

PIEZOELECTRIC BUZZER



Model No.	Min.SPL@RESONANT FREQUENCY@10cm	Dimension D(φ) x H(mm)	Model No.	Min.SPL@RESONANT FREQUENCY@10cm	Dimension D(φ) x H(mm)
SMD Piezo Buzzer					
OBO-10252SA	70db at 5.2Khz/5Vp-p Square Wave	10.0 x 10.0 x 3.0	OBO-14C40PA	80db at 4.0±0.5Khz/9VDC	13.8 x 7.5
OBO-11241SB	70db at 4.1Khz/5Vp-p Square Wave	11.0 x 9.0 x 1.7	OBO-14C45PA	82db at 4.4±0.5Khz/9VDC	13.8 x 8.2
OBO-13240SA	75db at 4.0Khz/5Vp-p Square Wave	13.0 x 13.0 x 2.5	OBO-15210	85db at 4.4±0.5Khz/9VDC	13.8 x 8.2
OBO-14240SB	80db at 4.0Khz/9Vp-p Square Wave	14.0 x 14.0 x 4.1	OBO-20C1-15	90db at 3.4±0.5Khz/9VDC	24.5 x 12.0
OBO-15236SA	85db at 3.65Khz/7Vp-p Square Wave	14.8 x 14.8 x 7.4	OBO-20C3	83db at 3.8±0.5Khz/9VDC	24.0 x 14.0
OBO-16240ST	75db at 4Khz/5Vp-p Square Wave	16.0 x 16.0 x 2.5	OBO-20C4	83db at 3.8±0.5Khz/9VDC	24.0 x 14.0
OBO-17240SB	82db at 4.0Khz/9Vp-p Square Wave	17 x 5.0	OBO-20C5	80db at 3.4±0.5Khz/9VDC	24.0 x 9.5
OBO-17240SA(with sealed top)	82db at 4.0Khz/9Vp-p Square Wave	17 x 5.0	OBO-20C6	80db at 3.4±0.5Khz/9VDC	24.0 x 9.5
External Drive Type					
OBO-11240WA	65db at 4.0Khz/3.3Vp-p Square Wave	10.5 x 4.1	OBO-20C7	83db at 3.4±0.5Khz/9VDC	24.0 x 14.0
OBO-11250PA/PB	80db at 5.0Khz/9Vp-p Square Wave	10.5 x 4.0	OBO-20C9	93db at 3.4±0.5Khz/9VDC	24.5 x 16.0
OBO-11250WA	80db at 5.0Khz/9Vp-p Square Wave	10.5 x 3.0	OBO-27C0	97db at 3.5±0.5Khz/9VDC	31.0 x 14.0
OBO-13240PA	80db at 4.0Khz/9Vp-p Square Wave	12.6 x 7.0	OBO-27C1	83db at 2.5±0.5Khz/9VDC	30.0 x 15.5
OBO-14240PA/PB/PC	80db at 4.0Khz/9Vp-p Square Wave	14.0 x 7.5	OBO-27C2	87db at 3.5±0.5Khz/9VDC	30.0 x 15.5
OBO-152	80db at 4.0Khz/9Vp-p Square Wave	16.5 x 4.0	OBO-27C3	80db at 2.5±0.5Khz/9VDC	31.0 x 10.0
OBO-15230	80db at 3.5Khz/9Vp-p Square Wave	14.0 x 7.5	OBO-27C4	85db at 3.5±0.5Khz/9VDC	31.0 x 10.0
OBO-15240PA/PB	80db at 4.0Khz/9Vp-p Square Wave	17.0 x 8.0	OBO-27C8	87db at 3.5±0.5Khz/9VDC	30.0 x 15.5
OBO-20205PA/PB	85db at 4.0Khz/9Vp-p Square Wave	22.0 x 8.0	OBO-27C9	87db at 3.5±0.5Khz/9VDC	31.0 x 14.0
OBO-22240PA/PB	90db at 4.0Khz/12Vp-p Square Wave	22.0 x 12.0	OBO-27P2	87db at 3.4±0.5Khz/9VDC	30.0 x 15.5
OBO-20235	85db at 4.0Khz/9Vp-p Square Wave	24.0 x 5.5	OBO-35C1	88db at 2.8±0.5Khz/9VDC	42.0 x 16.0
OBO-23220PB	85db at 2.0Khz/9Vp-p Square Wave	27.3 x 23 x 10	OBO-35C2	97db at 2.8±0.5Khz/9VDC	42.0 x 16.0
OBO-25220	80db at 2.0Khz/9Vp-p Square Wave	22.0 x 9.2	OBO-35C4	100db at 2.8±0.5Khz/9VDC	42.0 x 16.5
OBO-27225	85db at 2.5Khz/9Vp-p Square Wave	30.0 x 11.2	OBO-35D1	97db at 2.9/3.05Khz/9VDC	42.0 x 16.0
OBO-27246	90db at 4.4Khz/9Vp-p Square Wave	30.0 x 5.1	OBO-35P2	93db at 2.6±0.5Khz/9VDC	42.0 x 16.0

Piezo Speaker & Ringer

OBO-RW220334	108+/-3db at 1.0Khz/1Vrms	22.4 x 3.4
OBO-35T2	80db at 1.2Khz/9Vp-p Square Wave	34.5 x 9.0
OBO-50240	80db at 700Hz/9Vp-p Square Wave	50.0 x 2.0



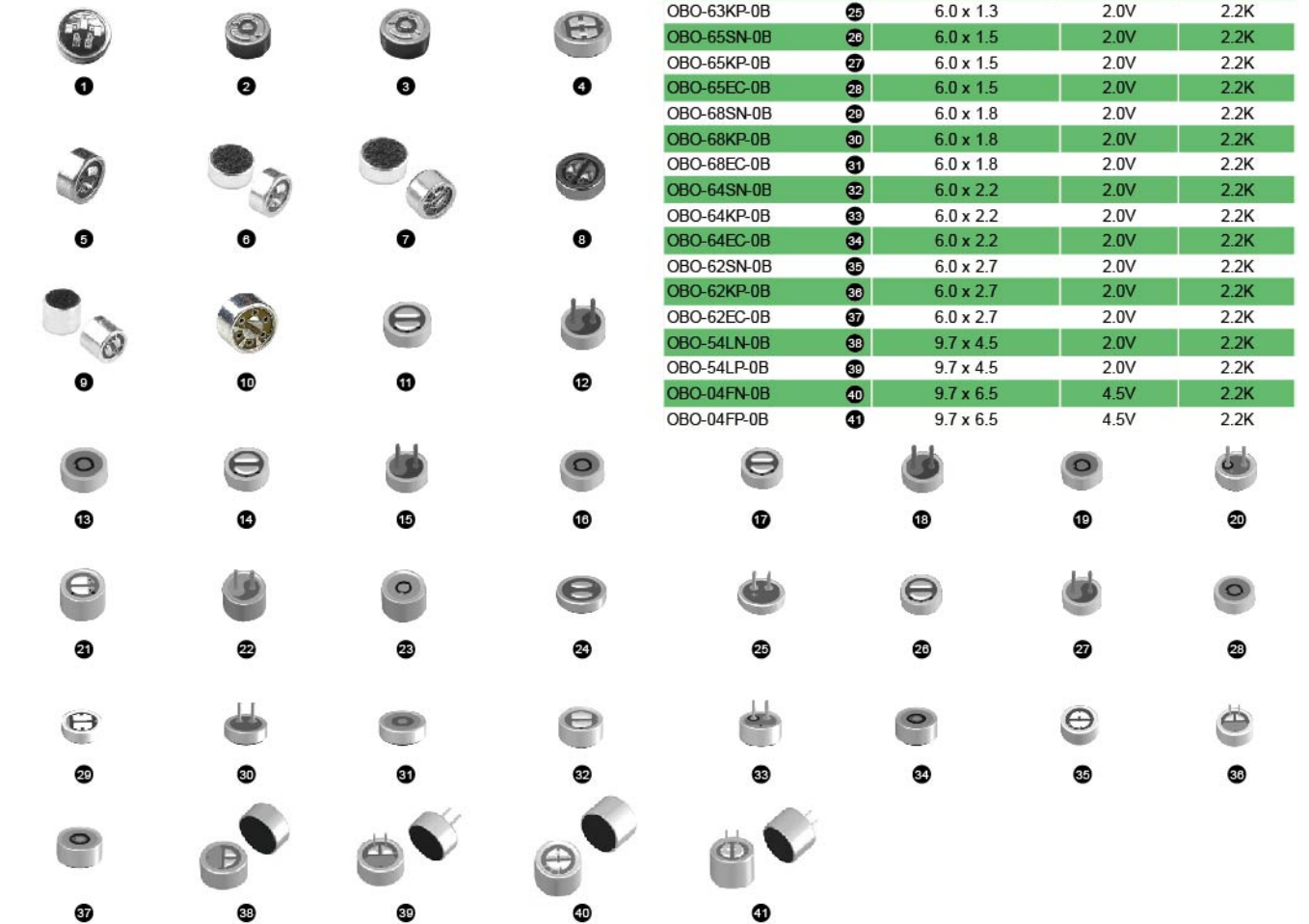
PIEZOELECTRIC CERAMIC ELEMENT



Model No.	Resonant Frequency (Khz)	Resonant Impedance (max.Ω)	Capacitance (pF)	Dimension				PLATE
				D (Φ)	d(Φ)	T	t	
OBO-TE15241-16	4.1±0.6/-0	500	21,000±30%	15.00	11.30	0.17	0.10	Brass
OBO-TE15260-16	6.0±0.6	500	14,000±30%	15.00	11.30	0.22	0.10	Brass
OBO-TE18236-16	3.6±0.5	1000	14,000±30%	18.00	11.30	0.23	0.10	Brass
OBO-TE20239-16	3.9±0.5	400	25,000±30%	20.00	15.00	0.22	0.10	Brass
OBO-TE20265-16	6.5±0.5	350	12,000±30%	20.00	14.80	0.40	0.20	Brass
OBO-TE21334-16	3.4±0.5	500	18,000±30%	21.00	14.80	0.22	0.10	Brass
OBO-TE27226-16	2.6±0.3	300	45,000±30%	27.00	19.80	0.28	0.15	Brass
OBO-TE27234-16	3.4±0.5	400	24,000±30%	27.00	19.80	0.40	0.20	Brass
OBO-TE27241-16	4.1±0.5	300	20,000±30%	27.00	19.80	0.45	0.22	Brass
OBO-TE27326-16	2.6±0.4	400	33,000±30%	27.00	19.80	0.32	0.20	Brass
OBO-TE27335-16	3.5±0.4	400	19,000±30%	27.00	19.80	0.42	0.20	Brass
OBO-TE27340-16	4.0±0.5	500	17,000±30%	27.00	19.80	0.48	0.25	Brass
OBO-TE31213-26	1.3±0.3	500	47,000±30%	31.00	19.80	0.22	0.10	Ni-alloy
OBO-TE31216-16	1.6±0.3	1000	40,000±30%	31.00	19.80	0.22	0.10	Brass
OBO-TE35229-16	2.9±0.4	300	30,000±30%	35.00	24.80	0.58	0.30	Brass
OBO-TE50228-16	2.8±0.5	400	35,000±30%	50.00	25.00	0.42	0.20	Brass

CONDENSER MICROPHONE

Model No.	Dimension (D(Φ) x H(mm))	Testing Condition	
		Vs	RL(Ω)
Digital Microphone			
OBO-D64SN-0B-10S	6.0 x 2.2	-	-
SMD Microphone			
OBO-M41EC-2B-012	4.0 x 1.5	2.0V	2.2K
OBO-M62EC-2B-012	6.0 x 2.2	2.0V	2.2K
Noise Cancelling Microphone			
OBO-B68DN-0C	6.0 x 1.8	2.0V	2.2K
OBO-64DN-0C	6.0 x 2.2	2.0V	2.2K
OBO-08DN-0C	6.0 x 2.7	2.0V	2.2K
OBO-20DN-0C	9.7 x 5.0	1.5v	680Ω
Uni-directional Microphone			
OBO-B45BN-0B-017	4.0 x 1.5	2.0V	2.2K
OBO-16BN-0C-002	6.0 x 5.2	2.0V	2.2K
OBO-20BN-0C-0H7	9.7 x 5.0	1.5v	680Ω
Omnidirectional Microphone			
OBO-B41SN-0B	4.0 x 1.0	2.0V	2.2K
OBO-B41KP-0B	4.0 x 1.0	2.0V	2.2K
OBO-B41EN-0B	4.0 x 1.0	2.0V	2.2K
OBO-B43SN-0B	4.0 x 1.3	2.0V	2.2K
OBO-B43KP-0B	4.0 x 1.3	2.0V	2.2K
OBO-B43EN-0B	4.0 x 1.3	2.0V	2.2K
OBO-45SN-0B	4.0 x 1.5	2.0V	2.2K
OBO-45KP-0B	4.0 x 1.5	2.0V	2.2K
OBO-45EN-0B	4.0 x 1.5	2.0V	2.2K
OBO-48KP-0B	4.5 x 1.8	2.0V	2.2K
OBO-40SN-0B	4.5 x 3.0	2.0V	2.2K
OBO-40KP-0B	4.5 x 3.0	2.0V	2.2K
OBO-40EN-0B	4.5 x 3.0	2.0V	2.2K
OBO-63SN-0B	6.0 x 1.3	2.0V	2.2K
OBO-63KP-0B	6.0 x 1.3	2.0V	2.2K
OBO-65SN-0B	6.0 x 1.5	2.0V	2.2K
OBO-65KP-0B	6.0 x 1.5	2.0V	2.2K
OBO-65EC-0B	6.0 x 1.5	2.0V	2.2K
OBO-68SN-0B	6.0 x 1.8	2.0V	2.2K
OBO-68KP-0B	6.0 x 1.8	2.0V	2.2K
OBO-68EC-0B	6.0 x 1.8	2.0V	2.2K
OBO-64SN-0B	6.0 x 2.2	2.0V	2.2K
OBO-64KP-0B	6.0 x 2.2	2.0V	2.2K
OBO-64EC-0B	6.0 x 2.2	2.0V	2.2K
OBO-62SN-0B	6.0 x 2.7	2.0V	2.2K
OBO-62KP-0B	6.0 x 2.7	2.0V	2.2K
OBO-62EC-0B	6.0 x 2.7	2.0V	2.2K
OBO-54LN-0B	9.7 x 4.5	2.0V	2.2K
OBO-54LP-0B	9.7 x 4.5	2.0V	2.2K
OBO-04FN-0B	9.7 x 6.5	4.5V	2.2K
OBO-04FP-0B	9.7 x 6.5	4.5V	2.2K



MYLAR SPEAKER



Model No.		Impedance (Ω±15%)	Power Rating (mW)		Fo (Hz±20%)	SPL (+/-3db)	Frequency (Hz)	Dimensions (mm)	Weight (gms)
			Normal	Max.					
OBO-13008F-0603	❶	8	300	500	1050	88	700 ~ 7000	13.0 x 2.75	1.0
OBO-10032F-05	❷	32	10	20	700	98	400 ~ 6,000	10.0 x 3.3	1.7
OBO-15032F-02	❸	32	30	50	680	103	680 ~ 20000	15.0 x 4.2	1.7
OBO-23032F-0301	❹	32	200	500	780	81	500 ~ 5000	23.0 x 4.2	3.5
OBO-28008F-65	❺	8	1500	2000	500	95	500 ~ 20000	28.0 x 5.1	7.0
OBO-28008G-02	❻	8	500	800	600	80	340 ~ 10000	28.0 x 4.0	2.9
OBO-30150F-01	❼	150	500	1000	400	78	400 ~ 20000	30.0 x 5.3	5.8
OBO-36004F-01	❽	4	500	1000	600	85	350 ~ 7000	36.0 x 4.8	8.3
OBO-36008F-02	❾	8	200	500	550	81	350 ~ 6,000	36.0 x 4.8	8.1
OBO-36008F-03	❿	8	500	1000	530	86	350 ~ 6,800	36.0 x 4.8	8.3
OBO-36008G-05	⓫	8	1000	2000	680	84	680 ~ 20000	36.0 x 6.0	5.8
OBO-36016F-02	⓬	16	500	1000	530	85	350 ~ 11000	36.0 x 4.8	8.5
OBO-36032F-01	⓭	32	100	200	400	80	300 ~ 5000	36.0 x 4.8	8.1
OBO-36025F-01	⓮	25	200	500	500	81	320 ~ 7200	36.0 x 4.8	8.5
OBO-36100F-03	⓯	100	200	500	500	81	380 ~ 6500	36.0 x 4.8	8.3
OBO-40008F-01	⓰	8	200	500	500	80	400 ~ 12000	40.0 x 5.0	9.45
OBO-40008F-03	⓱	8	500	1000	550	84	350 ~ 5800	40.0 x 5.0	9.45
OBO-40008F-04	⓲	8	1000	2000	550	87	350 ~5000	40.0 x 5.0	9.2
OBO-40008F-22	⓳	8	1000	2000	680	89	350 ~ 4500	40.0 x 5.0	9.6
OBO-40008F-2502	⓴	8	500	1000	480	118	480 ~ 12000	40.0 x 5.0	9.4
OBO-40008K-09	⓵	8	1000	2000	550	80	300 ~ 20000	40.0 x 20.0 x 5.7	7.5
OBO-40016F-05	⓶	16	500	1000	500	86	350 ~ 5000	40.0 x 5.0	9.8
OBO-40016F-12	⓷	16	500	1000	500	86	350 ~ 8000	40.0 x 5.0	9.8
OBO-40032F-01	⓸	32	200	500	560	80	320 ~ 6,500	40.0 x 5.0	9.5
OBO-40032F-08	⓹	32	500	1000	800	87	500 ~ 10,000	40.0 x 5.0	9.5
OBO-40050F-01	⓺	50	200	500	530	80	320 ~ 6,000	40.0 x 5.0	9.2
OBO-50004F-01	⓻	4	1500	2000	550	88	350 ~ 20,000	50.0 x 7.5	13.2
OBO-50008F-01	⓼	8	250	500	500	82	350 ~ 8,500	50.0 x 7.5	13.0
OBO-50008G-01	⓽	8	200	500	400	82	280 ~ 11,000	50.0 x 8.1	11.0
OBO-50050G-01	⓾	50	200	500	400	82	250 ~ 11,000	50.0 x 8.1	11.0
OBO-57008F-01	⓿	8	500	1000	500	88	350 ~ 13,000	57.0 x 8.4	16.8
OBO-57032F-01	Ⓚ	32	500	1000	500	86	500 ~ 20000	57.0 x 8.4	17.0
OBO-25008K-01	Ⓛ	8	1000	2000	800	81	800 ~ 20,000	25.0 x 14.0 x 4.5	1.7
OBO-35004K-01	Ⓜ	4	1000	2000	600	81	600 ~ 20,000	35.0 x 16.0 x 5.0	2.6
OBO-35008K-01	Ⓨ	8	1000	2000	600	81	450 ~ 20,000	35.0 x 16.0 x 5.0	2.6
SPS0916N-J-01	Ⓩ	8	1000		850	94.5		9.0 x 16.0	1.5
SPS1115G-J-02	ⓐ	8	1000		870	94.5		11.0 x 15.0	1.5
SPS1217H-04	ⓑ	8	1000		850	95		12.0 x 17.0	1.5
SLS1216B-01	ⓒ	7	1000		880	96		12.0 x 16.0	1.5
SPS1318D-J-03	ⓓ	8	1000		800	94		13.0 x 18.0	1.5



MYLAR SPEAKER



Model No.		Impedance (Ω+/-15%)	Power Rating (mW)		Fo (Hz+/-20%)	SPL (+/-3db)	Frequency (Hz)	Dimensions (mm)	Remark
			Normal	Max.					
2 in 1									
OBO-40204F-01	41	4	5000	8000	1000	84	300~12000	42.0 x 23.0	Speaker
			27Vp-p		4000	85			Buzzer
SLS0815A-03	42	7	20	1000	550	91		8 x 12 x 2.5	Speaker
			20	1000	475	121			Receiver
Receiver									
NPR0612A-J-01-02	43	30	20		390	119		6 x 12 x 2.0	
NPR0612A-J-04	44	28	50		480	123		6 x 12 x 2.0	



MAGNETIC TRANSDUCER



Model No.	Dimensions (mm)	Rated Voltage(V)	Operating Voltage(V)	Resistance (Ω)	Rated Frequency(Hz)	SPL at 10cm(dBA)	Current Consumption(Ma)
SMD External Drive Type							
OBO-30AX1	1 5.0 x 5.0 x 3.0	3.0	2 ~ 5	12±2	4,000	Min. 70	Max. 100
OBO-30AL1	2 8.5 x 8.5 x 3.0	3.0	2 ~ 4	16±3	2,300	Min. 83	Max. 100
OBO-30AP1	3 8.5 x 8.5 x 3.0	3.0	2 ~ 4	16±3	2,700	Min. 85	Max. 100
OBO-40AL1	4 8.5 x 8.5 x 4.0	3.0	2 ~ 4	16±3	2,300	Min. 87	Max. 80
OBO-40AP1	5 8.5 x 8.5 x 4.0	3.0	2 ~ 4	16±3	2,700	Min. 90	Max. 80
OBO-40BS2	6 Ø9.0 x 4.0	3.0	2 ~ 4	15±3	2,730	Min. 85	Max. 80
OBO-45AL1	7 8.5 x 8.5 x 4.5	3.0	2 ~ 4	16±3	2,300	Min. 87	Max. 80
OBO-45AP1	8 8.5 x 8.5 x 4.5	3.0	2 ~ 4	16±3	2,700	Min. 87	Max. 80
OBO-45BP1	9 Ø9.0 x 4.5	3.0	2 ~ 4	16±3	2,700	Min. 85	Max. 100
OBO-0903S-A2	10 8.5 x 8.5 x 3.0	3.0	2 ~ 5	16±4	2,700	Min. 87	Max. 100
OBO-0905S-A2	11 8.5 x 8.5 x 3.0	5.0	4 ~ 7	30±4	2,700	Min. 87	Max. 100
SMD Drive Circuit Built-in Type							
OBO-50UP1	12 9.6 x 9.6 x 5.5	5.0	4 ~ 7	2,700±300		Min. 82	Max. 30
OBO-65UN1	13 12.8 x 12.8 x 7.0	5.0	4 ~ 7	2,400±300		Min. 85	Max. 30
OBO-100UN1	14 12.8 x 12.8 x 10.0	12.0	8 ~ 16	2,400±300		Min. 85	Max. 30
Drive Circuit Built-in Type							
OBO-1206C-A2	15 12.0 x 9.5	6.0	3 ~ 8	2,300±300		Min. 85	Max. 30
OBO-1212C-A2	16 12.0 x 9.5	12.0	8 ~ 16	2,300±300		Min. 85	Max. 30
OBO-1203D-A2	17 12.0 x 7.5	3.0	2 ~ 5	2,300±400		Min. 83	Max. 30
OBO-1205D-A2	18 12.0 x 7.5	5.0	3 ~ 7	2,300±400		Min. 83	Max. 30
OBO-1212D-A2	19 12.0 x 7.5	12.0	9 ~ 15	2,300±400		Min. 83	Max. 30
External Drive type							
OBO-0901A-A2	20 9.0 x 4.0	1.5	1 ~ 2	5.5±1	2,730	Min. 85	Max. 80
OBO-0903A-A2	21 9.0 x 4.0	3.0	2 ~ 4	15±3	2,730	Min. 85	Max. 80
OBO-0905A-A2	22 9.0 x 4.0	5.0	4 ~ 6	30±5	2,730	Min. 85	Max. 80
OBO-1001R-A201	23 9.6 x 5.0	1.5	1 ~ 3	5.5±2	2,730	Min. 85	Max. 80
OBO-1005R-A201	24 9.6 x 5.0	5.0	4 ~ 6	30±5	2,730	Min. 85	Max. 100
OBO-1201G-A1	25 12.0 x 8.5	1.5	1 ~ 2	16±2	2,048	Min. 85	Max. 55
OBO-1201G-B1	26 12.0 x 8.5	1.5	1 ~ 3	42±6	2,048	Min. 85	Max. 15
OBO-1206G-C1	27 12.0 x 8.5	6.0	4 ~ 8	73±6	2,048	Min. 82	Max. 30
OBO-1201M-A3	28 12.0 x 5.5	1.5	1 ~ 3	16±2	2,048	Min. 75	Max. 30
OBO-1201M-B3	29 12.0 x 5.5	1.5	1 ~ 3	42±6	2,048	Min. 70	Max. 15
OBO-1203M-A3	30 12.0 x 5.5	3.0	1 ~ 5	16±2	2,048	Min. 85	Max. 70
OBO-1205M-B3	31 12.0 x 5.5	5.0	3 ~ 8	42±6	2,048	Min. 85	Max. 50
OBO-1205A-D2	32 12.0 x 9.0	5.0	3 ~ 7	42±5	2,048	Min. 82	Max. 50
OBO-1212A-D2	33 12.0 x 9.0	12.0	7 ~ 16	140±14	2,400	Min. 85	Max. 40
OBO-1201A-A2	34 12.0 x 9.0	1.5	1 ~ 2	6.5±1	2,400	Min. 75	Max. 70
OBO-1206A-A2	35 12.0 x 9.0	6.0	4 ~ 8	45±6	2,400	Min. 85	Max. 50
OBO-1212A-A2	36 12.0 x 9.0	12.0	6 ~ 15	140±14	2,400	Min. 85	Max. 40

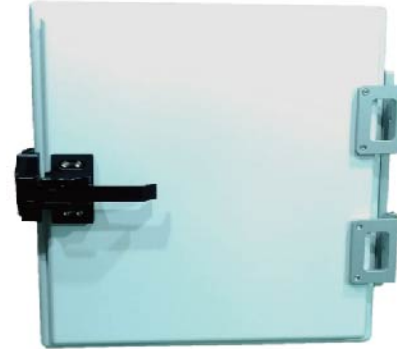


Acoustic Chamber for Consumer Product (1)

OBO-AC420

Chamber Specification

- Outside Dimension / L: 521mm * W: 420mm * H: 420mm
- Inside Dimension / L: 470mm * W: 363mm * H: 355mm
- Net Weight / ~ 25Kg
- Construction / Aluminum
- Sound Insulation Ability / >30dB(A-Weighting) SPL ref. 20uPa
- Operating Working Space / ~ 1000mm (L) X 1000mm (W)
- Power Request / N/A



OBO-AC800

Chamber Specification

- Outside Dimension / L: 935mm * W: 910mm * H: 590mm
- Inside Dimension / L: 650mm * W: 650mm * H: 380mm
- Net Weight / ~ 85Kg
- Construction / Aluminum
- Sound Insulation Ability / >30dB(A-Weighting) SPL ref. 20uPa
- Operating Working Space / ~ 1000mm (L) X 1000mm (W)
- Operation / Manual



Acoustic Chamber for Consumer Product (2)

OBO-PB4

Chamber Specification

- Outside Dimension / L: 89.5cm * W: 82.2cm * H: 118cm
- Inside Dimension / L: 41cm * W: 41cm * H: 41cm
- Net Weight / ~ 150Kg
- Construction / Aluminum
- Sound Insulation Ability / >40dB(A-Weighting) SPL ref. 20uPa
- Operating Working Space / ~ 800mm (L) X 850mm (W)
- Operation / Air Cylinder Automatic Control



Acoustic Analyzer for Consumer Product



OBO-3022

- Support digital microphone channels
- Support 4 channels digital microphone, 2 data path L/R channel(switching)
- Power for digital microphone / 1.5V~4.5V DC
- Clock for digital microphone / 2.4M Hz



OBO-3055

- 10 power input channels
- Provide bias voltage supply (24V) or constant current supply (4 mA) for reference microphone or ear simulator
- 2 analog input channels / For Headset SPK
- 5 amplifier channels / provide power amplify for mouth simulator or speaker
- 3 analog output channels / For Headset Mic.



Acoustic Analyzer for Microphone Module/ Speaker



OBO-1014

- AI/AO Channels / 4 AI for analog or digital microphone
1 AO for sound source with 10W power amplifier
- Sample Rate / 96KS / sec
- ADC Resolution / 24 bits
- Test Items / Sensitivity, Response, THD, THDN, Phase(*1)

*1 It must have reference microphone

Microphone Module Jig

OBO-AC190

Chamber Specification

- Outside Dimension / L: 190mm * W: 190mm * H: 180mm
- Net Weight / ~ 4Kg
- Construction / Phenolic Plastics
- Sound Pressure Level / 102dB SPL @1Vrms
- Sound Insulation Ability / >20dB(A-Weighting) SPL ref.20uPa
- Frequency Response / 100~20KHz
- Total Harmonic Distortion / <1% at 94dB SPL ref.20upa



Copper In-ear Headphone

DD1701

Hybrid Dual Dynamic In-ear Headphone

- Fit Style / In-ear
- Driver Type / Dual Dynamic
- Driver Unit / 9.4 mm
- Impedance / 25 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 105 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 2mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



DD1701-P

Hybrid Carbon Nano-tube Dual Dynamic In-ear Headphone

- Fit Style / In-ear
- Driver Type / Dual Dynamic with Carbon nano-tube coating tweeter diaphragm
- Driver Unit / 9.4 mm
- Impedance / 32 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 103 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 2mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair

DD1701-W

Hybrid Carbon Nano-tube Dual Dynamic In-ear Headphone

- Fit Style / In-ear
- Driver Type / Dual Dynamic with Carbon nano-tube coating woofer diaphragm
- Driver Unit / 9.4 mm
- Impedance / 25 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 103 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 2mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



In-ear Headphone

BA1601

Hybrid Dynamic and BA In-ear Headphone

- Fit Style / In-ear
- Driver Type / Balanced Armature and Dynamic
- Driver Unit / Dynamic is 10 mm / Single BA
- Impedance / 16 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 101 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 5mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



BA1602

Hybrid Dynamic and BA In-ear Headphone

- Fit Style / In-ear
- Driver Type / Balanced Armature and Dynamic
- Driver Unit / Dynamic is 9.2 mm / Dual BA
- Impedance / 16 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 104 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 5mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



In-ear Headphone

BT-M26K / BT-M26P

Wireless In-ear Headphone

- Fit Style / In-ear
- Driver Type / Dynamic
- Driver Unit / 6 mm
- Impedance / 32 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 81 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 2mW
- Effective Distance / >15M(free-space without obstruction)
- BT Version / CSR4.1
- BT Profile / A2DP1.2, AVRCP
- Battery / 3.7V 50 mAH*2
- Charging Port / Micro USB
- Charging Time / Max.2 hours
- Standby Time / Approx.200 hours
- Talking Time / Max 8 hours



Metallic In-ear Headphone

M11BK / M11CR / M11DG
M12BK / M12CR / M12DG

- Driver Unit / ϕ 10 mm
- Impedance / 20 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 96 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 2mW
- Frequency Response / 20 - 20,000Hz
- Cable Length / 1.2m Y type
- Weight / approx. 15g
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



Wood In-ear Headphone

W2-b / W2-c

- Driver unit / ϕ 10.0 mm
- Impedance / 20 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 96 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 2mW
- Frequency response / 20 - 20,000Hz
- Cable length / 1.2m Y type
- Weight / approx. 13g
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



● Candian Maple

● Palisander



Plastic In-ear Headphone

e102CY / e102YL
e102VT / e102PK

- Driver unit / ϕ 10 mm
- Impedance / 32 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 95 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 5mW
- Frequency response / 20 - 20,000Hz
- Cable length / 1.2m Y type
- Weight / approx. 8g
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



e62BK / e62WT

- Driver unit / ϕ 10 mm
- Impedance / 32 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 95 $\pm$ 3dB at 1000Hz
- Maximum power input / 5mW
- Frequency response / 20 - 20,000Hz
- Cable length / 1.2m Y type
- Weight / approx. 11g
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair

Skull In-ear Headphone

Skull-SBK / Skull-SCP
Skull-SCR / Skull-SRY

- Driver Unit / ϕ 10 mm
- Impedance / 32 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 96 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 2mW
- Frequency Response / 20 - 20,000Hz
- Cable Length / 1.2m Y type
- Weight / approx. 23g
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



In-ear Handsfree

M11iBK / M11iCR / M11iDG
M12iBK / M12iCR / M12iDG

- Driver unit / $\varnothing$ 10 mm
- Impedance / 20 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 96 $\pm$ 3dB at 1000Hz
- Maximum power input / 2mW
- Frequency response / 20 - 20,000Hz
- Cable length / 1.2m Y type
- Weight / approx. 16g
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair
- Microphone type / condenser
- Microphone Sensitivity / -40dB $\pm$ 3dB
- Microphone Frequency response / 100Hz-10,000Hz
- Microphone Impedance / 2V, 2.2KOhms (at 1kHz)



In-ear Headphone

EH-1626G

Ceramic with Dynamic In-ear Headphone

- Fit Style / In-ear
- Driver Type / Dynamic
- Driver Unit / 10 mm
- Impedance / 32 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 97 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 5mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



CD1601

Carbon Nano-tube Dynamic In-ear Headphone

- Fit Style / In-ear
- Driver Type / Dynamic
- Driver Unit / 9.2 mm
- Impedance / 16 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 99 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 5mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



Dynamic In-ear Headphone

CD1602

Dynamic In-ear Headphone

- Fit Style / In-ear
- Driver Type / Dynamic
- Driver Unit / 9.2 mm
- Impedance / 16 Ohms $\pm$ 15% (at 1kHz)
- Sensitivity / 105 $\pm$ 3dB at 1000Hz
- Maximum Power Input / 5mW
- Cable Length / 1.2m Y type
- Plug / 3.5mm gold-plated straight plug
- Ear Sleeves / S/M/L size silicon ear tips each 1 pair



Stereo Headphone

PH-B541



- Driver unit / $\varnothing 41$ mm , CCAW voice coil
- Impedance / 50 Ohms $\pm 15\%$ (at 1kHz)
- Sensitivity / 97 ± 3 dB at 1000Hz
- Max. Input Rate / 30mW
- Frequency response / 20 - 20,000Hz
- Cable length / Approx. 3m, one-side OFC cord.
- Weight (Cable excluded) / 250g
- Plug / $\varnothing 3.5$ mm $\rightarrow$ $\varnothing 6.3$ mm 24K gold-plated plug

PH-S556



- Driver unit / $\varnothing 41$ mm , CCAW voice coil
- Impedance / 50 Ohms $\pm 15\%$ (at 1kHz)
- Sensitivity / 102 ± 3 dB at 1000Hz
- Max. Input Rate / 30mW
- Frequency response / 20 - 20,000Hz
- Cable length / Approx. 3m, one-side OFC cord.
- Weight (Cable excluded) / 270g
- Plug / $\varnothing 3.5$ mm $\rightarrow$ $\varnothing 6.3$ mm 24K gold-plated plug

PH-S560



- Driver unit / $\varnothing 41$ mm , CCAW voice coil and Titanium-clad diaphragm.
- Impedance / 50 Ohms $\pm 15\%$ (at 1kHz)
- Sensitivity / 97 ± 3 dB at 1000Hz
- Max. Input Rate / 30mW
- Frequency response / 20 - 20,000Hz
- Cable length / Approx. 3m, one-side OFC cord.
- Weight (Cable excluded) / 250g
- Plug / $\varnothing 3.5$ mm $\rightarrow$ $\varnothing 6.3$ mm 24K gold-plated plug

PH-U580



- Driver unit / $\varnothing 41$ mm , CCAW voice coil and Titanium-clad diaphragm.
- Impedance / 50 Ohms $\pm 15\%$ (at 1kHz)
- Sensitivity / 102 ± 3 dB at 1000Hz
- Max. Input Rate / 30mW
- Frequency response / 20 - 20,000Hz
- Cable length / Approx. 3.5m, one-side OFC cord.
- Weight (Cable excluded) / 270g
- Plug / $\varnothing 3.5$ mm $\rightarrow$ $\varnothing 6.3$ mm 24K gold-plated plug

PH-U585



- Driver unit / $\varnothing 41$ mm , CCAW voice coil and Titanium-clad diaphragm.
- Impedance / 50 Ohms $\pm 15\%$ (at 1kHz)
- Sensitivity / 102 ± 3 dB at 1000Hz
- Max. Input Rate / 30mW
- Frequency response / 20 - 20,000Hz
- Cable length / Approx. 3m, one-side OFC cord.
- Weight (Cable excluded) / 360g
- Plug / $\varnothing 3.5$ mm $\rightarrow$ $\varnothing 6.3$ mm 24K gold-plated plug



Stereo Headphone

PH-B333B / PH-B333S



- Driver unit / $\varnothing 41$ mm , CCAW voice coil
- Impedance / 50 Ohms $\pm 15\%$ (at 1kHz)
- Sensitivity / 97 ± 3 dB at 1000Hz
- Max. Input Rate / 30mW
- Frequency response / 20 - 20,000Hz
- Cable length / Approx. 3m, one-side OFC cord.
- Weight (Cable excluded) / 250g
- Plug / $\varnothing 3.5$ mm $\rightarrow$ $\varnothing 6.3$ mm 24K gold-plated plug



Active Noise Cancelling Headphone with Amplifier

NC-AH1



- Active noise reduction / ≥ 16 dB at 150Hz - 250Hz
- Drive Unit / $\varnothing 40$ mm
- Impedance / 50 Ohms $\pm 15\%$ (at 1kHz)
- Sensitivity / Noise Cancelling on 94 ± 3 dB / Amplifier on 99 ± 3 dB / Noise Cancelling and Amplifier off 96 ± 3 dB
- Maximum Power output / 30mW
- Frequency Response / 20 ~ 20,000Hz
- Cord Length / Approx. 1.5m
- Adaptor Plug / $\varnothing 3.5$ mm $\rightarrow$ $\varnothing 6.3$ mm 24K gold-plated plug
- Airplane plug / 2x $\varnothing 3.5$ mm
- Battery / AAA 1.5V x 2 (alkaline)
- Weight / Approx. 225g
- Accessories / Carrying case



Stereo Headphones

LIC-201

- Driver unit / $\varnothing 41\text{mm}$
- Impedance / $32\text{ Ohms}\pm 15\%$ (at 1kHz)
- Sensitivity / $102\pm 3\text{dB}$ at 1000Hz
- Maximum power input / 30mW
- Frequency response / 20-20,000Hz
- Cord length / Approx. 1.5m
- Adaptor plug / $\varnothing 3.5\text{mm} \rightarrow \varnothing 6.3\text{mm}$ 24K gold-plated plug
- Airplane plug / $2\times \varnothing 3.5\text{mm}$
- Weight / Approx. 225g
- Accessories / Carrying case



Active Noise Cancelling Headphone



NC-201

- Active noise reduction / $\geq 16\text{dB}$ at 150Hz-250Hz
- Driver unit / $\varnothing 40\text{mm}$
- Impedance / $32\text{ Ohms}\pm 15\%$ (at 1kHz)
- Sensitivity / $95\pm 3\text{dB}$ at 1000Hz
- Maximum power input / 30mW
- Frequency response / 20-20,000Hz
- Cord length / Approx. 1.5m
- Adaptor plug / $\varnothing 3.5\text{mm} \rightarrow \varnothing 6.3\text{mm}$ 24K gold-plated plug
- Airplane plug / $2\times \varnothing 3.5\text{mm}$
- Battery / AAA 1.5Vx2(alkaline)
- Weight / Approx. 225g
- Accessories / Carrying case

Active Noise Cancelling Headphone

NC-202

- Active noise reduction / $\geq 16\text{dB}$ at 150Hz-250Hz
- Driver unit / Dual speakers, 40mm and 30mm
- Impedance / $32\text{ Ohms}\pm 15\%$ (at 1kHz)
- Sensitivity / $104\pm 3\text{dB}$ at 1000Hz
- Maximum power input / 30mW
- Frequency response / 20-20,000Hz
- Cord length / Approx. 1.5m
- Adaptor plug / $\varnothing 3.5\text{mm} \rightarrow \varnothing 6.3\text{mm}$ 24K gold-plated plug
- Airplane plug / $2\times \varnothing 3.5\text{mm}$
- Battery / AAA 1.5Vx2(alkaline)
- Weight / Approx. 250g
- Accessories / Carrying case



Wireless Headphone

DT-201K

2.4GHz Digital Wireless Stereo Headphone Kit

Headphone

- Cord / Wireless Digital 2.4GHz Radio Frequency
- Driver unit / $\varnothing 40\text{mm}$
- Impedance / $32\text{ Ohms}\pm 15\%$ (at 1kHz)
- Sensitivity / $100\pm 3\text{dB}$ at 1000Hz
- Maximum power input / 30mW
- Frequency response / 20-20,000Hz
- Effective range / 100ft (30m)
- Battery / AAA 1.5Vx2 (alkaline)
- Weight / Approx. 230g
- Accessories / Carrying case

Transmitter

- Cord / Wireless Digital 2.4GHz Radio Frequency
- Input / USB / Analog audio input
- Power supply / 3.7 V / 400mA DC rechargeable
- Battery / USB power supply
- Accessories / USB cable, $\varnothing 3.5\text{mm}$ connecting cable, RCA connecting cable, $\varnothing 3.5\text{mm} \rightarrow \varnothing 6.3\text{mm}$ plug adaptor



● One Transmitter can connect with several DT-201 Headphones

Wireless Active Noise Cancelling Headphone

BNC-204

- Fit Style / Over-ear
- Driver Type / Dynamic
- Driver Unit / Dual speakers, 40mm and 30mm
- Impedance / $32\text{ Ohms}\pm 15\%$ (at 1kHz)
- Sensitivity / $103\pm 3\text{dB}$ at 1000Hz
- Active Noise reduction / $> 16\text{dB}$ around 125Hz-250Hz
 $> 94\%$ noise
- Bluetooth version / Bluetooth 4.1
- Bluetooth Profiles / A2DP1.2, AVRCP1.4, HSP1.2, HFP1.5
- Effective Distance / $> 10\text{ M}$ (Line of sight)
- Battery Life (Continuous music playback) / Max. 30 hours
- Maximum Power Input / 30mW
- Battery Charge Time / Max. 2.5 hours

