

Custom Three-Way Crossover Network Design

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3-Way Crossover Network

Low-Pass (LP) Filter: 1 required

Type: 2nd-Order Constant-Power (CPC)

Desired Corner Frequency: 300 Hz

Band-Pass (BP) Filter: 1 required

Type: 2nd-Order Constant-Power (CPC)

Desired Lower Corner Freq: 300 Hz

Desired Upper Corner Freq: 3600 Hz

High-Pass (HP) Filter: 1 required

Type: 3rd-Order Constant-Power (CPC)

Desired Corner Frequency: 3600 Hz

C1 = 8.2 μ F, Polypropylene, 0.00515 ohms

C2 = 33 μ F, Polypropylene, 0.00303 ohms

C3 = 95 μ F, Polypropylene, 0.00147 ohms

C4 = 12 μ F, Polypropylene, 0.00559 ohms

C5 = 95 μ F, Polypropylene, 0.0015 ohms

L1 = 0.1 mH, Air Core (#16), 0.261 ohms

L2 = 1.8 mH, Air Core (#16), 0.552 ohms

L3 = 0.23 mH, Air Core (#16), 0.275 ohms

L4 = 2.8 mH, Air Core (#16), 0.569 ohms

Band-pass Gain = 0.751 dB

Tweeter

Impedance EQ

Req = 6 ohms

Ce = 1.8 μ F

Midrange

Impedance EQ

Req = 4 ohms

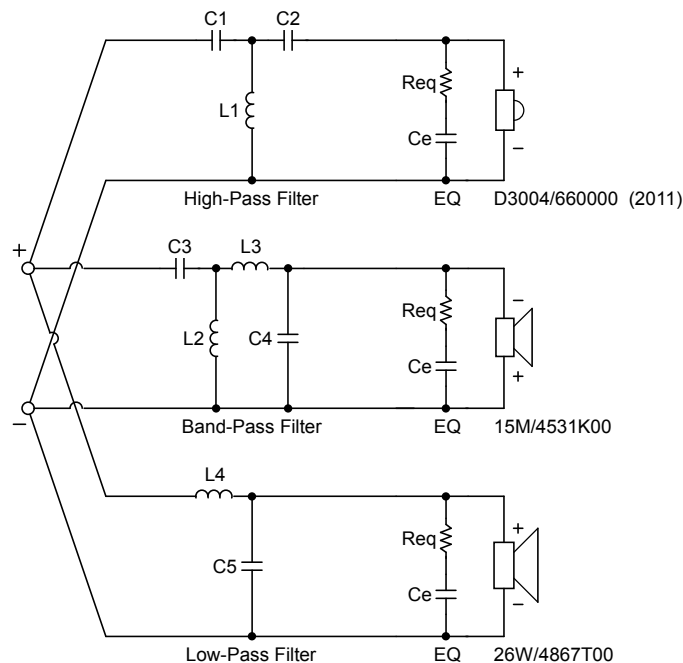
Ce = 15 μ F

Woofers

Impedance EQ

Req = 20 ohms

Ce = 50 μ F



Tweeter Properties

--Driver Description--
Name: D3004/660000 (2011)
Type: Standard one-way driver
Company: Scan-Speak A/S
Comment: Illuminator series
--Driver Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 470 Hz
Qms = 3
Qes = 0.59
Re = 3 ohms
Le = 0.03 mH
Z = 4 ohms
2.83-V SPL = 91.5 dB

Midrange Properties

--Driver Description--
Name: 15M/4531K00
Type: One-way open back driver
Company: Scan-Speak A/S
Comment: Revelator series
--Driver Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 35 Hz
Qms = 4.8
Vas = 23.8 liters
Sd = 95 sq.cm
Qes = 0.24
Re = 3.5 ohms
Le = 0.17 mH
Z = 4 ohms
2.83-V SPL = 91.87 dB
--Box Parameters--
Type: Closed Box
Vb = 6 liters
QL = 10
Fill = normal

Woofer Properties

--Driver Description--
Name: 26W/4867T00
Type: Standard one-way driver
Company: Scan-Speak A/S
Comment: Revelator series
--Driver Configuration--
No. of Drivers = 1
--Driver Parameters--
Fs = 18 Hz
Qms = 5.8
Vas = 220 liters
Sd = 320 sq.cm
Qes = 0.31
Re = 3.7 ohms
Le = 0.25 mH
Z = 4 ohms
2.83-V SPL = 89 dB
--Box Parameters--
Type: Vented Box
Vb = 84 liters
Fb = 25 Hz
QL = 10
Fill = normal

Graph Key: — LP — BP — HP — Net

