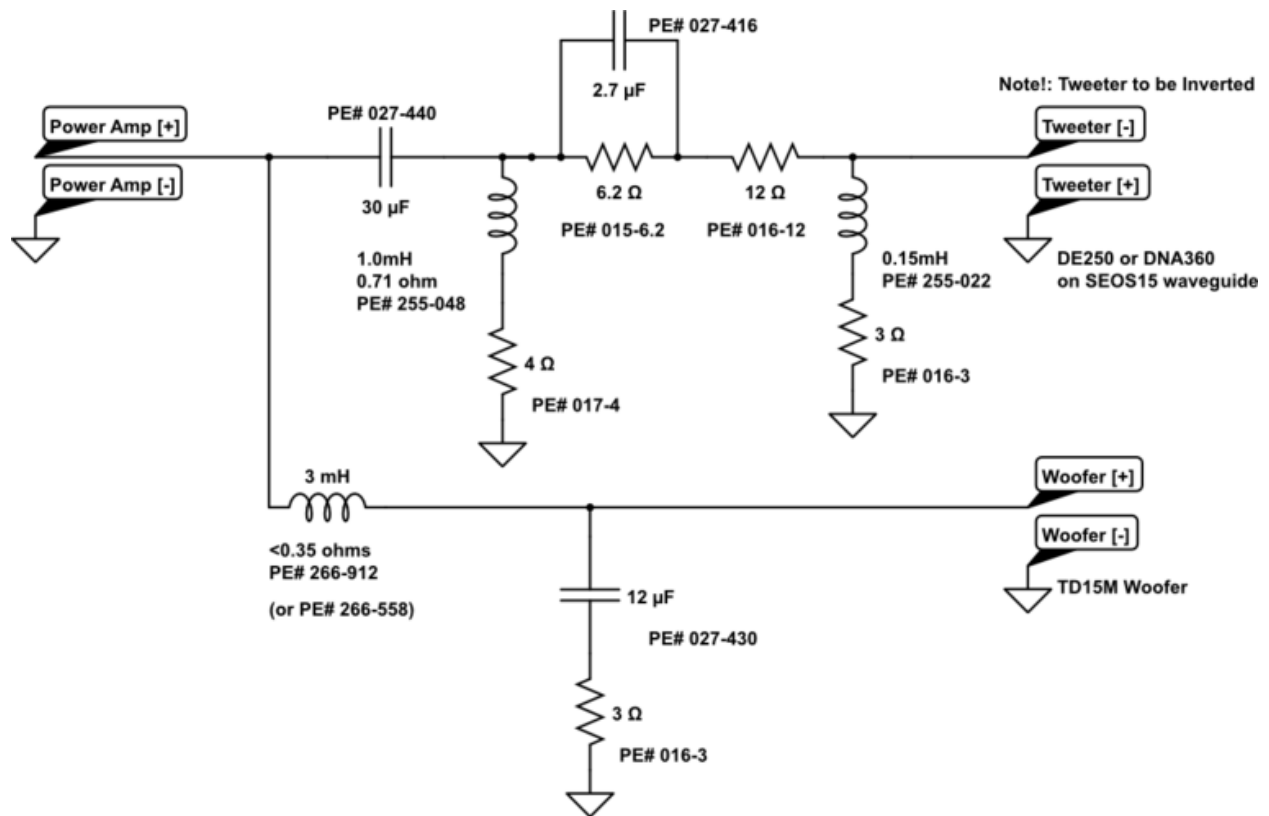


Crossover for TD15M woofer with SEOS15 waveguide and DE250 Driver

Bill Waslo, Feb 2012

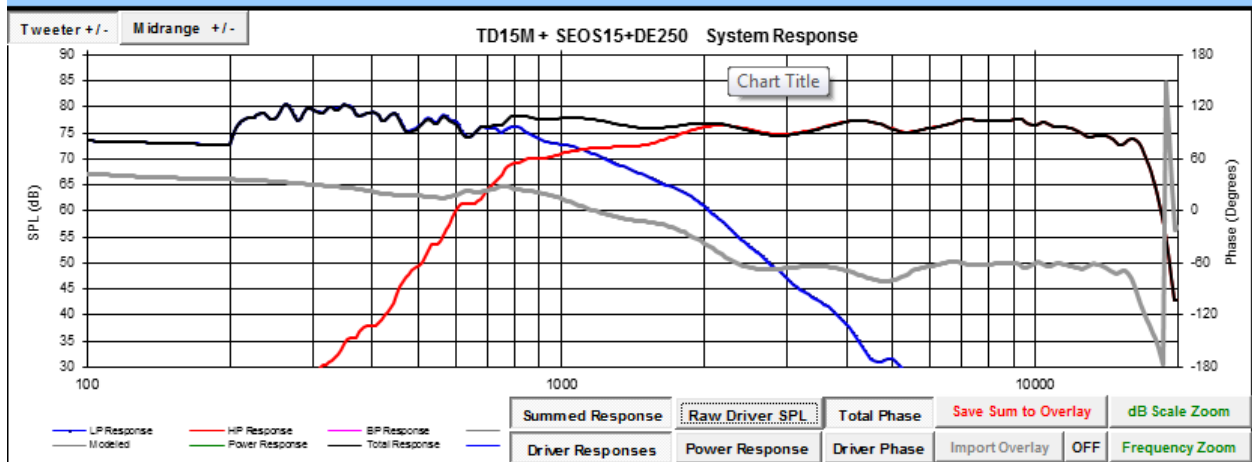
Schematic:



The tweeter should be connected inverted (with its red terminal to the amplifier's [-]), as shown above. The values shown are for a maximally flat response with very slight tilt, crossover at about 1050 Hz where the drivers seemed to work best with it.

- To slightly increase brightness, the 12 ohm resistor can be changed to a 10 ohm or even an 8 ohm resistor.
- To decrease brightness, the 12 ohm resistor can be changed to a 15 ohm or 20 ohm resistor.

Response (per PCD), normal connection:

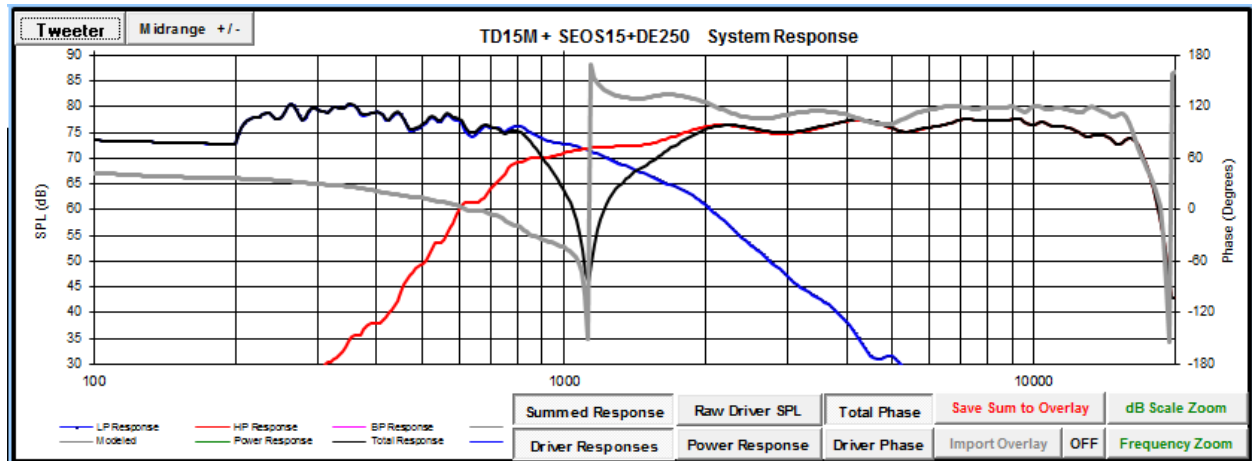


Very good phase response (grey curve) on this one along with nice response flatness (black curve).











The graph is only valid above 200Hz, reflections included below 800Hz. Measured at ~20 degrees from the baffle axis, with the tweeter waveguide at or slightly below ear level.

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“Reverse Null” response (with Tweeter reversed from design setting):



Parts Order from Parts Express:

Your Shopping Cart					
	Item	Qty.	Price	Total	Remove
	6.2 Ohm 5W Resistor Wire Wound 5% Tolerance Part Number: 015-6.2 In Stock	<input type="text" value="2"/>	\$0.42	\$0.84	<input type="checkbox"/>
	12 Ohm 10W Resistor Wire Wound 5% Tolerance Part Number: 016-12 In Stock	<input type="text" value="2"/>	\$0.64	\$1.28	<input type="checkbox"/>
	3 Ohm 10W Resistor Wire Wound 5% Tolerance Part Number: 016-3 In Stock	<input type="text" value="4"/>	\$0.64	\$2.56	<input type="checkbox"/>
	4 Ohm 20W Resistor Wire Wound Part Number: 017-4 In Stock	<input type="text" value="2"/>	\$0.79	\$1.58	<input type="checkbox"/>
	Dayton Audio DMPC-2.7 2.7uF 250V Polypropylene Capacitor Part Number: 027-416 In Stock	<input type="text" value="2"/>	\$1.88	\$3.76	<input type="checkbox"/>
	Dayton Audio DMPC-12 12uF 250V Polypropylene Capacitor Part Number: 027-430 In Stock	<input type="text" value="2"/>	\$4.81	\$9.62	<input type="checkbox"/>
	Dayton Audio DMPC-30 30uF 250V Polypropylene Capacitor Part Number: 027-440 In Stock	<input type="text" value="2"/>	\$8.95	\$17.90	<input type="checkbox"/>
	Erse Super D 3.0mH 16 AWG 500W Inductor Part Number: 266-912 In Stock	<input type="text" value="2"/>	\$21.65	\$43.30	<input type="checkbox"/>
	Jantzen 0.15mH 20 AWG Air Core Inductor Part Number: 255-022 In Stock	<input type="text" value="2"/>	\$3.20	\$6.40	<input type="checkbox"/>
	Jantzen 1.0mH 20 AWG Air Core Inductor Part Number: 255-048 In Stock	<input type="text" value="2"/>	\$6.05	\$12.10	<input type="checkbox"/>
45 Day No Hassle Return Policy			Order Subtotal:	\$99.34	

(The 266-912 could be replaced with a 266-558, to save about \$20 on parts, with a very slight reduction in sensitivity).