

ISO 8253-3:2012-03 (E)

Acoustics - Audiometric test methods - Part 3: Speech audiometry

Contents		Page
Foreword	v	
Introduction	vi	
1 Scope	1	
2 Normative references	1	
3 Terms and definitions	1	
4 Requirements for recording of speech material	5	
4.1 General requirements	5	
4.2 Reference recording	5	
4.3 Recording environment	6	
4.4 Frequency response of recording equipment	6	
4.5 Interval between successive test items	6	
4.6 Levels	6	
4.7 Signal-to-noise ratio	6	
4.8 Phonemic balance across test lists	6	
4.9 Perceptual balance across test lists	7	
5 Validation of speech material recordings	7	
5.1 General	7	
5.2 Determination of reference speech recognition curve	7	
5.3 Determination of perceptual equivalence of test lists	8	
5.4 Determination of repeatability of results (average test-retest reliability)	8	
5.5 Documentation	9	
6 Requirements for speech audiometry	9	
7 Ambient sound pressure levels in test room for speech audiometry	9	
8 Soundfield speech audiometry	9	
9 Preparation and instruction of test subject	10	
9.1 General	10	
9.2 Preparation of test subject	10	
9.3 Instruction of test subject	10	
10 Subject's response mode	10	
11 Determination of speech detection threshold level	11	
12 Determination of speech recognition threshold level	11	
12.1 General	11	
12.2 Descending procedure using 5 dB steps	12	
12.3 Alternative descending procedure	12	
12.4 Adaptive procedure using fixed step sizes	13	
12.5 Other adaptive procedure	14	
13 Determination of speech recognition scores	14	

14	Contralateral masking	14
15	Speech audiometry with competing sound	15
15.1	Type of competing sound	15
15.2	Presentation of competing sound	15
15.3	Speech and competing sound levels	15
15.4	Test procedure	15
16	Format of speech audiogram	17
17	Measurement uncertainty	17
18	Maintenance and calibration of equipment	18
18.1	General	18
18.2	Intervals between tests	18
18.3	Stage A: Routine checking and listening tests	18
18.4	Stage B: Periodic electroacoustic tests	19
18.5	Stage C: Basic calibration tests	19
AnnexA(informative)	Exampleofspeechmaterials	20
AnnexB(informative)	Examplesofcompetingsoundconditions	21
AnnexC(informative)	Typical results	22
AnnexD(informative)	Optimizationofperceptualbalanceoftestlists	24
AnnexE(informative)	Measurement uncertainty	25
Bibliography		30