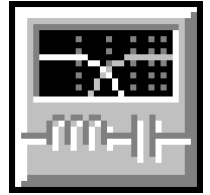


Custom Two-Way Crossover Network Design

By Denis Ouellet, Solen Inc.



2-Way Crossover Network

Low-Pass (LP) Filter: 1 required

Type: 3rd-Order Butterworth

Desired Corner Frequency: 2000 Hz

High-Pass (HP) Filter: 1 required

Type: 3rd-Order Butterworth

Desired Corner Frequency: 2000 Hz

C1 = 6.8 μ F, Polypropylene, 0.00627 ohms

C2 = 22 μ F, Polypropylene, 0.00362 ohms

C3 = 39 μ F, Electrolytic, 0.161 ohms

L1 = 0.47 mH, Air Core (#20), 0.457 ohms

L2 = 0.33 mH, Litz (#16), 0.288 ohms

L3 = 0.11 mH, Litz (#16), 0.263 ohms

Tweeter

1.25 dB L-Pad

Rp1 = 1 ohms

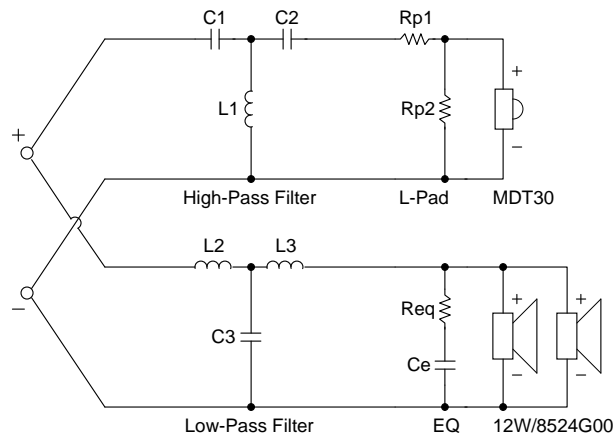
Rp2 = 33 ohms

Woofers

Impedance EQ

Req = 3.6 ohms

Ce = 47 μ F





Tweeter Properties

--Driver Description--

Name: MDT30

Type: Standard one-way driver

Company: Morel Ltd.

Piston: Hand treated fabric

Voice Coil: Hexatech with aluminum former

Terminals: Flexible wire

Magnet: Vented magnet system

Ferrofluid included

--Driver Configuration--

No. of Drivers = 1

--Driver Parameters--

Fs = 700 Hz

Qms = 0.65

Vas = 0.01 liters

Qes = 0.85

Re = 5.2 ohms

Z = 8 ohms

Pe = 200 watts

Qts = 0.37

1-W SPL = 90 dB

2.83-V SPL = 90 dB

Woofers Properties

--Driver Description--

Name: 12W/8524G00

Type: Standard one-way driver

Company: Scan-Speak A/S

--Driver Configuration--

No. of Drivers = 2

Mounting = Standard

Wiring = Parallel

--Driver Parameters--

Fs = 57 Hz

Qms = 3.03

Vas = 6.1 liters [12.2]

Cms = 1.3 mm/N [0.65]

Mms = 6 g [12]

Rms = 0.7 kg/s [1.4]

Xmax = 3 mm

Xmech = 4.5 mm

P-Dia = 85.55 mm [121]

Sd = 58 sq.cm [116]

P-Vd = 0.0172 liters [0.0344]

Qes = 0.4

Re = 5.6 ohms [2.8]

Z = 8 ohms [4]

BL = 5.5 Tm [5.485]

Pe = 40 watts [80]

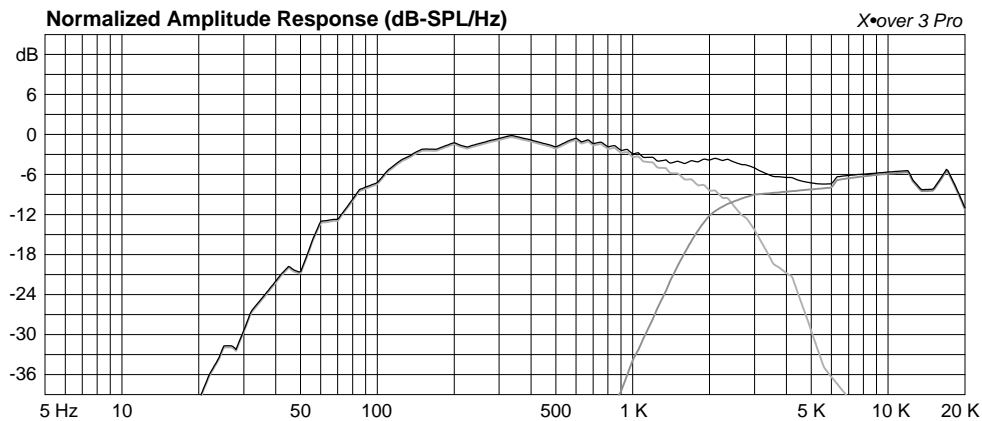
Qts = 0.35

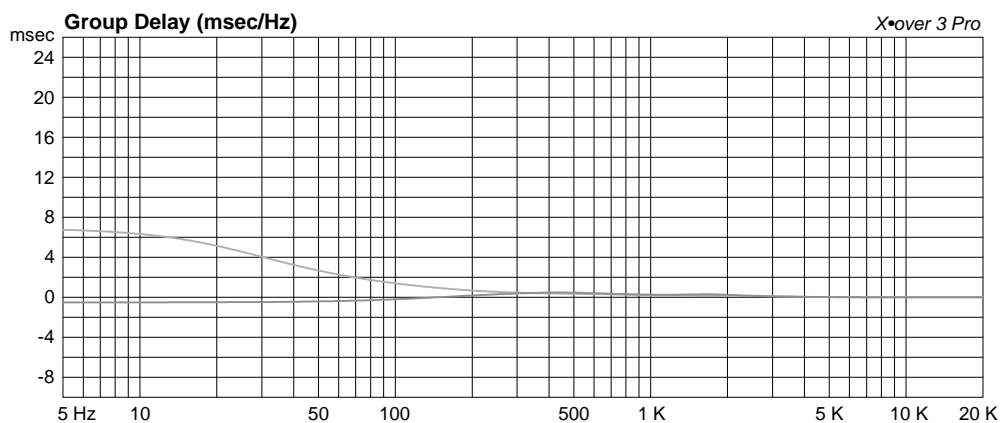
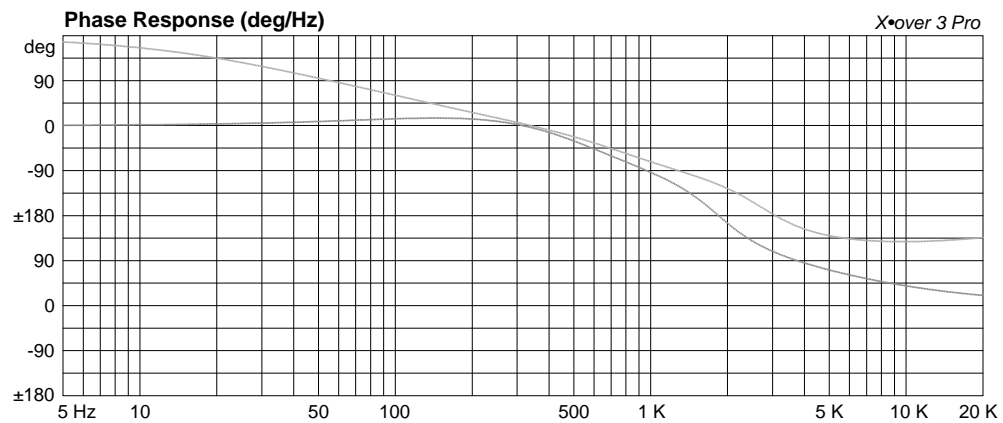
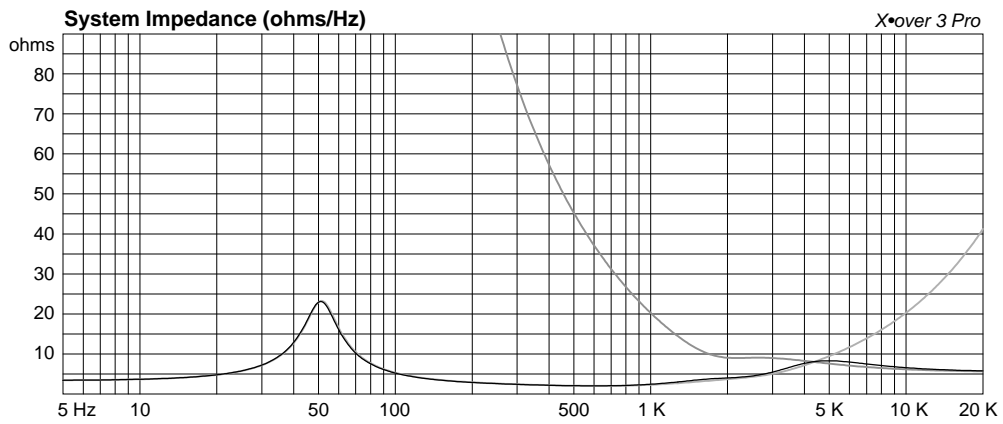
no = 0.272 % [0.544]

1-W SPL = 85.5 dB [88.51]

2.83-V SPL = 85.5 dB [91.52]

Graph Key: — LP — HP — Net





SPEAKER

12W/8524G00

No	2	Standard
Fs	57.0	Hz
Vas	0.215	ft ³
Sd	8.99	in ²
Re	5.60	Ω
Qts	0.350	
η _o	0.150	%
X _m	0.118	in
P _e	40.00	W

T-S



VENTED BOX



	Optimum	Custom	Band-Pass		
V _b	0.206	0.459		ft ³	V _b
F _b	61.6	55.5		Hz	Vap
F ₃	75.7	53.9		Hz	F _p
Fill	normal	normal			F ₃
D _v		2.00		in	Fill
L _v		4.00		in	
	Plot <input type="checkbox"/>	Plot <input checked="" type="checkbox"/>	Plot <input type="checkbox"/>		

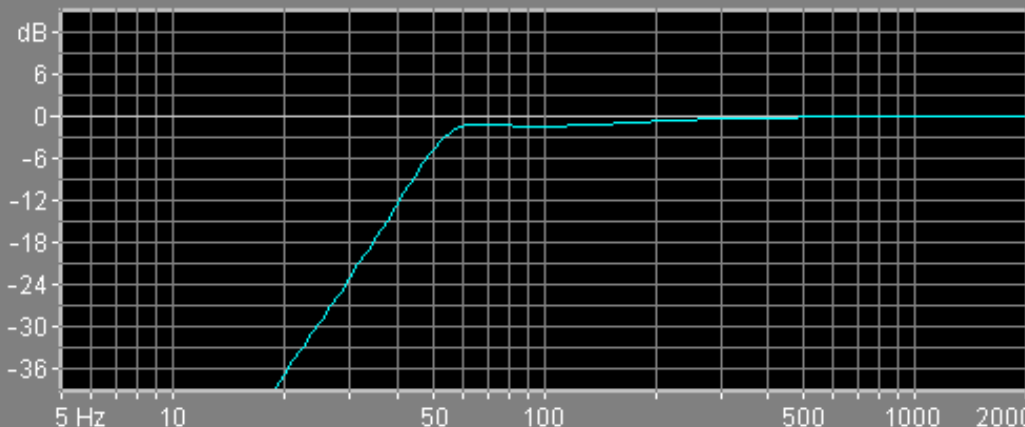
GRAPH

Options: Overlay Fill Thin Line

Memory: 1 2 3 4 5 6

Clear Cursor

Normalized Amplitude Response (dB/Hz)



MANTIKA

