2.8 31628 LOUDSPEAKER CLUSTER DESIGN

1. Why Array?
- 1.1 Array Problems and Partial Solutions: A Condensed History
- 1.2 Conventional Array Shortcomings
- 1.3 Conventional Array Shortcoming Analysis

2. Coincident Acoustical Centers: A Practical Approach
- 2.1 TRAP Horns: A New Approach
- 2.2 TRAP Performance

3. Low Frequency Arrays: Beneficial Interference
- 3.1 Horizontal Woofer Arrays: Maintaining Wide Dispersion
- 3.2 Vertical Woofer Arrays
- 3.3 Directivity at Frequencies Where Size Makes Horns Impractical

4. Line Arrays and Digitally-Steerable Loudspeaker Column Arrays
- 4.1 What Affects Intelligibility
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5. Architecture and Room Acoustics
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6. Line Arrays
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7. DSP-Driven Vertical Arrays
- 7.1 Acoustical, Electronic & Mechanical Considerations
- 7.2 Point Source Interactions
- 7.3 Doublet Source Directivity
- 7.4 Array Height versus Wavelength
- 7.5 Inter-Driver Spacing versus Wavelength
- 7.6 Multichannel DSP Can Control Array Height

8. Steerable Arrays May Look Like Columns But They are not
- 8.1 Beam-Steering: Further Proof that Everything Old is New Again
- 8.2 DSP-Driven Arrays Solve Both Acoustical and Architectural Problems
- 8.3 Variable Q
- 8.4 Consistent Q with Frequency

8.5 Ability to Steer the Acoustic Beam Independently of the Enclosure Mounting Angle
8.6 Design Criteria: Meeting Application Challenges
8.7 Horizontal Directivity is Determined by the Array Elements
8.8 Steering is Simple—Just Progressively Delay Drivers
8.9 BeamWare: The Software That Controls Iconyx Linear Array Systems

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