SOWTER TYPE 9335

Attenuator 48 dB in 2 dB steps Transformer

Applications

A 10k/10k transformer. 10K secondary with taps from 0 to -48dB in 2 dB steps. better than 100 kHz bandwidth on all taps. Mumetal can with colour coded leads. These transformers should be driven from a source impedance as low as possible but will work well with a source up to 10k ohms. Where necessary a blocking capacitor should be used to ensure no dc is applied to either winding. The secondary load can be any value the higher the better. A Zobel network is not required on types 9335 to 9339 to damp high frequency resonances which are non-existent. These transformers provide isolation and may be used for balanced to unbalanced conversion or vice versa. It is recommended to use a separate transformer in a high noise environment or if long cables are to be used. If a ratio change, high common mode rejection is required or dc in either winding is required we will be happy to recommend a suitable transformer to be used in concert with 9335. Depending on the circuit configuration this may be possible with minimal loss of performance.

Features

Attenuator transformers used in conjunction with a multi position switch provide a high-performance stereo volume control function. Sowter proprietary winding technique ensures 100 kHz bandwidth at all switch positions. The transformer action of these attenuators ensures the loading circuit sees a low driving impedance regardless of the switch position. This ensures the maximum bandwidth potential and minimum distortion of the whole circuit can be realised at all gain settings. As the attenuation is related to the number of turns at the winding tap, the attenuation is exactly matched between stereo

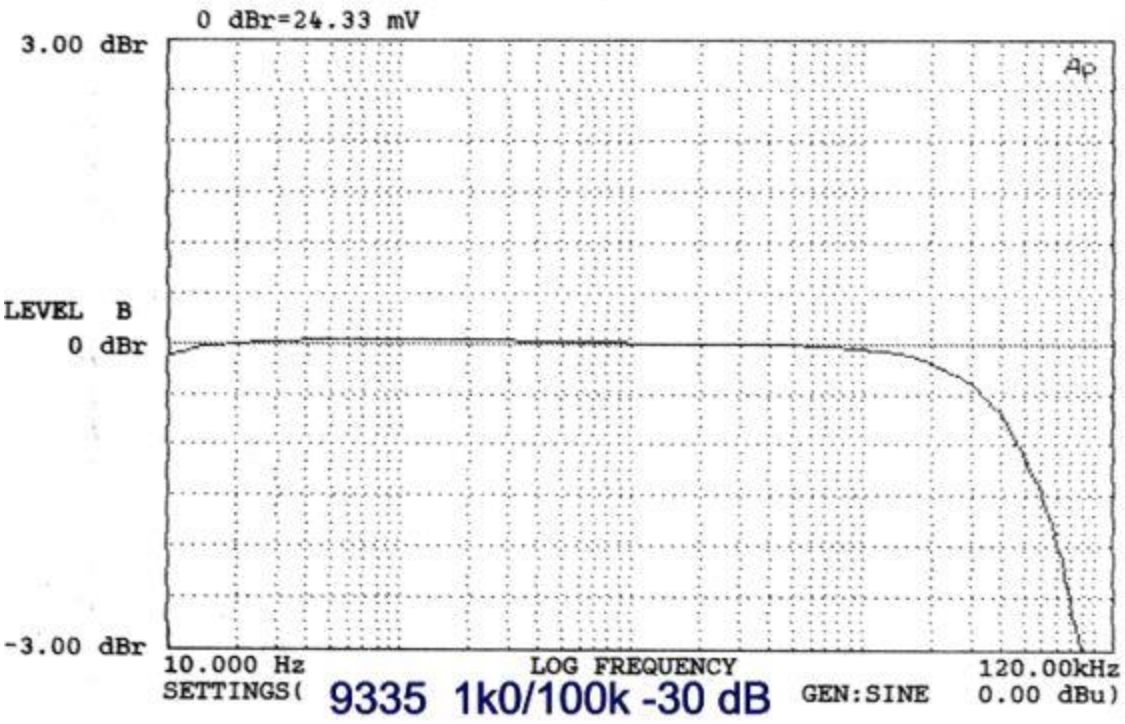
channels. The Mumetal core ensures very low Total Harmonic Distortion. High input impedance to minimise loading on the driving circuit. Mumetal can to ensure minimal hum pick-up. Colour coded leads. The transformers provide good dc isolation and can be used in balanced or unbalanced circuits.

SWITCHES We recommend switches from Shallco. The suggested type number is 214-FB-26 for 26 position attenuators and type number 123-DB-9 for the balance control.

Specifications

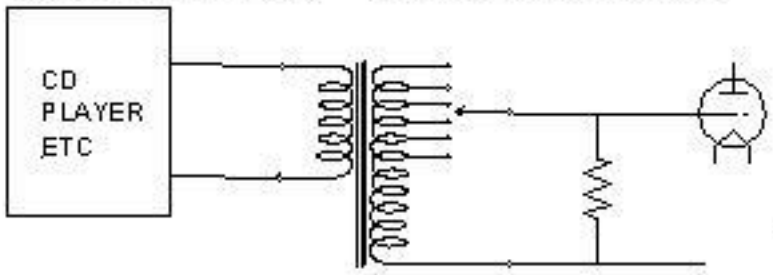
9335 LEAD OUT COLOURS					
PRIMARY			**SECONDARY**		
Start	White/ Orange	Clear sleeve	0 dB	Blue/ Yellow	Clear sleeve
			-2 dB	Yellow	Green sleeve
			-4 dB	White	
			-6 dB	Green	
			-8 dB	Brown	
			-10 dB	Violet	
			-12 dB	Pink	
			-14 dB	Blue	
			-16 dB	Orange	Orange sleeve
			-18 dB	Black	
			-20 dB	Yellow	
			-22 dB	White	
			-24 dB	Green	
			-26 dB	Brown	
			-28 dB	Violet	
			-30 dB	Pink	
			-32 dB	Blue	
			-34 dB	Orange	Red sleeve
			-36 dB	Black	
			-38 dB	Yellow	
			-40 dB	White	
			-42 dB	Green	
			-44 dB	Brown	
			-46 dB	Violet	
			-48 dB	Pink	
			-50 dB	Blue	
Finish	Red	Clear sleeve	Com	Grey	Clear sleeve

Mechanicals

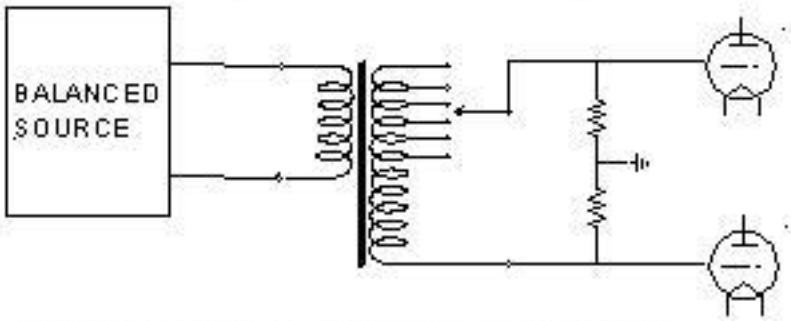


Frequency response with a 1k Ohm source

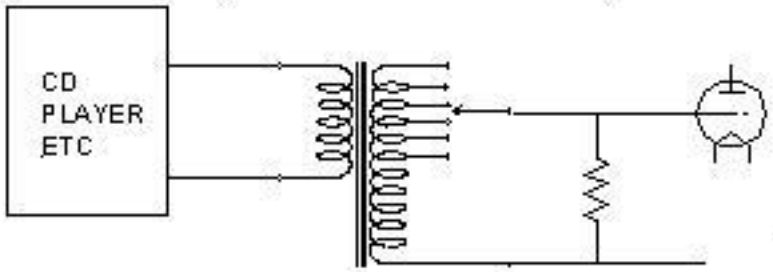
Unbalanced Input - Unbalanced Output



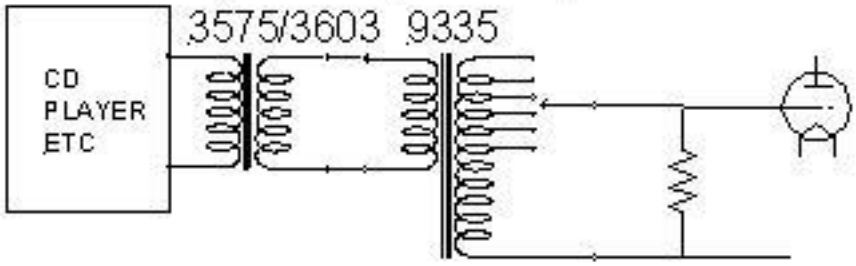
Balanced Input - Balanced Output



Balanced Input - Unbalanced Output



Balanced Input - Long leads/high noise



Application examples

EA Sowter Ltd Carnhill Transformers
5 Burrel Road, St Ives, Cambridgeshire, U.K. PE27 3LE
t: +44 (0)1480 462 978 e: sales@sowter.co.uk