

SPH-1, spatial phaser

The SPH-1 is a 14-stage stereo image phaser. It consists of two identical voltage controlled all-pass filters with seven notches stretched over the whole audio range which ensures constant phasing effect. The all pass filters are combined with original audio signals resulting in an almost constant gain and phase shift of 2400 degrees across the entire audio range (see diagrams below).

Additionally, the phasing effect remains almost constant even in saturation mode. Phasing (SPECTRUM) is controlled by modulating low frequency oscillator (MOD RATE, MOD LEVEL) and by external signals (SPECTRUM CV, and separate SPECTRUM LEFT, RIGHT).

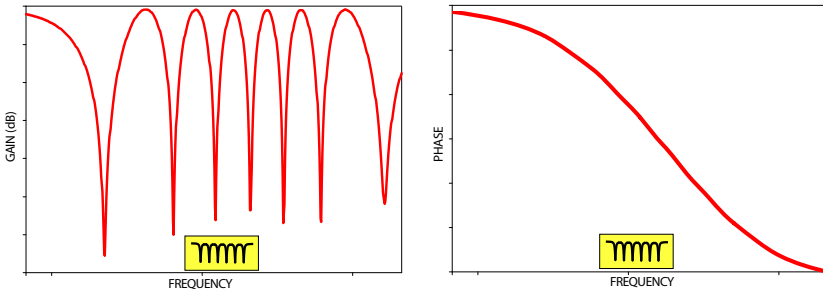
The low frequency oscillator's rate can be modulated by external signal (RATE CV, RATE CV INPUT). The SPH-2 provides one audio input for both phasers labelled by SUM AUDIO.

The audio outputs are provided by output socket labelled AUDIO, LEFT, MIX (mixed left and right phaser) and RIGHT.

Outputs are revealed by white surrounds.

The FEADBACK knob controls the amount of multi resonance for both phasers up to self-oscillating. The SPATIAL/ROTATING switch couples phaser between two different stereo images.

The BYPASS/ L&R INPUT inserts both phasers in the audio chain in position L&R INPUT.



Frequency response for phasing units LEFT and RIGHT

Phase response for phasing units devices

Performances

RATE	□ □ □	from 40sec's to 20msec's
Audio frequency range		10Hz to 22kHz
Maximal input/output audio signal		20 Volts p-p
Current consumption		30mA
Dimensions		128.4mm (H), 70.6mm (B) 3 HE, 14TE

