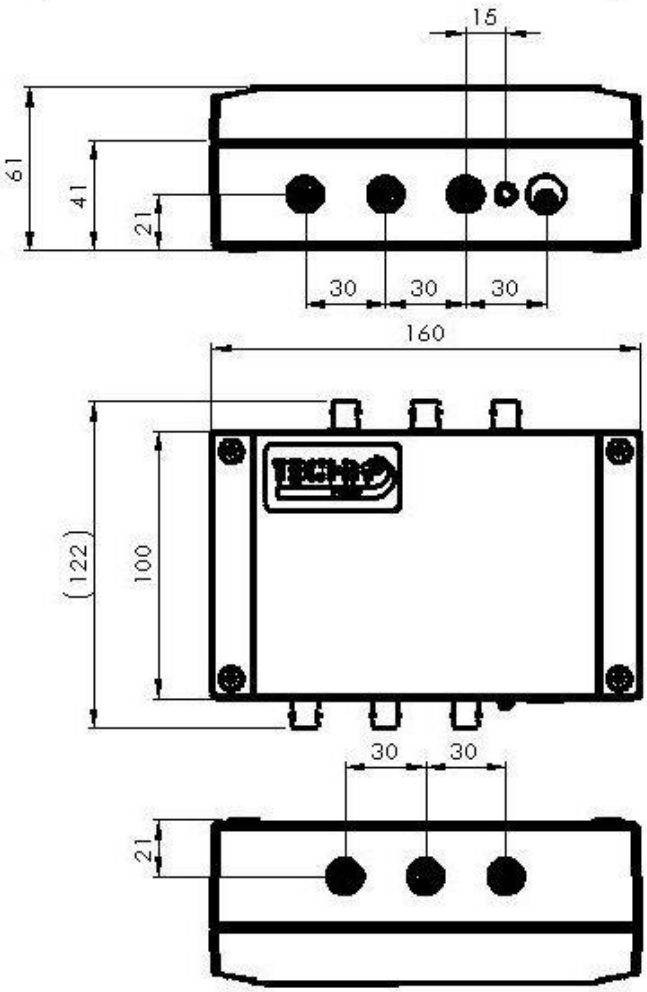
Mechanical Specification



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