RoomMatch® 20° vertical asymmetrical
DeltaQ™ array loudspeakers for installation

Key Features

- **DeltaQ technology** – the next generation array technology that allows different “Q” (directivity) for each loudspeaker module in the array. Improves sound quality by better matching array coverage to audience areas and distance, with improved phase coherency.

- **42 large-format waveguide patterns** – allows designers to customize array coverage to exact venue dimensions to minimize wall reflections and deliver best-in-class sound quality even in venues with difficult acoustics.

- **Continuous-Arc Diffraction-Slot (CADS) Manifold** – provides smooth high-frequency array summation and allows choice of 5 vertical-coverage patterns. Select number of array modules based on sound level, low-frequency pattern control and budget requirements, independent of total array vertical coverage.

- **Bose EMB2 compression drivers** – deliver the vocal power normally associated with 3-way systems with frequencies from 500 Hz to 16 kHz projected from the large-format waveguides for remarkably consistent coverage and vocal clarity.

- **Integrated Rigging** – allows fast installation of arrays with up to 8 full-range modules at 10:1 safety factor.

- **Available RMS215 or RMS218 subwoofers** – extend full-range performance to 40 Hz or 25 Hz, in flown or ground stack arrays.

- **Available Bose PowerMatch® amplifiers** – configurable to provide optimal power for all RoomMatch modules and subwoofers; includes integrated loudspeaker DSP functions with optional Dante® digital audio network interface.

Product Overview

Bose RoomMatch DeltaQ array loudspeakers are designed for permanent installation in the finest performing arts centers, auditoriums, sports arenas, dance clubs and houses of worship, in which the large-format waveguides with choice of 42 coverage patterns can provide best-in-class coverage control, sound quality and vocal clarity even in venues with difficult acoustics.

Technical Specifications

**Single Module Performance**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>RM284520 / RM452820</th>
<th>RM286020 / RM602820</th>
<th>RM356020 / RM603520</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response (+/-3 dB)</td>
<td>60 Hz - 16 kHz</td>
<td>60 Hz - 16 kHz</td>
<td>60 Hz - 16 kHz</td>
</tr>
<tr>
<td>Frequency Range (-10 dB)</td>
<td>55 Hz - 16 kHz</td>
<td>55 Hz - 16 kHz</td>
<td>55 Hz - 16 kHz</td>
</tr>
<tr>
<td>Recommended High-Pass Filter</td>
<td>50 Hz with minimum 24 dB / octave (4th order) slope</td>
<td>50 Hz with minimum 24 dB / octave (4th order) slope</td>
<td>50 Hz with minimum 24 dB / octave (4th order) slope</td>
</tr>
<tr>
<td>Nominal Coverage Pattern</td>
<td>28°+45° / 45°+28°, 28°+60° / 60°+28°, 35°+60° / 60°+35° horizontal (differs by module) x 20° vertical</td>
<td>28°+45° / 45°+28°, 28°+60° / 60°+28°, 35°+60° / 60°+35° horizontal (differs by module) x 20° vertical</td>
<td>28°+45° / 45°+28°, 28°+60° / 60°+28°, 35°+60° / 60°+35° horizontal (differs by module) x 20° vertical</td>
</tr>
<tr>
<td>Recommended Crossover</td>
<td>550 Hz (acoustic) requires active external DSP</td>
<td>550 Hz (acoustic) requires active external DSP</td>
<td>550 Hz (acoustic) requires active external DSP</td>
</tr>
</tbody>
</table>

**Power Handling, long-term continuous^1**

<table>
<thead>
<tr>
<th>Module</th>
<th>RM284520 / RM452820</th>
<th>RM286020 / RM602820</th>
<th>RM356020 / RM603520</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Handling, peak</td>
<td>500 W</td>
<td>150 W</td>
<td>600 W</td>
</tr>
</tbody>
</table>

**Sensitivity (SPL / 1 W @ 1 m)^2**

<table>
<thead>
<tr>
<th>Module</th>
<th>RM284520 / RM452820</th>
<th>RM286020 / RM602820</th>
<th>RM356020 / RM603520</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>94 dB</td>
<td>109 dB</td>
<td>109 dB</td>
</tr>
<tr>
<td>Calculated Maximum SPL @ 1 m^3</td>
<td>121 dB</td>
<td>131 dB</td>
<td>131 dB</td>
</tr>
<tr>
<td>Calculated Maximum SPL @ 1 m, peak</td>
<td>127 dB</td>
<td>137 dB</td>
<td>137 dB</td>
</tr>
</tbody>
</table>

**Transducers**

- **Low Frequency**
  2 x Bose LF10 ultra-linear 10” woofers (3” voice coil)

- **High Frequency**
  6 x Bose EMB2 extended-mid-band compression driver (2” voice coil)

**Nominal Impedance**

4Ω + 8Ω (LF/HF)

**Physical**

- **Enclosure Material**
  Baltic birch plywood, engineered plastics, and steel frame

- **Finish**
  Two-part spray polyurethane coating on plywood, black

- **Grille**
  19-gauge (1 mm) perforated steel, powder-coated finish, black

- **Environmental**
  Indoor use only

- **Connectors**
  2 x Neutrik NL4 wired parallel

- **Suspension / Mounting**
  Integrated side-plate rigging hardware; optional array frame accessories

- **Dimensions (H x W x D)**
  509 mm x 993 mm x 598 mm (20.0” x 39.1” x 23.6”)

- **Net weight**
  55.8 kg (123 lbs)

- **Shipping Weight**
  81.6 kg (180 lbs) - approximate with wood pallet
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On-Axis Frequency Response

Beamwidth

Mechanical Drawings

Footnotes
1. Frequency response and range measured on-axis with recommended EQ in an anechoic environment.
2. Bose extended-lifecycle test: pink noise, IEC268-5 filtered, 6-dB crest factor, 100-hour duration, with recommended EQ.
3. Sensitivity measured in anechoic acoustic boundary conditions with recommended EQ, referenced to 1W/m.
4. Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.

For additional specifications and application information, please visit pro.Bose.com. Specifications subject to change without notice.