

Laboratory Attenuation Data for J&Y SAFETY Hearing Protection Products (Tested in Accordance with CE/ ANSI & AS/NZS)

ATTENUATION DATA FOR EC-1001A/1001AC / Detective Earplugs EC-1001A-C

CE EN 352-2

Test frequencies (Hz)	63	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	24.1	29.4	33.9	36.6	35.5	35.8	45.1	45.7	34dB
Standard Deviation(dB)	4.6	5.2	5.9	6.4	5.9	3.9	3.6	5.7	
Assumed protection value	19.5	24.2	28	30.2	29.6	31.9	41.5	40	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	35.2	37	43.9	41.8	39.4	44.8	45.4	48.4	46.2	32dB
Standard Deviation(dB)	5.7	4.3	3.8	4.7	3	4.4	4.3	3.2	4.1	
Assumed protection value	29.5	32.7	40.1	37.1	36.4	40.4	41.1	45.2	42.1	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	25	25	29.9	31.4	33.3	42.7	43.6	42.1	
Standard Deviation(dB)	7.2	7.3	9.2	8.6	4.8	5.5	6.5	26.1	
Assumed protection value	17.7	17.6	20.7	22.8	28.4	37.2	37.1		

ATTENUATION DATA FOR EC-1003A/1003AC / Detective Earplugs EC-1003A-C

EN 352-2

Test frequencies (Hz)	63	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	27.2	30.2	37	42.3	41.7	37.2	47.8	46.1	36dB
Standard Deviation(dB)	6.1	6.7	4.9	7.1	7.1	5.8	6.3	5.9	
Assumed protection value	21.1	23.5	32.1	35.2	34.6	31.4	41.5	40.2	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	33.4	36.2	44.6	41.6	39.8	45.6	46.1	49.1	46.7	33dB
Standard Deviation(dB)	4.7	4.3	3.6	3.6	2.7	4.2	4.5	4.7	4.9	
Assumed protection value	28.7	31.9	41	38	37.1	41.4	41.6	44.4	41.8	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	27.2	28.1	33.3	32.7	34.8	41.2	42.3	26.4	
Standard Deviation(dB)	8.7	9.1	11.7	9.6	6.9	6.7	6.8		
Assumed protection value	18.5	19	21.6	23.1	27.9	34.6	35.5		

ATTENUATION DATA FOR 1005A&1005A-C

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	31.7	31.5	35.5	37.3	36.7	43.2	45	
Standard Deviation(dB)	3.6	4.4	4.2	4.1	4.1	4	3	35dB
Assumed protection	28.1	27.1	31.3	33.2	32.6	39.2	42	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	30.7	32	35.9	37.2	37.3	42.4	43.1	44.6	44.5	
Standard Deviation(dB)	3.8	4.1	4.4	3.4	2.8	3.8	4.1	4.4	3.1	32 dB
Assumed protection value	26.9	27.9	31.5	33.8	34.5	38.6	39	40.2	41.4	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 3
Mean attenuation(dB)	21.5	20.3	23.8	25.1	32.9	36.9	40.7		
Standard Deviation(dB)	7.9	8	7.9	6.4	5.3	6.2	7.7	22dB	
Assumed protection	13.6	12.3	15.9	18.7	27.6	30.7	33		

ATTENUATION DATA FOR 1006A&1006A-C

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	33.8	31.8	36	37.2	36.1	41.5	45.2	
Standard Deviation(dB)	4.8	4.5	3.9	3.6	3.7	4	3.1	35dB
Assumed protection value	29	27.3	32.1	33.6	32.4	37.5	42.1	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	33.5	34	39.3	36.8	38.3	44.9	45	47.4	46.9	
Standard Deviation(dB)	3.7	3.3	3.3	3.6	3	3.7	3.6	3.8	3	31dB
Assumed protection value	29.8	30.7	36	33.2	35.3	41.2	41.4	43.6	43.9	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 3
Mean attenuation(dB)	19.6	18.7	22.8	23.7	30.3	33.3	34.9		
Standard Deviation(dB)	7.6	8.2	8.6	8.5	6.7	8.2	9.4	19.1dB	
Assumed protection value	12	10.5	14.2	15.2	23.6	25.1	25.5		

Reusable Earplugs Attenuation Data

ATTENUATION DATA FOR EC-2001/2001C Detective Earplugs EC-2001C

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	29.6	28.3	30.1	28.8	34.6	38.9	44	
Standard Deviation(dB)	5.6	6	7.8	6	3.9	5.6	5.6	32dB
Assumed protection value	24	22.3	22.3	22.8	30.7	33.3	38.4	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	28.7	25.9	31.3	27.3	35.1	39.4	40.3	46.2	46.2	
Standard Deviation(dB)	5.5	4.5	4.5	2.8	4.3	4.2	5.6	6.1	3.7	26dB
Assumed protection value	23.2	21.4	26.8	24.5	30.8	35.2	34.7	40.1	42.5	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	26.2	25	26.8	26.1	32.2	35.6	42.4		
Standard Deviation(dB)	8.1	7.4	8	5.6	6.2	7.7	6.5		24
Assumed protection value	18.1	17.6	18.8	20.5	26	27.9	35.9		Class 4

ATTENUATION DATA FOR 2010L/2010S

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	24.4	22.4	23.4	23.8	28.3	27.7	41.4	
Standard Deviation(dB)	5.2	6.6	6.1	4.5	2.8	5.2	5.7	24dB
Assumed protection value	19.2	15.8	17.3	19.3	25.5	22.5	35.7	

ATTENUATION DATA FOR EC-2014/2014C

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	29.8	26.6	31.2	29.5	27.2	39.9	43.5	
Standard Deviation(dB)	4.4	4.4	4.7	3.1	3.6	4.8	5.2	31dB
Assumed protection value	24	22.3	22.3	22.8	30.7	33.3	38.4	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	32.5	29.8	32.9	32.9	37.1	42.7	46	46.1	47.9	
Standard Deviation(dB)	4.8	4.4	4.3	4.1	3.6	4.7	4.8	4.7	5.2	26dB
Assumed protection value	27.7	25.4	28.6	28.8	33.5	38	41.2	41.4	42.7	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	25.6	21.6	23.3	23.2	30.8	32.6	32.6		
Standard Deviation(dB)	8.3	7.2	7.9	7.2	6.9	8.1	11		20
Assumed protection value	18.1	17.6	18.8	20.5	26	27.9	35.9		Class 3

ATTENUATION DATA FOR 2003/2003C

€ EN 352-2 : 2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	27.3	24.7	27.3	27	28.4	30.6	39.6	26dB
Standard Deviation(dB)	4.6	4.5	5.1	4.9	4.4	3.9	4.4	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	28.8	26.4	28.6	29.1	30	27.8	32.2	40.8	41.5	22dB
Standard Deviation(dB)	3.9	3.0	3.6	2.7	3.0	3.2	3.0	4.2	3.2	

Banded Earplugs Attenuation Data

ATTENUATION DATA FOR EC-4101

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	31.8	28	28.6	29.8	34.3	41.1	45.2	30dB
Standard Deviation(dB)	5.9	5	4.1	4.3	4.2	4.4	4.3	
Assumed protection value	25.9	23	24.5	25.5	30.1	36.7	40.9	

ATTENUATION DATA FOR EC-4102

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	30.3	25.2	25.9	26.9	35.1	42.5	44.8	29dB
Standard Deviation(dB)	4.1	3.6	3.9	2.3	3.5	3.6	4.2	
Assumed protection value	26.2	21.6	22	24.6	31.6	38.9	40.6	

ATTENUATION DATA FOR EC-4103

EN 352-2

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	26.7	23.8	24.3	26.4	34.1	41.9	44.3	27dB
Standard Deviation(dB)	4.1	3.8	4	3.8	4.6	4.4	4.3	
Assumed protection value	22.6	20	20.3	22.6	29.5	37.5	40	

Attenuation For Head-banded Earmuffs

ATTENUATION DATA FOR EM-5001B

EN 352-1

Test frequencies (Hz)	63	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	18.8	15.4	17.9	27.8	36.3	35.4	42.4	39.5	28dB

Standard Deviation(dB)	4.1	4.1	3.5	2.7	3.7	3.6	2.6	5.4	
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ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	16.2	17.8	28.7	33	34.1	38.6	38.5	38.7	37.9	
Standard Deviation(dB)	3.8	1.8	2.5	2.9	2.8	2.3	2.8	3.5	4.1	23dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	14.6	17.1	28	34.2	34.6	37.7	39.9		Class 5
Standard Deviation(dB)	3.4	2	3.1	2.9	1.7	2	4	29.5dB	

ATTENUATION DATA FOR EM-5002A

EN 352-1										
Test frequencies (Hz)	63	125	250	500	1000	2000	4000	8000	SNR	
Mean attenuation(dB)	18.9	21	21.2	28.3	36.5	36.1	37.3	37.7		31dB
Standard Deviation(dB)	3.7	3.5	2.9	3.2	3.8	2.7	3.8	6.1		

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	20.9	22.5	32.6	37.5	38.9	40.1	40.8	41.9	40.3	
Standard Deviation(dB)	4	1.9	2.1	3	2.7	3.8	4.3	4.1	3.8	27dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	19.2	20.7	31.1	37.6	37.6	39.6	38.3		Class 5
Standard Deviation(dB)	3.7	2	3	4.1	2.9	4	5.3	32.2dB	

ATTENUATION DATA FOR EM-5002B

EN 352-1										
Test frequencies (Hz)	63	125	250	500	1000	2000	4000	8000	SNR	
Mean attenuation(dB)	18.8	14.6	15.5	22.9	30.7	34.4	41.5	41		32dB
Standard Deviation(dB)	4.1	3.2	2.1	1.8	2.3	2.8	3	2.7		

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	21.6	20.7	28.3	37.6	38.2	39.6	41.2	41.1	39.3	
Standard Deviation(dB)	2.9	1.9	2.7	2.7	2.4	3.4	2.9	2.5	3.1	26dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	22.4	20.3	29.6	37.6	38.2	43.5	41.9	32.5dB	Class 5

Standard Deviation(dB)	2.8	2.4	2.5	2.8	3.1	2.8	3.8	3.1	
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ATTENUATION DATA FOR EM-5003

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR	
Mean attenuation(dB)	15.7	17.7	26.8	38.5	38.4	39	41.4		29dB
Standard Deviation(dB)	3.2	2.6	2.9	3	2.9	4.1	3.4		

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	16.5	18.4	26.5	38.4	37.9	38.7	43.2	43.3	42.9	
Standard Deviation(dB)	4.1	2.8	2.6	3.1	2.6	2.8	3.9	2.5	3.1	23dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)		
Mean attenuation(dB)	13	17	25.5	37.2	35.3	40.1	41.4		29.2dB	
Standard Deviation(dB)	2.8	2.1	2.2	3.3	2.8	3.4	4.4			Class 5

ATTENUATION DATA FOR EM-5005

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR	
Mean attenuation(dB)	13.6	15.7	21	28.4	33.2	42.6	42.8		26dB
Standard Deviation(dB)	3.2	2.1	1.9	2.4	2.8	3.3	4.1		

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	13.7	15.2	20.7	28.4	33.1	41.1	43.2	43.7	42.9	
Standard Deviation(dB)	2.9	1.9	2.3	2.7	2.3	2.5	3	2.5	2.9	20dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)		
Mean attenuation(dB)	13.9	15.5	21.3	30.2	31.3	43.3	38.6		25.8dB	
Standard Deviation(dB)	3.1	2.1	2.6	3.1	2.6	3.4	4.2			Class 5

ATTENUATION DATA FOR EM-5006 PLUS

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	19.1	23	33.7	38.2	38.7	37.6	38.3	38.1	36.2	28 dB

Standard Deviation(dB)	2.9	2.3	2.9	3.1	2.5	2.9	2.9	3.6	2.9	
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AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)		Class 5 32.3dB
Mean attenuation(dB)	20.1	21	31.8	38.7	38.2	37.3	38			
Standard Deviation(dB)	2.8	2.1	3.2	4.8	4.1	3.2	2.6			

ATTENUATION DATA FOR EM-5007

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR		34dB
Mean attenuation(dB)	21.8	23.9	31.2	39.6	38.3	41.5	42			
Standard Deviation(dB)	3.8	2.1	2.6	3	1.9	2.4	3.1			

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	21	22.8	31	38.3	38.8	41.8	40.3	41.1	40.5	
Standard Deviation(dB)	3.1	2.0	2.7	3.5	3.3	2.7	3.3	3.4	3.6	27dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)		Class 5 32.8dB
Mean attenuation(dB)	20.1	22.3	29.9	38.8	38.5	39.6	39.2			
Standard Deviation(dB)	2.5	3	2.8	3	2.8	3.5	4			

ATTENUATION DATA FOR EM-5007B

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	18.8	20.4	29.5	40.1	38.7	41.3	40.6	40.8	37.8	
Standard Deviation(dB)	2.3	2.3	2.7	2.8	2.2	2.9	3.4	3.1	3.3	26dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)		Class 5 29.2dB
Mean attenuation(dB)	19.9	20.9	30.8	41.1	40.5	42	36			
Standard Deviation(dB)	2.7	2.1	2.7	2.7	3.3	4.1	4.5			

ATTENUATION DATA FOR FM-1

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR	
Mean attenuation(dB)	15.9	19.2	28.1	37.7	37.5	40.1	37.5		
Standard Deviation(dB)	1.9	2	2.3	2.4	2	2.9	2.8		31dB

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	14.9	19.1	28.9	37.6	38.2	39.6	40	38.1	37.9	24dB
Standard Deviation(dB)	2.7	2.3	2.2	3.3	2.8	2.4	3.7	2.7	4.3	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	14.3	20.1	28.4	37.1	37	40.5	39.7		
Standard Deviation(dB)	4.1	2.6	2.2	3.5	3.3	2.6	3		

ATTENUATION DATA FOR FM-2

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR	
Mean attenuation(dB)	19.6	23	32.5	39.5	33.9	40.1	40.2		
Standard Deviation(dB)	2.6	2.3	2.7	2.4	2.5	3.2	3.9		

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	19.6	23	32.6	40.3	35.1	37	40.2	39.9	40.4	26dB
Standard Deviation(dB)	3.1	2.9	2.9	2.5	2.3	3.1	3.9	3.4	3.4	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	19.4	22.5	33.3	39.6	35.2	40.2	41.8		
Standard Deviation(dB)	2.5	2.9	2.8	3.2	2.7	2.9	4.2		

ATTENUATION DATA FOR FM-3

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR	
Mean attenuation(dB)	21.7	23.8	33.3	38.2	35.9	41.5	39.6		
Standard Deviation(dB)	2.8	2.2	2.7	2.8	2.8	3.4	3		

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	20.8	24.1	33.9	38.2	37.8	37.7	40.8	40.2	39.7	28dB
Standard Deviation(dB)	3.2	2.3	2.7	2.7	2.3	3.2	3.2	3	3.4	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
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Mean attenuation(dB)	22.2	24.8	34.8	37.9	37.7	40.3	42.1	31dB
Standard Deviation(dB)	3.5	2.6	2.3	3	3	1.9	2.9	

ATTENUATION DATA FOR FM-1A

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	15.8	21.8	30.9	40.1	37.5	34.3	31.5	31dB
Standard Deviation(dB)	2.4	2.5	2.9	2.9	3	2.7	2.6	

Attenuation For Behind-The-Head

ATTENUATION DATA FOR EM-5002C

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	18.4	23	31.1	36.4	34.7	36.9	38.4	31dB
Standard Deviation(dB)	3	3.2	3.1	3.1	3.2	3.3	3.4	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	19.7	23.8	31.5	35.1	34.6	36.5	37.5		
Standard Deviation(dB)	5.4	4	4.1	5.3	3.6	5	5.4	30dB	

ATTENUATION DATA FOR FM-1C

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	18.3	20.6	29.1	38.4	36.4	33.2	34.1	30dB
Standard Deviation(dB)	4	2.5	2.5	2.5	3.2	3.8	3.5	

Attenuation For Hard Hat Attached Earmuffs

ATTENUATION DATA FOR EM-5002D

EN 352-3

Test frequencies (Hz)	63	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	18.8	21.9	30.6	33.7	33	34.4	34.1	41	30dB
Standard Deviation(dB)	4.2	3.4	2.6	2.9	3.2	2.4	2.3	2.7	

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	15.9	18.2	27.5	33.3	35.8	35.3	38.3	35.7	33.9	22dB
Standard Deviation(dB)	2.6	2.7	3.3	3.7	3.7	3.3	4.3	3.8	4.2	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	16.6	19.1	28.5	33.9	35.9	36.5	34.9	28.4dB	
Standard Deviation(dB)	3.4	3.1	3.3	3.5	3.5	3.4	3.2	3.0	

Standard Deviation(dB)	4.5	4.1	5.2	3.9	4	4.3	6.5	8
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ATTENUATION DATA FOR FM-2E

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	19.4	22.9	29.8	36.2	32.2	36.3	37.9	36.5	34.5	24dB
Standard Deviation(dB)	4	2.8	3.2	3	2.6	3	3.1	3.2	3.2	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	16.8	20.8	28.5	35	30.1	37.4	34.5	26.6dB	
Standard Deviation(dB)	2.8	2.1	2.2	3.3	2.8	3.4	4.4		

ATTENUATION DATA FOR EM-5007E

EN 352-3

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR	30dB
Mean attenuation(dB)	19.6	20	36.4	32.4	36	40.7	38.8		
Standard Deviation(dB)	3.4	2.6	2.7	3	2.4	4.2	4		

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	18.9	20.4	26.7	33.5	37.2	41.9	42.2	43	41.1	25dB
Standard Deviation(dB)	3.3	2.5	2	2.8	1.8	2.7	2.7	3	3.4	

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	17	16.4	23.8	31.2	33.6	35.6	32.9	25.8dB	
Standard Deviation(dB)	5.2	3.6	3.8	4.2	4.8	6	6		

ATTENUATION DATA FOR FM-1D2

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR	28dB
Mean attenuation(dB)	16.7	19.8	27.1	35.3	35.5	31.3	31		
Standard Deviation(dB)	3	2.7	3.4	3.6	3.2	3.5	3.8		

Attenuation For Kids Hearing Protection

ATTENUATION DATA FOR KM-2

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	14.6	15.5	22.9	30.7	34.4	41.5	41	
Standard Deviation(dB)	3.2	2.1	1.8	2.3	2.8	3	2.7	27dB

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	13.7	14.8	22.7	31.1	35.1	41.6	41.3	43.4	42.9	
Standard Deviation(dB)	2.6	1.7	2.2	2.5	2.9	2.4	3.2	2.4	2.9	21dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	12.5	13.6	21.7	29.9	33.9	42.4	39.1		Class 5
Standard Deviation(dB)	2.5	1.6	2.4	3.4	3.6	3.4	4.7	25.8dB	

ATTENUATION DATA FOR KM-3

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	13.2	14.7	22.1	30.7	35.8	41.9	41	
Standard Deviation(dB)	2.8	2.7	2.8	2.3	2.6	3.4	2.9	26dB

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	12.9	16.5	21.5	28.8	35.7	39.3	42.6	41.4	41.6	
Standard Deviation(dB)	2.6	1.7	2.2	2.5	2.9	2.4	3.2	2.4	2.9	20dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	13	16.3	21.9	29.4	35.9	43.8	42.6		Class 5
Standard Deviation(dB)	2.5	1.6	2.4	3.4	3.6	3.4	4.7	26.1dB	

ATTENUATION DATA FOR BM-1

testing report base on

standard CE EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	20.5	17.6	25.3	36.5	37.6	46.6	45.6	
Standard Deviation(dB)	2.9	3.2	2.1	2.8	2.3	2.6	3.4	29dB

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	22.3	17.9	24.7	36.1	37.6	46.7	46.8	46.7	46.5	
Standard Deviation(dB)	2.8	2.9	3.4	3.6	2.7	4	2.8	1.8	2.6	22dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	
Mean attenuation(dB)	19.5	14.8	23.2	33.5	37.1	44.7	44.5		Class 5
Standard Deviation(dB)	4.3	2.8	3.8	3.3	3.4	4.3	4.6	26.8dB	

ATTENTION DATA FOR EM-5065

EN 352-1

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SNR
Mean attenuation(dB)	13.6	15.7	21	28.4	33.2	42.6	42.8	
Standard Deviation(dB)	3.2	2.1	1.9	2.4	2.8	3.3	4.1	26dB

ANSI S3.19-1974

Test frequencies (Hz)	125	250	500	1000	2000	3150	4000	6300	8000	NRR
Mean attenuation(dB)	13.7	15.2	20.7	28.4	33.1	41.1	43.2	43.7	42.9	
Standard Deviation(dB)	2.9	1.9	2.3	2.7	2.3	2.5	3	2.5	2.9	20dB

AS/NZS 1270:2002

Test frequencies (Hz)	125	250	500	1000	2000	4000	8000	SLC(80)	Class 5
Mean attenuation(dB)	13.9	15.5	21.3	30.2	31.3	43.3	38.6		
Standard Deviation(dB)	3.1	2.1	2.6	3.1	2.6	3.4	4.2	25.8dB	