

1. Record Nr.	UNINA9910133842603321
Autore	Colloms Martin
Titolo	High Performance Loudspeakers [[electronic resource]]
Pubbl/distr/stampa	Somerset, : Wiley, 2013
ISBN	0-470-09432-X
Edizione	[6th ed.]
Descrizione fisica	1 online resource (665 p.)
Disciplina	621.38284
Soggetti	Loudspeakers Electrical & Computer Engineering Engineering & Applied Sciences Electrical Engineering Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Contents; Title Page; Copyright; Dedication; Preface to the First Edition; Preface to the Fifth Edition; Preface to the Sixth Edition; Notation; Glossary; 1 General Review; 1.1 Developments in System Design; 1.2 Performance Conflicts; 1.3 The Stereo Illusion; 1.4 Sensitivity and Impedance; 1.5 Enclosures; 1.6 Drive Units; 1.7 The Room; Bibliography; 2 Theoretical Aspects of Diaphragm Radiators; 2.1 Radiation from Simple Sources; 2.2 Electromechanics of a Hypothetical Moving-coil Loudspeaker; 2.3 Radiated Pressure; 2.4 Relating the TwoPort Model to Low-frequency Analogous Circuits 2.5 Higher Modes of the Loudspeaker DiaphragmReferences; 3 Transducers, Diaphragms and Loudspeaker Technology; 3.1 Dome Radiators; 3.2 Velocity of Sound in a Diaphragm; 3.3 Compensation of Dome Characteristics; 3.4 Cone Behaviour; 3.5 Cone Parameters; 3.6 Cone Shape; 3.7 Motor Systems; 3.8 Moving-coil Motor Linearity; 3.9 Influence of Magnetic Field Strength on Loudspeaker Pressure Response; 3.10 Magnet Systems; 3.11 Film Transducers; 3.12 BMR; The Balanced Mode Radiator; References; Bibliography; 4 Low-frequency System Analysis: Room Environments and 2 Theory; 4.1 General Considerations 4.2 LF System Analysis4.3 Closed-box System; 4.4 Reflex or Vented

Enclosures; 4.5 Band-pass Enclosure Designs and LF Equalization; 4.6 Longevity, Reliability, Tolerances, Climate; 4.7 Transmission-line Enclosures; 4.8 Sub-woofers and Extended Low Frequencies; 4.9 Horn Loading; 4.10 Line Sources; 4.11 The Moving-coil Spaced Dipole; References; Bibliography; 5 Moving-coil Direct-radiator Drivers; 5.1 Moving-coil Motor System; 5.2 Low Frequency, Bass Units; 5.3 LF/MF Units; 5.4 Mid-frequency Units; 5.5 High-frequency Units; 5.6 Full-range Units; 5.7 Dynamics and Engineering; References Bibliography6 Systems and Crossovers; 6.1 Passive Loudspeaker System Design; 6.2 The Crossover Network; 6.3 General Design Considerations, Voicing and Balancing; 6.4 The Amplifier-loudspeaker Interface; 6.5 Active Loudspeakers: Electronic Filter Crossovers; 6.6 Current Drive; 6.7 Digital Loudspeakers; References; Bibliography; 7 The Enclosure; 7.1 Enclosure Materials; 7.2 Enclosure Resonances; 7.3 Magnitude of Undamped Panel Output; 7.4 Audibility of Resonance; 7.5 Resonance Control, Damping Materials and Bracing; 7.6 Standing-wave Modes; 7.7 Driver-cone Transmission of Internal Resonances 7.8 Cabinet Construction7.9 Diffraction and Cabinet Shape; 7.10 Drive-unit Mounting; Clamped or Decoupled; 7.11 Open Baffles: Dipole 'Enclosure'; 7.12 Loudspeaker Supports: Placement; References; Bibliography; 8 Home Theatre and Surround Sound; 8.1 Stereo Compatibility; 8.2 Potential Multi-channel Advantage; 8.3 THX; 8.4 Speaker Design; References; Bibliography; 9 Loudspeaker Assessment; 9.1 Loudspeaker Specifications, Standards and Distortions; 9.2 Measurement and Evaluation: Introduction; 9.3 Objective Measurements; 9.4 Subjective Evaluation; References; Bibliography Appendix A CAD Software
