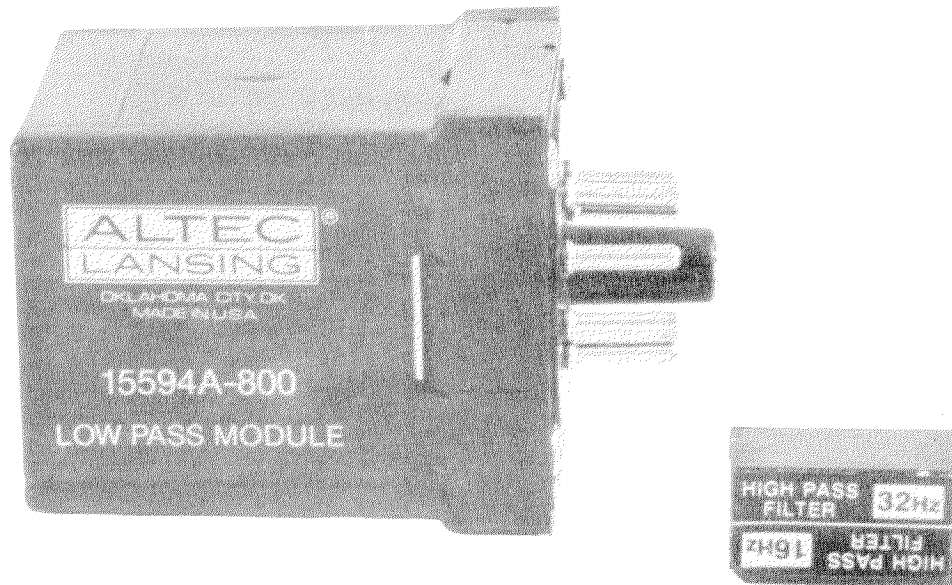




15594A LOW PASS CROSSOVER/EQUALIZER MODULE



DESCRIPTION

The ALTEC LANSING Model 15594A is a fixed-frequency low pass crossover filter and combination woofer/enclosure equalizer module. The module plugs directly into the powered octal accessory socket of the 9444A or any other Anniversary Series power amplifier product. When used with the 15595A high pass crossover module, they eliminate the need for rack mount electronic crossovers and offer the ability to individually equalize specific woofer/enclosure (or horn/driver) combinations.

The third-order Butterworth low pass filter has an 18 dB per octave (60 dB per decade) roll-off rate. The modules are available in the following standard ISO frequencies: 125 Hz (15594A-125), 500 Hz (15594A-500), 800 Hz (15594A-800), and 1,250 Hz (15594A-1250). Simple equations are provided to calculate other frequencies for custom applications.

Each crossover module is provided with a "flat"

woofer/enclosure equalization submodule. The submodule provides a maximally flat response with a 12 dB/octave low frequency roll-off beginning at either 16 Hz or 32 Hz, depending on orientation. Other responses, including low frequency peaking, may be calculated from the simple equations provided to optimize a loudspeaker system.

The 15594A is housed in a snap-a-part case which simplifies the installation of any submodules and eases service. All power is derived from the powered octal accessory sockets on the amplifiers. This negates any need for an external power source.

The ALTEC LANSING Model 15594A Low Pass Crossover/Equalizer Module has the flexibility to meet or exceed the requirements for any job. Its ability to produce a flat power response for an individual loudspeaker system is not only useful but almost mandatory in today's professional installations.

SPECIFICATIONS

Input Type:	Electronically balanced	Pin 5 = -15 VDC
Input Impedance:	15 k Ω unbalanced 30 k Ω balanced	Pin 6 = input (+)
Maximum Input Level:	+18 dBu (Ref. 0 dBu = 0.775 V rms)	Pin 7 = no connection
Common Mode Rejection Ratio:	>60 dB	Pin 8 = low pass output
Output Type:	Unbalanced	Power Requirements: \pm 15 VDC, 25 ma (supplied by amplifier)
Output Source Impedance:	<50 Ω	Dimensions: 1.6 in H \times 1.6 in W \times 2.0 in D 4.07 cm H \times 4.07 cm W \times 5.08 cm D
Minimum Load Impedance:	2 k Ω	Color: Black
Total Harmonic Distortion:	<0.01% at 0 dBu output over full bandwidth	Weight: 1.6 oz (45 gr)
Intermodulation Distortion (SMPTE):	<0.01% at 0 dBv output	Available Models:
Noise Floor:	<-90 dBu	15594A-125 125 Hz crossover frequency
Dynamic Range:	>108 dB	15594A-500 500 Hz crossover frequency
Low Pass Crossover Filter:		15594A-800 800 Hz crossover frequency
Type:	3rd order Butterworth	15594A-1250 1,250 Hz crossover frequency
Slope:	18 dB/oct (60 dB/dec)	Included Accessories: one "flat" submodule providing either a 16 Hz or 32 Hz low frequency roll-off at the rate of 12 dB/oct (16-pin DIP plug)
Low Frequency Equalizer:		Support Documentation: Equations to calculate new crossover frequency Equations to modify LF EQ curve
Type:	2nd order underdamped filter	Optional Woofer/Enclosure Equalization Submodule Accessories (16-pin DIP plug):
Slope:	12 dB/oct (40 dB/dec)	9600A: Blank submodule for custom equalization
Connector:		ALTEC LANSING continually strives to improve their products and performance. Therefore specifications are subject to change without notice.
Type:	Octal, male with centering post	
Wiring:	Pin 1 = input (-) Pin 2 = circuit common Pin 3 = +15 VDC Pin 4 = chassis ground	

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The low pass filter shall be a third-order Butterworth for maximally flat response with an 18 dB/oct stopband attenuation rate, and shall have a fixed corner frequency located on one of the standard ISO frequencies. The filter shall have an electronically balanced input, an unbalanced output, and a male octal plug, and be fully compatible, both physically and electrically, with ALTEC LANSING's Anniversary Series of power amplifier products.

The filter shall include additional circuitry and a female connector socket for the acceptance of an optional plug-in equalizer submodule assembly. The circuitry, in combination with the submodule assembly, shall equalize specific woofer/enclosure combinations for "step-down" operation.

The low pass filter and equalizer shall be the ALTEC LANSING Model 15594A-125, 15594A-500, 15594A-800, or the 15594A-1250.



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