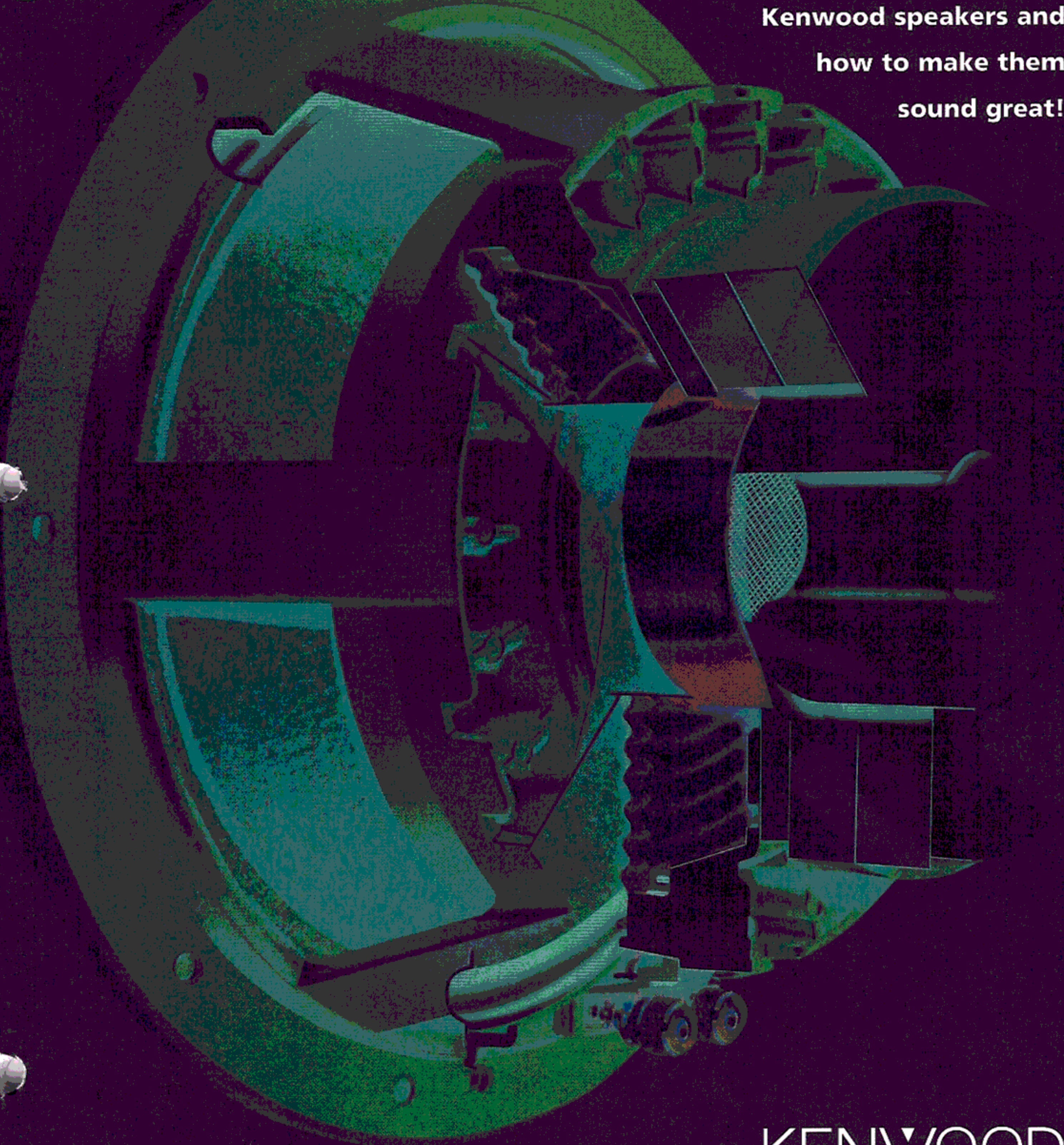
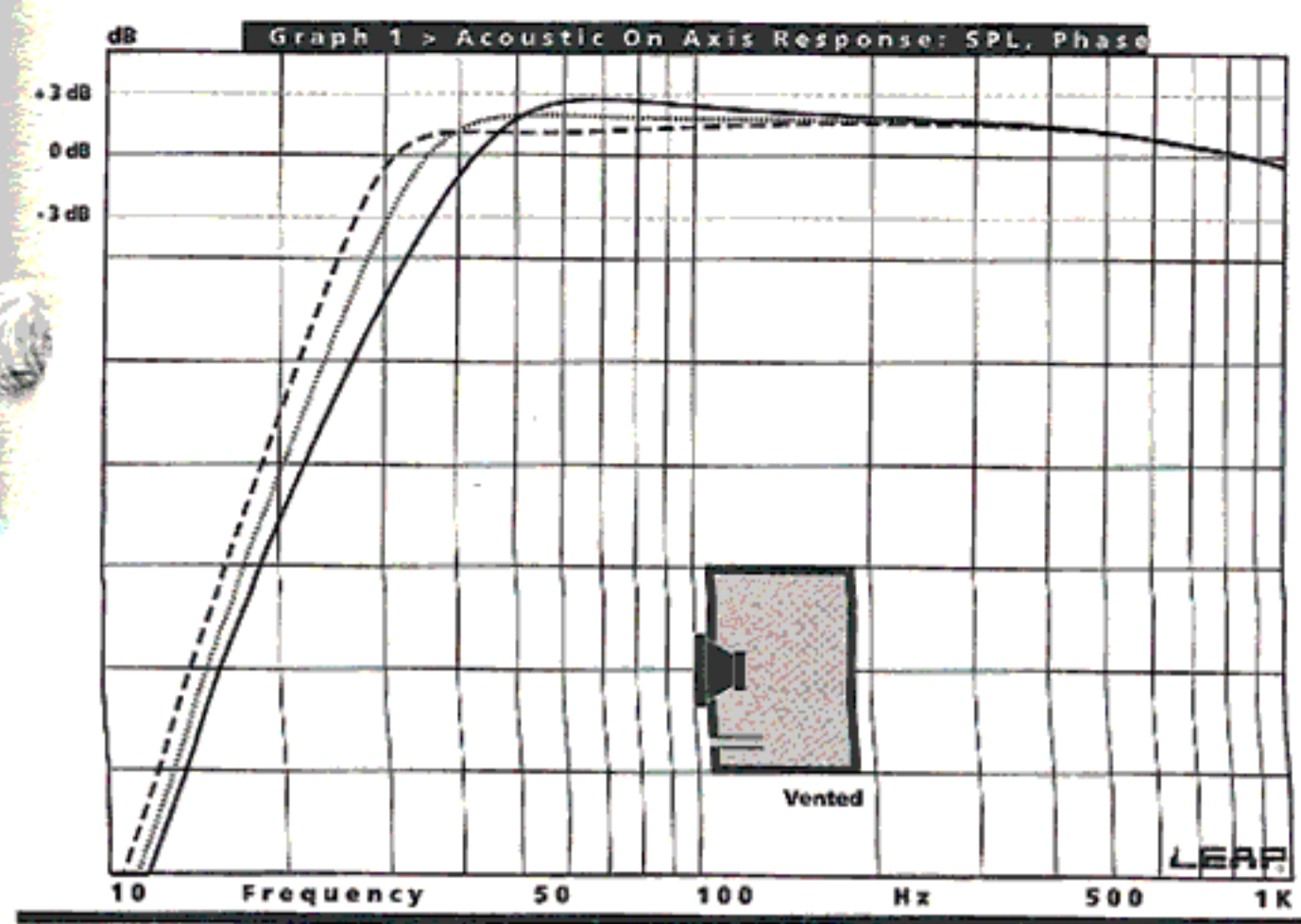


SPEAKERS

An inside look at
Kenwood speakers and
how to make them
sound great!



KENWOOD



KFC-HQW301

Solid line ———

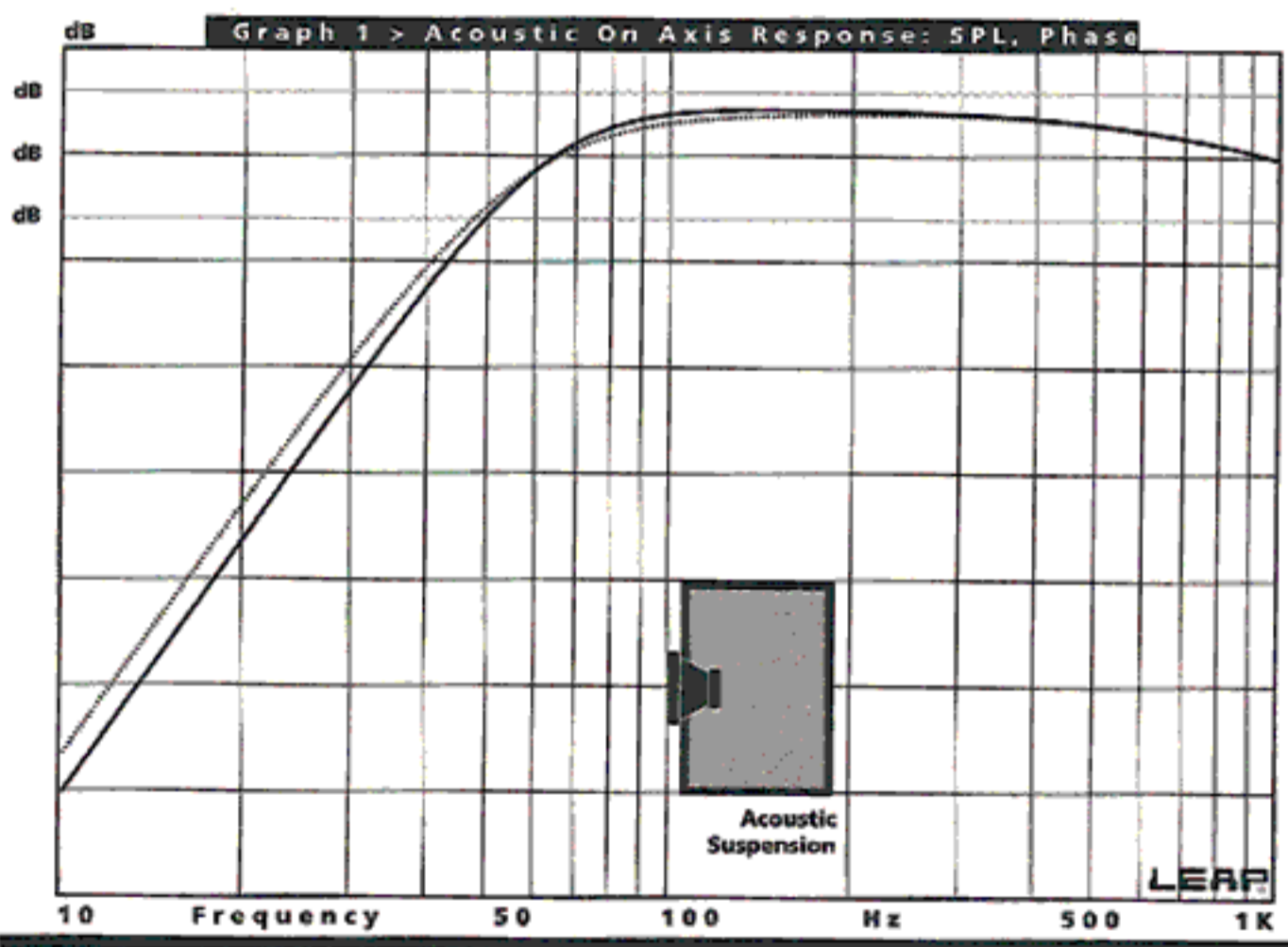
Box type: Vented, box volume (ft³): 1.0, box Qtc: NA, F3 (Hz): 42
 Port dimension (inside diameter x length, inches): 3 x 11.375
 User type: Rocker

Dotted line

Box type: Vented, box volume (ft³): 1.5, box Qtc: NA, F3 (Hz): 33
 Port dimension (inside diameter x length, inches): 3 x 8.5
 User type: Purist

Dashed line - - - - -

Box type: Vented, box volume (ft³): 1.98, box Qtc: NA, F3 (Hz): 28
 Port dimension (inside diameter x length, inches): 3 x 7.5 OR Port dimension (inside diameter x length, inches): 4 x 14.5
 User type: Purist



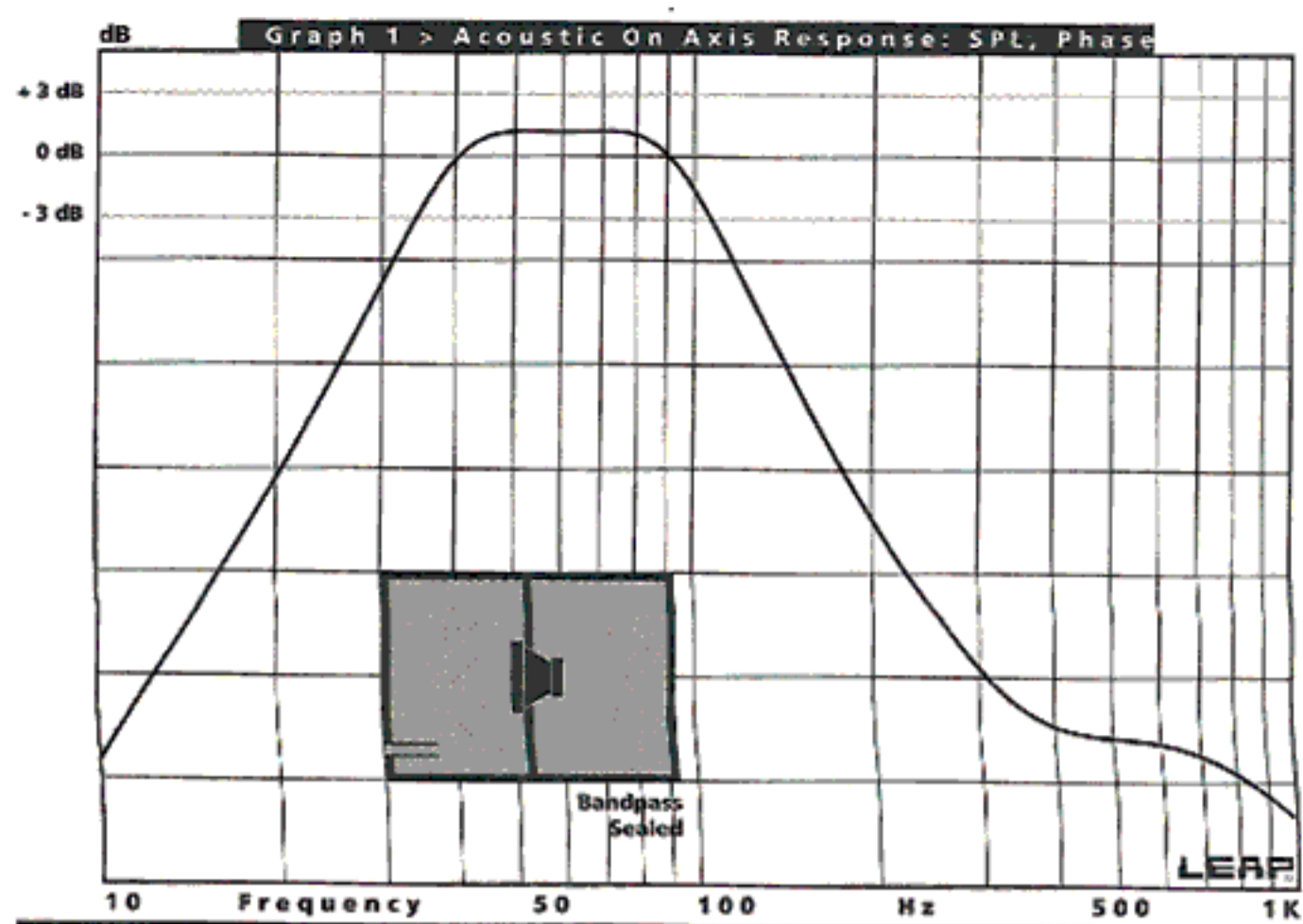
KFC-HQW301

Solid line ———

Box type: Sealed, box volume (ft³): 0.75, box Qtc: 0.7, F3 (Hz): 58
 Port dimension (inside diameter x length, inches): NA
 User type: Purist

Dotted line

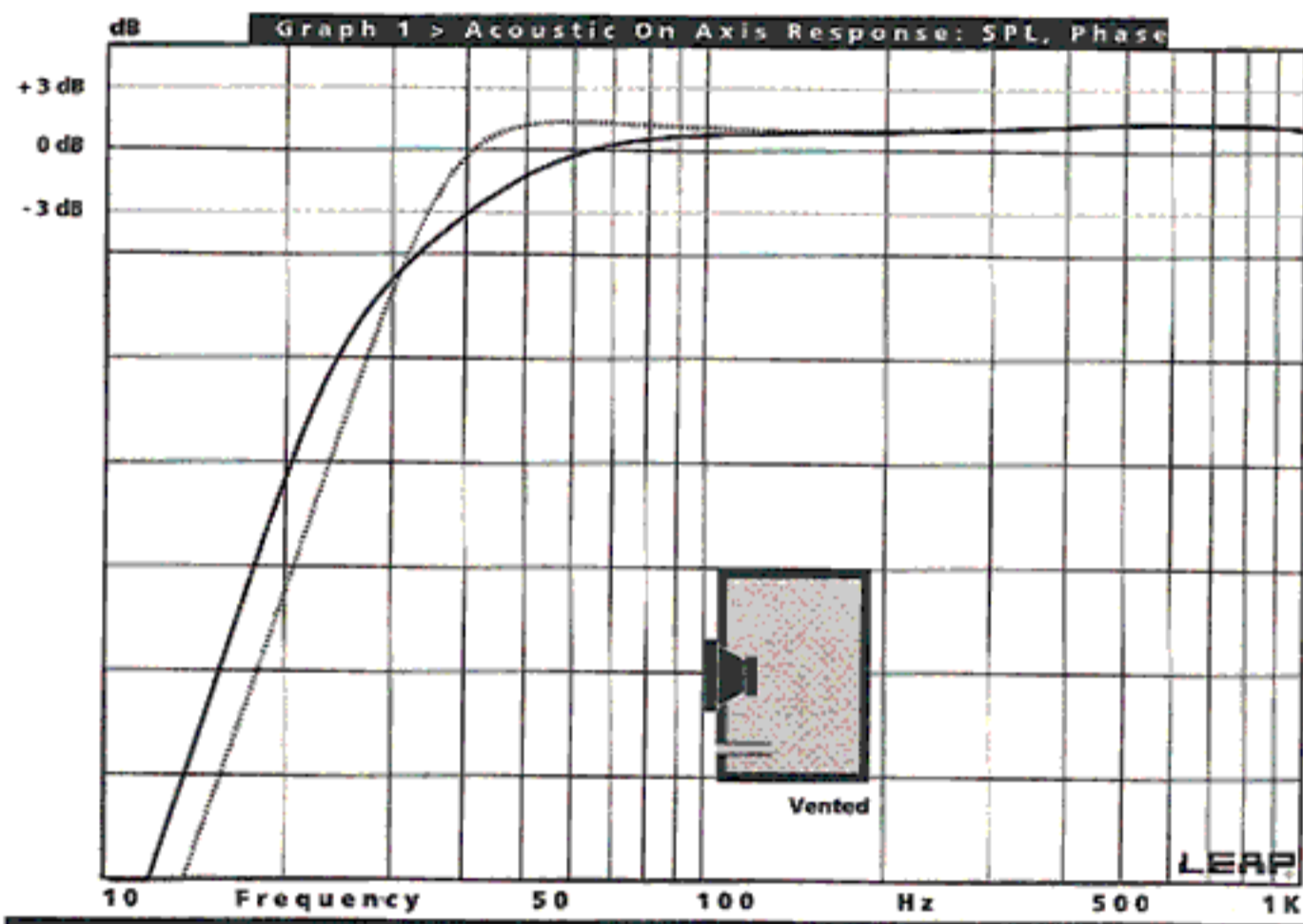
Box type: Sealed, box volume (ft³): 1.0, box Qtc: 0.55, F3 (Hz): 56
 Port dimension (inside diameter x length, inches): NA
 User type: Purist



KFC-HQW301

Solid line ———

Box type: Bandpass, box volume (ft³): 0.71 (sealed rear chamber), 0.56 (vented front chamber), box Qtc: NA, F3 (Hz): 37 (lower), 103 (upper)
 Port dimension (inside diameter x length, inches): 4 x 11.5 OR: 3 x 5.875
 User type: Boomer



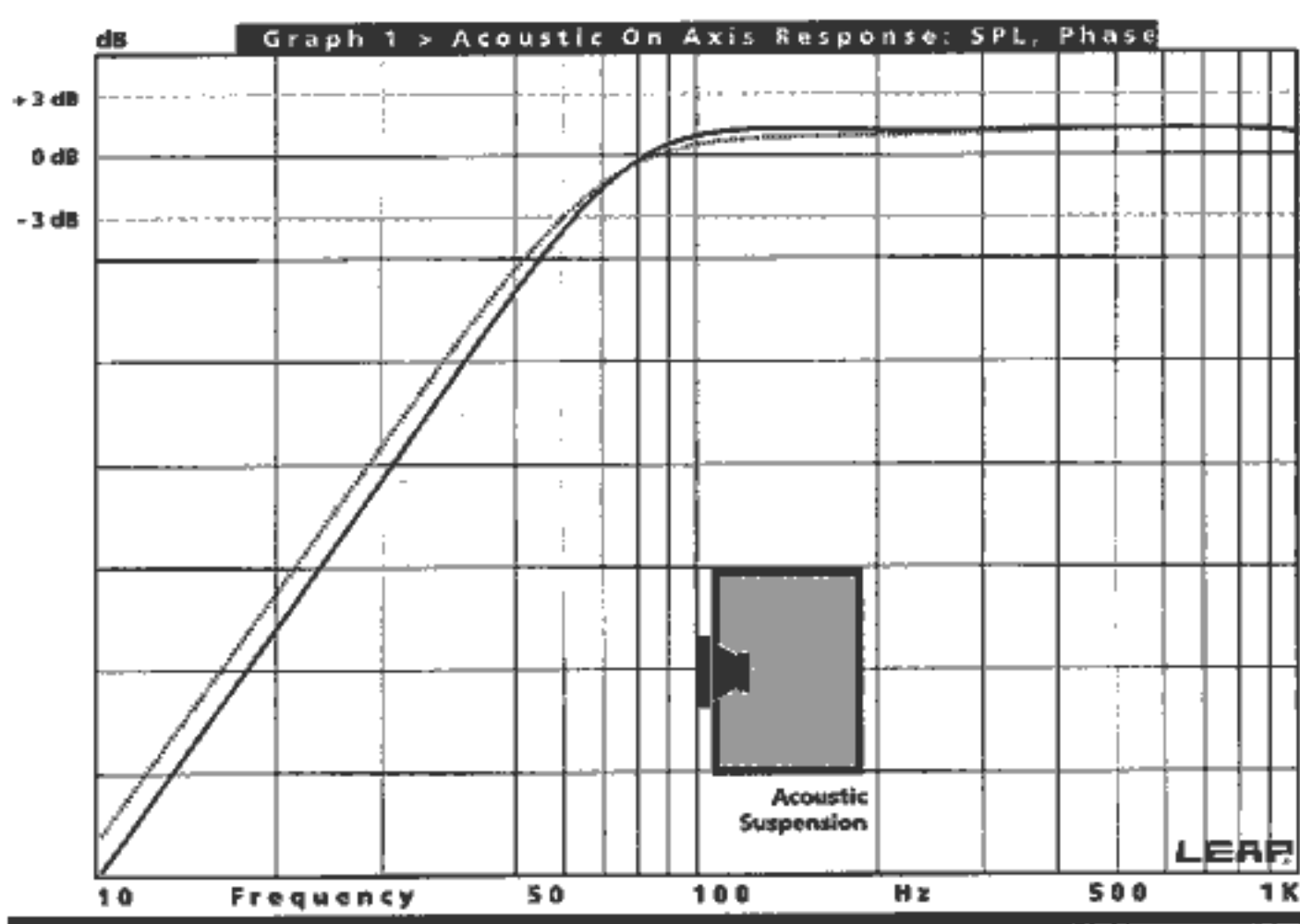
KFC-HQW3018

Solid line ———

Box type: Vented, box volume (ft³): 1.67, box Qtc: NA, F3 (Hz): 43
 Port dimension (inside diameter x length, inches): 3 x 9.25
 User type: Purist

Dotted line

Box type: Vented, box volume (ft³): 1.98, box Qtc: NA, F3 (Hz): 36
 Port dimension (inside diameter x length, inches): 4 x 8.375
 User type: Rocker



KFC-HQW3018

Solid line —

Box type: Sealed, box volume (ft³): 0.75, box Qtc: 0.9, F3 (Hz): 68

Port dimension (inside diameter x length, inches): NA

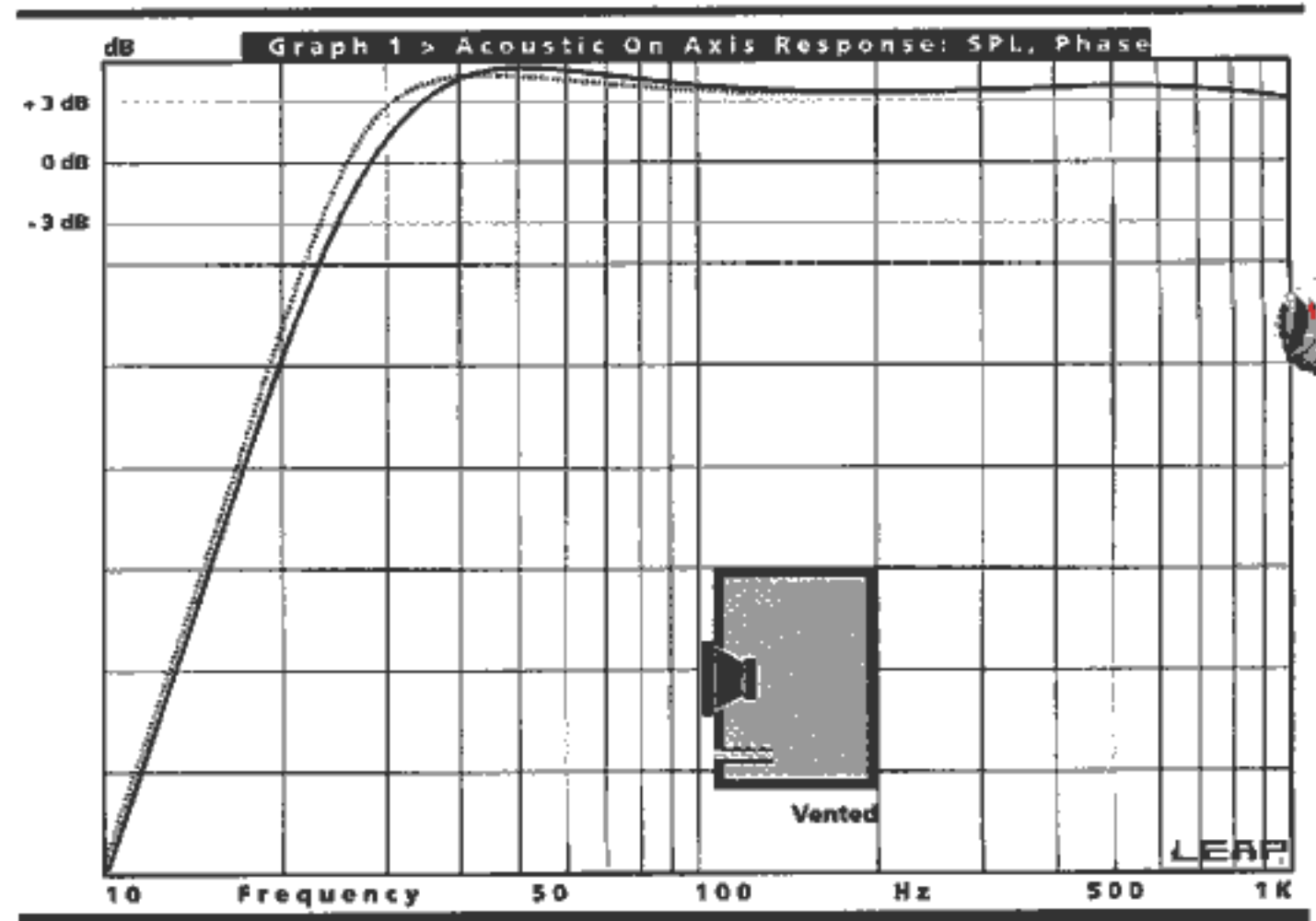
User type: Purist

Dotted line

Box type: Sealed, box volume (ft³): 1.0, box Qtc: 0.7, F3 (Hz): 63

Port dimension (inside diameter x length, inches): NA

User type: Purist



KFC-HQW251

Solid line —

Box type: Vented, box volume (ft³): 1.26, box Qtc: NA, F3 (Hz): 31

Port dimension (inside diameter x length, inches): 3 x 13

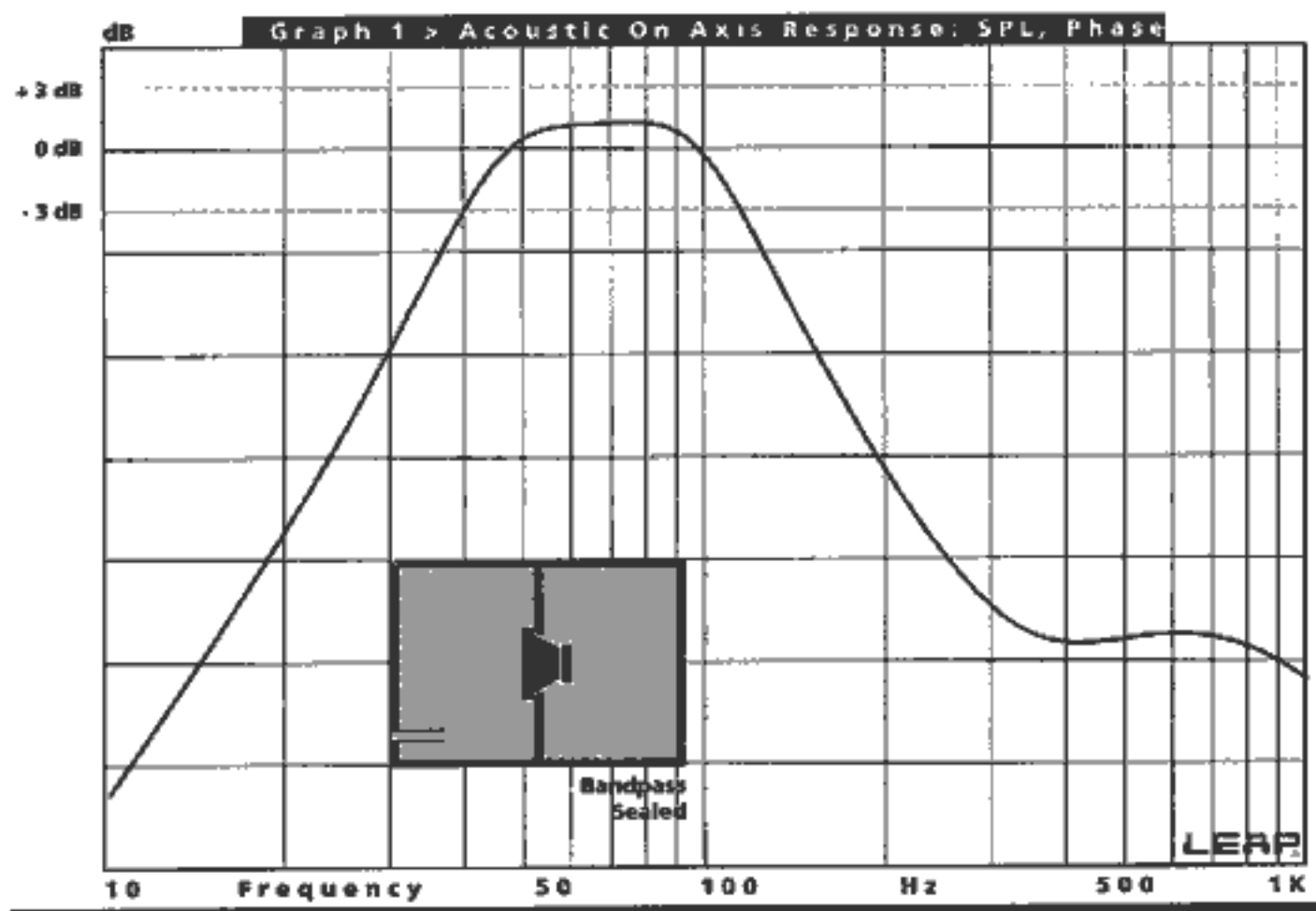
User type: Boomer

Dotted line

Box type: Vented, box volume (ft³): 1.6, box Qtc: NA, F3 (Hz): 27

Port dimension (inside diameter x length, inches): 3 x 11

User type: Boomer



KFC-HQW3018

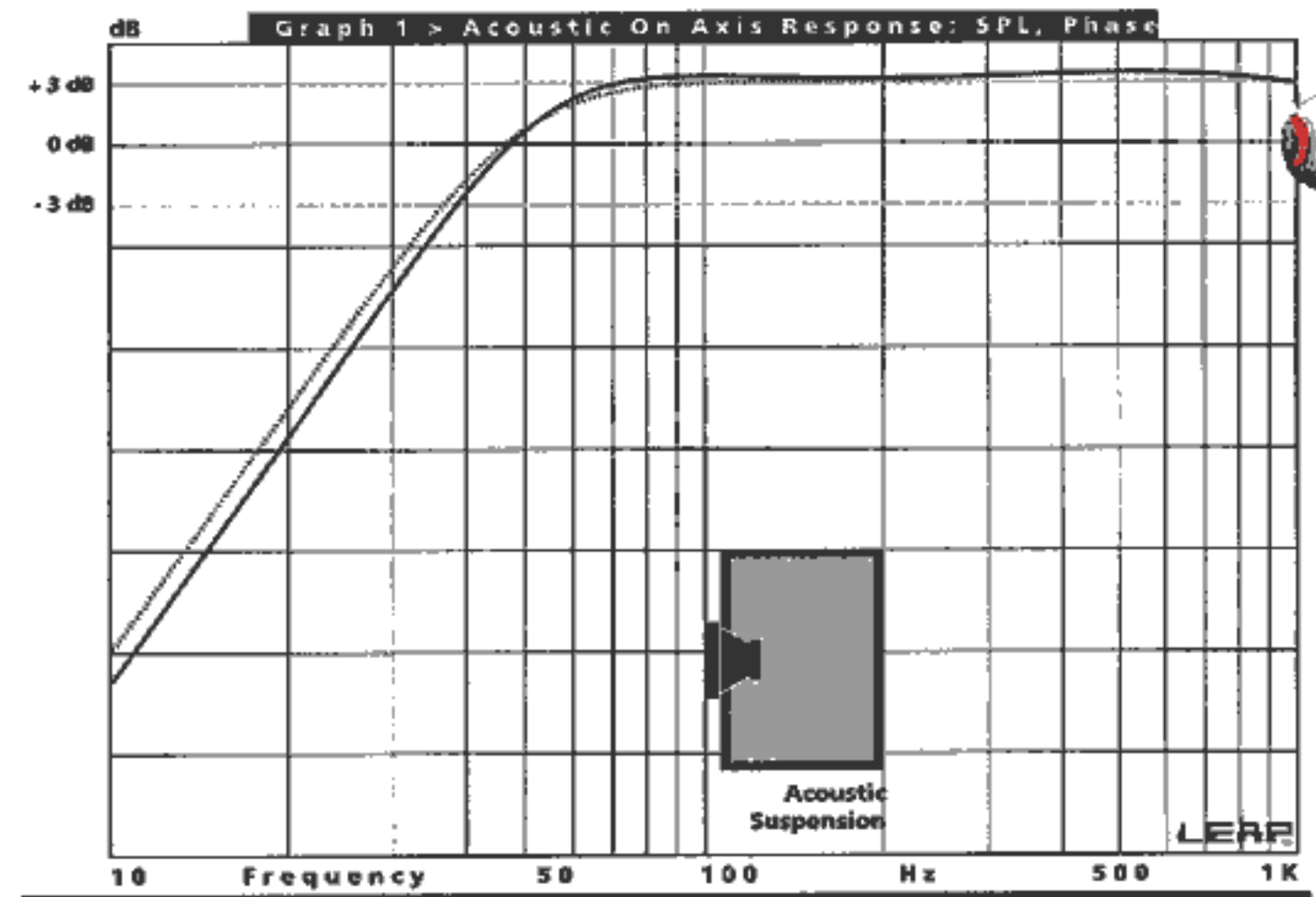
Solid line —

Box type: Bandpass, box volume (ft³): 1.0 (sealed rear chamber), 0.75

(vented front chamber), box Qtc: NA, F3 (Hz): 42 (lower), 108 (upper)

Port dimension (inside diameter x length, inches): 4 x 6.125

User type: Boomer



KFC-HQW251

Solid line —

Box type: Sealed, box volume (ft³): 0.75, box Qtc: 0.9, F3 (Hz): 48

Port dimension (inside diameter x length, inches): NA

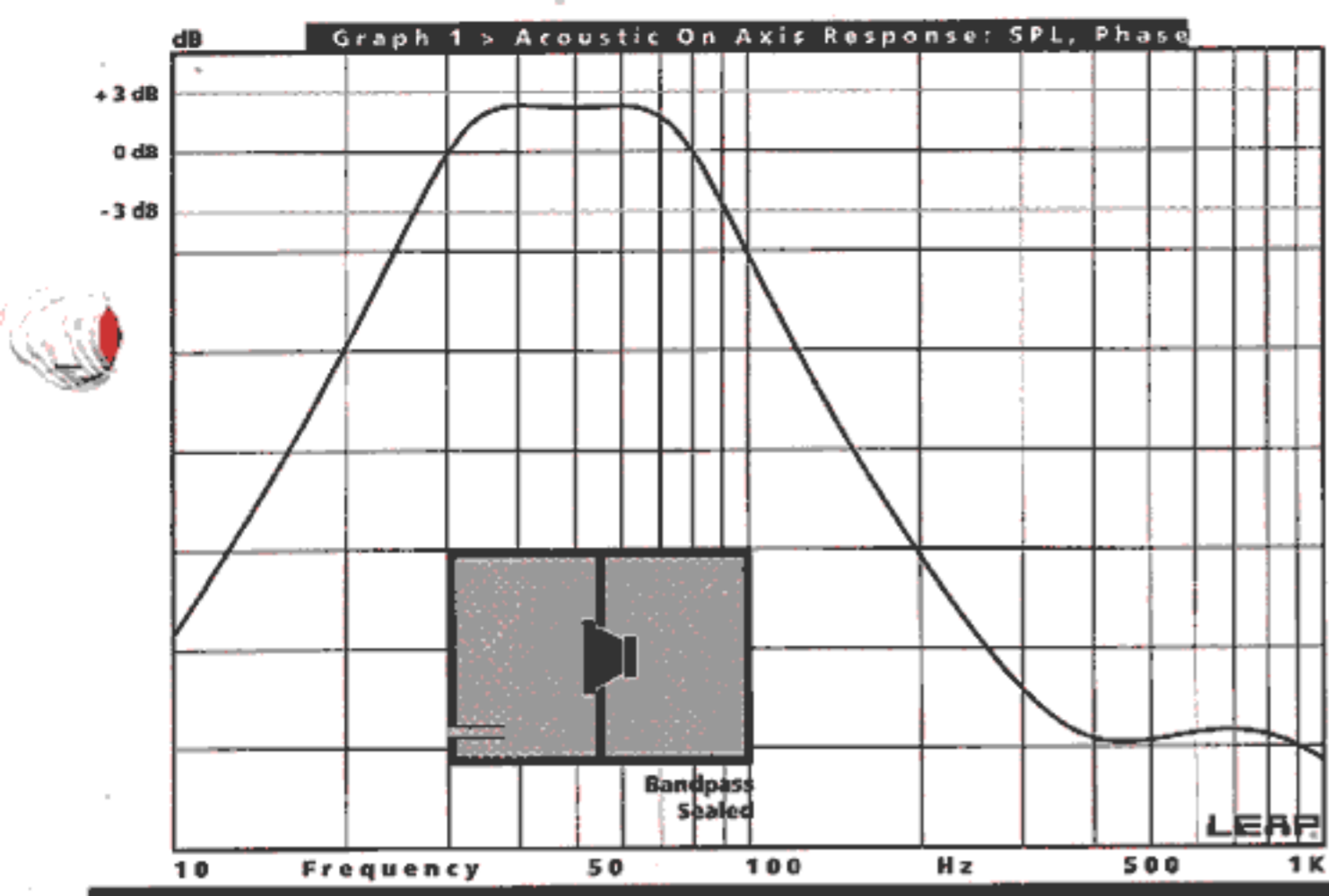
User type: Purist

Dotted line

Box type: Sealed, box volume (ft³): 1.6, box Qtc: 0.7, F3 (Hz): 46

Port dimension (inside diameter x length, inches): NA

User type: Purist



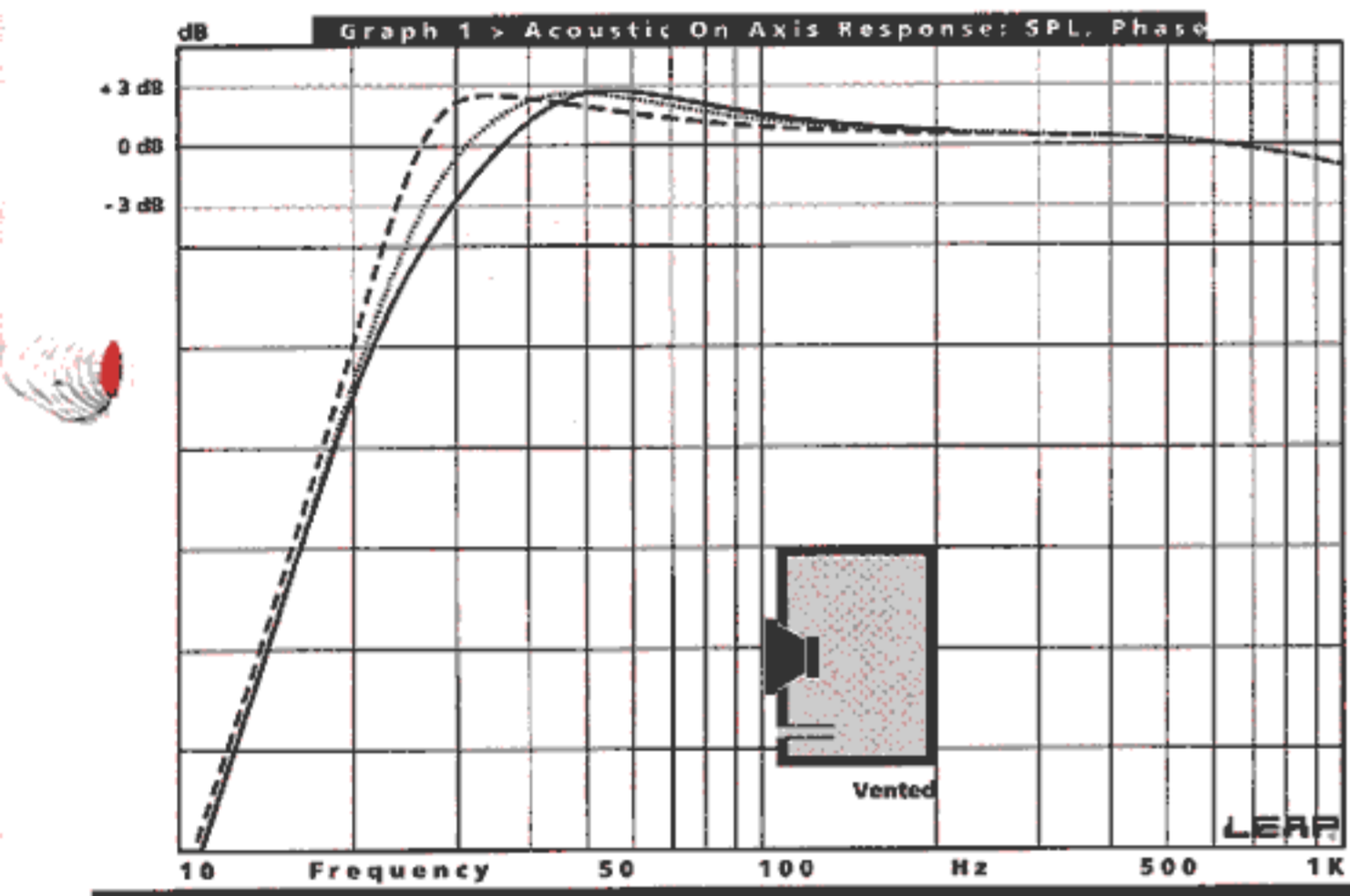
KFC-HQW251

Solid line ———

Box type: Bandpass, box volume (ft³): 0.86 (sealed rear chamber), 0.54 (vented front chamber), box Qtc: NA, F3 (Hz): 29 (lower), 83 (upper)

Port dimension (inside diameter x length, inches): 3 x 11.25

User type: Boomer



KFC-HQW2518

Solid line ———

Box type: Vented, box volume (ft³): 1.0, box Qtc: NA, F3 (Hz): 36

Port dimension (inside diameter x length, inches): 3 x 15.66

User type: Rocker

Dotted line

Box type: Vented, box volume (ft³): 1.3, box Qtc: NA, F3 (Hz): 31

Port dimension (inside diameter x length, inches): 3 x 12

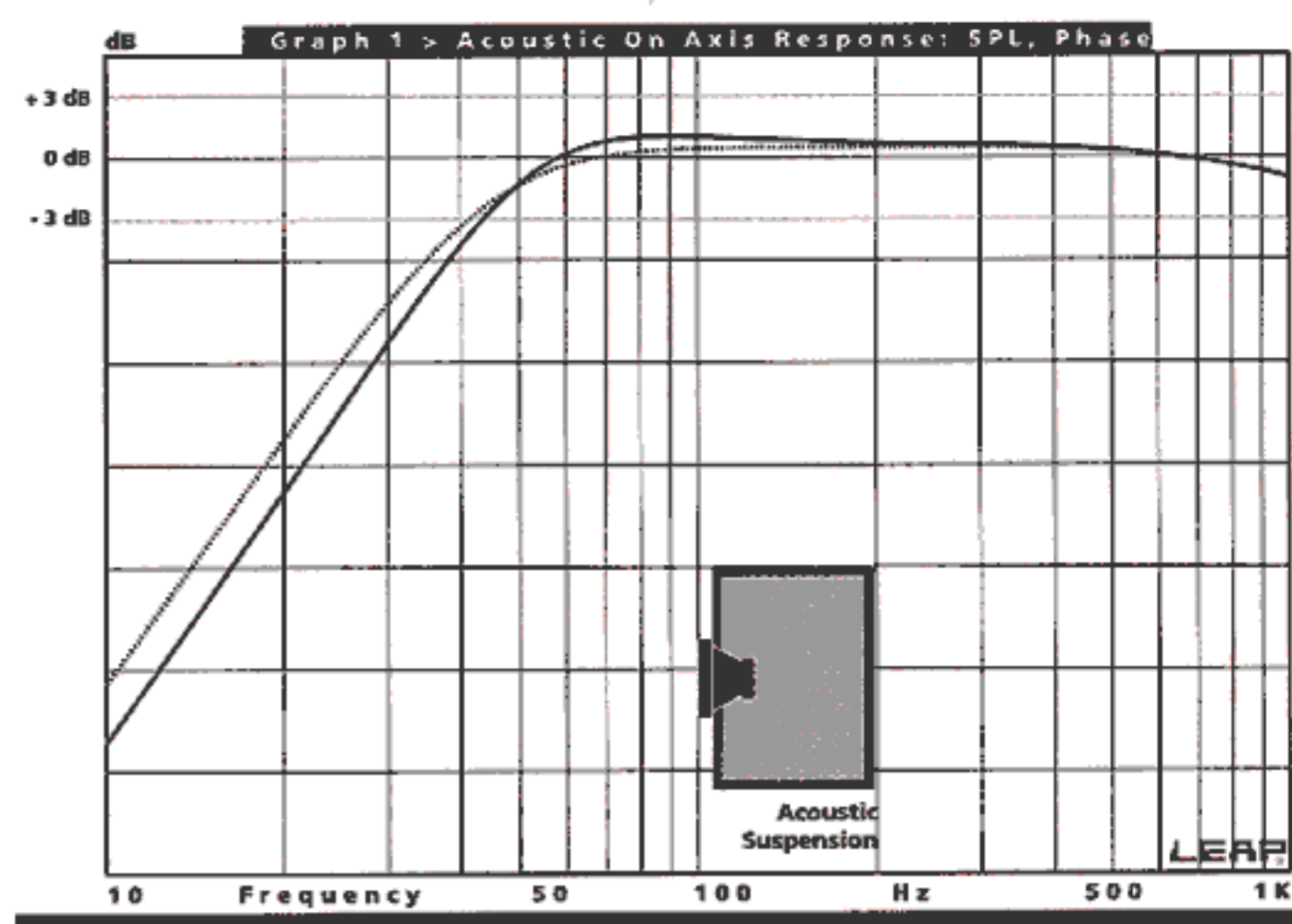
User type: Rocker

Dashed line - - - -

Box type: Vented, box volume (ft³): 2, box Qtc: NA, F3 (Hz): 26

Port dimension (inside diameter x length, inches): 3 x 8.25

User type: Boomer



KFC-HQW2518

Solid line ———

Box type: Sealed, box volume (ft³): 0.65, box Qtc: 0.9, F3 (Hz): 47

Port dimension (inside diameter x length, inches): NA

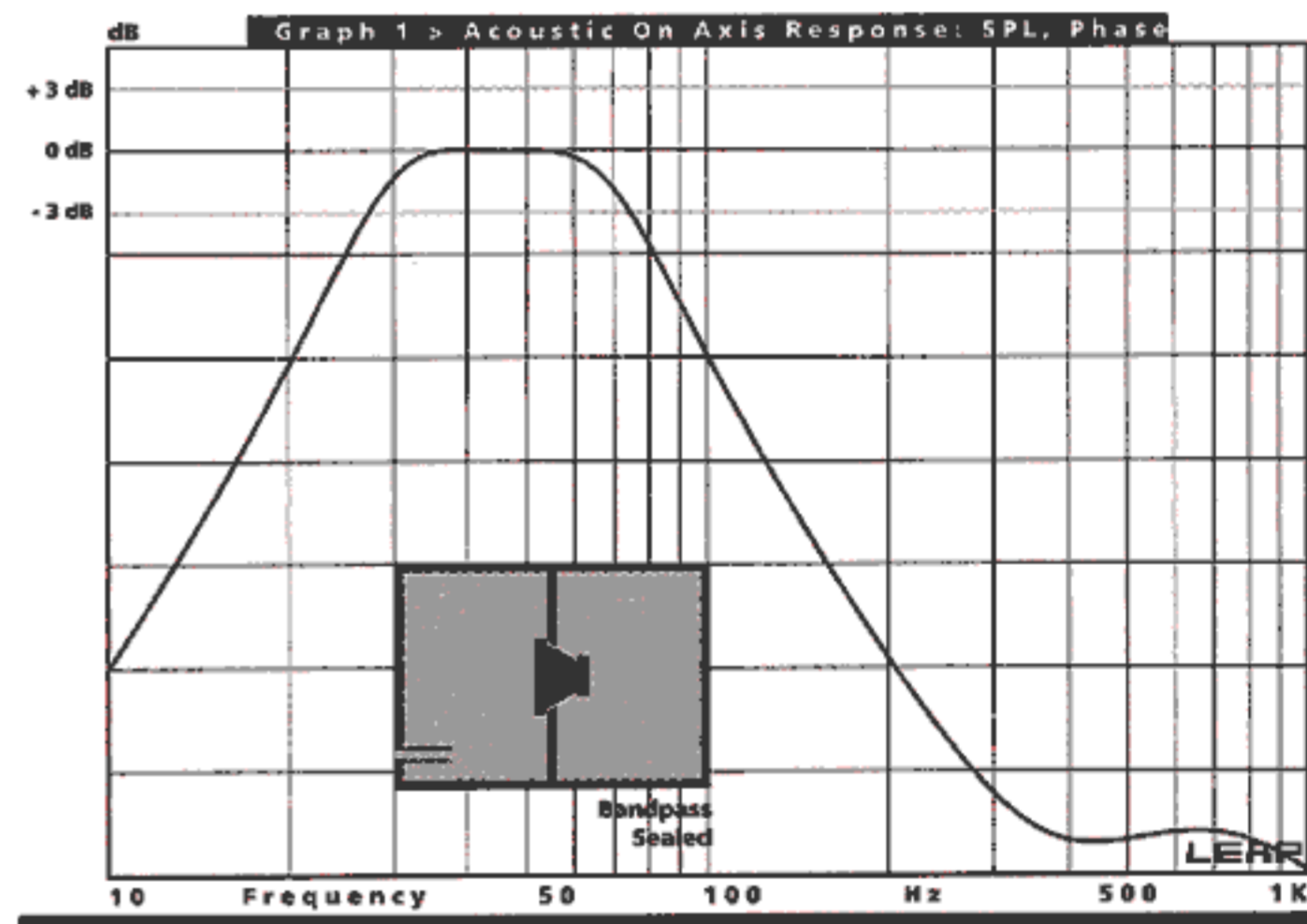
User type: Purist

Dotted line

Box type: Sealed, box volume (ft³): 1.2, box Qtc: 0.7, F3 (Hz): 43

Port dimension (inside diameter x length, inches): NA

User type: Purist



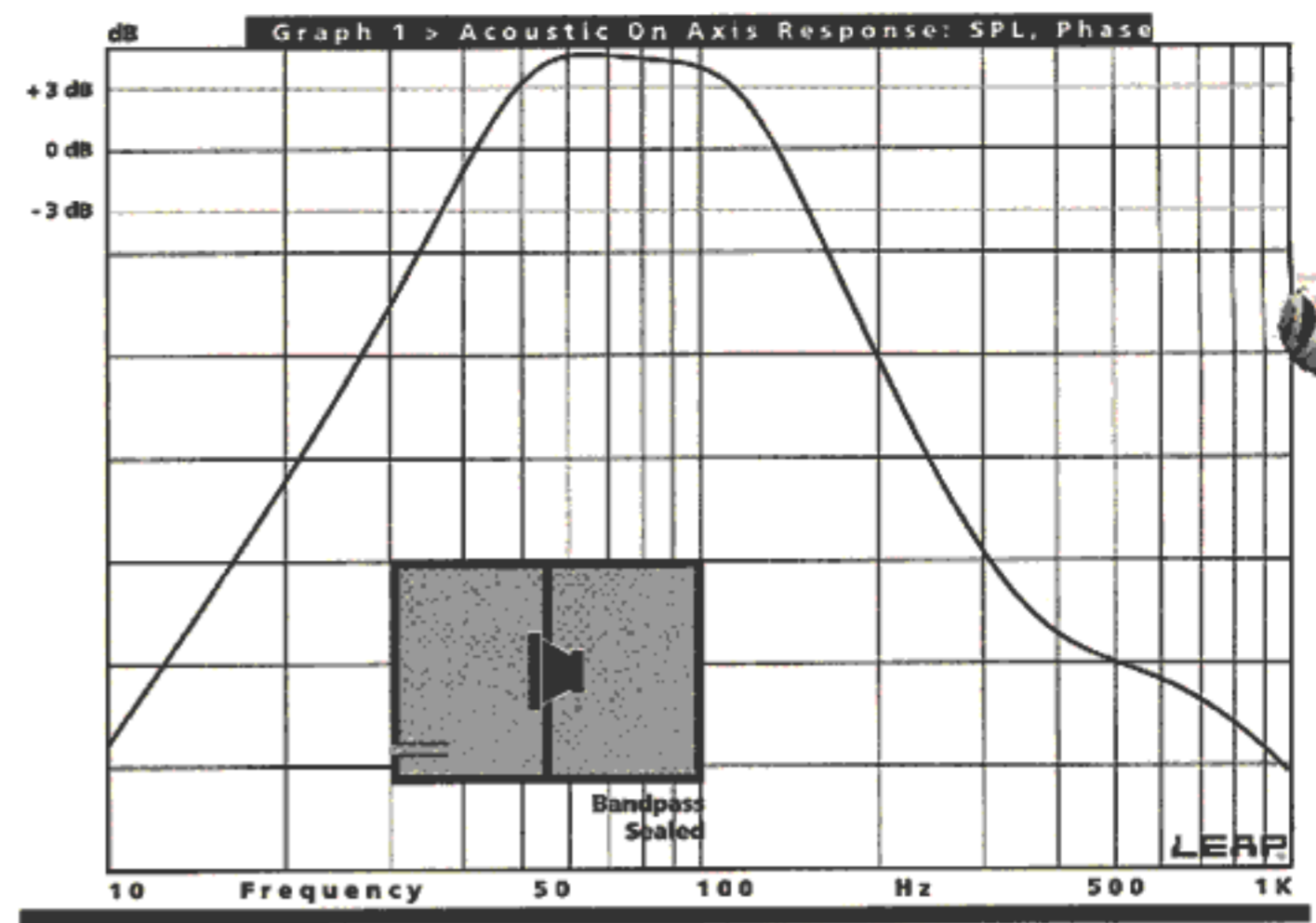
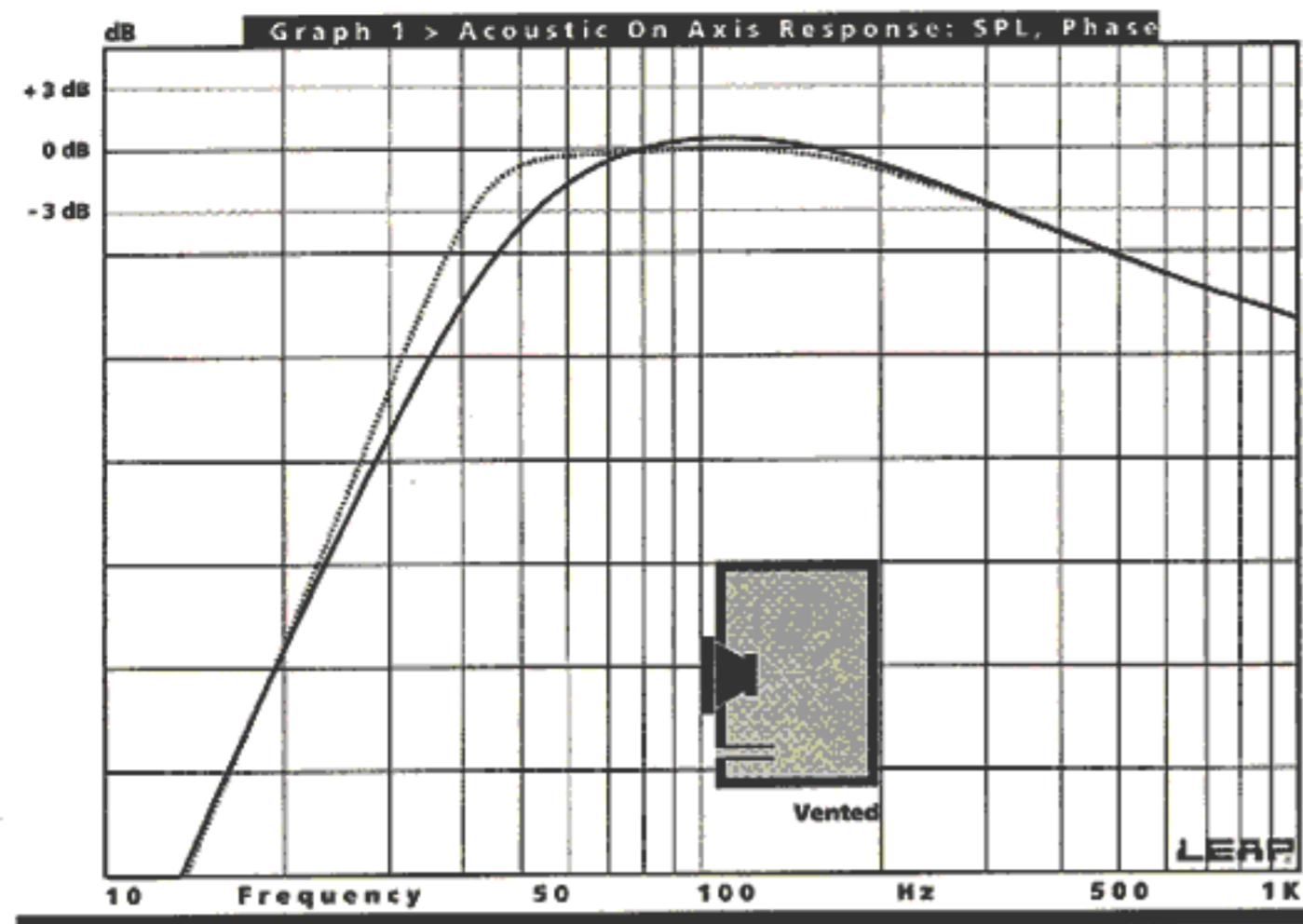
KFC-HQW2518

Solid line ———

Box type: Bandpass, box volume (ft³): 1.2 (sealed rear chamber) 0.62 (vented front chamber), box Qtc: NA, F3 (Hz): 27 (lower), 75 (upper)

Port dimension (inside diameter x length, inches): 3 x 11.5

User type: Rocker



KFC-WS302

Solid line ———

Box type: Vented, box volume (ft³): 0.94, box Qtc: NA, F3 (Hz): 55
 Port dimension (inside diameter x length, inches): 3 x 10.625
 User type: Purist

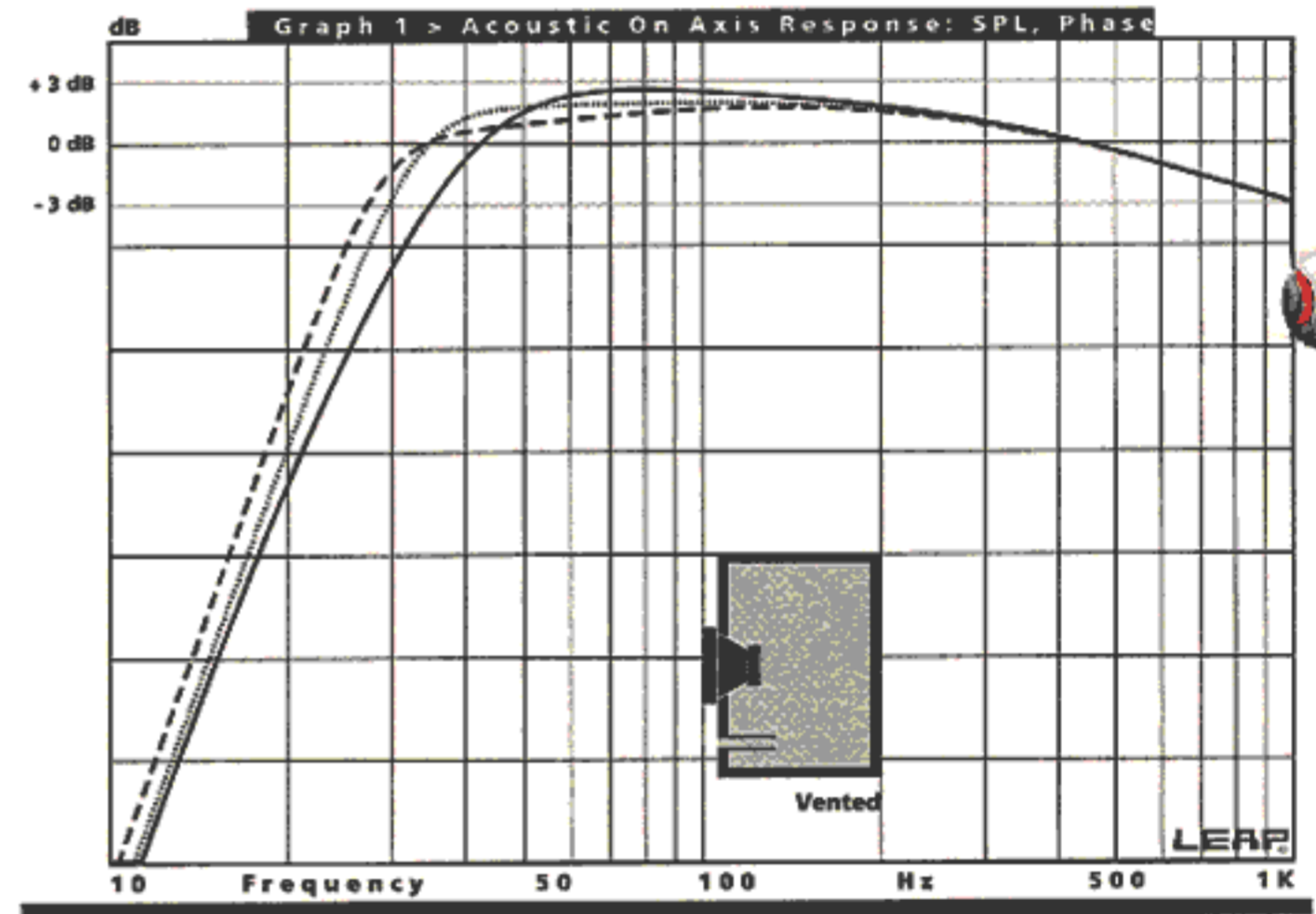
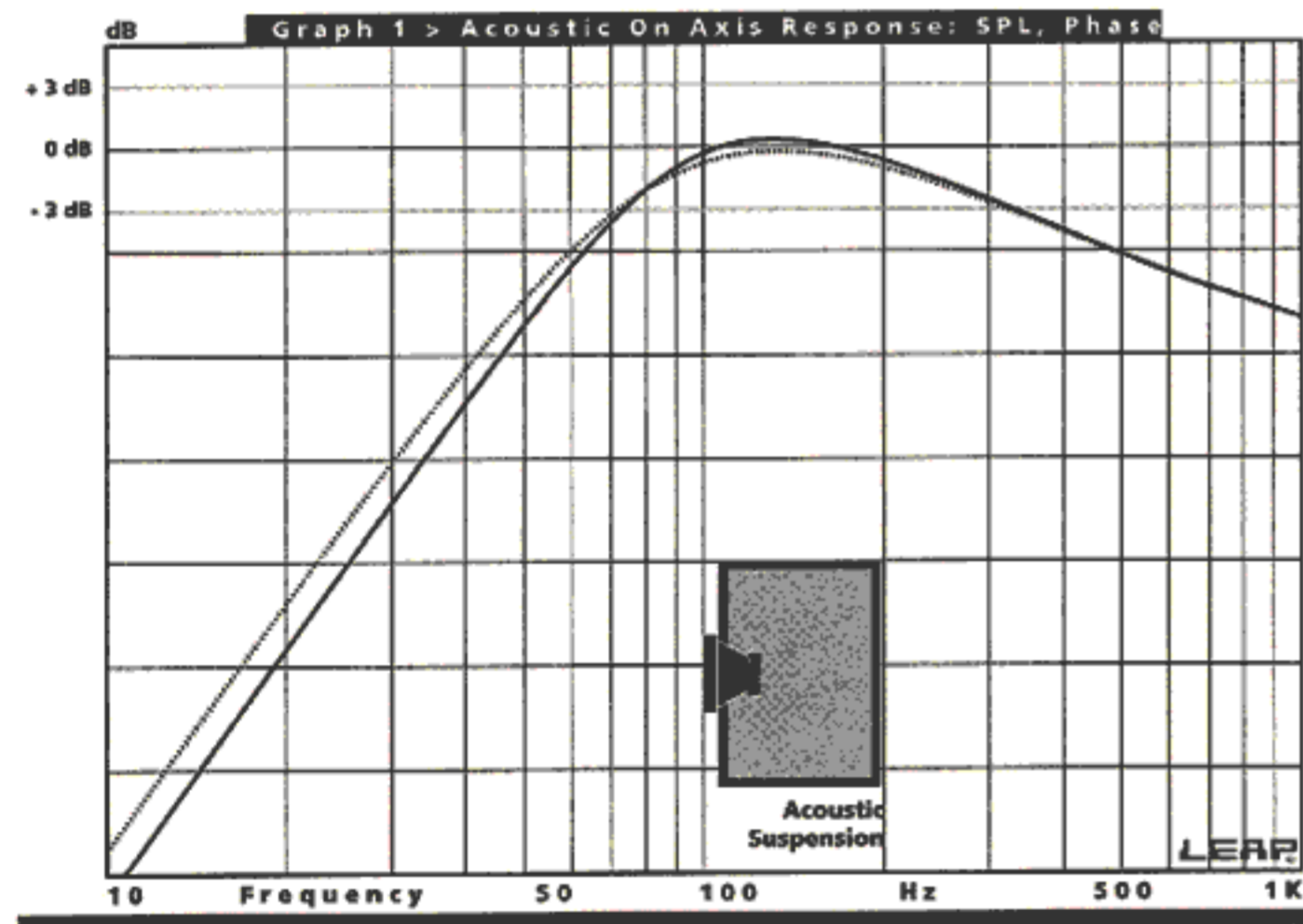
Dotted line

Box type: Vented, box volume (ft³): 1.5, box Qtc: NA, F3 (Hz): 41
 Port dimension (inside diameter x length, inches): 4 x 10.5 OR: 3 x 5.25
 User type: Purist

KFC-WS302

Solid line ———

Box type: Bandpass, box volume (ft³): 0.67 (sealed rear chamber), 0.61 (vented front chamber), box Qtc: NA, F3 (Hz): 46 (lower), 127 (upper)
 Port dimension (inside diameter x length, inches): 4 x 5.875
 User type: Boomer



KFC-WS302

Solid line ———

Box type: Sealed, box volume (ft³): 0.65, box Qtc: 0.7, F3 (Hz): 75
 Port dimension (inside diameter x length, inches): NA
 User type: Purist

Dotted line

Box type: Sealed, box volume (ft³): 0.88, box Qtc: 0.5, F3 (Hz): 69
 Port dimension (inside diameter x length, inches): NA
 User type: Purist

KFC-WS252

Solid line ———

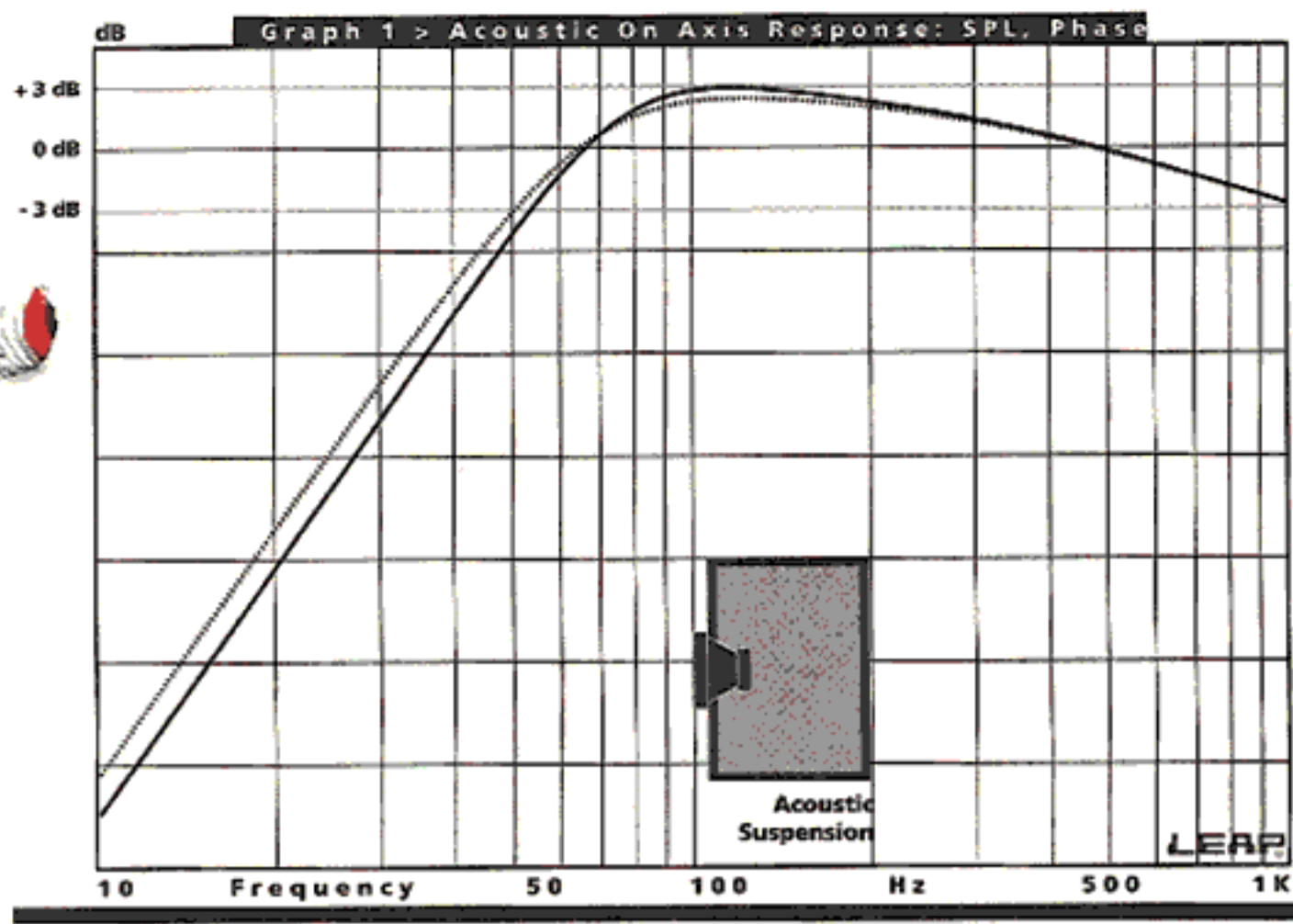
Box type: Vented, box volume (ft³): 1.0, box Qtc: NA, F3 (Hz): 41
 Port dimension (inside diameter x length, inches): 3 x 13
 User type: Rocker

Dotted line

Box type: Vented, box volume (ft³): 1.5, box Qtc: NA, F3 (Hz): 32
 Port dimension (inside diameter x length, inches): 3 x 9.25
 User type: Rocker

Dashed line -----

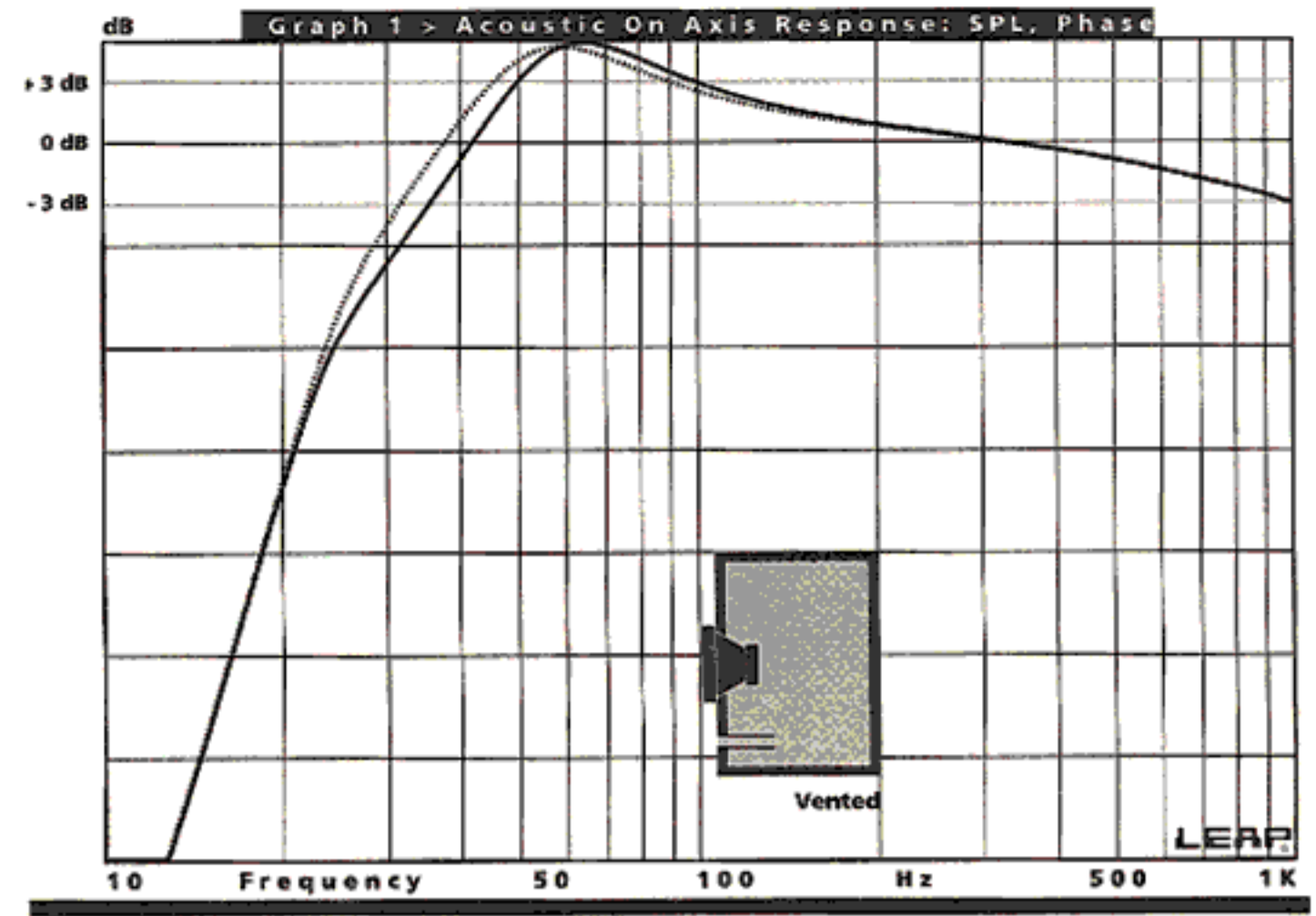
Box type: Vented, box volume (ft³): 1.75, box Qtc: NA, F3 (Hz): 27
 Port dimension (inside diameter x length, inches): 3 x 9.75
 User type: Rocker



KFC-WS252

Solid line ———
Box type: Sealed, box volume (ft³): 0.5, box Qtc: 0.8, F3 (Hz): 64
Port dimension (inside diameter x length, inches): NA
User type: Rocker

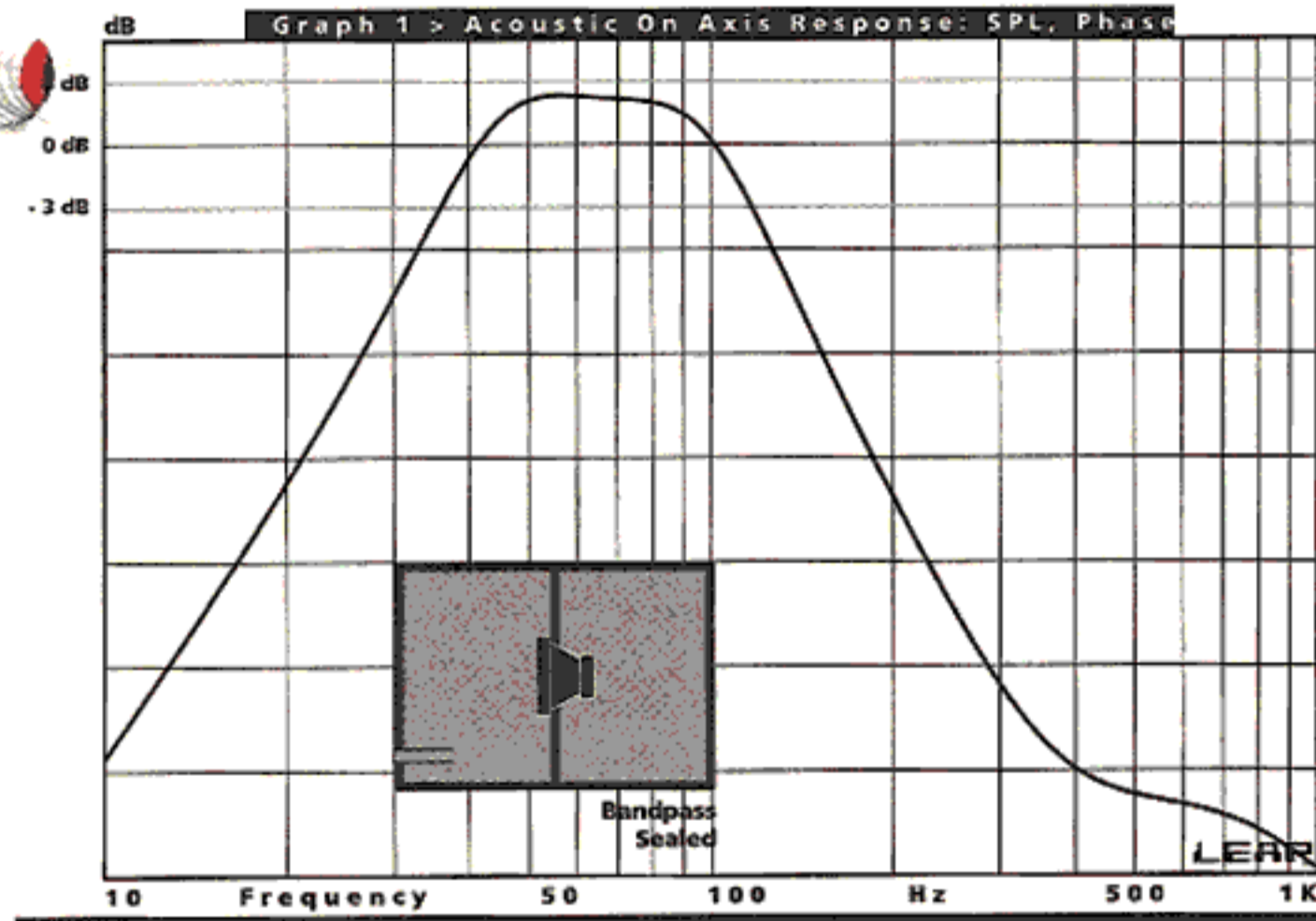
Dotted line
Box type: Sealed, box volume (ft³): 0.66, box Qtc: 0.7, F3 (Hz): 61
Port dimension (inside diameter x length, inches): NA
User type: Purist



KFC-W3002

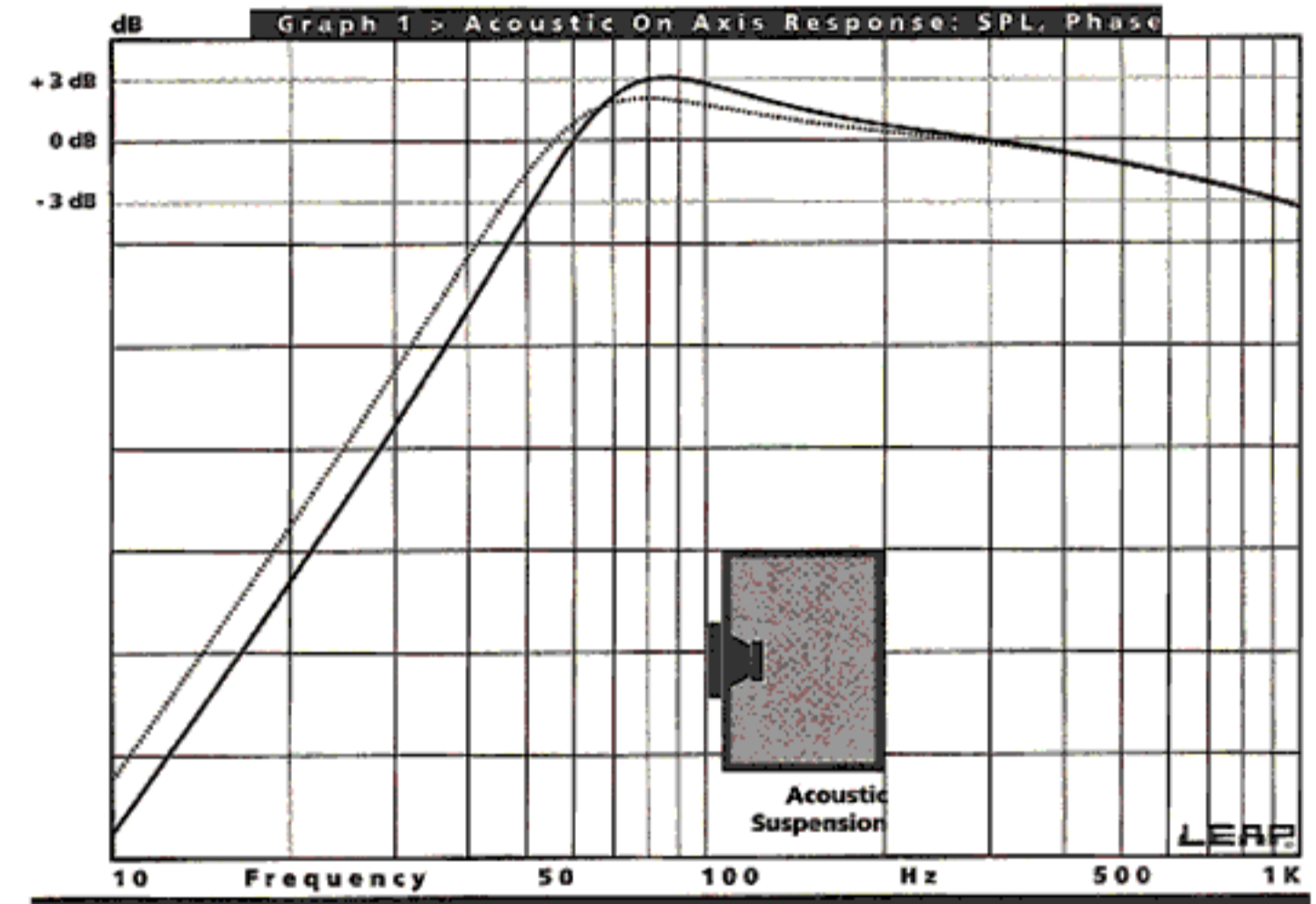
Solid line ———
Box type: Vented, box volume (ft³): 1.25, box Qtc: NA, F3 (Hz): 47
Port dimension (inside diameter x length, inches): 3 x 8
User type: Boomer

Dotted line
Box type: Vented, box volume (ft³): 1.6, box Qtc: NA, F3 (Hz): 41
Port dimension (inside diameter x length, inches): 3 x 6 OR: 4 x 12
User type: Boomer



KFC-WS252

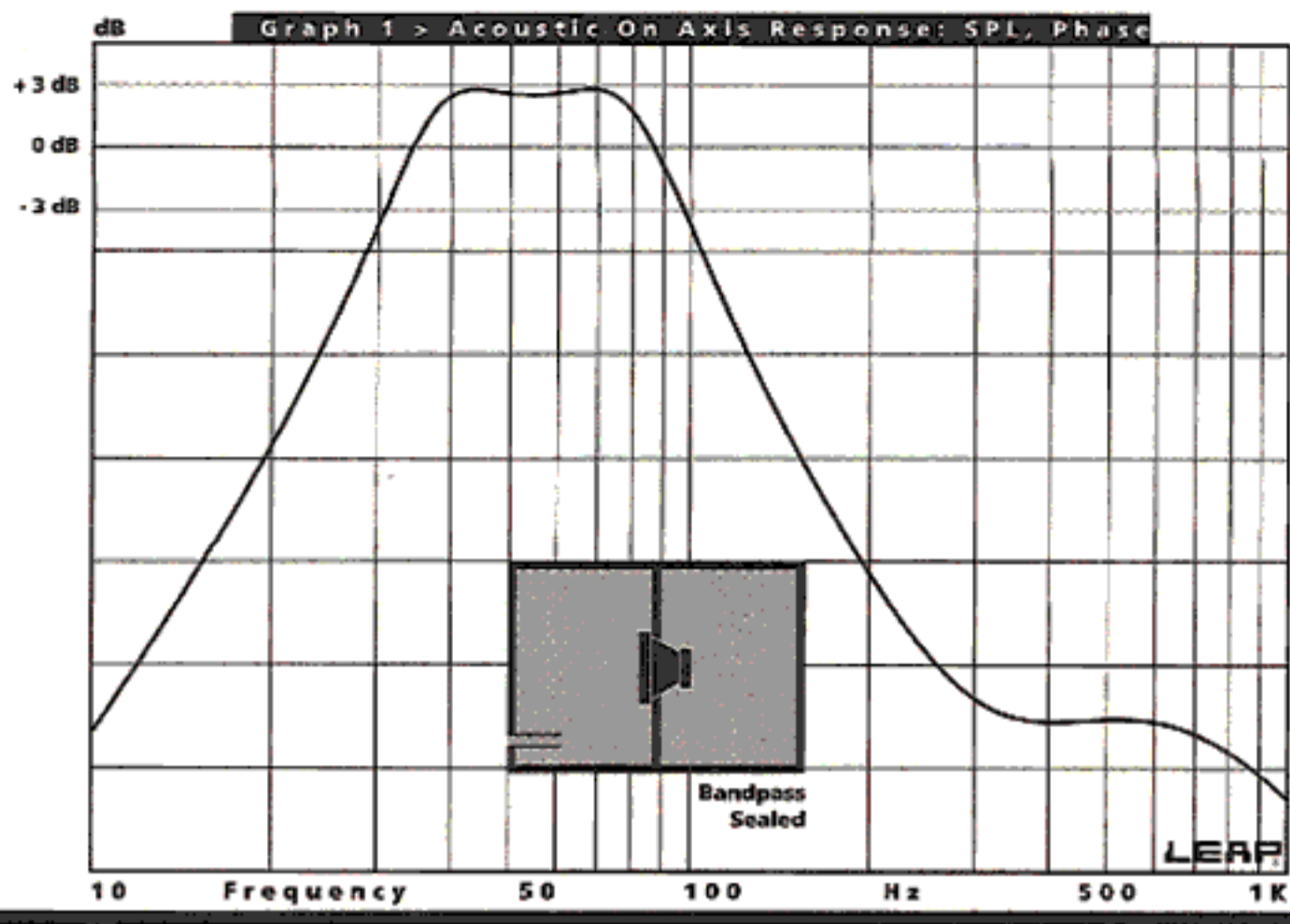
Solid line ———
Box type: Bandpass, box volume (ft³): 0.65 (sealed rear chamber), 0.52 (vented front chamber), box Qtc: NA, F3 (Hz): 40 (lower), 107 (upper)
Port dimension (inside diameter x length, inches): 4 x 10.125 OR: 3 x 5
User type: Boomer



KFC-W3002

Solid line ———
Box type: Sealed, box volume (ft³): 0.65, box Qtc: 1.1, F3 (Hz): 60
Port dimension (inside diameter x length, inches): NA
User type: Boomer

Dotted line
Box type: Sealed, box volume (ft³): 1.0, box Qtc: 1.0, F3 (Hz): 52
Port dimension (inside diameter x length, inches): NA
User type: Rocker



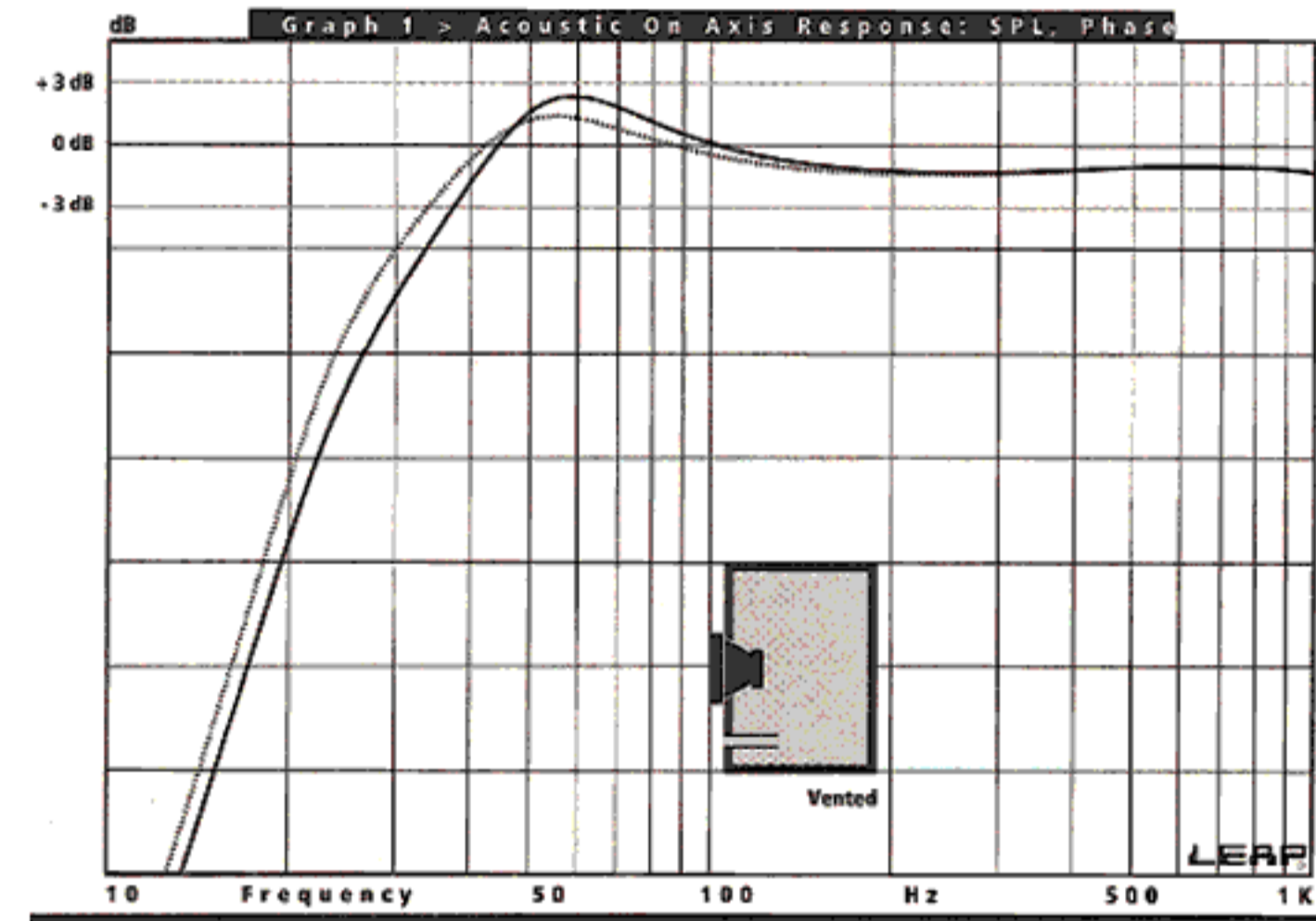
KFC-W3002

Solid line ———

Box type: Bandpass, box volume (ft³): 1.25 (sealed rear chamber), 1.0 (vented front chamber), box Qtc: NA, F3 (Hz): 34 (upper), 88 (lower)

Port dimension (inside diameter x length, inches): 4 x 7.25

User type: Boomer



KFC-W3082

Solid line ———

Box type: Vented, box volume (ft³): 1.6, box Qtc: NA, F3 (Hz): 43

Port dimension (inside diameter x length, inches): 3 x 6 OR: 4 x 11.75

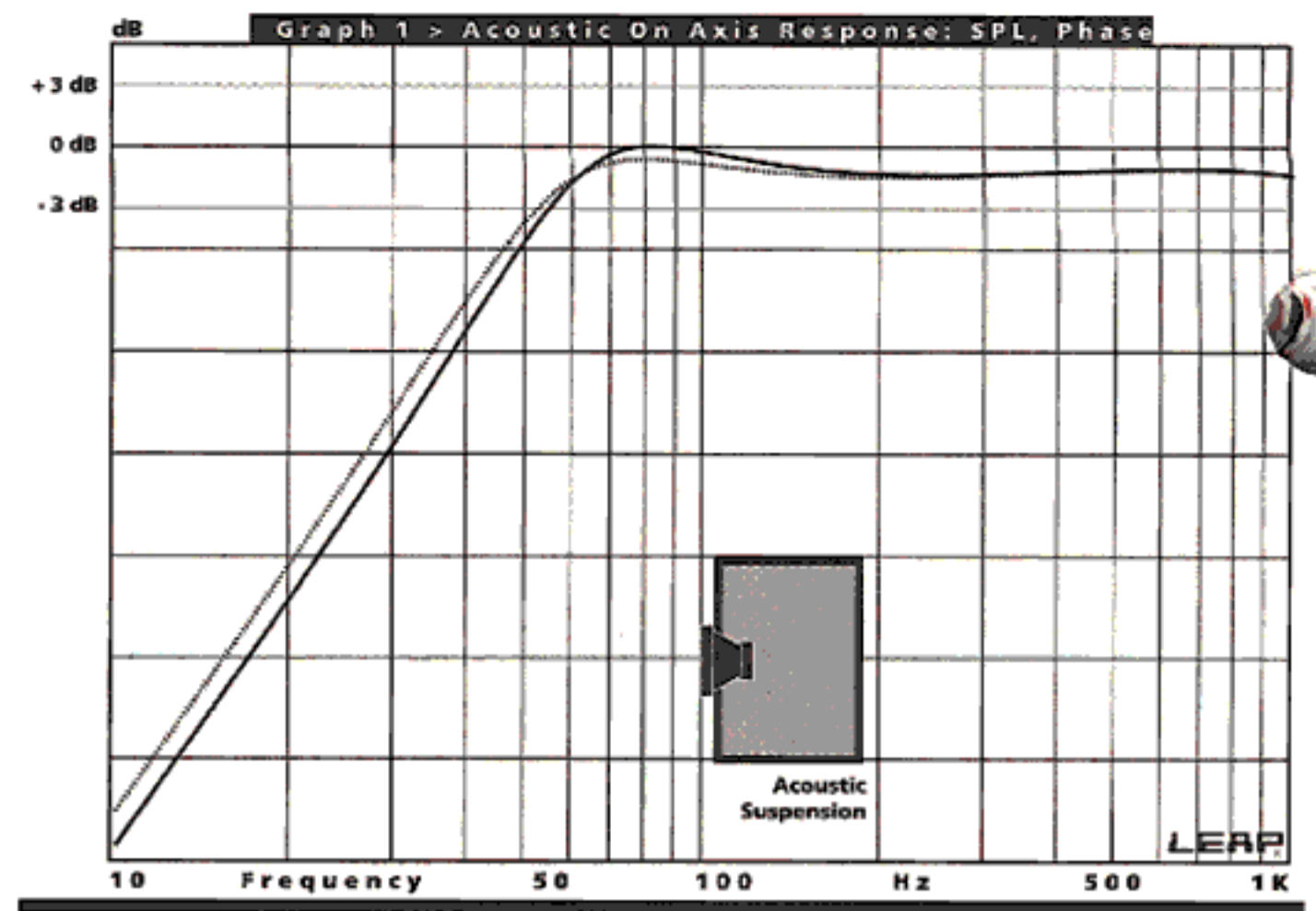
User type: Boomer

Dotted line

Box type: Vented, box volume (ft³): 2.0, box Qtc: NA, F3 (Hz): 37

Port dimension (inside diameter x length, inches): 3 x 6 OR: 4 x 11.75

User type: Boomer



KFC-W3082

Solid line ———

Box type: Sealed, box volume (ft³): 0.75, box Qtc: 1.2, F3 (Hz): 54

Port dimension (inside diameter x length, inches): NA

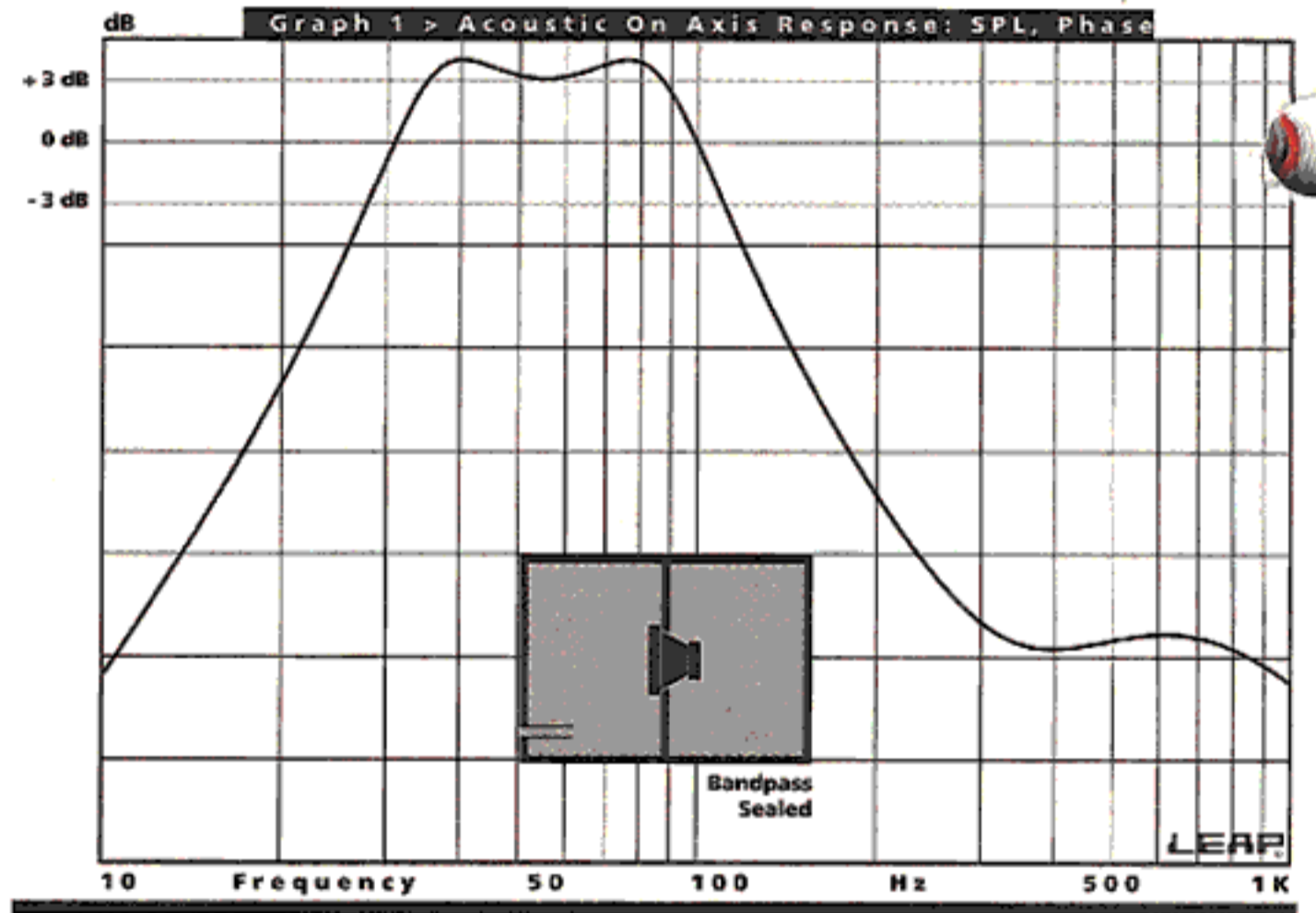
User type: Rocker

Dotted line

Box type: Sealed, box volume (ft³): 1.0, box Qtc: 1.1, F3 (Hz): 50

Port dimension (inside diameter x length, inches): NA

User type: Purist



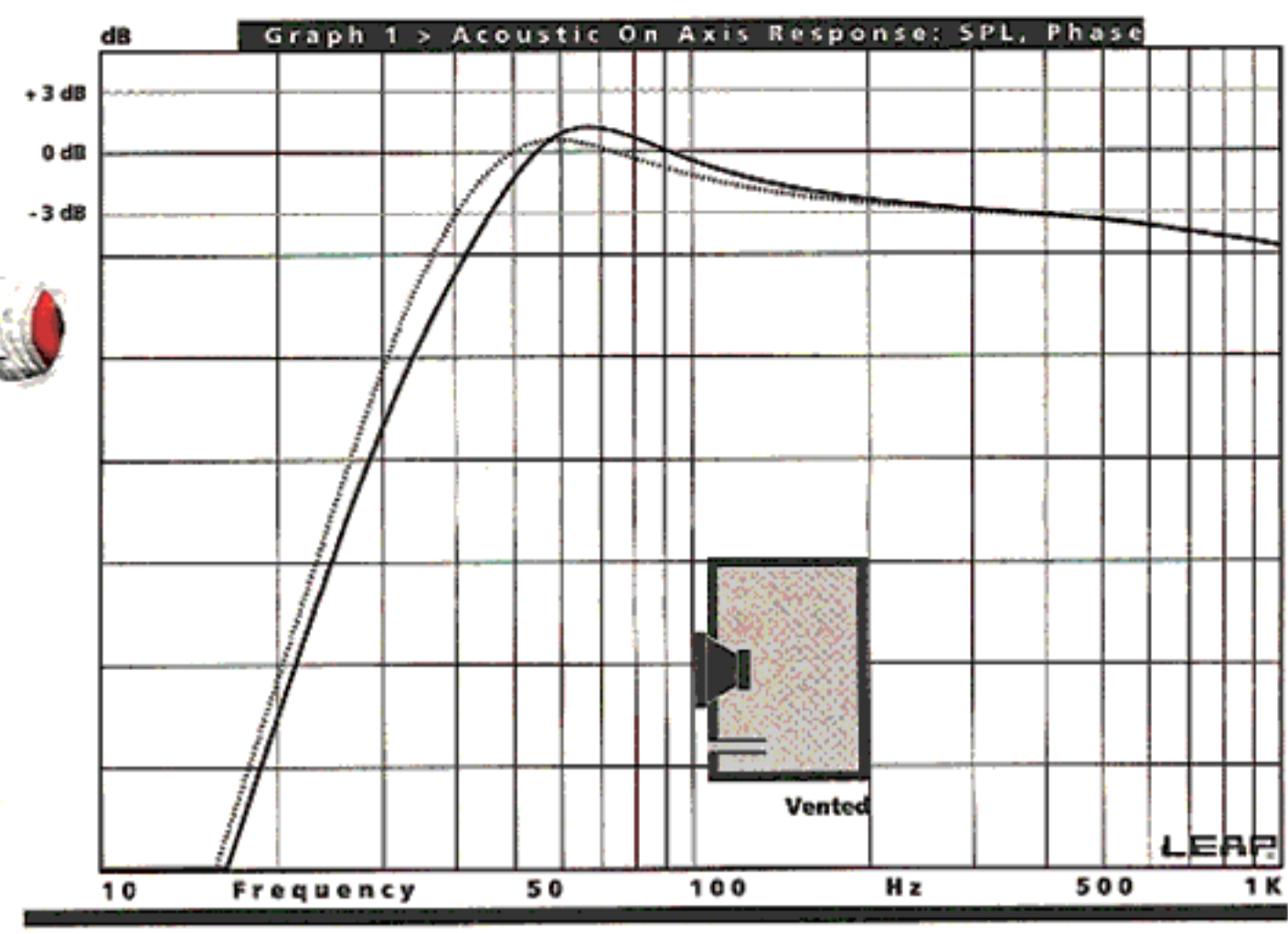
KFC-W3082

Solid line ———

Box type: Bandpass, box volume (ft³): 1.2 (sealed rear chamber), 0.8 (vented front chamber), box Qtc: NA, F3 (Hz): 32 (lower), 96 (upper)

Port dimension (inside diameter x length, inches): 4 x 9.5

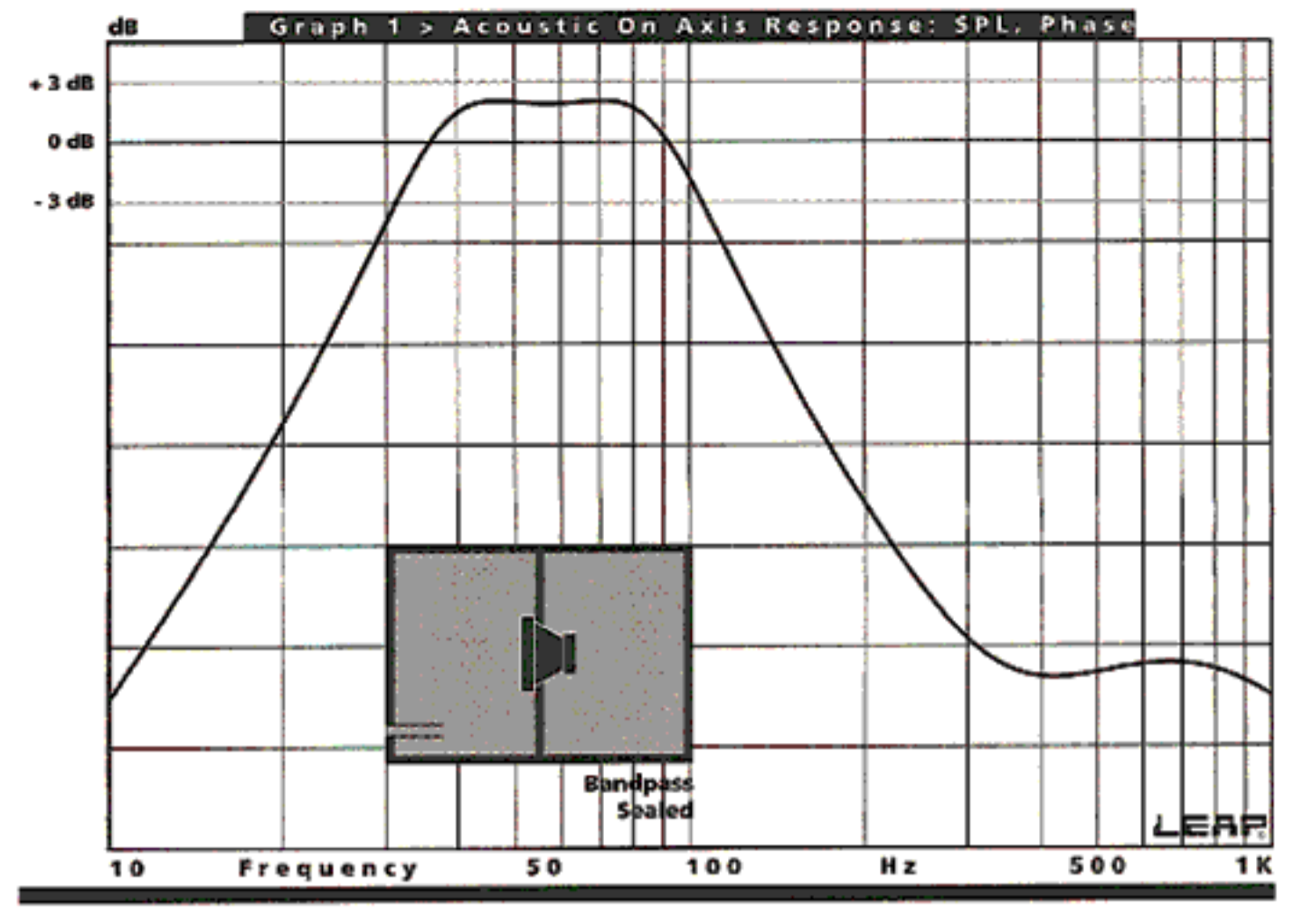
User type: Boomer



KFC-W2502

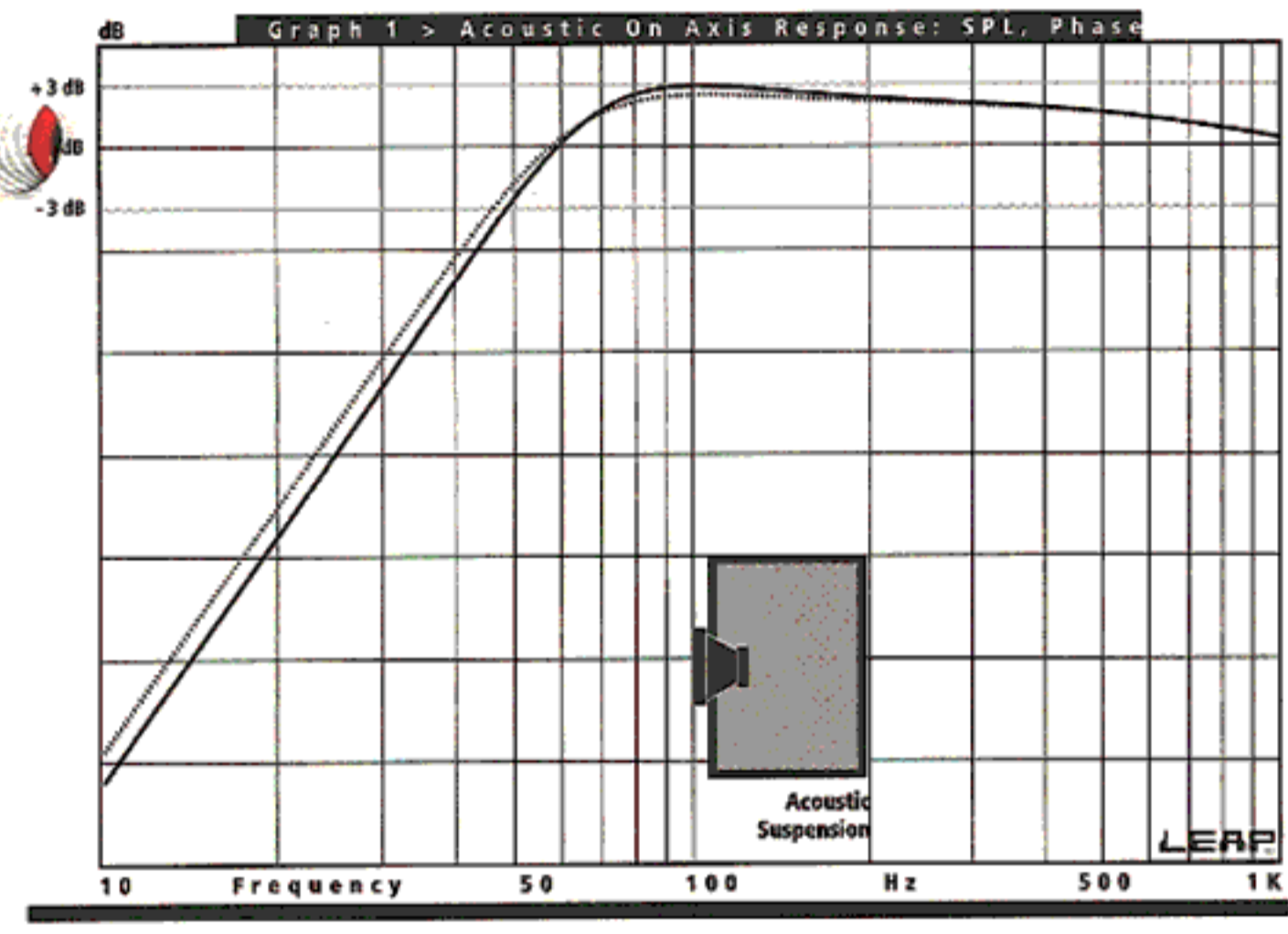
Solid line _____
 Box type: Vented, box volume (ft3): 1.2, box Qtc: NA, F3 (Hz): 48
 Port dimension (inside diameter x length, inches): 3 x 5 OR: 4 x 10
 User type: Boomer

Dotted line
 Box type: Vented, box volume (ft3): 1.6, box Qtc: NA, F3 (Hz): 41
 Port dimension (inside diameter x length, inches): 4 x 8.4
 User type: Rocker



KFC-W2502

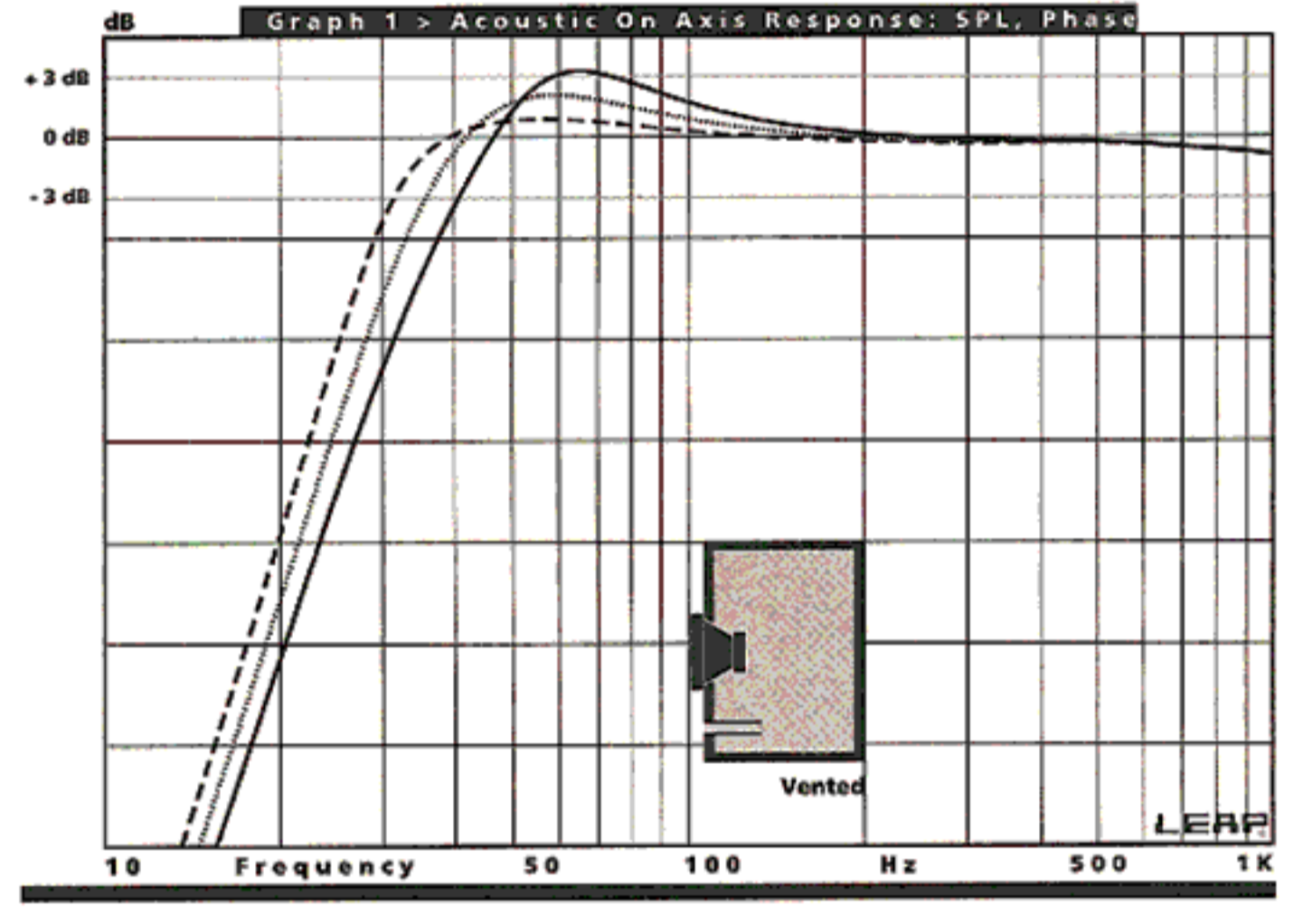
Solid line _____
 Box type: Bandpass, box volume (ft3): 1.35 (sealed rear chamber), 0.73 (vented front chamber), box Qtc: NA, F3 (Hz): 34 (lower), 97 (upper)
 Port dimension (inside diameter x length, inches): 4 x 9.875
 User type: Boomer



KFC-W2502

Solid line _____
 Box type: Sealed, box volume (ft3): 0.75, box Qtc: 1.0, F3 (Hz): 58
 Port dimension (inside diameter x length, inches): NA
 User type: Purist

Dotted line
 Box type: Sealed, box volume (ft3): 1.0, box Qtc: 0.9, F3 (Hz): 56
 Port dimension (inside diameter x length, inches): NA
 User type: Purist

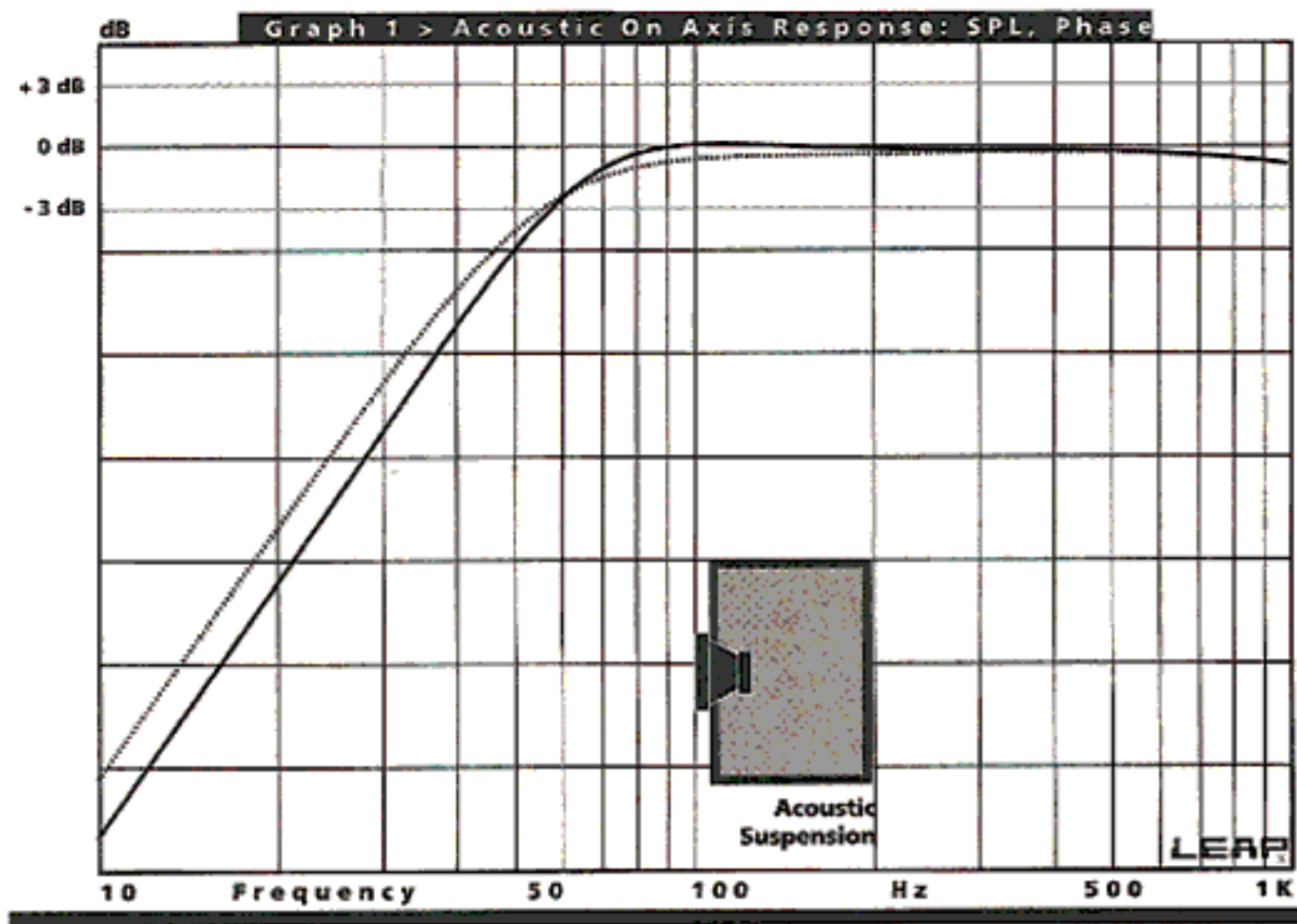


KFC-W2582

Solid line _____
 Box type: Vented, box volume (ft3): 1.2, box Qtc: NA, F3 (Hz): 47
 Port dimension (inside diameter x length, inches): 3 x 5 OR: 4 x 10
 User type: Boomer

Dotted line
 Box type: Vented, box volume (ft3): 1.55, box Qtc: NA, F3 (Hz): 39
 Port dimension (inside diameter x length, inches): 3 x 5 OR: 4 x 10
 User type: Rocker

Dashed line - - - -
 Box type: Vented, box volume (ft3): 2, box Qtc: NA, F3 (Hz): 33
 Port dimension (inside diameter x length, inches): 3 x 5 OR: 4 x 10
 User type: Rocker



KFC-W2582

Solid line —

Box type: Sealed, box volume (ft³): 0.75, box Qtc: 0.9, F3 (Hz): 59

Port dimension (inside diameter x length, inches): NA

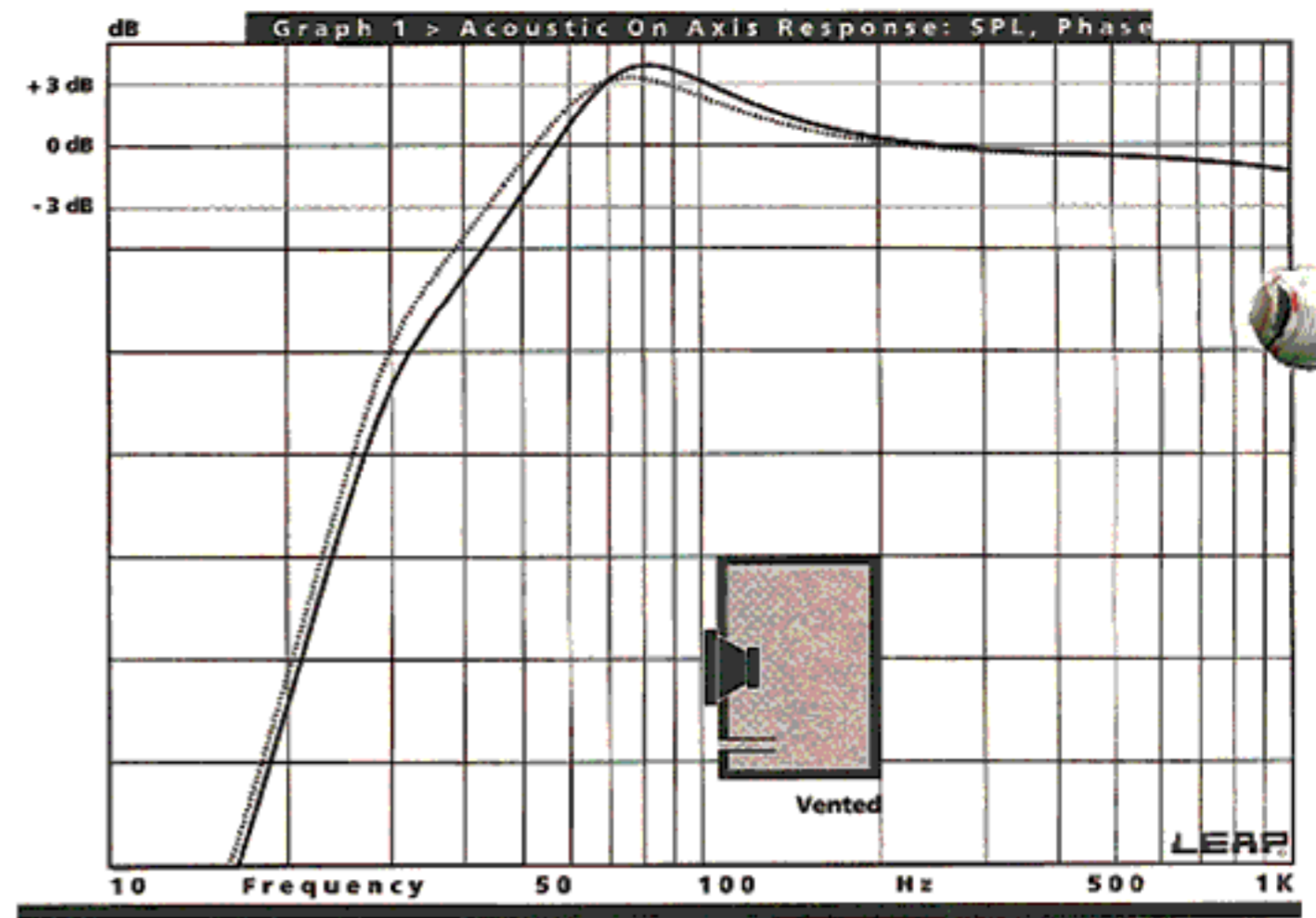
User type: Purist

Dotted line

Box type: Sealed, box volume (ft³): 1.35, box Qtc: 0.7, F3 (Hz): 53

Port dimension (inside diameter x length, inches): NA

User type: Purist



KFC-W2002

Solid line —

Box type: Vented, box volume (ft³): 0.45, box Qtc: NA, F3 (Hz): 60

Port dimension (inside diameter x length, inches): 2 x 6.5

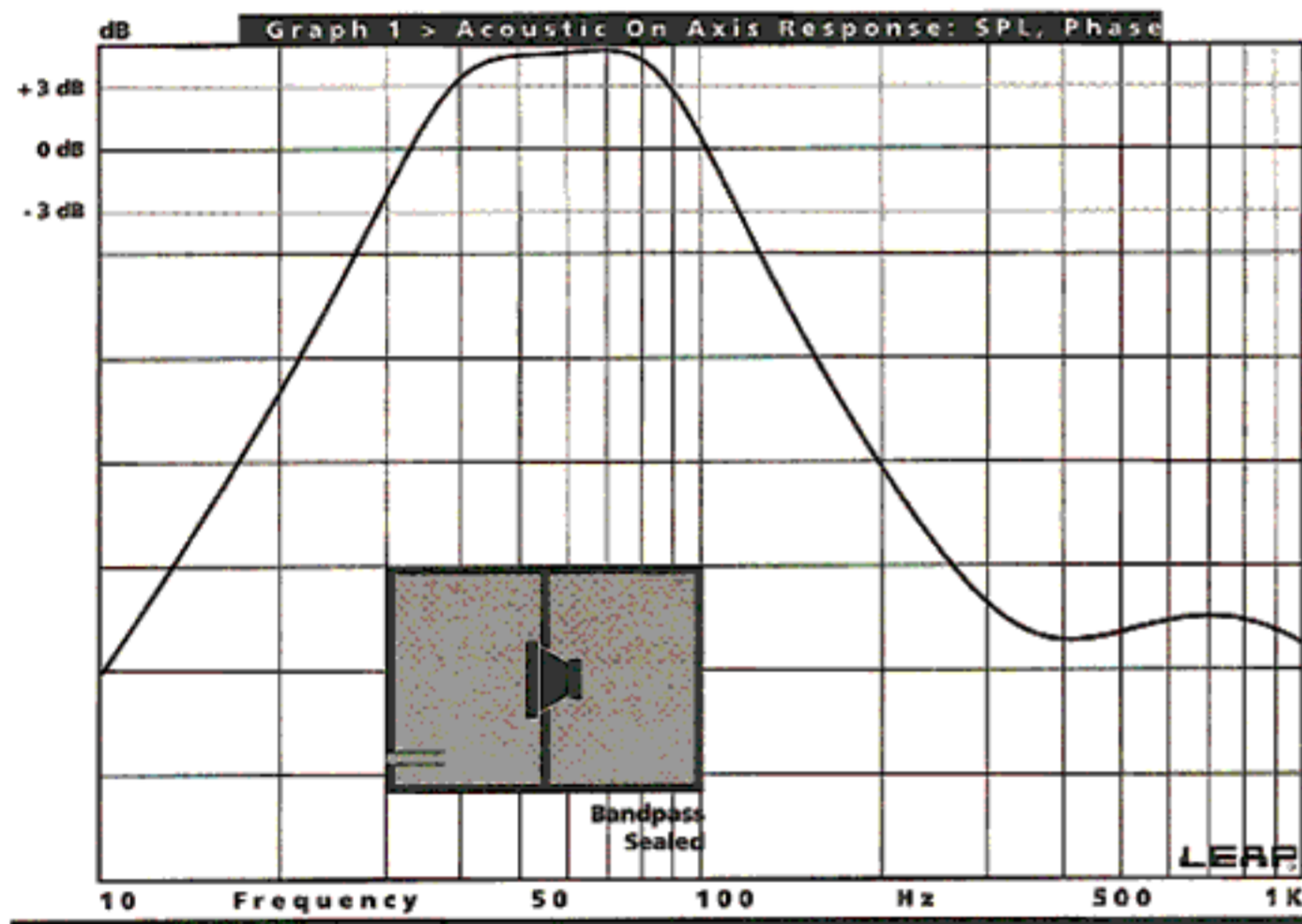
User type: Boomer

Dotted line

Box type: Vented, box volume (ft³): 0.56, box Qtc: NA, F3 (Hz): 53

Port dimension (inside diameter x length, inches): 2 x 6

User type: Boomer



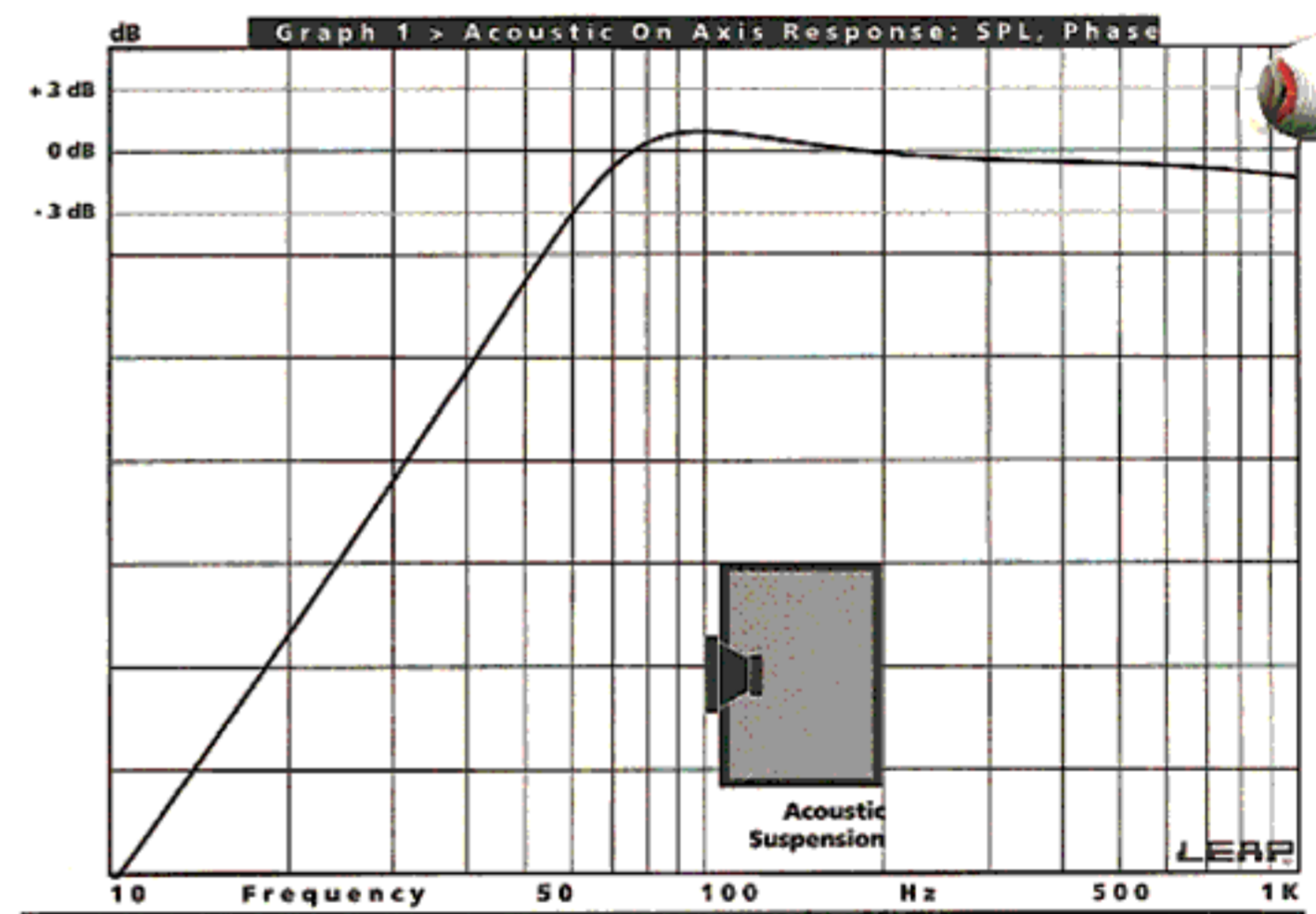
KFC-W2582

Solid line —

Box type: Bandpass, box volume (ft³): 1.34 (sealed rear chamber), 0.71 (vented front chamber), box Qtc: NA, F3 (Hz): 37 (lower), 96 (upper)

Port dimension (inside diameter x length, inches): 4 x 9

User type: Boomer



KFC-W2002

Solid line —

Box type: Sealed, box volume (ft³): 0.35, box Qtc: 1.1, F3 (Hz): 64

Port dimension (inside diameter x length, inches): NA

User type: Rocker

The Thiele-Small Parameters

	Sign	KFC- HQW3018	KFC- HQW301	KFC- HQW2518	KFC- HQW251	KFC- WS302	KFC- WS252	KFC- W3002	KFC- W3082	KFC- W2502	KFC- W2582	KFC- WF302	KFC- WF252	KFC- W2002	KFC- W1602
Nominal Impedance	Z	8 ohms	4 ohms	8 ohms	4 ohms	4 ohms	4 ohms	4 ohms	8 ohms	4 ohms	8 ohms	4 ohms	4 ohms	4 ohms	4 ohms
DC resistance	Re	6.49 ohms	3.25 ohms	6.54 ohms	3.8 ohms	3.6 ohms	3.3 ohms	3.6 ohms	7 ohms	3.3 ohms	6.5 ohms	3.6 ohms	3.3 ohms	3.2 ohms	3.2 ohm
Resonant frequency	Fso	30 Hz	29 Hz	32 Hz	31 Hz	21 Hz	28 Hz	35 Hz	34.8 Hz	39.8 Hz	40 Hz	38.5 Hz	44.2 Hz	45 Hz	66 Hz
Mechanical Q factor	Qms	2.425	2.539	3.139	2.792	4.8	3.59	10.3	9.5	7.8	9.09	11.13	8.81	8.0	9.43
Electrical Q factor	Qes	0.516	0.397	0.629	0.545	0.22	0.36	0.63	0.65	0.55	0.55	0.69	0.59	0.63	0.52
Total Q factor	Qts	0.425	0.343	0.524	0.456	0.21	0.33	0.59	0.61	0.51	0.52	0.65	0.55	0.59	0.49
Volume acoustic compliance	Vas	2.3 cu ft 65.14 Liter	2.61 cu ft 73.93 Liter	1.3 cu ft 36.82 Liter	1.48 cu ft 41.91 Liter	7.37 cu ft 209 Liter	2.65 cu ft 75.2 Liter	1.9 cu ft 53.8 Liter	2.13 cu ft 60.4 Liter	1.58 cu ft 44.9 Liter	1.53 cu ft 43.3 Liter	1.76 cu ft 49.8 Liter	1.47 cu ft 41.6 Liter	0.71 cu f 20 Liter	0.30 cu ft 8.59 Liter
Moving mass	Mms	2.58 oz	2.62 oz	2.21 oz	2.22 oz	3.34 oz	2.62 oz	4.65 oz	4.19 oz	2.15 oz	2.21 oz	3.95 oz	1.88 oz	1.33 oz	0.43 oz
Voice coil diameter	d	3.18"	3.18"	2.55"	2.55"	2.6"	2"	2.6"	2.6"	2"	2"	2.6"	2"	2"	1.2"
Force factor [T _M]	Bl	15.465	12.126	12.502	9.614	15.8	11.7	12.9	16.7	9.57	13.6	12.2	9.07	7.39	5.58
Weight of magnet	M	92.71 oz	91.71 oz	63.49 oz	63.49 oz	64.1 oz	29.9 oz	43 oz	43 oz	26.1 oz	26.1 oz	43 oz	26.1 oz	20.46 oz	11.6 oz
Peak excursion	Xmax	0.24"	0.24"	0.26"	0.24"	0.16"	0.2"	0.11"	0.11"	0.33"	0.2"	0.11"	0.32"	0.13"	0.05"
Peak Power Handling		1000 Watts	1000 Watts	600 Watts	600 Watts	750 Watts	450 Watts	500 Watts	500 Watts	400 Watts	400 Watts	500 Watts	400 Watts	350 Watts	180 Watts
RMS Power Handling		300 Watts	300 Watts	200 Watts	200 Watts	250 Watts	150 Watts	150 Watts	150 Watts	120 Watts	120 Watts	150 Watts	120 Watts	100 Watts	50 Watts
Sensitivity (1w/1m)		91dB	91 dB	90 dB	90 dB	93 dB	91 dB	93 dB	93 dB	91 dB	91 dB	93 dB	91 dB	91 dB	90 dB
Displacement (cu. ft.)		0.202	0.202	0.147	0.147	0.147	0.078	0.141	0.141	0.078	0.078	0.141	0.078	0.053	0.025

Since Kenwood follows a policy of continuous product improvement, these specifications are subject to change without notice.