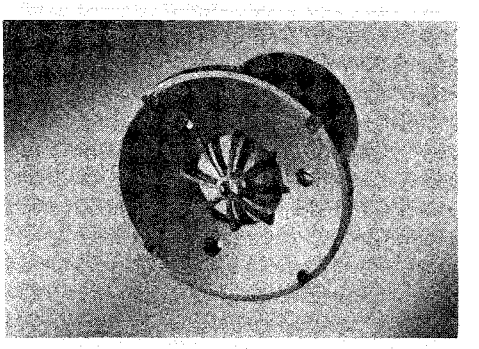
loudspeakers

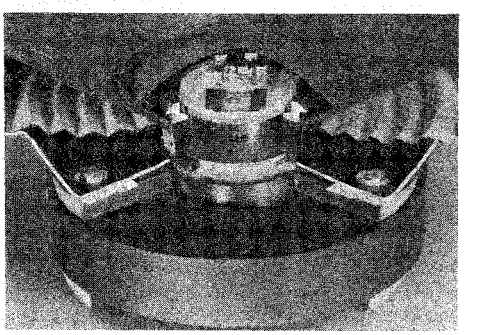
high power–high-fidelity

to DIN 45 500



System powers tabulated below are for complete two or three-way systems making use of the listed loudspeakers; corresponding cross-over networks and recommended enclosure volumes are listed on page 383. *AD0210/Sq.*

type	status	system power	impedance	resonance frequency	rated frequency range	overall dia.	baffle hole dia.	total depth	surround /dome material	magnet system	mass
		W	Ω	Hz	Hz	mm	mm	mm			kg
Tweeter 1" (dome)											
AD0140/T4 T8	D	20/40	4 8	1200	2000–22000	94	75	25	poly-carb.	FXD	0,25
AD0141/T4 T8	N	20/50	4 8	1450	2000–20000	94	75	25	textile	FXD	0,25
AD0160/T4 T8	C	20/40	4 8	1000	2000–22000	94	75	32	poly-carb.	FXD	0,5
AD0161/T8 T15	C	20/80	8 15	1000	2000–22000	94	75	32	poly-carb.	FXD	0,5
AD0162/T8 T15	D	20/80	8 15	1000	2000–22000	94	75	32	poly-carb.	FXD	0,5
AD0163/T8 T15	N	20/80	8 15	1300	2000–20000	94	75	32	textile	FXD	0,5
Tweeter 2" (cone)											
AD2090/T4 T8 T15	D	20	4 8 15	1300	2500–19000	51	44	29	paper	Ticonal	0,1
AD2095/T4 T8 T15	N	20/40	4 8 15	1400	3000–19000	51	44	28	paper	Ticonal	0,07
AD2290/T4 T8 T15	D	20	4 8 15	1300	2500–19000	51	44	29	paper	Ticonal	0,1
AD2295/T4 T8 T15	N	20/40	4 8 15	1400	3000–19000	51	44	28	paper	Ticonal	0,07
Tweeter 2¼" (cone)											
AD2071/T4 T8	D	10	4 8	1000	1500–18000	58	52	29	paper	FXD	0,07
AD2271/T4 T8	D	10	4 8	1000	1000–18000	58	52	29	paper	FXD	0,07
Squawker 2"											
AD0210/Sq4 Sq8	D	60	4 8	270	500–5000	134	110	108	paper	FXD	1,0
AD0211/Sq4 Sq8	N	60	4 8	270	500–5000	134	110	108	textile	FXD	1,0
Squawker 5"											
AD5060/Sq4 Sq8	D	40	4 8	210	400–5000	129	96	107	textile	FXD	0,8
AD5061/Sq4 Sq8	D	80	4 8	680	1500–5000	129	95	50	textile	FXD	0,8



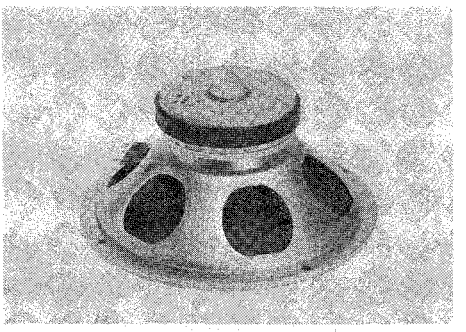
Cut-away view of high-fidelity woofer AD8067.

type	status	system power	impedance	resonance frequency	rated frequency range	overall dia.	baffle hole dia.	total depth	surround /dome material	magnet system	mass
		W	Ω	Hz	Hz	mm	mm	mm			kg
Woofer 4"											
AD4050/W4	N	15	4	60	50–5000	100	95	55	rubber	Ticonal	0,42
W8			8								
Woofer 5"											
AD5060/W4	D	10	4	60	50–5000	129	108	56	rubber	FXD	0,7
W8			8								
Woofer 7"											
AD7060/W4	N	30	4	45	60–3000	166	141	68	rubber	FXD	0,7
W8			8								
AD7066/W4	D	40	4	45	60–3000	166	141	72	rubber	FXD	1,15
W8			8								
Woofer 8"											
AD8061/W4	D	40	4	42	30–5000	205	176	84	rubber	FXD	0,8
W8			8								
AD8066/W4	D	50	4	39	30–5000	205	176	84	rubber	FXD	1,15
W8			8								
AD8067/W4		60	4	32	30–6000	205	180	88	rubber	FXD	1,3
W3	D	60	8	32							
AD8067/MFB		50	4	37	25–1000						
Woofer 10"											
AD1065/W4	D	30	4	20	40–3000	261	227	113	rubber	FXD	1,8
W8			8								
AD10100/W4	D	40	4	25	35–800	261	227	131	rubber	FXD	3,0
W8			8								
Woofer 12"											
AD1265/W4	D	30	4	20	40–3000	315	278	134	rubber	FXD	1,8
W8			8								
AD12100/W4		40	4	19	30–700	315	278	152	rubber	FXD	3,2
W8	D	40	8	19							
AD12100/MFB		50	4	26	20–1500						

loudspeakers

high power—full-range

double cone



9710/M8

type	status	system power	impedance	resonance frequency	rated frequency range	overall dia.	baffle hole dia.	total depth	surround material	magnet system	mass
		W	Ω	Hz	Hz	mm	mm	mm			kg
5″											
AD5061/M4 M8	D	15	4 8	85	75— 20000	129	108	55	textile	FXD	0,665
7″											
AD7062/M4 M8	D	30	4 8	45	40— 18000	166	141	68	rubber	FXD	0,68
AD7063/M4 M8	D	15	4 8	55	40— 18000	166	141	69	textile	FXD	0,745
8½″											
9710/M8	D	20	8	50	45— 19000	217	195	96	paper	FXD	1,75
10″											
AD1065/M4 M8 M15	D	10	4 8 15	55	60— 18000	261	227	113	paper	FXD	1,52
12″											
AD1265/M4 M8 M15	D	20	4 8 15	45	35— 18000	315	278	134	paper	FXD	1,8
AD12100/M4 M8 M15	D	25	4 8 15	45	35— 13000	315	278	152	paper	FXD	3,3
AD12100/HP4 HP8	D	50	4 8	60	45— 12000	315	278	152	textile	FXD	3,27

The 8½ inch type 9710/M8 unit, with a Ferroxdure magnet of 105 mm diameter (mass 400 g), is an extremely sensitive speaker which has, over a number of years, become the most popular type for hi-fi hobbyists. It features an exceptionally smooth response in the range 45 Hz to 19 kHz. Power handling capacity of the 9710/M8 is 20 W in a sealed enclosure up to 30 litres in volume, and up to 10 W in bass-reflex enclosures of over 30 litres.

cross-over networks
passive radiator

Cross-over networks

system	type	status	catalogue no.	max power W	impe-dance Ω	cross-over frequency Hz	slope dB/oct	dimensions mm	overall height mm
2-way	ADF2400/4 8	D	3104 207 10110 10100	20	4 8	2400	low 6 high 6	100 x 70	45
2-way	ADF2000/4 8	D	3104 207 10130 10120	20	4 8	2000	low 6 high 12	100 x 70	45
3-way	ADF600-5000/4 8	D	3104 207 10150 10140	40	4 8	600–5000	low 6 mid 6 high 12	105 x 100	45

Recommended combinations

enclosure volume litres	cross-over network	power handling capacity W	woofer	squawker	tweeter
3	ADF2400/4 (8)	10	AD5060/W4 (8)	–	AD2071/T4 (8)
3	ADF2000/4 (8)	10	AD5060/W4 (8)	–	AD0140/T4 (8)
7		20	AD7066/W4 (8)	–	AD0140/T4 (8)
20		20	AD8061/W4 (8)	–	AD0140/T4 (8)
20		20	AD8066/W4 (8)	–	AD0140/T4 (8)
25	ADF600-5000/4 (8)	40	AD8061/W4 (8)	AD5060/Sq4 (8)	AD0140/T4 (8)
25		40	AD8066/W4 (8)	AD5060/Sq4 (8)	AD0140/T4 (8)
35		40	AD10100/W4 (8)	AD5060/Sq4 (8)	AD0140/T4 (8)
40		40	AD10100/W4 (8)	2 x AD5060/Sq4 (8)	2 x AD0140/T4 (8)
50		40	AD1265/W4 (8)	2 x AD5060/Sq4 (8)	2 x AD0140/T4 (8)
80		40	AD12100/W4 (8)	4 x AD5060/Sq4 (8)	4 x AD0140/T4 (8)

Passive radiator 8" – AD8000

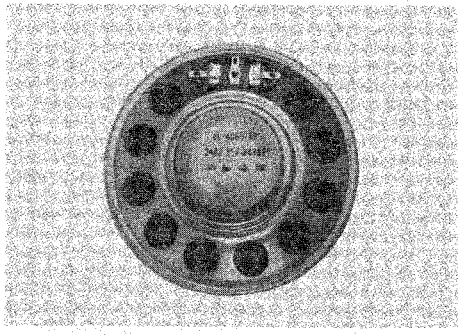
2404 258 48201

effective cone area	2,5 x 10^{-2} m^2
total moving mass	31,3 g
total mass	0,235 kg
total depth	64 mm
baffle hole diameter	180 mm
overall diameter	205 mm
surround material	rubber

loudspeakers

medium power–full-range

round



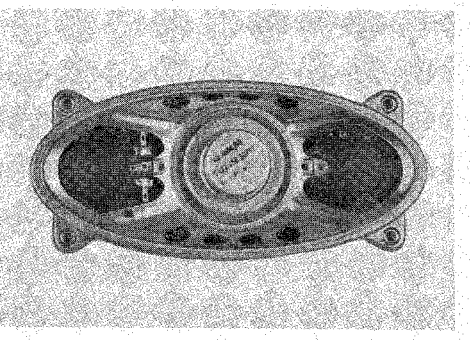
type	status	max power	impedance	resonance frequency	rated frequency range	overall dia.	baffle hole dia.	total depth	surround material	magnet system	mass
		W	Ω	Hz	Hz	mm	mm	mm			kg
4″											
AD4080/X4			4								
X8	D	3	8	165	165–12000	105	96	39	paper	FXD	0,25
X15			15								
X25			25								
AD4480/X4			4								
X8	D	3	8	165	125–12000	105	96	39	paper	FXD	0,25
X15			15								
AD4481/X4	D	6	4	140	90–14000	105	96	39	textile	FXD	0,25
AD4085/X4	D	3	4	150	100–13000	104	96	36	paper	FXD	0,16
X8			8								
5″											
AD5081/M4			4								
M8	D	6	8	130	100–18000	120	108	49	paper	FXD	0,26
M15			15								
M25			25								
AD5081/X4			4								
X8	D	6	8	140	100–11000	120	108	49	paper	FXD	0,26
X15			15								
X25			25								
7″											
AD7080/M4			4								
M8		6	8	105	80–18000	166	141	58	paper	FXD	0,29
M15	D		15								
X4		6	4	115	85–10000	166	141	58	paper	FXD	0,29
X8			8								
AD7091/M4			4								
M8	D	3	8	105	80–18000	166	141	44	paper	Ticonal	0,22
M400			400								
M800			800								
AD7091/X4			4								
X8	D	3	8	115	85–10000	166	141	44	paper	Ticonal	0,22
X800			800								
8″											
AD8080/M4			4								
M8	D	6	8	75	55–18000	206	176	68	paper	FXD	0,37
M15			15								
AD8080/X4	D	6	4	95	70–10000	206	176	68	paper	FXD	0,37
X8			8								
AD8081/M4	D	8	4	75	55–19000	206	176	68	paper	FXD	0,37
M8			8								
AD8081/X4	D	8	4	95	70–11000	206	176	68	paper	FXD	0,37
X8			8								

loudspeakers

medium power–full-range

oval

type	status	max power	impe-dance	resonance frequency	rated frequency range	overall size	baffle hole size	total depth	surround material	magnet system	mass
		W	Ω	Hz	Hz	mm	mm	mm			kg
3" x 5"											
AD3590/X4			4								
X8			8								
X15	C	3	15	180	140–12000	76 x 131	66 x 121	43	paper	Ticonal	0,13
X25			25								
X50			50								
X400			400								
3" x 8"											
AD3880/X4			4								
X8	D	4	8	120	90–15000	82 x 205	72 x 195	51	paper	FXD	0,3
X15			15								
AD3890/X4			4								
X8			8								
X15	D	4	15	120	90–15000	82 x 205	72 x 195	56	paper	Ticonal	0,21
X25			25								
X70			70								
X800			800								
3½" x 6"											
AD4692/X4			4								
X8	D	4	8	140	80–12000	95 x 155	82 x 140	55	paper	Ticonal	0,14
X15			15								
X25			25								
AD4682/X4			4								
X8	D	6	8	140	80–13000	95 x 155	82 x 140	51	paper	FXD	0,25
X15			15								
X25			25								
4" x 6"											
AD4681/M4			4								
M8	D	6	8	135	100–20000	102 x 154	89 x 141	48	paper	FXD	0,26
M25			25								
AD4681/X4			4								
X8	D	6	8	140	100–12000	102 x 154	89 x 141	48	paper	FXD	0,26
X15			15								
X25			25								

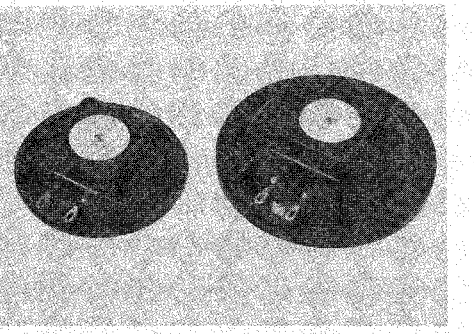


type	status	max power	impedance	resonance frequency	rated frequency range	overall size	baffle hole size	total depth	surround material	magnet system	mass
		W	Ω	Hz	Hz	mm	mm	mm			kg
4" x 6" (continued)											
AD4691/M4			4								
M8			8								
M15	D	4	15	135	100–20000	102 x 154	89 x 141	52	paper	Ticonal	0,16
M25			25								
M800			800								
AD4691/X4			4								
X8	D	4	8	140	100–10000	102 x 154	89 x 141	52	paper	Ticonal	0,16
X15			15								
X25			25								
4" x 8"											
AD4890/X4			4								
X8	D	5	8	110	70–10000	96 x 210	82 x 192	54	paper	Ticonal	0,23
X15			15								
X25			25								
5" x 7"											
AD5780/M4			4								
M8	D	6	8	100	70–19000	133 x 183	110 x 160	57	paper	FXD	0,32
M15			15								
M25			25								
AD5780/X4			4								
X8	D	6	8	115	85–10000	133 x 183	110 x 160	57	paper	FXD	0,32
X15			15								
X25			25								
AD5790/M4			4								
M8	D	4	8	100	70–19000	133 x 183	110 x 160	62	paper	Ticonal	0,22
M15			15								
AD5790/X4	D	4	4	115	85–10000	133 x 183	110 x 160	62	paper	Ticonal	0,22
6" x 9"											
AD6980/M4	D	6	4	77	60–18000	161 x 234	149 x 220	67	paper	FXD	0,36
M8			8								
AD6980/X4	D	6	4	90	70–10000	161 x 234	149 x 220	67	paper	FXD	0,36
X8			8								

loudspeakers

low power

round



Last figures of type number indicate the impedance (see opposite page).
Surround material for all types: paper.

type	status	max power	resonance frequency	rated frequency range	overall dia.	baffle hole dia.	total depth	magnet system	mass
		W	Hz	Hz	mm	mm	mm		kg
1¼''									
AD0199/Z25	D	0,2	700	550–13000	31	26,5	16	Ticonal	0,017
2''									
AD2099/Z25	D	0,3	420	325–13000	50	45,5	18	Ticonal	0,021
2½''									
AD2070/Z4; Z8; Z15; Z25	C	0,5	360	250–9000	64	59	20	FXD	0,064
AD2071/Z4; Z8; Z15; Z25	D	1	360	250–9000	64	59	20	FXD	0,07
3''									
AD3070/Y4; Y8; Y15; Y25	C	1	250	190–7000	81	72	28	FXD	0,069
AD3071/Y4; Y8; Y15; Y25	D	2	250	190–7000	81	72	28	FXD	0,07
AD3370/Y4; Y8; Y25; Y150	C	1	250	190–7000	81	72	28	FXD	0,075
4''									
AD4070/Y4; Y8; Y15; Y25	C	1	200	150–8000	105	96	29	FXD	0,079
AD4072/X4; X8; X15; X25	D	2	200	150–8000	105	96	29	FXD	0,079
AD4470/Y4; Y8; Y15; Y25	C	1	200	150–8000	105	96	29	FXD	0,087
AD4472/X4; X8; X15; X25	D	2	200	150–8000	105	96	29	FXD	0,087
AD4090/X8; X15	D	2	190	140–8000	105	96	37	Ticonal	0,125

coding system

AD ●● ●● / ●●

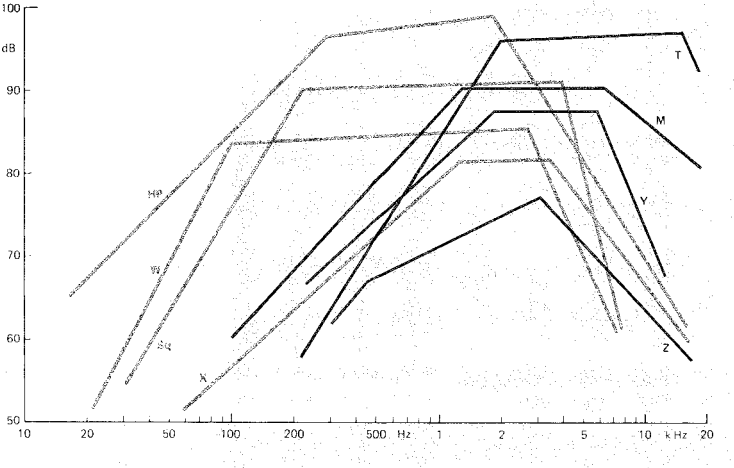
- ●● = nominal cone size (inches) and shape of flange
- ●● = magnet system
- ● = audio response
- ●● = rated impedance (Ω)

				diameter mm	mass g
01 = 1 to 1¼	dome				
02 = 2	dome				
10 = 10	round	10	= FXD	102	420
12 = 12	round	40	= FXD	62	100
20 = 2 to 2½	round	60,61,62,63	= FXD	72	260
22 = 2 to 2½	square	65,66,67	= FXD	90	450
30 = 3	round	70,71	= FXD	31 *	20
33 = 3	square	80,81,82	= FXD	53	100
35 = 3 x 5	oval	85	= FXD	46	53
38 = 3 x 8	oval	90,91,92	= Ticonal	18	27
40 = 4	round	99	= Ticonal	10	6
44 = 4	square	100	= FXD	130	1050
46 = 4 x 6	oval				
48 = 4 x 8	oval				
50 = 5	octagonal				
57 = 5 x 7	oval				
69 = 6 x 9	oval				
70 = 7	octagonal				
80 = 8	octagonal				

* square

high power	= HP	4
double cone, smooth response over wide frequency range	= M	8
		15
squawkers; for mid-range frequencies	= Sq	25
tweeter; for high frequencies	= T	50
woofer; for very low frequencies	= W	70
notably higher sensitivity at about 3 kHz	= Z	150
		400
notably higher response level in the region 2 to 6 kHz	= Y	800
as Z, but wider frequency range	= X	

Approximated response curves and their relationship.



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