

KEF

THE SPEAKER ENGINEERS

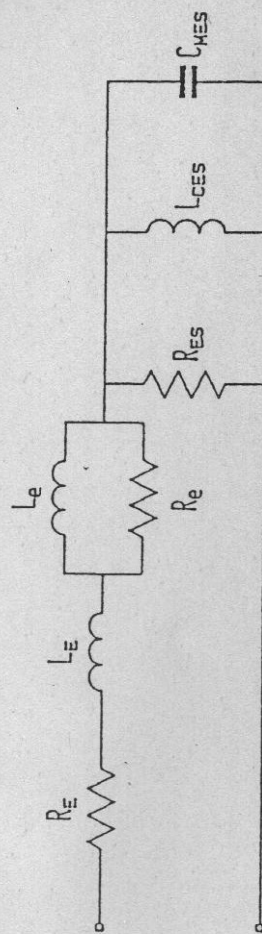
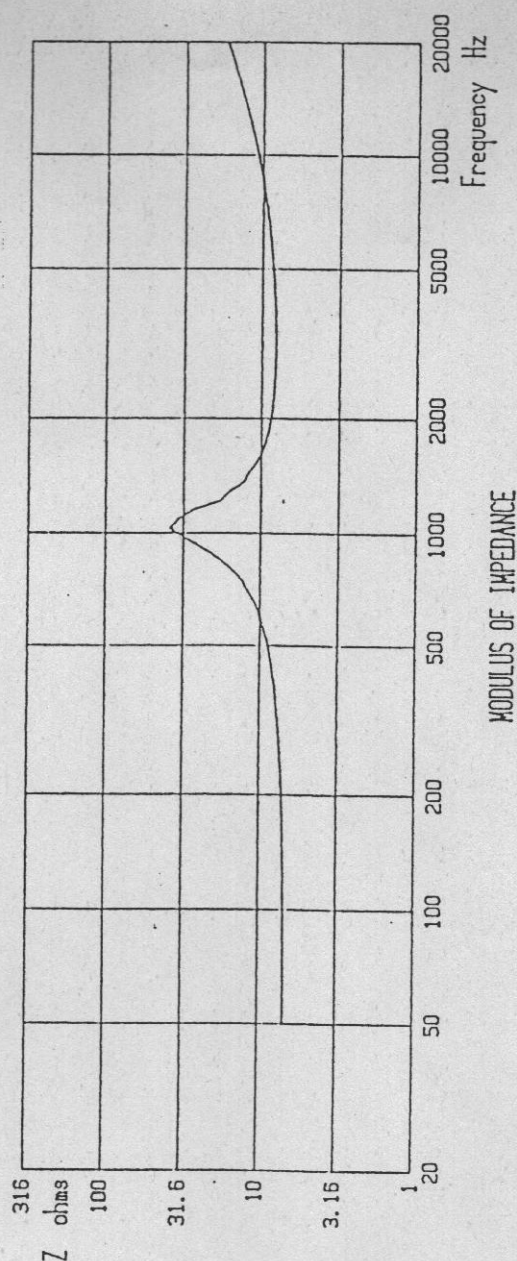
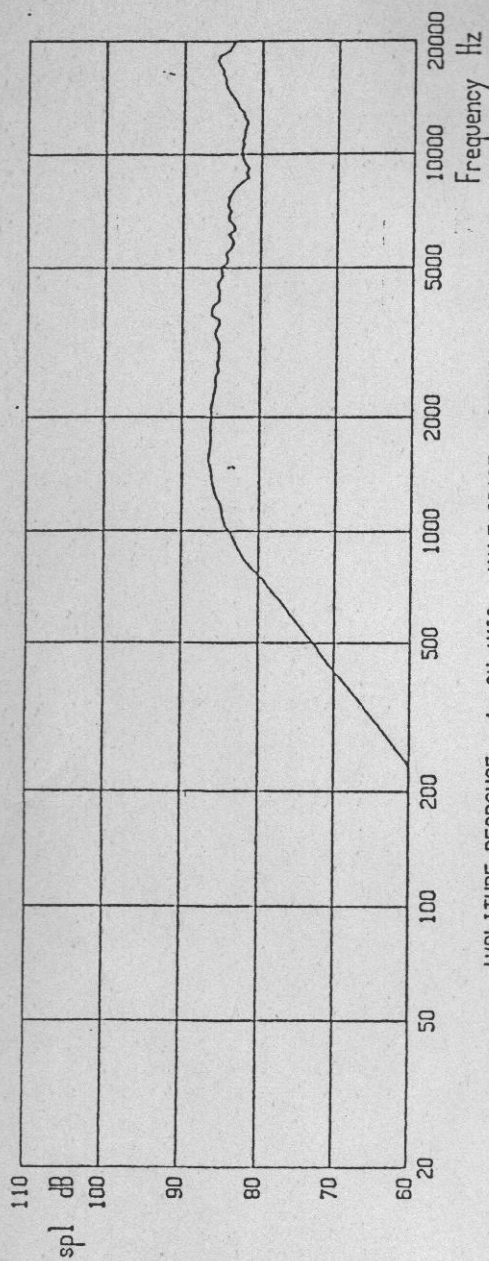
Parametri di Thiele-Small

Componenti KEF

CONSTRUCTOR SERIES

DRIVE UNIT DATA

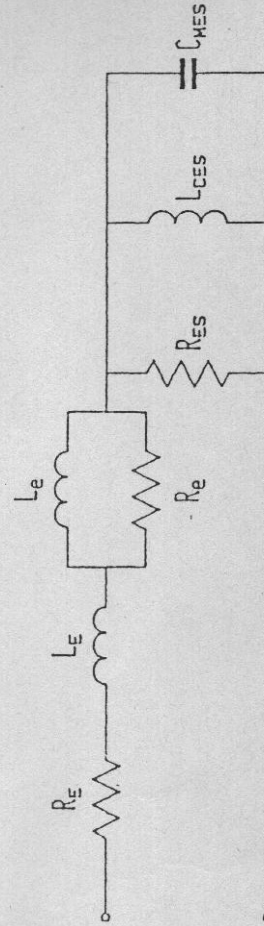
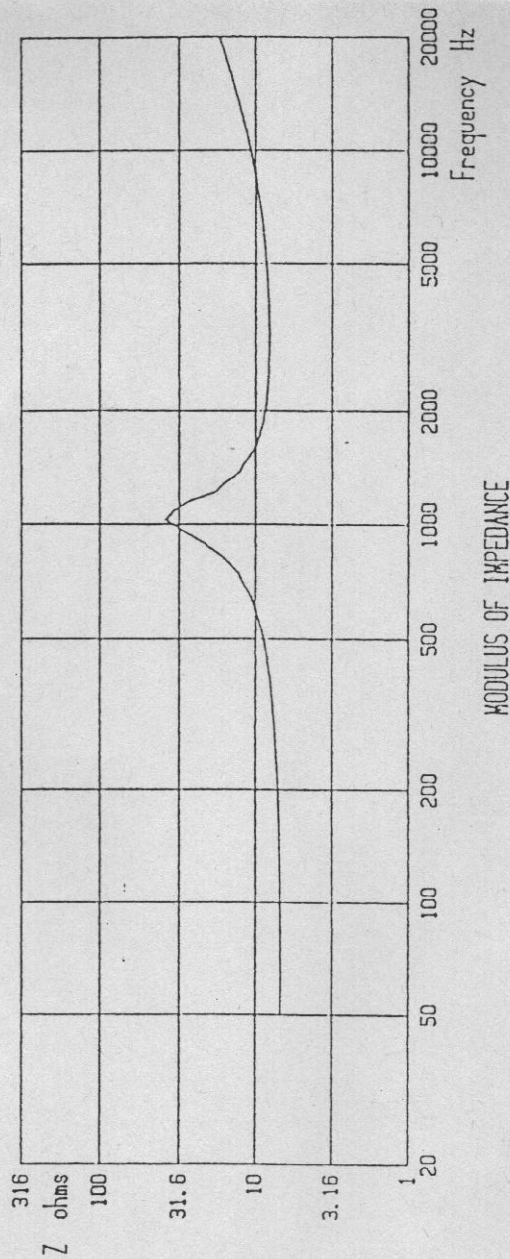
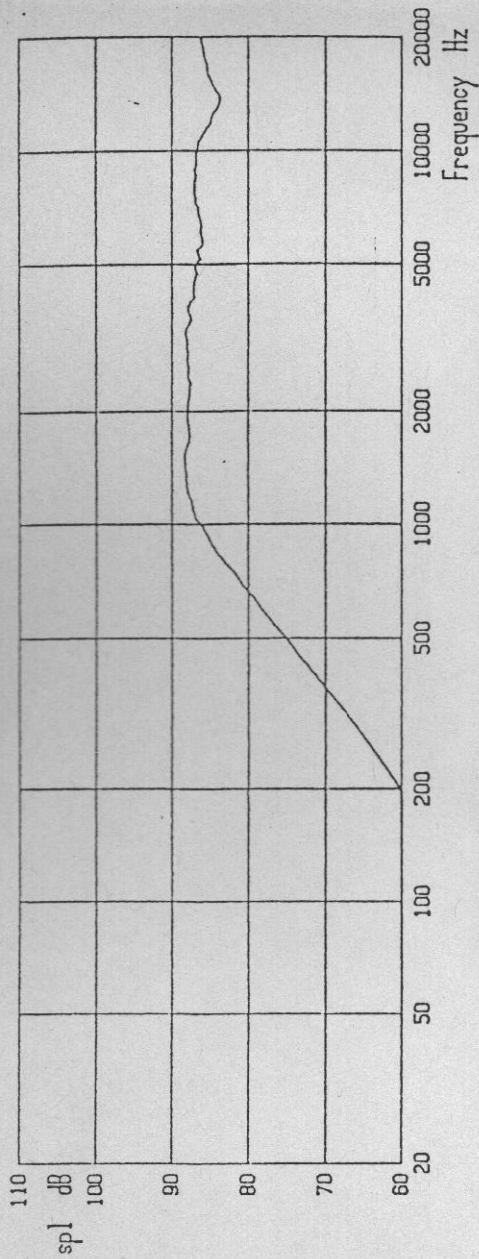
Model	T27A
Type	SP1032
Nominal Impedance	8 ohms
Frequency Range	3 - 20 kHz
Sensitivity	85 dB spl
Net Weight	0.65 kg
Closed Box Volume	-
Reflex Box Volume	-
Power Handling Continuous	7.9 V rms
Power Handling Programme	100 V
Flux Density	1.2 T
Total Flux	0.23 mWb
Voice Coil Diameter	19 mm
Max. Continuous Temp.	130 C
Max. Intermittent Temp.	150 C
Thermal Time Constant	2.7 s
Input Impedance R(E)	6.4 ohms
L(E)	0.11 mH
L(e)	0.29 mH
R(e)	1.12 ohms
R(ES)	29.1 ohms
L(CES)	0.73 mH
C(WES)	28.7 uF
Effective Diaphragm Area	4.43 sq cm
Linear Excursion (pk-pk)	0.2 mm
Damage Limited Excursion (pk-pk)	-
Effective Moving Mass M(WES)	0.35 g
Suspension Mechanical Resistance R(WES)	0.42 mech ohms
Suspension Compliance C(WES)	0.60x10E-4 m/N
Compliance Equiv. Vol. V(AS)	-
Free Air Resonance Frequency f(S)	1100 Hz
Force Factor Bl	3.6 N/A
Damping Factors	5.75
Mechanical Q(M)	1.27
Electrical Q(E)	1.04
Total Q(T)	-



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

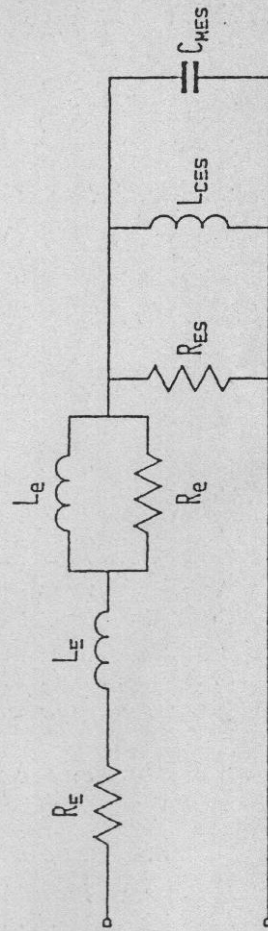
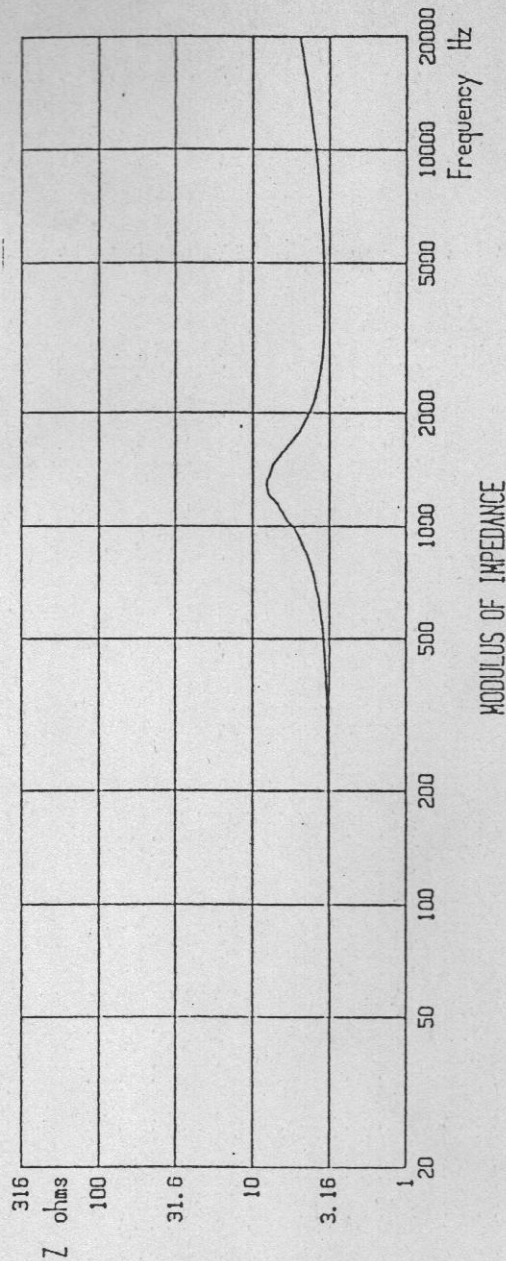
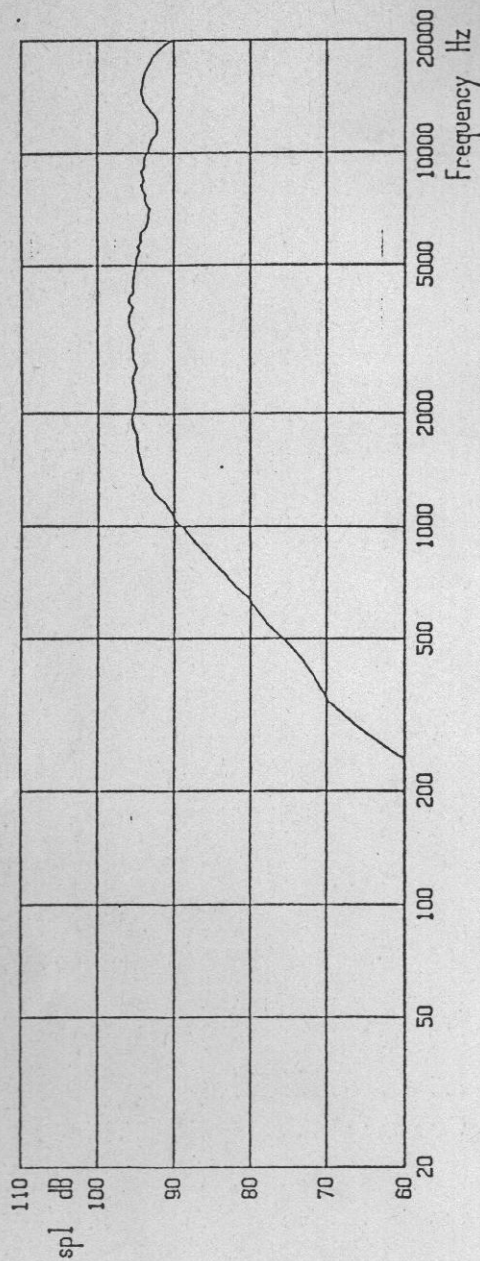
Model	T33A
Type	SP1074
Nominal Impedance	8 ohms
Frequency Range	3 - 20 kHz
Sensitivity	87 dB spl
Net Weight	0.53 kg
Closed Box Volume	-
Reflex Box Volume	-
Power Handling Continuous	9.2 V rms
Power Handling Programme	150 V
Flux Density	1.2 T
Total Flux	0.3 mTb
Voice Coil Diameter	25mm
Max. Continuous Temp.	120 C
Max. Intermittent Temp.	150 C
Thermal Time Constant	3.0 s
Input Impedance R(E)	6.0 ohms
L(E)	0.10 mH
L(e)	0.11 mH
R(e)	0.91 ohms
L(CES)	0.79 mH
C(MES)	35.4 uF
R(ES)	27.0 ohms
Effective Diaphragm Area	6.29 sq cm
Linear Excursion (pk-pk)	1.0 mm
Damage Limited Excursion (pk-pk)	-
Effective Moving Mass M(MS)	0.39 g
Suspension Mechanical Resistance	0.4 mech ohms
Suspension Compliance	0.73x10E-4 m/N
Equivalent Volume of Compliance V(AS)	-
Free Air Resonance Frequency f(S)	950 Hz
Force Factor Bl	3.3 N/A
Damping Factors Mechanical Q(M)	5.7
Electrical Q(E)	1.27
Total Q(T)	1.04



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

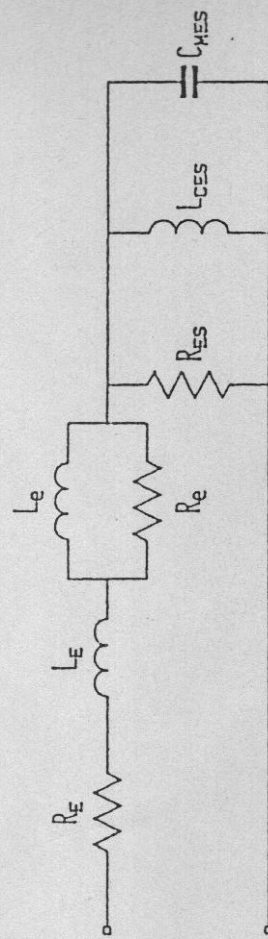
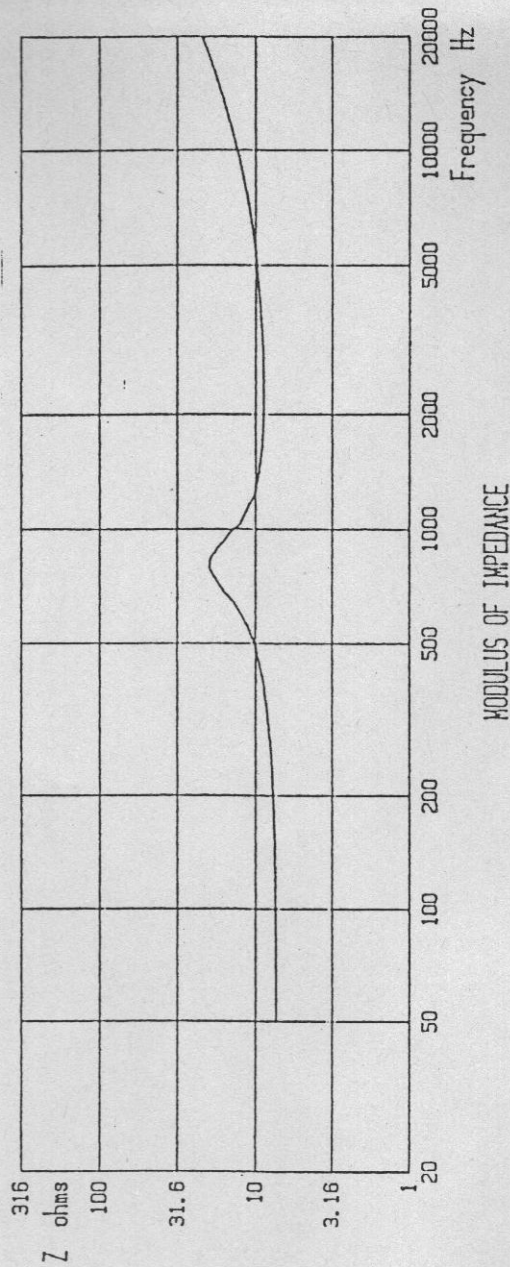
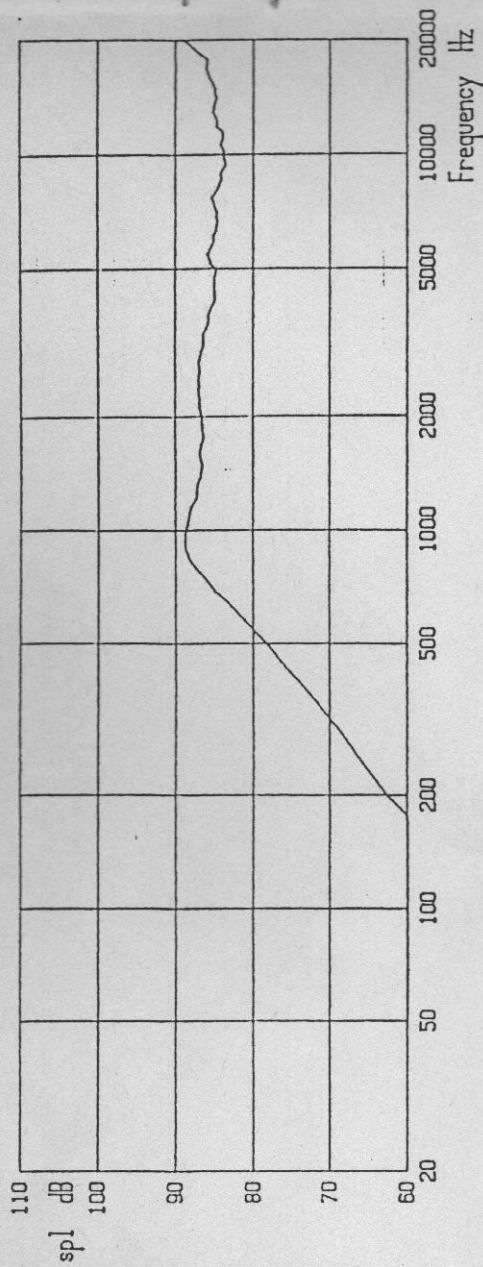
Model	T33B
Type	SP1210
Nominal Impedance	4 ohms
Frequency Range	3 - 20 kHz
Sensitivity	93 dB spl
Net Weight	0.55 kg
Closed Box Volume	-
Reflex Box Volume	-
Power Handling Continuous	10 V
Power Handling Programme	300 W
Flux Density	1.6 T
Total Flux	0.24 mVb
Voice Coil Diameter	25 mm
Max. Continuous Temp.	100 C
Max. Intermittent Temp.	150 C
Thermal Time Constant	0.97 s
Input Impedance R(E)	3.1 ohms
L(E)	0.01 mH
L(e)	0.02 mH
R(e)	2.34 ohms
R(ES)	4.91 ohms
L(CES)	0.25 mH
C(MES)	61.0 uF
Effective Diaphragm Area	6.29 sq cm
Linear Excursion (pk-pk)	0.8 mm
Damage Limited Excursion (pk-pk)	-
Effective Moving Mass M(MS)	0.3 g
Suspension Mechanical Resistance R(MS)	1.0 mech ohms
Suspension Compliance C(MS)	0.51x10E-4 m/N
Compliance Equiv. Vol. V(MS)	-
Free Air Resonance Frequency f(S)	1280 Hz
Force Factor Bl	2.22 N/A
Damping Factors Mechanical Q(M)	2.41
Electrical Q(E)	1.52
Total Q(T)	0.93



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

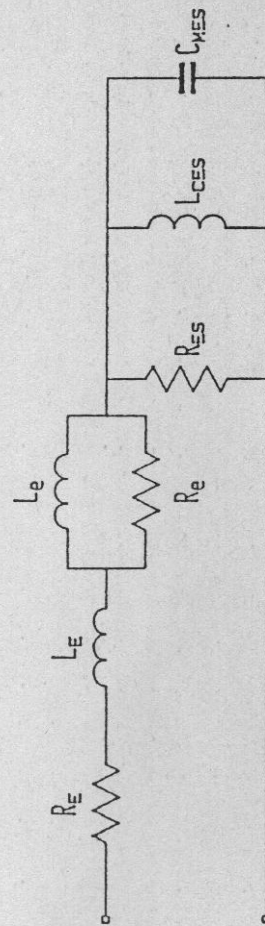
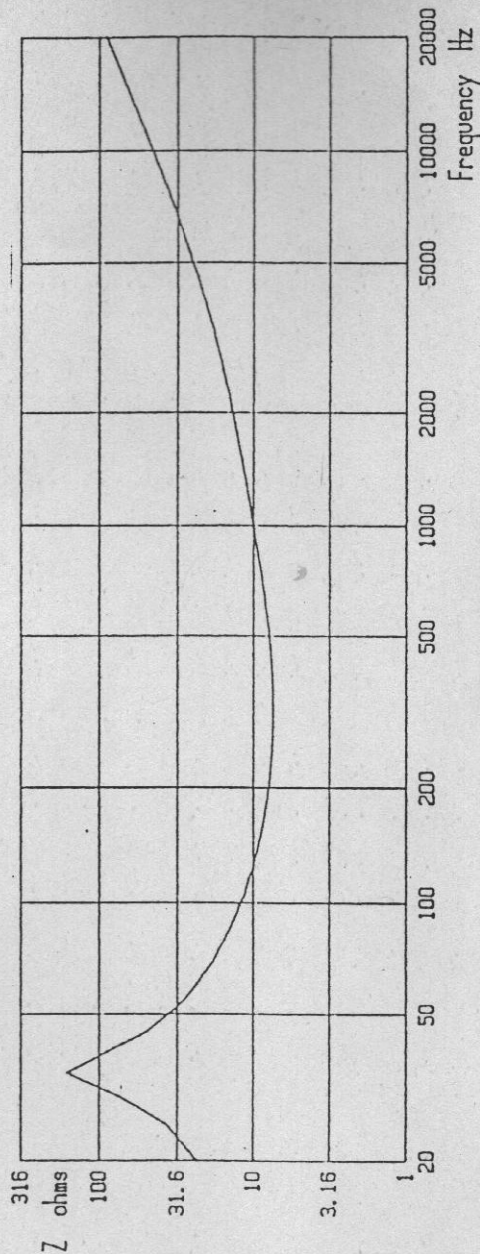
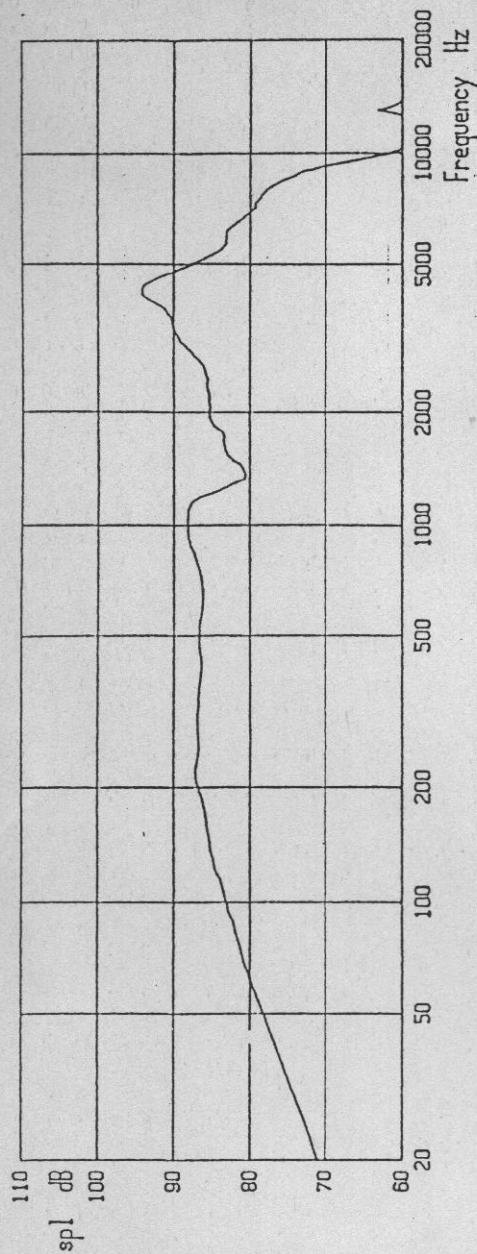
Model	T52B
Type	SP1072
Nominal Impedance	8 ohms
Frequency Range	2 - 20 kHz
Sensitivity	87 dB spl
Net Weight	0.85 kg
Closed Box Volume	-
Reflex Box Volume	-
Power Handling Continuous	10.4 V rms
Power Handling Programme	200 V
Flux Density	1.0 T
Total Flux	0.49 mTb
Voice Coil Diameter	39 mm
Max Continuous Temp.	130 C
Max Intermittent Temp.	150 C
Thermal Time Constant	4.1 s
Input Impedance R(E)	6.6 ohms
L(E)	0.14 mH
L(e)	0.33 mH
R(e)	1.26 ohms
R(ES)	10.48 ohms
L(CES)	0.71 mH
C(MES)	53.5 uF
Effective Diaphragm Area	15.2 sq cm
Linear Excursion (pk-pk)	0.8 mm
Damage Limited Excursion (pk-pk)	-
Effective Moving Mass M(MS)	0.98 g
Suspension Mechanical Resistance R(MS)	1.75 mech ohms
Suspension Compliance C(MS)	0.38x10 ⁻⁴ m/N
Compliance Equiv. Vol. V(MS)	-
Free Air Resonance Frequency f(S)	820 Hz
Force Factor Bl	4.5 N/A
Damping Factors Mechanical Q(M)	2.89
Electrical Q(E)	1.82
Total Q(T)	1.12



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

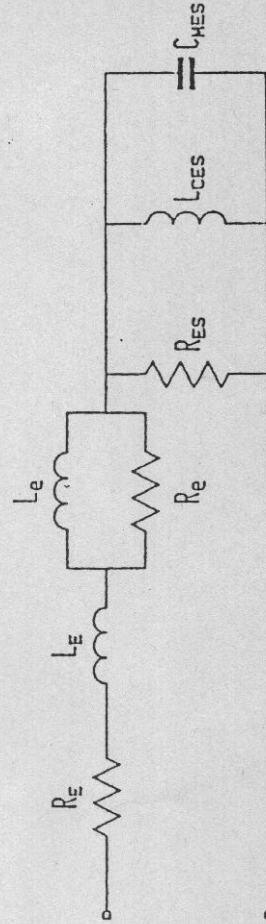
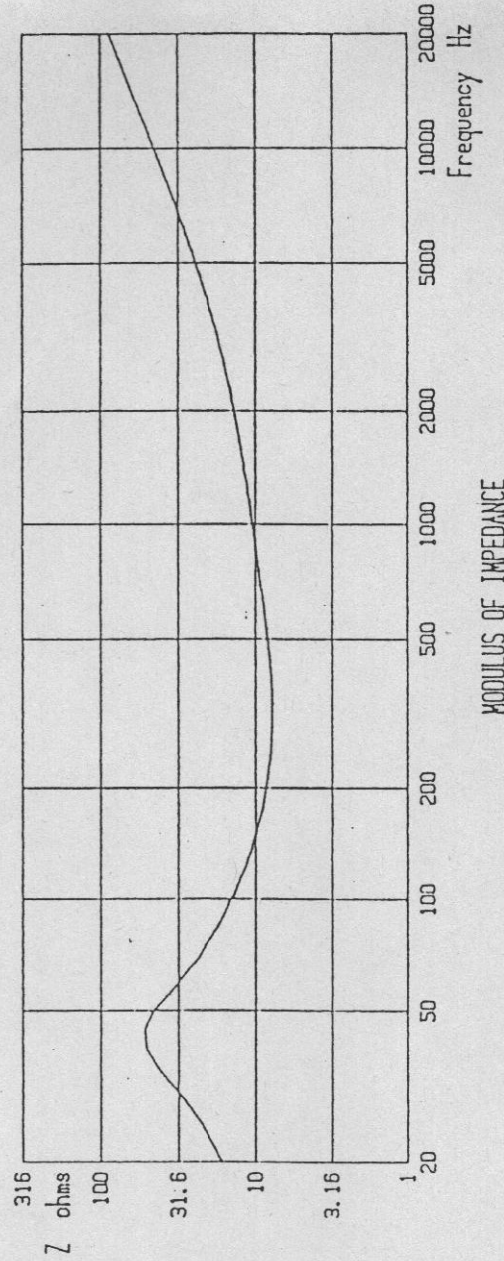
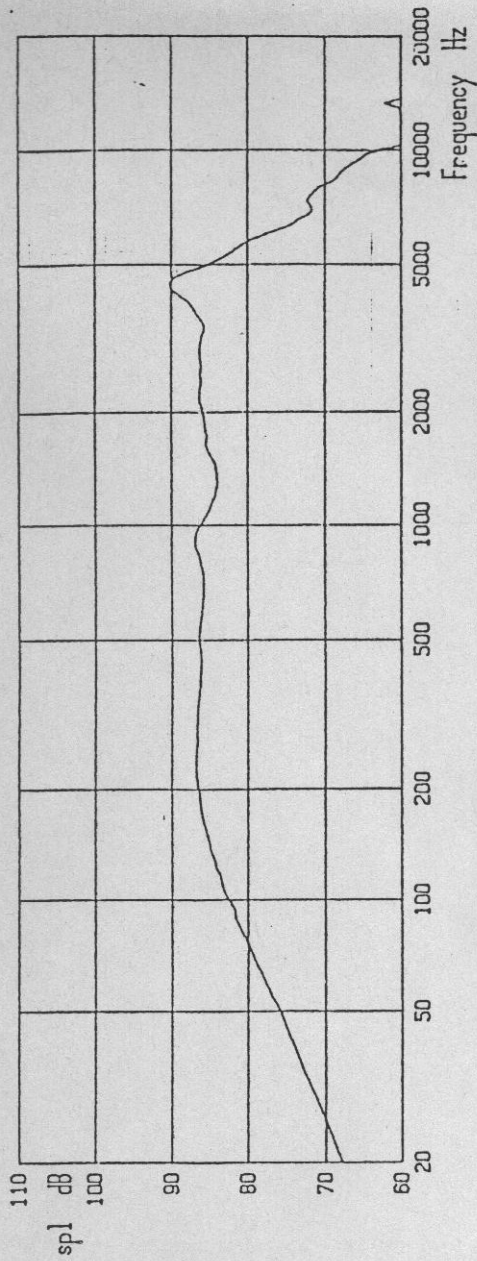
Model	B110A
Type	SP1003
Nominal Impedance	8 ohms
Frequency Range	55 - 3500 Hz
Sensitivity	86 dB spl
Net Weight	1.2 kg
Closed Box Volume	5 - 10 litres
Reflex Box Volume	-
Power Handling Continuous	22.6 V rms
Power Handling Programme	50 V (150 V MF)
Flux Density	1.1 T
Total Flux	0.57 mVb
Voice Coil Diameter	26 mm
Max. Continuous Temp.	230 C
Max. Intermittent Temp.	300 C
Thermal Time Constant	8.0 s
Input Impedance R(E)	7.1 ohms
L(E)	0.70 mH
L(e)	0.47 mH
R(e)	3.13 has
R(ES)	154 ohms
L(CES)	114 mH
C(MES)	181 uF
Effective Diaphragm Area	85 sq cm
Linear Excursion (pk-pk)	6.3 mm
Range Limited Excursion (pk-pk)	12 mm
Effective Moving Mass M(MS)	11.0 g
Suspension Mechanical Resistance R(MS)	0.39 mech ohms
Suspension Compliance C(MS)	18.8x10E-4 m/N
Compliance Equiv. Vol. V(MS)	19.0 litres
Free Air Resonance Frequency f(S)	35 Hz
Force Factor Bl	7.8 N/A
Damping Factors	6.14
Mechanical Q(M)	0.28
Electrical Q(E)	0.27
Total Q(T)	



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

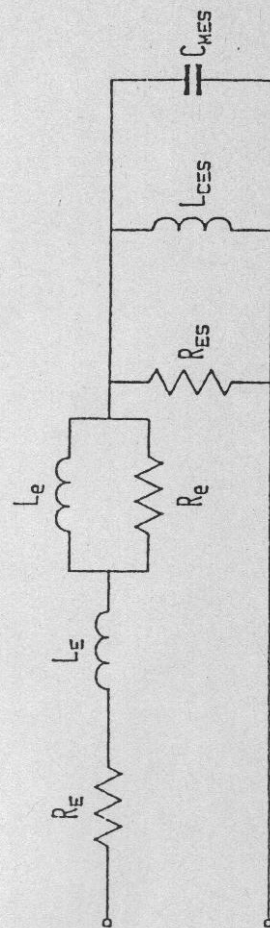
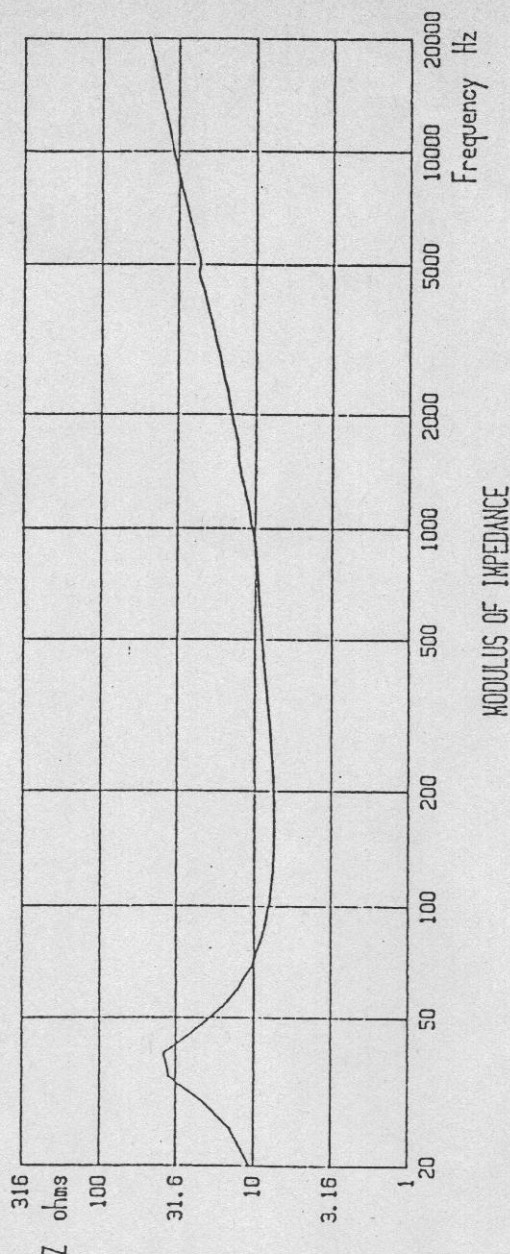
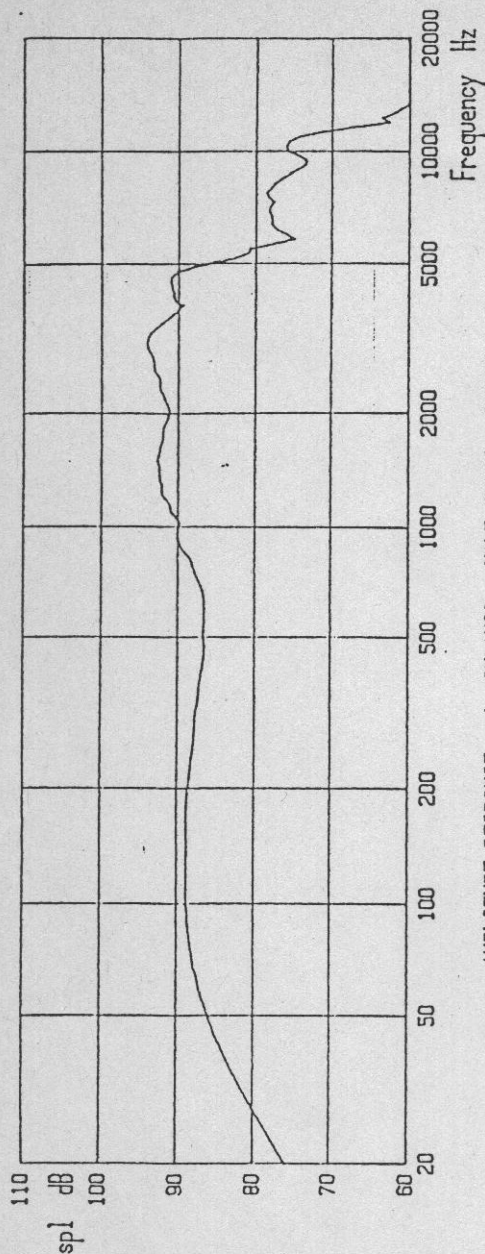
Model	B110B
Type	SP1057
Nominal Impedance	8 ohms
Frequency Range	55 - 3500 Hz
Sensitivity	86 dB spl
Net Weight	1.2 kg
Closed Box Volume	5 - 10 litres
Reflex Box Volume	-
Power Handling Continuous	26.4 V rms
Power Handling Programme	50 V (150 W MF)
Flux Density	1.1 T
Total Flux	0.57 mWb
Voice Coil Diameter	26 mm
Max. Continuous Temp.	250 °C
Max. Intermittent Temp.	340 °C
Thermal Time Constant	8.8 s
Input Impedance R(E)	7.1 ohms
L(E)	0.69 mH
L(e)	0.68 mH
R(e)	3.33 ohms
R(ES)	46.1 ohms
L(CES)	84.0 mH
C(MES)	163 uF
Effective Diaphragm Area	79 sq cm
Linear Excursion (pk-pk)	6.3 mm
Damage Limited Excursion (pk-pk)	12 mm
Effective Moving Mass M(MS)	9.9 g
Suspension Mechanical Resistance R(MS)	1.32 mech ohms
Suspension Compliance C(MS)	13.8x10E-4 m/N
Compliance Equiv. Vol. V(MS)	12.1 litres
Free Air Resonance Frequency f(S)	43 Hz
Force Factor Bl	7.8 N/A
Damping Factors	2.03
Mechanical Q(M)	0.31
Electrical Q(E)	0.27
Total Q(T)	



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

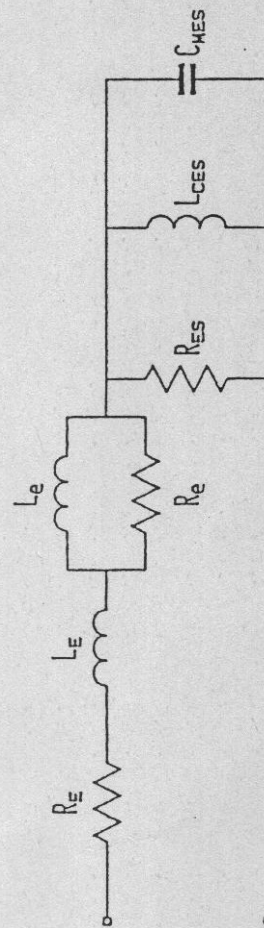
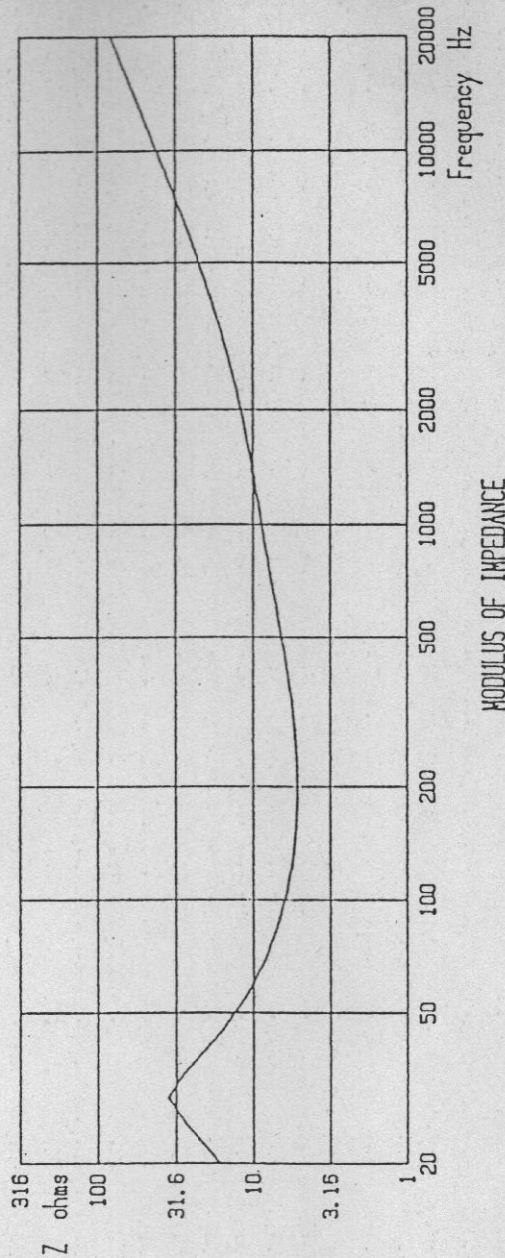
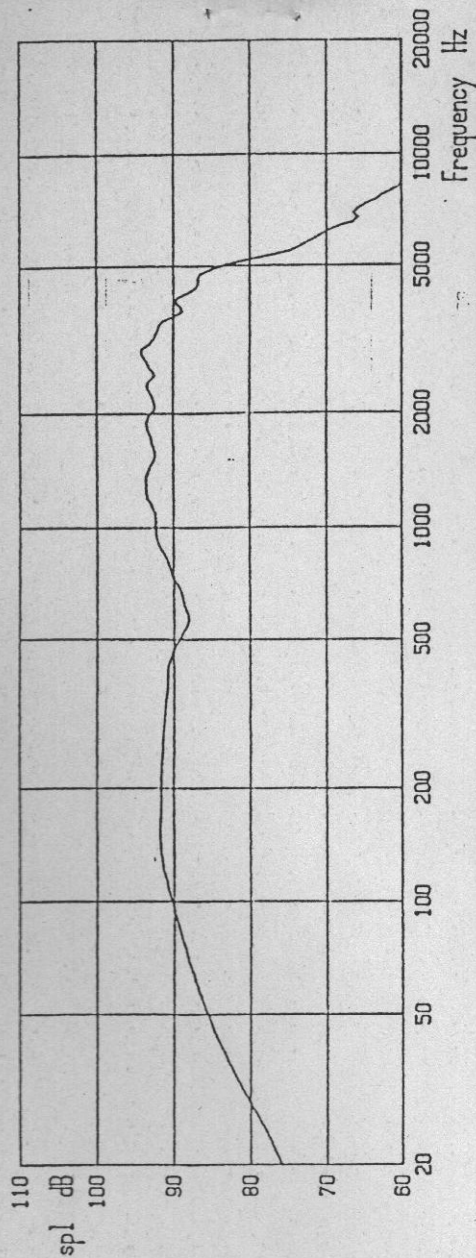
Model	B200A
Type	SP1014
Nominal Impedance	8 ohms
Frequency Range	30 - 3500 Hz
Sensitivity	88 dB spl
Net Weight	1.47kg
Closed Box Volume	20 - 30 litres
Reflex Box Volume	-
Power Handling Continuous	21.9 V rms
Power Handling Programme	50 V
Flux Density	1.1 T
Total Flux	0.57 mWb
Voice Coil Diameter	26 mm
Max. Continuous Temp.	230 C
Max. Intermittent Temp.	300 C
Thermal Time Constant	8.4 s
Input Impedance R(E)	6.8 ohms
L(E)	0.69 mH
L(a)	1.18 mH
R(a)	2.76 ohms
R(ES)	34.4 ohms
L(CES)	39.3 mH
C(MES)	447 uF
Effective Diaphragm Area	222 sq cm
Linear Excursion (pk-pk)	6.3 mm
Damage Limited Excursion (pk-pk)	12 mm
Effective Moving Mass M(MS)	24.0 g
Suspension Mechanical Resistance R(MS)	1.56 mech ohms
Suspension Compliance C(MS)	7.32x10E-4 m/N
Compliance Equiv. Vol. V(MS)	51 litres
Free Air Resonance Frequency f(S)	38 Hz
Force Factor Bl	7.3 N/A
Damping Factors	3.67
Mechanical Q(M)	0.73
Electrical Q(E)	0.61
Total Q(T)	



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

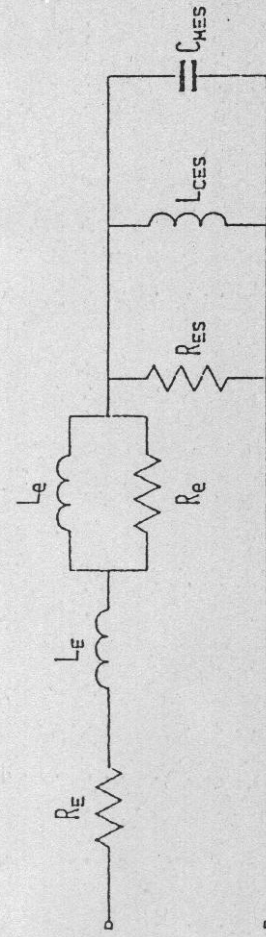
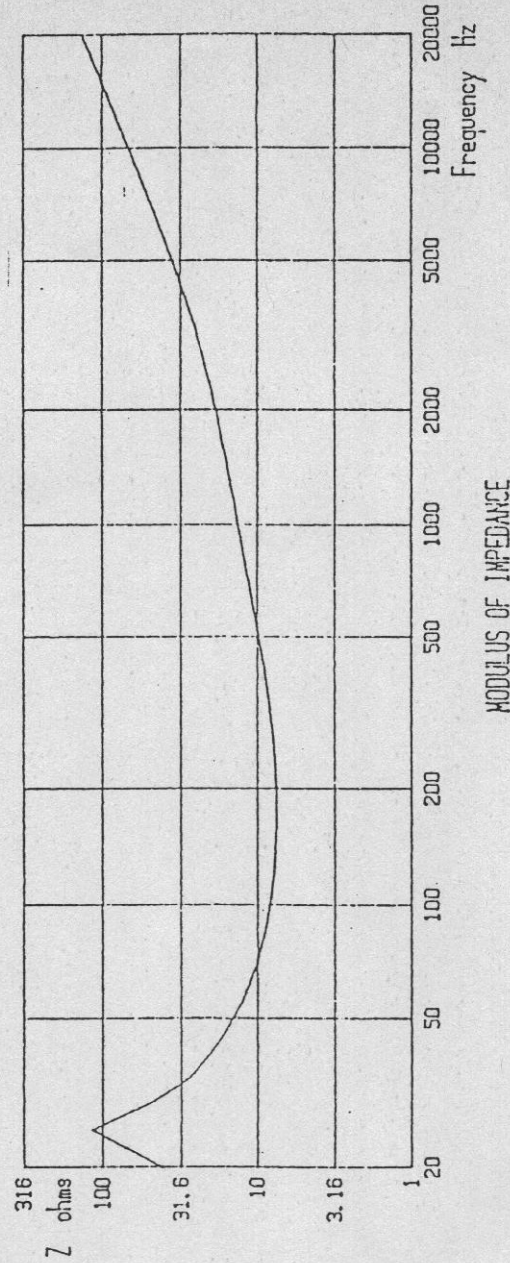
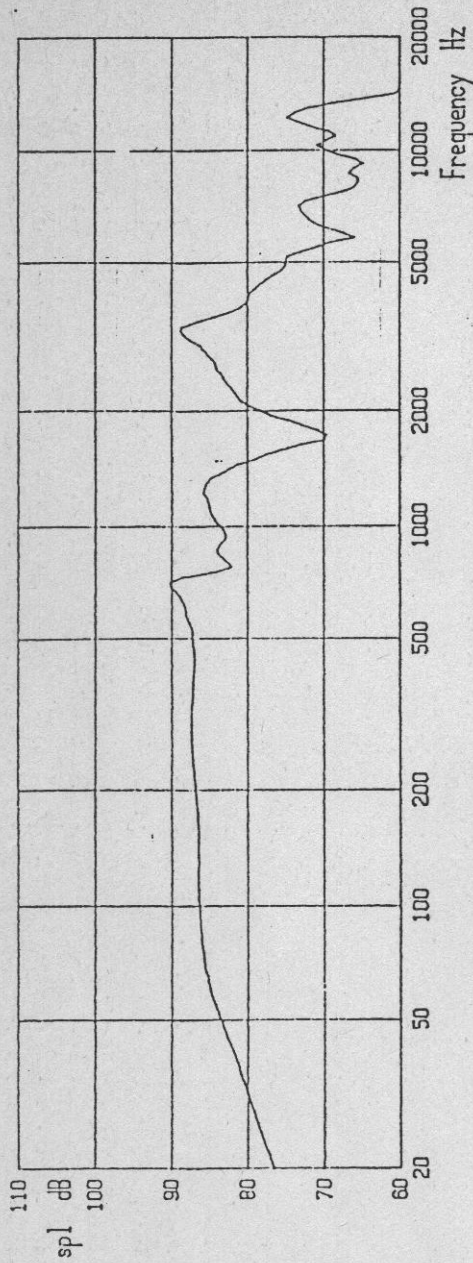
Model	B200G
Type	SP1075
Nominal Impedance	5 ohms
Frequency Range	30 - 3500 Hz
Sensitivity	91 dB spl
Net Weight	1.4 kg
Closed Box Volume	20 - 30 litres
Reflex Box Volume	40 - 60 litres
Power Handling Continuous	23.3 V rms
Power Handling Programme	100 V
Flux Density	1.1 T
Total Flux	0.72 mWb
Voice Coil Diameter	33 mm
Max. Continuous Temp.	250 C
Max. Intermittent Temp.	340 C
Thermal Time Constant	8.1 s
Input Impedance R(E)	4.8 ohms
L(E)	0.64 mH
L(e)	0.72 mH
R(e)	3.36 ohms
R(ES)	30.7 ohms
L(CES)	65.9 mH
C(MES)	427 uF
Effective Diaphragm Area	243 sq cm
Linear Excursion (pk-pk)	6.3 mm
Damage Limited Excursion (pk-pk)	20 mm
Effective Moving Mass M(MS)	24.0 g
Suspension Mechanical Resistance R(MS)	1.83 mech ohms
Suspension Compliance C(MS)	11.7 x 10E-4 m/N
Compliance Equiv. Vol. V(MS)	97 litres
Free Air Resonance Frequency f(S)	30 Hz
Force Factor Bl	7.5 N/A
Damping Factors	2.47
Mechanical Q(M)	0.39
Electrical Q(E)	0.33
Total Q(T)	



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

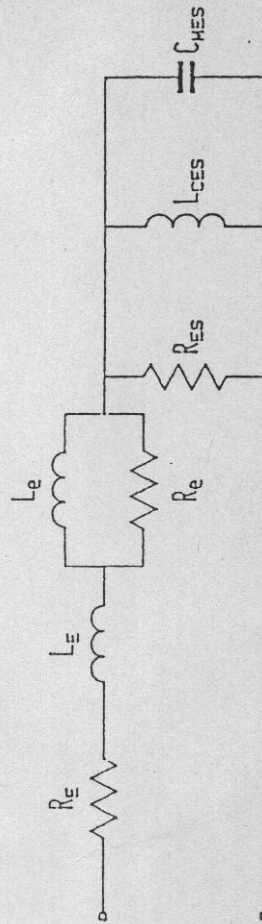
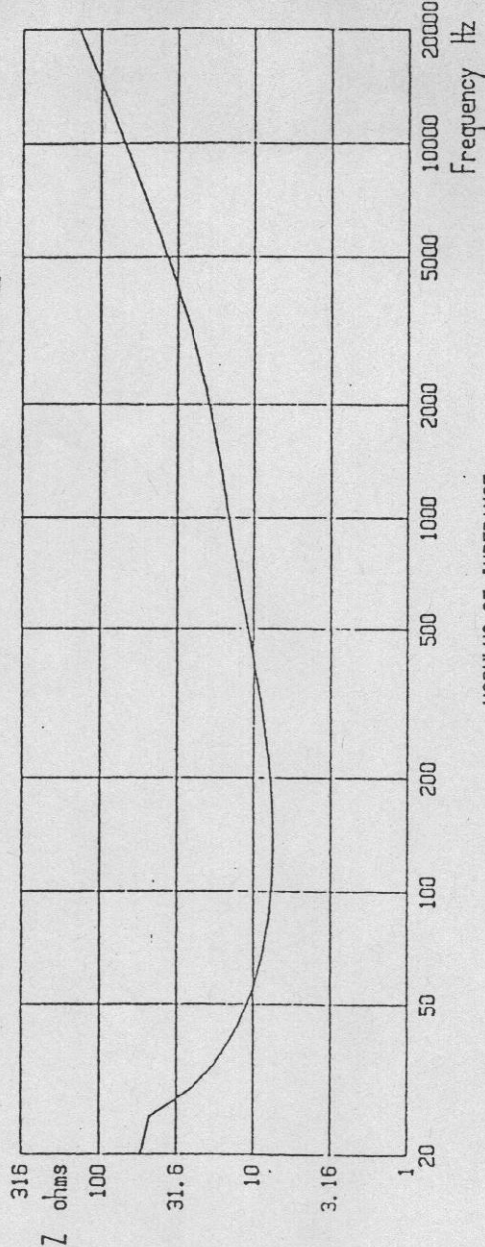
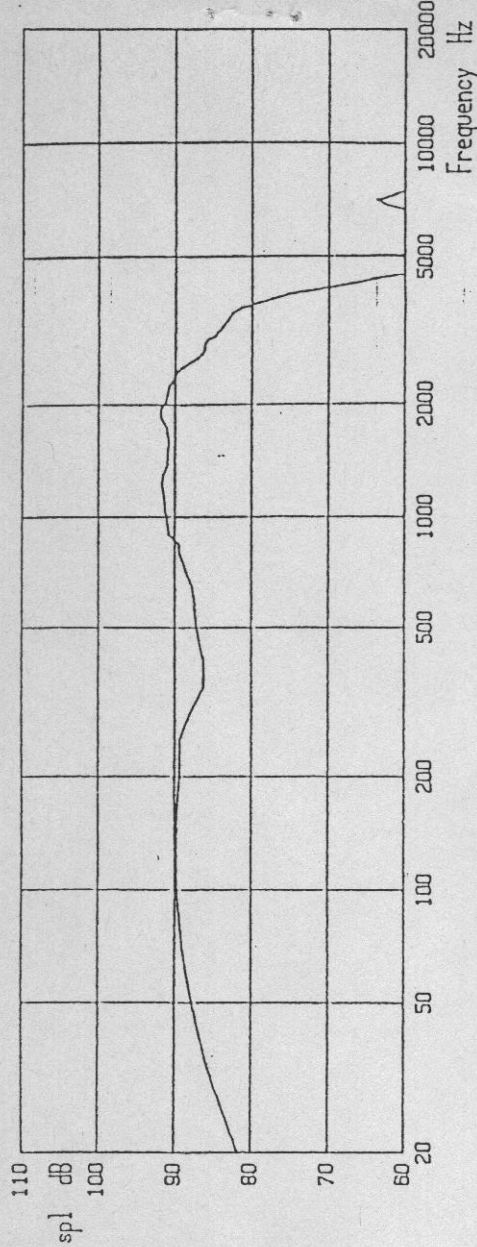
Model	.81398
Type	SP1044
Nominal Impedance	8 ohms
Frequency Range	25 - 500 Hz
Sensitivity	87 dB spl
Net Weight	3.72 kg
Closed Box Volume	30 - 60 litres
Reflex Box Volume	60 - 140 litres
Power Handling Continuous	28.7 V rms
Power Handling Programme	100 W
Flux Density	0.85 T
Total Flux	1.1 mWb
Voice Coil Diameter	52 mm
Max. Continuous Temp.	230 C
Max. Intermittent Temp.	300 C
Thermal Time Constant	13.7 s
Input Impedance R(E)	7.2 ohms
L(E)	1.04 mH
L(a)	0.97 mH
R(a)	4.87 ohms
R(ES)	110 ohms
L(CES)	116 mH
C(WES)	349 uF
Effective Diaphragm Area	349 sq cm
Linear Excursion (pk-pk)	7 mm
Damage Limited Excursion (pk-pk)	12 mm
Effective Moving Mass M(MS)	54 g
Suspension Mechanical Resistance R(MS)	1.43 mech ohms
Suspension Compliance C(MS)	7.43x10E-4 m/N
Compliance Equiv. Vol. V(MS)	127 litres
Free Air Resonance Frequency f(S)	25 Hz
Force Factor Bl	12.5 N/A
Damping Factors	6.0
Mechanical Q(M)	0.39
Electrical Q(E)	0.37
Total Q(T)	



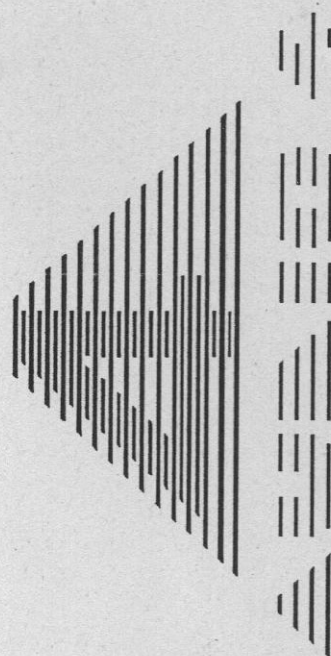
DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

Model	B300B
Type	SP1071
Nominal Impedance	8 ohms
Frequency Range	25 - 2000 Hz
Sensitivity	89 dB spl
Net Weight	3.64 kg
Closed Box Volume	65 - 75 litres
Reflex Box Volume	90 - 180 litres
Power Handling Continuous	36.8 V rms
Power Handling Programme	200 V
Flux Density	1.0 T
Total Flux	1.33 mTb
Voice Coil Diameter	52 mm
Max. Continuous Temp.	250 C
Max. Intermittent Temp.	340 C
Thermal Time Constant	13.7 s
Input Impedance R(E)	7.1 ohms
L(E)	1.07 mH
L(e)	1.43 mH
R(e)	5.71 ohms
R(ES)	61.3 ohms
L(CES)	108 mH
C(MES)	485 uF
Effective Diaphragm Area	527 sq cm
Linear Excursion (pk-pk)	13 mm
Damage Limited Excursion (pk-pk)	25 mm
Effective Moving Mass M(MS)	71 g
Suspension Mechanical Resistance R(MS)	2.39 mech ohms
Suspension Compliance C(MS)	7.4x10 ⁻⁴ m/N
Compliance Equiv. Vol. V(MS)	287 litres
Free Air Resonance Frequency f(S)	22 Hz
Force Factor Bl	12.1 N/A
Damping Factors Mechanical Q(M)	4.1
Electrical Q(E)	0.48
Total Q(T)	0.43



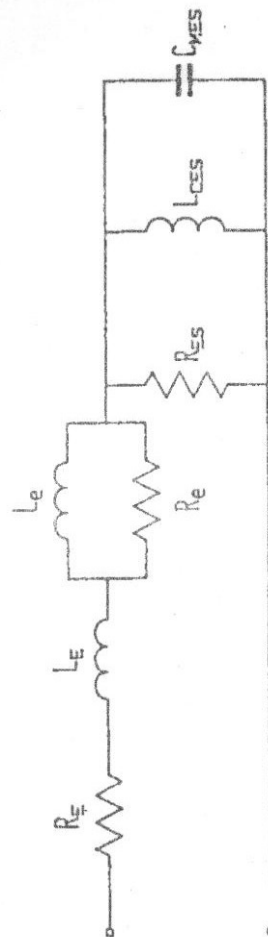
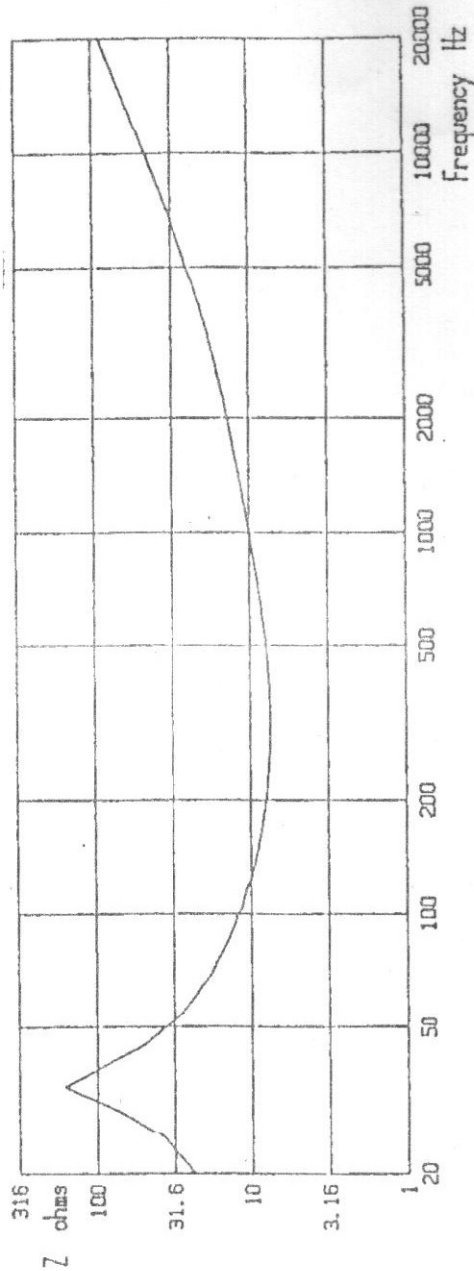
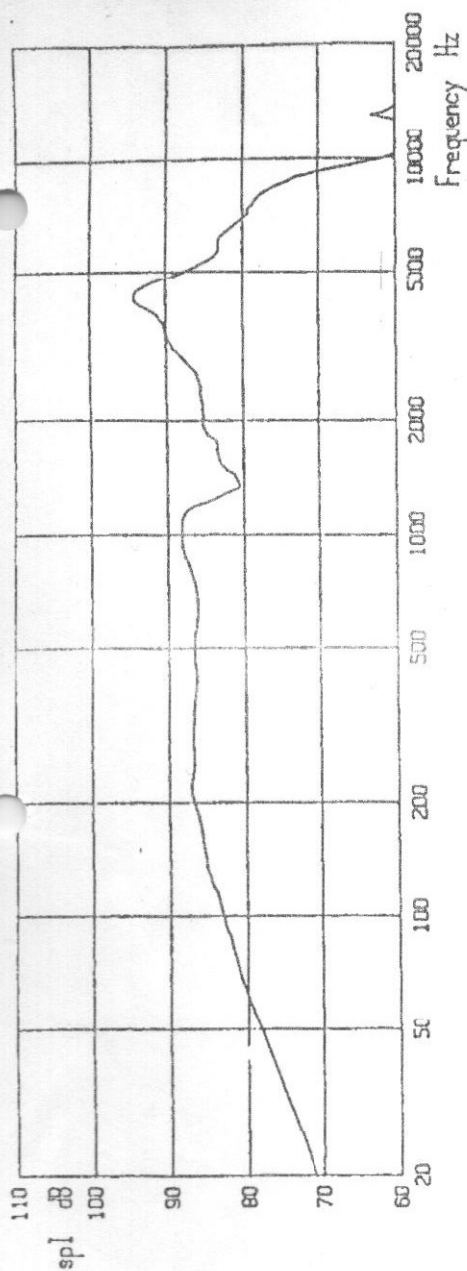
DRIVE UNIT EQUIVALENT CIRCUIT



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tel.02 - 33402760

DRIVE UNIT DATA

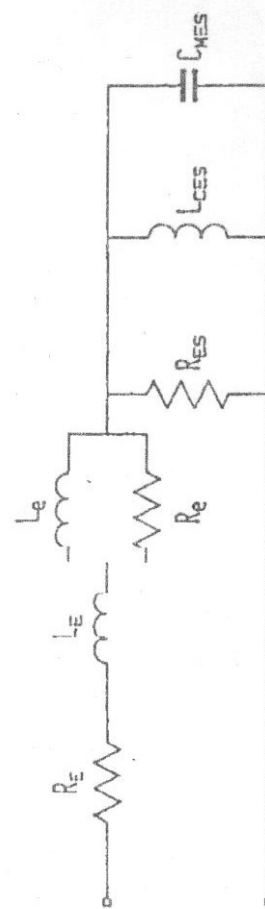
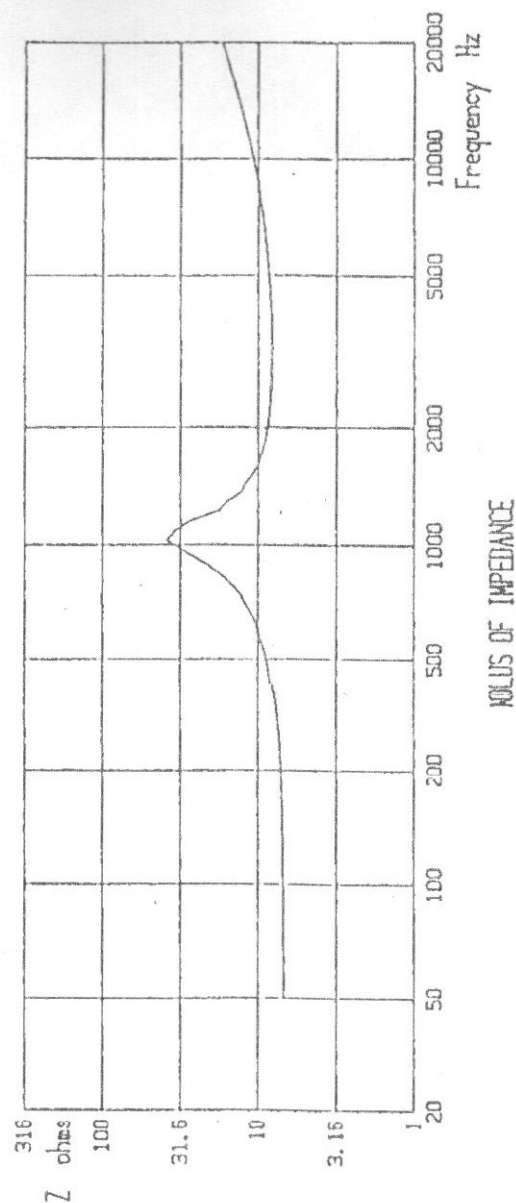
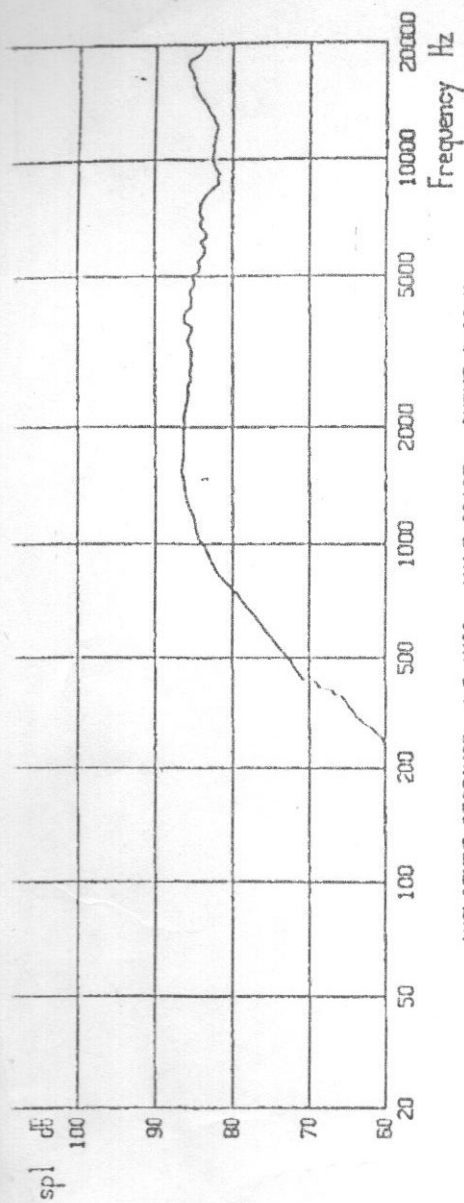
Model	B110A
Type	SP1003
Nominal Impedance	8 ohms
Frequency Range	55 - 3500 Hz
Sensitivity	86 dB SPL
Net Weight	1.2 kg
Closed Box Volume	5 - 10 litres
Reflex Box Volume	-
Power Handling Continuous	22.8 V rms
Power Handling Programme	50 V (150 V MF)
Flux Density	1.1 T
Total Flux	0.57 mTb
Voice Coil Diameter	26 mm
Max. Continuous Temp.	230 C
Max. Intermittent Temp.	300 C
Thermal Time Constant	8.0 s
Input Impedance R(E)	7.1 ohms
L(E)	0.70 mH
L(a)	0.47 mH
R(a)	3.13 ohms
R(ES)	154 ohms
L(CES)	114 mH
C(MES)	181 uF
Effective Diaphragm Area	85 sq cm
Linear Excursion (pk-pk)	6.3 mm
Damage Limited Excursion (pk-pk)	12 mm
Effective Moving Mass M(MS)	11.0 g
Suspension Mechanical Resistance R(MS)	0.39 mech ohms
Suspension Compliance C(MS)	18.8 x 10 ⁻⁴ m/N
Compliance Equiv. Vol. V(MS)	19.0 litres
Free Air Resonance Frequency f(S)	35 Hz
Force Factor Bl	7.8 N/A
Damping Factors	6.14
Mechanical Q(M)	0.23
Electrical Q(E)	0.27
Total Q(T)	



DRIVE UNIT EQUIVALENT CIRCUIT

DRIVE UNIT DATA

Model	I27A
Type	SP1032
Nominal Impedance	8 ohms
Frequency Range	3 - 20 kHz
Sensitivity	85 dB spl
Net Weight	0.65 kg
Closed Box Volume	-
Reflex Box Volume	-
Power Handling Continuous	7.9 V rms
Power Handling Programme	100 V
Flux Density	1.2 T
Total Flux	0.23 mWb
Voice Coil Diameter	19 mm
Max. Continuous Temp.	130 C
Max. Intermittent Temp.	150 C
Thermal Time Constant	2.7 s
Input Impedance R(E)	6.4 ohms
L(E)	0.11 mH
L(e)	0.29 mH
R(e)	1.12 ohms
R(ES)	29.1 ohms
L(CES)	0.73 mH
C(MES)	28.7 μ F
Effective Diaphragm Area	4.43 sq cm
Linear Excursion (pk-pk)	0.2 mm
Damage Limited Excursion (pk-pk)	-
Effective Moving Mass M(MS)	0.35 g
Suspension Mechanical Resistance R(MS)	0.42 mech ohms
Suspension Compliance C(MS)	0.60x10 ⁻⁴ m/N
Compliance Equiv. Vol. V(MS)	-
Free Air Resonance Frequency f(S)	1100 Hz
Force Factor Bl	3.6 N/A
Damping Factors	5.75
Mechanical Q(M)	1.27
Electrical Q(E)	1.04
Total Q(T)	-



DRIVE EQUIVALENT CIRCUIT

DATA SHEET

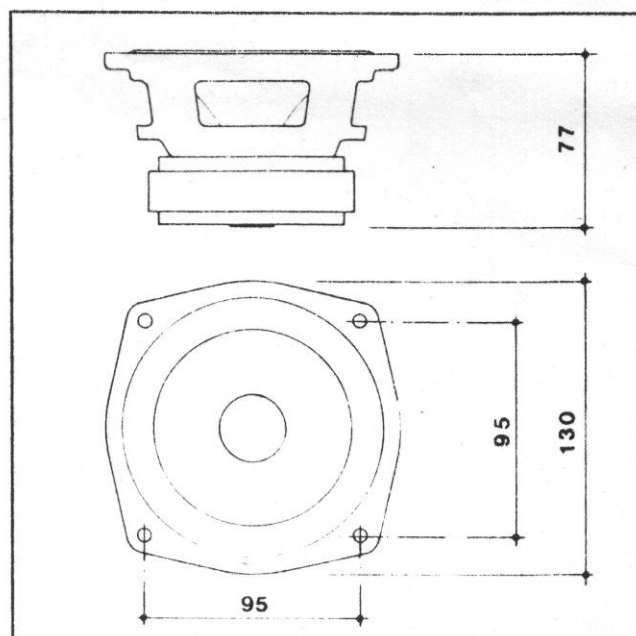
B110-B

Specification Number SP1057

Compact, long throw bass/mid range unit, suitable for use in either a compact full range system, or as a specialised mid range unit in a multi-way system.

PINTO F.lli s.a.s.

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10122 TORINO
P.IVA C.F. 04542690013



Net weight: 1.13 kg (2.5 lb)

Nominal impedance: 8 Ω

Nominal frequency range: 55-3,500 Hz

Typical enclosure volumes:

Totally enclosed box 5-10 litres (0.2-0.4 cu ft) *box completion done*
MF enclosure 4 litres (0.15 cu ft)

Power handling:

Continuous sine wave 28 V RMS (see note 1)

Programme full range 50 W (see note 2)

Programme mid range only 150 W (see note 2)

Magnet:

Flux density 1.0 T (11,000 gauss)

Total flux 5.8×10^{-4} Wb (58,000 Maxwells)

Sensitivity: Pink noise input for 96 dB SPL at
1 metre on axis 11.2 V RMS

Voice coil:

Diameter 26 mm (1 in)

Inductance 0.45 mH

Max continuous service temperature (30 min) 250°C

Max intermittent temperature (5 sec) 340°C

Thermal time constant 11 seconds

Thermal resistivity (temp rise per applied Watt) 6.2°C/W

Nominal DC Resistance, R_{DC} 7.1 Ω (tolerance $\pm 10\%$)

Typical production spread $6.7 \pm 0.2 \Omega$ (see note 3)

Minimum impedance (in nominal frequency range)
7.8 Ω at 280 Hz

Diaphragm:

Effective area, S_D 92 cm² (14 sq in)

Effective moving mass, M_D 9.8 gm

Max linear excursion, X_D 6 mm peak-peak ($\frac{1}{4}$ in)

Max damage limited excursion 12 mm peak-peak ($\frac{1}{2}$ in)

Free air resonance frequency, f_s :

Nominal 37 Hz (tolerance ± 5 Hz) -

Typical production spread 38.0 ± 2.0 Hz (see note 3)

Total mechanical resistance of suspension, R_{MS} :

1.0 mech Ω

Suspension compliance, C_{MS} : 1.8×10^{-3} m/N

(1.8×10^{-6} cm/dyne)

Equivalent volume of compliance, V_{AS} : 23.6 litres
(1,440 cu in)

Force factor, Bl: 7.1 N/A

Damping:

Mechanical Q_M 2.44

Electrical Q_E 0.38

Total Q_T 0.33 (see note 4)

Notes

1 Continuous Power Rating (P_c).

$$P_c = \frac{V^2}{R}$$

V is the RMS voltage which can be applied to the unit continuously without thermal overload of the voice coil. At low frequencies the continuous power rating of the speaker may be reduced because of limitations imposed on diaphragm excursion by the acoustic loading.

2 The programme rating of a unit is equal to the maximum programme rating of any system with which the unit may be safely used in conjunction with the recommended dividing network and enclosure.

The programme rating of any system is the undistorted power output of an amplifier with which the system may be satisfactorily operated on normal programme over an extended period of time.

3 "Typical production spread" is derived from statistical analysis of a large number of units, and is calculated to include 95% of all units.

$$Q_M = \frac{2\pi f_s M_D}{R_{MS}} \quad Q_E = \frac{2\pi f_s M_D}{(Bl)^2 / R_{DC}} \quad \frac{1}{Q_T} = \frac{1}{Q_M} + \frac{1}{Q_E}$$

KEF Electronics Limited Tovel Maidstone ME15 6QP England ☎ 0622 672261

KEF reserve the right to incorporate developments and amend the specification without prior notice, in line with continuous research and product improvement.

PL346 EN01

Model B110 Specification Number SP1057

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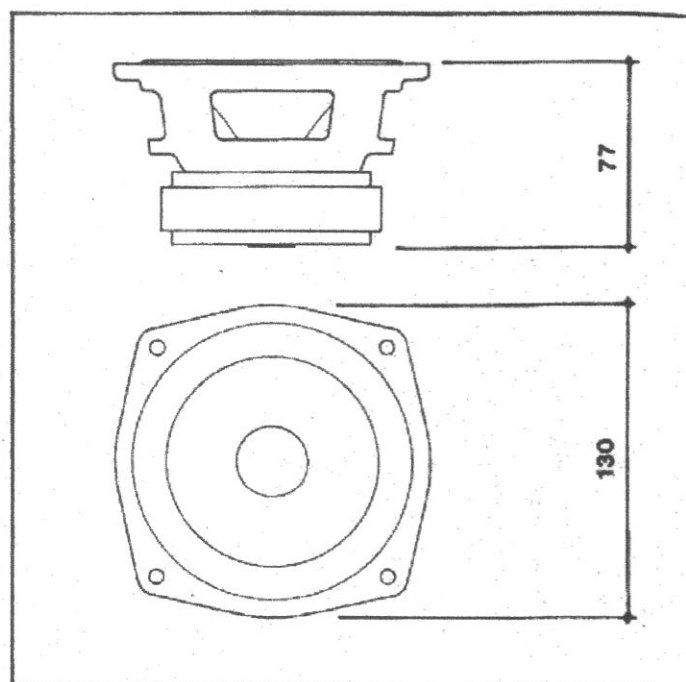
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