

UniBox - Unified Box Model
Version 4.08 21/1-2008 © Kristian Ougaard 2000 - 2008

Drive Unit Parameters Infinity Kappa 120.9w Fs 27.20 Hz Re 4.30 Ohm Qms 2.47 Qes 0.52 Sd 518.8 cm ² Vas 54.4 l Xmax peak 17.50 mm Le 1.18 mH Le2 0.00 mH Re2 0.00 Ohm Nominal Power 175.0 W	Parameters of Single Unit SPL at 1 W 1 m 85.1 dB SPL at 2.83 Vrms 1m 87.7 dB Max SPL at 175 W 107.5 dB Qts 0.430 Effective Qts 0.438 Mms 237.78 g Cms 0.144 mm/N Rms 16.453 kg/s Bl 18.33 Tm Ref. efficiency, n0 0.203 % Efficiency, n 0.198 % Applied voltage 27.43 Vrms Piston range 427 Hz Down fire application 0.98 Suggested box type Closed	Constants Sound Speed 345.0 m/s Air Density 1.18 kg/m ³ Linear Cone Overdrive 1.00 <input type="button" value="Set all constants to default values"/>
External Components Rs 0.10 Ohm (Lco1) 0.00 mH (Rco1) 0.00 Ohm (Cco1) 0.00 uF (Lco2) 0.00 mH (Rco2) 0.00 Ohm (Cco2) 0.00 uF	Frequency Response Correction Filter Import ext. active filter <input type="button" value="FRD"/> Activate ext. active filter <input type="button" value="LinkwitzTransform.frd"/>	Design Data Base Total 43 Focal 10 K 6411- <input type="button" value="Reload"/> <input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Import"/> <input type="button" value="Export"/> Sort Design Data Base <input type="button" value="Name"/> <input type="button" value="Fs"/> <input type="button" value="Qes"/> <input type="button" value="Sd"/>
Drive Unit Configuration Single drive unit FR affected by Le, Le2, Re2 FR affected by external crossover	Closed Box Standard Design Vb 25.7 l Fb 48.00 Hz F3 48.01 Hz Qtc 0.707 Response peak 0.00 dB Max power input 937.8 W Design by Vb and Q Physical Vb 100.0 l Absorption, Qa 80 Leakage, Ql 50 Alpha, a 0.535 Vb 101.7 l Fb 33.69 Hz F3 47.42 Hz Qtc 0.539 Response peak 0.00 dB Peak at none	
Vented Box Port No of ports 1 Inside port dia. 11.50 cm Port area 103.87 cm ² Port end correction 0.732 Standard Design Vb 71.3 l Fb 25.02 Hz F3 24.15 Hz Port min dia. l 14.68 cm Port length 61.77 cm Design by Vb, Fb and Q Physical Vb 72.0 l Absorption, Qa 20 Leakage, Ql 15 Port, Qp 80 Alpha, a 0.713 Vb 76.4 l Fb 24.00 Hz F3 22.28 Hz Response peak 1.35 dB Peak at 258.23 Hz Port min dia. 10.12 cm Port length 62.77 cm Port 1, resonance 250 Hz Include effect of port resonance	Passive Radiator Box Passive Radiator Parameters Fictive No1 - KO No of PR's 1 Fsp 22.00 Hz Mmp 220.0 g Qmp 8.29 Sdp 530.0 cm ² Xpmax peak 21.00 mm Vasp 93.9 l Cmp 0.238 mm/N Rmp 3.667 kg/s Design by Vb, Mmp and Q Physical Vb 40.0 l Absorption, Qa 80 Leakage, Ql 15 Alpha, a 1.337 My, u 0.434 Vb 40.7 l Fb 40.00 Hz h 1.471 F3 44.87 Hz Response peak 0.06 dB Peak at 111.69 Hz	
Bandpass Single Tuned Box Port No of ports 1 Inside port dia. 10.00 cm Port area 78.54 cm ² Port end correction 0.732 Design by Vb1, Vb2, Fb2 and Q Physical closed Vb1 34.54 l Absorption, Qa1 20 Leakage, Ql1 40 Closed Vb1 36.64 l Fb1 42.88 Hz Physical vented Vb2 18.00 l Absorption, Qa2 80 Leakage, Ql2 40 Vented Vb2 18.32 l Fb2 53.11 Hz Mutual leakage, QH2 30 Port, Qp 80 Port dia. not updated 8.92 cm Port length 29.67 cm Port 1, resonance 490 Hz Include effect of port resonance Lower F3 31.33 Hz Upper F3 113.76 Hz Bandwidth 82.43 Hz Efficiency gain 1.2 dB	Bandpass Single Tuned Box Damping 1 Walls <input type="button" value="Recal"/> Leakage 1 Minim <input type="button" value="Recal"/> Damping 2 Minim <input type="button" value="Recal"/> Leakage 2 Minim <input type="button" value="Recal"/> Mutual 12 Minim <input type="button" value="Recal"/> Port type One fl <input type="button" value="Recal"/> Graphs not updated, OBS ! <input type="button" value="Update"/> Frequency response <input type="button" value="Update"/> Optimise for efficiency <input type="button" value="Start"/> Optimise for low frequency <input type="button" value="Start"/> Export frequency response <input type="button" value="FRD"/> Export impedance <input type="button" value="ZDA"/>	